

EV-070A F
GUGUAK BAY

ASC, 16509

ACE 1369562



Prince William Sound

DOCUMENTS IN STREAM FILES

ASC# _____ Segment # _____

____ '89 Intertidal Assessment Survey, Sport/Com. Fish .
____ '89 Shoreline Clean-Up Program (SAT)
____ '89 Anadromous Fish Stream Authorization, for instream work
____ '89 Stream Treatment Reports
____ '89 Demobilization Reports ____ Bioremediation ____ other
____ '89 RLS Sheet ____ Oil sed. sample ____ Egg sample
____ '89 Fall Walk-a-thon Survey, ADEC
____ '89 Winter Assess. Study Site ____ Winter Stream Survey Form
____ '89 Other Documents _____

____ '90 Pre-Anadscat Survey, multi-assessment form
____ '90 Anadscat Survey
____ '90 Anadromous Fish Stream Evaluation (work order)
____ '90 Anadromous Fish Stream Addendum to work order
____ '90 Shoreline Evaluation, SAT and work order for segment
____ '90 Anadromous Fish Stream Authorization, Title 16 permit
____ '90 Stream Treatment Report
____ '90 ADEC Demobilization Report for Bio
____ '90 ADF&G Oiling Condition Survey, for ASAP use (Aug. 2000)
____ '90 ASAP Survey ____ ASAP Rec. ____ ADEC Rec. (____)
____ '90 Other Documents _____

CATALOG NUMBER: 2264016509
 STREAM NAME:
 LOCATION: EVANS ISLAND, GUGUAK BAY

SEGMENT NUMBER: EV070 F
 SHORELINE TYPE:
 DATE: 04/11/90 TIME: COVE -1047

SITE	WIDTH (m)	LENGTH (m)	AREA (sqm)	PERCENT OIL	THICKNESS (cm)	PENETRATION (cm)	SURFACE SUBSURF	OIL TYPES	COMMENTS
1							SURFACE	AP	SOUTH SIDE.

COMMENTS:
 SMALL PATCH OF TAR/ASPHALT RIGHT SIDE OF STREAM FACING DOWN STREAM. EASY SHOVEL AND BAG REMOVAL. OIL ON STREAM BANKS: ~~YES~~. OIL WITHIN 1 MILE OF STREAM: YES, SEE MAP.

CATALOG NUMBER: 2264016509
 STREAM NAME:
 LOCATION: EVANS ISLAND, GUGUAK BAY

SEGMENT NUMBER: EV070 F
 SHORELINE TYPE:
 DATE: 04/21/90 TIME: COVE -1530

SITE	WIDTH (m)	LENGTH (m)	AREA (sqm)	PERCENT OIL	THICKNESS (cm)	PENETRATION (cm)	SURFACE SUBSURF	OIL TYPES	COMMENTS
1							SURFACE	MS TP MS CT	SOUTH SIDE: SPORADIC TARPATCHES ON COBBLES/BOULDERS. CONTAINS ISOLATED POCKETS OF BURIED MOUSSE. FURTHER W/STREAM, LIGHTLY OILED SEDIMENTS 1-3 CM.
2							SURFACE	AP	
3							SURFACE	SCR TP ST	
4							SURFACE	ST	

COMMENTS:
 VERY SPORADIC STAIN, ASPHALT, TAR, AND BURIED MOUSSE. OIL QUANTITY AND DISTRIBUTION RELATIVE TO STREAM, DO NOT PLACE SALMON OR OTHER ORGANISMS AT RISK. NO TREATMENT IS RECOMMENDED. FRY PRESUMED. OIL ON STREAM BANKS: NO. OIL WITHIN 1 MILE OF STREAM: YES.

P. -ANADSCAT-90 ^{ATW}

ADF&G MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: BS SS DS TS AVS SCHA MMS PTA

2 REGION: PWS KP,CI K,AP

METHOD: Aerial Ground Boat

3 DATE: 4/11/90

15 HIGH TIDE TIMES: 1

21 TEAM RECORDER: _____

4 START TIME: 1042

16 HIGH TIDE HTS: 1

22 OBSERVERS: TOM CROWE

5 STOP TIME: 1047

17 LOW TIDE TIMES: 1

23 AGENCY: ADF&G

6 SEGMENT #: EV-071A

18 LOW TIDE HTS: 1

24 PHOTOS TAKEN: Y (N)

7 STATION #: 070A

19 TIDE HT AT SURVEY: _____

Roll #: _____ Frame: _____

8 K-UNIT: _____

Ebb Slack Flood Slack

25 VIDEO TAKEN: Y (N) TAPE#: _____

9 STAT AREA: _____

20 USCG QUAD: SEWARD A-3

Start: _____ End: _____

10 LAT: _____

11 LONG: _____

26 SAMPLES TAKEN? Y N Number

12 SOURCE: Map Loran

13 LOCATION: EVANS ISLAND

14 DESCRIPTION: GUGUAK BAY

EXTENT OF OIL

27 SURFACE COVERAGE

SHORELINE				STREAM			
L	W	M ²	%	L	W	M ²	%

28 SURFACE THICKNESS

29 PENETRATION

30 OVERALL OIL IMPACT: N VL (L) M H

31 OIL TYPE: Pooled Mousse Tar Asphalt Sticky Stain

32 OILED DEBRIS? Y (N)

33 SHORELINE TYPE: Headland Low-lying Rocks Beach Cove
Lagoon Marsh

34 WAVE EXPOSURE: High Moderate Low

35 SUBSTRATE TYPE: Bedrock _____ Boulder _____ Cobble X
Gravel X Sand _____ Mud/silt _____

36 CATALOGED ANAD. FISH SREAM? (Y) N

37 CATALOG #: 16509

38 STREAM NAME: _____

39 OIL IN STREAM BED? Y (N)

40 OIL ON STREAM BANKS? (Y) N

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

42 OIL WITHIN 1 MILE OF STREAM? (Y) N

Where: SEE MAP

43 ANADROMOUS FISH PRESENT? Y N

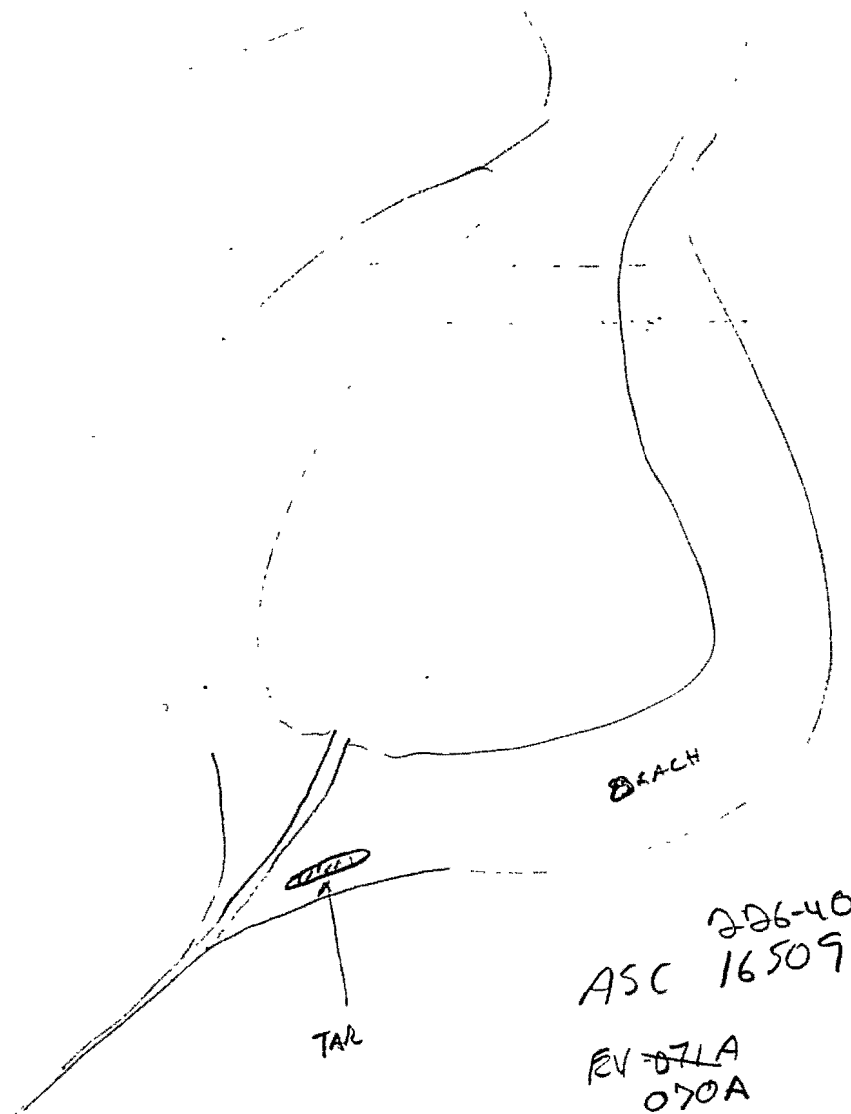
44 ANADROMOUS FISH OBSERVATION
Species Aerial Ground

COMMENTS: SMALL PATCH OF TAR/ASPHALT RIGHT SIDE OF
STREAM FACING DOWN STREAM. EASY SHOVEL AND BAG
REMOVAL.

ACE 7238432+1S

FRAME(S)

DESCRIPTION

46 OIL DISTRIBUTION DIAGRAM

Sample taken
Photo frame # and
shot direction.

4/11/90

ACE 7238433-15

ASC NUMBER:

SEGMENT NUMBER:

YR CATALOGED:

LOCATION:

STREAM NAME:

KODIAK K-UNIT:

USGS QUADRANGLE:

SHORELINE TYPE:

LOCAL STREAM #:

ALL SEGMENTS:

LATITUDE:

LONGITUDE:

LEGAL: S

ASC NUMBER: 226-40-16509

SURVEY TYPE:

METHOD:

DATE: 4/11/90

START TIME:

STOP TIME:

WAVE EXPOS:

TEAM RECORDER:

OBSERVERS:

AGENCY(IES):

PHOTOS TAKEN?

Roll #:

Frames:

VIDEO TAKEN? Tape Number:

Counter Start:

SAMPLES TAKEN?

SAMPLE I.D. NUMBERS: 1.

2.

3.

4.

5.

6.

	LENGTH	WIDTH	M2	%	THICK	PEN	OIL TYPE
SITE 1							AP
SITE 2							
SITE 3							
SITE 4							
SITE 5							

OVERALL OIL IMPACT:

OIL IN STREAM CHANNEL?

SUBSTRATE

OIL ON BEACH WITHIN 50M OF STREAM MOUTH?

Bedrock	Granule
Boulder	Sand
Cobble	Silt
Pebble	Veget.

SPECIES					
COUNT					

COMMENTS:



ANADSCAT-90

ADF&G MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: BS SS DS TS AVS SCHA MMS PTA2 REGION: PWS KP,CI K,APMETHOD: Aerial Ground Boat3 DATE: 4/21/90 15 HIGH TIDE TIMES: 1109, 2344 21 TEAM RECORDER: M. WIEDMER4 START TIME: 1515 16 HIGH TIDE HTS: 9.4, 10.3 22 OBSERVERS: T. CROWE5 STOP TIME: 1530 17 LOW TIDE TIMES: 0512, 1730 23 AGENCY: ADF&G6 SEGMENT #: EV-070A 18 LOW TIDE HTS: 2.9, 1.1 24 PHOTOS TAKEN: Y N7 STATION #: 226-40-16509 19 TIDE HT AT SURVEY: 3.6' Roll #: _____ Frame: _____8 K-UNIT: _____ Ebb Slack Flood Slack 25 VIDEO TAKEN: Y N TAPE#: _____

9 STAT AREA: _____ 20 USCG QUAD: _____ Start: _____ End: _____

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

12 SOURCE: Map Loran Oil _____

13 LOCATION: WEST SHORE EVANS IS. Sediment _____

14 DESCRIPTION: _____ Biological _____

Water _____

EXTENT OF OIL

27 SURFACE COVERAGE

SHORELINE				STREAM			
L	W	M ²	%	L	W	M ²	%
100y	20y		<1	40y	3y		0

28 SURFACE THICKNESS

1mm	<0.1	<0.1	0	0	0
3cm	3cm	0	0	0	0

29 PENETRATION

30 OVERALL OIL IMPACT: N VL L M H31 OIL TYPE: Pooled Mousse Tar Asphalt Sticky Stain32 OILED DEBRIS? Y N33 SHORELINE TYPE: Headland Low-lying Rocks Beach Cove34 WAVE EXPOSURE: High Moderate Low35 SUBSTRATE TYPE: Bedrock _____ Boulder 33 Cobble 33Gravel 33 Sand _____ Mud/silt _____36 CATALOGED ANAD. FISH STREAM? Y N37 CATALOG #: 226-40-16509

38 STREAM NAME: _____

39 OIL IN STREAM BED? Y N40 OIL ON STREAM BANKS? Y N41 OIL ON BEACH ADJACENT TO MOUTH? Y N

(within 50 meters)

42 OIL WITHIN 1 MILE OF STREAM? Y N

Where: _____

43 ANADROMOUS FISH PRESENT? Y N

44 ANADROMOUS FISH OBSERVATION

Species Aerial Ground

COMMENTS: VERY SPORADIC STAIN, ASPHALT, TAR, AND BURIED MOUSSE.

QUANTITY AND DISTRIBUTION RELATIVE TO STREAM DO NOT
PLACE SALMON OR OTHER ORGANISMS AT RISK. NO
TREATMENT IS RECOMMENDED

ACE 7238430+1E

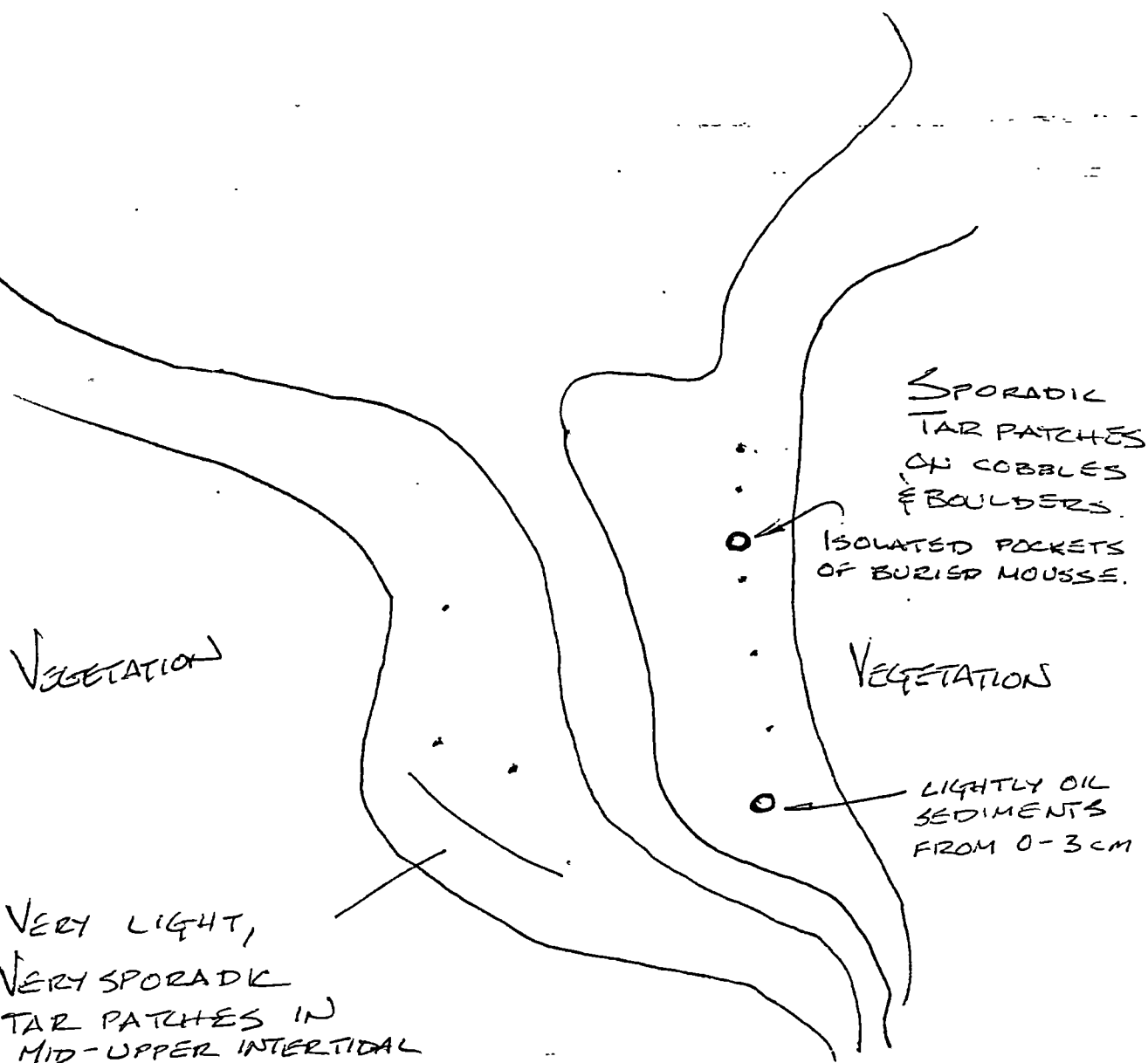
EV-070A
226-40-16509

45 PHOTOLOG

Frame(S)

DESCRIPTION

46 OIL DISTRIBUTION DIAGRAM



Sample taken
Photo frame # and
shot direction.

ACE 7238431 -/S

ASC NUMBER:

SEGMENT NUMBER:

YR CATALOGED:

LOCATION:

STREAM NAME:

KODIAK K-UNIT:

USGS QUADRANGLE:

SHORELINE TYPE:

LOCAL STREAM #:

ALL SEGMENTS:

LATITUDE:

LONGITUDE:

LEGAL: S

ASC NUMBER: 226-40-16559

SURVEY TYPE:

METHOD:

DATE: 4/22/90

START TIME:

STOP TIME:

TEAM RECORDER:

OBSERVERS:

AGENCY(IES):

PHOTOS TAKEN?

Roll #:

Frames:

VIDEO TAKEN?

Tape Number:

Counter Start:

SAMPLES TAKEN?

SAMPLE I.D. NUMBERS: 1.

2.

3.

4.

5.

6.

	LENGTH	WIDTH	M2	%	THICK	PEN	OIL TYPE
SITE 1							MS
SITE 2							AP
SITE 3							SOR
SITE 4							ST
SITE 5							

OVERALL OIL IMPACT:

OIL IN STREAM CHANNEL?

OIL ON BEACH WITHIN 50M OF STREAM MOUTH?

SUBSTRATE

Bedrock	Granule
Boulder	Sand
Cobble	Silt
Pebble	Veget.

SPECIES

COUNT

COMMENTS:

OG SUPPLEMENTAL INFO TO MAD

RECORDER: *Sundel*

REC-DATE: 10/4

PAGE

CATALOG NUMBER: 226 4016509

STREAM NAME:

LOCATION: EVANS ISLAND, GULAIK BAY

SEGMENT NUMBER: EV070F

SHORELINE TYPE:

DATE: 04/21/90

OG vs. MAD: MAD more detailed, but no pivots. Generally agree.

[illegible]

ADEC EXXON VALDEZ POST-TREATMENT SURVEY REPORT

SEGMENT#: EV070A
LOCATION: ISLAND OFF W EVANS I.

DATE: 10/13/89
TIME: 16:45

Survey Type: Boat, Ground
Team: D. Gardner, P. Endres

WEATHER AND SEA CONDITIONS

Weather: Sunny
Sea State: Calm

Wind Direction: variable
Knots: 0-15

Low Tide: 6:42	Feet: 0.22	High Tide: 12:53	Feet: 13.4
Low Tide: 19:10	Feet: -0.9	High Tide: 0:34	Feet: 12.4

SHORELINE DESCRIPTION

Shoretypes: H,LR,B,C
(H=headland, LR=low-lying rock, B=beach, C=cove, L=lagoon, M=marsh)

Wave Exposure: M,L (H=high, M=moderate, L=low)
Shoreline Composition: R,B,C,G,S
(R=bedrock, B=boulder, C=cobble, G=gravel, S=sand, M=silt)

OIL CHARACTERISTICS

Degree of Oiling: VL,L,M,H
(N=none, VL=very light, L=Light, M=moderate, H=heavy)
Area of Impact: H,M
(S=supratidal, H=high intertidal, M=mid tidal, L=low intertidal)

Max. Oil Thickness: 3 mm (1 = 1 mm or less, 0 = no oil)
Max. Oil Penetration: 6 cm (35 = 35 cm or greater)

Percent Segment Categorized as Oiled: 100%
Presence of Oiled Driftwood (y/n): n
Oil Types: T,A,ST
(P=pooled, M=mousse, SY=sticky, T=tar, A=asphalt, ST=stain)
Samples: EV070A-1 / EV070A-2 / none / none

DAMAGED OR OILED ORGANISMS

Fucus (y/n): n Barnacles (y/n): y Mussels (y/n): n
Dead Mammals: 0 Dead Birds: 0

SOLID WASTE FOUND

Type: None
Bags Collected: 0

Draft

Printed: 12/12/89 11:21

Walk-a-thon

ACE 7238270



OFFICIAL PHOTOGRAPH ADF&G EXXON VALDEZ OIL SPILL

OFFICE: VALDEZ

DATE: 09/08/89

TIME: -0-

SEGMENT#: 2264016509

STATION#: -0- E471A

LOCATION: EVANS ISLAND

REASON FOR TAKING PHOTO: AERIAL PHOTO - DOCUMENTING UNDOCUMENTED
SALMON STREAM MOUTH (148°02'15"/60°05'45").

TAKEN BY: TOM CROWE

INITIALS: _____

ROLL #: 89TWC004V FRAME #: 17

EVIDENCE ID#: 10204

ACE 7238276

1/49

Alaska Department of Fish and Game

ANADSCAT Observations and Recommendations
Team 15 - Michael Wiedmer and Tom Crowe

20 April 1990

ASC # 226-40-16785

Segment LA-031 ✓

WT
A 1
Observations Very light stain on surface armor observed more than 50 yards north of stream. One partially oiled drift log observed on storm berm south of stream. No buried oil observed in test pits. No other visible signs of significant quantities of buried oil.

Treatment Recommendations If future observations do not reveal significant quantities of buried oil, no treatment is recommended.

ASC # 226-40-16788

Segment LA-029

0 1
Observations Scattered stained surface cobbles and boulders found throughout anadromous fish stream zone. One out of four test pits revealed a layer of buried mousse 5 to 10 cm thick underneath 10 cm of clean substrate. Results from other pits indicate that this mousse layer was restricted to a small area.

Treatment Recommendations If future observations do not reveal significant quantities of buried oil, no treatment is recommended.

ASC # 226-40-16776

Segment LA-021

C 1
Observations Stain and some light tar and light mousse scattered through anadromous fish stream zone. No significant quantities of buried oil observed.

Treatment Recommendations If future observations do not reveal significant quantities of buried oil, no treatment is recommended.

ACE 7238272+1S

2/49

ASC # 226-40-16774

Segment LA-021

Observations A deposit of heavy oil penetrates the substrate immediately adjacent to the upper-mid intertidal portion of the stream. This area has a surface armor of large cobble overlying small gravels. A high tide berm may be advancing over this oil deposit. Tar from this deposit is exposed in the stream channel along the southwest bank and is leaking sheen into the stream. Tarry/moussy oil penetrates the sediment approximately 4 cm at the present stream bank. Oil penetration may be deeper further from the stream.

3 Treatment Recommendations The complete layer of oiled substrate within this deposit should be manually removed, bagged, and taken from the site for safe disposal. Four-wheelers should be used to facilitate removal of material from beach. Excavation should begin on the side of the patch most distant from the stream channel. Clean material from the adjacent berm should be backfilled into the excavated area soon after oiled material is removed. In no circumstances should clean material be deposited over any remaining oiled substrate. Immediately after removal of the oiled substrate adjacent to the stream, boulders from the opposite shore (see ADF&G Multi-Assessment Data Form diagram for general location) should be placed along the bank to prevent migration of the channel into the treated area. All activities must occur between 15 May and 15 July, 1990.

ASC # 226-40-16772

Segment LA-023

Observations Only lightly stained logs in storm berm.

Treatment Recommendations If future observations do not reveal significant quantities of buried oil, no treatment is recommended.

ACE 7238273

Alaska Department of Fish and Game

ANADSCAT Observations and Recommendations
Team 15 - Michael Wiedmer and Tom Crowe

21 April 1990

ASC # 226-50-16406

Segment ER-019

2 | Observations Very scattered, very lightly stained surface cobble along the mid-intertidal zone west of the stream channel. No visible signs of significant quantities of buried oil.

Treatment Recommendations If future observations do not reveal significant quantities of buried oil, no treatment is recommended.

ASC # 226-40-16484

Segment EV-071A

2 | Observations A 1 meter wide asphalt/tar band rings the upper-intertidal zone immediately adjacent to the stream channel. This ring extends 15 meters north and 50 + meters southwest of the stream channel. An armor of lightly oiled large cobbles and boulders covers a heavily oiled 5 cm thick band of small gravels and sands. The oil band abuts both sides of the stream channel.

Treatment Recommendations Manual removal of all oiled substrate smaller than 5 cm. Larger oiled cobbles and boulders should be relocated more than 25 m from stream channel.

ASC # 226-40-16509

Segment EV-070A

f1 | Observations Sporadic stain, asphalt, tar, and buried mousse are distributed throughout the intertidal zone adjacent to the stream channel. Significant quantities of buried oil not observed.

Final Anadromous Stream Treatment Information

Segment ID - Stream ID	NTR	Bio	Bio Start	Bio End	Man	Man Start	Man End
BA002 226-40-16450	X						
BA002 226-40-16451		X	6/22/90	6/23/90	X	6/22/90	6/23/90
BP004 226-20-16388					X	7/1/90	7/2/90
BP004 226-20-16392					X	7/2/90	7/3/90
BP004 226-20-16395					X	7/3/90	7/4/90
BP004 226-20-16397		X	7/7/90	8/27/90	X	7/4/90	7/7/90
CB003 242-20-10190					X	6/14/90	6/14/90
CH001 226-20-16280					X	6/16/90	6/16/90
CH002 226-20-16180		X	7/3/90	9/12/90	X	6/16/90	6/16/90
CH009 226-20-16182		X	7/4/90	9/12/90	X	7/4/90	7/4/90
CH014 226-20-16255					X	6/20/90	6/20/90
CH016 226-20-16258	X						
CH0900 226-20-16200					X	7/3/90	7/3/90
CU001 224-20-12995					X	5/18/90	5/23/90
CU007 224-20-13010	X						
CU013 224-20-13030					X	6/3/90	6/3/90
CU014 224-20-13034					X	6/21/90	6/21/90
CU014 224-20-13036					X	6/21/90	6/21/90
EI001 242-10-10270					X	7/1/90	7/1/90
EL015 226-10-16906					X	6/30/90	6/30/90
EL052 226-10-16902		X	6/28/90	9/4/90			
ER005 226-50-16432					X	6/21/90	6/21/90
ER006 226-50-16430					X	6/20/90	6/20/90
ER007 226-50-16428					X	6/20/90	6/20/90
ER019 226-50-16406	X						
EV003 226-40-16590					X	6/10/90	6/10/90
EV007 226-40-16559	X						
EV012 EV012-UNCAT		X	6/22/90	6/23/90	X	6/22/90	6/23/90
EV014 226-40-16640					X	6/23/90	6/23/90
EV017 226-40-16620					X	6/19/90	6/19/90
EV017 226-40-16630					X	6/19/90	6/19/90
EV025 226-40-16613		X	7/1/90	7/1/90	X	6/9/90	6/9/90
EV027 226-40-16610					X	7/8/90	7/8/90
EV070 226-40-16509		X	6/12/90	9/1/90	X	6/12/90	6/12/90
EV071 226-40-16484		X	7/5/90	9/1/90	X	6/21/90	6/21/90
FL002 226-40-16390	X						
FL005 226-40-16400	X						
GR007 GR007-UNCAT					X	6/27/90	6/27/90
GR013 227-20-17890	X						
GR103 227-20-17880					X	6/24/90	6/26/90
IN031 226-10-16916					X	7/5/90	7/5/90
K0101-SI008 251-81-10010	X						
K0101-SI014 251-82-10090					X	7/3/90	7/3/90
K0112-SS009 251-50-10045					X	7/2/90	7/2/90
K0201-SI013 251-81-812	X						
K0302-IB005 252-31-10020					X	6/5/90	6/5/90
K0911-CD018 262-10-10100					X	7/5/90	7/7/90
K0911-CD020 262-10-10040					X	7/3/90	7/8/90
K0911-CD020 262-10-10070	X						

ADEC BIOREMEDIATION DAILY REPORT

1815
6DATE: 9-1-90ADEC Monitor: JEFF GIVALIAS

TIDES: TIME: HEIGHT:

Low	_____	_____
High	_____	_____
Low	_____	_____
High	_____	_____

WEATHER: Cloudy Rain Fog Sun

TEMP: 65° SEA COND: CALM

WIND DIR: N-NE-E-SE-S-SW-W-NW

WIND SPEED 0-15 16-30 30+USCG Chris VAN PeltExxon Chris KatsimialisOOPS DAVE BELLOW

Other _____

OGS C. DILLON / D. PARENT

Segment	Sub	No. sites	Inipol (gal)	Custom (lbs.)	Comments
---------	-----	-----------	--------------	---------------	----------

EV-05	B	1	3.5	2	3rd RE-TREAT
EV-70	F (AWAD)	1	-	10	3rd RE-TREAT SUBSURFACE - AWAD STREAM AREA TREATMENT OVER BOM
		2	-	21	
EV-71	B (AWAD)	1	-	10	3rd RE-TREAT AWAD STREAM UL OIL
		2	-	30	
ER-09	A	1	3	1.5	3rd RE-TREAT SEE DEMOS REPORT UL OIL
LA-15	D	1	-	200	OUT OF CONTROL SUBSTANTIAL HEAVY SURFACE AND SUBSURFACE OIL PRESENT - NEEDS TYPE III MODIFICATION ALLOWING BERM RELOCATION W/ ADDITIONAL MANUAL TREATMENT - TAG SHOULD REVIEW PROBABLY & BREAK DOWN BERM PRIOR TO SEPT 15 GENERAL DEMOS
		2	30	100	

\shorelin\rowann\biorept 8/7/90

ACE 7238277+IAC

ADEC DEMOBILIZATION REPORT FOR INIPOL AND CUSTOMBLEN TREATMENT

11715
5

To: Alaska Department of Environmental Conservation
Oil Spill Response Center
Anchorage, Alaska

Attn: John Bauer
FAX 265-4666

From: J. GINAIAS (please print)

RE: SEGMENT NUMBER EV-70 SUBSEGMENT NUMBER F

ADEC REP JEFF GINAIAS USCG REP CHRIS VAN PELT

EXXON REP Chris Katsimpalis BOAT NAME/SQUAD NUMBER Arctic Salvor

COXS: DAVE BELLOW VED FOREMAN: Rod Reynolds SQUAD # 4

Site #	Length (along shore m)	Area m ²	Inipol (gallons)	Customblen (lbs.)
--------	---------------------------	------------------------	---------------------	----------------------

1	10 x 5 @ 10070	50	—	10
---	----------------	----	---	----

2	17 x 6 @ 10070	102	—	21
---	----------------	-----	---	----

Has work been completed as stated on the work order? If your answer is no please explain in detail how the work performed was different from the work order language.

Yes 3rd treatment site

Describe the amount of oil remaining (type, size of area and location). Oil is light O/R - O/F AT SITE # 1, subsurface in sediments. Site # 2 is more concentrated, light to mid O/R subsurface. Light coat on surface. When disturbed, sheen (rainbow) appears.

Additional Comments (keep objective)

Anachorous stream 80-100 m from site # 2. Regardless of stream presence, Customblen only is proper treatment as no substantial surface. Area is fine sediments w/ oil caught in, sheens when disturbed. Salvor near stream; treatment appears to have no impact on them.

signature Jeff G. Ginas

Date and time of demobilization from segment 9.1.90 @ 10:15 a.m.
Shoremon/Demob.b10 55/30/90

Radio contact w/ Doug HUI ADF&G on 8.31.90 and 9.1.90, after treatment. Advised ADF&G as to status. No objections.

ACE 7238278

+15

EV-70 F
RETREATMENT - Bio
CUSTOMBLEW ONLY
9-1-90
S. GIMARAS ADEE

12815

57E1

5/16/82

EV-70

p. 2 of 5

SEGMENT EV-70

Exxon Segment Length: 13278m.

157285

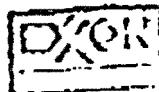
Top Key: PWS-EV-70

Exxon Company, USA

101 85, 1518

1 7 2 3 = 1 1 7 2 3 4 5 6

ACE 7238279 -15



6/12/90

ADEC DEMOBILIZATION REPORT FOR INIPOL AND CUSTOMBLEN TREATMENT

To: Alaska Department of Environmental Conservation
Oil Spill Response Center
Anchorage, Alaska

Attn: John Bauer
FAX 265-4666

From: Chris Strand (please print)

RE: SEGMENT NUMBER EV-70 SUBSEGMENT NUMBER F

ADEC REP Chris Strand

USCG REP Chris Van Pelt

EXXON REP Tony Diaz

BOAT NAME/SQUAD NUMBER Arctic Salvor/squad #4

Site #	Length (along shore m)	Area m ²	Inipol (gallons)	Customblen (lbs.)
①	20	100	—	20.5
②	17	136	—	28

Has work been completed as stated on the work order? If your answer is no please explain in detail how the work performed was different from the work order language. Yes

2 sites, including small adjacent patches, located and biotied as shown on work order.

Describe the amount of oil remaining (type, size of area and location).

Site ①: film/residue ⁽ⁱⁿ⁾ gravel/pebble/sand matrix up to 5 cm depth, UITE.

Site ②: residual/tarry patches in MITE, cobble/gravel/pebble/sand, up to ~3.5 cm depth.

Additional Comments (keep objective)

Water circulation extremely constricted, nearly cut off during low tide, for entire bay. Agencies felt Inipol would shock system, and that long term release of Customblen was most desirable.

signature C. Kim Strand 6/12/90

Date and time of demobilization from segment 6/12/90, 1137

Shoremon\Demob.bio 55/30/90

ASAP

ANAD
226-40-16509

JSL

SEGMENT AS1 EU-70 SUBDIVISION: F SITE: 1 DATE 8/3/90USCGNAME MSTC Michael D Brown SIGNATURE Michael D Brown☐ YES ☒ NO PRIORITY SITE FOR REASSESSMENT IN 1991
REASON:ADECNAME John Hayes SIGNATURE John Hayes☒ YES ☐ NO PRIORITY SITE FOR REASSESSMENT IN 1991
REASON:

Low energy bay, oiling is light and no treatment recommended
for this season although site should be reassessed in 1991.

LAND MANAGER

NAME _____ SIGNATURE _____

☐ YES ☐ NO PRIORITY SITE FOR REASSESSMENT IN 1991
REASON:

NATIVE ?
CVC

EXXONNAME Martinez M.J. SIGNATURE Martinez M.J.☐ YES ☒ NO PRIORITY SITE FOR REASSESSMENT IN 1991
REASON:

ACE 7238281+15

FIELD SHORELINE COMMENT SHEET

DSO

SEGMENT AS/ EV-70 SUBDIVISION: F SITE: 2 DATE 8/3/90

USCG

NAME MTC Michael D Brown SIGNATURE Michael D. Brown

☐ YES ☒ NO PRIORITY SITE FOR REASSESSMENT IN 1991
REASON:

ADEC

NAME John Hayes SIGNATURE John Hayes

☒ YES ☐ NO PRIORITY SITE FOR REASSESSMENT IN 1991
REASON:

Site is in Guguak Bay and is very low energy shoreline.
this area looked very similar to when I was there in April (ISAT).
Site should be reassessed.

LAND MANAGER

NAME _____ SIGNATURE _____

☐ YES ☐ NO PRIORITY SITE FOR REASSESSMENT IN 1991
REASON:

NATIVE
CVC ?

EXXON

NAME Martinez Nul SIGNATURE Nul Martinez

☐ YES ☒ NO PRIORITY SITE FOR REASSESSMENT IN 1991
REASON:

TEAM NO ONE EXCON MARTINEZ SEGMENT AS E1--
 OG Reimer USCG BROWN SUBDIVISION F
 ADEC HAYES LAND REP GIBSON TOTAL NO. SITES 2
 DATE 8/3/90 TIME 8:00 to 8:30 TIDE LEVEL 3 to 4
 TOTAL EST LENGTH OF SHORELINE SURVEYED: 400 m
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WEATHER: ☐ Sun ☒ Clouds ☐ Fog ☒ Rain ☐ Sr Heavy
 OIL CATEGORY LENGTH: W 0 m M 40 m N 0 m VL 70 m NO 90 m US 2473 m

SURFACE OIL

SITE 1

CHARACTER	DISTRIBUTION				OILED ZONES			
	/C	/B	/P	/S	SU	UI	MI	LI
ASPHALT								
S.O.R.				X		X		
POOLED								
COVER				X		X		
COAT								
STAIN								
MOUSSE								
PATTIES/T.B.				X		X		
FILM (Sheen)			X			X		
NO OIL					X		X	X
EST. SITE LENGTH					220			

SITE 2

DISTRIBUTION				OILED ZONES			
/C	/B	/P	/S	SU	UI	MI	LI
X	X				X		
	X				X		
✓		X			X	X	X
				X			
				160			

SITE 3

[illegible]

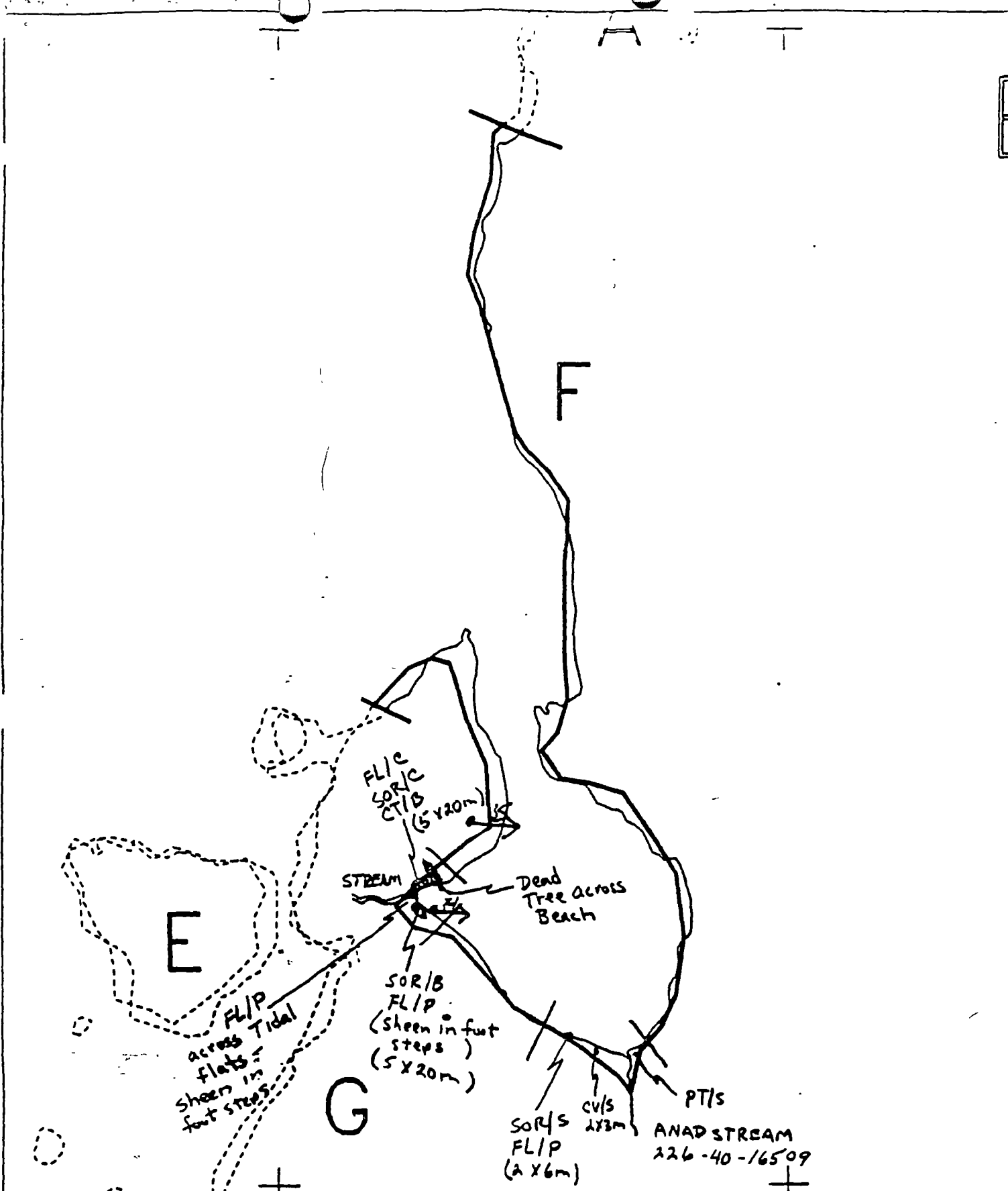
SUBSURFACE OIL:

[illegible]

Photographs:
Roll No. AA25101
Frames 34, 35

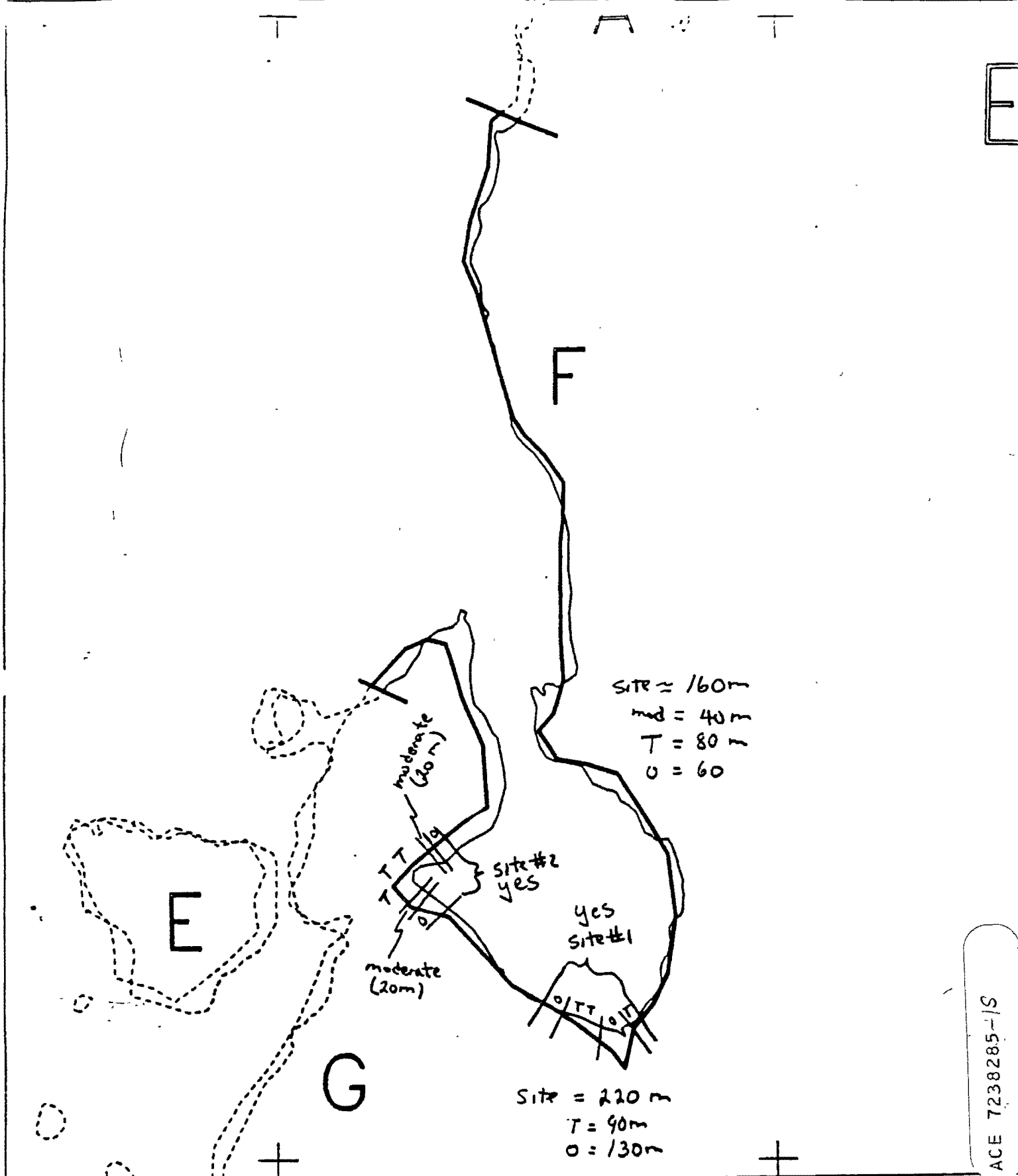
COMMENTS Only some sporadic SOR and cover was found along the USTZ in site #1, and a few scattered patches along the stream bank of ANAD 226-40-16509. Site two contained continuous to broken SOR on both sides of a tidal flat area. There were and the tidal flats between Shumai and

ACE 7238283



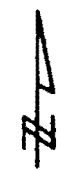
XXXX	Wide	EV-70 F	Subdivision Field No
////	Medium	ADEC Subsegment Length: 2873m	Map Key: PWSEV-70F
----	Narrow	METERS	Name: Reimer
TTTT	Very Light	0 213 427	name: Shaler

ACE-7238284



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

EV-70 F
 ADEC Subsegment Length: 2873m
 METERS



Subdivision Field No
 Map Key: PWSEV-70F
 Memo: Reimer

ACE 7238285-1/S

ANADROMOUS FISH STREAM EVALUATION ADDENDUM

CONSTRAINTS FOR STREAM NO. 226-40-16509

SEGMENT EV-70 SUBDIVISION F

WORK WINDOW

Tarmat Removal

OPEN

Bioremediation Less Than 100m From Stream

WORK PRIOR TO 7/10
(ADF&G MONITOR REQ.)

Bioremediation More Than 100m From Stream

WORK PRIOR TO 8/15

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A,1B Salmon Stream

ADF&G catalogued stream (226-40-16509) is in Subdivision F. This subdivision is closed to bioremediation less than 100m from stream 7/10 to 8/31. Before 7/10, bioremediation is permitted less than 100m from stream with on-site ADF&G monitor or ADEC alternate present. No constraint to bioremediation more than 100m from stream. ADF&G catalogued streams (226-40-16498, -16502, and -16494) are also within segment, however, these do not affect work site.

1K Purse Seine Hook-off

Closed to bioremediation after 7/20. No constraint to tarmat removal.

5T Bald Eagle Nest

NO CONSTRAINT. USFWS 6/1/90 map indicates no active nest within 400m of Subdivision F work site.

7II Subsistence: Deer
Harvesting

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

OTHER ECOLOGICAL CONSIDERATIONS

Restrict boat and air traffic and all disturbance to essential minimum. No personnel or boat traffic within 400m of active nests. Air approach and takeoff from and to seaward only; maintain 400m horizontal, 300m vertical distance from active nests. No flushing of pollutants or sediments into stream drainage; do not allow Inipol to enter stream flow. On-site examination and consultation by ADF&G monitor is required prior to bioremediation in order to authorize a setback distance from the stream during chemical application; if ADF&G monitor's presence is impossible, authorization may be given by the ADEC monitor. Avoid any unnecessary disturbance or damage to uncoiled biota and substrate.

SEE SUBDIVISION CONSTRAINT ADDENDUM EV-70F
FOR ADDITIONAL CONSTRAINT INFORMATION

FOSC

Date

6-10-90

ACE 7238286 + 15/56

A-2

EV-60

EV-8

EV-09

EV-

Active Nest

WORK AREA

ANADROMOUS STREAM
(226-40-16509)

EV-70

ANADROMOUS STREAM
(226-40-16509) 16502 (K.S. 10/4/91)

ANADROMOUS STREAM
(226-40-16498)

ANADROMOUS STREAM
(226-40-16494)

ANADROMOUS STREAM EVALUATION MAP



Exxon Company, USA
Map Key: PWS-EV-70
June 04, 1990

ECOLOGY MAP SEGMENT EV-70

SUBDIVISION E (6018)

METERS



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

1 inch = 2219 feet

ACE 7238287

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/ EV-70 F STREAM NO: 226-40-16509 DATE 4/21/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Subject stream plus: 226-40-16498, 226-40-16502, 226-40-16494

- 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
- 1B Salmon stream mouth - spawning (7/10 to 8/31)
- 1K Purse seine hook-off (7/20 to 9/30)
- 5T-4 All bald eagle nests (3/1 to 6/1) - Active eagle nests (3/1 to 9/1)
- 7II Subsistence area: Deer harvesting (8/15 to 2/28)

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to 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 Exxon's Cultural Resource Program immediately (564-3274 (Anchorage) or 229-1508 (24 hrs.)).

SHPO SIGNATURE: Paul Lee Jones DATE: 5/22/90

Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

- | | |
|--|---|
| <u> </u> No Treatment Recommended | <u> </u> Snare/Absorbent Booms |
| <u>X</u> Treatment Recommended | <u> </u> Oil Snares (pom poms) |
| <u> </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 is manual removal of tarmat where shown on attached sketch map. Work should be conducted between 6/1 and 7/10 based on eagle nest and salmon constraints with approval of USFWS regarding eagle nest.

