

OIL SPILL PUBLIC INFO. CENTER



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[Shoreline evaluations, 1991].

Prince William Sound ER-21 to EV-05

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REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/ER-21

SUBDIVISIONS: A (1 OF 1)

SHORELINE EVALUATION

SEGMENT ST/ ER-21 SUBDIVISION A (1 OF 1) DATE 4/23/90

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.

ARCHAEOLOGICAL CONSTRAINTS:

If treatment is planned, a cultural resource evaluation is required prior to shoreline treatment.

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 179 m: No Oil 3010 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: _____

ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

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
- 30, 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. 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:**
6V Tent sites (6/1 to 9/15)
6W Anchorages (6/1 to 9/15)
6X Forest Service cabins (6/1 to 9/15)
6Y Lodge (6/1 to 9/15)
 Special use destination
- 7Z Subistence area: Salmon harvesting (5/1 to 9/30)**
7HH Finfish harvesting
7HJ Deer harvesting (8/15 to 2/28)
7HJ 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 / ER-21 SUBDIVISION: A-141 DATE 04-23-90

SCG

NAME

Michael Buchman

SIGNATURE

[Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

ADEC

NAME

John Hayes

SIGNATURE

[Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

Walked entire segment. Only oiling observed

Was light discontinuous tar/stain band at U.I.TZ.

LAND MANAGER

NAME

MARSHIA MARTIN/DNR

SIGNATURE

[Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

Rare splatters of stain + coat.

SHORELINE OILING SUMMARY

REVISION NO. 04/13/90

OG Mike Foget ^{NOAA} ~~USCG~~ Mike Buckman SEGMENT ST/ ER-21
 BIO Kathleen Conlin LAND REP DNR Maryn Martin SUBDIVISION A (I OF I)
 EXXON Larry Olson ADEC John Hayes TIME 16:00 to 17:45
 TEAM NO. 11 TIDE LEVEL +5.5 → +1.5 DATE 4/23/90
 EST. SUBDIVISION LENGTH: 3163 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☐ Forest ☒ Rock steep rocky cliff backshore
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 25 % B 50 % C 20 % P 5 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 10 % Hang 80 % Vert 10 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 180 m NO 3083 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR				IMPACTED ZONES			
	0	1	2	3	4	5	6	7	SU	U	M	L
ASPHALT PAVEMENT												
POOLED												
COVER												
COAT				X	X				X			
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			
Debris			

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				AN A	SHEETS (VIR)	T	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UO	4	5	6	7	SU	U	M	L				
1	20					X	-	X						X				N	-		B, C, G
2	40					X	-	X						X				N	-		P
3	20					X	-	X						X				N	-		P, B
							-														
							-														
							-														

COMMENTS shore zone consists mostly of high angle Boulder / Rock Beach with a large Boulder / cobble beach at the southern end of the segment. some ST/S staining was observed in the HITZ which was <<10% distribution. some of the boulders had a small amount of coating.

REVIEWED W DATE 4/25/90

OG M. A. Fager

SEGMENT SR-21

SUBDIVISION A

DATE 4 / 23 90

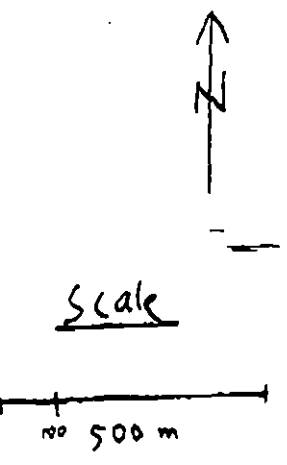
CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Body
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HW/LA/WL
- ☐ SSI
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ P/L Location(s)
- ☐ Photo Location(s)

LEGEND

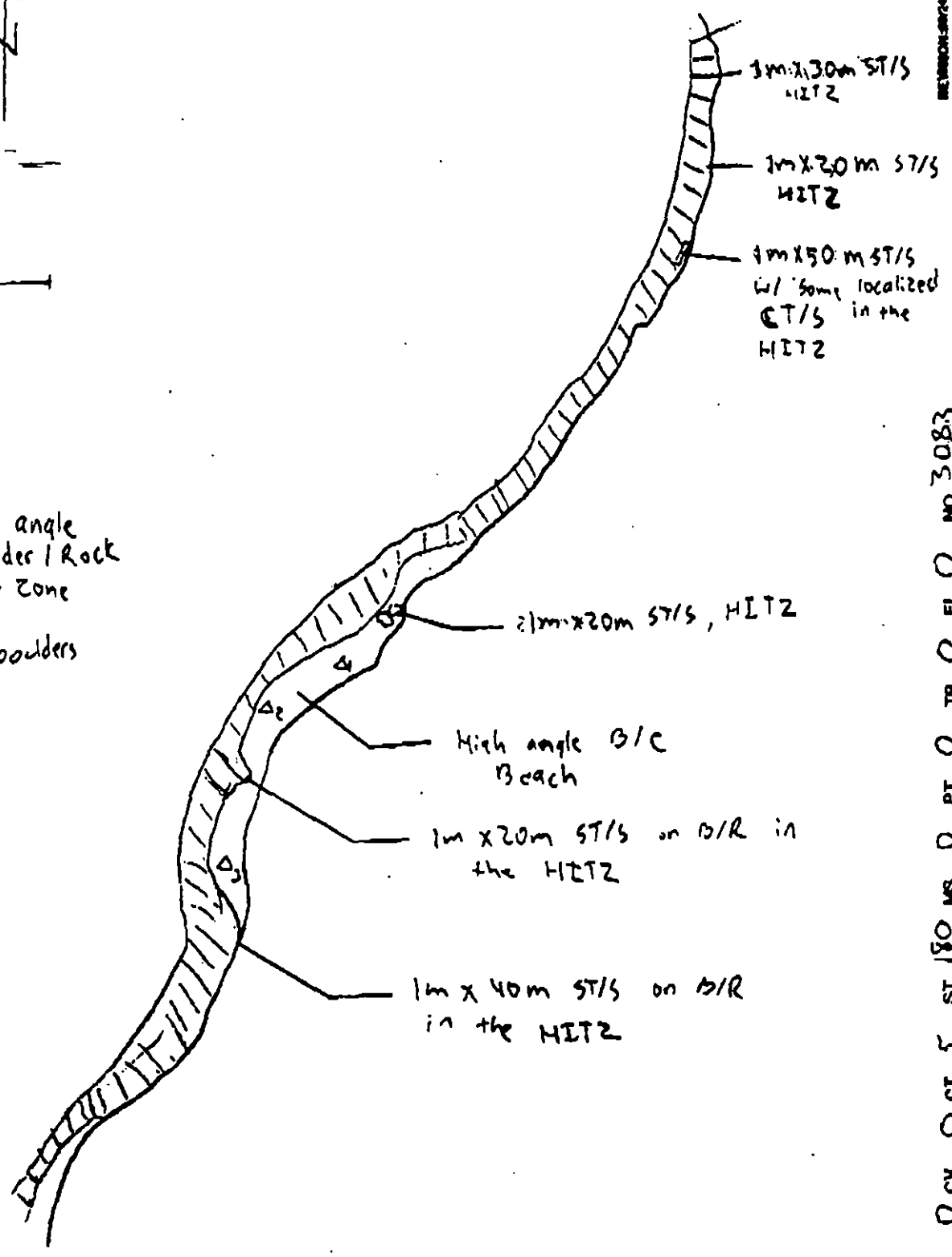
- 1 Δ RI - No Subsurface Oil
- 2 Δ PI - Subsurface Oil
- CT/C Confined Oil/bulb
- CT/B Broken Distribution
- CT/P Patchy Distribution
- CT/S Splashed Distribution
- Oil Vegetation
- 1 $\odot$ Photo location, direction, and number

ETCH MAP



Legend

- /// - high angle Boulder / Rock shore zone
- $\odot$ - Large boulders



Oil Character Length (m): AP 0 PO 0 CV 0 CT 5 ST 180 MS 0 PT 0 TB 0 FL 0 NO 3083

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST / ER-2 Subdivision A (1 OF 1) Date (mo / day / yr) 04/23/90

Time (24 hr) 1600-1740 Biologist K.E. CONLAN

- (A) Substrate type and % of segments:
 (1) Bedrock 25 (2) Boulder 50 (3) Cobble 20 (4) Pebble 5 (5) Sand 0 (6) Silt 0
- (B) Overall % cover of biota (% of segment): Dense 80 Moderate 15 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:

2 HARLEQUIN DUCKS

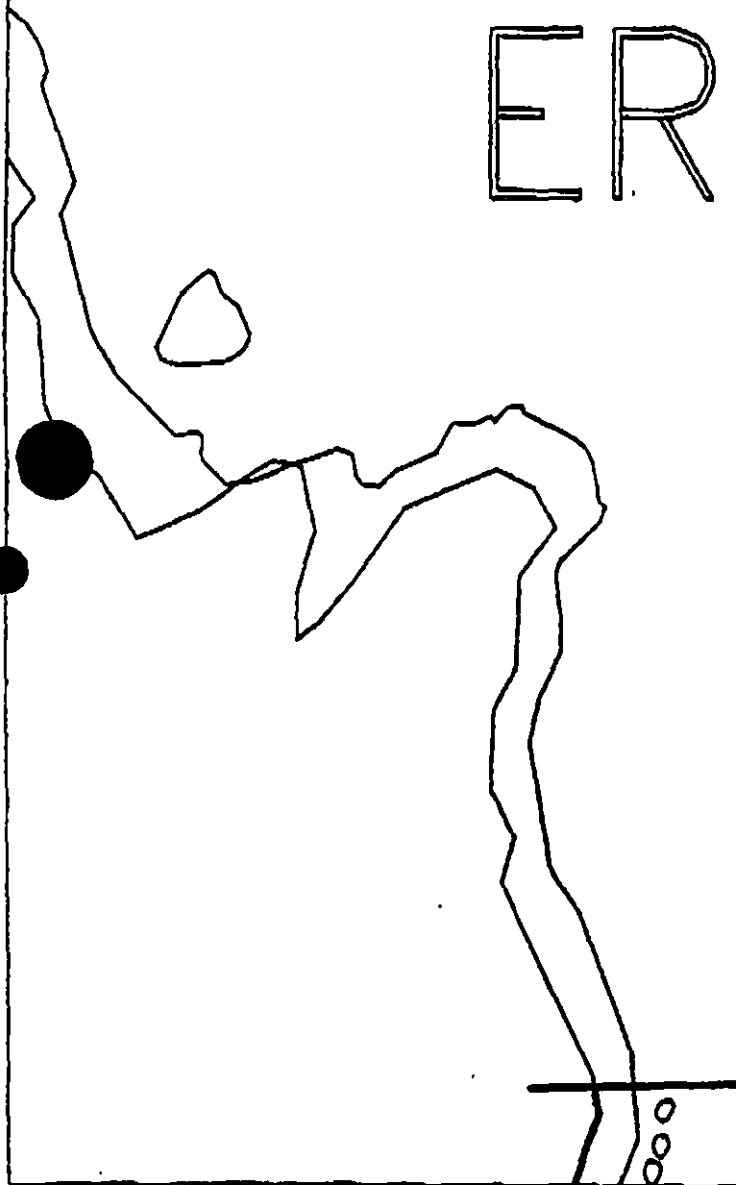
1 BALD EAGLE

1 SEA OTTER

Ecological Considerations:

ABUNDANT AMPHIPODS AMONGST COBBLES IN MITZ

ER-20



↓ PWS
2010

XXXX Wide

ER-21A

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

ADEC Segment Length: 3163m



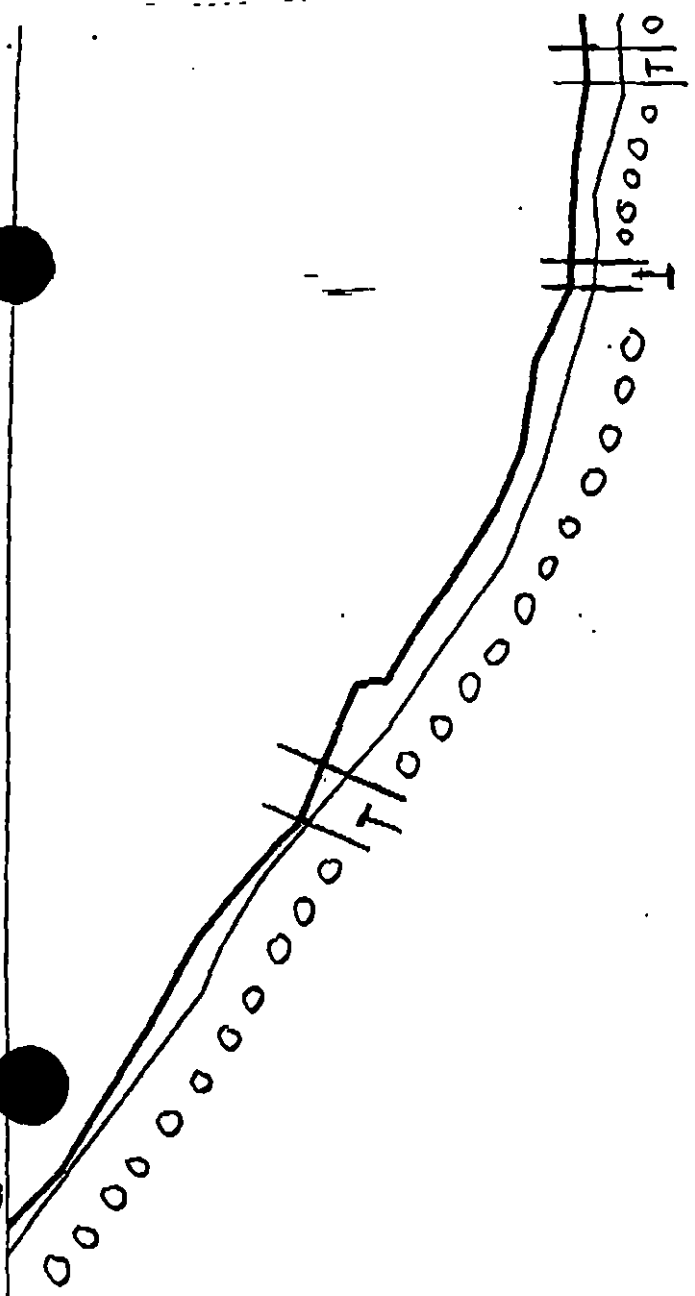
Map Key: PWS-2011

Name: Mike Foyet

Date: 4/23/90

Data Entered:

↑ PWS
201F



← PWS
201C

XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

ER-21A

ADEC Segment Length: 3163m



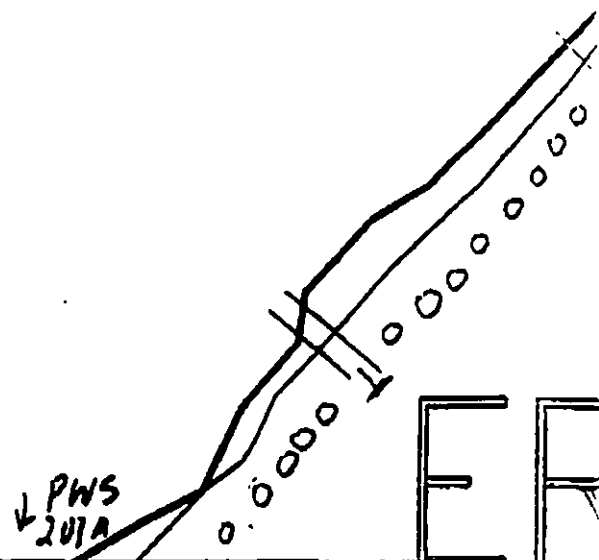
Map Key: PWS-201d

Name: Mike Foget

Date: 4/23/90

Date Entered:

PWS
2010 →



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

ER-21A

ADEC Segment Length: 3163m



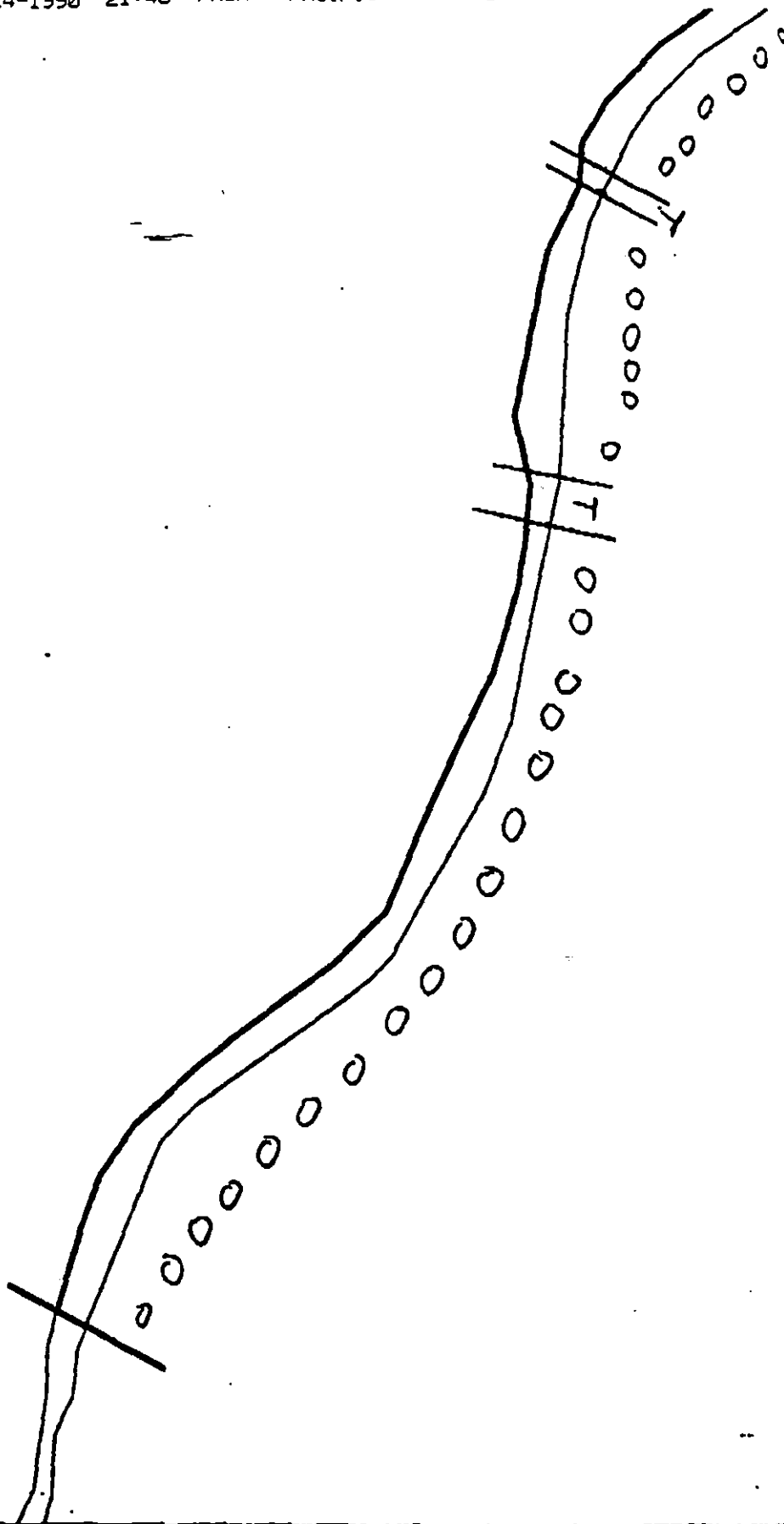
Map Key: PWS-201c

Name: Mike Foget

Date: 4/23/90

Date Entered:

↑ PWS
201c



XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

ER-21A

ADEC Segment Length: 3183m



Map Key: PWS-201c

Name: Mike Foget

Date: 4/23/90

Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ ER-21 SUBDIVISION A (1 of 1) DATE 4/23/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Sensitivity code and general time constraints. See attached Ecological sheet for specific constraints and contacts.

7 II

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiled biota and substrate. (see above)

ARCHAEOLOGICAL CONSTRAINTS: If treatment is planned, a cultural resource evaluation is required prior to shoreline treatment.

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide _____ m: Medium _____ m: Narrow _____ m: V.Light _____ m: No Oil _____ 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: Pls. See Field Shoreline Comment Sheet.

TAG COMMENTS: _____

TAG APPROVAL DATE: _____
ADEC [Signature]
EXXON [Signature] 4/27/90
NOAA _____
USCG _____

FOSC: _____ DATE: _____

SHORELINE EVALUATION

SEGMENT ST/ ER-21 SUBDIVISION A (1 OF 1) DATE 4/23/90

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.

ARCHAEOLOGICAL CONSTRAINTS:

If treatment is planned, a cultural resource evaluation is required prior to shoreline treatment.

SHPO SIGNATURE: Charles E. Adams DATE: 5/3/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 179 m: No Oil 3010 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 Art Weiner

EXXON ANDY ER Deal

NOAA Gary Detoro Gary Detoro

USCG KENNETH KEMER Kenneth Kemer

FOSC: My L DATE: 5-8-90

OG Mr. Fager
 SEGMENT S/1/ER-21

SUBDIVISION A
 DATE 4 / 23 / 90

- CHECKLIST**
- ☐ N Arrow
 - ☐ Approx. Scale
 - ☐ Seg/Sub Entry
 - ☐ Off Dist.
 - ☐ Width
 - ☐ Length
 - ☐ % Cover
 - ☐ Substrate Character
 - ☐ Est. HMLA WL
 - ☐ SSI
 - ☐ Profile Location(s)
 - ☐ Photo Location(s)
 - ☐ Photo Location(s)

LEGEND

- 1 Δ Pt. - No Subsurface Oil
- 2 Δ Pt. - Subsurface Oil
- CT/C

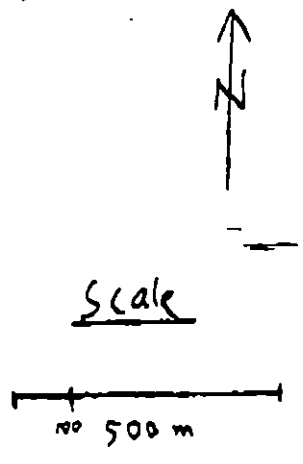
 Continuous Udd Distribution
- CT/B

 Bottom Distribution
- CT/P

 Patchy Distribution
- CT/S

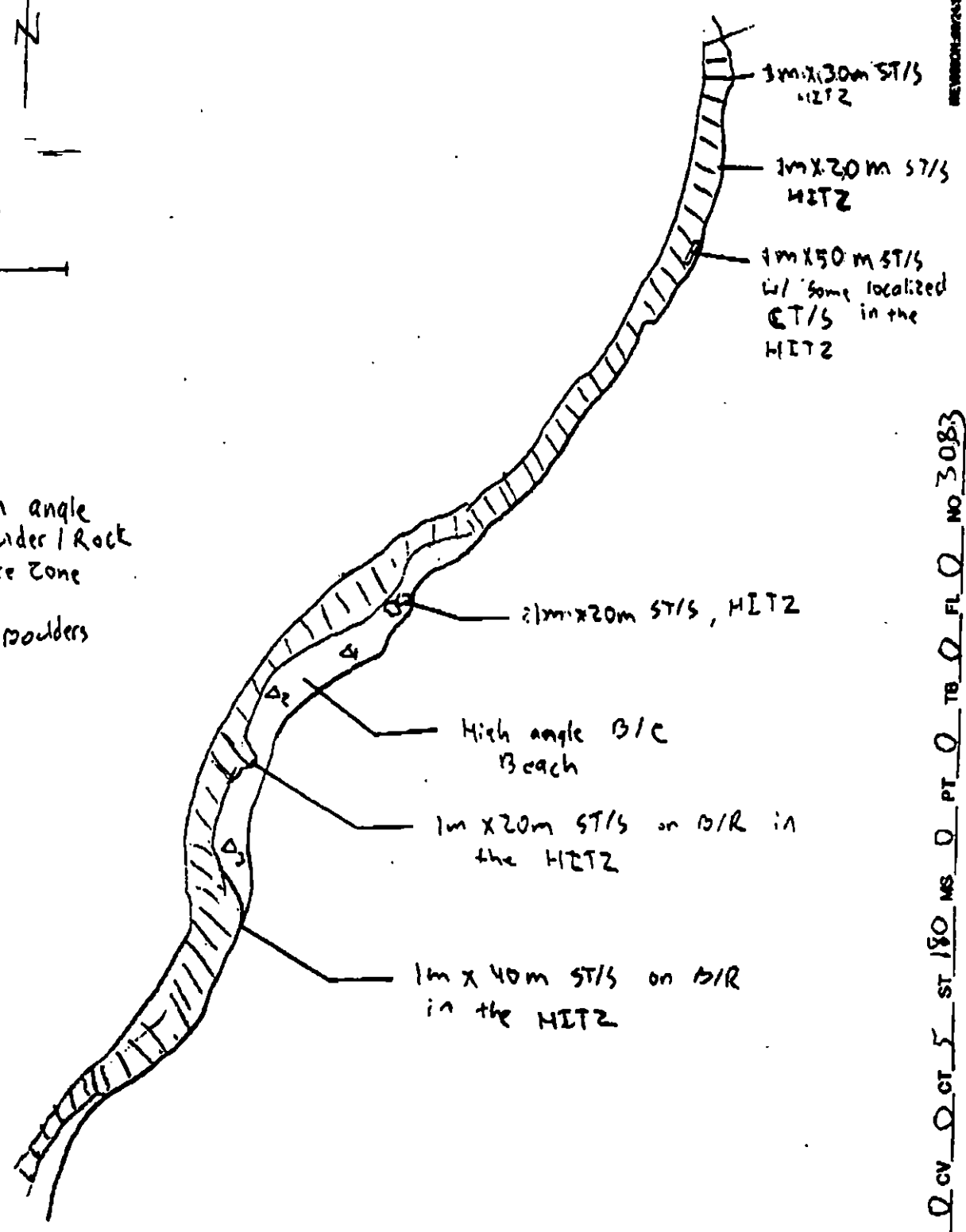
 Splashed Distribution
- ☐ Oil Vegetation
- 1 $\bullet$ Photo location, direction, and number

ETCH MAP



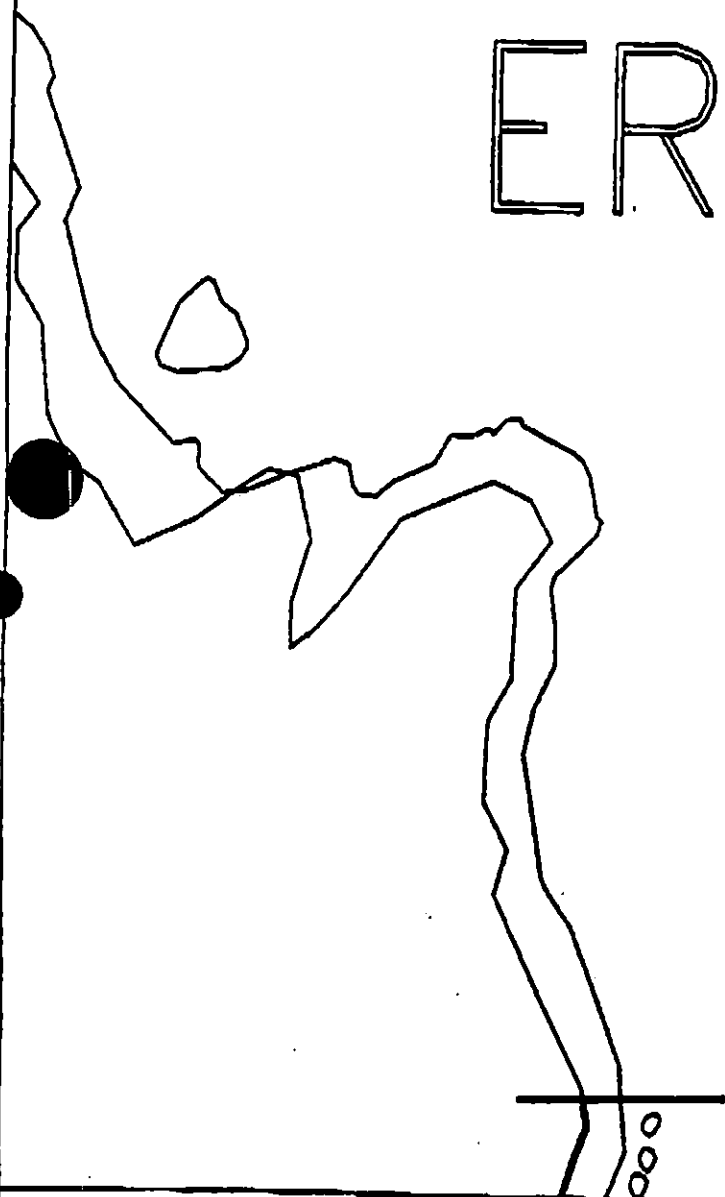
Legend

- /// - high angle Boulder / Rock shore zone
- - Large boulders



Oil Character Length (m): AP 0 PO 0 CV 0 CT 5 ST 180 MS 0 PT 0 TB 0 FL 0 NO 3083

ER-20



↓ PWS
2010

XXXX Wide

ER-21A

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

ADEC Segment Length: 3163m



Map Key: PWS-2011

Name: Mike Foyet

Date: 4/23/90

Date Entered:

↑ PWS
201F

← PWS
201C

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

ER-21A

ADEC Segment Length: 3163m



Map Key: PWS-201d

Name: Mike Foget

Date: 4/23/90

Date Entered:

PWS
2010 →

PWS
201A

0.0000
EAR

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

ER-21A

ADEC Segment Length: 3163m



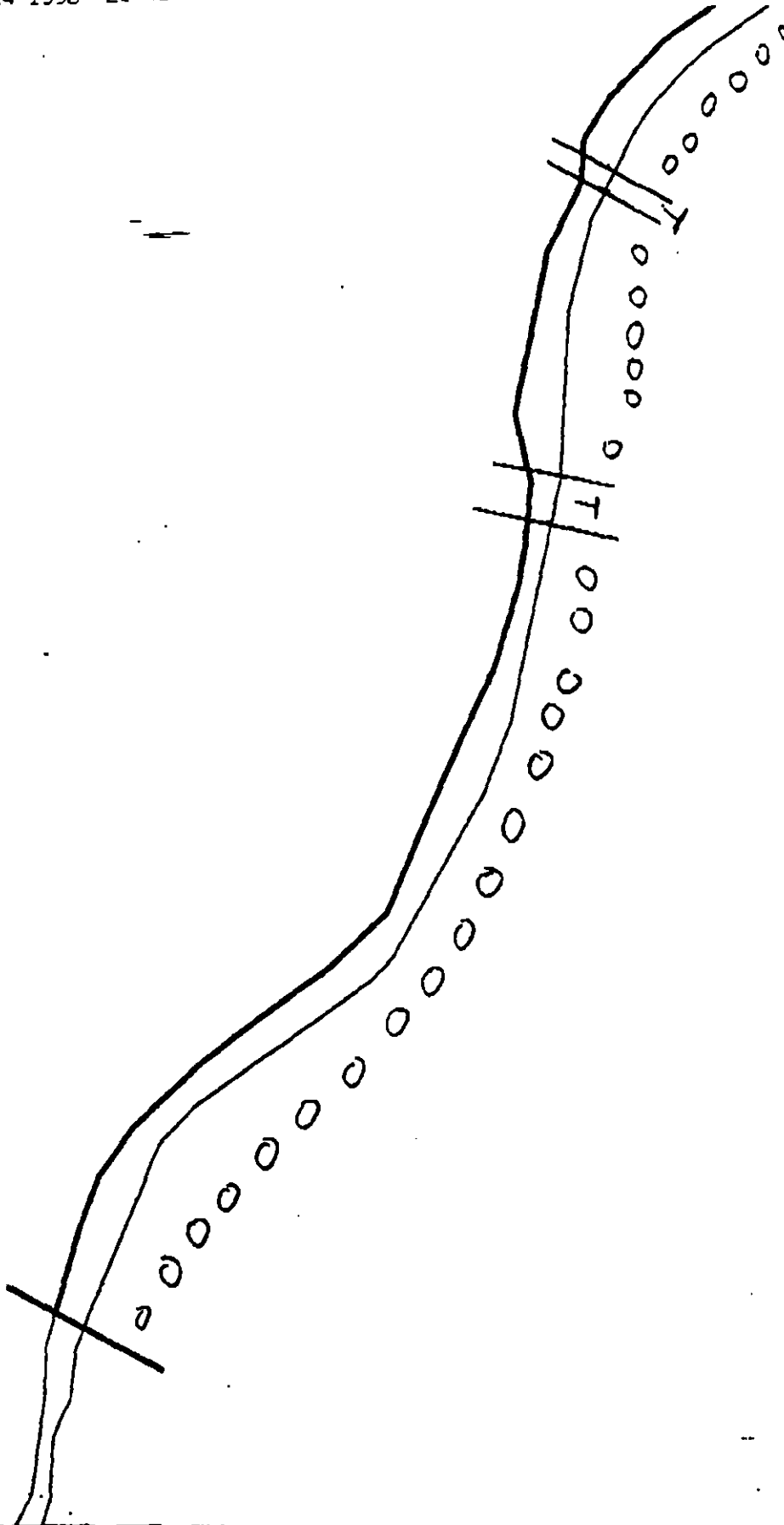
METERS

Map Key: PWS-201c

Name: Mike Foget

Date: 4/23/90

Date Entered:

↑ PWS
201C

XXXX Wide

/// Medium

-- Narrow

TTTT Very Light

0000 No Oil

-- ER-21A --

ADEC Segment Length: 3163m



METERS



Map Key: PWS-201a

Name: Mike FogetDate: 4/23/90

Data Entered:

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/ ER-23

SUBDIVISIONS: A (1 OF 1)

SHORELINE EVALUATION

SEGMENT ST/ ER-23 SUBDIVISION A (1 OF 1) DATE 4/2/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Sawmill Bay Hatchery release area (1F) - 4/15 to 6/1; Subsistence
deer harvest area (7II) - 8/15 to 2/28.

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

ARCHAEOLOGICAL CONSTRAINTS: If treatment is planned, a cultural re-
source evaluation is required prior to shoreline treatment.

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 166 m: V.Light 140 m: No Oil 0 m
Subsurface Oil Observed: Yes X No _____ Maximum Depth 25 cm

RECOMMENDATIONS:

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

COMMENTS: _____

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ ER-23 SUBDIVISION: _____ DATE 02 APRIL 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

BAND OF OILING ON THIS SEGMENT IS LIMITED TO A COVER THAT SEEMS STABLE AND NOT LIKELY TO BECOME MOBILE. BIO REMEDIATION MAY HAVE A POSITIVE EFFECT HERE IN REDUCING COVER FURTHER TO STAIN. THIS PENINSULA HAS A SEA LION ROOKERY AT N. END, AND SHOULD BE MONITORED FOR SHEEN DURING SUMMER. REMEDIATION, HOWEVER, WOULD PROBABLY NOT BE EFFECTIVE ON THE LARGER BOULDERS.

LAND MANAGER

NAME Leigh Carlson SIGNATURE Leigh Carlson ADNR

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

Listed as priority 2 by PWSCA. Beach is steep and consists of large boulders. Not the best of sites for landing a skiff and taking a leisurely walk along the beach. Oil stain on the boulders does not rub off easily. Oiled cobbles under the boulders may benefit from some bioremediation.

SHORELINE OILING SUMMARY

REVISION NO. 000000

OG R. M. M. M. USCG LARRY FLETCHER SEGMENT ST/ ER-23
 NO 0. 0. 0. 0. LAND REP Lang. Carlson SUBDIVISION A (10P1)
 XON J. G. G. G. ADEC Dave Sales TIME 9:30 to 10:00
 TEAM NO.: 10 TIDE LEVEL 2.2m (2') to 1.5m (5') DATE 04/02/90
 EST. SUBDIVISION LENGTH: 319 m ☒ Sun ☒ Clouds ☒ Fog ☒ Rain ☒ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: W to E
 SURFACE SEDIMENTS: R 75 % B 25 % C 25 % P 0 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Lang 100 % Hang 0 % Vert 0 % (25%) WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 100 m VL 139 m NO 0 m

SURFACE OIL

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

PAVEMENT: H F S NONE sq. m by 0 m

PATTIES / TARBALLS NONE 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 0

#BAGS 0

Photographs:

Roll No. ST/10/5

Frames 1-9

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm - cm) (100-000)	BELOW	OIL / FILM COLOR					PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		SP. OP	SP. OR	SP. OL	SP. OF	NO			1	2	3	4	5	SW	U	M	U		
1	20				X		5-20	X				X		X				N	G, S
2	13				X		5-10	X				X		X				N	G, S
3	27			X			5-25	X	X									N	G, S
4	27				X		.												C, P
5	23				X		.												P, G
							.												

COMMENTS

Revision

RM 4/2/90

SHORELINE ECOLOGICAL SUMMARY

REVISION: 08/23/90

Segment ST/10/ER23 Subdivision none Date (mo/day/yr) 4/2/90

Time (24 hr) 1000 - 1100 Biologist Bob Lemon

(A) Substrate type and % of segments:
(1) Bedrock (2) Boulder 75 (3) Cobble 25 (4) Pebble (5) Sand (6) SR

(B) Overall % cover of biota (% of segment): Dense Moderate 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. ST/10/5

Frames 1-8,9

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	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

MYTILUS

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

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	X	X	2
3	3	3	3	3	3	3	3	3	3	X	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

Wildlife Observations/ General Comments: low zone not surveyed; mid zone partially surveyed through the water by wading. Whale blows seen from boat, 4 animals a long distance away. From top of Tumbolo 12 gulls, 2 sealions, 7 waterfowl, numerous bears and deer scat.

from +8' boulder tops were 90% covered with Filamentous chlorophyta and Porphyra (Rhodophyta),

Ecological Considerations: and a few w/ Proscella (Chlorophyta). Gammarid amphipods were present, but sparse under cobbles. A very high energy setting, w/ rounded

Deer harvest area, sealions about a mile away.

OG R. M. M. M.

SEGMENT ST/ ER-23

SUBDIVISION A

DATE 04 102 90

CHECKLIST

- ☐ H Arrow
- ☐ Approx. Scale
- ☐ Substrate Character
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Ext. H. L. A. V. L.
- ☐ SSL
- ☐ Photo 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

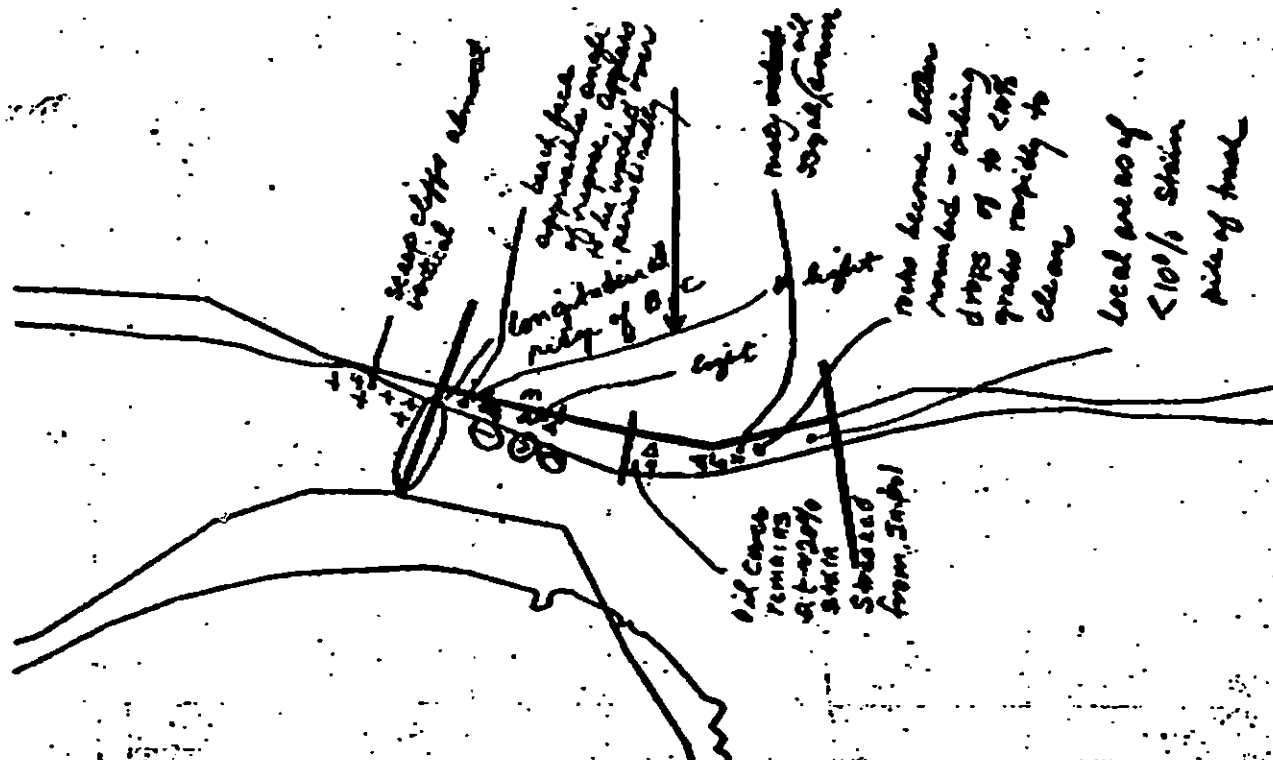
Splashed Distribution

Oil Vegetation

Photo location, direction,
and number

SKETCH MAP

ER-23



ER-23

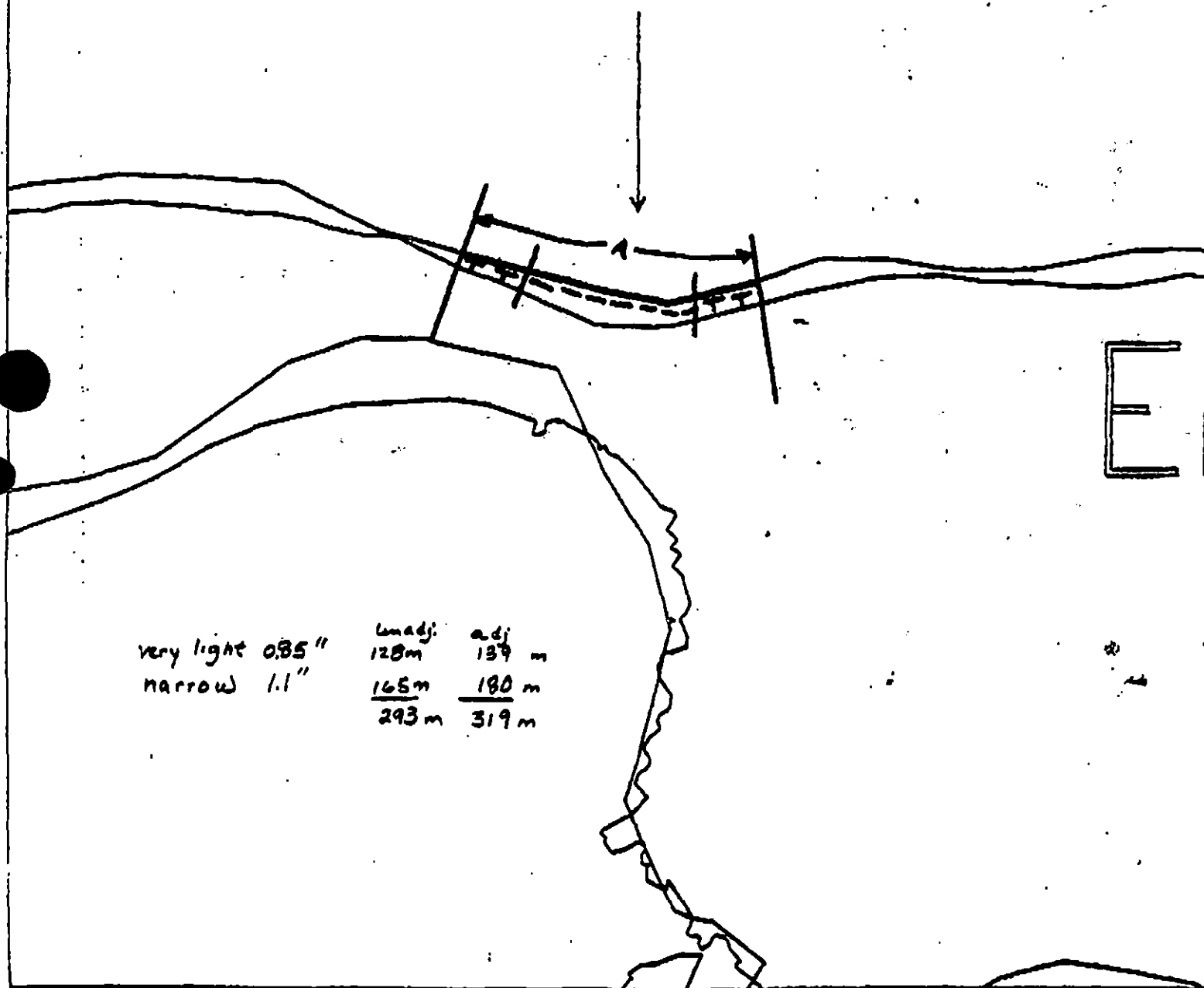
0 100 200 300
METERS



Oil Character Length (m): AP _____ PO _____ CV _____ CT _____ ST 319 MS _____ PT _____ TB _____ FL _____ NO _____

NEWTON 000000

ER-23



XXXX Wide

//// Medium

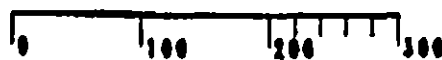
--- Narrow

TTTT Very Light

0000 No Oil

ER-23

ADEC Segment Length: 305m



Map Key: PWS-160

Name: Rick MartyDate: 4/2/90

Data Entered:

SHORELINE EVALUATION

SEGMENT ST/ ER-23 SUBDIVISION A (1 OF 1) DATE 4/2/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Sawmill Bay Hatchery release area (1F) - 4/15 to 6/1; Subsistence
deer harvest area (7II) - 8/15 to 2/28.

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

ARCHAEOLOGICAL CONSTRAINTS: If treatment is planned, a cultural re-
source evaluation is required prior to shoreline treatment.

SHPO SIGNATURE: Charles E. Shuman DATE: April 12, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 166 m: V.Light 140 m: No Oil 0 m
Subsurface Oil Observed: Yes X No Maximum Depth 25 cm

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:

TAG COMMENTS:

TAG APPROVAL DATE: 4/12/90.
ADEC JOHN BAUER
EXXON ANDY TATE
NOAA Bruce Wescott
USCG M. J. HALL

FOSC: DATE: 4-19-90

OG 1

SEGMENT ST/ ER-23

SUBDIVISION A

DATE 01/02/90

CHECKLIST

☐ N. Arrow
☐ Approx. Scale
☐ Map/Photo Study
☐ On Chart
☐ Width
☐ Length
☐ % Cover
☐ Substrate Character
☐ Est. HML/LML
☐ SSL
☐ Profile Location(s)
☐ Profile(s)
☐ Pile Location(s)
☐ Pile Location(s)

LEGEND

1 A

Pt. - No Substrate On

2 A

Pt. - Substrate On

CT/C

Common Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

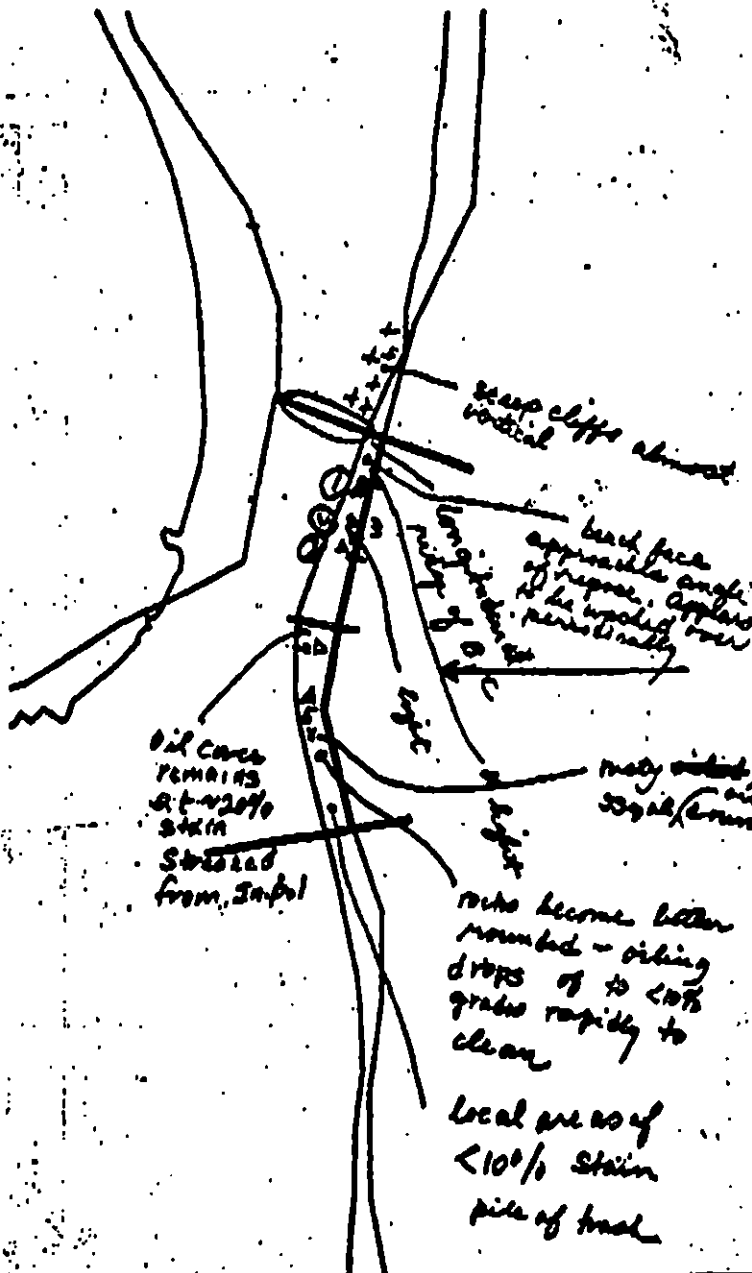
Spotted Distribution

Other Vegetation

Photo location, direction,
and number

SKETCH MAP

ER-23



ER-23

Oil Character Length (m): AP PO CV CT ST 319 MS PT TB R NO

REVISIONS

ER-23

very light 0.85"
narrow 1.1"

unadj.	adj.
128m	137 m
165m	180 m
293m	319 m

ER-23

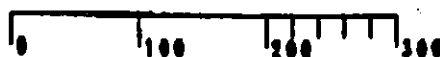
XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

ADEC Segment Length: 305m



Map Key: PWS-160

Name: Rick Marty

Date: 4/2/90

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/ER-25

SUBDIVISIONS: A (1 OF 1)

SHORELINE EVALUATION

SEGMENT ST/ ER-25 SUBDIVISION A (1 OF 1) DATE 4/20/90

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.

ARCHAEOLOGICAL CONSTRAINTS:

If treatment is planned, a cultural resource evaluation is required prior to shoreline treatment.

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 146 m: No Oil 989 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: _____

ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

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 Sot 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 areas: Salmon harvesting (5/1 to 9/30)
7HH Finfish harvesting
✓ 7J 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/ ER-25 SUBDIVISION: A DATE 4/20/90

USCG

NAME

RANDOLPH HUBBARD

SIGNATURE

Randolph W. Hubbard☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

1. SPOTTED film

ADEC

NAME

J. LYNN MARTIN

SIGNATURE

J. Lynn Martin☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

ONLY OIL WAS A LIGHT STAIN AT BOTH THE NORTH
END AND SOUTH END OF SUB-SEGMENT, THEREFORE
NO TREATMENT IS REQUIRED

LAND MANAGER

NAME

MARSHA MARTIN / DNR

SIGNATURE

Marsha Martin☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

Degree of oil minimal to RARE,

SHORELINE OILING SUMMARY

REVISION NO. 06/12/90

OG Reimer USCG Howard SEGMENT ST/ ER-25
 BIO Zamora LAND REP M. Martin (DNR) SUBDIVISION A (1 OF 1)
 EXXON Arbuckle ADEC L. MARTIN TIME 13:00 10/3/45
 TEAM NO. 16 TIDE LEVEL +6 + +5 DATE 4/20/90
 ST. SUBDIVISION LENGTH: 1090 m ☒ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: South to North
 SURFACE SEDIMENTS: R 10 % B 30 % C 20 % P 40 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Lang 70 % Hang 30 % Vert 0 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 160 m NO 930 m

SURFACE OIL

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

PAVEMENT H F S 0 sq. m by 0 cmPATTIES / TARBALLS 0 BAGS

NEAR SHORE SHEEN? NO BR RW SL TL

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

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒TYPE ..#BAGS ..

Photographs:

Roll No. ST-16-10Frames 1-6

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	VO	1	2	3	4	SU	U	M	U			
1	50					X	.								X			N	-	P-PG
2	25					X	.								X			N	-	P-PG
3	20					X	.								X			N	-	B-PGC
4	20					X	.								X			N	-	P-GM
5	30					X	.								X			N	-	P-PG
6	30					X	.								X			N	-	P-P

COMMENTS generally low angle pebble, cobble, boulder beach. Alternating pockets of finer (pebble) beach sections are found with coarser (boulder) regions. This is probably controlled by the underlying bedrock structure and back shore topography - The general trend is for a coarsening of sediments to the north. The only oil found along this section of beach was sporadic splatters or remnant coatings on cobbles and boulders associated with the coarser sections of beach. The northern third of

REVIEWED TW DATE 4-21-90

The segment was not surveyed due to the rough rocky nature of the shoreline and no Helo access - This section of shoreline is indicated as having no oil.

SEGMENT ER-25

SUBDIVISION A - map #1

DATE 4 / 20 90

SKETCH MAP

CHECKLIST

- ✓ N Arrow
- ✓ Approx. Scale
- ✓ Bag/Sub Entry
- ✓ Oil Det.
- Width
- Length
- % Cover
- Substrate Character
- Est. HRA/LAR
- SGI
- Profile Location(s)
- Profile(s)
- PR Location(s)
- Photo Location(s)

LEGEND

1 Δ
Ph - No Subsurface Oil

2 Δ
Ph - Subsurface Oil

CT/C
Continuous Distribution

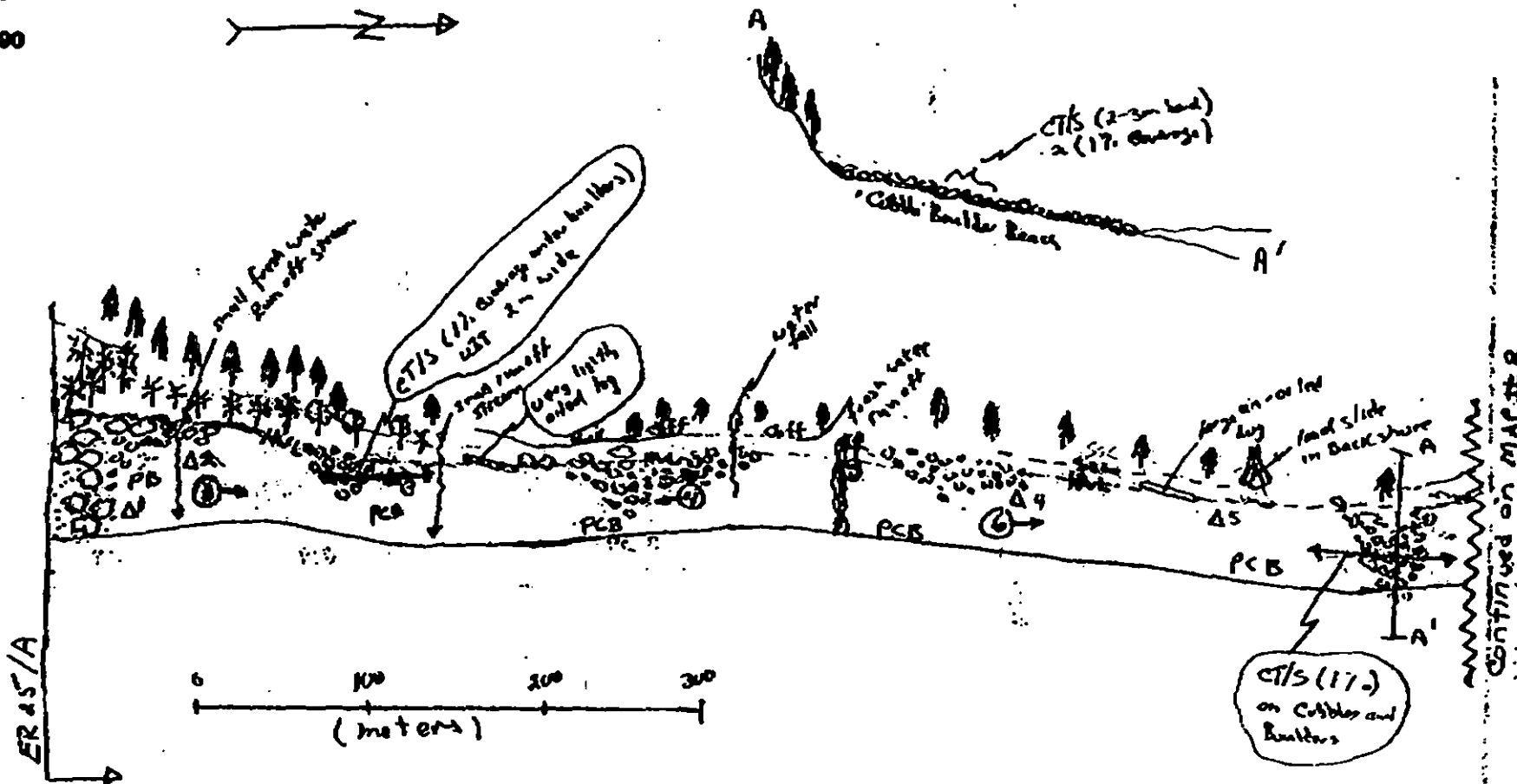
CT/B
Broken Distribution

CT/P
Patchy Distribution

CT/S
Splashed Distribution

eee
Oiled Vegetation

Photo location, direction, and number



Note: These

Oil Character Length (m): AP 0 PO 0 CV 0 CT 160 ST 0 MS 0 PT 0 TB 0 FL 0 NO 930

REVISIONS

LOG Reimes

SKETCH MAP

SEGMENT VI/ER-25

SUBDIVISION A - map #2

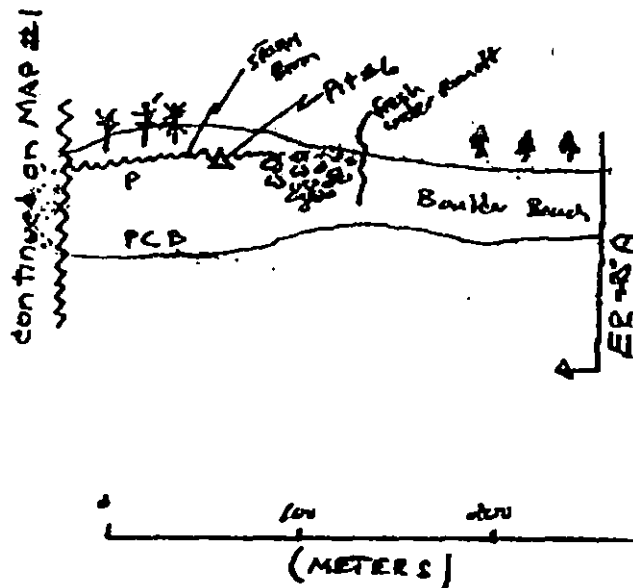
DATE 4 / 20 90

CHECKLIST

- ☒ Area
- ☒ Approx. Scale
- ☒ Top/Sub Entry
- ☒ Oil Dist.
- ☒ Width
- ☒ Length
- ☒ % Cover
- ☒ Substrate Character
- ☒ Est. HWM/LWL
- ☒ SGL
- ☒ Profile Location(s)
- ☒ Profile(s)
- ☒ PR Location(s)
- ☒ Photo Location(s)

LEGEND

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



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

SHORELINE ECOLOGICAL SUMMARY

REVISION: 08/28/90

Segment ST/ ER 25 Subdivision A Date (mo / day / yr) 4 / 20 / 90

Time (24 hr) 1300 on 1345 off Biologist TONY ZAMORA

(A) Substrate type and % of segments:

(1) Bedrock 10 (2) Boulder 20 (3) Cobble 20 (4) Pebble 40 (5) Sand — (6) Silt —

(B) Overall % cover of biota (% of segment): Dense 10 Moderate 80 Low 10 (LI NOT EXPOSED)

(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-16-10

Frames 1-6

BARNACLES

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

NOT PRESENT

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	X	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

ASTROPODS

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

NOT PRESENT

FUCUS

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

Wildlife Observations/ General Comments:

- SEAGULLS & SEALION SPOTTED, DEER SCAT

- VERY DENSE LITTORINES ON BLOR & CBL IN MITZ.

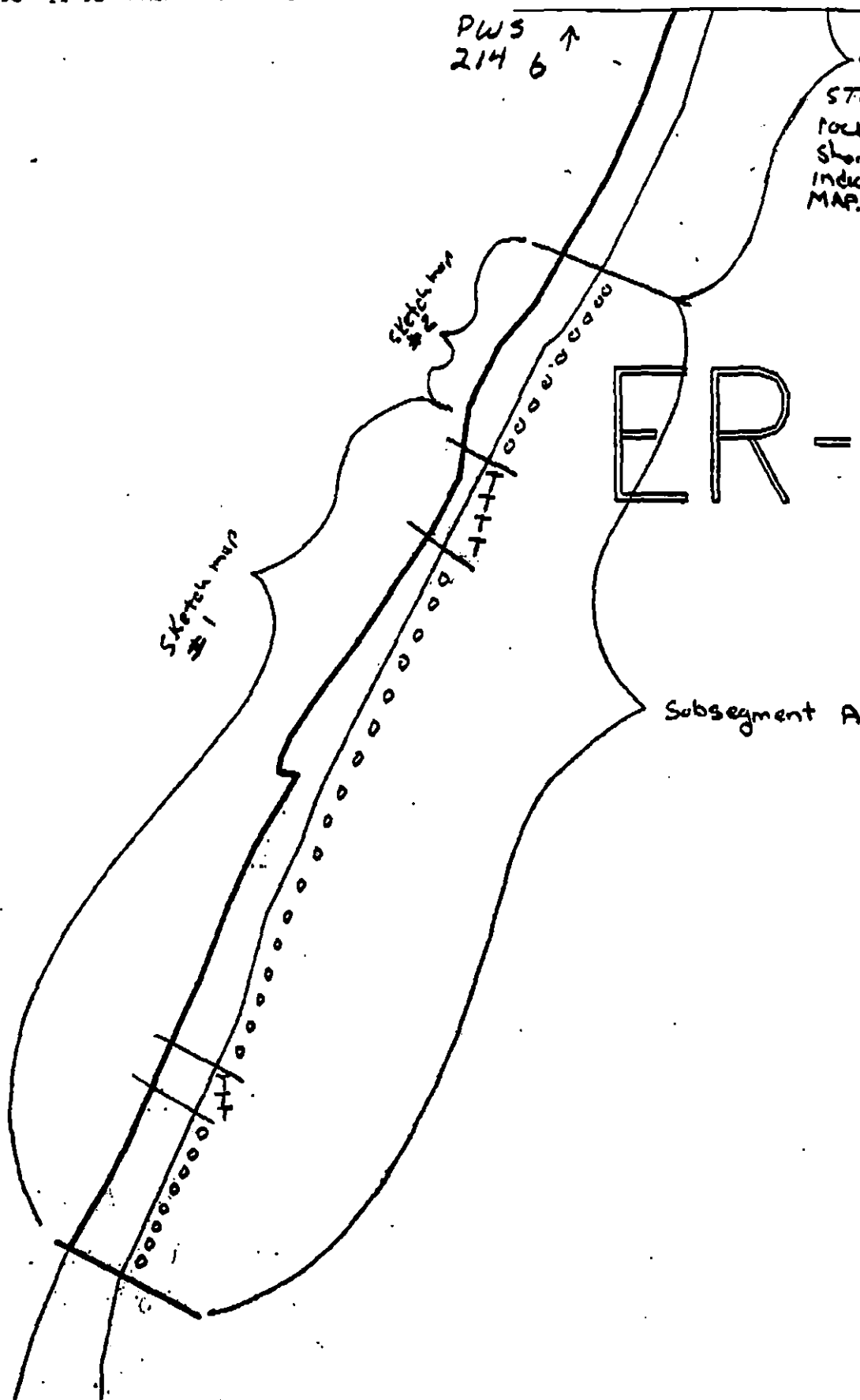
- LOW TIDE NOT SURVEYED

Ecological Considerations: FII, GU,

- SITE APPEARS HEALTH. NEW GROWTH OF BARNACLES, MYTILUS, FLITTORINE. AS WELL AS MANY LITTORINE EGGS AND FISH EGGS UNID. (PROBABLY HERON)

PWS
214 6 ↑

UNSURVEYED...
 Steep
 rocky/boulder
 shoreline - no oil
 indicated on ADEC
 MAP.



XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0.000 No Oil

ER-25

ADEC Segment Length: 1636m

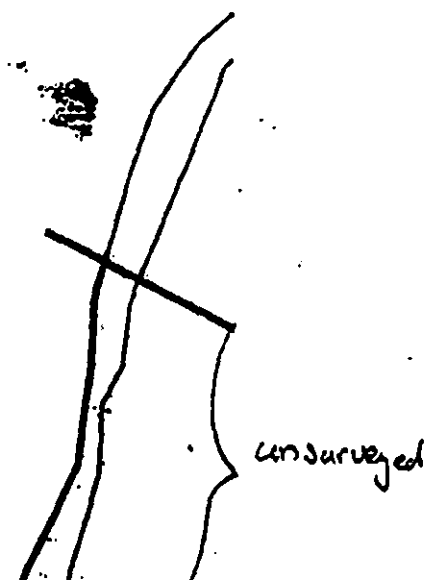
EXXON : 1626m



Map Key: PWS-21.40

Name: ReimerDate: 4/20/90

Date Entered:



XXXX Wide

ER-25

/// Medium

---- Narrow

ADEC Segment Length: 1636m

TTTT Very Light

0000 No Oil



Map Key: PWS-214b

Name: ReimerDate: 4/20/90

Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ ER-25 SUBDIVISION A (1 OF 1) DATE 4/20/90

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.

ARCHAEOLOGICAL CONSTRAINTS:

If treatment is planned, a cultural resource evaluation is required prior to shoreline treatment.

SHPO SIGNATURE: J. Daniel McMahon

DATE: 5/1/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V. Light 146 m: No Oil 989 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

X No Treatment Recommended
 Treatment Recommended
 Manual Pickup
 Bioremediation
 Tarmat Removal

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

COMMENTS:

TAG COMMENTS:

TAG APPROVAL DATE: 5/1/90

ADEC Art Weiner
EXXON Ann M. Katz
NOAA Gary Petrus
USCG KENNETH KEANE

FOSC: W L

DATE: 5-9-90

SEGMENT **ER-25**

SUBDIVISION **A - map #1**

DATE **4 / 20 90**

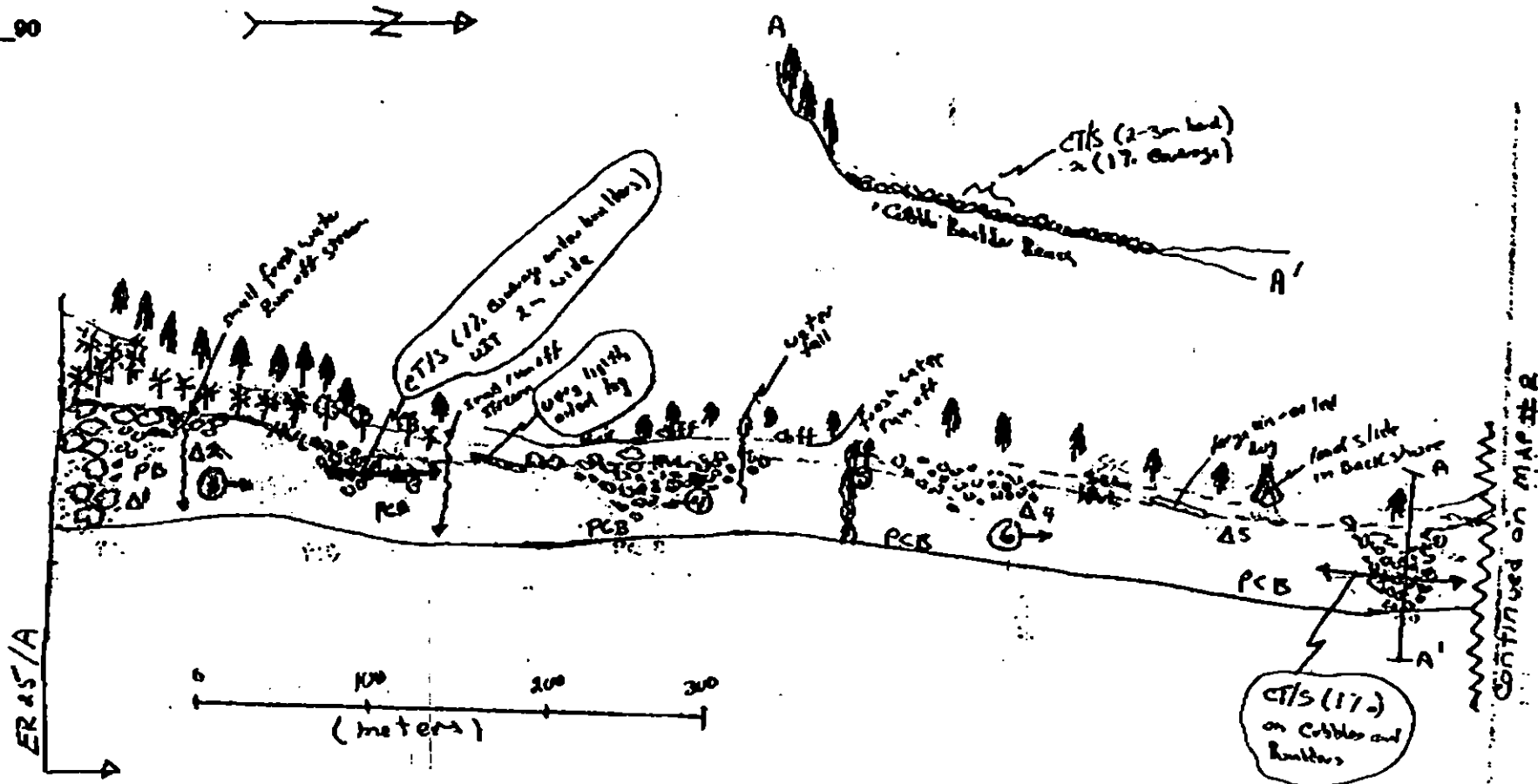
SKETCH MAP

CHECKLIST

- ☒ N Arrow
- ☒ Approx. Scale
- ☒ Seg/Sub Entry
- ☒ Oil Dist.
- ☒ Width
- ☒ Length
- ☒ % Cover
- ☒ Substrate Character
- ☒ Est. HRA/LRA
- ☒ SGL
- ☒ Profile Location(s)
- ☒ Profile(s)
- ☒ Photo Location(s)
- ☒ Photo Location(s)

LEGEND

- 1 Δ**
PB - No Subsurface Oil
- 2 Δ**
PB - Subsurface Oil
- CT/C**
Continuous Distribution
- CT/D**
Broken Distribution
- CT/P**
Patched Distribution
- CT/S**
Splashed Distribution
- eee**
Oiled Vegetation
- 1 →**
Photo location, direction, and number



Note: These

Oil Character Length (m): AP 0 PO 0 CV 0 CT 160 ST 0 MS 0 PT 0 TB 0 FL 0 NO 930

REVISIONS

3

7-OG 2000

SEGMENT ST/ER-25

SUBDIVISION A-map #2

DATE 4 / 20 90

SKETCH MAP

CHECKLIST

- ☒ M.A. Area
- ☒ Approx. Scale
- ☒ Seg/Sub Bdry
- ☒ Oil Dist.
- ☒ Width
- ☒ Length
- ☒ Cover
- ☒ Substrate Character
- ☒ Est. HW/LA/WL
- ☒ SBL
- ☒ 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

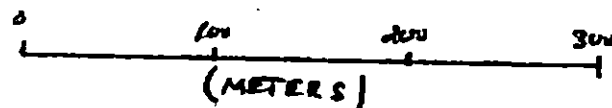
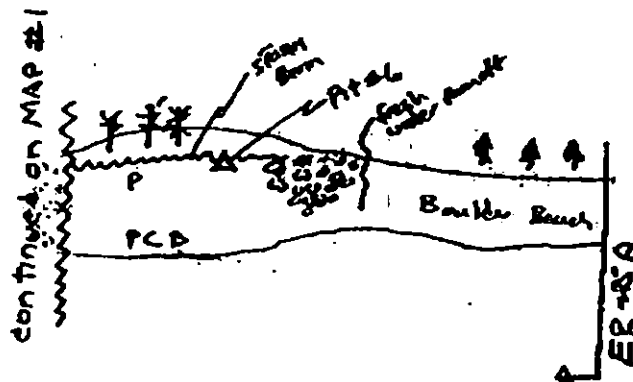
Spotted Distribution

lll

Old Vegetation

1 →

Photo location, direction,
and number

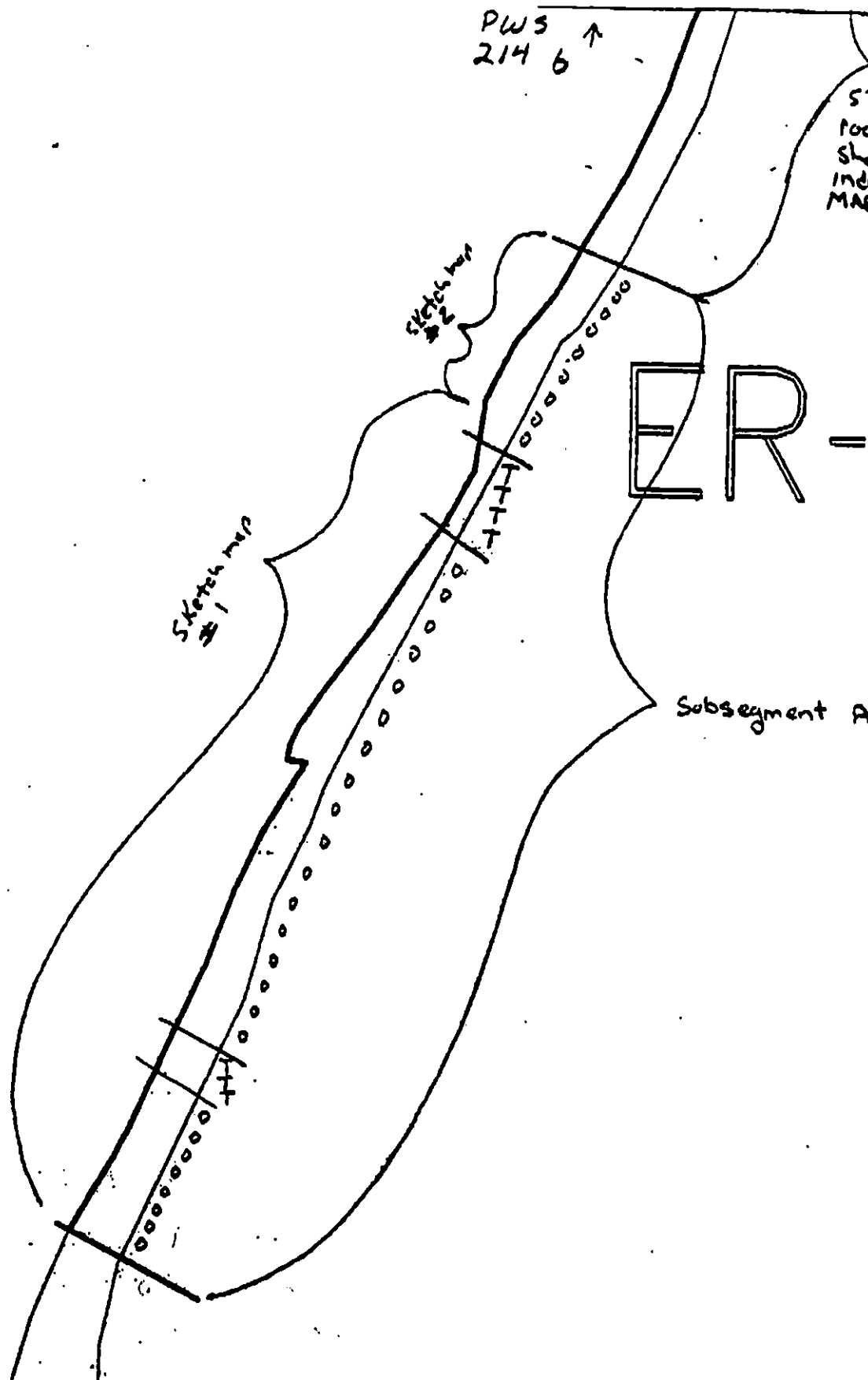


Oil Character Length (m): AP _____ PO _____ CV _____ CT _____ ST _____ MS _____ PT _____ TB _____ FL _____ NO _____

REVISION: 200000

PWS
214 6 ↑

UNSURVEYED...
 Steep
 Rocky/boulder
 Shoreline - no oil
 Indicated on ADEC
 MAP.



XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

ER-25

ADEC Segment Length: 1638m

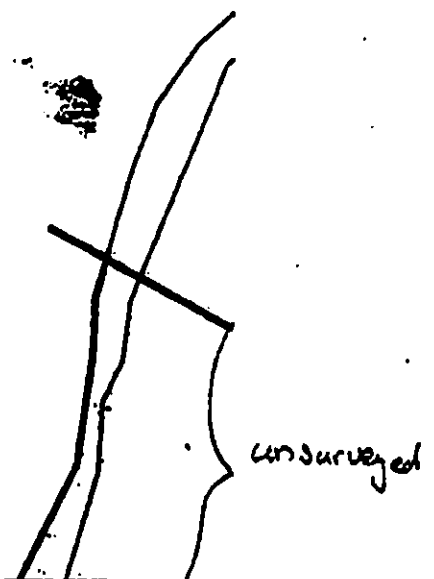
EXXON : 1638m



Map Key: PWS-2140

Name: ReimerDate: 4/20/90

Date Entered:



XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

ER-25

ADEC Segment Length: 1635m



Map Key: PWS-214b

Name: ReimerDate: 4/20/90

Data Entered:

SHORELINE EVALUATION

SEGMENT ST/ ER-26 SUBDIVISION A (1 OF 1) DATE 4/8/90

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 unopened biota and substrate.

ARCHAEOLOGICAL CONSTRAINTS:

If treatment is planned, a cultural resource evaluation is required prior to shoreline treatment.

SHPO SIGNATURE: *[Signature]* DATE: 4/20/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 75 m: No Oil 615 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: 4/19/90.
ADEC *[Signature]*
EXXON *[Signature]*
NOAA *[Signature]*
USCG *[Signature]*

FOSC: *[Signature]* DATE: 4-25-90

OG R. Murry

SEGMENT ST/ EF-26

SUBDIVISION A

DATE 8 / Apr / 90

CHECKLIST

- ☐ N. Area
- ☐ Approx. Scale
- ☐ Sog/Sob Entry
- ☐ 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

Pt. - No Substrates Or

2 ▲

Pt. - Substrates Or

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

Spattered Distribution

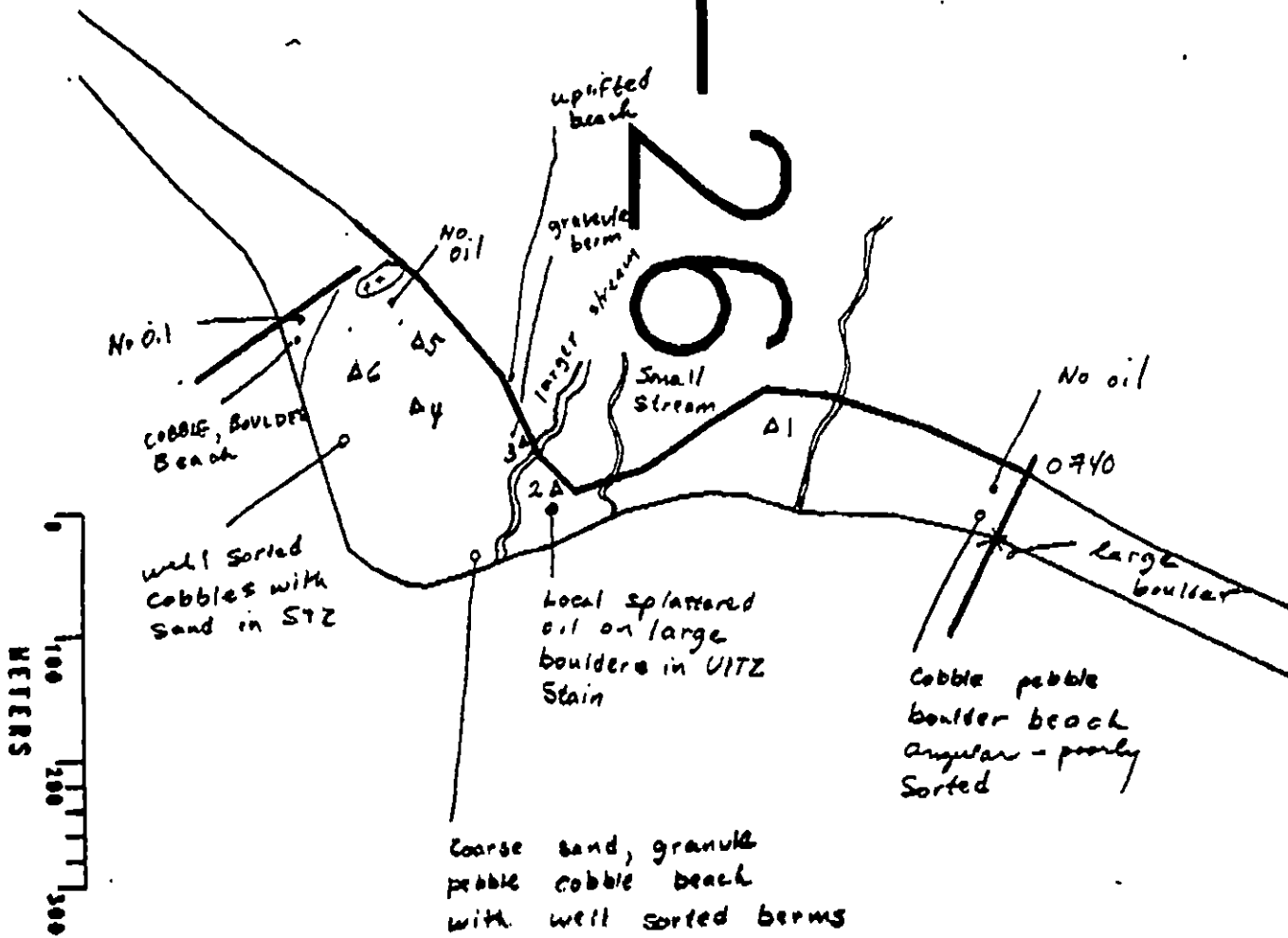
Oil Vegetation

1 →

Photo location, direction, and number

ER-26

SKETCH MAP



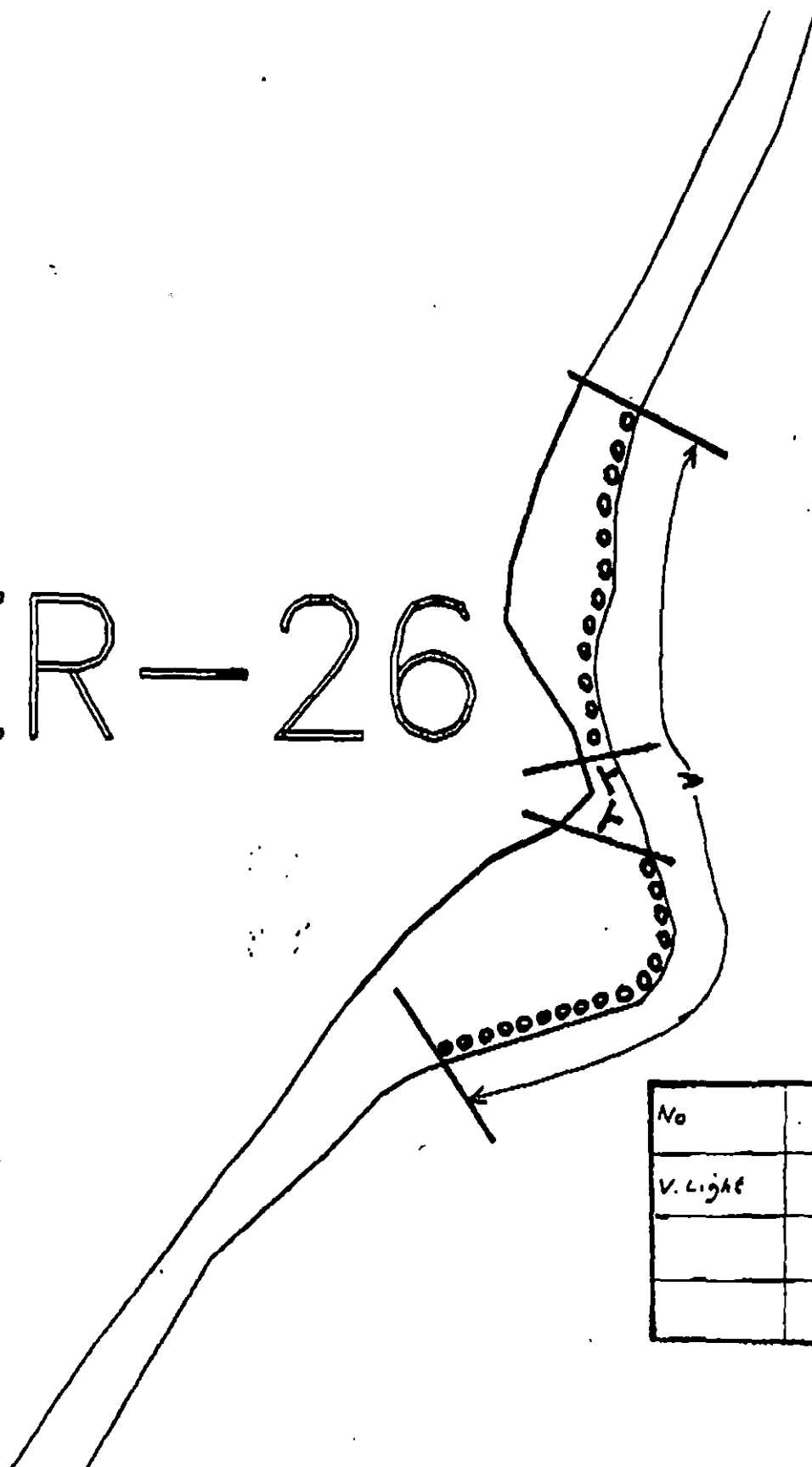
Oil Character (m): AP PO CV CT ST Gf MS TB FL NO Gg

0 100 200 300 METERS



3 of 24

ER-26



No	4.3"	645m	686m
V. Light	0.4"	60m	64m
		705m	750m

4 of 24

XXXX Wide

///// Medium

---- Narrow

TTTT Very Light

0000 No Oil

ER-26

ADEC Segment Length: 690m



Map Key: PWS-163

Name: Richard MartyDate: 8 April 1990

Date Entered:

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/ER-26

SUBDIVISIONS: A (1 OF 1)

SHORELINE EVALUATION

SEGMENT ST/ ER-26 SUBDIVISION A (1 OF 1) DATE 4/8/90

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.

ARCHAEOLOGICAL CONSTRAINTS:

If treatment is planned, a cultural resource evaluation is required prior to shoreline treatment.

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 75 m: No Oil 615 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: _____ Breakup	_____ Beach Cleaner
_____ Removal	_____ Other (see comments)

COMMENTS: _____

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

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
- 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.

APR-14-90 5H 14:18 EXXON P.02

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ ER-26 SUBDIVISION: A DATE 4/8/90

USCG

NAME LARRY FLETCHER SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

ADEC

NAME DAVID M. SAGE SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

LAND MANAGER

NAME Leigh Carlson SIGNATURE Leigh Carlson ADNR

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

Area used for subsistence deer harvesting.

