

OIL SPILL PUBLIC INFO. CENTER



3 6653 00006432 3

EVOS
GC
1552
.P75
S42
1991
v.43

[Shoreline evaluations, 1991].

Prince William Sound GA-01 to GR-15

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REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/GA-01

SUBDIVISIONS: A (1 OF 1)

SHORELINE EVALUATION

SEGMENT ST/ GA-01 SUBDIVISION A (1 OF 1) DATE 4/20/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T-1 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

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 621 m: V.Light 156 m: No Oil 1314 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 _____

FOSC: _____ DATE: _____

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

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

FIELD SHORELINE COMMENT SHEET

SEGMENT ST GA01 SUBDIVISION: A DATE April-21-1990

JSCG

NAME

SHAWN MAAS

SIGNATURE

[Signature]☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

GAGE ISLAND CONSISTS OF HIGH VERTICAL
ROCK FACE. OILING AT UPPER HIGHEST TIDE
RANGE. RECOMMEND NO TREATMENT. LOTS OF
LIFE IN AND AROUND THE 1/3 METER OILED BAND.

ADEC
NAMEDAVE SALK

SIGNATURE

[Signature]

OILED BAND SEEMS NON-MOBILE AND WOULD BE DIFFICULT TO REMOVE

☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

OILED BAND ON VERTICAL ROCK FACE IS PREDOMINATELY
A STAIN COINCIDING WITH THE UPPER BARNACLE ZONE. THERE
IS APPROX. 50% MORTALITY IN THIS ZONE (WITHOUT QUADRAT ANALYSIS)
COMPARED TO 20% IN BARNACLE ZONE BELOW 1/2 METER OILING BAND.
UPPER LEVEL OF BARNACLES IS ALMOST A "SPASH ZONE", AND THESE
MAY BE AT HIGH STRESS LEVELS TO BEGIN WITH. HOWEVER, THIS SITE
IN THE SOUTH SIDE OF GAGE, MAY BE A GOOD STUDY SITE FOR BARNACLE MORTALITY

LAND MANAGER

NAME

Don Komploff Jr

SIGNATURE

[Signature]☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

10 of 22

REVISION NO. 04/13/04

SURFACE OIL

Frames 22

DATE _____

OG Mar

SEGMENT ST/ GA-01A

SUBDIVISION A

DATE 04/20 90

CHECKLIST

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

LEGEND

1 Δ

PT - No Subsurface Oil

2 Δ

PT - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

Splattered Distribution

lll

Oiled Vegetation

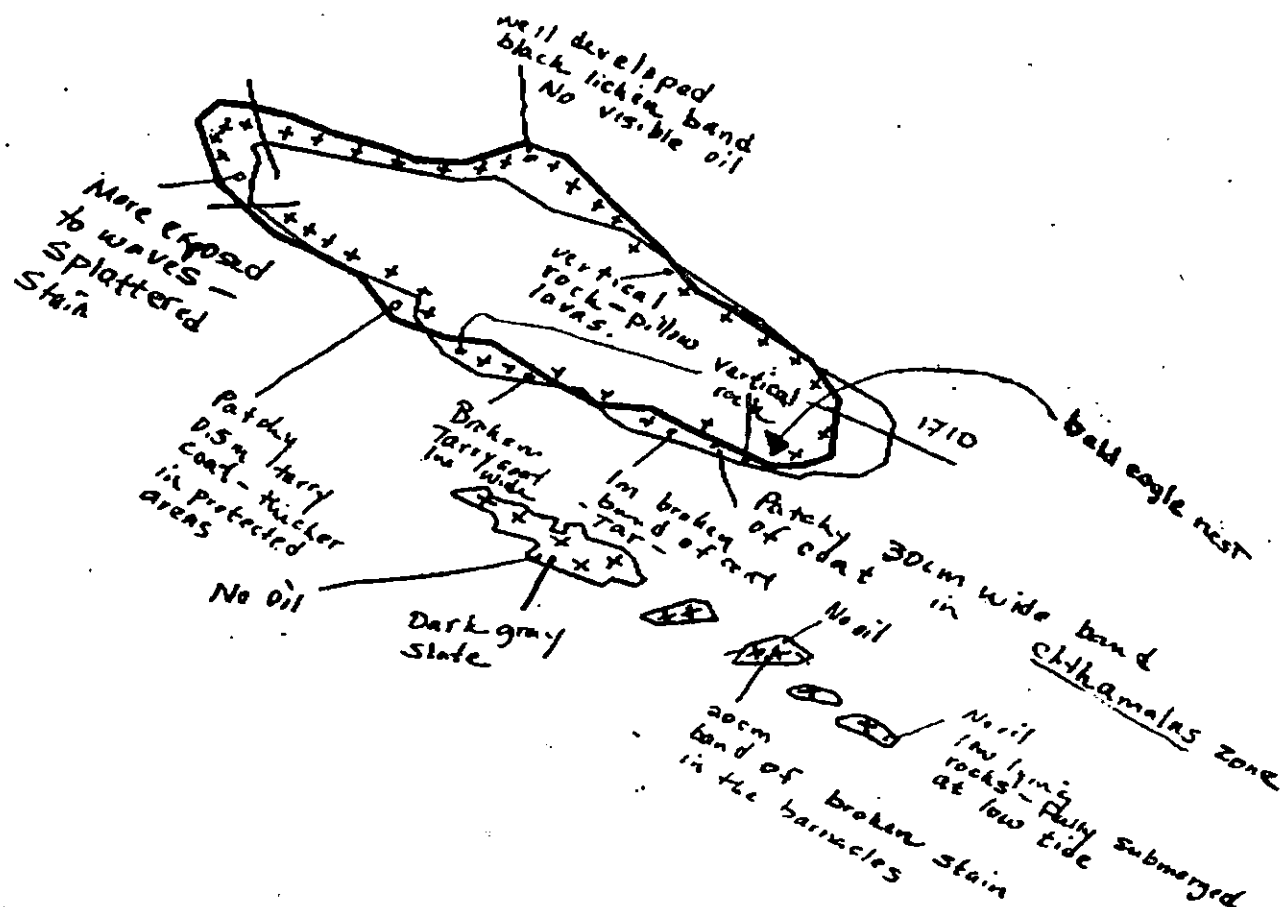
1 →

Photo location, direction,
and number



Bedrock: Dark gray slate.

SKETCH MAP



22623

Oil Character Length (m): AP 0 PO 0 CV 0 CT 659m ST 80m MS 0 PT 0 TB 0 FL 0 NO 1381m

REVISIONS

SHORELINE ECOLOGICAL SUMMARY

REVISION: 02/22/90

Segment ST / GA 1 Subdivision A Date (mo / day / yr) 4 / 20 / 90
 Time (24 hr) 1620 - 1730 Biologist Lemon

- (A) Substrate type and % of segments:
 (1) Bedrock 90 (2) Boulder 10 (3) Cobble 0 (4) Pebble 0 (5) Sand 0 (6) Silt 0
- (B) Overall % cover of biota (% of segment): Dense 95% Moderate 0 Low 0
- (C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)

Photographs:
 Roll No. ST/10/13

Frames 22

BARNACLES

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

MYTILUS

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

GASTROPODS

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

FUCUS

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

Wildlife Observations/ General Comments:

- 3 eagles
 2 seals
 2 oyster catchers
 4 crows
 1 sea otter
 > 30 geese at great distance
 1 school tiny fish in plankton rich water
 2 cormorants

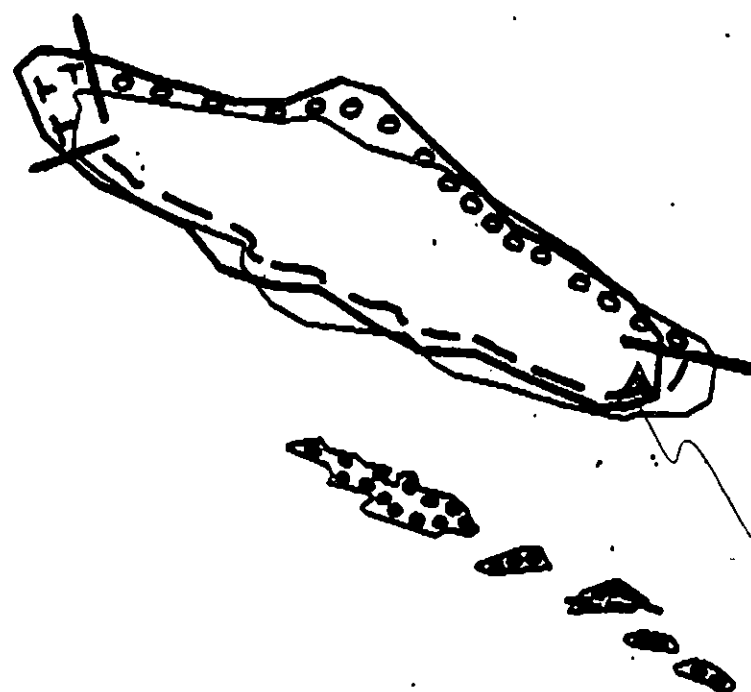
Ecological Considerations:

Eagle nests reported from S.E. shore, not confirmed on 20 Apr 90, but the eagles noted above did originate from the island.

Complete Island and off-shore rocks surveyed from skiff so much detailing was not done. However all areas are biologically rich and diverse; nearly all available substrate is occupied by at least one layer of organisms.