> [See Constraint Addendum Dated 6/9/90] WJK

TAG COMMENTS: BIOREMEDIATION (CUSTOMER) AS REQUIRED FOLLOWING
TARMAT REMOVAL

TAG APPROVAL DATE: 5/18/90

ADEC Art Weimer Art Weimer

EXXON Andy TRL Andy TRL

NOAA Gary Petrac Gary Petrac

USCG G.A. RETTER G.A. RETTER

FOSC [Signature] DATE: 5/22/90

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/ EV-70 F STREAM NO: 226-40-16509 DATE 4/21/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Subject stream plus: 226-40-16498, 226-40-16502, 226-40-16494

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

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

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

5T-4 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)

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

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact Exxon's Cultural Resource Program immediately (564-3274 (Anchorage) or 229-1508 (24 hrs.)).

SHPO SIGNATURE: Rachel Jean Dale DATE: 5/22/90

Subsurface Oil Observed: Yes _____ No X Maximum Depth _____

RECOMMENDATIONS:

 No Treatment Recommended

X Treatment Recommended

 Manual Pickup

X Bioremediation

X Tarmat Removal

 Snare/Absorbent Booms

 Oil Snares (pom poms)

 Absorbents (pads, rolls, etc)

 Spot Washing: _____ Wands

 Beach Cleaner

 Other (see comments)

COMMENTS: Recommended treatment is manual removal of tarmat where
shown on attached sketch map. Work should be conducted between 6/1 and
7/10 based on eagle nest and salmon constraints with approval of USFWS
regarding eagle nest.

TAG COMMENTS: BIOREMEDIATE (CUSTOMER) AS REQUIRED FOLLOWING
TARMAAT REMOVAL

TAG APPROVAL DATE: 5/18/90

ADEC Art Weimer Art Weimer

EXXON Andy Tott Andy Tott

NOAA Gary Petrac Gary Petrac

USCG G.A. RETER G.A. Reter

FOSC [Signature]

DATE: MAY 25 1990

ACE 7238289 +15

DATE 21 APR 90

SKETCH MAP

CHECKLIST

- H Arrow
 Approx. Scale
 Seg/Bd Body
 Of Dist.
 Width
 Length
 % Cover
 Substrate Character
 Est. HMM/LWL
 SGL
 Profile Location(s)
 Profile(s)
 PH Location(s)
 Photo Location(s)

LEGEND

14

PK - No Subsurface Oil

24

Fig. Subsurface Oil

CT/C

Domestic Distribution

CT/D

Broken Distribution

CT/P

Patchy Distribution

CT/S

Splashed Distribution

eee
Olof Vagstad

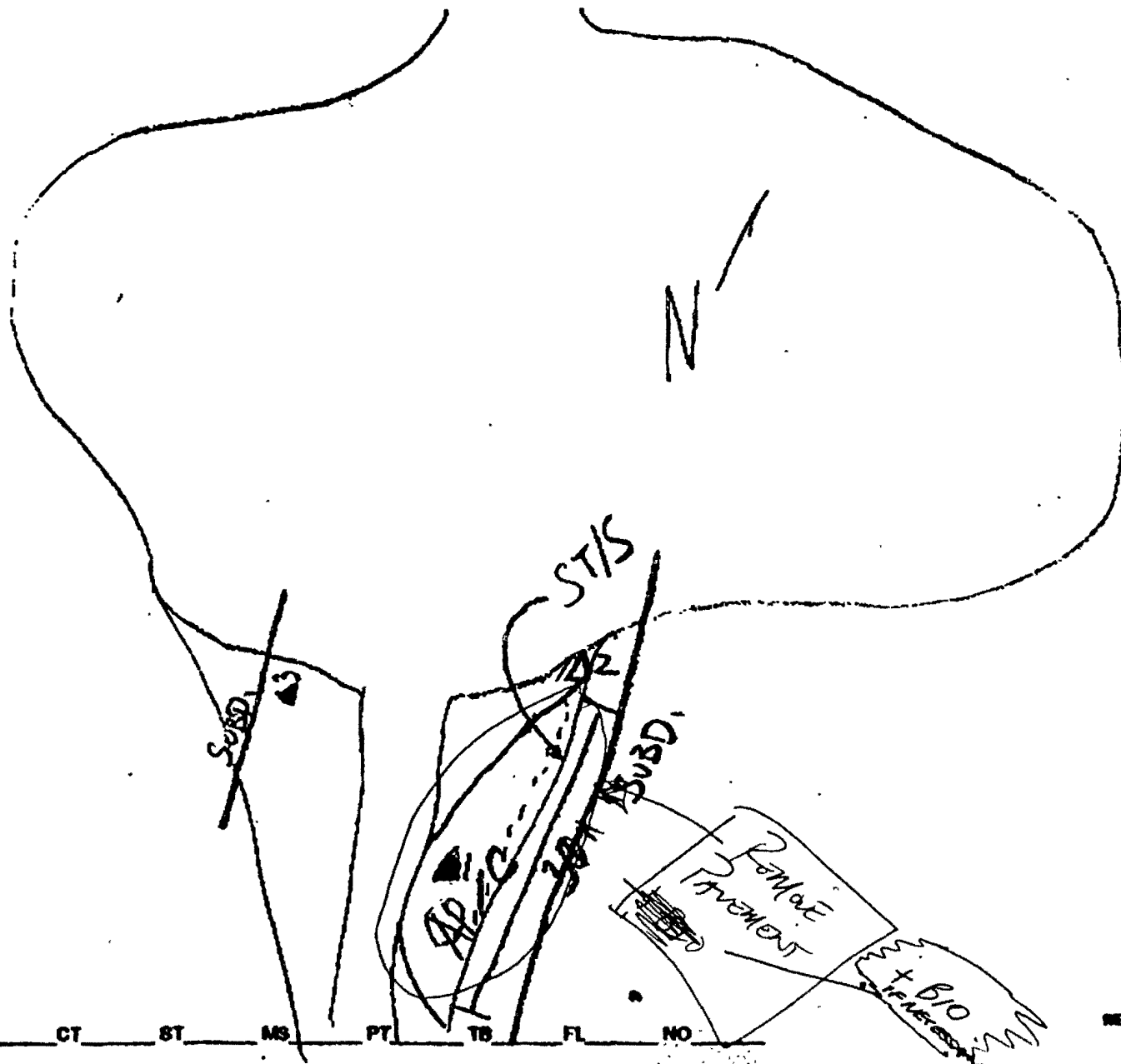
1.

**Photo location, direction,
and number**

ACE 7238290

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

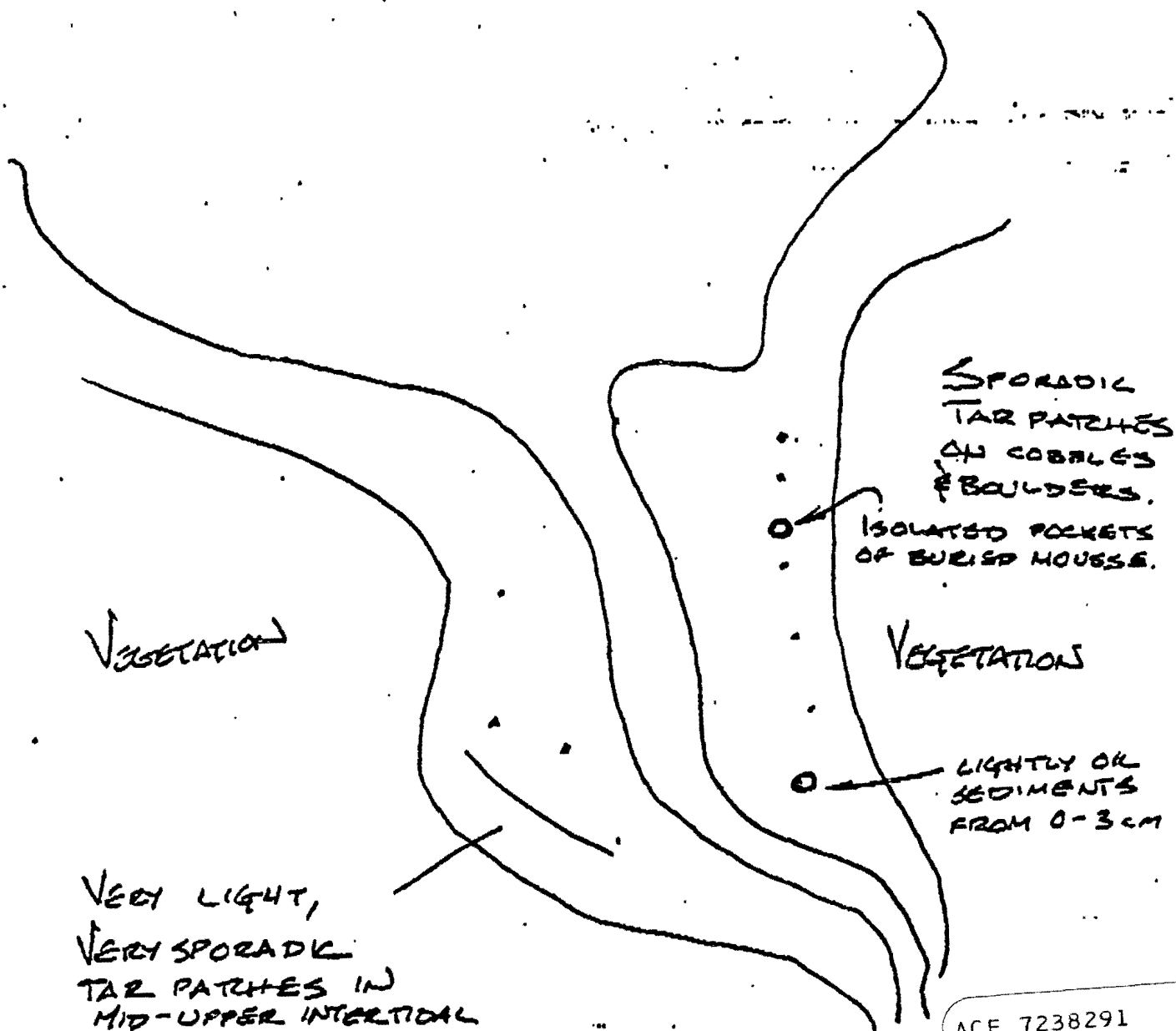
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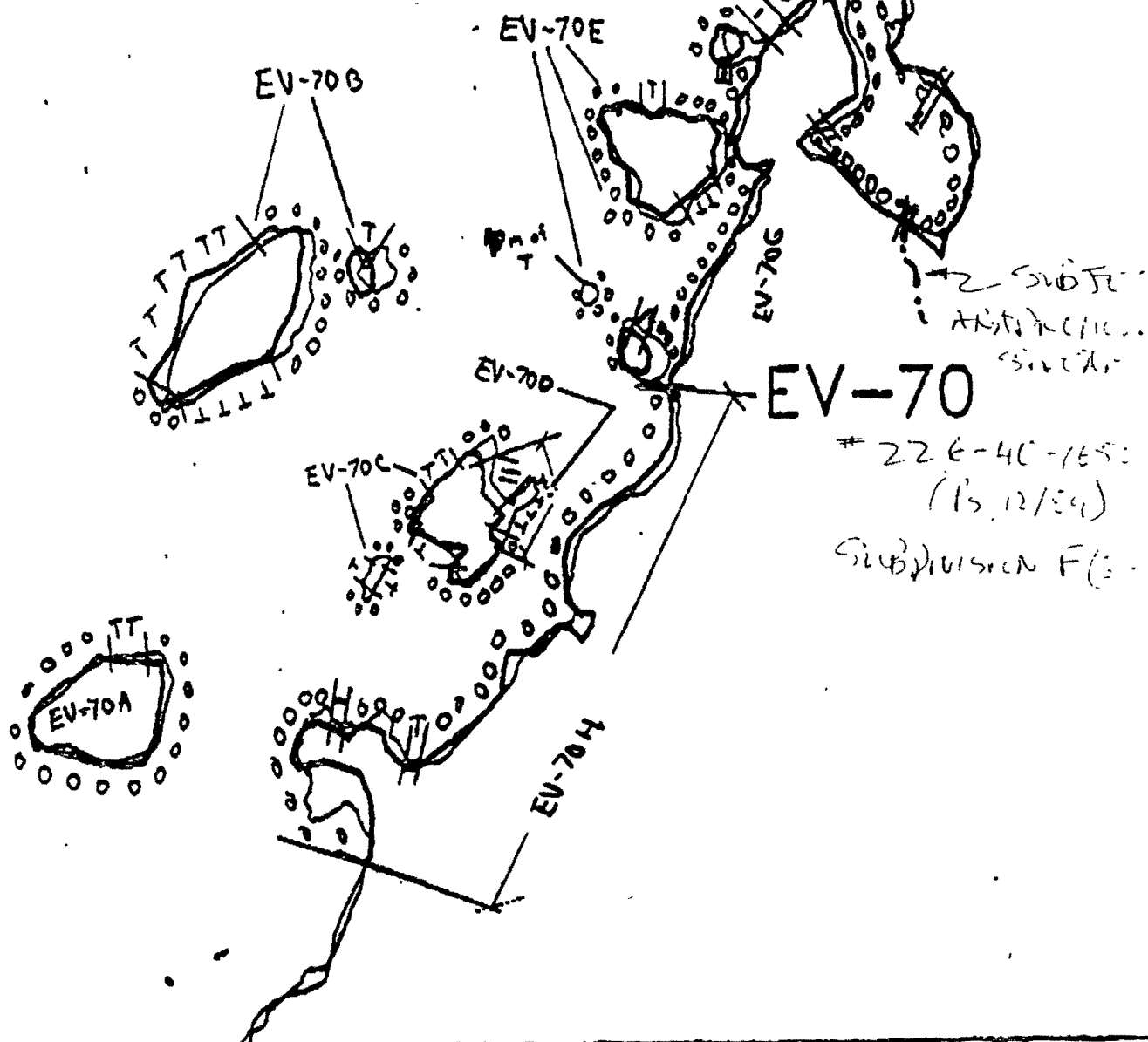
48 PHOTOLOG

FRAME(S)	DESCRIPTION

48 OIL DISTRIBUTION DIAGRAM



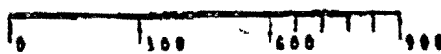
EV-70 (Sheet 2 of 2)



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

EV-70

ADEC Segment Length: 12625m



Map Key: PWS-279

Name: Mike Foster

Date: 4/1/90

ACE 7238292

ACE 7238293

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/ EV-70 F STREAM NO: 226-40-16509 DATE 4/21/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Subject stream plus: 226-40-16498, 226-40-16502, 226-40-16494

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

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

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

5T-4 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)

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

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact Exxon's Cultural Resource Program immediately (564-3274 (Anchorage) or 229-1508 (24 hrs.)).

SHPO SIGNATURE: Rachel Jean Dore DATE: 5/22/90

Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

 No Treatment Recommended

X Treatment Recommended

 Manual Pickup

X Bioremediation

X Tarmat Removal

 Snare/Absorbent Booms

 Oil Snares (pom poms)

 Absorbents (pads, rolls, etc)

 Spot Washing: Wands

 Beach Cleaner

 Other (see comments)

COMMENTS: Recommended treatment is manual removal of tarmat where
shown on attached sketch map. Work should be conducted between 6/1 and
7/10 based on eagle nest and salmon constraints with approval of USFWS
regarding eagle nest.

TAG COMMENTS: BIOREMEDIATION (CUSTOMER) AS REQUIRED FOLLOWING
TARMAT REMOVAL

TAG APPROVAL DATE: 5/18/90

ADEC Art Weiner Art Weiner

EXXON Andy Tait Andy Tait

NOAA Gary Petrac Gary Petrac

USCG G.A. Renter G.A. Renter

FOSC [Signature]

DATE: MAY 25 1990

00 WILLIAM REID

SKETCH MAP

SEGMENT ST/ EY 70A

STREAM 226-40-16509

DATE 21 APR 90

CHECKLIST

- ___ H Arrow
- ___ Approx. Scale
- ___ Say/Bus. Entry
- ___ Off Dist.
- ___ Width
- ___ Length
- ___ % Cover
- ___ Substrate Character
- ___ Est. HAW/LAWL
- ___ SSL
- ___ Profile Location(s)
- ___ Profile(s)
- ___ PH Location(s)
- ___ Photo Location(s)

LEGEND



PK - No Subsurface Oil

24

Fig. Subsurface Oil

CT/C

Continuous Distribution

CT/D

Broken Distribution

CT/P

Patchy Distribution

CT/S

Splashed Distribution

Olefin Vegetables

**Photo location, direction,
and number**

ACE 7238295

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

1997年12月15日

APR-22-1990 11:44 FROM EXXON OMD CORROU

TO

BOAT TEAM P.25

226-40-16509 6452

45 PHOTOLOG

TIME(S)

DESCRIPTION

46 OIL DISTRIBUTION DIAGRAM

VEGETATION

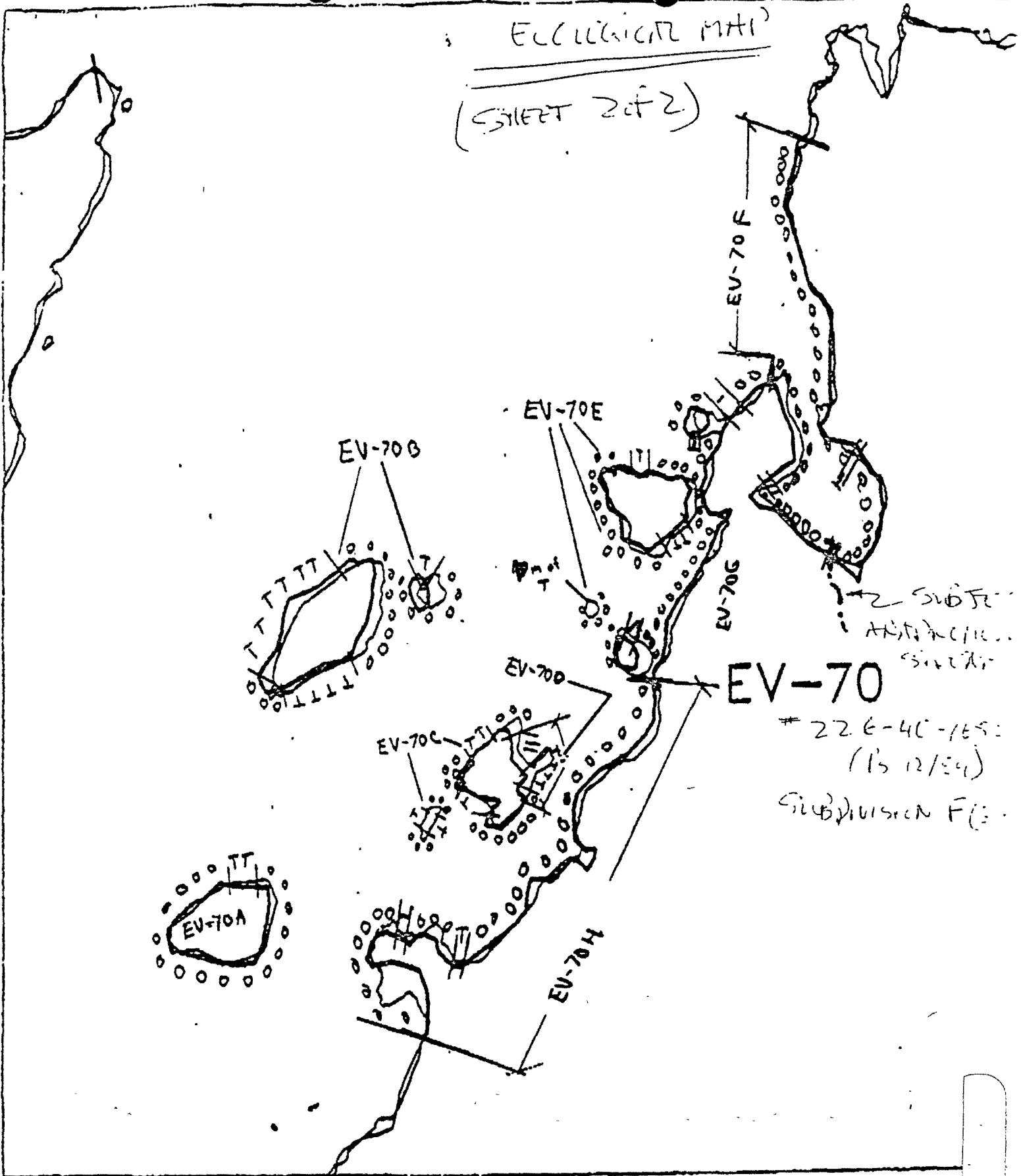
VERY LIGHT,
VERY SPORADIC
TAR PATCHES IN
MID-UPPER INTERTIDAL

SPORADIC
TAR PATCHES
ON COBBLES
& BOULDERS.
ISOLATED POCKETS
OF BURIED MOUNSES.

VEGETATION

LIGHTLY OIL
SEDIMENTS
FROM 0-3 CM

ACE 7238296



EV-70 MAP
(Sheet 2 of 2)

Subdivision F

22 E-40-165

(15 12/54)

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

EV-70

AOEC Segment Length: 12625m

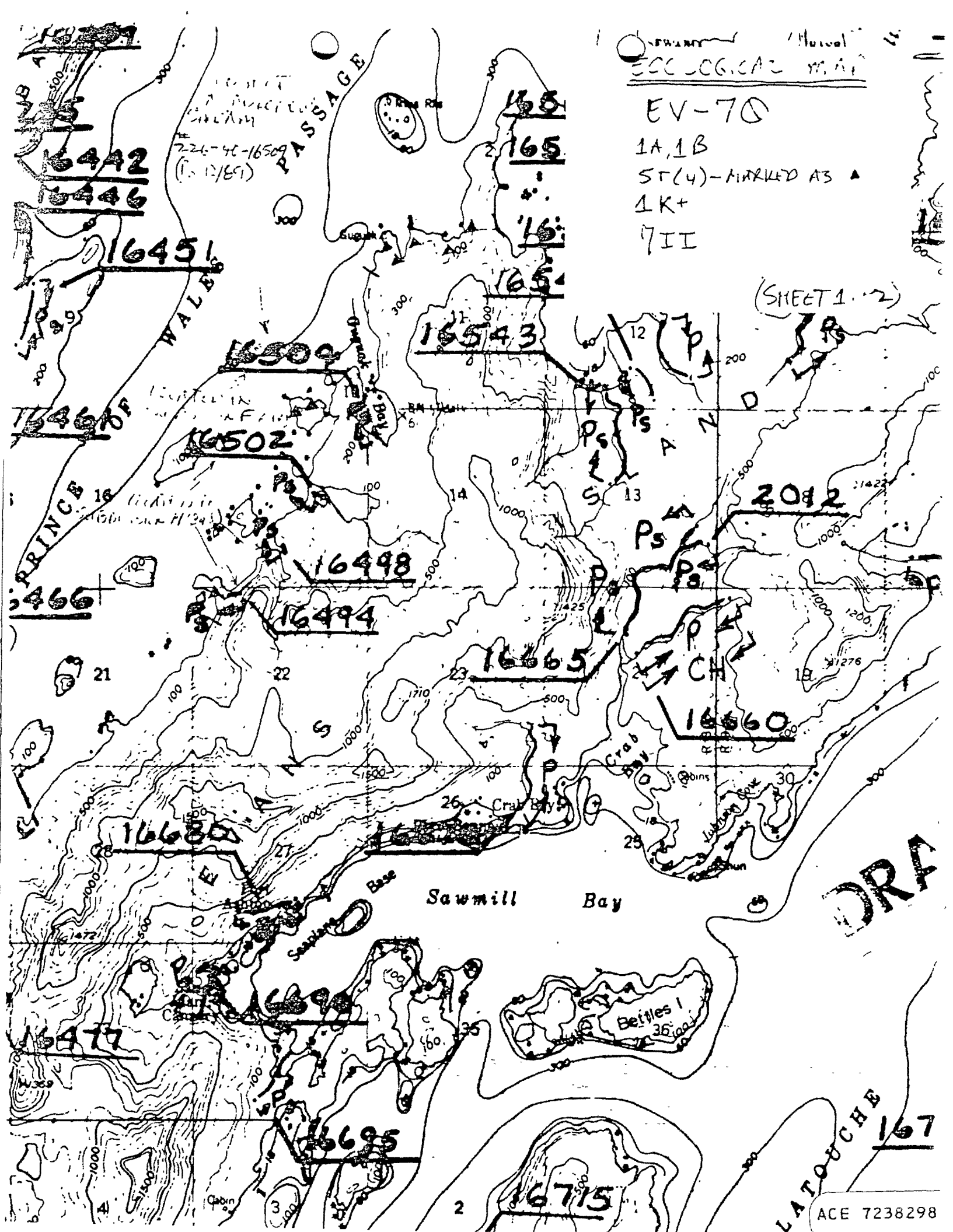
Map Key: PWS-279

Name: Mike Fogo

Date: 4/1/90

ACE 7238297

ACE 7238298



Jan 5/18/90

RECEIVED
MAY 15 1990

DEPT. OF
ENVIRONMENTAL CONSERVATION

ANADROMOUS FISH STREAM ASSESSMENT

REGION: PRINCE WILLIAM SOUND

SEGMENT: EV-70

SUBDIVISION: F

STREAM NO: 226-30-16840

226-40-16509

Concur with tarvat removal

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/ EV-70 F STREAM NO: 226-40-16509 DATE 4/21/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Subject stream plus: 226-40-16498, 226-40-16502, 226-40-16494

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

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

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

5T-4 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)

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

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact Exxon's Cultural Resource Program immediately (564-3274 (Anchorage) or 229-1508 (24 hrs.)).

SHPO SIGNATURE: _____ DATE: _____

Subsurface Oil Observed: Yes _____ No X Maximum Depth _____

RECOMMENDATIONS:

_____ No Treatment Recommended

X Treatment Recommended

_____ Manual Pickup

_____ Bioremediation

X Tarmat Removal

_____ Snare/Absorbent Booms

_____ Oil Snares (pom poms)

_____ Absorbents (pads, rolls, etc)

_____ Spot Washing: _____ Wands

_____ Beach Cleaner

_____ Other (see comments)

COMMENTS: Recommended treatment is manual removal of tarmat where shown on attached sketch map. Work should be conducted between 6/1 and 7/10 based on eagle nest and salmon constraints with approval of USFWS regarding eagle nest.

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____

EXXON _____

NOAA _____

USCG _____

FOSC: _____ DATE: _____

ACE 7238300

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

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

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

No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream without authorization from ADF&G. No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G. Treatment which is not intrusive and which will not affect nearshore oil or toxicity levels, such as manual removal, can probably proceed without adherence to time constraints. In any case, contact ADF&G Habitat Division prior to treatment for consultation and/or permit application.

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

1C Salmon fry nursery area (4/31 to 7/31)

No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to July 31 unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G prior to treatment for confirmation and advice.

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

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

1E Main Bay Hatchery release (4/20 to 6/15)

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

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

1H Remote release site

No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G and/or PWS Aquaculture Association. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G or PWS Aquaculture Association for confirmation and authorization.

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

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

1I Gill net area (6/7 to 8/31)

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

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

1L Set net sites (6/11 to 7/25)

Contact ADF&G for specific dates, locations and constraints. Restrict boat and air traffic to essential minimum. When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.

AGENCY CONTACT PERSON: ADF&G James Brady 424-3212

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

Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to unopened intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.

AGENCY CONTACT PERSON: ADF&G Evelyn Biggs 424-3235

3N, 3P Harbor seal and sea lion pupping (5/15 to 7/1)

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

Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31). Contact ADF&G and USFWS prior to treatment for confirmation.

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

ADF&G Don Calkins 267-2403

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

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

AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

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

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

AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

ADF&G Tom Roth 267-2206

6I All Bald Eagle nests (3/1 to 6/1)

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

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

AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

6U Recreation: Tent sites (6/1 to 9/15)

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

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

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

6Y Special use destination

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

7HH Finfish harvesting

7JJ 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

ACE 7238301

FIELD SHORELINE COMMENT SHEET

34/52

SEGMENT ST EV 070 A SUBDIVISION: 16509 DATE 4/21/90

USCG

NAME CWO J. McNamara SIGNATURE [Signature]☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTEDADFG MICHAEL WIEDNER
ADEC
NAME NO Team member SIGNATURE [Signature]☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

LAND MANAGER

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

OG WILLIAM LEID USCG McMAHON SEGMENT ST/ EV 70A
 BIO MICHAEL FAWCETT LAND REP TOM CROWE - ADEG 53 TRAMS 25-40 6504 OF
 EXXON Gus GARCIA ADFG MIKE WIEDNER Time 15:4 to 15:34
 TEAM NO. 15 TIDE LEVEL +2.5 FT DATE 21 / APR / 1990
 EST. SUBDIVISION LENGTH: 60 m ☐ Sun. ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo
 SURFACE SEDIMENTS: R 10 % B 10 % C 20 % P 70 % G 0 % S 0 % M 0 % V
 SLOPE: Long 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 3.5 m N 0 m VL 0 m NO 2.5

SURFACE OIL

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

PAVEMENT H F 200 sq. m by 3

PATTIES / TARBALLS 0 BAG

NEAR SHORE SHEEN? NO BR RW SL TI

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

Did You Collect DEBRIS ☐ YES ☒ NO

TYPE

#BAGS

Photographs:

Roll No. 43-15-2

Frames 13-16

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW					PIT ZONE				A N A	SHEEN (Y/N)	↓	SURFACE SUBSURFACE SEDIMENT
		OP	OR	OL	OF	NO		US	US	1	2	3	4	5	SU	M	VL	U		
1	35	X					0-3	X				X			X				N	P/G
2	15					X	.									X			N	P/G/C
3	15	X					0-1	X				X				X			N	P/C
							.													
							.													
							.													

COMMENTS

* OILED INTERVAL < 5cm IN PIT NOS 1 AND 3 DOES NOT CONSTITUTE SUBSURFACE OIL

REVIEWED JW DATE 4-23-90

ACE 7238303

DATE 21 APR 90

SKETCH MAP

CHECKLIST

_____ N Arrow
 _____ Approx. Scale
 _____ Seg/Sub Entry
 _____ On Off
 _____ Width
 _____ Length
 _____ % Cover
 _____ Substrate Character
 _____ Est. HVL/LWL
 _____ SSL
 _____ Profile Location(s)
 _____ Profile(s)
 _____ PH Location(s)
 _____ Photo Location(s)

LEGEND

1 Δ
Fit - No Subsurface Oil

2 A
PH - Subsurface Oil

CT/C
Continuous Distribution

CT/D
Broken Distribution

[CT/P]
Pinkey Distribution

[CT/S]
Splashed Distribution

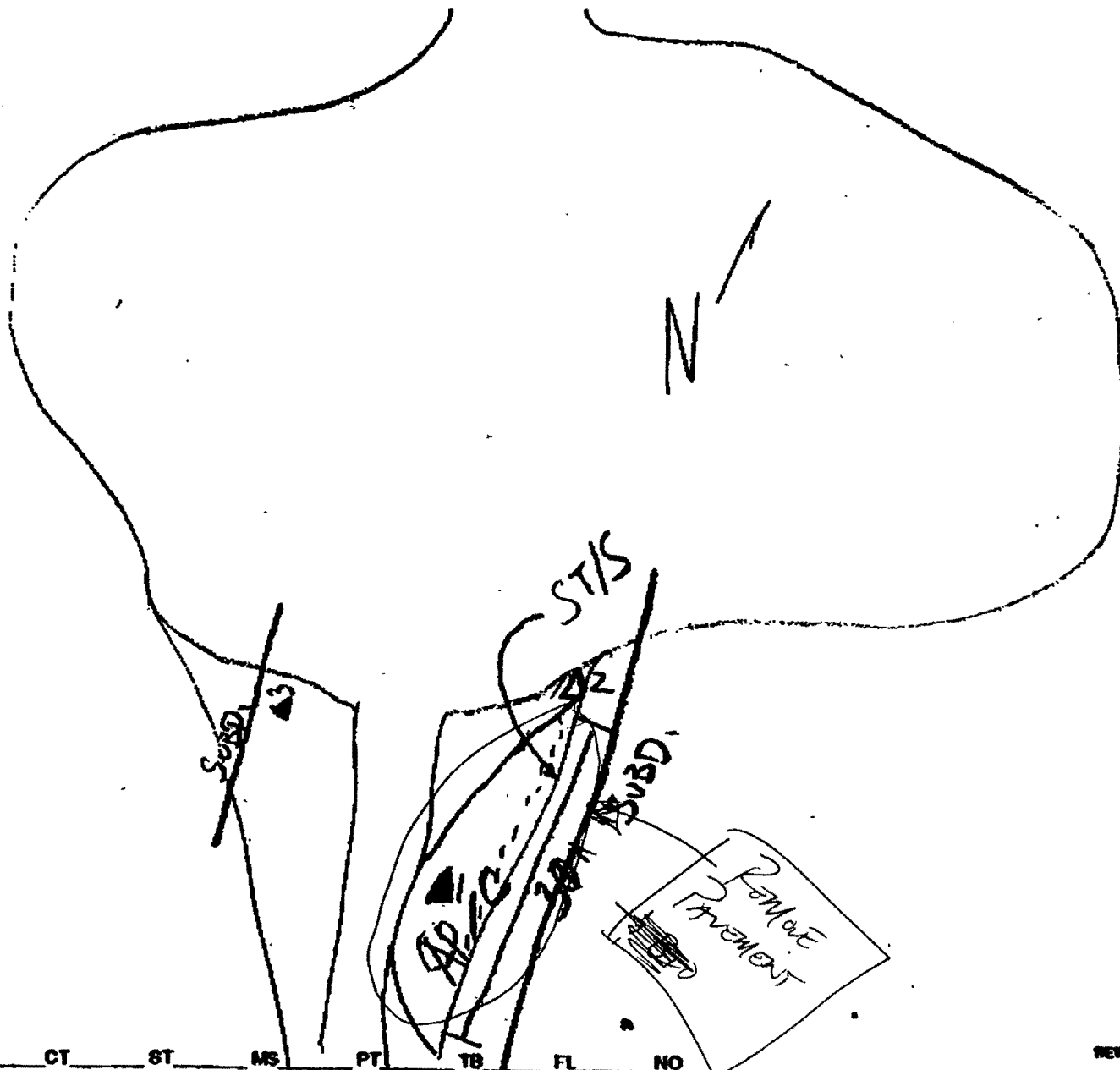
Old Vegetation

**Photo location, direction,
and number**

ACE 7238304

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

NEVER ON A 2000



25/52

ADPAC MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: BS SS OS TS AVS SCHS MMS PTA2 REGION: PNS KP,CI X,APMETHOD: Aerial Ground Boat3 DATE: 4/21/9015 HIGH TIDE TIMES: 1109, 234421 TEAM RECORDER: M. WIEDMER4 START TIME: 151516 HIGH TIDE HTS: 9.4, 10.322 OBSERVERS: T. CROWE5 STOP TIME: 153017 LOW TIDE TIMES: 0512, 173023 AGENCY: ADPAC6 SEGMENT #: EV-070A18 LOW TIDE HTS: 2.9, 1.124 PHOTOS TAKEN: Y N7 STATION #: 226-40-1650919 TIDE HT AT SURVEY: 3.6'

Roll #: _____ Frames: _____

8 K-UNIT: _____

Ebb Slack Flood Slack25 VIDEO TAKEN: Y N TAPE: _____

9 STAT AREA: _____

20 USCG QUAD: _____

Start: _____ End: _____

10 LAT: _____

21 LONG: _____

26 SAMPLE TAKEN Y N Number: _____

12 SOURCE: Map Loran

Oil: _____

13 LOCATION: WEST SHORE EVANS IS.

Sediment: _____

14 DESCRIPTION: _____

Biological: _____

Water: _____

EXTENT OF OIL

	SHORELINE				STREAM			
	L	V	H	S	L	V	H	S
27 SURFACE COVERAGE	100y	20y		<1	40y	3y		0

36 CATALOGED ANAD. FISH STREAM? Y N

28 SURFACE THICKNESS	1mm	<0.1	<0.1	0	0	0
29 PENETRATION	3cm	3cm	0	0	0	0

37 CATALOG #: 226-40-16509

38 STREAM NAME: _____

30 OVERALL OIL IMPACT: N VL L N H39 OIL IN STREAM BED? Y N31 OIL TYPE: Pooled Mousse Tar Asphalt Slack Stain40 OIL ON STREAM BANKS? Y N32 OILED DEBRIS? Y N41 OIL ON BEACH ADJACENT TO MOUTH? Y N
(within 50 meters)42 OIL WITHIN 1 MILE OF STREAM? Y N33 SHORELINE TYPE: Headland Low-lying Rocks Beach Cove43 ANADROMOUS FISH PRESENT? Y N34 WAVE EXPOSURE: High Moderate Low35 SUBSTRATE TYPE: Bedrock _____ Boulder 33 Cobble 33Gravel 33 Sand _____ Mud/silt _____

44 ANADROMOUS FISH OBSERVATION

Species	Aerial	Ground

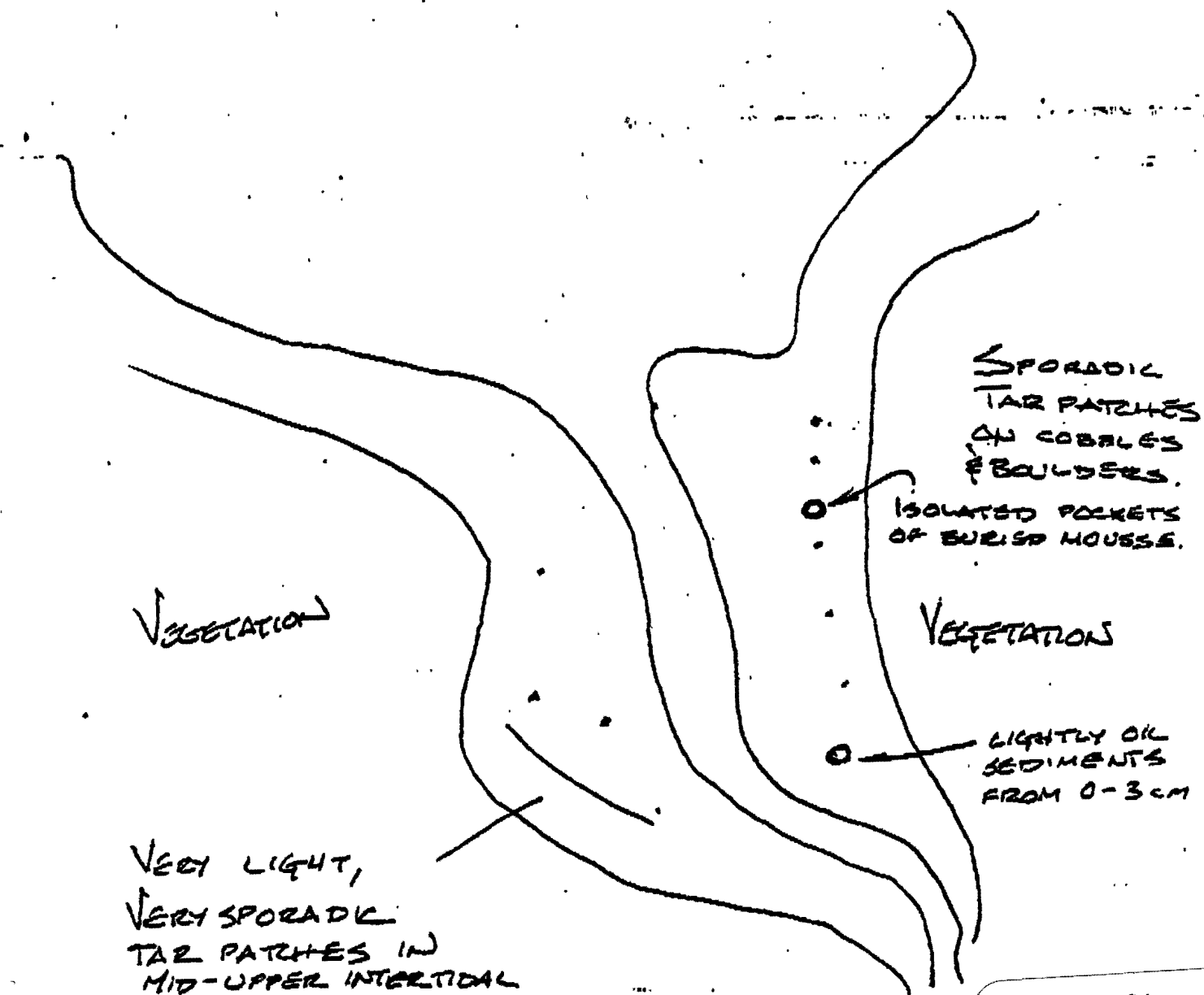
OIL QUANTITY AND DISTRIBUTION RELATIVE TO STREAM DO NOT PLACE SALMON OR OTHER ORGANISMS AT RISK. No TREATMENT IS RECOMMENDED

45 PHOTOLOG

FRAME(S)

DESCRIPTION

46 OIL DISTRIBUTION DIAGRAM



31/52

Segment EV 70A (Gugak Cove)

4/21/90

Stream 226-40-16509

Michael Fawcett

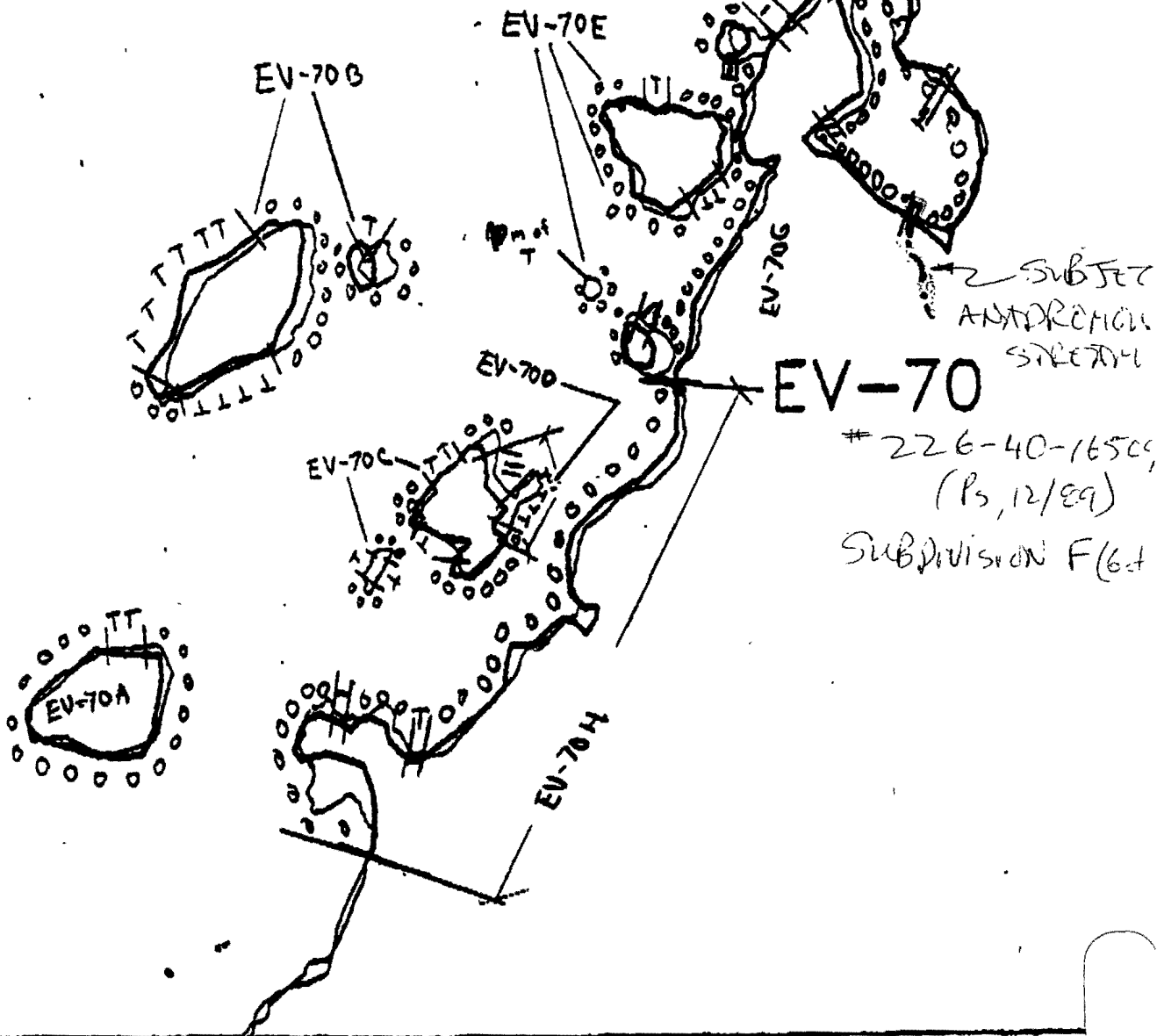
Ecological Summary

This stream has a relatively stable delta composed of pebbles/sand and mud, with a well-developed infaunal community (clams, worms, shrimp, etc.).

Sparse scattered clumps of mussels, barnacles, and Fucus occur on isolated ~~boulders~~ in MTZ and LTZ, along with abundant littorines, dogwhelks, and hermit crabs. Light patches of asphalt and stains were found in UTZ. If any cleanup operations are conducted, trampling and disturbance of LTZ should be avoided.

M Fawcett

ECOLOGICAL MAP (SHEET 2 of 2)



226-40-16509
 (P, 12/89)
 SUBDIVISION F(64)

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

EV-70

ADEC Segment Length: 12625m

Scale: 0 300 600 900

Map Key: PWS-279
 Name: Mike Fogel
 Date: 4/1/90
 Date Entered:

ACE 7238308

DRAFT

ACE 7238309

167

1670

Alaska Department of Fish and Game

ANADSCAT Observations and Recommendations
Team 15 - Michael Wiedmer and Tom Crowe

21 April 1990

ASC # 226-50-16406

Segment ER-019

Observations Very scattered, very lightly stained surface cobble along the mid-intertidal zone west of the stream channel. No visible signs of significant quantities of buried oil.

Treatment Recommendations If future observations do not reveal significant quantities of buried oil, no treatment is recommended.

ASC # 226-40-16484

Segment EV-071A

Observations A 1 meter wide asphalt/tar band rings the upper-intertidal zone immediately adjacent to the stream channel. This ring extends 15 meters north and 50 + meters southwest of the stream channel. An armor of lightly oiled large cobbles and boulders covers a heavily oiled 5 cm thick band of small gravels and sands. The oil band abuts both sides of the stream channel.

Treatment Recommendations Manual removal of all oiled substrate smaller than 5 cm. Larger oiled cobbles and boulders should be relocated more than 25 m from stream channel.

ASC # 226-40-16509

Segment EV-070A

Observations Sporadic stain, asphalt, tar, and buried mousse are distributed throughout the intertidal zone adjacent to the stream channel. Significant quantities of buried oil not observed.

Treatment Recommendations The observed quantity of oil and its distribution relative to the stream channel do not appear to place salmon or other organisms at serious risk. If future observations do not reveal significant quantities of buried oil, no treatment is recommended.

ASC # 226-40-16630

Segment EV-017

Observations A large, gently sloping intertidal zone surrounds the outlet of this braided stream channel. Except for the upper intertidal, surface substrates are cobbles, gravels, and sands over sands and muds. Along the upper-intertidal, boulders and large cobbles overlay gravels.

3 Oil saturated (tarry) patches of gravels, sands, and muds occur widely throughout the upper- and mid-intertidal zones. In all zones, the majority of larger materials surrounding and overlying the oiled fine-grained sediments are relatively clean.

Oil saturated (to 5 cm) fine-grained sediments in the mid-intertidal zone are breached by the stream channel. Undisturbed sediments at this site bleed sheen into the channel.

Large tar mats (to 10 cm) occur through the upper-intertidal zone primarily to the east of the channel. These tar mats saturate gravels and sands and are covered by large cobbles and boulders.

Treatment Recommendations Tar mats, particularly those in the mid-intertidal zone adjacent to the stream channel, should be manually removed, bagged, and taken from the beach for safe disposal. Only materials smaller than 5 cm should be removed. Larger materials can be left on site. Four-wheelers should be used to facilitate removal of material from beach. In the mid-intertidal zone, excavation should begin on the side of the patch most distant from the stream channel. Immediately after removal of the oiled substrate adjacent to the stream, cobbles and boulders should be placed along the bank to prevent migration of the channel into the treated area. All activities must occur between 15 May and 15 July, 1990.

ASC # 226-40-16620

Segment EV-017

2 Observations An upper-intertidal band of tar mats (to at least 4 cm.) extends along the east side of the channel. At this location, relatively clean boulders and large cobbles are interspersed through and on the oiled finer grained sediments.

Along the mid-intertidal portion on the west side of the channel are scattered lightly stained cobbles and boulders. No buried oil was observed within 50 meters of the stream to the west, but a pit approximately 80 meters from the channel revealed subsurface tar.

Treatment Recommendations Manual removal of tar mats on the east side of the channel. Only material smaller than 5 cm should be removed, larger material may be left on site.

ANDROMOUS FISH STREAM EVALUATION

SEGMENT ST/ EV-70 F STREAM NO: 226-40-16509 DATE 4/21/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Subject stream plus: 226-40-16498, 226-40-16502, 226-40-16494

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

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

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

5T-4 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)

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

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to 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 Exxon's Cultural Resource Program immediately (564-3274 (Anchorage) or 229-1508 (24 hrs.)).

