

OIL SPILL PUBLIC INFO. CENTER



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EVOS
GC
1552
.P75
S42
1990
v.29

[Shoreline evaluations, 1990].

US-01 – US-12

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SHORELINE EVALUATION

SEGMENT ST/ US-01 SUBDIVISION A (1 OF 1) DATE 4/10/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

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

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: Charles E. Homan

DATE: 4/20/90

OILING CATEGORIZATION:

Wide 0 m: Medium 297 m: Narrow 362 m: V.Light 185 m: No Oil 143 m
Subsurface Oil Observed: Yes X No Maximum Depth 30+ cm

RECOMMENDATIONS:

 No Treatment Recommended

X Treatment Recommended

X Manual Pickup

X Bioremediation

 Tarmat: Breakup

 Removal

 Snare/Absorbent Booms

 Oil Snares (pom poms)

 Absorbents (pads, rolls, etc)

 Spot Washing: Wands

 Beach Cleaner

X* Other (see comments)

COMMENTS: Recommend (a) manual pick up of mousse, pooled oil, and oil-
ed debris (debris, trash and vegetation), (b) burning of oiled logs
with more than 10% coverage and splash impact, and (c) bioremediation
as noted on sketch map. Work should be conducted only with permission
of ADF&G and USFWS due to seabird colony constraint.

TAG COMMENTS: MONITORS TO RE-EVALUATE THE NEED TO BURN
THE LOGS AT TIME OF TREATMENT.

TAG APPROVAL DATE: 4/20/90

ADEC ART WEINER Nit Weiners

EXXON ANDY TEAR Andy Tear

NOAA Bruce Wescott Bruce Wescott

USCG KENNETH KEANE Kenneth Keane

FOSC: W L

DATE: 4-28-90

Use least intrusive method possible on this
high energy beach before resorting to highly
intrusive method - may have to let next wind
storm actively mitigate problem and attack next
spring.

KODIAK ECOLOGICAL CONSTRAINTS

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

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ US-01 SUBDIVISION: A DATE 4/10/90NOAA
USCGNAME John Naughton SIGNATURE John J. Naughton☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

This segment had substantial oil, particularly along the western portion of the shoreline. The cliff faces have coating and splashes high up in spray-littoral. Logs and marine debris coated and stained. Cobb beach under debris contains oil subsurface to at least 30 cm. depth. Most of oil in upper and supra tidal indicating oil came ashore (at least during one period) during storm surf conditions. Manual removal of subsurface oil difficult because of huge logs covering much of area. Bioremediation could possibly be applied to appropriate areas of this segment.

ADEC

NAME Scott Shelton SIGNATURE Scott Shelton☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

US-01 Sub. A

25-30 Meter Coating on Bedrock in the Upper to Supratidal Level. Coating 5 meters wide extends from W to EAST. 677 meters. Drift from winter storms up to 2 meters coverage on oil band in western region of this segment. Drift would need to be removed for clean up access of the impact area. Cleanup Manual Type recommended. Debris oiled in this segment (Marine type) should be picked up/access limited, High energy beach.

LAND MANAGER

NAME LINDA M. HAGEN SIGNATURE Linda M. Hagen USFWS☐ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

(Attachments 2)

Barren Islands contain the largest and most diverse population of seabirds in the Northern Gulf of Alaska and are the most important nesting location in the Region. Due to the amount and wide coverage of oiled surface and the wildlife sensitivity within this location, I recommend treatment as high priority within recommended time frame provided by refuge manager.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / US-1 SUBDIVISION: A DATE 4/10/90USCG

NAME _____

SIGNATURE _____

☐ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTEDADEC

NAME _____

SIGNATURE _____

☐ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED2nd
- LAND MANAGERNAME Ray BurgerAONRSIGNATURE Ray Burger☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

High energy beach so impact went high into supratidal.
Logs + debris accumulated here have coating of oil that easily
contaminates on contact - while this area lacks recreationists (due to access)
- wildlife is in danger
Some seabird flocks seen in far offshore areas.
No sign of mammals on beach or uplands except for some small rodent
burrows - one songbird observed - no eagles or gulls
Band of coat goes at least 30 cm into subsurface

4/10/90

Attachment 2**U.S. Fish and Wildlife Service Shoreline Cleanup Disclaimer**

This comment sheet is based on current observations and is solely for the purpose of planning and scheduling of 1990 response treatment actions. It in no way implies that the State or Federal government will not in the future determine that further restoration or other treatment, or compensation is warranted regarding this area, or that the area is considered by the Federal or State government to be adequately "clean" or "restored" for the purpose of any claim which the State or Federal government has brought or may bring against Exxon, Incorporated or any other potentially responsible party.

REVISED

SHORELINE OILING SUMMARY

REVISION NO. 03/22/90

OG Shelton ^{NAAA} DSCG Naughton SEGMENT ST/ US-01
 BIO Shelton LAND REP Hagan/Burger SUBDIVISION A
 EXXON THOMAS ADEC Shelton TIME 10:16 to 11:05
 TEAM NO.: 19 TIDE LEVEL: -1 to +2 DATE 4/10/90
 EST. SUBDIVISION LENGTH: 1232 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: W to E
 SURFACE SEDIMENTS: R 20 % B 20 % C 10 % P 0 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 65 % Hang 15 % Vert 20 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 242 m N 435 m VL 295 m NO 260 m

SURFACE OIL

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

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

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

DEBRIS COLLECTED
☒ YES ☐ NOTYPE NETS/LINES#BAGS 150-200

Photographs:

Roll No. 19-8 / 19-7Frames 1-13 / 26-36

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CH)	BELOW		OIL / FILM COLOR								PIT ZONE	A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	1	2	3	4	5	6	7	8	SU	U	
1	30					X	.											X		Cobble/Gravel
2	30					X	.												X	Cobble/Gravel
3	30		X				0-30	X							X		X			Cobble/Gravel
4	30		X				0-30	X							X		X			Cobble/Gravel
5	30		X				0-30	X							X		X			Cobble/Gravel
6	30		X				0-30	X							X		X			Cobble/Gravel

COMMENTS Storm Drift coverage in oil Band in the western section of this segment is several meters in depth with up to 2 meters built up covering oil impact. Drift is from winter storm and would need to be removed for any clean up of impacted area. Continuous/Western portion of this segment Area is High Sebk oiled/And Sub surface oiling.

SHORELINE ECOLOGICAL SUMMARY

REVISION: 02/23/90

Segment ST/ U5-1 Subdivision A Date (mo / day / yr) 4/10/90Time (24 hr) 9:00 Biologist SPIGHT(A) Substrate type and % of segments:
(1) Bedrock 60 (2) Boulder 30 (3) Cobble 10 (4) Pebble (5) Sand (6) Silt (B) Overall % cover of biota (% of segment): Dense 35 Moderate 35 Low 30

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

Photographs:
Roll No. Frames

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS

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

NOT PRESENT

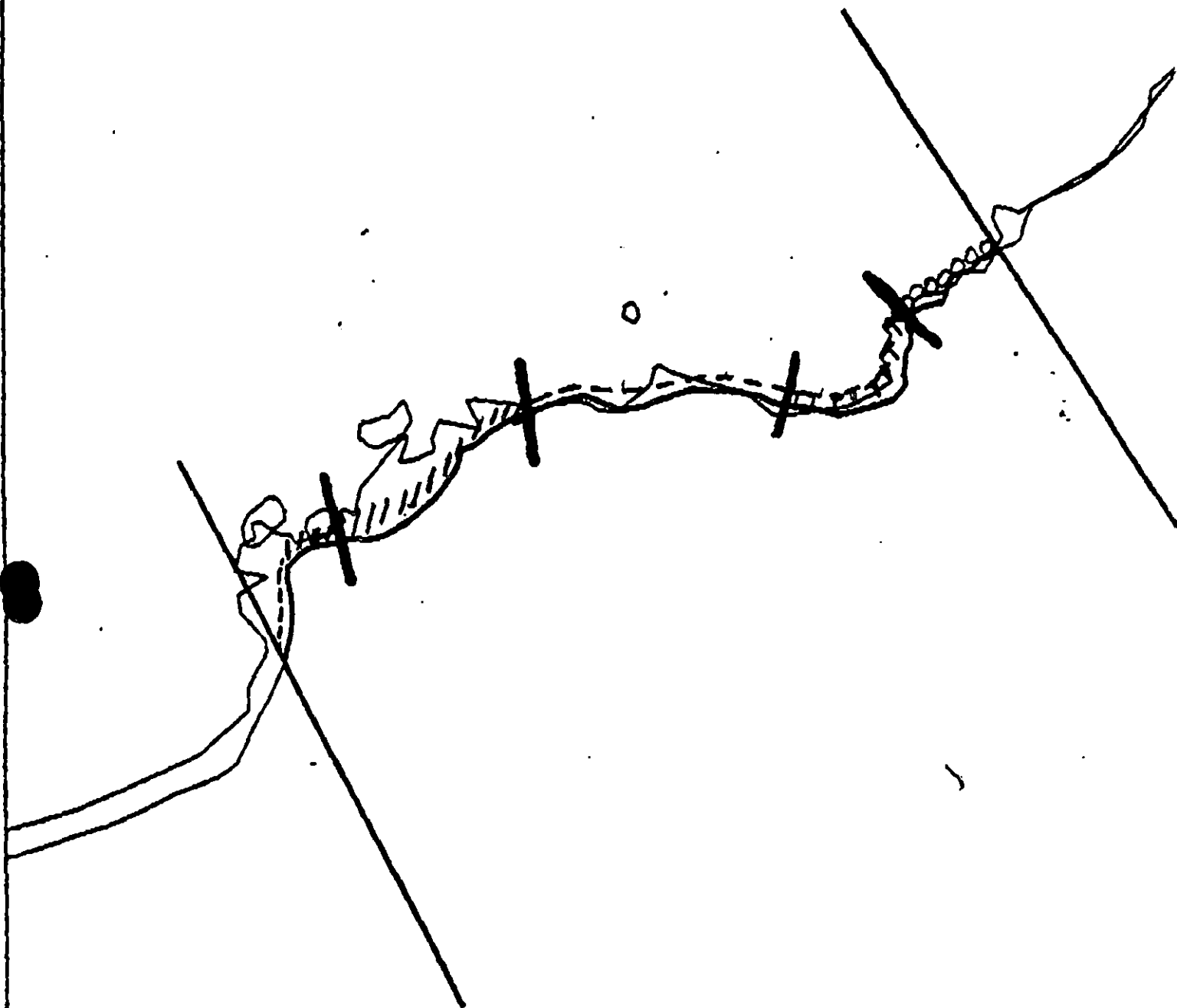
FUCUS

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

NOT PRESENT

Wildlife Observations/ General Comments:

Ecological Considerations:
 Extremely diverse area in types of habitats. Tide pools with
 eelgrass. Lower levels of seaward face covered with "little kelp"



XXXX Wide

US-1

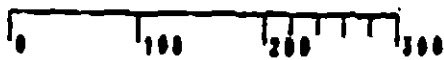
/// Medium

--- Narrow

TTTT Very Light

OOOO No Oil

ADEC Segment Length: 987m



Map Key: KEN-132

Name: Sheraton

Date: 4/10/90



ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT US-1 SUBDIVISION A (1 of 1)

WORK WINDOW	
Manual Pickup Oiled Log Burning	OPEN
Bioremediation	OPEN

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

5R Seabird Colony

NO CONSTRAINT. The work area is more than 800m from the nearest seabird colony.

OTHER ECOLOGICAL CONSIDERATIONS

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

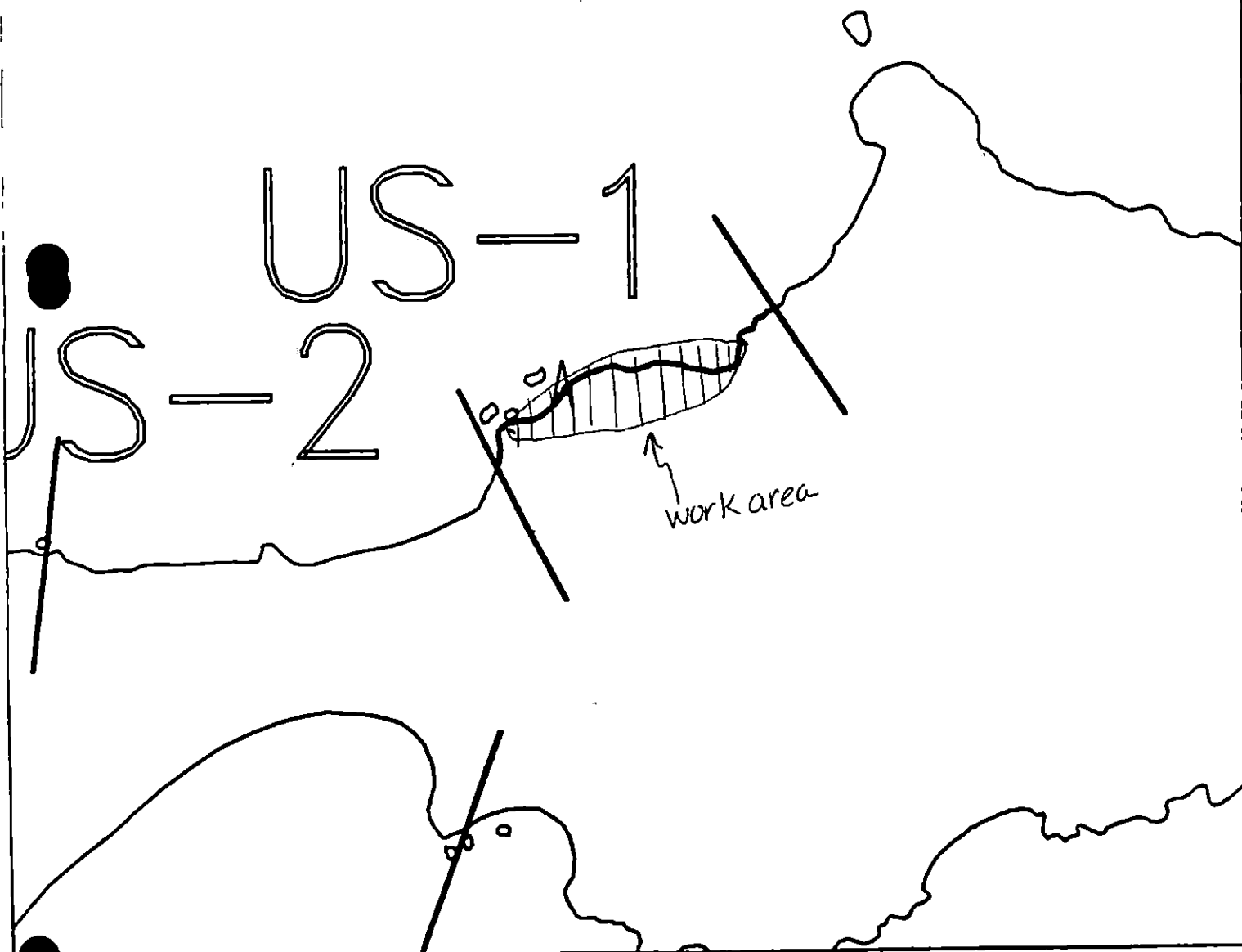
TAG APPROVAL DATE 6/01/90
ADEC Ray Menais
EXXON Amey Telo
NOAA G.H. Bunker
USCG G.H. Bunker

FOSC

D. D. Horne, CD, USCG
Acting
DATE 6/2/90

Prepared By: Anda Meyer WK

Date 5/31/90



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



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

- ★ Seabird Colony
- ▲ Eagle Nest

SHORELINE EVALUATION

SEGMENT ST/ US-02 SUBDIVISION A (1 OF 1) DATE 4/9/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
No specific constraints identified.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: Charles E. Hume DATE: 4/20/90

OILING CATEGORIZATION:

Wide 0 m: Medium 187 m: Narrow 1174 m: V. Light 0 m: No Oil 0 m
Subsurface Oil Observed: Yes X No Maximum Depth 30+ cm

RECOMMENDATIONS:

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

COMMENTS: Recommend manual pick up of mousse, oiled debris, and oiled trash, and burn oiled logs if more than 10% coverage and splash impact as indicated on sketch map. Also recommend relocation of 150m x 30m x 30cm material (pits 12, 13, and 14 on sketch map) from SUTZ to MITZ and bioremediate; a bobcat-type vehicle with high flotation tires/tracks is recommended for relocation of materials.

TAG COMMENTS:

TAG APPROVAL DATE: 4/19/90
ADEC JOHN BAUER
EXXON ANDY TOL
NOAA Bud Warcott
USCG KENNETH KEANE

FOSC: DATE: 4-25-90

Provide ADEC with log burning plan

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / US-2 SUBDIVISION: A DATE 4-9-90

NOAA
USCG

NAME John Naughton SIGNATURE John J. Naughton

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

This area appeared to have been mainly oiled last year and then oil covered by beach cobbles during storm. Also much oiled debris pushed into a storm berm, much oil mixed with nothing kept and seaward. Oil subsurface in area at east end of segment approximately 150m x 40m. By far greatest impacts east of head in middle of segment. In subsurface zone pits dug indicate oil at least 30 cm deep.

ADEC

NAME Scott Whelton SIGNATURE Scott Whelton

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

US-2 USHA BAT I. 1355 METERS WALKED BY TEAM MEMBERS. STAIN / COATING OBSERVED ALONG THIS SEGMENT IN THE STORM TIDE DRIFT AREAS. ORGANICS MIX WITH OIL IMPACT FOCUS A 200 METER BAND AT THE SUPRA-TIDAL TO UPPER TIDAL LEVELS. 150 x 30 METER ZONE OF BURIED OIL CAN BE LOCATED IN THE EASTERN MOST SECTION OF THIS SEGMENT. 3 PITS TO 30 CM OBSERVED OIL IN THE RESIDUAL FORM NOT SATURATED / PENETRATION BEYOND 30 CM CAN BE SEEN. SCATTERED TALL BURLA OBSERVED ALONG SEGMENT GRANULAR BED MANUAL CLEANING RECOMMENDED AT THIS DATE. HIGH SEAS OIL NET OBSERVED ON BEACH / MARINE DEBRIS HEAVY

LAND MANAGER

NAME Linda M. Hagen SIGNATURE Linda M. Hagen USFWS

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

Clean up is suggested for this area.

SHORELINE OILING SUMMARY

REVISION NO. 03/23/90

OG Portland NOAA USCG Alighan SEGMENT ST/ US-2
 BIO Spight LAND REP Hagen SUBDIVISION A
 EXXON Byars ADEC Shelton TIME 10:45 10 12 :00
 TEAM NO.: 19 TIDE LEVEL: +2.5 ft to -6 ft DATE 4/9/90
 EST. SUBDIVISION LENGTH: 1325 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: W to E
 SURFACE SEDIMENTS: R 10 % B 10 % C 60 % P 10 % G 10 % S 0 % M 0 % V 0 %
 SLOPE: Long 70 % Hang 15 % Vert 15 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 200 m N 1325 m VL 0 m NO 0 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR						IMPACTED ZONES			
	IC	IB	IP	IS	1	2	3	4	5	6	SU	U	M	L
ASPHALT PAVEMENT														
POOLED														
COVER														
COAT														
STAIN														
MOUSSE														
PATTIES														
TARBALLS														
FILM														
NO OIL														

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

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☐ YES ☒ NOTYPE NETS ROPE
FLAT LINE#BAGS 25

Photographs:

Roll No. ST-19-7Frames 17-23

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR						PIT ZONE				A N A	SUBSURFACE SEDIMENTS	
		OP	OR	OL	OF	NO		UO	UC	BL BR	DN PN	GY SL	DR TL	LR	SU	U	M	L				
1	30					X	.									X						Gravel
2	30					X	.									X						Gravel
3	30					X	.									X						Gravel
4	30					X	.									X						Gravel
5	30					X	.									X						Gravel
6	30					X	.									X						Gravel

COMMENTS

- stain and coat is observed in all of the log and debris line
- the central headland is coated and stain above the surf-tide line
- zone of buried oil in the eastern part of the beach 150 x 30m, depth of burial is 30cm and greater

SHORELINE OILING SUMMARY (PAGE 2 of 1)

REVISION 06/22/88

SEGMENT ST/ US - 2 SUBDIVISION A

SUBSURFACE OIL (CONTINUED)

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UD	UC	1	2	3	4	5	6	7	8	SU	U	M	L		
7	30					X	.											X					Gravel
8	30					X	.											X					"
9	30					X	.											X					"
10	30					X	.											X					"
11	30					X	.											X					"
12	30	X					0-30	X		X								X					"
13	30	X					0-30	X		X								X					"
14	30	X					0-30	X		X								X					"
							.																"
							.																
							.																
							.																
							.																
							.																

COMMENTS

REVIEWED BATDATE 12 Apr 90

UG Perched

SEGMENT ST/ US-2

SUBDIVISION A

DATE 4 / 9 90

SKETCH MAP

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Bndry
- ☐ Oil Dist
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. H/W/L/V/L
- ☐ SSI
- ☐ Profile Location(s)
- ☐ Photo Location(s)
- ☐ Photo Location(s)

LEGEND

1 Δ
P1 - No Subsurface Oil

2 Δ
PR - Subsurface Oil

$\square$ CT/C
Continuous Distribution

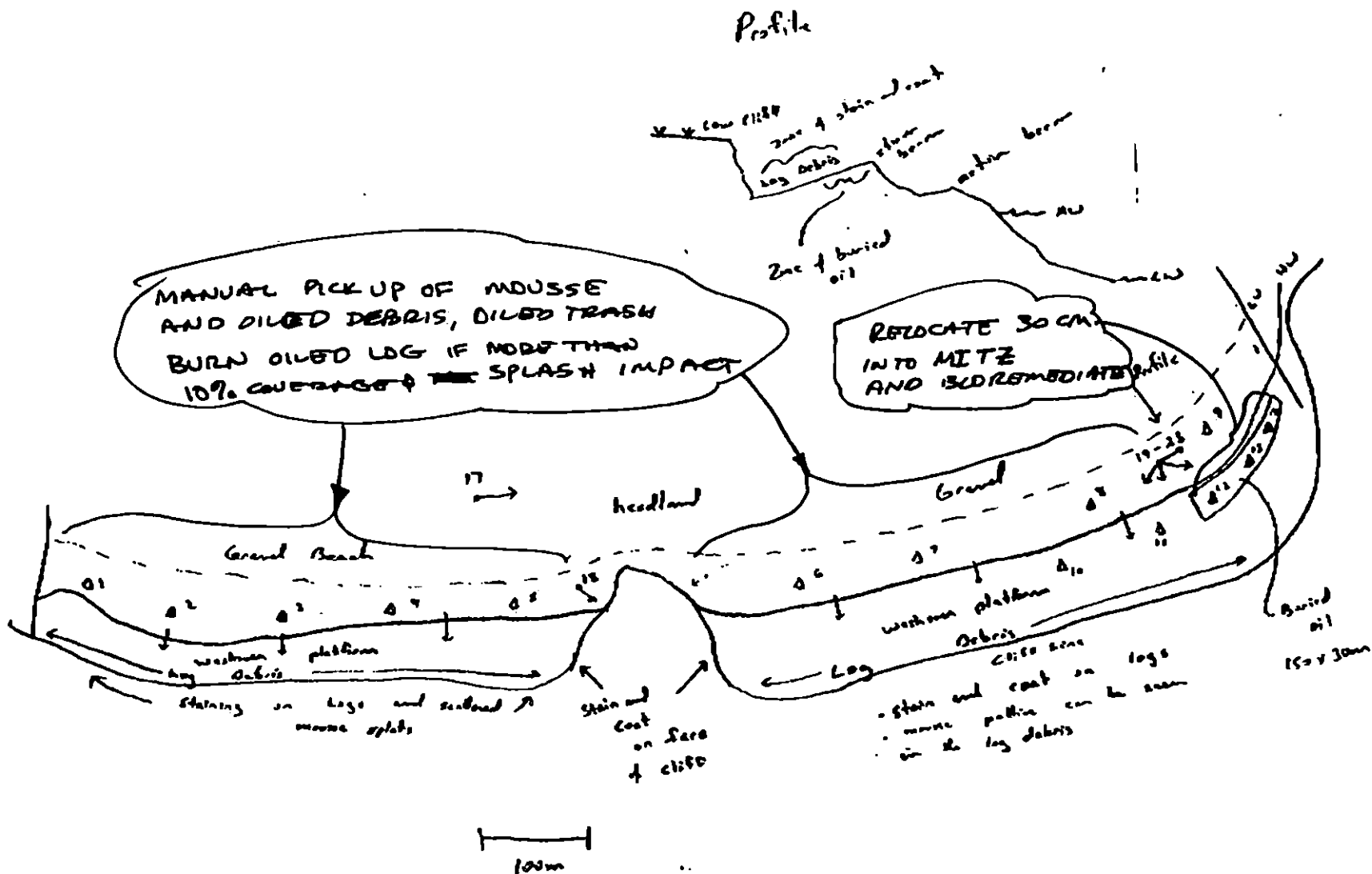
$\square$ CT/B
Broken Distribution

$\square$ CT/P
Patchy Distribution

$\square$ CT/S
Splashed Distribution

Oiled Vegetation

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



Oil Character Length (m): AP 0 PO 0 CV 12 CT 1355 ST 1355 MS 1355 PT 0 TB 0 FL 0 NO 0