50/22

ECCOLOGICAL MAP



GA

EAGLE
NEST

No	8"	1200m	1891m
VL	0.25"	30m	42m
L	4.2"	630m	699m
		1868m	2072m

4 of 22

XXX Wide
 /// Medium
 --- Narrow
 TTTT Very Light
 OOOO NA O:1

GA-1

ADEC Segment Length: 1221m

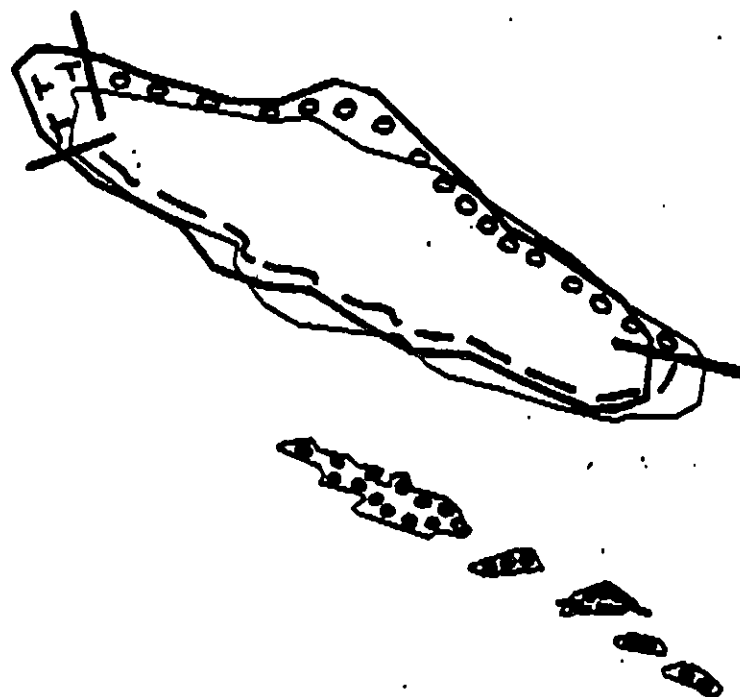
0 100 200 300



Map Key: PWS-243

Name: R. MartyDate: 20 April 1990

Data Collected:



GA

No	84	1200m	1931m
YL	0.35"	38m	42m
L	4.2"	630m	699m
		1867m	2072m

4 of 22

XXX Wide

/// Medium

--- Narrow

TTTT Very Light

OOOO No Oil

GA-1

ADEC Segment Length: 1221m

0 100 200 300

Map Key: PWS-243

Name: R. MartyDate: 20 April 1990

Data Collected:

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/GR-1A

SUBDIVISIONS: A

SHORELINE EVALUATION

SEGMENT ST/ GR-1A SUBDIVISION A DATE 3/31/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Possible Herring spawning area (2M) - 4/1 to 6/15; Restrict disturbance of unoiled fucus in lower and middle inter-tidal zones.

SUBDIVISION ECOLOGICAL CONSTRAINTS: Same as above.

ARCHAEOLOGICAL CONSTRAINTS: Consultation and inspection with an Exxon archaeologist is required prior to treatment.
Specific on-site monitoring requirements will be determined at that time.

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

111m Wide, 538m Medium, 0 m Narrow, 299m V. Light, 0 m No Oil
Subsurface Oil Observed Yes X No Maximum Depth _____

RECOMMENDATIONS:

 No Treatment Recommended

 X Treatment Recommended

 X Manual Pickup Snare Booms/Sorbents Tarmat Breakup/Removal

 X Bioremediation SPOT WASHING Other

 Wands

 Beach Cleaner

Comments: Manual pickup of oiled debris (mousse tarballs and oiled vegetation) and bioremediation suggested. Debris isolated to pockets 1 and 2. (see sketch map). Work after 6/15/90 based on spawning constraints.

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

DEC _____

XXON _____

NOAA _____

USCG _____

FOSC: _____ DATE: _____

SHORELINE OILING SUMMARY

REVISION NO. 03/22/90

OG B. Berglund USCG J. Gamble SEGMENT ST/ GR-1A
 BIO S. Schaefer LAND REP C. Hubert SUBDIVISION 4
 EXXON C. Levine ADEC B. Fritzsman TIME 7:40 to 10:30
 TEAM NO.: 1 TIDE LEVEL: +0.1 to -2 DATE 3/30/90
 EST. SUBDIVISION LENGTH: 864 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 40 % C 30 % P 10 % G 10 % S 0 % M 0 % V 0 %
 SLOPE: Long 95 % Hang 5 % Vert 0 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 134 m M 490 m N - m VL 250 m NO - m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR						IMPACTED ZONES			
	/C	/B	/P	/S	SB/BR	DBL/PW	GY/SL	DBL/TL	LBK	SU	UI	M	U	
ASPHALT PAVEMENT														
POOLED														
COVER														
COAT	X	✓						X	✓		X	✓	✓	
STAIN														
MOUSSE														
PATTIES														
TARBALLS														
FILM			X				X				X	X		
NO OIL										✓				

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

PATTIES / TARBALLS - BAGS

NEAR SHORE SHEEN? ☒ NO BR RW SL TL

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

DEBRIS COLLECTED
☐ YES ☒ NO

TYPE -

#BAGS -

Photographs:

Roll No. ST-1-1

Frames 14-19

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW	OIL / FILM COLOR								PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO			UO	UC	SBL BR	DBL RW	GY SL	DBR TL	LBR	SU	UI	M	U			
1	30					✓	-		✓								✓			✓	B/P/G	
2	30					✓	-		✓									✓		✓	B/P/G	
3	15					✓	-		✓										✓	✓	B/P/G	
4	30					✓	-		✓								✓			✓	B/P/G	
5	20					✓	-		✓									✓		✓	B/P/G	
6	20					✓	-		✓									✓		✓	B/P/G	

7 15
COMMENTS

✓

✓

Majority of oiled zone consists of coated boulders with saturated pebbles/granules filling interstices between & below boulders. Pebbles, granules, sand ect. stopping downward oil migration. Concentration increases from MI to UI.
 Comments in GR-4.4 indicate oil in fine sediments restricted to 2-5 cm penetration, no subsurface oil as used in SS & T determination.
 Page 1 of 4
 REVIEWED DLH DATE 3/31/90

