FIELD SHORELINE COMMENT SHEET

SEGMENT ST / NK 01 SUBDIVISION: A DATE 4/7/[illegible]

USCG/[illegible]
NAME [illegible] MICHEL SIGNATURE [signature]

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS

This area has two main zones of oil contamination: 1) very discrete patches or widely spaced pavements along the UITZ of the main beach & 2) smaller beach on NE side w/ larger pavements. The NE pocket beach had some sheens, even though the [illegible] frozen in places. These pavements should be removed manu[ally]. There is little/no concern for erosion. Care should be taken to not disturb the lower intertidal zone on the NE shore

ADEC
NAME JOHN R. REED SIGNATURE John R. Reed

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS

I recommend using shovels and hand trowels to pickup the sp[aced] asphalt pavements. The main beach is very low angle and has an anadramous stream on the N/E end. The UITZ was mostly covered with snow and I feel like we were missin[g] some of the contamination. ~~[illegible]~~ I have Read and agree with all data on S.S.A.T. Fo[rm]

LAND MANAGER-DNR/DPOR
NAME Jeffrey S. Johnson SIGNATURE [signature] ACE 9961965 +/SC

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS

Concur with above comments; concerned about snow covered UITZ & recommend another look [illegible] later. No problem with [illegible] methods in this segment, but manual pickup of mats probably best. Noted no oiled debris or driftwood, except for 1 sorbent pad. Note segment is a DNR priority due to STATE PARK designation, though access is limited by good weather, because of SE exposure.

ACE 1955512

REVISION NO. [illegible]

SHORELINE OILING SUMMARY

OG: Mann | USCG: Michel | SEGMENT ST/ NK-1
BIO: Carr | LAND REP: Johnson - DNR | SUBDIVISION: 1
EXXON: Boyer | ADEC: Reed | TIME: 2:45 to [illegible]
TEAM NO.: 18 | TIDE LEVEL: +1 to +3 | DATE: 4/ 7 /90
EST. SUBDIVISION LENGTH: 700 m ☑ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
UPLANDS DESCRIPTION: ☐ Grass ☑ Forest ☐ Rock
SURVEYED FROM: ☑ Foot ☐ Boat ☐ Helo WORKING DIRECTION: all to over
SURFACE SEDIMENTS: R 5 % B 5 % C 40 % P 40 % G 10 % 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 50 m N 0 m VI 350 m NO 400 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
					SIL BR	DUL RW	CY SL	DRK FL	LRS	SU	UI	MI	LI
ASPHALT PAVEMENT		✓		✓				✓			✓		
POOLED													
COVER													
COAT													
STAIN													
MOUSSE													
PATTIES				✓				✓			✓	✓	
TARBALLS													
FILM *													
NO OIL										SN	SN	✓	✓

* probably present but can not see under these conditions

PAVEMENT: H F (S) 200 sq. m by 6
PATTIES / TARBALLS 10 bags of asphalt BAC
NEAR SHORE SHEEN? (NO) BR RW SL FL

OILED DEBRIS NO	SM	MO	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED ☑ YES ☐ NO
TYPE asphalt
#BAGS 1

Photographs:
Roll No. ST 18-4
Frames 19-18

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR					PIT ZONE				ANA	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO	(CM-CM)	UO	UC	SIL BR	DUL RW	CY SL	DRK FL	LRS	SU	UI	MI	LI		
1	20					✓	•									✓			NO	PGC throughout
2	25					✓	•									✓			"	"
3*	30					✓	•									✓			"	"
4*	25					✓	•									✓			"	"
5	25					✓	•									✓			"	PG throughout
6	30					✓	•										✓		"	KPG [illegible]

ACE 9961966 ACE 1955519

COMMENTS * pit has oil on surface (an asphalt)

Air temperatures in upper 20's °F. Beach face w/ frozen [illegible]. We are unable to [illegible] about ½ of the UITZ and supra-tidal zone due to snow [illegible]. Oiling is mostly in the form of remnant mousse accumulations that now exist as patches of asphalt. Widely-scattered, remnant mousse patties exist throughout the middle and UITZ. This shoreline is very low-

 REVIEWED ________ DATE ________

SHORELINE OILING SUMMARY (PAGE 2 of 2)

SEGMENT STA NK-1 SUBDIVISION A

SUBSURFACE OIL (CONTINUED)

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm-cm)	BELOW		OIL / FILM COLOR					PIT ZONE				ANA	SUBSURFACE SEDIMENTS
		OF	OR	OL	OF	NO		UO	UC						SU	UI	UI	U		
7	25					✓	•									✓			NA	CP over PGC
8	30					✓	•									✓			"	CBP over PGC
9	25					✓	•									✓				"
10	25					✓	•										✓			"
							•													
							•													
							•													
							•													
							•													
							•													
							•													
							•													
							•													
							•													

COMMENTS

No burial of oil was evident

angled. The size of the storm berm suggests that waves, at least occasionally, move sediment on and across the beach. Most of NK-1 consists of the intertidal portion of a pebble-cobble-small boulder delta formed by 2 streams at the head of a long, narrow cove. Our survey was not at an ideal time because of the snow cover in the upper portion of the unit.

ACE 9961967

ACE 1955518

REVIEWED _____ DATE _____

SHORELINE ECOLOGICAL SUMMARY

REVISION: 05/22/90

Segment ST / NK 1 Subdivision A (of A) Date (mo / day / yr) 4/7/90

Time (24 hr) 0645 Biologist M. CARR

(A) Substrate type and % of ~~segments~~ SUBDIVISION:
(1) Bedrock 5 (2) Boulder 5 (3) Cobble 40 (4) Pebble 50 (5) Sand ____ (6) Silt ____

(B) Overall % cover of biota (% of ~~segment~~ SUBDIVISION): Dense 50 Moderate ____ 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. 4
Frames 9 - 18

BARNACLES

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

BEDROCK & BOULDER DID NOT EXTEND INTO LOWER ZONE
NOT PRESENT

MYTILUS

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

BEDROCK & BOULDER DID N... EXTEND INTO LOWER ZO...
NOT PRESENT
NOT PRESENT IN UPPER ZONE OF ANY SUBST...

GASTROPODS

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

BEDROCK & BOULDER DID NOT EXTEND INTO LOWER ZONE
NOT PRESENT
NOT PRESENT IN UPPER ZONE
NOT PRESENT IN ANY ZONE

FUCUS

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

BEDROCK & BOULDER DID NOT EXTEND INTO LOWER ZONE
NOT PRESENT

Wildlife Observations/ General Comments:

LAND OTTER (1)
HARBOR SEAL, *Phoca vitulina* (1)

Ecological Considerations:

Sensitivity codes: 4-GG (Alaska State Parks), 5-T (Bald eagle nest), 5-R (Seabird colonies).

ACE 9961968-15

ACE 1955520

SKETCH MAP

OG *Miam*

SEGMENT STI *NK-1*

SUBDIVISION *A*

DATE *4 / 7* 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/AC Continuous Distribution

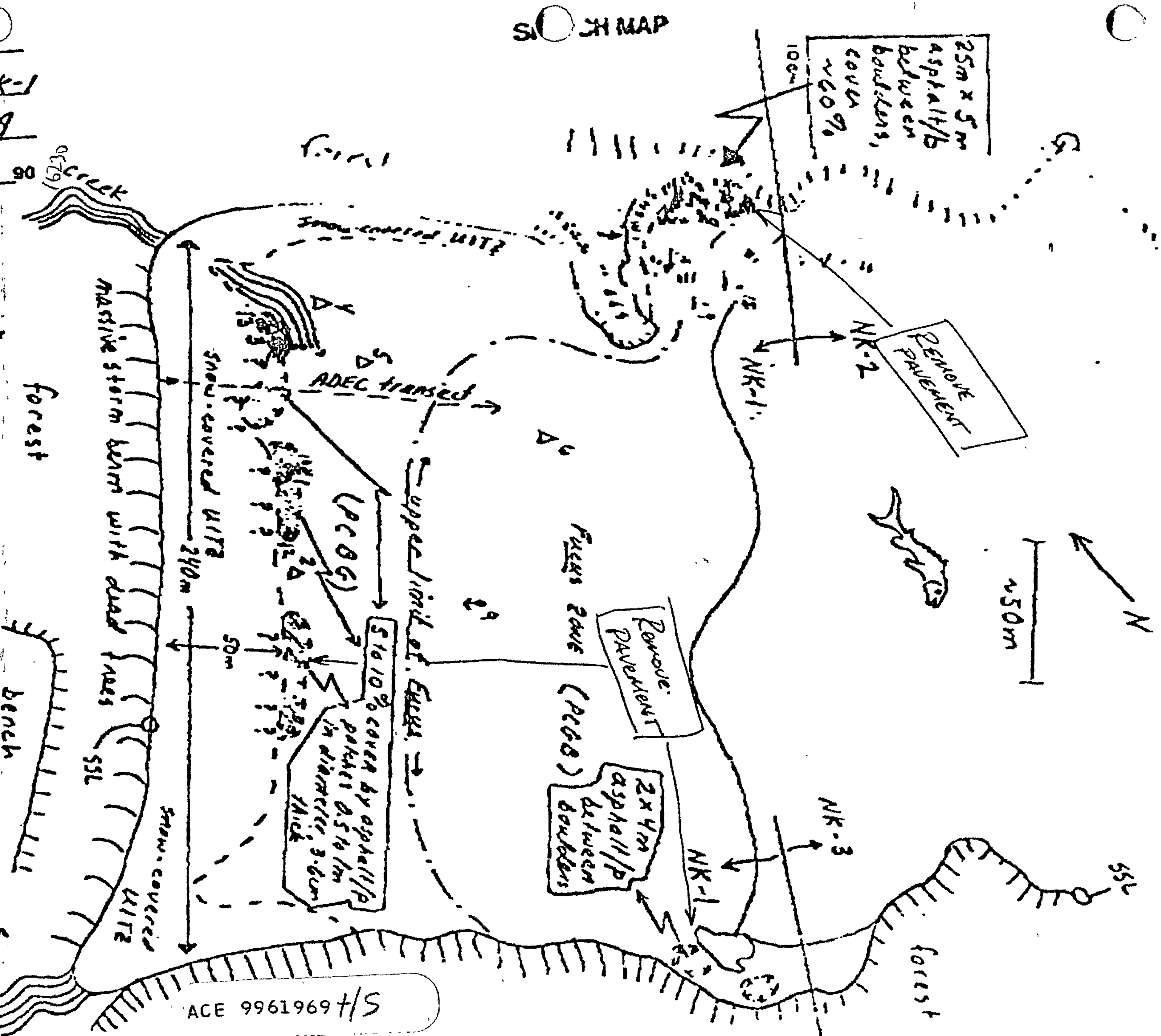
CT/B Broken Distribution

CT/P Patchy Distribution

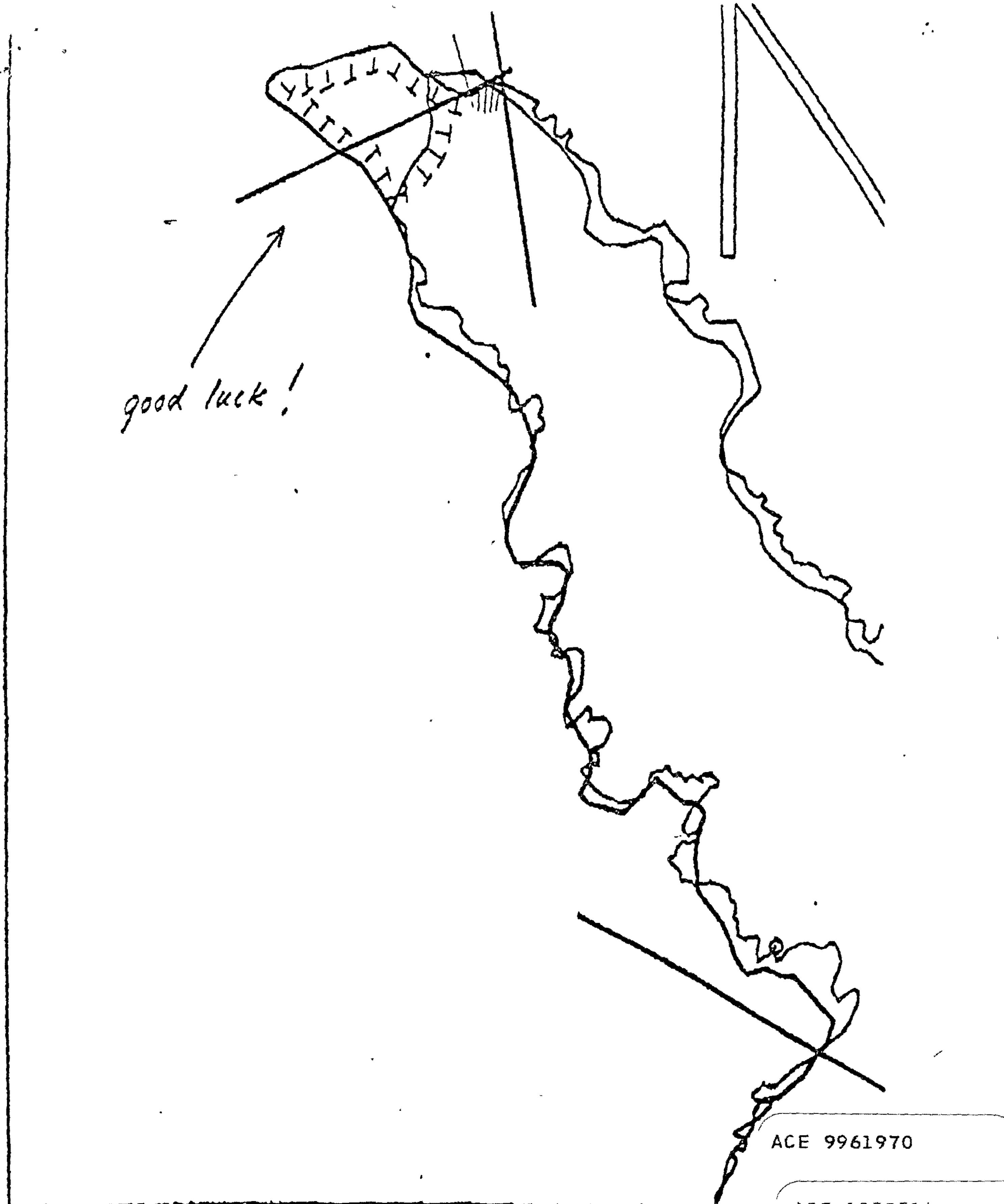
CT/S Splashed Distribution

Oiled Vegetation

1 ◄ Photo location, direction, and number



Oil Character Length (m): AP *100* PO *0* CV *0* CT *0* ST *0* MS *0* PT *100* TB *0* FL *0* NO *600*



ACE 9961970

ACE 1955514

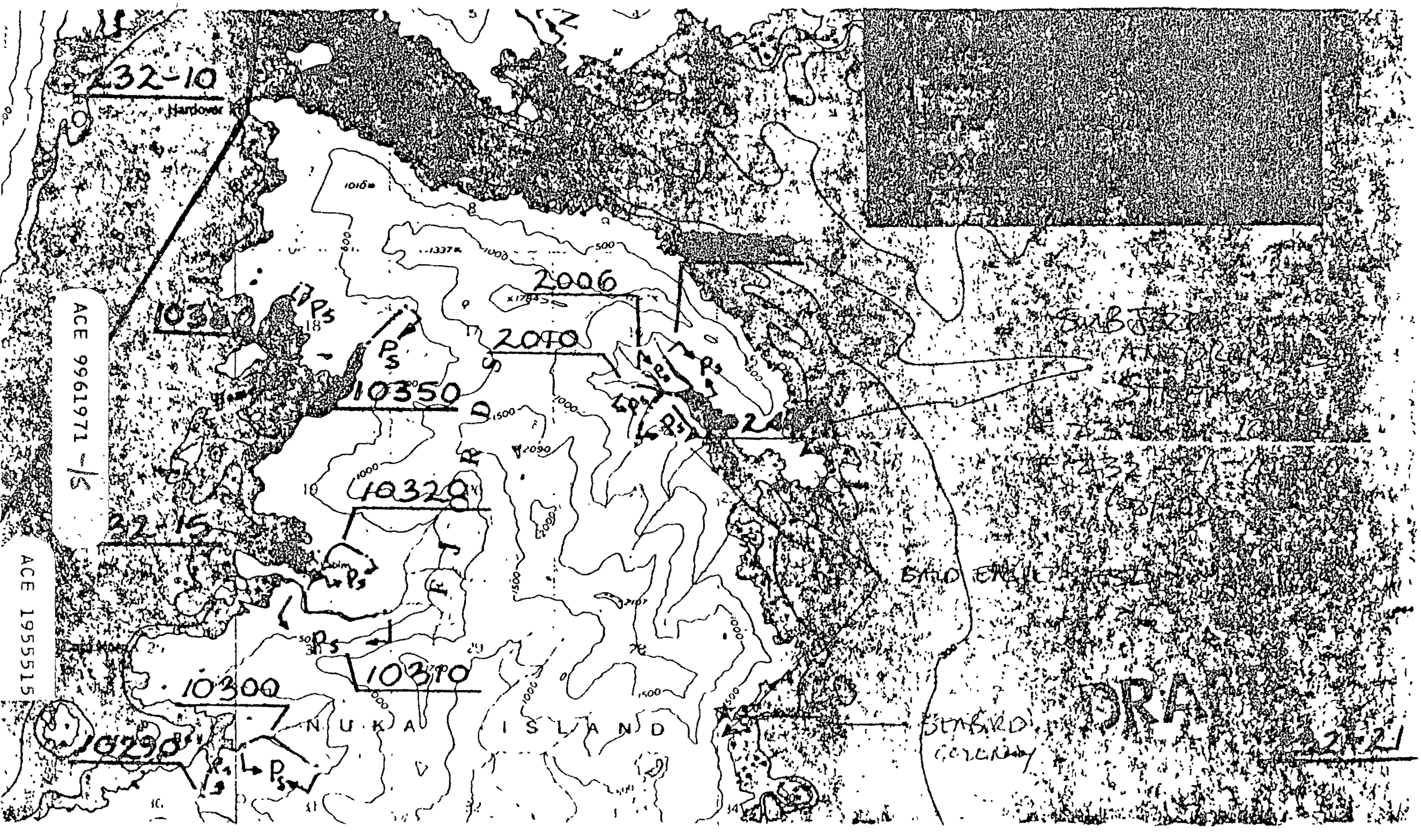
XXXX Wide
//// Medium
---- Narrow
TTTT Very Light
0000 No Oil

NK-1

ADEC Segment Length: 1947m

0 100 200 300
Meters

Map Key: [illegible]
Name: Mann/NK-
Date: 4/7/90



ASC NUMBER: 232-21- 10230 10240 SEGMENT NUMBER: NK-1 YR CATALOGED:
LOCATION: KPOC, Nuka Island, Northeast Cove
STREAM NAME: ———— LATITUDE: 59 23 33
KODIAK K-UNIT: . LOCAL STREAM #: LONGITUDE: 150 37 35
USGS QUADRANGLE: Seldovia B-2 LEGAL:
SHORELINE TYPE: Beach, Cove ALL SEGMENTS:
WAVE EXPOSURE: Moderate

ASC NUMBER:
SURVEY TYPE: Pre-Screening
METHOD: Foot
DATE: 4/14/90
START TIME: 0933
STOP TIME: 1046

TEAM RECORDER: Doug Hill
OBSERVERS: Susan McLane, Jack Reid

AGENCY(IES): ADFLG, USCG

PHOTOS TAKEN? Yes
Roll #: 90DOH004 Frames: 1→8
VIDEO TAKEN? NO Tape Number:
Counter Start:

SAMPLES TAKEN? Y
SAMPLE I.D. NUMBERS: 1. [illegible]-DOH/KM-4/14/90-1020 2. 3.
4. 5. 6.

	LENGTH m	WIDTH m	M2	%	THICK cm	PEN cm	OIL TYPE
SITE 1 Tide flats	200 m	150m		1%	< 2cm	< 8cm	AP, TB, OR, Film
SITE 2 North shore	25m	5m		60%	< 2cm	< 10cm	AP, TB, OR, OP, ST, CT, C, F
SITE 3							
SITE 4							
SITE 5							

Input -
23221 10230 ✓

Duplicate for -
232 21 10240

OVERALL OIL IMPACT: M

OIL IN STREAM CHANNEL? Y

OIL ON [illegible] TH? Y

SUBSTRATE

Bedrock 30%	Granule
Boulder 10%	Sand
Cobble 30%	Silt
Pebble 30%	Veget.

SPECIES	
COUNT	

COMMENTS: See attached MAD form (commen[illegible]
-Oiling continues at moderate level into segment NK-2

Site 4-6 of 1989 AFFHA

OK

ACE 9961974 1/5

ASC NUMBER: 232-21-10230 10240 SEGMENT NUMBER: NK-1 YR CATALOGED:
LOCATION: KPOC, Nuka Island, Northeast Cove
STREAM NAME: ———— LATITUDE: 59 23 33
KODIAK K-UNIT: . LOCAL STREAM #: LONGITUDE: 150 37 35
USGS QUADRANGLE: Seldovia B-2 LEGAL:
SHORELINE TYPE: Beach, Cove ALL SEGMENTS:
WAVE EXPOSURE: Moderate

ASC NUMBER:
SURVEY TYPE: Pre-Screening
METHOD: Foot
DATE: 4/14/90
START TIME: 0933
STOP TIME: 1046

TEAM RECORDER: Doug Hill
OBSERVERS: Susan McLaney, Jack Reid

AGENCY(IES): ADF&G, USCG

PHOTOS TAKEN? Yes
Roll #: 90DOH004 Frames: 1→8
VIDEO TAKEN? NO Tape Number:
Counter Start:

SAMPLES TAKEN? Y
SAMPLE I.D. NUMBERS: 1. KW-90DOH/KM-4/14/90-1020 2. 3.
4. 5. 6.

	LENGTH m	WIDTH m	M2	%	THICK cm	PEN cm	OIL TYPE
SITE 1 Tide flats	200 m	150m		1%	< 2cm	< 8cm	AP, TB, OR, Film
SITE 2 North shore	25m	5m		60%	< 2cm	< 10cm	AP, TB, OR, DP, ST, CT, C, F
SITE 3							
SITE 4							
SITE 5							

OVERALL OIL IMPACT: M

OIL IN STREAM CHANNEL? Y

SUBSTRATE

Bedrock 30%	Granule
Boulder 10%	Sand
Cobble 30%	Silt
Pebble 30%	Veget.

OIL ON BEACH WITHIN 50M OF STREAM MOUTH? Y

SPECIES					
COUNT					

COMMENTS: See attached MAD form (comment and diagram section)
-Oiling continues at moderate level into segment NK-2

site 4-6 of 1989 ~~AFFHA~~

DK

ACE 9961974 +/S

GROUP A

Prescreening

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

3 DATE: 4-14-90 | 15 HIGH TIDE TIMES: 1706 | 21 TEAM RECORDER: Doug Hill

4 START TIME: 0933 | 16 HIGH TIDE HTS: 9.6 ' | 22 OBSERVERS: S. McCune J. Reid (USCG)

5 STOP TIME: 1046 | 17 LOW TIDE TIMES: 1053 ' | 23 AGENCY: ADF&G

6 SEGMENT #: NK-1 | 18 LOW TIDE HTS: 0.2 ' | 24 PHOTOS TAKEN: (Y) N

90DDH004-H

7 STATION #: _____ | 19 TIDE HT AT SURVEY: low | Roll #: _____ Frame: 1,2,3,4,5,6,7,8

8 K-UNIT: _____ | (Ebb) Slack Flood Slack | 25 VIDEO TAKEN: Y (N) TAPE#: _____

9 STAT AREA: 232-21 | 20 USCG QUAD: _____ | Start: _____ End: _____

10 LAT: 59° 23.6 N | 11 LONG: W 150° 38.4 | 26 SAMPLES TAKEN? (Y) N Number

12 SOURCE: Map (Loran) | Oil NK-1-BOHSm-4/14/90-1020

13 LOCATION: AFS-232-21-10230, 10240 Nuka Island, NW portion of NE Cove | Sediment _____

14 DESCRIPTION: North Corner of Bay/NE Portion | Biological _____

EXTENT OF OIL | Water /

	SHORELINE L	W	M²	%	STREAM L	W	M²	%
27 SURFACE COVERAGE								
28 SURFACE THICKNESS								
29 PENETRATION								

36 CATALOGED ANAD. FISH STREAM? (Y) N

37 CATALOG #: 232-21-10230 10240

38 STREAM NAME: NE COVE-NUKA Island

39 OIL IN STREAM BED? (Y) N

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. Coating on rock walls

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

32 OILED DEBRIS? (Y) N

Where: Mouth and NE shore

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 30 Boulder 10 Cobble 30

Gravel 30 Sand _____ Mud/silt _____

ACE 9961975

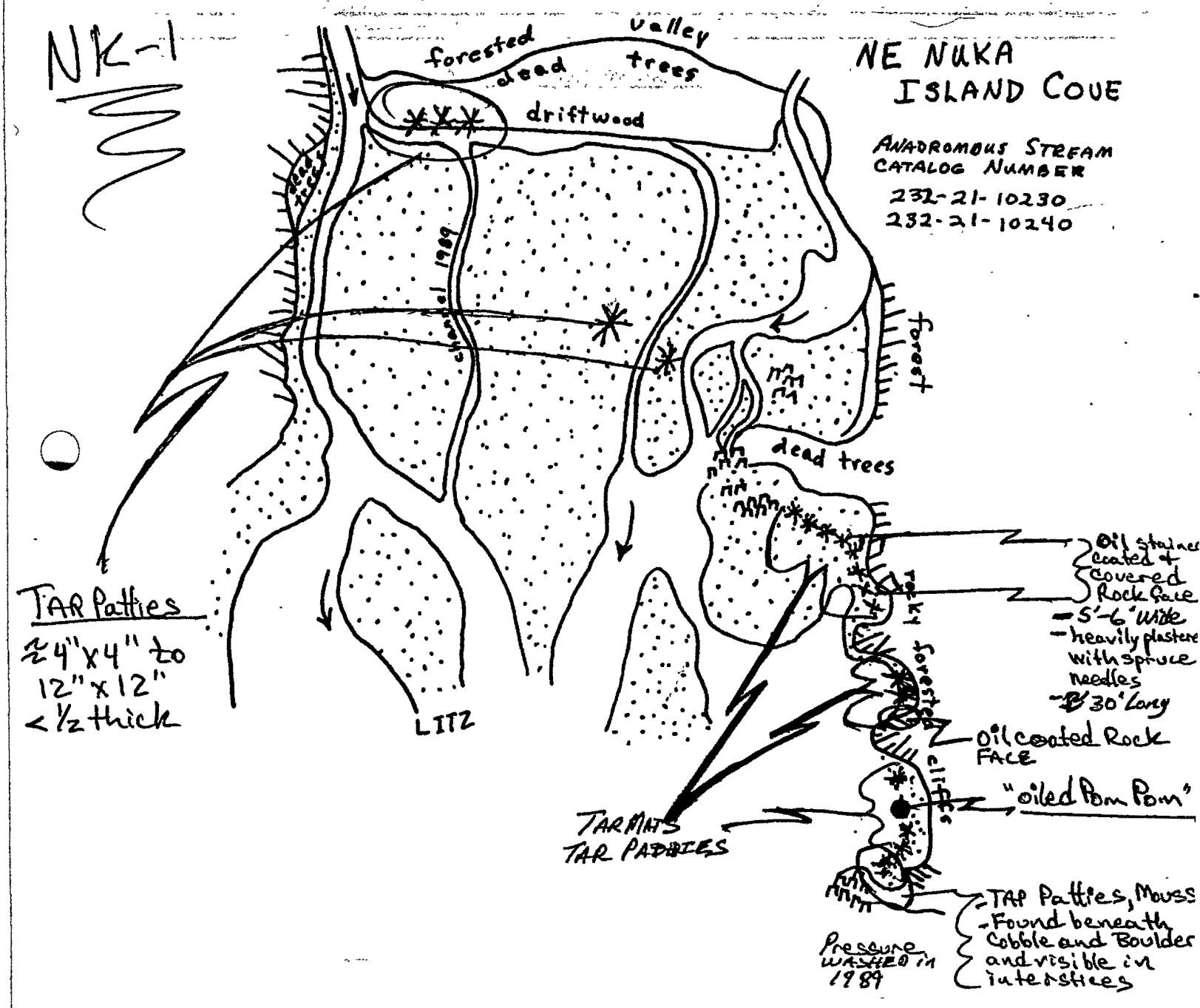
COMMENTS: N.E Nuka seems little changed since last Fall. There were fewer observed tar mats in the stream channel but the side pocket beaches contain significant amounts of mousse between rocks and on rock walls. No difference was observed between before & after amounts of oil on beach & rock faces sprayed w/ Inipol.

ACE 1955670

48 PHOTOLOG

FRAME(S)	DESCRIPTION
2	Aerials of Tide Flats + AFS mouth/outlets/Head of NE Cove Nuka Is.
3	Overturned Boulder - mousse, sheen + Dead Limpets (quite common on oiled beaches)
4,5,6,7	
8	Susan McLane (ADF&G) holding oiled pom pom "amongst kelp on Pressure washed beach.

NK-1



ANADSCAT - Recommended

= Sample taken

= Photo frame # and shot direction.

ACE 9961976 -/S

ACE 1955671

ASC NUMBER: 232-21-10230 10240 SEGMENT NUMBER: NK-1 YR CATALOGED:
LOCATION: KPOC, Nuka Island, Northeast Cove
STREAM NAME: ———
KODIAK K-UNIT: . LOCAL STREAM #:
USGS QUADRANGLE: Seldovia B-2
SHORELINE TYPE: Beach, Cove ALL SEGMENTS:
WAVE EXPOSURE: Moderate

LATITUDE: 59 23 33
LONGITUDE: 150 37 35
LEGAL:

ASC NUMBER:
SURVEY TYPE: Pre-Screening
METHOD: Foot
DATE: 4/14/90
START TIME: 0933
STOP TIME: 1046

TEAM RECORDER: Doug Hill
OBSERVERS: Susan McLaney, Jack Reid

AGENCY(IES): ADF&G, USCG

PHOTOS TAKEN? Yes
Roll #: 9000K004 Frames: 1→8
VIDEO TAKEN? NO Tape Number:
Counter Start:

SAMPLES TAKEN? Y
SAMPLE I.D. NUMBERS: 1. [illegible]-DAH/SM-4/14/90-1020 2. 3.
4. 5. 6.

	LENGTH m	WIDTH m	M2	%	THICK cm	PEN cm	OIL TYPE
SITE 1 Tide flats	200 m	150m		1%	< 2cm	< 8cm	AP, TB, OR, Film
SITE 2 North shore	25 m	75		60%	< 2cm	< 10cm	AP, TB, OR, OP, ST, CT, C, F
SITE 3							
SITE 4							
SITE 5							

OVERALL OIL IMPACT: M/

OIL IN STREAM CHANNEL? Y

SUBSTRATE

Bedrock 30%	Granule
Boulder 10%	Sand
Cobble 30%	Silt
Pebble 30%	Veget.

OIL ON BEACH WITHIN 50M OF STREAM MOUTH? Y

SPECIES					
COUNT					

COMMENTS: See attatched MAD form (comment and diagram section)
-Oiling continues at moderate level into segment NK-2

ACE 9961977 +/s

OK

POLYGON: 22

GROUP A

Prescreening

ADF&G MULTI-ASSESSMENT DATA FORM

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

METHOD: Aerial (Ground) Boat

3 DATE: 4-14-90 | 16 HIGH TIDE TIMES: 1706 | 21 TEAM RECORDER: Doug Hill

4 START TIME: 0933 | 16 HIGH TIDE HTS: 9.6 ' | 22 OBSERVERS: S. McCune J. Reid (USCG)

5 STOP TIME: 1046 | 17 LOW TIDE TIMES: 1053 ' | 23 AGENCY: ADF&G

6 SEGMENT #: NK-1 | 18 LOW TIDE HTS: 0.2 ' | 24 PHOTOS TAKEN: (Y) N

7 STATION #: _____ | 19 TIDE HT AT SURVEY: low | Roll #: 90DDH004-H Frames: 1,2,3,4,5,6,7,8

8 K-UNIT: _____ | (Ebb) Slack Flood Slack | 25 VIDEO TAKEN: Y (N) TAPE#: _____

9 STAT AREA: 232-21 | 20 USCG QUAD: _____ | Start: _____ End: _____

10 LAT: 59° 23.6 N | 11 LONG: W 150° 38.4 | 26 SAMPLES TAKEN? (Y) N Number

12 SOURCE: Map (Loran) | Oil NK-1-004/sm-4/14/90-1020

13 LOCATION: AFS-232-21-10240 10230, Nuka Island, NW portion of NE Cove | Sediment _____

14 DESCRIPTION: North Corner of Bay/NE Point | Biological _____

EXTENT OF OIL | Water _____

	SHORELINE L	W	M²	%	STREAM L	W	M²	%
27 SURFACE COVERAGE								
28 SURFACE THICKNESS								
29 PENETRATION								

36 CATALOGED ANAD. FISH STREAM? (Y) N

37 CATALOG #: 232-21-10230 10240 NE COVE-NUKA Island

38 STREAM NAME: [redacted]

39 OIL IN STREAM BED? (Y) N

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. Coating on rock walls

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

32 OILED DEBRIS? (Y) N Where: Mouth and NE shore

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 30 Boulder 10 Cobble 30 Gravel 30 Sand _____ Mud/silt _____

ACE 9961978

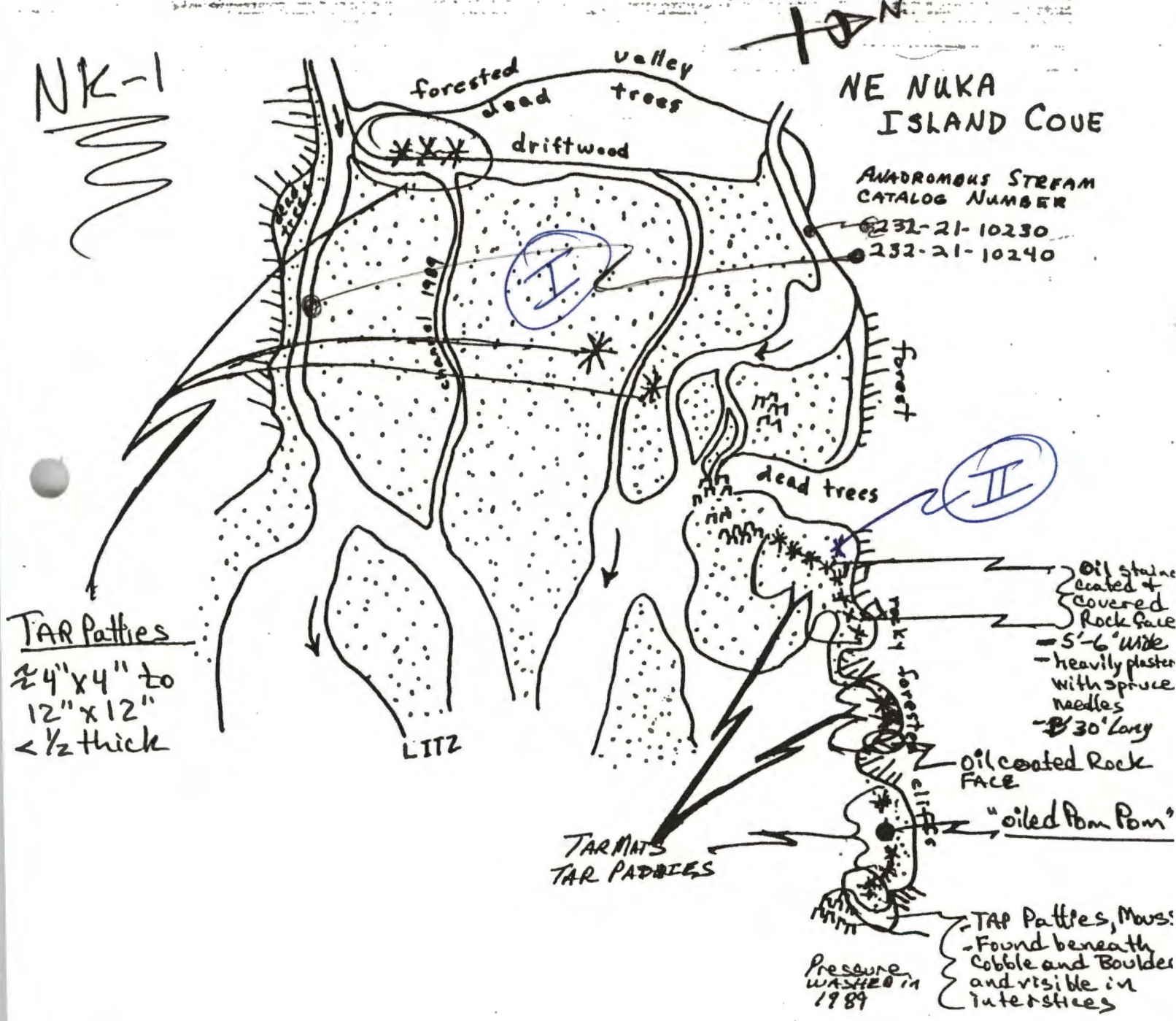
COMMENTS: N.E Nuka seems little changed since last Fall. There were fewer observed tar mats in the stream channel but the side pocket beaches contain significant amounts of mousse between rocks and on rock walls No difference was observed between before & after in amounts of oil on beach & rock faces sprayed w/ Inipol.

ACE 1955670

48 PHOTOLOG

FRAME(S)	DESCRIPTION
2	Aerials of Tide Flats + AFS mouth/outlets/Head of NE Cove Nuka I.
3	Overturned Boulder - mousse, sheen + Dead Limpets (quite common on oiled beaches)
4,5,6,7	
8	Susan Mylane (ADF&G) holding oiled pom pom "a.k.a. giant kelp on Pressure washed beach.

NK-1



ANADSCAT - Recommended

= Sample taken

= Photo frame # and shot direction.

ACE 9961979

ACE 1955671

Faxed Anch. 4/20/90

GROUP A

Prescreening

ADF&G MULTI-ASSESSMENT DATA FORM

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

METHOD: Aerial (Ground) Boat

3 DATE: 4-14-90 — 15 HIGH TIDE TIMES: 1706 / — 21 TEAM RECORDER: Doug Hill

4 START TIME: 0933 — 16 HIGH TIDE HTS: 9.6 / — 22 OBSERVERS: S. McLane & Reid (USCG)

5 STOP TIME: 1046 — 17 LOW TIDE TIMES: 1053 / — 23 AGENCY: ADF&G

6 SEGMENT #: NK-1 — 18 LOW TIDE HTS: 0.2 / — 24 PHOTOS TAKEN: (Y) N

7 STATION #: _____ — 19 TIDE HT AT SURVEY: low — Roll #: 90DDH004-H Frame: 1,2,3,4,5,6,7,8

8 K-UNIT: _____ — (Ebb) Slack Flood Slack — 25 VIDEO TAKEN: Y (N) TAPE#: _____

9 STAT AREA: 232-21 — 20 USCG QUAD: Seldovia B-2 — Start: _____ End: _____

10 LAT: 59° 23.6 N — 11 LONG: W 150° 38.4 — 26 SAMPLES TAKEN? (Y) N Number

12 SOURCE: Map (Loran) — Oil NK-1-DOH/Sm-4/14/90-1020

13 LOCATION: AFS-232-21-10240-10230, Nuka Island, NW portion of NE Cove — Sediment _____

14 DESCRIPTION: North Corner of Bay/NE Portion — Biological _____

EXTENT OF OIL — Water _____

	SHORELINE L	W	M^2	%	STREAM 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) Coating on rock walls

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 30 Boulder 10 Cobble 30 Gravel 30 Sand _____ Mud/silt _____

36 CATALOGED ANAD. FISH STREAM? (Y) N

37 CATALOG #: 232-21-10230-10240

38 STREAM NAME: NE COVE-NUKA Island

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: Mouth and NE Shore

43 ANADROMOUS FISH PRESENT? Y (N)

44 ANADROMOUS FISH OBSERVATION

Species	Aerial	Ground

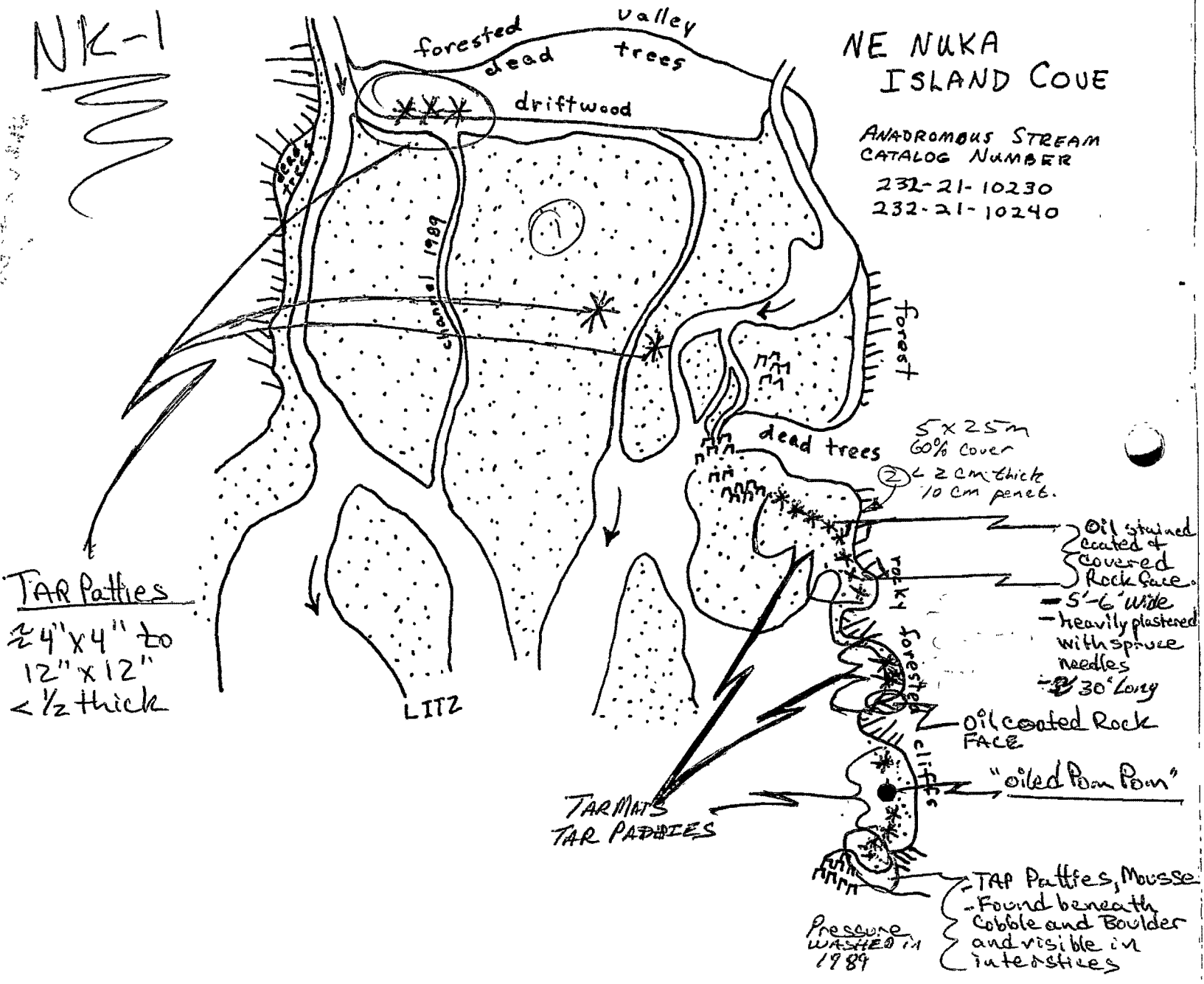
ACE 9961980

COMMENTS: N.E Nuka seems little changed since last Fall. There were fewer observed tar mats in the stream channel but the side pocket beaches contain significant amounts of mousse between rocks and on rock walls No difference was observed between before & after amounts of oil on beach & rock faces sprayed w/ Inipol.

ACE 1955526

45 PHOTOLOG

FRAME(S)	DESCRIPTION
1, 2, 3	Aerials of Tide Flats + AFS mouth/outlets/Head of NE Cove Id. Overturned Boulder - mousse, sheen + Dead Limpets (quite common on sheltered beaches)
4, 5, 6, 7, 8	Susan McLane (ADF+G) holding oiled pom pom amongst kelp on Pressure washed beach.



ANADSCAT - Recommended

= Sample taken

= Photo frame # and shot direction.

ACE 9961981 - 15

ACE 1955527

POLLUTION 28

GROUP A

Prescreening

ADF&G MULTI-ASSESSMENT DATA FORM

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

METHOD: Aerial (Ground) Boat

3 DATE: 4-14-90 | 16 HIGH TIDE TIMES: 1706 | 21 TEAM RECORDER: Dave Hill

4 START TIME: 0933 | 16 HIGH TIDE HTS: 9.6 | 22 OBSERVERS: S. McGee J. Reid (USCG)

5 STOP TIME: 1046 | 17 LOW TIDE TIMES: 1053 | 23 AGENCY: ADF&G

6 SEGMENT #: NK-1 | 18 LOW TIDE HTS: 0.2 | 24 PHOTOS TAKEN: (Y) N

7 STATION #: _____ | 19 TIDE HT AT SURVEY: low | Roll #: 90DDH004-H Frame: 1,2,3,4,5,6,7,

8 K-UNIT: _____ (Ebb) Slack Flood Slack | 25 VIDEO TAKEN: Y (N) TAPE#: _____

9 STAT AREA: 232-21 | 20 USCG QUAD: _____ | Start: _____ End: _____

10 LAT: 59° 23.6 N | 11 LONG: W 150° 38.4 | 26 SAMPLES TAKEN? (Y) N Number

12 SOURCE: Map (Loran) | Oil NK-1-001/Sm-4/14/90-1021

13 LOCATION: AFS-232-21-10240-10230, Nuka Island, NW portion of NE Cove | Sediment _____

14 DESCRIPTION: North Corner of Bay/NE Portion | Biological _____

EXTENT OF OIL | Water _____

	SHORELINE L	W	N²	%	STREAM L	W	N²	%
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. Coating on rock walls

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 30 Boulder 10 Cobble 30 Gravel 30 Sand _____ Mud/silt _____

36 CATALOGED ANAD. FISH STREAM? (Y) N

37 CATALOG #: 232-21-10230 10240 NE COVE-NUKA Island

38 STREAM NAME: [illegible]

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: Mouth and NE shore

43 ANADROMOUS FISH PRESENT? Y (N)

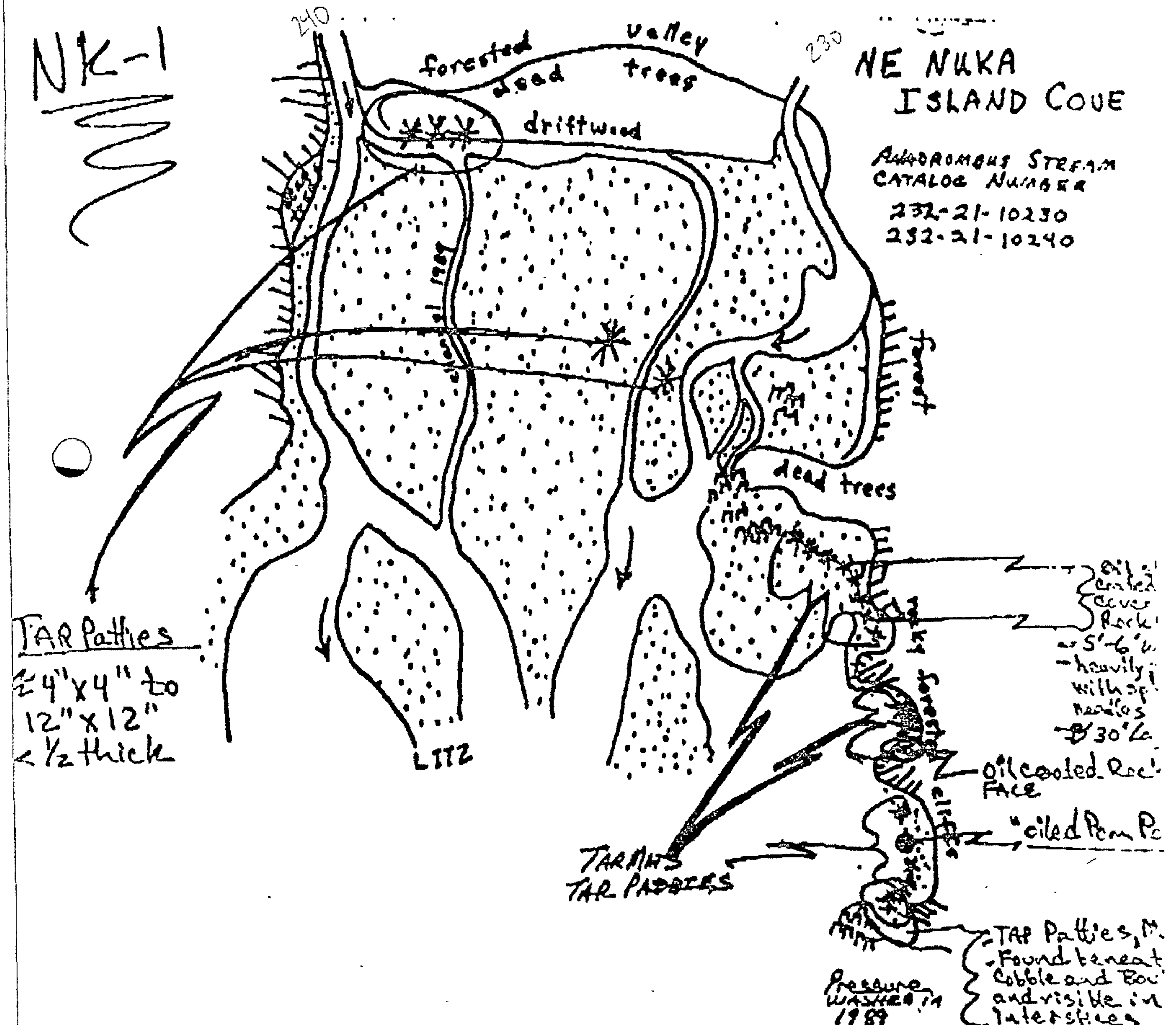
44 ANADROMOUS FISH OBSERVATION

Species	Aerial	Ground

COMMENTS: N.E Nuka seems little changed since last Fall. There were fewer observed tar mats in the stream channel but the side pocket beaches contain significant amounts of mousse between rocks and on rock walls No difference was observed between before & after amounts of oil on beach & rock faces sprayed w/ Inipol.

