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[Shoreline evaluations, 1991].

Kodiak K1002 AS 008 to K1007 PB 014

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REGION: KODIAK

SEGMENT: ST/K10-02-AS-008

SUBDIVISIONS: A (1 OF 2)

SHORELINE EVALUATION

SEGMENT ST/ K10-02-AS-008 SUBDIVISION A (1 OF 2) DATE 6/1/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

4QQ National Wildlife Refuge

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 0 m: Medium 629 m: Narrow 0 m: V.Light 0 m: No Oil 0 m
Subsurface Oil Observed: Yes _____ No X Maximum Depth _____

RECOMMENDATIONS:

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

COMMENTS: Recommend manual removal of mousse patties in the UITZ and MITZ
as shown on attached sketch map.

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____

EXXON _____

NOAA _____

USCG _____

FOSC: _____ DATE: _____

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 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, 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 prior to treatment for consultation and/or permit application.
 AGENCY CONTACT PERSON: ADF&G Ken Middleton 267-2299
- 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, 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 Kotol Bay Hatchery release
 Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
- 1H Remote release site
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, 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 for confirmation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1I Gill net area
 1J Purse seine area
 Mainland, West side Kodiak, Shuyak & Moser/Olga 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
 Contact ADF&G for confirmation - dates and locations may vary. 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 Larry Nicholson 424-4791
- 2M Herring spawning (4/15 to 6/30)
 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 Larry Nicholson 486-4791
- Harbor seal and sea lion pupping (5/10 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 267-2208
- 5T All Bald Eagle nests (3/1 to 6/1)
 Active Bald Eagle nests (3/1 to 6/1)
 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 (8/1 to 9/15)
 6V Anchorages (8/1 to 9/15)
 6W Forest Service cabins (8/1 to 9/15)
 6X Lodge (8/1 to 9/15)
 6Y Special use destination
- 7Z Subsistence area: Salmon harvesting (8/1 to 9/30)
 Finfish harvesting
 Deer harvesting (8/1 to 1/7)
 Invertebrate harvesting
 Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
 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 / K1002 AS-8 SUBDIVISION: A DATE June 01 1982

USCG

NAME Michael B. Millner SIGNATURE Michael B. Millner DCI

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

MANUAL TREATMENT IS REQUIRED IN THIS SUBDIVISION. THE TALMAT EXTENDS FROM AS-7 AND NEEDS TO BE ADDRESSED SIMULTANEOUSLY. MATTA EXTENDS NE INTO THIS SEGMENT, BECOMING BROKEN & SCATTERED.

ADEC

NAME Francine J. Benoit SIGNATURE Francine J. Benoit

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

MANUAL PICK-UP OF MOUSSE / MOUSSE SATURATED FINE SEDIMENTS STRONGLY RECOMMENDED:

BAND OF mousse mat, 2-4m wide, extends over at least 550 m² in sometimes broken, sometimes patchy, distribution. This band lies in the UITE, & overlaps the boundary between AS-7 and AS-8. The recoverable oil can be collected by a crew using shovels & Trowels.

LAND MANAGER

NAME OTTO FLORESCHUTZ SIGNATURE Otto Floreschutz FWS

☒ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

Agree with above ADEC recommendation to manually recover large section of mousse within shore line rocks on AS-7 adjacent section examined by att. Mark #2

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.

SHORELINE OILING SUMMARY

REVISION NO. 03/22/99

OG R. Marty USCG B. Milliner SEGMENT ST/ K-1002 AS8
BIO H. Davis LAND REP O. Flerschutx SUBDIVISION A
EXXON --- ADEC F. Bennis TIME 18:00 to 19:00
TEAM NO.: 20 TIDE LEVEL: +1.26m to +1.9m DATE 1 June 90
EST. SUBDIVISION LENGTH: 563 m ☒ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☒ Rock
SURVEYED FROM: ☐ Foot ☐ Boat ☐ Helo WORKING DIRECTION: W to E
SURFACE SEDIMENTS: R 30 % B 30 % C 30 % P 5 % G 5 % S --- % M --- % V --- %
SLOPE: Long 50 % Hang 50 % Vert --- % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
OIL CATEGORY LENGTH: W --- m M 563 m N --- m VL --- m NO --- m

SURFACE OIL

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

PAVEMENT: H F S — sq. m by — cm

PATTIES / TARBALLS 300 BAGS

NEAR SHORE SHEEN? NO BR RW SL TL

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

DEBRIS COLLECTED
☐ YES ☒ NO

TYPE _____

#BAGS

Photographs:

Roll No.

Frames

SUBSURFACE OIL

[illegible]

COMMENTS Abundant mousse patches form an incipient pavement in the MITZ - UITZ. The mousse patches are widespread down in among boulders and cobbles at the toe of the cliffs. There are also some scattered tar balls down on the mud flat.

* Note: mouse patters in U1Z-STZ form an incipient pavement which has not, as yet, set up.

SEGN 1002
ST/ AS-8

SUBDIVISION A

DATE 1 June 90

CHECKLIST

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

LEGEND

1 Δ Mousse balls
Pl - No Subsurface Oil

2 Δ Pl - Subsurface Oil

CT/C
Continuous Distribution

CT/B
Broken Distribution

CT/P
Patchy Distribution

CT/S
Splashed Distribution

eee
Oiled Vegetation

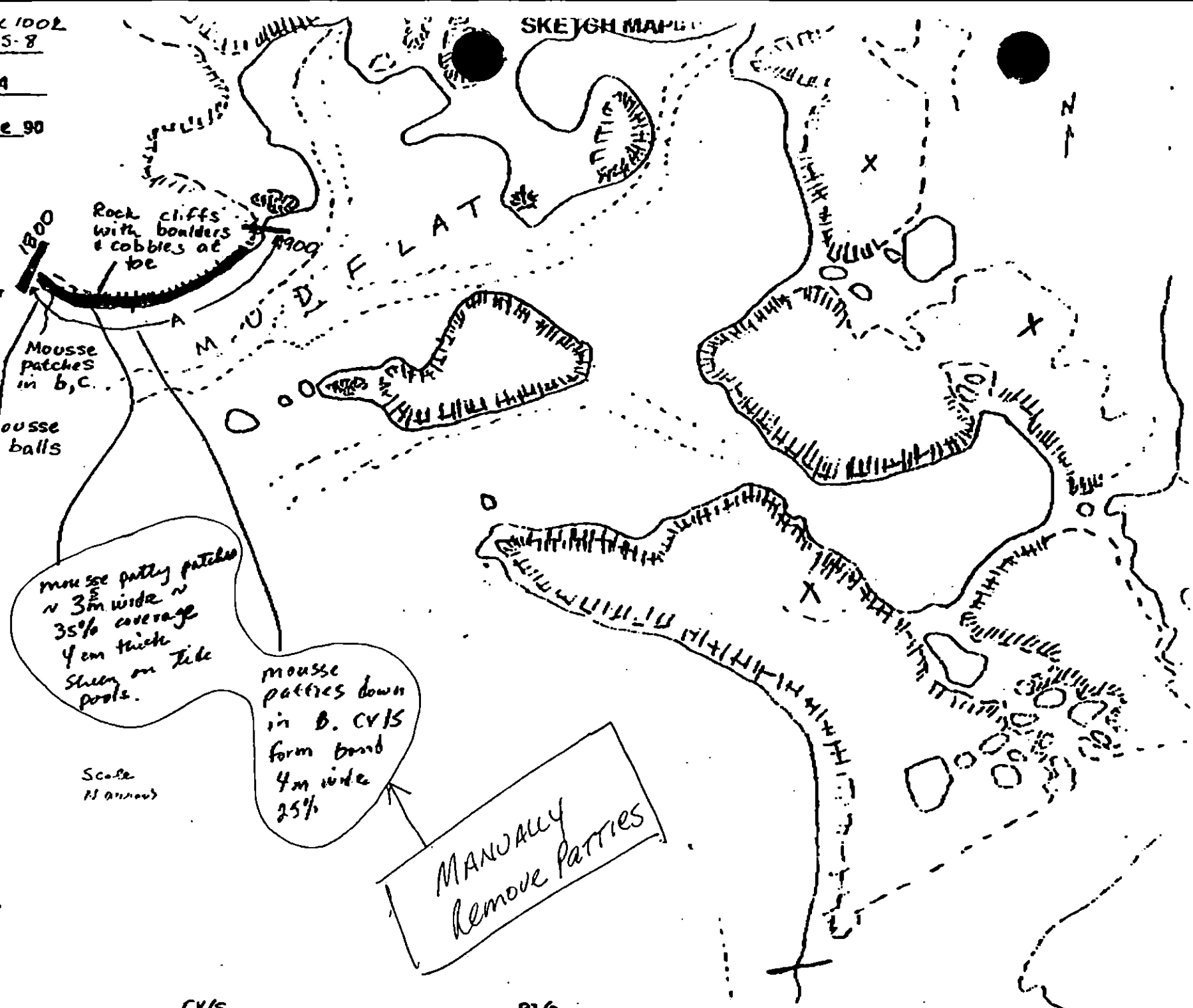
Photo location, direction, and number

MANUALLY Remove Patties

Scale (N arrow)

Character Length (m): AP — PO — CV 563 CT — ST — MS — PT 563 TB — FL — NO —

REVISION 02



SHORELINE ECOLOGICAL SUMMARY

REVISION: 03-22-90

Segment ST/K10-02 Subdivision AS-008 Date (mo/day/yr) 6/1/90Time (24 hr) 18:15 Biologist H. Davis

- (A) Substrate type and % of segments:
 (1) Bedrock 25 (2) Boulder 25 (3) Cobble 25 (4) Pebble 5 (5) Sand 10 (6) Silt 10
- (B) Overall % cover of biota (% of segment): Dense — Moderate 10% Low 90% (20%)
- (C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles/adults (X), new settlement (3)

Photographs:
Roll No. ST-20-14Frames 5

BARNACLES Moderate to Sparse in UTZ + MTZ. Sparse - Rare in LTZ

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

5, 6

MYTILUS Scattered, Sparse

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 on

1, 5, 6

GASTROPODS Continuous but variable in density.

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 Patchy

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

5, 6

Wildlife Observations/ General Comments: This part of the segment had rock cliffs with boulder-pebble rubble at the base. Below this was a sand/mud flat. On the rocky area *Balanus* sp. + spalt, *Littorina siliqua*, *Notosuccinea* sp., *Colletes digitalis*, *Mytilus*, *Sextosiphon*, *Ulva*, *Porphyra* and *Fucus* were dominant. On the mud flats: *Phoronids*, *Maloma* (telling), *Saricornis*, *Prototrocha* and *Siliqua* (shells) were found. Bears were in the area. Glaucous-winged Gulls, Yellowlegs and Semi-palmated plover.

Ecological Considerations: No Ecological Constraints on the list but there is a gull colony nesting on the three islands off shore of AS-008A. Streams on adjacent subdivisions have Pinkies, Chums, and Volley Varden spawning.

Control No.
(Office Use Only)

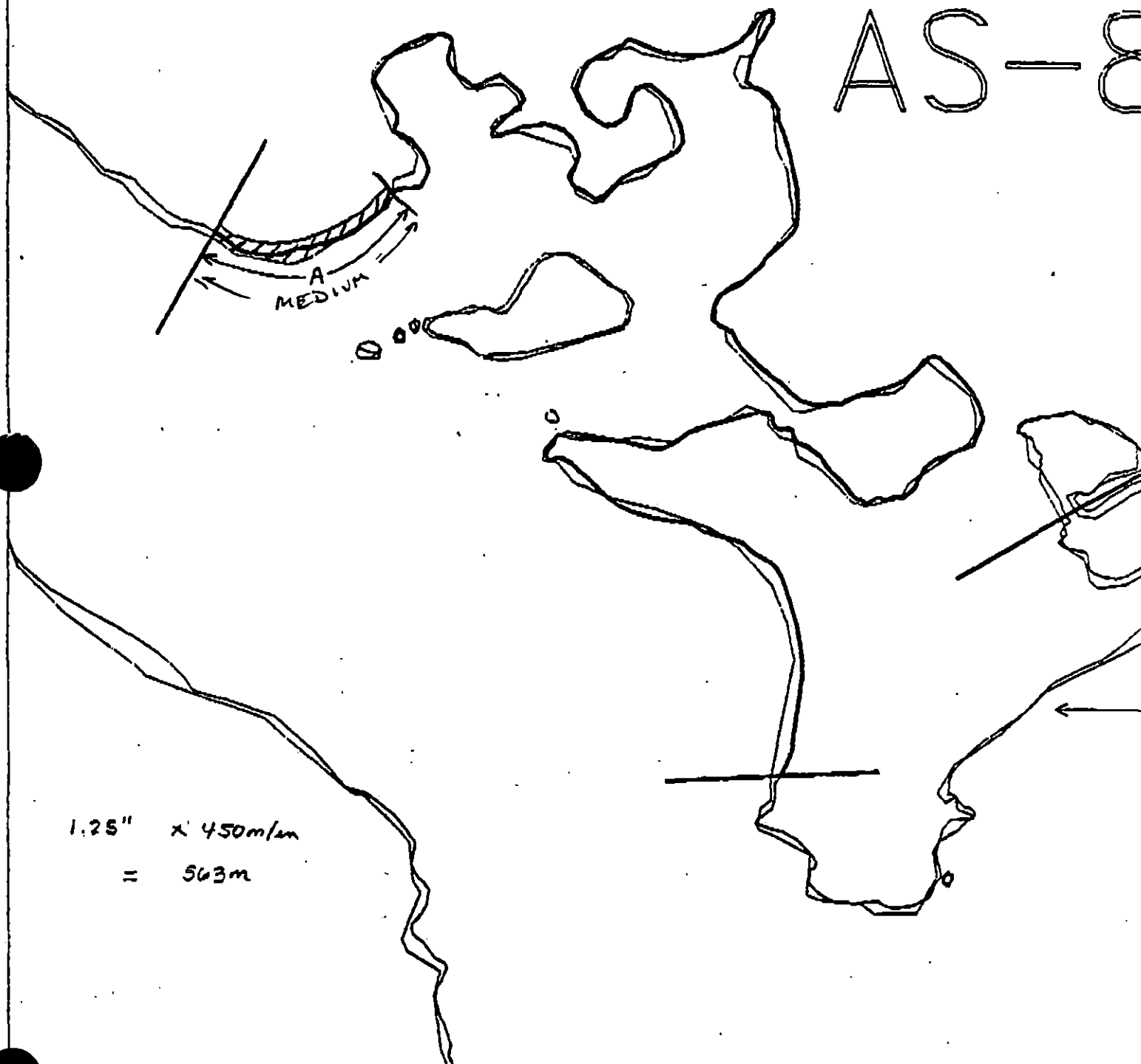
PHOTOGRAPHY LOG

ROLL NO. ST-20-14 FROM 6/1/90 TO _____
TEAM NO. 20 PWS / KENAI / KODIAK / AK. PENINSULA

[illegible]

K1002-AS-8

AS-8



1.25" x 450m/m
= 563m

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

K1002-AS-8

Approx. Segment Length: 10417m

Map Key: AKP-AS-8

Name: R. Marty

Date: 1 June 1990

SHORELINE EVALUATION

SEGMENT ST/ K10-02-AS-008 SUBDIVISION A (1 OF 2) DATE 6/1/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

4QQ National Wildlife Refuge

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: Charles E. Hume DATE: June 19, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 629 m: Narrow 0 m: V.Light 0 m: No Oil 0 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 removal of mousse patties in the UITZ and MITZ
as shown on attached sketch map.

TAG COMMENTS:

TAG APPROVAL DATE: 6/16/90

ADEC Ran Manges

EXXON Andy TGA

NOAA Joseph Talbot

USCG G.A. Reiter

FOSC: [Signature]

DATE: 2/5/90

SEGMENT SV AS-8

SUBDIVISION A

DATE 1 June 90

CHECKLIST

- N Arrow
- Approx. Scale
- Sep/Sub Bdry
- Of Dist.
- Width
- Length
- % Cover
- Substrate Character
- Est. HWW/LWL
- SSL
- Profile Location(s)
- Profile(s)
- Pt Location(s)
- Photo Location(s)

LEGEND

1 Δ
PI - No Subsurface OF

2 Δ
PI - Subsurface OF

CT/C
Continuous Distribution

CT/B
Broken Distribution

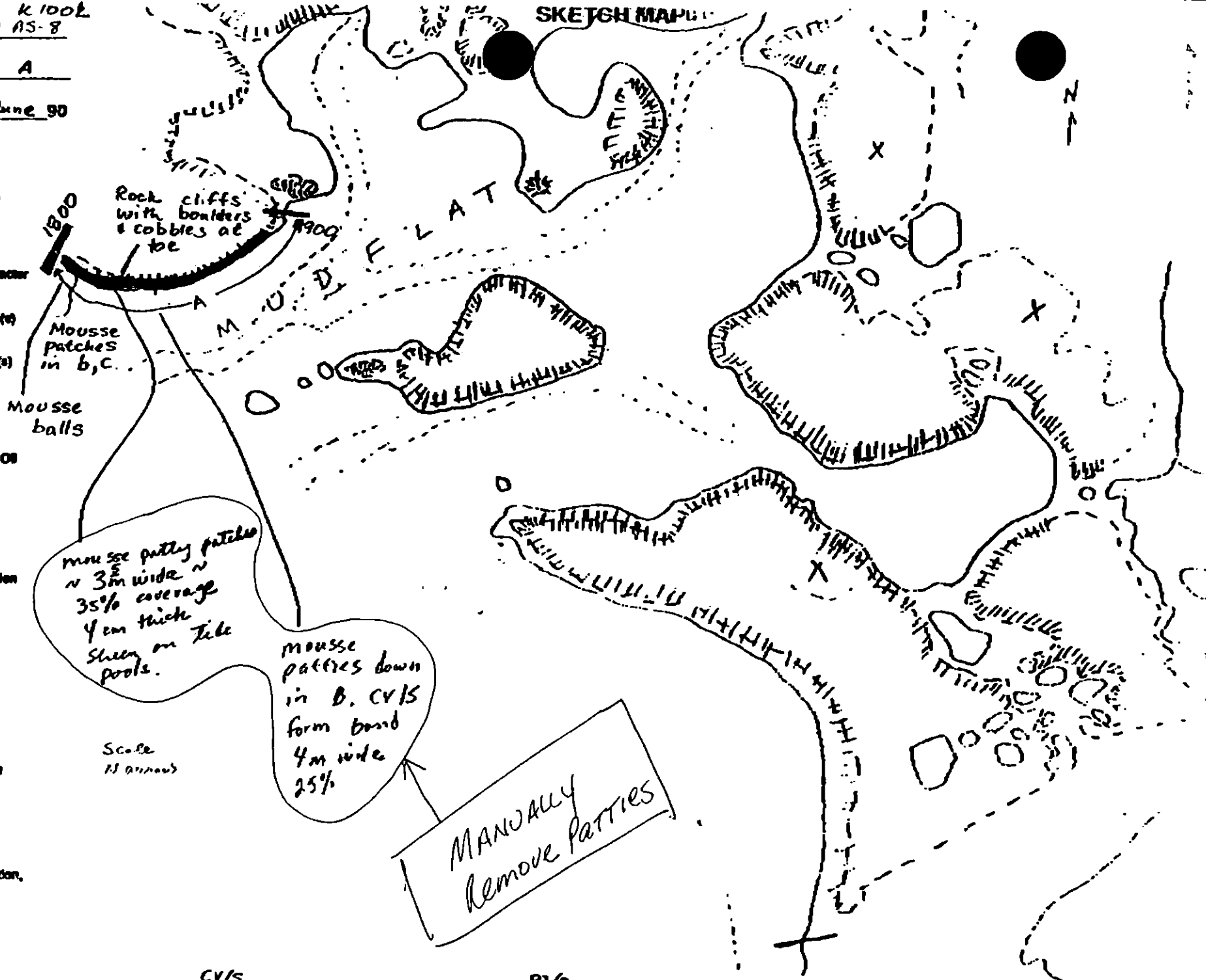
CT/P
Patchy Distribution

CT/S
Splashed Distribution

eee
Oiled Vegetation

Photo location, direction, and number

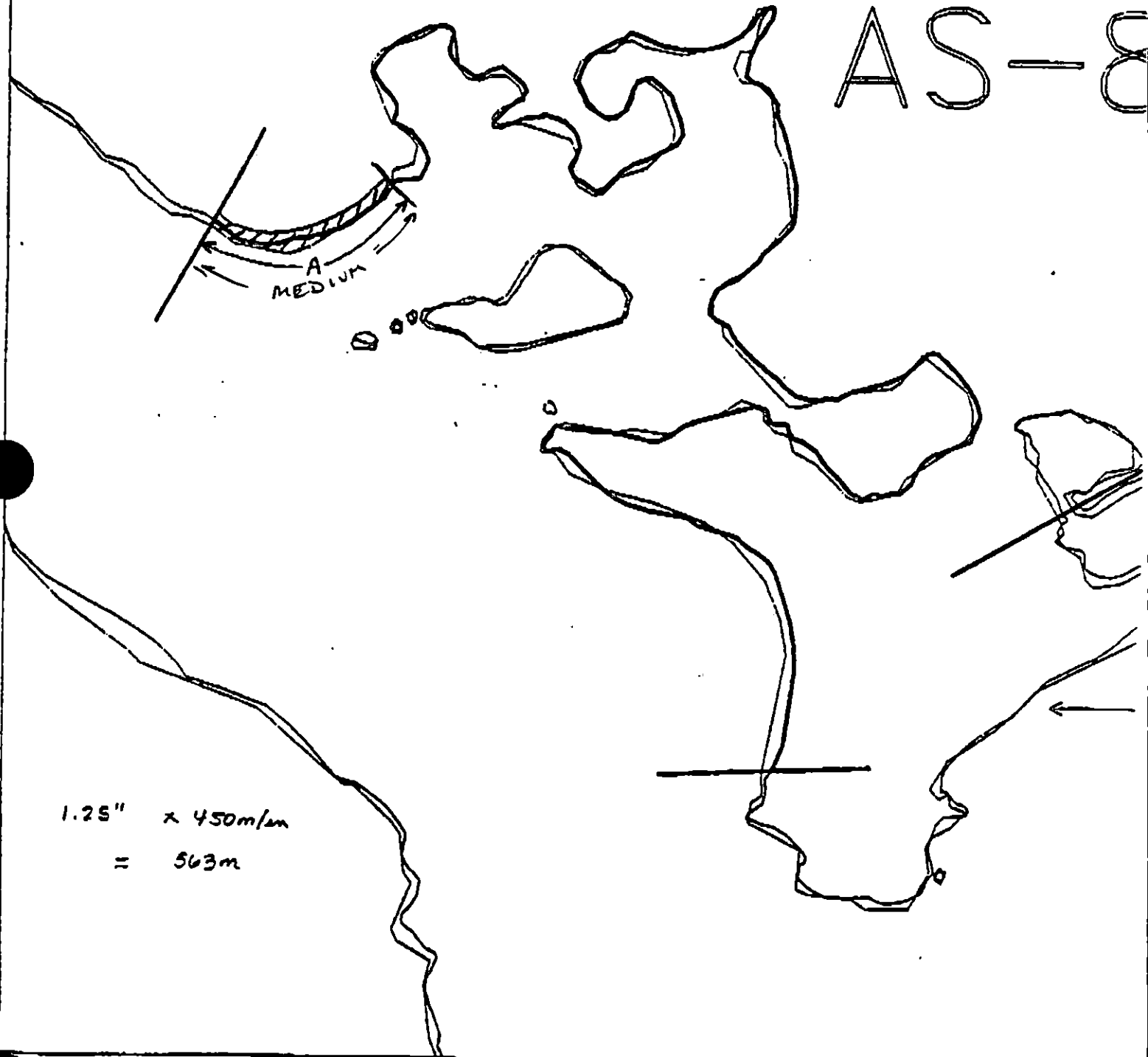
Photo location, direction, and number



Character Length (m): AP — PO — CV 563 CT — ST — MS — PT 563 TB — FL — NO —

K1002-AS-8

AS-8



1.25" x 450m/um
= 563m

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

K1002-AS-8

Approx. Segment Length: 10417m

0 300 600 900

Map Key: AKP-AS-8

Name: R. Marty

Date: 1 June 1990

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K10-02-AS-008 SUBDIVISION A (1 of 2)

WORK WINDOW	
Manual Pickup	OPEN

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

No applicable ecological time constraints.

OTHER ECOLOGICAL CONSIDERATIONS

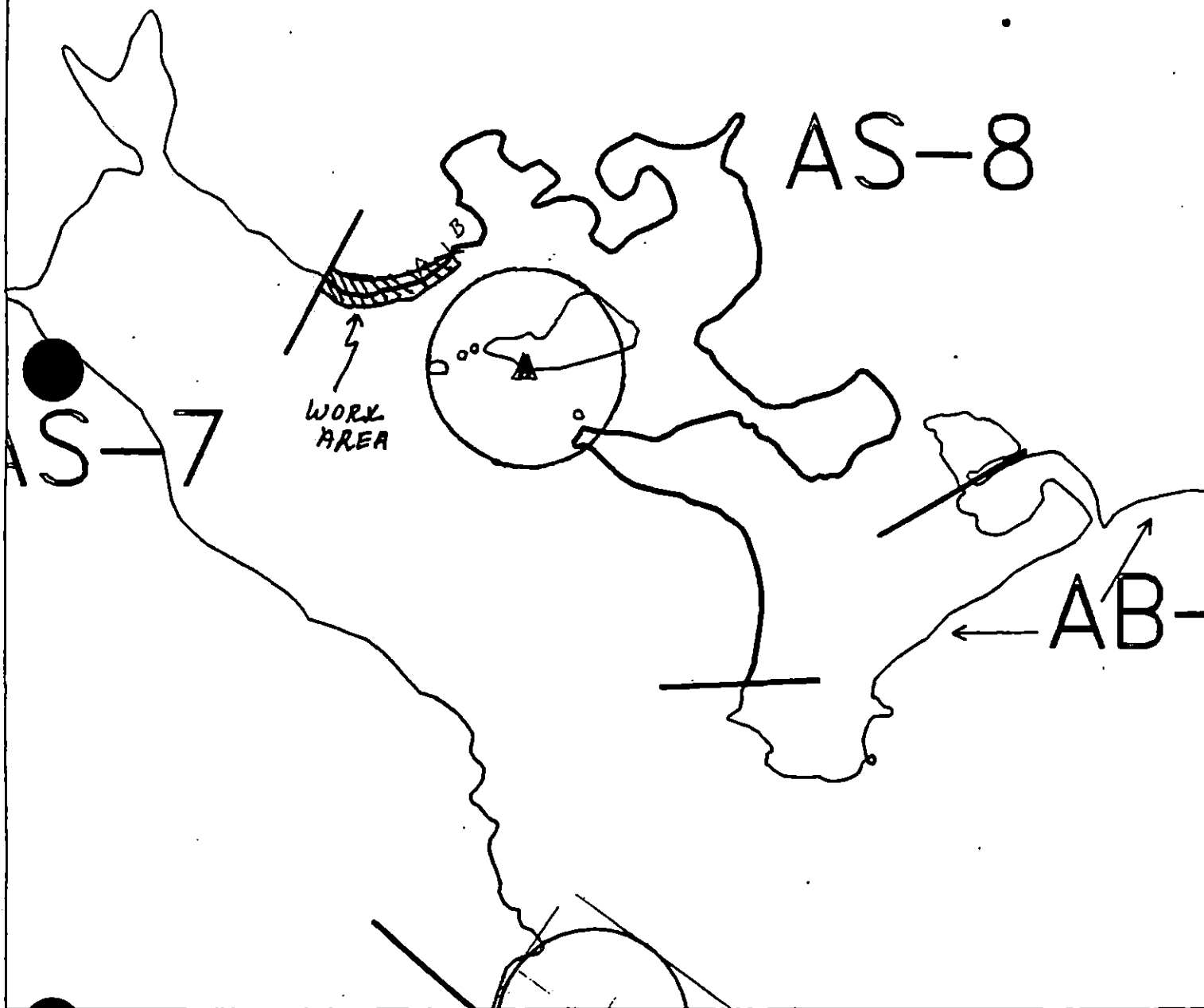
Avoid any unnecessary disturbance or damage to unrolled biota and substrate.

FOSC *R. J. J. J.* Date 7/6/90

Prepared by *Rev. R. Coulton* Date 7/6/90

K10-2

AS-8



Exxon Company, USA
Map Key: AKP-AS-8



ECOLOGY MAP
SEGMENT K10-2 AS-8
SUBDIVISION A (1 of 2)
METERS

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

SHORELINE EVALUATION

SEGMENT ST/ K10-02-AS-008 SUBDIVISION A (1 OF 2) DATE 6/1/90

ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

400 National Wildlife Refuge

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: Charles E. Hansen

DATE: June 19, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 629 m: Narrow 0 m: V. Light 0 m: No Oil 0 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

<u> </u> No Treatment Recommended	<u> </u> Snare/Absorbent Booms
<u> </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> Tarnat Removal	<u> </u> Beach Cleaner
	<u> </u> Other (see comments)

COMMENTS: Recommend manual removal of mousse patties in the UITZ and MITZ as shown on attached sketch map.

SEE CONSTRAINT ADDENDUM
DATED 7/6/90

TAG COMMENTS:

TAG APPROVAL DATE: 6/16/90

ADEC Ron Mangels
EXXON Andy Tolan
NOAA Jason Talbot
FOSC: [Signature] DATE: 7/5/90
G.A. Reiter G.A. Reiter

REGION: KODIAK

SEGMENT: ST/K10-02-AS-008

SUBDIVISIONS: B (2 OF 2)

SHORELINE EVALUATION

SEGMENT ST/ K10-02-AS-008 SUBDIVISION B (2 OF 2) DATE 6/3/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

QQ National Wildlife Refuge

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 0 m: Medium 406 m: Narrow 375 m: V.Light 1621m: No Oil 6496 m
Subsurface Oil Observed: Yes _____ No X Maximum Depth _____

RECOMMENDATIONS:

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

COMMENTS: Recommend treatment includes 1) manual removal of tarmats and
2) manual pick up of mousse and bags of mousse remaining from prior
cleanup as shown on attached sketch map.

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____

EXXON _____

NOAA _____

SCG _____

FOSC: _____ DATE: _____

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 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, 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 prior to treatment for consultation and/or permit application.
 AGENCY CONTACT PERSON: ADF&G Ken Middleton 267-2299
- 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, 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 Kotai Bay Hatchery release
 Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
- 1H Remote release site
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, 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 for confirmation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1I Gill net area
 1J Purse seine area
 Mainland, West side Kodiak, Shuyak & Moser/Olga 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
 Contact ADF&G for confirmation - dates and locations may vary. 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 Larry Nicholson 424-4791
- 2M Herring spawning (4/15 to 6/30)
 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 Larry Nicholson 486-4791
- Harbor seal and sea lion pupping (5/10 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 (8/1 to 9/15)
 6V Anchorages (8/1 to 9/15)
 6W Forest Service cabins (8/1 to 9/15)
 6X Lodge (8/1 to 9/15)
 6Y Special use destination
- 7Z Subistence area: Salmon harvesting (8/1 to 9/30)
 7H Finfish harvesting
 Deer harvesting (8/1 to 1/7)
 Invertebrate harvesting
 Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
 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 / ST K10-02

SUBDIVISION: AS-008 B

DATE 6-3-90

USCG

NAME Michael B. Milliner

SIGNATURE Michael B. Milliner DCI

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

MANUAL TREATMENT IS NEEDED IN THIS SEGMENT. 3 LARGE MATS WERE OBSERVED SCATTERED THROUGHOUT, WITH NUMEROUS SMALL PATCHES & SPASHERS SPREAD SPORADICALLY WITHIN. I WOULD RECOMMEND CONCENTRATING ON THE LARGE MATS ONLY, AS THEY ARE THE ONLY AREAS OF SUBSTANCE.

ADEC

NAME Francine J. Bennis

SIGNATURE Francine J. Bennis

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

MANUAL PICK-UP OF MOUSSE, MOUSSE PATCHES, & MOUSSE SATURATED FINE

SEDIMENTS. STRONGLY RECOMMENDED: USE SHOVELS & TROWELS -

area adjacent to AS-8A - clean recoverable mousse in patchy distribution ~70m to
mousse mat to the north, at top of westernmost bay of this segment - 4x20m
next area to the east of this 3m x 100m area of MS among sediments - marked (6) on SSAT map
SE of this: check small, sandy pocket beaches for mousse patches

Pick-up oiled gravel bag located near MS mat, 4m x 35m long, marked (11) on SSAT map

MS mat 5m x 1m marked (N) on SSAT map

Pick-up oiled gravel bag. location marked on SSAT map *

MS mat 2m x 10m marked (4) on SSAT map

LAND MANAGER

NAME OTTO FLORSCHUITZ

SIGNATURE Otto Florshuitz

FWS

CREW SHOULD ALSO WORK
SE sandy beach to remove
MS patches in UITE

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

Agree with above ADEC comments as mousse occurs in several concentrated areas throughout much of segment - see attachment #2

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.

SHORELINE OILING SUMMARY

REVISION NO. 02/22/90

OG J. Springer USCG B. Milliner SEGMENT STI K11-02/AS-8
 BIO H. Davis LAND REP O. Florschutz SUBDIVISION B (2 of 2)
 EXXON — ADEC F. Bennis TIME 15:25 to 20:10
 TEAM NO.: 20 TIDE LEVEL: +6 to +6 DATE 06/03/90
 EST. SUBDIVISION LENGTH: 10743 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☒ Helo WORKING DIRECTION: NW to SE
 SURFACE SEDIMENTS: R 15 % B 15 % C 15 % P 10 % G 5 % S 30 % M 10 % V — %
 SLOPE: Lang 100 % Hang — % Vert — % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 140 m N 103 m VL 1795 m NO 8705 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	C	S	P	S	SL BL	OR FW	OL GY	SL DBL	TL LBR	SU	U	M	U
ASPHALT PAVEMENT	X					X					X	X	
POOLED													
COVER													
COAT		+	X	✓		X	✓				X	✓	
STAIN													
MOUSSE	X	✓	+	* ‡		X +	✓ *		‡		*	X ‡	+
PATTIES													
TARBALLS													
FILM													
NO OIL													X

PAVEMENT: H F (S) 25 sq. m by 4 cmPATTIES / TARBALLS 500 BAGS

NEAR SHORE SHEEN? NO BR RW (SL) TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris	X		

DEBRIS COLLECTED
☐ YES ☒ NOTYPE —#BAGS —

Photographs:

Roll No. ST-20-14Frames 6-13

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	SG BR	DL RW	GY SL	DR TL	LR	SU	U	M			L		
1	35					X	-		X							X							GS/GS
2	7					X	-		X							X							C/PM
3	30					X	-		X						X								S/SM
4	30					X	-		X							X							S/S
							-																
							-																

COMMENTS

OG J. Springer

SEGMENT ST 10-2/AS-8

SUBDIVISION B

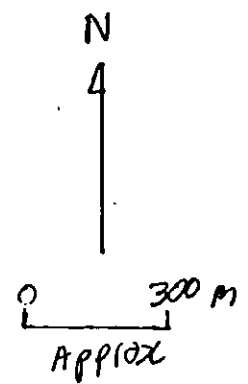
DATE 06/03/90

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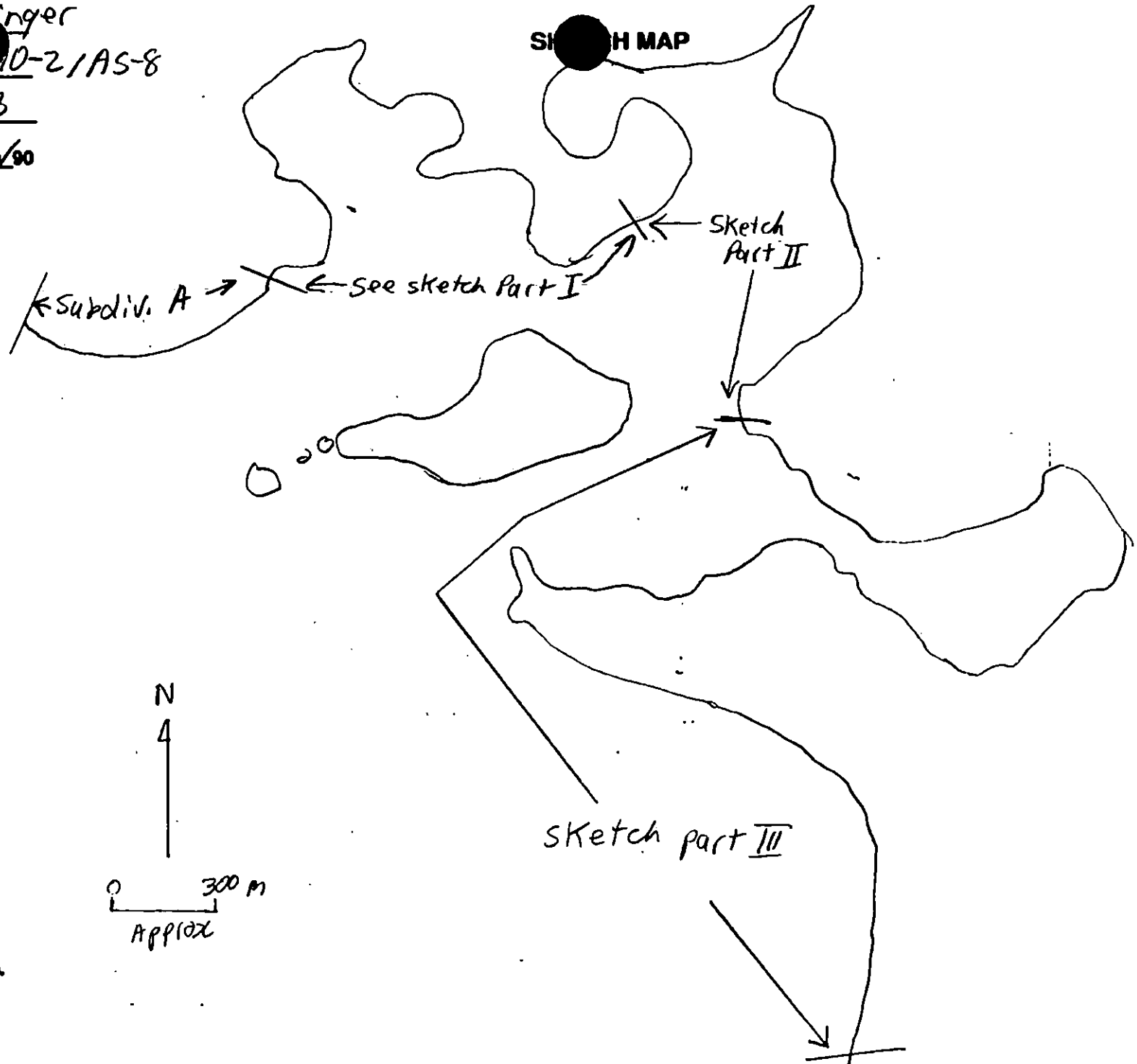
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- ☐ Approx. Scale
- ☐ Seg/Sub Entry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HML/LWL
- ☐ SSL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ Pit Location(s)
- ☐ Photo Location(s)

LEGEND

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



SKETCH MAP



Oil Character Length (m): AP 15 PO CV CT 279 ST 21 MS 1723 PT TB FL NO 8705

OG J. Sanger

SEGMENT ST 110-2/AS-8

SUBDIVISION B

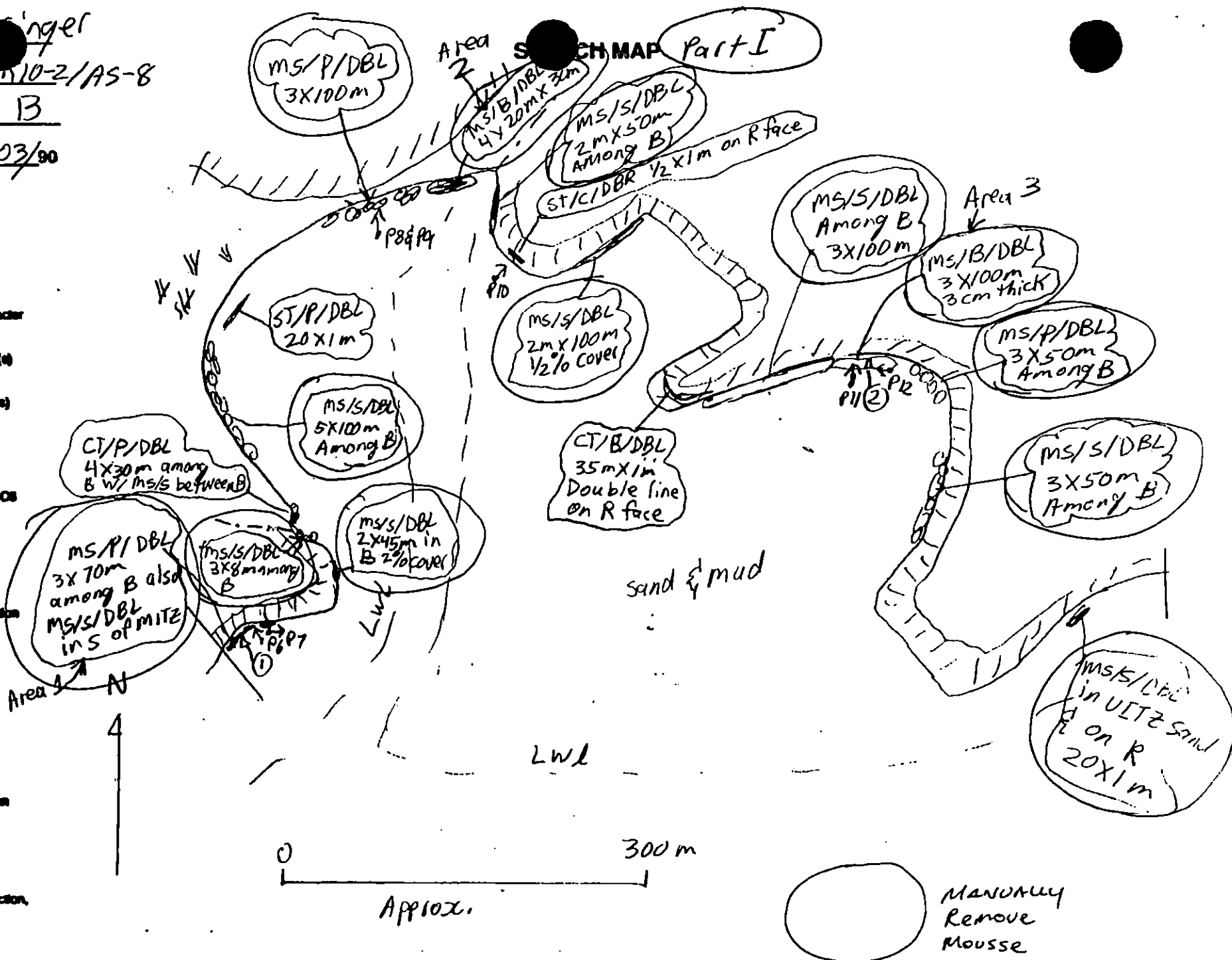
DATE 06/03/90

CHECKLIST

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

LEGEND

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



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

REVISION: 2/24/90

DATE 06 / 03 / 90

CHECKLIST

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

LEGEND

1 Δ
Pt - No Subsurface Oil

2 ▲
Pl - Subsurface Oil

CT/C
Continued Distribution

CT/8
Broken Distribution

[CT/P]

Patchy Distribution

[CT/S]
Selected Distribution

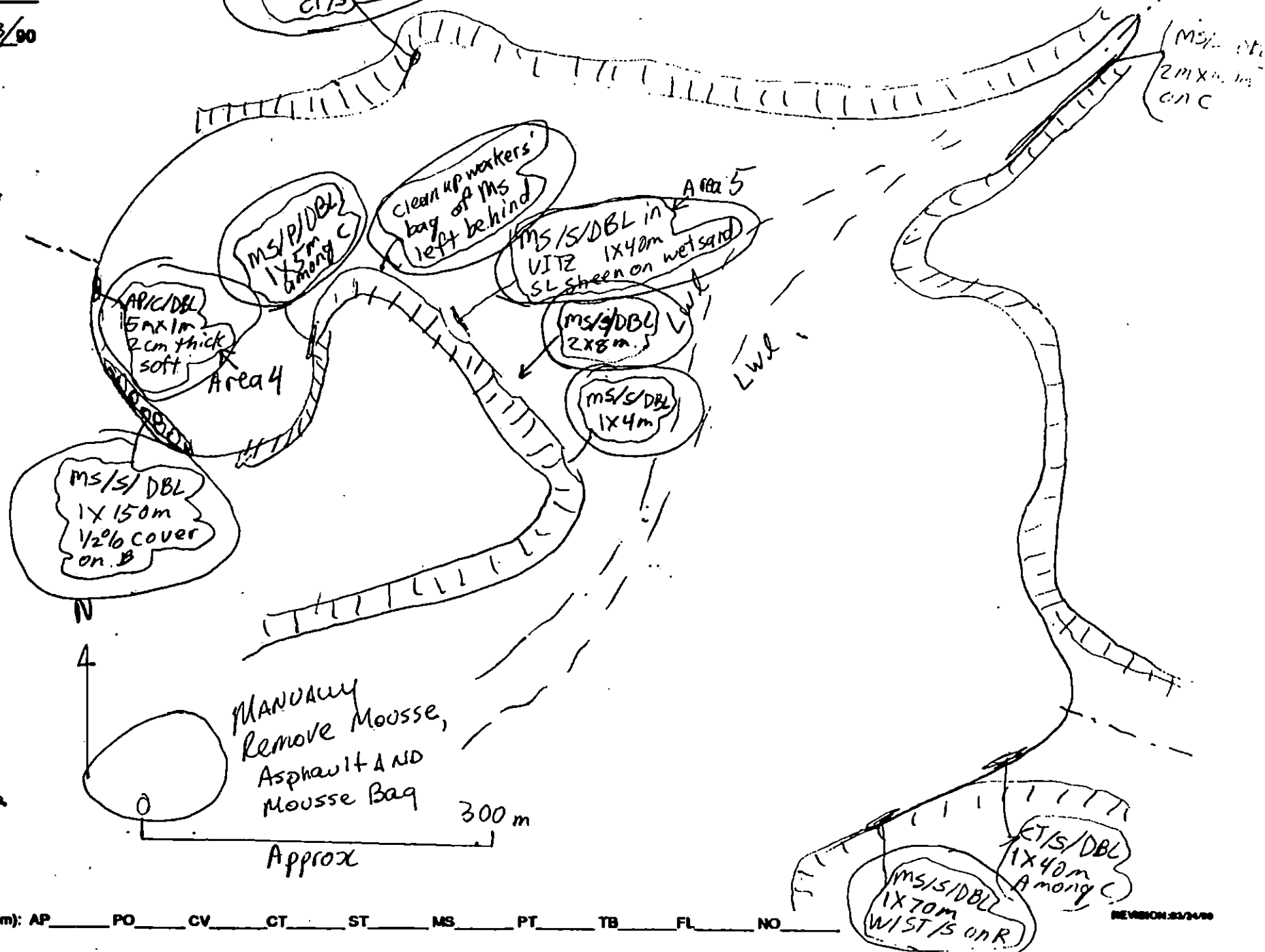
Ull
Old Vegetation

1 
Photo location, direction,
and number

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

NEW VERSION: 03/24/2004

SEARCHED Part II



OG J. S. inger

SEGMENT ST/ K 10-2/AS-8

SUBDIVISION B

DATE 06/03/00

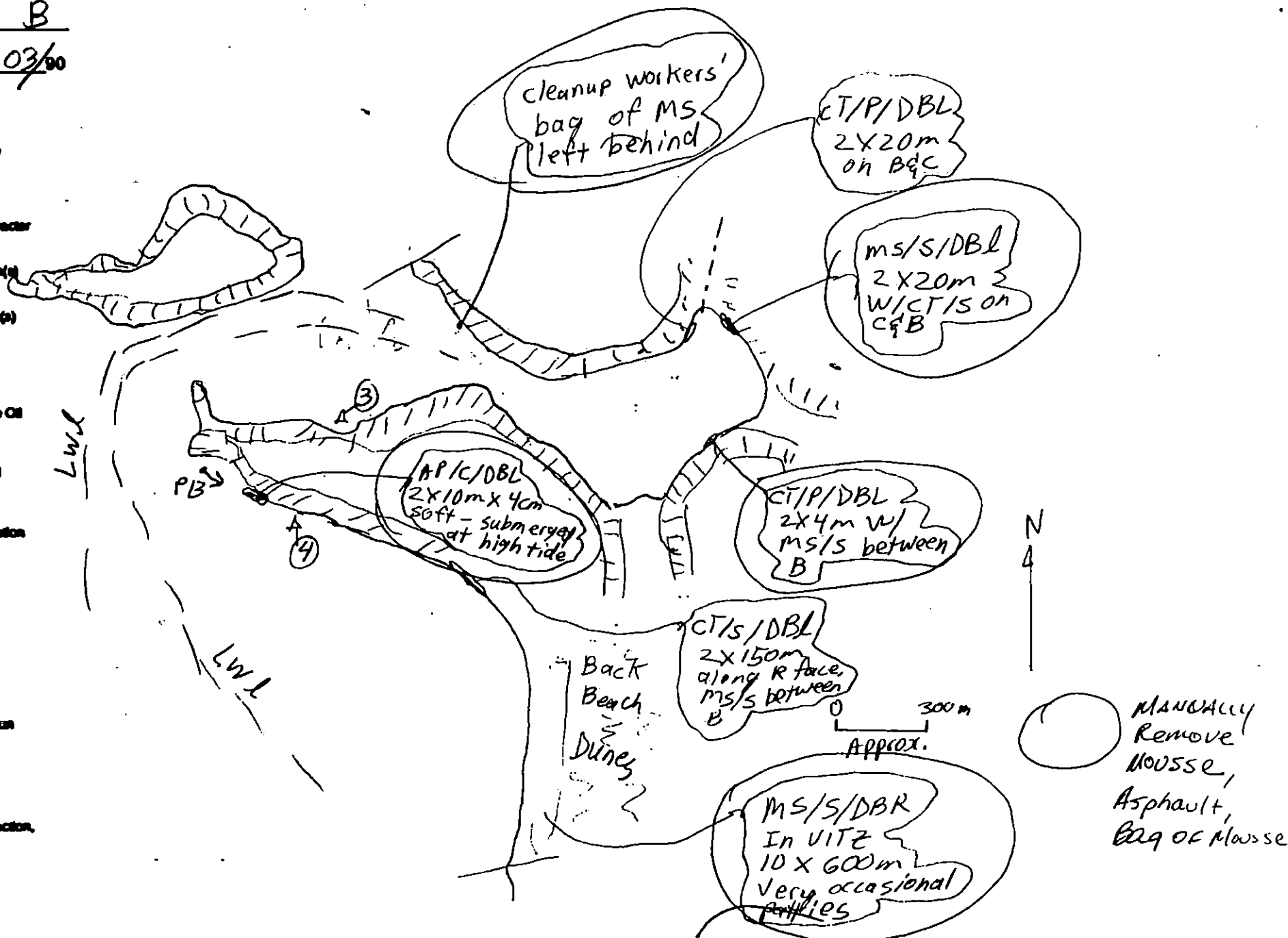
CHECKLIST

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

LEGEND

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

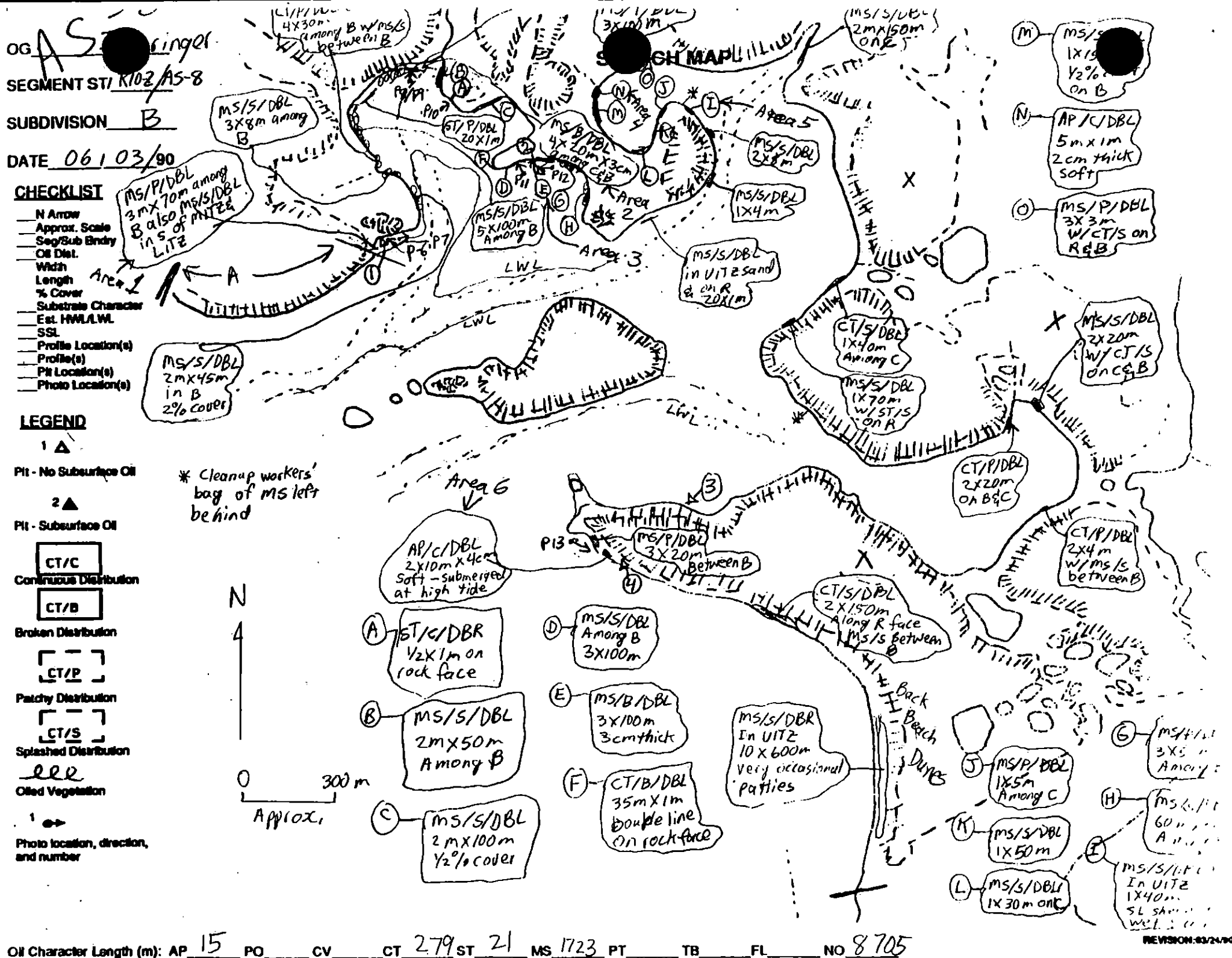
SEARCH MAP Part III



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

REVISION 23/2/00

REVISION-03/24/79



SHORELINE ECOLOGICAL SUMMARY

REVISION: 03-22-90

Segment ST/K10-2 Subdivision AS-008 B Date (mo / day / yr) 6-3-10Time (24 hr) 15:30 Biologist N. Davis

- (A) Substrate type and % of segments:
 (1) Bedrock 15 (2) Boulder 15 (3) Cobble 15 (4) Pebble 10 (5) Sand 30 (6) Silt 15
- (B) Overall % cover of biota (% of segment): Dense 5% Moderate 10% Low 85% (
- (C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)

Photographs:
Roll No. ST-20-14Frames 6-13

BARNACLES Dense - Rare. Cypriids + spath Dense.

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
5, 6

MYTILUS Rare. Patchy in LFZ + ATZ.

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
1, 5, 6

STROPODS Littorina - Dense-Sparse, Puncture sparse, Nucella - Rare

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 Rare.

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

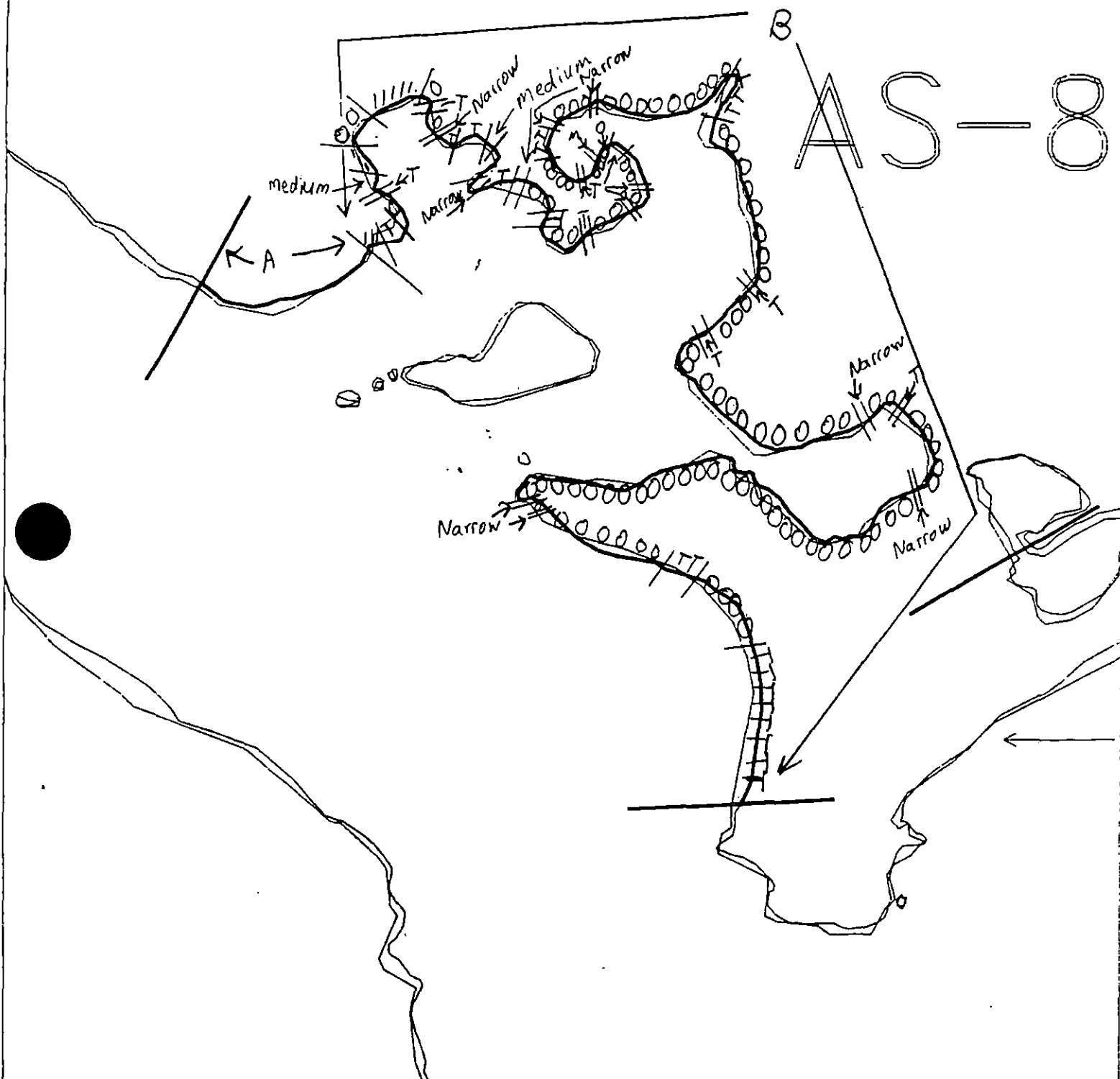
NOT PRESENT
1, 5, 6

Wildlife Observations/ General Comments: This segment is a convoluted shoreline surrounding mud and sand flats. The upper intertidal has grassy bluffs, rock cliffs or dunes below which are gravel/pebble beaches or narrow boulder fields or sand beaches. The density of animals varies considerably even within a single substrate type. The most common inhabitants are 8 Shore - Balanus, Chthamalus, Alpheidae, Littorina (saxatilis), Amphipods, Mytilus, Fucus, Scytosiphon, Eridania, and Ulva. Mud/Sand Flat - Ulva, Enteromorpha, Zostera, Porphyra, Eridania?, Scytosiphon, Diatoms, Mytilus.

Ecological Considerations: None listed, but the islands in the center of the bay have Gull colonies nesting nearby areas have Salmon runs. mud/flats/estuary areas are also sensitive to disturbance.

Clinocardium, Saxidomus, Protothaca, Natica, Mya, Macoma, Tellina, Phoronis and Urosalpinx. Bird: Thrush, Sparrow?, Bank Swallow, Surf-bird, Least sandpiper, semi-palmated plover, Least? yellow legs, Glaucous Gull, Glaucous-winged Gull, Raven and one adult eagle. Mammals: 2 Bears seen, Bear tracks, Fox track. Caribou tracks in intertidal, 10-12 Caribou in uplands.

AS-8



XXXX Wide

K1002-AS-8

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

Approx. Segment Length: 11306

0 300 600 900

METERS

Map Key: AKP-AS-8

Name: J. Springer

Date: 6/3/90

Data Entered:

SHORELINE EVALUATION

SEGMENT ST/ K10-02-AS-008 SUBDIVISION B (2 OF 2) DATE 6/3/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

400 National Wildlife Refuge

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE:

DATE: June 19, 1990

OILING CATEGORIZATION:

Wide_0_m: Medium_406_m: Narrow_375_m: V.Light_1621m: No Oil_6496_m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

☐	No Treatment Recommended
☒	Treatment Recommended
☒	Manual Pickup
☒	Bioremediation
☒	Tarmat Removal

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

COMMENTS: Recommend treatment includes 1) manual removal of tarmats and 2) manual pick up of mousse and bags of mousse remaining from prior cleanup as shown on attached sketch map.

TAG COMMENTS: BIORAMIFICATION (CUSTOMER) AS REQUIRED FOLLOWING
TARGET REMOVAL:

TAG APPROVAL DATE: 6/16/90

ADEC Ray Morris, R-Thompson

EXXON Amoy TGA Paul

NOAA Joseph C Talbot -

FOSCA

DATE:

2/5/80

OG J. Spenger

SEGMENT ST/ K10-2/AS-8

SUBDIVISION B

DATE 06/03/90

SKETCH MAP

CHECKLIST

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

LEGEND

1 ▲

Pit - No Subsurface Oil

2 ▲

Pit - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

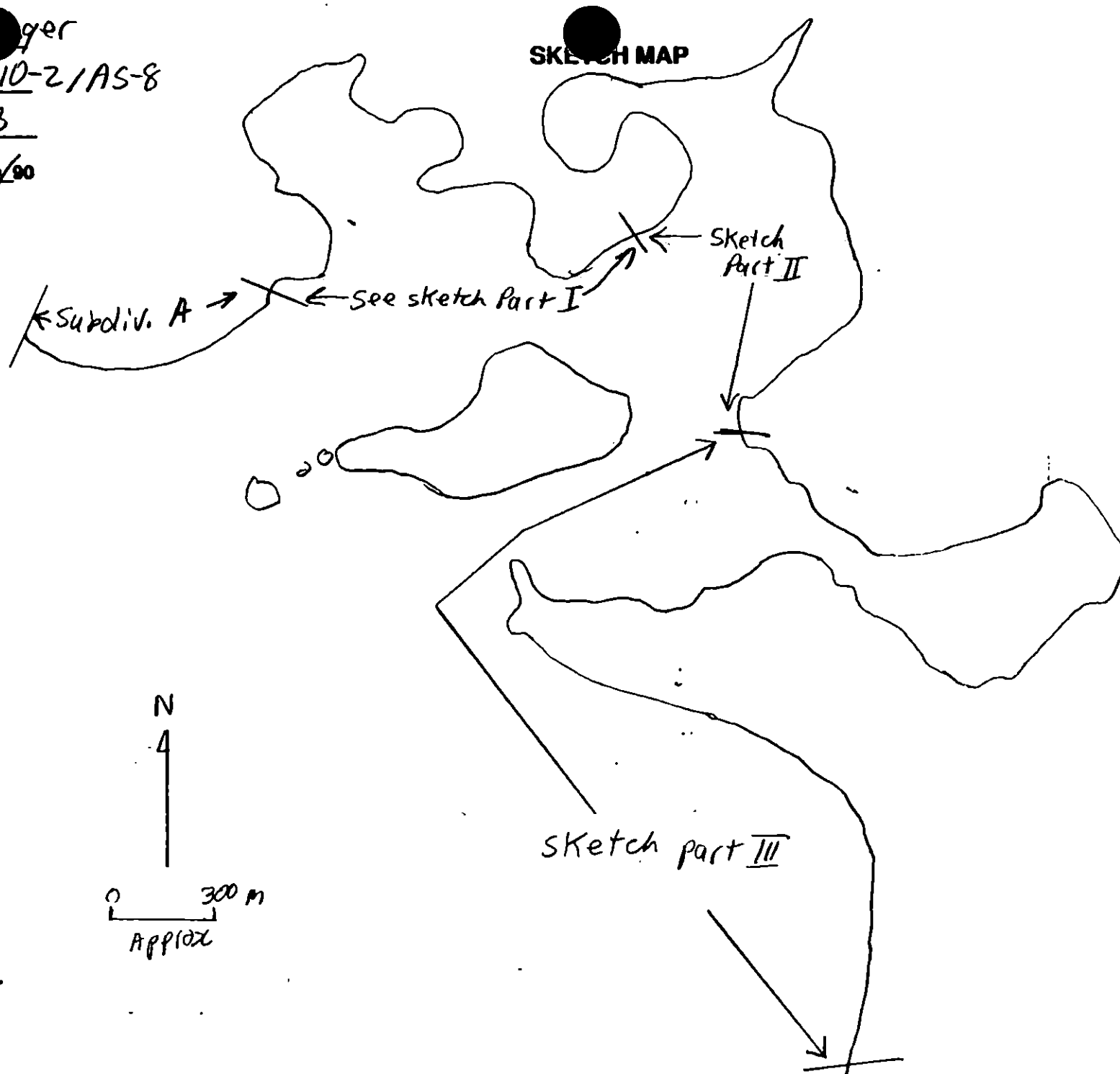
Splashed Distribution

leee

Old Vegetation

1 ➡

Photo location, direction, and number



Oil Character Length (m): AP 15 PO CV CT 279 ST 21 MS 1723 PT TB FL NO 8705

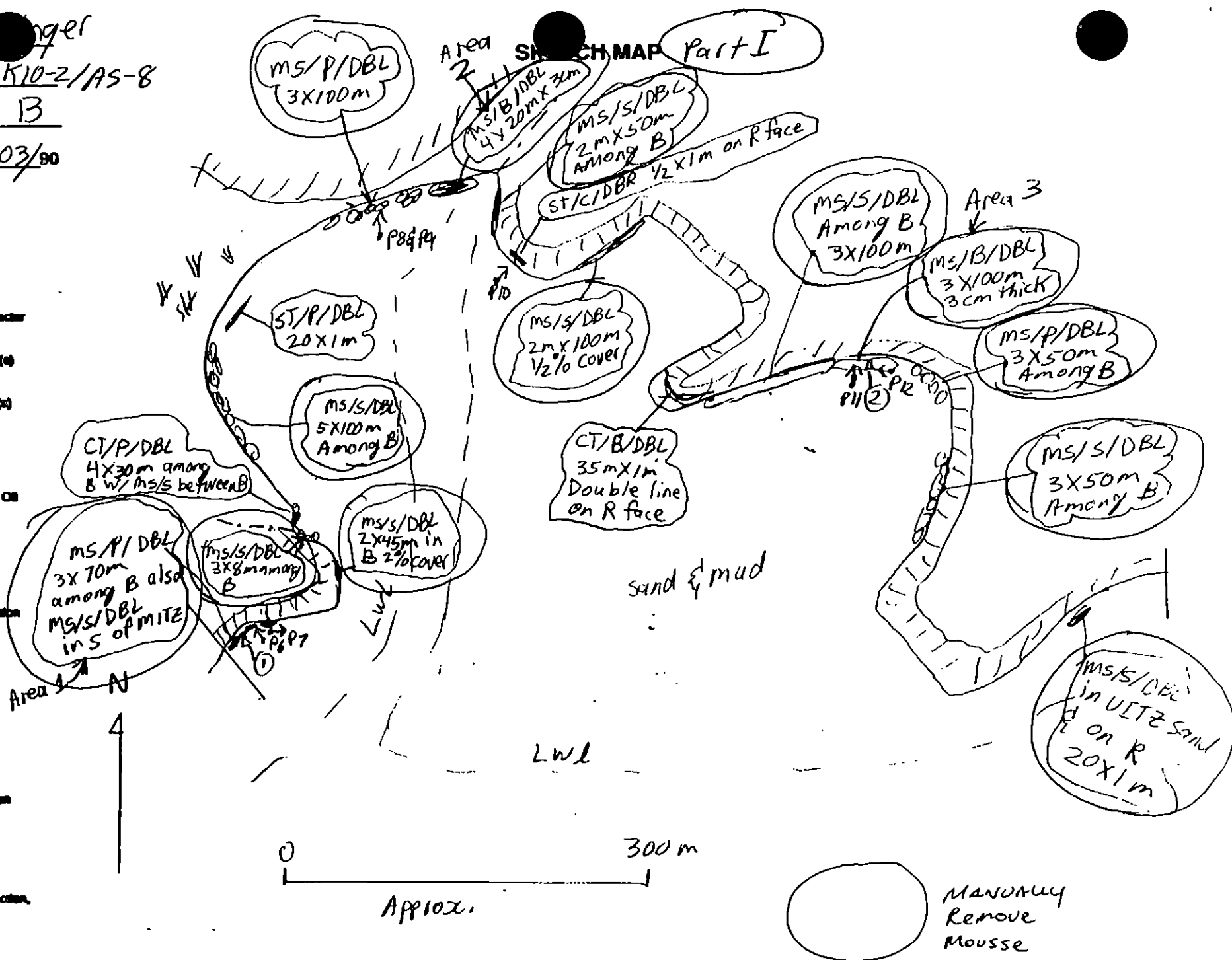
OG J. S.onger
 SEGMENT STI K10-2/AS-8
 SUBDIVISION B
 DATE 06/03/90