SEGMENT ST/ 1A

SUBDIVISION

DATE 3 / 29 / 90

CHECKLIST

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

LEGEND

1 Δ 2 Δ
 P1 - No Subsurface Oil

2 Δ
 P2 - Subsurface Oil

CT/C
 Continuous Distribution

CT/B
 Broken Distribution

CT/P
 Patchy Distribution

CT/S
 Splashed Distribution

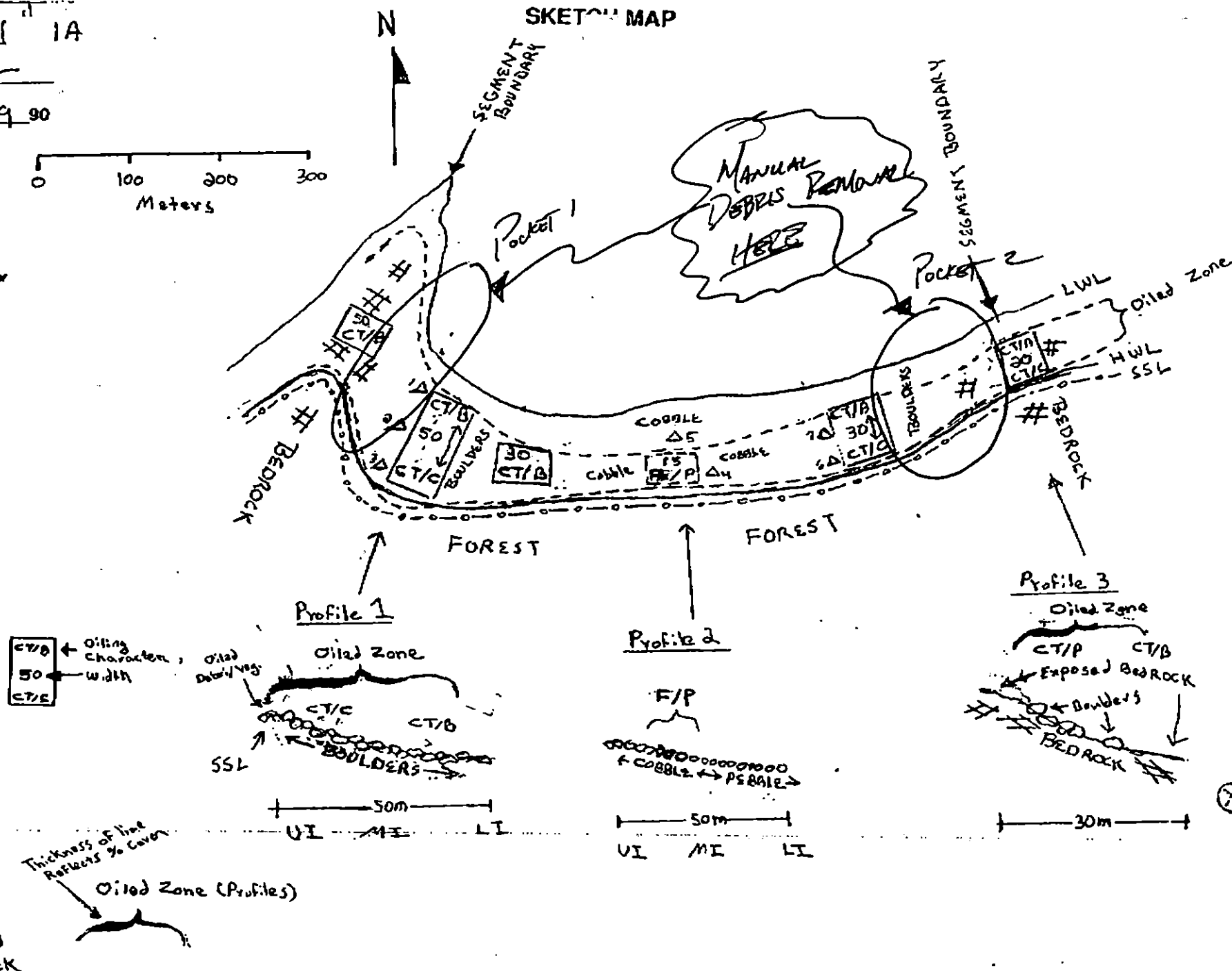
Oiled Vegetation

1 ●
 Photo location, direction,
 and number

* Exposed
 bedrock

Character Length (m): AP PO CV CT 700 ST MS PT TB FL 174 NO

SKETCH MAP



3/30/90

1A Summary

Team 1

1/3

740 : +2.0
 and 1000 : -2.0

Upper & mid intertidal mainly boulders over
 shale at ends of segment & over gravel in
 central 100m

100m fairly dense patch

low: dense forest & recruits at ends rare
 in central portion (100m)

Phyllo on ends; L. Syech & catch recruits at
 on ends; many left, lots of monkey-pine eels
 lower intertidal, many rails; many fawns
 recruits; many N. S. & L. S. & L. S. & L. S.
 Oil odor in lower intertidal

SHORELINE ECOLOGICAL SUMMARY

1/3
REVISION: 03/22/90

Segment ST/GR-1A Subdivision N/A Date (mo/day/yr) 3/30/90

Time (24 hr) 0940-1000 Biologist S. Schroeter

(A) Substrate type and % of segments:
(1) Bedrock 20 (2) Boulder 40 (3) Cobble 20 (4) Pebble 16 (5) Sand 4 (6) Silt 0

(B) Overall % cover of biota (% of segment): Dense 25 Moderate 15 Low 60

(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-1-1

Frames 20, 21, 22,

BARNACLES

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

MYTILUS

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

GASTROPODS

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

FUCUS

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

Wildlife Observations/ General Comments: UNOILED sea otter carcass on east end of segment; 3 blue sea otters & 9 spotted seals offshore;

Ecological Considerations:

moderate abundance of adult & newly recruited Fucus in low & mid intertidal; ~65% of low intertidal with dense coverage of reds (Tridacna, Scleractinia & Rhodospira). Moderate abundance of juvenile Pycnopodia & brooding Leptasterias in low intertidal. Phyllosopora bed below low tide mark on eastern half of segment; Dense recruitment of Laminaria offshore; upper shore

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / GR-1A

SUBDIVISION: NO SUBDIVISION

DATE 30 March 90

USCG

NAME James Gambill

SIGNATURE James P. Gambill

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

move Pettico in upper TIDAL zone, Due To The size of The boulder IT could be very DANGEROUS To Put a Lot of Personnel on The Beach.

ADEC

NAME Brian K. Fitz Simons

SIGNATURE Brian K. Fitz Simons

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

1) Much oil remains in sediments below Boulder/Cobble Surface cover, S.e. boulders may exceed 75cm

2) Oil definitely leaching into H₂O

3) Needs treatment if boulders can be removed or moved to gain a to saturated sediments i.e.: front end loader, bulldozer, small dozer,

4) If boulders moved, treat possibly with HPHT wash w header flood

LAND MANAGER

NAME Carol S. Huber (USFS)

SIGNATURE Carol S. Huber

☐ NO TREATMENT RECOMMENDED

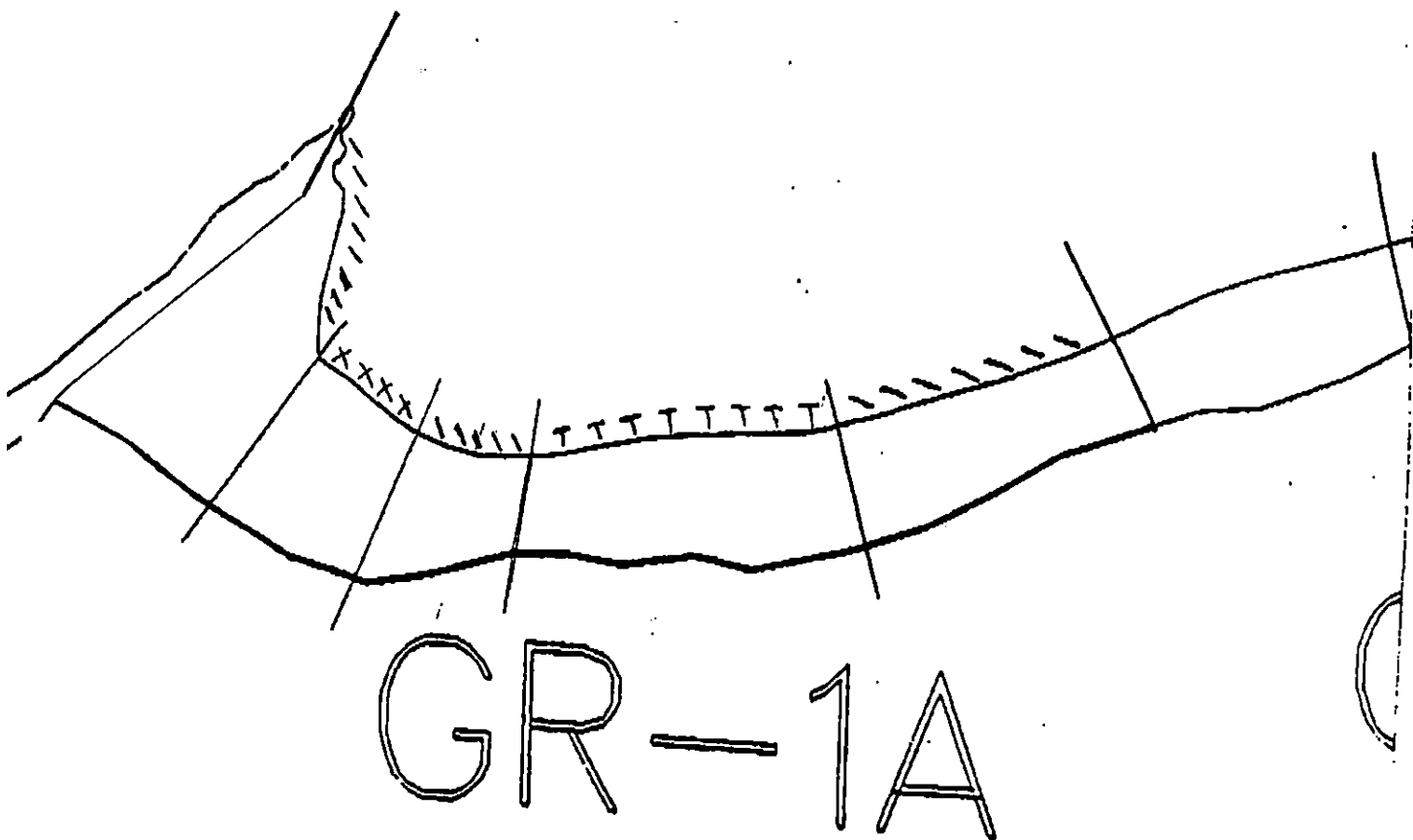
☒ TREATMENT SUGGESTED

COMMENTS

Dangerous beach for large crews, extremely slick boulders and cobbles. Considerable oil left after natural cleansing (oil soaked gravels in upper inter. zone)
Recommended low impact methods



GR-10



GR-1A

Y wide

/ medium

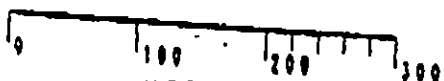
- Narrow

T Very Light

O No Oil

GR-1A

ADEC Segment Length: 875m



Map Key: PWS-256

Name: B. Berglund

Date: 3/30/90

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT GR-1A SUBDIVISION A (1 of 1)

WORK WINDOW	
Manual Pickup*	OPEN
Bioremediation	WORK 6/15 to 8/15

* EXXON 'A' STUDY SITE # 8 - DO NOT REMOVE STAKES FROM TOP OF INTERTIDAL ZONE

ARCHAEOLOGICAL INSPECTION/CONSULTATION REQUIRED.