SHORELINE OILING SUMMARY

REVISION NO 03/22/90

OG Richard Marty USCG Larry Fletcher SEGMENT ST/ ER-26
 BIO Bob Lemon LAND REP Leigh Carlson SUBDIVISION A ✓
 EXXON Jon Czernski ADEC Dave Sale TIME 07:40 to 08:30
 TEAM NO.: 10 TIDE LEVEL: 1.02m (0.2') to 0.37m (1.2') DATE 8 April 1990
 ST. SUBDIVISION LENGTH: 750 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo 35 WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 15 % B 15 % C 15 % P 20 % G 20 % S 10 % M 10 % V 10 %
 SLOPE: Long 100 % Hang 100 % Vert 100 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 64 m NO 686 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES				
	C	S	P	B	SP BR	OP PB	GY	BL DBR	TL	LB	SU	UI	MI	U
ASPHALT PAVEMENT														
POOLED														
COVER														
COAT														
STAIN				X					X		X			
MOUSSE														
PATTIES														
TARBALLS														
FILM														
NO OIL											X		X	X

PAVEMENT: H F S None sq. m by cm

PATTIES / TARBALLS None 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

Photographs:

Roll No. ST/10/11 and ST/10/12

Frames 1-7 and 33-36

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL From To (999-999)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		VO	UC	SP BR	OR RW	OL SL	OR TL	OR LR	SU	UI	MI	U					
1	25					X	.										X			N	G, S		
2	20					X	.										X			N	S, G, N		
3	44					X	.										X			N	G		
4	29					X	.										X			N	P, S		
5	48					X	.										X				S, C		
6	65					X	.											X			S, G, C		

COMMENTS

Revision
 RM 8 April 1990

1 of 29

OG R. 26

SEGMENT 50 ER-26

SUBDIVISION A

DATE 8 / Apr 1 90

CHECKLIST

N Arrow
Approx Scale
Sog/Sab Indry
Oil Dist.
Length
% Cover
Substrate Character
Est FIM/LWL
SSL
Profile Location(s)
Profile(s)
Photo Location(s)
Photo Location(s)

LEGEND

1 Δ

PR: No Substrate Oil

2 Δ

PR: Substrate Oil

CT/C

Consensus Distribution

CT/B

Broken Distribution

CT/P

Partial Distribution

CT/S

Spotted Distribution

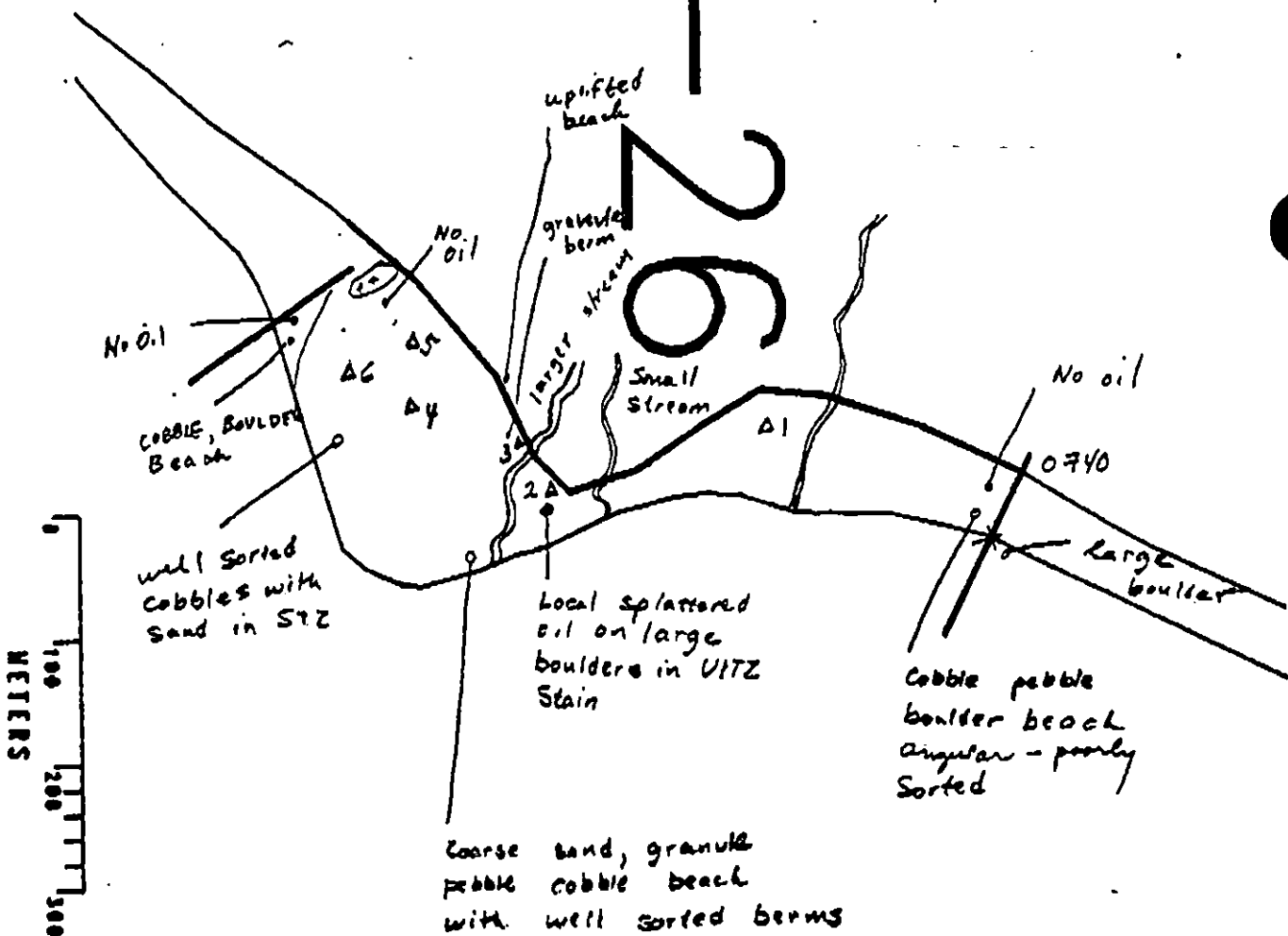
Other Vegetation

1 →

Photo location, direction,
and number

TCH MAP

ER-26



3 of 21

Oil Character Length (m): AP PO CV CT ST 64 MS PT TB FL NO 696

SHORELINE ECOLOGICAL SUMMARY

REVISION: 09/22/90

Segment ST/10/ER 26 Subdivision A Date (mo/day/yr) 4/8/90
Time (24 hr) 0700-0900 Biologist Lennon clear, calm

(A) Substrate type and % of segments:
(1) Bedrock (2) Boulder 15 (3) Cobble 35 (4) Pebble 20 (5) Sand 30 (6) Silt

(B) Overall % cover of biota (% of segment): Dense Moderate 50% 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/10/1100 ST/10/10
Frames 1-7 33-36

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	X	2	2	2	
3	3	3	3	3	3	3	X	X	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	

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	X	1M	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	X	2	X	2	X	X	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	

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	2	2	X	X	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	

In the water & water found all sea urchins were sighted.

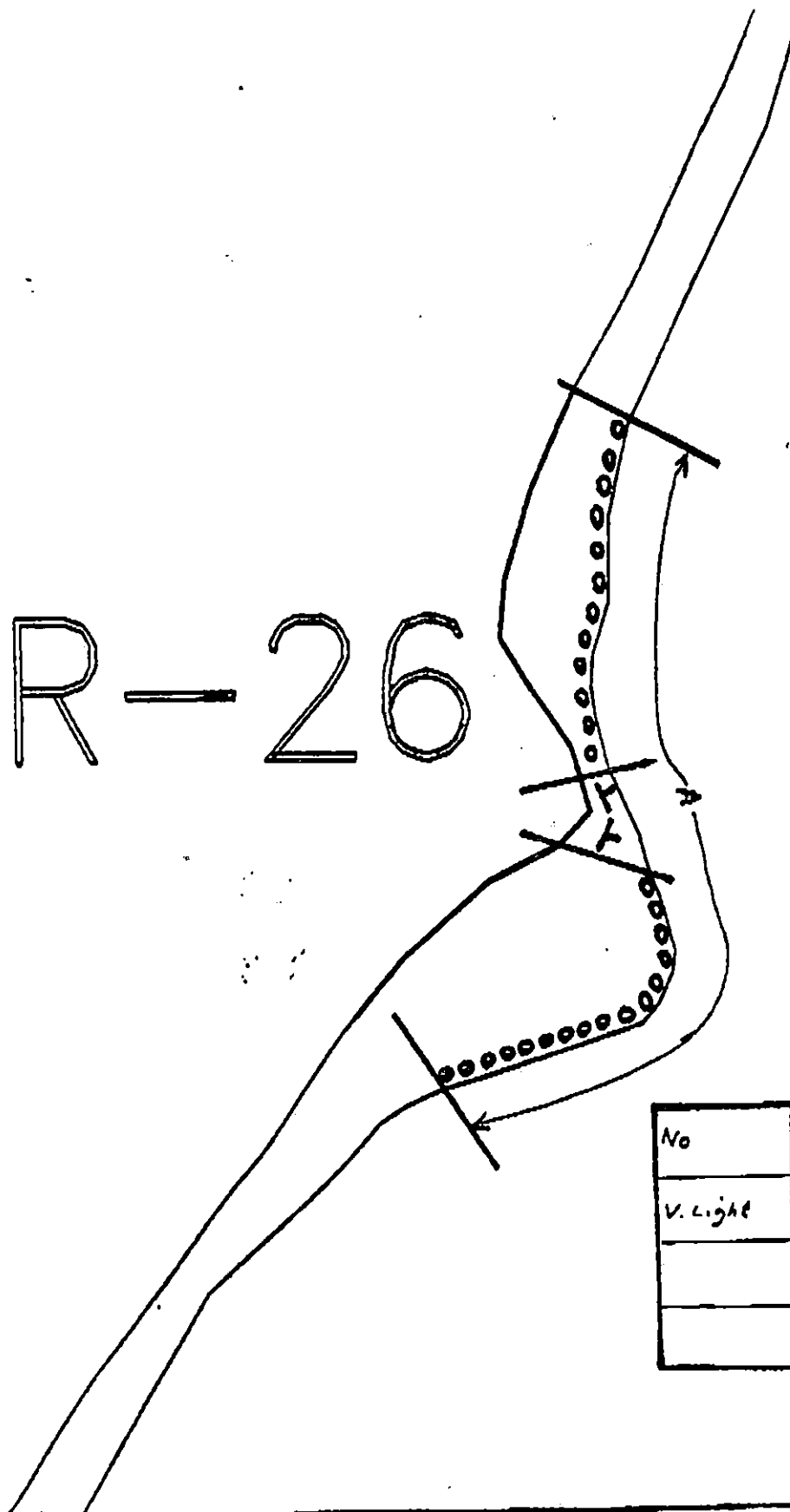
Wildlife Observations/ General Comments: Low zone cover included Holosaccus sp, Polysaccus sp and other. Low and mid zone animals included ovigerous ♀ Idotea sp, Gonimimophanes sp, (ISCOPODA), AMPHIPODA, Pagurus sp. (DECAPODA), Spizella (ANNELEA), Solenaster stimpsoni, Leptasterias hexactis including 4 mm juveniles (ASTEROIDEA). On the Terrestrial abundant deer tracks and scat.

Ecological Considerations: on some bear tracks and scat. Flat uplands of Elymus grass and Picea spruce trees.

Checked stream for fish and insect larva, found nothing, pit by stream was clean. Deep harvest area. Flat uplands would make good sampling sites.

5 of 29

ER-26



No	4.3"	645m	696m
V. Light	0.44	60m	64m
		705m	750m

4 of 24

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

ER-26

ADEC Segment Length: 690m



Map Key: PWS-163

Name: Richard Marty

Date: 8 April 1990

Date Entered:

1991 MAYSAP EVALUATION

SEGMENT: EV 026 SUB: A REGION: PWS SURVEY DATE: 4/30/91

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) OPEN 5/1 - 8/15; RESTRICTED 8/15 - 9/15

Ecological/Constraints (see page two for details) Subsistence - Deer harvesting

ARCHAEOLOGICAL CONSTRAINTS:

If treatment is planned, a cultural resource evaluation is required prior to shoreline treatment.

SHPO Signature: Rebe Dan Dan Date: 5/21/91

RECOMMENDATIONS:

	INITIAL	TAG	FOSC
TREATMENT REQUIRED (Y or N)	<u>N</u>	<u>N</u>	<u>N</u>
Manual Pickup (Check as Req.)	<u> </u>	<u> </u>	<u> </u>
Spot Washing	<u> </u>	<u> </u>	<u> </u>
Bio-Customblen Only	<u> </u>	<u> </u>	<u> </u>
Bio-Inipol/Customblen	<u> </u>	<u> </u>	<u> </u>
Other	<u> </u>	<u> </u>	<u> </u>
Other	<u> </u>	<u> </u>	<u> </u>

COMMENTS:

INITIAL:

TAG:

FOSC:

TAG APPROVAL DATE: MAY 21 1991

FOSC APPROVAL DATE: 6/1/91

ADEC [Signature]

FOSC [Signature]

EXXON [Signature]

E. E. PAGE, CD, USCG
CHIEF OF STAFF, FOSC

USCG [Signature]

NOAA [Signature]

**ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES**

Subsistence - Deer Harvesting: Unlimited treatment prior to 8/15.

MAYSAP FIELD SHORELINE COMMENT SHEET

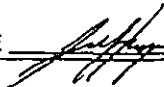
TEAM NO. 5 SEGMENT EV-26 SUBDIVISION A DATE 4/30/91

ADEC

NAME

John Huger

SIGNATURE



NTR

☒ Treatment Recommended

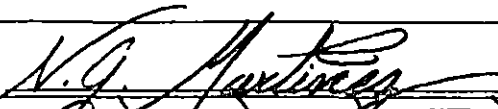
Manual pickup recommended in Sections A+B of sketch map, section ~~2~~ has a 10x40m band in the USTZ that was identified during 1990 ASAP and should be picked up this season. Beach is accessible and low energy. Good project for Chugra crew.

EXXON

NAME

Martinez N.J.

SIGNATURE



NTR

Lt A/P Scattered + Interstitial Tachous
trial work. Possible site CVC response group
could address.

LANDMANAGER

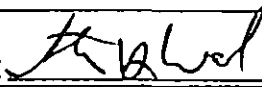
NAME

Steve WARD

OF

CVC

SIGNATURE



NTR

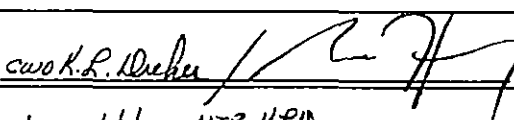
Good AREA For Chugra Local Response. Tachous Work But
A Lot of oil can be Recovered. Thick oil in between
Cobbles extending 100ft or more along USTZ.
No PITS dug.

USCG/NOAA

NAME

DREHER / HODGES

SIGNATURE



NTR

Observed only minute patches of ^{AP} at base of angular cobbles - NTR. NPL

2 meter band width of oiled sediment debris on left portion of beach. Scattered oil patches in upper berm area.

5

SEGMENT EV 26

SUBDIVISION A

DATE April ³⁰ / / 91

ENERGY LEVEL: ☐ H ☐ M ☒ L

EST. OIL CATEGORY LENGTH: W 1 m M 40 m N 5 m VL 110 m NO 220 m US 0 m

DISTRIBUTION: C = 91-100%; B = 51-90%; P = 11-50%; S = 1-10%; T = <1%

SLOPE: V = VERTICAL; H = HIGH ANGLE; M = MEDIUM ANGLE; L = LOW ANGLE

PHOTO ROLL # MAYSAP-

2

FRAMES 15-20

SHEEN COLOR: B = BROWN; R = RAINBOW; S = SILVER; N = NONE

OG COMMENTS: NO PITS WERE DUG DUE TO BOULDERS AND HARD PACKED FINE GRAIN INTERSTITIAL SUBSTRATE WHICH ACTS AS A BARRIER TO OIL MOBILITY

REVIEWED CD 10 MAY
E5 revised, May 9

TEAM NO. 5OG CHANEYBIO CRANKSEGMENT EV 26ADEC WYESLANDMANAGER WARD for CVCSUBDIVISION AEXXON MARTINEZUSCG/NOAA DREHER/HODGESDATE April 28, 1991TIME 19:50 to 20:55TIDE LEVEL 3.5 ft. to 3.0 ft.ENERGY LEVEL: ☐ H ☐ M ☒ LSURVEYED FROM: ☒ FOOT ☐ BOAT ☐ HELOWEATHER: ☐ SUN ☒ CLOUDS ☐ FOG ☒ RAIN ☐ SNOWTOTAL LENGTH SHORELINE SURVEYED: 375 mNEAR SHORE SHEEN: ☐ BR ☐ RB ☒ SL ☐ NONEEST. OIL CATEGORY LENGTH: W — m M — m N 45 m VL 110 m NO 220 m US 0 m

L O C	SURFACE OIL CHARACTER										SURFACE SEDIMENT TYPE	SHORE SLOPE VHML	AREA		ZONE				NOTES
	AP	MS	TB	SOR	CV	CT	ST	FL	DS	NO			WIDTH m	LENGTH m	S	UI	MI	U	
A	P										B	M	3	40		✓			DISTINCT PATCHES
B	S										B	M	0.5	40		✓			BAND TAPERS OUT
C	T					T					B	M	1	20		✓			
D	P										BCP	M	0.5	5		✓			
E				3							BCP	M	0.5	30		✓			
F				T							PG	L	10	20		✓			

TO:

FRED WEHRENBURG

THIS SURVEY WAS DONE
ON APRIL 30 NOT 28.

PLEASE CHANGE DATE

THANKS GREG CHANEY

PIT ZONE				SURFACE-SUBSURFACE SEDIMENTS		NOTES
UI	MI	LI				

SHEEN COLOR: B = BROWN; R = RAINBOW; S = SILVER; N = NONE

OG COMMENTS: NO PITS WERE DUG DUE TO BOULDERS AND HARD PACKED FINE GRAIN INTERSTITIAL SUBSTRATE WHICH ACTS AS A BARRIER TO OIL MOBILITY.

CENTRAL FILE
OFFICIAL COPY

Post-It™ brand fax transmittal memo 7671

of pages: 1

To: FRED WEHRENBURG	From: GREG CHANEY
Co: EXXON/WCC	Co: BUELA CANDIES
Dept: SCAT OFFICE	Phone: 872-150-1403
Fax: 872-150-1404	Fax: 872-150-1404

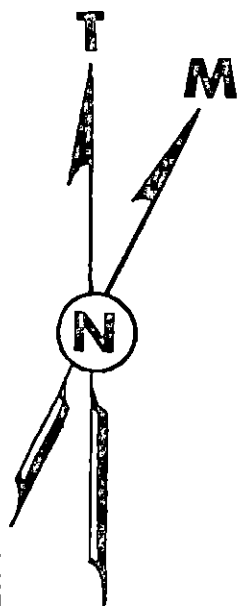
MAYSAP 1991
OG SKETCH MAP
GREG CHANEY

TEAM 5
SEGMENT: EV 26 A
DATE: April 30 1991
AIR P.H: EXVDZ 165 13

SHELTER BAY

MAP 1 OF 2

NOTE: AREAS A & B ARE ON
MAP 2.



LEGEND

BEDROCK	
BOULDERS	
FINE SED.	
DRIFT LOG	
GRASS	
BRUSH	
FOREST	
OILED PIT	
NO OIL PIT	
PHOTO	

SCALE
25 METERS
1
ROUGHLY

EVANS ISLAND
FOREST

PU
3 PATTIES
SOR TRACE
10x20m

5 PATTIES AP PU

E 0.5x30m
2% SOR

C 1x20m
TRACE AP
TRACE CT

D 0.5x5m
20% AP

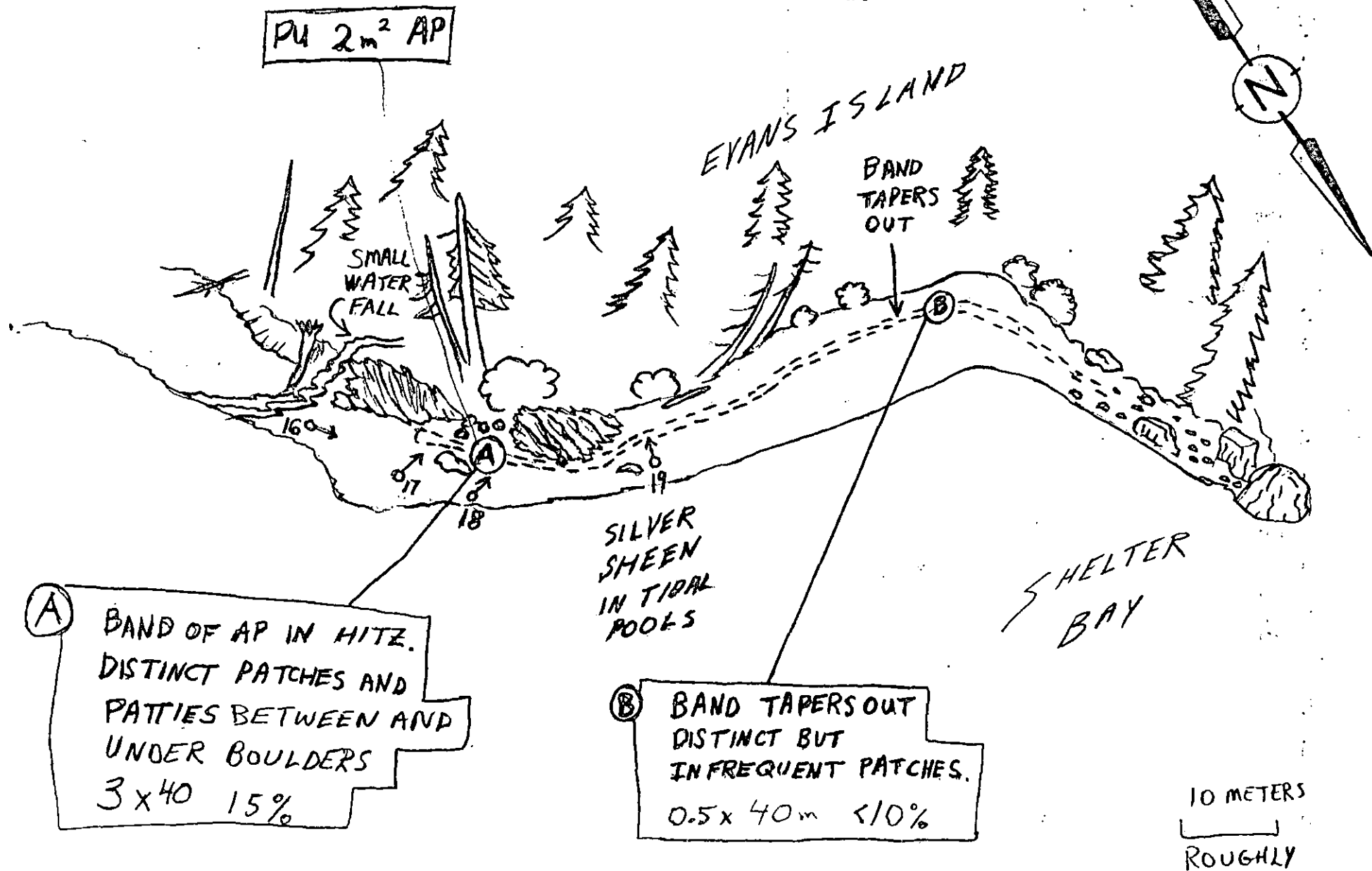
HITZ 1m BAND SEAWEED

SEE
MAP 2

REVIEWED CT 17 MAY 1991

MAYSAP 1991
OG SKETCH MAP
GREG CHANEY
TEAM 5
SEGMENT: EV26A
DATE: APRIL 30 1991
AIR P.H: EXVPE LGS-12

MAP 2 of 2



TEAM # 5 DATE 30 April 1991
 SEGMENT # EV-26 TIDAL HEIGHT (Range) +3.5 → +3.0
 SUBDIVISION A BIOLOGIST Crank
 SEA STATE 0' WIND SPEED/DIRECTION 5 knots/SE
 PHOTOGRAPHS: ROLL # FRAME #

COMMENTS/OBSERVATIONS (to be completed in oiled subdivisions only):

- (A) Area is located along the boulders in the UITZ. There is ~1% biota cover in the site including: Oligachate worms, filamentous green algae, Fucus sporelings, rare barnacles, rare Littorina and rare limpets. Approx. 2m below site in the MITZ there is an intercobble mussel with a moderate concentration; a moderate concentration of barnacles with a new set present; sparse Fucus, limpets and Littorina; many Littorina egg masses; Sculpin (fish) eggs; ribbon worms and hermit crabs. ~30% biota cover. Herring spawn was found on drift Fucus.
- (B) Area is a thin band high in the UITZ. Filamentous green algae and amphipods were the only biota found. Below site ~20% biota cover with barnacles dominant. Other scat with predominately mussel shells found below site.
- (C) Area is in the UITZ. There is <1% biota cover with rare barnacles (spat present) and Fucus sporelings. Approx 1m below site there is 20% cover with sparse barnacles, rare Fucus, tar spot algae, rare & sparse intercobble mussels, sparse Littorina, moderate limpets and tufted algae.
- (D) Area is ~5m south of runoff stream in the UITZ. There is <1% biota cover by filamentous green algae. Two meters below site there is a sparse 15m x 2m patch of Fucus. Five meters below biota is similar to that described below area 'C'.

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1	2	
Seabirds			
Waterfowl	1	~55	
Gulls/kittiwakes	1	~80	
Shorebirds	1	3	
Corvids			
Other Birds			

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters			
Pinnipeds (specify)	1 - Harbor Seal		
Whales (specify)			

Shoreline subdivision map showing important biological features attached.

Team #5

Segment EV-26

Subdivision A

Sea State 0

Date 30 April, 1991

Tidal Height $\sim +3.5 \Rightarrow +3.0$

Biologist Crank

Wind direction/speed 5 knots/SE

pg 2 c

Comments (cont.)

- (E) Area is located high in the UITZ. There is $<1\%$ biota cover with filamentous green algae and oligochaete worms. Two meters below site is a moderate Fucus band 3m wide (sporelings are present) and sparse barnacles. Biota cover is $\sim 40\%$. Ten meters below site is also covered $\sim 40\%$ by sparse to moderate barnacles (new set present) and a moderate intercobble mussel bed.
- (F) Area is located $\sim 70\text{m}$ west of anad. stream in the UITZ. There is $\sim 20\%$ biota cover in the site with Fucus and barnacles. Below site biota cover $\sim 50\%$ with Fucus, barnacles and mussels. There is a clam bed starting $\sim 4'$ tide level with Prototheca, Macoma and Saxidomus. Area below site is utilized by shorebirds.

The biota in this subdivision appears to be healthy. Reproduction and recruitment is occurring. Littorine and Sculpin eggs are present as well as Fucus sporelings, barnacle spat and juvenile mussels.

MAYSAP 1991

OG SKETCH MAP p Bio Map

GREG CHANEY & Crunk

TEAM 5

SEGMENT: EV 26 A

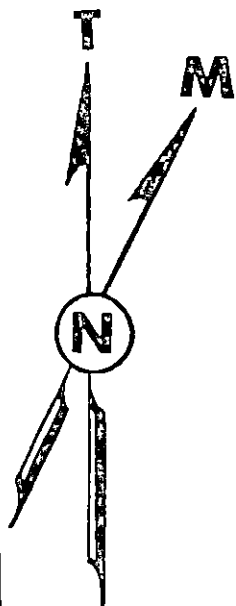
DATE: April 30 1991

AIR P.#: EX VDE 165 13

SHELTER BAY

MAP 1 OF 2

NOTE: AREAS A & B ARE ON MAP 2.



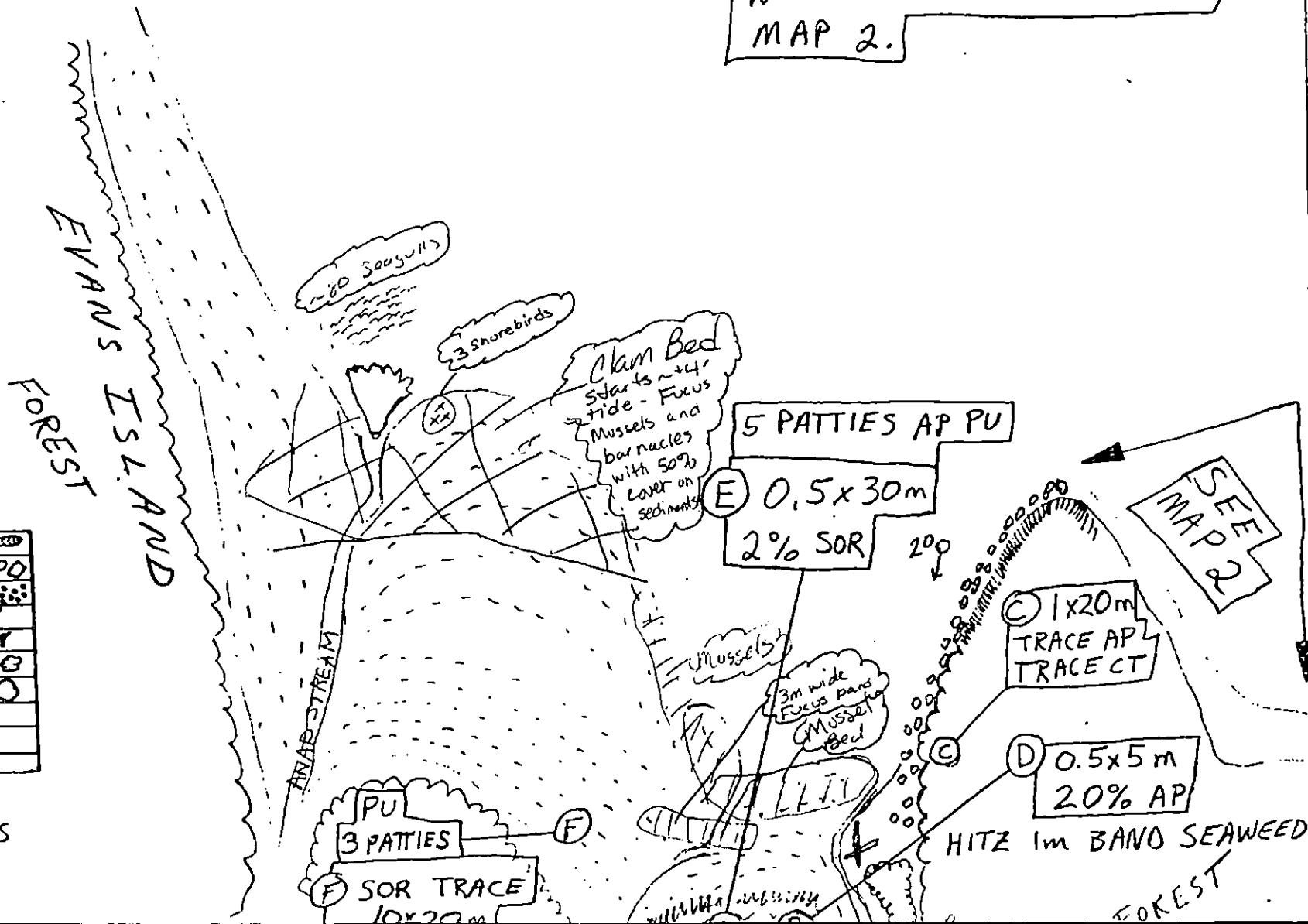
LEGEND

BEDROCK	
BOULDERS	
FINE BED.	
DRIFT LOG	
GRASS	
BRUSH	
FOREST	
OILED PIT	
NO OIL PIT	
PHOTO	

SCALE

25 METERS

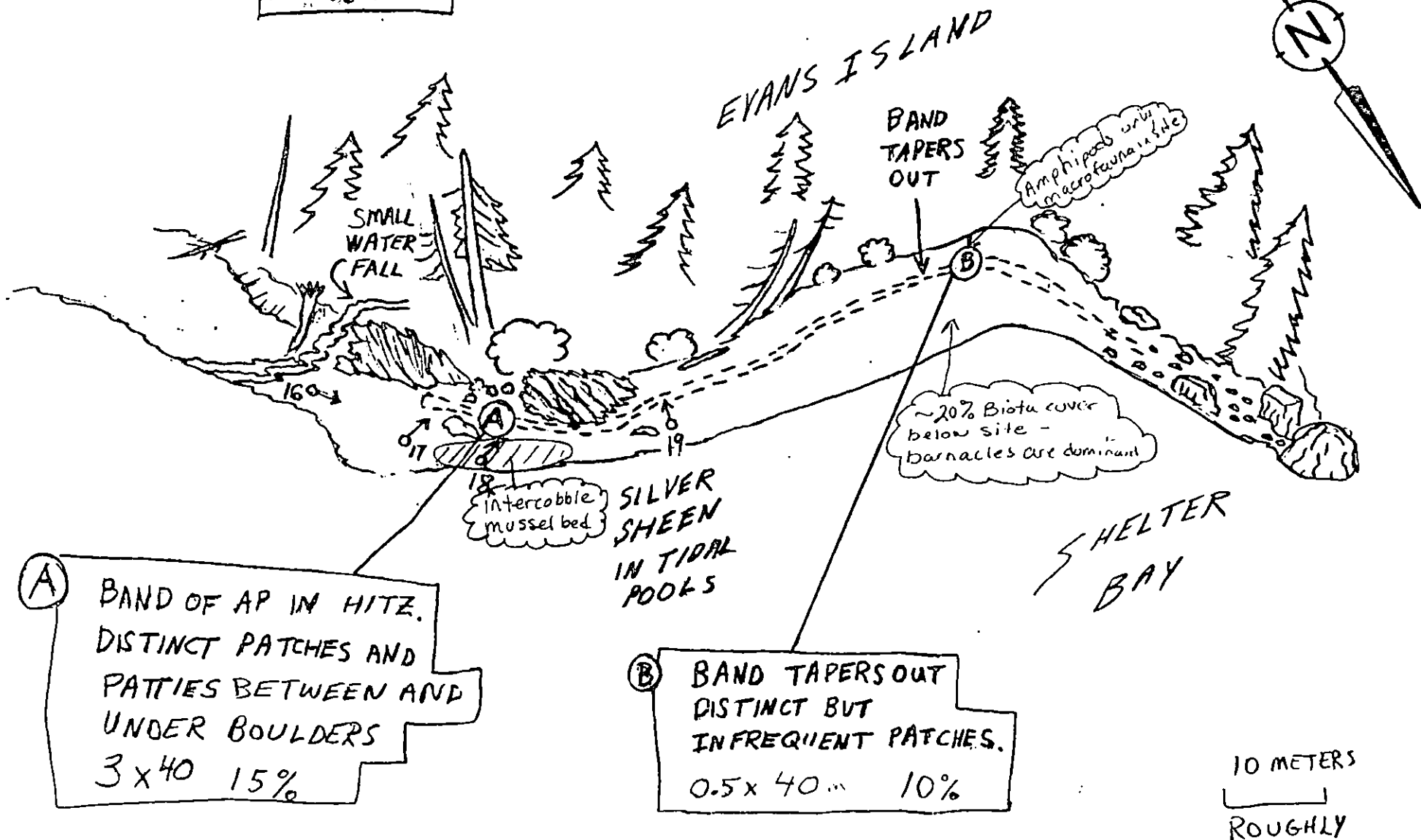
ROUGHLY



MAYSAP 1991
OG SKETCH MAP: Bio Map
GREG CHANEY: Crank
TEAM 5
SEGMENT: EV26A
DATE: APRIL 30 1991
AIR P.#: EXVPE LGS-12

MAP 2 of 2

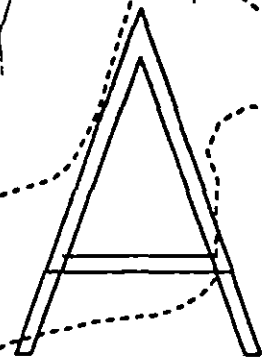
PU 2m² AP



See dual shoreline map.

Revised

5m
NARROW

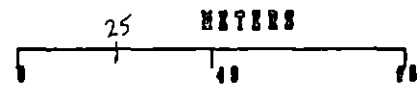


Greg Chaney
April 30 1991



EV026

Segment Reference Map
Map Key: PVSRV026

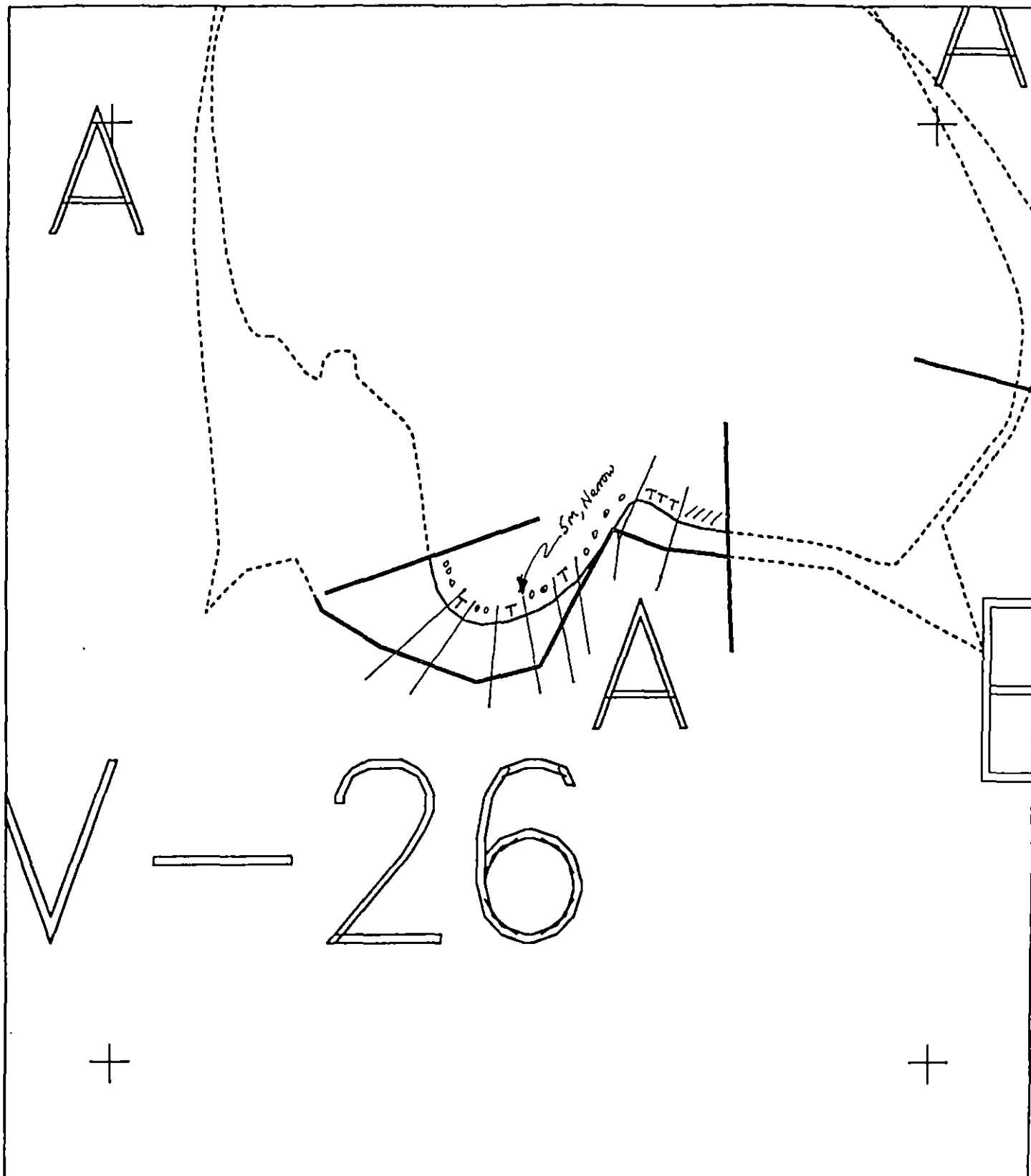


AK State Plane Zone 4
pv026



EAGLE NEST

ES revised, May 9



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

EV026 A
 ADEC Subsegment Length: 375m
 METERS
 0 100 200
 AK State Plane Zone 4
 pr0260



Subdivision Field Map
 Map Key: PWSEV026A
 Name: G. CHANEY
 Date: April 30, 1991
 Data Entered:

ES raised: May 9
 REVIEWED CD 18 MAY

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/ER-27

SUBDIVISIONS: A (1 OF 1)

SHORELINE EVALUATION

SEGMENT ST/ ER-27 SUBDIVISION A (1 OF 1) DATE 4/8/90

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.

ARCHAEOLOGICAL CONSTRAINTS:

If treatment is planned, a cultural resource evaluation is required prior to shoreline treatment.

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 36 m: No Oil 964 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: _____ Breakup	_____ Beach Cleaner
_____ Removal	_____ Other (see comments)

COMMENTS: _____

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

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
- 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.

DRAFT

SEGMENT ST/ ER-27 SUBDIVISION: A DATE 4/8/90

ISCG

NAME LARRY FLETCHER SIGNATURE *Larry R Fletcher*

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

ADEC

NAME DAVID M. SAFF SIGNATURE *David M Saff*

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

LAND MANAGER

NAME Leigh Carlson SIGNATURE *Leigh Carlson* ADNR

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

segment area used for subsistence deer harvesting.

OG Richard Marty USCG Larry Fletcher SEGMENT ST/ ER-27
 BIO Bob Lemon LAND REP Leigh Carlson SUBDIVISION A
 EXXON Jon Czorneki ADEC Dave Sale TIME 03:30 10:09:47
 TEAM NO.: 10 TIDE LEVEL: 1.5 m (5') to 0.37 m (1.2') DATE 08 / April / 90
 ST. SUBDIVISION LENGTH: 1009 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 5 % B 38 % C 30 % P 20 % G 10 % S 10 % M % V %
 SLOPE: Lang 100 % Hang % Vert % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 37 m NO 972 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR						IMPACTED ZONES			
	W	M	N	VL	BR	OR	OL	SL	TL	LR	SU	UI	ME	U
ASPHALT PAVEMENT														
POOLED														
COVER														
COAT														
STAIN														
MOUSSE														
PATTIES														
TARBALLS														
FILM														
NO OIL														

PAVEMENT: H F S None sq. m by cm

PATTIES / TARBALLS None BAGS

NEAR SHORE SHEEN? ☒ NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs	<u>2</u>		
Vegetation	<u>2</u>		
Trash			
Debris			

DEBRIS COLLECTED
☐ YES ☒ NO

TYPE

#BAGS

Photographs:

Roll No. ST/10/11

Frames 8-11

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL cm-cm (oil-out)	BELOW		OIL / FILM COLOR						PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	BR	OR	OL	SL	TL	LR	SU	UI	ME	U		
1	22					X	.									X			N	G.S, P.C	
							.														
							.														
							.														
							.														
							.														
							.														

COMMENTS Staining is very minor

6 of 24

OG R.M.

SEGMENT ST ER-27

SUBDIVISION A

DATE 8 April 90

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Bndry
- ☐ Oil Dist
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HWM/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

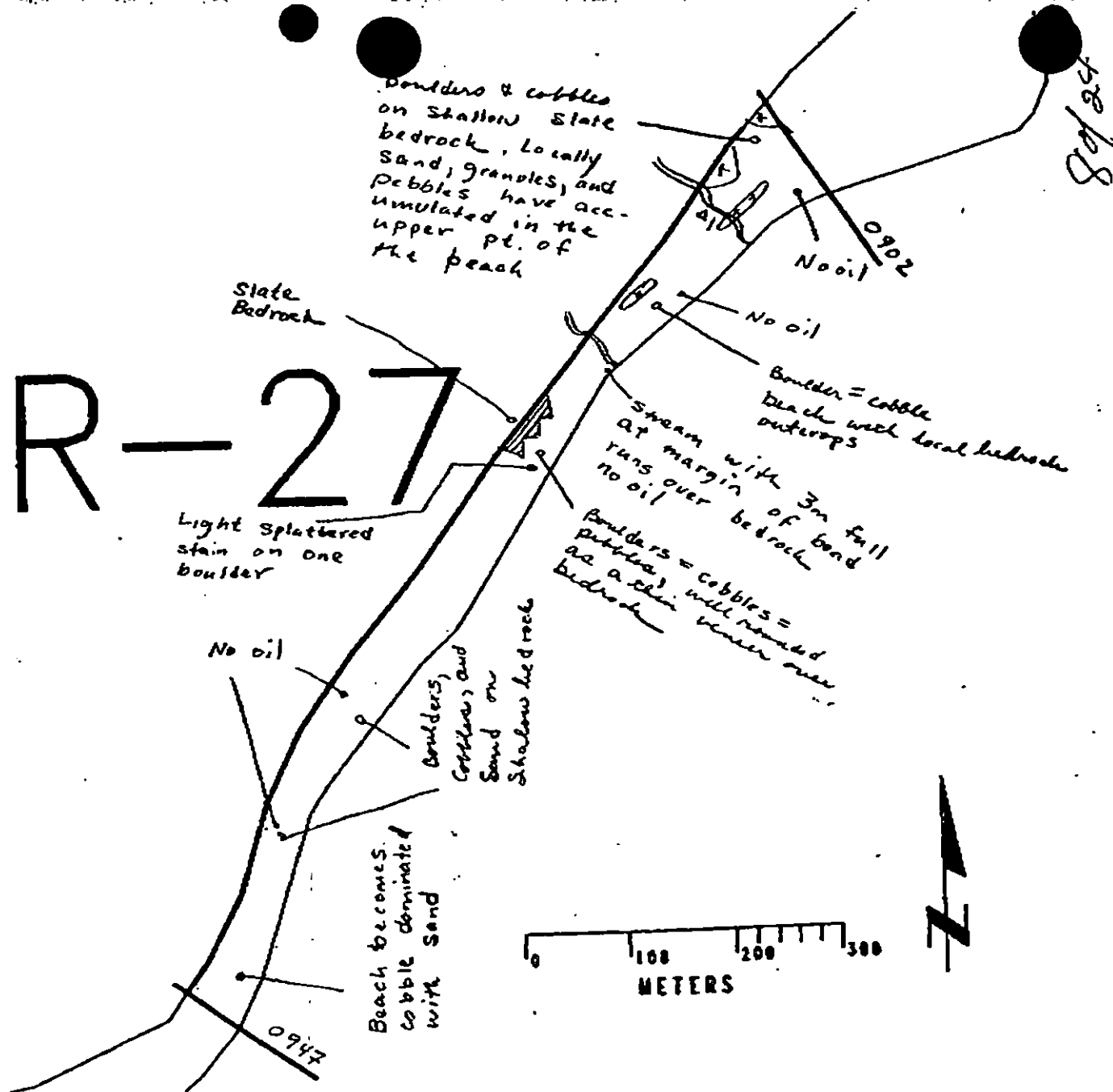
Splashed Distribution

Oiled Vegetation

1 $\Rightarrow$

Photo location, direction, and number

ER-27



Oil Character Length (m): AP _____ PO _____ CV _____ CT _____ ST 37 MS _____ PT _____ TB _____ FL _____ NO 972

REVISION: 03/20/90

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/23/90

Segment ST / 10/ER27 Subdivision A Date (mo / day / yr) 4 / 2 / 90
 Time (24 hr) 0920 - 0940 Biologist Lernon clear calm

- (A) Substrate type and % of segments:
 (1) Bedrock 5 (2) Boulder 25 (3) Cobble 30 (4) Pebble 20 (5) Sand 10 (6) Silt _____
- (B) Overall % cover of biota (% of segment): Dense _____ Moderate _____ 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 (O)

Photographs:
 Roll No. ST/10/11
 Frames 8-11

BARNACLES

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

GASTROPODS

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

FUCUS

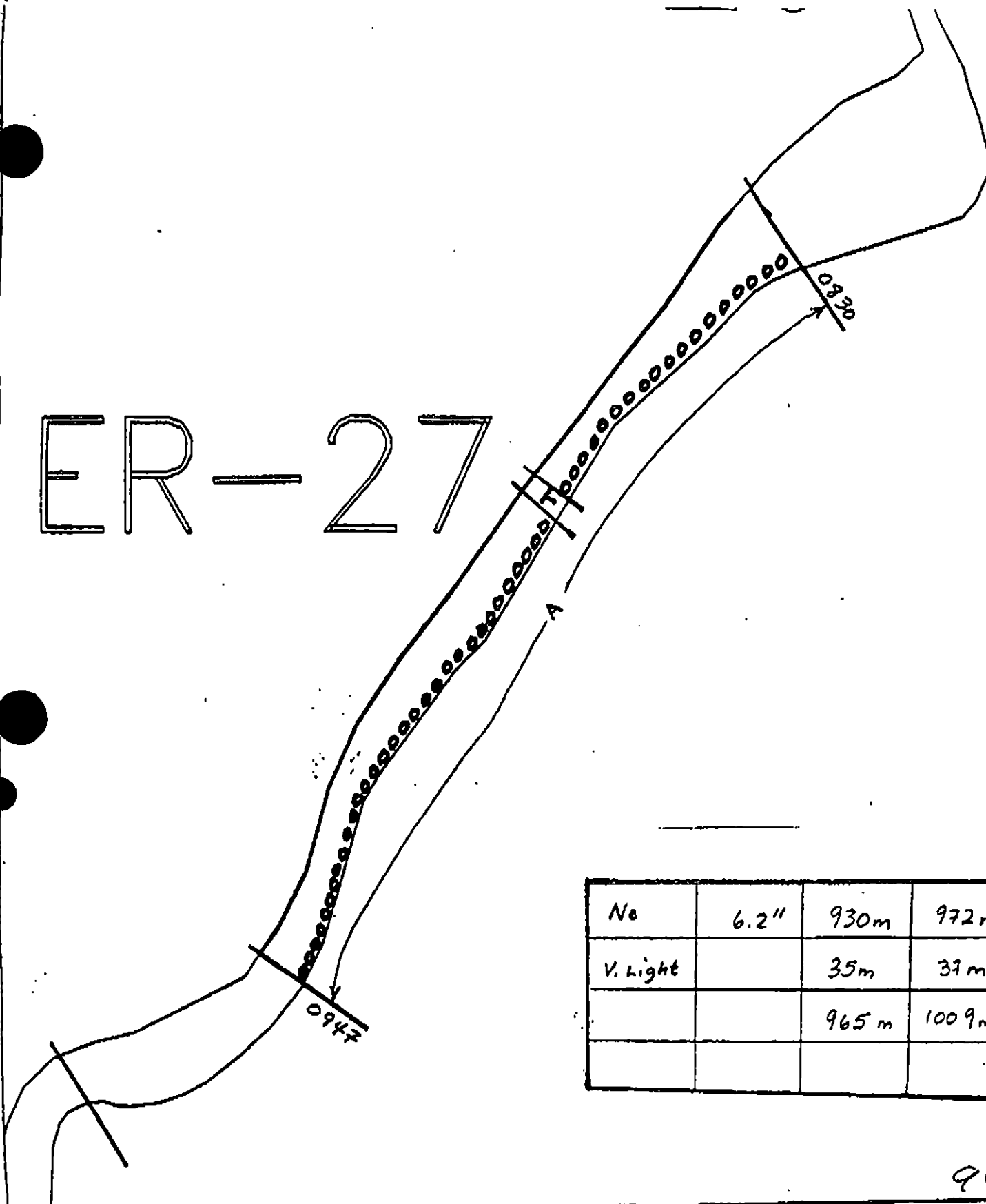
Dense			Moderate			Sparse			Rare			
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	2	2	2	X	X	2	2	2	2	2	2	NOT PRESENT
3	3	3	3	3	X	3	3	3	3	X	3	
4	4	4	4	4	4	4	4	4	4	4	4	
5	5	5	5	5	5	5	5	5	5	5	5	
6	6	6	6	6	6	6	6	6	6	6	6	
6	6	6	6	6	6	6	6	6	6	6	6	

Wildlife Observations/ General Comments: Amphipods and insects were found in the drift line. Low and mid biota *Gerrhosphaeroma* sp., *Idotea* sp. ovigerous ♀ (ISOPODA), *Leptasterias hexactis* (ASCIDIACEA), *Pagurus* sp. (DECAPODA). Took a picture of classic zonation.

Ecological Considerations: checked stream found nothing fish would feed on or any fish. Another stream with waterfall right away was not checked, assumed not anadromous.

10 of 24

ER-27



90/24

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

ER-27

ADEC Segment Length: 1000m



Map Key: PWS-164

Name: Richard Marty

Date: 8 April 1990

Date Entered:

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT EV-27 SUBDIVISION A (1 of 1)

WORK WINDOW

Manual Pickup
Tarmat Removal

OPEN

ARCHAEOLOGICAL INSPECTION/CONSULTATION REQUIRED.

>>> PHONE 564-3274 (Anchorage) OR 229-1508 (24 hrs.) <<<

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A,1B Salmon Stream Mouth

NO CONSTRAINT. ADF&G catalogued stream 226-40-16610 present in Subdivision does not restrict Manual Pickup or Tarmat Removal.

7II Subsistence: Deer harvesting

No constraint to Manual Pickup or Tarmat Removal.

OTHER ECOLOGICAL CONSIDERATIONS

Avoid any unnecessary disturbance or damage to uncoiled biota and substrate. No disturbance of stream bed or banks.

TAG ADDENDUM DATE 5/16/90.
ADEC Art Wainwright Dick Wainwright
EXXON Andy TGA Beal
NOAA Joseph T. Tinkler Steve
USCG M.J. Hall Mike

FOSC

DATE 5-21-90

Prepared by: Anda Mays WR

Date: 5/14/90

EV-28

EV-20

400M EAGLE NEST
ZONE

EV

EV-27

EV-24

TREATMENT
AREA

ANADROMOUS STREAM
(226-40-16610)

EV-26

EV-25



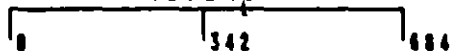
Exxon Company, USA
Map Key: PWS-EV-27
May 11, 1990



ECOLOGY MAP
SEGMENT EV-27

SUBDIVISION A (1 of 1)

METERS



Seabird Colony



Eagle Nest

1 inch = 1122 feet

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.

ARCHAEOLOGICAL CONSTRAINTS: Consultation and inspection with an Exxon archaeologist is required, ~~a required prior~~ prior to treatment. Specific on-site monitoring requirements will be determined at that time. *CEH*

SHPO SIGNATURE: *Charles E. Hume* 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	<u> </u> Snare/Absorbent Booms
☒ Treatment Recommended	<u> </u> Oil Snares (pom poms)
☒ Manual Pickup	<u> </u> Absorbents (pads, rolls, etc)
<u> </u> Bioremediation	<u> </u> Spot Washing: <u> </u> Wands
☒ Tarmat: <u> </u> Breakup	<u> </u> Beach Cleaner
<u> </u> ☒ Removal	<u> </u> Other (see comments)

COMMENTS: REMOVE ASPHALT + OILED TRASH

TAG COMMENTS:

TAG APPROVAL DATE: 4/20/90

ADEC ART WEINER *Art Weiner*

EXXON AMY TAN *Amy Tan*

NOAA BILL WESCOTT *Bill Wescott*

USCG KENNETH KEANO *Kenneth Keano*

FOSC: *Wyl* DATE: 4-27-90

SHORELINE EVALUATION

SEGMENT ST/ ER-27 SUBDIVISION A (1 OF 1) DATE 4/8/90

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.

ARCHAEOLOGICAL CONSTRAINTS:

If treatment is planned, a cultural resource evaluation is required prior to shoreline treatment.

SHPO SIGNATURE: Charles E. H. Jones DATE: 4/20/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V. Light 36 m: No Oil 964 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: 4/19/90

ADEC ART WEAVER Art Weaver

EXXON ANNY TEAR Anny Tear

NOAA Burt Wascott Burt Wascott

USCG KENNETH KEANE Kenneth Keane

FOSC: W. L. DATE: 5-1-90

OG R.A.

SEGMENT ST/ ER-27

SUBDIVISION A

DATE 8 April 90

CHECKLIST

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

LEGEND

1 Δ

PK - No Subsurface Oil

2 Δ

PII - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

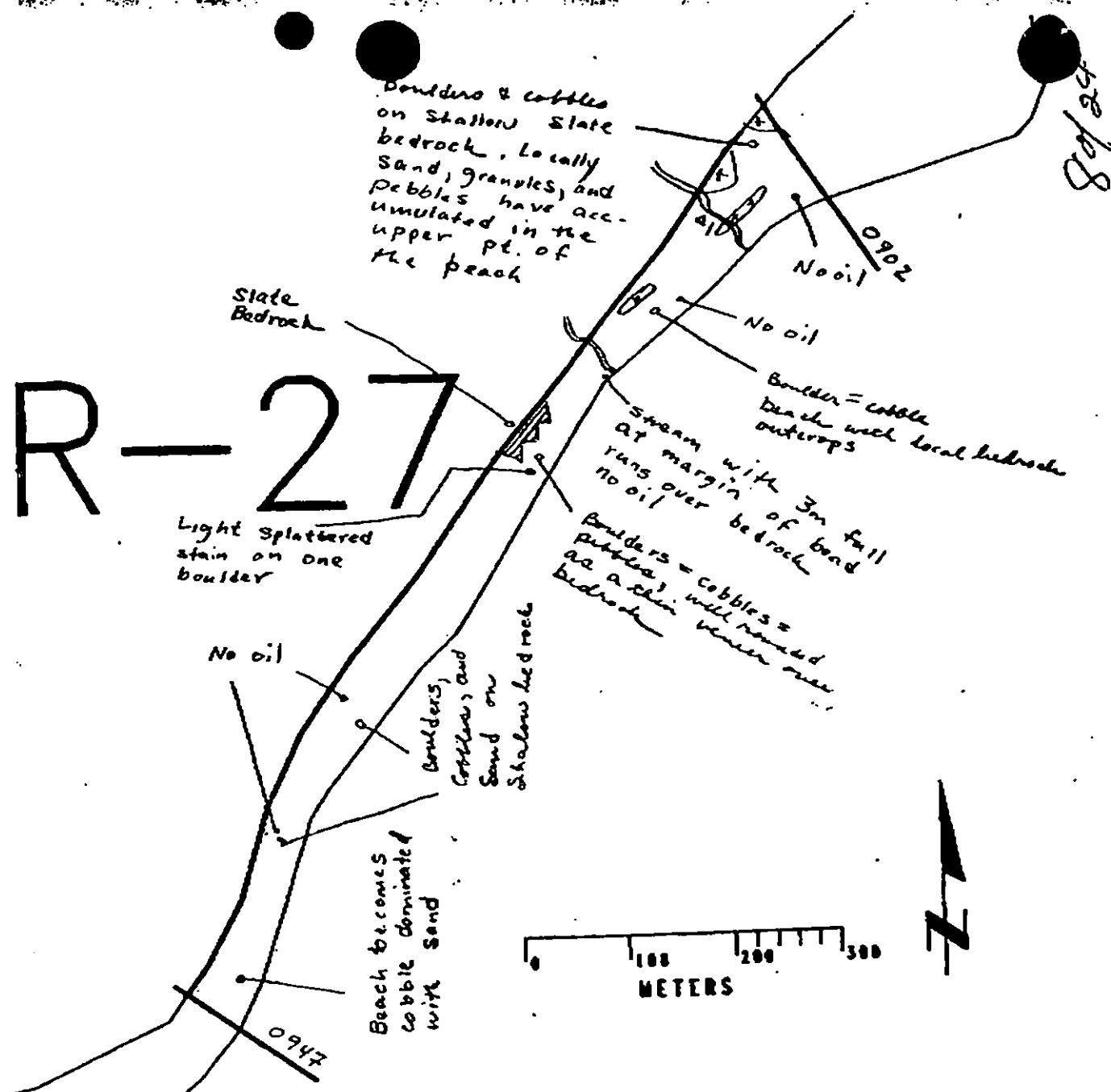
Splashed Distribution

Oiled Vegetation

1 $\Rightarrow$

Photo location, direction, and number

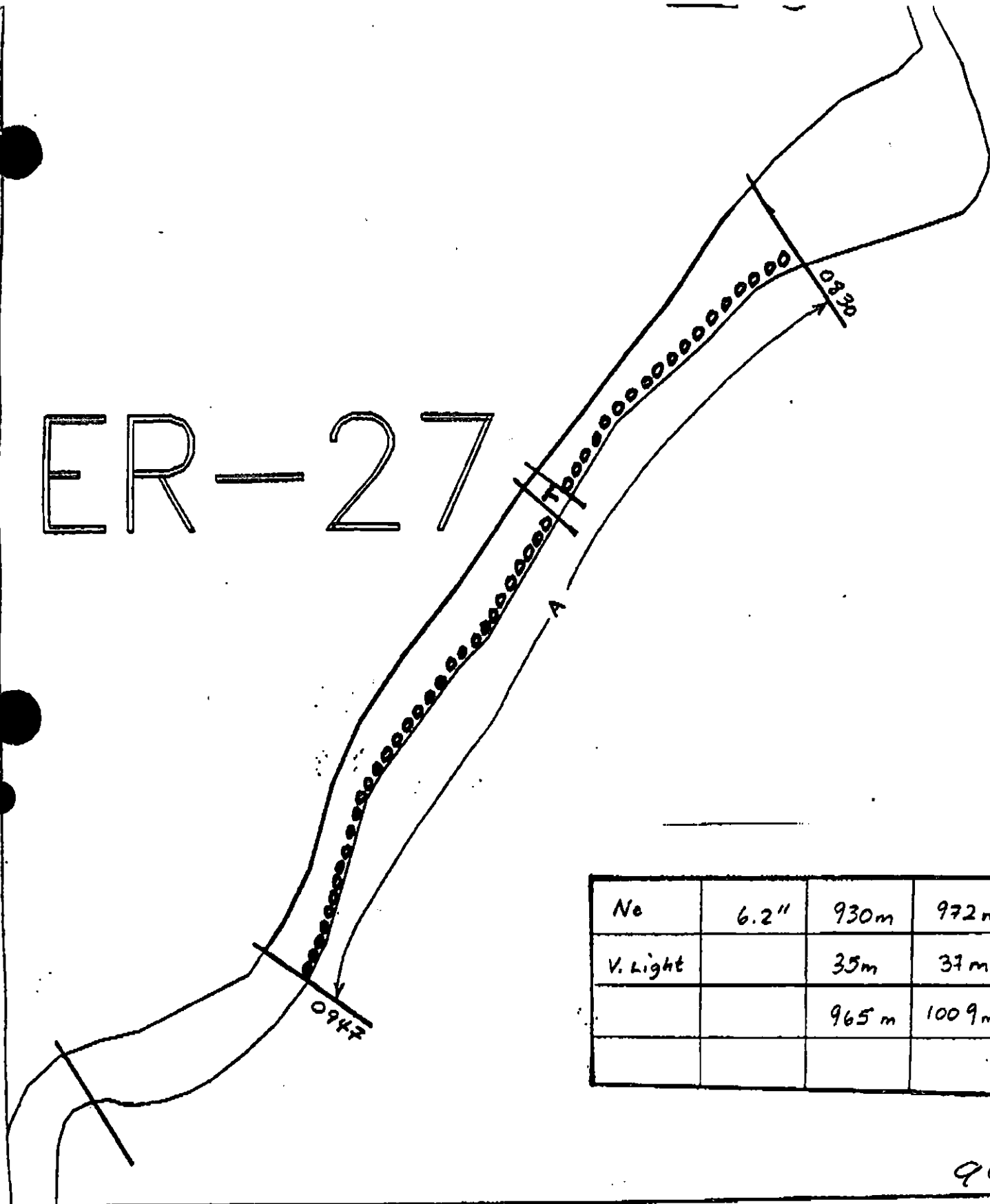
ER-27



Oil Character Length (m): AP _____ PO _____ CV _____ CT _____ ST 37 MS _____ PT _____ TB _____ FL _____ NO 972

REVISION: 03/2/90

ER-27



No	6.2"	930m	972m
V. Light		35m	37m
		965m	1009m

90/24

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

ER-27

ADEC Segment Length: 1000m



Map Key: PWS-164

Name: Richard Marty

Date: 9 April 1990

Date Entered:

1991 MAYSAP EVALUATION

SEGMENT: ER 028 SUB: A REGION: PWS SURVEY DATE: 5/17/91

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) OPEN

Ecological/Constraints (see page two for details) Fish harvest area

ARCHAEOLOGICAL CONSTRAINTS:

If treatment is planned, a cultural resource evaluation is required prior to shoreline treatment.

SHPO Signature: Mark E. Harman Date: 5/30/91

RECOMMENDATIONS:

INITIAL

TAG

FOSC

TREATMENT REQUIRED (Y or N)

N

N

N

Manual Pickup (Check as Req.)

Spot Washing

Bio-Customblen Only

Bio-Inipol/Customblen

Other

Other

COMMENTS:

INITIAL:

TAG:

FOSC:

TAG APPROVAL DATE: MAY 28 1991

FOSC APPROVAL DATE: 6/8/91

ADEC

FOSC

EXXON

E. E. PAGE, CDR, USCG
CHIEF OF STAFF, FOSC

USCG

NOAA

**ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES**

Fish Harvest Area: Unlimited treatment unless otherwise directed by ADF&G. Sheen containment/recovery procedures required for mechanical treatment.

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 5 SEGMENT ER-28 SUBDIVISION A DATE 5/17/91

ADDEC

NAME John Hayes SIGNATURE [Signature]

☒ NTR

No removable oil observed on this segment.

EXXON

NAME John Deen SIGNATURE [Signature]

☒ NTR

LANDMANAGER

NAME Steve Wren OF CVC-FS SIGNATURE [Signature]

☒ NTR

Lite Cover and stain on Kew Rocks.
No Sub Located -

USCG/NOAA

NAME DREHER/CLINE SIGNATURE Cap K. L. Duhon [Signature]

☒ NTR No oil observed! K&D

Agreed. DWR

TEAM NO. 5

MAYSAP SHORELINE OILING SUMMARY

PAGE OF

OG. CHANEY

BIO **CRANK**

SEGMENT ER 28

DEC HAYES

LANDMANAGER WARD for CUC

SUBDIVISION A

EXXON DEAN

USCG/NOAA DREHER/CLINE

DATE MAY, 17, 191

TIME 08:05 to 08:35

TIDE LEVEL 2.5 ft. to 1.0 ft.

ENERGY LEVEL: ☒ H ☐ M ☐ L

SURVEYED FROM: ☒ FOOT ☐ BOAT ☐ HELO

WEATHER: ☐ SUN ☒ CLOUDS ☐ FOG ☐ RAIN ☐ SNOW

TOTAL LENGTH SHORELINE SURVEYED: 268 m

NEAR SHORE SHEEN: ☐ BR ☐ RB ☐ SL ☒ NONE

EST. OIL CATEGORY LENGTH: W _ m M _ m N _ m VL _ m NO 268 m US 0 m

[illegible]

DISTRIBUTION: C = 91-100%; B = 51-90%; P = 11-50%; S = 1-10%; T = <1%

SLOPE: V = VERTICAL; H = HIGH ANGLE; M = MEDIUM ANGLE; L = LOW ANGLE

PHOTO ROLL # MAYSAP-

5 - 18

FRAMES 586

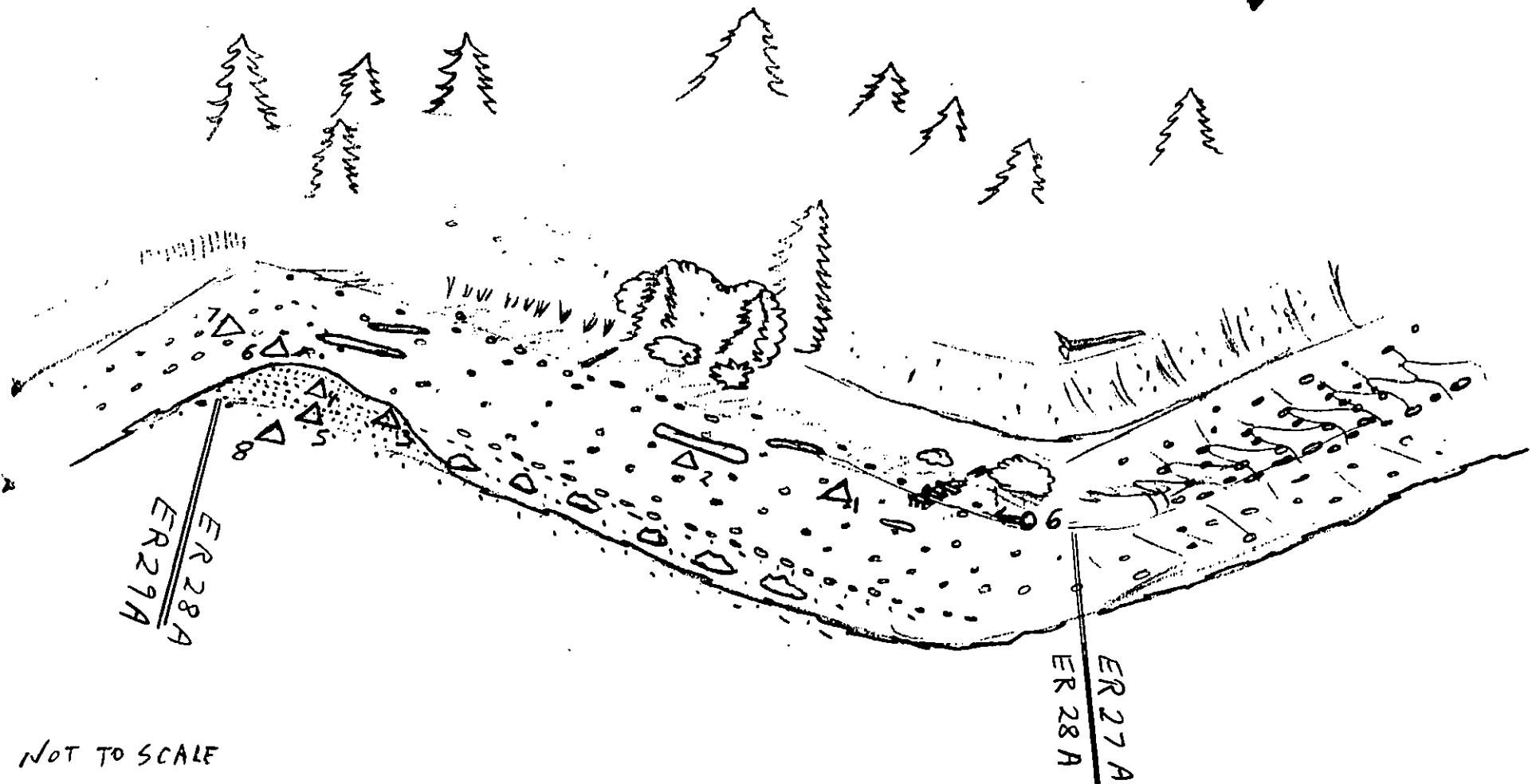
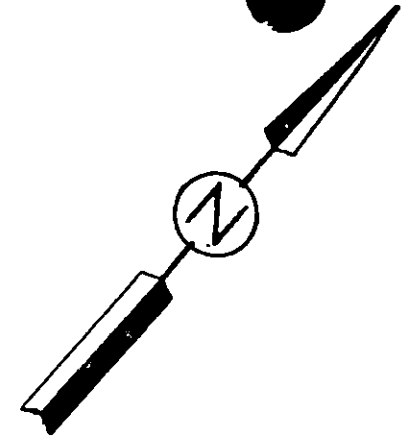
PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER							OILED ZONE cm-cm	CLEAN BELOW Y/N	H2O LEVEL (cm)	SHEEN COLOR B R S N	PIT ZONE				SURFACE-SUBSURFACE SEDIMENTS	NOTES
		OP	HOR	MOR	LOR	OF	TR	NO					S	UI	MI	LI		
1	30							✓	-		-		✓			C-CP		
2	30							✓	-		-		✓			CP-CP		
3	25							✓	-		-			✓		S-SC		
4	30							✓	-	15	N			✓		S-SGC		
5	15							✓	-	0	N			✓		S-SGC		
6	25							✓	-	10	N		✓			PC-PC		
7	35							✓	-	1	N		✓			PC-PCB		
8	30							✓	-	0	N				✓	S-S		

SHEEN COLOR: B = BROWN: R = RAINBOW: S = SILVER: N = NONE

OG COMMENTS: NO OIL WAS OBSERVED ON THE SURFACE OR IN THE SUBSURFACE SEDIMENTS ALONG THIS SEGMENT.

reviewed 5.20 9y

MAYSAP 01
OG SKETCH MAP
GREG CHANEY
TEAM 5
SEGMENT: ER 28 A
DATE: MAY 17 1991
AIR P.#: NONE AVAILABLE



reviewed 5.20 94

MAYSAP BIOLOGICAL SUMMARY FORM

pg 1 of 1

TEAM # 5

DATE 17 May 1991

SEGMENT # ER-28

TIDAL HEIGHT (Range) +3 → +0.5

SUBDIVISION A

BIOLOGIST Crank

SEA STATE 1' swells

WIND SPEED/DIRECTION NO Wind

PHOTOGRAPHS: ROLL #

FRAME #

COMMENTS/OBSERVATIONS (to be completed in oiled subdivisions only):

No oil observed; no intertidal observations made.

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles			
Seabirds	1	1	
Waterfowl			
Gulls/Kittiwakes	3	30	
Shorebirds	1	3	
Corvids			
Other Birds			

MARINE MAMMALS

OBSERVED

LAND MAMMALS

SPECIES

OBSERVED

Sea Otters			
Seals (specify)	2 Sealions		
Whales (specify)			

Shoreline subdivision map showing important biological features attached.

R-28

A

XXXX
////

TTTT
0000

Wide
Medium
Narrow
Very Light
No Oil

ER028 A

ADEC Subsegment Length: 288m

METERS

0 100 200
AK State Plane Zone 4
per028a



Subdivision Field Map

Map Key: PWSER028A

Name: CHANEY

Date: 5-17-91

Date Entered:

reviewed 5.20.98

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/ER-28

SUBDIVISIONS: A (1 OF 1)

SHORELINE EVALUATION

SEGMENT ST/ ER-28 SUBDIVISION A (1 OF 1) DATE 4/8/90

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.

ARCHAEOLOGICAL CONSTRAINTS:

If treatment is planned, a cultural resource evaluation is required prior to shoreline treatment.

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 78 m: No Oil 190 m
Subsurface Oil Observed: Yes X No _____ Maximum Depth 20 cm

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: _____

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

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
 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.

SEGMENT ST/ ER-28 SUBDIVISION: A DATE 7/8/90

USCG

NAME LARRY FLETCHER SIGNATURE Larry 12 Fletcher

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

ADEC

NAME DAVID M. SAGE SIGNATURE David M Sage

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

THE OIL WE FOUND: STAINING THE GORBLE/COBBLE BEACH
ON THIS SEGMENT IS WEATHERED FROM THE HARMAL
GRINDING OF THESE WELL-ROUNDED STONES BY WAVE ACTION.
THOUGH SOME OIL WAS FOUND IN A BAND ~ 3-10 cm.
DEEP IN MAIN STORM BEACH, WITH A FEW MORE CYCLES
OF TURNING, IT SHOULD CLEAN ITSELF OUT TO A STAIN.

LAND MANAGER

NAME Leigh Carlson SIGNATURE Leigh Carlson ADNR

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

Area used for subsistence deer harvesting.

12 of 24

OG Richard Marty USCG Larry Fletcher SEGMENT ST/ ER-28
 BIO Bob Lemon LAND REP Leigh Carlson SUBDIVISION A
 EXXON Jon Czernicki ADEC Dave Sale TIME 09:47 to 10:20
 TEAM NO.: 10 TIDE LEVEL: +1.5m(5') to 1.85m(6') DATE 8 April 1990
 EST. SUBDIVISION LENGTH: 304 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R — % B — % C 60 % P 30 % G 10 % S — % M — % V — %
 SLOPE: Long 100 % Hang — % Vert — % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W — m M — m N — m VL 101 m NO 203 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR						IMPACTED ZONES			
	C	S	P	R	SP	BP	GP	TP	LP	SU	UI	M	U	
ASPHALT PAVEMENT														
POOLED														
COVER														
COAT														
STAIN				X				X			X			
MOUSSE														
PATTIES														
TARBALLS														
FILM														
NO OIL										X		X	X	

PAVEMENT: H F S None sq. m by — cm

PATTIES / TARBALLS None BAGS

NEAR SHORE SHEEN? (NO) BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs	1		
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☐ YES ☒ NO

TYPE —

#BAGS —

Photographs:

Roll No. ST/10/11

Frames 12-18

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		VO	UC	SP	BP	GP	TP	LP	SU	UI	MI	U		
1	35					X	5-20		X						X					P, S
2	35			X			5-20		X				X		X					P
3	19					X	.								X					P
4	25					X	.								X					P
5	49					X	.								X					P
							.													

COMMENTS Oil limited to a lense in the north of the Segment.

Revision
R. Marty 8 Apr

11 of 29

OG R. Moss

SEGMENT ST 28

SUBDIVISION A

DATE 8 April 90

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Body
- ☐ Oil Out
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HML/LVL
- ☐ SSL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ Pz Location(s)
- ☐ Photo Location(s)

LEGEND

1 Δ

Pl - No Subsurface Oil

2 Δ

Pl - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

Splashed Distribution

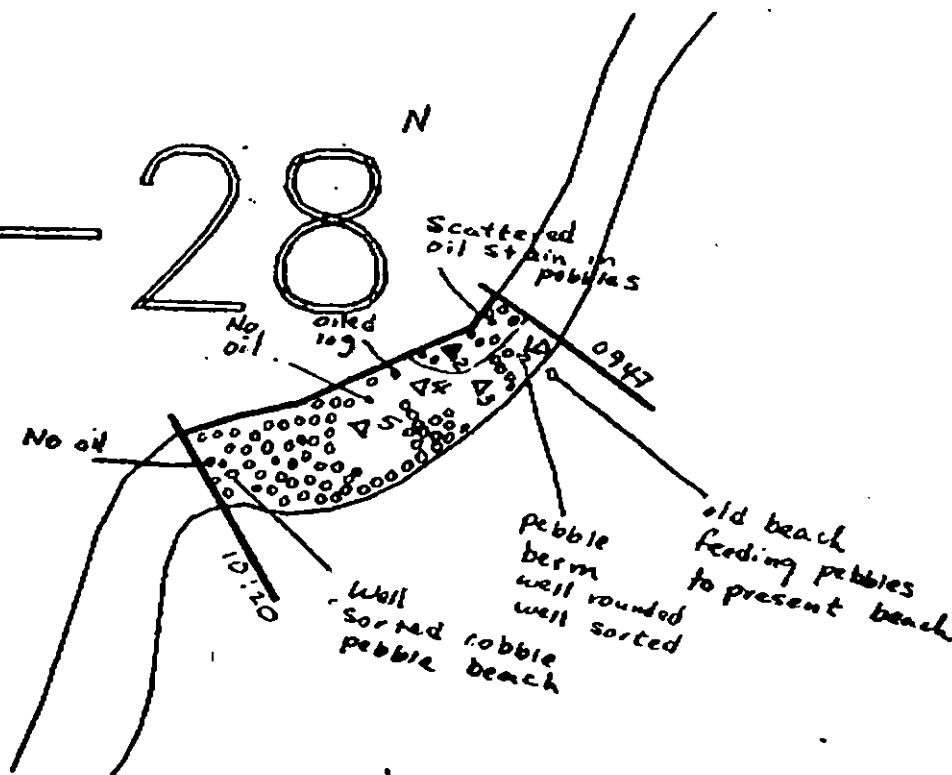
Oiled Vegetation

1 $\Rightarrow$

Photo location, direction,
and number

SKETCH MAP

ER-28



0 100 200 300
METERS

Oil Character Length (m): AP 101 PO 203 CV 101 CT 101 MS 101 PT 101 TR 101 FL 101 NO 203

REVISION 03/04/90

HR-05-1550 15:05 FROM BRISOS SCHURSE

10

DRN WULFORD

P. 12

SHORELINE ECOLOGICAL SUMMARY

REVISION 12/22/88

Segment ST/10/ER28 Subdivision A Date (mo/day/yr) 4/8/90Time (24 hr) 0940 - 1030 Biologist Leman clear, calm(A) Substrate type and % of segments:
(1) Bedrock 1 (2) Boulder 1 (3) Cobble 59 (4) Pebble 30 (5) Sand 10 (6) Silt 1(B) Overall % cover of biota (% of segment): Dense 1 Moderate 1 Low 52(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/10/11
Frames 12 - 18

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

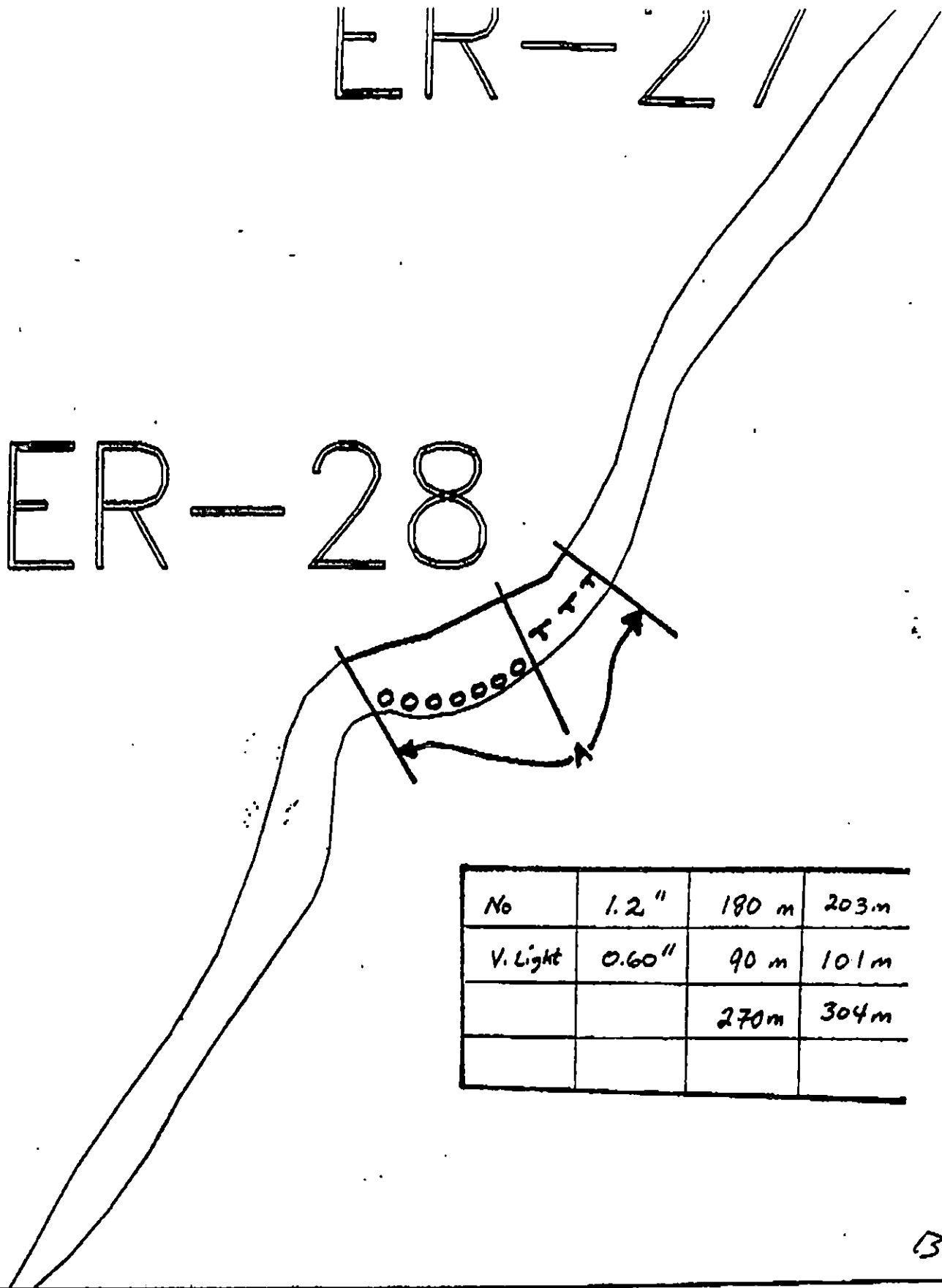
Wildlife Observations/ General Comments: Low zone had filamentous greens on cobble tops. Impacts and insects in drift line. Deer tracks all scat, bear scat common. Harbor seal. Not much biota on this beach!

Ecological Considerations: Flat uplands ^{would} make good tenting sites. Deer harvest site.

15/2/24

ER-21

ER-28



13 of 24

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

ER-28

ADEC Segment Length: 268m



Map Key: PWS-165

Name: Richard Marty

Date: 8 April 1990

Data Entered:

SHORELINE EVALUATION

SEGMENT ST/ ER-29 SUBDIVISION A (1 OF 1) DATE 4/8/90

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 uncoiled biota and substrate.

ARCHAEOLOGICAL CONSTRAINTS:

If treatment is planned, a cultural resource evaluation is required prior to shoreline treatment.

SHPO SIGNATURE: [Signature] DATE: 4/20/90

OILING CATEGORIZATION:

Wide_0_m: Medium_0_m: Narrow_0_m: V.Light_746_m: No Oil_1433_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: ☐ Breakup	☐ Beach Cleaner
☐ Removal	☐ Other (see comments)

COMMENTS: _____

TAG COMMENTS:_____

TAG APPROVAL DATE: 4/20/20.