CHECKLIST

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

LEGEND

- 1 Δ
 Pit - No Subsurface Oil
- 2 Δ
 Pit - Subsurface Oil
- CT/C
 Continuous Distribution
- CT/B
 Broken Distribution
- CT/P
 Patchy Distribution
- CT/S
 Splotted Distribution
- ~~~~~
 Old Vegetation
- 1 $\Rightarrow$
 Photo location, direction, and number



OG J. S. ger

SEGMENT ST/ K10-2/AS-8

SUBDIVISION B

DATE 06 103/90

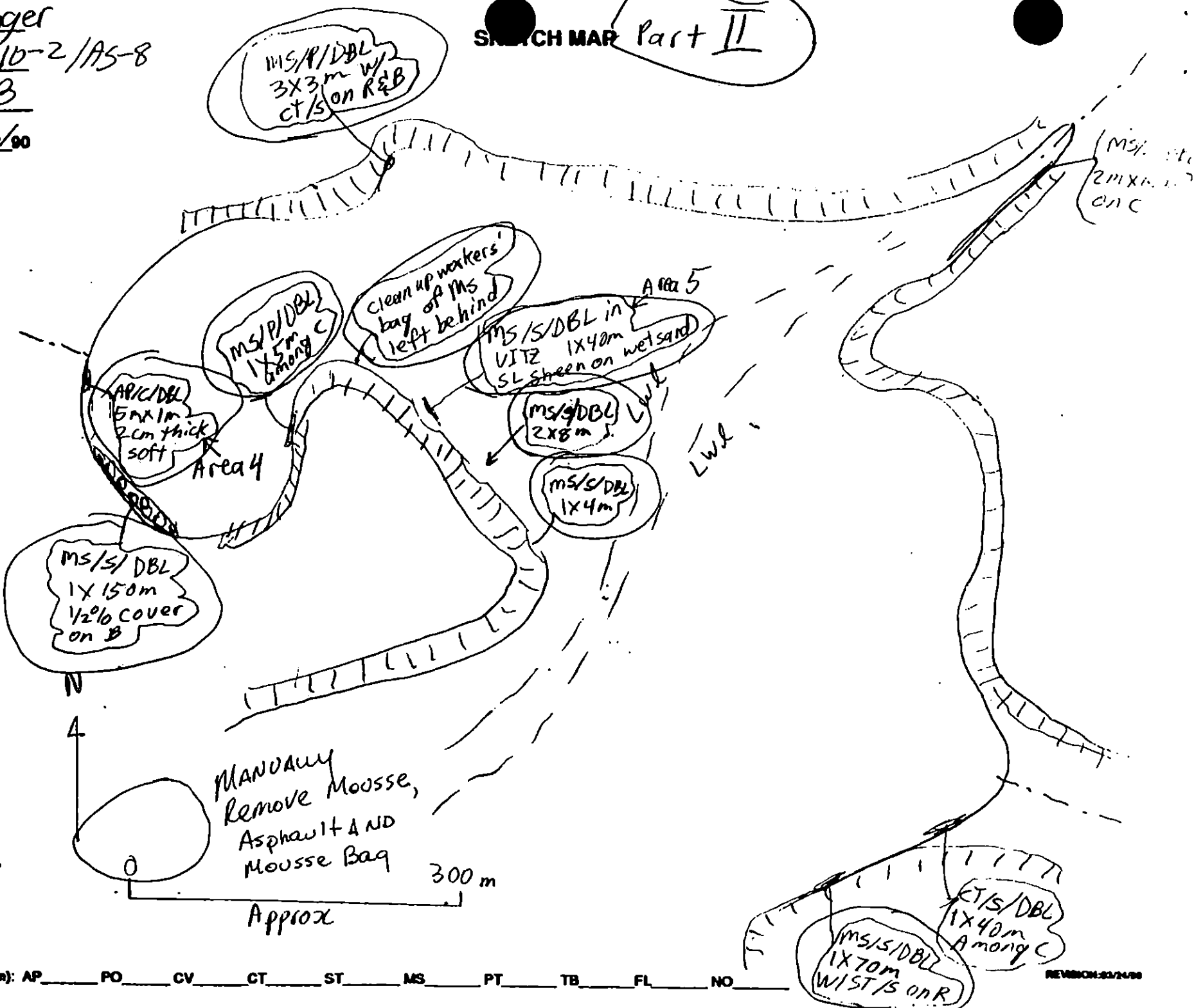
SWITCH MAP Part II

CHECKLIST

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

LEGEND

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



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

REVISION 20/24/90

OG J. S. [redacted]nger

SEGMENT ST/ K/10-2/AS-8

SUBDIVISION B

DATE 06/03/90

CHECKLIST

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

LEGEND

1
 Pit - No Subsurface Oil

2
 Pit - Subsurface Oil

CT/C
 Continuous Distribution

CT/B
 Broken Distribution

CT/P
 Patchy Distribution

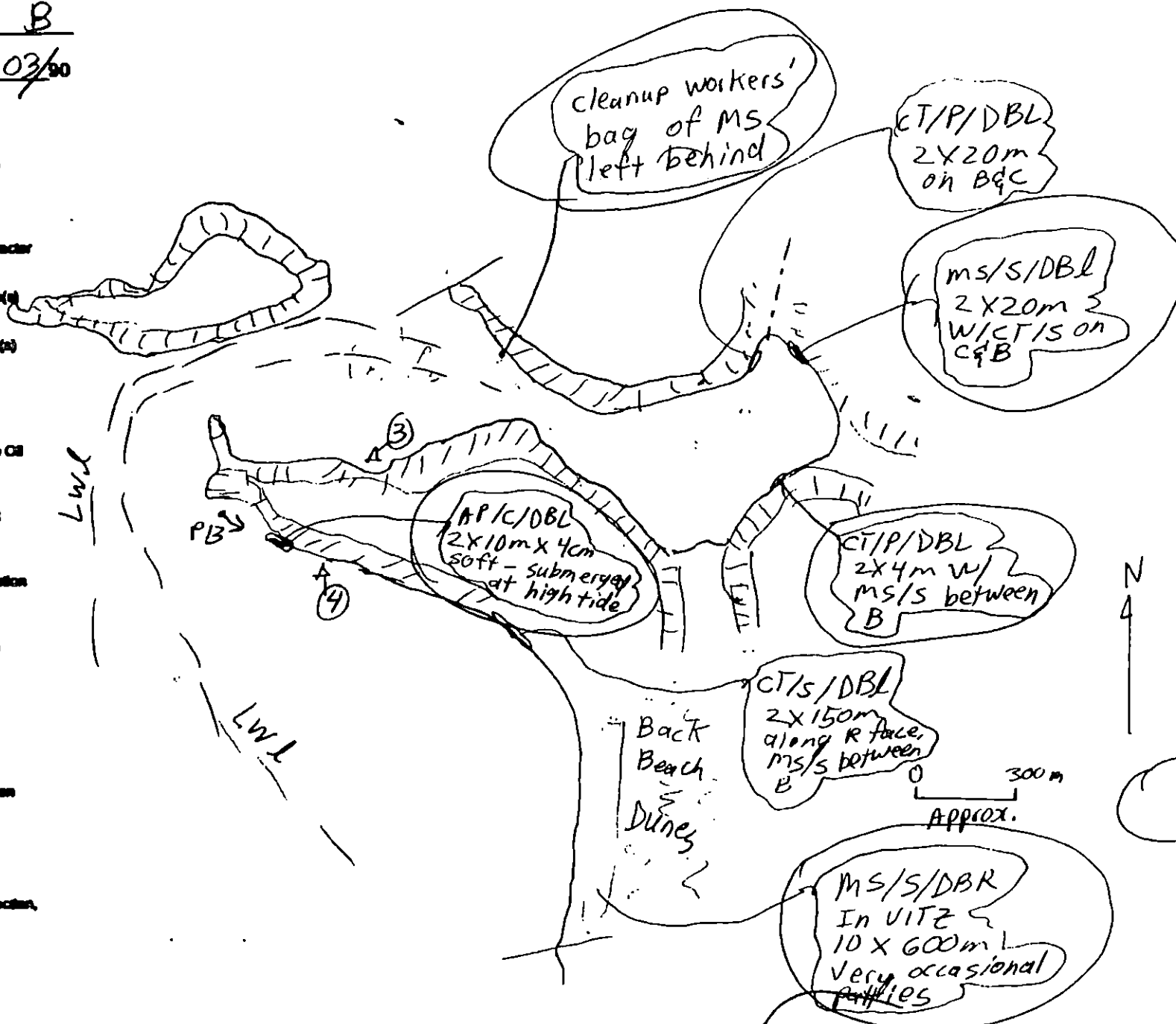
CT/S
 Splashed Distribution

Oiled Vegetation

1
 Photo location, direction, and number

SKETCH MAP

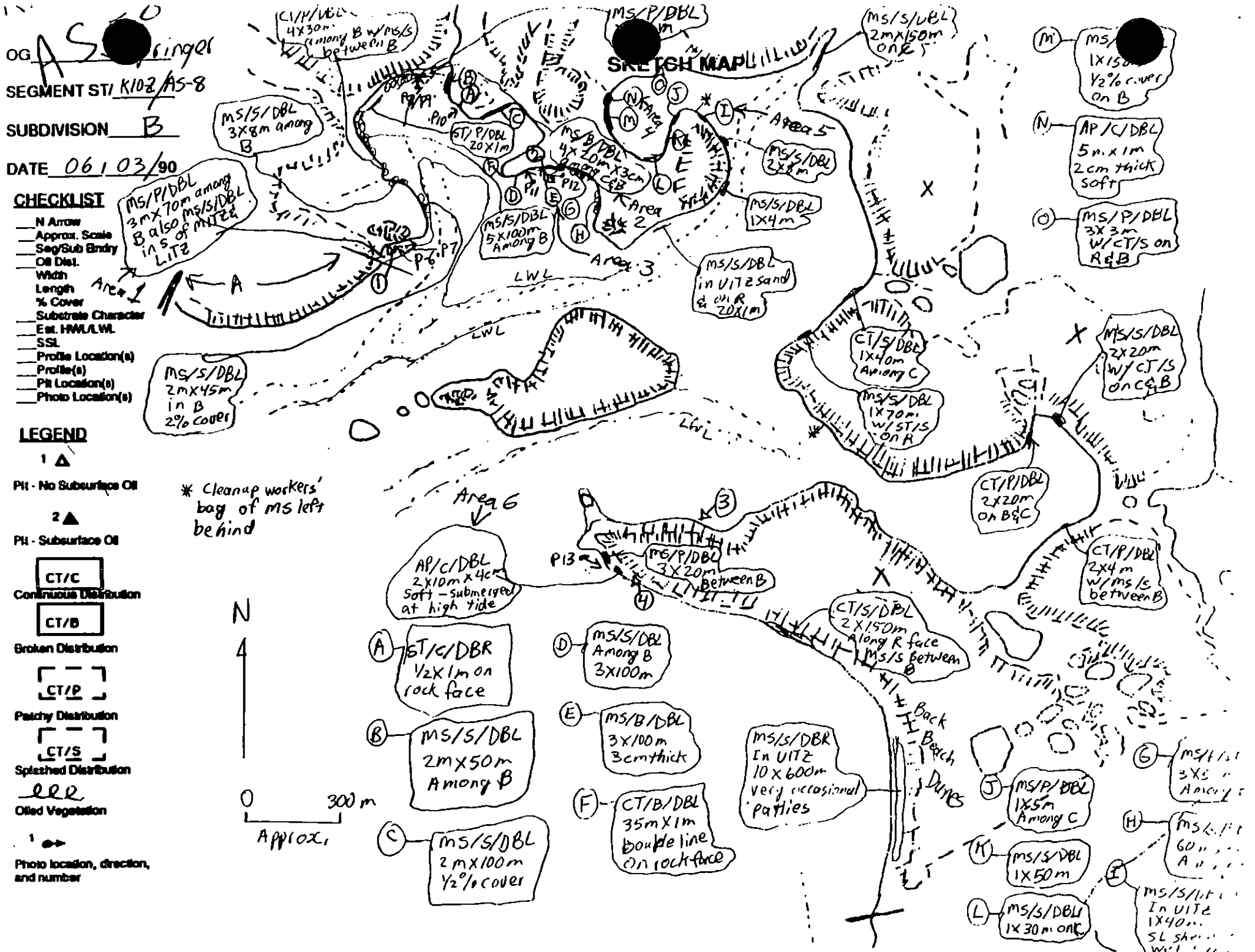
Part III



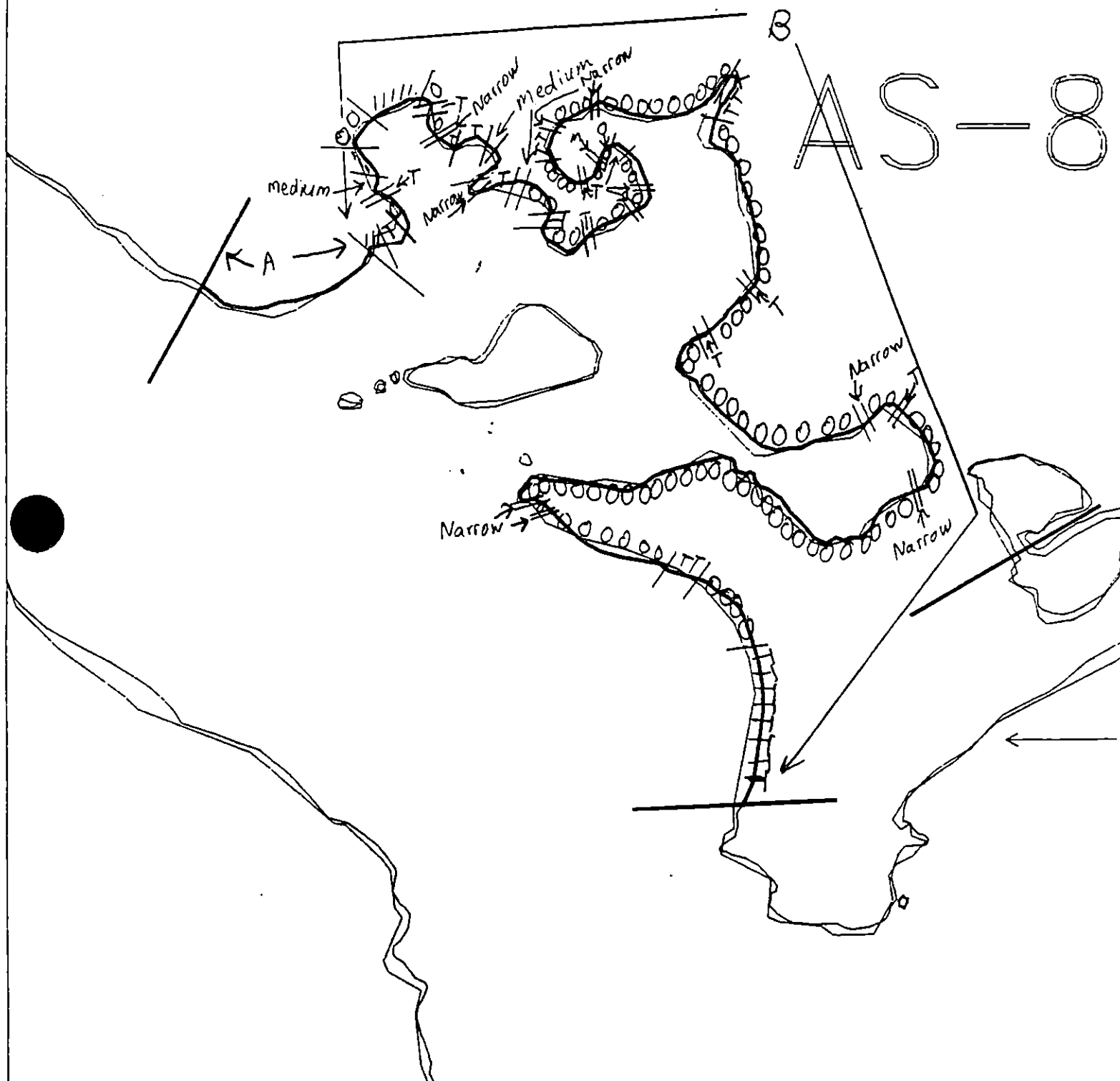
MANUALLY Remove MOUSSE, Asphalt, Bag of Mousse

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

REVISION 03/24/90



AS-8



XXX Wide /// Medium --- Narrow TTTT Very Light 0000 No Oil	K1002-AS-8 Approx. Segment Length: 10417m	11306 0 300 600 900 METERS	Map Key: AKP-AS-8 Name: <u>J. Springer</u> Date: <u>6/3/90</u> Data Entered:
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ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K10-02-AS-008 SUBDIVISION B (2 of 2)

WORK WINDOW	
Manual Pickup Tarmat Removal	OPEN
Bioremediation	OPEN*

*No Inipol - Use Customblen Only

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

5T Bald Eagle Nest NO CONSTRAINT. USFWS 4/9/90 map indicates no active nest within 400m of Subdivision B work sites.

OTHER ECOLOGICAL CONSIDERATIONS

Restrict air traffic and all disturbance to essential minimum. No personnel or boat traffic within 400m of active nests. Air approach and takeoff from and to seaward only; maintain 400m horizontal, 300m vertical distance from active nests. Avoid any unnecessary disturbance or damage to unrolled biota and substrate.

FOSC

[Signature]

Date

7/6/90

Prepared by

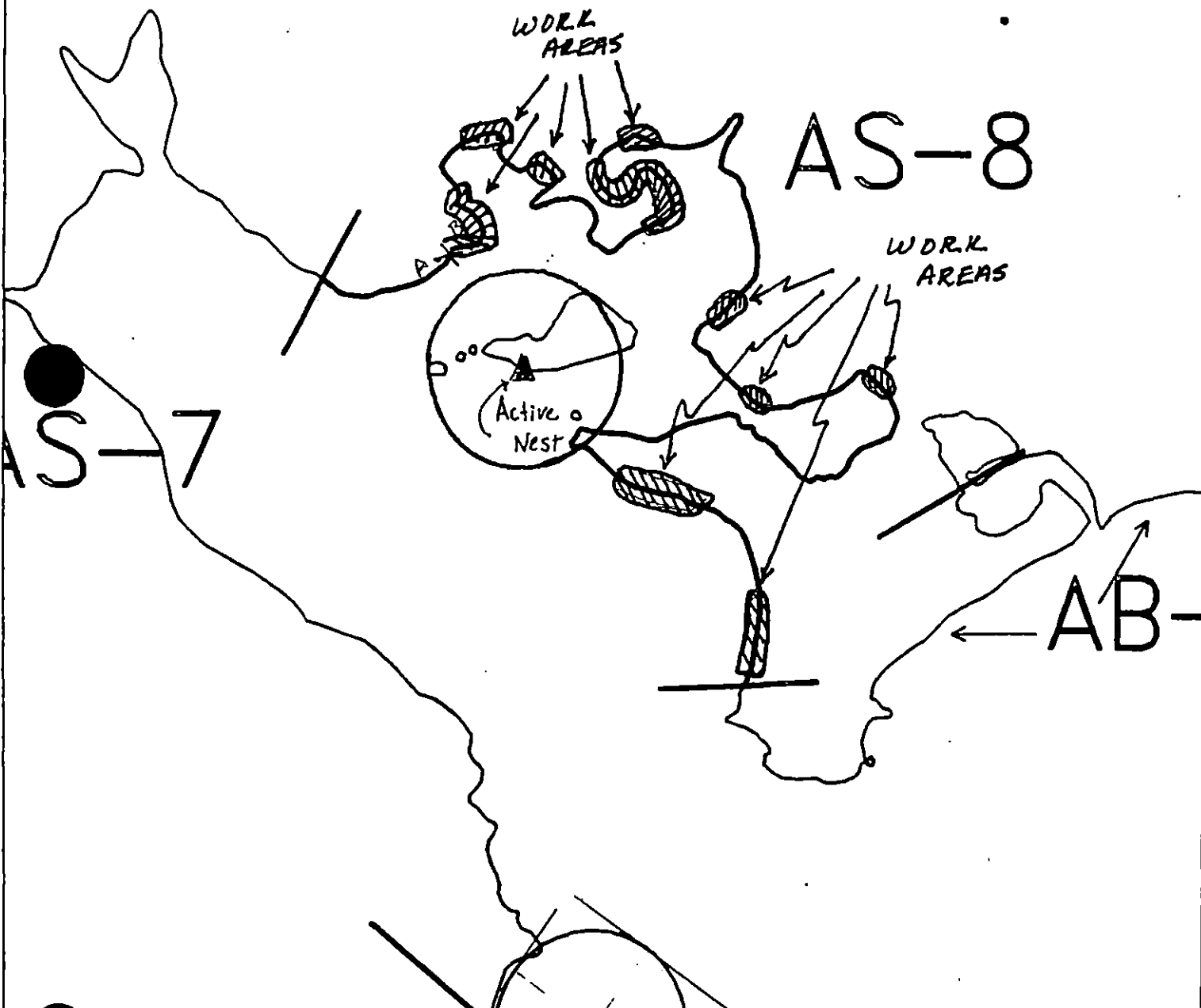
Ray R. Cantor

Date

7/6/90

K10-2

AS-8



Exxon Company, USA
Map Key: AK-AS-8



ECOLOGY MAP
SEGMENT K10-2 AS-8
SUBDIVISION B (2 of 2)
METERS

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

SHORELINE EVALUATION

SEGMENT ST/ K10-02-AS-008 SUBDIVISION B (2 OF 2) DATE 6/3/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

NO National Wildlife Refuge

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: Charles E. Hines DATE: June 19, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 406 m: Narrow 375 m: V.Light 1621m: No Oil 6496 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS: Recommend treatment includes 1) manual removal of tarmats and
2) manual pick up of mousse and bags of mousse remaining from prior
cleanup as shown on attached sketch map.

SEE CONSTRAINT ADDENDUM
DATED 7/6/90. REX C.

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

TAG APPROVAL DATE: 6/16/90

ADEC Ray Mearns

KON Ann Ten

AA Joseph C. Tuller

USCG G.A. REITER

FOSC B. Jorgensen

DATE: 7/5/90

1991 MAYSAP EVALUATION

SEGMENT: K1002AS008 **SUB:** A **REGION:** KOD **SURVEY DATE:** 5/27/91

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) OPEN

Ecological/Constraints (see page two for details) NONE

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO Signature: Timothy A. Smith

Date: 6/07/91

RECOMMENDATIONS:

INITIAL

TAG

FOSC

TREATMENT REQUIRED (Y or N)

N

N

N

Manual Pickup (Check as Req.)

Spot Washing

Bio-Customblen Only

Bio-Inipol/Customblen

Other

Other

COMMENTS:

INITIAL:

TAG:

FOSC:

"TRACE" ASPHALT (C102) FOUND DURING
SURVEY - VELD CLEANUP WORKERS REQUIRED
CONSOLIDATED DESIGNER - NO ADDITIONAL CLEANUP
WARRANTED - 116

TAG APPROVAL DATE: JUNE 7 1991

FOSC APPROVAL DATE: 6/12/91

ADEC

FOSC

EXXON

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

USCG

NOAA

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 6-MELO SEGMENT AS-8 SUBDIVISION A DATE 5/27/91

ADEC

NAME J. BARNHART, ADEC

SIGNATURE

J. Barnhart☐ NTR ☒ Treatment Recommended

Alinchak Bay. A band of oil 1-5 meters wide, 1-15% is located along the entire subsegment, 629m. SOR was noted on the surface, "mousse" under weathered surface. Sheening in tidal pools. Oil in the lower portion of the band is covered with a thin layer of silt/sand. Oil was occasionally located by observing the sheen first while the percent of oil is not high, considering the band is 629m in length, considerable oil exists in this subsegment. A trace amount was removed by VECO personnel. Recommend cleanup using single manual pickup. Cleanup can be best accomplished using a halo squad. Note: This segment should be reviewed in conjunction with AS007 and AS008 Segments on either side of AS008A, both of which need to be cleaned.

Call with ADFSG and USFWS Treatment Suggested: *John Shelton (Kwik I. Borodin)*

EXXON

NAME R. COULTER, EXXON

SIGNATURE

R. D. Coulter

☒ NTR LIGHT SOR IN AND UNDER BOULDERS REMAINS ON THIS SUBDIVISION. EASILY RECOVERABLE AREAS OF SOR WERE BROKEN UP AND/OR REMOVED. ADDITIONAL REMOVAL WOULD BE VERY TIME CONSUMING AND YIELD VERY LITTLE OILED SEDIMENTS. HIGH BEDROCK CLIFFS MAKE ACCESS IMPOSSIBLE IN MOST PLACES. THIS IS THE SUBDIVISION WHICH JEFF FARO OF USCG BROKE HIS ANKLE ON LAST YEAR DURING ASAP WHILE TRYING TO MANUEVER DOWN THE CLIFFS. ADDITIONAL TREATMENT IS NOT PRACTICAL. DENSE BIOTA - ESPECIALLY WESTWARD SHOTGUN AND BOAT MOTOR WERE FOUND DURING THIS SURVEY.

LANDMANAGER

NAME J. HARDISTER

OF USEFWS

SIGNATURE

J. P. Hardister☐ NTR ☒ Treatment recommended.

Manual pickup in this segment is recommended in conjunction with manual pickup in adjacent segments AS-07 and AS-08B. In total, the three areas contain sufficient amounts of recoverable oily material (SOR/AP) to warrant cleanup. Oil recovery by halo squad is recommended.

USCG/NOAA

NAME CWO R. SPURR/G. SHIGENAKA

SIGNATURE

R. Spurr / G. Shigenaka

☒ NTR Recoverable oil SOR/AP was picked up by VECO workers during segment survey.

THE SEGMENT SUBDIVISION WAS COMPLETELY SURVEYED. THE PHYSICAL SETTING WAS SIMILAR TO AS-7A, IN THAT THE SHORELINE WAS CHARACTERIZED BY A NARROW (~10M) BAND OF BOULDER BEACH IN THE UITS THAT ADJOINED A MULE/SAND UPPER MITE GRADING DOWN TO A WIDE TIDAL SAND FLAT. THE BOULDER BEACH BUTTED UP AGAINST ROCK CLIFFS WHICH WERE HIGHER THAN THOSE SEEN IN AS-7A. BIOTA OBSERVED IN THE UPPER MITE AND IN THE BOULDER BEACH WERE LITTORINES AND BARNACLES (ON ROCKY SUBSTRATE) AND MUSSELS (IN GRAVEL/SAND). AN OUTBOARD MOTOR (DETERMINED NOT TO HAVE BEEN ASSOCIATED WITH EXXON VALDEZ OPS), WRECKAGE OF AN INFLATABLE BOAT, AND A 12 GA. SHOTGUN WERE FOUND IN THE UITS AND SUPRA ALONG THE SUBDIVISION. A LARGE WHITE BLOCK WAS SPOTPAINTED ON THE BEDROCK FACE OF A CLIFF ABOUT ONE THIRD OF THE WAY FROM THE WESTERN END OF THE SUBDIVISION. RELATIVELY SMALL AMOUNTS OF OIL RESIDUES WERE FOUND IN DISCRETE AREAS OF THE SUBDIVISION. THE RESIDUES WERE SOR/AP AND WERE WELL-WEATHERED; SOME SHEENING IN TIDAL POOLS WAS SEEN AS WELL. THE VECO CREW RECOVERED WRECKAGE THAT WAS CONSOLIDATED ENOUGH AND ACCESSIBLE ENOUGH TO BE PICKED UP. OTHER MATERIAL WAS BROKEN UP.

MATSAR FIELD SHORELINE COMMENT SHEET

TEAM NO. 6-HELO SEGMENT AS-8 SUBDIVISION A DATE 5/27/91

ADEC

NAME J. BARNHART, ADEC 6

SIGNATURE

Jeff Barnhart☐ NTR ☒ Treatment Recommended

Alinchak Bay. A band of oil 1-5 meters wide, 1-15% is located along the entire subsegment, 629m. SOR weathered on the surface, "mousse" under weathered surface. Sheening in tidal pools. Oil in the lower portion of the band is covered with a thin layer of silt/sand. Oil was occasionally located by observing the sheen first. While the percent of oil is not high, considering the band is 629m in length, considerable oil exists in this subsegment. A trace amount was removed by VECO personnel. Recommend cleanup using single manual pickup. Cleanup can be best accomplished using a helo squad. Note: This segment should be reviewed in conjunction with AS007 and AS008 B (segments on either side of AS008A) both of which need to be cleaned.

Cleanup with ADEC 6, and USFWS TREATMENT Suggested: *John Veltm (Kodiak I. Bocoyn)*

EXXON

NAME R. COULTER, EXXON

SIGNATURE

☐ NTR

LANDMANAGER

NAME J. HARDISTEROF USFWS

SIGNATURE

John P. Hardister☐ NTR ☒ Treatment recommended.

Manual pickup in this segment is recommended in conjunction with manual pickup in adjacent segments AS-07 and AS-08B. In total, the three areas contain sufficient amounts of recoverable oily material (SOR/AP) to warrant cleanup. Oil recovery by helo squad is recommended.

USCG/NOAA

NAME CWO R. SPURR/G. SHIGENAKA

SIGNATURE

R. Spurr / G. Shigenaka

☒ NTR Recoverable oil SOR/AP was picked up by VECO workers during segment survey.

THE SEGMENT SUBDIVISION WAS COMPLETELY SURVEYED. THE PHYSICAL SETTING WAS SIMILAR TO AS-7A, IN THAT THE SHORELINE WAS CHARACTERIZED BY A NARROW (~10m) BAND OF BOULDER BEACH IN THE UITE THAT ADJOINED A GRANULE/SAND UPPER MITE GRADING DOWN TO A WIDE TIDAL SAND FLAT. THE BOULDER BEACH BUTTED UP AGAINST BEDROCK CLIFFS WHICH WERE HIGHER THAN THOSE SEEN IN AS-7A. BIOTA OBSERVED IN THE UPPER MITE AND IN THE UITE WERE LITTORINES AND BABYCLIES (ON ROCKY SUBSTRATE) AND MUSSELS (IN GRANULE/SAND). AN OUTBOARD MOTOR (DETERMINED NOT TO HAVE BEEN ASSOCIATED WITH EXXON VALDEZ OPS), WRECKAGE OF AN INFLATABLE BOAT, AND A GA. SHOTGUN WERE FOUND IN THE UITE AND SUPRA ALONG THE SUBDIVISION. A LARGE WHITE BLOCK WAS SPRAYPAINTED IN THE BEDROCK FACE OF A CLIFF ABOUT ONE THIRD OF THE WAY FROM THE WESTERN END OF THE SUBDIVISION. RELATIVELY SMALL AMOUNTS OF OIL RESIDUES WERE FOUND IN DISCRETE AREAS OF THE SUBDIVISION. THE RESIDUES WERE SOR/AP AND WERE WELL-WEATHERED; SOME SHEENING IN TIDAL POOLS WAS SEEN AS WELL. THE VECO CREW RECOVERED RESIDUE THAT WAS CONSOLIDATED ENOUGH AND ACCESSIBLE ENOUGH TO BE PICKED UP, OTHER MATERIAL WAS BROKEN UP.

SEGMENT K10-02-AS-08

LANDMANAGER J. HAROISTER for USFWS

SUBDIVISION 19

USCG/NOAA CWO SPURL/G. SHIGENAKA

DATE 27 / MAY / 91

HE 8:10 to 8:35

TIDE LEVEL -1.5 ft. to -1.5 ft.

ENERGY LEVEL: ☐ H ☐ M ☒ L

SURVEYED FROM: ☒ FOOT ☐ BOAT ☐ HELO

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

TOTAL LENGTH SHORELINE SURVEYED: 629 m

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

EST. OIL CATEGORY LENGTH: W m M m N m VL 629 m NO m US m

[illegible]

DISTRIBUTION: C = 91-100%; B = 61-90%; P = 11-50%; S = 1-10%; T = <1%

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

PHOTO ROLL # MAYSAP-

6 - 23

FRAMES 8-10

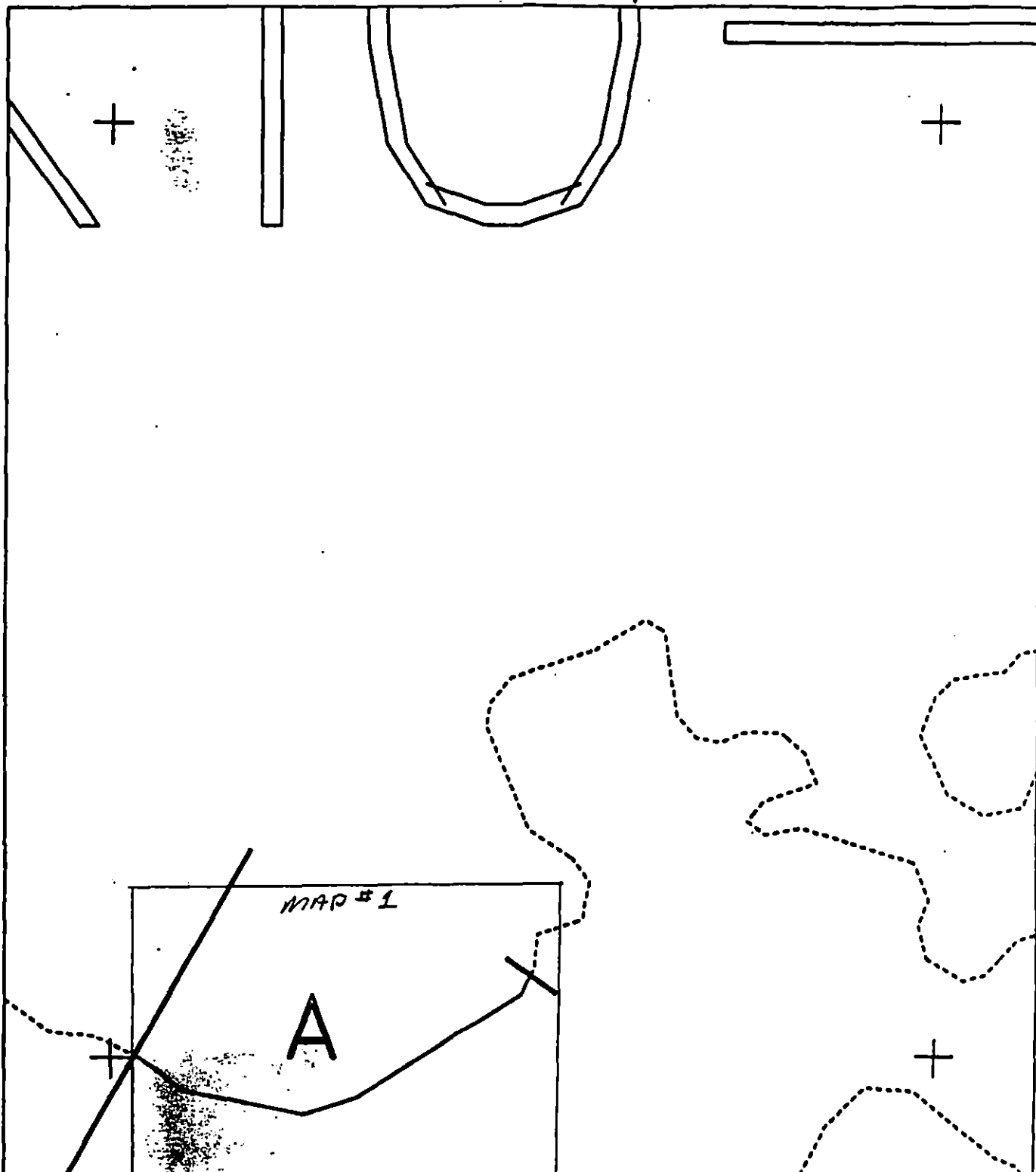
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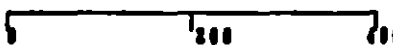
SHEEN COLOR: B = BROWN; R = RAINBOW; S = SILVER; N = NONE

OG COMMENTS: THIS SEGMENT IS LOCATED ALONG THE NORTHERN INNER SHORELINE OF THE NORTHEAST ALINCHALK EMBAYMENT; THIS SHORELINE MARKS THE BEGINNING OF THE CRENULATE BAYS AND LIKE THE PREVIOUS SEGMENT IS BACKED BY CLIFFS AND FRONTED BY TIDAL FLATS. THE OILING OF THIS SHORELINE CONSISTED OF SON/AP OCCURRING IN SPORADIC AREAS BETWEEN THE BOULDERS AND COBBLES. WHILE THE OILING WAS CONSISTENT ALONG THE ENTIRE SEGMENT THE 2-3m WIDE BAND CONTAINED < 1% COVERAGE.

REVIEWED: MC 5/31/91

revised 5.31 94



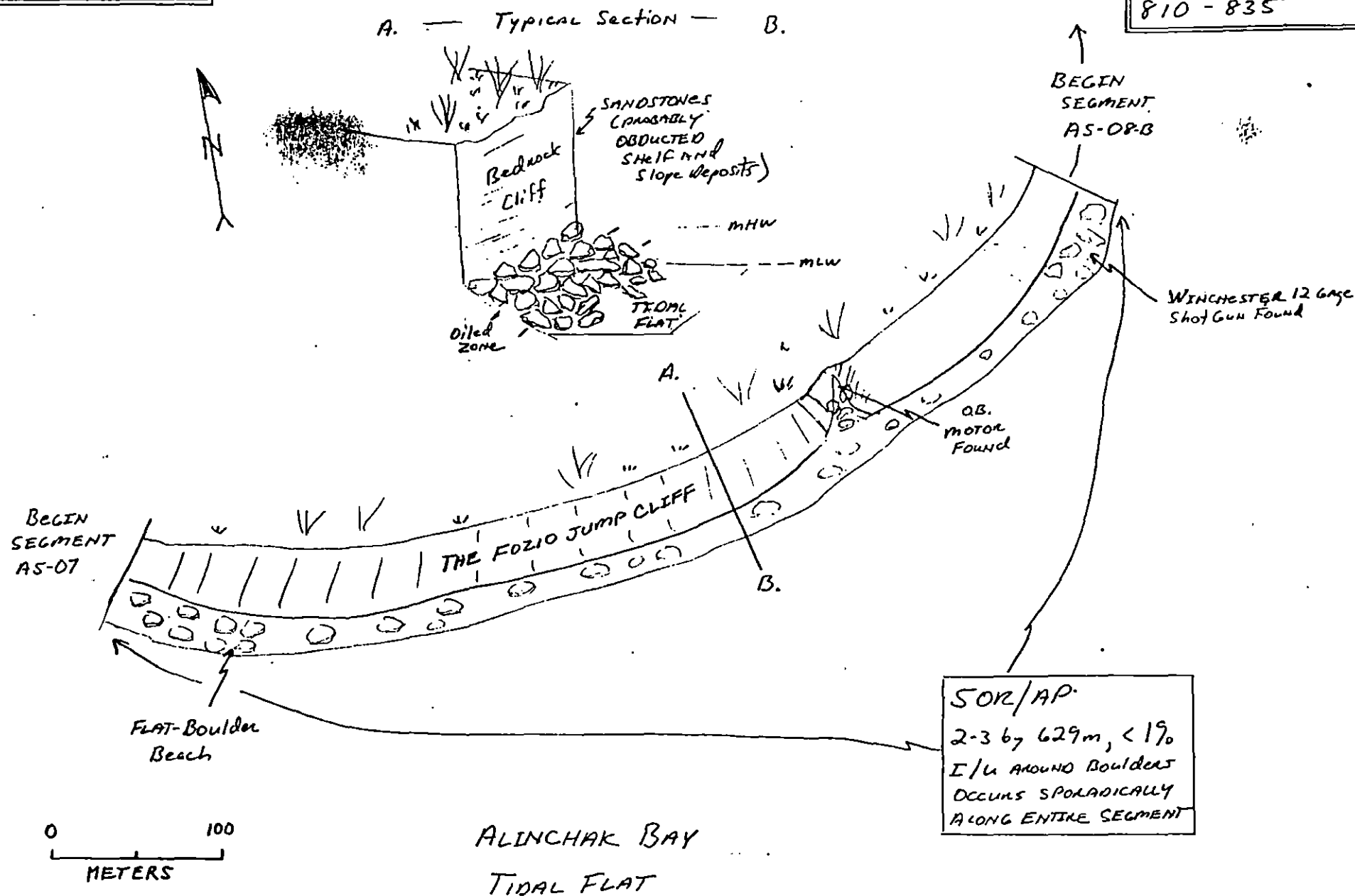
 	K1002 AS008 A	Subdivision Field Map
	METERS	Map Key: 60AK1002AS008A
		Name: <u>D. FITZGERALD</u>
	AK State Plane Zone 5	Date: <u>27 May 1991</u>

reviewed 9y 5.31

W W HUBBERRY
 w w w GRASSY
 → PHOTO SITES

ALASKA PENINSULA

Sketch MAP (06)
 K10-02-AS-08-A
 D. MARTIN FERGALD
 27 MAY 1991
 810-835



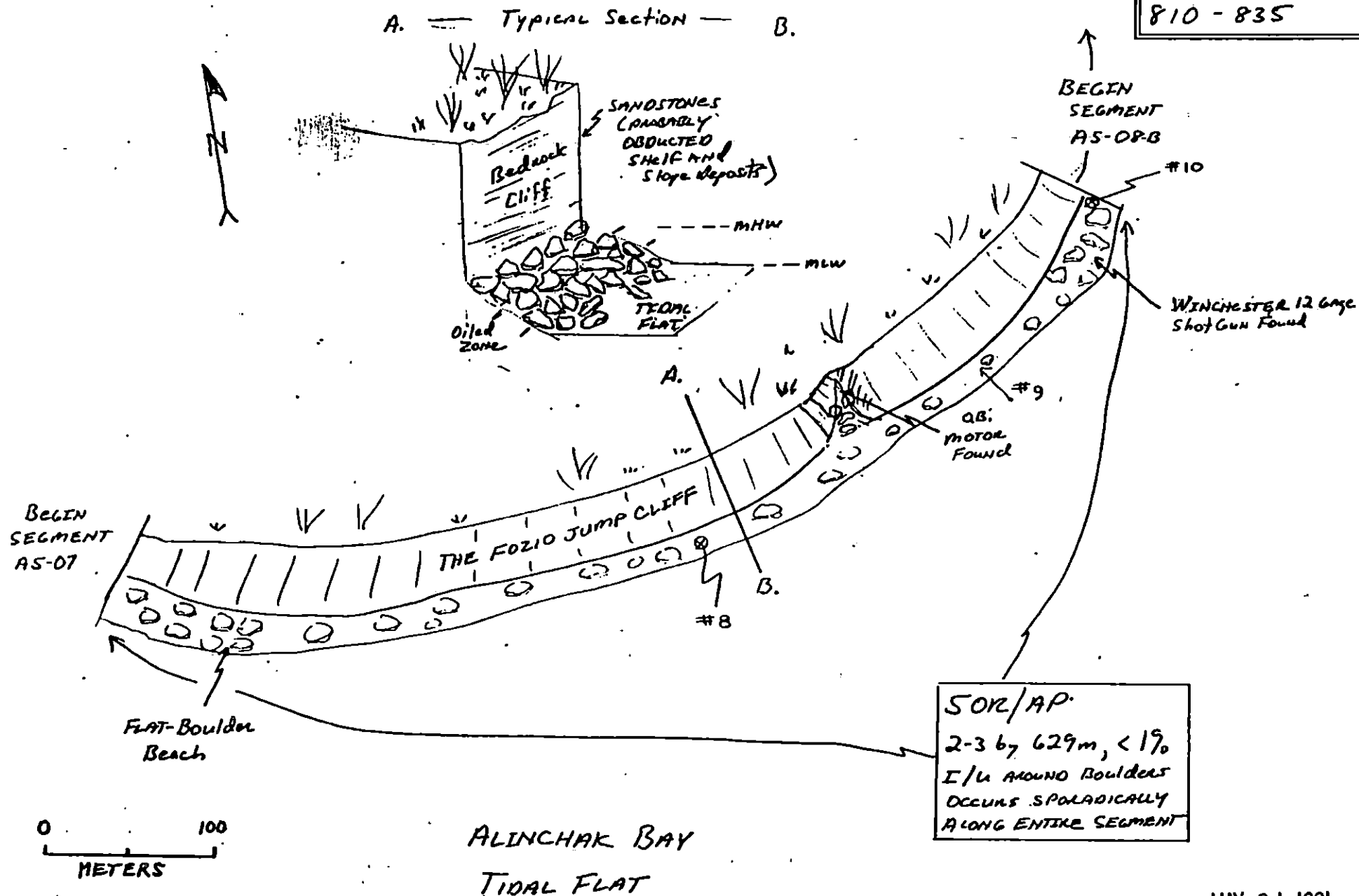
Reviewed MAY 31 1991 Jy

REVIEWED: MC 5131/91

WISERRY
 v v v GRASSY
 → PHOTO SITES

PHOTO SITES, AS-8A ALASKA PENINSULA
 ROLL 6-23, FRAMES 8,9,10

Sketch MAP (06)
 K10-00 AS-08A
 D. MARTIN FERGUSON
 27 MAY 1991
 810-835



MAY 31 1991

REVIEWED: MC 5/31/91

KAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 6 Helo

DATE May 27 1991

SEGMENT # K10-02 AS-08

TIDAL HEIGHT(Range) -1.5 ft. (8:10-8:35)

SUBDIVISION A

BIOLOGIST H. Davis

SEA STATE Tide was out / At bay entrance < 2 ft WIND SPEED/DIRECTION 5-10 Kts light breeze NE

PHOTOGRAPHS: ROLL # G-23

FRAME # 8-10

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

All of the SOR/AP that occurred sporadically within this section was on the boulder/cobble rubble beneath the bedrock cliff. *Venus* grew on the tops of boulders and on the cliff face. *Littorines* started a little below the *Venus* (about 1 ft) and extended out onto the mud flat. *Barnacles*, *Mytilus*, *Limpets*, *Fucus*, *Ulva*, *Scytosiphon*, amphipods and the echinoids were just below the *Littorines* but didn't extend out onto the mud flat except where rocks had rolled out onto the mud. The density of each organism varied greatly along the length of the segment. The *Zostera* occurred in water filled depressions out on the mud flat. What biota occurred was healthy and thriving considering its location and season.

Drift wrack included *Fucus*, *Ulva*, *Scytosiphon*, *Zostera* "Red Blades" and *Mytilus*. Shells found were predominantly *Saxidomus*, *Macoma*, *Mya arenaria*.

Willow Ptarmigan (1)

Glaucous winged Gulls (>50) Yellow legs (1) Sandpipers (2) plover? (1)

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	0	-	0
Seabirds	0	-	
Waterfowl	0	-	
Gulls/Petrels	1	> 50	
Shorebirds	3	4	
Corvids	0	-	
Other Birds Ptarmigan	1	1	

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters	0	Caribou track on mud	
Pinnipeds (specify)	0		
Elas (specify)	0		

Shoreline subdivision map showing important biological features attached.

REVIEWED: MC 5/31/91
D-... m a - 1.1

MAY 31 1991

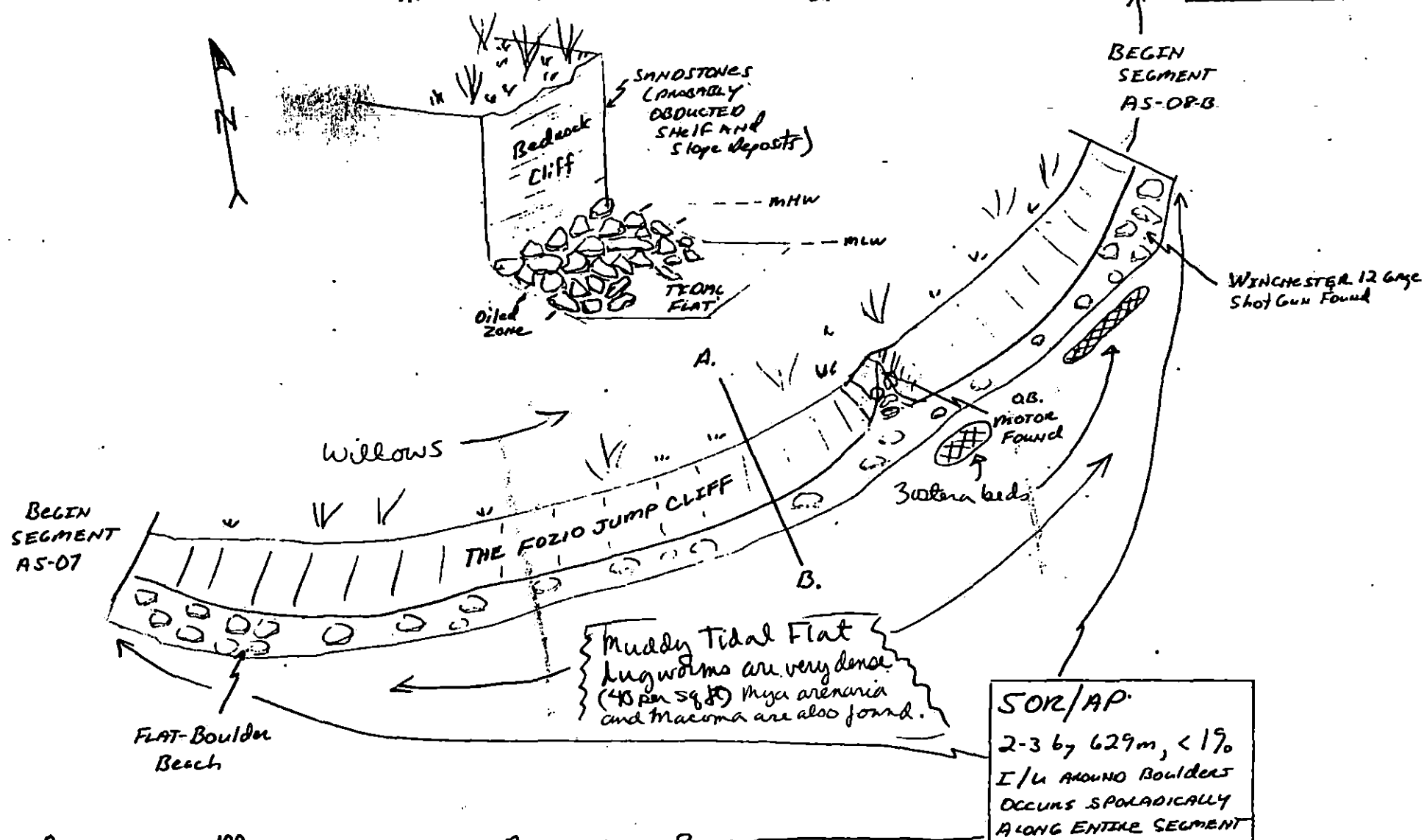
W W W RUBBERY
 v v v GRASSY
 → PHOTO SITES

ALASKA PENINSULA

Big Map
 H. Davis

Sketch MAP (OG)
 K10-02-AS-08-A
 D. MARTIN FIRGELD
 27 MAY 1991
 810-835

A. — Typical Section — B.



ALINCHAK BAY
 TIDAL FLAT

Barnacles, limpets, Littorina, Fucus, Mytilus, Scytosiphon, Zostera amphipods, Eurytemora and vermicularia are present in the boulder/cobble rubble beneath the bedrock cliff. Below on the tidal flat are macoma, mya, lugworms, littorina, ulva and patches of Zostera

1991 MAYSAP EVALUATION

SEGMENT: K1002AS008 SUB: A REGION: KOD SURVEY DATE: 5/27/91ENVIRONMENTAL SENSITIVITIES:Work Window(s) OPENEcological/Constraints (see page two for details) NONEARCHAEOLOGICAL CONSTRAINTS:If treatment is planned, a cultural resource evaluation is required prior to shoreline treatment.SHPO Signature: Timothy A. Smith Date: 6/07/91RECOMMENDATIONS:

INITIAL

TAG

FOSC

TREATMENT REQUIRED (Y or N)

NNN

Manual Pickup (Check as Req.)

Spot Washing

Bio-Customblen Only

Bio-Inipol/Customblen

Other

Other

COMMENTS:

INITIAL:

TAG:

FOSC: "TRACE" ASPHALT (C192) FOUND DURING
SURVEY - VIDEO CLEANUP WORKERS RECOVERED
CONSOLIDATED RESIDUE - NO ADDITIONAL CLEANUP
WARRANTED - ME

TAG APPROVAL DATE: JUNE 7 1991FOSC APPROVAL DATE: 6/17/91

ADEC

FOSC

EXXON

E. E. PAGE, EDR, USCG

USCG

CHIEF OF STAFF, FOSC

NOAA

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 6-HELQ : SEGMENT AS-8 SUBDIVISION A DATE 5/27/91

ADEC

NAME J. BARNHART, ADEC

SIGNATURE Jeff Barnhart

☒ NTR ☒ Treatment Recommended

Alinchak Bay. A band of oil 1-5 meters wide, 1-15% is located along the entire subsegment, 629m. SOR was noted on the surface, "mousse" under weathered surface. Sheening in tidal pools. Oil in the lower portion of the band is covered with a thin layer of silt/sand. Oil was occasionally located by observing the sheen first while the percent of oil is not high, considering the band is 629m in length, considerable oil exists in this subsegment. A trace amount was removed by VECO personnel. Recommend cleanup using single manual pickup. Cleanup can be best accomplished using a helo squad. Note: This segment should be reviewed in conjunction with AS007 and AS008 Segments on either side of AS008, both of which need to be cleaned. (Contact with ADEC, and USFWS Treatment suggested: John Heltin (Kodiak I. Borough))

EXXON

NAME R. COULTER, EXXON

SIGNATURE Ray R. Coulter

☒ NTR LIGHT SOR IN AND UNDER BOULDERS REMAINS ON THIS SUBDIVISION. EASILY RECOVERABLE AREAS OF SOR WERE BROKEN UP AND/OR REMOVED. ADDITIONAL REMOVAL WOULD BE VERY TIME CONSUMING AND YIELD VERY LITTLE OILED SEDIMENTS. HIGH BEDROCK CLIFFS MAKE ACCESS IMPOSSIBLE IN MOST PLACES. THIS IS THE SUBDIVISION WHICH JEFF FARRIS OF USCG BROKE HIS ANKLE ON LAST YEAR DURING A SAP WHILE TRYING TO MANUEVER DOWN THE CLIFFS. ADDITIONAL TREATMENT IS NOT PRACTICAL. DENSE BIOTA - ESPECIALLY WESTWARD SHOTGUN AND CAT FISH WHERE FOUND DURING THIS SURVEY.

LANDMANAGER

NAME J. HARDISTER

OF USFWS

SIGNATURE J. P. Hardister

☐ NTR ☒ Treatment recommended. Manual pickup in this segment is recommended in conjunction with manual pickup in adjacent segments AS-07 and AS-08B. In total, the three areas contain sufficient amounts of recoverable oily material (SOR/AP) to warrant cleanup. Oil recovery by helo squad is recommended.

USCG/NOAA

NAME CWO R. SPURR/G. SHIGENAKA

SIGNATURE R. Spurr / G. Shigenaka

☒ NTR Recoverable oil SOR/AP was picked up by VECO workers during segment survey.

THE SEGMENT SUBDIVISION WAS COMPLETELY SURVEYED. THE PHYSICAL SETTING WAS SIMILAR TO AS-7A, IN THAT THE SHORELINE WAS CHARACTERIZED BY A NARROW (~10M) BAND OF BOULDER BEACH IN THE UITS THAT ADJOINED A GRANULE/SAND UPPER MITE GRADING DOWN TO A WIDE TIDAL SAND FLAT. THE BOULDER BEACH BUTTED UP AGAINST BEDROCK CLIFFS WHICH WERE HIGHER THAN THOSE SEEN IN AS-7A. BIOTA OBSERVED IN THE UPPER MITE AND IN UITS WERE LITTORINES AND BARNACLES (ON ROCKY SUBSTRATE) AND MUSSELS (IN GRANULE/SAND). AN OUTBOARD MOTOR (DETERMINED NOT TO HAVE BEEN ASSOCIATED WITH EXXON VALDEZ OPS). WRECKAGE OF AN INFLATABLE BOAT, AND A HELO. SHOTGUN WERE FOUND IN THE UITS AND SUPRA ALONG THE SUBDIVISION. A LARGE WHITE BLOCK WAS SPOTPAINTED ON THE BEDROCK FACE OF A CLIFF ABOUT ONE THIRD OF THE WAY FROM THE WESTERN END OF THE SUBDIVISION. RELATIVELY SMALL AMOUNTS OF OIL RESIDUES WERE FOUND IN DISCRETE AREAS OF THE SUBDIVISION. THE RESIDUES WERE SOR/AP AND WERE WELL-WEATHERED; SOME SHEENING IN TIDAL POOLS WAS SEEN AS WELL. THE VECO CREW RECOVERED RESIDUE THAT WAS CONSOLIDATED ENOUGH AND ACCESSIBLE ENOUGH TO BE PICKED UP. OTHER MATERIAL WAS BROKEN UP.

ADEC

NAME J. BARNHART, ADEC 6SIGNATURE Jeff Barnhart☐ NTR ☒ Treatment Recommended

Alinchak Bay. A band of oil 1-5 meters wide, 1-15% is located along the entire subsegment, 629m. SOR weathered on the surface, "mousse" under weathered surface. Sheening in tidal pools. Oil in the lower portion of the band is covered with a thin layer of silt/sand. Oil was occasionally located by observing the sheen first. While the percent of oil is not high, considering the band is 629m in length, considerable oil exists in this subsegment. A trace amount was removed by VECO personnel. Recommend cleanup using single manual pickup. Cleanup can be best accomplished using a helo squad. Note: This segment should be reviewed in conjunction with AS007 and AS008 B (segments on either side of AS008A) both of which need to be cleaned.

Continue with ADEC 6, AND USFWS TREATMENT Suggested: John Veltin (Kodiak I. Bocoyn)

EXXON

NAME R. COULTER, EXXON

SIGNATURE _____

☐ NTR

ANDMANAGER

NAME J. HARDISTEROF USFWSSIGNATURE John P. Hardister☐ NTR ☒ Treatment recommended.

Manual pickup in this segment is recommended in conjunction with manual pickup in adjacent segments AS-07 and AS-08B. In total, the three areas contain sufficient amounts of recoverable oily material (SOR/AP) to warrant cleanup. Oil recovery by helo squad is recommended.

USCG/NOAA

NAME CWO R. SPURR/G. SHIGENAKASIGNATURE R. Spurr / G. Shigenaka

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ADEC J BARNHART ADFG

LANDMANAGER J. HARDISTER for USFWS

SUBDIVISION 19

EXXON R. Coulter

USCG/NOAA CWO SPURL/G. SHIGENAKA

DATE 27 MAY 191

TIME 8:10 to 8:35

TIDE LEVEL -1.5 ft. to -1.5 ft.

ENERGY LEVEL: ☐ H ☐ M ☒ L

SURVEYED FROM: ☒ FOOT ☐ BOAT ☐ HELO

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

TOTAL LENGTH SHORELINE SURVEYED: 629 m

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

EST. OIL CATEGORY LENGTH:

W - m M - m N - m VL 629 m NO - m US - m

[illegible]

DISTRIBUTION: C = 91-100%; B = 61-90%; F = 11-60%; S = 1-10%; T = <1%

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

PHOTO ROLL # MAYSAP-

6 : 23

FRAMES 8-10

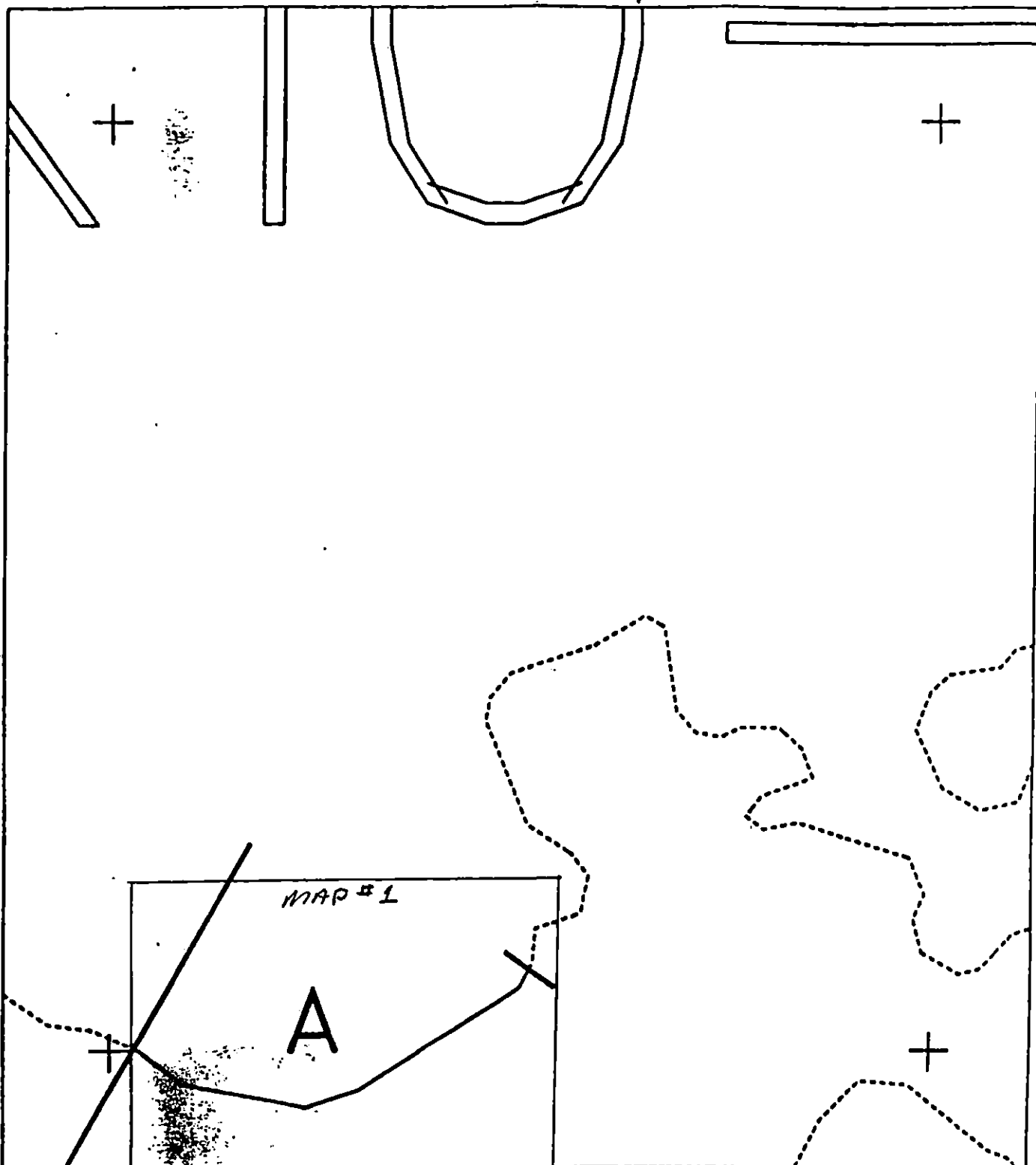
[illegible]

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

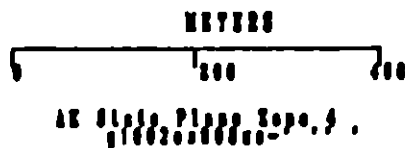
OG COMMENTS: THIS SEGMENT IS LOCATED ALONG THE NORTHERN INNER SHORELINE OF THE NORTHEAST ALINCHALK EMBAYMENT. THIS SHORELINE MAKES THE BEGINNING OF THE CRENNULATE BAYS AND LIKE THE PREVIOUS SEGMENT IS BACKED BY CLIFFS AND FRONTED BY TIDAL FLATS. THE OILING OF THIS SHORELINE CONSISTED OF SON/AP OCCURRING IN SPORADIC AREAS BETWEEN THE BOULDERS AND COBBLES. WHILE THE OILING WAS CONSISTENT ALONG THE ENTIRE SEGMENT THE 2-3m WIDE BAND CONTAINED < 1% COVERAGE.

REVIEWED: MC 5/31/91

revised 5.31 94



K1002 AS008 A



Subdivision Field Map

Map Key: 00AK1002AS008A

Name: D. FITZGERALD

Date: 27 MAY 1991

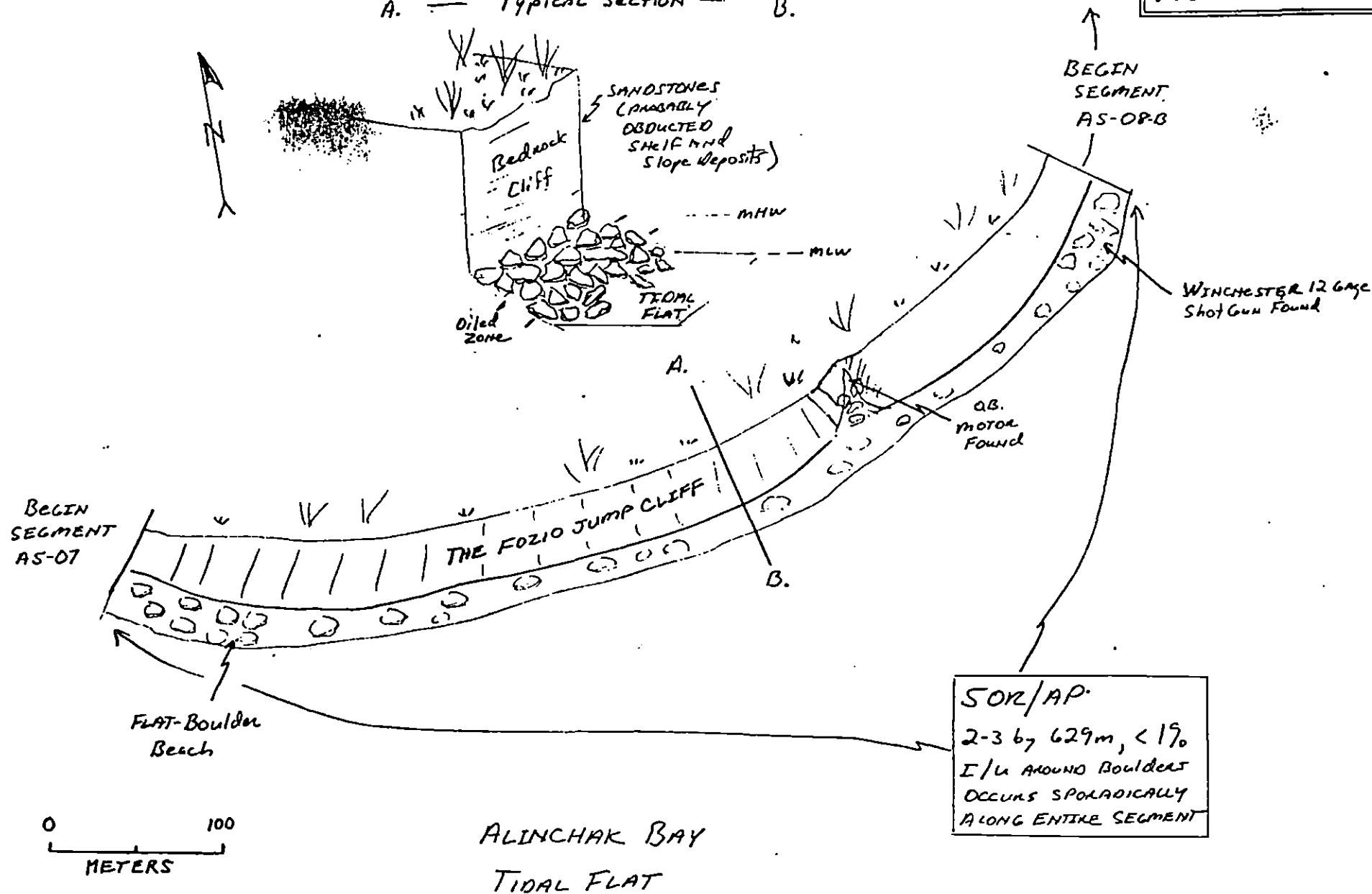
reviewed 9y 5.31

SHRUBBERY
GRASSY
PHOTO SITES

ALASKA PENINSULA

Sketch MAP (06)
K10-2-AS-08-A
D. MARTIN FIRGEMOND
27 MAY 1991
810-835

A. — Typical Section — B.



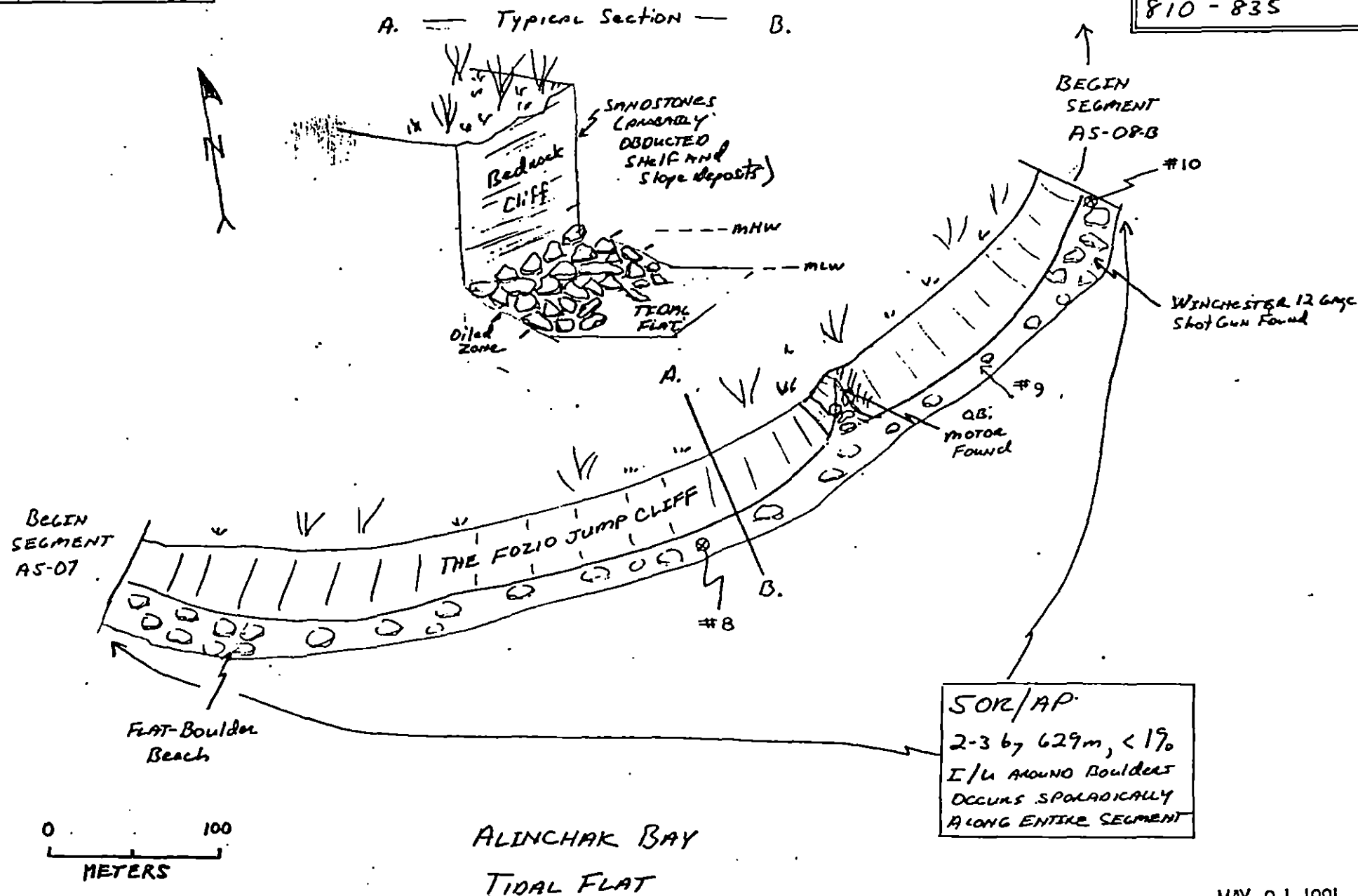
Reviewed MAY 31 1991 *fy*

REVIEWED: MC 513191

CHAMBERY
 v v v GRASSY
 → PHOTO SITES

PHOTO SITES, AS-8A ALASKA PENINSULA
 ROLL 6-23, FRAMES 8,9,10

SKETCH MAP (06)
 K10-02-AS-08-A
 D. MARTIN FITZGERALD
 27 MAY 1991
 810-835



MAY 31 1991

REVIEWED: MC 5/31/91

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 6 Helo

DATE May 27 1991

SEGMENT # K10-02 AS-08

TIDAL HEIGHT(Range) -1.5 ft. (8:10-8:35)

SUBDIVISION A

BIOLOGIST H. Davis

SEA STATE Tide was out / At bay entrance < 2 ft WIND SPEED/DIRECTION 5-10 Kts light breeze NE

PHOTOGRAPHS: ROLL # G-23

FRAME # 8-10

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

All of the SOR/AP that occurred sporadically within this section was on the boulder/cobble rubble beneath the bedrock cliff. *Verrucaria* grew on the tops of boulders and on the cliff face. Littorines started a little below the *Verrucaria* (about 1 ft) and extended out onto the mudflat. Barnacles, mussels, limpets, *Fucus*, *Ulva*, *Scytosiphon*, amphipods and the encyrtids were just below the littorines but didn't extend out onto the mudflat except where rocks had rolled out onto the mud. The density of each organism varied greatly along the length of the segment. The zosteria occurred in water filled depressions out on the mudflat. What biota occurred was healthy and thriving considering its location and season.

Drift wrack included *Fucus*, *Ulva*, *Scytosiphon*, *Red Bladders* and *Scytosiphon*. Shells found were predominantly *Saxidomus*, *Macoma*, *Mya arenaria*.

Willow Ptarmigan (1)

Glaucous winged Gulls (>50) Yellow legs (1) Sandpipers (2) plover? (1)

WILDLIFE OBSERVATIONS

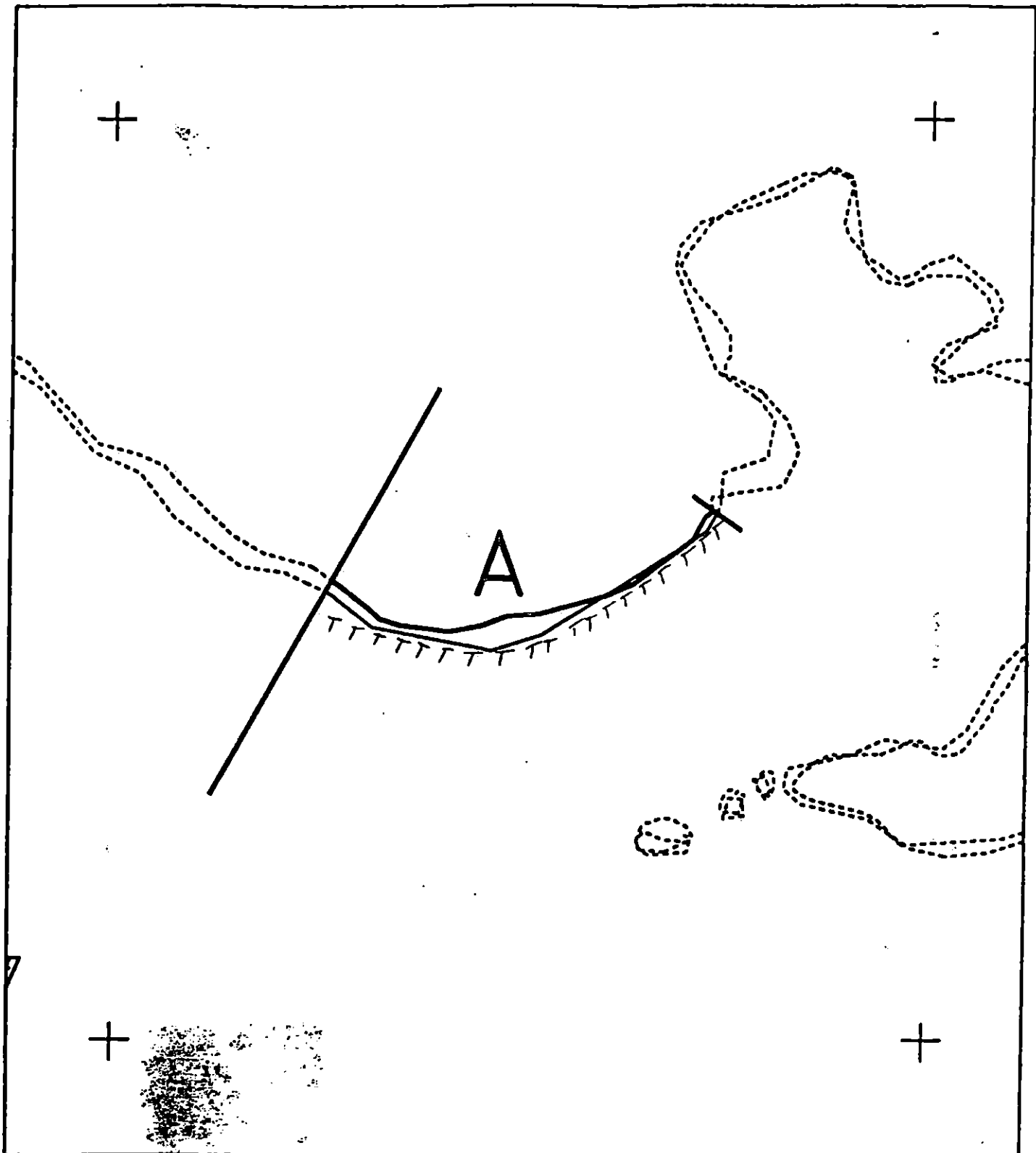
TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	0	-	0
Seabirds	0	-	
Waterfowl	0	-	
Gulls/Kittiwakes	1	>50	
Shorebirds	3	4	
Corvids	0	-	
Other Birds Ptarmigan	1	1	

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters	0	<i>Canis latrans</i> Red	
Pinnipeds (specify)	0		
Elas (specify)	0		

Shoreline subdivision map showing important biological features attached.

Reviewed: MC 5/31/91
D. M. L.



XXXX	Wide	K1002 AS008 A ADEC Subsegment Length: 629m METERS  AR State Plane Zone 6 1002as008a-...	 	Subdivision Field Map
////	Medium			Map Key: 00AK1002AS008A
----	Narrow			Name: <u>D. Fitzgerald</u>
TTTT	Very Light			Date: <u>27 MAY 1991</u>
0000	No Oil			Date Entered:

Reviewed: MC 5/31/91
 MAY 31 1991

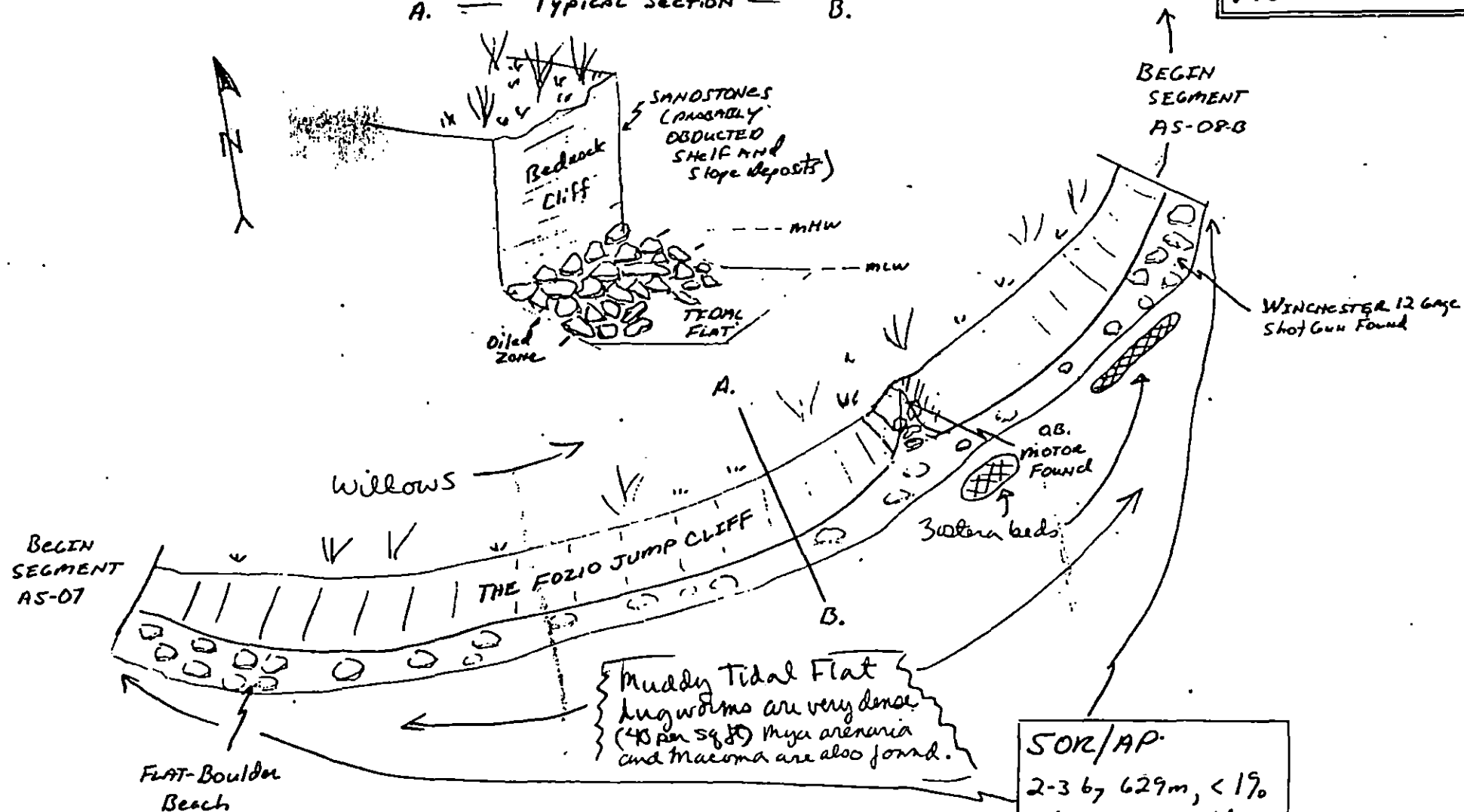
CHAMBERLY
GRASSY
PHOTO SITES

ALASKA PENINSULA

Big Map
W. Davis

Sketch MAP (06)
K10-2-AS-08-A
D. MARTIN FIRGELD
27 MAY 1991
810-835

A. — Typical Section — B.



ALINCHAK BAY
TIDAL FLAT

Barnacles, limpets, Littorina, Fucus, Agilis, Scydiphora, Zostera amphipods, Enchytraids and vermicularia are present in the boulder/cobble rubble beneath the bedrock cliff. Below on the tidal flat are macoma, mya, lugworms, littorines, ulva and patches of Zostera

1991 MAYSAP EVALUATION

SEGMENT: K1002AS008 **SUB:** B **REGION:** KOD **SURVEY DATE:** 5/27/91

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) OPEN

Ecological/Constraints (see page two for details) NONE

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO Signature: _____ Date: _____

RECOMMENDATIONS:

INITIAL

TAG

FOSC

TREATMENT REQUIRED (Y or N)

N

Manual Pickup (Check as Req.)

Spot Washing

Bio-Customblen Only

Bio-Inipol/Customblen

Other

Other

COMMENTS:

INITIAL: _____

TAG: _____

FOSC: _____

TAG APPROVAL DATE: _____

FOSC APPROVAL DATE: _____

ADEC _____

FOSC _____

EXXON _____

USCG _____

NOAA _____

TEAM NO. 6-HELO SEGMENT AS-B SUBDIVISION B DATE 5/22/91

ADEC

NAME J. BARNHART, ADEC

SIGNATURE

J. Barnhart

☒ NTR ☒ Treatment Recommended

Alinchock Bay. The basic area of concern originates at the subsegment boundary line with AS008A, covering the first approx. 2200 meters of AS008B. Oil bands cover approx. 560m of the 2200 meters. Oil exists as SOR, MS, sheening. Within the bands oil coverage is as high as 75% in some areas. Averaged over the entire 560 meters it is 1-2%. Band width ranges from 1-4 meters. Too much oil for UCA workers to collect and carry along this extremely long segment (8,899m). As a result approx. 5 pounds of oil was picked up. Considerable oil exists in this segment and should be removed. Recommend cleanup using simple manual pickup. Cleanup can be best accomplished using a helo squad. NOTE: This segment should be reviewed in conjunction with AS008A and AS007. (CONCURE WITH ADEC/USFWS (J. Barnhart) KTS)

EXXON

NAME R. COULTER, EXXON

SIGNATURE

Ray R. Coulter

☒ NTR VERY LIGHT SOR WAS FOUND ON THIS VERY LONG SUBDIVISION.

ONE SMALL AREA OF AP WAS BROKEN UP. OTHER AREAS OF ACCESSIBLE SOR IN AND UNDER BOULDERS WAS REMOVED. ALL SOR, REMOVED AND REMAINING, IS WEATHERED AND CONSISTS MAINLY OF SAND AND SMALL SEDIMENTS. ACCESS TO THE UPLANDS IS LIMITED TO SPECIFIC SPOTS ALONG THIS LONG SUBDIVISION. ADDITIONAL RECOVERY WOULD PROVIDE NO BENEFIT.

LANDMANAGER

NAME J. HARDISTER

OF USFWS

SIGNATURE

John F. Hardister

☐ NTR ☒ Treatment recommended.

Manual cleanup of recoverable oil (SOR) is recommended along the entire length of this segment in conjunction with segments AS-007 and AS-008A. A sufficient amount of oil remains on the these segments to warrant recovery, preferably by a helo cleanup crew.

USCG/NOAA

NAME CWO R. SPURR/G. SHIGENAKA

SIGNATURE

R. Spurr / G. Shigenaka

☒ NTR Mats of weathered SOR were broken up during survey and where applicable AP/SR was recovered by UCA workers

THIS WAS A LONG SUBDIVISION THAT WAS NEARLY COMPLETELY SURVEYED BY THE TEAM. THE EXCEPTED PORTION WAS AN ENCLAVEMENT EXCLUDED BY CONSENSUS OF THE TEAM IN THE INTERESTS OF TIME, TIDE, AND BECAUSE OF THE LIMITED AMOUNT OF OILING OBSERVED ON PRECEDING PORTIONS OF THE SEGMENT AND ON PAST SURVEYS IN THE UPLAND AREA. THE SUBDIVISION VARIED IN ITS PHYSICAL CHARACTER FROM NARROW BOULDER BEACHES ON ITS WESTERN END, TO BROAD SAND BEACHES AT THE SOUTHEASTERN END. THE ENTIRE SUBDIVISION BORDERED A BROAD TIDAL FLAT CHARACTERIZED BY SANDY/MUDDY SUBSTRATE WITH MODERATE EELGRASS COVER. DISCRETE AREAS OF OILING WERE FOUND INFREQUENTLY ALONG THE SUBDIVISION IN THE UPLAND. MOST OF THESE WERE PATCHES OF SOR THAT WERE EITHER RECOVERED OR BROKEN UP AS CONSISTENCY AND ACCESSIBILITY PERMITTED. MOST OF THESE AREAS WERE LOCATED IN BOULDER COBBLE SUBSTRATE; SHEENING WAS OBSERVED IN ONE INSTANCE. ON ONE SMALL SANDY BEACH, RELATIVELY LARGE MATS OF SOR WERE FOUND. AS THESE WERE LARGELY SANDY IN COMPOSITION AND WELL-WEATHERED, THEY WERE BROKEN UP COMPLETELY. IN SUMMARY, IT APPEARED THAT FEW RECOVERABLE OIL RESIDUES REMAIN ALONG THIS SUBDIVISION - DESPITE ITS LENGTH.

MAYSAP SHORELINE OILING SUMMARY

PAGE 1 OF 1

TEAM NO. 6-Helo

OG D. M. Fitzgerald

BIO H. DAVIS

SEGMENT K10-02-AS-08

ADEC J. BARNHART ADFG

LANDMANAGER J. HARDESTER for USFWS

SUBDIVISION B

EXXON R. Coulter T.E.

USCG/NOAA CWO SPURK / G. SHIGENAKA

DATE 27 May 1991

TIME 8:40 to 10:45

TIDE LEVEL -1.5 ft. to 1.1 ft.

ENERGY LEVEL: ☐ H ☐ M ☒ L

SURVEYED FROM: ☒ FOOT ☐ BOAT ☐ HELO

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

TOTAL LENGTH SHORELINE SURVEYED: 8000 m

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

EST. OIL CATEGORY LENGTH: W — m M — m N 2 m VL 351 m NO 7677 m US 899 m

L O C	SURFACE OIL CHARACTER										SURFACE SEDIMENT TYPE	SHORE SLOPE V H M L	AREA		ZONE				NOTES
	AP	MS	TB	SOR	CV	CT	ST	FL	DB	NO			WIDTH m	LENGTH m	S	UI	MI	LI	
1A				T							B-C-BR	L	3	30			X		mound boulder
8.				T							B-C-BR	L	3	20			X		" "
2				T							B-C-S	L	3	100			X		" "
3				T							B-C	L	1	1			X		" "
4	T			T							B-C	L	3	150			X		" "
5						T					B-C	L	1	10			X		" "
6A			T	T							B	L	2	10			X		ON B+C
8			T	T							S-C-B	L	1	10			X		"
2	T			T							B-C	L	2	2			X		
8										X	B	L							
9	T										S-C-B	L	2	20			X		UNSURVEYED Site not visited. Info from SS.
10										X	B-S	L							Large boulders + sand
11										X	S	L							Sandy beach

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

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

PHOTO ROLL # MAYSAP- 6-23 FRAMES 11

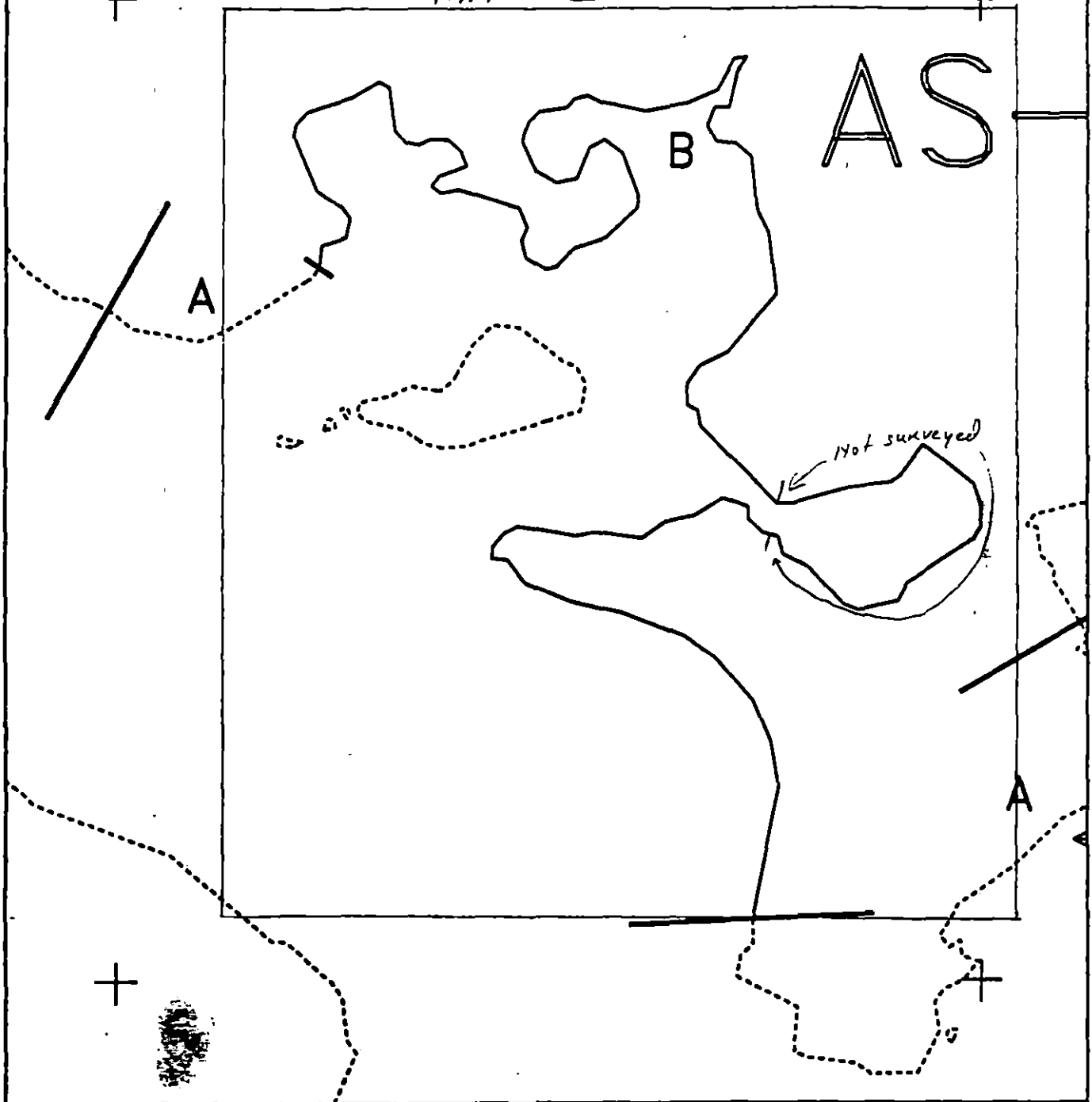
PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER							OILED ZONE	CLEAN BELOW	H2O LEVEL	SHEEN COLOR	PIT ZONE				SURFACE- SUBSURFACE SEDIMENTS	NOTES
		OP	HOR	MOR	LOR	OF	TR	NO				B R S N	S	UI	MI	LI		
									-									
									-									
									-									
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SHEEN COLOR: B = BROWN; R = RAINBOW; S = SILVER; N = NONE

OG COMMENTS: This segment is located within the crenulate bays of the northernmost Alinchak Embayment. This circuitous shoreline was developed likely by superimposed, highly meandering stream(s) during an earlier stage of Alinchak Bay evolution. The shoreline of this segment is backed by bedrock cliffs and fringed by wide tidal flats. The oiling of this area occurs primarily on and around the boulders at the base of the cliff. Most of the oiling is sporadic SOX, however, there were a couple of regions where AP was found. VECO workers collected all accessible and available oiled sediments, amounting to a 1/4 of the bay. The sites shown on the sketch map are consistent with those identified on the ASAP report.

REVISOR: MC 5/31/91
reviewed 5/31/91 XG

MAP #1



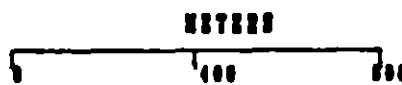
K1002 AS008 B

Subdivision Field Map

Map Key: 602K1002AS008B

Name: D. Fitzgerald

Date: 27 May 1991



AK State Planning Dept. 4.
91002-00000-00000

ALASKA PENINSULA

Sketch MAP (OGI)
K10-02-AS-08-B
D. M. FITZGERALD
27 MAY 1991
840 - 1045

- VEGETATED DUNES
- Bedrock Cliff
- GRASSY UPLANDS
- PHOTO SITES

2. SOR
2-3 by 100m, <1%
VERY SPORADIC
AROUND BOULDERS
RB + S SHEENS

3. SOR <1%
1m²
AROUND BOULDERS

6. SOR / TB
A. 2 by 10m <1%
B. 1 by 10m <1%
VERY SPORADIC

1. SOR
A. 2-3 by 30m, <1%
B. 3 by 20m, <1%
AROUND BOULDERS
RB SHEENS

5. CT <1%
1 by 10m
ON BOULDERS
AT METZ

7. AP / SOR
2 by 2m, 40%
Highly friable
Broken apart

8. NO OIL WAS
OBSERVED AT
THIS SITE
RECOGNIZED IN
THE ASPAP SURVEY

4. SOR / AP
2-3 by 150m, <1%
VERY SPORADIC
OCCURRENCES

PU. * VECO WORKERS
Collected 14 bags
of oiled sediment
ALONG THIS SEGMENT

NO OIL WAS
OBSERVED AT
THIS SITE

9. SITE NOT VISITED
HOWEVER, IN 3 JUNE 90
MS, 2 by 20m WAS
REPORTED. Degrad.
of surrounding area
CONVINCED TEAM NOT
VISITING SITE 9 WAS
UNNECESSARY

11. NO OIL WAS
OBSERVED AT
THIS SITE

ALINCHAK
BAY

DUNE
Field

Bed
Rock
Plum.

BEGIN SEGMENT AB-02

REVIEWED: MC 513191
revised 513191 EG

400
METERS

ALASKA PENINSULA
PHOTO SITES, AS-8B
ROLL 6-23, FRAME # 11

Sketch MAP (OG)
K10-02-AS-08-B
D. M. Fitzgerald
27 MAY 1991
840-1045

VEGETATED
DUNES
Bedrock
CLIFF
GRASSY
HIGHLANDS
PHOTO
SITES

BEGIN
SEGMENT
AS-08-A

1. SOR
A. 2-3 by 30m, <1%
B. 3 by 20m, <1%
around boulders
RB SHEENS

2. SOR
2-3 by 100m, <1%
very sporadic
around boulders
RB + S SHEENS

3. SOR
1m²
around
boulders

5. CF
1 by 10m
on boulders
at METZ

6. SOR / TB
A. 2 by 10m <1%
B. 1 by 10m <1%
very sporadic

7. AP / SOR
2 by 2m, 40%
highly friable
broken apart

8. NO OIL WAS
OBSERVED AT
this site
recognized in
the ASP survey

4. SOR / AP
2-3 by 180m, <1%
very sporadic
occurrences

PU. * VECO WORKERS
collected 4 bags
of oiled sediment
along this segment

NO OIL WAS
OBSERVED AT
this site

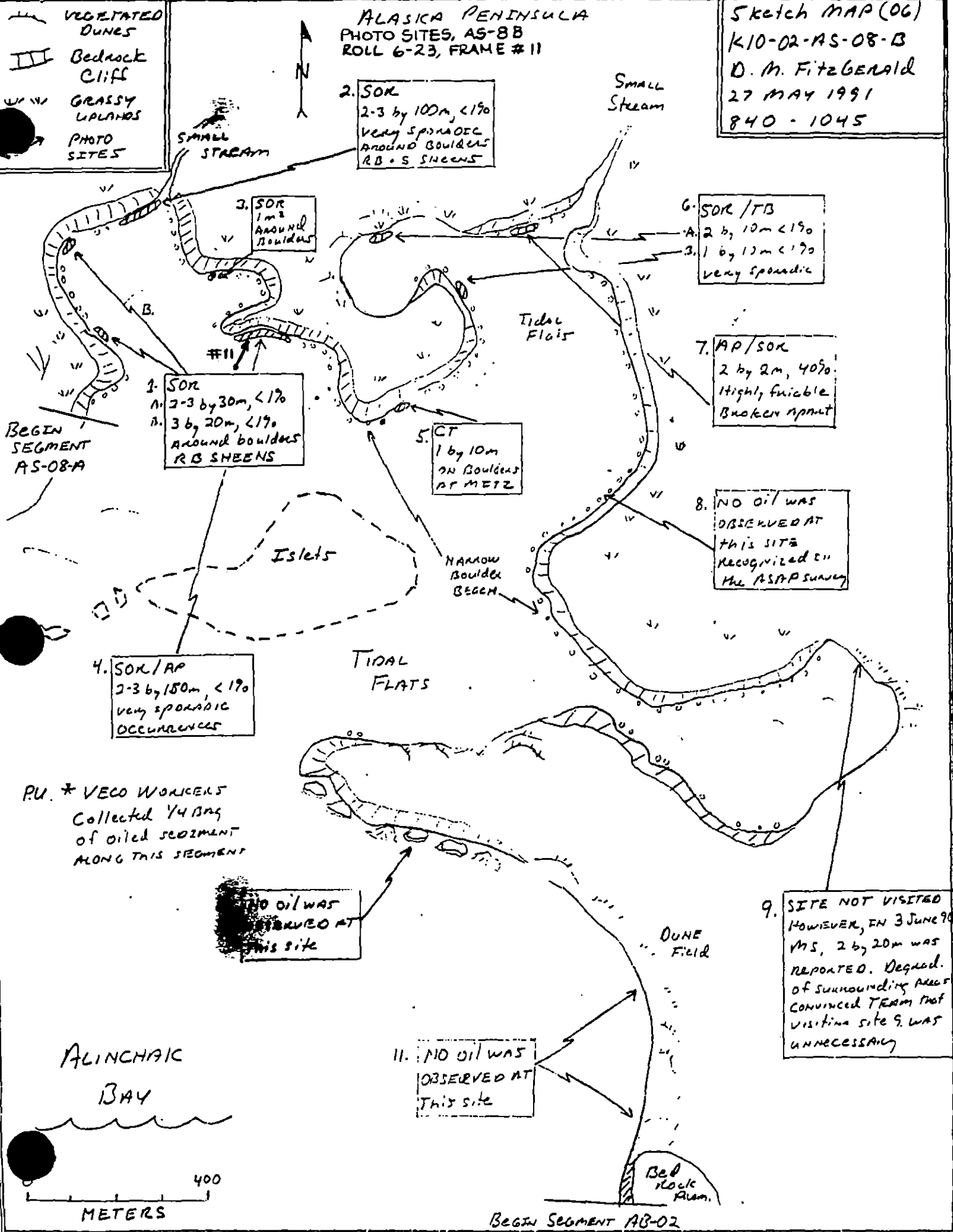
9. SITE NOT VISITED
HOWEVER, IN 3 JUNE 90
MIS, 2 by 20m was
REPORTED. Degree
of surrounding area
convinced TEAM that
visiting site 9 was
unnecessary

11. NO OIL WAS
OBSERVED AT
this site

ALINCHAIK
BAY

BEGIN SEGMENT AB-02

400
METERS



KAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 6 Help

DATE May 27 1991

SEGMENT # K10-02 AS-08

TIDAL HEIGHT (Range) 7.5 ft - 1.1 (8:35 - 10:45)

SUBDIVISION B

BIOLOGIST H. Davis

SEA STATE Tide was out. (1-2 ft at crest)

WIND SPEED/DIRECTION 5-20 Kt. Variable Winds NE

PHOTOGRAPHS: ROLL # 6-27

FRAME # 11

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

This segment is a crenulated shoreline surrounding mud and sand flats. Most of the segment has bedrock cliffs with boulder/cobble rubble at the base. Extending out from the rubble are wide tidal flats. *Mytilus*, *Fucus*, *Scytosiphon*, *Barnacles*, *Littorina*, amphipods and *Enchytraids* are the most common organisms on the rock rubble. *Zostera*, *Ulva*, *Enteromorpha*, *Hydrodictyon*, *Porphyra*, *Uca*, *Mya arenaria*, *Macoma*, *Tellina*, *Ureca* are located out on the mud flat. Density varied considerably along the segment.

Sites 1-8 were all located at the MITZ. None of the biota in the "oiled" area showed any difference from biota outside these sites. At site 4 a limpet (*Notocmaeus*) was found grazing on the filamentous green algae that had colonized the crust of *Spartina* in a crevice.

Site 10 and 11. No Oil was observed at these sites. There are extensive *Zostera* beds in front of this beach. For almost the entire width of the *Zostera* bed 2 different sizes of fish eggs paved the mud. (100-150 per 100 cm²)

Site 9 was not visited

Eagle (1) Glaucous-wing Gull (225) + 1 Dead Kittiwake New Gulls (5) Ravens (2) Sandpipers (4) Shoveler (6) Pintail (10) American Wigeon (6) Yellowlegs (2) Terns (3)

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1	1	2 kinds of Fish eggs in
Seabirds	0		3 oyster beds with
Waterfowl	3	22	small (just hatched?) fish
Gulls/Kittiwakes	3	730 + 1 dead Kittiwake	
Shorebirds	2	6	
Corvids	1	2	
Other Birds	2	3	

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters	0	Caribou tracks	3 in the uplands.
Pinnipeds (specify)	0	Bear tracks (3 sets)	
Whales (specify)	0	Fox tracks	

Shoreline subdivision map showing important biological features attached.

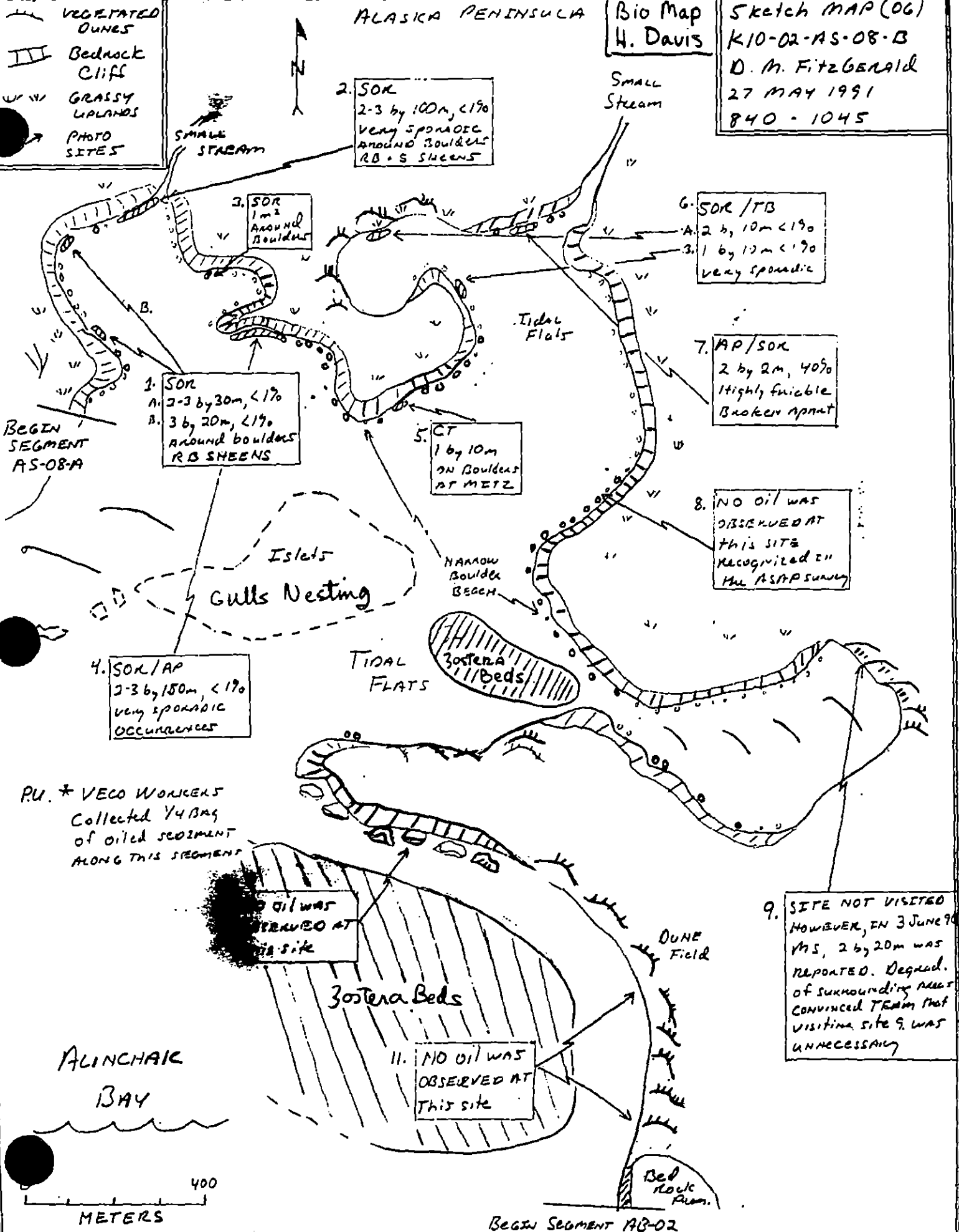
Reviewed MB 5/31/91

ALASKA PENINSULA

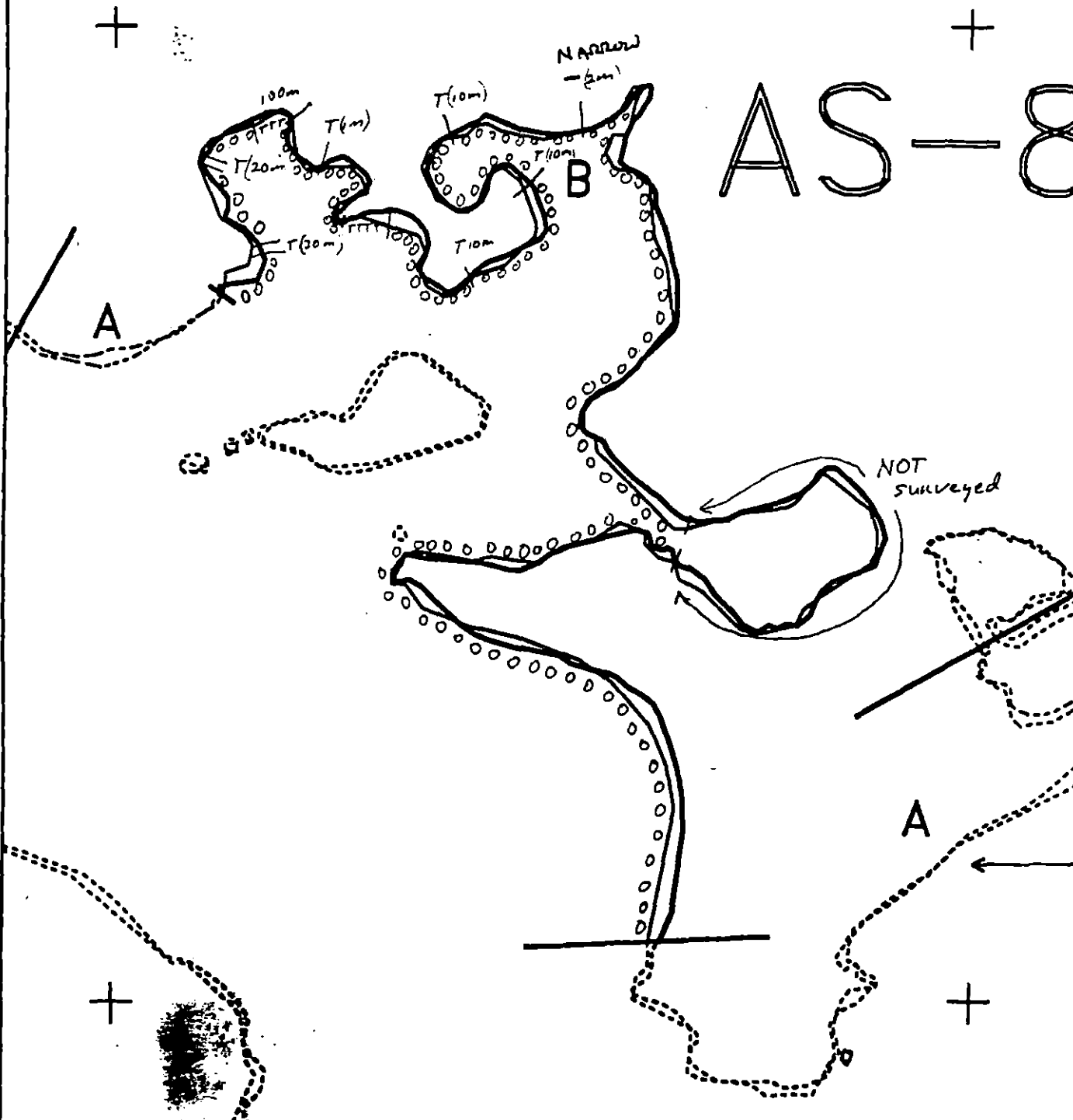
Bio Map
H. Davis

Sketch MAP (OG)
K10-02-AS-08-B
D. M. FITZGERALD
27 MAY 1991
840-1045

- VEGETATED DUNES
- Bedrock Cliff
- GRASSY UPLANDS
- PHOTO SITES



Reviewed MB slmk



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

K1002 AS008 B
 ADEC Subsegment Length: 8898m
 METERS
 0 400 800
 AK State Plane Zone 4
 9100200000b-1



Subdivision Field Map
 Map Key: 00AK1002AS0000
 Name: D. FITZGERALD
 Date: 27 MAY 1991
 Date Entered:

Reviewer: MC 5/31/91
 reviewed 5/31/91 RG

1991 MAYSAP EVALUATION

SEGMENT: K1002AS008 SUB: B REGION: KOD SURVEY DATE: 5/27/91

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) OPEN

Ecological/Constraints (see page two for details) NONE

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO Signature: Timothy P. Smith Date: 6/07/91

RECOMMENDATIONS:

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

COMMENTS:

INITIAL:

TAG:

FOSC: GEOMORPHOLOGIST REPORT INDICATES VECO
CLEANUP WORKERS COLLECTED AN ADDITIONAL OILED
SEDIMENTS DURING THE SURVEY - MTR

TAG APPROVAL DATE: JUNE 7 1991

FOSC APPROVAL DATE: 6/12/91

ADEC John Bar

FOSC CC

EXXON Bar

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

USCG Edma

NOAA John

TEAM NO. 6-HELO SEGMENT AS-8 SUBDIVISION B DATE 5/27/91

ADEC

NAME J. BARNHART, ADEC

SIGNATURE

J. Barnhart

☐ NTR ☒ Treatment Recommended

Alinchox Bay. The basic area of concern originates at the subsegment boundary line with AS008A, covering the first approx. 2200 meters of AS008B. Oil bands cover approx. 560m of the 2200 meters. Oil exists as SOR, MS, sheening. Within the bands oil coverage is as high as 75% in some areas. Averaged over the entire 560 meters it is 1-2%. Band widths range from 1-4 meters. Too much oil for VECO workers to collect and carry along this extremely long segment (8,899m). As a result approx. 5 pounds of oil was picked up. Considerable oil exists in this segment and should be removed. Recommend cleanup using simple manual pickup. Cleanup can be best accomplished using a helo squad. NOTE: This segment should be reviewed in conjunction with AS008A and AS007. (CONCUR WITH ADEC/USFWS/NOAA/KTS)

EXXON

NAME R. COULTER, EXXON

SIGNATURE

Reil R. Coulter

☒ NTR VERY LIGHT SOR WAS FOUND ON THIS VERY LONG SUBDIVISION.

ONE SMALL AREA OF AP WAS BROKEN UP. OTHER AREAS OF ACCESSIBLE SOR IN AND UNDER BOULDERS WAS REMOVED. ALL SOR, REMOVED AND REMAINING, IS WEATHERED AND CONSISTS MAINLY OF SAND AND SMALL SEDIMENTS. ACCESS TO THE UPLANDS IS LIMITED TO SPECIFIC SPOTS ALONG THIS LONG SUBDIVISION. ADDITIONAL RECOVERY WOULD PROVIDE NO BENEFIT.

LANDMANAGER

NAME J. HARDISTER

OF USFWS

SIGNATURE

John P. Hardister

☐ NTR ☒ Treatment recommended.

Manual cleanup of recoverable oil (SOR) is recommended along the entire length of this segment in conjunction with segments AS-007 and AS-008A. A sufficient amount of oil remains on the three segments to warrant recovery, preferably by a helo cleanup crew.

USCG/NOAA

NAME CWO R. SPURR/G. SHIGENAKA

SIGNATURE

R. Spurr / G. Shigenaka

☒ NTR Mats of weathered SOR were broken up during survey and where applicable AP/SUR was recovered by VECO workers

THIS WAS A LONG SUBDIVISION THAT WAS NEARLY COMPLETELY SURVEYED BY THE TEAM, THE EXCEPTED PORTION WAS AN EMBAYMENT EXCLUDED BY CONSENSUS OF THE TEAM IN THE INTERESTS OF TIME, TIDE, AND BECAUSE OF THE AMOUNT OF OILING OBSERVED ON PRECEDING PORTIONS OF THE SEGMENT AND ON PAST SURVEYS IN THE EMBAIED AREA. THE SUBDIVISION VARIED IN ITS PHYSICAL CHARACTER FROM NARROW BOULDER BEACHES ON ITS NORTHWESTERN END TO BROAD SAND BEACHES AT THE SOUTHEASTERN END. THE ENTIRE SUBDIVISION BORDERED A VERY BROAD TIDAL FLAT CHARACTERIZED BY SANDY/MUDDY SUBSTRATE WITH MODERATE EELGRASS COVER. DISCRETE AREAS OF OILING WERE FOUND INFREQUENTLY ALONG THE SUBDIVISION IN THE UPR. MOST OF THESE WERE PATCHES OF SOR THAT WERE EITHER RECOVERED OR BROKEN UP AS CONSISTENCY AND ACCESSIBILITY PERMITTED. MOST OF THESE AREAS WERE LOCATED IN BOULDER COBBLE SUBSTRATE; SHEENING WAS OBSERVED IN ONE INSTANCE, ON ONE SMALL SANDY BEACH. RELATIVELY LARGE MATS OF SOR WERE FOUND. AS THESE WERE LARGELY SANDY IN COMPOSITION AND WELL-WEATHERED, THEY WERE BROKEN UP COMPLETELY. IN SUMMARY, IT APPEARED THAT FEW RECOVERABLE OIL RESIDUES REMAIN ALONG THIS SUBDIVISION—DESPITE ITS LENGTH.

MAYSAP SHORELINE OILING SUMMARY

PAGE 1 OF 1TEAM NO. 6-HeloOG D. M. FitzgeraldBIO H. DAVISSEGMENT K10-02-AS-08ADEC J. BARNHART ADFGLANDMANAGER J. HALDESTICK for USFWSSUBDIVISION BEXXON R. Coulter T.E.USCG/NOAA CWOS PARK / G. SHEENAKADATE 27 May 1991TIME 8:40 to 10:45TIDE LEVEL -1.5 ft. to 1.1 ft.ENERGY LEVEL: ☐ H ☐ M ☒ LSURVEYED FROM: ☒ FOOT ☐ BOAT ☐ HELOWEATHER: ☐ SUN ☒ CLOUDS ☐ FOG ☒ RAIN ☐ SNOWTOTAL LENGTH SHORELINE SURVEYED: 8000 mNEAR SHORE SHEEN: ☐ BR ☒ RB ☒ SL ☐ NONEEST. OIL CATEGORY LENGTH: W — m M — m N 2 m VL 351 m NO 7677 m US 899 m

L O C	SURFACE OIL CHARACTER										SURFACE SEDIMENT TYPE	SHORE SLOPE VHML	AREA		ZONE				NOTES
	AP	MS	TB	SOF	CV	CT	ST	FL	DB	NO			WIDTH	LENGTH					
													m	m	S	UI	MI	LI	
1a				T							B-C-BR	L	3	30			X		mound boulder
B				T							B-C-BR	L	3	20			X		" "
2				T							B-C-S	L	3	100			X		" "
3				T							B-C	L	1	1			X		" "
4	T			T							B-C	L	3	150			X		" "
5						T					B-C	L	1	10			X		" "
6a			T	T							B	L	2	10			X		ON B+C
B			T	T							S-C-B	L	1	10			X		"
7	T			T							B-C	L	2	2			X		
8										X	B	L							
9	T										S-C-B	L	2	20			X		UNSURVEYED
10										X	B-S	L							Site not visited. Info from 95F
11										X	S	L							Large boulders + sand Sandy beach

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

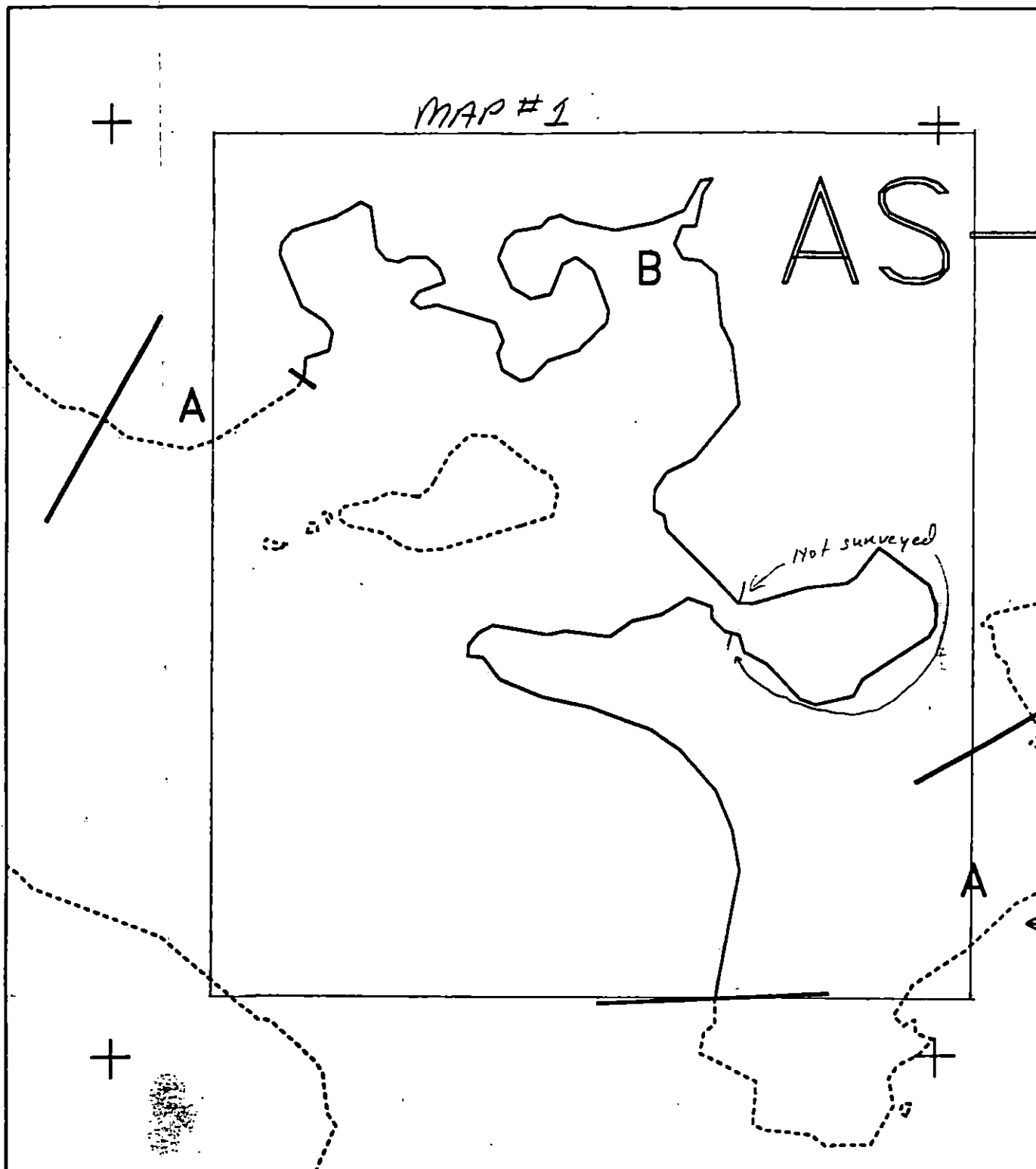
SLOPE: V = VERTICAL; H = HIGH ANGLE; M = MEDIUM ANGLE; L = LOW ANGLE PHOTO ROLL # MAYSAP- 6-23 FRAMES 11

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

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

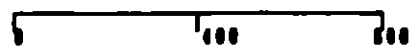
OG COMMENTS: This segment is located within the crenulate bays of the northernmost Alinchak Embayment. This circuitous shoreline was developed likely by superimposed, highly meandering stream(s) during an earlier stage of Alinchak Bay evolution. The shoreline of this segment is backed by bedrock cliffs and fringed by wide tidal flats. The oiling of this area occurs primarily on and around the boulders at the base of the cliff. Most of the oiling is sporadic SOH, however, there were a couple of regions where AP was found. VECO workers collected all accessible and available oiled sediments, amounting to a 1/4 of a bag. The sites shown on the sketch map are consistent with those identified on the ASAP report.

 REVISAD: MC 5/31/91
 reviewed 5/31/91 KG



K1002 AS008 B

METERS



AK State Plane Zone 4,
11002110000

Subdivision Field Map

Map Key: COAK1002AS008B

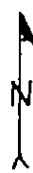
Name: D. Fitzgerald

Date: 27 May 1991

ALASKA PENINSULA

Sketch MAP (OG)
K10-02-AS-08-B
D. M. FITZGERALD
27 MAY 1991
840 - 1045

- VEGETATED DUNES
- Bedrock Cliff
- GRASSY UPLANDS
- PHOTO SITES



2. SOR
2-3 by 100m, <1%
VERY SPORADIC
AROUND BOULDERS
RB + S SHEENS

3. SOR <1%
1 m²
AROUND BOULDERS

6. SOR/TB
A. 2 by 10m <1%
B. 1 by 10m <1%
VERY SPORADIC

1. SOR
A. 2-3 by 30m, <1%
B. 3 by 20m, <1%
AROUND BOULDERS
RB SHEENS

7. AP/SOR
2 by 2m, 40%
Highly friable
Broken apart

5. CT <1%
1 by 10m
ON BOULDERS
AT METZ

8. NO OIL WAS
OBSERVED AT
THIS SITE
RECOGNIZED IN
THE ASAPSUNNY

4. SOR/AP
2-3 by 150m, <1%
VERY SPORADIC
OCCURRENCES

PU. * VECO WORKERS
Collected 1/4 Bag
of oiled sediment
ALONG THIS SEGMENT

10. NO OIL WAS
OBSERVED AT
THIS SITE

9. SITE NOT VISITED
HOWEVER, IN 3 JUNE 90
MIS, 2 by 20m WAS
REPORTED. Degrad.
of surrounding areas
CONVINCED TEAM THAT
VISITING SITE 9 WAS
UNNECESSARY

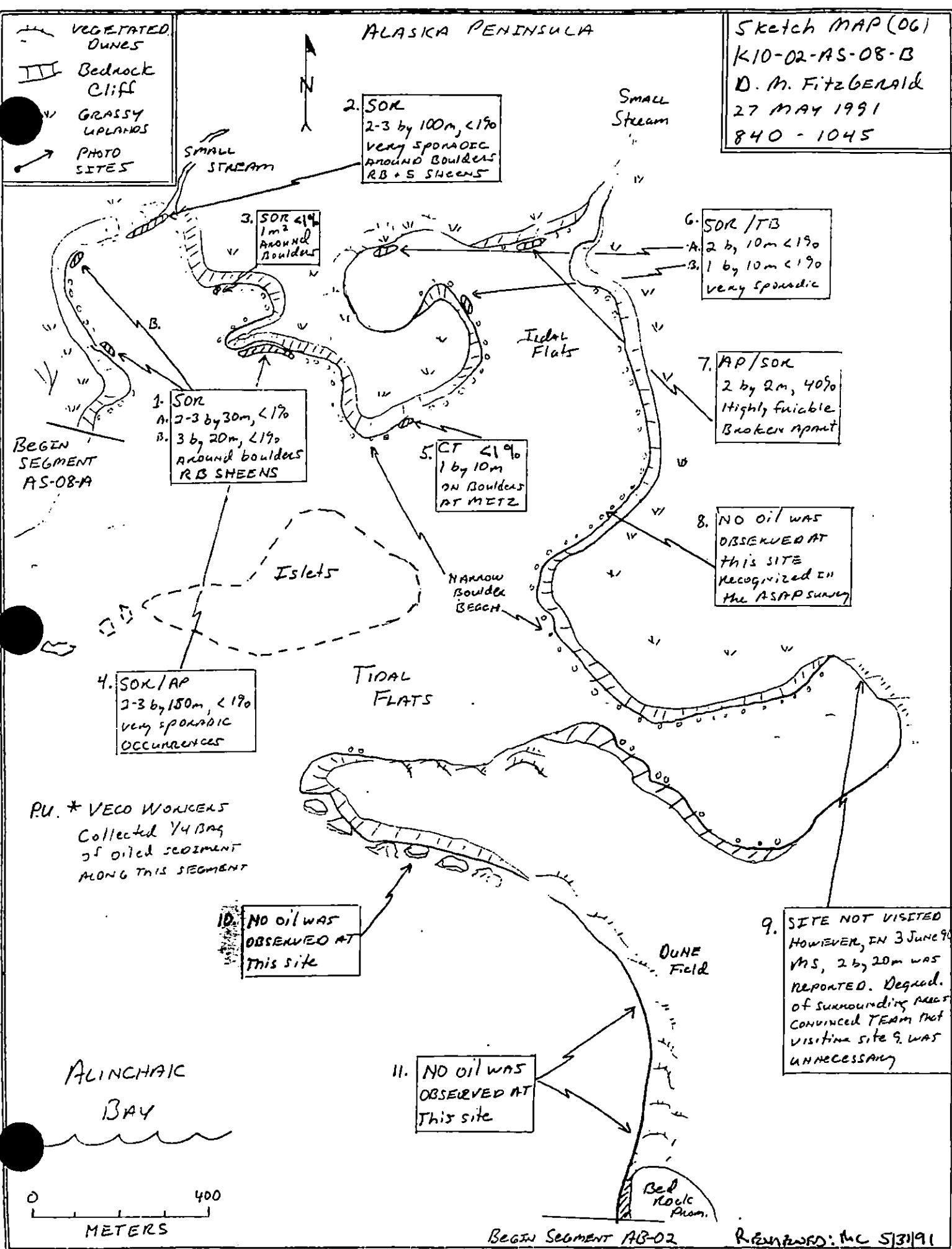
11. NO OIL WAS
OBSERVED AT
THIS SITE

ALINCHAIK
BAY

0 400
METERS

BEGIN SEGMENT AB-02

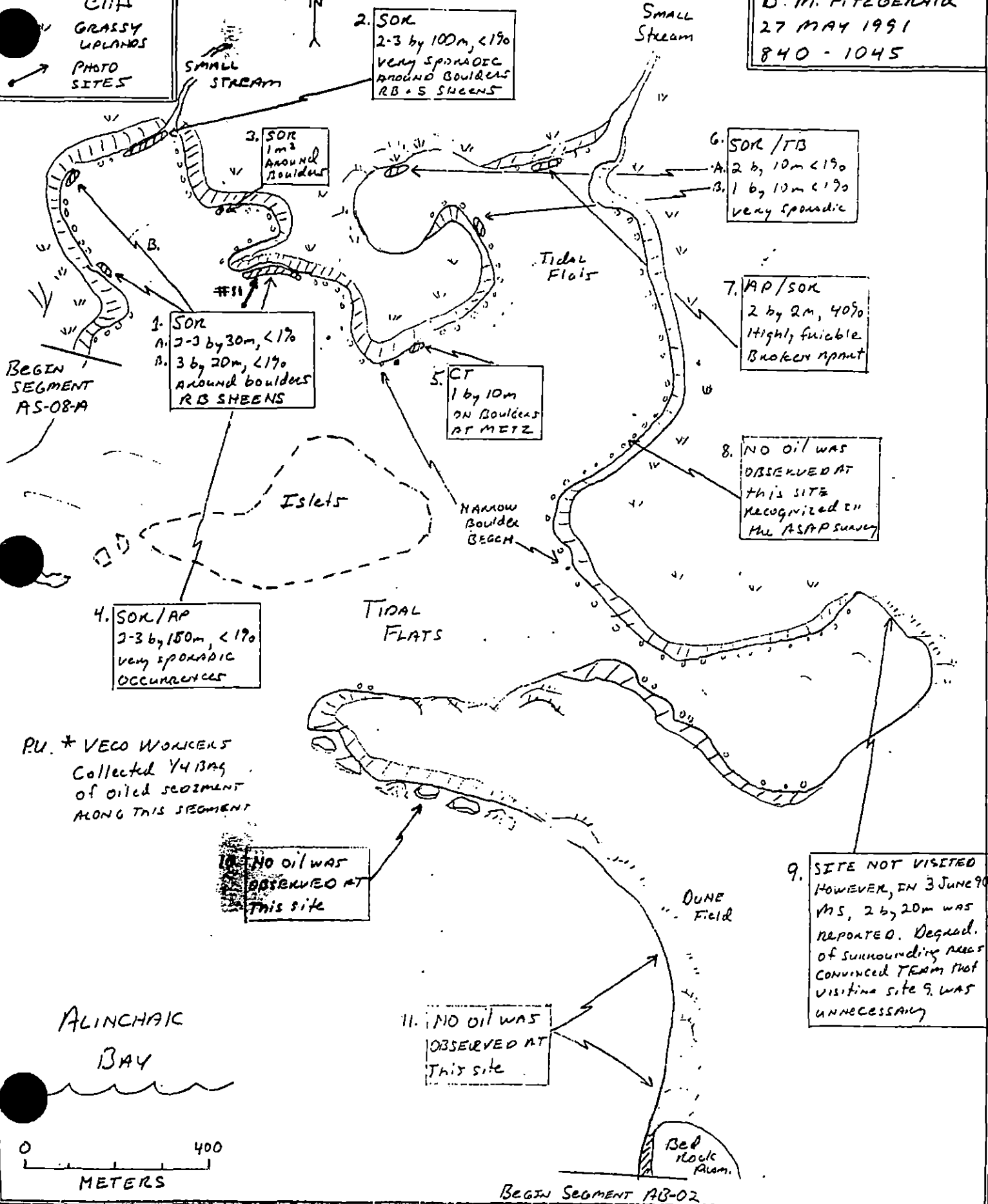
Reviewed: MC 5/31/91
revised 5/31/91 KG



ALASKA PENINSULA
PHOTO SITES, AS-8B
ROLL 6-23, FRAME #11

Sketch MAP (OG)
K10-02-AS-08-B
D. M. FITZGERALD
27 MAY 1991
840-1045

- VEGETATED DUNES
- Bedrock CLIFF
- GRASSY UPLANDS
- PHOTO SITES



MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 6 Helo

DATE May 27 1991

SEGMENT # K10-02 AS-08

TIDAL HEIGHT (Range) 7.5 ft - 1.1 (8:35 - 10:45)

SUBDIVISION B

BIOLOGIST H. Davis

SEA STATE Tide was out. (1-2 ft on coast)

WIND SPEED/DIRECTION 5-20 KT, Variable Winds NE

PHOTOGRAPHS: ROLL # C-23

FRAME # 11

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