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

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

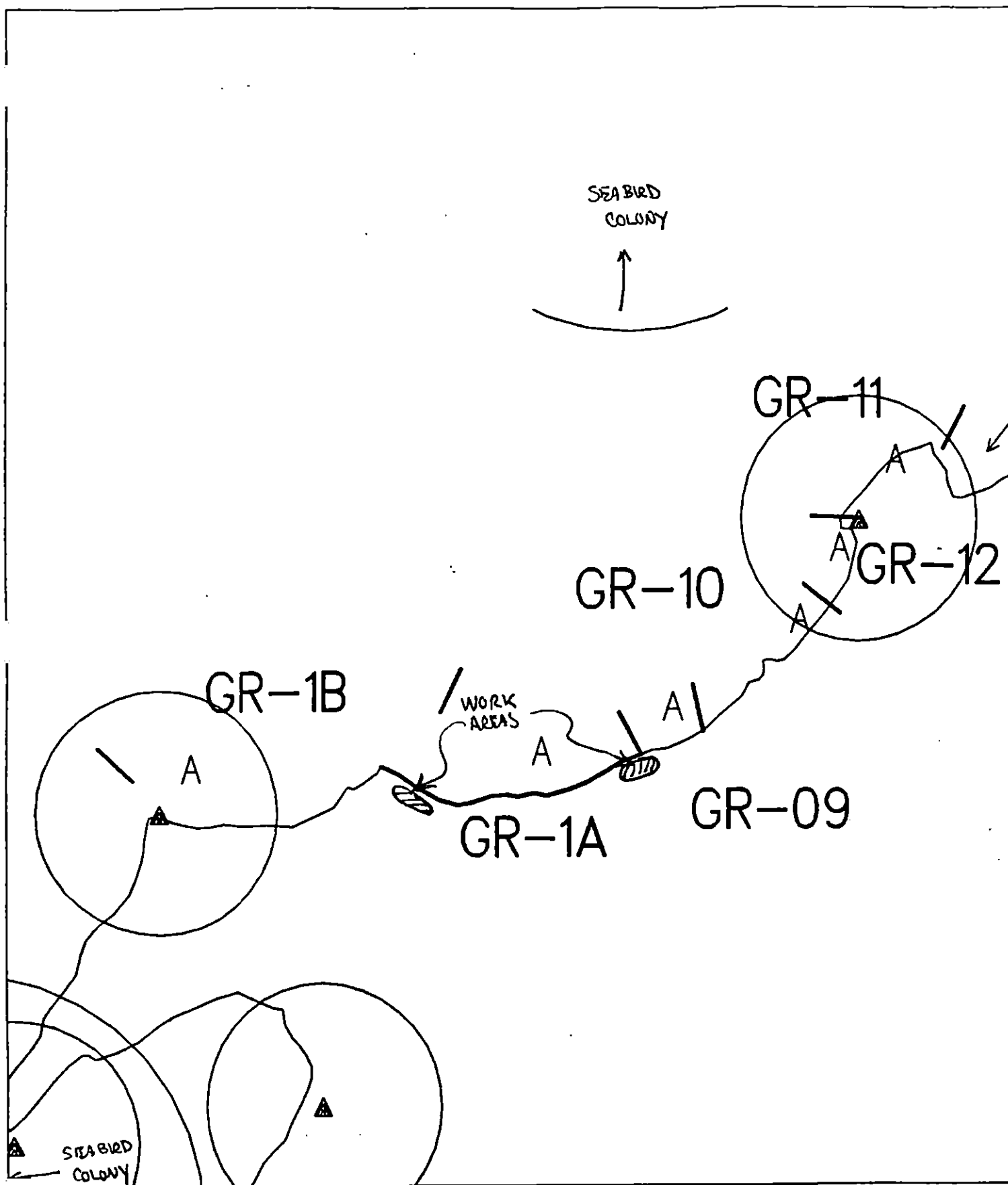
2M	Herring Spawning	Closed to bioremediation before 6/15. No constraint to manual pickup.
5R	Seabird Colony	No constraint. Work area is more than 800m from colony.
5S	Shorebird/Waterfowl Concentration	No constraint to bioremediation and manual pickup after 5/15.
7II	Subsistence: Deer Harvesting	No constraint to manual pickup. Closed to bioremediation after 8/15.

OTHER ECOLOGICAL CONSIDERATIONS

Avoid damage to unrolled intertidal and subtidal substrates, algae and seagrasses. Restrict disturbance of unrolled *Fucus* (rockweed) in lower and middle intertidal zones. Restrict boat and air traffic and beach disturbance to essential minimum after 8/15.

FOSC W L Date 6-10-90

Prepared by J. P. Phillips ⁶⁻¹⁰⁻⁹⁰ Date 6/10/90



Exxon Company, USA
Map Key: PMS-GR-1A



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

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

SHORELINE EVALUATION

SEGMENT ST/ GR-1A SUBDIVISION A DATE 3/31/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Possible Herring spawning area (2M) - 4/1 to 6/15; Restrict disturbance of oiled fucus in lower and middle inter-tidal zones.

SUBDIVISION ECOLOGICAL CONSTRAINTS: Same as above.

ARCHAEOLOGICAL CONSTRAINTS: Consultation and inspection with an Exxon archaeologist is required prior to treatment. Specific on-site monitoring requirements will be determined at that time.

SHPO SIGNATURE: Charles E. [Signature] DATE: April 5, 1990

OILING CATEGORIZATION:

111m Wide, 538m Medium, 0 m Narrow, 299m V. Light, 0 m No Oil
Subsurface Oil Observed Yes X No Maximum Depth

RECOMMENDATIONS:

 No Treatment Recommended

 X Treatment Recommended

 X Manual Pickup Snare Booms/Sorbents Tarmat Breakup/Removal

 X Bioremediation SPOT WASHING Other

 Wands

 Beach Cleaner

Comments: Manual pickup of oiled debris (mousse tarballs and oiled vegetation) and bioremediation suggested. Debris isolated to pockets 1 and 2. (see sketch map). Work after 6/15/90 based on spawning constraints. Monitor for recurring sheen

SEE ADDENDA dated 6/10/90 PPP

TAG COMMENTS: Treatment recommendations as indicated above.

TAG APPROVAL DATE:

EC JOHN BAUER [Signature]

CON ANDY TEAL [Signature]

MOAA Buel C. Wescott [Signature]

SCG G.A. REITER [Signature]

FOSC:

DATE:

SHORELINE EVALUATION

SEGMENT ST/ GA-01 SUBDIVISION A (1 OF 1) DATE 4/20/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T-1 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
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: Charles E. Jones DATE: 5/5/20

OILING CATEGORIZATION:

Wide_0_m: Medium_0_m: Narrow_621_m: V.Light_156_m: No Oil_1314_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: 5/4/00

ADEC Asst WOTM Asst WOTM

EXXON ANDY TGA Ren

NOAA Gary Petrop New Orleans

USCG G.A. REITER 'G.A.T.

FOSC: W DATE: 5-18-80

OG Mart

SEGMENT ST/ GA-DIA

SUBDIVISION A

DATE 04/20 90

CHECKLIST

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

LEGEND

1 Δ

PT - No Subsurface Oil

2 Δ

PT - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

Splattered Distribution

lll

Oil Vegetation

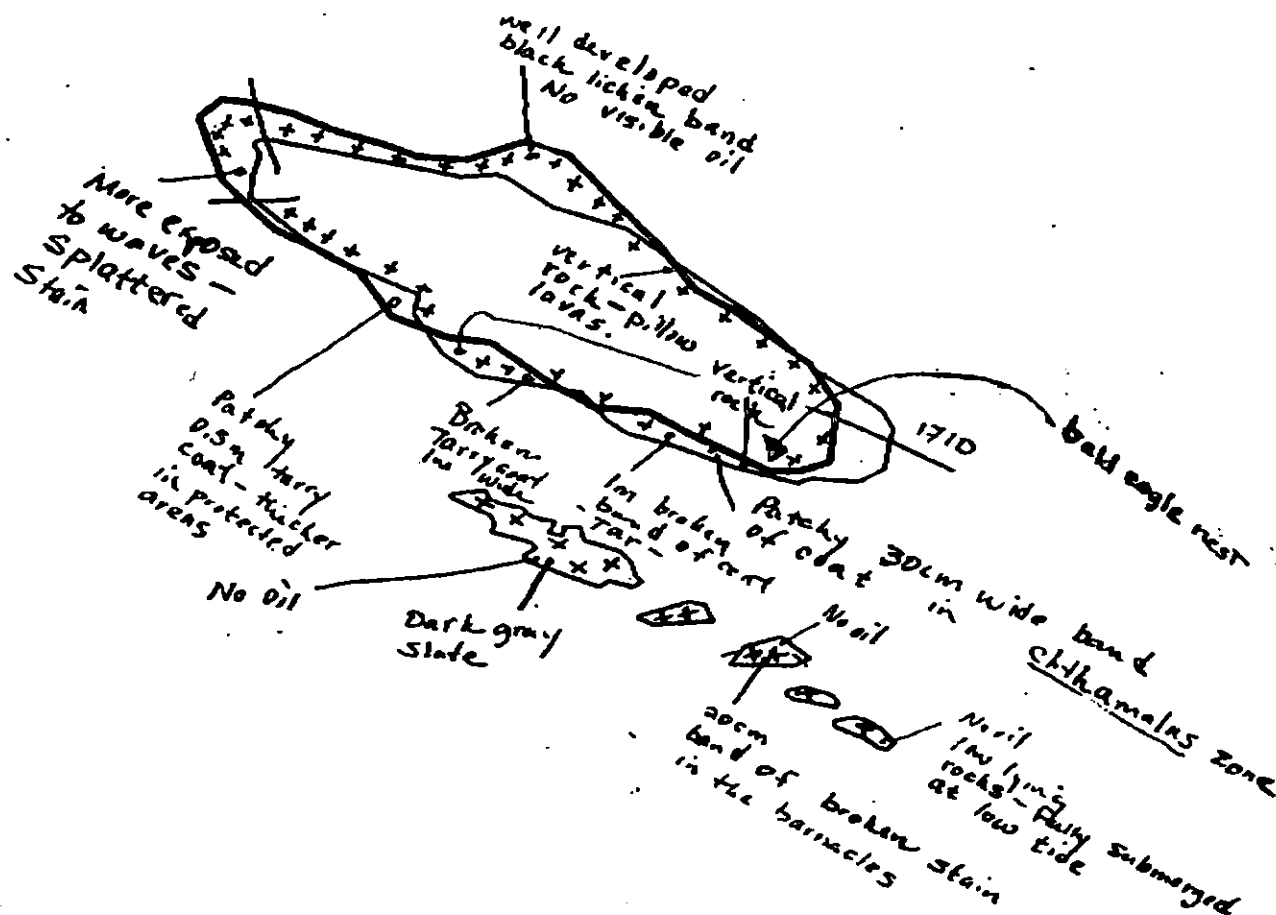
1 $\Rightarrow$

Photo location, direction, and number



Bedrock: Dark gray slate.