ADEC ART WEINER Art Weiner

EXXON AND TGA Beach

NOAA Burl Wescott Burl Wescott

USCG KENNETH KEANE *Kenneth Keane*

FOSC: DATE: 4-26-90

OG R. Ma

SEGMENT ST/ ER-29

SUBDIVISION A

DATE 7 April 90

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Bdry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HML/LWL
- ☐ 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

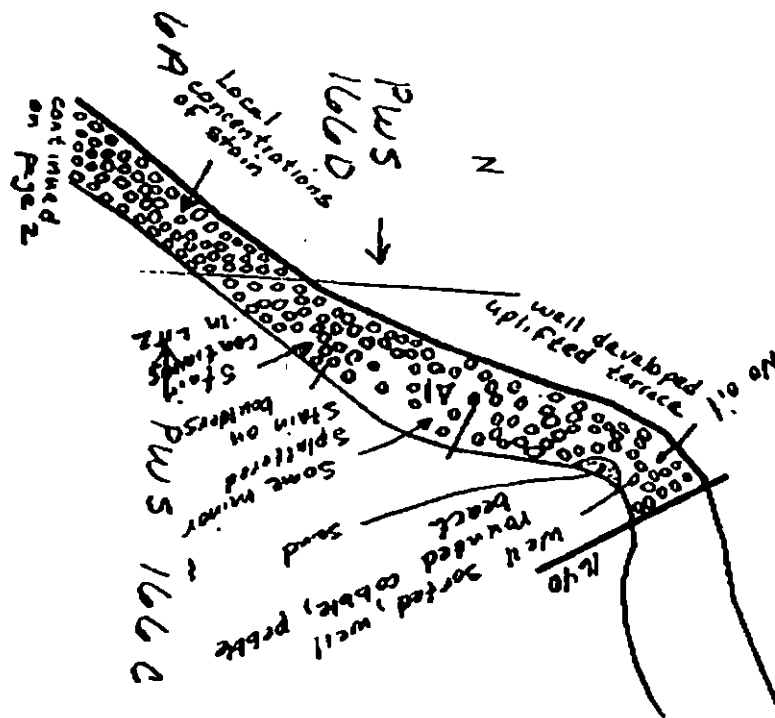
Splashed Distribution

Oiled Vegetation

1 $\rightarrow$

Photo location, direction,
and number

100
200
300
METERS



180627

Oil Character Length (m): AP 180627 PO 180627 CV 180627 CT 180627 ST 806 MS 180627 PT 180627 TB 180627 FL 180627 NO 1336

REVISION: 21/04/90

OG R. Alameda
SEGMENT S. R. 29
SUBDIVISION A
DATE 8 April 5

CHECKLIST

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

LEGEND

1 Δ

Pit - No Subsurface Oil

2 Δ

Pit - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

Splashed Distribution

Oiled Vegetation

1 →

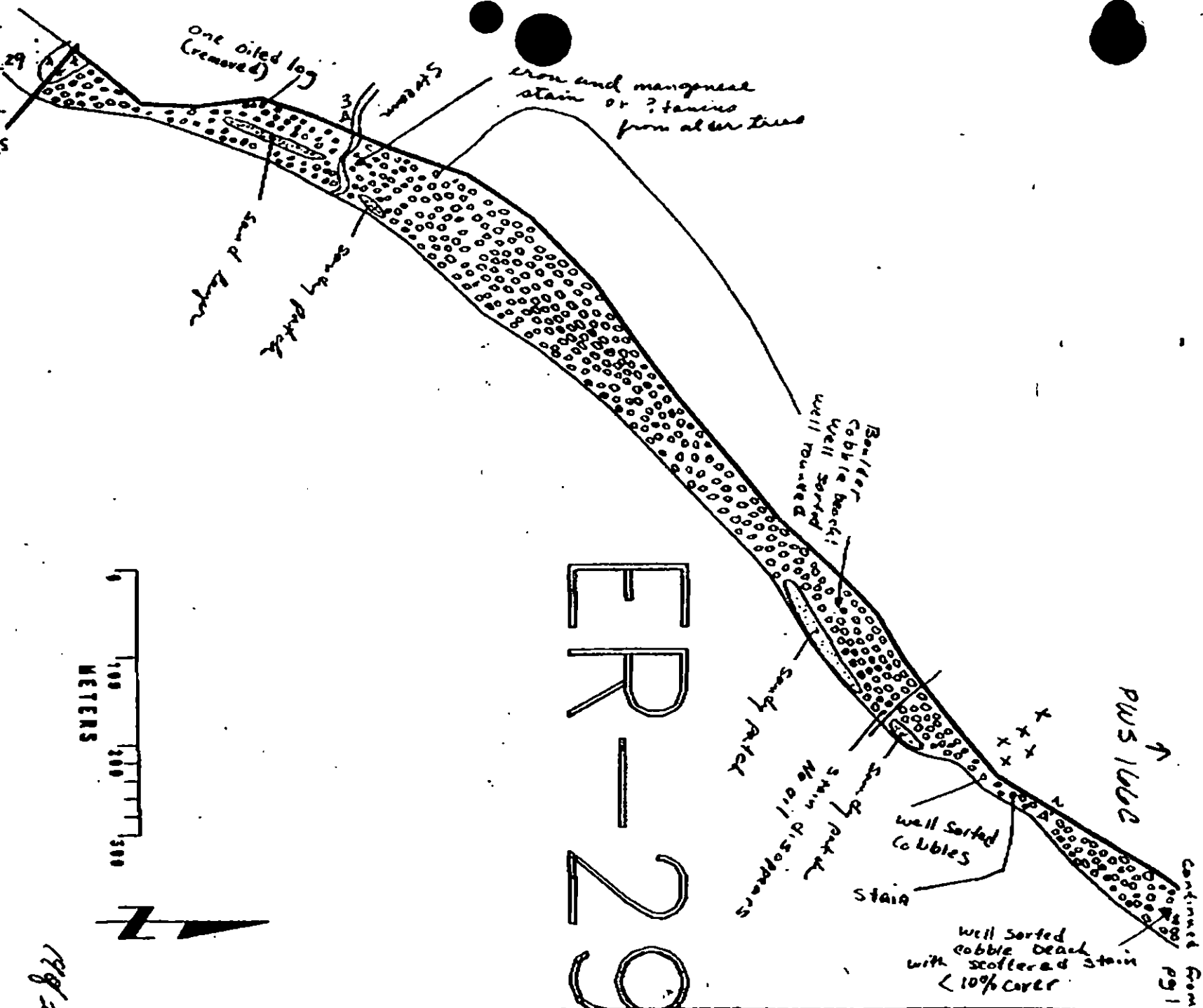
Photo location, direction, and number

METERS
0
100
200
300



179 of 20

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



PWS 166C

ER-29

V. Light	5.25	788m	806m
No.	8.7	1305m	1336m
		2093m	2142m

20/24

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

ER-29

ADEC Segment Length: 2178m



METERS

Map Key: PWS-166a

Name: Richard MartyDate: 8 April 1990

Data Entered:

ER-

PWS →
1660

↓ PWS 166A

~~200 ft~~

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

ER-29

ADEC Segment Length: 2179m



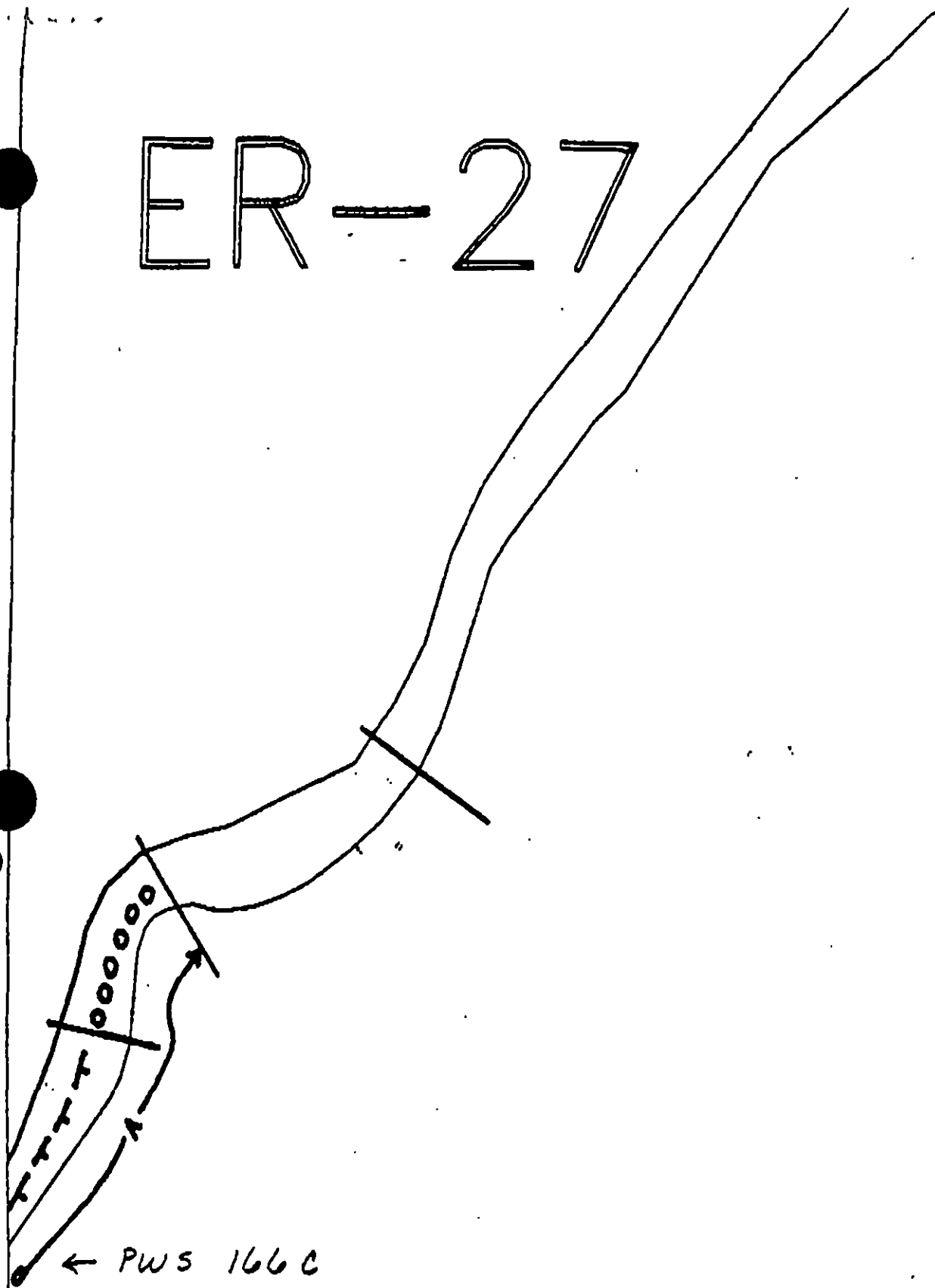
Map Key: PWS-166c

Name: Richard Marty

Date: 8 April 1990

Date Entered:

ER-27



220/24

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

ER-29

ADEC Segment Length: 2179m



METERS

Map Key: PWS-166d

Name: Richard Marty

Date: 8 April 1990

Date Entered:

SEGMENT ST/ ER-28 SUBDIVISION A (1 OF 1) DATE 4/8/90

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.

ARCHAEOLOGICAL CONSTRAINTS:

If treatment is planned, a cultural resource evaluation is required prior to shoreline treatment.

SHPO SIGNATURE: Mark S. Hansen DATE: 4/20/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 78 m: No Oil 190 m
Subsurface Oil Observed: Yes X No Maximum Depth 20 cm

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:

TAG COMMENTS:_____

TAG APPROVAL DATE: 7/20/70

ADEC ART WELNER, Art Welner

EXXON *ARMY TGAAL Beck*

NOAA Buoy Wescott Buoy Wescott

USCG *KENNETH KEANE Lowell Keane*

FOSC: DATE: 4-26-80

OG R. Mac
 SEGMENT ST-28
 SUBDIVISION A
 DATE 8 April 90

SEARCH MAP

CHECKLIST

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

LEGEND

1 Δ

Pit - No Subsurface Oil

2 Δ

Pit - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

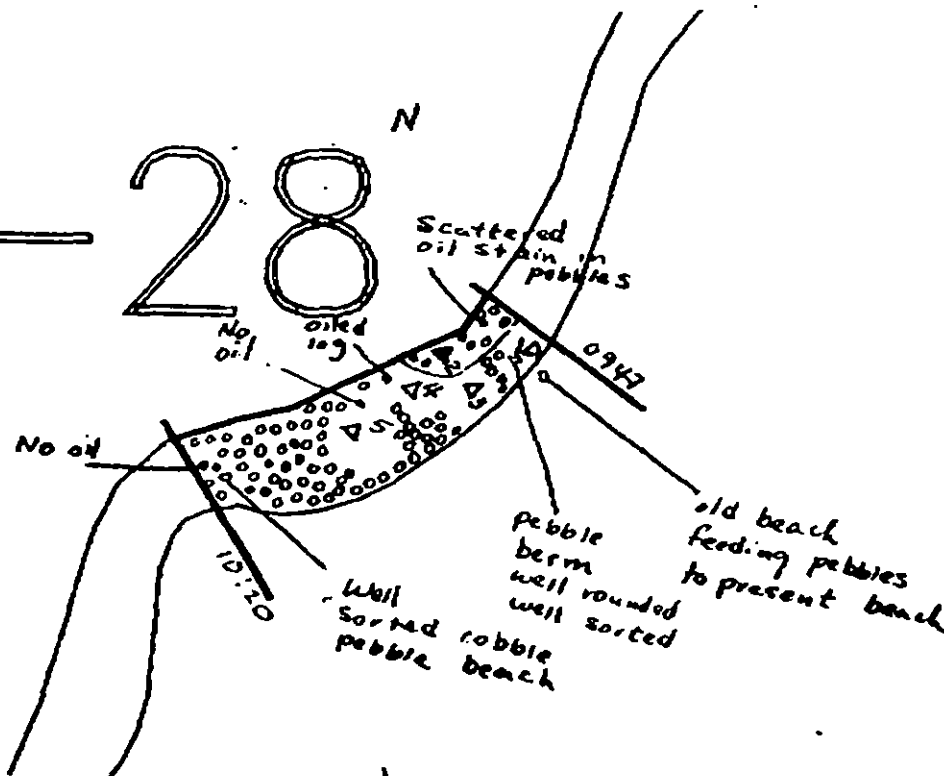
Splashed Distribution

Oil Vegetation

1 →

Photo location, direction, and number

ER-28



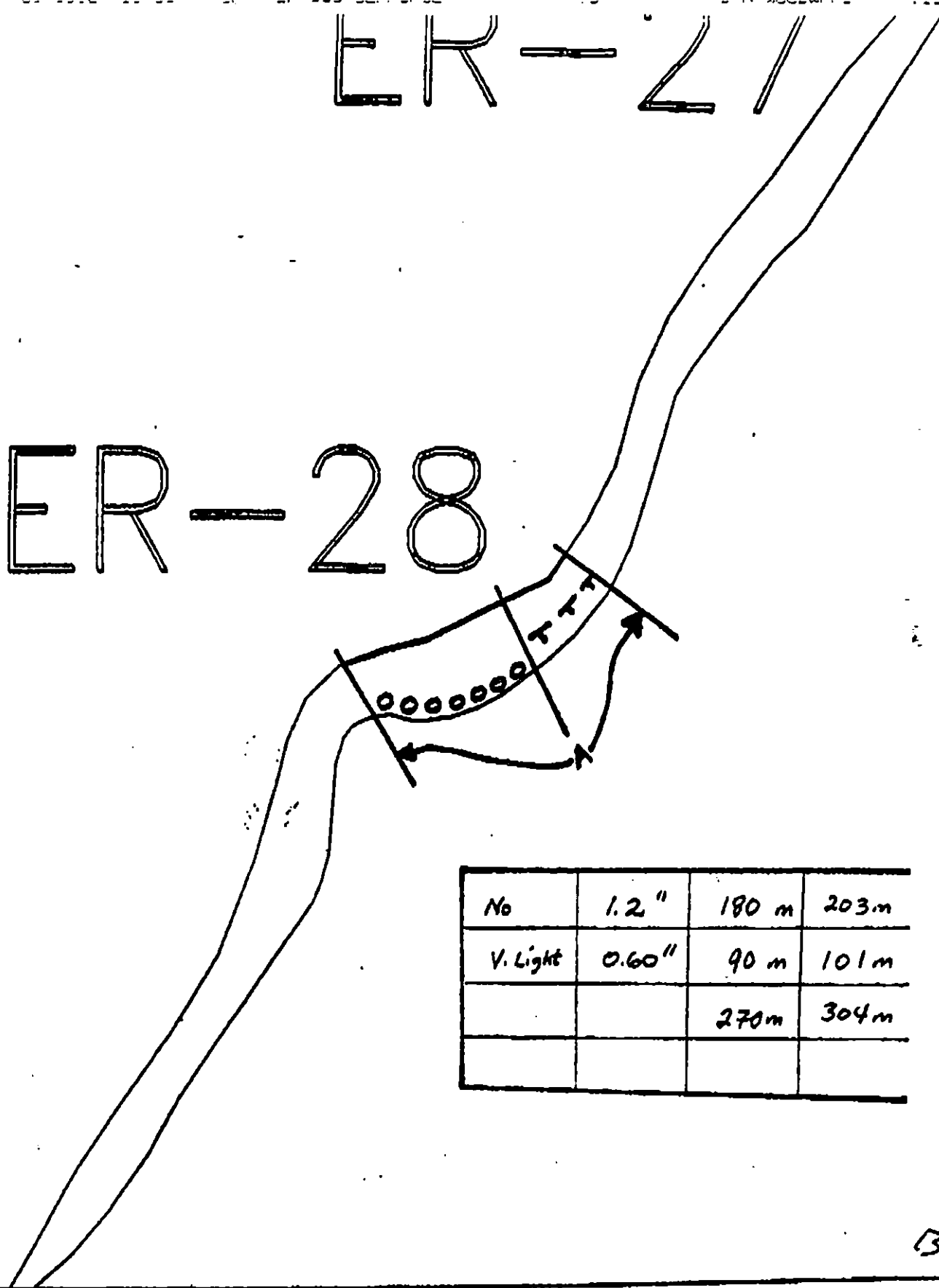
0 100 200 300
 METERS

Oil Character Length (m): AP _____ PO _____ CV _____ CT _____ ST 101 MS _____ PT _____ TB _____ FL _____ NO 203

REVISION: 02/24/90

ER-21

ER-28



No	1.2"	180 m	203m
V. Light	0.60"	90 m	101m
		270m	304m

13 of 24

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

ER-28

ADEC Segment Length: 268m



Map Key: PWS-165

Name: Richard Marty

Date: 8 April 1990

Data Entered:

1991 MAYSAP EVALUATION

SEGMENT: ER 028 SUB: A REGION: PWS SURVEY DATE: 5/17/91

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) OPEN

Ecological/Constraints (see page two for details) Fish harvest area

ARCHAEOLOGICAL CONSTRAINTS:

If treatment is planned, a cultural resource evaluation is required prior to shoreline treatment.

SHPO Signature: _____ Date: _____

RECOMMENDATIONS:

INITIAL

TAG

FOSC

TREATMENT REQUIRED (Y or N)

N

Manual Pickup (Check as Req.)

Spot Washing

Bio-Customblen Only

Bio-Inipol/Customblen

Other

Other

COMMENTS:

INITIAL: _____

TAG: _____

FOSC: _____

TAG APPROVAL DATE: _____

FOSC APPROVAL DATE: _____

ADEC _____

FOSC _____

EXXON _____

USCG _____

NOAA _____

ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES

Fish Harvest Area: Unlimited treatment unless otherwise directed by ADF&G. Sheen containment/recovery procedures required for mechanical treatment.

MAYSAP FIELD SHORELINE COMMENT SHEET

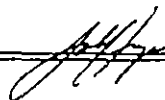
TEAM NO. 5 SEGMENT ER-2B SUBDIVISION A DATE 5/17/91

ADEC

NAME

John Hayes

SIGNATURE

☒ NTR

No recoverable oil observed on this segment.

EXXON

NAME

John Deen

SIGNATURE

☒ NTR

LANDMANAGER

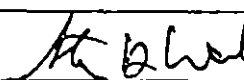
NAME

Steve Witten

OF

CVC-FS

SIGNATURE

☒ NTR

Lite Cover and stain on Kew Rocks.
No Sub Located -

USCG/NOAA

NAME

DREHER/CLINE

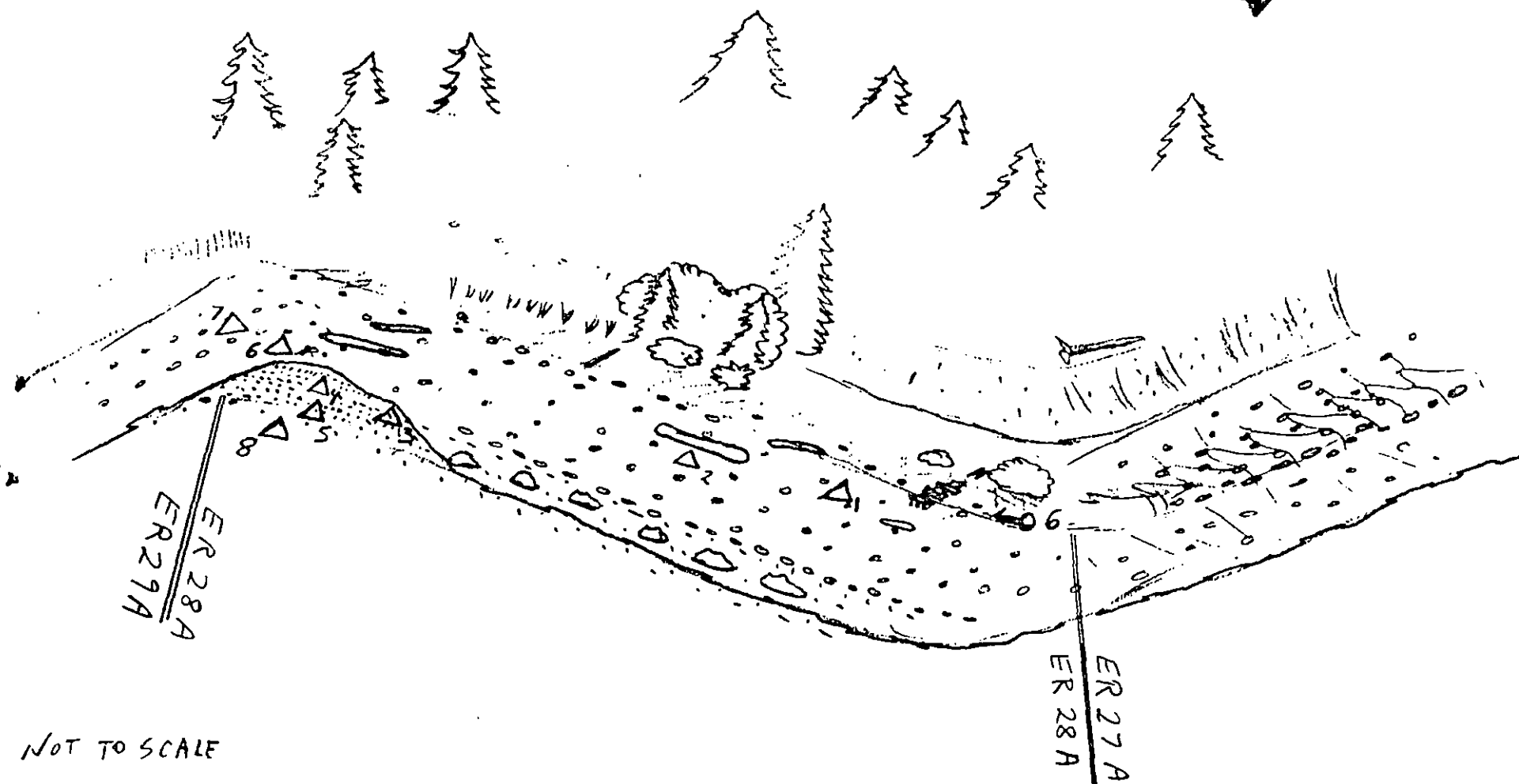
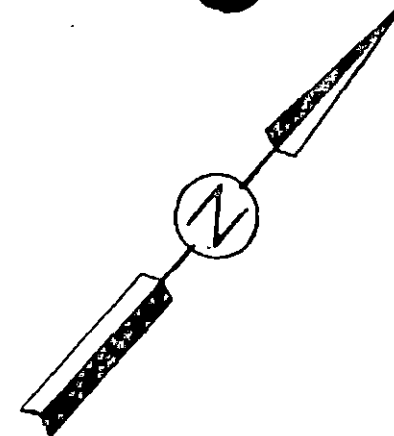
SIGNATURE

☒ NTR No oil observed! KLD

Agreed. Dwe

Reviewed 5.20 94

MAY 1991
OG SKETCH MAP
GREG CHANEY
TEAM 5
SEGMENT: ER 28 A
DATE: MAY 17 1991
AIR P.H: NONE AVAILABLE



NOT TO SCALE

MAYSAP BIOLOGICAL SUMMARY FORM

pg 1 of 1

TEAM # 5

DATE 17 MAY 1991

SEGMENT # ER-28

TIDAL HEIGHT(Range) +3 → +0.5

SUBDIVISION A

BIOLOGIST Crank

SEA STATE 1' swells

WIND SPEED/DIRECTION NO Wind

PHOTOGRAPHS: ROLL #

FRAME #

COMMENTS/OBSERVATIONS (to be completed in oiled subdivisions only):

No oil observed; no intertidal observations made.

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles			
Seabirds	1	1	
Waterfowl			
Gulls/Kittiwakes	3	30	
Shorebirds	1	3	
Corvids			
Other Birds			

MARINE MAMMALS

OBSERVED

LAND MAMMALS

SPECIES

OBSERVED

Sea Otters			
Pinnipeds(specify)	2 Seals		
Es(specify)			

Shoreline subdivision map showing important biological features attached.

R-28

A

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

ER028 A

ADEC Subsegment Length: 268m
METERS

0 100 200
AK State Plane Zone 4
per 628a



Subdivision Field Map

Map Key: PWSE028A

Name: CHAIVEY

Date: 5-17-91

Date Entered:

reviewed 5.20.98

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/ER-29

SUBDIVISIONS: A (1 OF 1)

SHORELINE EVALUATION

SEGMENT ST/ ER-29 SUBDIVISION A (1 OF 1) DATE 4/8/90

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.

ARCHAEOLOGICAL CONSTRAINTS:

If treatment is planned, a cultural resource evaluation is required prior to shoreline treatment.

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 746 m: No Oil 1433 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: _____ Breakup	_____ Beach Cleaner
_____ Removal	_____ Other (see comments)

COMMENTS: _____

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____

EXXON _____

NOAA _____

USCG _____

FOSC: _____ DATE: _____

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 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.

SEGMENT ST/ ER-29 SUBDIVISION: A DATE 4/8/90

USCG

NAME LARRY FLECHER SIGNATURE Larry R Fletcher

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

ADEC

NAME DAVID M. SAGE SIGNATURE David M Sage

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

LAND MANAGER

NAME Leigh Carlson SIGNATURE Leigh Carlson ADNR

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

segment area used for subsistence deer harvesting.

17 of 24

SHORELINE OILING SUMMARY

REVISION NO. 03/22/90

OG Richard Marty USCG Larry Fletcher SEGMENT ST/ ER-29
 BIO Bob Lemen LAND REP Leigh Carlson SUBDIVISION A
 EXXON Jon Czorneki ADEC Dave Sale TIME 16:40 to 18:45
 TEAM NO.: 10 TIDE LEVEL: 1.85m (6') to 1.17m (38') DATE 8 / April / 90
 ST. SUBDIVISION LENGTH: 2142 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 LANDS DESCRIPTION: ☐ Grass ☒ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boal ☐ Halo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 10 % B 10 % C 80 % P 10 % G 10 % S 10 % M 10 % V 10 %
 SLOPE: Lang 100 % Hang 100 % Vert 100 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 100 m M 100 m N 100 m VL 806 m NO 1336 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR						IMPACTED ZONES			
	TC	TR	PR	NR	BR	OR	GR	BL	TL	LR	SU	UI	MI	U
ASPHALT PAVEMENT														
POOLED														
COVER														
COAT														
STAIN				X						X				X
MOUSSE														
PATTIES														
TARBALLS														
FILM														
OIL														

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

OILED DEBRIS	AMOUNT	
	SM	MB/LG
Logs		
Vegetation		
Trash		
Debris		

DEBRIS COLLECTED

☒ YES ☐ NOTYPE Log + Misc.#BAGS 1-2Photographs: DEBRIS COLLECTEDRoll No. ST 10/11Frames 19-26

SUBSURFACE OIL

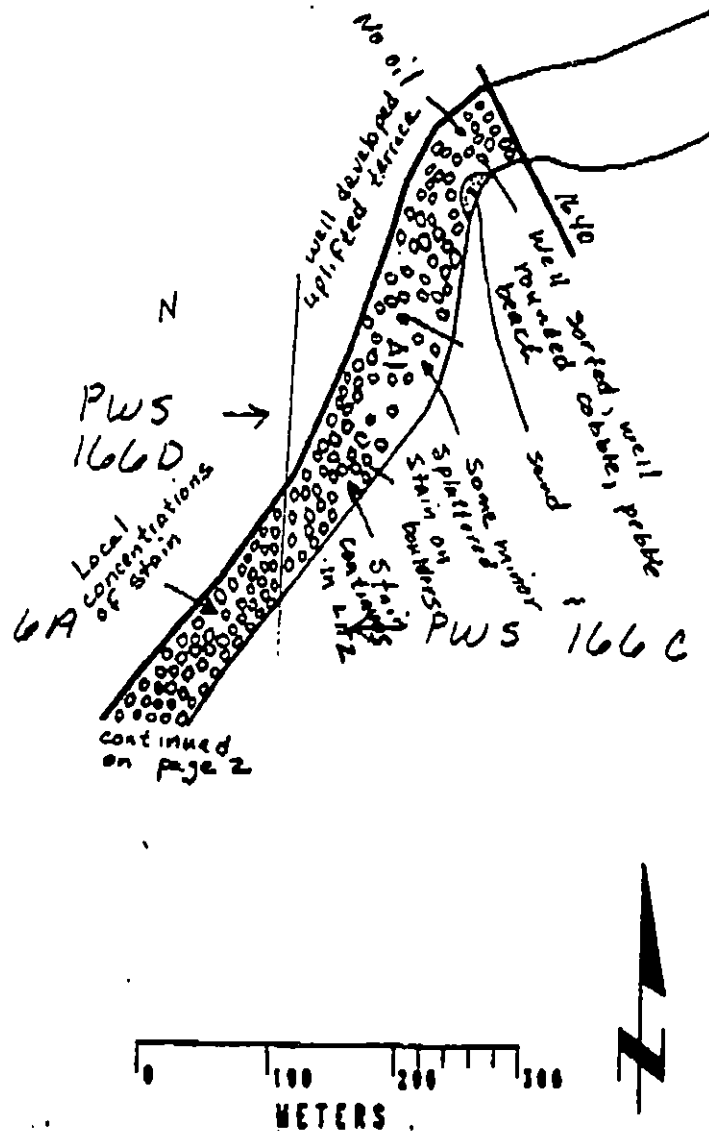
PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR						PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		VO	VC	BR	OR	GR	BL	TL	LR	SU	UI	MI	U		
1	26					X	.										X			N	P, G, S
2	30					X	.										X			N	B, C
3	12					X	.									X					M
							.														
							.														
							.														

COMMENTS There appear to be a number of staining mechanisms at work on this beach.

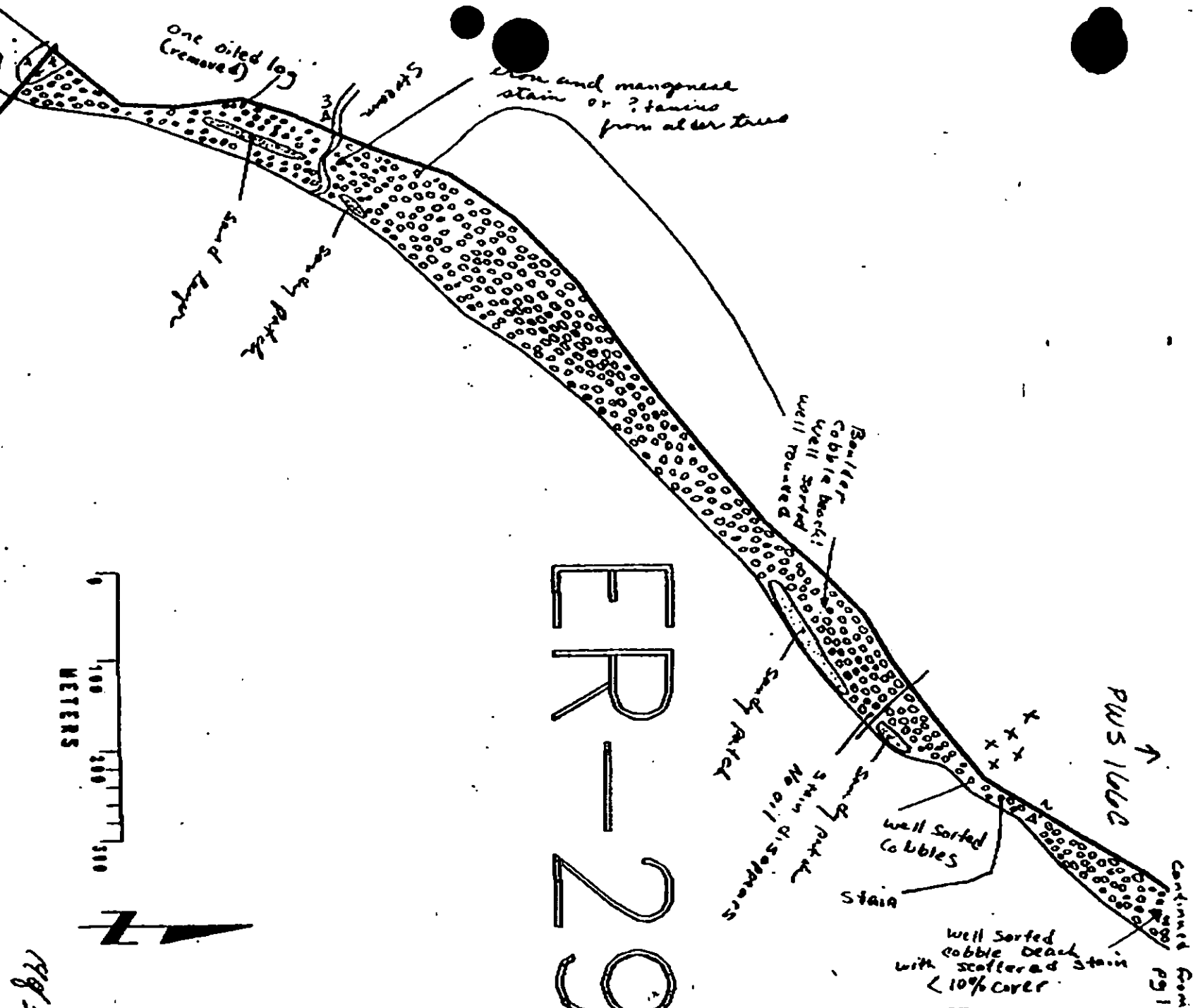
- 1) Oil staining
- 2) Iron/Mn staining
- 3) Tannin staining from alders etc.

It is quite difficult to differentiate between these, and some of the sediments mapped as 'oil stained' may actually be oil free.

16 of 28

OG R. No.
SEGMENT ST/ER-29
SUBDIVISION A
DATE 7 Apr. 1990
CHECKLIST
N Arrow
Approx. Scale
Seg/Sub Body
Oil Type
Width
Length
% Cover
Substrate Character
Est. HML/LWL
SS/L
Profile Location(s)
Profile(s)
PH Location(s)
Photo Location(s)
LEGEND
1 Δ
PH - No Subsurface Oil
2 Δ
PH - Subsurface Oil
CT/C
Continuous Distribution
CT/B
Broken Distribution
CT/P
Pachy Distribution
CT/S
Spotted Distribution
Oiled Vegetation
Photo location, direction, and number
Oil Character Length (m): AP

18062x



SHORELINE ECOLOGICAL SUMMARY

REVISION: 02/22/90

Segment ST/10/ER 29 Subdivision A Date (mo/day/yr) 4/8/90
 1600 - 1900
 Time (24 hr) _____ Biologist Lemon

- (A) Substrate type and % of segments:
 (1) Bedrock _____ (2) Boulder 10 (3) Cobble 80 (4) Pebble _____ (5) Sand 10 (6) Silt _____
- (B) Overall % cover of biota (% of segment): Dense _____ Moderate _____ 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. ST/10/11
 Frames 19-26

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

FUCUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	X	2	2	2	2	2	2
3	3	3	3	3	X	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: High zone includes insects, amphipods and isopods in drift line; the latter two in mid zone also. Filamentous greens on boulder tops about 30% cover in mid zone. Low zone includes Habesania, Rhodospira, Porphyra including P. sporelings, and other foliose and filamentous reds; and Ulva (Chlorophyta). Low zone animals included Gnathosphaerium (isopod) & Pisaster (ASTEROIDEA). 5 sea lions

Ecological Considerations: and an otter and 3 eagles were sighted. Deer tracks and scat, and bear scat were abundant along the snow line. Game trails crossed the snow to the beach. checked a substantial stream for oil, insects and fish; found none.

→ Deer Harvest area -

23 of 24

PWS 1660

ER-29

V. Light	5.25	788m	806m
No.	8.7	1305m	1336m
		2093m	2142m

20/24

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

ER-29

ADEC Segment Length: 2179m



Map Key: PWS-1660

Name: Richard Marty

Date: 8 April 1990

Date Entered:

ER

PWS →
1660

↓ PWS 166A

200 ft

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

ER-29

ADEC Segment Length: 2179m



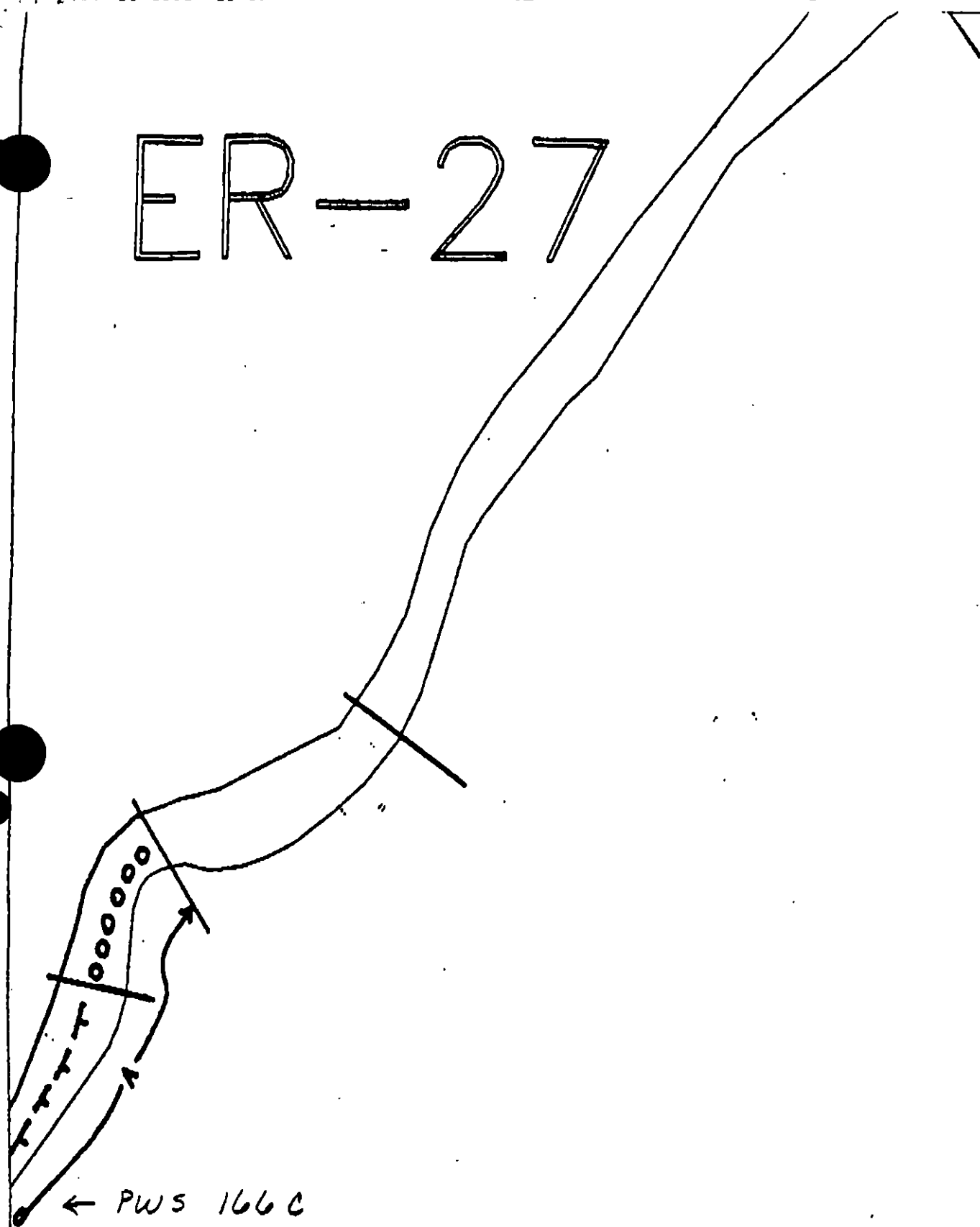
METERS

Map Key: PWS-156c

Name: Richard MartyDate: 8 April 1990

Data Entered:

ER-27



220/24

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

ER-29

ADEC Segment Length: 2179m



Map Key: PWS-166d
Name: Richard Marty
Date: 8 April 1990
Data Entered:

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/EV-01

SUBDIVISIONS: A (1 OF 1)

SHORELINE EVALUATION

SEGMENT ST/ EV-01 SUBDIVISION A (1 OF 1) DATE 4/24/90

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)
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.

ARCHAEOLOGICAL CONSTRAINTS:

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact a member of Exxon's Cultural Resource Program immediately (564-3657; 564-3658 or 564-3276).

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 17 m: V.Light 13 m: No Oil 28 m
Subsurface Oil Observed: Yes X No _____ Maximum Depth 15 cm

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes 1) manual pickup of tarballs.
2) bioremediation of area indicated on sketch map. Work should be
conducted after 6/1 with approval of USFWS due to eagle nest con-
straint.

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

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 Morrison 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)
 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 267-2206
- ✓ 5T All Bald Eagle nests (3/1 to 6/1)
 Active Bald Eagle nests (3/1 to 9/1)
 Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 6U Recreation: Tent sites (5/1 to 9/15)
 6V Anchorages (5/1 to 9/15)
 6W Forest Service cabins (5/1 to 9/15)
 6X Lodge (5/1 to 9/15)
 ✓ 6Y Special use destination
- 7Z Subsistence area: Salmon harvesting (5/1 to 9/30)
 7H-H 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 267-2350

FIELD SHORELINE COMMENT SHEET

SEGMENT ST EVO1 SUBDIVISION: A DATE April 25-1990

ECG NAME SHAWN MAAS SIGNATURE Shawn Maas DC

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

RECOMMEND MANUAL REMOVAL OF ASPHALT/PAVEMENT AND BIOREMEDIATION OF SUBSURFACE OILS. AREA COVERED ON ROCKET BEACH SMALL. COVER ON VERTICAL ROCK FACE BROKEN, WITH NEW POPULATION OF BIRCH GROWING IN OILED BAND AS INDICATED BY BIO REPORT.

ADEC NAME Dave Sale SIGNATURE Dave Sale

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

Part of the oil ~~off~~ ^{oil} FOUND WAS RETRIEVED BY SSMT TEAM DURING SURVEY BUT SOME REMAINS ON THE "OUTER" SIDE OF THE ISLAND (PIPING NNN).

- ① TAR MAT, ASPHALT, TAR BRUIE SHOULD BE MANUALLY REMOVED
- ② SATURATED SUBSURFACE SEDIMENTS ON WEST (OUTER) SIDE OF ISLAND SHOULD BE REMOVED

LAND MANAGER

NAME Dan Kompoff Jr SIGNATURE Dan Kompoff Jr

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

SHORELINE OILING SUMMARY

REVISION NO. 04-12-90

OG R. Marty USCG S. Maas SEGMENT ST/ EV-01
 BIO B. Lemon LAND REP D. Kempf SUBDIVISION A (A OF A)
 EXXON J. Czarnecki ADEC D. Sale TIME 17:45 to 17:43
 TAM NO. 10 TIDE LEVEL +1.08m → +1.09m DATE 24 April 90
 ST. SUBDIVISION LENGTH: 366 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 05 % B 10 % C 5 % P 0 % G 0 % S 2 % M 0 % V 0 %
 SLOPE: Long 20 % Hang 50 % Vert 30 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 111 m VL 10 m NO 239 m

SURFACE OIL

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

PAVEMENT H F S None sq. m by 0 cmPATTIES / TARBALLS 2 BAGSNEAR SHORE SHEEN? ☒ NO BR RW SL TL

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

* minor oiled grass
Photographs:Roll No. ST/0/14Frames 25-30

* Minor volumes, primarily in subsurface, it was largely removed during survey.

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW		OIL / FILM COLOR				PIT ZONE				A N A	SHEEN (Y/N)	↓	SURFACE-SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		VO	UC	1	2	3	4	SU	U	M	L				
1	30					X									X			N	N	24	PG-GSM
2	70					X									X			N	-	N	PG-GS
3	40					X									X			N	-	N	PG-SG
4	15	X					0.15	-	?	X				X				Y	Y	5	PG-GS-R
5	13	X					0.12	-	X				X	X				N	-	N	BLP-GS

COMMENTS No oil remains on the tombolo, except for a 1cm band of tarry coat in places on the rock. Moving around the 'island' clock wise oiling continued as a tarry coat in protected locals. Two small pocket beaches on the west side had tarry surface and subsurface oil in the Supratidal (moss/grass) zone. This oil is volumetrically small and was largely removed during the survey.

REVIEWED JW DATE 4/27/90

OG Rmerty

SEGMENT SV/ENV

SUBDIVISION A

DATE 24 April

CHECKLIST

✓ Name
✓ Approx. State
✓ Substrate Type
✓ Oil Type
✓ Length
✓ % Cover
✓ Substrate Character
✓ E. 1/4, 1/4, 1/4, 1/4
✓ S.S.
✓ Profile Location(s)
✓ Profile(s)
✓ RI Location(s)
✓ Photo Location(s)

LEGEND

1 A

RI - No Substrate Oil

2 A

RI - Substrate Oil

CI/C

Continuous Unbroken

CI/B

Broken Unbroken

CI/P

Patchy Unbroken

CI/S

Spattered Distribution

222

Other Vegetation

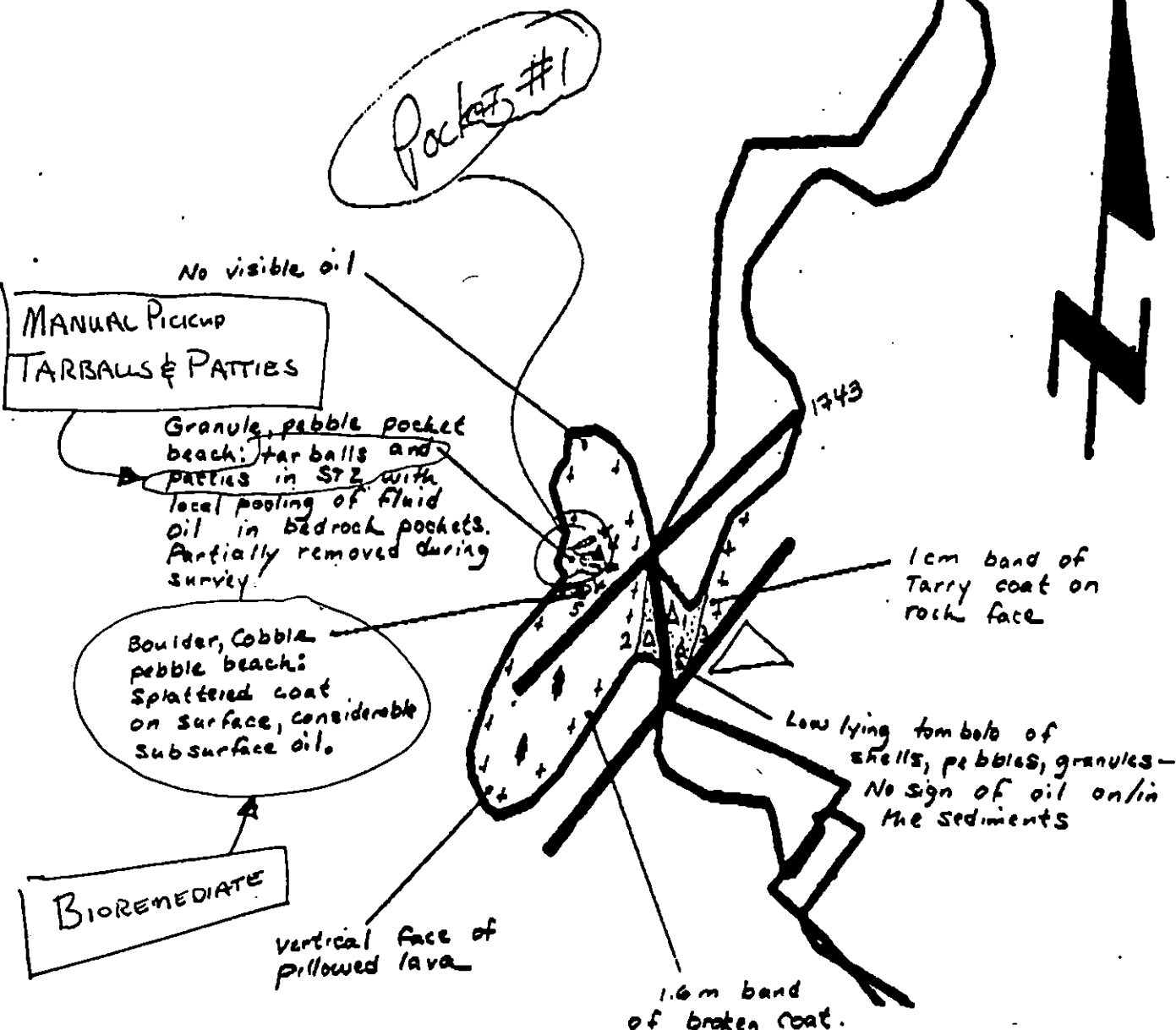
1

Photo location, direction,
and number

EV-1



SKETCH MAP



50/21

OS Character: AP - PO - CV - CIII - ST - US - TB - FL - NO 259

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST / EV-01 Subdivision A Date (mo / day / yr) 4 / 24 / 90
 (24 hr) 700 - 1743 Biologist Lemon

- (A) Substrate type and % of segments:
 (1) Bedrock 85 (2) Boulder 10 (3) Cobble 5 (4) Pebble 0 (5) Sand 0 (6) Silt 0
- (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/10/14

Frames 25 - 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: Fucus reproductive. There was a fresh barnacle s.e.t (1mm) and some larger overall the tide heights and the segment; some of these were setting on a weathered oil band reduced to a stain. There was also some mytilus activity now at the 3 mm (approx size).

Ecological Considerations:

Eagle nest not confirmed on 24 Apr 90; Deer harvest area.

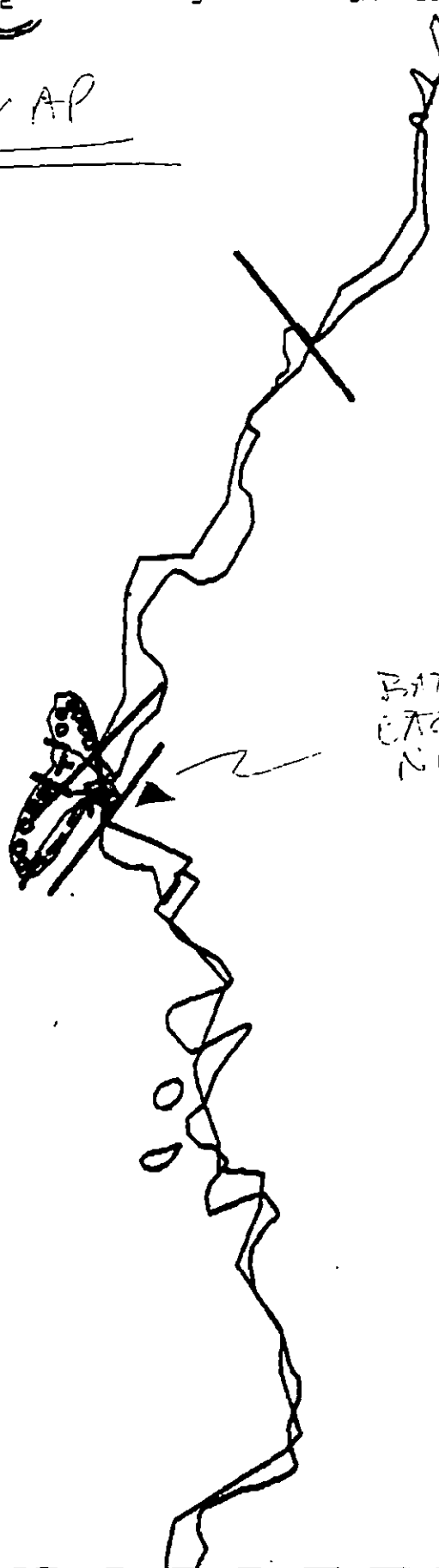
6/21

ECOLOGICAL MAP

ST(1)
64
7II

V-02

No	1.5	225	239
VL	0.1	15	16
L	0.9	105	111
		345	366



BIRD
NEST!

9/21

XXXX Wide

EV-1

Map Key: PWS-176

Name: R. Marty

Date: 24 April 1990

Data Entered:

/// Medium

--- Narrow

ADEC Segment Length: 58m

TTTT Very Light

0000 No Oil



OG R. Marty

SKETCH

SEGMENT ST/EV-1

SUBDIVISION A

DATE 20 April

CHECKLIST

- ☐ N Area
- ☐ Approx. Scale
- ☐ Seg/Sub Study
- ☐ Oil Out
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Ext. HAZARD
- ☐ 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/D

Broken Distribution

CT/P

Patchy Distribution

CT/S

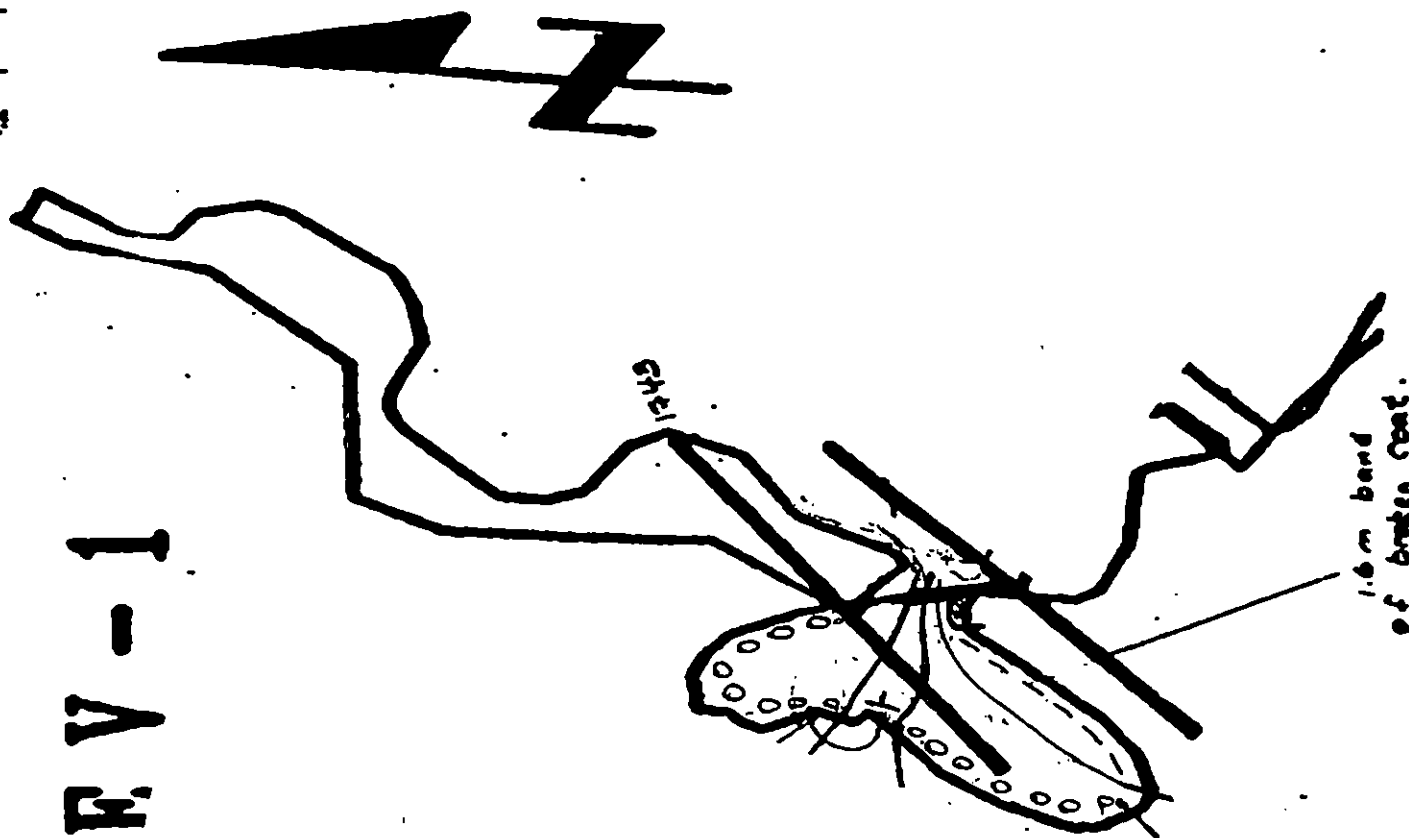
Splashed Distribution

lll

Other Vegetation

1 00

Photo location, direction,
and number

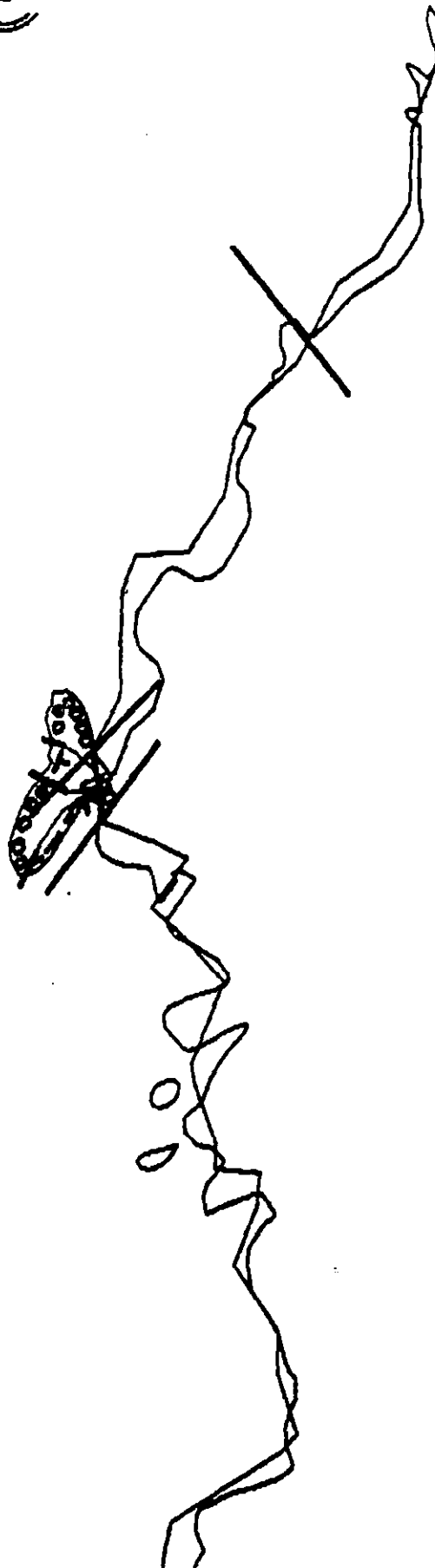


0 100 200 300
METERS

50/21
50313M

Oil Character AP PO CV CT ST MS PT TD FL NO 259

V-02



No	1.5	225	239
VL	0.1	15	16
L	0.9	105	111
		345	366

9 of 21

XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-1

ADEC Segment Length: 58m



Map Key: PWS-176

Name: R. Marty

Date: 24 April 1990

Data Entered:

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT EV-1 SUBDIVISION A (1 of 1)

WORK WINDOW	
Manual Pickup	CLOSED
Bioremediation Manual Raking	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; closed to manual raking and bioremediation after 7/20.
5T	Bald Eagle Nest	USFWS 6/1/90 map indicates an active nest in Subdivision B. Closed to manual pickup, manual raking, and bioremediation within 400m of active nest.
7II	Subsistence: Deer Harvesting	No constraint to manual pickup; closed to manual raking and bioremediation after 8/15.

OTHER ECOLOGICAL CONSIDERATIONS

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

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

FOSC

DATE

6-10-90

Prepared By: W. Keller

Date

6/6/90

EV-04

EV-03

No Beach, Boat
Aircraft ACCESS
USFWS Survey
5/26/90
(Lockhart)

EV-02

EV-01

ACTIVE
NEST

TREATMENT
AREA

EV-05

ACTIVE
NEST



Exxon Company, USA
Map Key: PWS-EV-1



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

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

SHORELINE EVALUATION

SEGMENT ST/ EV-01 SUBDIVISION A (1 OF 1) DATE 4/24/90

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)
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.

ARCHAEOLOGICAL CONSTRAINTS:

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact a member of Exxon's Cultural Resource Program immediately (564-3657; 564-3658 or 564-3276).

SHPO SIGNATURE: J. David McMan DATE: 5/9/90

OILING CATEGORIZATION:

0 m: Medium 0 m: Narrow 17 m: V.Light 13 m: No Oil 28 m
Subsurface Oil Observed: Yes X No Maximum Depth 15 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 tarballs,
2) bioremediation of area indicated on sketch map. Work should be
conducted after 6/1 with approval of USFWS due to eagle nest con-
straint. → See Addendum dated 6/6/90

TAG COMMENTS: MANUAL PICKUP IN AREA OF TP 4 PRIOR TO BIO

TAG APPROVAL DATE: 5/9/90

ADEC Art Wagon

EXXON Arvoten

NOAA Burt Wascott

USCG D.D. Rome

FOSC: DATE: 5-18-90

NOTIFY CVC 24 HRS IN ADVANCE
OF WORK

SHORELINE EVALUATION

SEGMENT ST/ EV-01 SUBDIVISION A (1 OF 1) DATE 4/24/90

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)
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.

ARCHAEOLOGICAL CONSTRAINTS:

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact a member of Exxon's Cultural Resource Program immediately (564-3657; 564-3658 or 564-3276).

SHPO SIGNATURE: J. David McMan DATE: 5/9/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 17 m: V.Light 13 m: No Oil 28 m
Subsurface Oil Observed: Yes X No Maximum Depth 15 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 tarballs,
2) bioremediation of area indicated on sketch map. Work should be
conducted after 6/1 with approval of USFWS due to eagle nest con-
straint.

TAG COMMENTS: MANUAL RAKE IN AREA OF TP 4 PRIOR TO BIO

TAG APPROVAL DATE: 5/9/90
ADEC Art Weiner
EXXON Andrew
NOAA Burt Wascott
USCG D.D. Rome

FOSC: ML DATE: 5-18-90

NOTIFY CVC 24 HRS IN ADVANCE
OF WORK

OG R. Merty

SEGMENT SV/E/L

SUBDIVISION A

DATE 24 April

CHECKLIST

☐ M. Area
☐ Approx. Scale
☐ Sed. Body
☐ On Out.
☐ Width
☐ Length
☐ % Cover
☐ Sediment Character
☐ Est. Hatched
☐ SSL
☐ Profile Location
☐ Profile
☐ Pit Location
☐ Photo Location

LEGEND

1 A

M - No Substrates Or

2 A

M - Substrates Or

CT/C

Continuous Distribution

CT/B

Bedrock Distribution

CT/P

Patchy Distribution

CT/S

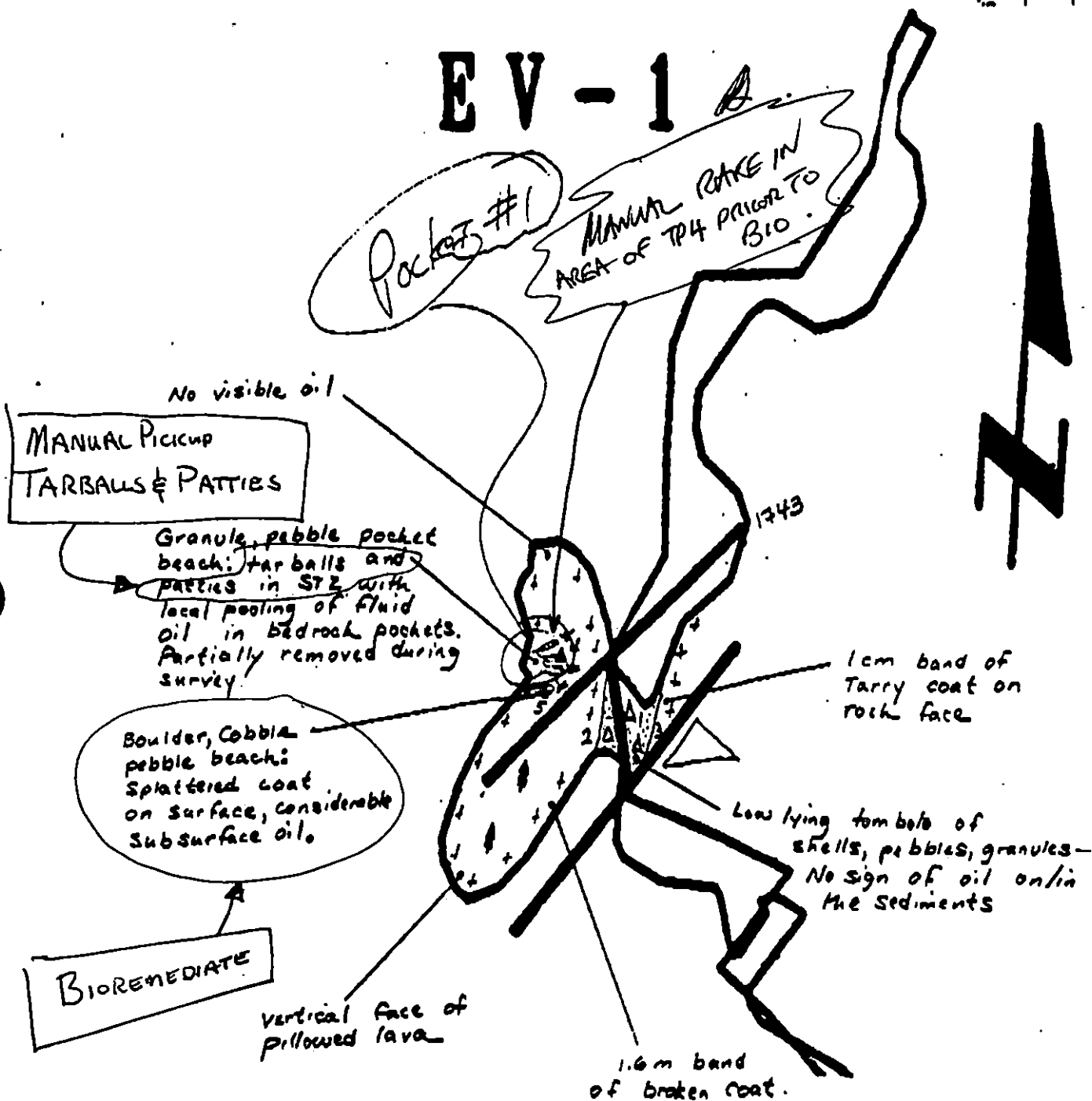
Spotted Distribution

CT/Q

Other Vegetation

Photo Location, direction,
and number

SKETCH MAP



50/21

CG Character L PO - CV - CT III ST - AS - TB - R - NO 259

ECOLOGICAL MAP

ST(1)
64
7II

V-02

BALD
EAGLE
NEST

No	1.5	229	239
VL	0.1	15	16
L	0.9	105	111
		345	366

9/21

XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-1

ADEC Segment Length: 58m



Map Key: PWS-176

Name: R. Marty

Date: 24 April 1990

Data Entered:

OG R. Marty

SKETCH

SEGMENT ST/ET

SUBDIVISION A

DATE 24 April

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Study
- ☐ Off Dist.
- ☐ Width
- ☐ Length
- ☐ E. Cover
- ☐ Substrate Character
- ☐ Ext. HAZARD
- ☐ SSR
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ PB Location(s)
- ☐ Photo Location(s)

LEGEND

1 Δ

PS - No Subsurface OB

2 Δ

PS - Subsurface OB

CV/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

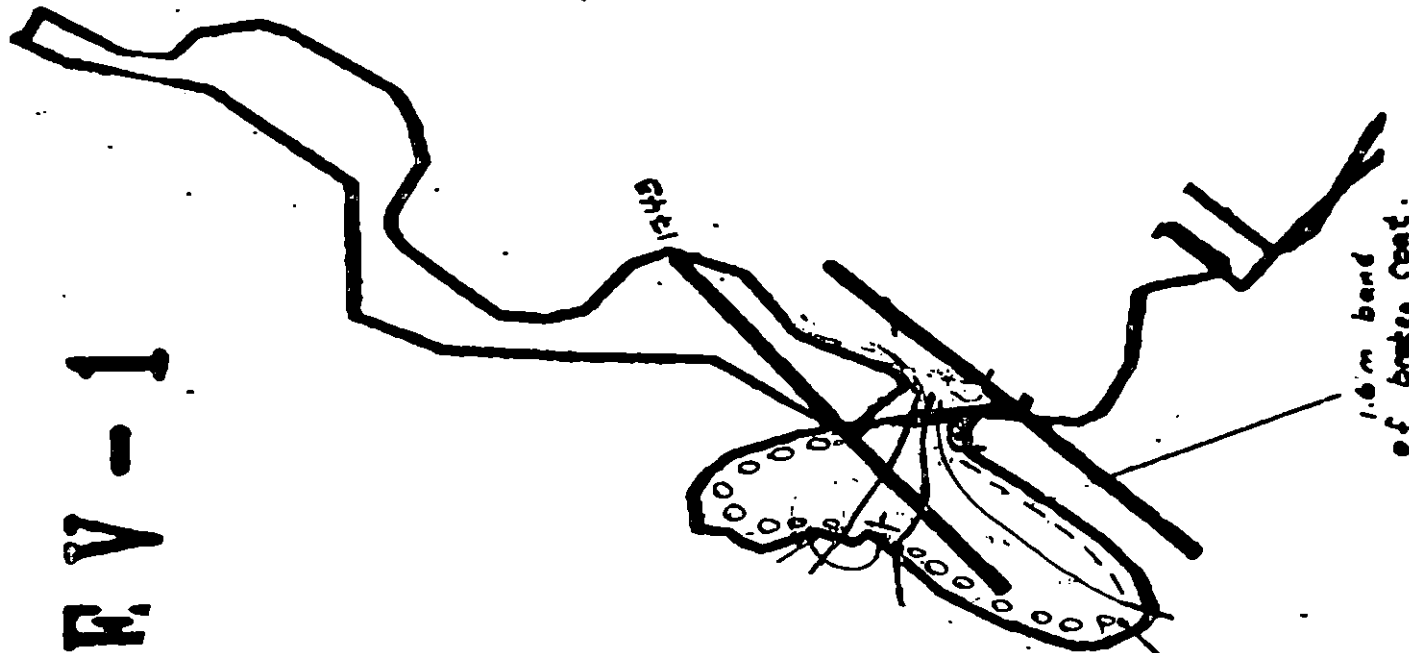
CT/S

Splashed Distribution

lll
Clad Vegetation

Photo location, direction,
and number

EV-1-A

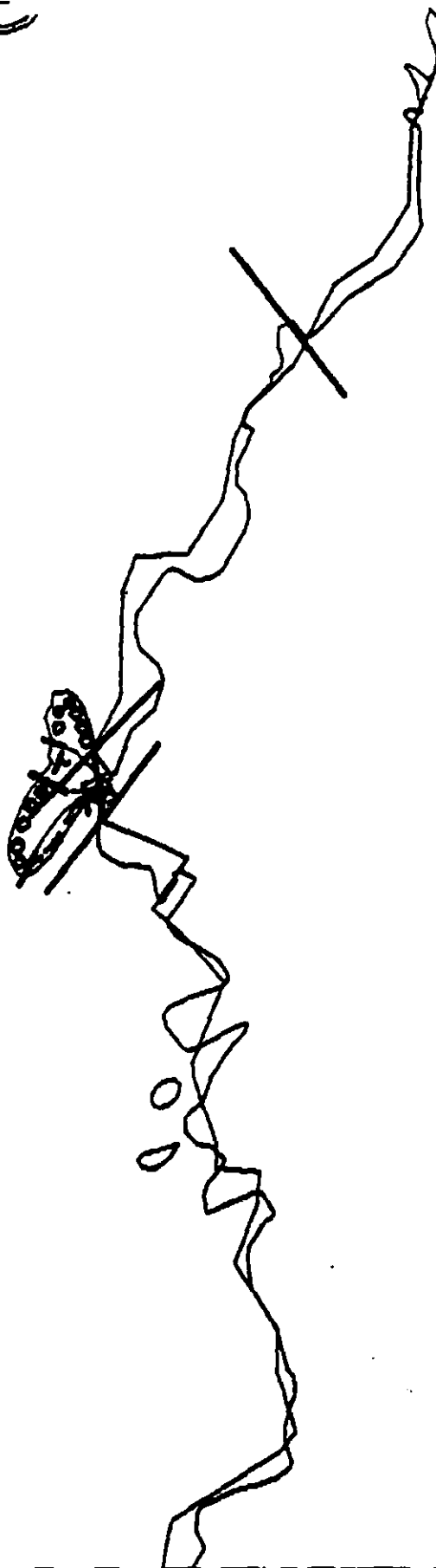


0 100 200 300
METERS

5/2/21

Character L: AP — PO — CV — CT III ST — MS — TB PD FL — NO 259

V-02



No	1.5	225	239
VL	0.1	15	16
L	0.8	105	111
		345	366

9 of 21

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

EV-1

ADEC Segment Length: 58m



Map Key: PWS-176

Name: R. Marty

Date: 24 April 1990

Data Entered:

1991 MAYSAP EVALUATION

SEGMENT: EV 001 SUB: A REGION: PWS SURVEY DATE: 4/27/91

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) RESTRICTED 3/1 - 9/15

Ecological/Constraints (see page two for details) Eagle nest,
Fish harvest area, Subsistence, deer harvesting

ARCHAEOLOGICAL CONSTRAINTS:

If treatment is planned, a cultural resource evaluation is
required prior to shoreline treatment.

SHPO Signature: Charles E. Adams Date: 5/8/91

RECOMMENDATIONS:	INITIAL	TAG	FOSC
TREATMENT REQUIRED (Y or N)	<u>N</u>	<u> </u>	<u>N</u>
Manual Pickup (Check as Req.)	<u> </u>	<u> </u>	<u> </u>
Spot Washing	<u> </u>	<u> </u>	<u> </u>
Bio-Customblen Only	<u> </u>	<u> </u>	<u> </u>
Bio-Inipol/Customblen	<u> </u>	<u> </u>	<u> </u>
Other	<u> </u>	<u> </u>	<u> </u>
Other	<u> </u>	<u> </u>	<u> </u>

COMMENTS:

INITIAL:

TAG:

FOSC:

TAG APPROVAL DATE: MAY 8 1991 FOSC APPROVAL DATE: 5/13/91

ADEC John Bauer FOSC E. E. Page

EXXON Beal E. E. PAGE, CDR, USCG

USCG Edna CHIEF OF STAFF, FOSC

NOAA John

**ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES**

Eagle Nest: Access restricted from 3/1 to 9/1. USF&WS authorization required. Maintain 1000' vertical and 1/4 mile horizontal buffer.

Fish Harvest Area: Unlimited treatment unless otherwise directed by ADF&G. Sheen containment/recovery procedures required for mechanical treatment.

Subsistence, Deer Harvesting: Unlimited treatment prior to 8/15.

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 5 SEGMENT FU-1-A SUBDIVISION A DATE 4/27/91

ADEC

NAME John Hayes SIGNATURE [Signature]

☐ NTR

Oiling observed on this segment consisted of APP debris boulders in USTZ the oiling was limited and Vero crew picked up a portion of what was accessible. Subsurface OR oiling in the USTZ was isolated where we dug pits. No treatment recommended at this time for oiling observed at this site in FU-01A.

EXXON

NAME Martinez N.J. SIGNATURE [Signature]

☒ NTR

Area looks good recovering nicely. Did not see enough or type of oil that would be recoverable with net environmental benefit.

LANDMANAGER

NAME Steve WARD OF CVC SIGNATURE [Signature]

☒ NTR

Not observed in Sub-Surface - No visible oil on Sub-division. No debris present. No clean-up warranted.
↓ Lite - cost - non-Recoverable.

USCG/NOAA

NAME Hodges/Dreher SIGNATURE [Signature]

☒ NTR

Lush thick fucus growth on most major out crops. mussel shells predominate around pit 2. Little to no oil observed.

PAGE 1 OF 1

DATE April 26, 191

ENERGY LEVEL: ☐ H ☐ M ☒ L

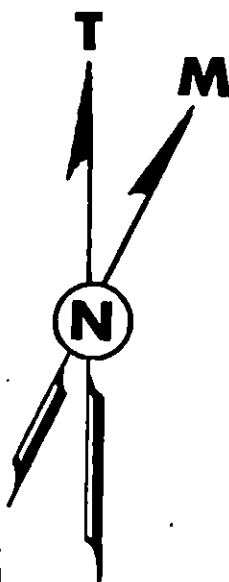
EST. OIL CATEGORY LENGTH: W _____ m M _____ m N _____ m VL 37 m NO 21 m US ? m LENGTH TO DEC SEG SHORT

SHEEN COLOR: B = BROWN; R = RAINBOW; S = SILVER; N = NONE

LOG COMMENTS:

REVIEWED: MC 5/1/91

30
MAY8AP 1991
OG SKETCH MAP
GREG CHANEY
TEAM 5
SEGMENT: EV-1-A
DATE: April 26 1991
AIR P.#: FM-C-005-235

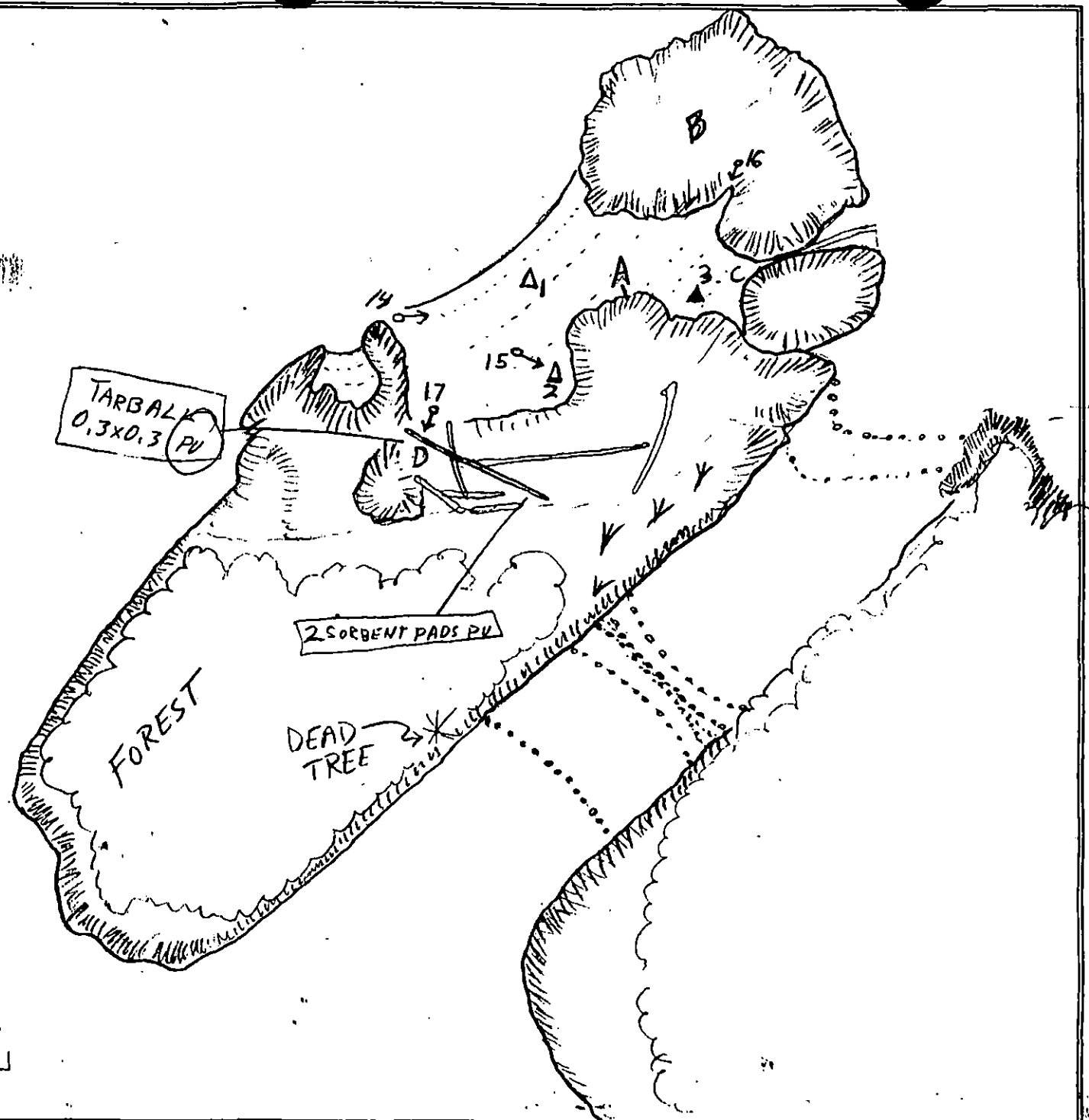


LEGEND

BEDROCK	
BOULDERS	
FINE BED.	
DRIFT LOG	
GRASS	
BRUSH	
FOREST	
OILED PIT	
NO OIL PIT	
PHOTO	

SCALE

APPROX 50 METERS



Reviewed: F.W. S/1/91
Reviewed: MC 5/1/91

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 5 DATE 26 Apr '91 pg 1 of 1
 SEGMENT # EV-1 TIDAL HEIGHT (Range) r+1.5 → +1
 SUBDIVISION A BIOLOGIST Crank
 SEA STATE <1' WIND SPEED/DIRECTION 0 → 5 mph / unknown
 PHOTOGRAPHS: ROLL # FRAME #

COMMENTS/OBSERVATIONS (to be completed in oiled subdivisions only):

(A) Area is high in UIZ. Intertidal biota not present in immediate area. Black lichen is present. 2m below area there is a dense patch of healthy Fucus, rare barnacles and Littorina.

(B) Area is low in UIZ. There is a 5x10cm patch of barnacle shells incorporated in the oil cover. Surrounding the cover is a sparse, healthy barnacle population and a moderate to dense Fucus population.

(C) Area is in the SUPRA. No intertidal biota in area.

(D) Area is in the SUPRA. No intertidal biota in area, white and black lichen and moss are present. Directly below area there is a 1/2 x 1m tidepool with sparse Littorina and encrusting filamentous green algae.

There is an active Bald Eagle Nest (incubating posture noted by Coastguard rep) visible offshore. Not visible on the beach. Nest on other side of point.

Areas A → D located on a singular pocket beach with angular cobble. Many Clam shells were present on the beach and live Prototheca clams were found under cobble veneer. Biota sparse along cobble and dense on rock borders. Fucus conceptacles are maturing and recruitment was noted in barnacles, mussels and Littorina. Biota on this beach appears to be healthy.

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1	2 - Active Nest	3 Tidepool sculpins
Seabirds			
Waterfowl	1	1	
Gulls/Kittiwakes	1	5	
Shorebirds			
Corvids			
Other Birds			

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters	2		
Pinnipeds (specify) ?	2		
Harbor Seal	1		
Whales (specify)			

Shoreline subdivision map showing important biological features attached.

MAYBAP 1991

OG SKETCH MAP Bio Sketch Map

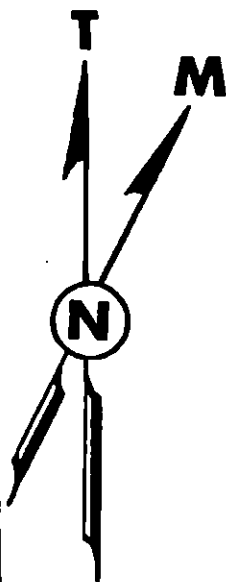
GREG CHANEY Crank

TEAM 5

SEGMENT: EV-1

DATE: April 26 1991

AIR P.#: 114-C-005-235

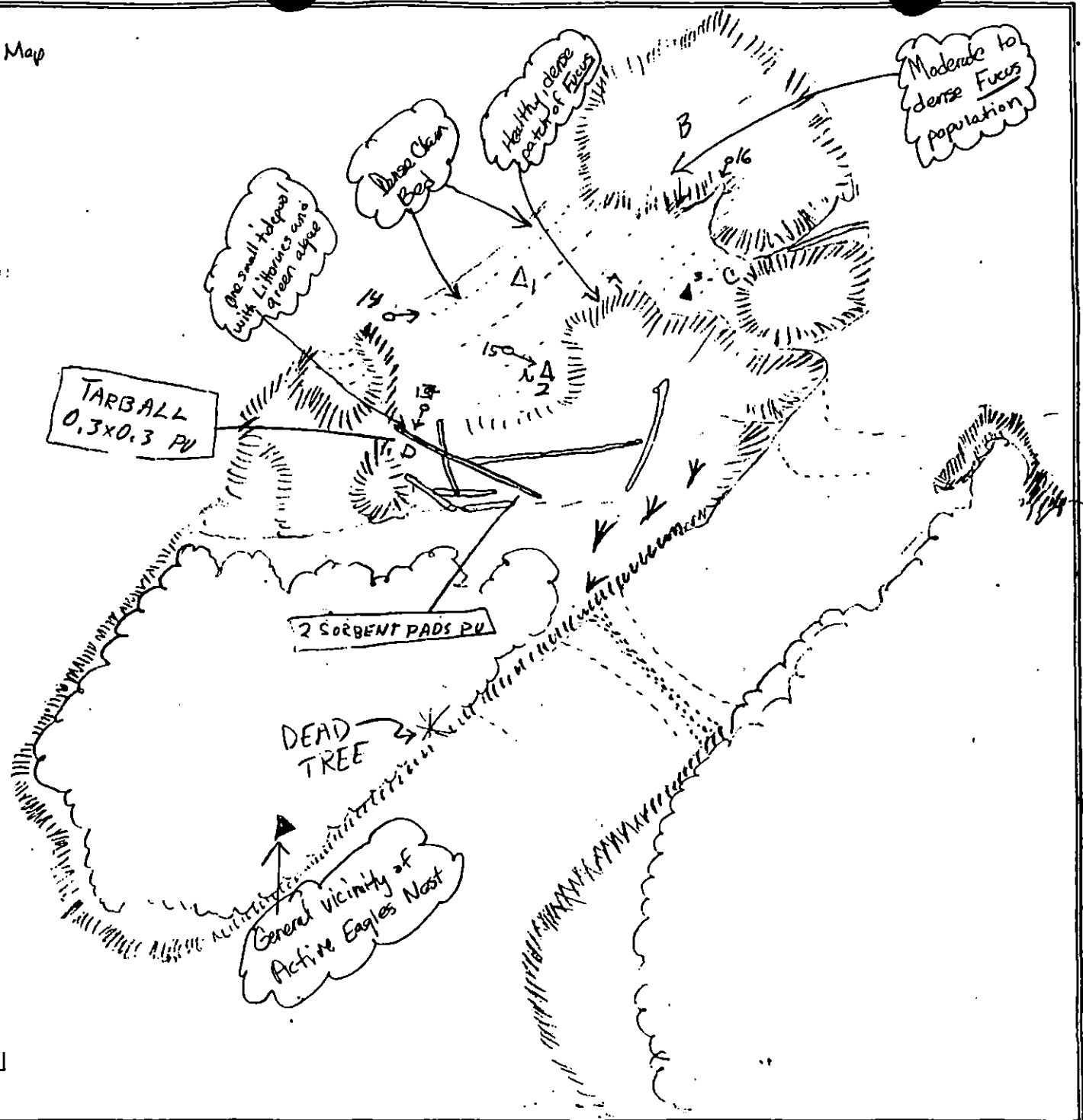


LEGEND

BEDROCK	
BOULDERS	
FINE BED.	
DRIFT LOG	
GRASS	
BRUSH	
FOREST	
OILED PIT	
NO OIL PIT	
PHOTO	

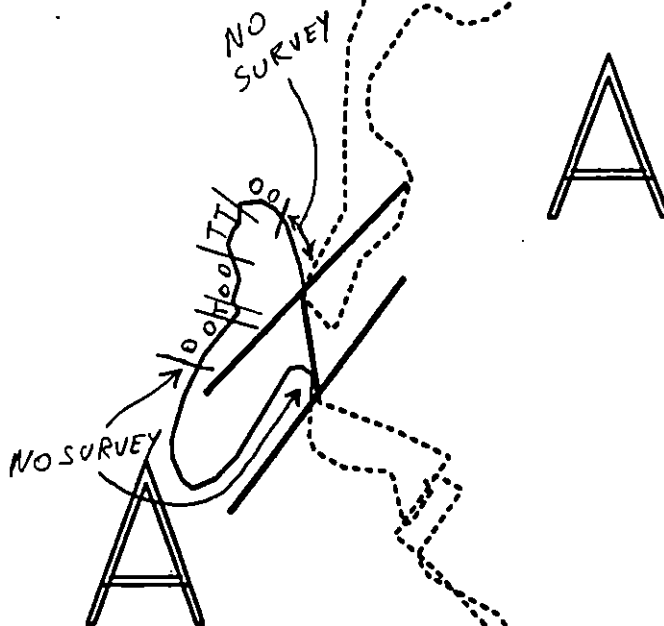
SCALE

APPROX 50 METERS



02

01



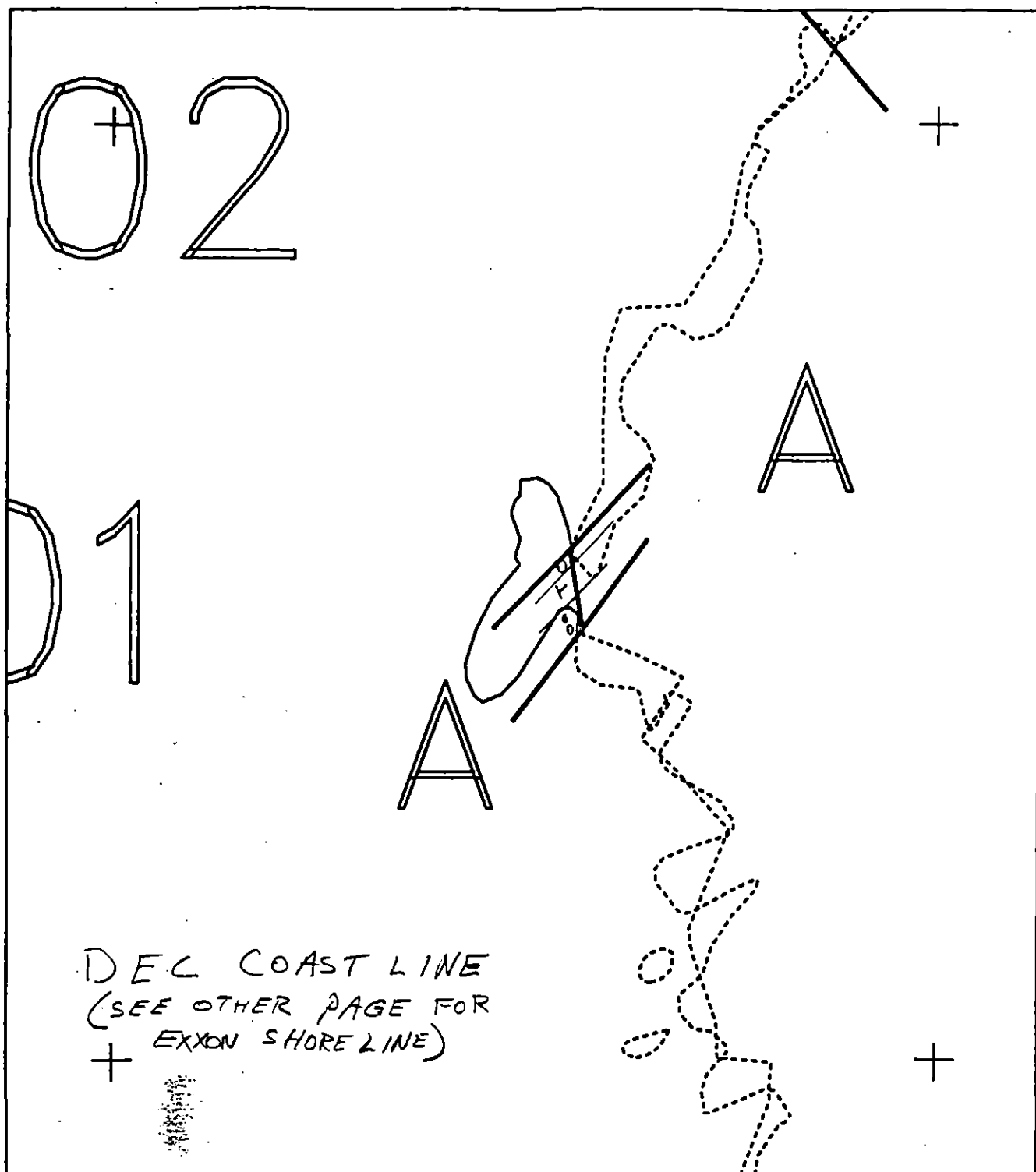
EXXON COAST LINE
(SEE OTHER PAGE FOR
DEC SHORE LINE)

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

EV001 A
ADEC Subsegment Length: 58m
METERS
0 100 200
AK State Plane Zone 4
proj001a

Subdivision Field Map
Map Key: PWSEV001A
Name: Greg Chanoy
Date: April 27/91
Data Entered:

REVIEWED: F.W. 5/1/91
REVIEWED: MC 5/1/91



DEC COAST LINE
(SEE OTHER PAGE FOR
EXXON SHORE LINE)

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

EV001 A
ADEC Subsegment Length: 58m
METERS
0 100 200
AK State Plane Zone 4
proj01a



Subdivision Field Map
Map Key: PWSEV001A
Name: Big Chasen
Date: April 27 1991
Data Entered:

REVIEWED: F.W. 5/1/91
REVIEWED: MC. 5/1/91

1991 MAYSAP EVALUATION

SEGMENT: EV 001 **SUB:** A **REGION:** PWS **SURVEY DATE:** 4/27/91

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) RESTRICTED 3/1 - 9/15

Ecological/Constraints (see page two for details) Eagle nest,
Fish harvest area, Subsistence, deer harvesting

ARCHAEOLOGICAL CONSTRAINTS:

If treatment is planned, a cultural resource evaluation is
required prior to shoreline treatment.