ACE 1955516

FRAME(S)	DESCRIPTION
1, 2	Aerials of Tide Flats + AFS mouths/outlets/Head of NE Cove & Overturned Boulder - mousse, sheen + Dead Li[illegible] pots (quite common on [illegible]
4, 5, 6, 7, 8	Susan McLane (ADF&G) holding oiled pom pom "a [illegible] kelp on Pressure washed beach.



ANADSCAT - Recommended

ACE 1955517

- Sample taken
- Photo frame # and

NK-1

EXXON COMMAND CENTER (HOMER)
P.O. Box 4848
4014 Lake St.
Homer, AK 99603
Tel: 235-6444
Fax: 235-5969

April 30, 1990

The attached is a copy of SSAT NK-001 plus commands from ADF&G for streams #232-21-10230 and 232-21-10240. This should be used for ANAD NK-001. Refer to SSAT NK-001 file for operations notes.

Darryl Yoes 4/30/90

DY/mc

ACE 9961984 +/s

ACE 1955528

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / NK-1 SUBDIVISION: DATE 4/30/90

USCG

NAME SIGNATURE

☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

COMMENTS

ADF&G
~~ADEC~~

NAME Doug Hill SIGNATURE Douglas O'Neill

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS Recommend Manual pickup and removal of tarballs and tar patties/tarmat from North shore and from west shore (tar patties near South salmon stream mouth). (SEE Attached maps).

Two salmon streams exist at the head of NE Cove NUKA.

- A substantial amount of oil still exist at the eastern end of NK-1 (BEACH was pressure washed in 1989).

LAND MANAGER

NAME SIGNATURE

☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

COMMENTS

ACE 9961985

ACE 1955529

REVISION NO. 03/21/90

SHORELINE OILING SUMMARY

REVISION NO. 03/22/90

OG Nonn USCG Michel SEGMENT ST/ NK-1
BIO Carr LAND REP Johnson - DNR SUBDIVISION 11
EXXON Bayer ADEC Reed TIME 6:45 to 7:55
TEAM NO.: 18 TIDE LEVEL: +1 to +3 DATE 4 1 7 90
EST. SUBDIVISION LENGTH: 800 m ☑ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
UPLANDS DESCRIPTION: ☐ Grass ☑ Forest ☐ Rock
SURVEYED FROM: ☑ Foot ☐ Boat ☐ Helo WORKING DIRECTION: all to over
SURFACE SEDIMENTS: R 5 % B 5 % C 40 % P 40 % G 10 % 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 50 m N 0 m VI 350 m NO 400 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	/C	/B	/P	/R	SBK/BR	DBL/RW	GY	SL	DBR/TL	LBR	SU	UI	MI	LI
ASPHALT PAVEMENT		✓		✓					✓			✓		
POOLED														
COVER														
COAT														
STAIN														
MOUSSE														
PATTIES				✓					✓			✓	✓	
TARBALLS														
FILM *														
NO OIL											SN	SN	✓	✓

PAVEMENT: H F (S) 200 sq. m by 6 cm
PATTIES / TARBALLS 10 bags of asphalt BAGS
NEAR SHORE SHEEN? (NO) BR RW SL TL

OILED DEBRIS NO	AMOUNT SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED ☑ YES ☐ NO
TYPE asphalt
#BAGS 1

Photographs:
Roll No. ST 18-4
Frames 19-18

* probably present but can not see under these conditions

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR						PIT ZONE				ANA	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	SBL/BR	DBL/RW	GY	SL	DBR/TL	LBR	SU	UI	MI	LI		
1	20					✓	•										✓			NO	PGC throughout
2	25					✓	•										✓			"	"
3*	30					✓	•										✓			"	"
4*	25					✓	•							•			✓			"	"
5	25					✓	•										✓			"	PG throughout
6	30					✓	•											✓		"	CPG throughout

COMMENTS 4 pit has oil or evidence (an asphalt)

ACE 9961986 ACE 1955530

Air temperatures in upper 20's °F. Beach face is frozen tight. We are unable to distinguish oiling in the UITZ and supra-tidal ZONE due to snow cover. Oiling is mostly in the form of remnant mousse accumulations that now exist as patches of asphalt. Widely-scattered, remnant mousse patties exist throughout the Middle and UITZ. This shoreline is very low-

REVIEWED DATE

SHORELINE OILING SUMMARY (PAGE 2 of 2)

REVISION 03/22/96

SEGMENT ST/ NK-1 SUBDIVISION A

SUBSURFACE OIL (CONTINUED)

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR					PIT ZONE				ANA	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO	(CM-CM)	UO	UC	SW/BR	DBL/RW	DY/BL	DBR/TL	LBR	SU	LI	MI	U		
7	25					✓	-									✓			NA	C.P over P.G.C.
8	30					✓	-									✓			"	CBP over PGC
9	25					✓	-									✓				"
10	25					✓	-										✓			"
							-													
							-													
							-													
							-													
							-													
							-													
							-													
							-													
							-													
							-													

COMMENTS

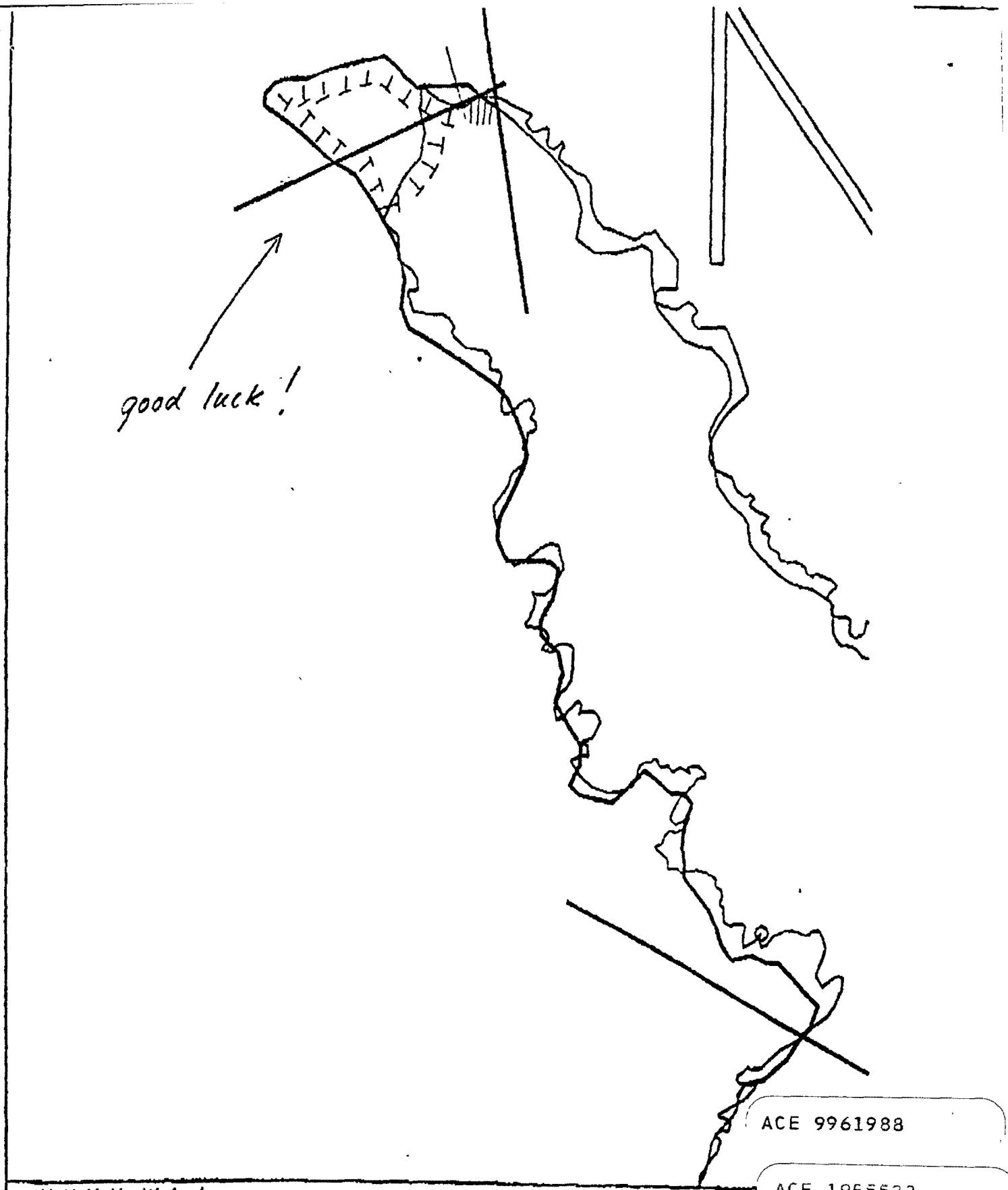
No burial of oil was evident

angled. The size of the storm berm suggests that waves, at least occasionally, move sediment on and across the beach. Most of NK-1 consists of the intertidal portion of a pebble-cobble-small boulder delta formed by 2 streams at the head of a long, narrow cove. Our survey was not at an ideal time because of the snow cover in the upper portion of the unit

ACE 9961987

ACE 1955531

REVIEWED _____ DATE _____



ACE 9961988

ACE 1955532

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

NK-1

ADEC Segment Length: 1947m

0 100 200 300
METERS

Map Key: KEN-64e
Name: Mann/NK-1
Date: 4/7/90
Data Entered:

(A)

ACE 1955533

[SKET]CH MAP

OG *Mani*

SEGMENT ST/ *NK-1*

SUBDIVISION *A*

DATE *4 / 7* 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

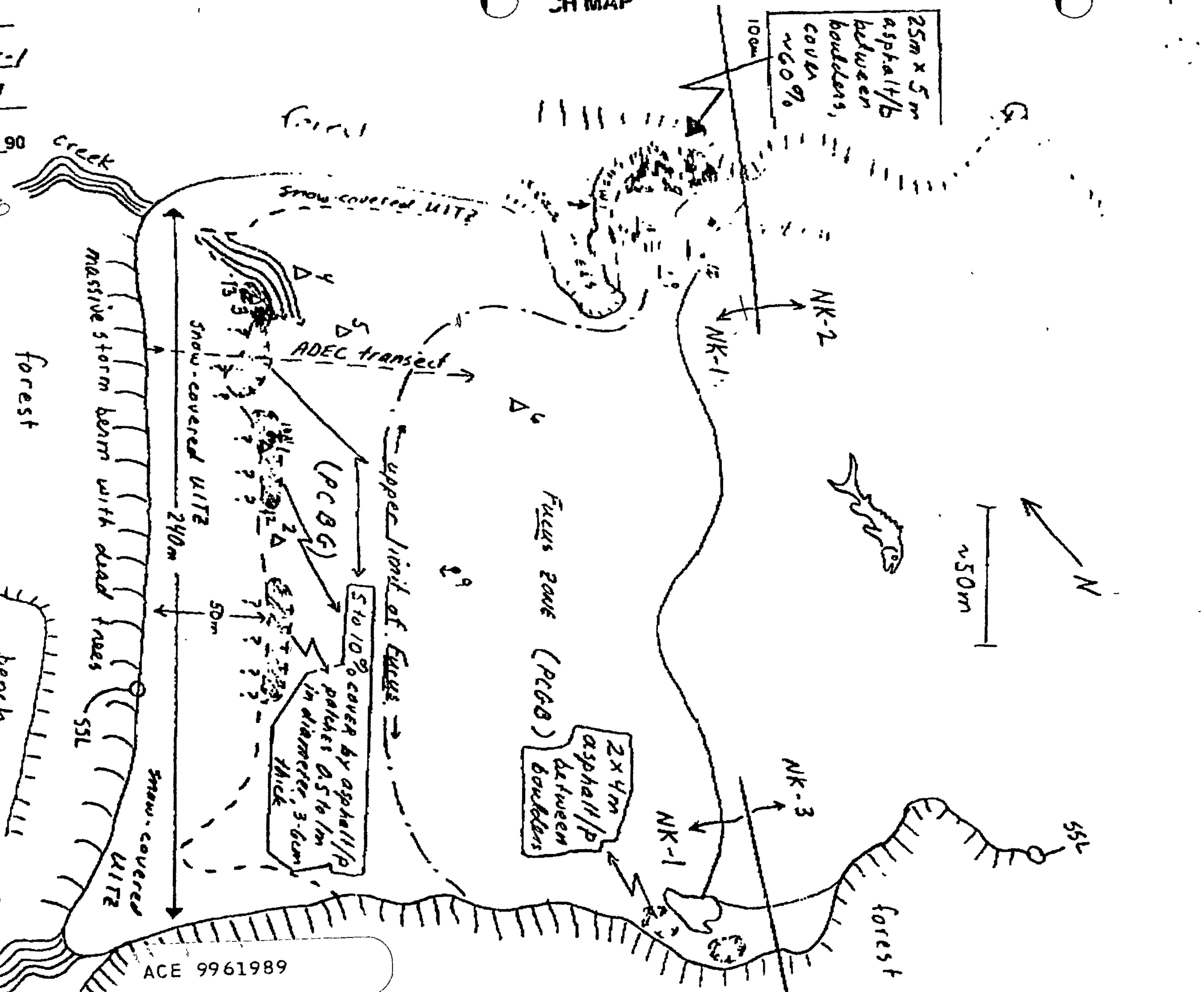
CT/B Broken Distribution

CT/P Patchy Distribution

CT/S Splashed Distribution

Oiled Vegetation

1 ●→ Photo location, direction, and number



ACE 9961989

Oil Character Length (m): AP *100* PO *0* CV *0* CT *0* ST *0* MS *0* PT *100* TB *0* FL *0* NO *600*

REVISION:03/24/90

SHORELINE ECOLOGICAL SUMMARY

REVISION: 05/22/90

Segment ST / NK 1 Subdivision A (of A) Date (mo / day / yr) 4/7/90

Time (24 hr) 0645 Biologist M. CARR

(A) Substrate type and % of ~~segments~~ SUBDIVISION:
(1) Bedrock 5 (2) Boulder 5 (3) Cobble 40 (4) Pebble 50 (5) Sand ____ (6) Silt ____

(B) Overall % cover of biota (% of ~~segment~~ SUBDIVISION): Dense 50 Moderate ____ 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. 4
Frames 9 - 18

BARNACLES

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

BEDROCK & BOULDER DID NOT EXTEND INTO LOWER ZONE
NOT PRESENT

MYTILUS

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

BEDROCK & BOULDER DID NOT EXTEND INTO LOWER ZONE
NOT PRESENT
NOT PRESENT IN UPPER ZONE OF ANY SUBST.

GASTROPODS

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

BEDROCK & BOULDER DID NOT EXTEND INTO LOWER ZONE
NOT PRESENT
NOT PRESENT IN UPPER ZONE
NOT PRESENT IN ANY ZONE

FUCUS

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

BEDROCK & BOULDER DID NOT EXTEND INTO LOWER ZONE
NOT PRESENT

Wildlife Observations/ General Comments:

LAND OTTER (1)
HARBOR SEAL, *Phoca vitulina* (1)

Ecological Considerations:

Sensitivity codes: 4-GG (Alaska State Parks), 5-T (Bald eagle nest), 5-R (Seabird colonies).

ACE 9961990

ACE 1955534

SHORELINE ECOLOGICAL SUMMARY

REVISION: 05/22/90

Segment ST / NK 1 Subdivision A (of A) Date (mo / day / yr) 4/7/90

Time (24 hr) 0645 Biologist M. CARR

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

(B) Overall % cover of biota (% of ~~segment~~ SUBDIVISION): Dense 50 Moderate ____ 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. 4
Frames 9-17

BARNACLES

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

1U, 1M, 1L } BEDROCK & BOULDER SUBSTRATE NOT IN LOWER INTERTIDAL ZONE
NOT PRESENT

MYTILUS

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

1L } BEDROCK & BOULDER SUBSTRATE NOT IN LOWER INTERTIDAL ZONE
NOT PRESENT
NOT PRESENT IN UPPER INTERTIDAL ZONE

GASTROPODS

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

2 } BEDROCK & BOULDER SUBSTRATE NOT IN LOWER INTERTIDAL ZONE.
3 } NOT PRESENT
4 } NOT PRESENT IN UPPER.
5 } NOT PRESENT ON PEBBLE <

FUCUS

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

2 } BEDROCK & BOULDER SUBSTRATE NOT IN LOWER INTERTIDAL ZONE
NOT PRESENT

Wildlife Observations/ General Comments:

LAND OTTER (1)
HARBOR SEAL (1)

Ecological Considerations:

Sensitivity codes: 4-GG (Alaska State Park), 5-T (Bald Eagle Nest)
5-R (Seabird colony)

ACE 9961991

ACE 1955535

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / NK 01 SUBDIVISION: A DATE 4/7/90

USCG /NSF
NAME [illegible] MICHEL SIGNATURE [signature]

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS

This area has two main zones of oil contamination: 1) very discrete patches of widely spaced pavements along the UITZ of the main beach 2) a smaller beach on NE side w/ larger pavements. The NE pocket beach had some sheens, even though the [illegible] frozen in places. These pavements should be removed manually. There is little/no concern for erosion. Care should be taken to not disturb the lower intertidal zone on the NE shore

ADEC
NAME JOHN R. REED SIGNATURE John R. Reed

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS

I recommend using shovels and hand trowels to pickup the spread asphalt pavements. The main beach is very low angle and has an anadramous stream on the N/E end. The UITZ was mostly covered with snow and I feel like we were missing some of the contamination. ~~[illegible]~~. I have read and agree with all data on S.S.A.T. form

LAND MANAGER-DNR/DPOR
NAME Jeffrey S Johnson SIGNATURE [signature]

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS

Concur with above comments; concerned about snow covered UITZ + recommend another look save later. No problem with intrusive methods in this segment, but manual pickup of mats probably best. Noted no oiled debris or driftwood, except for 1 sorbent pad. Note segment is a DNR priority due to STATE PARK designation, though access is limited by good weather, because of SE exposure.

ACE 9961992

ACE 1955536

REVISION NO. 03/21/90

SENT BY:Xerox Telecopier 7020 ; 4-11-90 ; 9:55 ; 9072247025→ HOMER, ALASKA 99603;#41

GROUP A

Prescreening

ADF&G MULTI-ASSESSMENT DATA FORM

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

METHOD: Aerial (Ground) Boat

3 DATE: 4-14-90 | 16 HIGH TIDE TIMES: 1706 | 21 TEAM RECORDER: Doug Hill

4 START TIME: 0933 | 16 HIGH TIDE HTS: 9.6 / | 22 OBSERVERS: S. McGee J. Reid (USCG)

5 STOP TIME: 1046 | 17 LOW TIDE TIMES: 1053 / | 23 AGENCY: ADF&G

6 SEGMENT #: NK-1 | 18 LOW TIDE HTS: 0.2 / | 24 PHOTOS TAKEN: (Y) N

7 STATION #: _____ | 19 TIDE HT AT SURVEY: low | Roll #: 90DDH0C4-H Frame: 1,2,3,4,5,6,7,

8 K-UNIT: _____ (Ebb) Slack Flood Slack | 25 VIDEO TAKEN: Y (N) TAPE#: _____

9 STAT AREA: 232-21 | 20 USCG QUAD: _____ | Start: _____ End: _____

10 LAT: 59° 23.6 N | 11 LONG: W 150° 38.4 | 26 SAMPLES TAKEN? (Y) N Number

12 SOURCE: Map (Loran) / | Oil NK-1-001Sm-4/14/90-102

13 LOCATION: AFS-232-21-10230, 10240 Nuka Island, NW portion of NE Cove | Sediment _____

14 DESCRIPTION: North Corner of Bay / NE Portion of | Biological _____

EXTENT OF OIL | Water _____

	SHORELINE L	W	H	%	STREAM L	W	H	%
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. Coating on rock walls

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 30 Boulder 10 Cobble 30 Gravel 30 Sand _____ Mud/silt _____

36 CATALOGED ANAD. FISH STREAM? (Y) N

37 CATALOG #: 232-21-10230 10240

38 STREAM NAME: NE COVE-NUKA Island

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: Mouth and NE shore

43 ANADROMOUS FISH PRESENT? Y (N)

44 ANADROMOUS FISH OBSERVATION

Species	Aerial	Ground

ACE 9961993

COMMENTS: N.E Nuka seems little changed since last Fall. There were fewer observed tar mats in the stream channel but the side pocket beaches contain significant amount of mousse between rocks and on rock walls. No difference was observed between before & after amounts of oil on beach & rock faces sprayed w/ Inipol.

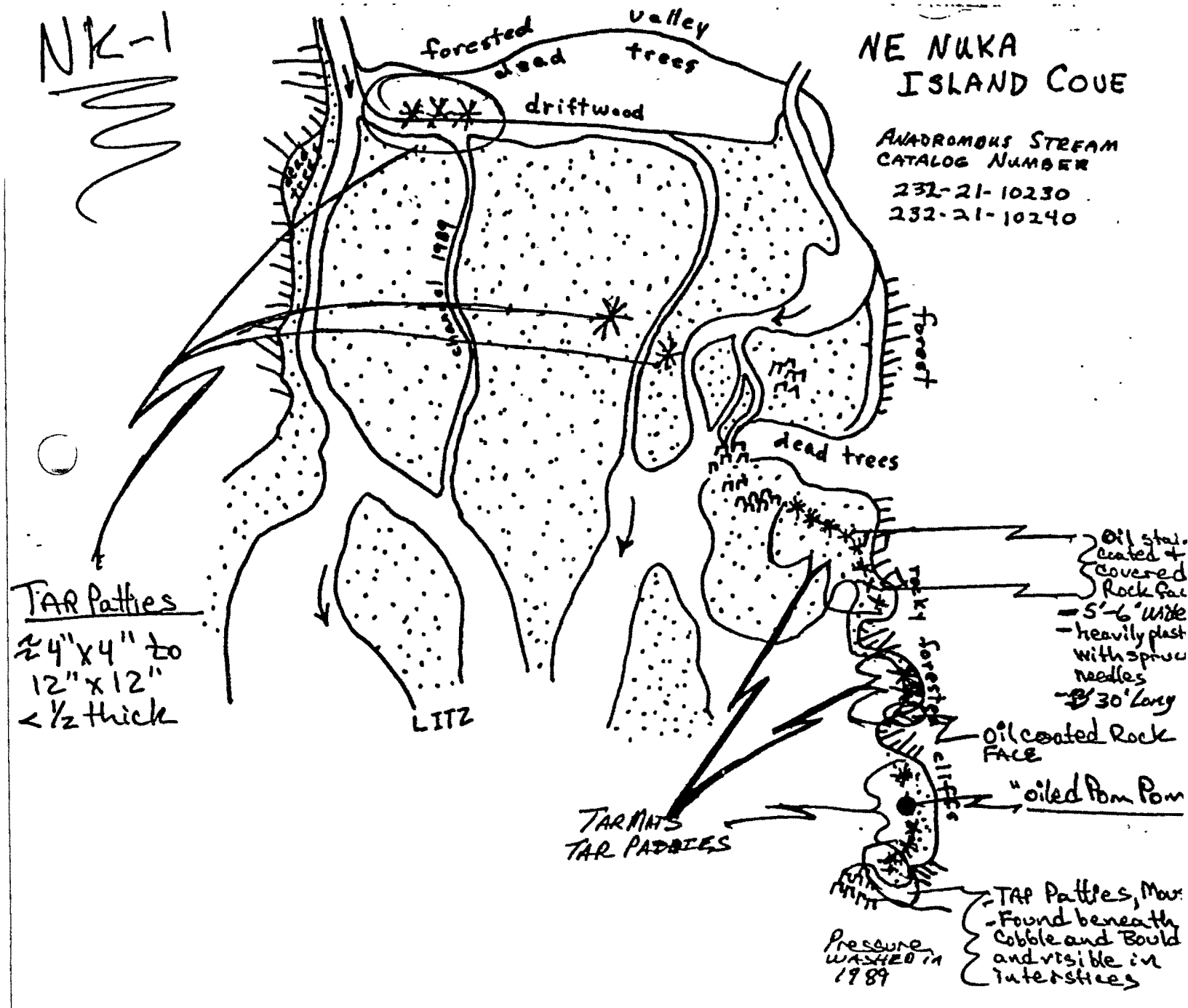
ACE 1955537

FRAME(S)	DESCRIPTION
1, 2, 3	Aerials of Tide Flats + AFS mouth/outlets/Head of NE Cove Nuka Overturned Boulder - mousse, sheen + Dead Limpets (quite common on oiled beaches)
4, 5, 6, 7, 8	Susan McLane (ADF&G) holding oiled pom pom ~~amongst~~ amongst kelp on Pressure washed beach.

NK-1

NE NUKA ISLAND COVE

ANADROMOUS STREAM CATALOG NUMBER
232-21-10230
232-21-10240



ANADSCAT - Recommended

= Sample taken
= Photo frame # and shot direction.

ACE 9961994 -/S

ACE 1955538

ANADROMOUS FISH STREAM EVALUATION

232-21-10230

SEGMENT ST/ NK-001 STREAM NO: 232-21-10240 A DATE 4/30/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
1J Purse seine area (7/1 to 8/30)
4GA State Marine Park Alaska State Wilderness Park

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Subject streams are located 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: Rachel Jean Dee DATE: 5/22/90

Subsurface Oil Observed: Yes____ No X Maximum Depth____

RECOMMENDATIONS:

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

COMMENTS: Recommend manual removal of tarmat in the UITZ as indicated on the attached sketch map. Contact ADNR for Wilderness Permit. Work form 5/16 to 7/1.

TAG COMMENTS: BIOREMEDIATE (CUSTOMBLEND) IF REQUIRED FOLLOWING TARMAT REMOVAL

TAG APPROVAL DATE: 5/18/90.

ADEC Art Weiner Art Weiner
EXXON Andy Tear
NOAA Gary Petrae Gary Petrae
USCG G.A. Reiter G.A. Reiter

FOSC [signature] DATE: MAY 25 1990

ACE 9961995 +/S

ACE 1955507

ANADROMOUS FISH STREAM ASSESSMENT

REGION: KENAI

SEGMENT: NK001

SUBDIVISION: A

STREAM NO: 232-21-10230
232-21-10240

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 Suzomoto 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 unoiled intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
AGENCY CONTACT PERSON: ADF&G Evelyn Biggs 424-3235

3N, 3P Harbor seal and sea lion pupping (5/15 to 7/1)
3O, 3Q Harbor seal and sea lion molting (8/15 to 9/15)
Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31). Contact ADF&G and USFWS prior to treatment for confirmation.
AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
ADF&G Don Calkins 267-2403

5R Seabird colony (5/1 to 9/1)
Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

5S Shorebird/waterfowl concentration (4/1 to 5/15)
Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
ADF&G Tom Rothy 267-2206

5T All Bald Eagle nests (3/1 to 6/1)
Active Bald Eagle nests (3/1 to 9/1)
Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

6U Recreation: Tent sites (6/1 to 9/15)
6V Anchorages (6/1 to 9/15)
6W Forest Service cabins (6/1 to 9/15)
6X Lodge (6/1 to 9/15)
6Y Special use destination

7Z Subsistence area: Salmon harvesting (5/1 to 9/30)
7HH Finfish harvesting
7II Deer harvesting (8/15 to 2/28)
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 9961997

ACE 1955509

NK-1

EXXON COMMAND CENTER (HOMER)
P.O. Box 4848
4014 Lake St.
Homer, AK 99603
Tel: 235-6444
Fax: 235-5963

[illegible] 1990

The attached is a copy of SSAT NK-001 plus comments from ANAD stream #232-21-10230 and 232-21-10240. This should be used NuKA Is.-001. Refer to SSAT NK-001 file for operations notes.

[illegible]

This was typed by Darryl Yoes but very difficult to read after being faxed. gsk.

ACE 9961998

ACE 1955510

SEGMENT ST / NK-1 SUBDIVISION: _____ DATE 4/30/90

USCG

NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

COMMENTS

AOFFR

~~USCG~~

NAME Doug Hill SIGNATURE Douglas O'Neill

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS Recommend Manual pickup and removal of tarballs and tar patties/tarmat from North shore and from west shore (Tar patties near South salmon stream mouth). (SEE Attached maps).

Two salmon streams exist at the head of NE Cove Nuka.

- A substantial amount of oil still exist at the eastern end of NK-1 (Beach was pressure washed in 1989).

LAND MANAGER

NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

COMMENTS

ACE 9961999 -15

ACE 1955511

REVISION NO. 0.1.2

ANADROMOUS FISH STREAM EVALUATION

232-21-10230

SEGMENT ST/ NK-001 STREAM NO: 232-21-10240 A DATE 4/30/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

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1J Purse seine area (7/1 to 8/30)
4GA State Marine Park Alaska State Wilderness Park

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SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

Subsurface Oil Observed: Yes ____ No X Maximum Depth ____

RECOMMENDATIONS:

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

COMMENTS: Recommend manual removal of tarmat in the UITZ as indicated on the attached sketch map. Contact ADNR for Wilderness Permit. Work form 5/16 to 7/1.

TAG COMMENTS: BIOREMEDIATE (CUSTOMBLEND) IF REQUIRED FOLLOWING TARMAT REMOVAL

TAG APPROVAL DATE: 5/18/90.
ADEC Art Weiner Art Weiner
EXXON Andy Teas
NOAA Gary Petrae Gary Petrae
USCG G.A. Reiter G.A. Reiter

FOSC [signature] DATE: MAY 25 1990

ACE 9962000 +/S

ACE 1954985

ANADROMOUS FISH STREAM ASSESSMENT

REGION: KENAI

SEGMENT: NK001

SUBDIVISION: A

STREAM NO: 232-21-10230
232-21-10240

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

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AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2359

NK-1

EXXON COMMAND CENTER (HOMER)
P.O. Box 4848
4014 Lake St.
Homer, AK 99603
Tel: 235-6444
Fax: 235-5965

The attached is a copy of SSAT NK-001 plus comments from ANAD stream #232-21-10230 and 232-21-10240. This should be used NUKA Es.-001. Refer to SSAT NK-001 file for operations notes.

This was typed by Darryl Yoes but very difficult to read after being faxed. gsk.

ACE 9962003

ACE 1954988

SEGMENT ST / NK-1 SUBDIVISION: _____ DATE 4/30/90

USCG

NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

COMMENTS

ADFG

~~NOAA~~

NAME Doug Hill SIGNATURE Douglas O'Neill

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS Recommend Manual pickup and removal of tarballs and tar patties/tarmat from North shore and from west shore (Tar patties near South salmon stream mouth). (See Attached maps).

Two salmon streams exist at the head of NE Cove Nuka.

- A substantial amount of oil still exist at the eastern end of NK-1 (Beach was pressure washed in 1989).

LAND MANAGER

NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

COMMENTS

ACE 9962004

ACE 1954989

REVISION NO. 0

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / NK 01 SUBDIVISION: A DATE 4/7/9[illegible]

USCG/N[illegible]
NAME [illegible] Michel SIGNATURE [signature]

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS

This area has two main zones of oil contamination: 1) very discrete patches of widely spaced pavements along the UITZ of the main beach 2) a smaller beach on NE side w/ larger pavements. The NE pocket beach had some sheens, even though the [illegible] frozen in places. These pavements should be removed manu[ally]. There is little/no concern for erosion. Care should be taken to not disturb the lower intertidal zone on the NE shore

ADEC
NAME JOHN R. REED SIGNATURE John R. Reed

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS

I Recommend using shovels and hand trowels to pickup the sp[illegible] asphalt pavements. The main beach is very low angle and has an anadramous stream on the N/E End. The UITZ was mostly covered with snow and I feel like we were missin[g] some of the contamination. ~~[illegible]~~ I have Read and agree with all data on S.S.A.T. R[illegible]

LAND MANAGER-DNR/DPOR
NAME Jeffrey S Johnson SIGNATURE [signature]

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS

Concur with above comments; concerned about snow covered UITZ + recommend another look [illegible]. No problem with [illegible] methods in this segment, but manual pickup of mats probably best. Noted no oiled debris or driftwood, except for 1 sorbent pad. Note segment is a DNR priority due to STATE PARK designation, though access is limited by good weather, because of SE exposure.

ACE 9962005

ACE 1954990

REVISION NO. [illegible]

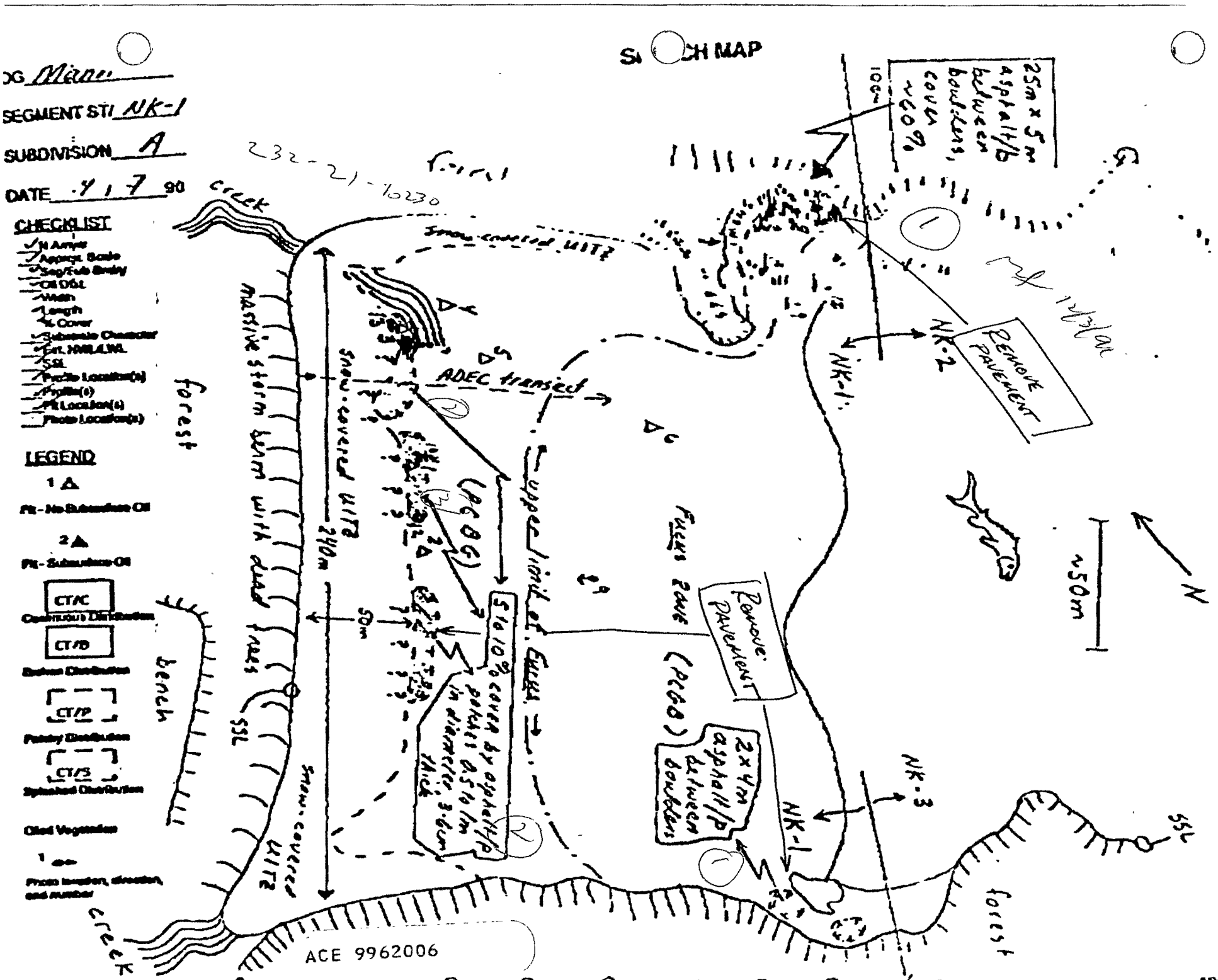
OG Manu

SEGMENT STI NK-1

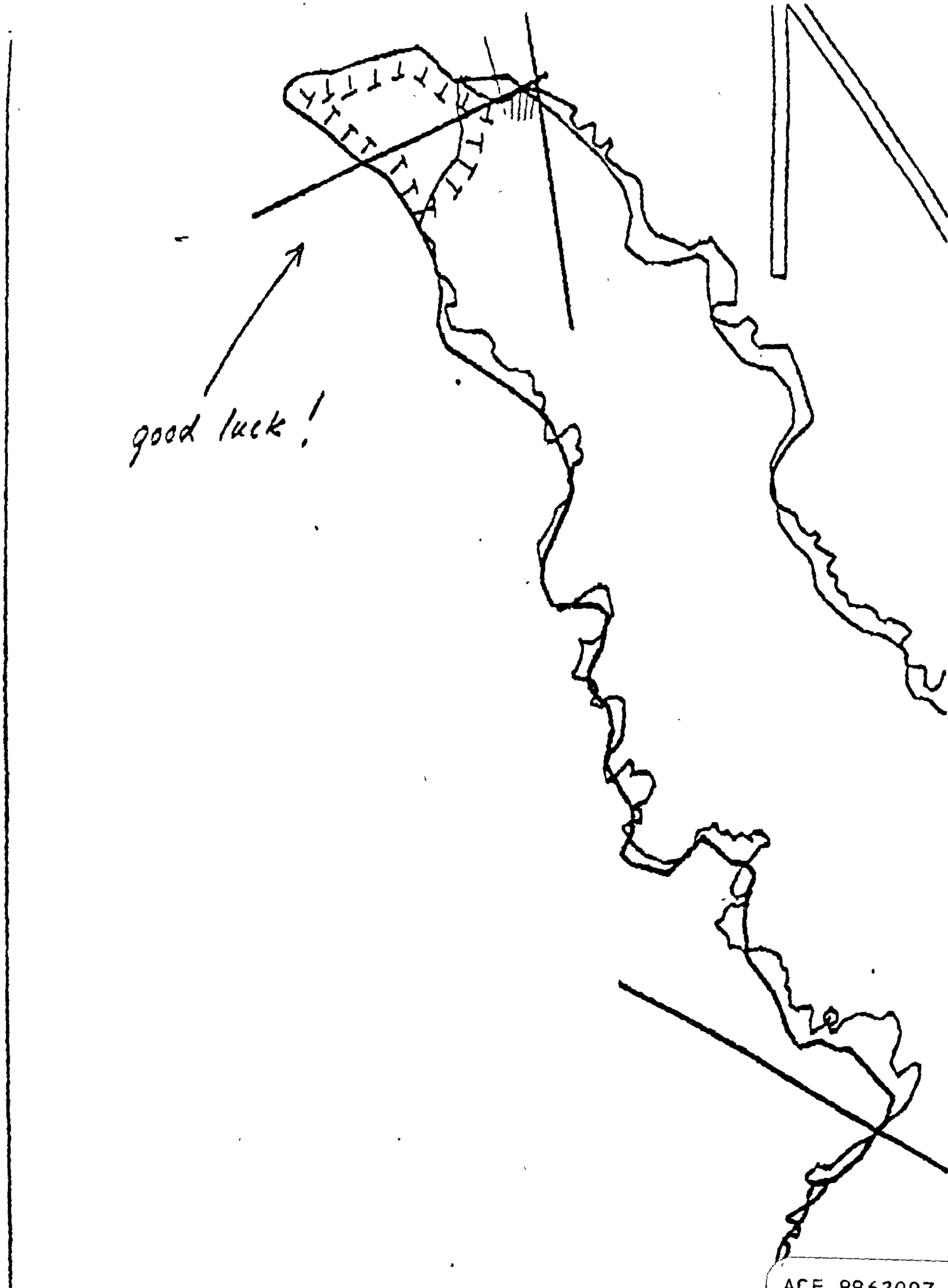
SUBDIVISION A

DATE 4 / 7 90

SKETCH MAP



Oil Character Length (m): AP 100 PO V CV O CT O ST O MS O PT 100 TB O FL O NO 600



ACE 9962007

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

NK-1

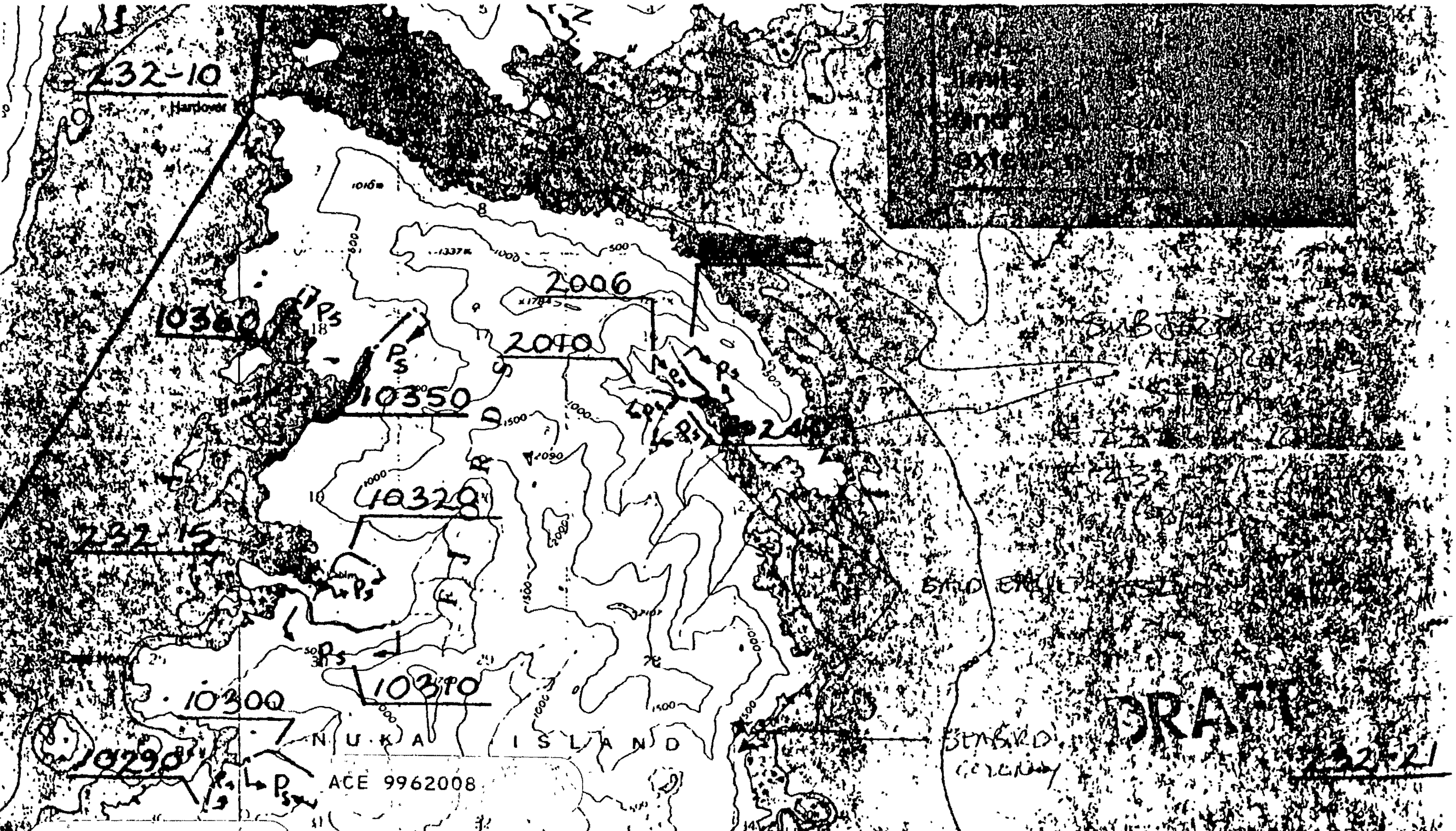
ADEC Segment Length: 1847m

0 100 200 300
Meters

Map Key: [illegible]
Name: Mann/NK-
Date: 4/7/90
[illegible]

ECOLOGICAL MAP

1A, 1C 15



COLLECTOR 2B

GROUP A

Prescreening

ADF&G MULTI-ASSESSMENT DATA FORM

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

METHOD: Aerial (Ground) Boat

3 DATE: 4-14-90 | 16 HIGH TIDE TIMES: 1706 | 21 TEAM RECORDER: Doug Hill

4 START TIME: 0933 | 16 HIGH TIDE HTS: 9.6 ' | 22 OBSERVERS: S. McGuire J Reid (USCG)

5 STOP TIME: 1046 | 17 LOW TIDE TIMES: 1053 ' | 23 AGENCY: ADF&G

6 SEGMENT #: NK-1 | 18 LOW TIDE HTS: 0.2 ' | 24 PHOTOS TAKEN: (Y) N

7 STATION #: _____ | 19 TIDE HT AT SURVEY: low | Roll #: 90DDH004-H Frame: 1,2,3,4,5,6,7,

8 K-UNIT: _____ | (Ebb) Slack Flood Slack | 25 VIDEO TAKEN: Y (N) TAPE#: _____

9 STAT AREA: 232-21 | 20 USCG QUAD: _____ | Start: _____ End: _____

10 LAT: 59° 23.6 N | 11 LONG: W 150° 38.4 | 26 SAMPLES TAKEN? (Y) N Number

12 SOURCE: Map (Loran) | Oil NK-1-00H5m-4/14/90-1021

13 LOCATION: AFS-232-21-10240 10230, Nuka Island, NW portion of NE Cove | Sediment _____

14 DESCRIPTION: North Corner of Bay/NE Portion | Biological _____

EXTENT OF OIL | Water /

	SHORELINE L	W	H²	%	STREAM L	W	H²	%
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. Coating on rock walls

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 30 Boulder 10 Cobble 30 Gravel 30 Sand _____ Mud/silt _____

36 CATALOGED ANAD. FISH STREAM? (Y) N

37 CATALOG #: 232-21-10230 10240 NE COVE-NUKA Island

38 STREAM NAME: [illegible]

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: Mouth and NE shore

43 ANADROMOUS FISH PRESENT? Y (N)

44 ANADROMOUS FISH OBSERVATION

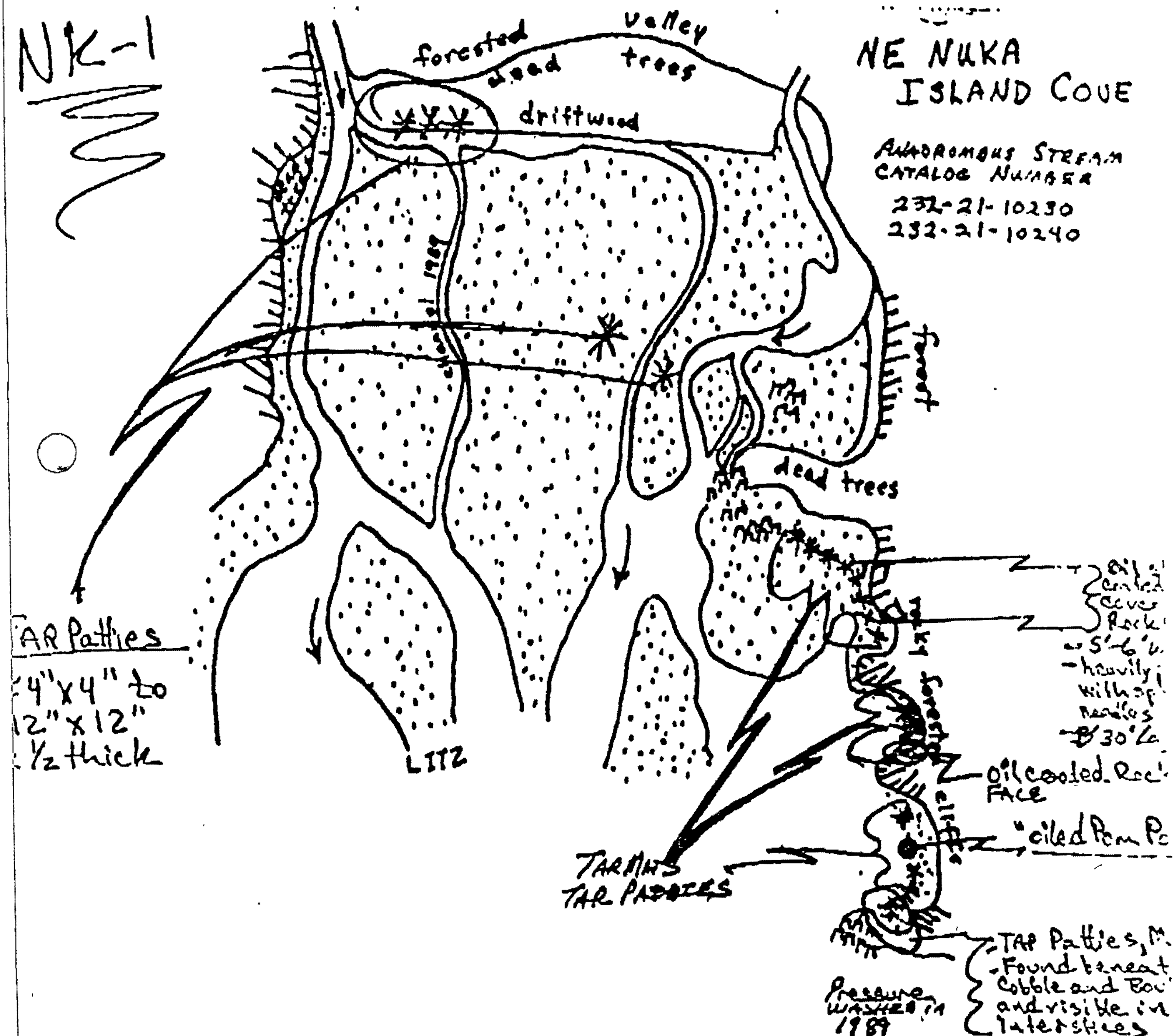
Species	Aerial	Ground

ACE 9962009

COMMENTS: N.E Nuka seems little changed since last Fall. There were fewer observed tar mats in the stream channel but the side pocket beaches contain significant amounts of mousse between rocks and on rock walls No difference was observed between before & after in amounts of oil on beach & rock faces sprayed with Thion!