REVISED 10/24/90

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22

Segment ST/ US-2 Subdivision A Date (mo / day / yr) 4/9/90

Time (24 hr) 10:44 Biologist SP/6HT

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

(B) Overall % cover of biota (% of segment): Dense _____ Moderate _____ Low 100

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

Photographs:
Roll No. _____

Frames _____

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS

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

NOT PRESENT

FUCUS

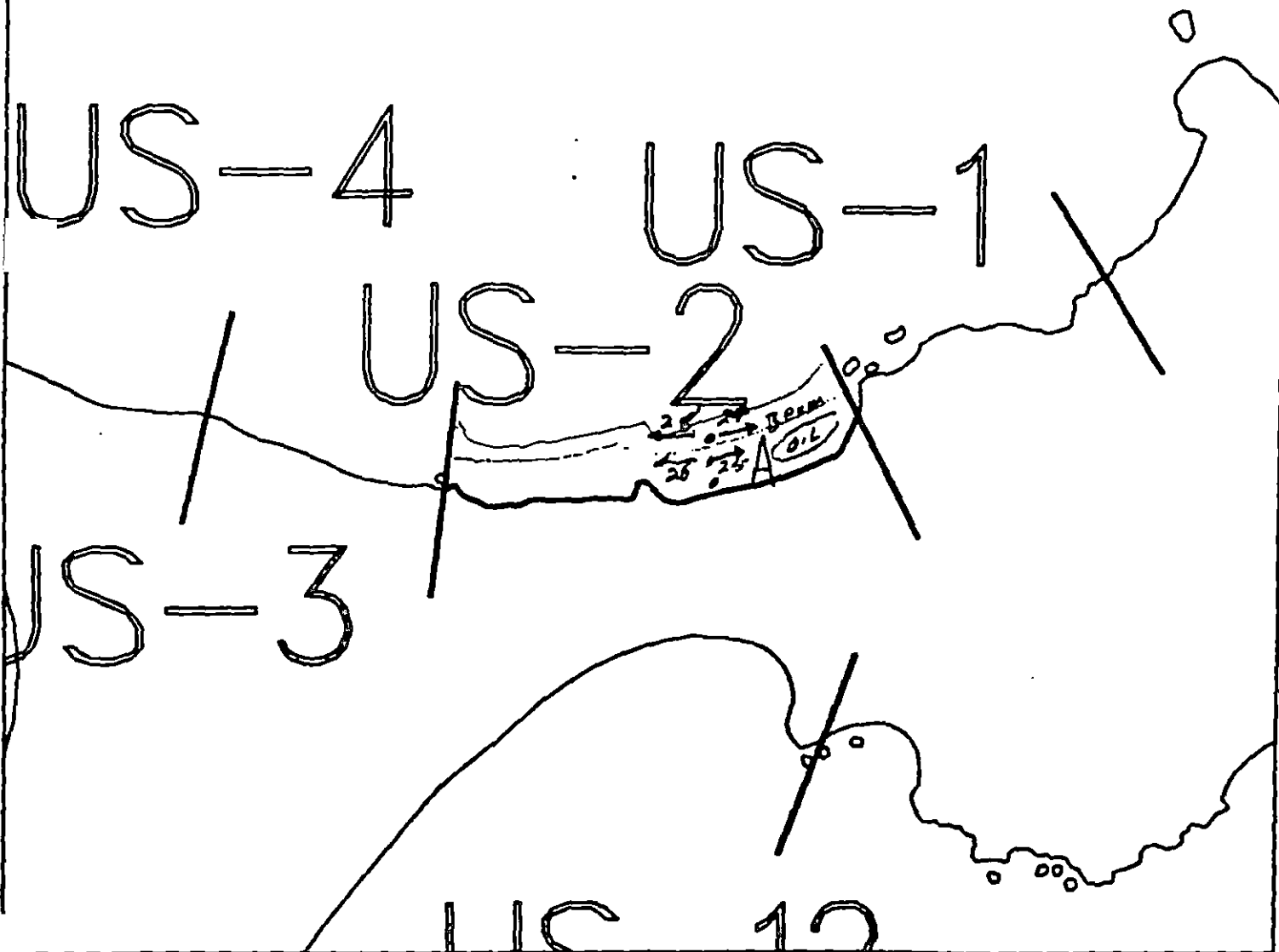
Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

Wildlife Observations/ General Comments:

Ecological Considerations: Normal faunas on headlands
Outcrops at waterline and in mid-beach all scoured;
a few red algae + slime of greens; Stack offshore in
mid-bay looks to have normal barnacles, etc.

5/29/90 PHOTO LOCATIONS US-2



Exxon Company, USA
Map Key: KEN-US-2

ECOLOGY MAP

SEGMENT US-2

SUBDIVISION --- (--- of ---)

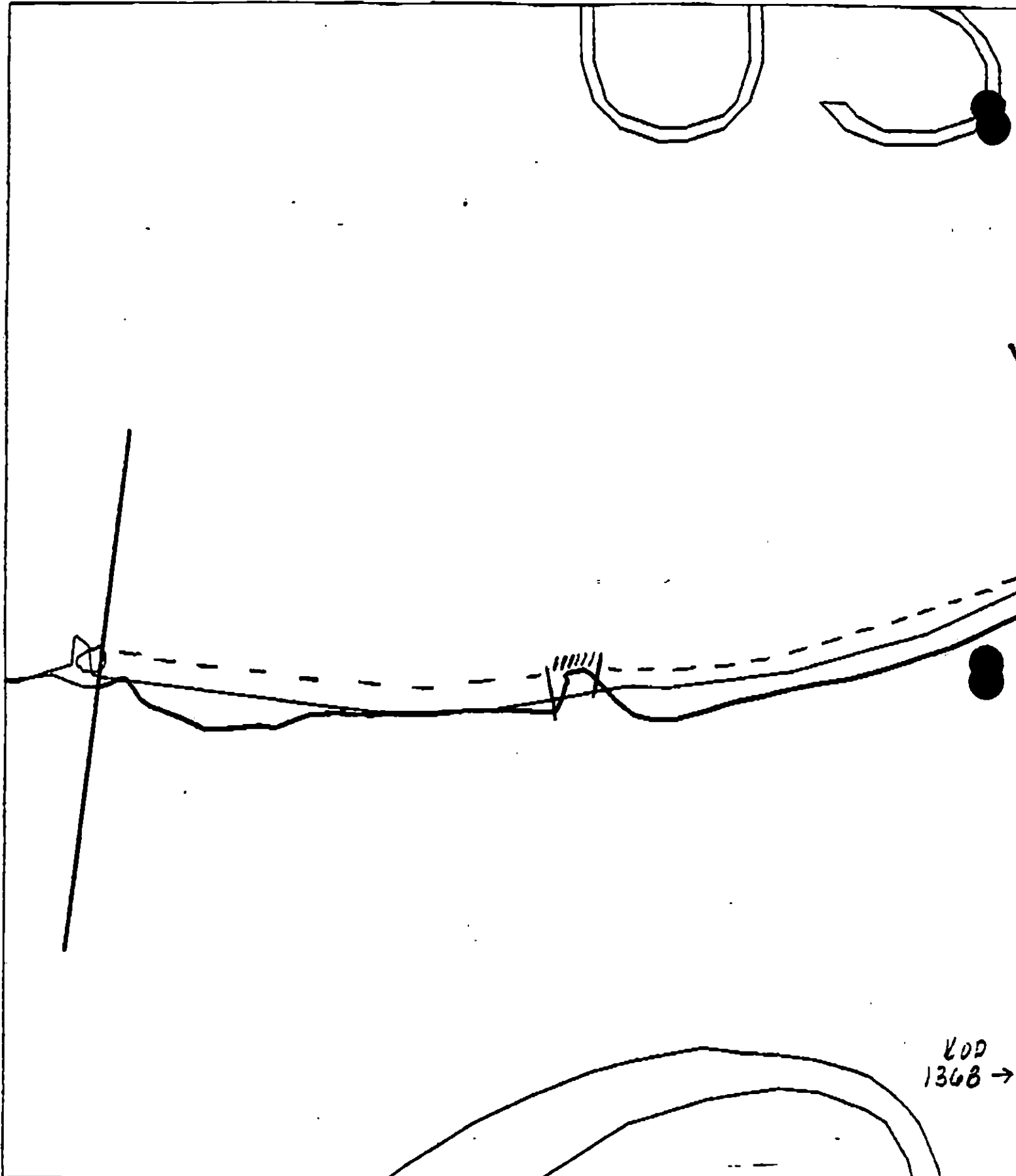
METERS



Seabird Colony



Eagle Nest



XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

US-2

ADEC Segment Length: 1361m

0 100 200 300

METERS

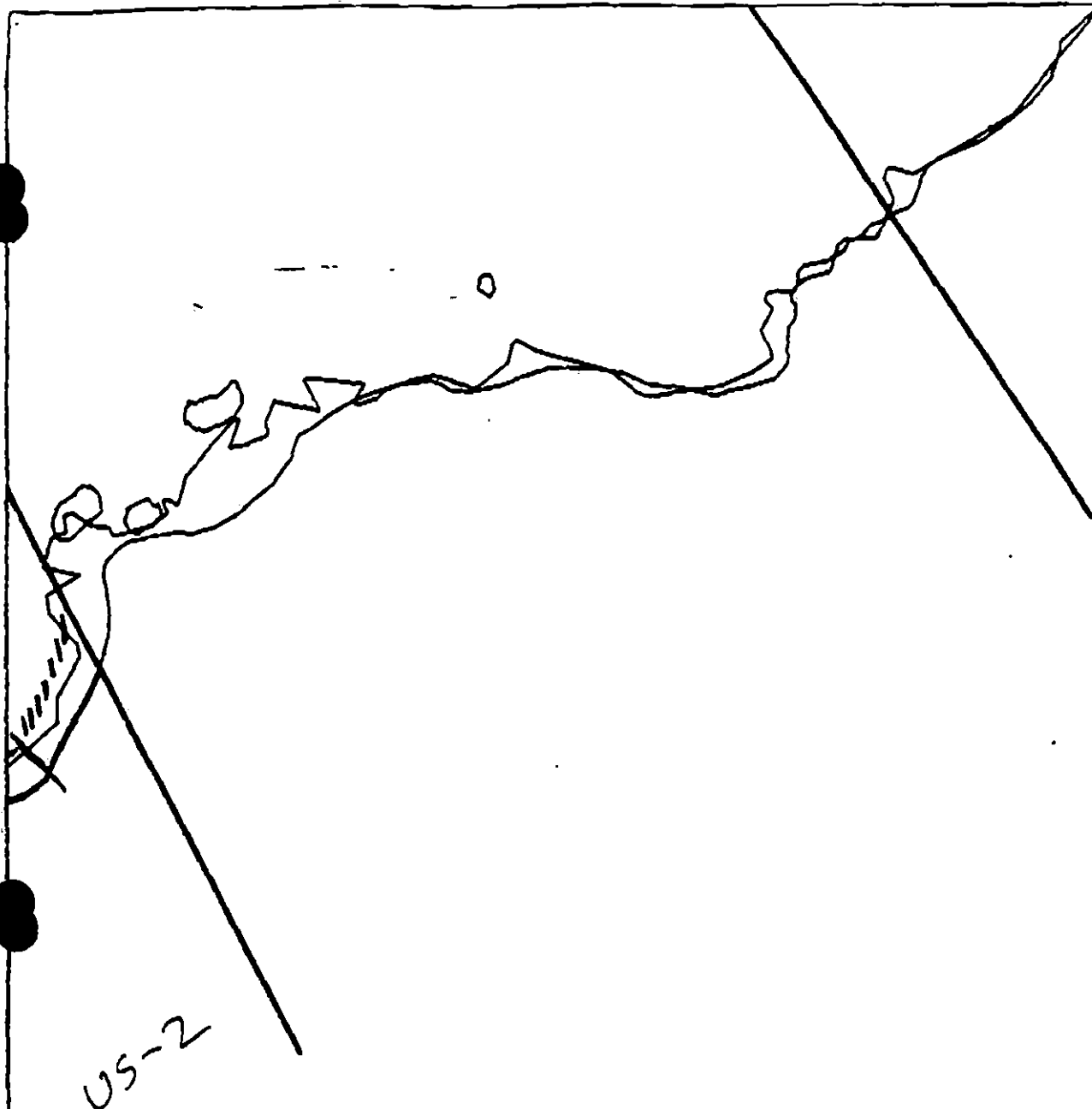


Map Key: KEM-136a

Name: Pealand

Date: 4-9-90

Data Entered:



← KOD
136A

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

US-2

ADEC Segment Length: 1361m



Map Key: KEN-136b

Name: Penland

Date: 4-5-80

Data Entered:

SHORELINE EVALUATION

SEGMENT ST/ US-05 SUBDIVISION A (1 OF 2) DATE 4/26/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

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

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

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

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V. Light 322 m: No Oil 37 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS: Recommend manual pickup of oiled trash and oiled logs. Work to be done in conjunction with other cleanup activity on Ushagat Island. Work should be conducted prior to 5/15 with permission from USFWS regarding Seabird constraints.

TAG COMMENTS: Monitors to assess logs.

TAG APPROVAL DATE: May 5, 1990
ADEC Art Wenzel Art Wenzel
EXXON Mark N. Gilbert Mark N. Gilbert EOSC: WJL DATE: 5-9-90
NOAA Gary Petros Gary Petros
USCG GA REITER G.A. Reiter USF+WL Rep to be on Scene

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

SEGMENT ST/ US-005 SUBDIVISION: A DATE 4/26/90

USCG

NAME Miles O. Hayes SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS

Spectacular geological feature - crenulate bay. Very high energy (wave) conditions, thus beach undergoes considerable natural cleansing.
Only cleanup required is gathering oiled trash.

ADEC

NAME Russell Runibe SIGNATURE Russell Runibe

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS

There was surface oiling consisting of little splatters of coat on the gravel above the high tide line. At the time we did not observe any treatable oiled sediments, there was a small amount of oiled trash that could be picked up.

LAND MANAGER

NAME Gerald M. Nugent SIGNATURE Gerald M. Nugent (USFWS)

☒ ~~NO TREATMENT RECOMMENDED~~ ☒ ~~TREATMENT SUGGESTED~~

COMMENTS

Manual removal of oily trash should be conducted in conjunction with other trash/debris pick-up in the Barrens. Activities should be completed as close to May 1, 1990, as possible. A Service monitor should be present.

SHORELINE OILING SUMMARY

REVISION 40

OG CLENN HEYMAN ^{NOAA} USCG MILES HAYES SEGMENT ST/ U.S.-005
 BIO DANIEL RADEK USEWISLAND REP JERRY NUGENT SUBDIVISION A 1 OF 2
 EXXON JOHN DEAN ADEC RUSSEL KUNZE TIME 14:10:15 45
 TEAM NO. 17 TIDE LEVEL +8 - +3.5 DATE 4/22/90
 EST SUBDIVISION LENGTH: 400 m ☐ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock See sketch
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: SE to NW
 SURFACE SEDIMENTS: R 8 % B 2 % C 35 % P 55 % G 0 % S 0 % M 0 % V 0
 SLOPE Lang 90 % Hang 10 % Vert 0 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 360 m NO 90

SURFACE OIL

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

Lower ITZ not surveyed

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

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

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒TYPE 0#BAGS 0

Photographs:

Roll No. 3Frames 12-15

SUBSURFACE OIL

PIT NO	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW		OIL / FILM COLOR					PIT ZONE				A N A	SHEEN (Y/N)	↓	SURFACE SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		VO	UG	1	2	3	4	5	SU	U	M	V				
1	45					X	.		X						X				N	-	-	C-P/CP
2	38					X	.		X						X				N	-	-	C-P/CP
3	46					X	.		X						X				N	-	-	PG/GPGS
4	38					X	.		X						X				N	-	-	C/P/CP
5	32					X	.		X						X				N	-	-	P-G/GPG

COMMENTS Subdivision consists of crenulate bay between rocky headlands. No subsurface oil observed. Surface oil limited to < 1 % coverage of C.T/S in ~10 m band in upper UITZ below log pile/storm berm on Cbls/pble, few logs & trash, & on bedrock @ SE end of subdivision.

REVIEWED 7W DATE 4/27/90

SEGMENT ST. L'S 005

SUBDIVISION A

DATE 4 122/90

CHECKLIST

- N Area
- Approx. Scale
- Seg/Sub Bdry
- C of Dist.
- Width
- Length
- % Cover
- Substrate Character
- EOL HML/VL
- SSL
- Profile Location(s)
- Profile(s)
- PL Location(s)
- Photo Location(s)

LEGEND

1 Δ
PH - No Substrate Oil

2 Δ
PH - Substrate Oil

CT/C
Continuous Distribution

CT/D
Broken Distribution

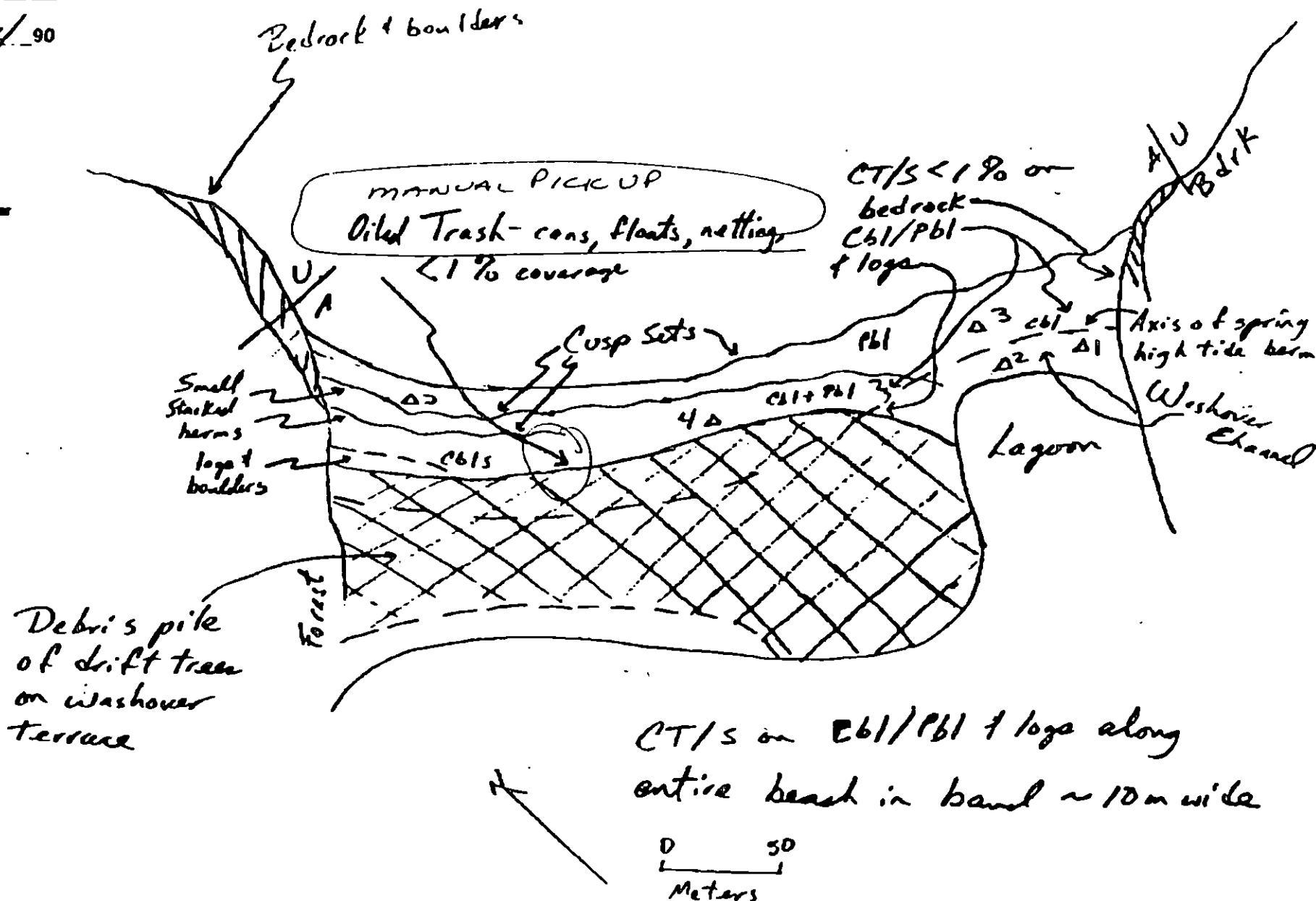
CT/P
Patchy Distribution

CT/S
Spatched Distribution

eee
Oiled Vegetation

1 →
Photo location, direction, and number

SKETCH MAP



SHORELINE ECOLOGICAL SUMMARY

Segment ST / US 005 Subdivision A Date (mo / day / yr) 4 / 22 / 90

Time (24 hr) 13:35 Biologist DANIEL RAIDER

- (A) Substrate type and % of segments:
 (1) Bedrock 8 (2) Boulder 2 (3) Cobble 35 (4) Pebble 55 (5) Sand 0 (6) Silt 1
- (B) Overall % cover of biota (% of segment): Dense 0 Moderate 0 Low 0
- (C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)

Photographs: Roll No. 3

Frames 12-15

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS

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

NOT PRESENT

FUCUS

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

NOT PRESENT

Wildlife Observations/ General Comments:

See attached "Wildlife cited" list

There is a very high energy beach with much sediment deposition and erosion and consequently, little biota; beach eye grass in the drowned forest area and Sitka spruce above the storm berm and into the headland; common biota of the region; alpine willow in the headland

ECOLOGICAL CONSIDERATIONS:

SA - See attached sheet for bird counts taken.
 Seabird colony

BIRD SITINGS - US OOSA + B

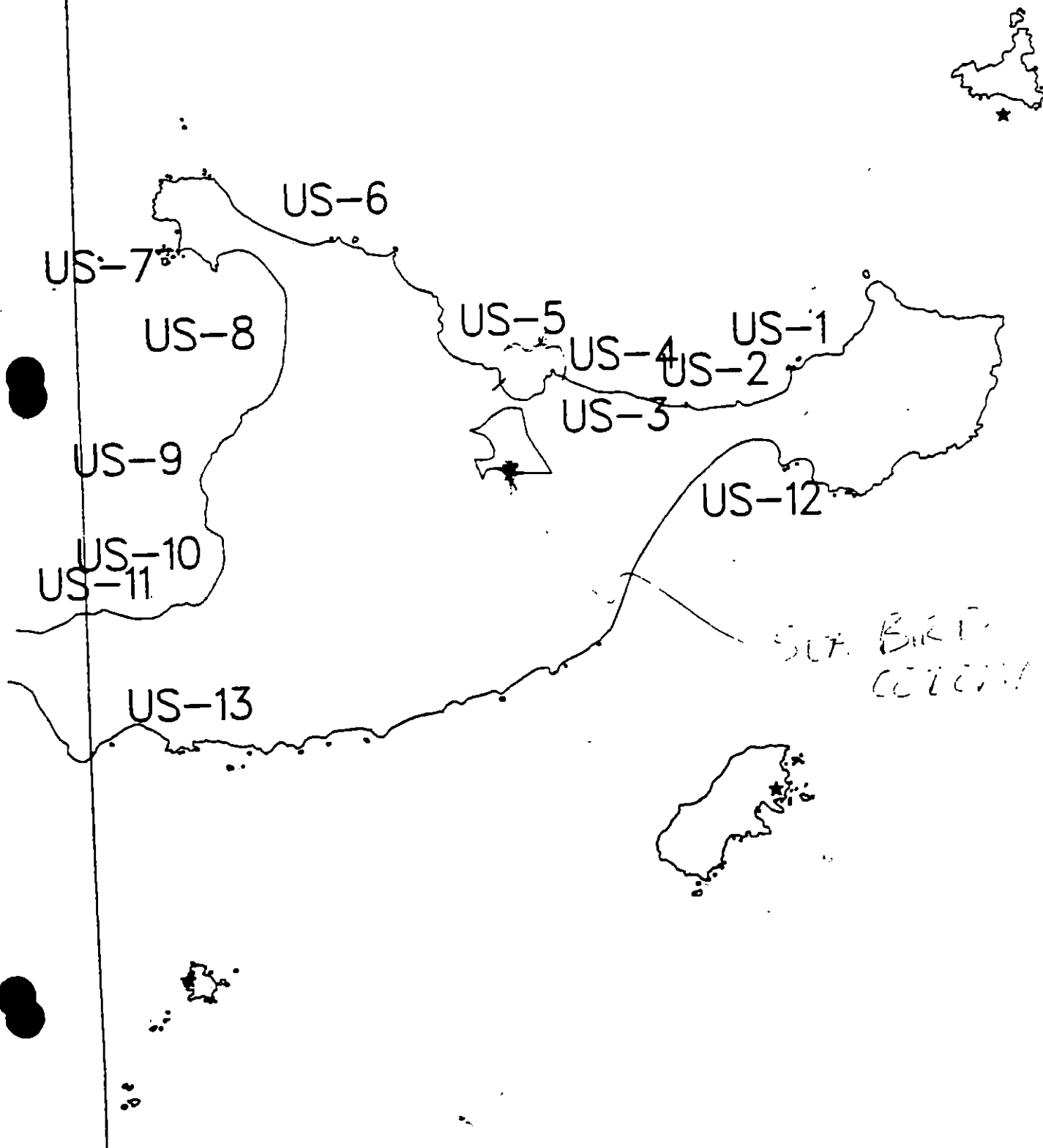
TEAM 17

22 APRIL, 1990

Name	amount	Comments
1) Song Sparrow 2) Glaucous-Winged Gull	20 ± 4	{ abundant; either Aelstian or Pacific N.W. dark subspecies
3) Bald Eagle	1	
4) Varied Thrush	1	either Pelagic or Red-faced (white
5) Cormorant sp.	1	
		- Credit to Miles Hayes for helping compile this list