SKETCH MAP

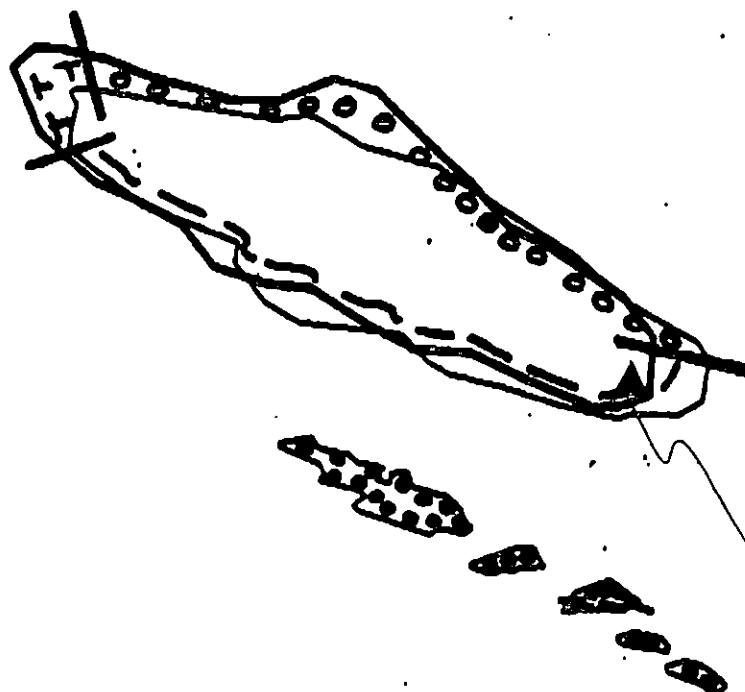


2280

Oil Character Length (m): AP 0 PO 0 CV 0 CT 659 ST 80m MS 0 PT 0 TB 0 FL 0 NO 1381

REVISIONS

ECOLOGICAL MAP



GA

EAGLE
NEST

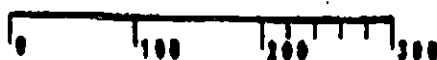
No	84	1200m	1891m
VL	0.25"	38m	42m
L	4.2"	630m	699m
		1869m	2072m

4 of 22

XXX Wide
 /// Medium
 --- Narrow
 TTTT Very Light
 OOOO

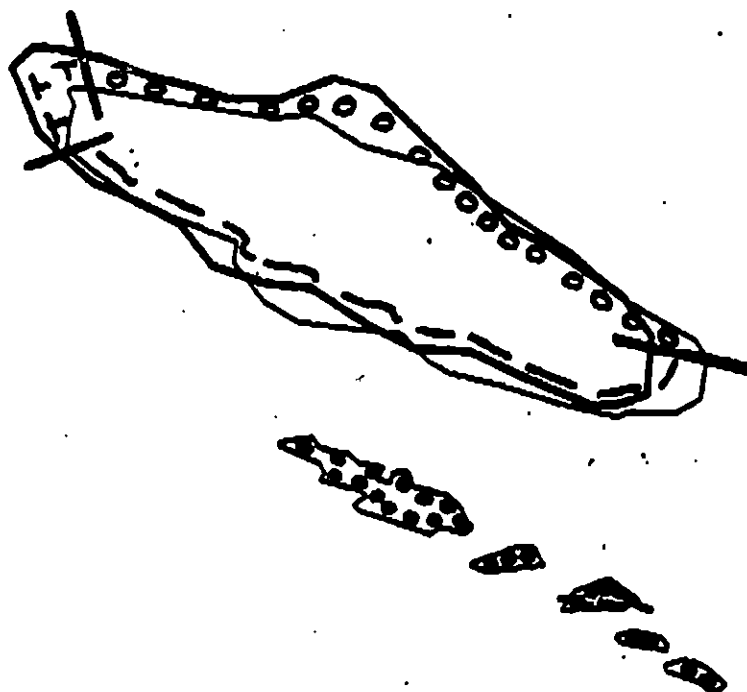
GA-1

ADEC Segment Length: 1221m



Map Key: PWS-243

Name: R. MartyDate: 20 April 1990



GA

No	g#	1200m	1831m
VL	0.35"	38m	42m
L	4.2"	630m	699m
		1869m	2072m

4 of 22

XXX Wide
 /// Medium
 --- Narrow

GA-1

ADEC Segment Length: 1221m

TTTT Very Light

0 100 200 300

Map Key: PWS-243

Name: R. MartyDate: 20 April 1990

SHORELINE EVALUATION

SEGMENT ST/ GR-1A SUBDIVISION A DATE 3/31/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Possible Herring spawning area (2M) - 4/1 to 6/15; Restrict disturbance of oiled fucus in lower and middle inter-tidal zones.

SUBDIVISION ECOLOGICAL CONSTRAINTS: Same as above.

ARCHAEOLOGICAL CONSTRAINTS: Consultation and inspection with an Exxon archaeologist is required prior to treatment.
Specific on-site monitoring requirements will be determined at that time.

SHPO SIGNATURE: Charles E. [Signature] DATE: April 5, 1990

OILING CATEGORIZATION:

111m Wide, 538m Medium, 0 m Narrow, 299m V. Light, 0 m No Oil
Subsurface Oil Observed Yes X No Maximum Depth

RECOMMENDATIONS:

 No Treatment Recommended

 X Treatment Recommended

 X Manual Pickup Snare Booms/Sorbents Tarmat Breakup/Removal

 X Bioremediation SPOT WASHING Other

 Wands

 Beach Cleaner

Comments: Manual pickup of oiled debris (mousse tarballs and oiled vegetation) and bioremediation, suggested. Debris isolated to pockets 1 and 2. (see sketch map). Work after 6/15/90 based on spawning constraints. Monitor for recurring sheen.

TAG COMMENTS: Treatment recommendations as indicated above.

TAG APPROVAL DATE:

ADEC JOHN BAUER [Signature]

EXXON ANDY TEAL [Signature]

IOAA Burt L. Wescott [Signature]