ACE 1954994

FRAME(S)	DESCRIPTION
1, 2	Aerials of Tide Flats + AFS mouths/outlets/Head of NE Cove & overturned Boulder - mousse, sheen + Dead limpets (quite common on [illegible])
4, 5, 6, 7, 8	Susan McLane (ADF&G) holding oiled pompom [illegible] kelp on Pressure washed beach.



ACE 9962010

ACE 1954995

ANADSCAT - Recommended

* Sample taken

* Photo frame # and

SHORELINE OILING SUMMARY (PAGE 2 of 2)

SEGMENT ST/ NK-1 SUBDIVISION A

SUBSURFACE OIL (CONTINUED)

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm-cm)	BELOW		OIL / FILM COLOR						PIT ZONE				ANA	SUBSURFACE SEDIMENTS
		OF	OR	OL	OF	NO		UO	UC							SU	UI	W	U		
7	25					✓	•										✓			NA	C.P over P.G.C.
8	30					✓	•										✓			"	CBP over PGC
9	25					✓	•										✓				"
10	25					✓	•											✓			"
							•														
							•														
							•														
							•														
							•														
							•														
							•														
							•														
							•														
							•														

COMMENTS

No burial of oil was evident

angles. The size of the stream beds suggests that during, at least occasionally, more sediment on and across the beach. Most of NK-1 consists of the intertidal portion of a pebble-cobble-small boulder delta formed by 2 streams at the head of a long, narrow cove. Our survey was not at an ideal time because of the snow cover in the upper portion of the unit

ACE 9962011

ACE 1954996

REVIEWED _____ DATE _____

SHORELINE OILING SUMMARY

OG: Mann USCG: Michel SEGMENT ST/ NK-1
BIO: Carr LAND REP: Johnson - DNR SUBDIVISION: 1
EXXON: Bayer ADEC: Reed TIME: 2:45 to —
TEAM NO.: 18 TIDE LEVEL: +1 to +3 DATE: 4 / 3 / 90
EST. SUBDIVISION LENGTH: 700 m ☑ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
UPLANDS DESCRIPTION: ☐ Grass ☑ Forest ☐ Rock
SURVEYED FROM: ☑ Foot ☐ Boat ☐ Helo WORKING DIRECTION: all to over
SURFACE SEDIMENTS: R 5 % B 5 % C 40 % P 40 % G 10 % 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 50 m N 0 m VL 350 m NO 400 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	C	B	P	S	BL/BR	BR/RW	CT/SL	DU/TL	LBR	SU	UI	MI	LI
ASPHALT PAVEMENT		✓		✓				✓			✓		
POOLED													
COVER													
COAT													
STAIN													
MOUSSE													
PATTIES				✓				✓			✓	✓	
TARBALLS													
FILM *													
NO OIL										SN	SN	✓	✓

* probably present but can not see under these conditions

PAVEMENT: H F (S) 200 sq. m by 6
PATTIES / TARBALLS 10 bags of asphalt BAC
NEAR SHORE SHEEN? (NO) BR RW SL TL

OILED DEBRIS NO	AMOUNT SM	MO	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED ☑ YES ☐ NO
TYPE asphalt
#BAGS 1

Photographs:
Roll No. ST 18-4
Frames 9-18

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	OP	OR	OL	OF	NO	OILED INTERVAL (CM-CM)	BELOW UO	BELOW UG	BL/BR	BR/RW	CT/SL	DU/TL	LBR	PIT ZONE SU	UI	MI	LI	ANA	SUBSURFACE SEDIMENTS
1	20					✓	•									✓			NO	PGC Throughout
2	25					✓	•									✓			"	"
3*	30					✓	•									✓			"	"
4*	25					✓	•									✓			"	"
5	25					✓	•									✓			"	PG Throughout
6	30					✓	•									[illegible]			[illegible]	[illegible]

ACE 9962012

COMMENTS * pit has oil or surface (an asphalt)
Air temperatures in upper 20's °F. Beach face is frozen tight. We are unable to [illegible] about ½ of the UITZ and supra-tidal zone due to snow [illegible]. Oiling is mostly in the form of remnant mousse accumulations that now exist as patches of asphalt. Widely-scattered, remnant mousse patties exist throughout the middle and UITZ. This shoreline is very low —

Page 1 of 2 REVIEWED ______ DATE ______

ACE 1954997

SHORELINE ECOLOGICAL SUMMARY

REVISION: 05/22/90

Segment ST / NK 1 Subdivision A (of A) Date (mo / day / yr) 4/7/90

Time (24 hr) 0645 Biologist M. CARR

(A) Substrate type and % of ~~segments~~ SUBDIVISION:
(1) Bedrock 5 (2) Boulder 5 (3) Cobble 40 (4) Pebble 50 (5) Sand ____ (6) Silt ____

(B) Overall % cover of biota (% of ~~segment~~ SUBDIVISION): Dense 50 Moderate ____ 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. 4
Frames 9 - 18

BARNACLES

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

BEDROCK & BOULDER DID NOT EXTEND INTO LOWER ZONE
NOT PRESENT

MYTILUS

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

BEDROCK & BOULDER DID NOT EXTEND INTO LOWER ZONE
NOT PRESENT
NOT PRESENT IN UPPER ZONE OF ANY SUBST.

GASTROPODS

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

BEDROCK & BOULDER DID NOT EXTEND INTO LOWER ZONE
NOT PRESENT
NOT PRESENT IN UPPER ZONE
NOT PRESENT IN ANY ZONE

FUCUS

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

BEDROCK & BOULDER DID NOT EXTEND INTO LOWER ZONE
NOT PRESENT

Wildlife Observations/ General Comments:

LAND OTTER (1)
HARBOR SEAL, *Phoca vitulina* (1)

Ecological Considerations:

Sensitivity codes: 4-GG (Alaska State Parks), 5-T (Bald eagle nest), 5-R (Seabird colonies).

ACE 9962013 - 15

ACE, 1954998

(1)

ADF&G MULTI-ASSESSMENT FORM
1991 GENERAL ENTRY CHECKLIST

STREAM#: 2322110230
SEGMENT: NK001

DNR 10/7/91

DATE PRINTED: 07/25/91

LOCATION: NUKA ISLAND, NORTHEAST COVE, SOUTH CREEK

SURVEY TYPE: 90 CLEANUP MONITORING -SS/BS METHOD: ~~GROUND~~ FOOT

DATE: 05/03/90 TEAM RECORDER: HILL

START TIME: 1303 OBSERVERS: MACCAMPBELL JOHNSON
END TIME: 1403

TIDES: FLOOD AGENCY: FG DNR
OG/HAB DISCREPANCIES: -

PHOTOS TAKEN: Y

STATION: 2322110230 ROLL#: 90DDH009H
FRAME: 01-17

VIDEO TAKEN: N TAPE#: -0-
START: -0- END: -0-

SAMPLES TAKEN: N

SAMPLE NUMBERS: -0- -0-

-0- -0-

-0- -0-

OIL IN STREAM BED: N

OVERALL OIL IMPACT: M OIL ON BEACH BY MOUTH: Y

WAVE EXPOSURE: MOD SHORELINE TYPE: BEACH

SUBSTRATE TYPE: BEDROCK ~~0~~ 10 BOULDER ~~40~~ COBBLE ~~50~~ 40 VEGETAT -0-

GRAVEL ~~30~~ 10 SAND 25 -0- MUD/SILT ~~0~~ 25 GRANULE -0-

ANADROMOUS FISH PRESENT: -

SPECIES:	COUNT:
-0-	-0-
-0-	-0-
-0-	-0-
-0-	-0-
-0-	-0-

ACE 9962014 +/S

ADF&G MULTI-ASSESSMENT FORM
1991 OILING ENTRY CHECKLIST

PAGE 2 DATE PRINTED: 07/26/91

STREAM# : 2322110230
SEGMENT#: NK001

SURVEY TYPE : 90 CLEANUP MONITORING LOCATION: NUKA ISLAND, NORTHEAST COVE, SOUTH CREEK
DATE: 05/03/90
TIMES: 1303 - 1403 TEAM RECORDER: HILL

-- OILING EXTENT --

SITE#	SITE TYPE	DEPTH (cm)	LENGTH (m)	WIDTH (m)	AREA (m)	%	THICK (cm)	PEN (cm)	OIL TYPE CODES
1	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	MS TP AP ST

COMMENTS:
NK001 RECIEVED SOME MANUAL PICKUP OF OIL ON 4/28, 4/29, 5/2, 5/3. AND RESPECTIVELY 19, 6, 94 & 62 BAGS OF OILED SEDIMENT AND OIL WERE PICKED UP. THE ENSCO ATLAS LEFT THIS MORNING FOR PD002. THIS BEACH (NK001) LOOKS WORSE NOW THAN BEFORE IT WAS CLEANED. THE POTENTIAL FOR WILDLIFE TO BECOME OILED IS GREATER NOW THAN IT WAS PRIOR TO ~~THE AREAS~~ BEING WORKED. ~~AND SUPPOSEDLY~~ THIS AREA WAS CLEANED EARLY BECAUSE OF SEABIRD CONSTRAINTS (COLONY). WOHEVER LABLED THIS AREA UNDER THE SEABIRD COLONY CATEGORY ACTED ERRONEOUSLY. HOWEVER, IT MAKES LITTLE SENSE TO ME TO LEAVE THE AREA WITH SO MUCH SHEEN AND MOUSSE ON THE SURFACE, WHERE IT IS ACCESSIBLE TO ~~"CRITTERS"~~ WHEN THE PROJECT IS GIVEN PRIORITY DUE TO RETURNING SEABIRDS. THE CREW OBIOUSLY SPENT TIME GINGERLY SCRAPING THE SURFACE (AS IN 1989) SO AS TO PICKUP AS LITTLE DEBRIS AS POSSIBLE. ~~WHY BOTHER EVEN MESSING WITH THE STUFF IF THEY ARE NOT GOING TO TRY OR EVEN THINK ABOUT WHAT THEY ARE DOING AND WHY.~~ WHAT WAS HERE WAS EASY TO PICKUP. ~~THE MORE THEY SCRAPE IT AROUND AND MIX IT WITH THE SEDIMENT THE HARDER IT IS TO RECOVER. I GUESS THATS THE PLOY HERE. SCUFF THE OIL UP SO ITS HARDER TO RECOVER.~~ HOWEVER, THE SEDIMENT IS STILL SATURATED AND SHEEN, OIL GLOBULES, AND MOUSSE ARE STILL PRESENT, BEING RELEASED AND ON THE SURFACE. EITHER PICK THE OIL UP OR LEAVE IT ALONE IN CASES LIKE THIS. MORE WORK OBVIOUSLY NEEDS TO BE DONE HERE. THE KACHEMAK BAY WILDERNESS PARK RANGERS, JOHNSON & MACCAMPBELL ARE DISGUSTED WITH THE QUALITY OF THE WORK DONE HERE AND FEEL MORE NEEDS TO BE DONE.

Animals oil

The oil has been scuffed around and mixed with the native sediment and becomes harder to recover.

ACE 9962015 - 15

ADF&G MULTI-ASSESSMENT FORM
1991 GENERAL ENTRY CHECKLIST

STREAM#: 2322110240
SEGMENT: NK001

PAGE 4 DATE PRINTED: 07/25/91

LOCATION: NUKA ISLAND, NORTHEAST COVE, NORTH CREEK

SURVEY TYPE: 90 CLEANUP MONITORING -SS/BS METHOD: ~~GROUND~~ FOOT

DATE: 05/03/90 TEAM RECORDER: HILL

START TIME: 1303 OBSERVERS: MACCAMPBELL JOHNSON
END TIME: 1403

TIDES: FLOOD AGENCY: FG DNR
OG/HAB DISCREPANCIES: -

PHOTOS TAKEN: Y

STATION: 2322110240 [redacted]

ROLL#: 90DDH009H
FRAME: 01-17

VIDEO TAKEN: N TAPE#: -0-
START: -0- END: -0-

SAMPLES TAKEN: N

SAMPLE NUMBERS: -0- -0-

-0- -0-

-0- -0-

OIL IN STREAM BED: N

OVERALL OIL IMPACT: M OIL ON BEACH BY MOUTH: Y

WAVE EXPOSURE: MOD SHORELINE TYPE: BEACH

SUBSTRATE TYPE: BEDROCK ~~30~~ 10 BOULDER ~~20~~ 10 COBBLE ~~30~~ 30 VEGETAT -0-

GRAVEL ~~30~~ 20 SAND ~~40~~ 10 MUD/SILT ~~20~~ 20 GRANULE -0-

ANADROMOUS FISH PRESENT: -

SPECIES:	COUNT:
-0-	-0-
-0-	-0-
-0-	-0-
-0-	-0-
-0-	-0-

ACE 9962016 +/S

ADF&G MULTI-ASSESSMENT FORM
1991 OILING ENTRY CHECKLIST

PAGE 4 DATE PRINTED: 07/26/91

STREAM# : 2322110240
SEGMENT#: NK001

SURVEY TYPE : 90 CLEANUP MONITORING LOCATION: NUKA ISLAND, NORTHEAST COVE, NORTH CREEK
DATE: 05/03/90
TIMES: 1303 - 1403 TEAM RECORDER: HILL

-- OILING EXTENT --

SITE#	SITE TYPE	DEPTH (cm)	LENGTH (m)	WIDTH (m)	AREA (m)	%	THICK (cm)	PEN (cm)	OIL TYPE CODES
1	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	MS TP AP ST

COMMENTS:
NK001 RECEIVED SOME MANUAL PICKUP OF OIL ON 4/28, 4/29, 5/2, 5/3 - AND RESPECTIVELY 19, 6, 94 & 62 BAGS OF OILED SEDIMENT AND OIL WERE PICKED UP. THE ENSCO ATLAS LEFT THIS MORNING FOR PD002. THIS BEACH (NK001) LOOKS WORSE THAN BEFORE IT WAS CLEANED. THE POTENTIAL FOR WILDLIFE TO BECOME OILED IS GREATER NOW THAN IT WAS PRIOR TO THE AREAS BEING WORKED. AND SUPPOSEDLY THIS AREA WAS CLEANED EARLY BECAUSE OF SEABIRD CONSTRAINTS (COLONY). WHOEVER LABELED THIS AREA UNDER THE SEABIRD COLONY CATEGORY ACTED ERRONEOUSLY. HOWEVER, IT MAKES LITTLESENSE TO ME TO LEAVE THE AREA WITH SO MUCH SHEEN AND MOUSSE ON THE SURFACE WHERE IT IS ACCESSIBLE TO "CRITTERS" WHEN THE PROJECT IS GIVEN PRIORITY DUE TO RETURNING SEABIRDS. THE CREW OBVIOUSLY SPENT TIME GINGERLY SCRAPING THE SURFACE (AS IN 1989) SO AS TO PICK UP AS LITTLE DEBRIS AS POSSIBLE. WHY BOTHER EVEN MESSING WITH THE STUFF IF THEY ARE NOT GOING TO TRY OR EVEN THINK ABOUT WHAT THEY ARE DOING AND WHY. WHAT WAS HERE WAS EASY TO PICK UP. THE MORE THEY SCRAPE IT AROUND AND MIX IT WITH THE SEDIMENT THE HARDER IT IS TO RECOVER. I GUESS THAT THE PLOY HERE SCUFF THE OIL UP SO ITS HARDER TO RECOVER. HOWEVER, THE SEDIMENT IS STILL SATRUATED AND SHEEN, OIL GLOBULES AND MOUSSE ARE STILL PRESENT, BEING RELEASED AND ON THE SURFACE. EITHER PICK THE OIL UP OR LEAVE IT ALONE IN CASES LIKE THIS. MORE WORK OBVIOUSLY NEEDS TO BE DONE HERE. THE KACHEMAK BAY WILDERNESS PARK RANGERS, JOHNSON & MACCAMPBELL, ARE DISGUSTED WITH THE QUALITY OF THE WORK DONE HERE AND FEEL MORE NEEDS TO BE DONE.

Animals

oil

The oil has been scuffed around and mixed with the native sediment and becomes harder to recover.

NE Cove Nuka - Post MANUAL work crew operation

CLEANUP MONITORING

1st cleanup in the Homer zone of the season

OK

ADF&G MULTI-ASSESSMENT DATA FORM

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

METHOD: Aerial (Ground) Boat

3 DATE: 5/3/90 — 16 HIGH TIDE TIMES: 0952 1225 1 — 21 TEAM RECORDER: Doug Hill (ADF&G)

4 START TIME: 1303 — 16 HIGH TIDE HTS: 9.9 / 10.9 — 22 OBSERVERS: Roger MacCampbell (ADNR) Jeff Johnson

5 STOP TIME: 1403 — 17 LOW TIDE TIMES: 0337 / 1602 — 23 AGENCY:

6 SEGMENT #: NK-1 — 18 LOW TIDE HTS: 4.2 / 1.9 — 24 PHOTOS TAKEN: (Y) N

7 STATION #: — 19 TIDE HT AT SURVEY: — Roll #: 9000HA09H — Frame: 1-17

8 K-UNIT: — Ebb Slack (Flood) Slack — 25 VIDEO TAKEN: Y (N) TAPE#:

9 STAT AREA: — 20 USCG QUAD: Seldovia B-2 — Start: End:

10 LAT: 59 23 33 — 11 LONG: 150 37 35 — 26 SAMPLES TAKEN? Y (N) Number

12 SOURCE: Map Loran — Oil

13 LOCATION: KP, OC, Nuka Island, Northeast Cove — Sediment

14 DESCRIPTION: — Biological

Water — used 2 entries

EXTENT OF OIL

	SHORELINE L	W	M²	%	STREAM L	W	M²	%
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 — MS TP AP ST SOR H→MOR

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

34 WAVE EXPOSURE: High (Moderate) Low

35 SUBSTRATE TYPE: Bedrock 30 Boulder 10 Cobble 30 Gravel 30 Sand Mud/silt

36 CATALOGED ANAD. FISH STREAM? Y N — 232-21-10230

37 CATALOG #: 232-21-10240

38 STREAM NAME: NE COVE NUKA

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: NK-1+2

43 ANADROMOUS FISH PRESENT? Y (N)

44 ANADROMOUS FISH OBSERVATION

Species	Aerial	Ground

ACE 9962018

COMMENTS: NK-1 recieved some manual pickup of oil on 4/28, 4/29, 5/2, 5/3. And respectively 94 ~~94~~ 62 bags of oiled sediment and oil were picked up. The EXXON Atlas left this morning for PA-02. This beach (NK-1) looks worse now than before it was cleaned. The potential for wildlife to become oiled is greater now than it was prior to the area's being worked. And, supposedly this area was cleaned early because of seabird constraints (colony). Whoever labelled this area under the seabird colony category acted erroneously. However, it makes little

46 PHOTOLOG

FRAME(S)	DESCRIPTION
1 & 2	Crew worked near Salmon Streams, Some light oil still remains 10yd from s
3+4+7	Park Rangers removing well oiled sediment left by Exxon Crew
5, 6, 9,	Common Sight - Globules of oil on pool of H_2O, potential for oiling animals is greater now
8	than prior to clean up. TAR CAKE left by Exxon crews, not uncommon to find these, mousse in photo
10, 13, 15	Sheen / oiled rocks, Rainbow sheen
11, 12, 16	Much oil remains after crew has departed. Shiney = oil saturated sediment below cobble
14	More sheen after completion of manual pick-up - due in part to ½ hearted attempt
17	Brown mousse globules thoroughly cover surface of pool - not even warm/sunny tole
"	"

46 OIL DISTRIBUTION DIAGRAM

sense to me to leave the area with so much sheen and mousse on the surface where its accessible to "critters" - when the project is given priority due to returning seabirds.

The crew obviously spent time gingerly scraping the surface (as in 1989) so as to pick up as little debris as possible. Why bother even messing with the stuff if they are not going to try or even think about what they are doing & why. What was there was easy to pick up. The more they scrape it around & mix it with the sediment the harder it is to recover. I guess thats the ploy here. Scuff the oil up so its harder to recover. However the sediment is still saturated and sheen, oil globules & mousse are still present, being released on the surface.

Either pick the oil up or leave it alone in cases like this.

More work obviously needs to be done here. The Kachemak Bay Wilderness Park Rangers Johson & MacCampbell are disgusted with the quality of the work done here and feel more needs to be done.

= Sample taken

= Photo frame # and shot direction.

ACE 9962019

Post Cleanup Survey — Initial Cleanup Activities

ADF&G MULTI-ASSESSMENT DATA FORM

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

METHOD: Aerial (Ground) Boat

3 DATE: 5/3/90 — 15 HIGH TIDE TIMES: 1 — 21 TEAM RECORDER: Doug Hill (ADF&G), Roger Macampbell (ADN)

4 START TIME: 1303 — 16 HIGH TIDE HTS: 1 — 22 OBSERVERS: Jeff Johnson (AONR)

5 STOP TIME: 1403 — 17 LOW TIDE TIMES: 1402 1 — 23 AGENCY:

6 SEGMENT #: NK-1 — 18 LOW TIDE HTS: 1.9 1 — 24 PHOTOS TAKEN: (Y) N

7 STATION #: — 19 TIDE HT AT SURVEY: — Roll #: 90-00H-009 Frames:

8 K-UNIT: — Ebb Slack Flood Slack — 25 VIDEO TAKEN: Y (N) TAPE#:

9 STAT AREA: 232-21 — 20 USCG QUAD: — Start: End:

10 LAT: 59°23'06"N — 11 LONG: 150° 38'04" W — 26 SAMPLES TAKEN? Y (N) Number

12 SOURCE: Map (Loran) — Oil

13 LOCATION: AFS=232-21-10240 -10230, Nuka Is, NE Cove — Sediment

14 DESCRIPTION: North Corner Head of Bay & NE portion — Biological

EXTENT OF OIL — Water

	SHORELINE L	W	M²	%	STREAM L	W	M²	%
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 30 Boulder 10 Cobble 30 Gravel 30 Sand Mud/silt

36 CATALOGED ANAD. FISH SREAM? (Y) N

37 CATALOG #: 232-21-10230 -10240

38 STREAM NAME: NE Cove Nuka Island

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: Mouth & NE Shore

43 ANADROMOUS FISH PRESENT? Y (N)

44 ANADROMOUS FISH OBSERVATION

Species	Aerial	Ground

ACE 9962020

ACE 1955521

COMMENTS: ENSCO Atlas left ~~230~~ NK-1 this morning. A crew of one Vec Supervisor, One Exxon Supervisor and 9 workers worked on this segment on 4/28, 4/29, 5/2 and 5/3/90. Roger, Jeff and I surveyed the stream mouth/flats area and the Adjacent Oiled North Shore (Rock Face, ADF&G photo transect Area) Prior to cleanup oil existed primarily as tar/Asphalt

46 PHOTOLOG

FRAME(S)	DESCRIPTION

46 OIL DISTRIBUTION DIAGRAM

patties - A hard dry outer crust. Now, after hand pickup activities, ~~th~~ soft gelatinous oil exists on the surface. Oil sheen is present on pooled water & sheen is running down the beach.

see - ~~Attatched~~ map

More work definitely can be done here - if is needed -

Oil removal not bioremed

upon arrival at ~~PD~~ PD-2 today Roger MacCampbell, Steve ~~&~~ Fergeson (ADEC) and ~~myself~~ John Czarnecki (Exxon) and myself discussed NKA situation - Czarnecki was not clear on how much oil to remove - he would just assume pick up till hardly any was visible.

ACE 9962021

John Czarnecki - Exxon Supervisor

= Sample taken
= Photo frame # and shot direction.

ACE 1955522

NE Cove NUKA - Post manual work crew operation
1ST cleanup in the Homer zone of the season

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

10/7/91

3 DATE: 5/3/90
4 START TIME: 1303
5 STOP TIME: 1403
6 SEGMENT #: NK-1
7 STATION #:
8 K-UNIT:
9 STAT AREA:
10 LAT: 59 23 33
11 LONG: 150 37 35
12 SOURCE: Map Loran
13 LOCATION: KP, OC, NUKA Island, Northeast Cove
14 DESCRIPTION:

15 HIGH TIDE TIMES: 0952 / 2251
16 HIGH TIDE HTS: 9.9 / 10.9
17 LOW TIDE TIMES: 0337 / 1602
18 LOW TIDE HTS: 4.2 / 1.9
19 TIDE HT AT SURVEY:
Ebb Slack (Flood) Slack
20 USCG QUAD: Seldovia B-2

21 TEAM RECORDER: Doug Hill / ADF&G
22 OBSERVERS: Roger MacCampbell (ADNR) Jeff Johnson
23 AGENCY:
24 PHOTOS TAKEN: (Y) N
Roll #: 9000H09 Frame:
25 VIDEO TAKEN: Y (N) TAPE#:
Start: End:
26 SAMPLES TAKEN? Y (N) Number
Oil
Sediment
Biological
Water

EXTENT OF OIL

	SHORELINE L	W	M²	%	STREAM L	W	M²	%
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:

10220 Bedrock		Boulder	Cobble 40
10220 Gravel	10	Sand 25	Mud/silt 25
10240	10 —	10 —	30 —
10240	20 —	10 —	20 —

36 CATALOGED ANAD. FISH STREAM? Y N
37 CATALOG #: 232 - 21-10230-S 232 - 21-10240-N
38 STREAM NAME: NE COVE NUKA
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: NK-1+2
43 ANADROMOUS FISH PRESENT? Y N

44 ANADROMOUS FISH OBSERVATION

Species	Aerial	Ground

ACE 9962022

COMMENTS: NK-1 recieved some manual pickup of oil on 4/28, 4/29, 5/2, 5/3. A total of 19.6 94.4 62 bags of oiled sediment and oil were picked up. The EXXON Atlas left this morning for PO-02. This beach (NK-1) looks worse now than before it was cleaned. The potential for wildlife to become oiled is greater now than it was prior to the area's being worked. And, supposedly this area was cleaned early because of seabird constraints (colony). Whoever labelled this area under the seabird colony category acted erroneously. However, it makes little

45 PHOTOLOG

FRAME(S)	DESCRIPTION
1 & 2	Crew worked near Seamon Stream, Some light oil still remains 10yd. from str
3 + 4 & 7	PARK Ranger removing well oiled sediment left by EXXon Crew
5, 6, 9,	Common Sight - Globules of oil on pool of H_2O, potential for oiling animals is greater now
8	than prior to clean up by EXXON crew, Not uncommon to find these, mousse in photo
10, 13, 15	sheen / oiled tissue, Rainbow sheen
11, 12, 16	Much oil remains after crew has departed. Shiney = oil saturated sediment below cobble
14	More sheen after completion of manual pickup - die in mat to ½ headed attempt
17	Brown mousse globules thoroughly over surface of pool - not even warm/sunny today

46 OIL DISTRIBUTION DIAGRAM

sense to me to leave the area with so much sheen and mousse on the surface where its accessible to "critters" - when the project is given priority due to returning seabirds. ???

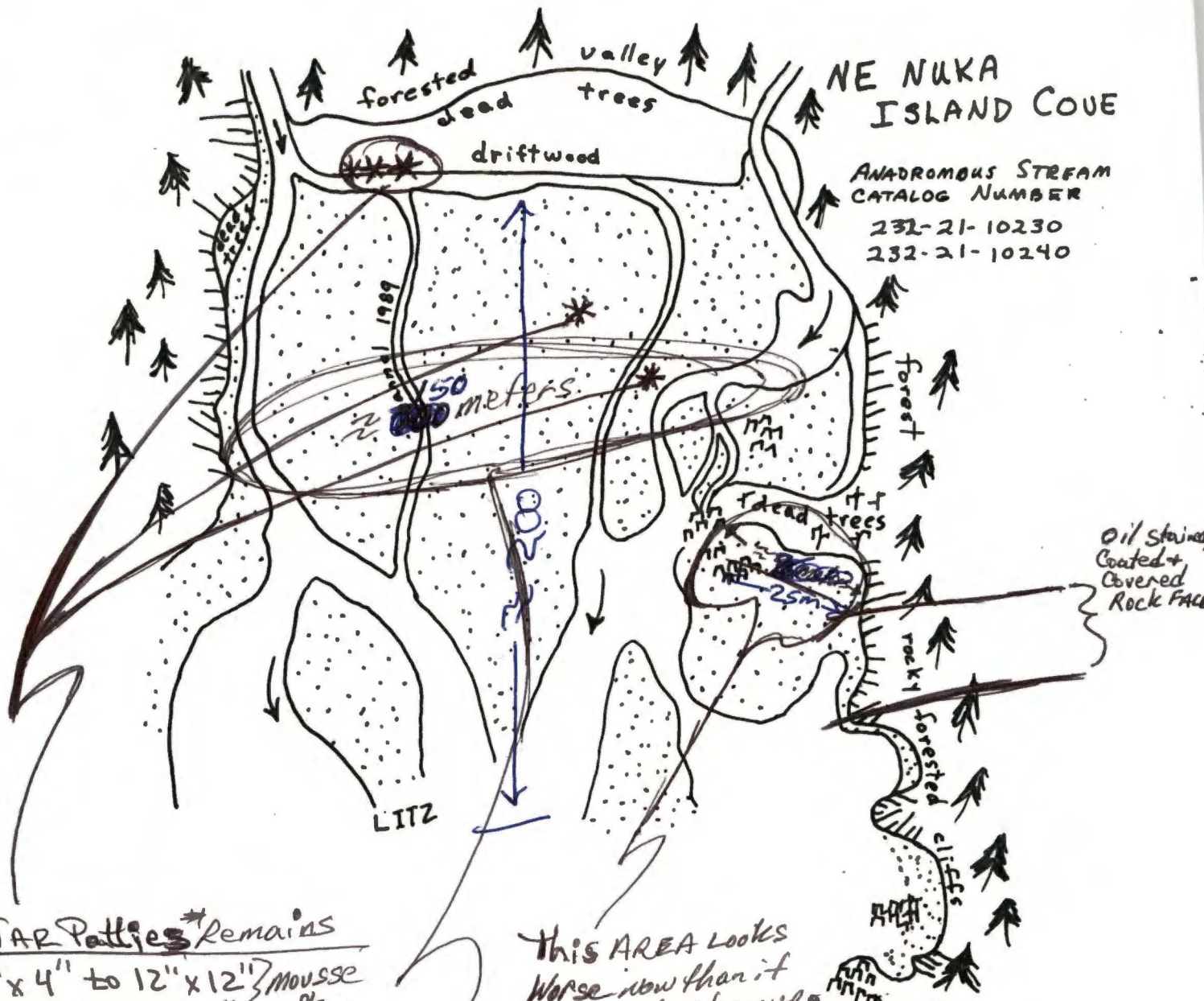
The crew obviously spent time gingerly scraping the surface (as in 1989) so as to pick up as little debris as possible. Why bother even messing with the stuff if they are not going to try or even think about what they are doing & why. What was there was easy to pick up. The more they scrape it around & mix it with the sediment the harder it is to recover. I guess thats the ploy here. Scuff the oil up so its harder to recover. However the sediment is still saturated and sheen, oil globules & mousse are still present, being released on the surface.

Either pick the oil up or leave it alone in cases like this.

More work obviously needs to be done here. The Kachemak Bay Wilderness Park Rangers Johson & MacLampbell are disgusted with the quality of the work done here and feel more needs to be done.

= Sample taken
= Photo frame # and shot direction.

ACE 9962023



"TAR Patties" Remains
≈4" x 4" to 12" x 12" } mousse & sheen
< 1½" depth

This AREA Looks Worse now than it did prior to cleanup.
- Flowing mousse and sheen present + moving to deeper depth and lower elevations on beach. Heavy sheen on pools + running down beach.

ACE 9962024

Numerous areas of readily removable mousse - perhaps 1 patch per 5'.

* A more hazardous situation for birds + mammals has been created - oil would ~~be~~ easily coat feathers + fur

ACE 1955525

: M/V EXXON ATLAS

ADEC DAILY SHORELINE ASSESSMENT

LOCATION: NUKA ISLAND SEG NK-1 SUBSEG A
MONITOR(S): STEPHEN FERGUSON
DATE: 5/3/90 TIME: BEGIN 0700 END 1030

TIDES:	TIME:	HEIGHT:
LOW	0328	+4.2
HIGH	0937	+9.0
LOW	1553	+1.9
HIGH	2236	+10.0

WEATHER: (CLOUDY) (RAIN) FOG SUN
TEMP: ___ SEA COND: ___
WIND DIR: N-NE-E-(SE)-S-SW-W-NW
WIND SPEED (KNOTS): (0-15) 16-30 30+

ENVIRONMENTAL CONSTRAINTS: (SEAL HAULOUTS, EAGLE NESTS, MUSSEL BEDS, ETC.) SEABIRD COLONY (5/1 → 9/1) / ACTIVE BALD EAGLE NEST (3/1 → 6/1) / ALASKA STATE PARK /

?? ECOLOGICAL CONSTRAINT: → AVOID DISTURBANCE/DAMAGE TO UNOILED SUBSTRATE + BIOTA

WAVE EXPOSURE: LOW MED (HIGH)
ACROSS SHORE ZONE: SU (UITZ) (MITZ) LITZ

SURFACE SEDIMENTS: R 5 % B 5 % C 35 % P 30 % G 20 % S 5 %
SUBSURFACE SEDIMENTS: R ___ % B ___ % C ___ % P ___ % G ___ % S ___ %

OIL CHARACTERISTICS (PADDIES)

SURFACE: POOLED - MOUSSE - (TARBALL) - (COVER) - COAT - STAIN
SUBSURFACE: OP - OR - OF

TREATMENT TECHNIQUES

REMOVED:
MANUAL RAKING/TILLING
MANUAL REMOVAL: PO-MS-AP-TB
SPOT WASHING
OTHER ___

HEADER FLOOD (HOT/COLD)
BIOREMEDIATION ___
MECHANICAL ___

EQUIPMENT USED: SHOVELS
NAMES OF REPS & OTHER AGENCIES: EXXON JOHN CZARTUSKI
USCG HUBBARD RANDOLPH OTHER: ___
WORKERS ON SITE: ORTS 9 OTHER: ___

WASTE HANDLING/DISPOSAL

ITEMS USED TO ABSORB/CONTAIN OIL POLY / BAGS
OF BAGS COLLECTED:
OILED DEBRIS ___ OIL & SEDIMENTS ___ OILED VEG. ___
OILED LOGS PRESENT: Y (N) # OF LOGS REMOVED ___

4/28 → 19 BAGS 5/2 → 94 BAGS
4/29 → 62 BAGS 5/3 → 62 BAGS

4/20/90

ACE 9962025

ACE 1955523

PHOTO/VIDEO DOCUMENTATION

PHOTOGRAPHS: ROLL # — **FRAME(S):** — **REASON:** —

VIDEO: TAPE # — **REASON:** —

COMMENTS

PROBLEMS: ENFORCEMENT ACTIVITIES, UPLAND CONT., ETC.
(PLEASE NOTE IF PROBLEM WAS DISCUSSED WITH PROPER AUTHORITY, AND SUBSEQUENT RESPONSE.)

NO PROBLEM WITH UPLANDS (NO WORKERS VENTURED OFF BEACH AREA) /

OBSERVATIONS: TREATMENT EFFICIENCY, POSSIBLE IMPROVEMENTS, ETC.

① ALL PAVEMENT (BROKEN) WAS REMOVED / MOUSSE PATTIES ARE STILL PRESENT "VERY" SPORADICALLY ALONG BEACH IN MIT2 & MIT2

② IN PICKING UP MOUSSE PATTIES → NOT ABLE TO GET ALL OIL OFF OF MEDIUM SIZE COBBLE (SEAMS & CRACKS OF ROCKFACE THAT WERE OILED LOCATED ON COBBLE) → AS TIDE CAME IN SHEENS & FILMS RANGING FOR THE MOST PART → SILVER & RAINBOW IN COLOR (OBSERVED A COUPLE OF BROWNISH COLORED SHEENS / AFTER PICKING UP MOUSSE PADDIES (A LIGHT FILM → LENS) LEFT → CAUSING SLIGHT SHEENING.

SIGNATURE _____

ACE 9962026

ACE 1955524

IV ENSCO ATLAS

ADEC DAILY SHORELINE ASSESSMENT

LOCATION: NUKA ISLAND SEG NK-1 SUBSEG A
MONITOR(S): STEPHEN FERGUSON
DATE: 5/3/90 TIME: BEGIN 0700 END 1030

TIDES:	TIME:	HEIGHT:
LOW	0328	+4.2
HIGH	0937	+9.0
LOW	1553	+1.9
HIGH	2236	+10.0

WEATHER: CLOUDY (RAIN) FOG SUN
TEMP: ___ SEA COND: ___
WIND DIR: N-NE-E-(SE)-S-SW-W-NW
WIND SPEED (KNOTS): (0-15) 16-30 30+

ENVIRONMENTAL CONSTRAINTS: (SEAL HAULOUTS, EAGLE NESTS, MUSSEL BEDS, ETC.) SEABIRD COLONY (5/1 → 9/1) / ACTIVE BALD EAGLE NEST (3/1 → 6/1) / ALASKA STATE PARK /
?? ECOLOGICAL CONSTRAINT: → AVOID DISTURBANCE/DAMAGE TO UNOILED SUBSTRATE + BIOTA

WAVE EXPOSURE: LOW MED ~~HIGH~~
ACROSS SHORE ZONE: SU (UITZ) (MITZ) LITZ

SURFACE SEDIMENTS: R 5 % B 5 % C 35 % P 30 % G 20 % S 5 %
SUBSURFACE SEDIMENTS: R___% B___% C___% P___% G___% S___%

OIL CHARACTERISTICS

SURFACE: POOLED - MOUSSE - (PADDIES) (TARBALL) (COVER) - COAT - STAIN
SUBSURFACE: OP - OR - OF

TREATMENT TECHNIQUES

REMOVED:
MANUAL RAKING/TILLING
MANUAL REMOVAL: PO-MS-AP-TB
SPOT WASHING
OTHER

HEADER FLOOD (HOT/COLD)
BIOREMEDIATION
MECHANICAL

EQUIPMENT USED: SHOVELS
NAMES OF REPS & OTHER AGENCIES: EXXON JOHN CZARTUSKI
USCG HUBBARD RANDOLPH OTHER:
WORKERS ON SITE: ORTS 9 OTHER:

WASTE HANDLING/DISPOSAL

ITEMS USED TO ABSORB/CONTAIN OIL Poly / BAGS
OF BAGS COLLECTED:
OILED DEBRIS___ OIL & SEDIMENTS___ OILED VEG.___
OILED LOGS PRESENT: Y (N) # OF LOGS REMOVED___

4/28 → 19 BAGS 5/2 → 94 BAGS
4/29 → 62 BAGS 5/3 → 62 BAGS

4/20/90

ACE 1955539

PHOTO/VIDEO DOCUMENTATION

PHOTOGRAPHS: ROLL #— FRAME(S):— REASON:—

VIDEO: TAPE #— REASON:—

COMMENTS

PROBLEMS: ENFORCEMENT ACTIVITIES, UPLAND CONT., ETC.
(PLEASE NOTE IF PROBLEM WAS DISCUSSED WITH PROPER AUTHORITY, AND SUBSEQUENT RESPONSE.)

NO PROBLEM WITH UPLANDS (NO WORKERS VENTURED OFF BEACH AREA)

OBSERVATIONS: TREATMENT EFFICIENCY, POSSIBLE IMPROVEMENTS, ETC.

① ALL PAVEMENT (BROKEN) HAS REMOVED / MOOSSE PATTIES ARE STILL PRESENT "VERY" SPORADICALLY ALONG BEACH IN HIT2 + MIT2

② IN PICKING UP MOOSSE PATTIES → NOT ABLE TO GET ALL OIL OFF OF MEDIUM SIZE ROCKS + SEAMS + CRACKS OF ROCKFACE THAT WERE OILED LOCATED ON ROCKS) → AS TIDE CAME IN SHEENS + FILMS RANGING FOR THE MOST PART → SILVER + RAINBOW IN COLOR (OCCASIONAL A COUPLE OF PEACOCK COLORED SHEENS / AFTER PICKING UP MOOSSE PADDIES (A LIGHT FILM → LEDS) LEFT → CAUSING SLIGHT SHEENING.