ECOLEGE MAP

SR:



VS 1025

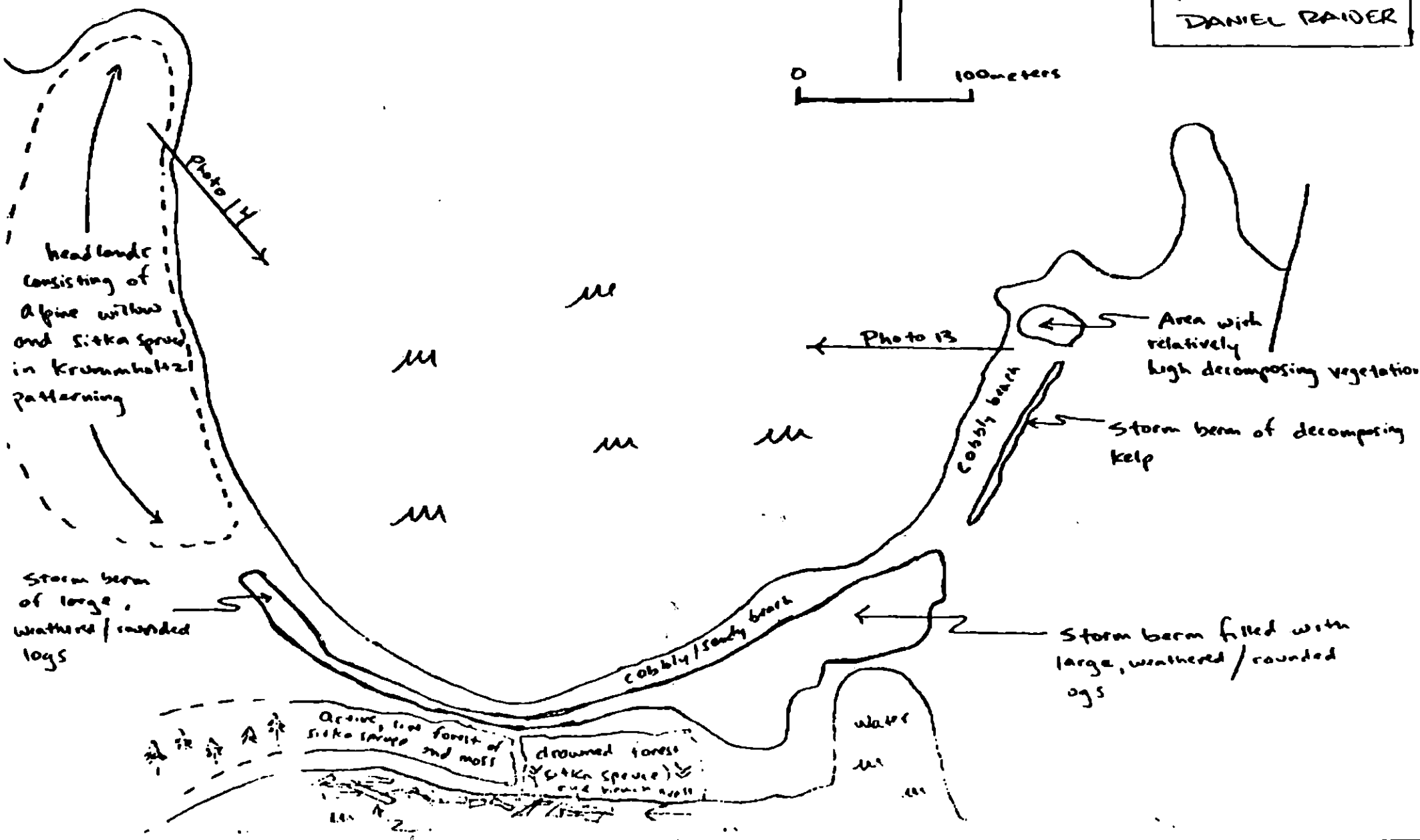
TEAM 7

BIO SKETCH

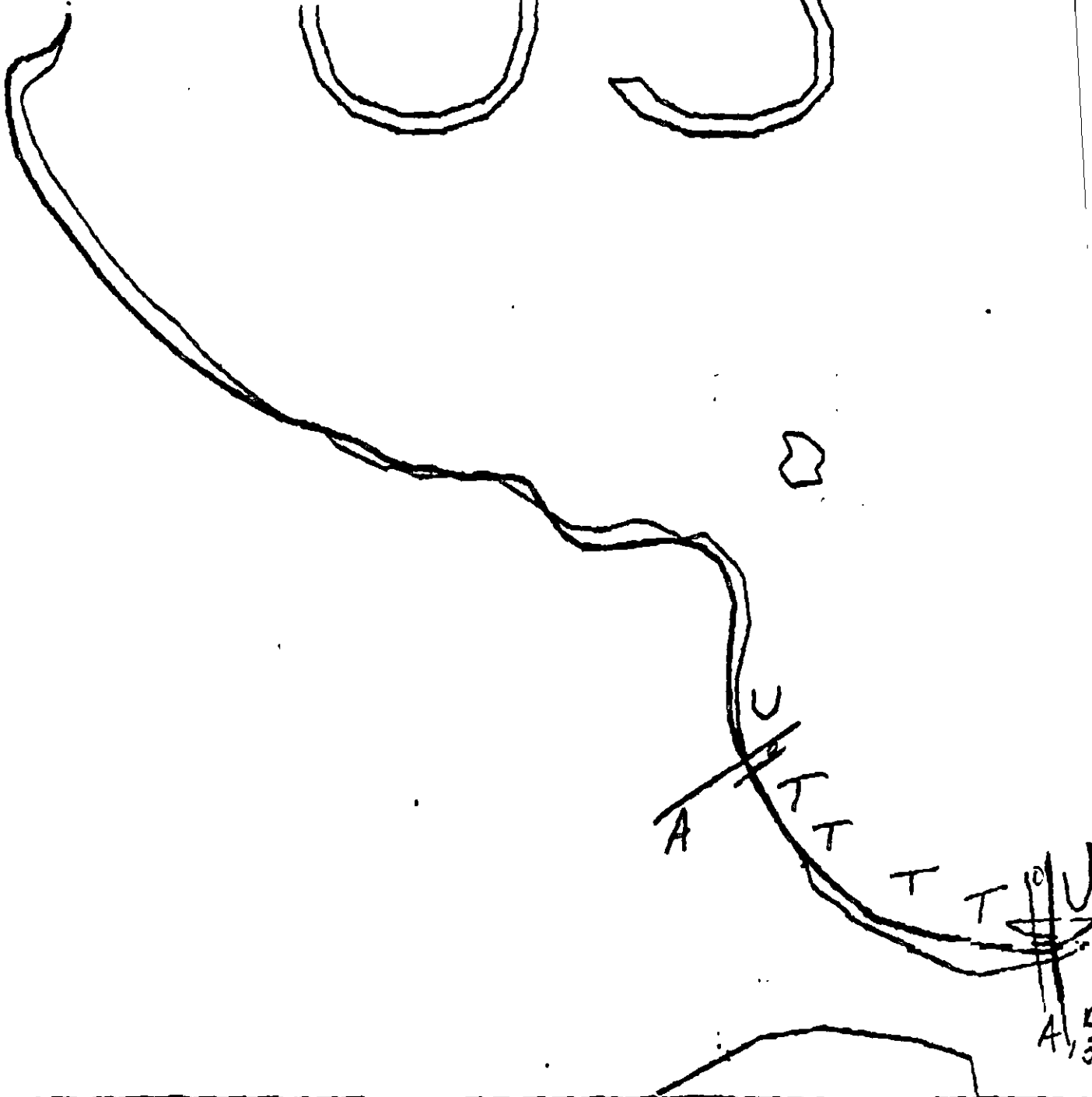
22 APRIL 1990

13:35

DANIEL RAIDER



US



XXXX Wide

//// Medium

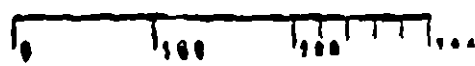
--- Narrow

TTTT Very Light

0000 No Oil

US-5A

ADEC Segment Length: 2541m



Map Key: KEN-1380

Name: G. Heyma

Date: 4-22-90

US

UNSURVEYED

← KEN
138A

XXXX Wide

//// Medium

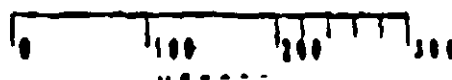
--- Narrow

TTTT Very Light

0000 No Oil

US-5A

ADEC Segment Length: 2541m



Map Key: KEN-138b

Name: G. Heyman

Date: 4-22-90

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT US-5 SUBDIVISION A (1 of 2)

WORK WINDOW	
Manual Pickup	CLOSED

ARCHAEOLOGICAL INSPECTION/CONSULTATION REQUIRED.

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

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

5R Seabird Colony

Closed to manual pickup. Work area is less than 800m from the nearest seabird colony.

OTHER ECOLOGICAL CONSIDERATIONS

If the seabird colony constraint is removed, other ecological considerations will apply.

FOSC

[Signature]

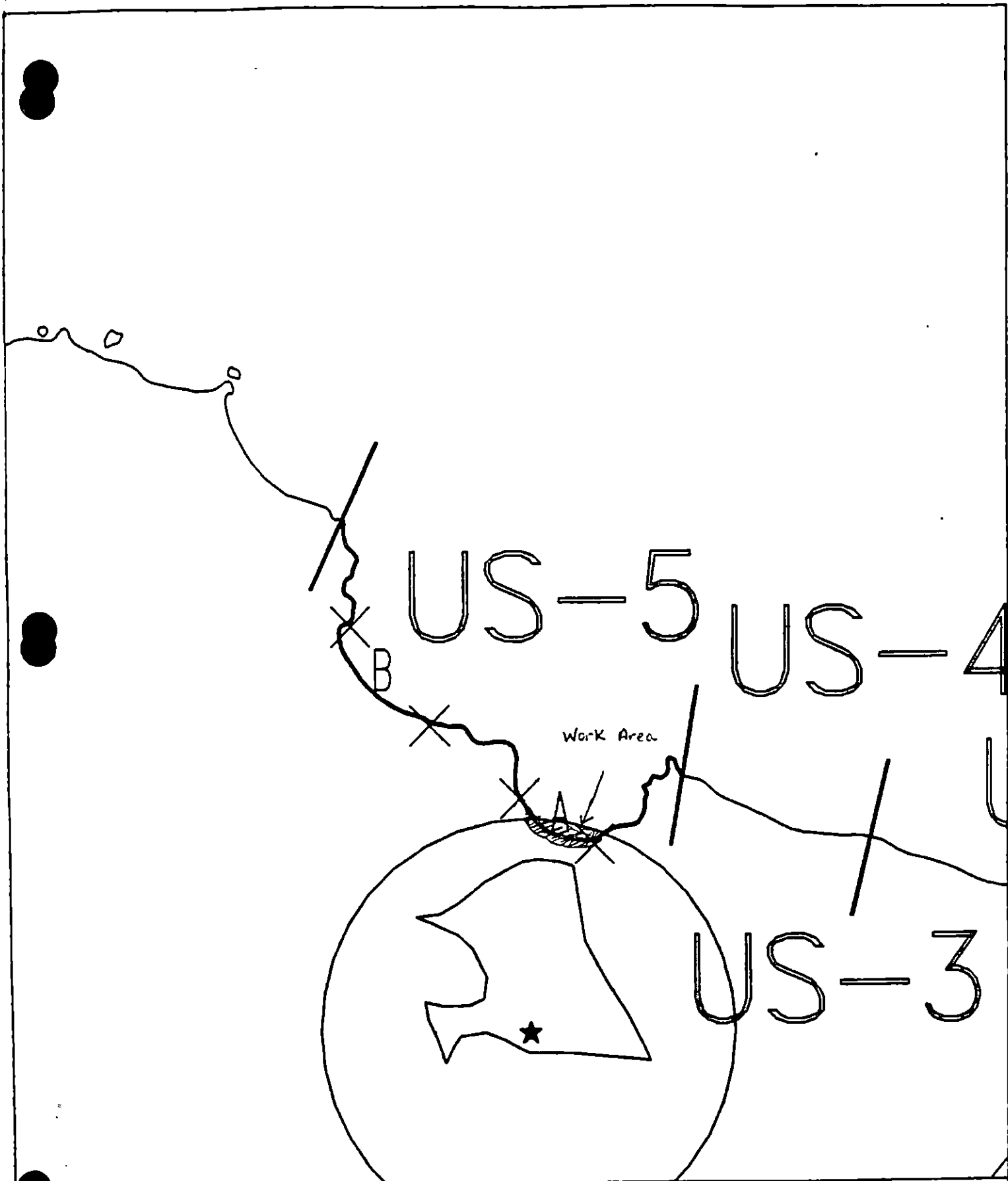
DATE 6-10-90

Prepared By:

J.P. Phillips

Date

6/10/90



Exxon Company, USA
M. V. K. K. K. K. K.



ECOLOGY MAP
SEGMENT US-5 6/2/90
SUBDIVISION US-25 (-1- of 2-)
METERS

- | | |
|---|----------------|
| ★ | Seabird Colony |
| ▲ | Eagle Nest |

SHORELINE EVALUATION

SEGMENT ST/ US-05 SUBDIVISION B (2 OF 2) DATE 4/22/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

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

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: Charles R. Dineen DATE: 5/5/90

OILING CATEGORIZATION:

Wide 18 m: Medium 5 m: Narrow 12 m: V. Light 302 m: No Oil 244 m
Subsurface Oil Observed: Yes X No Maximum Depth 61+cm

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes 1) manual pickup of pooled oil, mousse oiled debris and oiled logs. Relocate UITZ and SUTZ to MITZ. 2) spot wash and bioremediate in areas indicated on sketch map. Work should be conducted prior to 5/15 with permission from USFWS.

TAG COMMENTS: Monitor to assess logs.

TAG APPROVAL DATE: May 5, 1990

ADEC Art Wemmer Not Wemmer

EXXON Mark N. Silbert Mark N. Silbert

NOAA Gary Petros Gary Petros

USCG G.A. BETER G.A. Beter

FOSC: DATE: 5-15-90

Perform manual pickup after 5-1 much approval of land manager. Sediment relocation and CUSTOMER N after 1 Sept. No INIPOL.

Per telephone conversation between CDR Rome/Paul Gertler (USFWS) on 28 June 1990, Sediment Relocation + Customlien application can be done prior to 1 Sept. w/ USFWS Rep on scene. FOSC DATE 6/28/90

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT US-5 SUBDIVISION B (2 of 2)

WORK WINDOW

Manual Pickup	
Other Approved Treatment	OPEN
Bioremediation	
Spot Washing	OPEN
Mechanical Relocation	

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

5R Seabird Colony NO CONSTRAINT. Seabird colony in Segment US-3 is more than 800m from work area.

OTHER ECOLOGICAL CONSIDERATIONS

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

TAG APPROVAL DATE

ADEC Ram Morris 6/03/90

EXXON Amey 6/2 Deal

NOAA Jean Telle 6/3/90

USCG SA. PETER 6/3/90

FOSC

[Signature]

DATE

6/5/90

Prepared By:

Amey

Date

6/3/90

WORK PLAN ADDENDUM

Segment US-5

Subdivision B

Dated 6/27/90.

MODIFICATION

1. REASON FOR MODIFICATION

RELIEF FROM USF+W TIMING CONSTRAINT SPECIFIC
TIMING TO BE CLARIFIED BY USF+W.

2. ADJUSTMENT TO WORK PLAN

RELIEF FROM TIMING CONSTRAINTS FOR BERM RELOCATION
TRIAL.

SHPO APPROVAL NEEDED YES X
NO ~~X~~

SHPO SIGNATURE Charles E. Holmes 6/29/90

Inspection constraint applies.
refer original work plan (shoreline evaluation for

TAG APPROVAL DATE _____

ADEC Ray Morris, R. Morris

EXXON Amy Ten

NOAA Joseph Talbot

USCG G.A. Reiter, G.A. REITER

FOSC G. Javali DATE 6/30/90

SHORELINE EVALUATION

SEGMENT ST/ US-07 SUBDIVISION A (1 OF 1) DATE 4/24/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

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)

USFWS property

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: Charles H. Hume DATE: 5/14/90

OILING CATEGORIZATION:

Wide 0 m: Medium 30 m: Narrow 0 m: V.Light 70 m: No Oil 724 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes 1) manual pickup of mousse
where indicated on sketch and 2) ~~bioremediation of area of surface~~
~~stain~~. Work should be conducted between 7/1 and 8/15 based on pinniped
constraints.

SPOT WASH IF REQ'D IN AREAS OF MOUSSE REMOVAL

TAG COMMENTS: NO BIO OF STAIN FOLLOWING REMOVAL OF
MOUSSE APPLY CUSTOMER IF REQ'D.

TAG APPROVAL DATE: 5/12/90
ADEC Det W. W. W. W. W.
EXXON Det W. W. W. W. W.
NOAA Det W. W. W. W. W.
USCG Det W. W. W. W. W.

FOSC: W. W. W. W. W. DATE: 5-18-90

Monitor areas need for bioremediation
+ apply as necessary.

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

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

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / 45-007 SUBDIVISION: A DATE 04/26/90

USCG NOAA

NAME Mike D. HayesSIGNATURE [Signature]☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

Manual pick-up of mouse sediment mat and mouse patters.

Another excellent example of oil having accumulated in the lee of a protruding bedrock high (tombolo effect).

ADEC

NAME Russell KenibeSIGNATURE [Signature]☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

On the point at the center of the subdivision there was a 4m x 7m mouse sediment mat. There was mouse patters in the cracks of the bedrock on this point.

Recommended treatment: Manual pick up of the mouse sediment mat and scattered mouse patters. Manual pick up of the mouse in the cracks of the bedrock.

LAND MANAGER

NAME Gerald M. NugentSIGNATURE [Signature] (USFWS)☒ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

Recommend manual removal of mouse in conjunction with other pick-up activities on the Barrens. Actions should take place by or about May 1, 1990. A Service monitor should be present during any activities on the Barrens.

SHORELINE OILING SUMMARY

REVISION NO: 04/12/90

OG N. BIGGAR ^{NMA} USCG MILES HAYES SEGMENT ST/ US-007
 BIO D. RAIDER LAND REP BERRY NUGENT (F) SUBDIVISION A (1 OF 1)
 EXXON John Deere ADEC RUSSELL KUNIGE TIME 12:00 to 13:00
 TEAM NO. 17 TIDE LEVEL +7 to +8 DATE 4/24/90
 EST. SUBDIVISION LENGTH: 1440 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 15 % B 5 % C 10 % P 50 % G - % S 20 % M - % V - %
 SLOPE: Long 100 % Hang - % Vert - % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W - m M 140 m N - m VL 50 m NO 1250 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	C	R	P	B	SP	DR	OR	OL	OP	NO	DBL	TL	SU	U	M	U
ASPHALT PAVEMENT																
POOLED																
COVER																
COAT				X		X							X		X	
STAIN																
MOUSSE		X		Y		X						Y	Y	X		
PATTIES																
TARBALLS																
FILM																
NO OIL													X		X	X

PAVEMENT H F S - sq. m by - cmPATTIES / TARBALLS ? 10 ? BAGSNEAR SHORE SHEEN? ☒ NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒TYPE -#BAGS -

Photographs:

Roll No. 4Frames 10-12

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM)	BELOW		OIL / FILM COLOR						PIT ZONE				A N A	SHEEN (Y/N)	▼	SURFACE-SUBSURFACE SEDIMENTS			
		OP	OR	OL	OF	NO		UO	UC	SAI OR	100L OR	100L OR	01 OR	100R OR	TL	LR	SU	U	M					U		
1	20					X	.		X								X									P, C, G
2	62					X	.		X								X									S, P, U
3	103					X	.		X								X									S, C, P
4	20					X	.		X								X									C, P, S
							.																			
							.																			

COMMENTS

Evidence of oil limited to vicinity of rock outcrop in center of segment. On the rock, oil spatter and drip line is quite worn by wave action. Pooled mousse can be found in small crevices and pockets on surface of rock outcrop. Mousse pavement occurs on lee side of rock outcrop. Granite bedrock, resulting in granite sand beach with pebbles and cobbles. Oil is in MTE to LTE. No sheen observed. Mousse pavement has moderately tough DBL outer surface, soft inside, DBL to LBL.

REVIEWED BAT DATE 1 May 90

CHECKLIST

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

LEGEND

1 Δ
PI - No Subsurface Oil

2 Δ
PI - Subsurface Oil

CT/C
Continuous Distribution

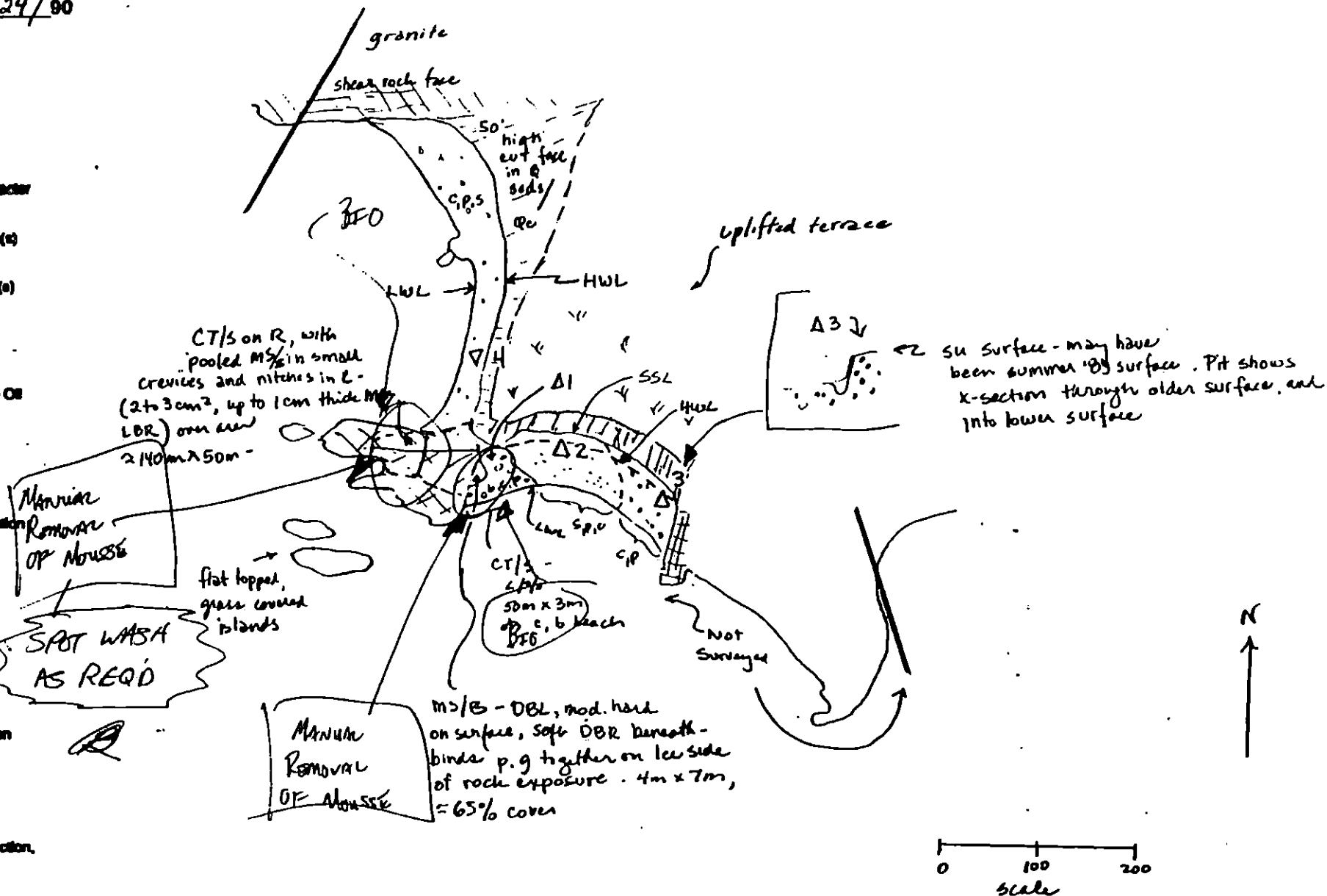
CT/D
Broken Distribution

CT/P
Patched Distribution

CT/S
Splashed Distribution

Oil Vegetation

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



SHORELINE ECOLOGICAL SUMMARY

REVISION DATE:

Segment ST / XS-007 Subdivision A Date (mo / day / yr) 4 / 21 / 90

Time (24 hr) 12:00 Biologist DANIEL TRADER

(A) Substrate type and % of segments:
(1) Bedrock 15 (2) Boulder 5 (3) Cobble 10 (4) Pebble 5 (5) Sand 0 (6) Silt 0

(B) Overall % cover of biota (% of segment): Dense 3 Moderate 2 Low 95

(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 10 - 12

BARNACLES

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

(NOT PRESENT)

MYTILUS

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

(NOT PRESENT)

GASTROPODS

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

NOT PRESENT

FUCUS

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

NOT PRESENT

Wildlife Observations/ General Comments:

(see "Wildlife Sitings" sheet)

Small Bedrock area with moderately dense vegetation and fauna population; it is a sensitive area and impacts to it should be minimized (e.g. traffic, etc.).