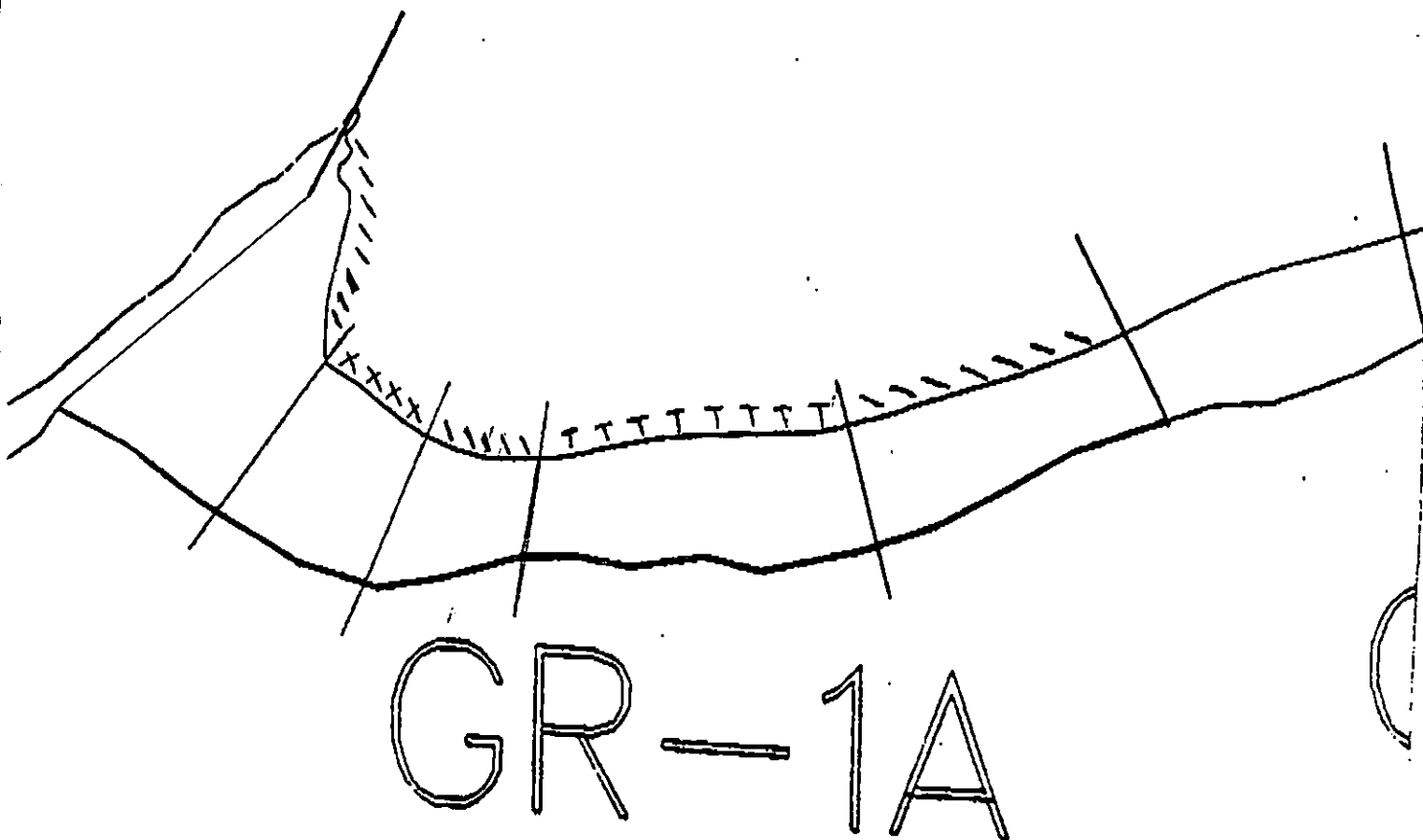
USCG G.A. REITER G.A. Reiter

FOSC: [Signature]

DATE: 4-19-90



GR-10



GR-1A

X Wide

/ Medium

- Narrow

T Very Light

O No Oil

GR-1A

ADEC Segment Length: 875m



Map Key: PWS-256

Name: B. Bergland

Date: 3/30/90

Data:

SHORELINE EVALUATION

SEGMENT ST/ GR-1B SUBDIVISION A (1 OF 1) DATE 4/4/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

2M Herring spawning (4/1 to 6/15)
5S Shorebird/Waterfowl concentration (4/1 to 5/15)
6U Recreation: Tent sites (6/1 to 9/15)
6V Recreation: Anchorages (6/1 to 9/15)
6Y Recreation: Special use destination
7II Subsistence area: Deer harvesting (8/15 to 2/28)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact a member of Exxon's Cultural Resource Program immediately (564-3657; 564-3658 or 564-3276).

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

OILING CATEGORIZATION:

Wide 240m: Medium 240 m: Narrow 0 m: V.Light 58 m: No Oil 341 m
Subsurface Oil Observed: Yes X No Maximum Depth 60+ cm

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: ☐ Breakup	☐ Beach Cleaner
☐ Removal	☐ Other (see comments)

COMMENTS: Recommend pick up of mousse patties and oiled vegetation and bioremediation of areas shown on sketch map. Treatment should be conducted between 6/15 and 8/15.

MONITORS TO ASSESS SUITZ DURING/PRIOR TO TREATMENT.

TAG COMMENTS:

TAG APPROVAL DATE: 4/19/90
ADEC ART WELNER
EXXON ANDY TOL
NOAA Burt Wescott
USCG KENNETH KEANE

FOSC: DATE: 4-26-90

FIELD SHORELINE COMMENT SHEET

SEGMENT ST GB-1B SUBDIVISION: No Sub Division DATE 3/18/90

3CG

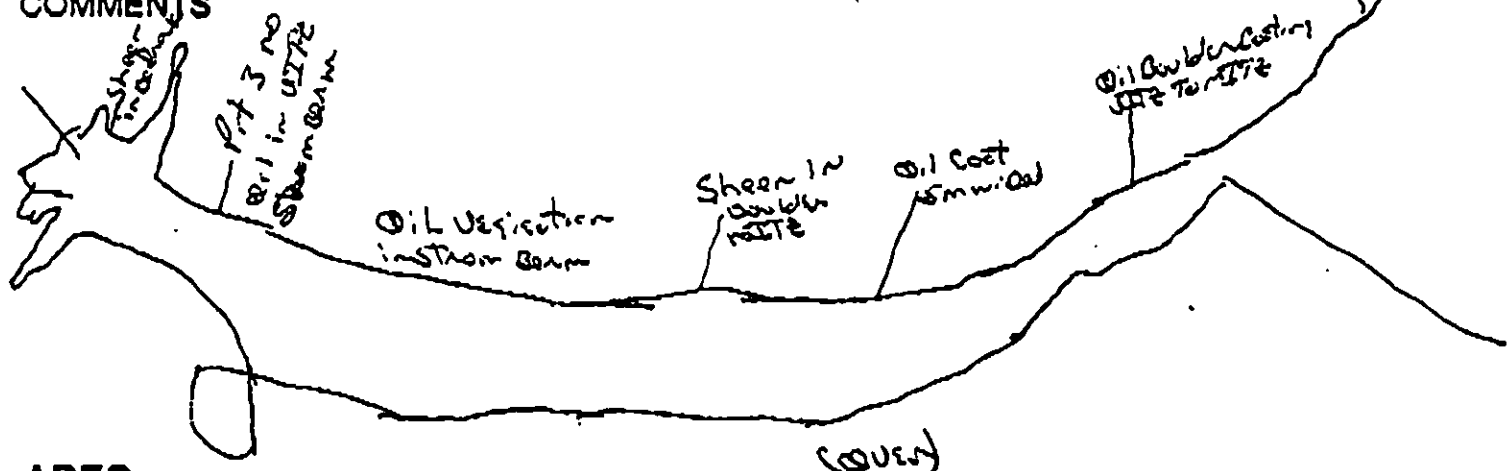
NAME James C. Gombert

SIGNATURE James C. Gombert

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS



ADEC

NAME Brian K. Fitz Simons

SIGNATURE Brian K. Fitz Simons

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS No oil observed in any of pits throughout segment - Oiling restricted to URTZ storm berm (vegetation drift) and crevices/cracks of exposed BR and bases of boulders on BR. BR areas are sheening into surface H₂O.

Treatment suggested - 1. Move oiled storm berm to active tidal area & disperse (or remove) 2. Since Oiling occurs only on BR in cracks & under boulders on BR - Bioremediate due to lack of penetration of oil 3. Reevaluate URTZ storm berms due to snow cover over much of high URTZ.

LAND MANAGER

NAME Carol S Huber

SIGNATURE Carol S Huber

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

Considerable oil remaining, in storm berm and trapped in shaley bedrock outcrop. Patchy tar mats found, mostly in bedrock outcrop area of beach. Oil is leaching out into surface water. Resource sensitivities include: Special Use, test site, herring spawning, shorebird concentrations and deer harvesting.

DATE 4 / 4 90

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub. Endry
- ☐ Off Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HVR/LVR
- ☐ SQL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ PH 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
Spotted Distribution

Oil'd Vegetation

**Photo location, direction,
and number**

W. J. H.

CT/p
W 10
20%

← 4164073

5 TCH MAP 60% 20%
Profile 3 CT/DT CT/DT

A hand-drawn sketch of a geological profile. At the top, there are wavy lines representing vegetation, with the label "Oiled veg." pointing to them. Below this, a horizontal line represents the ground surface. On the left, the word "Beach" is written. To the right of the beach, there are several small circles representing boulders, with the label "Boulders" pointing to them. Further right, a horizontal line is labeled "H.W.L." (High Water Level). To the right of the H.W.L. line, there are small, irregular shapes representing mosses, with the label "Small patches of Mosses in cracks of Bedrock" pointing to them. Below the H.W.L. line, there is a series of small, irregular shapes representing bedrock, with the label "Bedrock on Bedrock" pointing to them. The word "Small" is written above the boulders.

VI
— 25m —

UL 40 MI

End of Segment

MI FIRST
VI (CTA)
BIOH 1-1

VE T/P
1020
15%

20%
m1 CT/P
BPT W40
CT/P

W20 3.5%
157

170%

✓ ~~XXXXXXXXXXXX~~ ✓

11

LWL
HVL

11

C7/P ← on boulder Tops

MS/P { 1 cm thick } ← In cracks
 { 15% cover } of bedrock

Profile 1 mixed veg.

