

KN-602
MUMMY BAY

ASC 16851

ACE 1369634

- 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. Surv.)
____ '90 ASAP Survey ____ ASAP Rec. ____ ADEC Rec. (Feb)
____ '90 Other Documents _____

ACE 7379409
+1F/S/LT/FF/-1S

ADF&G MULTI-ASSESSMENT DATA FORM

ATW
Pre-ANADSCAT-90

1 SURVEY TYPE: BS SS DS TS AVS SCHA MMS PTA2 REGION: RWS KP,CI K,APMETHOD: Aerial Ground Boat3 DATE: 4-12-9015 HIGH TIDE TIMES: 121 TEAM RECORDER: R. Gustin4 START TIME: 085016 HIGH TIDE HTS: 122 OBSERVERS: 1 pilot5 STOP TIME: 090817 LOW TIDE TIMES: 123 AGENCY: APFG HAB6 SEGMENT #: KN 60218 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:

Start: End:

10 LAT:

11 LONG:

26 SAMPLES TAKEN? Y (N) Number12 SOURCE: Map Loran

011

13 LOCATION: KNIGHT IS.

Sediment

14 DESCRIPTION: MUMMY BAY

Biological

Water

EXTENT OF OIL

27 SURFACE COVERAGE

28 SURFACE THICKNESS

29 PENETRATION

30 OVERALL OIL IMPACT: N VL L M H

31 OIL TYPE: Pooled Mousse Tar Asphalt Sticky Stain32 OILED DEBRIS? (Y) N33 SHORELINE TYPE: Headland Low-lying Rocks Beach Cove
Lagoon Marsh34 WAVE EXPOSURE: High Moderate Low35 SUBSTRATE TYPE: Bedrock Boulder ✓ Cobble ✓
Gravel ✓ Sand Mud/silt36 CATALOGED ANAD. FISH SREAM? (Y) N37 CATALOG #: 226-4016851 ATW

38 STREAM NAME:

39 OIL IN STREAM BED? Y (N)40 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) NWhere: upper intertidal

43 ANADROMOUS FISH PRESENT? Y N

44 ANADROMOUS FISH OBSERVATION

Species Aerial Ground

COMMENTS:

oil found on south side of stream (right facing in)
drip line of tar on cliffs next stream
1mm - penetration

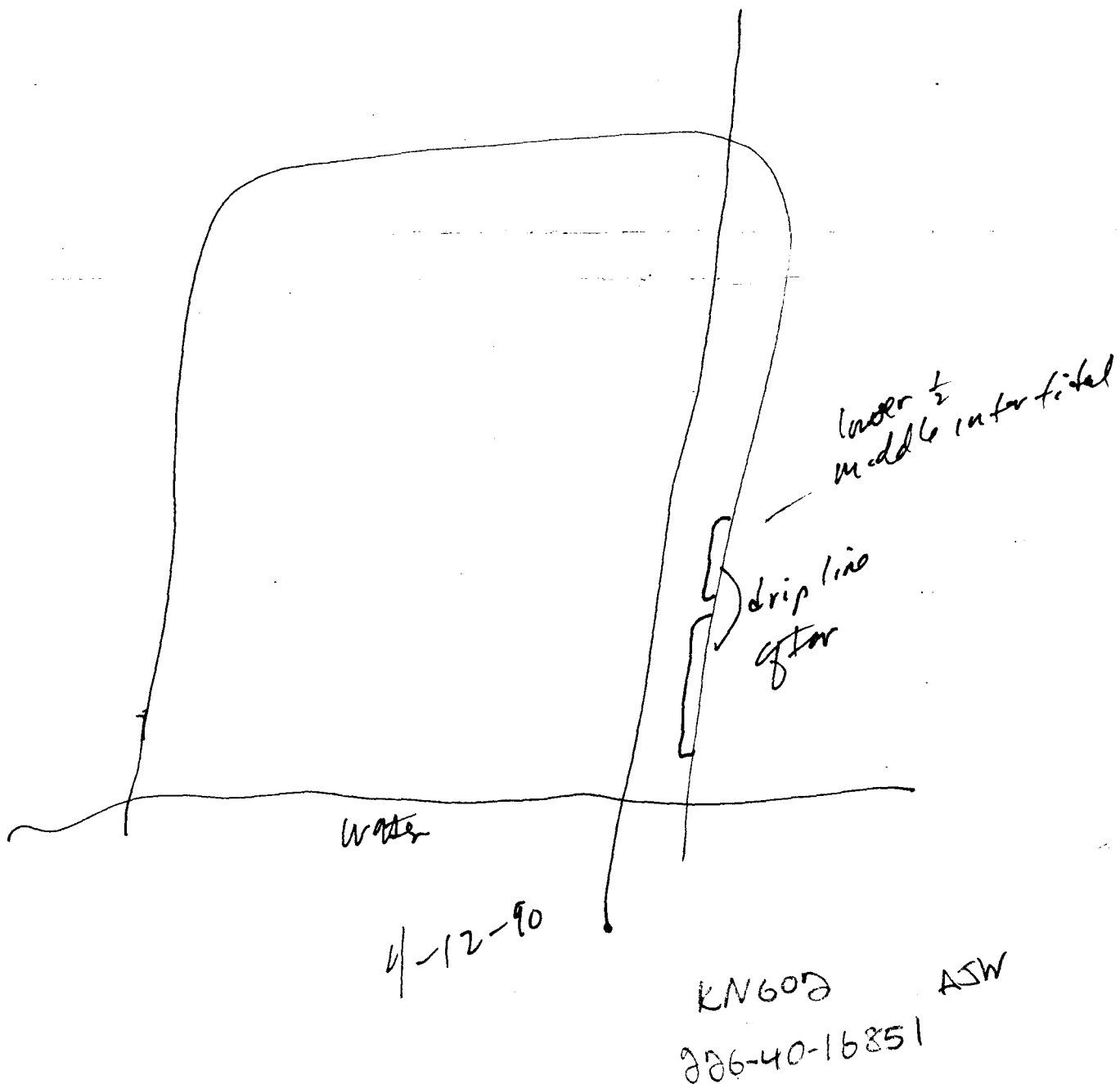
stream clean?

ACE 7379440 +/S

PHOTOLOG

FRAME(S)	DESCRIPTION

48 OIL DISTRIBUTION DIAGRAM



= Sample taken
 = Photo frame # and
 shot direction.

ACE 7379447 -/S



27

#3

ANASCAT-90

ADF&G MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: BS (SS) DS TS AVS SCHA MMHS PTA 2 REGION: (PWS) KP,CI K,AP

METHOD: Aerial (Ground) Boat TERT

3 DATE: 4/27/90 15 HIGH TIDE TIMES: 1 21 TEAM RECORDER: TOM CROWE

4 START TIME: 1010 16 HIGH TIDE HTS: 1 22 OBSERVERS: MIKE WIDOMER

5 STOP TIME: 1030 17 LOW TIDE TIMES: 1 23 AGENCY: ADFTG ANASCAT

6 SEGMENT #: KN 602 18 LOW TIDE HTS: 1 24 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: SEW A-3 Start: _____ End: _____

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

12 SOURCE: Map Loran Oil _____

13 LOCATION: Mummy Bay Sediment _____

14 DESCRIPTION: SMALL BAY Biological _____

Water _____

EXTENT OF OIL

	SHORELINE				STREAM			
	L	W	M ²	%	L	W	M ²	%
27 SURFACE COVERAGE								
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 (✓)

Gravel (✓) Sand (✓) Mud/silt (✓)

36 CATALOGED ANAD. FISH SREAM? (Y) N

37 CATALOG #: 226-40-16851

38 STREAM NAME: _____

39 OIL IN STREAM BED? Y (N) mt

40 OIL ON STREAM BANKS? (Y) N mt

41 OIL ON BEACH ADJACENT TO MOUTH? (Y) N mt
(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: RECOMMENDATION: REMOVE TAR MAT IN CENTER
OF MID INTERTIDAL AREA (SEE MAP)

ACE 7379443 +/5

FRAME(S)

DESCRIPTION

RECOMMEND: MANUAL REMOVAL OF TAR MAT
IN MIDDLE OF COVE

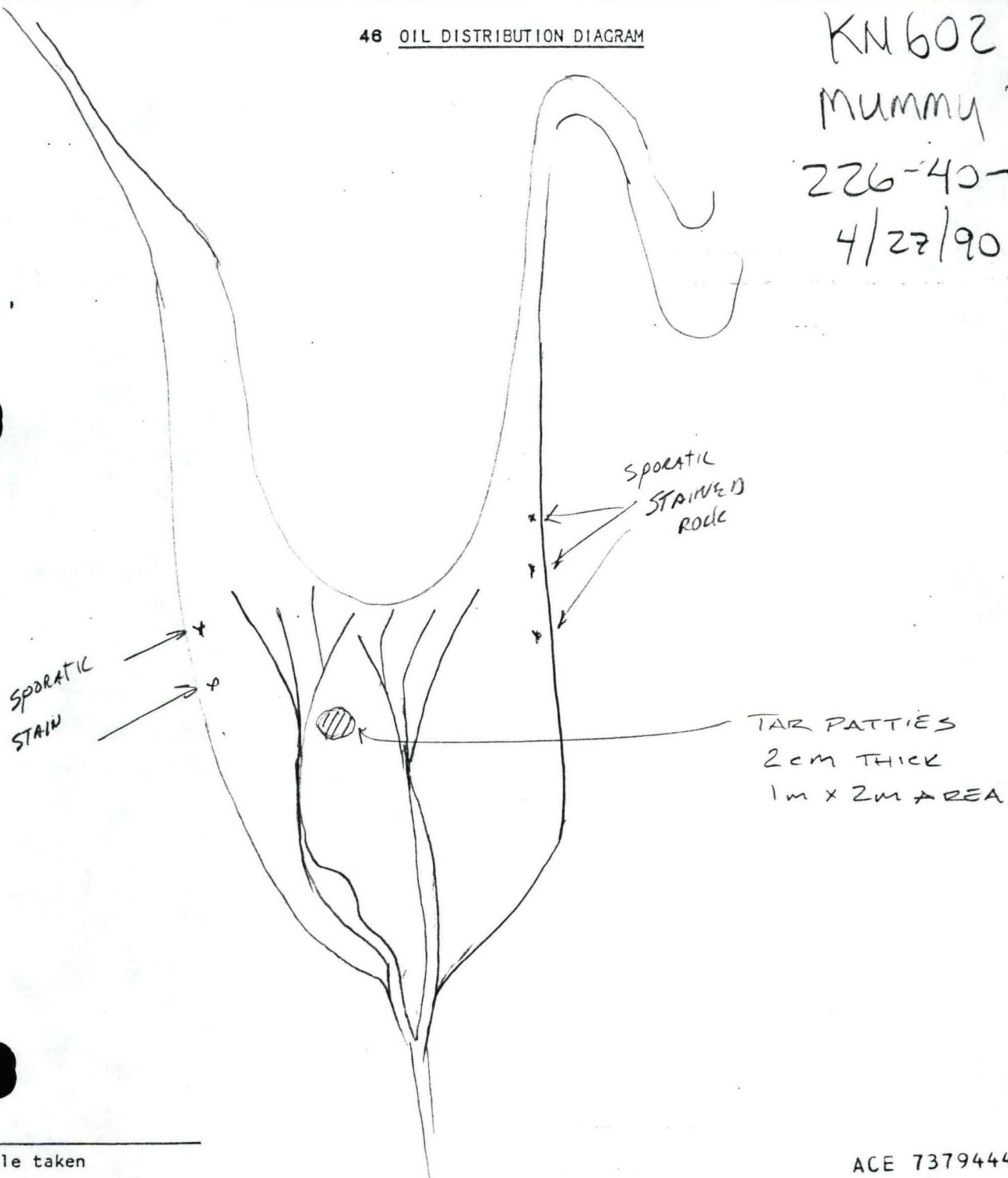
46 OIL DISTRIBUTION DIAGRAM

KN602

MUMMY BAY

226-40-16851

4/27/90



ASC NUMBER:	SEGMENT NUMBER:	YR CATALOGED:
LOCATION:		
STREAM NAME:		LATITUDE:
KODIAK K-UNIT:	LOCAL STREAM #:	LONGITUDE:
USGS QUADRANGLE:		LEGAL: S
SHORELINE TYPE:	ALL SEGMENTS:	

ASC NUMBER: 226-40-16851
 SURVEY TYPE:
 METHOD:
 DATE: 4/27/90
 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	1	2			3 cm		AP
SITE 2							
SITE 3							
SITE 4							
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:

ASC # 226-30-16820

Segment KN-402/KN-401

2 Observations Tar mats and patties (ranging locally from sporadic to continuous) ring the high tide line south of the channel. No oil was observed north of the channel. No subsurface of oil was observed.