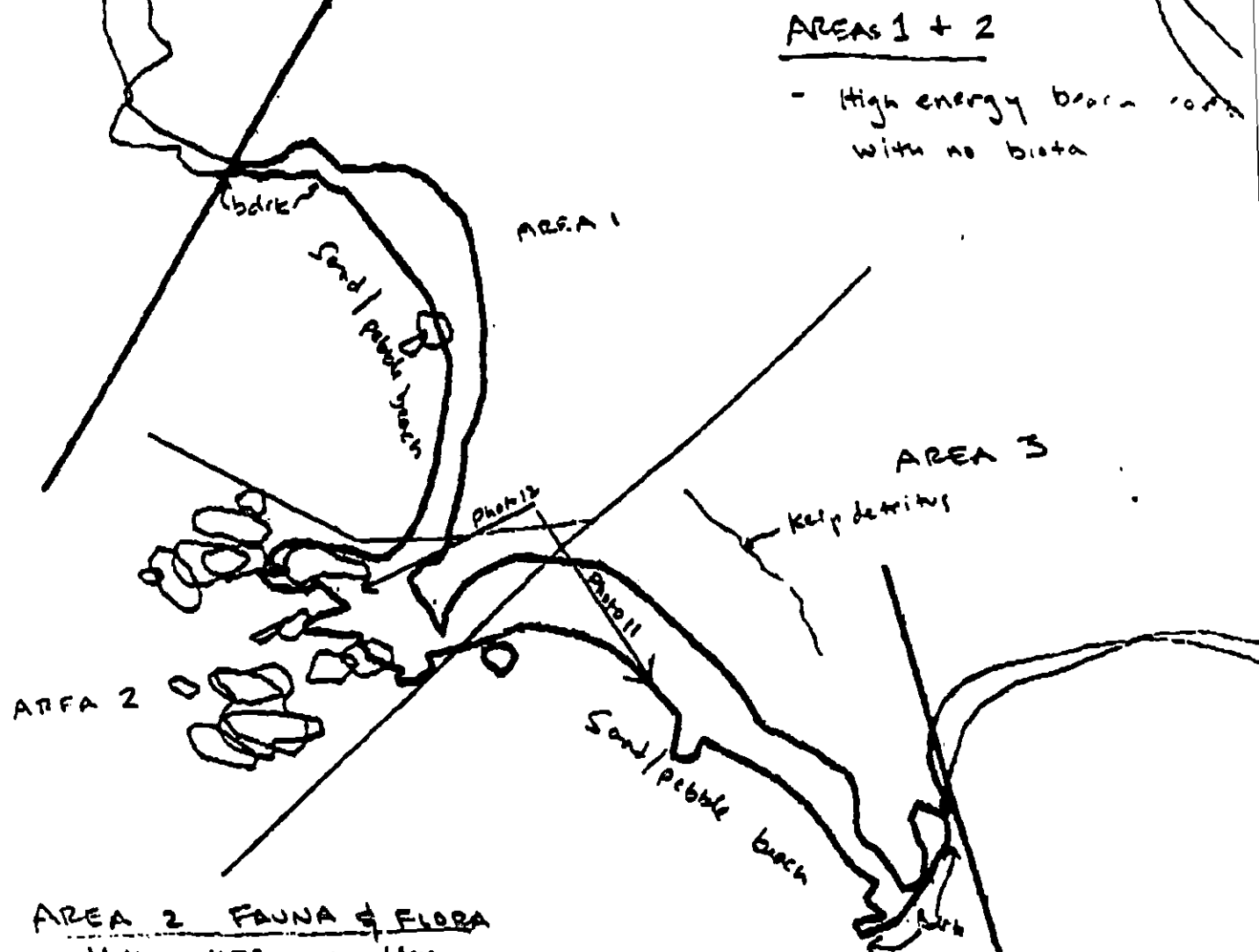
Ecological Considerations:

NY: 30Q

Wildlife Sightings for US-007 27 April 1990

<u>Name</u>	<u>Amount</u>
1) Glaucous-winged Gull	10±
2) Mallards	9 (1 female)
3) Cormorants	9
4) Common Raven	1
5) Grebe	1 (Red Necked ?)
6) Black-legged Kittiwakes	2000-3000; at rookery while leaving the Barren Islands
7) 2 Oystercatchers	
8) 1 Bald Eagle	

see 177-20-30
P. 09



AREA 2 FAUNA & FLORA

- UVA in MTE on boulders

Marine Outcrop extend from MTE to LTE

Moderate Focus on Bdrk in LTE

Corallina - dense patches on bdrk.

Dark Littorina on bdrk in LTE (patches)

Spots Littorina in MTE and LTE; patches of moderate in MTE

Indostadia muricata - dense in pool

Sea Lemon

Sea Anemones

Metridium spile

Anthurplum artemisia

Stomphia coccinea

Epizoanthus setinus

XXXX Wide

US-7

Map Key: KEN-US-7

Name: _____

Date: _____

Date Entered: _____

/// Medium

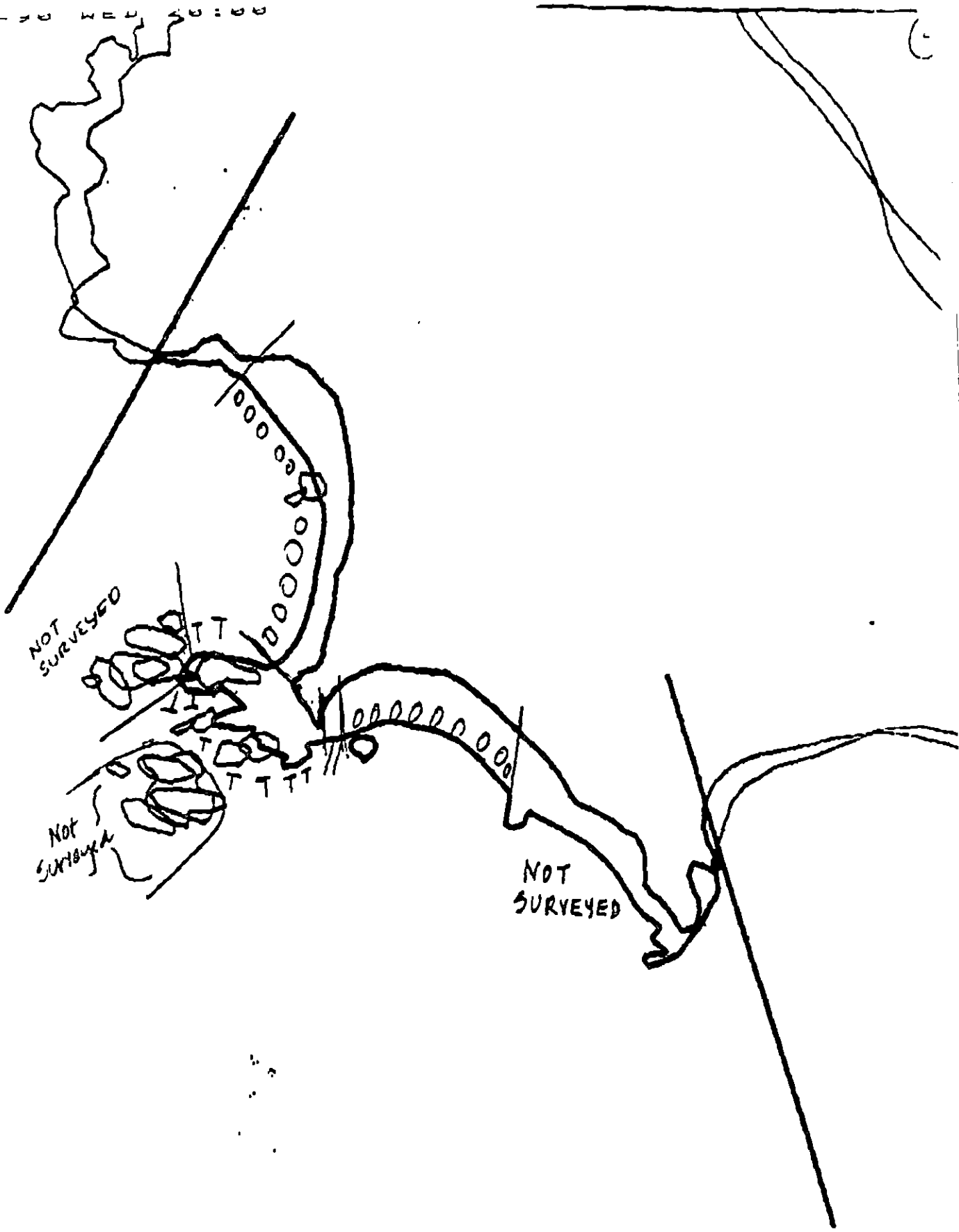
--- Narrow

TTTT Very Light

0000 No Oil

Approx. Segment Length: 1525m





XXXX Wide

/// Medium

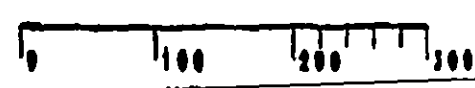
--- Narrow

TTTT Very Light

OOOO No. 1

US-7

Approx. Segment Length: 1525m



Map Key: KEN-US-7

Name: N. Pizzari

Date: 4-24

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT US-7 SUBDIVISION A (1 of 1)

WORK WINDOW

Manual Pickup	WORK 7/1 - 8/14
Bioremediation	WORK 7/1 - 7/31
Spot Washing	WORK 7/1 - 8/14

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

3N,O,P,Q

Harbor Seal & Sea Lion
Pupping and Molting

Closed to bioremediation prior to 7/1 and after 7/31. Closed to manual pickup and spot washing prior to 7/1 and after 8/14.

OTHER ECOLOGICAL CONSIDERATIONS

Do not apply bioremediation to specific areas where seals are observed to haulout. Do not chase or harass seals or sea lions, and do not approach pups under any circumstances. When working on or near haulouts, complete the job as quickly as possible with minimum personnel, equipment, noise and disturbance. Keep boats and personnel as far from actual haulouts as is practical to do the work specified. Minimize air traffic near haulouts, maintain elevation as is practical, and avoid repeated overflights of the same haulout areas. Avoid any unnecessary disturbance or damage to unloiled biota and substrate.

FOSC

[Signature]

Date

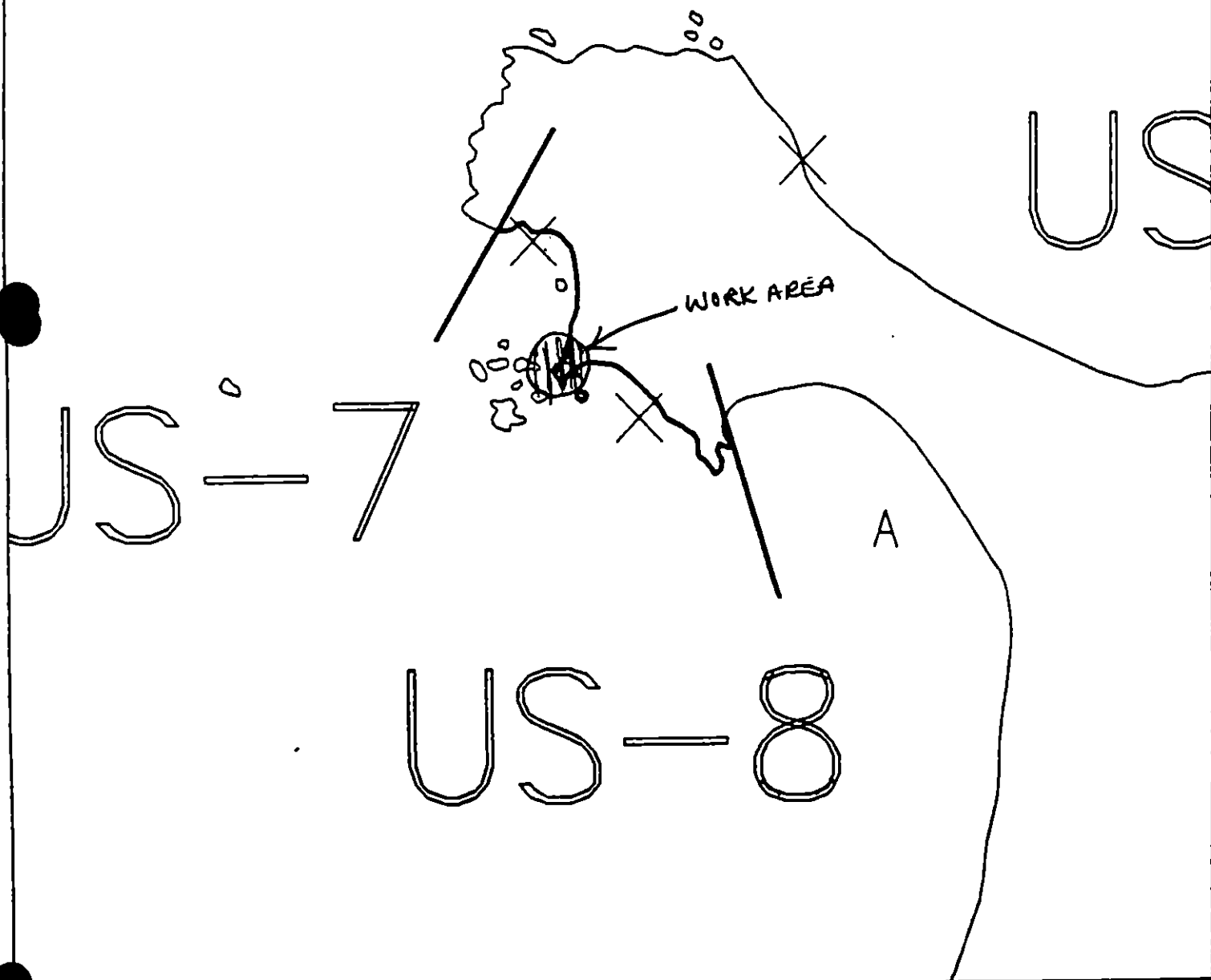
6/13/90

Prepared by

[Signature]

Date

6/12/90



Exxon Company, USA
Map Key: KEN-US-7



ECOLOGY MAP
SEGMENT US-7
SUBDIVISION A (1-1-1-1)
METERS

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

SHORELINE EVALUATION

SEGMENT ST/ US-008 SUBDIVISION A (1 OF 1) DATE 4/10/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

3N,3P Seal and sea lion pupping (5/15 to 7/1)-in adjacent segment

3O,3Q Seal and sea lion molting (8/15 to 9/15)-in adjacent segment

5T Active eagle nest (3/1 to 9/1)

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid disturbance/damage to uncoiled biota and substrate.

SHPO SIGNATURE: Charles Z. Homan DATE: 4/18/90

OILING CATEGORIZATION:

Wide 0 m: Medium 89 m: Narrow 140 m: V.Light 1149 m: No Oil 1176 m
Subsurface Oil Observed: Yes X No Maximum Depth 15 cm

RECOMMENDATIONS:

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

COMMENTS: Recommend manual pick up of mousse and oiled debris. Bioremediation is recommend for areas with oil cover and subsurface oil as indicated on sketch. Work only with USFWS permission concerning eagle constraints.

TAG COMMENTS:

TAG APPROVAL DATE: 4/18/90
ADEC JOHN BAUER
EXXON ANDY TATE
NOAA Burt Wescott
USCG G.A. REITER

FOSC: [Signature] DATE: 4-22-90

Coordinate bioremediation application with U.S. F&WL. Use least intrusive methods as practical to effect clean-up.

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

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

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / US-08 SUBDIVISION: US-8A DATE 4-10-90

SCG

NAME D.D. Haver Jr., GMS, USCLBSIGNATURE D.D. Haver Jr.☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

See OG notes for proper observations.

ADEC

NAME Francine J. BeaulieuSIGNATURE Francine J. Beaulieu☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

Walked entire length of segment, approximately 1.2 mi. long. Observed area of R/B/C having CT, CV, ST/B+P distribution. Some mousse trapped in crevices. bedrock & under cobbles is present, & could be removed manually with trowels. The band faded out to the north, but a surface/subsurface band of oiled sediments exists in the storm berm. Surface oiled sediments are collectable. There's also oile debris & drift. Mousse mixed w/vegetation & other debris is present in the drift & often concentrated on the backside of the berm. Much of this is collectable w/trow & shovel & should be removed. Only VL oil is present on the surface in the north

LAND MANAGER

NAME JOHN HARDISTERSIGNATURE John P. Hardister

CONT'D ON p. 2

☒ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

Sufficient oiled materials exist to warrant removal by mechanical means, especially along the storm berm, but also in the drift berm area.

US-08A comment sheet (cont.)

ADEL

portion of the segment, in the form of small MS wads + stains on drift. Collectable oil is minimal but clean-up crew should definitely sweep ~~7~~ VITZ / storm berm to insure thoroughness in the effort. A number of pits were dug up here in the North section of US08, & no subsurface oil was observed. Throughout the segment is scattered, oiled debris that should be removed.

SHORELINE OILING SUMMARY

REVISION NO. 03-22-90

OG Acton USCG Haven SEGMENT ST/ US-8
 BIO Davis LAND REP VFWs Harding SUBDIVISION US-8A
 EXXON Avery ADEC Bennis TIME 8:50 to 10:55
 TEAM NO.: 20 TIDE LEVEL: -1 10 +2 DATE 4/10/90
 ST. SUBDIVISION LENGTH: 2583 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 PLANDS DESCRIPTION: ☒ Grass ☐ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 10 % B 10 % C 35 % P 15 % G 15 % S 15 % M 0 % V 0 %
 SLOPE: Lang 90 % Hang 10 % Vert 0 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 90 m N 155 m VL 1200 m NO 1138 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	IC	IB	IP	IS	SBL BR	DBL RW	GY SL	DBR TL	LBR	SU	UI	MI	LI
ASPHALT PAVEMENT													
POOLED													
COVER			✓	✓		✓				✓	✓		
COAT			✓	✓		✓				✓	✓		
STAIN			✓	✓		✓				✓	✓		
MOUSSE			✓					✓			✓		
PATTIES													
TARBALLS													
FILM													
NO OIL												✓	✓

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

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

DEBRIS COLLECTED
☐ YES ☒ NOTYPE —#BAGS 0

Photographs:

Roll No. ST-20-4, ST-20-5Frames 25 - 37, 1 - 8

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR						PIT ZONE				A N A	SUBSURFACE SEDIMENTS		
		OP	OR	OL	OF	NO		UO	UC	SBL BR	DBL RW	GY SL	DBR TL	LBR	SU	UI	M	U					
1	30					✓	-								✓								CPG
2	30					✓	-								✓								CPG
3	30					✓	-								✓								CPG
4	30					✓	-								✓								CPG
5	30					✓	-								✓								CPG
6	30		✓		✓		0-15		✓		✓		✓		✓								PGS

COMMENTS 3m x 175m band of oil impact located approx 250m south of creek. Band at base of S3 berm, is 50m medium and 125m narrow, w/ areas of buried mousse OR up to 15cm deep. Extensive cobble accumulations/berms make assessment of buried oil difficult on this type of high energy beach. Area at south end of segment has oil impact on the rock cliff and on/in the boulder/rubble on the rock platform. Pits could not be dug in this area. The very light oiling (1100m) between these 2 areas consisted of predominantly splash on driftwood and cobbles (very occasional).

SHORELINE OILING SUMMARY (PAGE 2 of 2)

REVISION 03/22/90

SEGMENT ST/ US SUBDIVISION _____

SUBSURFACE OIL (CONTINUED)

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	SP	BP	OP	OL	SP	BP	TL	LB	SU	UI	ME	LI		
7	30		✓				0 - 15		✓							✓		✓					Pgs
8	30				✓		0 - 5		✓							✓		✓					Pgs
9	30					✓	.											✓					Pg
10	30					✓	.											✓					Pg
11	30					✓	.											✓					Pg
12	30					✓	.											✓					Pg
							.																
							.																
							.																
							.																
							.																
							.																
							.																
							.																
							.																