SHPO SIGNATURE: Rachel Dean Dale DATE: 5/22/90

Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

 No Treatment Recommended

X Treatment Recommended

 Manual Pickup

X Bioremediation

X Tarmat Removal

 Snare/Absorbent Booms

 Oil Snare (pom poms)

 Absorbents (pads, rolls, etc)

 Spot Washing: Wands

 Beach Cleaner

 Other (see comments)

COMMENTS: Recommended treatment is manual removal of tarmat where
shown on attached sketch map. Work should be conducted between 6/1 and
7/10 based on eagle nest and salmon constraints with approval of USFWS
regarding eagle nest.

TAG COMMENTS: BIOREMEDIATION (CUSTOMER) AS REQUIRED FOLLOWING
TARMAT REMOVAL

TAG APPROVAL DATE: 5/18/90

ADEC ART WEINER Art Weiner

EXXON ANDY TOL Andy Tol

NOAA GARY PETRAE Gary Petrae

USCG G.A. RENTER G.A. Renter

FOSC [Signature]

DATE: MAY 25 1990

ACE 7238313+15

SKETCH MAP

STREAM 226-40-16509

DATE 21 APR 90

CHECKLIST

- ___ H Arrow
- ___ Approx. Scale
- ___ Seg/Sub Body
- ___ Off Dist.
- ___ Width
- ___ Length
- ___ % Cover
- ___ Substrate Character
- ___ Est. INFLAME
- ___ SSL
- ___ Profile Location(s)
- ___ Profile(s)
- ___ PH Location(s)
- ___ Photo Location(s)

LEGEND

1 A

PK - No Subsurface Oil

24

PH - Subsurface Oil

CT/C

Case-Control Distribution

CT/D

Order Distribution

CT/P

Patchy Distribution

CT/3

Splashed Distribution

Old Vegetation

**Photo location, direction,
and number**

ACE 7238314

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

[illegible]

APR-22-1990 11:44 FROM EXXON CMD CORDOVA

TO

SCAT TEAM P.28

226-40-16509 4952

48 PHOTOLOG

PAGE(S)

DESCRIPTION

48 OIL DISTRIBUTION DIAGRAM

VEGETATION

VERY LIGHT,
VERY SPORADIC
TAR PATCHES IN
MID-UPPER INTERTIDAL

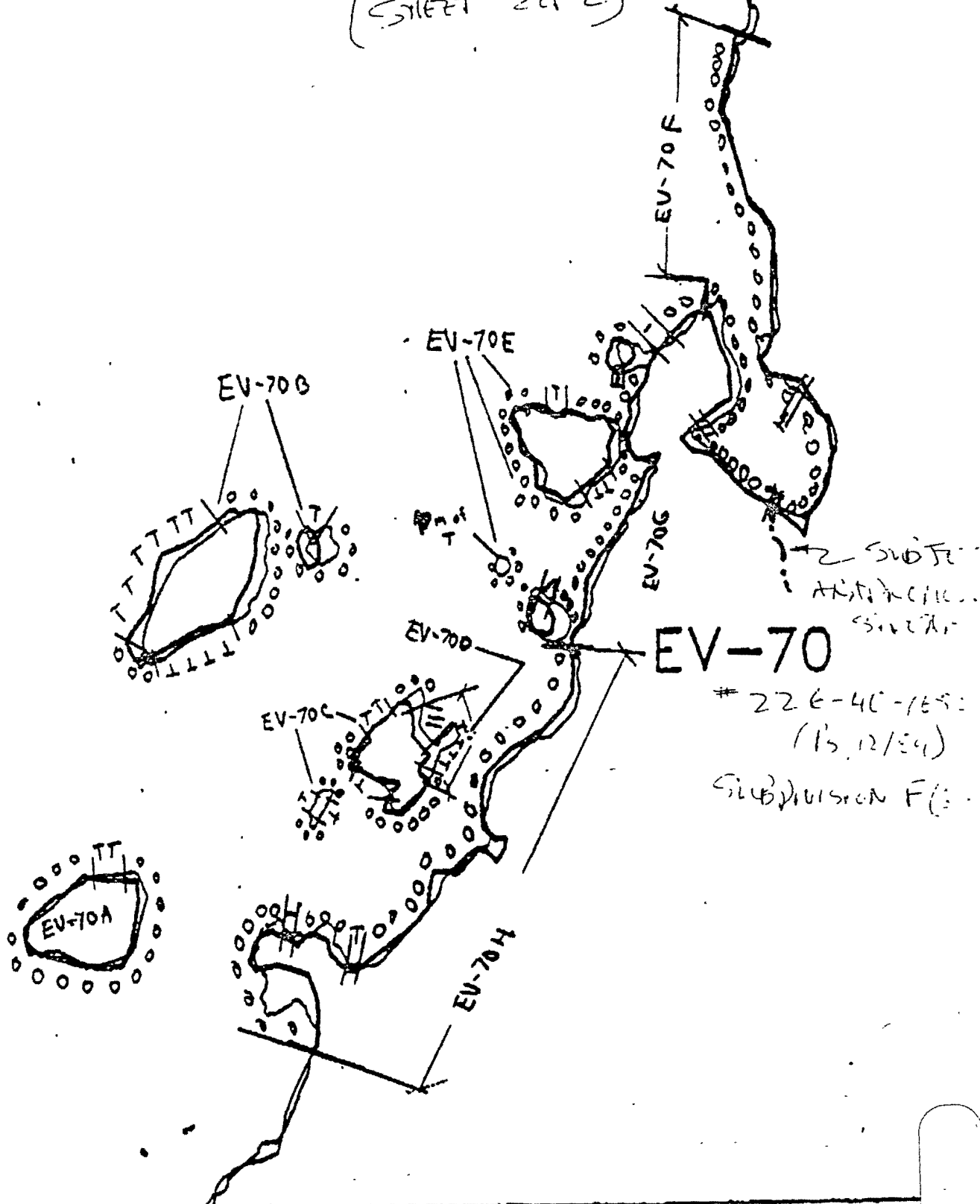
SPORADIC
TAR PATCHES
ON COBBLES
& BOULDERS.
ISOLATED POCKETS
OF BURIED Mousse.

VEGETATION

LIGHTLY OIL
SEDIMENTS
FROM 0-3 CM

ACE 7238315

ECOLOGICAL MAP
(SHEET 2 of 2)



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

EV-70

ADEC Segment Length: 12625m

Map Key: PWS-279

Name: Mike Fogel

Date: 4/1/90

ACE 7238316

FWARD
500 CG. CAL. MAP

EV-70

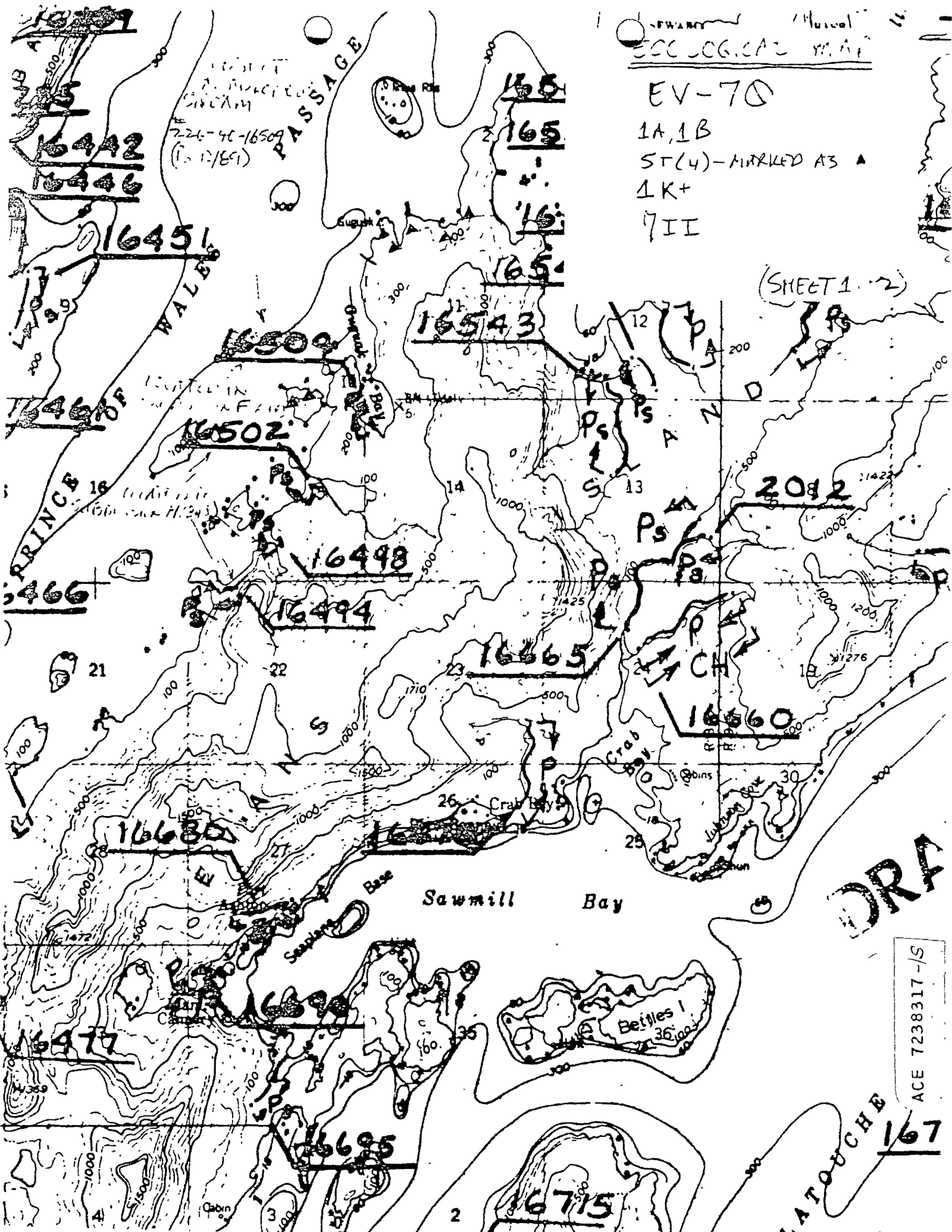
1A, 1B

ST(4) - MARKED AS ▲

1K+

7II

(SHEET 1-2)



DRAFT

ACE 7238317 -/S

167

ANONYMOUS FISH STREAM EVALUATION

SEGMENT ST/ EV-70 F STREAM NO: 226-40-16509 DATE 4/21/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Subject stream plus: 226-40-16498, 226-40-16502, 226-40-16494

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

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

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

5T-4 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)

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

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact Exxon's Cultural Resource Program immediately (564-3274 (Anchorage) or 229-1508 (24 hrs.)).

SHPO SIGNATURE: Rachel Jean Dale DATE: 5/22/90

Subsurface Oil Observed: Yes _____ No X Maximum Depth _____

RECOMMENDATIONS:

☐ 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: Recommended treatment is manual removal of tarmat where shown on attached sketch map. Work should be conducted between 6/1 and 7/10 based on eagle nest and salmon constraints with approval of USFWS regarding eagle nest.

TAG COMMENTS: BIOREMEDIATE (CUSTOMER) AS REQUIRED FOLLOWING TARMAT REMOVAL

TAG APPROVAL DATE: 5/18/90

ADEC Art Weiner

EXXON Andy Tait

NOAA Gary Petrac

USCG G.A. Reiter

FOSC [Signature]

DATE: MAY 25 1990

ACE 7238318

24/52

OPERATIONS FIELD NOTES

See Back for Instructions

SEGMENT ID ANAD EV-70-A
STREAM ID # 226-40-16509
ANNOTATED MAP INCLUDED Y/N

DATE 4-21-90
NAME GARCIA
TEAM # 15

SURFACE OIL	Quantities in Meters			None	Treatment Recommendation					
	Length	Width	Area		Bioremediation		Tilling		Spot Hot Water	
					Y/N	% Treat	Y/N	% Treat	Y/N	% Treat
Wide Band	VERY	SPORADICALLY		NONE						
Medium Band	STAINED.	LESS								
Narrow Band	THAN	1%.								
Very Light										
TOTAL MANDAYS						0		0		0

SUBSURFACE OIL - NONE

Other (Describe)?	

TARMATS	Quantities in Meters			Treatment Rec			# of Bags	Mandays Required	
	Length	Width	Thick(cm)	None	Breakup	Remove		Breakup	Remove
Area #1	NONE								
Area #2									
Area #3									
Area #4									
Sporadic Mats									

MANUAL PICKUP	Type of Debris			In Meters		# of Bags	Pickup Y/N	Manday Estimate
	Mousse Tarballs	Oiled Veget	Cleanup Debris	Length	Width			
"Pocket" #1	NONE							
"Pocket" #2								
"Pocket" #3								
Random/Continuous								

OILED LOGS Y/N	OILING H/M/L	QUANTITY L/M/S	BURN Y/N
----------------	--------------	----------------	----------

Is there Other Debris on the Beach? Y/N How Many Bags? _____ Is it mingled with the Oiled Debris Y/N

GENERAL Snow covering 10% of the Supratidal Zone?

Wave Exposure H/M/L Access Limitations: NONE

Snare Boom/Pom Poms Recommended? NO

Would the production Craft have to be relocated to complete work on this subdivision? Y/N, # of Times N/A

COMMENTS:

NO TREATMENT RECOMMENDED FOR THIS STREAM.

ACE 7238319+15

25/52

ADF&G MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: BS SS DS TS AVS SCHA MMS PTA

2 REGION: PNS KP,CI K,AP

METHOD: Aerial Ground Boat

3 DATE: 4/21/90 15 HIGH TIDE TIMES: 1109, 2344

21 TEAM RECORDER: M. WIEDMER

4 START TIME: 1515 16 HIGH TIDE HTS: 9.4, 10.3

22 OBSERVERS: T. CROWE

5 STOP TIME: 1530 17 LOW TIDE TIMES: 0512, 1730

23 AGENCY: ADF&G

6 SEGMENT #: EV-070A 18 LOW TIDE HTS: 2.9, 11.1

24 PHOTOS TAKEN: Y N

7 STATION #: 226-40-16509 19 TIDE HT AT SURVEY: 3.6'

Roll #: _____ Frame: _____

8 K-UNIT: _____ Ebb Slack Flood Slack

25 VIDEO TAKEN: N TAPES: _____

9 STAT AREA: _____ 20 USCG QUAD: _____

Start: _____ End: _____

10 LAT: _____ 11 LONG: _____

26 SAMPLES TAKEN? Y N Number _____

12 SOURCE: Map Loran

Oil _____

13 LOCATION: WEST SHORE EVANS IS.

Sediment _____

14 DESCRIPTION: _____

Biological _____

Water _____

EXTENT OF OIL

	SHORELINE				STREAM			
	L	W	M ²	%	L	W	M ²	%
27 SURFACE COVERAGE	100y	20y		<1	40y	3y		0

36 CATALOGED ANAD. FISH STREAM? Y N

37 CATALOG #: 226-40-16509

38 STREAM NAME: _____

28 SURFACE THICKNESS	1mm	<0.1	>0.1	0	0	0
----------------------	-----	------	------	---	---	---

39 OIL IN STREAM BED? Y N

29 PENETRATION	3cm	3cm	0	0	0	0
----------------	-----	-----	---	---	---	---

40 OIL ON STREAM BANKS? Y N

30 OVERALL OIL IMPACT: N VL L M H

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

31 OIL TYPE: Pooled Mousse Tar Asphalt Sticky Stain

42 OIL WITHIN 1 MILE OF STREAM? Y N

32 OILED DEBRIS? Y N

Where: _____

33 SHORELINE TYPE: Headland Low-lying Rocks Beach Cove
Lagoon Marsh

43 ANADROMOUS FISH PRESENT? Y N
FRY PRESUMED

34 WAVE EXPOSURE: High Moderate Low

44 ANADROMOUS FISH OBSERVATION
Species Aerial Ground

35 SUBSTRATE TYPE: Bedrock _____ Boulder 33 Cobble 33
Gravel 33 Sand _____ Mud/silt _____

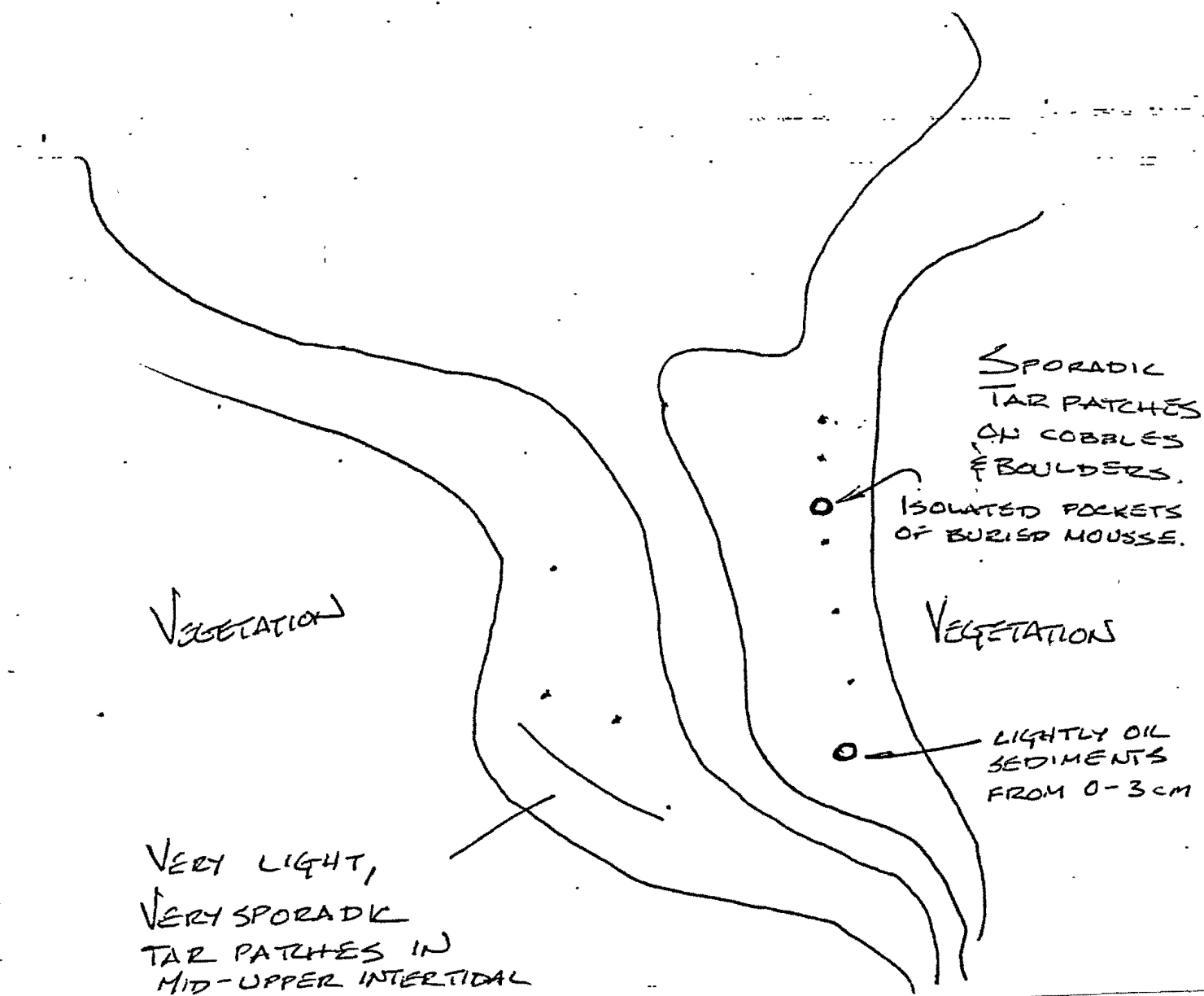
COMMENTS: VERY SPORADIC STAIN, ASPHALT, TAR, AND BURIED MOUSSE.

OIL QUANTITY AND DISTRIBUTION RELATIVE TO STREAM DO NOT PLACE SALMON OR OTHER ORGANISMS AT RISK. NO TREATMENT IS RECOMMENDED

ACE 7238320

[illegible]

48 OIL DISTRIBUTION DIAGRAM



note taken
on frame # and
on direction.

ACE 7238321

OG WILLIAM RE USCG McMAHON SEGMENT ST/ EV70A
 BIO MICHAEL FAWCETT LAND REP TOM CROWE - ADFG STREAM 25-40-16509 OF 1
 EXXON GUS GARCIA ADFG MIKE WIEDMER TIME 15:19 to 15:35
 TEAM NO. 15 TIDE LEVEL +2.5 ft DATE 21 / 11 / 190
 EST. SUBDIVISION LENGTH: 60 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo
 SURFACE SEDIMENTS: R 10 % B 10 % C 20 % P 70 % G 0 % S 0 % M 0 % V 0
 SLOPE: Lang 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 35 m N 0 m VL 0 m NO 25 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	IC	IB	IF	IS	BR	BL	GR	GY	OR	OL	TR	TL	SU	U	M	LI
ASPHALT PAVEMENT	X												X			
POOLED																
COVER																
COAT																
STAIN			X					X					X			
MOUSSE																
PATTIES																
TARBALLS																
FILM																
NO OIL																

PAVEMENT H F 200 sq. m by 3PATTIES / 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 _____

#BAGS _____

Photographs:

Roll No. AS-15-2Frames 13-16

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SHEEN (Y/N)	T	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	BR	BL	GR	GY	OR	OL	TR	TL	SU	U	M	LI				
1	35		X				0-3		X									X					N		P/G
2	15					X	.													X			N		P/G/C
3	15		X				0-1		X											X			N		P/G
							.																		
							.																		
							.																		

COMMENTS

REVIEWED _____ DATE _____

ACE 7238322

OG WILLIAM REID

SEGMENT ST/ EY 70A

STREAM 225-40-16509

DATE 21/ APR 90

CHECKLIST

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

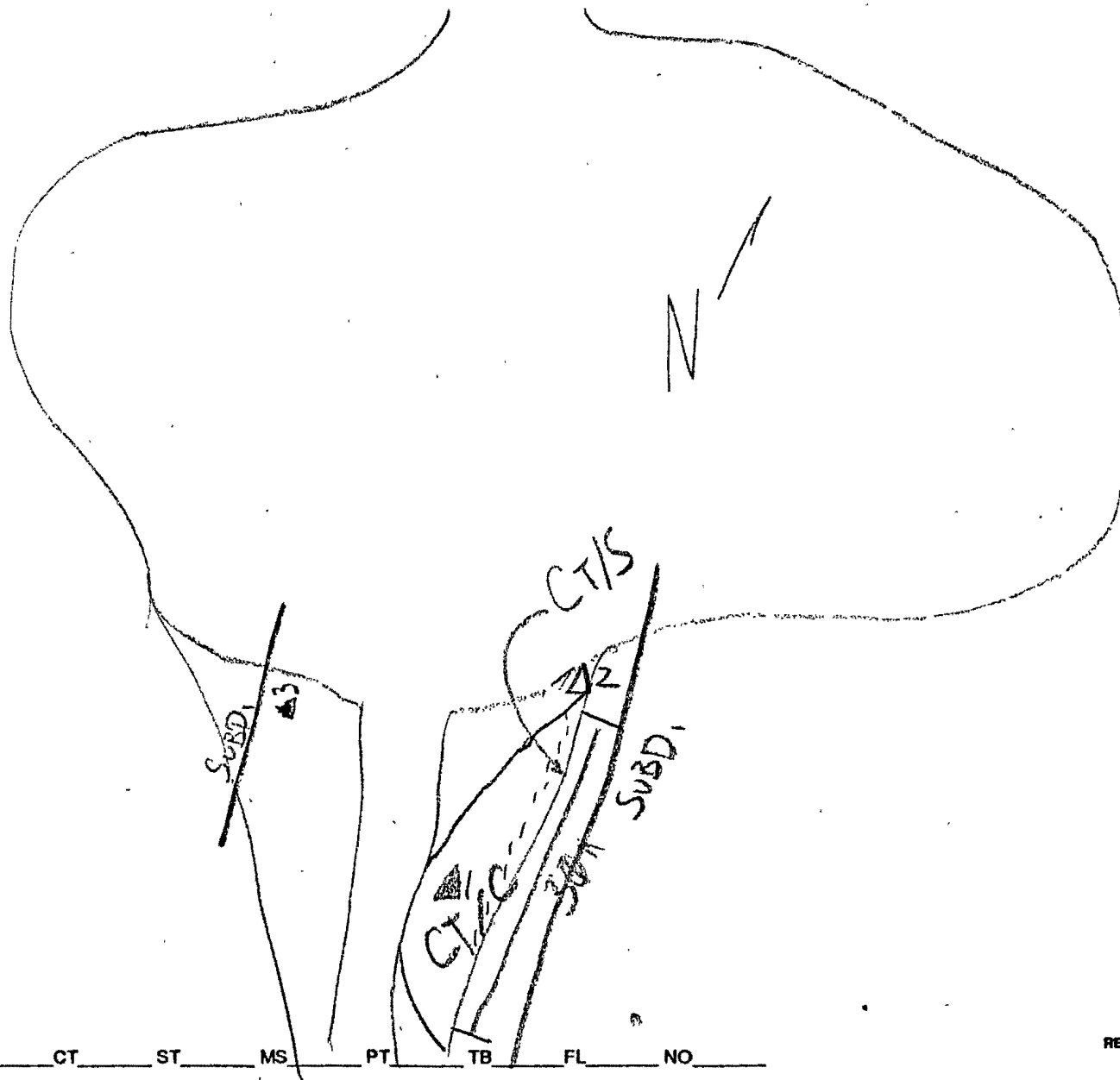
eee

Oiled Vegetation

1 ➔

Photo location, direction,
and number

SKETCH MAP



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

REVISION: 03/24/90

ACE 7238323

29/52

SSAT DATA ENTRY FORM

PAGE 1 OF 2

GENERAL DATA

SEG ID: EY70A STREAM: 226-A0-16509 SUBDIV: TEAM: AAAD15 SURVEY DATE: 21 APRIL '90
 PAVEMENT: CHAR S AREA 200 THICKNESS 3 TARBALLS 0
 OILED: LGS - VEG - TRH - DBR - WAVE EXP: LW X MD - HG -
 FAX RCVD: DT: AGENCY DISAGREE:
 EST SUBDIV LGTH: 60 OIL CATEGORY: W 0 M 35 N 0 VL 0 NO 25 U

SURFACE DATA

SURFACE SEDIMENT: BRK 0 BLD 10 COB 20 PEB 70 GRN 0 SAN 0 MUD 0 VEG 0

CHAR #: 1 OIL CHAR: AP OIL DIST: CONT X BRKN - PTCH - SPLH -
 OIL CLR: DBR FILM CLR: - TIDAL ZONE: SU - UI X MI - LI -

CHAR #: 2 OIL CHAR: ST OIL DIST: CONT - BRKN - PTCH X SPLH -
 OIL CLR: GV FILM CLR: - TIDAL ZONE: SU - UI X MI - LI -

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

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

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

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

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

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

30/52

SSAT DATA ENTRY FORM

SUBSURFACE DATA

PAGE 2 OF 2

SEGMENT ID: EV 70A ^{STREAM:} 226-40-16509

PIT # 1 PIT DEPTH 35 OIL CHARACTER OR OIL INTVAL: FROM 0 TO 3
QUANT: UC OIL CLR: DBR FLM CLR: — ZONE: SU — UI X MI — LI —
SUBSURF SEDIMENT: BRK — BLD — COB — PEB X GRN X SAN — MUD — VEG —

PIT # 2 PIT DEPTH 15 OIL CHARACTER NO OIL INTVAL: FROM — TO —
QUANT: — OIL CLR: — FLM CLR: — ZONE: SU — UI — MI X LI —
SUBSURF SEDIMENT: BRK — BLD — COB X PEB X GRN X SAN — MUD — VEG —

PIT # 3 PIT DEPTH 15 OIL CHARACTER OR OIL INTVAL: FROM 0 TO 1
QUANT: UC OIL CLR: DBR FLM CLR: — ZONE: SU — UI — MI X LI —
SUBSURF SEDIMENT: BRK — BLD — COB X PEB X GRN — SAN — MUD — VEG —

PIT # — PIT DEPTH — OIL CHARACTER — OIL INTVAL: FROM — TO —
QUANT: — OIL CLR: — FLM CLR: — ZONE: SU — UI — MI — LI —
SUBSURF SEDIMENT: BRK — BLD — COB — PEB — GRN — SAN — MUD — VEG —

PIT # — PIT DEPTH — OIL CHARACTER — OIL INTVAL: FROM — TO —
QUANT: — OIL CLR: — FLM CLR: — ZONE: SU — UI — MI — LI —
SUBSURF SEDIMENT: BRK — BLD — COB — PEB — GRN — SAN — MUD — VEG —

PIT # — PIT DEPTH — OIL CHARACTER — OIL INTVAL: FROM — TO —
QUANT: — OIL CLR: — FLM CLR: — ZONE: SU — UI — MI — LI —
SUBSURF SEDIMENT: BRK — BLD — COB — PEB — GRN — SAN — MUD — VEG —

PIT # — PIT DEPTH — OIL CHARACTER — OIL INTVAL: FROM — TO —
QUANT: — OIL CLR: — FLM CLR: — ZONE: SU — UI — MI — LI —
SUBSURF SEDIMENT: BRK — BLD — COB — PEB — GRN — SAN — MUD — VEG —

PIT # — PIT DEPTH — OIL CHARACTER — OIL INTVAL: FROM — TO —
QUANT: — OIL CLR: — FLM CLR: — ZONE: SU — UI — MI — LI —
SUBSURF SEDIMENT: BRK — BLD — COB — PEB — GRN — SAN — MUD — VEG —

PROBLEMS: —

Segment EV 70A (Gugak Cove)

4/21/90

Stream 226-40-16509

Michael Fawcett

Ecological Summary

This stream has a relatively stable delta composed of pebbles/sand and mud, with a well-developed infaunal community (clams, worms, shrimp, etc.).

Sparse scattered clumps of mussels, barnacles, and Fucus occur on isolated cobbles in MTZ and LTZ, along with abundant littorines, dogwhelks, and hermit crabs. Light patches of asphalt and stains were found in VTZ. If any cleanup operations are conducted, trampling and disturbance of LTZ should be avoided.

MM Fawcett

FIELD SHORELINE COMMENT SHEET

32/52

SEGMENT ST 1 EV 070 A SUBDIVISION: 16509 DATE 4/21/90

USCG

NAME CWO J. McMAHON SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

~~ADFG~~ **MICHAEL WIEDMER**
~~ADEC~~
NAME NO Team member SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

LAND MANAGER

NAME NO Team member SIGNATURE _____

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

24/52

OPERATIONS FIELD NOTES

(See Back for Instructions)

SEGMENT ID ANAD EV-70-ASTREAM ID # 226-40-16509DATE 4-21-90NAME GARCIATEAM # 15ANNOTATED MAP INCLUDED Y/N

SURFACE OIL	Quantities in Meters			None	Treatment Recommendation					
	Length	Width	Area		Bioremediation		Tilling		Spot Hot Water	
					Y/N	% Treat	Y/N	% Treat	Y/N	% Treat
Wide Band	VERY SPORADICALLY			NONE						
Medium Band	STAINED. LESS									
Narrow Band	THAN 1%.									
Very Light										
TOTAL MANDAYS						0		0	..	0

SUBSURFACE OIL - NONE

Other (Describe)?

TARMATS	Quantities in Meters			Treatment Rec			# of Bags	Mandays Required	
	Length	Width	Thick(cm)	None	Breakup	Remove		Breakup	Remove
Area #1	NONE								
Area #2									
Area #3									
Area #4									
Sporadic Mats									

MANUAL PICKUP	Type of Debris			In Meters		# of Bags	Pickup Y/N	Manday Estimate
	Mousse Tarballs	Oiled Veget	Cleanup Debris	Length	Width			
"Pocket" #1	NONE							
"Pocket" #2								
"Pocket" #3								
Random/Continuous								

OILED LOGS <u>Y/N</u>	OILING <u>H/M/L</u>	QUANTITY <u>L/M/S</u>	BURN <u>Y/N</u>
-----------------------	---------------------	-----------------------	-----------------

Is there Other Debris on the Beach? Y/N How Many Bags? _____ Is it mingled with the Oiled Debris Y/N

GENERAL

Snow covering 10% of the Supratidal Zone?Wave Exposure H/M/LAccess Limitations: NONESnare Boom/Pom Poms Recommended? NOWould the production Craft have to be relocated to complete work on this subdivision? Y/N, # of Times N/A

COMMENTS:

NO TREATMENT RECOMMENDED FOR THIS STREAM.

ACE 7238328 +15

25/52

ADF&G MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: BS SS DS TS AYS SCYA MMS PTA2 REGION: PWS KP,CI X,APMETHOD: Aerial Ground Boat3 DATE: 4/21/9015 HIGH TIDE TIMES: 1109, 234421 TEAM RECORDER: M. WIEDMER4 START TIME: 151516 HIGH TIDE HTS: 9.4, 10.322 OBSERVERS: T. CROWE5 STOP TIME: 153017 LOW TIDE TIMES: 0512, 173023 AGENCY: ADF&G6 SEGMENT #: EV-070A18 LOW TIDE HTS: 2.9, 11.124 PHOTOS TAKEN: Y N7 STATION #: 226-40-1650919 TIDE HT AT SURVEY: 3.6'

Roll #: _____ Frame: _____

8 K-UNIT: _____

Ebb Slack Flood Slack25 VIDEO TAKEN: N TAPES: _____

9 STAT AREA: _____

20 USCG QUAD: _____

Start: _____ End: _____

10 LAT: _____

11 LONG: _____

26 SAMPLES TAKEN? Y N Number _____12 SOURCE: Map Loran

Oil _____

13 LOCATION: WEST SHORE EVANS IS.

Sediment _____

14 DESCRIPTION: _____

Biological _____

Water _____

EXTENT OF OIL

	SHORELINE				STREAM			
	L	W	M ²	%	L	W	M ²	%
27 SURFACE COVERAGE	100y	20y		<1	40y	3y		0

36 CATALOGED ANAD. FISH SREAH? Y N

28 SURFACE THICKNESS	1 mm	<0.1	40.1	0	0	0
----------------------	------	------	------	---	---	---

37 CATALOG #: 226-40-16509

29 PENETRATION	3 cm	3 cm	0	0	0	0
----------------	------	------	---	---	---	---

38 STREAM NAME: _____

30 OVERALL OIL IMPACT: N VL L M H39 OIL IN STREAM BED? Y N31 OIL TYPE: Pooled Mousse Tar Asphalt Sticky Stain40 OIL ON STREAM BANKS? Y N32 OILED DEBRIS? Y N41 OIL ON BEACH ADJACENT TO MOUTH? Y N
(within 50 meters)42 OIL WITHIN 1 MILE OF STREAM? Y N

Where: _____

33 SHORELINE TYPE: Headland Low-lying Rocks Beach Cove43 ANADROMOUS FISH PRESENT? Y NFRY PRESUMED34 WAVE EXPOSURE: High Moderate Low

44 ANADROMOUS FISH OBSERVATION

35 SUBSTRATE TYPE: Bedrock _____ Boulder 33 Cobble 33

Species Aerial Ground

Gravel 33 Sand _____ Mud/silt _____

COMMENTS: VERY SPORADIC STAIN, ASPHALT, TAR, AND BURIED MOUSSE.

OIL QUANTITY AND DISTRIBUTION RELATIVE TO STREAM DO NOT PLACE SALMON OR OTHER ORGANISMS AT RISK. NO TREATMENT IS RECOMMENDED

ACE 7238329

EV-070A 26/52
226-40-16509

45 PHOTOLOG

FRAME(S) DESCRIPTION

46 OIL DISTRIBUTION DIAGRAM

VEGETATION

VERY LIGHT,
VERY SPORADIC
TAR PATCHES IN
MID-UPPER INTERTIDAL

SPORADIC
TAR PATCHES
ON COBBLES
& BOULDERS.
ISOLATED POCKETS
OF BURIED MOUSSE.

VEGETATION

LIGHTLY OIL
SEDIMENTS
FROM 0-3 CM

note taken
on frame # and
on direction.

ACE 7238330

OG WILLIAM LEID USCG McMAHON SEGMENT ST/ FV70A
 BIO MICHAEL FAWCETT LAND REP TOM CROWE - ADFG STREAM 25-40-16509 OF
 EXXON GUS GARCIA ADFG MIKE WIEDMER TIME 15:14 to 15:35
 TEAM NO. 15 TIDE LEVEL +2.5 ft DATE 21 / 11 / 90
 EST. SUBDIVISION LENGTH: 60 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo
 SURFACE SEDIMENTS: R 10 % B 10 % C 20 % P 70 % G 0 % S 0 % M 0 % V 0
 SLOPE: Lang 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 35 m N 0 m VL 0 m NO 25

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	IC	FB	FP	FS	SP	SR	SL	SY	ST	SB	SB	SB	SU	UI	MI	LI
ASPHALT PAVEMENT	X												X			
POOLED																
COVER																
COAT																
STAIN			X					X					X			
MOUSSE																
PATTIES																
TARBALLS																
FILM																
NO OIL																

PAVEMENT H F \$200 sq. m by 3PATTIES / TARBALLS 0 BACNEAR SHORE SHEEN? NO BR RW SL T

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

Did you collect
DEBRIS
☐ YES ☐ NO

TYPE _____

#BAGS _____

Photographs:

Roll No. AS-15-2Frames 13-16

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SHEEN (Y/N)	SURFACE SUBSURFA SEDIMENT
		OP	OR	OL	OF	NO		VO	UC	SP	SR	SL	SY	ST	SB	SB	SB	SU	UI	MI	LI			
1	35		X				0-3	X							X			X					N	P/G
2	15					X	.												X				N	P/G/C
3	15		X				0-1	X							X				X				N	P/C
							.																	
							.																	
							.																	

COMMENTS

REVIEWED _____ DATE _____

ACE 7238331

REVISION:03/24/00

ACE 7238332

29/52

SSAT DATA ENTRY FORM

PAGE 1 OF 2

GENERAL DATA

SEG ID: EV70A STREAM: 226-40-16509 SUBDIV: TEAM: ADIS SURVEY DATE: 21 APRIL '90
PAVEMENT: CHAR S AREA 200 THICKNESS 3 TARBALLS 0
OILED: LGS - VEG - TRH - DBR - WAVE EXP: LW X MD - HG -
FAX RCVD: DT: AGENCY DISAGREE:
EST SUBDIV LGTH: 60 OIL CATEGORY: W 0 M 35 N 0 VL 0 NO 25 U

SURFACE DATA

SURFACE SEDIMENT: BRK 0 BLD 10 COB 20 PEB 70 GRN 0 SAN 0 MUD 0 VEG 0

CHAR #: 1 OIL CHAR: AP OIL DIST: CONT X BRKN - PTCH - SPLH -
OIL CLR: DBR FILM CLR: - TIDAL ZONE: SU - UI X MI - LI -

CHAR #: 2 OIL CHAR: ST OIL DIST: CONT - BRKN - PTCH X SPLH -
OIL CLR: GY FILM CLR: - TIDAL ZONE: SU - UI X MI - LI -

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

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

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

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

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

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

SSAT DATA ENTRY FORM

SUBSURFACE DATA

PAGE 2 OF 2SEGMENT ID: EV 70A ^{STREAM:} 226-40-16509
SUBDIV: 226-40-16509PIT # 1 PIT DEPTH 35 OIL CHARACTER OR OIL INTVAL: FROM 0 TO 3
QUANT: UC OIL CLR: DBR FLM CLR: — ZONE: SU — UI X MI — LI —
SUBSURF SEDIMENT: BRK — BLD — COB — PEB X GRN X SAN — MUD — VEG —PIT # 2 PIT DEPTH 15 OIL CHARACTER NO OIL INTVAL: FROM — TO —
QUANT: — OIL CLR: — FLM CLR: — ZONE: SU — UI — MI X LI —
SUBSURF SEDIMENT: BRK — BLD — COB X PEB X GRN X SAN — MUD — VEG —PIT # 3 PIT DEPTH 15 OIL CHARACTER OR OIL INTVAL: FROM 0 TO 1
QUANT: UC OIL CLR: DBR FLM CLR: — ZONE: SU — UI — MI X LI —
SUBSURF SEDIMENT: BRK — BLD — COB X PEB X GRN — SAN — MUD — VEG —PIT # — PIT DEPTH — OIL CHARACTER — OIL INTVAL: FROM — TO —
QUANT: — OIL CLR: — FLM CLR: — ZONE: SU — UI — MI — LI —
SUBSURF SEDIMENT: BRK — BLD — COB — PEB — GRN — SAN — MUD — VEG —PIT # — PIT DEPTH — OIL CHARACTER — OIL INTVAL: FROM — TO —
QUANT: — OIL CLR: — FLM CLR: — ZONE: SU — UI — MI — LI —
SUBSURF SEDIMENT: BRK — BLD — COB — PEB — GRN — SAN — MUD — VEG —PIT # — PIT DEPTH — OIL CHARACTER — OIL INTVAL: FROM — TO —
QUANT: — OIL CLR: — FLM CLR: — ZONE: SU — UI — MI — LI —
SUBSURF SEDIMENT: BRK — BLD — COB — PEB — GRN — SAN — MUD — VEG —PIT # — PIT DEPTH — OIL CHARACTER — OIL INTVAL: FROM — TO —
QUANT: — OIL CLR: — FLM CLR: — ZONE: SU — UI — MI — LI —
SUBSURF SEDIMENT: BRK — BLD — COB — PEB — GRN — SAN — MUD — VEG —PIT # — PIT DEPTH — OIL CHARACTER — OIL INTVAL: FROM — TO —
QUANT: — OIL CLR: — FLM CLR: — ZONE: SU — UI — MI — LI —
SUBSURF SEDIMENT: BRK — BLD — COB — PEB — GRN — SAN — MUD — VEG —PROBLEMS: —

Segment EV 70A (Gugak Cove)

4/21/90

Stream 226-40-16509

Michael Fawcett

Ecological Summary

This stream has a relatively stable delta composed of pebbles/sand and mud, with a well-developed infaunal community (clams, worms, shrimp, etc.).

Sparse scattered clumps of mussels, barnacles, and Fucus occur on isolated cobbles in MTZ and LTZ, along with abundant littorines, dogwhelks, and hermit crabs. Light patches of asphalt and stains were found in VTZ. If any cleanup operations are conducted, trampling and disturbance of LTZ should be avoided.

MH Fawcett

FIELD SHORELINE COMMENT SHEET

32/52

SEGMENT ST 1 EV 070 A SUBDIVISION: 16509 DATE 4/21/90

USCG

NAME CWO J. McMAHON SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

~~ADFC~~ MICHAEL WIEDMER

~~ADEC~~

NAME NO Team member SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

LAND MANAGER

NAME NO Team member SIGNATURE _____

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

Prosser
4/24
RK

RECEIVED

APR 21 1990

DEPT. OF
ENVIRONMENTAL CONSERVATION

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/EV-70

SUBDIVISIONS: A (1 OF 8)

Document to
approve per'd.

SHORELINE EVALUATION

SEGMENT ST/ EV-70 SUBDIVISION A (1 OF 8) DATE 4/1/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

ADF&G anadromous stream no. 226-40-16494, 16498, 16509, 16502.

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

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

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

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

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to 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 81 m: No Oil 983 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: _____

ACE 7238338

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.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / EV-70 SUBDIVISION: A DATE 4/1/90

USCG NOAA

NAME GARY SHIGENAKA

SIGNATURE

[Signature]

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

SUBDIVISION CONSISTED OF ONE ISLAND. TWO BEACH LANDINGS WERE MADE. OILING WAS MUCH MORE EVIDENT AT THE BEACH LOCATED ON THE NORTHEAST SIDE OF THE ISLAND. CHARACTER OF THE OIL VARIED FROM HIGHLY WEATHERED TO STILL TACKY, WITH EXPOSED FACES OF BOULDERS SHOWING STAIN AND COVER. LANDWARD FACES OF ROCK OUTCROPPING LOCATED ON THE WESTERN SIDE OF THE BEACH SHOWED BOTH A HEAVIER DEGREE OF OILING AND LESSER DEGREE OF WEATHERING.

ADEC

NAME John Hayes

SIGNATURE

[Signature]

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

Oiling observed on this small island consisted splash to stains and continuous to bands with very light coat of stain. No S.S. oiling was observed on this sub-segment. Stain + coat observed was weathering.

LAND MANAGER

NAME

SIGNATURE

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

REVISION NO. 03/71/89

ACE 7238340

SHORELINE OILING SUMMARY

REVISION NO. 03/25/90

OG Mike Foget NOAA Gary Shigenaka SEGMENT ST/ EV-70 (1 of 8)
 BIO Richard Ambrose LAND REP — SUBDIVISION A
 EXXON Larry Olson ADEC John Hayes TIME 12:30 to 13:15
 TEAM NO.: 11 TIDE LEVEL: 0.0 to 0.4 DATE 4/1/90
 EST. SUBDIVISION LENGTH: 1050 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☐ Rock Forested Backshore
 SURVEYED FROM: ☐ Foot ☒ Boat ☒ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 20 % B 30 % C 25 % P 10 % G 10 % S 5 % M 0 % V 0 %
 SLOPE: Long 55 % Hang 25 % Vert 20 % WAVE EXPOSURE: ☐ Low ☒ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 5 m VL 70 m NO 1005 m

SURFACE OIL

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

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

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED

☐ YES ☒ NOTYPE 0#BAGS 0

Photographs:

Roll No. ST-11-1Frames 18-20

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm-0.05)	BELOW	OIL / FILM COLOR					PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO			1	2	3	4	5	SU	U	M	L		
1	10					X	.	X								X			C, P, G, S, C
2	5					X	.	X							X				G, C
3	5					X	.	X							X				B, C
4	10					X	.	X							X				C, M, Water (5m to shore)
							.												
							.												

COMMENTS

Oil was observed on the North side of the segment contained a very light 1m X 60m boat located in the HITZ. The Rock outcrop on the Western side of the same beach has a few oiling patches on a rock out crop (map 2). The Western side of the Island consists of Low angle Bedrock shore zone and the eastern half of the Island consists of Low angle cobble, pebble, Gravel beach area.

Page 1 of 1REVIEWED M.A. DATE 4/11/90

ACE 7238341

OG Mike Fojet

SEGMENT ST/ EV-70

SUBDIVISION A (blow up)

DATE 4 / 1 / 90

CHECKLIST

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

LEGEND

1 Δ
Pi - No Subsurface Oil

2 Δ
Pi - Subsurface Oil

$\boxed{CT/C}$
Continuous Distribution

$\boxed{CT/B}$
Broken Distribution

$\boxed{CT/P}$
Patchy Distribution

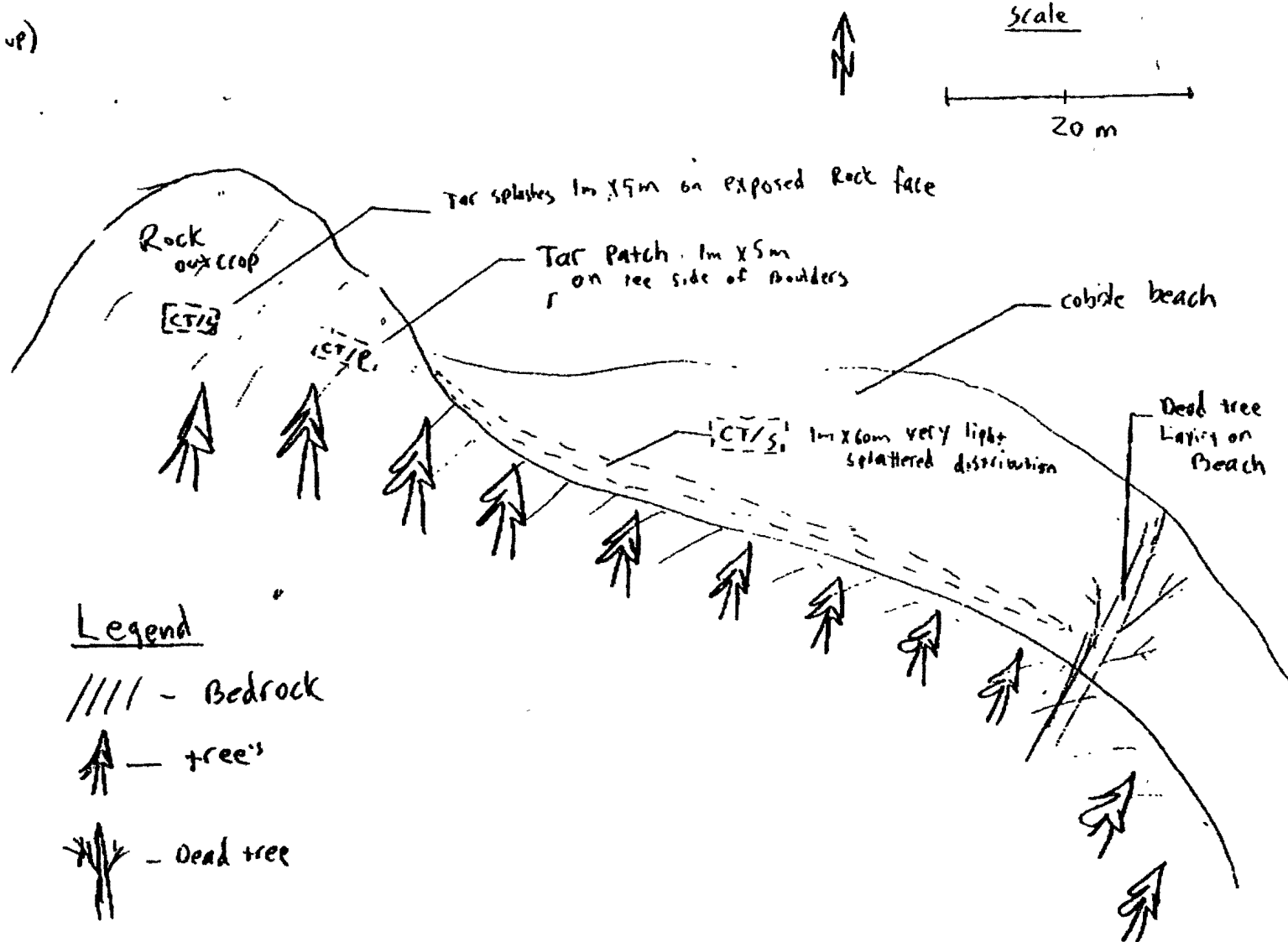
$\boxed{CT/S}$
Splashed Distribution

$\boxed{CT/S}$
Splashed Distribution

Oil Character

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

SKETCH MAP 2



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

REVISION 03/04/90

ACE 7238342

SHORELINE ECOLOGICAL SUMMARY

REVISION: 02/22/90

Segment ST EVO70 Subdivision A Date (mo / day / yr) 4 / 1 / 90

Time (24 hr) 1230 hrs Biologist Ambrose

(A) Substrate type and % of segments:
(1) Bedrock 20 (2) Boulder 30 (3) Cobble 25 (4) Pebble 10 (5) Sand 15 (6) Silt -

(B) Overall % cover of biota (% of segment): Dense 35 Moderate 15 Low 50

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

Photographs:
Roll No. ST-11-1

Frames 21

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS

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

NOT PRESENT

FUCUS

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

NOT PRESENT

Wildlife Observations/ General Comments: * 4otters, 6 crows.