Treatment Recommendations Manually remove all tar mats and patties.

ASC # 226-40-16851

Segment KN-602

2 Observations Sporadic stains dot boulders along the high tide line. Immediately adjacent to one of the stream channels running through the upper-intertidal zone, a tar mat has penetrated several centimeters into the gravel.

Treatment Recommendations Manually remove tar mats.

ASC # 226-40-16853

Segment KN-602

Observations Sporadically stained rocks are distributed north of the channel within the upper-intertidal zone.

Treatment Recommendations No treatment is required.

W 1 ASC # 226-40-16855

Segment KN-601

Observations No surface or subsurface oil was observed.

Treatment Recommendations No treatment is required.

FRAME(S)	DESCRIPTION
	RECOMMEND: MANUAL REMOVAL OF TAR MAT
	IN MIDDLE OF COVE

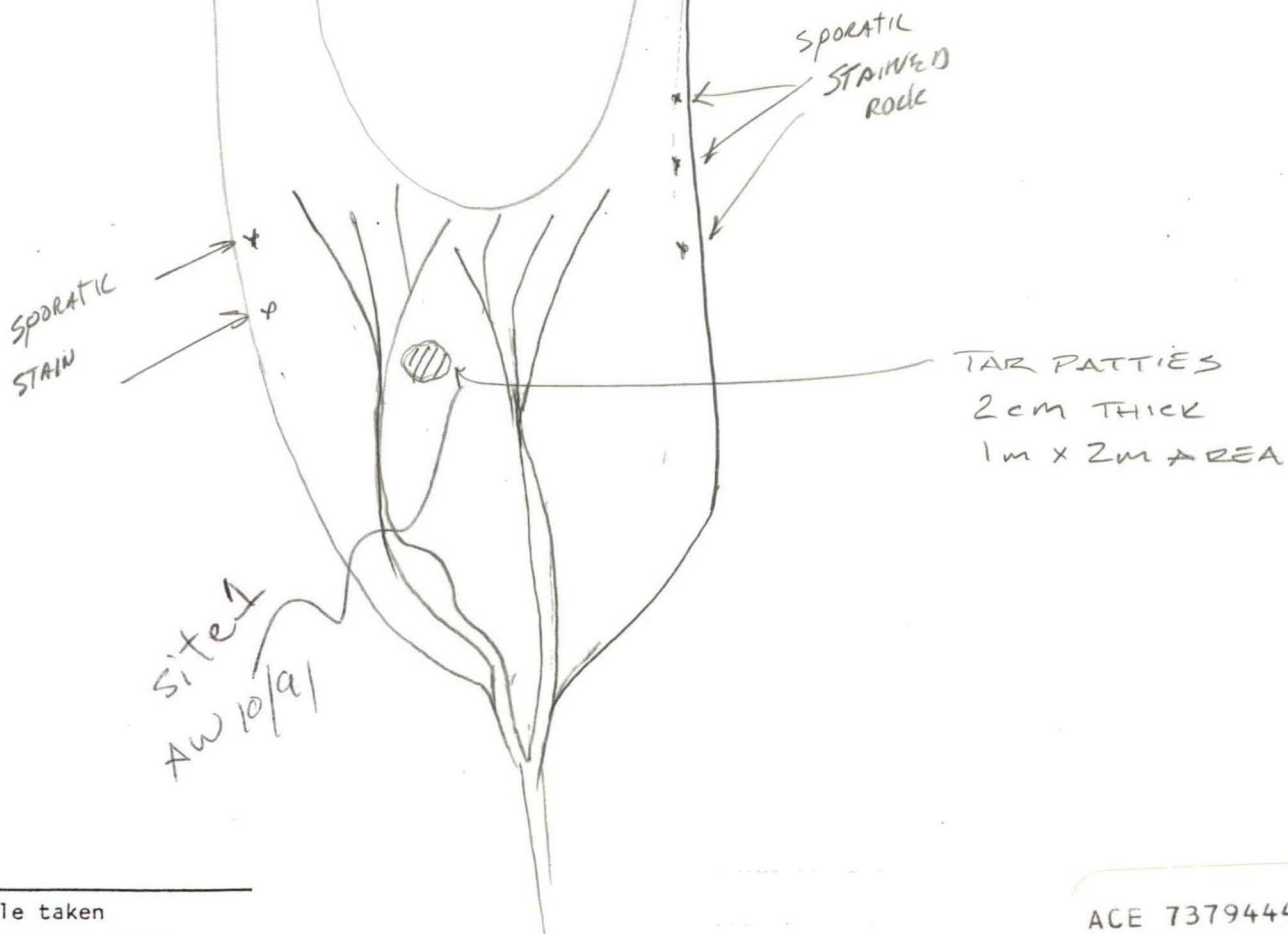
46 OIL DISTRIBUTION DIAGRAM

KN602

Mummy Bay

226-40-16851

4/22/90



SHORELINE OILING SUMMARY (ANAD.)

REVISION NO. 04/1

OG WILLIAM LEID SCG McMAHON SE ENT ST/ KN 602 3116
 BIO MICHAEL FAWCETT LAND REP TON CROWE AVEG STREAM 228 40-168511 OF
 EXXON GUS GARCIA ADFG MIKE WIEDMER TIME 10:05 to
 TEAM NO. 15 TIDE LEVEL -3 FT DATE 27 APR 190
 EST. SUBDIVISION LENGTH: 50 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo
 SURFACE SEDIMENTS: R 25 % B 60 % C 15 % G 0 % S 0 % M 0 % V
 SLOPE: Lang 90 % Hang 10 % Vert 0 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 10 m NO 40

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	IC	IS	IP	IR	BR	OR	OL	OF	NO	UC	UL	UR	SU	UL	UR	LU
ASPHALT PAVEMENT																
POOLED																
COVER																
COAT																
STAIN				X									X			
MOUSSE																
PATTIES			X												X	
TARBALLS																
FILM																
NO OIL																

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

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

Did you collect DEBRIS

☐ YES ☒ NOTYPE 0#BAGS 0

Photographs:

Roll No. AS-15-7Frames 1-3

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CK)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SHEEN (Y/N)	SURFACE SUBSURFACE SEDIMENT
		OP	OR	OL	OF	NO		UC	UL	BR	OR	OL	OF	NO	UC	UL	UR	SU	UL	UR	LU			
1	40					X	.											X					N	P/B/C
2	30					X	.											X					N	G/P/C
							.																	
							.																	
							.																	
							.																	

COMMENTS

REVIEWED 0 DATE 0

ACE 7379436

27/63

OG WILLIAM REID

SEGMENT ST/ KNL602

STREAM 226-30-16851

DATE 27/1/92 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 Δ

Pit - No Subsurface Oil

2 $\blacktriangle$

Pit - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

Splashed Distribution

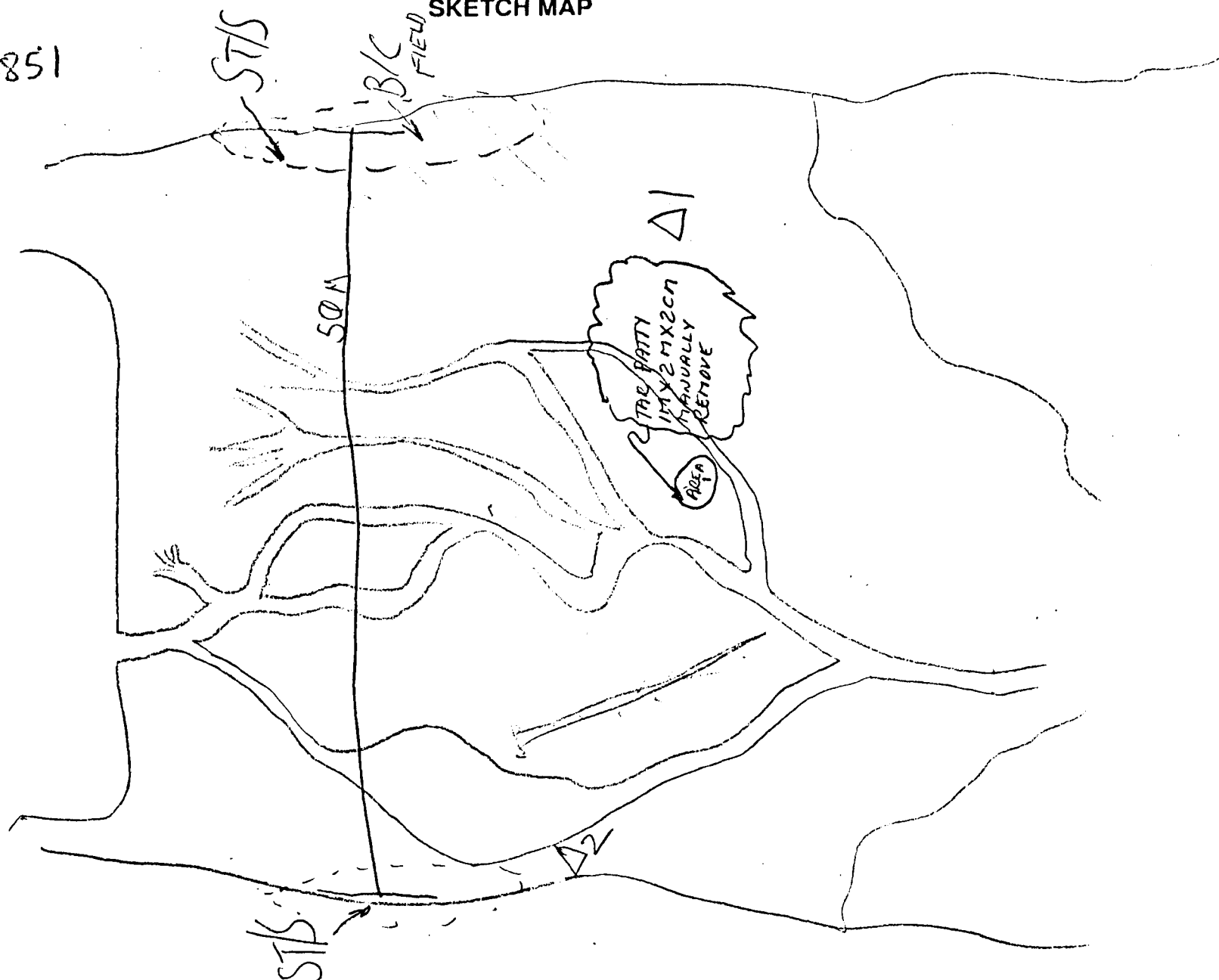
eee

Oiled Vegetation

1 $\rightarrow$

Photo location, direction,
and number

SKETCH MAP



ACE 7379432

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

REVISION: 03/24/90

Segment KN 602
Stream 226-40-16851
Ecological Summary

4/27/90
Michael Fawcett

This stream has an approximately 100m wide intertidal delta of boulders/cobble/pebbles/gravel. Fucus, barnacles, and littorines are abundant in the MTZ. Barnacle spat have settled in great numbers throughout the MTZ. The LTZ has some eelgrass, and infaunal clams, crustaceans, echinoids, worms, etc. Many holes from sea otter clam-digging were observed. A few light traces of oil were found in UTZ.
No cleanup recommended.

M. Fawcett

FIELD SHORELINE COMMENT SHEET.

SEGMENT ST 1 KN 602 SUBDIVISION: ⁴⁰~~30~~ 16851 DATE 4/27/90

USCG

NAME CWO MC MAHON SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

ADFL

ADEC

NAME TOM CROWE SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

MANUAL REMOVAL OF TARMAJ IN MID INTERTIDAL ZONE
ADJACENT TO THIS CREEK. (SEE MAPS)

LAND MANAGER

NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

ACE 7379445 -/S

OPERATIONS FIELD NOTE

See Back for Instructions

26/63

SEGMENT ID ANAD KN602
 STREAM ID # 226-40-16851
 ANNOTATED MAP INCLUDED Y/N

DATE 4-27-90
 NAME GARCIA
 TEAM # 15

SURFACE OIL	Quantities in Meters			Treatment Recommendation						
	Length	Width	Area	None	Bioremediation		Tilling		Spot Hot Water	
					Y/N	% Treat	Y/N	% Treat	Y/N	% Treat
Wide Band	VERY	SPORADICALLY		NONE						
Medium Band	STAINED, LESS THAN									
Narrow Band	0.1%									
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	2	1	2			✓	2		1
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/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 —

COMMENTS:

MANUALLY REMOVED THE TAR PATCH NOTED ON THE ATTACHED MAP.