This segment is a crenulated shoreline surrounding mud and sand flat. Most of the segment has bedrock cliffs with boulder/cobble rubble at the base. Extending out from the rubble are wide tidal flats. *Mytilus*, *Fucus*, *Scytosiphon*, *Barnacles*, *Littorina*, amphipods and *Enchiridae* are the most common organisms on the rock rubble. *Zostera*, *Ulva*, *Enteromorpha*, *Hydrocolea*, *Porphyra*, *Alga*, *Mya arenaria*, *Macoma* sp., *Tellina*, *Ureca* are located out on the mud flat. Density varied considerably along the segment.

Sites 1-8 were all located at the MITZ. None of the biota in the "oiled" area showed any difference from biota outside these sites. At site 4 a limpet (*Notocmaea personata*) was found grazing on the filamentous green algae that had colonized the crust of *Sor* in a crevice.

Sites 10 and 11. No Oil was observed at these sites. There are extensive *Zostera* beds in front of this beach. For almost the entire width of the *Zostera* bed 2 different sizes of fish eggs paved the mud. (100-150 per 10cm²)

Site 9 was not visited

Eagle (1) Glaucous-winged Gull (25) + 1 Dead Kittiwake New Gulls (5) Ravens (2) Sandpipers (4) Shorelarks (6) Pintail (10) American Wigeon (6) Yellowlegs (2) Sparrows (3)

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1	1	2 kinds of fish eggs in
Seabirds	0		2 <i>Zostera</i> beds with
Waterfowl	3	22	small (just hatched?) fish
Gulls/Kittiwakes	3	730 + 1 dead Kittiwake	
Shorebirds	2	6	
Corvids	1	2	
OTHER BIRDS <i>Reynoldsianus</i>	1	3	

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters	0	Caribou tracks	3 in the uplands.
Pinnipeds (specify)	0	Bear tracks (3 sets)	
Whales (specify)	0	Fox tracks	

Shoreline subdivision map showing important biological features attached.

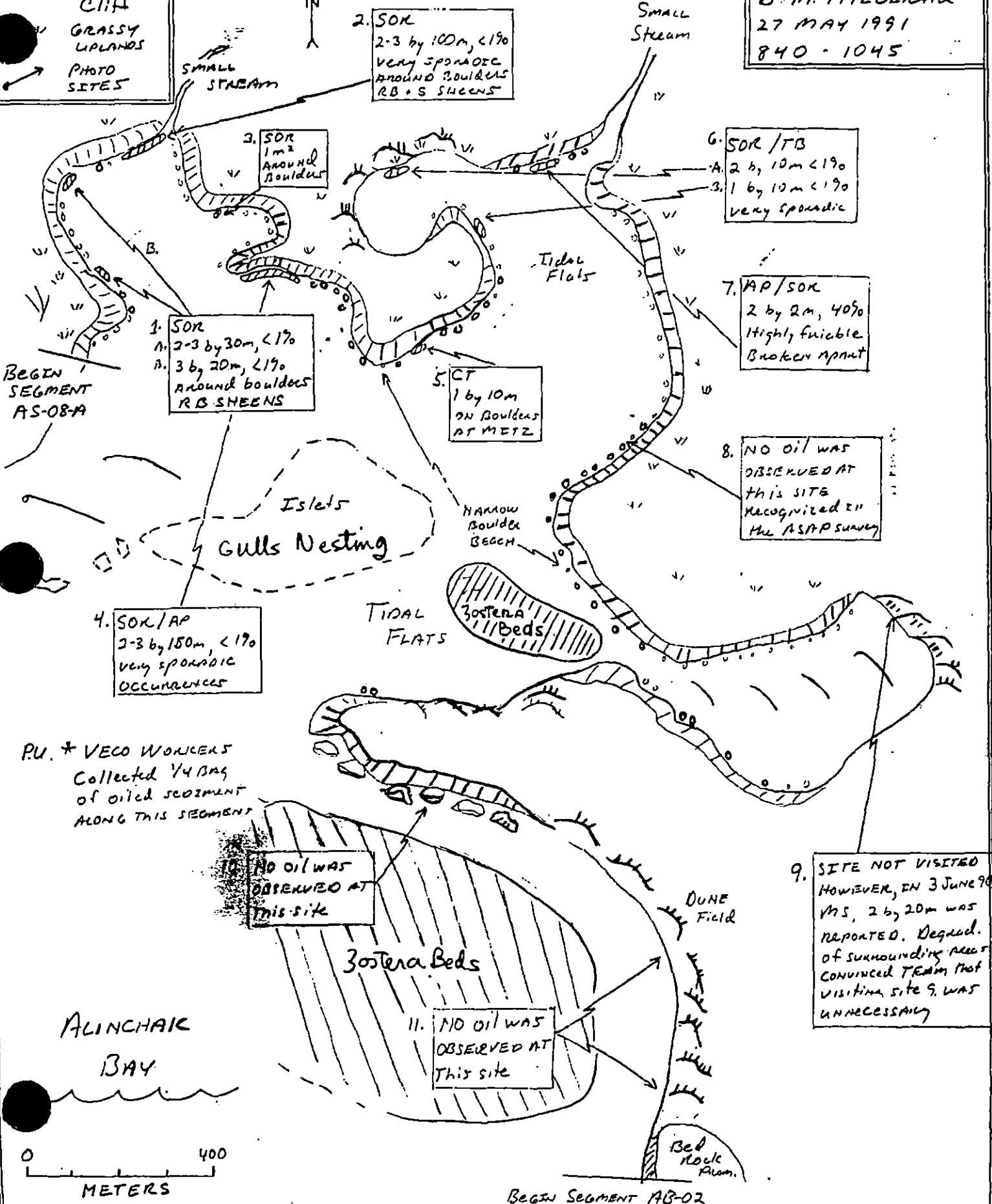
Revised MBS 5/3/91

ALASKA PENINSULA

Bio Map
H. Davis

Sketch MAP (OG)
K10-02-AS-08-B
D. M. FITZGERALD
27 MAY 1991
840 - 1045

- VEGETATED DUNES
- Bedrock CLIFF
- GRASSY UPLANDS
- PHOTO SITES



2. SOR
2-3 by 100m, <1%
VERY SPORADIC
AROUND BOULDERS
RB + S SHEENS

3. SOR
1m²
AROUND
BOULDER

6. SOR / TB
A. 2 by 10m <1%
B. 1 by 10m <1%
VERY SPORADIC

7. AP / SOR
2 by 2m, 40%
Highly friable
Broken apart

1. SOR
A. 2-3 by 30m, <1%
B. 3 by 20m, <1%
AROUND BOULDERS
RB SHEENS

5. CT
1 by 10m
ON BOULDERS
AT METZ

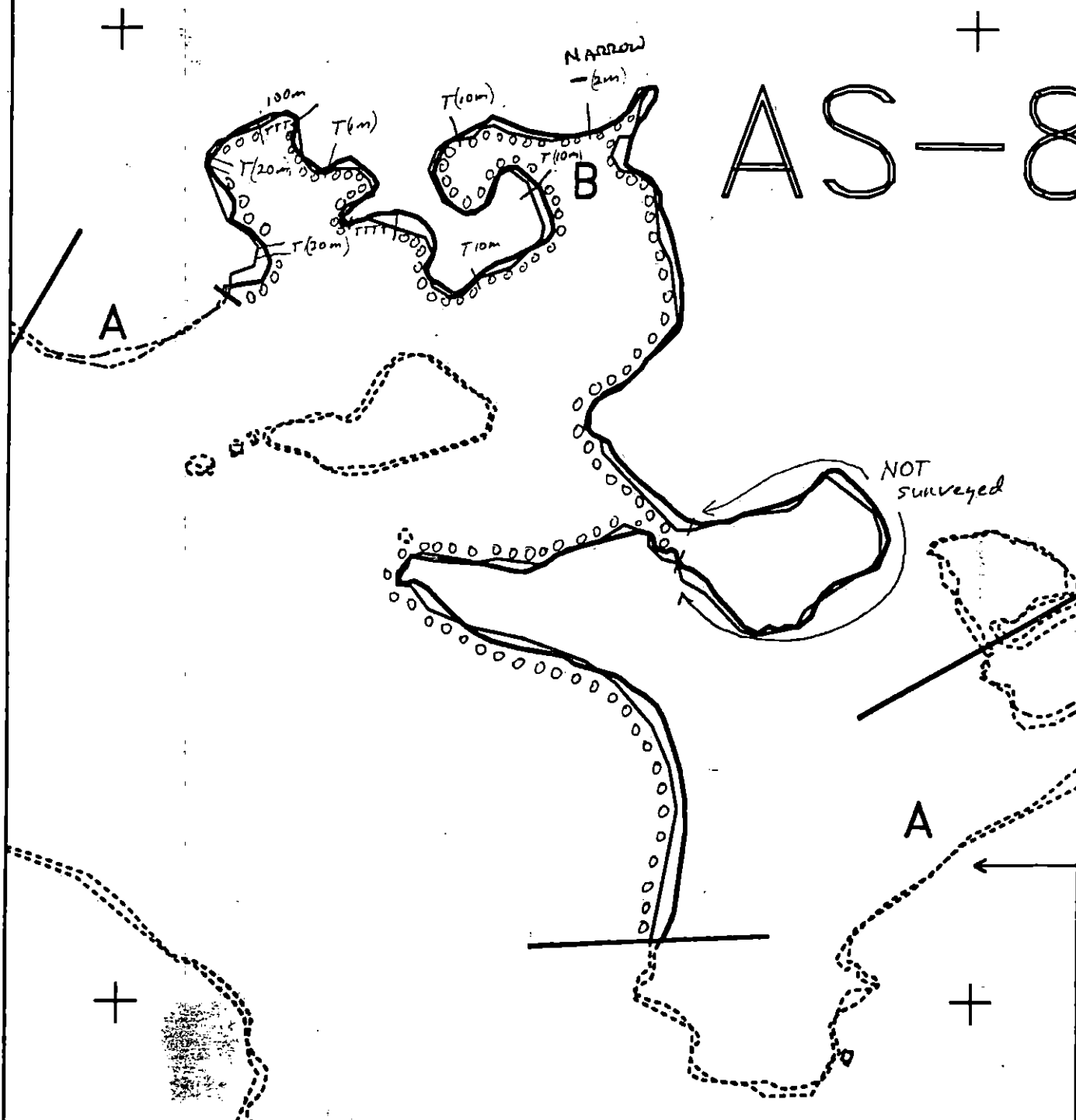
8. NO OIL WAS
OBSERVED AT
THIS SITE
RECOGNIZED IN
THE ASAP SURVEY

4. SOR / AP
2-3 by 150m, <1%
VERY SPORADIC
OCCURRENCES

NO OIL WAS
OBSERVED AT
THIS SITE

9. SITE NOT VISITED
HOWEVER, IN 3 JUNE 90
MS, 2 by 20m WAS
REPORTED. Degree
of surrounding near
CONVINCED TEAM THAT
VISITING SITE 9 WAS
UNNECESSARY

11. NO OIL WAS
OBSERVED AT
THIS SITE



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

K1002 AS008 B
 ADEC Subsegment Length: 8899m
 METERS

0 400 800
 AK State Plane Zone 4
 g1002as008b- . . .



Subdivision Field Map
 Map Key: 00AK1002AS008B
 Name: D. FITZGERALD
 Date: 27 MAY 1991
 Date Entered:

Reviewed by: MC 513191
 reviewed 5/31/91 KB

1991 MAYSAP EVALUATION

SEGMENT: K1002AS008 **SUB:** A **REGION:** KOD **SURVEY DATE:** 5/27/91

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) OPEN

Ecological/Constraints (see page two for details) NONE

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO Signature: _____ **Date:** _____

RECOMMENDATIONS:

INITIAL

TAG

FOSC

TREATMENT REQUIRED (Y or N) N _____

Manual Pickup (Check as Req.) _____

Spot Washing _____

Bio-Customblen Only _____

Bio-Inipol/Customblen _____

Other _____

Other _____

COMMENTS:

INITIAL: _____

TAG: _____

FOSC: _____

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

ADEC _____ **FOSC** _____

EXXON _____

USCG _____

NOAA _____

TEAM NO. 6-HELO SEGMENT AS-8 SUBDIVISION A DATE 5/27/91

ADEC

NAME J. BARNHART, ADEC 6

SIGNATURE Jeff Barnhart

☐ NTR ☒ Treatment Recommended

Alinchak Bay. A band of oil 1-5 meters wide, 1-15% is located along the entire subsegment, 629m. SOR weathered on the surface, "mousse" under weathered surface. Sheening in tidal pools. Oil in the lower portion of the band is covered with a thin layer of silt/sand. Oil was occasionally located by observing the sheen first while the percent of oil is not high, considering the band is 629m in length, considerable oil exists in this subsegment. A trace amount was removed by VECO personnel. Recommend cleanup using single manual pickup. Cleanup can be best accomplished using a helo squad. Note: This segment should be reviewed in conjunction with AS007 and AS008 Segments on either side of AS008, both of which need to be cleaned.

Further with ADFSG, and discuss treatment suggested: Jeff Barnhart (Kodak I. Boduin)

EXXON

NAME R. COULTER, EXXON

SIGNATURE Ray R. Coulter

☒ NTR LIGHT SOR IN AND UNDER BOULDERS REMAINS ON THIS SUBDIVISION. EASILY RECOVERABLE AREAS OF SOR WERE BROKEN UP AND/OR REMOVED. ADDITIONAL REMOVAL WOULD BE VERY TIME CONSUMING AND YIELD VERY LITTLE OILED SEDIMENTS. HIGH BEDROCK CLIFFS MAKE ACCESS IMPOSSIBLE IN MOST PLACES. THIS IS THE SUBDIVISION WHICH JEFF FARRIS OF LISC6 BROKE HIS ANKLE ON LAST YEAR DURING ASAP WHILE TRYING TO MANUEVER DOWN THE CLIFFS. ADDITIONAL TREATMENT IS NOT PRACTICAL. DENSE BIOTA - ESPECIALLY WESTWARD SHOTGUN AND BOAT MOTOR WHEZE FOUND DURING THIS SURVEY.

LANDMANAGER

NAME J. HARDISTER

OF USFWS

SIGNATURE John P. Hardister

☐ NTR ☒ Treatment recommended.

Manual pickup in this segment is recommended in conjunction with manual pickup in adjacent segments AS-07 and AS-08B. In total, the three areas contain sufficient amounts of recoverable oily material (SOR/AP) to warrant cleanup. Oil recovery by helo squad is recommended.

USCG/NOAA

NAME CWO R. SPURE/G. SHIGENAKA

SIGNATURE R. Spure / G. Shigenaka

☒ NTR Recoverable oil SOR/AP was picked up by VECO workers during segment survey.

THE SEGMENT SUBDIVISION WAS COMPLETELY SURVEYED. THE PHYSICAL SETTING WAS SIMILAR TO AS-7A, IN THAT THE SHORELINE WAS CHARACTERIZED BY A NARROW (~10M) BAND OF BOULDER BEACH IN THE UITS THAT ADJOINED A GRANULE/SAND UPPER MITZ GRADING DOWN TO A WIDE TIDAL SAND FLAT. THE BOULDER BEACH BUTTED UP AGAINST ROCK CLIFFS WHICH WERE HIGHER THAN THOSE SEEN IN AS-7A. BIOTA OBSERVED IN THE UPPER MITZ AND IN UITS WERE LITTORINES AND BARNACLES (ON ROCKY SUBSTRATE) AND MUSSELS (IN GRANULE/SAND). AN OUTBOARD MOTOR (DETERMINED NOT TO HAVE BEEN ASSOCIATED WITH EXXON VALDEZ OPS), WRECKAGE OF AN INFLATABLE BOAT, AND A 12 GA. SHOTGUN WERE FOUND IN THE UITS AND SUPRA ALONG THE SUBDIVISION. A LARGE WHITE BLOCK WAS SPRAYPAINTED ON THE BEDROCK FACE OF A CLIFF ABOUT ONE THIRD OF THE WAY FROM THE WESTERN END OF THE SUBDIVISION. RELATIVELY SMALL AMOUNTS OF OIL RESIDUES WERE FOUND IN DISCRETE AREAS OF THE SUBDIVISION. THE RESIDUES WERE SOR/AP AND WERE WELL-WEATHERED; SOME SHEENING IN TIDAL POOLS WAS SEEN AS WELL. THE VECO CREW RECOVERED RESIDUE THAT WAS CONSOLIDATED ENOUGH AND ACCESSIBLE ENOUGH TO BE PICKED UP. OTHER MATERIAL WAS BROKEN UP.

ADEC

NAME J. BARNHART, ADEC 6

SIGNATURE Jeff Barnhart

☐ NTR ☒ Treatment Recommended

Alinchak Bay. A band of oil 1-5 meters wide, 1-15% is located along the entire subsegment, 629m. SOR weathered on the surface, 'mousse' under weathered surface. Sheening in tidal pools. Oil in the lower portion of the band is covered with a thin layer of silt/sand. Oil was occasionally located by observing the sheen first. While the percent of oil is not high, considering the band is 629m in length, considerable oil exists in this subsegment. A trace amount was removed by VECO personnel. Recommend cleanup using simple manual pickup. Cleanup can be best accomplished using a helo squad. Note: This segment should be reviewed in conjunction with AS007 and AS008 B (segments on either side of AS008A) both of which need to be cleaned.

Continue with ADEC 6, and USFWS TREATMENT suggested: Jeff Yellum (Kodiak I. Recovery)

EXXON

NAME R. COULTER, EXXON

SIGNATURE _____

☐ NTR

ANDMANAGER

NAME J. HARDISTER

OF USFWS

SIGNATURE John P. Hardister

☐ NTR ☒ Treatment recommended.

Manual pickup in this segment is recommended in conjunction with manual pickup in adjacent segments AS-07 and AS-08B. In total, the three areas contain sufficient amounts of recoverable oily material (SOR/AP) to warrant cleanup. Oil recovery by helo squad is recommended.

USCG/NOAA

NAME CWO R. SPURGEON, SHIGENAKA

SIGNATURE _____

☒ NTR Recoverable oil SOR/AP was picked up by VECO workers during segment survey.

THE SEGMENT SUBDIVISION WAS COMPLETELY SURVEYED. THE PHYSICAL SETTING WAS SIMILAR TO AS-7A, IN THAT THE SHORELINE WAS CHARACTERIZED BY A NARROW (~10m) BAND OF BOULDER BEACH IN THE UITE THAT ADJOINED A GRANULE/SAND UPPER MITE GRADING DOWN TO A WIDE TIDAL SAND FLAT. THE BOULDER BEACH BUTTED UP AGAINST BEDROCK CLIFFS WHICH WERE HIGHER THAN THOSE SEEN IN AS-7A. BIOTA OBSERVED IN THE UPPER MITE AND IN THE UITE WERE LITTORINES AND BARNACLES (ON ROCKY SUBSTRATE) AND MUSSELS (IN GRANULE/SAND). AN OUTBOARD MOTOR (DETERMINED NOT TO HAVE BEEN ASSOCIATED WITH EXXON VALDEZ OPS), WRECKAGE OF AN INFLATABLE BOAT, AND A 12 GA. SHOTGUN WERE FOUND IN THE UITE AND SUPRA ALONG THE SUBDIVISION. A LARGE WHITE BLOCK WAS SPRAYPAINTED ON THE BEDROCK FACE OF A CLIFF ABOUT ONE THIRD OF THE WAY FROM THE WESTERN END OF THE SUBDIVISION. RELATIVELY SMALL AMOUNTS OF OIL RESIDUES WERE FOUND IN DISCRETE AREAS OF THE SUBDIVISION. THE RESIDUES WERE SOR/AP AND WERE WELL-WEATHERED; SOME SHEENING IN TIDAL POOLS WAS SEEN AS WELL. THE VECO CREW RECOVERED RESIDUE THAT WAS CONSOLIDATED ENOUGH AND ACCESSIBLE ENOUGH TO BE PICKED UP, OTHER MATERIAL WAS BROKEN UP.

SEGMENT K10-02-A5-08

SUBDIVISION 19

DATE 27 / MAY / 91

ENERGY LEVEL: ☐ H ☐ M ☒ L

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

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

EST. OIL CATEGORY LENGTH: W m M m N m VL 629 m NO m US m

[illegible]

DISTRIBUTION: C = 91-100%; B = 51-60%; P = 11-50%; S = 1-10%; T = <1%

SLOPE: V = VERTICAL; H = HIGH ANGLE; M = MEDIUM ANGLE; L = LOW ANGLE PHOTO ROLL # MAYBAP- 6 - 23 FRAMES 8-10

[illegible]

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

OG COMMENTS: THIS SEGMENT IS LOCATED ALONG THE NORTHERN INNER SHORELINE OF THE NORTHEAST ALINCHALK EMBAYMENT. THIS SHORELINE MARKS THE BEGINNING OF THE CRANULATE BAYS AND LIKE THE PREVIOUS SEGMENT IS BACKED BY CLIFFS AND FRONTED BY TIDAL FLATS. THE OILING OF THIS SHORELINE CONSISTED OF SOL/AP OCCURRING IN SPOKADIC AREAS BETWEEN THE BOWLDERS AND COBBLES. WHILE THE OILING WAS CONSISTENT ALONG THE ENTIRE SEGMENT THE 2-3m WIDE BAND CONTAINED < 1% COVERAGE.

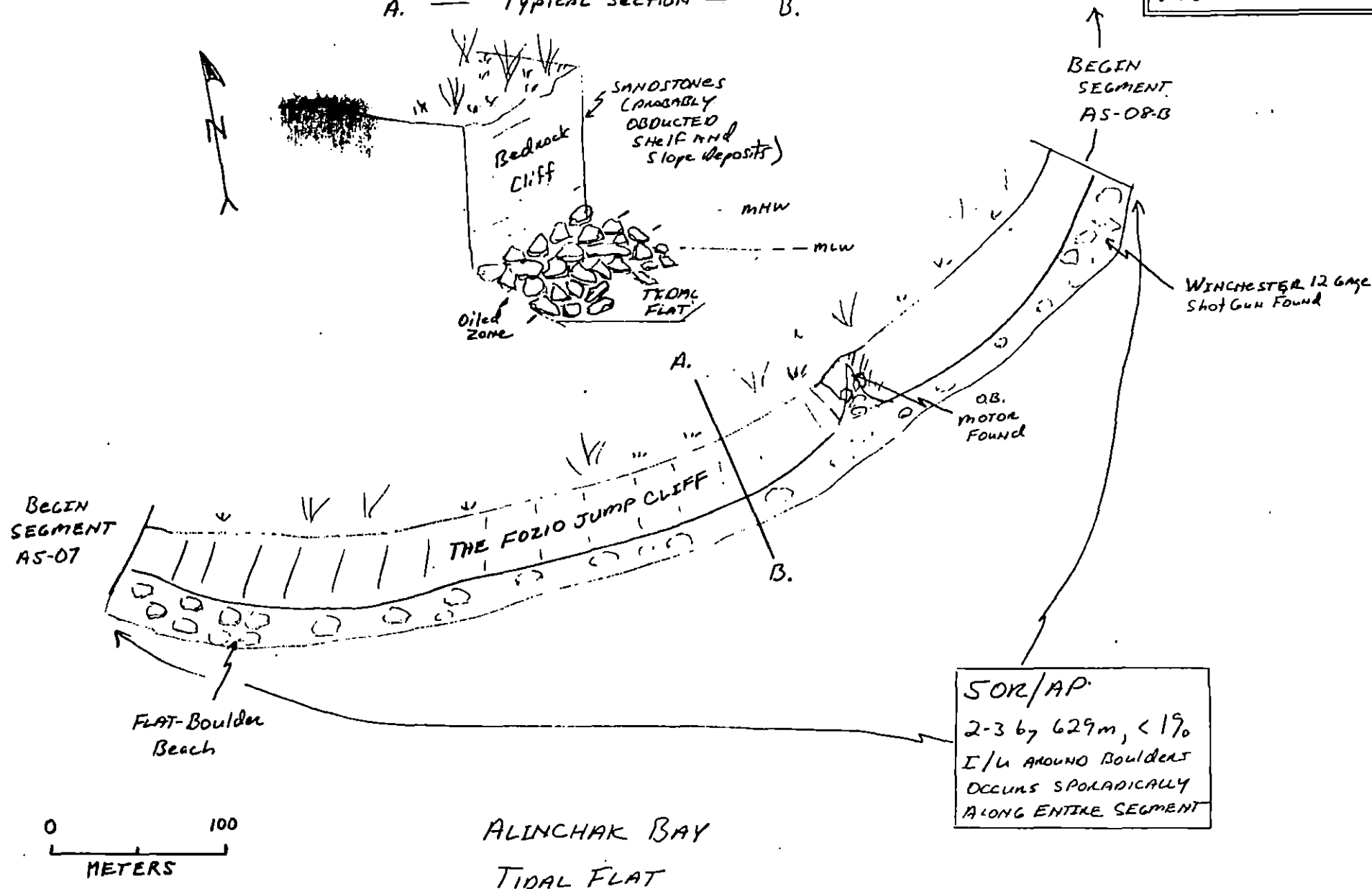
REVIEWED: MC 5/31/91
revised 5.31.92

W. H. HERRICK
 GRASSY
 PHOTO SITES

ALASKA PENINSULA

SKETCH MAP (OG)
 K10-02-AS-08-A
 D. MARTIN FITZGERALD
 27 MAY 1991
 810-835

A. — Typical Section — B.

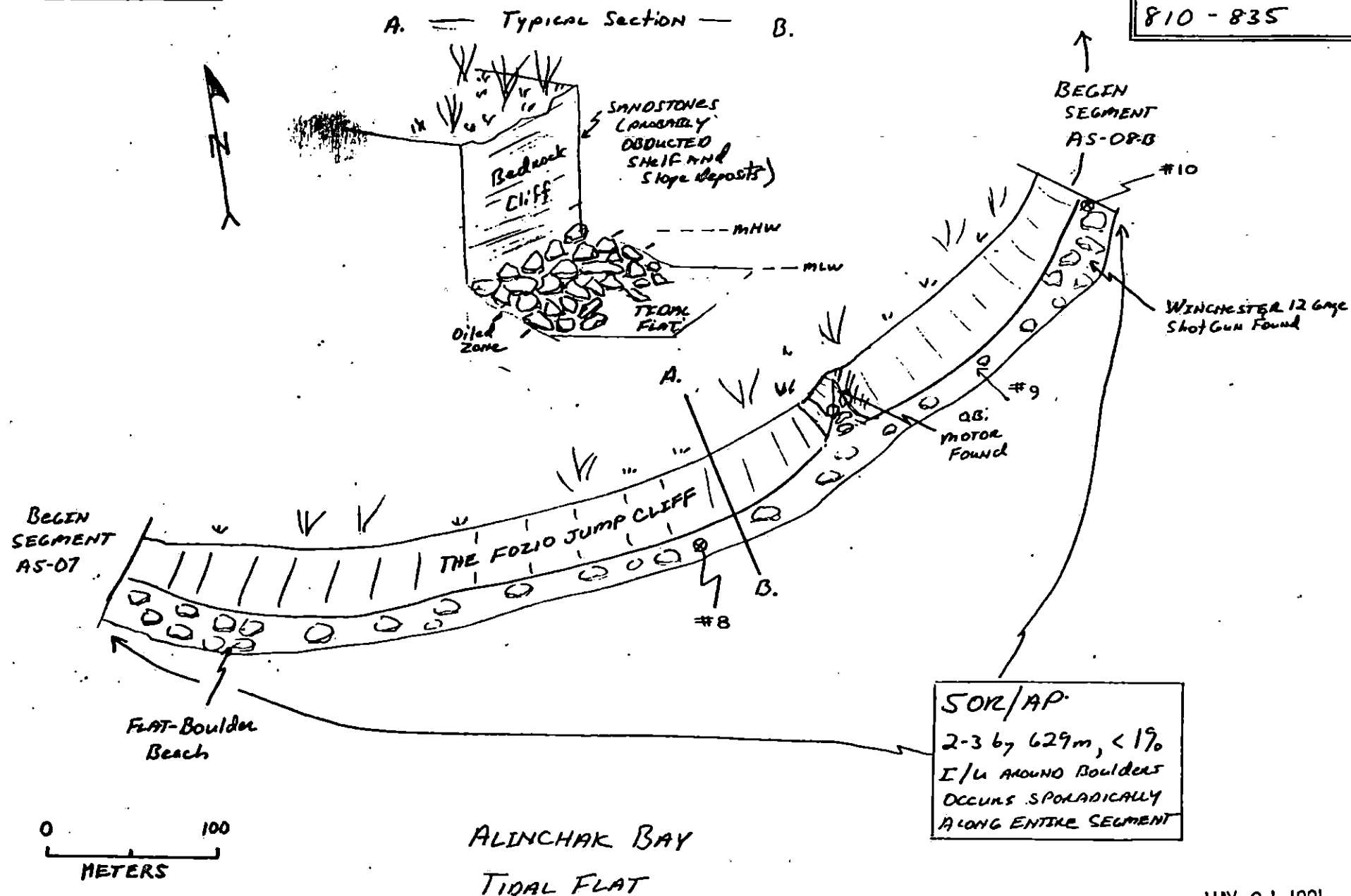


Reviewed MAY 31 1991 Jy

SHRUBS
GRASSY
→ PHOTO SITES

PHOTO SITES, AS-8A ALASKA PENINSULA
ROLL 6-23, FRAMES 8,9,10

Sketch MAP (061)
K10-02-AS-08A
D. MARTIN FITZGERALD
27 MAY 1991
810-835



MAY 31 1991

REVIEWED: MC 5131/91

NAIAB BIOLOGICAL SUMMARY FORM

TEAM # 6 Help

DATE May 27 1991

SEGMENT # K10-02 AS-08

TIDAL HEIGHT(Range) -1.5 ft. (8.10-8.35)

SUBDIVISION A

BIOLOGIST H. Davis

SEA STATE Tide was out / At bay entrance < 2 ft WIND SPEED/DIRECTION 5-10 Kts light breeze NE

PHOTOGRAPHS: ROLL # 6-23

FRAME # 8-10

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

All of the SOR/AP that occurred sporadically within this section was on the boulder/cobble rubble beneath the bedrock cliff. *Vernicaria* grew on the tops of boulders and on the cliff face. *Littorines* started a little below the *Vernicaria* (about 1 ft) and extended out onto the mudflat. *Barnacles*, *Mytilus*, *Limpets*, *Fucus ulva*, *Scytosiphon*, amphipods and the encyrtids were just below the *Littorines* but didn't extend out onto the mudflat except where rocks had rolled out onto the mud. The density of each organism varied greatly along the length of the segment. The *Zostera* occurred in water filled depressions out on the mudflat. What biota occurred was healthy and thriving considering its location and season.

Drift wrack included *Fucus*, *Ulva*, *Zostera* "Red Blades" and *Scytosiphon*. Shells found were predominantly *Saxidomus*, *Macoma*, *Mya arenaria*.

Willow Ptarmigan (1)

Glaucous winged Gulls (>50) Yellow legs (1) Sandpipers (2) plover? (1).

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
EAGLES	0	-	0
SEABIRDS	0	-	
WATERFOWL	0	-	
Gulls/RETTIVARI	1	>50	
SHOREBIRDS	3	4	
CORVIDS	0	-	
OTHER BIRDS Ptarmigan	1	1	

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters	0	Caribou tracks in Ash	
Pinnipeds (specify)	0		
Whales (specify)	0		

Shoreline subdivision map showing important biological features attached.

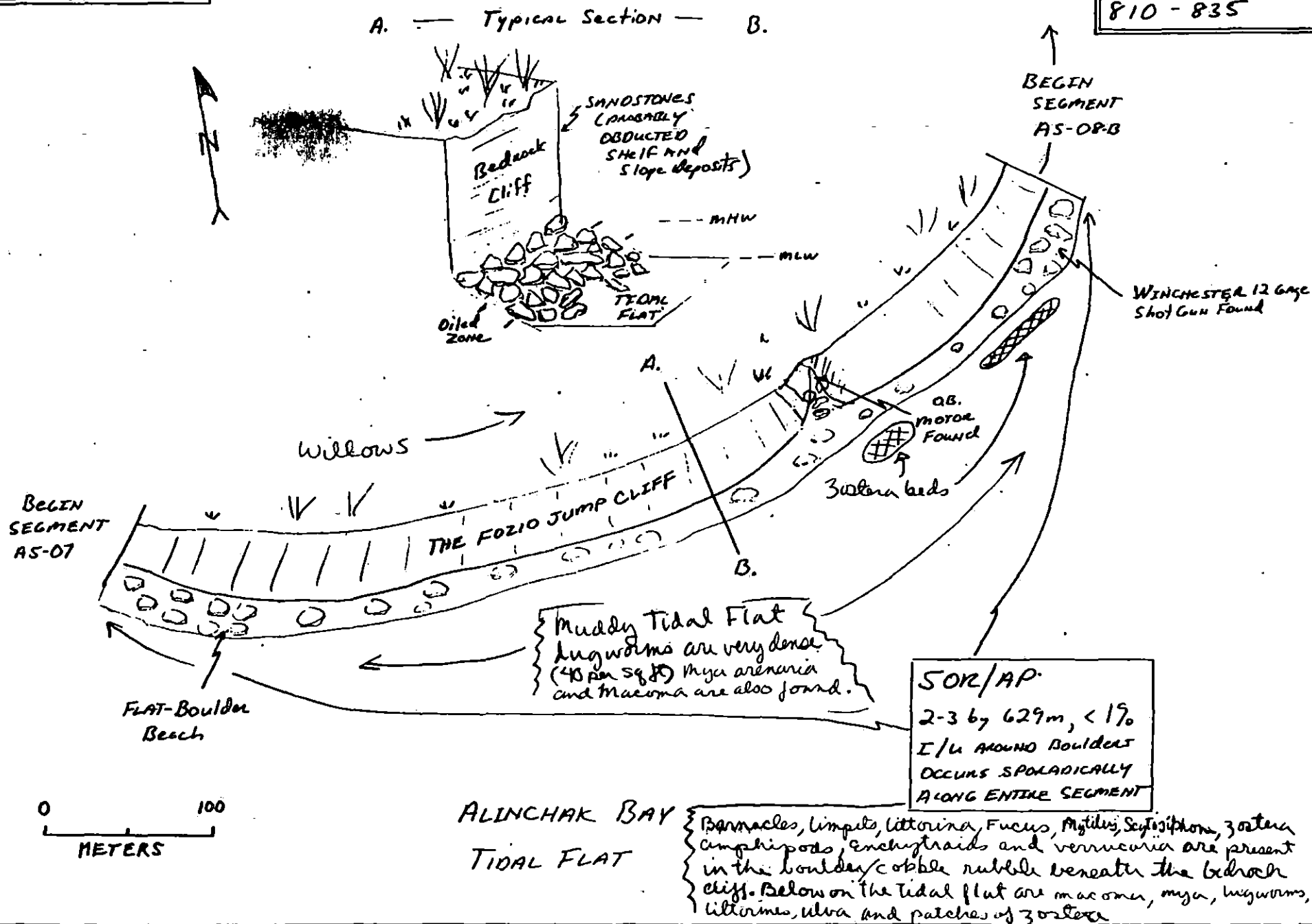
REVIEWED: MC 5/31/91
REVIEWED MB 5/31/91

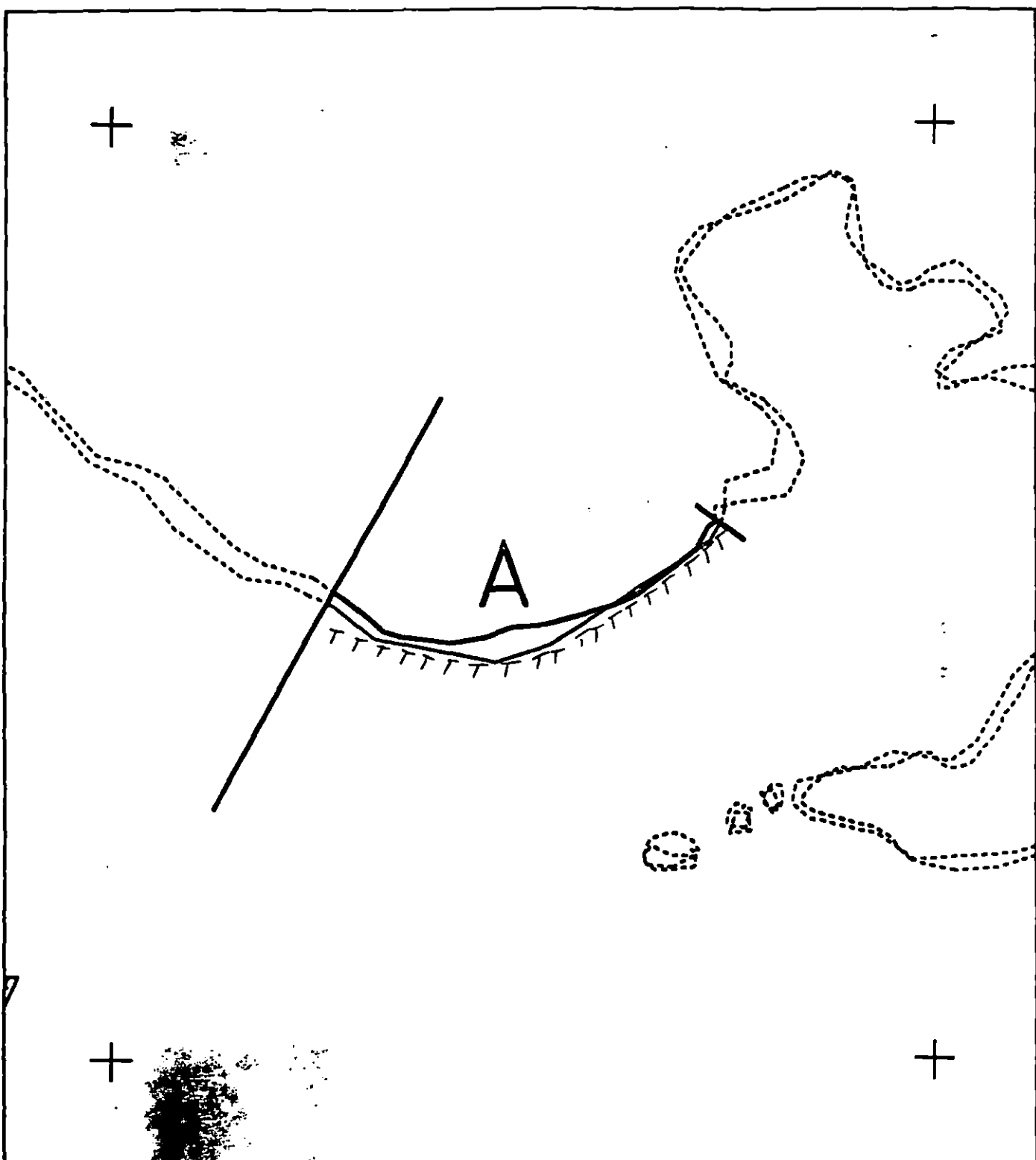
SHAWISERRY
 ~ ~ ~ GRASSY
 → PHOTO SITES

ALASKA PENINSULA

Big Map
 H. Davis

Sketch MAP (06)
 K10-02-AS-08-A
 D. MARTIN FIRGEMALD
 27 MAY 1991
 810-835





XXXX	Wide	K1002 AS008 A	Subdivision Field Map
////	Medium	ADEC Subsegment Length: 629m	
----	Narrow	METERS	Map Key: 00AX1002AS008A
TTTT	Very Light		Name: <u>D. Fitzgerald</u>
0000	No Oil		
AK State Plane Zone 4 1002000000- ...			Date Entered:

Reviewed: MC 5/31/91
 reviewed MAY 6 1991 gy

1991 MAYSAP EVALUATION

SEGMENT: K1004A8005 SUB: A REGION: KOD SURVEY DATE: 5/25/91

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) OPEN

Ecological/Constraints (see page two for details) NONE

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO Signature: Timothy P. Smith Date: 6/07/91

RECOMMENDATIONS:

INITIAL

TAG

FOSC

TREATMENT REQUIRED (Y or N)

N

N

N

Manual Pickup (Check as Req.)

Spot Washing

Bio-Customblen Only

Bio-Inipol/Customblen

Other

Other

COMMENTS:

INITIAL:

TAG:

FOSC:

TAG APPROVAL DATE: June 6 1991

FOSC APPROVAL DATE: 6/8/91

ADEC

FOSC

EXXON

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

USCG

NOAA

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 6-HELO SEGMENT AS-5 SUBDIVISION A DATE 5/25/91

DEC

NAME J. BARNHART, APFEG

SIGNATURE Jeff Barnhart

- ☒ NTR The site as indicated on the sketch map was 3x30m, Trace amount of SOR, CT, CV, remain at this site. The VECO crew removed approx Three pounds of oil. < 1% SOR, CT, CV remains at this site after cleanup. Additional Treatment is not recommended at this time.

EXXON

NAME R. ROYER, EXXON

SIGNATURE Randall K. Royer

- ☒ NTR A HIGH ENERGY COASTLINE THAT CONTAINED MINIMAL OILING CONDITIONS. VECO SURVEY CREW PICKED UP LESS THAN A POUND OF OILED SEDIMENT. COATING AND STAIN DOES NOT PRESENT A THREAT TO THE ENVIRONMENT. NO FURTHER REASSESSMENT WARRANTED. DUCKS AND CARIBOU WERE SEEN IN THE VICINITY OF THE SHORELINE. Healthy looking shoreline.

LANDMANAGER

NAME F. BENNIS, J. HARDISTER OF NPS USFWS

SIGNATURE John P. Hardister

- ☒ NTR Additional treatment not recommended because an insignificant amount of oily material remains.

USCG/NOAA

NAME CWO R. SPURR / G. SHIGENAKA

SIGNATURE R. Spurr G. Shigenaka

- ☒ NTR Further cleanup would make an insignificant contribution to minimizing a threat to the public health or welfare, or the environment.

SURVEYED PORTION OF THE SEGMENT WAS A WIDE BOULDER BEACH LOCATED ON THE NORTHERN SHORELINE OF A PENINSULA IN THE MIDDLE OF ALINCHAK BAY. ROCKY CLIFFS ADJOINED THE BEACH AND LED ONTO HIGH GRASSY FLATS. INTERTIDAL BIOTA WERE MORE DIVERSE ON THIS EXPOSED BOULDER BEACH THAN ON OTHERS SURVEYED. THE AREA, WITH BARNACLES, LITTORINE SNAILS, AND LIMPETS COMMON IN THE MIZ AND BELOW. MYTILUS MUSSELS WERE FOUND IN CRACKS AND CREVICES AS WELL. OBSERVED OILING WAS LIMITED TO A 3x30m BAND (OG ESTIMATE) IN THE MIZ NEAR THE EASTERN END OF THE SEGMENT. WEATHERED COAT AND SOR WERE FOUND IN A SCATTERED PATTERN OF OCCURRENCE AMONG BOULDERS. NO OTHER SUBSTANTIVE OILING WAS SEEN ALONG THE SURVEYED SEGMENT. ALTHOUGH THE VECO CREW ACCOMPANIED THE SURVEY TEAM, VERY LITTLE OIL WAS RECOVERED.

MAYSAP SHORELINE OILING SUMMARY

PAGE 1 OF 1

TEAM NO. 6-Helo

OG D. Fitzgerald

BIO H. DAVIS

SEGMENT 1C10-4-AS-5

SUBDIVISION A

ADEC J BARNHART ADFG

LANDMANAGER J. Hadister for USFWS

DATE 25 / May / 191

EXXON R. Boyer

USCG/NOAA CWO SPURR / G. SHIGENAKA

TIME 8 : 30 to 9 : 00

TIDE LEVEL .8 ft. to 1.2 ft.

ENERGY LEVEL: ☐ H ☒ M ☐ L

SURVEYED FROM: ☒ FOOT ☐ BOAT ☐ HELO

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

TOTAL LENGTH SHORELINE SURVEYED: 800 m

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

EST. OIL CATEGORY LENGTH: W m M m N m VL 30 m NO 770 m US 10948 m

[illegible]

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

SLOPE: V = VERTICAL; H = HIGH ANGLE; M = MEDIUM ANGLE; L = LOW ANGLE PHOTO ROLL # MAYSAP- 6 - 22 FRAMES 13-15

[illegible]

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

OG COMMENTS: THIS SEGMENT ENCOMPASSES THE MIDDLE EMBAYMENT SHORELINE OF ALINCHAK BAY. THE SURVEYED SHORELINE WAS ALONG THE SOUTHEAST PORTION OF THE BAY WHICH FORMS THE TOP SIDE OF THE "ALINCHAK BOOT." THIS REGION CONSISTS OF A WAVE-CUT PLATFORM BACKED BY CLIFFS WITH A THIN VENEER OF FLAT BOULDERS. THE OILING OF THIS AREA WAS CONFINED TO A SMALL COVE AT THE EASTERN END OF THE "BOOT." THE EXTENT OF THE OILING IS THE SAME AS IT WAS IN THE 1990 ASAP BUT MUCH MORE SPORADIC AND WEATHERED. THERE IS LITTLE SOX AND THE SMALL AMOUNT THAT WAS FOUND WAS COLLECTED BY VECO WORKERS AMOUNTING TO LESS THAN .1 BAG.

Received: Mr 5/4/96

UPLANDS
 FLAT BOULDER
 INTERTIDAL
 ZONE
 PHOTO SITES

ALASKA PENINSULA (BOOT OF ALINCHAK)

Sketch MAP
 K10-4-AS-5-A
 D M. FITZGERALD
 25 MAY 1991
 830-900

P.U. * VECO WORKERS
 Picked up ALL SEEN
 AND ACCESSIBLE
 OIL AMOUNTING
 TO < .1 BAG

A. CT/ST
 SOR
 3 by 30m, < 190
 JUST ABOVE
 BARNACLE ZONE
 SOR I/U AROUND
 BOULDERS

WAVE-CUT
 PLATFORM

MLW

Bedrock CLIFF

LANDWARD EDGE
 OF BARNACLE ZONE

0 25
 METERS

ALINCHAK
 Bay

Reviewed: MC 5/29/91
 reviewed 5.29.94

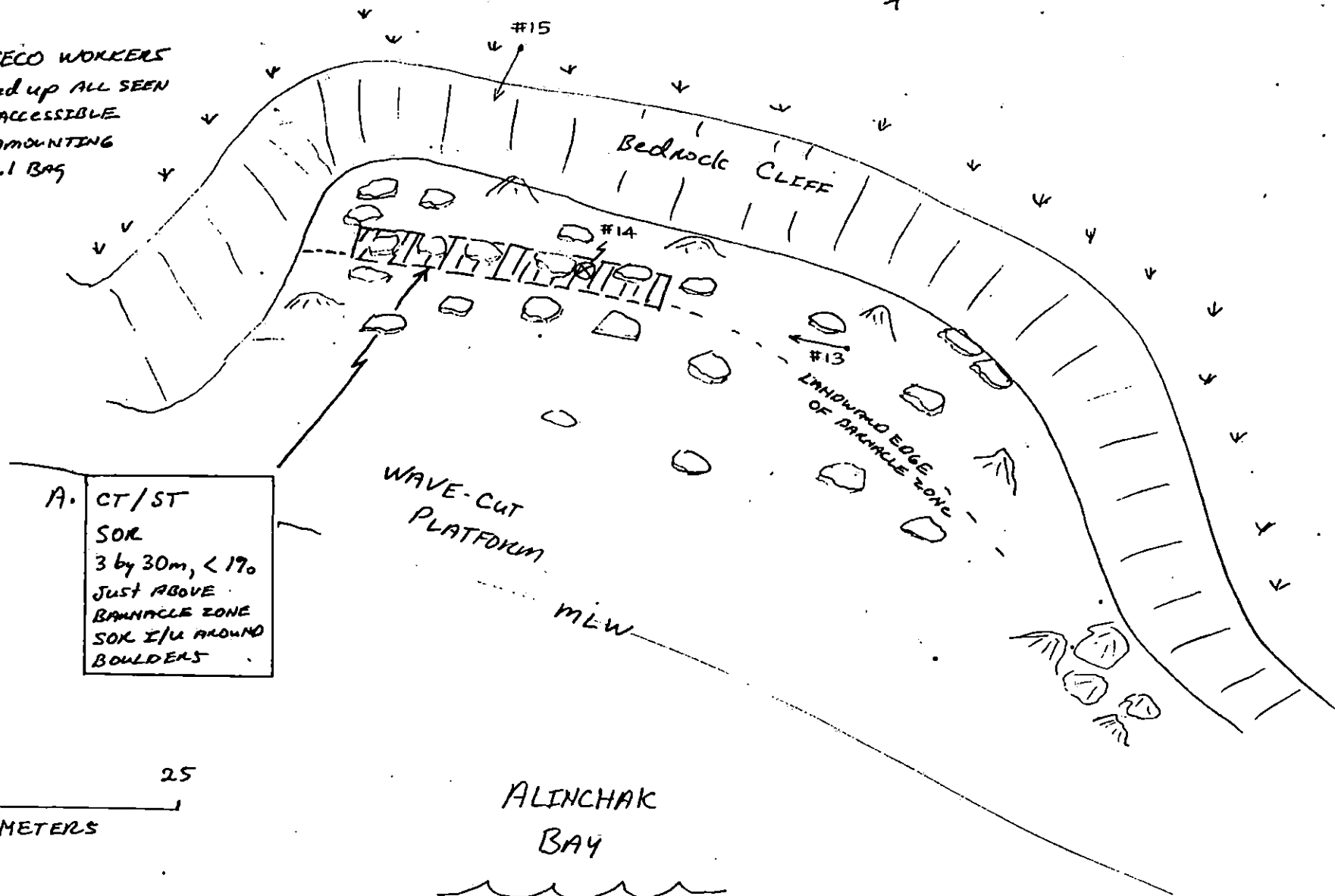
V V V LANDS
 □ FLAT BOULDER
 INTERTIDAL
 ZONE
 ↗ PHOTO SITES

PHOTO SITES, A5-5A
 ROLL 6-22, FRAMES 13 TO 15

ALASKA PENINSULA (BOOT OF ALINCHAK)

Sketch MAP
 K10-4-A5-5A
 D. M. FITZGERALD
 25 MAY 1991
 830-900

P.U. * VECO WORKERS
 Picked up ALL SEEN
 AND ACCESSIBLE
 OIL AMOUNTING
 TO < .1 BAG



MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 6 Helo

DATE May 25 1991

SEGMENT # K10-4 AS-5

TIDAL HEIGHT (Range) .8-1.2 ft (8:30-9:00)

SUBDIVISION A

BIOLOGIST H. Davis

SEA STATE Calm <1 ft

WIND SPEED/DIRECTION 5 KTS

PHOTOGRAPHS: ROLL #

FRAME #

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

Site A was on a flat bedrock platform covered with boulders. The biota at this site is dense but not diverse in the MIZ. Barnacles (*B. glandula* and *B. cariosus*), *Mytilus* *littorina* and limpets (*N. scutum* and *N. pinnosus*) are the most numerous species on the beach. *Mytilus* was confined to crevices and areas protected from boulders. There are small barnacles (*last years spat*) on many rocks and in protected spots very large *B. cariosus* can be found. *Littorina* were moderate in numbers. The coat and stain was above the barnacle zone. A few *Littorina* were in the area. Algal drift included *Fucus*, *Alaria*, *Laminaria* and *Pilota*. Amphipods and anachitrids were active in the wrack. In the MIZ the cover was still dense but became more diverse.

Clean up in this area would be more disruptive than productive.

Harlequin (15) Glaucous winged Gull (10) Mew (3) 1 dead Kittiwake White winged Scoter (10)

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

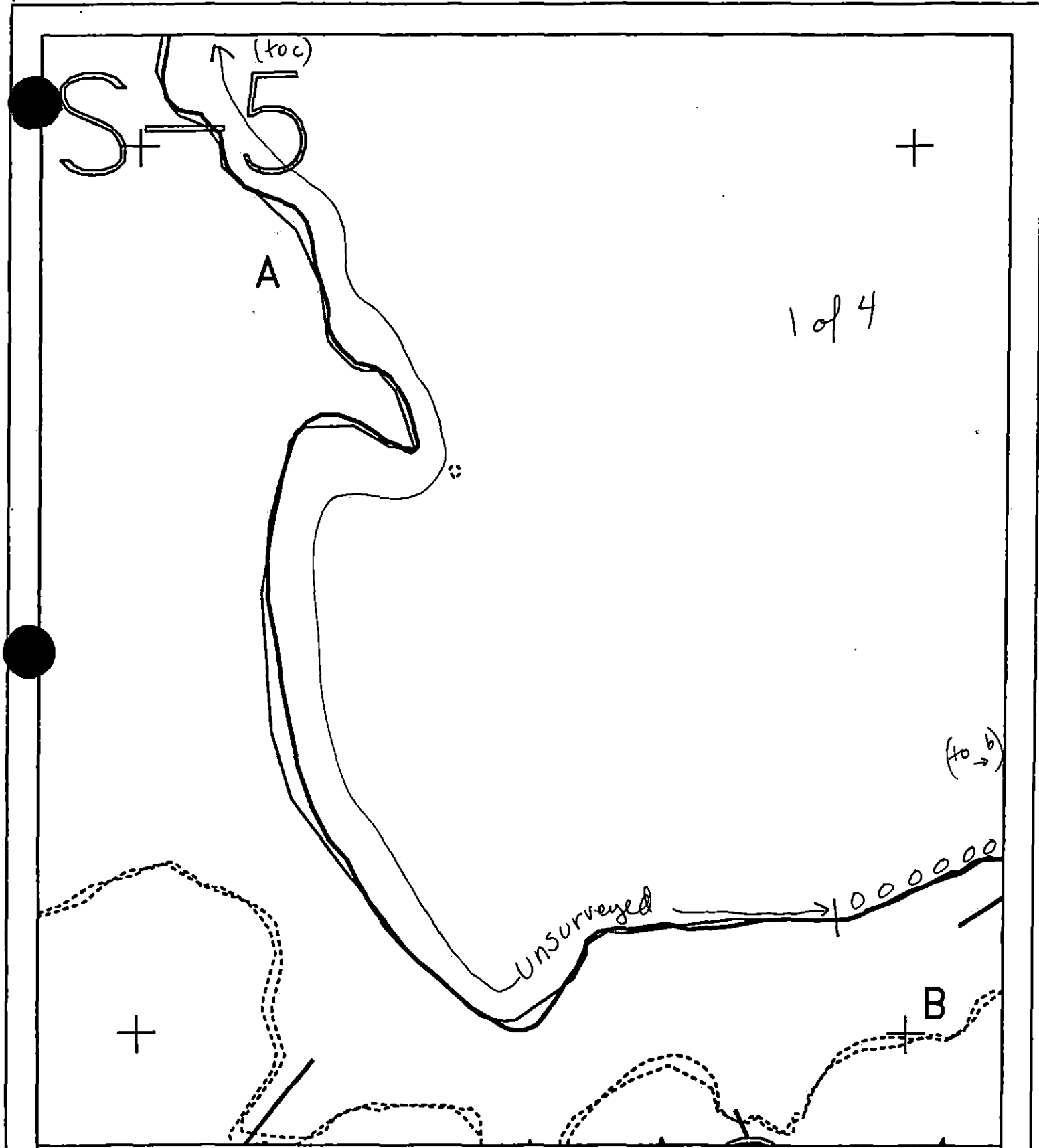
BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	0		0
Seabirds	0		
Waterfowl	2	25	
Gulls/Kittiwakes	3	13 + 1 dead Kittiwake	
Shorebirds	0		
Corvids	0		
Other Birds	0		

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters	1 adult 1 pup.	Caribou	2 bucks 3 does 1 young?
Pinnipeds (specify)			
Harbor seal	2		
Males (specify)			

Shoreline subdivision map showing important biological features attached.

Revised M.B. 5/29/91

Laminar
beds.



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

K1004 AS005 A
 ADEC Subsegment Length: 11748m
 METERS

0 400 800
 AK State Plane Zone 4
 1004000500- . . .



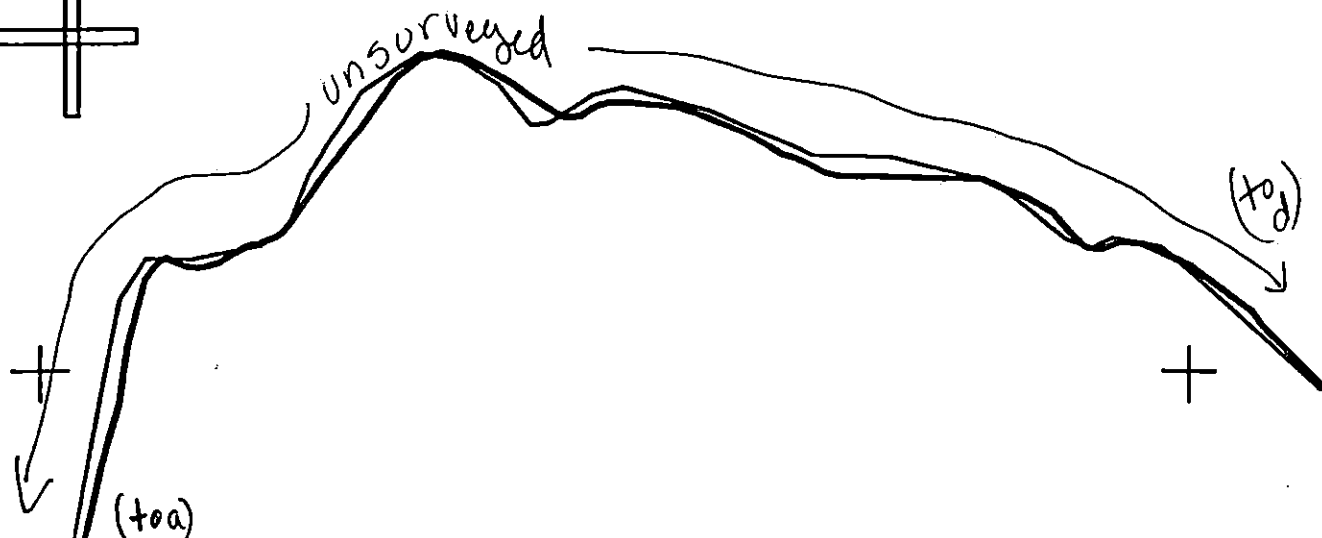
Subdivision Field Map
 Map Key: 60AK1004AS005Aa
 Name: (JY) Fitzgerald
 Date: 25 May 91
 Date Entered:

+

+

3094

4



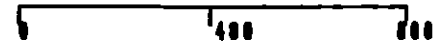
XXXX
////

TTTT
0000

Wide
Medium
Narrow
Very Light
No Oil

K1004 AS005 A
ADEC Subsegment Length: 11748m

METERS



AK State Plane Zone 4
g1004as005ac



Subdivision Field Map

Map Key: 60AK1004AS005Ac

Name: (JY) Fitzgerald

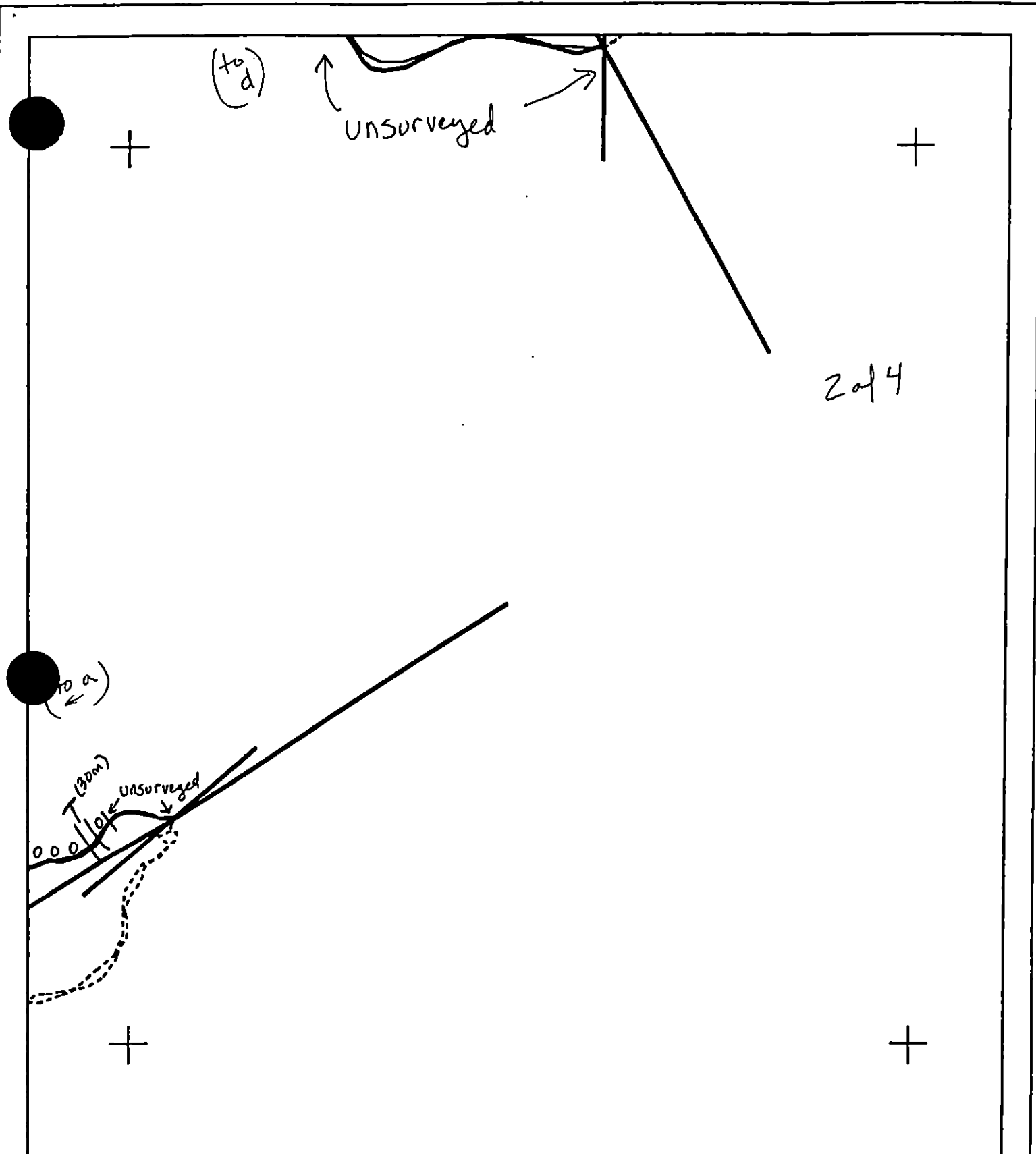
Date: 25 May 91

Data Entered:

+

Subdivision Field Map
Map Key: 60AK1004AS005AD
Name: (J.D) Fitzgerald
Date: 25 May 91
Date Entered:





XXXX
 ///

 TTTT
 0000

Wide
 Medium
 Narrow
 Very Light
 No Oil

K1004 AS005 A
 ADEC Subsegment Length: 11748m
 METERS
 AK State Plane Zone 4
 g1004as005ab- . . .



Subdivision Field Map
 Map Key: 60AK1004AS005AB
 Name: (JY) Fitzgerald
 Date: 25 May 91
 Data Entered:

Reviewed: MC 5/27/91

1991 MAYSAP EVALUATION

SEGMENT: K1004A8005 SUB: A REGION: KOD SURVEY DATE: 5/25/91ENVIRONMENTAL SENSITIVITIES:Work Window(s) OPENEcological/Constraints (see page two for details) NONEARCHAEOLOGICAL CONSTRAINTS:If treatment is planned, a cultural resource evaluation is required prior to shoreline treatment.

SHPO Signature: _____ Date: _____

RECOMMENDATIONS:

INITIAL

TAG

FOSC

TREATMENT REQUIRED (Y or N)

N

Manual Pickup (Check as Req.)

Spot Washing

Bio-Customblen Only

Bio-Inipol/Customblen

Other

Other

COMMENTS:

INITIAL: _____

TAG: _____

FOSC: _____

TAG APPROVAL DATE: _____

FOSC APPROVAL DATE: _____

ADEC

FOSC

EXXON

USCG

NOAA

ADEC

NAME J. BARNHART, ADEC

SIGNATURE

Jeff Barnhart

- ☒ NTR The site as indicated on the crater map was 3x30m, Trace amount of SOR, CT, CV, remain at this site. The VECO crew removed approx three pounds of o.i. < 1% SOR, CT, CV remains at this site after cleanup. Additional treatment is not recommended at this time.

EXXON

NAME R. BOYER, EXXON

SIGNATURE

Randall E. Boyer

- ☒ NTR A HIGH ENERGY COASTLINE THAT CONTAINED MINIMAL OILING CONDITIONS. VECO SURVEY CREW PICKED UP LESS THAN A POUND OF OILED SEDIMENT. COATING AND STAIN DOES NOT PRESENT A THREAT TO THE ENVIRONMENT. NO FURTHER REASSESSMENT WARRANTED. DUCKS AND CARIBOU WERE SEEN IN THE VICINITY OF THE SHORELINE. Healthy looking shoreline.

LANDMANAGER

NAME ~~E. BEARDS~~ J. HARDISTER OF NPS USEFWS

SIGNATURE

John P. Hardister

- ☒ NTR Additional treatment not recommended because an insignificant amount of oily material remains.

USCG/NOAA

NAME CWO R. SPURR / G. SHIGENAKA

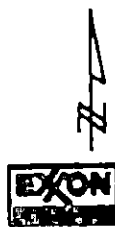
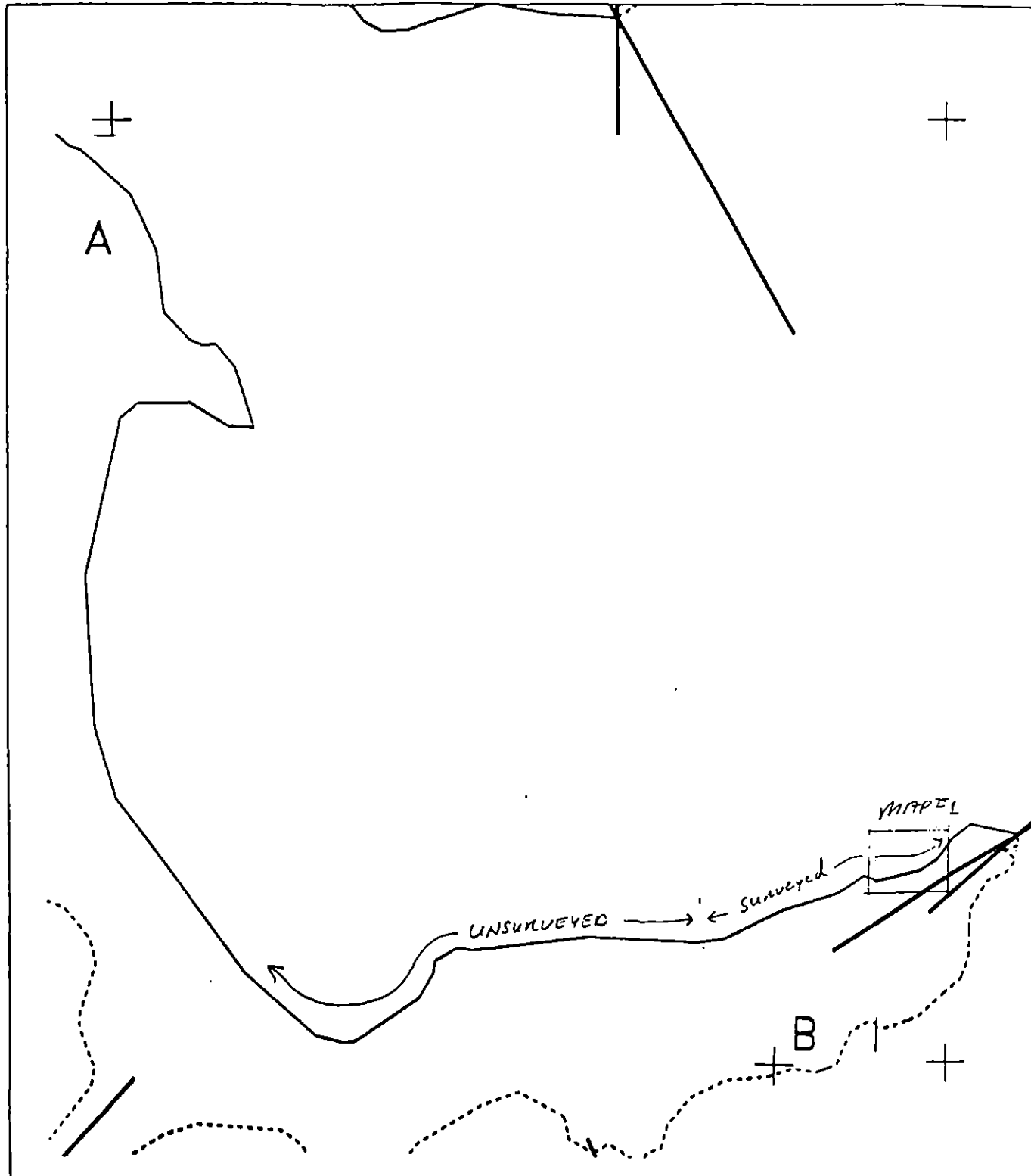
SIGNATURE

*R. Spurr**G. Shigenaka*

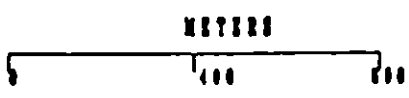
- ☒ NTR Further cleanup would make an insignificant contribution to minimizing a threat to the public health or welfare, or the environment.

SURVEYED PORTION OF THE SEGMENT WAS A WIDE BOULDER BEACH LOCATED ON THE NORTHERN SHORELINE OF A PENINSULA IN THE MIDDLE OF ALINCHAK BAY. ROCKY CLIFFS ADJOINED THE BEACH AND LED ONTO HIGH GRASSY FLATS. INTERTIDAL BIOTA WERE MORE DIVERSE ON THIS EXPOSED BOULDER BEACH THAN ON OTHERS SURVEYED IN THE AREA, WITH BARNACLES, LITTORINE SNAILS, AND LIMPETS COMMON IN THE MIZ AND BELOW. MYTILUS MUSSELS WERE FOUND IN CRACKS AND CREVICES AS WELL. OBSERVED OILING WAS LIMITED TO A 3x30m BAND (06 ESTIMATE) IN THE MIZ NEAR THE EASTERN END OF THE SEGMENT. WEATHERED COAT AND SOR WERE FOUND IN A SCATTERED PATTERN OF OCCURRENCE AMONG BOULDERS. NO OTHER SUBSTANTIVE OILING WAS SEEN ALONG THE SURVEYED SEGMENT. ALTHOUGH THE VECO CREW ACCOMPANIED THE SURVEY TEAM, VERY LITTLE OIL WAS RECOVERED.

Reviews: MC 5/19/9
reviewed 5.29.9



K1004 AS005 A



AK State Plane Zone 14
11004100500-1

Subdivision Field Map
Map Key: 0041004100500
Name: D. FITZGERALD
Date: 25 MAY 1991

reviewed 5.29.9

✓✓✓ GRASSY
UPLANDS

□ FLAT BOULDER
INTERIOR
ZONE

→ PHOTO SITES

ALASKA PENINSULA (BOOT OF ALINCHAK)

Sketch MAP (OG)
K10-4-AS-5-A
D. M. FITZGERALD
25 MAY 1991
830-900

P.U. * VECO WORKERS
Picked up ALL SEEN
AND ACCESSIBLE
OIL AMOUNTING
TO < .1 BAG

A. CT/ST
SOR
3 by 30m, < 190
JUST ABOVE
BARNACLE ZONE
SOR I/U AROUND
BOULDERS

WAVE-CUT
PLATFORM

MLW

Bedrock CLIFF

LANDWARD EDGE
OF BARNACLE ZONE

0 25
METERS

ALINCHAK
BAY

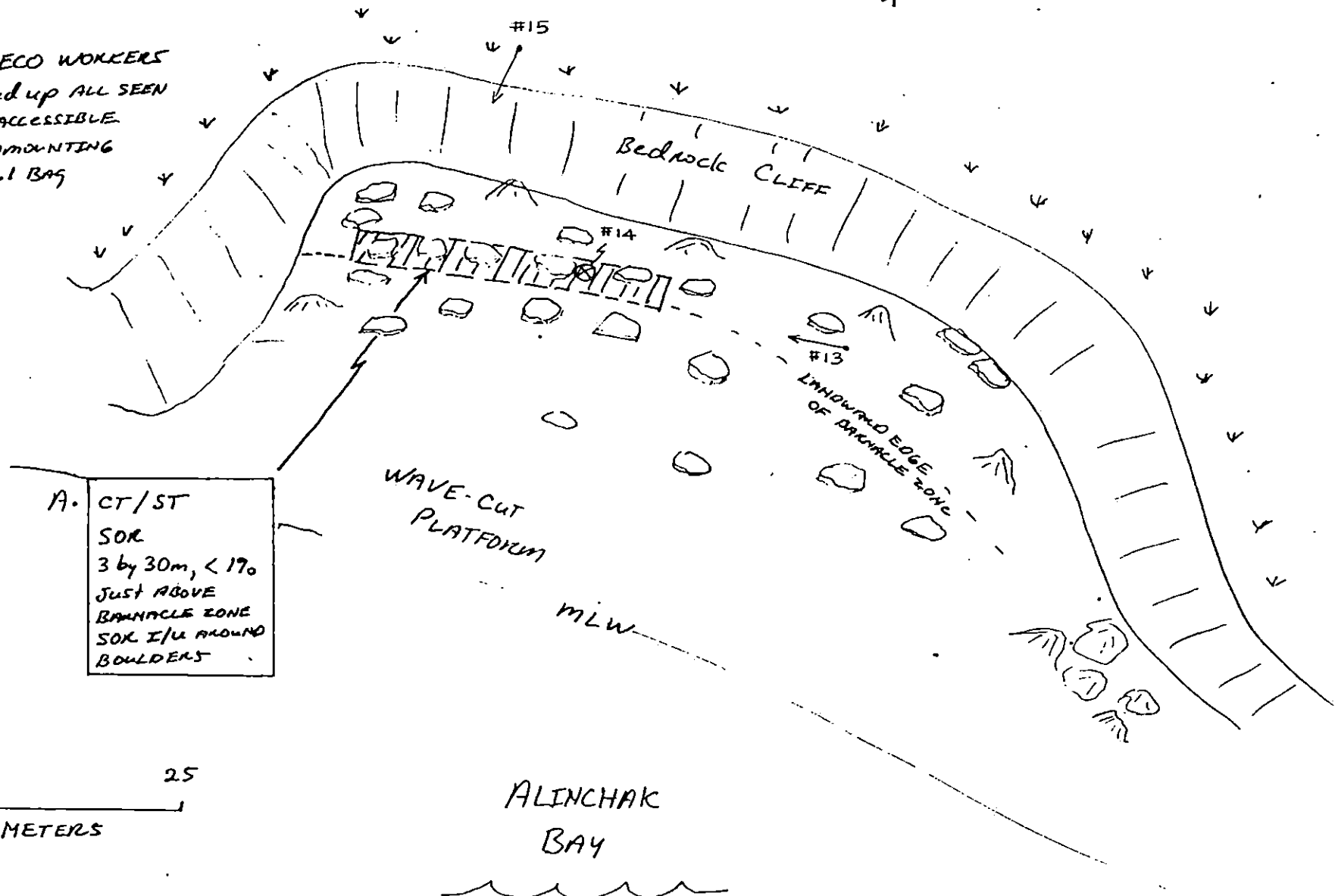
- v v v GRASSY UPLANDS
 □ FLAT BOULDER INTERTIDAL ZONE
 ↗ PHOTO SITES

PHOTO SITES, A5-5A
 ROLL 6-22, FRAMES 13 THRU 15

ALASKA PENINSULA (Boot of ALINCHAK)

Sketch MAP (OG)
 K10-4-A5-5-A
 D M. FITZGERALD
 25 MAY 1991
 830-900

P.U. * VECO WORKERS
 Picked up ALL SEEN
 AND ACCESSIBLE
 OIL AMOUNTING
 TO < .1 BAG



KAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 6 Helo

DATE May 25 1991

SEGMENT # K10-4 AS-5

TIDAL HEIGHT (Range) 8-1.2 ft (8:30-9:00)

SUBDIVISION A

BIOLOGIST H. Davis

SEA STATE Calm < 1 ft

WIND SPEED/DIRECTION 5 KTS

PHOTOGRAPHS: ROLL #

FRAME #

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

Site A was on a flat bedrock platform covered with boulders. The biota at this site is dense but not diverse in the MIZ. Barnacles (*B. glandula* and *B. cariosus*), *Mytilus* *ultrina* and limpets (*N. scutum* and *N. person*) are the most numerous species on the beach. *Mytilus* was confined to crevices and areas protected from boulders. There are small barnacles (last years spat) on many rocks and in protected spots very large *B. cariosus* can be found. Littorina were moderate in numbers. The coat and stain was above the barnacle zone. A few littorines were in the area. Algal drift included *Fucus*, *Alaria*, *Laminaria* and *Phyllo*. Amphipods and anchytrids were active in the wrack. In the MIZ the cover was still dense but became more diverse.

Clean up in this area would be more disruptive than productive.

Harlequin (15) Glaucous winged Gull (10) Mew (3) 1 dead Kittiwake White winged Scoter (10)

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	0		0
Seabirds	0		
Waterfowl	2	25	
Gulls/Kittiwakes	3	13 + 1 dead Kittiwake	
Shorebirds	0		
Corvids	0		
Other Birds	0		

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters	1 adult 1 pup.	Caribou	2 bucks 3 does 1 young?
Pinnipeds (specify)			
Harbor seal	2		
Whales (specify)			

Shoreline subdivision map showing important biological features attached.

Reviewed M.B. 2

V V V GRASSY UPLANDS

□ FLAT BOULDER INTERTIDAL ZONE

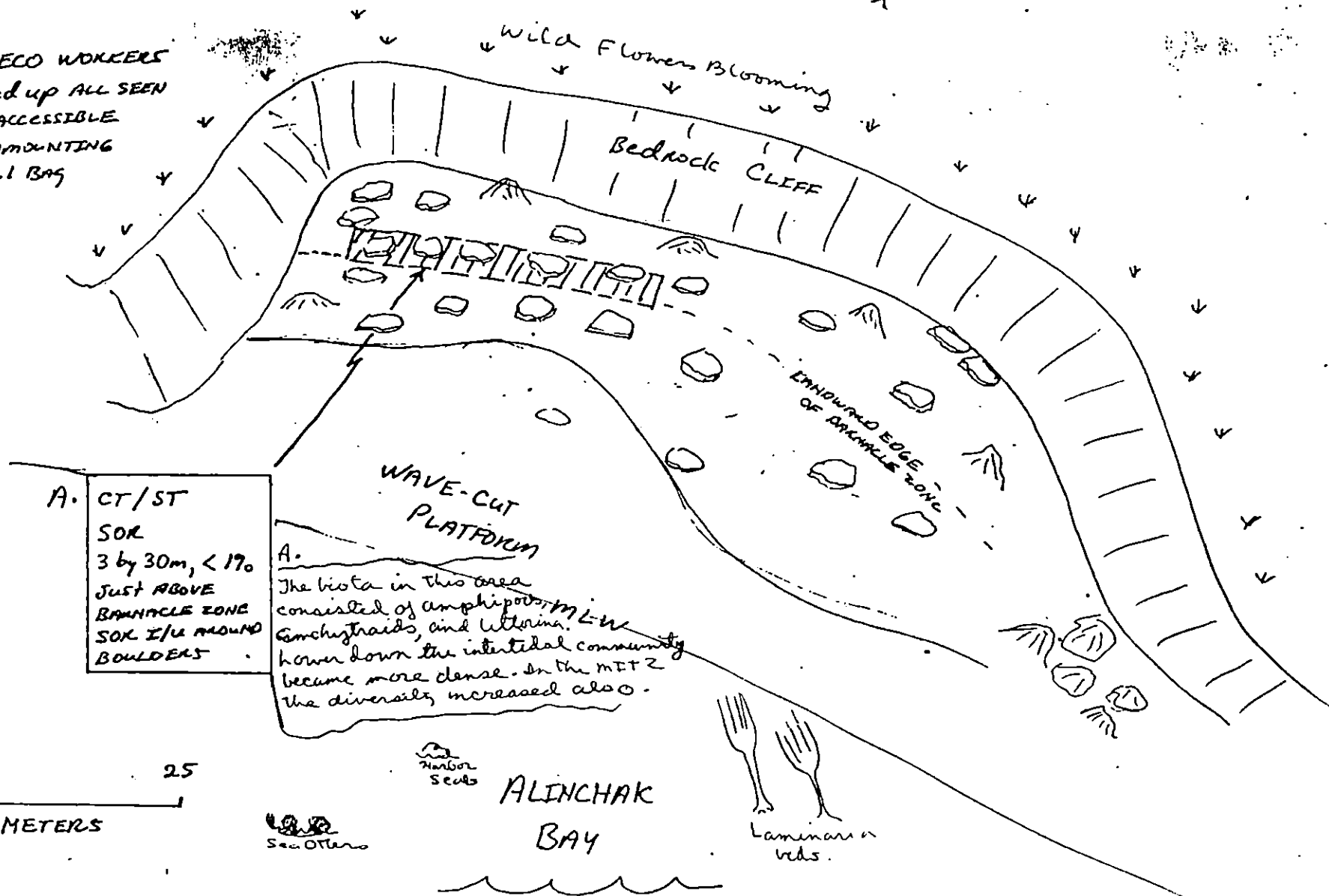
↗ PHOTO SITES

Bio Map
N. DAVIS

Sketch MAP (OG)
KID-4-AS-5-A
D. M. FITZGERALD
25 MAY 1991
830-900

ALASKA PENINSULA (BOOT of ALINCHAK)

PU. * VECO WORKERS
Picked up ALL SEEN
AND ACCESSIBLE
OIL AMOUNTING
TO < .1 BAY



A. CT/ST
SOR
3 by 30m, < 170
JUST ABOVE
BARNACLE ZONE
SOR I/U AROUND
BOULDERS

A.
The biota in this area
consisted of amphipods, M. L. W.
Gnathypids, and Littorina.
Lower down the intertidal community
became more dense. In the MITZ
the diversity increased also.

0 25
METERS

S+5 (to c)

A

1 of 4

(to b)

Unsurveyed

B

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

K1004 AS005 A
 ADEC Subsegment Length: 11748m
 METERS

AK State Plane Zone 4
 1004as005a

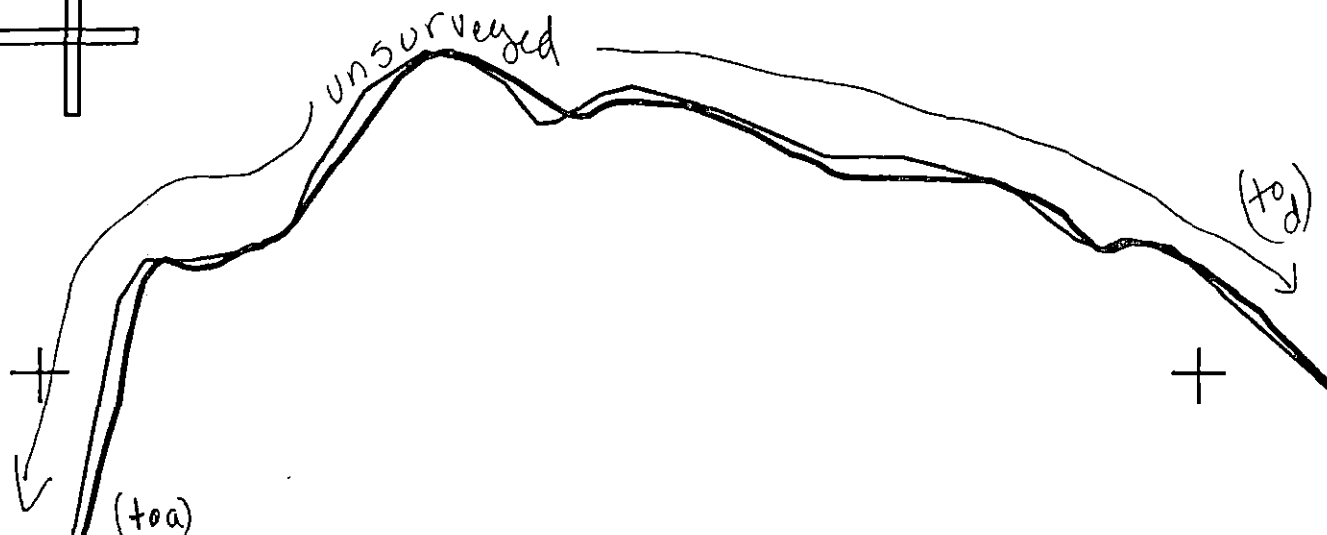


Subdivision Field Map
 Map Key: 60AK1004AS005Aa
 Name: (JY) Fitzgerald
 Date: 25 May 91
 Data Entered:

Reviewed: MC 5/29/91

394

4



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

K1004 AS005 A
 ADEC Subsegment Length: 11748m
 METERS

AK State Plane Zone 4
 918046x80300-



Subdivision Field Map
 Map Key: 60AK1004AS005Ac
 Name: (JY) Fitzgerald
 Date: 25 May 91
 Date Entered:

REVIEWED: 5/29/91

+

+

4 of 4

K10

(to c)
← unsurveyed
+
→ (to b)

+

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

K1004 AS005 A
ADEC Subsegment Length: 11748m
METERS

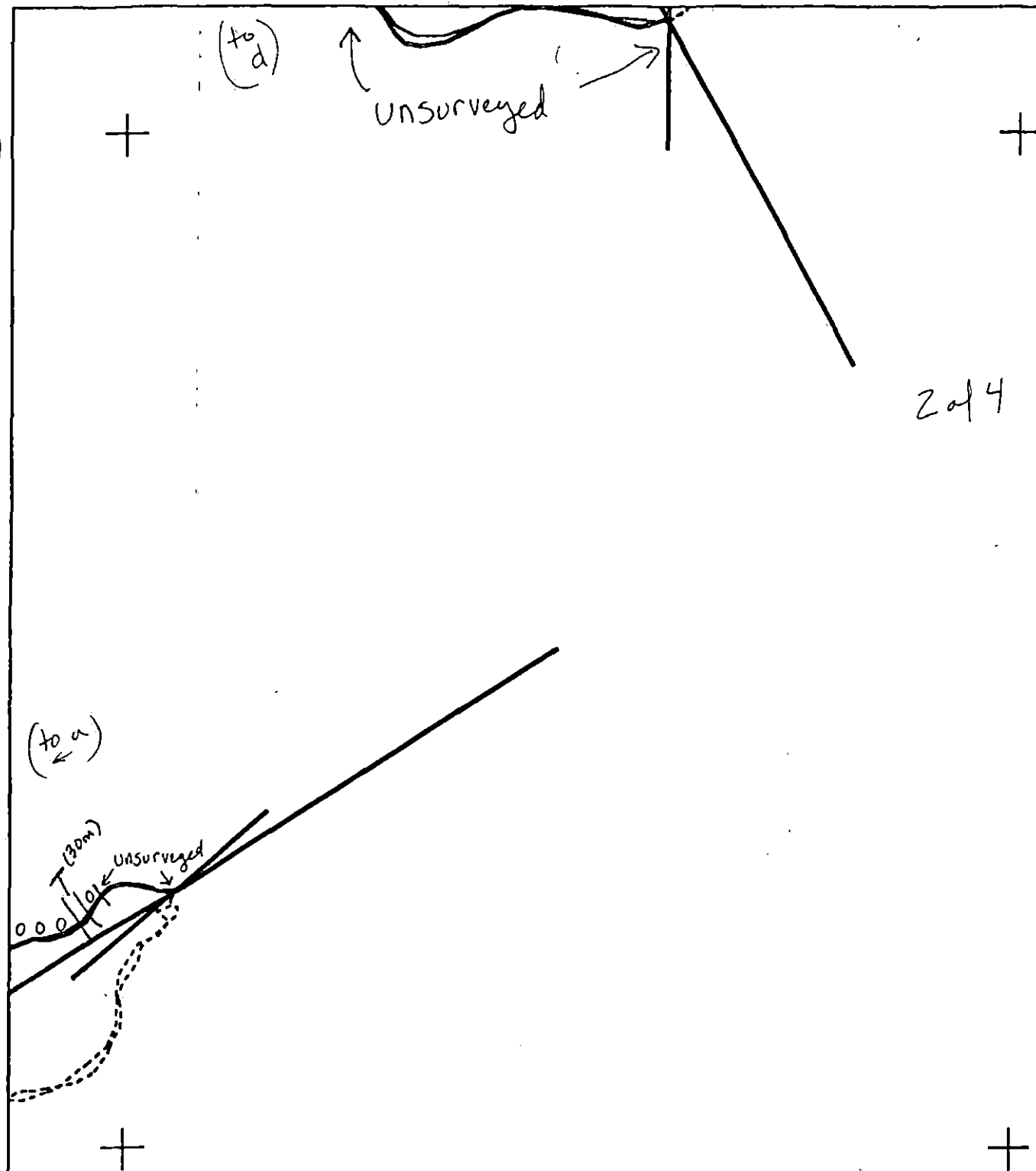
0 400 800

AK State Plane Zone 4
g1604as005ad-



Subdivision Field Map
Map Key: 60AK1004AS005Ad
Name: (J. J) Fitzgerald
Date: 25 May 91
Data Entered:

Reviewed: mc 5/29/91



XXXX	Wide	K1004 AS005 A	Subdivision Field Map
////	Medium	ADEC Subsegment Length: 11748m	Map Key: 60AK1004AS005Ab
----	Narrow	METERS	Name: (JY) Fitzgerald
TTTT	Very Light	0 400 800	Date: 25 May 91
0000	No Oil	AK State Plane Zone 4 1004as005ab	Data Entered:



REVIEWED: MC 5/27/91

REGION: KODIAK

SEGMENT: ST/K10-05-AS-002

SUBDIVISION: A (1 of 2)

SHORELINE EVALUATION

SEGMENT ST/ K10-05-AS-002 SUBDIVISION A (1 OF 2) DATE 5/11/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

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

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

4QQ National Wildlife Refuge

Active Raven cliff nest in Subdivision B

9LM Land mammals

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 0 m: Medium 22 m: Narrow 0 m: V.Light 1 m: No Oil 1669 m
Subsurface Oil Observed: Yes _____ No X Maximum Depth _____

RECOMMENDATIONS:

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

COMMENTS: Recommend manual removal of tarmats as shown on attached sketch map. Work after 6/1 and/or with approval from USFWS regarding eagle nest.

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____

EXXON _____

NOAA _____

USCG _____

FOSC: _____ DATE: _____

KODIAK ECONOMIC 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 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, 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 prior to treatment for consultation and/or permit application.
 AGENCY CONTACT PERSON: ADF&G Ken Middleton 267-2299
- 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, 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 Kotol Bay Hatchery release
 Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
- 1H Remote release site
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, 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 for confirmation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1I Gill net area
 1J Purse seine area
 Mainland, West side Kodiak, Shuyak & Moser/Olga 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
 Contact ADF&G for confirmation - dates and locations may vary. 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 Larry Nicholson 424-4791
- 2M Herring spawning (4/15 to 6/30)
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to uncultivated 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 Larry Nicholson 486-4791
- 3P Harbor seal and sea lion pupping (5/10 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 Rothly 267-2206
- 5T All Bald Eagle nests (3/1 to 6/1)
 Active Bald Eagle nests (3/1 to 9/1)
 Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 6U Recreation: Tent sites (6/1 to 9/15)
 6V Anchorages (6/1 to 9/15)
 6W Forest Service cabins (6/1 to 9/15)
 6X Lodge (6/1 to 9/15)
 6Y Special use destination
- 7Z Subsistence area: Salmon harvesting (6/1 to 9/30)
 7H Finfish harvesting
 7I Deer harvesting (8/1 to 1/7)
 7J Invertebrate harvesting
 7K Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
 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

SHORELINE OILING SUMMARY

REVISION NO. 06/12/88

OG OG HEYMAN NON 5 LEHMAN SEGMENT ST/ K 10 05 45002
 BIO L SHARMAN LAND REP/ HARDISTE SUBDIVISION 2 (1 OF 2)
 EXXON NOT REPORT ADEC T ELLSWORTH TIME 07:30 to 12:30
 TEAM NO. 19 TIDE LEVEL -1.5 to +3 DATE 5/11/90
 EST. SUBDIVISION LENGTH: 1695 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 5 % B 2 % C 5 % P 3 % G 0 % S 25 % M 0 % V 0 %
 SLOPE: Long 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 15 m N 0 m VL 1 m NO 1679 m

SURFACE OIL

CHARACTER	DISTRIBUTION					OIL / FILM COLOR					IMPACTED ZONES			
	N	S	E	W	C	1	2	3	4	5	SW	SE	NE	NW
ASPHALT PAVEMENT	X	X	X								X			
POOLED														
COVER														
COAT														
STAIN				X		X					X			
MOUSSE														
PATTIES														
TARBALLS														
FILM														
NO OIL													X	X

PAVEMENT H F 018 sq. m by 5 cmPATTIES / TARBALLS 30 BAGSNEAR SHORE SHEEN? (NO) BR RW SL TL

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

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒TYPE —#BAGS —

Photographs:

Roll No. ST-19(II) - 1Frames 6

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW		OIL / FILM COLOR					PIT ZONE				AN A	SPEED (km/h)	↓	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UO	1	2	3	4	5	SW	SE	NE	NW				
1	15					X	0.0	X							X				N	NK	12	CPB/PGA

COMMENTS * Particles of AP fell into water & produced sheen.

One 6X15 m² accumulation of soft, mossy AP was observed at N end of this subdivision. Within the 6X15 m² area, patches of DBR up to 15X1.5 m cover 20-25% of the total area. Each patch consists of mousse which has settled between the cobbles, pebbles & boulders & has hardened to a soft AP up to 5-7 cm thick. Each patch has a 15-16% AP in it.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST 1 K10-05-AS-2 SUBDIVISION: A DATE 5/11/90NOAA
0000NAME STEPHEN LEHMANNSIGNATURE [Signature]☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

At the northern end of subdivision A (south of the stream) are recoverable mouse/asphalt patches. The oil is up to 2-3cm thick and with cobbles entrained. This should be manually removed. Pilots + crews should be aware of the eagle + raven nests and avoid those areas.

ADEC

NAME Terry EllsworthSIGNATURE Terry Ellsworth☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

I concur with NOAA comments. the asphaltic mouse patches at the northern end of the segment should be manually removed. Also, the trash bag of oiled sediment should be picked up.

LAND MANAGER

NAME JOHN HARDISTERSIGNATURE [Signature]

USFWS

☒ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

Manual removal of mouse patches/asphalt is recommended. As recommended for subdivision B of this beach segment, precautions must be taken to prevent stress to nesting bald eagle and raven. Precautions include both air/boat approaches to/from beach and by crews on beach.

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.

SKETCH MAP 1A (See Section Map) STREAM

MANUALLY
Remove
PAVEMENT

~6X15 m, 10-25% cover
AP, soft, Patches to 4.5X4.5m²
up to 5-7 cm thick, each patch has
B-C distribution, 6X15 m² area
has total 1P distribution

Flattening Bedrock
Predominantly Cobble
w/ Pebbles & few boulders

2 Large
Boulders

Bedrock
Bluffs

PBls & CHs

DRIFT LOGS

SAND
BEACH

EXPOSED AT MID TO LOW TIDE

BEDROCK
ISLAND

(Approximate Scale)

Meters
0
30

AG HEYMAN

MENT STICK 10 AS 002

DIVISION A

5/11/90

CHART

Lower
pale. Scale
grain Study
Dist.
Age
Cover
In situ Character
Fossils

No Location(s)
Map(s)
Location(s)
No Location(s)

END

A

Substrate Oil

A

Surface Oil

1C

no Distribution

7B

Substrate

1

2

3

4

5

6

7

8

9

10

11

12

13

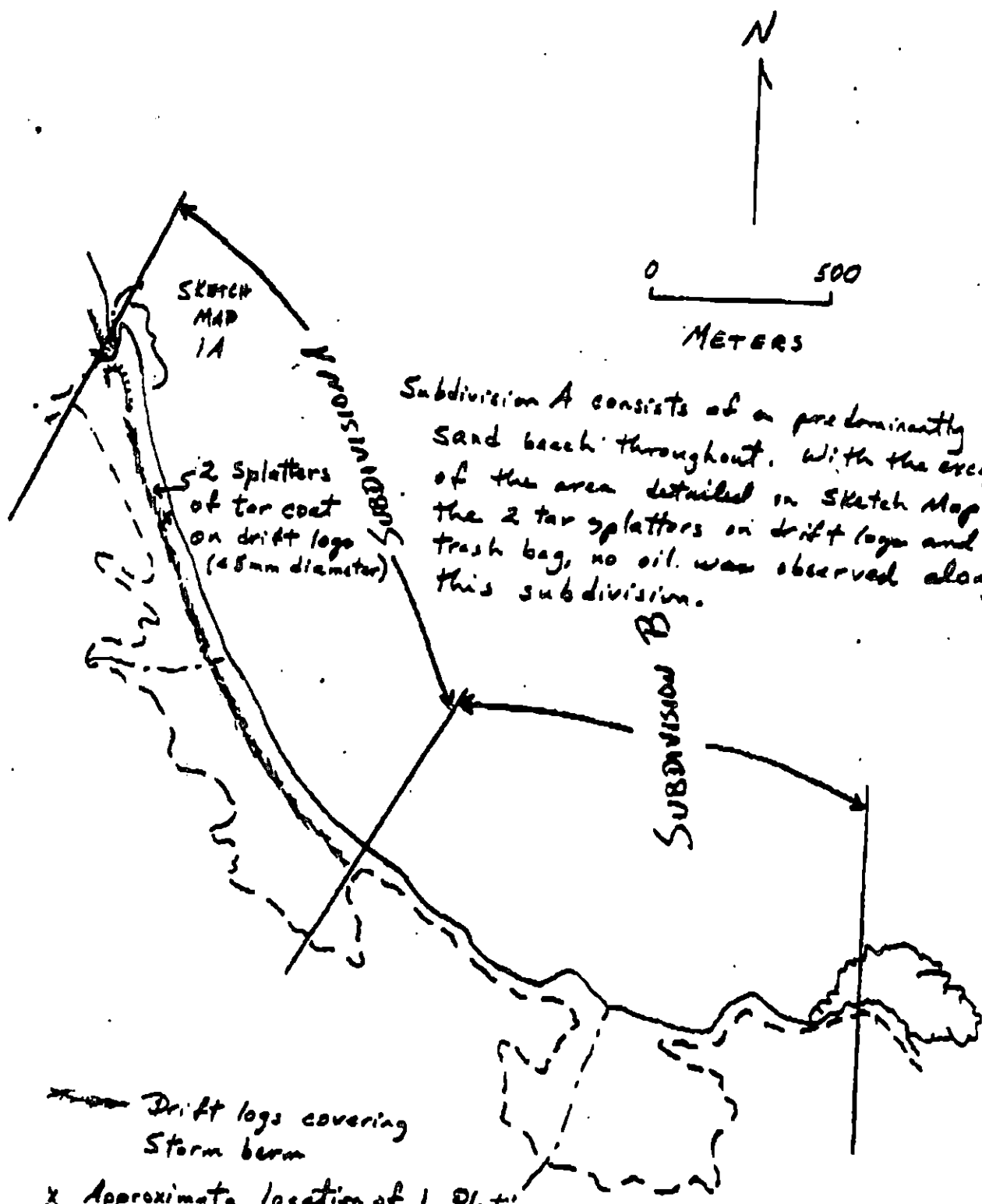
14

15

or Length (m): AP 15 PO CV CT ST / MS PT TB FL NO

SKETCH MAP

LOCATION MAP



Subdivision A consists of a predominantly sand beach throughout. With the exception of the area detailed in Sketch Map 1A, the 2 tar splatters on drift logs and the trash bag, no oil was observed along this subdivision.

SUBDIVISION B

Drift logs covering Storm berm

x Approximate location of 1 Plastic Cleanup bag from 1989.

U. G. HEYMAN

PROJECT ST/ K 005 AS 002

SUBDIVISION A

DATE 5/11/90

HECKLIST

- IN Areas
- Approx. Scale
- Signs/Labels
- Oil Date
- Width
- Length
- % Cover
- Substrate Chemistry
- Est. (H.M.A. Int.)
- SS
- Profile Location(s)
- Profile(s)
- Photo Location(s)

GENERAL

1 A

No Subsurface Oil

2 A

Subsurface Oil

CT/C Amount Distribution

CT/B

on Distribution

CT/P

by Distribution

CT/S

by Distribution

Vegetation

Location, direction, number

marker length (m): AP/5 PO CV MS ST TB NO

SHORELINE ECOLOGICAL SUMMARY (Page 1 of 4)

REVISION: 03/22/90

 Segment ST / K10-5 AS-2 Subdivision A Date (mo / day / yr) 5/11/90
Time (24 hr) 0930-1230 Biologist SHARMAN

- (A) Substrate type and % of segments: SUBDIV.
 (1) Bedrock 5 (2) Boulder 2 (3) Cobble 5 (4) Pebble 3 (5) Sand 85 (6) Silt 0
- (B) Overall % cover of biota (% of segment): Dense 0 Moderate 10 Low 90
SUBDIV.
- (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-19 (III)-1Frames 6

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 (NANCELLA, LITTORINA, LIMAEAE)

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

NOT PRESENT

FUCUS

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

NOT PRESENT

Wildlife Observations/ General Comments: 1 group of 7, + 1 group of 2 caidon in uplands in stream valley. ~ 40 glaucous-winged gulls, 6 new gulls all along subdivision - however, ~ 80 gulls (mostly glaucous-winged) concentrated at stream mouth, along with 13 harlequin ducks, 1 pair oystercatchers, 4 green-winged teal, + 2 red-breasted nuthatches. 1 willow ptarmigan in boulder area, and saw-whet + golden-crowned sparrow singing (cont.)

Ecological Considerations:

The primary sensitivity within the subdivision is the anadromous stream at the N. boundary - please refer to the Eco. Maps. This stream was not previously identified on the NOAA database. Sensitivity codes are: 1A Stream mouth (fry outmigration) 4/15-7/31, and 1B Stream mouth (spawning) 7/15-9/10, peak 8/15. This is an ADF & G catalogued pink salmon stream (# 262-65-10030). Additionally, the offshore grassy islets are potential seabird colony nesting habitat (Code 5R, 5/1-8/31) - again, not on NOAA database + possibly since they are indeed not important re. Vite. Similar stream potential

AS-2-A

Shoreline Ecological Summary (cont.)

(Page 2 of 4)

Sherman
5/11/90General Comments (cont.):

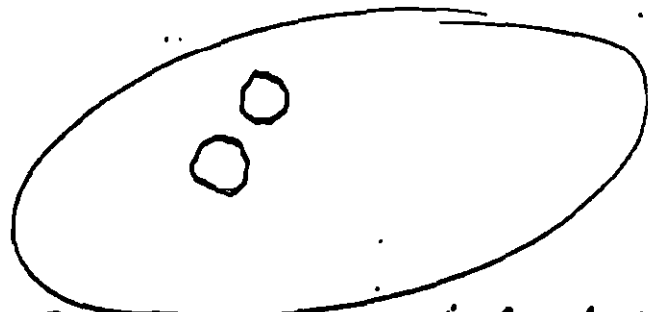
from backshore. 1 semipalmated plover. Brown bear and fox tracks in supratidal sand. 1 marmot atop backshore bluff. This subdivision is composed primarily of a wide, low-angle sandy beach that is largely quite depauperate with respect to macrobiota. At the stream mouth there are some large boulders and a bit of bedrock. On these substrates there are sparse barnacles (with rare spat) and sparse stands of Fucus (unsuccessfully producing sporlings). Other algae include Sargassum and green filamentous forms. The dominant sand beach portion of the subdivision has the shells of Saxidomus, Protothaca, Chioscardium, and masses of the calcareous tubes of serpulid worms. In LTZ and MTZ sand there are locally very dense populations of the lugworm Aricidea. Amongst the boulders in the vicinity of the stream mouth there are several Glycymeris exposed on the surface, as well as a few Nereis polychaetes. Given the substrate types, instability, and exposure of this shoreline, the intertidal community just described is likely normal and healthy. Species appear to be recruiting satisfactorily, as there appears to be no outward mortality. However, exposure of the polychaetes amongst the boulders is unusual.

Ecological Considerations (cont.):

principal haulouts on the shore of these islets as well as tidal rocks and reefs. Sensitivity codes would be 3N, 0, P, & (Harbor seal/sea lion pupping 9/10 - 6/30, and Harbor seal/sea lion molting 8/15 - 9/15). Again, not on the NOAA database and possibly because they are indeed not important haulout habitat. A very real sensitivity, however, is the active eagle nest atop the sea stack off the point within the adjacent segment beyond subdivision "B" to the S. (Segment AS-2). Perhaps even more importantly, there is presently an active raven cliff nest within subdivision "B" which should probably be considered operationally to occur within this subdivision. Documented active raven nests are exceedingly rare and presumably highly sensitive to human disturbance. Helicopter should avoid that immediate area (see Eco. Map for AS-2-B). Also note the active fox denning area along the bluff within AS-2-B.

→
Anadromous
stream
ADF&G #
262-65-1030
(Pink
salmon)

AS-2A
↓



Tidal reef with associated tidal rocks/reefs
- potential seabird nesting + pinniped
haulouts.

ECOLOGY MAP

AS-2-A

(1 of 2)

(Page 3 of 4)

ST - Eagle nest adjacent,
within Segment AS-2 to S.
(3/1 → 6/1; active
nests until 9/1).

tidal reef area,
potential pinniped haulouts

↗
If to scale,
actually located
just off page
to E.

↓ GOA 11A

XXX Wide

//// Medium

--- Narrow

TTTT Very Light

AS-2-A

ADEC Segment Length: 3574m

Map Key: GOA-11c

Name: G. Heyman

Date: 5-16-90

GOA
11C

tidal rocky
reef area.

Potential pinup
handouts.

AS-2-A

AS-2-B

AS-2

ECOLOGY MAP

(2 of 2)

AS-2-A

(Page 4 of 4)

Please see Map #1.

GOA →
11B

XXXX Wide

AS-2-A

/// Medium

---- Narrow

ADEC Segment Length: 3574m

TTTT Very Light

0000 No Oil

0 100 200 300
METERS

Map Key: GOA-11a

Name: _____

Date: _____

Data Entered: _____

↑
GOA
11C

AS-2

AS-2A
AS-2B

GOA →
11B

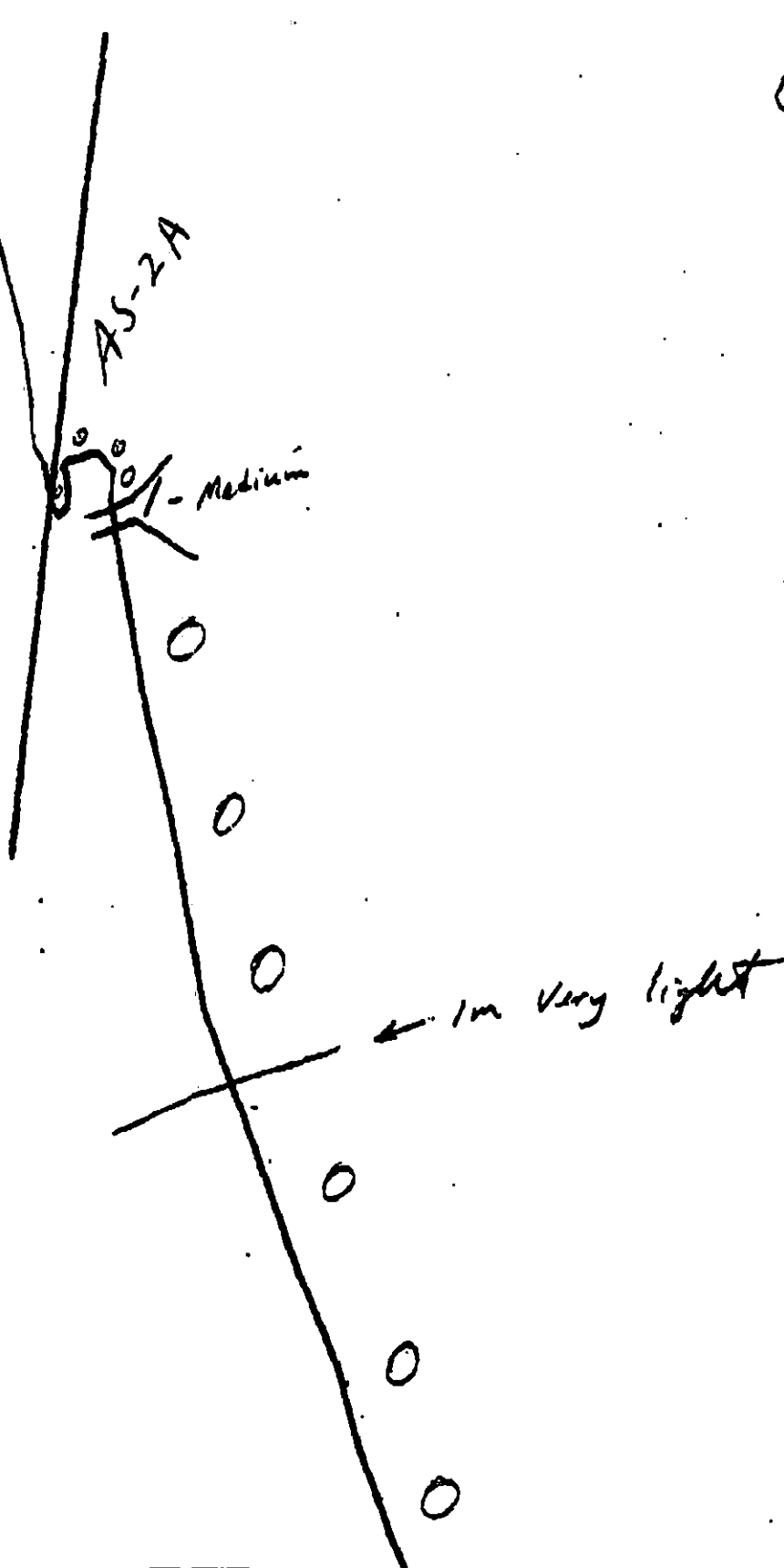
XXXX Wide
//// Medium
--- Narrow
TTTT "

K10-5-AS-2.A

ADEC segment Length: 3574m

Map Key: GOA-11a

Name: G. Heymen



XXXX Wide

//// Medium

--- Narrow

AS-2A

ADEC Segment Length: 3574m

Map Key: GOA-11c

Name: G. Heyman

SHORELINE EVALUATION

SEGMENT ST/ K10-05-AS-002 SUBDIVISION A (1 OF 2) DATE 5/11/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

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

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

4QQ National Wildlife Refuge

Active Raven cliff nest in Subdivision B

9LM Land mammals

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: Lachlan D. Dine DATE: 5/20/90

OILING CATEGORIZATION:

Wide 0 m: Medium 22 m: Narrow 0 m: V.Light 1 m: No Oil 1669 m

Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

 No Treatment Recommended

X Treatment Recommended

X Manual Pickup

X Bioremediation

X Tarmat Removal

 Snare/Absorbent Booms

 Oil Snares (pom poms)

 Absorbents (pads, rolls, etc)

 Spot Washing: Wands

 Beach Cleaner

 Other (see comments)

+ TRASH.

COMMENTS: Recommend manual removal of tarmats as shown on attached sketch map. Work after 6/1 and/or with approval from USFWS regarding eagle nest.

TAG COMMENTS: COORDINATE (CUSTOMER) AS REQUIRED FOLLOWING TARMAT REMOVAL.

TAG APPROVAL DATE: 5/29/90.

ADEC Art Weiner Art Weiner

EXXON Andy Galt Andy Galt

NOAA Burl Wesscott Burl Wesscott

USCG G.A. Reiter G.A. Reiter

FOSC: My L DATE: 6-19-90

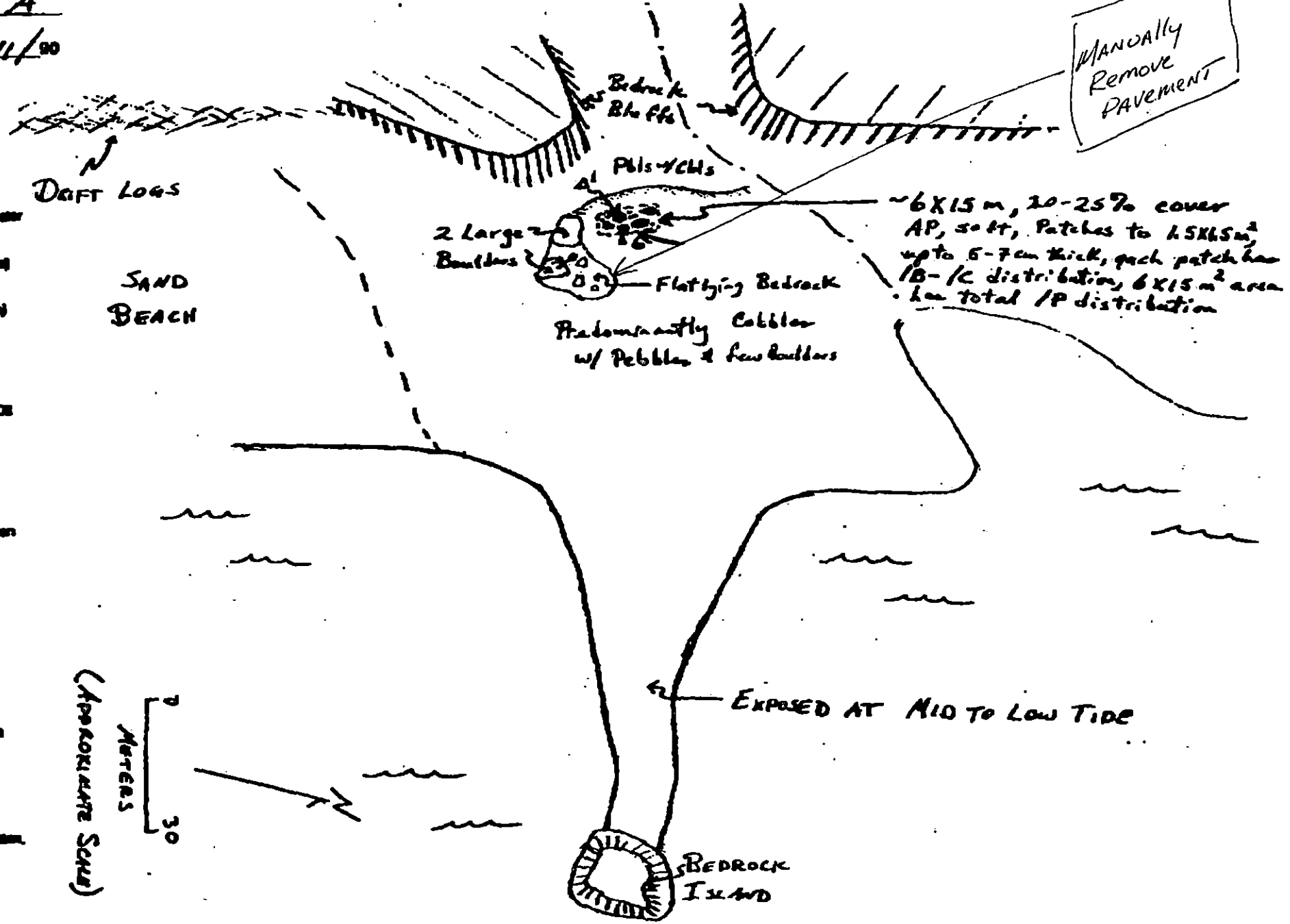
note: Use Customer only!

HEJMAN
 ITSTIK 10 45 002
 SIDON A
 5.11/90

- LIST
- 1. Scale
 - 2. Study
 - 3. to Character
 - 4. NAME
 - 5. Location(s)
 - 6. Study
 - 7. Accuracy
 - 8.
 - 9. to Character
 - 10. NAME
 - 11. Location(s)
 - 12. Study
 - 13. Accuracy
 - 14.
 - 15. to Character
 - 16. NAME
 - 17. Location(s)
 - 18. Study
 - 19. Accuracy
 - 20.

SKETCH MAP 1A
 (See Location Map)
 STREAM

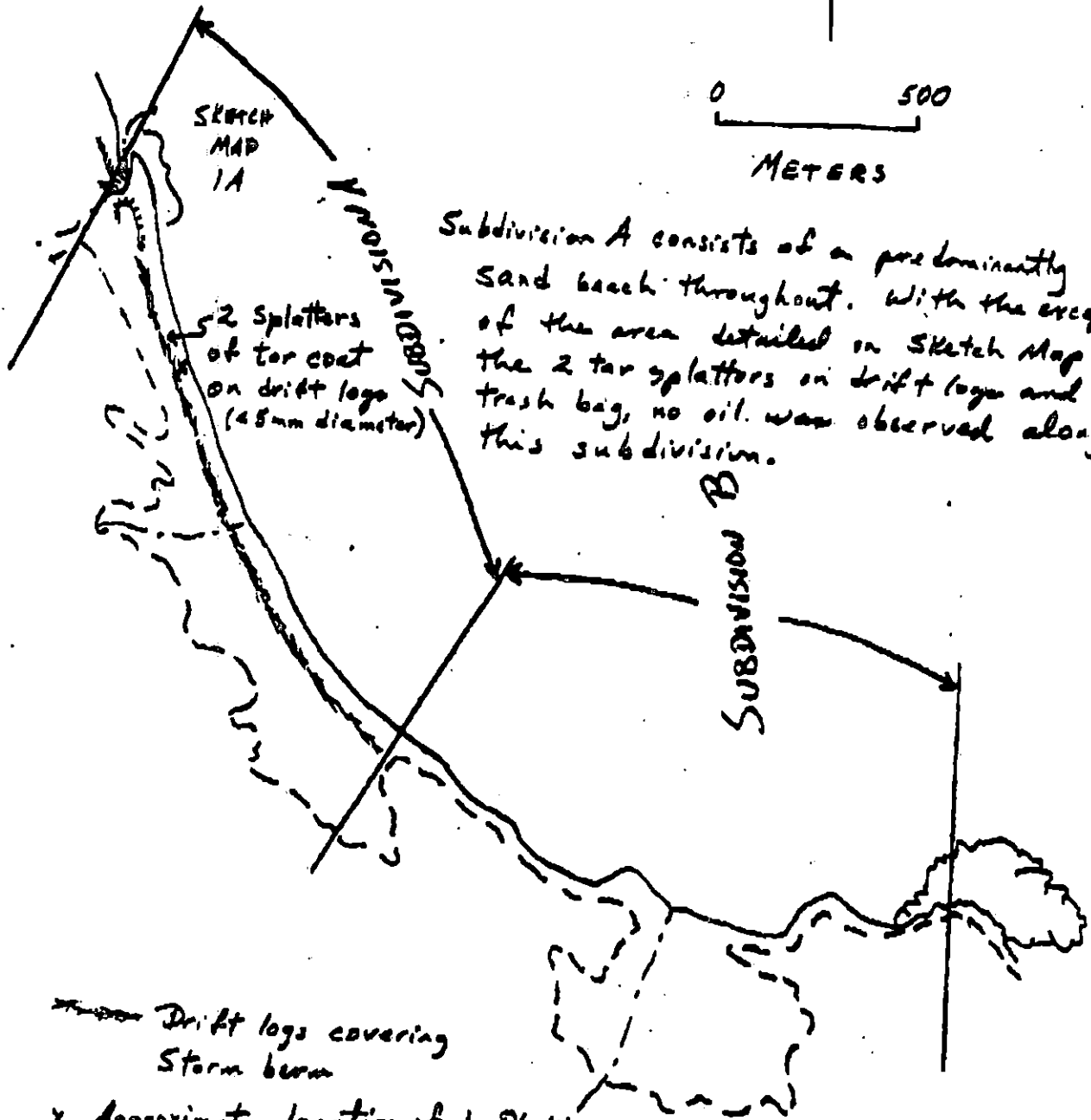
MANUALLY
 Remove
 PAVEMENT



Length (m): AP 15 PO CV CT ST / MS FT TB FL NO

SKETCH MAP

Location Map



EXHIBIT

Approx. Scale

Approx. Scale

Approx. Scale

Approx. Scale

Approx. Scale

Approx. Scale

Approx. Scale

Approx. Scale

Approx. Scale

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Approx. Scale

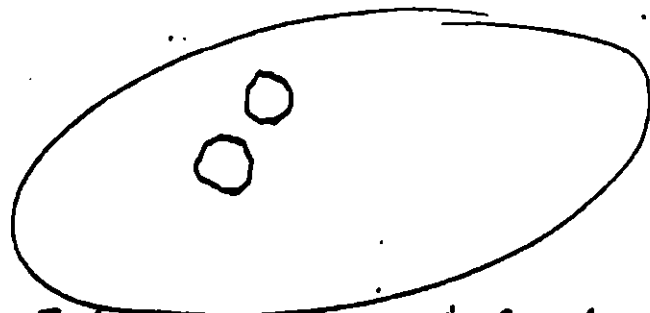
Approx. Scale

Approx. Scale

Approx. Scale

char length (in): NP/5 PO

NO FT TB PT MS ST CT CV



Islets with associated tidal rocks/reefs
- potential seabird nesting + pinniped haulouts.

AS-2A
↓
Anadromous stream
ADF&G #
262-65-10030
(Pink stream)

ECOLOGY MAP

AS-2-A

(1 of 2)

(Page 3 of 4)

5T - Eagle nest adjacent,
within Segment AS-2 to S.
(3/1 → 6/1; active
nests until 9/1).

tidal reef area,
potential pinniped haulouts

If to scale,
actually located
just off page
to E.

↓ GOA 11A

AS-2-A

XXX Wide

/// Medium

--- Narrow

TTTT Very light

ADEC Segment Length: 3574m

Map Key: GOA-11c

Name: G. Heyman

Date: 5-11-90

GOA
11C

tidal rocky
reef area.

Potential pinniped
haunts.



AS-2-A

AS-2-B



AS-2

ECOLOGY MAP

(2 of 2)

AS-2-A

(Page 4 of 4)

Please see Map #1.

GOA →
11B

AS-2-A

XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

OOOO N O I

ADEC Segment Length: 3574m.

0 100 200 300



Map Key: GOA-11a

Name: _____

Date: _____

↑
GOA
11C

AS-2

AS-2A
AS-2B

GOA →
11B

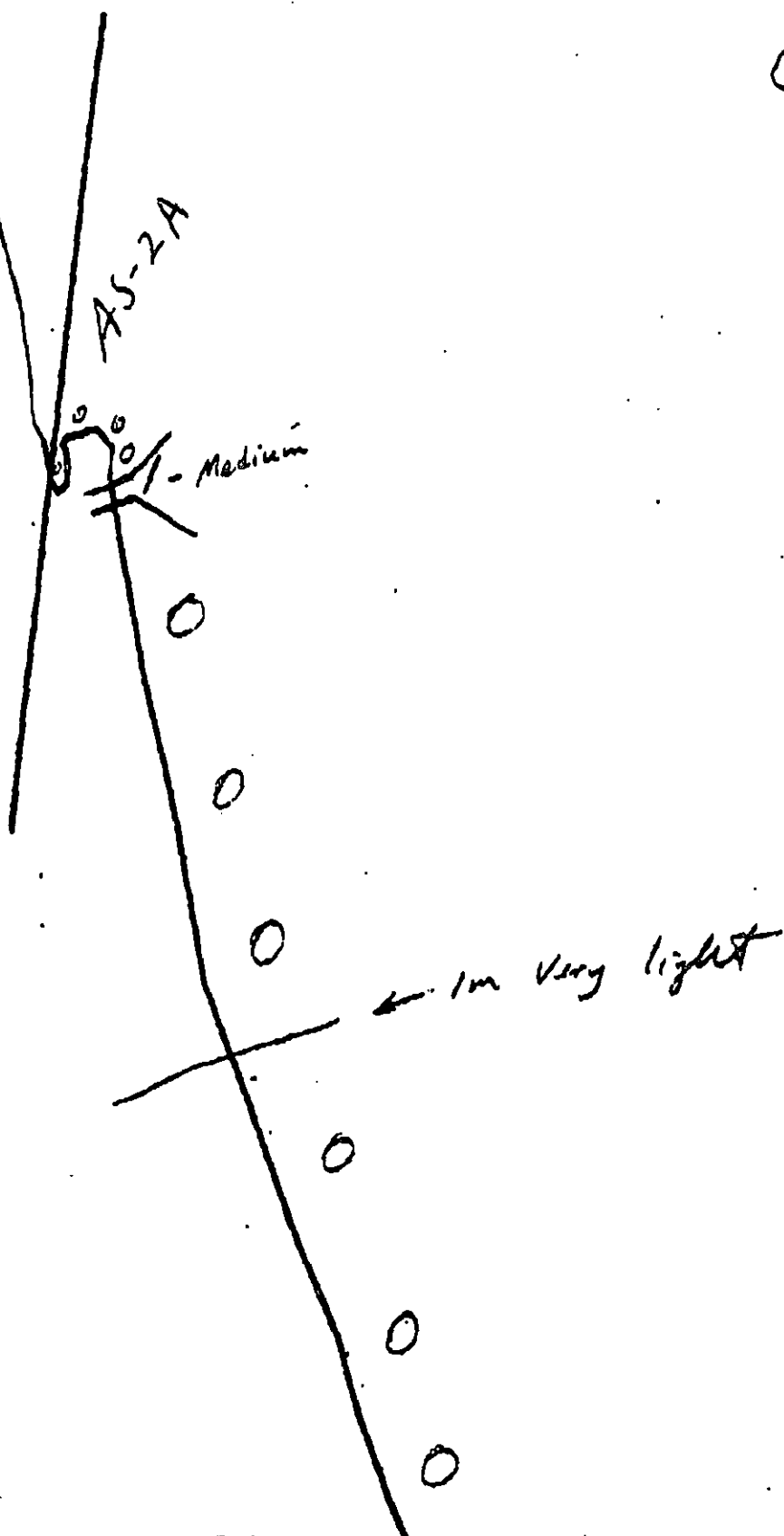
XXXX Wide
//// Medium
---- Narrow

K10-5-AS-2.A

ADEC Segment Length: 3574m

Map Key: GOA-11c

NAME: K. H. H. H.



XXXX Wide

/// Medium

--- Narrow

AS-2A

ADEC Segment Length: 257m

Map Key: GOA-11c

--- 11-

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K10-05-AS-002 SUBDIVISION A (1 of 2)

WORK WINDOW	
Manual Pickup Tarmat Removal	OPEN
Bioremediation	OPEN*

*No Inpol - Use Customblen Only

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

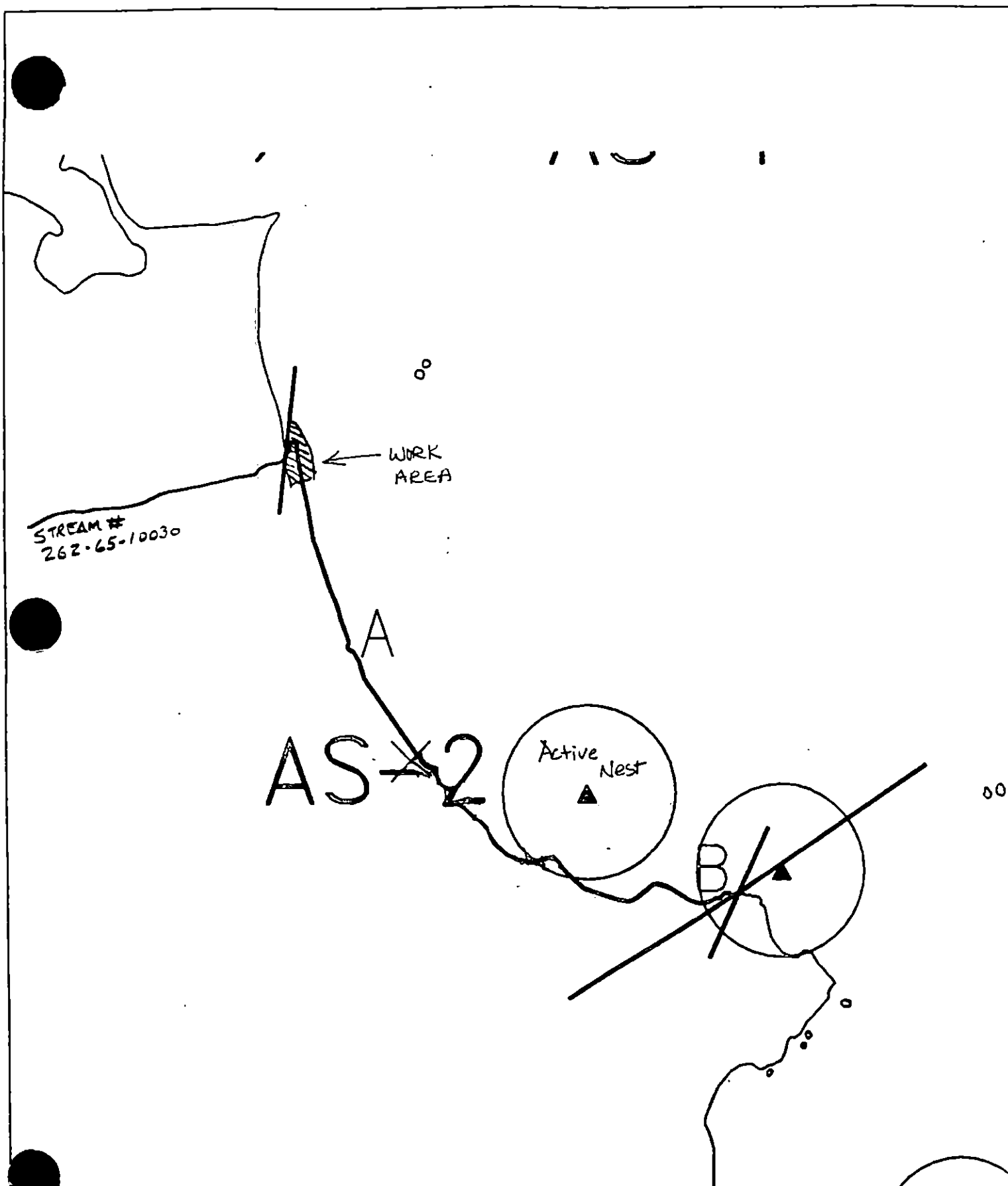
5T	Bald Eagle Nest	NO CONSTRAINT. USFWS 4/9/90 map indicates no active nest within 400m of Subdivision A work site.
----	-----------------	--

OTHER ECOLOGICAL CONSIDERATIONS

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

FOSC [Signature] Date 6-22-90

Prepared by [Signature] Date 6/22/90



Exxon Company, USA



ECOLOGY MAP
SEGMENT K10-5 AS-2
SUBDIVISION A (1 of 2)

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

SHORELINE EVALUATION

SEGMENT ST/ K10-05-AS-002 SUBDIVISION A (1 OF 2) DATE 5/11/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

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

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

4QQ National Wildlife Refuge

Active Raven cliff nest in Subdivision B

9LM Land mammals

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: Rachel Chan/Doh

DATE: 5/23/90

OILING CATEGORIZATION:

Wide 0 m: Medium 22 m: Narrow 0 m: V.Light 1 m: No Oil 1669 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

 No Treatment Recommended

X Treatment Recommended

X Manual Pickup

X Bioremediation

X Tarmat Removal

 Snare/Absorbent Booms

 Oil Snares (pom poms)

 Absorbents (pads, rolls, etc)

 Spot Washing: Wands

 Beach Cleaner

 Other (see comments)

+ TRASH.

COMMENTS: Recommend manual removal of tarmats as shown on attached sketch map. Work after 6/1 and/or with approval from USFWS regarding eagle nest.

SEE CONSTRAINTS ADDENDUM DATED 6/22/90 JP

TAG COMMENTS:

BIOREMEDIATE (CUSTOMER) AS REQUIRED FOLLOWING
TARMAT REMOVAL

TAG APPROVAL DATE: 5/29/90

ADEC

Art Weimer

EXXON

Andy Galt

NOAA

Bruce Wascott

USCG

G.A. Reiter

FOSC:

DATE: 6-19-90

note: Use Customer only!

REGION: KODIAK

SEGMENT: ST/K10-05-AS-002

SUBDIVISION: B (2 of 2)

SHORELINE EVALUATION

SEGMENT ST/ K10-05-AS-002 SUBDIVISION B (2 OF 2) DATE 5/11/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

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

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

4QQ National Wildlife Refuge

Active Raven cliff nest

9LM Land mammals (Fox dens)

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiled biota and substrate. Helicopters should avoid the southern portion of the segment and the northern portion of AS001. Due to eagle nest.

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 0 m: Medium 42 m: Narrow 76 m: V.Light 397 m: No Oil 1367 m
Subsurface Oil Observed: Yes _____ No X Maximum Depth _____

RECOMMENDATIONS:

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

COMMENTS: Recommend manual removal of mousse accumulations and spot wash where manual removal is not possible. Work after 6/1 with approval from USFWS regarding eagle nests.

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

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 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, 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 prior to treatment for consultation and/or permit application.
AGENCY CONTACT PERSON: ADF&G Ken Middleton 267-2299
- 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, 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 Kotol Bay Hatchery release
Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
- 1H Remote release site
No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, 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 authorization.
AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1I Gill net area
1J Purse seine area
Mainland, West side Kodiak, Shuyak & Moser/Olga 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
Contact ADF&G for confirmation - dates and locations may vary. 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 Larry Nicholson 424-4791
- 2M Herring spawning (4/15 to 6/30)
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 Larry Nicholson 486-4791
- 3P Harbor seal and sea lion pupping (5/10 to 7/1)
3Q Harbor seal and sea lion molting (8/15 to 9/15)
Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31). Contact ADF&G and USFWS prior to treatment for confirmation.
AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
ADF&G Don Calkins 267-2403
- 5R Seabird colony (5/1 to 9/1)
Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
ADF&G Tom Roth 267-2206
- 5T All Bald Eagle nests (3/1 to 6/1)
Active Bald Eagle nests (3/1 to 9/1)
Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 6U Recreation: Tent sites (8/1 to 9/15)
6V Anchorages (8/1 to 9/15)
6W Forest Service cabins (8/1 to 9/15)
6X Lodge (8/1 to 9/15)
6Y Special use destination
- 7Z Subsistence area: Salmon harvesting (8/1 to 9/30)
7HH Finfish harvesting
7II Deer harvesting (8/1 to 1/7)
7JJ Invertebrate harvesting
7KK Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
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

REVISION NO. 04 - 3.90

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	1C	1B	1P	1A	2C	2B	2P	2A	2S	SU	U	M	U
ASPHALT PAVEMENT													
POOLED				X	X						X		
COVER				X	X						X		
COAT				X	X						X		
STAIN													
MOUSSE		X	X	X				X			X		
PATTIES		X	X	X				X			X		
RBALLS													
FILM													
NO OIL										X		X	X

Frames

SUBSURFACE OIL *No PITS DUE TO PREDOMINANCE of CORREL BANDS/BORE*

[illegible]

REVIEWED FAT DATE 18 MAY 90

FIELD SHORELINE COMMENT SHEET

SEGMENT ST 1 K10-05-AS-2 SUBDIVISION: B DATE 5/11/90NOAA
USCGNAME STEPHEN LEHMANSIGNATURE [Signature]☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

M/S/C/LW was seen within the crevices of the bedrock and in the cobble. Much of the mousse within the cobble is treatable and should be removed manually and/or treated for bio remediation (see OG map). Consideration should be given to the active nests in the area (Bio. map). They are located somewhat east of the impacted area.

ADEC

ME

NAME Terry EllsworthSIGNATURE Terry Ellsworth☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

Mousse/sediment interstitial between boulders and cobbles and mousse in bedrock crevices occurs in two areas in the western portion of the segment (see OG sketch). The interstitial mousse/sediment is generally recoverable but the mousse in bedrock crevices will be difficult to remove in many instances. Manual removal is recommended for the mousse/sed and where reasonable for mousse trapped in crevices. Activity should be confined to the west half of the segment and pilots made aware of the active raven and eagle nests in or near the east boundary of the segment.

LAND MANAGER

NAME JOHN HARDISTERSIGNATURE John P. Hardister☒ NO TREATMENT RECOMMENDED

COMMENTS

☒ TREATMENT SUGGESTED

USFWS

Recommend manual removal of interstitial mousse/sediment and from bedrock crevices where possible. Precautions must be taken to prevent undue stress to nesting bald eagle and raven during air/boat approaches to/from beach and during beach cleanup operation.

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.

SAND
TONGUE

MISSION B 20P2

5/11/90

2051

Lower
from State
of Sub. Mar. by
Dist.
St.
19th
Cover
Inside Chapter
1. FIVE. 1911.
1.
the Location of
the
Location of
the Location of

END

1. Substrate OR INTERSTITIAL MS Pitting
to 2" thick f MS
2. A
In surface OR
BAND OF MS COVER
to 4m wide, MS-V GRASS
T/C
T/D
Observation
MS in cravasses to >1cm,
:: Pooled

LEGEND

	PREDOMINANT STRIKE OF LOWLYING BEDROCK. DIP IS TO THE NW.
	MS BAND
	RANDOM SPLATTERS OF CU, CT, MS

TIP
Classification

T/S
and Classification

22
Registration

XXX
Location, direction, number

XXK RANDOM SPLATTERS OF
CV, CTK, MS

Tractor Length (in): AP PO 10 CV 100 CT 205 ST MS 40 FT 100 TB FL NO 1374

OG COMMENTS K 10 05 AS 002 B (2 of 2) OG HEYMAN 5-11-90

This subdivision consists of broad benches with low lying bedrock covered by boulders, cobbles & pebbles. The meta-sedimentary bedrock is folded and highly fractured, creating a good substrate to trap and protect oil in place.

Oil along the subdivision was only observed at and just above the upper barnacle line. Oil was observed in the form of MS in crevasses to over 1cm deep, interstitial MS binding pebbles between cobbles & boulders (patties & patches to 2 inches thick), and CV & CT/S. Most MS was observed at the NW end of the subdivision, with a continuous to discontinuous band up to 4m wide and 130m long. Large patches (5-7m) & crevasses (25m) to 4m wide of MS, CV & CT were also observed in the NW half of the subdivision. In the SE half, only random CT, CV and rare MS patches were observed.

OG U G HEYMAN

SEGMENT ST 10 05 AS 002

SUBDIVISION B

DATE 5.11.90

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Entry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Ext. HML/LWL
- ☐ SSL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ P/L Location(s)
- ☐ Photo Location(s)

LEGEND

1 Δ

PI - No Subsurface Oil

2 Δ

PI - Subsurface Oil

CT/C

Continuous Distribution

CT/D

Broken Distribution

CT/P

Patchy Distribution

CT/S

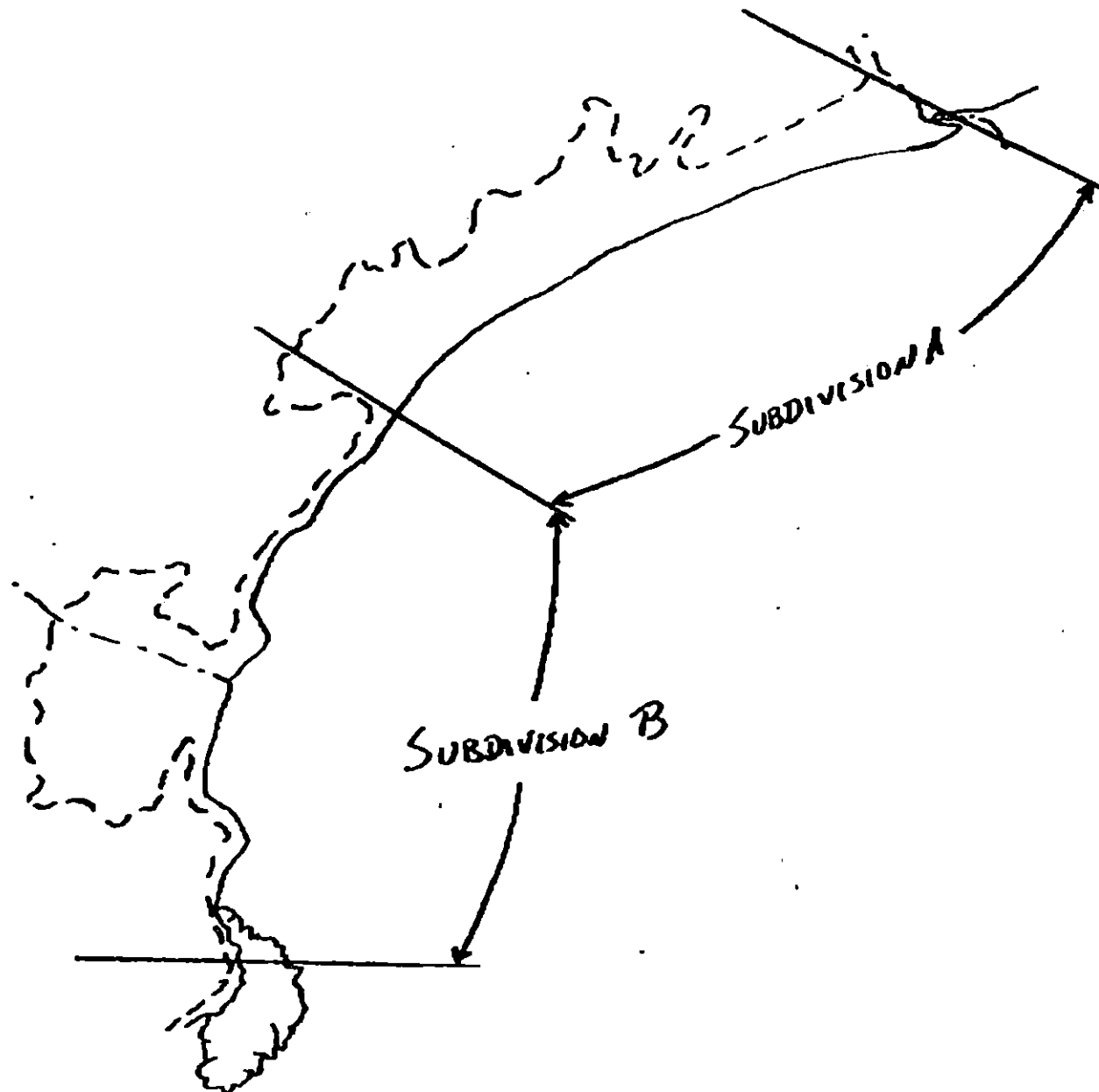
Splashed Distribution

Other Vegetation

1 ⇨

Photo location, direction,
and number

SKETCH MAP
SUBDIVISION LOCATION MAP



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

SHORELINE ECOLOGICAL SUMMARY (Page 1 of 4)

REVISION: 03/22/90

Segment ST / K10-05 AS-2 Subdivision B Date (mo / day / yr) 5/11/90
Time (24 hr) 1100-1230 Biologist SHARMAN

- (A) Substrate type and % of segments: SUBDIV.
(1) Bedrock 33 (2) Boulder 30 (3) Cobble 25 (4) Pebble 10 (5) Sand 2 (6) Silt 0
- (B) Overall % cover of biota (% of segment): Dense 20 Moderate 70 Low 10
SUBDIV.
- (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 (ANCELLA, LITTORIALIA, LIMPAETS)

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: ~ 30 glaucous-winged gulls, 1 adult eagle (see Ecol. Considerations re. adjacent reef), 1 juvenile eagle, 2 ravens (see Ecol. Considerations re. active reef), 12 pintails, 6 green-winged teal, 1 pair yellowlegs, 1 least sandpiper, 2 forbes (see Ecol. Considerations re. active denning area). This subdivision is a predominantly rocky, low-moderate-angle beach with frequent fractured (cont.)

Ecological Considerations:

Please see attached Eco. Maps. The only sensitivity documented in the NOAA database is the adjacent eagle nest within segment AS-2 to the S. Additional sensitivity may include potentially important pinniped haulouts on nearshore tidal rock/reef areas (Codes would be 3N, O, P, Q - harbor seal/sea lion pupping/mating 5/15-6/30 and 8/15-9/15), as well as the importance of the active fox denning area along the bluffs (code would be 9LM - land mammals). Operationally, the active (cont.)

AS-2-B

Shoal Line Ecological Summary (cont.)
(Page 2 of 4)Sharman
5/11/90General Comments (cont.):

bedrock platforms. These areas are dominated by good populations of Fucus and Odonthallia, both actively recruiting. There is also Gelidium, Ulva, Sargassum, and fine red algae (Polysiphonia/Porousiphonia?). Barnacles (with spats), Littorina, and Acmaea are present in moderate abundance locally. Anthopleura spp. are present in sandy pockets, attached to subsurface bedrock and cobbles. Small bedrock pools contain the typical assemblage of Lithothamnium, Odonthallia, Littorina, Agave, Anthopleura spp., Epistia, some Katharina, etc. Round masses (2-5 cm dia.) of fish/snail (?) eggs are extremely common (1,000's) in the UTE drift line. Snigs are winnowing over the uplands. A generally normal and healthy marine intertidal community.

Ecological Considerations (cont.):

Eagle nest should be considered to be within this segment, since it is so close to the boundary. Atop the nearshore sea stack, it is extremely vulnerable to disturbance from shoreline-following Helicopter. Perhaps more importantly, nearby and well within this segment is an active raven cliff nest with 2 chicks. Raven nests are exceedingly rare (at least documented ones) and are presumably very sensitive to human disturbance, particularly of the airborne variety. Helicopters should avoid this S. portion of the segment and the N. portion of AS-1.

AS-2

↑
GOA
11C

↑
AS-2A
AS-2B
↓

nearshore tidal
rocky reef area.
Potential
pinniped
haunts.

ECOLOGY MAP

AS-2-B

(1 of 2)

(Page 3 of 4)

5T - Eagle nest adjacent,
within Segment AS-1 to 5.
(3/2 → 6/2; active nests
until 9/2).

GOA →
11B

XXX Wide

/// Medium

--- Narrow

TTTT Very Light

AS-2-B

ADEC Segment Length: 3574m

Map Key: GOA-11a

Name: G. Heyman

Date: 5-11-90

ECOSYSTEM MAP

(2 of 2)

AS-2-B

(Page 4 of 4)

Please see Map #1.

Nearshore tidal
rocks/reefs.
Potential pringed haulouts.

Active eagle nest atop sea stack

Fox denning area

Active raven
cliff nest
(2 chicks)

← GOA
11A

← AS-2-B

AS-1

C

XXXX Wide

//// Medium

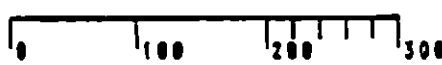
---- Narrow

TTTT Very Light

0000 No Oil

AS-2-B

ADEC Segment Length: 3574m



METERS

Map Key: GOA-11b

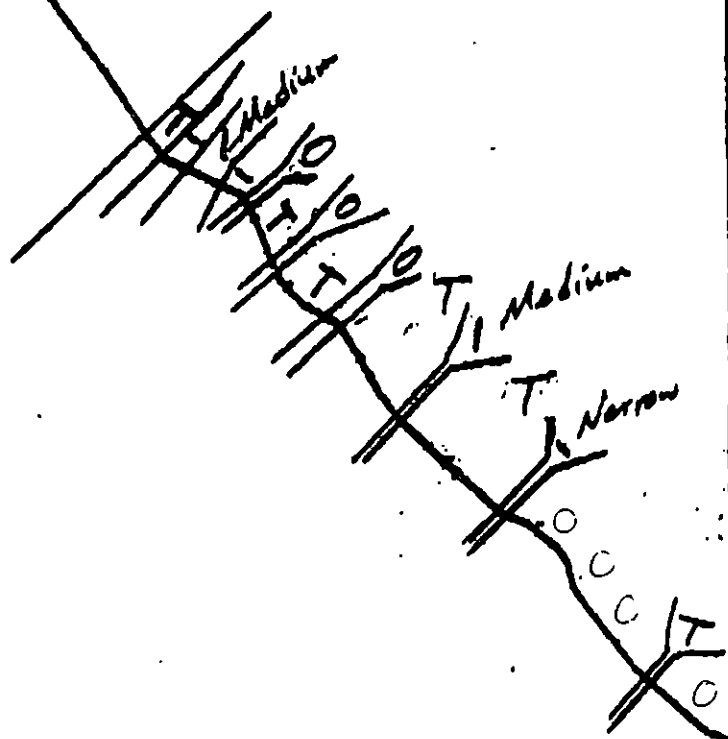
Name: _____

Date: _____

Data Entered: _____

↑
GOA
11C

AS-2



GOA →
11B

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

K10-5-AS-2-B

ADEC Segment Length: 3374m

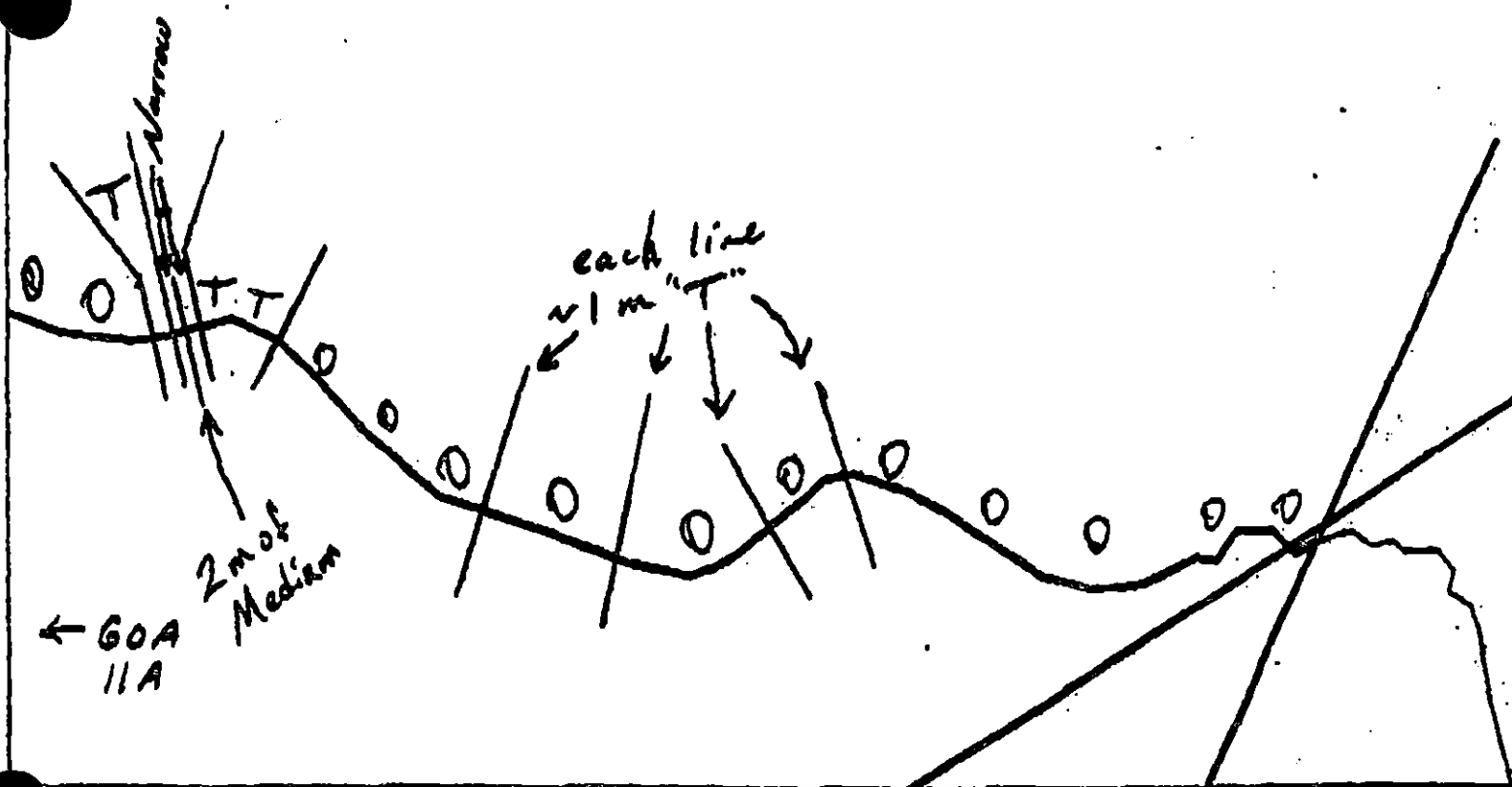
0 100 200 300



Map Key: GOA-11C

Name: G. HERMAN

Date: 5/11/90



XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

AS-2-B

ADEC Segment Length: 3374m

0 100 200 300

Map Key: 00A-11b

Name: G. HEYMAN

Date: 5/11/90

Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ K10-05-AS-002 SUBDIVISION B (2 OF 2) DATE 5/11/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

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

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

4QQ National Wildlife Refuge

Active Raven cliff nest

9LM Land mammals (Fox dens)

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiled biota and substrate. Helicopters should avoid the southern portion of the segment and the northern portion of AS001. Due to eagle nest.

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: Rachel Don-Over DATE: 5/30/90

OILING CATEGORIZATION:

Wide 0 m: Medium 42 m: Narrow 76 m: V.Light 397 m: No Oil 1367 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>X</u> Spot Washing: <u>X</u> Wands
<u> </u> Tarmat Removal	<u> </u> Beach Cleaner
	<u> </u> Other (see comments)

COMMENTS: Recommend manual removal of mousse accumulations and spot wash where manual removal is not possible. Work after 6/1 with approval from USFWS regarding eagle nests.

TAG COMMENTS:

TAG APPROVAL DATE: 5/29/90
ADEC Art Weiner Art Weiner
EXXON Ann Tark
NOAA Bill Wescott
USCG G.A. Reiter

FOSC: h y L DATE: 6-19-90

HAZMAN
TST/K 100 AS 002

ION B 20P2

11/90

SI

Scale
in Meters

Character
MAP

Location(s)
a) Logs on
b) Bore

D

Intermittent MS Pattern
to 2" thick MS
in crevasses, Total
BAND of MS, CVCT
to 4m wide, MS in
up to 25% cover
is 1-3m wide, Continuous
BAND TO 70 M LONG
MS in crevasses to 7cm,
Pooled

LEGEND
--- PREDOMINANT
--- STRIKE OF LONELYING
--- BEDROCK. DIP IS TO
THE NW.
--- MS BAND

XXX RANDOM SPLATTERS OF
CV, CT & MS

SKETCH MAP

A BOUNDER/CORREL
APRON IN FRONT OF
CLIFFS ALONG ENTIRE
SUBDIVISION

GRASS COVER
MED BROWN
Soil
BEDROCK

SAND
TONGUE

MANUALLY
REMOVE
MOUSSE

SPOT WASH
IF NOT ACCESSIBLE

MS Fractures in
BEDROCK

AS-2A
AS-2B
SAND
CB/BL/PL
SHD-POBLE
BEACH

Blks/Cb/PLs on
LONELYING BEDROCK

GRASS
COVERED

25x4m TALL
aim, Interstitial MS
Blast MS in crevasses,
1-3m wide 4-5m by
patches. Up to
1Xm of MS > 50%
Cover. CT & CV

UPLANDS

ABOVE
BLUFF/CLIFFS

Cb/PLs w
low blks

DRIFT LOG
PILE

STEEP CLIFFS WITH
NEAR VERTICAL BEDROCK

N

0 200
METERS
(APPROXIMATE)

for Length (m): AP PO 10 CV 100 CT 205 ST MS 90 PT 100 TB FL NO 1374

G. U. G. HEYMAN

EGMENT ST/ 2.05 AS 002

UBDIVISION B

ATE 5.111/90

CHECKLIST

- ☐ M Area
- ☐ Approx. Scale
- ☐ Sep/Sub Entry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Ext. HMR/LMR
- ☐ 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

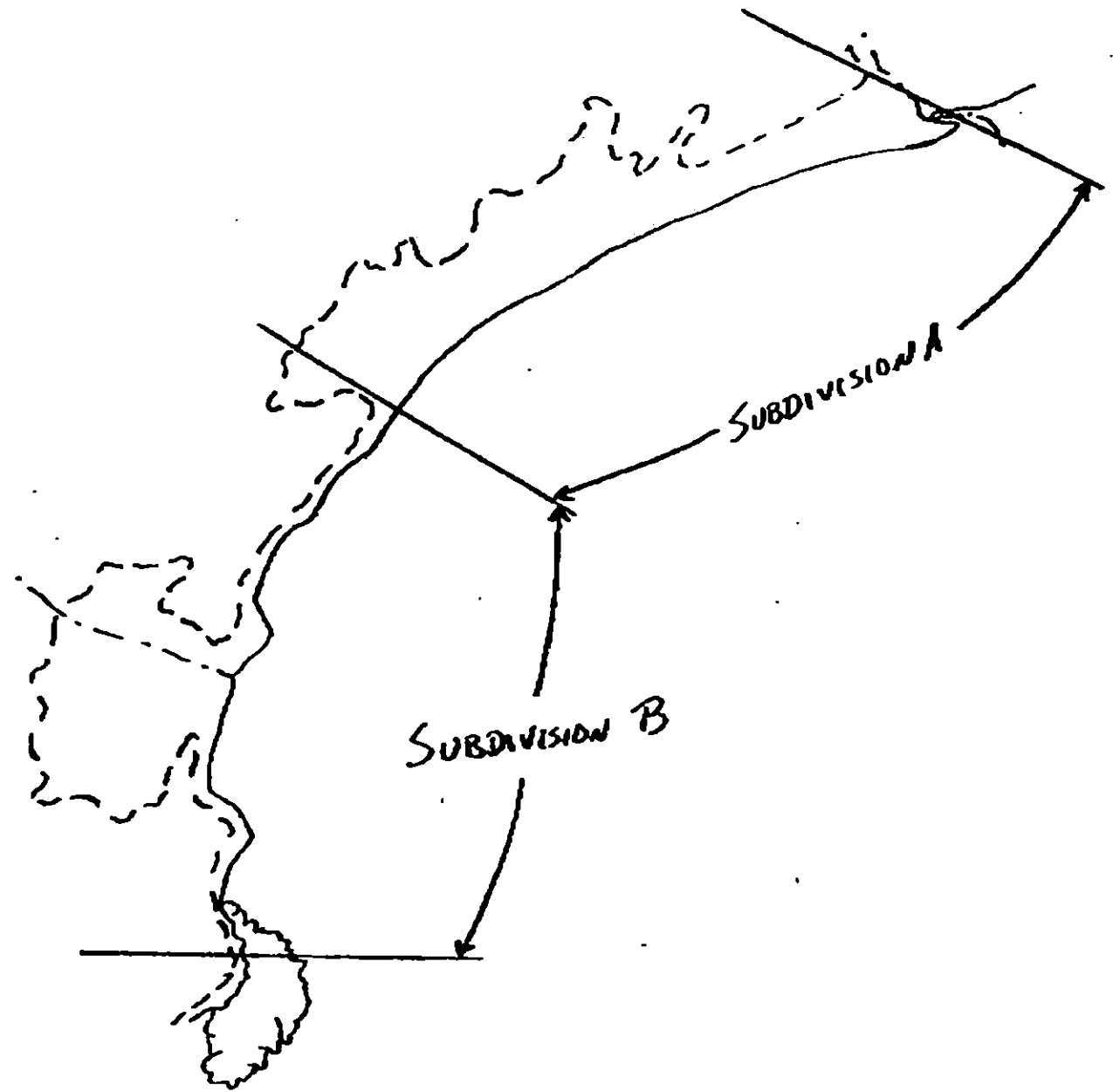
Continuous Distribution
- CT/B

Broken Distribution
- CT/P

Patchy Distribution
- CT/S

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

SKETCH MAP
SUBDIVISION LOCATION MAP



REVISION 2/2/90

AS-2

↑
GOA
11C

↑
AS-2A
AS-2B
↓

nearshore tidal
rock/reef area.
Potential
pinniped
habitate.



ECOLOGY MAP

AS-2-B

(1 of 2)

(Page 3 of 4)

5T - Eagle nest adjacent,
within Segment AS-1 to S.
(3/1 → 6/1; active nests
until 9/1).

GOA →
11B

XXXX Wide

//// Medium

--- Narrow

.....

AS-2-B

ADEC Segment Length: 3574m

Map Key: GOA-11a

Name: G. Heymen

Date: 5-11-90

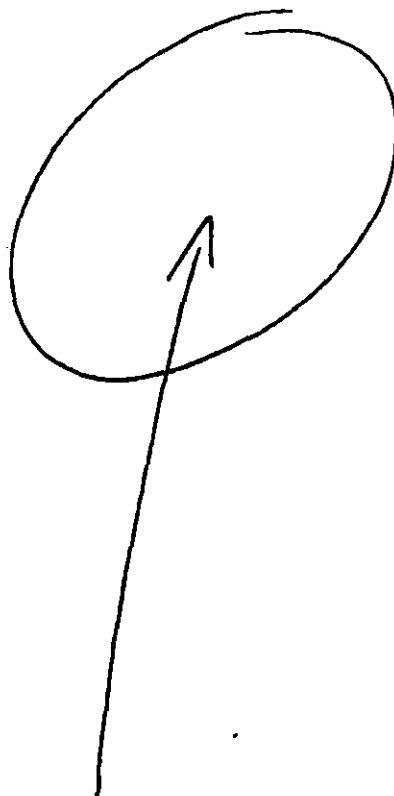
ECADOT MAP

(2 of 2)

AS-2-B

(Page 4 of 4)

Please see Map #1.



Nearshore tidal
rocks/reefs.
Potential pinniped haulouts.

Active eagle nest stop sea stack

Fox denning area

← GOA
11A

Active raven
cliff nest
(2 chicks)

← AS-2-B

AS-1

C

XXXX Wide

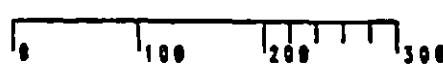
//// Medium

--- Narrow

TTTT Very Light

AS-2-B

ADEC Segment Length: 3574m



Map Key: GOA-11b

Name: _____

Date: _____

Date Entered: _____

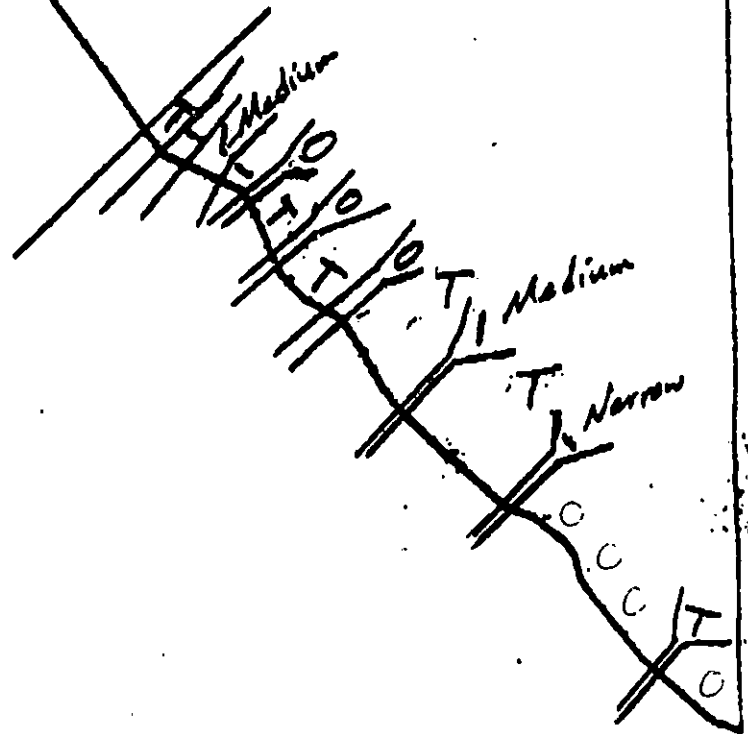
MAY-17-1990 15:53 FROM EAKON ADDIRK
MAY-17-1990 11:49 FROM EAKON 96-1

73

15643771 8:10
STARS FIELD 102

↑
GOA
11C

AS-2



GOA →
11B

XXX Wide
/// Medium
--- Narrow
TTT Very light

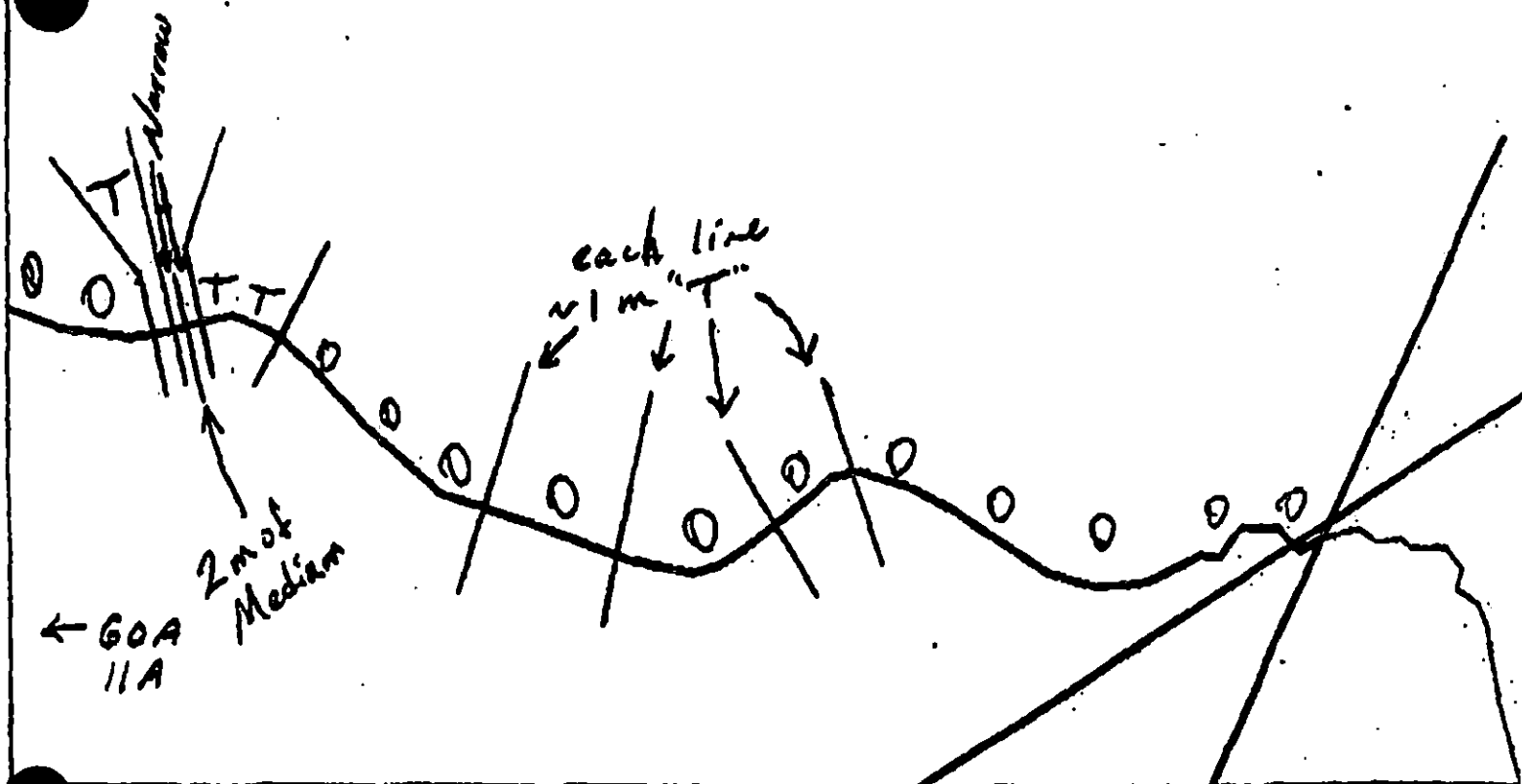
K10-5-AS-2-B

ADEC Segment Length: 3574m

Map Key: GOA-11C

Name: G. HAYMAN

Date: 5/11/90



XXX Wide

/// Medium

--- Narrow

TTTT Varv light

AS-2-B

ADEC Segment Length: 3574m

Map Key: 00A-11b

Name: G. HEYMAN

Date: 5/11/90



ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K10-05-AS-002 SUBDIVISION B (2 of 2)

WORK WINDOW

Manual Pickup Less Than 400m From Active Nest	CLOSED
Manual Pickup More Than 400m From Active Nest	OPEN
Spot Washing Less Than 400m From Active Nest	CLOSED
Spot Washing More Than 400m From Active Nest	OPEN

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

5T Bald Eagle Nest

USFWS 4/9/90 map indicates an active nest in Subdivision B. Closed to manual pickup and spot washing within 400m of active nest. No constraint to manual pickup and spot washing more than 400m from active nest.

OTHER ECOLOGICAL CONSIDERATIONS

Restrict air traffic and all disturbance to essential minimum. No personnel or boat traffic within 400m of active nests. Air approach and takeoff from and to seaward only; maintain 400m horizontal, 300m vertical distance from active nests. Avoid any unnecessary disturbance or damage to unrolled blots and substrate. Helicopters should avoid southern portion of the segment and the northern portion of AS001 due to eagle nests.

FOSC

Date

6-22-90

Prepared by

Date

6/22/90

STREAM #
262-65-10030

AS-2

WORK
AREAS

Active Nest

100 m buffer zone

Active
Nest



Exxon Company, USA



ECOLOGY MAP
SEGMENT K10-5 AS-2
SUBDIVISION B (2 of 2)

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

SHORELINE EVALUATION

SEGMENT ST/ K10-05-AS-002 SUBDIVISION B (2 OF 2) DATE 5/11/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

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

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

4QQ National Wildlife Refuge

Active Raven cliff nest

9LM Land mammals (Fox dens)

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiled biota and substrate. Helicopters should avoid the southern portion of the segment and the northern portion of AS001. Due to eagle nest.

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: Rachel Don-Owen

DATE: 5/30/90

OILING CATEGORIZATION:

Wide 0 m: Medium 42 m: Narrow 76 m: V.Light 397 m: No Oil 1367 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

 No Treatment Recommended

X Treatment Recommended

X Manual Pickup

 Bioremediation

 Tarmat Removal

 Snare/Absorbent Booms

 Oil Snares (pom poms)

 Absorbents (pads, rolls, etc)

X Spot Washing: X Wands

 Beach Cleaner

 Other (see comments)

COMMENTS: Recommend manual removal of mousse accumulations and spot wash where manual removal is not possible. Work after 6/1 with approval from USFWS regarding eagle nests.

SEE CONSTRAINTS ADDENDUM DATED 6/22/90

TAG COMMENTS:

TAG APPROVAL DATE: 5/29/90

ADEC Art Weiner Art Weiner

EXXON Andy Teal Andy Teal

NOAA Bill Westcott Bill Westcott

USCG G.A. Reiter G.A. Reiter

FOSC: h

DATE: 6-19-90

1991 MAYSAP EVALUATION

SEGMENT: K1005AS002 SUB: B REGION: KOD SURVEY DATE: 5/26/91

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) RESTRICTED 3/1 - 91/5

Ecological/Constraints (see page two for details) Eagle nest,
Anadromous stream

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO Signature: _____ Date: _____

RECOMMENDATIONS:

INITIAL

TAG

FOSC

TREATMENT REQUIRED (Y or N)

N

Manual Pickup (Check as Req.)

Spot Washing

Bio-Customblen Only

Bio-Inipol/Customblen

Other

Other

COMMENTS:

INITIAL: _____

TAG: _____

FOSC: _____

TAG APPROVAL DATE: _____

FOSC APPROVAL DATE: _____

ADEC _____

FOSC _____

EXXON _____

USCG _____

NOAA _____

**ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES**

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

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

1991 MAYSAP EVALUATION

SEGMENT: K1005A3 SUB: B REGION: KOD SURVEY DATE: 5/26/91
002

ENVIRONMENTAL SENSITIVITIES:

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

Ecological/Constraints (see page two for details) C, G

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO Signature: _____ Date: _____

RECOMMENDATIONS:

INITIAL

TAG

FOSC

TREATMENT REQUIRED (Y or N) _____

Manual Pickup (Check as Req.) _____

Spot Washing _____

Bio-Customblen Only _____

Bio-Inipol/Customblen _____

Other _____

Other _____

COMMENTS:

INITIAL: _____

TAG: _____

FOSC: _____

TAG APPROVAL DATE: _____

FOSC APPROVAL DATE: _____

ADEC _____

FOSC _____

EXXON _____

USCG _____

NOAA _____

MAYSAW FIELD SHORELINE COMMENT SHEET

K10-05

TEAM NO. 6-HELO SEGMENT AS-2 SUBDIVISION B DATE 5/26/91

ADEC

NAME J. BARNHART, ADECSIGNATURE J. Barnhart

- ☒ NTR We looked at two areas of oiling in the locations as indicated on the sketch map. Trace amounts of mousse can be found around boulders and in bedrock fractures. Veco personnel removed approx. 5 pounds of mousse from the two sites. The remaining oil would be extremely difficult to remove by manual methods.

EXXON

NAME R. COULTER, EXXONSIGNATURE Ray R. Coulter

- ☒ NTR ALL RECOVERABLE OILING HAS BEEN REMOVED. NO ADDITIONAL ATTENTION IS WARRANTED AT THIS SITE.

LANDMANAGER

NAME J. HARDISTER

OF USEFWS

SIGNATURE J. P. Hardister

- ☒ NTR An insignificant amount of recoverable oil remains. Further cleanup efforts would not be warranted.

USCG/NOAA

NAME CWO R. SPURE/G. SHIGENAKASIGNATURE R. Spure G. Shigenaka

- ☒ NTR Most of the recoverable oil was recovered but Veco workers during survey.

SURVEYED PORTION OF THE SEGMENT WAS ASSESSED OVER A TWO-DAY PERIOD DUE TO RAPID VETERIORATION OF WEATHER ON THE FIRST DAY (5/25). THE SHORELINE WAS A BOULDER/BEDROCK BEACH LEADING OUT TO A BEDROCK FLAT WHICH WAS HEAVILY COVERED WITH FUCUS IN THE MITE AND BELOW. THIS LOWER FLAT WAS NOT VISIBLE ON 5/25 DUE TO TIDE LEVEL, BUT ON THE SECOND VISIT EXTENDED FOR SOME DISTANCE OUT INTO THE BEACH. A DERELICT CABIN WAS LOCATED JUST NORTH OF THE BEGINNING POINT FOR THE SURVEY. THE SUBSTANTIVE OILING OBSERVED ALONG THE SURVEYED PORTION WAS OBSERVED AT THE BEGINNING POINT AND NEAR THE END OF THE SURVEY. AT THE FIRST LOCATION, SOF WAS FOUND IN BEDROCK AND BETWEEN BOULDERS AND TO THE EXTENT POSSIBLE MATERIAL ENCOUNTERED WAS RECOVERED BY THE VECO CREW. THE OILING OBSERVED NEAR THE SOUTH END OF THE SURVEYED SECTION CONSISTED OF COAT/SOF IN CRACKS IN BEDROCK SUBSTRATE, WITH SOME SHEEN SPEN IN TIDAL POOLS AS WELL. IT APPEARED THAT THERE WAS LITTLE RECOVERABLE OIL REMAINING IN THE SURVEYED AREA.

PAGE 1 OF 1

Reviewed: MC 5731/91
reviewed 5.3194

AS

A

MAP #1

B

UNSURVEYED



K1005 AS002 B

Subdivision Field Map

Map Key: COAX1000AS002B

Name: D. FITZGERALD

Date: 26 MAY 1991

METERS



AS State Plane Zone 9
91005000200

reviewed 5.31 ay

GRASSY AREA

LOGS

STEEPLY
Dipping Sedimentary
Rocks

PHOTO SITES

Sketch Map (OG)
K10-05-AS-02-B
26 MAY 1991
730-820

ALASKAN
PENINSULA

REMAINS
OF
CAVIN

BEGIN SEGMENT
AS-02A

WAVE-CUT
PLATFORM

A. SDR/ms
1-10 by 150 < 1%
IN CRACKS OF RL
Outcrop, N127E

Begin
Segment
AS-01

B. SDR
1. 1 by 1m < 1%
2. 1 by 2m < 1%
IN CRACKS OF
bedrock

0 100
METERS

Southern
ALINCHAK
BAY

REVIEWED: MC 5/31/91
reviewed S.314y

GRASSY AREA

LOGS

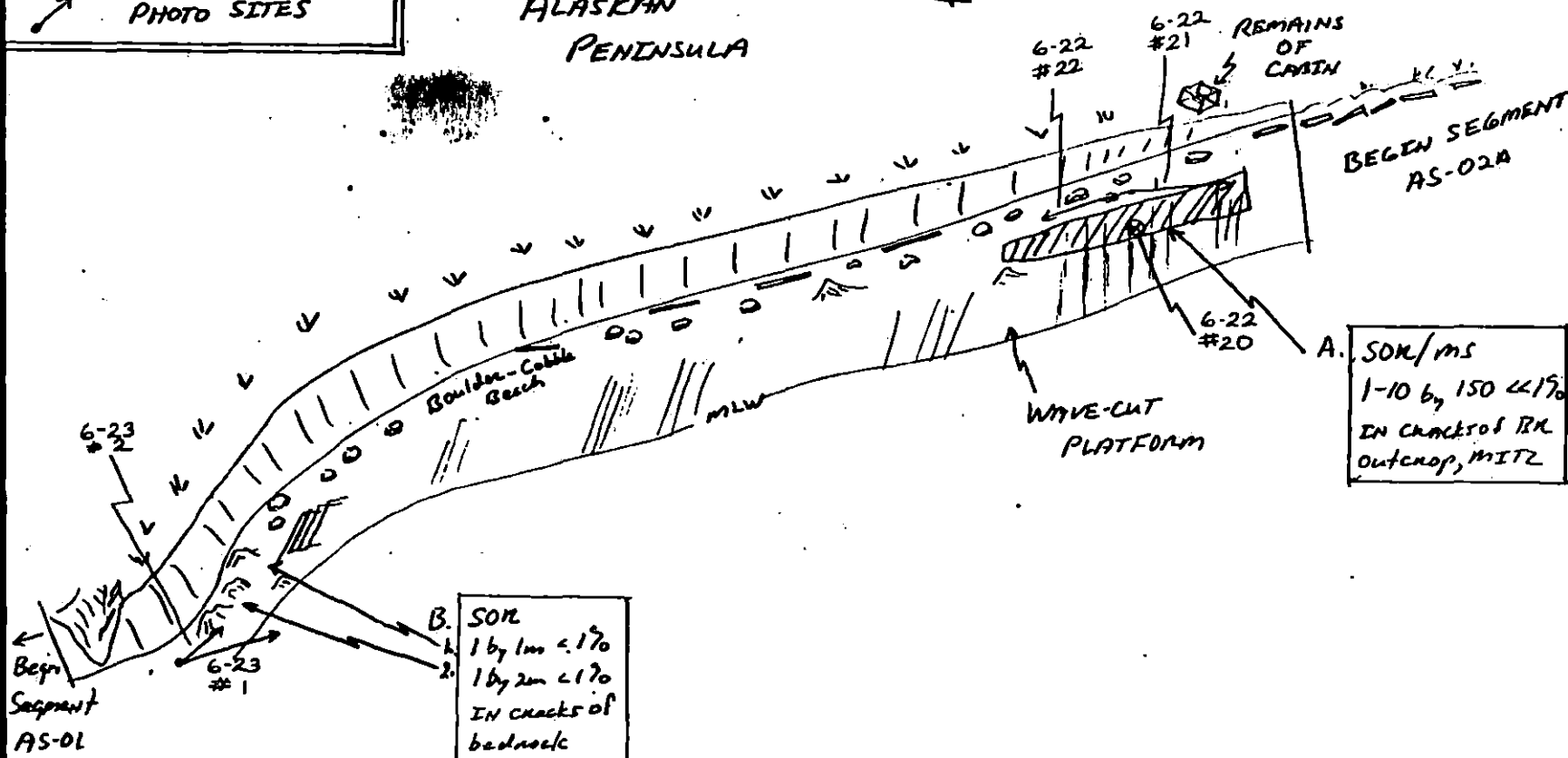
STEEPLY
Dipping Sedimentary
Rocks

PHOTO SITES

PHOTO SITES, AS-2B
ROLL 6-22, FRAMES 20 THRU 22
ROLL 6-23, FRAMES 1 & 2

Sketch map (OC)
K10-05-AS-02-B
26 MAY 1991
730-820

ALASKAN
PENINSULA



B. SON
1 by 1m < 1%
1 by 2m < 1%
IN cracks of
bedrock

A. SON/MS
1-10 by 150 < 1%
IN cracks of RR
outcrop, MITZ

Southern
ALINCHAK
BAY

revised 5.31.94

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 6 Helo

DATE May 26 1991

SEGMENT # K10-5 AS-02

TIDAL HEIGHT (Range) -1.2 - -1.0 (07:30-08:00)

SUBDIVISION B

BIOLOGIST H. Davis

SEA STATE Calm (In Bay)

WIND SPEED/DIRECTION 10-20KT SE

PHOTOGRAPHS: ROLL # 6-22 + 6-23

FRAME # 20-22, 1+2

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

The section of K10-05 AS-02 surveyed is a bedrock shelf with cobbles and boulders collected at the base of a low bedrock cliff that is covered in grasses, wildflowers (beginning to bloom) and willows. The beach is an exposed rocky intertidal community. The diversity and density of the biota here is low, although the LITZ was not examined at length.

Site A This area extends from the top of the littorine zone down to the MITZ. At the top are littorines, some *Balanus cariosus*, and a few *Nipersona* (limpets). Moving down towards the water the density of barnacles, limpets and littorines increases. *Fucus*, *Rhodomeles*, *Gloiopelta* are also found near the bottom of site A. Below this region *Scytosipon*, *Ulva*, *Anthopora* become common. *Fucus* and *Rhodomeles* cover large percent of the area below site A.

Site B This area had small bits of SOR in crevices and cracks at the top of the littorine zone. There are some barnacles and the occasional limpet in this area.

Both site A and site B had drift algae. *Ulva*, *Nereocystis*, *Fucus*, Red algal blades, *Ptilota* and *Laminaria* were identifiable in the drift. Shells found on the shore were *Saxidomus*, *Prothaca* and small *Nacomas*.

Sandpipers sp? (4) sparrows (3)

Oystercatchers (2) Glaucous-winged Gulls (>80) Pintail (10) Green winged teal (2)

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	0	-	0
Seabirds	0	-	
Waterfowl	2	12	
Gulls/Kittiwake	1 maybe 2	> 80	
Shorebirds	2	6	
Corvids	0	-	
Other Birds sparrows*	1	3	

* Feeding in the intertidal

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters	0	Fox tracks	
Pinnipeds (specify)	0	Caribou tracks	
Elk (specify)	0	Caribou	5 in the uplands

Shoreline subdivision map showing important biological features attached.

Reviewed MVB 5/31/91

GRASSY AREA

LO65

STEEPLY
Dipping Sedimentary
Rocks

PHOTO SITES

Bio Map
H. Davis

Sketch MAP(OC)
K10-05-AS-02-B
26 MAY 1991
730 - 820

ALASKIAN
PENINSULA

REMAINS
OF
CAVIN

BEGIN SEGMENT
AS-02A

Willows

Boulder-Cobble
Beach

WAVE-CUT
PLATFORM

A. SOR/ms
1-10 by 150 < 1%
IN CRACKS OF IRK
OUTCROP, MITZ

A. This area starts in the barnacle,
Littorina limpet zone and extends
down to where Fucus, Rhodospira,
Littorina limpets and Barnacles
are all moderately dense.

Begin
Segment
AS-01

B. SOR
1 by 1m < 1%
1 by 2m < 1%
IN CRACKS OF
bedrock

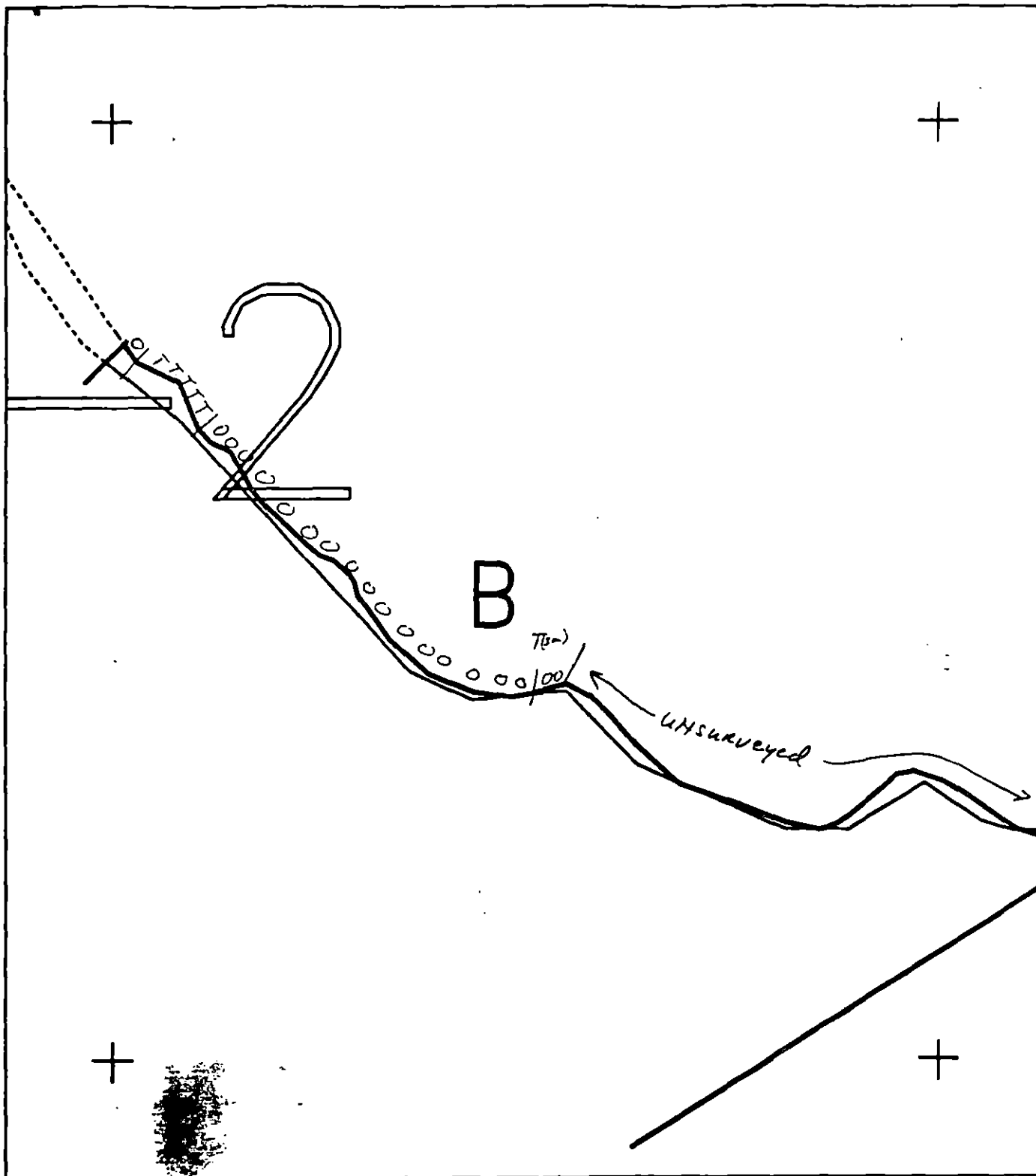
B. Sparse Littorines
were the most common
animals in this area.
A few barnacles and
limpets. Very little
algal was in this
area.

Southern
ALINCHAK
BAY

Nereocystis
Beds.

0 100
METERS

Reviewed MBS/34



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

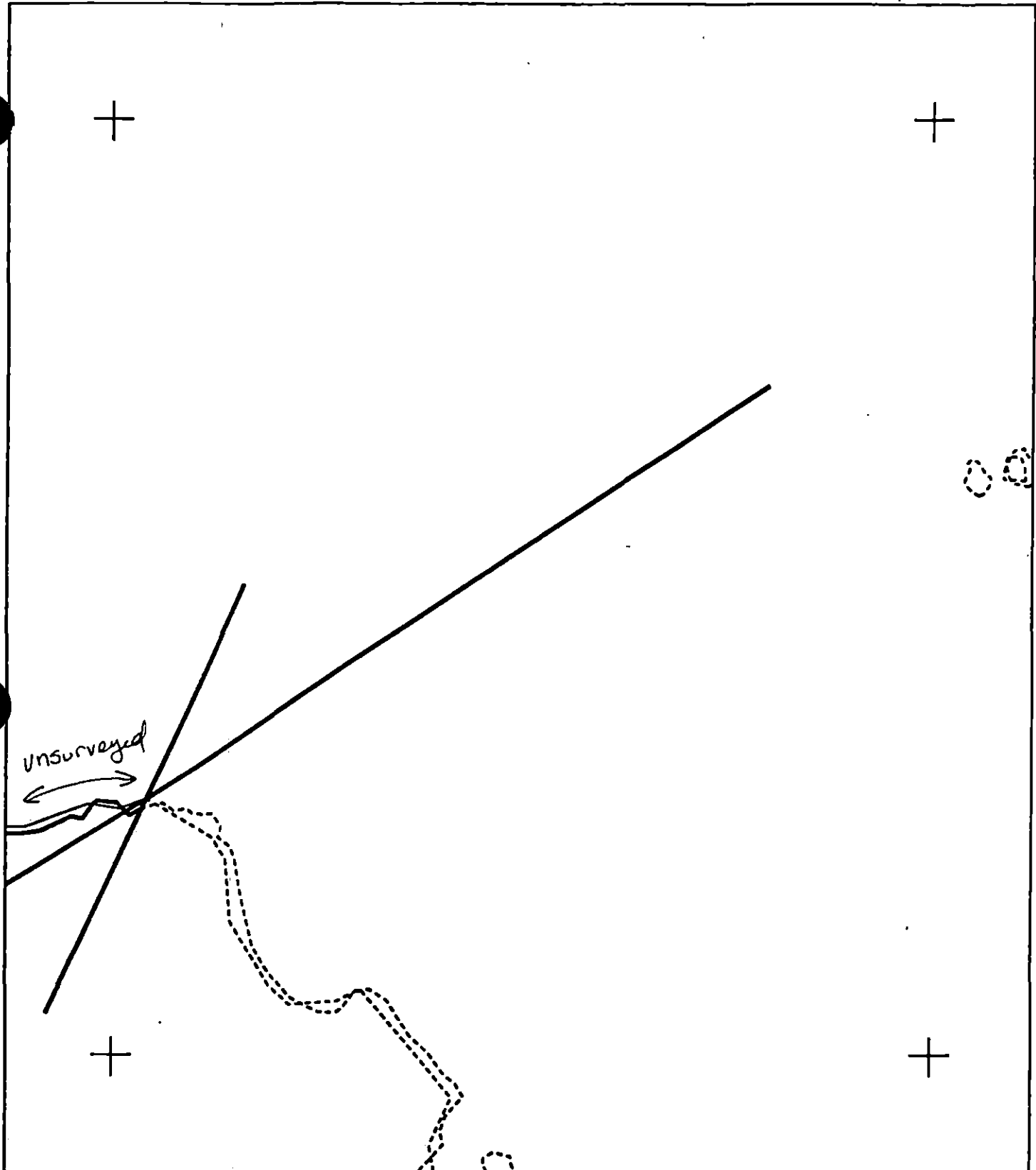
K1005 AS002 B
 ADEC Subsegment Length: 1002m
 METERS

0 200 400
 AK State Plane Zone 4
 g1003uc002ba- . . .



Subdivision Field Map
 Map Key: 00AK1005AS002B
 Name: D. Fitzgerald
 Date: 26 MAY 1991
 Date Entered:

Reviewed by L5/31/91 MC
 reviewed 5.31 9y



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

K1005 AS002 B
 ADEC Subsegment Length: 1882m
 METERS

0 200 400
 AK State Plane Zone 4
 91005as002bb- . . .



Subdivision Field Map

Map Key: 60AK1005AS002Bb

Name: D. Fitzgerald (VI)

Date: 26 May 1991

Date Entered:

Reviewed: MC 5/31/91

S.31 98

NOAA

**ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES**

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

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

1991 MAYBAP EVALUATION

SEGMENT: K1005A3 SUB: B REGION: KOD SURVEY DATE: 5/26/91
002ENVIRONMENTAL SENSITIVITIES:Work Window(s) RESTRICTED 3/1 - 9/15Ecological/Constraints (see page two for details) C, GARCHAEOLOGICAL CONSTRAINTS:If treatment is planned, a cultural resource evaluation is required prior to shoreline treatment.

SHPO Signature: _____ Date: _____

RECOMMENDATIONS:

INITIAL

TAG

FOSC

TREATMENT REQUIRED (Y or N) _____

Manual Pickup (Check as Req.) _____

Spot Washing _____

Bio-Customblen Only _____

Bio-Inipol/Customblen _____

Other _____

Other _____

COMMENTS:

INITIAL: _____

TAG: _____

FOSC: _____

TAG APPROVAL DATE: _____

FOSC APPROVAL DATE: _____

ADEC _____

FOSC _____

EXXON _____

USCG _____

NOAA _____

MAYSAP FIELD SHORELINE COMMENT SHEET

K10-05

TEAM NO. 6-HELO SEGMENT AS-2 SUBDIVISION B DATE 5/26/91

ADEC

NAME J. BARNHART, ADECSIGNATURE Jeff Barnhart

- ☒ NTR We looked at two areas of oiling in the locations as indicated on the sketch map. Trace amounts of mousse can be found around boulders and in bedrock fractures. VECO personnel removed approx. 5 pounds of mousse from the two sites. The remaining oil would be extremely difficult to remove by manual methods.

EXXON

NAME R. COULTER, EXXONSIGNATURE Ray R. Coulter

- ☒ NTR ALL RECOVERABLE OILING HAS BEEN REMOVED. NO ADDITIONAL ATTENTION IS WARRANTED AT THIS SITE.

NDMANAGER

NAME J. HARDISTEOF USEFWSSIGNATURE John P. Hardister

- ☒ NTR An insignificant amount of recoverable oil remains. Further cleanup efforts would not be warranted.

USCG/NOAA

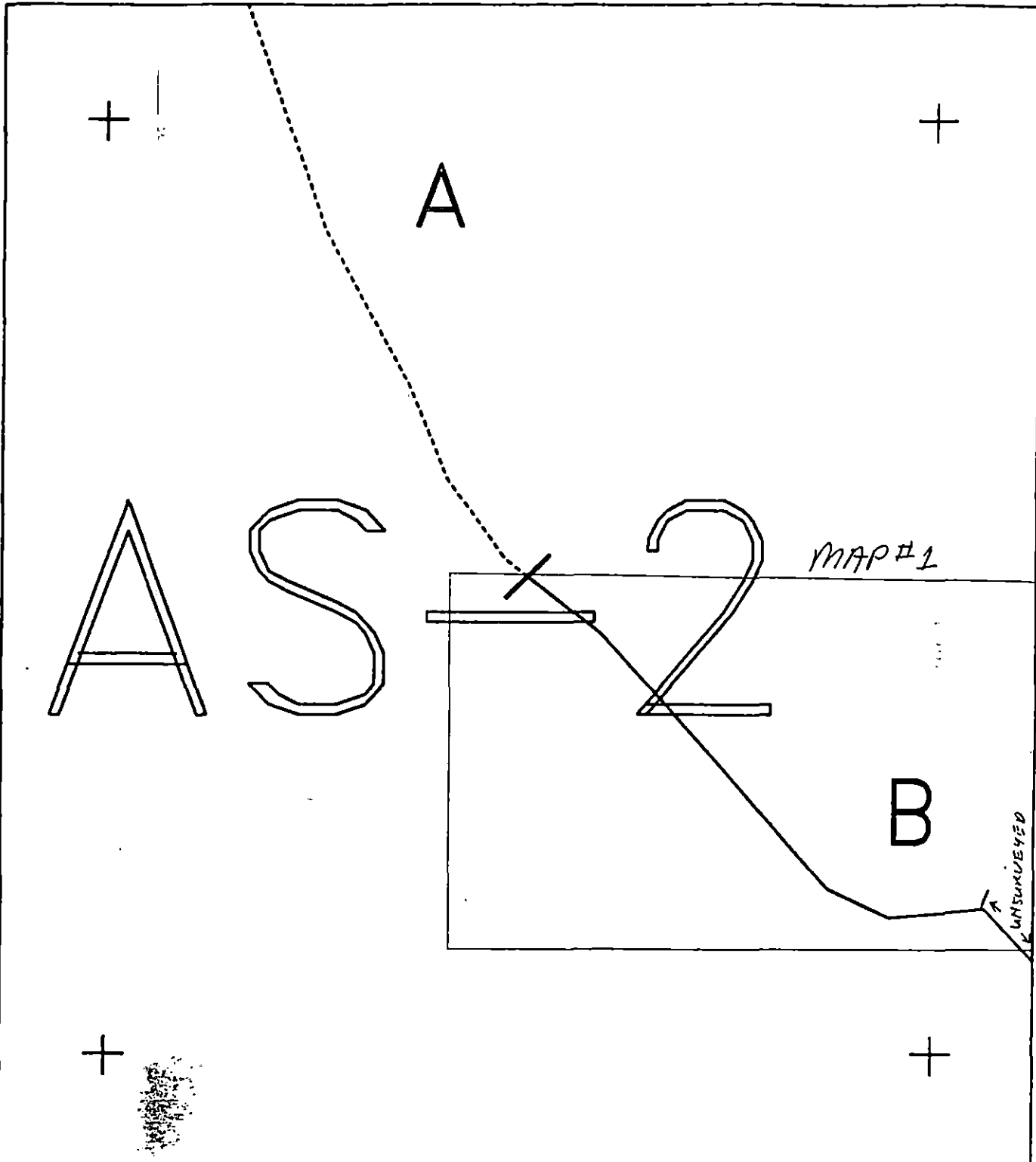
NAME CWO R. SPURE/G. SHIGENAKASIGNATURE R. Spure G. Shigenaka

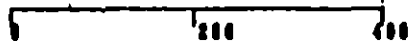
- ☒ NTR Most of the recoverable oil was recovered by VECO workers during survey.

SURVEYED PORTION OF THE SEGMENT WAS ASSESSED OVER A TWO-DAY PERIOD DUE TO RAPID VETERINATION OF WEATHER ON THE FIRST DAY (5/25). THE SHORELINE WAS A BOULDER/BEDROCK BEACH LEAVING OUT TO A BEDROCK FLAT WHICH WAS HEAVILY COVERED WITH FUKUS IN THE MITE AND BELOW. THIS LOWER FLAT WAS NOT VISIBLE ON 5/25 DUE TO TIDE LEVEL, BUT ON THE SECOND VISIT EXTENDED FOR SOME DISTANCE OUT FROM THE BEACH. A DERELICT CABIN WAS LOCATED JUST NORTH OF THE BEGINNING POINT FOR THE SURVEY. THE SUBSTANTIVE OILING OBSERVED ALONG THE SURVEYED PORTION WAS OBSERVED AT THE BEGINNING POINT NEAR THE END OF THE SURVEY. AT THE FIRST LOCATION, SOR WAS FOUND IN BEDROCK AND BETWEEN BOWDERS AND TO THE EXTENT POSSIBLE MATERIAL ENCOUNTERED WAS RECOVERED BY THE VECO CREW. THE OILING OBSERVED NEAR THE SOUTH END OF THE SURVEYED SECTION CONSISTED OF COAT/SOR IN CRACKS IN BEDROCK SUBSTRATE, WITH SOME SHEEN SPEN IN TIDAL POOLS AS WELL. IT APPEARED THAT THERE WAS LITTLE RECOVERABLE OIL REMAINING IN THE SURVEYED AREA.

PAGE 1 OF 1

Reviewed: MC 53191
reviewed 5.3194



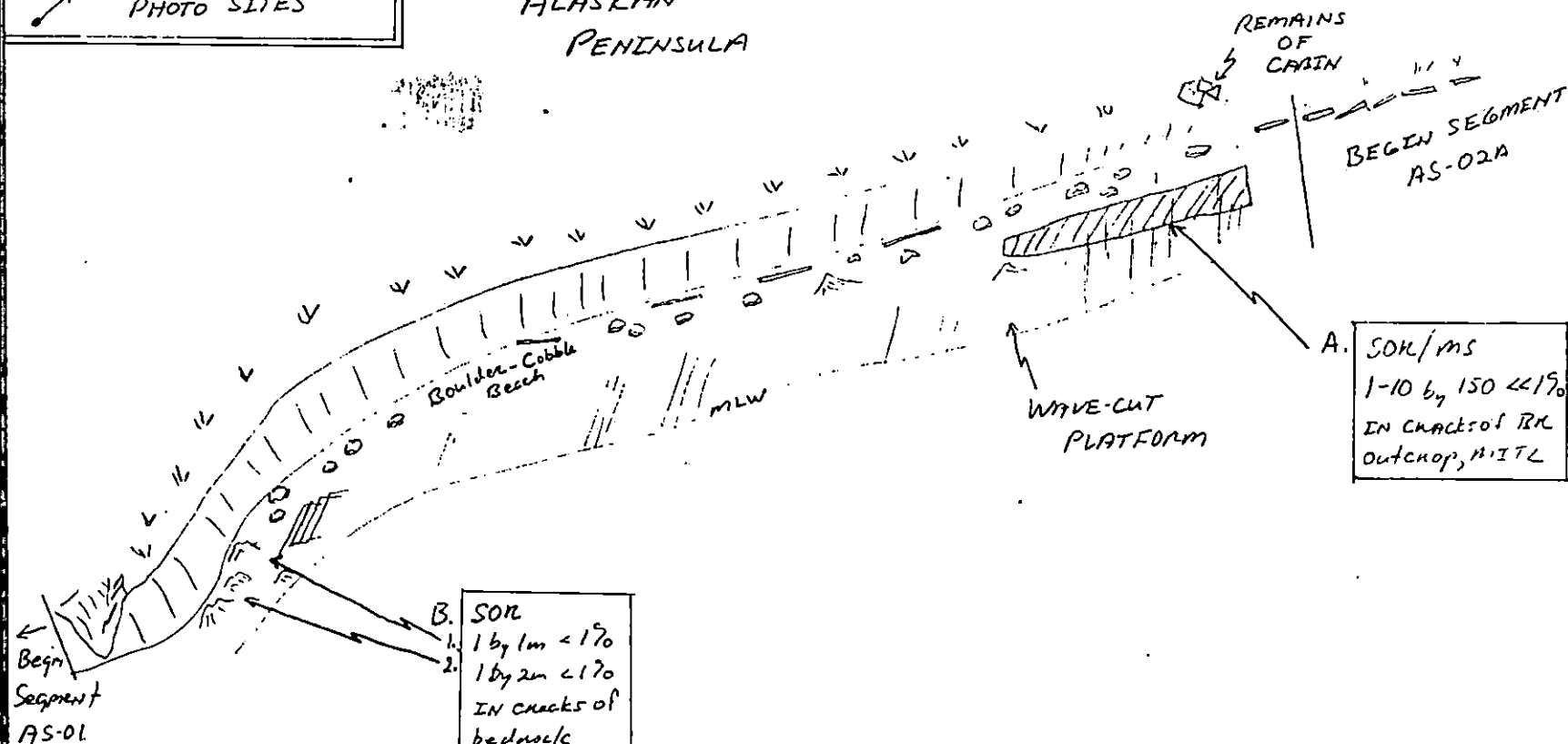
	K1005 AS002 B		Subdivision Field Map
	METERS		Map Key: COAK1005AS002B
			Name: <u>D. FITZGERALD</u>
	AK State Plane Zone 5		Date: <u>26 MAY 1991</u>

reviewed 5.31 94

- GRASSY AREA
- LOGS
- STEEPLY
Dipping Sedimentary
Rocks
- PHOTO SITES

MAP(06)
K10-05-AS-02-B
26 MAY 1991
730-820

ALASKAN
PENINSULA



Southern
ALINCHAK
BAY

REVIEWED: MC 5/31/91
reviewed 5.31.91

GRASSY AREA

LOGS

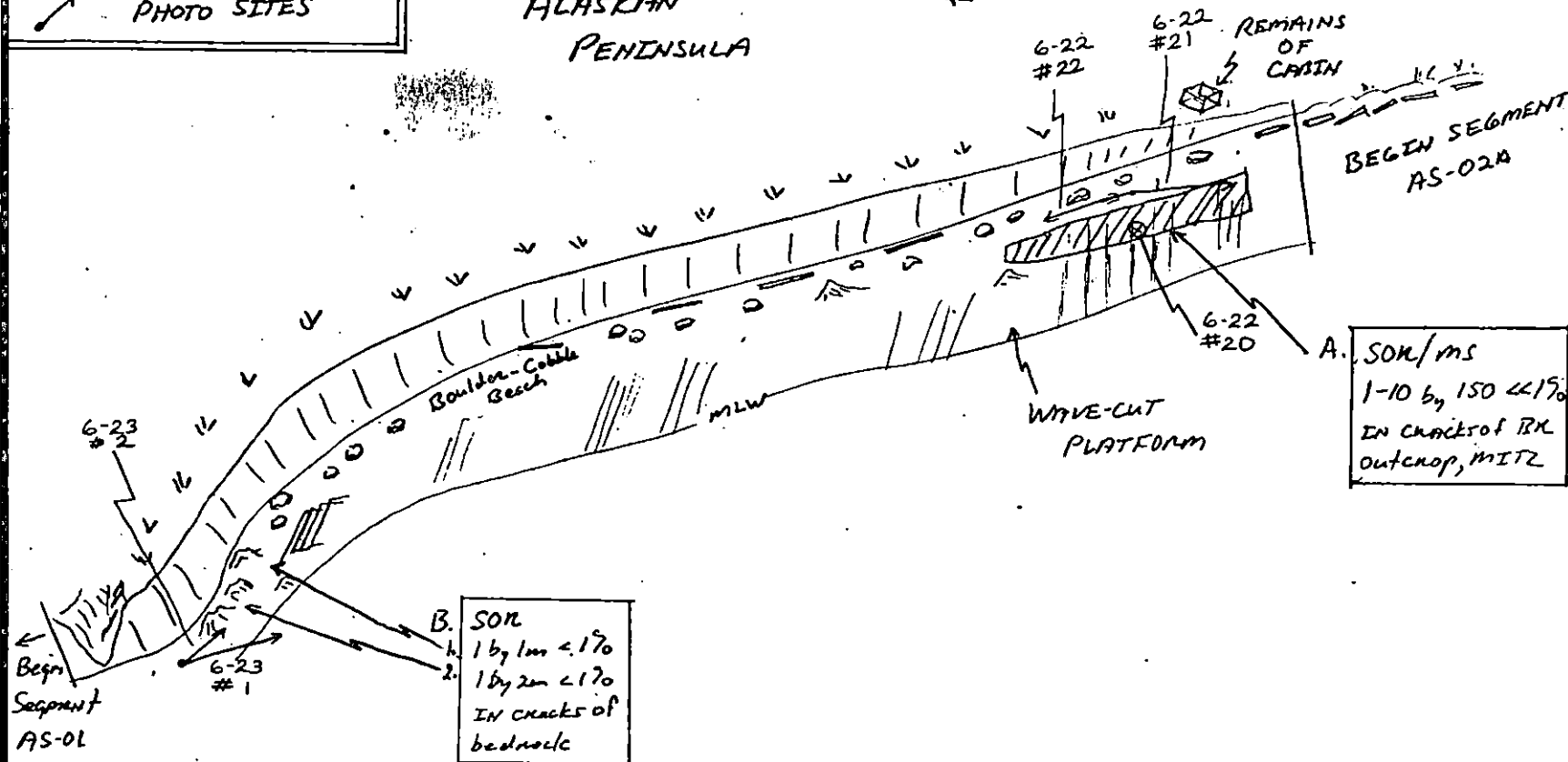
STEEPLY
Dipping Sedimentary
Rocks

PHOTO SITES

PHOTO SITES, AS-2B
ROLL 6-22, FRAMES 20 THRU 22
ROLL 6-23, FRAMES 1 & 2

Sketch Map (OG)
K10-05-AS-02-B
26 MAY 1991
730-820

ALASKAN
PENINSULA



A. SON/ms
1-10 by 150 < 15°
IN CRACKS OF RX
OUTCROP, MITZ

B. SON
1 by 1m < 15°
1 by 2m < 15°
IN CRACKS OF
bedrock

Southern
ALINCHAK
BAY

reviewed 5.31.94

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 6 Helo

DATE May 26 1991

SEGMENT # K10-5 AS-02

TIDAL HEIGHT(Range)-1.2 - -1.0 (07:30-0820)

SUBDIVISION B

BIOLOGIST H. Davis

SEA STATE Calm (In Bay)

WIND SPEED/DIRECTION 10-20KT SE

PHOTOGRAPHS: ROLL # 6-22 + 6-23

FRAME # 20-22, 1+2

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

The section of K10-05 AS-02 surveyed is a bedrock shelf with cobbles and boulders collected at the base of a low bedrock cliff that is covered in grasses, wildflowers (beginning to bloom) and willows. The beach is an exposed rocky intertidal community. The diversity and density of the biota here is low, although the LITZ was not examined at length. Site A. This area extends from the top of the littorine zone down to the METZ. At the top are littorines, some *Balanus cariosus*, and a few *Nereis* (limpets). Moving down towards the water the density of *Barracks*, limpet and littorines increases. *Fucus*, *Rhodomela*, *Gloiopecta* are also found near the bottom of site A. Below this region *Scytosipon*, *Ulva*, *Anthopleura* become common. *Fucus* and *Rhodomela* cover large percent of the area below site A. Site B This area had small bits of SOR in crevices and cracks at the top of the littorine zone. There are some barnacles and the occasional limpet in this area. Both site A and Site B had drift algae. *Ulva*, *Nereocystis*, *Fucus* Red algal blades, *Ptilota* and *Laminaria* were identifiable in the drift. Shells found on the shore were *Saxidomus*, *Prothaca*, and small *Macoma*.

Sandpipers sp? (4) sparrows (3)

Oystercatchers (2) Glaucous-winged Gulls (>80) Pintail (10) Green winged teal (2)

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	0	-	0
Seabirds	0	-	
Waterfowl	2	12	
Gulls/Kittiwakes	1 (maybe 2)	> 80	
Shorebirds	2	6	
Corvids	0	-	
Other Birds sparrows*	1	3	

* Feeding in the intertidal

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters	0	Fox tracks	
Pinnipeds (specify)	0	Caribou tracks	
Whales (specify)	0	Caribou	5 in the uplands

Shoreline subdivision map showing important biological features attached.

Reviewed MB 5/31/91

VI. V V GRASSY AREA

LOGS

STEEPLY
Dipping Sedimentary
ROCKS

PHOTO SITES

Bio Map
H. Davis

Sketch MAP (OG)
K10-05-AS-02-B
26 MAY 1991
730 - 820

ALASKAN
PENINSULA

REMAINS
OF
CASH

BEGIN SEGMENT
AS-02A

Willows

Boulder-Cobble
Beach

WAVE-CUT
PLATFORM

A. SON/MS
1-10 by 150 < 1%
IN CRACKS OF RK
OUTCROP, MITZ

A. This area starts in the barnacle,
Littorina limpet zone and extends
down to where Fucus, Rhododonta,
Littorina limpets and Barnacles
are all moderately dense.

Begin
Segment
AS-01

B. SON
1 by 1m < 1%
1 by 2m < 1%
IN CRACKS OF
bedrock

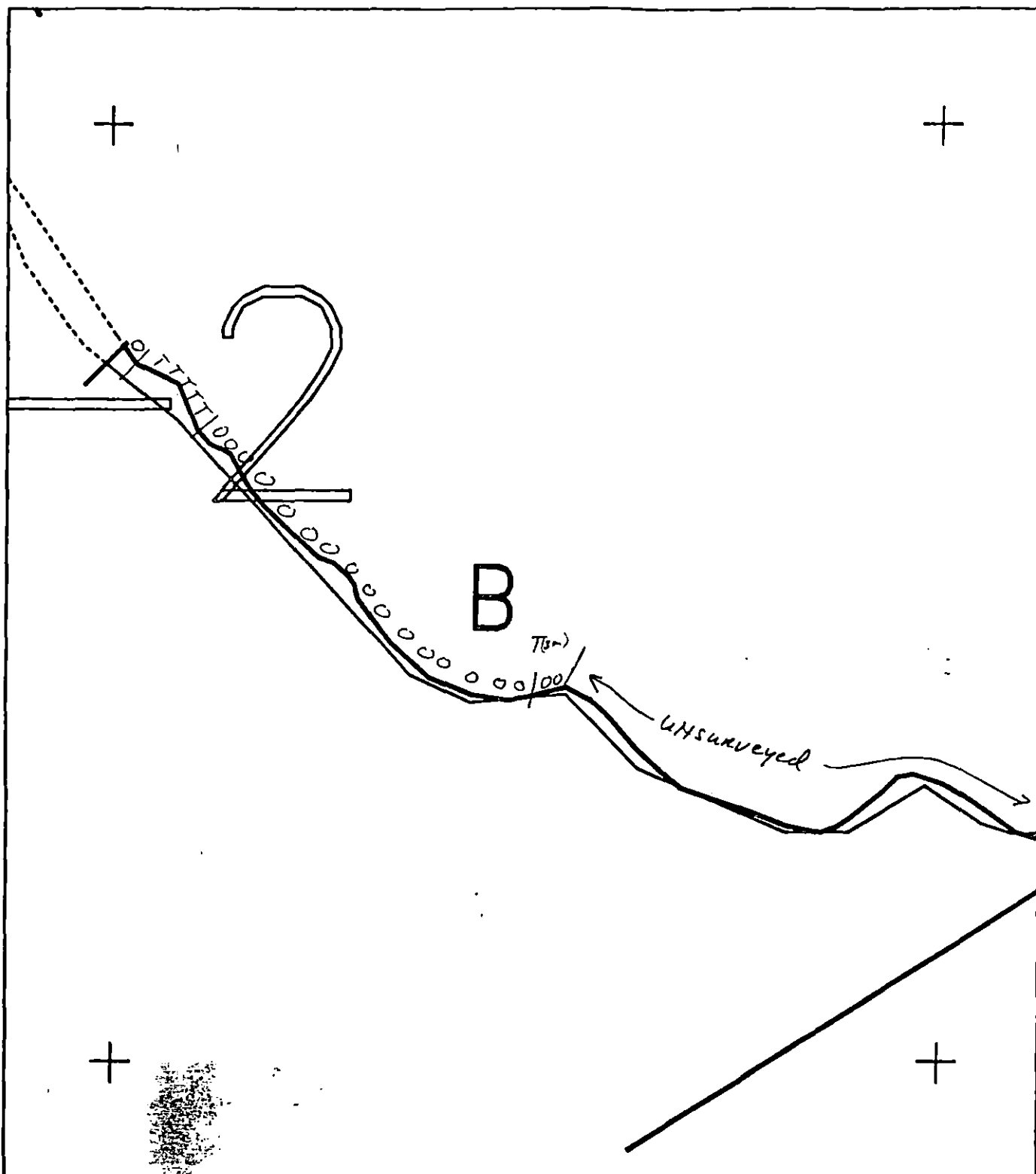
B. Sparse Littorines
were the most common
animals in this area.
a few barnacles and
limpets. Very little
algal was in this
area.

Southern
ALINCHAK
BAY

Nereocystis
Beds.

0 100
METERS

Reviewed MB 5/94



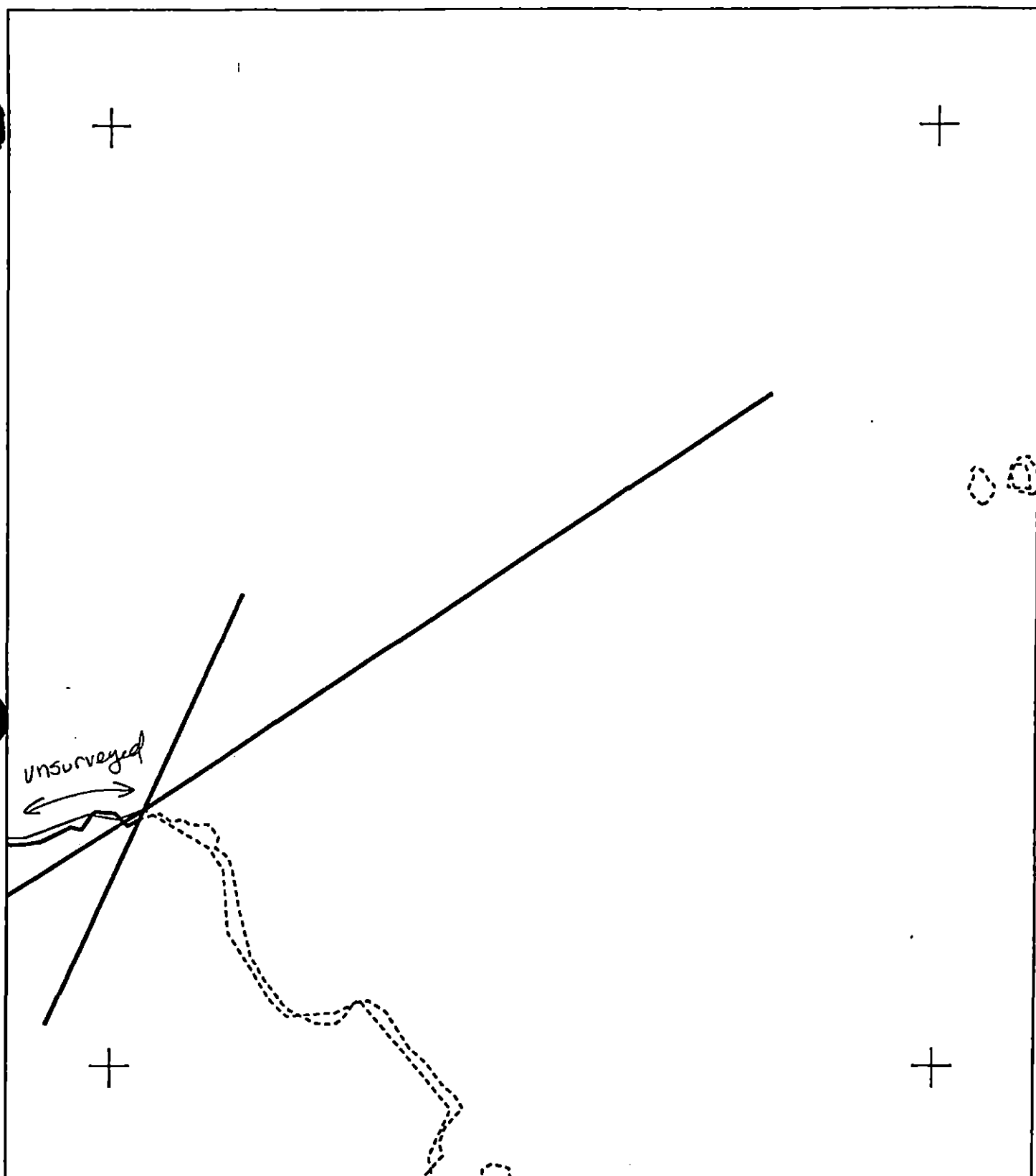
XXXX Wide
 //// Medium
 ---- Narrow
 TTTT Very Light
 0000 No Oil

K1005 AS002 B
 ADEC Subsegment Length: 1882m
 METERS
 0 200 400
 AK State Plane Zone 4
 10034400250- . . .



Subdivision Field Map
 Map Key: 60AK1005AS002B
 Name: D. Fitzgerald
 Date: 26 MAY 1991
 Date Entered:

Reviewed on 5/31/91 by
 reviewed 5.31 91



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

K1005 AS002 B
 ADEC Subsegment Length: 1882m
 METERS

AK State Plane Zone 4
 910050002000



Subdivision Field Map
 Map Key: 60AK1005AS00200
 Name: D. Fitzgerald (jr)
 Date: 26 May 1991
 Data Entered: 8

REVIEWED: MC 5/31/91
 5.31 98

1991 MAYSAP EVALUATION

SEGMENT: K1005A8003 SUB: A REGION: KOD SURVEY DATE: 5/25/91

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) OPEN

Ecological/Constraints (see page two for details) NONE

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO Signature: T. W. [Signature]

Date: 6/3/91

RECOMMENDATIONS:

INITIAL

TAG

FOSC

TREATMENT REQUIRED (Y or N)

N

N

Y

Manual Pickup (Check as Req.)

X

Spot Washing

Bio-Customblen Only

Bio-Inipol/Customblen

Other

Other

COMMENTS:

INITIAL: _____

TAG: _____

I HAVE DECIDED TO CONDUCT CLEANUP DUE TO THE FACT
FOSC: ADEC, FWS, CG ^{surveys} ALL FEEL SOME CLEANUP
IN ORDER - CONDUCT CLEANUP IF VEGGIE (ANTHRA) IS GOING TO AREA + CAN SAFELY LAND WORK GEAR,
DO NOT PERFORM C/U W HELD CREW - LCE

TAG APPROVAL DATE: MAY 31 1991

FOSC APPROVAL DATE: 6/5/91

ADEC

[Signature]

FOSC

E. E. PAGE, CDR, USCG

EXXON

[Signature]

CHIEF OF STAFF, FOSC

USCG

[Signature]

The state will reevaluate the need to conduct cleanup on this subdivision [Signature]

NOAA

[Signature]

TEAM NO. 6-HELO

SEGMENT AS-3

SUBDIVISION A

DATE 5/25/91

ADEC

NAME J. BARNHART, ADEG

SIGNATURE J. Barnhart
☐ NTR ☒ Treatment Recommended

Alinchak Bay. Scattered SOR, TB, CY, CT, ST can be found along entire survey area. Three areas of higher concentration exist. ① 2m x 5m SOR weathered on surface, mousse inside, 50%. ② 2m x 10m odoriferous mousse, 10%. ③ 1-3m x 2m occasional SOR 1-2%. I requested the oil be removed. Survey team members volunteered to carry bags of oil up the hill to the helo if the helo was unable to land adjacent to the oiled areas. Exxon rep. Randy Boyer denied my request, instructing the veco crew not to clean up the oil. The oil in the three bands described above was not broken up or removed, remains on the beach. Oil in this segment should be removed using simple manual pickup methods.

☒ TREATMENT SUGGESTED CONCUR WITH ADEG, USFWS, & USCG John P. Hardister (Kodiak I. Borough)

EXXON

NAME R. BOYER, EXXON

SIGNATURE Randall K. Boyer

☒ NTR SEVERAL SMALL AREAS OF OILING HAVE WEATHERED CONSIDERABLY AND POSE NO ENVIRONMENTAL THREAT. AS A MATTER OF FACT THE TEAM BIOLOGIST POINTED OUT THAT SNAILS WERE FEEDING ON WHAT APPEARED TO BE AN ALGAE THAT HAS CRUSTED OVER SOME OILY RESIDUE. DIFFICULT TO ACCESS, BY BOAT OR HELO. VECO SURVEY CREW COLLECTED ONLY WHAT THEY COULD SAFELY PICK UP. NO FURTHER TREATMENT OR REASSESSMENT.

LANDMANAGER

NAME F. DENNIS J. HARDISTER OF NPS USEFWS

SIGNATURE John P. Hardister
☐ NTR ☒ treatment recommended.

A significant amount of recoverable oil was found throughout the segment. The VECO workers were instructed not to pick up the oil. When the Exxon representative was questioned on this point, the response centered around too much material to recover in the time allotted to the survey of the segment. Also, contrary to Mr. Boyer's comment, the beach is easily accessible by helicopter. The relatively large amounts of collectable oiled material warrants further treatment. Thus, manual pickup is strongly recommended.

USCG/NOAA

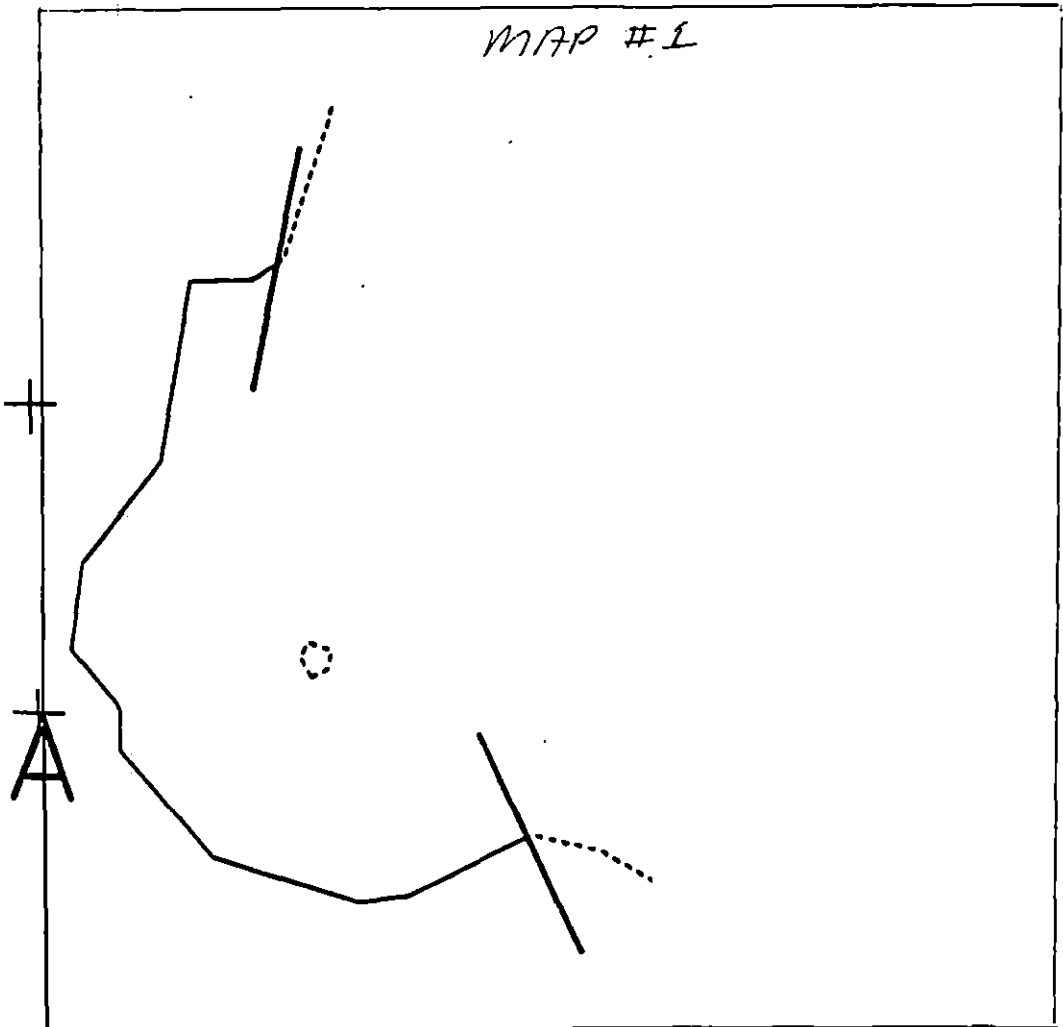
NAME CWO R. SPURR / G. SHIGENAKA SIGNATURE
R.P. Spurr / Gary Shigenaka

☐ NTR Recoverable oil does still exist and manual removal of SOR/AR could be accomplished by manual means in site B on OG MAP. The terrain is such that the VECO workers on the survey team would have been at risk carrying bags up the cliff, but if a work crew cleaned it then it could be lifted out by helo in a super sack.

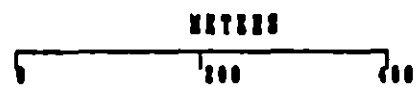
SURVEYED PORTION OF THE SEGMENT INCLUDED AN IRREGULAR, ANGULAR BOULDER COBBLE SHORELINE THAT LED OUT ONTO A VERY WIDE, MUDDY TIDAL FLAT. TWO SUBSTANTIVE (AND ANAPROMOUS?) STREAMS WERE INCLUDED IN THE SURVEY. OIL RESIDUES, PRIMARILY IN THE FORM OF SOR, WERE WIDELY DISTRIBUTED BUT GENERALLY VERY SPARSE, AND SOME LENGTHS OF SHORELINE IN WHICH INFREQUENT SPLATTERS OF TAR OCCURRED WERE FOUND AS WELL. SOME BANDS WHERE SOR WAS FOUND IN INCREASED AGGREGATION WERE ALSO SEEN IN THE SEGMENT, ALONG THE BEACH (UPPER MITZ) AND ALONG THE NORTHERN BANK OF THE SOUTHERN STREAM. THE VECO CREW RECOVERED MATERIALS CONSOLIDATED ENOUGH TO BE PICKED UP, AND BROKE UP THE REMAINDER. ALTHOUGH THE SURVEYED SECTION WAS APPROXIMATELY 600M IN LENGTH, ONLY 1/2 BAG OF MATERIAL WAS RECOVERED. AT ONE LOCATION WHERE SOR WAS COVERED BY A SMALL TIDAL POOL AND YIELDED SOME SHEEN, LITTORINE SNAILS WERE FOUND ON THE MATERIAL AND IN THE SHEENED WATER (SEE PHOTO #18, ROLL 6-22).

PAGE 1 OF 1

Revised: MC 5/30/94
revised 5.29.94



K1005 AS003 A



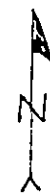
AK State Planning Zone 3
010050003000

Subdivision Field Map
Map Key: 00AK1005AS003A
Name: D. FITZGERALD
Date: 25 MAY 1991

reviewed 5-29-94

SKETCH MAP (06)
K10-05-AS-03-A
25 MAY 1991
920 - 1045

Bedrock
CLIFF
W W W GRASSY
AREA
PHOTO
SITES



ALINCHAK
BAY

PETRIFIED
WOOD
OCCURS
HERE

— END of Survey

A. SOR/CT/ST
1-3 by 1152m, < 1%
U/I AROUND BOULDER
CONTINUES ALONG
ENTIRE SEGMENT

DASHED
LINE IN
BOULDER
REGION

B. SOR/AP
1. 2 by 5m, 2-5%
2. 2 by 10m, 2-5%
3. 1-3 by 20m, < 1%
I/U AROUND B-BR
RB SHEENS

TIDAL
FLAT

SANDY
SPIT

PROBABLE ANGL. Stream

ROCK
CLIFF

GRASSY
ridge

← END of Survey

PU. * VECO WORKERS
picked up 1/2 BAG
of oiled sediment
ALONG THIS SEGMENT

ALASKA
PENINSULA

0 200
METERS

REVIEWED: MC 5/30/91
reviewed 5.29.91

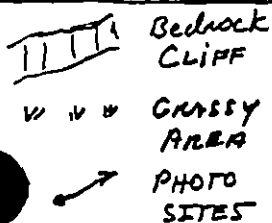
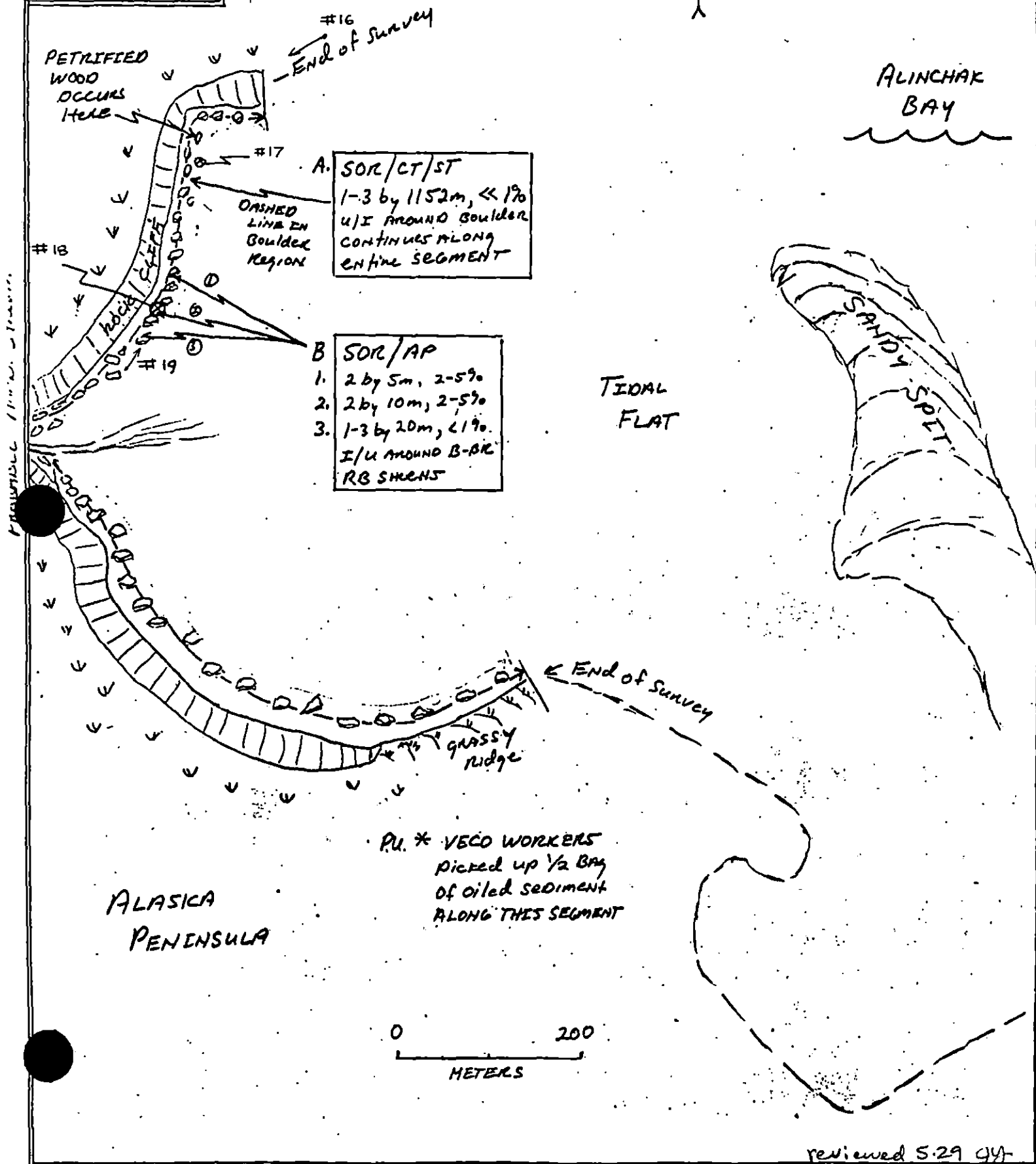
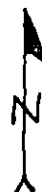


PHOTO SITES, AS-3A
ROLL 6-22, FRAMES 16 THRU 19

SKETCH MAP (06)
K10-05-AS-03-A
25 MAY 1991
920 - 1045



HAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 6 Helo

DATE May 25 1991

SEGMENT # K10-5 AS-03

TIDAL HEIGHT (Range) 1.5 - 4.5 ft (0915 - 1045)

SUBDIVISION A

BIOLOGIST H. Davis

SEA STATE Tide was out Calm.

WIND SPEED/DIRECTION 10-15 kt light Breeze N

PHOTOGRAPHS: ROLL #

FRAME #

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

The area surveyed had rock cliffs above a boulder/cobble shoreline. The shoreline fronted a wide muddy tidal flat. The biota was moderate to sparse on the rocky shoreline but got very dense out on the mud flat. There was some verucaria, then littorina, B. granulatus, limpets Fucus and some scytosiphon. The distribution of organisms was patchy due to the sub-tide. littorina extended out onto the mud flats.

Site A+B All of what coat, stain and sord that was left occurred in the SITZ and UITZ. The biota in the UITZ was very sparse (limpets, barnacles, littorina). Only drift algae occurred in these areas. Echinoderms and Red Tide (Noemionus littoralis pedon/has) were in the kelp wrack (No amphipods) In the SITZ, verucaria "Shadows" occurred on some of the rocks with stain. Below the band of SOR/AP and SOR/CT/ST The biota was denser but still patchy in distribution. Shells found on the shore were Mya arenaria, Clinocardium, and Saxidomus. Molts from Telemesis crabs were also found. Out on the mud flat patches of ulva (or bladed green algae) and Fucus could be seen. Near the shoreline lugworms were very dense (120± in a 10x10 inch square). There are two stream in the area, neither was listed as anadromous but could be.

1 dead sooty shearwater / immature eagle.

Glaucous-winged Gull (40) Kittiwake (5) Song Sparrow (3) Green Winged teal (2) Mew (10)

WILDLIFE OBSERVATIONS

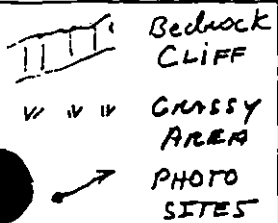
TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1	1 immature chased by Gulls	0
Seabirds	1	Dead Sooty shearwater	
Waterfowl	1	2	
Gulls/Kittiwakes	3	55	