SIGNATURE Stephen Jurgens

ACE 1955540

CH MAP

OG [illegible]

SEGMENT ST/ NK-1

SUBDIVISION A

DATE 4 / 7 / 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

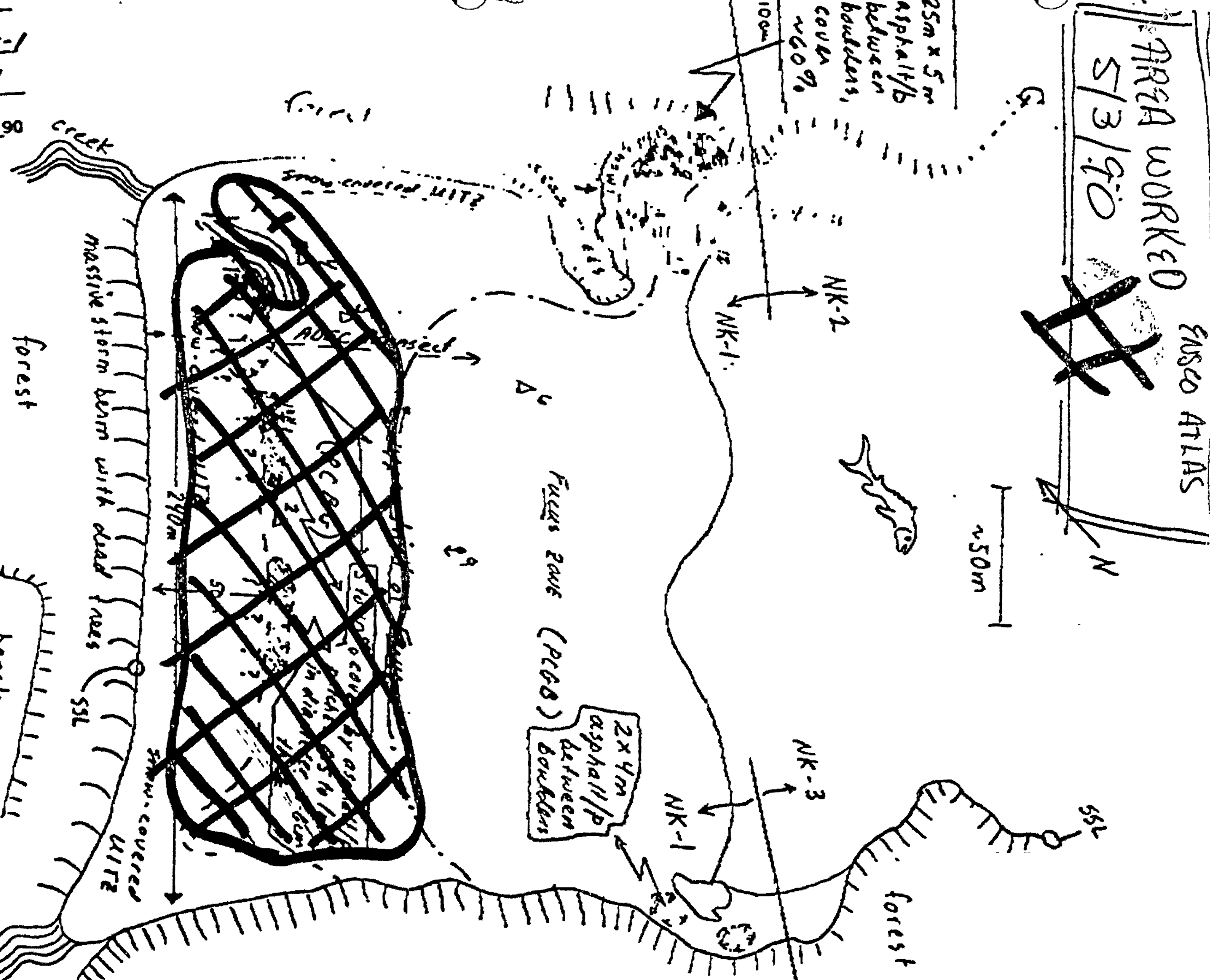
CT/B Broken Distribution

CT/P Patchy Distribution

CT/S Splashed Distribution

Oiled Vegetation

1 ●→ Photo location, direction, and number



Oil Character Length (m): AP 100 PO 0 CV 0 CT 0 ST 0 MS 0 PT 100 TB 0 FL 0 NO 600

ADEC DEMOBILIZATION REPORT
FOR PHYSICAL/MECHCANICAL TREATMENT AND CUSTOMBLEN

To: Alaska Department of Environmental Conservation
Oil Spill Response Center
Anchorage, Alaska
Attn: John Bauer
FAX 265-4666, 265-4656

RE: SEGMENT NUMBER NK-01 SUBSEGMENT NUMBER A

5/3/90

DEC REP STEPHEN FERGUSON USCG REP RANDOLPH HUBBARD

EXXON REP JON CZARENSKI BOAT NAME/SQUAD NUMBER ENSCO ATLAS/4

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 / ALL OF MOST PAVEMENT + PATTIES WERE REMOVED

Is there additional oil remaining which can be removed with further physical/mechanical treatment? If yes what is the recommended treatment method.
MAYBE AT LATER DATE RESIDUAL OIL MAY CAUSE A FEW MORE PATTIES OR A BIT OF PAVEMENT / IN AREA SHOW ON ACCOMPPYING MAP / WITH SUMMER WARM-UP THIS WOULD BE AN AREA TO CHECK

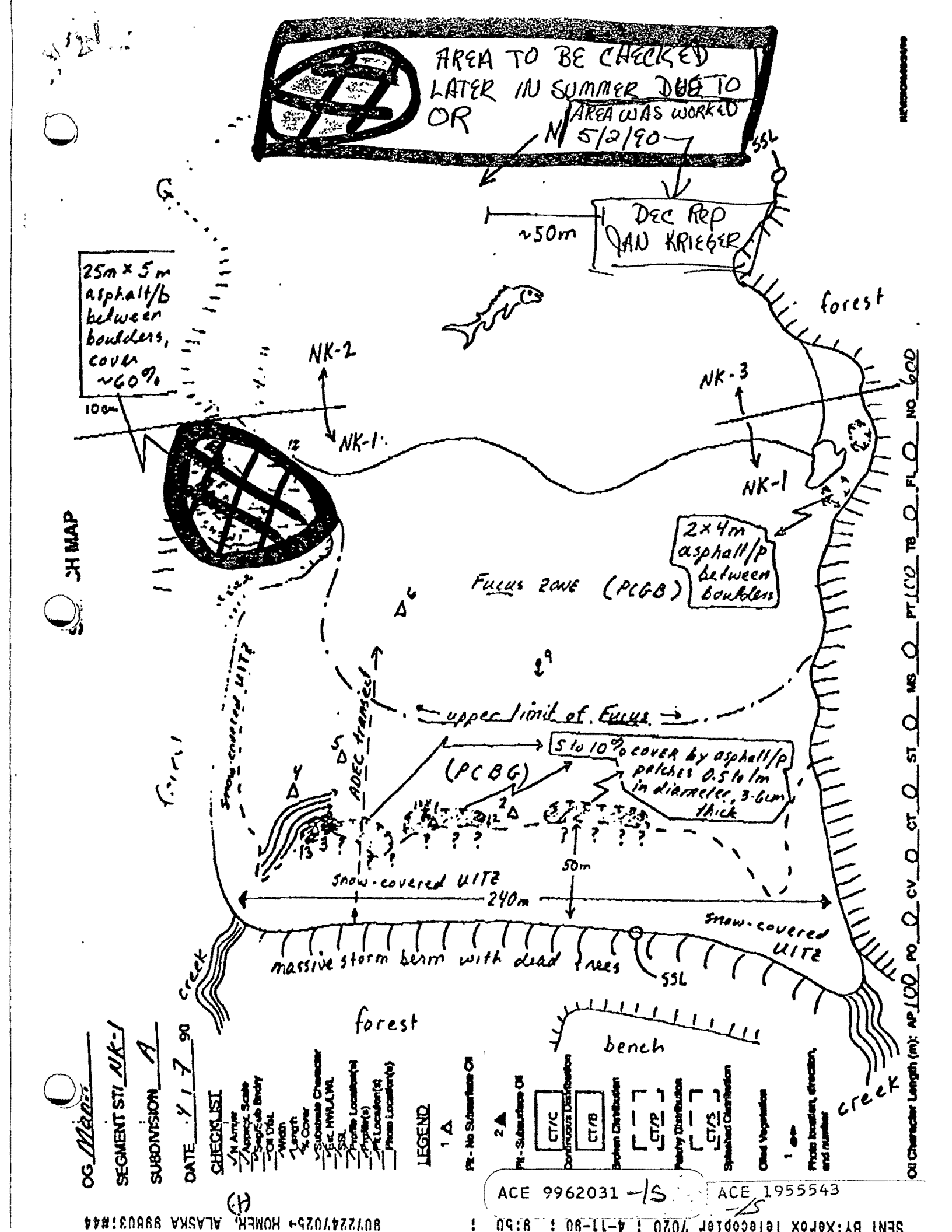
Describe the ~~amount~~ TYPE of oil remaining (type, size of area and location).
OR / AMOUNT VARIES / ASPHALT (PAVEMENT WAS FOUND IN INTERSTICES (ON MAP SHOWS AREA TALKED ABOUT) SUMMER WARM UP MAY BRING SOME OF THIS PATTIE - PAVEMENT LIKE OILING BACK DUE TO OR (RESIDUAL OIL)

Additional Comments (keep objective)
WAS APPEARANCE WISE READY FOR DEMOB AT THIS TIME / Also All work mentioned on work order was Also completed But + RECOMMEND ANOTHER LOOK BEFORE FINAL DEMOB (RECOMMEND CHECKING THIS AREA END OF JUNE → 1st PART OF July)

signature Stephen Ferguson
Date and time of demobilization from segment _____
Shoremon\55 5-12-90

ACE 9962030 +/S

ACE 1955542 +/S



ACE 9962031 -15

ACE 1955543

15

SENT BY:Xerox Telecopier 7020 ; 4-11-90 ; 8:50 ; 8072247025→ HOMER, ALASKA 99603;#44

ADF&G MULTI-ASSESSMENT FORM
1991 GENERAL ENTRY CHECKLIST

DNR 10/7/91

STREAM#: 2322110230
SEGMENT: NK001

OK

DATE PRINTED: 08/14/91

LOCATION: NUKA ISLAND, NORTHEAST COVE, SOUTH CREEK

SURVEY TYPE: 90 - BS/SS

METHOD: ~~GROUND~~ FOOT

DATE: 06/01/90

TEAM RECORDER: HILL

START TIME: 1243
END TIME: 1415

OBSERVERS: GLENN

TIDES: EBB

AGENCY: FG

OG/HAB DISCREPANCIES:

PHOTOS TAKEN: N

STATION: 2322110230

ROLL#:
FRAME:

VIDEO TAKEN: N TAPE#:
START: END:

SAMPLES TAKEN: N

SAMPLE NUMBERS:

OIL IN STREAM BED: N

OVERALL OIL IMPACT: L

OIL ON BEACH BY MOUTH: Y

WAVE EXPOSURE: MOD

SHORELINE TYPE: BEACH

SUBSTRATE TYPE: BEDROCK BOULDER COBBLE 40 VEGETAT 0

GRAVEL 10 SAND 25 MUD/SILT 25 GRANULE 0

ANADROMOUS FISH PRESENT:

SPECIES: COUNT:

ACE 9962032 +B

ADF&G MULTI-ASSESSMENT FORM
1991 OILING ENTRY CHECKLIST

DATE PRINTED: 08/14/91

STREAM# : 2322110230
SEGMENT#: NK001

SURVEY TYPE : 90 - BS
DATE: 06/01/90
TIMES: 1243 - 1415

LOCATION: NUKA ISLAND, NORTHEAST COVE, SOUTH CREEK
TEAM RECORDER: HILL

-- OILING EXTENT --

SITE#	SITE TYPE	DEPTH (cm)	LENGTH (m)	WIDTH (m)	AREA (m)	%	THICK (cm)	PEN (cm)	OIL TYPE CODES
1									MS TP AP ST

COMMENTS:
SURVEYED THE NE PORTION OF NK-1 AND THE ENTIRE LENGTH OF NK-2. NK-1 IS THE ANAD SEGMENT AND ALL OF NK-2 IS WITHIN ¼ MILE OF THE ANADROMOUS STREAMS. NK-1A - NORTH END OF BEACH BELOW ROCK FACE: OIL BLACKENED SURFACE AND LIGHT BROWN AND OOZING OIL BENEATH ROCKS. SHINEY LOW VISCOSITY OIL BLEEDING FROM BELOW ROCKS. ROCK FACE: OILY BATHTUB RING ON FACE. APPROX 4-5' WIDE BAND OF CV, CT, ST WITH NUMEROUS SPRUCE NEEDLES. FLATS BETWEEN ANADROMOUS STREAMS: MOUSSE/TAR PATTIES IN FLATS - OIL FOUND PENETRATING TO 3" DEPTH. NK-2 - WALKED ENTIRE SEGMENT. OBSERVED RECOVERABLE OIL (TAR PATTIES, SOR, MOR). NUMEROUS TAR PATTIES AND HOR, LOR AND SOR FOUND IN VICINITY OF BEACH WHICH WAS PRESSURE WASHED IN 1989. FURTHER WORK IS WARRANTED IN THIS SEGMENT.

ADF&G MULTI-ASSESSMENT FORM
1991 GENERAL ENTRY CHECKLIST

STREAM#: 2322110240
SEGMENT: NK001

PAGE 15 DATE PRINTED: 08/14/91

LOCATION: NUKA ISLAND, NORTHEAST COVE, NORTH CREEK

SURVEY TYPE: 90 - BS /CS METHOD: ~~GROUND~~ FOOT

DATE: 06/01/90 TEAM RECORDER: HILL

START TIME: 1243 OBSERVERS: GLENN
END TIME: 1415

TIDES: E66 AGENCY: FG
OG/HAB DISCREPANCIES:

PHOTOS TAKEN: N

STATION: 2322110240 ROLL#:
FRAME:

VIDEO TAKEN: N TAPE#:
START: END:

SAMPLES TAKEN: N

SAMPLE NUMBERS:

OIL IN STREAM BED: N

OVERALL OIL IMPACT: L OIL ON BEACH BY MOUTH: Y

WAVE EXPOSURE: MOD SHORELINE TYPE: BEACH

SUBSTRATE TYPE: BEDROCK ~~40~~ 10 BOULDER ~~40~~ 10 COBBLE 30 VEGETAT

GRAVEL ~~30~~ 20 SAND 10 MUD/SILT 20 GRANULE

ANADROMOUS FISH PRESENT:

SPECIES: COUNT:

ACE 9962034 +1S/SG

ADF&G MULTI-ASSESSMENT FORM
1991 OILING ENTRY CHECKLIST

PAGE 20 DATE PRINTED: 08/14/91

STREAM# : 2322110240
SEGMENT#: NK001

SURVEY TYPE : 90 - BS/ES
DATE: 06/01/90
TIMES: 1243 - 1415

LOCATION: NUKA ISLAND, NORTHEAST COVE, NORTH CREEK
TEAM RECORDER: HILL

-- OILING EXTENT --

SITE#	SITE TYPE	DEPTH (cm)	LENGTH (m)	WIDTH (m)	AREA (m)	%	THICK (cm)	PEN (cm)	OIL TYPE CODES
1									MS TP AP ST

COMMENTS:
SURVEYED THE NE PORTION OF NK-1 AND THE ENTIRE LENGTH OF NK-2. NK-1 IS AN ANAD SEGMENT AND ALL OF NK-2 IS WITHIN ¼ MILE OF THE ANADROMOUS STREAMS. NK-1A - NORTH END OF BEACH BELOW ROCK FACE: OIL BLACKENED SURFACE AND LIGHT BROWN AND OOZING OIL BENEATH ROCKS. SHINEY LOW VISCOSITY OIL BLEEDING FROM BELOW ROCKS. ROCK FACE: OILY BATHTUB RING ON FACE. APPROX 4-5' WODE BAND OF CV, CT, ST WITH NUMEROUS SPRUCE NEEDLES. FLATS BETWEEN ANADROMOUS STREAMS: MOUSSE/TAR PATTIES IN FLATS, OIL FOUND PENETRATING TO 3" DEPTH. NK-2 - WALKED ENTIRE SEGMENT. OBSERVED RECOVERABLE OIL (TAR PATTIES, SOR, MOR). NUMEROUS TAR PATTIES AND HOR, LOR AND SOR FOUND IN VICINITY OF BEACH WHICH WAS PRESSURE WASHED IN 1989. FURTHER WORK IS WARRANTED IN THIS SEGMENT.

ADF&G MULTI-ASSESSMENT FORM
1991 GENERAL ENTRY CHECKLIST

STREAM#: 2322110240
SEGMENT: NK001

DRAFT 10/7/91

 DATE PRINTED: 08/14/91

LOCATION: NUKA ISLAND, NORTHEAST COVE, NORTH CREEK

SURVEY TYPE: 90 - BS /CSS METHOD: ~~GROUND~~ FOOT

DATE: 06/01/90 TEAM RECORDER: HILL

START TIME: 1243 OBSERVERS: GLENN
END TIME: 1415

TIDES: E66 AGENCY: FG
OG/HAB DISCREPANCIES:

PHOTOS TAKEN: N

STATION: 2322110240 ROLL#:
FRAME:

VIDEO TAKEN: N TAPE#:
START: END:

SAMPLES TAKEN: N

SAMPLE NUMBERS:

OIL IN STREAM BED: N

OVERALL OIL IMPACT: L OIL ON BEACH BY MOUTH: Y

WAVE EXPOSURE: MOD SHORELINE TYPE: BEACH

SUBSTRATE TYPE: BEDROCK ~~10~~ 10 BOULDER ~~10~~ 10 COBBLE 30 VEGETAT

GRAVEL ~~30~~ 20 SAND 10 MUD/SILT 20 GRANULE

ANADROMOUS FISH PRESENT:

SPECIES: COUNT:

ACE 9962034 +1S/SG

ADF&G MULTI-ASSESSMENT FORM
1991 OILING ENTRY CHECKLIST

DATE PRINTED: 08/14/91

STREAM# : 2322110240
SEGMENT#: NK001

SURVEY TYPE : 90 - BS/CS
DATE: 06/01/90
TIMES: 1243 - 1415

LOCATION: NUKA ISLAND, NORTHEAST COVE, NORTH CREEK
TEAM RECORDER: HILL

-- OILING EXTENT --

SITE#	SITE TYPE	DEPTH (cm)	LENGTH (m)	WIDTH (m)	AREA (m)	%	THICK (cm)	PEN (cm)	OIL TYPE CODES
1									MS TP AP ST

COMMENTS:
SURVEYED THE NE PORTION OF NK-1 AND THE ENTIRE LENGTH OF NK-2. NK-1 IS AN ANAD SEGMENT AND ALL OF NK-2 IS WITHIN ¼ MILE OF THE ANADROMOUS STREAMS. NK-1A - NORTH END OF BEACH BELOW ROCK FACE: OIL BLACKENED SURFACE AND LIGHT BROWN AND OOZING OIL BENEATH ROCKS. SHINEY LOW VISCOSITY OIL BLEEDING FROM BELOW ROCKS. ROCK FACE: OILY BATHTUB RING ON FACE. APPROX 4-5' WODE BAND OF CV, CT, ST WITH NUMEROUS SPRUCE NEEDLES. FLATS BETWEEN ANADROMOUS STREAMS: MOUSSE/TAR PATTIES IN FLATS, OIL FOUND PENETRATING TO 3" DEPTH. NK-2 - WALKED ENTIRE SEGMENT. OBSERVED RECOVERABLE OIL (TAR PATTIES, SOR, MOR). NUMEROUS TAR PATTIES AND HOR, LOR AND SOR FOUND IN VICINITY OF BEACH WHICH WAS PRESSURE WASHED IN 1989. FURTHER WORK IS WARRANTED IN THIS SEGMENT.

2 forms NK001 / NK002

NE Cove Nuka Island NK-1 + NK-2

ADF&G MULTI-ASSESSMENT DATA FORM

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

METHOD: Aerial (Ground) Boat

3 DATE: 6/1/90 16 HIGH TIDE TIMES: 0916 / 2157 21 TEAM RECORDER: Doug Hill

4 START TIME: 1243 16 HIGH TIDE HTS: 9.0 / 11.0 22 OBSERVERS: Lee Glenn

5 STOP TIME: 1415 17 LOW TIDE TIMES: 0303 / 1403 23 AGENCY: ADF&G

6 SEGMENT #: ~~NK-1 + NK-2~~ 18 LOW TIDE HTS: 3.3 / 12.2 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: Seldovia B-2 Start: _____ End: _____

10 LAT: 59 23 33 / 59 23 32 11 LONG: 150 37 35 ⇒#10230 / 150 37 46 ⇒#10240 26 SAMPLES TAKEN? Y (N) Number

12 SOURCE: Map Loran Oil _____

13 LOCATION: Nuka Island, North East Cove, North Shore Sediment _____

14 DESCRIPTION: _____ Biological _____

Water _____

EXTENT OF OIL

	SHORELINE L	W	M²	%	STREAM L	W	M²	%
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) MS TI AS ST SOR

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 30 Boulder 10 Cobble 30 Gravel 30 Sand _____ Mud/silt _____

36 CATALOGED ANAD. FISH STREAM? (Y) N

37 CATALOG #: 232-21-10230, 232-21-10240 both in NK&B

38 STREAM NAME: _____

39 OIL IN STREAM BED? Y (N) Near end of NK002

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: NK-2 + Tide flats

Which stream?

43 ANADROMOUS FISH PRESENT? Y N BOTH NOW

44 ANADROMOUS FISH OBSERVATION

Species	Aerial	Ground

COMMENTS: Surveyed the NE portion of NK-1 and the entire length of NK-2. NK-1 is the ANAD Segment and all of NK-2 is within 1/4 mile of the Anadromous Streams.

ACE 9962036 +/S

Comments Cont'd on attached field notes → Yellow lined text

Cont'd →

NK-1A

North end of beach - below rock face:

Oil blackened surface and light brown & oozing oil beneath rocks. Shiney low viscosity oil bleeding ~~and brown mousse~~ from below rocks.

Rock face: Oily bathtub ring on face. ≈ 4-5' wide band of crust with numerous spruce needles.

Flats between anadromous streams:

Mousse/tar patties in flats - oil found penetrating to 3" depth.

NK-2

Walked ~~to east~~ entire segment. Observed ~~numerous~~ [redacted] recoverable oil (tar patties, SOR ≥ MOR). Numerous tar patties and HOR > LOR & SOR found in vicinity of beach which was pressure washed in 1989.

Further work is warranted in this segment.

site inspections and issue treatment authorizations as necessary.

Thank you for your attention in this matter. If you have any questions, please contact Mark Kuwada at 267-2287.

Sincerely,

Lance L. Trasky
Regional Supervisor
Region II
Habitat Division

cc: O. Harrison, Exxon
R. Bayliss, DEC
F. Rue
M. Kuwada
L. Glenn
J. Morrison
K. Middleton
R. Hensel

6/1/90

hi — Low

0916 2157 0303 1403

9.0 11.0 3.3 2.2

*

1243 — Arrv. NE Cove Nuka Island

Nk-1 => North end of beach/Rock face. Oil blackened on surface, light brown & oozing below rock. Shiney low viscosity rock bleeding & brown mousse below rocks.

We walked to East end of Nk-2. Observed recoverable oil patties/tar along the way. More work definitely needs to be carried out here.

Observed numerous mousse/tar deposits in flats between the mouths of both salmon streams — oil is a potential threat to streams.

~~1424 => Depart Nk-1~~

DN No Eagle Nest or seabird Colony in near vicinity

6/1/90 NK001

of areas needing work.

Found oil penetration to 5" in flats between streams.

Much oil beneath cobbles (saturated sediment).

— oily bathtub ring exists from east end of Nk-1 to east end of Nk-2 — oil stain and film with spruce needles plastered found along length of these segments. Tar patties and asphalt patties found to beach when flooding & press washing occurred last year.

BOTH

*1415 — Depart Nk-1

1432 — Petrof Point. Observed about 40 gallons of brown mousse in stream? on North end of beach — mousse covered with sand.

Observed tar balls (sand cemented w/oil) for 300 yds down length of beach — from UITZ to Surf. Balls are observed in water also — being covered & removed by wave action — 100s of oil balls.

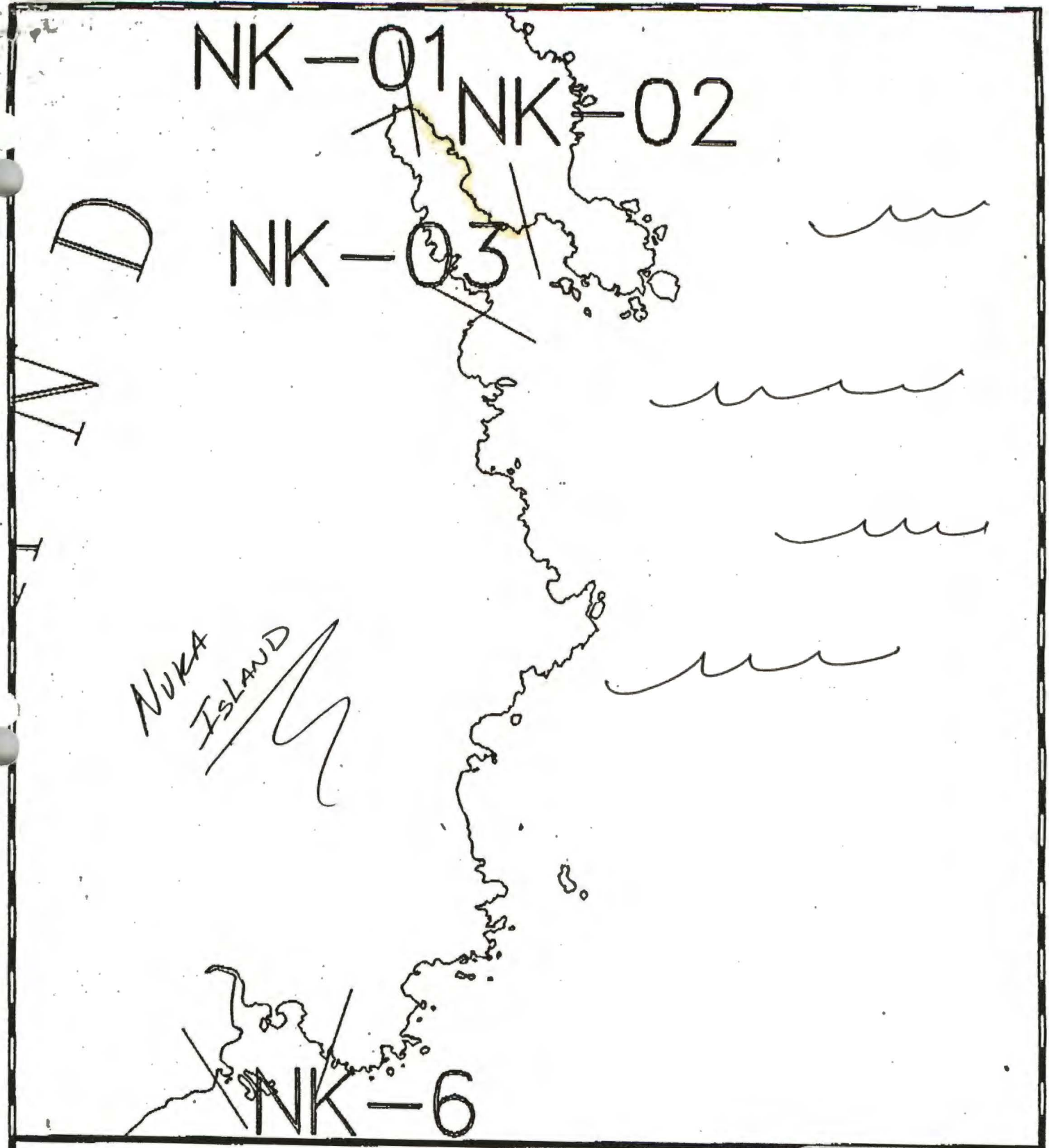
~~1545~~ 1510 — Depart Petrof Point

1615 — Gore Point ~~Sea Lion haulout~~

observed ≈ 40 individuals on one rock

7 bulls on another rock

DN 1645 — Arrv. Homer.



ACE 9962040 -15/36

EXXON COMPANY, USA

0 1 2

1 inch = 2296 feet

May 21, 1990

Aml used:
/chugach1/morris/super2/ops.aml

* Both ANAD & Non ANAD segments
NE Cove Nuka Island
NK-1 + NK-2

DONE 10/7/91

ADF&G MULTI-ASSESSMENT DATA FORM

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

METHOD: Aerial (Ground) Boat

3 DATE: 6/1/90 — 15 HIGH TIDE TIMES: 0916 / 2157 — 21 TEAM RECORDER: Doug Hill

4 START TIME: 1243 — 16 HIGH TIDE HTS: 9.0 / 11.0 — 22 OBSERVERS: Lee Glenn

5 STOP TIME: 1415 — 17 LOW TIDE TIMES: 0303 / 1403 — 23 AGENCY: ADF&G

6 SEGMENT #: NK-1 + NK-2 — 18 LOW TIDE HTS: 3.3 / 2.2 — 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: Seldovia B-2 — Start: End:

10 LAT: 59 23 33 / 59 23 32 — 11 LONG: 150 37 35 → #10230 / 150 37 46 → #10240 — 26 SAMPLES TAKEN? Y (N) Number

12 SOURCE: Map Loran — Oil

13 LOCATION: Nuka Island, North East Cove, North Shore — Sediment

14 DESCRIPTION: — Biological

Water

EXTENT OF OIL

	Shoreline L	W	M²	%	Stream L	W	M²	%
27 SURFACE COVERAGE								
28 SURFACE THICKNESS								
29 PENETRATION								

36 CATALOGED ANAD. FISH SREAM? (Y) N

37 CATALOG #: 232-21-10230 / 232-21-10240

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: NK-2 + Tide flats

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

43 ANADROMOUS FISH PRESENT? Y N

34 WAVE EXPOSURE: High (Moderate) Low

44 ANADROMOUS FISH OBSERVATION

Species	Aerial	Ground

35 SUBSTRATE TYPE: 10240 { Bedrock 10 ~~10~~ Boulder 10 ~~10~~ Cobble 30 ~~20~~ Gravel 20 ~~10~~ Sand 10 Mud/silt 20

10230: 10, 25, 40 / 25

COMMENTS: Surveyed the NE portion of NK-1 and the entire length of NK-2. NK-1 is the ANAD Segment and all of NK-2 is within 1/4 mile of the Anadromous streams.

Comments Cont'd on attached field notes → yellow lined text

ACE 9962041 +6

45 PHOTOLOG

FRAME(S)	DESCRIPTION

46 OIL DISTRIBUTION DIAGRAM

= Sample taken
= Photo frame # and shot direction.

ACE 9962042

6/1/90

	Hi		Low	
0916	2157	0303	1403	
9.0	16.0	3	2	

1243 – Arrv. NE Cove Nuka Island

Nk-1 => North end of beach/rock face. Oil bleached on surface. Light brown & oozing below rock. Shiney. Low viscosity rock bleeding & brown mousse below rocks.

We walked to East end of Nk-2. Observed recoverable oil patties/tar along the way. More work definitely needs to be carried out here.

Observed numerous mousse/tar deposits in flats between the mouths of both salmon streams. Oil is a potential threat to streams.

1424 => Depart Nk-1

DNA No Eagle Nest or seabird Colony in near vicinity

6/1/90

of area needing work.

Found oil penetration to 5" in flats between streams.

Much oil beneath cobbles/saturated sediment.

Oily bathtubring exists from east end of Nk-1 to east end of Nk-2 – oil stain and film with spruce needles plastered. Found along length of these segments / tar patties and asphalt patties. Tend to beach where flooding & press washing occurred last year.

1415 – Depart Nk-1

1432 – Petrof Point. Observed about 40 gallons of brown mousse in stream ON North end of beach – mousse Covered with sand.

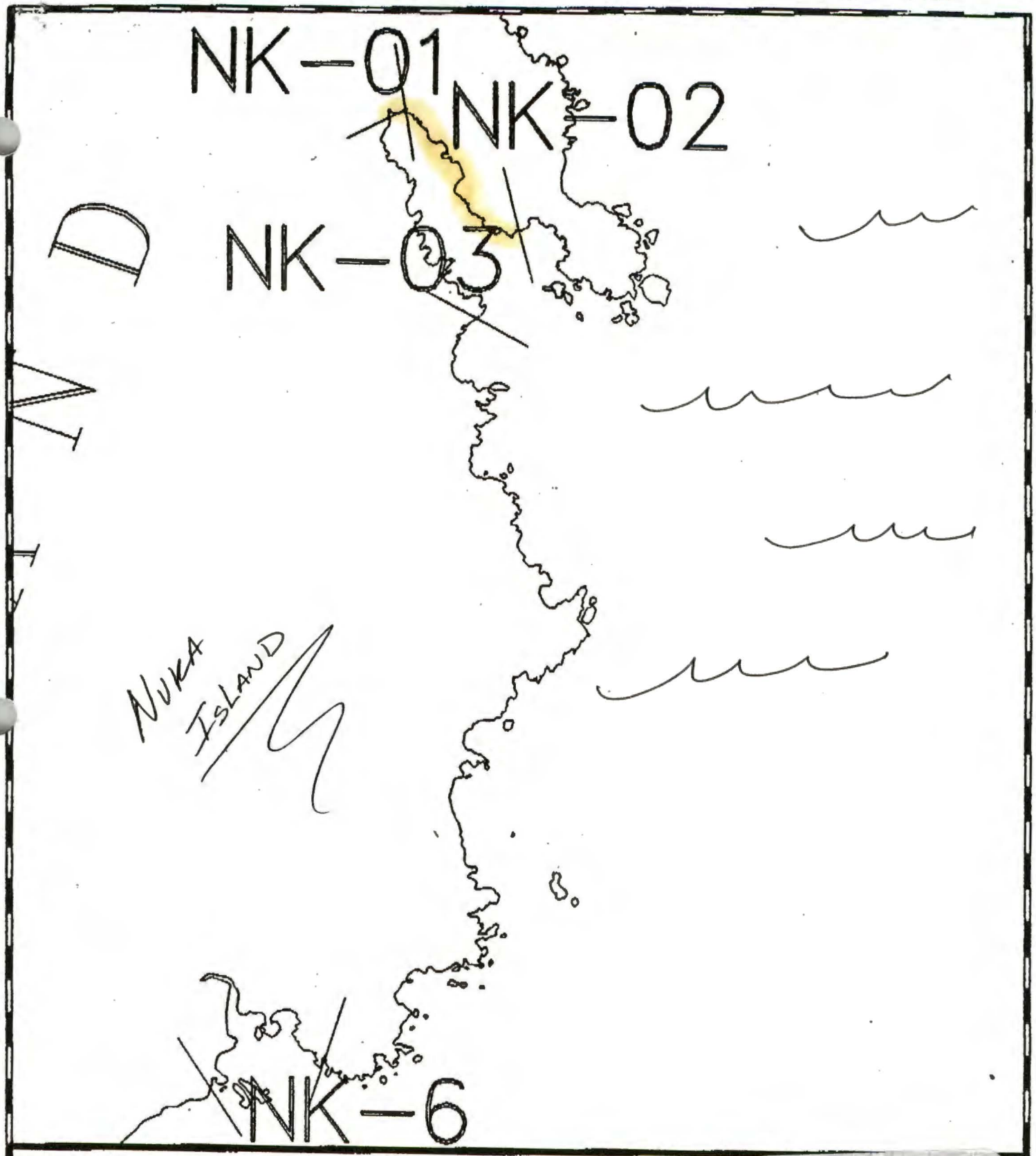
Observed tarballs (sand cemented w/oil) for 300 yds down length of beach – from VIEW to Surf. Balls are observed in water also – being Covered & removed by wave action – 100's of oil balls.

1500 – Depart Petrof Point

1615 – Gore Point Sea Lion haulout observed ~ 40 individuals on One Rock
7 bulls on another rock

DNA

1645 – Arrv. Homer.



ACE 9962044 -1sc

EXXON COMPANY, USA

N

0 1 2

1 inch = 2296 feet

May 21, 1990

Aml used:
/chugach1/morris/super2/ops.aml

ANADROMOUS FISH STREAM EVALUATION ADDENDUM

CONSTRAINTS FOR STREAM NOS. 232-21-10230 & 232-21-10240

SEGMENT NK-001 SUBDIVISION A

WORK WINDOW

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

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A,1B	**Salmon Stream**	ADF&G catalogued anadromous streams (232-21-10230 and 232-21-10240) are in Subdivision A. This subdivision is closed to bioremediation less than 100m from stream 7/10 to 8/31. Before 7/10, bioremediation is permitted less than 100m from stream with on-site ADF&G monitor or ADEC alternate present. No constraint to bioremediation more than 100m from stream. No constraint to manual pickup and tarmat removal.
1J	**Purse Seine Area**	Closed to bioremediation after 7/20. No constraint to manual pickup and tarmat removal.

OTHER ECOLOGICAL CONSIDERATIONS

No disturbance to stream bed or banks. No flushing of pollutants or sediments into stream drainage; do not allow Inipol to enter stream flow. On-site examination and consultation by ADF&G monitor is required prior to bioremediation in order to authorize a setback distance from the stream during chemical application; if ADF&G monitor's presence is impossible, authorization may be given by the ADEC monitor. Restrict boat and air traffic to essential minimum 7/20.

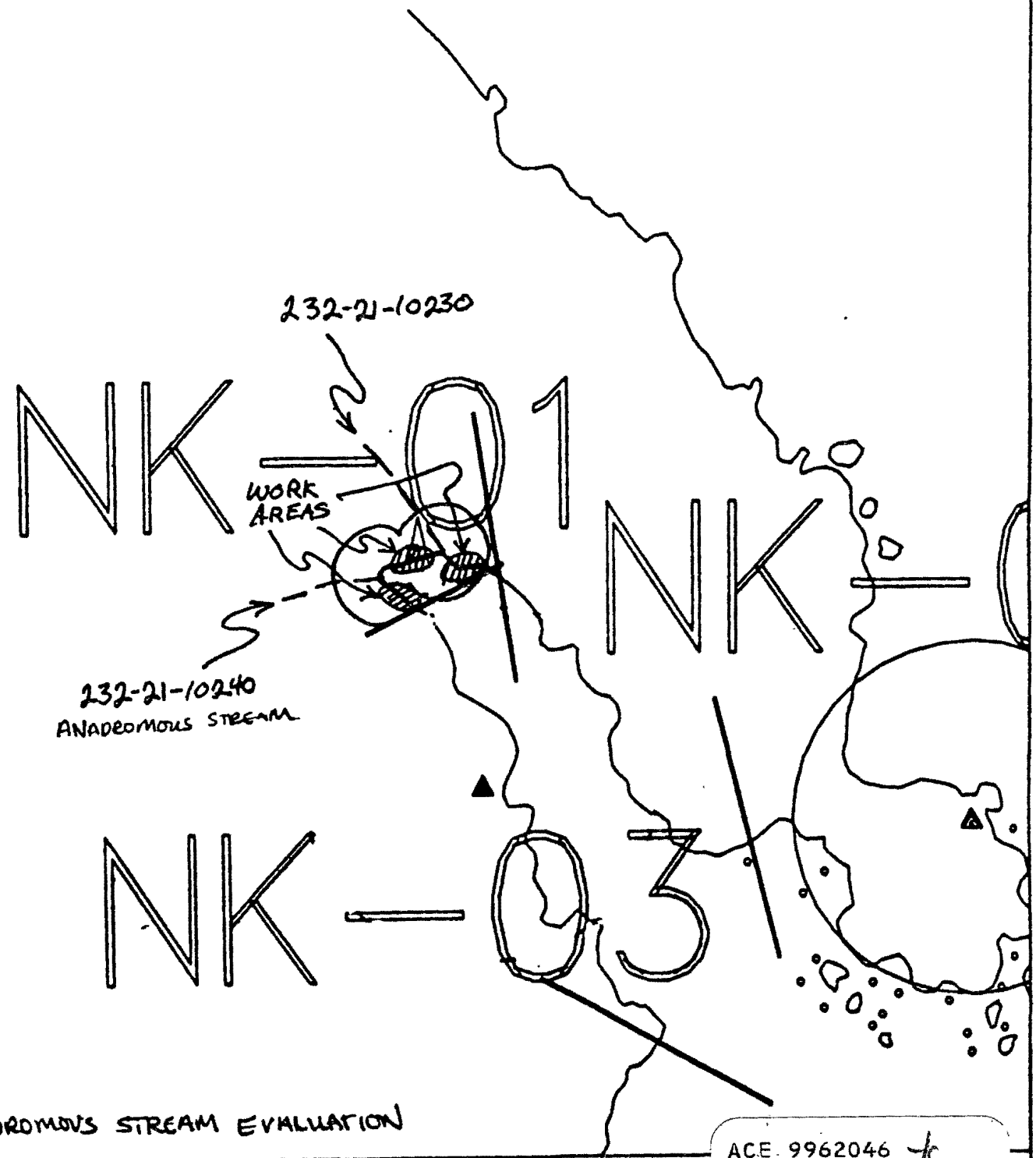
SEE SUBDIVISION CONSTRAINT ADDENDUM NK-001A FOR ADDITIONAL CONSTRAINT INFORMATION.

FOSC [signature] Date 6/7/90

Prepared by [signature] Date 6/12/90

ACE 9962045 +1s/p

ACE 1955505 +5



ANADROMOUS STREAM EVALUATION

ACE 9962046

EXXON

Exxon Company, USA
Map Key: KEN-NK-1

ECOLOGY MAP
SEGMENT NK-1
SUBDIVISION A (_1_ of _1_)

METERS

★ Seabird Colony
▲ Eagle Nest

ACE 1955506

ADF&G MULTI-ASSESSMENT FORM
1991 GENERAL ENTRY CHECKLIST

STREAM#: 2322110230
SEGMENT: NK001

DNR 10/7/91

X ok

DATE PRINTED: 07/25/91

LOCATION: NUKA ISLAND, NORTHEAST COVE, SOUTH CREEK

SURVEY TYPE: 90 PRE CLEANUP #2 - SS/BS

METHOD: ~~GROUND~~ FOOT

DATE: 07/03/90

TEAM RECORDER: HILL

START TIME: 1737
END TIME: 1854

OBSERVERS: GLENN

TIDES: -0- FLOOD

AGENCY: FG

OG/HAB DISCREPANCIES: -

PHOTOS TAKEN: N

STATION: 2322110230

ROLL#: -0-
FRAME: -0-

VIDEO TAKEN: Y TAPE#: 90LPG025H
START: 0354 END: 0555

SAMPLES TAKEN: N

SAMPLE NUMBERS: -0- -0-

-0- -0-

-0- -0-

OIL IN STREAM BED: N

OVERALL OIL IMPACT: L/M

OIL ON BEACH BY MOUTH: Y

WAVE EXPOSURE: MOD

SHORELINE TYPE: BEACH

SUBSTRATE TYPE: BEDROCK ~~10~~ BOULDER ~~10~~ COBBLE ~~50~~ 40 VEGETAT -0-

GRAVEL ~~10~~ 10 SAND 25 -0- MUD/SILT ~~25~~ 25 GRANULE -0-

ANADROMOUS FISH PRESENT: U

SPECIES:	COUNT:
-0-	-0-
-0-	-0-
-0-	-0-
-0-	-0-
-0-	-0-

ACE 9962047 HS/SG

ADF&G MULTI-ASSESSMENT FORM
1991 OILING ENTRY CHECKLIST

X
OK

DATE PRINTED: 07/26/91

STREAM# : 2322110230
SEGMENT#: NK001

SURVEY TYPE : 90 PRE CLEANUP #2 - SS/BS LOCATION: NUKA ISLAND, NORTHEAST COVE, SOUTH CREEK
DATE: 07/03/90
TIMES: 1737 - 1854 TEAM RECORDER: HILL

-- OILING EXTENT --

SITE#	SITE TYPE	DEPTH (cm)	LENGTH (m)	WIDTH (m)	AREA (m)	%	THICK (cm)	PEN (cm)	OIL TYPE CODES
1	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	MS TP AP ST MOR, HOR

COMMENTS:
WORK CREW IS ~~WORKIGN~~ NK002. JOHN CZARNECKI (EXXON SUPERVISOR) SAYS THE CREW WILL SPEND TOMORROWS LOW TIDE CLEANING THE OIL PATTIES ONT HE TIDE FLAT OF NK001. THEY WILL ALSO WORK THE NORTH SHORE (ADF&G PHOTO TRANSECT BEACH). LEE AND I PILED ROCKS (CAIRNS) AT LOCATIONS WHERE WE FOUND OIL. WE OBSERVED ABOUT 70 PATCHES OF REMOVABLE OIL (PATTIES TO CRUSTED SURFACE OIL SATURATED SEDIMENT BELOW). PHOTO TRANSECT BEACH/NORTH SHORE: POOLED MOUSSE IS PRESENT BENEATH THE ROCKS. HOPEFULLY THE CREW WILL PICK UP THE BULK OF THIS, THIS TIME.

oil

ACE 9962048 TS

ADF&G MULTI-ASSESSMENT FORM
1991 GENERAL ENTRY CHECKLIST

STREAM#: 2322110240
SEGMENT: NK001

DATE PRINTED: 07/25/91

LOCATION: NUKA ISLAND, NORTHEAST COVE, NORTH CREEK

SURVEY TYPE: 90 PRE CLEANUP #2 - SS/BS

METHOD: ~~GROUND~~ FOOT

DATE: 07/03/90

TEAM RECORDER: HILL

START TIME: 1737
END TIME: 1854

OBSERVERS: GLENN

TIDES: -0- Flood

AGENCY: FG

OG/HAB DISCREPANCIES: -

PHOTOS TAKEN: N

STATION: 2322110240

ROLL#: -0-
FRAME: -0-

VIDEO TAKEN: Y TAPE#: 90LPG025H
START: 0354 END: 0555

SAMPLES TAKEN: N

SAMPLE NUMBERS: -0- -0-

-0- -0-

-0- -0-

OIL IN STREAM BED: N

OVERALL OIL IMPACT: L/H

OIL ON BEACH BY MOUTH: Y

WAVE EXPOSURE: MOD

SHORELINE TYPE: BEACH

SUBSTRATE TYPE: BEDROCK ~~BLD~~ 10 BOULDER ~~20~~ 10 COBBLE 30 ~~30~~ VEGETAT -0-

GRAVEL ~~20~~ 20 SAND 10 ~~40~~ MUD/SILT ~~-0-~~ 20 GRANULE -0-

ANADROMOUS FISH PRESENT: U

SPECIES:	COUNT:
-0-	-0-
-0-	-0-
-0-	-0-
-0-	-0-
-0-	-0-

ACE 9962049-1-B

ADF&G MULTI-ASSESSMENT FORM
1991 OILING ENTRY CHECKLIST

PAGE 5 DATE PRINTED: 07/26/91

STREAM# : 2322110240
SEGMENT#: NK001

SURVEY TYPE : 90 PRE CLEANUP #2 - SS LOCATION: NUKA ISLAND, NORTHEAST COVE, NORTH CREEK
DATE: 07/03/90
TIMES: 1737 - 1854 TEAM RECORDER: HILL

-- OILING EXTENT --

SITE#	SITE TYPE	DEPTH (cm)	LENGTH (m)	WIDTH (m)	AREA (m)	%	THICK (cm)	PEN (cm)	OIL TYPE CODES
1	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	MS TP AP ST MOR, HOR

COMMENTS:
WORK CREW IS WORKING NK002. JOHN CZARNECKI (EXXON SUPERVISOR) SAYS THE CREW WILL SPEND TOMORROWS LOW TIDE CLEANING THE OIL PATTIES ON THE TIDE FLAT OF NK001. THEY WILL ALSO WORK THE NORTH SHORE (ADF&G PHOTO TRANSECT BEACH). LEE AND I PILED ROCKS (CAIRNS) AT LOCATIONS WHERE WE FOUND OIL. WE OBSERVED ABOUT 70 PATCHES OF REMOVABLE OIL (PATTIES TO CRUSTED SURFACE/OIL SATURATED SEDIMENT BELOW). PHOTO TRANSECT BEACH/NORTH SHORE: POOLED MOUSSE IS PRESENT BENEATH THE ROCKS. HOPEFULLY THE CREW WILL PICKUP THE BULK OF THIS, THIS TIME.

ACE 9962050

★★ 2 forms [Pre Cleanup #2]

— Nuka Island
— Northeast Cove
— Pre-2nd Round of Cleanup

OK

ADF&G MULTI-ASSESSMENT DATA FORM

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

METHOD: Aerial (Ground) Boat

3 DATE: 7/3/90
4 START TIME: 1737
5 STOP TIME: 1854
6 SEGMENT #: NK-1, 2
7 STATION #:
8 K-UNIT:
9 STAT AREA:
10 LAT:
11 LONG:
12 SOURCE: Map Loran
13 LOCATION: Nuka Island, Northeast Cove, North shore & head of Cove-beach
14 DESCRIPTION:

15 HIGH TIDE TIMES: 1200 / 2211
16 HIGH TIDE HTS: 8.0 / 11.2
17 LOW TIDE TIMES: 0450 / 1550
18 LOW TIDE HTS: 2.0 / 14.5
19 TIDE HT AT SURVEY:
Ebb Slack Flood Slack

20 USCG QUAD: Seldovia B-2

21 TEAM RECORDER: Doug Hill
22 OBSERVERS: Lee Glenn
23 AGENCY: ADF&G
24 PHOTOS TAKEN: (Y) N
Roll #: Frame:
25 VIDEO TAKEN: (Y) N TAPE#: 90LPG254
Start: 0354 End: 0555
26 SAMPLES TAKEN? Y (N) Number
Oil
Sediment
Biological
Water

EXTENT OF OIL

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

30 OVERALL OIL IMPACT: N VL (L) (H) 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 30 Boulder 10 Cobble 30 Gravel 30 Sand Mud/silt

36 CATALOGED ANAD. FISH STREAM? (Y) N
37 CATALOG #: 232-21-10230 232-21-10240
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: NK-1, NK-2
43 ANADROMOUS FISH PRESENT? Y ? N

44 ANADROMOUS FISH OBSERVATION

Species	Aerial	Ground

ACE 9962051 →

COMMENTS: Work crews is working NK-2. John Connecki (EXXON supervisor) says the crew will spend tomorrows low tide cleaning the oil patties on the tide flat of NK-1. They will also work the north shore (ADF&G photo transect beach). Lee & I piled rocks (cairns) at locations where we found oil. We observed about 70 patches of removeable oil (patties → crusted surface / saturated sediment below).

48 PHOTOLOG

FRAME(S)	DESCRIPTION

46 OIL DISTRIBUTION DIAGRAM

~~I cant~~ ~~232 21 10240 only~~:
Phototransect beach/North shore: pooled mousse is present beneath the rocks. Hopefully the crew will pick up the bulk of this this time.

= Sample taken
= Photo frame # and shot direction.

ACE 9962052 -ISG

— NUKA ISLAND
— Northeast Cove
— Pre-2nd Round of Cleanup Visit

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

3 DATE: 7/3/90
4 START TIME: 1737
5 STOP TIME: 1854
6 SEGMENT #: NK-1, 2
7 STATION #:
8 K-UNIT:
9 STAT AREA:
10 LAT:
11 LONG:
12 SOURCE: Map Loran
13 LOCATION: Nuka Island, Northeast Cove, North shore
14 DESCRIPTION: & head of Cove - beach

15 HIGH TIDE TIMES: 1200 / 2211
16 HIGH TIDE HTS: 8.0 / 11.2
17 LOW TIDE TIMES: 0450 / 1550
18 LOW TIDE HTS: 2.0 / 14.5
19 TIDE HT AT SURVEY:
Ebb Slack Flood Slack
20 USCG QUAD: Seldovia B-2

21 TEAM RECORDER: Doug Hill
22 OBSERVERS: Lee & Glenn
23 AGENCY: ADF&G
24 PHOTOS TAKEN: (Y) N
Roll #: Frame:
25 VIDEO TAKEN: (Y) N TAPE#: 90LAG254
Start: 0354 End: 0555
26 SAMPLES TAKEN? Y (N) Number
Oil
Sediment
Biological
Water

EXTENT OF OIL

	SHORELINE L	W	M²	%	STREAM L	W	M²	%
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 10 Boulder 10 Cobble 40
Gravel 10 Sand 25 Mud/silt 25
10230: 10 / 10 / 30
10240: 10 / 10 / 20

36 CATALOGED ANAD. FISH STREAM? (Y) N
37 CATALOG #: 232-21-10230 / 232-21-10240
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: NK-1, NK-2
43 ANADROMOUS FISH PRESENT? Y ? N

44 ANADROMOUS FISH OBSERVATION

Species	Aerial	Ground

ACE 9962053

COMMENTS: Work crew is working NK-2. John Czarnecki (EXXON supervisor) says the crew will spend tomorrows low tide cleaning the oil patties on the tide flat of NK-1. They will also work the north shore (ADF&G photo transect beach). Lee & I piled rocks (cairns) at locations where we found oil. We observed about 70 patches of removeable oil (patties → crusted surface oil / saturated sediment below).

45 PHOTOLOG

FRAME(S)	DESCRIPTION

46 OIL DISTRIBUTION DIAGRAM

~~Transect~~

Photofransect beach/North shore: pooled mousse is present beneath the rocks. Hopefully the crew will pick up the bulk of this this time.