Heavy algal cover on rock walls (mostly W. side of island), very sparse cover on cobble beaches that predominate on E. side of island.

Laminaria abundant in subtidal.

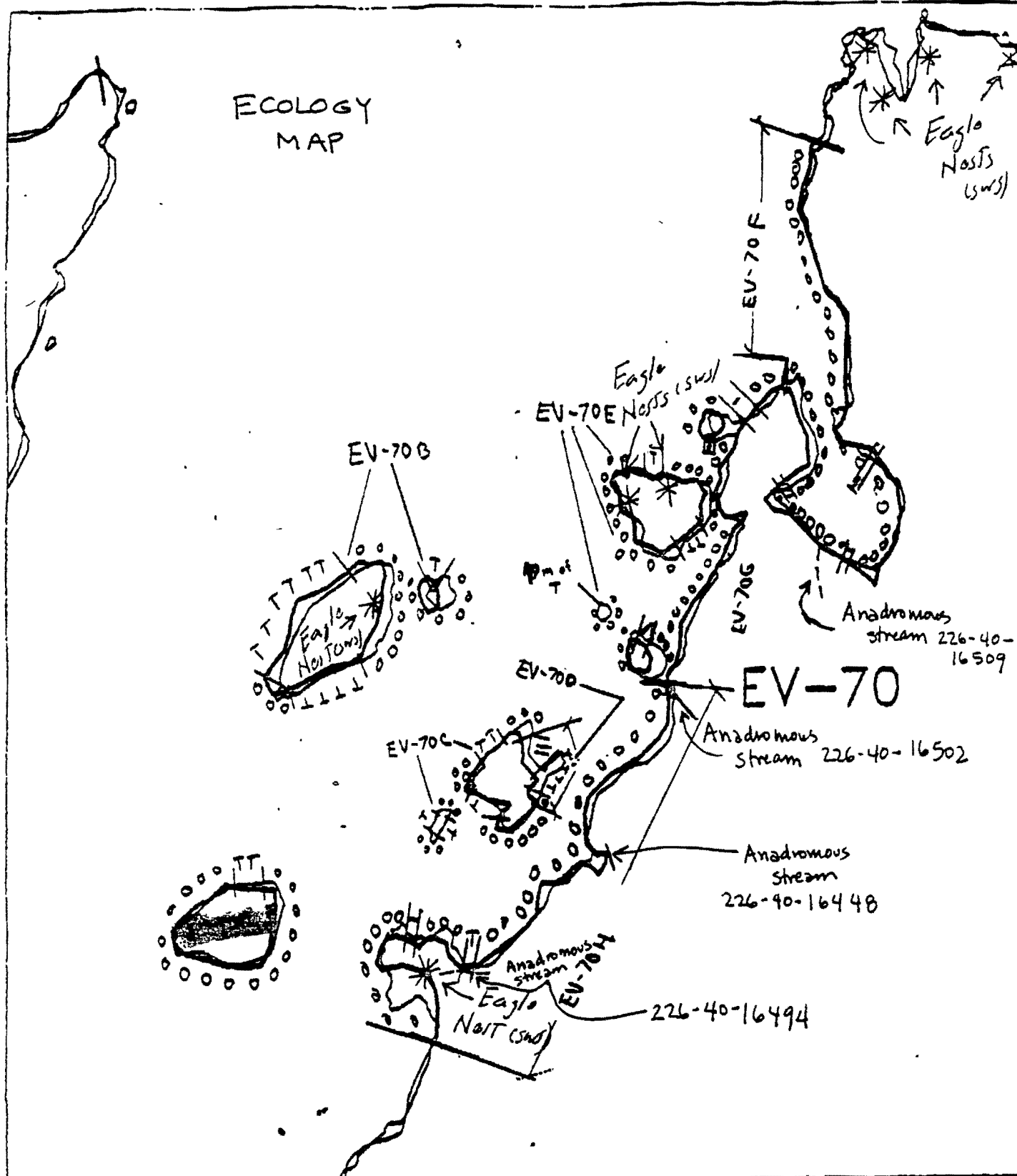
Ecological Considerations:

711, 1B: Not relevant for this subdivision.

* Notes: most surveyed by boat.

ACE 7238343

ECOLOGY MAP



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

OOOO No Oil

EV-70

ADEC Segment Length: 12625m



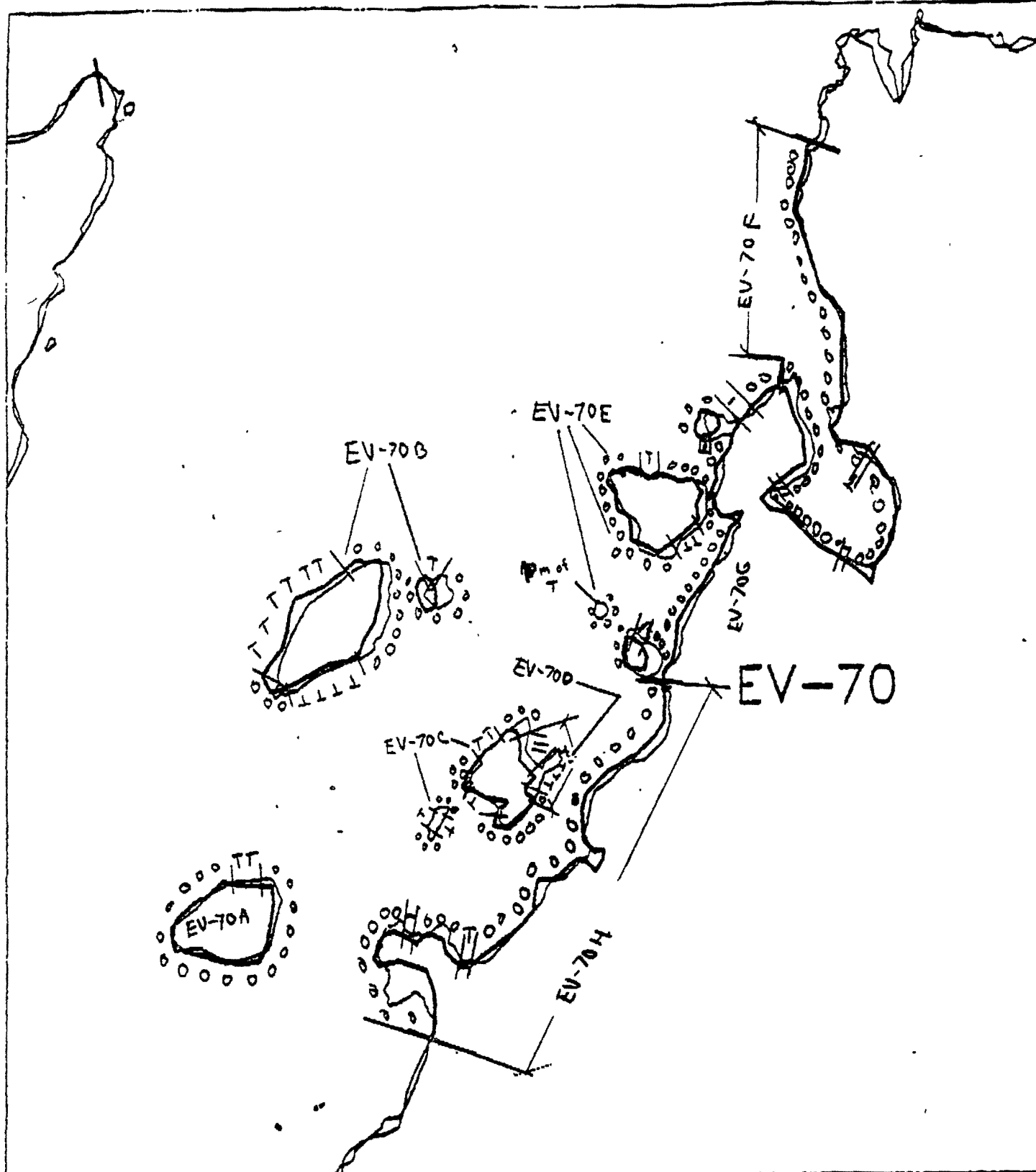
Map Key: PWS-278

Name: Mike Coor

Date: 4/1/90

Date Entered:

ACE 7238344



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-70

ADEC Segment Length: 12625m

0 300 600 900
METERS

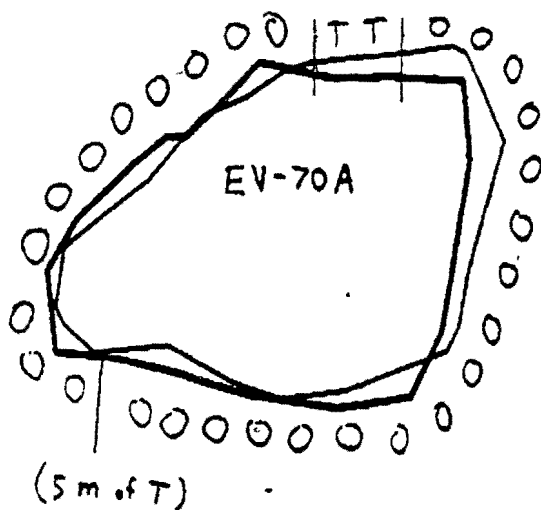
Map Key: PWS-279

Name: Mike Fogel

Date: 4/1/90

Data Entered:

ACE 7238345



XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

EV-70A

ADEC Segment Length: 12625m



METERS

Map Key: PWS-270c

Name: Mike Fogel

Date: 4/1/90

Date Entered:

ACE 7238346-15

*Processed
4/29
RH*

RECEIVED

APR 21 1990

DEPT. OF
ENVIRONMENTAL CONSERVATION

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/EV-70

SUBDIVISIONS: B (2 OF 8)

Concur E no'd.

ACE 7238347+15

SHORELINE EVALUATION

SEGMENT ST/ EV-70 SUBDIVISION B (2 OF 8) DATE 4/1/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

ADF&G anadromous stream no. 226-40-16494, 16498, 16509, 16502.

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

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

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

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

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to uncoiled biota and substrate. Bald eagle nest in Subdivision B.

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 788 m: No Oil 897 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 (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 Hemng spawning (4/1 to 6/15)
 Restrict boat traffic to essential minimum. Avoid damage to unoided 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
- 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 / EV-70 SUBDIVISION: B DATE 4/1/90

~~USCG~~ NOAA

NAME GARY SHIGENAKA

SIGNATURE *Gary Shigenaka*

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

SUBDIVISION CONSISTED OF 2 ISLANDS OFF THE WEST CENTRAL COAST OF EVANS ISLAND. ON THE LARGER ISLAND LYING TO THE SOUTHWEST, LIGHT STAIN WAS OBSERVED IN SEVERAL AREAS ON THE WEST SIDE, GENERALLY ON THE LEE SIDE OF ROCKY FACES. SPORADIC SPLATTERS WERE NOTED ALONG THE NORTH AND EAST COASTS. ON THE SMALLER ISLAND, STAIN WAS NOTED ON ROCK FACES ON THE NORTHEAST COAST.

ADEC

NAME *John Hoyer*

SIGNATURE *John Hoyer*

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

This sub-segment consisted of two small islands that had high angle headlands for shoreline. Light staining was observed on both islands along with some few splashes. Stain + splash were on vertical ^{red} rock and weathering.

LAND MANAGER

NAME _____

SIGNATURE _____

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

SHORELINE OILING SUMMARY

REVISION NO. 02/22/88

OG Mike Foget ^{NOAA} USCG Gary Shigenaka SEGMENT ST/ EV-70 (70)
 BIO Richard Ambrose LAND REP John Hayes SUBDIVISION B (2 of 8)
 EXXON Larry Olson ADEC John Hayes TIME 13:15 to 13:50
 TEAM NO.: 11 TIDE LEVEL: 0.4 to 1.0 DATE 4/1/90
 EST. SUBDIVISION LENGTH: 1800 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☐ Rock Forested backshore
 SURVEYED FROM: ☐ Foot ☒ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 75 % B 20 % C 5 % P 0 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 5 % Hang 25 % Vert 70 % WAVE EXPOSURE: ☐ Low ☒ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 850 m NO 950 m

SURFACE OIL

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

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

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☐ YES ☒ NOTYPE 0#BAGS 0

Photographs:

Roll No. 0Frames 0

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm-ORG)	BELOW		OIL / FILM COLOR				PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UC	UC	SW	W	M	N	SV	U	M	U		

COMMENTS No pits were made due to the nature of the shore zone.
 Both Islands are mostly steep to vertical Boulder Beach Gr. oiling was observed on Island I as a discontinuous stain located in the HITZ, most of the oiling occurred on Southern exposure rock faces. Island II has 100m of light stain occurring on the Northern side in the HITZ.

Page 1 of 1REVIEWED M.A. DATE 4/11/90

ACE 7238351

OG Mike Foyet

SEGMENT ST EU-70

SUBDIVISION B

DATE 4/1 90

CHECKLIST

- ☐ M Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Entry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HWA/LA/VA
- ☐ SSL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ Pt Location(s)
- ☐ Photo Location(s)

LEGEND

1 Δ

Pt - No Subsurface Oil

2 Δ

Pt - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

Splashed Distribution

Oiled Vegetation

1 $\leftrightarrow$

Photo location, direction,
and number

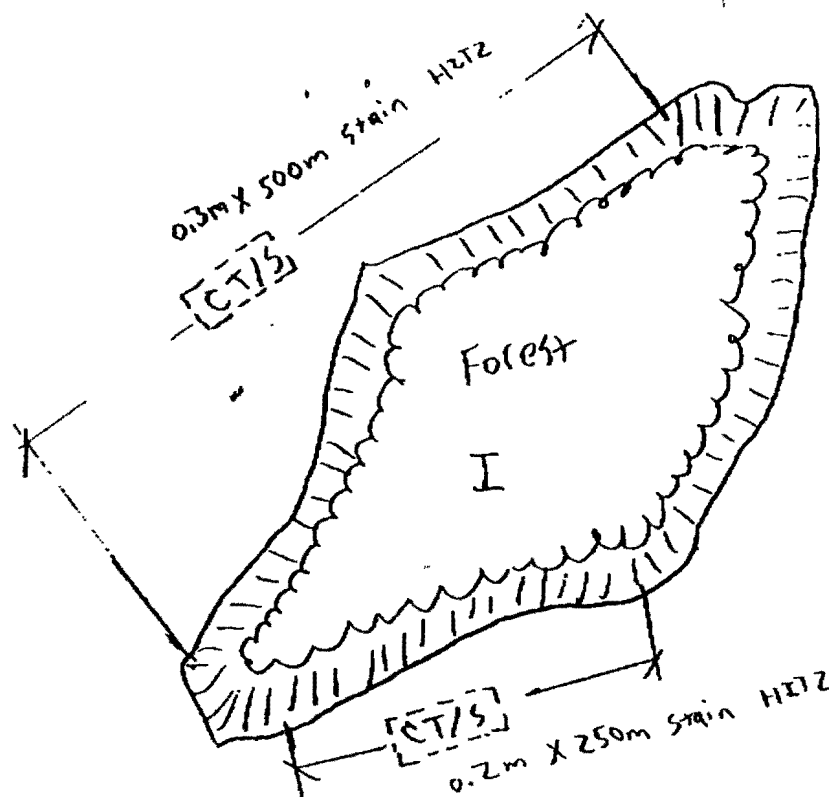
SKETCH MAP

Legend



- Forest

/// - Bedrock/Large Boulder



800 m x 0.2 m Stain
H12



Oil Character Length (m): AP PO CV CT ST 850 MS PT TB FL NO 950

REVISION 08/24/90

ACE 7238352

SHORELINE ECOLOGICAL SUMMARY

REVISION: 02/22/90

Segment ST / EVO 70 Subdivision B Date (mo / day / yr) 4 / 1 / 90

Time (24 hr) 1315 hrs Biologist Ambrose

(A) Substrate type and % of segments:
(1) Bedrock 75 (2) Boulder 20 (3) Cobble 5 (4) Pebble - (5) Sand - (6) Silt -

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

(C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (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	X	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS

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

NOT PRESENT

FUCUS

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

NOT PRESENT

Wildlife Observations/ General Comments: * 1 harbor seal, 2 deer, 1 mature bald eagle.
Heavy cover of biota around almost entire island, with only a few areas of sparser cover. Low tidal zone is dominated by red algae.

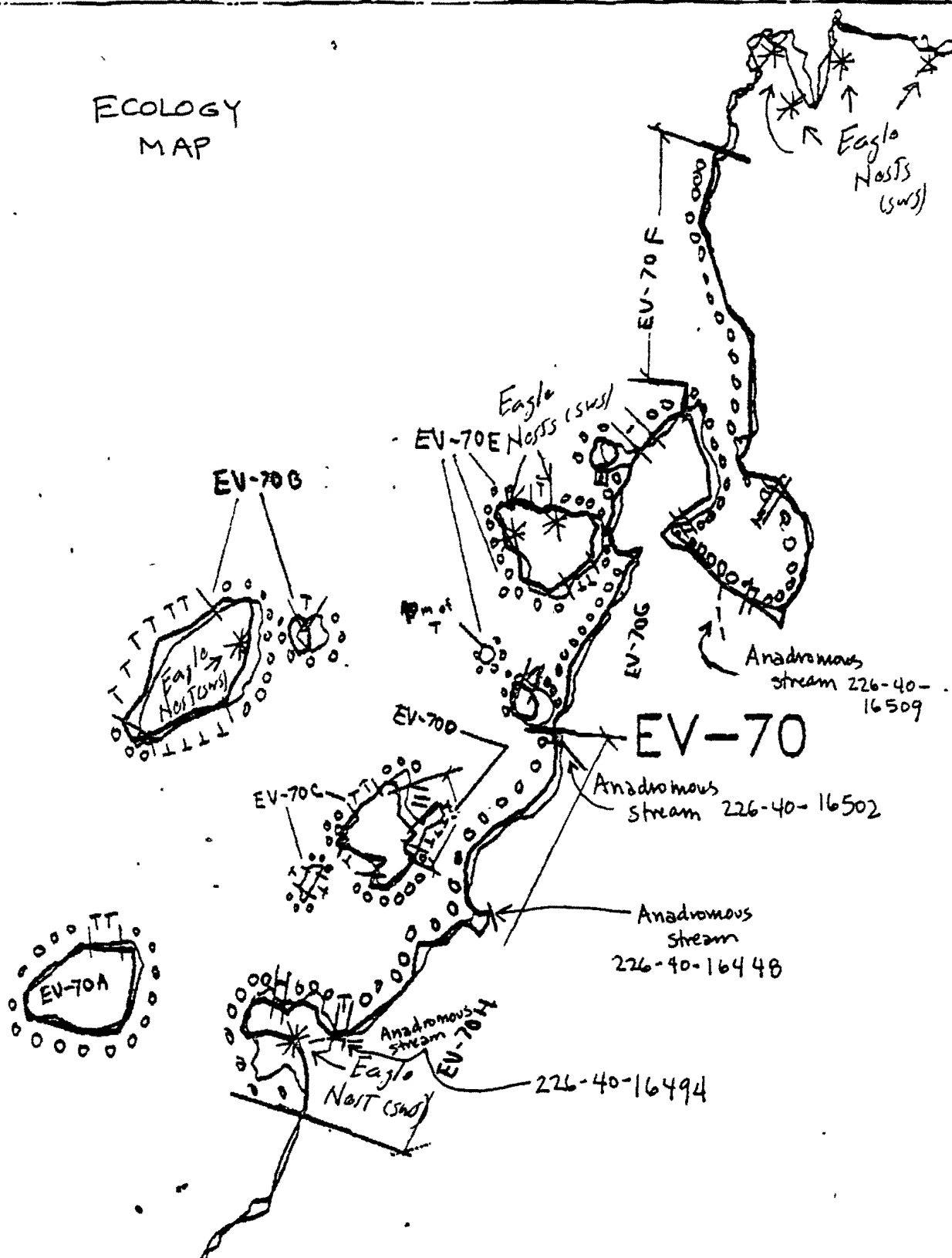
Ecological Considerations:

711, 18: Not relevant for this subdivision.

*Note: most surveyed by boat.

ACE 7238353

ECOLOGY MAP



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-70

ADEC Segment Length: 12625m



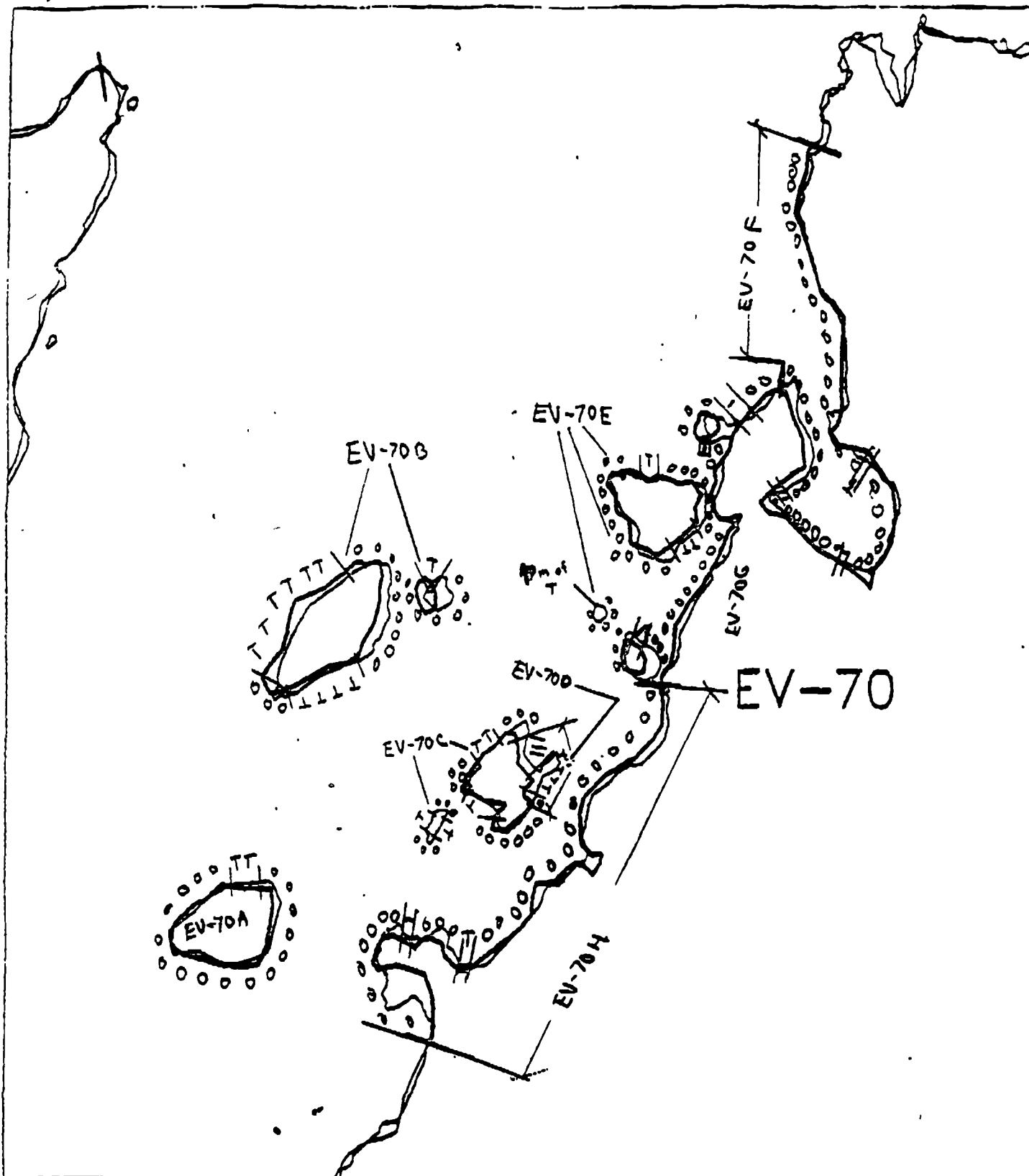
Map Key: PWS-279

Name: Mike Fogel

Date: 4/1/90

Data Entered:

ACE 7238354



XXXX Wide

TTTT Medium

---- Narrow

TTTT Very Light

0000 No Oil

EV-70

ADEC Segment Length: 12625m



Map Key: PWS-279

Name: Mike Fager

Date: 4/1/90

Data Entered:

ACE 7238355-15

*Processed
4/24
RHL*

RECEIVED

APR 21 1990

DEPT. OF
ENVIRONMENTAL CONSERVATION

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/EV-70

SUBDIVISIONS: C (3 OF 8)

Carcer e paid.

ACE 7238356+15

SHORELINE EVALUATION

SEGMENT ST/ EV-70 SUBDIVISION C (3 OF 8) DATE 4/1/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

ADF&G anadromous stream no. 226-40-16494, 16498, 16509, 16502.

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

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

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

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

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to 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 319 m: No Oil 511 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: _____

ACE 7238357

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.
- 6T** All Bald Eagle nests (3/1 to 6/1)
Active Bald Eagle nests (3/1 to 9/1)
Restrict air traffic to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
- 6U** Recreation: Tent sites (6/1 to 9/15)
- 6V** Anchorages (6/1 to 9/15)
- 6W** Forest Service cabins (6/1 to 9/15)
- 6X** Lodge (6/1 to 9/15)
- 6Y** Special use destination
- 7Z** Subsistence area: Salmon harvesting (5/1 to 9/30)
- 7HH** Finfish harvesting
- 7I** Deer harvesting (8/15 to 2/28)
- 7JJ** Invertebrate harvesting
For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / EV-70 SUBDIVISION: C DATE 4/1/90

USCG NOAA

NAME GARY SHIGENAKA

SIGNATURE Gary Shigenaka

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

SUBDIVISION CONSISTED OF ONE SMALL ISLAND AND MOST OF A LARGER ONE LYING TO THE NORTHEAST OFF THE WEST CENTRAL COAST OF EVANS ISLAND. THE PORTION OF THE LARGER ISLAND NOT INCLUDED IN THIS SUBDIVISION (AND DESIGNATED AS SEPARATE SUBDIVISION "D") WAS THE NORTHERN EMBAYMENT OF THE ISLAND.

THE SMALLER ISLAND WAS SURVEYED BY BOAT. SPORADIC WEATHERED SPLATTERS WERE OBSERVED ON ROCK FACES.

SPLATTERS WERE NOTED IN THE MID-TO UPPER-INTERTIDAL OF MUCH OF THE LARGER ISLAND. A BEACH ON THE SOUTH SIDE OF THE ISLAND, CONSISTING OF GRAVEL AND COBBLE WITH BOULDERS IN THE UPPER INTERTIDAL, WAS ASSESSED IN A BEACH LANDING. SPLATTERS WERE OBSERVED IN THE UPPER INTERTIDAL OF THE EASTERN PORTION. A "BATHTUB RING" OF WEATHERED STAIN AND COAT WAS FOUND IN THE CENTRAL PART OF THE BEACH, AND THIS EXTENDED WEST ONTO THE ROCK FACES THAT BORDERED ON THE WEST.

ADEC

NAME John Hayes

SIGNATURE John Hayes

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

This sub-section consisted of one island and part of another nearby island (see map). Both islands had few splatters and few stain that was weathering. Staining on both islands consisted of discontinuous bands on the U.I.T.Z. No S.S. oiling was observed on these segments.

LAND MANAGER

NAME

SIGNATURE

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

REVISION NO. 03/21/90

ACE 7238359

SHORELINE OILING SUMMARY

REVISION NO. 03/23/90

OG Mike Foget NOAA used Gary Shigenaka SEGMENT ST/ EV-70
 BIO Richard Ambrose LAND REP used SUBDIVISION C (3 of 8)
 EXXON Larry Olson ADEC John Hayes TIME 12:58 to 1:00
 TEAM NO.: 11 TIDE LEVEL: 1.2 to 1.6 DATE 4/1/90
 EST. SUBDIVISION LENGTH: 1000 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☐ Rock Forested Backshore
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 75 % B 15 % C 10 % P 0 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 10 % Hang 50 % Vert 40 % WAVE EXPOSURE: ☐ Low ☒ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 300 m NO 700 m

SURFACE OIL

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

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

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED

☐ YES ☒ NOTYPE 0#BAGS 0

Photographs:

Roll No. 0Frames 0

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW		OIL / FILM COLOR				PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OF	OR	OL	OF	NO		VO	UC	W	M	N	VL	SU	U	M	U		
1	30					X	.	X						X					P, G, S
2	10					X	.	X						X					G, S, M
							.												
							.												
							.												
							.												

COMMENTS

Some discontinuous splattered staining is located in the HITZ on the Eastern side of the island along the vertical rock wall. The cobble beach on the Southern End of the island also has a 1m x 100m discontinuous coating of tar in the HITZ. The smaller island just south of the larger island also has 100m of discontinuous staining located on the bedrock in the HITZ. (See map). All oil looked weathered by its splattered, worn distribution of light staining.

Page 1 of

REVIEWED m. j. g.DATE 4/11/90

ACE 7238360

OG 1. Ke Foyer
 SEGMENT ST/ EV-70
 SUBDIVISION C
 DATE 4 / 1 / 90

SKETCH MAP

CHECKLIST

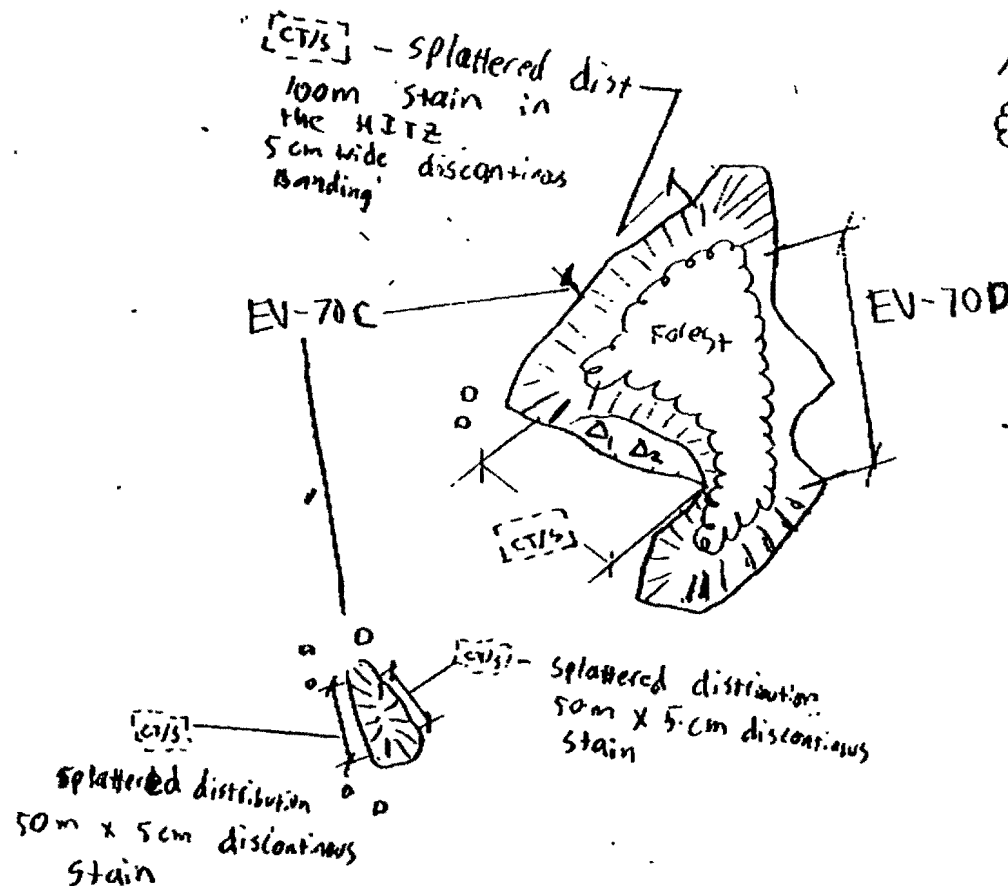
☐ N Arrow
☐ Approx. Scale
☐ Seg/Sub Bndry
☐ Oil Dist.
☐ Width
☐ Length
☐ % Cover
☐ Substrate Character
☐ Est. HML/LWL
☐ SSL
☐ Profile Location(s)
☐ Profile(s)
☐ Pt Location(s)
☐ Photo Location(s)

LEGEND

1 Δ
 Pt - No Subsurface Oil
 2 Δ
 Pt - Subsurface Oil
 CT/C
 Continuous Distribution
 CT/B
 Broken Distribution
 CT/P
 Patchy Distribution
 CT/S
 Splattered Distribution
 Oiled Vegetation
 1 ●→
 Photo location, direction,
 and number

Legend

○ - Rock
 /// - Bedrock / Large
 ☁ - Forest



Scale

100 m

Oil Character Length (m): AP — PO — CV — CT 100 ST 200 MS — PT — TB — FL — NO 100

REVISION 002140

ACE 7238361

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST / EVO70 Subdivision C Date (mo / day / yr) 4/1/90Time (24 hr) 1350 Biologist Ambrose(A) Substrate type and % of segments:
(1) Bedrock 75 (2) Boulder 15 (3) Cobble 10 (4) Pebble - (5) Sand - (6) Silt -(B) Overall % cover of biota (% of segment): Dense 55 Moderate 35 Low 10

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

Photographs:
Roll No. -Frames -

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS

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

NOT PRESENT

FUCUS

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

NOT PRESENT

Wildlife Observations/ General Comments: * 1 otter, 1 great blue heron.

Algal cover a bit sparser than subdivision B on the E side, but still dense on the W. side, esp. with red algae in the intertidal.

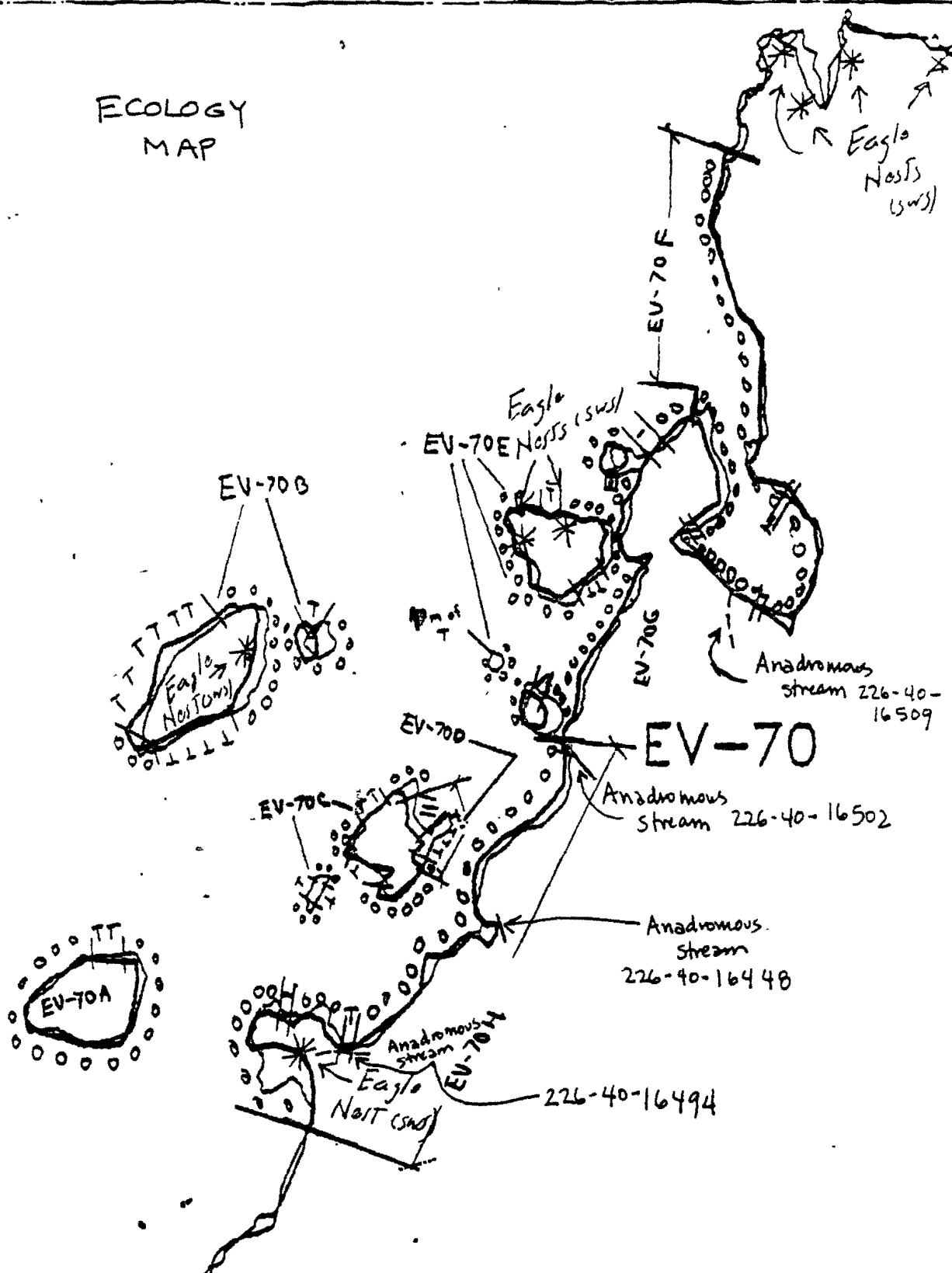
Ecological Considerations:

711, 1B: Not relevant for this subdivision.

*Note: most surveyed by boat.

ACE 7238362

ECOLOGY MAP



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

OOOO No Oil

EV-70

ADEC Segment Length: 12625m



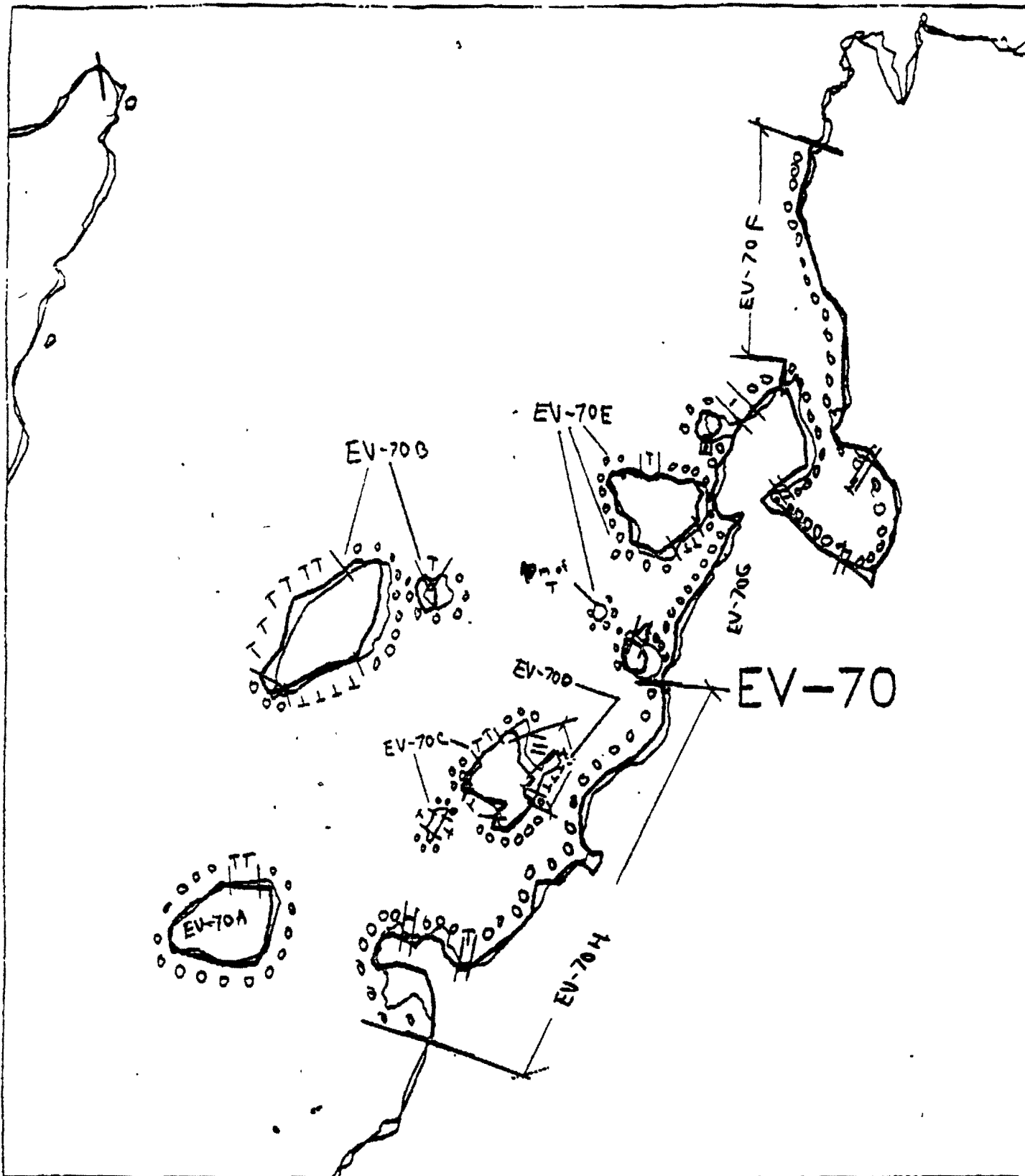
Map Key: PWS-278

Name: Mike Sogor

Date: 4/1/90

Date Entered:

ACE 7238363



XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

OOOO No Oil

EV-70

ADEC Segment Length: 12625m

0 300 600 900
METERS

Map Key: PWS-279

Name: Mike Foster

Date: 4/1/90

Date Entered:

ACE 7238364 -15

*Processed
4/24
RKH*

RECEIVED

APR 21 1990

DEPT. OF
ENVIRONMENTAL CONSERVATION

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/EV-70

SUBDIVISIONS: D (4 OF 8)

*Note to Coauthors
spelling*

ACE 7238365+15

SHORELINE EVALUATION

SEGMENT ST/ EV-70 SUBDIVISION D (4 OF 8) DATE 4/1/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

ADF&G anadromous stream no. 226-40-16494, 16498, 16509, 16502.

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

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

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

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

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to uncoiled biota and substrate. Do not trample or otherwise damage mussel bed at base of spit.

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 139 m: Narrow 0 m: V.Light 66 m: No Oil 73 m
Subsurface Oil Observed: Yes X No _____ Maximum Depth 5 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: Recommend bioremediation of area shown on attached sketch map. Work should be conducted after 6/1 with approval of USFWS regarding eagle nest constraint. Avoid mussel bed near proposed bioremediation site.

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

Anchorage (6/1 to 9/15)

6W

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

6X

Lodge (8/1 to 9/15)

6Y

Special use destination

7Z

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

7HH

Finfish harvesting

7II

Deer harvesting (8/15 to 2/28)

7JJ

Invertebrate harvesting

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

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ EV-70 SUBDIVISION: D DATE 4/1/90

USCG NOAA

NAME GARY SHIGENAKA

SIGNATURE Gary Shigenaka

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

LIQUID OIL WAS OBSERVED IN THIS SUBDIVISION, WHICH CONSISTED OF AN EMBAYMENT ON THE NORTH SIDE OF AN ISLAND ABOUT A MILE SOUTH OF THE ENTRANCE TO EUGUAC BAY (EVANS ISLAND). EXCLUDING THIS EMBAYMENT, THE REMAINDER OF THE ISLAND WAS DESIGNATED AS SUBDIVISION 'C'. THE BEACH WAS CHARACTERIZED BY SHALE COBBLE AND BOULDERS. THE UPPER INTERTIDAL SHOWED EVIDENCE OF OILING IN THE FORM OF CONSISTENT SPLATTERS THROUGH A 1-2 M BAND ALONG MUCH OF THE BEACH. A BAND IN THE LOWER INTERTIDAL SHOWED EVIDENCE OF CONSISTENT SURFACE OILING (WEATHERED COAT AND COVER). AND EXAMINATION UNDER COBBLE AND BOULDER REVEALED FREE OIL ON THE WATER WITH A DISTINCT ODOOR OF CRUDE. THIS 5-10 M BAND EXTENDED FOR MUCH OF THE ENCLOSED BEACH, ~60M. A SHEEN WAS OBSERVED IN THE IMMEDIATELY ADJACENT NEARSHORE WATERS, AND AS THE BOAT HAD APPROACHED THE BEACH FOR LANDING, BIOLOGIST RICH ANDREWS HAD NOTED OCCASIONAL SMALL (1-2 CM) POCKETS OF SHEEN. LIQUID OIL WAS ESTIMATED TO BE PRESENT TO A DEPTH OF 3 CM IN THE SEDIMENTS, WITH WATER FILLING THE PIT BELOW THIS DEPTH AND MAKING FURTHER OBSERVATION DIFFICULT. NEVERTHELESS, WORMS WERE OBSERVED LIVING IN SEDIMENTS OF ONE OIL PIT. MUSSEL BEDS NEAR THE LOWER INTERTIDAL OILED ZONE APPEARED TO BE OKAY, ALTHOUGH OBSERVED ASPHALTING MAY HAVE CAUSED A PORTION OF THE BEDS TO SEEC AWAY. THIS BEACH MAY BE A CANDIDATE FOR BIOREMEDIATION.

ADEC

NAME

John Hoyer

SIGNATURE John Hoyer

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

This sub-segment consisted of ~~part~~ ^{sketch} of an island off the shoreline of EV-70 (see map). The sub-segment D, had oiling in the L-M-U TIZ's. Subsurface oiling ranged from 3-5 cm. Most of the oiling was concentrated in the UIZ in a continuous band surface coverage was coat and cover. Treatment recommended is either bioremediation or mechanical, with further evaluation dredge + wash mechanical may be applicable to this beach. The beach appears stable and the free oil is all on surface. Special attention should be paid to healthy mussel beds + other growth noted on bio. map.

LAND MANAGER

NAME

Rec. treatment only for section with three bands of oiling indicated on ~~map~~ ^{sketch map}. Hot water treatment would be applicable but ~~due to~~ ^{due to} healthy stable beach around oil is not advised on this segment.

SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

SHORELINE OILING SUMMARY

REVISION NO. 03/28/88

OG Mike Foget ^{NOAA} USCG Gary Shigenaka SEGMENT ST/ EV-70
 BIO Richard Ambrose LAND REP — SUBDIVISION D (4048)
 EXXON Larry Olson ADEC John Hayes TIME 14:00 to 15:10
 TEAM NO.: 11 TIDE LEVEL: 1.1 to 3.6 DATE 4/1/90
 EST. SUBDIVISION LENGTH: 240 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☐ Rock snow covered uplands
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: W to E
 SURFACE SEDIMENTS: R 10 % B 10 % C 35 % P 20 % G 15 % S 10 % M 0 % V 0 %
 SLOPE: Long 60 % Hang 20 % Vert 20 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 50 m N 25 m VL 100 m NO 40 m

SURFACE OIL

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

PAVEMENT: H ☒ S 2 sq. m by 3 cmPATTIES / TARBALLS 0 BAGSNEAR SHORE SHEEN? NO BR ☒ SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☐ YES ☒ NOTYPE 0#BAGS 0

Photographs:

Roll No. ST-11-1Frames 22-26, 29-31

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CH)	BELOW		OIL / FILM COLOR					PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		DO	UC	1	2	3	4	5	SU	U	M	U		
1	5		X				0-1		X	X					X					P, C
2	10		X				0-3		X	X					X					P, C
3	15					X	-		X						X					P, C
4	10				X		0-5	X		X							X			C, P, S (water in seam - 96%)
5	10			X			0-3	X		X							X			C, P, S (")
6	15					X	-		X						X					P, C

COMMENTS

Subdivision D is located on the North eastern side of Subdivi-
 C, this shoreline had more extensive oiling than the rest of Subdivision C. A light
 discontinuous splattered tar/stain is located on the eastern side of the cobble
 beach in HI-2. The same distribution of stained cobble is located on the eastern side
 of the Large rock outcrop to the North of the beach. over

Page 1 of 2REVIEWED 4/11/90
MM/7DATE 4/11/90

ACE 7238369

SUBSURFACE OIL (CONTINUED)

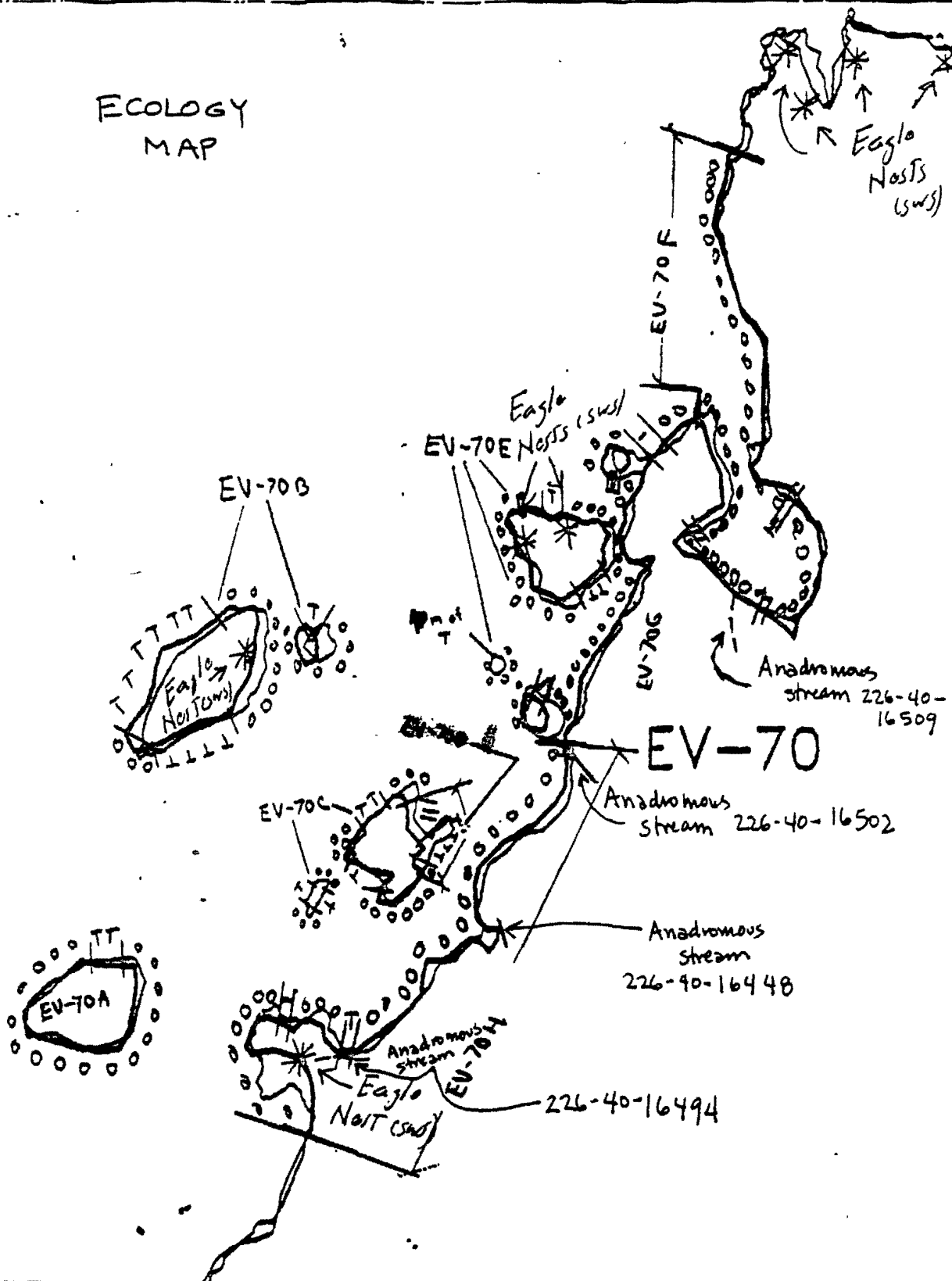
[illegible]

COMMENTS The Beach to the west of the large rock outcrop and mussel Bed was hit fairly hard. The oil category for this section is medium. In the upper ITZ is a 2m X 50m Patchy distribution of oil/tar. ^{There are some tar/asphalt patches located in this zone.} Most of the oil is located on the Protected side of the boulders and cobble. In the Mid intertidal is a splattered 4m X 50m tar staining with most of the oil located on the protected side of the cobble the oil appears to be weathered on the exposed side of cobbles. In the LITZ there is a 2m X 50m cover of oil/tar in a patchy distribution. On the surface the oil appears highly weathered. Underneath cobbles is free oil. Brown oil globules appear on the water surface (water at 5cm) when cobbles are uncovered. A slight rainbow sheen was observed in the water just off shore.

REVIEWED M.H. DATE 4/11/90

REVIEWED m.h. DATE 4/11/90

ECOLOGY MAP



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

OOOO No Oil

EV-70

ADEC Segment Length: 12625m



Map Key: PWS-279

Name: Mike Fong

Date: 4/1/90

Date Entered:

ACE 7238371

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/23/90

Segment ST / EVO 70 Subdivision D Date (mo / day / yr) 4 / 1 / 90

Time (24 hr) 1400 hrs Biologist Ambrose

(A) Substrate type and % of segments:
(1) Bedrock 10 (2) Boulder 10 (3) Cobble 35 (4) Pebble 20 (5) Sand 25 (6) Silt -

(B) Overall % cover of biota (% of segment): Dense 0 Moderate 15 Low 85

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

Photographs:
Roll No. ST-11-1

Frames 27, 28

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

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

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

FUCUS

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

Wildlife Observations/ General Comments: * 14 unid. ducks (Harlequins??), 4 cormorants
Generally sparse biota (since most of subdivision consists of E. side of island). Virtually all mussels occurred in one area; see Addendum.

Ecological Considerations:

711, 1B: Not relevant for this subdivision.

Mussel bed would be susceptible to trampling; see Addendum.

*Note: most surveyed by boat.

DATE 4 / 1 80

CHECKLIST

- ___ M Arrow
- ___ Appox. Scale
- ___ Seg/Sub Bndry
- ___ Oil Dlat.
- ___ Width
- ___ Length
- ___ % Cover
- ___ Substrate Character
- ___ Est. HML/LYR
- ___ SST
- ___ Profile Location(s)
- ___ Profile(s)
- ___ PH Location(s)
- ___ Photo Location(s)

LEGEND

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

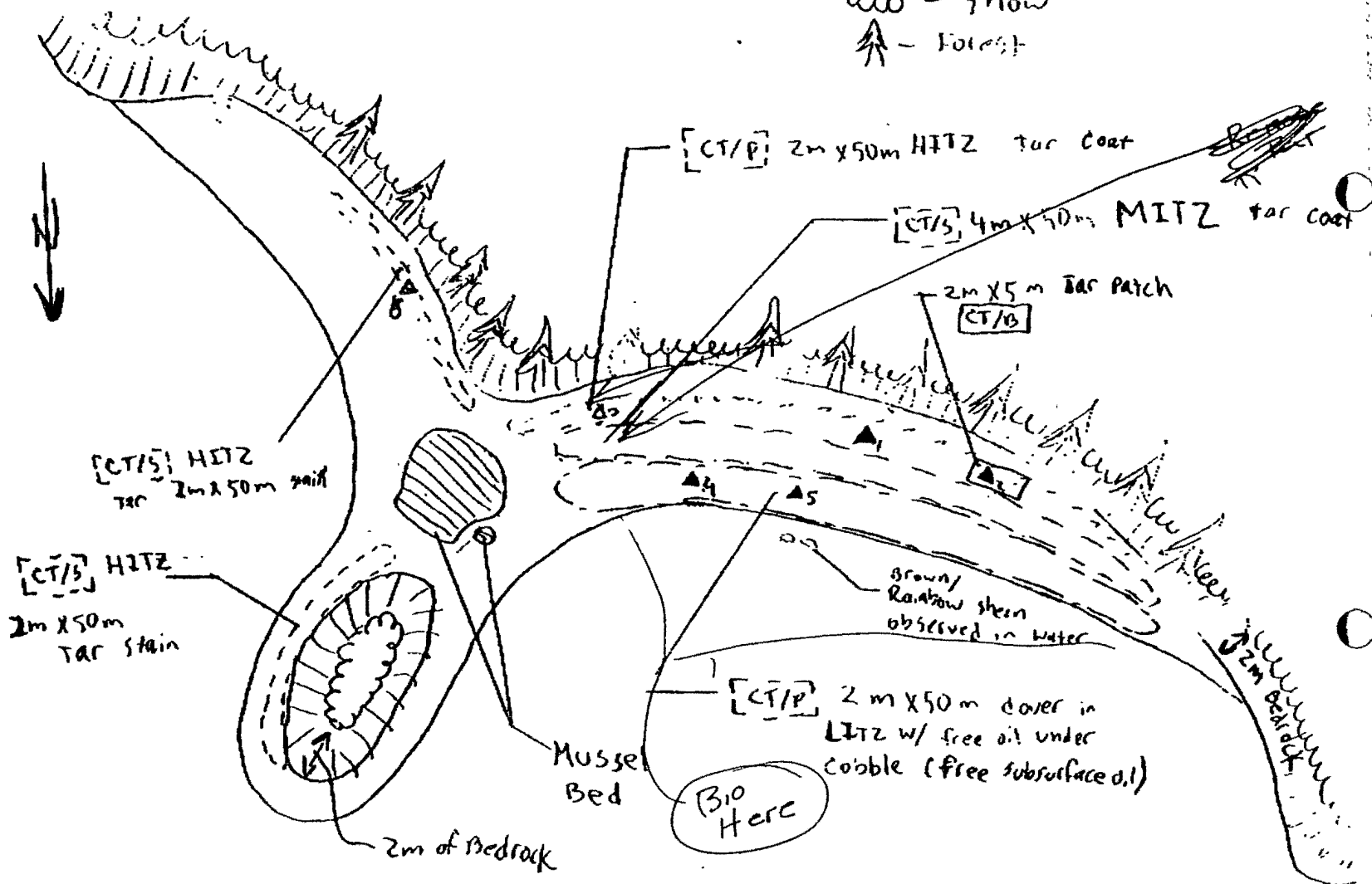
SKETCH MAP

scale

25 m

Legened

/// - Rock/Boulder outcrop
 ~ - snow
 ▲ - Forest

 - Mussel bed

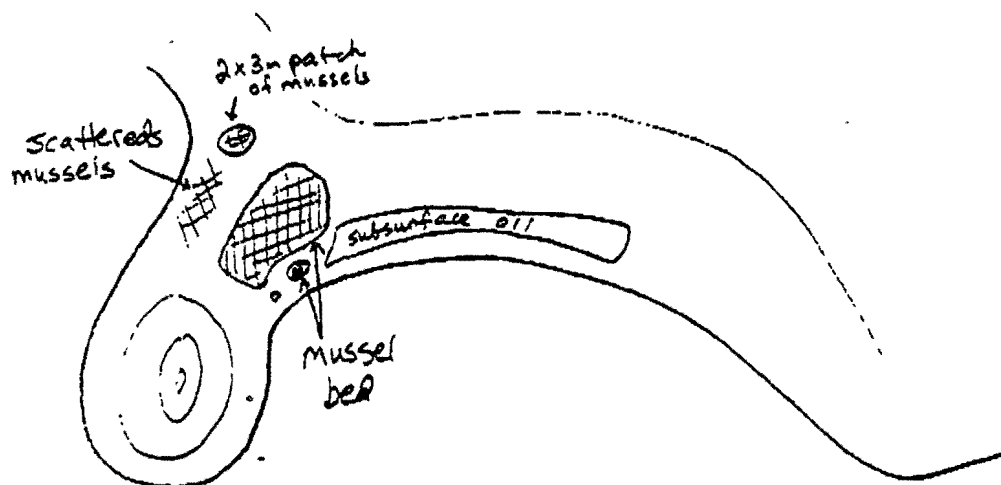
Oil Character Length (m): AP 5 PO - CV 50 CT 150 ST - MS - PT - TB - FL 1 NO 206

978-1-892-1041-2-9

4/1/90

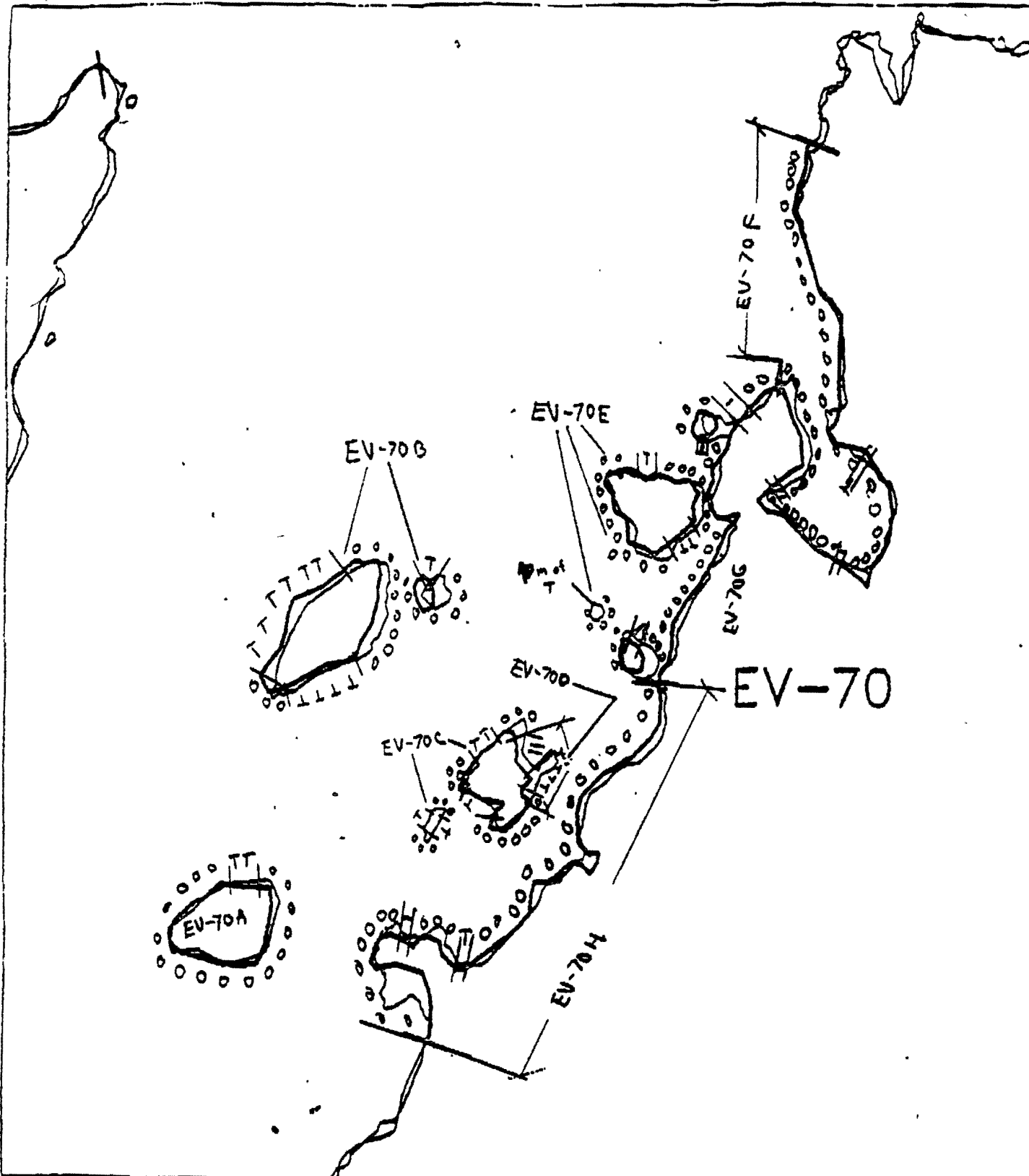
Addendum

A dense mussel bed on pebbles occurred at beach with free subsurface oil. The biota over the main part of the cove was quite sparse, with sparse barnacles & littorines and rare Fucus. The mussel bed would be susceptible to trampling, but it occurs on the ridge east of the main beach, and could be avoided during beach activities:



The mussel bed is about 5cm thick. No oil was found on the mussels; however, the northwest edge of the bed was broken up, and it looks as though the bed used to extend to where subsurface oil and asphalt are found now.

Hermit crabs were observed under one rock in the mid intertidal (in oil zone). A nemertean - alive - was under a rock with a noticeable amount of free oil on the water.



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-70

ADEC Segment Length: 12625m

0 300 600 900
METERS

Map Key: PWS-279

Name: Mike Fogar

Date: 4/1/90

Date Entered:

AGE 7238375-/S

*Proposed
A24
R4*

RECEIVED

APR 21 1990

DEPT. OF
ENVIRONMENTAL CONSERVATION

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/EV-70

SUBDIVISIONS: E (5 OF 8)

*cannot be used
Revolutions upon total zone
and area not furnished*

ACE 7238376+15

SHORELINE EVALUATION

SEGMENT ST/ EV-70 SUBDIVISION E (5 OF 8) DATE 4/1/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

ADF&G anadromous stream no. 226-40-16494, 16498, 16509, 16502.

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

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

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

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

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiled biota and substrate. Two bald eagle nests in Subdivision E.

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 0 m: V.Light 191 m: No Oil 839 m
Subsurface Oil Observed: Yes X No _____ Maximum Depth 6 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: Recommend manual pick up of oiled debris and vegetation.
Work should be conducted after 6/1 and with permission of USFWS due to
eagle nest constraints.

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____

EXXON _____

NOAA _____

USCG _____

FOSC: _____ DATE: _____

ACE 7238377

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 unrolled intertidal and subtidal algae and seagrass.
 Contact ADF&G for specific dates and locations.
- 3N, 3P Harbor seal and sea lion pupping (5/15 to 7/1)
 3O, 3Q Harbor seal and sea lion molting (8/15 to 9/15)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m
 horizontal and 300m vertical distance from haulouts.
- 5R Seabird colony (5/1 to 9/1)
 Restrict air traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m
 vertical distance. Contact ADF&G and USFWS prior to treatment.
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic.
- 6T All Bald Eagle nests (3/1 to 6/1)
 Active Bald Eagle nests (3/1 to 9/1)
 Restrict air traffic to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from
 and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to
 treatment for confirmation of dates.
- 6U Recreation: Tent sites (6/1 to 9/15)
- 6V Anchorages (6/1 to 9/15)
- 6W Forest Service cabins (6/1 to 9/15)
- 6X Lodge (6/1 to 9/15)
- 6Y Special use destination
- 7Z Subsistence area: Salmon harvesting (5/1 to 9/30)
- 7HH Finfish harvesting
- 7I Deer harvesting (8/15 to 2/28)
- 7JJ Invertebrate harvesting
 For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / EV-70 SUBDIVISION: E DATE 4/1/90

USCG NOAA

NAME GARY SHIGENAKA

SIGNATURE *Gary Shigenaka*

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

SUBDIVISION "E" CONSISTED OF A LARGER ISLAND DUE SOUTH OF THE ENTRANCE TO GUGUAC BAY (EVANS ISLAND). THE SUBDIVISION INCLUDED A VERY SMALL ISLAND LYING TO THE NORTH OF THE LARGER. SPLATTERS OF WEATHERED OIL WERE OBSERVED ON THE SHIPER FACES OF THE SMALL ISLAND. THE LARGER ISLAND SHOWED A "BATHTUB RING" OF STAIN ON MANY OF ITS ROCK WALLS AND BOULDERS IN THE UPPER INTERTIDAL. A BEACH ON THE NORTHEAST SIDE OF THE LARGER ISLAND WAS VISITED. THE BEACH CONSISTED OF TWO DISTINCT TYPES, WITH A ROCK OUTCROPPING DIVIDING THE TWO. THAT TO THE WEST WAS COMPRISED OF LARGE BOULDERS. SOME SPLATTERS WERE OBSERVED ON EXPOSED FACES. NO OTHER EVIDENCE OF OILING WAS SEEN. THE SUPERTIDAL WAS NOT ACCESSIBLE DUE TO SNOW. THE EASTERN HALF OF THE BEACH CONSISTED OF COBBLE AND GRAVEL, WITH SOME BOULDERS. THE LANDWARD FACES OF MANY OF THE BOULDERS SHOWED STAIN COAT OR COVER. COATING WAS SEEN ON BARNACLES ATTACHED TO A ROCKY OUTCROPPING ON THE EASTERN EDGE OF THE BEACH, WITH SOMEWHAT HIGHER INCIDENCE OF DEAD BARNACLES OBSERVED BY BIOLOGIST RICH AMBROSE IN THIS OILED PORTION. RELATIVE TO UNOILED, NO EVIDENCE OF OILING WAS OBSERVED UNDER ROCKS OR IN PITS. OILED VEGETATION WAS FOUND IN THE SUPERTIDAL, ALTHOUGH ONLY A SMALL PART OF THAT ZONE WAS ACCESSIBLE DUE TO SNOW. THIS SHOULD BE REEXAMINED AT A LATER DATE TO MORE CLEARLY DEFINE EXTENT OF OILING.

THE REMAINDER OF THE ISLAND SHOWED EVIDENCE OF OILING IN THE FORM OF WEATHERED SPLATTERS OR "BATHTUB RING", BOTH DISCONTINUOUS.

ADEC

NAME John Hayer

SIGNATURE *John Hayer*

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

This sub-section consisted of two Islands one large and one small (see map). The small Island had staining on the ~~UITE~~ the staining was a discontinuous band.

The larger Island had a discontinuous tan stain on the UITE.

A pocket beach on the large Island had oiling in the supertidal zone. Although most of the zone was covered with snow we observed oiled pebbles + vegetation to a depth of 6 cm. Area should be re-assessed after snow melts and manual pick up of oiled vegetation + pebbles is recommended. It appeared that contamination extended in this zone but was not confirmed due to snow cover.

LAND MANAGER

NAME

SIGNATURE

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

SHORELINE OILING SUMMARY

REVISION NO. 02/28/88

OG Mike Foget NOAA Gary Shigenaka SEGMENT ST/ EV-70
 BIO Richard Ambrose LAND REP None SUBDIVISION E (5048)
 EXXON Larry Olson ADEC John Hayes TIME 15:40 to 16:00
 TEAM NO.: 11 TIDE LEVEL: 4.6 to 5.0 DATE 4/1/90
 EST. SUBDIVISION LENGTH: 1100 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 30 % B 20 % C 20 % P 10 % G 10 % S - % M - % V - %
 SLOPE: Long 45 % Hang 25 % Vert 30 % WAVE EXPOSURE: ☐ Low ☒ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 120 m NO 980 m

SURFACE OIL

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

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

PATTIES / TARBALLS 0 BAGS

NEAR SHORE SHEEN? NO BR RW SL TL

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

DEBRIS COLLECTED

☐ YES ☒ NO

TYPE rope Boe needs / Fuel

#BAGS 0

Photographs:

Roll No. ST-11-1

Frames 32

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW		OIL / FILM COLOR				PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OF	OR	OL	OP	NO		DO	UC	1	2	3	4	BU	U	M	L		
* 1	15			X			0-6	X					X	X					Debris, P
2	15					X	-	X							X				P
3	20					X	-	X								X			P
							-												
							-												
							-												

COMMENTS * oiled interval < 5cm in pit #1 does not constitute subsurface oil.

Oil is located on a Pocket Beach on the N. side of the Island (Map 2) in the storm berm located in the Super ITZ. Most of the Super ITZ is covered by snow. Also there is some staining in the LITZ on the S.E. part of the Island.

BUT locm does!
 JRH 16 Apr 90

Page 1 of

REVIEWED

DATE

4/13/90

ACE 7238380

SHORELINE ECOLOGICAL SUMMARY

REVISION: 02/22/90

Segment ST/ EV070 Subdivision E Date (mo / day / yr) 4/1/90

Time (24 hr) 1540 hrs Biologist Ambrose

(A) Substrate type and % of segments:
(1) Bedrock 30 (2) Boulder 30 (3) Cobble 20 (4) Pebble 10 (5) Sand 10 (6) Silt -

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

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

Photographs:
Roll No. ST-11-1

Frames 33

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:*

2 Harlequin ducks, 1 cormorant, 1 common merganser, 1 mature bald eagle, 1 deer plus deer tracks and deer skeleton on one beach.

Ecological Considerations:

711, 1B: Not relevant for this subdivision.

*Note: most surveyed by boat.

ACE 7238381

SEGMENT ST/ EV-70

SUBDIVISION E

DATE 4 / 1 90

CHECKLIST

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

LEGEND

1 ▲

PH - No Subsurface Oil

2 ▲

PH - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

Splashed Distribution

Oiled Vegetation

1 ➡

Photo location, direction, and number

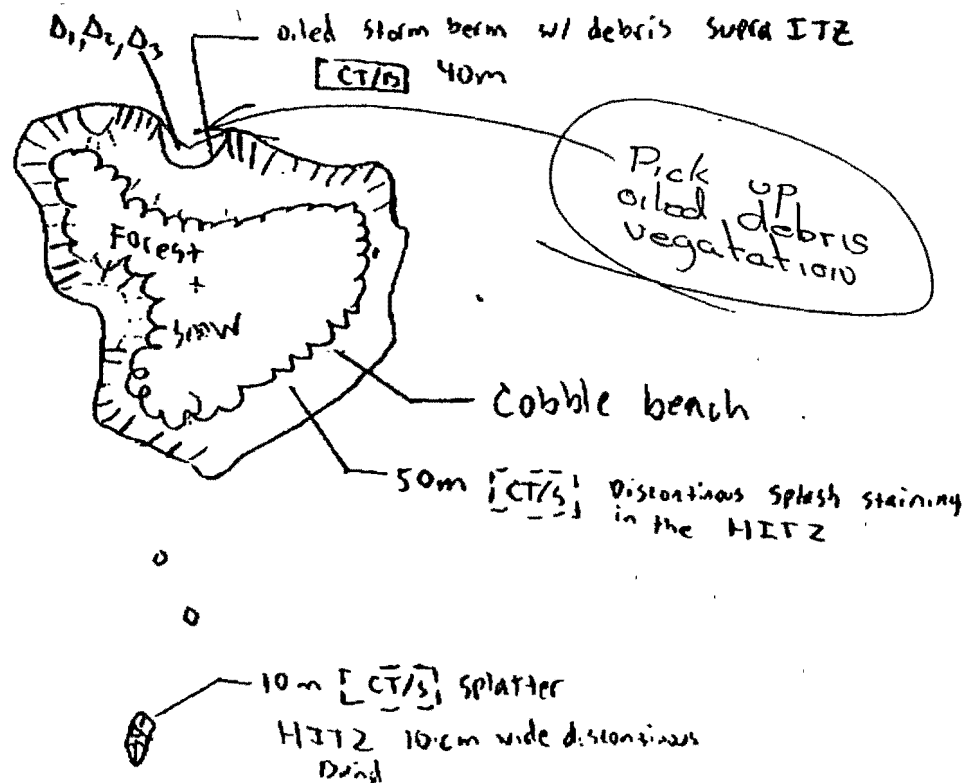
SKETCH MAP

Legend

o - Rock

☁ - Forest / Snow

/// - Bedrock / Boulders



Scale

100m

Oil Character Length (m): AP — PO — CV — CT 60 ST 60 MS — PT — TB — FL — NO 1000

REVISION: 02/2000

ACE 7238382

SEGMENT ST/ _____

SUBDIVISION _____

DATE ____ / ____ / 90

CHECKLIST

- ___ M Arrow
- ___ Approx. Scale
- ___ Seg/Sub Entry
- ___ Oil Dist.
- ___ Width
- ___ Length
- ___ % Cover
- ___ Substrate Character
- ___ Est. MW/L/VOL
- ___ SSL
- ___ Profile Location(s)
- ___ Profile(s)
- ___ P/L Location(s)
- ___ Photo Location(s)

LEGEND

1 Δ

P/L - No Subsurface Oil

2 Δ

P/L - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

Splashed Distribution

Oiled Vegetation

1 ●→

Photo location, direction, and number

SKETCH MAP 2

Legend

room - snow

//// - Bedrock / Boulder

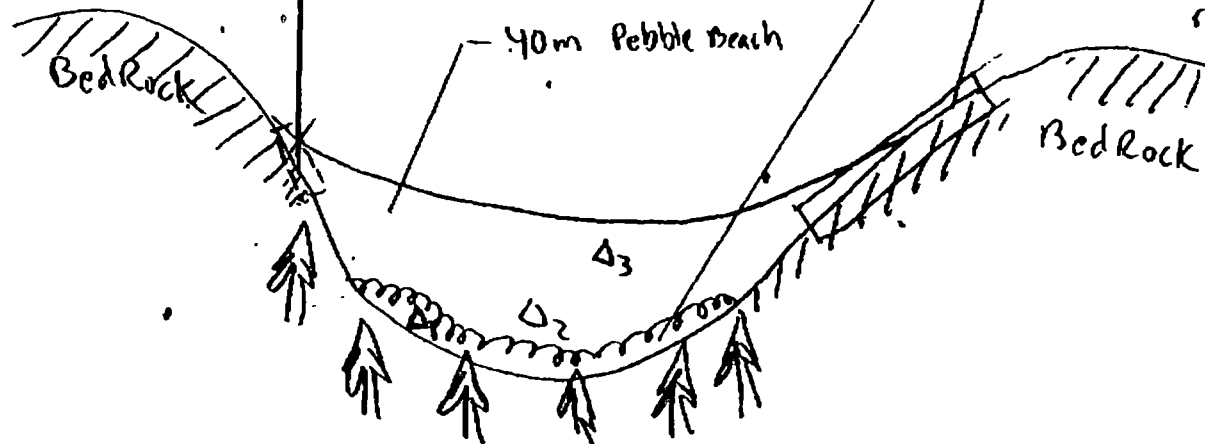
snow covered supra IT
40m storm berm w/ oiled debris

CT/B

5m x 1.5m
Discontinuous
Tar Band in HITZ
on VERT ROCK WALL

CT/B

15m x 0.5m
Discontinuous Tar Band
HITZ on VERT
rock wall



Scale

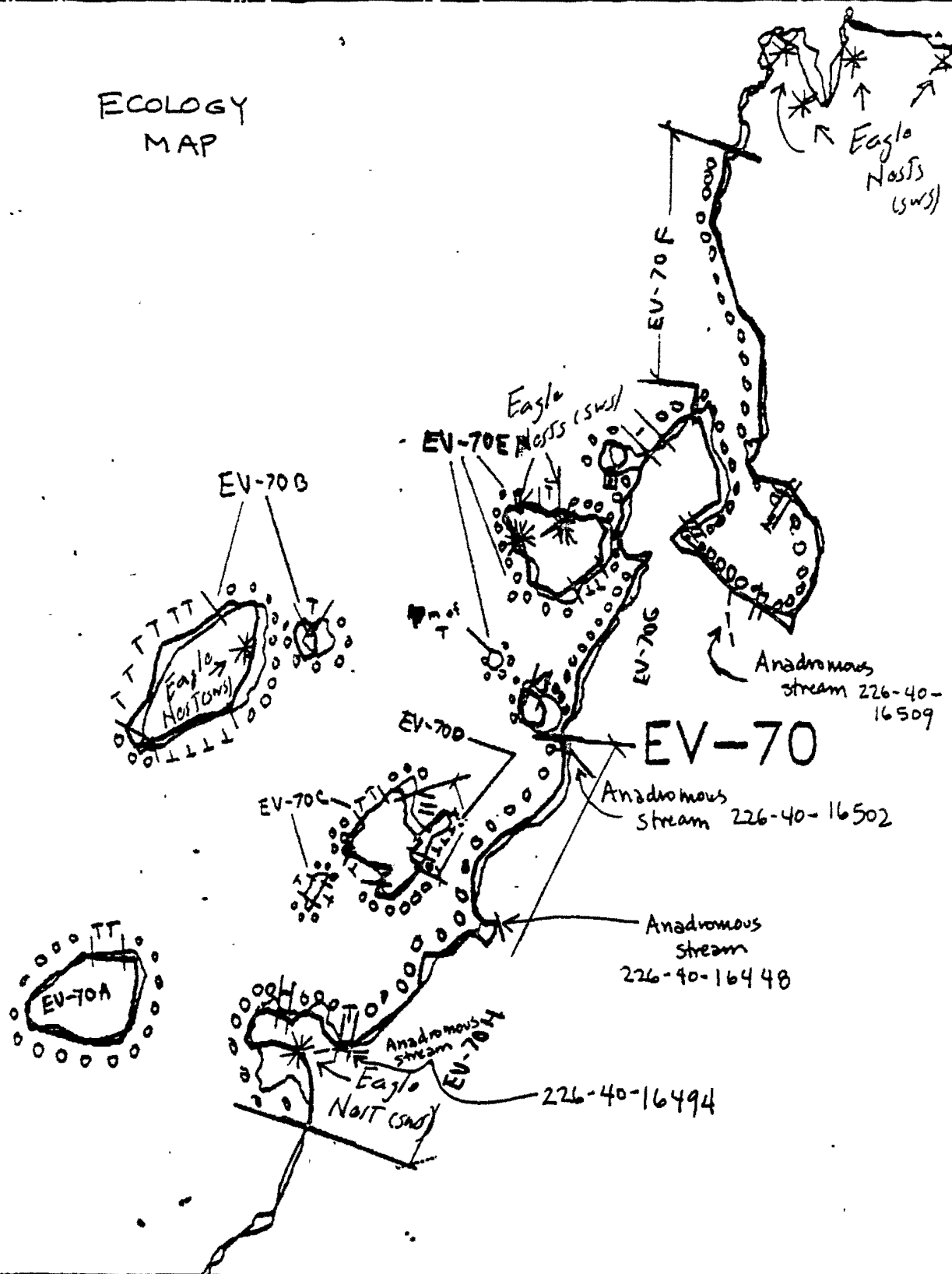
5m

Oil Character Length (m): AP ____ PO ____ CV ____ CT 60 ST ____ MS ____ PT ____ TB ____ FL ____ NO 20

80m shore zone

REVISIONS

ECOLOGY MAP



XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

OOOO No Oil

EV-70

ADEC Segment Length: 12623m



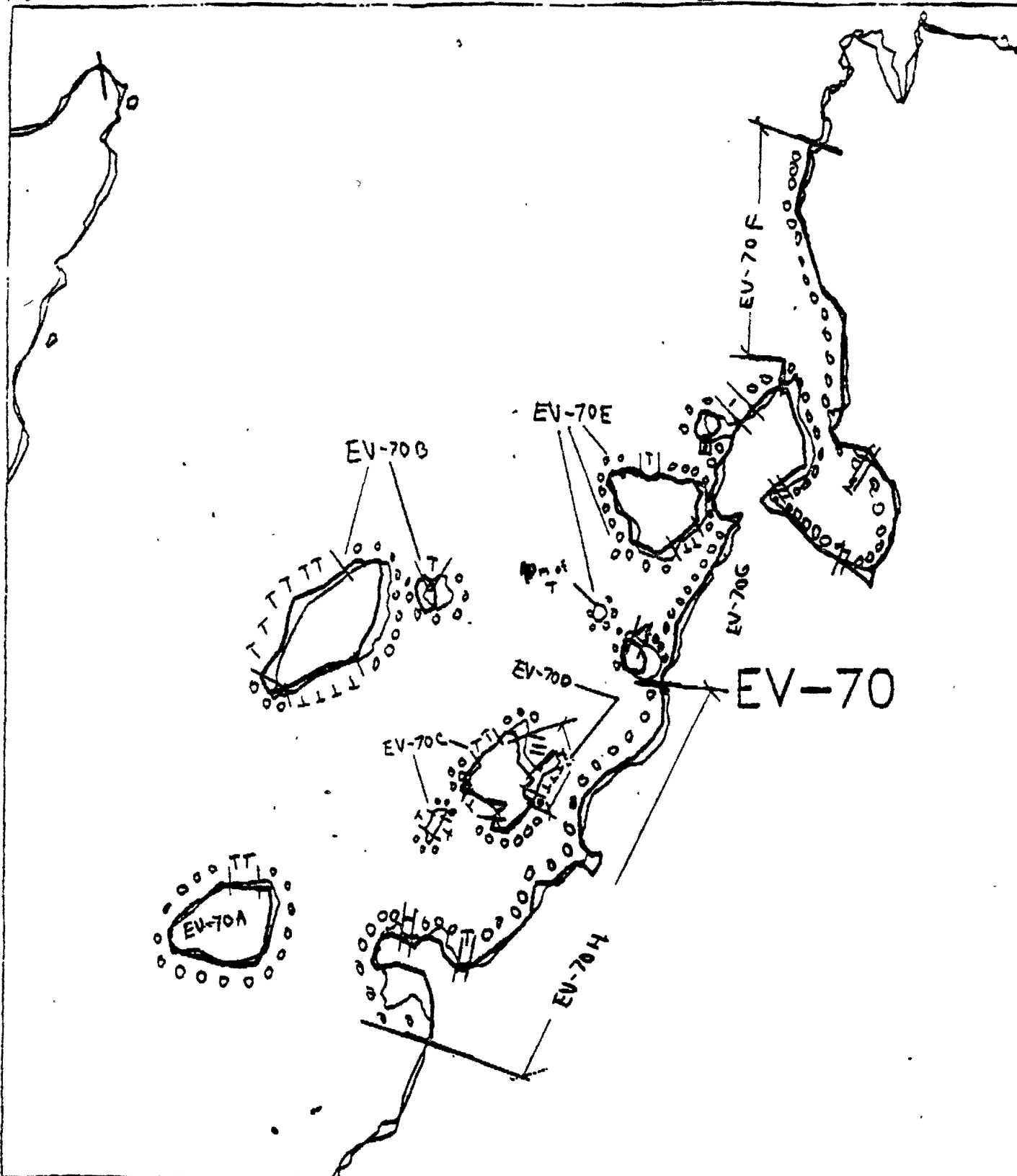
Map Key: PWS-279

Name: Mike Egan

Date: 4/1/90

Data Entered:

ACE 7238384



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

OOOO No Oil

EV-70

ADEC Segment Length: 12625m



Map Key: PWS-279

Name: Mike Fogot

Date: 4/1/90

Data Entered:

ACE 7238385 -/S

*Processed
4/24
RH*

RECEIVED

APR 21 1990

DEPT. OF
ENVIRONMENTAL CONSERVATION

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/EV-70

SUBDIVISIONS: F (6 OF 8)

*Cancel w/ Bio
absorbent on free oil
~~possible~~ ~~leaking~~ (work) ~~trailer~~*

ACE 7238386+15

SHORELINE EVALUATION

SEGMENT ST/ EV-70 SUBDIVISION F (6 OF 8) DATE 4/6/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

ADF&G-anadromous stream no. 226-40-16494, 16498, 16509, 16502.

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

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

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

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

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiled biota and substrate. Anadromous stream no. 226-40-16509 in Subdivision F; 4 bald eagle nests close by in Segment EV-60.

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 29 m: V.Light 36 m: No Oil 2808 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: Recommend bioremediation of areas shown in sketch map and reassessment of segment after additional snow-melt by Anadromous SCAT team. Work should be conducted with the approval of ADF&G regarding anadromous fish stream and USFWS concerning eagle nests.

TAG COMMENTS: _____

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

FOSC: _____ DATE: _____

ACE 7238387

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

1A
1B

Salmon stream mouth - fry outmigration (3/1 to 5/15)
Salmon stream mouth - spawning (7/10 to 8/31)
No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage
No bioremediation or other chemical application within 100m of stream. Contact ADF&G Habitat Division prior to treatment for permits.

1C

Salmon fry nursery area (4/31 to 7/31)

1D

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

1E

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

1F

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

1G

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

1H

Remote release site

1I

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

1J

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

1K

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

1L

Set net sites (6/11 to 7/25)

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

2M

Herring spawning (4/1 to 6/15)

Restrict boat traffic to essential minimum. Avoid damage to uncoiled intertidal and subtidal algae and seagrass
Contact ADF&G for specific dates and locations.

3N, 3P
3O, 3Q

Harbor seal and sea lion pupping (5/15 to 7/1)

Harbor seal and sea lion molting (8/15 to 9/15)

Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts.

5R

Seabird colony (5/1 to 9/1)

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

5S

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

Restrict all activity to essential minimum, especially air traffic.

5T

All Bald Eagle nests (3/1 to 6/1)

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

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

6U

Recreation: Tent sites (6/1 to 9/15)

6V

Anchorage (6/1 to 9/15)

6W

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

6X

Lodge (6/1 to 9/15)

6Y

Special use destination

7Z

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

7HH

Finfish harvesting

7II

Deer harvesting (8/15 to 2/28)

7JJ

Invertebrate harvesting

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

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / EV-70

SUBDIVISION: F

DATE 4/6/90

USCG NOAA

NAME GARY SHIGENAKA

SIGNATURE

Gary Shigenaka

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

SUBDIVISION CONSISTED OF THE SHORELINE OF GUGUAK BAY AND ITS APPROACHES, ON THE WEST SIDE OF EVANS ISLAND. IT WAS COMPRISED LARGELY OF COBBLE-BOULDER BEACHES WITH ROCK OUTCROPPINGS. ALONG THE NORTH APPROACH TO THE BAY, OIL STAIN WAS OBSERVED, PRIMARILY ON THE LEeward SIDE OF ROCK FACES, AND OFTEN IN THE FORM OF "BATHTUB RINGS". THE ENTIRE SHORELINE OF GUGUAK BAY WAS SURVEYED ON FOOT. VERY SPORADIC STAIN, WITH SOME COATING, WAS OBSERVED ALONG THE NORTHERN SHORE OF THE BAY. SEVERAL SMALL STREAMS AND SNOWMELT SEEPS FED INTO THE NORTHEASTERN END OF THE BAY, WITH THE SOUTHERNMOST OF THESE AN ANAPPOUOUS STREAM (EVIDENCED BY SALMONID BONES AND CARTILAGINOUS PARTS FOUND IN THE BED). WHILE SOME VERY SLIGHT EVIDENCE OF SHEEN WAS OBSERVED IN THE WATER, NO OILING COULD BE FOUND EITHER IN THE IMMEDIATE VICINITY OR IN THE STREAM. CONTINUING AROUND THE BAY, SOME SPLATCHES OF WEATHERED OIL WERE FOUND ON BOULDERS IN THE UPPER INTERTIDAL ABOVE A PEBBLE-COBBLE BEACH ALONG THE SOUTHERN SHORE OF THE BAY, ABOUT 50 M WEST OF THE ANAPPOUOUS STREAM. ABOUT 80 M WEST OF THE STREAM, SHEEN WAS OBSERVED IN THE MID- TO UPPER INTERTIDAL IN A SEEPAGE AREA. AND CLOSER EXAMINATION REVEALED A 5 M (WIDE) X 15 M (LENGTH) PATCH OF CONTAMINATION. GLOBULAR OIL ON WATER WAS FOUND IN PITS, AND RESIDUAL OIL WAS FOUND IN SEDIMENTS TO 7 CM, WITH FILM DOWN TO 10 CM. NO OTHER OIL WAS FOUND FROM THIS PATCH TO THE SOUTHWEST CORNER OF THE BAY, WHERE A MELT SEEPAGE FED INTO THE BAY. A SURFACE SHEEN WAS OBSERVED IN THE UPPER INTERTIDAL ZONE OF THE SEEP, (CONT. BELOW)

ADEC

NAME John Hayes

SIGNATURE

John Hayes

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

Recommend Anad. Seaf. team assess this bay.

The area is a sheltered bay with very little wave energy also 6 streams drain into bay 5 appear to be small + runoff streams + 1 had signs of being anapouous (junction). No oil was observed near the stream bed. Approx 80 yds west of the stream (see map) was a patch of oiling with 5.5 per. to 13cm. The 5.5 oiling was fine oil + sheening. Another oil patch was observed in the NW corner of the bay this had a note weathered coat on max per. to 3cm. with a ss film to 11cm. (OF)

LAND MANAGER

NOAA (CONTINUED FROM ABOVE)

NAME

SIGNATURE

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

AND ON THE NORTH SIDE OF THE SEEP, A 6 M (WIDE) X 20 M (LENGTH) PATCH OF COVER WAS FOUND. A PIT REVEALED 5 CM PENETRATION INTO THE SEDIMENTS. AN ISOLATED PATCH OF COVER MEASURING 1/4 M X 1/4 M WAS SEEN ON A BOULDER NORTH OF THE PATCH. NO OTHER OILING WAS OBSERVED ALONG THE SOUTHERN APPROACH TO GUGUAK BAY.

MUCH OF THE SUPERTIDAL ZONE WAS COVERED BY SNOW AND SO COULD NOT BE ASSESSED.

Spot washing, den dredge work or bio, should all be considered for this sub-segment after assessment from Anad-Seaf. Team. Careful attention should be paid to healthy growth (Bio. Map) + access to bay is at high tide due to rocks at the entrance that are exposed at low tide.

REVISION NO. 03/21/90

ACE 7238389

SHORELINE OILING SUMMARY

REVISION NO. 02/2/90

OG Mike Fogg NOAA Gary Shigara SEGMENT ST/ EV-70
 BIO Richard Ambrose USGS None SUBDIVISION E (6 of 8)
 EXXON Larry Olson ADEC John Hayes TIME 15:00 to 17:15
 TEAM NO.: 11 TIDE LEVEL: 6.0 to 1.2 DATE 4/6/90
 EST. SUBDIVISION LENGTH: 2670 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☐ Rock with snow in the SUPA ITZ
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 10 % B 10 % C 30 % P 20 % G 20 % S 5 % M 5 % V 0 %
 SLOPE: Long 60 % Hang 20 % Ven 20 % WAVE EXPOSURE: ☒ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 35 m N 0 m VL 25 m NO 2610 m

SURFACE OIL

Wave exposure - Low in protected bay, medium outside of bay

CHARACTER	DISTRIBUTION				OIL / FILM COLOR							IMPACTED ZONES			
	C	R	P	S	DE	BR	OL	SL	TL	LA	LI	SU	U	M	U
ASPHALT PAVEMENT															
POOLED															
COVER															
COAT															
STAIN															
MOUSSE															
PATTIES															
TARBALLS															
FILM															
NO OIL															

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

DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris	X		

DEBRIS COLLECTED

☒ YES ☐ NOTYPE Pom Pom#BAGS 0

Photographs:

Roll No. ST-11-2Frames 13-18

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-DM)	BELOW		OIL / FILM COLOR							PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		VO	UC	DE	BR	OL	SL	TL	LA	LI	SU	U	M	U		
1	20					X	.		X									X				G, C (H ₂ O @ 15cm)
2	30					X	.		X									X				G
3	35					X	.		X									X				G
4	15					X	.		X										X			G, P
5	10					X	.		X											X		G, P (H ₂ O @ 5cm)
6	15					X	.		X											X		G, P (H ₂ O @ 10cm)

COMMENTS Most of the oiling that occurred in this segment was at beach 1 & 2. At Beach 1 a 20m x 6m CT/B cover in the HITZ. Subsurface oiling includes rainbow sheen and globules. Beach 2 had a 15m x 5m CT/B cover of oil/tar in the HITZ. Subsurface oiling included a rainbow sheen. Both of these beach zones are R/P Beaches. The rest of the oiling in this subdivision occurs as a CT/B weathered tar stain among boulders in the HITZ.

Page 1 of

REVIEWED M. F. DATE 4/11/90

ACE 7238390

SEGMENT ST/ EV-70 SUBDIVISION F

SUBSURFACE OIL (CONTINUED)

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	SP	BR	OR	MP	GL	BL	TL	LP	SU	U	ME	U		
7	10					X	.		X									X					C, G, M
8	10					X	.		X									X					G, S
9	15					X	.		X												X		G, S, M
10	10					X	.		X									X					G, S, M (4,000m)
11	20		X				0-7		X	X									X				C, P, G (4,000m)
11	20				X		7-10		X	X									X				C, P, G (4,000m)
12	15		X				0-5		X	X									X				G, P, S
12	15				X		5-10		X	X									X				G, P, S
13	15				X		.		X									X					C, S, M
14	20		X				0-5		X	X								X					G, S
15	20					X	.		X									X					P, G
							.																
							.																
							.																

COMMENTS

REVIEWED _____ DATE _____

ACE 7238391

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/28/90

Segment ST / EVO70 Subdivision F Date (mo / day / yr) 4 / 6 / 90

Time (24 hr) 1455 hrs Biologist Ambrose

(A) Substrate type and % of segments:
(1) Bedrock 10 (2) Boulder 10 (3) Cobble 30 (4) Pebble 20 (5) Sand 30 (6) Silt —

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

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

Photographs:
Roll No. —

Frames —

BARNACLES

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

MYTILUS

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

GASTROPODS

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

FUCUS

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

Wildlife Observations/ General Comments: 2 oyster catchers, 2 common mergansers, 2 cormorants and 7 Barrow's goldeneyes, deer tracks.

Most beach was generally sparse cover, with moderate to dense areas; Guadalupe Bay was generally sparse with some Mytilus and Fucus areas

Ecological Considerations:

7/1, 18: Oil noted within 80m of salmon stream (see Addendum).

Oil was also noted at the west end of the Bay; a dense Fucus band in the low intertidal would be susceptible to trampling if this second patch was cleaned. (see Addendum).