Shorebirds	0	1	
Corvids	0	1	
Other Birds sparrows	1	3	

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters	0	5 Caribou + Caribou tracks	
Pinnipeds (specify)	0		
Bales (specify)	0		

Shoreline subdivision map showing important biological features attached.

Reviewed: 5/30/91 MC
Reviewed MB 5/30/91

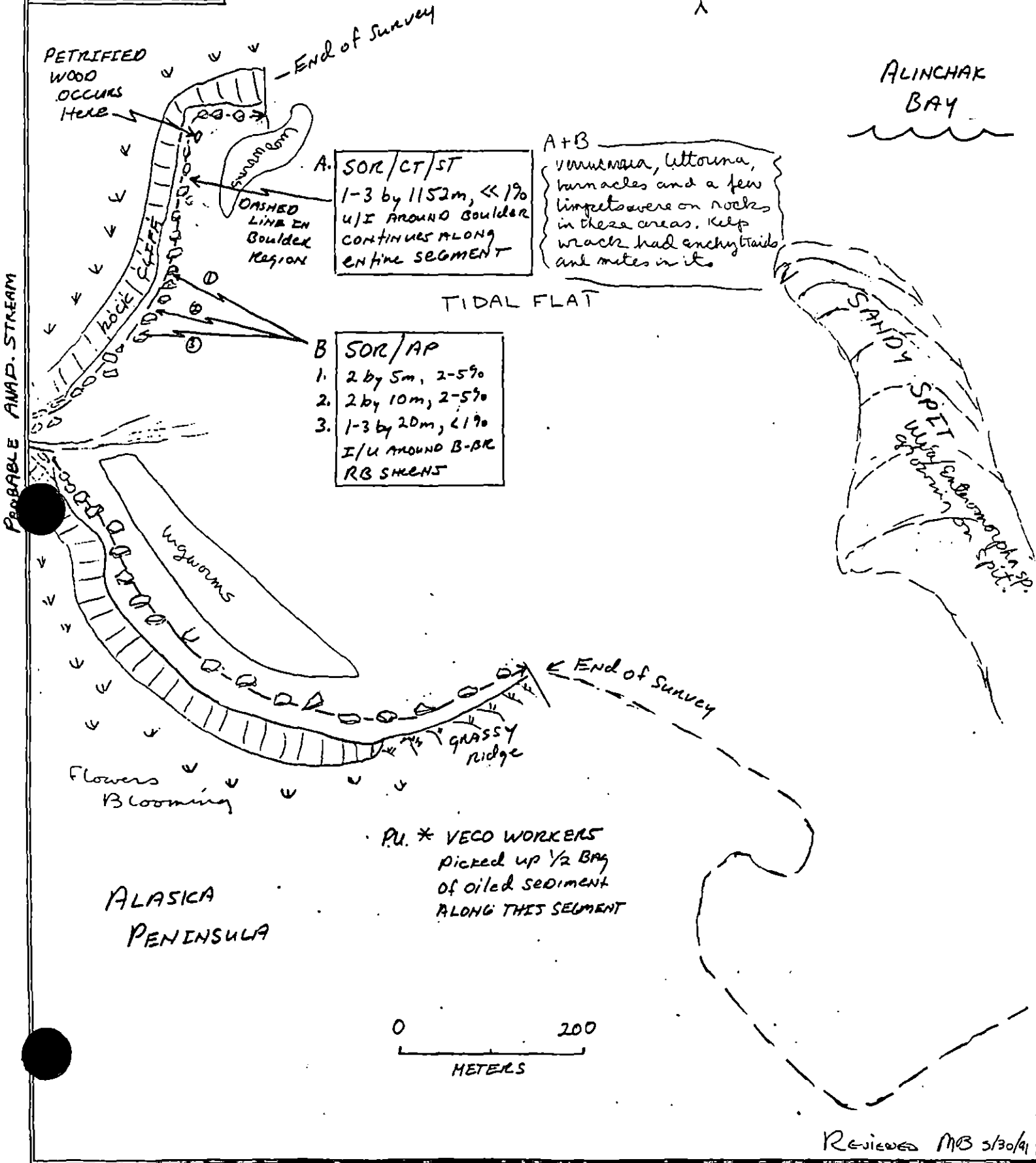


Bio Map
N. Davis

SKETCH MAP (06)
K10-05-AS-03-A
25 MAY 1991
920 - 1045



ALINCHAK
BAY



AS-3

A

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

K1005 AS003 A
 ADEC Subsegment Length: 1152m
 METERS

AK State Plane Zone 4
 1100500030-1 ...



Subdivision Field Map
 Map Key: 00AK1005AS003A
 Name: D. Fitzgerald
 Date: 25 May 1991
 Date Entered:

Reviews: mc 5/30/91
 reviewed 5.29.91

1991 MAYSAP EVALUATION

SEGMENT: K1005AS003 SUB: A REGION: KOD SURVEY DATE: 5/25/91

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) OPEN

Ecological/Constraints (see page two for details) NONE

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO Signature: _____ Date: _____

RECOMMENDATIONS:

INITIAL

TAG

FOSC

TREATMENT REQUIRED (Y or N)

N

Manual Pickup (Check as Req.)

Spot Washing

Bio-Customblen Only

Bio-Inipol/Customblen

Other

Other

COMMENTS:

INITIAL: _____

TAG: _____

FOSC: _____

TAG APPROVAL DATE: _____

FOSC APPROVAL DATE: _____

ADEC

FOSC

EXXON

USCG

NOAA

ADEC

NAME J. BARNHART, ADEC

SIGNATURE

J. Barnhart☐ NTR ☒ Treatment Recommended

Alincak Bay. Scattered SOR, TB, CV, CT, ST can be found along entire survey area. Three areas of higher concentration exist. ① 2m x 5m SOR weathered on surface, mousse inside, 50%. ② 5m x 10m of oilierous mousse, 10%. ③ 1-3m x 1m occasional SOR 1-2%. I requested the oil be removed. Survey team members volunteered to carry bags of oil up the hill to the helo. The helo was unable to land and went to the oilier areas. Exxon rep. Randy Boyer denied my request, instructing the VECO crew not to clean up the oil. The oil in the three bands described above was not broken up or removed. Remains on the beach. Oil in this segment should be removed using simple manual pickup methods.

☒ TREATMENT SUGGESTED CONCLUDE WITH ADEC, USFWS, & USCG *Steve Hutton (Kodiak I. Borough)*

EXXON

NAME R. BOYER, EXXON

SIGNATURE

Randall K. Boyer

☒ NTR SEVERAL SMALL AREAS OF OILING HAVE WEATHERED CONSIDERABLY AND POSE NO ENVIRONMENTAL THREAT. AS A MATTER OF FACT THE TEAM BIOLOGIST POINTED OUT THAT SNAILS WERE FEEDING ON WHAT APPEARED TO BE AN ALGAE THAT HAS CRUSTED OVER SOME OILY RESIDUE. DIFFICULT TO ACCESS, BY BOAT OR HELO. VECO SURVEY CREW COLLECTED ONLY WHAT THEY COULD SAFELY PICK OUT. NO FURTHER TREATMENT OR REASSESSMENT.

LANDMANAGER

NAME F. BENJAMIN J. HARDISTER OF NPS, USFWS

SIGNATURE

F. Benjamin J. Hardister☐ NTR ☒ Treatment recommended.

A significant amount of recoverable oil was found throughout the segment. The VECO workers were instructed not to pick up the oil. When the Exxon representative was questioned on this point, the response centered around too much material to recover in the time allotted to the survey of the segment. Also, contrary to Mr. Boyer's comment, the beach is easily accessible by helicopter. The relatively large amounts of collectable oiled material warrants further treatment. Thus, manual pickups is strongly recommended.

USCG/NOAA

NAME CWO R. SPURR / G. SHIGENAKA SIGNATURE

R. P. Spurr / G. Shigenaka

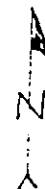
☐ NTR Recoverable oil does still exist and manual removal of SOR/AR could be accomplished by manual means in site B on the map. The terrain is such that the VECO workers on the survey team would have been at risk carrying bags up the cliff, but if a work crew cleared it then it could be lifted out by helo in a super sack.

SURVEYED PORTION OF THE SEGMENT INCLUDED AN IRREGULAR, ANGULAR BOULDER COBBLE SHORELINE THAT LED OUT ONTO A VERY WIDE, MUDDY TIDAL FLAT. TWO SUBSTANTIVE (AND ANAPROMOUS?) STREAMS WERE INCLUDED IN THE SURVEY. OIL RESIDUES, PRIMARILY IN THE FORM OF SOR, WERE WIDELY DISTRIBUTED BUT GENERALLY VERY SPARSE, AND SOME LENGTHS OF SHORELINE IN WHICH INFREQUENT SPLATTERS OF TAR OCCURRED WERE FOUND AS WELL. SOME BANDS WHERE SOR WAS FOUND IN INCREASED AGGREGATION WERE ALSO SEEN IN THE SEGMENT, ALONG THE BEACH (UPPER MITE) AND ALONG THE NORTHERN BANK OF THE SOUTHERN STREAM. THE VECO CREW RECOVERED MATERIALS CONSOLIDATED ENOUGH TO BE PICKED UP, AND BROKE UP THE REMAINDER. ALTHOUGH THE SURVEYED SECTION WAS APPROXIMATELY 600M IN LENGTH, ONLY 1/2 BAG OF MATERIAL WAS RECOVERED. AT ONE LOCATION WHERE SOR WAS COVERED BY A SMALL TIDAL POOL AND YIELDED SOME SHEEN, LITTORINE SNAILS WERE FOUND ON THE MATERIAL AND IN THE SHEENED WATER (SEE PHOTO #18, ROLL 6-22).

Revised: MC 5/30/94
revised 5.29.94

——— Bedrock
 CLIFF
 W W W GRASSY
 AREA
 ↗ PHOTO
 SITES

SKETCH MAP (U)
 K10-05-AS-03-1
 25 MAY 1991
 920 - 1045



ALINCHAC
 BAY

PETRIFFED
 WOOD
 OCCURS
 HERE

A. SOR/CT/IT
 1-3 @ 1152m, < 1%
 I/I AROUND BOULDER
 CONTINUES ALONG
 ENTIRE SEGMENT

OILED
 LINE IN
 BOULDER
 REGION

B. SOR/AP
 1. 2 by 5m, 2-5%
 2. 2 by 10m, 2-5%
 3. 1-3 by 20m, < 1%
 I/I AROUND B-BR
 RB SMENS

TIDAL
 FLAT

SANDY
 SPIT

PROBABLE ALINCHAC STRAND

ALASKA
 PENINSULA

PU * VECO WORKERS
 picked up 1/2 Bag
 of oiled sediment
 ALONG THIS SEGMENT

0 200
 METERS

REVIEWED: MC 5/30/91
 reviewed 5.29.91

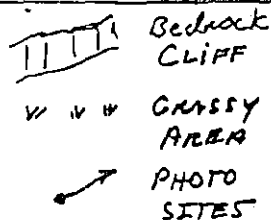
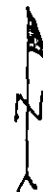
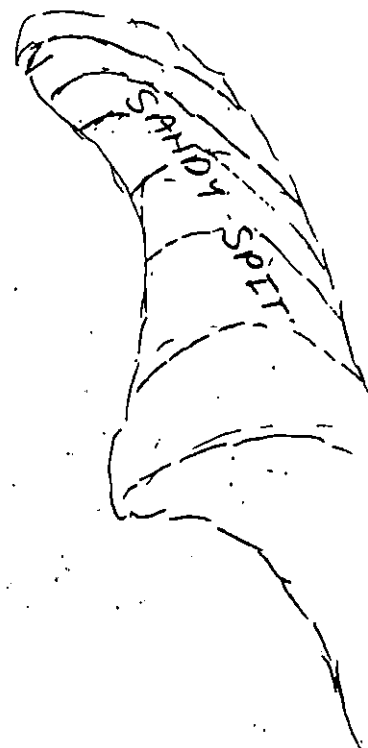


PHOTO SITES, A5-3A
ROLL 6-22, FRAMES 16 THRU 19

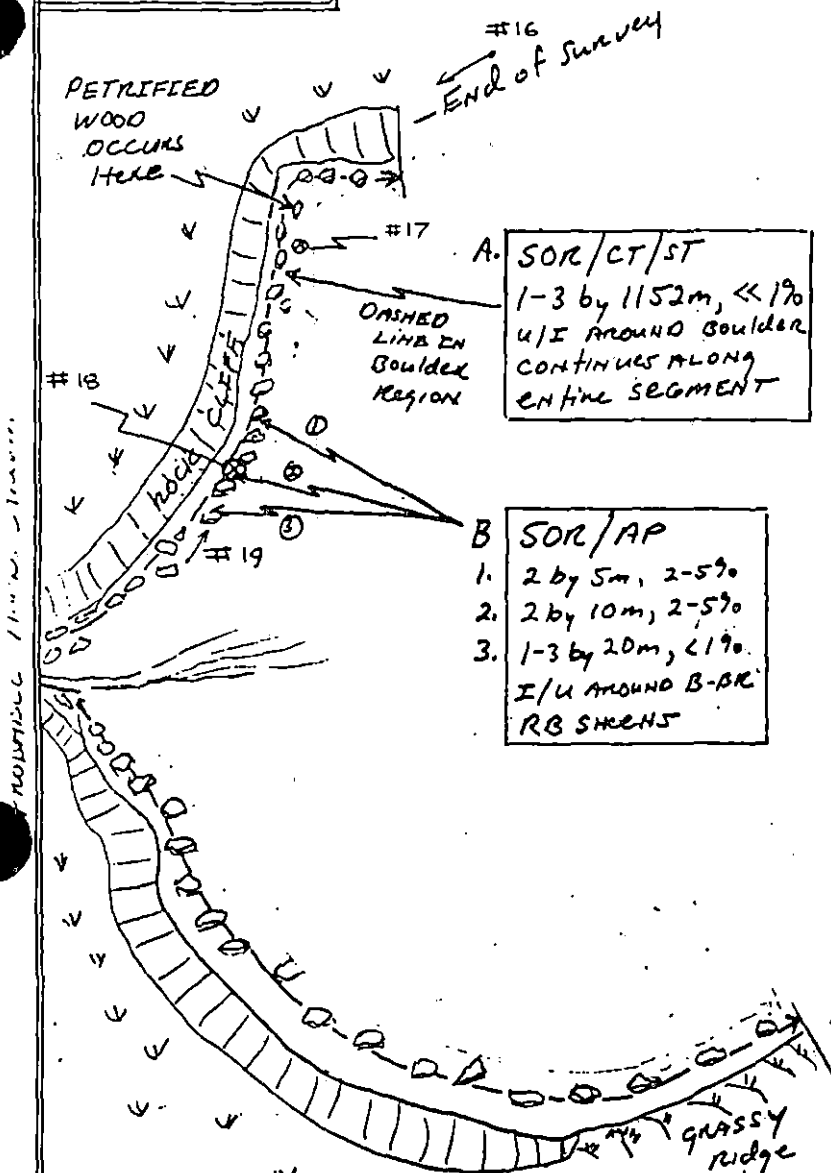
SKETCH MAP (C)
K10-05-AS-03-1
25 MAY 1991
920 - 1045



ALINCHAK
BAY



TIDAL
FLAT



A. SOR/CT/ST
1-3 by 1152m, <1%
U/I around Boulder
CONTINUES ALONG
ENTIRE SEGMENT

B. SOR/AP
1. 2 by 5m, 2-5%
2. 2 by 10m, 2-5%
3. 1-3 by 20m, <1%
I/U around B-BR
RB SHEETS

NOVEMBER 11th 1991 - 1992

ALASKA
PENINSULA

* VECO WORKERS
picked up 1/2 bag
of oiled sediment
ALONG THIS SEGMENT

0 200
METERS

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 6 Helo

DATE May 25 1991

SEGMENT # K10-5 AS-03

TIDAL HEIGHT (Range) 1.5 - 4.5 ft (0915 - 1045)

SUBDIVISION A

BIOLOGIST H. Davis

SEA STATE Tide was out Calm.

WIND SPEED/DIRECTION 10-15 kt light Breeze N

PHOTOGRAPHS: ROLL #

FRAME #

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

The area surveyed had rock cliffs along a beach/cobble shoreline. The shoreline fronted a wide muddy tidal flat. The biota was moderate to sparse on the rocky shoreline but got very dense out on the mud flat. There was some verucaria, then littorina, B. glanulus, limpets Fucus and some scytosiphon. The distribution of organisms was patchy due to the sand-flat, littorina extended out into the mud flats.

Site 1+B All of what coat, stain and sord that was left occurred on the SITZ and UITZ. The biota in the UITZ was very sparse (limpets, barnacles, littorina). Only drift algae occurred in these areas. Echinoids and red mites (Nemolagus littoralis pedon) were in the kelp wrack (No amphipods). In the SITZ, verucaria "Shadows" occurred on some of the rocks with stain. Below the band of SOR/AP and SOR/CR/ST the biota was denser but still patchy in distribution. Shells found on the shore were Mya arenaria, Clinocardium, and Saxidomus. Molts from Telamnesis crabs were also found. Out on the mud flat patches of ulva or bladder green algae and Fucus could be seen. Near the shoreline lugworms were very dense (120 ± in a 10x10 inch square). There are two streams in the area, neither was listed as anadromous but could be.

1 dead Sooty Shearwater 1 immature eagle.

Glaucous-winged Gull (40) Kittiwake (5) Song Sparrow (3) Green Winged teal (2) New '10)

WILDLIFE OBSERVATIONS

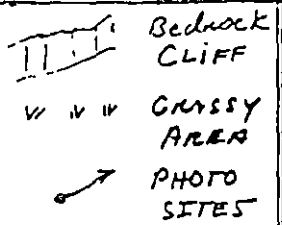
TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1	1 immature chased by Gulls	0
Seabirds	1	Dead Sooty Shearwater	
Waterfowl	1	2	
Gulls/Kittiwakes	3	55	
Shorebirds	0	1	
Corvids	0	1	
Other Birds sparrows	1	3	

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters	0	5 Caribou + Caribou tracks	
Pinnipeds (specify)	0		
Whales (specify)	0		

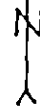
Shoreline subdivision map showing important biological features attached.

Reviewed: 5/30/91
Reviewed MCB sb



Bio Map
H. Davis

SKETCH MAP
K10-05-AS-03
25 MAY 1991
920 - 1045



ALINCHAK
BAY

PROBABLE ANAD. STREAM

PETRIFIED
WOOD
OCCURS
HERE

END of Survey

A. SOR/CT/ST
1-3 by 1152m, < 1%
U/I AROUND BOULDER
CONTINUES ALONG
ENTIRE SEGMENT

A+B
100m² area, littorina,
barnacles and a few
limpets were on rocks
in these areas. Keep
wrack had anachytids
and mites in it

TIDAL FLAT

B SOR/AP
1. 2 by 5m, 2-5%
2. 2 by 10m, 2-5%
3. 1-3 by 20m, < 1%
I/U AROUND B-PR
RB SHEETS

SANDY
SPIT
with Galium sp.
growing on it.

Worms

END of Survey

Flowers
Blooming

PU. * VECO WORKERS
Picked up 1/2 Bag
of oiled sediment
ALONG THIS SEGMENT

ALASKA
PENINSULA

0 200
METERS

Reviewed MB 5/30

AS-3

A

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

K1005 AS003 A
 ADEC Subsegment Length: 1152m
 METERS
 0 200 400
 AK State Plane Zone 4
 9100522036- . . .

Subdivision Field Map
 Map Key: 00AK1005AS003A
 Name: D. Fitzgerald
 Date: 25 May 1991
 Date Entered:

Reviews: MC 5/30/91
 reviewed 5.29.91

REGION: KODIAK

SEGMENT: ST/K10-05-AS-004

SUBDIVISIONS: A (1 OF 2)

SHORELINE EVALUATION

SEGMENT ST/ K10-05-AS-004 SUBDIVISION A (1 OF 2) DATE 5/22/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

400 National Wildlife Refuge

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 137 m: No Oil 1962 m
Subsurface Oil Observed: Yes _____ No X Maximum Depth _____

RECOMMENDATIONS:

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

COMMENTS: Recommend treatment is manual removal of mousse accumulations as shown on attached sketch map and spot wash where manual removal is not possible.

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____

EXXON _____

NOAA _____

USCG _____

FOSC: _____ DATE: _____

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 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, 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 prior to treatment for consultation and/or permit application.
AGENCY CONTACT PERSON: ADF&G Ken Middleton 267-2299
- 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, 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 Kotol Bay Hatchery release
Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
- 1H Remote release site
No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, 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 for confirmation and authorization.
AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1I Gill net area
1J Purse seine area
Mainland, West side Kodiak, Shuyak & Moser/Otga 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
Contact ADF&G for confirmation - dates and locations may vary. 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 Larry Nicholson 424-4791
- 2M Herring spawning (4/15 to 6/30)
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 Larry Nicholson 488-4791
- Harbor seal and sea lion pupping (5/10 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 Rothy 267-2206
- 5T All Bald Eagle nests (3/1 to 6/1)
Active Bald Eagle nests (3/1 to 9/1)
Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 6U Recreation: Tent sites (6/1 to 9/15)
6V Anchorages (6/1 to 9/15)
6W Forest Service cabins (6/1 to 9/15)
6X Lodge (6/1 to 9/15)
6Y Special use destination
- 7Z Subistence area: Salmon harvesting (6/1 to 9/30)
7H Finfish harvesting
Deer harvesting (8/1 to 1/7)
Invertebrate harvesting
Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
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 1K10.5 AS-4 SUBDIVISION: A DATE 5-22-90

USCG

NAME STAN SHIELDS SIGNATURE Stan Shields

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

SEGMENT HAS VERY LIGHT COAT WHICH WOULD BE BETTER LEFT UNTOUCHED BUT A SMALL PATCHY AREA OF COAT AND MOUSSE EXISTS NEAR THE EAST BOUNDARY FOR THIS SUBDIVISION WHICH COULD BENEFIT FROM SOME MANUAL REMOVAL.

ADEC

NAME Francine J. Bennis SIGNATURE Francine J. Bennis

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

Manual Treatment Recommended for area of mousse & mousse saturated sediments among boulders/cobbles:

Area 3m x 80m in eastern portion of segment subdivision has this patchy mousse.

More oil is present in adjacent subdivision to the east & should be removed.

LAND MANAGER

NAME OTTO FLORSCHUTZ SIGNATURE Otto Florschutz

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

Agree with above ADEC recommendation for manual removal of mousse in concentrated area. See attachment no. 2. Noel Lue mth.

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.

SHORELINE OILING SUMMARY

REVISION NO 34-12-20

OG Mike Foget USCG Stan shields SEGMENT ST/ K1005-A54
 BIG Heather Davis LAND REP 040 FLOSHUTZ F-6 SUBDIVISION A (1 OF 2)
 ADEC Fran Dennis TIME 17:30 to 18:30
 TEAM NO. 20 TIDE LEVEL +4.0 - +2.0 DATE 5 / 22 / 90
 EST. SUBDIVISION LENGTH: 2160 m ☐ Sun ☒ Clouds ☒ Fog ☒ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☒ Rock 3m steep soil / Rocky backshore
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: W to E
 SURFACE SEDIMENTS: R 20 % B 25 % C 40 % P 5 % G 5 % S 5 % 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 120 m NO 2040 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR						IMPACTED ZONES			
	10	15	17	18	19	20	21	22	23	24	SU	U	M	L
ASPHALT PAVEMENT														
POOLED														
COVER														
COAT					X	X					X			
STAIN					X				X		X			
MOUSSE					X				X		X			
TIES														
BALLS														
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			DID YOU COLLECT DEBRIS?
	SM	MO	LG	
Logs				YES ☐ NO ☒
Vegetation				
Trash				TYPE <u>0</u>
Debris				
				#BAGS <u>0</u>

Photographs:

Roll No. ST-20-12Frames 28 - 30

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM)	BELOW		OIL / FILM COLOR						PIT ZONE				A N A	SHEEN (Y/N)	T	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	19	20	21	22	23	24	SU	U	M	L				
1	25					X	-									X				-	N	20	S, G, P, C
2	20					X	-									X				-	N	15	G, S
3	25					X	-									X				-	-	-	S, G, S
4	30					X	-									X				-	-	-	S, E
5	25					X	-									X				-	N	20	S
6	20					X	-									X				-	N	15	S, G

COMMENTS Shore zone consists of low angle cobble/boulder beach w/ some rocky headlands there is a 3m x 80m CT/s in the HITZ located on the east end of the subdivision

PAT

21111111

Mike

3MENT SV K1005-AS4

3DIVISION A

TE 5/22/90

HECKLIST

N Arrow

Approx. Scale

Seismic Study

Oil Dist.

Width

Length

% Cover

Substrate Character

Est. HML/LWL

Profile Location(s)

Profile(s)

Photo Location(s)

GENO

1 A

No Subsurface Oil

2 A

Subsurface Oil

CT/C

CT/C

CT/B

CT/B

Oil Distribution

CT/P

CT/P

Oil Distribution

CT/S

CT/S

Oil Distribution

CT/V

CT/V

Vegetation

to location, direction,

number

Scale

SKETCH MAP

North

Legend

III - steep 10m climb
* - rocks off shore
mm - rocky shoals
~ - stream

MANUALLY REMOVE MOUSSE

Δ6, 3m X 80m CT/S on O/C with localized Mousse, HITZ

Rock 1

sand w/ drift logs in SUPRAITZ

Δ5

Δ4

High angle Rock

stream

Δ3

sand

1m X 10m ST/S on Rock in the SUPRAITZ

Δ2

2m X 30m ST/S on Cobble in the HITZ

Δ1

1m Character Length (m): AP 0 PO 0 CV 0 CT 80 ST 40 MS 2 PT 0 TB 0 FL 0 NO 2040

REVISION 802400

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST / K10-U8 Subdivision AS-004 A Date (mo / day / yr) 5 / 22 / 90Time (24 hr) 17:30 Biologist H. Davis

- (A) Substrate type and % of segments:
 (1) Bedrock 20 (2) Boulder 25 (3) Cobble 40 (4) Pebble 9 (5) Sand 6 (6) Silt 0
- (B) Overall % cover of biota (% of segment): Dense 20% Moderate 50% Low 30% (50%)
- (C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)

Photographs:
Roll No. ST-20-12Frames 28, 29, 30BARNACLES *Continuous along the segment*

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
5, 6MYTILUS *Small patches on boulders or sparse beds in MTZ.*

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
5, 6GASTROPODS *Nucella - sparse, limpets moderate, Littorina moderate w/ dense spots.*

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
5, 6FUCUS *Patches on cobble + Boulder Dense - moderate.*

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
5, 6

Wildlife Observations/ General Comments: Shore line is low angle cobble / Boulder beach with rocky headlands. MTZ Barnacles, limpets, littorines, Gerdia, Porphyra and some Fucus. MTZ Barnacles, littorines, limpets, mytilus, Porphyra, Fragile bryozoans, Alcyonacea, Fucus, Odontaspis, Rhodospira, Ulva, and Scytosiphon. LTZ some barnacles, limpets, littorines, Scytosiphon, Rhodospira, Fucus, Scytosiphon, Ulva, and some bryozoans. Bird? Glaucous-winged gull, semipalmated gull, wandering Tattler, Harlequin, Golden Plover (Black-winged?).

Ecological Considerations: No Ecological constraints listed

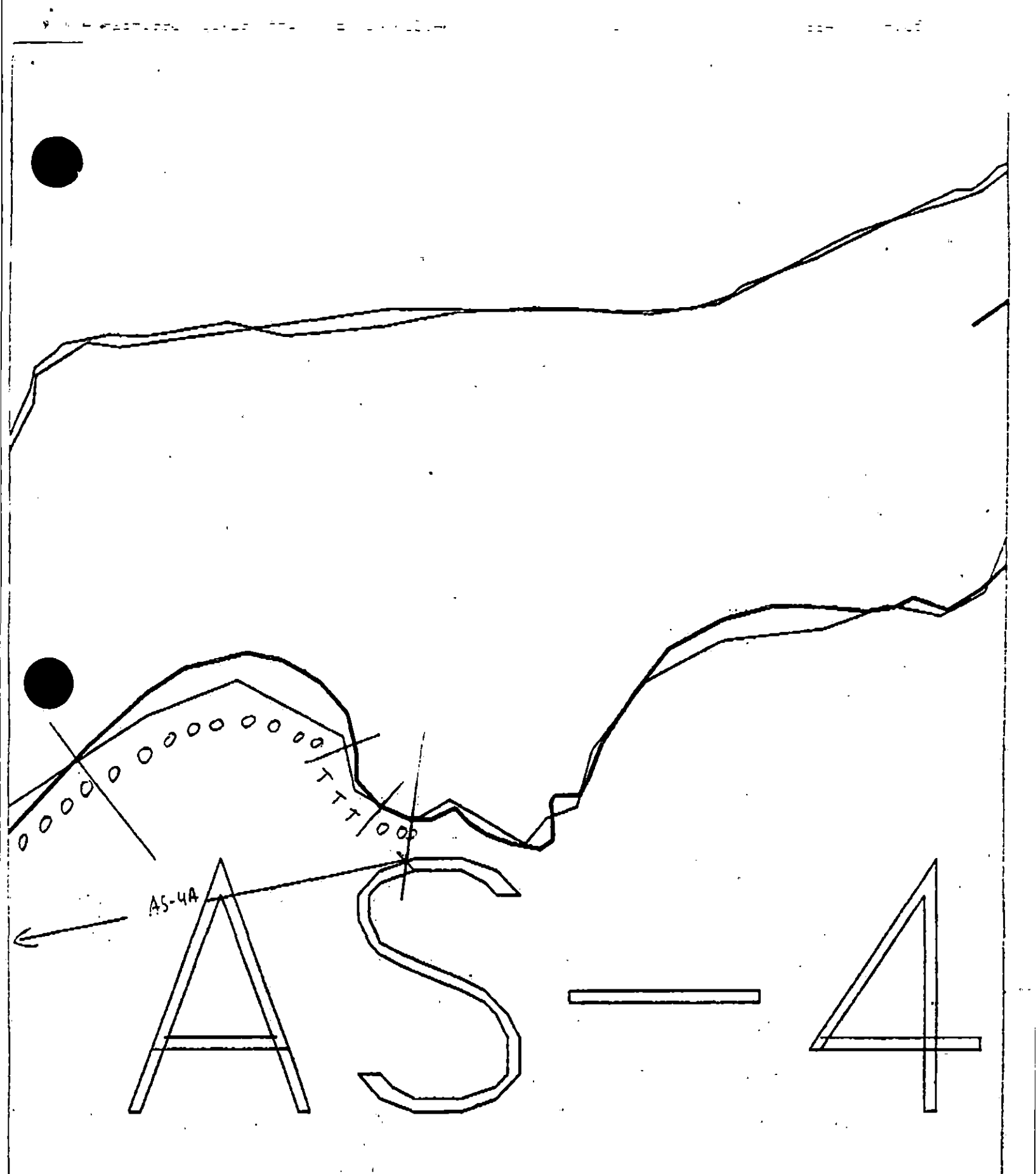
* The camera is now taking pictures at random as well as the desired photos.

Control No.
(Office Use Only)

PHOTOGRAPHY LOG

ROLL NO. ST-20-12 FROM 5/20 TO 5/26/90
TEAM NO. 20 PWS / KENAI / KODIAK / AK. PENINSULA

FRAME NUMBER	PHOTOGRAPHER	DATE	SITE	LOCATION/CONTENTS	TIME
1	H. Davis	5/20/90	K9-21 KU 04	North end of the segment facing south View along seg.	5:10
2				Stain and mousse	5:30
3				View across oil band facing south	5:40
4				---	
5				---	
6				Tar and stain	6:00
7				Stain, mousse and black, sticky tar	6:00
8				---	
9				Coat + stain	6:15
10				---	
11				---	
12				---	
13				Coat and shiny black tar?	6:20
14				---	
15				---	
16				---	
17				Mousse, coat and splatter over large area UTZ	6:30
18				" " " " " "	6:40
19				" " " " " " view across oil	6:45
20				Pit #15 oil and mousse to 9 cm. UTZ	7:00
21				Mousse and coat splash zone w/ grass	7:30
22		5/21/90	K0909 C007	Dead Eagle	16:45
23				" " " " " "	16:45
24				Oil and mousse in UTZ	17:00
25				View across oiled area	17:10
26				Pit #5	17:30
27				---	
28		5/22/90	K1008 AS004	View along The segment	5:40
29				Mousse, stain, coat in crevice UTZ	6:30
30				" " " " " " " "	6:30
31		5/24/90	K01-01 ST-14	Coat in UTZ with spruce needles, shun.	8:00
32				" " " " " "	8:10
33				View across oiled area of segment	8:15
34				View across stained, coated, and moussed area	8:25
35				Boom and Fishing Net, Segment to Big Foot	12:30
36				" " " " " " across channel	12:30
37		5/26/90		Oiled rocks in Bay, Pom Pom and coated Rock UTZ	11:40
38				Mousse in crevice w/ shun. UTZ	12:15



XXX Wide
 /// Medium
 --- Narrow
 TTTT Very Light
 ^^^^ " ^^^^

K1005-AS-4A
 Approx. Segment Length: 3943m

0 100 200 300

Map Key: AKP-AS-4b
 Name: Mike Foget
 Date: 5/
 Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ K10-05-AS-004 SUBDIVISION A (1 OF 2) DATE 5/22/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

4QQ National Wildlife Refuge

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: Charles Z. H. Jones DATE: June 19, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V. Light 137 m: No Oil 1962 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>X</u> Spot Washing: <u> </u> Wands
<u> </u> Tarmat Removal	<u> </u> Beach Cleaner
	<u> </u> Other (see comments)

COMMENTS: Recommend treatment is manual removal of mousse accumulations
as shown on attached sketch map and spot wash where manual removal is not
possible.

TAG COMMENTS: _____

TAG APPROVAL DATE: 6/16/90.

ADEC Ray Morris

EXXON AMY TEAL

NOAA John C. Tuller

USCG G.A. REITER

FOSC: [Signature]

DATE: 7/5/90

Mike F...

IMENT ST/ K1005-A54

DIVISION A

E 5 / 22.90

ECHLIST

N Arrow
Approx. Scale
Seagulls Birdy
Oil Dist.
Width
Length
% Cover
Substrate Character
Est. MHA/LME
SS

Pebble Location(s)
Pebble(s)
Pit Location(s)
Photo Location(s)

GEND

1 Δ
No Subsurface Oil

2 Δ
Subsurface Oil

CT/C
Pebble Distribution

CT/B
Oil Distribution

CT/P
Oil Distribution

CT/S
Oil Distribution

CT/L
Oil Distribution

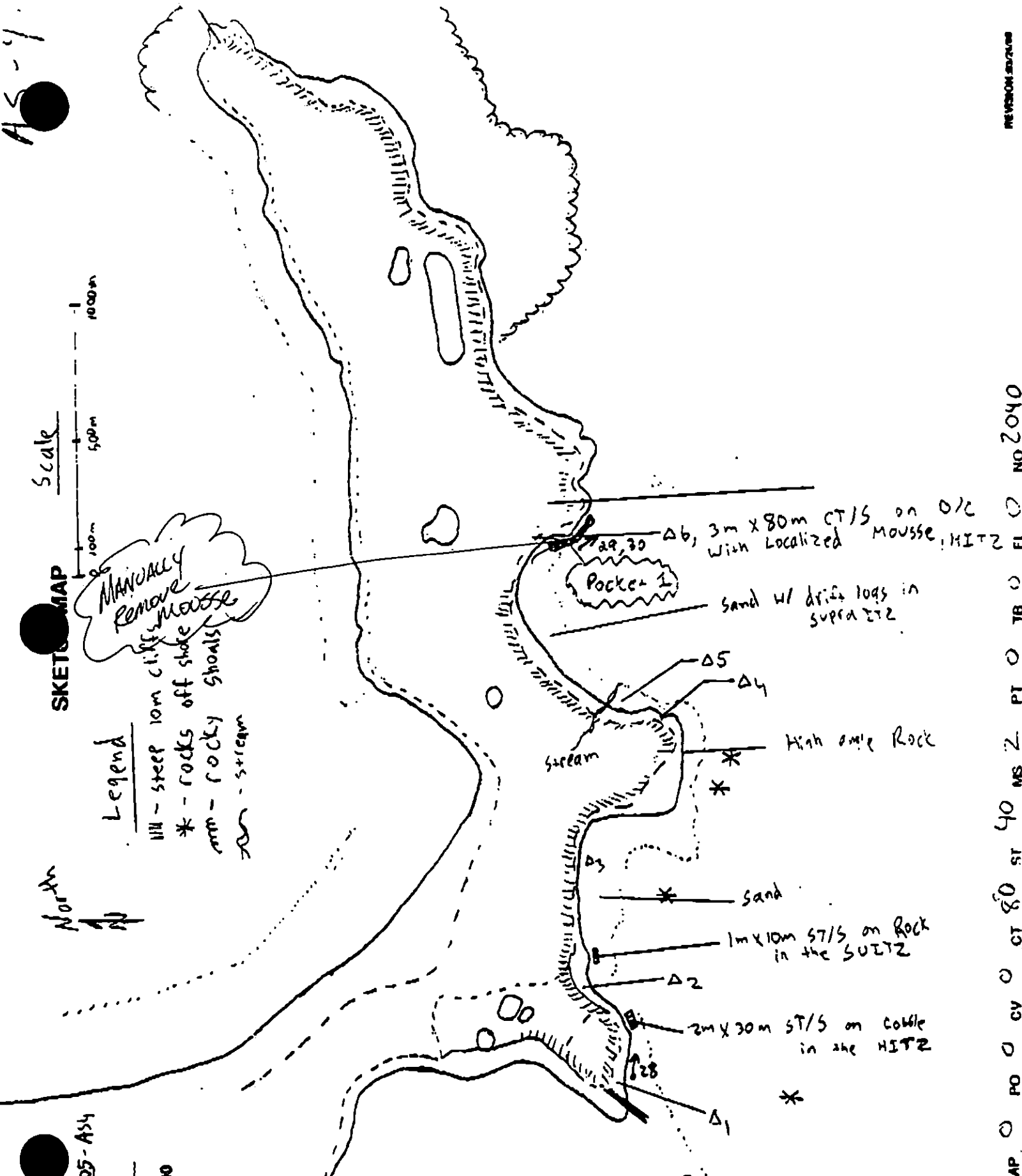
CT/V
Oil Distribution

CT/W
Oil Distribution

CT/X
Oil Distribution

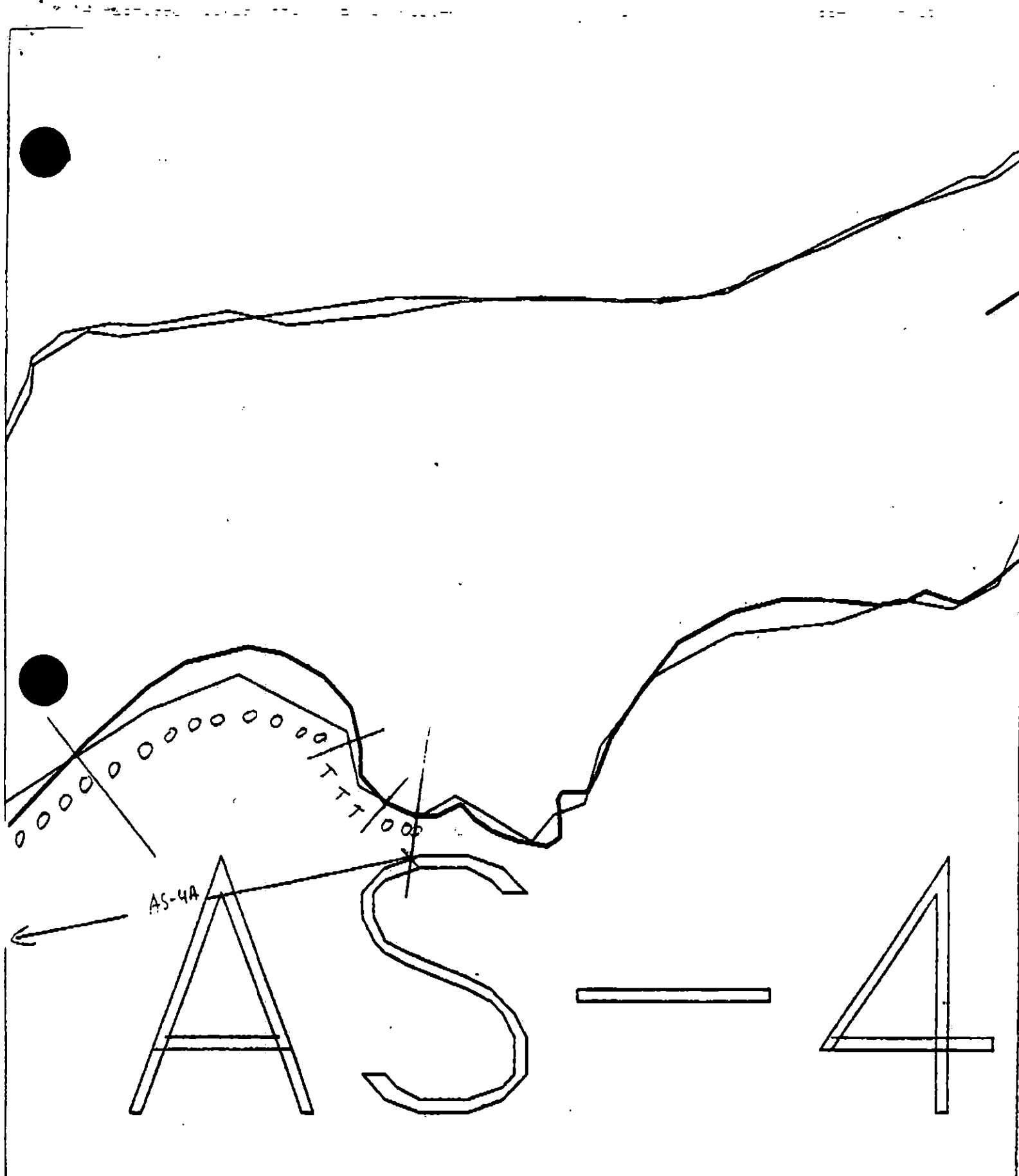
CT/Y
Oil Distribution

CT/Z
Oil Distribution



Character Length (m): AP 0 PO 0 CV 0 CT 80 ST 40 MS 2 PT 0 TB 0 FL 0 NO 2040

REVISION SURVIVOR



● XXX Wide	K1005-AS-4A	
//// Medium	Approx. Segment Length: 3943m	
--- Narrow		
TTTT Very Light		
0000 No Oil		
		Map Key: AKP-AS-4b Name: <u>Mike Foget</u> Date: <u>5/</u> Data Entered:

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K10-05-AS-004 SUBDIVISION A (1 of 2)

WORK WINDOW	
Manual Pickup	OPEN
Spot Washing	OPEN

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

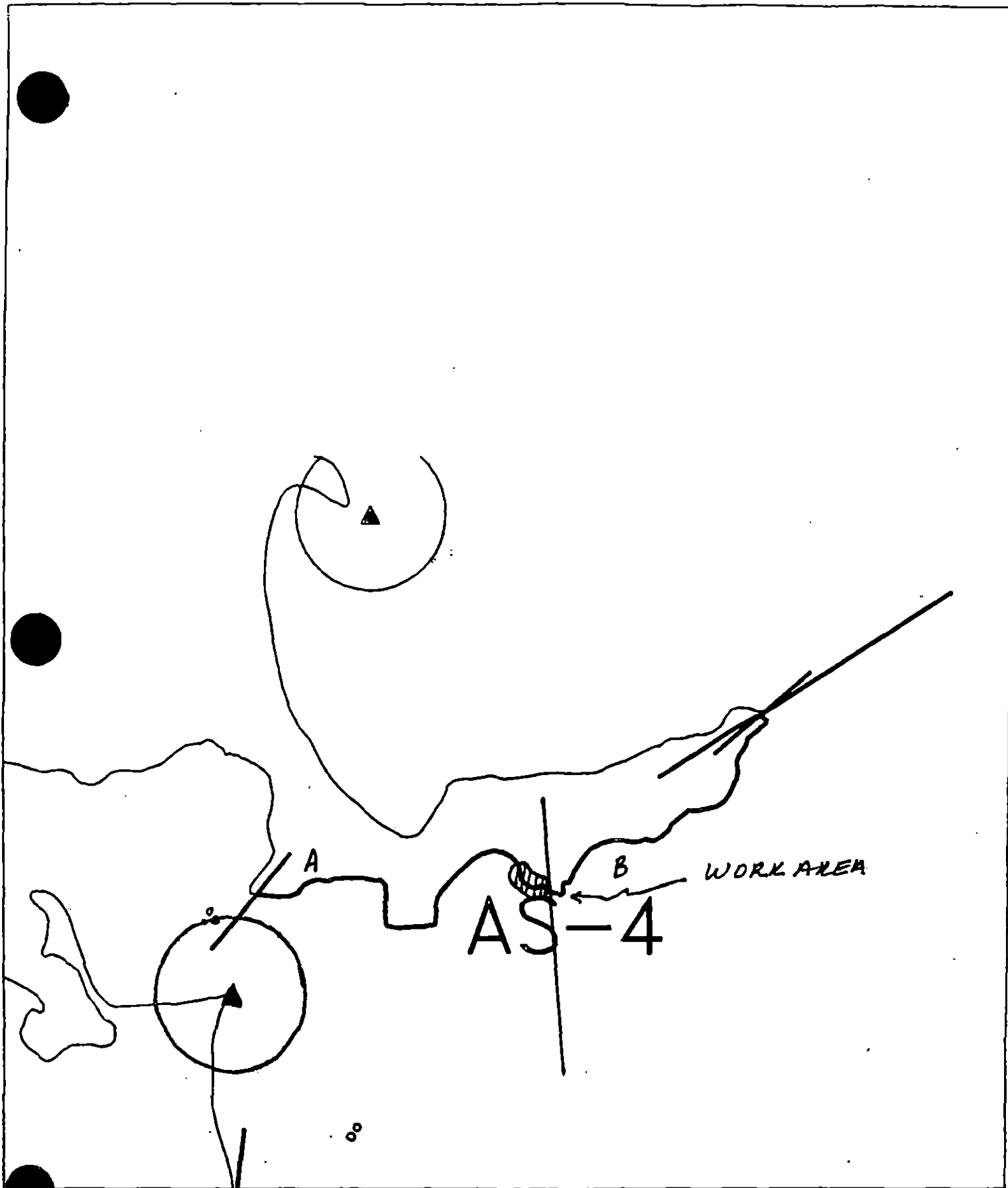
APPLICABLE ECOLOGICAL TIME CONSTRAINTS

No applicable ecological time constraints.

OTHER ECOLOGICAL CONSIDERATIONS

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

FOSC *[Signature]* Date 7/6/90
Prepared by *Reg D. Conter* Date 7/6/90



Exxon Company, USA
Map Key: AKP-AS-4

ECOLOGY MAP
SEGMENT K10-5 AS-4
SUBDIVISION A (1 of 2)
METERS

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

SHORELINE EVALUATION

SEGMENT ST/ K10-05-AS-004 SUBDIVISION A (1 OF 2) DATE 5/22/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

☒ National Wildlife Refuge
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: Charles E. Holmes DATE: June 19, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V. Light 137 m: No Oil 1962 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS: Recommend treatment is manual removal of mousse accumulations as shown on attached sketch map and spot wash where manual removal is not possible.

SEE CONSTRAINT ADDENDUM
DATED 7/6/90 REC C

TAG COMMENTS:

TAG APPROVAL DATE: 6/16/90.

ADEC Cay Norris

EXXON AMY TATE

NAAA James C. Tulkott

G G.A. REITER

FOSC: [Signature]

DATE: 7/5/90

REGION: KODIAK

SEGMENT: ST/K10-05-AS-004

SUBDIVISIONS: B (2 OF 2)

SHORELINE EVALUATION

SEGMENT ST/ K10-05-AS-004 SUBDIVISION B (2 OF 2) DATE 5/31/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

4QQ National Wildlife Refuge

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 0 m: Medium 19 m: Narrow 48 m: V.Light 1558m: No Oil 217 m
Subsurface Oil Observed: Yes _____ No X Maximum Depth _____

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment is manual removal of mousse and oiled debris in areas shown on attached sketch map.

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____

EXXON _____

NOAA _____

USCG _____

FOSC: _____ DATE: _____

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 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, 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 prior to treatment for consultation and/or permit application.
 AGENCY CONTACT PERSON: ADF&G Ken Middleton 267-2299
- 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, 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 Kotol Bay Hatchery release
 Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
- 1H Remote release site
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, 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 for confirmation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 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
 Contact ADF&G for confirmation - dates and locations may vary. 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 Larry Nicholson 424-4791
- 2M Herring spawning (4/15 to 6/30)
 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 Larry Nicholson 486-4791
- 3 Harbor seal and sea lion pupping (5/10 to 7/1)
 30 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 588-7235
 ADF&G Don Calkins 267-2403
- 5R Seabird colony (5/1 to 9/1)
 Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
 ADF&G Tom Rothy 267-2206
- 5T All Bald Eagle nests (3/1 to 6/1)
 Active Bald Eagle nests (3/1 to 9/1)
 Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 6U Recreation: Tent sites (6/1 to 9/15)
 6V Anchorages (6/1 to 9/15)
 6W Forest Service cabins (6/1 to 9/15)
 6X Lodge (6/1 to 9/15)
 6Y Special use destination
- 7Z Subsistence area: Salmon harvesting (6/1 to 9/30)
 Finfish harvesting
 Deer harvesting (8/1 to 1/7)
 Invertebrate harvesting
 Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
 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
- 7KK

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / K10-05 SUBDIVISION: AS-004 B DATE 5/31/90

USCG

NAME Michael B. Miller

SIGNATURE Michael B. Miller DCI

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

Recommend Treatment only if another Segment in AS-004 B Proximity. Found only three Areas on Segment with sufficient oil/mousse coverage to warrant Recording.

1). APPROX. 6m. x 2m. Mousse coverage only sporadic, small amounts of pocketed mousse of 1cm in thickness, lying in between cobbles & boulders. TOTAL concentration - < 25%

2). APPROX. 2m. by 3m. Type of oil and concentration are approximate to list (1).

3). APPROX. 6m. x 3m. This is considered to be area of attention if in this Bay. Mousse is 5cm. thick with some patches of this mat. Having the consistency of tar on the surface.

A small amount of staining was found on logs in SUPRA, & small mousse cover was found 4cm

It is my opinion that this Segment does NOT warrant any individual attention, but #3 should be worked if in any adjacent Areas.

ADEC

NAME Francine J. Benoit

SIGNATURE Francine J. Benoit

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

RECOMMEND MANUAL PICK-UP in 3 areas of oil concentrations:

1) 6m x 3m area of mousse & mousse saturated sediments

2) 2m x 2m area

3) 7m x 2m area of patchy mousse saturated fine sediments among c/b

Clean-up crew should walk through the eastern portion of this segment to make sure all oiled areas are treated (manually). There is also an indication that more oil is present on North side of this peninsula. Further ADEC assessment will confirm & possibly recommend the

LAND MANAGER

NAME OTTO FLORSCHUTZ

SIGNATURE Otto Flor Schutz

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

I agree with ADEC recommendation that manual retrieval of mousse be done
See attachment No. 2

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.

SHORELINE OILING SUMMARY

REVISION NO. 33-12-80

OG R. Marty USCG Berry Millner SEGMENT ST/ K10 05 - A34
 BIO H. Davis LAND REP Otto Florschutz SUBDIVISION 8
 EXXON — ADEC Francine Bennis TIME 11:15 to 14:30
 TEAM NO.: 20 TIDE LEVEL: +1.92m to +0.48m DATE 31 May 1990
 EST. SUBDIVISION LENGTH: 1845 m ☒ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: E to W
 SURFACE SEDIMENTS: R 25 % B 30 % C 25 % P 10 % G 10 % S 0 % M 0 % V 0 %
 SLOPE: Lang 90 % Hang 10 % Vert — % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High**
 OIL CATEGORY LENGTH: W 0 m M 15 m N 15 m VL 1620 m NO 195 m

SURFACE OIL

CHARACTER INCLUDES
 1. Composition
 2. "Habit" - Nature of occurrence

** open to Shelikoff Strait

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

PAVEMENT: H F S — sq. m by — cmPATTIES / TARBALLS 30 BAGSNEAR SHORE SHEEN? NO BR RW SL TL

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

on tide pools

DEBRIS COLLECTED
☐ YES ☒ NOTYPE —#BAGS 0

Photographs:

Roll No. ST-20-13Frames 6-8

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	UO	SO 10	SO 20	SO 30	SO 40	SO 50	SO 60	SO 70	SO 80	SU	U	M	L		
							.																
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COMMENTS Oiling consist of splattered cover & scattered mousse over most of the subsegment. Locally mousse becomes more concentrated and forms patches of "mousse pavement". The mousse appears fresh & in a few places new mousse seems to have come in quite recently (these are penny sized splatters & are extremely rare). Splattered oil here is much thicker than in pws & cleans from the rocks with much less staining. Probably this results from high viscosity during emplacement.
 The primary sediments are cobbles & boulders over shallow bedrock

SHORELINE ECOLOGICAL SUMMARY

REVISION: 3/22/90

Segment ST / K10-95 Subdivision AS004 B Date (mo / day / yr) 5/31/90

Time (24 hr) 11:40 Biologist H Davis

- (A) Substrate type and % of segments:
 (1) Bedrock 25 (2) Boulder 30 (3) Cobble 25 (4) Pebble 10 (5) Sand 10 (6) Silt —
- (B) Overall % cover of biota (% of segment): Dense 20% Moderate 20% Low 60% (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 (3)

Photographs:
 Roll No. ST-20-13

Frames 6-8

BARNACLES Continuous but variable densities

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
 5, 6

MYTILUS Small patches on boulders and sparse beds on rock MTZ

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
 5, 6

GASTROPODS Uncommon in sparse groups, limpets moderate, Littorina mod-Dense

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
 5, 6

FUCUS Patches along segment. Dense - moderate

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

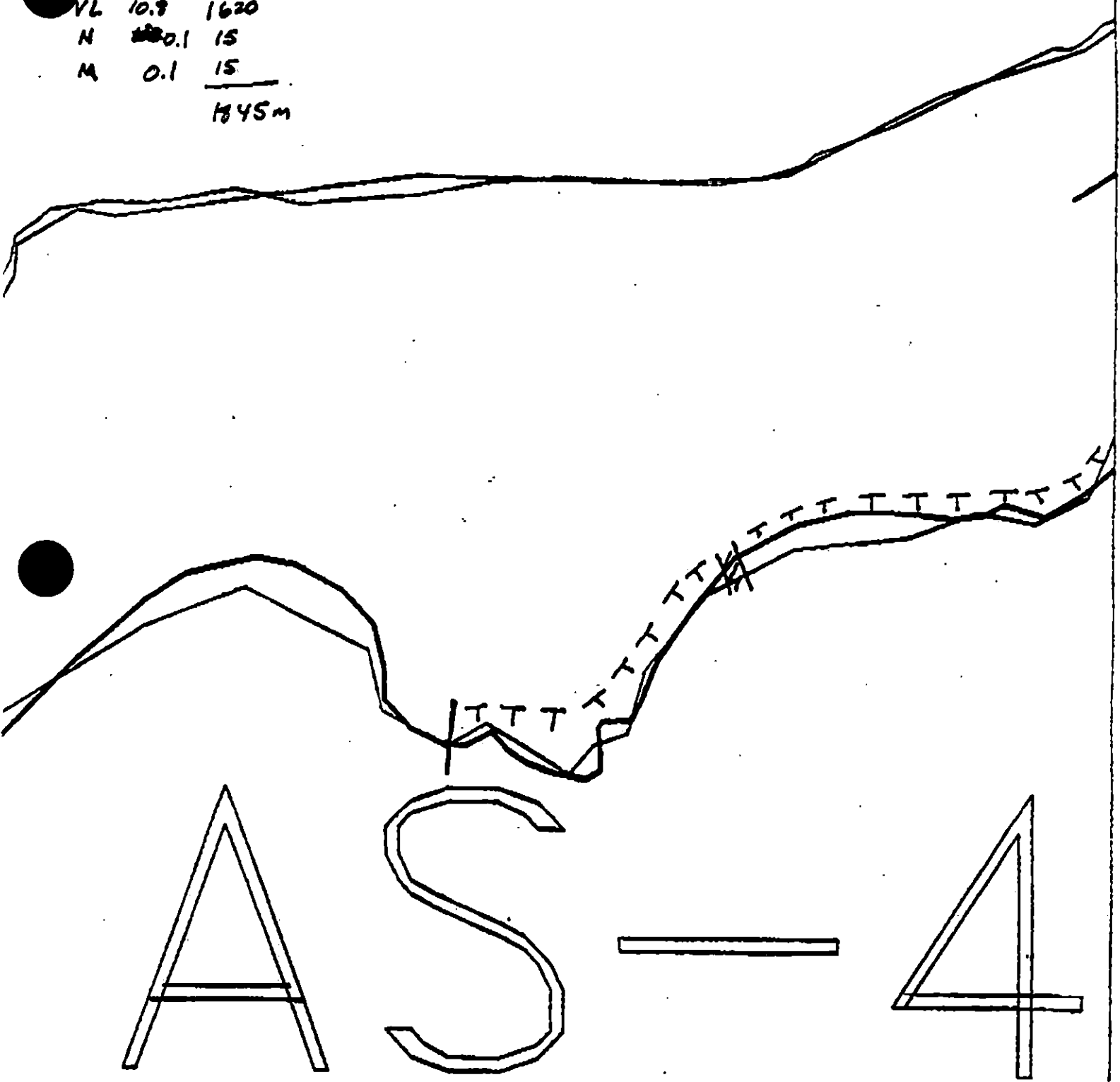
NOT PRESENT
 4, 5, 6

Wildlife Observations/ General Comments: The lower intertidal area was not exposed due to strong (25 knt) on shore winds. MTZ Balanus, Notosolenia, Callinella, Littorina, Endocladia, Porphyra, Cladophora, and some Fucus. MTZ Balanus, Littorina, Notosolenia, Mytilus, Pseudosquilla, Pricklebacks, Sculpins, Gobiopeltis, Fucus, Rhodomela (Odonthalia?) Ulva and Scytosiphon. Mammals: Fox tracks Birds: Glaucous-winged gulls, cormorants, semi-palmated plovers, surf-bird, white-winged scoters and sandpiper.

Ecological Considerations:

No Ecological constraints listed.

No	11	m
VL	1.3	145
N	10.9	1620
M	0.1	15
		<u>1845m</u>

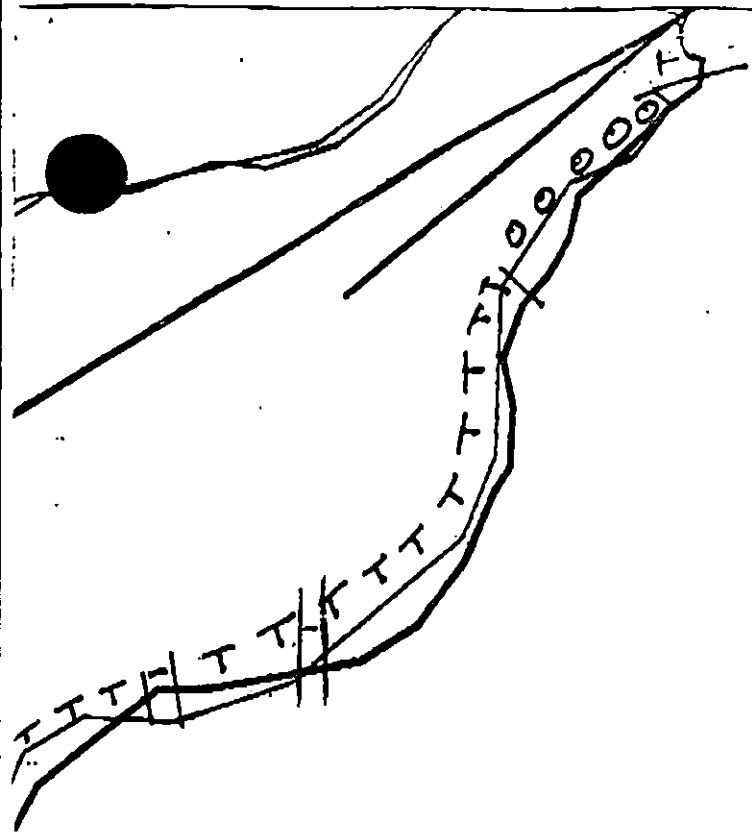


XX Wide
 /// Medium
 --- Narrow
 TTTT Very Light

KIØ5-AS-4
 Approx. Segment Length: 3943m

Map Key: AKP-AS-4b
 Name: R. Marty
 Date: 31 May 1990

CORRECTIONS AS PER PHONE
CONVERSATION W/P MARTY 11 JUNE 90



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

K1005-AS-4

Approx. Segment Length: 3943m

Map Key: AKP-AS-40

Name: R. Marty

Date: 31 May 1990

SHORELINE EVALUATION

SEGMENT ST/ K10-05-AS-004 SUBDIVISION B (2 OF 2) DATE 5/31/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

4QQ National Wildlife Refuge

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: Rachel Jean Doe

DATE: 6/20/90

OILING CATEGORIZATION:

Wide 0 m: Medium 19 m: Narrow 48 m: V.Light 1558m: No Oil 217 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 is manual removal of mousse and oiled debris in areas shown on attached sketch map.

TAG COMMENTS:

TAG APPROVAL DATE: 6/16/90

ADEC Ray Macate R. Macate

EXXON Andy Ten

NOAA Joseph C. Tolbert

USCG G.A. Reiter G.A. Reiter

FOSC: [Signature]

DATE: 7/5/90

R. Marty

IENT ST/ K1005-A54

VISION B

5 131 90

CKLISI

Arrow

iprat. Scale

ip/Sub Endry

Dist.

1 km

1 km

1 km

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1 km

1 km

North

SKETCH MAP

Scale

Pick up
old Debris

Manually
Remove
MOUSSE

Legend

|||| - steep 10m cliffs
* - rocks off shore
--- - rocky shoals
~ - stream

Light splattered cover
w/ bag debris
Patched cover ~2m wide + mousse
in cracks
splattered cover LITZ to STZ
6m x 3m x 25% mousse mat ~5cm
thick.

Splattered cover + 1mousse
patty

Splattered cover: chiefly in VITZ & STZ
+ scattered mousse patties ~2cm thick
Mousse band with sheen on
pools 7 x 15m patchy

Mousse in cracks in MITZ +
lightly oiled debris in STZ
~2m³

patch of mousse "pavement" 1430
~7m x 2m x 3cm ~1.5%
CT15 on O/C
Mousse, HITZ
with localized

sand w/ d.f. 104 in
superf. 2-2

High d.f. rock

sand

1m x 10m ST/5 on Rock
in the SUITZ

2m x 30m ST/5 on Cobble
in the HITZ

3END

1 Δ

No Subsurface Oil

2 Δ

Subsurface Oil

CT/C

Fucus Distribution

CT/B

on Distribution

CT/P

ity Distribution

CT/S

ished Distribution

2ER

4 Vegetation

110 location, direction,
1 number

(15)

Character Length (m): (AP)

PO

CV

16SD CT

ST

MS

100 FT

900 TB

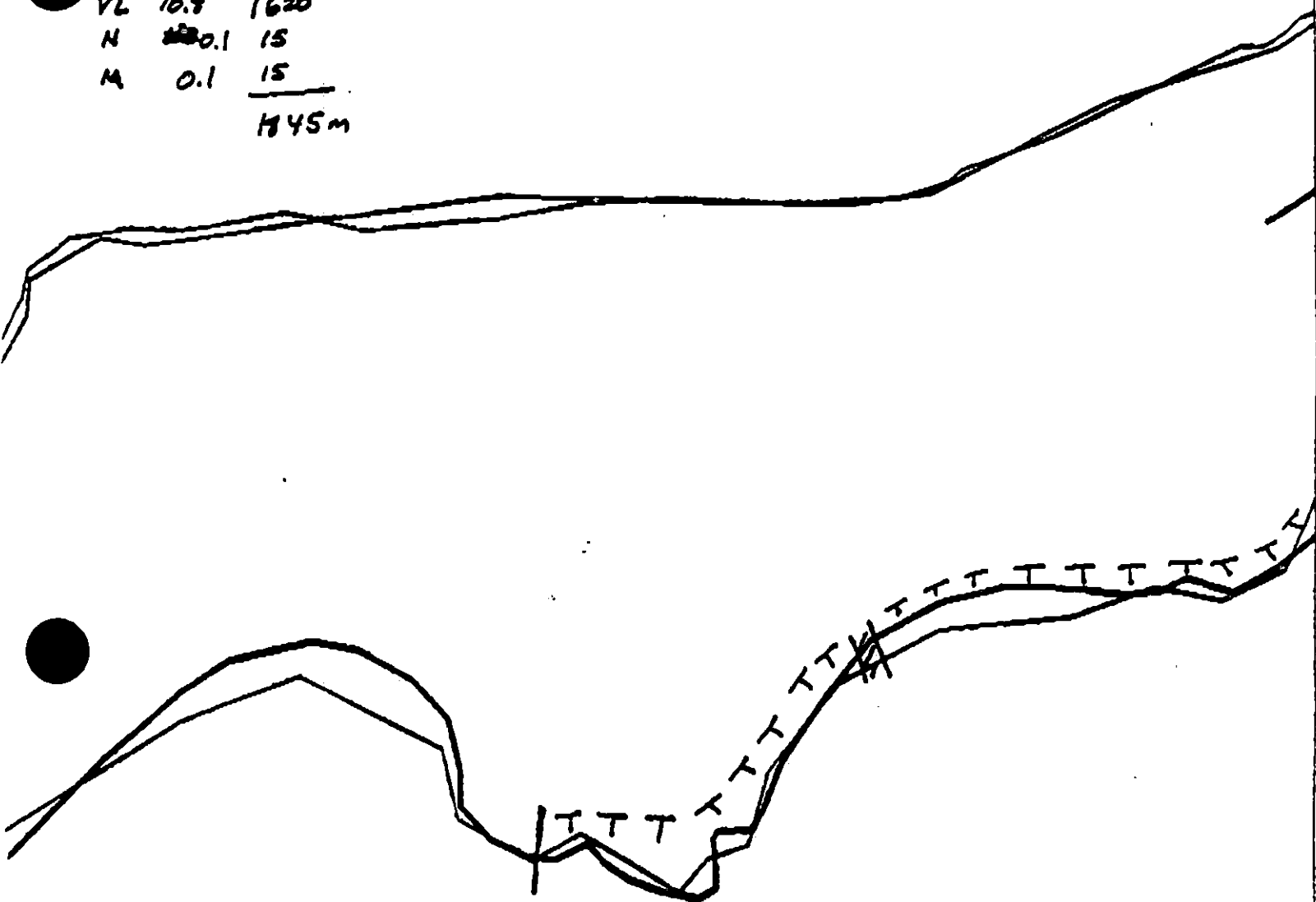
FL

NO

195

REVISION: 83/24/98

No	11	m
VL	10.8	1620
N	220.1	15
M	0.1	15
		<u>1845m</u>



AS-4

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

K1005-AS-4

Approx. Segment Length: 3943m

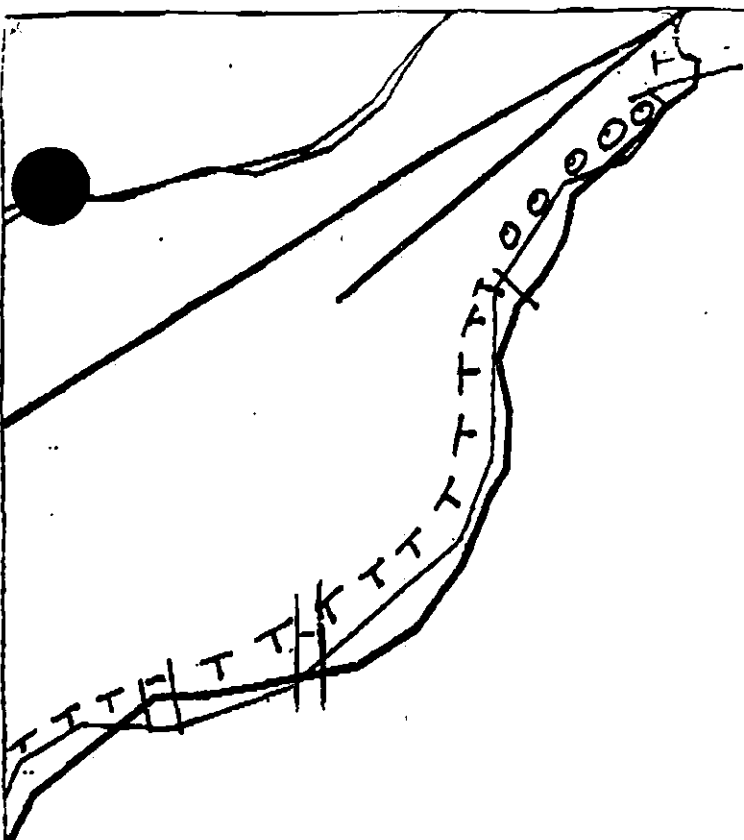


Map Key: AKP-AS-4b

Name: R. Marty

Date: 31 May 1990

CORRECTIONS AS PER PHONE
CONVERSATION W/R MARTY 11 JUNE 90



XXX Wide

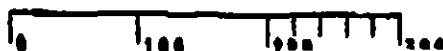
//// Medium

--- Narrow

TTTT Very Light

K1005-AS-4

Approx. Segment Length: 3943m



Map Key: AKP-AS-4c

Name: R. Marty

Date: 31 May 1990

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K10-05-AS-004 SUBDIVISION B (2 of 2)

WORK WINDOW	
Manual Pickup	OPEN

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

No applicable ecological time constraints.

OTHER ECOLOGICAL CONSIDERATIONS

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

FOSC

[Signature]

Date

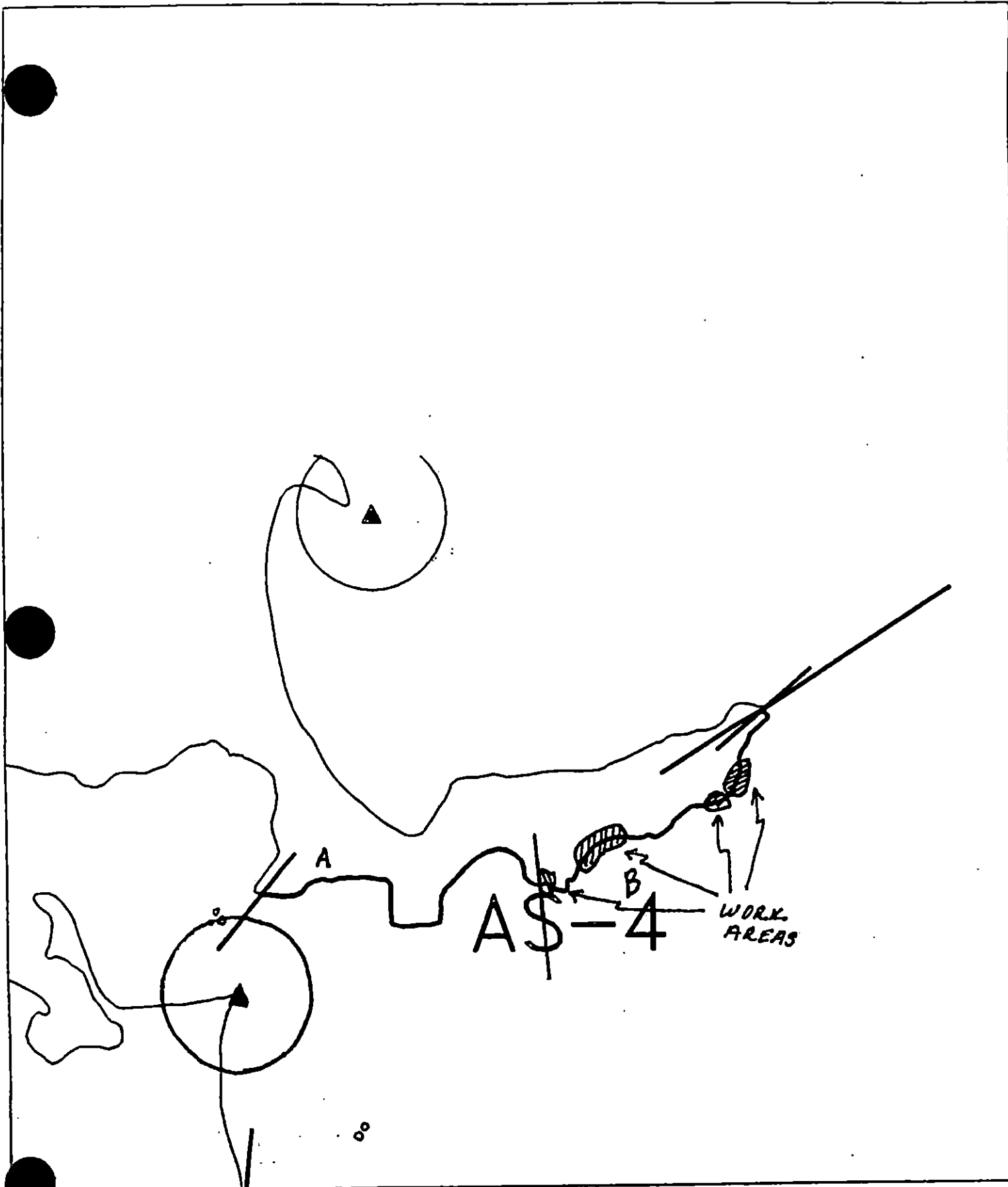
7/6/90

Prepared by

R. R. Coulter

Date

7/6/90



Exxon Company, USA



ECOLOGY MAP
SEGMENT K10-5 AS-4
SUBDIVISION B (2 of 2)
METERS

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

SHORELINE EVALUATION

SEGMENT ST/ K10-05-AS-004 SUBDIVISION B (2 OF 2) DATE 5/31/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

2 National Wildlife Refuge

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: Rachel Ann Dora DATE: 6/20/90

OILING CATEGORIZATION:

Wide 0 m: Medium 19 m: Narrow 48 m: V.Light 1558m: No Oil 217 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

<u> </u> No Treatment Recommended	<u> </u> Snare/Absorbent Booms
<u> </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 is manual removal of mousse and oiled debris in areas shown on attached sketch map.

SEE CONSTRAINT ADDENDUM
DATED 7/6/90. Rex C.

TAG COMMENTS:

TAG APPROVAL DATE: 6/16/90

ADEC Ron Nagata R. H. H.

EXXON AMY T. H.

AA Joseph C. Tellbott

EG G.A. BRITEL

FOSC: [Signature]

DATE: 7/7/90

1991 MAYSAP EVALUATION

SEGMENT: K1005A8004 **SUB:** B **REGION:** KOD **SURVEY DATE:** 5/26/91

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) OPEN

Ecological/Constraints (see page two for details) NONE

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO Signature: _____ **Date:** _____

RECOMMENDATIONS:

INITIAL

TAG

FOSC

TREATMENT REQUIRED (Y or N)

N

Manual Pickup (Check as Req.)

Spot Washing

Bio-Customblen Only

Bio-Inipol/Customblen

Other

Other

COMMENTS:

INITIAL: _____

TAG: _____

FOSC: _____

TAG APPROVAL DATE: _____

FOSC APPROVAL DATE: _____

ADEC _____

FOSC _____

EXXON _____

USCG _____

NOAA _____

TEAM NO. 6-HELO SEGMENT AS-4 SUBDIVISION B DATE 5/26/91

ADEC

NAME J. BARNHART, ADECSIGNATURE Jeff Barnhart

- ☒ NTR Alinchak Bay. On 5-26-91 one supersack containing approx 800 pounds of o.i. was located on the uplands. On 5-27-91 it was removed. The supersack was in "mint" condition having not been disturbed by wild animals. Trace amount of SOR and sheen was the only o.i. observed along this segment.

EXXON

NAME R. COULTER, EXXONSIGNATURE Rex R. Coulter

- ☒ NTR VERY LITTLE EVIDENCE OF OIL REMAINS AT THIS SITE.

THE SUPER SACK OF OILED SEDIMENT WHICH WAS FOUND IN THE UPLANDS WAS REMOVED ON 27 MAY 91. THE TOTAL AMOUNT COLLECTED WAS 15 SACKS OR APPROXIMATELY 600 POUNDS.

LANDMANAGER

NAME J. HARDISTEROF USFWSSIGNATURE John P. Hardister

- ☒ NTR concur with Exxon and USCG comments. We appreciate the removal of the super sack of oiled material from refuge lands.

USCG/NOAA

NAME CWO R. SPURR, G. SHIGENAKASIGNATURE R. Spurr G. Shigenaka

- ☒ NTR No significant oiling found during segment survey. One super sack was located in the uplands from previous cleanup and it was recovered on 27 May 1991.

SURVEYED PORTION OF THE SEGMENT WAS A RUGGED, IRREGULAR SHORELINE COMPRISING THE SOUTHEAST COAST OF A PENINSULA IN THE CENTRAL PART OF ALINCHAK BAY. THE UPPER BEACH WAS GENERALLY A BEDROCK PLATFORM WITH A BOULDER COVER, ALTHOUGH THE CHARACTER OF THE SUBSTRATE CHANGED FROM AREA TO AREA (i.e. FROM FLAT, ROUNDED BOULDERS TO MORE SPHERICAL BOULDERS, TO SMALLER COBBLES). A ROCKY (BEDROCK W/ SOME BOULDERS) FLAT EXTENDED FOR SOME DISTANCE OUT FROM THE BEACH AND WAS COVERED EXTENSIVELY WITH FUCUS AND UNIDENTIFIED GREEN ALGAE. THE MIZ WAS WELL-POPULATED WITH LIMPETS, LITTORINES, AND BARNACLES. MUSSELS WERE ALSO FOUND IN PROTECTED AREAS SUCH AS BEDROCK CREVICES. A RAVEN NEST (INITIALLY THOUGHT TO BE AN EAGLE NEST) AND A SEAL PUP WERE OBSERVED NEAR THE NORTHEAST END OF THE SEGMENT. LITTLE OIL RESIDUE WAS SEEN ALONG THIS SEGMENT (ALTHOUGH A SUPERSACK OF OILED MATERIAL WAS FOUND ON THE BLUFF ABOVE IT AT THE HELICOPTER LANDING SITE). WEATHERED STAIN/COAT WAS FOUND AT THE BEGINNING OF THE SURVEY IN THE HIGH TIDE. SHEEN WAS SEEN IN TIDAL POOLS FARTHER TO THE EAST, BUT NO SOURCE FOR THE SHEEN WAS FOUND. A THIRD AREA THAT WAS

MARKED WITH REBAR IN THE SUPRA WAS FOUND TO CONTAIN SMALL OCCURRENCES OF SOR. ALL OF THESE INSTANCES OF OILING WERE MINOR AND NONE CONSTITUTED RECOVERABLE AMOUNTS.

SEGMENT K10-05-AS04

LANDMANAGER J. HANDISTER for USFWS

SUBDIVISION B

USCG/NOAA CWO SPURR/6. SHIGENAKA

DATE 26 / MAY / 91

TIME 8:25 to 9:40

TIDE LEVEL -1.0 ft. to .5 ft.

ENERGY LEVEL: ☒ H ☐ M ☐ L

SURVEYED FROM: ☒ FOOT ☐ BOAT ☐ HELO

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

TOTAL LENGTH SHORELINE SURVEYED: 1842 m

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

EST. OIL CATEGORY LENGTH: W 1 m M 1 m N 1 m VL 7 m NO 1835 m US 1 m

[illegible]

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

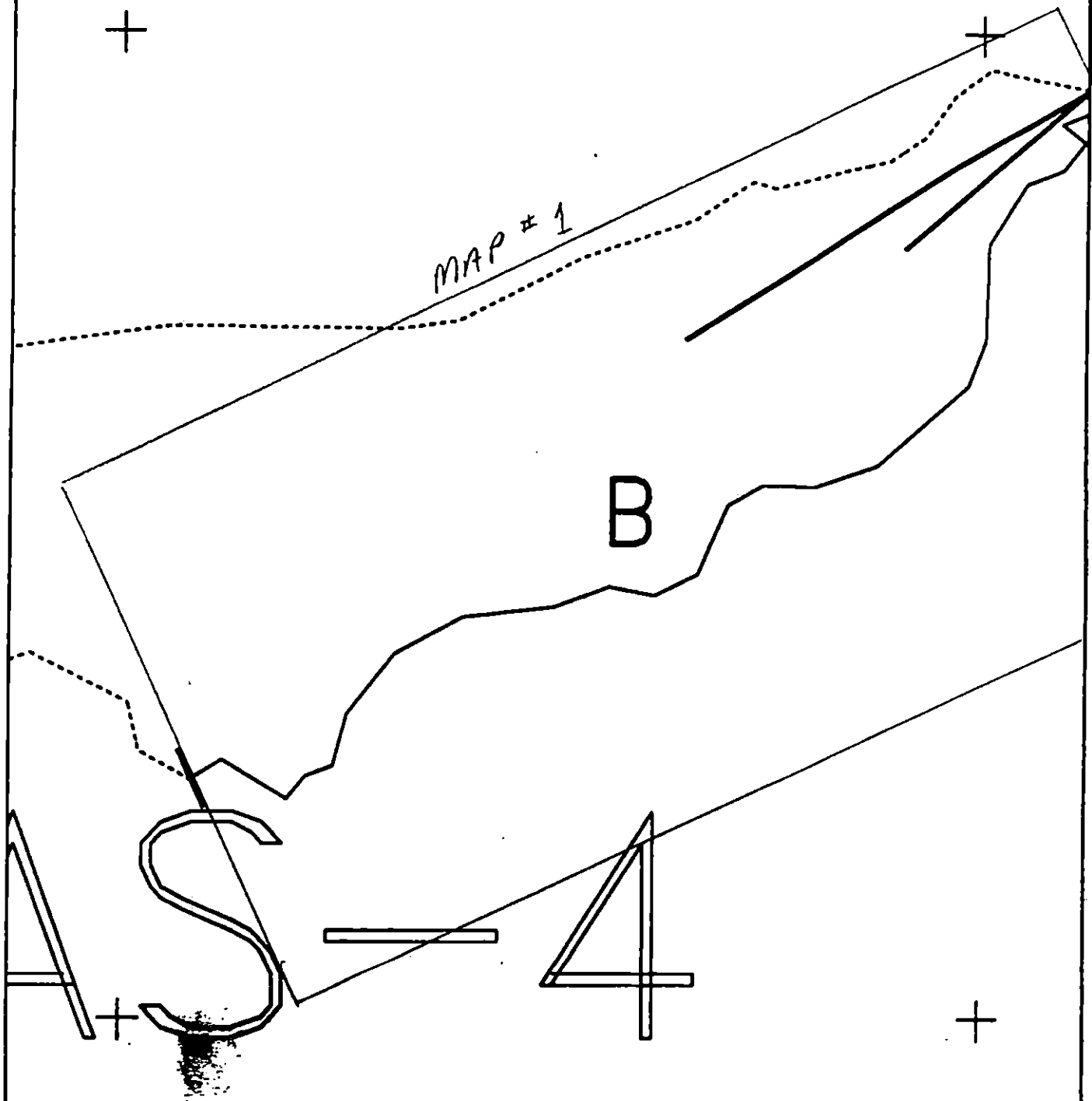
SLOPE: V = VERTICAL: H = HIGH ANGLE: M = MEDIUM ANGLE: L = LOW ANGLE PHOTO ROLL # MAYSAP- 6 - 23 FRAMES 3-5

[illegible]

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

OG COMMENTS: This segment is located along the northern boundary of the southernmost embayment within ALENCHAK BAY. The entire shoreline is backed by cliffs and fronted by a moderately wide (50-100m) wave-cut platform with a thin covering of boulders in places. Oiled sediment was found at only two sites and these areas consisted of CT/ST and a 1m² SOR area. The other areas noted in the ASAP report had no observable oil.

Reviewed: MC 5/31/91
revised 5/31/91 KG



K1005 AS004 B

METERS



AK State Plane Zone 5
910500000000-5

Subdivision Field Map

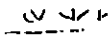
Map Key: 60AK1005AS004B

Name: D. Fitzgerald

Date: 26 May 1991



Bedrock
Cliff



Grassy
Uplands



PHOTO-
SITES

Sketch Map (DG)
K10-05-AS-04-A
D. MARTIN FITZGERALD
26 MAY 1991
825-940

ALINCHAK
BAY

* VECO WORKERS
DID NOT COLLECT
ANY OILED SED-
IMENT IN THIS
AREA

THE ALINCHAK "BOOT"

BEGIN
SEGMENT
AS-05

BEGIN
SEGMENT
AS-04-A

P.U.
SUPER
SACK

RAVEN
NEST

WAVE-CUT
PLATFORM

A. CT/ST
2-3 b, 6m, <1%
ON VERTICAL FACE

B. SOR
1m², <1%
AT LETZ

0 400
METERS

ALINCHAK
BAY

REVIEWED 5/31/91 KG
REVISIONS: MC 5/31/91



Bedrock
Cliff



Grassy
Uplands



PHOTO-
SITES

PHOTO SITES, AS-04-A
ROLL 6-23, FRAMES 3 THRU 5

SKETCH MAP (D6)
K10-05-AS-04-A
D. MARTIN FIZGEM
26 MAY 1991
825-940

ALINCHAK
BAY

* VECO WORKERS
Did not collect
any oiled sed-
iment in this
area

THE ALINCHAK "BOOT"

BEGIN
SEGMENT
AS-05

BEGIN
SEGMENT
AS-04-A

A. CT/ST
2-3 by 6m, <1%
ON VERTICAL FACE

B. SOC
1m², <1%
AT WETZ

RAVEN
NEST

WAVE-CUT
PLATFORM

0 400
METERS

ALINCHAK
BAY

NAISAP BIOLOGICAL SUMMARY FORM

TEAM # 6 Helo

DATE May 26 1991

SEGMENT # K10-5 AS-4

TIDAL HEIGHT (Range) -1.0 - .5 ft (825-9:40)

SUBDIVISION B

BIOLOGIST N. Davis

SEA STATE 1-2 ft

WIND SPEED/DIRECTION 20 kt Breeze SE

PHOTOGRAPHS: ROLL # 6-23

FRAME # 3-5

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

This segment had bedrock cliffs fronted by a walk platform with a variety of cover, boulders and/or cobbles like most of this area. There was a littorine/barnacle/limpet dominated UTZ. Endocladia, Cladopeltis, Fucus and Rhodomela are patching in the lower half of the UTZ. In the MITZ all of these continued as the major organisms but small zostera beds could be found in some pools. Nucella, Mytilus, Filamentous blades, green algae, encrusting corallines, and pagurus were also present in moderate numbers. Verrucaria was sporadic throughout the SETZ.

Site A was well above the intertidal community in a space between the main cliffs and an outcropping that had become separated from the shore. Verrucaria was growing in the area and drift logs had been thrown up into the site.

Site B was at the top of the littorine, barnacle, limpet zone. Some filamentous green algae was in the area. Endocladia were active in decomposing algae at Site B.

Glaucous-winged Gull (5) sandpipers (6) Ravens (2+Nest)

Semi-palmated plover (2) White Winged Scoters (3) Cormorants (2) Dead Kittiwake (1)

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	0		Sculpin
Seabirds	1	2	
Waterfowl	1	3	
Gulls/Ravens	2	5 + 1 Dead Kittiwake	
Shorebirds	2	8	
Corvids	1	2 + Nest	
Other Birds			

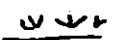
MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters	1 + pup	Caribou	3
Pinnipeds (specify)			
Harbor Seal	2		
Whales (specify)			

shoreline subdivision map showing important biological features attached.

Reviewed M03 5/21/91



Bedrock
Cliff



Grassy
Uplands



PHOTO-
SITES

Bio Map
H. Davis

Sketch Map (DG)
K10-05-AS-04-A

D. Martin Fitzgerald

26 MAY 1991

825-940

ALINCHAK
BAY

1711 * VECO WORKERS
Did not collect
any oiled sed-
iment in this
area

THE ALINCHAK "BOOT"

BEGIN
SEGMENT
AS-05

BEGIN
SEGMENT
AS-04-A

A. CT/ET
2.2-3 by 6m, <1%
ON VERTICAL FACE

Site A was well above
any intertidal biota.
Verrucaria was growing
on the surrounding Rocks.

B. SAC
1m², <1%
AT LFTZ

Site B was at the top of the
UTTZ. A few Lillerines were
in the area. Amphipods and
echinoderms were active in
decomposing algae.

RAVEN
NEST

WAVE-CUT
PLATFORM

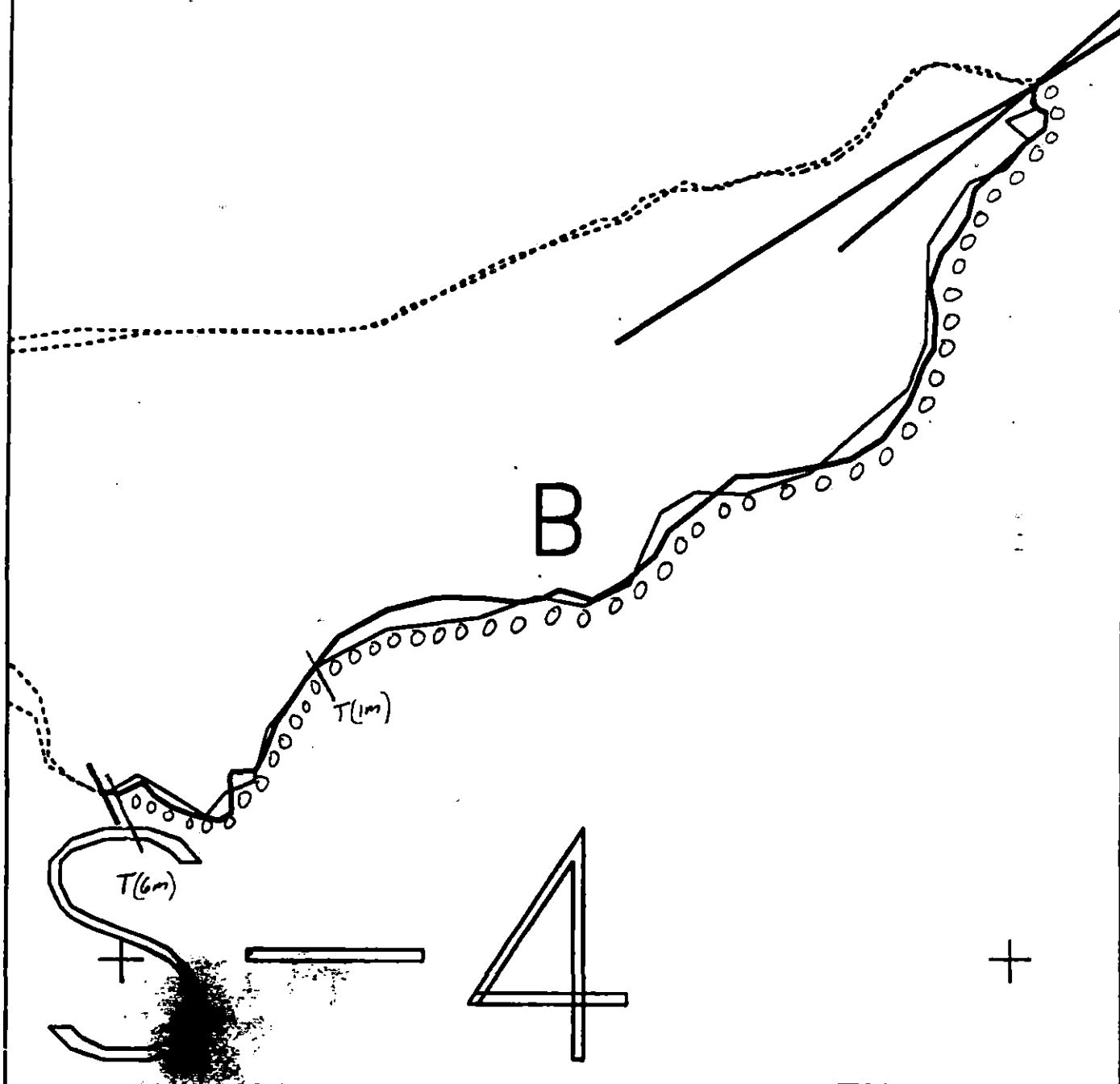
Nereocystis
Beds

Harbor
Seals.

Sea Otter

ALINCHAK
BAY

0 400
METERS



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

K1005 AS004 B
 ADEC Subsegment Length: 1842m
 METERS
 0 200 400
 AK State Plane Zone 4
 110030004000- ...

Subdivision Field Map
 Map Key: 00AK1005AS00400
 Name: D. Fitzgerald
 Date: 26 MAY 1991
 Date Entered:



Reviewed: MC 5/31/91
 revised 5/31/91 RG

1991 MAYSAP EVALUATION

SEGMENT: K1005AS004 SUB: B REGION: KOD SURVEY DATE: 5/26/91

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) OPEN

Ecological/Constraints (see page two for details) NONE

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO Signature: Timothy Smith

Date: 6/07/91

RECOMMENDATIONS:

INITIAL

TAG

FOSC

TREATMENT REQUIRED (Y or N)

N

N

N

Manual Pickup (Check as Req.)

Spot Washing

Bio-Customblen Only

Bio-Inipol/Customblen

Other

Other

COMMENTS:

INITIAL:

TAG:

FOSC:

TAG APPROVAL DATE: JUNE 7 1991

FOSC APPROVAL DATE: 6/12/91

ADEC

FOSC

EXXON

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

USCG

NOAA

TEAM NO. 6-HELO SEGMENT A5-4 SUBDIVISION B DATE 5/26/91

ADEC

NAME J. BARNHART, ADECSIGNATURE Jeff Barnhart

- ☒ NTR Alinchak Bay. On 5-26-91 one supersack containing approx 800 pounds of oil was located on the uplands. On 5-27-91 it was removed. The supersack was in "mint" condition having not been disturbed by wild animals. Trace amount of SOR and sheen was the only oil observed along this segment.

EXXON

NAME R. COULTER, EXXONSIGNATURE Ray R. Coulter

- ☒ NTR VERY LITTLE EVIDENCE OF OIL REMAINS AT THIS SITE.

THE SUPER SACK OF OILED SEDIMENT WHICH WAS FOUND IN THE UPLANDS WAS REMOVED ON 27 MAY 91. THE TOTAL AMOUNT COLLECTED WAS 15 SACKS OR APPROXIMATELY 600 POUNDS.

LANDMANAGER

NAME J. HARDISTEROF USF&WSSIGNATURE John P. Hardister

- ☒ NTR concur with Exxon and USCG comments. We appreciate the removal of the super sack of oiled material from refuge lands.

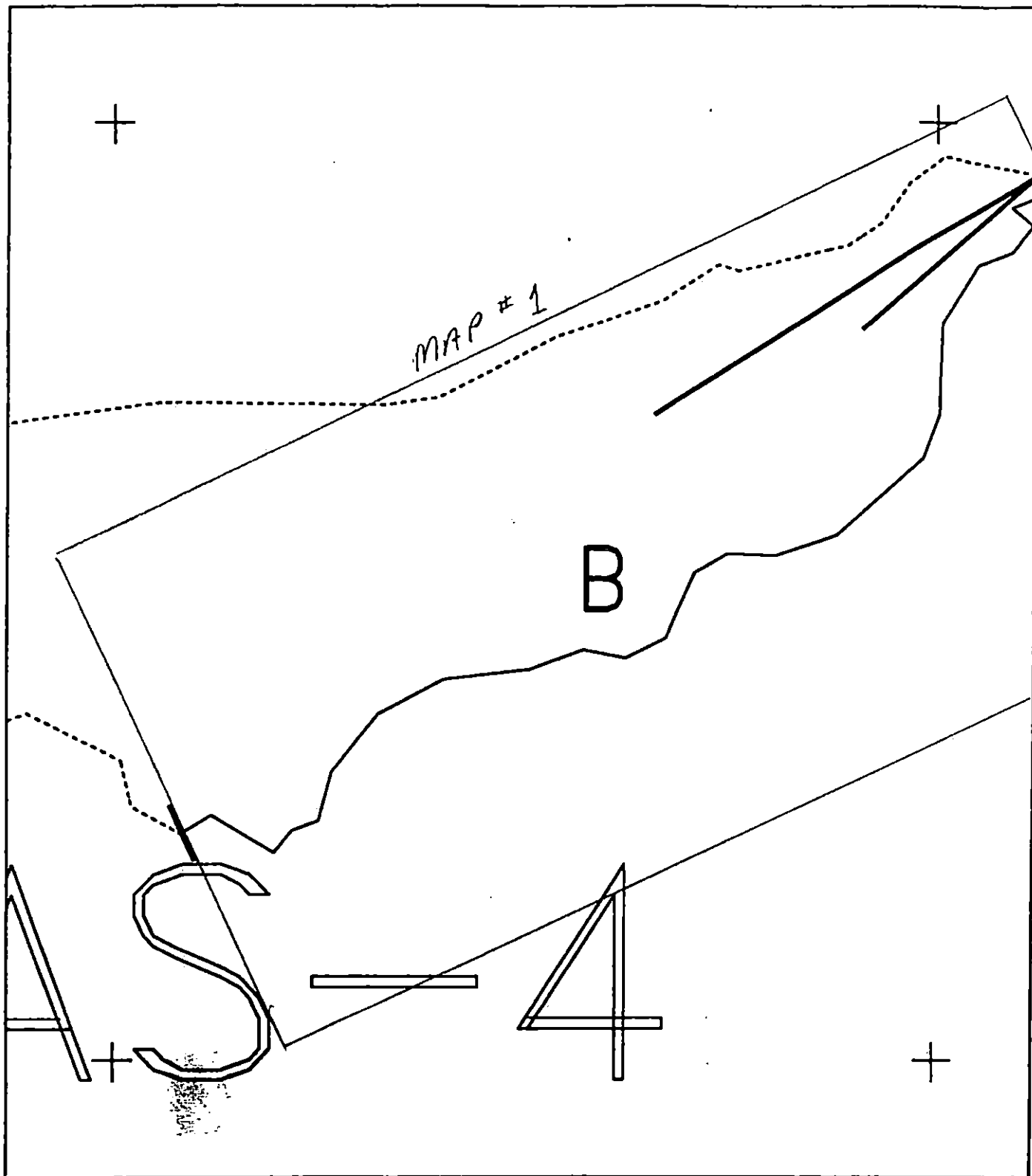
USCG/NOAA

NAME CWO R. SPURR/G. SHIGENAKASIGNATURE R. Spurr / G. Shigenaka

- ☒ NTR No significant oiling found during segment survey. One super sack was located in the uplands from previous cleanup and it was recovered on 27 May 1991.

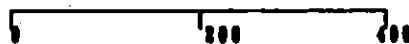