= Sample taken
= Photo frame # and shot direction.

ACE 9962054

NK01A 7/3
No End time

ADEC DAILY SHORELINE ASSESSMENT

LOCATION: Nuka Island SEG NK1 SUBSEG A
MONITOR(S): E.P. Egan
DATE: 7/3/1990 TIME: BEGIN 1300 END

TIDES:	TIME:	HEIGHT:
LOW	0519	1.4
HIGH	1142	8.0
LOW	1645	4.9
HIGH	2253	11.4

WEATHER: CLOUDY RAIN FOG (SUN)
TEMP: 60 SEA COND: Slight swell
WIND DIR: N-NE-E-SE-S-SW-W-NW
WIND SPEED (KNOTS): (0-15) 16-30 30+

ENVIRONMENTAL CONSTRAINTS: (SEAL HAULOUTS, EAGLE NESTS, MUSSEL BEDS, ETC.) Anadramous Streams - work to be completed 7/10/1990

WAVE EXPOSURE: LOW (MED) HIGH
ACROSS SHORE ZONE: SU (UITZ) (MITZ) (LITZ)

SURFACE SEDIMENTS: R 5 % B 5 % C 40 % P 40 % G 10 % S 0 %
SUBSURFACE SEDIMENTS: R ___ % B ___ % C ___ % P ___ % G ___ % S ___ %

OIL CHARACTERISTICS

SURFACE: (POOLED) - (MOUSSE) - (TARBALL) - (COVER) - (COAT) - (STAIN)
SUBSURFACE: OP - OR - OF

TREATMENT TECHNIQUES

MANUAL RAKING/TILLING
(MANUAL REMOVAL) (PO) (MS) (AP) (TB)
SPOT WASHING
OTHER

HEADER FLOOD (HOT/COLD)
BIOREMEDIATION
MECHANICAL

EQUIPMENT USED: Shovels, Trowels, Buckets
NAMES OF REPS & OTHER AGENCIES: EXXON Jon Czarnecki
USCG Richard Vonderpelt OTHER: OOPS DEAN SMITH
WORKERS ON SITE: ORTS 9 OTHER: Veco Ron Rolan

WASTE HANDLING/DISPOSAL

ACE 9962055 7/5

ITEMS USED TO ABSORB/CONTAIN OIL
OF BAGS COLLECTED: 1 Supersack
OILED DEBRIS — OIL & SEDIMENTS 1 OILED VEG. —
OILED LOGS PRESENT: Y (N) # OF LOGS REMOVED —

ACE 1955544
7/5

Nuka Island
NKI subseg A 7/3/1990. E. P. Egan

PHOTO/VIDEO DOCUMENTATION

PHOTOGRAPHS: ROLL #____ FRAME(S):____ REASON:____

VIDEO: TAPE #____ REASON:____

COMMENTS.

PROBLEMS: ENFORCEMENT ACTIVITIES, UPLAND CONT., ETC.
(PLEASE NOTE IF PROBLEM WAS DISCUSSED WITH PROPER AUTHORITY, AND SUBSEQUENT RESPONSE.)

None

OBSERVATIONS: TREATMENT EFFICIENCY, POSSIBLE IMPROVEMENTS, ETC.

Moderate oiling is listed on the work orders, but heavy oiling occurs in a broken distribution on some of the NKIA pocket beaches. The crew is working well, but is not large enough to do a complete job under present time constraints.

ACE 9962056 -/5

ACE 1955545 -/5

SIGNATURE Edward P. Egan

NK-1A 7/4
ORT=> 3-8 entered ASB

ADEC DAILY SHORELINE ASSESSMENT

LOCATION: Nuka Island SEG NK1 SUBSEG A
MONITOR(S): E. P. Egan
DATE: 7/4/1990 TIME: BEGIN 1040 END 1500

TIDES:	TIME:	HEIGHT:
LOW	0607	.6
HIGH	12 42	8.5
LOW	1744	4.9
HIGH	2341	11.8

WEATHER: (CLOUDY) RAIN (FOG) SUN
TEMP: 50 SEA COND: Slight Swell
WIND DIR: N-NE-E-(SE)-S-SW-W-NW
WIND SPEED (KNOTS): (0-15) 16-30 30+

ENVIRONMENTAL CONSTRAINTS: (SEAL HAULOUTS, EAGLE NESTS, MUSSEL BEDS, ETC.) Salmon stream closed to working 7/10/1990

WAVE EXPOSURE: LOW (MED) HIGH
ACROSS SHORE ZONE: SU (UITZ) (MITZ) (LITZ)

SURFACE SEDIMENTS: R___% B___% C___% P___% G___% S___%
SUBSURFACE SEDIMENTS: R___% B___% C___% P___% G___% S___%

OIL CHARACTERISTICS

SURFACE: (POOLED) - (MOUSSE) - (TARBALL) - (COVER) - (COAT) - (STAIN)
~~SUBSURFACE: OP - OR - OF~~

TREATMENT TECHNIQUES

MANUAL RAKING/TILLING
(MANUAL REMOVAL) (PO) (MS) (AP) (TB)
SPOT WASHING
OTHER

HEADER FLOOD (HOT/COLD)
(BIOREMEDIATION) Custombkn
MECHANICAL

EQUIPMENT USED: shovels, trowels, buckets, spreader
NAMES OF REPS & OTHER AGENCIES: EXXON Jon Czerwecki
USCG Richard Vandepelt OTHER: OOPS DaRin Smith
WORKERS ON SITE: ORTS 3 to 8 OTHER: Vecco Ross Rulan

WASTE HANDLING/DISPOSAL

ACE 9962057 +1/5

ITEMS USED TO ABSORB/CONTAIN OIL
OF BAGS COLLECTED: ½ supersack
OILED DEBRIS ___ OIL & SEDIMENTS ½ OILED VEG. ___
OILED LOGS PRESENT: Y (N) # OF LOGS REMOVED ___

ACE 1955546 +1/5

P.2 · NKIA · 4 July 1990 E.P.Egan JR.

PHOTO/VIDEO DOCUMENTATION

PHOTOGRAPHS: ROLL # — **FRAME(S):** — **REASON:** —

VIDEO: TAPE # — **REASON:** —

COMMENTS

PROBLEMS: ENFORCEMENT ACTIVITIES, UPLAND CONT., ETC.
(PLEASE NOTE IF PROBLEM WAS DISCUSSED WITH PROPER AUTHORITY, AND SUBSEQUENT RESPONSE.)

I am refusing to sign the demobilization of NKIA due to what I construe as tar mats left on the NE pocket of the main beach. J Czarnecki Exxon, Richard Vanderpelt USCG monitor and Darin Smith OCRS believe the beach to be done, I feel the treatment of this particular area to have been quickly and incompletely done, and am refering the area to my immediate supervisor Russel Kunibe EFO II ADEC for review.

OBSERVATIONS: TREATMENT EFFICIENCY, POSSIBLE IMPROVEMENTS, ETC.
More ORTs are needed in the Outer Kenai Peninsula Area of the clean-up so that through work can be done within the present time constraints.

ACE 9962058 -/S

SIGNATURE E. Patrick Egan.

ACE 1955547 -/S

ADEC DEMOBILIZATION REPORT
FOR PHYSICAL/MECHCANICAL TREATMENT AND CUSTOMBLEN

To: Alaska Department of Environmental Conservation
Oil Spill Response Center
Anchorage, Alaska
Attn: John Bauer
FAX 265-4666, 265-4656

RE: SEGMENT NUMBER NK1 SUBSEGMENT NUMBER A

DEC REP E.P. Egan USCG REP Richard Vanderpelt

EXXON REP J. Czarnecki BOAT NAME/SQUAD NUMBER Ensco Atlas Squad 8

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. No. There is some disagreement as to what constitutes tar mat. I believe there are areas of tar mat left on this segment that should be removed as per the work order. There are also heavily coated sediments that should be removed. J. Czarnecki, Exxon, Richard Vanderpelt USCG believe the work order complete.
Is there additional oil remaining which can be removed with further physical/mechanical treatment? If yes what is the recommended treatment method. Yes. Physical removal of tar mat and thickly covered sediments with shovels and trowels would be the best method.

Describe the amount of oil remaining (type, size of area and location).
Tar mats and heavily covered sediments approximate area 30-35 m. wide 5-10m deep in upper LITZ to U.ITZ.. Patchy coverage of beach NE of Flats area of NK 1A, a bight of land at the NE corner of the bay.

Additional Comments (keep objective) This is within the 7/10/1990 exclusion zone and I would recommend a prompt survey by a TAG unit.

signature E. P. Egan
Date and time of demobilization from segment 7/4/1990 1738
Shoremon\55 5-12-90

ACE 9962059 +/5

ACE 1955548 +/5

SKETCH MAP

OO. A

SEGMENT STI NK-1

SUBDIVISION A

DATE 9/17/90

CHECKLIST

- N Arrow
- Approx. Scale
- Top/Tab Sndy
- Oil Dist.
- Width
- Length
- % Cover
- Substrate Character
- SL, HWL, BL
- 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

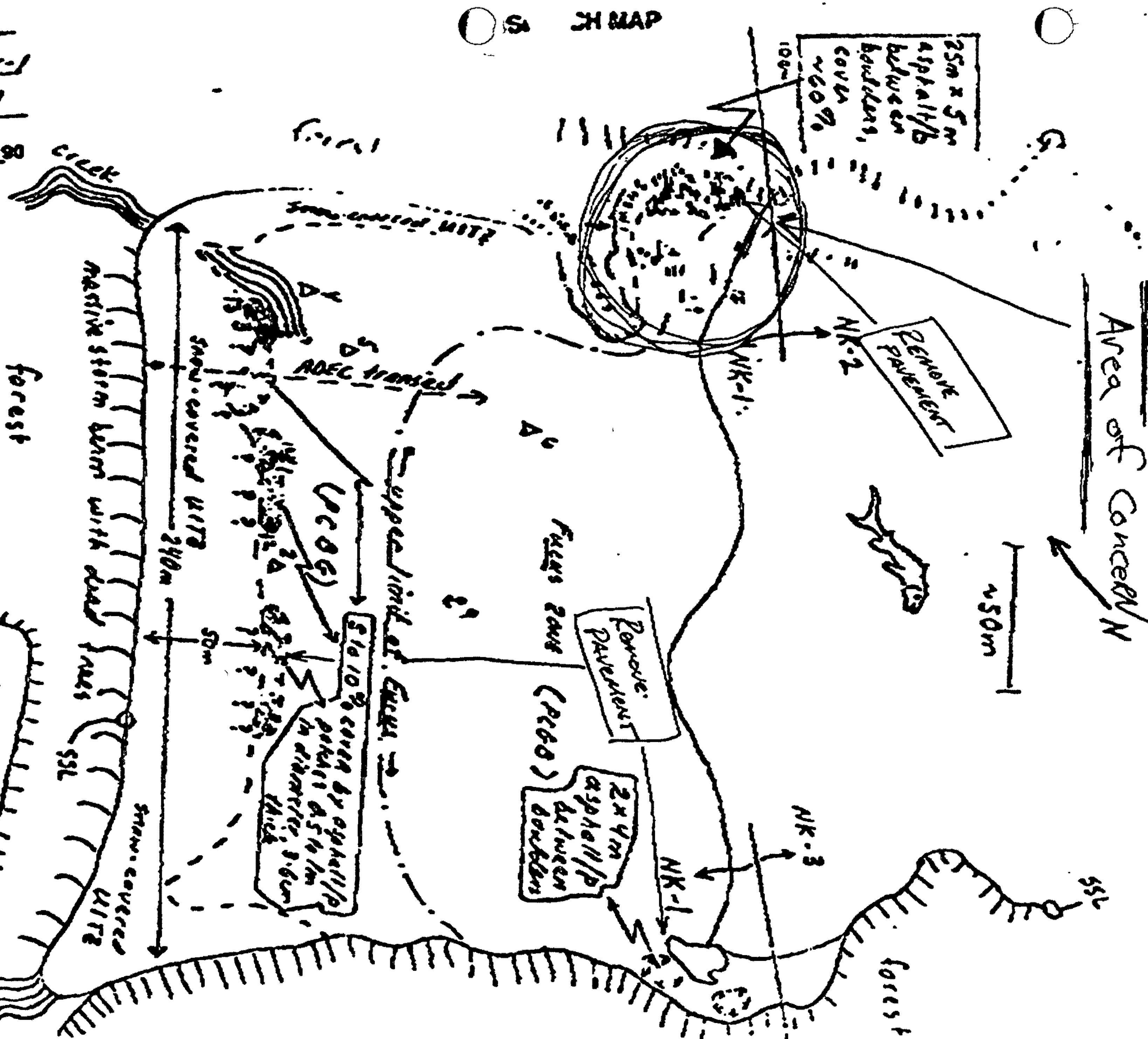
CT/B Broken Distribution

CT/P Patchy Distribution

CT/S Sporadic Distribution

Oiled Vegetation

Photo location, direction, and number



Oil Character Length: AP 100 PO CV CT ST MS PT TR FL NO

To Russ Kunibe EFO II Homer 7/5/1990

Russell;

I did not sign the Exron demob of NK1A as per the reasons listed. I need clarification as to what is tar mat and what is not. CZaR keeps mentioning that these are not tar mats. He hurried the crew through this area to get to Yalik Glacier, but Yalik has no time constrictions listed, whereas NK1A does. A TAG team should see NK1A at the NE end, the bight to the east of the stream.

Let me know if I am correct in my assessment.

We are demobing NK 4B today with very little oil collected. None of us saw the need for Customblen on the beach when we were done.

I look forword to hearing from you.

E. Patrick Egan

E. P. Egan.

ACE 9962061 -15

ACE 1955550 -15

stream

ASC NUMBER: 232-21-10230 SEGMENT NUMBER: NK-1 YR CATALOGED:
LOCATION: NE Cove, Nuka Island
STREAM NAME:
KODIAK K-UNIT: — LOCAL STREAM #: —
USGS QUADRANGLE: Seldovia B-2
SHORELINE TYPE: Beach/Cove ALL SEGMENTS: —
LATITUDE: 59 23 33
LONGITUDE: 150 37.35
LEGAL: S 9S 8W16

ASC NUMBER:
SURVEY TYPE: SS
METHOD: FOOT
DATE: 7/11/90
START TIME: 1121
STOP TIME: 1318

TEAM RECORDER: Hill
OBSERVERS: Glenn

AGENCY(IES): ADFG

PHOTOS TAKEN? Y
Roll #: 9000H20H Frames: 1-7
VIDEO TAKEN? Y Tape Number: 90LPG025H
Counter Start: 5467 → 5521

WAVE EXPOS: Moderate

SAMPLES TAKEN? N
SAMPLE I.D. NUMBERS: 1. 2. 3.
4. 5. 6.

	LENGTH	WIDTH	M2	%	THICK	PEN	OIL TYPE
SITE 1							ST, MS, AP HOR-LOR
SITE 2							
SITE 3							
SITE 4							
SITE 5							

OVERALL OIL IMPACT: 4/M

OIL IN STREAM CHANNEL? N

OIL ON BEACH WITHIN 50M OF STREAM MOUTH?

SUBSTRATE

Bedrock	30	Granule	
Boulder	10	Sand	
Cobble	30	Silt	
Pebble	30	Veget.	

SPECIES					
COUNT					

COMMENTS: Pooled mousse + heavily oiled sediment observed. Some pooled mousse observed below cobbles + boulders.
Observed a portion of beach where the cleanup crew rolled rocks to get at oiled beach below → Now the mousse is present beneath what was previously the beach overburden + the relocated rocks. Beach below the rock wall looks better than it did on previous 1990 post-work surveys--- Sheen not observed on this survey. Oil can be turned up by agitating the substrate easily

ACE 9962062

Surveyed NK-01 & NK-02

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

3 DATE: 7/11/90 15 HIGH TIDE TIMES: 0405 / 1713 21 TEAM RECORDER: Doug Hill

4 START TIME: 1121 16 HIGH TIDE HTS: 12.5 / 11.2 22 OBSERVERS: Lee Glenn

5 STOP TIME: 1318 17 LOW TIDE TIMES: 1040 / 1054 23 AGENCY: ADF&G

6 SEGMENT #: NK-1 & NK-2 18 LOW TIDE HTS: -1.4 / 2.3 24 PHOTOS TAKEN: (Y) N

7 STATION #: 19 TIDE HT AT SURVEY: Roll #: 9000H20H Frame: 1-7

8 K-UNIT: Ebb Slack Flood Slack 25 VIDEO TAKEN: (Y) N TAPE#: 90LP602SH

9 STAT AREA: 20 USCG QUAD: Seldovia B-2 Start: 5467 End: 5521

10 LAT: 59 23 33 / 59 23 32 11 LONG: 150 37 35 / 150 37 46 26 SAMPLES TAKEN? Y (N) Number

12 SOURCE: Map Loran Oil

13 LOCATION: Neka Island, Northeast Cove, Head of Cove Sediment

14 DESCRIPTION: Biological

EXTENT OF OIL Water

	SHORELINE L	W	M²	%	STREAM L	W	M²	%
27 SURFACE COVERAGE								
28 SURFACE THICKNESS								
29 PENETRATION								

30 OVERALL OIL IMPACT: N

31 OIL TYPE: Pooled (

32 OILED DEBRIS? (Y) 1

33 SHORELINE TYPE: Head

34 WAVE EXPOSURE: High

35 SUBSTRATE TYPE: Bedro

Gravel 50 Sand Mud/silt

36 CATALOGED ANAD. FISH STREAM? (Y) N

37 CATALOG #: 232-21-10230 / 232-21-10240

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: NK-01, NK-02

43 ANADROMOUS FISH PRESENT? Y ? N

44 ANADROMOUS FISH OBSERVATION

Species	Aerial	Ground

The Previous 3 pages are a breakdown of this report. Broken down by stream segment and

ACE 9962063 +/S

COMMENTS: Pooled mousse & heavily oiled sediment was observed in both segments. Some pooled mousse found below cobbles & boulders in NK-2 that would be better left alone --- Not enough oil to warrant disrupting the present order of the beach. In NK-1 we observed a portion of the beach where the cleanup crew rolled rocks to pick up oil from oiled beach below. Now the mousse is present beneath

Surveyed NK-01 & NK-02

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

3 DATE: 7/11/90 — 15 HIGH TIDE TIMES: 0405 / 1713 — 21 TEAM RECORDER: Doug Hill

4 START TIME: 1121 — 16 HIGH TIDE HTS: 12.5 / 11.2 — 22 OBSERVERS: Lee Glenn

5 STOP TIME: 1318 — 17 LOW TIDE TIMES: 1040 / 1054 — 23 AGENCY: ADF&G

6 SEGMENT #: NK-1 & NK-2 — 18 LOW TIDE HTS: -1.4 / 2.3 — 24 PHOTOS TAKEN: (Y) N

7 STATION #: _____ — 19 TIDE HT AT SURVEY: _____ — Roll #: 90001H20H Frame: 1-7

8 K-UNIT: _____ — Ebb Slack Flood Slack — 25 VIDEO TAKEN: (Y) N TAPE#: 90LP&O25H

9 STAT AREA: _____ — 20 USCG QUAD: Seldovia B-2 — Start: 5467 End: 5521

10 LAT: 59 23 33 / 59 23 32 — 11 LONG: 150 37 35 / 150 37 46 — 26 SAMPLES TAKEN? Y (N) Number

12 SOURCE: Map Loran — Oil _____

13 LOCATION: Naka Island, Northeast Cove, Head of Cove — Sediment _____

14 DESCRIPTION: _____ — Biological _____

EXTENT OF OIL — Water _____

	SHORELINE L	W	M²	%	STREAM L	W	M²	%
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) FEW

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

34 WAVE EXPOSURE: High Moderate Low

35 SUBSTRATE TYPE: Bedrock 30 Boulder 10 Cobble 30 Gravel 30 Sand _____ Mud/silt _____

36 CATALOGED ANAD. FISH STREAM? (Y) N

37 CATALOG #: 232-21-10230 / 232-21-10240

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: NK-01, NK-02

43 ANADROMOUS FISH PRESENT? Y ? N

44 ANADROMOUS FISH OBSERVATION

Species	Aerial	Ground

ACE 9962063 +/S

COMMENTS: Pooled mousse & heavily oiled sediment were observed in both segments. Some pooled mousse found below cobbles & boulders in NK-2 that would be better left alone --- Not enough oil to warrant disrupting the present order of the beach. In NK-1 we observed a portion of the beach where the cleanup crew rolled rocks to pick up oil from oiled beach below. Now the mousse is present beneath

the natural beach overburden and the ~~[illegible]~~ relocated rocks.

The beach below the rock ~~[illegible]~~ wall on the North portion of NK-01 looks better than it has on previous 1990 post-work crew surveys - - - sheen was not observed on this survey. Oil can be turned up however, by agitating the ~~sediment~~/substrate.

Surveyed the tide flats: Oil still remains primarily as AP patties which ~~[illegible]~~ could easily be removed. The crew took the center of many patties leaving heavily oil saturated rims/donuts of sediment. Mousse was left beneath & between cobbles etc

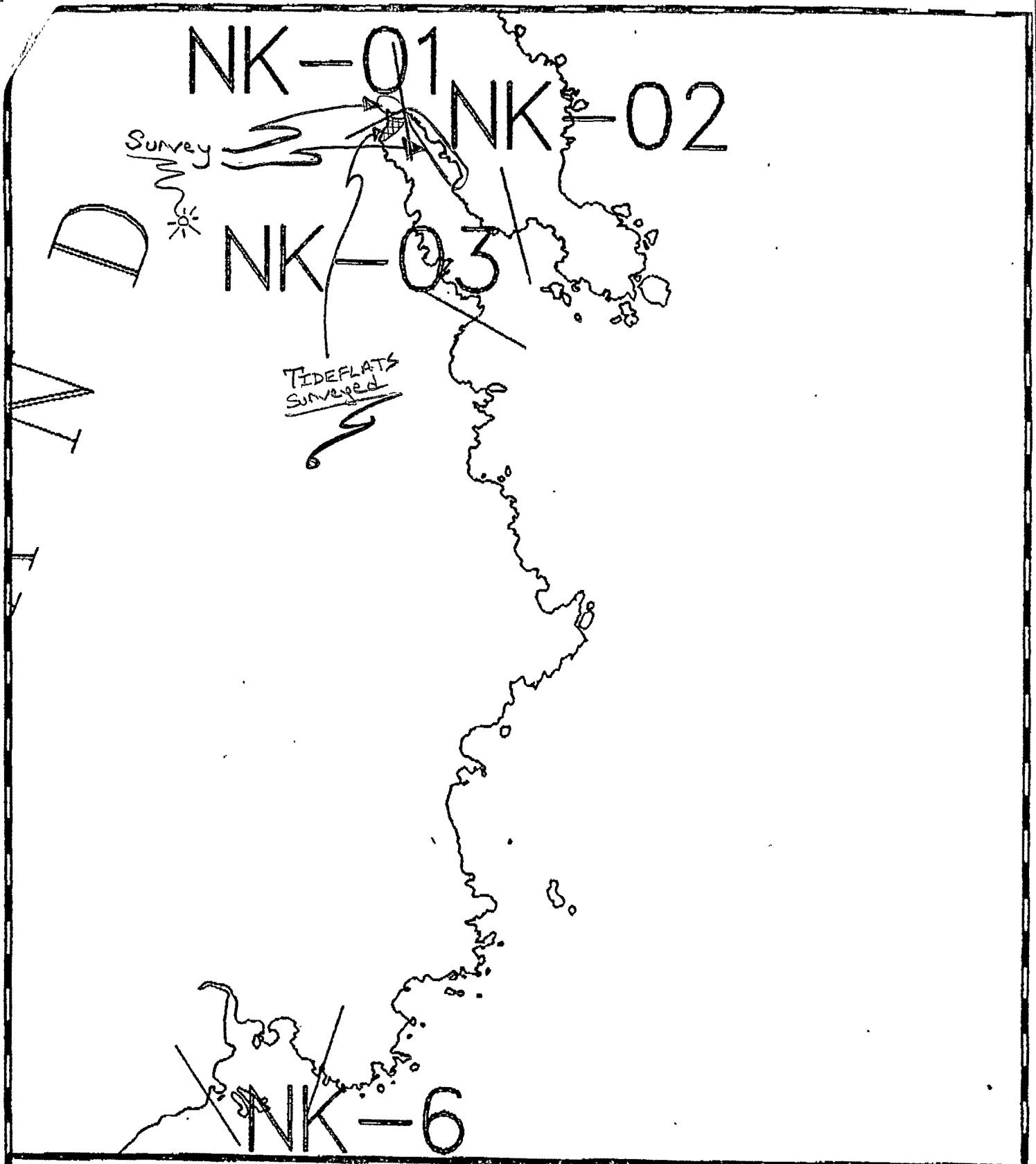
ACE 9962064

48 PHOTOLOG

FRAME(S)	DESCRIPTION
1	Aerial - loading the craft with oiled ~~the~~ sediments
2,3,4,5,6,7	Aerial - tarmat removal, LCM beached & picking up oiled debris

48 OIL DISTRIBUTION DIAGRAM

= Sample taken
= Photo frame # and shot direction.



ACE 9962065 -lslp

EXXON COMPANY, USA

0 1 2

1 inch = 2296 feet

May 21, 1990

Aml used:
/chugach1/morris/super2/ops.aml

MAYSAP - NE Cove Nuka Island

ADF&G MULTI-ASSESSMENT DATA FORM

1) SURVEY TYPE: (BS) SS ANAO

2) REGION: PWS (KP,CI) K,AP

3) METHOD: Aerial (Ground) Boat

DATE: 5/13/91

16) HIGH TIDE TIME: 0053/1452

22) TEAM RECORDER: Doug Hill (ADF&G) Duncan Fitzgerald (06)

5) START TIME: 0638

17) HIGH TIDE HTS: 19.8/18.2

23) OBSERVERS: _____

6) STOP TIME: 0744

18) LOW TIDE TIMES: 1083O/2033

24) AGENCY: _____

7) SEGMENT #: NK-1A

19) LOW TIDE HTS: -3.5/1.7

25) PHOTOS TAKEN: Y (N)

8) K-UNIT: _____

20) TIDE HT AT SURVEY: _____

ROLL #: _____ FRAMES: _____

9) LAT: 59 23 33

(Ebb) Slack Flood Slack

26) VIDEO TAKEN: Y (N)

10) LONG: 150 37 35

21) USCG QUAD: Selkovia B-2

TAPE # _____

11) ASC #: 232-21-10240 & 10230

START: _____ STOP: _____

12) STREAM NAME: _____

27) SAMPLES TAKEN? Y (N)

13) LOCATION: Nuka Island, Head of "NE Cove"

SAMPLE I.D. _____

14) WAVE EXPOSURE: High (Moderate) Low

15) SHORELINE TYPE: Headland (Low-lying Rocks) (Beach) (Cove) Lagoon Marsh

28) EXTENT OF OIL

	LENGTH m	WIDTH m	M2	%	THICK cm	PEN cm	OIL TYPE
SITE 1	100	50	5000	<1%	<2.5	—	AP/SOR(mSOR)
SITE 2	30	20	600	10%	<2.5	—	OP/mSOR/sheen
SITE 3	30	1	30	<1%	—	—	CT/ST
SITE 4							
SITE 5							

29) OVERALL OIL IMPACT:

H = >6m band with ≥50% oil coverage

M = >6m band with ≤ 50% oil coverage or ≥3m to ≤6m with ≥10% oil coverage

(L) = <3m band with >10% oil coverage

VL = ≤10% oil coverage regardless of band width

N = No oil observed

33) ANADROMOUS FISH PRESENT: Y (N)

34) WILDLIFE OBSERVATION

Species	Number
BALD EAGLE, otter Sign	

ACE 9962066 + lp

30) OIL IN STREAMBED: Y (N)

31) OIL ON BEACH ADJACENT TO MOUTH: (Y) N

32) SUBSTRATE TYPE (PERCENT):

Bedrock ____ Boulder 10 Gravel 30 Sand ____ Cobble 50 Mud/Silt 10

35) COMMENTS: As in previous yrs. the heaviest oil is present at the pocket beach on the north end of the segment. Upon arriving at the pocket beach oil was not readily visible. However, light sheen was present on the surface of small puddles of water. The majority of the oil observed was SOR. A 1" square patch of mousse OP was observed - Approx. 2 cm thick. I believe more OP could be found with exploration (turning more rocks over). As in the past, disruption of this beach reveals more oil than is readily apparent - It's as if someone poured fuel oil all over the beach (oil saturated sediment). Disrupting the beach surface is the only way to realize the amount of oil in the pocket area.

OVER

36) PHOTOLOG

FRAME(S)	DESCRIPTION
	SEE MAYSAP Photosite location MAP Photos were taken by Gary Shigenaka of NOAA Roll # 6-13 Frame # 1-6

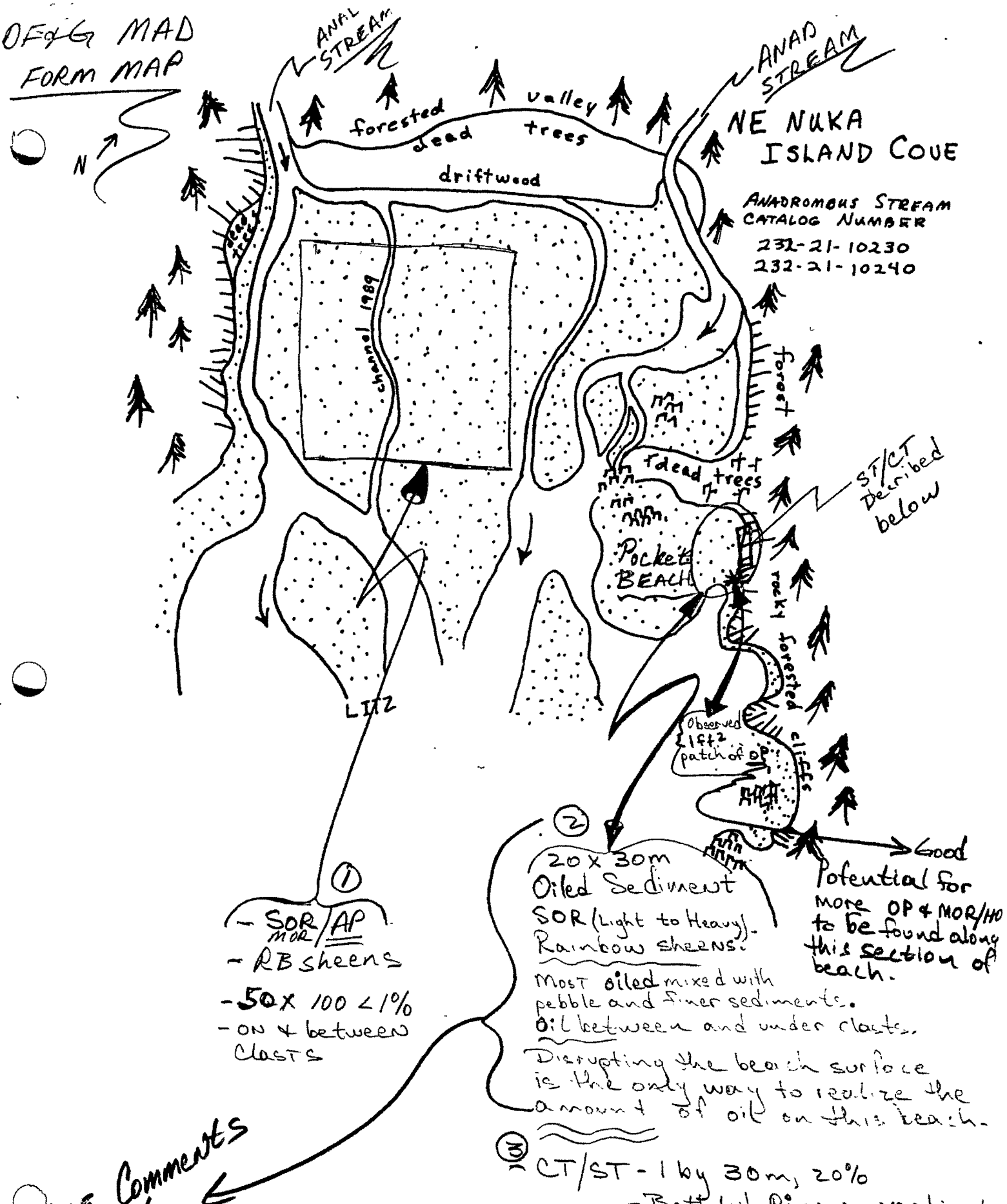
Comments continued: the Pocket beach area was bioremediated in 1989.
- The Vela crew removed approximately 10 pds of oil saturated sediment
- The OA states that the oil % is low yet significant sheens arise from the sediment in the pocket beach area (oil saturated sediment).

ACE 9962067

Δ = Sample Taken
2↗ = Photo Frame # and Shot Direction

A:EDDATFO
April 3, 1991

AOF&G MAD FORM MAP



SEE Comments ON AOF&G Multi-Assess. DATA Form for site #2

ACE 9962068

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 6-Helo SEGMENT NK-01 SUBDIVISION A DATE 13 / May / 91

ADEC
NAME D. Hill of ADFG SIGNATURE Douglas D Hill

☒ TR ☐ NTR (Two anadromous streams exist in this segment as well as river otters and sea otters (sea otter pits were observed in the LITZ). The most heavily oiled portion of this segment is found at the north end (pocket beach). During todays surveys as in 1990 the more the surface of the pocket beach was stirred / disrupted the more apparent the oil present became. I'm not suggesting that a large quantity of oil is present. I feel that because of the past experience mentioned above, todays observations, the fact that the beach exists within Kachemak Bay Wilderness park and because of the habitat the area provides for fish, otters and eagles etc. further manual removal is warranted.
A few patches of light brown mousse (6"x6") were observed after a bit of excavation at the pocket beach - perhaps more will turn up with further manual removal.

EXXON
NAME R. Coulter SIGNATURE Rex R. Coulter

☑ NTR
VERY LIGHT AND SPORADIC SOR WHICH WAS FOUND ONLY EVIDENT BY SEARCHING THE AREA. THE BIOTA WAS HEALTHY AND DENSE IN MOST AREAS OF THE BEACH. THERE IS NOTHING TO DO HERE OTHER THAN SCRATCH OR BREAK THE SURFACE IN ISOLATED AREAS OF SOR. THERE ARE NO OTHER AREAS THAT WOULD BENEFIT FROM THIS TYPE OF BREAKUP AND IT WOULD ONLY DISRUPT ONGOING RECOVERY. VECO CREW BROKE UP AND REMOVED EVERYTHING WE FOUND IN ONE HOUR WITH 10 PEOPLE LOCATING OILED SEDIMENTS.

LANDMANAGER
NAME J. Johnson OF ADNR SIGNATURE J. Johnson

☐ NTR ☒ TR
This Beach is within Kachemak Bay State Park, established for its high scenic value. This segment has high recreation value. I recommend manual cleanup of mousse patties. Manual cleanup with shovels would do little if any harm to the MNZ, and could be accomplished easily + quickly. It is likely that some cleanup will be necessary in NK-2, and this segment could be done simultaneously.

USCG/NOAA
NAME Chief Jensen / G. Shigenaka SIGNATURE Robert M Jensen Gary Shigenaka

☒ NTR 1/4 bag SOR picked up. Further removal operations would cause more environmental harm than the oil to be removed.

SURVEYED PORTION OF THE SEGMENT IS THE HEAD OF A SMALL EMBAYMENT INTO WHICH TWO STREAMS FLOW. THE HEAD OF THE BAY IS CHARACTERIZED BY A BROAD, LOW-SLOPING COBBLE BEACH. BIOLOGIST SCHROEDER NOTED THAT PINK SALMON WHICH SPAWN IN THESE STREAMS DO NOT USE THE INTERTIDAL BUT MOVE INTO THE STREAMS THEMSELVES. SOME PORTIONS OF THE COBBLE BEACH SHOWED EXTENSIVE COVER OF RED AND BROWN ALGAE. OIL RESIDUES IN THE FORMS OF AP AND SOR WERE OBSERVED IN COBBLE SUBSTRATE IN THE NORTHEAST CORNER OF THE EMBAYMENT AND IN AN APPROXIMATELY 2 X 15 M BAND IN THE CENTRAL PART OF THE MIDDLE INTERTIDAL. IN THE NORTHEAST CORNER OF THE BEACH, SILVER TO RAINBOW SHEEN FORMED IN RUNOFF WATER WHEN COBBLES WERE OVERTURNED. SECTIONS OF HEAVIEST SOR APPEARED TO PENETRATE TO 2 CM MAX. COAT WITH SPRUCE NEEDLES WAS OBSERVED ON THE ROCK FACE APPROXIMATELY 1-2 M ABOVE THE BEACH. OILING WAS MORE OR LESS LIMITED TO THESE TWO GENERAL AREAS, AND VECO CREW REMOVED PATTIES AND PAVEMENT AS WELL AS SOME SOR. REMAINDER OF BEACH SURVEYED DID NOT SHOW EVIDENCE OF OILING.

MAYSAP SHORELINE OILING SUMMARY

TEAM NO. 6-Helo

SEGMENT NK-1

OG D. FITZGERALD BIO T. Schroeder

SUBDIVISION A

ADEC D. Hill of ADF&G LANDMANAGER J. JOHNSON for ADNR

DATE 13 / MAY / 91

EXXON R. Coulter USCG/NOAA Chief JENSEN / G. SHIGENAKA

TIME 6 : 47 to 7 : 46 TIDE LEVEL .2 ft. to -1.3 ft. ENERGY LEVEL: ☐ H ☐ M ☒ L

SURVEYED FROM: ☑ FOOT ☐ BOAT ☐ HELO WEATHER: ☑ SUN ☐ CLOUDS ☐ FOG ☐ RAIN ☐ SNOW

TOTAL LENGTH SHORELINE SURVEYED: 300 m NEAR SHORE SHEEN: ☐ BR ☒ RB ☒ SL ☐ NONE

EST. OIL CATEGORY LENGTH: W ____ m M ____ m N ____ m VL 130 m NO 55 m US 115 m

LOC	SURFACE OIL CHARACTER										SURFACE SEDIMENT	SHORE SLOPE	AREA		ZONE				NOTES
	AP	MS	TB	SOR	CV	CT	ST	FL	DB	NO	TYPE	V H M L	WIDTH m	LENGTH m	S	UI	MI	LI	
1A				T							C-B	L	15	30		X	X		Light, I/u clasts
1B				P							BR	L	1	30	X				BATH TUB RING ON VERT. FACE
2A						P	P				C-B-P	L	50	100		X	X		LARGE AREA, TRACE AMT of oil

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

SLOPE: V = VERTICAL; H = HIGH ANGLE; M = MEDIUM ANGLE; L = LOW ANGLE PHOTO ROLL # MAYSAP-____-____ FRAMES ____

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER							OILED ZONE	CLEAN BELOW	H2O LEVEL	SHEEN COLOR	PIT ZONE				SURFACE-SUBSURFACE SEDIMENTS	NOTES
		OP	HOR	MOR	LOR	OF	TR	NO	cm-cm	Y/N	(cm)	B R S N	S	UI	MI	LI		
									-									
									-									
									-									
									-									
									-									
									-									
									-									
									-									
									-									

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

OG COMMENTS: This site is located at the head of a deeply indented embayment with two anad. streams entering the region. The oil occurs in a broad area in the landward portion of the intertidal zone and on the bayward side of a small headland beach on the eastern side of the embayment. The broad oiled site consisted of very trace amounts of SOR with occasional rainbow/silver sheens. The smaller beach site has an area of patchy SOR (thin) and an adjacent area of CT on a vertical bedrock face. Veco workers retrieved a 1/4 bag of oiled sediments from the two regions. Due to the thin, high friable and high percentage of sediment/oil ratio, much of the SOR was broken up and dispersed.

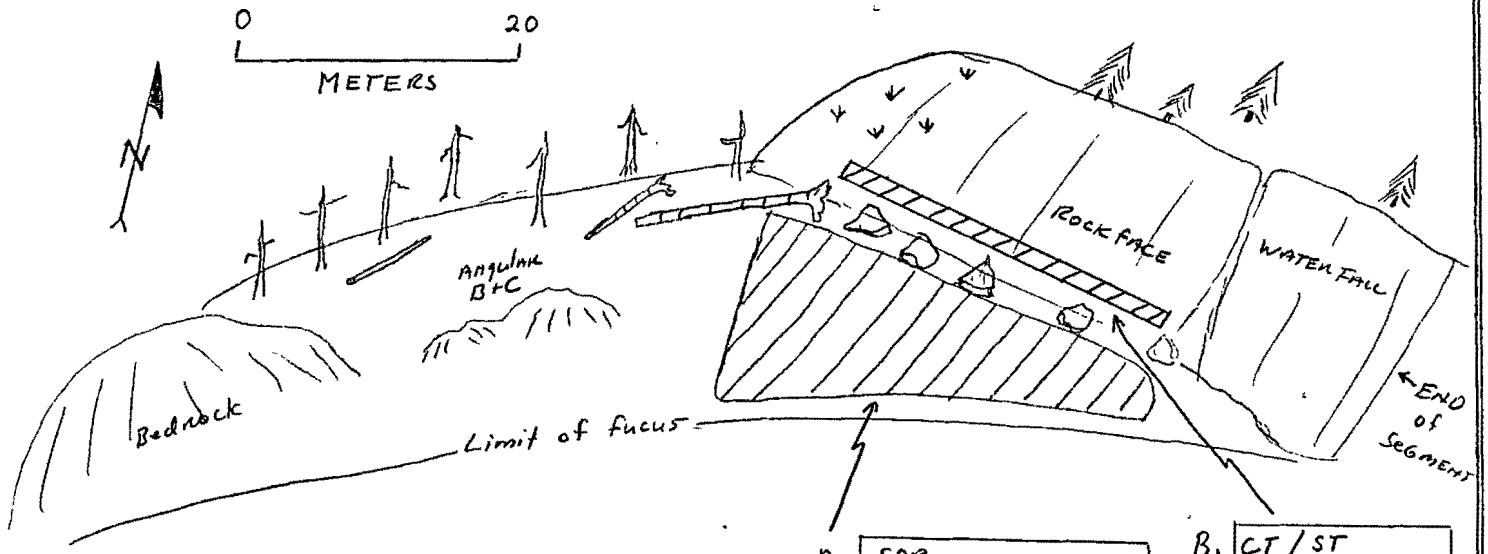
SEE ADF&G - MULTI Assessment form (Douglas O'Neill)

ACE 9962070

Dead trees
Logs
GRASSY AREA
PHOTO SITES

Sketch MAPS (06)
NK-1-A
D. Fitzgerald
13 May 1991
6:47 - 7:46

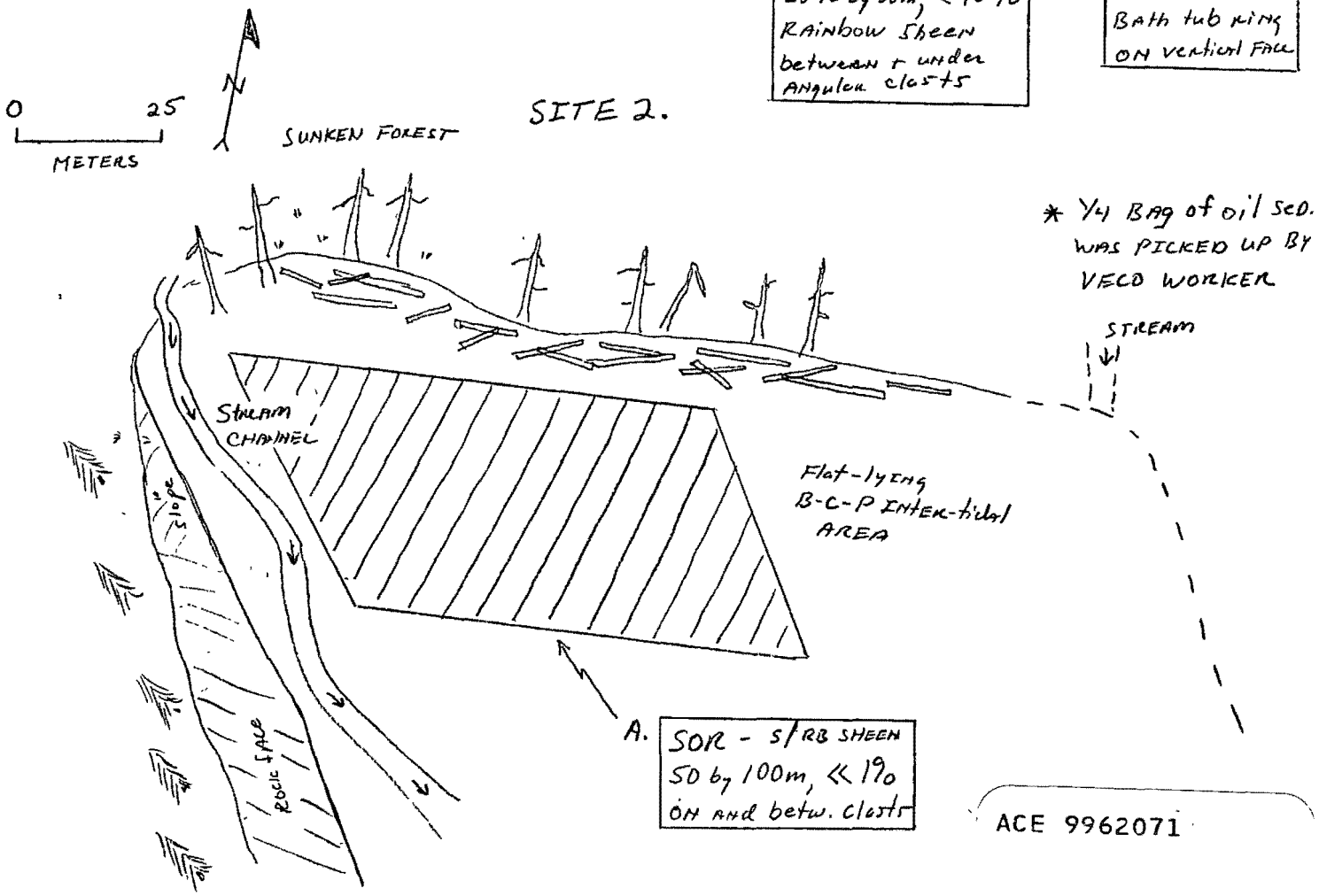
SITE 1.



A. SOR
20-10 by 30m, < 15%
RAINBOW SHEEN
between & under
ANGULAR clasts

B. CT / ST
1 by 30m, 20%
Bath tub ring
ON vertical FACE

SITE 2.



* ¼ BAG of oil sed. WAS PICKED UP BY VECO WORKER

A. SOR - S/RB SHEEN
50 by 100m, << 1%
ON AND betw. clasts

ACE 9962071

LRP SUBDIVISION COMMENT SHEET - MAYSAP
(Please fill in for each subdivision surveyed).