COMMENTS

REVIEWED BAT DATE 12 Aug 90

OG Acton

SEGMENT ST/ VS-8

SUBDIVISION VS-8A

DATE 4 / 10 90

CHECKLIST

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

LEGEND

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

Continuous Distribution
- CT/B

Broken Distribution
- CT/P

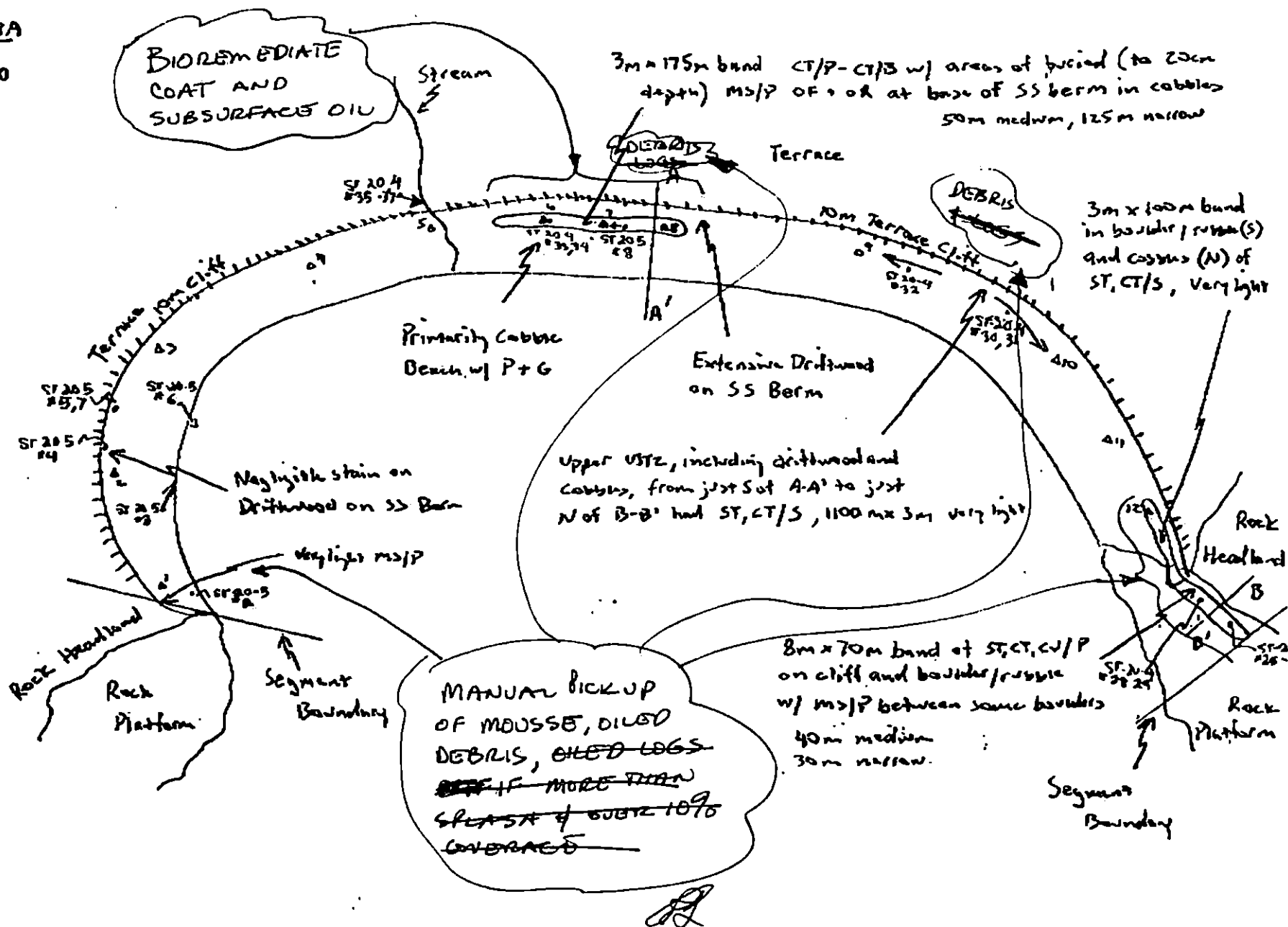
Patchy Distribution
- CT/S

Splashed Distribution
- Oiled Vegetation
- Photo location, direction, and number

SKETCH MAP

← N

Approx Scale 1cm = 75m



OG Acton

SKETCH MAP

SEGMENT ST/ VS-8

SUBDIVISION VS-8A

DATE 4/10/90

CHECKLIST

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

LEGEND

1 Δ

Pt - No Subsurface Oil

2 ▲

Pt - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

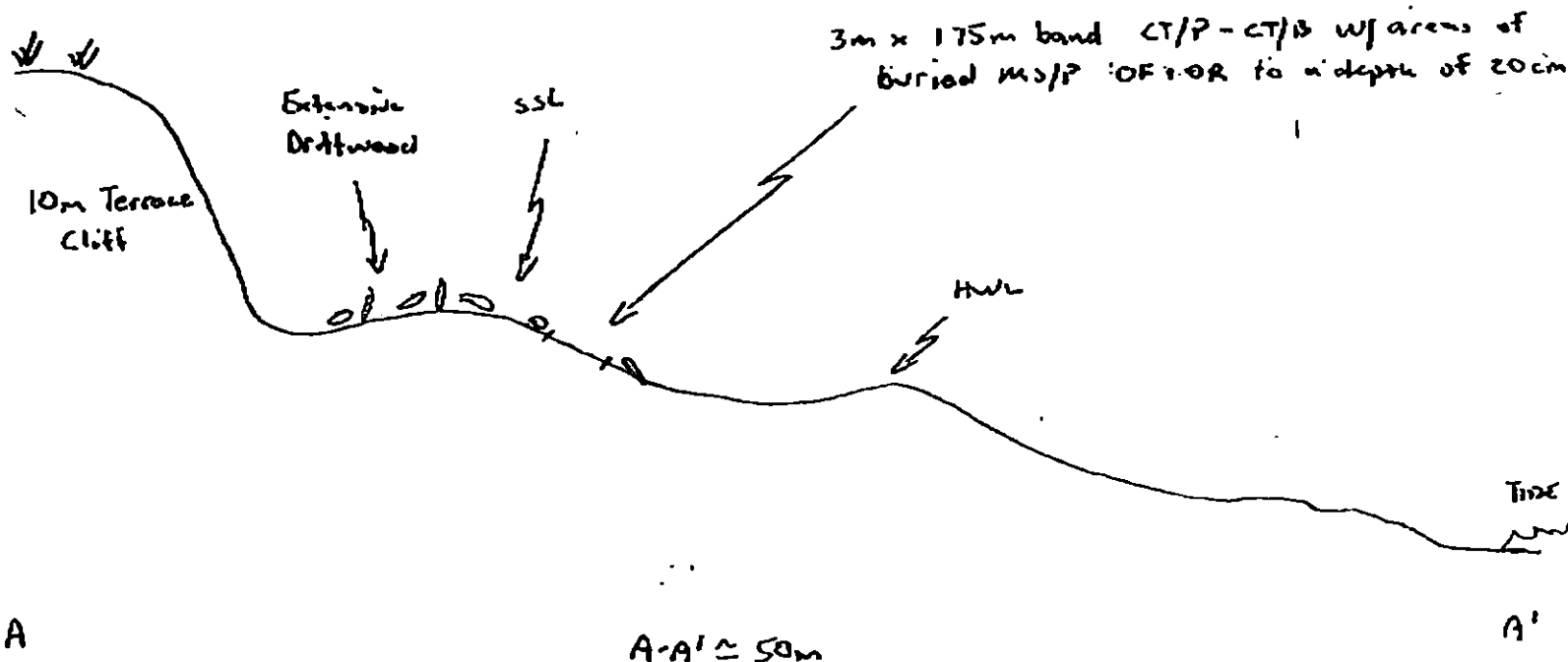
CT/S

Splashed Distribution

Oiled Vegetation

1 ●→

Photo location, direction,
and number



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

REVISION 03/84/90

APR-10-1990 18:55 FROM EXXON KODIAK

TO

15643771

P.05

OG Acton

SEGMENT ST/ V5-8

SUBDIVISION V5- 2A

DATE 4 / 1 / 90

CHECKLIST

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

LEGEND

1 ▲

Ph - No Subsurface Oil

2 ▲

Ph - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

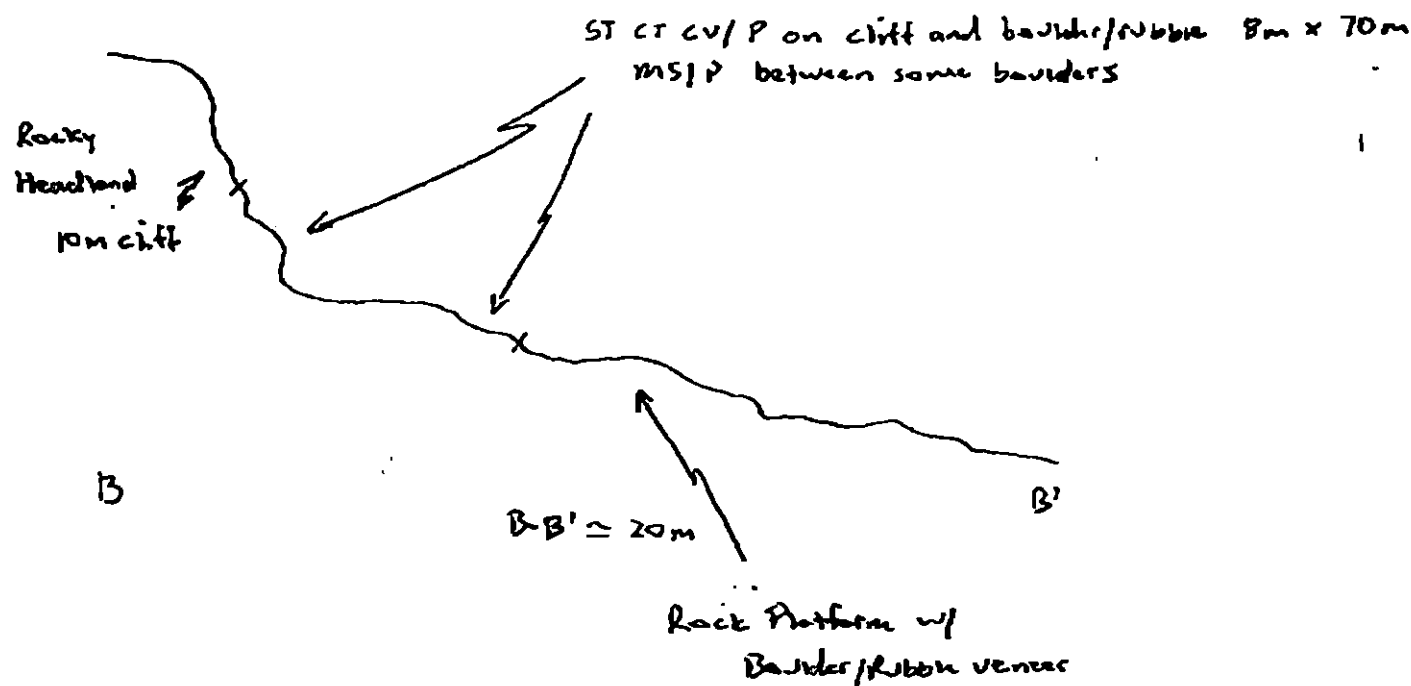
Splashed Distribution

Oiled Vegetation

1 ➡

Photo location, direction,
and number

SKETCH MAP



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

REVISION 03/24/79

APR-18-1990 18:55 FROM EXXON KODIAK

10

15643771

P.06

SHORELINE ECOLOGICAL SUMMARY

REVISION: 0222/90

Segment ST / US-08 Subdivision US-08A Date (mo / day / yr) 4/10/90Time (24 hr) 09:00 Biologist H. Davis

(A) Substrate type and % of segments:

(1) Bedrock 10 (2) Boulder 10 (3) Cobble 35 (4) Pebble 30 (5) Sand 15 (6) Silt -(B) Overall % cover of biota (% of segment): Dense 35% Moderate 35% Low 30% 5%

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

Photographs:

Roll No. ST-20-41 / ST-26-5Frames 25-38, 1-8

BARNACLES

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

NOT PRESENT

4, 5, 6

MYTILUS

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

NOT PRESENT

4, 5, 6

GASTROPODS

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

NOT PRESENT

4, 5, 6

FUCUS

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

NOT PRESENT

4, 5, 6

Wildlife Observations/ General Comments: 3 Eagles, 2 crows, 1 gull, 12 Herring Gulls, 2 Oystercatchers, Glaucous-winged Gulls. The majority of US-08 was beach/reef beach but at each end there were rocky areas with abundant plants, animals. Littorines and limpets were numerous in the upper intertidal. Fucus was very patchy throughout the intertidal. Very few Anolis were observed on all of the groups of 10-30 shells could be found in crevices. Barnacles showed about 10%-30% mortality throughout the intertidal (independent of size).

Ecological Considerations: Sea lion haul out for pupping around May 15, Murres, Cormorants and Gulls nest in the area. Eagles feed and nest on the island. The stream on US-08 may be anadromous.

US-8A

LEN
↓ 141A

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

US-8

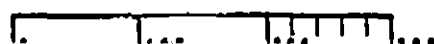
ADEC Segment Length: 2554m

US-8A

Map Key: KEN-141b

Name: Acton

Date: 4-10-90



↑
KEN
141B

US-8A

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

US-8

ADEC Segment Length: 2354m

0 100 200 300

US-8A

Map Key: KEN-141a

Name: Acton

Date: 4-10-90

WORK PLAN ADDENDUM

Segment US-008

Subdivision A

Dated 5/16/90

MODIFICATION

1. REASON FOR MODIFICATION

- Admirals requirement.
- Landowner recommendation.

2. ADJUSTMENT TO WORK PLAN

- No Customblen or Inipol at this site.
- Access after May 1 permitted with special instructions from the Refuge Manager of the Alaska Maritime National Wildlife Refuge.

SHPO APPROVAL NEEDED YES _____
NO X

SHPO SIGNATURE _____

TAG APPROVAL DATE 5/18/90.

ADEC Art Weiner Art Weiner

EXXON Andy Gm Deal

NOAA Gary Petrac Ann Arbor

USCG G.A. Dente G.A. Dente

FOSC ✓ 1 DATE 5-18-90

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT US-8 SUBDIVISION A (1 of 1)

WORK WINDOW

Manual Pickup

WORK 7/1 - 8/15*

Bioremediation

CLOSED

*Contact Alaska Maritime NWR @ 235-6546 For Permission

ARCHAEOLOGICAL INSPECTION/CONSULTATION REQUIRED.

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

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

3N,O,P,Q

Harbor Seal & Sea Lion

Pupping and Molting

Closed to manual pickup and bioremediation prior to 7/1 and after 8/15.

5T

Bald Eagle Nest

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

OTHER ECOLOGICAL CONSIDERATIONS

Restrict all activity to essential minimum, especially air traffic. Do not apply bioremediation to specific areas where seals are observed to haulout. Do not chase or harass seals or sea lions, and do not approach pups under any circumstances. Restrict air traffic and all disturbance to essential minimum. Air approach and takeoff from and to seaward only; maintain 400m horizontal, 300m vertical distance from nests. Avoid any unnecessary disturbance or damage to unrolled biota and substrate.

FOSC

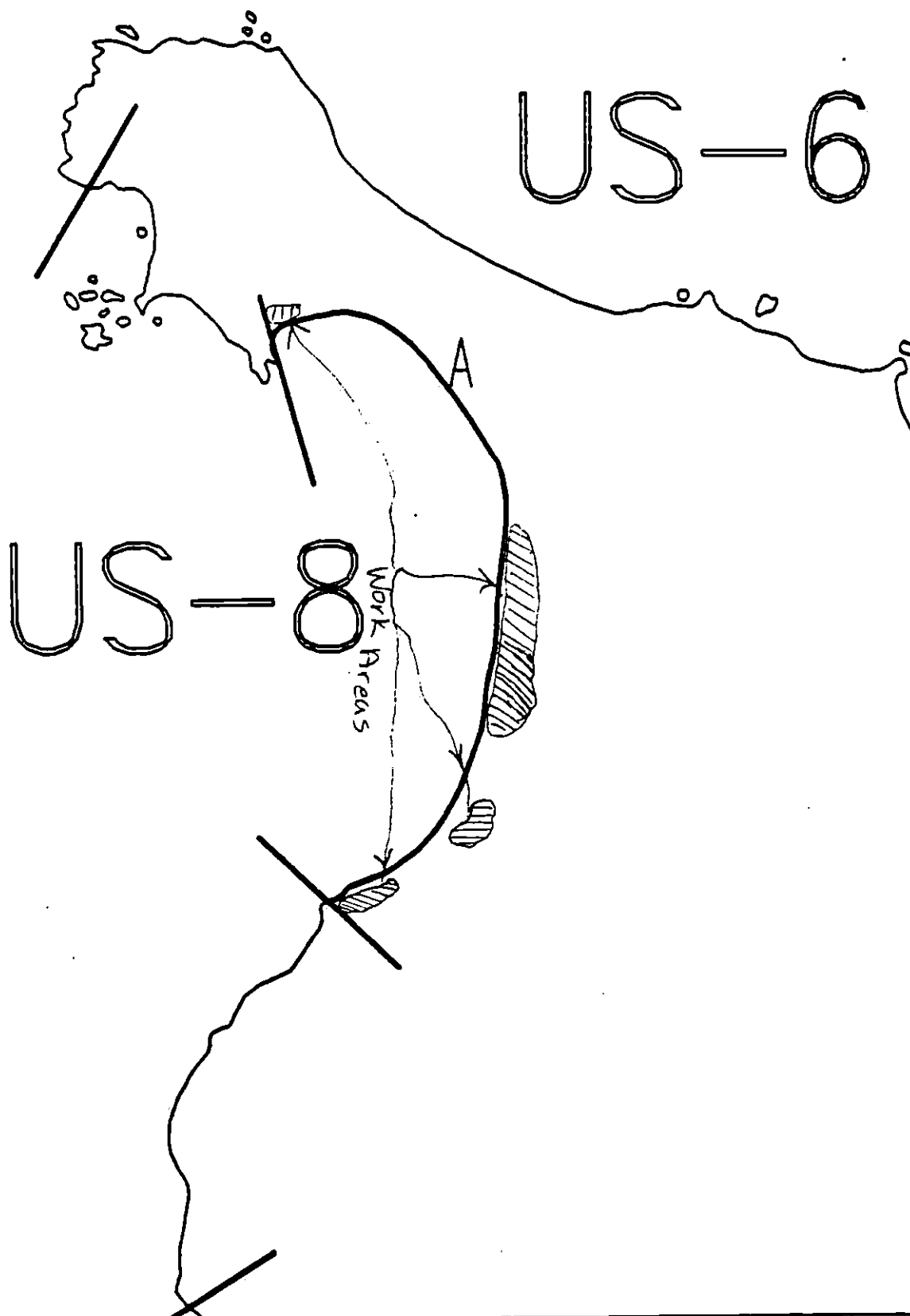
Date

6-12-90

Prepared by

Date

6/11/90



Exxon Company, USA



ECOLOGY MAP
SEGMENT US-8
SUBDIVISION A (1 of 1)
METERS

- ★ Seabird Colony
- ▲ Eagle Nest

WORK PLAN ADDENDUM

Segment US-8

Subdivision A

Dated JUNE 27, 1990

MODIFICATION

1. REASON FOR MODIFICATION

- REQUEST BY USF+W FOR BERM RELOCATION
- FOSC REQUEST.

2. ADJUSTMENT TO WORK PLAN

ADD BERM RELOCATION TO WORK PLAN AS INDICATED ON SKETCH FOLLOWING ACCEPTANCE OF THE TRIAL ON US 5 B BY USF+W.
TIMING TO BE SPECIFIED BY USF+W.

SHPO APPROVAL NEEDED YES ☒ NO ☐

SHPO SIGNATURE Charles Z. Hume 6/29/90
Original Inspection constraint applies. Add storm berm inspection to work order.

TAG APPROVAL DATE JUNE 27 1990

ADEC Roy Morris R. Morris

EXXON ANDY TEAL

NOAA Joseph J. Talbot

USCG G.A. REITER

FOSC [Signature] DATE 6/30/90

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT US-9 SUBDIVISION A (1 of 1)

WORK WINDOW

Manual Pickup
Tarmat Removal

OPEN

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

No ecological time constraints.

OTHER ECOLOGICAL CONSIDERATIONS

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

TAG APPROVAL DATE 6/04/90
ADEC Roy Monas
EXXON ATWYTES
NOAA Joseph J. Lippert
USCG C. A. Bester

FOSC [Signature]

DATE 6/5/90

Prepared By: Anders Meyer

Date 6/2/90

US-8

JS-9

JS-10

Work area

Work area



Exxon Company, USA
Map Key: KEN-US-9



ECOLOGY MAP
SEGMENT US-9
SUBDIVISION A (1 of 11)
METERS

- | | |
|---|----------------|
| ★ | Seabird Colony |
| ▲ | Eagle Nest |

1:250,000 - 1:125,000 scale

SHORELINE EVALUATION

SEGMENT ST/ US-10 SUBDIVISION A (1 OF 1) DATE 4/9/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
No special constraints identified.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: Charles E. Hume DATE: 4/20/90

OILING CATEGORIZATION:

Wide 0 m: Medium 84 m: Narrow 118 m: V.Light 492 m: No Oil 511 m
Subsurface Oil Observed: Yes X No Maximum Depth 40 +cm

RECOMMENDATIONS:

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

COMMENTS: Recommend manual pick up of surface mousse and oiled trash/debris. Bioremediation is recommended for areas with surface oil coat and cover and for subsurface oiling. No ecological timing constraints are indicated.

TAG COMMENTS:

TAG APPROVAL DATE: 4/19/90.
ADEC ART WEINER
EXXON AMY TER
NOAA Byl Wescott
USCG G.A. HEITER

FOSC: DATE: 4-27-90

Comments of NFWF noted - however, we should attempt least intrusive method to resolve oiled problem on this shoreline vice proceeding directly to excavation - let's see what the results in.

FIELD SHORELINE COMMENT SHEET

15643771 P.02

P9

SEGMENT ST / US-10 SUBDIVISION: US-10A DATE 4-9-90

USCG

NAMED D.D. Haven Jr., GM3, USCGR SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

ADEC

NAME Francis J. Bennis SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

observable band of oil spans 600 meters in the UITE. Within this are areas of surface oil such as mousse saturated sediments, MS patches, & CT/C sediments which indicate presence of subsurface oil. Although not continuous, this oil band is expansive. One can speculate, based on September observations & the obvious redistribution of sediments on this beach, that there is more subsurface oil than that revealed by our 1' pit dig today. It seems that winter provided a means for abrasive action serving to remove

cont'd on page 2

LAND MANAGER

NAME JOHN HARDISTER SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

USFWS

subsurface oil of particular concern. Consideration for cleanup is warranted.

ADEC

some CT/CV of the cobbles & coarse gravels. Some of the sub surface oil has now been exposed by the same wave energy, & is eroding onto the flanks of the berm. There is definitely collectable oil saturated sediments now on the surface. Manual removal is recommended to 15 cm, as some very mossy C/G are present down to 15 cm from surface as shown by pit #3. Also present is some oiled debris & drift. Debris should be removed, but most of the oiled driftwood has only VL staining & wouldn't be my priority for a manual clean-up effort.

Subsurface oil here remains a problem & could contribute to staining on warm temperatures come this summer, however large scale, heavy equipment - excavation may not be justified here.

This ADEC rep does not believe the application of Inipol here is appropriate or that it would serve any great benefit. Some bioremediation took place in Aug, & the oil still looked bad in Sept. Now, at least the surface looks better after the winter.

There is, however, oil that can be collected MANUALLY, and should be.

SHORELINE OILING SUMMARY

REVISION NO. 03-22-90

OG Acton USCG Haven SEGMENT ST/ US-10
 BIO Pav LAND REP USFWS Hardister SUBDIVISION US-10A
 EXXON Avery ADEC Bennis TIME 8:50 10 10:45
 TEAM NO.: 20 TIDE LEVEL: -1 10 +2 DATE 4 / 9 / 90
 EST. SUBDIVISION LENGTH: 1081 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 10 % B 15 % C 40 % P 15 % G 15 % S 5 % M 0 % V 0 %
 SLOPE: Lang 90 % Hang 10 % Vert % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 135 m N 165 m VL 300 m NO 481 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR						IMPACTED ZONES			
	R	B	P	S	SBL BR	DBL RW	GY	SL DBR	TL	LBR	SU	UI	M	U
ASPHALT PAVEMENT														
POOLED														
COVER		✓	✓	✓		✓					✓	✓		
COAT		✓	✓	✓		✓					✓	✓		
STAIN		✓	✓	✓		✓					✓	✓		
MOUSSE		✓	✓					✓			✓			
PATTIES														
TARBALLS														
FILM														
NO OIL													✓	✓

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

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

DEBRIS COLLECTED
☐ YES ☒ NOTYPE -#BAGS 0

Photographs:

Roll No. 20-4 20-3Frames 1-24 35-37

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR						PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	SBL BR	DBL RW	GY	SL DBR	TL	LBR	SU	UI	M	U		
1	40		✓				0 - 20							✓			✓				P S
					✓		20 - 40	✓						✓			✓				P G S
2	15				✓		0 - 15		✓					✓			✓				P G
3	15		✓				0 - 15	✓						✓			✓				P
4	25					✓	.									✓					C
5	30		✓				0 - 30	✓						✓			✓				P G

COMMENTS Oil band in upper UITZ near/at base of SSL berm. For most of band length (600m) there is surface evidence of oil in the band. It appears that redistribution of beach material has covered much of the impacted band, making it difficult to assess w/ a shovel. In some portions of the oiled band, the mousse present forms an aggregate conglomerate which appears to resist erosion to a greater degree than the natural beach material. This oil conglomerate is exposed in places. The area of UITZ near the southernmost creek is a thick cobbles deposit and no oil was observed in the pit dug, however the oil may be buried by 1-2m of cobbles. The 600m band of impact has several exposed or

REVIEWED Bare DATE 12 Apr 90

SHORELINE OILING SUMMARY (PAGE 2 of 2)

REVISION 03 72 93

SEGMENT ST/ US-10 SUBDIVISION US-10A

SUBSURFACE OIL (CONTINUED)

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR						PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		VO	UC	BR	DR	GR	OR	Y	LR	SU	U	M	U		
6	30		✓				5-10		✓					✓		✓					PG
7	30					✓	.									✓					CP
8	30					✓	.									✓					CP
9	30					✓	.									✓					CP
10	30					✓	.									✓					CP
							.														
							.														
							.														
							.														
							.														
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							.														

COMMENTS

nearly exposed areas of more heavily impacted areas that were assessed. Due to the volume of cobbles that have been redistributed since the oil impacted the shoreline, assessment w/ shovel is difficult/impossible w/ a shovel.

REVIEWED BAT DATE 12 Apr 90

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST/ US-10 Subdivision US-10A Date (mo / day / yr) 4/9/90Time (24 hr) 08:30 Biologist H. Davis

(A) Substrate type and % of segments:

(1) Bedrock 10 (2) Boulder 15 (3) Cobble 40 (4) Pebble 30 (5) Sand 5 (6) Silt -(B) Overall % cover of biota (% of segment): Dense 10% Moderate 40% Low 50% ($\leq 10\%$)(C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (Δ), new settlement ($\odot$)

Photographs:

Roll No. ST-20-3, ST-20-4Frames 35-37, 1-24

BARNACLES

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

NOT PRESENT

4, 5, 6

MYTILUS

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

NOT PRESENT

4, 5, 6

GASTROPODS

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

NOT PRESENT

4, 5, 6

FUCUS

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

NOT PRESENT

4, 5, 6

Wildlife Observations/ General Comments: The central area of US-10A was a beach with large winter storm burns built up. The stream coming out don't look anadromous but I could not find any definite information. Most of the marine life was concentrated at the rocky points at either end of the beach. Fresh rocky point has a community typical of disturbed rocky intertidal areas. There was patchy distribution of organisms in areas where rocks had been turned or hit during winter storms. There was an extensive *Nereocystis* bed off beach point. Plants and animals in the rocky areas were lower than the oil splatters excepting the *Littorina* *Holmquistii*.