NO OTHER TREATMENT NECESSARY. TOTAL MANDAYS REQUIRED FOR

THIS STREAM IS 1.

ACE 7379431 +/S

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/ KN-602 STREAM NO: 226-40-16851 DATE 4/27/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31) Subject stream and
226-30-16853
5T All Bald Eagle nests (3/1 to 6/1)
Active Bald Eagle nests (3/1 to 9/1) Nest within 400m of
segment.
6V Recreation: Anchorages (6/1 to 9/15)
6Y Recreation: Special use destination
See attached Ecological Constraint sheet for specific constraints and
contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Subject stream exists within subdivision A (1 of 1). No additional
ecological constraints.

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

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

Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS:

TAG COMMENTS:

TAG APPROVAL DATE: 5/18/90

ADEC ART WEINER Art Weiner

EXXON Andy Tene Andy Tene

NOAA Gary Petrac Gary Petrac

USCG G.A. REITER G.A. Reiter

FOSC: [Signature]

DATE: MAY 25 1990

ACE 7379415
+1/51ACI RT

SSAT DATA ENTRY FORM

PAGE 1 OF 2

GENERAL DATA

226-40-
SEG ID: KN 602 SUBDIV: 16851 TEAM: AS-15 SURVEY DATE: 4/27/90
PAVEMENT: CHAR — AREA 0 THICKNESS 0 TARBALLS 0
OILED: LGS — VEG — TRH — DBR — WAVE EXP: LW X MD — HG —
FAX RCVD: — DT: — AGENCY DISAGREE: —
EST SUBDIV LGTH: 50 OIL CATEGORY: W 0 M 0 N 0 VL 10 NO 40 U 0

SURFACE DATA

SURFACE SEDIMENT: BRK 0 BLD 25 COB 60 PEB 15 GRN 0 SAN 0 MUD 0 VEGO 0

CHAR #: 1 OIL CHAR: ST OIL DIST: CONT — BRKN — PTCH — SPLH X
OIL CLR: DBL FILM CLR: — TIDAL ZONE: SU — UI X MI — LI —

CHAR #: 2 OIL CHAR: PT OIL DIST: CONT — BRKN — PTCH X SPLH —
OIL CLR: DBR FILM CLR: — TIDAL ZONE: SU — UI — MI X 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 —

34/63

SSAT DATA ENTRY FORM

SUBSURFACE DATA

PAGE 2 OF 2

SEGMENT ID: KN602 SUBDIV: 226-40-16851

PIT # 1 PIT DEPTH 40 OIL CHARACTER — OIL INTVAL: FROM 0 TO 0
QUANT: — OIL CLR: — FLM CLR: — ZONE: SU — UI X MI — LI —
SUBSURF SEDIMENT: BRK — BLD — COB X PEB X GRN X SAN — MUD — VEG —

PIT # 2 PIT DEPTH 30 OIL CHARACTER — OIL INTVAL: FROM 0 TO 0
QUANT: — OIL CLR: — FLM CLR: — ZONE: SU — UI X MI — LI —
SUBSURF SEDIMENT: BRK — BLD — COB X PEB X GRN X SAN — MUD — VEG —

PIT # — PIT DEPTH — OIL CHARACTER — OIL INTVAL: FROM — TO —
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 —

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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 7379439

Jan 5/18/90

RECEIVED
MAY 15 1990

DEPT. OF
ENVIRONMENTAL CONSERVATION

ANADROMOUS FISH STREAM ASSESSMENT

REGION: PRINCE WILLIAM SOUND

SEGMENT: KN-602

SUBDIVISION: A

STREAM NO: 226-40-16851

pk patthes.

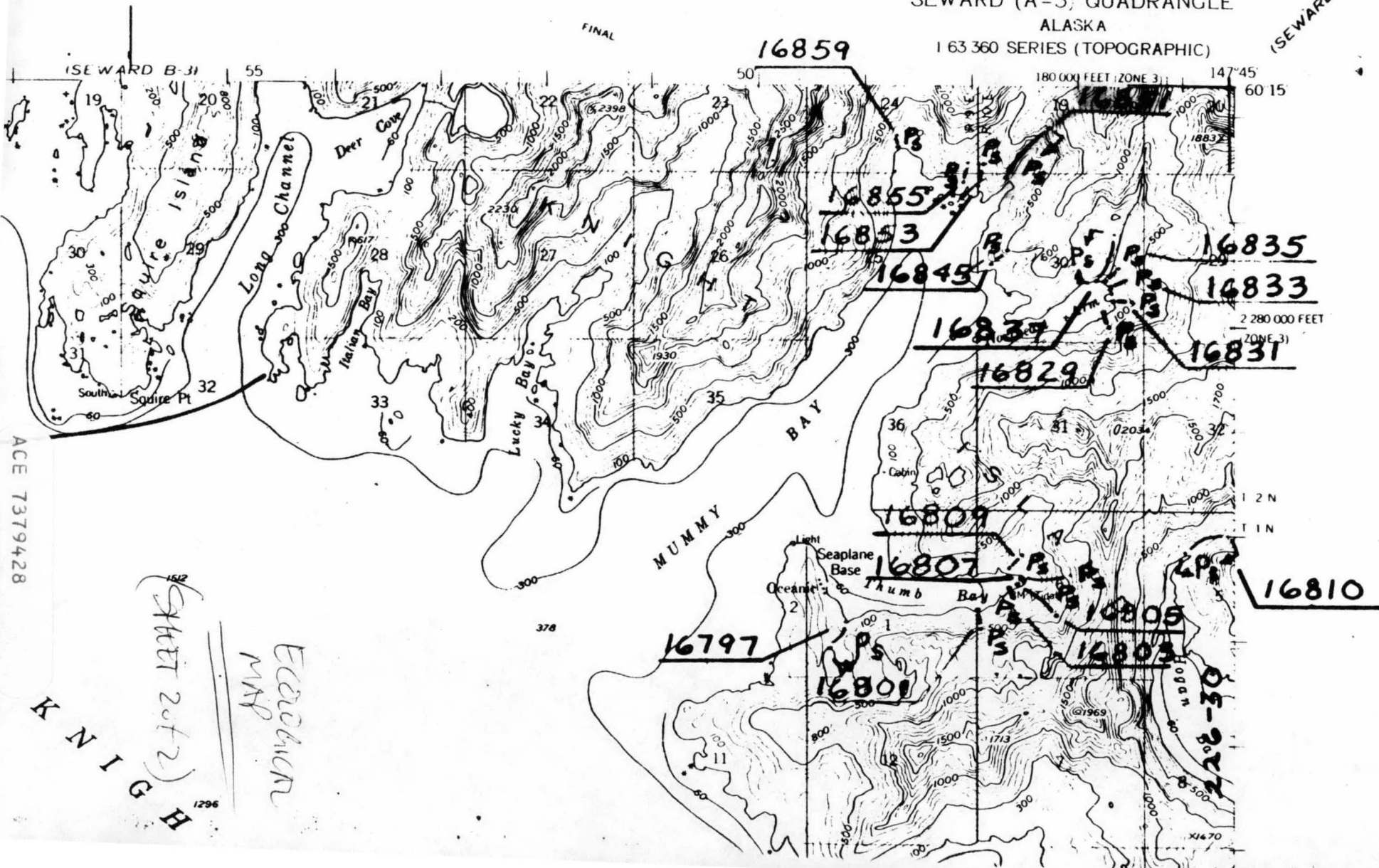
ACE 7379420 +/S

SEWARD (A-3) QUADRANGLE

ALASKA

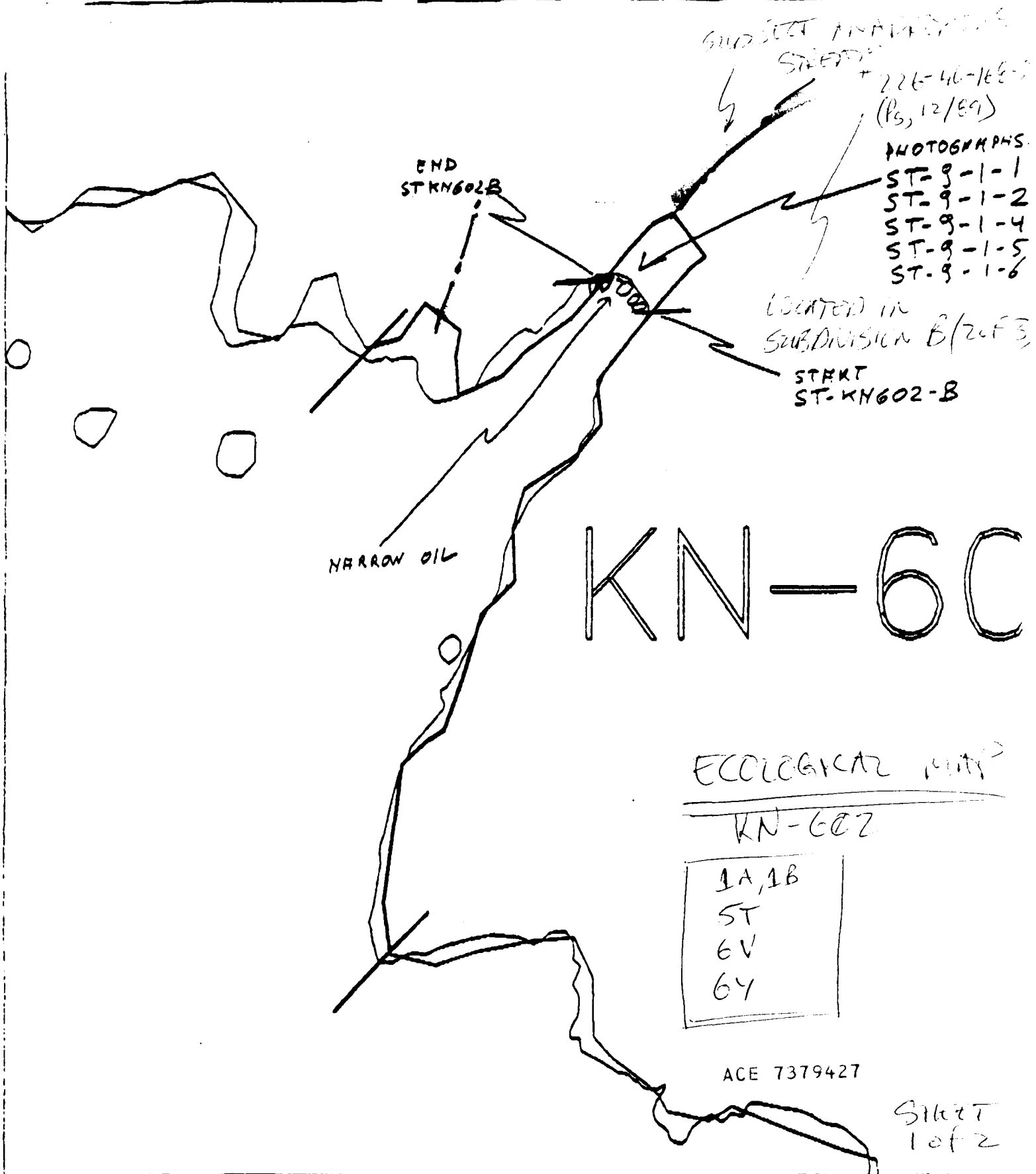
1 63 360 SERIES (TOPOGRAPHIC)

(SEWARD B-2)



ACE 7379428

KNIGHT
 (Sheet 2 of 2)
 ECHOGRAPH
 MAP
 1296



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

ST-KN-602-B

ADEC Segment Length: 1329m

0 100 200 300
 METERS

Map Key: PWS-470

Name: K. DEBUSSCHER

Date: 3/31/90

Data Entered:

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

- ✓ 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
 ✓ 1B Salmon stream mouth - spawning (7/10 to 8/31)
 No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream without authorization from ADF&G. No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G. Treatment which is not intrusive and which will not affect nearshore oil or toxicity levels, such as manual removal, can probably proceed without adherence to time constraints. In any case, contact ADF&G Habitat Division prior to treatment for consultation and/or permit application.
 AGENCY CONTACT PERSON: ADF&G John Morison 267-2324
- 1C Salmon fry nursery area (4/31 to 7/31)
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to July 31 unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G prior to treatment for confirmation and advice.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1D Esther Hatchery release (4/15 to 6/15)
 1E Main Bay Hatchery release (4/20 to 6/15)
 1F Sawmill Bay Hatchery release (4/15 to 6/1)
 1G Cannery Creek Hatchery release (4/21 to 6/1)
 1H Remote release site
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G and/or PWS Aquaculture Association. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G or PWS Aquaculture Association for confirmation and authorization.
 AGENCY CONTACT PERSON: 1E ADF&G Larry Peltz 424-3214
 1D 1F 1G PWS Aquaculture Association John McMillan or Bruce Suzumoto 424-7511
- 1I Gill net area (6/7 to 8/31)
 1J Purse seine area (7/20 to 9/30)
 1K Purse seine hook-off (7/20 to 9/30)
 1L Set net sites (6/11 to 7/25)
 Contact ADF&G for specific dates, locations and constraints. Restrict boat and air traffic to essential minimum. When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G James Brady 424-3212
- 2M Herring spawning (4/1 to 6/15)
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to unopened intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G Evelyn Biggs 424-3235
- 3N, 3P Harbor seal and sea lion pupping (5/15 to 7/1)
 3O, 3Q Harbor seal and sea lion molting (8/15 to 9/15)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31). Contact ADF&G and USFWS prior to treatment for confirmation.
 AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
 ADF&G Don Calkins 267-2403
- 5R Seabird colony (5/1 to 9/1)
 Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
 ADF&G Tom Roth 267-2206
- ✓ 5T All Bald Eagle nests (3/1 to 6/1)
 Active Bald Eagle nests (3/1 to 9/1)
 Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 6U Recreation: Tent sites (6/1 to 9/15)
 ✓ 6V Anchorages (6/1 to 9/15)
 6W Forest Service cabins (6/1 to 9/15)
 ✓ 6X Lodge (6/1 to 9/15)
 ✓ 6Y Special use destination
- 7Z Subsistence area: Salmon harvesting (5/1 to 9/30)
 7HH Finfish harvesting
 7II Deer harvesting (8/15 to 2/28)
 7JJ Invertebrate harvesting
 Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.
 AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2359

ACE 7379422

CATALOG NUMBER: 2264016851				SEGMENT NUMBER: KN602B					
STREAM NAME: <i>Pre-ANADSCAT</i>				SHORELINE TYPE:					
LOCATION: KNIGHT ISLAND, MUMMY BAY				DATE: 04/12/90 TIME: COVE -0908					
SITE	WIDTH (m)	LENGTH (m)	AREA (sqm)	PERCENT OIL	THICKNESS (cm)	PENETRATION (cm)	SURFACE SUBSURF	OIL TYPES	COMMENTS
1					1mm		SURFACE	CT	South side - dripline on cliffs next to stream
COMMENTS: OIL FOUND ON SOUTH SIDE OF STREAM (RIGHT FACING IN) DRIP LINE OF TAR ON CLIFFS NEXT TO STREAM. 1MM PENETRATION. STEAM CLEAN? OIL ON STREAM BANKS: YES WITHIN 1 MILE OF STREAM: YES, UPPER INTERTIDAL <i>delete</i>									

OIL

CATALOG NUMBER: 2264016851				SEGMENT NUMBER: KN602					
STREAM NAME: <i>Anadscat</i>				SHORELINE TYPE:					
LOCATION: KNIGHT ISLAND, MUMMY BAY				DATE: 04/27/90 TIME: COVE -1030					
SITE	WIDTH (m)	LENGTH (m)	AREA (sqm)	PERCENT OIL	THICKNESS (cm)	PENETRATION (cm)	SURFACE SUBSURF	OIL TYPES	COMMENTS
1	2	1			<i>#2</i>		SURFACE	AP	1 X 2m PT between stream channels
COMMENTS: RECOMMENDATIONS: REMOVE TARMAT IN CENTER OF MID INTERTIDAL AREA, CENTER OF COVE. (SEE MAP) OIL ON STREAM BANKS: YES WITHIN 1 MILE OF STREAM: <i>side 2 ————— ST — sporadic stained rock on west side of stream</i> <i>3 ————— ST — sporadic stained rock on east side of stream</i>									

OIL

ADFG MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: BS SS DS TS AVS SCH MMS PTA2 REGION: PHS KP,CI KAPMETHOD: Aerial Ground Boat TURT3 DATE: 4/27/9015 HIGH TIDE TIMES: 121 TEAM RECORDER: TOM CROWE4 START TIME: 101016 HIGH TIDE HTS: 122 OBSERVERS: MIKE WILSON5 STOP TIME: 103017 LOW TIDE TIMES: 123 AGENCY: ADFG ANADSCAT6 SEGMENT #: KN 60218 LOW TIDE HTS: 124 PHOTOS TAKEN: Y (M)

7 STATION #1: _____

19 TIDE HT AT SURVEY: _____

Roll #: _____ Frame: _____

8 K-UNIT: _____

Ebb Slack Flood Slack

25 VIDEO TAKEN: Y (M) TAPES: _____

9 STAT AREA: _____

20 USCG QUAD: SEW A-3

Starts: _____ Ends: _____

10 LAT: _____

11 LONG: _____

26 SAMPLES TAKEN Y (M) Number

12 SOURCE: Map Loran

13 LOCATION: Mummy Bay14 DESCRIPTION: SMALL BAY

Oil _____

Sediment _____

Biological _____

Water _____

EXTENT OF OIL

27 SURFACE COVERAGE

28 SURFACE THICKNESS

29 PENETRATION

30 OVERALL OIL IMPACT: N (VL) L M H31 OIL TYPE: Pooled Mousse Tar Asphalt Sticky Stain

32 OILED DEBRIS: Y N

33 SHORELINE TYPE: Headland Low-lying Rocks Beach Cove
Lagoon Marsh34 WAVE EXPOSURE: High Moderate Low35 SUBSTRATE TYPE: Bedrock Boulder ✓ Cobble ✓
Gravel ✓ Sand ✓ Mud/silt ✓36 CATALOGED ANAD. FISH STREAM? (Y) N37 CATALOG #: 226-40-16851

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

44 ANADROMOUS FISH OBSERVATION
Species Aerial Ground

COMMENTS: RECOMMENDATION: REMOVE TAR MAT IN CENTER
OF MID INTERTIDAL AREA (SEE MAP)

ACE 7379429

I agree with recommendation. M Z Fawcett#3
Extra
ANADSCAT
Copies
90

48 PHOTOLOG

30/63

FRAME(S)

DESCRIPTION

RECOMMEND: MANUAL REMOVAL OF TAR MAT
IN MIDDLE OF COVE

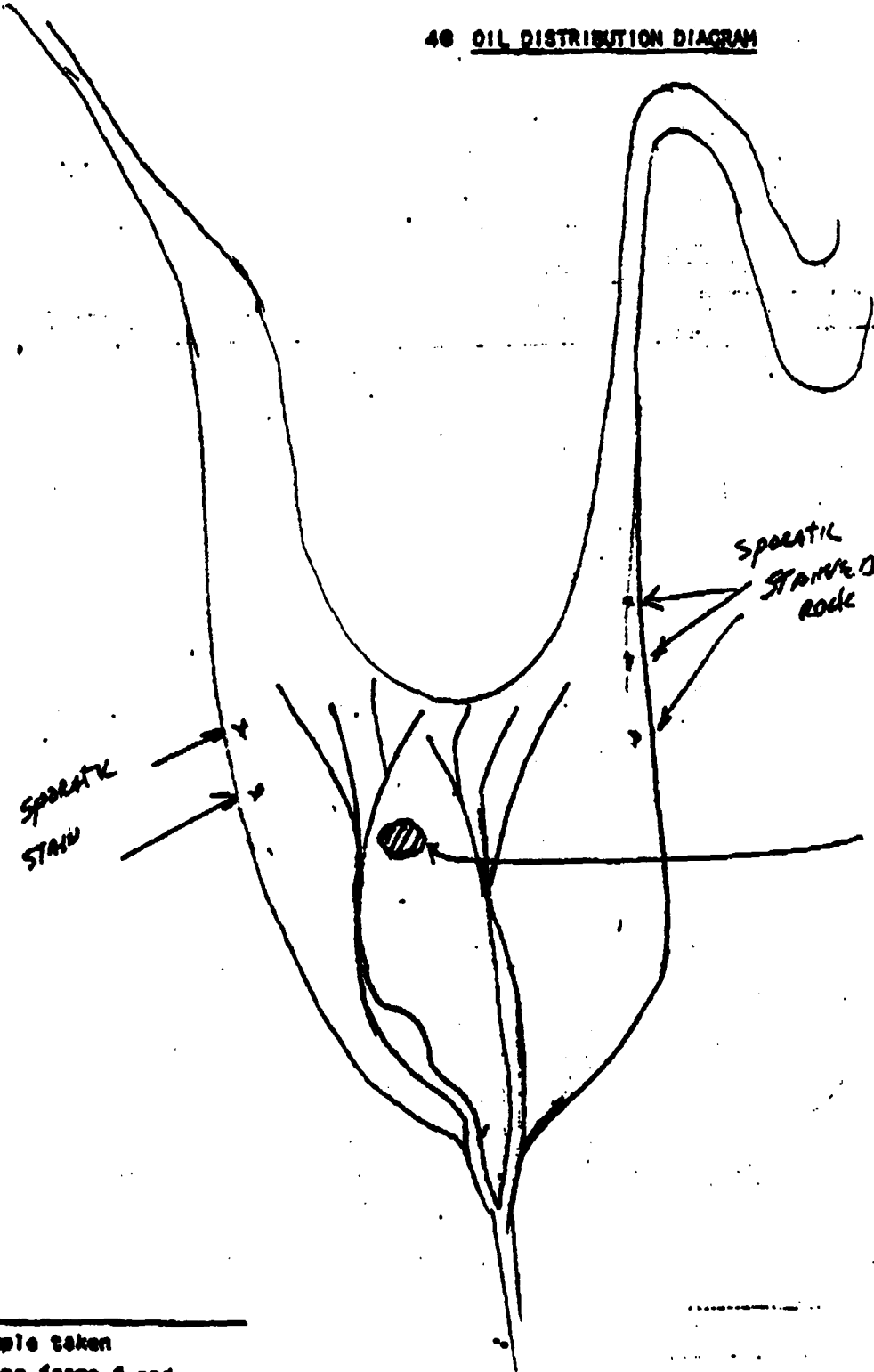
48 OIL DISTRIBUTION DIAGRAM

KN602

Mummy Bay

226-40-16851

4/22/90



Sample taken
Photo frame # and
shot description

ACE 7379430 -15

FIELD SHORELINE COMMENT SHEET

828/6

SEGMENT ST KN 602 SUBDIVISION: 16851 DATE 4/27/90

USCG

NAME CWO MC MALON SIGNATURE [Signature]☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

ADFM

ADEC

NAME TOM CROWE SIGNATURE [Signature]☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

MANUAL REMOVAL OF TARMAT IN MID INTERTIDAL ZONE
ADJACENT TO THIS CREEK. (see maps)

LAND MANAGER

NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

SHORELINE OILING SUMMA

(ANAD.)

REVISION NO. 1

OG William Reid USCG McMAHON SEGMENT ST/ 502 311
 BIO MICHAEL FAWCETT LAND REP TON GROVE ADEG 502 311 OF
 EXXON GUS GARCIA ADFG MIKE WIEDNER TIME 10:05 to
 TEAM NO. 15 TIDE LEVEL 3M DATE 27 / APR / 90
 EST. SUBDIVISION LENGTH: 50 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☐ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo
 SURFACE SEDIMENTS: R 25 % B 60 % C 15 % G 0 % S 0 % M 0 % V
 SLOPE: Long 90 % Hang 10 % Vert 0 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ Hk
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 0 m NO 40

SURFACE OIL

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

PAVEMENT H F S 0 sq. m by 0PATTIES / TARBALLS 2 ENEAR SHORE SHEEN? ☒ NO BR RW SL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

Did you Col

DEBRIS

☐ YES ☒ NOTYPE 0#BAGS 0

Photographs:

Roll No. AS-15-7Frames 1-3

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR				PIT ZONE				A N A	SHEEN (Y/N)	T	SURFA SUBSUF SEDIME
		OP	OR	OL	OF	NO		NO	NO	1	2	3	4	SU	U	M	U				
1	40					X	.							X					N		P/B
2	30					X	.							X					N		G/P
							.														
							.														
							.														
							.														
							.														