TEAM#/PHASE: NUIQA 1A DATE: 5-13-91

SUBDIVISION# A TIME: start ____
finish ____

LOCATION: NUIQA dsl

LRP REP: ROBERT PELKEY

ADEC REP: Doug hill

PHOTOS (example: CDV#1/Frames 7-14): N/A

FIELD CONDITIONS:

AGREE WITH ADEC COMMENTS ☐ YES ☐ NO EXPLAIN BELOW

COMMENTS:

GENERAL OILING DESCRIPTION:
VERY LIGHT TRACE

DEBRIS PICKED UP: NONE

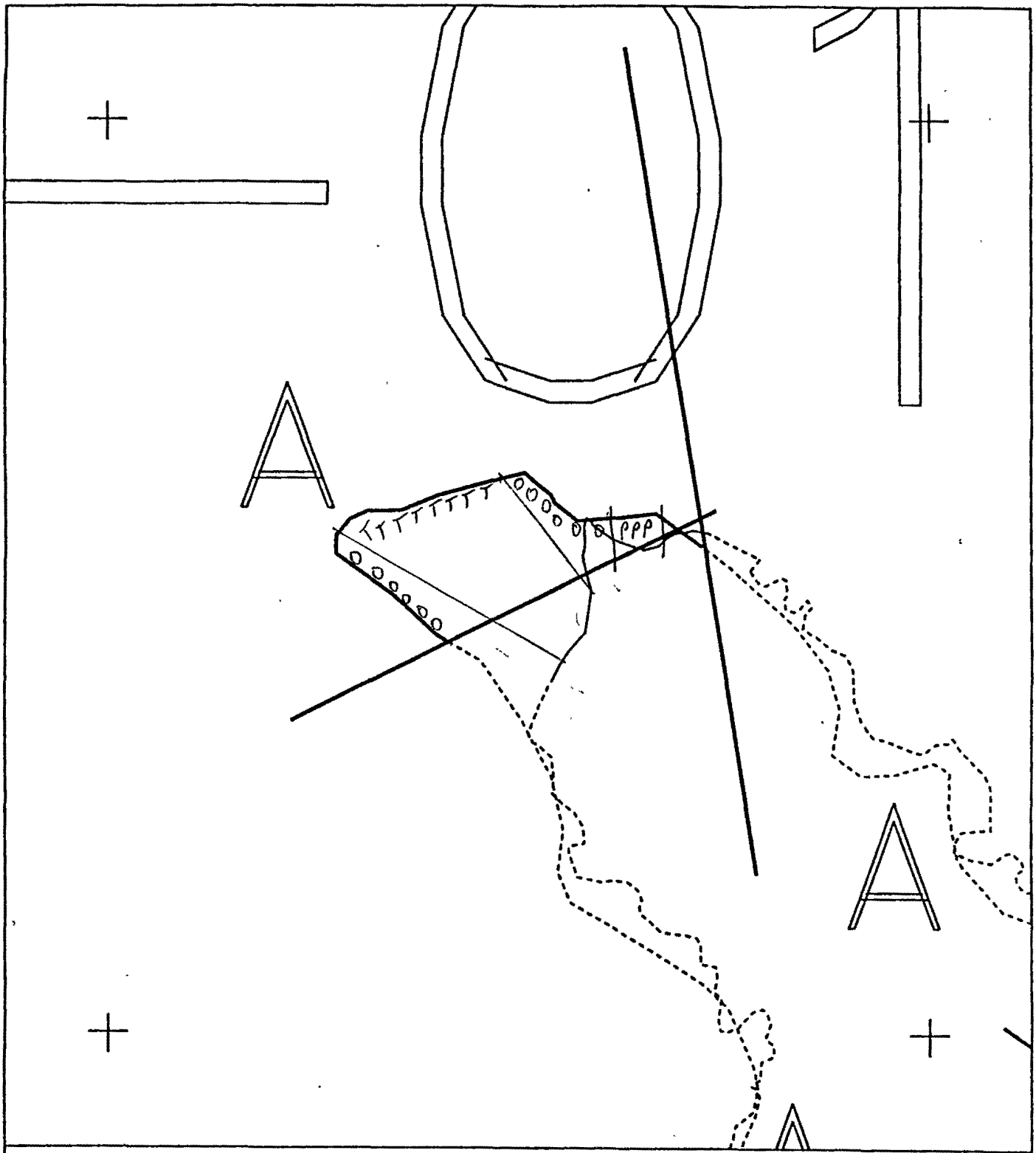
DEBRIS REMAINING: NONE

LRP RECOMMENDATION:

☐ TREATMENT RECOMMENDED ☒ NO TREATMENT RECOMMENDED

TYPE OF TREATMENT:

ACE 9962072

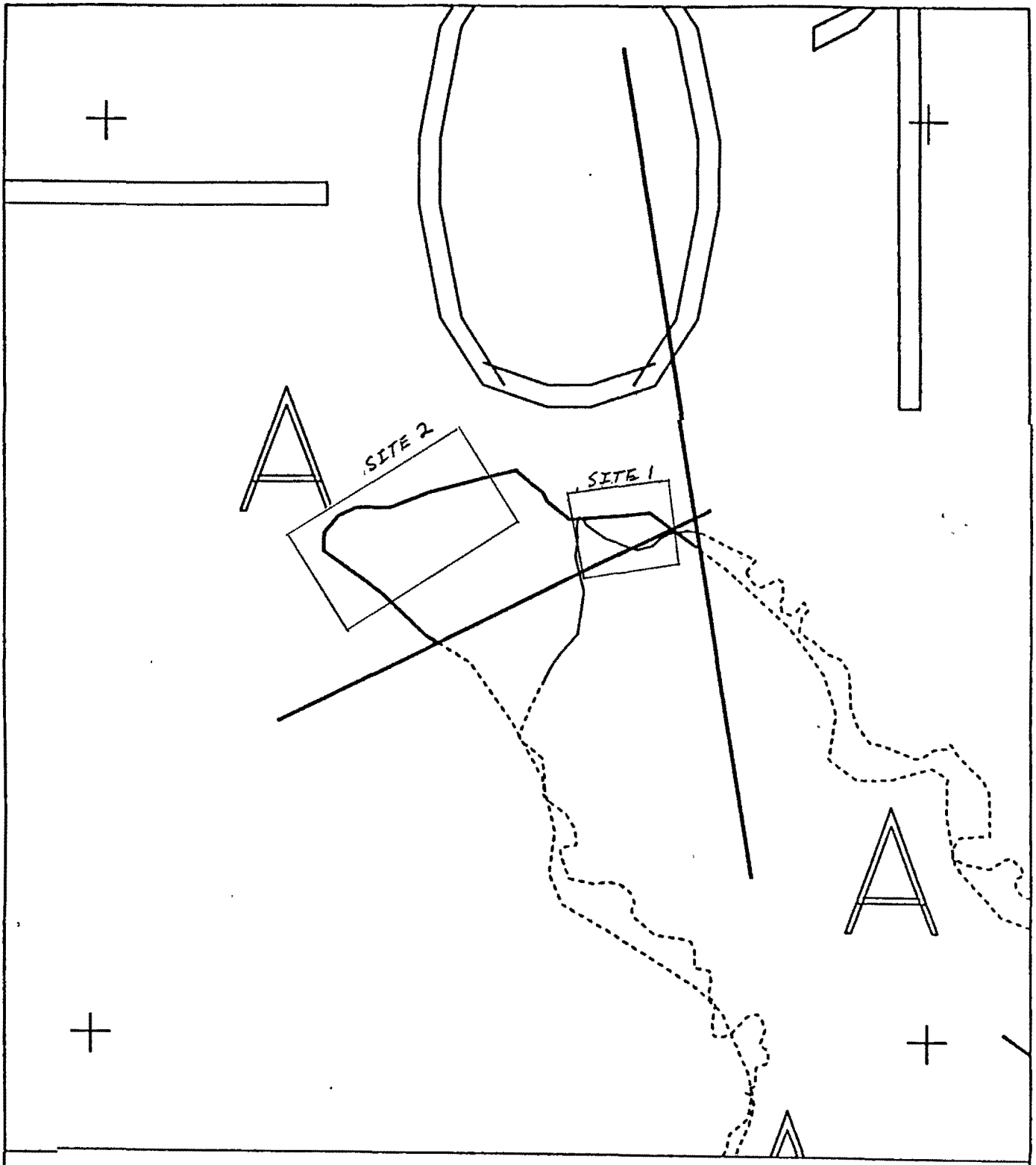


XXXX	Wide	NK001 A
////	Medium	ADEC Subsegment Length: 415m
----	Narrow	METERS
TTTT	Very Light	100 200
0000	No Oil	AK State Plane Zone 4 nak004a

EXXON

Subdivision Field Map
Map Key: KENNK001A
Name: D. FitzGerald
Date: 13 May 1991
Data Entered:

ACE 9962073



NK001 A

Subdivision Field Map

Map Key: KENNK001A

Name: D. FitzGerald

Date: 13 May 1991

METERS

0 100 200

AK State Plane Zone 4
NAD83

EXXON

ACE 9962074

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 6	DATE 5/13/91
SEGMENT # NK-001	TIDAL HEIGHT(Range) -2.4 to -2.6
SUBDIVISION	BIOLOGIST T.A. Schroeder
SEA STATE Calm	WIND SPEED/DIRECTION calm
PHOTOGRAPHS: ROLL #	FRAME #

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

(A1 & B1) = Located in a protected cove. The SOR/CT does not appear to be affecting algal communities that are thriving within 4-10 meters. Littorine snails, limpets and barnacles abundant on rock outcropping adjacent to oil.

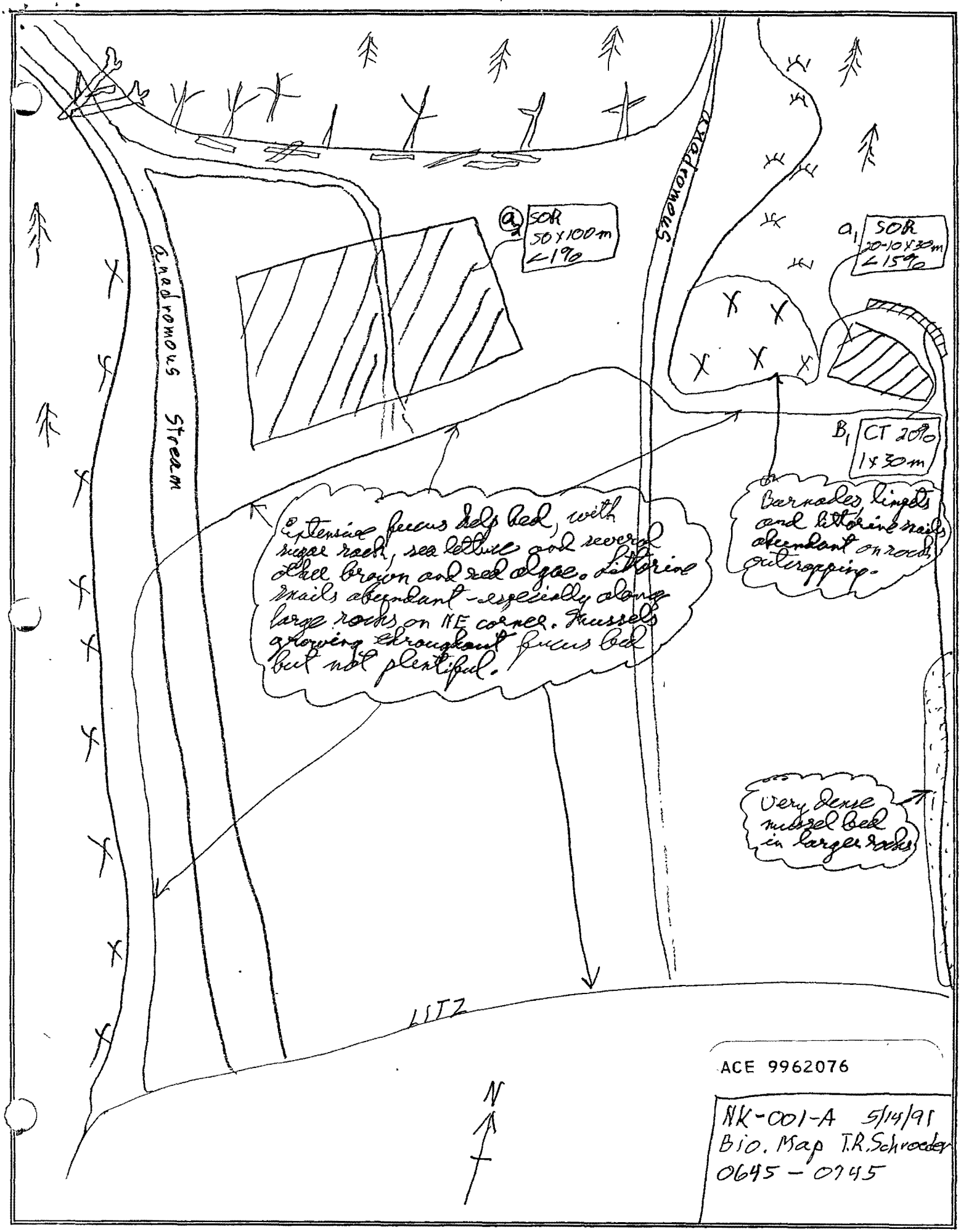
(A2) = SOR adjacent to small stream but no oil observed in stream. Due to lack of intertidal spawning in this stream, oil remaining poses no threat to salmon production. The primary spawning area in both streams is upstream with little or no intertidal spawning. Therefore, the spawning area was probably never impacted by the spill. These streams are very inconsistent producing streams most probably due to the short drainage system which causes the streams to dry up in the summer on occasion and may experience extensive freezing in winter. The entire MITZ and LITZ are covered with a lush growth of fucus kelp and sugar wrack algae interspersed with sea lettuce and other brown and red algae. Mussels were present throughout the fucus bed but were especially abundant along the large rocks on the northeastern shore. Littorine snails, barnacles and limpets were also very abundant, but tended to be concentrated in the more protected large boulder areas.

WILDLIFE OBSERVATIONS
TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1 bald	1	
Seabirds			
Waterfowl	1	1	
Gulls/kittiwakes	1 gull	2	
Shorebirds			
Corvids	1 Raven	1	
Other Birds	1 dead bird carcass		

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters			
Pinnipeds(specify)	2 Harbor Seals		
Whales(specify)			ACE 9962075

Shoreline subdivision map showing important biological features attached.

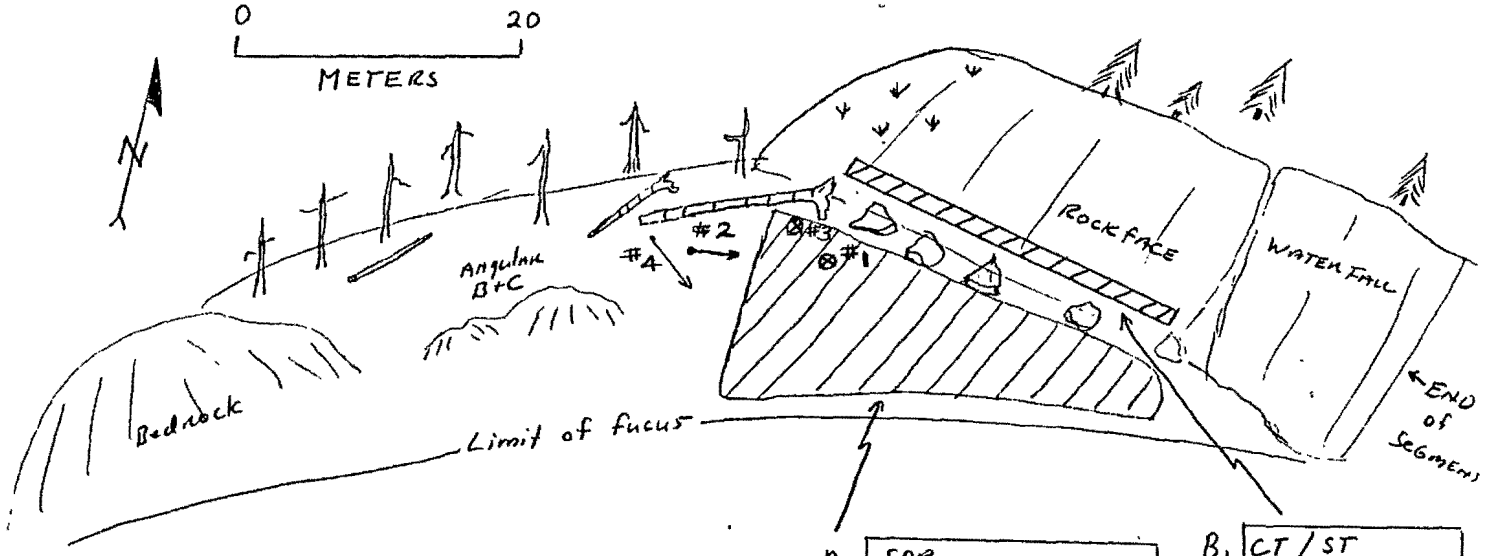

Anadromous Stream
Anadromous
a_2 SOR 50 x 100 m ∠19°
a_1 SOR 20-10 x 30 m ∠15°
B_1 CT 20% 1 x 30 m
Extensive fucus belt bed, with sugar rock, sea lettuce and several shell brown and red algae. Littorine snails abundant - especially along large rocks on NE corner. Mussels growing throughout fucus bed but not plentiful.
Barnacles limpets and littorine snails abundant on rocks outcropping.
Very dense mussel bed in larger rocks
LITZ
N
ACE 9962076
NK-001-A 5/14/91
Bio. Map T.R. Schroeder
0645 - 0745

Dead trees
Logs
Grassy Area
Photo sites

PHOTO SITES NK-1A
ROLL 6-13, FRAMES 1 THRU 6

Sketch Maps (OG)
NK-1-A
D. Fitzgerald
13 May 1991
6:47 - 7:46

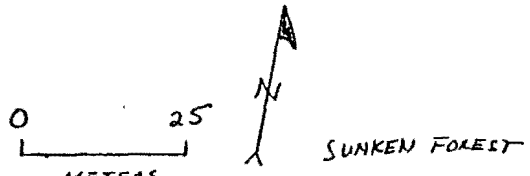
SITE 1.

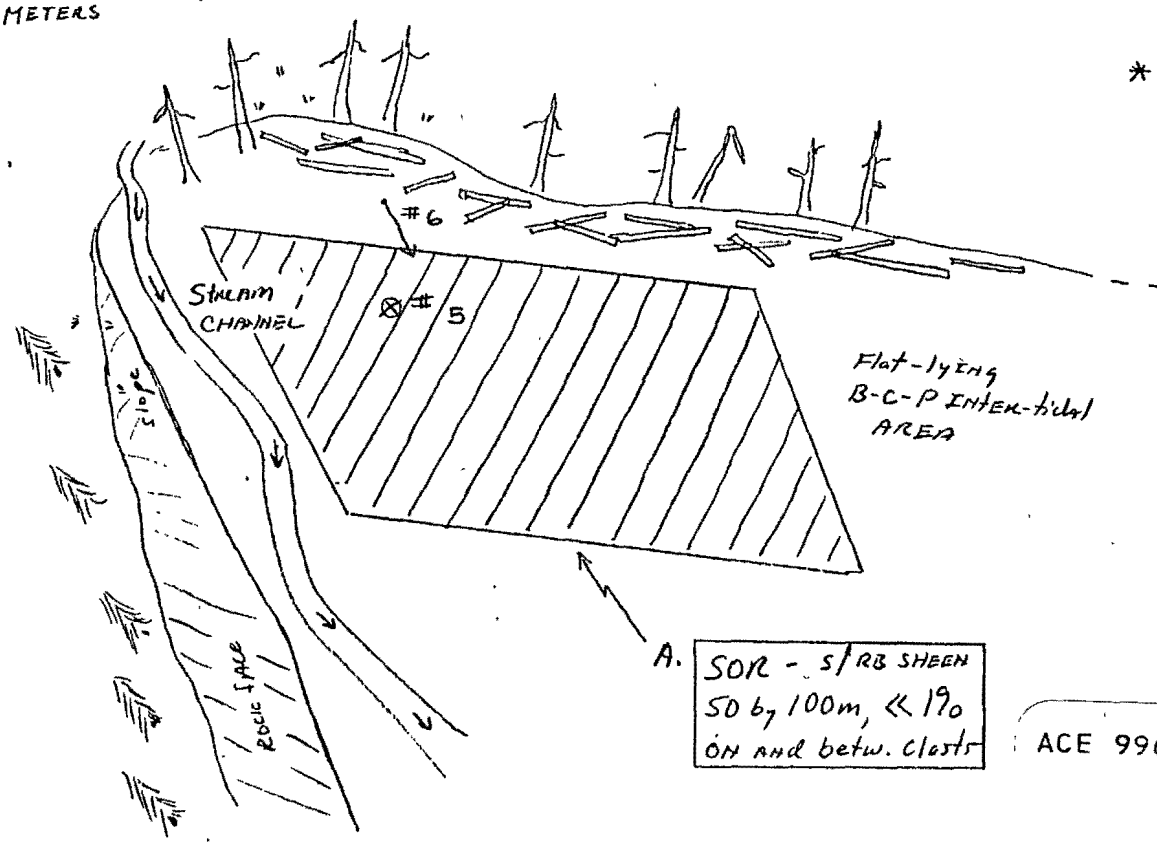


A. SOR
20-10 by 30m, < 15%
Rainbow Sheen
between & under
Angular clasts

B. CT / ST
1 by 30m, 20%
Bath tub ring
on vertical Face

SITE 2.





* ¼ Bag of oil sed. was picked up by VECO worker

A. SOR - S/RB SHEEN
50 by 100m, << 1%
on and betw. clasts

ACE 9962077-1/LS/P/HF

MAYSAP - NE Cove Nuka Island

ADF&G MULTI-ASSESSMENT DATA FORM

ANAD

1) SURVEY TYPE: **(BS)** SS
2) REGION: PWS **(KP,CI)** K,AP
3) METHOD: Aerial **(Ground)** Boat
4) DATE: 5/13/91
5) START TIME: 0658
6) STOP TIME: 0744
7) SEGMENT #: NK-1A
8) K-UNIT: ______
9) LAT: 59 23 33
10) LONG: 150 37 35
11) ASC #: 232-21-10240 & 10230
12) STREAM NAME: ______
13) LOCATION: Nuka Island, Head of "NE Cove"
14) WAVE EXPOSURE: High **(Moderate)** Low
15) SHORELINE TYPE: Headland **(Low-lying Rocks)** **(Beach)** **(Cove)** Lagoon Marsh
16) HIGH TIDE TIME: 0053/1452
17) HIGH TIDE HTS: 19.8/18.2
18) LOW TIDE TIMES: 10830/2033
19) LOW TIDE HTS: -3.5/11.7
20) TIDE HT AT SURVEY: ______ **(Ebb)** Slack Flood Slack
21) USCG QUAD: Seldovia B-2
22) TEAM RECORDER: Doug Hill (ADF&G) Duncan FitzGerald (OG)
23) OBSERVERS: [illegible] Blonde [illegible] (USFWS)
24) AGENCY: [illegible]
25) PHOTOS TAKEN: Y **(N)**
ROLL #: ______ FRAMES: ______
26) VIDEO TAKEN: Y **(N)**
TAPE # ______
START: ______ STOP: ______
27) SAMPLES TAKEN? Y **(N)**
SAMPLE I.D. ______

28) EXTENT OF OIL

	LENGTH m	WIDTH m	M2	% [illegible]	[illegible]	PEN cm	OIL TYPE
SITE 1	100	50	5000	< [illegible]	[illegible]	[illegible]	AP/SOR (MSOR)
SITE 2	30	20	600	[illegible]	[illegible]	[illegible]	OP/MSOR/Sheen
SITE 3	30	1	30	< [illegible]	[illegible]	[illegible]	CT/ST
SITE 4							
SITE 5							

Note: 10240 was not up for reassessment. enter separately.

29) OVERALL OIL IMPACT:

H = >6m band with ≥50% oil coverage

M = >6m band with ≤ 50% oil coverage or ≥3m to ≤6m with ≥10% oil coverage

(L) = <3m band with >10% oil coverage

VL = ≤10% oil coverage regardless of band width

N = No oil observed

30) OIL IN STREAMBED: Y **(N)**

31) OIL ON BEACH ADJACENT TO MOUTH: **(Y)** N

32) SUBSTRATE TYPE (PERCENT):

Bedrock ______ Boulder 10 Gravel 30 Sand ______ Cobble 50 Mud/Silt 10

33) A[illegible]SH PRESENT: Y **(N)**

34) WILDLIFE OBSERVATION

Species	Number
BALD EAGLE, otter sign	

35) COMMENTS: As in previous yrs the heaviest oil is present at the pocket beach on the north end of the segment. Upon arriving at the pocket beach oil was not readily visible. However, light sheen was present on the surface of small puddles of water. The majority of the oil observed was SOR. , A 1' square patch of mousse OP was observed - Approx. 2 cm thick. I believe more OP could be found with exploration (turning more rocks over). As in the past, disruption of this beach reveals more oil than is readily apparent - It's as if someone poured fuel oil all over the beach (oil saturated sediment). Disrupting the beach surface is the only way to realize the amount of oil in the pocket area.

OVER →

MAYSAP - NE Cove Nuka Island

ADF&G MULTI-ASSESSMENT DATA FORM

ANAD

1) SURVEY TYPE: (BS) SS
2) REGION: PWS (KP,CI) K,AP
3) METHOD: Aerial (Ground) Boat
4) DATE: 6/13/91
5) START TIME: 0638
6) STOP TIME: 0744
7) SEGMENT #: NK-1A
8) K-UNIT: _____
9) LAT: 59 23 33
10) LONG: 150 37 35
11) ASC #: 232-21-10240 & 10230
12) STREAM NAME: _____
13) LOCATION: Nuka Island, Head of "NE Cove"
14) WAVE EXPOSURE: High (Moderate) Low
15) SHORELINE TYPE: Headland (Low-lying Rocks) (Beach) (Cove) Lagoon Marsh
16) HIGH TIDE TIME: 0053/1452
17) HIGH TIDE HTS: 19.8/18.2
18) LOW TIDE TIMES: 1030/2033
19) LOW TIDE HTS: -3.5/1.7
20) TIDE HT AT SURVEY: _____
(Ebb) Slack Flood Slack
21) USCG QUAD: Seldovia B-2
22) TEAM RECORDER: Doug Hill (ADF&G) Duncan Fitzgerald (OG)
23) OBSERVERS: [illegible]
24) AGENCY: [illegible]
25) PHOTOS TAKEN: Y (N)
ROLL #: _____ FRAMES: _____
26) VIDEO TAKEN: Y (N)
TAPE # _____
START: _____ STOP: _____
27) SAMPLES TAKEN? Y (N)
SAMPLE I.D. _____

28) EXTENT OF OIL

	LENGTH m	WIDTH m	M2	%	THICK cm	PEN cm	OIL TYPE
SITE 1	100	50	5000	<1%	<2.5	—	AP/SOR(MSOR)
SITE 2	30	20	600	10%	<2.5	—	OP/MSOR/sheen
SITE 3	30	1	30	<1%	—	—	CT/ST
SITE 4							
SITE 5							

29) OVERALL OIL IMPACT:
- H = >6m band with ≥50% oil coverage
- M = >6m band with ≤ 50% oil coverage or ≥3m to ≤6m with ≥10% oil coverage
- (L) = <3m band with >10% oil coverage
- VL = ≤10% oil coverage regardless of band width
- N = No oil observed

30) OIL IN STREAMBED: Y (N)
31) OIL ON BEACH ADJACENT TO MOUTH: (Y) N
32) SUBSTRATE TYPE (PERCENT):
Bedrock ____ Boulder 10 Gravel 30 Sand ____ Cobble 50 Mud/Silt 10

33) ANADROMOUS FISH PRESENT: Y (N)

34) WILDLIFE OBSERVATION

Species	Number
BALD EAGLE, other Sign.	

35) COMMENTS: As in previous yrs the heaviest oil is present at the pocket beach on the north end of the segment. Upon arriving at the pocket beach oil was not readily visible. However, light sheen was present on the surface of small puddles of water. The majority of the oil observed was SOR. A 1' square patch of OP mousse was observed - Approx. 2 cm thick. I believe more of could be found with exploration (turning more rocks over). As in the past, disruption of this beach reveals more oil than is readily apparent - It's as if someone poured fuel oil all over the beach (oil saturated sediment). Disrupting the beach surface is the only way to realize the amount of oil in the pocket area.

OVER →

36) PHOTOLOG

FRAME(S)	DESCRIPTION
	SEE MAYSAP Photosite location MAP
	Photos were taken by Gary Shigenaka of NOAA
	Roll # 6-13
	Frame # 1-6

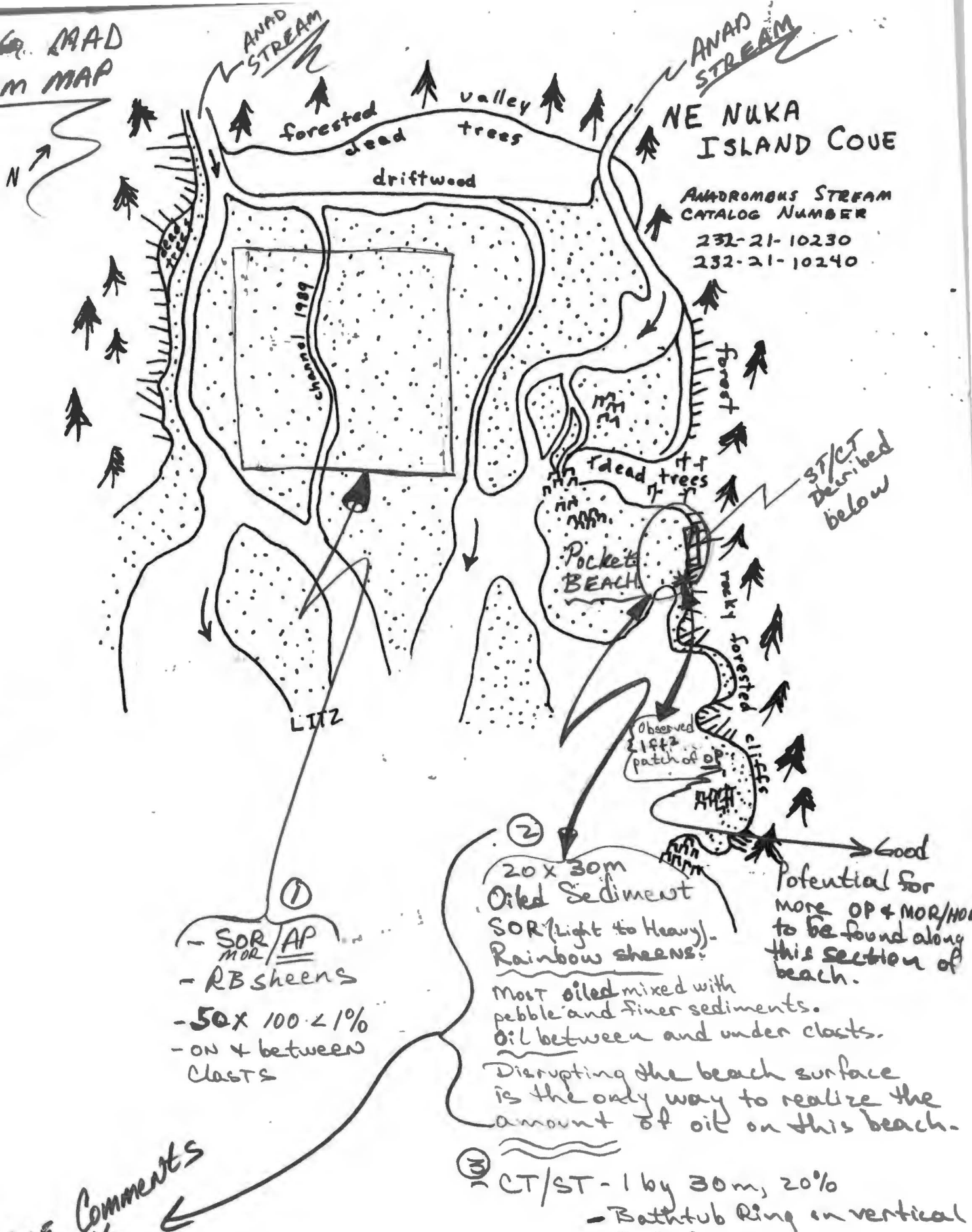
Comments continued: the Pocket beach area was bioremediated in 1989.

- The Veco crew removed approximately 10 yds of oil saturated sediment
- The OSC states that the oil % is low yet significant sheens arise from the sediment in the pocket beach area (oil saturated sediment).

▲ = Sample Taken
2/ = Photo Frame # and Shot Direction

A:EDDATFO
April 3, 1991

~~AOF&G~~ MAD FORM MAP



SEE Comments ON AOF&G Multi-Assess. DATA Form for Site #2

MAYSAP - NE Cove Nuka Island

ADF&G MULTI-ASSESSMENT DATA FORM

1) SURVEY TYPE: ~~BS~~ SS (6) ANAO — 2) REGION: PWS (KP,CI) K,AP — OK

3) METHOD: Aerial (Ground) Boat

4) DATE: 5/13/91 — 16) HIGH TIDE TIME: 0053/1452 — 22) TEAM RECORDER: Doug Hill (ADF&G) Duncan Fitzgerald (OG)

5) START TIME: 0638 — 17) HIGH TIDE HTS: 19.8/18.2 — 23) OBSERVERS: _____

6) STOP TIME: 0744 — 18) LOW TIDE TIMES: 10830/2033 — 24) AGENCY: _____

7) SEGMENT #: NK-1A — 19) LOW TIDE HTS: -3.5/1.7 — 25) PHOTOS TAKEN: Y (N)

8) K-UNIT: _____ — 20) TIDE HT AT SURVEY: _____ — ROLL #: _____ FRAMES: _____

9) LAT: 59 23 33 — (Ebb) Slack Flood Slack — 26) VIDEO TAKEN: Y (N)

10) LONG: 150 37 35 — 21) USCG QUAD: Seldovia B-2

11) ASC #: 232-21-10240 & 102-30 — 2 forms.

12) STREAM NAME: _____

13) LOCATION: Nuka Island, Head of "NE Cove"

14) WAVE EXPOSURE: High (Moderate) Low

15) SHORELINE TYPE: Headland (Low-lying Rocks) (Beach) (Cove) Lagoon Marsh

27) Note: 10240 was ~~not~~ up for reassessment. DH enter separately (N)

28) EXTENT OF OIL

	LENGTH m	WIDTH m	M2	%	THICK cm	PEN cm	OIL TYPE
SITE 1	100	50	5000	<1%	<2.5	—	AP/SOR(MSOR)
SITE 2	30	20	600	10%	<2.5	—	OP/MSOR/sheen
SITE 3	30	1	30	<1%	—	—	CT/ST
SITE 4							
SITE 5							

29) OVERALL OIL IMPACT:

- H = >6m band with ≥50% oil coverage
- M = >6m band with ≤ 50% oil coverage or ≥3m to ≤6m with ≥10% oil coverage
- (L) = <3m band with >10% oil coverage
- VL = ≤10% oil coverage regardless of band width
- N = No oil observed

MS TP AP
ST SOR H→MOLOR

30) OIL IN STREAMBED: Y (N)

31) OIL ON BEACH ADJACENT TO MOUTH: (Y) N

32) SUBSTRATE TYPE (PERCENT):

Bedrock ____ Boulder 10 Gravel 30 Sand ____ Cobble 50 Mud/Silt 10

33) ANADROMOUS FISH PRESENT: Y (N)

34) WILDLIFE OBSERVATION

Species	Number
BALD EAGLE, other Sign	

35) COMMENTS: As in previous yrs. the heaviest oil is present at the pocket beach on the north end of the segment. Upon arriving at the pocket beach oil was not readily visible. However, light sheen was present on the surface of small puddles of water. The majority of the oil observed was SOR. A 1" square patch of mousse OP was observed - Approx. 2 cm thick. I believe more OP could be found with exploration (turning more rocks over). As in the past, disrupting of this beach reveals more oil than is readily apparent - It's as if someone poured fuel oil all over the beach (oil saturated sediment). Disrupting the beach surface is the only way to realize the amount of oil in the pocket area.

OVER

36) PHOTOLOG

FRAME(S)	DESCRIPTION
	SEE MAYSAP Photosite location MAP Photos were taken by Gary Shigenaka of NOAA Roll # 6-13 Frame # 1-6

Comments continued: the Pocket beach area was bioremediated in 1989.

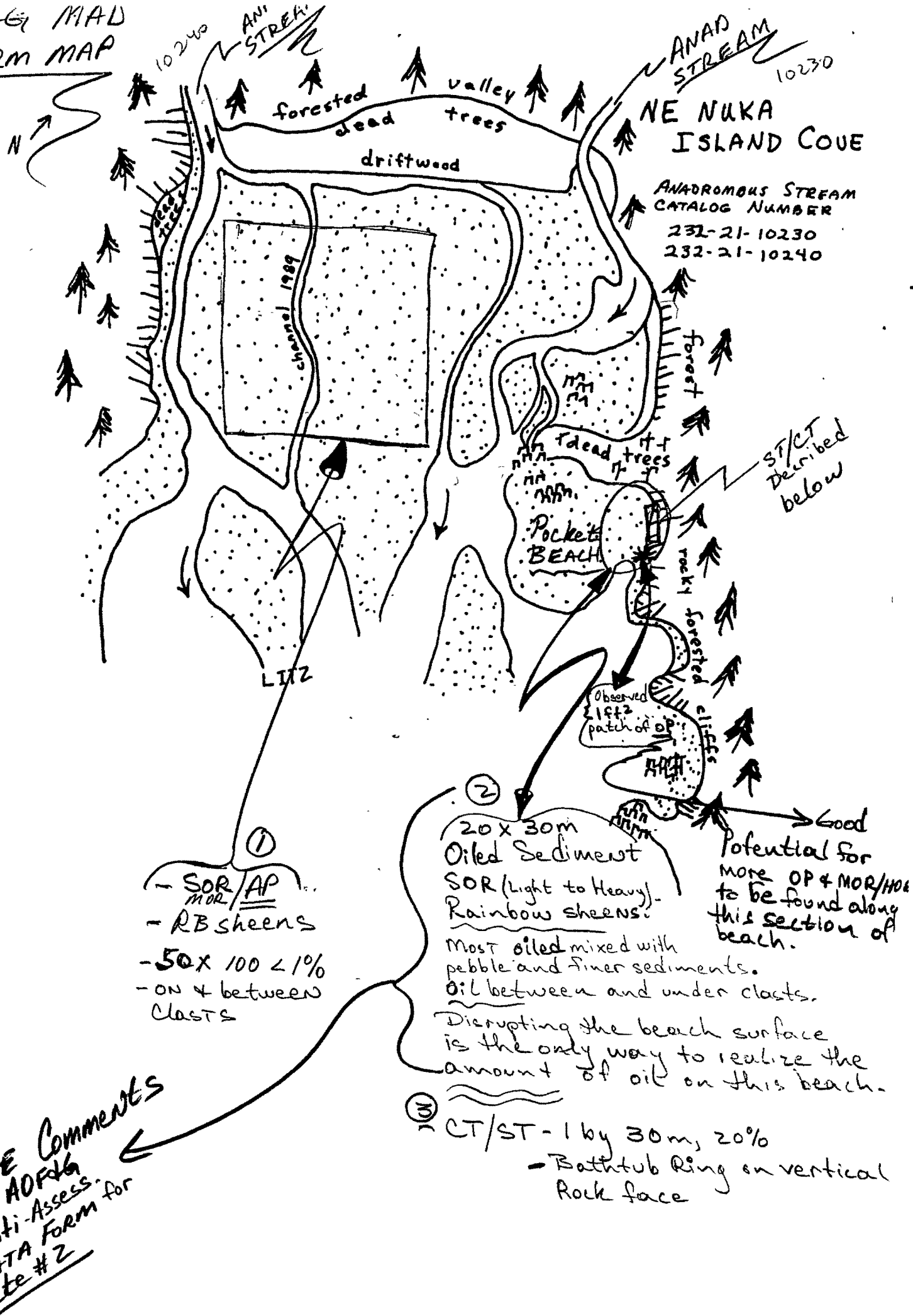
- The Veco crew removed approximately 10 yds of oil saturated sediment
- The OSC states that the oil % is low yet significant sheens arise from the sediment in the pocket beach area (oil saturated sediment).

Δ = Sample Taken
2↗ = Photo Frame # and Shot Direction

A:EDDATFO
April 3, 1991

~~AOFG~~ MAP

FORM MAP



SEE Comments ON AOFG Multi-Assess. DATA Form for Site #2

ADF&G MULTI-ASSESSMENT FORM
1991 GENERAL ENTRY CHECKLIST

STREAM#: 2322110230
SEGMENT: NK001

PAGE 1 DATE PRINTED: 07/29/91

LOCATION: NUKA ISLAND, NORTHEAST COVE, SOUTH CREEK

SURVEY TYPE: 91 MAYSAP ~~-BB~~ SS/BS METHOD: ~~GROUND~~ FOOT

DATE: 05/13/91 TEAM RECORDER: HILL FITZGERALD

START TIME: 0638 OBSERVERS: -0-
END TIME: 0744

TIDES: EBB -3.5/1.7 AGENCY: FG
OG/HAB DISCREPANCIES: -

PHOTOS TAKEN: ~~N~~ Y

STATION: 2322110230 ROLL#: -0- NOAA 6-13
FRAME: -0- 1-6

VIDEO TAKEN: N TAPE#: -0-
START: -0- END: -0-

SAMPLES TAKEN: N

SAMPLE NUMBERS: -0- -0-
-0- -0-
-0- -0-

OIL IN STREAM BED: N

OVERALL OIL IMPACT: L OIL ON BEACH BY MOUTH: Y

WAVE EXPOSURE: MOD SHORELINE TYPE: LOW-LYING ROCKS BEACH COV

SUBSTRATE TYPE: BEDROCK -0- BOULDER 10 COBBLE ~~40~~ 50 VEGETAT -0-

GRAVEL ~~30~~ 10 SAND 25 ~~-0-~~ MUD/SILT ~~40~~ 25 GRANULE -0-

ANADROMOUS FISH PRESENT: N

SPECIES:	COUNT:
BALD EAGLE	-0-
-0-	-0-
-0-	-0-
-0-	-0-
-0-	-0-

91

ADF&G MULTI-ASSESSMENT FORM
1991 GENERAL ENTRY CHECKLIST

STREAM#: 2322110230
SEGMENT: NK001

PAGE 1 DATE PRINTED: 07/29/91

LOCATION: NUKA ISLAND, NORTHEAST COVE, SOUTH CREEK

SURVEY TYPE: 91 MAYSAP ~~-BBS~~ SS/BS METHOD: ~~GROUND~~ FOOT

DATE: 05/13/91 TEAM RECORDER: HILL FITZGERALD

START TIME: 0638 OBSERVERS: -0-
END TIME: 0744

TIDES: EBB -3.5/1.7 AGENCY: FG
OG/HAB DISCREPANCIES: -

PHOTOS TAKEN: ~~N~~ Y

STATION: 2322110230 ROLL#: -0- NOAA 6-13
FRAME: -0- 1-6

VIDEO TAKEN: N TAPE#: -0-
START: -0- END: -0-

SAMPLES TAKEN: N

SAMPLE NUMBERS: -0- -0-

-0- -0-

-0- -0-

OIL IN STREAM BED: N

OVERALL OIL IMPACT: L OIL ON BEACH BY MOUTH: Y

WAVE EXPOSURE: MOD SHORELINE TYPE: LOW-LYING ROCKS BEACH COV

SUBSTRATE TYPE: BEDROCK -0- BOULDER 10 COBBLE ~~40~~ 50 VEGETAT -0-

GRAVEL ~~30~~ 10 SAND 25 ~~-0-~~ MUD/SILT ~~40~~ 25 GRANULE -0-

ANADROMOUS FISH PRESENT: N

SPECIES:	COUNT:
BALD EAGLE	-0-
-0-	-0-
-0-	-0-
-0-	-0-
-0-	-0-

ADF&G MULTI-ASSESSMENT FORM
1991 GENERAL ENTRY CHECKLIST

STREAM#: 2322110240
SEGMENT: NK001

PAGE 1 DATE PRINTED: 07/29/91

LOCATION: NUKA ISLAND, NORTHEAST COVE, NORTH CREEK

SURVEY TYPE: 91MAYSAP - ~~SS~~ SS/BS METHOD: ~~GROUND~~ FOOT

DATE: 05/13/91 TEAM RECORDER: HILL FITZGERALD

START TIME: 0638 OBSERVERS: -0-
END TIME: 0744

TIDES: EBB AGENCY: FG
OG/HAB DISCREPANCIES: -

PHOTOS TAKEN: ~~N~~ Y

STATION: 2322110240 ROLL#: -0- NOAA 6-13
FRAME: -0- 1-6

VIDEO TAKEN: N TAPE#: -0-
START: -0- END: -0-

SAMPLES TAKEN: N

SAMPLE NUMBERS: -0- -0-
-0- -0-
-0- -0-

OIL IN STREAM BED: N

OVERALL OIL IMPACT: L OIL ON BEACH BY MOUTH: Y

WAVE EXPOSURE: MOD SHORELINE TYPE: LOW-LYING ROCKS BEACH COV

SUBSTRATE TYPE: BEDROCK ~~10~~ 0 BOULDER 10 COBBLE ~~50~~ 30 VEGETAT -0-

GRAVEL ~~30~~ 20 SAND 10 ~~-0-~~ MUD/SILT ~~10~~ 20 GRANULE -0-

ANADROMOUS FISH PRESENT: N

SPECIES: BALD EAGLE COUNT: -0-
-0- -0-
-0- -0-
-0- -0-
-0- -0-

END OF REPORT

ADF&G MULTI-ASSESSMENT FORM
1991 OILING ENTRY CHECKLIST

DATE PRINTED: 07/29/91

STREAM# : 2322110240
SEGMENT#: NK001

SURVEY TYPE : 91MAYSAP - ~~BS~~SS/BS
DATE: 05/13/91
TIMES: 0638 - 0744

LOCATION: NUKA ISLAND, NORTHEAST COVE, NORTH CREEK
TEAM RECORDER: HILL FITZGERALD

-- OILING EXTENT --

SITE#	SITE TYPE	DEPTH (cm)	LENGTH (m)	WIDTH (m)	AREA (m)	%	THICK (cm)	PEN (cm)	OIL TYPE CODES
1	-0-	-0-	100	50	5000	<1	<2.5	-0-	AP SOR MOR
2	-0-	-0-	30	20	600	10	<2.5	-0-	OP MOR SHE
3	-0-	-0-	30	1	30	<1	-0-	-0-	CT ST

COMMENTS:
AS IN PREVOIUS YEARS THE HEAVIEST OIL IS PRESENT AT THE POCKET BEACH ON THE NORTH END OF THE SEGMENT. UPON ARRIVING AT THE POCKET BEACH OIL WAS NOT READILY VISIBLE. HOWEVER, LGITH SHEEN WAS PRESENT ON THE SURFACE OF SMALL PUDDLES OF WATER. THE MAJORITY OF THE OIL OBSERVED WAS 'SOR'. A 1' SQUARE PATCH OF MOUSSE 'OP' COULD BE FOUND WITH EXPLORATION (TURNING ROCKS OVER). AS IN THE PAST DISRUPTION OF THIS BEACH REVEALS MORE OIL THAN IS READILY APPARENT. ITS AS IF SOMEONE POURED FUEL OIL ALL OVER THE BEACH (OIL SATURATED SEDIMENT). DISRUPTING THE BEACH SURFACE IS THE ONLY WAY TO REALIZE THE AMOUNT OF OIL IN THE POCKET AREA. THE POCKET BEACH AREA WAS BIOREMEDIATED IN 1989. THE VECO CREW REMOVED APPROXIMATELY 10 POUNDS OF OIL SATURATED SEDIMENT. THE OG STATES THAT THE OIL % IS LOW. YET Nonetheless, SIGNIFICANT SHEENS ARISE FROM THE SEDIMENT IN THE POCKET BEACH AREA (OIL SATURATED SEDIMENT).

LIGHT

AK # 232-21-10230
232-21-10240

1991 MAYSAP EVALUATION

SEGMENT: NK 001 **SUB:** A **REGION:** KEN **SURVEY DATE:** 5/13/91

ENVIRONMENTAL SENSITIVITIES:
Work Window(s) OPEN 5/1 - 7/10; RESTRICTED 7/10 - 9/15

Ecological/Constraints (see page two for details) **Fish harvest area, Anadromous stream**

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

SHPO Signature: _____ Date: _____

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

COMMENTS:
INITIAL: NTR

TAG: NTR

FOSC: _____

TAG APPROVAL DATE: 5/24/91 **FOSC APPROVAL DATE:** _____

ADEC _____ FOSC _____

EXXON _____

USCG _____

NOAA _____

√ or possibility of looking at this later on ?

ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES

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

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

TEAM NO. 6-Helo SEGMENT NK-01 SUBDIVISION A DATE 13 / May / 91

232-21-10230

ADEC
NAME D. Hill of ADFG SIGNATURE Douglas D Hill

☒ TR ☐ NTR {Two anadromous streams exist in this segment as well as river otters and sea otters. Other pits were observed in the LITZ). The most heavily oiled portion of this segment is found at the north end (pocket beach). During todays survey as in 1990 the more the surface of the pocket beach was stirred / disrupted the more apparent the oil present became. I feel this beach holds more oil than is readily apparent. I'm not suggesting that a large quantity of oil is present. I feel that because of the past experience mentioned above, todays observations, the fact that the beach exists within Kachemak Bay Wilderness park and because of the habitat the area provides for fish, otters and eagles etc. further manual removal is warranted.
A few patches of light brown mousse (6"x6") were observed after a bit of excavation at the pocket beach - perhaps more will turn up with further manual removal.