Sea lions will be hauling out to have pups and later for molting. There are bird rookeries in the area but I couldn't get definite answers about which ones (Puffins + Murres most likely). The streams in the area do not look anadromous.

OG Acton

SEGMENT ST/ US-10

SUBDIVISION US-10A

DATE 4 / 9 90

CHECKLIST

_____ M Azimuth
 _____ Approx. Scale
 _____ Seg/Sub Entry
 _____ Oil Dist.
 _____ Width
 _____ Length
 _____ % Cover
 _____ Substrate Character
 _____ Est. HPA/LWL
 _____ SSZ
 _____ Profile Location(s)
 _____ Profile(s)
 _____ PR Location(s)
 _____ Photo Location(s)

LEGEND

PT - No Subsurface Oil

2 
 PFI - Subsurface Oil

CT/C
Controlled Distribution

CT/D
Broken Distribution

CT/P

Punchy Distribution

 CT/3

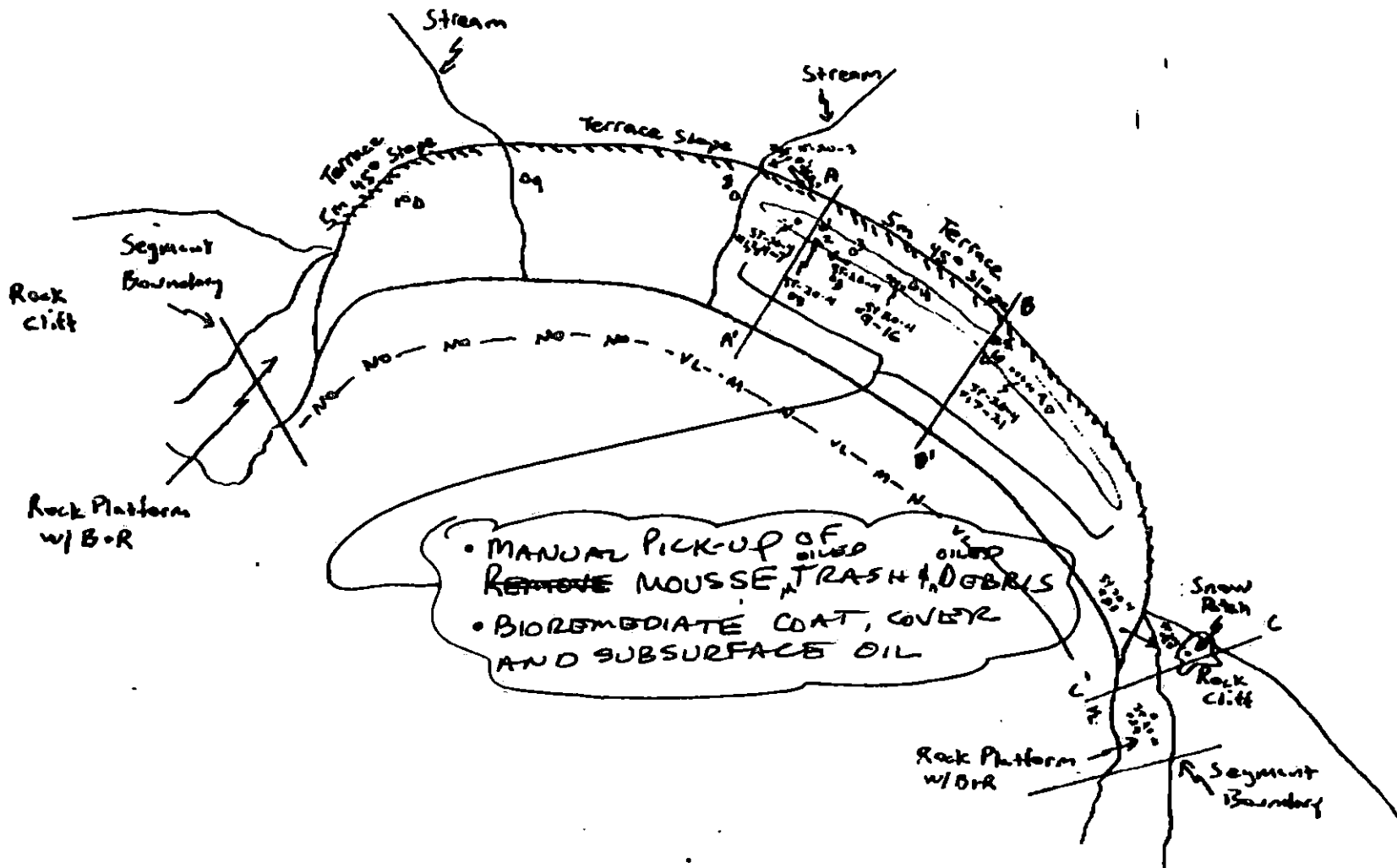
Splashed Distribution

Old Vegetation

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

SKETCH MAP

←
N
Approx scale
1cm = 75m



Oil Character Length (in): AP 0 PO 0 CV 0 CT 0 ST 600 MS 300 PT 0 TS 0 FL 0 NO 48

RECOMMENDATIONS

OG Acton

SKETCH MAP

SEGMENT ST/ U2-10

SUBDIVISION U2-10A

DATE 4/9/80

CHECKLIST

- ☐ H Area
- ☐ Approx. Scale
- ☐ Seg/Sub Entry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HML/LWL
- ☐ SSL
- ☐ Profile Location(s)
- ☐ Photo(s)
- ☐ Photo Location(s)

LEGEND

1 Δ

PH - No Subsurface Oil

2 Δ

PH - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

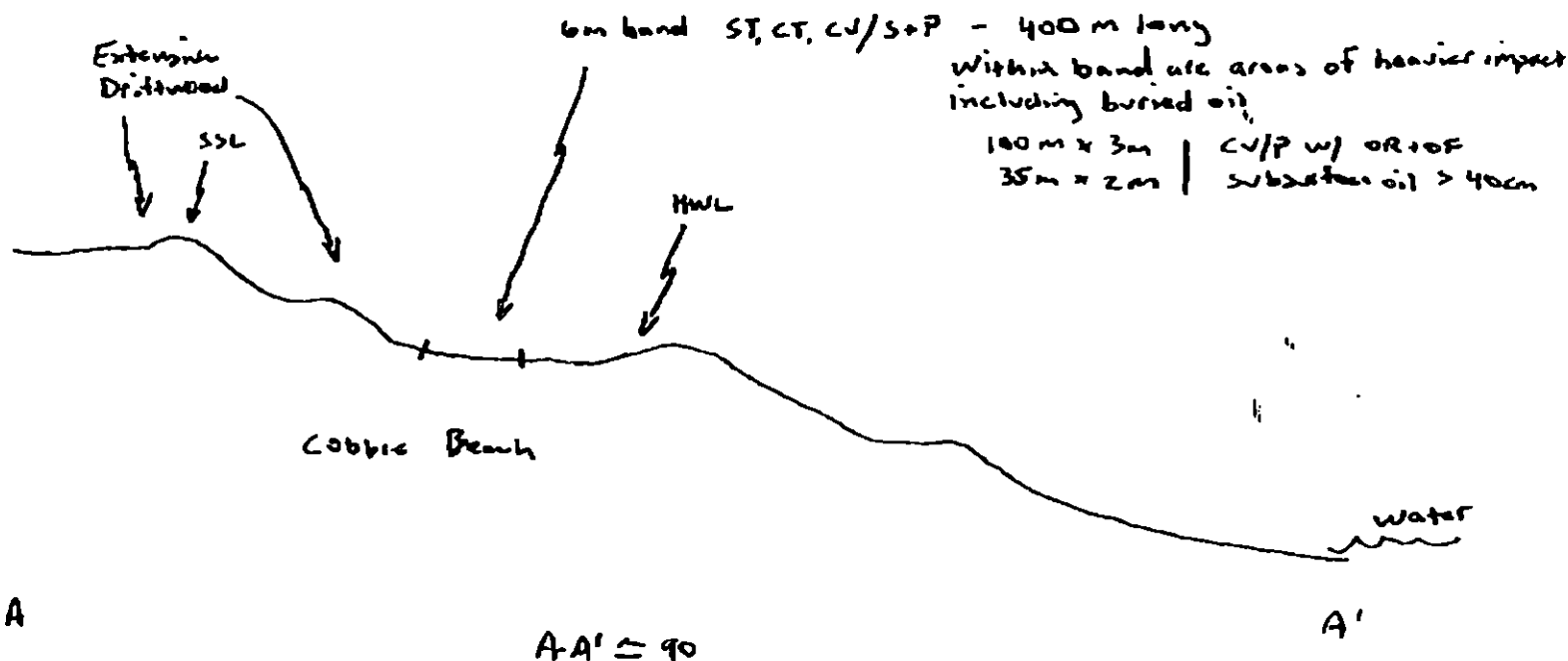
CT/S

Splashed Distribution

Oil of Vegetation

1 $\Rightarrow$

Photo location, direction,
and number



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

REVISIONS

00 Acton

SKETCH MAP

SEGMENT ST/ VS-10

SUBDIVISION VS-10A

DATE 4 / 9 90

CHECKLIST

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

LEGEND

¹ Δ

PE - No Subsurface Oil

² Δ

PE - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

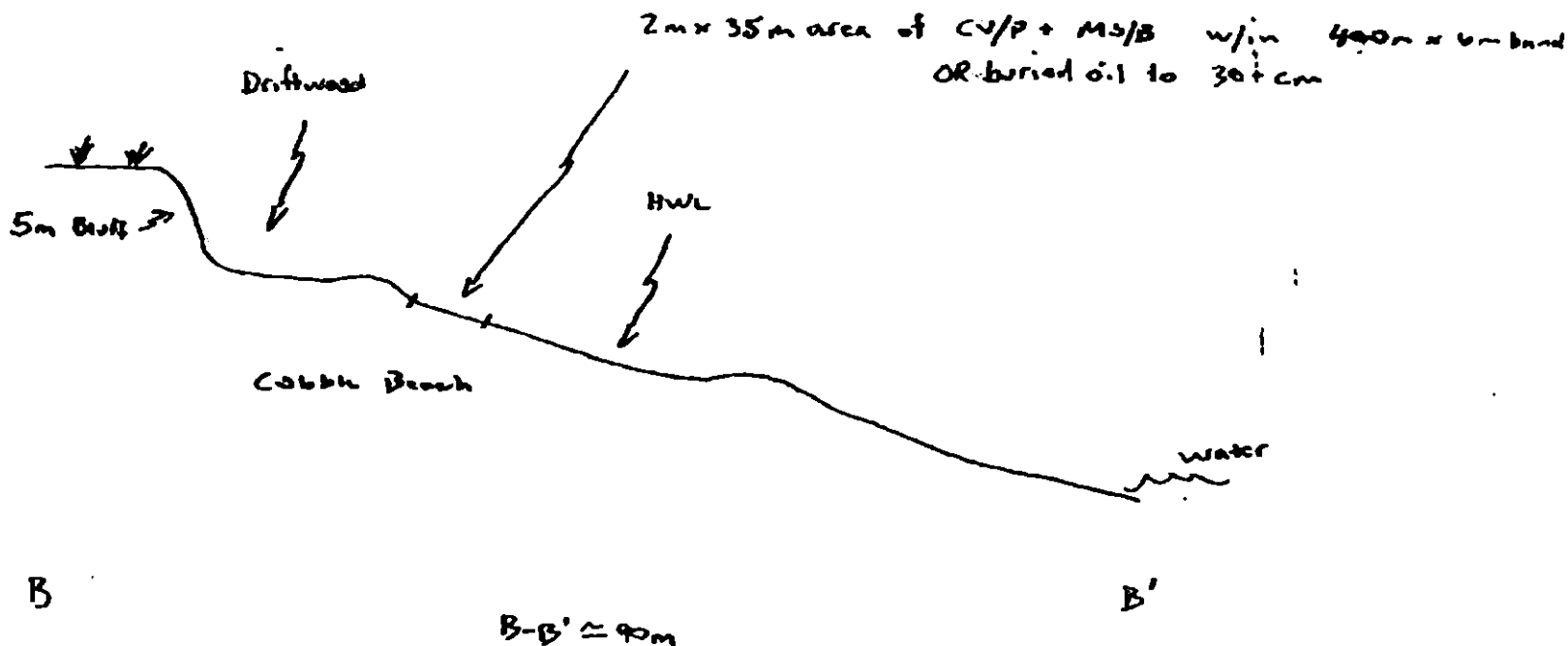
CT/S

Splashed Distribution

Oil'd Vegetation

¹ ➡

Photo location, direction,
and number



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

REVISIONS

OG Arden

SKETCH MAP

SEGMENT ST/ US-10

SUBDIVISION US-10A

DATE 4/9 90

CHECKLIST

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

LEGEND

1 Δ

Pit - No Subsurface Oil

2 Δ

Pit - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

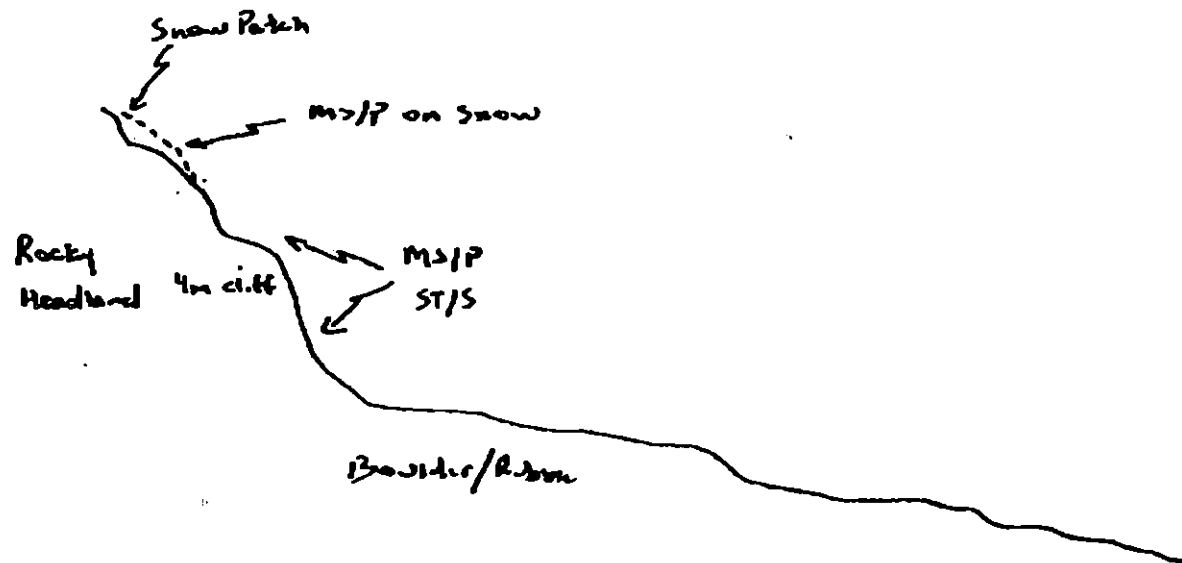
CT/S

Spotted Distribution

Other Vegetation

1 $\Rightarrow$

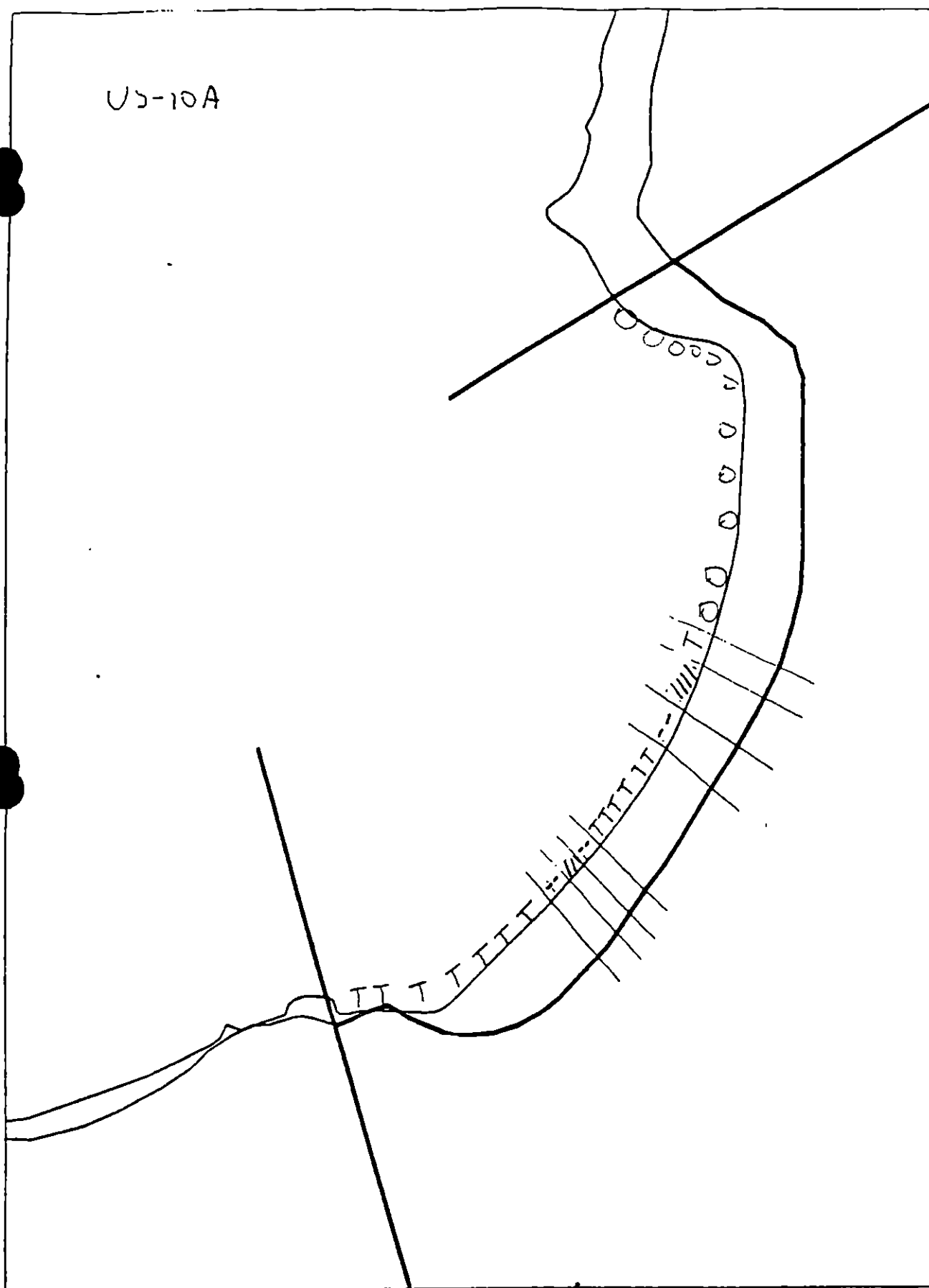
Photo location, direction,
and number



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

REVISED 10/1/90

US-10A



XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

OOOO No Oil

US-10

ADEC Segment Length: 1205m



US-10A

Map Key: KEN-133

Name: Acton

Date: 4-9-90

Data Entered:

WORK PLAN ADDENDUM

Segment US-10

Subdivision A

Dated 6/27/90

MODIFICATION

1. REASON FOR MODIFICATION

- REQUEST BY USF+W TO ADD STORM BERM RELOCATION
- REQUEST BY FOSC

2. ADJUSTMENT TO WORK PLAN

ADD BERM RELOCATION TO WORK PLAN AS INDICATED ON ATTACHED SKETCH, FOLLOWING ACCEPTANCE OF THE TRIAL ON US 3 BY USF+W.

TIMING TO BE SPECIFIED BY USF+W.

SHPO APPROVAL NEEDED YES X
NO

SHPO SIGNATURE Charles E. Hume 6/29/90
Area of storm berm relocation must be inspected by an Exxon archaeologist.

TAG APPROVAL DATE 6/27/90

ADEC Ray Morris K. Thomas

EXXON ANDY TEAL Real

NOAA Joseph Talbot John

USCG G.A. REITER G.A. Reiter

FOSC [Signature] DATE 6/30/90

OG Acton

SEGMENT ST/ US-10

SUBDIVISION US-10A

DATE 4 / 9 90

CHECKLIST

- ☐ M Area
- ☐ Approx. Scale
- ☐ Seg/Sub Entry
- ☐ Oil Cont.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HAPLAW
- ☐ SSL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ PR Location(s)
- ☐ Photo Location(s)

LEGEND

1 Δ
FI - No Subsurface Oil

2 Δ
FI - Subsurface Oil

CT/C
Continuous Distribution

CT/B
Broken Distribution

CT/P
Patchy Distribution

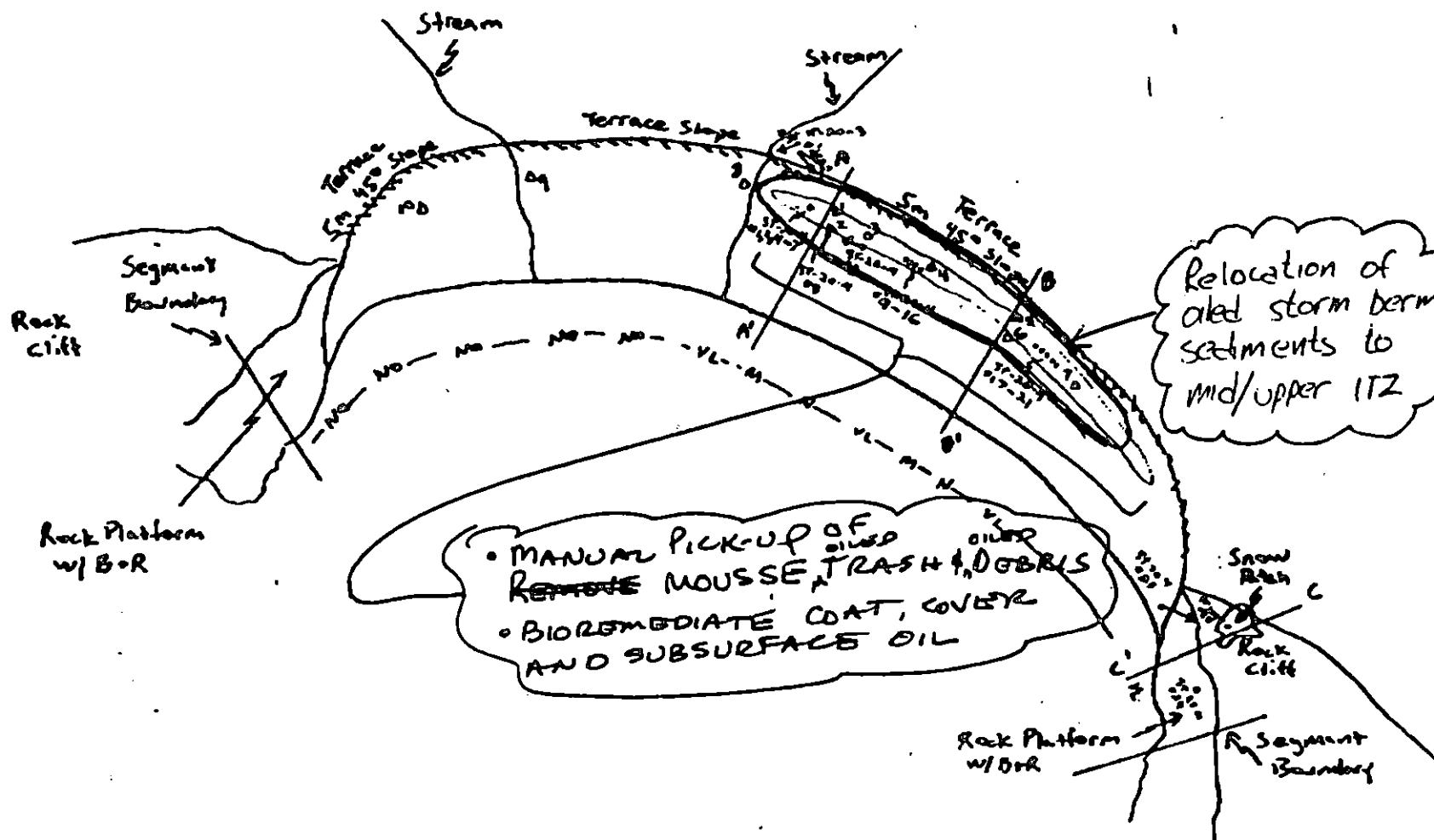
CT/S
Splashed Distribution

Oiled Vegetation

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

SKETCH MAP

← N
Approx Scale
1cm = 75m



WORK PLAN ADDENDUM

Segment US-10

Subdivision A

Dated 16 Aug 90

MODIFICATION

1. REASON FOR MODIFICATION

RESOLVE METHOD, APPROACH AND TIMING OF TREATMENT TO BE UTILIZED AT US-10.