SHPO Signature: _____ **Date:** _____

RECOMMENDATIONS:

	INITIAL	TAG	FOSC
TREATMENT REQUIRED (Y or N)	<u>N</u>	_____	_____
Manual Pickup (Check as Req.)	_____	_____	_____
Spot Washing	_____	_____	_____
Bio-Customblen Only	_____	_____	_____
Bio-Inipol/Customblen	_____	_____	_____
Other _____	_____	_____	_____
Other _____	_____	_____	_____

COMMENTS:

INITIAL: _____

TAG: _____

FOSC: _____

TAG APPROVAL DATE: _____ **FOSC APPROVAL DATE:** _____

ADEC _____ **FOSC** _____

EXXON _____

USCG _____

NOAA _____

**ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES**

Eagle Nest: Access restricted from 3/1 to 9/1. USF&WS authorization required. Maintain 1000' vertical and 1/4 mile horizontal buffer.

Fish Harvest Area: Unlimited treatment unless otherwise directed by ADF&G. Sheen containment/recovery procedures required for mechanical treatment.

Subsistence, Deer Harvesting: Unlimited treatment prior to 8/15.

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 5 SEGMENT EV-1-A SUBDIVISION A DATE 4/27/91

ADEC

NAME John Hoyer SIGNATURE [Signature]

☐ NTR

Oiling observed on this segment consisted of ASP/limon. boulders in UERZ the oiling was limited & few crew picked up a portion of what was accessible. Subsurface OR oiling in the UERZ was isolated where we dug pits. No treatment recommended at this time for oiling observed at this site on EV-01A.

EXXON

NAME Martinez N.J. SIGNATURE [Signature]

☒ NTR

Area looks good & recovering nice. Did not see enough or type of oil that would be recoverable with net environmental benefit.

LANDMANAGER

NAME Steve WARD OF CVC SIGNATURE [Signature]

☒ NTR

No oil observed in Sub-Surface - No visible oil on Sub-division. No debris present. No clean-up warranted.
↓ Life - cont - non-Recoverable.

USCG/NOAA

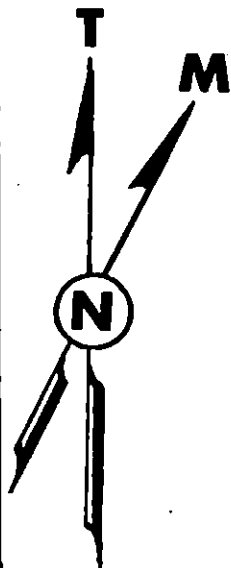
NAME Hodges/Dreher SIGNATURE [Signature]

☒ NTR

Lush thick fucus growth on most major out crops. mussel shells predominate around pit 2. Little to no oil observed.

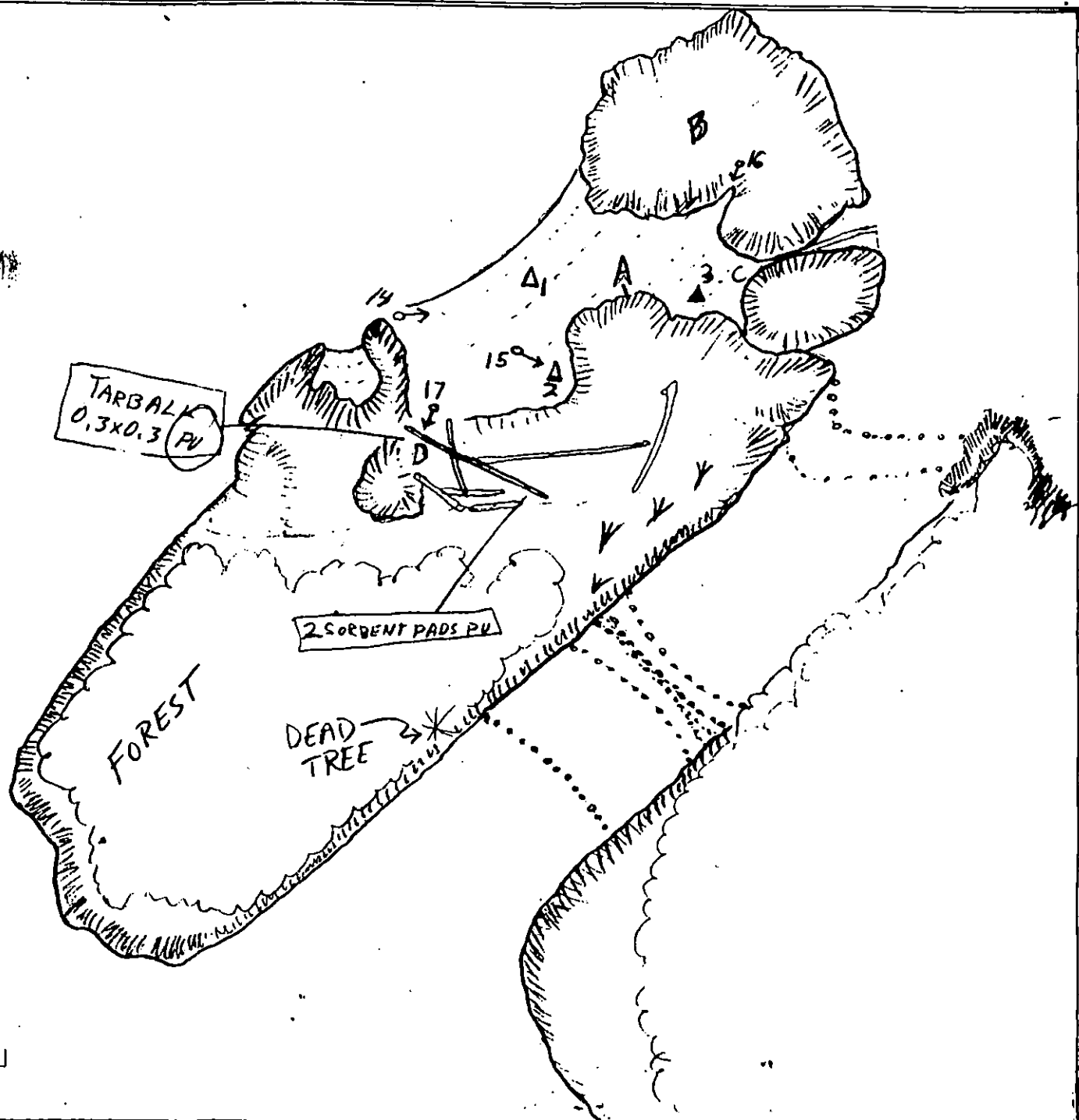
REVIEWED: FW 5/1/91
REVIEWED: MC 5/1/91

30



BEDROCK	
BOULDER8	
FINE BED.	
DRIFT LOG	
GRASS	
BRUSH	
FOREST	
OILED PIT	
NO OIL PIT	
PHOTO	

APPROX 50 METERS



REVIEWED: F.W. 5/1.5
REVIEWED: MC 5/1/41

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 5

DATE 26 Apr '91

pg 1 of 1

SEGMENT # EV-1

TIDAL HEIGHT (Range) $r+1.5 \rightarrow +1$

SUBDIVISION A

BIOLOGIST Crank

SEA STATE <1'

WIND SPEED/DIRECTION 0 $\rightarrow$ 5 mph / unknown

PHOTOGRAPHS: ROLL #

FRAME #

COMMENTS/OBSERVATIONS (to be completed in oiled subdivisions only):

(A) Area is high in UIZ. Intertidal biota not present in immediate area. Black lichen is present. 2m below area there is a dense patch of healthy *Fucus*, rare barnacles and *Littorina*.

(B) Area is low in UIZ. There is a 5x10cm patch of barnacle shells incorporated in the oil cover. Surrounding the cover is a sparse, healthy barnacle population and a moderate to dense *Fucus* population.

(C) Area is in the SUPRA. No intertidal biota in area.

(D) Area is in the SUPRA. No intertidal biota in area, white and black lichen and moss are present. Directly below area there is a 12x1m tidepool with sparse *Littorina* and encrusting filamentous green algae.

There is an active Bald Eagle Nest (incubating posture noted by Coastguard rep) visible offshore. Not visible on the beach. Nest on other side of point.

Areas A $\rightarrow$ D located on a singular pocket beach with angular cobble. Many Clam shells were present on the beach and live *Prototheca* clams were found under cobble veneer. Biota sparse along cobble and dense on rock borders. *Fucus* conceptacles are maturing and recruitment was noted in barnacles, mussels and *Littorina*. Biota on this beach appears to be healthy.

WILDLIFE OBSERVATIONS

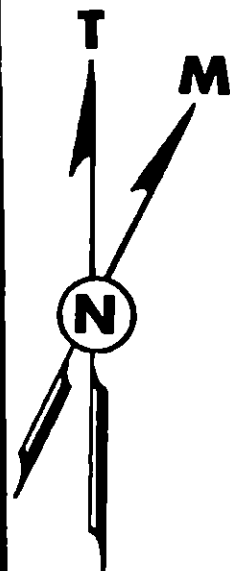
TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1	2-Active Nest	3 Tidepool sculpins
Seabirds			
Waterfowl	1	1	
Gulls/Kittiwakes	1	5	
Shorebirds			
Corvids			
Other Birds			

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters	2		
Pinnipeds (specify) ?	2		
Harbor Seal	1		
Whales (specify)			

Shoreline subdivision map showing important biological features attached.

MAY8AP 1991 30
 OG SKETCH MAP Bio Sketch Map
 GREG CHANEY Crank
 TEAM 5
 SEGMENT: EV-1
 DATE: April 26 1991
 AIR P.#: 005-235

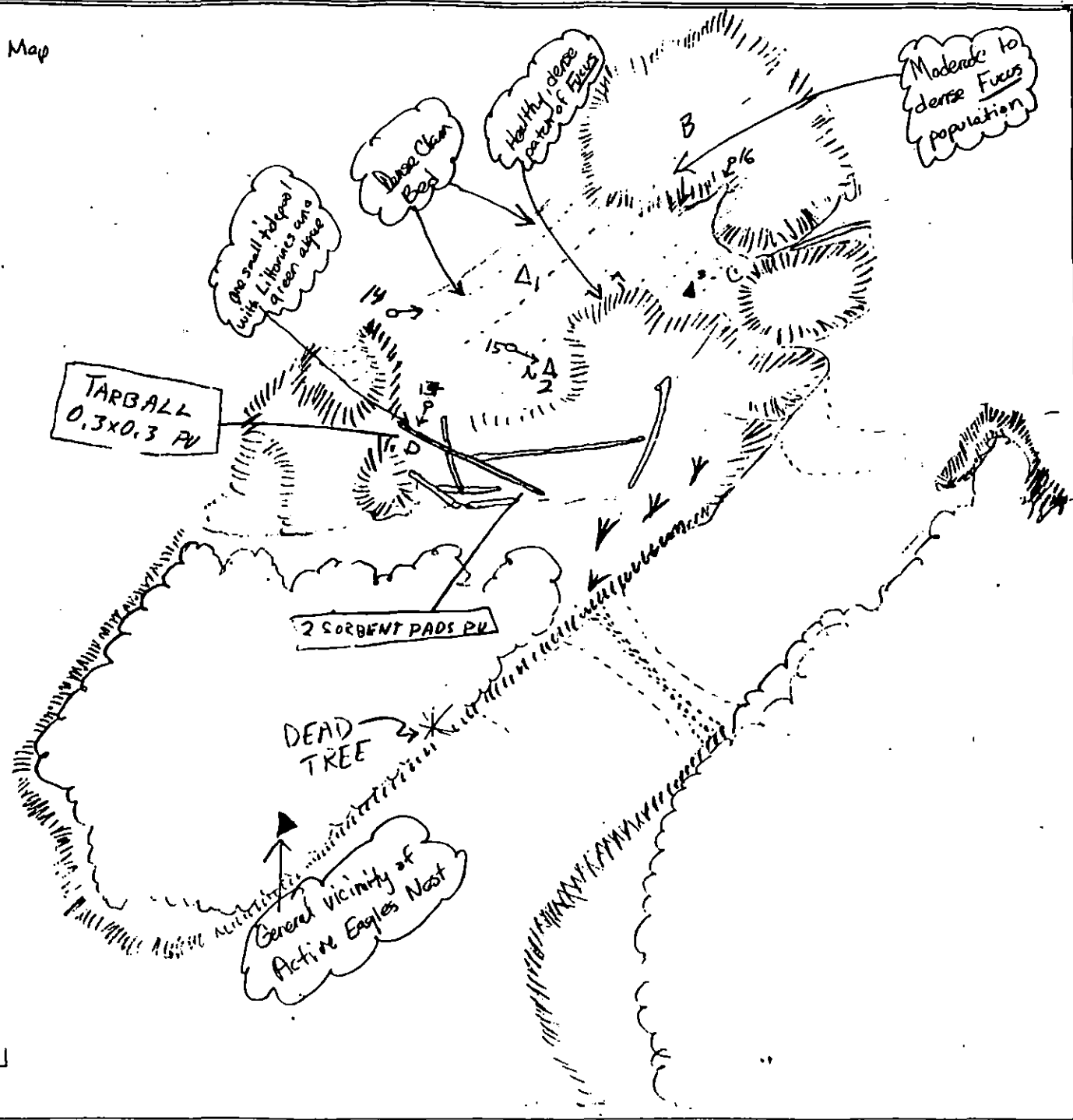


LEGEND

BEDROCK	
BOULDERS	
FINE BED.	
DRIFT LOG	
GRASS	
BRUSH	
FOREST	
OILED PIT	
NO OIL PIT	
PHOTO	

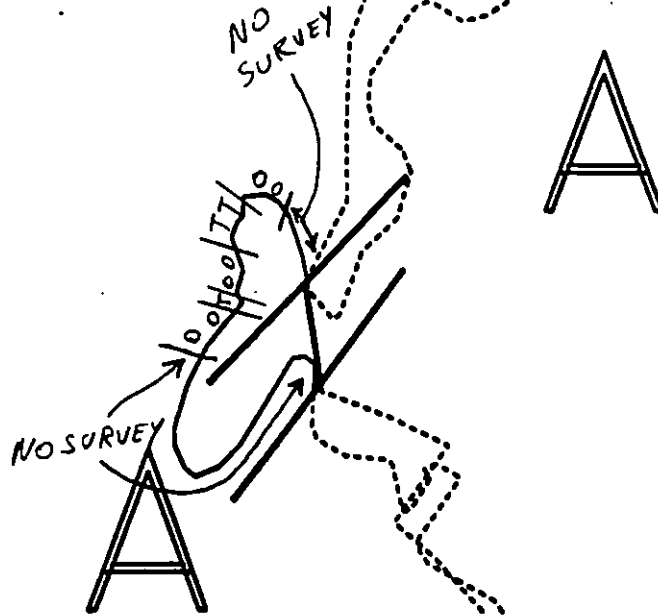
SCALE

APPROX 50 METERS



02

01



EXXON COAST LINE
(SEE OTHER PAGE FOR
DEC SHORELINE)

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

EV001 A
ADEC Subsegment Length: 50m
METERS

AK State Plane Zone 4
psad01a



Subdivision Field Map
Map Key: PWSEV001A
Name: Leg Chanoy
Date: April 27/91
Date Entered:

REVIEWED: F.W. 5/1/91
REVIEWED: MC 5/1/91

02

01

A

A

DEC COAST LINE
(SEE OTHER PAGE FOR
EXXON SHORE LINE)

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

EV001 A

ADEC Subsegment Length: 58m

METERS

5 100 200
AK State Plane Zone 4
NAD83



Subdivision Field Map

Map Key: PWSEV001A

Name: Greg Chancy

Date: April 27/91

Data Entered:

REVIEWED: F.W. 5/1/91

REVIEWED: M.C. 5/1/91

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/EV-02

SUBDIVISIONS: A (1 OF 1)

SHORELINE EVALUATION

SEGMENT ST/ EV-02 SUBDIVISION A (1 OF 1) DATE 4/24/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
Eagle nest within 400 M of segment.
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.

ARCHAEOLOGICAL CONSTRAINTS:

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact a member of Exxon's Cultural Resource Program immediately (564-3657; 564-3658 or 564-3276).

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 0 m: Medium 14 m: Narrow 205 m: V.Light 0 m: No Oil 224 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: Recommended treatment includes 1) manual pickup of oiled debris and sediments in areas indicated on sketch map, 2) manual removal of pooled tar and tarmats in areas indicated on sketch map, and 3) bioremediation of areas indicated on sketch map after manual work is completed. Work should be conducted between 7/1 and 8/15 due to Exxon study site and deer harvesting constraints, with USFWS approval regarding eagle nest.

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

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
- 3N, 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. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31). Contact ADF&G and USFWS prior to treatment for confirmation.
AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
ADF&G Don Calkins 267-2403
- 5R Seabird colony (5/1 to 9/1)
Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
ADF&G Tom Roth 267-2206
- 5T All Bald Eagle nests (3/1 to 6/1)
Active Bald Eagle nests (3/1 to 9/1)
Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 6U Recreation: Tent sites (5/1 to 9/15)
6V Anchorages (5/1 to 9/15)
6W Forest Service cabins (5/1 to 9/15)
6X Lodge (5/1 to 9/15)
6Y- Special use destination
- 7Z Subistence 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

SEGMENT ST1 EVOZ SUBDIVISION: A DATE APRIL 25

USCG

NAME Shawn Maas SIGNATURE Shawn Maas

☐ NO TREATMENT RECOMMENDED
 COMMENTS

☒ TREATMENT SUGGESTED

RECOMMEND CLEANUP IN POCKET BEACHS INDICATED
 ON MAP MANUAL REMOVAL OF POOLED AND ASPHALT/
 PAVEMENT SOME DEBRIS AND BIOREMEDIATION ON
 THESE BEACHS. SSAT TEAM REMOVED SOME BUT
 DIDN'T GET A LOT OF IT.

ADEC
 NAME

David Sale SIGNATURE David M Sale

☐ NO TREATMENT RECOMMENDED
 COMMENTS

☒ TREATMENT SUGGESTED

OIL IN POCKETS IN BEDROCK FRACTURES AND IN UPPER
 LEVELS OF SURGE CHANNELS IS VERY TARRY + RESEMBLING
 POOLED OIL IN SOME CASES BEACHES ON BEDROCK FACES
 THAT OCCUR NEAR HIGH TIDE LINES HAVE GENERALLY ACCUMULATED
 OIL.

- ① REMOVE CONTAMINATED SEDIMENTS FROM NEAR MAP. STREAM
- ② REMOVE POOLED OIL + SEDIMENTS AND CLEAN AND/OR REMOVE
 OILED COBBLES IN SURGE CHANNELS.
- ③ REMOVE ANY COAT OR COVER FROM BEACHES ON BEDROCK.

LAND MANAGER

NAME Don Hampkoff Jr SIGNATURE Don Hampkoff Jr

☐ NO TREATMENT RECOMMENDED
 COMMENTS

☒ TREATMENT SUGGESTED

SHORELINE OILING SUMMARY

REVISION NO. 06/13/90

OG R. Marty USCG S. Maas SEGMENT ST/ EV-02
 BIO B. Lemon LAND REP D. Komphoff SUBDIVISION A (A OF A)
 EXXON J. Cernicki ADEC D. Sale TIME 17:43 to 18:30
 TEAM NO. 10 TIDE LEVEL +1.00 m → +0.55 m DATE 24 / April / 90
 EST. SUBDIVISION LENGTH: 548 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 PLANDS DESCRIPTION: ☐ Grass ☒ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 10 % B 5 % C 5 % P 5 % G 5 % S 0 % M 0 % V 0 %
 SLOPE: Long 30 % Hang 60 % Vert 10 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 18 m N 230 m VL 0 m NO 300 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES				
	10	15	20	25	30	35	40	45	50	55	60	65	SU	W	M	U	
ASPHALT *			X										X	X			
PAVEMENT													X	X			
POOLED	X												X	X			
COVER		B													B		
COAT																	
STAIN																	
MOUSSE																	
PATTIES																	
TARBALLS																	
FILM																	
OIL															X	X	

PAVEMENT H F (S) 2 sq. m by 5 cmPATTIES / TARBALLS None 0 BAGSNEAR SHORE SHEEN? (NO) BR RW SL TL

OILED DEBRIS	No	AMOUNT			
		SM	MD	LG	
Logs	X				
Vegetation	X				
Trash	X				
Debris	X				

DID YOU COLLECT DEBRIS?

YES ☒ NO ☐TYPE Misc.#BAGS <1

Photographs:

Roll No. ST 10/14Frames 31, 32

* Tarry pools at HHWS in two narrow inlets!
 SUBSURFACE OIL Volume is very low.

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM)	BELOW		OIL / FILM COLOR								PIT ZONE	A N A	GREEN SHEEN (Y/N)	V	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	SU	W	M	U	SU	W	M	U					
1	44					X								X				Y	-	N		GP-GPV
2	23					X												Y	N	22		PGS-SF

COMMENTS Some fairly high concentrations of oil are present in the Supratidal areas of the narrow pocket beaches. These areas appear to be sheltered from wave action. The exposed rock faces have oiling ranging from none to a broken cover, but generally this oil would be difficult to remove.

REVIEWED 7W DATE 4/27/90

10/21

UG: K. Marty

SEGMENT EV-2

SUBDIVISION A

DATE 24 April 90

CHECKLIST

- N Arrow
- Approx. Scale
- Seg/Sub Bndry
- Oil Dist.
- Width
- Length
- % Cover
- Substrate Character
- Est. HML/LML
- 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

EV-2

MANUALLY REMOVE POOLED TAR, OILED DEBRIS & SEDIMENTS, AND TAR MATS. BIOREMEDIATE NON-BEDROCK SURFACES AFTER MANUAL WORK IS COMPLETED.

Open joints in rocks contain accumulations of pooled tar and oiled debris - especially at the HHWS line.

A pocket of oiled rock is present on the northern band of the stream at HHWS line. This pocket emits a silver sheen into the stream when it is disturbed. Also one oiled log.

2m wide band of broken cover. Best developed where sheltered from wave action. Not present on exposed faces

No surface oiling

No visible oil

Some asphalt developed on rock

EXXON STUDY SITE AP-15

Bedrock

4m² area of tar over bedrock at the HHWS line inside the crack. Tar is also present in the UITZ, in a few places, under clasts.

Pool of tarry oil 5m x 10m x 75% x 5cm with some intermixed sediment resting on bedrock at HHWS. Small stream maybe anadromous; 2m. Well sorted G.P.S. beach.

reported Eagle nest not confirmed 24 Apr 90 Rnf



Oil Character Length (m): AP 5 PO 10 CV 233 CT — ST — MS — PT — TB — FL — NO 300

REVISION: 202400

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST/10/EV-02 Subdivision A Date (mo / day / yr) 4 / 24 / 90

Time (24 hr) 1750-1820 Biologist Lemon

- (A) Substrate type and % of segments:
 (1) Bedrock 80 (2) Boulder 5 (3) Cobble 5 (4) Pebble 5 (5) Sand 5 (6) Silt 0
- (B) Overall % cover of biota (% of segment): Dense 75% 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 (O)

Photographs:
 Roll No. ST/10/14

Frames 31, 32

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS

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

NOT PRESENT

FUCUS

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

NOT PRESENT

Wildlife Observations/ General Comments: Fucus reproductive all zones.
 Fish Egg mass unknown origin low zone.

Ecological Considerations:

Eagle nest not confirmed 24 Apr 90. A good size stream here may be anadromous;
 however its oily. A deer harvest area.

158/21

ECOLOGICAL MAP

V-03

ST
GY
TII

EV-03-A

BALD
EAGLE
NE3

No	1.7	255	300
LE	1.3	195	230
Nid	0.1	15	18
		465	548

18/8/21

XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-2

ADEC Segment Length: 444m



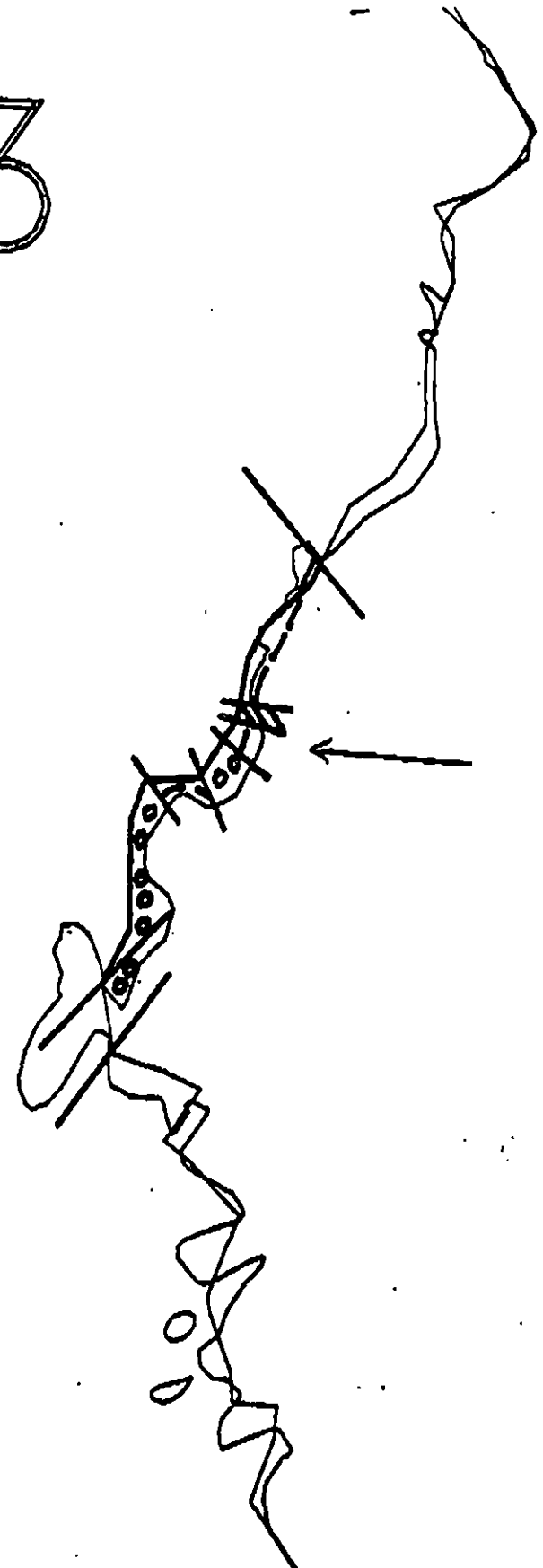
Map Key: PWS-100

Name: R. Marty

Date: 25 April 1990

Date Entered:

V-03



No	1.7	255	360
Lt	1.3	195	230
Nid	0.1	15	18
		465	545

18/21

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-2

ADEC Segment Length: 444m



Map Key: PWS-188

Name: R. Marty

Date: 25 April 1990

Date Entered:

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT EV-2 SUBDIVISION A (1 of 1)

WORK WINDOW	
Manual Pickup & Tarmat Removal Inside Eagle Nest Buffer Zone	CLOSED
Manual Pickup & Tarmat Removal Outside Eagle Nest Buffer Zone	OPEN
Bioremediation Inside Eagle Nest Buffer Zone	CLOSED
Bioremediation Outside Eagle Nest Buffer Zone	WORK PRIOR TO 7/20

*EXXON STUDY SITE Closed to treatment prior to 6/15. No treatment within 50m of site.

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 after 7/20.
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. USFWS buffer zone delineated by Mike Lockhart 5/26/90. No constraint to manual pickup, tarmat removal, and bioremediation outside buffer zone.
7II	Subsistence: Deer Harvesting	No constraint to manual pickup and tarmat removal; closed to bioremediation after 8/15.

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

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

FOSC

Date

7 June 1990

6/7/90

EV-04

EV-03

EV-02

EV-01

EV-05

Exxon STUDY
SITE
(AP-15)

ACTIVE NEST

ACTIVE
NEST

No Beach, Boat
Aircraft Access
USFWS SURVEY
Delineated Buffer
5/26/90
(Lockhart)



Exxon Company, USA
Map Key: PMS-EV-2
1:25,000



ECOLOGY MAP
SEGMENT EV-2
SUBDIVISION A (1 of 1)
METERS
0 341 681

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

1 inch = 1118 feet

SHORELINE EVALUATION

SEGMENT ST/ EV-02 SUBDIVISION A (1 OF 1) DATE 4/24/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
Eagle nest within 400 M of segment.

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.

ARCHAEOLOGICAL CONSTRAINTS:

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact a member of Exxon's Cultural Resource Program immediately (564-3657; 564-3658 or 564-3276).

SHPO SIGNATURE: [Signature] DATE: 5/9/90

OILING CATEGORIZATION:

Wide 0 m: Medium 14 m: Narrow 205 m: V.Light 0 m: No Oil 224 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 pickup of oiled debris and sediments in areas indicated on sketch map, 2) manual removal of pooled tar and tarmats in areas indicated on sketch map, and 3) bioremediation of areas indicated on sketch map after manual work is completed. Work should be conducted between (7/1) and (8/15) due to Exxon study site and deer harvesting constraints, with USFWS approval regarding eagle nest.
See Constraint Addendum dated 6/7/90 wjk

TAG COMMENTS: MONITOR TO ASSESS SIGNIFICANCE OF "OILED" LOC BY STREAM
AVOID DENSE ITZ BIOTA DURING BIO APPLICATION.

TAG APPROVAL DATE: 5/9/90
ADEC [Signature]
EXXON [Signature]
NOAA [Signature]
USCG D.D. Rome

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

NOTIFY CUE 24 HRS IN ADVANCE OF WORK

SHORELINE EVALUATION

SEGMENT ST/ EV-02 SUBDIVISION A (1 OF 1) DATE 4/24/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
Eagle nest within 400 M of segment.
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.

ARCHAEOLOGICAL CONSTRAINTS:

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact a member of Exxon's Cultural Resource Program immediately (564-3657; 564-3658 or 564-3276).

SHPO SIGNATURE: J. David McManis DATE: 5/9/90

OILING CATEGORIZATION:

Wide 0 m: Medium 14 m: Narrow 205 m: V.Light 0 m: No Oil 224 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 pickup of oiled debris and sediments in areas indicated on sketch map, 2) manual removal of pooled tar and tarmats in areas indicated on sketch map, and 3) bioremediation of areas indicated on sketch map after manual work is completed. Work should be conducted between 7/1 and 8/15 due to Exxon study site and deer harvesting constraints, with USFWS approval regarding eagle nest.

TAG COMMENTS: MONITOR TO ASSESS SIGNIFICANCE OF "OILED" LOG BY
STREAM
AVOID DENSE ITZ BIOTA DURING BIO APPLICATION.

TAG APPROVAL DATE: 5/9/90
ADEC Art Weiner
EXXON Andy Tera
NOAA Burl Wescott
USCG D.D. Rome

FOSC: Myh DATE: 5-18-90
NOTIFY CUE 24 HRS IN ADVANCE OF WORKS

UG K. Marty

SEGMENT EV-2

SUBDIVISION A

DATE 24 April 90

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Entry
- ☐ Off Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HWM/LWL
- ☐ SSL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ Pit 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
Pecchy Distribution

CT/S
Splashed Distribution

Oil Vegetation

Photo location, direction, and number

SKETCH MAP

EV-2

MANUALLY REMOVE POOL TAR, OILED DEBRIS & SEDIMENTS, AND TAR MATS. BIOREMEDIATE NON-BEDROCK SURFACES AFTER MANUAL WORK IS COMPLETED.

Open joints in rocks contain accumulations of poaked tar and oiled debris - especially at the HHWS line.

A pocket of oiled rocks is present on the northern band of the stream at HHWS line. This pocket emits a silver sheen into the stream when it is disturbed. Also one oiled log.

2m wide band of broken cover. Best developed where sheltered from wave action. Not present on exposed faces

No surface oiling

No visible oil

Some asphalt dumped on rock

EXXON STUDY SITE AP-15

Bedrock

4m² area of tar over bedrock at the HHWS line inside the crack. Tar is also present in the UITS, in a few places, under clasts.

Pool of tarry oil 5m x 10m x 75% x 5cm with some intermixed sediment resting on bedrock at HHWS. Small stream maybe anemomw; 2m

Well sorted G.P.S beach.

Vertical rock faces

reported Eagle nest not confirmed 24 Apr 90 RNF

0 100 200 300
METERS



Oil Character Length (m): AP 5 PO 10 CV 233 CT — ST — MS — PT — TB — FL — NO 300

REVISION 28-0000

ECOLOGICAL MAP E. 03A
(1st)

V-03

ST
6Y
7II

EV-03-A

BALD
EAGLE
NEZ

No	1.7	255	300
LE	1.3	195	230
Nrd	0.1	15	18
		465	548

18/21

XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-2

ADEC Segment Length: 444m



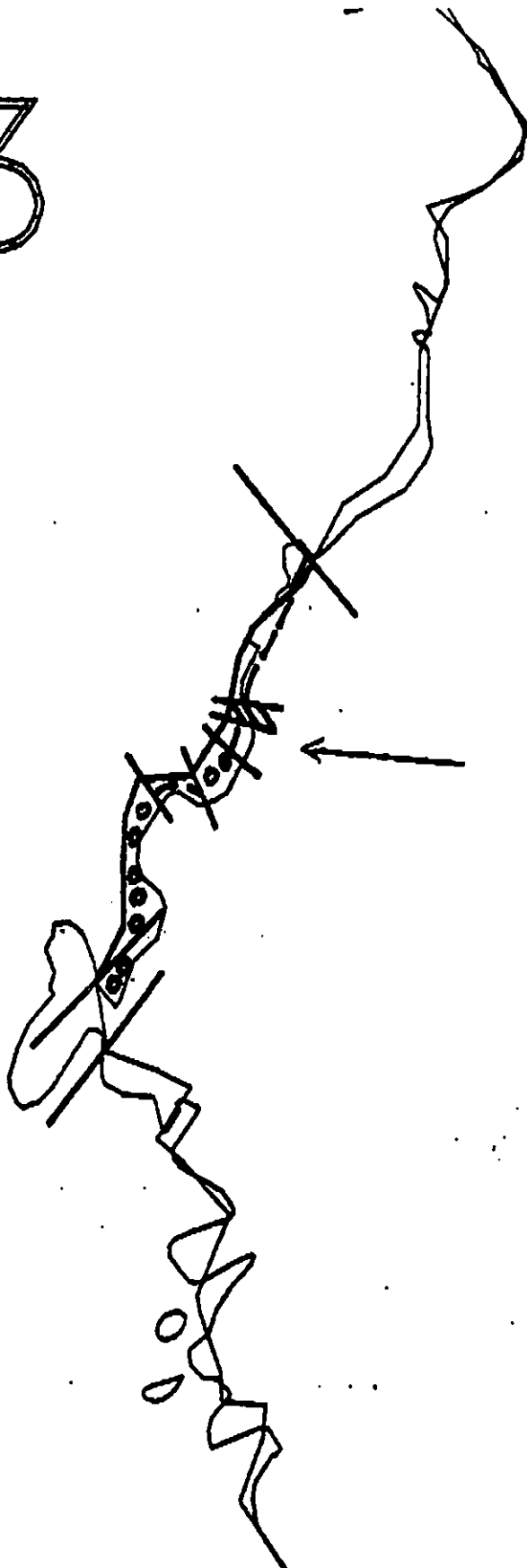
Map Key: PWS-188

Name: R. Marty

Date: 25 April 1990

Date Entered:

V-03



No	1.7	255	300
Lt	1.3	195	230
Nid	0.1	15	18
		465	548

18/8/81

XXXX Wide

EV-2

/// Medium

Map Key: PWS-188

Name: R. Marty

Date: 25 April 1990

Date Entered:

--- Narrow

ADEC Segment Length: 444m



TTTT Very Light

0000 No Oil

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/EV-03

SUBDIVISIONS: A (1 OF 1)

SHORELINE EVALUATION

SEGMENT ST/ EV-03 SUBDIVISION A (1 OF 1) DATE 4/24/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Salmon stream no. 226-40-16590 (Ps, 12/89)

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)

Eagle nest within 400 M in adjacent segment

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.

ARCHAEOLOGICAL CONSTRAINTS:

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact a member of Exxon's Cultural Resource Program immediately (564-3657; 564-3658 or 564-3276).

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 0 m: Medium 19 m: Narrow 248 m: V.Light 356 m: No Oil 0 m
Subsurface Oil Observed: Yes X No _____ Maximum Depth 10 cm

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes 1) manual pickup of tarry oiled sediments and manual removal of tarmat in area indicated on sketch map, and 2) bioremediation in area (study site) indicated on sketch map. Work should be conducted between 7/1 and 7/10 due to Exxon study site and salmon constraints and with the approval of USFWS regarding eagle nest.

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

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, 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. 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 (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)**
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

SEGMENT ST / EV-03 SUBDIVISION: A DATE 25 APRIL 9

USCG

NAME SHAWN MAAS SIGNATURE DC Shawn Maas☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

MANUAL REMOVAL OF POOLED OIL AND ASPHALT/PAVEMENT
 L-ANGLE BEACHS. OILED DEBRIS REMOVED BY SSAT TEAM.
 SUBSURFACE OILS NOTED BREAKUP AND BIOREMEDIATION
 RECOMMENDED.

STAIN ON HIGH ANGLE ROCK FACE NO TREATMENT

ADEC

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

COMMENTS

- ① REMOVE TAR MATS, BALLS AND ASPHALT MANUALLY
- ② TURN UP, REMOVE AND OR CLEAN SUBSURFACE OIL FROM
 SEDIMENTS WHERE PENETRATION IS NOTED; PARTICULARLY, BEACH
 BY EXXON STUDY SITE, WHERE SEDIMENTS ARE SATURATED TO 10 CM.
- ③ REMOVE TAR + RESIDUE ON COBBLES + SEDIMENTS BELOW
 DOULGIES AND IN INTERSTICES ON BEDROCK, AND IN SURGE
 CHANNELS.

LAND MANAGER

NAME _____ SIGNATURE Donald P. Komplack Jr.☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

SHORELINE OILING SUMMARY

REVISION NO. 04/13/90

OG R. Marty USCG S. Maas SEGMENT ST/ EV-03
 BIO B. Lemon LAND REP D. Kompkroft SUBDIVISION A (A OF A)
 EXXON J. Czarneski ADEC D. Sale TIME 18:30 to 19:40
 TEAM NO. 10 TIDE LEVEL +0.55m → +0.2m DATE 24 April / 90
 ST. SUBDIVISION LENGTH: 691 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 PLANDS DESCRIPTION: ☐ Grass ☒ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 15 % B 15 % C 30 % P 20 % G 10 % S 10 % M 0 % V 0 %
 SLOPE: Lang 85 % Hang 15 % Vert 0 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 25 m N 309 m VL 357 m NO 0 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	IC	IS	IP	IS	SBL BR	DBL BW	GY	SL	DER TL	LBR	SU	U	M	U		
ASPHALT PAVEMENT			P						P		P					
POOLED *																
COVER																
COAT			P	S					P _S		P _S					
STAIN			P	S					P _S		P _S					
MOUSSE																
PATTIES																
TARBALLS																
FILM																
NO OIL															X	X

PAVEMENT H F (S) 5 sq. m by 4 cmPATTIES / TARBALLS NONE BAGSNEAR SHORE SHEEN? (NO) BR RW SL TL

OILED * DEBRIS	NO	AMOUNT			DID YOU COLLECT DEBRIS?
		SM	MD	LG	
Logs	X				YES ☒ NO ☐ POM-POMS TYPE <u>+ MISC</u> (Pooled Oil) #BAGS <u>2</u>
Vegetation	X				
Trash	X				
Debris	X				

* removed during
Photographs: SurveyRoll No. 57/10/14Frames 33-35

* Represents a minor volume - this was removed during Survey

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SHEEN (Y/N)	▼	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	SBL BR	DBL BW	GY SL	DER TL	LBR	SU	U	M	U							
1	30					X		X							X	-	N	-	N	SC-GSC					
2	12	X					0-10	-	X				X		X		Y	Y	10	CP-SG					
3	15	-	X				0-4	-	X				X		X				N	BcPg-CGS					
							.																		
							.																		
							.																		

COMMENTS The majority of the remaining oil is concentrated in a few places. Primarily in the Supratidal zone within rock crevices. There is considerable subsurface oil at the South end of the segment in the beach (EXXON winter study site R15). The stream appears to have been recently surveyed, probably during the ongoing anadromous stream survey.

REVIEWED JW/YH DATE 4/29/90

SEGMENT **EY-3**

SUBDIVISION **A**

DATE **April 24 90**

CHECKLIST

☐ N Arrow
☐ Approx. Scale
☐ Seg/Sub Body
☐ Oil Dist.
☐ Width
☐ Length
☐ % Cover
☐ Substrate Character
☐ Est. HRA/LWA
☐ SSL
☐ Profile Location(s)
☐ Photo Location(s)
☐ Photo Location(s)

LEGEND

1 **Δ**

PR - No Subsurface Oil

2 **Δ**

PR - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

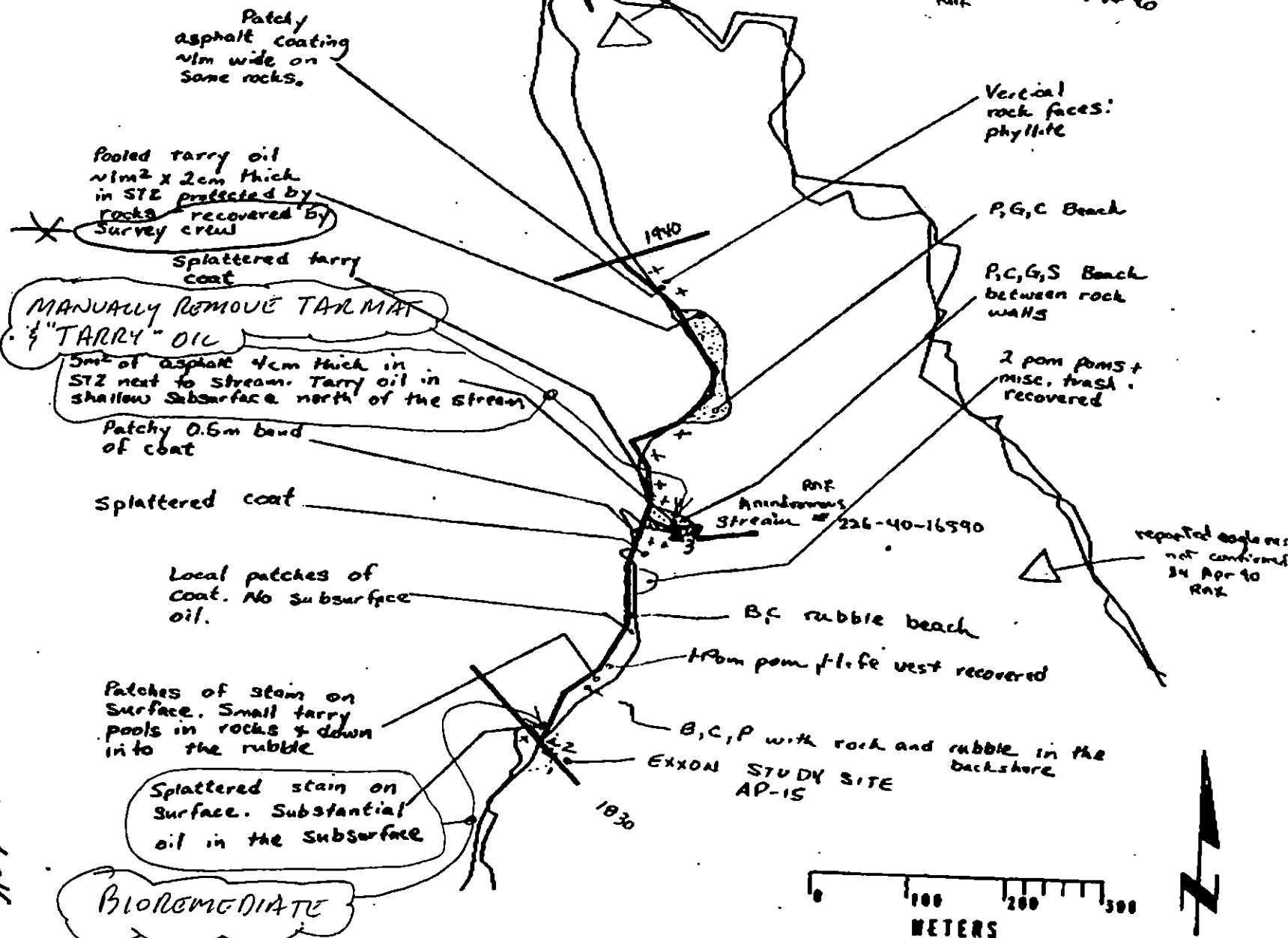
CT/S

Splashed Distribution

lll
 Oil Vegetation

1 **→**
 Photo location, direction,
 and number

46 of 46



Oil Character Length (m): AP **5** PO **1** OV **0** CT **615** ST **75** MS **—** PT **—** TB **—** FL **—** NO **—**

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST/10/5V.03 Subdivision A Date (mo/day/yr) 4/24/90

Time (24 hr) 1930-1941 Biologist Leman clear calm

(A) Substrate type and % of segments:
(1) Bedrock 15 (2) Boulder 15 (3) Cobble 30 (4) Pebble 20 (5) Sand 20 (6) Silt 0

(B) Overall % cover of biota (% of segment): Dense 75% 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. 55/10/14

Frames 33-35

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	

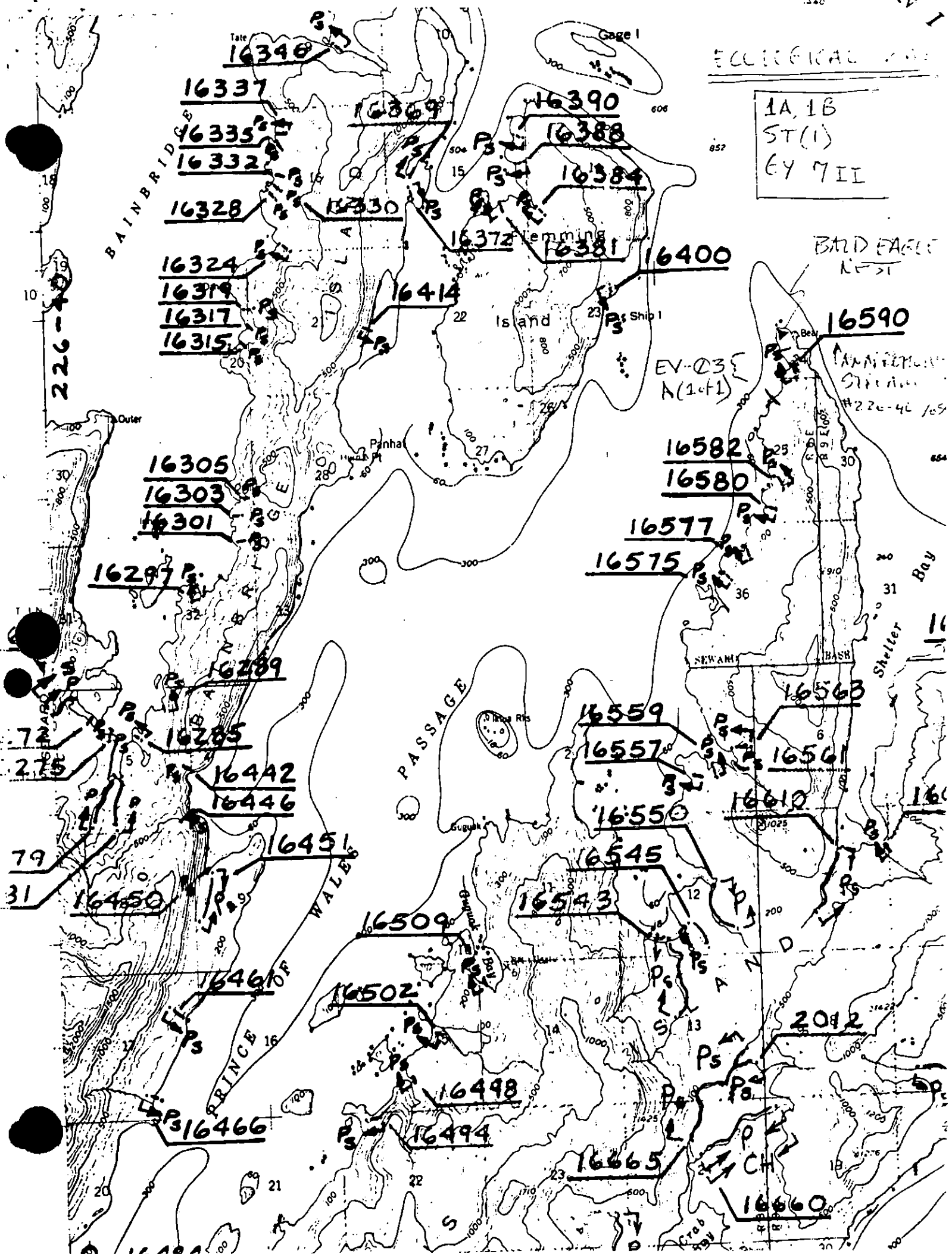
Wildlife Observations/ General Comments: Low zone very rich, 90% cover; lots of plant diversity.
2 gulls
Littorina eggs.

Ecological Considerations: Anadromous stream # 226-40-16590 may carry spawners and outmigrating smolts. Subsistence deer harvest area.

42 of 46

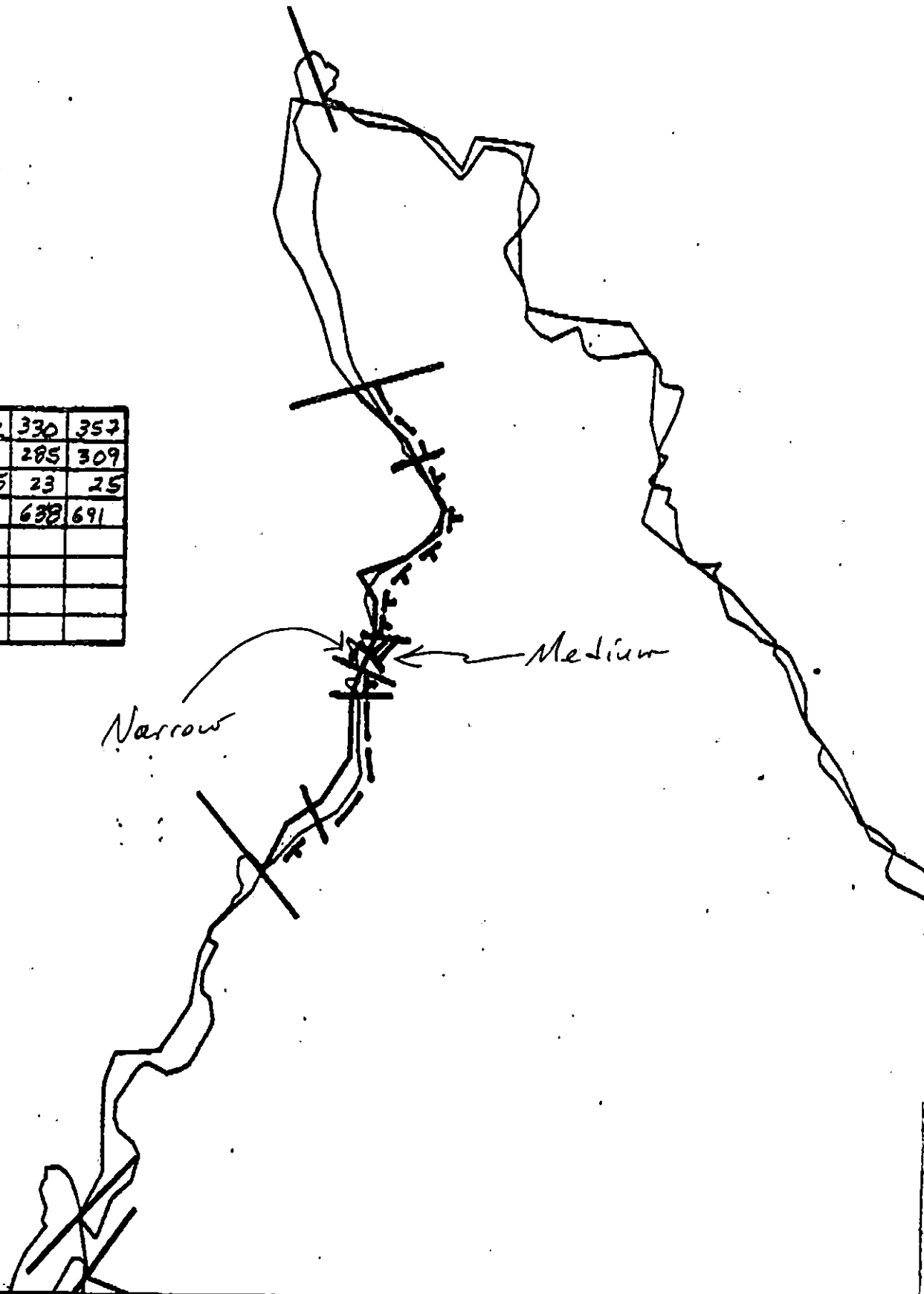
ECCOLOGICAL

1A, 1B
ST(1)
BY 7II



11

VL	2.2	330	357
L	1.9	285	309
M	0.15	23	25
		638	691



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-3

ADEC Segment Length: 623m



Map Key: PWS-198

Name: R. Marty

Date: 24 April 1990

Date Entered:

45 of 96

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT EV-3 SUBDIVISION A (1 of 1)

WORK WINDOW	
Manual Pickup Tarmat Removal	OPEN
Bioremediation and Manual Raking More Than 100m From Stream	WORK PRIOR TO 7/20
Bioremediation and Manual Raking Less Than 100m From Stream	WORK PRIOR TO 7/10

*Exxon Study Site Closed to treatment prior to 6/15. No treatment within 40m of study site.

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A,1B	Salmon Stream	ADF&G catalogued anadromous stream (226-40-16590) is present in Subdivision A. This subdivision is closed to bioremediation and manual raking less than 100m from stream 7/10 to 8/31. Before 7/10, bioremediation and manual raking are 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.
1K	Purse Seine Hook-off	No constraint to manual pickup and tarmat removal; closed to bioremediation and manual raking after 7/20.
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; closed to bioremediation and manual raking after 8/15.

OTHER ECOLOGICAL CONSIDERATIONS

No disturbance to stream bed or bank. 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 to essential minimum after 7/20. Restrict beach activity to essential minimum after 8/15. Avoid any unnecessary disturbance or damage to unrolled biota and substrate.

TAG APPROVAL DATE _____

ADEC _____

EXXON _____

NOAA _____

USCG _____

FOSC _____

Date

7 June 1990

EV-04

EV-03

TREATMENT
AREAS

EV-02

EV-01

No Beach, Boat
Aircraft Access
USFWS Survey
by Mike Lockhart
5/26/90

EV-05

ANADROMOUS STREAM
(226-40-16590)

Exxon
Study Site
(AP-15)
(50m buffer zone)

ACTIVE
NEST

EV-

ACTIVE
NEST



Exxon Company, USA

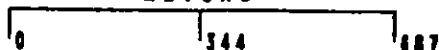
Map Key: PWS-EV-3

June 04, 1990

ECOLOGY MAP SEGMENT EV-3

SUBDIVISION A (1 of 1)

METERS



Seabird Colony



Active Eagle Nest



Inactive Eagle Nest

1 inch = 1127 feet

SHORELINE EVALUATION

SEGMENT ST/ EV-03 SUBDIVISION A (1 OF 1) DATE 4/24/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Salmon stream no. 226-40-16590 (Ps, 12/89)

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)

Eagle nest within 400 M in adjacent segment

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.

ARCHAEOLOGICAL CONSTRAINTS:

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact a member of Exxon's Cultural Resource Program immediately (564-3657; 564-3658 or 564-3276).

SHPO SIGNATURE: J. Daniel McManis

DATE: 5/4/90

OILING CATEGORIZATION:

Wide 0 m: Medium 19 m: Narrow 248 m: V.Light 356 m: No Oil 0 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 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 tarry oiled sediments and manual removal of tarmat in area indicated on sketch map, and 2) bioremediation in area (study site) indicated on sketch map. Work should be conducted between 7/1 and 7/10 due to Exxon study site and salmon constraints and with the approval of USFWS regarding eagle nest.

TAG COMMENTS: MANUAL PICKUP IN AREA OF TP2 PRIOR TO BID

TAG APPROVAL DATE: 5/9/90

ADEC Art Wenzel Art Wenzel

EXXON Art Wenzel Art Wenzel

NOAA Barl Wenzel Barl Wenzel

USCG D.D. Rome D.D. Rome

FOSC:

DATE: 5-15-90

ADVISE CUC 24 HRS. PRIOR TO STARTING WORK

SHORELINE EVALUATION

SEGMENT ST/ EV-03 SUBDIVISION A (1 OF 1) DATE 4/24/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Salmon stream no. 226-40-16590 (Ps, 12/89)
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)
Eagle nest within 400 M in adjacent segment
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.

ARCHAEOLOGICAL CONSTRAINTS:

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact a member of Exxon's Cultural Resource Program immediately (564-3657; 564-3658 or 564-3276).

SHPO SIGNATURE: J. Daniel McMahon DATE: 5/4/90

OILING CATEGORIZATION:

Wide 0 m: Medium 19 m: Narrow 248 m: V.Light 356 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)

COMMENTS: Recommended treatment includes 1) manual pickup of tarry oiled sediments and manual removal of tarmat in area indicated on sketch map, and 2) bioremediation in area (study site) indicated on sketch map. Work should be conducted between 7/1 and 7/10 due to Exxon study site and salmon constraints and with the approval of USFWS regarding eagle nest.

TAG COMMENTS: MANUAL RAKE IN AREA OF TP2 PRIOR TO BIO

TAG APPROVAL DATE: 5/9/90
ADEC ART WENGER
EXXON ANDY TEAL
NOAA Burt Warrick
USCG D.D. Rome

FOSC: DATE: 5-18-90
ADVISE CUC 24 HRS. PRIOR TO STARTING WORK

SEGMENT EY-3

SUBDIVISION A

DATE April, 24 90

CHECKLIST

☐ N Arrow
☐ Approx. Scale
☐ Seg/Sub Study
☐ Oil Dist.
☐ Width
☐ Length
☐ % Cover
☐ Substrate Character
☐ Est. HMLA/VL
☐ SSL
☐ Profile Location(s)
☐ Profile(s)
☐ PI Location(s)
☐ Photo Location(s)

LEGEND

1 Δ
 Pt - No Subsurface Oil

2 Δ
 Pt - Subsurface Oil

CT/C
 Continuous Distribution

CT/B
 Broken Distribution

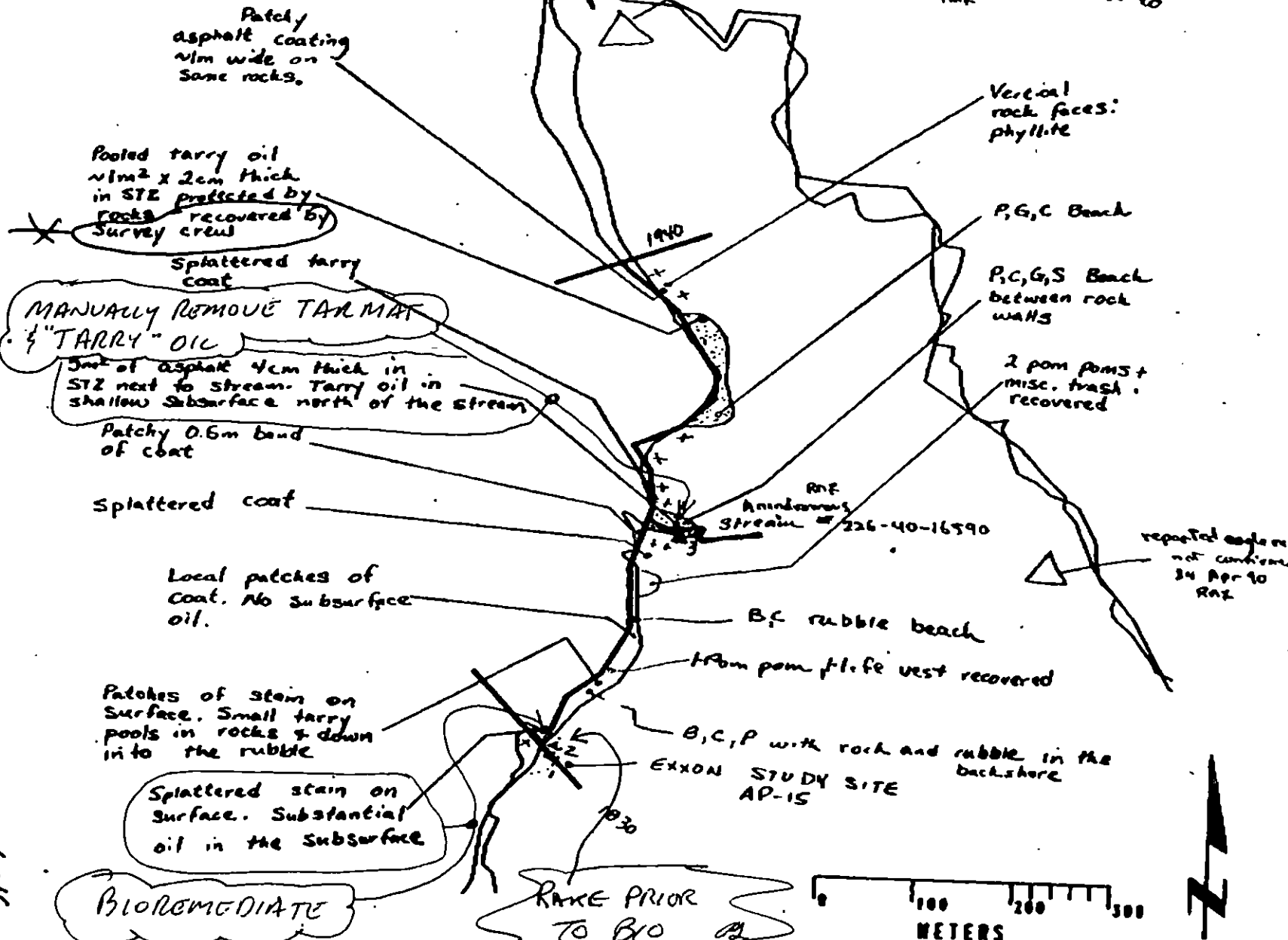
CT/P
 Patchy Distribution

CT/S
 Splattered Distribution

lll
 Old Vegetation

1 →
 Photo location, direction, and number

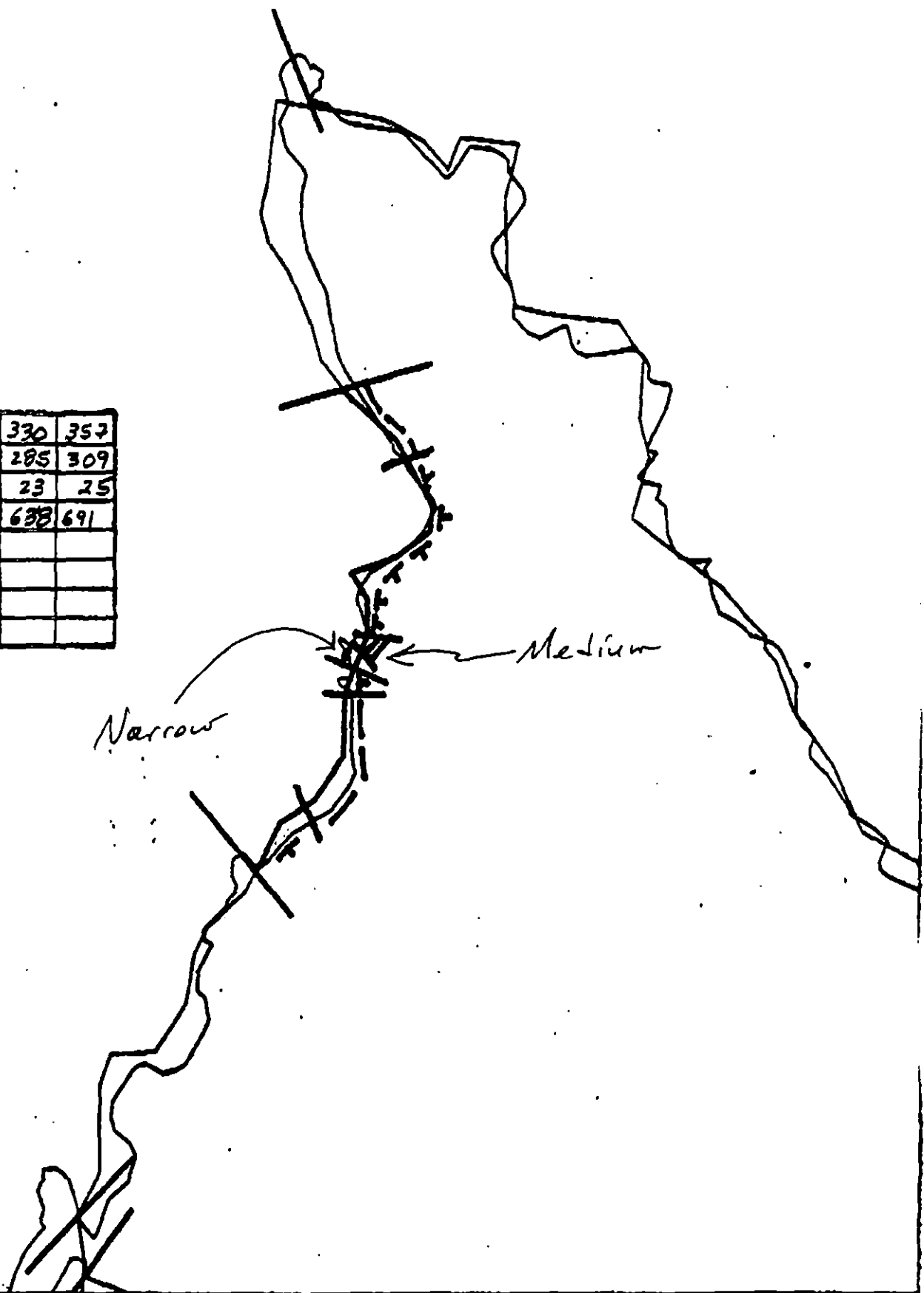
4/26/90



Oil Character Length (m): AP 5 PO 1 CV 0 CT 615 ST 75 MS — PT — TB — FL — NO —

11

VL	2.2	330	357
L	1.9	285	309
M	0.15	23	25
		638	691



XXXX Wide

//// Medium

--- Narrow

TTT Very Light

0000 No Oil

EV-3

ADEC Segment Length: 623m



Map Key: PWS-198

Name: R. Marty

Date: 24 April 1990

Date Entered:

45 of 46

1991 MAYSAP EVALUATION

SEGMENT: EV 003 **SUB:** A **REGION:** PWS **SURVEY DATE:** 4/26/91

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) RESTRICTED 3/1 - 9/15

Ecological/Constraints (see page two for details) **Eagle nest,**
Fish harvest area, Anadromous stream, Subsistence - Deer harvest-
ing

ARCHAEOLOGICAL CONSTRAINTS:

If treatment is planned, a cultural resource evaluation is
required prior to shoreline treatment.

SHPO Signature: _____ **Date:** _____

RECOMMENDATIONS:

INITIAL

TAG

FOSC

TREATMENT REQUIRED (Y or N)

n

Manual Pickup (Check as Req.)

Spot Washing

Bio-Customblen Only

Bio-Inipol/Customblen

Other

Other

COMMENTS:

INITIAL: _____

TAG: _____

FOSC: _____

TAG APPROVAL DATE: _____

FOSC APPROVAL DATE: _____

ADEC _____

FOSC _____

EXXON _____

USCG _____

NOAA _____

**ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES**

Eagle Nest: Access restricted from 3/1 to 9/1. USF&WS authorization required. Maintain 1000' vertical and 1/4 mile horizontal buffer.

Fish Harvest Area: Unlimited treatment unless otherwise directed by ADF&G. Sheen containment/recovery procedures required for mechanical treatment.

Anadromous Stream: Unlimited treatment up to stream bank between May 15 and July 10. ADF&G approval required for work after July 10. Fish Habitat Permit required for instream work. ADF&G approval required for bioremediation within 100 meters of anadromous stream after July 10.

Subsistence - Deer Harvesting: Unlimited treatment prior to 8/15.

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 5 SEGMENT EY-3 SUBDIVISION A DATE 4/26/91

ADEC

NAME

John Hoyer

SIGNATURE

[Signature]

☐ NTR

☒ Treatment Recommended

Portion of segment observed consisted of three pocket beaches, 2 pocket beaches to the North need additional AP pickup in areas A, F, + G identified on sketch map. Recommend sites for cleanup LAP as AP + TB's are easily recoverable + both sites have berms which may still have OSR debris, team does not have time for debris search.

EXXON

NAME

Martinez N.J.

SIGNATURE

[Signature]

☒ NTR

Beach coming back very well. There is a little pick up work that would be good for local response group. Outside of that. I think no other work is needed.

LANDMANAGER

NAME

Steve WARD OF CVC

SIGNATURE

[Signature]

☐ NTR

Very little Sub-Surface-Remains. Amount of Asphalt and Debris makes this Area a perfect Local Response project. See ADEC Notes for Location.

USCG/NOAA

NAME

HODGES/DREHER

SIGNATURE

[Signature]

☒ NTR

Observed no mobile oil nor sheering. Any additional cleaning would be detrimental to the local ecology.

Small ~ 8 cm tar ball and oiled sediment within a rock layer was the only oil observed. Considering the area of this segment, very little oil noted.

TEAM NO. 5

MAYSAP SHORELINE OILING SUMMARY

PAGE ____ OF ____

OG CHANEYBIO CRANKSEGMENT EV-3ADEC HAYESLANDMANAGER WARD for CVCSUBDIVISION AEXXON MARTINEZUSCG/NOAA DREHER/HODGESDATE April 1, 26/91TIME 16:15 to 17:50TIDE LEVEL 5 ft. to 1 ft.ENERGY LEVEL: ☐ H ☐ M ☒ LSURVEYED FROM: ☒ FOOT ☒ BOAT ☐ HELOWEATHER: ☐ SUN ☐ CLOUDS ☐ FOG ☒ RAIN ☐ SNOWTOTAL LENGTH SHORELINE SURVEYED: 240 mNEAR SHORE SHEEN: ☐ BR ☐ RB ☐ SL ☒ NONEEST. OIL CATEGORY LENGTH: W 0 m M 0 m N 30 m VL 100 m NO 134 m US 383 m?

L O C	SURFACE OIL CHARACTER										SURFACE SEDIMENT TYPE	SHORE SLOPE VHML	AREA		ZONE				NOTES
	AP	MS	TB	SOR	CV	CT	ST	FL	DB	NO			WIDTH m	LENGTH m	S	UI	MI	LI	
A	T				T	S					R	M	1	5		✓			Asphalt patche PU
B					T						R	M	1	5		✓			in bedrock cracks
C						B					B	L	0.3	15		✓			Bedrock face
D					T						B	L	4	10			✓		in cracks on boulders
E					T						B	L	3	3		✓			on boulder
F					T						R	M	1	1		✓			on bedrock crevise
G	S										B	L	1	15	✓				distinct patches
H					B						R	M	0.5	10		✓			in bedding planes
I					T	P					R	H	0.3	10		✓			coat on rock face
J					B						R	H	0.5	5		✓			same
K					T	P					B	M	5	1		✓			large boulders
L					T	T					B, R	M	1	10		✓			
M					T						R	L	0.1	1.5		✓			

DISTRIBUTION: C = 91-100%; B = 51-90%; P = 11-50%; S = 1-10%; T = <1%.

SLOPE: V = VERTICAL; H = HIGH ANGLE; M = MEDIUM ANGLE; L = LOW ANGLE

PHOTO ROLL # MAYSAP-

5FRAMES 1-12

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER							OILED ZONE cm-cm	CLEAN BELOW Y/N	H2O LEVEL (cm)	SHEEN COLOR B R S N	PIT ZONE				SURFACE-SUBSURFACE SEDIMENTS	NOTES
		OP	HOR	MOR	LOR	OF	TR	NO					S	UI	MI	LI		
1	20							✓	-					✓			P-PCG	
2	30							✓	-					✓			P-PCG	
3	15							✓	-							✓	S-SPL	
4	30							✓	-							✓	P-PGS	
5	20							✓	-			10	-	✓			B-BPG	
6	10			✓				✓	0-10			0	-	✓			B-BPG	possibly 5m ²
7	25							✓	-			5	-	✓			GB-GB	
8	35							✓	-					✓			G-G	
9	25						✓		0-20			10	S			✓	C-CG	

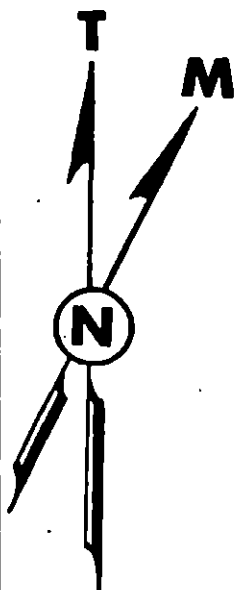
SHEEN COLOR: B = BROWN; R = RAINBOW; S = SILVER; N = NONE

OG COMMENTS:

REVISER: MC 5/2/91

REVIEWED: F.W. 5/2/91

MAYBAP 1991
 06 SKETCH MAP
 GREG CHANEY
 TEAM 5
 SEGMENT: EV-3-A
 DATE: APRIL 26 91
 AIR P.#: PIMC 005 236

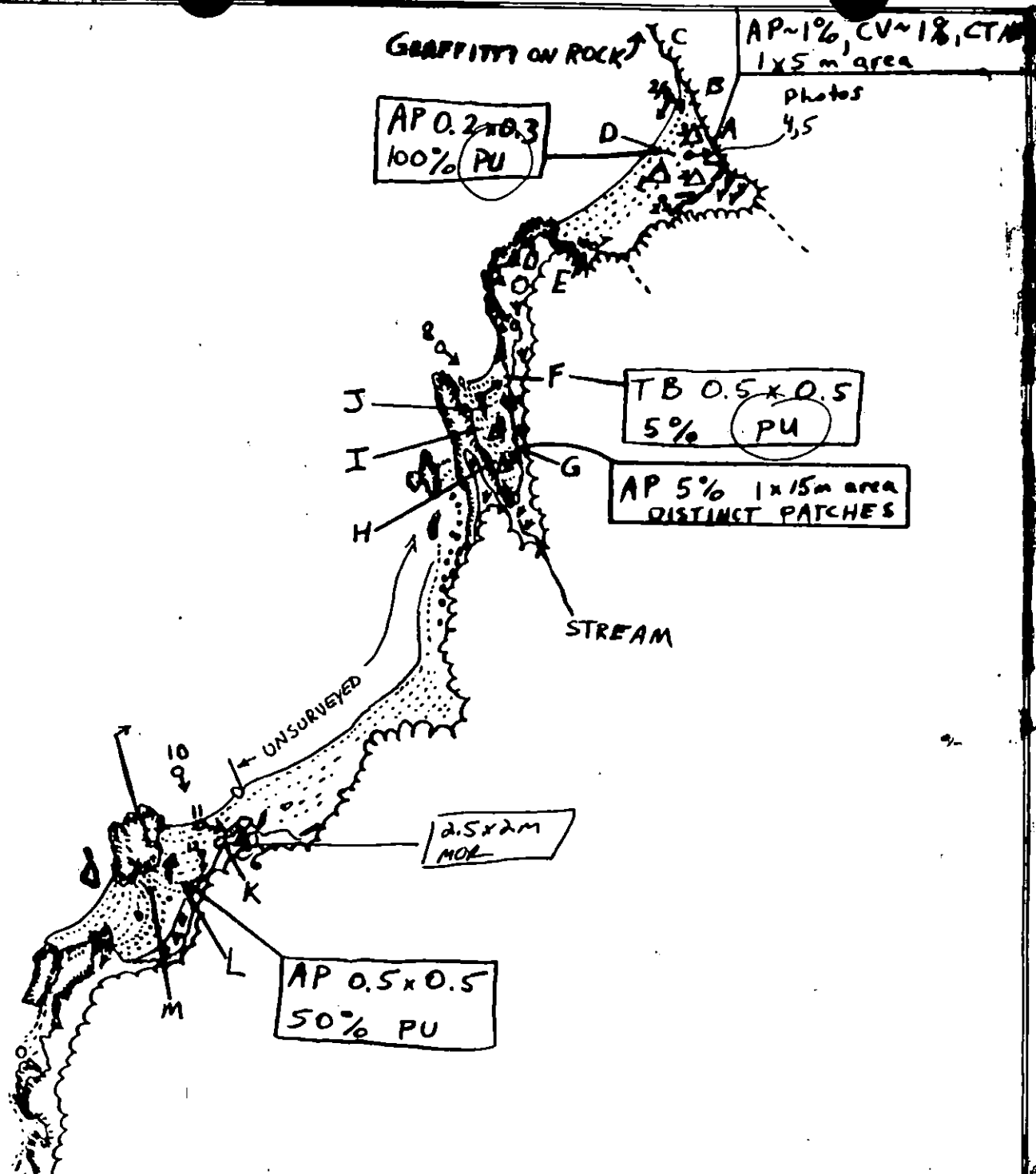


LEGEND

BEDROCK	
BOULDERB	
FINE SED.	
DRIFT LOG	
GRASS	
BRUSH	
FOREST	
OILED PIT	
NO OIL PIT	
PHOTO	

SCALE

APPROX. 100
 METERS



Reviewed: F.W. 2/91
 Revised: M.C. 5/2/91

MAYSAP BIOLOGICAL SUMMARY FORM

pg 1 of 4

TEAM #5

DATE 26 Apr '91

SEGMENT # EV-3

TIDAL HEIGHT(Range) ~+6 → +2

SUBDIVISION A

BIOLOGIST Crank

SEA STATE <1'

WIND SPEED/DIRECTION Ø → 5 mph direction unknown

PHOTOGRAPHS: ROLL #

FRAME #

COMMENTS/OBSERVATIONS (to be completed in oiled subdivisions only):

(A) Area located high in U1T2; no intertidal organisms in immediate vicinity. Mosses are present on rock face and boulder shoulder ranging in color from green to dark red. Some oil not picked-up by Veco worker with no ecological disturbance.

(B) Area located low in U1T2 along N cliff face and boulder shoulder. There is a sparse to moderate adult barnacle population with a new set present. Patches of *Fucus* with maturing conceptacles, a continuous 1/2 m wide band of mussels along cliff face with several age classes, and a sparse *Littorina* population with a new set. Biota appears healthy.

(C) Area located low in U1T2 among boulders. There is a dense *Fucus* population. Maturing conceptacles are present. Area is also being heavily recruited by barnacles as well as being recruited by mussels. A sparse to rare limpet population is present.

(D) Area located in M1T2. Sparse barnacles (adults and spat, new set present) Mussel patch with several age classes. Patch (<5cm) of *Scytosiphon* (alga). Asphalt was picked by Veco worker with no ecological disturbance.

(E) Area is located on S rock outcrop and boulder shoulder. There is a moderate to dense *Fucus* bed with maturing conceptacles. Patches of mussels are located at the boulder bases and in the cobble next to the boulders, various age classes. There is a moderate barnacle population with rare to sparse recruitment. There are patches of *Rhodomek laria*; *Okenithalia* (algae) and rare to sparse limpets and *Littorina*. Ribbon worms are present under cobbles.

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1	1	Ø
Seabirds	2	3	
Waterfowl	2	3	
Gulls/Kittiwakes	1	1	
Shorebirds			
Corvids			
Other Birds			

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters	1	(Deer)	(Scat only)
Pinnipeds (specify)			
Whales (specify)			

Shoreline subdivision map showing important biological features attached.

Team #5

Date: 26 Apr '91

pg 2 of 4

Segment: EV-3

Tidal Height: ~+6 → +2

Subdivision: A

Biologist: Crank

Sea State: < 1'

Wind Speed/Direction: 0 → 5 mph/unknown

Comments (continued)

Areas A → E are located on a single pocket beach. Sparse biota coverage in the MITZ consisting mainly of barnacles, mussels, Fucus and filamentous greens and Scytosipion^(supra) on angular cobble and boulders.

Barnacles were not tightly sealing their inner plates when stimulated. Other biota appeared to be healthy.

(F) Area is located in the MITZ on the protected side of the N cliff. Dominant biota present is barnacles; Littorina are rare. Biota appears healthy.

(G) Area is located in the SUPRA. There are rare mosses and lichens. No intertidal biota present.

(H) Area is located low in the MITZ on the protected S cliff face. There is a moderate to dense Fucus band (1/2 → 1 m wide) directly below the oil. There is moderate Fucus sporlings and sparse to rare mature plants w/ ^{maturing} conceptacles. Barnacles are rare to sparse and rare mussels are found at the boulder bases and in cracks and crevices. Littorina and limpets are sparse with pockets of moderate concentrations.

(I) Site is located low in the MITZ on the exposed side of the S cliff face. There is a moderate to dense barnacle population; sparse limpets and rare (with sparse pockets) mussels and Fucus.

Team: #5

Date: 26 Apr '91

pg 3 of 4

Segment: EV-3

Tidal Height: $\sim +6 \rightarrow +2$

Subdivision: A

Biologist: Crank

Sea State: <1'

Wind Speed/Direction: 0 $\Rightarrow$ 5 mph / unknown

Comments (continued)

- (J) Area is located low in the UITZ. There is a sparse $\frac{1}{2}$ m wide mussel band and a sparse 1 m wide barnacle band in the area. Only a few Fucus plants are present and they have maturing conceptacles. Littorina and limpets were also present.

Areas F $\Rightarrow$ J are located on a single pocket beach. There is a continuous 1 m mussel band on the exposed side of N cliff face with various age classes. Majority of barnacle did tightly seal their inner plates when stimulated. Anad Stream 226-40-16590 is located on this beach. Deer scat present adjacent to stream in the low SUPRA. Intertidal biota appears healthy.

- (K) Area is located in UITZ boulders. There is a tide pool 1 m west of site with 5 anemones, rare coralline algae, mussels. Within the site barnacles are rare. Mussels are also rare and the majority are juveniles. Filamentous green algae ~~present~~ in small patches (<10 cm). Below the site MITZ has moderate coverage of Fucus with maturing conceptacles present. Moderate barnacles with spat and moderate Littorina are found underneath Fucus plants. Mussels are present in the cobble near the boulder bases.

- (L) Area is located at the bottom edge of the SUPRA and upper edge of the UITZ. Intertidal biota is not present.

Team #5

Date: 26 Apr '91

pg 4 of 4

Segment: EV-3

Tidal Height: $\pm 6 \rightarrow +2$

Subdivision: A

Biologist: Crank

Sea State: <1'

Wind Speed/Direction: 0 $\rightarrow$ 5 mph / unknown

Comments (cont.)

(M) Area is a rock outcrop low in the UIZ. There are sparse barnacles and a 1x2 m patch of Fucus at the base of the rock. Sparse Littorina and limpets are present and rare mussels are found in the crevices.

Areas K $\rightarrow$ M are on a single pocket beach. The rock outcrops at $\approx +2 \rightarrow +4$ tidal range have a dense biota coverage. Adult; juvenile barnacles are present as well as a new set. Both Fucus sporlings and mature plants with active conceptacles are present. Mussels are present in patches found mainly along cracks and crevices. There is a sparse to moderate Littorina and limpet population. Along the angular cobble beach there are sparse adult barnacles with moderate recruits. Littorina and limpets are also moderate. Littorina egg cases are found on the undersides of cobble. Mussels are rare. Small (<3cm) Oligochaete worms are present under cobble. The beach ~~appears~~ healthy. Barnacle did tightly seal their inner plates when stimulated. Biota on this beach does not appear to be adversely impacted by present oil conditions.