COMMENTS

ACE 7379424

REVIEWED W DATE 4-30-90

35/63

Segment KN 602

4/27/90

Stream 226-40-16851

Michael Fawcett

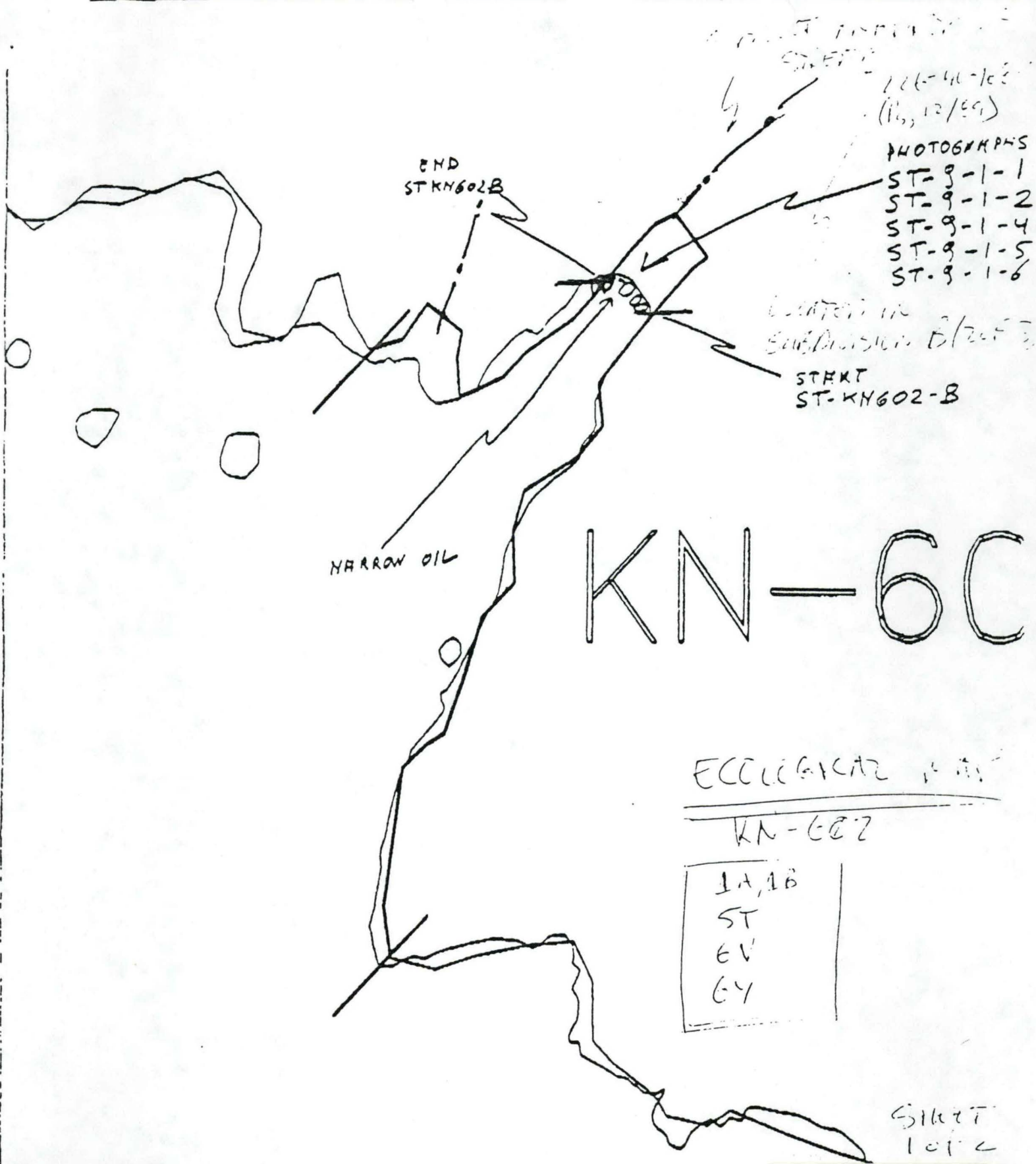
Ecological Summary

This stream has an approximately 100m wide intertidal delta of boulders/cobble/pebbles/gravel. Fucus, barnacles, and littorines are abundant in the MTZ.

Barnacle spat have settled in great numbers throughout the MTZ. The LTZ has some eelgrass, and infaunal clams, crustaceans, echinoids, worms, etc. Many holes from sea otter clam-digging were observed. A few light traces of oil were found in UTZ.

No cleanup recommended.





XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

OOOO No Oil

ST-KN-602-B

ADEC Segment Length: 1329m



ACE 7379417

Map Key: PWS-470

Name: K. DEBUSSCHER

Date: 3/31/90

Data Entered:

SEWARD (A-3) QUADRANGLE

ALASKA

1 63 360 SERIES (TOPOGRAPHIC)

(SEWARD B-2)

FINAL

16859

1000 FEET (ZONE 3)

147°45'

60 15

SEWARD B-31

55

Long Channel

Det Cove

Helena Bay

Lucky Bay

BAY

MUMMY

Seaplane Base

Light

Observatory

Thumb Bay

16809

16807

16805

16803

16801

16797

16855

16853

16845

16835

16833

16831

16829

16810

16809

16807

16805

16803

16801

16797

16855

16853

16845

16835

16833

16831

16829

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16807

30/63

FRAME(S)

DESCRIPTION

RECOMMEND: MANUAL REMOVAL OF TAR MAT
IN MIDDLE OF CAVE

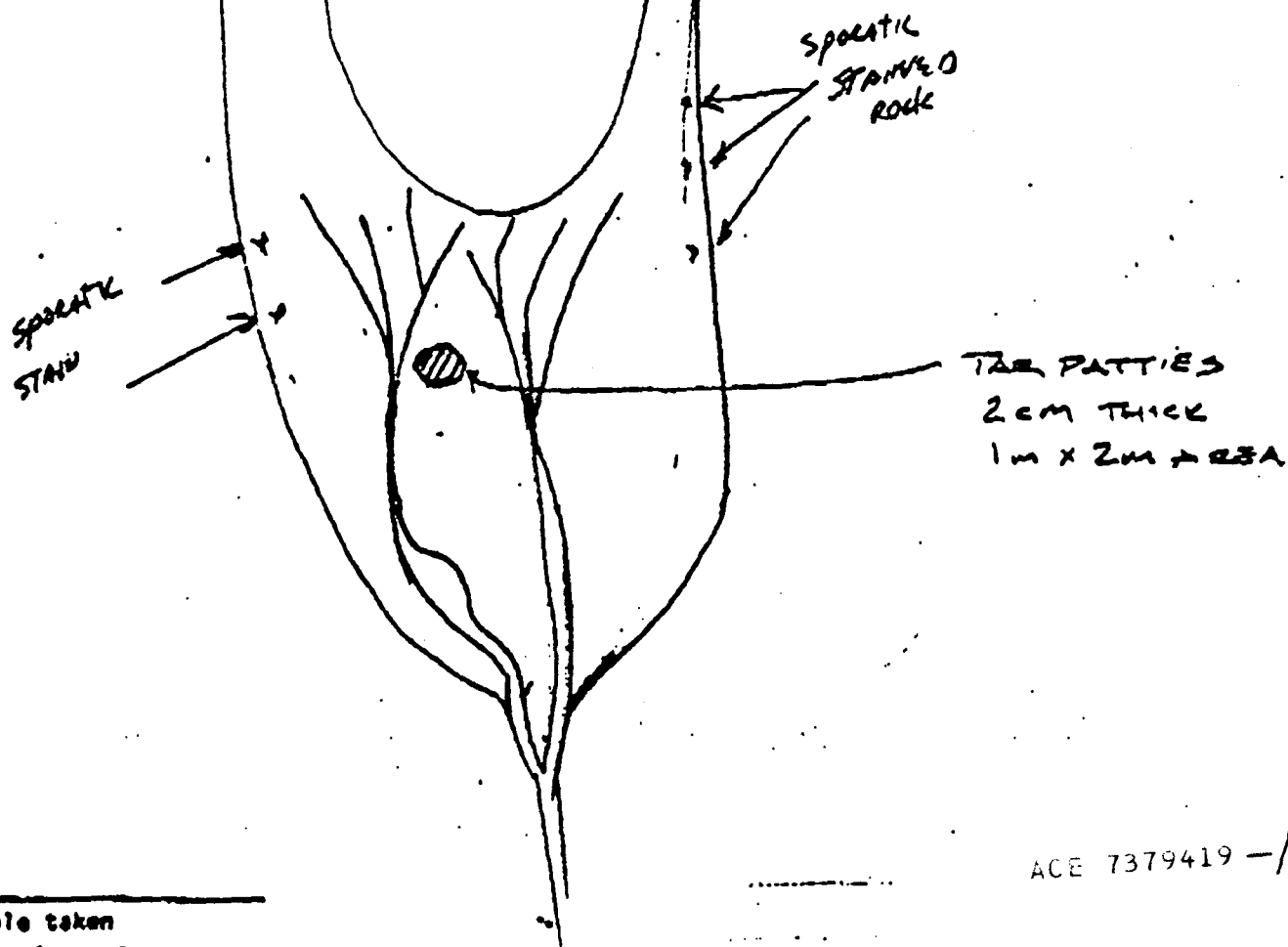
48 OIL DISTRIBUTION DIAGRAM

KN602

MUMMY BAM

226-40-16851

4/22/90



ACE 7379419-15

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/ KN-602 STREAM NO: 226-40-16851 DATE 4/27/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31) Subject stream and
226-30-16853
5T All Bald Eagle nests (3/1 to 6/1)
Active Bald Eagle nests (3/1 to 9/1) Nest within 400m of
segment.
6V Recreation: Anchorages (6/1 to 9/15)
6Y Recreation: Special use destination
See attached Ecological Constraint sheet for specific constraints and
contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Subject stream exists within subdivision A (1 of 1). No additional
ecological constraints.

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 (564-3276 (Anchorage) or 229-1508
(24 hrs.)).

SHPO SIGNATURE: _____ DATE: _____

Subsurface Oil Observed: Yes _____ No X Maximum Depth _____

RECOMMENDATIONS:

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

COMMENTS: _____

TAG COMMENTS: _____

TAG APPROVAL DATE: _____
ADEC _____
EXXON _____
NOAA _____

FOSC: _____ DATE: _____

32/63 OG WILLIAM REID

Film AS-15-7

SEGMENT ST/ KN602

STREAM 226-40-16851

DATE 27/ 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

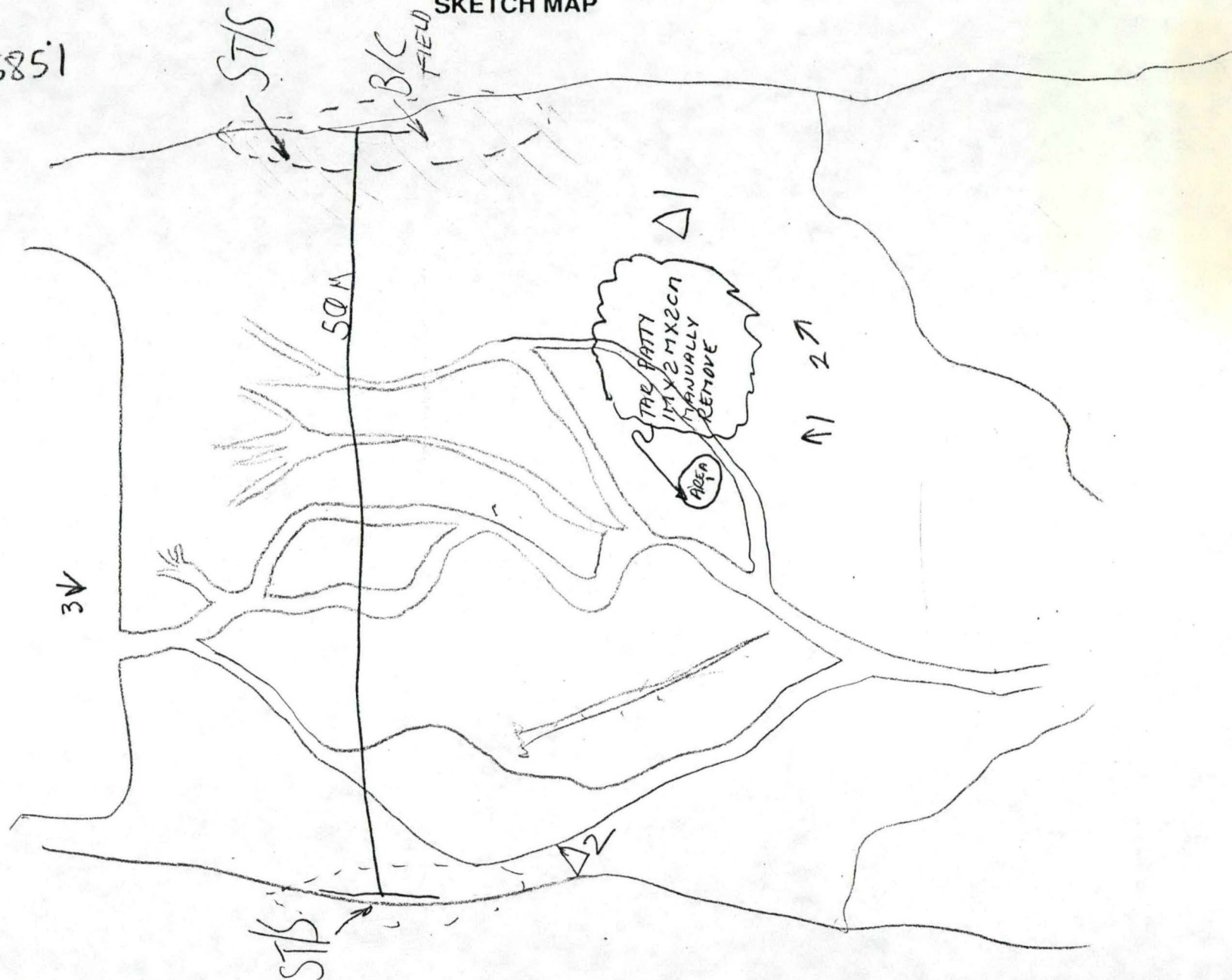
Splashed Distribution

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

#3
29/63

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 TENT

3 DATE: 4/27/90

15 HIGH TIDE TIMES: 1

21 TEAM RECORDER: TOM CROWE

4 START TIME: 1010

16 HIGH TIDE HTS: 1

22 OBSERVERS: MIKE WIDOMER

5 STOP TIME: 1030

17 LOW TIDE TIMES: 1

23 AGENCY: ADFTG ANADSCAT

6 SEGMENT #: KN 602

18 LOW TIDE HTS: 1

24 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: SEW A-3

Start: End:

10 LAT:

11 LONG:

26 SAMPLES TAKEN? Y (N) Number

12 SOURCE: Map Loran

Oil

13 LOCATION: Mummy Bay

Sediment

14 DESCRIPTION: SMALL BAY

Biological

Water

EXTENT OF OIL

27 SURFACE COVERAGE

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

36 CATALOGED ANAD. FISH SREAM? (Y) N

28 SURFACE THICKNESS

37 CATALOG #: 226-40-16851

38 STREAM NAME:

29 PENETRATION

39 OIL IN STREAM BED? Y N

30 OVERALL OIL IMPACT: N VL L M H

40 OIL ON STREAM BANKS? Y N

31 OIL TYPE: Pooled Mousse Tar Asphalt Sticky Stain

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

32 OILED DEBRIS? Y N

42 OIL WITHIN 1 MILE OF STREAM? Y N

Where:

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

43 ANADROMOUS FISH PRESENT? Y N

34 WAVE EXPOSURE: High Moderate Low

44 ANADROMOUS FISH OBSERVATION
Species Aerial Ground

35 SUBSTRATE TYPE: Bedrock Boulder ✓ Cobble ✓

Gravel ✓ Sand ✓ Mud/silt ✓

COMMENTS: RECOMMENDATION: REMOVE TAR MAT IN CENTER
OF MID INTERTIDAL AREA (SEE MAP)

I agree with recommendation. MZ Fawcett

30/63

FRAME(S)

DESCRIPTION

RECOMMEND: MANUAL REMOVAL OF TAR MAT
IN MIDDLE OF COVE

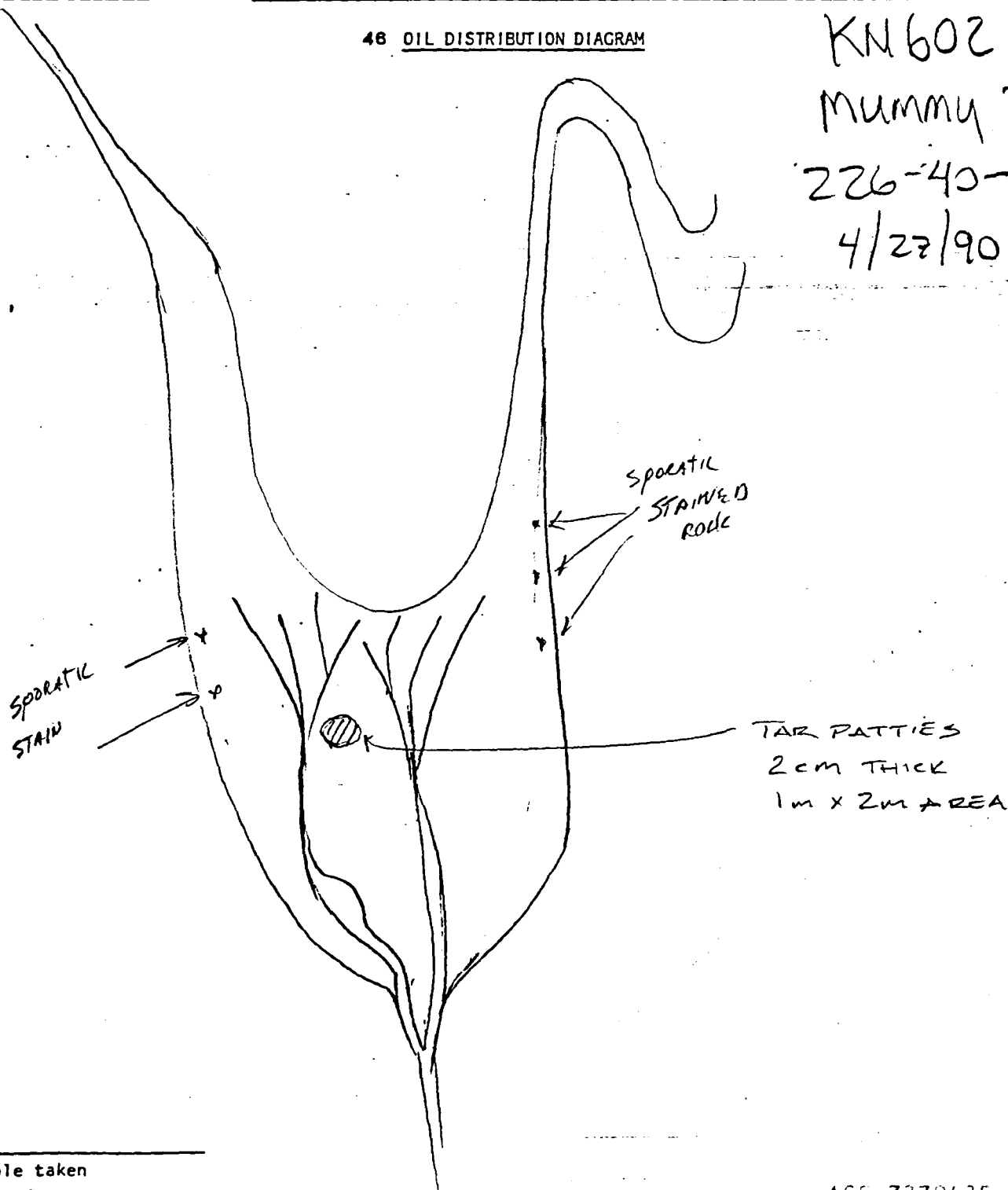
46 OIL DISTRIBUTION DIAGRAM

KN602

MUMMY BAY

226-40-16851

4/27/90



Sample taken
Photo frame # and
shot direction.

ACE 7379435

FIELD SHORELINE COMMENT SHEET

8/28/63

SEGMENT ST 1 KN 602 SUBDIVISION: ⁴⁰~~30~~ 16851 DATE 4/27/90

USCG

NAME CWO MC MAHON SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

ADFH
ADEC

NAME TOM CROWE SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

MANUAL REMOVAL OF TARMAT IN MID INTERTIDAL ZONE
ADJACENT TO THIS CREEK. (SEE MAPS)

LAND MANAGER

NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

ACE 7379433

ADEC EXXON VALDEZ POST-TREATMENT SURVEY REPORT

SEGMENT#: KN602
LOCATION: S KNIGHT ISLAND

DATE: 10/02/89
TIME: 10:30

Survey Type: Boat, Ground
Team: K. Dutcher, K. Krieger

WEATHER AND SEA CONDITIONS

Weather: Cloudy Wind Direction: 0
Sea State: Calm Knots: 0

Low Tide: 21:44 Feet: -0.1 High Tide: 3:24 Feet: 11.3
Low Tide: 9:12 Feet: 2.2 High Tide: 15:12 Feet: 12.8

SHORELINE DESCRIPTION

Shoretypes: H,LR,B
(H=headland, LR=low-lying rock, B=beach, C=cove, L=lagoon, M=marsh)
Wave Exposure: H,M (H=high, M=moderate, L=low)
Shoreline Composition: R,B,C,G
(R=bedrock, B=boulder, C=cobble, G=gravel, S=sand, M=silt)

OIL CHARACTERISTICS

Degree of Oiling: N,VL
(N=none, VL=very light, L=Light, M=moderate, H=heavy)
Area of Impact: H
(S=supratidal, H=high intertidal, M=mid tidal, L=low intertidal)
Max. Oil Thickness: 1 mm (1 = 1 mm or less, 0 = no oil)
Max. Oil Penetration: 0 cm (35 = 35 cm or greater)
Percent Segment Categorized as Oiled: 2%
Presence of Oiled Driftwood (y/n): n
Oil Types: ST
(P=pooled, M=mousse, SY=sticky, T=tar, A=asphalt, ST=stain)
Samples: none / none / none / none