SURVEYED PORTION OF THE SEGMENT WAS A RUGGED, IRREGULAR SHORELINE COMPRISING THE SOUTHEAST COAST OF A PENINSULA IN THE CENTRAL PART OF ALINCHAK BAY. THE UPPER BEACH WAS GENERALLY A BEDROCK PLATFORM WITH A BOULDER COVER, ALTHOUGH THE CHARACTER OF THE SUBSTRATE CHANGED FROM AREA TO AREA (I.E. FROM FLAT, ROUNDED BOULDERS TO MORE SPHERICAL BOULDERS, TO SMALLER COBBLES). A ROCKY (BEDROCK W/SOME BOULDERS) FLAT EXTENDED FOR SOME DISTANCE OUT FROM THE BEACH AND WAS COVERED EXTENSIVELY WITH FUCUS AND UNIDENTIFIED GREEN ALGAE. THE MIZ WAS WELL-POPULATED WITH LIMPETS, LITTORINES, AND BARNACLES. MUSSELS WERE ALSO FOUND IN PROTECTED AREAS SUCH AS BEDROCK CREVICES. A RAVEN NEST (INITIALLY THOUGHT TO BE AN EAGLE NEST) AND A SEAL PUP WERE OBSERVED NEAR THE NORTHEAST END OF THE SEGMENT. LITTLE OIL RESIDUE WAS SEEN ALONG THIS SEGMENT (ALTHOUGH A SUPERSACK OF OILED MATERIAL WAS FOUND ON THE BLUFF ABOVE IT AT THE HELICOPTER LANDING SITE). WEATHERED STAIN/COAT WAS FOUND AT THE BEGINNING OF THE SURVEY IN THE HIGH MIZ. SHEEN WAS SEEN IN TIDAL POOLS FARTHER TO THE EAST, BUT NO SOURCE FOR THE SHEEN WAS FOUND. A THIRD AREA THAT WAS MARKED WITH EEBAR IN THE SUPRA WAS FOUND TO CONTAIN SMALL OCCURRENCES OF SOR. ALL OF THESE INSTANCES OF OILING WERE MINOR AND NONE CONSTITUTED RECOVERABLE AMOUNTS.

Reviewed: MC 5/31/91
revised 5/31/91 KG



K1005 AS004 B

METERS



AK State Plane Zone 4
910850000000

Subdivision Field Map

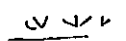
Map Key: COAK1005AS004B

Name: D. Fitzgerald

Date: 26 May 1991



Bedrock
Cliff



Grassy
Uplands



PHOTO-
SITES

Sketch Map (DG)

K10-05-AS-04-A

D. MARTIN FITZGERALD

26 MAY 1991

825-940

ALINCHAK
BAY

* VECO WORKERS
DID NOT COLLECT
ANY OILED SED-
IMENT IN THIS
AREA

THE ALINCHAK "BOOT"

BEGIN
SEGMENT
AS-05

P.U.
SUPER
SACK

RAVEN
NEST

WAVE-CUT
PLATFORM

← BEGIN
SEGMENT
AS-04-A

A. CT/ST
2-3 by 6m, <1%
ON VERTICAL FACE

B. SOK
1m², <1%
AT LETZ

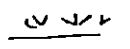
0 400
METERS

ALINCHAK
BAY

REVIEWED 5/31/91 KLG
REVISOR: MC 5/31/91



Bedrock
Cliff



Grassy
Uplands



PHOTO-
SITES

PHOTO SITES, AS-04-A
ROLL 6-23, FRAMES 3 THRU 5

Sketch Map (DG)

K10-05-AS-04-A

D. MARTIN FITZGERALD

26 MAY 1991

825-940

ALINCHAK
BAY

* VECO WORKERS
DID NOT COLLECT
ANY OILED SED-
IMENT IN THIS
AREA

THE ALINCHAK "BOOT"

BEGIN
SEGMENT
AS-05

← BEGIN
SEGMENT
AS-04-A

A. CT/ST
2-3 by 6m, <1%
ON VERTICAL FACE

B. SOK
1m², <1%
AT GFTZ

RAVEN
NEST

WAVE-CUT
PLATFORM

0 400
METERS

ALINCHAK
BAY

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # G Helo

DATE May 26 1991

SEGMENT # K10-5 AS-4

TIDAL HEIGHT(Range) -1.0 - .5ft (825-940)

SUBDIVISION B

BIOLOGIST H. Davis

SEA STATE 1-2 ft

WIND SPEED/DIRECTION 20kt Breeze SE

PHOTOGRAPHS: ROLL # 6-23

FRAME # 3-5

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

This segment had bedrock cliffs fronted by a wide platform with a variety of cover (boulders and/or cobbles). Like most of this area, there was a littorine/barnacle/limpet dominated UTZ. Endocladia, Gloropelta, Fucus and Rhodomela are patchy in the lower half of the UTZ. In the MITZ all of these continued as the major organisms but small Zostera beds could be found in some pools. Nuclella, Mytilus, Filamentous blades, green algae, encrusting corallines, and papyrus were also present in moderate numbers. Verrucaria was sporadic throughout the SETZ.

Site A was well above the intertidal community in a space between the main cliffs and an outcropping that had become separated from the shore. Verrucaria was growing in the area and drift logs had been thrown up into the site.

Site B was at the top of the littorine, barnacle, limpet zone. Some filamentous green algae was in the area. Eurythraids were active in decomposing algae at Site B.

Glaucous-winged Gull (5) sandpipers (6) Ravens (2+Nest)
Semi-palmated plover (2) White Winged Scoter (3) Cormorants (2) Dead Kittiwake (1)

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	0		Sculpins
Seabirds	1	2	
Waterfowl	1	3	
Gulls/Kittiwakes	2	5 + 1 Dead Kittiwake	
Shorebirds	2	8	
Corvids Raven	1	2 + Nest	
Other Birds			

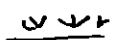
MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters	1 + pup	Caribou	3
Pinnipeds (specify)			
Harbor Seal	2		
Whales (specify)			

Shoreline subdivision map showing important biological features attached.

Reviewed MB 5/21/91



Bedrock
Cliff



Grassy
Uplands



PHOTO-
SITES

Bio Map
H. Davis

Sketch Map (DG)
K10-05-AS-04-A

D. MARTIN FITZGERALD

26 MAY 1991

825-940

ALINCHAK
BAY

PU * VECO WORKERS
Did not collect
any oiled sed-
iment in this
area

THE ALINCHAK "BOOT"

BEGIN
SEGMENT
AS-05

BEGIN
SEGMENT
AS-04-A

A. CT/ST
2. 2-3 by 6m, <1%
ON VERTICAL FACE

B. SOK
1m², <1%
AT LITZ

Site A was well above
any intertidal biota.
Verrucaria was growing
on the surrounding Rocks.

Site B was at the top of the
UTTZ. A few littorines were
in the area. Amphipods and
enchytraids were active in
decomposing algae.

RAVEN
NEST

Neocottus
Beds

WAVE-CUT
PLATFORM

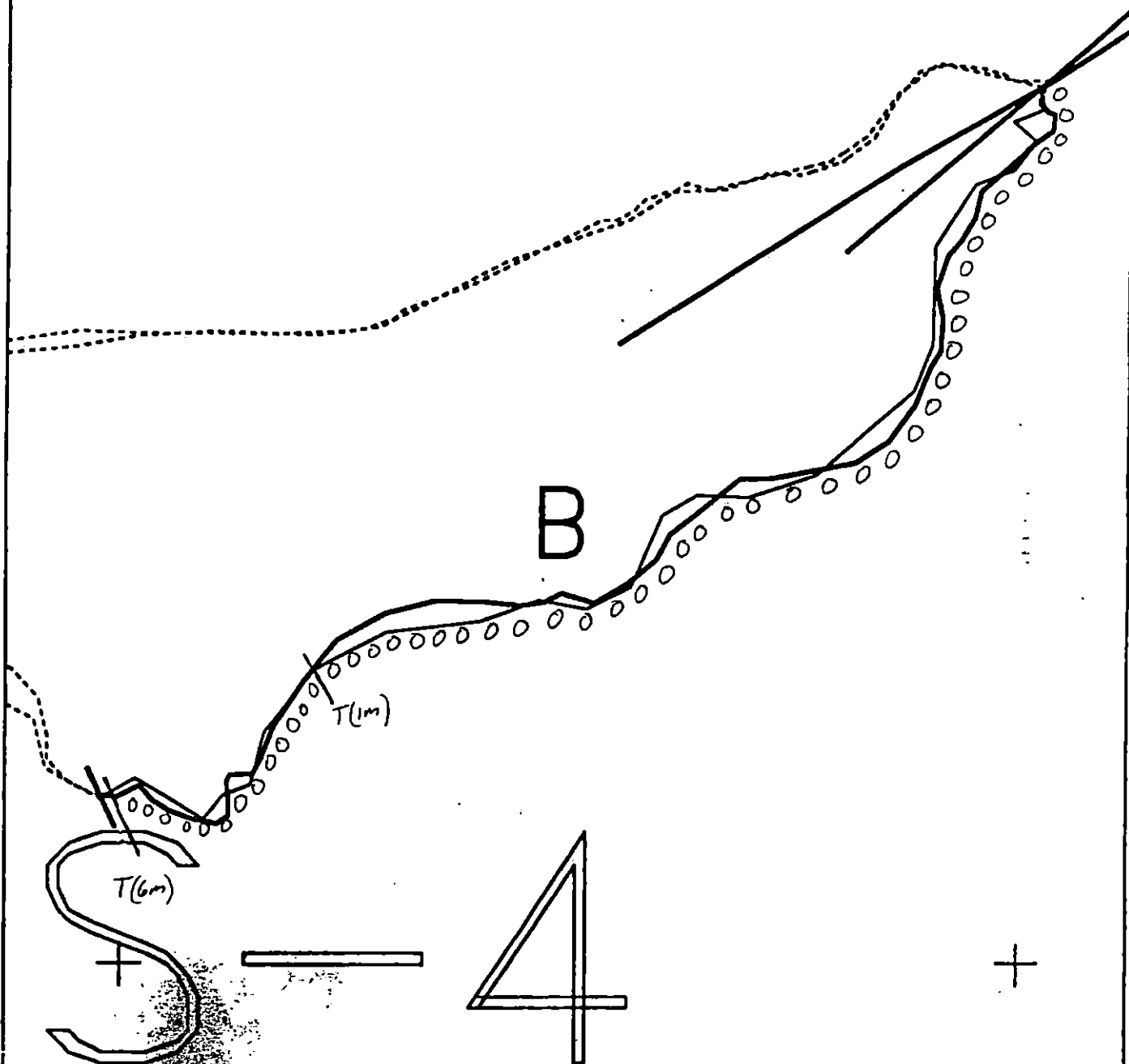
Harbor
Seals.

Sea Otter

0 400
METERS

ALINCHAK
BAY

Reviewed MS 5/31/91



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

K1005 AS004 B
 ADEC Subsegment Length: 1842m
 METERS
 0 200 400
 AK State Plane Zone 4
 1005as004b



Subdivision Field Map
 Map Key: 60AK1005AS004B
 Name: D. Fitzgerald
 Date: 26 May 1991
 Date Entered:

Reviewed: MC 5/31/91
 revised 5/31/91 RG

Pickup small moose patch

AS
ASAP FOLLOWUP RECOMMENDATION

~~WORK PLAN MODIFICATION RECOMMENDATION~~

SEGMENT: K10-05-AS004 SUBDIVISION: B DATE: 8/13/90

MODIFICATION

1. REASON FOR MODIFICATION:

A large bed of kelp covered the beach during the cleanup period. A mat of mousse, approximately 2m x 8m in extent, was apparently not discovered by the cleanup crew. Mat was observed by the ASAP team on August 7, 1990.

2. SUGGESTED ADJUSTMENT TO WORK PLAN:

Manual pickup of mousse at site 3 marked on attached amp.

3. TIMING ISSUES:

As soon as possible. Recommend timing to coincide with proposed cleanup work on adjacent segments K10-05-AS003 and K10-04-AS005.

USCG _____

ADEC _____

LAND MANAGER John Hardister (If field representative is on site)

EXXON: _____

ADF&G: _____

K10-5

SEGMENT AS / AS-4 SUBDIVISION: B SITE: 1 of 4 DATE 07 Aug 90

USCG

NAME J. FAZIOSIGNATURE J. Fazio Sr.☐ YES☒ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

ADEC

NAME F. BENNISSIGNATURE F. Bennis☐ YES☒ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

Very little residual oil: sr, cr, isolated MS/P

LAND MANAGER

NAME J. HARDISTERSIGNATURE J. P. Hardister☐ YES☒ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

EXXON

NAME R. COULTERSIGNATURE R. Coulter☐ YES☒ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

K10-5

SEGMENT AS/ AS-4 SUBDIVISION: B SITE: 2 of 4 DATE 07 Aug 90

USCG

NAME J. FAZIO SIGNATURE [Signature]☐ YES☒ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

ADEC

NAME F. BENNIS SIGNATURE [Signature]☒ YES☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

Very little residual mousse observed, although some ms entrained in fine sediments had a veneer of clean sediments on top of it. Suggest reassessment to determine effects of winter on this locale. Check for further exposure of ms.

LAND MANAGER

NAME J. HARDISTER SIGNATURE [Signature]☒ YES☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

Area should be reassessed in 1991 for remaining surfaced oil and to ascertain weathering of oil.

EXXON

NAME R. COULTER SIGNATURE [Signature]☐ YES☒ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

THE QUANTITY OF SOR REMAINING IS SO SMALL IT IS DIFFICULT TO LOCATE.

K10-5

SEGMENT AS/ AS-4 SUBDIVISION: B SITE: 3.44 DATE 07 Aug 90

USCG

NAME J. FAZIO SIGNATURE [Signature]REASON: ☐ YES☒ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

ADEC

NAME F. BENNIS SIGNATURE [Signature]REASON: ☒ YES☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

ST, CT, MS saturated fine sediments remain. 'Mouse nest', approximately 2m x 8m still present. A large kelp bed covered this bench during the clean-up of area. Mat is collectable and should be removed. This had not been collected on ASAP.

LAND MANAGER

NAME J. HARDISTER SIGNATURE [Signature]REASON: ☒ YES☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

Kelp bed covered ^{part of} area that had received cleamps. Should reassess area in 1991. mouse present should be manually removed prior to end of 1990.

EXXON

NAME R. COULTER SIGNATURE [Signature]REASON: ☐ YES☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

VERY LITTLE IF ANY RECOVERABLE OIL REMAINS. EVIDENCE OF PRIOR WORK EFFORT IS STILL APPARENT.

K10-5

SEGMENT AS/ AS-4 SUBDIVISION: B SITE: 4 of 4 DATE 07 Aug 90**USCG**NAME J. FAZIO SIGNATURE [Signature]☐ YES
REASON:☒ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

ADECNAME F. BENNISSIGNATURE [Signature]☐ YES
REASON:☒ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

LAND MANAGERNAME J. HARDISTERSIGNATURE [Signature]☐ YES
REASON:☒ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

EXXONNAME R. COULTERSIGNATURE [Signature]☐ YES
REASON:☒ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

TEAM NO. Kellogg #5 SAGAN R. Coulter SEGMENT AS _____
 CG D. Fitzgerald USGS J. Fazio SUBDIVISION _____
 ADEC F. Bennett LAND REP. J. Hurdish TOTAL NO. SITES 1
 DATE 7 Aug 190 TIME 1240 to 1330 TIDE LEVEL 180 to 280 cm above

TOTAL EST LENGTH OF SHORELINE SURVEYED: 105 m

SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WEATHER: ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 OBSERVATION CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 105 m NO 0 m US 1737 m

SURFACE OIL	SITE 1	SITE 2	SITE 3
--------------------	---------------	---------------	---------------

[illegible]

SUBSURFACE OIL

[illegible]

Photographs:

Roll No. ASAP-DG-3

Frames # 17-22

CONTENTS

The oiling along this shoreline is very very dispersed at each of the four sites and much of the remaining oil that was located was removed by ASAP crew.

SEGMENT AS/ AS-4 SUBDIVISION B

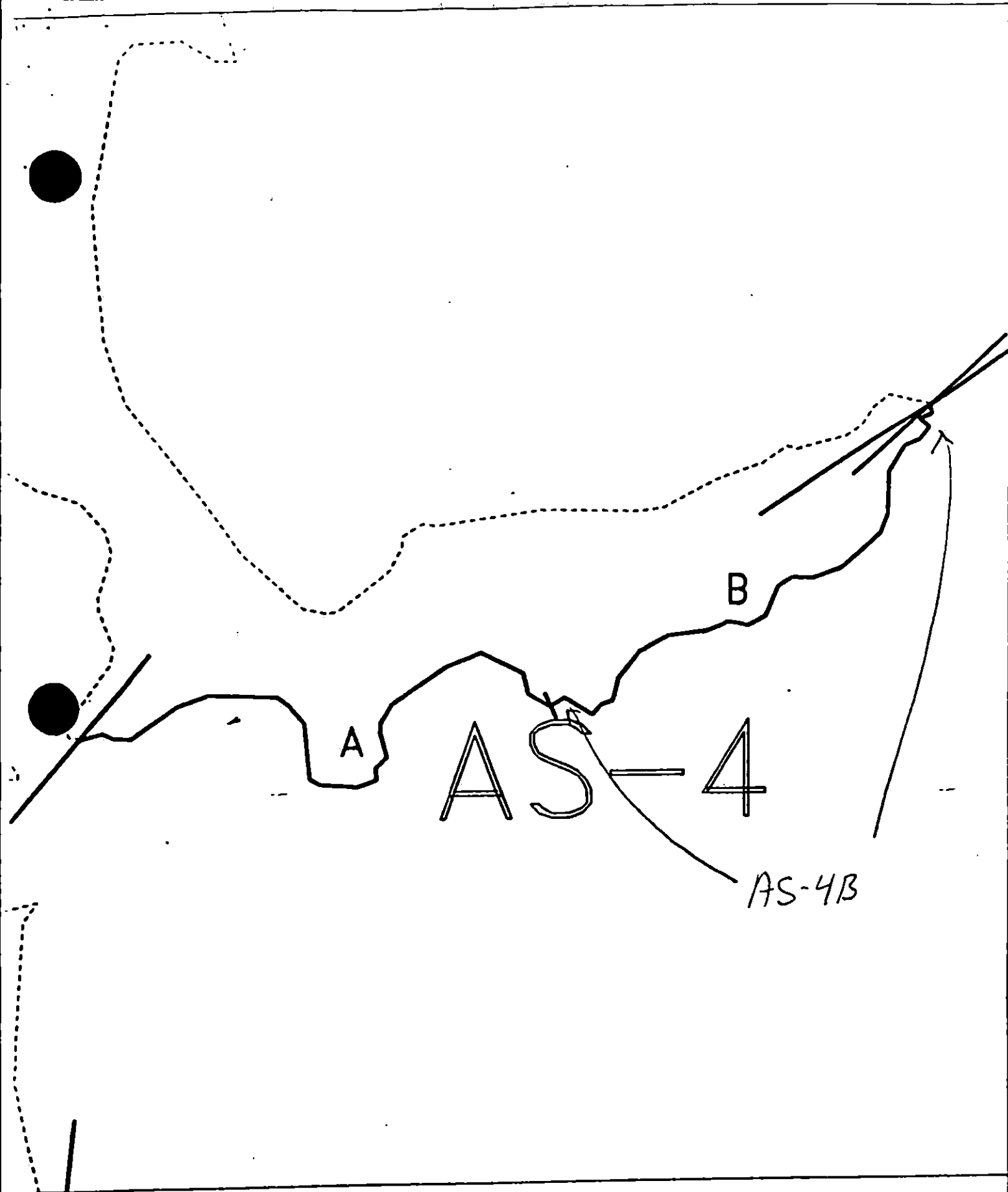
SITE 4

SITE

SITE

SUBSURFACE OIL (CONTINUED)

COMMENTS



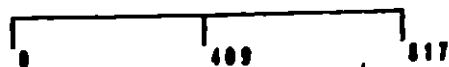
SEGMENT K10-5 AS-4 Segment Location Map

Map Key: AKPK10-5AS-4

July 18, 1990

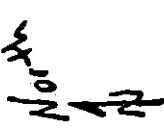
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METERS



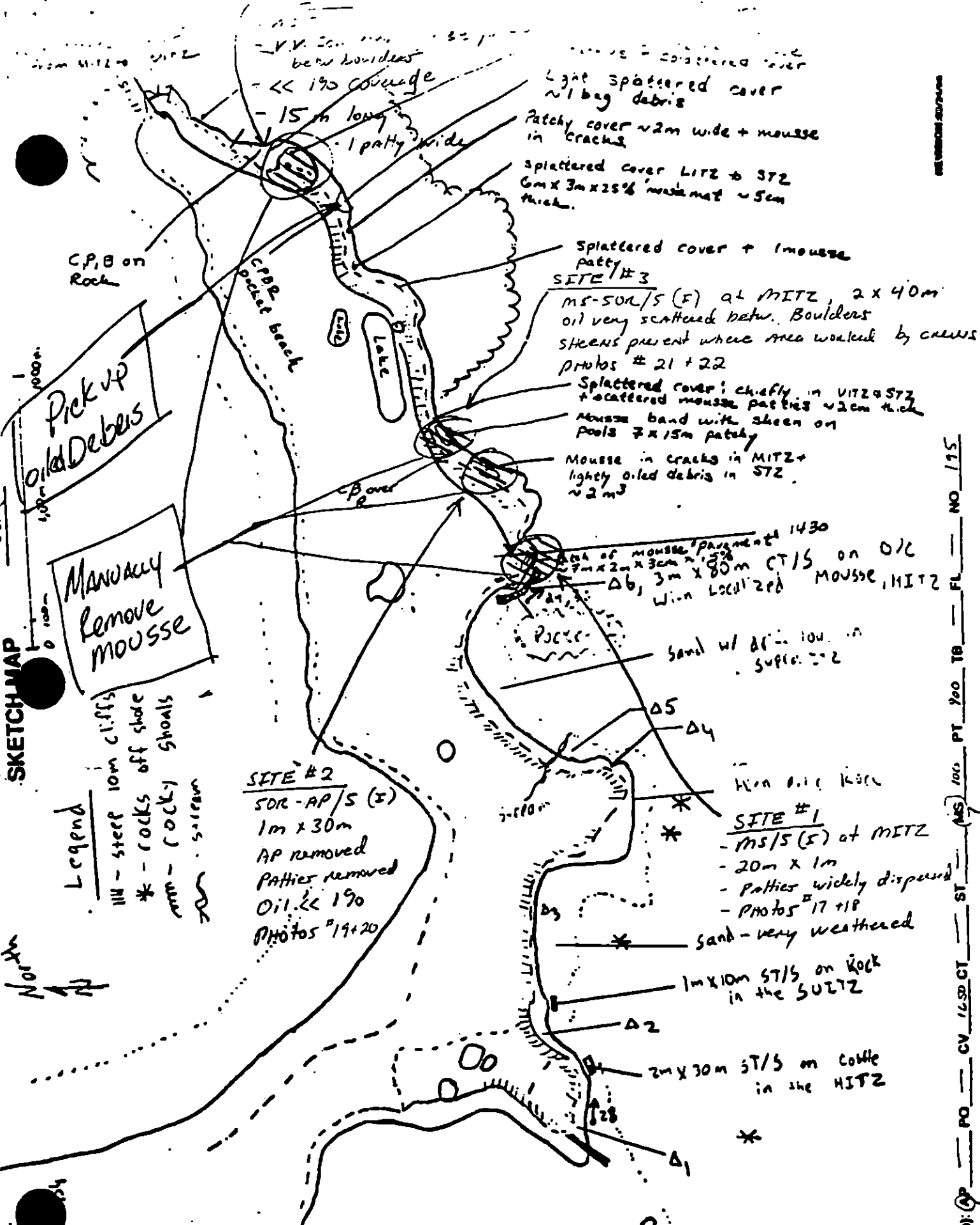
EXON

SKETCH MAP



R. Marty
NTST/Klob
ISON B
5/31/90
KLIST

- Legend
- III - steep 10m cliffs
 - * - rocks off shore
 - mm - rocky shoals
 - ~ - stream



SITE #2

SOR-AP/S (F)

1m x 30m

AP removed

Patches removed

Oil ~ 190

Photos # 19 + 20

SITE #1

MS/S (F) at MITZ

20m x 1m

Patches widely dispersed

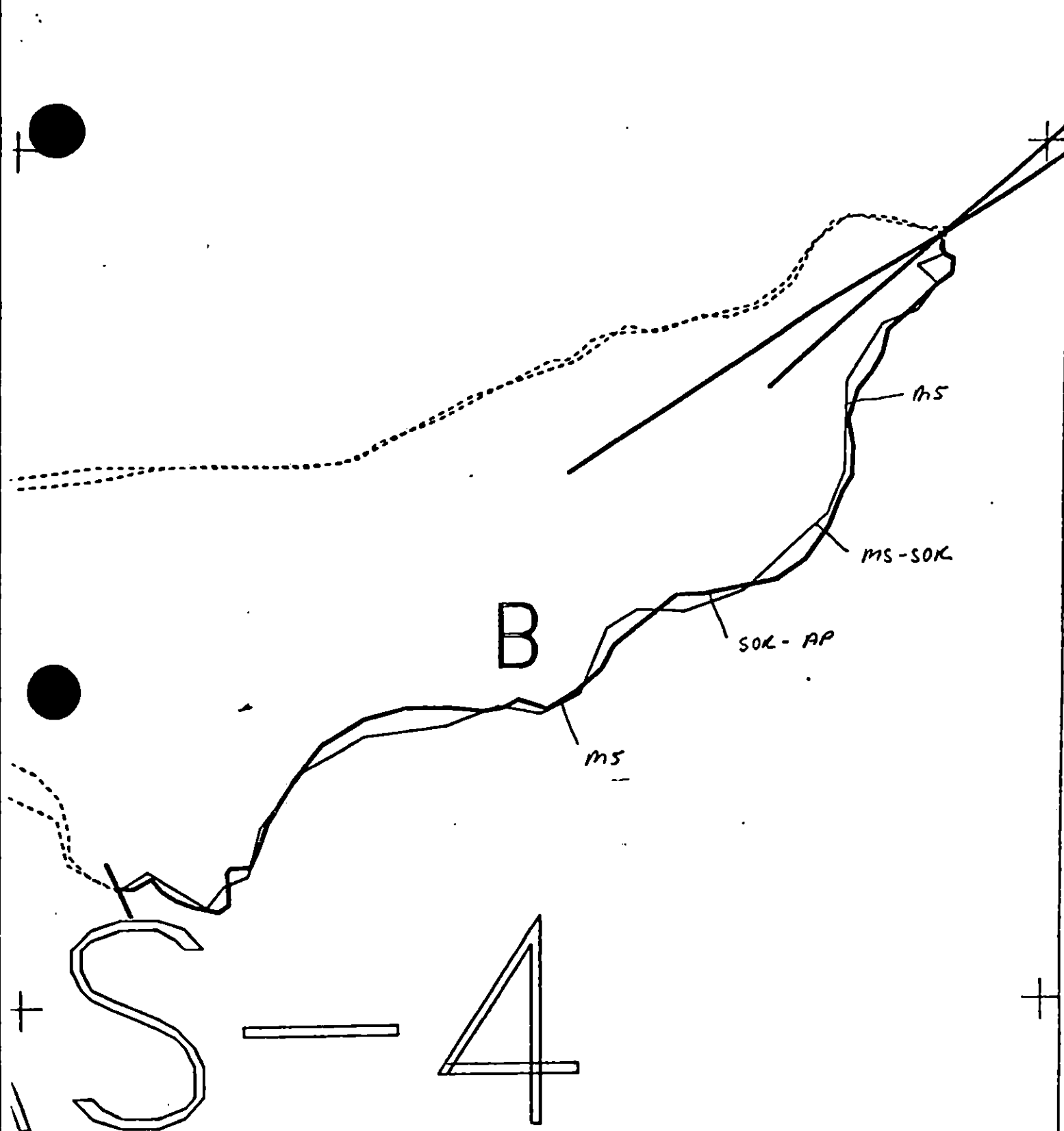
Photos # 17 + 18

REVISION 02/24/90

Character Length (m): (A) PO CV 16SD CT ST MS 100 FT 900 TB FL NO 195

1610

(5)

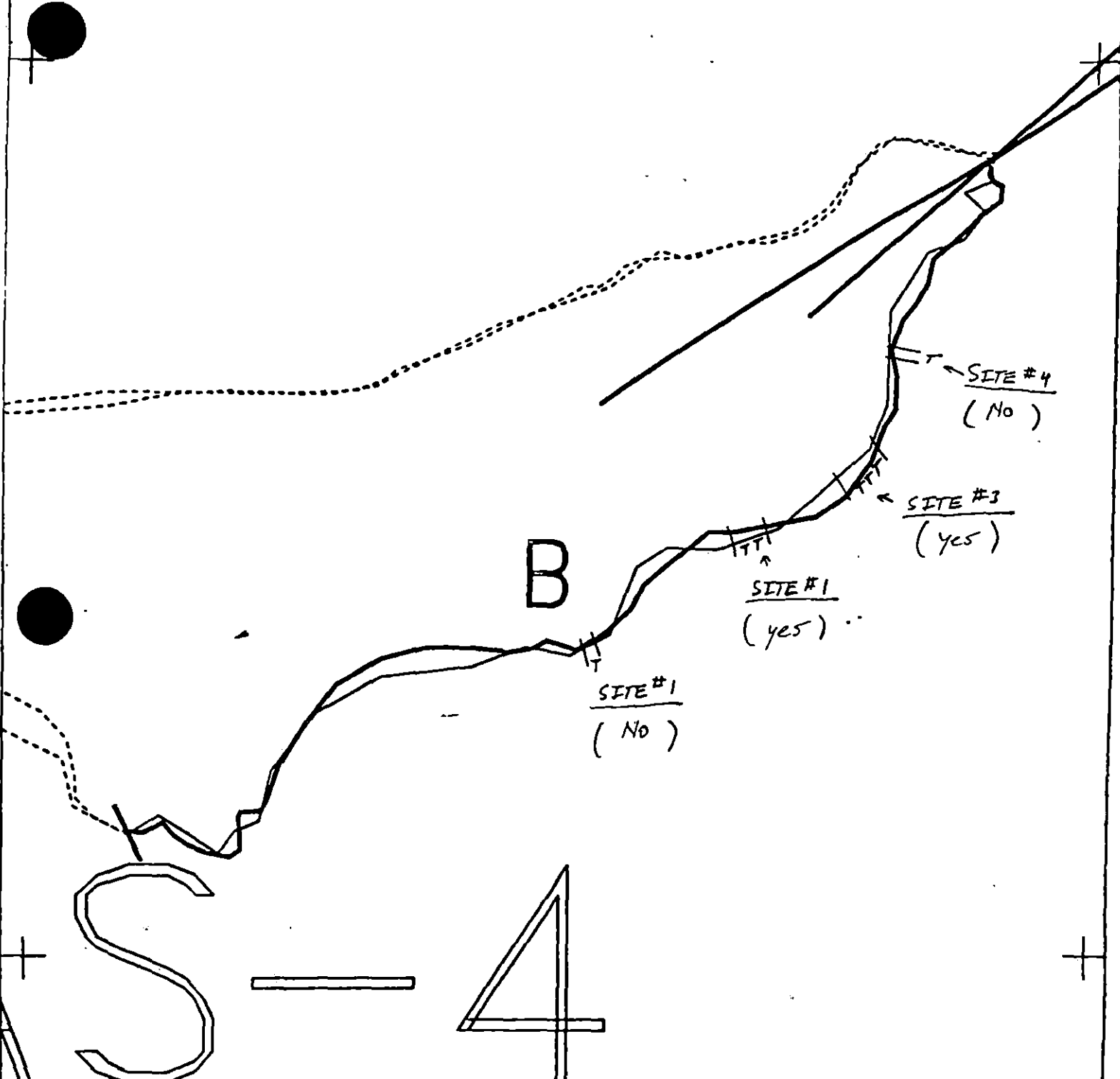


XXXX Wide
 Medium
 --- Narrow
 TTTT Very Light
 0000 No Oil

K10-5 AS-4 B
 ADEC Subsegment Length: 1842m
 METERS
 0 100 300
 AK State Plane Zone 4 1:7030
 410-5ex4b

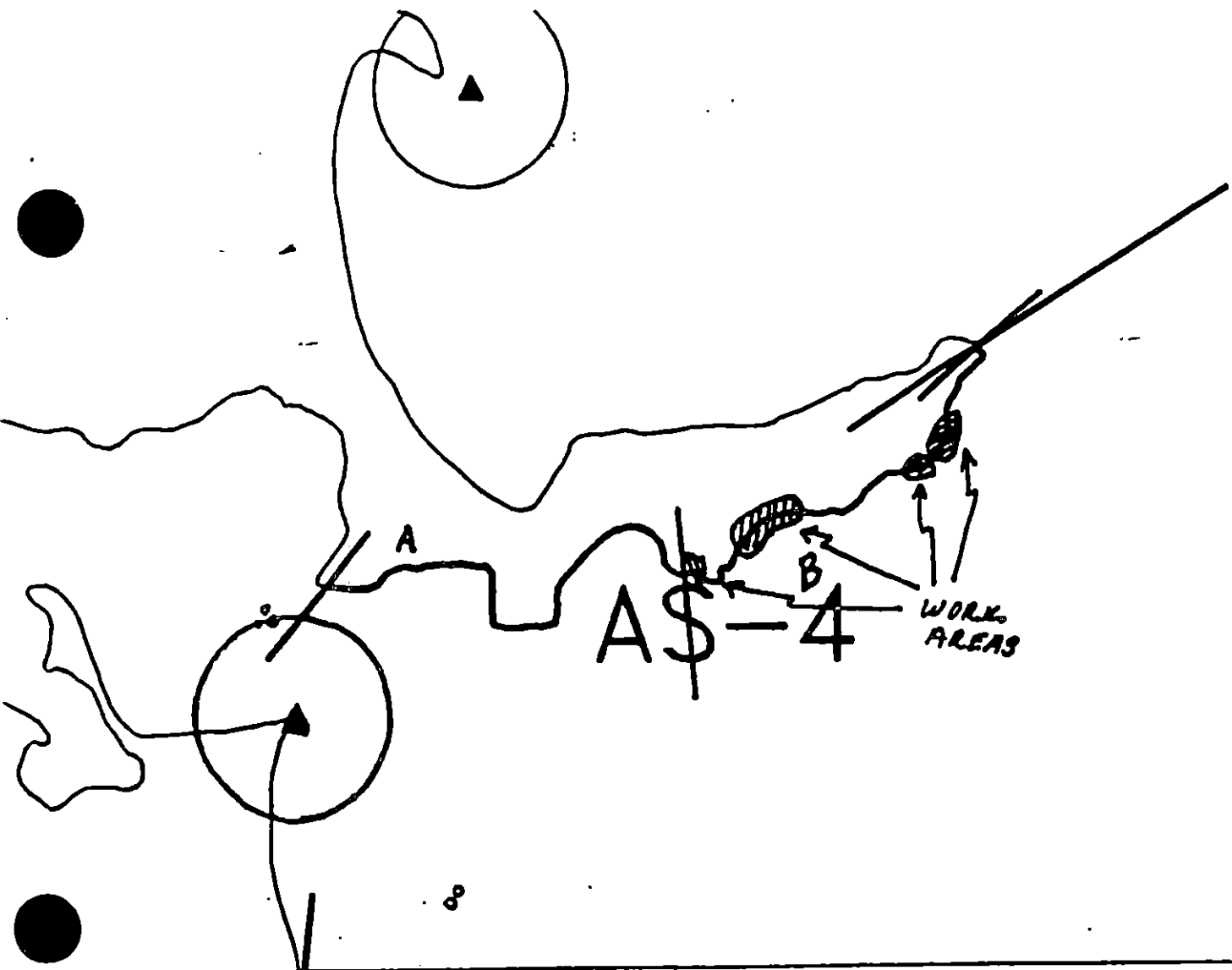


Subdivision Field Map
 Map Key: AKPK10-SAS-4B
 Name: D. Fitzgerald
 Date: 7 August 90
 Date Entered:



● XX Wide //// Medium ---- Narrow TTTT Very Light 0000 No Oil	K10-5 AS-4 B ADEC Subsegment Length: 1842m METERS 0 100 300 AK State Plane Zone 4 1:7830 10-5024b	Subdivision Field Map Map Key: AKPK10-5AS-4B Name: <u>D. F. FERGAL</u> Date: <u>7 August 90</u> Date Entered:
--	--	--





A

ECOLOGY MAP
 SEGMENT K10-5 AS-4
 SUBDIVISION B (2 of 2)

- ★ Seabird Colony
- ▲ Active Eagle Nest

REGION: KODIAK

SEGMENT: ST/K10-07-PB-001

SUBDIVISIONS: A (1 OF 1)

SHORELINE EVALUATION

SEGMENT ST/K10-07-PB-001 SUBDIVISION A (1 OF 1) DATE 5/11/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1A Salmon stream mouth - fry outmigration (4/1 to 7/31)
1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
8AA Sensitive estuary
4QQ State Marine Park National Wildlife Refuge
5T All Bald Eagle nests (3/1 to 6/1)
Active Bald Eagle nests (3/1 to 9/1) - Nearby adjacent segment
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 17 m: V.Light 1681m: No Oil 649 m
Subsurface Oil Observed: Yes _____ No X Maximum Depth _____

RECOMMENDATIONS:

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

COMMENTS: _____

TAG COMMENTS: _____

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

FOSC: _____ DATE: _____

KODIAK ECOLOGICAL CONSTRAINTS

- 1A
1B
- Salmon stream mouth - fry outmigration (4/15 to 7/31)**
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 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, 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 prior to treatment for consultation and/or permit application.
 AGENCY CONTACT PERSON: ADF&G Ken Middleton 267-2299
- 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, 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 **Kotol Bay Hatchery release**
 Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
- 1H **Remote release site**
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, 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 for confirmation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1I **Gill net area**
 1J **Purse seine area**
 Mainland, West side Kodiak, Shuyak & Moser/Olga 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**
 Contact ADF&G for confirmation - dates and locations may vary. 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 Larry Nicholson 424-4791
- 2M **Herring spawning (4/15 to 6/30)**
 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 Larry Nicholson 486-4791
- 2P **Harbor seal and sea lion pupping (5/10 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 (8/1 to 9/15)
 6V Anchorage (8/1 to 9/15)
 6W Forest Service cabins (8/1 to 9/15)
 6X Lodge (8/1 to 9/15)
 6Y Special use destination
- 7Z **Subsistence area: Salmon harvesting (8/1 to 9/30)**
 7HH Finfish harvesting
 7H Deer harvesting (8/1 to 1/7)
 7J Invertebrate harvesting
 7K Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
- 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

SHORELINE OILING SUMMARY

REVISION NO. 04-13-90

OG OG HEYMAN ^{NOAA} USCG S LEHMAN SEGMENT ST/ K10 07 PB 001
 BIO L. SHARMAN LAND REP J. HARDISTER ^{USFWS} SUBDIVISION A (LOFL)
 EXXON F. BYARS ^{NOT PRESENT} ADEC T. ELLSWORTH TIME 11:20 12:20 0835
 TEAM NO. 19 ^{VINT} TIDE LEVEL +6 to +5 FO to -0.5 DATE 5/2/90 5/11/90
 EST. SUBDIVISION LENGTH: 2339 m ☐ Sun ☒ Clouds ☐ Fog ☒ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: E. to W & W to E
 SURFACE SEDIMENTS: R 0 % B 0 % C 5 % P 10 % G 0 % S 85 % M 0 % V 0 %
 SLOPE: Long 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 20 m VL 1694 m NO 625 m

SURFACE OIL

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

PAVEMENT H F S 0 sq. m by 0 cmPATTIES / TARBALLS 30 BAGSNEAR SHORE SHEEN? NO BR RW SL TL

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

Photographs:

Roll No. Frames

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM)	BELOW		OIL / FILM COLOR						PIT ZONE				A N A	SHEEN (Y/N)	↓	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		VO	UC	SP	BP	OT	SL	TL	LR	SU	U	M	L				
1	20					X	0-0		X							X				N	-	-	S/S
2	20					X	0-0		X							X				N	N	18	S/S

COMMENTS This segment extends from the sand spit at the N side of Puale Lagoon eastward approximately 2339 m. It was surveyed on 5/2/90 & 5/11/90 due to miscommunication on segment boundaries. On 5/2/90, the sand spit was surveyed, and 3 Kelp lines were observed with pebble-cobble sized, rounded, flattened TB w/ few >10 cm (PT). The uppermost Kelp line contained most of the TB. On 5/11/90, Only 1, broader Kelp line was observed, which contained TB & PT.

REVIEWED DATE 18 MAY 90

OG OG HERON
SEGMENT STIR 007 PB001

SUBDIVISION A

DATE 5/11/90

CHECKLIST

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

LEGEND

1 Δ
Pit - No Subsurface Oil

2 Δ
Pit - Subsurface Oil

$\square$ CT/C
Continuous Distribution

$\square$ CT/B
Broken Distribution

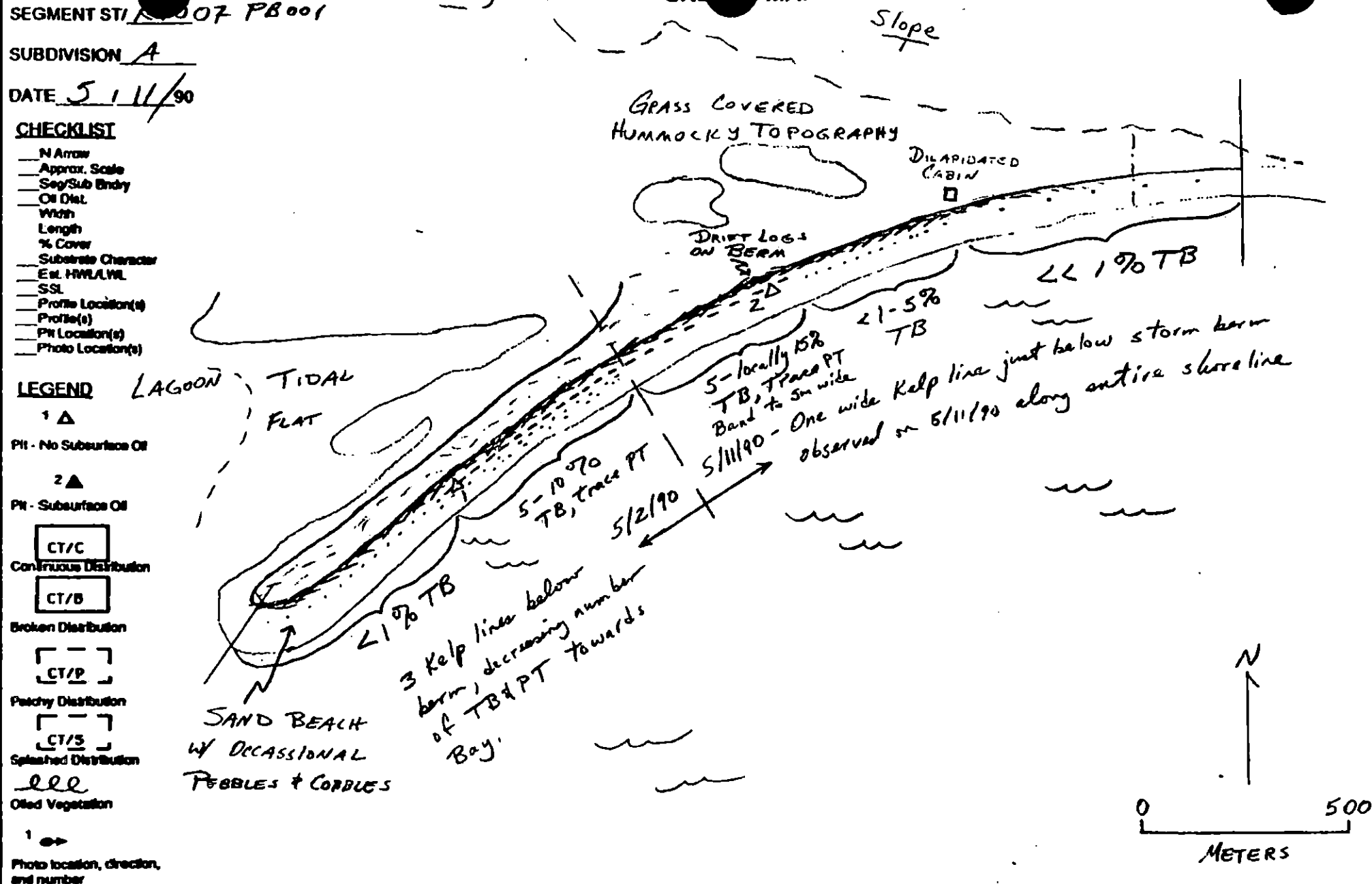
$\square$ CT/P
Patchy Distribution

$\square$ CT/S
Splashed Distribution

$\lll$
Oiled Vegetation

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

SKETCH MAP



Oil Character Length (m): AP 0 PO 0 CV 0 CT 0 ST 0 MS 0 PT 24 TB 160 FL 0 NO 625

REVISION: 98/24/98

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / K10-7 SUBDIVISION: A DATE 5/2/90
PB-1

NOAA

USFWS

NAME STEPHEN LEHMANNSIGNATURE [Signature]☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

Concentrations of mouse patties very widely along beach, however many areas the concentrations are heavy - (relative to other beaches in the zone).
 Manual removal of ~~the~~ in these areas is recommended.

ADEC

NAME Terry EllsworthSIGNATURE Terry Ellsworth☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

Tarballs and patties occur along the length of this segment in variable quantities from 2% to 15%. The higher concentrations occur in localized patches up to 10 m long. Manual pickup of these patties and tarballs is recommended.

LAND MANAGER

NAME JOHN HARDISTERSIGNATURE John P. Hardister

USFWS

☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

Manual removal of Tarballs/mouse patties recommended.

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.

SHORELINE ECOLOGICAL SUMMARY (Page 1 of 4)

REVISION: 03/22/90

Segment ST / K10-7 Subdivision A Date (mo / day / yr) 5/2/90
1120-1220
 Time (24 hr) 0835-0920 Biologist SHARMAN

- (A) Substrate type and % of segment: SUBDIV.
 (1) Bedrock 0 (2) Boulder 0 (3) Cobble 5 (4) Pebble 10 (5) Sand 85 (6) Silt 0
- (B) Overall % cover of biota (% of segment): Dense 0 Moderate 0 Low 100
SUBDIV.
- (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 (ANCELLA, LITTORINA, LIMAEYS)

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

NOT PRESENT

FUCUS

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

NOT PRESENT

Wildlife Observations/ General Comments: 1 immature eagle, 3 horned grebes, 1 red-faced cormorant, golden-crowned sparrows singing from backshore. Where the lagoon connects to the ocean through the spit (W. end of segment), there were ~100 glaucous-winged + mew gulls, ~12 booby ducks, ~25 fulmars, and 10 godwits (probably marbled). 3 pelagic cormorants offshore. Tracks in the supra- to mid-tidal zone sand.

Ecological Considerations:

Please see Eco. Maps. Sensitivities relate primarily to active bald eagle cliff nest immediately to W., at base of W. sand spit guarding lagoon entrance — also the lagoon + meandering stream mouths back behind the spit itself. All these sensitivities are technically on adjacent segments, but the eagle nest in particular should for practical purposes be considered to be within this segment.

Please refer to comments below.

PB-1

Shoreline Ecological Summary (cont.) (Page 2 of 4)

Sherman
5/2/90
5/11/90

General Comments (cont.):

include fox, river otter, caribou, and eagle. One unidentified bird carcass in the supratidal zone (no oil - old, dried, scavenged - probably a gull). This is a wide, straight, low-angle almost pure sand beach, unshaded and reasonably highly exposed, which supports a very depauperate macrobiota. The thin & discontinuous wash line contains Fucus, Alaria, Enteromorpha, ulvae, Sargassum, Halosaccus, Macrocystis, some foliose coralline algal fragments, several foliose red algae (including Pilayella), subtidal worm tubes, sponges, and occasional large wads of Macrocystis. The Halosaccus are usually attached to broken-off barnacle tests. Scattered across the beach are shells of Tridacna, Gastropoda, Sipunculus, Caprellidae, Protodroma, Mytilus, Chione, Cardium, Pododemus, Fusitriton, and Notosaurus, as well as Macoma spp. and Mya spp. (including M. truncata). There are also juvenile Cancer carapaces and rare sand dollars (Echinarachne probably - maybe Dendraster). Given the sediment type, beach character, & exposure, this is a biologically normal and healthy beach.

ECOLOGY MAP

(Map 1 of 2)

PB-1

(Page 3 of 4)

1A Stream mouth (fry outmigration)
4/15 - 7/31.

1B Stream mouth (spawning) 7/15 - 9/10
peak 8/15.

3AA Sensitive estuary.

All these sensitivities refer to
the adjacent segment to the N.
within the lagoon.

Anadromous stream(s)

- Enter head of lagoon,
adjacent segment.

Active bald eagle nest
200' up on cliff, on
adjacent segment.
Not on USFWS Eagle Nest & Seabird Colony map.

XXXX Wide

PB-1-A

/// Medium

--- Narrow

Approx. Segment Length: 2339m

TTTT Very Light

0000 No Oil



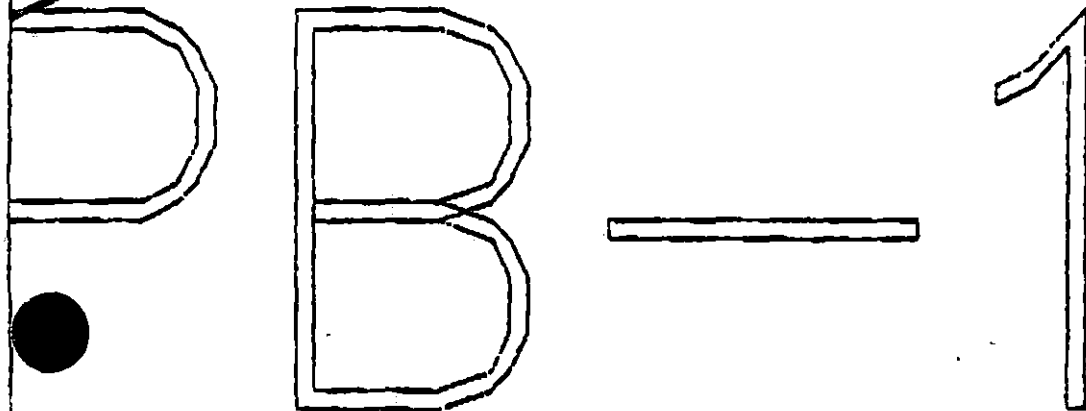
METERS

Map Key: AKP-PB-1a

Name: _____

Date: _____

Data Entered: _____



PB-1

ECOLOGY MAP

(Map 2 of 2)

See Map 1.

PB-2

(Page 4 of 4)

XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

PB-1-A

Approx. Segment Length: 2339m

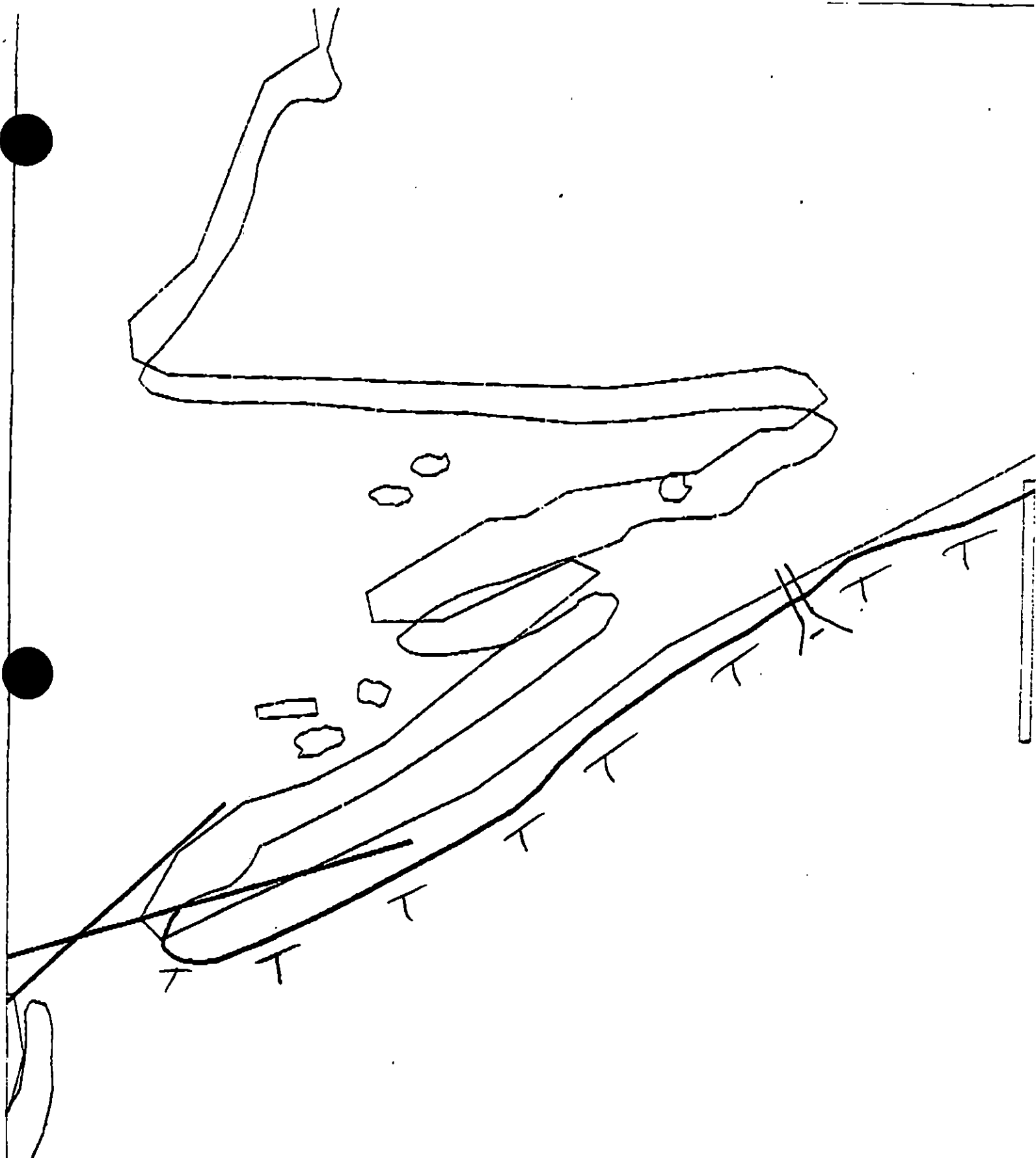
0 100 200 300
METERS

Map Key: AKP-PB-1b

Name: _____

Date: _____

Data Entered: _____



XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

K1007 - PB-1-A

Approx. Segment Length: 2339m

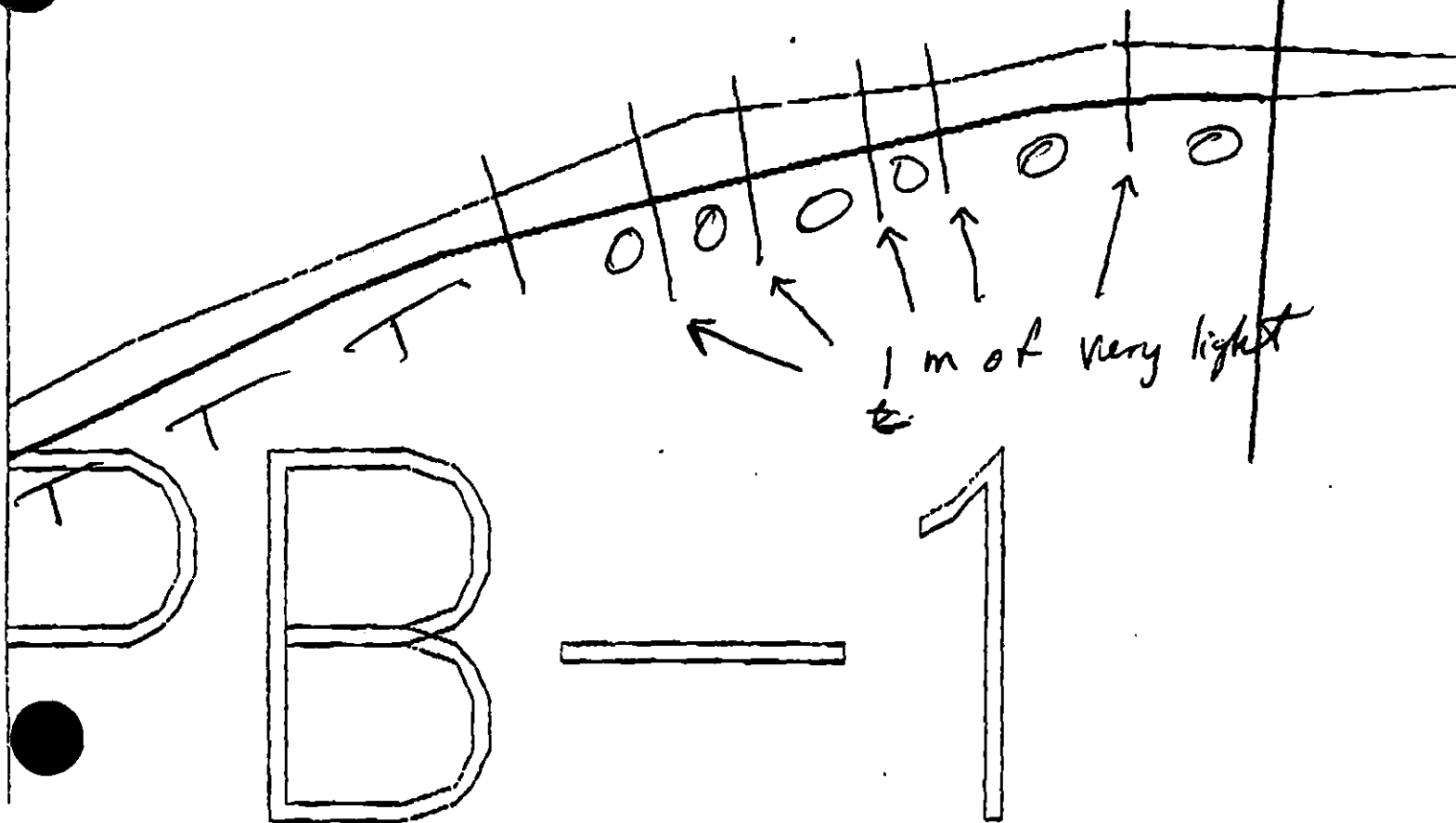
0 100 200 300
METERS



Map Key: AKP-PB-1a

Name: G. HEYMANDate: 5/11/90

Data Entered:



XXXX Wide

/// Medium

---- Narrow

TTTT Very Light

0000 No Oil

K1007 - PB-1-A

Approx. Segment Length: 2339m



Map Key: AKP-PB-1b

Name: G. HEYMAN

Date: 5/11/90

Data Entered:

SHORELINE EVALUATION

SEGMENT ST/K10-07-PB-001 SUBDIVISION A (1 OF 1) DATE 5/11/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1A Salmon stream mouth - fry outmigration (4/1 to 7/31)
1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
8AA Sensitive estuary
4QQ State Marine Park National Wildlife Refuge
5T All Bald Eagle nests (3/1 to 6/1)
Active Bald Eagle nests (3/1 to 9/1) - Nearby adjacent segment
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

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

SHPO SIGNATURE: Rachel San Dan DATE: 6/1/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 17 m: V.Light 1681m: No Oil 649 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS:

TAG COMMENTS: MANUAL PICKUP OF MOUSE PATIES + TARBALLS - WORK
WINDOW RESTRICTED DUE TO ACTIVE BALD EAGLE NEST
(3/1 -> 9/1) - CONTACT USFHW

TAG APPROVAL DATE: 5/29/90
ADEC Art Weimer
EXXON Andy Tetz
NOAA Bill Wescott

FOSC: DATE: 6-8-90

OG HEYMAN

SEGMENT ST/ K1007 PB001

SUBDIVISION A

DATE 5/11/90

CHECKLIST

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

LEGEND

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

Continuous Distribution
- CT/B

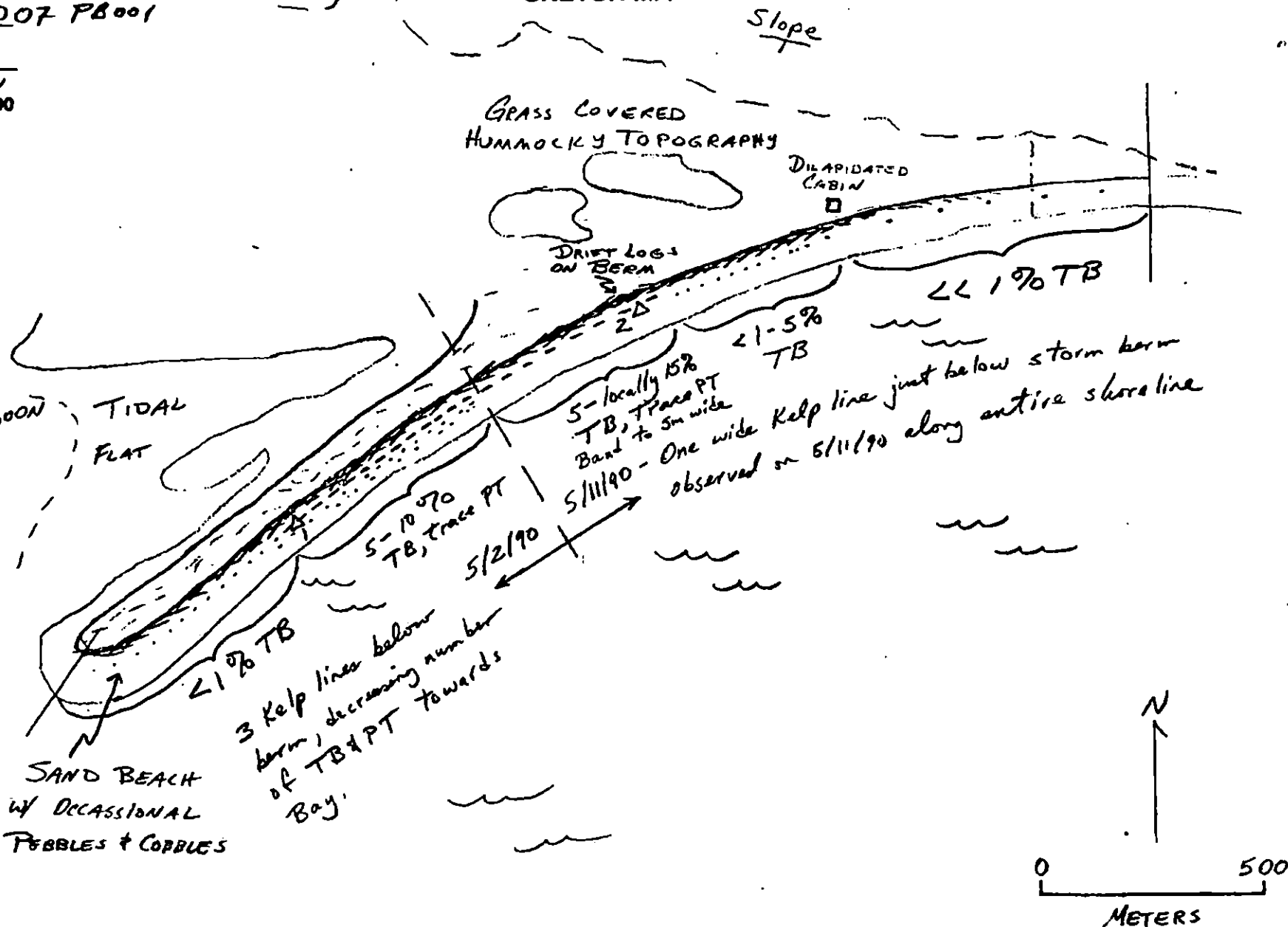
Broken Distribution
- CT/P

Pachy Distribution
- CT/S

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

LAGOON
TIDAL FLAT
SAND BEACH
w/ OCCASSIONAL
PEBBLES + CORBLES

SKETCH MAP



Oil Character Length (m): AP 0 PO 0 CV 0 CT 0 ST 0 MS 0 PT 24 TB 160 FL 0 NO 625

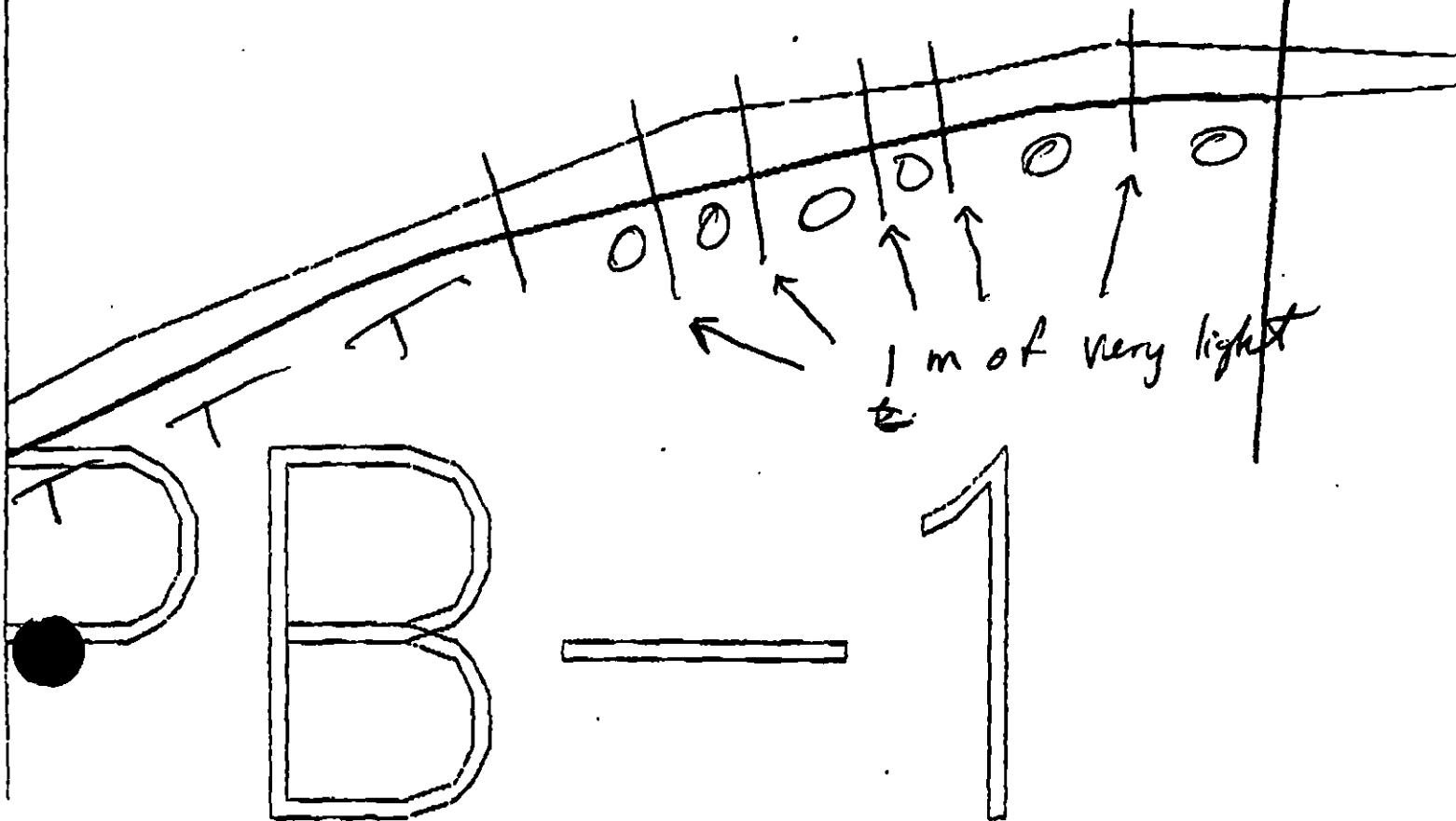
REVISION 28/249

MAY-17-1990 15:38 FROM EAXON KODIAK

TO

15843771

P.09



XXXX Wide

//// Medium

--- Narrow

TTTT

K1007 - PB-1-A

Approx. Segment Length: 2339m

Map Key: AKP-PB-1b

Name: G. HEYMAN

ECOLOGY MAP

(Map 1 of 2)

PB-1

(Page 3 of 4)

1A Stream mouth (fry outmigration)
4/15 - 7/31.

1B Stream mouth (spawning) 7/15 - 9/10
peak 8/15.

3AA Sensitive estuary.

All these sensitivities refer to
the adjacent segment to the N.
within the lagoon.

Anadromous stream(s)

- enter head of lagoon,
adjacent segment.

Active bald eagle nest
200' up on cliff, on
adjacent segment.
Not on USFWS Eagle Nest & Seabird Colony map.

XXX Wide
//// Medium
--- Narrow
TTTT Very light

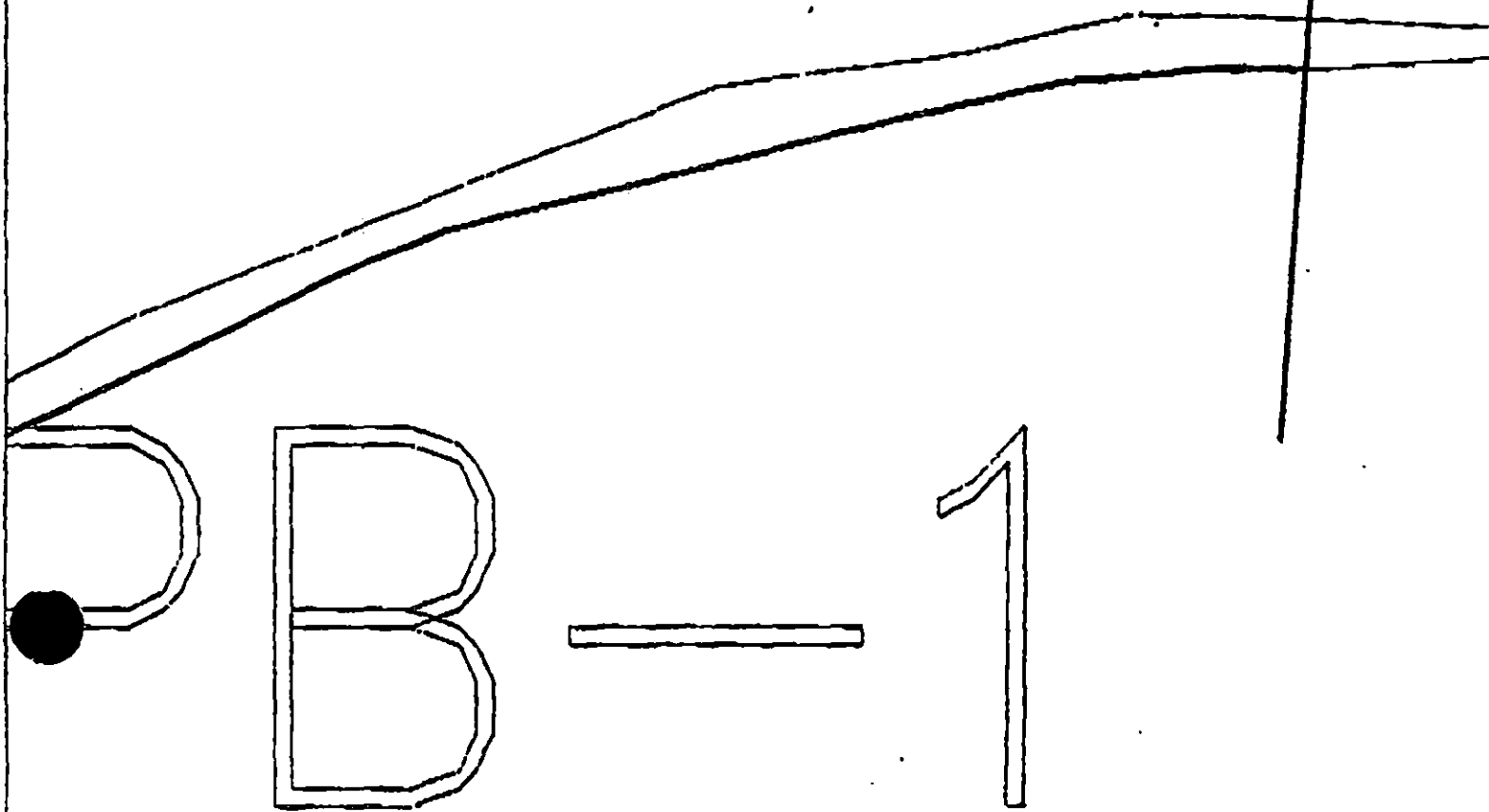
PB-1-A

Approx. Segment Length: 2339m

Map Key: AKP-PB-1a

Name: _____

Date: _____



ECOLOGY MAP

(Map 2 of 2)

See Map 1.

PB-1

(Page 4 of 4)

XXXX Wide

//// Medium

---- Narrow

PB-1-A

Approx. Segment Length: 2339m

Map Key: AKP-PB-1b

Name: _____

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K10-07-PB-001 SUBDIVISION A (1 of 1)

WORK WINDOW

Manual Pickup

OPEN

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A,1B Salmon Stream	ADF&G catalogued anadromous stream (262-70-10025) is in Subdivision A. No constraint to manual pickup.
5T Bald Eagle Nest	NO CONSTRAINT. Authorized per memo dated 6/10/90 from Mary Portner/USFWS to Rex Coulter/Exxon.

OTHER ECOLOGICAL CONSIDERATIONS

Avoid any unnecessary disturbance or damage to uncolled biota and substrate. Sensitive estuary.

SEE ANADROMOUS FISH STREAM EVALUATION ADDENDUM (STREAM NO. 262-70-10025)
FOR ADDITIONAL CONSTRAINT INFORMATION

FOSC

Date

Prepared by

Date

K10-7

STREAM #
262-70-10025

PB-14

PB-1

PB-13

Work Areas

PB-12

TREATMENT



Exxon Company, USA



ECOLOGY MAP
SEGMENT K10-7 PB-1
SUBDIVISION A (1 of 1)
METERS

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

SHORELINE EVALUATION

SEGMENT ST/K10-07-PB-001 SUBDIVISION A (1 OF 1) DATE 5/11/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1A Salmon stream mouth - fry outmigration (4/1 to 7/31)
1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
8AA Sensitive estuary
4QQ State Marine Park National Wildlife Refuge
5T All Bald Eagle nests (3/1 to 6/1)
Active Bald Eagle nests (3/1 to 9/1) - Nearby adjacent segment
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

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

SHPO SIGNATURE: Rachel Jan Doe DATE: 6/1/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 17 m: V.Light 1681m: No Oil 649 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS: SEE CONSTRAINTS ADDENDUM dated 6/15/90

TAG COMMENTS: MANUAL PICKUP OF MOYSE PARTIES + TARBALLS - WORK
WINDOW RESTRICTED DUE TO ACTIVE BALD EAGLE NEST
(3/1 -> 9/1) - CONTACT USF&W

TAG APPROVAL DATE: 5/29/90
ADEC Art Weimer
EXXON AMY TETZ
NOAA Paul Wescott
USCG G.A. RITTER

FOSC: [Signature] DATE: 6-8-90

1991 MAYSAP EVALUATION

SEGMENT: K1007PB001 SUB: A REGION: KOD SURVEY DATE: 5/17/91

ENVIRONMENTAL SENSITIVITIES:

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

Ecological/Constraints (see page two for details) Anadromous stream

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO Signature: _____ Date: _____

RECOMMENDATIONS:

INITIAL

TAG

FOSC

TREATMENT REQUIRED (Y or N)

N

Manual Pickup (Check as Req.)

Spot Washing

Bio-Customblen Only

Bio-Inipol/Customblen

Other

Other

COMMENTS:

INITIAL: _____

TAG: _____

FOSC: _____

TAG APPROVAL DATE: _____

FOSC APPROVAL DATE: _____

ADEC _____

FOSC _____

EXXON _____

USCG _____

NOAA _____

**ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES**

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

MATSOP FIELD SHORELINE COMMENT SHEET

TEAM NO. 6-Helo SEGMENT PB-1 SUBDIVISION A DATE 17 May 91

ADEC

NAME J. BARNHART ADEC

SIGNATURE Jeffrey Barnhart
☒ NTR

Oil in the form of SOR-TP was located and removed (4 bags) over approx 1000 meters of the beach. Subsurface oil believed to be located on the beach face was not found. Shifting sands cover and periodically uncover mousse/TB. TB's will likely be found on this beach for some time. Residual SOR-TB Trace (LL1%) remain on the beach.

EXXON

NAME R. Coulter

SIGNATURE R. Coulter
☒ NTR

All RECOVERABLE TARBALLS (CONSISTING PRIMARILY OF SAND) WERE REMOVED. NO FURTHER ATTENTION NEEDED.

LANDMANAGER

NAME J. HANDISTER

OF USFWS

SIGNATURE J. Handister
5/17/91
☒ NTR

This beach may contain further oil that would be uncovered at a future time. No one really knows. It would be reasonable to request further survey for an unknown quantity that may not be present. At any rate, the remaining oily material is breaking down as a result of the harsh environment. No further treatment is recommended.

USCG/NOAA

NAME CWO SPURR / G. SHIGENKA

SIGNATURE R. Spurr / G. Shigenka
☒ NTR

Existing Mousse & Tarballs removed by VECO workers at time of survey

SEGMENT CONSISTED OF A WIDE AND HIGHLY EXPOSED SAND BEACH BORDERED AT ITS SOUTH END BY A SHALLOW STREAM. A BROAD SUPRATIDAL ZONE AREA WAS LITTERED WITH DRIFTWOOD LOGS. THE PREVIOUS HIGH TIDE LINE ON THE BEACH WAS MARKED BY ALGAL FLOES THAT HAD WASHED UP AND PILED UP. A FAIR NUMBER OF SEABIRD CARCASSES WERE OBSERVED IN THE UPPER AND MIDDLE, BUT MANY SHOWED SIGNS OF PEEVATION (BY RAPTORS), I.E. BREAST AND ENTAILS TORN OUT. TARBALLS AND TAIL PATTIES WERE FOUND (CONSISTENTLY) ALONG THE NORTHEASTERN 2/3 OF THE SEGMENT BETWEEN THE MITZ AND CITZ. ALL TARBALLS/PATTIES FOUND WERE PICKED UP BY THE SURVEY TEAM. PITS WERE dug ALONG THE SEGMENT IN THE MITZ BUT NO OIL RESIDUES WERE FOUND. THIS BEACH IS OBVIOUSLY A HIGH ENERGY AND DYNAMIC ENVIRONMENT, AND MORE TARBALLS WILL BE EXPOSED AS THE SUBSTRATE SHIFTS DUE TO WIND AND WAVE EXPOSURE. ANY ATTEMPTS TO FURTHER RECOVER MATERIAL WOULD BE DIFFICULT BECAUSE OF THE CONSTANTLY CHANGING NATURE OF THE SUBSTRATE.

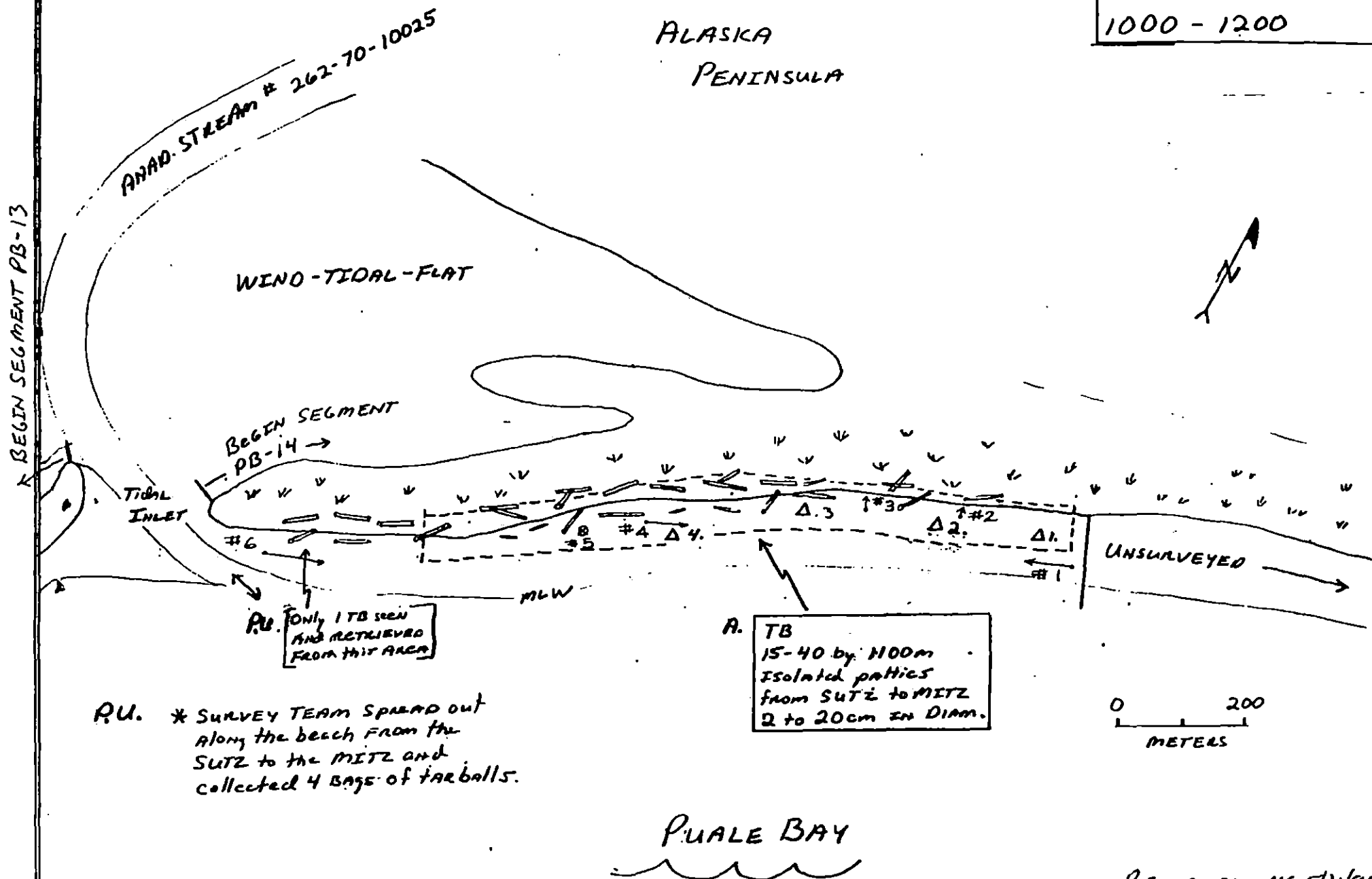
PAGE 1 OF 1

Reviewed: MC 5/21/91
Reviewed 5.20 Q

V V VEGETATED
 DUNES
 // DRIFTWOOD
 → PHOTO SITES

PHOTO SITES, PB-1A
 ROLL 6-16, FRAMES 100

Sketch (06)
 PB-1-A
 D. FITZGERALD
 17 MAY 1991
 1000 - 1200



R.U. * SURVEY TEAM SPREAD OUT
 ALONG THE BEACH FROM THE
 SUTZ TO THE MITZ AND
 COLLECTED 4 BAGS OF TARBALLS.

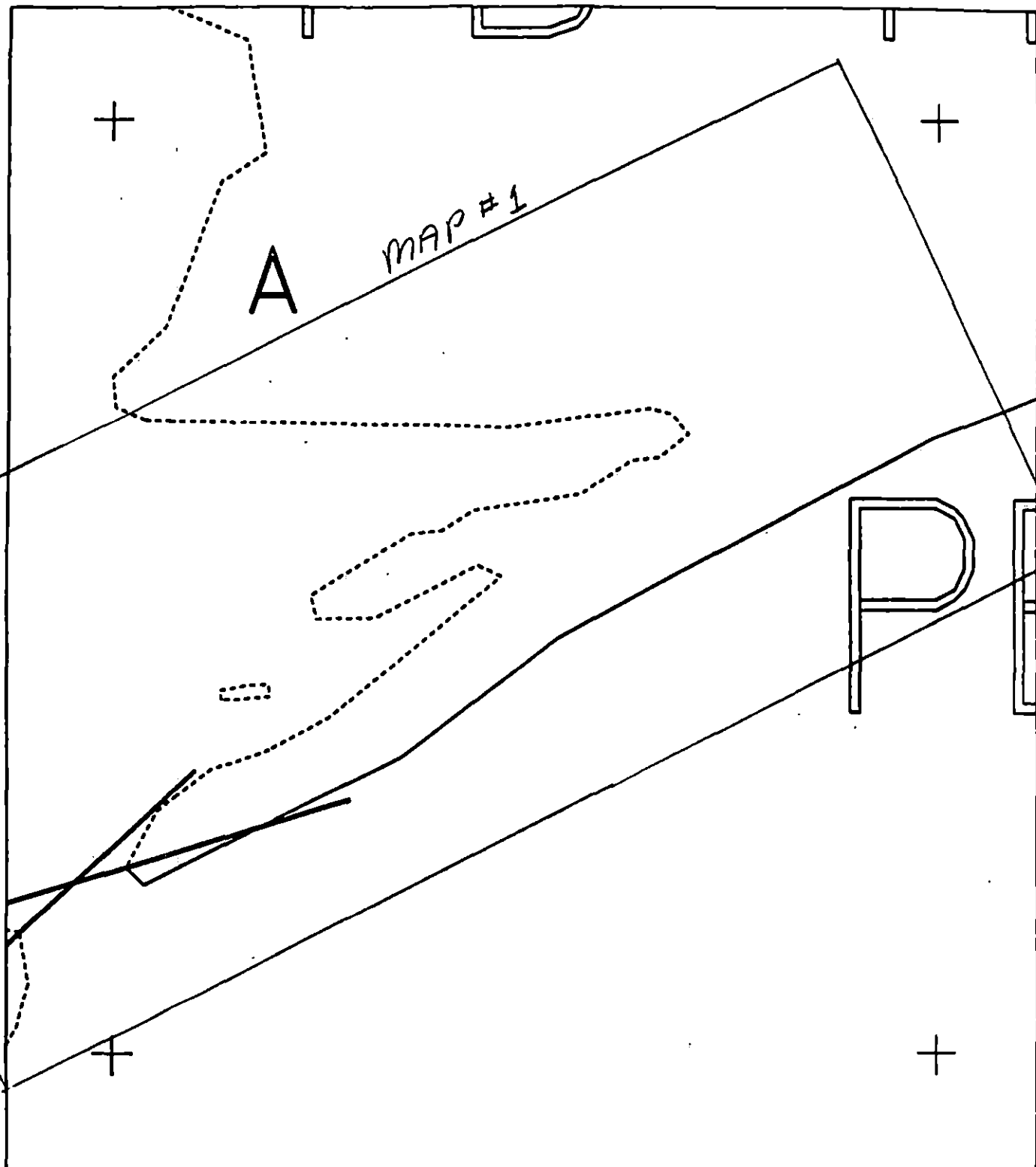
A. TB
 15-40 by 1100m
 Isolated patches
 from SUTZ to MITZ
 2 to 20cm in DIAM.

0 200
 METERS

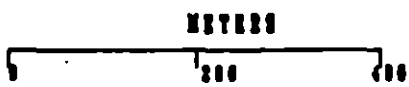
PUALE BAY

REVIEWED: MC 5/24/91
 6.20 (4)

Reviewed by: 5/24/91 mc
reviewed 5.20 gy



K1007 PB001 A



AK State Plane Zone 8
91007pb001ac-1.1

Subdivision Field Map

Map Key: COAR1007PB001A

Name: O. Fitzgerald

Date: 17 MAY 1991

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 6 HeLo

DATE May 17 1991

SEGMENT # PB-01

TIDAL HEIGHT (Range) 0ft - 3ft (0941-1200)

SUBDIVISION A

BIOLOGIST H. Davis

SEA STATE: 3-4 ft

WIND SPEED/DIRECTION 30-35 KT (40-50 knots) NE

PHOTOGRAPHS: ROLL # 6-16

FRAME # 1-6

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

A. This beach had very little intertidal biota. The storm wreck had a variety of plants and animals from several substrate types (sandy beach, mud, and rocky intertidal) Littorina, Fusitriton, Neptunea (gastropods) Clinocardium, Prototheca, Saxidomus, Tresus, Siligera, Macoma, Mya (Bivalves) Cryptolithodes, Telmessus, Cancer (crabs) Halichondria, Suberites, Isodictya (sponges) Laminaria, Nereocystis, Ulva, Lessoniopsis, Halosaccion, pilota, and ulva. There were egg masses washed up. Dune grass is just beginning its spring growth.

Kittiwakes (>10) (4 dead) * Glaucous-winged Gulls (2) Sooty Shearwater (1) Sparrows (3)

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	0	-	0
Seabirds	1	1	
Waterfowl	0	-	
Gulls/Kittiwakes	2	>16	
Shorebirds	0	-	
Corvids	0	-	
Other Birds <i>sparrows</i>	1	3	

* Victims of Natural predation. 2 were very fresh kills.

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters	0	Fox Tracks	-
Pinnipeds (specify)	0	River Otter tracks	-
Bales (specify)	0		

Shoreline subdivision map showing important biological features attached.

Ru'd 12/20/91 DM

V V Vegetated
 Dunes
 Driftwood
 Photo Sites

Bio. Map
 H. Davis

Sketch (det)
 PB-1-A
~~O. Fitzgerald~~
 17 MAY 1991
 1000 - 1200

BEGIN SEGMENT PB-13

ALASKA
 PENINSULA

ANAD. STREAM # 262-70-10025

WIND-TIDAL-FLAT

BEGIN SEGMENT
 PB-14 →

TIDAL
 INLET

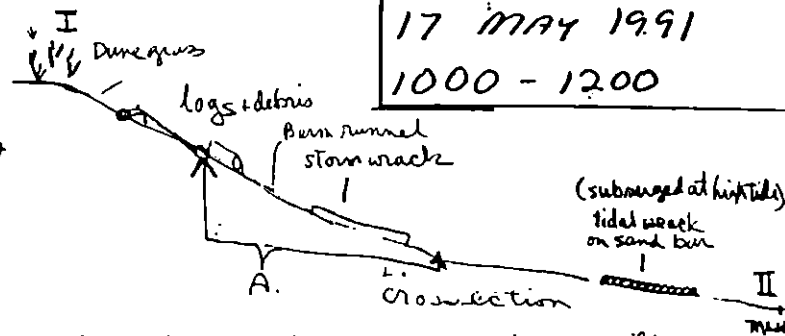
P.U. ONLY 1 TB SEEN
 AND RETRIEVED
 FROM THIS AREA

P.U. * SURVEY TEAM SPREAD OUT
 ALONG THE BEACH FROM THE
 SUTZ TO THE MITZ AND
 COLLECTED 4 BAGS OF TARBALLS.

A. TB
 15-40 by 100m
 ISOLATED PATCHES
 FROM SUTZ TO MITZ
 2 to 20cm in DIAM.

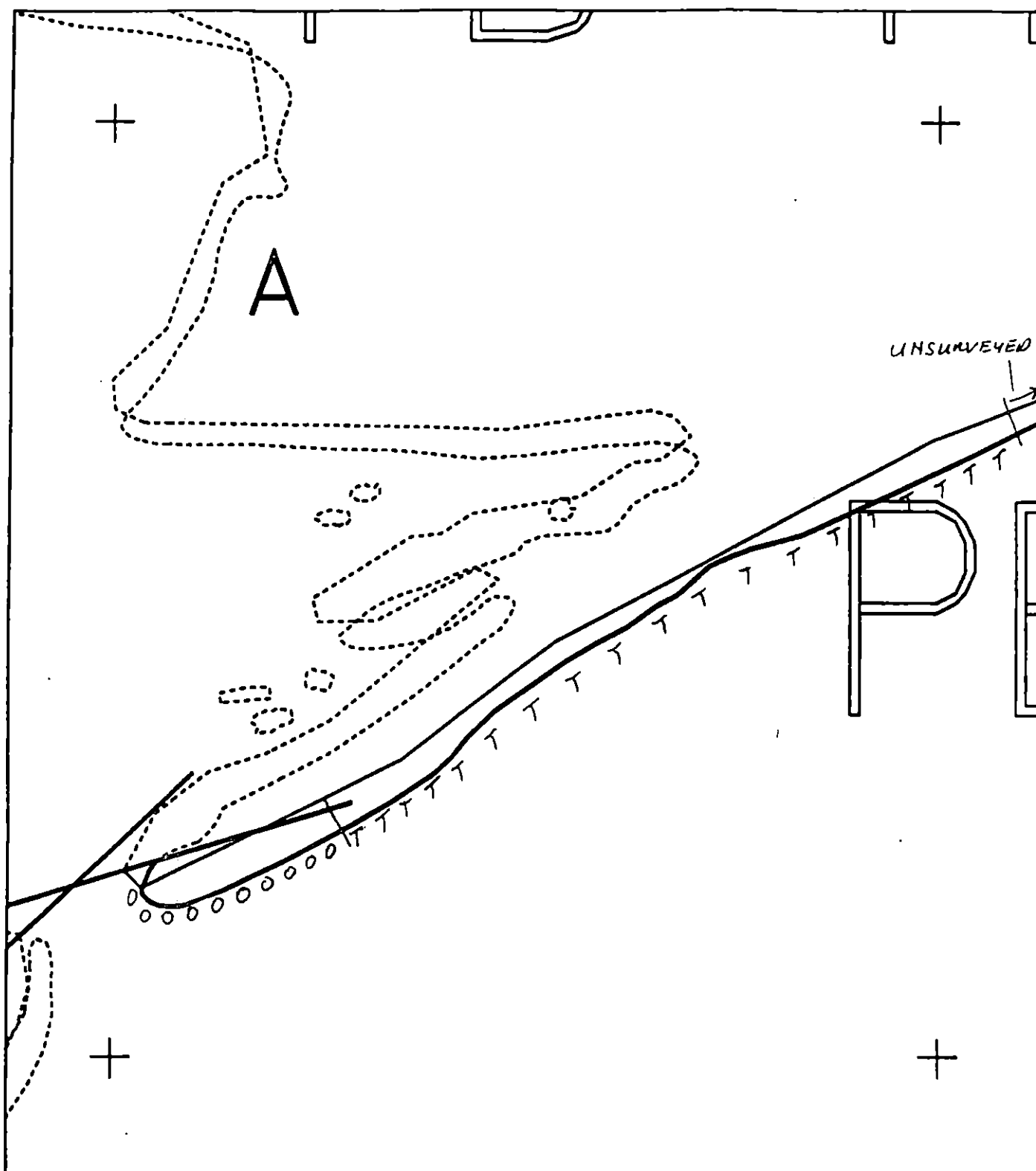
0 200
 METERS

PUALE BAY



A. This is wide, high-energy sand beach with a very sparse biota. There are two separate wracks. The lower one (from a single tide) was mostly laminaria, halosaccion, and other red algae. The upper one was much thicker and made of nereocystis, laminaria and red algae. Scattered tar patches were found from below the dune grass level at the edge of the area with logs down to just below the storm wrack line. (4) dead kittiwakes were up among drift logs.

UNSURVEYED



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

K1007 PB001 A
 ADEC Subsegment Length: 2347m
 METERS

0 200 400

AK State Plane Zone 4
 g1007pb001a- . . .



Subdivision Field Map
 Map Key: 00AK1007PB001Aa
 Name: D Fitzgerald
 Date: 17 MAY 1991
 Date Entered:

Reviewed: 5/21/91 me
 reviewed 5.20 94

SEGMENT: K1007PB001 SUB: A REGION: KOD SURVEY DATE: 5/17/91

ENVIRONMENTAL SENSITIVITIES:

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

Ecological/Constraints (see page two for details) Anadromous stream

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO Signature: Lawrence A. Smith Date: 5/30/91

RECOMMENDATIONS:

INITIAL

TAG

FOSC

TREATMENT REQUIRED (Y or N)

N

2

K

Manual Pickup (Check as Req.)

Spot Washing

Bio-Customblen Only

Bio-Inipol/Customblen

Other

Other

COMMENTS :

INITIAL:

TAG:

FOSC:

TAG APPROVAL DATE: MAY 29 1999

FOSC APPROVAL DATE: 6/3/91

ADEC

FOSC

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

EXXON

USCG

NOAA

**ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES**

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

MATSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 6-Helo SEGMENT PB-1 SUBDIVISION A DATE 17 May 91

ADEC

NAME J. BARNHART ADEC

SIGNATURE

Jeffrey Barnhart

- ☒ NTR Oil in the form of SOR-TP was located and removed (4 bags) over approx 1000 meters of the beach. Subsurface oil believed to be located on the beach face was not found. Shifting sands cover and periodically uncover mousse/TB. TB's will likely be found on this beach for some time. Residual SOR-TB Trace (LLL 1%) remain on the beach.

EXXON

NAME R. Coulter

SIGNATURE

Ray R. Coulter

- ☒ NTR All recoverable tarballs (consisting primarily of sand) were removed. No further attention needed.

LANDMANAGER

NAME J. HARDISTEROF USFWS

SIGNATURE

John P. Hardister 5/17/91

- ☒ NTR This beach may contain further oil that would be uncovered at a future time. No one really knows. It would be reasonable to request further survey for an unknown quantity that may not be present. At any rate, the remaining oily material is breaking down as a result of the harsh environment. No further treatment is recommended.

USCG/NOAA

NAME CWO SPURN / G. SHIGENKA

SIGNATURE

R. Spurn / Gary Shigenka

- ☒ NTR Existing Mousse & tarballs removed by VECO workers at time of survey

SEGMENT CONSISTED OF A WIDE AND HIGHLY EXPOSED SAND BEACH BORDERED AT ITS SOUTH END BY A SHALLOW STREAM. A BROAD SUPRATIDAL ZONE AREA WAS LITTERED WITH DRIFTWOOD LOGS. THE PREVIOUS HIGH TIDE LINE ON THE BEACH WAS MARKED BY ALGAL FLOES THAT HAD WASHED UP AND PILED UP. A FAIR NUMBER OF SEABIRD CARCASSES WERE OBSERVED IN THE UPPER AND MIDDLE, BUT MANY SHOWED SIGNS OF PREDATION (BY RAPTORS), I.E. BREAST AND ENTAILS TORN OUT. TARBALLS AND TAP PATTIES WERE FOUND CONSISTENTLY ALONG THE NORTHEASTERN 2/3 OF THE SEGMENT BETWEEN THE MITZ AND CITZ. ALL TAR BALLS/PATTIES FOUND WERE PICKED UP BY THE SURVEY TEAM. PITS WERE DUG ALONG THE SEGMENT IN THE MITZ BUT NO OIL RESIDUES WERE FOUND. THIS BEACH IS OBVIOUSLY A HIGH ENERGY AND DYNAMIC ENVIRONMENT, AND MORE TAR PATTIES WILL BE EXPOSED AS THE SUBSTRATE SHIFTS DUE TO WIND AND WAVE EXPOSURE. ANY ATTEMPTS TO FURTHER RECOVER MATERIAL WOULD BE DIFFICULT BECAUSE OF THE CONSTANTLY CHANGING NATURE OF THE SUBSTRATE.

PAGE 1 OF 1

Reviewed: MC 5/21/91
Reviewed 5.20 AM

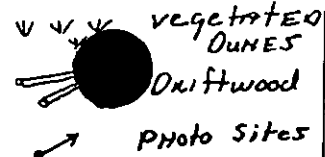
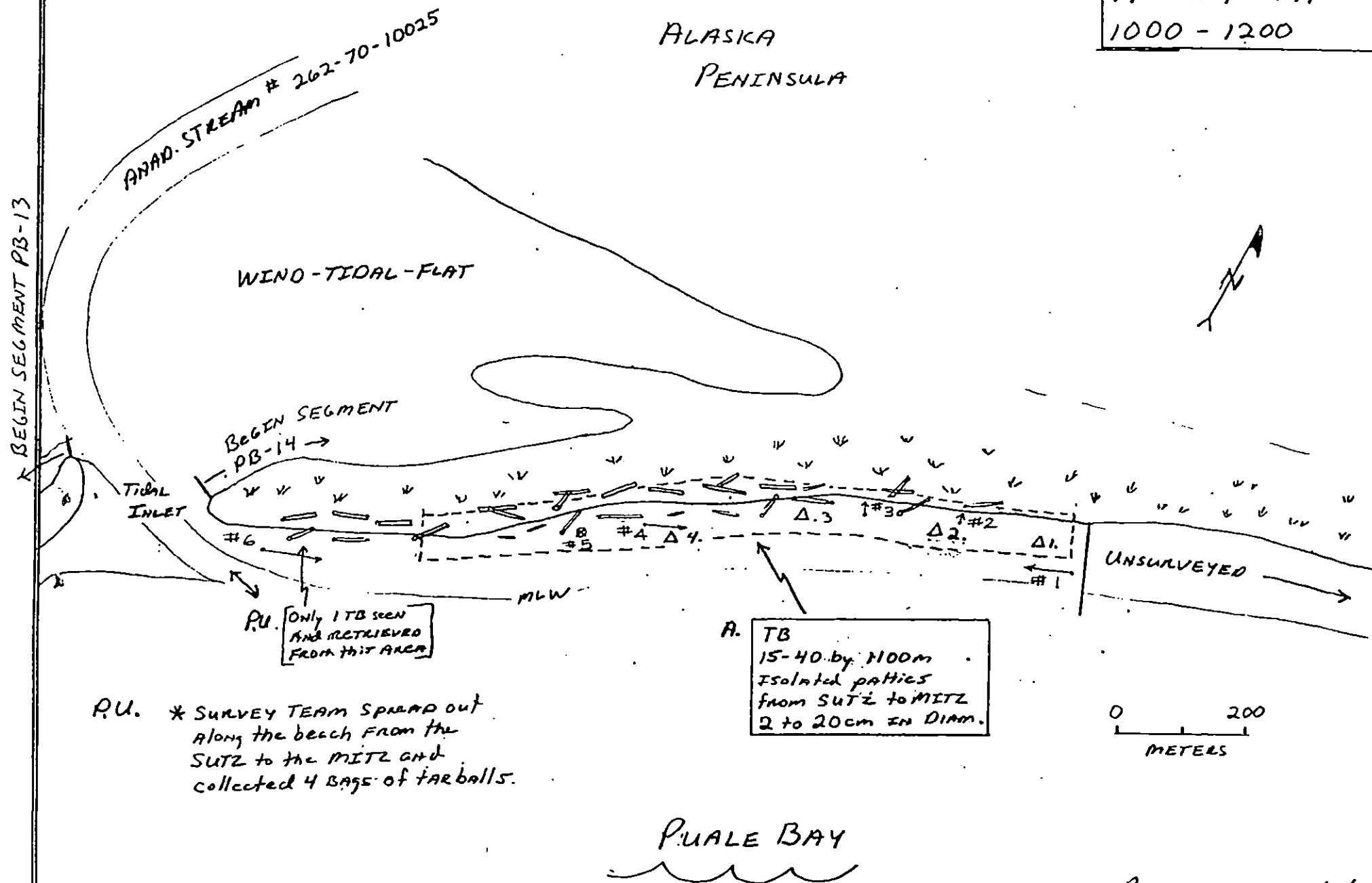


PHOTO SITES, PB-1A
ROLL 6-16, FRAMES

Sketch Map (06)
PB-1-11
D. FITZGERALD
17 MAY 1991
1000 - 1200



REVIEWER: MC 5/21/91
reviewed 5.20



PB-1-17
D. FITZGERALD
17 MAY 1991
1000 - 1200

ALASKA PENINSULA

ANAD. STREAM # 262-70-10025

WIND-TIDAL-FLAT

BEGIN SEGMENT
PB-14 →

TIDAL
INLET

P.U. ONLY 1 TB SEEN
AND RETRIEVED
FROM THIS AREA

MLW

A. TB
15-40 by 1100m, « No
Isolated patches
from SUTZ to MITZ
2 to 20cm in DIAM.

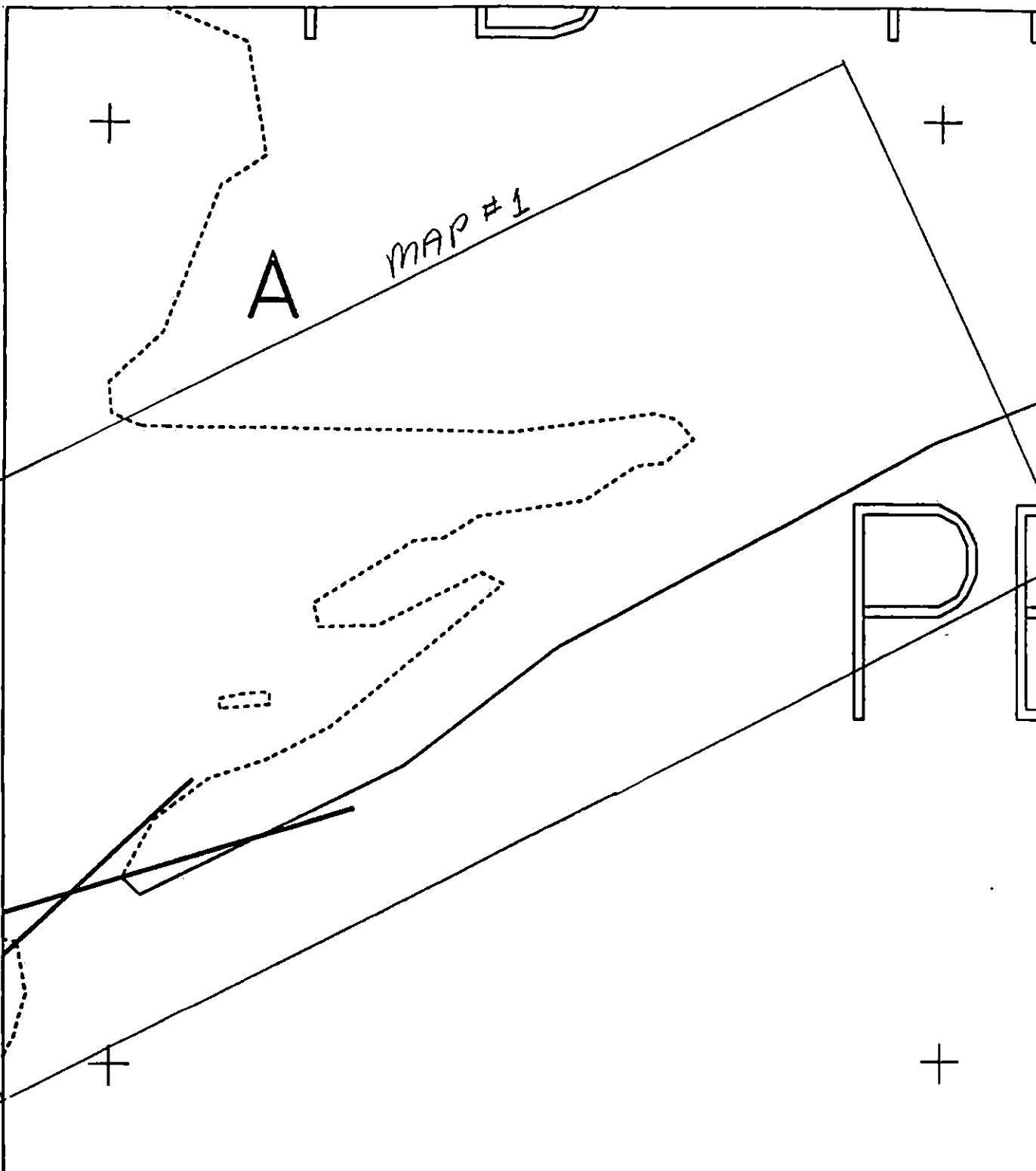
UNSURVEYED

0 200
METERS

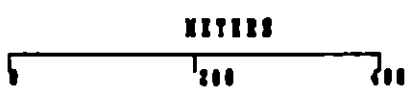
P.U. * SURVEY TEAM SPREAD OUT
ALONG THE BEACH FROM THE
SUTZ TO THE MITZ AND
COLLECTED 4 BAGS OF TARBALLS.

PUALE BAY

Reviewed: 5/21/91 MC
reviewed 5-20 91



K1007 PB001 A



AK State Plane Zone 4
G1007PB001A-2

Subdivision Field Map
Map Key: COAK1007PB001A
Name: O. Fitzgerald
Date: 17 MAY 1991

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 6 Helo

DATE May 17 1991

SEGMENT # PB-01

TIDAL HEIGHT (Range) 0 ft - 3 ft (0941-1200)

SUBDIVISION A

BIOLOGIST H. Davis

SEA STATE: 3-4 ft

WIND SPEED/DIRECTION 30-35 KT (40-50 knots) NE

PHOTOGRAPHS: ROLL # 6-16

FRAME # 1-6

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

A. This beach had very little intertidal biota. The storm' wash had a variety of plants and animals from several substrate types (sandy beach, mud, and rocky intertidal): Littorina, Fusitriton, Neptunea (gastropods), Clinocardium, Prototheca, Saxidomus, Tresus, Siligina, masoma, mya (Bivalves), Cryptolithodes, Telesmus, Cancer (crabs), Haliotis, suberites, Isodictya (sponges), Laminaria, Nereocystis, Ulva, Lessonia, Halosaccus, pilotes, and ulva. There were egg masses washed up. Dune grass is just beginning its spring growth.

Kittiwakes (>10) (4 dead)* Glaucous-winged Gulls (2) sooty Shearwater (1) Sparrows (3)

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

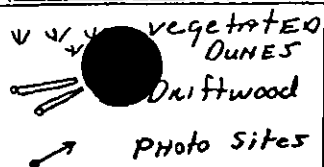
BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	0	-	0
Seabirds	1	1	
Waterfowl	0	-	
Gulls/Kittiwakes	2	>16	
Shorebirds	0	-	
Corvids	0	-	
Other Birds <i>sparrows</i>	1	3	

* Victims of Natural predation. 2 were very fresh kills.

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters	0	Fox Tracks	-
Pinnipeds (specify)	0	River Otter tracks	-
les (specify)	0		

Shoreline subdivision map showing important biological features attached.

Russ' Kibala, NM



Bio. Map
H. Davis

Sketch Map (1991)

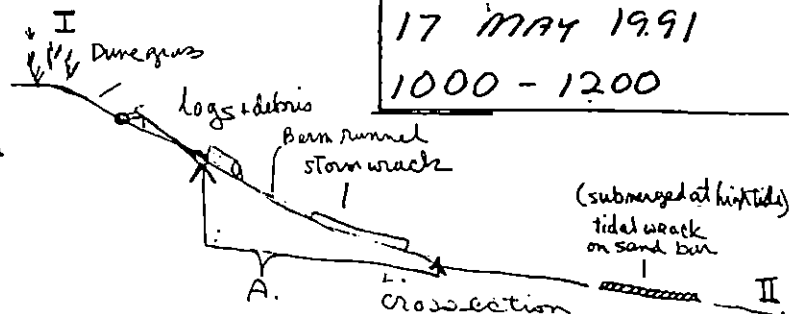
PB-1-17

~~0.5.16.1991~~

17 MAY 1991

1000 - 1200

ALASKA
PENINSULA



A. This is wide, high energy sand beach with a very sparse biota. There are two separate wracks. The lower one (from a single tide) was mostly laminaria, halosaccus, and other red algae. The upper one was much thicker and made of Nereocystis, laminaria and red algae. Scattered Tar patches were found from below the dune grass level at the edge of the area with logs down to just below the storm wrack line. (4) dead Kittiwakes were up among drift logs.

K BEGIN SEGMENT PB-13

ANAD. STREAM # 262-70-10025

WIND-TIDAL-FLAT

BEGIN SEGMENT
PB-14 →

Tidal Inlet

P.U.

ONLY 1 TB SEEN
AND RETRIEVED
FROM THIS AREA

MLW

A.

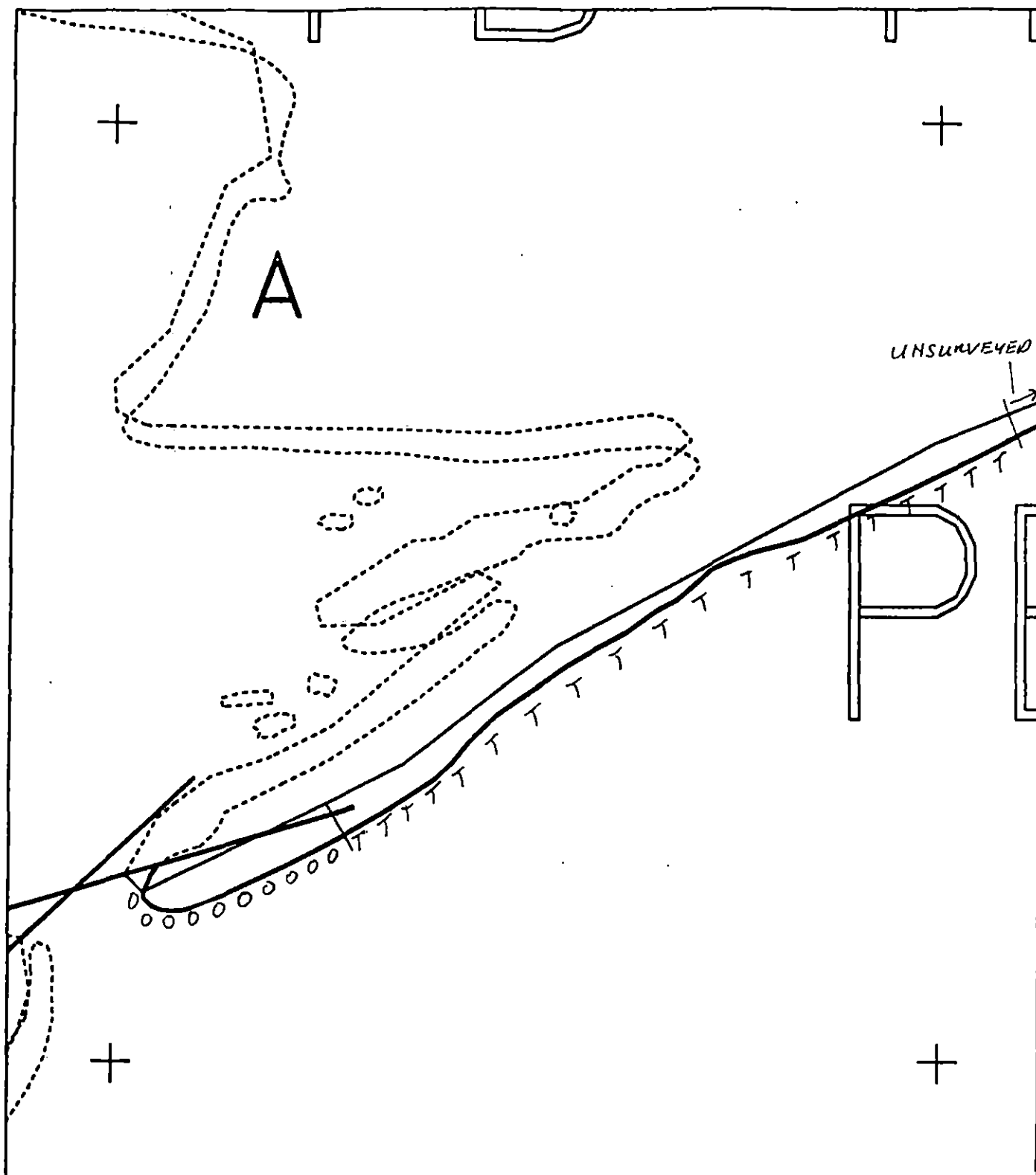
TB
15-40 by 1100m
Isolated patches
from SUTZ to MITZ
2 to 20cm in diam.

UNSURVEYED

0 200
METERS

P.U. * SURVEY TEAM SPREAD OUT
ALONG THE BEACH FROM THE
SUTZ TO THE MITZ AND
COLLECTED 4 BAGS OF TARBALLS.

PUALE BAY



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

K1007 PB001 A
 ADEC Subsegment Length: 2347m

METERS

0 200 400
 AK State Plane Zone 4
 91007pb001a- . . .



Subdivision Field Map

Map Key: 60AK1007PB001Ae

Name: D. Fitzgerald

Date: 17 MAY 1991

Date Entered:

Reviewed: 5/21/91 MC
 reviewed 5.20 94

ANADROMOUS FISH STREAM EVALUATION

-001

-013

SEGMENT ST/K10-07-PB-014 STREAM NO: 262-70-10025 DATE 5/2/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

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

1B Salmon stream mouth - spawning (~~3/15~~ to ~~5/15~~)

8AA Sensitive estuary (~~5/15~~ to ~~9/10~~) ^{with}

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact Exxon's Cultural Resource Program immediately (564-3276 (Anchorage) or 229-1508 (24 hrs.)).

SHPO SIGNATURE: Rachel Jean Dorn DATE: 5/25/90

Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

 No Treatment Recommended

X Treatment Recommended

X Manual Pickup

 Bioremediation

 Tarmat Removal

 Snare/Absorbent Booms

 Oil Snares (pom poms)

 Absorbents (pads, rolls, etc)

 Spot Washing: Wands

 Beach Cleaner

 Other (see comments)

COMMENTS: Recommend manual pick up of tarballs, patties and plastic bags
as indicated on attached sketch map. Consult ADF&G for appropriate work
dates.

TAG COMMENTS:

TAG APPROVAL DATE: 5/24/90

ADEC Art Weiler Det Weiler

EXXON Amy Cox Real

NOAA Bruce Wescott Bruce Wescott

USCG Mr. J. Hall, Mr. J. Hall

FOSC: [Signature]

DATE: 5/31/90

OG WILLIAM REID

SEGMENT B001A12/PB13-14

STREAM 262-70-10025

DATE 2 / MAY 90

CHECKLIST

- N Arrow
- Approx. Scale
- Seq/Sub Body
- On Dat.
- Width
- Length
- % Cover
- Substrate Character
- Est. HWM/LWL
- SSL
- Profile Location(s)
- Profile(s)
- Pit Location(s)
- Photo Location(s)

LEGEND

- 1 Δ
Pit - No Subsurface OM
- 2 Δ
Pit - Subsurface OM
- CT/C
Continuous Distribution
- CT/B
Broken Distribution
- CT/P
Patchy Distribution
- CT/S
Splashed Distribution
- Dead Vegetation

Photo location, direction, and number

On Character Length (m): AP

PO

CV

CT

ST

MS

PT

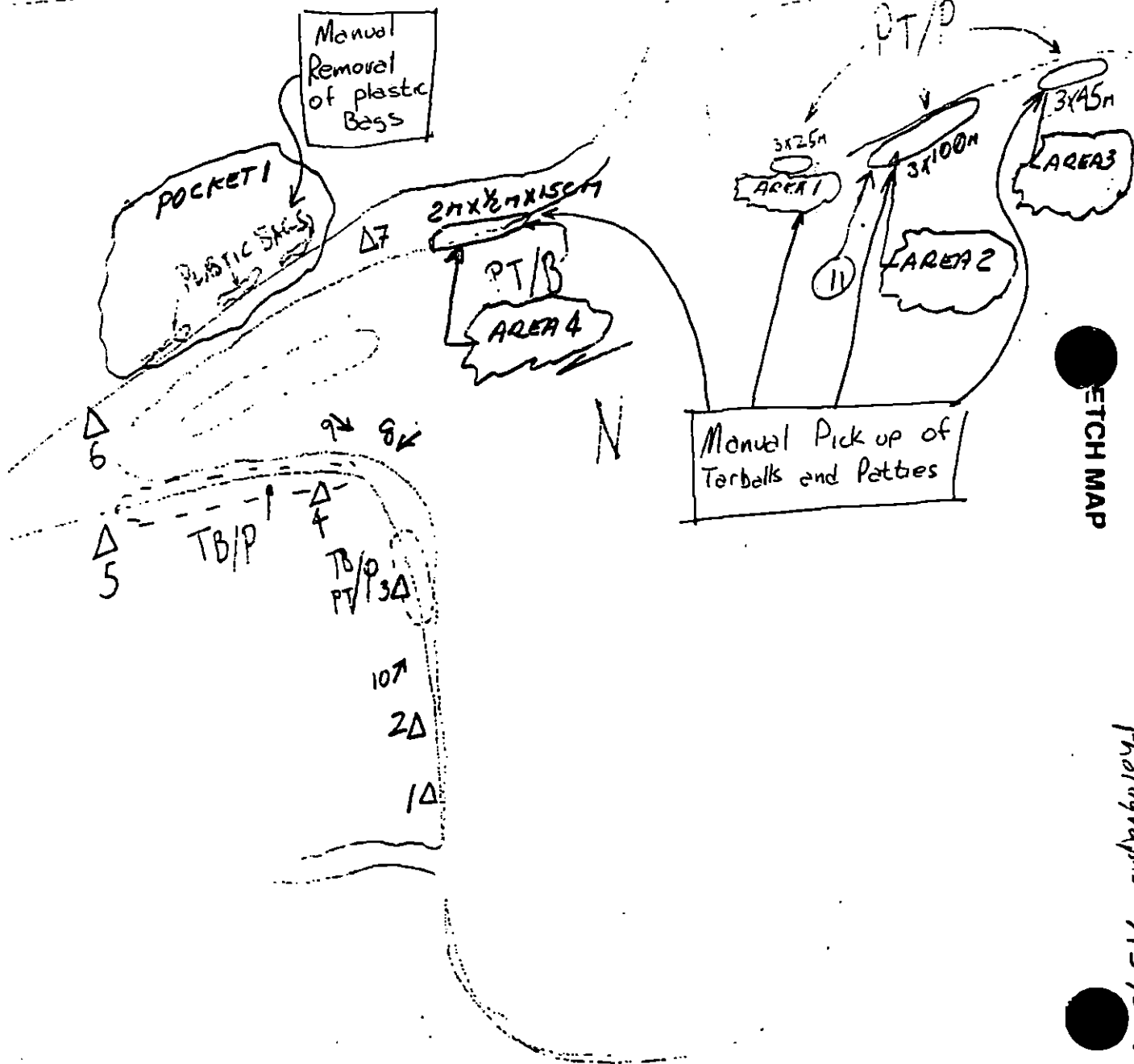
TB

FL

NO

ETCH MAP

Photographs 15-15-0



31/36

NE(S)

DESCRIPTION
DESCRIPTION

46 OIL DISTRIBUTION DIAGRAM

262-10-10025

PUALE BAY, AK ME.

706

Rock Bluffs.

Tidal
Flat

X Tar spots on grass

X T/B 5m x 5m 5% coverage

T/B 5m x 2m 5% coverage

X 5m x 20m

grass

3 plastic bags of oil partially
with sand2 plastic bags of oil partially
covered with sandMoosepatt. 2 approx 12 inches w/lt.
3 feet long, 6 inches thick (50%
colorless brown) Sheeps when
disturbed

4m x 50m T/B T/P 5% coverage

3m x 25m patchy T/B T/P

3m x 100m patchy T/B T/P 30% coverage

3m x 45m water, T/B T/P partially
covered with sand. Parts of this band
have 80% oil coverage

ANADROMOUS FISH STREAM EVALUATION ADDENDUM

CONSTRAINTS FOR STREAM NO. 262-70-10025

SEGMENTS K10-07-PB-001 SUBDIVISION A

WORK WINDOW	
Manual Pickup	OPEN

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A,1B Salmon Stream No constraint to manual pickup.

OTHER ECOLOGICAL CONSIDERATIONS

Avoid any unnecessary disturbance or damage to uncolled biota and substrate. No flushing of pollutants or sediments into stream drainage.

SEE SUBDIVISION CONSTRAINT ADDENDA K10-07-PB-001A
FOR ADDITIONAL CONSTRAINT INFORMATION.

FOSC

D. Zappelli

Date

6-16-90

Prepared by

J. P. Phillips

Date

6/15/90

KIU-7

STREAM #
262-70-10025

PB-14

PB-1

PB-13

PB-12

WORK AREAS

TREATMENT



Exxon Company, USA
Map Key: AKP-PB-1

ECOLOGY MAP
SEGMENT K10-7 PB-1
SUBDIVISION A (L-01-L)
METERS

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

ANADROMOUS FISH STREAM EVALUATION

-001

-013

SEGMENT ST/K10-07-PB-014 STREAM NO: 262-70-10025 DATE 5/2/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

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

1B Salmon stream mouth - spawning (3/15 to 5/15)

8AA Sensitive estuary (5/15 to 9/10)

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact Exxon's Cultural Resource Program immediately (564-3276 (Anchorage) or 229-1508 (24 hrs.)).

SHPO SIGNATURE: Rachel Jean Davis DATE: 5/25/90

Subsurface Oil Observed: Yes _____ No X Maximum Depth _____

RECOMMENDATIONS:

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

COMMENTS: Recommend manual pick up of tarballs, patties and plastic bags as indicated on attached sketch map. Consult ADF&G for appropriate work dates.

SRE CONSTRAINTS ADDENDUM dated 6/15/90

TAG COMMENTS: _____

TAG APPROVAL DATE: 5/24/90

ADEC Art Weir

EXXON Andy Tate

NOAA Bill Westcott

USCG Mr. J. Hall

FOSC: [Signature]

DATE: 5/31/90

ANADROMOUS FISH STREAM ASSESSMENT

REGION: KODIAK

SEGMENT: K10-07-PB-001
K10-07-PB-013
K10-07-PB-014

SUBDIVISION: A

STREAM NO: 262-70-10025

ANADROMOUS FISH STREAM EVALUATION

-001

-013

SEGMENT ST/K10-07-PB-014 STREAM NO: 262-70-10025 DATE 5/2/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

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

1B Salmon stream mouth - spawning (~~2/15~~ to ~~5/15~~)

8AA Sensitive estuary (7/15 to 9/10) ^{with}

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact Exxon's Cultural Resource Program immediately (564-3276 (Anchorage) or 229-1508 (24 hrs.)).