EXXON
NAME R Coulter SIGNATURE Rex R. Coulter

☑ NTR
VERY LIGHT AND SPORADIC SOR WHICH WAS FOUND ONLY EVIDENT BY SEARCHING THE AREA. THE BIOTA WAS HEALTHY AND DENSE IN MOST AREAS OF THE BEACH. THERE IS NOTHING TO DO HERE OTHER THAN SCRATCH OR BREAK THE SURFACE IN ISOLATED AREAS OF SOR. THERE ARE NO OTHER AREAS THAT WOULD BENEFIT FROM THIS TYPE OF BREAKUP AND IT WOULD ONLY DISRUPT ONGOING RECOVERY. VECO CREW BROKE UP AND REMOVED EVERYTHING WE FOUND IN ONE HOUR WITH 10 PEOPLE LOCATING OILED SEDIMENTS.

LANDMANAGER
NAME J. Johnson OF ADNR SIGNATURE

☐ NTR ☒ TR
This Beach is within Kachemak Bay State Park, established for its high scenic value. This segment has high recreation value. I recommend manual cleanup of mousse patties. Manual cleanup with shovels would do little if any harm to the MNZ, and could be accomplished easily + quickly. It is likely that some cleanup will be necessary in NK-2, and this segment could be done simultaneously.

USCG/NOAA
NAME Chief Jens [redacted]G. SHIGENAKA SIGNATURE

☒ NTR 1/4 bag SOR picked up. Further removal operations would cause more environmental harm than the oil to be removed.

SURVEYED PORTION OF THE SEGMENT IS THE HEAD OF A SMALL EMBAYMENT INTO WHICH TWO STREAMS FLOW. THE HEAD OF THE BAY IS CHARACTERIZED BY A BROAD, LOW-SLOPING COBBLE BEACH. BIOLOGIST SCHROEDER NOTED THAT PINK SALMON WHICH SPAWN IN THESE STREAMS DO NOT USE THE INTERTIDAL BUT MOVE INTO THE STREAMS THEMSELVES. SOME PORTIONS OF THE COBBLE BEACH SHOWED EXTENSIVE COVER OF RED AND BROWN ALGAE. OIL RESIDUES IN THE FORMS OF AP AND SOR WERE OBSERVED IN COBBLE SUBSTRATE IN THE NORTHEAST CORNER OF THE EMBAYMENT AND IN AN APPROXIMATELY 2 X 15 M BAND IN THE CENTRAL PART OF THE MIDDLE INTERTIDAL. IN THE NORTHEAST CORNER OF THE BEACH, SILVER TO RAINBOW SHEEN FORMED IN RUNOFF WATER WHEN COBBLES WERE OVERTURNED. SECTIONS OF HEAVIEST SOR APPEARED TO PENETRATE TO 2 CM MAX. COAT WITH SPRUCE NEEDLES WAS OBSERVED ON THE ROCK FACE APPROXIMATELY 1-2 M ABOVE THE BEACH. OILING WAS MORE OR LESS LIMITED TO THESE TWO GENERAL AREAS, AND VECO CREW REMOVED PATTIES AND PAVEMENT AS WELL AS SOME SOR. REMAINDER OF BEACH SURVEYED DID NOT SHOW EVIDENCE OF OILING.

TEAM NO. 2 PHOTO

OG D. FITZGERALD | BIO T. Schroeder | SEGMENT NK-1

ADEC D. Hill of AOF6 | LANDMANAGER J JOHNSON for AONR | SUBDIVISION A

EXXON R. Coultee | USCG/NOAA Chief JENSEN / G. SHIGEMAKA | DATE 13 / MAY / 91

TIME 6 : 47 to 7 : 46 | TIDE LEVEL .2 ft. to -1.3 ft. | ENERGY LEVEL: ☐ H ☐ M ☒ L

SURVEYED FROM: ☑ FOOT ☐ BOAT ☐ HELO | WEATHER: ☑ SUN ☐ CLOUDS ☐ FOG ☐ RAIN ☐ SNOW

TOTAL LENGTH SHORELINE SURVEYED: 415 m | NEAR SHORE SHEEN: ☐ BR ☒ RB ☒ SL ☐ NONE

EST. OIL CATEGORY LENGTH: W — m M 30 m N — m VL 100 m NO 285 m US — m

LOC	SURFACE OIL CHARACTER										SURFACE SEDIMENT	SHORE SLOPE	AREA		ZONE				NOTES
	AP	MS	TB	SOR	CV	CT	ST	FL	DB	NO	TYPE	V H M L	WIDTH m	LENGTH m	S	UI	MI	LI	
1A				P							C-B	L	15	30		X	X		Light, I/u clasts
1B						P	P				BR	L	1	30	X				BATH TUB RING ON VERT FACE
2A				T							C-B-P	L	50	100		X	X		LARGE AREA, TRACE AMT of O

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

SLOPE: V = VERTICAL; H = HIGH ANGLE; M = MEDIUM ANGLE; L = LOW ANGLE | PHOTO ROLL # MAYSAP- 6 - 13 | FRAMES 1-6

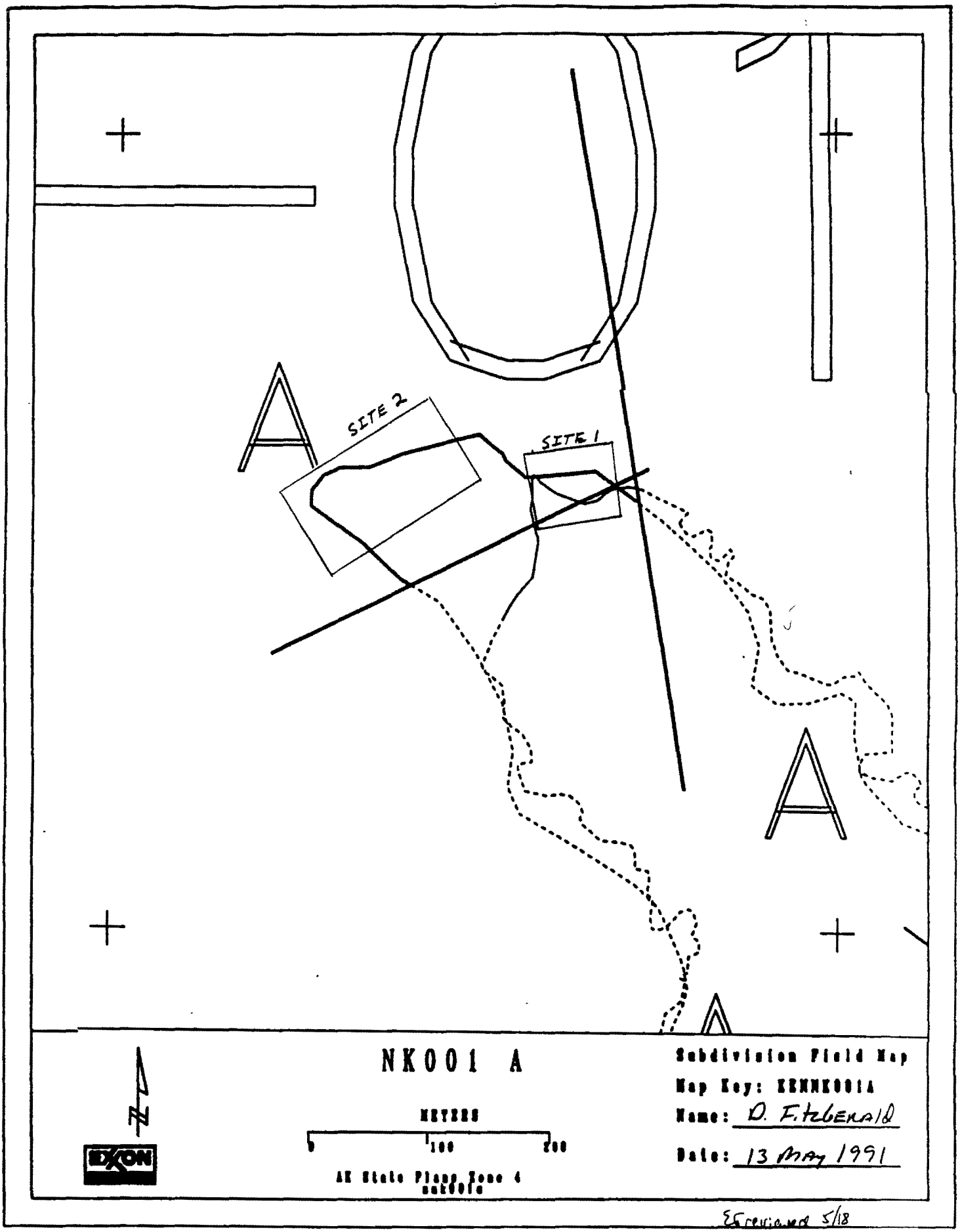
PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER							OILED ZONE cm-cm	CLEAN BELOW Y/N	H2O LEVEL (cm)	SHEEN COLOR B R S N	PIT ZONE				SURFACE-SUBSURFACE SEDIMENTS	NOTES
		OP	HOR	MOR	LOR	OF	TR	NO					S	UI	MI	LI		
									-									
									-									
									-									
									-									
									-									
									-									
									-									
									-									
									-									

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

OG COMMENTS: This site is located at the head of a deeply indented embayment with two Anad. Streams entering the region. The oil occurs in a broad area in the landward portion of the intertidal zone and on the bayward side of a small headland beach on the eastern side of the embayment. The broad oiled site consisted of very trace amounts of SOR with occasional Rainbow / silver sheens. The smaller beach site has an area of patchy SOR (thin) and an adjacent area of CT on a vertical bedrock face. Veco workers retrieved a 1/4 bag of oiled sediments from the two regions. Due to the thin, high friable and high percentage of sediment / oil ratio, much of the SOR was broken up and dispersed

revised 5/10/91 KC

ES revised 5/18

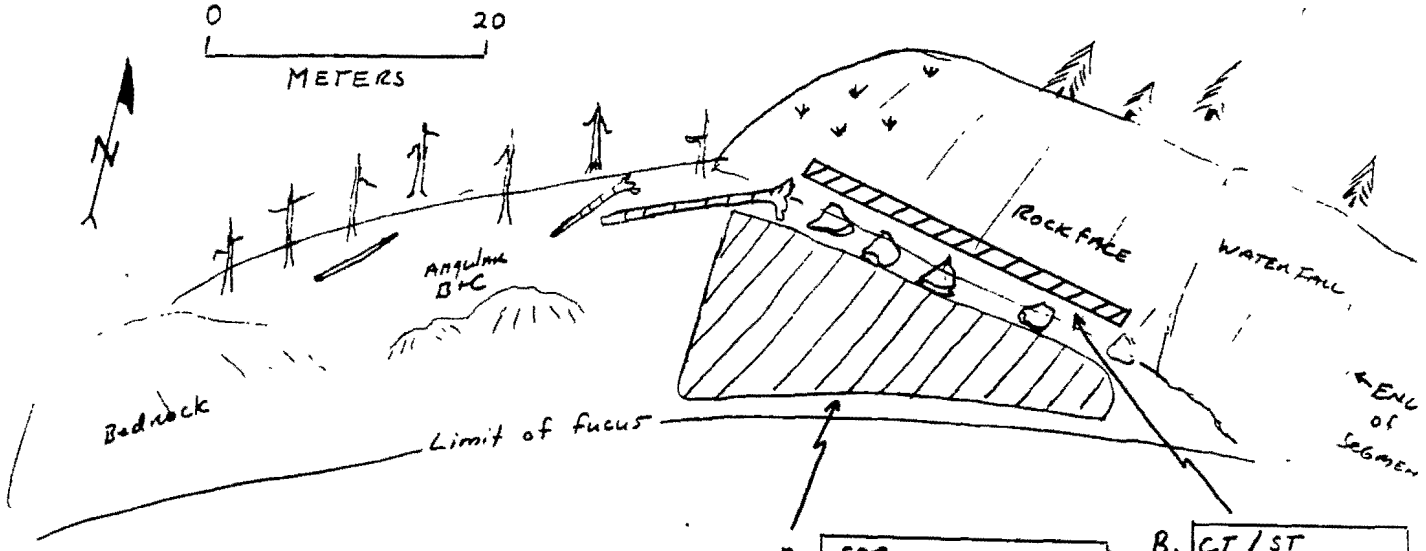


ES reviewed 5/18

Dead trees
Logs
GRASSY AREA
PHOTO SITES

Sketch MAPS (06)
NK-1-A
D. FitzGERALD
13 MAY 1991
6:47 - 7:46

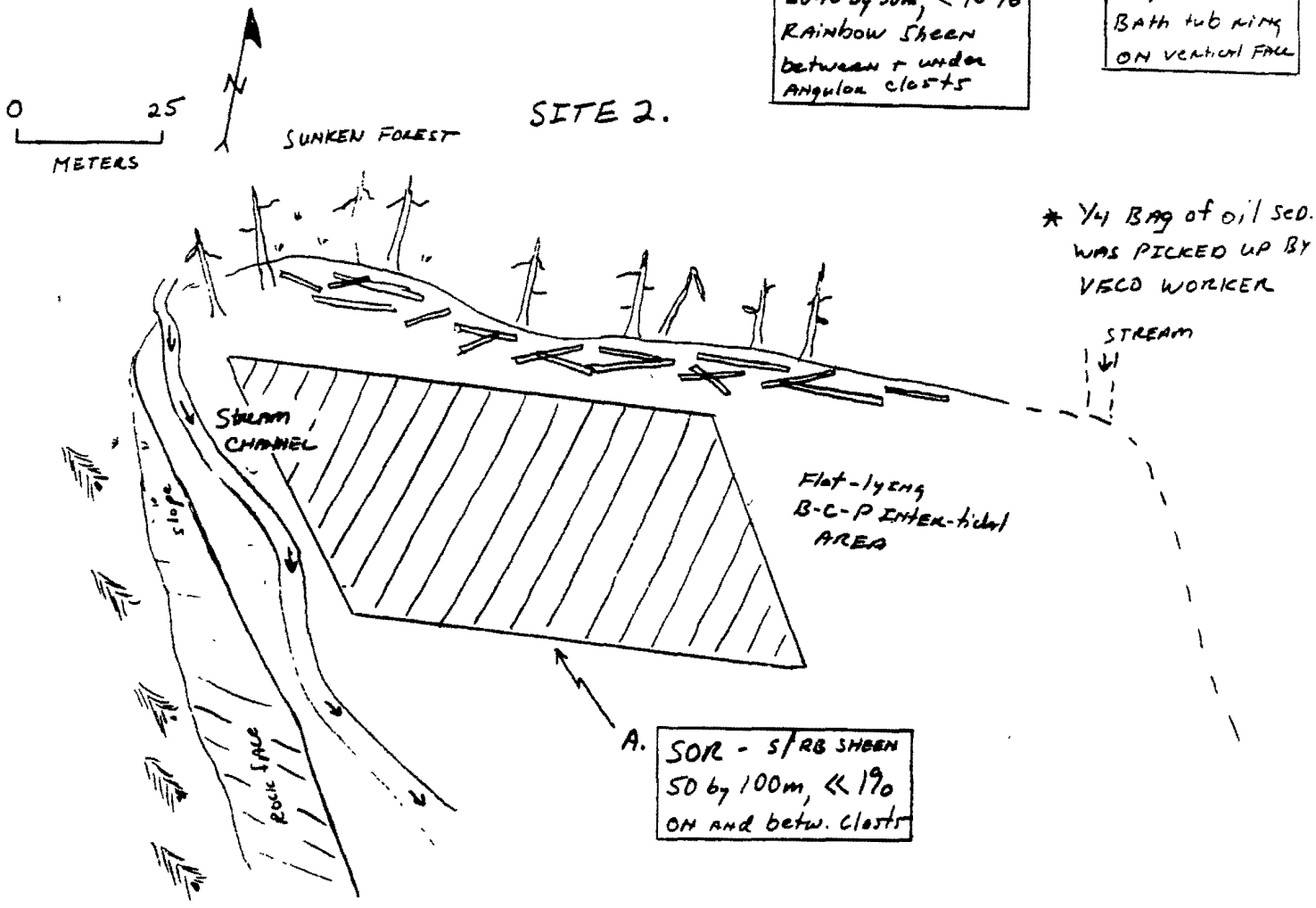
SITE 1.



A. SOR
20-10 by 30m, < 1%
RAINBOW SHEEN
between + under
ANGULAR clasts

B. CT / ST
1 by 30m, 20%
BATH TUB RING
ON VERTICAL FACE

SITE 2.



* 1/4 BAG of oil sed. WAS PICKED UP BY VECO WORKER

A. SOR - S/RB SHEEN
50 by 100m, << 1%
ON AND betw. clasts

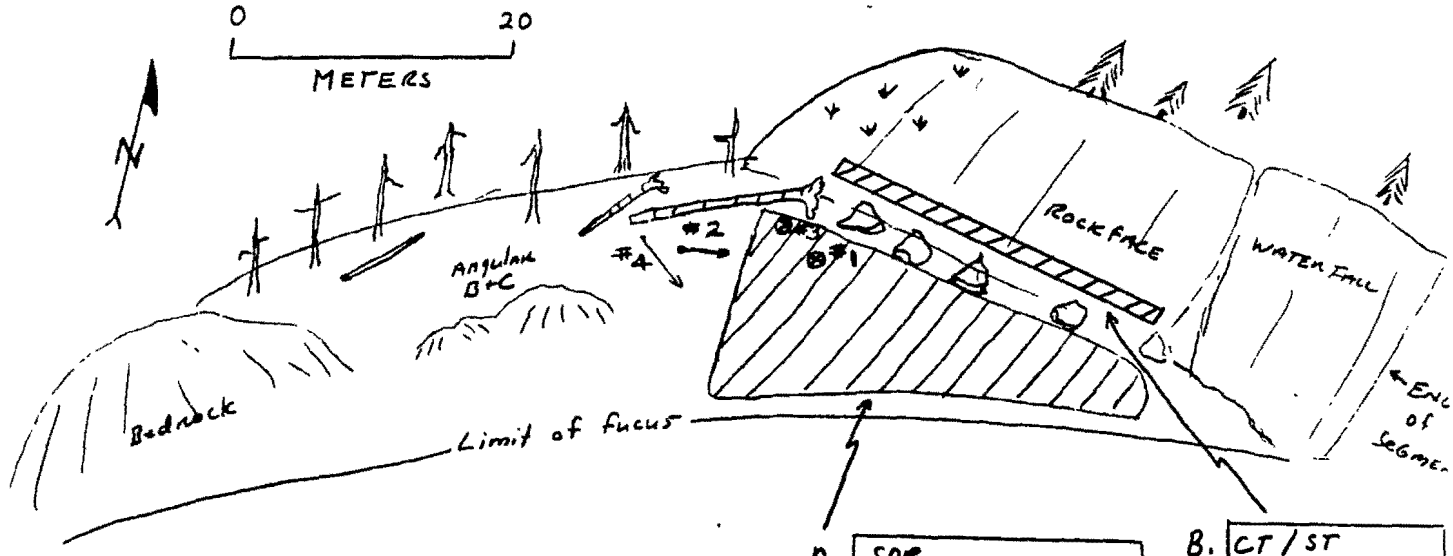
remains similar to
ES reviewed 5/18

Dead trees
Logs
GRASSY AREA
PHOTO SITES

PHOTO SITES NK-1A
ROLL 6-13, FRAMES 1 THRU 6

Sketch MAPS (OG,
NK-1-A
D. FitzGERALD
13 MAY 1991
6:47 - 7:46

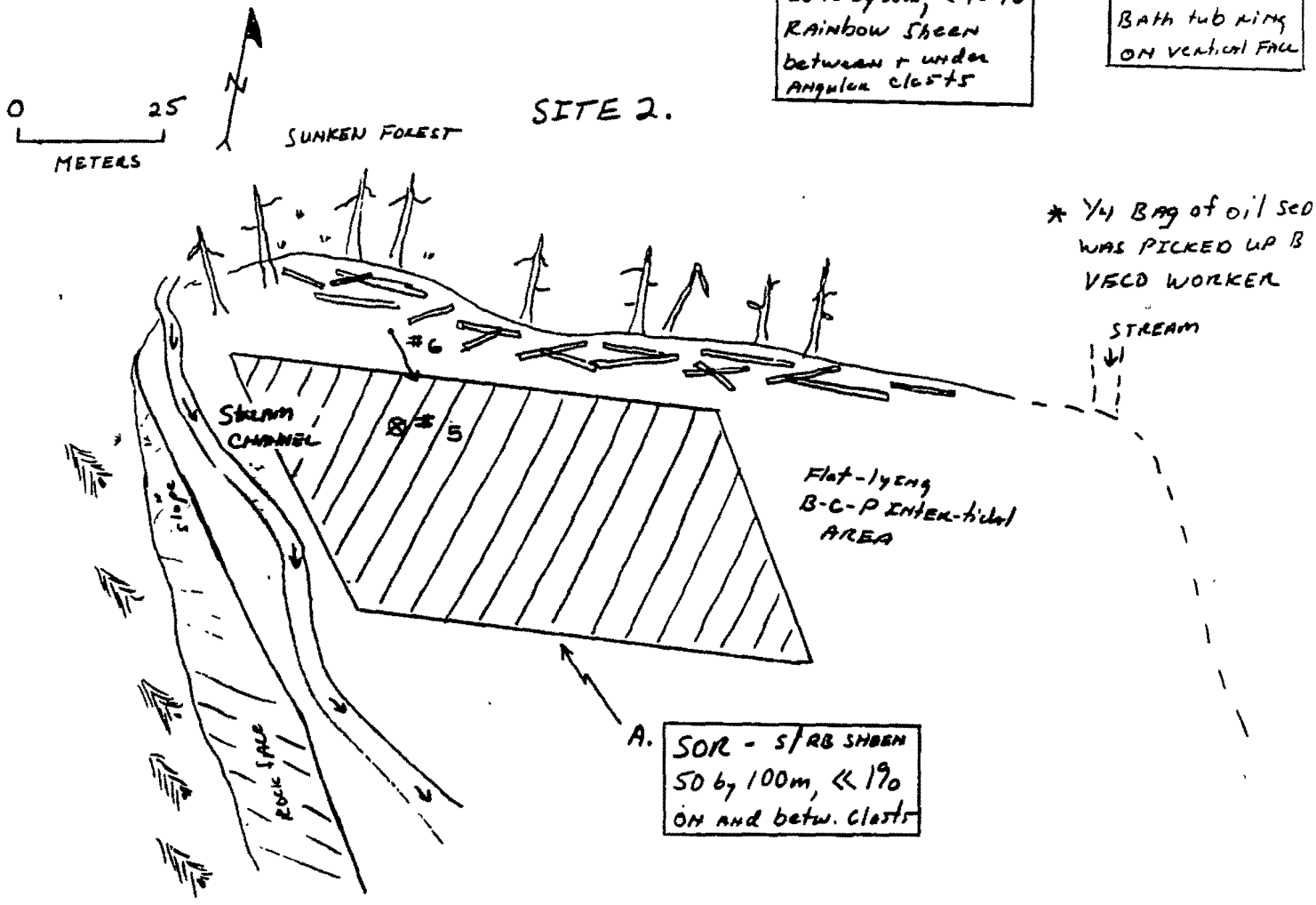
SITE 1.



A. SOR
20-10 by 30m, < 15%
RAINBOW SHEEN
between & under
ANGULAR clasts

B. CT / ST
1 by 30m, 20%
BATH TUB RING
ON VERTICAL FACE

SITE 2.



* ¼ BAG of oil SCD WAS PICKED UP B VECO WORKER

A. SOR - S/RB SHEEN
50 by 100m, << 1%
ON AND BETW. CLASTS

reviewed 5/13/91
EC reviewed 5/13

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 6	**DATE** 5/13/91
SEGMENT # NK-001	**TIDAL HEIGHT (Range)** -2.4 to -2.6
SUBDIVISION	**BIOLOGIST** T. A. Schroeder
SEA STATE calm	**WIND SPEED/DIRECTION** calm
PHOTOGRAPHS: ROLL #	**FRAME #**

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

(A, & B) = located in a protected cove. The SOF CT [illegible] to be affecting [illegible] communities that are thriving [illegible] [illegible] [illegible] adjacent to oil.

(A2) = SOF adjacent to [illegible] stream but no oil [illegible] stream. Due to [illegible] spawning [illegible] [illegible] no threat to salmon [illegible] [illegible] spawning [illegible] in both [illegible] with [illegible] spawning. [illegible] [illegible] impacted [illegible]

[illegible] are very inconsistent [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] The entire [illegible] and [illegible] [illegible] with a [illegible] of [illegible] [illegible] with sea [illegible] [illegible] and sea [illegible]. Mussels were present [illegible] The fucus [illegible] abundant along the [illegible] on the northeastern side. Littorine snails, barnacles and limpets were also very abundant but [illegible] to be concentrated in the more protected [illegible] areas.

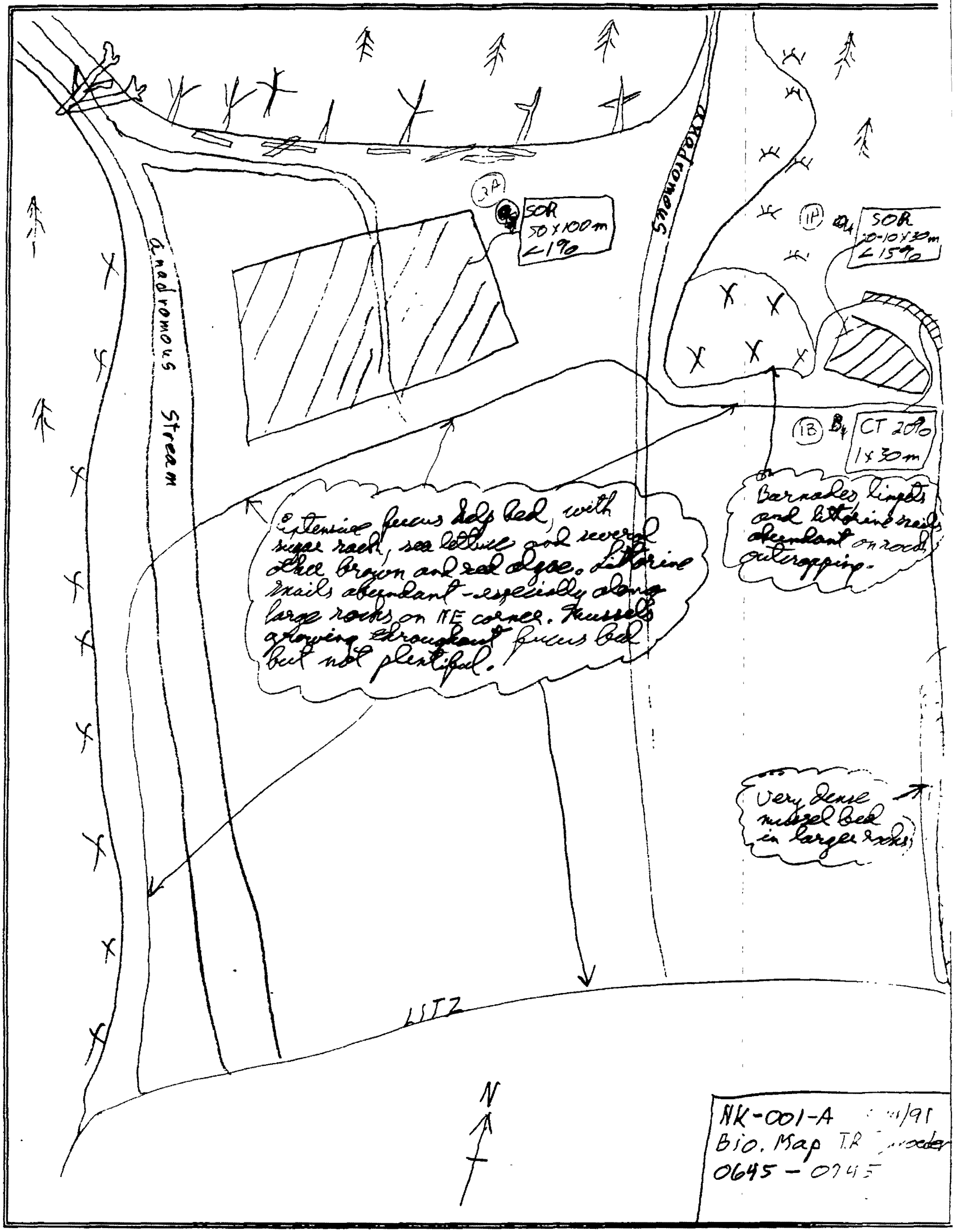
WILDLIFE OBSERVATIONS
TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1 bald	1	
Seabirds			
Waterfowl	1	1	
Gulls/Kittiwakes	1 gull	2	
Shorebirds			
Corvids	1 Raven	1	
Other Birds	1 dead bird carcass		

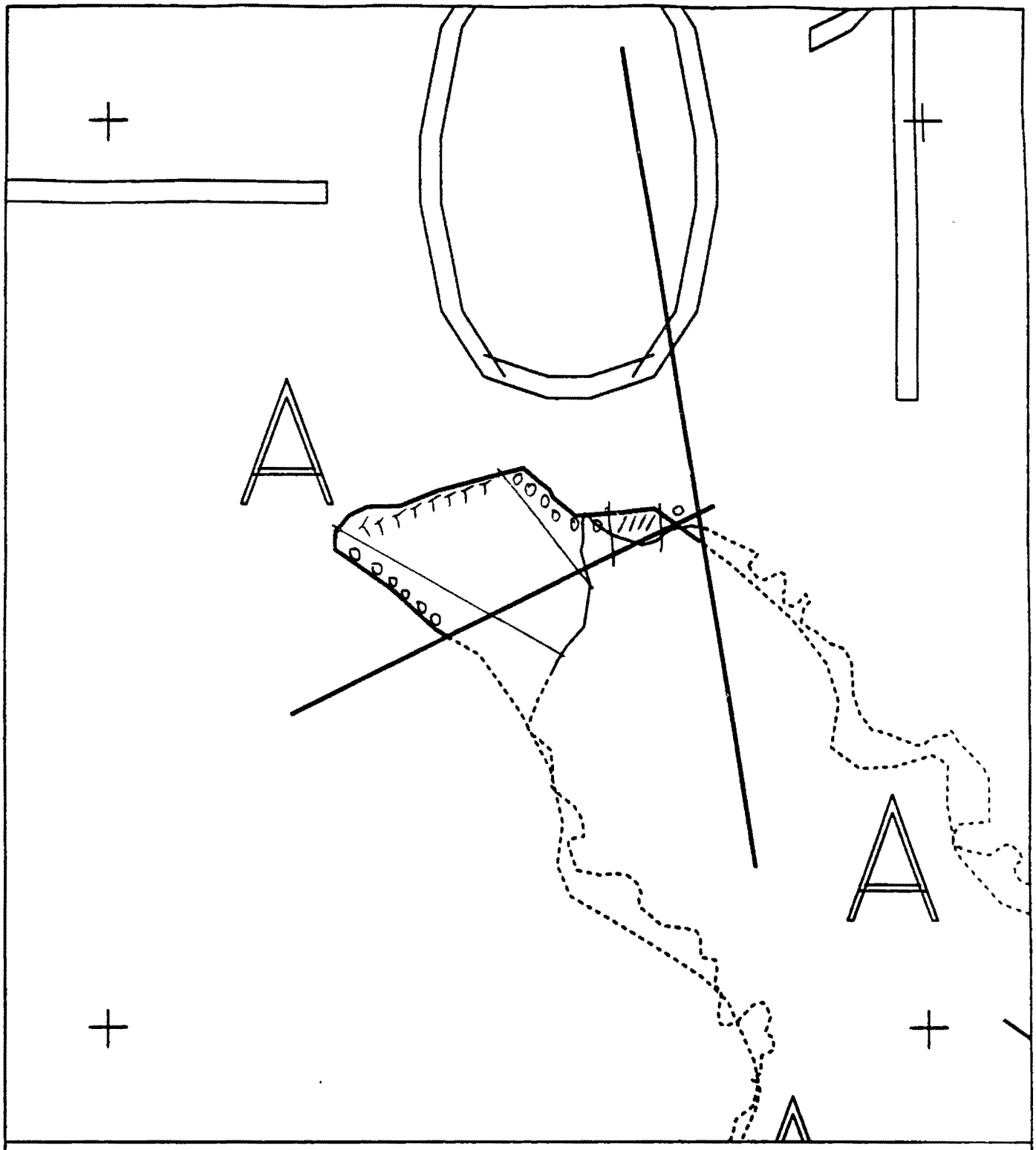
MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters			
Pinnipeds (specify)	2 Harbor Seals		
Whales (specify)			

Shoreline subdivision map showing important biological features attached.

Recd 5/17/91 DM



3A
SOR
50 x 100 m
<1%
Anadromous Stream
Snowroad
1A
SOR
10-10 x 30 m
<15%
1B
CT 20%
1 x 30 m
Extensive fucus kelp bed, with sugar kelp, sea lettuce and several other brown and red algae. Littorine snails abundant - especially along large rocks on NE corner. Mussels growing throughout fucus bed but not plentiful.
Barnacles, limpets and littorine snails abundant on rock outcropping.
Very dense mussel bed in larger rocks.
UTZ
N
NK-001-A
Bio. Map
0645 - 0745



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

NK001 A

ADEC Subsegment Length: 415m

METERS

0 100 200

AK State Plane Zone 4
ank001a

Subdivision Field Map

Map Key: KENNK001A

Name: D. FitzGerald

Date: 13 May 1991

Date Entered:

revised 5/16/91
& reviewed 5/18

Stream

ASC NUMBER: 232-21-10230 SEGMENT NUMBER: NK-1 YR CATALOGED:
LOCATION: NE Cove, Nuka Island
STREAM NAME:
KODIAK K-UNIT: —— LOCAL STREAM #: —— LATITUDE: 59 23 33
USGS QUADRANGLE: Seldovia B-2 LONGITUDE: 150 37 35
SHORELINE TYPE: Beach/Cove ALL SEGMENTS: —— LEGAL: S 9S 8W16

ASC NUMBER:
SURVEY TYPE: SS.
METHOD: FOOT
DATE: 7/11/90
START TIME: 1121
STOP TIME: 1318

TEAM RECORDER: Hill
OBSERVERS: Glenn
AGENCY(IES): ADF&G

PHOTOS TAKEN? Y
Roll #: 9000H20H Frames: 1-7
VIDEO TAKEN? Y Tape Number: 90LPG025H
Counter Start: 5467 → 5521

WAVE EXPOS: Moderate

SAMPLES TAKEN? N
SAMPLE I.D. NUMBERS: 1. 2. 3.
4. 5. 6.

	LENGTH	WIDTH	M2	%	THICK	PEN	OIL TYPE
SITE 1							ST, MS, AP HOR-LOR
SITE 2							
SITE 3							
SITE 4							
SITE 5							

OVERALL OIL IMPACT: L/M

OIL IN STREAM CHANNEL? N

SUBSTRATE

Bedrock 30	Granule
Boulder 10	Sand
Cobble 30	Silt
Pebble 30	Veget.

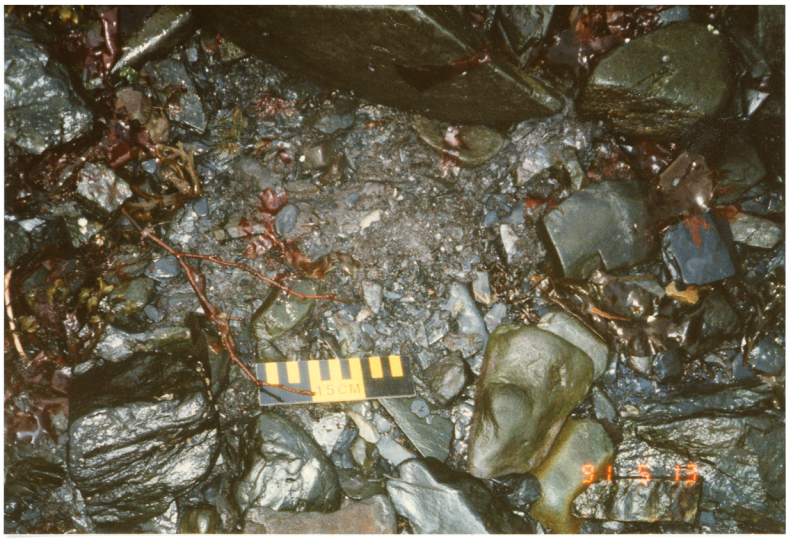
OIL ON BEACH WITHIN 50M OF STREAM MOUTH?

SPECIES					
COUNT					

COMMENTS: Pooled mousse + heavily oiled sediment observed. Some pooled mousse observed below cobbles + boulders.
Observed a portion of beach where the cleanup crew rolled rocks to get at oiled beach below → Now the mousse is present beneath what was previously the beach overburden + the relocated rocks. Beach below the rock wall looks better than it did on previous 1990 post-work surveys--- Sheen not observed on this survey. Oil can be turned up by agitating the substrate easily

Date: 5/13/91 No. 892

Title: NK001A



Segment No NK-1 Subdivision A
Date 5/13/91 Log Frame No 3
Photographer GARY SHIGENAKA
Location NUKA ISLAND
Comments SAME GENERAL AREA AS PHOTOS 1 & 2, SHOT OF SHEEN FORMING AFTER COBBLE SUBSTRATE OVERTURNED.

Roll No MAYSAP- 6-13 Neg. No 2
Control No 892 (Office Use Only)

Segment No NK-1 Subdivision A
Date 5/13/91 Log Frame No 4
Photographer GARY SHIGENAKA
Location NUKA ISLAND
Comments AREA VIEW, FACING DUE SOUTH, OUT TO ENTRANCE OF COVE

Roll No MAYSAP-6-13 Neg. No 3
Control No 892 (Office Use Only)

Segment No NK-1 Subdivision A
Date 5/13/91 Log Frame No 1
Photographer GARY SHIGENAKA
Location NUKA ISLAND
Comments PHOTO OF TAR MAT IN COBBLE SUBSTRATE (SUBSEQUENTLY REMOVED) ALONG NORTHEAST SHORE OF COVE.

Roll No MAYSAP-6-13 Neg. No 0
Control No 892 (Office Use Only)

Segment No NK-1 Subdivision A
Date 5/13/91 Log Frame No 2
Photographer GARY SHIGENAKA
Location NUKA ISLAND
Comments AREA SETTING IN BOULDER COBBLE BEACH, FACING SOUTHEAST TOWARD AREA WHERE TAR MAT IN PHOTO #1 WAS FOUND AND REMOVED.

Roll No MAYSAP-6-13 Neg. No 1
Control No 892 (Office Use Only)

Date: 5/13/91 No. 492

Title: NK001A

Segment No NK-1 Subdivision A
Date 5/13/91 Log Frame No 5
Photographer GARY SHIGENAKA
Location NUKA ISLAND
Comments ASPHALT (AP) IN ANGULAR SHALE COBBLE, FROM BAND OF MIDDLE INTERTIDAL BEACH WHERE OCCURRENCE WAS RELATIVELY MORE COMMON. MATERIAL REMOVED AS LOCATED.

Roll No MAYSAP-6-13 Neg. No 4
Control No 892 (Office Use Only)

Segment No NK-1 Subdivision A
Date 5/13/91 Log Frame No 6
Photographer GARY SHIGENAKA
Location NUKA ISLAND
Comments AREA VIEW, FROM HEAD OF BAY FACING SOUTH

Roll No MAYSAP-6-13 Neg. No 5
Control No 892 (Office Use Only)

MAYSAP

1991 STATE WORK ORDER
EXXON VALDEZ OIL SPILL PROJECT
STATE OF ALASKA

KENAI

SEGMENT: NK001 **SUBDIVISION:** A **SITE:**

RECOMMENDED TREATMENT:
No treatment recommended at this time.

ENVIRONMENTAL SENSITIVITIES:

WORK WINDOW: -

CLEANUP PLAN AND COST ESTIMATE DUE:

DATE SUBMITTED: 05/24/91

STATE ON SCENE COORDINATOR: _____

maysap - 4

2322110230

1991 MAYSAP EVALUATION

SEGMENT: NK 001 **SUB:** A **REGION:** KEN **SURVEY DATE:** 5/13/91

ENVIRONMENTAL SENSITIVITIES:
Work Window(s) OPEN 5/1 - 7/10; RESTRICTED 7/10 - 9/15

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

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

SHPO Signature: Rachel Jean Dan Date: 5/24/91

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

COMMENTS:
INITIAL:

TAG:

FOSC:

TAG APPROVAL DATE: MAY 24 1991 **FOSC APPROVAL DATE:** 5/29/91

ADEC

EXXON

USCG

NOAA

FOSC

E. E. [illegible], USCG
CHIEF OF STAFF, FOSC

1991 STREAM FILE LOG
HABITAT

STREAM CATALOG # : 232-21-10230
STREAM NAME : Nuka Lodland

LOCATION : Nomen
SEGMENT : NK-001a

DATE	NAME	ACTIVITY	REASON/STATUS

ADF&G MULTI-ASSESSMENT FORM
1991 GENERAL ENTRY CHECKLIST

STREAM#: 2322110230
SEGMENT: NK001

PAGE 8 DATE PRINTED: 06/21/91

LOCATION: NUKA ISLAND, NORTHEAST COVE, SOUTH CREEK

SURVEY TYPE: 90 PRE SCREEN - SS METHOD: GROUND

DATE: 04/14/90 TEAM RECORDER: HILL

START TIME: 0933 OBSERVERS: MCLANE REID
END TIME: 1046

AGENCY: FG

OG/HAB DISCREPANCIES: -

PHOTOS TAKEN: Y

STATION: 2322110230 ROLL#: 90DDH004H
FRAME: 1-8

VIDEO TAKEN: N TA
START: -0- END: -0-

SAMPLES TAKEN: Y → DDH/sm - 4/14/90 - 1020

SAMPLE NUMBERS: ?? 90DDHØ66H 9K. -0-

-0- -0-

-0- -0-

OIL IN STREAM BED: Y

OV OIL ON BEACH BY MOUTH: Y

WA SHORELINE TYPE: -0-

SUBSTRATE TYPE: BEDROCK 30 BOULDER 10 COBBLE 30 VEGETAT -0-

GRAVEL 30 SAND -0- MUD/SILT -0- GRANULE -0-

ANADROMOUS FISH PRESENT: N

SPECIES:	COUNT:
-0-	-0-
-0-	-0-
-0-	-0-
-0-	-0-
-0-	-0-

No samples taken in 240.

2?
Fillout Another Multi-Assessment Form for the "North Creek 10240
Doug
Data will be identical with exception of stream #, No sample for 240.

ACE 9961972+b

ADF&G MULTI-ASSESSMENT FORM
1991 GENERAL ENTRY CHECKLIST

STREAM#: 2322110230
SEGMENT: NK001

PAGE 8 DATE PRINTED: 06/21/91

LOCATION: NUKA ISLAND, NORTHEAST COVE, SOUTH CREEK

SURVEY TYPE: 90 PRE SCREEN - SS METHOD: GROUND

DATE: 04/14/90 TEAM RECORDER: HILL

START TIME: 0933 OBSERVERS: MCLANE REID
END TIME: 1046

AGENCY: FG

OG/HAB DISCREPANCIES: -

PHOTOS TAKEN: Y

STATION: 2322110230 ROLL#: 90DDH004H
FRAME: 1-8

VIDEO TAKEN: N TAPE#: -0-
START: -0- END: -0-

SAMPLES TAKEN: Y → DDH/SM - 4/14/90 - 1020

SAMPLE NUMBERS: ?? 90DDH066H OK. -0-

-0- -0-

-0- -0-

OIL IN STREAM BED: Y

OVERALL OIL IMPACT: M OIL ON BEACH BY MOUTH: Y

WAVE EXPOSURE: -0- SHORELINE TYPE: -0-

SUBSTRATE TYPE: BEDROCK 30 BOULDER 10 COBBLE 30 VEGETAT -0-

GRAVEL 30 SAND -0- MUD/SILT -0- GRANULE -0-

ANADROMOUS FISH PRESENT: N

SPECIES:	COUNT:
-0-	-0-
-0-	-0-
-0-	-0-
-0-	-0-
-0-	-0-

ACE 9961972+b

ADF&G MULTI-ASSESSMENT FORM
1991 OILING ENTRY CHECKLIST

PAGE 9 DATE PRINTED: 06/21/91

STREAM# : 2322110230
SEGMENT#: NK001

SURVEY TYPE : 90 PRE SCREEN - SS LOCATION: NUKA ISLAND, NORTHEAST COVE, SOUTH CREEK
DATE: 04/14/90
TIMES: 0933 - 1046 TEAM RECORDER: HILL

-- OILING EXTENT --

SITE#	SITE TYPE	DEPTH (cm)	LENGTH (m)	WIDTH (m)	AREA (m)	%	THICK (cm)	PEN (cm)	OIL TYPE CODES
1	-0-	-0-	200	150	30,000 -0-	1	<2	<8	AP TB OR F
2 0			25	25	625	60	<2	<10	AP, TB, OR, OP, ST, CT

COMMENTS:
NE NUKA SEEMS LITTLE CHANGED SINCE LAST FALL. THERE WERE FEWER OBSERVED TARMATS IN THE STREAM CHANNEL BUT THE SIDE POCKET BEACHES CONTAIN SIGNIFICANT AMOUNTS OF MOUSSE BETWEEN ROCKS AND ON ROCK WALLS, NO visual DIFFERENCE WAS OBSERVED BETWEEN BEFORE & AFTER AMOUNTS OF OIL ON BEACH & ROCK FACES SPRAYED WITH INIPOL. ANADSCAT RECOMMENDED. OILING CONTINUES AT MODERATE LEVEL INTO SEGMENT NK002. SITE 4-6 OF 1989 AFHA. SITE #2 ALSO HAS THE FOLLOWING OIL TYPES: CV, F.
OIL ON STREAM BANKS: YES
OIL WITHIN 1 MILE OF STREAM: YES

keep both for Streams

8/7/91 called Doug: Both Streams are close enough together to be covered by sites 1 and 2.
⇒ Duplicate this info for 240.

ACE 9961973 -13

ADF&G MULTI-ASSESSMENT FORM
1991 GENERAL ENTRY CHECKLIST

STREAM#: 2322110230
SEGMENT: NK001

DD NK 10/7/91 ★ OK

DATE PRINTED: 08/14/91

LOCATION: NUKA ISLAND, NORTHEAST COVE, SOUTH CREEK

SURVEY TYPE: 89 AFHS - BS/SS

METHOD: ~~GROUND~~ FOOT

DATE: 07/26/89

TEAM RECORDER: HILL

START TIME: 1700
END TIME: 1745

OBSERVERS: RANDALL

TIDES: FLOOD
OG/HAB DISCREPANCIES:

AGENCY: FG

PHOTOS TAKEN: Y

STATION: 2322110230

ROLL#: 89DDH012H
FRAME: 14-21

VIDEO TAKEN: N TAPE#:
START: END:

SAMPLES TAKEN: Y

SAMPLE NUMBERS: DDH/RDR-7/26/89-1700
89DDH025H

OIL IN STREAM BED: Y

OVERALL OIL IMPACT: M

OIL ON BEACH BY MOUTH: Y

WAVE EXPOSURE: MOD

SHORELINE TYPE: BEACH

SUBSTRATE TYPE: BEDROCK ~~10~~ BOULDER 10 COBBLE ~~30~~ 40 VEGETAT 0

GRAVEL ~~10~~ 10 SAND ~~25~~ 25 MUD/SILT ~~25~~ 25 GRANULE 0

ANADROMOUS FISH PRESENT: N

SPECIES: ~~PINK SALMON~~ COUNT: ~~8~~

ACE 9961945H/F/S/P

Drag; pls separate oiling site into streams 230 and 240.

ADF&G MULTI-ASSESSMENT FORM
1991 OILING ENTRY CHECKLIST

DATE PRINTED: 08/14/91

STREAM# : 2322110230
SEGMENT#: NK001

OK

SURVEY TYPE : 89 AFHS - BS/CS
DATE: 07/26/89
TIMES: 1700 - 1745

LOCATION: NUKA ISLAND, NORTHEAST COVE, SOUTH CREEK
TEAM RECORDER: HILL

-- OILING EXTENT --

SITE#	SITE TYPE	DEPTH (cm)	LENGTH (m)	WIDTH (m)	AREA (m)	%	THICK (cm)	PEN (cm)	OIL TYPE CODES
1			100	25	2500	5		<5	MS TP TB AP
2			75	50	3750	8		<5	MS TP AP
3			75	25	1875	30			MS TP
4			25	25	625	70			MS T
5									MS TP
6									MS TP
7			135	2	270	60			ST CT CV

ACE 9961946

ADF&G MULTI-ASSESSMENT FORM
1991 OILING ENTRY CHECKLIST

OK

PAGE 19 DATE PRINTED: 08/14/91

COMMENTS:
SITE 4-6. ON 7/26/89 - NO FISH WERE OBSERVED IN EITHER CREEK. 8/16/89 - 2 PINKS, 2 CARCASSES IN #10240, NO FISH IN #10230. 8/20/89 - 30 PINKS (ABOVE BEACH BERM) IN #10240, 150-200 PINKS IN SALTWATER. 8/20/89 - 8 PINKS OBSERVED ABOVE BEACH BERM IN #10230.