STREAM

Profile 4

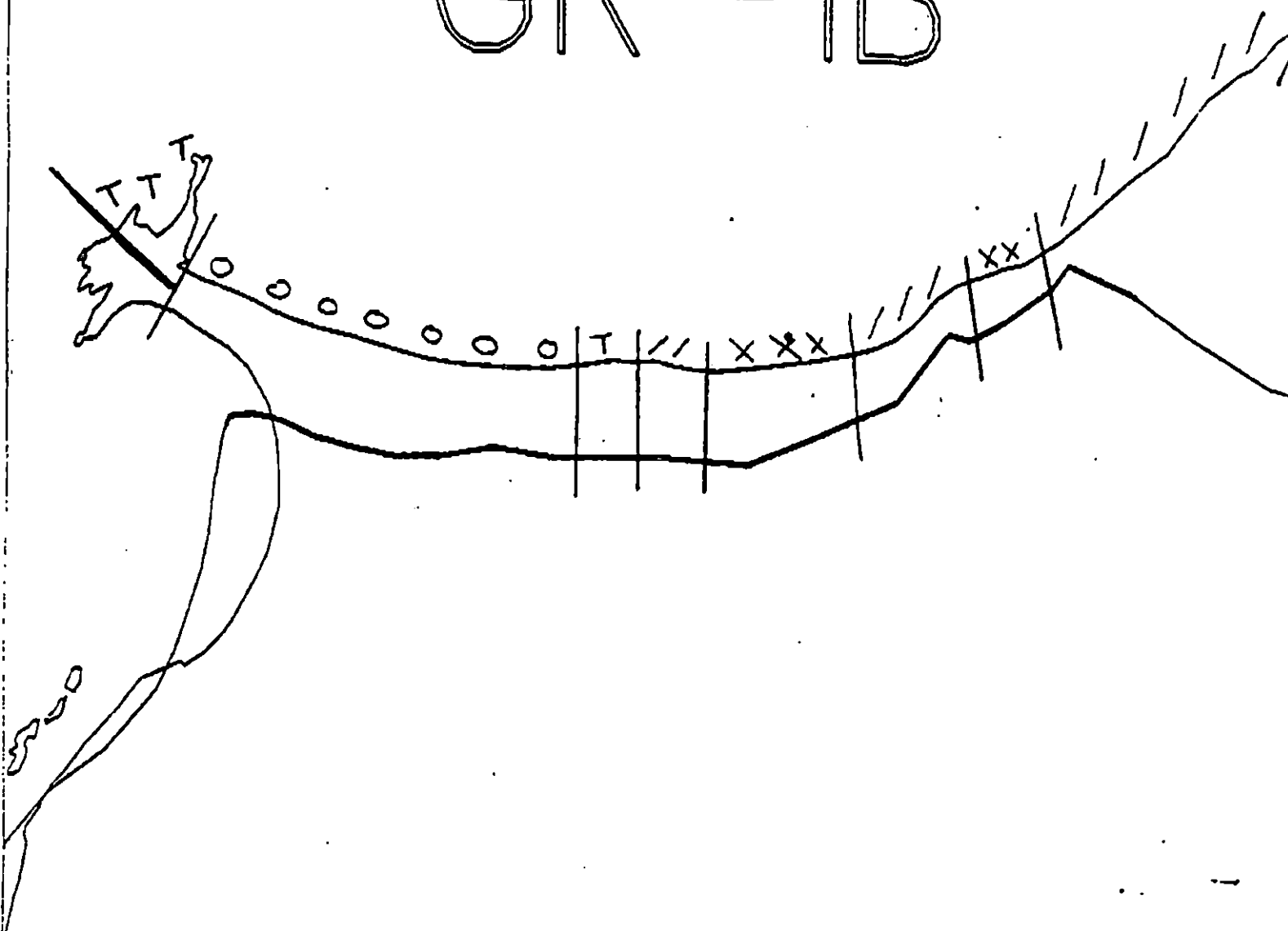
Bedrock Ramp
with Scattered Boulders

$\overline{VI} \quad \overline{MI}$

Oil Character Length (m): AP _____ PO _____ CV _____ CT 280 ST _____ MS 240 PT _____ TB _____ FL 900 NO 360

REVISIONS: 024000

GR-1B



XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

OOOO No Oil

GR-1B

ADEC Segment Length: 952m



Map Key: PWS-257a

Name: T.B. Benglund

Date: 4/4/90

Date Entered:

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/GR-1B

SUBDIVISIONS: A (1 OF 1)

SHORELINE EVALUATION

SEGMENT ST/ GR-1B SUBDIVISION A (1 OF 1) DATE 4/4/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

2M Herring spawning (4/1 to 6/15)
5S Shorebird/Waterfowl concentration (4/1 to 5/15)
6U Recreation: Tent sites (6/1 to 9/15)
6V Recreation: Anchorages (6/1 to 9/15)
6Y Recreation: Special use destination
7II Subsistence area: Deer harvesting (8/15 to 2/28)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact a member of Exxon's Cultural Resource Program immediately (564-3657; 564-3658 or 564-3276).

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 240m: Medium 240 m: Narrow 0 m: V.Light 58 m: No Oil 341 m
Subsurface Oil Observed: Yes X No _____ Maximum Depth 60+ cm

RECOMMENDATIONS:

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

COMMENTS: Recommend pick up of mousse patties and oiled vegetation and bioremediation of areas shown on sketch map. Treatment should be conducted between 6/15 and 8/15.

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
- 1B Salmon stream mouth - spawning (7/10 to 8/31)
No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream. Contact ADF&G Habitat Division prior to treatment for permits.
- 1C Salmon fry nursery area (4/31 to 7/31)
- 1D Esther Hatchery release (4/15 to 6/1)
- 1E Main Bay Hatchery release (4/20 to 5/10)
- 1F Sawmill Bay Hatchery release (4/15 to 6/1)
- 1G Cannery Creek Hatchery release (4/21 to 6/1)
- 1H Remote release site
- 1I Gill net area (6/7 to 8/31)
- 1J Purse seine area (7/20 to 9/30)
- 1K Purse seine hook-off (7/20 to 9/30)
- 1L Set net sites (6/11 to 7/25)
For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.

214 Herring spawning (4/1 to 6/15)
Restrict boat traffic to essential minimum. Avoid damage to unopened intertidal and subtidal algae and seagrass. Contact ADF&G for specific dates and locations.

3N, 3P Harbor seal and sea lion pupping (5/15 to 7/1)
3O, 3Q Harbor seal and sea lion molting (8/15 to 9/15)
Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts.

5R Seabird colony (5/1 to 9/1)
Restrict air traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance. Contact ADF&G and USFWS prior to treatment.

✓ 5S Shorebird/waterfowl concentration (4/1 to 5/15)
Restrict all activity to essential minimum, especially air traffic.

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

6U Recreation: Tent sites (8/1 to 9/15)

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

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

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

6Y Special use destination

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

7HH Finfish harvesting

7I Deer harvesting (8/15 to 2/28)

7JJ Invertebrate harvesting

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

FIELD SHORELINE COMMENT SHEET

SEGMENT ST GR-1B SUBDIVISION: no subdivision DATE 3/18/90

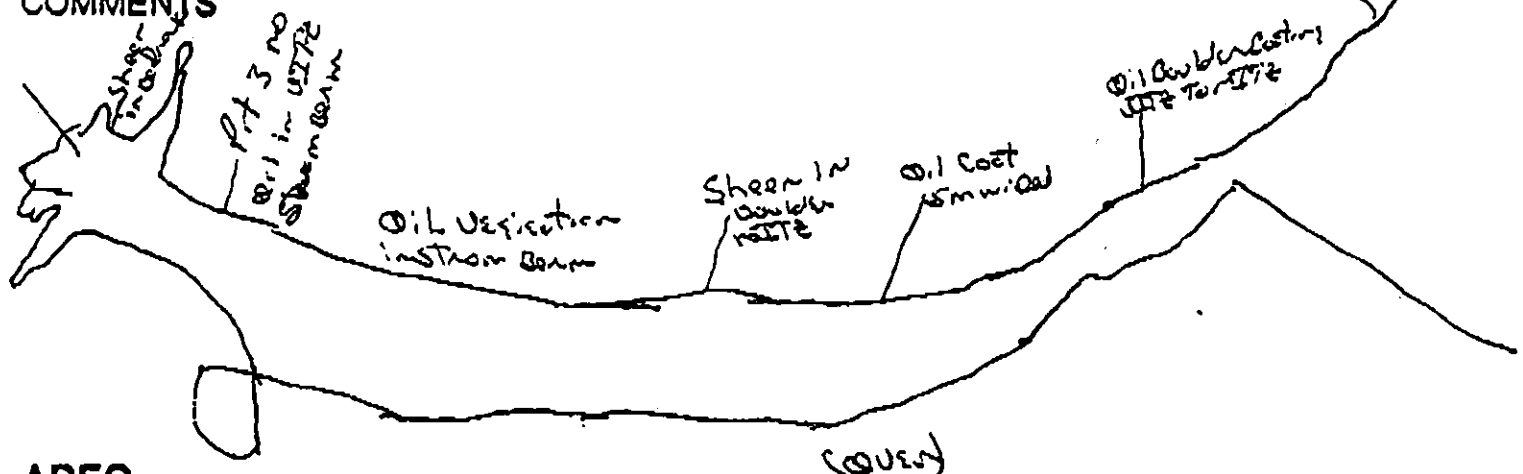
ICG

NAME James E. Gombin SIGNATURE James E. Gombin

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS



ADEC

NAME Brian K. Fitz-Simons SIGNATURE Brian K. Fitz-Simons

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS No oil observed in any of pits throughout segment - Oiling restricted Uitz storm berm (vegetation/drift) and crevasses/cracks of exposed BR and bases of boulders on BR. BR areas are sheening into surface H₂O.

Treatment suggested - 1. Move oiled storm berm to active tidal area & disperse (or remove) 2. Since oiling occurs only on BR in cracks & under boulders on BR - Bioremediate due to lack of penetration of oil 3. Reevaluate Uitz storm berms due to snow cover over much of high Uitz.

LAND MANAGER

NAME Carol S Huber SIGNATURE Carol S Huber

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

Considerable oil remaining in storm berm and trapped in shaley bedrock outcrop. Patchy tar mats found, mostly in bedrock outcrop area of beach. Oil is leaching out into surface water. Resource sensitivities include: Special Use, test sites, herring spawning, shorebird concentrations and deer harvesting.