2. ADJUSTMENT TO WORK PLAN

RELOCATE OVERBURDEN COVERING SUBSURFACE LENS AND MOVE THE OILED LENS ONTO THE FACE OF THE STORM BERM. UTILIZE MECHANICAL EQUIPMENT AS DESCRIBED IN THE ATTACHED PROPOSAL IN THE "PROPOSED APPROACH" SECTION.

SHPO APPROVAL NEEDED YES /
NO

SHPO SIGNATURE [Signature]
8/16/90
Inspection Constraint applies

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

NO CONSENSUS IN TAG. AS PER ATTACHED LETTER

FOSC [Signature] DATE 20 Aug 90

Much thought was given to the above decision. There is too much sediment to remove from the subdivisions; we have a 15 day window within which to operate this year. In my opinion it is best to effect the above ^{now} and alleviate or eliminate the problem we may be confronted with next year. We may not be able to or may decide to do nothing if this decision is carried over to next year. While large forces of personnel & equipment are assigned this year, ~~it is not~~ to accomplish the above ^{at this time} ~~next year~~.

SHORELINE EVALUATION

SEGMENT ST/ US-11 SUBDIVISION A (1 OF 1) DATE 4/26/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
USFWS property.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: [Signature] DATE: 5/14/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 114 m: No Oil 729 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS:

TAG COMMENTS:

TAG APPROVAL DATE: 5/12/90
ADEC Art Weimer
EXXON Amy Go
NOAA Gary Petrac
USCG P.D. Rome

FOSC: my L DATE: 5-18-90

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

FIELD SHORELINE COMMENT SHEET

(2)

SEGMENT ST/ US - 011 SUBDIVISION: A DATE 23 April 1971**USCG**NAME Miles D. Hughes SIGNATURE [Signature]☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

*Very high energy area.
No treatment required.*

ADECNAME Russell Kenabe SIGNATURE [Signature]☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

Oil was present on splatter of coat on the boulder and beach.

LAND MANAGERNAME Gerald M. Nugent SIGNATURE [Signature]☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

No treatment is practicable or recommended.

SHORELINE OILING SUMMARY

REVISION NO. 04/13/90

OG N. BIGGAR USCG (ADAA) MILES HAYES SEGMENT ST/ US-011
 BIO D. RAIDER LAND REP JERRY NUGENT (FW) SUBDIVISION A (1 OF 1)
 EXXON JOHN DEAN ADEC RUSSELL KUNIBE TIME 9:45 to 10:50
 TEAM NO. 17 TIDE LEVEL -4 to -2 DATE 4/26/90
 EST. SUBDIVISION LENGTH: 842 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: E to W
 SURFACE SEDIMENTS: R 20 % B 65 % C 15 % P — % G — % S — % M — % V — %
 SLOPE: Long 90 % Hang 0 % Vert 10 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 136 m NO 706 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR						IMPACTED ZONES			
	C	B	P	S	SP	BR	OR	OL	OF	NO	SU	U	M	U
ASPHALT PAVEMENT														
POOLED														
COVER														
COAT		0	Y	X						YX				YX
STAIN														
MOUSSE														
PATTIES														
TARBALLS														
FILM														
NO OIL											X	X	X	

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

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒TYPE —#BAGS —

Photographs:

Roll No. 4Frames 15+16

SUBSURFACE OIL

PIT NO	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SHEEN (Y/N)	▼	SURFACE - SUBSURFACE SEDIMENTS	
		OP	OR	OL	OF	NO		UO	UC	SP	BR	OR	OL	OF	NO	SU	U	M	U							
1	44					X	.		X							X										E, G, P
2	54					X	.		X							X										G, P, C
3	70					X	.		X								X									P, G, C
↑							.																			
- PIT Δ3 APPEARS TO BE IN U.S.-OIL !							.																			
							.																			

COMMENTS: ^{Pit} Δ1 is sharp descent into beach - oil spatter on walls on either side; 1 short band on wall near pit
 Beach has been eroded to about 1 ft lower than drip line

Beach is high energy, well exposed.

at low tide, boulder-covered wave cut platform exposed

Oil is present as a very light spatter on boulders and rock face -

Heaviest concentration is a drip line on protected vertical rock face near E end of segment

REVIEWED BAT DATE 1 May 90

OG

SEGMENT ST/ US-11

SUBDIVISION A

DATE 7 125 90

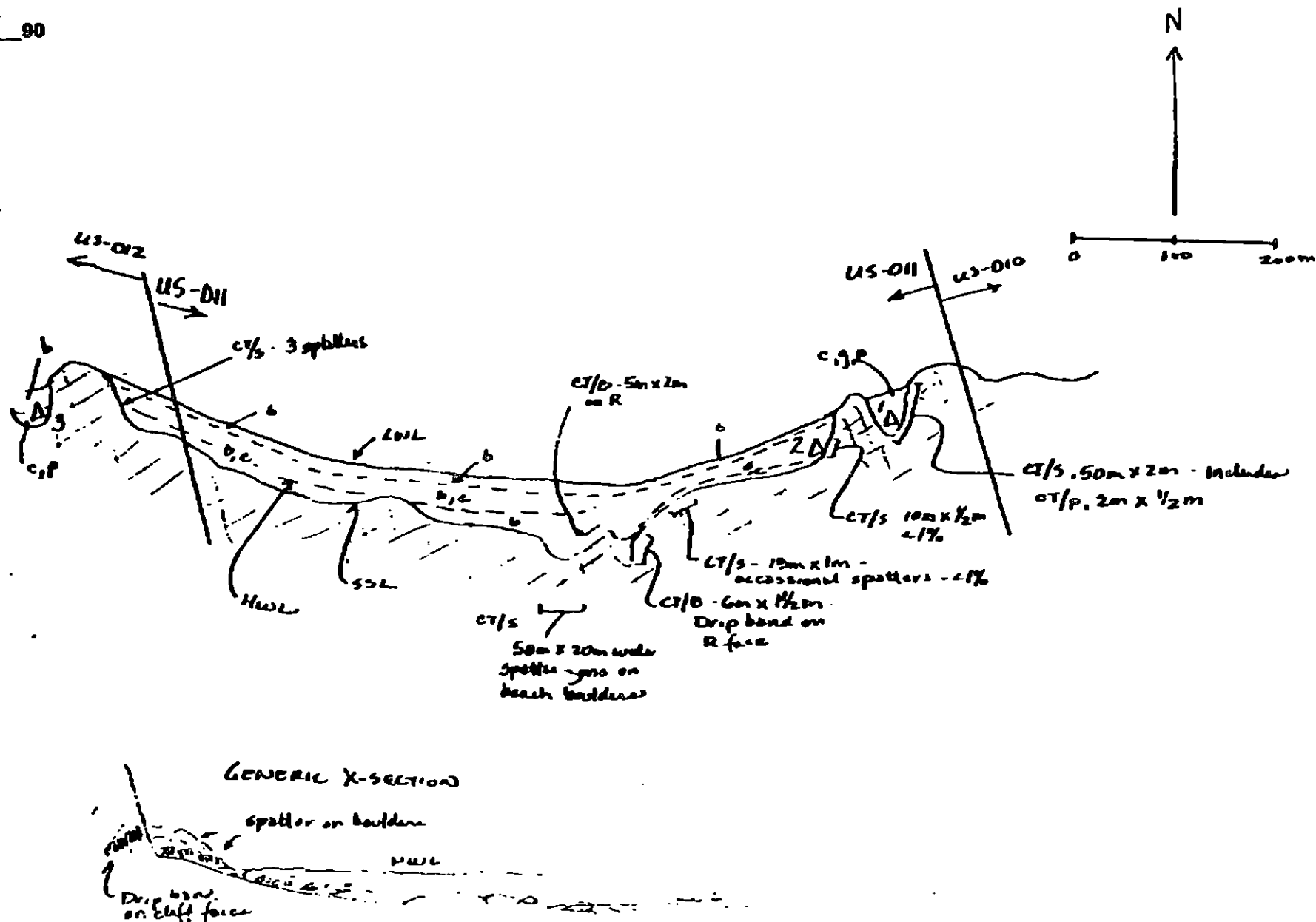
CHECKLIST

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

LEGEND

- 1 Δ
- PH - No Subsurface Oil
- 2 Δ
- PH - Subsurface Oil
- CT/C
- Continuous Distribution
- CT/B
- Broken Distribution
- CT/P
- Patchy Distribution
- CT/S
- Spattered Distribution
- lll
- Oil Vegetation
- 1 $\Rightarrow$
- Photo location, direction, and number

SKETCH MAP



SHORELINE ECOLOGICAL SUMMARY

Segment ST / US-011 Subdivision A Date (mo / day / yr)

Time (24 hr) 9:45 Biologist DANIEL DAIDER

(A) Substrate type and % of segments:
(1) Bedrock 20 (2) Boulder 65 (3) Cobble 15 (4) Pebble 0 (5) Sand 0

(B) Overall % cover of biota (% of segment): Dense 40 Moderate 10 Low 15
↳ to none

(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 15 & 16

BARNACLES

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

NOT PR.

MYTILUS

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

NOT PRESENT

GASTROPODS

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

NOT PRESENT

FUCUS

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

NOT PRESENT

Wildlife Observations/ General Comments:

(SEE ATTACHED SHEET FOR WILDLIFE CITINGS)

Ecological Considerations:

NONE ON DATA BASE HANDOUT

Wildlife observations - VS-011 A 4/25/90

<u>Name</u>	<u>Amount</u>	<u>Comments</u>
1) Glaucous-winged Gull	2	
2) Bald Eagle	1	Playa / Road, near
3) Cormorant sp.	1	

Note: Low numbers of birds possibly attributed to high winds

BIU Comments for VS-011
Term 17, Daniel Raider
25 April 1990

1 of 2

This segment has a very extensive and dense amount of vegetation running its entire length throughout the M12 and L12. This mat (extremely thick & dense) is composed mostly of brown algae. Areas have been designated on map and will be described here.

Area 1

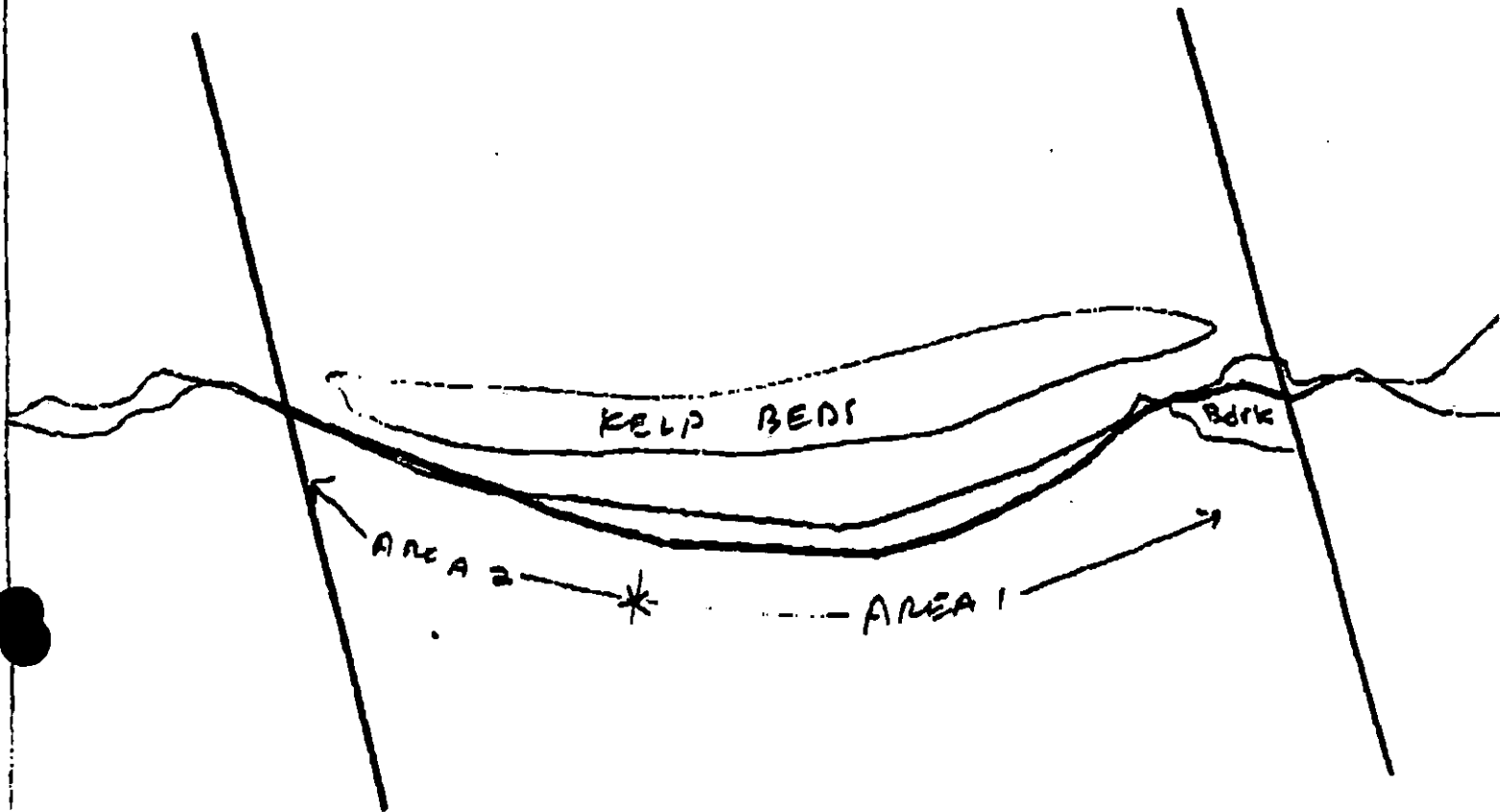
- Dense *Laminaria* spp. all along the shore in the L12 and M12
- Bedrock in L12 w/ dense *Seni Balanus* (*Caribaeus*)
- *Katharina* *tunicata* - many
- *Fucus* - sparse on boulder in M12
- *Enteromorpha*
- *Alaria Andersonii*
- *Pyropodia* *helianthoides* (3 sites)
- Red filamentous; Brown filamentous
- Bryozoans - M12
- Moderate barnacles in M12 on dry rocks - boulders

Area 2 (greater diversity)

- Patchy amount of *Nucella lanellata* in clusters (ex of on one boulder found)
- Sparse limpets on boulder in M12
- Moderate *Littorina littorea* in M12

- small pockets of dense new fucus in M72 on boulders
 - many anemones, Anthrenopleura spp. in M72 on boulders
 - Sculpins - Saddleback and Fluffy (?)
 - Area 2 has a greater diversity in both fauna and flora as it has several fresh snow-melt creeks flowing into it
-

BIO SKETCH



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

US-11A

Approx. Segment Length: 842m



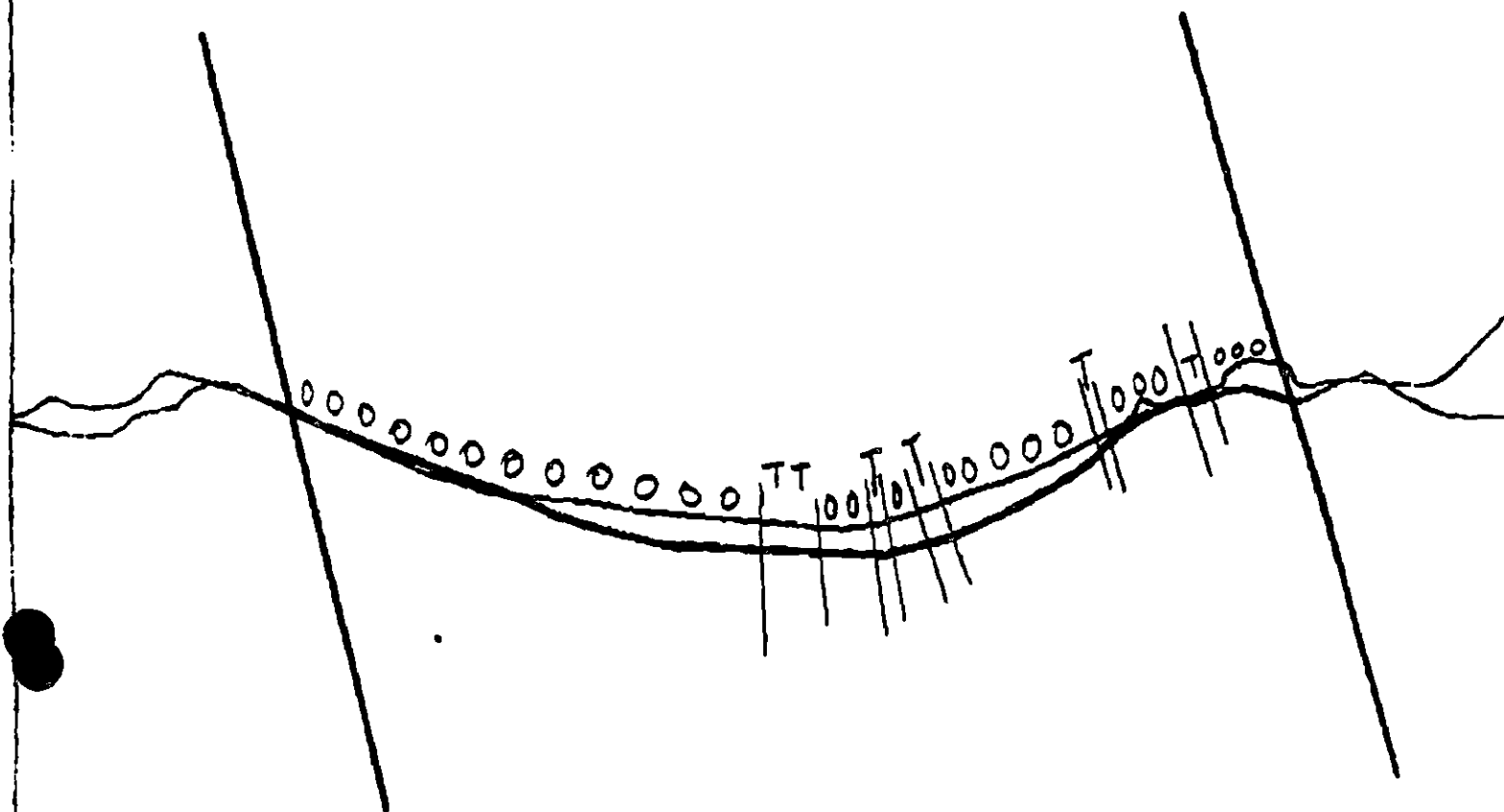
Map Key: KEN-US-11

Name: _____

Date: _____

Date Entered: _____

5



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

OOOO No Oil

US-11

Approx. Segment Length: 842m



Map Key: KEN-US-11

Name: N. BIGGAR

Date: 4/25/90

Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ US-12 SUBDIVISION A (1 OF 1) DATE 4/25/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

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)

USFWS Property

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: [Signature] DATE: 5/14/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 992 m: No Oil 1306 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes 1) manual pickup of mousse and oiled debris, 2) ~~bioremediation of area shown on attached sketch map.~~ Work should be conducted between 7/1 and 8/15 based on pinniped constraints.

TAG COMMENTS:

TAG APPROVAL DATE: 5/12/90
ADEC ART WEAVER
EXXON Andy Tate
NOAA Gary Petras
USCG D. D. ROME

FOSC: [Signature] DATE: 5-16-90
Monitor access logs during work at site.

- 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
 1B Salmon stream mouth - spawning (7/10 to 8/31)
 No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream without authorization from ADF&G. No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G. Treatment which is not intrusive and which will not affect nearshore oil or toxicity levels, such as manual removal, can probably proceed without adherence to time constraints. In any case, contact ADF&G Habitat Division prior to treatment for consultation and/or permit application.
 AGENCY CONTACT PERSON: ADF&G John Morison 267-2324
- 1C Salmon fry nursery area (4/31 to 7/31)
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to July 31 unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G prior to treatment for confirmation and advice.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1D Esther Hatchery release (4/15 to 6/15)
 1E Main Bay Hatchery release (4/20 to 6/15)
 1F Sawmill Bay Hatchery release (4/15 to 6/1)
 1G Cannery Creek Hatchery release (4/21 to 6/1)
 1H Remote release site
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G and/or PWS Aquaculture Association. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G or PWS Aquaculture Association for confirmation and authorization.
 AGENCY CONTACT PERSON: 1E ADF&G Larry Peltz 424-3214
 1D 1F 1G PWS Aquaculture Association John McMillan or Bruce Suzumoto 424-7511
- 1I Gill net area (8/7 to 8/31)
 1J Purse seine area (7/20 to 9/30)
 1K Purse seine hook-off (7/20 to 9/30)
 1L Set net sites (8/11 to 7/25)
 Contact ADF&G for specific dates, locations and constraints. Restrict boat and air traffic to essential minimum. When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G James Brady 424-3212
- 2M Herring spawning (4/1 to 6/15)
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to unopened intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G Evelyn Biggs 424-3235
- 30, 30 Harbor seal and sea lion pupping (5/15 to 7/1)
 Harbor seal and sea lion molting (8/15 to 9/15)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31). Contact ADF&G and USFWS prior to treatment for confirmation.
 AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
 ADF&G Don Calkins 267-2403
- 5R Seabird colony (5/1 to 9/1)
 Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
 ADF&G Tom Roth 267-2206
- 5T All Bald Eagle nests (3/1 to 6/1)
 Active Bald Eagle nests (3/1 to 9/1)
 Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 6U Recreation: Tent sites (5/1 to 9/15)
 6V Anchorages (5/1 to 9/15)
 6W Forest Service cabins (5/1 to 9/15)
 6X Lodge (5/1 to 9/15)
 6Y Special use destination
- 7Z Subsistence area: Salmon harvesting (5/1 to 9/30)
 7-H Finfish harvesting
 7I Deer harvesting (5/15 to 2/28)
 7J Invertebrate harvesting
 Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.
 AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2356

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ US-012 SUBDIVISION: A DATE 27 April 1977

USCG NOAA

NAME Miles D. Hayes SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS

This is a spectacular crenulate bay type of beach, shaped by waves approaching (dominately) from the east. Two major cusate berms were present on the day of our survey. There was no subsurface oil.

Manual pick-up is recommended for tar patches, tar balls and oiled debris.

ADEC

NAME Russell Kumbie SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS

Manual pick up of oiled trash and debris and tar balls and debris in conjunction with other Barren Island Clean-up activities

LAND MANAGER

NAME Gerald M. Nugent SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS

Manual pick-up of oiled trash/debris and tar-balls recommended in conjunction with other cleaning activities on the Barrens.

SHORELINE OILING SUMMARY

REVISION NO. 04-13-90

OG N. BIGGAR NOAA USCG MILES HAYES SEGMENT ST/ 45-012
 BIO D. RAIVIER LAND REP JERRY NUGENT (F.W.) SUBDIVISION A (1 OF 1)
 EXXON JOHN DEAN ADEC RUSSELL KUNDE TIME 11:15 to 13:30
 TEAM NO. 17 TIDE LEVEL -1 to 8 DATE 4/25/90
 EST. SUBDIVISION LENGTH: 2200 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: E to W
 SURFACE SEDIMENTS: R 2 % B 4 % C 20 % P 25 % G 44 % S 5 % M — % V — %
 SLOPE: Long 94 % Hang 6 % Vert — % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W — m M — m N — m VL 772 m NO 1514 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	C	B	P	S	BR	OR	OL	OF	NO	UO	UC	BR	OR	OL	OF	NO
ASPHALT PAVEMENT																
POOLED																
COVER			X													
COAT		X	X	O												
STAIN																
MOUSSE				X												
PATTIES	X		Y	O												
TARBALLS				X												
FILM																
NO OIL																

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

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

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒TYPE —#BAGS —

Photographs:

Roll No. 4Frames 20-23

• oiled buoy
 • absorbent boom piece
 • oiled plastic
 • oiled logs

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SHEEN (Y/N)	▼	SURFACE-SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	BR	OR	OL	OF	NO	UO	UC	BR	OR	OL	OF	NO				
1	62					X	—		X																g, small p
2	37					X	—		X																g.p
3	69					X	—		X																g.p
4	65					X	—		X																g
5	69					X	—		X																P.g
6	68					X	—		X																g.p. in dsk ben

COMMENTS. The oil present on the beach consists of:

- (1) granule and small pebble-covered tar balls and tar patties that occur in area A in sketch. They have the appearance of rounded pebbles and rather easily transported by wave action - seen in upper tidal / surge tidal zone
- (2) flat, layer tar patties, up to 20 cm x 30 cm were seen @ B. The tar seems as a binder for pebbles and granules
- (3) CT on boulder faces and in large (20m) splatter on tops of boulders - CT is coated with sand - area "C"

REVIEWED BAT DATE 1 MAY 90

5

8

8

Beach is a "text-book" crescent beach, relatively fine grained (g-p), with lot of erosion and redeposition.