ACE 9961947 -/s

ADF&G MULTI-ASSESSMENT FORM
1991 GENERAL ENTRY CHECKLIST

DDH 10/4/91

OK

STREAM#: 2322110240
SEGMENT: NK001

PAGE 16

DATE PRINTED: 08/14/91

LOCATION: NUKA ISLAND, NORTHEAST COVE, NORTH CREEK

SURVEY TYPE: 89 AFHS - BS/SS

METHOD: ~~GROUND~~ Foot

DATE: 07/26/89

TEAM RECORDER: HILL

START TIME: 1700
END TIME: 1745

OBSERVERS: RANDALL

TIDES: Flood
OG/HAB DISCREPANCIES:

AGENCY: FG

PHOTOS TAKEN: Y

STATION: 2322110240

ROLL#: 89DDH012H
FRAME: 14-21

VIDEO TAKEN: N

TAPE#:
START:
END:

SAMPLES TAKEN: Y

SAMPLE NUMBERS: 89DDH025

← SAMPLE
~~SAME~~ Sample
no sample documents
for Stream 10230
following.
DDH

OVERALL OIL IMPACT: M

Y

WAVE EXPOSURE: MOD

S

SUBSTRATE TYPE: BEDROCK ~~10~~ 10 B

TAT

GRAVEL ~~10~~ 20 SAND

MUD/SILT ~~10~~ 20 GRANULE

SPECIES: ~~PINK~~

No fish on 7/26/89

see 230 (separate entry by stream)

ACE 9961948 H/S

ADF&G MULTI-ASSESSMENT FORM
1991 GENERAL ENTRY CHECKLIST

DDH 10/4/91

OK ★

STREAM#: 2322110240
SEGMENT: NK001

DATE PRINTED: 08/14/91

LOCATION: NUKA ISLAND, NORTHEAST COVE, NORTH CREEK

SURVEY TYPE: 89 AFHS - BS/SS

METHOD: ~~GROUND~~ Foot

DATE: 07/26/89

TEAM RECORDER: HILL

START TIME: 1700
END TIME: 1745

OBSERVERS: RANDALL

TIDES: Flood

AGENCY: FG

OG/HAB DISCREPANCIES:

PHOTOS TAKEN: Y

STATION: 2322110240

ROLL#: 89DDH012H
FRAME: 14-21

VIDEO TAKEN: N TAPE#:
START: END:

SAMPLES TAKEN: Y

SAMPLE NUMBERS: 89DDH025

OIL IN STREAM BED: Y

OVERALL OIL IMPACT: M

OIL ON BEACH BY MOUTH: Y

WAVE EXPOSURE: MOD

SHORELINE TYPE: BEACH

SUBSTRATE TYPE: BEDROCK ~~10~~ 10 BOULDER ~~10~~ 10 COBBLE ~~30~~ 30 VEGETAT

GRAVEL ~~20~~ 20 SAND 10 MUD/SILT ~~20~~ 20 GRANULE

ANADROMOUS FISH PRESENT: N

SPECIES: ~~PINK SALMON~~

COUNT: ~~30~~

see 230 (separate oil system by stream)

ACE 9961948 H/S

ADF&G MULTI-ASSESSMENT FORM
1991 OILING ENTRY CHECKLIST

ok

PAGE 21

DATE PRINTED: 08/14/91

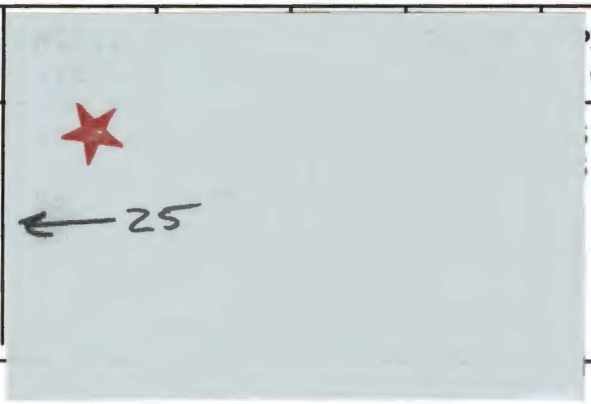
STREAM# : 2322110240
SEGMENT#: NK001

SURVEY TYPE : 89 AFHS - BS/SS
DATE: 07/26/89
TIMES: 1700 - 1745

LOCATION: NUKA ISLAND, NORTHEAST COVE, NORTH CREEK
TEAM RECORDER: HILL

-- OILING EXTENT --

SITE#	SITE TYPE	DEPTH (cm)	LENGTH (m)	[illegible]EN cm)	OIL TYPE CODES
1			100		MS TP TB AP
2			75		MS TP AP
3			75		MS TP
4			~~25~~ 25		MS T
5					MS TP
6					MS TP
7			135		ST CT CV



ACE 9961949

ADF&G MULTI-ASSESSMENT FORM
1991 OILING ENTRY CHECKLIST

ok

PAGE 21

DATE PRINTED: 08/14/91

STREAM# : 2322110240
SEGMENT#: NK001

SURVEY TYPE : 89 AFHS - BS/SS
DATE: 07/26/89
TIMES: 1700 - 1745

LOCATION: NUKA ISLAND, NORTHEAST COVE, NORTH CREEK
TEAM RECORDER: HILL

-- OILING EXTENT --

SITE#	SITE TYPE	DEPTH (cm)	LENGTH (m)	WIDTH (m)	AREA (m)	%	THICK (cm)	PEN (cm)	OIL TYPE CODES
1			100	25	2500	5		<5	MS TP TB AP
2			75	50	3750	8		<5	MS TP AP
3			75	25	1875	30			MS TP
4			~~25~~ 25	25	625	70			MS T
5									MS TP
6									MS TP
7			135	2	270	60			ST CT CV

ACE 9961949

ADF&G MULTI-ASSESSMENT FORM
1991 OILING ENTRY CHECKLIST

 DATE PRINTED: 08/14/91

COMMENTS:
SITE 4-6. ON 7/26/89 - NO FISH WERE OBSERVED IN EITHER CREEK. 8/16/89 - 2 PINKS, 2 CARCASSES IN #10240, NO FISH IN #10230. 8/20/89 - 30 PINKS (ABOVE BEACH BERM) IN #10240, 150-200 PINKS IN SALTWATER. 8/20/89 - 8 PINKS OBSERVED ABOVE BEACH BERM IN #10230.

1981 - AFHS Site NE Cove Nuka Island

ASC NUMBER: 232-21-10230 / 232-21-10240 SEGMENT NUMBER: NK-1 YR CATALOGED:
LOCATION: NE Cove Nuka Island
TEAM NAME: —
KODIAK K-UNIT: . LOCAL STREAM #:
USGS QUADRANGLE: Seldovia B-2
SHORELINE TYPE: Beach
WAVE EXPOSURE: moderate
ALL SEGMENTS:
LATITUDE: 59 23 33 (10230) / 59 23 32 (10240)
LONGITUDE: 150 37 35 (10230) / 150 37 46 (10240)
LEGAL: S 9S 8W 16 — 10230 / S 9S 8W 16 — 10240

ASC NUMBER:
SURVEY TYPE: BS
METHOD: Ground
DATE: 7/26/89
START TIME: 1700
STOP TIME: 1745

TEAM RECORDER: Doug Hill
OBSERVERS: Rick Randall
AGENCY(IES): ADF&G

PHOTOS TAKEN?
Roll #: 89ADH12H Frames: 14 → 21
VIDEO TAKEN? Tape Number:
Counter Start:

SAMPLES TAKEN?
SAMPLE I.D. NUMBERS: 1. 2. 3.
4. 5. 6.

	LENGTH m	WIDTH m	M2	%	THICK cm	PEN cm	OIL TYPE
SITE 1	100	25	2500	5	—	<5	MS, TP, TB, AP
SITE 2	75	50	3750	8	—	<5	MS, TP, AP
SITE 3	75	25	1875	30	—		MS, TP
SITE 4	25	25	625	70	—		MS, T
SITE 5	—	—	—	—	—	—	MS, TP
OVERALL OIL IMPACT: 6	—	—	—	—	—	—	MS, TP
7	135	2m	270	60	—	—	ST, CT, CV

OIL IN STREAM CHANNEL? 2 YES (tide flats) OIL ON BEACH WITHIN 50M OF STREAM MOUTH? yes

SUBSTRATE

Bedrock	Granule
Boulder	Sand
Cobble	Silt
Pebble	Veget.

SPECIES	10240 PINKS	30 Pinks			
COUNT	30	8			

COMMENTS: ON 7/26/89 No fish were observed in either creek.
8/16/89 => 2 pinks, 2 carcasses in #10240 / NO fish in #10230
8/20/89 => 30 pinks (above beach berm) in #10240 / 150 to 200 pinks in saltwater
8/20/89 => 8 pinks observed above beach berm in #10230

Please make 2 forms - identical.
Let Doug verify oiling extent for each stream.

ACE 9961951 +/s

FISH HABITAT ASSESSMENT FORM

Nuka Island - NE Cove

[1]REGION: [2]PWS ([3]KP,CI) [4]K,AP [5]OBSERVER(S) Doug Hill, Rick Randall

[6]SITE NO. 4-6 [7]AERIAL PHOTO NO. 14, 21 [8]CAT NO. 232-21 → 10230, 10240

[9]STREAM NAME ______ [10]LAT ___°___.___' [11]LONG ___°___.___'

[12]DATE 7/26/89 [13]TIME 1700 [14]TIDE: Low slack (Flood) High slack Ebb

[15]CATALOGED ANADROMOUS STREAM? (Y) N [16]ANAD. FISH FOUND? (Y) N Not on 7/26

[17]OIL FOUND IN STREAM? Y N [18]OIL FOUND NEAR STREAM (1 MI.)? (Y) N

[19]OIL SAMPLES TAKEN? (Y) N [20]ID NOS. NE Cove Nuka - DDH/RDR - 7/26/89 - 1700

[21]35 mm PICTURES TAKEN? (Y) N [22]ROLL NO(S). 89DDH12H

[23]EXPOSURE NO.	[24]DESCRIPTION
14, 21, 15	Aerial of head of bay, photo 21 → Majority of oil in vicinity of Pt. with trees
16	Oil Sample, Typical oil on this beach
17	Oil Sample; Rick Randall in Photo
18	Rick demonstrating how much oil can be scraped off the gravel
19	Portion of Oil Sample
20	NW Corner of NE Cove - spruce needles plastered on Rock FACE

SEE ROLL # 89DDH25H - Frames 24→29, 89DDH26H - " 01→17 > Photo of Inipol Operation at NE Cove

[25]VIDEO FOOTAGE TAKEN? Y N [26]CASSETTE NO(S). ______

[27]DESCRIPTION: ______

ACE 9961952

ACE 7380246

ANADROMOUS FISH OBSERVATIONS

	PINK	CHUM	RED	KING	COHO	DOLLY		
28 Aerial	[redacted]					80* Juveniles		
29 Ground	2* #10240 30** #10240 8* #10230					80* Juveniles		

30 COMMENTS: 7/26/89 - No Fish Observed in either Creek. North Creek goes dry 50 yds Above beach
→ WALKED 100 yds upstream in South Creek (Boulder Cobble Substrate)
10240 ⇒ * 8/16/89 ⇒ 2 live Pinks, 2 Carcasses Walked 100 yds upstream / No Fish in #10230
10240 ** 8/20/89 ⇒ 30 pinks Above beach berm #150 to 200 Observed in saltwater, Crk mouth
10230 ★ 8/20/89 ⇒ 8 pinks observed above drift logs - beach berm

OIL OBSERVATIONS

→ Watermarked
Humps not all that pronounced

Site 4-6

EXTENT OF OIL:

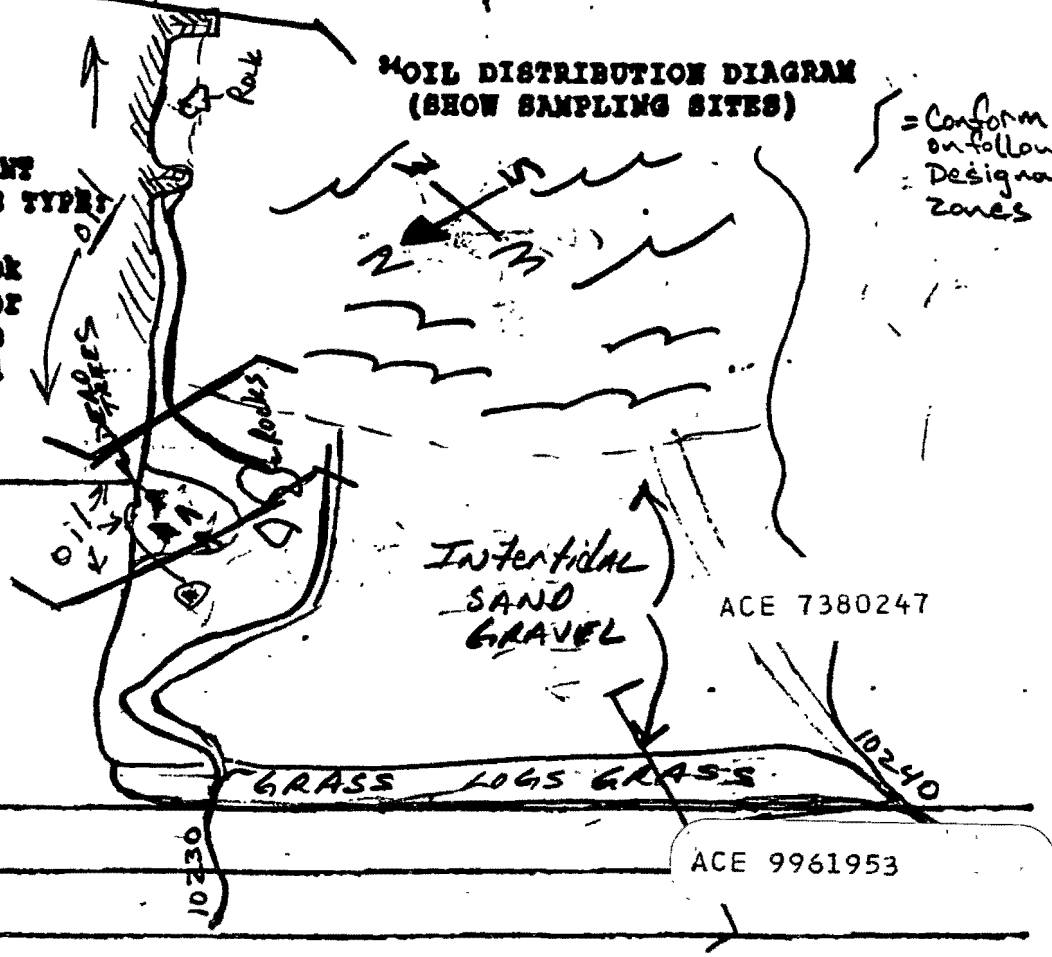
	WITHIN STREAM	OUTSIDE STREAM
31 SURFACE COVERAGE		See following
32 SURFACE THICKNESS		two PAGES
33 PENETRATION		1 1/2

34 OIL DISTRIBUTION DIAGRAM (SHOW SAMPLING SITES)

= Conform to Map on following page: Designate oiled zones

35 PREDOMINANT SUBSTRATE TYPE:

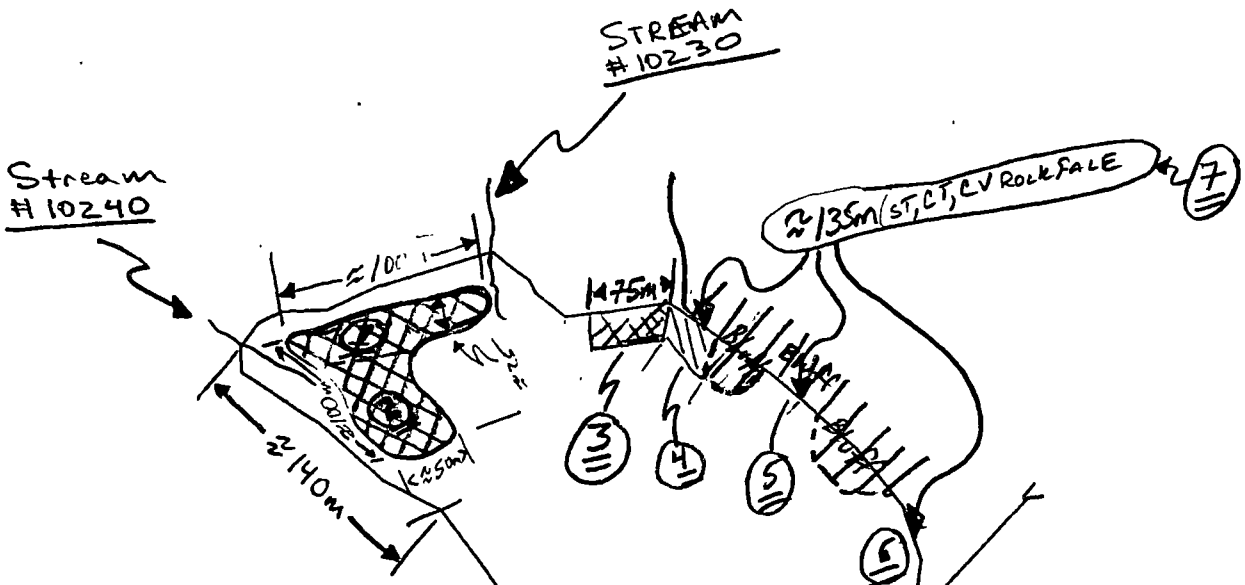
1. Bedrock
2. Boulder
3. Cobble
4. Gravel
5. Sand
6. Mud
7. Other



36 COMMENTS:

NK001

NE Cove Nuka Island



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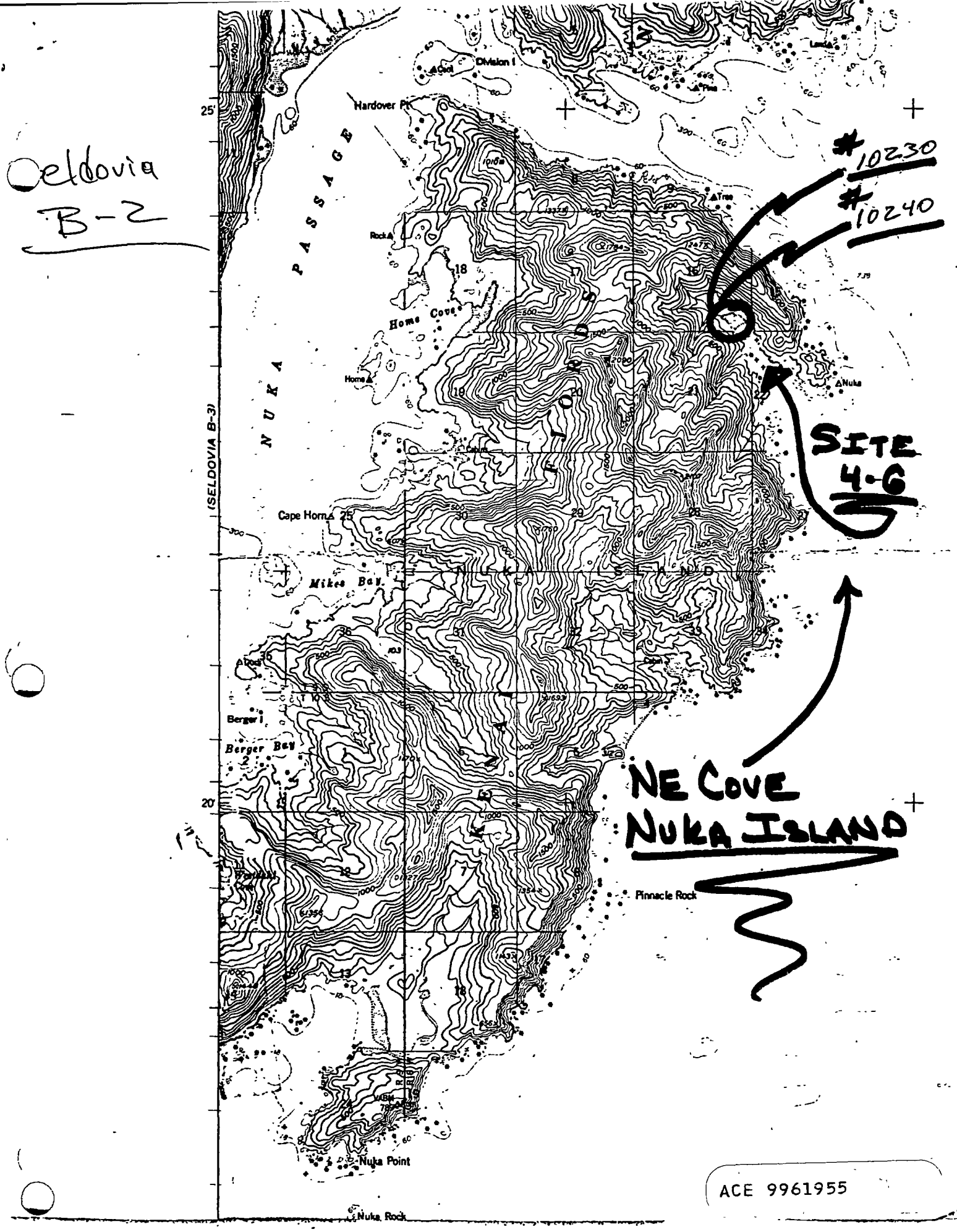
ACE 9961954


Seldovia B-2
#10230
#10240
SITE 4-6
NE COVE
NUKA ISLAND
NUKA PASSAGE
NUKA ISLAND
Hardover Pt
Division I
Rock
Home Cove
Home
Cape Horn
Mikes Bay
Berger I
Berger Bay
Pinnacle Rock
Nuka Point
Nuka Rock
ISELDOVIA (B-3)
ACE 9961955
ACE 7380248

ADEC MAP

NK001

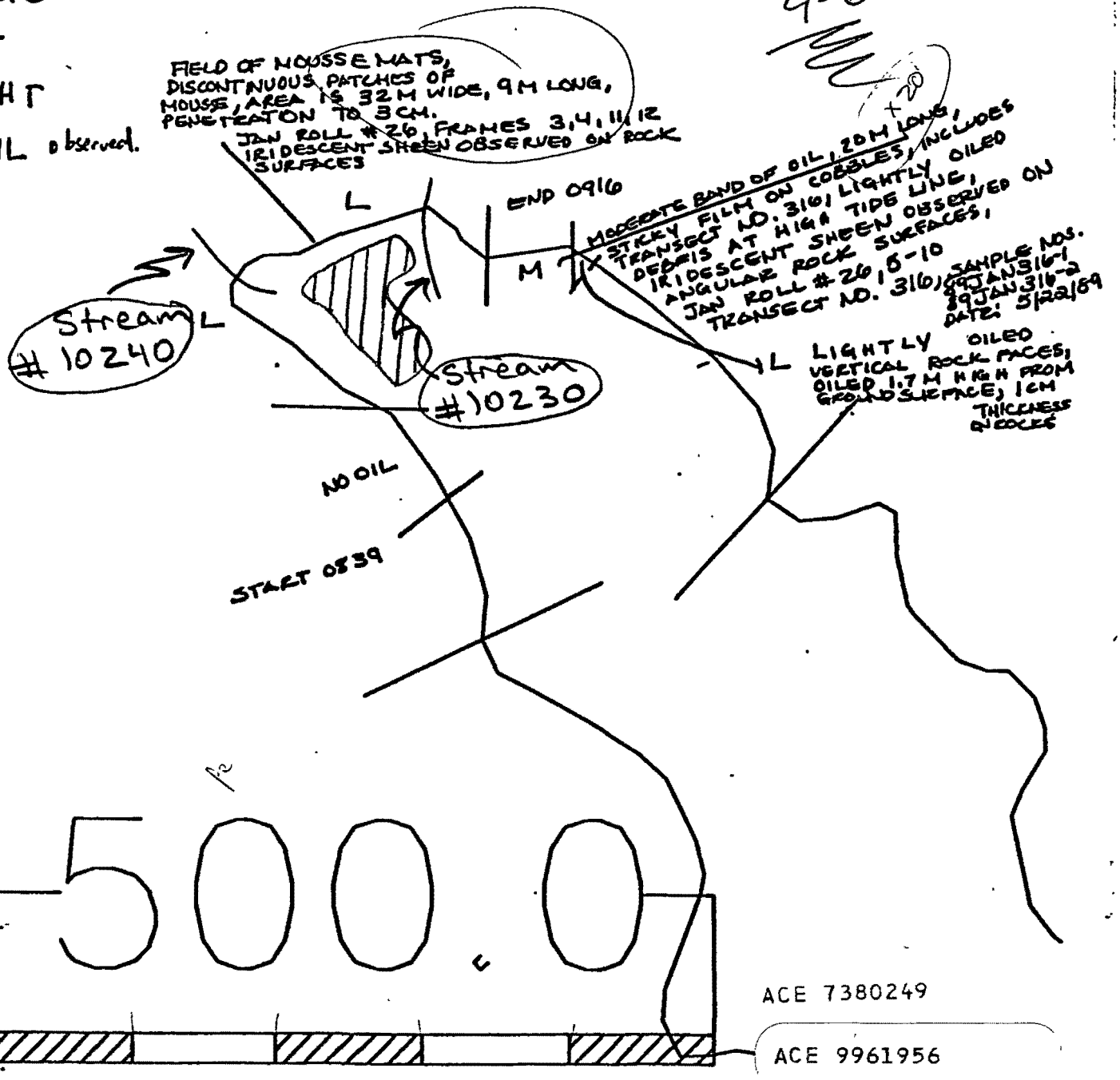
HOMER POST TREATMENT SURVEY
28 SEPTEMBER 1989
CREW: JULIE NOPFKE
CHARLES MORTIMER

NORTHEAST COVE OF NUKA ISLAND (BOULDER, COBBLE, GRAVEL)

H - HEAVY
M - MODERATE
L - LIGHT
VL - V. LIGHT
NO - NO OIL observed.

[redacted]

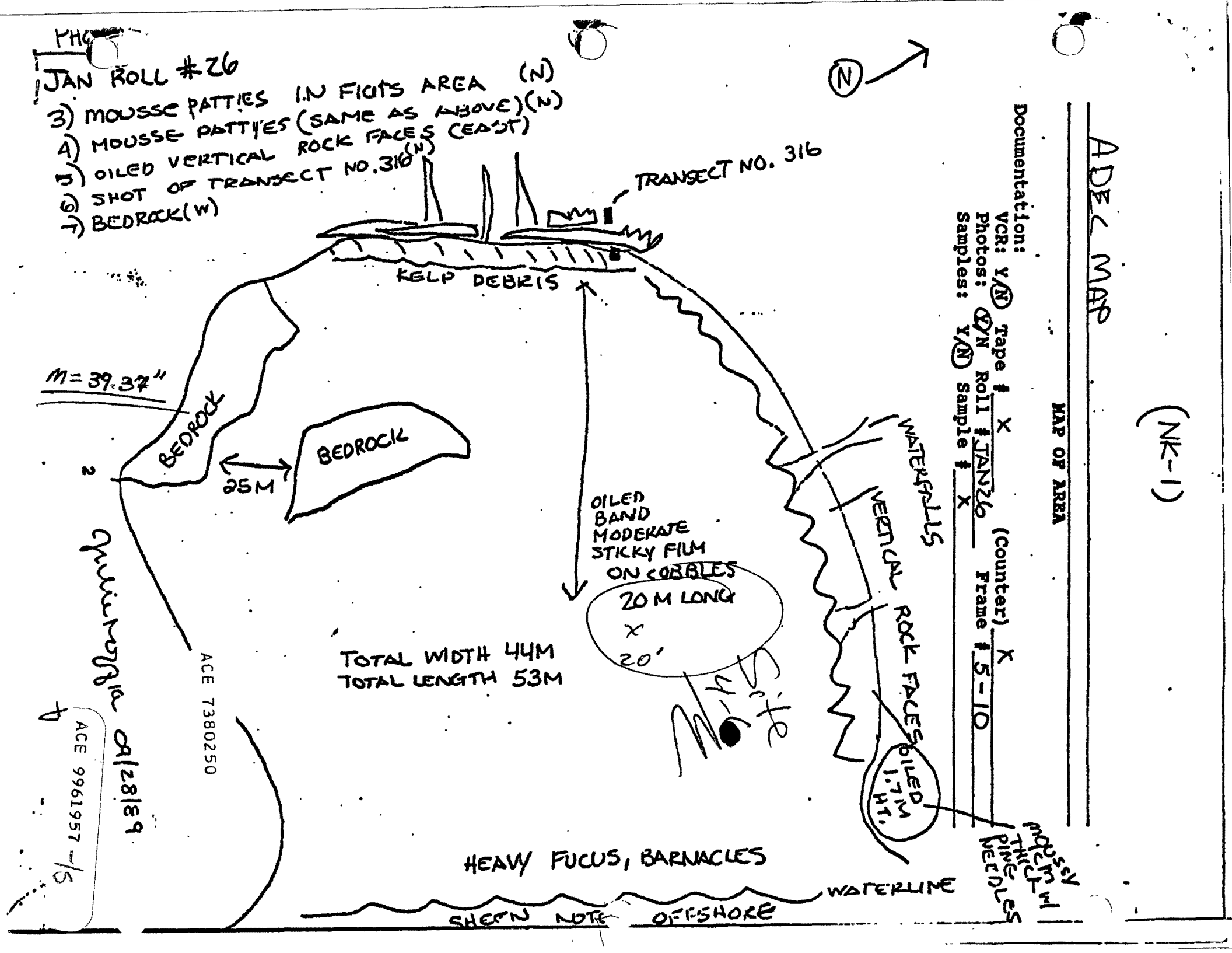
Site 4-6



PHC

JAN ROLL #26

3) MOUSSE PATTIES IN FIGTS AREA (N)
4) MOUSSE PATTIES (SAME AS ABOVE)(N)
5) OILED VERTICAL ROCK FACES (EAST)
6) SHOT OF TRANSECT NO. 316 (N)
7) BEDROCK (W)



ADEC MAP

MAP OF AREA

(NK-1)

Documentation:
VCR: Y/N Tape # X
Photos: Y/N Roll # JAN26 (Counter) X
Samples: Y/N Sample # X Frame # 5-10

3

1989 - AFHS Site NE Cove Nuka Island

ASC NUMBER: 232-21-10230 / 232-21-10240 SEGMENT NUMBER: NK-1 YR CATALOGED:
LOCATION: NE Cove Nuka Island
STREAM NAME: —
KODIAK K-UNIT: . LOCAL STREAM #:
USGS QUADRANGLE: Seldovia B-2
SHORELINE TYPE: Beach ALL SEGMENTS:
WAVE EXPOSURE: moderate

LATITUDE: 59 23 33 (10230) 59 23 32 (10240)
LONGITUDE: 150 37 35 (10230) 150 37 46 (10240)
LEGAL: S 9S 8W 16 — 10230; S 9S 8W 16 — 10240

ASC NUMBER:
SURVEY TYPE: ~~BE~~ SG Ground Foot
METHOD:
DATE: 7/26/89
START TIME: 1700
STOP TIME: 1745

TEAM RECORDER: Doug Hill
OBSERVERS: Rick Randall
AGENCY(IES): ADF&G

10/29/91 NDM

PHOTOS TAKEN?
Roll #: 89ADH12H Frames: 14 → 21
VIDEO TAKEN? Tape Number:
Counter Start:

SAMPLES TAKEN?
SAMPLE I.D. NUMBERS: 1. 2. 3.
4. 5. 6.

	LENGTH m	WIDTH m	M2	%	THICK cm	PEN cm	OIL TYPE
SITE 1	100	25	2500	5	—	<5	MS, TP, TB, AP
SITE 2	75	50	3750	8	—	<5	MS, TP, AP
SITE 3	75	25	1875	30	—		MS, TP
SITE 4	25	25	625	70	—		MS, T
SITE 5	—	—	—	—	—	—	MS, TP
OVERALL OIL IMPACT: 6 m	—	—	—	—	—	—	MS, TP
+	135	2m	270	60	—	—	ST, CT, CV

OIL IN STREAM CHANNEL? 2 YES (Side Arabs) OIL ON BEACH WITHIN 50M OF STREAM MOUTH? Yes

SUBSTRATE

Bedrock	10	Granule	
Boulder	10	Sand	10
Cobble	30	Silt	20
Pebble	20	Veget.	

10/4/91 NDM

SPECIES	10240 PINKS	10 Pinks			
COUNT	30	8			

COMMENTS: ON 7/26/89 No fish were observed in either creek.
8/16/89 => 2 pinks, 2 carcasses in #10240 / NO fish in #10230
8/20/89 => 30 pinks @ above beach berm in #10240 / 150 to 200 pinks in saltwater
8/20/89 => 8 pinks observed above beach berm in #10230

ACE 9961958 H/S

ANADROMOUS FISH OBSERVATIONS

	PINK	CHUM	RED	KING	COHO	DOLLY		
28 Aerial	[redacted]					80* Juveniles		
29 Ground	2* #10240 30** #10240 8* #10230					80* Juveniles		

30 COMMENTS: 7/26/89 - No Fish Observed in either Creek. North Creek goes dry 50yds Above beach
→ WALKED 100 yds upstream in South Creek (Boulder Cobble Substrate)
10240 ⇒ * 8/16/89 ⇒ 2 live Pinks, 2 Carcasses Walked 100yds upstream / No Fish in #10230
10240 ** 8/20/89 ⇒ 30 pinks Above beach berm #150 to 200 Observed in saltwater / Crk mouth
10230 ★ 8/20/89 ⇒ 8 pinks observed above drift logs - beach berm

→ Watermarked
Humps not all that pronounced

OIL OBSERVATIONS

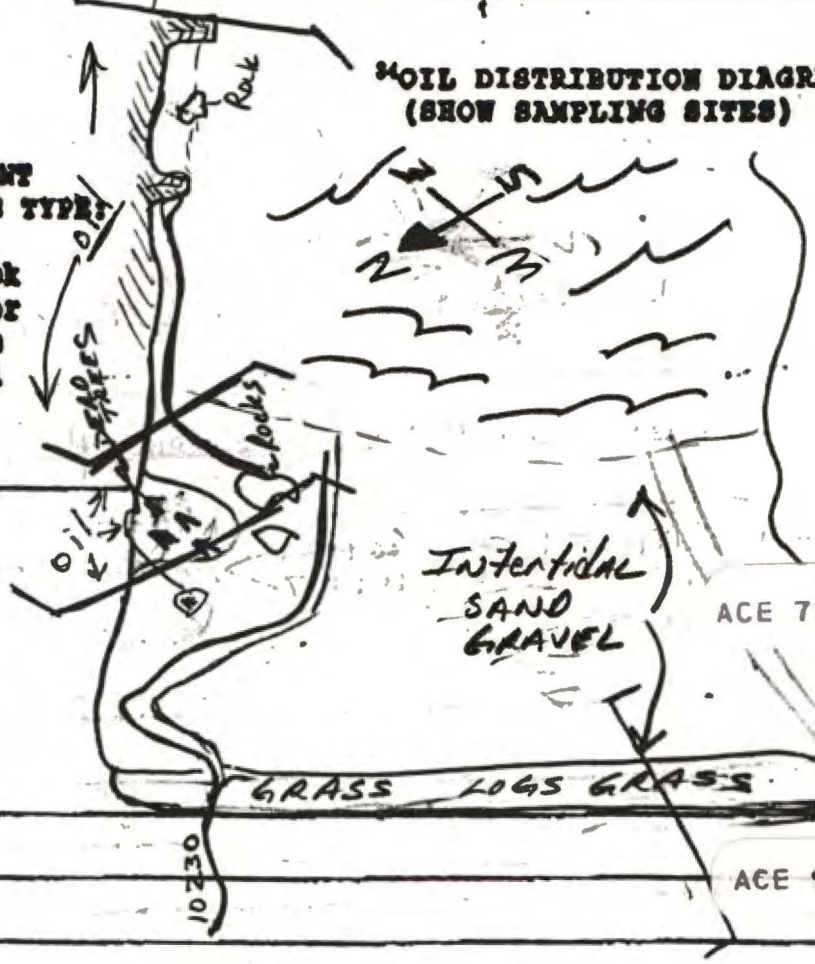
Site 4-6

EXTENT OF OIL:

	WITHIN STREAM	OUTSIDE STREAM
31 SURFACE COVERAGE		← See following
32 SURFACE THICKNESS		two PAGES
33 PENETRATION		1 1/2

34 OIL DISTRIBUTION DIAGRAM (SHOW SAMPLING SITES)

= Conform to Map on following page
= Designate oiled zones



35 SURFACE SUBSTRATE TYPE:

1. Bedrock
2. Boulder
3. Cobble
4. Gravel
5. Sand
6. Mud
7. Other

36 COMMENTS:

FISH HABITAT ASSESSMENT FORM

Nuka Island-NE Cove

[1]REGION: [2]PWS (KP,CI) [4]K,AP [5]OBSERVER(S) Doug Hill, Rick Randall

[6]SITE NO. 4-6 [7]AERIAL PHOTO NO. 14-21 [8]CAT NO. 232-21 → 10230, 10240

[9]STREAM NAME _____ [10]LAT ___°___.___' [11]LONG ___°___.___'

[12]DATE 7/26/89 [13]TIME 1700 [14]TIDE: Low slack (Flood) High slack Ebb

[15]CATALOGED ANADROMOUS STREAM? (Y) N [16]ANAD. FISH FOUND? (Y) N

[17]OIL FOUND IN STREAM? Y N [18]OIL FOUND NEAR STREAM (1 MI.)? (Y) N

[19]OIL SAMPLES TAKEN? (Y) N [20]ID NOS. NE Cove Nuka - DDH/RDR-7/26/89-1700

[21]35 mm PICTURES TAKEN? (Y) N [22]ROLL NO(S). 89DDH12H

[23]EXPOSURE NO.	[24]DESCRIPTION
14, 21, 15	Aerial of head of bay, photo 21 → Majority of oil in vicinity of pt. with trees
16	Oil Sample; Typical oil on this beach
17	Oil Sample; Rick Randall in Photo
18	Rick demonstrating how much oil can be scraped off the gravel
19	Portion of Oil Sample
20	NW corner of NE Cove - spruce needles plastered on Rock FACE

SEE ROLL # 89DDH25H - Frames 24→29
89DDH26H - " 01→17 > Photo of Tripol operation at NE Cove

[25]VIDEO FOOTAGE TAKEN? Y N [26]CASSETTE NO(S). _____

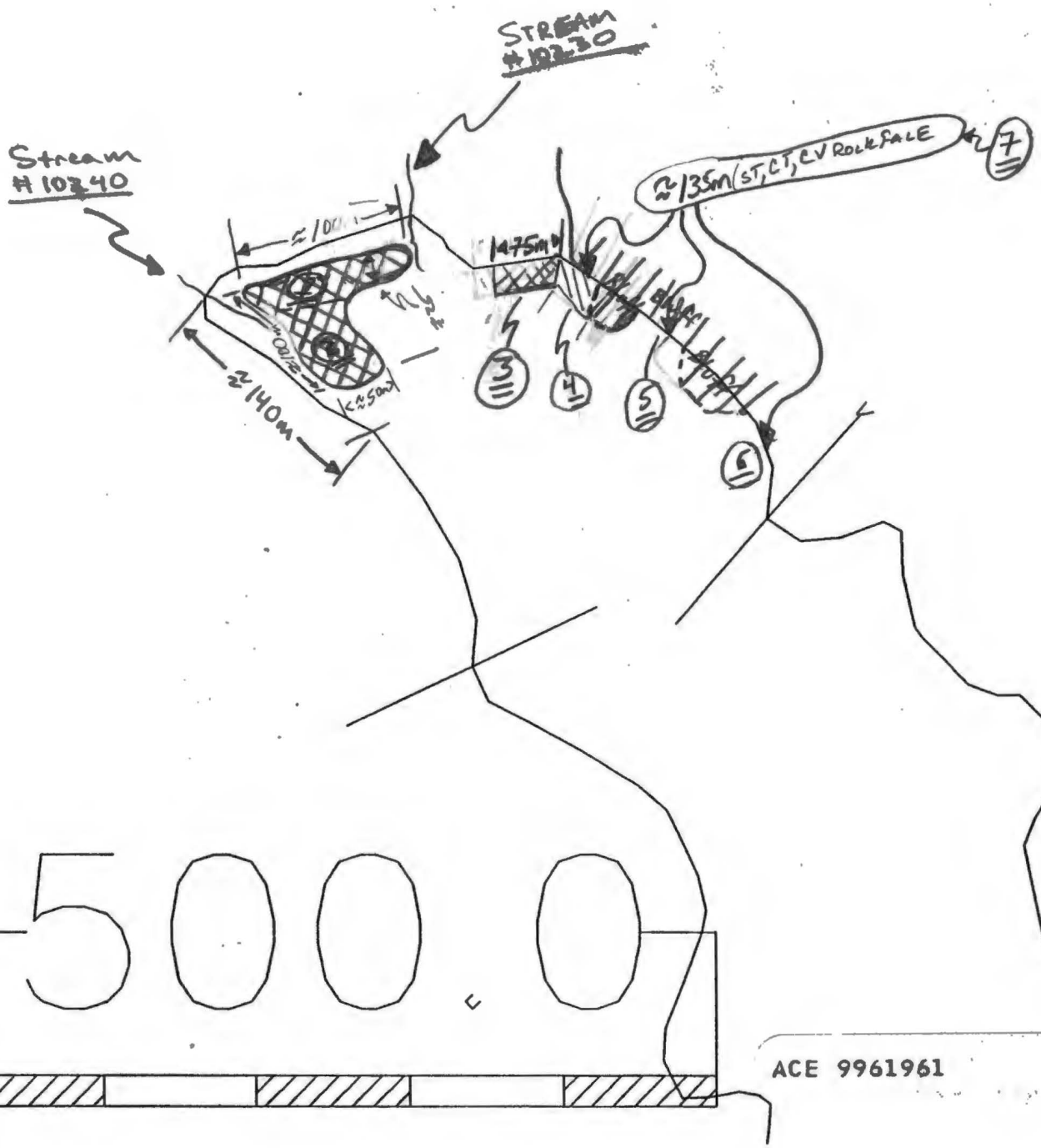
[27]DESCRIPTION: _____

ACE 9961960

ACE 7380246

NK001

NE Cove Nuka Island



500.

ACE 9961961

ADEC

ADEC - MAP

NK001

HOMER POST TREATMENT SURVEY
28 SEPTEMBER 1989
CREW: JULIE NOPFKE
CHARLES MORTIMER

NORTHEAST COVE OF NUKA ISLAND (BOULDER, COBBLE, GRAVEL)

H - HEAVY
M - MODERATE
L - LIGHT
VL - V. LIGHT
NO - NO OIL observed.

[redacted]

Site 4-6

FIELD OF MOUSSE MATS, DISCONTINUOUS PATCHES OF MOUSSE, AREA IS 32 M WIDE, 9 M LONG, PENETRATION TO 3 CM.
JAN ROLL # 26, FRAMES 3, 4, 11, 12
IRIDESCENT SHEEN OBSERVED ON ROCK SURFACES

L

END 0916

M

MODERATE BAND OF OIL, 20 M LONG, STICKY FILM ON COBBLES, INCLUDES TRANSECT NO. 3161 LIGHTLY OILED DEBRIS AT HIGH TIDE LINE, IRIDESCENT SHEEN OBSERVED ON ANGULAR ROCK SURFACES, JAN ROLL # 26, 5-10
TRANSECT NO. 3161, SAMPLE NOS. 89JAN3161-1 89JAN3161-2 DATE: 5/22/89

L LIGHTLY OILED VERTICAL ROCK FACES, OILED 1.7 M HIGH FROM GROUND SURFACE, 1 CM THICKNESS ON EDGES

Stream #10240

Stream #10230

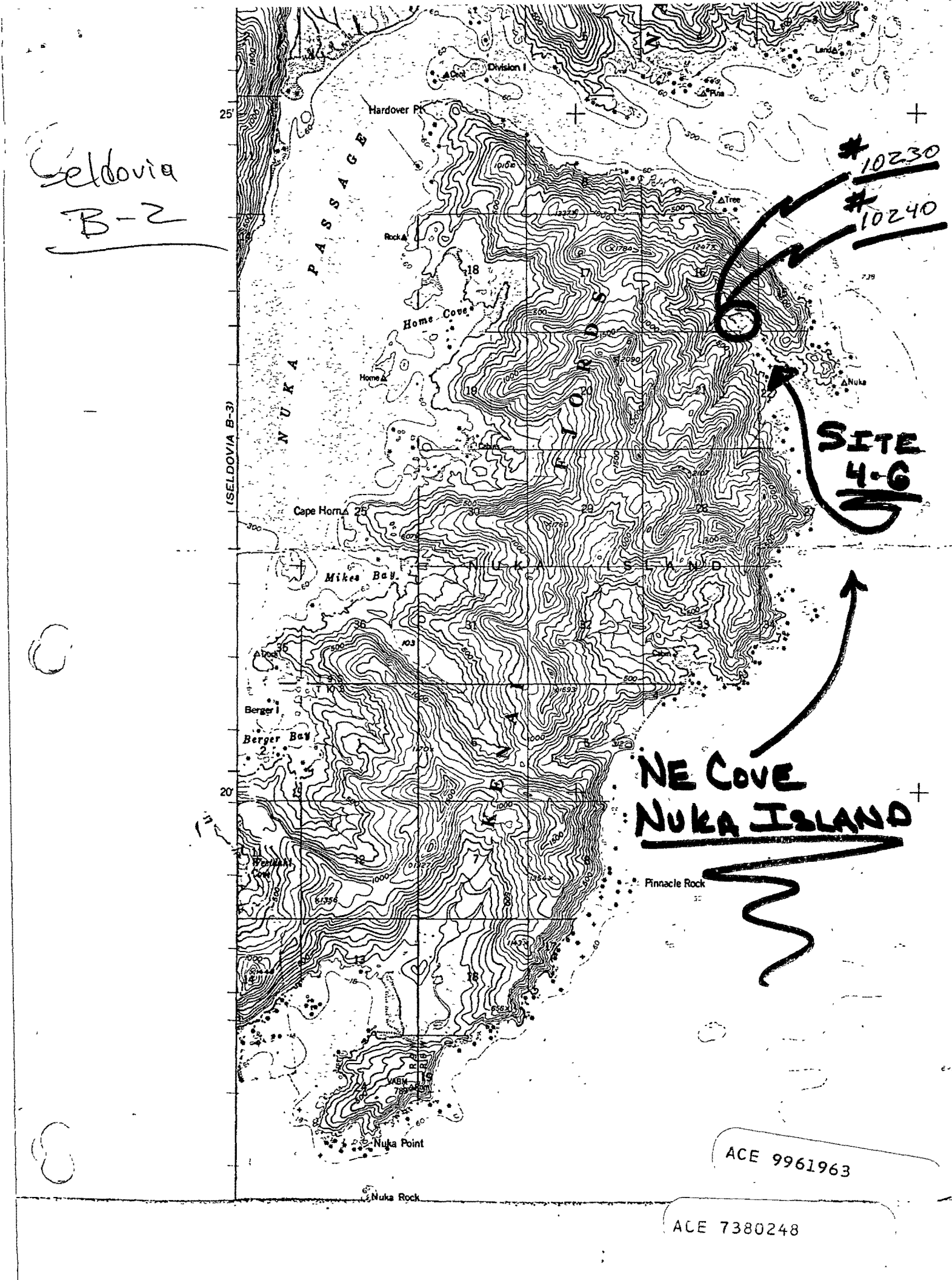
NO OIL

START 0839

5000

ACE 9961962

ACE 7380249


Seldovia B-2
#10230
#10240
SITE 4-6
NE COVE NUKA ISLAND
NUKA PASSAGE
NUKA ISLAND
Hardover Pk
Home Cove
Cape Horn
Mikes Bay
Berger I
Berger Bay
Pinnacle Rock
Nuka Point
Nuka Rock
(SELDOVIA B-3)
ACE 9961963
ACE 7380248

PHOTOS

JAN ROLL #26

3) MOUSSE PATTIES IN FIGTS AREA (N)
4) MOUSSE PATTIES (SAME AS ABOVE)(N)
5) OILED VERTICAL ROCK FACES (EAST)
6) SHOT OF TRANSECT NO. 316 (N)
7) BEDROCK (W)