AGE 7238392

00. Mike Foget

SEGMENT ST/ EV-70

SUBDIVISION F

DATE 4 / 6 90

CHECKLIST

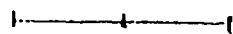
- ☐ H Area
- ☐ Approx. Scale
- ☐ Seg/Sub Entry
- ☐ Oil Dist
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HAW/LA/VL
- ☐ SSI
- ☐ Profile Location(s)
- ☐ Photo(s)
- ☐ Pn Location(s)
- ☐ Photo Location(s)

LEGEND

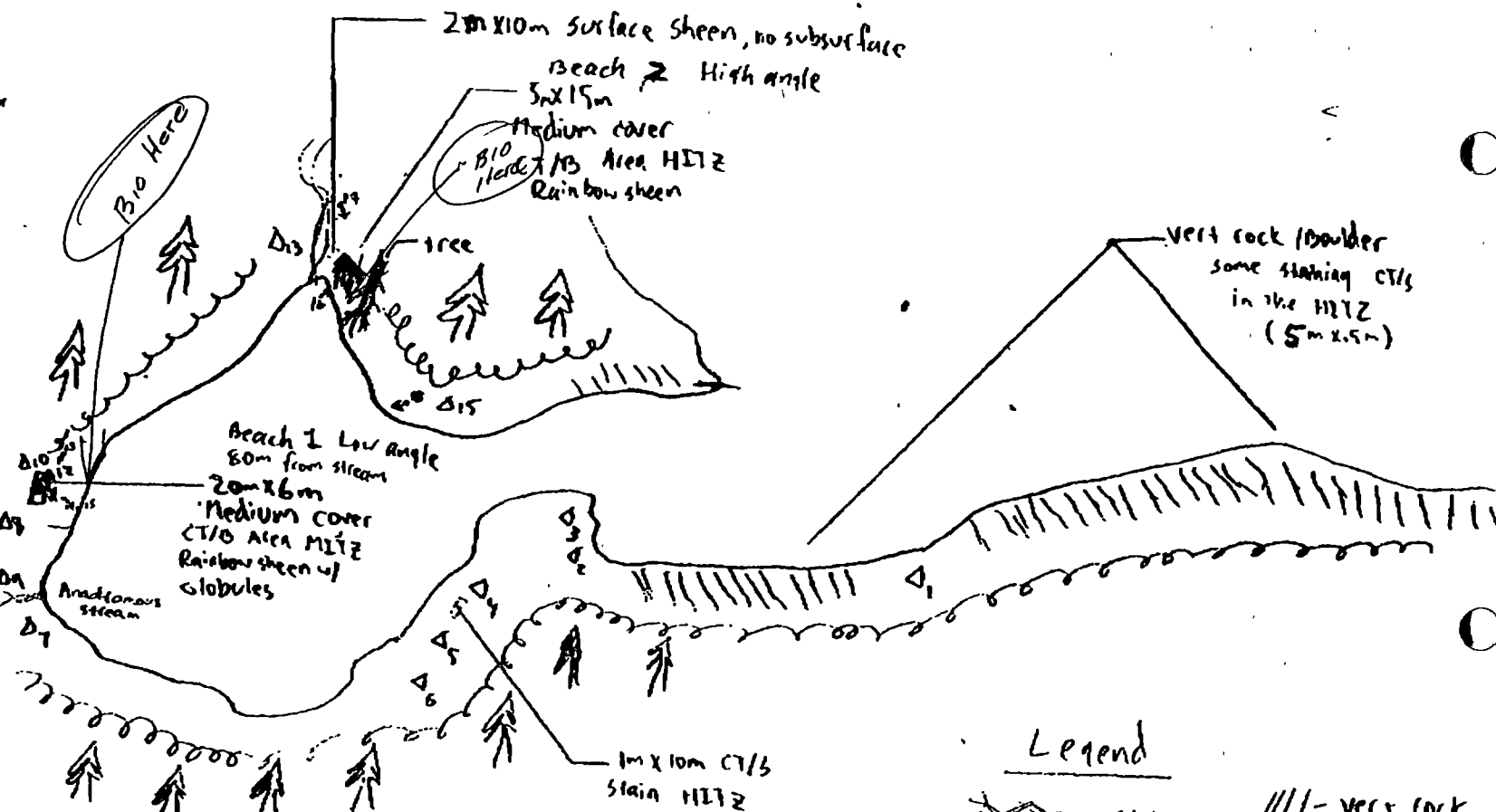
- 1 Δ
Pn - No Subsurface Oil
- 2 Δ
Pn - Subsurface Oil
- CT/C
Continuous Distribution
- CT/B
Broken Distribution
- CT/P
Patched Distribution
- CT/S
Splashed Distribution
- Oiled Vegetation
- 1 $\rightarrow$
Photo location, direction,
and number

SKETCH MAP

Scale



200 m



Legend

- stream
- forest
- snow
- vertical rock
- horizontal dead tree in HITZ

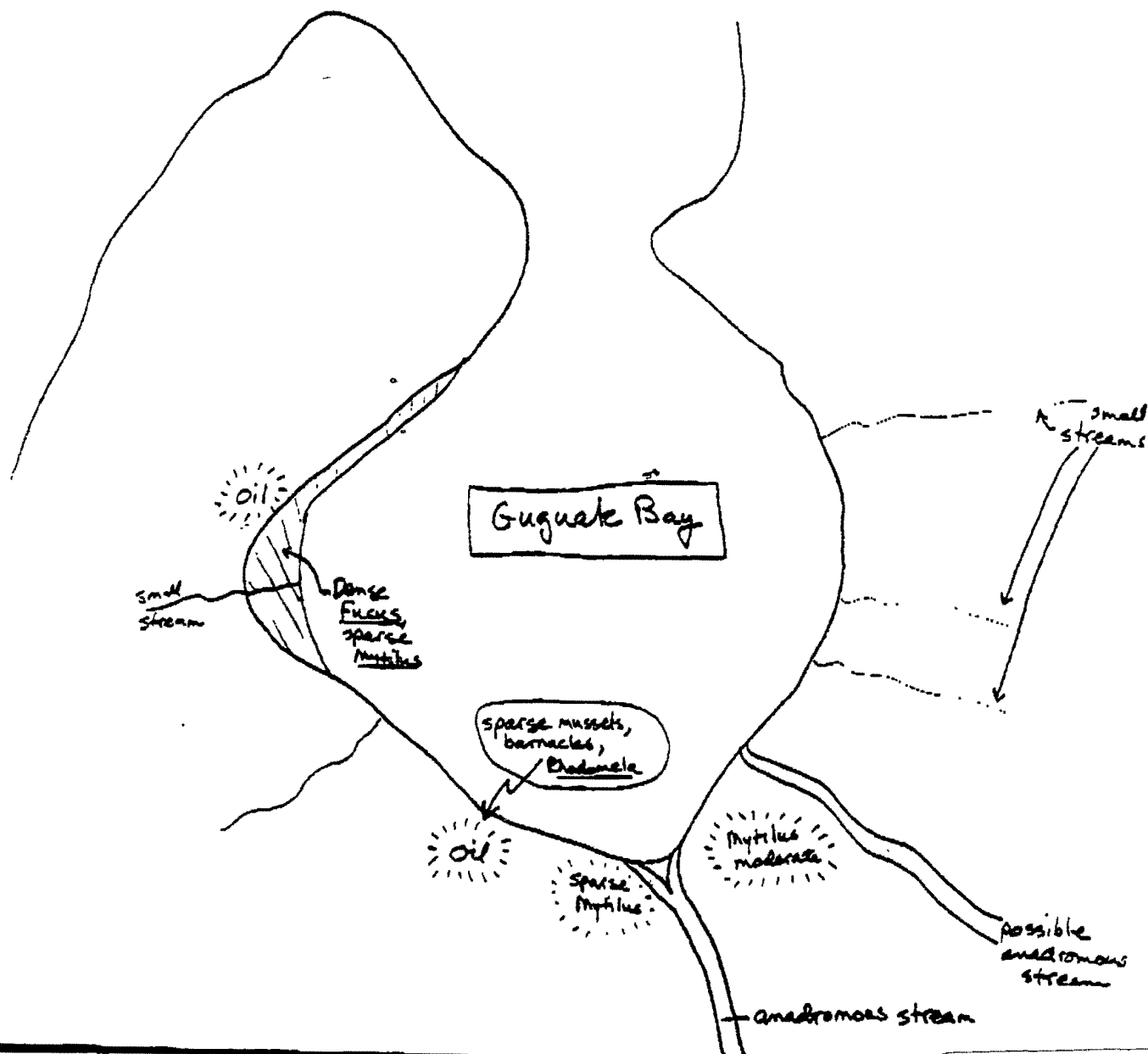
Oil Character Length (m): AP — PO — CV 35 CT — ST 15 MS — PT — TB — FL 45 NO —

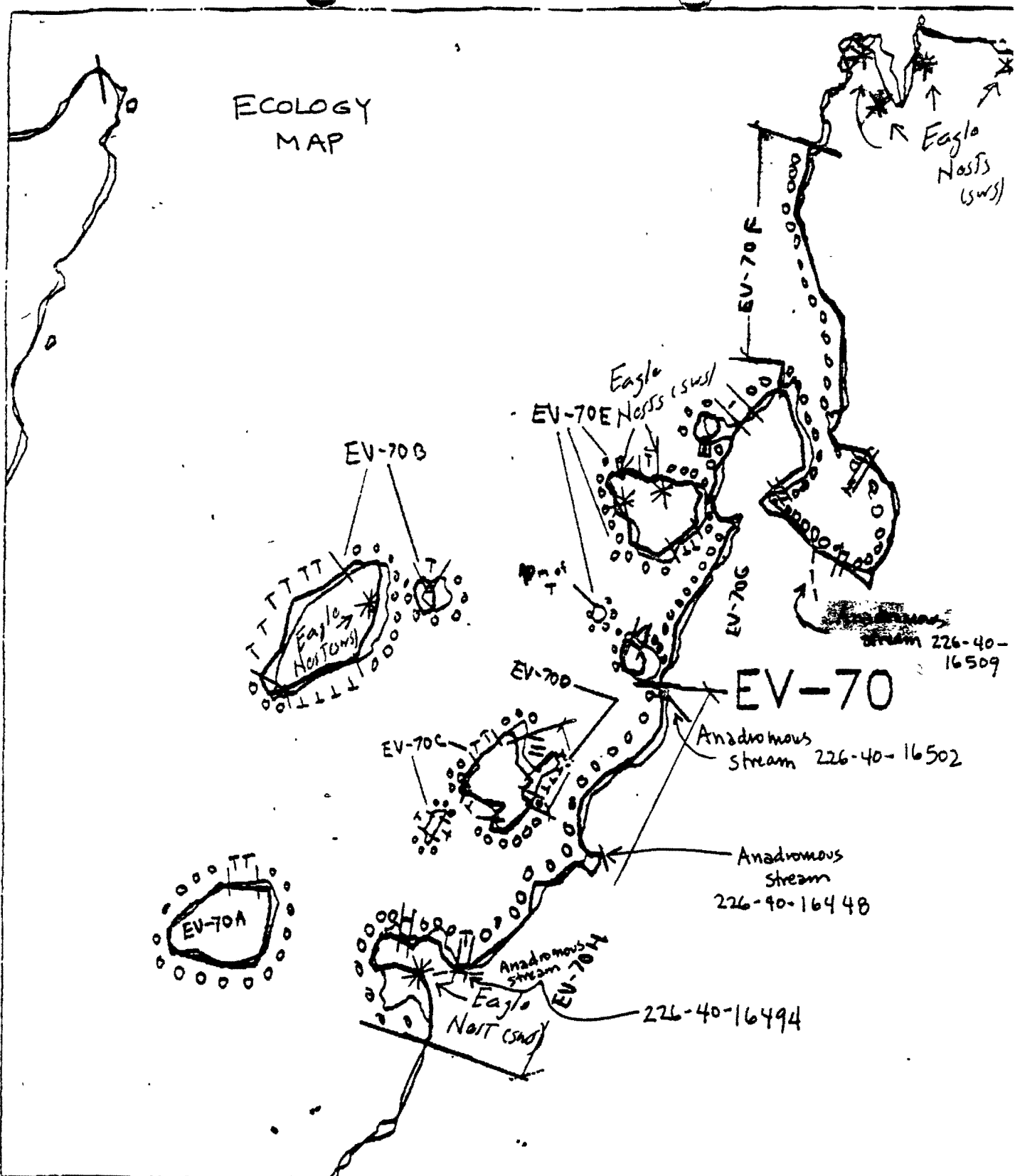
NEWBORN-887000

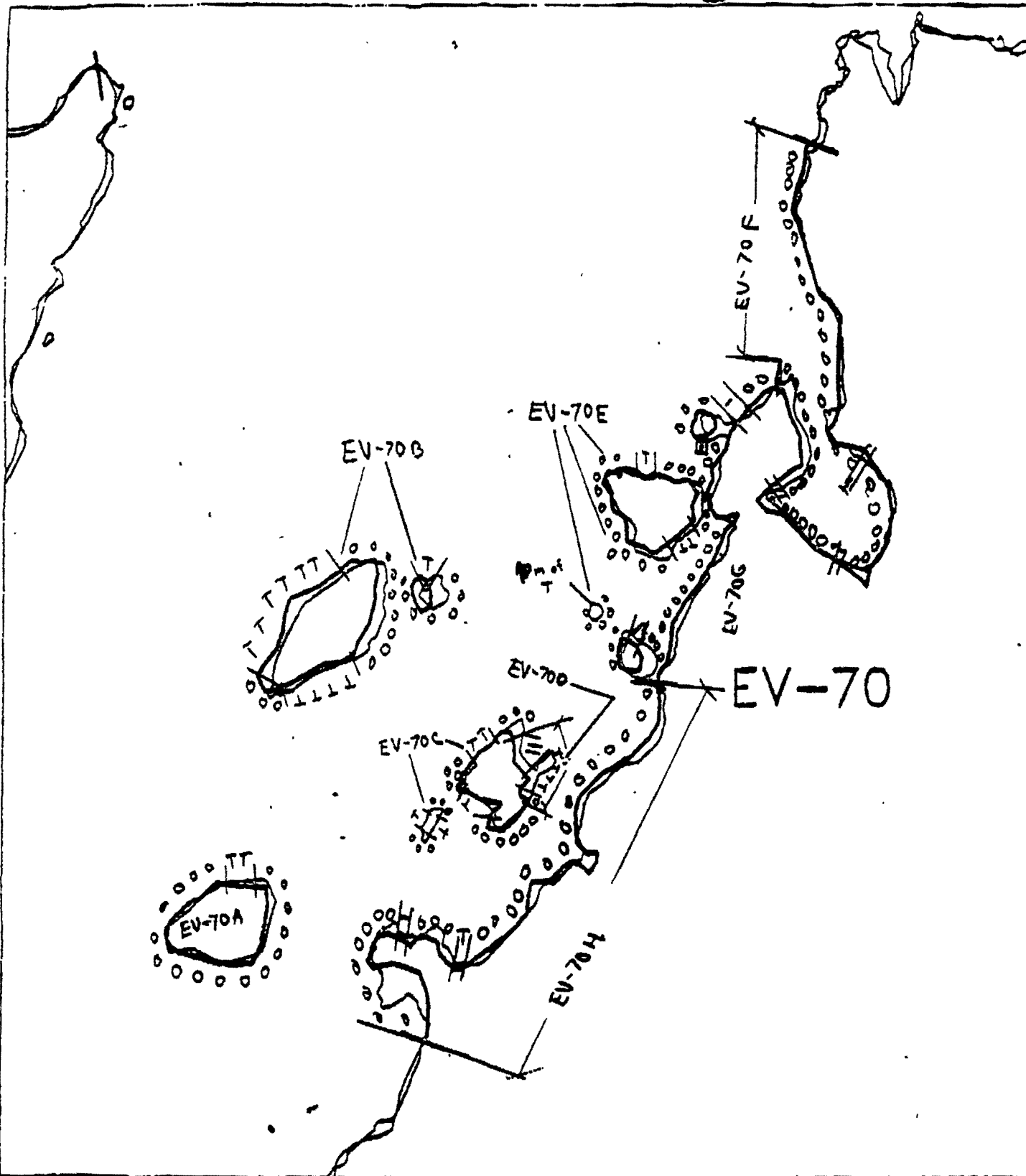
Addendum

Both a salmon stream and oil were found in Guguek Bay. The salmon stream had salmon bones and jaws in the stream. A second stream also seemed large enough to be anadromous.

One oiled location, with globules of free oil & a sheen visible on the water in pits, was about 80m from the known anadromous stream.







XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-70

ADEC Segment Length: 12625m



Map Key: PWS-279

Name: Mike Foster

Date: 4/1/90

Date Entered: _____

ACE 7238396-15

*Processed
9/29
R.H.*

RECEIVED

APR 21 1990

DEPT. OF
ENVIRONMENTAL CONSERVATION

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/EV-70

SUBDIVISIONS: G (7 OF 8)

Cancun w/ rec'd -

ACE 7238397 +/S

SHORELINE EVALUATION

SEGMENT ST/ EV-70 SUBDIVISION G (7 OF 8) DATE 4/6/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

ADF&G anadromous stream no. 226-40-16494, 16498, 16509, 16502.

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

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

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

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

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiled biota and substrate. Two bald eagle nests in Subdivision E.

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 45 m: Narrow 61 m: V.Light 40 m: No Oil 1639 m
Subsurface Oil Observed: Yes X No _____ Maximum Depth 10 cm

RECOMMENDATIONS:

☐ No Treatment Recommended	☐ 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 tarmat, oiled vegetation and debris, 2) blot any mobile oil with pom poms, 3) bioremediate areas shown on attached sketch map. Work should be conducted after 6/1 and with permission of USFWS due to eagle nest constraint and ADF&G regarding anadromous streams.

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____

EXXON _____

NOAA _____

USCG _____

FOSC: _____ DATE: _____

ACE 7238398

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 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
7H	Deer harvesting (8/15 to 2/28)
7JJ	Invertebrate harvesting For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / EV-70 SUBDIVISION: G DATE 4/6/90

USCG NOAA

NAME GARY SHIGEMAKA

SIGNATURE

Gary Shigemaka

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

SUBDIVISION CONSISTED OF COBBLE-BOULDER-ROCKY OUTCROP SHORELINE ALONG THE WESTERN COAST OF EVANS ISLAND. DEGREE OF OBSERVED OILING WAS VARIABLE. WEATHERED STAIN AND "BATHTUB RING" WAS SEEN SPORADICALLY ALONG THE SUBDIVISION. AT THE NORTHERN END OF THE SUBDIVISION, A SMALL ISLAND THAT WAS CONNECTED TO THE MAIN BODY OF EVANS ISLAND AT LOWER PORTIONS OF THE TIDAL CYCLE WAS SURVEYED ON FOOT, AND WEATHERED STAIN AND COVER WAS FOUND, AS WELL AS SOFT PAVEMENT MATERIAL. THE LATTER WAS BROKEN UP WITH THE SHOVEL TO FURTHER THE WEATHERING PROCESS. THE LARGER ISLAND APPEARING ON THE MAPS TO THE SOUTH OF THE PREVIOUSLY DISCUSSED SMALL ISLAND ALSO WAS CONNECTED TO EVANS ISLAND AT LOW TIDE. A CONSISTENT BAND OF SPLATTERS WAS OBSERVED IN THE UPPER INTERTIDAL ZONE TO THE EAST OF THIS CONNECTING ISTHMUS ON THE EVANS ISLAND SIDE, AND SOME LIGHT SHEEN WAS SEEN IN PITS DUG IN AT FRESHWATER SEEP BELOW THIS BAND. CONTINUING SOUTH DOWN EVANS ISLAND, ANOTHER ISLAND LINKED TO EVANS AT LOW TIDE WAS ENCOUNTERED, AND ALONG THE NORTHERN COAST OF THIS LINKED ISLAND, POOLED BUT WEATHERED OIL WAS FOUND IN THE UPPER INTERTIDAL AMONG BOULDERS. INTERESTINGLY, MUSSELS AND SNAILS WERE DETERMINED TO BE ALIVE IN THIS POOLED OIL. IN THE SUPRATIDAL, POOLED WEATHERED GOOEY OIL WAS ALSO FOUND, WITH A DEPTH OF 2-5 CM, AND IN TWO BANDS OF ABOUT 10M EACH. AT THE SOUTHERN END OF THE SUBDIVISION, A COBBLE-BOULDER BEACH WAS FOUND IN WHICH A SHEEN WITH LITTLE PENETRATION COVERED AN AREA OF APPROXIMATELY 10M (WIDE) X 15M (LENGTH).

ADEC

NAME John Hayer

SIGNATURE

John Hayer

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

~~There~~ The shoreline on this subsection had a combination of tar stains + splatters that were weathering well. Two tar pattles observed were broken up manually and spread out. No treatment recommended for this shoreline. Although there was a small island connected to this subsection by a land bridge - at low tide. This island had tar splatters + staining NTR and a patch of oiled vegetation and oil accumulation in the matrix between the boulders (see map). This oil is lodged in the supratidal and runs in depth from 2-5cm. Manual pick up + removal is recommended.

LAND MANAGER

NAME

SIGNATURE

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

the majority of it is in two 1-2x10m Bands. These bands are connected by a strip of the same type of oil in matrix between boulders approx 1x15m.

SHORELINE OILING SUMMARY

REVISION NO. 02/23/90

OG Mike Fogel NOAA USGS Gary Shigenaka SEGMENT ST/ EV-70 ✓
 BIO Richard Ambrose LAND REP John Hayes SUBDIVISION 9 ✓ (2+8)
 EXXON Larry Olson ADEC John Hayes TIME 17:15 to 19:45
 TEAM NO.: 11 TIDE LEVEL: 1.2 to 1.9 DATE 4/6/90
 EST. SUBDIVISION LENGTH: 1930 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☐ Rock SAW in the SUPRA ITZ
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 25 % B 30 % C 25 % P 10 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Lang 25 % Hang 35 % Vert 20 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 2 m M 80 m N 80 m VL 65 m NO 1705 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	C	N	S	E	SP	BR	GY	BLK	LT	SU	U	M	V
ASPHALT PAVEMENT													
POOLED		X						X		X			
COVER													
COAT			X			X					X		
STAIN				X		X					X		
MOUSSE													
PATTIES				X		X					X		
TARBALLS													
FILM													
NO OIL											X	X	

PAVEMENT: H F S 0 sq. m by 0 cm(PATTIES) TARBALLS 1 BAGS

NEAR SHORE SHEEN? NO BR RW SL TL

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

DEBRIS COLLECTED

☐ YES ☒ NOTYPE 0#BAGS 0

Photographs:

Roll No. ST-11-2Frames 19-23

SUBSURFACE OIL

* Patties were broken up

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CH)	BELOW		OIL / FILM COLOR						PIT ZONE				A N A	SUBSURFACE SEDIMENTS	
		OP	OR	OL	OF	NO		VO	UC	BLK	BR	GY	LT	SL	SU	U	M	L				
1	10					X	.		X							X						G, P, C
2	20					X	.		X							X						G, P, C
3	20					X	.		X							X						G, P, C
4	30					X	.		X								X					G, S, M
5	20				X		.		X				X			X						C, G, S (Film on H ₂ O)
6	10	X					0-5		X				X			X						O.I., G, S
7	10	X					0-4		X				X			X						O.I., G, S

COMMENTS

Most of the oiling in this segment occurred on two beaches. The oiled beach in the Northern part of the subdivision is a 2m x 80m Ct/P Patchy cover in the HITZ w/ a 15m x 80m very light Ct/S splattered stain in the MITZ which classifies this beach as narrow. There were some tar patties located in the HITZ which were manually broken up by the SSAT team.

Page 1 of 1REVIEWED WDATE 4/13/90

ACE 7238401

SEGMENT ST/ SUBDIVISION

70

SUBSURFACE OIL (CONTINUED)

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-ON)	BELOW		OIL / FILM COLOR						PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	HO		UO	UC	1	2	3	4	5	6	SU	U	M	L		
7	10					X	.		X								X				C, G, M
8	10					X	.		X								X				G, S
9	15					X	.		X										X		G, S, M
10	10					X	.		X								X				G, S, M (420 m x 12 m)
11	20		X				0 - 5	X	X	X								X			C, P, G (420 m x 14 m)
12	15		X		✓		0 - 5	X	X								X				G, P, S
12	15				✓		5 - 10	X		X							X				G, P, S
13	15				✓		.	X		X							X				C, S, M
14	20		X				0 - 5	X		X							X				G, S
							.														
							.														
							.														
							.														
							.														

COMMENTS

11 - Rainbow + Globular sheen METZ 6m x 20m
14

REVIEWED

70

DATE

4/13/90

SUBSURFACE OIL (CONTINUED)

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM)	BELOW		OIL / FILM COLOR						PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	SP	BR	OR	GR	BL	LT	SU	U	M	L		
							.														
							.														
							.														
							.														
							.														
							.														
							.														
							.														
							.														
							.														
							.														
							.														
							.														
							.														
							.														

COMMENTS The other beach w/ substantial oiling is located on a Island in the south of the subdivision. This is a Northern facing beach which has pooling in the SUPRA ITZ (map 2). One is a 1m x 10m CT/B distribution 4cm thick. The other is a 2m x 10m CT/B distribution approx 5cm thick. There is also a oil coating in the HITZ approx 80m in length. With this beach there is also some oiled material located in the storm berm. This area is classified as Medium.

REVIEWED _____ DATE _____

ACE 7238403

OG Mike Foget

SEGMENT ST/ EV-70

SUBDIVISION G

DATE 4/6/90

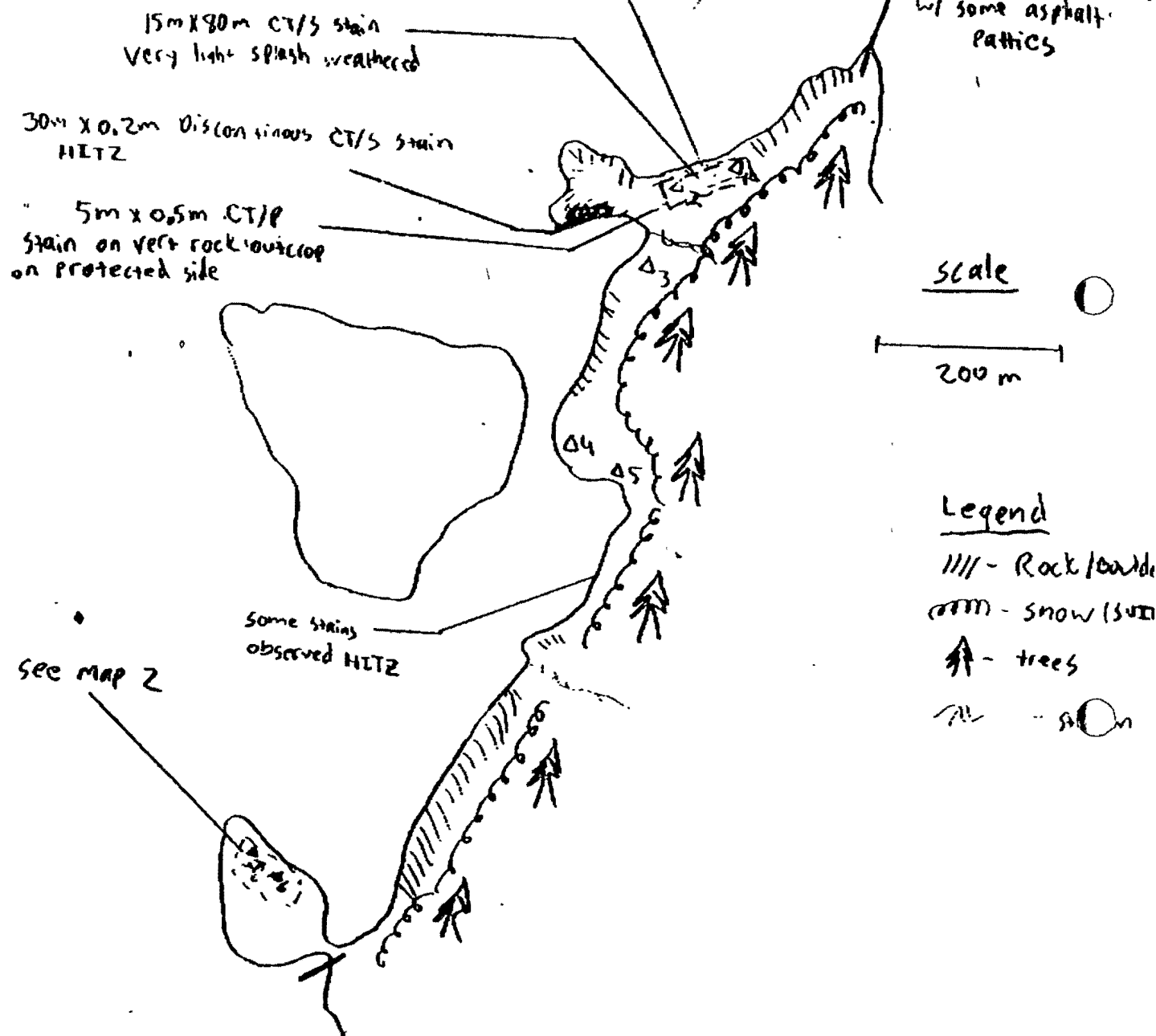
CHECKLIST

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

LEGEND

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

SKETCH MAP 1



Oil Character Length (m) AP _____ PO Z CV 90 CT 80 ST 145 MS _____ PT _____ TB _____ FL _____ NO _____

OG Mike Fogar

SEGMENT ST/ EV-70

SUBDIVISION 6

DATE 4, 6 90

CHECKLIST

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

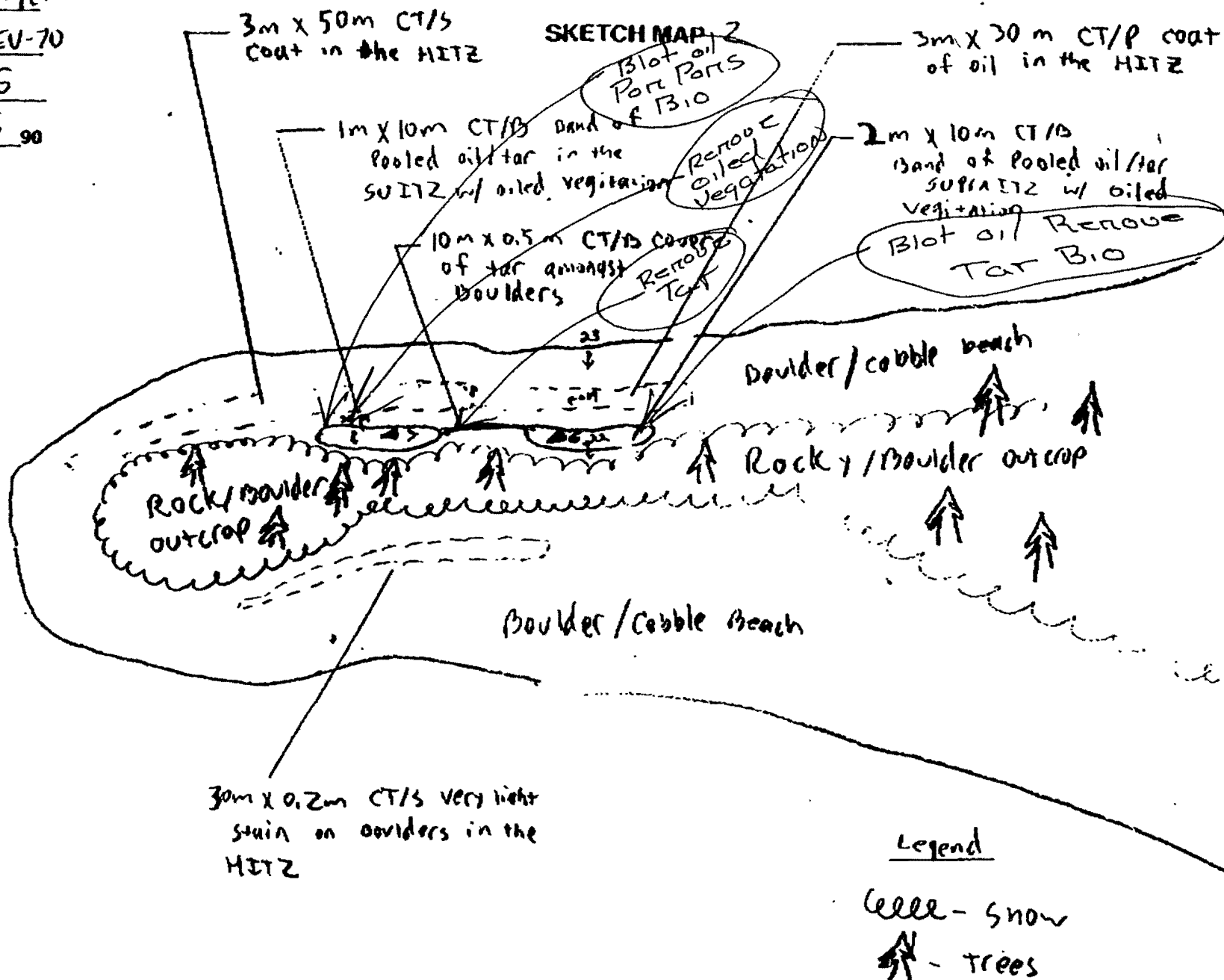
CT/B
Broken Distribution

CT/P
Patched Distribution

CT/S
Splashed Distribution

Oiled Vegetation

1 ●
Photo location, direction,
and number



See map 1

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

REVISION 03/04/00

ACE 7238405

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST/ EVO70 Subdivision G Date (mo / day / yr) 4 / 6 / 90Time (24 hr) 1715hrs Biologist Ambrose

(A) Substrate type and % of segments:

(1) Bedrock _____ (2) Boulder _____ (3) Cobble _____ (4) Pebble _____ (5) Sand _____ (6) Silt _____

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

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

Photographs: _____

Roll No. _____

Frames _____

BARNACLES

Dense			Moderate			Sparse			Rare		
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: 6 Barrow's goldeneyes, 2 eagles (mature)
 High-angle beaches had moderate to high cover, pocket beaches were generally sparse. In one section, Littorina and Nucella were aggregated & laying eggs.

Ecological Considerations:

711, 18: No relevant observations.

See Addendum.

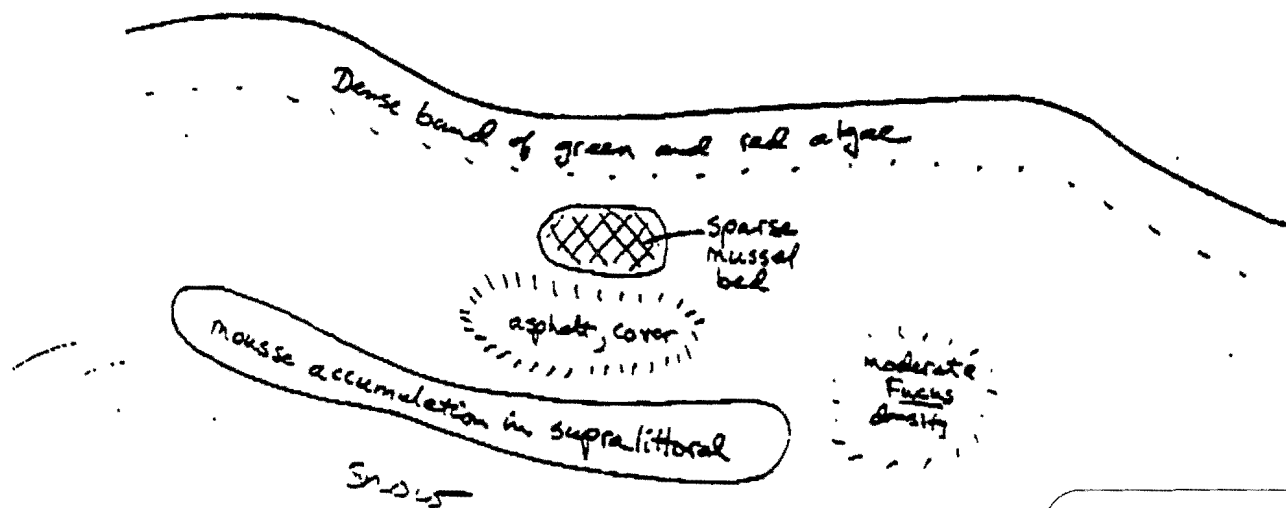
ACE 7238406

4/6/90

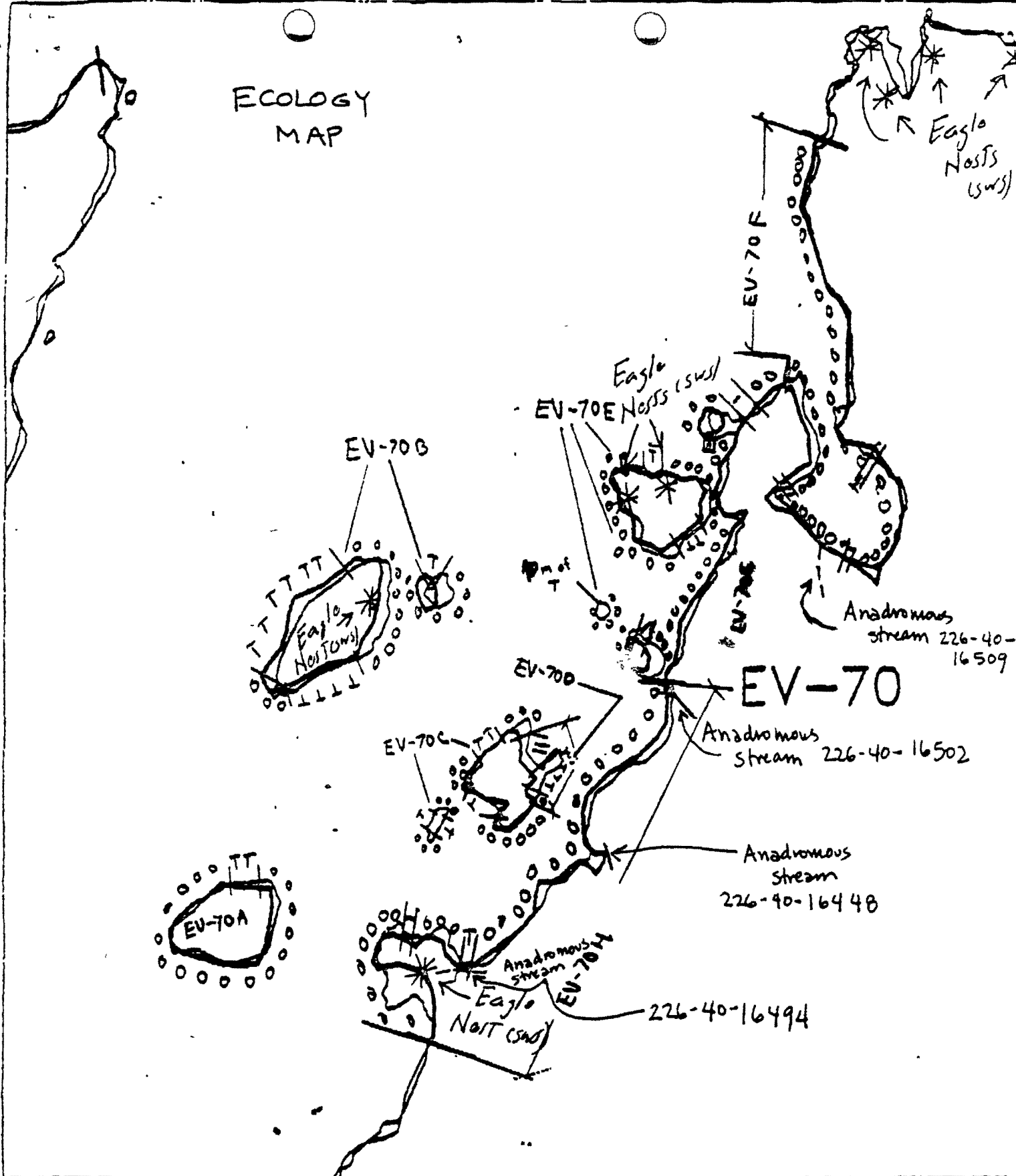
Addendum

Oil was found in two separate areas in this subdivision. In one cove, there were asphalt patches in the upper intertidal. A small mussel bed (with moderate Mytilus density) occurred off to one side of the cove, away from the asphalt. Otherwise, cover was sparse and there are no unusual ecological considerations.

Along one section of beach, asphalt was found in the upper intertidal and a mousse accumulation was found in the supralittoral zone. A sparse bed of mussels would be susceptible to trampling, but there are not many mussels there. There is also a dense band of green and red algae in the lower intertidal; these algae are, in part, ephemeral and not particularly susceptible to trampling.



ECOLOGY MAP



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

EV-70
 ADEC Segment Length: 12625m



Map Key: PWS-279
 Name: Mike Conner
 Date: 4/1/90
 Date Entered:

ACE 7238408 -/S

*Processed
9/29
RH*

RECEIVED
APR 21 1990

DEPT. OF
ENVIRONMENTAL CONSERVATION

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/EV-70

SUBDIVISIONS: H (8 OF 8)

*Canary w/ Juc'l
Re-evaluate
make & find out 7/8*

ACE 7238409+/S

SHORELINE EVALUATION

SEGMENT ST/ EV-70 SUBDIVISION H (8 OF 8) DATE 4/6/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

ADF&G anadromous stream no. 226-40-16494, 16498, 16509, 16502.

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

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

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

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

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiled biota and substrate. Three anadromous streams one in Subdivision H: 226-40-16502; 16448; 16494. One bald eagle nest in Subdivision H. Do not trample or otherwise damage mussel bed.

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 42 m: V.Light 60 m: No Oil 2308 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: Recommend manual pick up of oiled debris, vegetation,
patties and mousse. Work should be conducted between 6/1 and 7/10 and
only with permission of USFWS due to eagle nest constraints.

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

ACE. 7238410

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
 1B Salmon stream mouth - spawning (7/10 to 8/31)
 No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage
 No bioremediation or other chemical application within 100m of stream. Contact ADF&G Habitat Division prior
 to treatment for permits.
- 1C Salmon fry nursery area (4/31 to 7/31)
- 1D Esther Hatchery release (4/15 to 6/1)
- 1E Main Bay Hatchery release (4/20 to 5/10)
- 1F Sawmill Bay Hatchery release (4/15 to 6/1)
- 1G Cannery Creek Hatchery release (4/21 to 6/1)
- 1H Remote release site
- 1I Gill net area (6/7 to 8/31)
- 1J Purse seine area (7/20 to 9/30)
- 1K Purse seine hook-off (7/20 to 9/30)
- 1L Set net sites (6/11 to 7/25)
 For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.
- 2M Herring spawning (4/1 to 6/15)
 Restrict boat traffic to essential minimum. Avoid damage to unopened intertidal and subtidal algae and seagrass
 Contact ADF&G for specific dates and locations.
- 3N, 3P Harbor seal and sea lion pupping (5/15 to 7/1)
 3O, 3Q Harbor seal and sea lion molting (8/15 to 9/15)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m
 horizontal and 300m vertical distance from haulouts.
- 5R Seabird colony (5/1 to 9/1)
 Restrict air traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m
 vertical distance. Contact ADF&G and USFWS prior to treatment.
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic.
- 5T All Bald Eagle nests (3/1 to 6/1)
 Active Bald Eagle nests (3/1 to 9/1)
 Restrict air traffic to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from
 and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to
 treatment for confirmation of dates.
- 6U Recreation: Tent sites (6/1 to 9/15)
- 6V Anchorages (6/1 to 9/15)
- 6W Forest Service cabins (6/1 to 9/15)
- 6X Lodge (6/1 to 9/15)
- 6Y Special use destination
- 7Z Subsistence area: Salmon harvesting (5/1 to 9/30)
- 7HH Finfish harvesting
- 7I Deer harvesting (8/15 to 2/28)
- 7JJ Invertebrate harvesting
 For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / EV-70 SUBDIVISION: H DATE 4/6/90

USCG NOAA

NAME GARY SHIGENAKA

SIGNATURE

Gary Shigenaka

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

SUBDIVISION CONSISTED OF A PEBBLE BEACH AND ADJACENT SHORELINE. A SHEEN WAS OBSERVED BELOW A MUSSEL BED ON THE BEACH, AND SOFT TARPATTIES AND OILED VEGETATION WERE FOUND IN THE SUPRATIDAL ACROSS THE LENGTH OF THE BEACH (APPROXIMATELY 20 M). A PIT DUG INTO THE SUPRATIDAL BERM REVEALED ABOUT 7 CM OF CLEAN PEBBLES OVERLYING ABOUT 8 CM OF OILED PEBBLES AND VEGETATION.

NO EVIDENCE OF OILING WAS OBSERVED IN THE REMAINDER OF THE SUBDIVISION.

ADEC

NAME

John Hayes

SIGNATURE

John Hayes

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

Oiling observed on this segment consisted of soft patties of oiled vegetation + pebbles in the supratidal zone.

Full extent of oiling was not observed due to snow cover.

Deep into storm berm beyond Ber. were pebbles with residual oil coat. ^{STR} for pebbles

Recommend manual removal of oiled pebbles + vegetation, also manual pickup of oil patties all of which are in supratidal just above storm berm (see sketch map).

Sheen was observed on beach indications were it originated from oiling at head of beach & no o.s. or oil coat was observed in L.M.U. TZ's.

LAND MANAGER

NAME

SIGNATURE

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

SHORELINE OILING SUMMARY

REVISION NO. 03/23/90

OG Mike Foget NOAA USGS Gary Shigenaka SEGMENT ST/ EV-70 (1 of 8)
 BIO Richard Ambrose LAND REP _____ SUBDIVISION H (8 of 8)
 EXXON Larry Olson ADEC John Hayes TIME 19:45 to 20:10
 TEAM NO.: 11 TIDE LEVEL: 1.9 to 2.9 DATE 4/6/90
 EST. SUBDIVISION LENGTH: 2805 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☐ Rock snow in the SUPRA ITZ
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 20 % B 35 % C 25 % P 10 % G 10 % S 0 % M 0 % V 0 %
 SLOPE: Lang 40 % Hang 40 % Ven 20 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 30 m VL 50 m NO 2725 m
2705

SURFACE OIL

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

PAVEMENT: H F (S) 2 sq. m by 3 cmPATTIES / TARBALLS 0 BAGSNEAR SHORE SHEEN? NO BR (RW) SL TL

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

DEBRIS COLLECTED
☐ YES ☒ NOTYPE 0#BAGS 100

Photographs:

Roll No. ST-13-2Frames 24-25

* Sheen on water in pits 5 & 6; origin uncertain

SUBSURFACE OIL * oiled interval < 5cm in pit #2 does not constitute subsurface oil.

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-ONS)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	SP	BP	GP	BP	GP	BP	GP	SU	U	M	L			
1	25					X	.		X									X					G, S
2	30					X	.		X									X					P, G, S
3	25					X	.		X								X						C, P, G (H ₂ O @ 1cm)
4	30					X	.		X									X					C, P, G (H ₂ O @ 10cm)
* 5	15					X	.		X					X				X					C, P, S
* 6	10					X	.		X		X								X				G (H ₂ O @ 5cm)

COMMENTS All oiling observed in the subdivision occurred in the southern end. Beach 1 has a 2m x 50m CT/S weathered stain among the cobble in the 4ITZ. Beach 2 is a 30m pocket low angle cobble/pebble beach with a 1m x 30m CT/B oiling in the storm berm. There is heavily oiled vegetation, asphalt patties and some pooled oil on this area.

Page 1 of 2

REVIEWED M. J. Jw DATE 4/11/90

ACE 7238413

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/80

Segment ST/ EVO70 Subdivision H Date (mo / day / yr) 4/6/90Time (24 hr) 1945 hrs Biologist Ambrose

(A) Substrate type and % of segments:

(1) Bedrock _____ (2) Boulder _____ (3) Cobble _____ (4) Pebble _____ (5) Sand _____ (6) Silt _____

(B) Overall % cover of biota (% of segment): Dense 15 Moderate 15 Low 70

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

Photographs:

Roll No. _____

Frames _____

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS

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

NOT PRESENT

FUCUS

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

NOT PRESENT

Wildlife Observations/ General Comments: 6 seals, 22 Barrow's goldeneyes, 6 Harlequin ducks, 6 Canada Geese at anadromous stream, 3 deer tracks, Cobble beaches are fairly sparse, but bedrock and high-angle beaches had dense red and green algae in mid and low intertidal. Dense laminaria in subtidal.

Ecological Considerations:

711, 1B: One anadromous stream noted in this subdivision; no oil seen nearby.

The pocket beach with oil has a mussel bed; see Addendum.