Bio Sketch Map

CRANK

TEAM 5

SEGMENT: *EV-3-A*

DATE: April 26 91

AIR P.N: PH-C-005-236

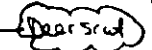


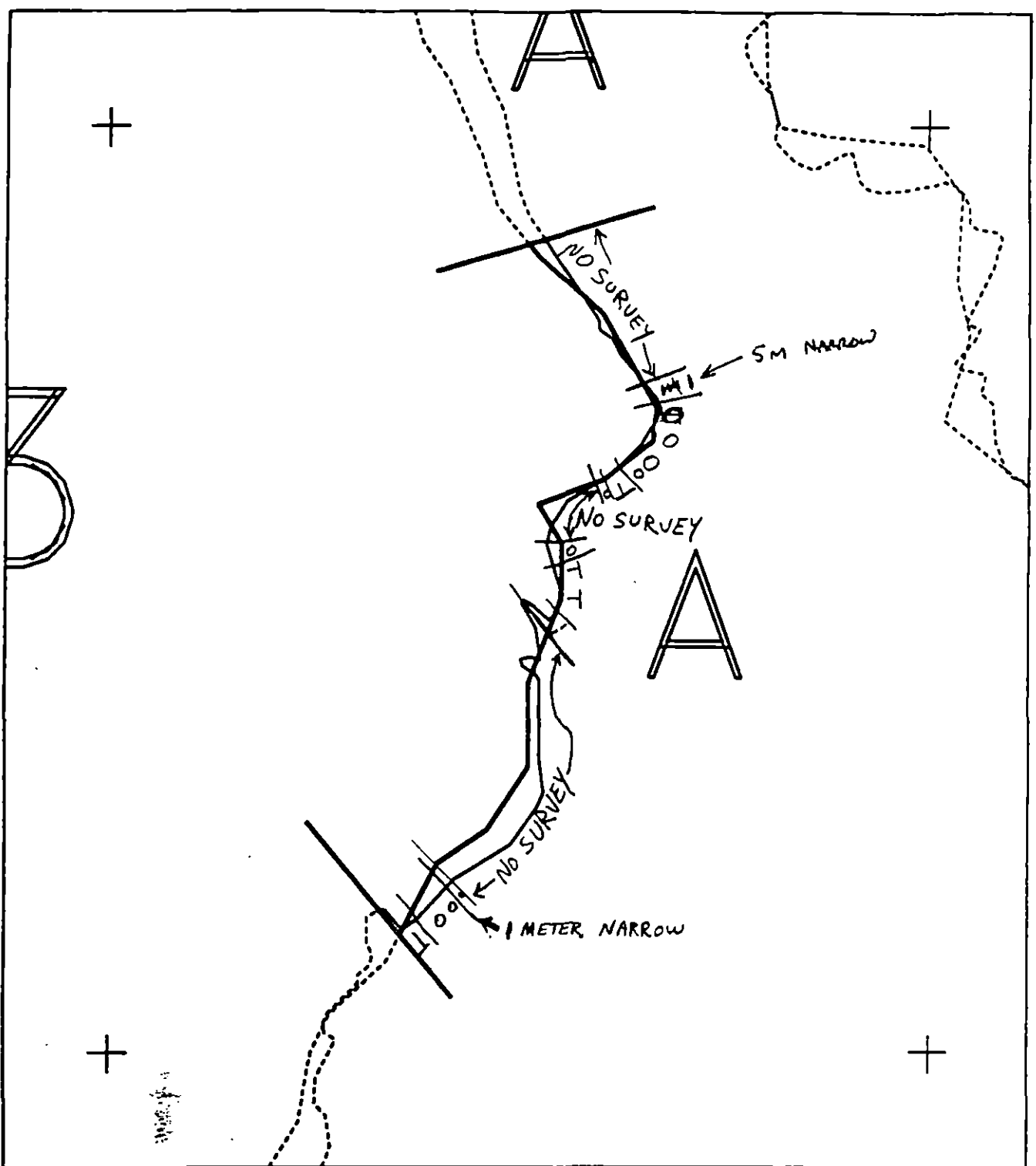
LEGEND

BEDROCK	
BOULDERB	
FINE SED.	
DRIFT LOG	
GRASS	
BRUSH	
FOREST	
OILED PIT	
NO OIL PIT	
PHOTO	

8SCALE

Approx. 100
METERS





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

EV003 A
 ADEC Subsegment Length: 023m
 METERS
 0 100 200
 AK State Plane Zone 4
 pr0030

Subdivision Field Map
 Map Key: PWSEV003A
 Name: Heg. Charney
 Date: April 27 91
 Data Entered:



REVISOR: ME 5/2/91

REVISED: F.W. 5/2/91

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/ EV-03 STREAM NO: 226-40-16590 DATE 4/22/90

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 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.

ARCHAEOLOGICAL CONSTRAINTS:

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact a member of Exxon's Cultural Resource Program immediately (564-3657; 564-3658 or 564-3276).

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

Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes 1) manual pickup of tarballs and 2) bioremediation of area of surface stain. Work should be conducted between 6/1 and 7/10 based on eagle nest and salmon constraints with approval of USFWS regarding eagle nest and ADF&G regarding bioremediation of stream banks.

TAG COMMENTS:

TAG APPROVAL DATE: 5/7/90

ADEC Art Weimer Art Weimer

EXXON Andy TGA Andy TGA

NOAA Gary Petrac Gary Petrac

USCG G.A. BETER G.A. BETER

FOSC: W L DATE: 5-15-90

NOTIFY CVC 24 HRS PRIOR TO WORK.

OG WILLIAM KED

SEGMENT SV E10003

STREAM 226-AD-16590

DATE 22 APR 90

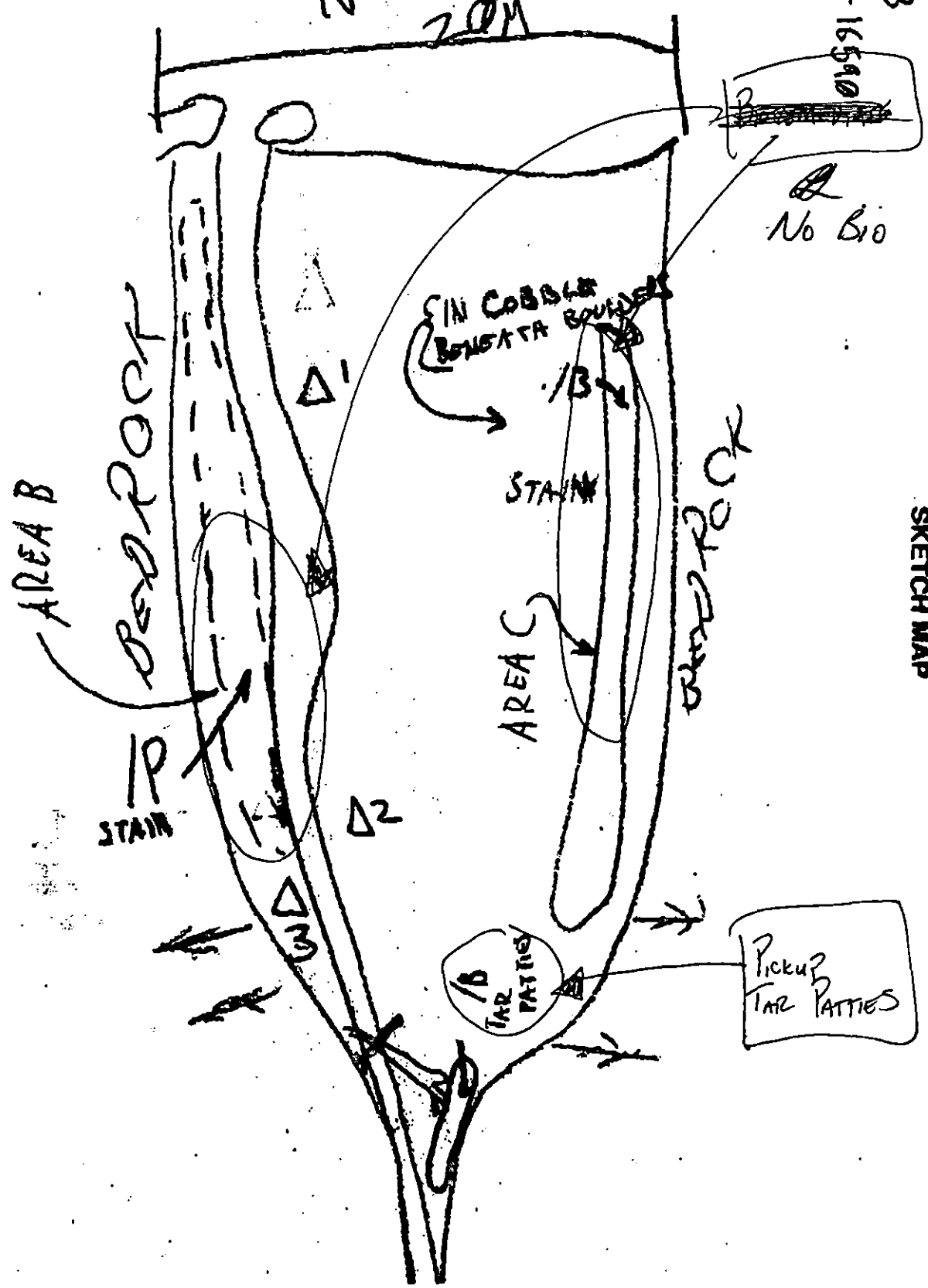
CHECKLIST

- ✓ M Animal
- ✓ Aquatic Insect
- ✓ Benthic Insect
- ✓ Crust.
- ✓ Fish
- ✓ Length
- ✓ % Cover
- ✓ Substrate Character
- ✓ Ext. Temp./A.W.
- ✓ Soil
- ✓ Profile Location(s)
- ✓ Profile(s)
- ✓ Profile Location(s)
- ✓ Profile Location(s)

LEGEND

- 1 A
- 2 A
- 3 A
- 4 A
- 5 A
- 6 A
- 7 A
- 8 A
- 9 A
- 10 A
- 11 A
- 12 A
- 13 A
- 14 A
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- 97 A
- 98 A
- 99 A
- 100 A

SKETCH MAP



ON ELEMENT (m): AP PO CV CT ST MS PT TR FL NO

INTERCOMPARISON

48 PHOTOLOG

DESCRIPTION

RECOMMENDATIONS: REMOVAL OF TAR PATTIES AND
SPATTERS. LEAVE TAR ON OILED OUTCROP
UNTREATED.

I agree with recommendations. M. H. Fournell

48 OIL DISTRIBUTION DIAGRAM

BEOROCK OUTCROP

15 meters

N

HEAVY
TAR ON
OUTCROP

BEOROCK

TAR PATTIES
& SPATTERS

TAR
PATTIES

WIGHT

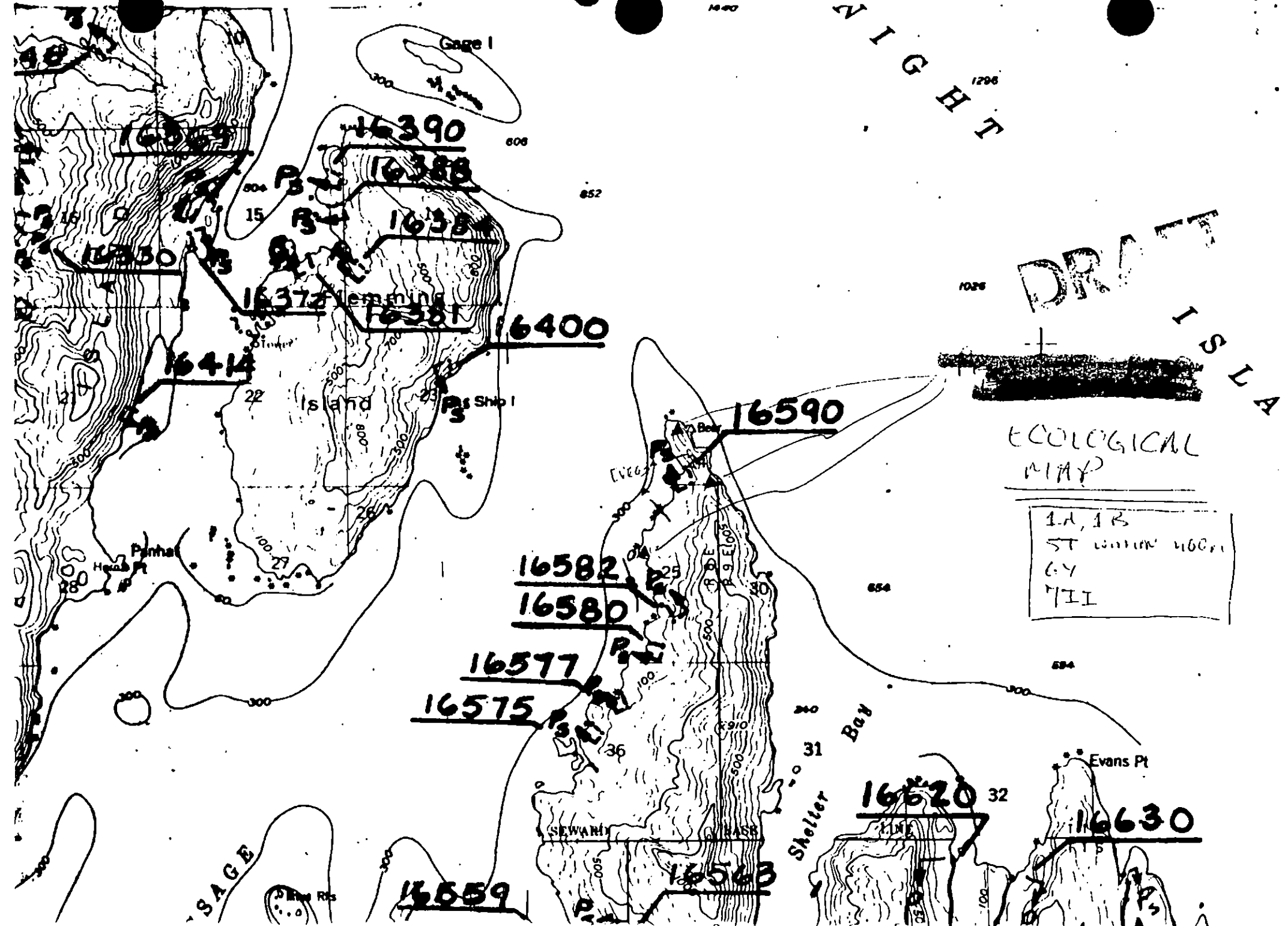
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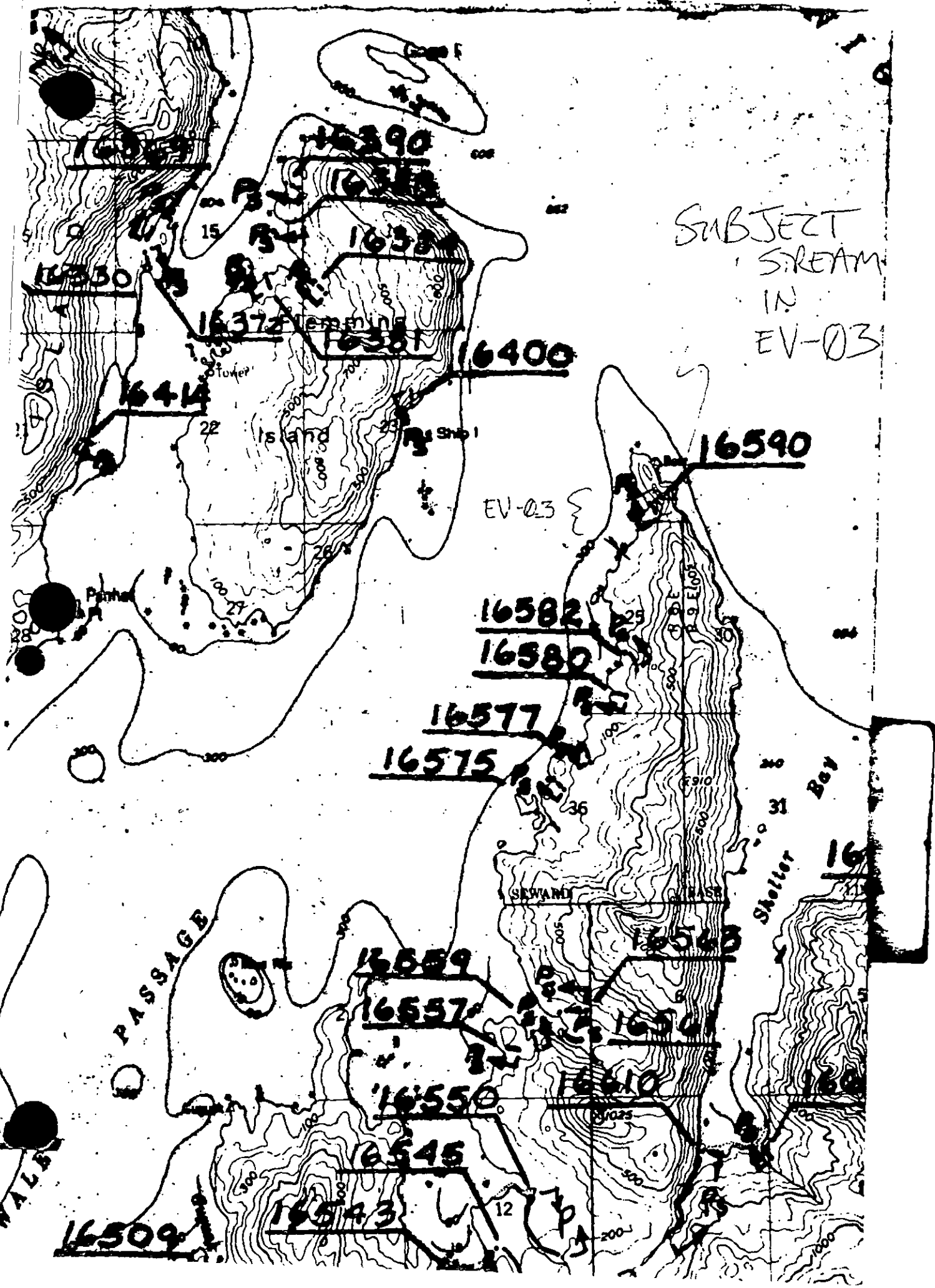
1026

DRAFT ISLAND

ECOLOGICAL
MAP

1A, 1B
ST within 400m
6.4
7.11





ANADROMOUS FISH STREAM EVALUATION ADDENDUM

CONSTRAINTS FOR STREAM NO. 226-40-16590

SEGMENT EV-3 SUBDIVISION A

WORK WINDOW	
Manual Pickup	OPEN

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A,1B Salmon Stream

ADF&G catalogued anadromous stream (226-40-16590) is in Subdivision A. 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 A work site.

7II Subsistence: Deer Harvesting

No constraint to manual pickup.

OTHER ECOLOGICAL CONSIDERATIONS

Restrict boat and air traffic and beach disturbance to essential minimum prior to 6/15 and after 8/15. No disturbance to stream bed or banks. Avoid any unnecessary disturbance or damage to unopened biota and substrate.

SEE SUBDIVISION CONSTRAINT ADDENDUM EV-3A
FOR ADDITIONAL CONSTRAINT INFORMATION.

FOSC

R. J. Janssen

Date

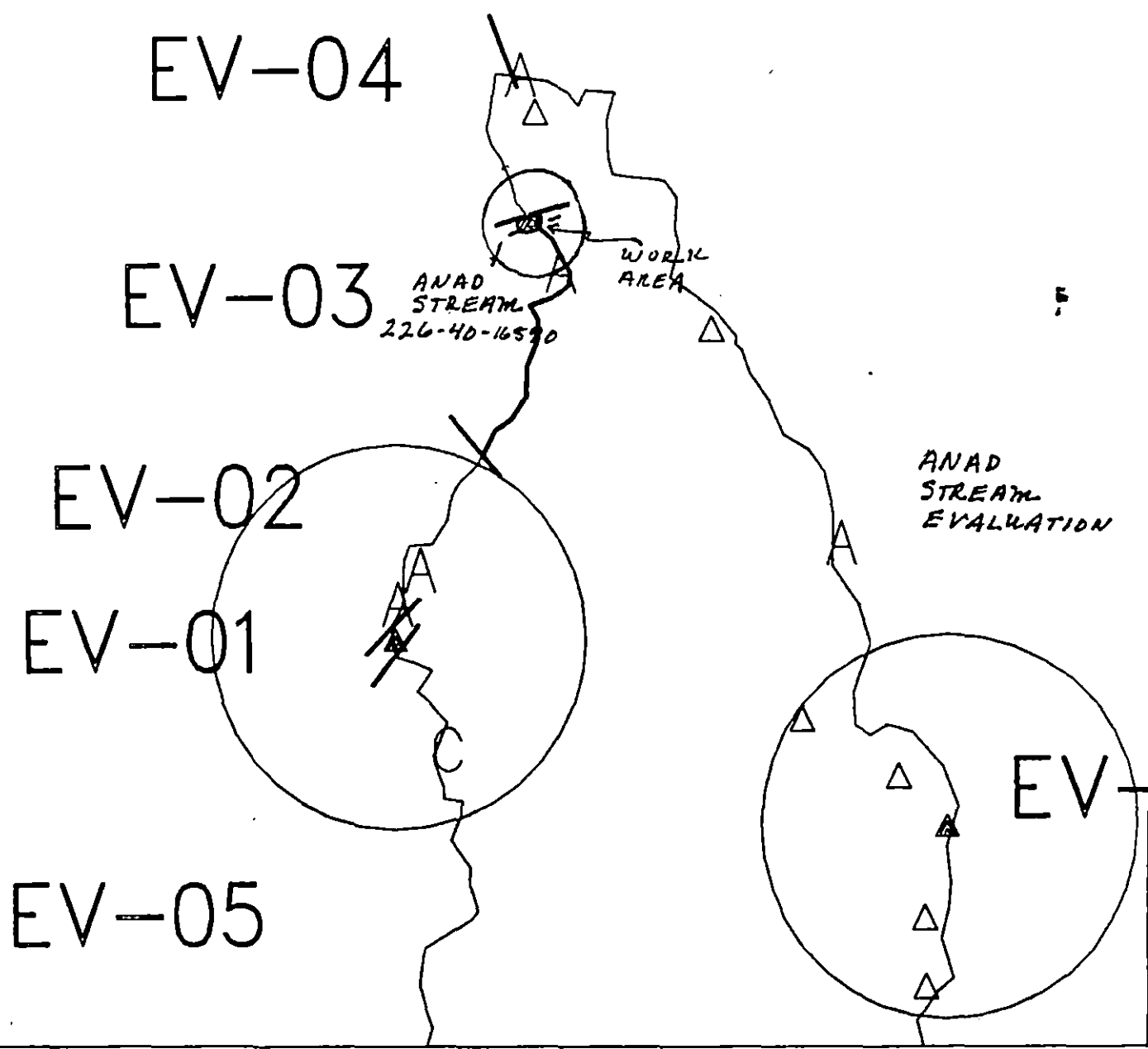
7/3/90

Prepared by

W. Kelley

Date

7/3/90



Exxon Company, USA
Map Key: PWS-EV-3



ECOLOGY MAP
SEGMENT EV-3
SUBDIVISION A (___ of ___)
METERS

★	Seabird Colony
▲	Active Eagle Nest
△	Inactive Eagle Nest

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/ EV-03 STREAM NO: 226-40-16590 DATE 4/22/90

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 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 uncoiled biota and substrate.

ARCHAEOLOGICAL CONSTRAINTS:

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact a member of Exxon's Cultural Resource Program immediately (564-3657; 564-3658 or 564-3276).

SHPO SIGNATURE: *J. David McMahon* DATE: 5/8/90

Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes 1) manual pickup of tarballs and 2) ~~bioremediation of area of surface stain.~~ Work should be conducted between 6/1 and 7/10 based on eagle nest and salmon constraints with approval of USFWS regarding eagle nest and ADF&G regarding bio-remediation of stream banks.

See Constraint Addendum dated 7/3/90 WTR

TAG COMMENTS:

TAG APPROVAL DATE: 5/7/90

ADEC *Art Weimer*
EXXON *Andy Tork*
NOAA *Gary Petrac*
USCG *G.A. Renter*

FOSC: *[Signature]* DATE: 5-15-90

NOTIFY CUC 24 HRS PRIOR TO WORK.

ANADROMOUS FISH STREAM ASSESSMENT

REGION: PRINCE WILLIAM SOUND

SEGMENT: EV-03

STREAM NO: 226-40-16590

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/ EV-03 STREAM NO: 226-40-16590 DATE 4/22/90

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 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 uncoiled biota and substrate.

ARCHAEOLOGICAL CONSTRAINTS:

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact a member of Exxon's Cultural Resource Program immediately (564-3657; 564-3658 or 564-3276).

SHPO SIGNATURE: _____ DATE: _____

Subsurface Oil Observed: Yes _____ No X Maximum Depth _____

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes 1) manual pickup of tarballs and 2) bioremediation of area of surface stain. Work should be conducted between 6/1 and 7/10 based on eagle nest and salmon constraints with approval of USFWS regarding eagle nest and ADF&G regarding bioremediation of stream banks.

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

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

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

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

Main Bay Hatchery release (4/20 to 6/15)

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

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

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

Gill net area (6/7 to 8/31)

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

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

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

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

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

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

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

Recreation:

Tent sites (6/1 to 9/15)

Anchorage (6/1 to 9/15)

Forest Service cabins (6/1 to 9/15)

Lodge (6/1 to 9/15)

Special use destination

Subsistence area: Salmon harvesting (5/1 to 9/30)

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

26/55

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ EV 003 SUBDIVISION: 16590 DATE 4/22/90

USCG

NAME CWO Mc KATHON SIGNATURE [Signature]☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

1. MANUAL CLEAN-UP; REMOVE TAR MATS
2. Bioremediation of BOULDERS (see map)

ADFG

ADEC

NAME Michael Wiedner SIGNATURE [Signature]☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

BIOREMEDIATION NOT SUGGESTED.

LAND MANAGER

NAME NO Team member SIGNATURE _____☐ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

SHORELINE OILING SUMMARY (ANAD.) 29/55 SECTION NO. 04

OG WILLIAM LEID USCG McMAHON SEGMENT ST/ EY003
 BIO MICHAEL FAWCETT LAND REP TOM CRAIG-ADEC ST/ AB236-40-165101 OF
 EXXON GUS GARCIA ADPG MIKE WIEDER TIME 18:20 18:40
 TEAM NO. 15 TIDE LEVEL Low DATE 22 / APR / 90
 EST. SUBDIVISION LENGTH: 20 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☐ Foot ☐ Boat ☐ Helo
 SURFACE SEDIMENTS: R 0 % B 20 % C 40 % P 40 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 90 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 3 m VL 3 m NO 15

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	N	E	S	W	1	2	3	4	5	BU	ME	ML	U
ASPHALT PAVEMENT													
POOLED													
COVER													
COAT													
STAIN			X			X						X	
MOUSSE													
PATTIES													
TARBALLS			X			X						X	
FILM													
NO OIL										X	X		X

PAVEMENT H F S 0 sq. m by 0PATTIES / TARBALLS 1 BANEAR SHORE SHEEN? NO BR RW SL T

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

Did You COLL
 DEBRIS ☐ YES ☒ NO
 TYPE _____
 #BAGS _____

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 SUBSURFA SEDIMENT
		OP	OR	OL	OF	NO		NO	NO	1	2	3	4	5	BU	ME	ML	U				
1	30					X	.													N		P/C
2	15					X	.													N		P/C
3	10					X	.													N		P/C
							.															
							.															
							.															
							.															

COMMENTS

REVIEWED JWDATE 4-25-90

人

INTERVIEW

27/53

ADPEC MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: BS SS DS TS AVS SCH MMS PTA 2 REGION: PWS KP, CI K, AP

METHOD: Aerial Ground Boat

3 DATE: 4/22/90 16 HIGH TIDE TIMES: 1205 1 - 21 TEAM RECORDER: M. WIEDNER

4 START TIME: 1815 16 HIGH TIDE HTS: 10.0' 1 - 22 OBSERVERS: T. CROWE

5 STOP TIME: 1845 17 LOW TIDE TIMES: 0603 1 1814 23 AGENCY: ADFG

6 SEGMENT #: EV-003 18 LOW TIDE HTS: 1.0' 1 0.7' 24 PHOTOS TAKEN: Y N

7 STATION #: 226-40-16590 19 TIDE HT AT SURVEY: 0.7' Roll #: _____ Frames: _____

8 K-UNIT: _____ Ebb Slack Flood Slack 25 VIDEO TAKEN: Y N TAPES: _____

9 STAT AREA: _____ 20 USCG QUAD: SEWARD A3 Starts: _____ Ends: _____

10 LAT: _____ 11 LONG: _____ 26 SAMPLES TAKEN: Y N Number

12 SOURCE: Map Loran _____ Oil _____

13 LOCATION: EVANS POINT Sediment _____

14 DESCRIPTION: _____ Biological _____

Water _____

EXTENT OF OIL

	SHORELINE				STREAM			
	L	Y	N	S	L	Y	N	S
27 SURFACE COVERAGE	15	100		2	100	2		21
28 SURFACE THICKNESS	1mm	1cm	2mm	<1mm				
29 PENETRATION	0	5cm	4cm					

30 OVERALL OIL IMPACT: N VL L N H

31 OIL TYPE: Pooled Mouse Tar Asphalt Sticky Stain

32 OILED DEBRIS: Y N

33 SHORELINE TYPE: Headland Low-lying Rocks Beach Cove

Lagoon Marsh

34 WAVE EXPOSURE: High Moderate Low

35 SUBSTRATE TYPE: Bedrock Boulder 33 Cobble 33

Gravel 33 Sand _____ Mud/silt _____

36 CATALOGED ANAD. FISH STREAM Y N

37 CATALOG #: 226-40-16590

38 STREAM NAME: _____

39 OIL IN STREAM BED: Y N

40 OIL ON STREAM BANKS: Y N

41 OIL ON BEACH ADJACENT TO MOUTH (within 50 meters) Y N

42 OIL WITHIN 1 MILE OF STREAM? Y N

Where: _____

43 ANADROMOUS FISH PRESENT? Y N

FRY PRESUMED

44 ANADROMOUS FISH OBSERVATION

Species	Aerial	Ground

COMMENTS: THE SITE IS A SMALL POCKET COVE WITH A SMALL SEAWARD
OPENING - BEDROCK OUTCROPS ON BOTH SIDES. THE OUTCROP
ON THE WEST HAS SIGNIFICANT TAR COVERAGE ON VERTICAL
SURFACES. SOME LIVING BIOTA WITHIN TREATED ZONES. TAR PATTIES

48 PHOTOLOG

DESCRIPTION

RECOMMENDATIONS: REMOVAL OF TAR PATTIES AND
SPLATTERS. LEAVE TAR ON Oiled OUTCROP
UNTREATED.

I agree with recommendations. 10 # Forward

48 OIL DISTRIBUTION DIAGRAM

BEDROCK OUTCROP

15 meters

N

HEAVY
TAR ON
OUTCROP

BEDROCK

TAR PATTIES
& SPLATTERS

TAR
PATTIES

33/55

Segment EU 003

4/21/90

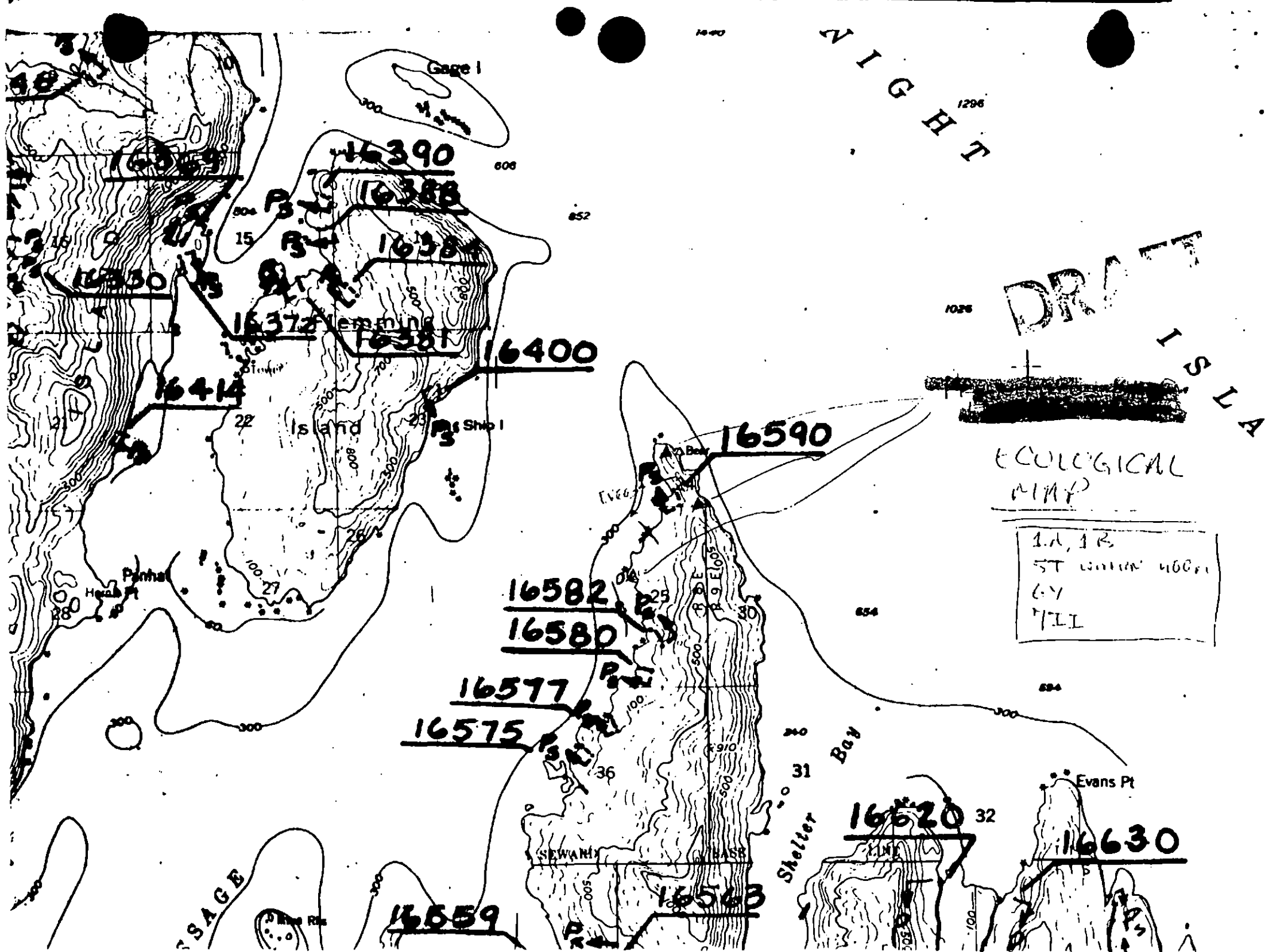
Stream 226-40-16570

Michael Fawcett

Ecological Summary

This small stream enters the sea via a 15m wide gravel/pebble/beach in a narrow cove with vertical bedrock on either side. The beach sediments are unstable and there is no macro-biota present. A mature, diverse community including barnacles, mussels, several species of limpets, littorines, whelks, algae, etc., exists on the vertical walls despite a remaining fairly heavy coat of weathered oil. No constraint: beach or stream bank cleanup, but I recommend leaving the vertical walls alone.





REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/EV-04

SUBDIVISIONS: A (1 OF 1)

SHORELINE EVALUATION

SEGMENT ST/ EV-04 SUBDIVISION A (1 OF 1) DATE 4/24/90

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)
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.

ARCHAEOLOGICAL CONSTRAINTS:

If treatment is planned, a cultural resource evaluation is required prior to shoreline treatment.

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 282 m: V.Light 0 m: No Oil 73 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: _____

ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

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 Inpol 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 Inpol 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 Inpol 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 Inpol 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 Inpol 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 Inpol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31). Contact ADF&G and USFWS prior to treatment for confirmation.

AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235

ADF&G Don Calkins 267-2403

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

Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.

AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

5S Shorebird/waterfowl concentration (4/1 to 5/15)

Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.

AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

ADF&G Tom Roth 267-2208

✓ 5T All Bald Eagle nests (3/1 to 6/1)

Active Bald Eagle nests (3/1 to 9/1)

Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.

AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

6U Recreation:

Tent sites (5/1 to 9/15)

6V Anchorages (5/1 to 9/15)

6W Forest Service cabins (5/1 to 9/15)

6X Lodge (5/1 to 9/15)

✓ 6Y Special use destination

7Z Subistence area: Salmon harvesting (5/1 to 9/30)

Finfish harvesting

71-H Deer harvesting (5/15 to 2/25)

✓ 71-I 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 Inpol 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/ EV04 SUBDIVISION: A DATE 4/24/90

USCG

NAME SHAWN MAAS SIGNATURE [Signature]☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

COVER CONSISTED ON VERTICAL ROCK FACES ONLY
(RED) HARD TO ACCESS FOR CLEANING.

NO SUBSURFACE OILS NOTED

ADEC

NAME DAVE SALE SIGNATURE [Signature]☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

due to limited ciling on barnacle land

There is oil in this segment, on HI-MOLE ROCK FACES,
WHICH MAKE UP MOST OF THE SEGMENT, IN A PATCHY COVER
ROUGHLY COINCIDING WITH THE UPPER LIMITS OF THE BARNACLE
ZONE, OVERLAPPING IT. NO TREATMENT WOULD LIKELY BE
EFFECTIVE; WOULD PROBABLY CAUSE DAMAGE w/ NO NOTICEABLE
RESULTS. SIGNOFF SHOULD INCLUDE NOTATION THAT OIL EXISTS,
AND CANNOT BE REMOVED.

LAND MANAGER

NAME DON HOMPKEFF JR. SIGNATURE [Signature]☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

30 of 46

SHORELINE OILING SUMMARY

REVISION NO 04/13/88

OG R. Marty USCG S. Maas SEGMENT ST/ EV-04
 BIO B. Lemon LAND REP D. Kempf SUBDIVISION A (A OF A)
 EXXON J. Cuernesi ADEC D. Sale TIME 19:40 to 20:00
 TEAM NO. 10 TIDE LEVEL +0.2m → +0.24m DATE 24 April 1990
 EST. SUBDIVISION LENGTH: 365 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☐ Rock
 SURVEYED FROM: ☐ Foot ☒ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 100 % B 0 % C 0 % P 0 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 0 % Hang 0 % Vert 100 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 3/2 m VL 0 m NO 53 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	0	1	2	3	4	5	6	7	8	9	10	11	SU	U	M	U
ASPHALT PAVEMENT																
POOLED																
COVER			P							P					P	
COAT																
STAIN																
MOUSSE																
PATTIES																
TARBALLS																
FILM																
NO OIL													X	X	X	

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

OILED DEBRIS	NO	AMOUNT		
		SM	MD	LG
Logs	X			
Vegetation	X			
Trash	X			
Debris	X			

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒TYPE —#BAGS —

Photographs:

Roll No. ST/10/14Frames 36, 37, & end

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SHEEN (Y/N)	▽	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	4	5	6	7	8	9	10	11	SU	U	M	U				
<u>NONE</u>																									

COMMENTS vertical cliffs with dense attached communities. Sporadic oiling.

29 of 46

REVIEWED 7W DATE 4/27/90

OG R. Masty

SEGMENT EV-4

SUBDIVISION A

DATE 24 Apr 90

CHECKLIST

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

LEGEND

1 Δ

Pit - No Subsurface Oil

2 Δ

Pit - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

Splashed Distribution

lll

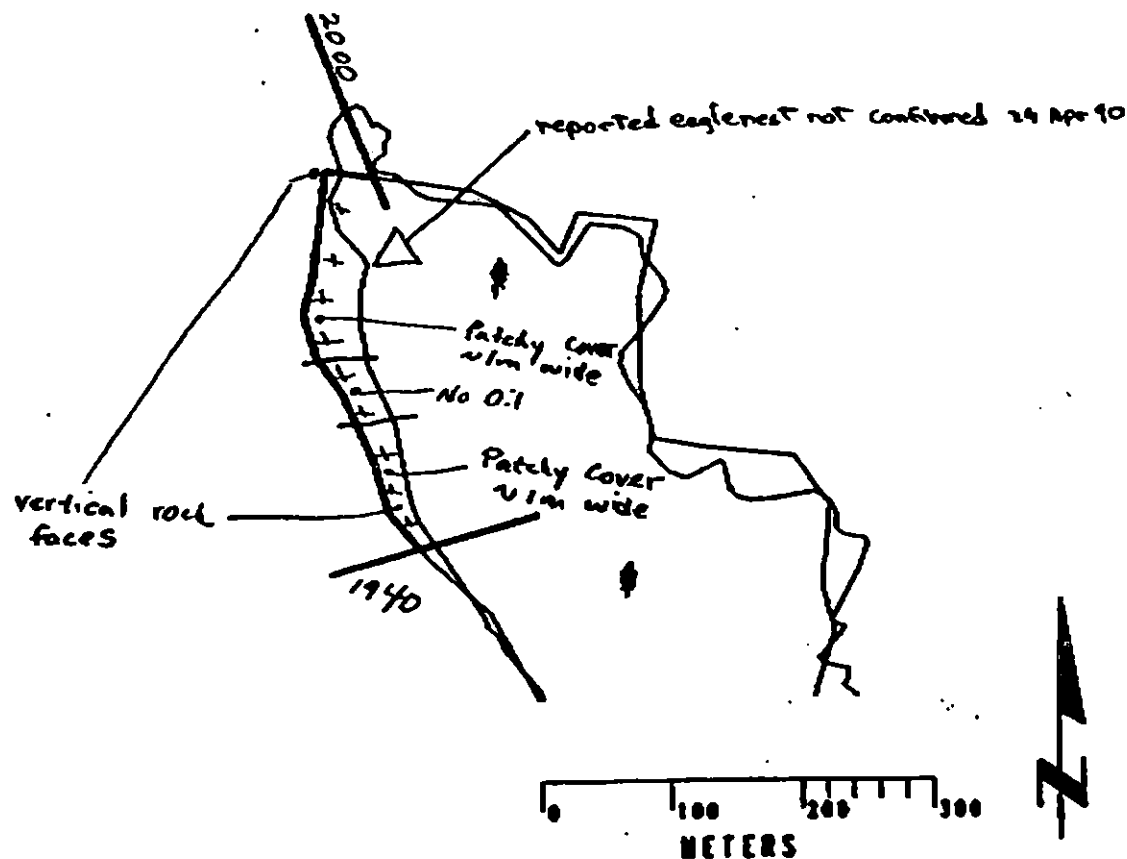
Oiled Vegetation

1 →

Photo location, direction,
and number

ETCH MAP

EV-4



Oil Character Length (m): AP — PO — CV 312 CT — ST — MS — PT — TB — FL — NO 53

REVISION 000000

SHORELINE ECOLOGICAL SUMMARY

REVISION: 02/28/78

Segment ST/10/4V-04 Subdivision A Date (mo / day / yr) 4 / 24 / 90

Time (24 hr) 1941 - 2000 Biologist Lemon

- (A) Substrate type and % of segments:
 (1) Bedrock 100 (2) Boulder 0 (3) Cobble 0 (4) Pebble 0 (5) Sand 0 (6) Silt 0
- (B) Overall % cover of biota (% of segment): Dense 85% Moderate 0 Low 0
- (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 36, 37, 38 ?

BARNACLES

Dense			Moderate			Sparse			Rare		
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

NOT PRESENT

MYTILUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	XU	1M	X
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	XU	XM	XL	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	XM	1L	1U	1M	1L	1U	1M	XL	XU	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: mostly stuff by with just 1 stop. Probably a very rich and diverse segment if there was the time to document the biota.

- 2 sea otters
- 2 sea lions
- 1 eagle

Ecological Considerations: Eagle nest was not confirmed; a deer harvest area.

33 of 46

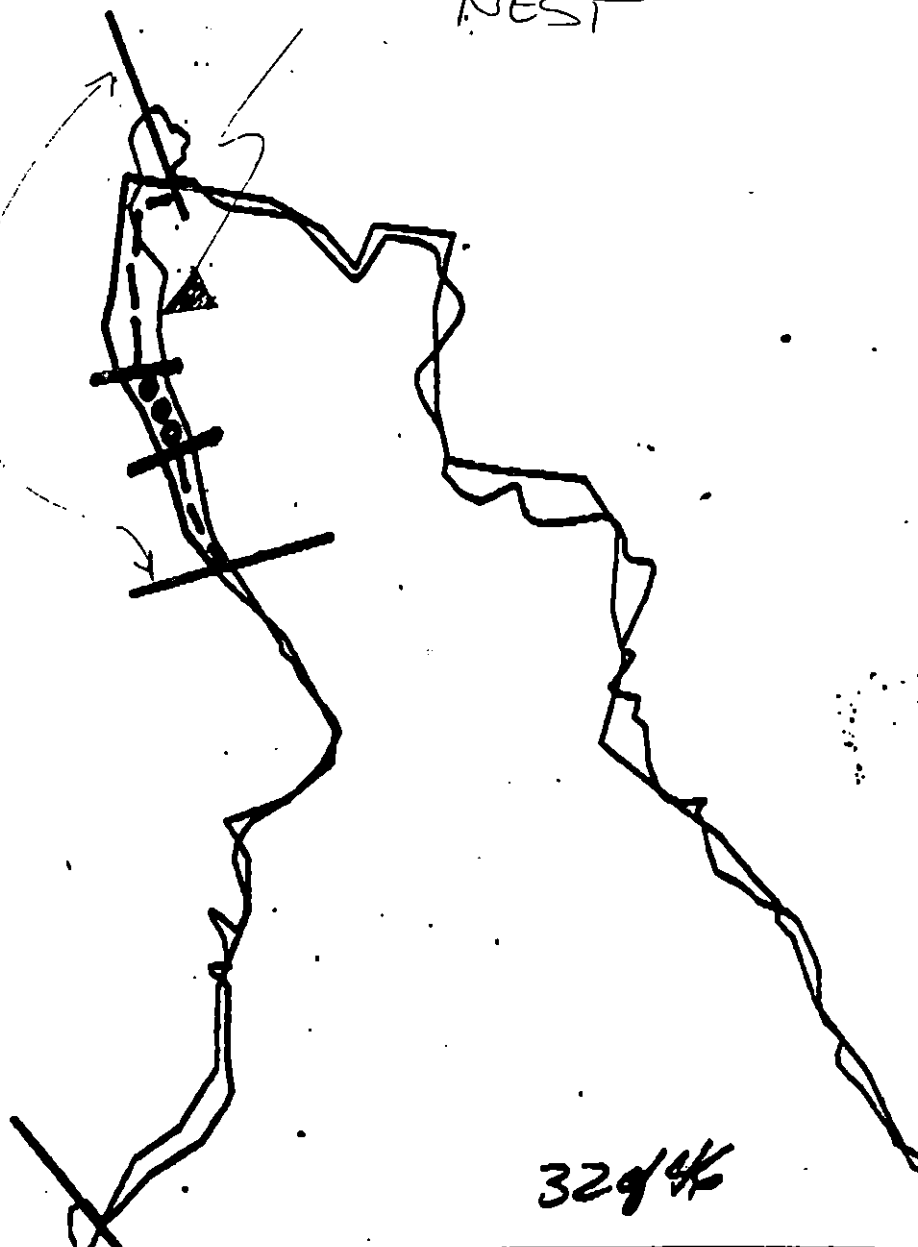
ECOLOGICAL MAP EV-04-A

ST-1
64
7II

BALD EAGLE
NEST

EV-04
A

No	0.3	45m	53m
Lt	1.75	263m	312m
		308	365



XXXX Wide

//// Medium

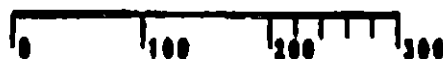
--- Narrow

TTTT Very Light

0000 No Oil

BV-4

ADEC Segment Length: 365m



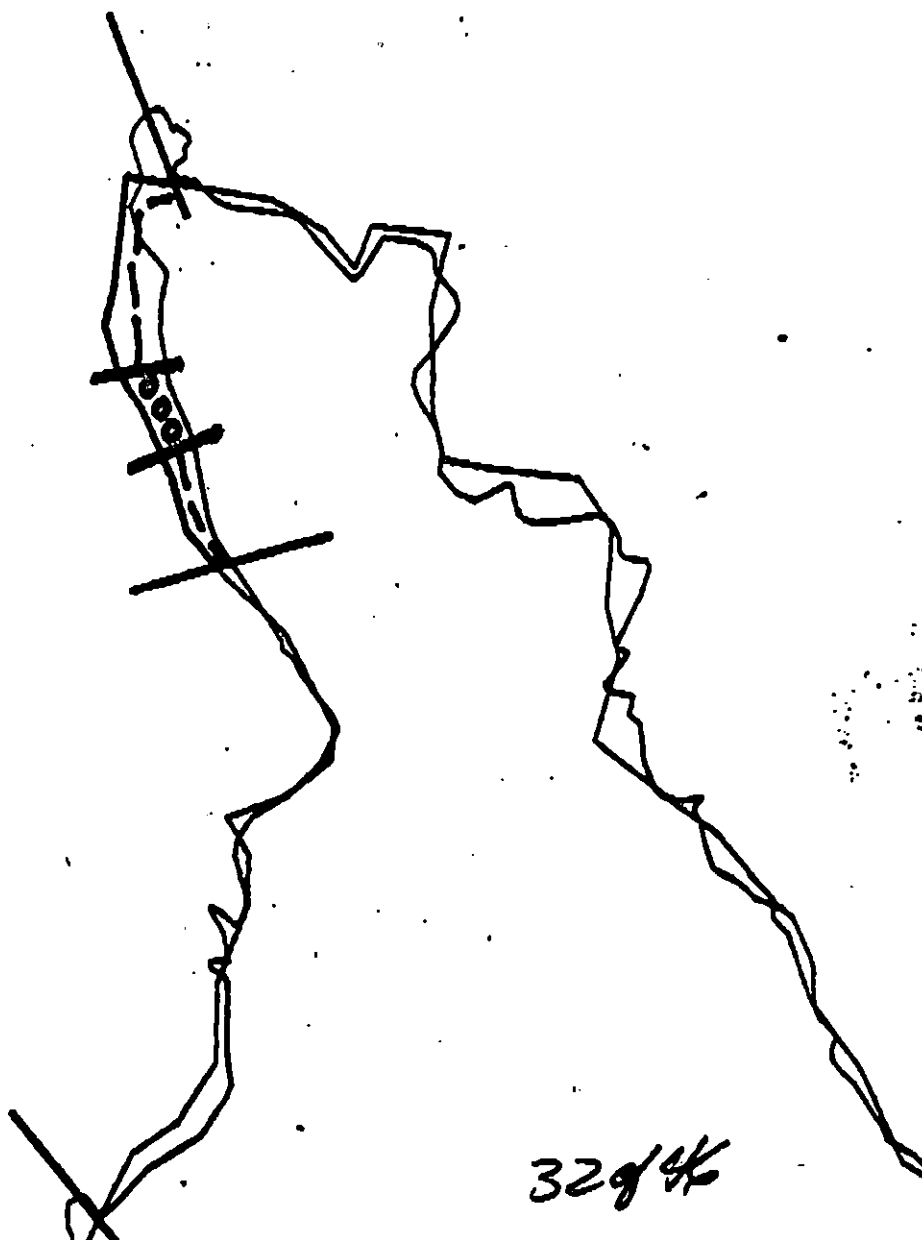
Map Key: PWS-246

Name: R. Marty

Date: 24 April 1990

Date Entered:

NO	0.3	45m	53m
Lt	1.75	263m	312m
		308	365



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-4

ADEC Segment Length: 365m



Map Key: PWS-246

Name: R. MartyDate: 24 April 1990

Data Entered:

SHORELINE EVALUATION

SEGMENT ST/ EV-04 SUBDIVISION A (1 OF 1) DATE 4/24/90

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)
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.

ARCHAEOLOGICAL CONSTRAINTS:

If treatment is planned, a cultural resource evaluation is required prior to shoreline treatment.

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

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 282 m: V. Light 0 m: No Oil 73 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: May 5, 1990
ADEC ART WEINER Art Weiner
EXXON Mark N. Silber Mark N. Silber FOSC: M. L. DATE: 5-18-90
NOAA Gary Peterson Gary Peterson
USCG G.A. BEITER G.A. Beiter NOTED AND OK'D PRIOR TO WORK.

OG R. Marley

SEGMENT EV-4

SUBDIVISION A

DATE 24 Apr 90

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Entry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HRR/LAVL
- ☐ SSL
- ☐ 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

eee

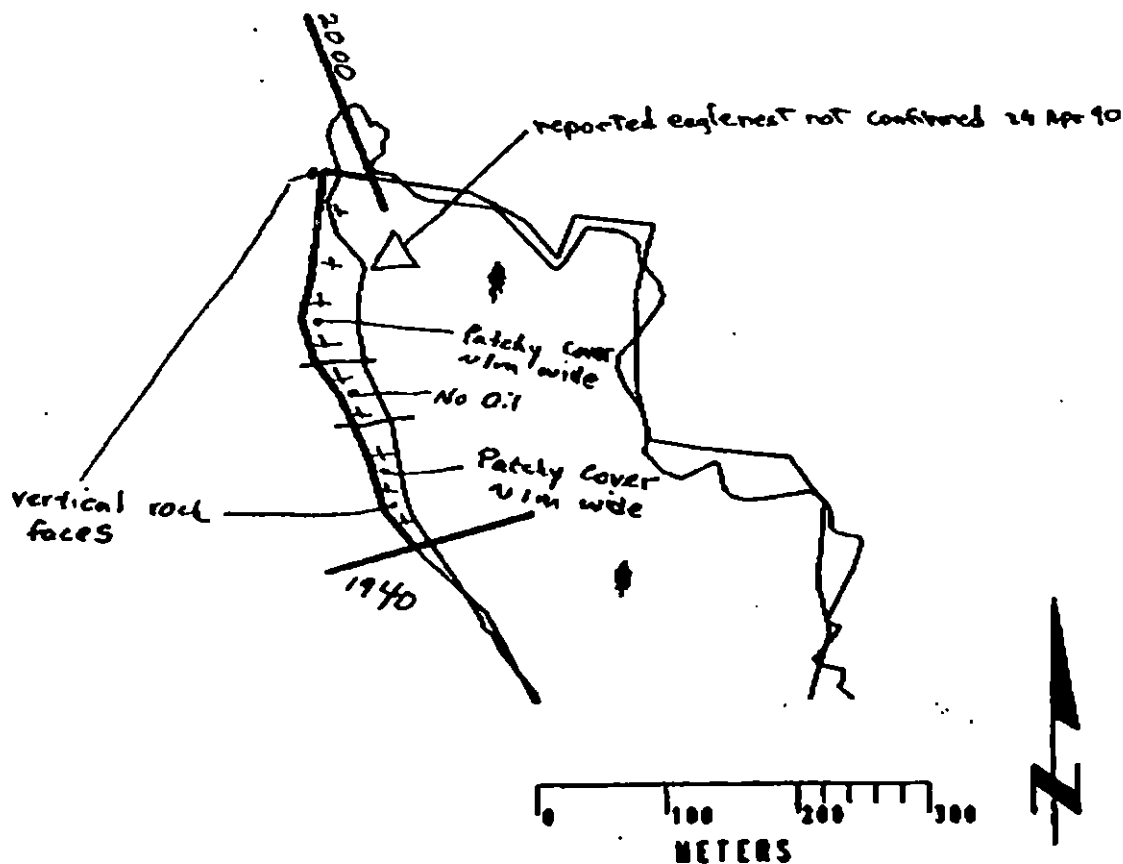
Oiled Vegetation

1 →

Photo location, direction,
and number

SKETCH MAP

EV-4



318/46

Oil Character Length (m): AP — PO — CV 312 CT — ST — MS — PT — TB — FL — NO 53

REVISIONS

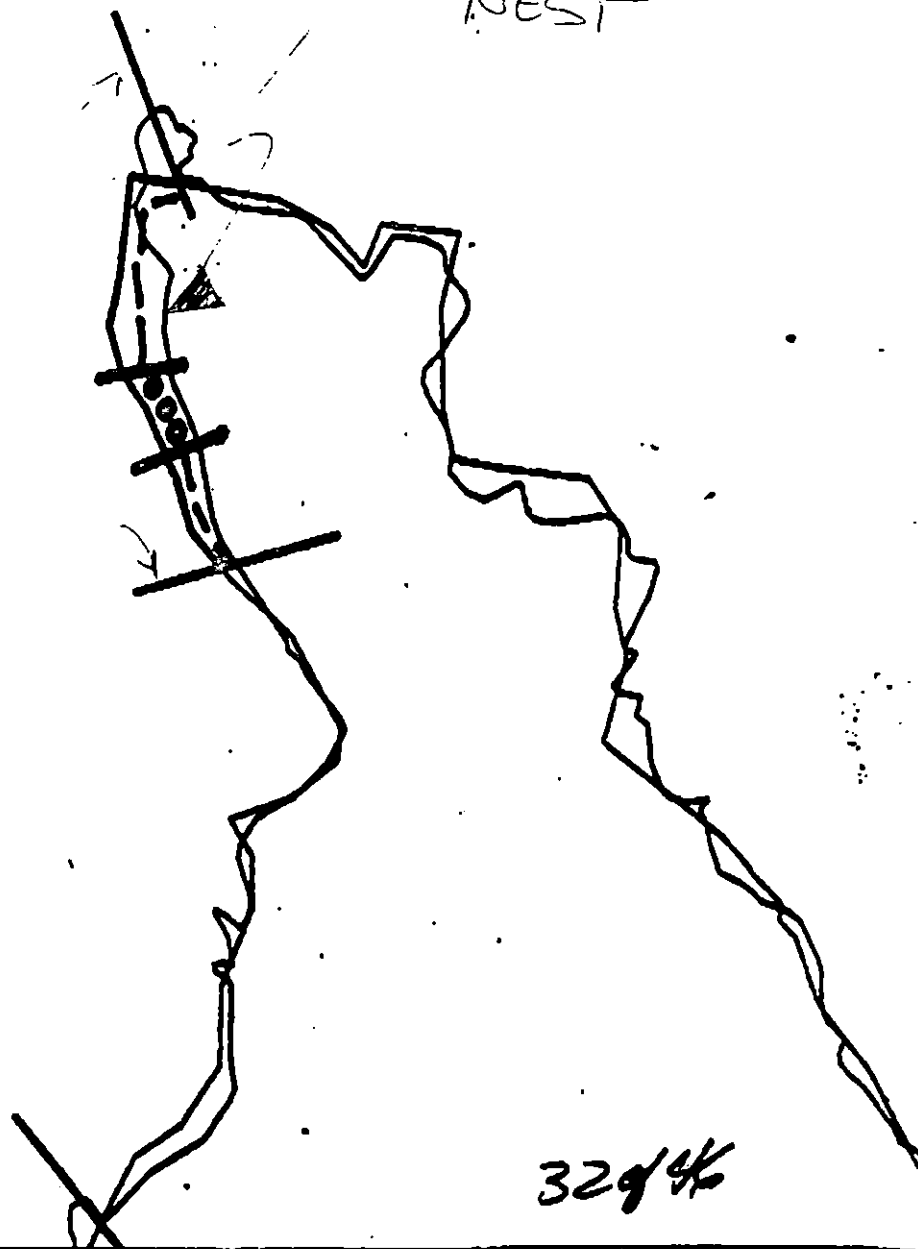
ECOLOGICAL MAP EV-04-A

ST-1
64
7II

BALD EAGLE
NEST

EV-04
A

No	0.3	45m	53m
Lt	1.75	263m	312m
		308	365



32g/k

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

BV-4

ADEC Segment Length: 365m



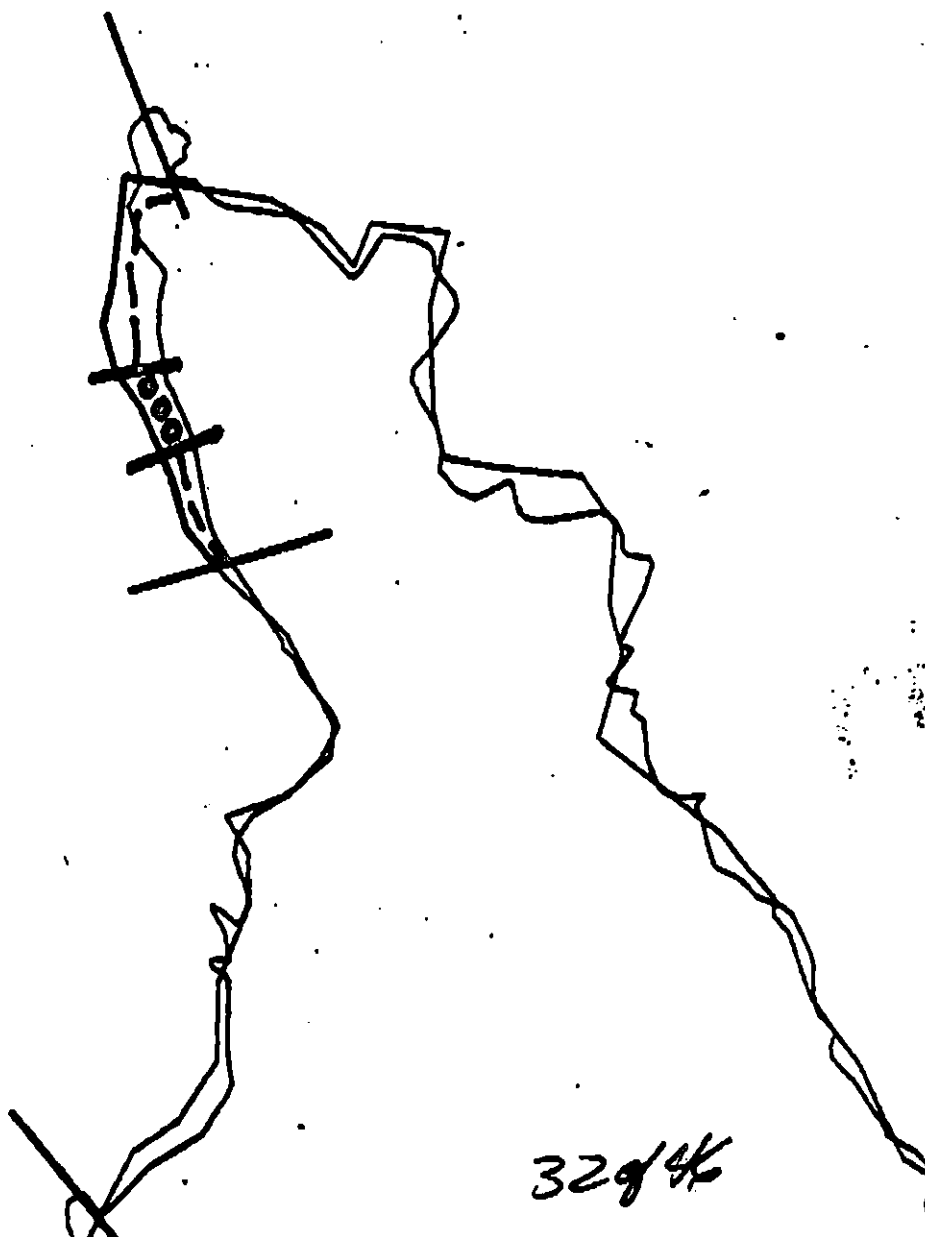
Map Key: PWS-246

Name: R. Marty

Date: 24 April 1990

Date Entered:

NO	0.3	45m	53m
Lt	1.75	263m	312m
		308	365



XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-4

ADEC Segment Length: 365m



Map Key: PWS-246

Name: R. Marty

Date: 24 April 1990

Date Entered:



SEGMENT NUMBER: EV-005

STREAM NUMBER: 226-40-16580

This stream was surveyed during the Pre-ANAD survey by a cooperative effort of ADF&G and Exxon on April 11, 1990. As a result of this pre-survey, the ANAD Fish Stream Team decided NOT to survey the stream, but simply to review the results of the pre-survey. The FIELD SHORELINE COMMENT SHEET was prepared from the review of the pre-survey. Also attached is a copy of the pre-survey for your consideration.

The ANAD Fish Stream Team recommends: NO TREATMENT

TAG Concurrence Date:

ADEC	<u>ART WEINER</u>	<u>DET GREEN</u>
EXXON	<u>ANDY TEAL</u>	<u>DET</u>
NOAA	<u>BILL WERTH</u>	<u>BILL WERTH</u>
USCG	<u>MR. J. HALL</u>	<u>MR. J. HALL</u>

FOSC:

Date: 5-24-90

NOTE: THE FOLLOWING DOCUMENTATION OF THIS STREAM BY RICK GUSTIN
4/11/90 REVIEWED BY USCG & ADFG. PRESURVY DOCUMENTATION IS
FIELD SHORELINE COMMENT SHEET

ATTACHED.
AL SNOOK
EXXON REP.

SEGMENT ST 1 EV-005 SUBDIVISION: 226-40-16580 DATE 4/27/90

USCG

NAME KERWIN L. DREHER

SIGNATURE CWO K. L. Dreher

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

DRAFT

~~ADFG~~ ADFG

NAME RICK GUSTIN

SIGNATURE

Richard Lohr

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

This light coating of oil on the cliff
is weathered and stable and is such a small
amount it should be left to weather away
naturally.

~~LAND MANAGER~~

NAME

SIGNATURE

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

EV-005¹⁶
16580*

ADFCO MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: DE (S) DE TS AVS SCIA MOB PTA 2 REGION: (2) SP, CI K, AP

3 METHOD: Aerial (Ground) Boat

4 DATE: 4/16/90 15 HIGH TIDE TIMES: 2 21 TEAM READER: R. Gupta

5 START TIME: 1015 16 HIGH TIDE HTS: 1 22 OBSERVERS: (1)

6 STOP TIME: 1024 17 LOW TIDE TIMES: 1 23 AGENCY: ADFCO HAP

7 SEGMENT #: EV005 18 LOW TIDE HTS: 1 24 PHOTOS TAKEN: Y (S)

8 STATION #: _____ 19 TIDE HT AT SURVEY: _____ Roll #: _____ Frames: _____

9 K-UNIT: _____ Edo Stack Flood Stack 25 VIDEO TAKEN: Y (S) TAPES: _____

10 STAT AREA: _____ 20 USCG BUOY: _____ Starts: _____ Ends: _____

11 LAT: _____ 21 LONG: _____ 26 SAMPLES TAKEN: Y (S) Number

12 SOURCE: (S) Loren Oil _____

13 LOCATION: Exxon Is. Sediment _____

14 DESCRIPTION: NE lip peninsula Biologist _____

Water _____

EXTENT OF OIL

27 SURFACE COVERAGE

SHORELINE				STREAM			
L	V	H	S	L	V	H	S

28 SURFACE THICKNESS

--	--	--	--	--	--	--	--

29 PENETRATION

--	--	--	--	--	--	--	--

30 OVERALL OIL IMPACT: N VL L N N

31 OIL TYPE: Pooled House Tar (Asphalt) (Sticks) Scum

32 OILED DEBRIS: (Y) N

33 SHORELINE TYPE: Headland Low-lying Rocks Beach (Cave)

Lagoon Marsh

34 WAVE EXPOSURE: (High) Moderate Low

35 SUBSTRATE TYPE: Bedrock ✓ Boulder ✓ Cobble

Gravel Sand Red/Clay

36 CATALOGUED ANAD. FISH SPECIES: (S) N

37 CATALOG #: 16580

38 STREAM NAME: _____

39 OIL IN STREAM BED: Y (N)

40 OIL ON STREAM BANK: (Y) N

41 OIL ON BEACH ADJACENT TO MOUTH: (S) N
(within 35 meters)

42 OIL WITHIN 1 MILE OF STREAM: (S) N

Notes: bedrock cliffs
runoff stream

43 ANAD. FISH PRESENT: Y N

44 ANAD. FISH OBSERVATION

Species	Aerial	Ground

removed for analysis

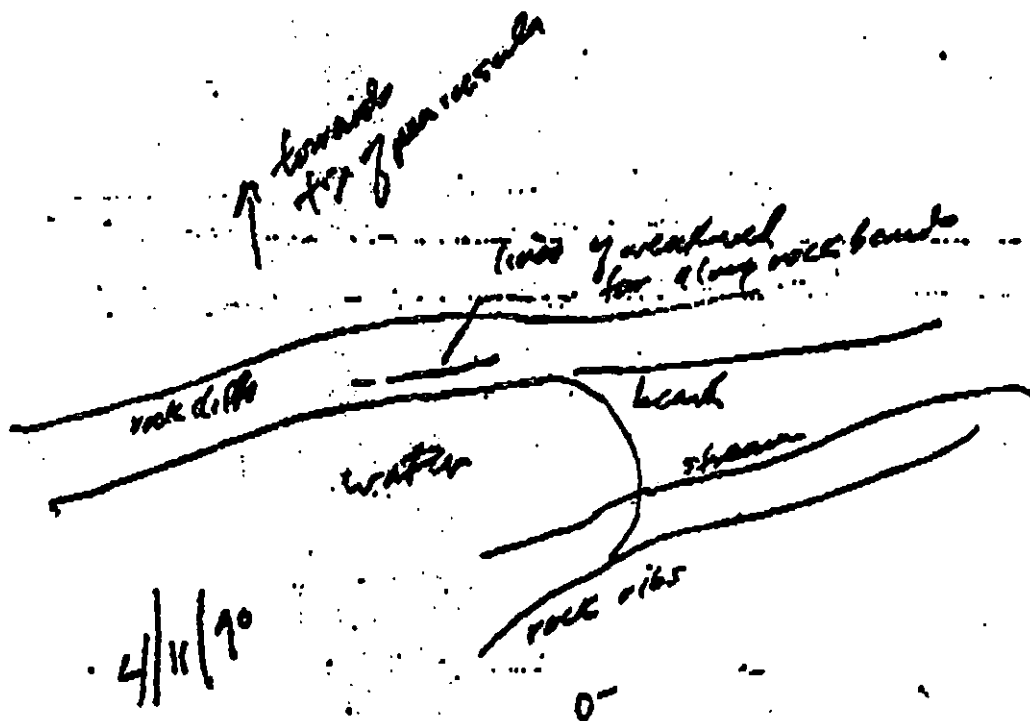
COMMENTS: Oil noted on Shelly bedrock on north shore
of stream - impregnated with needles, wellhead for
like coating band extends along cliff edge.
No oil noted in stream or stream edge.
penetration of oil - (surface)

48 PHOTOLOG

17/38

NAME(S)	DESCRIPTION

48 OIL DISTRIBUTION DIAGRAM



Recommendations - either leave it or steam clean to remove.

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/EV-05

SUBDIVISIONS: A (1 OF 3)

SHORELINE EVALUATION

SEGMENT ST/ EV-05 SUBDIVISION A (1 OF 3) DATE 4/7/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

ADF&G anadromous stream no. 226-40-16575, 16580, 16582, 16577.

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. 2 eagle nests in EV-05; 1 nest also near border wit EV-06, another on or near border with EV-01. No anadromous stream in this Subdivision.

ARCHAEOLOGICAL CONSTRAINTS:

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact a member of Exxon's Cultural Resource Program immediately (564-3657; 564-3658 or 564-3276).

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 21 m: V.Light 275 m: No Oil 97 m
Subsurface Oil Observed: Yes X No _____ Maximum Depth 8 cm

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes 1) manual asphalt removal, 2) manual pick up of oiled debris, 3) bioremediation of areas shown on attached sketch map. Work should be conducted between 6/1 and 7/10 based on eagle nest and salmon constraints after approval of USFWS regarding eagle nest.

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

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 (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)
- 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-5SUBDIVISION: ADATE 4/7/90

NOAA

NAME GARY SUIGENAKASIGNATURE *Gary Suigenaka*☐ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

SUBDIVISION CONSISTED OF AN APPROXIMATELY 80M POCKET BEACH ALONG THE NORTHWESTERN TIP OF EVANS ISLAND. THE BEACH WAS KNOWN TO HAVE BEEN FAIRLY HEAVILY OILED (THE CVC BEP VIEWED IT LAST YEAR DURING CLEANUP OPS) AND SHOWED EVIDENCE OF CONTINUED PRESENCE OF OIL. HOWEVER, THE BEACH HAS APPARENTLY IMPROVED DRAMATICALLY IN APPEARANCE IN THE INTERVENING MONTHS. A ROCK OUTCROP BISECTED THE BEACH; AT THE SOUTH END OF THE BEACH, CHARACTERIZED BY A ROCK FACE, SOME COAT WAS OBSERVED. IN BOULDERS ADJACENT TO THE WALL, A 15 M (WIDE) BY 5 M (LENGTH) PATCH OF COAT AND POOLED OIL UP TO APPROXIMATELY 3 CM IN DEPTH WAS FOUND. CLUSTERS OF MUSSELS, SOME LIVE AND SOME DEAD, WERE FOUND IN THIS ZONE. MUSSELS ALSO EXTENDED INTO THE COBBLE BEACH AREA ADJACENT TO THE BOULDERS, AND THIS SHOWED OILING IN THE FORM OF SHEEN ON THE WATER AS WELL AS SOME COVER ON SURFACE OF COBBLE AND SEDIMENTS. MUSSELS, COVER, AND SHEEN WERE ALSO OBSERVED ON THE ROCK OUTCROP BISECTING THE OVERALL BEACH. IN THE SOUTHERN SUBSECTION SUPRATIDAL OILED VEGETATION AND OTHER DEBRIS WAS FOUND. OILED VEGETATION WAS ALSO FOUND IN THE SUPRATIDAL OF THE BEACH NORTH OF THE OUTCROP AS WELL. STAIN WAS OBSERVED IN OTHER PARTS OF THIS NORTHERN SUBSECTION, BUT HEAVIEST OILING WAS FOUND IN THE SOUTHERN. SNOW COVERED SOME OF THE SUPRATIDAL, BUT IT APPEARED CONTAMINATED VEGETATION AND DEBRIS COULD BE MANUALLY REMOVED.

ADEC

NAME John HayerSIGNATURE *John Hayer*☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

This sub-segment consisted of two pocket beaches. These beaches were both oiled but, the surface oiling is waxy. patches of a thick weathered oil coat + cover on cobbles + boulders in U+M T.Z.'s. S.S. oiling was also observed to a depth of 8cm in U+M T.Z.'s + 5cm in MITZ. (See sketch map)

Manual treatment with a follow-up of mechanical flush + HWHP is recommended for this segment.

LAND MANAGER

NAME JAMES A BARKERSIGNATURE *James A Barker*☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

4/7/90 1600

SSAT OBSERVED WEATHER OIL AT THE SOUTH END OF SEGMENT EV-5 SUBDIVISION A WHILE PROCEEDING NORTH. NOTE EV-5, A HISTORY, SUMMER 1989 EV-5, A WAS CONSIDERED MODERATE TO HEAVILY CONTAMINATED. THE CHENEGA BAY OIL RESPONSE TEAM CLEANED EV-5, A USING OIL CONTAINMENT BOOM, ABSORBENT MATERIALS AND HAND SCRAPERS. HAVING WITNESSED CONTAMINATION BEFORE CLEAN UP SUMMER 89, I CAN CONCLUDE THAT WINTER WEATHERING AND WORK REPORT BY THE CHENEGA BAY RESPONSE CLEAN-UP TEAM MADE A NOTICEABLE SIGNIFICANT DIFFERENCE OF OIL REMOVAL AND BEACH DECONTAMINATION.

SSAT HAVE DETERMINED THAT CONTINUED HAND CLEANING OF THIS ISOLATED AREA WOULD BE BENEFICIAL & HOT, HIGH PSI WATER AND FLOUNDERING WITH CONTAINMENT BOOM MAY BE HELPFUL AND DESIRABLE AS A CLEANING AID DURING MID TO HIGH TIDES ONLY

SHORELINE OILING SUMMARY

REVISION NO. 05/22/90

OG Mike Fogar NOAA USCG Gary Shigenaga SEGMENT ST/ EV-5
 BIO Richard Ambrose LAND REP James A. Barker SUBDIVISION A
 EXXON Larry Olson ADEC John Hayes TIME 18:00 to 18:30
 TEAM NO.: 11 TIDE LEVEL: 1.0 to 0.5 DATE 4/7/90
 EST. SUBDIVISION LENGTH: 480 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☐ Forest ☒ Rock Show in the Supra 112
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 40 % B 20 % C 20 % P 10 % G 10 % S 0 % M 0 % V 0 %
 SLOPE: Long 20 % Hang 20 % Vert 40 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 45 m VL 25 m NO 360 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR						IMPACTED ZONES			
	R	B	P	S	BR	BL	GR	GL	OR	OL	SU	UI	M	U
ASPHALT PAVEMENT			X								X			
POOLED														
COVER														
COAT		✓							✓		✓	✓		
STAIN			+						+		+			
MOUSSE														
PATTIES														
TARBALLS														
FILM				✓					✓				✓	
NO OIL														X

PAVEMENT: H F (S) 1 sq. m by 3 cm

PATTIES / TARBALLS 0 BAGS

NEAR SHORE SHEEN? (NO) BR RW SL TL

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

DEBRIS COLLECTED
☐ YES ☒ NO

TYPE Pine Needles

#BAGS 0

Photographs:

Roll No. ST-11-2

Frames 26

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			BR	BL	GR	GL	OR	OL	SU	UI	M	U		
1	20					X	.	X							X					P, G, R
2	30					X	.	X							X					P, G
3	20	X					0.8	X					X		X					P, G, R
4	15				X		0.5	X					X			X				C, P, G (H ₂ O at 10cm)
5	15				X		0.3	X					X			X				C, G (H ₂ O at 10cm)
							.													

COMMENTS Subdivision is located in at the southern part of EV-5. The area consists of the rock wall running out to the point and two rock coves. The vertical rock wall running out to the point with the northern exposure has a discontinuous 0.5m wide CT/P cover running the length of the wall in the HTZ (approx. 50m) where this band meets the beach in the HTZ there is a 3m x 5m area of heavy oiling in between the crevices in the

SHORELINE OILING SUMMARY (PAGE 1 of 1)

REVISION 04/22/10

SEGMENT ST/ EV-05 SUBDIVISION A

SUBSURFACE OIL (CONTINUED)

[illegible]

COMMENTS

Boulders and cobble. There is also some pooling and asphalt patties up to 3cm in depth. Extended across the beach from this zone is a 1m x 20m CT/S distributed Asphalt patties among the Pebble beach. in the MITZ. Located in the supra ITZ in this cove and the adjacent pocket cove are some oil coated debris both 1m x 20m in size, some of the oiled storm berms were covered by snow. The MITZ also has some rainbow sheen under the cobble. This subdivision consists of vertical Bedrock w/ Large boulders and a couple of pocket cobble/pebble bearing

OG M. Foget
 SEGMENT ST/ EU-5
 SUBDIVISION A
 DATE 4/7 90

CHECKLIST

☐ N Arrow
☐ Approx. Scale
☐ Seg/Sub Body
☐ Oil Dist.
☐ Width
☐ Length
☐ % Cover
☐ Substrate Character
☐ Est. IML/LWL
☐ SSL
☐ Probe Location(s)
☐ Probe(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

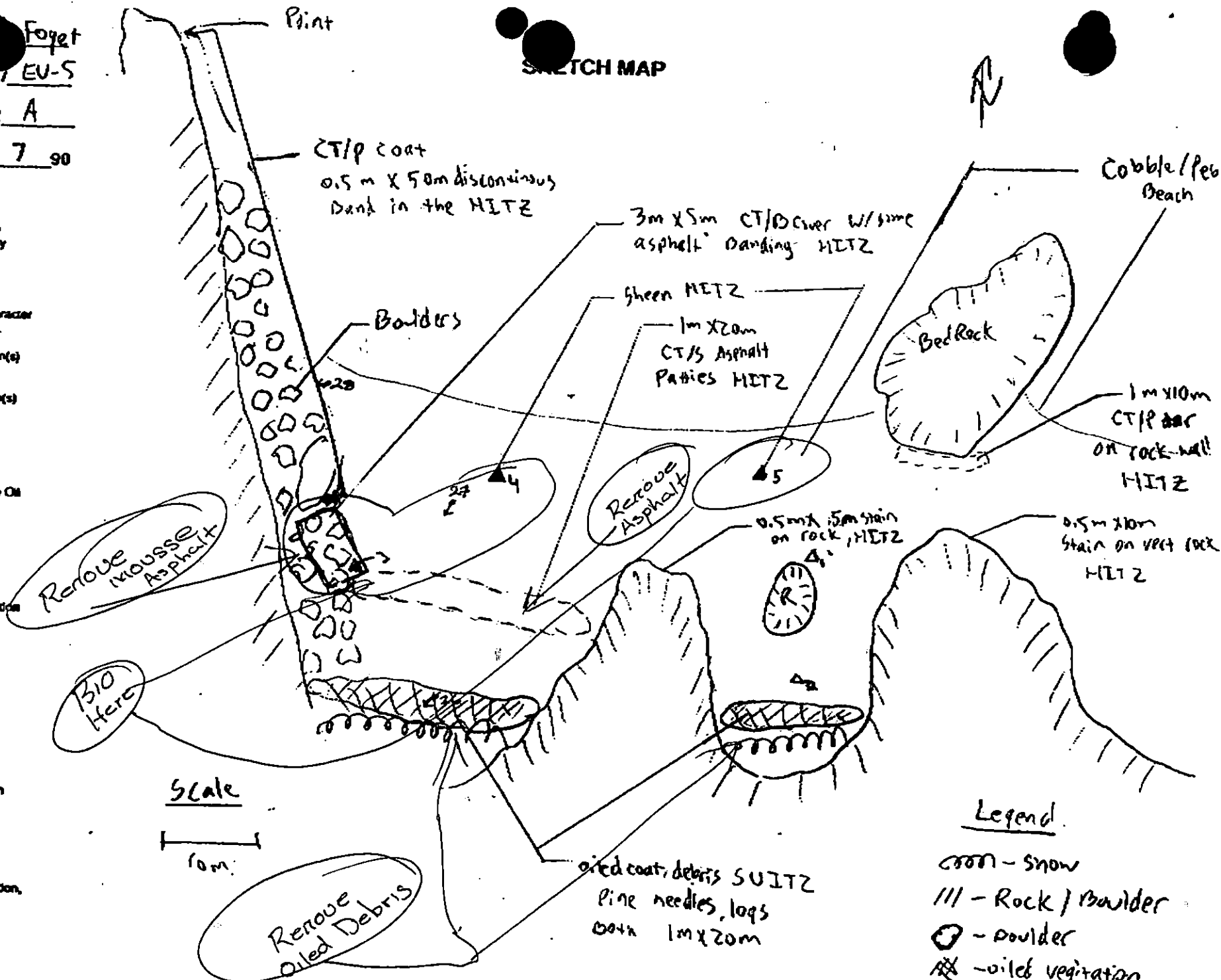
$\square$ CT/P
 Patchy Distribution

$\square$ CT/S
 Splashed Distribution

Oiled Vegetation

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

SKETCH MAP



Oil Character Length (m): AP 5 PO 5 CV 50 CT 40 ST 25 MS — PT — TB — FL — NO 355

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST/ EVOOS Subdivision A Date (mo/day/yr) 4/7/90Time (24 hr) 1800 hrs Biologist Ambrose

- (A) Substrate type and % of segments:
 (1) Bedrock 40 (2) Boulder 20 (3) Cobble 20 (4) Pebble 10 (5) Sand 10 (6) Silt -
- (B) Overall % cover of biota (% of segment): Dense 25 Moderate 15 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 (O)

Photographs:
Roll No. ST-11-2Frames 27, 28

BARNACLES

Dense

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

Moderate

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

Sparse

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

Rare

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

NOT PRESENT

MYTILUS

Dense

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

Moderate

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

Sparse

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

Rare

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

NOT PRESENT

GASTROPODS

Dense

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

Moderate

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

Sparse

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

Rare

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

NOT PRESENT

FUCUS

Dense

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

Moderate

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

Sparse

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

Rare

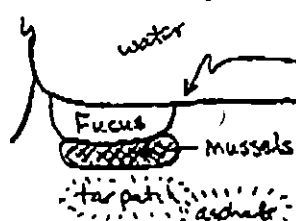
1U	1M	1L
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6

NOT PRESENT

Wildlife Observations/ General Comments*: Mature bald eagle (near nest seen earlier) & deer tracks. Bedrock walls have moderate to dense cover, with mainly red algae in lower intertidal; pocket cove has areas of Fucus and Mytilus, otherwise sparse to moderate cover.

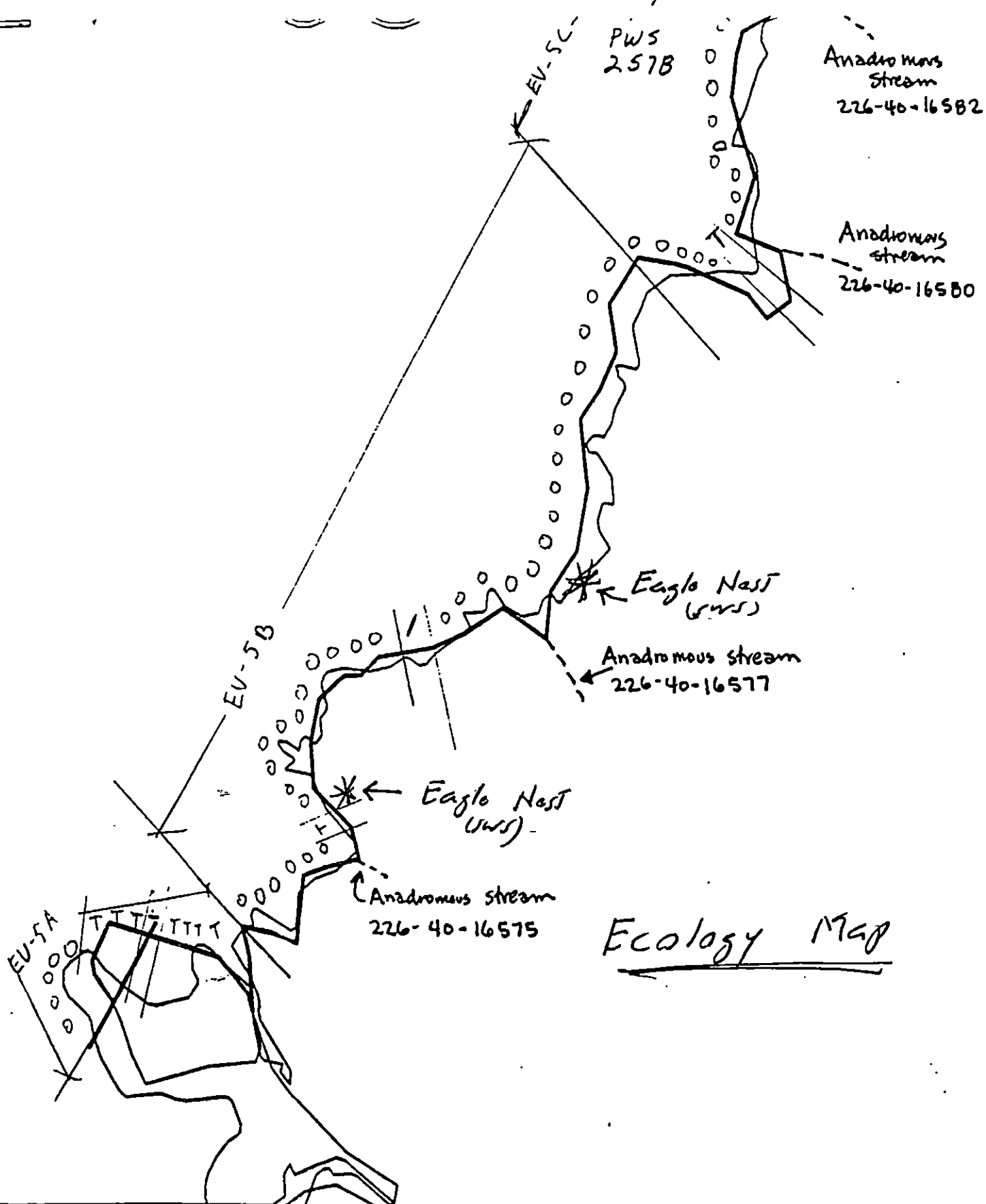
Ecological Considerations:

711, 67, 5T-5: Bald eagle seen near nest.