DAMAGED OR OILED ORGANISMS

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

SOLID WASTE FOUND

Type: None
Bags Collected: 0

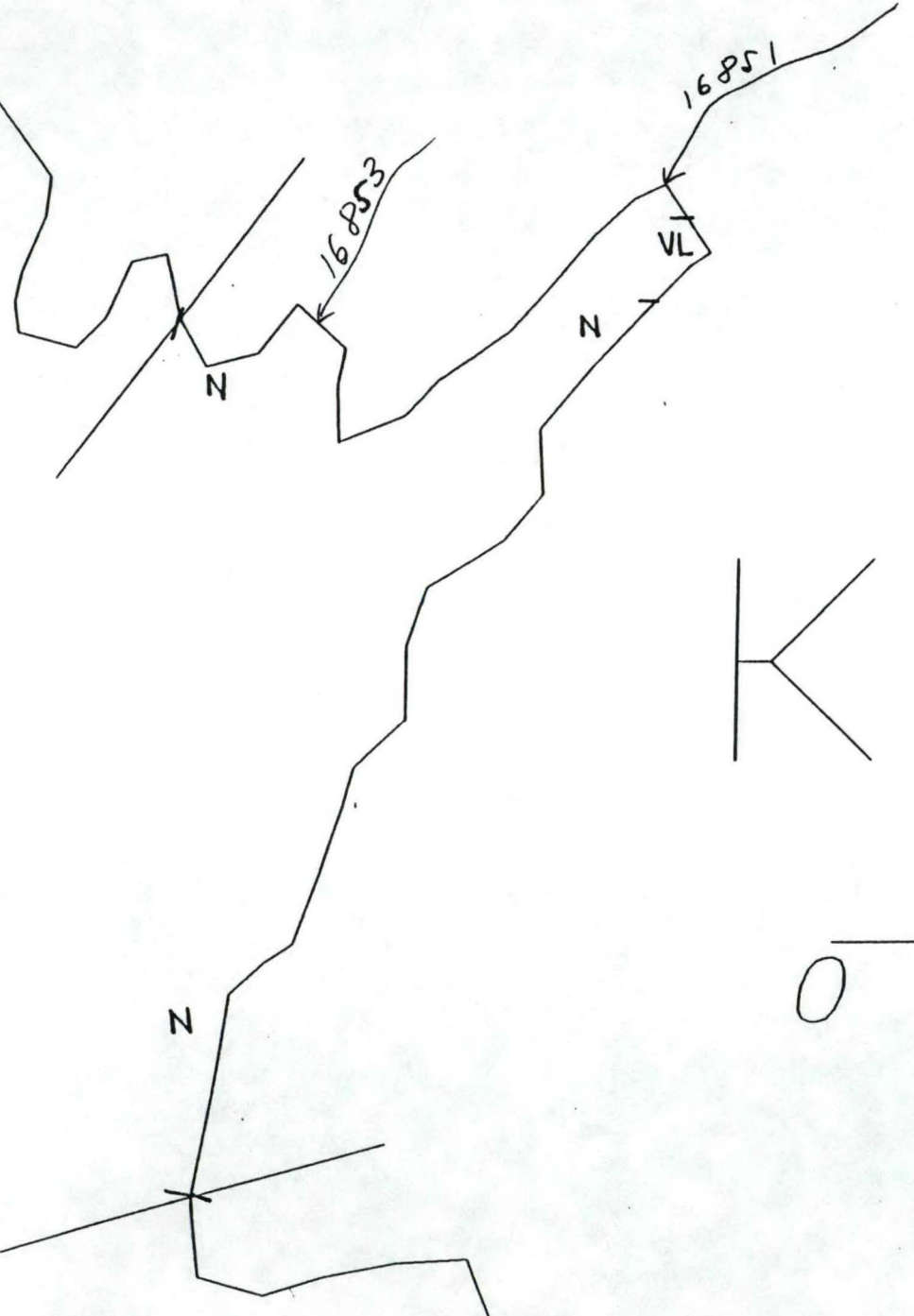
Draft

Printed: 12/12/89 11:41

Walk-a-thon

ACE 7379411

ACE 7379448



A row of five hand-drawn letters: K, N, G, O, and Z. The letters are drawn with simple black outlines on a white background. The 'K' is formed by a vertical line and two diagonal lines meeting at its midpoint. The 'N' is formed by two vertical lines and a diagonal line connecting their tops. The 'G' is formed by a vertical line, a horizontal line, and a curved line. The 'O' is a simple oval shape. The 'Z' is formed by three horizontal lines connected by two diagonal lines.

A number line is shown with the numbers 0 and 500. Above the line, there is a series of connected horizontal and vertical segments, forming a sawtooth pattern. The pattern starts at 0, goes up, then down, then up, then down, and finally up to 500. The word "meters" is written below the line between 0 and 500.

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



Final Anadromous Stream Treatment Information

Segment ID - Stream ID	NTR	Bio	Bio Start	Bio End	Man	Man Start	Man End
K0911-CD020 262-10-10080					X	6/28/90	6/28/90
K0911-CD020 262-10-10092					X	6/28/90	6/28/90
K0917-CC100 262-15-10040	X						
K0919-HB001 262-20-10040					X	6/12/90	6/14/90
K0919-HB004 262-20-10030	X						
K1002-AB002 262-65-655					X	7/7/90	7/8/90
K1007-PB001 262-70-10025					X	6/23/90	6/24/90
K1007-PB016 262-70-10010					X	7/10/90	7/10/90
K1009-DB008 262-75-10020	X						
KN0103 226-10-16922		X	7/7/90	9/1/90	X	7/7/90	7/7/90
KN0106 226-10-16890					X	6/30/90	6/30/90
KN0110 226-10-16928	X						
KN0120 226-10-16940	X						
KN0129 226-10-16975					X	5/30/90	5/30/90
KN0129 KN0129-UNCAT		X	6/19/90	6/19/90	X	5/30/90	5/30/90
KN0132 226-10-16982		X	6/19/90	9/11/90	X	5/26/90	5/29/90
KN0134 226-30-16865		X	6/23/90	6/23/90	X	6/23/90	6/23/90
KN0201 226-30-16872					X	6/1/90	6/1/90
KN0205 226-30-16860					X	6/1/90	6/3/90
KN0211 226-10-16875		X	7/1/90	7/9/90	X	7/1/90	7/9/90
KN0211 226-10-16880					X	7/1/90	7/1/90
KN0213 226-30-16853		X	7/1/90	7/6/90	X	7/1/90	7/6/90
KN0401 226-30-16820					X	6/30/90	6/30/90
KN0500 226-10-16992		X	7/5/90	9/11/90	X	7/5/90	7/7/90
KN0500 226-10-16996		X	7/7/90	9/11/90	X	7/5/90	7/7/90
KN0601 226-40-16855	X						
KN0602 226-40-16851	X						
KN0602 226-40-16853	X						
KN0701 226-30-16840		X	6/30/90	9/13/90	X	6/30/90	7/27/90
KN0704 226-30-16844	X						
LA015 226-40-16782		X	7/3/90	7/8/90	X	7/3/90	7/8/90
LA018 226-40-16780		X	7/3/90	8/26/90	X	6/15/90	7/4/90
LA021 226-40-16774		X	6/17/90	6/17/90	X	6/13/90	6/14/90
LA021 226-40-16776	X						
LA023 226-40-16772	X						
LA029 226-40-16788	X						
LA031 226-40-16785	X						
MA009 226-20-15044	X						
MN001 227-20-17570	X						
NA026 226-40-12950	X						
NK001 232-21-10230		X	7/3/90	7/4/90	X	7/3/90	7/4/90
PD002 242-42-10450					X	6/21/90	6/23/90
PD003 242-42-10460					X	6/21/90	6/23/90
TB002 232-10-10340					X	7/1/90	7/1/90
TB003 232-10-10342					X	6/20/90	7/1/90
WB001 242-32-10155					X	6/19/90	6/19/90
WB003 242-32-10160					X	6/19/90	6/19/90
WH003 226-40-16322		X	7/8/90	7/8/90	X	7/8/90	7/8/90

RICK GUSTIN LOG BOOK FROM 098-12-89 TO 09-21-89 PRE OIL SPILL CATALOGED STREAMS

#	Box	Map	ASC #	Quad #	Location	Segment #	Sample #	Date	Footage	Page #	Condition of Oiling
1.	[1]	21	16280	Sew-B3	Chenega Is.	CH-001	89RLG006	08-13-89		4	Heavy
2.	[1]	18	16180	Sew-B3	Chenega Is.	CH-002	89RLG009	08-13-89		4	Heavy
3.	[1]	20	16260	Sew-B3	Kake Cove	CH-017	89RLG007	08-13-89		6	Light
4.	[2]	44	16940	Sew-B3	Herring Bay	KN-132	89RLG025	08-14-89		11	Very heavy
5.	[2]	3	16932	Sew-B3	Herring Bay	KN-129	89RLG032	08-14-89		12	Heavy to Moderate
6.	[3]	33	16797	Sew-A3	Thumb Bay	KN-605	89TWC034	08-15-89		13	Light
7.	[3]	15	16851	Sew-A3	Main Bay <i>main Bay</i>	KN-602	89TWC039	08-15-89		14	Heavy <i>wrong - light</i>
8.	[3]	34	16810	Sew-A3	Hogan Bay	KN-411	89TWC042	08-15-89		15	Light
9.	[3]	35	16820	Sew-B3	Snug Harbor	KN-402	89TWC046	08-15-89		15	Heavy to Moderate
10.	[3]	37	16840	Sew-B2	Marsha Bay	KN-701	89TWC050	08-16-89		17	Heavy to Moderate
11.	[3]	39	16850	Sew-B2	Marsha Bay	KN-704	89TWC054	08-16-89		18	Moderate
12.	[3]	33	16844	Sew-B2	Marsha Bay	KN-704	89TWC058	08-16-89		19	Moderate
13.	[3]	40	16865	Sew-B2	SA Bay of Isles	KN-134	89TWC062	08-16-89		20	Heavy
14.	[5]	41	16868	Sew-B3	Bay of Isles	KN-201	89RLG066	08-18-89		21	Moderate (this stream does not exist?)
15.	[6]	36	16830	Sew-B2	Knight Is. S.E.	KN-705	89RLG069	08-18-89		23	Moderate

THE NUMERALS IN THE MAP COLUMN ARE FOR REFERENCE TO 'DOCUMENTED OILED ANADROMOUS STREAMS IN PRINCE WILLIAM SOUND' RANDOMIZED LIST FOR STREAM SURVEYS, 2 AUGUST 1989.

NUMERALS IN THE BOX COLUMN INDICATE THE NUMBER CODE PRINTED ON THE SAMPLE BOXES.

(version 8/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): KNIGHT ISLAND SOUTHWEST BLOCK

Includes Shoreline Segments: KN-600, KN-601, KN-602, KN-603,
KN-604, KN-605, KN-606, KN-607

Submitted : Jerry H. Bailey Date: 8-9-89
(for Exxon)

ISCC Recommendation: Sharon K. Christopher Date: 8-14-89

FOSC Approval: D. E. Cavanaugh Date: 8-14-89

The cleanup procedures identified in the Shoreline Cleanup Program are recommended. Modifications to these systems can be made in the field. Exxon and other field personnel are encouraged to suggest innovations and productivity enhancements to the OSC's on-scene representative. The OSC's representative has the authority to approve on-site modifications. The Field Resource Team should be consulted if these actions do not fit within the Ecological Constraints of the Shoreline Cleanup Program. Requirements for safety and the protection of cultural material must be observed.

Distribution:

Exxon Shoreline Coordinator
Exxon Shoreline Supervisor
Exxon SCAT file

SHPO
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ACE 7379450 +/S

******* SCOT NOTE *******

THERE ARE ITEMS OF GREAT CONCERN IN THIS APPROVAL BLOCK THAT AFFECT THE DEPLOYMENT OF CREWS AND EQUIPMENT.

READ THIS FIRST

SOUTH HALF OF SHORELINE SEGMENT KN-603 AND SHORELINE SEGMENTS KN-604 THROUGH KN-607 WITHIN THE KNIGHT ISLAND SOUTHWEST BLOCK ARE ON LANDS OWNED BY CHENEGA VILLAGE CORPORATION. PERMIT NO ACCESS TO UPLAND AREAS AT ANY TIME.

(version 6/14/89)

SHORELINE CLEANUP PROGRAM

DATE 8/6/89

SHORELINE SEGMENT KN-602

LOCATION: (see enclosed map) KNIGHT ISLAND-HEAD OF MUMMY BAY
(KNIGHT ISLAND SOUTHWEST BLOCK)

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 7/31 & 8/1/89

Recommended Cleanup Activity(ies):

- Manually remove oiled grass.
- Flood/flush with warm to hot water (up to 140 F) on low angle beaches.
- Use moderate to high pressure washing on rock.
- Use other approved methods as appropriate.

Priorities Considerations:

Class 4: Light oil

A: Resources present

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

(CAT # 22630-16820) A cataloged anadromous stream is located in this segment.
Contact ADF&G and RAT 48 hours prior to beginning cleanup activities.