ACE 7238415

OG Mike Fogel

SEGMENT ST/70

SUBDIVISION H

DATE 4 16 90

CHECKLIST

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

LEGEND

1 Δ
Pt - No Subsurface Oil

2 Δ[▲]
Pt - Subsurface Oil

CT/C
Continuous Distribution

CT/B
Broken Distribution

CT/P
Patchy Distribution

CT/S
Splashed Distribution

Oiled Vegetation

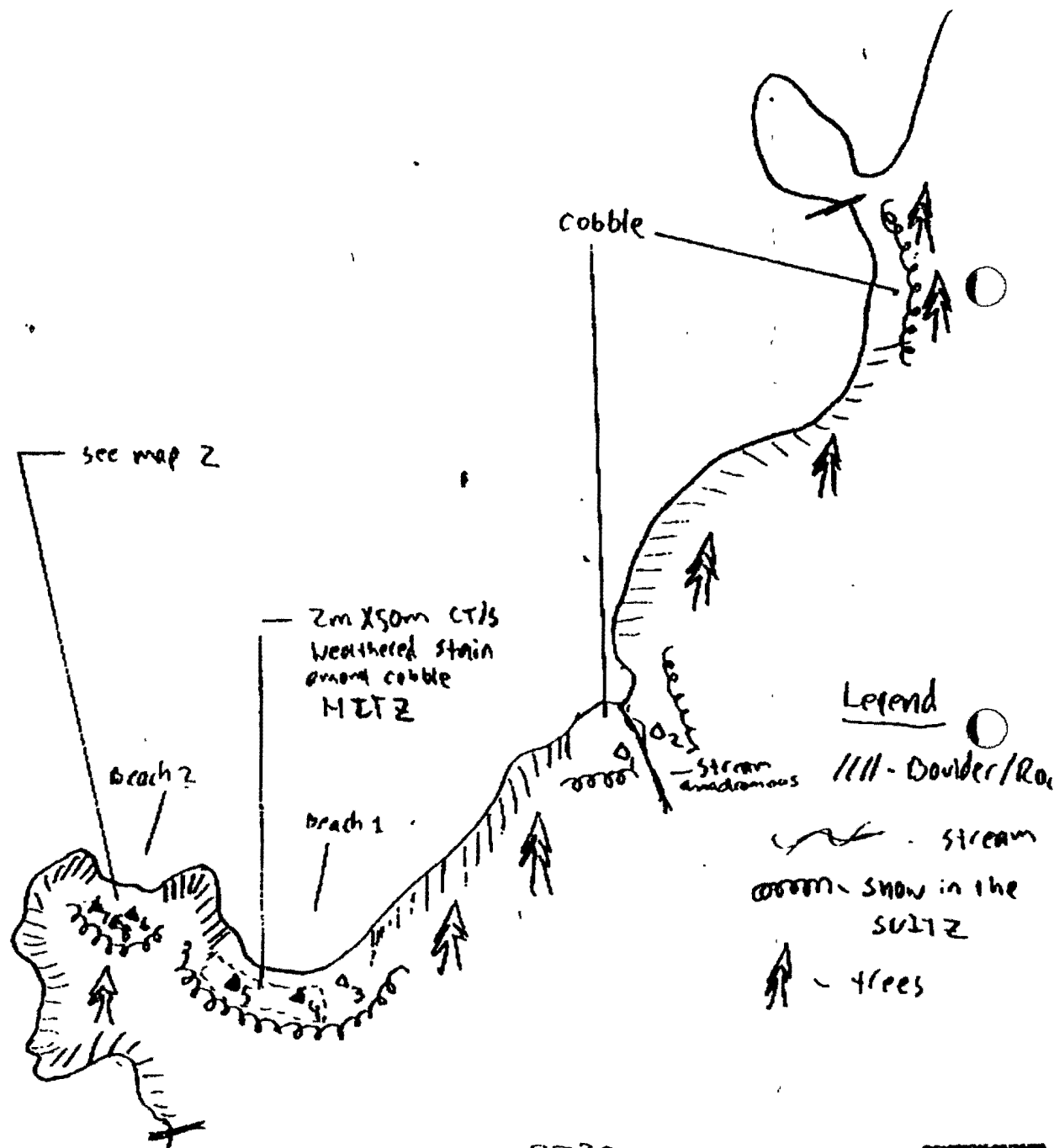
1 →
Photo location, direction,
and number



Scale

100 m

SKETCH MAP 1



ACE 7238416

Oil Character Length (m): AP - PO - CV 30 CT - ST 50 MS - PT - TB - FL 20 NO 2725

OG Mike Fogar
 SEGMENT ST/ EV-70
 SUBDIVISION H
 DATE 4, 6 90

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Bdry
- ☐ Oil Dist
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est (FW/LA/VE)
- ☐ SSI
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ Pnt Location(s)
- ☐ Photo Location(s)

LEGEND

- 1 Δ
Pnt - No Subsurface Oil
- 2 Δ
Pnt - Subsurface Oil
- CT/C

Continuous Distribution
- CT/B

Broken Distribution
- CT/P

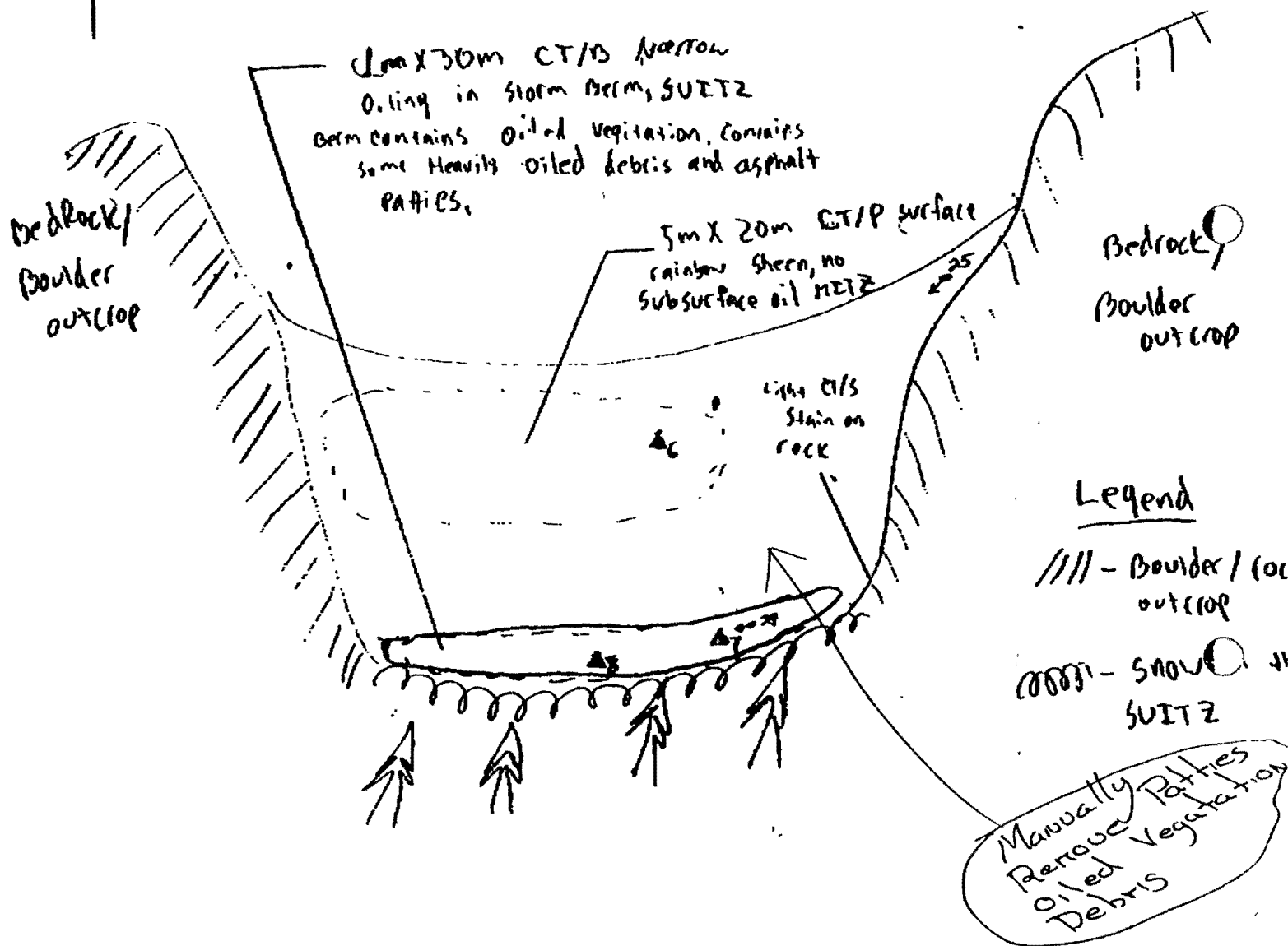
Patchy Distribution
- CT/S

Splashed Distribution
- Oiled Vegetation
- 1 $\rightarrow$
Photo location, direction, and number

SKETCH MAP 2

Scale

10 m



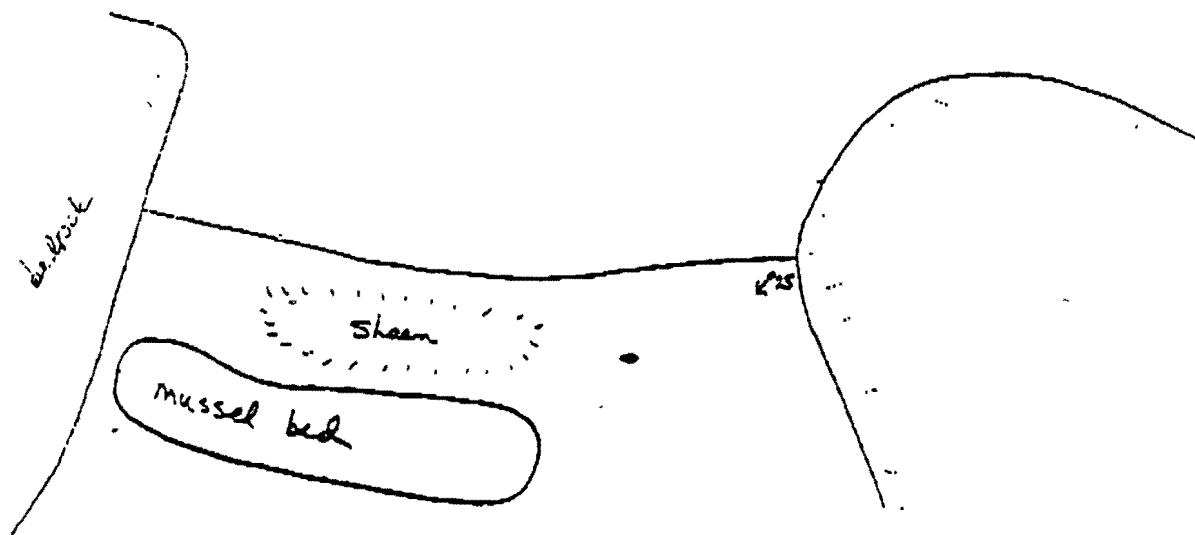
See map 1

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

KEY: 000000000000

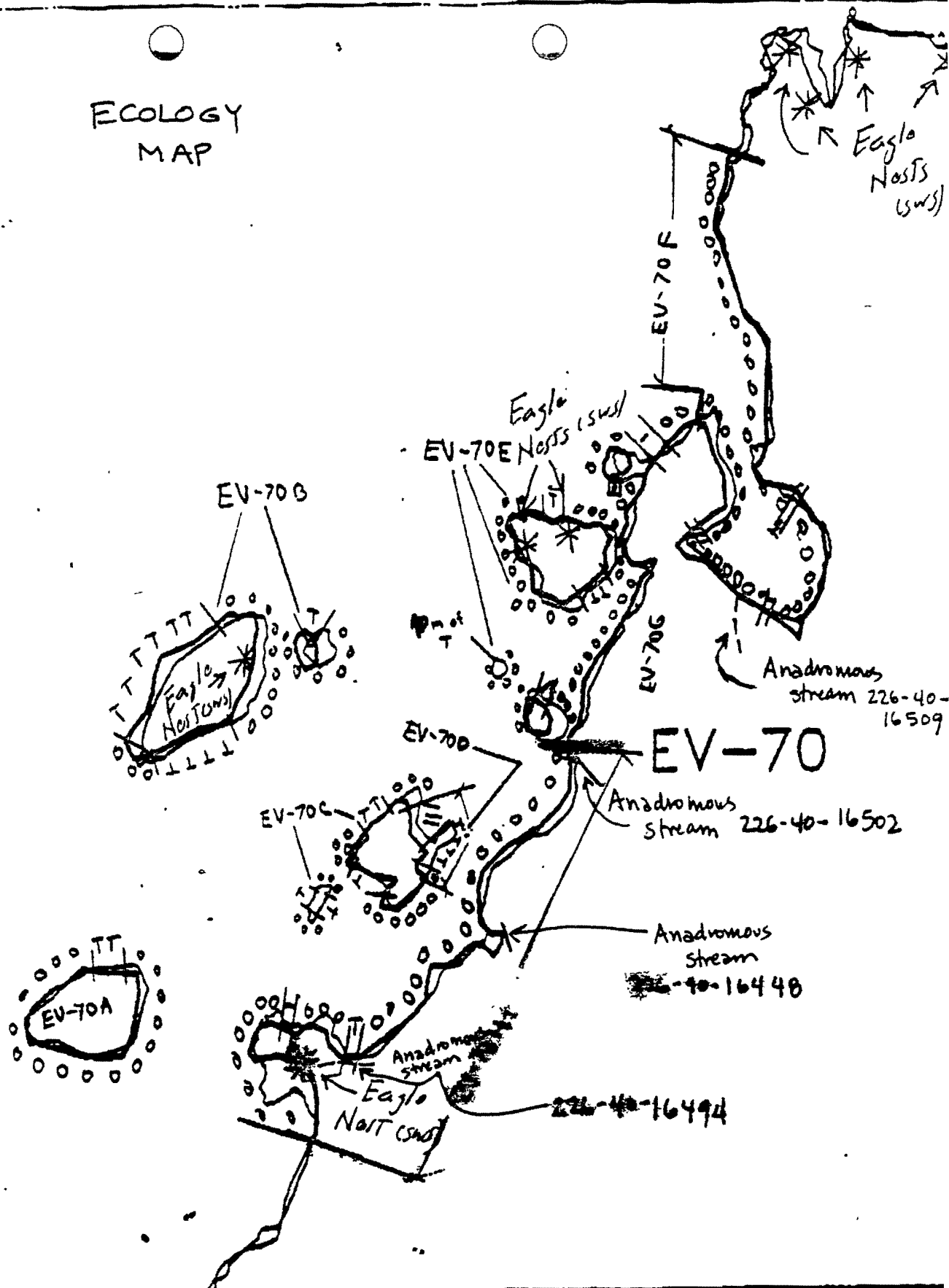
Addendum

Cobble pocket beach with sheen and oiled debris. Mussel bed in mid intertidal spans half of the width of the beach. Mussels mostly are growing on the sides of large cobbles/small boulders, so are less susceptible to damage by foot traffic over beach. Fucus also occurs in mussel bed (in moderate density), and it would be susceptible to trampling.



oiled debris in supra littoral
 4/24
 P. 13

ECOLOGY MAP



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

EV-70

ADEC Segment Length: 12625m

0 100 200 300
 METERS

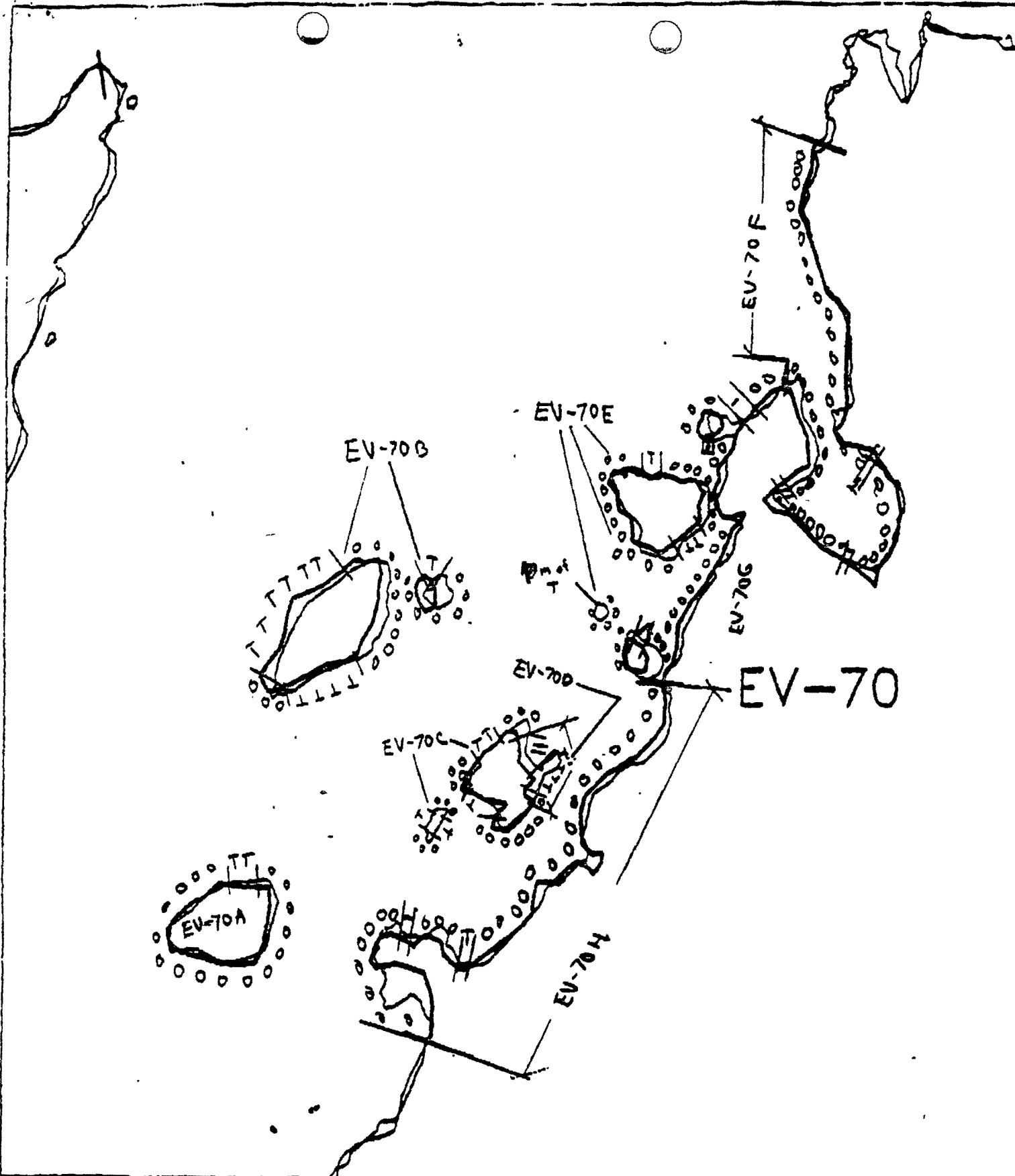
Map Key: PWS-279

Name: Mike Ford

Date: 4/1/90

Date Entered: _____

ACE 7238419



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

EV-70

ADEC Segment Length: 12625m



Map Key: PWS-279

Name: Mike Fogel

Date: 4/1/90

Date Entered:

ACE 7238420-15

24/52

OPERATIONS FIELD NOTES

See Back for Instructions

SEGMENT ID ANAD EV-70-A
 STREAM ID # 226-40-16509
 ANNOTATED MAP INCLUDED Y/N

DATE 4-21-90
 NAME GARCIA
 TEAM # 15

SURFACE OIL	Quantities in Meters			None	Treatment Recommendation					
	Length	Width	Area		Bioremediation		Tilling		Spot Hot Water	
					Y/N	% Treat	Y/N	% Treat	Y/N	% Treat
Wide Band	VERY	SPORADICALLY		NONE						
Medium Band	STAINED.	LESS								
Narrow Band	THAN	1%.								
Very Light										
TOTAL MANDAYS					0		0		0	0

SUBSURFACE OIL - NONE

Other (Describe)?

TARMATS	Quantities in Meters			Treatment Rec			# of Bags	Mandays Required	
	Length	Width	Thick(cm)	None	Breakup	Remove		Breakup	Remove
Area #1	NONE								
Area #2									
Area #3									
Area #4									
Sporadic Mats									

MANUAL PICKUP	Type of Debris			In Meters		# of Bags	Pickup Y/N	Manday Estimate
	Mousse Tarballs	Oiled Veget	Cleanup Debris	Length	Width			
"Pocket" #1	NONE							
"Pocket" #2								
"Pocket" #3								
Random/Continuous								

OILED LOGS <u>Y/N</u>	OILING <u>H/M/L</u>	QUANTITY <u>L/M/S</u>	BURN <u>Y/N</u>
-----------------------	---------------------	-----------------------	-----------------

Is there Other Debris on the Beach? Y/N How Many Bags? Is it mingled with the Oiled Debris Y/N

GENERAL

Snow covering 12% of the Supratidal Zone?

Wave Exposure H/M/L

Access Limitations: NONE

Snare Boom/Pom Poms Recommended? NO

Would the production Craft have to be relocated to complete work on this subdivision? Y/N, # of Times N/A

COMMENTS:

NO TREATMENT RECOMMENDED FOR THIS STREAM.

ACE 7238421+15

25/52

ADF&G MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: BS SS DS TS AVS SCHM MMS PTA

2 REGION: PHS KP, CI K, AP

METHOD: Aerial Ground Boat

3 DATE: 4/21/90

15 HIGH TIDE TIMES: 1109, 2344

21 TEAM RECORDER: M. WIEDMER

4 START TIME: 1515

16 HIGH TIDE HTS: 9.4, 10.3

22 OBSERVERS: T. CROWE

5 STOP TIME: 1530

17 LOW TIDE TIMES: 0512, 1730

23 AGENCY: ADF&G

6 SEGMENT #: EV-070A

18 LOW TIDE HTS: 2.9, 11.1

24 PHOTOS TAKEN: Y N

7 STATION #: 226-40-16509

19 TIDE HT AT SURVEY: 3.6'

Roll #: _____ Frame: _____

8 K-UNIT: _____

Ebb Slack Flood Slack

25 VIDEO TAKEN: Y N TAPE#: _____

9 STAT AREA: _____

20 USCG QUAD: _____

Start: _____ End: _____

10 LAT: _____

11 LONG: _____

26 SAMPLES TAKEN? Y N Number _____

12 SOURCE: Map Loran

13 LOCATION: WEST SHORE EVANS IS.

14 DESCRIPTION: _____

Oil _____

Sediment _____

Biological _____

Water _____

EXTENT OF OIL

	SHORELINE				STREAM			
	L	N	H ²	%	L	N	H ²	%
27 SURFACE COVERAGE	100y	20y		<1	40y	3y		0
28 SURFACE THICKNESS	1mm	<0.1	<0.1		0	0		0
29 PENETRATION	3cm	3cm		0	0	0		0

30 OVERALL OIL IMPACT: N VL L M H

31 OIL TYPE: Pooled Mousse Tar Asphalt Sticky Stain

32 OILED DEBRIS? Y N

33 SHORELINE TYPE: Headland Low-lying Rocks Beach Cove

34 WAVE EXPOSURE: High Moderate Low

35 SUBSTRATE TYPE: Bedrock _____ Boulder 33 Cobble 33

Gravel 33 Sand _____ Mud/silt _____

36 CATALOGED ANAD. FISH SREAK? Y N

37 CATALOG #: 226-40-16509

38 STREAM NAME: _____

39 OIL IN STREAM BED? Y N

40 OIL ON STREAM BANKS? Y N

41 OIL ON BEACH ADJACENT TO MOUTH? Y N

(within 50 meters)

42 OIL WITHIN 1 MILE OF STREAM? Y N

Where: _____

43 ANADROMOUS FISH PRESENT? Y N

FRY PRESUMED

44 ANADROMOUS FISH OBSERVATION

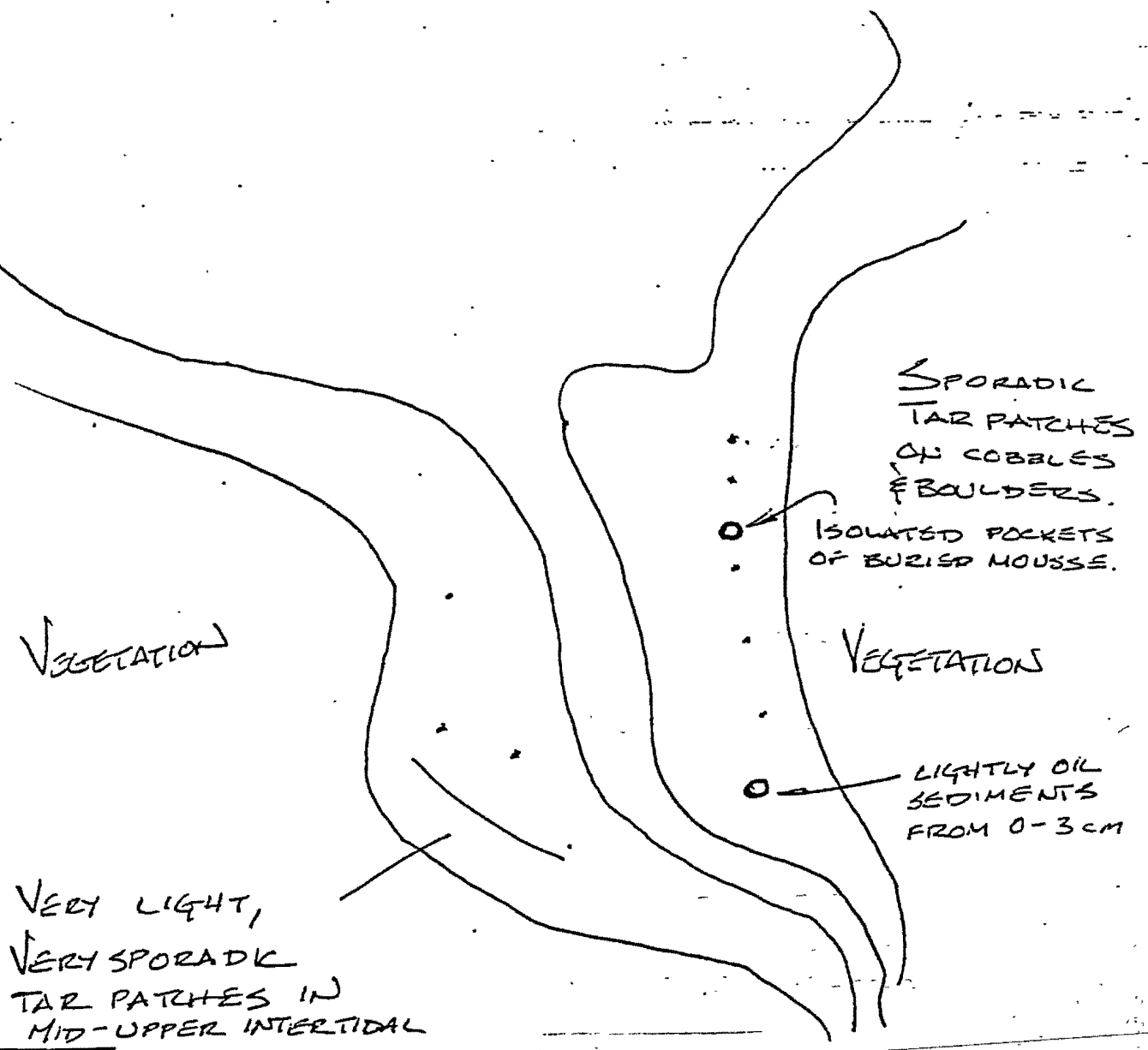
Species Aerial Ground

COMMENTS: VERY SPORADIC STAIN, ASPHALT, TAR, AND BURIED MOUSSE.
OIL QUANTITY AND DISTRIBUTION RELATIVE TO STREAM DO NOT
PLACE SALMON OR OTHER ORGANISMS AT RISK. NO
TREATMENT IS RECOMMENDED

ACE 7238422

[illegible]

46 OIL DISTRIBUTION DIAGRAM



note taken
of frame # and
of direction.

ACE 7238423

OG WILLIAM LEID USCG McMAHON SEGMENT ST/ FV 70A
 BIO MICHAEL FAWCETT LAND REP TOM CROWE-ADFG STREAM 225-40-16509 OF
 EXXON GUS GARCIA ADFG MIKE WIEDMER TIME 15:14 to 15:56
 TEAM NO. 15 TIDE LEVEL +2.5 ft DATE 21 / APR / 90
 EST. SUBDIVISION LENGTH: 60 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo
 SURFACE SEDIMENTS: R 10 % B 10 % C 20 % P 70 % G 0 % S 0 % M 0 % V
 SLOPE: Lang 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 35 m N 0 m VL 0 m NO 25 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	C	B	P	S	SP	OR	OL	OF	NO	IC	OC	UC	SU	U	M	L
ASPHALT PAVEMENT	X												X			
POOLED																
COVER																
COAT																
STAIN			X										X			
MOUSSE																
PATTIES																
TARBALLS																
FILM																
NO OIL																

PAVEMENT H F \$200 sq. m by 3PATTIES / TARBALLS 0 BACNEAR SHORE SHEEN? NO BR RW SL T

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

Did you COLLECT DEBRIS
☐ YES ☒ NO

TYPE _____

#BAGS _____

Photographs:

Roll No. AS-15-2Frames 13-16

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SHEEN (Y/N)	SURFACE SUBSURFACE SEDIMENT
		OP	OR	OL	OF	NO		VO	UC	SP	OR	OL	OF	NO	IC	OC	UC	SU	U	M	L			
1	35		X				0-3		X									X					N	P/G
2	15					X	.												X				N	P/G/C
3	15		X				0-1		X										X				N	P/C
							.																	
							.																	
							.																	

COMMENTS

REVIEWED _____ DATE _____

29/52

SSAT DATA ENTRY FORM

PAGE 1 OF 2

GENERAL DATA

SEG ID: EY70A ^{STREAM: 226-40-16509} SUBDIV: TEAM: AD15 SURVEY DATE: 21 APRIL '90
PAVEMENT: CHAR S AREA 200 THICKNESS 3 TARBALLS 0
OILED: LGS - VEG - TRH - DBR - WAVE EXP: LW X MD - HG -
FAX RCVD: DT: AGENCY DISAGREE:
EST SUBDIV LGTH: 60 OIL CATEGORY: W 0 M 35 N 0 VL 0 NO 25 U

SURFACE DATA

SURFACE SEDIMENT: BRK 0 BLD 10 COB 20 PEB 70 GRN 0 SAN 0 MUD 0 VEG 0

CHAR #: 1 OIL CHAR: AP OIL DIST: CONT X BRKN - PTCH - SPLH -
OIL CLR: DBR FILM CLR: - TIDAL ZONE: SU - UI X MI - LI -

CHAR #: 2 OIL CHAR: ST OIL DIST: CONT - BRKN - PTCH X SPLH -
OIL CLR: GY FILM CLR: - TIDAL ZONE: SU - UI X MI - LI -

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

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

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

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

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

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

ACE 7238426

30/52

SSAT DATA ENTRY FORM

SUBSURFACE DATA

PAGE 2 OF 2

SEGMENT ID: EV 70A ^{STREAM:} 226-40-16509

PIT # 1 PIT DEPTH 35 OIL CHARACTER OR OIL INTVAL: FROM 0 TO 3
QUANT: UC OIL CLR: DBR FLM CLR: - ZONE: SU - UI X MI - LI -
SUBSURF SEDIMENT: BRK - BLD - COB - PEB X GRN X SAN - MUD - VEG -

PIT # 2 PIT DEPTH 15 OIL CHARACTER NO OIL INTVAL: FROM - TO -
QUANT: - OIL CLR: - FLM CLR: - ZONE: SU - UI - MI X LI -
SUBSURF SEDIMENT: BRK - BLD - COB X PEB X GRN X SAN - MUD - VEG -

PIT # 3 PIT DEPTH 15 OIL CHARACTER OR OIL INTVAL: FROM 0 TO 1
QUANT: UC OIL CLR: DBR FLM CLR: - ZONE: SU - UI - MI X LI -
SUBSURF SEDIMENT: BRK - BLD - COB X PEB X GRN - SAN - MUD - VEG -

PIT # PIT DEPTH OIL CHARACTER OIL INTVAL: FROM TO
QUANT: OIL CLR: FLM CLR: ZONE: SU UI MI LI
SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG

PIT # PIT DEPTH OIL CHARACTER OIL INTVAL: FROM TO
QUANT: OIL CLR: FLM CLR: ZONE: SU UI MI LI
SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG

PIT # PIT DEPTH OIL CHARACTER OIL INTVAL: FROM TO
QUANT: OIL CLR: FLM CLR: ZONE: SU UI MI LI
SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG

PIT # PIT DEPTH OIL CHARACTER OIL INTVAL: FROM TO
QUANT: OIL CLR: FLM CLR: ZONE: SU UI MI LI
SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG

PIT # PIT DEPTH OIL CHARACTER OIL INTVAL: FROM TO
QUANT: OIL CLR: FLM CLR: ZONE: SU UI MI LI
SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG

PROBLEMS:

ACE 7238427

Segment EV 70A (Gugak Cove)

4/21/90

Stream 226-40-16509

Michael Fawcett

Ecological Summary

This stream has a relatively stable delta composed of pebbles/sand and mud, with a well-developed infaunal community (clams, worms, shrimp, etc.).

Sparse scattered clumps of mussels, barnacles, and Fucus occur on isolated cobbles in MTZ and LTZ, along with abundant littorines, dogwhelks, and hermit crabs. Light patches of asphalt and stains were found in VTZ. If any cleanup operations are conducted, trampling and disturbance of LTZ should be avoided.

M. Fawcett

FIELD SHORELINE COMMENT SHEET

32/52

SEGMENT ST 1 EV 070 A SUBDIVISION: 16509 DATE 4/21/90

USCG

NAME CWO J. MCMAHON SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

~~ADFG~~ MICHAEL WIEDMER

~~ADEC~~

NAME NO Team member SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

LAND MANAGER

NAME NO Team member SIGNATURE _____

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

ADF&G MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: BS SS DS TS AVS SCH MMHS PTA2 REGION: PWS KP, CI K, APMETHOD: Aerial Ground Boat3 DATE: 4/21/9015 HIGH TIDE TIMES: 1109, 234421 TEAM RECORDER: M. WIEDMER4 START TIME: 151516 HIGH TIDE HTS: 9.4, 10.322 OBSERVERS: T. CROWE5 STOP TIME: 153017 LOW TIDE TIMES: 0512, 1173023 AGENCY: ADF&G6 SEGMENT #: EV-070A18 LOW TIDE HTS: 2.9, 11.124 PHOTOS TAKEN: Y N7 STATION #: 226-40-1650919 TIDE HT AT SURVEY: 3.6'

Roll #: _____ Frame: _____

8 K-UNIT: _____

Ebb Slack Flood Slack25 VIDEO TAKEN: Y N TAPE#: _____

9 STAT AREA: _____

20 USCG QUAD: _____

Start: _____ Ends: _____

10 LAT: _____

11 LONG: _____

26 SAMPLES TAKEN? Y N Number _____

12 SOURCE: Map Loran

Oil _____

13 LOCATION: WEST SHORE EVANS IS.

Sediment _____

14 DESCRIPTION: _____

Biological _____

Water _____

EXTENT OF OIL

	SHORELINE				STREAM			
	L	W	M ²	%	L	W	M ²	%
27 SURFACE COVERAGE	100y	20y		<1	40y	3y		0

36 CATALOGED ANAD. FISH STREAM? Y N37 CATALOG #: 226-40-16509

38 STREAM NAME: _____

	SURFACE THICKNESS			PENETRATION		
	1mm	<0.1	>0.1	3cm	3cm	3cm
28 SURFACE THICKNESS	1mm	<0.1	>0.1	0	0	0
29 PENETRATION	3cm	3cm	0	0	0	0

39 OIL IN STREAM BED? Y N40 OIL ON STREAM BANKS? Y N30 OVERALL OIL IMPACT: N VL L M H41 OIL ON BEACH ADJACENT TO MOUTH? Y N
(within 50 meters)31 OIL TYPE: Pooled Mousse Tar Asphalt Sticky Stain42 OIL WITHIN 1 MILE OF STREAM? Y N32 OILED DEBRIS? Y N

Where: _____

33 SHORELINE TYPE: Headland Low-lying Rocks Beach Cove
Lagoon Marsh43 ANADROMOUS FISH PRESENT? Y NFRY PRESUMED

44 ANADROMOUS FISH OBSERVATION

Species Aerial Ground

34 WAVE EXPOSURE: High Moderate Low

Species	Aerial	Ground

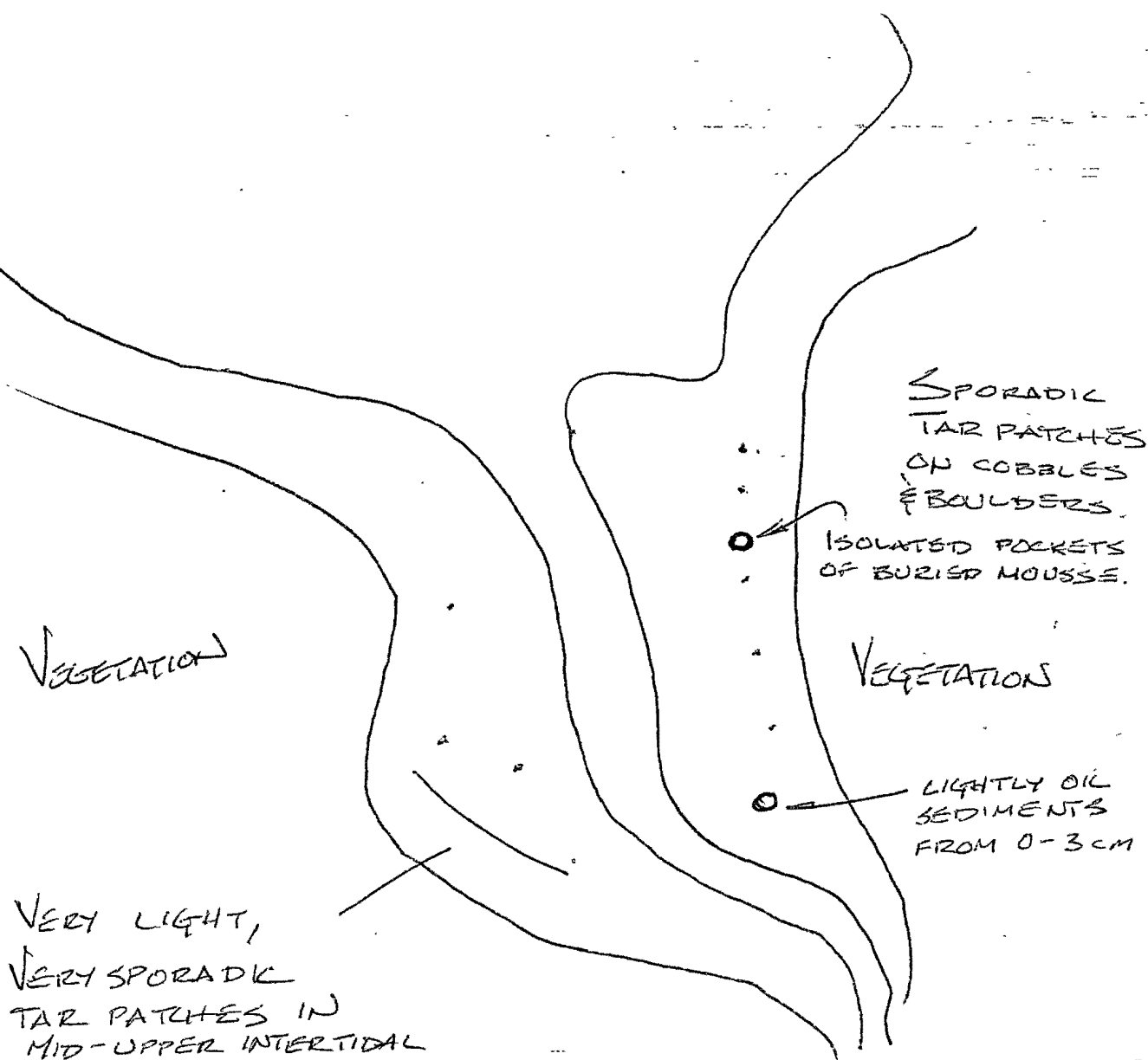
35 SUBSTRATE TYPE: Bedrock _____ Boulder 33 Cobble 33Gravel 33 Sand _____ Mud/silt _____COMMENTS: VERY SPORADIC STAIN, ASPHALT, TAR, AND BURIED MOUSSE.

OIL QUANTITY AND DISTRIBUTION RELATIVE TO STREAM DO NOT PLACE SALMON OR OTHER ORGANISMS AT RISK. No TREATMENT IS RECOMMENDED.

ACE 7238430+15

[illegible]

48 OIL DISTRIBUTION DIAGRAM



Sample taken
Photo frame # and
shot direction.

ACE 7238431 -15

ADF&G MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: BS SS DS TS AVS SCHA MMHS PTA2 REGION: PWS KP, CI K, APMETHOD: Aerial Ground Boat3 DATE: 4/11/9015 HIGH TIDE TIMES: 1

21 TEAM RECORDER: _____

4 START TIME: 104216 HIGH TIDE HTS: 122 OBSERVERS: TOM CROWE5 STOP TIME: 104717 LOW TIDE TIMES: 123 AGENCY: ADF&G6 SEGMENT #: EV-071A
070A18 LOW TIDE HTS: 124 PHOTOS TAKEN: Y (N)

7 STATION #: _____

19 TIDE HT AT SURVEY: _____

Roll #: _____ Frame: _____

8 K-UNIT: _____

Ebb Slack Flood Slack

25 VIDEO TAKEN: Y (N) TAPE#: _____

9 STAT AREA: _____

20 USCG QUAD: SEWARD A-3

Start: _____ End: _____

10 LAT: _____

11 LONG: _____

26 SAMPLES TAKEN? Y N Number

12 SOURCE: Map Loran

Oil _____

13 LOCATION: EVANS ISLAND

Sediment _____

14 DESCRIPTION: GUGUAK BAY

Biological _____

Water _____

EXTENT OF OIL

	SHORELINE				STREAM			
	L	W	M ²	%	L	W	M ²	%
27 SURFACE COVERAGE								
28 SURFACE THICKNESS								
29 PENETRATION								

36 CATALOGED ANAD. FISH SREAM? (Y) N37 CATALOG #: 16509

38 STREAM NAME: _____

30 OVERALL OIL IMPACT: N VL (L) M H39 OIL IN STREAM BED? Y (N)31 OIL TYPE: Pooled Mousse Tar Asphalt Sticky Stain40 OIL ON STREAM BANKS? (Y) N32 OILED DEBRIS? Y (N)41 OIL ON BEACH ADJACENT TO MOUTH? (Y) N
(within 50 meters)42 OIL WITHIN 1 MILE OF STREAM? (Y) NWhere: SEE MAP33 SHORELINE TYPE: Headland Low-lying Rocks Beach Cove
Lagoon Marsh

43 ANADROMOUS FISH PRESENT? Y N

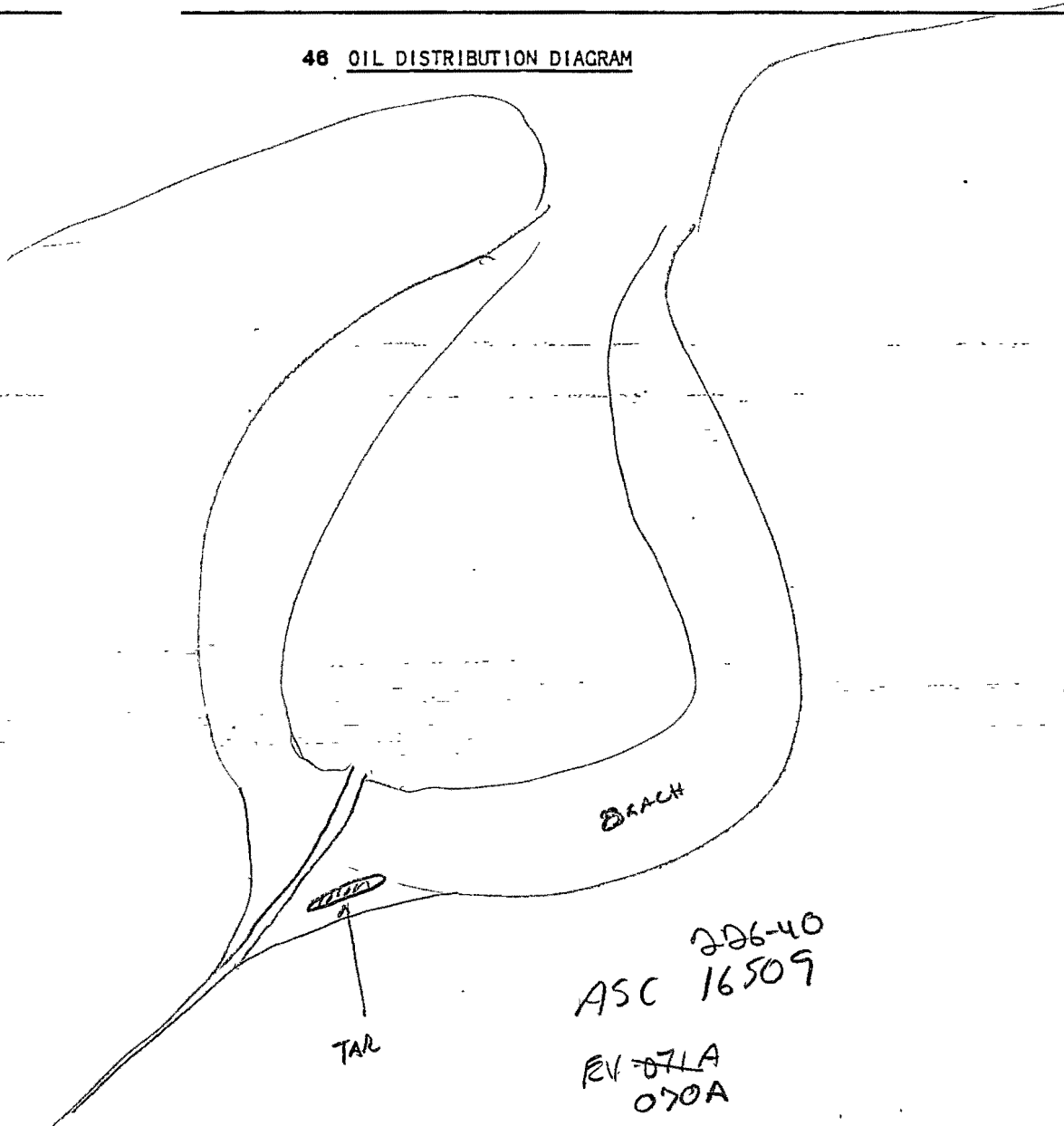
34 WAVE EXPOSURE: High Moderate Low44 ANADROMOUS FISH OBSERVATION
Species Aerial Ground35 SUBSTRATE TYPE: Bedrock _____ Boulder _____ Cobble XGravel X Sand _____ Mud/silt _____

COMMENTS: SMALL PATCH OF TAR/ASPHALT RIGHT SIDE OF
STREAM FACING DOWN STREAM. EASY SHOVEL AND BAG
REMOVAL.

FRAME(S)

DESCRIPTION

46 OIL DISTRIBUTION DIAGRAM



Sample taken
Photo frame # and
shot direction.

4/11/90

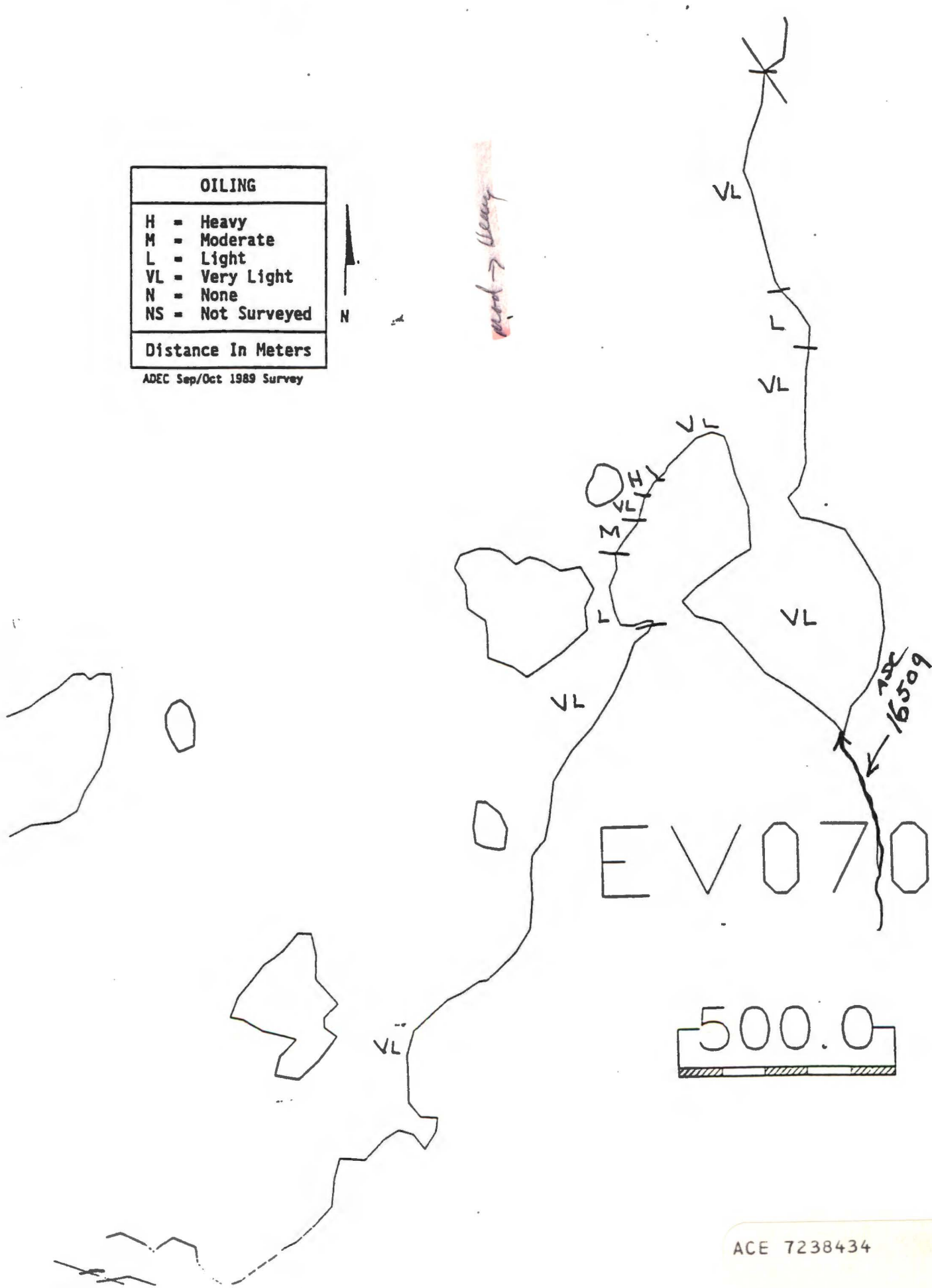
ACE 7238433-JS

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

ADEC Sep/Oct 1989 Survey



road → Heavy



EV070A

500.0

STATE OF ALASKA

DEPT. OF ENVIRONMENTAL CONSERVATION

OIL SPILL RESPONSE CENTER
Drawer 3149, Valdez, AK 99686

STEVE COWPER, GOVERNOR

FILE COPY

TELEPHONE
(907) 835-8025

September 2, 1989

CERTIFIED MAIL
RETURN RECEIPT
REQUESTED

Mr. Otto R. Harrison
General Manager
EXXON COMPANY, U.S.A.
Post Office Box 670
Valdez, AK 99686-0670

Dear Mr. Harrison:

The Alaska Department of Environmental Conservation has issued a Notice of Violation of Alaska law to EXXON COMPANY, U.S.A. for the misapplication of Inipol. Personnel of the Alaska Department of Fish and Game observed and recorded Exxon crews misapplying Inipol in the following manner:

1. On August 19, 1989, on Evans Island, segment no. EV-70, Inipol was applied at the upper intertidal area above the oiled zone. This was a result of applying it during an extreme high tide.
2. On August 31, 1989 at Herring Bay, Knight Island, segment nos. KN-113, 114, 115, and 116, Inipol was applied in large volumes directly onto cliffs and rock outcrops. This resulted in large amounts of Inipol washing directly into the water along hundreds of meters of shoreline in the vicinity of an anadromous fish stream as well as pools of Inipol in cracks and on ledges in the rock.