Mussels and Fucus occur below oiled areas in cove;

Note: rocks in low intertidal are slippery due to filamentous algae.

*Note: part surveyed by boat



XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-5

ADEC Segment Length: 3432m

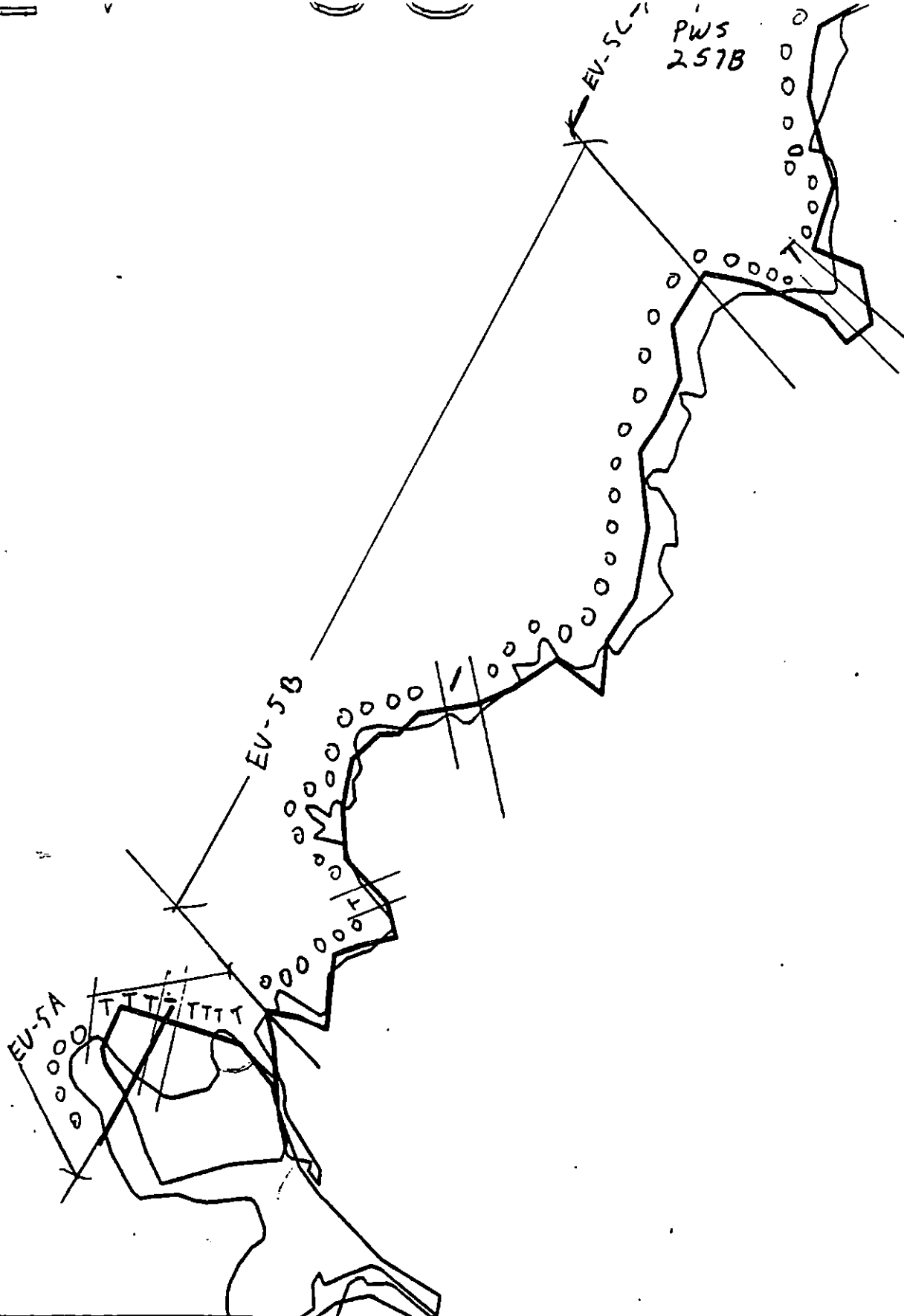


Map Key: PWS-257a

Name: Mike Toget

Date: 4/7/90

Data Entered:



XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-5

ADEC Segment Length: 3432m



Map Key: PWS-257a

Name: Mike Fogar

Date: 4/7/90

Data Entered:

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/EV-05

SUBDIVISIONS: B (2 OF 3)

SHORELINE EVALUATION

SEGMENT ST/ EV-05 SUBDIVISION B (2 OF 3) DATE 4/7/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

ADF&G anadromous stream no. 226-40-16575, 16580, 16582, 16577.

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)

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. Two anadromous streams in Subdivision B (226-40-16577, 16575) and 2 bald eagle nests, with one bald eagle nest within 400m in Subdivision A.

ARCHAEOLOGICAL CONSTRAINTS:

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact a member of Exxon's Cultural Resource Program immediately (564-3657; 564-3658 or 564-3276).

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 0 m: Medium 32 m: Narrow 0 m: V.Light 33 m: No Oil 1107 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: Recommended treatment includes 1) manual removal of pooled mousse and tar patties, 2) manual removal of oiled debris. Work should be conducted after 6/1, with the approval of USFWS regarding eagle nests.

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

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
- 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-5 SUBDIVISION: B DATE 4/7/90

USCG NOAA

NAME GARY SHIGENAKASIGNATURE Gary Shigenaka☐ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

THE SUBDIVISION CONSISTED OF A SECTION OF EVANS ISLAND SHORELINE THAT INCLUDED ROCKY FACES AND OUTCROPS AS WELL AS SMALL BEACHES. A BOULDER BEACH ON THE SOUTHERN END OF THE SUBDIVISION REPRESENTED THE ONLY SIGNIFICANT PORTION SHOWING SIGNS OF OILING. THIS SMALL (APPROXIMATELY 25 M LENGTH) BEACH WAS BORDERED ON BOTH SIDES BY ROCK FACES AND SO WAS A RELATIVELY CONFINED PIECE OF SHORELINE. THE UPPER REACHES OF THE UPPER INTERTIDAL WERE FAIRLY HEAVILY CONTAMINATED WITH A MOUSSY COVER AND POOLED OIL, AND THE SUPRATIDAL CONTAINED OILED VEGETATION AND DEBRIS. A SMALL CAVE EXTENDING FROM THE UPPER INTERTIDAL BACK CONTAINED RELATIVELY UNWEATHERED MOUSSE TO AN UNDETERMINED DEPTH. BIOLOGICAL RESOURCES IN THE LOWER REACHES OF THIS BEACH WERE NOT PARTICULARLY NOTABLE, ALTHOUGH NEW BARNACLE RECRUITS WERE OBSERVED.

THE REMAINDER OF THE SUBDIVISION WAS FREE FROM OILING.

ADEC

NAME John HayesSIGNATURE John Hayes☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

This ^{sub}segment consists of a # of pocket beaches along shoreline segment EV-5. Oiling was observed in two of these pocket beaches (see sketch map). One of the beaches had surface oiling which consisted of residual storm on ^{angular} cobbles in crevices of bedrock and one soft asphalt patch 5m x 5cm was observed. This beach was weathering and stable. The other pocket beach we observed oiling above the storm berm in the supratidal, the oil was MS and was approx 3-5cm thick. The oil was a more weathered oil combination on angular cobbles and in matrix of boulder on supratidal. The pocket beach is located between two walls of bedrock + is a good site for HWHP treatment. Prior to ~~HWHP~~ ~~manual~~ manual cleanup it is recommended to remove surface grass contamination. Beach has no abundant colonies of ecological concern (see bio. info.) and is accessible for small work crew.

LAND MANAGER

NAME JAMES A BARKERSIGNATURE James A Barker☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

SSAT DISCOVERED COVE, HIGH BLUFF SIDES, DIAMOND SHAPE, BASE 30m A LOW TIDE MARK RECEDING TO 40m ABOVE HIGH TIDE MARK. THIS SUBDIVISION CONTAINED POCKETS OF WEATHERED OIL BETWEEN ROCK AND CREVASSES. BEACH UNTOUCHED BY CLEANING. SSAT HAVE DETERMINED THAT HAND CLEAN-UP WITH ABSORBENT MATERIALS WOULD BE MOST EFFECTIVE ON OIL POOLS. & DUE TO SEG. SHALLOW RED ROCK AND HIGH BLUFF SIDE, HIGH PRESSURE HOT WATER WITH FLOODING AND CONTAINMENT BOOM DURING A MODERATE TIDE WOULD BE ^{THE} MOST EFFECTIVE CLEANING AGENT FOR THE REMAINING SEGMENT.

SHORELINE OILING SUMMARY

REVISION NO. 03/22/90

OG Mike Fogel NOAA Gary Shigenaka SEGMENT ST/ EV-5
 BIO Richard Ambrose USGS James A. Barker SUBDIVISION B
 EXXON Larry Olson ADEC John Hayes TIME 18:30 to 19:30
 TEAM NO.: 11 TIDE LEVEL: 0.5 to 0.9 DATE 4/7/90
 ST. SUBDIVISION LENGTH: 1200 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock Snow located in the supra LITZ
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 40 % B 25 % C 20 % P 10 % G 5 % S 0 % M 0 % V 0 %
 SLOPE: Long 35 % Hang 30 % Vert 35 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 20 m N 0 m VL 35 m NO 1145 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	S	N	E	W	SP	BR	FW	GY	BL	GR	TL	LR	SU	UI	M	U
ASPHALT PAVEMENT																
POOLED		X				X							X			
COVER		✓				✓							✓	✓		
COAT			X			X							X			
STAIN			X			X							X			
MOUSSE																
PATTIES																
TARBALLS																
FILM						+					+				+	
NO OIL																X

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

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

DEBRIS COLLECTED
☐ YES ☒ NO

TYPE _____

#BAGS _____

Photographs:

Roll No. ST-11-2Frames 29

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	SP	BR	FW	GY	BL	GR	TL	LR	SU	UI	M	U			
1	40					X	.		X								X							P
2	25					X	.		X									X						S, C
3	40					X	.		X								X							P, G
4	25					X	.		X									X						P
5	15					X	.		X												X			P, R
							.																	

COMMENTS Most of the oiling in this subdivision occurred in a small V crevas beach which is 30 m at the base. This shore zone is bounded by two rocky vertical walls with large boulders in the supra and H LITZ. There is pooling and oil cover between the crevasses of the boulders and underneath the boulders. This oiling occurred in the supra and H LITZ. The exposed areas of these boulders show no indication of oiling.

OG Mike Fogel

SEGMENT ST/ EV-5

SUBDIVISION B

DATE 4/7/90

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Body
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. INVA/LWL
- ☐ SSI
- ☐ Probe Location(s)
- ☐ Probe(s)
- ☐ Pit Location(s)
- ☐ Photo Location(s)

LEGEND

1 Δ

Pit - No Subsurface Oil

2 Δ

Pit - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

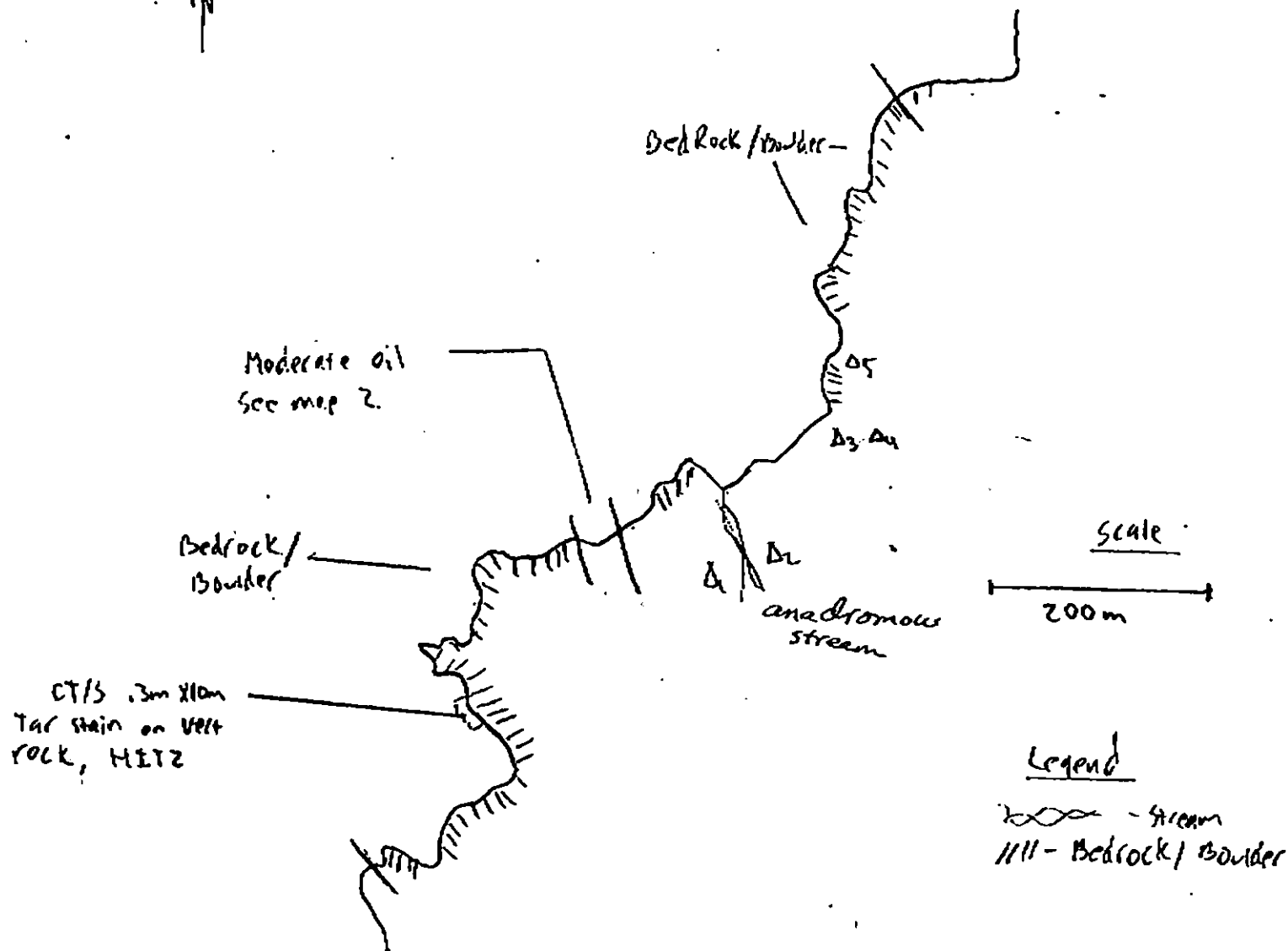
Splashed Distribution

Oiled Vegetation

1 →

Photo location, direction,
and number

SKETCH MAP 1



Oil Character Length (m): AP — PO 20 CV — CT 10 ST 35 MS — PT — TB — FL — NO 1145

OG Mike Fogel

SEGMENT EU-5

SUBDIVISION B

DATE 4/7/90

CHECKLIST

- N Arrow
- Approx. Scale
- Seg/Sub Body
- Oil Dist.
- Width
- Length
- % Cover
- Substrate Character
- Est H/W/L/W
- SS
- Profile Location(s)
- Profile(s)
- P/L Location(s)
- Photo Location(s)

LEGEND

1 ▲
Pit - No Subsurface Oil

2 ▲
Pit - Subsurface Oil

CT/C
Continuous Distribution

CT/B
Broken Distribution

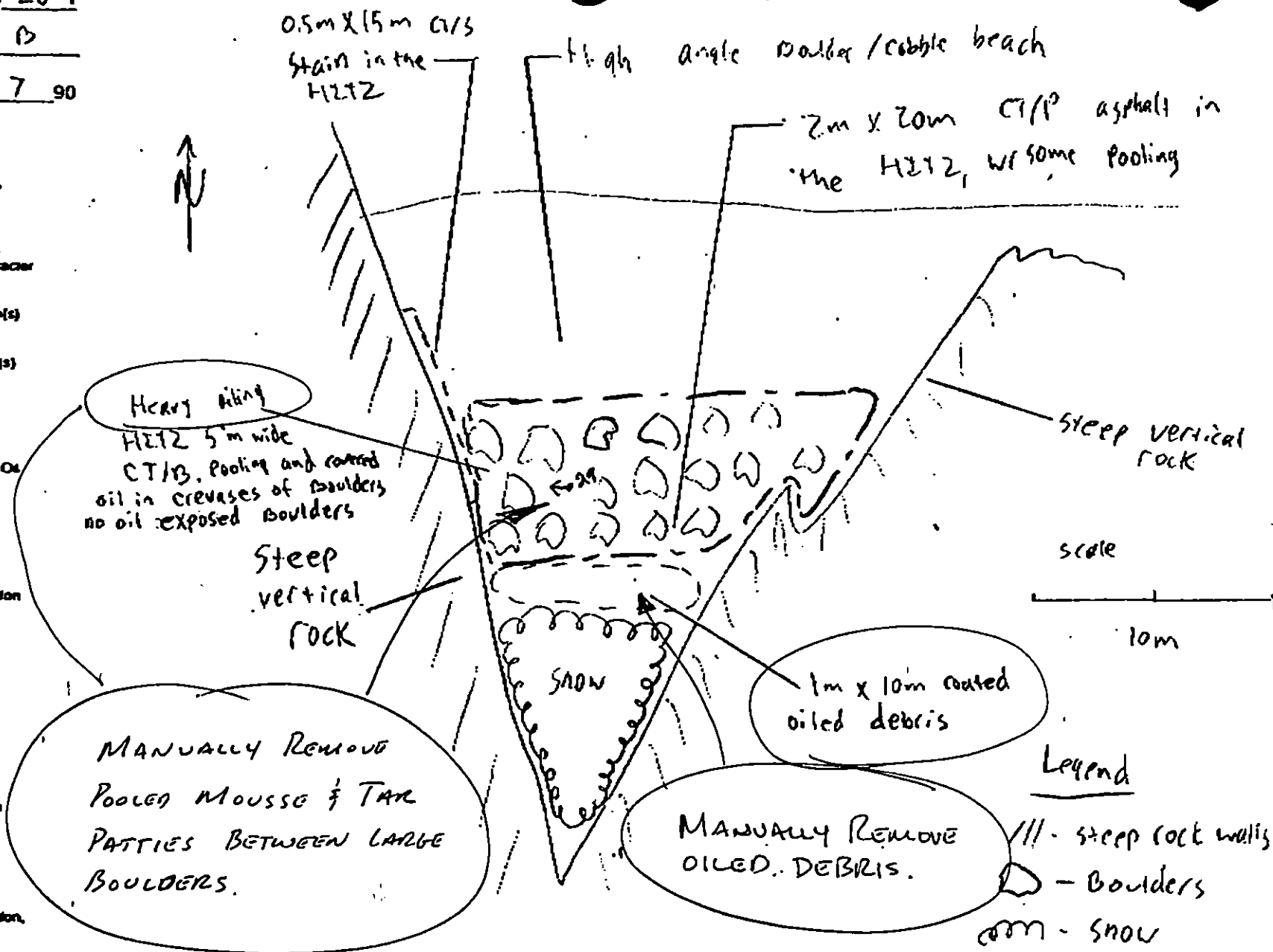
CT/P
Patchy Distribution

CT/S
Splashed Distribution

Oiled Vegetation

1 ●
Photo location, direction, and number

ETCH MAP 2



semp 1

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

Bio: page 19

REVISION: 03/22/90

SHORELINE ECOLOGICAL SUMMARY

Segment ST / EVOOS Subdivision B Date (mo / day / yr) 4 / 7 / 90Time (24 hr) 1830 hrs Biologist Ambrose

(A) Substrate type and % of segments:

(1) Bedrock 40 (2) Boulder 25 (3) Cobble 20 (4) Pebble 10 (5) Sand 5 (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		
1U	1M	1L
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6

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

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

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

NOT PRESENT

MYTILUS

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

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

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

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

NOT PRESENT

GASTROPODS

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

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

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

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

NOT PRESENT

FUCUS

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

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

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

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

NOT PRESENT

Wildlife Observations/ General Comments: Eagles (see below), deer (and deer bones), 3 crows, seal.

Ecological Considerations:

TII, 69, 5T-5: 1 mature bald eagle and 1 immature eagle.

One anadromous stream occurs in this subdivision; no oil was noted nearby.

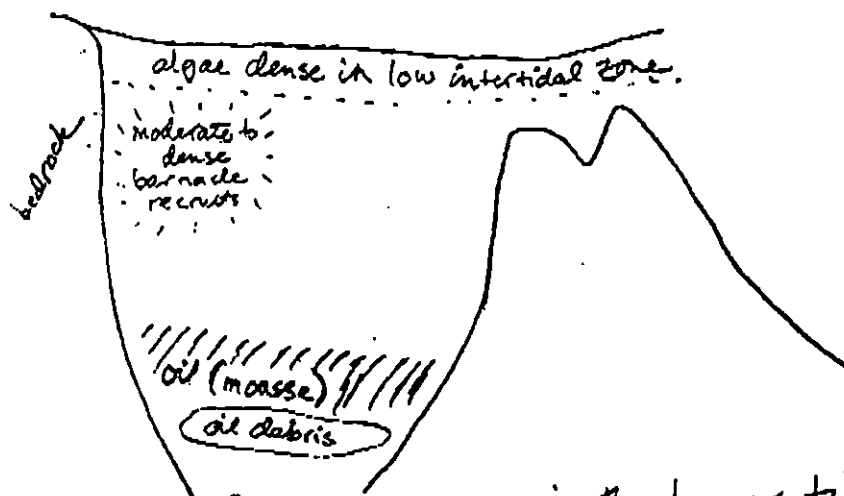
Weathered mousse noted in upper intertidal of one cove (see page 2)

Ambrose
4/7/90

Subdivision EVOOS 13

010: page 2 of 2

Oiling on Beach #1 and ecological constraints:



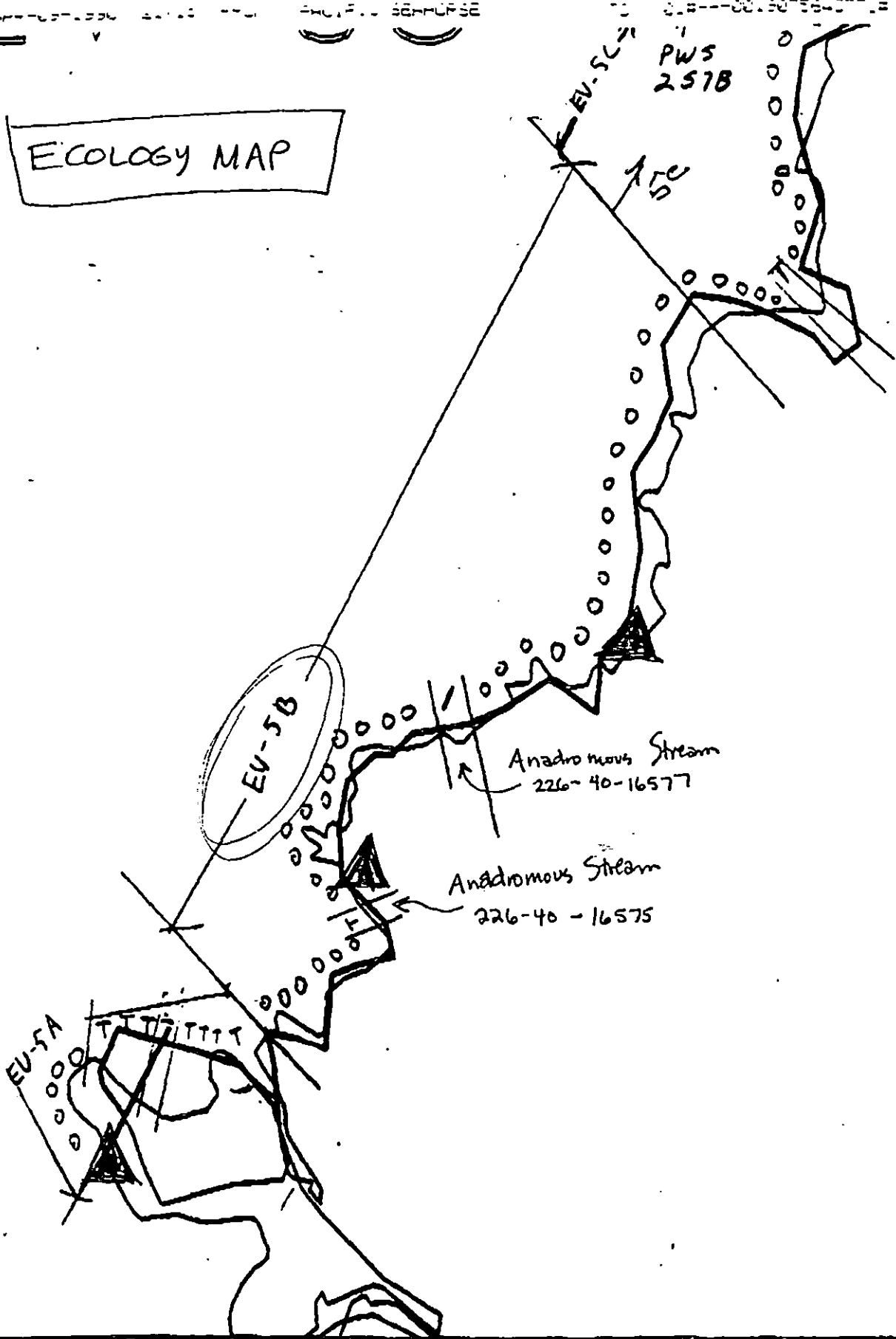
Algae are fairly common in the lower tidal zones: Rhodomela and Enteromorpha occurred in the mid intertidal, Palmaria (or the like) is dense in the low intertidal, and Laminaria is dense in the subtidal.

There is also a good set of barnacles on one side of the cove.

However, the overall biota of the cove is not unusual or rich; in fact, there was virtually no Fucus or Mytilus in the upper intertidal on the beach.

Impacts to the cove from remediation activities could be minimized by working at mid to high tides, but in any case there would not appear to be great to intertidal resources from cleaning this area.

ECOLOGY MAP



XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-5e

ADEC Segment Length: 3432m



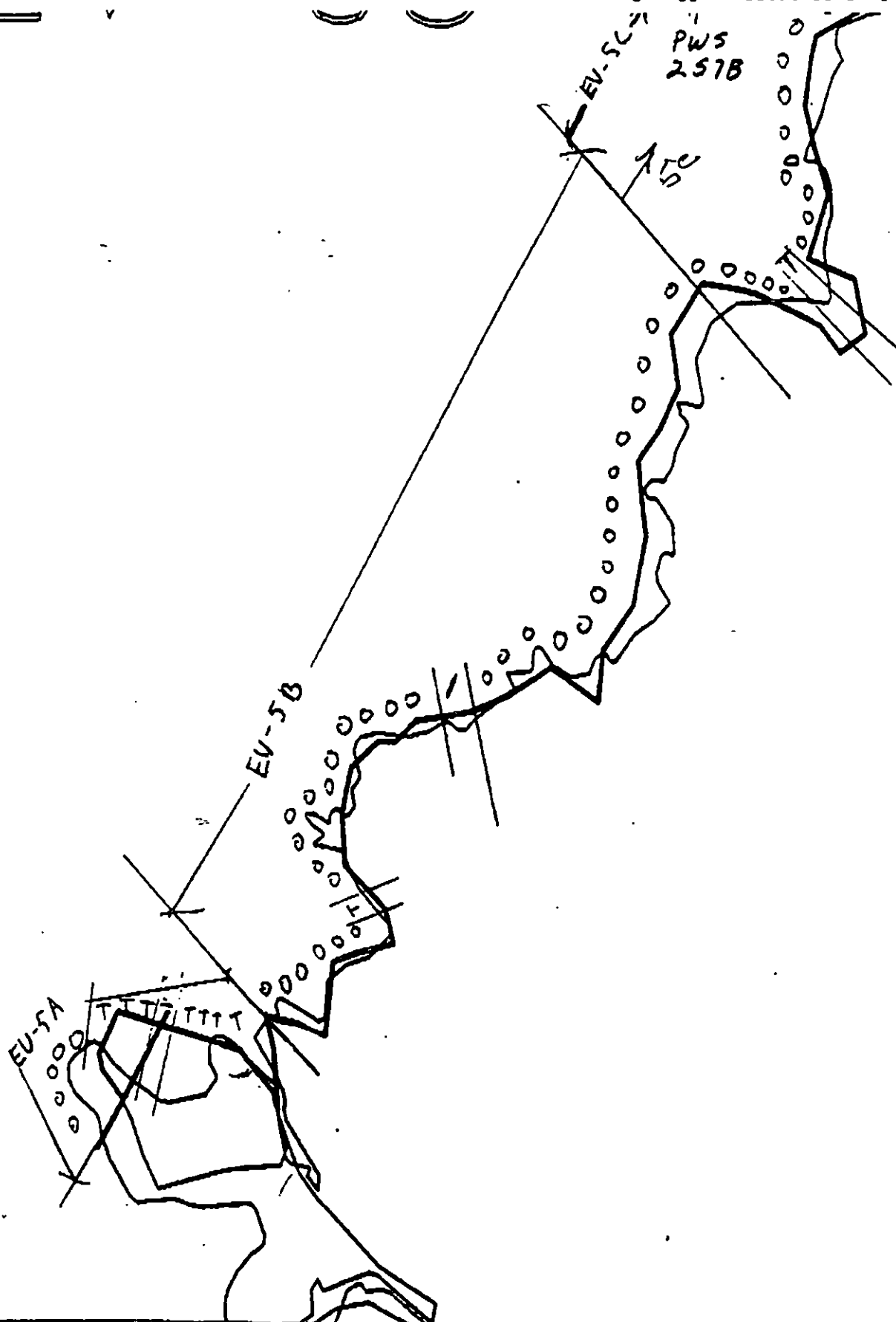
Map Key: PWS-257a

Name: Mike Foster

Date: 4/7/90

Data Entered:





XXXX Wide

/// Medium

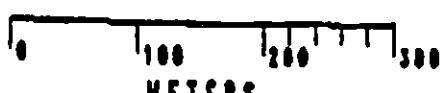
--- Narrow

TTTT Very Light

OOOO No Oil

EV-5e

ADEC Segment Length: 3432m



Map Key: PWS-257a

Name: Mike Roger

Date: 4/7/90

Data Entered:

ASAP FOLLOWUP RECOMMENDATIONS

Segment: AS/ EV-05R Subd.: B Site: _____ Date: 8-6-90 1990

Conditions Observed: Small pocket beach just south of Quad 220-40-16575. Area was marked in Summer '90. Just MS, OP, and OB has been from under boulders and subsoil. Because much of oil is beneath boulders, manual removal will be difficult.

Followup Recommendations: Manual removal of MS, OP, and OB that is accessible. Remaining residual oil to be filled and bioremediated.

Completed by Pickup Crew: ☐ YES ☒ NO

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

ADEC

Bob McCreedy
(name)

Robert B. McCreedy
(signature)

Comments: _____

Exxon

John Debn
(name)

[Signature]
(signature)

Comments: I AGREE WITH RECOMMENDATION 8/90 & REASSESSMENT IN '91

USCG

Don Davis, cm
(name)

[Signature]
(signature)

Comments: MANUAL WORK REQUIRED AT SITE. WORK WILL BE DIFFICULT. AT LEAST APPLICATION OF "BIO" OIL TO BE REASSESSED IN 1991.

Land Rep.

Steve Ward CVC
(name)

[Signature]
(signature)

Comments: MANUAL WORK INSUFFICIENT AND WITH BIOLOGY THIS AREA LOOKS LIKE HELL. MORE MANUAL AND BIO IN '91 YES.

SEGMENT AS / EV-05 SUBDIVISION: 3 SITE: 1 DATE 16 AUG 91**CG**NAME Don Davis, CMC USCG
David Roe, NAVASIGNATURE [Signature] David C. Roe☒ YES☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

TOWARD THE REAR OF 30m WIDE COVE WITH MEDIUM TO LARGE Boulders.
A 30 X 5 m BAND OF INTERSTITIAL OILING (SOR²) DISCOVERED. A 15cm P.T.
DUE TO BED ROCK REVEALED OILING TO 15cm. SOME MANUAL WORK COULD BE
PERFORMED, BUT AT MINIMUM OF REAPPLICATION OF BIO. DEFINITE REASSESSMENT
IN 1991.

Agree - Don. Oiling between boulders will make manual removal difficult.

ADECNAME Bob McCrearySIGNATURE [Signature] Robert B. McCreary☒ YES☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON: Small pocket beach just South of Anad. 226-40-16375. Area
was worked in '90, but MS, OP, OR, etc. has bled from beneath boulders.
Much of oiling is under boulders and will be difficult to remove manually.
Treatment has been recommended to occur in '90. Area should be
reassessed in '91, and if MS remains, mechanical means for relocating
boulders should be assessed.

LAND MANAGERNAME Steve Lwiro CVCSIGNATURE [Signature] Steve Lwiro☒ YES☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

this work was not finished by manual crew. more manual
is needed to get oil that has bled from rocks.
more manual in 90 - bio in 90 - 91 yes
check for sub-surface in 91

EXXONNAME John DeanSIGNATURE [Signature] John Dean☒ YES☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

ADDITIONAL SMALL AMOUNT CAN BE RECOVERED MANUALLY
AND REAPPLICATION OF CUSTOM BLEND

SEGA EV-5

SUBDIVISION B

DATE 4, 7 90

CHECKLIST

- ☐ M Area
- ☐ Approx. Scale
- ☐ Substrate Study
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ E in HMLA/VL
- ☐ SSI
- ☐ Photos (Location(s))
- ☐ Profile(s)
- ☐ Pt (Location(s))
- ☐ Photo (Location(s))

LEGEND

1 Δ
Pt - No Substrate Oil

2 Δ
Pt - Substrate Oil

CT/C
Continental Distribution

CT/B
Bathymetric Distribution

CT/P
Patchy Distribution

CT/S
Spatched Distribution

Oil Vegetation

1 ●
Photo location, direction,
and number

SKETCH MAP 1



8/6/90
ST/30
MS/5
NO 100
CT/P 30
US 134

PWS

Bed Rock / Boulder

PITZ OF

30m - well

Bedrock/
Boulder

CT/S 3m x 10m
Tar stain on WW
rock, H122

anadromous
stream

Scale

200m

EVANS
ISLAND

Legend

XXX - Stream
/// - Bedrock / Boulder

Oil Character Length (ft): AP - PO 20 CV - CT 10 ST 55 MS - PT - TB - PL - NO 1145

ASAP FOLLOWUP RECOMMENDATIONS

Segment: AS/ EV-05R Subd.: B Site: _____ Date: 8-6-90 1990

Conditions Observed: Small pocket beach just south of Area
220-40-10575. Area was marked in Summer '90. Just MS,
OP, and OR has been found under boulders and submerged.
Because much of oil is beneath boulders, manual
removal will be difficult.

Followup Recommendations: Manual removal of MS, OP, and OR
that is accessible. Remaining residual oil to be
tiled and bioremediated.

Completed by Pickup Crew: ☐ YES ☒ NO

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

ADEC

Bob McCreedy
 (name)

Robert B. McCreedy
 (signature)

Comments: _____

Exxon

John Dean
 (name)

J. Dean
 (signature)

Comments: I AGREE WITH RECOMMENDATION 8/90 AND REASSESSMENT IN '91

USCG

Don Davis
 (name)

Don Davis
 (signature)

Comments: MANUAL WORK REQUIRED IN 91. WORK WILL BE DIFFICULT. AT LEAST
APPLICATION OF "BIO" REMEDIATION REQUIRED IN 1991.

Land Rep.

Steve Ward
 (name)

Steve Ward
 (signature)

Comments: MANUAL WORK INSUFFICIENT AND WITH PICKING UP THE OIL
LIKE HELL. MORE MANUAL WORK IN 90-91 YES.

SEGMENT AS / EV-05 SUBDIVISION: 3 SITE: 1 DATE 10/11/91**CCG**NAME Don Davis, GM USCG SIGNATURE Don Davis
David Davis, NOAA☒ YES☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

TOWARD THE REAR OF 30m WIDE COVE WITH MEDIUM TO LARGE BOULDERS.
A 30 X 5m BAND OF INTERSTITIAL OILING (502") DISCOVERED. A 15cm PIT
DUE TO BED ROCK REVEALED OILING TO 15cm. SOME MANUAL WORK COULD BE
PERFORMED, BUT AT MINIMUM OF REAPPLICATION OF BIO. DEFINATE REASSESSMENT
IN 1991.

Agree - Don. Oiling between boulders will make manual removal difficult.

ADECNAME Bob McCreary SIGNATURE Robert G. McCreary☒ YES☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON: Small pocket beach just South of Anad. 226-40-16875. Area
was worked in '90, but MS, OP, OR, etc. has bled from beneath boulders.
much of oiling is under boulders and will be difficult to remove manually.
Treatment has been recommended to occur in '90. Area should be
reassessed in '91 and if MS remains, mechanical means for relocating
boulders should be assessed

LAND MANAGERNAME Steve Lowndes CVC SIGNATURE Steve Lowndes☒ YES☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON: This area was not finished by manual crew. more manual
is needed to get oil that has bled from rocks.
more manual in 90 - No in 90 - 91 yes
check for Sub-Surface in 91

EXXONNAME John Dean SIGNATURE John Dean☒ YES☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON: ADDITIONAL SHAUL AMOUNT CAN BE RECOVERED MANUALLY
AND REAPPLICATION OF CUSTOM BLEND

SITE 3

CHARACTER	DISTRIBUTION				OILED ZONES			
	/C	/B	/P	/S	SU	UI	MI	LI
ASPHALT								
S.O.R.								
POOLED								
COVER								
COAT				X		X		
STAIN			X			X		
MOUSSE			X			X		
PATTIES/T.B.								
FILM								
NO OIL					X		X	X
EST. SITE LENGTH					130			

[illegible][illegible]

SUBSURFACE OIL

[illegible]

Photographs.

Roll No.

Frames

COMMENTS

COMMENTS

- oil consisted of ST/CT AND PATCHY THICKNESS ON 60cm boulders
- 1 bio. balloon recovered & ^{REMARKS:} WORK ON MS/CT WAS INITIATED BY THE FIELD CREW
- STRENGTH WIDTH WAS 5m & LENGTH WAS 30m

REVISION NO. 7/27/90

11/11/90

SEGMENT EV-5

SUBDIVISION B

DATE 4, 7 90

CHECKLIST

- ☐ M Area
- ☐ Approx. Scale
- ☐ Topographic Study
- ☐ Oil Data
- ☐ When
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ E or WELA WL
- ☐ SSI
- ☐ Photo (location)
- ☐ Photo (date)
- ☐ Photo (location)
- ☐ Photo (location)

LEGEND

1 Δ
No Substrate Oil

2 Δ
Substrate Oil

CT/C
Continuous Distribution

CT/B
Broken Distribution

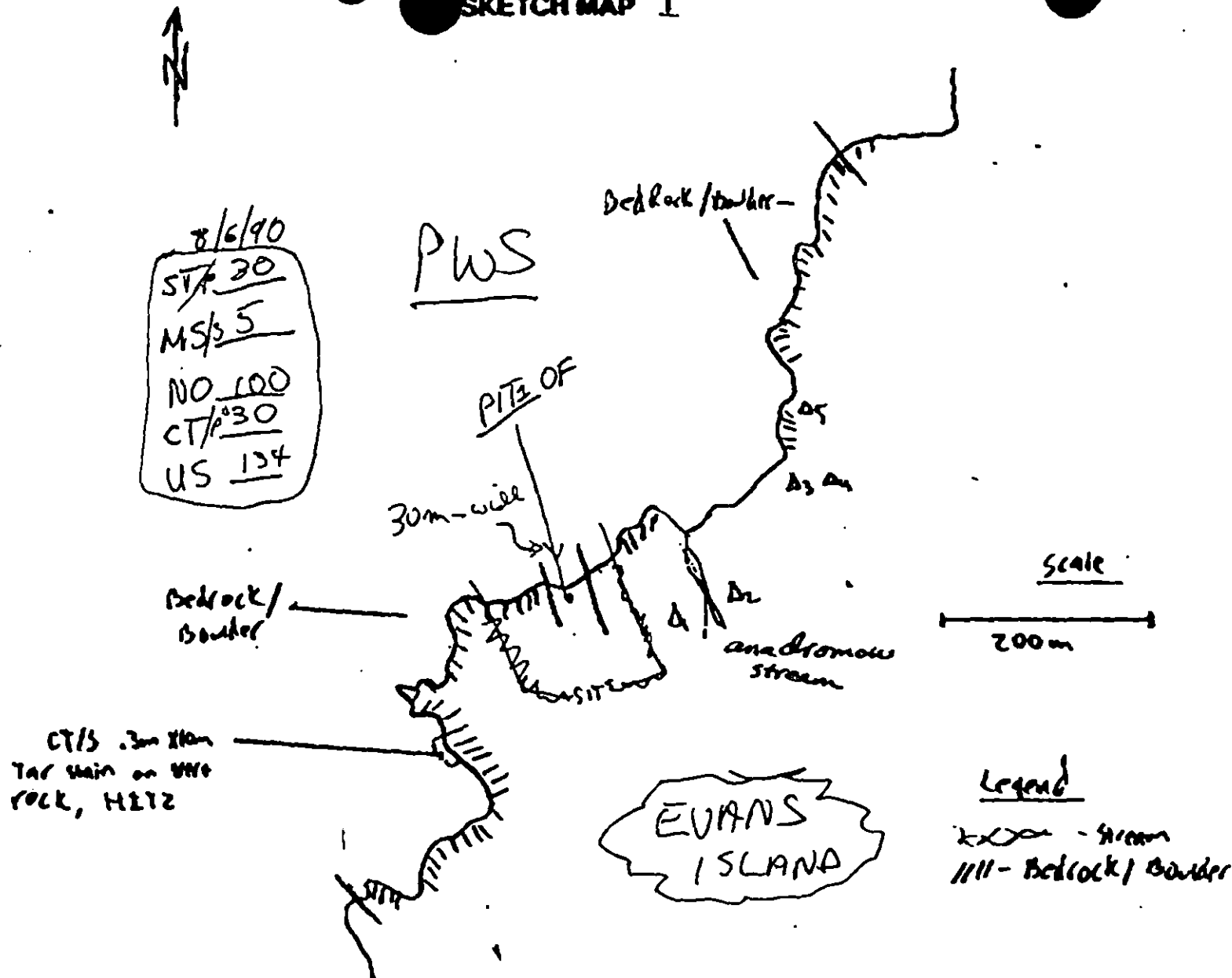
CT/P
Patchy Distribution

CT/S
Sporadic Distribution

Oil Vegetation

1 ●
Photo location, direction,
and number

SKETCH MAP 1



Oil Character Length (m): 10 - 20 - 30 - 40 - 50 - 60 - 70 - 80 - 90 - 100 - 110 - 120 - 130 - 140 - 150 - 160 - 170 - 180 - 190 - 200

11/11/90

ASAP TAG REVIEW SHEET

Segment: EVO5 Subd: B Site: 1 Date 11 AUG
PRE-Review

Priority For Addressing In 1990

HIGH MEDIUM LOW X NTR

Treatment
Recommended:

NTR (HIGH ENERGY BEACH)

Recommendation
Sheet
(to manually
remove mousse)

COMMENT SHEET does not agree
with OG SHEET.
(Interstitial SOR, Mousse JOP, Asphalt)

Priority Site For Reassessment In 1991

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

TAB 13 Aug 90
Manual remove Mousse/AP
BIO
Manual TILL if Necessary

1991 MAYSAP EVALUATION

SEGMENT: EV 005 **SUB:** B **REGION:** PWS **SURVEY DATE:** 4/26/91

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) restricted 3/1 - 9/15

Ecological/Constraints (see page two for details) **Eagle nest, Fish harvest area, Anadromous stream, Subsistence, deer harvesting**

ARCHAEOLOGICAL CONSTRAINTS:

If treatment is planned, a cultural resource evaluation is required prior to shoreline treatment.

SHPO Signature: _____ Date: _____

RECOMMENDATIONS:

INITIAL

TAG

FOSC

TREATMENT REQUIRED (Y or N)

N

Manual Pickup (Check as Req.)

Spot Washing

Bio-Customblen Only

Bio-Inipol/Customblen

Other _____

Other _____

COMMENTS:

INITIAL: _____

TAG: _____

FOSC: _____

TAG APPROVAL DATE: _____

FOSC APPROVAL DATE: _____

ADEC _____

FOSC _____

EXXON _____

USCG _____

NOAA _____

**ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES**

Eagle Nest: Access restricted from 3/1 to 9/1. USF&WS authorization required. Maintain 1000' vertical and 1/4 mile horizontal buffer.

Fish Harvest Area: Unlimited treatment unless otherwise directed by ADF&G. Sheen containment/recovery procedures required for mechanical treatment.

Anadromous Stream: Unlimited treatment up to stream bank between May 15 and July 10. ADF&G approval required for work after July 10. Fish Habitat Permit required for instream work. ADF&G approval required for bioremediation within 100 meters of anadromous stream after July 10.

Subsistence, Deer Harvesting: Unlimited treatment prior to 8/15.

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 5 SEGMENT EV-5 SUBDIVISION B DATE 4/26/91

ADEC

NAME John Hayes SIGNATURE [Signature]

- ☐ NTR ☒ Treatment Recommended UITZ
- Westernmost pocket beach had AP/B between boulders and weathered MS under logs and at Junction of R+ Vertical wall in STZ. We responded to distress call from MIV ^{Savign} ~~Hayes~~ + only did a cursory assessment of this fissure cave. Recommend small crew (Chunga would be appropriate) recover oil here and check for subsurface contamination under flammable cobbles + boulders. Two beaches to the East of this site could use littler detail to identify + recover OSR debris that may be in beams debris observed but not identified.

EXXON

NAME Marthinez N.J. SIGNATURE [Signature]

- ☒ NTR Very little if any recoverable oil, may have local response group look at this.

LANDMANAGER

NAME Steve WARD OF CVC SIGNATURE [Signature]

- ☐ NTR Small Pocket Beach with a significant Amount of Recoverable oil - perfect for Local Response.
- Suggest Sub-Surface oil be checked later.
- See Adec map Og map for Location

USCG/NOAA

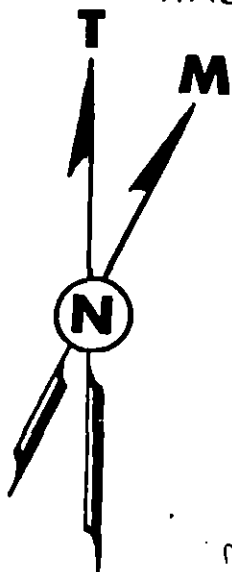
NAME HODGES / DRENER SIGNATURE [Signature]

- ☒ NTR No mobile oil observed, no sheenings.
- Very little oil observed - some oiled sediment, oiled patch with pine needles, and little cont/covrage on rock out crop noted. Lush fucus growth on major rocks.

PAGE - OF

Reviewed: M.C. 5/1/91

MAYBAP 1991
 OG SKETCH MAP
 GREG CHANEY
 TEAM 5
 SEGMENT: EV 5 B
 DATE: APRIL 26 91
 AIR P.H. PIMC005233
 PIMC005234



LEGEND

BEDROCK	
BOULDERS	
FINE SED.	
DRIFT LOG	
GRASS	
BRUSH	
FOREST	
OILED PIT	
NO OIL PIT	
PHOTO	

SCALE

APPROX. 75 METERS

AP ~ 5% 3x20m
 CV ~ 10% CT ~ 10%

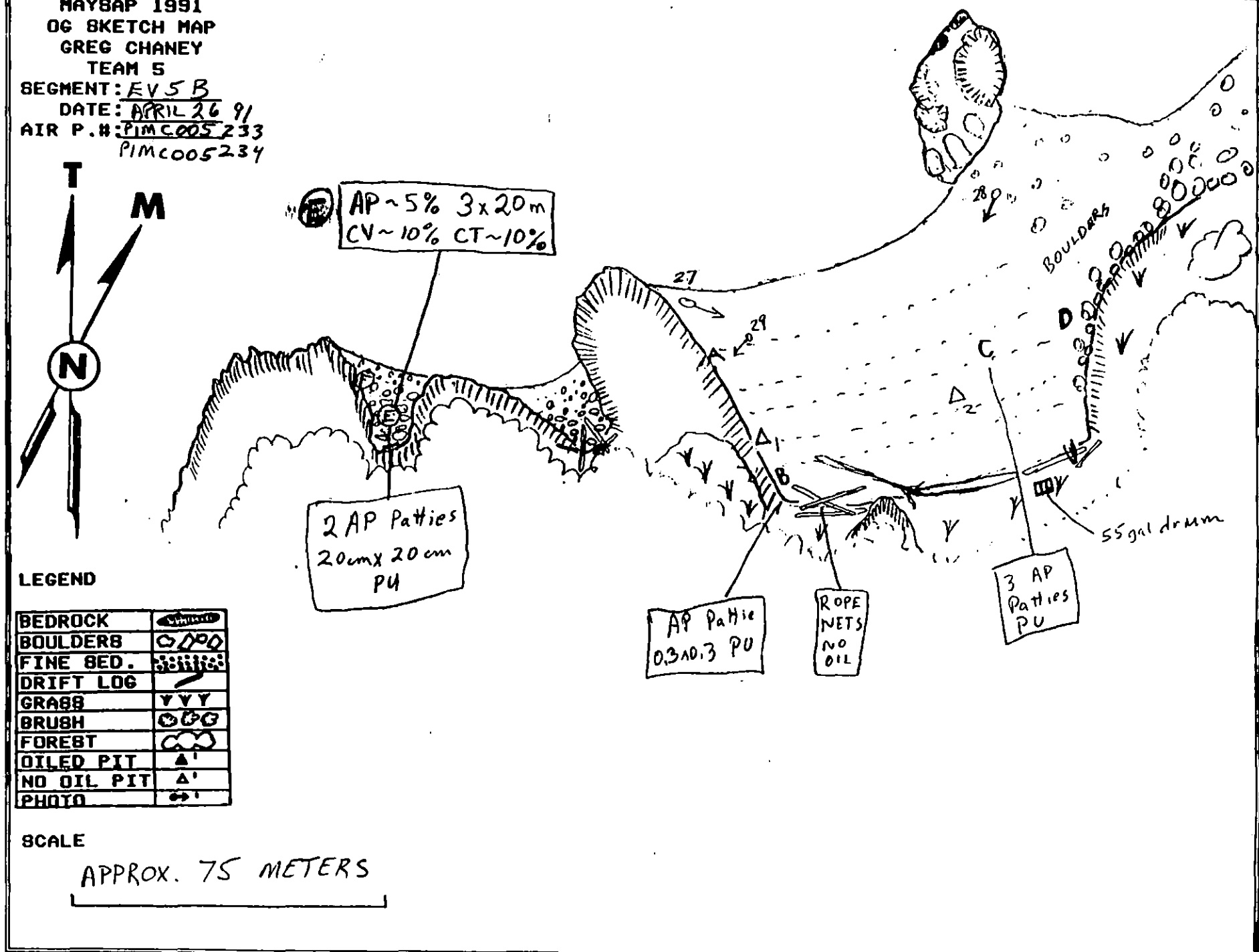
2 AP Patties
 20cm x 20cm
 PU

AP Pattie
 0.3x0.3 PU

ROPE
 NETS
 NO OIL

3 AP
 Patties
 PU

55 gal drum



Reviewed: F.W. 5/1/91
 Reviewed: N.C. 5/1/91

TEAM # 5

DATE 26 Apr '91 / Area E on 27 Apr '91

SEGMENT # EV-5

TIDAL HEIGHT (Range) +2 to +6 / +3.5

SUBDIVISION B

BIOLOGIST Crank

SEA STATE 0-1

WIND SPEED/DIRECTION 0-5 mph / unknown

PHOTOGRAPHS: ROLL #

FRAME #

COMMENTS/OBSERVATIONS (to be completed in oiled subdivisions only):

(A) Site in UITZ along bedrock. Moderate adult barnacle population with a new set present. Sparse mussels present, the majority are juveniles found in cracks and crevices. There is a 1m wide Fucus band along rock face. The band is discontinuous in the oiled area with rare sporelings only present near oil.

(B) Site is located in the SUPRA. No intertidal biota near oiled area. Mosses appear healthy.

(C) Site is located high in the UITZ. There are rare barnacles and rare Fucus sporelings. Isopods are present under cobble veneer. Three meters E of site is a fresh water runoff stream. Cobbles in runoff are covered with filamentous green algae. Tar spot algae present in UITZ adjacent to stream.

(D) Site is low in the UITZ. Barnacles are sparse to moderate with various age class - no new set; 10m wide band of sparse Fucus with dense concentrations found on bedrock 5m N of site. Conceptacles are maturing. Moderate limpet concentrations found on undersides of cobble. Nuclei are present but rare. Patches of Gloiopeltis (algae) present.

(E) Site is in the UITZ: ^{SUPRA} among angular boulders. There is a rare to sparse barnacle concentration and rare Littorina. Filamentous green algae covers the boulders. In MITZ, below site, barnacles are sparse, Littorina are sparse and mussels are rare. This is a separate pocket beach from areas A-D.

Low biota coverage on beaches; Recruitment present in barnacles, mussels; Fucus. Biota appears to be healthy.

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

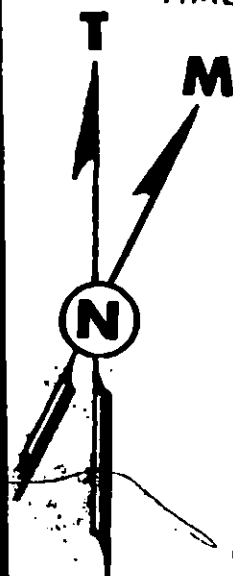
BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1	3	
Seabirds	1	1	
Waterfowl			
Gulls/Kittiwakes			
Shorebirds			
Corvids			
Other Birds			

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters			
Pinnipeds (specify)			
Whales (specify)			

Shoreline subdivision map showing important biological features attached.

MAY8AP 1991
 OG SKETCH MAP : Bio Sketch Map
 GREG CHANEY : Crank

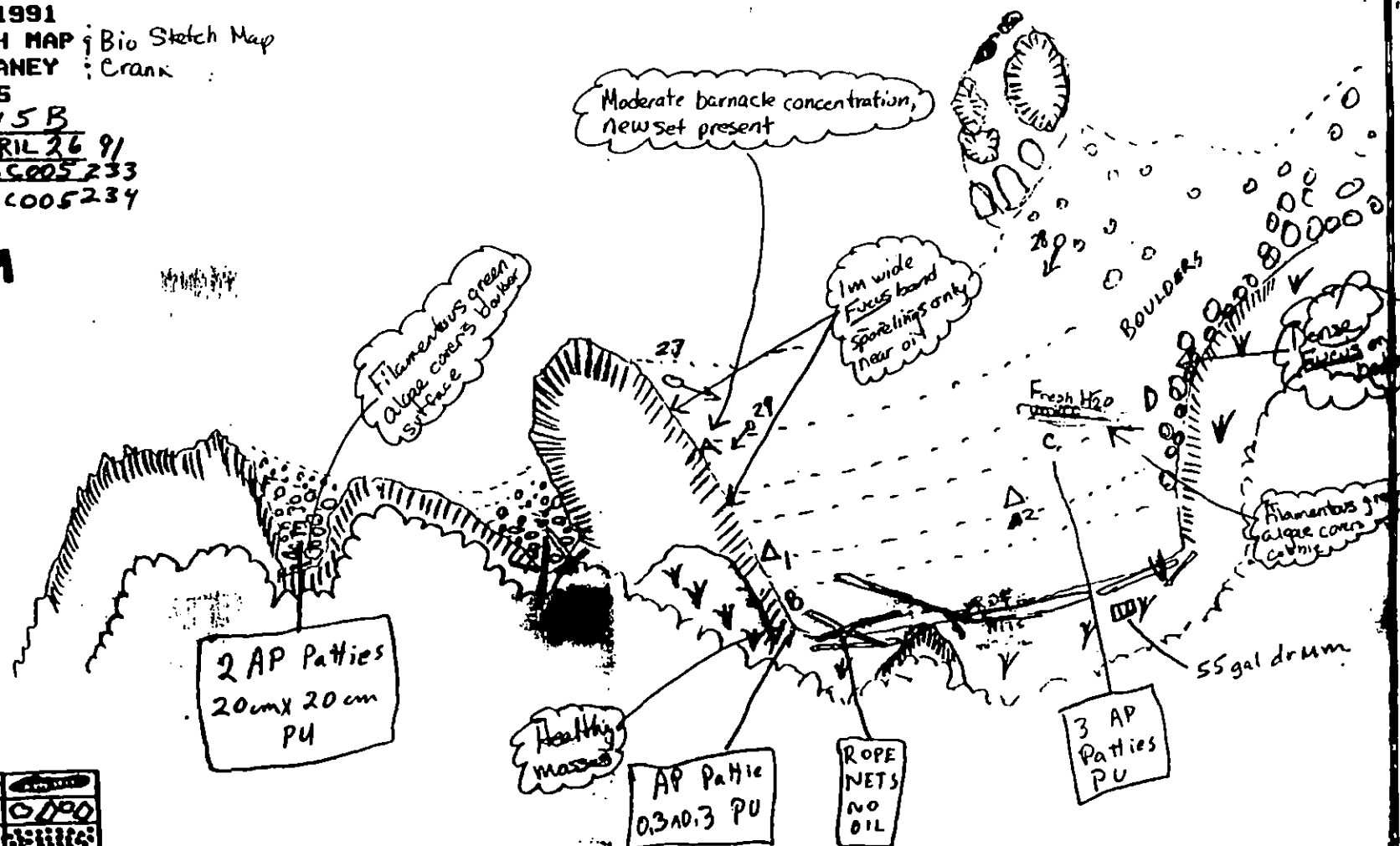
TEAM 5
 SEGMENT: EV 5 B
 DATE: APRIL 26 91
 AIR P.N: PIMC005233
 PIMC005234

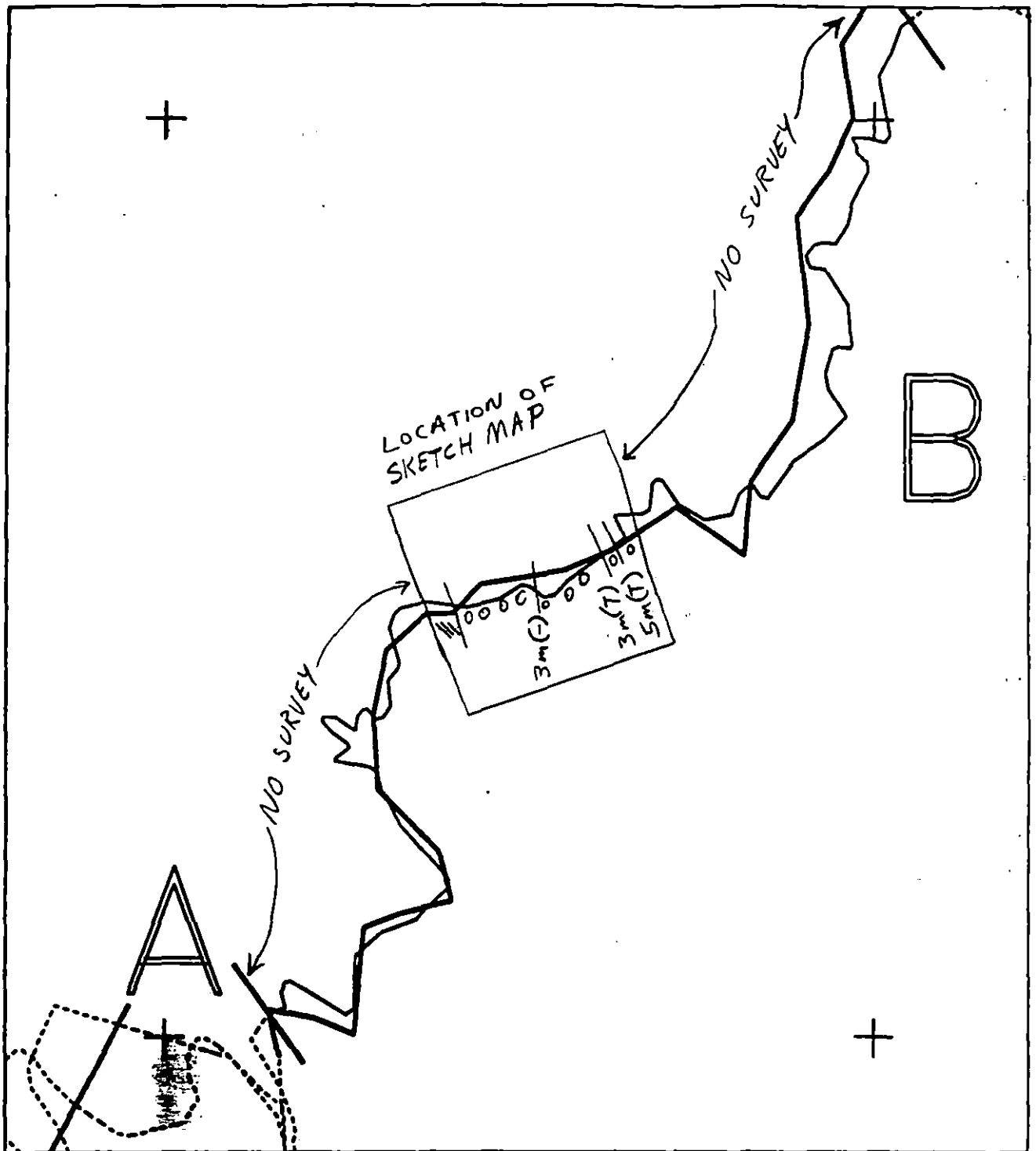


LEGEND

BEDROCK	
BOULDERS	
FINE BED.	
DRIFT LOG	
GRASS	
BRUSH	
FOREST	
OILED PIT	
NO OIL PIT	
PHOTO	

SCALE





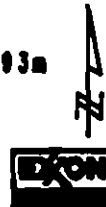
XXXX Wide
 //// Medium
 ---- Narrow
 TTTT Very Light
 0000 No Oil

EV005 B

ADEC Subsegment Length: 1103m

METERS

0 100 200
 AK State Plane Zone 4
 per005ba



Subdivision Field Map

Map Key: PWSEV005Ba

Name: *Greg Chaney*

Date: *April 27 '91*

Date Entered:

REVIEWED: F.W. 5/1/91

REVIEWED: M.C. 5/1/91

✓-05

A+

+

+

+

NO
SURVEY

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

EV005 B

ADEC Subsegment Length: 1193m
METERS

0 100 200
AK State Plane Zone 4
per00566



Subdivision Field Map
Map Key: PWSEV005B6
Name: *Greg Chaney*
Date: *April 27 '91*
Data Entered:

REVIEWED: F.W. 5/1/91
REVIEWED: M.C. 5/1/91

1991 MAYSAP EVALUATION

SEGMENT: EV 005 **SUB:** A **REGION:** PWS **SURVEY DATE:** 4/26/91

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) RESTRICTED 3/1 - 9/15

Ecological/Constraints (see page two for details) Eagle nest,
Fish harvest area, Subsistence, deer harvesting

ARCHAEOLOGICAL CONSTRAINTS:

If treatment is planned, a cultural resource evaluation is
required prior to shoreline treatment.

SHPO Signature: _____ Date: _____

RECOMMENDATIONS:

INITIAL

TAG

FOSC

TREATMENT REQUIRED (Y or N)	<u>N</u>	_____	_____
Manual Pickup (Check as Req.)	_____	_____	_____
Spot Washing	_____	_____	_____
Bio-Customblen Only	_____	_____	_____
Bio-Inipol/Customblen	_____	_____	_____
Other _____	_____	_____	_____
Other _____	_____	_____	_____

COMMENTS:

INITIAL: _____

TAG: _____

FOSC: _____

TAG APPROVAL DATE: _____ **FOSC APPROVAL DATE:** _____

ADEC _____ FOSC _____

EXXON _____

USCG _____

NOAA _____

**ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES**

Eagle Nest: Access restricted from 3/1 to 9/1. USF&WS authorization required. Maintain 1000' vertical and 1/4 mile horizontal buffer.

Fish Harvest Area: Unlimited treatment unless otherwise directed by ADF&G. Sheen containment/recovery procedures required for mechanical treatment.

Subsistence, Deer Harvesting: Unlimited treatment prior to 8/15.

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 5 SEGMENT EV-5 SUBDIVISION A DATE 4/26/91

ADEC

NAME John Hayes

SIGNATURE [Signature]

☐ NTR

Appreciable oiling observed at this site consisted of AP/S between boulders + on cobbles and isolated oiling in the M3T2. Veco crew P'd most of AP observed that was accessible. Subsurface oiling observed appeared to be lodged there as digging around it we did not find more in the M3T2.

EXXON

NAME Martinez N.J.

SIGNATURE [Signature]

☒ NTR

Very little oil remaining. Further work treatment would be of no benefit.

LANDMANAGER

NAME Steve WARD

OF CVC

SIGNATURE [Signature]

☐ NTR

2 Sites on this Sub. Could justify manual clean-up with shovels by Local Response or Veco. Enough oil remains to be warrant a 91 clean-up. Small scale but necessary.

USCG/NOAA

NAME HODGES / DREHER

SIGNATURE [Signature]

☒ NTR

Only one pit showed a small amount of sheening. Very small amounts of fractile asphalt, which was removed this date.

Coating (some coverage) of oil (w/pine needles) on some major out croppings. Very small amounts of oil noted

DATE April / 26 / 91

EST. OIL CATEGORY LENGTH: W 0 m M 0 m N 60 m VL 20 m NO 125 m US 171 m

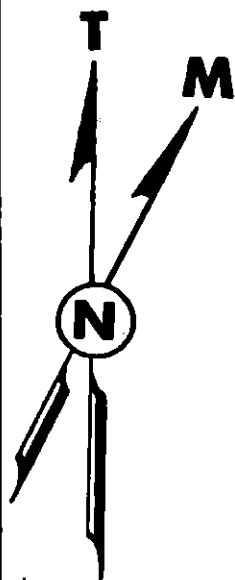
FRAMES 18-25

SHEEN COLOR: B = BROWN; R = RAINBOW; S = SILVER; N = NONE

OG COMMENTS:

REVISION: MC. 5/1/91

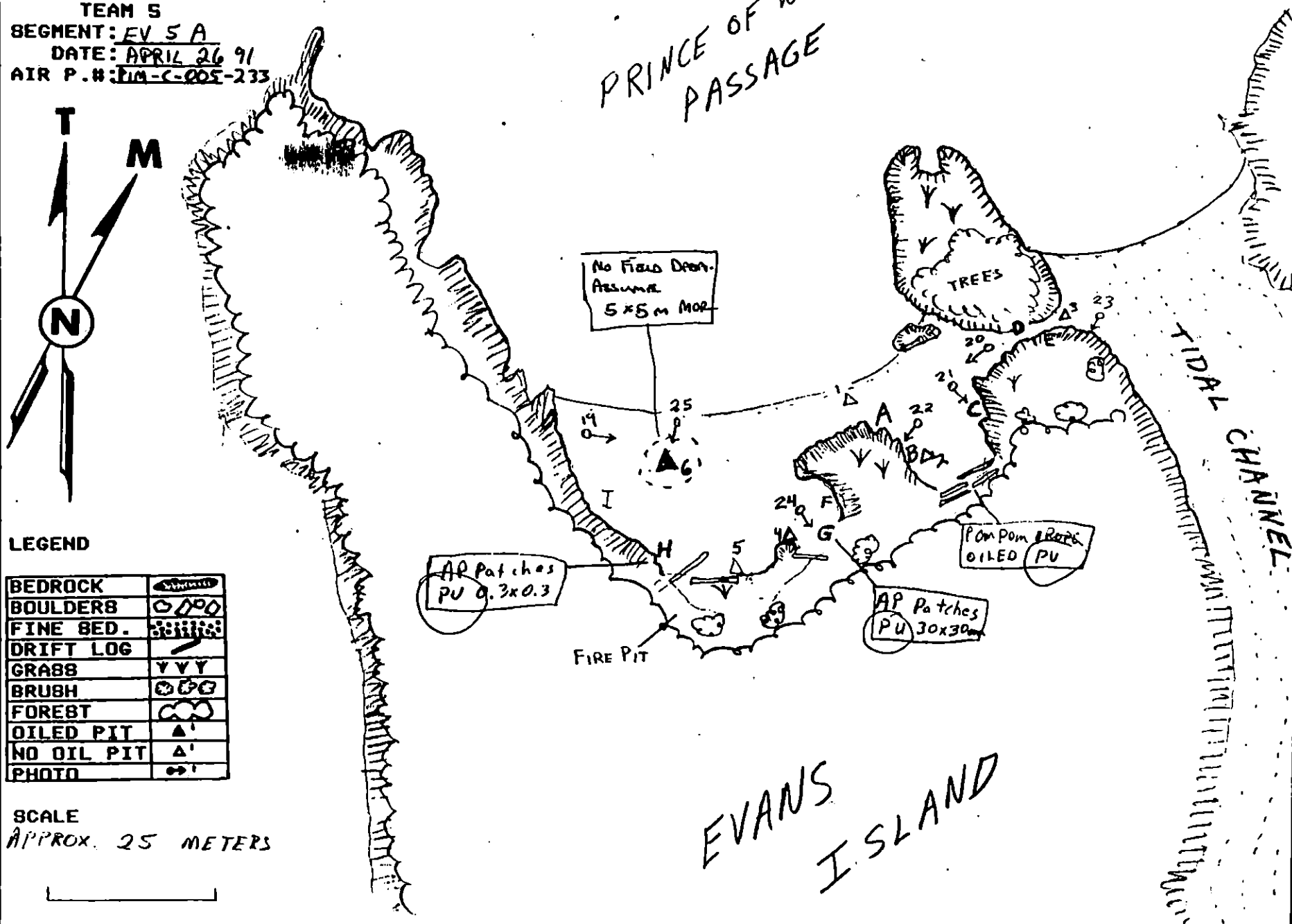
MAY8AP 1991
 OG SKETCH MAP
 GREG CHANEY
 TEAM 5
 SEGMENT: EV 5 A
 DATE: APRIL 26 91
 AIR P.#: FIM-C-005-233



LEGEND

BEDROCK	
BOULDERS	
FINE BED.	
DRIFT LOG	
GRASS	
BRUSH	
FOREST	
OILED PIT	
NO OIL PIT	
PHOTO	

SCALE
 APPROX. 25 METERS



REVIEWED: F.W. 5/1/91
 Revised: M.C. 5/1/91

WAYSAP BIOLOGICAL SUMMARY FORM

pg 1 of 2

TEAM # 5

DATE 26 Apr '91

SEGMENT # EV-S

TIDAL HEIGHT(Range) ~ +1 → +2

SUBDIVISION A

BIOLOGIST Crank

SEA STATE <1'

WIND SPEED/DIRECTION 0 → 5 mph / Unknown

PHOTOGRAPHS: ROLL #

FRAME #

COMMENTS/OBSERVATIONS (to be completed in oiled subdivisions only):

- (A) Directly below cover is a moderate barnacle population with spat and a moderate concentration of young mussels following the rock's crevices ≈ 30 cm wide band. Also there are patches (1/2 m diameter) of *Fucus* sporlings.
- (B) Area is located high in U1T2. No intertidal biota present in area. Mosses with oil film were present on side of rock outcrop. No oil in mosses on top of outcrop.
- (C) Area located in U1T2 : MIT2. No intertidal biota in U1T2. In MIT2 there are sparse barnacles and rare *Fucus*. There is one small Tidepool with an anenome (*Telia*) and juvenile mussels in the cracks.
- (D) Area is a protected rock face in the U1T2. There are rare barnacles in the area increasing to moderate 1m down the beach with rare patches of mussels. There is 1 (3cm) sponge and a sparse patch of *Searlesia* (dogwholk) in large crack.
- (E) Directly below the CT band is a moderate 1m band of barnacles with rare recruits. There is a patch of *Fucus* stripes 2m wide with rare sporlings. Sparse mussels are present in the cracks.
- (F) There are sparse barnacles and rare *Fucus* sporlings. Mature *Fucus* not present. There are several small (5-10 cm) tidepools with rare mussels and *Littorina*. Green filamentous algae present on rocks surrounding pools. *Oligochaete* worms (2-3cm long) are present.

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1	2	Juvenile Eel
Seabirds	2	3	
Waterfowl	2	4	
Gulls/Kittiwakes	3	30+	
Shorebirds			
Corvids	3	18	
Other Birds		u.B.	

LAND MAMMALS

MARINE MAMMALS	# OBSERVED	SPECIES	# OBSERVED
Sea Otters			
Pinnipeds (specify) <i>Selions</i>	3		
Whales (specify)			

Shoreline subdivision map showing important biological features attached.

Team: *5

Date: 26 Apr '91

pg 2 of 2

Segment: EV-5

Tidal Height: ~ +1 → +2

Subdivision: A

Biologist: Crank

Sea State: <1'

Wind Speed/Direction: 5 → 5 mph / unknown

Comments (con-)

(G) Area located 1/2 m below swatch line. No intertidal biota.

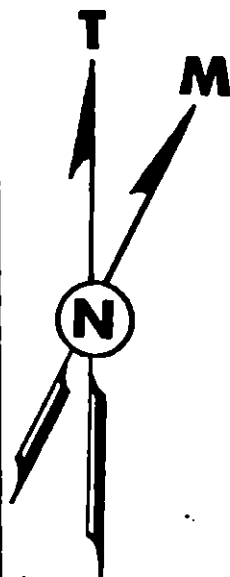
(H) Area is high in UIZ. No intertidal biota within 3 m of site. Down beach 5 m there is a 10 m wide sparse biota band consisting of Littorina and mussels. Three meters W of site there is a sparse patch of Fucus sporlings. At approximately the +4' tide level there is a moderate Fucus band.

(I) Area is located in the MITZ. There is a moderate, continuous barnacle population with sparse spat. Mussels are sparse with various age classes. Fucus is sparse in area with patches of Scytosiphon. Three meters down area Fucus is moderate and barnacle spat is moderate. Littorina and limpets are sparse. Snail egg masses are present on the underside of cobble. Juvenile eels and ribbon worms are present.

Areas located on an angular cobble pocket beach. There are continuous, sparse adult and recent barnacles on the cobble in the MITZ and LITZ. Sparse Fucus plants attached to cobble. Intercobble mussels with a rare density are present as well as Prototheca clams. Along rock faces barnacles are dense and mussels are sparse with various age classes.

Organisms in close proximity to the oil areas exhibit no adverse impact by existing oil conditions.

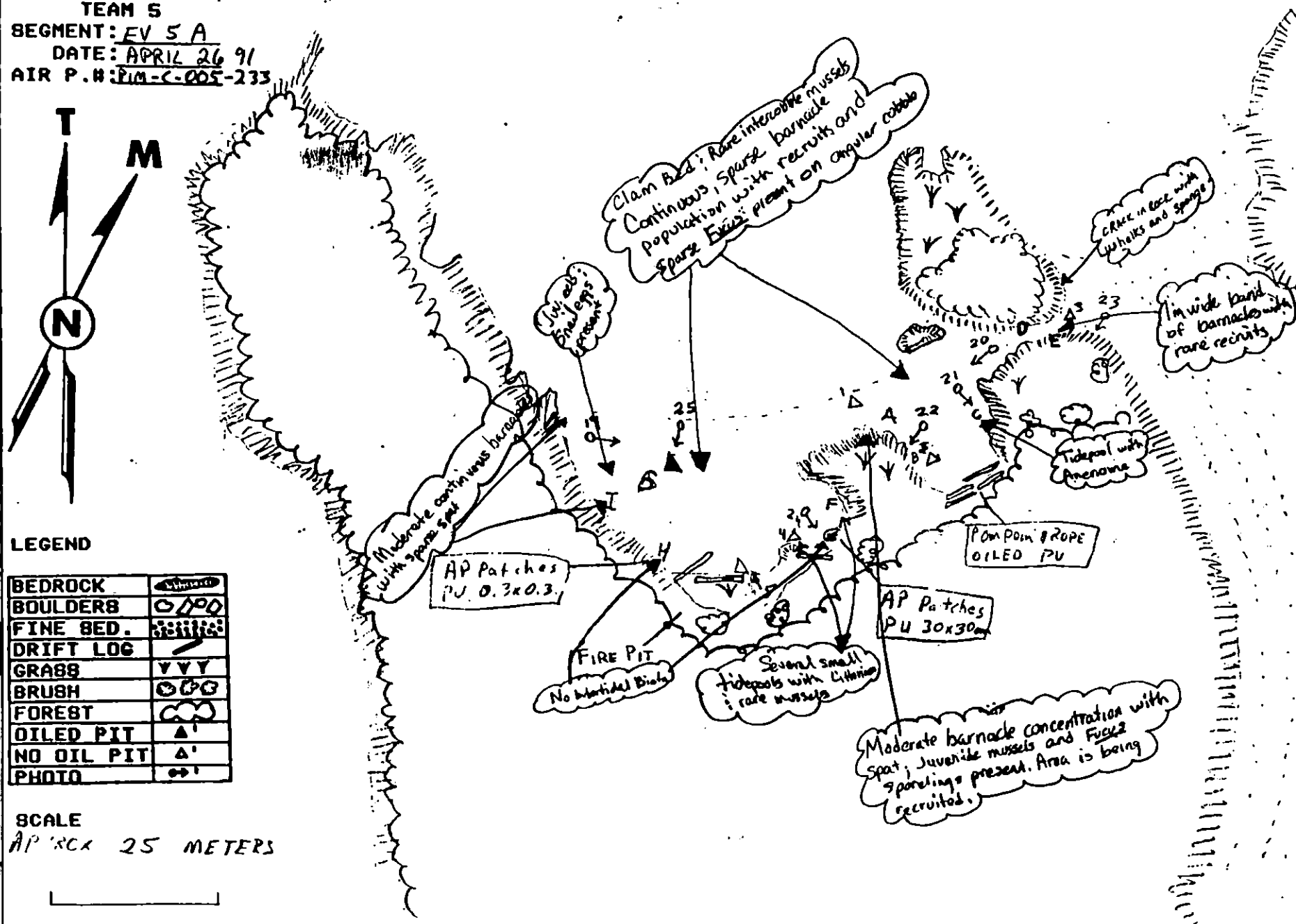
MAYBAP 1991
 DG SKETCH MAP : Bio Sketch Map
 GREG CHANEY : Crank
 TEAM 5
 SEGMENT: EV 5 A
 DATE: APRIL 26 91
 AIR P.H: PIM-C-005-233

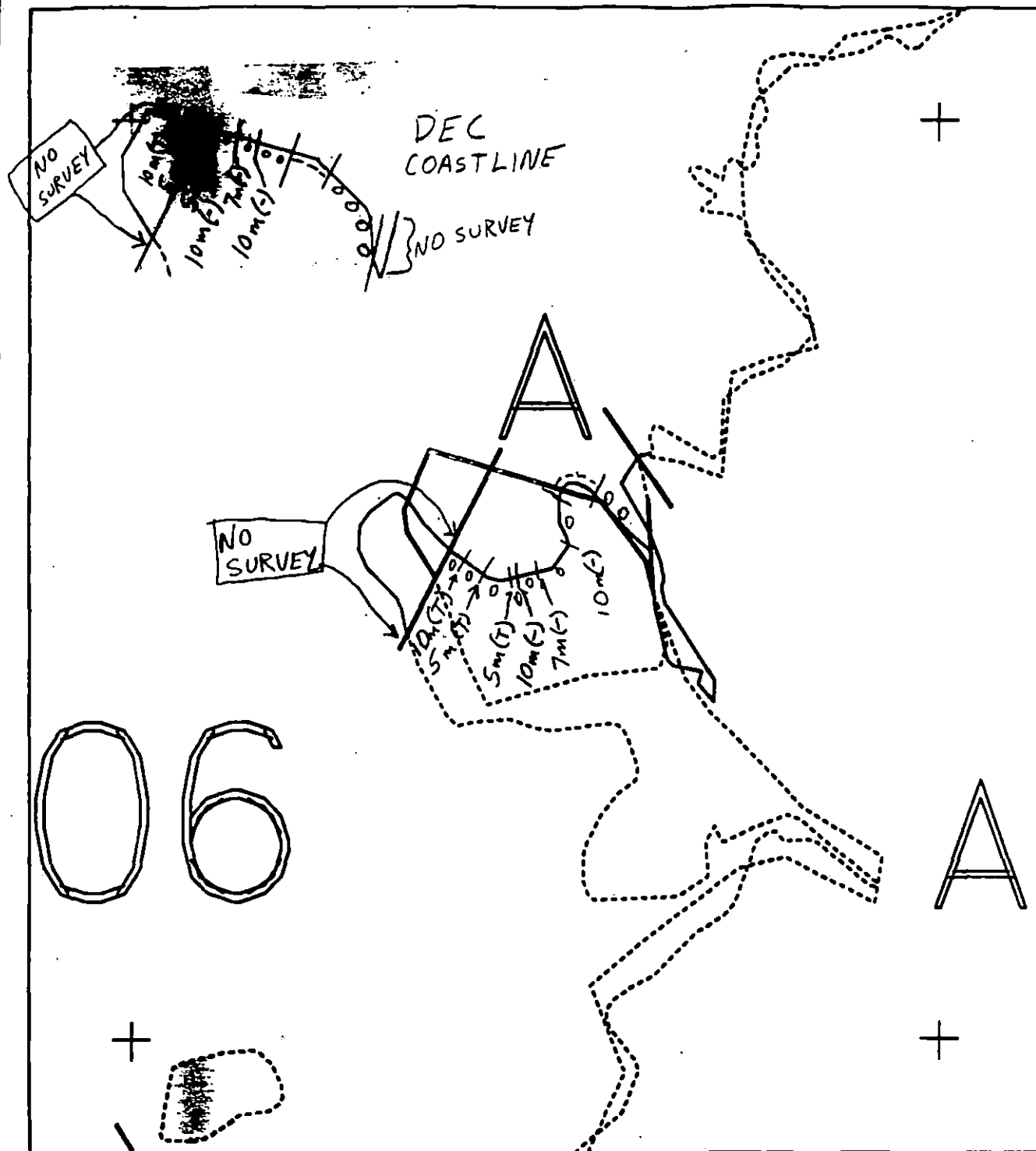


LEGEND

BEDROCK	
BOULDERS	
FINE BED.	
DRIFT LOG	
GRASS	
BRUSH	
FOREST	
OILED PIT	
NO OIL PIT	
PHOTO	

SCALE
 AP BOX 25 METERS





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

EV005 A
 ADEC Subsegment Length: 378m
 METERS
 0 100 200
 AK State Plane Zone 4
 pr0000



Subdivision Field Map
 Map Key: PWSEV005A
 Name: Guy Chaney
 Date: April 27 91
 Date Entered:

REVIEWED: F.W. 5/1/91
 REVIEWED: M.C. 5/1/91

ASAP TAG REVIEW SHEET

Segment: EV05

Subd: A Site: 1

Date
PRE-Review 11 AUG 90

Priority For Addressing In 1990

 HIGH

 MEDIUM

 LOW

~~X~~ NTR

Treatment
Recommended:

SOR/COVER/STAIN

NTR

High as
per Followup
Rec. Page

Recommendation/

Comment sheet does not
agree with OG sheet
Where is the Asphalt?

If Mousse / Asphalt present
Rec. Manual Pickup.

Priority Site For Reassessment In 1991

YES NO
X CG
 &
 NOAA

YES NO
X ADEC

YES NO
X EXXON

YES NO
X LAND MGR

TAG 13 AUG 90

Limited Manual Pickup
JRB

Low Priority

ASAP FOLLOWUP RECOMMENDATIONS

Segment: AS/EV-05 Subd.: A Site: _____ Date: 8-6-90 1990

Conditions Observed: In cracks between boulders and underneath boulders is MS, AP, OP, and OR. Because of oil's location amongst boulders manual removal will be difficult. Also in gravel at m172 is an area of AP approx 3m x 3m with OP piping extending as a line over a wider area.

Followup Recommendations: ASR/YECO worked on this site but did not complete manual removal/treatment. Further manual removal is needed which should be followed by bioremediation.

Completed by Pickup Crew: ☐ YES ☒ NO

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

ADEC

BOB McCREARY
(name)

Robert B. McCreary
(signature)

Comments:

Concur with above recommendations

Exxon

John Dean
(name)

J. Dean
(signature)

Comments:

LIMITED MANUAL PICK-UP SHOULD BE DONE BEFORE RENOVATION OF CUSTON BLON

USCG

Don Davis, CO3
(name)

Don Davis
(signature)

Comments:

Initial removal activities. Some manual removal still remains, which could be assessed by BIO TEAM.

Land Rep.

Steve WARD EUC
(name)

Steve Ward
(signature)

Comments:

more manual is needed because bio is done. A more thorough job should be done than last time. Above conditions are improvement in time good.

SEGMENT AS EV-05 SUBDIVISION: A SITE: 1 DATE 26 Aug 91

USCG

NAME Don Cravis (m) USCG SIGNATURE Don Cravis
David Roe, NOAA

☒ YES

☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

Partly mousse, asphalt, and interstitial clay found in large semi-annual runs. A 10m broken area of mousse and asphalt located requiring manual removal. Review began work on site which was delayed due to tides. Some additional work needed this year with manual and bio. reassess in 1991.

ADEC

NAME Bob McCree SIGNATURE Robert B. McCree

☒ YES

☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

MS, AP, OP and OR subsurface oil has fairly wide distribution on this segment. Cobble beach at South end of segment as well as adjoining boulders will require further treatment in 90. Mechanical means would greatly facilitate assessing the MS and OP beneath boulders.

AND MANAGER

NAME Steve Ward CUC SIGNATURE Steve Ward

☒ YES

☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

more manual should be done here in 90. cost manual was Incomplete, should be Bio again in 90. 9/1 yes

XXON

NAME John Dean SIGNATURE John Dean

☒ YES

☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

1 CONCUR

OG 1 Foget

SEGMENT ST/ EV-5

SUBMISSION A

DATE 4/7 90

CHECKLIST

- ☐ M Area
- ☐ Approx. Scale
- ☐ Seg/Sub Body
- ☐ Oil Dist
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ E.M. HAZARD
- ☐ SSI
- ☐ Photo Location(s)
- ☐ Photo(s)
- ☐ Pit Location(s)
- ☐ Photo Location(s)

LEGEND

1 Δ
Pit - No Surface Oil

2 Δ
Pit - Surface 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

CT 26
CV 10
ST 56
FL 2
MS 5
NO 215
US 125

10X10m
CT/CV P-S
ST-P

MS/P
5X1m

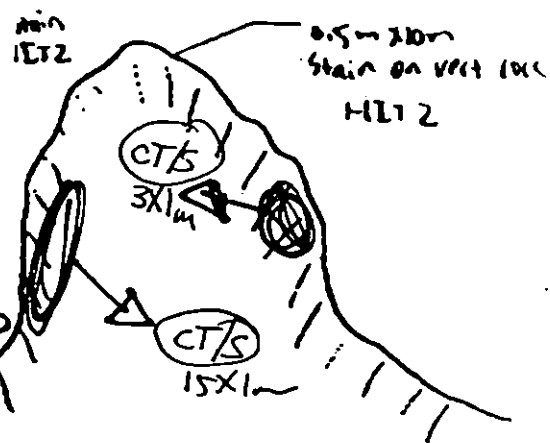
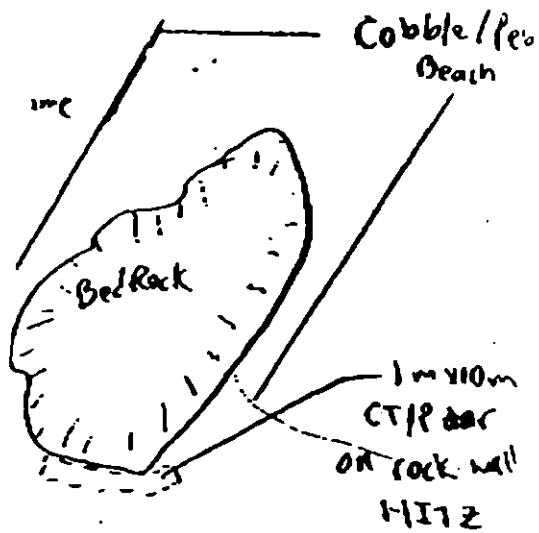
SOA P-S

PIT 2
PIT 1

Scale

10m

Remove
oiled Debris



Legend

- - snow
- /// - Rock / Boulder
- - Boulder
- XX - oiled vegetation
- SUITZ

Oil Character Length (m): AP 5 PO 5 CV 50 CT 40 ST 25 MS 5 PT 5 TR 5 CI 5 ... 355

1991 MAYSAP EVALUATION

SEGMENT: EV 005 SUB: C REGION: PWS SURVEY DATE: 5/1/91

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) RESTRICTED 3/1 - 9/15

Ecological/Constraints (see page two for details) Eagle nest,
Fish harvest area, Anadromous stream, Subsistence - Deer
harvesting

ARCHAEOLOGICAL CONSTRAINTS:

If treatment is planned, a cultural resource evaluation is
required prior to shoreline treatment.