SHPO SIGNATURE: _____ DATE: _____

Subsurface Oil Observed: Yes _____ No X Maximum Depth _____

RECOMMENDATIONS:

_____ No Treatment Recommended

X Treatment Recommended

X Manual Pickup

_____ Bioremediation

_____ Tarmat Removal

_____ Snare/Absorbent Booms

_____ Oil Snares (pom poms)

_____ Absorbents (pads, rolls, etc)

_____ Spot Washing: _____ Wands

_____ Beach Cleaner

_____ Other (see comments)

COMMENTS: Recommend manual pick up of tarballs, patties and plastic bags as indicated on attached sketch map. Consult ADF&G for appropriate work dates.

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____

EXXON _____

NOAA _____

USCG _____

FOSC: _____ DATE: _____

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 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, 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 prior to treatment for consultation and/or permit application.
 AGENCY CONTACT PERSON: ADF&G Ken Middleton 267-2299
- 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, 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 Kotof Bay Hatchery release**
 Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
- 1H Remote release site**
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, 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 for confirmation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 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
 Contact ADF&G for confirmation - dates and locations may vary. 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 Larry Nicholson 424-4791
- 2M Herring spawning (4/15 to 6/30)**
 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 Larry Nicholson 486-4791
- 3 Harbor seal and sea lion pupping (5/10 to 7/1)**
30 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
- 31 Seabird colony (5/1 to 9/1)**
 Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)**
 Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
 ADF&G Tom Roth 267-2206
- 5T All Bald Eagle nests (3/1 to 6/1)**
Active Bald Eagle nests (3/1 to 9/1)
 Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 6U Recreation:**
6V Tent sites (6/1 to 9/15)
6W Anchorages (6/1 to 9/15)
6X Forest Service cabins (6/1 to 9/15)
6Y Lodge (6/1 to 9/15)
 Special use destination
- 7Z Subsistence area: Salmon harvesting (6/1 to 9/30)**
Finfish harvesting
Deer harvesting (8/1 to 1/7)
Invertebrate harvesting
Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
 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 1 B 0011 A SUBDIVISION: 0013+14 DATE 5/2/90

USCG NAME CWO MCNATTEN SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS

- 1. Manual clean-up; remove two patches
- 2. Remove 4-5 contaminated plates bag (see map)

ADFG
~~ADFC~~

NAME JEFFREY BARNHART SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS

- Manual clean-up of all oil (T/P, T/B, mousse) and bags of mousse along the mouth of the lagoon.

LAND MANAGER

NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

COMMENTS

OG WILLIAM LEID USCG McMAHON SEGMENT ST/ PS001A+B/PB1
 BIO MICHAEL FAWCETT LAND REP ... STREAM 262-70-0029 OF ...
 EXXON GUS GARCIA ADFG MIKE WIDOMER IEP BENHART TIME 13:50
 TEAM NO. 15 TIDE LEVEL 2 FT DATE 2 / MAR / 90
 EST. SUBDIVISION LENGTH: 1800 m ☐ Sun ☒ Clouds ☐ Fog ☒ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo
 SURFACE SEDIMENTS: R ... % B ... % C 10 % P 20 % G ... % S 70 % M ... % V ...
 SLOPE: Lang 95 % Hang 5 % Vert ... % WAVE EXPOSURE: ☒ Low ☐ Med ☐ Hig
 OIL CATEGORY LENGTH: W ... m M ... m N 450 m VL ... m NO 1350

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR						IMPACTED ZONES					
	C	R	P	B	SP	OR	FW	GY	SL	OR	TL	LR	SU	U	M	L
ASPHALT PAVEMENT																
POOLED																
COVER																
COAT																
STAIN																
MOUSSE																
PATTIES		X	X							X				X		
TARBALLS			X				X			X				X		
FILM																
NO OIL													X		X	X

PAVEMENT H F S 0 sq. m by 0PATTIES / TARBALLS 20 B.NEAR SHORE SHEEN? ☒ NO BR RW SL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash	X		
Debris			

Did you COL
DEBRIS
☐ YES ☒ NO

TYPE ...#BAGS ...

Photographs:

Roll No. A5-15-8Frames 8-11

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SHEEN (Y/N)	F	SURFACE SUBSURF SEDIMENT
		OF	OR	OL	OF	NO		UO	UC	SPR	BR	FW	GY	OR	TR	LR	SU	U	M	U					
1	35					X	.									X						II		S/G	
2	30					X	.									X						II		S/G	
3	60					X	.									X						II		S/G	
4	50					X	.									X						II		S/G	
5	50					X	.									X						II		S/G	
6	35					X	.									X						II		S/G	

COMMENTS

REVIEWED JWDATE 5-8-90

SEGMENT ST/ B 1A3 13/4 STREAM 262-70400251 (OF)

[illegible]

COMMENTS

REVIEWED JW DATE 5-8-90

OG WILLIAM REID

SEGMENT ST/ PB001A/B/PB13-14

STREAM 262-70-10025

DATE 2 / MAY 90

CHECKLIST

- N Arrow
- Approx. Scale
- Seg/Sub Body
- Oil Dht.
- 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

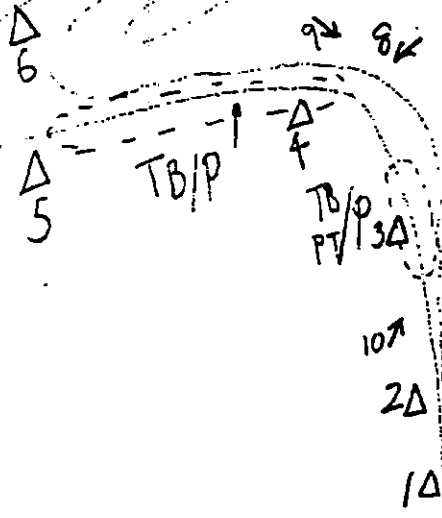
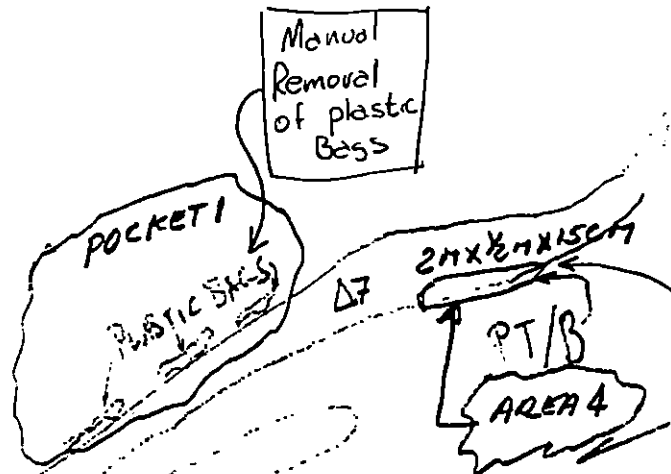
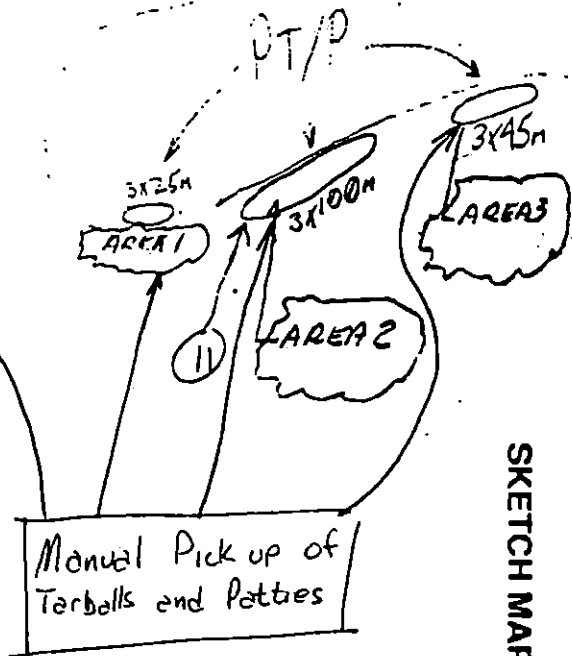
CT/S

Splashed Distribution

Dead Vegetation

Photo location, direction, and number

SKETCH MAP



Photographs 15-15-0

Oil Character L (m): AP PO CV CT ST MS FL NO

30/55

ADF&G MULTI-ASSESSMENT DATA FORM

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

METHOD: Aerial Ground Boat

3 DATE: 5/2/90 16 HIGH TIDE TIMES: 3:52 Am 1 0:16 pm 21 TEAM RECORDER: JEFFREY BARNHART

START TIME: 1405 19 HIGH TIDE HTS: 14.1 1 14.6 22 OBSERVERS: Gus Gra. L. G. William Reid

STOP TIME: 1600 17 LOW TIDE TIMES: 3:11 Am 1 3:50 Am 23 AGENCY: ADF&G / ~~WPA~~ / ~~USCG~~ / ~~USCC~~ / ~~USC~~ / ~~USN~~

6 SEGMENT #: PB001A+B 18 LOW TIDE HTS: 5.4 1 1.9 24 PHOTOS TAKEN: Y (N)

7 STATION #: 19 TIDE HT AT SURVEY: Roll #: Frame:

8 K-UNIT: K10-07 (Ebb) Slack Flood Slack 25 VIDEO TAKEN: Y (N) TAPE#: Start: End:

9 STAT AREA: 262-70 20 USCG QUAD: Karluk D-5

10 LAT: 57° 46' 53" 11 LONG: 155° 36' 26" 26 SAMPLES TAKEN: Y (N) Number

12 SOURCE: Map Loran Anad. Torg. 011

13 LOCATION: Paula Creek, Paula Bay, Alaska Peninsula Sediment

14 DESCRIPTION: 5285 39W12 Biological

Water

EXTENT OF OIL

	SHORELINE				STREAM			
	L	W	M	N	L	W	M	N
27 SURFACE COVERAGE				<u>25</u>				
28 SURFACE THICKNESS								
29 PENETRATION								

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

31 OIL TYPE: Pooled (House) (Tar) Asphalt (Sticky) Stain

32 OILED DEBRIS? (Y) N

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

34 WAVE EXPOSURE: High Moderate (Low)

35 SUBSTRATE TYPE: Bedrock Boulder Cobble Gravel .5 Sand 4.5 Mud/silt

36 CATALOGED ANAD. FISH STREAM? (Y) N

37 CATALOG #: 262-70-10025

38 STREAM NAME: Paula Creek

39 OIL IN STREAM BED? (Y) N

40 OIL ON STREAM BANKS? (Y) N

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

42 OIL WITHIN 1 MILE OF STREAM? Y N Where:

43 ANADROMOUS FISH PRESENT? Y (N)

44 ANADROMOUS FISH OBSERVATION

Species	Aerial	Ground

COMMENTS: Manual cleanup of all oil & bags of oil along margin of lagoon, as indicated on sketch map. I observed about 6 range stakes, some with physical signs indicating a study site. The signs were faded to the point where they were unreadable. They were located along the mouth of the lagoon, bearing on the areas that were oiled off immediately.

31/38

18(3)

DESCRIPTION
DESCRIPTION

40 OIL DISTRIBUTION DIAGRAM

262-10-10025

PUALE BAY, AK 14.

706

Rock Bluffs.

Tidal
Flat

X Tarsps on grass

X T, 3 5m x 5m 5% coverage

T/B 5m x 2m 5% coverage

X 5m x 20m

X T/B grass

3 plastic bags of oil partially
with sand2 plastic bags of oil partially
covered with sandNewspaper approx 12 inches wide
3 feet long, 6 inches thick, 51%
color (brown) sheets when
disturbed

4m x 50m T/B T/P 5% coverage

3m x 25m patchy T/B T/P

3m x 100m patchy T/B T/P 30% coverage

3m x 45m outer, T/B T/P partially
covered with sand. Parts of this band
have 80% oil coverage

1991 MAYSAP EVALUATION

SEGMENT: K1007PB002 SUB: M REGION: KOD SURVEY DATE: 5/27/91

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) OPEN

Ecological/Constraints (see page two for details) NONE

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO Signature: _____ Date: _____

RECOMMENDATIONS:

INITIAL

TAG

FOSC

TREATMENT REQUIRED (Y or N)

N

Manual Pickup (Check as Req.)

Spot Washing

Bio-Customblen Only

Bio-Inipol/Customblen

Other

Other

COMMENTS:

INITIAL: _____

TAG: _____

FOSC: _____

TAG APPROVAL DATE: _____

FOSC APPROVAL DATE: _____

ADEC _____

FOSC _____

EXXON _____

USCG _____

NOAA _____

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 6-HELO SEGMENT PB-2 SUBDIVISION M DATE 5/27/91

ADEC

NAME J. BARNHART ADEC

SIGNATURE J. Barnhart

☒ NTR Surveyed approx 500 meters of This segment. NO oil observed.

EXXON

NAME R. COULTER EXXON

SIGNATURE Reg R. Coulter

☒ NTR CLEAN - WE COULD NOT FIND THE 12" X 18" TIDAL POOL NOTED ON THE DOCUMENTATION PROVIDED.

LANDMANAGER

NAME J. HARDISTER

OF USFWS

SIGNATURE J. Hardister

☒ NTR No oil observed.

USCG/NOAA

NAME CWO R. SPURR / G. SHIGENAKA

SIGNATURE R. Spurr / G. Shigenaka

☒ NTR No oiling found.

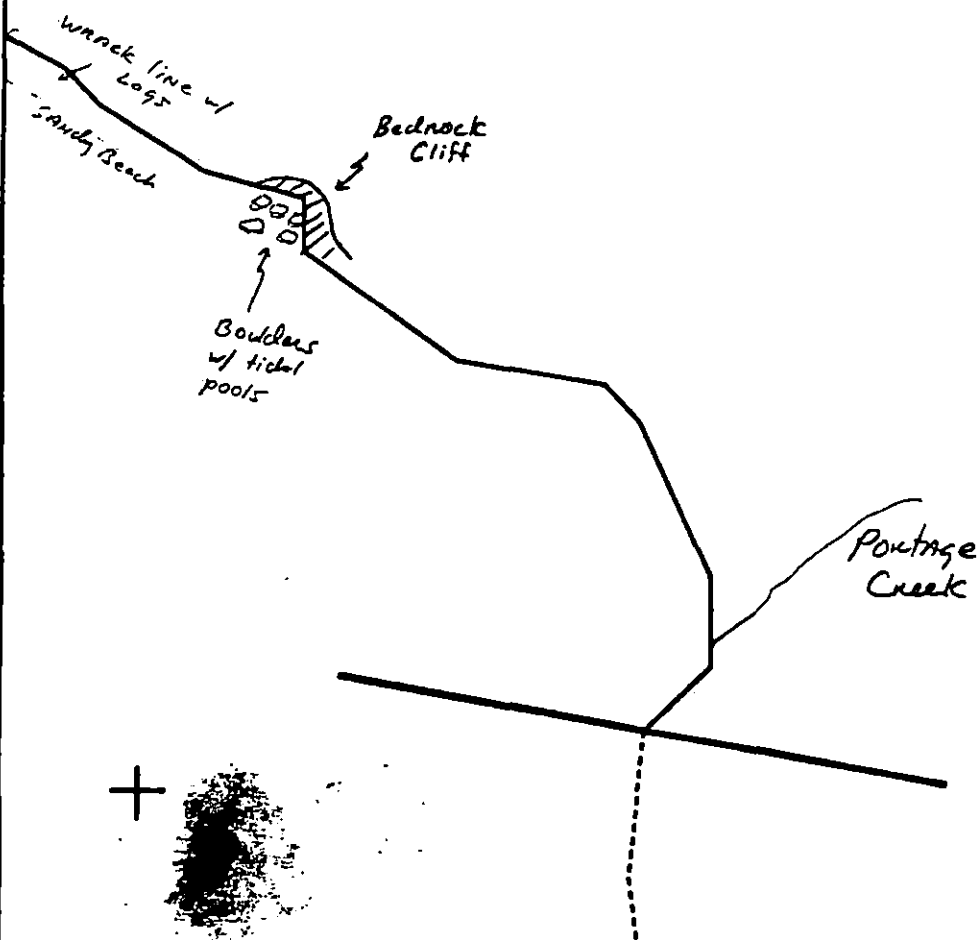
SURVEYED SECTION OF THE SEGMENT WAS A SANDY BEACH FOR MOST OF ITS LENGTH, WITH ONLY THE EASTERN-
MOST TENS OF METERS PREDOMINANTLY BOULDER SUBSTRATE. THE EASTERN END OF THE SURVEYED PORTION TERMINATED
BY BEDROCK CLIFF WHICH BLOCKED PASSAGE ON FOOT AT THIS TIDE LEVEL. THE WESTERN END OF THE SURVEYED
BEACH WAS EXTENSIVELY MARKED WITH STAKES, PLASSING MATERIAL, AND NUMBERED TASS (EG. "1117", "517").
THE PARTIAL SKULL OF A BALLEN WHALE WAS FOUND IN THE SUPRATIDAL OF THE SANDY BEACH. NO OIL RESIDUES
WERE OBSERVED ON THE SURVEYED SECTION - DESPITE THE PREVIOUS (1990) REPORT OF OILING IN THE FORM OF A
12-INCH BY 18-INCH POOL WITH SHEEN (!). IN RETROSPECT, OUR SURVEY EFFORT HERE MIGHT HAVE BEEN MORE
PRODUCTIVELY DIRECTED ELSEWHERE.

PAGE 1 OF 1

reviewed 5.31 9y

PB-2

Sketch MAP



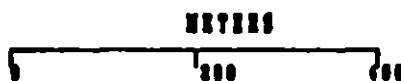
K1007 PB002 A

Subdivision Field Map

Map Key: 60AK1007PB002AB

Name: D. Fitzgerald

Date: 27 MAY 1991



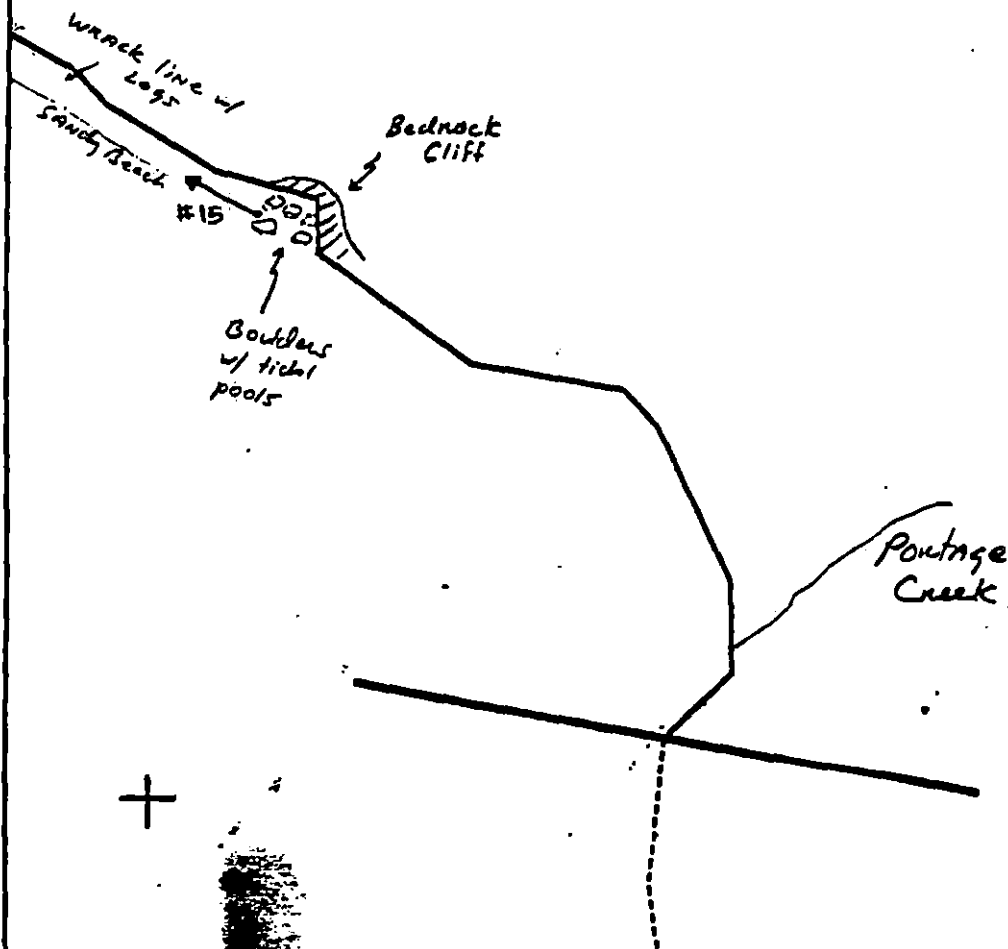
AS State Plane Zone 9
61007PB002AB

Reviewed: MC Glick
reviewed 5:31 g/f

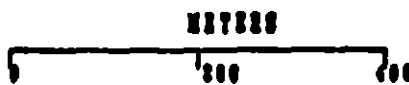
PHOTO SITE, PB-2A
ROLL 6-23, FRAME # 15

PB-2

Sketch MAP



K1007 PB002 A



AS State Plane Zone 9
NAD 83

Subdivision Field Map

Map Key: 606K1007PB002A

Name: D. Fitzgerald

Date: 27 MAY 1991

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 6 Helo

DATE May 27 1991

SEGMENT # K10-07 PB-02

TIDAL HEIGHT (Range) 4.2 ft - 6 ft (1150 1230)

SUBDIVISION 10E

BIOLOGIST H. Davis

SEA STATE 2 ft

WIND SPEED/DIRECTION light breeze 10 KTS SE

PHOTOGRAPHS: ROLL # 6-23

FRAME # 15

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

There was no oil observed on this beach. Most of the segment was a sandy beach up against a shallow, flat, willow and grass covered ledge in front of a steep slope. At the south eastern end of the segment the steep slope becomes a rocky cliff that backs the beach and drops boulder/cobble rubble. Down at the cliff backed section of beach filamentous greens, barnacles and limpets can be found. On the sandy section of beach are kelp wracks partly covered with sand. Common shells are Saxidomus, Clinocardium and Macoma.

No oil or sheen was seen in this region
No bio map included

American pipit (1) Cormorants sp? (3) Dead Kittiwake
Golden crowned sparrow (3) Surf birds (2) Glaucous-wing Gull (5) Surf scoter (3)

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	0	-	
Seabirds	1	3	
Waterfowl	1	3	
Gulls/Kittiwake	2	5 (+ 1 dead Kittiwake)	
Shorebirds	2	3	
Corvids	0	-	
Other Birds sparrow	1	3	

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters	0	Fox Tracks	
Pinnipeds (specify)	0	Bear tracks	
Whales (specify)		Brown Bear	2 in uplands
Whale skull	1	Caribou	5 in uplands.

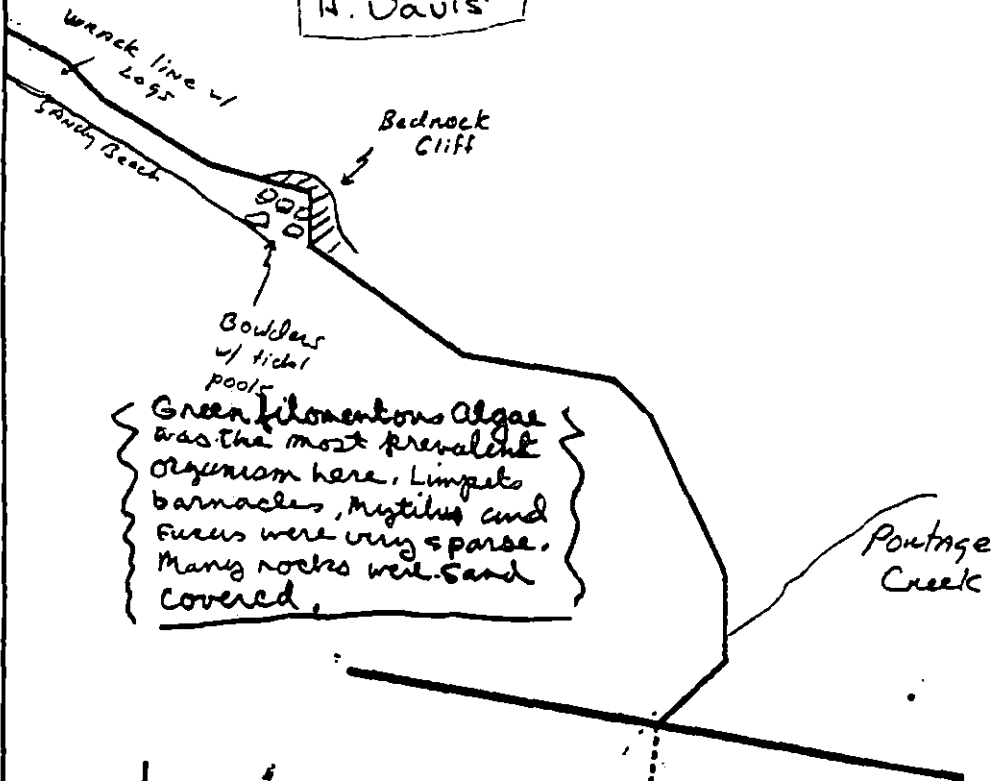
Shoreline subdivision map showing important biological features attached.

Revised 6/1/91 DM

PB-2

Sketch MAP

Big Map
H. Davis



K1007 PB002 A

METERS



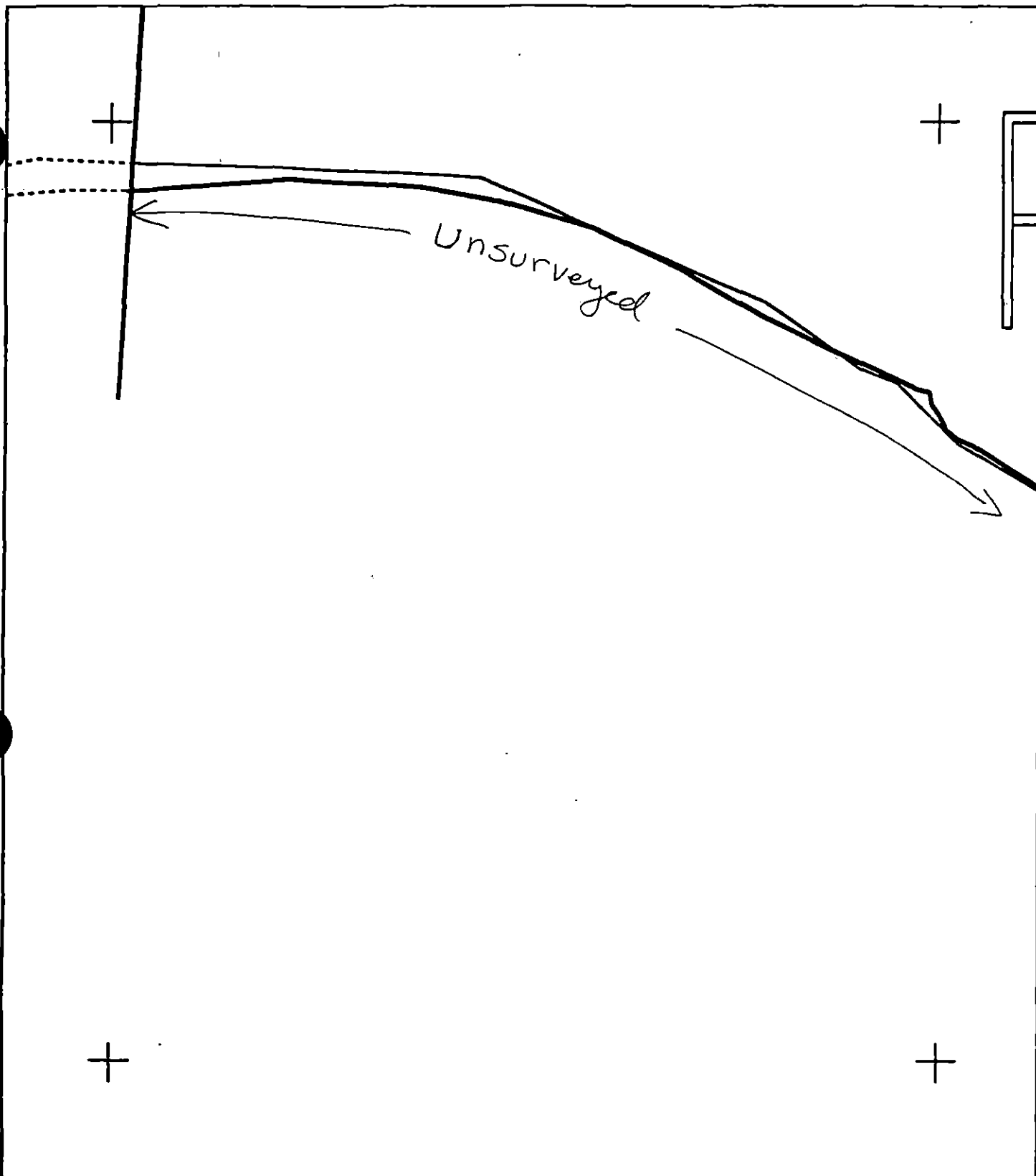
at State, Planning Dept. 1
1007, 000200-1

Subdivision Field Map

Map Key: 604K1007PB002A

Name: D. Fitzgerald

Date: 27 MAY 1991



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

K1007 PB002 A
 ADEC Subsegment Length: 2095m
 METERS

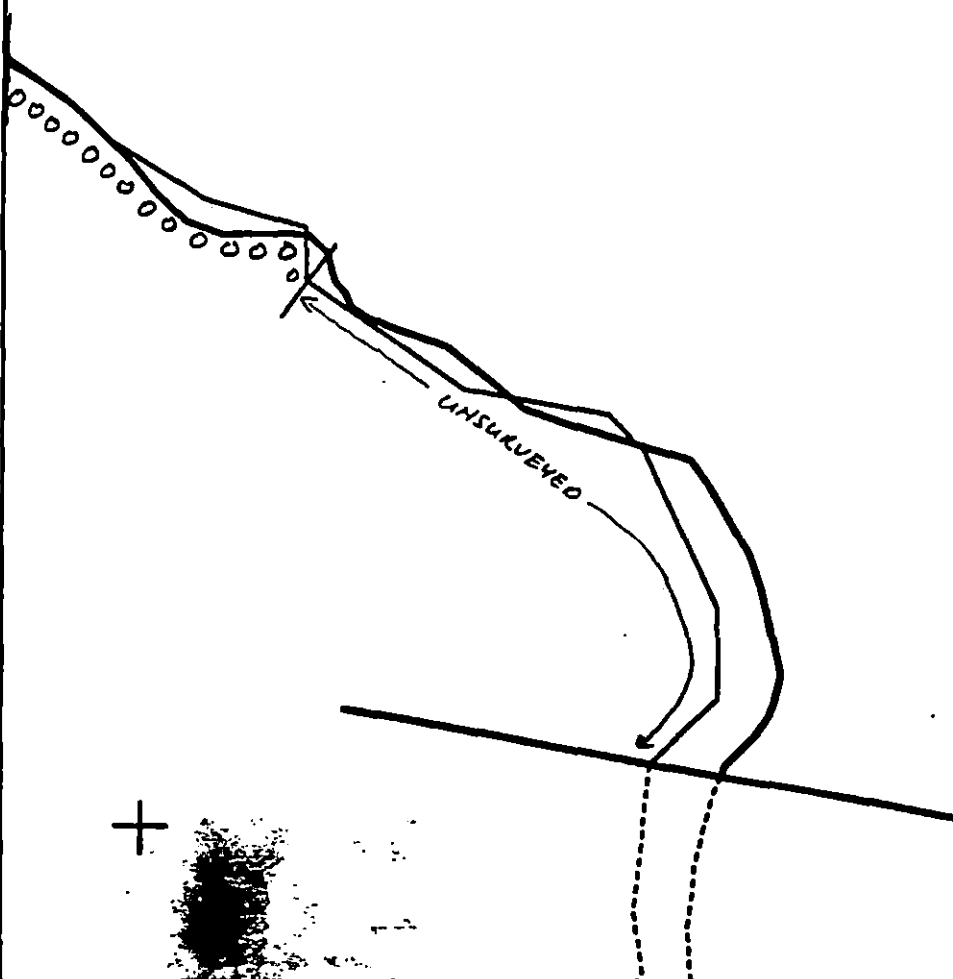
0 200 400
 AK State Plane Zone 4
 g1007pb002a--' . . .



Subdivision Field Map
 Map Key: 60AK1007PB002Aa
 Name: D. Fitzgerald (Jr)
 Date: 5.27.91
 Date Entered:

Reviewed: MC 6/1/91
 revised 5.31 *cy*

PB-2



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

K1007 PB002 A
 ADEC Subsegment Length: 2605m
 METERS
 0 200 400
 AK State Plane Zone 4
 91007pb002ab- . . .



Subdivision Field Map
 Map Key: 00AK1007PB002AB
 Name: FitzGerald
 Date: 5.27.91
 Date Entered:

Reviewed: MC 6/1/91
 5.31.91 reviewed gy

1991 MAYSAP EVALUATION

SEGMENT: K1007PB002 SUB: M REGION: KOD SURVEY DATE: 5/27/91

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) OPEN

Ecological/Constraints (see page two for details) NONE

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO Signature: Matthew C. Smith Date: 6/10/19

RECOMMENDATIONS:

INITIAL

TAG

FOSC

TREATMENT REQUIRED (Y or N)

N

2

1

Manual Pickup (Check as Req.)

Spot Washing

Bio-Customblen Only

Bio-Inipol/Customblen

Other

Other

COMMENTS:

INITIAL:

TAG:

FOSC:

TAG APPROVAL DATE: June 7 1991

FOSC APPROVAL DATE: 6/12/91

ADEC

FOSC

EXXON

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

USCG

NOAA

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 6-HELO SEGMENT PB-2 SUBDIVISION M DATE 5/27/91

DEC

NAME J. BARNHART ADECSIGNATURE Jf Barnhart☒ NTR Surveyed approx 500 meters of This segment. No oil observed.

EXXON

NAME R. COULTER EXXONSIGNATURE Reu R. Coulter☒ NTR CLEAN - WE COULD NOT FIND THE 12" X 18" TIDAL POOL NOTED ON THE DOCUMENTATION PROVIDED.

LANDMANAGER

NAME J. HARDISTER

OF USFWS

SIGNATURE J. P. Hardister☒ NTR No oil observed.

USCG/NOAA

NAME CWO R. SPURR / G. SHIGENAKA SIGNATURE R. Spurr / G. Shigenaka☒ NTR No oiling found.

SURVEYED SECTION OF THE SEGMENT WAS A SANDY BEACH FOR MOST OF ITS LENGTH, WITH ONLY THE EASTERN-TENS OF METERS PREDOMINANTLY BOULDER SUBSTRATE. THE EASTERN END OF THE SURVEYED PORTION TERMINATED AT BEDROCK CLIFF WHICH BLOCKED PASSAGE ON FOOT AT THIS TIDE LEVEL. THE WESTERN END OF THE SURVEYED SHORELINE WAS EXTENSIVELY MARKED WITH STAKES, FLAGGING MATERIAL, AND NUMBERED TAGS (E.G. "1117", "817"). THE PARTIAL SKULL OF A BALEEN WHALE WAS FOUND IN THE SUPRATIDAL OF THE SANDY BEACH. NO OIL RESIDUES WERE OBSERVED ON THE SURVEYED SECTION-- DESPITE THE PREVIOUS (1990) REPORT OF OILING IN THE FORM OF A 12-INCH BY 18-INCH POOL WITH SHEEN (!). IN RETROSPECT, OUR SURVEY EFFORT HERE MIGHT HAVE BEEN MORE PRODUCTIVELY DIRECTED ELSEWHERE.

PAGE 1 OF 1

DATE 27 1 MAY 191

ENERGY LEVEL: ☐ H ☒ M ☐ L

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

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

EST. OIL CATEGORY LENGTH: W. - m M. - m N. - m VL. - m NO. 400 m US 2295 m

DISTRIBUTION: C = 81-100%; S = 51-80%; P = 11-50%; B = 1-10%; T = <1%

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

PHOTO ROLL # MAYSAP- 6 - 23 FRAMES 15

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

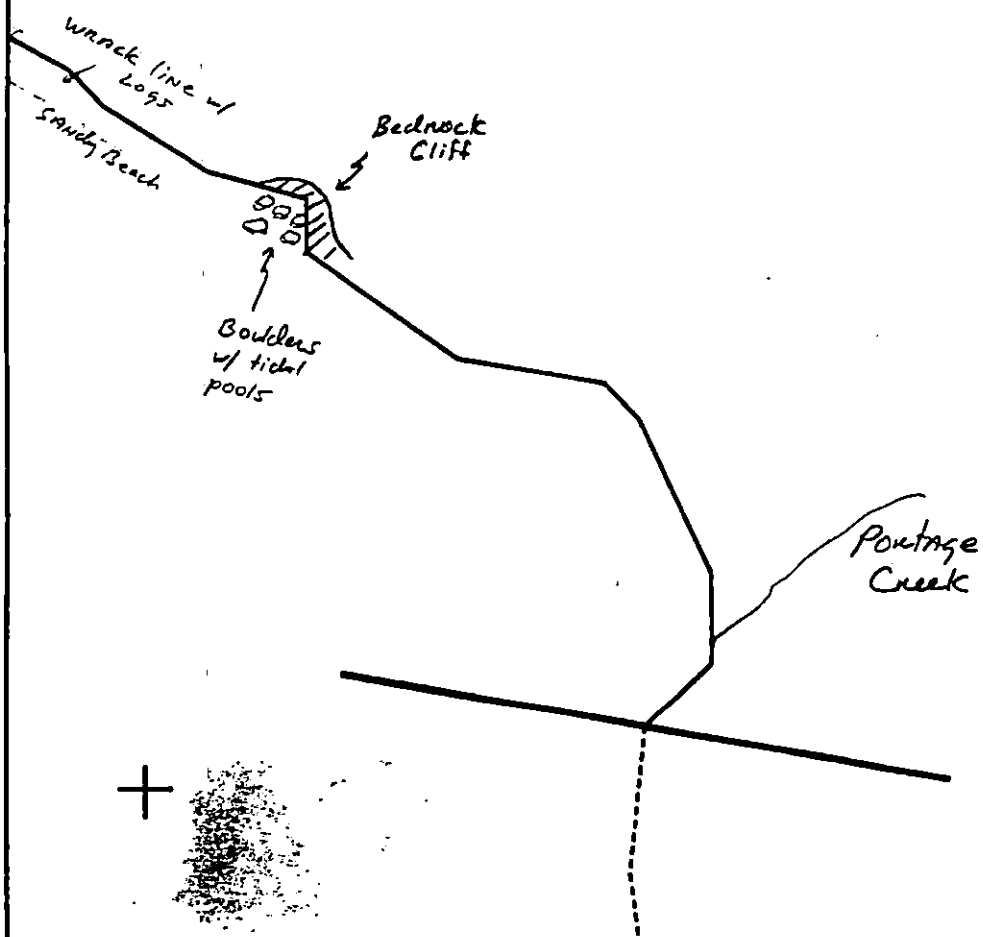
OG COMMENTS: This segment is the eastward continuation of the sandy beach INSIDE PUALE Bay that ends at Portage Creek. It was reported by the USFWS (refuge volunteers) on 24 June 1991 that a silver and rainbow sheen was found in a 30 by 45 cm tidal pool. Our survey crew of 10 people canvassed the tidal pool region where the sheen had been reported and we found no oil of any type in this area.

Reviews: MC 6/1/91

reviewed 5.31.94

PB-2

Sketch MAP



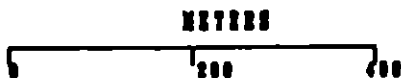
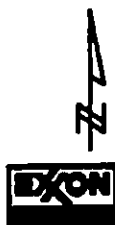
K1007 PB002 A

Subdivision Field Map

Map Key: COAK1007PB002AB

Name: D. Fitzgerald

Date: 27 MAY 1991



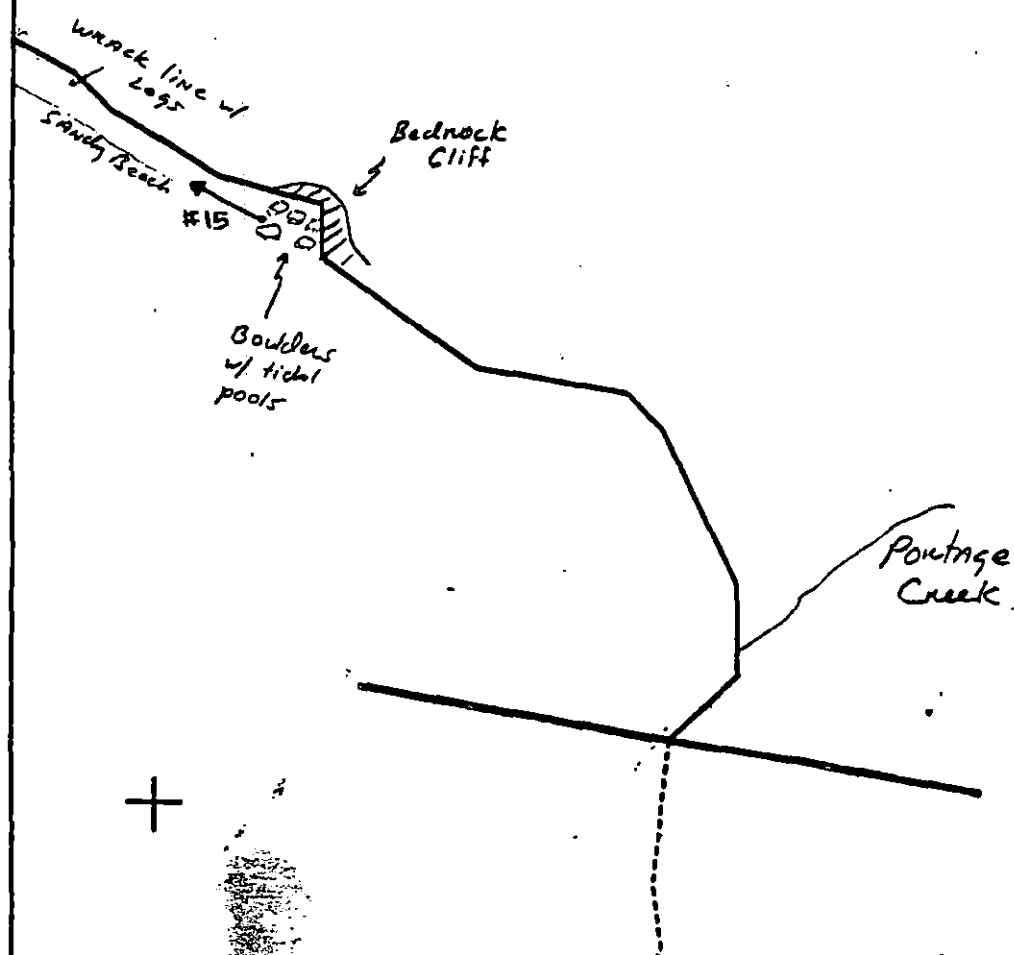
AK State Planning Dept.,
91007PB002AB-1

Reviewed: MC 6/1/91
revised 5.31 94

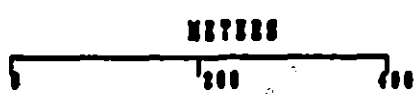
PHOTO SITE, PB-2A
ROLL 6-23, FRAME # 15

PB-2

Sketch MAP



K1007 PB002 A



AS State Plane Zone 9
91007PB002A

Subdivision Field Map

Map Key: 00A1007PB002A

Name: D. Fitzgerald

Date: 27 MAY 1991

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 6 Helo

DATE May 27 1991

SEGMENT # K10-07 PB-02

TIDAL HEIGHT (Range) 4.2 ft - 6 ft (11⁵⁰ 12³⁰)

SUBDIVISION m

BIOLOGIST H. Davis

SEA STATE 2 ft

WIND SPEED/DIRECTION light breeze 10 Kts SE

PHOTOGRAPHS: ROLL # 6-23

FRAME # 15

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

There was no oil observed on this beach. Most of the segment was a sandy beach up against a shallow, flat, willow and grass covered ledge in front of a steep slope. At the south eastern end of the segment the steep slope becomes a rocky cliff that backs the beach and drops boulder/cobble rubble. Down at the cliff backed section of beach filamentous greens, barnacles and limpets can be found. On the sandy section of beach are kelp wracks partly covered with sand. Common shells are Saxidomus, Clinocardium and Macoma.

No oil or sheen was seen in this region
No bio map included

American pipit (1) Cormorants sp? (3) Dead Kittiwake
Golden crowned sparrow (3) Surf birds (2) Glaucous-wing Gull (5) Surf scoter (3)

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	0	-	
Seabirds	1	3	
Waterfowl	1	3	
Gulls/Kittiwakes	2	5 + 1 dead Kittiwake	
Shorebirds	2	3	
Corvids	0	-	
Other Birds sparrow	1	3	

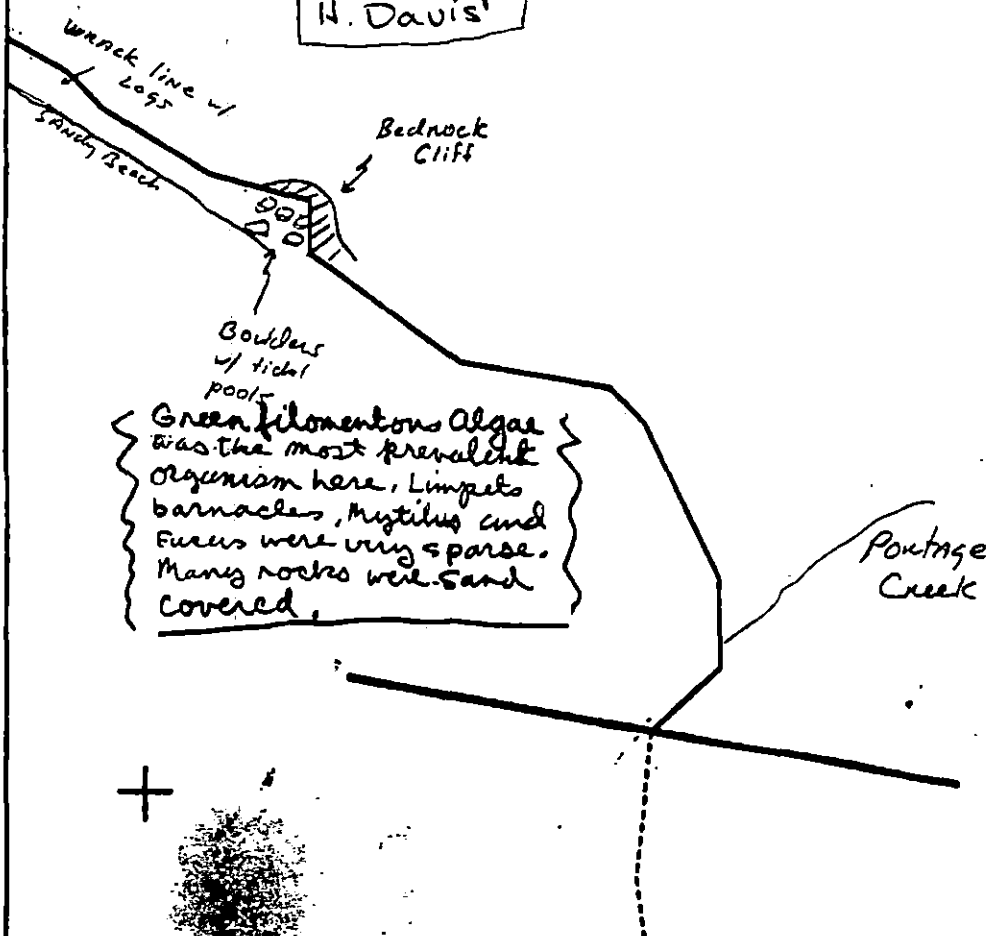
MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters	0	Fox Tracks	
Pinnipeds (specify)	0	Bear Tracks	
Bales (specify)		Brown Bear	2 in uplands
Whale skull	1	Caribou	5 in uplands.

Shoreline subdivision map showing important biological features attached.

PB-2

Sketch MAP

Big Map
H. Davis



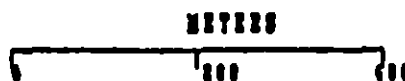
K1007 PB002 A

Subdivision Field Map

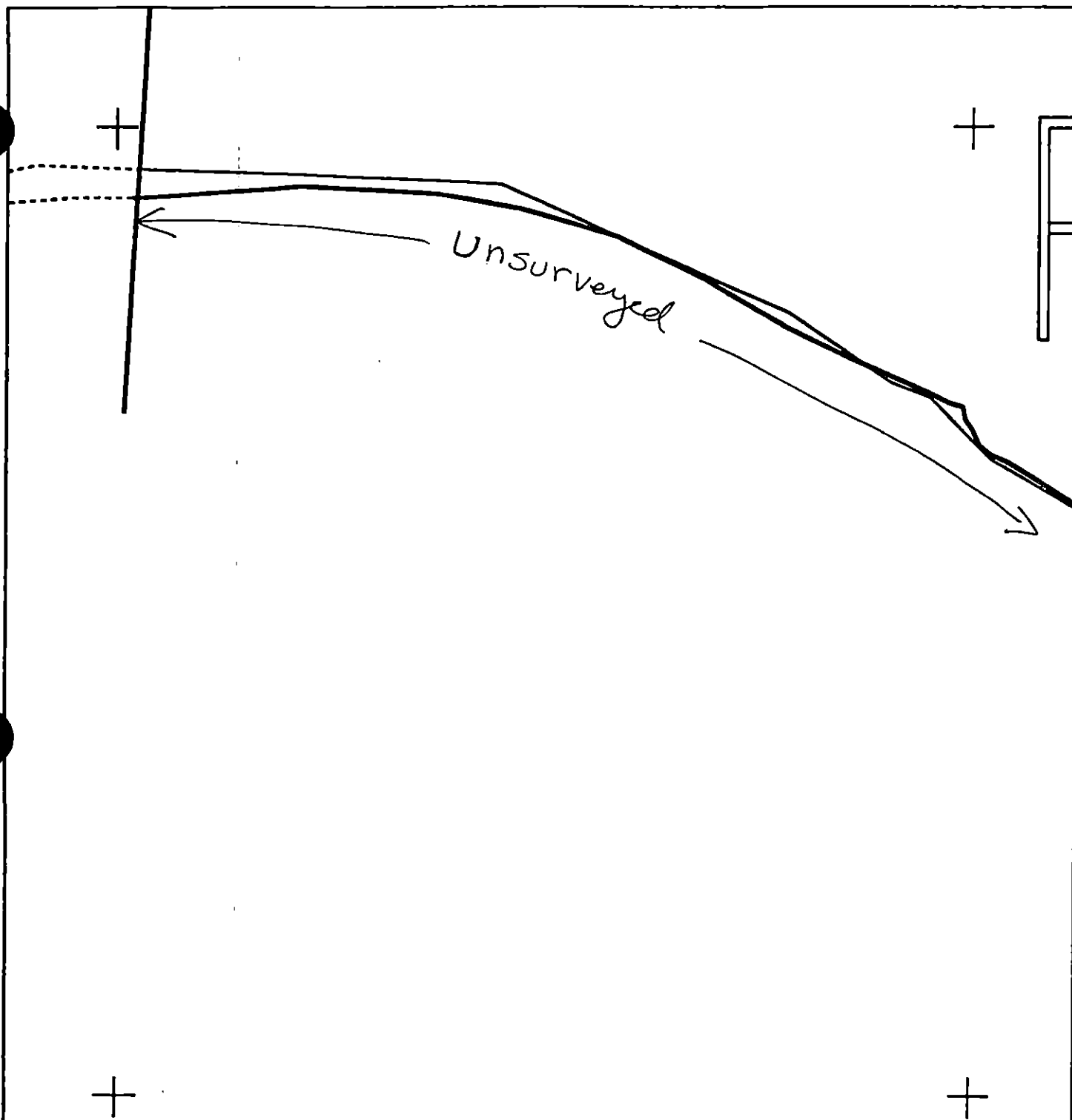
Map Key: 60A1007PB002A5

Name: D. Fitzgerald

Date: 27 May 1991



AS SHOWN, PLANS, ETC.,
91007PB002A5-1



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

K1007 PB002 A
ADEC Subsegment Length: 2695m
METERS

5 200 400
AK State Plane Zone 4
g1007pb002a--



Subdivision Field Map

Map Key: 60AK1007PB002Aa

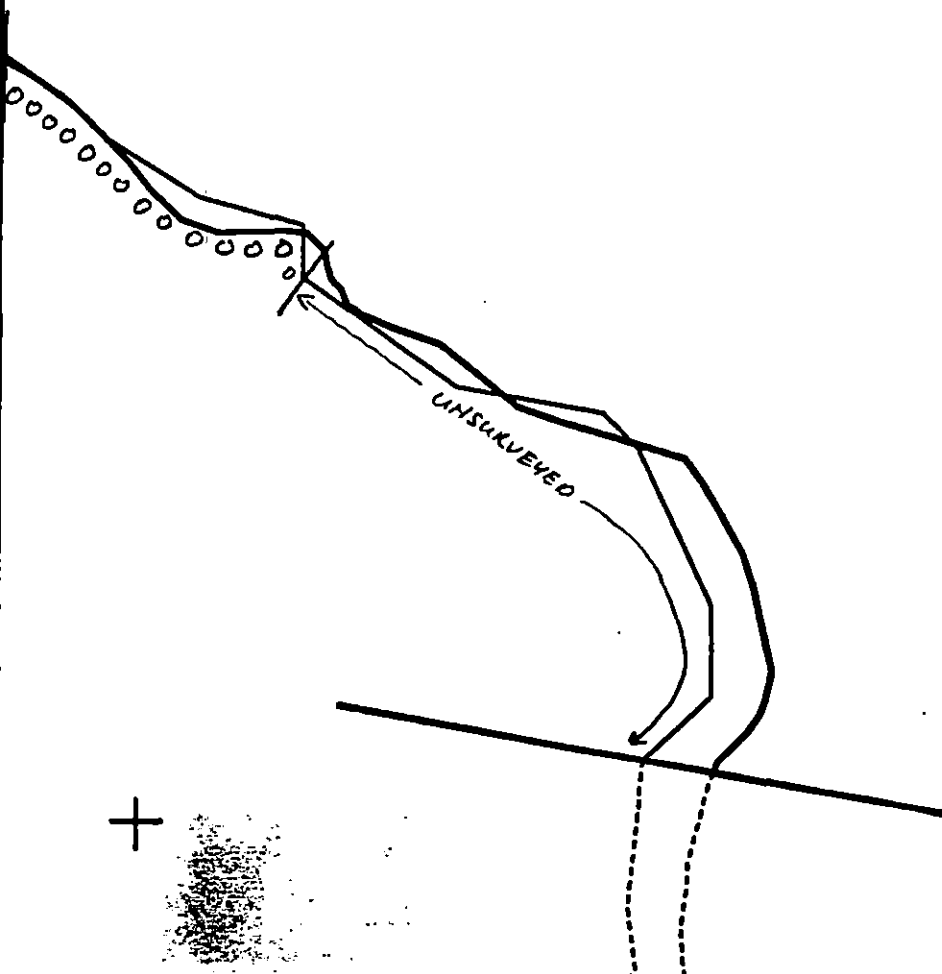
Name: D. Fitzgerald (Jr)

Date: 5.27.91

Date Entered:

REVIEWED: MC 6/1/91
revised 5.31 *Ch*

PB-2



XXXX	Wide	K1007 PB002 A ADEC Subsegment Length: 2895m METERS AK State Plane Zone 4 1007pb002ab-...	 	Subdivision Field Map
////	Medium			Map Key: 00AK1007PB002Ab
----	Narrow			Name: <u>FitzGerald</u>
TTTT	Very Light			Date: <u>5.27.91</u>
0000	No Oil			Date Entered:

Reviewed: MC 6/1/91
 5.31.91 reviewed 4y

SHORELINE EVALUATION

SEGMENT ST/ K10-07-PB-008 SUBDIVISION A (1 OF 1) DATE 5/2/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

4QQ State Marine Park National Wildlife Refuge

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: Rachel Jean Oden DATE: 5/25/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 424 m: No Oil 2046 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS: _____

TAG COMMENTS:_____

TAG APPROVAL DATE: 5/24/90

ADEC Art Weiner Art Weiner

EXXON *Ampy Can Bank*

NOAA *Burl Weisroff Burl Weisroff*

USCG Wm. J. Hall

FOSC: AL Murphy DATE: 1/9/71

11/11/11

OG G. HE AN

SEGMENT STIR 1007-PB008

SUBDIVISION A

DATE 5, 2 90

CHECKLIST

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

LEGEND

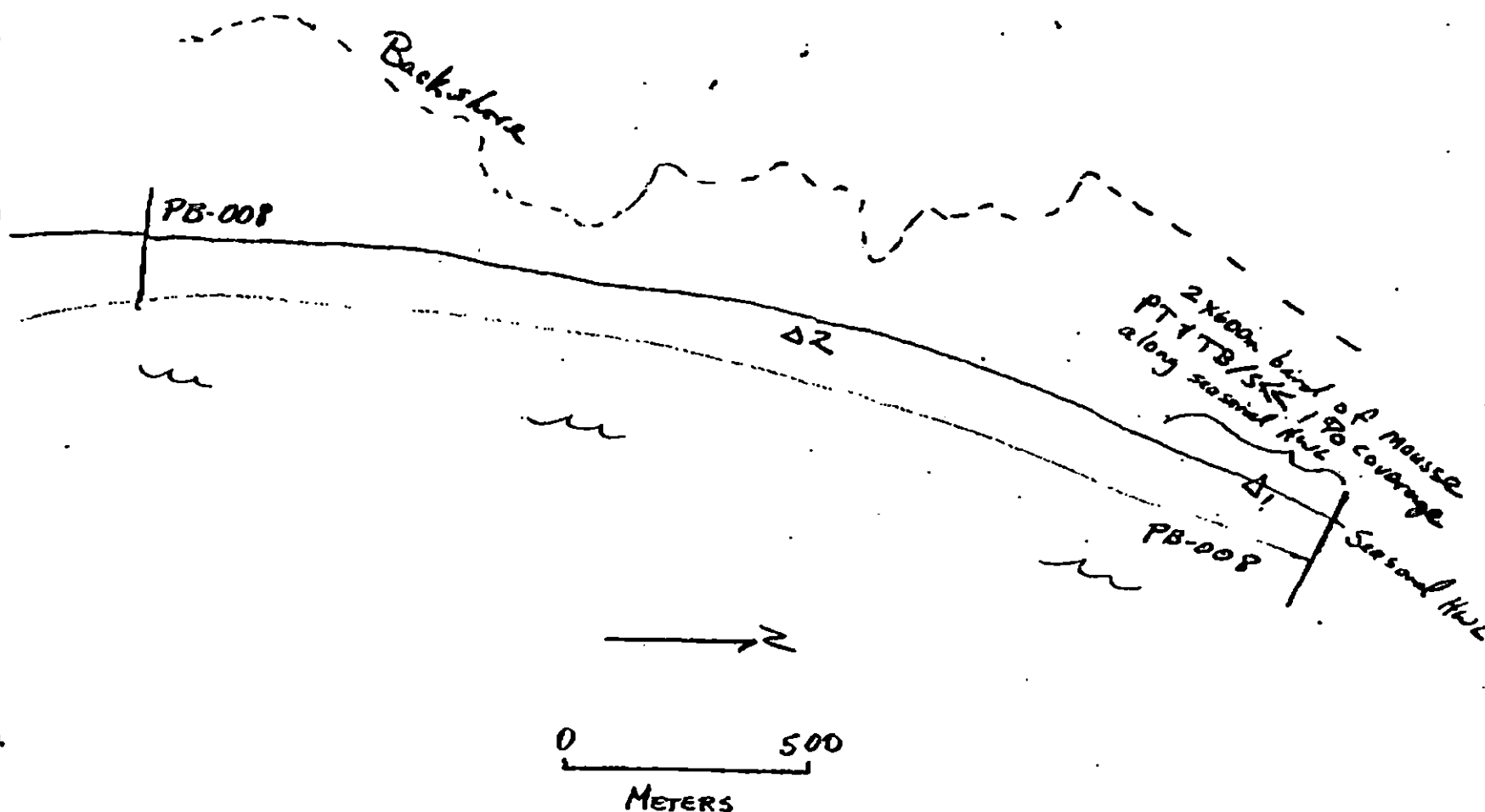
- 1 Δ
No - No Subsurface Oil
- 2 Δ
M - Subsurface Oil
- CT/C

Continuous Distribution
- CT/B

Broken Distribution
- CT/P

Patchy Distribution
- CT/S

Splashed Distribution
- lll
Red Vegetation
- 1 $\rightarrow$
Note location, direction,
and number



Character Length (m): AP 0 PO 0 CV 0 CT 0 ST 0 MS 0 PT 300 TB 300 FL 0 NO 1670

REVISION 3/24/90

ECOLOGY MAP

(1 of 2)

PB-8

(Page 3 of 4)

No resource sensitivities
according to NOAA database (4/22/90).
No special sensitivities
observed on this survey.

PB-8

GOA
↓ 223 A

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

PB-8

ADEC Segment Length: 2470m

0 100 200 300

Map Key: GOA-223b

Name: _____

Date: _____

Data Entered: _____

↑
GUA 2258

PB-8 Ecology Map
(2 of 2)
(Page 4 of 4)

XXXX Wide

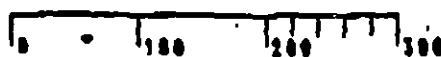
//// Medium

----- Narrow

TTTT Very Light

PB-8

ADEC Segment Length: 2470m



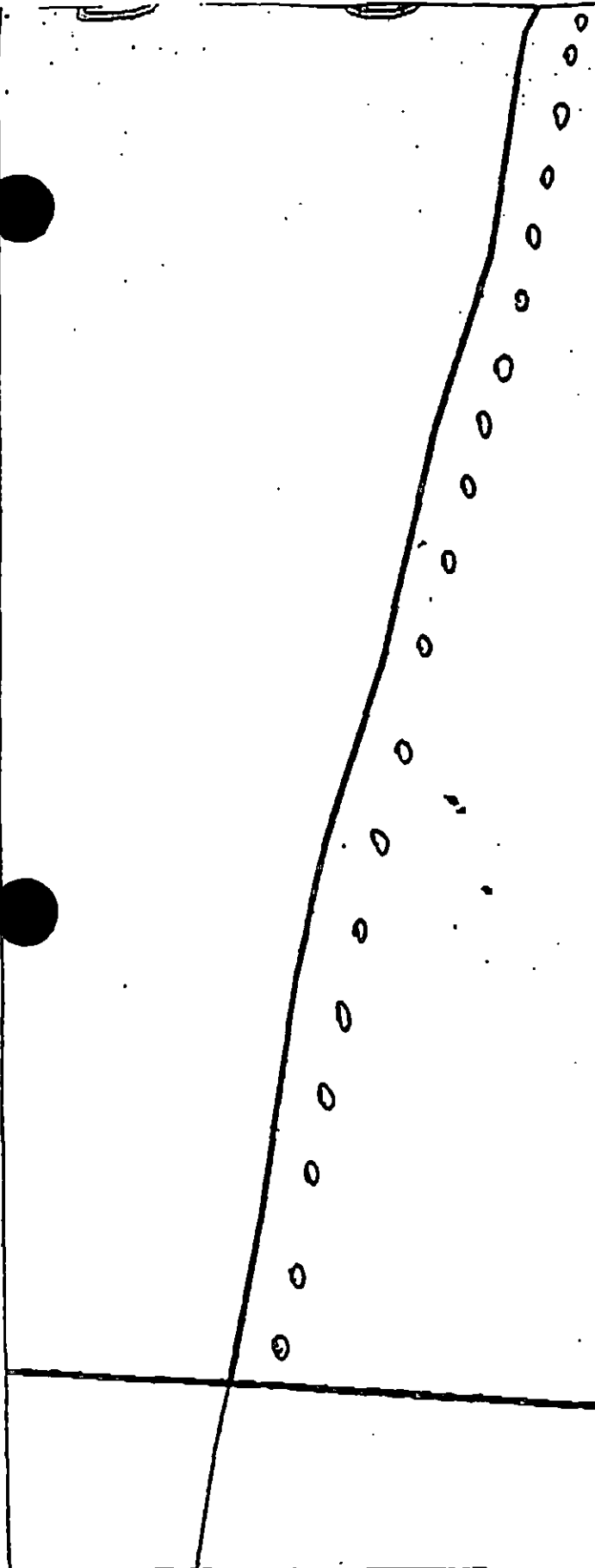
Map Key: GOA-223e

Name: _____

Date: _____

Not entered:

↑
GOA
2238



XXXX Wide

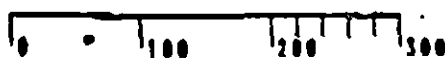
//// Medium

--- Narrow

TTTT Very Light

PB-8A
(1 of 1)

ABEC Segment Length: 2470m



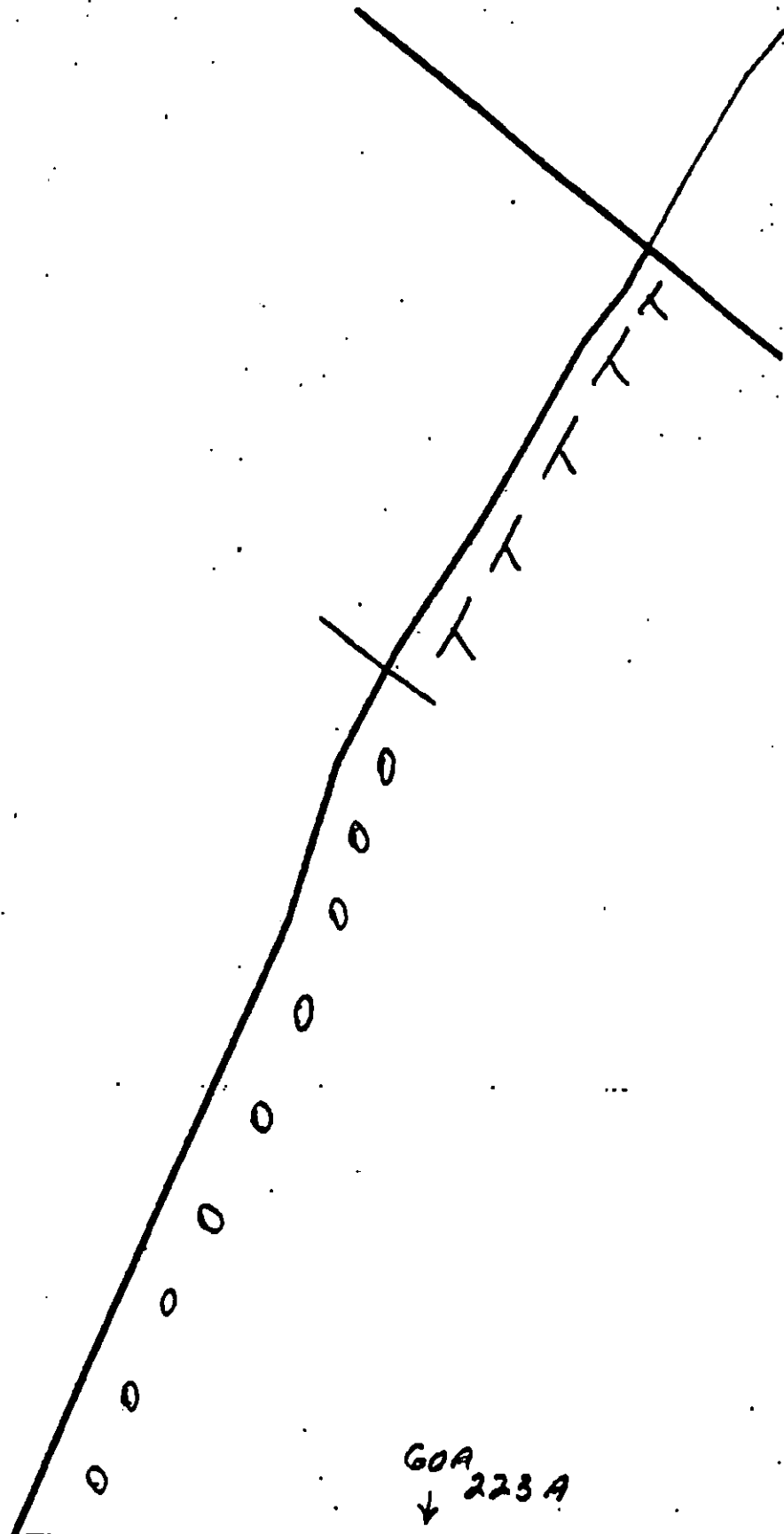
Map Key: GOA-223a

Name: G. HEYMAN

Date: 5-2-10



PB-8



GOA
↓ 223A

XXXX Wide

//// Medium

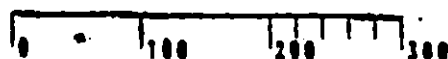
--- Narrow

TTTT Very Light

PB-8A

(Gof)

ADEC Segment Length: 2470m



Map Key: GOA-223b

Name: G. Heyman

Date: 5-2-90

REGION: KODIAK

SEGMENT: ST/K10-07-PB-008

SUBDIVISIONS: A (1 OF 1)

SHORELINE EVALUATION

SEGMENT ST/ K10-07-PB-008 SUBDIVISION A (1 OF 1) DATE 5/2/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

4QQ State Marine Park National Wildlife Refuge

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 424 m: No Oil 2046 m
Subsurface Oil Observed: Yes _____ No X Maximum Depth _____

RECOMMENDATIONS:

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

COMMENTS: _____

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

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 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, 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 prior to treatment for consultation and/or permit application.
AGENCY CONTACT PERSON: ADF&G Ken Middleton 267-2298
- 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, 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 Kotol Bay Hatchery release
Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
- 1H Remote release site
No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, 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 for confirmation and authorization.
AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1I Gill net area
1J Purse seine area
Mainland, West side Kodiak, Shuyak & Moser/Olga Bay (8/9 to 10/1)
East side Kodiak, East side Afognak (7/4 to 10/1)
1K Purse seine hook-off
1L Set net sites
Contact ADF&G for confirmation - dates and locations may vary. 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 Larry Nicholson 424-4791
- 2M Herring spawning (4/15 to 6/30)
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 Larry Nicholson 486-4791
- Harbor seal and sea lion pupping (5/10 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 588-7235
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 267-2208
- 5T All Bald Eagle nests (3/1 to 6/1)
Active Bald Eagle nests (3/1 to 9/1)
Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 6U Recreation: Tent sites (8/1 to 9/15)
6V Anchorages (8/1 to 9/15)
6W Forest Service cabins (8/1 to 9/15)
6X Lodge (8/1 to 9/15)
6Y Special use destination
- 7Z Subsistence area: Salmon harvesting (8/1 to 9/30)
Finfish harvesting
Deer harvesting (8/1 to 1/7)
Invertebrate harvesting
Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
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 267-2358

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / K 10 07 - PB008 SUBDIVISION: A DATE 5/2/90

NAME STEPHEN LEHMANN SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS

Mousse patties and tarballs were observed along the north part of the subdivision at the upper high tide for 500-600. The area subdivision as a whole is less than 1% covered. No oil was observed in pits. Beach should be rechecked and large patties removed.

ADEC NAME Terry Ellsworth SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED Spot Check Suggested

Mousse patties and tarballs occur from the north segment boundary south in a 2m x 600m long band with coverage being <1%. This is a sand beach environment and although no buried oil was observed in the pits dug, it is possible that as sand is removed from the beach more "tarballs" and patties will be uncovered. A crew should spot check this beach and pick up any patties and tarballs found. No oiled driftwax observed.

LAND MANAGER NAME JOHN P. HANDSTER SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS

Mousse patties and Tarballs present along sandy beach as depicted by ADEC representative. These could easily be removed by a pick-up crew with shovels. Concern that this segment should be checked again for any further contamination.

SHORELINE OILING SUMMARY

REVISION NO. 000000

OG GLENN HEYMAN USCG STEVE LEHMAN SEGMENT ST/ K 1007 PB 008
 BIO LOUIS SHARAD LAND REP JOHN HARDISTER SUBDIVISION A (1 OF 1)
 EXXON FRED BYARS ADEC TERRY ELSWORTH TIME 13:40:15:30
 TEAM NO. 19 TIDE LEVEL +4 to +1.5 DATE 5/02/90
 EST. SUBDIVISION LENGTH: 2470 m ☐ Sun ☒ Clouds ☒ Fog ☒ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 0 % B 0 % C 5 % P 10 % G 0 % S 85 % M 0 % V 0 %
 SLOPE: Long 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 600 m NO 1870 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR				IMPACTED ZONES			
	W	M	N	VL	W	M	N	VL	W	M	N	VL
ASPHALT PAVEMENT												
POOLED												
COVER												
COAT												
STAIN												
MOUSSE												
PATTIES												
TARBALLS												
FILM												
NO OIL												

PAVEMENT H F S 0 sq. m by 0 cmPATTIES / TARBALLS 3 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 P#BAGS 0

Photographs:

Roll No. ---Frames ---

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR				PIT ZONE				A N A	SHEEN (Y/N)	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		VO	UC	W	M	N	VL	W	M	N	VL			
1	30					X	0-0	X						X						SP/S
2	35					X	0-0	X						X						SP/S

COMMENTS

Oil in this segment occurred as mousse patties and mousse "tarballs" (< 10 cm diameter) in a band up to 2 m wide and 600 m long along the seasonal high water line. This band was observed at the northern end of the segment, to the south of the band no oil was observed. PT & TB w/in the band had < 1% coverage.

REVIEWED PAIDATE 10 MAY 90

OG G. H. H. N

SKETCH MAP

SEGMENT ST/ K1007-PB008

SUBDIVISION A

DATE 5, 2 80

CHECKLIST

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

LEGEND

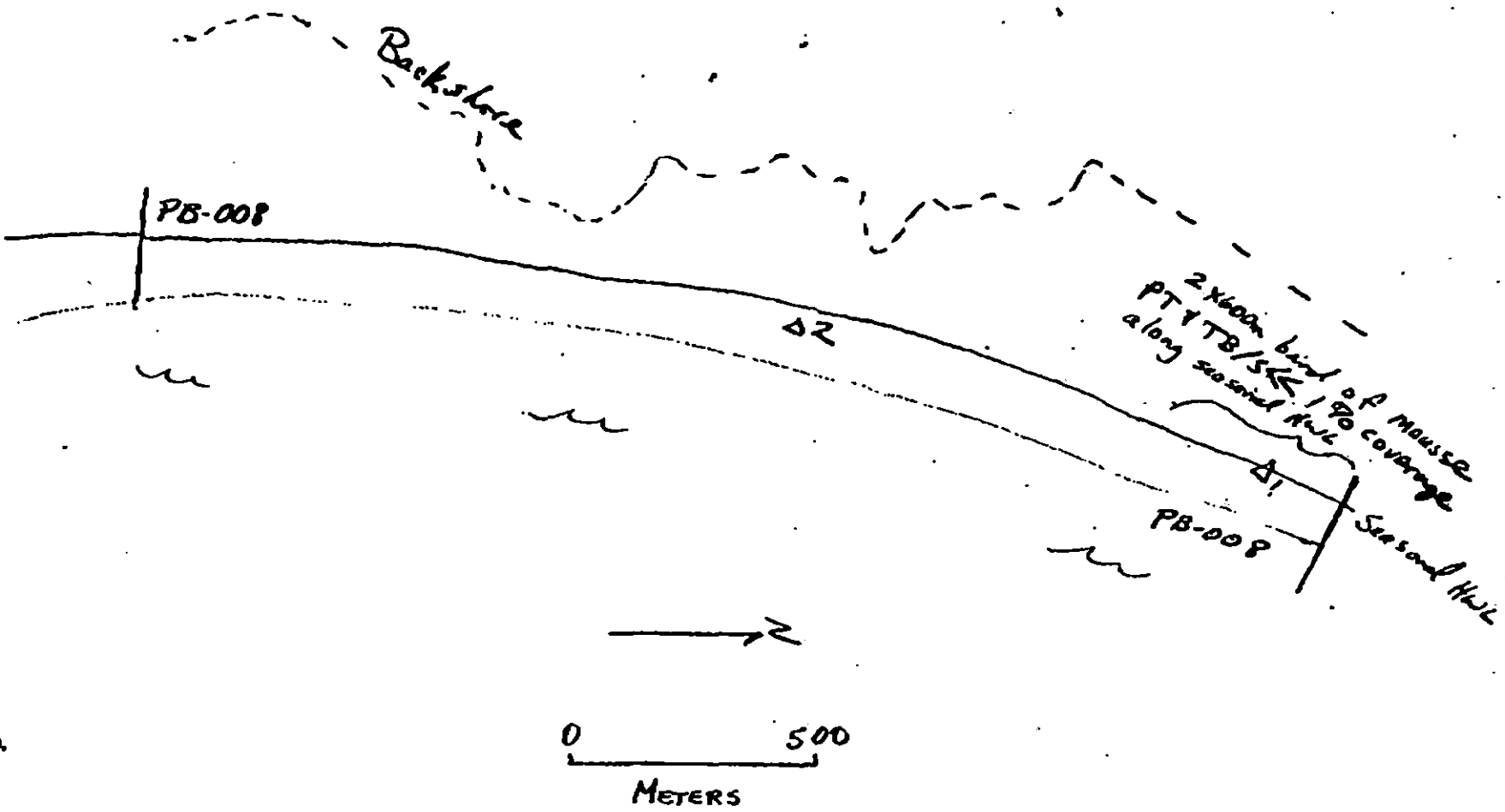
- 1 Δ
Pit - No Subsurface Oil
- 2 Δ
Pit - Subsurface Oil
- CT/C

Continuous Distribution
- CT/B

Broken Distribution
- CT/P

Patchy Distribution
- CT/S

Splashed Distribution
- lll
Wet Vegetation
- 1 $\Rightarrow$
Note location, direction, and number



Character Length (m): AP 0 PO 0 CV 0 CT 0 ST 0 MS 0 PT 300 TB 300 FL 0 NO 1670

Segment ST / PB-8 Subdivision A Date (mo / day / yr) 5/2/90Time (24 hr) 1340-1500 Biologist SHARMA(A) Substrate type and % of segment: SUBSIV(1) Bedrock (2) Boulder (3) Cobble 5 (4) Pebble 10 (5) Sand 85 (6) Sil(B) Overall % cover of biota (% of segment): Dense Moderate Low XSUBSIV

(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 PRESEN

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 PRESEN

GASTROPODS (ALCELA, LITTORINA, LIMPETS)

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 PRESEN

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 PRESEN

Please see general comments below.

Wildlife Observations/ General Comments: 3 crows just inland behind dunes; fox + wolf tracks in intertidal zone; 8 snow buntings, 1 cormorant, 4 surf scoters offshore, occasional glaucous-winged + murre gulls flying. 1 pelagic cormorant carcass in upper intertidal, surrounded by fox + eagle tracks. (no ill - cause of death unknown) - surrounded by fox + eagle tracks, lone fox bait. The segment comprises an (cont.)

Ecological Considerations: No resource sensitivities identified in NOAA database (4/22/90) - see attached Eco. Maps. A severely wave-battered, unstable sandy beach - no particular ecological constraints observed during this survey.

PB-8-A

Shoreline Ecological Summary (cont.)

(Page 2 of 4)

Sherman
5/2/90

General Comments (cont.):

appears, wavebeaten sandy beach. High energy + instability lead to an exceedingly depauperate intertidal biota. Essentially all living (or recently living) macrobiota are in the form of deposited drift material. 90%+ is Fucus, with some Macrocystis, Alaria, Laminaria, Halosaccus (mostly attached to discarded barnacle tests), Ulva, Enteromorpha, Sargassum, Pilota. Bivalve shells found on the beach surface include numerous large Chionea nuttallii, Trapa capax, Siliqua patula, Saxidomus gigantea, Macoma spp., Mya spp. (incl. truncata); Protellina staminea, Mytilus edulis, Pododermus macrochlamys. Also there are occasional Frustraria oregonensis, one Modiola lanullosa, rare sand dollars (Dendraster or possibly Echinaster), subadult Dungeness Crab Carapace (Cancer regalis), large membranous sabellid worm tubes, some coralline algal fragments, orange sponges (possibly Subarita sp.), some fishing floats + logs with attached pelagic goose barnacles (Lepas), some masses of egg cases from large subtidal snails (Frustraria, Mytilus, Buccinum). A very typical assemblage for this type of beach - appears healthy + normal.

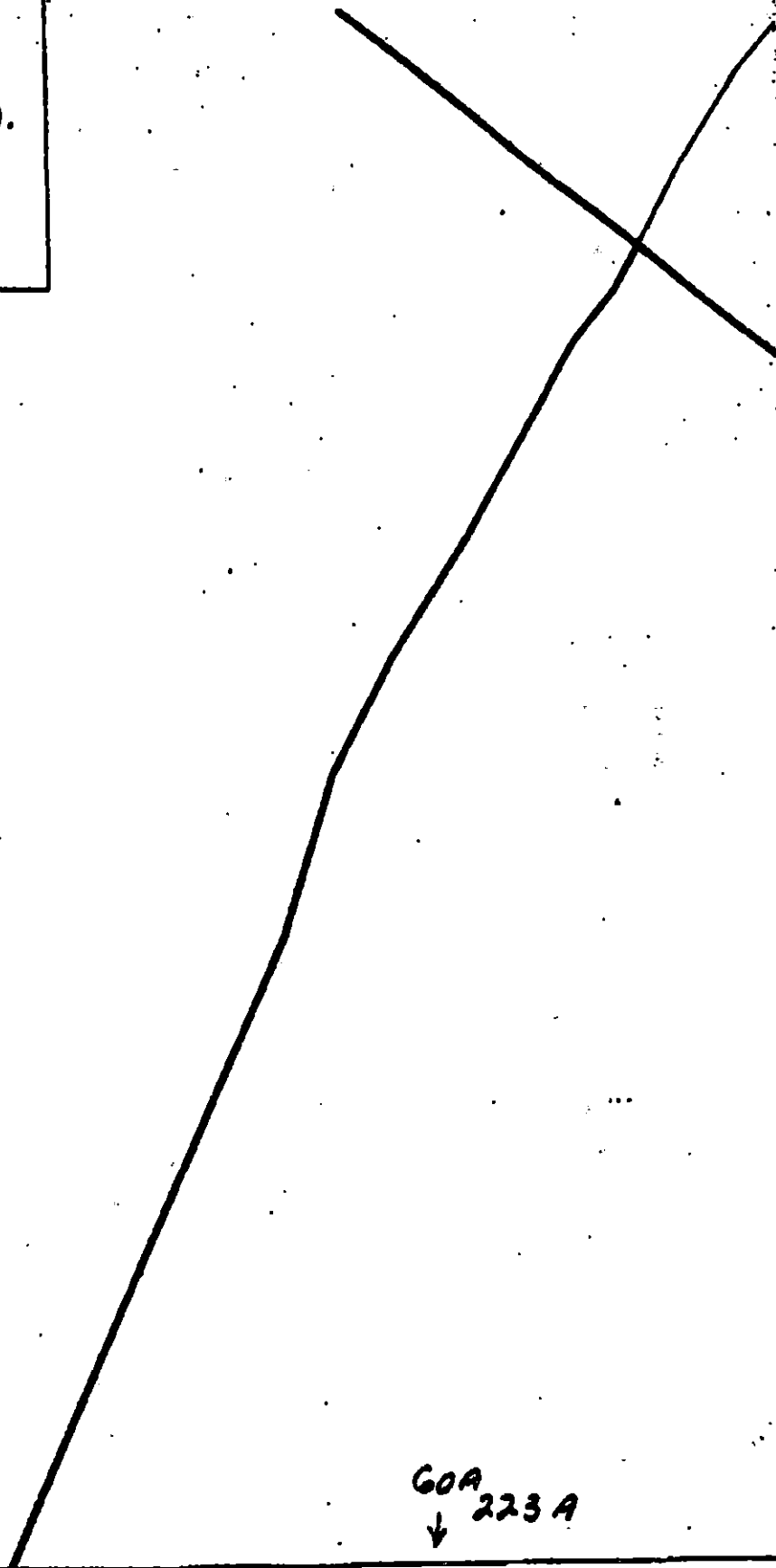
ECOLOGY MAP

(1 of 2)

PB-8

(Page 3 of 4)

No resource sensitivities
according to NHA database (4/22/90).
No special sensitivities
observed on this survey.



PB-8

GOA
↓ 223A

XXXX Wide

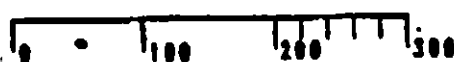
//// Medium

--- Narrow

TTTT Very Light

PB-8

ADEC Segment Length: 2470m



Map Key: GOA-223b

Name: _____

Date: _____

Date Entered: _____

↑
GOA
2238

PB-8 Ecology Map
(2 of 2)
(Page 4 of 4)

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

PB-8

ADEC Segment Length: 2470m

0 100 200 300

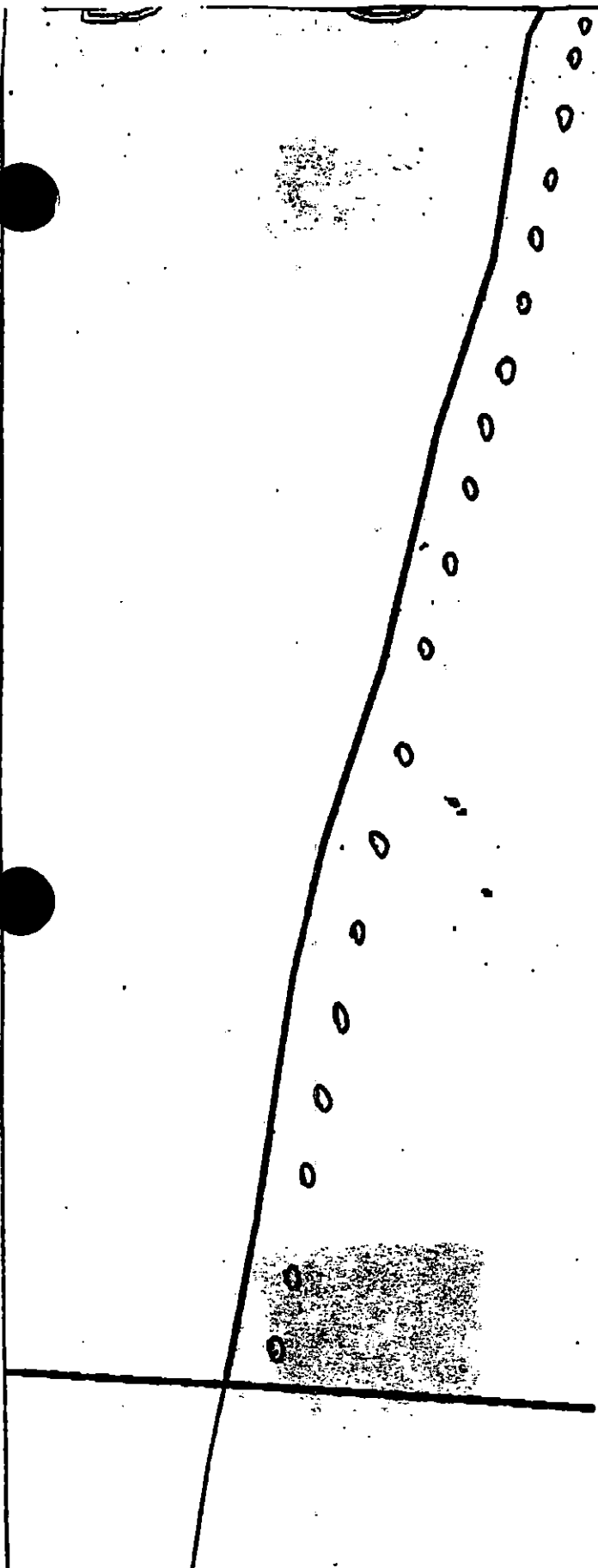
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Name: _____

Date: _____

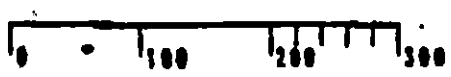
Data Entered: _____

↑
GOA
2238



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

PB-8A
(10ft)
ABEC Segment Length: 2470m

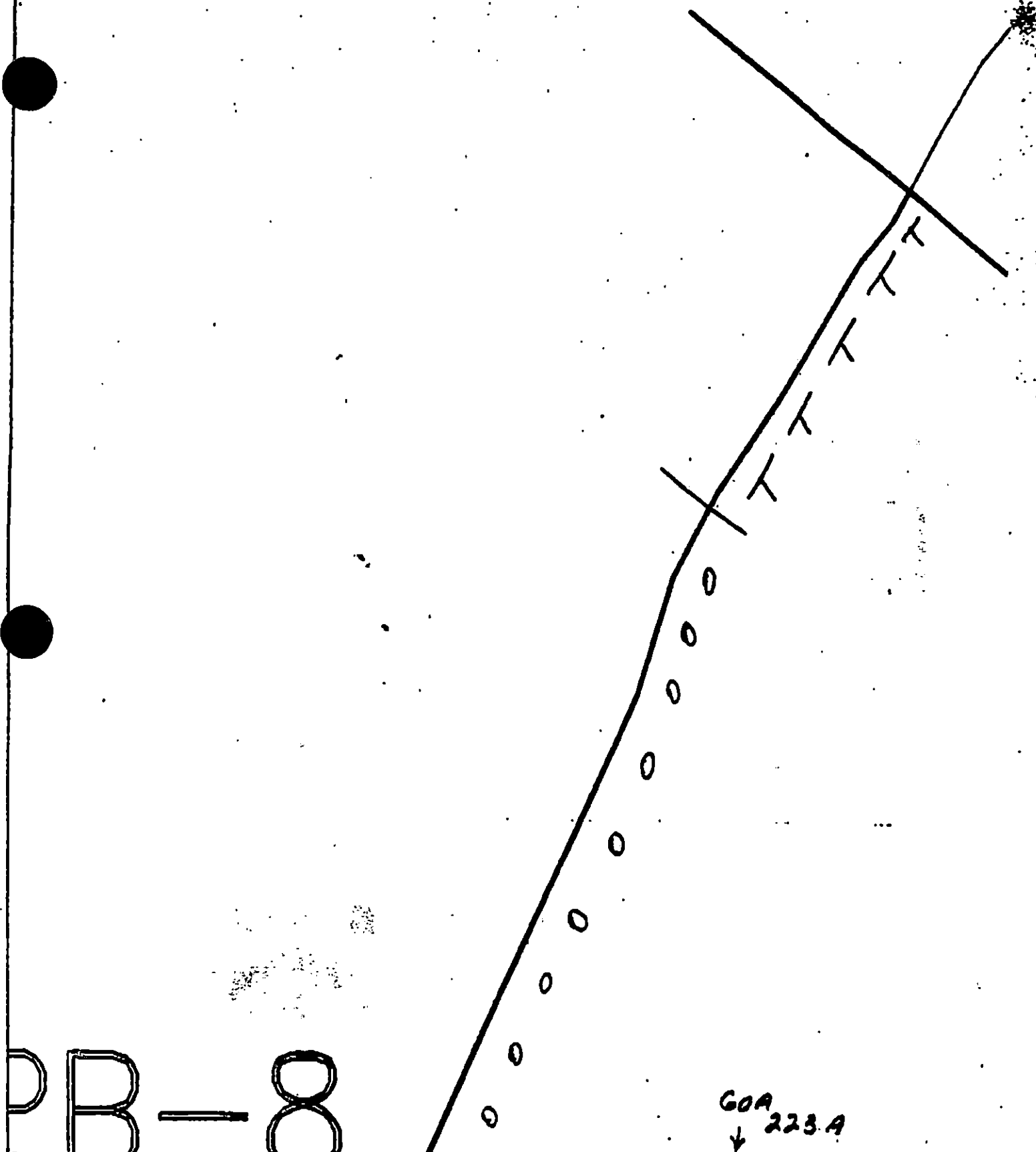


Map Key: GOA-223a

Name: G. HEYMAN

Date: 5-2-70

DATE PLOTTED



PB-8

GOA
↓ 223A

XXXX Wide

//// Medium

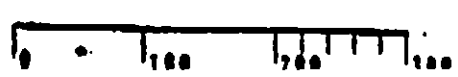
--- Narrow

TTTT Very Light

PB-8A

(of 1)

ADEC Segment Length: 2470m



Map Key: GOA-223b

Name: G. Heyman

Date: 5-2-90

1991 MAYSAP EVALUATION

SEGMENT: K1007PB008 **SUB:** A **REGION:** KOD **SURVEY DATE:** 5/28/91

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) OPEN

Ecological/Constraints (see page two for details) NONE

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO Signature: _____ Date: _____

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

COMMENTS:

INITIAL: _____

TAG: _____

FOSC: _____

TAG APPROVAL DATE: _____ FOSC APPROVAL DATE: _____

ADEC _____ FOSC _____

EXXON _____

USCG _____

NOAA _____

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 6-HELO SEGMENT PB-8 SUBDIVISION A DATE 5/28/91

ADEC

NAME J. BARNHART ADEC

SIGNATURE

Jiff Barnhart

- ☒ NTR We started the survey in PB-9 at the mouth of Thosia creek and walked what I estimated to be 500 m. south. The survey stopped here, short of the beginning of PB-8. The OG's estimate of area surveyed would have put us just in the PB-8 segment.

EXXON

NAME R. COULTER EXXON

SIGNATURE

REL R. Coulter

- ☒ NTR BREAKUP AND/OR REMOVAL OF ALL SCATTERED AP/TB WAS DONE BY THE VECO WORKERS. NO ADDITIONAL ATTENTION NEEDED.

ANDMANAGER

NAME J. HARDISTER

OF USEEWS

SIGNATURE

J. P. Hardister

- ☒ NTR SOR either removed or broken up by team (when highly weathered) No further treatment recommended.

USCG/NOAA

NAME CWO R. SPURR/G. SHIGENAKA

SIGNATURE

R. P. Spur / G. Shigenaka

- ☒ NTR Scattered patties found in this segment were weathered and were broken up by Veco workers. No additional Treatment needed.

THE SURVEYED PORTION OF THE SEGMENT WAS A CONTINUATION OF THE PHYSICAL SETTING IN PB-9: A DRIFT LOG STRAWN SUPRATIDAL LYING BETWEEN A SAND BEACH AND A NO LONGER USED SANDY STREAM CHANNEL THAT PARALLELS THE BEACH. THE SURVEY FOCUSED ON THE SUPRATIDAL BEACH AND BEACH SIDE UITS. OCCASIONAL TIES OF WEATHERED SOR WERE SEEN IN THE SUPRA, AND WERE EITHER RECOVERED OR BROKEN UP. NO OTHER OILING AND THIS MATERIAL AMONG THE DRIFT LOGS WAS OBSERVED IN THE SURVEYED AREA.

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 6-HELO SEGMENT PB-8 SUBDIVISION A DATE 5/28/91

ADEC

NAME J. BARNHART, ADEC SIGNATURE Jeff Barnhart

- ☒ NTR We started the survey in PB-9 at the mouth of Thelisa creek and walked what I estimated to be 500 m south. The survey stopped here, short of the beginning of PB-8. The OG's estimate of area surveyed would have put us just in the PB-8 segment.

EXXON

NAME R. COULTER, EXXON SIGNATURE _____

- ☐ NTR

LANDMANAGER

NAME J. HARDISTER OF USFWS SIGNATURE J. P. Hardister

- ☒ NTR SOR either removed or broken up by team (when highly weathered). No further treatment recommended.

USCG/NOAA

NAME CWO R. SPURR / E. SHIGENAKA SIGNATURE R. Spurr / E. Shigenaka

- ☒ NTR Scattered patties found in this segment were weathered and were broken up by Veco workers. No additional treatment needed.

THE SURVEYED PORTION OF THE SEGMENT WAS A CONTINUATION OF THE PHYSICAL SETTING IN PB-9: A DRIFT LOG STRAWN SUPRATIDAL LYING BETWEEN A SAND BEACH AND A NO LONGER USED SANDY STREAM CHANNEL THAT PARALLELS THE BEACH. THE SURVEY FOCUSED ON THE SUPRATIDAL BERM AND BEACH SIDE UITS. OCCASIONAL PATTIES OF WEATHERED SOR WERE SEEN IN THE SUPRA AND WERE EITHER RECOVERED OR BROKEN UP. NO OTHER OILING BEYOND THIS MATERIAL AMONG THE DRIFT LOGS WAS OBSERVED IN THE SURVEYED AREA.

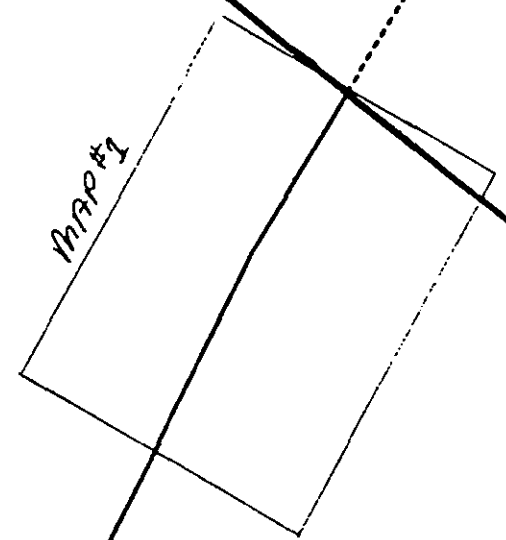
PAGE 1 OF 1

54 5/31

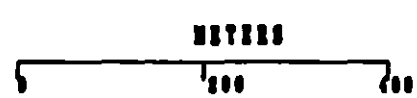
+

P B

+



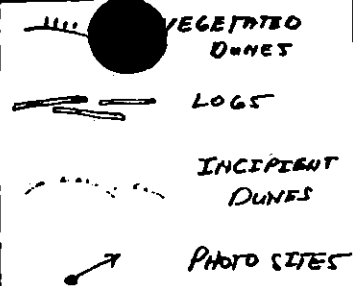
K1007 PB008 A



AK State Plane Zone 14
81007, 600000-5

Subdivision Field Map
Map Key: COAK1007PB008AB
Name: D. Fitzgerald
Date: 28 May 1991

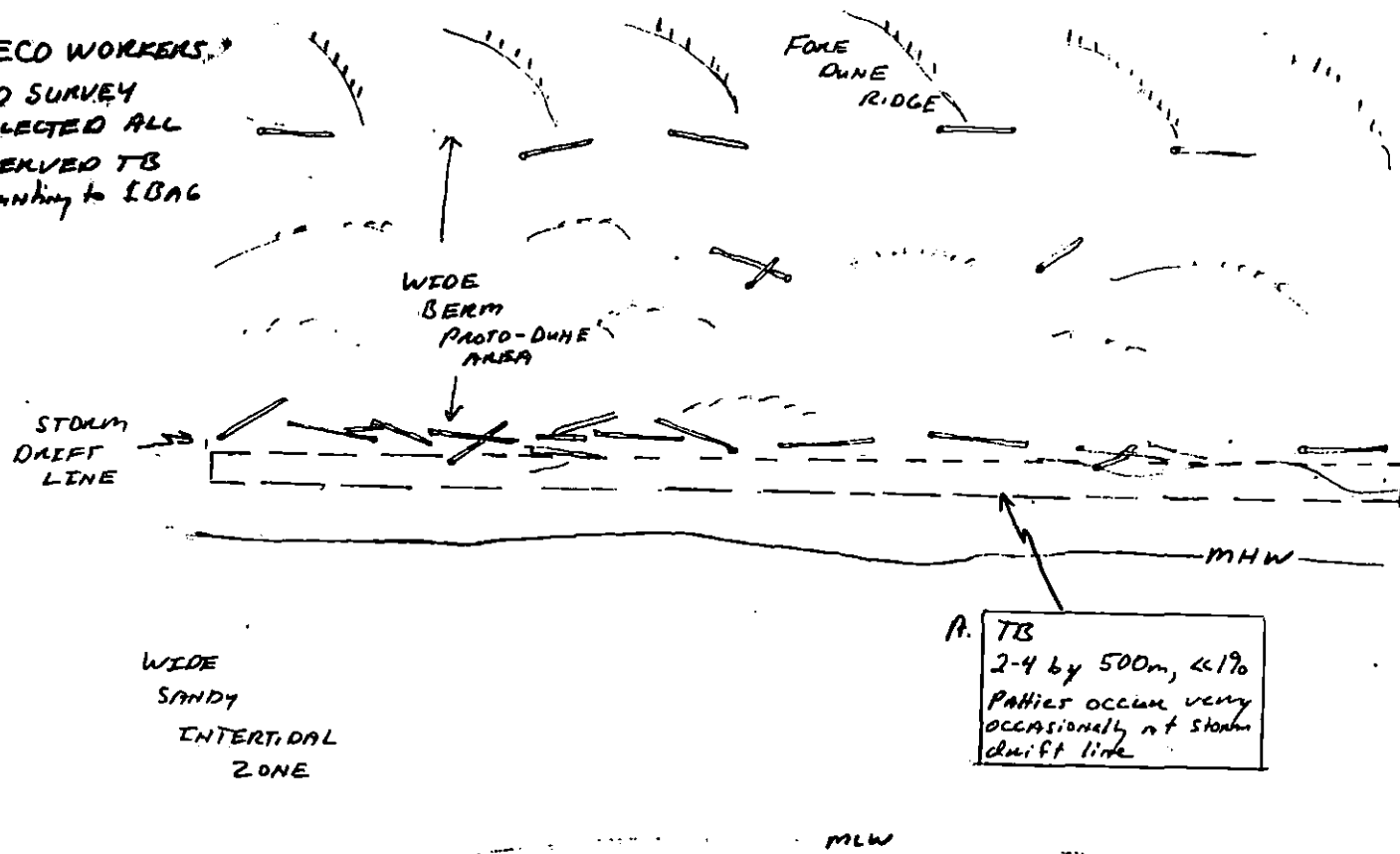
reviewed 5.31 91



SK MAP (06)
 K10-07-PB-8-A
 D. M. FITZGERALD
 28 MAY 1991
 8:20 - 8:45

ALASKA PENINSULA

PU * VECO WORKERS
 AND SURVEY
 COLLECTED ALL
 OBSERVED TB
 AMOUNTING TO 1 BAG



BEGIN
 SEGMENT →
 PB-09-A

A. TB
 2-4 by 500m, <1%
 PATTERNS OCCUR VERY
 OCCASIONALLY AT STORM
 DRIFT LINE

0 100
 METERS

PURLE BAY

reviewed 5.31.94
 R541R125A MC C.1191

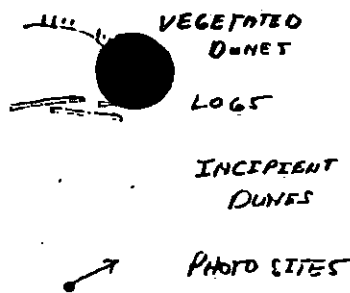
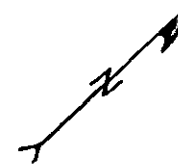


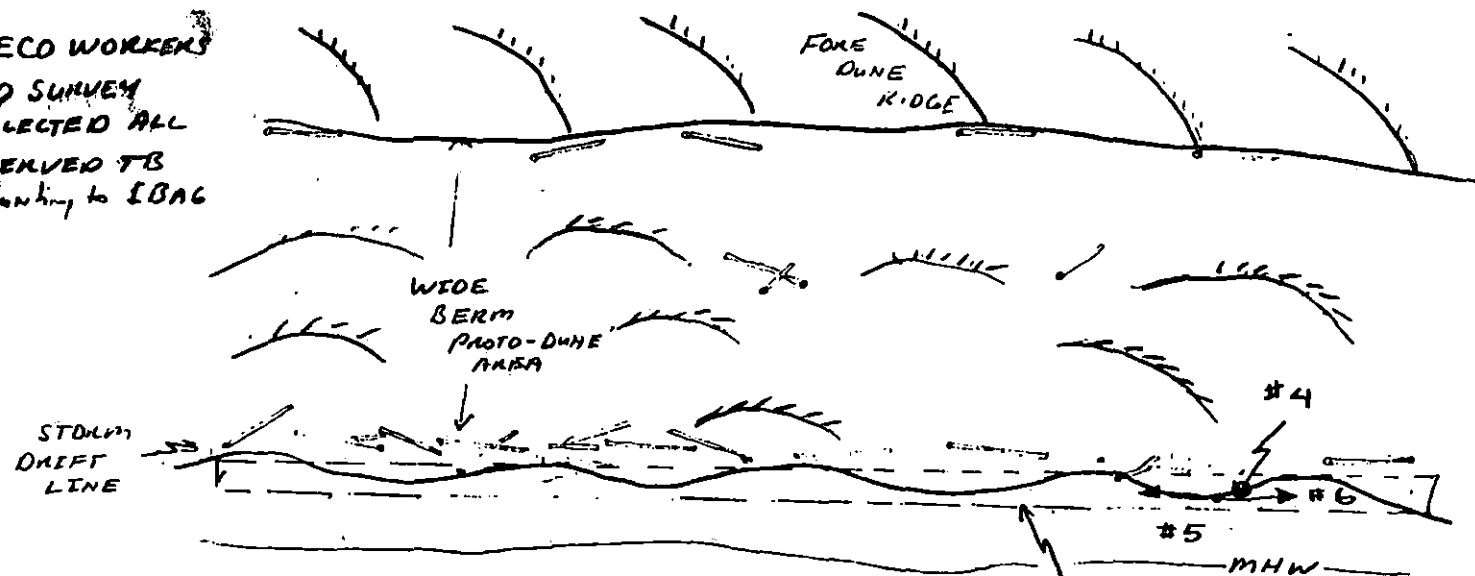
PHOTO SITE PB-8A
ROLL 6-2 FRAMES 4 THRU 6

Sketch Map of
K17-PB-8-A
D.M. FITZGERALD
28 MAY 1991
P20-845

ALASKA PENINSULA



PU* VECO WORKERS
AND SURVEY
COLLECTED ALL
OBSERVED TB
AMOUNTING TO 18AG



BEGIN
SEGMENT →
PB-09A

WIDE
SANDY
INTERTIDAL
ZONE

A. TB
2-4 by 500m, <1%
PATTERNS OCCUR VERY
OCCASIONALLY AT STORM
DRIFT LINE

0 100
METERS

MLW

PURALE BAY

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 6 Helo

DATE May 28 1991

SEGMENT # K10-07 PB-08

TIDAL HEIGHT (Range) 0 - 1/4 ft (8:20-8:45)

SUBDIVISION A

BIOLOGIST H. Davis

SEA STATE 2 ft in Puale Bay

WIND SPEED/DIRECTION Periodic Breeze NE

PHOTOGRAPHS: ROLL # 6-24

FRAME # 4-6

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

Like PB-09, PB 08 is a wide sandy beach with a supratidal berm and a dry sandy stream bed paralleling the beach behind the berm. The UTZ and supratidal berm were the focus of the survey. Only a few scattered patches of SOR were found at the boundary of the UTZ and the supratidal. The top of the UTZ had a band of drift kelp and shells mostly composed of Saxidomus, Clinocardium, Thelus, Fucus, Nereocystis, Laminaria and Rhizosolenia. Up on the supratidal berm drift logs, shells and fishing debris were scattered. The spring growth of sea purslane and beach grass was beginning to come up through the sand.

Golden crowned song sparrows (3)

Surf Scoters (7) Cormorants (3) 1 dead shearwater western sandpipers (3)

Northern (20) Glaucous winged Gull (2) Kittiwakes (3) + 2 dead Kittiwakes

WILDLIFE OBSERVATIONS

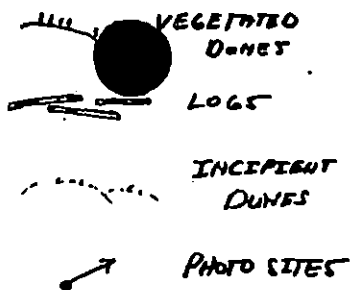
TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	0	-	
Seabirds	2	36 (dead sooty shearwater)	
Waterfowl	2	9	
Gulls/Kittiwakes	2	5 (+ 2 dead Kittiwakes)	
Shorebirds	1	1	
Corvids	0		
Other Birds sparrows	2	2 golden / 1 song	

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters	0	For - Fox tracks	1 Red Fox in uplands
Pinnipeds (specify)	0	Caribou tracks	
Bales (specify)	0	Bear tracks	

Shoreline subdivision map showing important biological features attached.

Rev 1 01-71 50M



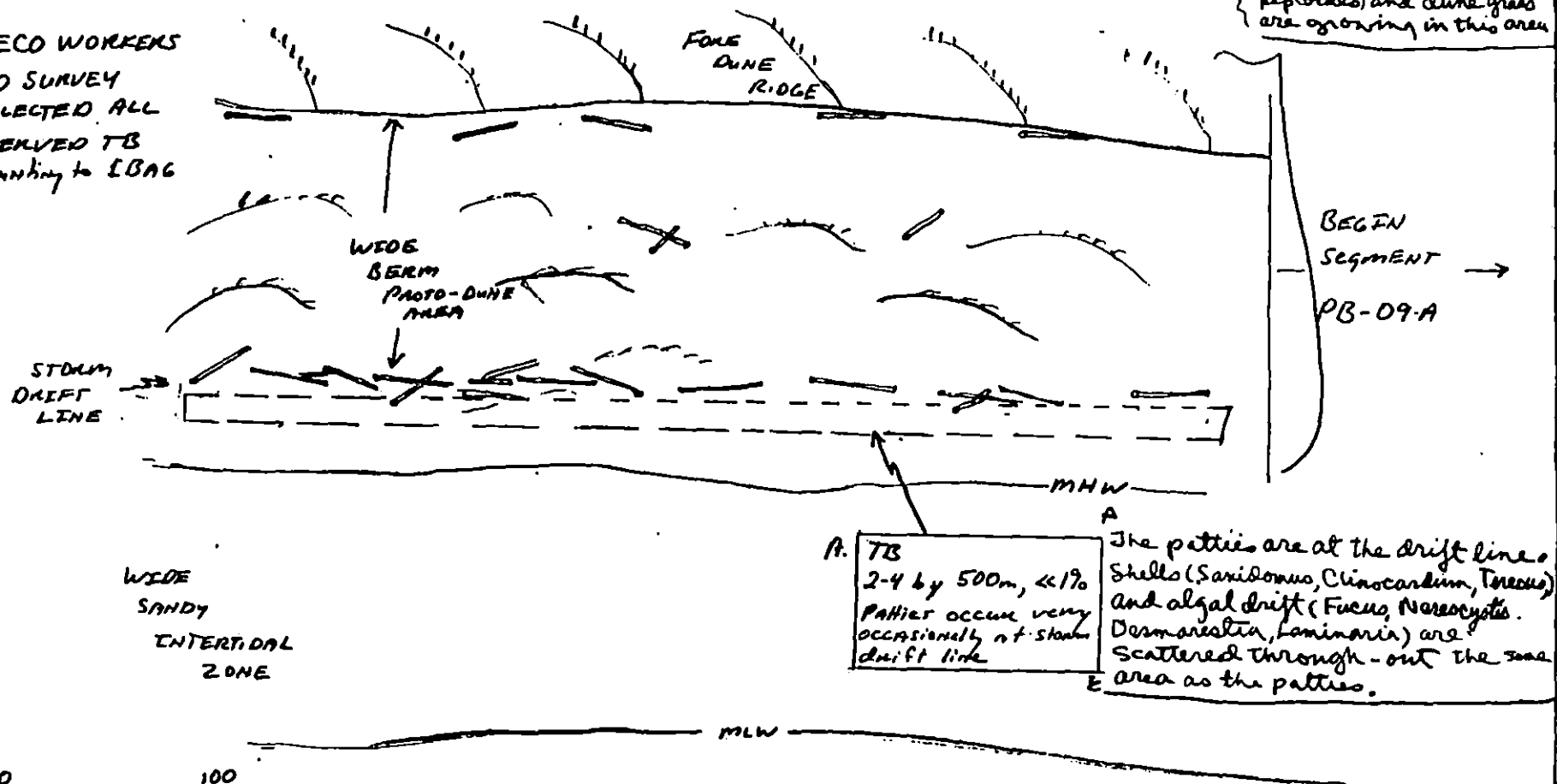
Big Map
H. Davis

SA MAP (OG)
K16007-PB-8-A
D. M. FITZGERALD
28 MAY 1991
8:20 - 8:45

ALASKA PENINSULA



PU * VECO WORKERS
AND SURVEY
COLLECTED ALL
OBSERVED TB
AMOUNTING TO IBAG



A. TB
2-4 by 500m, <1%
Patties occur very
occasionally at shore
drift line

The patties are at the drift line. Shells (Saxidomus, Clinocardium, Terebra) and algal drift (Fucus, Nereocystis, Desmarestia, Laminaria) are scattered through-out the same area as the patties.

0 100
METERS

PuALE BAY

PB + 8 +

A

Unsurveyed

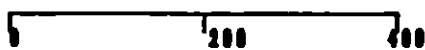


XXXX Wide
//// Medium
---- Narrow
TTTT Very Light
0000 No Oil

K1007 PB008 A

ADEC Subsegment Length: 2470m

METERS



AK State Plane Zone 4
g1007pb008a



Subdivision Field Map

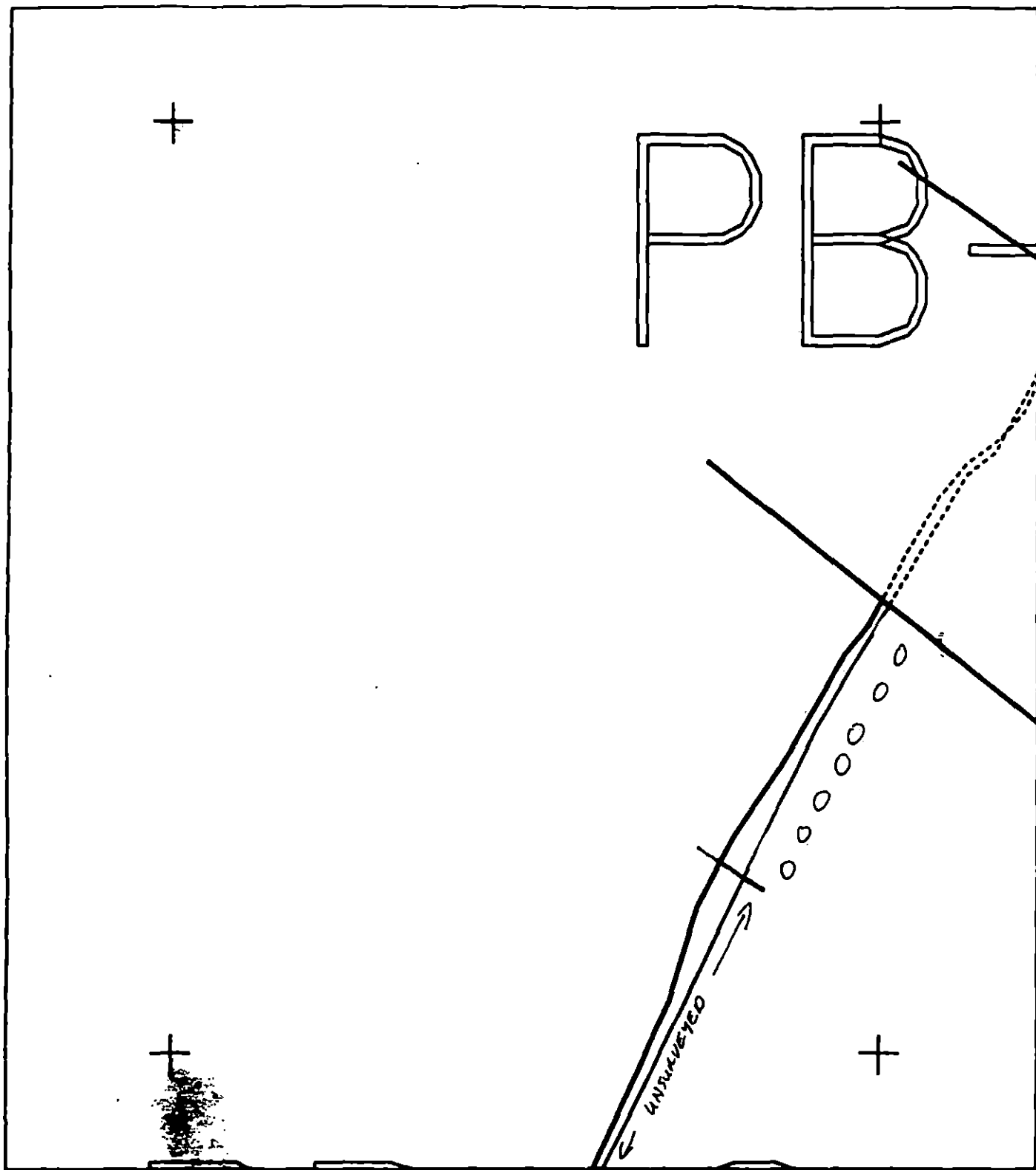
Map Key: 60AK1007PB008Aa

Name: D. Fitzgerald (Jr)

Date: 28 May 1991

Date Entered:

Reviewed: mc 6/1/91
revised 5.31 QY



XXXX	Wide	K1007 PB008 A	Subdivision Field Map
////	Medium	ADEC Subsegment Length: 2470m	Map Key: 80AK1007PB008A6
----	Narrow	METERS	Name: <u>D. Fitzgerald</u>
TTTT	Very Light	5 200 400	Date: <u>28 May 1991</u>
0000	No Oil	AK State Plane Zone 4	Date Entered:
		1007pb008a6	

REVISOR: MC 6/1/91
 reviewed S.31 Gy

NOAA

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 6-HELO SEGMENT PB-8 SUBDIVISION A DATE 5/28/91

ADEC

NAME J. BARNHART, ADEC

SIGNATURE

Jeff Barnhart

- ☒ NTR We started the survey in PB-9 at the mouth of Thonasa creek and walked what I estimated to be 500 m. south. The survey stopped here, short of the beginning of PB-8. The OG's estimate of area surveyed would have put us just in the PB-8 segment.

EXXON

NAME R. COULTER, EXXON

SIGNATURE

Reel R. Coulter

- ☒ NTR BREAKUP AND/OR REMOVAL OF ALL SCATTERED AP/TB WAS DONE BY THE VECO WORKERS. NO ADDITIONAL ATTENTION NEEDED.

LANDMANAGER

NAME J. HARDISTER

OF USEFWS

SIGNATURE

J. Hardister

- ☒ NTR SOR either removed or broken up by team (when highly weathered) No further treatment recommended.

USCG/NOAA

NAME CWO R. SPURR/G. SHIGENAKA

SIGNATURE

R. Spurr / G. Shigenaka

- ☒ NTR Scattered patties found in this segment were weathered and were broken up by Veco workers. No additional Treatment needed.

THE SURVEYED PORTION OF THE SEGMENT WAS A CONTINUATION OF THE PHYSICAL SETTING IN PB-9: A DRIFT LOG STEWED SUPRATIDAL LYING BETWEEN A SAND BEACH AND A NO LONGER USED SANDY STREAM CHANNEL THAT ALLEYS THE BEACH. THE SURVEY FOCUSED ON THE SUPRATIDAL BEACH AND BEACH SIDE UITE. OCCASIONAL ES OF WEATHERED SOR WERE SEEN IN THE SUPRA AND WERE EITHER RECOVERED OR BROKEN UP. NO OTHER OILING ND THIS MATERIAL ALONG THE DRIFT LOG WAS OBSERVED IN THE SURVEYED AREA.

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 6-HELO SEGMENT PB-8 SUBDIVISION A DATE 5/28/91

ADEC

NAME J. BARNHART, ADEC

SIGNATURE

Jeff Barnhart

- ☒ NTR we started the survey in PB-9 at the mouth of Thorisa creek and walked what I estimated to be 500 m south. The survey stopped here, short of the beginning of PB-8. The OG's estimate of area surveyed would have put us just in the PB-8 segment.

EXXON

NAME R. COULTER, EXXON

SIGNATURE

- ☐ NTR

LANDMANAGER

NAME J. HARDISTER

OF USFWS

SIGNATURE

John P. Hardister

- ☒ NTR SOR either removed or broken up by team (when highly weathered) No further treatment recommended.

USCG/NOAA

NAME CWO R. SPURR/G. SHIGENAKA

SIGNATURE

R.P. Spur / Gary Shigenaka

- ☒ NTR Scattered patties found in this segment were weathered and were broken up by Veco workers. No additional Treatment needed

THE SURVEYED PORTION OF THE SEGMENT WAS A CONTINUATION OF THE PHYSICAL SETTING IN PB-9; A DRIFT LOG STEWED SUPRATIDAL LYING BETWEEN A SAND BEACH AND A NO LONGER USED SANDY STREAM CHANNEL THAT PARALLELS THE BEACH. THE SURVEY FOCUSED ON THE SUPRATIDAL BERM AND BEACH SIDE UITS. OCCASIONAL PATTIES OF WEATHERED SOR WERE SEEN IN THE SUPRA, AND WERE EITHER RECOVERED OR BROKEN UP. NO OTHER OILING BEYOND THIS MATERIAL AMONG THE DRIFT LOGS WAS OBSERVED IN THE SURVEYED AREA.

PAGE 1 OF 1

SEGMENT K10-07-PB-08

SUBDIVISION 19

DATE 28 May 191

ENERGY LEVEL: ☐ H ☒ M ☐ L

EST. OIL CATEGORY LENGTH: W — m M — m N — m VL — m NO 500 m US 1970 m

PHOTO ROLL # MAY8AP- 6 - 24 FRAMES 4-6

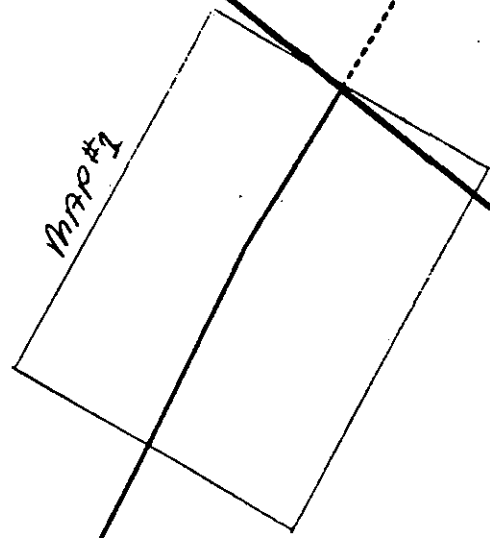
GREEN COLOR: B = BROWN; R = RAINBOW; S = SILVER; N = NONE

REVISED: MC 6/1/97

54 6/31



PB



K1007 PB008 A

Subdivision Field Map

Map Key: 604K1007PB008A

Name: D. Fitzgerald

Date: 28 May 1991

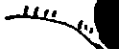
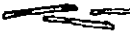
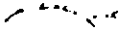


METERS



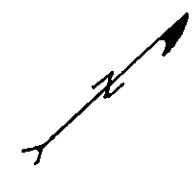
AK State Plane Zone 14
91007PB008A-B

reviewed 5.31 94

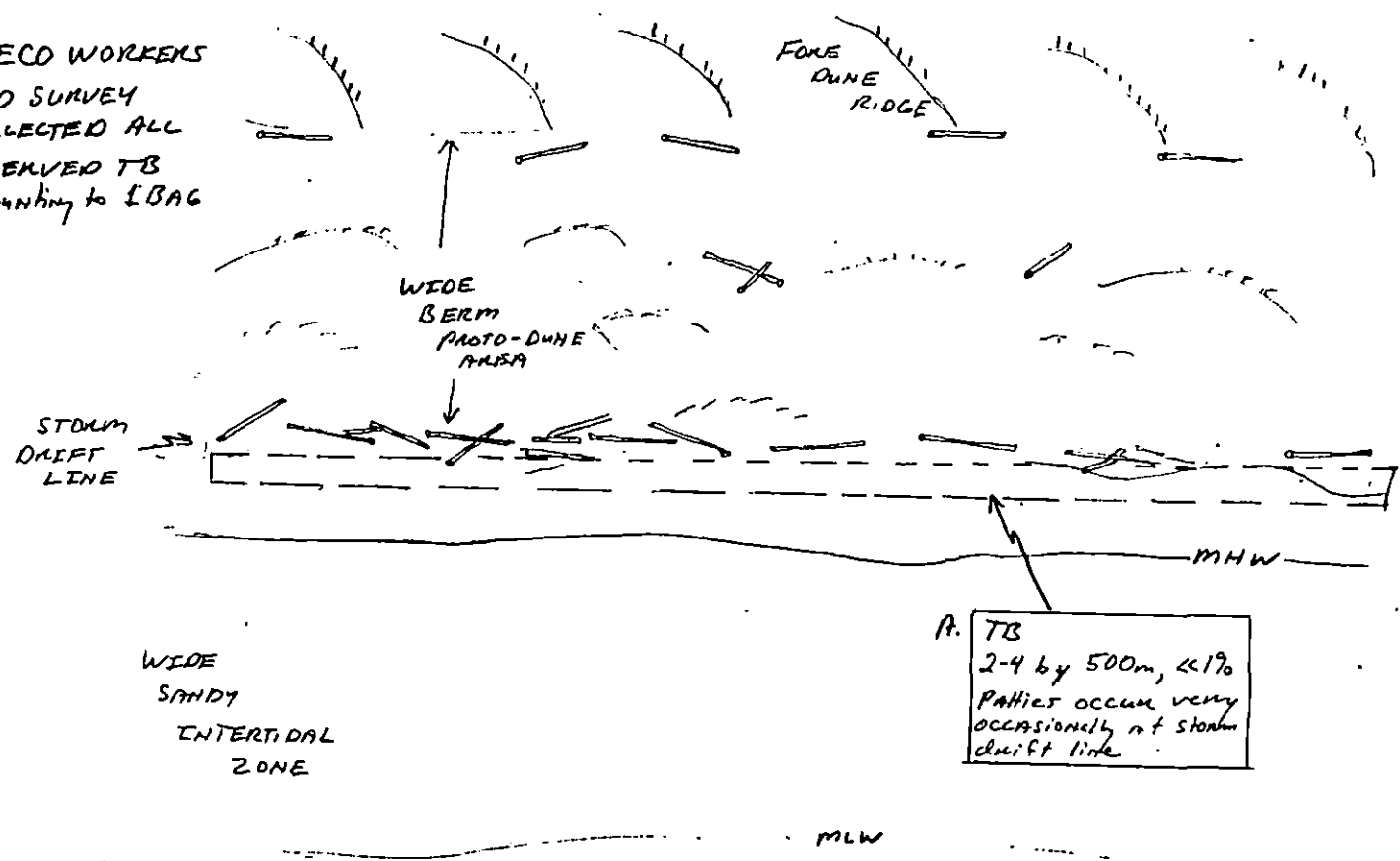
 MATURE DUNES
 LOGS
 INCIPIENT DUNES
 PHOTO SITES

SKETCH MAP (OG)
 K10-07-PB-8-A
 D.M. FITZGERALD
 28 MAY 1991
 8:20 - 8:45

ALASKA PENINSULA



PU * VECO WORKERS
 AND SURVEY
 COLLECTED ALL
 OBSERVED TB
 AMOUNTING TO LBAG



BEGIN
 SEGMENT →
 PB-09-A

A. TB
 2-4 by 500m, <1%
 Pathies occur very
 occasionally at storm
 drift line

0 100
 METERS

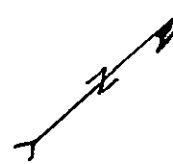
PUALE BAY

reviewed 5.31.91
 REVIEWER: MC 6.11.91

PHOTO SITE PB-8A
ROLL 6-24, PAGES 4 THRU 6

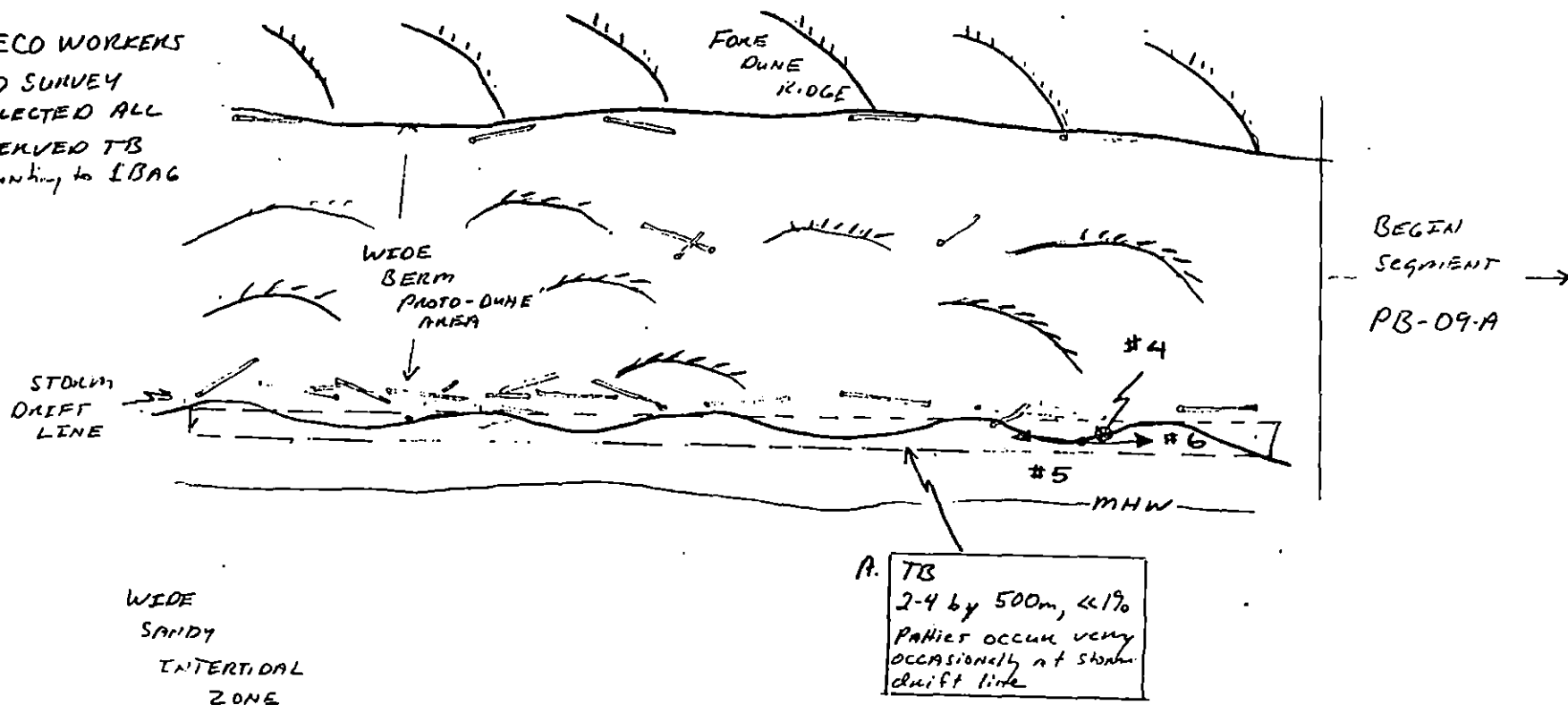
Sketch of PB-8A
K10 PB-8-A
D.M. FITZGERALD
28 MAY 1991
P20 - P45

VEGETATED
DUNES
LOGS
INCIPIENT
DUNES
PHOTO SITES



ALASKA PENINSULA

PU* VECO WORKERS
AND SURVEY
COLLECTED ALL
OBSERVED TB
AMOUNTING TO 1 BAG



0 100
METERS

PURLE BAY

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 6 Helo

DATE May 28 1991

SEGMENT # K10-07 PB-08

TIDAL HEIGHT (Range) 0 - 7/4 ft (8:20 - 8:45)

SUBDIVISION A

BIOLOGIST H. Davis

SEA STATE 2 ft in Puale Bay

WIND SPEED/DIRECTION Periodic Breeze NE

PHOTOGRAPHS: ROLL # 6-24

FRAME # 4-6

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

Like PB-09, PB 08 is a wide sandy beach with a supratidal berm and a dry sandy stream bed paralleling the beach behind the berm. The UTZ and supratidal berm were the focus of the survey. Only a few scattered patches of SOR were found at the boundary of the UTZ and the supratidal. The top of the UTZ had a band of drift kelp and shells mostly composed of Saxidom, clinocardium, Tereus Fucus, Nerocystis, laminaria and Diatoms. Up on the supratidal berm drift logs, shells and fishing debris were scattered. The spring growth of sea purslane and beach grass was beginning to come up through the sand.

Golden crowned + song sparrows (3)

Furl Scoters (7) Cormorants (3) 1 dead shearwater western sandpipers (3)

Northern (20+) Glaucous winged Gull (2) Kittiwakes (3) + 2 dead Kittiwakes

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

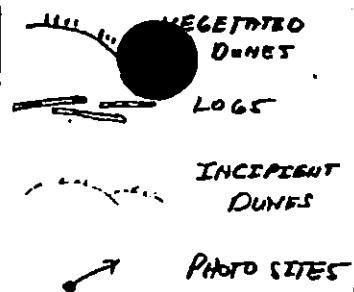
BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	0	-	
Seabirds	2	36 (1 dead sooty shearwater)	
Waterfowl	2	9	
Gulls/Kittiwakes	2	5 (+ 2 dead Kittiwakes)	
Shorebirds	1	1	
Corvids	0		
Other Birds sparrows	2	2 golden / 1 song	

LAND MAMMALS

MARINE MAMMALS	# OBSERVED	SPECIES	# OBSERVED
Sea Otters	0	For - Fox tracks	1 Red Fox in uplands
Pinnipeds (specify)	0	Caribou tracks	
Bales (specify)	0	Bear tracks	

Shoreline subdivision map showing important biological features attached.

P. 1 - 111 - 100

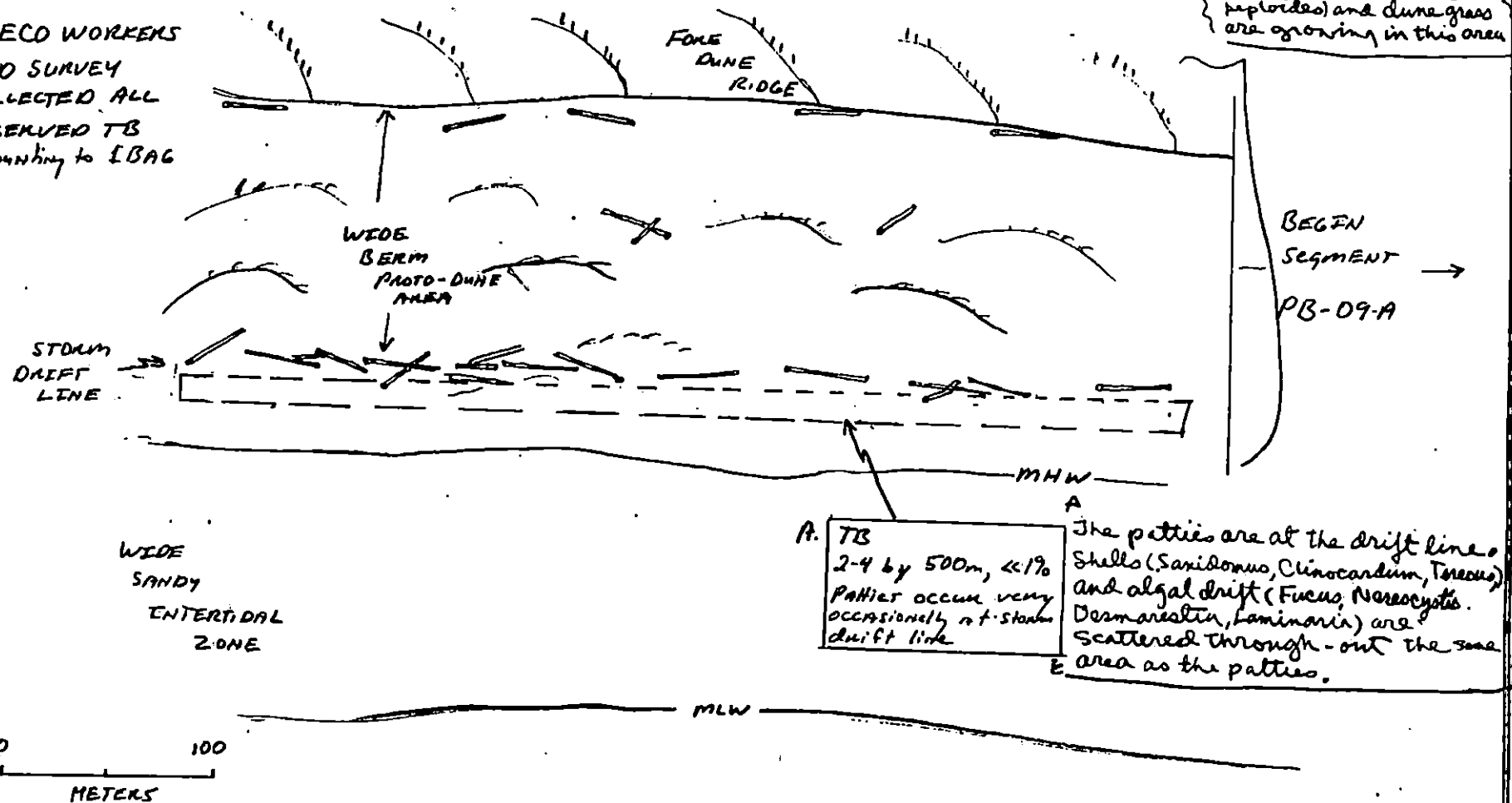