The oil spattered onto logs has a weathered appearance.

REVIEWED BA7 DATE 1 MAY 90

DATE 4 / 25 90

CHECKLIST

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

LEGEND

PH - No Subsurface Oil

2 ▲
Pl - Subsurface Oil

CT/C
Continuous Distribution

CT/B

Broken Distribution

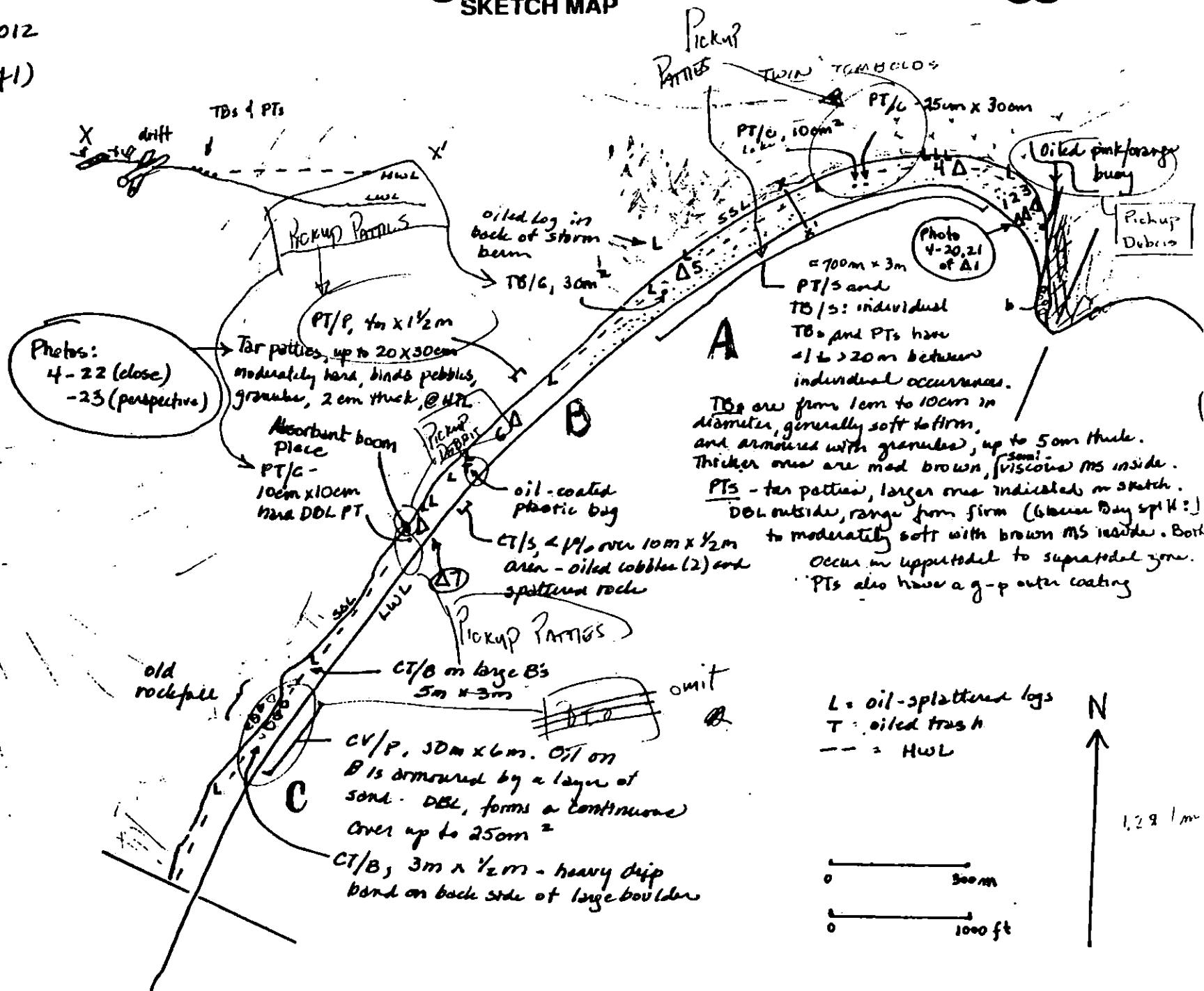
[CT/P]
Patchy Distribution

CT/S
Spliced Distribution

Old Vegetation

**Photo location, direction,
and number**

SKETCH MAP



SHORELINE ECOLOGICAL SUMMARY

ML 10000 001

Segment ST / U1-012 Subdivision A Date (mo / day / yr) 4/25/90Time (24 hr) 11:15 Biologist DANIEL RAIDER(A) Substrate type and % of segments:
(1) Bedrock 2 (2) Boulder 4 (3) Cobble 20 (4) Pebble 69 (5) Sand 5 (6) Silt(B) Overall % cover of biota (% of segment): Dense 1 Moderate 1 Low 98

(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: to none
Roll No. 4Frames 20-23

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS

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

NOT PRESENT

FUCUS

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

NOT PRESENT

Wildlife Observations/ General Comments: See "wildlife observations" sheet attached.

- 2 (two) Seals swimming along coast; appeared to be looking for a haul-out location; One female & One male, I believe.

Other tracks on beach in storm berm area and along high tide berm (none).

Ecological Considerations:

S.N.P.O., Q

Bio Comments US-012A
Team 17 Daniel Raider
4/25/90

This segment resembles many of the crevices beaches that are typical of this island. Area 1, as indicated on the Bio-sketch, a bedrock outcrop, hosts the majority of bota (or dense populations). Area 2, also on the map, is void of major vegetation and/or fauna, the high energy nature of the beach and excessive transportation of substrate does not allow for colonization of the LTZ, MTZ or UTZ.

Description of Area I

- Dense adult Fucus on boulders in MTZ
- Moderate Barnacles on bedrock in LTZ
- Sparse Barnacles (Semi-balanus cariosus + Balanus on bdrk + boulders in MTZ, recruits glabella)
- Profuse black lichen on boulders in UTZ
- Moderate → Dense Littorina on boulder in MTZ; over 50% from this year
- Sparse limpets in UTZ
- Rare mytilus on bdrk in MTZ

NOTE:

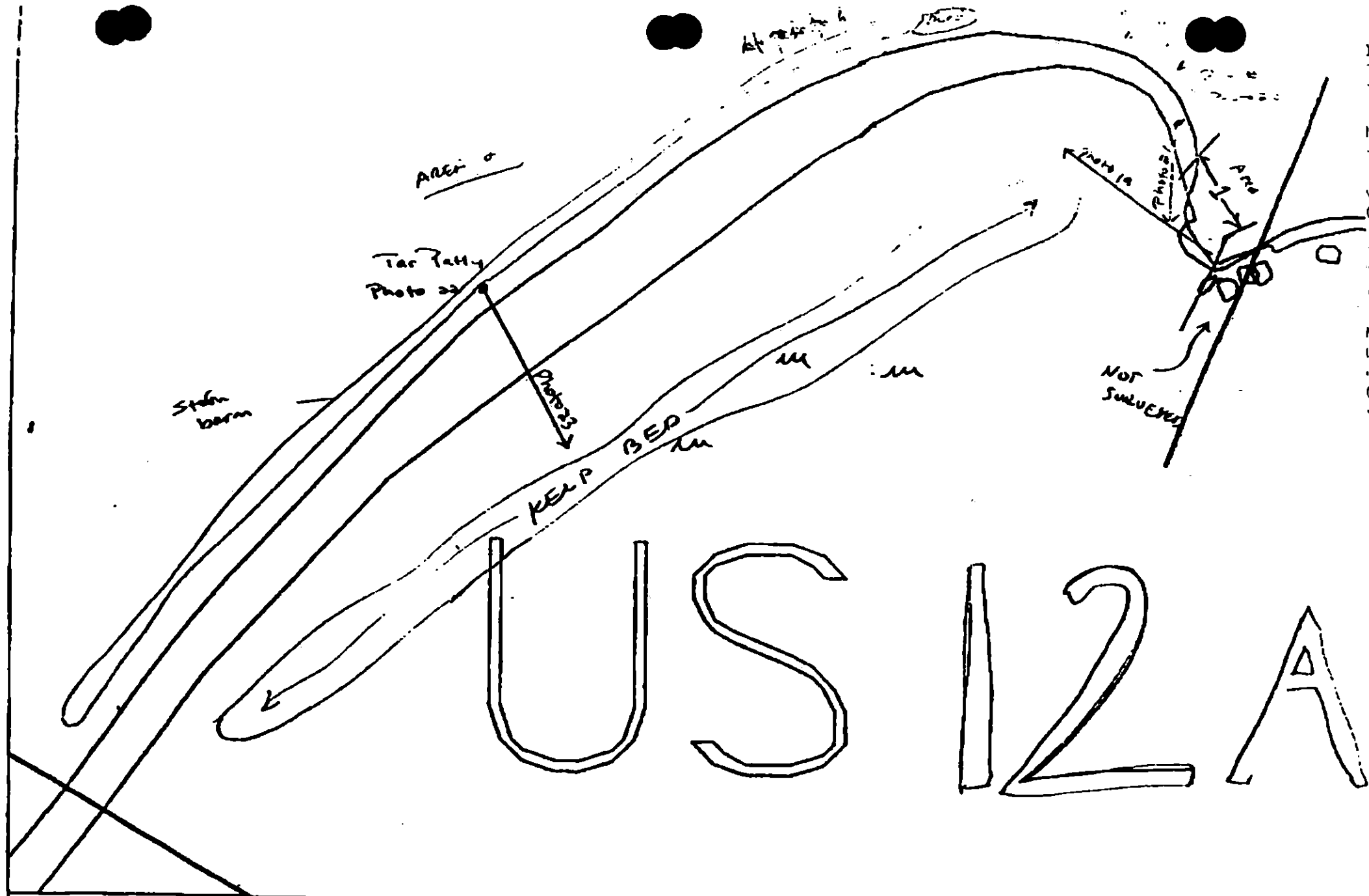
Those data presented on the Bio Shoreline Ecological Summary do not reflect only this one area and are averaged out for the entire segment. This should be taken into consideration when reviewing material

WILDLIFE OBSERVATIONS - US - 12

	<u>Name</u>	<u>amount</u>	<u>Comments</u>
1)	Black - legged Kittiwake	93	on pond
2)	Song Sparrow	3	
3)	Glaucous - Winged Gull	9	
4)	Tough legged Hawk	1	
5)	Common Tern	2	
6)	Sea Lions	2	along shoreline
7)	Otter (River?)	2	Tracks along beach

Note:

Note the large number of Kittiwakes on the pond that may represent a seabird colony.



XXXX Wide

//// Medium

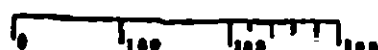
--- Narrow

TTTT Very Light

OOOO Very Dark

US-12

Approx. Segment Length: 1143m



Map Key: KEM-US-12a

Name: _____

Date: _____

XXXX Wide

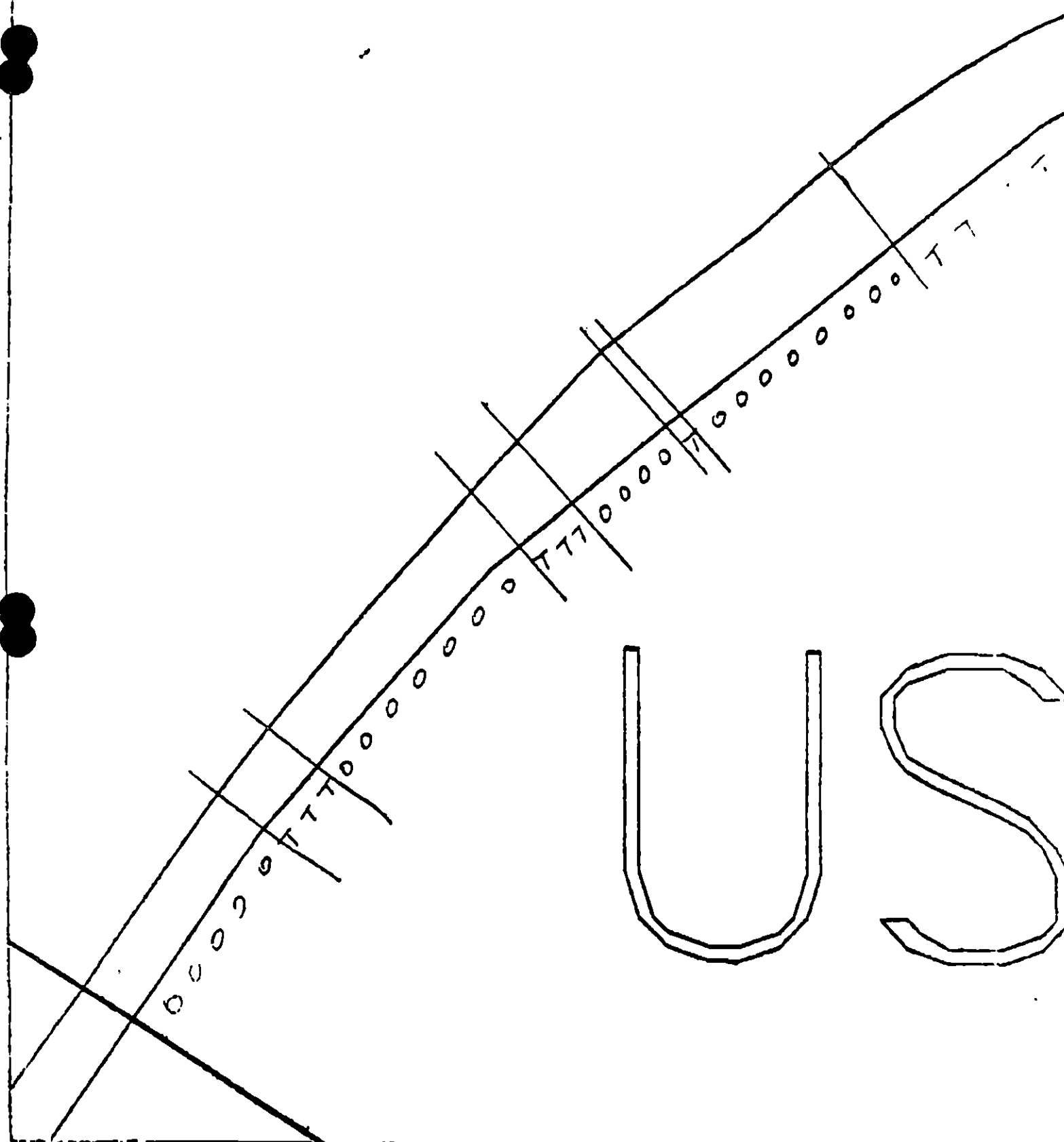
//// Medium

--- Narrow

TTTT Very Light

US-12 (6)

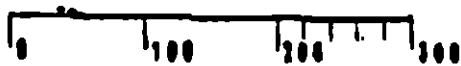
Approx. Segment Length: _____



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

US-12

Approx. Segment Length: 1143m



METERS

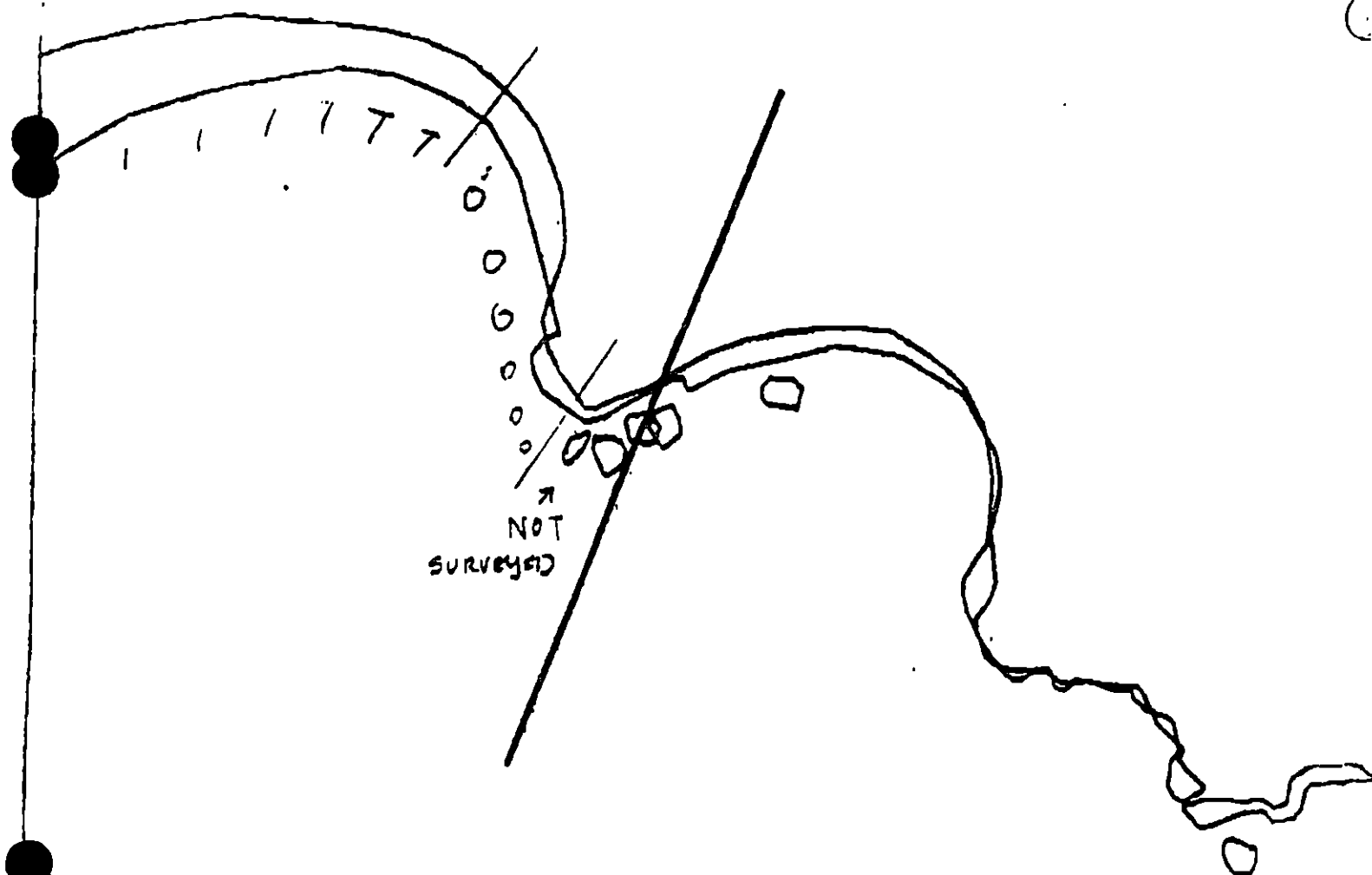


Map Key: KEN-US-12a

Name: N. BLAGAN

Date: 4/26/90

Date Entered:



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

OOOO No Oil

US-12

Approx. Segment Length: 1143m



Map Key: KEN-US-12b

Name: N. B. G. R.

Date: 4/26/90

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT US-12 SUBDIVISION A (1 of 1)

WORK WINDOW	
Manual Pickup	WORK 7/2 TO 8/14

ARCHAEOLOGICAL INSPECTION/CONSULTATION REQUIRED.

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

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

3N,O,P,Q

Harbor Seal & Sea Lion
Pupping and Molting

Closed to manual pickup prior to 7/2 and
after 8/14.

OTHER ECOLOGICAL CONSIDERATIONS

Do not chase or harass seals or sea lions, and do not approach pups under any circumstances. When working on or near haulouts, complete the job as quickly as possible with minimum personnel, equipment, noise and disturbance. Keep boats and personnel as far from actual haulouts as is practical to do the work specified. Minimize air traffic near haulouts, maintain elevation as is practical, and avoid repeated overflights of the same haulout areas. Avoid any unnecessary disturbance or damage to unrolled biota and substrate.

TAG APPROVAL DATE 6/04/90
ADEC Roy Morris
EXXON ANN GAR
NOAA Joseph Tuller
USCG G.A. Freiler

FOSC

[Signature]

DATE

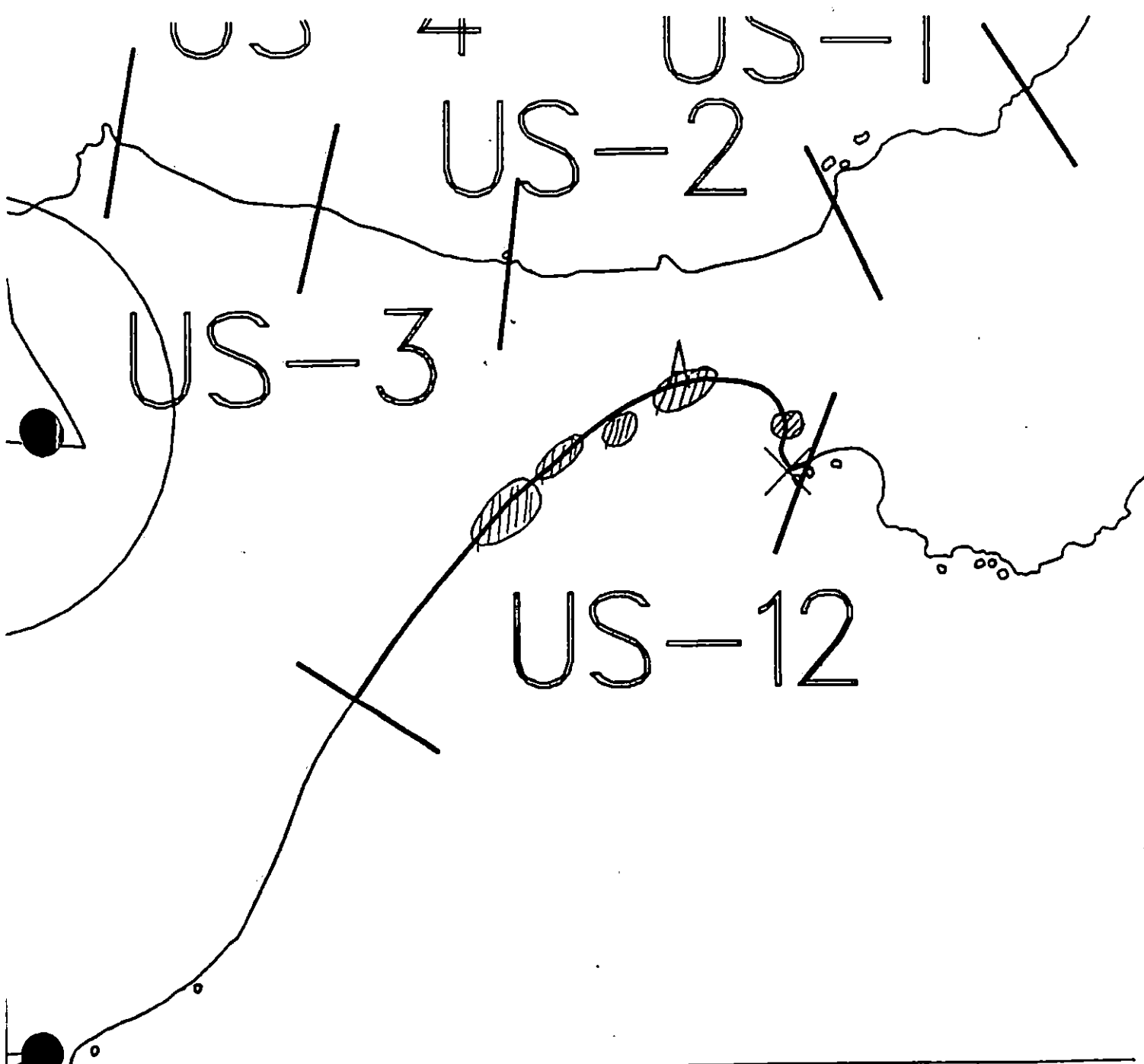
6/5/90

Prepared By:

[Signature]

Date

6/2/90



Exxon Company, USA
M. K. - 1000-12



ECOLOGY MAP ^{4/2/90}
SEGMENT US-12
SUBDIVISION A (1 of 1)
METERS



Seabird Colony



Eagle Nest

ARLIS
Alaska Resources
Library & Information Services
Anchorage, Alaska