8/14/89
AT 8/14/89

Archeological Constraints (from site survey):

If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

Charles E. Jones
State Historic Preservation Officer *

Date: August 9, 1989

ISCC: Sharon K. Christopher

Date: 8-14-89

EXXON: Daniel S. Tipton

Date: 8-14-89

FOSC: D. E. Conway

Date: 8-14-89

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

SHORELINE OIL EVALUATIONDate: 7/30/89 Time: 7:20 PMObserver: Norma BiggarSurveyed From: Foot/Boat/Helio/PlaneWeather: Sun/Cloud/Rain/Snow/LOCATIONLOCATION N. end of Mummy BaySEGMENT NUMBER KN.602LENGTH OF SHORELINE SEGMENT: 1200 mACCESS: Foot/Vehicle/Boat/Barge/Helio/Float PlaneSHORELINE:Shoreline Type: SPI/BEA/COV/HLD/STRTSlope: LANG/HANG/VERWave Exposure: High/Med/LowSediment: B10 % / C40 % / P20 % / G ___ % / S ___ % / M ___ % / R 20 %Drift Debris on Beach: Yes/NoSupra/Upper/Mid/Lower Type FucusOILDegree of Oiling: Heavy/Moderate/Light/No Oil/UnobservedArea of Beach Impact: SU / SP / H / M / LContinuous: Y/N % of Segment _____ Width of Band: _____Sporadic: Y/N % of Segment 100Est. Oil Thickness where > 1cm: N/A cm Est. Oil Penetration: 5 cmPooled Oil: 0 % "Free" Oil: 95 % Coated: H ___ % / M ___ % / L 100 %Fresh 0 % Mousse 0 % Tar Formation: 5 %Drift Debris Oiled? Yes/No Supra/Upper/Mid/Lower Amount: H/M/L/

Comments:

Oil observed is concentrated at head of Mummy Bay, and stream delta. On either side of the delta there is a thin deposit up to 0.5 m. wide (Generally less than 30 cm). Petroleum smell is noticeable in air, and sheen can be observed on water close to shore. A band of brown oil, generally 0.5 m wide, up to 3 m wide on E end can be seen in yellow green; and oil coated pebbles and cobbles occur in stream channel. Sheen is produced if you dig into streambed. Penetration in stream materials = 0.5 cm. Local residents say that it is due to the beaching of a sinking landing craft, not to Exxon Valdez oil, which did not get into Mummy Bay - would explain odor. No photos taken

LOCATION: Prince William I SITE: Mummy Bay ERVER: E. R. White
LOCATION PREFIX: KU SEG. NO.: 602 LENGTH: 1200 (1
DATE: 07/20/87 TIME (HHMM): 1830-2000 TIDE HT.: 1.1-1.6 (1

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

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

continuous Fucus @ high to mid intertidal / patchy algal cover below that

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

- some mussel beds in beach face

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

- occurs high to mid intertidal level of beach face

Littorina

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

mostly with Fucus

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

very few observed / some @ high tide level on rocks

OTHER OBSERVATIONS: stream in west cove (oiled beach) was marked

with fishing regulation markers - no adults or fry observed

- subtidal eelgrass beds present.

CLEANUP PRECAUTIONS: - confirm status of stream with ADSEAG prior to

cleanup / minimize subtidal / low intertidal disturbance

MAMMALS: OT Harbor Seals Sea Lions Whales

BIRDS: 15-30 gulls

GENERAL OBSERVATIONS:

CULTURAL RESOURCE EVALUATION

Date 7-30-89 Location KNIGHT ISLAND Site MUNNY BAY

Location Prefix KN Segment # 602 Length 1200 M

Survey Method:

Air _____ (A - indicate on map) Boat X (80%) (A - indicate on map)

Ground X (20%) (G - indicate on map)

Known cultural resources (AHRS #) none Data Source N/A

Oil conditions/beach visibility Trace of oil - Only line on vertical rocks &

Width of beach zone surveyed 5 m oil stain on water Tree fringe surveyed 0

Cultural resources observed in beach zone (AHRS code) none

Cultural resources observed in tree fringe (AHRS code) none

General observations justifying survey method and segment's site probability

Shore Profile gravel & rock beach - good foot access

Fresh Water Sources fresh water stream

Sea Exposure Protected Bay

Access/Safety Good Safe Access

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 # none Frames _____

B/W Roll # none Frames _____

Observer(s) Boys

Time survey 7/30/89 1830 Time survey ended 7/30/89 2000

Cultural resource considerations/restraints:

Standard Statement. No Archaeology monitor required.

W

E

Oil line on grass, 0.5m to 3m wide

possible salmon spawning stream

oiled cobbles and pebbles across stream and berm area - population seen observed in stream when cobbles are disturbed

Brush

Rock

yellow spots

distributary channels from stream across beach area

dirt and rocks smell of petroleum product - no sheen observed

Boulders / cobbles
↓
cobbles, pebbles, some boulders

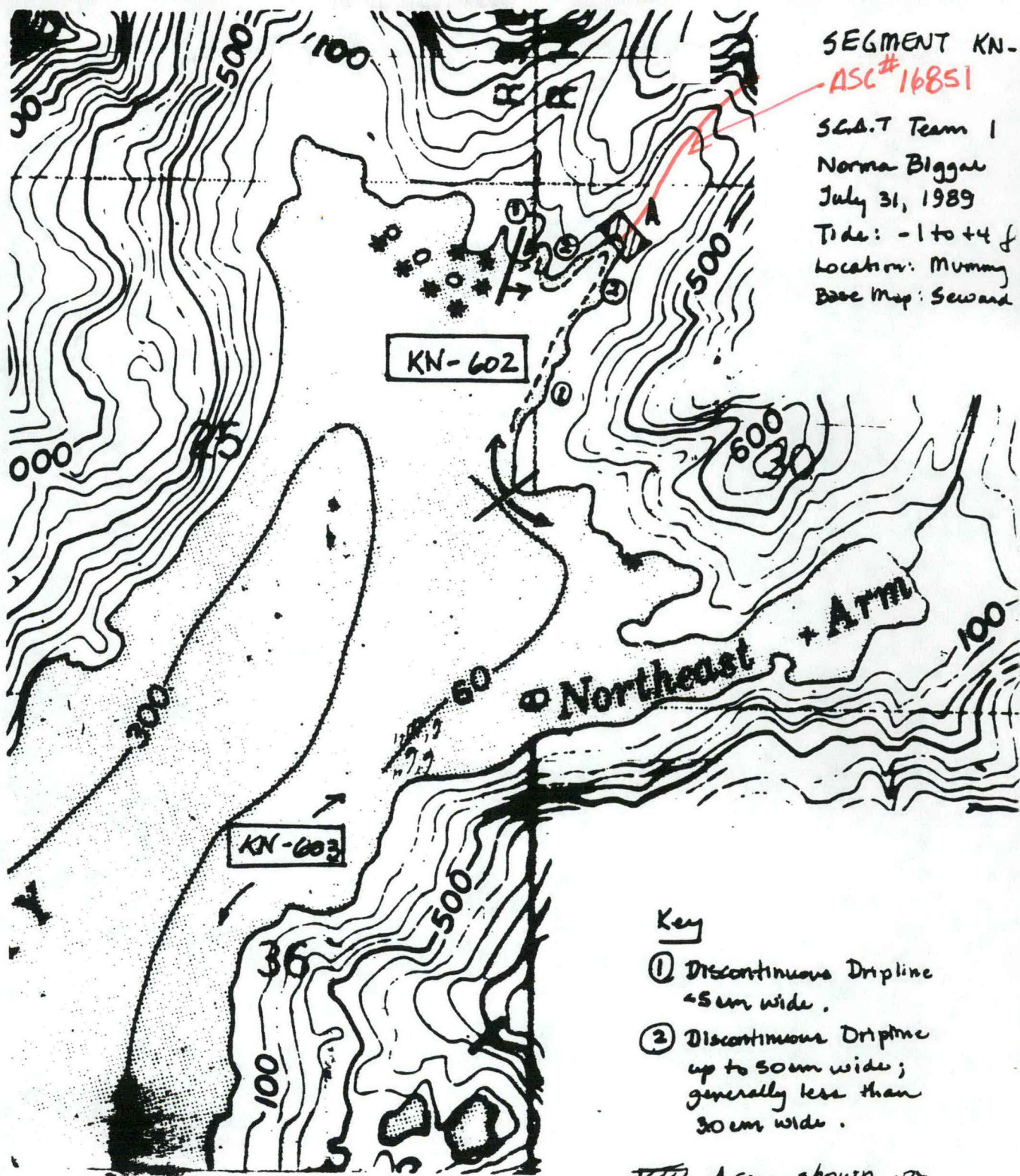
sheen observed in water within about 0.5m of shore

no sheen observed

possible

SPAWNING DIKE SALMON AREA

ACE 7379456



ADF46 - Sport/Com Fish Survey - Spring 89

ASSESSMENT OF INTERTIDAL SPAWNING AREAS AFFECTED
BY THE PRINCE WILLIAM SOUND OIL SPILL

NAME: Knight I Mummy Bay

USGS MAP: Seward 4-3

MAP #:

DATE: 4-26-89

TIME OF SURVEY: 825

LOW TIDE 1.4 TIME 1139

COLLECTORS: DR1 sm

ASC# 226-20 16851

NO OIL
SHEEN
MOUSSE
BLACK OIL

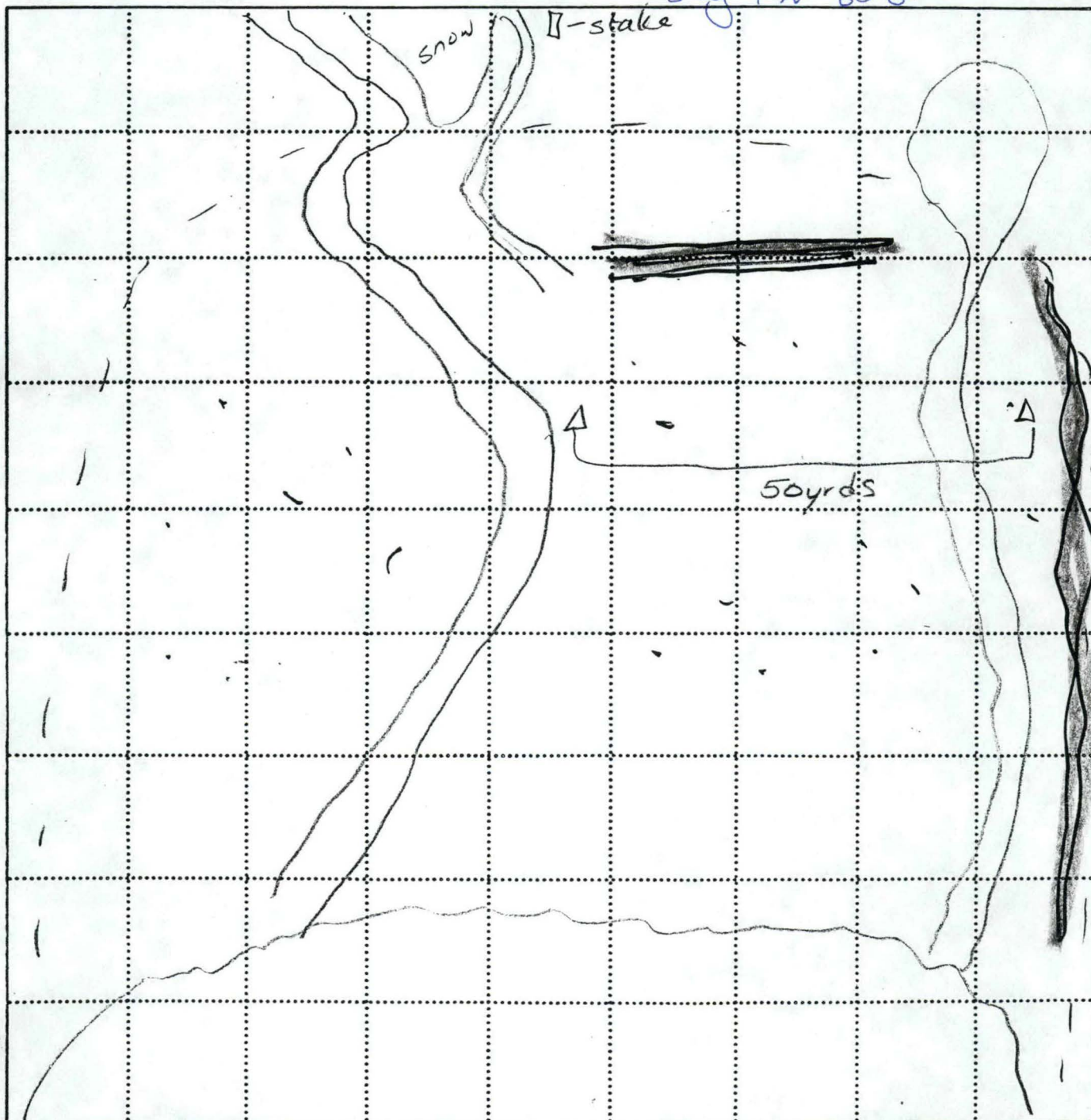
OIL TYPES PRESENT (1 2 3 4)

PHOTO #: 20 + 21 + 22 Rott 14

STREAM CATALOG #: 16820 now 16851

SCALE: ONE GRID EQUALS

seg KN 602



COLOR CODE: 1) NO OIL - BLANK 2) SHEEN - GREEN 3) MOUSSE - BROWN 4) BLACK OIL - BLACK

COMMENTS:

ACE 7379458
-1/4/AC/RT/FF