SHPO Signature: _____ Date: _____

RECOMMENDATIONS:

INITIAL

TAG

FOSC

TREATMENT REQUIRED (Y or N)

N

Manual Pickup (Check as Req.)

Spot Washing

Bio-Customblen Only

Bio-Inipol/Customblen

Other

Other

COMMENTS:

INITIAL: _____

TAG: _____

FOSC: _____

TAG APPROVAL DATE: _____ FOSC APPROVAL DATE: _____

ADEC _____

FOSC _____

EXXON _____

USCG _____

NOAA _____

**ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES**

Eagle Nest: Access restricted from 3/1 to 9/1. USF&WS authorization required. Maintain 1000' vertical and 1/4 mile horizontal buffer.

Fish Harvest Area: Unlimited treatment unless otherwise directed by ADF&G. Sheen containment/recovery procedures required for mechanical treatment.

Anadromous Stream: Unlimited treatment up to stream bank between May 15 and July 10. ADF&G approval required for work after July 10. Fish Habitat Permit required for instream work. ADF&G approval required for bioremediation within 100 meters of anadromous stream after July 10.

Subsistence - Deer Harvesting: Unlimited treatment prior to 8/15.

AYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 5 SEGMENT EV-5 SUBDIVISION C DATE 5/1/91

ADEC

NAME John Hays SIGNATURE [Signature]

☒ NTR

Oiling observed on portions of segment surveyed were APs on north bank of stream and remnants of AP on 2nd pocket beach most of which were picked up by crew. No treatment recommended here at this time. Bio flags were removed by crew.

EXXON

NAME Martinez N.D. SIGNATURE [Signature]

☒ NTR

No amount of surface or subsurface, picked up what little AP was there. Any further work would be of no net environmental benefit.

LANDMANAGER

NAME Steve Waco OF CUC SIGNATURE [Signature]

☒ NTR

No Sub showing. Numerous asphalt patches under logs and scattered Brand Beach, most removed by team. No trash requiring pick-up. Good Clean Beach.

USCG/NOAA

NAME DEHER / [Signature] SIGNATURE CWO K.L. Deher

☒ NTR

Minute traces of stain & splatter - any clean up would not be cost effective.

Oil sediment and scattered tar patches were removed. No other oil type present. Further clean up activities are not necessary.

REVIEWED: MC 5/9/91 ECR revised, May 8

EV-5-C

SKETCH
MAP

LOCATIONS

CHANEY
MAY 1 1991
TEAM 5
MAYSAP

EV-01

EV-05

EV-06

MAP 1

MAP 2

EV005

Segment Reference Map

Map Key: PVSEV005



METERS

0 200 400

AK State Plane Zone 4
GCS NAD83

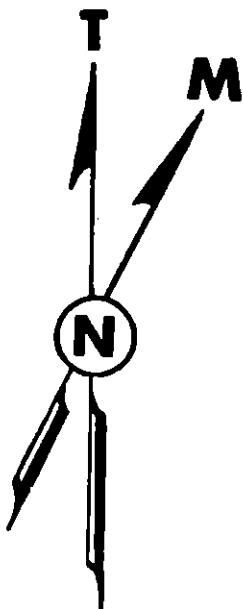


EAGLE NEST

REVIEWED: MC 5/9/91 ES revised, May 8

MAP 1991
 OG SKETCH MAP
 GREG CHANEY
 TEAM 5
 SEGMENT: EV-5-C
 DATE: MAY 1 1991
 AIR P.#: 91M-C-005-235

MAP 1 of 2



PRINCE OF WALES
PASSAGE

(B) 1x10m
 AP ~ 2%
 SOR ~ 5%

(A) 5x10m
 SOR TRACE
 CU TRACE
 CT TRACE

1 Pattie Recovered

MEADOW

2 Patties Recovered

ALDERS

FOREST

LEGEND

BEDROCK	
BOULDERS	
FINE BED.	
DRIFT LOG	
GRASS	
BRUSH	
FOREST	
OILED PIT	
NO OIL PIT	
PHOTO	

SCALE

60 METERS

APPROXIMATELY

FOREST

ALDERS

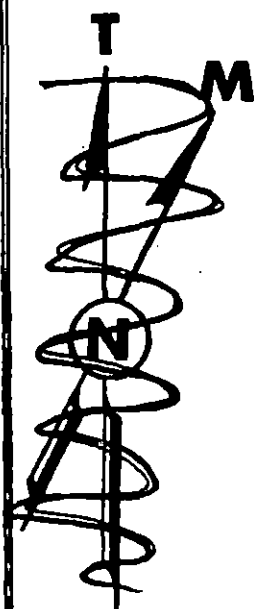
(C) 0.2 x 3m
 40% Stain
 on drift logs

EVANS ISLAND

REVIEWED: 5/9/91 AC
 EF reviewed, May 8

MAP 1991
 OG SKETCH MAP
 GREG CHANEY
 TEAM 5
 SEGMENT: EV-5-C
 DATE: MAY 1
 AIR P.#: NONE

EVANS ISLAND



MAG NORTH

D SORT TRACE
 6 x 15m

FOREST

3 AP
 PATTIE
 PU

1 AP
 PATTIE
 PU

SEA OTTER
 SKELETON

MEADOW

E AP ~ 1%
 SORT TRACE
 5 x 15m

MAP 2 OF 2

PRINCE OF WALES
 PASSAGE

LEGEND

BEDROCK	
BOULDERB	
FINE BED.	
DRIFT LOG	
GRASS	
BRUSH	
FOREST	
OILED PIT	
NO OIL PIT	
PHOTO	

SCALE 50 METERS

ROUGHLY

Low
 Rocky
 POINT

REVIEWED: 5/9/91 MC
 ET reviewed, May 8

TEAM # 5

DATE 1 May 1991

SEGMENT # EV-5

TIDAL HEIGHT (Range) 0 → +2'

SUBDIVISION C

BIOLOGIST Crank

SEA STATE 0-1'

WIND SPEED/DIRECTION 5 knots/E

PHOTOGRAPHS: ROLL #

FRAME #

COMMENTS/OBSERVATIONS (to be completed in oiled subdivisions only):

(A) Area is in SUPRA and high UIZ. Black and white lichen and mosses present in area. Less than 1% biota cover. One meter below site is a 10m wide band of sparse to moderate Fucus. There are sparse barnacles, moderate Littorina and limpets, rare to sparse mussels, whelks and Endocladia (alga). Biota cover ~40%. The LITZ has approx. a 100% biota cover with sparse whelks, moderate barnacles, sparse Fucus, dense limpets and Littorina, Odonthalia (alga) and bladed red and green algae.

(B) Area is located in the SUPRA and high UIZ. Sprouting rye grass, black and white lichen and filamentous green algae present in area. Less than 1% biota cover. Five meters south is a runoff stream with ~30% biota cover including: moderate to sparse barnacles and sparse Fucus with sporlings.

(C) Area is located in the SUPRA. No intertidal biota observed. Fifteen meters below is runoff stream with 30% biota cover.

Areas A-C are on a pocket beach. LITZ below B & C is a clam bed with Prototheca (little neck clams).

(D) Area is located in the SUPRA and UIZ 7m north of and stream. Rye grass is sprouting in the SUPRA and oligochaete worms are present in the UIZ.

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1	3	(1 dead Herring)
Seabirds	2	14	
Waterfowl	1	16	
Gulls/Kittiwakes	1	20	
Shorebirds			
Corvids			
Other Birds			

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters	2 (skelton > 5 day dead)	Fresh Deer tracks	
Pinnipeds (specify)		(1 young buck skeleton)	
Whales (specify)	2 Orca ♀		

Shoreline subdivision map showing important biological features attached.

Team #5

Date 1 May 1991

Segment EV-5

Tidal Height 0 → 2'

Subdivision C

Biologist Crank

Sea State 0-1'

Wind Speed/Direction 5 knots/E

Comments (cont)

(E) Area is located across anadromous stream from 'D'.
Biota is similar.

There is a Laminaria kelp bed nearshore of areas D & E. On the shore, there was the skeletal remains of a young buck deer and a sea otter. The otter has been dead longer than 5 days and had a full set of teeth.

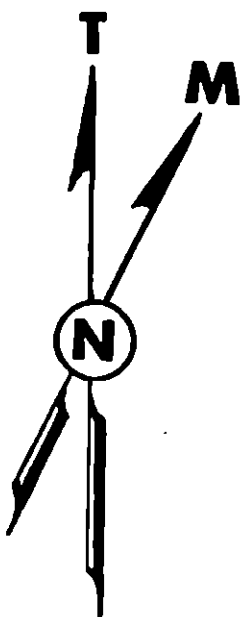
Two female Orcas passed by subdivision.

There is a low surface biota cover on beach ~10-20%. However, a moderate intercobble mussel bed and a dense Hiatella & Prototheca clam bed are found in the LITZ.

MAP 1991
 DRAFT MAP
 GREG CHANEY
 TEAM 5

SEGMENT: EV-5-C
 DATE: MAY 1 1991
 AIR P.N.: P.M.-C-005-235

MAP 1 of 2



PRINCE OF WALES
 PASSAGE

(A) 5x10m
 SOR TRACE
 CU TRACE
 CT TRACE

60% biota cover
 in LITZ

10m wide band of sparse to moderate Fucus

1 Pattie Recovered

Fresh tracks
 in snow

(B) 1x10m
 AP ~ 2%
 SOR ~ 5%

2 Patties Recovered

LITZ is a clam bed
 with ~30% surface
 biota cover

ALDERS
 1.5 to 4.5 ft apart

FOREST

LEGEND

BEDROCK	
BOULDERS	
FINE BED.	
DRIFT LOG	
GRASS	
BRUSH	
FOREST	
OILED PIT	
NO OIL PIT	
PHOTO	

SCALE

60 METERS

APPROXIMATELY

FOREST

EVANS ISLAND

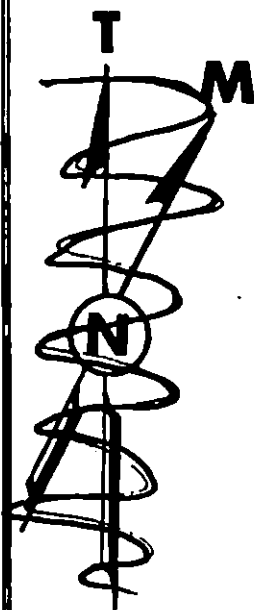
(C) 0.2 x 3m
 40% Stain
 on drift logs

Kelp

ALDERS

MAP 1991
 06 SKETCH MAP
 GREG CHANEY
 TEAM 5
 SEGMENT: EV-5-6
 DATE: MAY 1
 AIR P.#: NONE

EVANS ISLAND



MAG NORTH

D SORT TRACE
 6 x 15m

Young buck deer
 Fur skeleton

Sprouting ryegrass

FOREST

3 AP
 PATTIES
 PU

LOG ACROSS
 STREAM

STREAM

ALDERS

1 AP
 PATTIES
 PU

SEA OTTER Dead longer than 5 days
 SKELETON Full set of teeth

MEADOW

E AP ~ 1%
 SORT TRACE
 5 x 15m

Surface biota cover 10-20%

Kelp Bed

Dense clam bed and moderate
 intercobble mussel bed in LITZ

MAP 2 OF 2

Low
 Rocky
 POINT

LEGEND

BEDROCK	
BOULDERS	
FINE BED.	
DRIFT LOG	
GRASS	
BRUSH	
FOREST	
OILED PIT	
NO OIL PIT	
PHOTO	

SCALE 50 METERS
 ROUGHLY

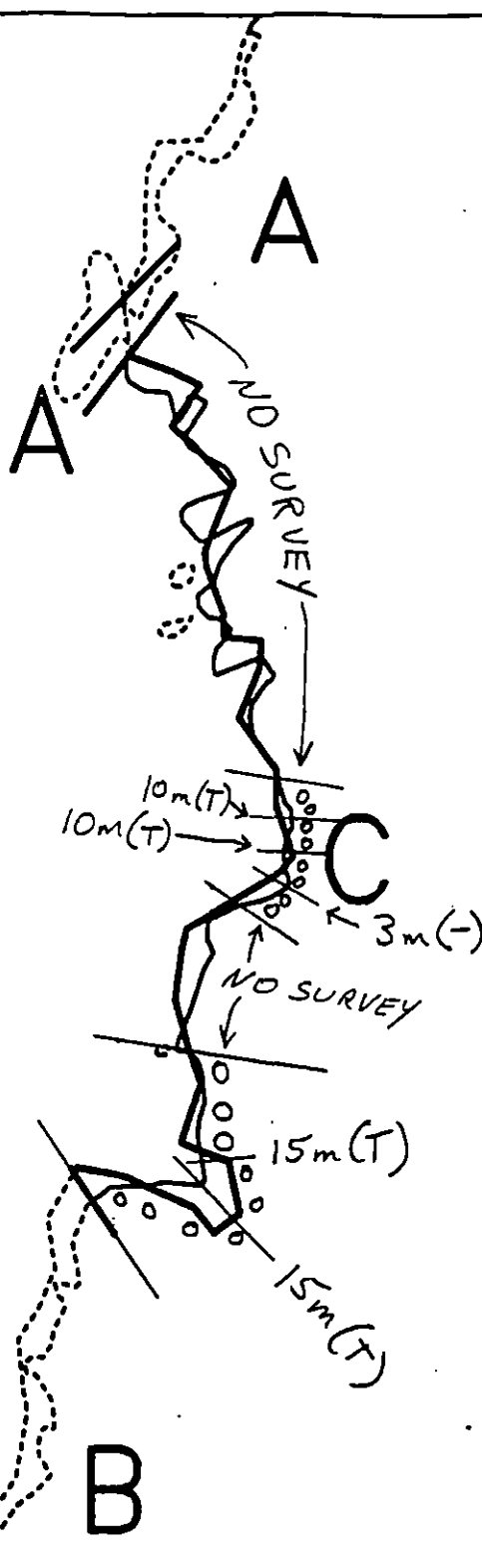
PRINCE OF WALES
 PASSAGE

- 2 ♀ Orcas

V-02

V-01

V-05



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

EV005 C

ADEC Subsegment Length: 1379m

METERS

0 100 200

AK State Plane Zone 4
 per0050



Subdivision Field Map

Map Key: PWSEV005C

Name: *Greg Cherry*

Date: *May 2 1991*

Date Entered:

Reviewed: MC 5/9/91

ES reviewed, May 8

1991 MAYSAP EVALUATION

SEGMENT: EV 005 SUB: C REGION: PWS SURVEY DATE: 5/1/91

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) RESTRICTED 3/1 - 9/15

Ecological/Constraints (see page two for details) Eagle nest,
Fish harvest area, Anadromous stream, Subsistence - Deer
harvesting

ARCHAEOLOGICAL CONSTRAINTS:

If treatment is planned, a cultural resource evaluation is required prior to shoreline treatment.

SHPO Signature: Rachael Jean Davis Date: 5/17/91

RECOMMENDATIONS:

INITIAL**TAG**

FOSC

TREATMENT REQUIRED (Y or N)

N

1

Manual Pickup (Check as Req.)

Spot Washing

Bio-Customblen Only

Bio-Inipol/Customblen

Other

Other

COMMENTS:

INITIAL:

TAG:

FOSC:

TAG APPROVAL DATE: 1 MAY 17 1991

FOSC APPROVAL/DATE: 25 MAY 1991

ADEC

FOSC

~~E. E. PAGE, CDR, USCG
CHIEF OF STAFF, FOSC~~

EXXON

USCG

NOAA

**ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES**

Eagle Nest: Access restricted from 3/1 to 9/1. USF&WS authorization required. Maintain 1000' vertical and 1/4 mile horizontal buffer.

Fish Harvest Area: Unlimited treatment unless otherwise directed by ADF&G. Sheen containment/recovery procedures required for mechanical treatment.

Anadromous Stream: Unlimited treatment up to stream bank between May 15 and July 10. ADF&G approval required for work after July 10. Fish Habitat Permit required for instream work. ADF&G approval required for bioremediation within 100 meters of anadromous stream after July 10.

Subsistence - Deer Harvesting: Unlimited treatment prior to 8/15.

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 5 SEGMENT EV-5 SUBDIVISION C DATE 5/1/91

DEC

NAME

John Hays

SIGNATURE

[Signature]

☒ NTR

Oilily observed on portions of segment surveyed were AHS on north bank of stream and remnants of AP on 2nd pocket beach most of which were picked up by crew. No treatment recommended here at this time. Bio flags were removed by crew.

EXXON

NAME

Martinez N.D.

SIGNATURE

[Signature]

☒ NTR

No amount of surface or subsurface, picked up what little AP was there. Any further work would be of no net environmental benefit.

LANDMANAGER

NAME

Steve Wood

OF

CUC

SIGNATURE

[Signature]

☒ NTR

No Sub showing - Numerous asphalt patches under logs and scattered Brand Beach, most removed by team. No trash requiring pick-up. Good Clean Beach.

USCG/NOAA

NAME

DREHER/HODGES

SIGNATURE

[Signature]

☒ NTR

Minute traces of stain & splatter - any clean up would not be cost effective.

Oil sediment and scattered tar patches were removed. No other oil type present. Further clean up activities are not necessary.

PAGE 1 OF 1

5

BIO _____ **CRANK**

SEGMENT

EV5

LANDMANAGER WARD

SUBDIVISION

USCG/NOAA DREHER/HODGES

DATE May 1 / 91

TIDE LEVEL 0 ft. to 2.0 ft.

ENERGY LEVEL: ☐ H ☒ M ☐ L

SURVEYED FROM: ☒ FOOT ☐ BOAT ☐ HELO

WEATHER: ☐ SUN ☒ CLOUDS ☐ FOG ☒ RAIN ☐ SNOW

TOTAL LENGTH SHORELINE SURVEYED: 460 m

NEAR SHORE SHEEN: ☐ BR ☐ RB ☐ SL ☒ NONE

EST. OIL CATEGORY LENGTH: W — m M — m N 3 m VL 50 m NO 407 m US 919 m

DISTRIBUTION: C = 91-100%; B = 51-90%; P = 11-50%; S = 1-10%; T = <1%

SLOPE: V = VERTICAL; H = HIGH ANGLE; M = MEDIUM ANGLE; L = LOW ANGLE

PHOTO ROLL # MAYSAP- 5 - 7 FRAMES 19-23

SHEEN COLOR: B = BROWN; R = RAINBOW; S = SILVER; N = NONE

REVIEWED: MC 5/9/91 ES revised, May 8

EV-5-C

SKETCH
MAP

LOCATIONS

CHANEY
MAY 1 1991
TEAM 5
MAYSAP

EV-01

EV-05

EV-06

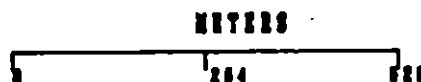
MAP 1

MAP 2

EV005

Segment Reference Map

Map Key: PVSEV005



AK State Plane Zone 4
PVSEV005

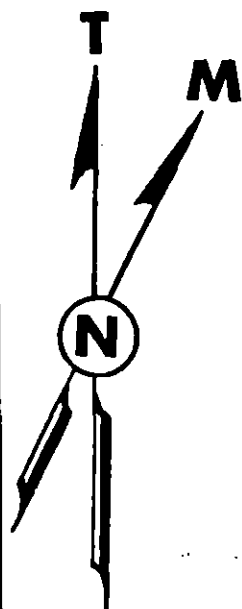


EAGLE NEST

REVIEWED: MC 5/9/91 ES revised, May 8

MAY 1991
 OG SKETCH MAP
 GREG CHANEY
 TEAM 5
 SEGMENT: EV-S-C
 DATE: MAY 1 1991
 AIR P.#: SIM-C-005-235

MAP 1 of 2



PRINCE OF WALES
PASSAGE

(A) 5x10m
 SOR TRACE
 CV TRACE
 CT TRACE

1 Pattie Recovered

(B) 1x10m
 AP ~ 2%
 SOR ~ 5%

2 Patties Recovered

ALDERS

FOREST

LEGEND

BEDROCK	
BOULDERS	
FINE BED.	
DRIFT LOG	
GRASS	
BRUSH	
FOREST	
OILED PIT	
NO OIL PIT	
PHOTO	

SCALE

60 METERS

APPROXIMATELY

FOREST

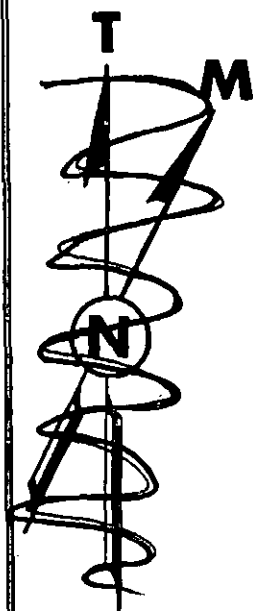
(C) 0.2 x 3m
 40% Stain
 on drift logs

EVANS ISLAND

REVIEWED: 5/9/91 MC
 ES (revised, May 8)

MAP 1991
 OG SKETCH MAP
 GREG CHANEY
 TEAM 5
 SEGMENT: EV-5-C
 DATE: MAY 1
 AIR P.#: NONE

EVANS ISLAND



MAG NORTH

(D) SORT TRACE
 6 x 15m

LOG ACROSS
 STREAM

STREAM

ALDERS

FOREST

3 AP
 PATTIE
 PU

1 AP PATTIE
 PU

SEA OTTER
 SKELETON

MEADOW

STREAM

(E) AP ~ 1%
 SORT TRACE
 5 x 15m

Low
 Rocky
 POINT

MAP 2 OF 2

LEGEND

BEDROCK	
BOULDERS	
FINE SED.	
DRIFT LOG	
GRASS	
BRUSH	
FOREST	
OILED PIT	
NO OIL PIT	
PHOTO	

SCALE 50 METERS

ROUGHLY

PRINCE OF WALES
 PASSAGE

REVIEWED: 5/9/91 MC
 E reviewed, May 8

TEAM # 5

DATE 1 May 1991

SEGMENT # EV-5

TIDAL HEIGHT (Range) 0 → +2'

SUBDIVISION C

BIOLOGIST Crank

SEA STATE 0-1'

WIND SPEED/DIRECTION 5 knots/E

PHOTOGRAPHS: ROLL #

FRAME #

COMMENTS/OBSERVATIONS (to be completed in oiled subdivisions only):

(A) Area is in SUPRA and high UIZ. Black and white lichen and mosses present in area.

Less than 1% biota cover. One meter below site is a 10m wide band of sparse to moderate Fucus. There are sparse barnacles, moderate Littorina and limpets, rare to sparse mussels, whelks and Endocladia (alga). Biota cover ~40%.The LITZ has approx. a 100% biota cover with sparse whelks, moderate Barnacles, sparse Fucus, dense limpets and Littorina, Odonthalia (alga) and bled red and green algae.(B) Area is located in the SUPRA and high UIZ. Sprouting rye grass, black and white lichen and filamentous green algae present in area. Less than 1% biota cover. Five meters south is a runoff stream with ~30% biota cover including: moderate to sparse barnacles and sparse Fucus with sporelings.

(C) Area is located in the SUPRA. No Intertidal biota observed. Fifteen meters below is runoff stream with 30% biota cover.

Areas A-C are on a pocket beach. LITZ below B & C is a clam bed with Prototheca (little neck clams).

(D) Area is located in the SUPRA and UIZ 7m north of and stream. Rye grass is sprouting in the SUPRA and oligochaete worms are present in the UIZ.

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1	3	(1 dead Herring)
Seabirds	2	14	
Waterfowl	1	16	
Gulls/kittiwakes	1	20	
Shorebirds			
Corvids			
Other Birds			

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters	2 Skeleton > 5 day dead	Fresh Deer tracks	
Pinnipeds (specify)		1 young buck skeleton	
Whales (specify)	2 Orca ♀		

Shoreline subdivision map showing important biological features attached.

Team #5

Date 1 May 1991

Segment EV-5

Tidal Height 0 → 2'

Subdivision C

Biologist Crank

Sea State 0-1'

Wind Speed/Direction 5 knots/E

Comments (cont)

(E) Area is located across anadromous stream from 'D'.
Biota is similar.

There is a Laminaria kelp bed near shore of areas D & E. On the shore, there was the skeletal remains of a young buck deer and a sea otter. The otter has been dead longer than 5 days and had a full set of teeth.

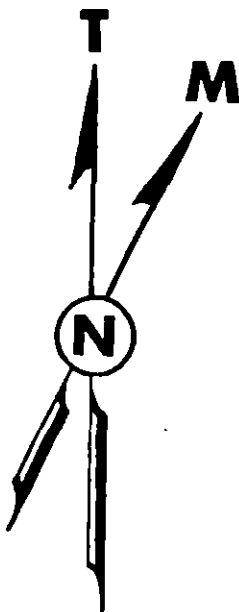
Two female Orcas passed by subdivision.

There is a low surface biota cover on beach ~10-20%. However, a moderate intercobble mussel bed and a dense Hiatella & Prototheca clam bed are found in the LITZ.

MAY 1991
 OG WATCH MAP
 GREG CHANEY
 TEAM 5
 SEGMENT: EV-5-C
 DATE: MAY 1 1991
 AIR P.#: RM-C-005-235

MAP 1 of 2

PRINCE OF WALES
PASSAGE



(A) 5x10m
 SOR TRACE
 CV TRACE
 CT TRACE

60% biota cover
in LITZ

10m wide band of sparse to moderate Fucus

1 Pattie Recovered

Fresh tracks
on drift log

(B) 1x10m
 AP ~ 2%
 SOR ~ 5%

2 Patties Recovered

LITZ is a clam bed
with ~30% surface
biota cover

ALDERS

FOREST

LEGEND

BEDROCK	
BOULDERS	
FINE SED.	
DRIFT LOG	
GRASS	
BRUSH	
FOREST	
OILED PIT	
NO OIL PIT	
PHOTO	

SCALE

60 METERS

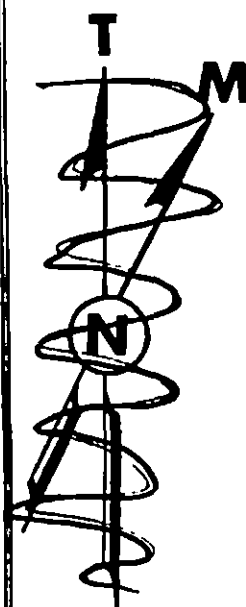
APPROXIMATELY

FOREST

EVANS ISLAND

MAP 1991
OG WATCH MAP
GREG CHANEY
TEAM 5
SEGMENT: EV-5-6
DATE: MAY 1
AIR P.#: NONE

EVANS ISLAND



MAG NORTH

D SORT TRACE
6 x 15m

Young buck deer
fur skeleton

Sprouting ryegrass

FOREST

3 AP
PATTIES
PU

LOG ACROSS
STREAM

STREAM

ALDERS

AP PATTIE
PU

SEA OTTER Dead longer than 5 days
Full set of teeth
SKELETON

MEADOW

STREAM

E AP ~ 1%
SOR TRACE
5 x 15m

Surface biota cover 10-20%

Kelp Bed

Dense clam bed and moderate
intercobble mussel bed in LITZ

MAP 2 OF 2

Low
Rocky
POINT

LEGEND

BEDROCK	
BOULDERS	
FINE BED.	
DRIFT LOG	
GRASS	
BRUSH	
FOREST	
OILED PIT	
NO OIL PIT	
PHOTO	

SCALE 50 METERS
ROUGHLY

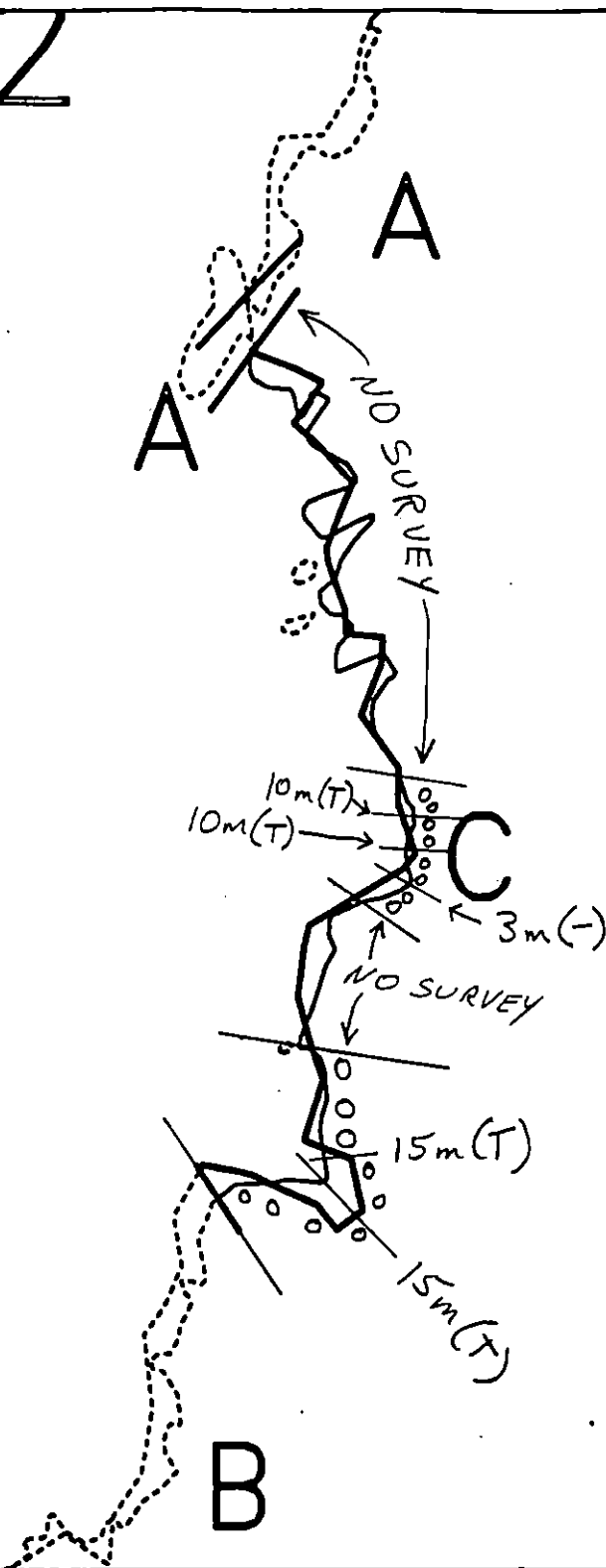
PRINCE OF WALES
PASSAGE

vx - 2 ♀ Orcas

V-02

V-01

V-05



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

EV005 C
 ADEC Subsegment Length: 1378m
 METERS
 0 200 400
 AK State Plane Zone 4
 per005c



Subdivision Field Map
 Map Key: PWSEV005C
 Name: Greg Chaney
 Date: May 2 1991
 Date Entered:

REVIEWED: MC 5/9/91
 ES reviewed, May 8

1991 MAYSAP EVALUATION

SEGMENT: EV 005 SUB: A REGION: PWS SURVEY DATE: 4/26/91

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) RESTRICTED 3/1 - 9/15

Ecological/Constraints (see page two for details) Eagle nest,
Fish harvest area, Subsistence, deer harvesting

ARCHAEOLOGICAL CONSTRAINTS:

If treatment is planned, a cultural resource evaluation is
required prior to shoreline treatment.

SHPO Signature: Charles Z. Adams Date: 5/8/91

RECOMMENDATIONS:

	INITIAL	TAG	FOSC
TREATMENT REQUIRED (Y or N)	<u>N</u>		<u>2</u>
Manual Pickup (Check as Req.)			
Spot Washing			
Bio-Customblen Only			
Bio-Inipol/Customblen			
Other			
Other			

COMMENTS:

INITIAL: _____

TAG: _____

FOSC: _____

TAG APPROVAL DATE: 4/8/91 FOSC APPROVAL DATE: 5/13/91

ADEC [Signature] FOSC [Signature]

EXXON [Signature] E. E. PAGE, CDR, USCG

USCG [Signature] CHIEF OF STAFF, FOSC

NOAA [Signature]

**ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES**

Eagle Nest: Access restricted from 3/1 to 9/1. USF&WS authorization required. Maintain 1000' vertical and 1/4 mile horizontal buffer.

Fish Harvest Area: Unlimited treatment unless otherwise directed by ADF&G. Sheen containment/recovery procedures required for mechanical treatment.

Subsistence, Deer Harvesting: Unlimited treatment prior to 8/15.

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 5 SEGMENT EV-5 SUBDIVISION A DATE 4/26/91

ADEC.

NAME John Hayes

SIGNATURE [Signature]

☐ NTR

Appreciable oiling observed at this site consisted of AP/S between boulder + on cobbles and isolated oiling in the MITZ. Veco crew P.U. most of AP observed that was unresolvable. Subsurface oiling observed appeared to be lodged there as digging around it we did not find more in the MITZ.

EXXON

NAME Martinez N.J.

SIGNATURE [Signature]

☒ NTR

Very little oil remaining. Further work treatment would be of no benefit.

LANDMANAGER

NAME Steve Ward OF CVC

SIGNATURE [Signature]

☐ NTR

2 Sites on this Sub. Could justify manual clean-up with shovels by Local Response or VECO. Enough oil remains to be warrant a 91 clean-up. Small scale but necessary.

USCG/NOAA

NAME HODGES / DREHER

SIGNATURE [Signature]

☒ NTR

Only one pit showed a small amount of sheening. Very small amounts of fractile asphalt, which was removed this date.

Coating (some coverage) of oil (w/pine needles) on some major out croppings. Very small amounts of oil noted

PAGE 1 OF 1

SEGMENT EV-5

SUBDIVISION A

DATE Apr. 1, 26 / 91

ENERGY LEVEL: ☐ H ☐ M ☒ L

WEATHER: ☐ SUN ☒ CLOUDS ☐ FOG ☒ RAIN ☐ SNOW

NEAR SHORE SHEEN: ☐ BR ☐ RB ☐ SL ☒ NONE

EST. OIL CATEGORY LENGTH: W 0 m M 0 m N 60 m VL 20 m NO 125 m US 171 m

DISTRIBUTION: C = 91-100%; B = 51-90%; P = 11-50%; S = 1-10%; T = <1%

SLOPE: V = VERTICAL; H = HIGH ANGLE; M = MEDIUM ANGLE; L = LOW ANGLE

PHOTO ROLL # MAYSAP-

5 - i FRAMES 18-25

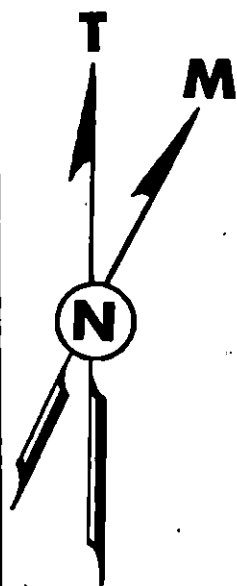
SHEEN COLOR: B = BROWN: R = RAINBOW: S = SILVER: N = NONE

OG COMMENTS:

REVIEWED: F.W. 5/1/91

REVISED: MC. 5/1/91

MAY8AP 1991
 OG SKETCH MAP
 GREG CHANEY
 TEAM 5
 SEGMENT: EV 5 A
 DATE: APRIL 26 91
 AIR P.# PIM-C-005-233



LEGEND

BEDROCK	
BOULDERS	
FINE BED.	
DRIFT LOG	
GRASS	
BRUSH	
FOREST	
OILED PIT	
NO OIL PIT	
PHOTO	

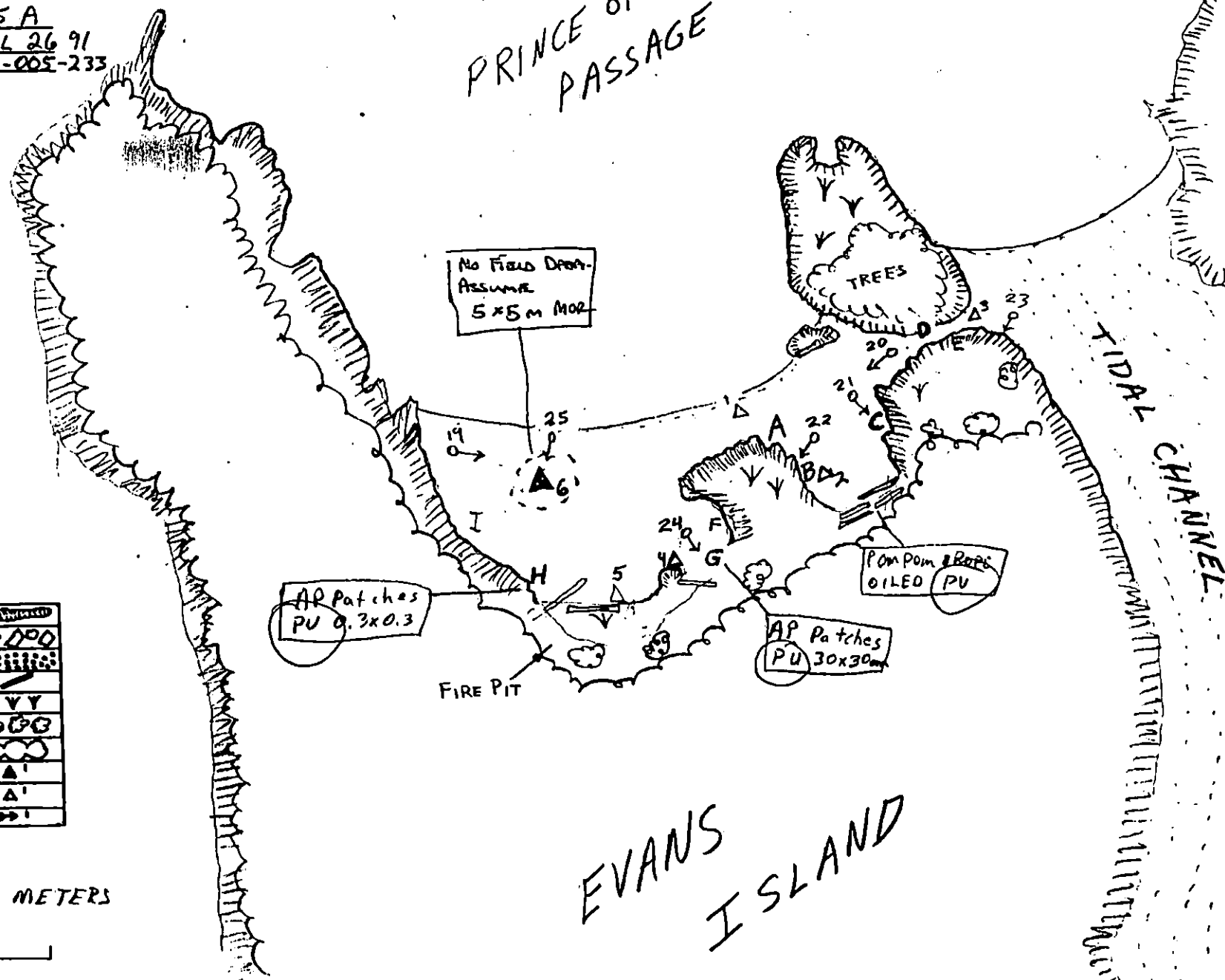
SCALE
 APPROX. 25 METERS

REVIEWED: F.W. 5/1/91
 RAISED: M.C. 5/1/91

PRINCE OF WALES
 PASSAGE

KIDAT
 CHANNEL

EVANS
 ISLAND



MAYSAP BIOLOGICAL SUMMARY FORM

pg 1 of 2

TEAM # 5

DATE 26 Apr '91

SEGMENT # EV-5

TIDAL HEIGHT(Range) ~ +1 → +2

SUBDIVISION A

BIOLOGIST Crank

SEA STATE <1'

WIND SPEED/DIRECTION 0 → 5 mph / Unknown

PHOTOGRAPHS: ROLL #

FRAME #

COMMENTS/OBSERVATIONS (to be completed in oiled subdivisions only):

(A) Directly below cover is a moderate barnacle population with spat and a moderate concentration of young mussels following the rock's crevices ≈ 30 cm wide band. Also there are patches (1/2 m diameter) of *Fucus* sporlings.

(B) Area is located high in UITZ. No intertidal biota present in area. Mosses with oil film were present on side of rock outcrop. No oil in mosses on top of outcrop.

(C) Area located in UITZ + MITZ. No intertidal biota in UITZ. In MITZ there are sparse barnacles and rare *Fucus*. There is one small Tidepool with an anenome (*Telia*) and juvenile mussels in the cracks.

(D) Area is a protected rock face in the UITZ. There are rare barnacles in the area increasing to moderate 1 m down the beach with rare patches of mussels. There is 1 (3 cm) sponge and a sparse patch of *Searlesia* (dogwhelk) in large crack.

(E) Directly below the CT band is a moderate 1 m band of barnacles with rare recruits. There is a patch of *Fucus* stripes 2 m wide with rare sporlings. Sparse mussels are present in the cracks.

(F) There are sparse barnacles and rare *Fucus* sporlings. Mature *Fucus* not present. There are several small (5-10 cm) tidepools with rare mussels and *Littorina*. Green filamentous algae present on rocks surrounding pools. *Oligochaete* worms (2-3 cm long) are present.

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1	2	Juvenile Eel
Seabirds	2	3	
Waterfowl	2	4	
Gulls/Kittiwakes	3	30+	
Shorebirds			
Corvids	3	18	
Other Birds		n.b.	

LAND MAMMALS

MARINE MAMMALS	# OBSERVED	SPECIES	# OBSERVED
Sea Otters			
Pinnipeds (specify) <i>Selion</i>	3		
Whales (specify)			

Shoreline subdivision map showing important biological features attached.

Team: #5

Date: 26 Apr '91

pg 2 of 2

Segment: EV-5

Tidal Height: ~ +1 → +2

Subdivision: A

Biologist: Crank

Sea State: <1'

Wind Speed/Direction: 0 → 5 mph / unknown

Comments (cont)

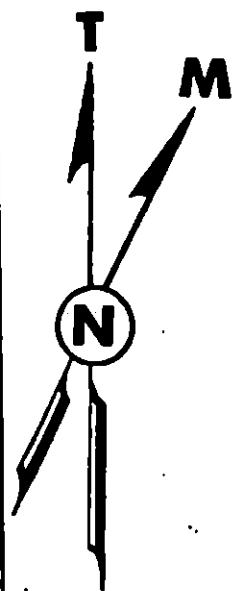
- (G) Area located 1/2 m below swatch line. No intertidal biota.
- (H) Area is high in UIZ. No intertidal biota within 3 m of site. Down beach 5 m there is a 10 m wide sparse biota band consisting of barnacles and mussels. Three meters W of site there is a sparse patch of Fucus sporlings. At approximately the +4' tide level there is a moderate Fucus band.
- (I) Area is located in the MITZ. There is a moderate, continuous barnacle population with sparse spat. Mussels are sparse with various age classes. Fucus is sparse in area with patches of Scytosiphon. Three meters below area. Fucus is moderate and barnacle spat is moderate. Littorina and limpets are sparse. Snail egg masses are present on the underside of cobble. Juvenile eels and ribbon worms are present.

Areas located on an angular cobble pocket beach. There are continuous, sparse adult and recruit barnacles on the cobble in the MITZ and LITZ. Sparse Fucus plants attached to cobble. Intercobble mussels with a rare density are present as well as Prototheca clams. Along rock faces barnacles are dense and mussels are sparse with various age classes.

Organisms in close proximity to the oil areas exhibit no adverse impact by existing oil conditions.

MAYSAP 1991
 06 SKETCH MAP Bio Sketch Map
 GREG CHANEY Crank
 TEAM 5

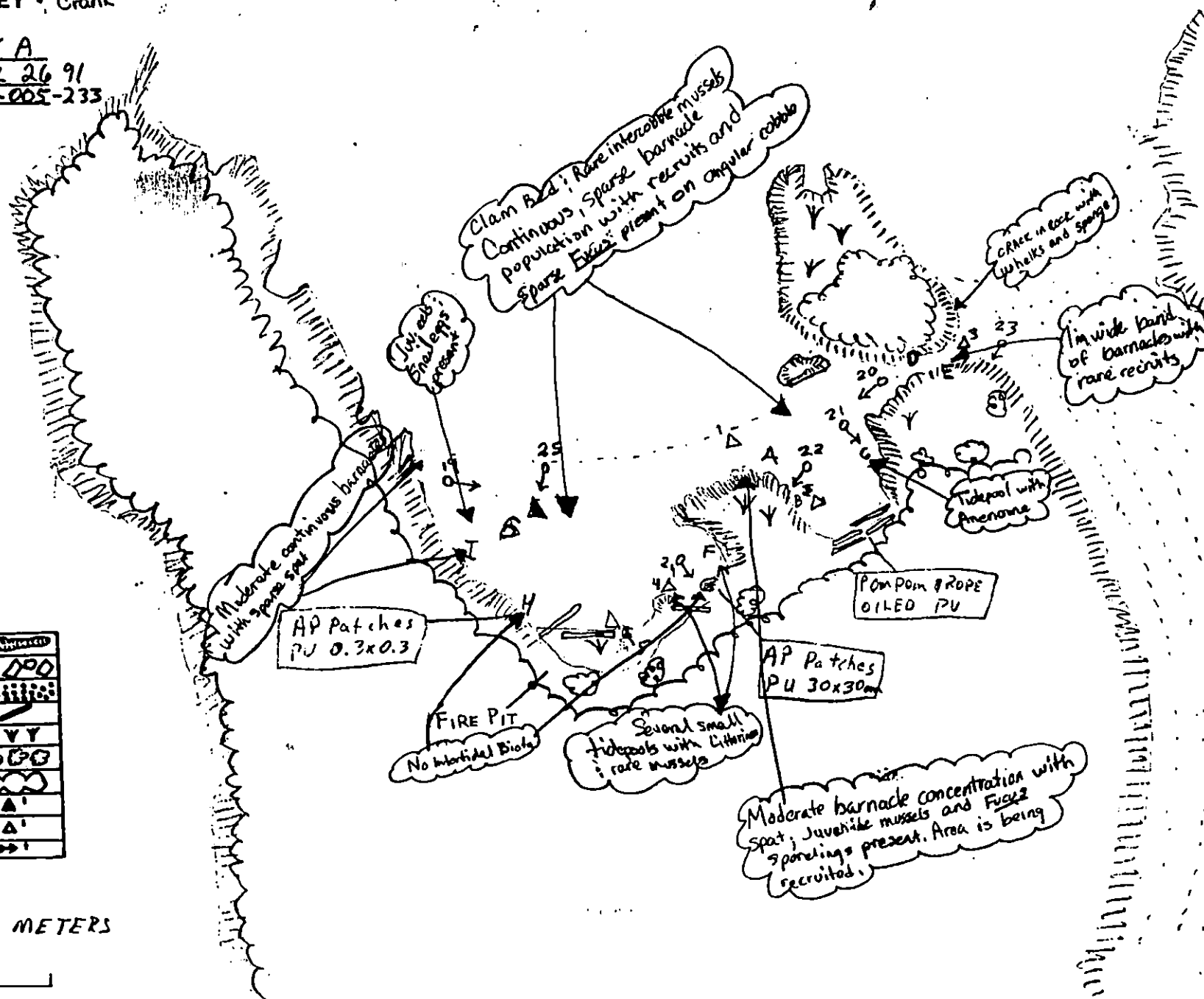
SEGMENT: EV 5 A
 DATE: APRIL 26 91
 AIR P.#: PIM-C-005-233

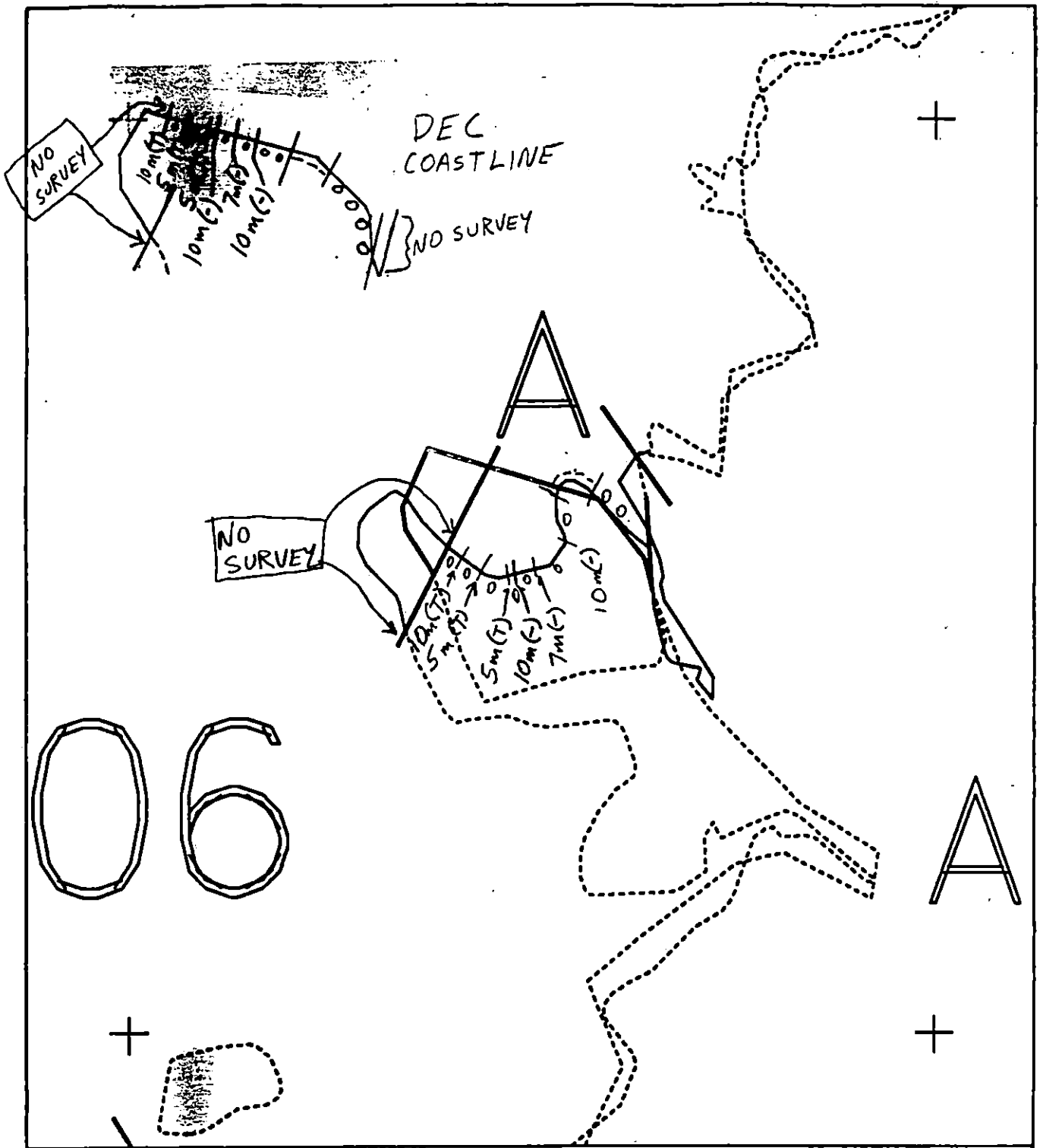


LEGEND

BEDROCK	
BOULDERS	
FINE BED.	
DRIFT LOG	
GRASS	
BRUSH	
FOREST	
OILED PIT	
NO OIL PIT	
PHOTO	

SCALE
 APPROX. 25 METERS





XXXX	Wide	EV005 A ADEC Subsegment Length: 370m METERS AK State Plane Zone 4 pr085a	 	Subdivision Field Map
////	Medium			Map Key: PWSEV005A
----	Narrow			Name: <u>Greg Chanay</u>
TTTT	Very Light			Date: <u>April 27 91</u>
0000	No Oil			Data Entered:

REVIEWED: F.W. 5/1/91
 REVIEWED: M.C. 5/1/91

SEGMENT: EV 005 SUB: B REGION: PWS SURVEY DATE: 4/26/91

Work Window(s) **restricted 3/1 - 9/15**

Ecological/Constraints (see page two for details), Eagle nest,
Fish harvest area, Anadromous stream, Subsistence, deer harvest-
ing

If treatment is planned, a cultural resource evaluation is required prior to shoreline treatment.

SHPO Signature: Charles Adams Date: 5/9/91

FOSC

N

N

2

●

INITIAL:

TAG:

FOSC:

TAG APPROVAL DATE: 11/19/99

FOSC APPROVAL DATE: 5/13/91

ADEC

FOSC

E. E. PAGE, CDR, USCG
CHIEF OF STAFF, FOSC

~~EXXON~~

USCG

NOAA

**ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES**

Eagle Nest: Access restricted from 3/1 to 9/1. USF&WS authorization required. Maintain 1000' vertical and 1/4 mile horizontal buffer.

Fish Harvest Area: Unlimited treatment unless otherwise directed by ADF&G. Sheen containment/recovery procedures required for mechanical treatment.

Anadromous Stream: Unlimited treatment up to stream bank between May 15 and July 10. ADF&G approval required for work after July 10. Fish Habitat Permit required for instream work. ADF&G approval required for bioremediation within 100 meters of anadromous stream after July 10.

Subsistence, Deer Harvesting: Unlimited treatment prior to 8/15.

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 5 SEGMENT EV-5 SUBDIVISION B DATE 4/13/91

ADEC

NAME John Hayes SIGNATURE [Signature]

☐ NTR

☒ Treatment Recommended

UITZ

Westernmost pocket beach had AP/B between boulders and weathered MS under logs and at Junction of R+ Vertical wall in STZ. We responded to distress call from MIV ^{Savign} ~~Hayes~~ + only did a cursory assessment of this fissure cove. Recommend small crew (Chunga would be appropriate) recover oil here and check for subsurface contamination under fl. bble cobbles + boulders. Two beaches to the East of this site could use littler detail to identify + recover OSR debris that may be in berm debris observed but not identified.

EXXON

NAME Marthine N.J. SIGNATURE [Signature]

☒ NTR

Very little if any recoverable oil, may have local response group look at this.

LANDMANAGER

NAME Steve WARD OF CVC SIGNATURE [Signature]

☐ NTR

Small Pocket Beach with A Significant Amount of Recoverable oil - perfect for Local Response. Suggest Sub-Surface oil be checked later. See Adec map Og map for Location

USCG/NOAA

NAME HODGES / DREMER SIGNATURE [Signature]

☒ NTR No mobile oil observed, no sheenings.

very little oil observed - some oiled sediment, oiled patch with pine needles, and little cont/covrage on rock out crop noted. Lush focus growth on major rocks.

5

PAGE ____ OF ____

OG CHANEY

BIO **CRANK**

SEGMENT EV-5

ADEC HAYES

LANDMANAGER WARD for CVC

SUBDIVISION B

EXXON MARTINEZ

USCG/NOAA DREHER/HODGES

DATE Apr. 11 26 191

TIME 19 : 45 to 20 : 20

TIDE LEVEL 2 ft. to 3.5 ft.

ENERGY LEVEL: ☐ H ☐ M ☒ L

SURVEYED FROM: ☒ FOOT ☐ BOAT ☐ HELO WEATHER: ☐ SUN ☒ CLOUDS ☐ FOG ☐ RAIN ☐ SNOW

TOTAL LENGTH SHORELINE SURVEYED: 160 m NEAR SHORE SHEEN: ☐ BR ☐ RB ☐ SL ☒ NONE

EST. OIL CATEGORY LENGTH: W m M 20 m N 3 m VL 8 m NO 129 m US 1033 m

117

SLOPE: V = VERTICAL; H = HIGH ANGLE; M = MEDIUM ANGLE; L = LOW ANGLE PHOTO ROLL # MAYSAP- 5 - 1 FRAMES 26-30

5 - 1 FRAMES 26-30

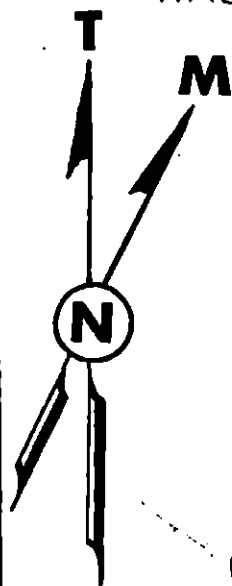
OG COMMENTS:

Small cove on western side of subdivision map retain patches of AP between large boulders. Some is recoverable, but we were called off the site to respond to an emergency call. Our VECO worker couldn't get it all in the time available.

Reviewed: F.W. 5/1/91

REVIEWED: M.C. 5/1/91

MAY8AP 1991
 OG SKETCH MAP
 GREG CHANEY
 TEAM 5
 SEGMENT: EV5B
 DATE: APRIL 26 91
 AIR P.#: PIMC005233
 PIMC005234



LEGEND

BEDROCK	
BOULDERS	
FINE BED.	
DRIFT LOG	
GRASS	
BRUSH	
FOREST	
OILED PIT	
NO OIL PIT	
PHOTO	

SCALE

APPROX. 75 METERS

⑤ AP ~ 5% 3x20m
 CV ~ 10% CT ~ 10%

2 AP Patties
 20cm x 20cm
 PU

AP Pattie
 0.3x0.3 PU

ROPE
 NETS
 NO
 OIL

3 AP
 Patties
 PU

55 gal drum

BOULDERS

Reviewed: F.W. 5/1/91
 Revisited: MC 5/1/91

TEAM # 5

DATE 26 Apr '91 / Area E on 27 Apr '91

SEGMENT # EV-5

TIDAL HEIGHT (Range) +2 to +3.5

SUBDIVISION B

BIOLOGIST Crank

SEA STATE 0 to 1

WIND SPEED/DIRECTION 0 to 5 mph / unknown

PHOTOGRAPHS: ROLL #

FRAME #

COMMENTS/OBSERVATIONS (to be completed in oiled subdivisions only):

(A) Site in UITZ along bedrock. Moderate adult barnacle population with a new set present. Sparse mussels present, the majority are juveniles found in cracks and crevices. There is a 1m wide Fucus band along rock face. The band is discontinuous in the oiled area with rare sporelings only present near oil.

(B) Site is located in the SUPRA. No intertidal biota near oiled area. Mosses appear healthy.

(C) Site is located high in the UITZ. There are rare barnacles and rare Fucus sporelings. Isopods are present under cobble veneer. Three meters E of site is a fresh water runoff stream. Cobbles in runoff are covered with filamentous green algae. Tar spot algae present in UITZ adjacent to stream.

(D) Site is low in the UITZ. Barnacles are sparse to moderate with various age class - no new set. 10m wide band of Sparse Fucus with dense concentrations found on bedrock 5m N of site. Conceptacles are maturing. Moderate limpet concentrations found on undersides of cobble. Nucella are present but rare. Patches of Gloiopeltis (algae) present

(E) Site is in the UITZ: ^{SUPRA} among angular boulders. There is a rare to sparse barnacle concentration and rare Littorina. Filamentous green algae covers the boulders. In MITZ, below site, barnacles are sparse, Littorina are sparse and mussels are rare. This is a separate pocket beach from areas A to D.

Low biota coverage on beaches; Recruitment present in barnacles, mussels; Fucus. Biota appears to be healthy.

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

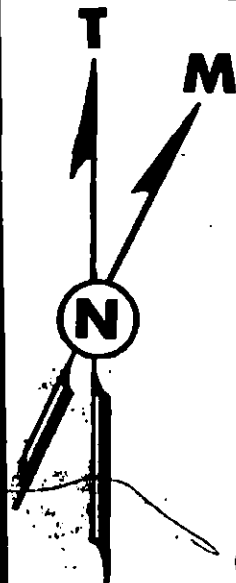
BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1	3	
Seabirds	1	1	
Waterfowl			
Gulls/Kittiwakes			
Shorebirds			
Corvids			
Other Birds			

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters			
Pinnipeds (specify)			
Whales (specify)			

Shoreline subdivision map showing important biological features attached.

MAY8AP 1991
 OG SKETCH MAP : Bio Sketch Map
 GREG CHANEY : Crank
 TEAM 5

SEGMENT: EV 5 B
 DATE: APRIL 26 91
 AIR P.#: PIMC005 233
PIMC005 234



LEGEND

BEDROCK	
BOULDERS	
FINE SED.	
DRIFT LOG	
GRASS	
BRUSH	
FOREST	
OILED PIT	
NO OIL PIT	
PHOTO	

SCALE

2 AP Patties
 20cm x 20cm
 PU

AP Pattie
 0.3x0.3 PU

ROPE
 NETS
 NO
 OIL

3 AP
 Patties
 PU

55 gal drum

Moderate barnacle concentration,
 new set present

1m wide
 Fucus band
 sporelings only
 near oil

Filamentous green
 algae covers boulder
 surface

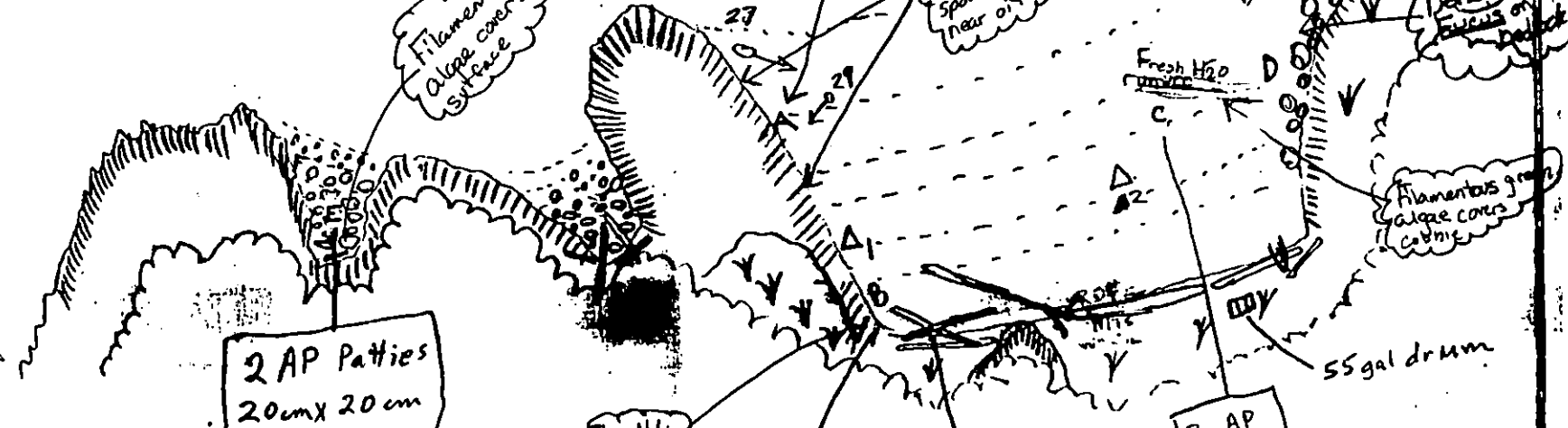
Dense
 Fucus on
 bedrock

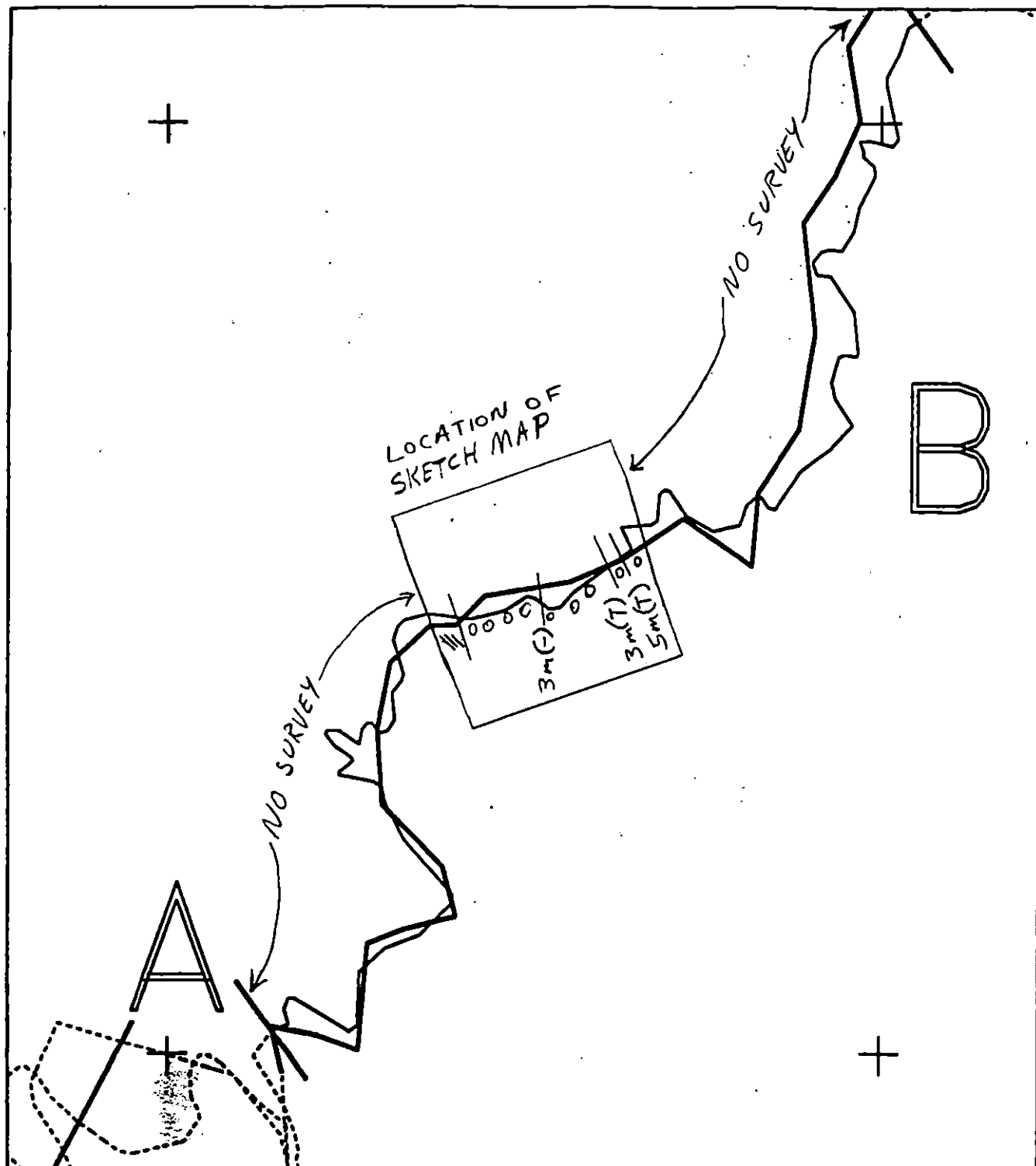
Filamentous green
 algae covers
 cobble

Fresh H₂O
 moving

BOULDERS

Healthy
 masses





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

EV005 B
 ADEC Subsegment Length: 1193m
 METERS
 0 100 200
 AK State Plane Zone 4
 prv005ba



Subdivision Field Map
 Map Key: PWSEV005Bc
 Name: Greg Chaney
 Date: April 27 '91
 Date Entered:

REVIEWED: F.W. 5/1/91
 REVISED: M.C. 5/1/91

✓-05

A+

+

+

+

NO
SURVEY

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

EV005 B
ADEC Subsegment Length: 1193m
METERS
0 100 200
AK State Plane Zone 4
gov005bb



Subdivision Field Map
Map Key: PWSEV005Bb
Name: *Greg Chaney*
Date: *April 27 '91*
Date Entered:

REVIEWED: F.W. 5/1/91
REVIEWED: M.C. 5/1/91

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/EV-05

SUBDIVISIONS: C (3 OF 3)

SHORELINE EVALUATION

SEGMENT ST/ EV-05 SUBDIVISION C (3 OF 3) DATE 4/7/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

ADF&G anadromous stream no. 226-40-16575, 16580, 16582, 16577.

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)

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 uncoiled biota and substrate. Two anadromous streams; 226-40-16582 and 226-40-16580 and one eagle nest in Subdivision C, and a second eagle nest within 400m in adjacent Subdivision B.

ARCHAEOLOGICAL CONSTRAINTS:

If treatment is planned, a cultural resource evaluation is required prior to shoreline treatment.

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 63 m: No Oil 1317 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: _____

ADEC _____

EXXON _____

NOAA _____

USCG _____

FOSC: _____ DATE: _____

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 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
- 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-5

SUBDIVISION: C

DATE 4/7/90

NOAA

NAME GARY SHIGENAKA

SIGNATURE

Gary Shigenaka

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

SUBDIVISION CONSISTED OF A DIVERSE SHORELINE ON THE NORTHERN PART OF EVANS ISLAND. MOST OF THE COASTLINE IN THIS AREA WAS ROCKY, WITH SOME PEBBLE OR COBBLE BEACHES INTERSPERSED ALONG THE LENGTH. THE ONLY SIGNIFICANT EVIDENCE OF OILING WAS OBSERVED AT THE SOUTHERN-MOST COBBLE BEACH OF THE SUBDIVISION, WHERE A BAND OF STAIN AND ASPHALT WERE FOUND ON BOTH SIDES OF AN ANADROMOUS STREAM. ALTHOUGH SNOW COVERED MOST OF THE SUPRATIDAL, THE LEADING EDGE WAS VISIBLE AND APPEARED TO BE CLEAN. WEATHERED STAIN WAS SEEN IN THE UPPER INTERTIDAL ON THE NORTH SIDE OF THE STREAM. ALTHOUGH EXTENT OF OILING WAS NOT SEVERE UNTO ITSELF, THE PROXIMITY OF THAT OBSERVED TO AN ANADROMOUS STREAM WAS VIEWED AS A JUSTIFICATION FOR MORE THOROUGH EXAMINATION AT A LATER DATE.

AT A COBBLE-PEBBLE BEACH TO THE NORTH, A 1 M (WIDE) X 10 M (LENGTH) BAND OF TAR PATTIES AND STAIN WAS FOUND ON THE NORTH SIDE OF THE BEACH. AT THIS LOCATION, A PARTIALLY OILED SNARE BOOM WAS RECOVERED.

ADEC

NAME

SIGNATURE

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

Oil in the form of tar patties and stains were observed on this segment. Although beach appears stable a 1 m. tar band extends to stream bank but not onto streambank in UITE (see sketch map). There are also tar patties within close proximity to anadromous streams. No oil was found in stream bed or along stream banks. Recommend that And-Sea team visits stream area & recommend treatment if needed. The rest of the segment had staining.



SHORELINE OILING SUMMARY

REVISION NO. 03/22/90

OG Mike Foget NOAA Gary Shigemata SEGMENT ST/ EV-05
 BIO Richard Ambrose LAND REP James A. Barker SUBDIVISION C
 EXXON Larry Olson ADEC John Hayes TIME 19:30 to 20:30
 TEAM NO.: 11 TIDE LEVEL: 0.9 to 2.8 DATE 4/7/90
 EST. SUBDIVISION LENGTH: 1752 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☐ Forest ☐ Rock snow in the SUPRA ITZ
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: _____ to _____
 SURFACE SEDIMENTS: R 45 % B 35 % C 10 % P 5 % G 5 % S _____ % M _____ % V _____ %
 SLOPE: Long 20 % Hang 40 % Vert 40 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 47 m NO 1700 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR						IMPACTED ZONES			
	C	B	P	R	SP	BR	OL	GL	TL	BL	SU	U	M	L
ASPHALT PAVEMENT			X		X						X			
POOLED														
COVER														
COAT														
STAIN				✓	✓						✓			
MOUSSE														
PATTIES														
TARBALLS														
FILM														
NO OIL											X	X	X	

PAVEMENT: H F (S) 3 sq. m by 3 cmPATTIES / TARBALLS 0 BAGSNEAR SHORE SHEEN? (NO) BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris	X		

DEBRIS COLLECTED
☒ YES ☐ NOTYPE Shore boom

#BAGS _____

Photographs:

Roll No. ST-11-CFrames 30, 31

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	BR	OL	GL	TL	BL	SU	U	M	L		
1	15					X	-	X							X	X				P
2	20					X	-	X							X					P
3	25					X	-	X							X					P R
4	20					X	-	X							X					P
							-													
							-													

COMMENTS Diking in this subdivision occludes at the Southern most cove for subdivision C. This is a low angle cobble/pebble beach with two streams. There is a CT/P distribution of asphalt Patties in this area along the HITZ approximately 1m x 27m this band is broken into 3 areas by the Forked Stream. The Patties were manually broken up by the SSAT team. This subdivision also has approximately 25 m of very light CT/S staining in the HITZ (see map)

REVIEWED _____ DATE _____

OG Mike Fogot

SEGMENT EV-5

SUBDIVISION C

DATE 4, 7 90

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Entry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. INWL/LWL
- ☐ 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 →

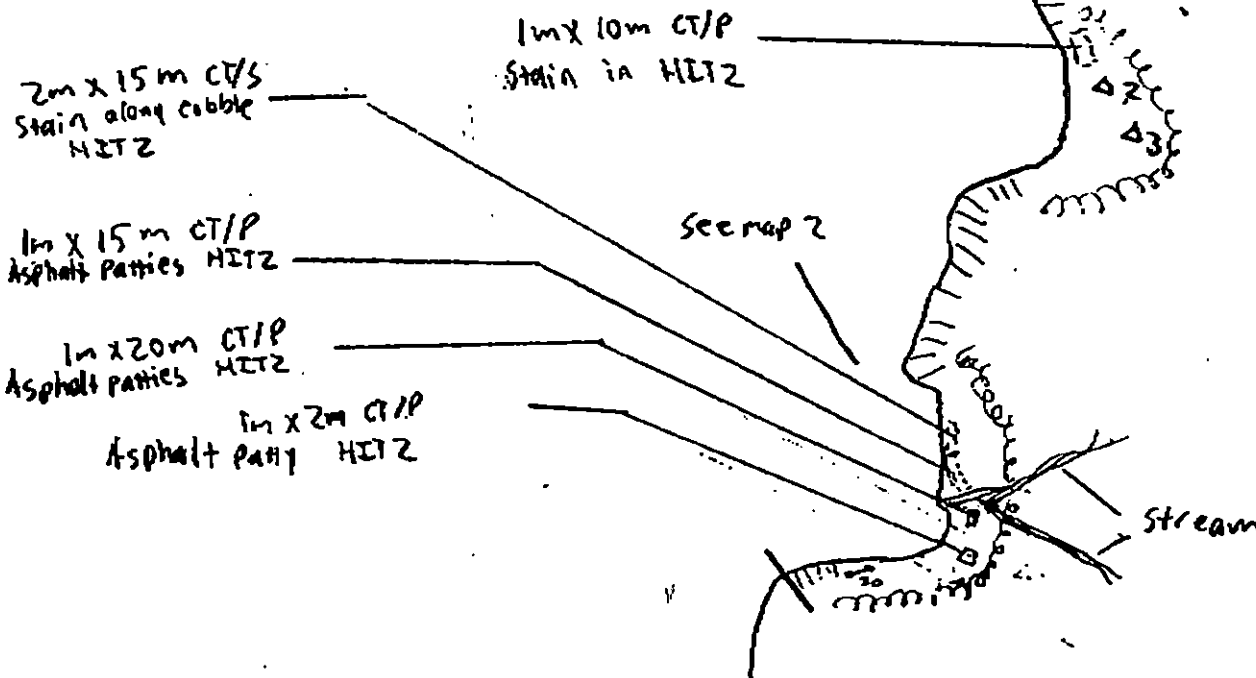
Photo location, direction,
and number

ATCH MAP I



Legend

- stream
- Boulder / Rock
- snow supra
ITZ



Oil Character Length (m): AP 25 PO 27 CV 27 CT 27 ST 27 MS 27 PT 27 TB 27 FL 27 NO 1700

REVISION: 03/24/88

OG M. Eyer

SEGMENTS EV-5

SUBDIVISION C

DATE 4/7/90

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Bndry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. INT/LWL
- ☐ SSL
- ☐ (Photo Location(s))
- ☐ Photo(s)
- ☐ PFI Location(s)
- ☐ Photo Location(s)

LEGEND

1 Δ
PFI - No Subsurface Oil

2 Δ
PFI - Subsurface Oil

$\boxed{CT/C}$
Continuous Distribution

$\boxed{CT/B}$
Broken Distribution

$\boxed{CT/P}$
Patchy Distribution

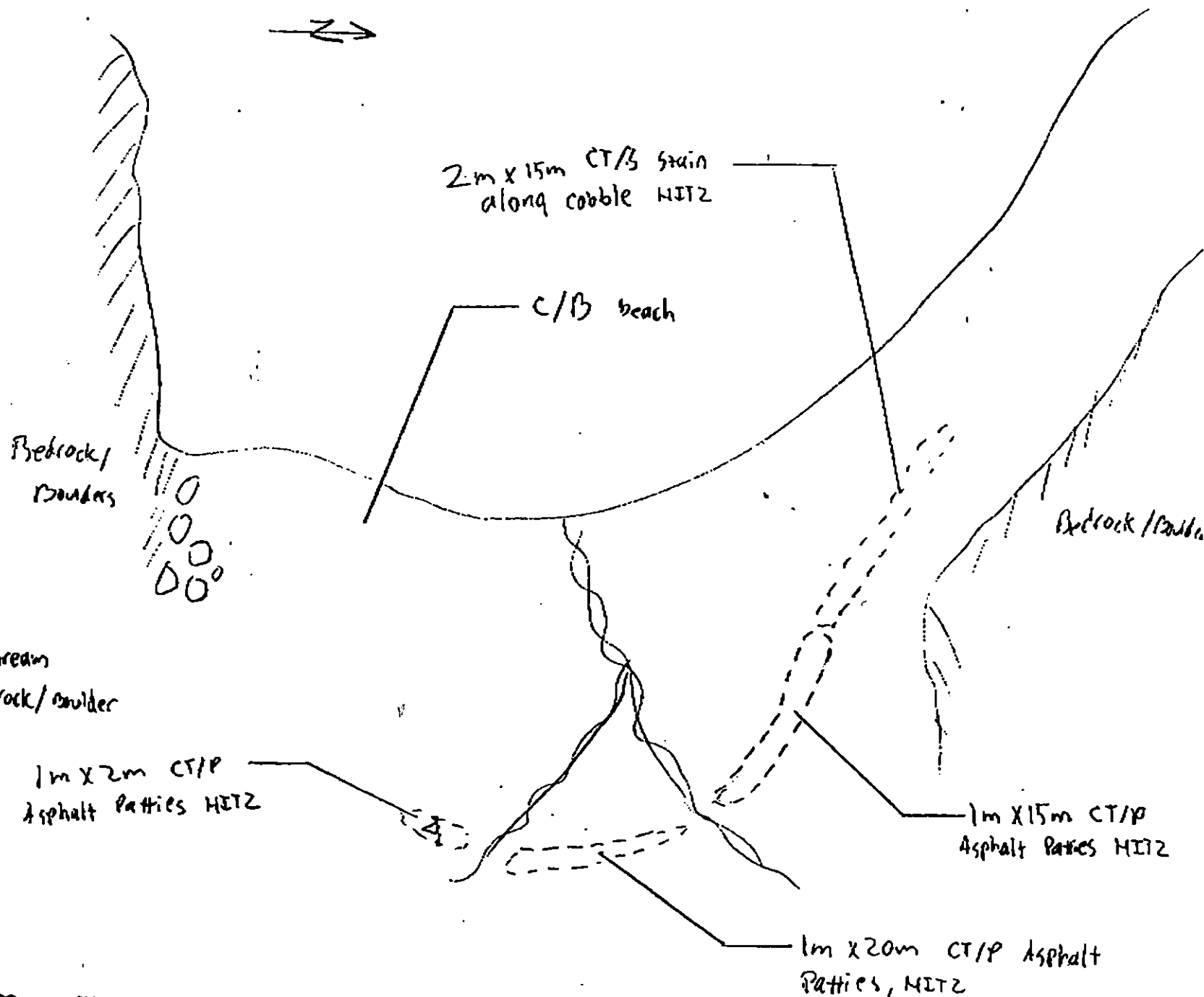
$\boxed{CT/S}$
Splashed Distribution

Oiled Vegetation

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

Legend
 $\times$ - stream
/// - bedrock/coulder

SWITCH MAP 2



see map 1

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

REVISION 03/04/90

HR-09-1530 21:14 FROM PACIFIC SEARCHER

TO 01#-0015075643771#

P.03

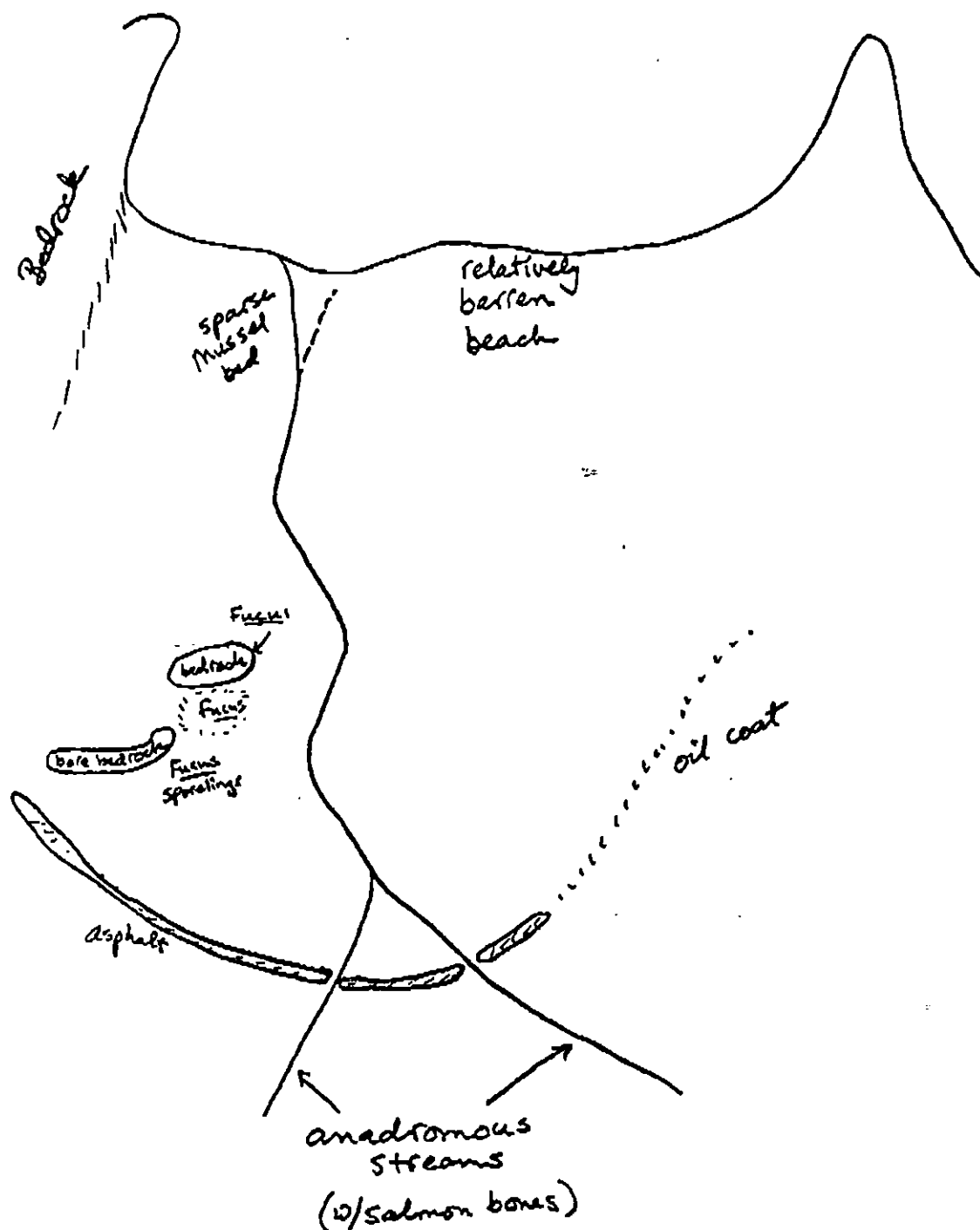
Ambrose

4/7/90

Subdivision EVO05C

Bio: page 2 of 2

Sketch of cove with anadromous stream:



SHORELINE ECOLOGICAL SUMMARY

Segment ST/ EVOOS Subdivision C Date (mo/day/yr) 4/7/90Time (24 hr) 1930 hrs Biologist Ambrose

(A) Substrate type and % of segments:

(1) Bedrock 45 (2) Boulder 35 (3) Cobble 10 (4) Pebble 5 (5) Sand 5 (6) Silt -(B) Overall % cover of biota (% of segment): Dense 10 Moderate 25 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 (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: Eagle (below), 2 deer plus deer bones, 1 otter, other carcass in supralittoral (no sign of oiling).

Moderate to sparse cover; one anadromous stream (see next page).

Ecological Considerations:

711, 64, ST-5: One immature eagle seen in tree.

See next page for information on anadromous stream.