The Alaska Regional Response Team, of which the State of Alaska is a member, approved the use of bioremediation subject to specific ~~Fertilizer~~ Fertilizer Application Criteria. The applications of Inipol described above are clearly contrary to those criteria. I have discussed this matter with scientists from the U.S. Environmental Protection Agency, the Alaska Department of Fish and Game and ADEC. While I cannot speak for EPA, the State of Alaska feels that this misapplication poses an unacceptable risk of harm to the affected biota and environment.

We are very concerned that a bioremediation application team is

ACE 7238435+/S

Mr. Otto Harrison

September 2, 1989

scheduled to apply fertilizer in the Lower Herring Bay area soon. The Alaska Department of Fish and Game recently observed intensive pink salmon spawning in numerous streams and pocket estuaries in this area and observed juvenile fish in the intertidal and shallow subtidal waters in the area. These resources in particular are placed at risk by the type of application described above.

Accordingly we request that any planned bioremediation in Lower Herring Bay and other sensitive habitats identified by the Alaska Department of Fish and Game be postponed or terminated until concrete steps are taken to ensure that bioremediation fertilizer will be applied in accordance with the application criteria. Such steps may include re-communicating and emphasizing to BAT teams the importance of the application criteria; providing additional on-site training in the proper application of fertilizer; providing increased oversight of BAT teams; and allowing only certain well-trained crews to apply fertilizer in sensitive areas; modifying techniques and equipment used in the application of fertilizer; and more stringent screening for suitability of sites for bioremediation.

This is a matter of strong and immediate concern to the State of Alaska. We are available to meet with you at your convenience.

Sincerely,



John Bauer,
Acting On Scene Coordinator

JB:pfj

cc: Admiral C. E. Robbins, FOSC
Dennis Kelso, Commissioner, ADEC
Charles Costa, Bioremediation Project Office, EPA
Bill Lamoreaux, Regional Supervisor, ADEC
John Morrison, ADF&G
Arlen DeYoung, DNR

STATE OF ALASKA
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
OIL SPILL RESPONSE CENTER
VALDEZ, ALASKA

NOTICE OF VIOLATION

N.O.V. NUMBER 89-2-4-1-245-1

September 2, 1989

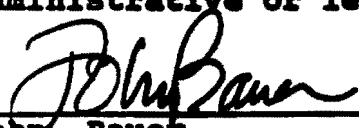
The undersigned alleges that on or about August 19 and August 31, 1989 at or near Evans Island Segment 70 and Knight Island Segments 113, 114, 115, and 116, Prince William Sound, Alaska, in the Third Judicial District in the State of Alaska, Respondent EXXON COMPANY, U.S.A. and/or its agents unlawfully violated the following Alaska State Statutes:

(1) AS 46.03.710; (2) AS 46.03.730; and, (3) AS 46.04.020(b).

Violation Description: EXXON COMPANY, U.S.A. did unlawfully apply Inipol to cliffs, rock upcrops, and other inappropriate types of shoreline areas, and applied Inipol in an inappropriate and unlawful manner so as to cause pooling in violation of the conditional approval of the use of Bioremediation by the Alaska Regional Response Team and in violation of Alaska law.

This violation may subject EXXON COMPANY, U.S.A. to legal action. The Department is concerned with both the violation and the remedial actions necessary to correct it. In order to comply the Department requests that EXXON COMPANY, U.S.A. and its agents immediately comply with the conditional approval of use of bioremediation granted by the Alaska Regional Response Team and attached hereto.

The Department reserves its right to initiate further administrative or legal proceedings.



John Bauer
Acting On Scene Coordinator

9/2/89

Date

(X) Personally Served
(X) Sent by Certified Mail No. P 103 581 151
By: Pat Jones on the 2nd day of September, 1989.

ACE 7238437

Department
of the Interior

United States
Coast Guard



Federal On Scene
Coordinator
U. S. Coast Guard

Valdez, Alaska

RECEIVED
AUG 3 1989

16465
1 August 1989

Mr. Otto Harrison
Exxon Company, U.S.A.
P.O. Box 670
Valdez, AK 99686-0670

DEPT. OF
ENVIRONMENTAL CONSERVATION

Dear Mr. Harrison:

Today the Regional Response Team approved the use of bioremediation proposed by Exxon subject to the attached guidelines. I have forwarded a copy of the guidelines to the FOSC representatives in each Sector with copies to the appropriate committees.

There is still some concern about the finality of bioremediation. In order to make any policy clear in this matter, the following applies.

Bioremediation (BR) shall be applied as provided in the attached guidelines. I intend to evaluate the effectiveness of the bioremediation at each site during the remainder of the season. I urge that the necessary sampling and tests be conducted so that we will know BR is working. If it is found to be ineffective, I will probably require further treatment of some type, depending on the circumstances. In some cases, such as "leaking shoreline" I may ask that further action be taken immediately. Generally this should not be a problem as I would expect that only those shoreline segments will be BR treated which do not offer a leaking threat.

Next spring it is my intention to again evaluate all shoreline segments. If a BR treated segment appears to be unsatisfactory, I will insist that it be retreated with an appropriate method. If you intend to resist further work because BR activity is progressing, I will expect you to produce data to support your position, so I can determine if further treatment may not be justified. Also, monitoring of the BR application sites will provide necessary information for use in decisions about BR in any future oil spills.

Sincerely,

C. E. ROBBINS
Vice Admiral, U. S. Coast Guard
Federal On Scene Coordinator

ACE 7238438

- the appropriate indicators; or
4) the use of fertilizer can be rejected.

RECEIVED
AUG 3 1989

Environmentally/Archaeologically Sensitive Areas DEPT. OF ENVIRONMENTAL CONSERVATION

The following guidelines are suggested for protection of environmentally and archaeologically sensitive areas during the implementation of Exxon's Bioremediation Project.

The inadvertent introduction of nutrients into catalogued anadromous fish streams, during the application of fertilizers to oiled shorelines, could potentially cause algal blooms and toxic effects on aquatic life. The diligent adherence to these guidelines would minimize the potential for such effects.

1. Notify ADF&G and RAT 48 hours in advance of shoreline treatment in SCAT segments where catalogued anadromous fish stream occur.
2. Apply nutrients far enough away from catalogued streams and their floodplains to prevent introduction of these materials into them. Application of nutrients should be stopped a minimum distance of 20 yards from the stream. In poorly flushed embayments or near streams of particular concern, additional setbacks may be established by the ADF&G.
3. Vehicle and worker access to the stream is prohibited.

For other environmental sensitive areas, such as seal haulouts, large seabird colonies, and marshes, the RAT teams will be notified 48 hours in advance of treatment, as indicated in the Segment Reports or noted during review of the weekly bioremediation plan.

When marshes or wetlands are present, additional setbacks may be recommended by the ISCC during the weekly bioremediation review.

New information relating to cultural resources will be considered during the weekly bioremediation review.

FERTILIZER APPLICATION EQUIPMENT
-----**RECEIVED**
AUG 03 1989**INIPOL EAP22**

DEPT. OF

ENVIRONMENTAL CONSERVATION

- o Hand pumped backpacks - These will be the primary application tools. They can be used on all types of shoreline to be treated. The loaded backpacks carry 4 gallons and weigh about 40 pounds fully loaded.
- o Gasoline engine pumped backpacks - These units reduce the work of hand pumping at the expense of additional weight. These units have a 6 gallon capacity and weigh about 65 pounds fully loaded.
- o Gasoline engine pumped 2-wheel carts - These units are basically the same as the backpacks. However, the weight is carried on wheels and the cart must be pulled along behind the operator. This cart will only be useful on relatively flat beaches.
- o 4-wheel ATV with spray trailer - This unit can be used in several ways. On smooth beaches (up to about 6" cobble) these units will be used to spray a wide band using the multi-nozzle spray bar. operating speed in this mode will be limited to 1.5 mph. Where large rocks or other obstacles prevent effective use in this mode, the ATV hoses and hand guns can be used. The ATV will also be used to resupply backpacks in remote sections of beach. When not spraying speed will be limited to 5 mph. when a trailer is attached.

GRANULAR FERTILIZER

- o Shoulder mounted, hand cranked rotary broadcasters will be used to spread this material. The ATV will be used to place fertilizer packages along the beach.

Opinions of attorney general. — The state has jurisdiction to require permits of government contractors discharging sewage from a federally-owned treatment plant. June 28, 1977 Op. Atty Gen.

The Department of Environmental Conservation's regulations concerning on-site water wells and wastewater disposal systems are a legitimate exercise of the de-

partment's police power though the department lacks authority to adjudicate among conflicting future uses of land. The department also has authority under this section to regulate the construction of all private and public water wells drawn from a public water source. September 5, 1985 Op. Atty Gen.

Sec. 46.03.730. Pesticides. A person may not spray or apply, or cause to be sprayed or applied dichloro-diphenyl-trichloro-ethane (DDT), dieldrin or other pesticide or broadcast chemical in a manner which may cause damage to or endanger the health, welfare or property of another person or in a manner that is likely to pollute the air, soil or water of the state without prior authorization of the department. (§ 3 ch 120 SLA 1971)

Sec. 46.03.740. Oil pollution. A person may not discharge, cause to be discharged, or permit the discharge of petroleum, acid, coal or oil tar, lampblack, aniline, asphalt, bitumen, or a residuary product of petroleum, into, or upon the waters or land of the state except in quantities, and at times and locations or under circumstances and conditions as the department may by regulation permit or where permitted under art. IV of the International Convention for the Prevention of Pollution of the Sea by Oil, 1954, as amended. (§ 3 ch 120 SLA 1971)

Sec. 46.03.745. Hazardous substance release. Except for a controlled release, the reporting of which is the subject of an agreement with the commissioner under AS 46.09.010(b), a person may not cause or permit the release of a hazardous substance as defined in AS 46.09.900. (§ 8 ch 59 SLA 1986)

Sec. 46.03.750. Ballast water discharge. (a) Except as provided in (b) of this section, a person may not cause or permit the discharge of ballast water from a cargo tank of a tank vessel into the waters of the state. A tank vessel may not take on petroleum or a petroleum product or by-product as cargo unless it arrives in ports in the state without having discharged ballast from cargo tanks into the waters of the state and the master of the vessel certifies that fact on forms provided by the department.

(b) The master of a tank vessel may discharge ballast water from a cargo tank of a tank vessel if it is necessary for the safety of the tank vessel and no alternative action is feasible to ensure the safety of the tank vessel. (§ 3 ch 120 SLA 1971; am § 19 ch 220 SLA 1976; am § 3 ch 266 SLA 1976; am § 3 ch 116 SLA 1980)

(version 6/14/89)

SHORELINE CLEANUP PROGRAM

DATE 7/24/89

SHORELINE SEGMENT EV-70

LOCATION: (see enclosed map) Evans Island - West side

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 7/18 & 19/89

Recommended Cleanup Activity(ies):

- Manually remove contaminated drift material (fucus and driftwood) and patches of mousse.
- Harvest oiled fucus.
- Flood/flush with warm to hot water (up to 140 F) on low angle beaches.
- Use moderate to high pressure warm to hot water washing on rock and oiled logs.
- Use other approved methods as appropriate.

Priorities Considerations:

Class 2-4: Heavy to light oil

Class A: Subsistence resources present

Ecological Constraints (from site survey): Work at mid tide + or take appropriate measures to protect lower intertidal zone.

Archeological Constraints (from site survey):

No access to cleanup crew above the storm tide mark. If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.


State Historic Preservation Officer *

Date: 7-31-89

ISCC: _____

Date: _____

EXXON: _____

Date: _____

FOSC: _____

Date: _____

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

ACE 7238442+15

SHORELINE OIL EVALUATION

18th: 0918-1149, 1916-2105 hr
 19th: 0715-1202, 1900-2117 hr

Date: 18 July / 19 July Time: A

Observer: Mann

Surveyed From: Foot/Boat/Helio/Plane

Weather: Sun/Cloud/Rain/Snow/Fo

LOCATION

LOCATION northwest shoreline of Evans Island, SEGMENT NUMBER EV-70

LENGTH OF SHORELINE SEGMENT: 12 km (7.5 miles)

ACCESS: Foot/Vehicle/Boat/Barge/Helio/Float Plane

SHORELINE:

Shoreline Type: SPI/BEA/COV/HLD/STRT

Slope: LANG/HANG/VER

Wave Exposure: High/Med/Low

Sediment: B 50 % / C 10 % / P 10 % / G 4 % / S 0 % / M 0 % / R 30 %

Drift Debris on Beach: Yes/No Supra/Upper/Mid/Lower Type wood
sea weed

OIL

Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved

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

Continuous: Y/N % of Segment 40 Width of Band: 0.25 - 10 m

Sporadic: Y/N % of Segment 60

Est. Oil Thickness where > 1cm: 4 cm Est. Oil Penetration: to 30 cm

Pooled Oil: 4 % "Free" Oil: 4 % Coated: H 10 % / M 60 % / L 30 %

Fresh 0 % Mousse 2 % Tar Formation: 98 %

Drift Debris Oiled? Yes/No Supra/Upper/Mid/Lower Amount: H/M/L/

Comments:

A complicated shoreline geography has resulted in a complex pattern of oil contamination. Hardest hit were north-facing pocket beaches. Steep, bedrock faces show abundant evidence for self-cleaning in the form of eroding tar coatings. Heavily oiled sites probably contain relatively little recoverable oil using current technology. I would stress manual techniques (debris cleanup and downslope transfer of tarry beams and incipient pavements into surf zones) in the cleanup of this shoreline.

EV 70

DOCUMENTATION:

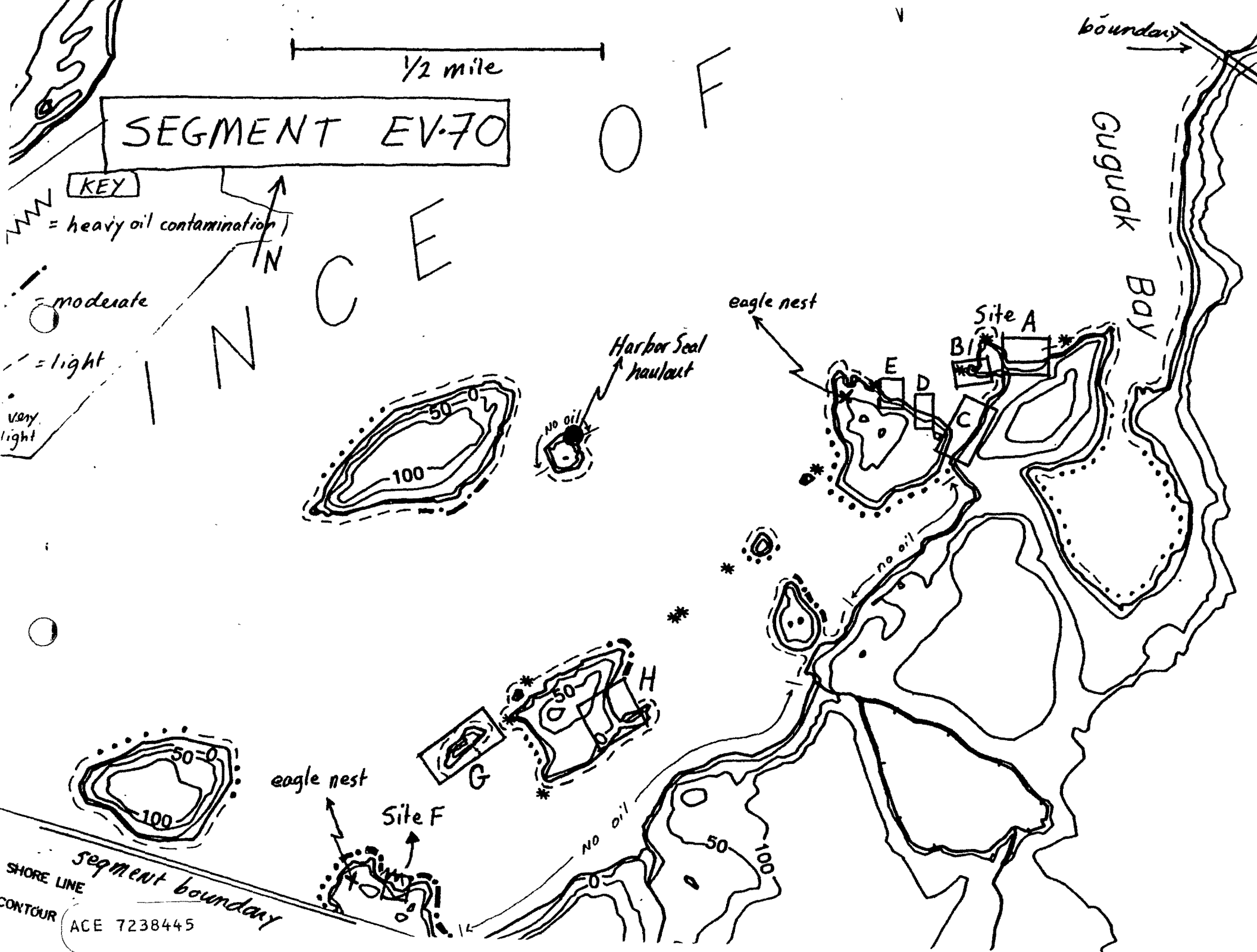
Map/Aerial photo marking segment boundaries _____

VTR: Y/N Tape Number(s) _____

Photography: Y/N Roll Number(s) _____

Sample Numbers Collected: _____

ACE 7238444



Site A
plan view

325° mag.

~10m

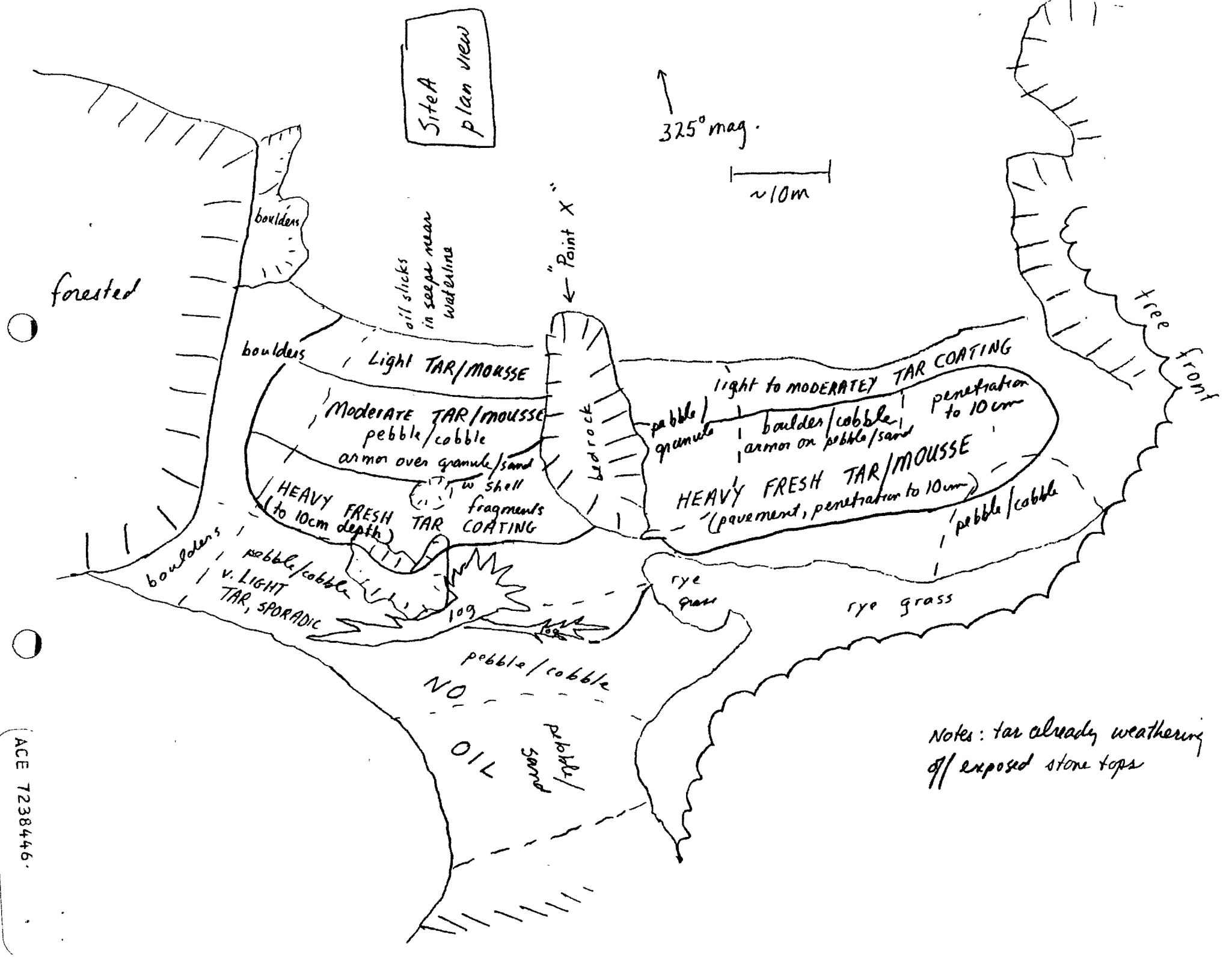
"Point X"

oil slicks
in seeps near
waterline

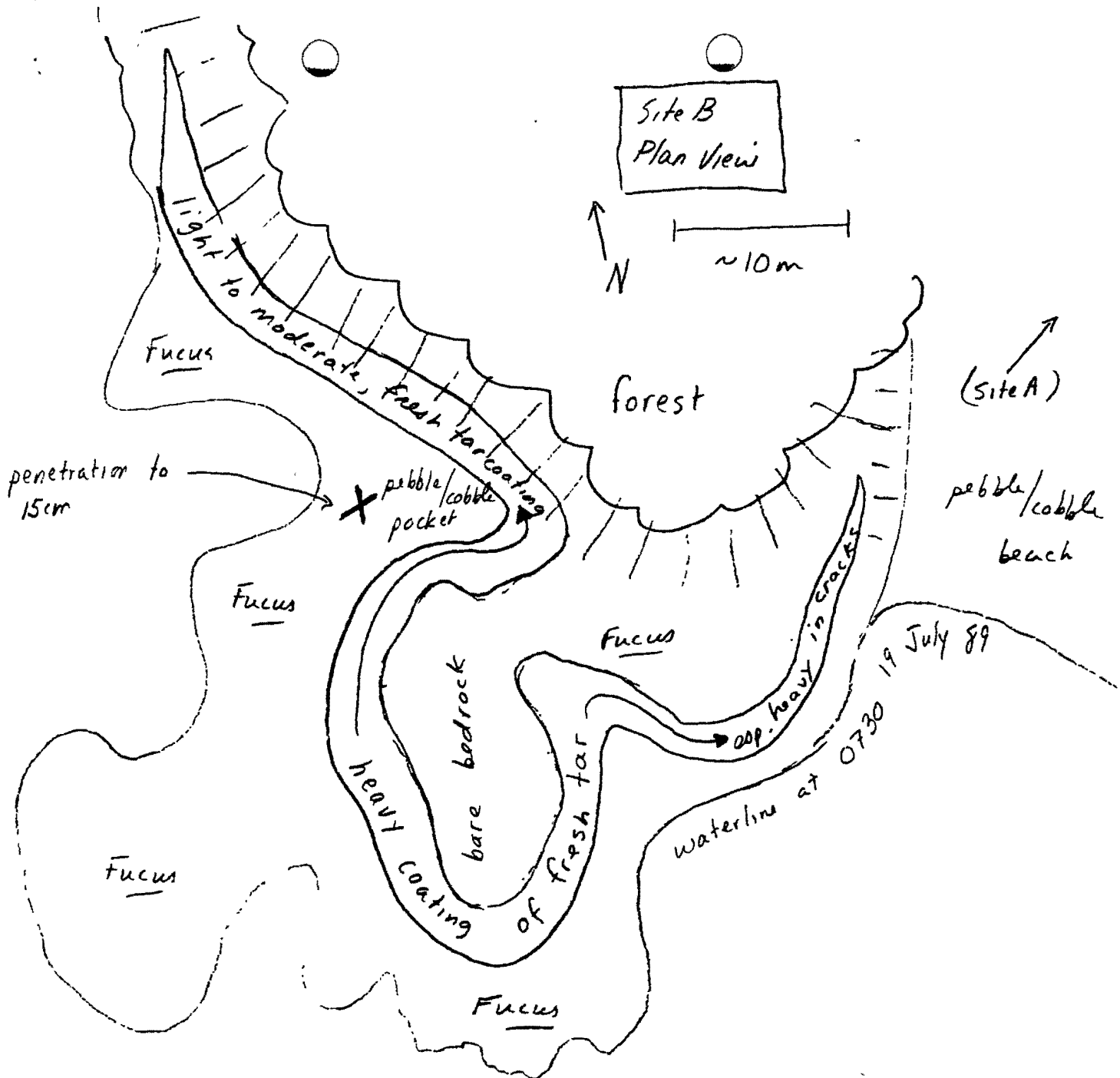
forested

tree front

ACE 7238446

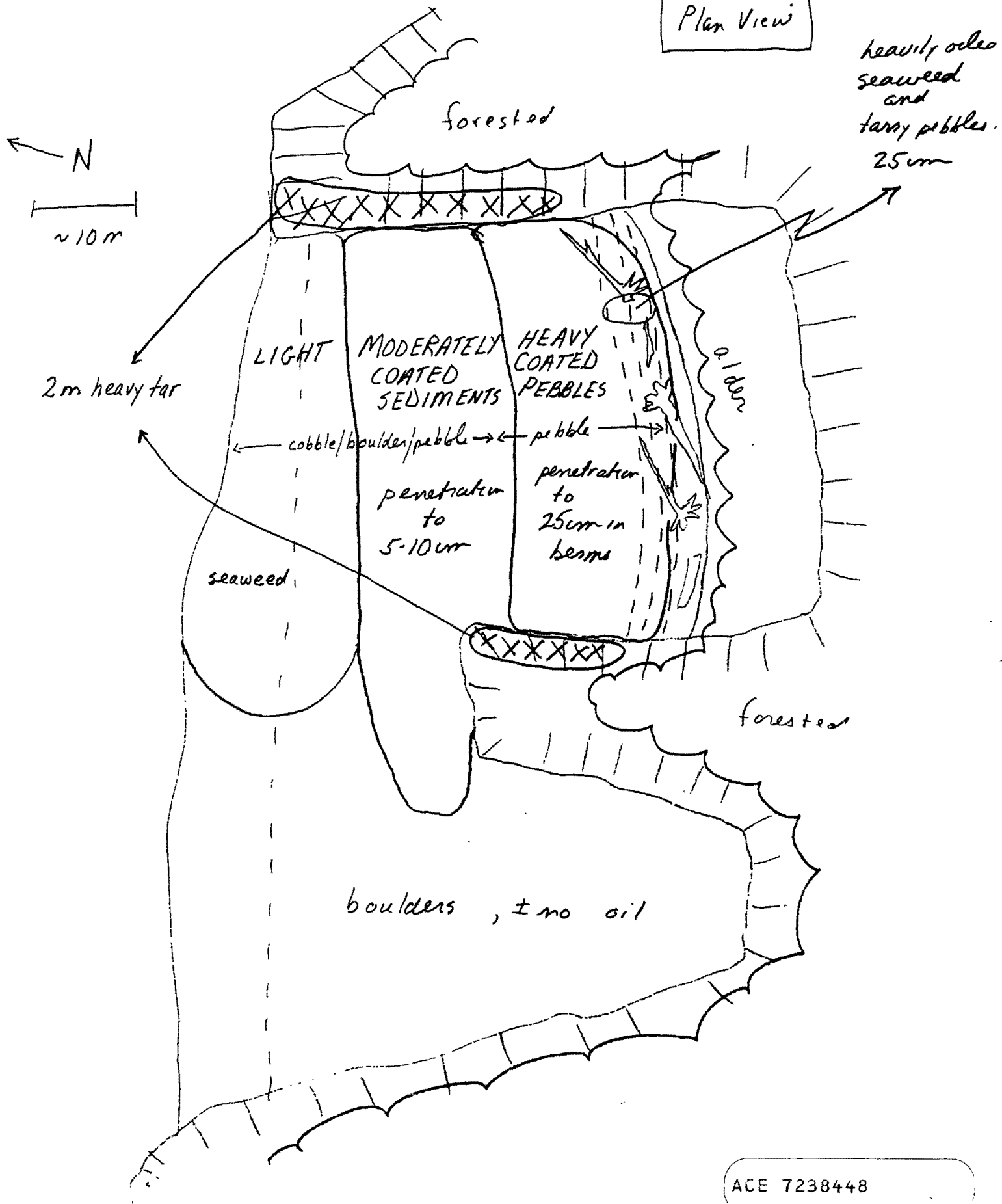


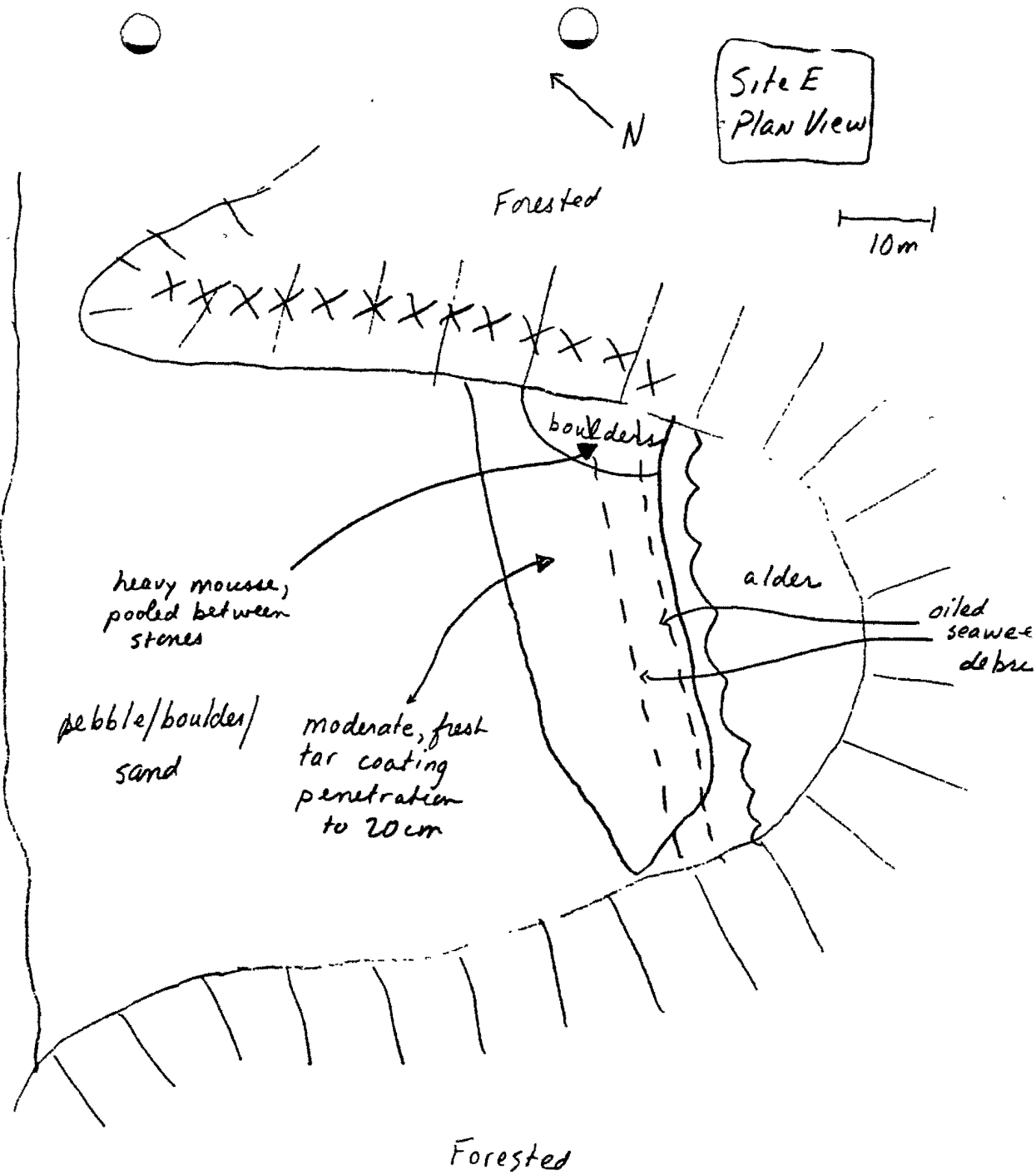
Notes: tar already weathering off exposed stone tops



occasional oil slicks below heavily oiled band;

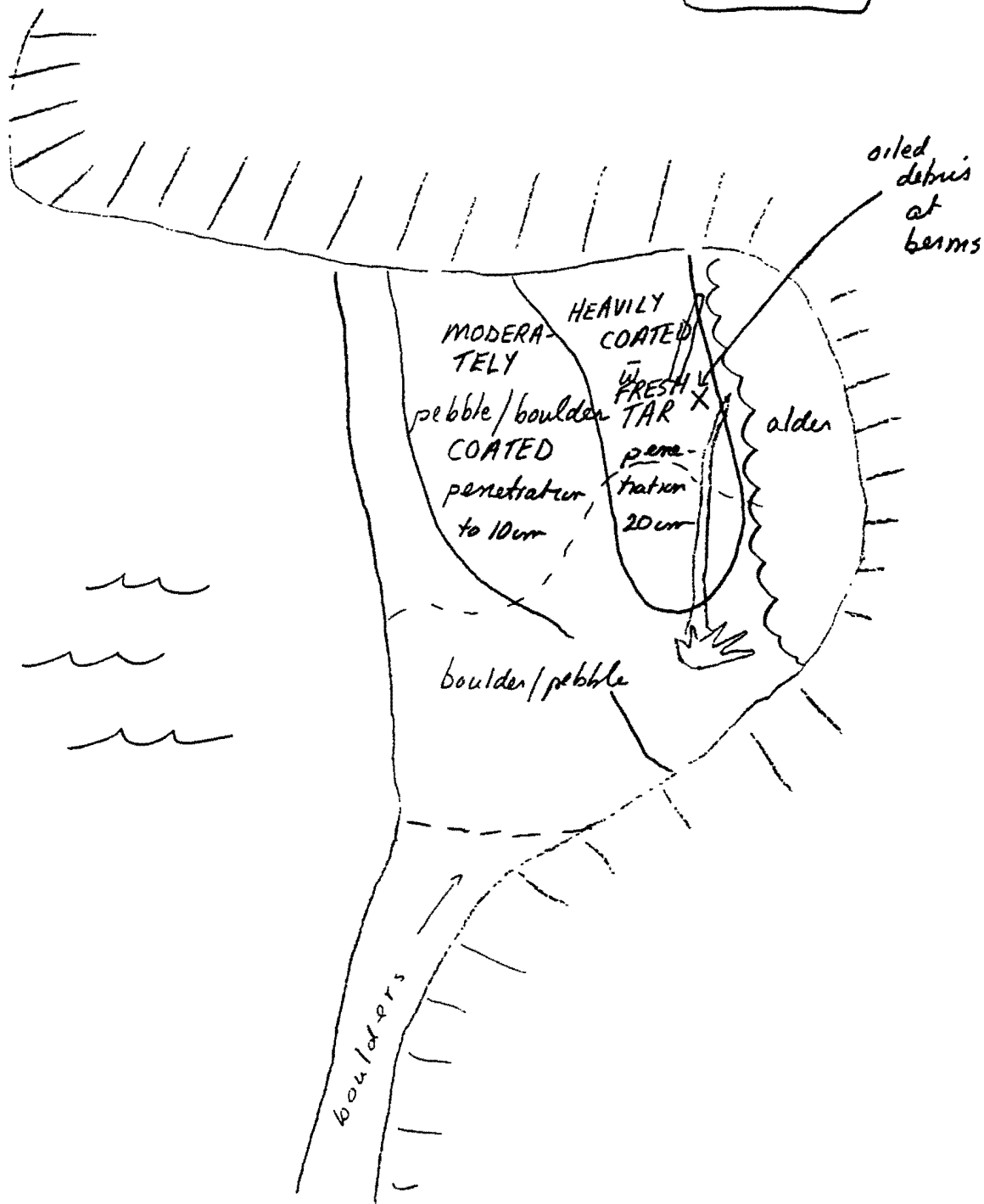
Site D.
Plan View





Site F
Plan View

N
~10 m



Site G
Plan View

N
neg.

10 m

2-3m heavily tar-coated
cliff face

conifer
forest

2-3m heavily tar-coated
boulder/cobble/bedrock
penetration
negligible

rye grass/beach
pea meadow with
young spruce

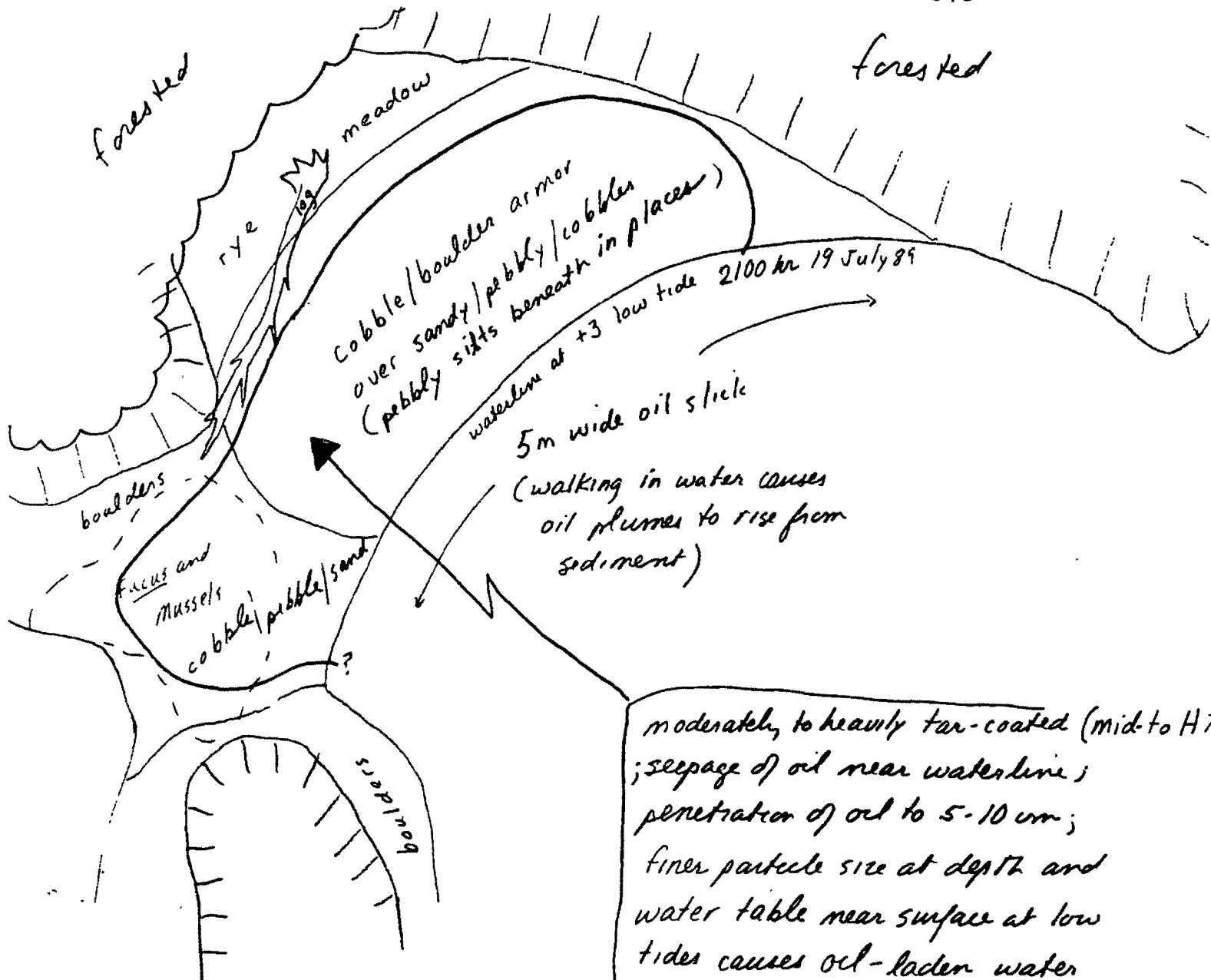
2-3m wide, heavily
tar coated bedrock

(oil contamination
light over
remainder of islet)

Site H
plan view

N

~10m



moderately, to heavily tar-coated (mid-to H); seepage of oil near waterline; penetration of oil to 5-10 cm; finer particle size at depth and water table near surface at low tides causes oil-laden water to flow down slope. Surfaces of many stones in ITZ are now oil free

ECOLOGICAL EVALUATION

LOCATION: EVANS ISLAND SITE: NW Shore, PWS OBSERVER: MEYER

LOCATION PREFIX: EV SEG. NO.: 70 LENGTH: 12 KM (M)

DATE: 07/18/89 TIME (HHMM): 0930; 1915 TIDE HT.: -2.0 to +5.0 FT (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

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

Fairy continuous and dense on rock and boulder, top 1 m oiled in several of the oiled zones. Patchy, sparse or absent from cobble/pebble beaches.

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

Patchy aggregates or absent from most of segment; several small beds in beach gravel, on ^{rock} outcrop.

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

Fairy continuous band above Fucus, sometimes oil-stained; some spot concentrations; Hatched larvae scatt.

Littorina

Patchy ☒/N Contin. Y/N Dense ☒/N Sparse ☒/N None Y/N

Adult primarily in Fucus, tiny scattered in Fucus and across cobble/pebble beach; in oiled and unworked Fucus alike, with oil-coated shells in oiled zone. Mussels common in patches; small clumps of Nudella eggs present.

Limpets: Patchy ☒/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Generally in ^{lower mid} tidal zone or under Fucus; many small Limpets (<2cm).

OTHER OBSERVATIONS: *Dormasterias, Pycnogonids, Leptasterias most common sea stars; one Pteraster, few Echinaster.*

Several beaches had abundant shells scattered (clam, scallop, jingle, cockle) with occasional live ^{small} clams found (Hiatella, Bittor). Crabs, hermit crab, blennies, sculpin, worms, amphipods common. Orithidia.

CLEANUP PRECAUTIONS: *brush in Halosaccion and Fucus. Cod fish offshore and some algal beds.*

→ *Harvesting of Fucus when oiled is strongly recommended to minimize recontamination of rich intertidal. No ecological constraints on recommended fishing.*

MAMMALS: Otters 7+2 pups Harbor Seals 8+4 pups Sea Lions 1 Whales 2 (Muke?)

Other *(Whale with Fin, no tail show during deep dive, relatively small size)*

BIRDS: *Eagles - 5 plus 2 Nests; Oystercatcher - 8; Murrelet - 14; Wandering Tattler - 7; Black-legged Kittiwake - 1; Glaucous-winged Gull - 3; Mew Gulls - 3; Arctic Terns - 4.*

GENERAL OBSERVATIONS:

Several small streams in segment were free of oil and not listed on the ADF 3/4 Aquatic Stream Catalogue Maps.

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 7/19/89 Location Evans Island Site _____

Location Prefix EV Segment # EV-70 Length 12 Km

Survey Method:

Air _____ (A - indicate on map) Boat ✓ (A - indicate on map)

Ground ✓ (G - indicate on map)

Known cultural resources (AHRS #) None Data Source None

Oil conditions/beach visibility light, moderate and none

Width of beach zone surveyed 5-20m Tree fringe surveyed 10m

Cultural resources observed in beach zone (AHRS code) HT1

Cultural resources observed in tree fringe (AHRS code) CMT, ^{FBX} ~~XXXXXX~~*

General observations justifying survey method and segment's site probability:

Shore Profile beaches are flat to moderately sloped the rest

Fresh Water Sources is well fore and boulder fields
shaded stream

Sea Exposure various

Access/Safety beaches - good

Probability of undiscovered sites in beach zone (circle one) 1 2 3 4 5

Monitoring during cleanup needed yes/no Collection yes no

Photos: Color Roll # _____ Frames _____

B/W Roll # CW 10 Frames 22-27

Observer(s) C. Wilson

Time survey started 0915 7/18 Time survey ended 2145 7/19

Cultural resource considerations/restraints: insufficient resources to justify
archaeological monitoring. C. Hobley

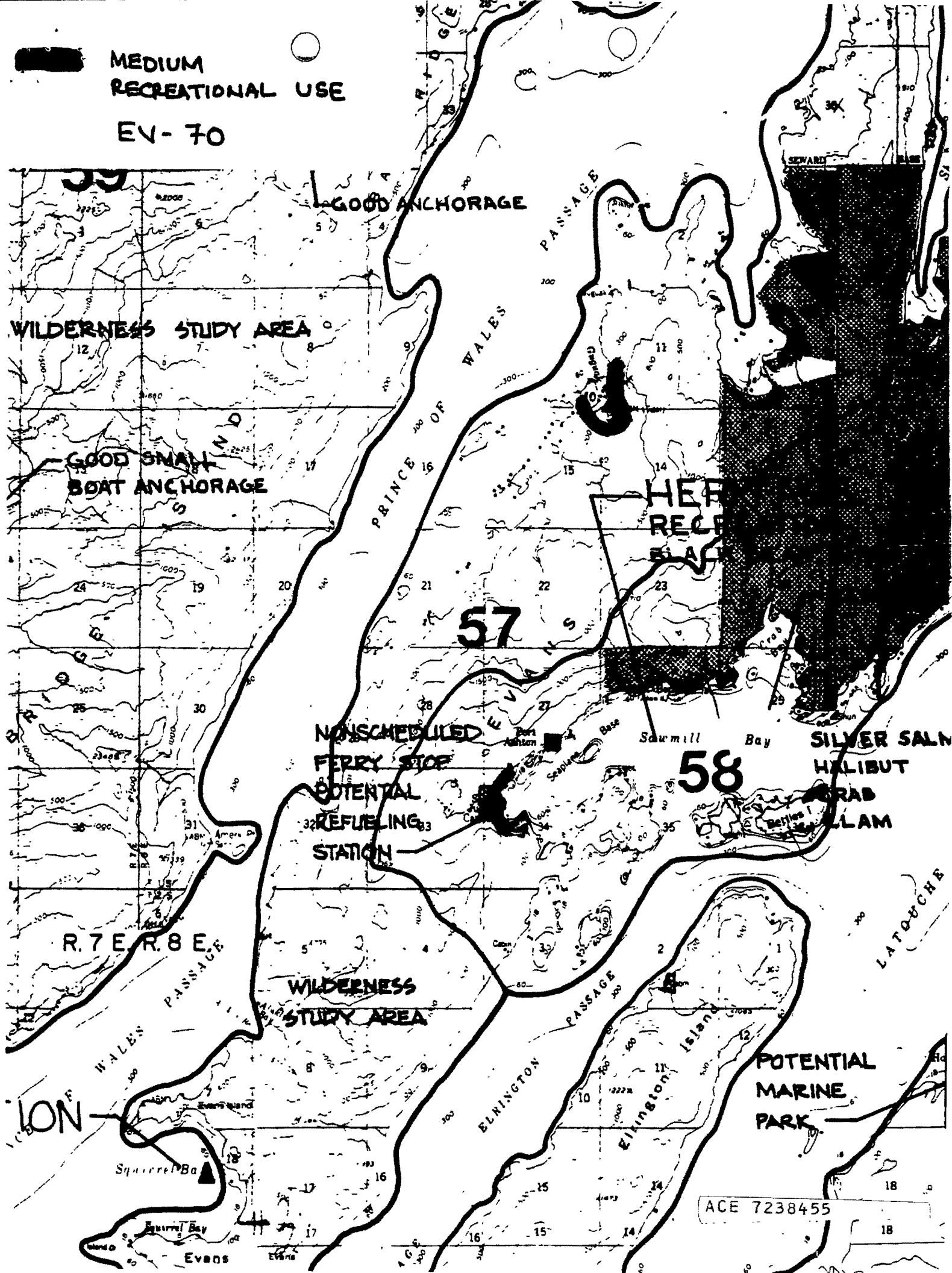
A monitor should be present during cleanup of
area 9. 5 standard restraint elsewhere except 4 where
the HT1 should be removed if cleanup occurs

* NO AHRS CODE ON LIST

ACE 7238454

MEDIUM
RECREATIONAL USE

EV-70



ACE 7238455