Bio Map
H. Davis

SKETCH MAP (OG)
K10-PB-8-A
D. M. FITZGERALD
28 MAY 1991
8:20 - 8:45

ALASKA PENINSULA

PU* VECO WORKERS
AND SURVEY
COLLECTED ALL
OBSERVED TB
AMOUNTING TO IBAG



PuALE BAY

P B + 8 +

A

Unsurveyed

+ +

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

K1007 PB008 A
 ADEC Subsegment Length: 2470m
 METERS

0 200 400
 AK State Plane Zone 4
 g1007pb008a- . . .

Subdivision Field Map
 Map Key: GOAK1007PB008A
 Name: D. FitzGerald (54)
 Date: 28 May 1991
 Date Entered:



Reviewed: MC 6/1/91
 revised 5.31 QY

+

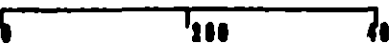
P

B

+

+

XXXX
////

TTTT
0000Wide
Medium
Narrow
Very Light
No OilK1007 PB008 A
ADEC Subsegment Length: 2470m
METERS

 AK State Plane Zone 4
 91007pb008ab- . . .


Subdivision Field Map

Map Key: 00AK1007PB008Ab

Name: D. FitzgeraldDate: 28 May 1991

Date Entered:

 REVISED: MC 6/1/91
 reviewed S.31 QY

1991 MAYSAP EVALUATION

SEGMENT: K1007PB009 SUB: M REGION: KOD SURVEY DATE: 5/28/91

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) OPEN

Ecological/Constraints (see page two for details) NONE

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO Signature: _____ Date: _____

RECOMMENDATIONS:

INITIAL

TAG

FOSC

TREATMENT REQUIRED (Y or N)

N

Manual Pickup (Check as Req.)

Spot Washing

Bio-Customblen Only

Bio-Inipol/Customblen

Other

Other

COMMENTS:

INITIAL: _____

TAG: _____

FOSC: _____

TAG APPROVAL DATE: _____

FOSC APPROVAL DATE: _____

ADEC

FOSC

EXXON

USCG

NOAA

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 6-HELO SEGMENT PB-9 SUBDIVISION A DATE 5/28/91

ADEC

NAME J. BARNHART, ADEC

SIGNATURE J. Barnhart

☒ NTR Located several bands of TB's, 1-2% adjacent to Theresa creek, at the stream mouth extending 100 m. upstream. Most were removed or broken apart. Surveyed from the mouth of Theresa creek south approx 500 m. In the area of scattered logs (approx 40 m wide) scattered TB's were located <1%. Very few were removed. Most remain.

EXXON

NAME R. COULTER, EXXON

SIGNATURE R. R. Coulter

☒ NTR BREAKUP/REMOVAL WAS DONE ON ALL TB/AP FOUND ON THIS SUBDIVISION. NO ADDITIONAL CONSIDERATION NEEDED.

LANDMANAGER

NAME J. HARDISTER

OF USFWS

SIGNATURE J. P. Hardister

☒ NTR SOR was either recovered by VECO team or, when found to be highly weathered, broken up. No further treatment recommended.

USCG/NOAA

NAME CWO R. SPURR/G. SHIGENAKA

SIGNATURE R. P. Spurr / G. Shigenaka

☒ NTR All mousse/SOR found on this segment was either broken up or recovered by VECO workers during survey.

SURVEYED PORTION OF THE SEGMENT CONSISTED PRIMARILY OF THE WIDE SAND-GRANULE AREAS ON BOTH SIDES OF THE SUPRATIDAL BERM. THE SHOREWARD SIDE WAS APPARENTLY A DRY SAND STREAM BED FROM THE STREAM THAT CURRENTLY BORDERS THE NORTHERN END OF THE SURVEYED SECTION. IN OTHER WORDS, A SUPRATIDAL BERM LIES BETWEEN TWO SANDY AREAS, ONE OF WHICH IS A SAND BEACH AND THE OTHER BEING AN ERODED STREAM CHANNEL. SINCE THE SURVEYED AREA WAS IN THE SUPRATIDAL AND ABOVE, FEW BIOTA WERE PRESENT. AN OTTER SKULL WAS FOUND BY THE USFWS BPP ABOVE A PREVIOUS SUPRATIDAL AND NEAR THE BASE OF THE LOW BLUFFS THAT BORDER THE SHORELINE AREA. OILING IN THE FORM OF SOR WAS OBSERVED SPOTADICALLY ALONG THE SURVEYED AREA, MOSTLY IN THE PRESENT SUPRATIDAL DRIFT LOG AREA, ON THE SAND FLAT THAT HAD BEEN THE BANKS OF THE STREAM CHANNEL, AND ALONG THE SOUTH SHORE OF THE STREAM NEAR ITS MOUTH. THE OIL RESIDUES WERE WELL-WEATHERED AND CONTAINED A HIGH PROPORTION OF SAND, AND WERE EITHER RECOVERED OR BROKEN UP BY THE TEAM.

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 6-HELO SEGMENT PB-9 SUBDIVISION A DATE 5/28/91

ADEC

NAME J. BARNHART, ADECSIGNATURE Jeff Barnhart

☒ NTR Located several bands of TB's, 1-2%, adjacent to Theresa creek, at the stream mouth extending 100 m. upstream. Most were removed or broken apart. Surveyed from the mouth of Theresa creek south approx 500 m. In the area of scattered logs (approx 40 m wide) scattered TB's were located <1%. Very few were removed. Most remain.

EXXON

NAME R. COULTER, EXXON

SIGNATURE _____

☐ NTR

LANDMANAGER

NAME J. HARDISTEROF USFWSSIGNATURE John P. Hardister

☒ NTR SOR was either recovered by VECO team or, when found to be highly weathered, broken-up. No further treatment recommended.

USCG/NOAA

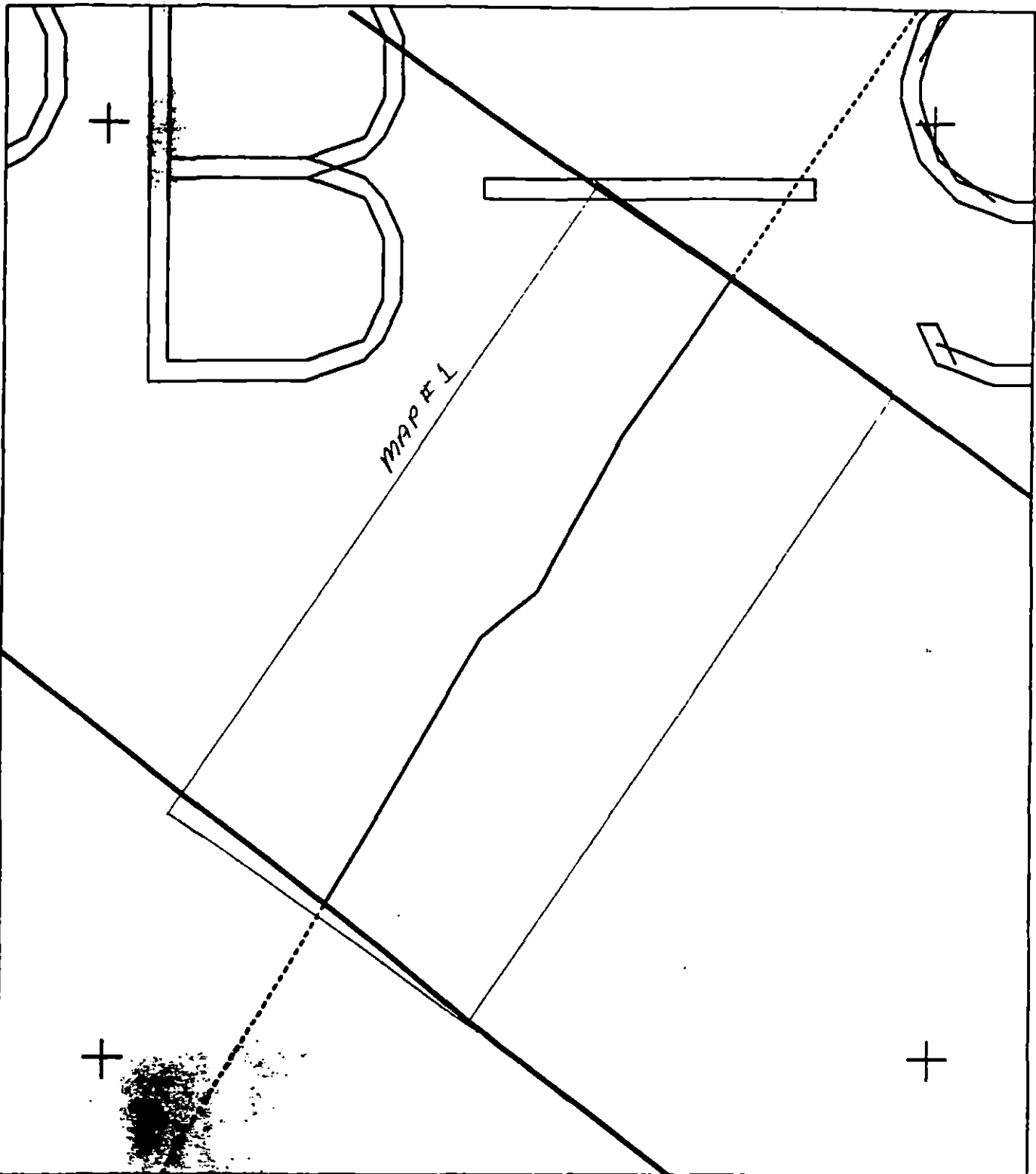
NAME CWO R. SPURR/G. SHIGENAKASIGNATURE R. P. Spurr / G. Shigenaka

☒ NTR All mouse/SOR found in this segment was either broken up or recovered by VECO workers during survey.

SURVEYED PORTION OF THE SEGMENT CONSISTED PRIMARILY OF THE WIDE SAND-GRAVULE AREAS ON BOTH SIDES OF THE SUPRATIDAL BERM. THE SHOREWARD SIDE WAS APPARENTLY A DRY SAND STREAM BED FROM THE STREAM THAT CURRENTLY BORDERS THE NORTHERN END OF THE SURVEYED SECTION. IN OTHER WORDS, A SUPRATIDAL BERM LIES BETWEEN TWO SANDY AREAS, ONE OF WHICH IS A SAND BEACH AND THE OTHER BEING AN UNUSED STREAM CHANNEL. SINCE THE SURVEYED AREA WAS IN THE SUPRATIDAL AND ABOVE, FEW BIOTA WERE PRESENT. AN OTTER SKULL WAS FOUND BY THE USFWS REP ABOVE A PREVIOUS SUPRATIDAL AND NEAR THE BASE OF THE LOW BLUFFS THAT BORDER THE SHORELINE AREA. OILING IN THE FORM OF SOR WAS OBSERVED SPOADICALLY ALONG THE SURVEYED AREA, MOSTLY IN THE PRESENT SUPRATIDAL DRIFT LOG AREA, ON THE SAND FLAT THAT HAD BEEN THE BANKS OF THE STREAM CHANNEL, AND ALONG THE SOUTH SHORE OF THE STREAM NEAR ITS MOUTH. THE OIL RESIDUES WERE WELL-WEATHERED AND CONTAINED A HIGH PROPORTION OF SAND, AND WERE EITHER RECOVERED OR BROKEN UP BY THE TEAM.

PAGE 1 OF 1

Reviewed: MC 6/1/91
reviewed 5.31 9y



K1007 PB009 A

METERS



AS SHOWN PLANNED ZONE 4.

Subdivision Field Map

Map Key: COA1007PB009A

Name: D. Fitzgerald

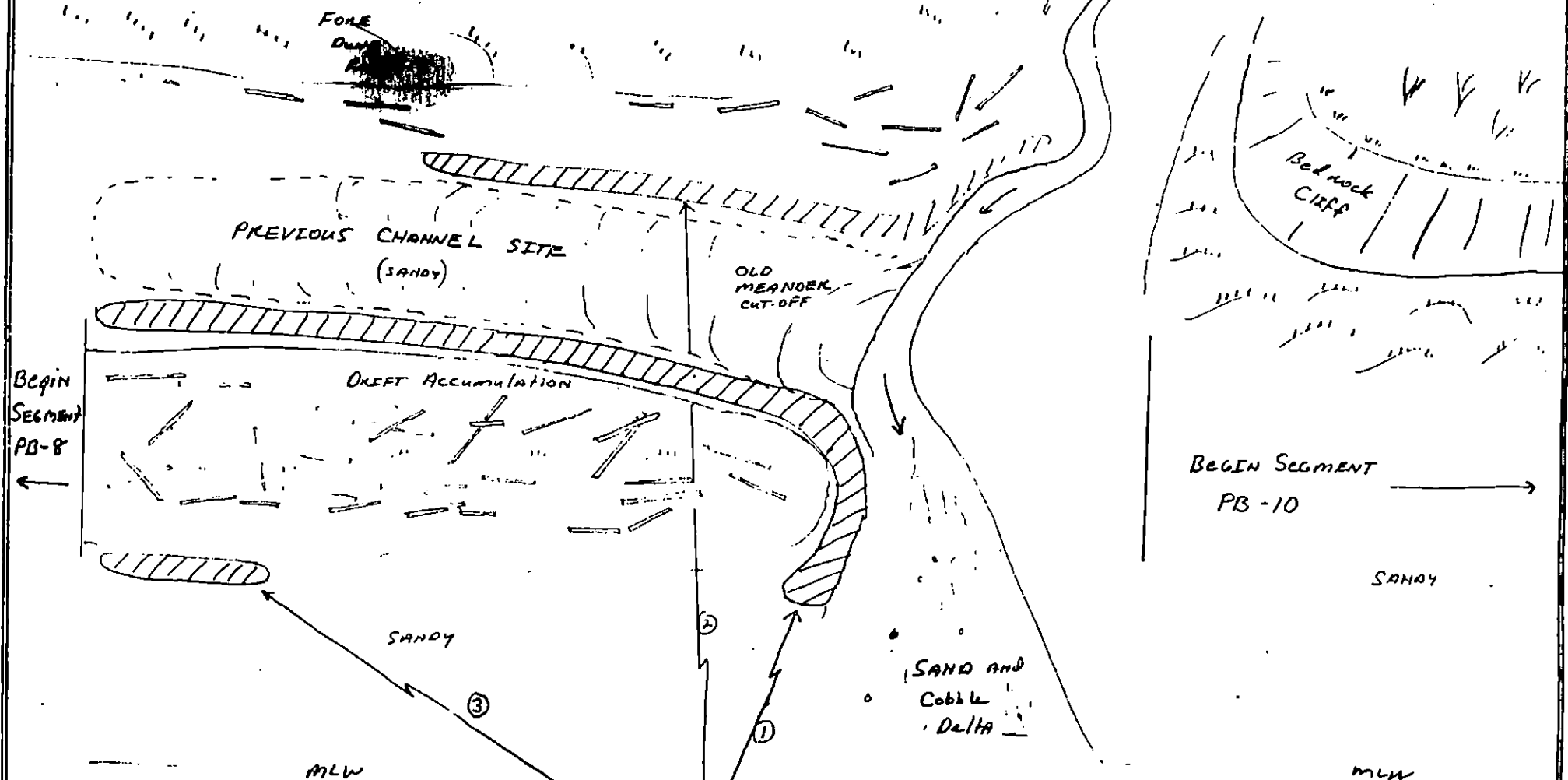
Date: 28 May 1991

Reviewed 5.31.97

 ETATED DUNE system
 GRASSY UPLAND
 LOGS & DRIFTWOOD
 INCIPENT DUNES
 PHOTO SITES

ALASKA
PENINSULA

Sketch MAP (OG)
 K10-07-PB-09-A
 28 MAY 1991
 D. M. FITZGERALD
 815-850



P.U. * VECO WORKERS AND
 SURVEY TEAM PICKED
 UP 1 1/2 BAGS OF TB.
 SOME OF THE HIGHLY
 FRAGILE TB WERE BROKEN
 APART

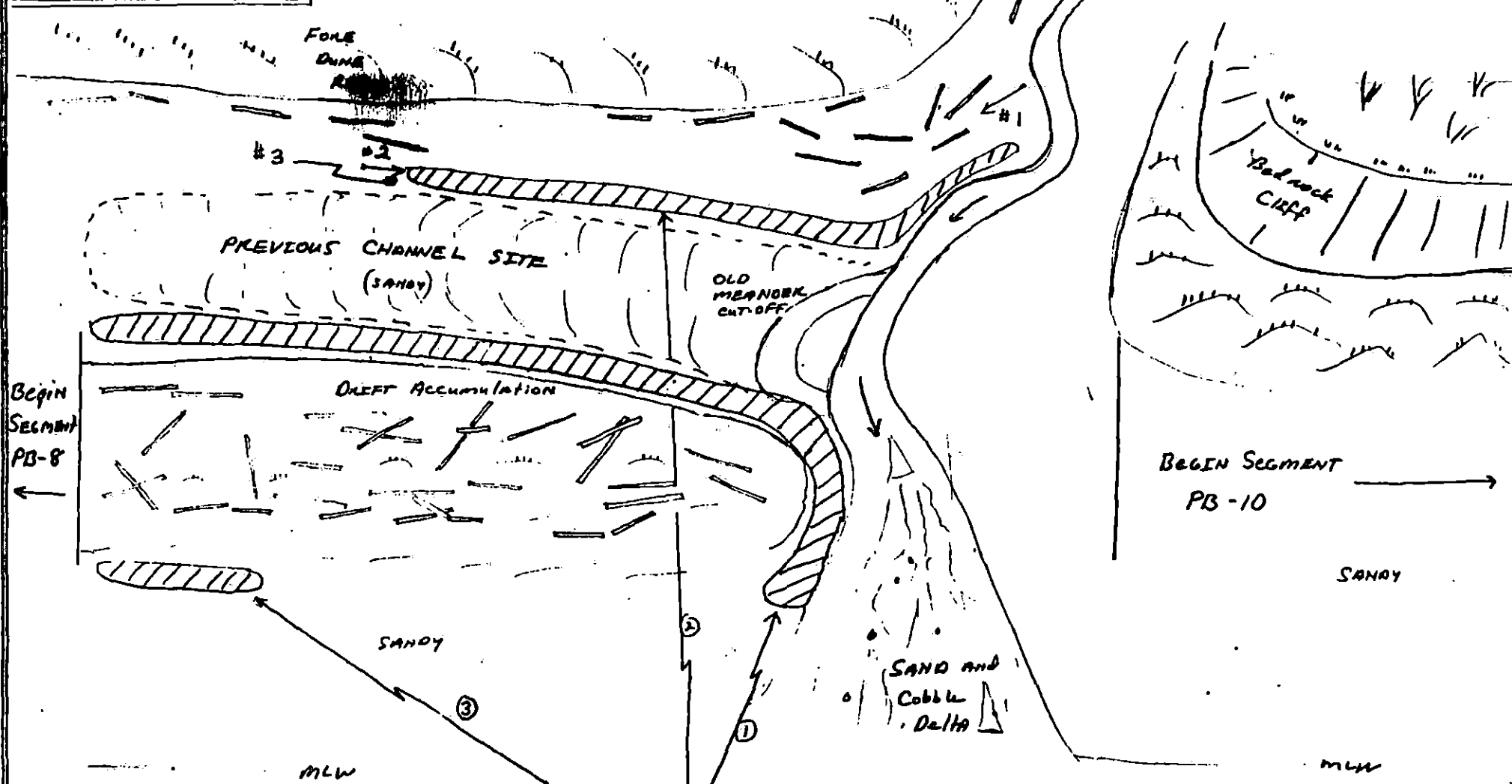
- A. TB/AP
1. 2-20 by 600m < 170
 2. 5 by 400m < 170
 3. 2-4 by 100m < 170
- most CONC. AROUND
the former river
channel

PUALE BAY reviewed 5.319g
 Reviewed: mc 6/19

 ETATED DUNE system
 GRASSY Upland
 LOGS & Driftwood
 INCIPENT DUNES
 PHOTO SITES

PHOTO SITES, PB-9
 ROLL G-24, FRAMES THRU 3
 ALASKA
 PENINSULA

SKETCH MAP (OG)
 K10-07-PB-09-A
 28 MAY 1991
 D. M. FITZGERALD
 815-850



PU. * VECO WORKERS AND
 SURVEY TEAM PICKED
 UP 1 1/2 BAGS OF TB.
 SOME OF THE HIGHLY
 FRAGILE TB WERE BROKEN
 APART

- A. TB/AP
1. 2-20 by 600m < 1%
 2. 5 by 400m < 1%
 3. 2-4 by 100m < 1%
- most CONC. around the former river channel

PUALE BAY reviewed 5.31.92
 Reviewed: 6/1/91 MK

KAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 6 Helo

DATE May 28 1991

SEGMENT # K10-07 PB-09

TIDAL HEIGHT (Range)

(805-)

SUBDIVISION #

BIOLOGIST H. Davis

SEA STATE 1-2 in Phase 13m

WIND SPEED/DIRECTION Periodic breeze NE

PHOTOGRAPHS: ROLL # 6-24

FRAME # 1-3

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

PB-09 is a wide sandy beach with a supratidal berm and a dry sandy stream bed paralleling the beach behind the berm. In the surveyed portion of the beach (the UETZ and supratidal berm) occasional patches of TB were found at the intersection of the UETZ and the supratidal zone. The UETZ had a line of drift kelp and shells composed mostly of Saxidomus, Siligera, Clinocardium very large Trus (10cm over) Fucus, Derocystis, lamisaria and decomposing red blades. The supratidal had drift logs, shells, and fishing debris. The sea purslane and beach grass were beginning to grow up through the sand (Honkenya peploides and Elismus mollis). An otter skull was found by USFWS and turned over to the NOAA rep.

Surf scoters (6) Cormorants (2)

Glaucous-winged Gulls (6) Dead Kittiwakes (3) Western sandpipers (4) sparrows (4)

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	0		0
Seabirds	1	2	
Waterfowl	1	6	
Gulls/Kittiwakes	2	6 (+3 dead Kittiwakes)	
Shorebirds	1	4	
Corvids	0		
Other Birds Sparrows	1	4	

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters	1 skull	Fox Tracks	
Pinnipeds (specify)	0	Caribou + Tracks	1
Bales (specify)	0	Bear tracks	

Shoreline subdivision map showing important biological features attached.

Print 6/1/91

VEGETATED DUNE system

 GRASSY Upland

 LOGS & Driftwood

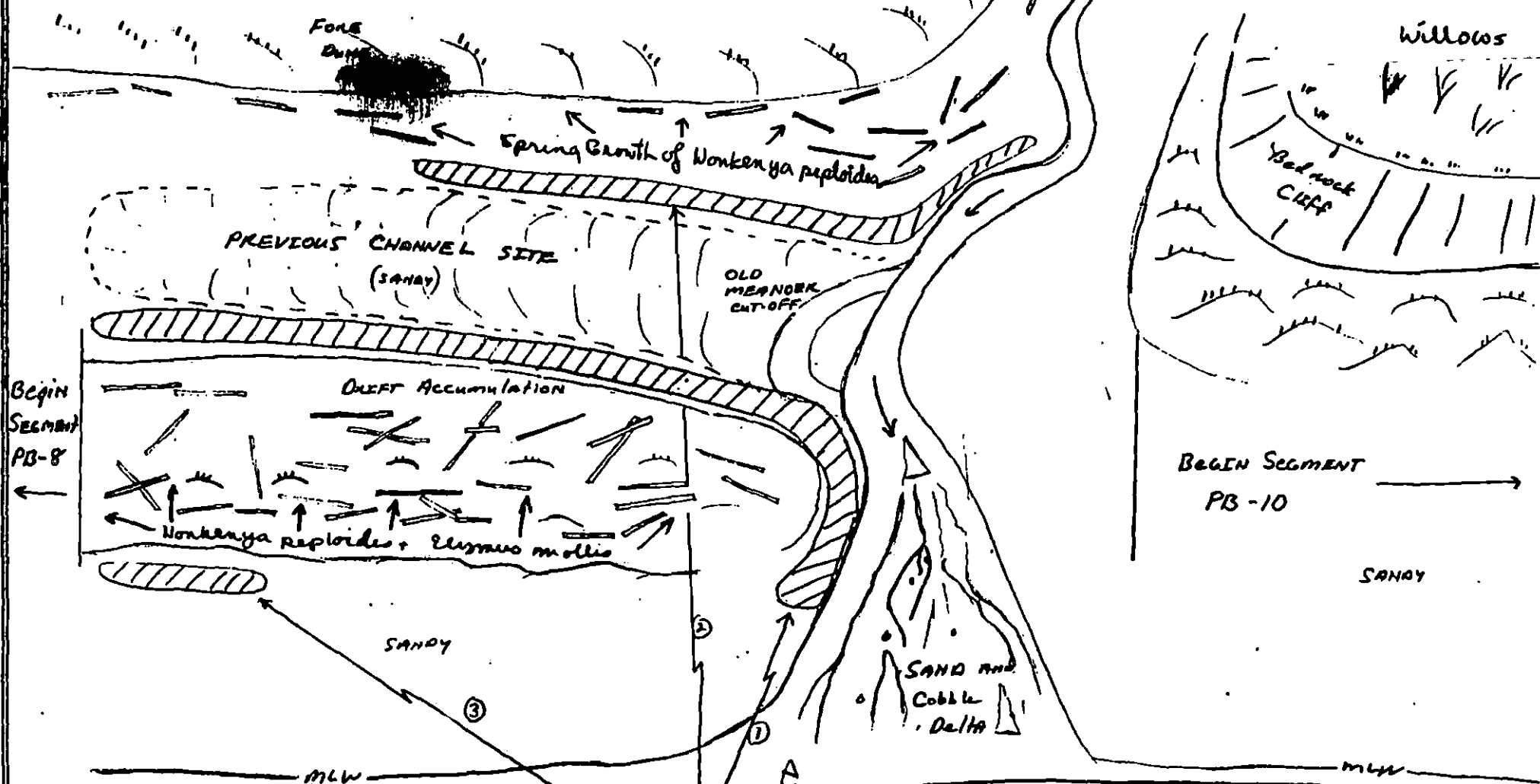
 INCIPENT DUNES

 PHOTO SITES

Big Map
 H. Davis

ALASKA
 PENINSULA

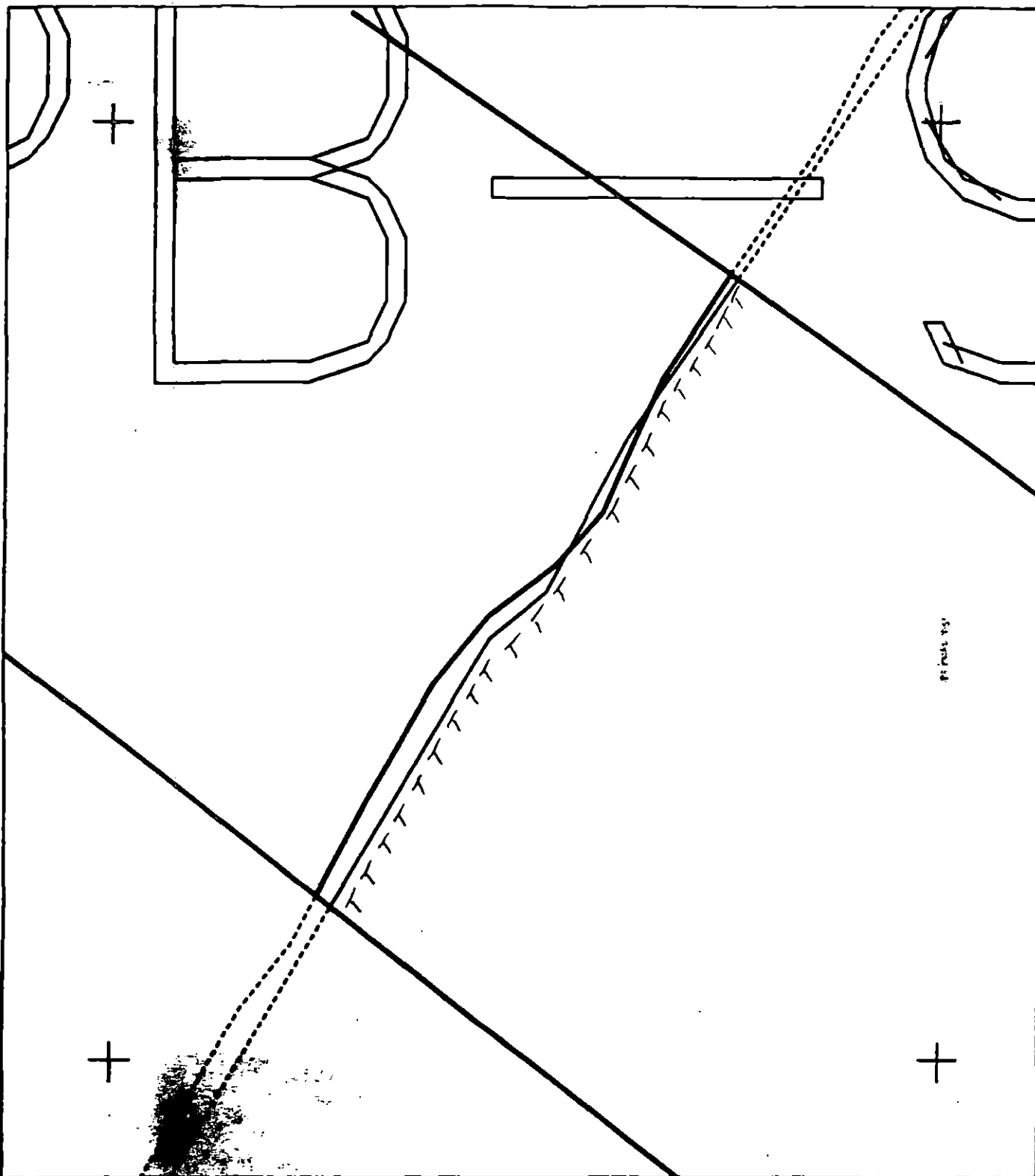
Sketch MAP (OG)
 K10-07-PB-09-A
 28 MAY 1991
 D. M. FITZGERALD
 815-850



PU. * VECO WORKERS AND SURVEY TEAM PICKED UP 1 1/2 BAGS OF TB. Some of the highly friable TB were broken apart

- A. TB/AP
1. 2-20 by 600m < 170
 2. 5 by 400m < 170
 3. 2-4 by 100m < 170
- most CONC. around the former river channel

Honkenya reptoides and *Elymus mollis* (sea purslane and beach grass) were starting their spring growth. Drift logs, fishing debris, shells and kelp wrack are along side site. Shell and wrack included, sand dollars, *Gilguy*, *Clinocardium* Treasus, *Fucus*, *Nereocystis*, and *Limnoria*



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

K1007 PB009 A
 ADEC Subsegment Length: 537m

METERS

0 100 200

AK State Plane Zone 4
 1007pb009a- . . .



Subdivision Field Map

Map Key: 00AK1007PB009A

Name: D. Fitzgerald

Date: 28 MAY 1991

Date Entered:

Reviewed: MC 6/1/91
 Reviewed 5.31.94

1991 MAYSAP EVALUATION

SEGMENT:K1007PB009 SUB: M REGION: KOD SURVEY DATE:5/28/91

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) _____ OPEN

Ecological/Constraints (see page two for details) NONE

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO Signature: Linorah Smith Date: 6/07/91

RECOMMENDATIONS:

INITIAL

TAG

FOSC

TREATMENT REQUIRED (Y or N)

N

2

 $\wedge$

Manual Pickup (Check as Req.)

Spot Washing

Bio-Customblen Only

Bio-Inipol/Customblen

Other

Other

COMMENTS:

INITIAL:

TAG:

FOSC:

TAG APPROVAL DATE: June 7 FR

ADEC

EXXON

USCG

NOAA

FOSC APPROVAL DATE: 6/12/91

FOSC

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

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 6-HELO SEGMENT PS-9 SUBDIVISION A DATE 5/28/91

ADEC

NAME J. BARNHAET, ADEC

SIGNATURE J. Barnhart

☒ NTR Located several bands of TB's, 1-2% adjacent to Theresa creek, at the stream mouth extending 100 m. upstream. Most were removed or broken apart. Surveyed from the mouth of Theresa creek south approx 500 m. In the area of scattered logs (approx 40 m wide) scattered TB's were located <1%. Very few were removed. Most remain.

EXXON

NAME R. COULTER, EXXON

SIGNATURE Rev. R. Coulter

☒ NTR BREAKUP/REMOVAL WAS DONE ON ALL TB/AP FOUND ON THIS SUBDIVISION. NO ADDITIONAL CONSIDERATION NEEDED.

LANDMANAGER

NAME J. HARDISTER

OF USFWS

SIGNATURE J. Hardister

☒ NTR SOR was either recovered by VECO team or, when found to be highly weathered, broken up. No further treatment recommended.

USCG/NOAA

NAME CWO R. SPURE/G. SHIGENAKA

SIGNATURE R. Spure / G. Shigenaka

☒ NTR All mousse/SOR found in this segment was either broken up or recovered by VECO workers during survey.

SURVEYED PORTION OF THE SEGMENT CONSISTED PRIMARILY OF THE WIDE SAND-GRANULE AREAS ON BOTH SIDES OF THE SUPRATIDAL BERM. THE SHOREWARD SIDE WAS APPARENTLY A DRY SAND STREAM BED FROM THE BERM THAT CURRENTLY BORDERS THE NORTHERN END OF THE SURVEYED SECTION. IN OTHER WORDS, A SUPRATIDAL BERM LIES BETWEEN TWO SANDY AREAS, ONE OF WHICH IS A SAND BEACH AND THE OTHER BEING AN OLD STREAM CHANNEL. SINCE THE SURVEYED AREA WAS IN THE SUPRATIDAL AND ABOVE, FEW BIOTA WERE PRESENT. AN OTTER SKUL WAS FOUND BY THE USFWS REP ABOVE A PREVIOUS SUPRATIDAL AND NEAR THE BASE OF THE LOW BLUFFS THAT BORDER THE SHORELINE AREA. OILING IN THE FORM OF SOR WAS OBSERVED SPORADICALLY ALONG THE SURVEYED AREA, MOSTLY IN THE PRESENT SUPRATIDAL DRIFT LOG AREA, ON THE SAND FLAT THAT HAD BEEN THE BANKS OF THE STREAM CHANNEL, AND ALONG THE SOUTH SHORE OF THE STREAM NEAR ITS MOUTH. THE OIL RESIDUES WERE WELL-WEATHERED AND CONTAINED A HIGH PROPORTION OF SAND, AND WERE EITHER RECOVERED OR BROKEN UP BY THE TEAM.

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 6-HELO SEGMENT PB-9 SUBDIVISION A DATE 5/28/91

ADEC

NAME J. BARNHART, ADEC 6

SIGNATURE

Jeff Barnhart

☒ NTR Located several bands of TB's, 1-2%, adjacent to Theresa creek, at the stream mouth extending 100 m. upstream. Most were removed or broken apart. Surveyed from the mouth of Theresa creek south approx 500 m. In the area of scattered logs (approx 40 m wide) scattered TB's were located < 1%. Very few were removed. Most remain.

EXXON

NAME R. COULTER, EXXON

SIGNATURE

☐ NTR

LANDMANAGER

NAME J. HARDISTEROF USFWS

SIGNATURE

John P. Hardister

☒ NTR SOR was either recovered by VECO team or, when found to be highly weathered, broken-up. No further treatment recommended.

USCG/NOAA

NAME CWO R. SPURR/G. SHIGENAKA

SIGNATURE

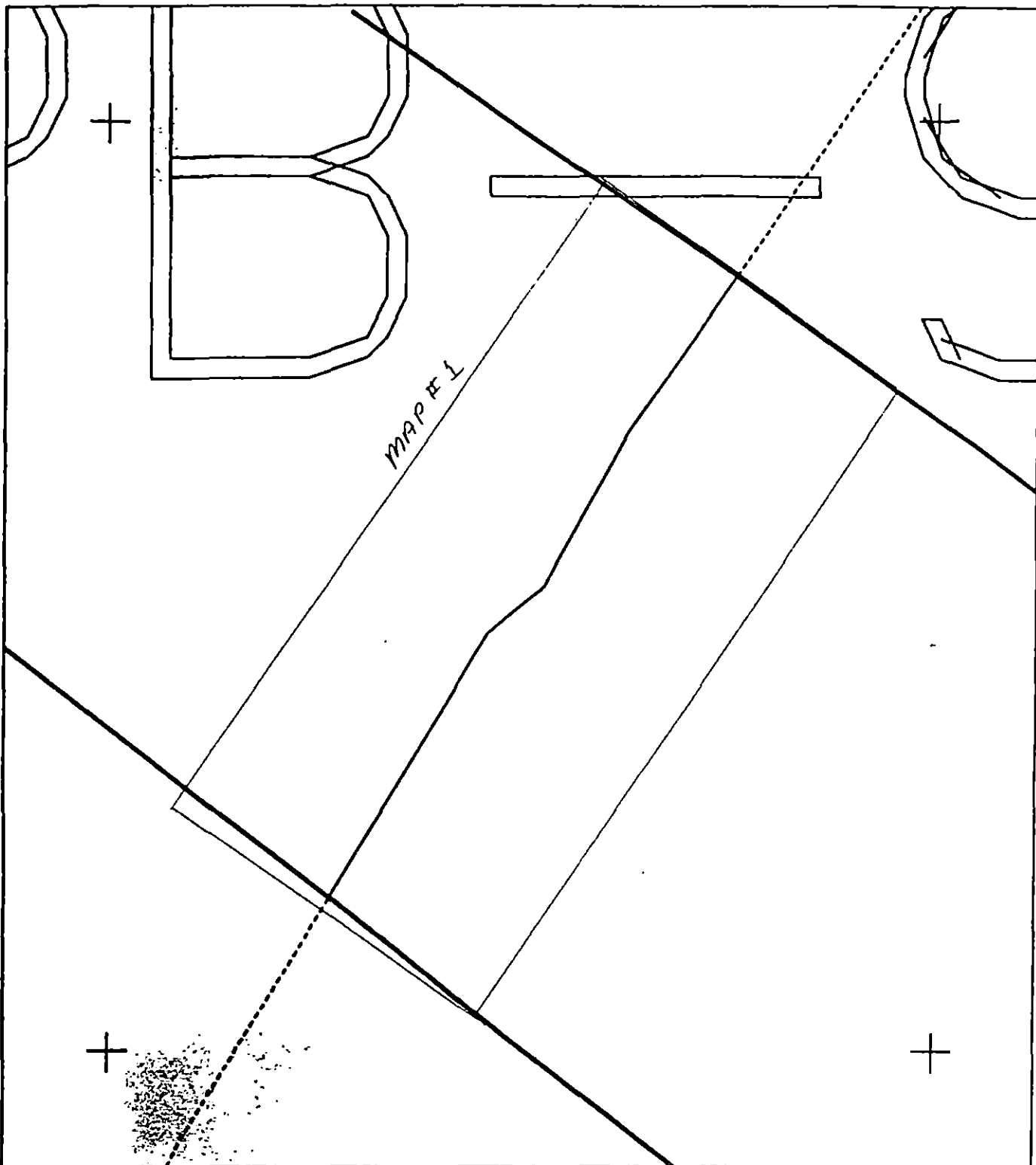
R. P. Spurr / Gary Shigenaka

☒ NTR All mousse/SOR found in this segment was either broken up or recovered by VECO workers during survey.

SURVEYED PORTION OF THE SEGMENT CONSISTED PRIMARILY OF THE WIDE SAND-GRANULE AREAS ON BOTH SIDES OF THE SUPRATIDAL BERM. THE SHOREWARD SIDE WAS APPARENTLY A DRY SAND STREAM BED FROM THE STREAM THAT CURRENTLY BORDERS THE NORTHERN END OF THE SURVEYED SECTION. IN OTHER WORDS, A SUPRATIDAL BERM LIES BETWEEN TWO SANDY AREAS, ONE OF WHICH IS A SAND BEACH AND THE OTHER BEING AN UNUSED STREAM CHANNEL. SINCE THE SURVEYED AREA WAS IN THE SUPRATIDAL AND ABOVE, FEW BIOTA WERE PRESENT. AN OTTER SKULL WAS FOUND BY THE USFWS REP ABOVE A PREVIOUS SUPRATIDAL AND NEAR THE BASE OF THE LOW BLUFFS THAT BORDER THE SHORELINE AREA. OILING IN THE FORM OF SOR WAS OBSERVED SPOADICALLY ALONG THE SURVEYED AREA, MOSTLY IN THE PRESENT SUPRATIDAL DRIFT LOG AREA, ON THE SAND FLAT THAT HAD BEEN THE BANKS OF THE STREAM CHANNEL, AND ALONG THE SOUTH SHORE OF THE STREAM NEAR ITS MOUTH. THE OIL RESIDUES WERE WELL-WEATHERED AND CONTAINED A HIGH PROPORTION OF SAND, AND WERE EITHER RECOVERED OR BROKEN UP BY THE TEAM.

PAGE 1 OF 1

Reviewed: MC 6/1/91
reviewed 5.31 94



K1007 PB009 A

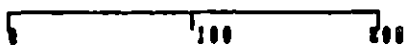
Subdivision Field Map

Map Key: COAX1007PB009A

Name: D. Fitzgerald

Date: 28 May 1991

METERS



AK State Planning Zone 4.
01007,00000

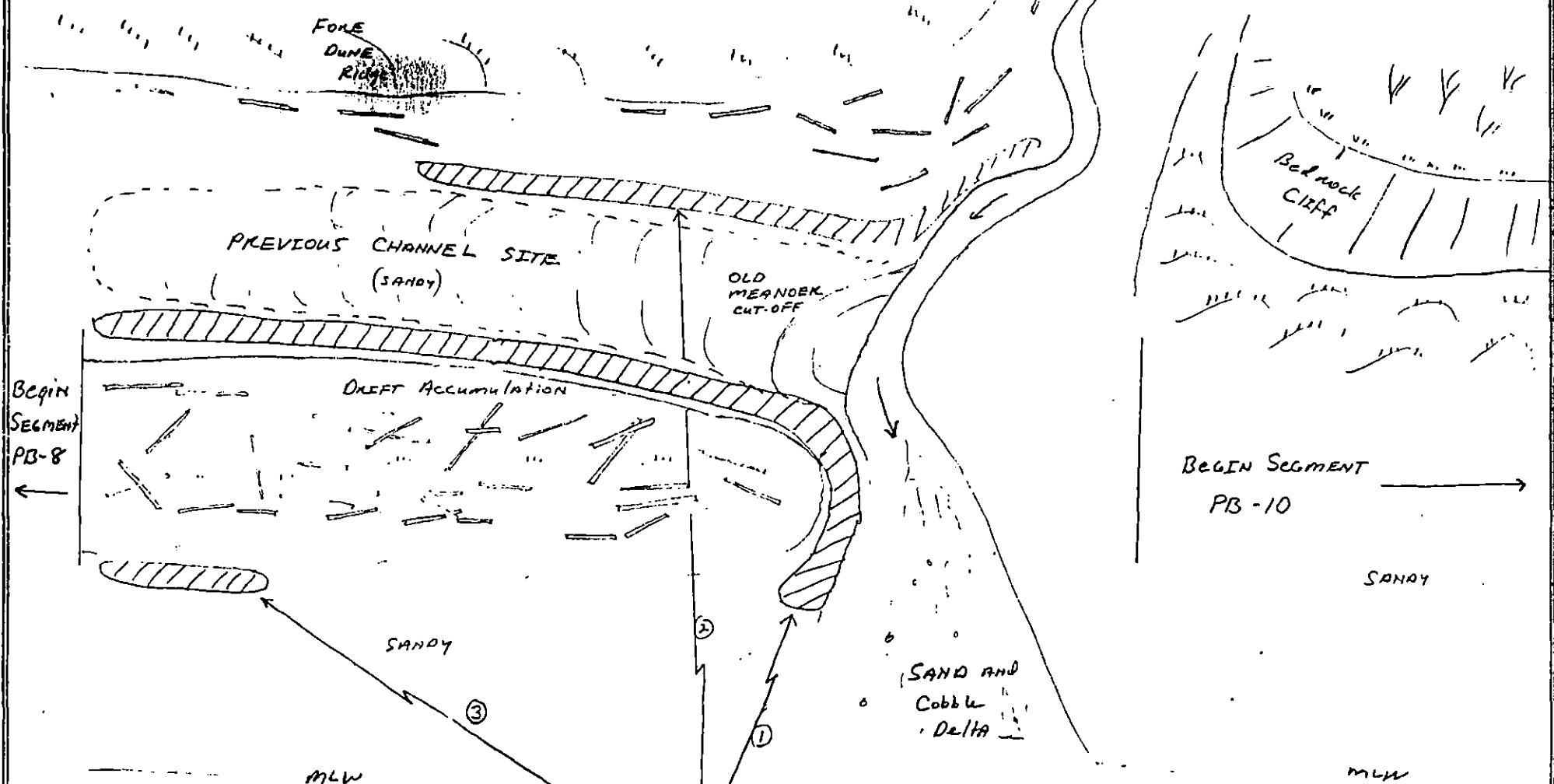


Reviewed 5.31.91

ETATED DUNE
 System
 VI VII GRASSY UPLAND
 VIII LOGS & DRIFTWOOD
 IX INCERENT DUNES
 PHOTO SITES

ALASKA
PENINSULA

SKETCH MAP (OG)
 K10-01-PB-09-A
 28 MAY 1991
 D. M. FITZGERALD
 815-850



P.U. * VECO WORKERS AND
 SURVEY TEAM PICKED
 UP 1 1/2 BAGS OF TB.
 Some of the highly
 friable TB were broken
 apart

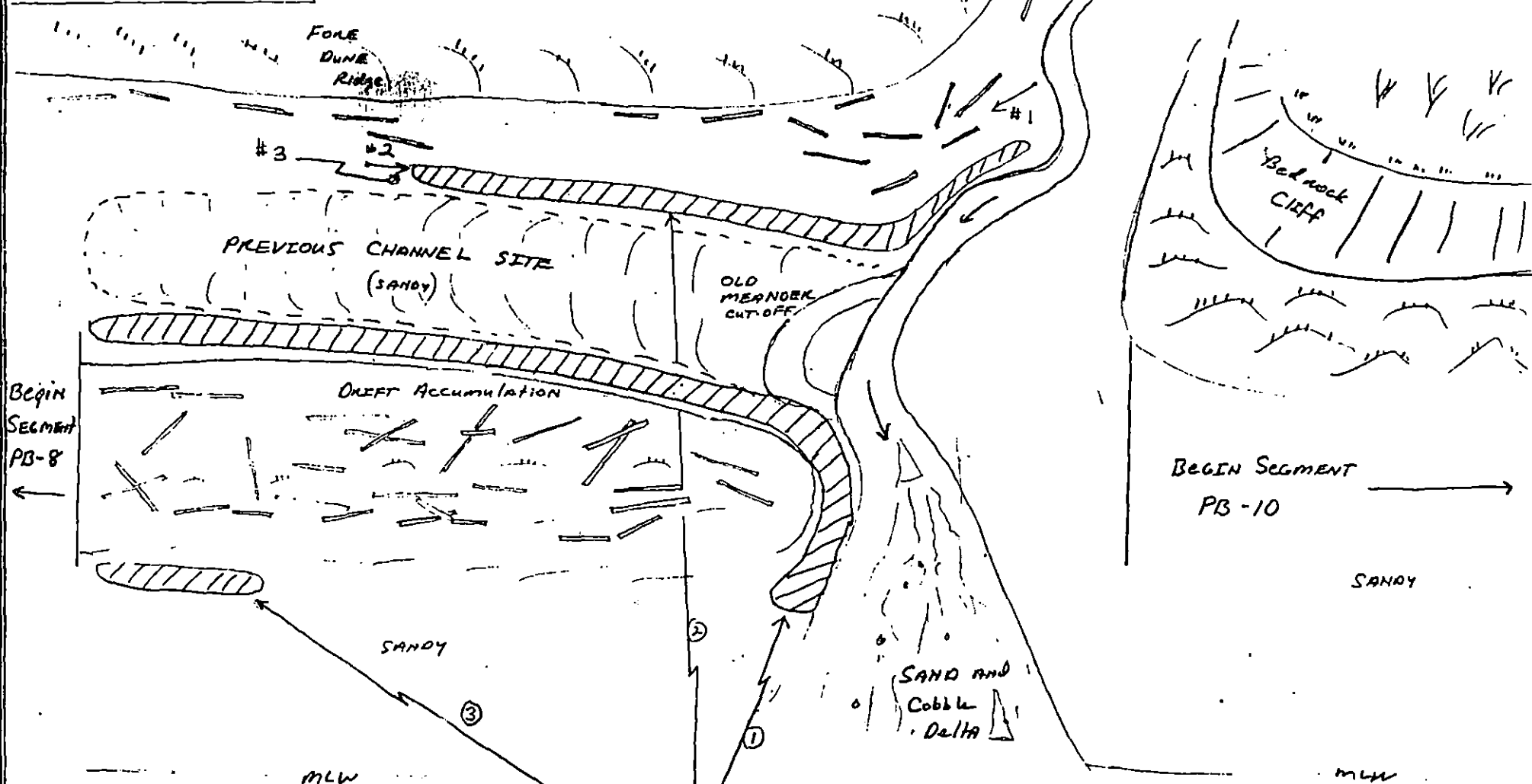
- A. TB/AP
1. 2-20 by 600m < 170
 2. 5 by 400m < 170
 3. 2-4 by 100m < 170
most conc. around
the former river
channel

PUALE BAY reviewed 5.3199
 Reviewed: MC G119

ETATED DUNE
 ytem
 GRASSY Upland
 LOGS & Driftwood
 INCEPENT DUNE
 PHOTO SITES

PHOTO SITES, PB-9
 ROLL 6-24, FRAMES THRU 3
 ALASKA
 PENINSULA

Sketch MAP (OG)
 K10-07-PB-09-A
 28 MAY 1991
 D. M. FITZGERALD
 815-850



P.4. * VECO WORKERS AND
 SURVEY TEAM PICKED
 UP 1 1/2 BAGS OF TB.
 Some of the highly
 friable TB were broken
 apart

- A. TB/AP
1. 2-20 by 600m < 170
 2. 5 by 400m < 170
 3. 2-4 by 100m < 170
- most CONC. around
the former river
channel

PUALE BAY reviewed S.3199

Reviewed: 6/1/91 MK

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 6 Helo

DATE May 28 1991

SEGMENT # K10-07 PB-09

TIDAL HEIGHT(Range)

(805- ?)

SUBDIVISION M

BIOLOGIST H. Davis

SEA STATE 1-2 ft in Phale Ban

WIND SPEED/DIRECTION Periodic breeze NE

PHOTOGRAPHS: ROLL # 6-24

FRAME # 1-3

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

PB-09 is a wide sandy beach with a supratidal berm and a dry sandy stream bed paralleling the beach behind the berm. In the surveyed portion of the beach (the UITZ and supratidal berm) occasional patches of TB were found at the intersection of the UITZ and the supratidal zone. The UITZ had a line of drift kelp and shells composed mostly of saxidomas, siligues, Clinocardium very large Trems (10 cm core) Fucus, Verocystis, laminaria and decomposing red blades. The supratidal had drift logs, shells, and fishing debris. The sea purslane and beach grass were beginning to grow up through the sand (Honkenya reploides and Elymus mollis). An otter skull was found by USFWS and turned over to the NOAA Rep.

Surf scoders (6) Cormorants (2)

Glaucous-winged Gulls (6) Dead Kittiwakes (3) Western sandpipers (4) sparrows (4)

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	0		0
Seabirds	1	2	
Waterfowl	1	6	
Gulls/Kittiwakes	2	6 (+ 3 dead Kittiwakes)	
Shorebirds	1	4	
Corvids	0		
Other Birds Sparrows	1	4	

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters	1 skull	Fox Tracks	
Pinnipeds (specify)	0	Caribou + Tracks	1
Ceals (specify)	0	Bear tracks	

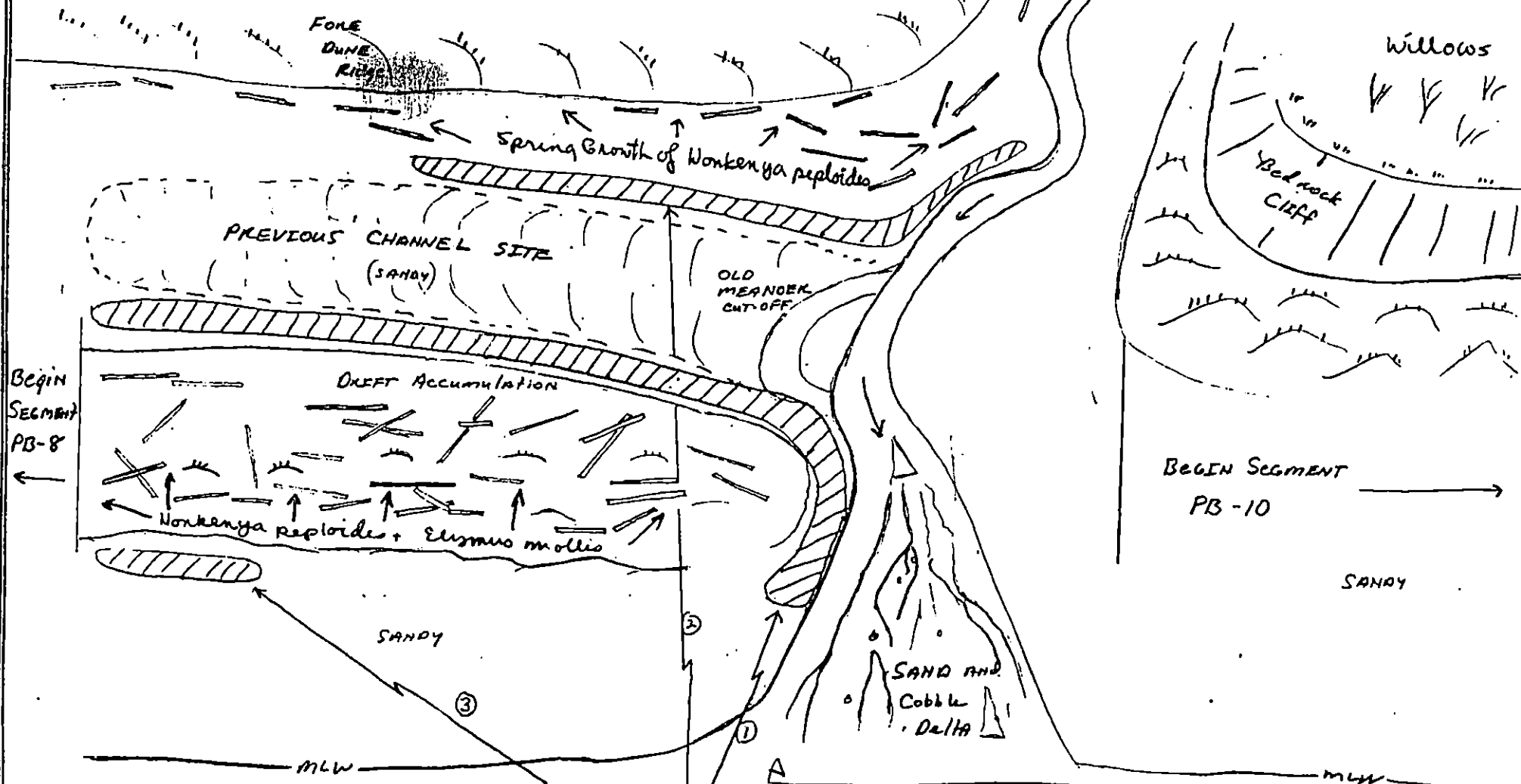
Shoreline subdivision map showing important biological features attached.

STATED DUNE
 system
 GRASSY Upland
 LOGS & Driftwood
 INCIPENT DUNES
 PHOTO SITES

Big Map
 H. Davis

ALASKA
 PENINSULA

Sketch MAP (OG)
 K10-01-PB-09-A
 28 MAY 1991
 D. M. FITZGERALD
 815-850

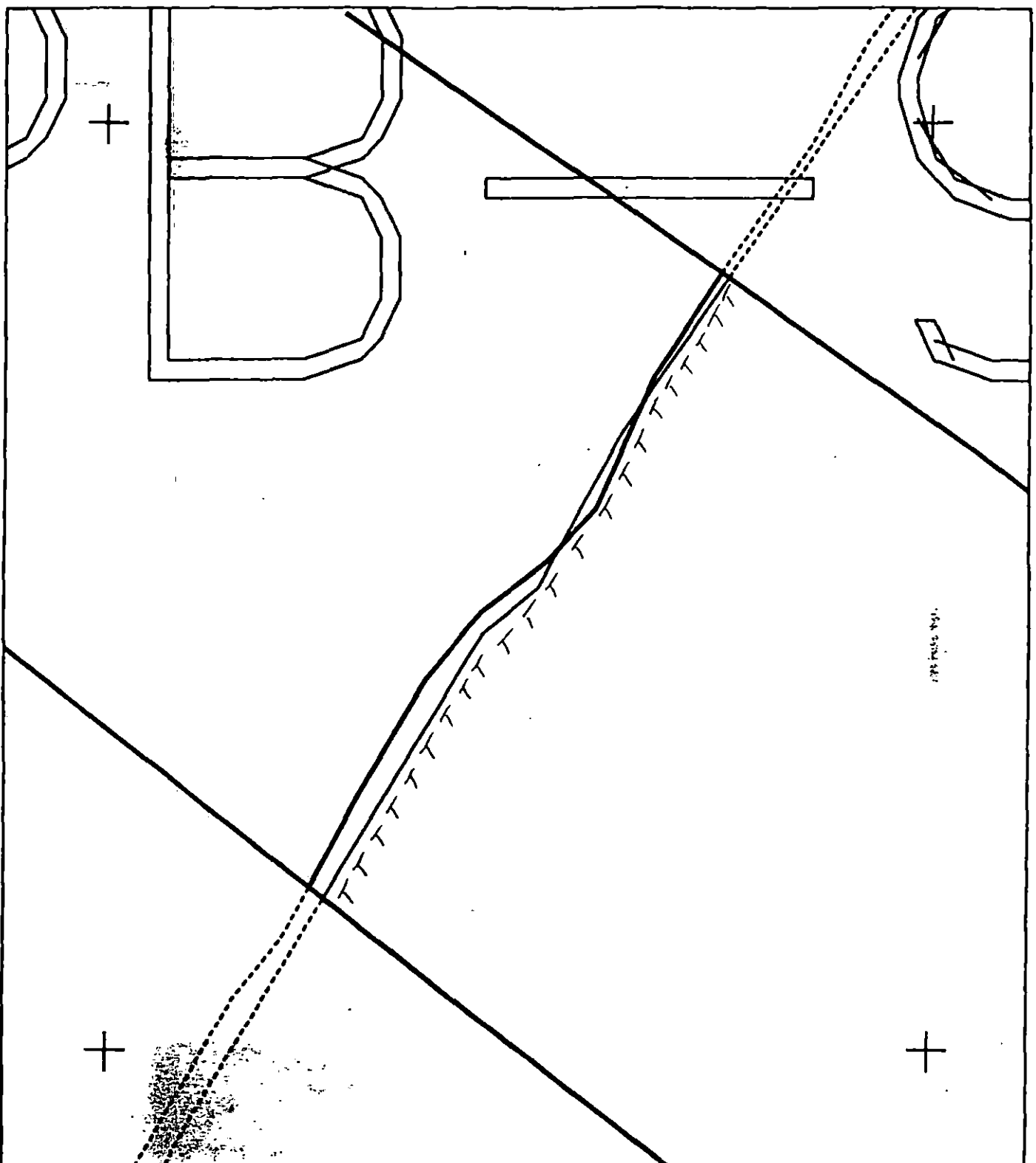


P.U. * VERO WORKERS AND
 SURVEY TEAM PICKED
 UP 1 1/2 BAGS OF TB.
 Some of the highly
 friable TB were broken
 apart

- A. TB/AP
 1. 2-206, 600m < 1%
 2. 5 by 400m < 1%
 3. 2-4 by 100m < 1%
 most CONC. AROUND
 the former river
 channel

Honkenya peploides and Elymus mollis (sea purslane and
 beach grass) were starting their spring growth. Drift logs,
 fishing debris, shells and kelp marks are along side
 site. Shell and wrack included, sandolomas, Sitigina,
 Clinocardium treasus, Fucus, Nereocystis, and Laminaria

PUALE BAY



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

K1007 PB009 A
 ADEC Subsegment Length: 537m
 METERS
 0 100 200
 AK State Plane Zone 4
 61007p0009a-1 . . .



Subdivision Field Map
 Map Key: 60AK1007PB009A
 Name: D. Fitzgerald
 Date: 28 MAY 1991
 Date Entered:

Reviewed: mc 6/1/91
 Reviewed 5.31.94

1991 MAYSAP EVALUATION

SEGMENT: K1007PB013 SUB: A REGION: KOD SURVEY DATE: 5/17/91

ENVIRONMENTAL SENSITIVITIES:

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

Ecological/Constraints (see page two for details) Anadromous stream

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO Signature: _____ Date: _____

RECOMMENDATIONS:

INITIAL

TAG

FOSC

TREATMENT REQUIRED (Y or N)

N

Manual Pickup (Check as Req.)

Spot Washing

Bio-Customblen Only

Bio-Inipol/Customblen

Other

Other

COMMENTS:

INITIAL: _____

TAG: _____

FOSC: _____

TAG APPROVAL DATE: _____

FOSC APPROVAL DATE: _____

ADEC

FOSC

EXXON

USCG

NOAA

**ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES**

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

ADEC

NAME J. BARNHART

SIGNATURE Jeffrey Barnhart

- ☒ NTR TB Trace 1% present along portions of this segment. The TB's in some cases exhibited a silver sheen. Two and one-half bags of oil, a geotextile bag and a pump was removed by the VECO crew. The oiled area, 4m x 2m, located on the bank of a tributary stream to the lagoon was removed to a highly acceptable level. Eleven bags of MS and substrate was removed. Approx. 30-50 salmon fry and one sculpin were observed rearing in the stream directly below the oiled area. Overall the segment was cleaned to an acceptable level. Trace 44% SOR-TB remain in the segment at this time.

EXXON

NAME R. Coulter

SIGNATURE Ray D. Coulter

- ☒ NTR I AGREE WITH THE COMMENTS OF THE OTHER REPS. SUBDIVISION WAS LEFT IN GOOD CONDITION - NO ADDITIONAL ATTENTION NEEDED.

LANDMANAGER

NAME J. HANDESTEIL

OF USFWS

SIGNATURE John P. Handesteil 5/16/91

- ☒ NTR The most significant amount of oil material on this segment was the 4m x 2m bank that hung over the bank of an meandering stream. This material was removed (11 bags) on 5/18 to the satisfaction of the VECO members. Almost all of the exposed mouse pattern were removed in VECO and the members at the time of the survey. Further attempts to remove remaining residual material would be unproductive.

USCG/NOAA

NAME CWO SPURR / G. SHIGEMURA

SIGNATURE R. P. Spurr / Gary Shigemura

- ☒ NTR All significant oil on segment was removed by Exxon workers to the satisfaction of all.

SEGMENT CONSISTS OF THE IRREGULAR SHORELINE BOUNDING A WANDERING STREAM CHANNEL AND A BROAD SANDY TIDAL FLAT. THE SUPRATIDAL FOR THE SEGMENT AREA WAS LITTERED WITH DRIFTWOOD LOGS AND OTHER DEBRIS, AND SALT GRASS WAS PRESENT IN AREAS STABLE ENOUGH TO SUPPORT ITS GROWTH. A SEA OTTER SKULL WAS FOUND NEAR THE NORTHWEST END OF THE SEGMENT AND WAS RECOVERED FOR USFWS IN ANCHORAGE. A NUMBER OF BEAR STAKES WERE OBSERVED ESPECIALLY ALONG THE NORTHWEST PORTION OF THE SEGMENT. THE NORTHWEST SECTION INCLUDED MOST OF THE OILING OBSERVED IN THE SEGMENT. MOST OF THIS OILING WAS REPRESENTED BY TAR PATCHES AND SOR, AND ALL MATERIAL FOUND WAS RECOVERED. SOME LESIONS WERE OBSERVED ON ASPHALT WERE ALSO OBSERVED/RECOVERED. THE MOST SIGNIFICANTLY OILED AREA WAS A RELATIVELY SMALL SECTION OF THE NORTHERN BANK OF A SMALL STREAM, WHERE AN APPROXIMATELY 1 X 3M BAND OF NEARLY ASPHALT LESIONS WAS FOUND AND COMPLETELY REMOVED BY THE SURVEY TEAM ON 5/18 (11 BAGS OF MATERIAL). THE REMAINDER OF THE SEGMENT YIELDED VERY LITTLE OIL LESIONS. BECAUSE NEARLY ALL OILED MATERIAL WAS REMOVED BY THE SURVEY TEAM, IT IS UNLIKELY THAT FURTHER ATTEMPTS AT RECOVERY WOULD BE PRODUCTIVE.

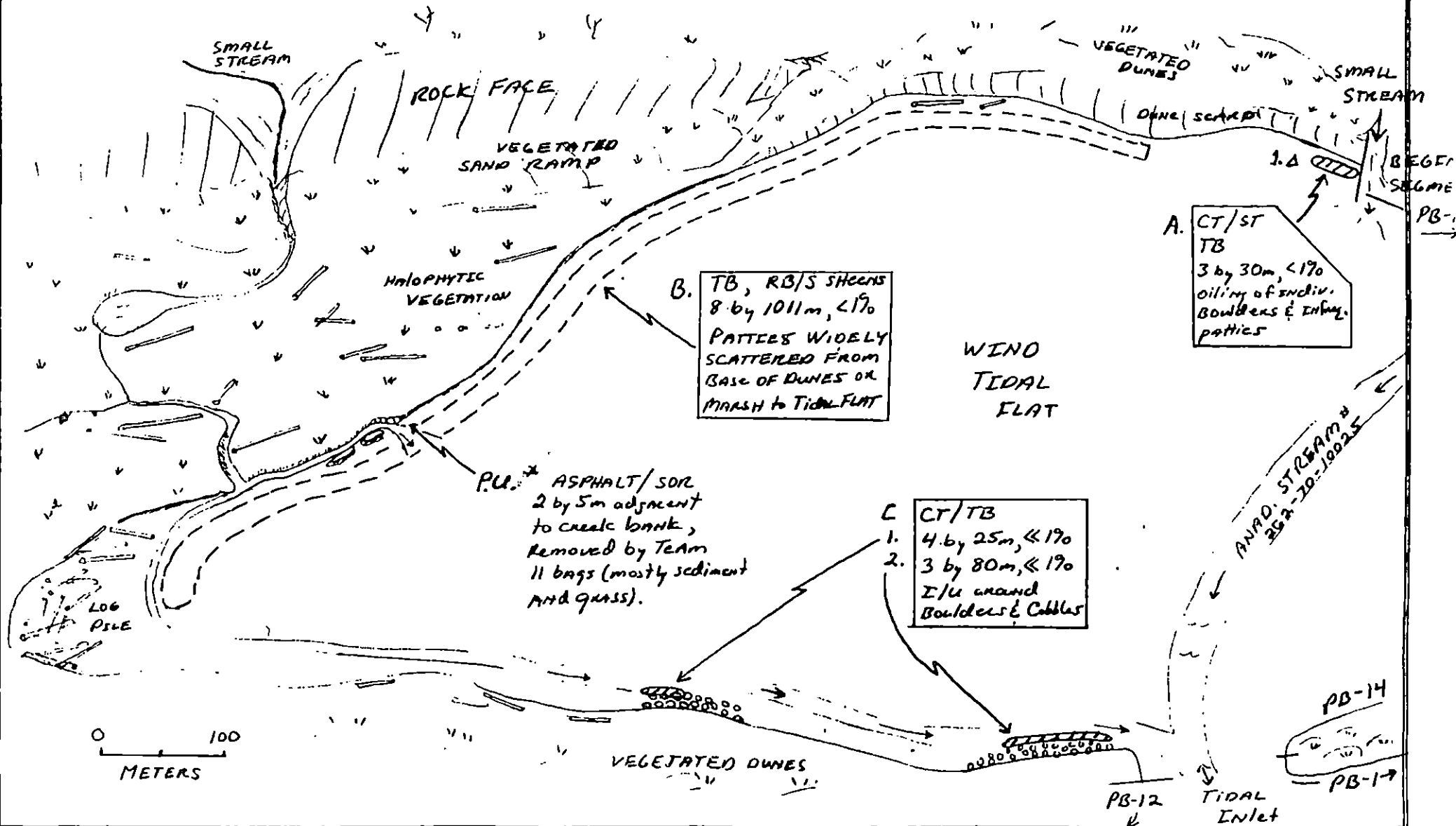
- Reviewed: MC 5/20/91
reviewed 5.20 99

- V V V V SY AREA
 LOGS + Driftwood
 OOOOO Gravel Accumulation
 PHOTO SITES

P.U. * The Survey
 collected 2 1/2 bags
 of oil sediments along
 this segment in addition
 to the 11 bags taken at
 the Asphalt/SOR site.
 All oiled sediment seen
 were collected.

ALASKA PENINSULA

Sketch AP(OG)
 PB-14 A 13-A
 D. FITZGERALD
 17 MAY 1991
 1240 - 1430

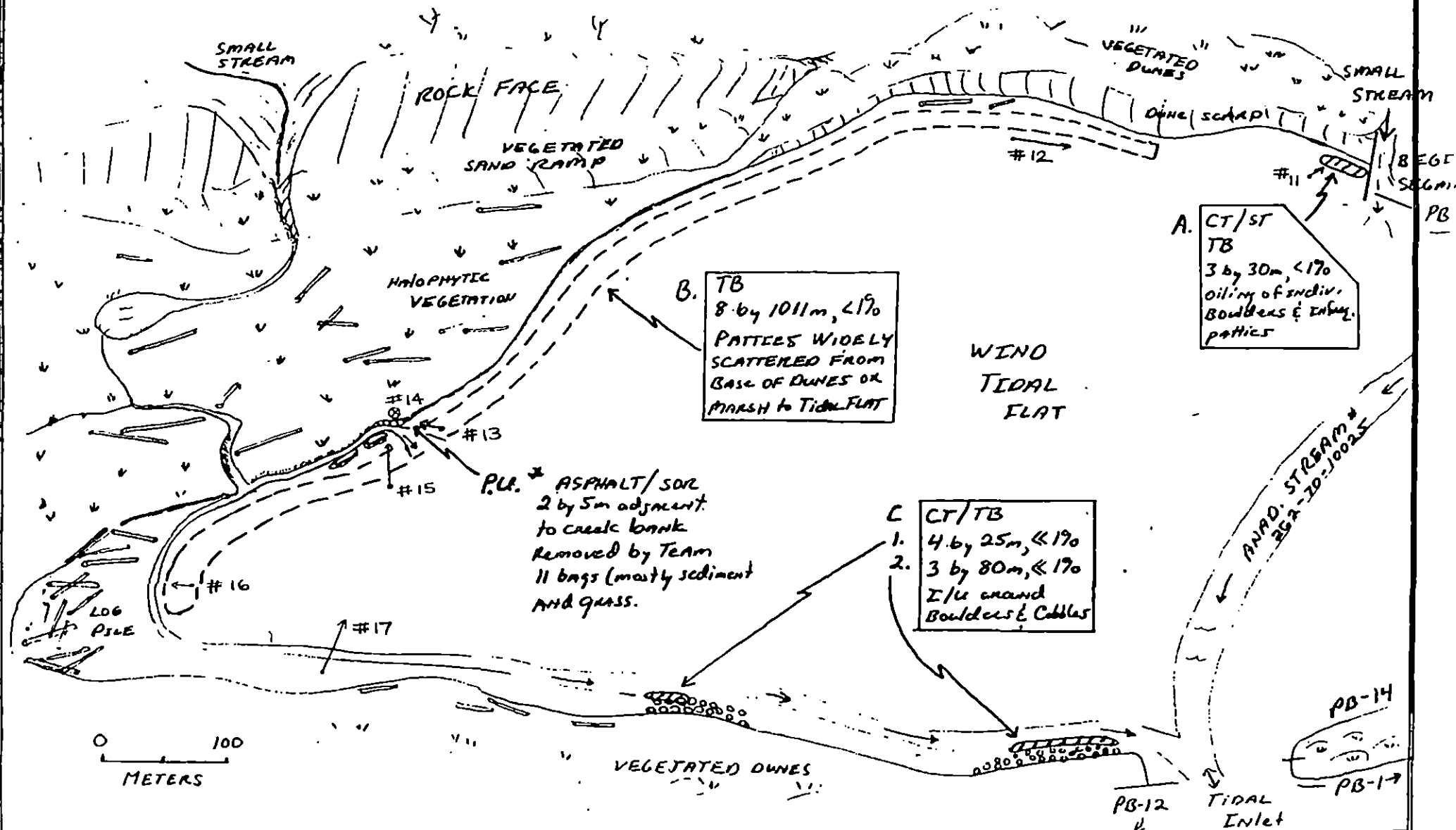


V V V V Mossy Area
 Logs + Driftwood
 Gravel Accumulation
 Photo Sites

PHOTO SITES, PB-1
 ROLL 6-16, FRAMES 11-17

ALASKA
 PENINSULA

Sketch MAP (OG)
 PB-1A13A
 D. FITZGERALD
 17 MAY 1991
 1240-1430



REVIEWED: MC 5/21/91

reviewed 5:20 04

B

—

13

MAP #1

PB



K1007 PB013 A

METERS

0 200 400

AK State Plane Zone 4.
91007pb013a-5000.4.

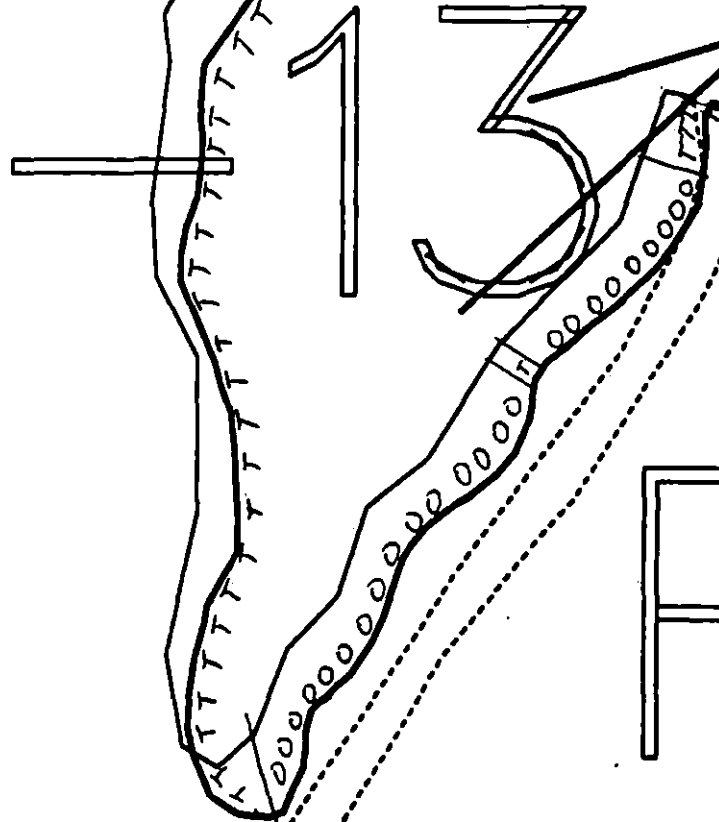
Subdivision Field Map

Map Key: 60AK1007PB013A

Name: D. Fitzgerald

Date: 17 MAY 1991

B



PB

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

K1007 PB013 A
ADEC Subsegment Length: 2187m
METERS

0 200 400
AK State Plane Zone 4
91007pb013a- . . .



Subdivision Field Map
Map Key: 00AK1007PB013A
Name: D. F. KERN
Date: 17 May 1991
Date Entered:

Reviewed: MC 5/20/91
reviewed 5.20 91

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 6 Helo

DATE May 17 1991

SEGMENT # PB-13

TIDAL HEIGHT (Range) -1.5ft - +1.5ft (12:40 - 14:10)

SUBDIVISION A

BIOLOGIST H. Davis

SEA STATE outside lagoon 5-6 ft

WIND SPEED/DIRECTION 30-35kt (40-50kt gusts) NE

PHOTOGRAPHS: ROLL # 6-16

FRAME # 11-17

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

A, B, & C. All three sites were in the UITZ. Only a few bits of detritus were found out on the tidal flat. Above the north eastern end of B and site C are dunes with dune grass (*ammophila arenaria*). Above the southern end of site B (near the small stream) is a marshy area. Ducks + sand pipers (sp?) were feeding in this area. Loop and man-made debris are scattered throughout the UITZ and SITZ. Semi palmated plovers were in the dunes above site C. Except for the section of site B that was picked up all most all of the patties were out on open sand.

Kittiwakes (10) Kittiwakes (2 dead) Storm petrel (1 dead)
sandpipers (4 (rups) Semi palmated plovers (4) Mergansers (3) Ducks (8)

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	0	—	0
Seabirds	(1)	(1 dead)	
Waterfowl	2 (P)	11	
Gulls/Kittiwakes	1	± 10	
Shorebirds	2	8	
Corvids	2	—	
Other Birds			

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters	0	River otter tracks	
Pinnipeds (specify)	0		
Elles (specify)	0		

Shoreline subdivision map showing important biological features attached.

Purd 5/17/91 200

LOGS + Driftwood



Gravel Accumulation

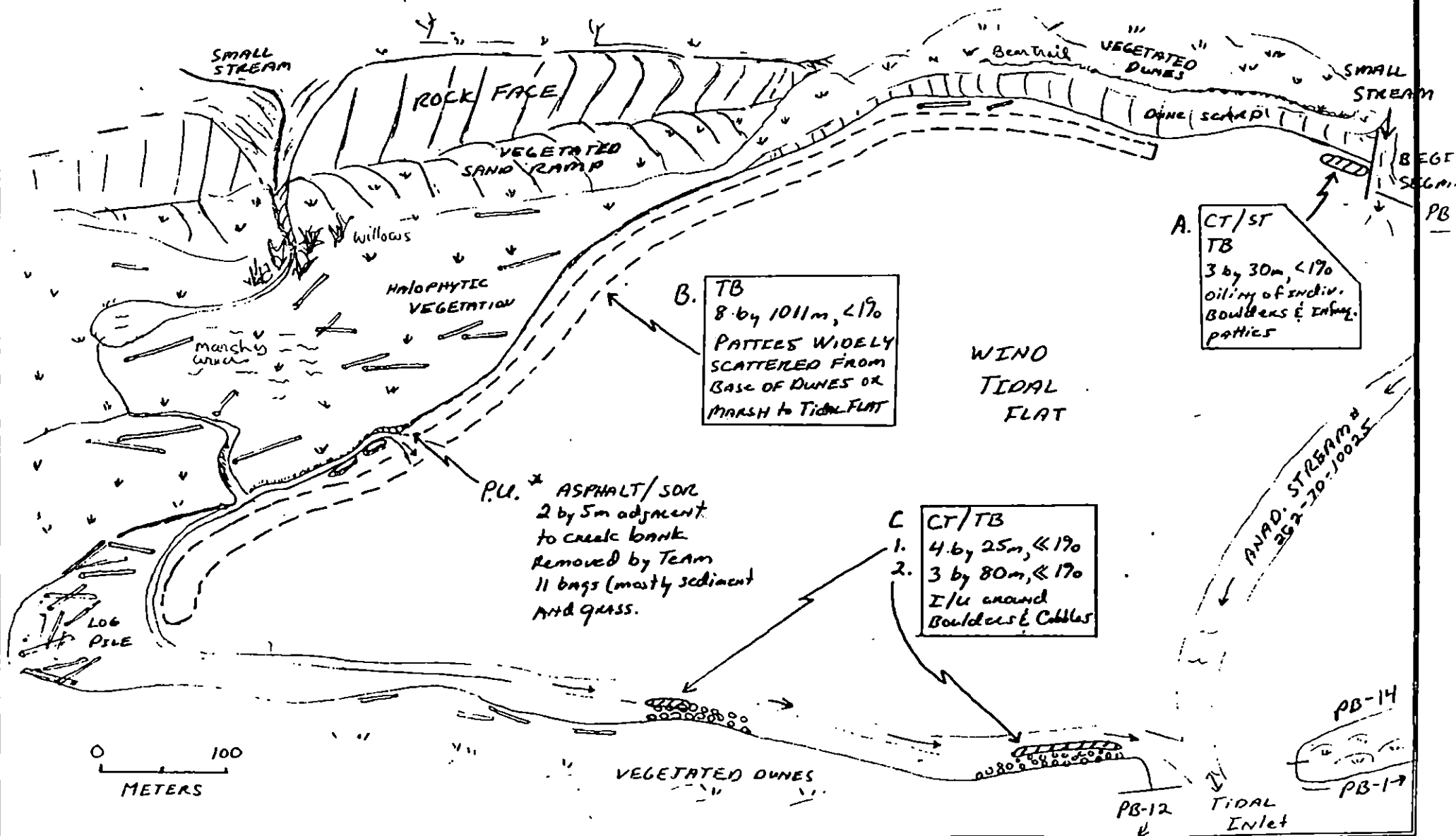
↗ PHOTO SITES

A, B, C. All three sites were in the Uitz. On the wind-tidal flat there were very little birds. Only a few scattered birds of drift. Above site A and C were sand dunes with *ammodendron arenaria* beginning its spring growth. Above the southern end of site B near the small stream was a marshy area with halophytic vegetation and willows up stream. Ducks and sandpipers were using this area.

ALASKA
PENINSULA

Bio Map
H. Davis

Sketch MAP (OG)
PB - LATA 13A
D. FITZGERALD
17 MAY 1991
1240 - 1430



1991 MAYSAP EVALUATION

SEGMENT: K1007PB013 SUB: A REGION: KOD SURVEY DATE: 5/17/91

ENVIRONMENTAL SENSITIVITIES:

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

Ecological/Constraints (see page two for details) Anadromous stream

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO Signature: T. Smith Date: 5/30/91

RECOMMENDATIONS:

INITIAL

TAG

FOSC

TREATMENT REQUIRED (Y or N)

N

N

2

Manual Pickup (Check as Req.)

Spot Washing

Bio-Customblen Only

Bio-Inipol/Custombien

Other

Other

COMMENTS:

INITIAL:

TAG:

FOSC:

TAG APPROVAL DATE: MAY 29 1991

FOSC APPROVAL DATE:

ADEC

FOSC

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

EXXON

USCG

NOAA

**ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES**

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

TEAM NO. 6-HELD SEGMENT PB-13 SUBDIVISION A DATE 17 May 1991

ADEC

NAME J. BARNHARTSIGNATURE Jeffrey Barnhart

- ☒ NTR TB Trace 1% present along portions of this segment. The TB's in some cases exhibited a silver sheen. Two and one-half bags of oil, a geotextile bag and a pumpout was removed by the VECO crew. The oiled area, 4m x 2m, located on the bank of a tributary stream to the lagoon was removed to a highly acceptable level. Eleven bags of MS and substrate was removed. Approx. 30-50 salmon fry and one sculpin were observed rearing in the stream directly below the oiled area. Overall the segment was cleaned to an acceptable level. Trace 44% SOR-TB remain in the segment at this time.

EXXON

NAME R. CoulterSIGNATURE Ray D. Coulter

- ☒ NTR I AGREE WITH THE COMMENTS OF THE OTHER REPS. SUBDIVISION WAS LEFT IN GOOD CONDITION - NO ADDITIONAL ATTENTION NEEDED.

LANDMANAGER

NAME J. HANDISTEILOF USFWSSIGNATURE John P. Handisteil 5/18/91

- ☒ NTR The most significant amount of oil material on this segment was the 4m x 2m bank that hung over the bank of an meandering stream. This material was removed (11 bags) on 5/18 to the satisfaction of VECO and other members at the time of the survey. Further attempts to remove remaining residual material would be unproductive.

USCG/NOAA

NAME CWO SPURR / G. SHIGEMURASIGNATURE R. P. Spurr / G. Shigemura

- ☒ NTR All significant oil in segment was removed by Exxon workers to the satisfaction of all.

SEGMENT CONSISTS OF THE IRREGULAR SHORELINE BOUNDING A WANDERING STREAM CHANNEL AND A BROAD SANDY TIDAL FLAT. THE SUPRATIDAL FOR THE SEGMENT AREA WAS LITTERED WITH DRIFTWOOD LOGS AND OTHER DEBRIS, AND SALT GRASS WAS PRESENT IN AREAS STABLE ENOUGH TO SUPPORT ITS GROWTH. A SEA OTTER SKULL WAS FOUND NEAR THE NORTHWEST END OF THE SEGMENT AND WAS RECOVERED FOR USFWS IN ANCHORAGE. A NUMBER OF BEAR STAKES WERE OBSERVED ESPECIALLY ALONG THE NORTHWEST PORTION OF THE SEGMENT. THE WEST-NORTHWEST SECTION INCLUDED MOST OF THE OILING OBSERVED IN THE SEGMENT. MOST OF THIS OILING WAS REPRESENTED BY TAR PATTIES AND SOR, AND ALL MATERIAL FOUND WAS RECOVERED. SOME RESIDUES WERE OIL AND ASPHALT WERE ALSO OBSERVED/RECOVERED. THE MOST HEAVILY OILED AREA WAS A RELATIVELY SMALL SECTION OF THE NORTHERN BANK OF A SMALL STREAM, WHERE AN APPROXIMATELY 1 X 3M BAND OF NEARLY ASPHALT RESIDUE WAS FOUND AND COMPLETELY REMOVED BY THE SURVEY TEAM ON 5/18 (11 BAGS OF MATERIAL). THE REMAINDER OF THE SEGMENT YIELDED VERY LITTLE OIL RESIDUE. BECAUSE NEARLY ALL OILED MATERIAL WAS REMOVED BY THE SURVEY TEAM, IT IS UNLIKELY THAT FURTHER ATTEMPTS AT RECOVERY WOULD BE PRODUCTIVE.

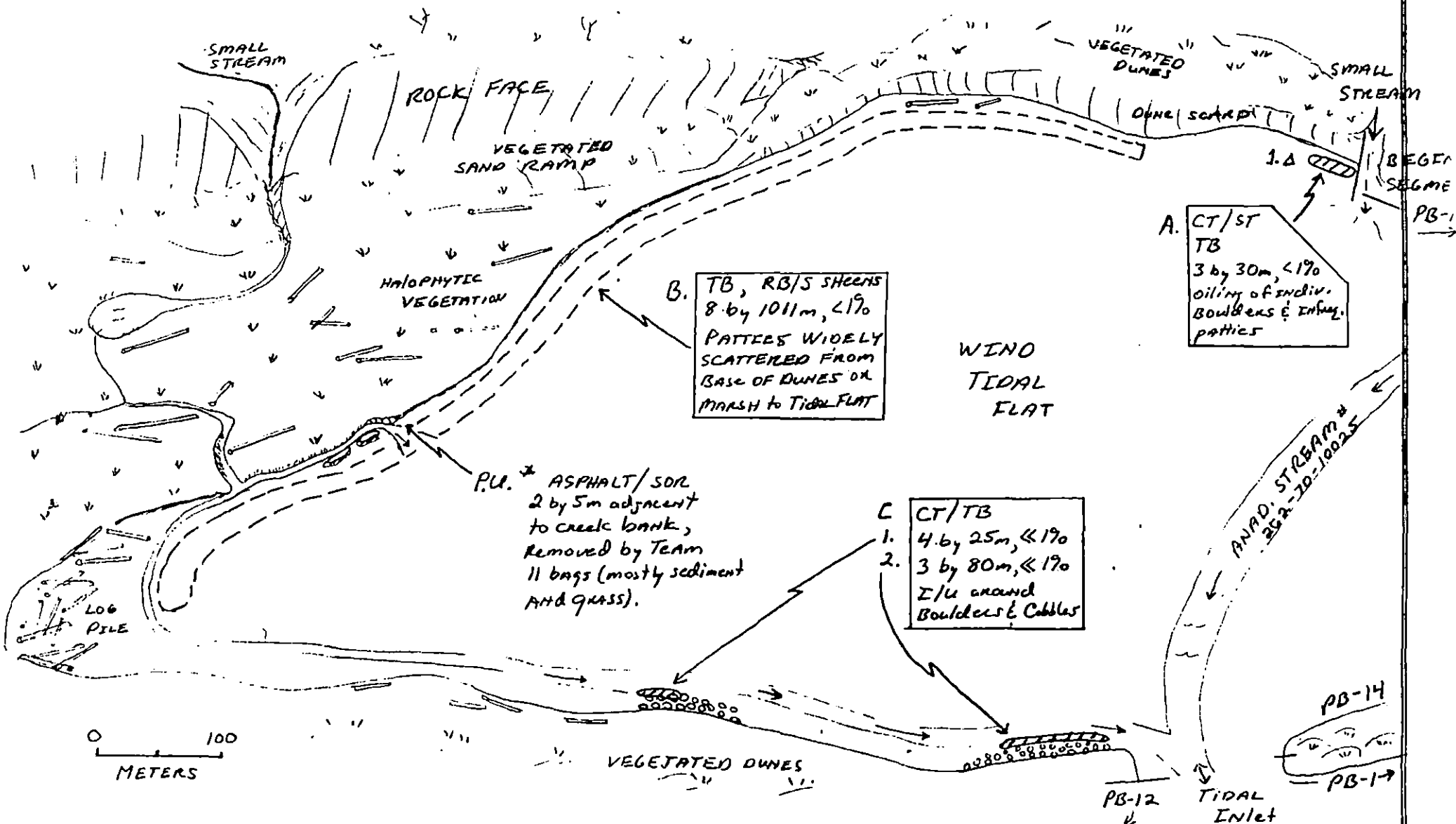
Reviewed: MC 5/20/91
reviewed 5.20 49

- V V V GRASS AREA
 // LOG & Driftwood
 o o o o o Gravel Accumulation
 ↗ PHOTO SITES

P.U. * THE SURVEY
 collected 2 1/2 bags
 of oil sediments along
 this segment in addition
 to the 11 bags taken at
 the Asphalt/SOL site.
 All oiled sediment seen
 were collected.

ALASKA PENINSULA

Sketch Map (OG)
 PB-14 PB-13-A
 D. FITZGERALD
 17 MAY 1991
 1240 - 1430



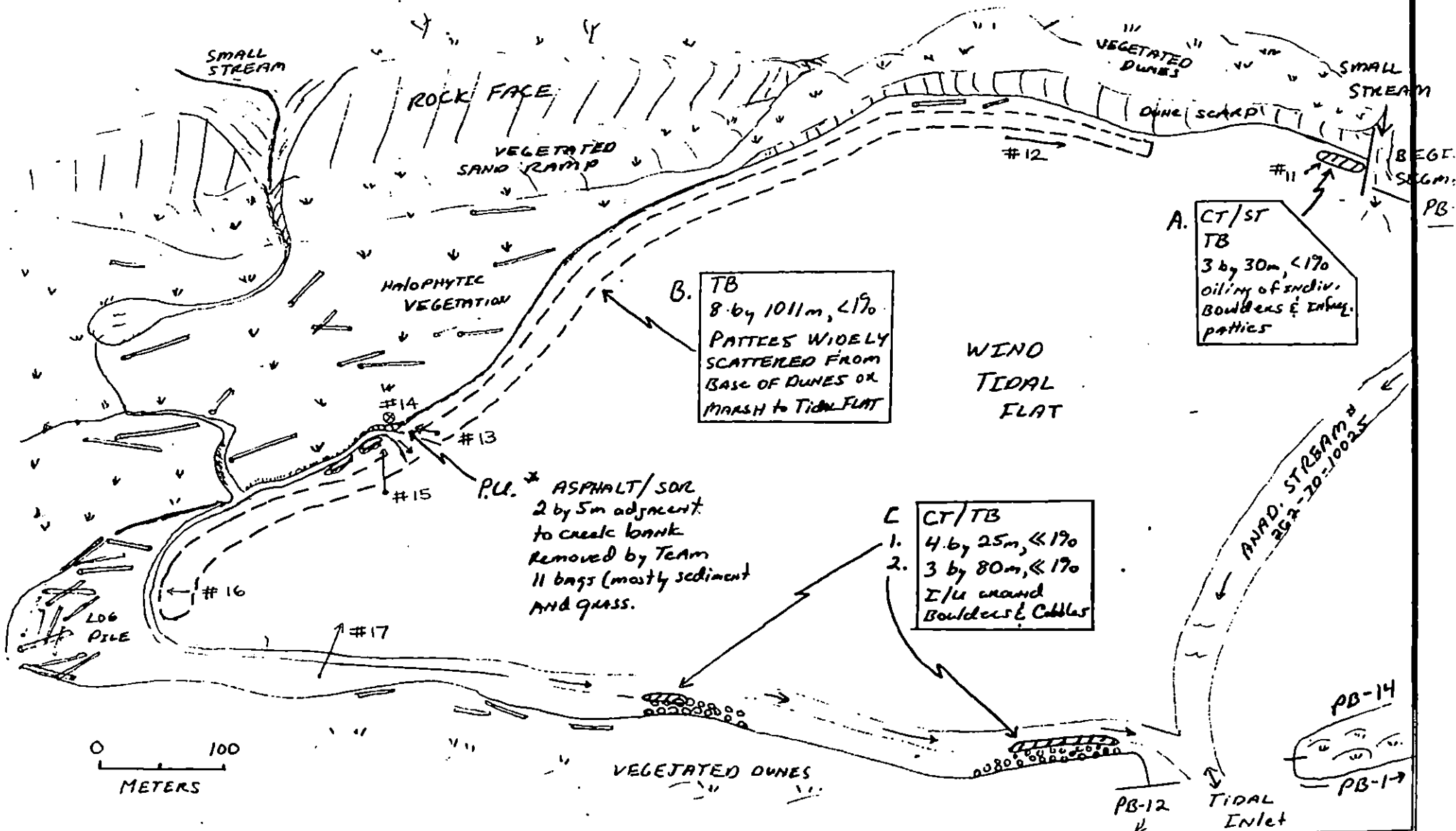
REVIEWED: 5/21/91, reviewed 5.20 98

- V V V G AREA
- Loos + Driftwood
- Gravel Accumulation
- PHOTO SITES

PHOTO SITES, PB-14A
ROLL 6-16, FRAMES 11-17

ALASKA PENINSULA

Sketch Map (OG)
PB-14 13A
D. FITZGERALD
17 MAY 1991
1240-1430



REVIEWED: MC 5/21/91

reviewed 5.20 91

B

13

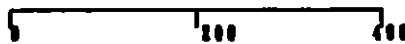
PB

MAP #1



K1007 PB013 A

METERS



AK State Plane Zone 6,
91007PB013A-500.0

Subdivision Field Map

Map Key: COAK1007PB013A

Name: D. Fitzgerald

Date: 17 May 1991

B

13

PB

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

K1007 PB013 A
 ADEC Subsegment Length: 2187m
 METERS

AK State Plane Zone 4
 1007pb013a-1



Subdivision Field Map
 Map Key: 60AX1007PB013A
 Name: D. Fitzgerald
 Date: 17 MAY 1991
 Date Entered:

Reviewed: MC 5/20/91
 reviewed 5.20 ay

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 6 Helo

DATE May 17 1991

SEGMENT # PB-13

TIDAL HEIGHT (Range) -1.5ft - +1.5ft (12:40 - 14:10)

SUBDIVISION A

BIOLOGIST H. Davis

SEA STATE outside lagoon 5-6 ft

WIND SPEED/DIRECTION 30-35 kt (40-50 kt gusts) NE

PHOTOGRAPHS: ROLL # 6-16

FRAME # 11-17

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

A, B, & C. All three sites were in the UITZ. Only a few bits of detritus were found out on the tidal flat. Above the north eastern end of B and sites C are dunes with dune grass (*ammophila arenaria*). Above the southern end of site B (near the small stream) is a marshy area. Ducks + sand piper (sp?) were feeding in this area. Loop and man-made debris are scattered throughout the UITZ and SITZ. Semi palmated plovers were in the dunes above site C. Except for the section of site B that was picked up all most all of the patties were out on open sand.

Kittiwakes (10) Kittiwake (2 dead) Storm petrel (1 dead)

sandpipers (4 (peeps) Semi palmated plovers (4) Mergansers (3) Ducks (8)

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	0	—	0
Seabirds	(1)	(1 dead)	
Waterfowl	2 (2)	11	
Gulls/Kittiwakes	1	12 10	
Shorebirds	2	8	
Corvids	0	—	
Other Birds			

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters	0	River Otter Tracks	
Amphipeds (specify)	0		
Whales (specify)	0		

Shoreline subdivision map showing important biological features attached.

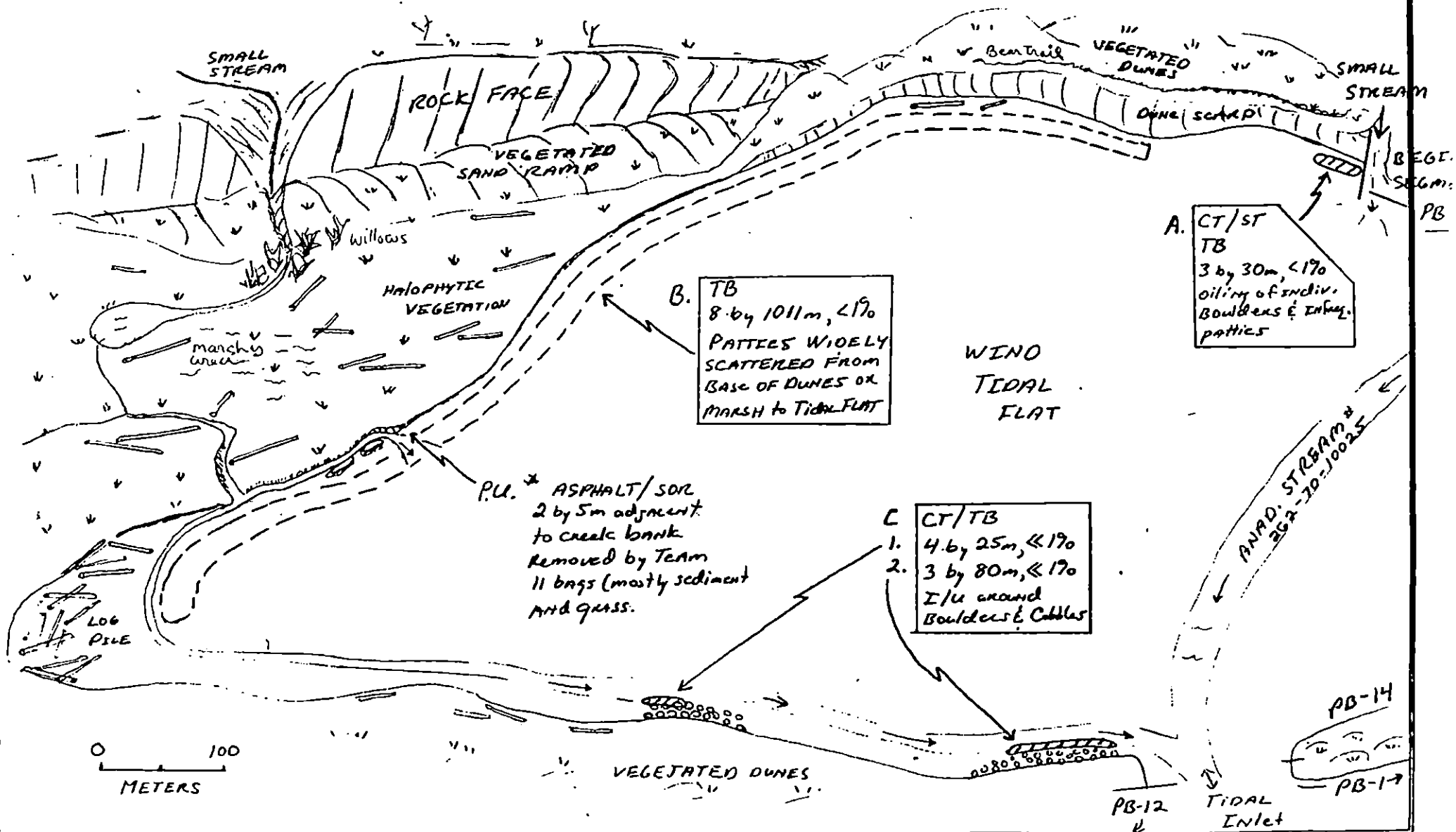
- VVV 6 AREA
- LOGS + Driftwood
- GRAVEL Accumulation
- PHOTO SITES

A, B, C. All three sites were in the U.T.Z. On the wind-tidal flat there very little birds. Only a few scattered pieces of drift. Above site A and C were sand dunes with *amphiphila arenaria* beginning its spring growth. Above the southern end of site B near the small stream was a marshy area with halophytic vegetation and willows up stream. Ducks and sandpipers were using this area.

ALASKA
PENINSULA

Bio Map
H. Davis

Sketch Map (OG)
PB-14 13A
D. FITZGERALD
17 MAY 1991
1240-1430



1991 MAYSAP EVALUATION

SEGMENT: K1007PB014 SUB: A REGION: KOD SURVEY DATE: 5/17/91

ENVIRONMENTAL SENSITIVITIES:

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

Ecological/Constraints (see page two for details) Anadromous stream

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO Signature: _____ Date: _____

RECOMMENDATIONS:

INITIAL

TAG

FOSC

TREATMENT REQUIRED (Y or N)

N

Manual Pickup (Check as Req.)

Spot Washing

Bio-Customblen Only

Bio-Inipol/Customblen

Other

Other

COMMENTS:

INITIAL: _____

TAG: _____

FOSC: _____

TAG APPROVAL DATE: _____

FOSC APPROVAL DATE: _____

ADEC _____

FOSC _____

EXXON _____

USCG _____

NOAA _____

**ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES**

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

TEAM NO. G-Helo SEGMENT PB-14 SUBDIVISION A DATE 17 May 91

ADEC

NAME J. BARNHART ADEC SIGNATURE Jeffrey Barnhart

- ☒ NTR subsurface oil present during 1990 could not be located. Shifting sand covers and periodically uncovers subsurface mousse. A small quantity of TB's were found and removed. The SOR exhibited a sheen.

EXXON

NAME R. Coulter SIGNATURE Ray R. Coulter

- ☒ NTR A VERY SMALL NUMBER OF PATTIES WERE FOUND AND ALL WERE RECOVERED. ADDITIONAL CONSIDERATION FOR TREATMENT IS NOT NEEDED.

LANDMANAGER

NAME J. HARDESTEL OF USFWS SIGNATURE John P. Hardestel 5/17/91

- ☒ NTR occasional Tarballs were found on top of the sand. Most were removed. An unknown amount of oil may (or may not) be buried in the sand. It would not be reasonable to survey further. Therefore, no further treatment is recommended.

USCG/NOAA

NAME CWO SPURR / G. SHEGENALA SIGNATURE R.P. Spurr / G. Shegenala

- ☒ NTR

SURVEYED PORTION OF THE SEGMENT WAS AN IRREGULAR SET OF STREAM CHANNELS BORDERED BY BROAD, LOW-SLOPING, LARGELY NON-VEGETATED TIDAL SAND FLATS. WHAT APPEARED TO BE BEAL TRACKS WERE OBSERVED ON THE SOUTHERN SIDE OF THE TIDAL FLAT. ONE TARBALL WAS SEEN AND RECOVERED ON THE SOUTHERN SHORELINE. THE STREAM CHANNELS AND FLATS WERE CROSSED TO ACCESS THE NORTHERN SHORELINE, WHERE OCCASIONAL TARBALLS WERE FOUND AND RECOVERED. RIVER OTTER TRACKS WERE SEEN ALONG THE NORTH SHORELINE.

IS LIKELY THAT LITTLE RECOVERABLE OIL REMAINS IN THE SEGMENT.

PAGE 1 OF 1

DATE 17 May 1961

USCG/NOAA CWO Spurr / G. SHEENAKA

ENERGY LEVEL: ☐ H ☐ M ☒ L

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

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

EST. OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 60 m NO 840 m US 3745 m

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

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

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

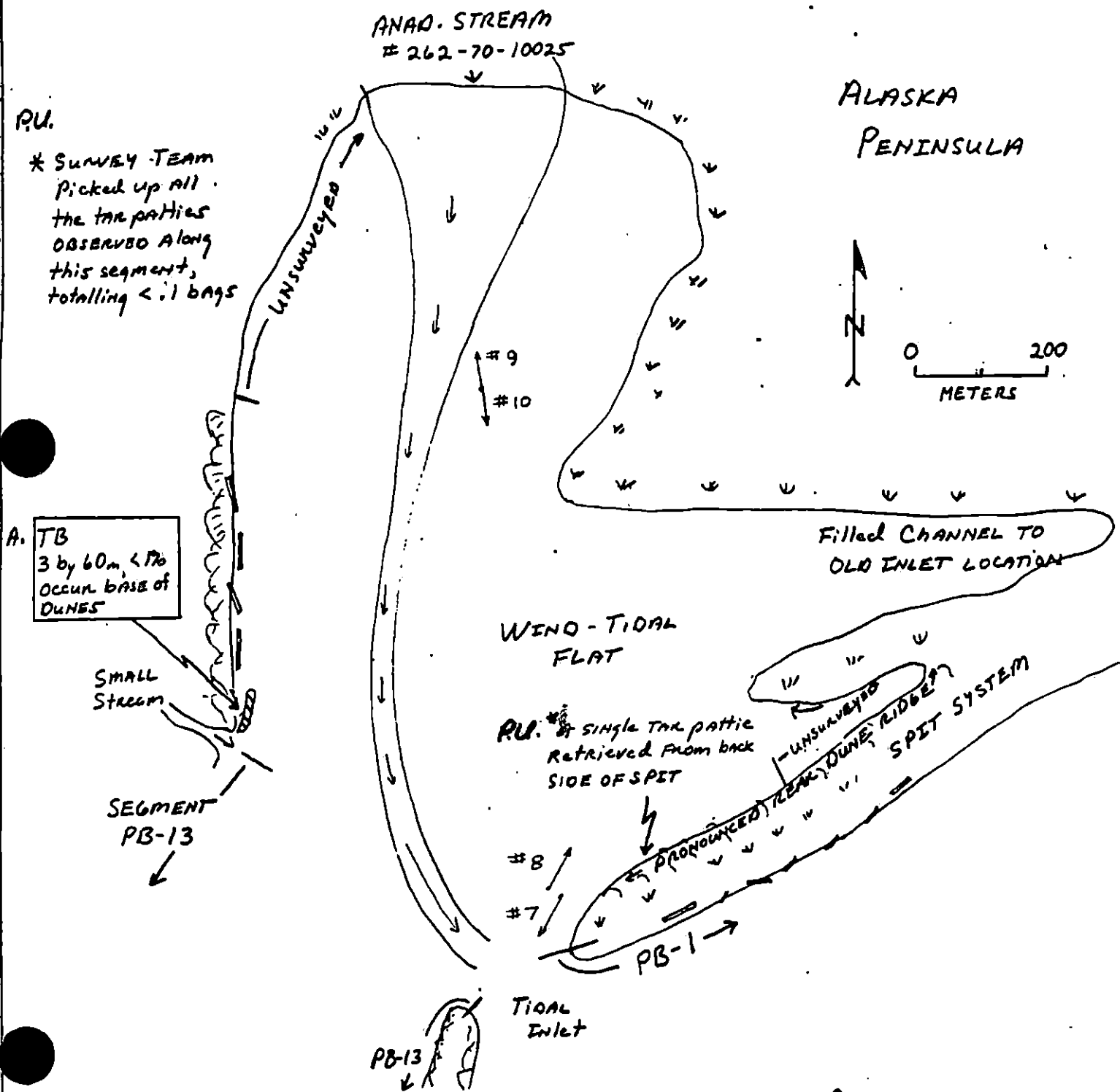
OG COMMENTS: This segment is located inside the lagoon at the head of Puale Bay. The lagoon is completely intertidal except for the ANAD. STREAM (362-70-10025) channel that runs through the middle. The oiling of this region occurred across the stream channel and wind-tidal flat at the east end of the segment and consisted of tar patties at the base of the dunes along the wreck line. All observed tar patties were collected by the Survey Team amounting to less than 1 bag.

Reviewed: MC 5/24/91
reviewed 5.20 07

DUNES
 GRASSY AREA
 Driftwood
 Photo Sites

PHOTO SITES, PB-14A
 ROLL 6-16, FRAMES 7-10

Sketch MAP (OG)
 PB-14-A
 D. FITZGERALD
 17 MAY 1991
 1200 - 1240



PUALE BAY

REVIEWED: 5/21/90 MC reviewed 5.20 at

Sketch MAP(OG)
P13-14-A
D. FITZGERALD
17 MAY 1991
1200 - 1240

* SURVEY TEAM
Picked up all
the tar patches
OBSERVED Along
this segment,
totalling $< .1$ bags

SMALL
Stream

SEGMENT
PB-13

ANAD. STREAM
262-70-10025

ALASKA
PENINSULA

A scale bar labeled "METERS" with markings at 0 and 200.

Filled CHANNEL TO
OLD INLET LOCATION

WIND-TIDAL
FLAT

RU. * A single Tbx pattie
Retrieved From back
SIDE OF SPIT

UNSURVEYED
SPIT SYSTEM

PB-1

Tidal
Inlet

PB-13
LK

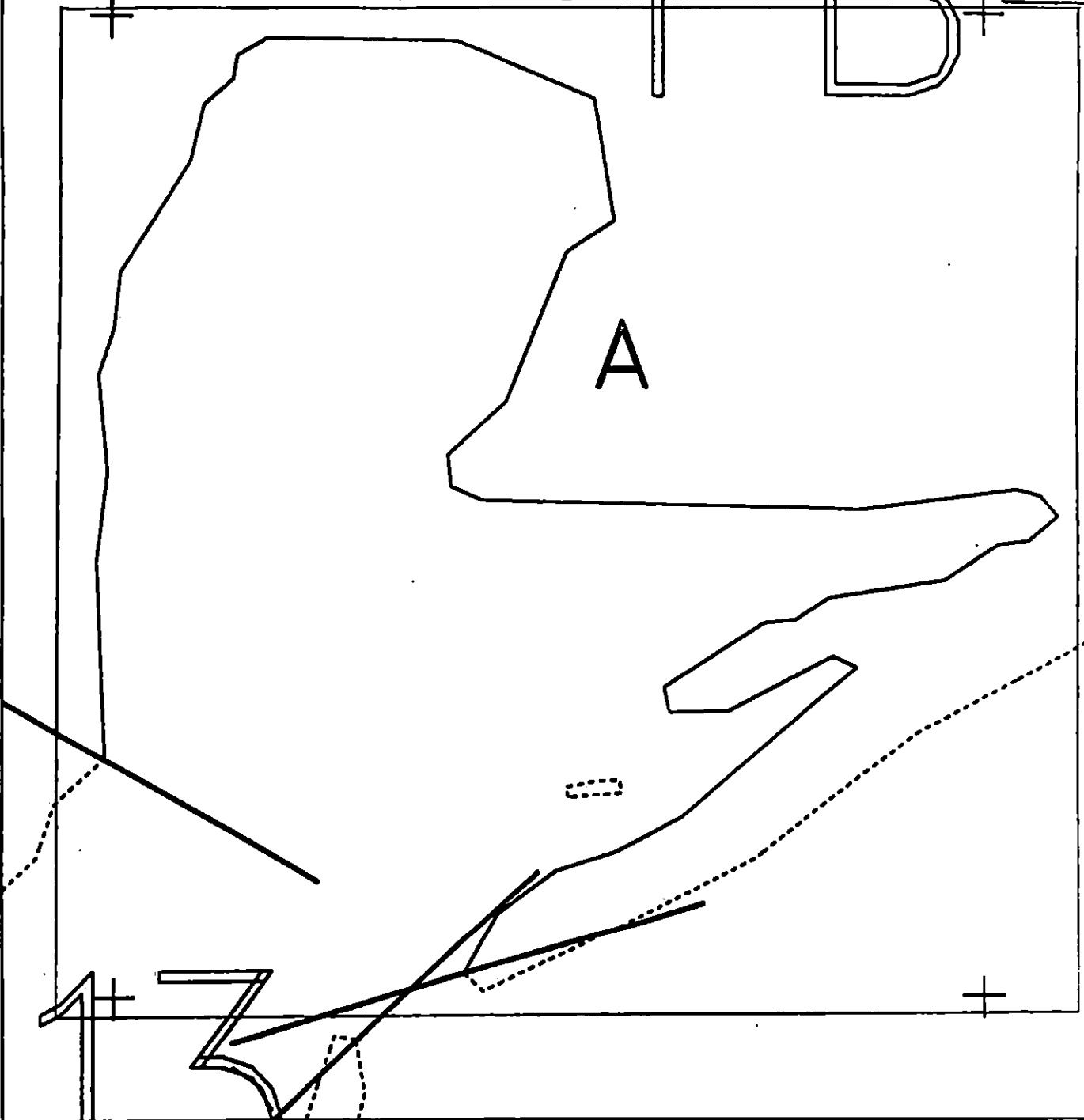
Puale Bay

Reviews: 5/20/9/mc reviewed 5.20 94

MAP #1

PB

A



K1007 PB014 A

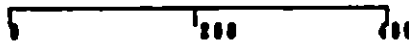
Subdivision Field Map

Map Key: COAK1007PB014A

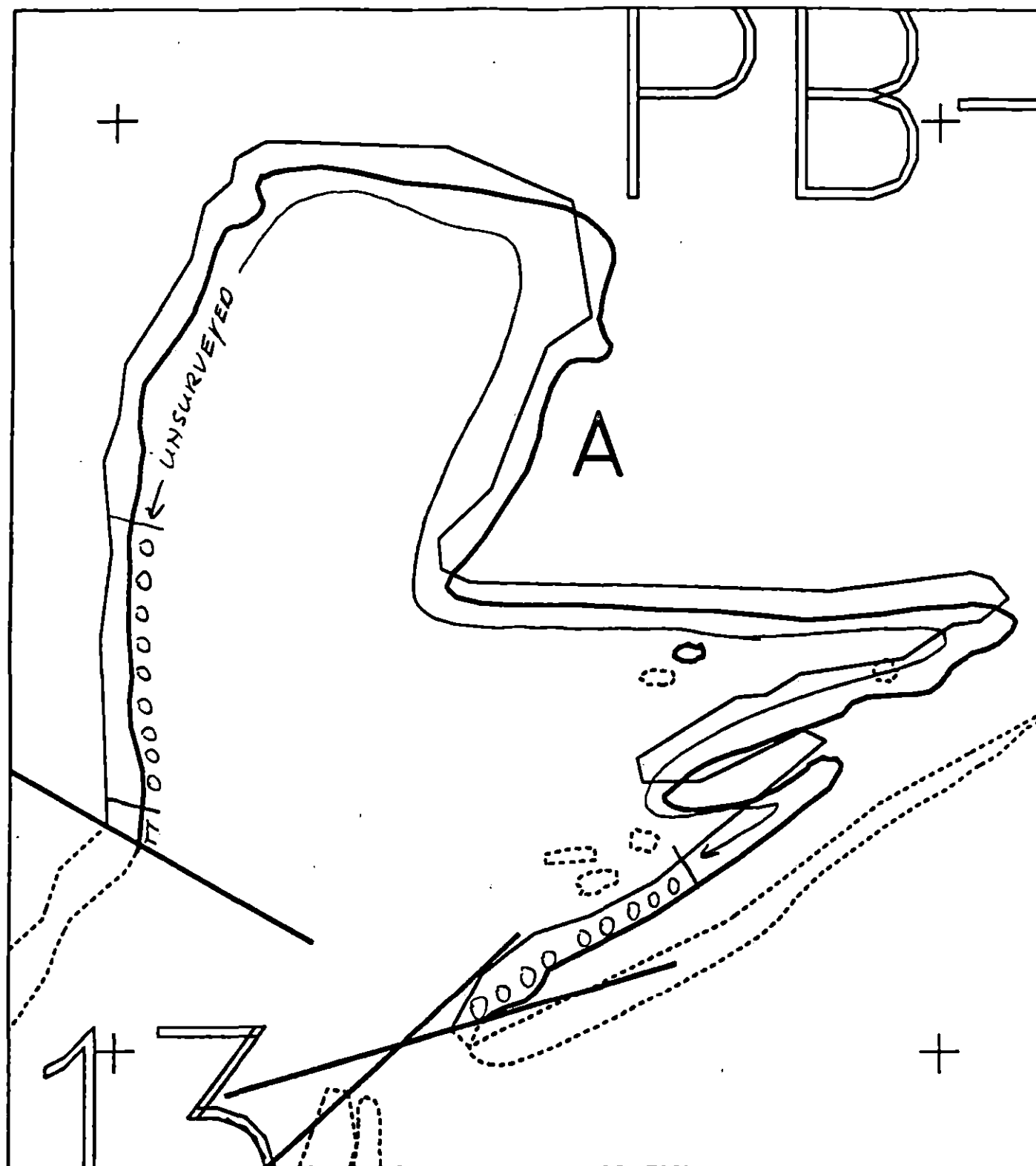
Name: D. FITZGERALD

Date: 17 May 1991

METERS



AK State Plane Spher. S.
810076014A-5



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

K1007 PB014 A
 ADEC Subsegment Length: 4845m
 METERS
 0 200 400
 AK State Plane Zone 4
 91007pb014a



Subdivision Field Map
 Map Key: 60AK1007PB014Aa
 Name: D Fitzgerald
 Date: 17 MAY 1991
 Date Entered:

Reviewed: MC 5/21/91
 reviewed 5.20 94

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 6 Helo

DATE May 17 1991

SEGMENT # PB-14

TIDAL HEIGHT (Range) -3ft - -1.5ft (12:00-12:40)

SUBDIVISION A

BIOLOGIST H. Davis

SEA STATE 3-4 ft

WIND SPEED/DIRECTION 35-40 kt (true) NE

PHOTOGRAPHS: ROLL # 6-16

FRAME # 7-10

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

A. Site A was at the mouth of a small stream next to the boundary between PB-14 and PB-13. The area had almost no intertidal biota at this time. The area is surrounded by dunes and marshy areas. The predominate ground cover is *Ammophila arenaria* (Dune grass). Bear tracks were found on the tidal flat. River Otter tracks were found along the lower edge of the supra tidal. They paralleled a bear trail found up in the dunes. This area had very little algal detritus.

Glaucous-winged Gulls (2) Mergansers (3)

Jaeger (1) Raven (1) Sooty Shearwater (2 dead) Kittiwakes (20) Sparrows (3) Dead Kittiwake (5)

WILDLIFE OBSERVATIONS

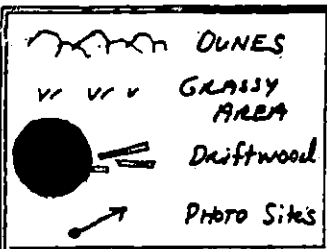
TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	0	-	0
Seabirds	2	3 (2 dead)	
Waterfowl	1	3	
Gulls/Kittiwakes	2	>(27)	
Shorebirds	0	-	
Corvids	1	1	
Other Birds Sparrows	1	3	

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters	0	River Otter Tracks	
Manipeds (specify)	0	Brown Bear Tracks	
Whales (specify)	0	Fox Tracks	

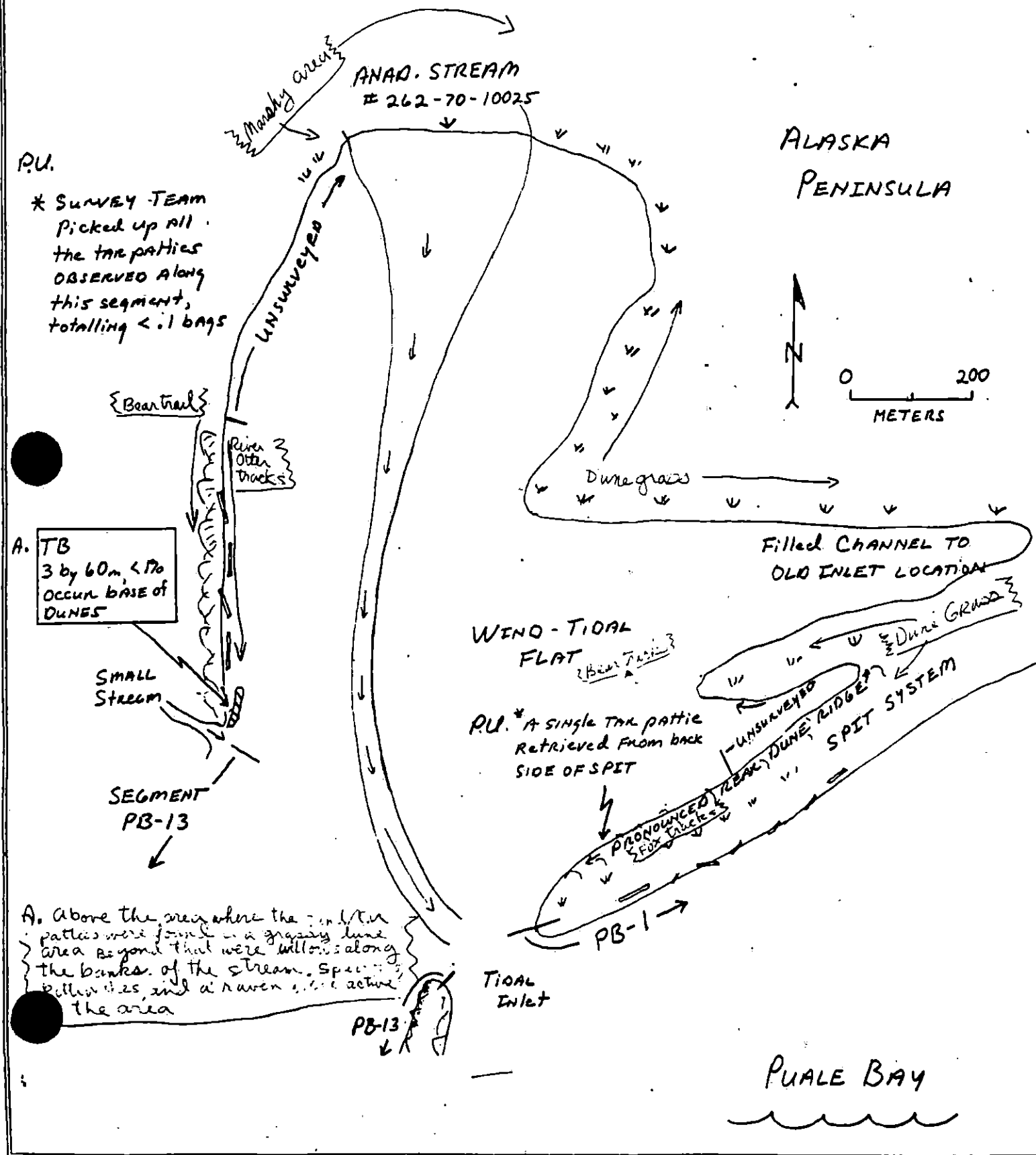
Shoreline subdivision map showing important biological features attached.

Printed Date: 10/1/91



Bio Map
H. DAVIS

Sketch MAP (OG)
PB-14-A
D. FITZGERALD
17 MAY 1991
1200 - 1240



1991 MAYSAP EVALUATION

SEGMENT: K1007PB014 SUB: A REGION: KOD SURVEY DATE: 5/17/91

ENVIRONMENTAL SENSITIVITIES:

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

Ecological/Constraints (see page two for details) Anadromous
stream

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO Signature: /marty C Smith Date: 5/30/91

RECOMMENDATIONS:

INITIAL**TAG****FOSC**

TREATMENT REQUIRED (Y or N)

 N

N

1

Manual Pickup (Check as Req.)

Spot Washing

Bio-Customblen Only

Bio-Inipol/Custombien

Other

Other

COMMENTS:

INITIAL:

TAG:

FOSC:

TAG APPROVAL DATE: MM 29 1991 FOSC APPROVAL DATE: 010191

ADEC

FOSC

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

EXXON

USCG

NOAA

**ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES**

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

TEAM NO. 6-Helo SEGMENT PB-14 SUBDIVISION A DATE 17 May 91

ADEC

NAME J. BARNHART ADF6 SIGNATURE Jeffrey Barnhart

- ☒ NTR Subsurface oil present during 1990 could not be located. Shifting sand covers and periodically uncovers subsurface mousse. A small quantity of TB's were found and removed. The SOR exhibited a sheen.

EXXON

NAME R. Coulter SIGNATURE Ref. R. Coulter

- ☒ NTR A VERY SMALL NUMBER OF PATTIES WERE FOUND AND ALL WERE RECOVERED. ADDITIONAL CONSIDERATION FOR TREATMENT IS NOT NEEDED.

LANDMANAGER

NAME J. HARDISTE OF USFWS SIGNATURE John P. Hardiste 5/17/91

- ☒ NTR occasional Tarballs were found on top of the sand. Most were removed. An unknown amount of oil may (or may not) be buried in the sand. It would not be reasonable to survey further. Therefore, no further treatment is recommended.

USCG/NOAA

NAME CWO SPURR / G. SHEGENAKA SIGNATURE R.P. Spurr / G. Shegenaka

- ☒ NTR

SURVEYED PORTION OF THE SEGMENT WAS AN IRREGULAR SET OF STREAM CHANNELS BORDERED BY BROAD, LOW-SLOPING, LARGELY NON-VEGETATED TIDAL SAND FLATS. WHAT APPEARED TO BE BEAR TRACKS WERE OBSERVED ON THE SOUTHERN SIDE OF THE TIDAL FLAT. ONE TARBALL WAS SEEN AND RECOVERED ON THE SOUTHERN SHOULDER. THE STREAM CHANNELS AND FLATS WERE CROSSED TO ACCESS THE NORTHERN SHORELINE, WHERE OCCASIONAL TAR PATTIES WERE FOUND AND RECOVERED. RIVER OTTER TRACKS WERE SEEN ALONG THE NORTH SHORELINE. IT IS LIKELY THAT LITTLE RECOVERABLE OIL REMAINS IN THE SEGMENT.

PAGE 1 OF 1

DATE 17 May 191

USCG/NOAA CWO Spurr/G. SHEENAKA

ENERGY LEVEL: ☐ H ☐ M ☒ L

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

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

EST. OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 60 m NO 840 m US 3745 m

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

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

PHOTO ROLL # MAYSAP-

FRAMES

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

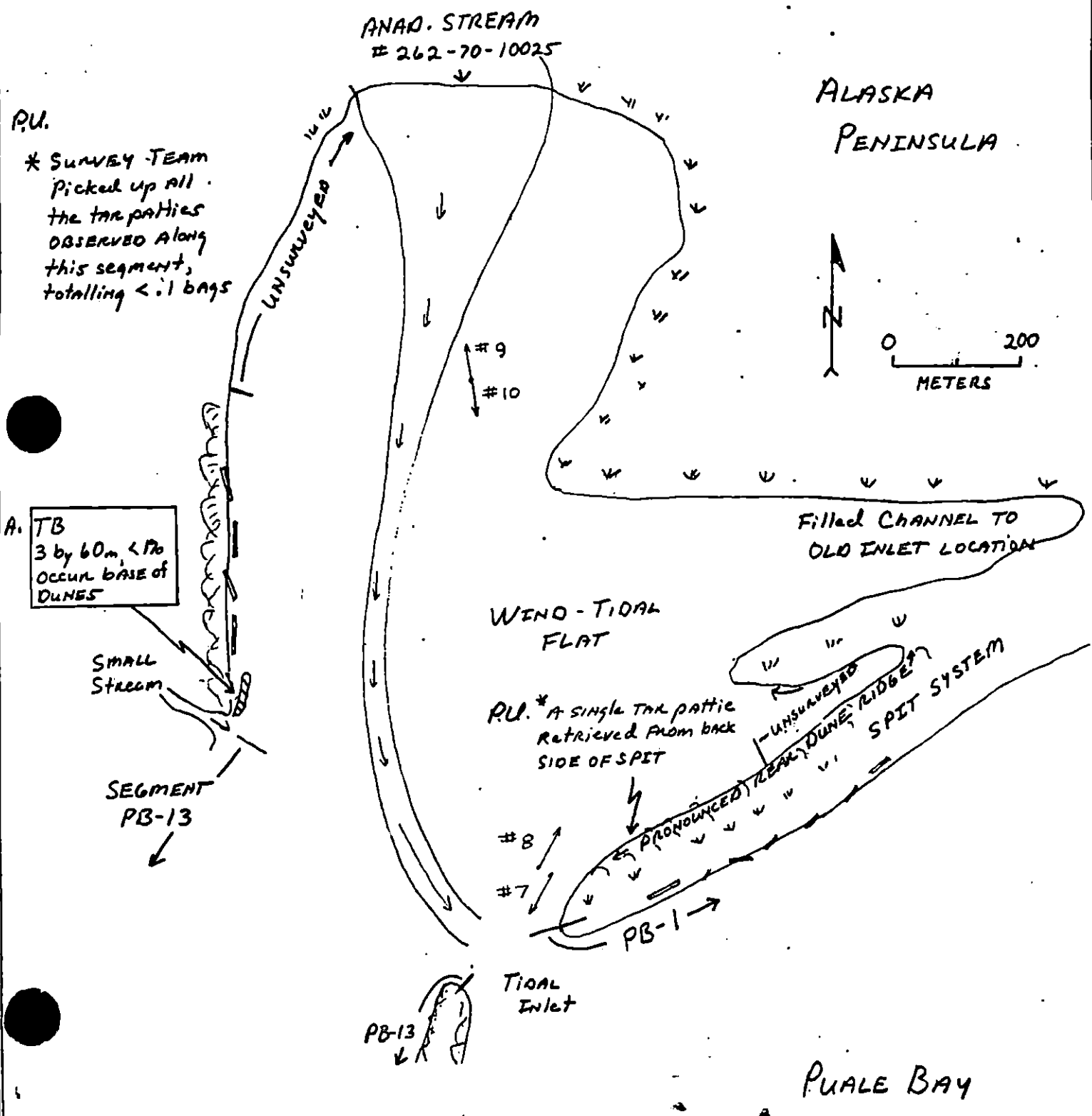
OG COMMENTS: This segment is located inside the lagoon at the head of Puale Bay. The lagoon is completely intertidal except for the ANAD. STREAM (362-70-10025) channel that runs through the middle. The oiling of this region occurred across the stream channel and wind-tidal flat at the east end of the segment and consisted of tar patties at the base of the dunes along the wreck line. All observed tar patties were collected by the Survey Team amounting to less than .1 bag.

REVIEWED: MC 5/21/91
Reviewed 5:20 AM

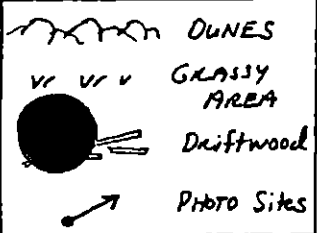
DUNES
 GRASSY AREA
 Driftwood
 PHOTO SITES

PHOTO SITES, PB-14A
 ROLL 6-16, FRAMES 7-10

Sketch MAP (OG)
 PB-14-A
 D. FITZGERALD
 17 MAY 1991
 1200 - 1240



REVIEWED: 5/21/90 ME reviewed 5:20 AM



Sketch Map (OG)
 PB-14-A
 D. FITZGERALD
 17 MAY 1991
 1200 - 1240

P.U.

* SURVEY TEAM
 Picked up all
 the tar patties
 OBSERVED along
 this segment,
 totalling < .1 bags

A. TB
 3 by 60 m, 4 m
 OCCUR BASE OF
 DUNES

SMALL
Stream

SEGMENT
 PB-13

ANAD. STREAM
 # 262-70-10025

UNSURVEYED

ALASKA
 PENINSULA



0 200
 METERS

Filled CHANNEL TO
 OLD INLET LOCATION

WIND-TIDAL
 FLAT

P.U. * A SINGLE Tar pattie
 Retrieved from back
 SIDE OF SPIT

UNSURVEYED
 REAR DUNE RIDGE
 SPIT SYSTEM

PB-1

TIDAL
 Inlet

PB-13

PUALE BAY

REVIEWED: 5/10/91 MC reviewed 5.20 94

MAP #1

PB

A



K1007 PB014 A

METERS

0 100 200

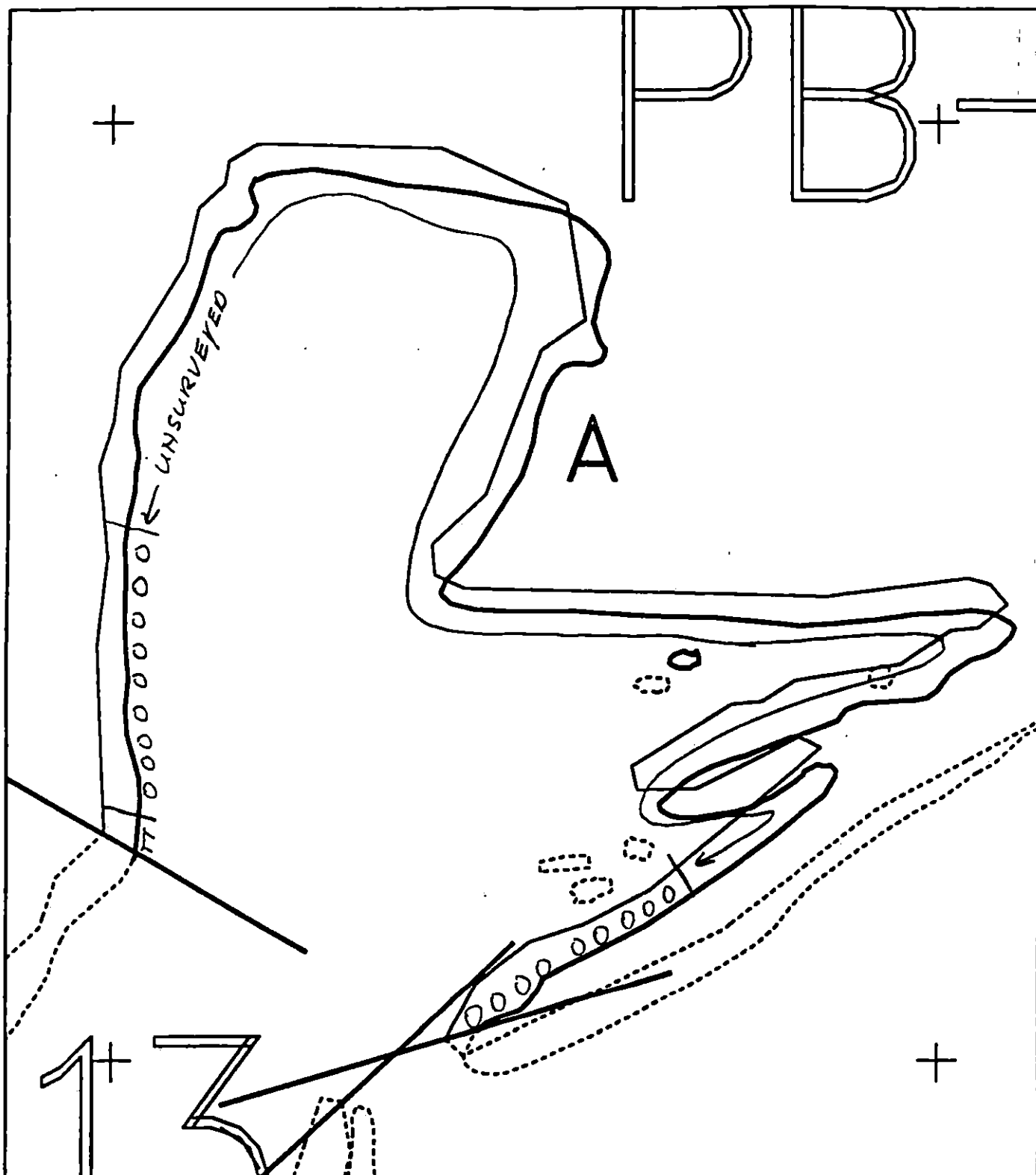
AK State Plane Zone 5
91007PB014A-5

Subdivision Field Map

Map Key: 604K1007PB014A

Name: D. Fitzgerald

Date: 17 May 1991



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

K1007 PB014 A
 ADEC Subsegment Length: 4845m
 METERS

0 100 200
 AK State Plane Zone 4
 910079b014a00- . . .



Subdivision Field Map
 Map Key: 00AK1007PB014A0
 Memo: D Fitzgerald
 Date: 17 MAY 1991
 Date Entered:

Reviewed: MC 5/21/91
 reviewed 6.20 94

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 6 Helo

DATE May 17 1991

SEGMENT # PB-14

TIDAL HEIGHT (Range) -3ft - -1.5ft (12:00-12:40)

SUBDIVISION A

BIOLOGIST N. Davis

SEA STATE 3-4 ft

WIND SPEED/DIRECTION 35-40 KT (+Gust) NE

PHOTOGRAPHS: ROLL # 6-16

FRAME # 7-10

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

A. Site A was at the mouth of a small stream next to the boundary between PB-14 and PB-13. The area had almost no intertidal biota at this time. The area is surrounded by dunes and marshy areas. The predominate ground cover is *Memphila arenaria* (Dune grass). Bear tracks were found on the tidal flat. River Otter tracks were found along the lower edge of the supra tidal. They paralleled a bear trail found up in the dunes. This area had very little algal detritus.

Glaucous-winged Gulls (2) Mergansers (3)

Jaeger (1) Raven (1) Sooty Shearwater (2 dead) Kittiwakes (20) Sparrows (3) Dead Kittiwakes (5)

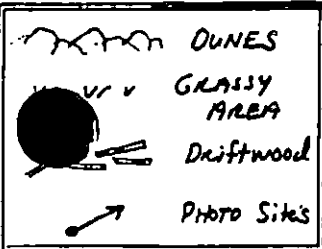
WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	0	-	0
Seabirds	2	3 (2 dead)	
Waterfowl	1	3	
Gulls/Kittiwakes	2	>(27)	
Shorebirds	0	-	
Corvids	1	1	
Other Birds <i>Sparrows</i>	1	3	

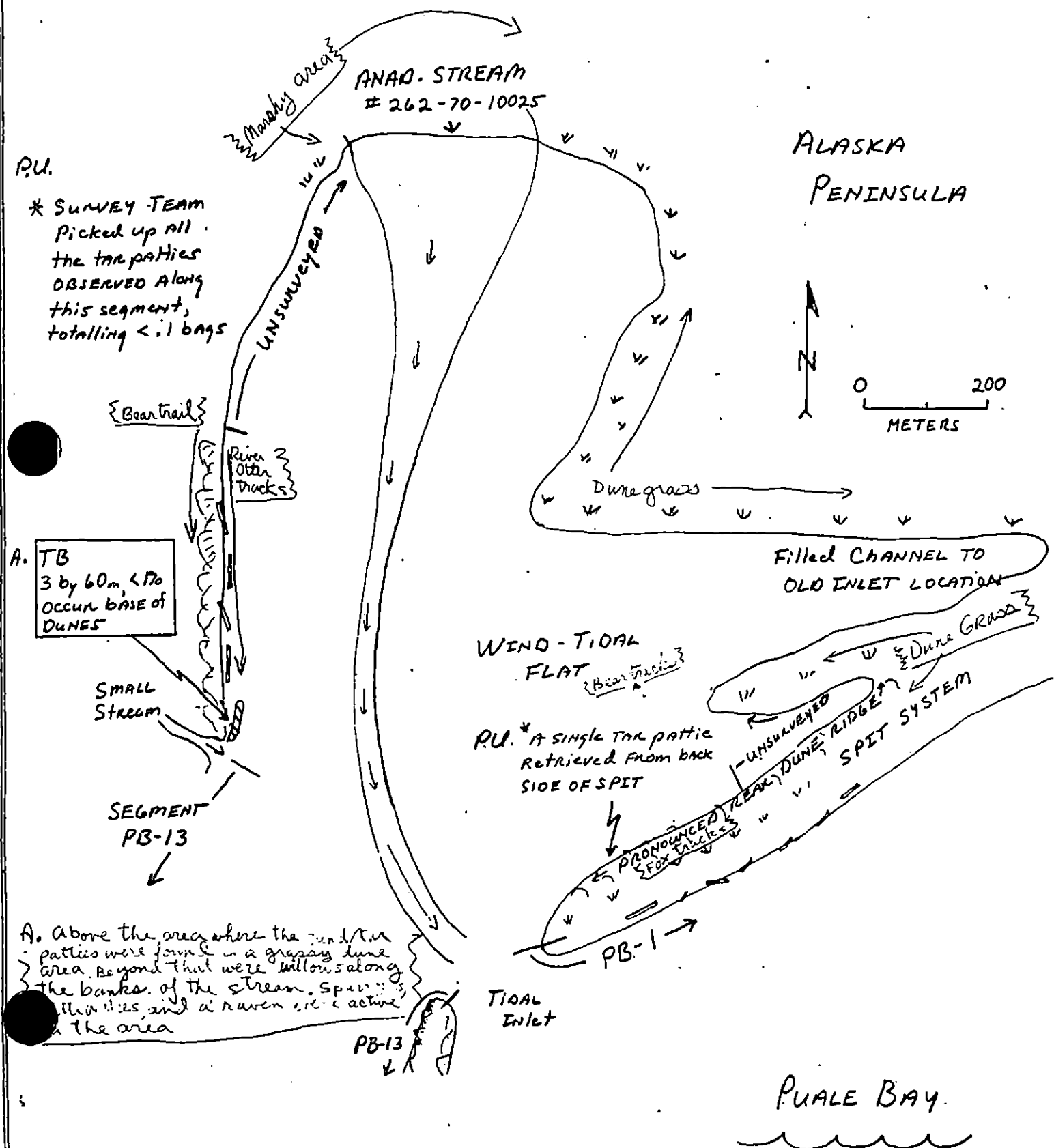
MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters	0	River Otter Tracks	
Unipeds (specify)	0	Brown Bear Tracks	
Whales (specify)	0	Fox Tracks	

Shoreline subdivision map showing important biological features attached.



Bio Map
H. DAVIS

Sketch MAP (OG)
 PB-14-A
 D. FITZGERALD
 17 MAY 1991
 1200 - 1240



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