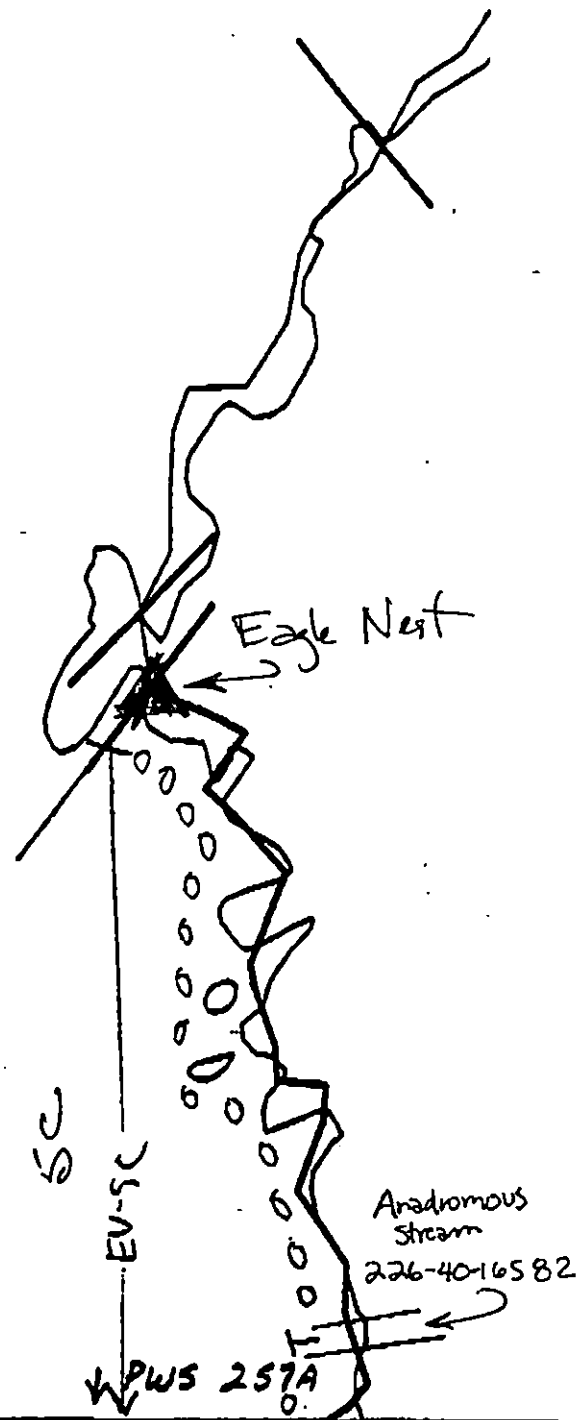
EV-03

ECOLOGY MAP

EV-02

EV-01

EV-05



XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-5

ADEC Segment Length: 3432m



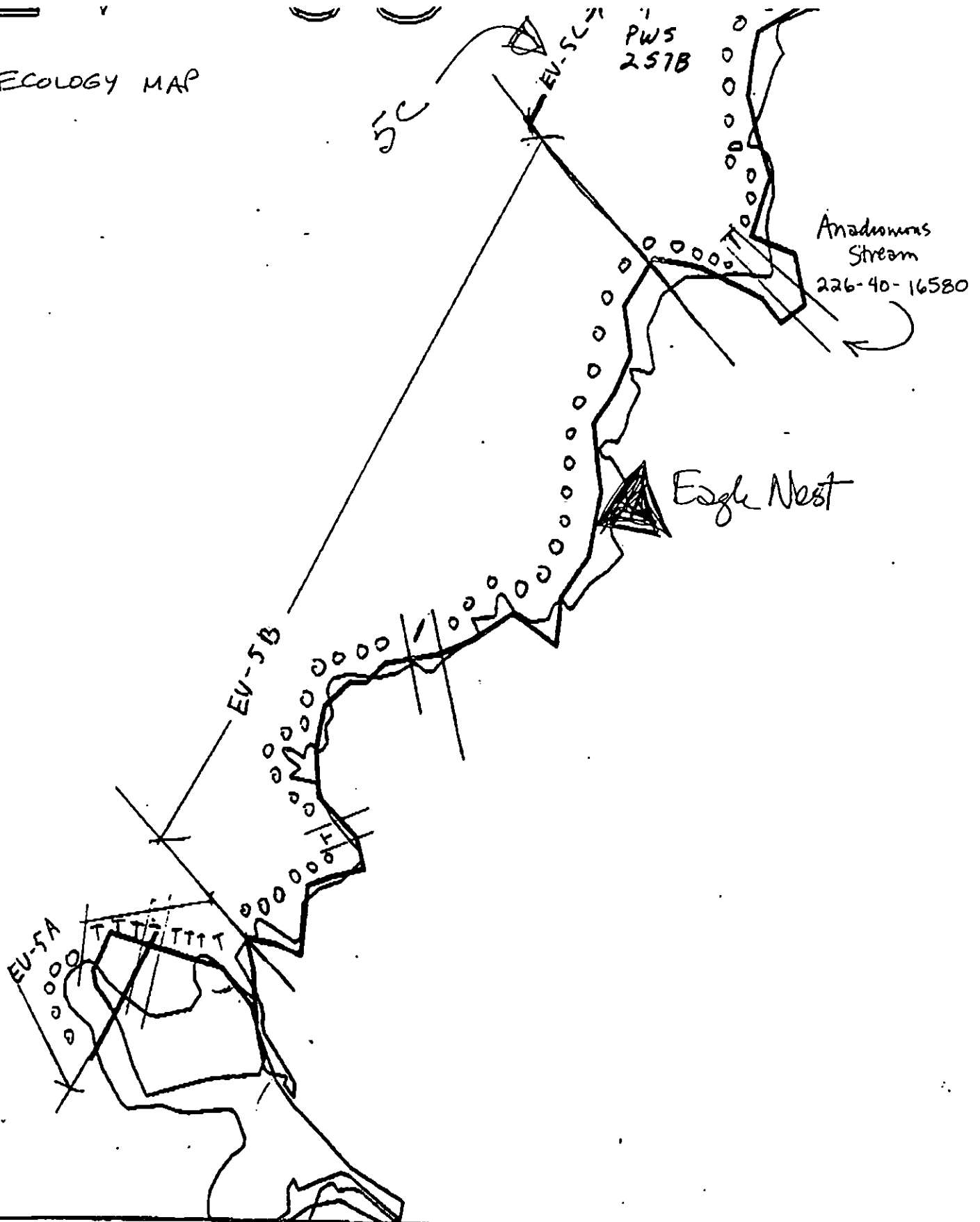
Map Key: PWS-257b

Name: Mike Foster

Date: 4/7/90

Data Entered:

ECOLOGY MAP



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-5

ADEC Segment Length: 3432m



Map Key: PWS-257a

Name: Mike Fogar

Date: 4/7/90

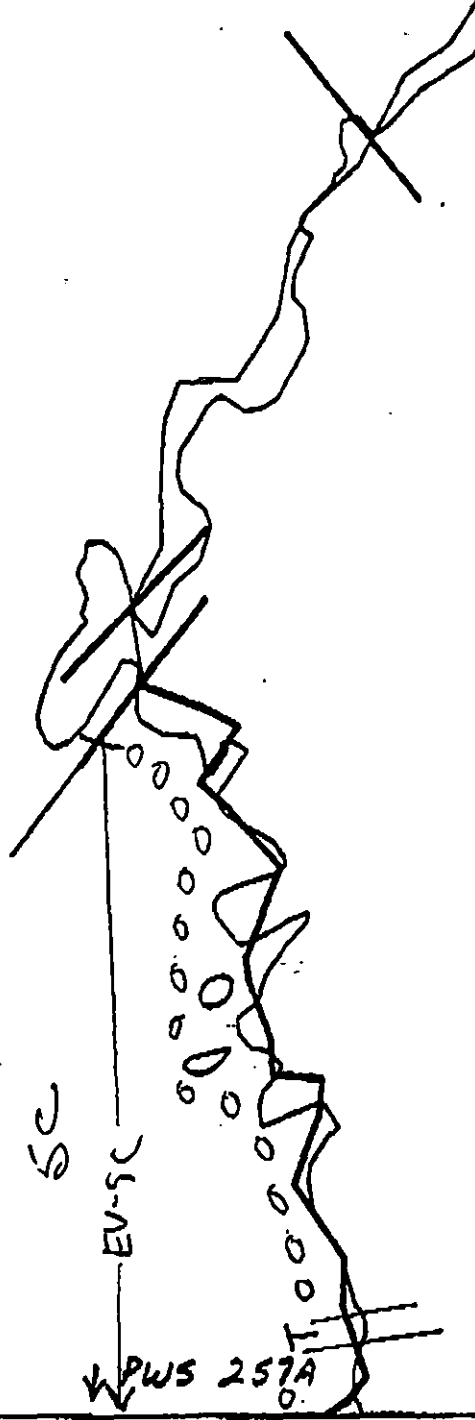
Data Entered:

EV-U3

EV-02

EV-01

EV-05



XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-5

ADEC Segment Length: 3432m

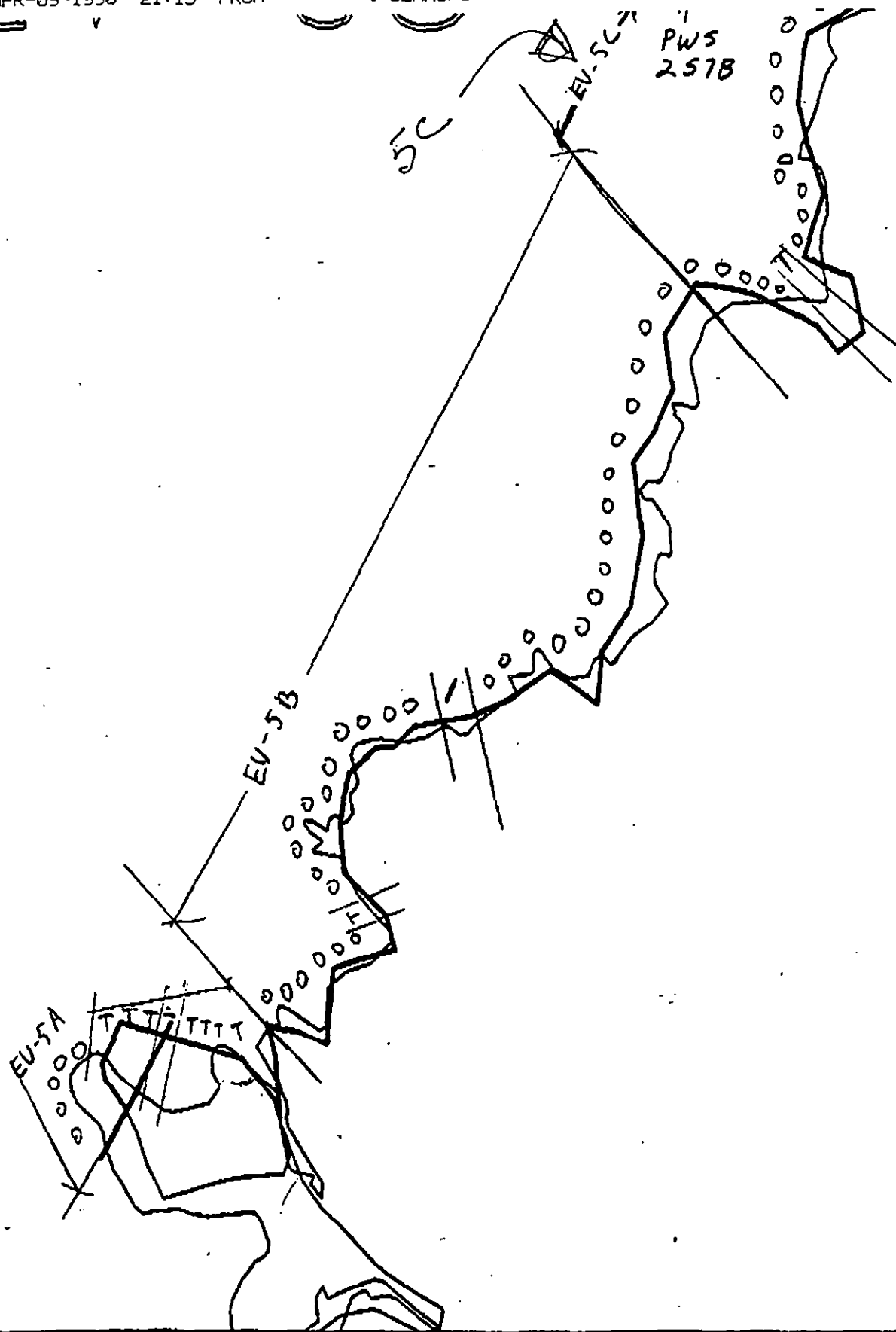


Map Key: PWS-257b

Name: Mike Roger

Date: 4/7/90

Date Entered:



XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-5

ADEC Segment Length: 3432m

0 100 200 300
METERS

Map Key: PWS-257a

Name: Mike Forger

Date: 4/7/90

Data Entered:

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT EV-5 SUBDIVISION A (1 of 1)

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 (226-40-16575, -16577, -16580, and -16582) are located in adjacent Subdivisions B and C, more than 100m from recommended treatment area.

1K Purse Seine Hook-off

No constraint to manual pickup and tarmat removal; closed to bioremediation after 7/20.

5T Bald Eagle Nest

NO CONSTRAINT. USFWS bald eagle Impact assessment completed on 5/26/90 by Mike Lockhart indicates no active nests within 400m of the work area.

7II Subsistence: Deer Harvesting

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

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 unrolled biota and substrate.

TAG APPROVAL DATE 6/04/90

ADEC Raymond R. Mendenhall

EXXON Amy T. Egan

NOAA Joseph E. Kellert

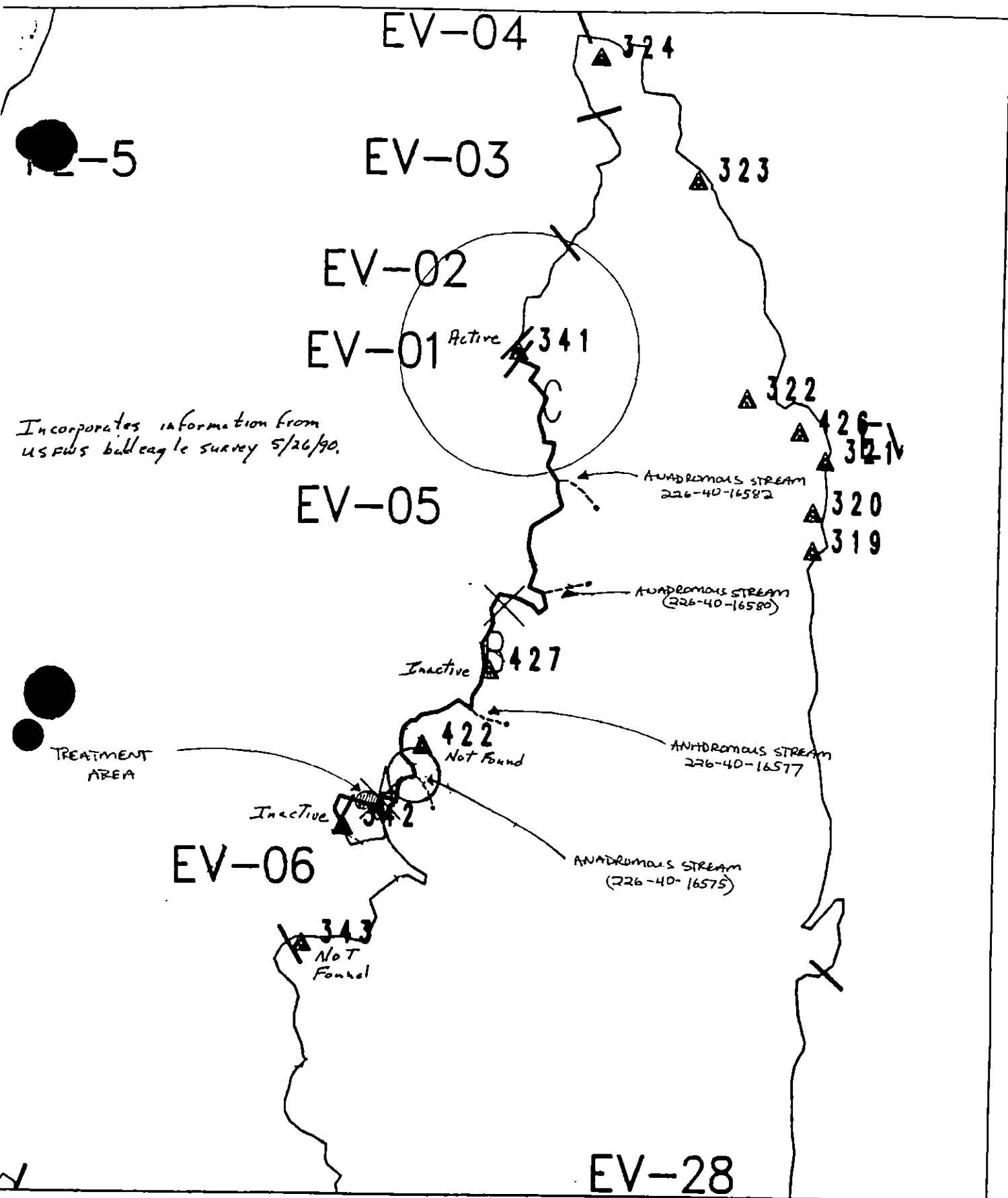
USCG G.A. KELLER

FOSC R. Zampieri

Date 6/4/90

Prepared by Andie Myers

Date 6/3/90



Exxon Company, USA
 Map Key: PMS-EV-5
 May 11, 1990



ECOLOGY MAP 5/30
 SEGMENT EV-5
 SUBDIVISION A (1 of 3)
 METERS
 0 448 895

- ★ Seabird Colony
- ▲ Eagle Nest

1 inch = 1469 feet

SHORELINE EVALUATION

SEGMENT ST/ EV-05 SUBDIVISION A (1 OF 3) DATE 4/7/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

ADF&G anadromous stream no. 226-40-16575, 16580, 16582, 16577.

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. 2 eagle nests in EV-05; 1 nest also near border with EV-06, another on or near border with EV-01. No anadromous stream in this Subdivision.

ARCHAEOLOGICAL CONSTRAINTS:

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact a member of Exxon's Cultural Resource Program immediately (564-3657; 564-3658 or 564-3276).

SHPO SIGNATURE: Charles E. Hume DATE: 4/28/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 21 m: V.Light 275 m: No Oil 97 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>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: Recommended treatment includes 1) manual asphalt removal, 2) manual pick up of oiled debris, 3) bioremediation of areas shown on attached sketch map. Work should be conducted between 6/1 and 7/10 based on eagle nest and salmon constraints after approval of USFWS regarding eagle nest. SEE ADDENDUM dated 6/3/90 PP

TAG COMMENTS: MONITOR TO ASSESS SUITZ DURING TREATMENT

TAG APPROVAL DATE: 4/26/90
ADEC JOHN BAUHL
EXXON ANDY TATE
NOAA GARY PETRAE
USCG KENNETH KEANE

FOSC: WJL DATE: 5-8-90

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT EV-5 SUBDIVISION B (2 of 3)

WORK WINDOW	
Manual Pickup	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 (226-40-16575 and 16577) are more than 100m from work area.
1K	Purse Seine Hook-off	Closed to bioremediation after 7/20. No constraint to manual pickup.
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 manual pickup.

OTHER ECOLOGICAL CONSIDERATIONS

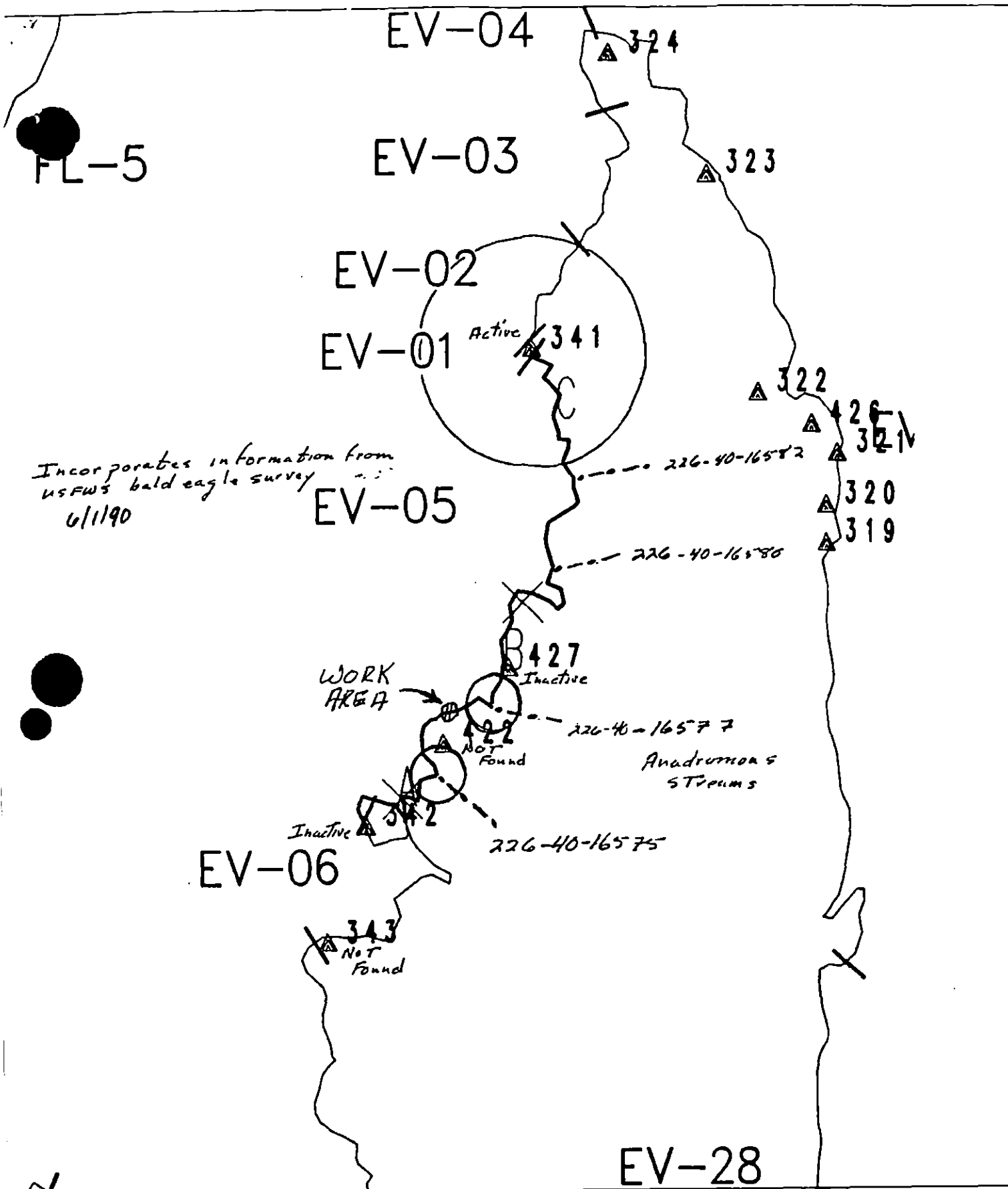
Restrict boat and air traffic to essential minimum after 7/20. Restrict beach disturbance to essential minimum after 8/15. Avoid any unnecessary disturbance or damage to unrolled biota and substrate.

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

FOSC

Date 7 June 1990

Prepared by WJK Date 6/7/90



ECOLOGY MAP 5/30

SEGMENT EV-5

SUBDIVISION B (2 of 3)

METERS

- ★ Seabird Colony
- ▲ Eagle Nest

1 inch = 1000 feet

SHORELINE EVALUATION

SEGMENT ST/ EY-05 SUBDIVISION B (2 OF 3) DATE 4/7/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

ADF&G anadromous stream no. 226-40-16575, 16580, 16582, 16577.

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)

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. Two anadromous streams in Subdivision B (226-40-16577, 16575) and 2 bald eagle nests, with one bald eagle nest within 400m in Subdivision A.

ARCHAEOLOGICAL CONSTRAINTS:

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact a member of Exxon's Cultural Resource Program immediately (564-3657; 564-3658 or 564-3276).

SHPO SIGNATURE: [Signature] DATE: 4/28/90

OILING CATEGORIZATION:

Wide 0 m: Medium 32 m: Narrow 0 m: V.Light 33 m: No Oil 1107 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> Removal	<u> </u> Beach Cleaner
	<u> </u> Other (see comments)

COMMENTS: Recommended treatment includes 1) manual removal of pooled mousse and tar patties, 2) manual removal of oiled debris. Work should be conducted after 6/1, with the approval of USFWS regarding eagle nests.

FOLLOWUP TREATMENT WITH BIOREMEDIATION

See Constraint Addendum Date 6/7/90 ver

TAG COMMENTS:

TAG APPROVAL DATE: 4/26/90

ADEC JOHN BAYER [Signature]

EXXON AMY GATE [Signature]

NOAA GARY PETRAE [Signature]

USCG KENNETH KENNEDY [Signature]

FOSC: [Signature] DATE: 5-9-90

CVC now concurs with bioremediation.

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT EV-5 SUBDIVISION C (3 of 3)

WORK WINDOW	
Manual Pickup Tarmat Removal	OPEN

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A,1B Salmon Streams

ADF&G catalogued anadromous streams (226-40-16580 and 16582) are present in Subdivision C. 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 bald eagle impact assessment completed on 5/26/90 by Mike Lockhart indicates no active nests within 400m of the work area.

7II Subsistence: Deer Harvesting

No constraint to manual pickup and tarmat removal.

OTHER ECOLOGICAL CONSIDERATIONS

Restrict boat and air traffic to essential minimum after 7/20. Restrict beach activity 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 MORRIS R. MORRIS

EXXON ANDY TSAC

NOAA JOSEPH T. GIBB

USCG G.A. FEITER

FOSC

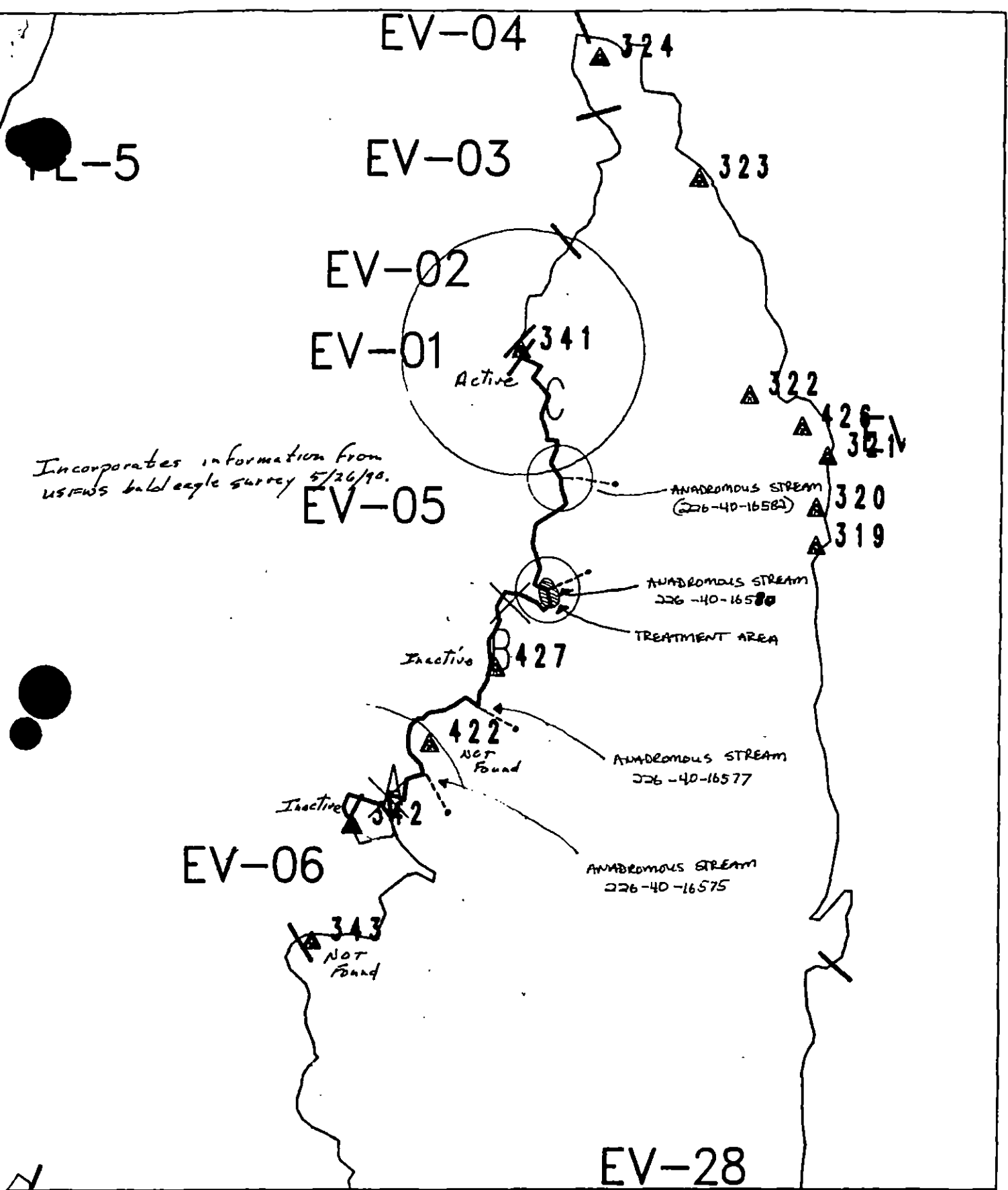
[Signature]

DATE

6/4/90

Prepared By: Anders Meyer

Date 6/3/90



Incorporates information from USFWS bald eagle survey 5/26/90.



Exxon Company, USA
Map Key: PMS-EV-5
May 11, 1990

ECOLOGY MAP ^{5/30}

SEGMENT EV-5

SUBDIVISION C (3012)

METERS

0
448

448
895

★
Seabird Colony

▲
Eagle Nest

1 inch = 1469 feet

SHORELINE EVALUATION

SEGMENT ST/ EV-05 SUBDIVISION C (3 OF 3) DATE 4/7/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

ADF&G anadromous stream no. 226-40-16575, 16580, 16582, 16577.

- 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)
- 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. Two anadromous streams; 226-40-16582 and 226-40-16580 and one eagle nest in Subdivision C, and a second eagle nest within 400m in adjacent Subdivision B.

ARCHAEOLOGICAL CONSTRAINTS: If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact a member of Exxon's Cultural Resource Program immediately (564-3657; 564-3658 or 564-3276). required prior

SHPO SIGNATURE: Charles J. [Signature] DATE: 5/3/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 63 m: No Oil 1317 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>X</u> Removal | ☐ Beach Cleaner |
| | ☐ Other (see comments) |

COMMENTS: PICKUP ASPHALT + DEBRIS AS INDICATED ON SKETCH

See Addendum dated 6/3/90 [Signature]

TAG COMMENTS: MONITORED TO CHECK SUITZ DURING TREATMENT

TAG APPROVAL DATE: 4/26/90

ADEC [Signature]
EXXON [Signature]
NOAA [Signature]
USCG [Signature]

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

ADVISE CVC 24 HRS. PRIOR TO STARTING WORK

SHORELINE EVALUATION

SEGMENT ST/ EV-05 SUBDIVISION A (1 OF 3) DATE 4/7/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

ADF&G anadromous stream no. 226-40-16575, 16580, 16582, 16577.

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. 2 eagle nests in EV-05; 1 nest also near border with EV-06, another on or near border with EV-01. No anadromous stream in this Subdivision.

ARCHAEOLOGICAL CONSTRAINTS:

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact a member of Exxon's Cultural Resource Program immediately (564-3657; 564-3658 or 564-3276).

SHPO SIGNATURE: Charles E. Holmes DATE: 4/28/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 21 m: V.Light 275 m: No Oil 97 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>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: Recommended treatment includes 1) manual asphalt removal, 2) manual pick up of oiled debris, 3) bioremediation of areas shown on attached sketch map. Work should be conducted between 6/1 and 7/10 based on eagle nest and salmon constraints after approval of USFWS regarding eagle nest.

TAG COMMENTS: MONITORS TO ASSESS SUITZ DURING TREATMENT

TAG APPROVAL DATE: 4/26/90
ADEC JOHN BAUER
EXXON AMOL TEAL
NOAA GARY PETERSON
USCG KENNETH KEANE

FOSC: W L DATE: 5-8-90

OG Mike Foget
 SEGMENT EV-5
 SUBDIVISION A
 DATE 4, 7 90

CHECKLIST

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

LEGEND

1 Δ
 Pit - No Subsurface Oil

2 Δ
 Pit - Subsurface Oil

CT/C
 Continuous Distribution

CT/B
 Broken Distribution

CT/P
 Patchy Distribution

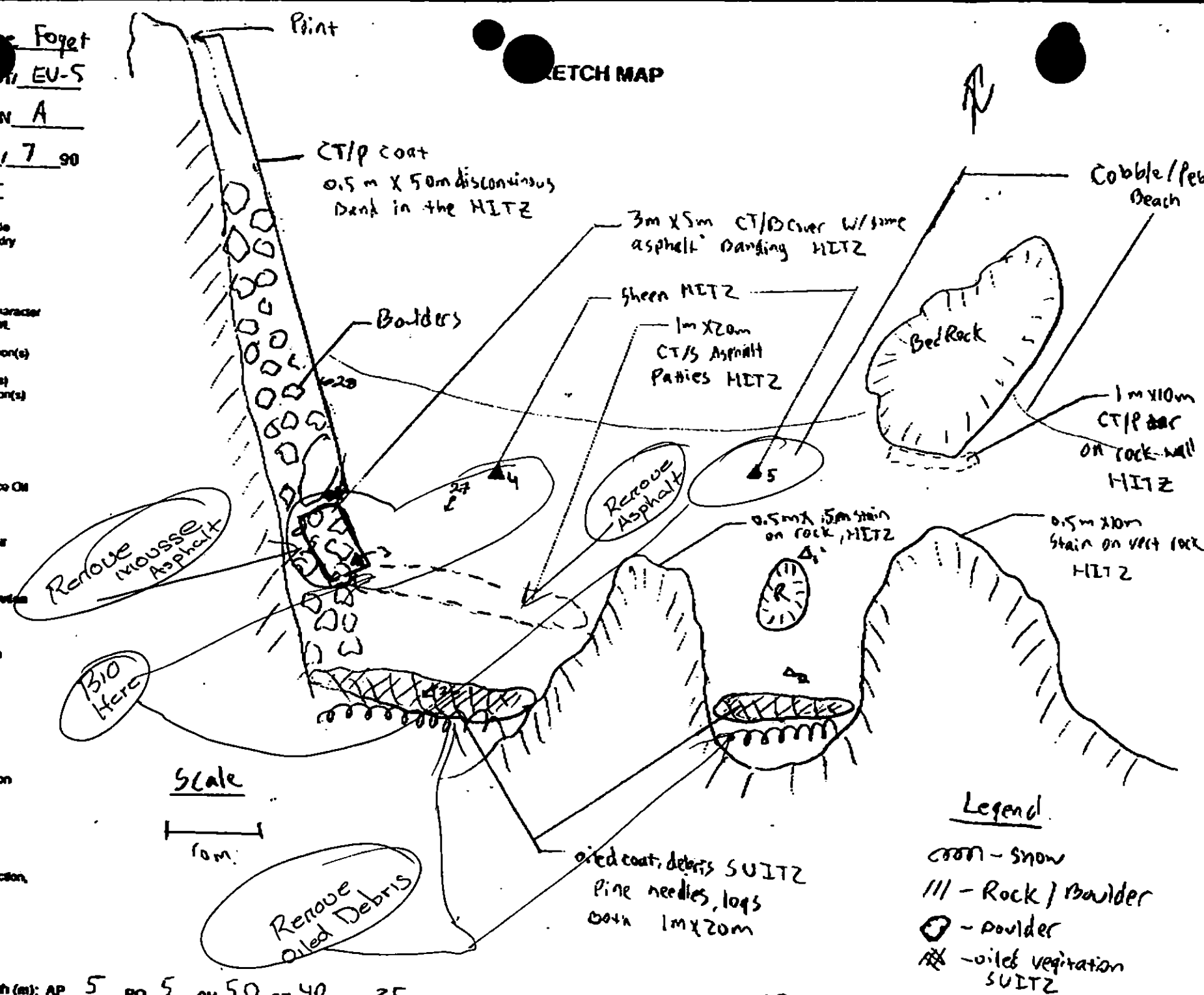
CT/S
 Splashed Distribution

Oiled Vegetation

1 →
 Photo location, direction,
 and number

Oil Character Length (m): AP 5 PO 5 CV 50 CT 40 ST 25 MS — PT — TB — FL — NO 355

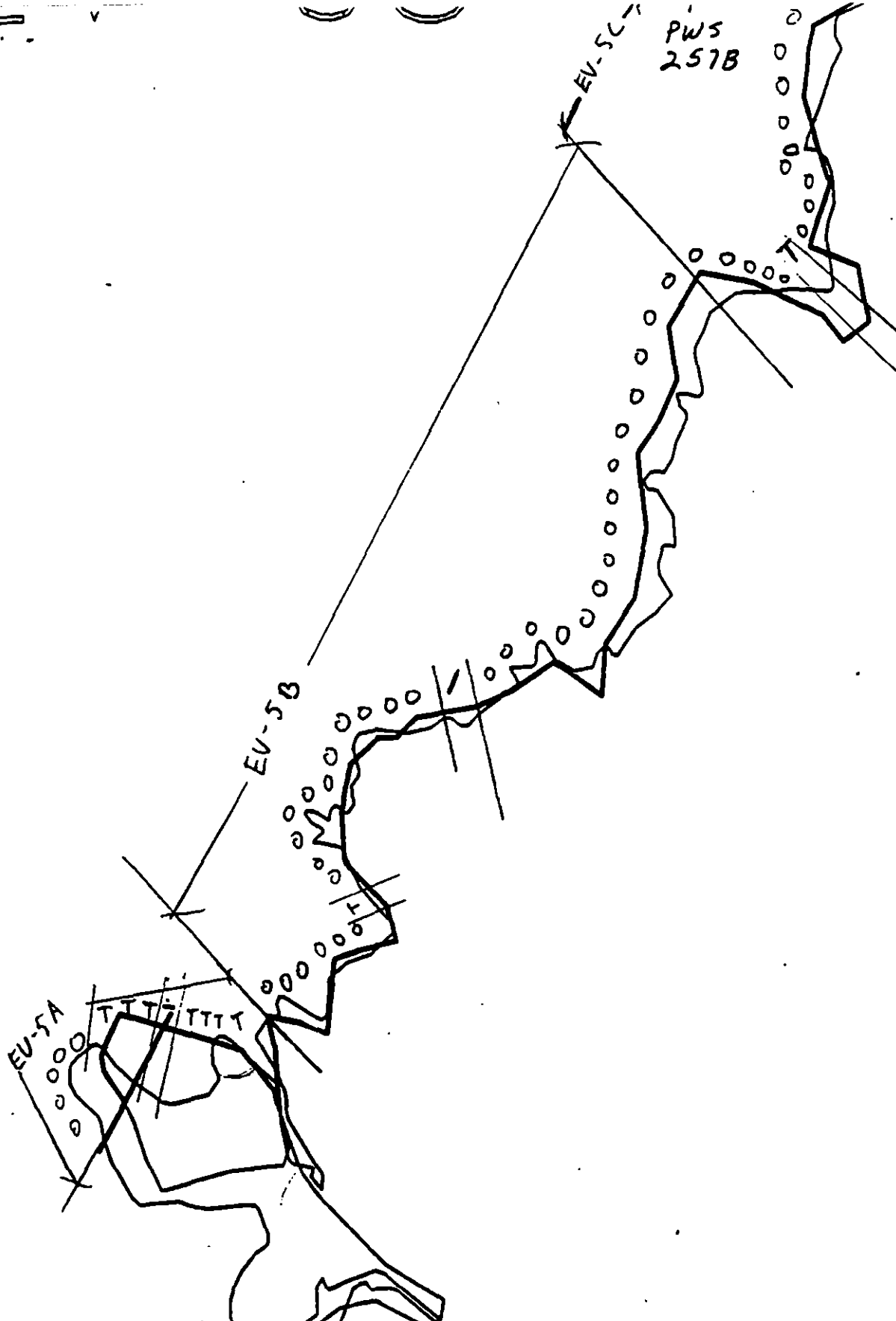
SKETCH MAP

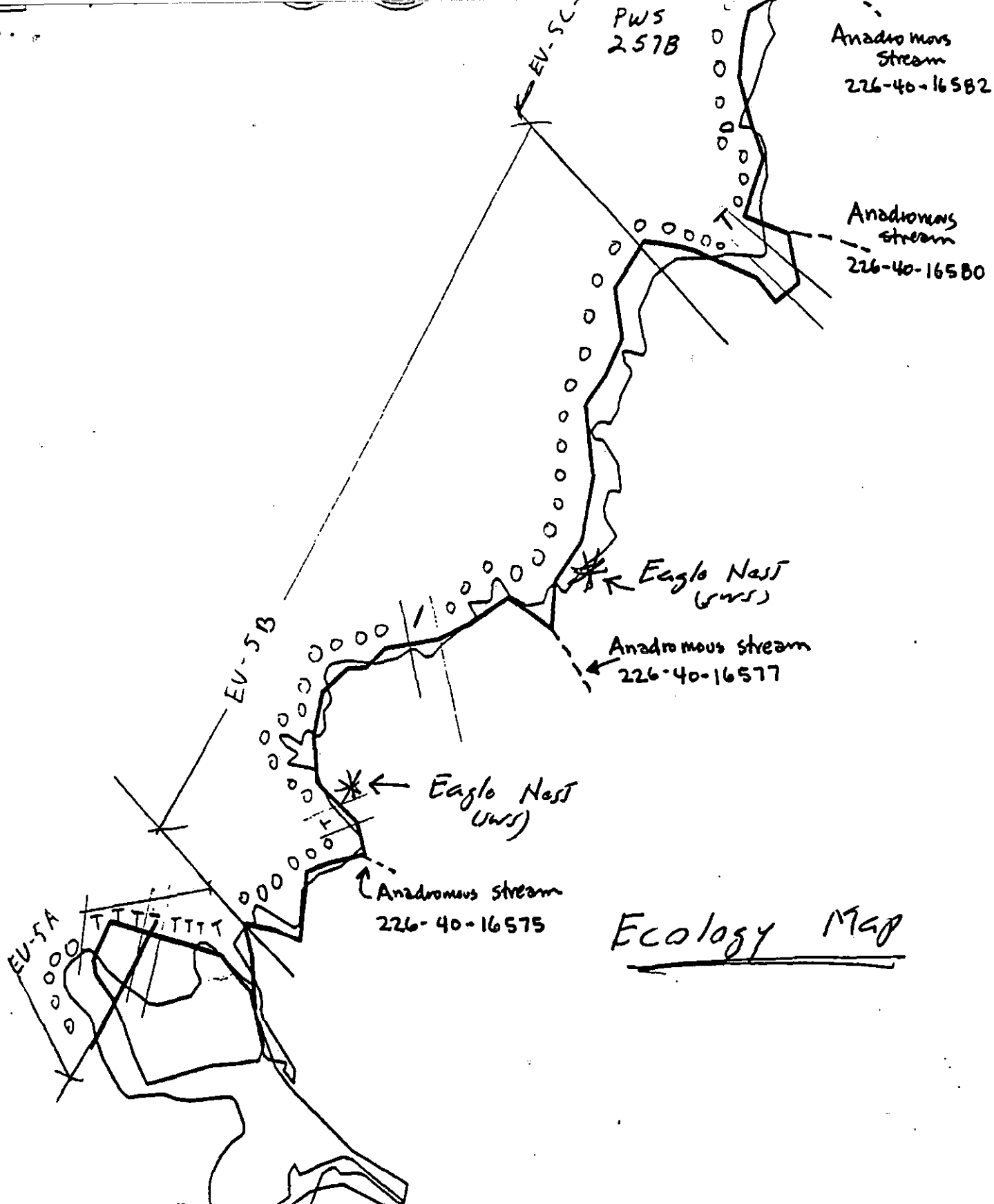


Legend

--- - snow
 /// - Rock / Boulder
 ○ - boulder
 X - oiled vegetation
 SUITZ

REVISION: 03/24/00





XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-5

ADEC Segment Length: 3432m

0 100 200 300
METERS

Map Key: PWS-257a

Name: Mike Fogar

Date: 4/7/90

Data Entered:

SHORELINE EVALUATION

SEGMENT ST/ EV-05 SUBDIVISION B (2 OF 3) DATE 4/7/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

ADF&G anadromous stream no. 226-40-16575, 16580, 16582, 16577.

- 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)
- 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. Two anadromous streams in Subdivision B (226-40-16577, 16575) and 2 bald eagle nests, with one bald eagle nest within 400m in Subdivision A.

ARCHAEOLOGICAL CONSTRAINTS:

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact a member of Exxon's Cultural Resource Program immediately (564-3657; 564-3658 or 564-3276).

SHPO SIGNATURE: *Charles E. Hume* DATE: 4/28/90

OILING CATEGORIZATION:

Wide 0 m: Medium 32 m: Narrow 0 m: V.Light 33 m: No Oil 1107 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> Removal | <u> </u> Beach Cleaner |
| | <u> </u> Other (see comments) |

COMMENTS: Recommended treatment includes 1) manual removal of pooled mousse and tar patties, 2) manual removal of oiled debris. Work should be conducted after 6/1, with the approval of USFWS regarding eagle nests.
FOLLOWUP TREATMENT WITH BIOREMEDIATION

TAG COMMENTS:

TAG APPROVAL DATE: 4/26/90
ADEC JOHN BAYER
EXXON ANDY GALT
NOAA GARY PETRAE
USCG KENNETH KEANE

FOSC: *W L* DATE: 5-9-90
CVC now concurs with bioremediation.

OG Ke Fager

SEGMENT ST/ EV-5

SUBDIVISION B

DATE 4 / 7 90

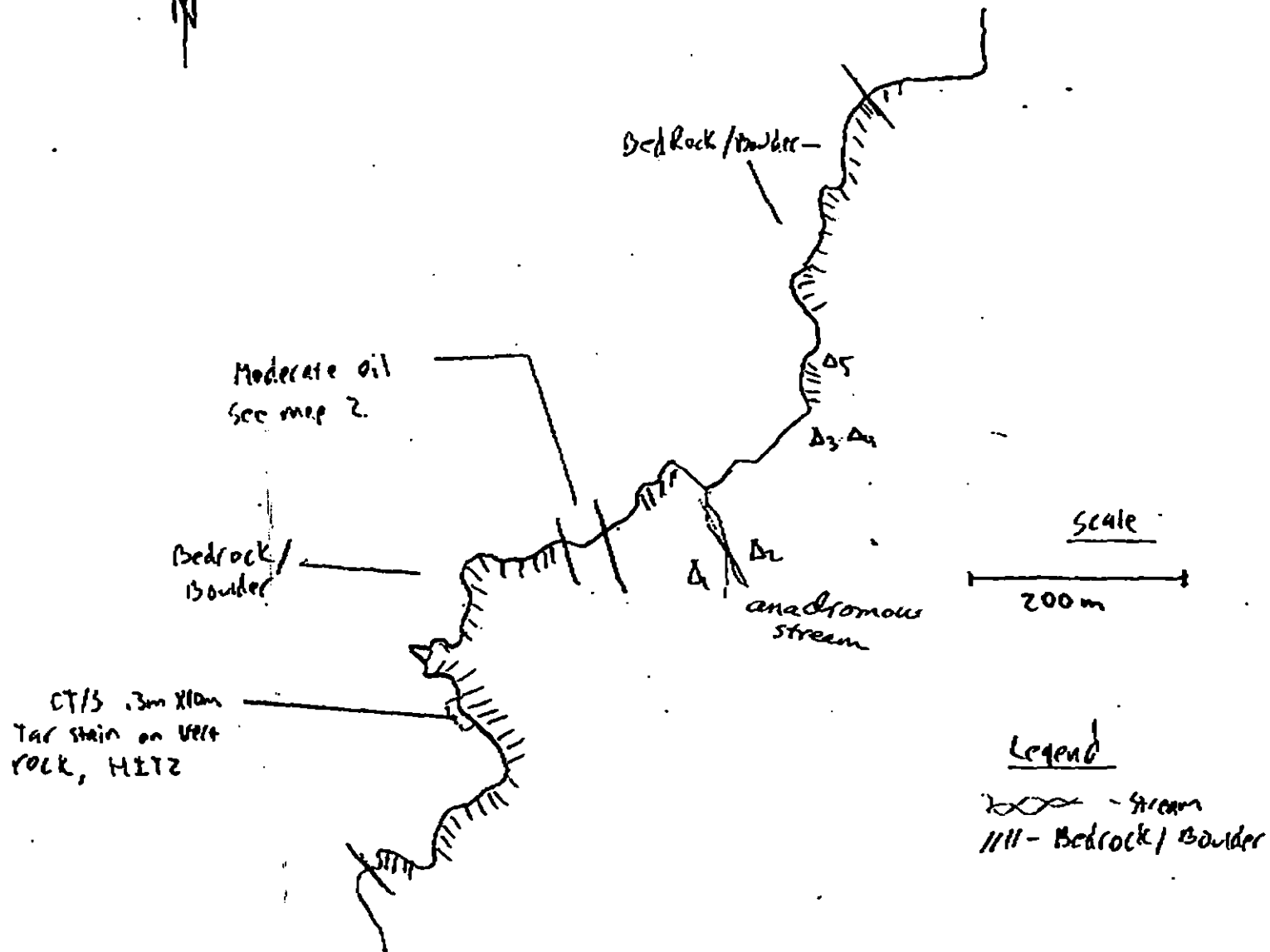
CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Body
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. (FW/L/W)
- ☐ SSI
- ☐ Profile (location(s))
- ☐ Probe(s)
- ☐ Pit (location(s))
- ☐ Photo (location(s))

LEGEND

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

SKETCH MAP 1



Oil Character Length (m): AP 20 CV 10 ST 35 MS PT TB FL NO 1145

REVISION 04/90

OG Mike Fogel

SEGMENT ST/ EU-5

SUBDIVISION B

DATE 4, 7 90

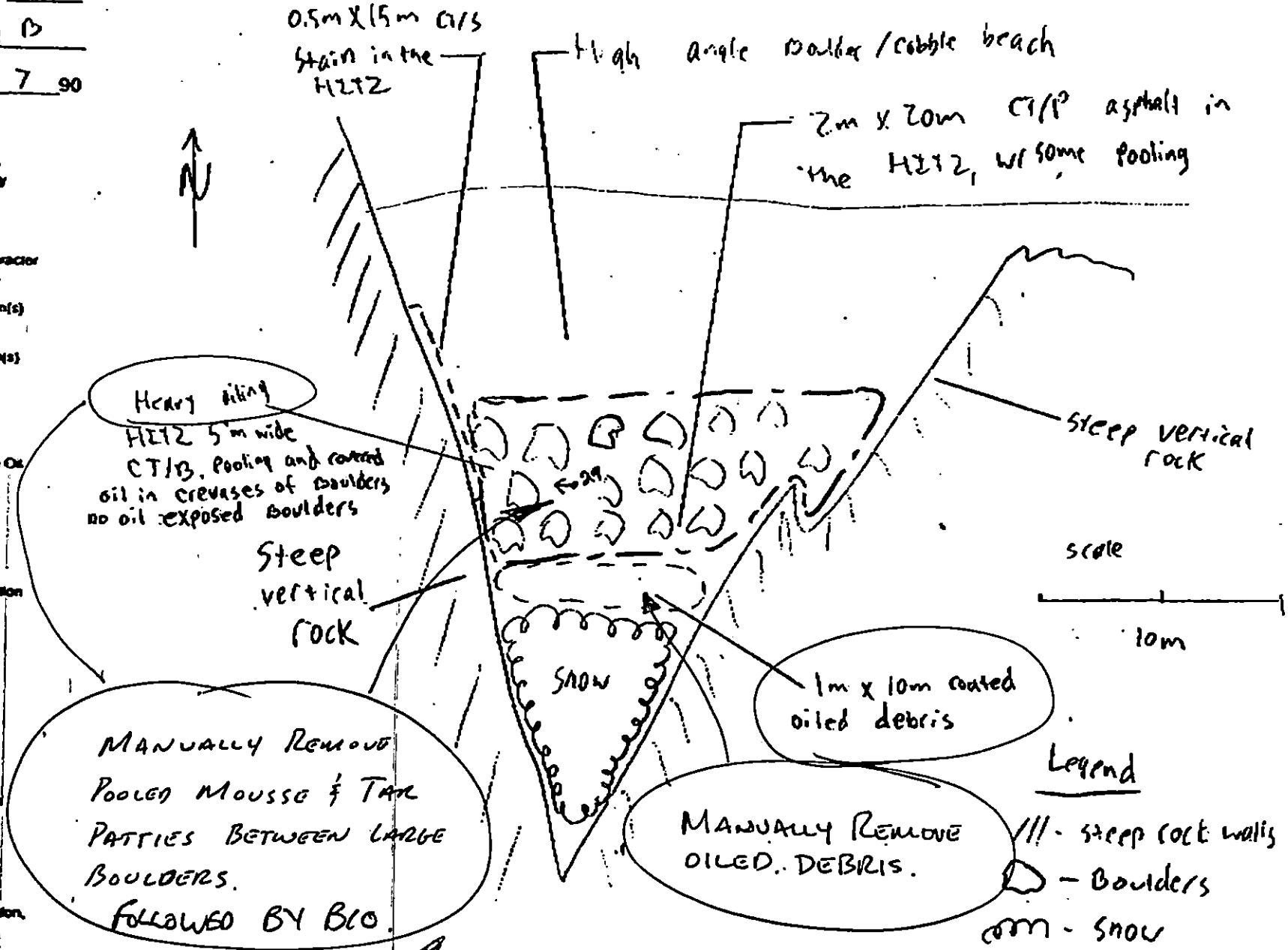
CHECKLIST

- NA Arrow
- Approx. Scale
- Seg/Sub Bdry
- Oil Dist
- Width
- Length
- % Cover
- Substrate Character
- Est HAZ/LVL
- SSI
- Profile Location(s)
- Profile(s)
- PA 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 2



sec map 1

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

REVISION: 000498

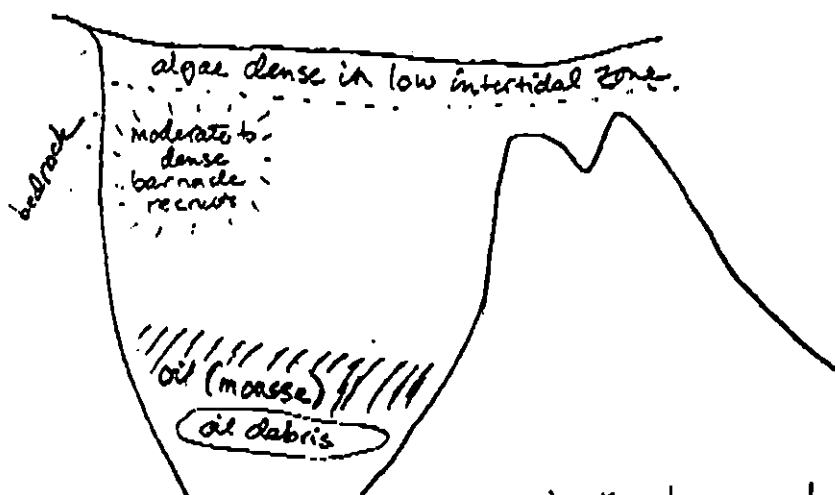
U14-0019075643771# P.07 IU U14-0019075643771# P.07

Ambrose
4/7/90

Subdivision EVOOS 13

0101 page 1 of 1

Oiling on Beach #1 and ecological constraints:



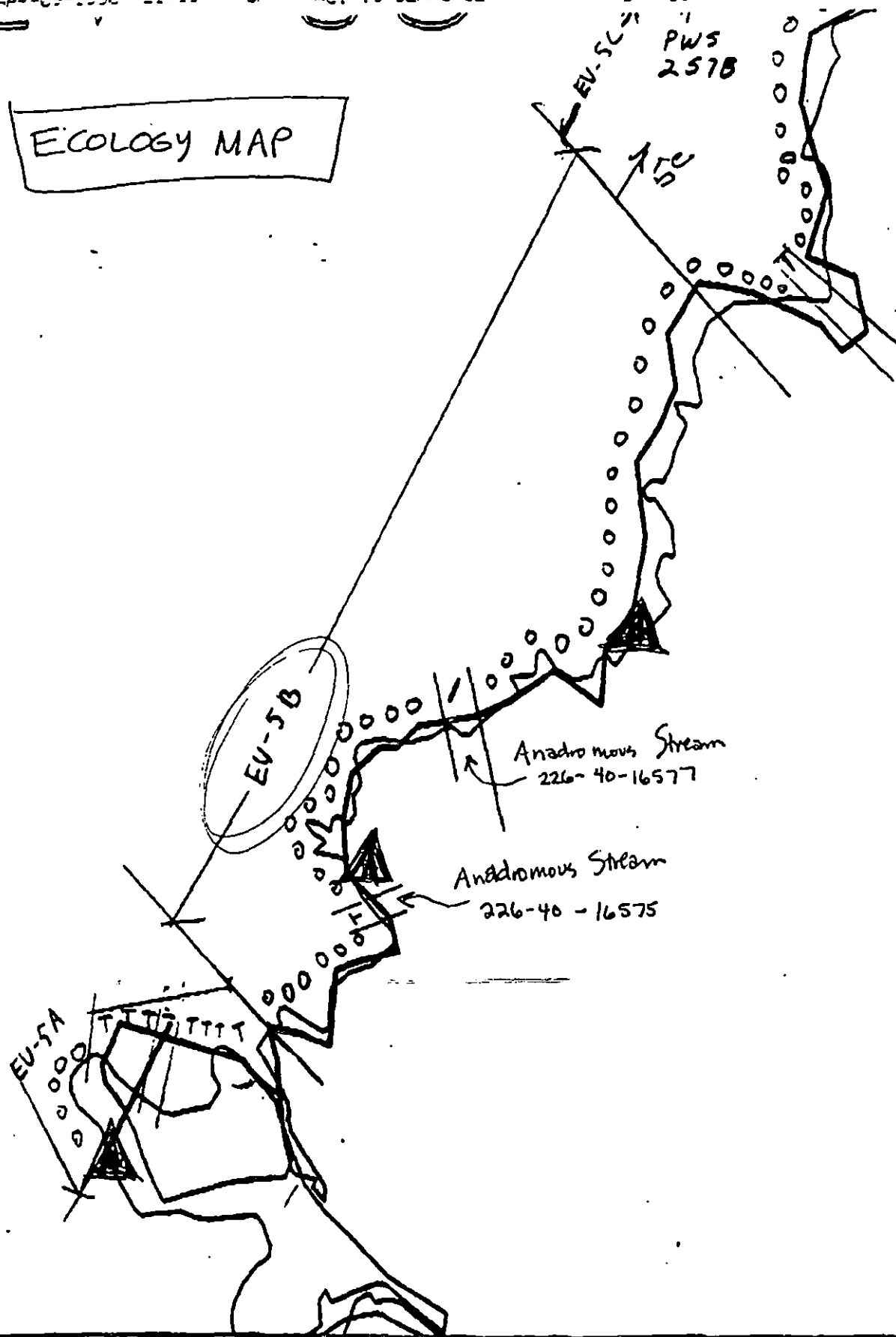
Algae are fairly common in the lower tidal zones: Rhodomele and Enteromorpha occurred in the mid intertidal, Palmaria (or the like) is dense in the low intertidal, and Laminaria is dense in the subtidal.

There is also a good set of barnacles on one side of the cove.

However, the overall biota of the cove is not unusual or rich; in fact, there was virtually no Fucus or Mytilus in the upper intertidal on the beach.

Impacts to the cove from remediation activities could be minimized by working at mid to high tides, but in any case there would not appear to be great to intertidal resources from cleaning this area.

ECOLOGY MAP



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-5e

ADEC Segment Length: 3432m



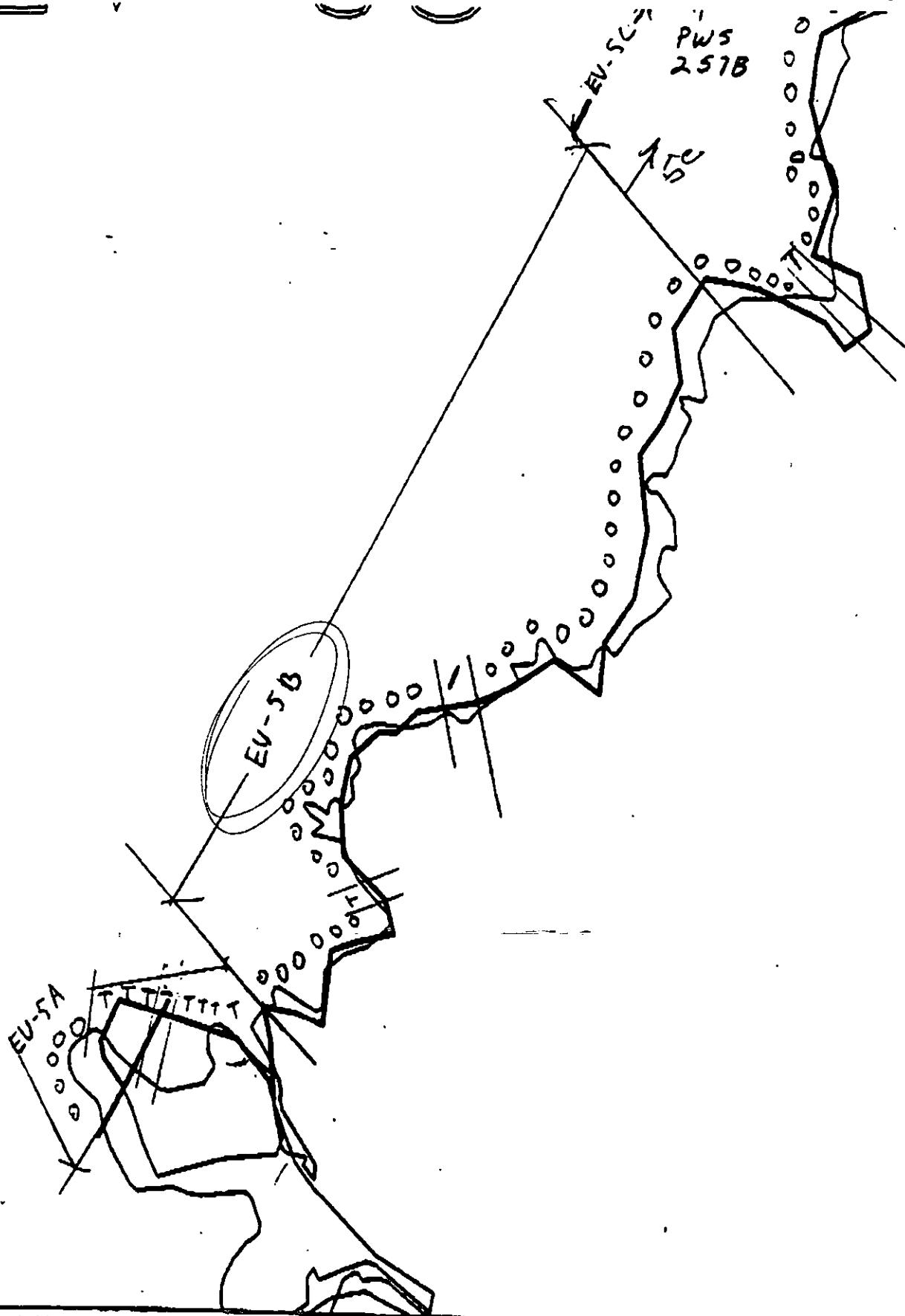
METERS

Map Key: PWS-257a

Name: Mike Foster

Date: 4/7/90

Date Entered:



XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-5e

ADEC Segment Length: 3432m



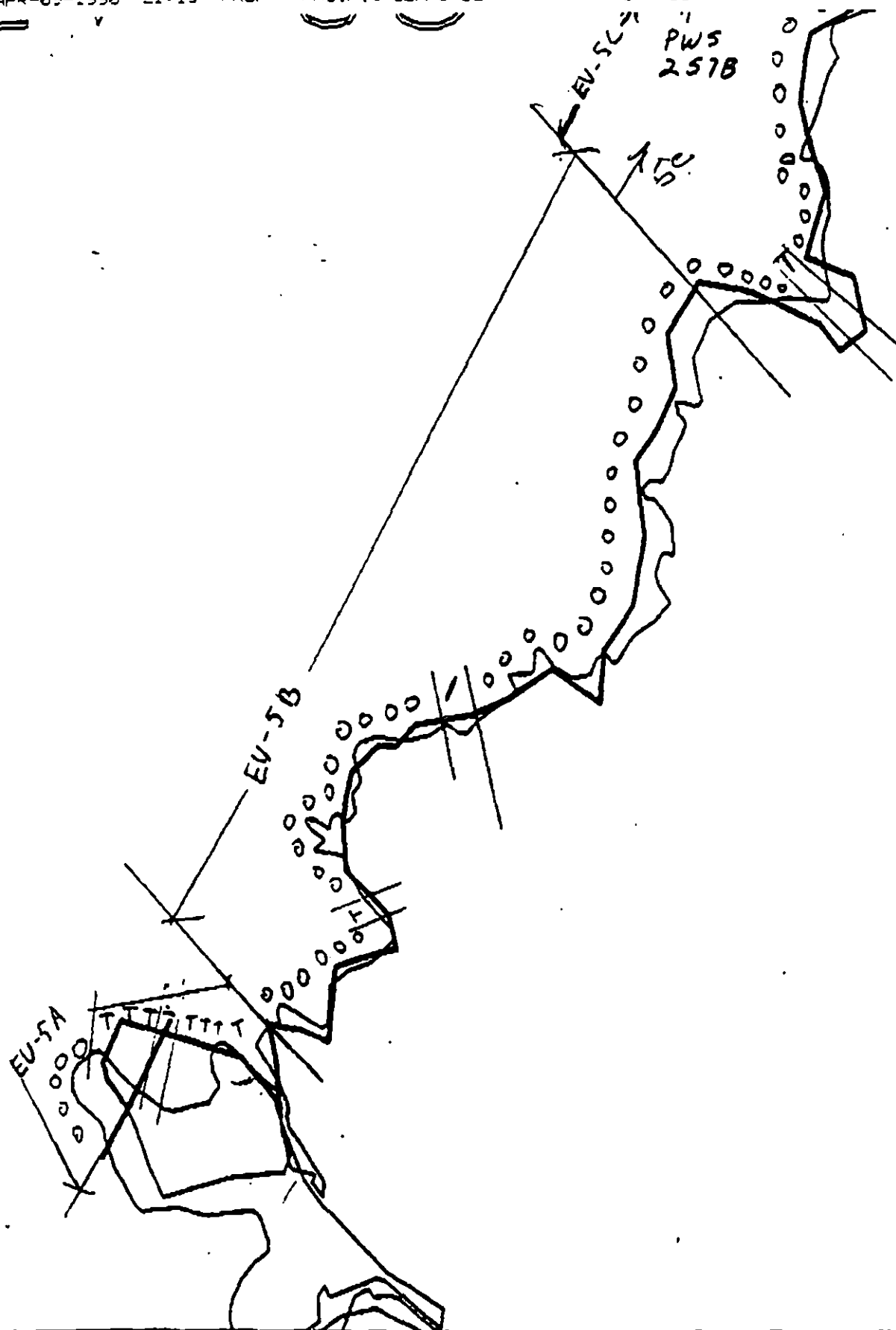
METERS

Map Key: PWS-257a

Name: Mike Sweet

Date: 4/7/90

Data Entered:

PWS
257B

SHORELINE EVALUATION

SEGMENT ST/ EV-05 SUBDIVISION C (3 OF 3) DATE 4/7/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

ADF&G anadromous stream no. 226-40-16575, 16580, 16582, 16577.

- 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)
- 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 uncoiled biota and substrate. Two anadromous streams; 226-40-16582 and 226-40-16580 and one eagle nest in Subdivision C, and a second eagle nest within 400m in adjacent Subdivision B.

ARCHAEOLOGICAL CONSTRAINTS: If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact a ~~required~~ ^{prior} member of Exxon's Cultural Resource Program immediately (564-3657; 564-3658 or 564-3276).

SHPO SIGNATURE: Charles J. [Signature] DATE: 5/3/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 63 m: No Oil 1317 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: PICKUP ASPHALT + DEBRIS AS INDICATED ON SKETCH

TAG COMMENTS: MONITORS TO CHECK SUITZ DURING TREATMENT

TAG APPROVAL DATE: 4/26/90.

ADEC John [Signature]
EXXON Andy [Signature]
NOAA Gary Petrac [Signature]
USCG KENNETH KEDNIC [Signature]

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

ADVISE CVC 24 HRS. PRIOR TO STARTING WORK

OG 2 Foyot

SEGMENT ST/ EV-5

SUBDIVISION C

DATE 4, 7 90

CHECKLIST

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

LEGEND

1 Δ

Pt - No Subsurface Oil

2 Δ

Pt - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

[CT/P]

Patchy Distribution

[CT/S]

Splashed Distribution

Oil on Vegetation

1 $\Rightarrow$

Photo location, direction,
and number

SKETCH MAP I



Legend

- stream
- Boulder / Rock
- snow supra ITZ

1m x 10m CT/P
stain in HITZ

2m x 15m CT/S
stain along cobble
HITZ

1m x 15m CT/P
Asphalt Patches HITZ

1m x 20m CT/P
Asphalt patches HITZ

1m x 2m CT/P
Asphalt patch HITZ

See map 2

Asphalt
Pickup

Stream

Oil Character Length (m): AP 25 PO 27 CV 27 CT 27 ST 25 MS 27 TB 27 FL 1700

REVISION 000000

OG Le Roy

SEGMENT ST/ EV-5

SUBDIVISION C

DATE 4 / 7 / 90

CHECKLIST

- ☐ N Arrow
- ☐ Approx Scale
- ☐ Seg/Sub Entry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. INTEL VAL.
- ☐ SSL
- ☐ Photo 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

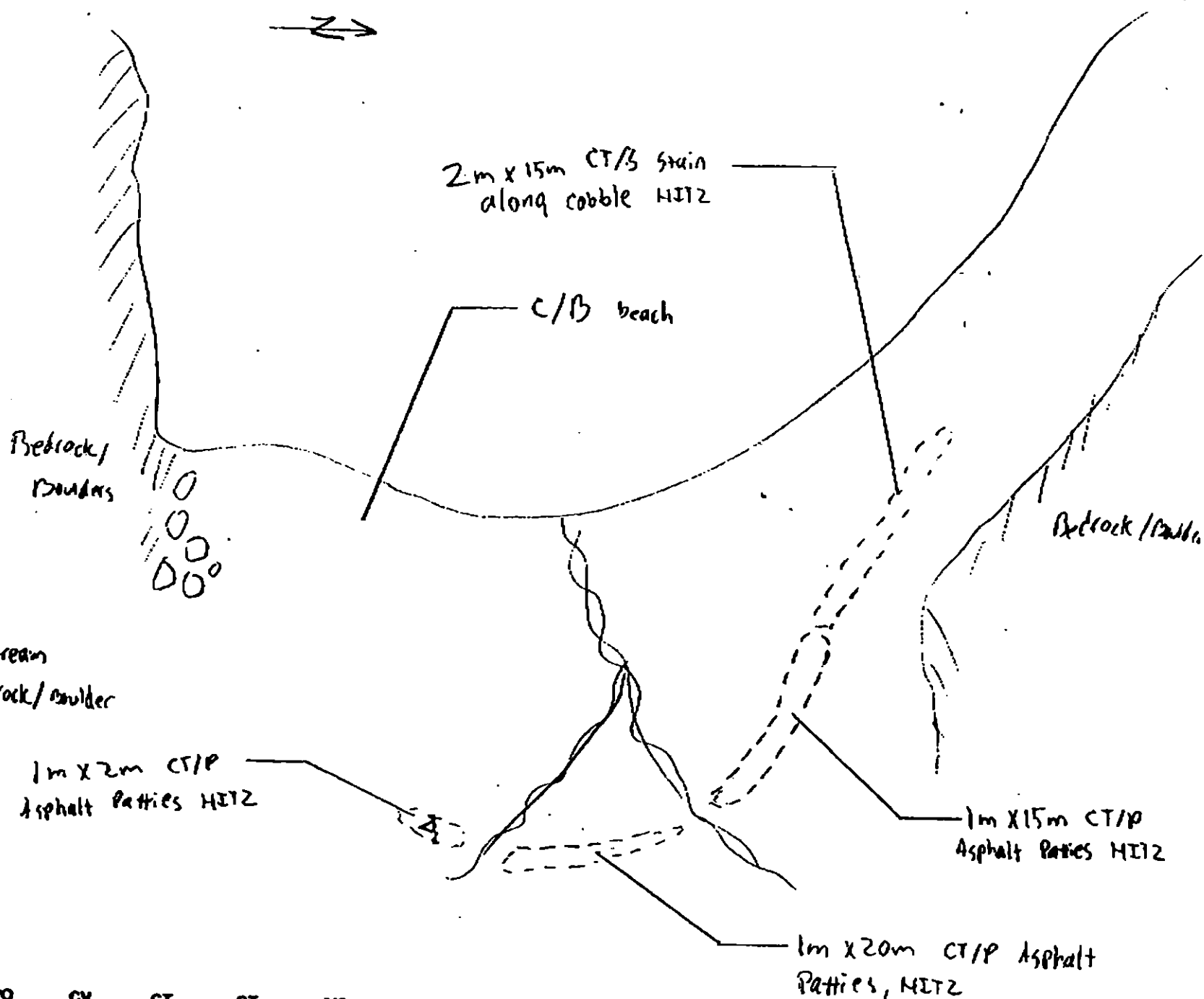
Splashed Distribution

Old Vegetation

1 →

Photo location, direction,
and number

SKETCH MAP 2



see map 1

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

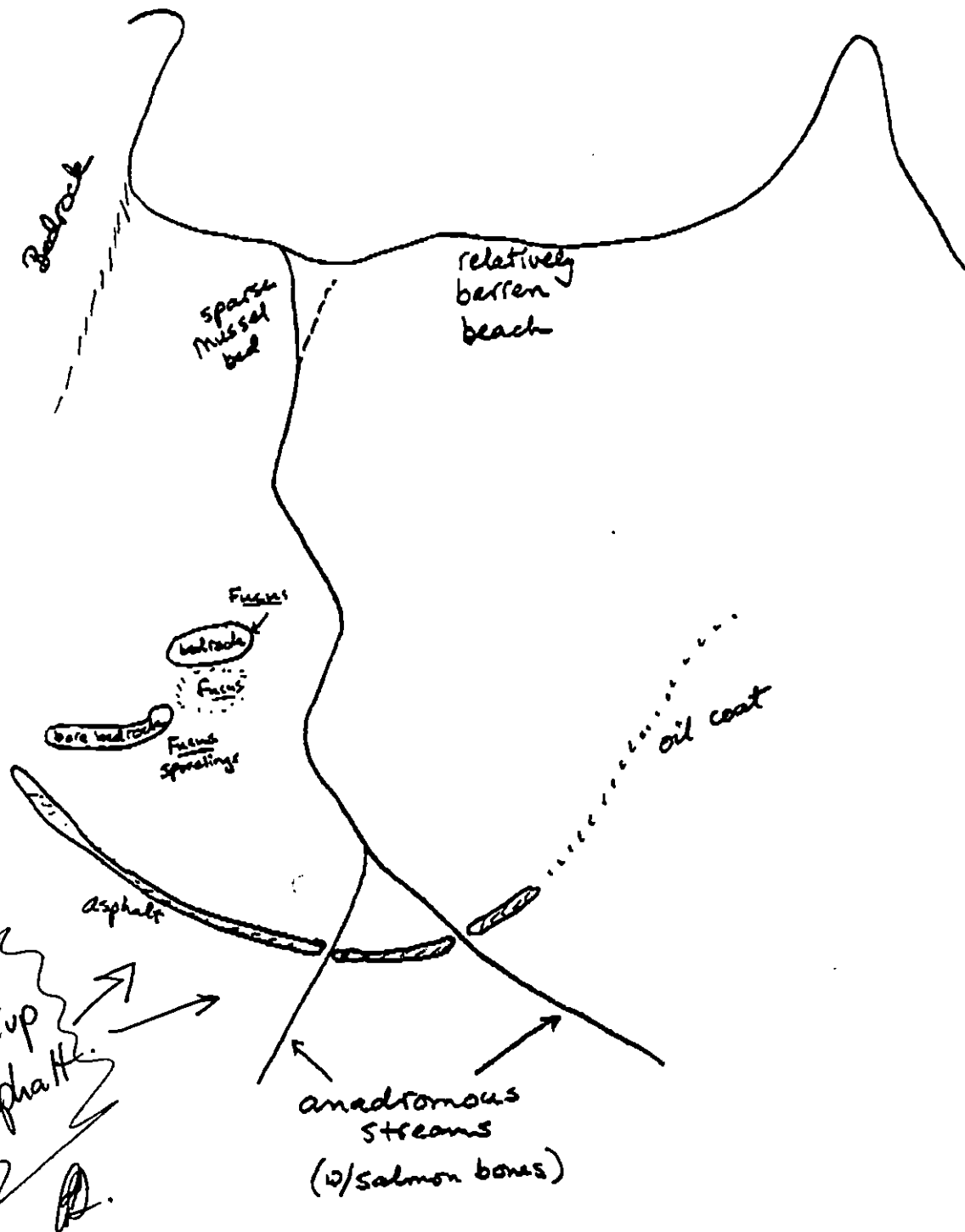
REVISION 03/04/90

Ambrose
4/7/90

Subdivision EVO05C

Bio: page 2 of 2

Sketch of cove with anadromous stream:



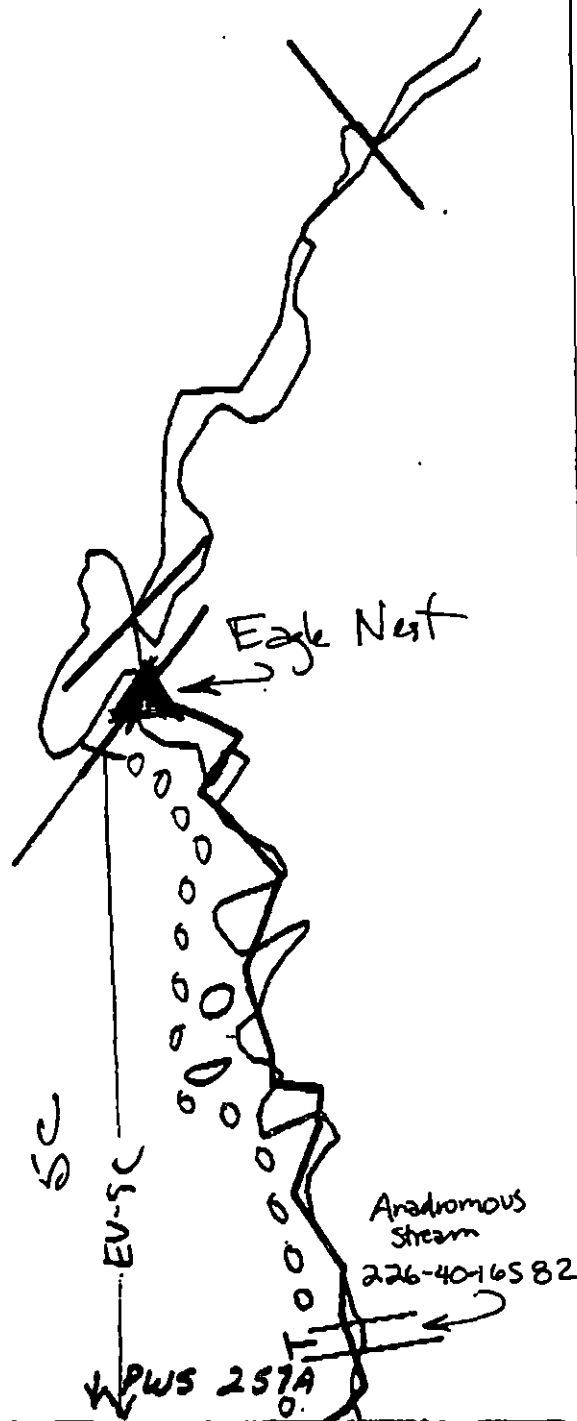
EV-03

ECOLOGY MAP

EV-02

EV-01

EV-05



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-5

ADEC Segment Length: 3432m



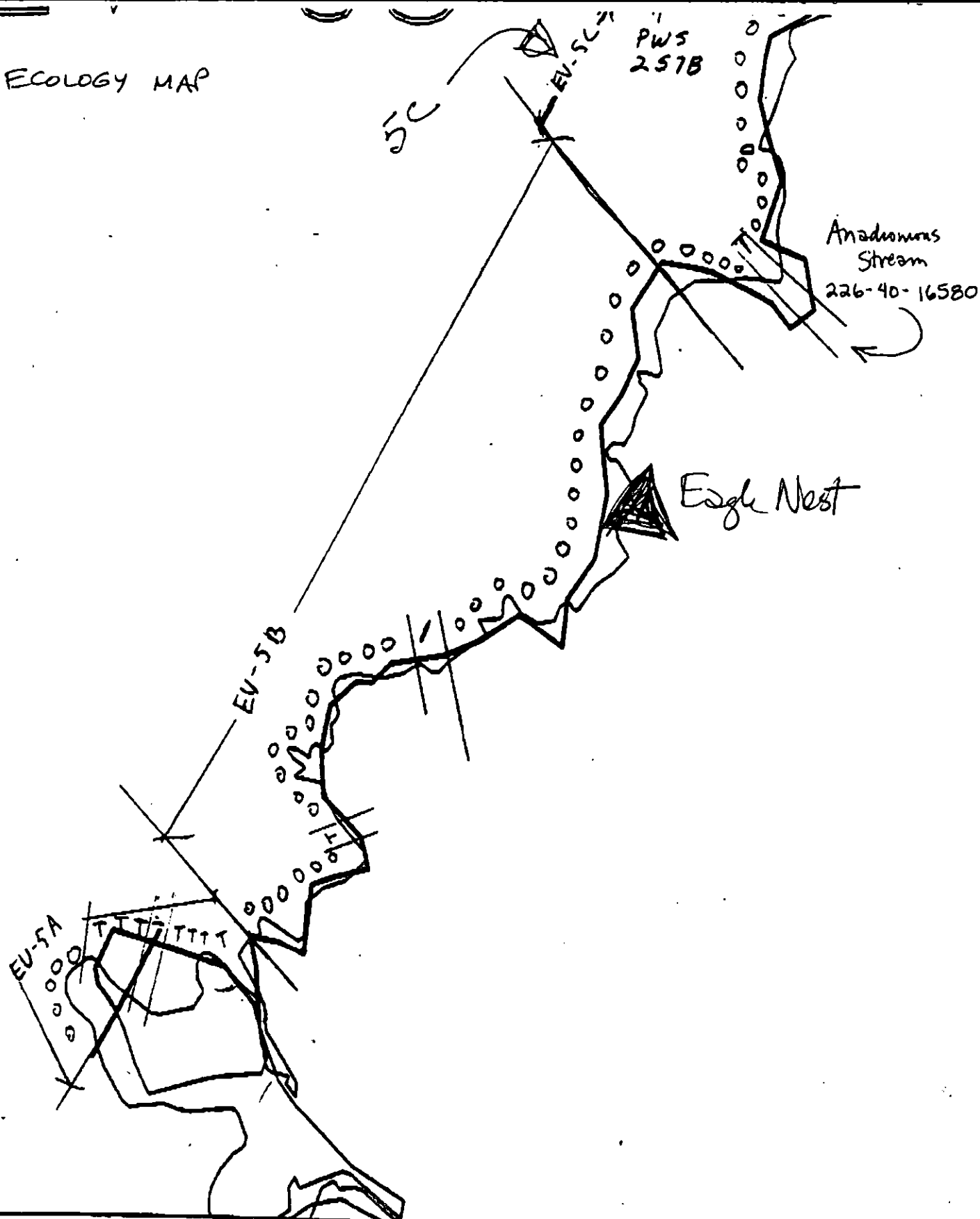
Map Key: PWS-257b

Name: Mike Fager

Date: 4/7/90

Date Entered:

ECOLOGY MAP



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-5

ADEC Segment Length: 3432m



Map Key: PWS-257a

Name: Mike Fogar

Date: 4/7/90

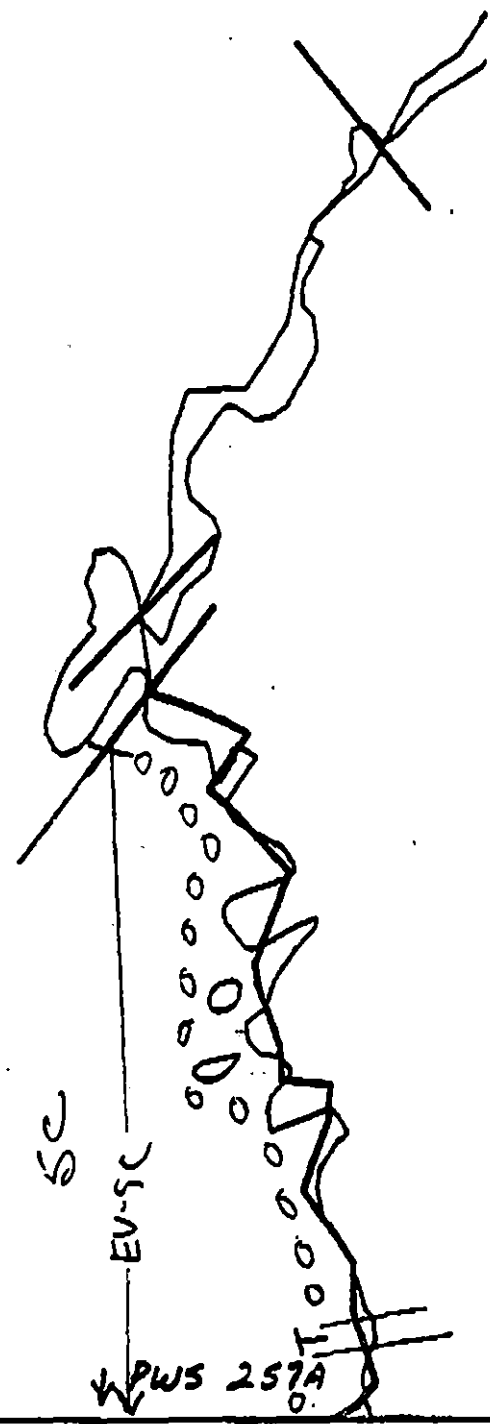
Data Entered:

EV-03

EV-02

EV-01

EV-05



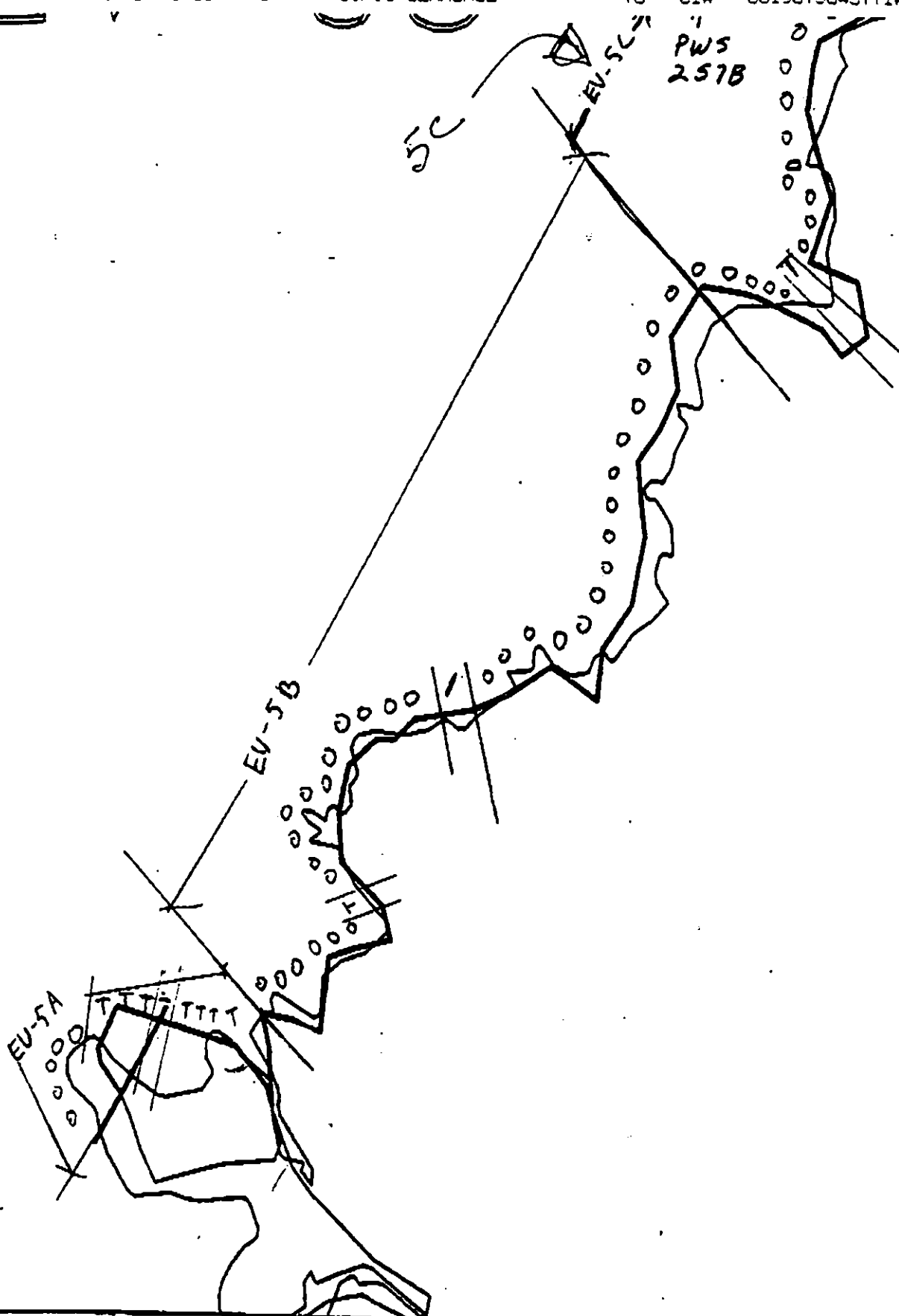
XXXX Wide
//// Medium
--- Narrow
TTTT Very Light
0000 No Oil

EV-5

ADEC Segment Length: 3432m



Map Key: PWS-257b
Name: Mike Roger
Date: 4/7/90
Data Entered:



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-5

ADEC Segment Length: 3432m



Map Key: PWS-257a

Name: Mike Toget

Date: 4/7/90

Data Entered:

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