Investment suggests Please map on front of all oil found lot of it in The other Basin. most
The oil goes from upper Inter Tidal zone To middle Inter Tidal zone. so spots in The upper Inter TID
To middle Inter Tidal zone heavy oil and rock. pits has oil from 30-70cm deep. see other sketch n
James C. Smith

SHORELINE OILING SUMMARY

REVISION NO. 03/22/90

OG B. Berglund USCG J. Gamble SEGMENT ST/ GR-1B
 BIO S. Schreder LAND REP C. Hubbs (NES) SUBDIVISION A (1041)
 EXXON C. Levine ADEC B. Fritz Simon TIME 13:00 to 15:30
 TEAM NO.: 1 TIDE LEVEL: +6 to +1.8 DATE 4/4/90
 T. SUBDIVISION LENGTH: 1530 m ☐ Sun ☐ Clouds ☐ Fog ☒ Rain ☐ Snow
 LANDS DESCRIPTION: ☒ Grass ☒ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: W to E
 SURFACE SEDIMENTS: R 20% B 30% C 20% P 15% G 10% S 5% M V
 SLOPE: Lang 100% Hang % Vert % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 180 m M 580 m N m VL 410 m NO 360 m

SURFACE OIL

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

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

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

DEBRIS COLLECTED
☐ YES ☒ NOTYPE #BAGS

Photographs:

Roll No. ST-1-2Frames 24-31

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	UO	SP	BP	OP	BP	OP	BP	OP	BP	SU	U	M	U		
1	40					X	.		X										X				
2	30					X	.		X										X				G/P
3	65					X	.		X									X					G
4	40					X	.		X										X				C
5	70					X	.		X												X		C/P/G/S
6	40					X	.		X									X					G/P/C
						X	.		X														G/P

COMMENTS

The western sector consists of a gravel, pebble & cobble beach. It is relatively oil free (probably due to storms reworking the relatively easily transported sediments). The eastern sector consists of scattered boulders resting on a bedrock ramp (less easily reworked sediments (next pg.)).

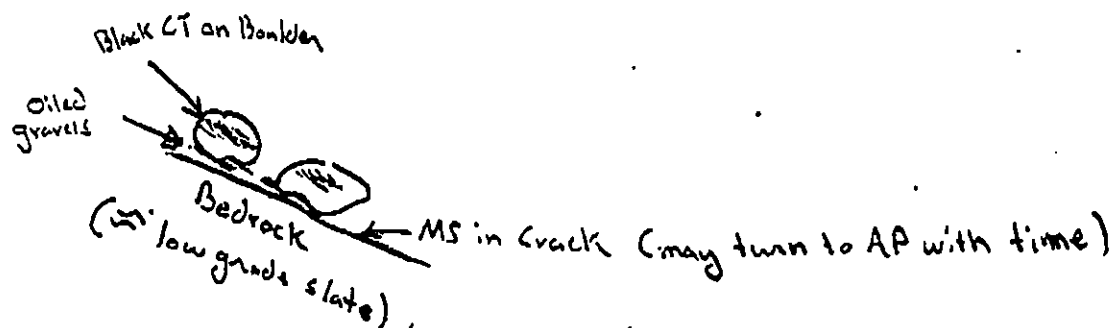
SEGMENT ST/ GR-10 SUBDIVISION A

SUBSURFACE OIL (CONTINUED)

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	GT OR BL	GT OR BL	GT OR BL	GT OR BL	GT OR BL	GT OR BL	BU	U	M	LI				
7	60					X	.		X							X							G/P
8	20					X	.		X								X						B/G/S
9	40					X	.		X							X							G
10	20	X	.				0-1		X				X		X								B/G
11	60				X		50-60	X					X		X								C
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COMMENTS

Oil coats the tops and sides of the boulders (Black, Brown & tarry). A patchy brown mousse has accumulated in the cracks and crevices of the bedrock. A splashy sheen was observed in most of the UI and MI zone of the eastern sector.



OG B.P. 1nd

SEGMENTS PR-13

SUBDIVISION A

DATE 4/1/90

CHECKLIST

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

LEGEND

1 Δ
Pit - No Subsurface Oil

2 Δ
Pit - Subsurface Oil

$\square$ CT/C
Continuous Distribution

$\square$ CT/D
Broken Distribution

$\square$ CT/P
Patchy Distribution

$\square$ CT/S
Splashed Distribution

$\circ$ Oiled Vegetation

$\circ$ Exposed Bedrock

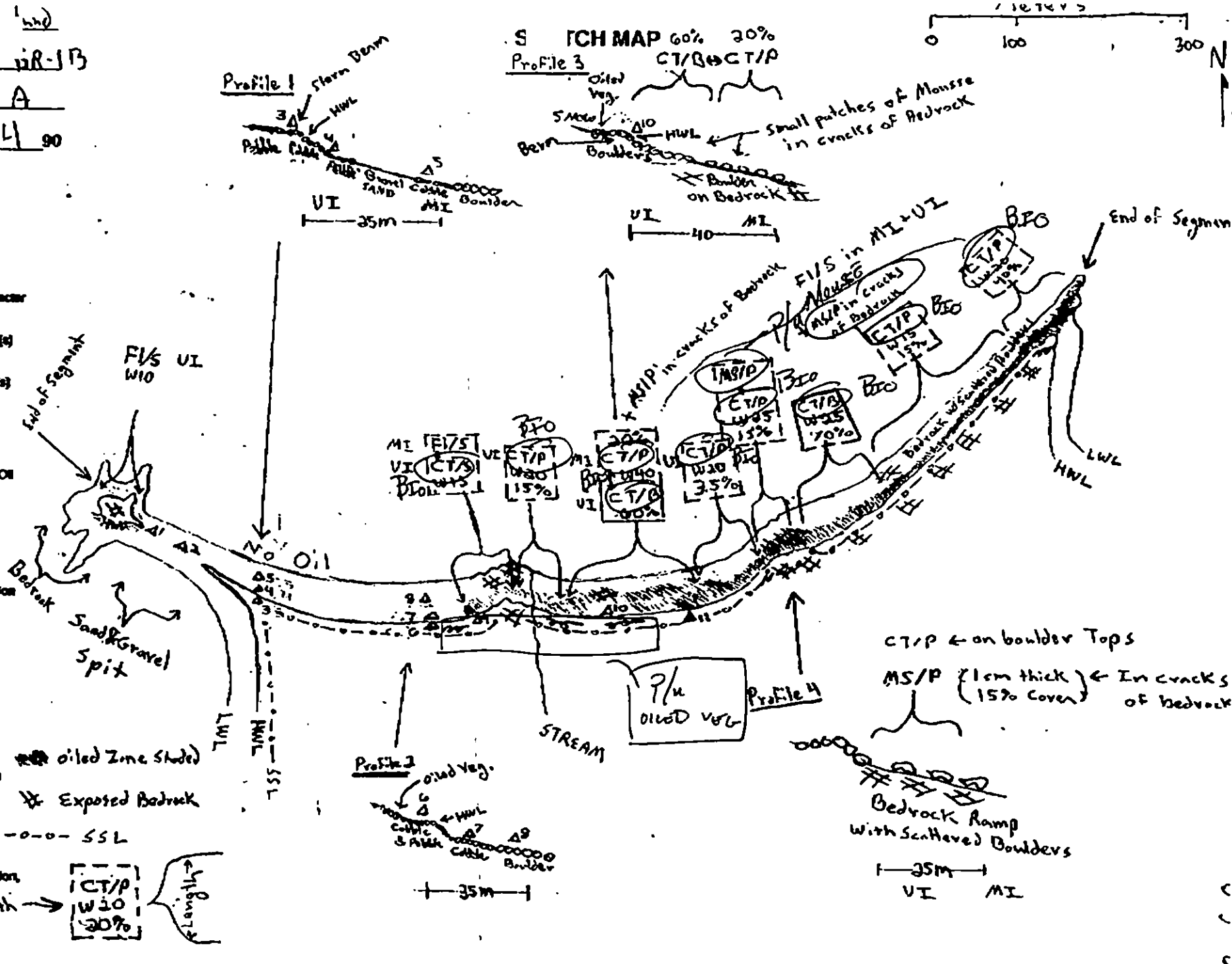
$\circ$ SSL

$\circ$ Photo location, direction, and number

Width $\rightarrow$ $\square$ CT/P W 20 20%

Length $\uparrow$

Oil Character Length (m): AP _____ PO _____ CV _____ CT 280 ST _____ MS 240 PT _____ TB _____ FL 900 NO 360



Oil Character Length (m): AP _____ PO _____ CV _____ CT 280 ST _____ MS 240 PT _____ TB _____ FL 900 NO 360

REVISION 02/2000

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/98

Segment ST / GR-01 Subdivision B Date (mo / day / yr) 4/4/98Time (24 hr) 1300 Biologist S. Seaver

- A) Substrate type and % of segments:
 (1) Bedrock 38 (2) Boulder 34 (3) Cobble 11 (4) Pebble 17 (5) Sand 0 (6) Silt 0
- (B) Overall % cover of biota (% of segment): Dense 21 Moderate 19 Low 60
- (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: N/A
 Roll No. N/A
 Frames None

BARNACLES

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

NOT PRESENT

GASTROPODS

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

NOT PRESENT

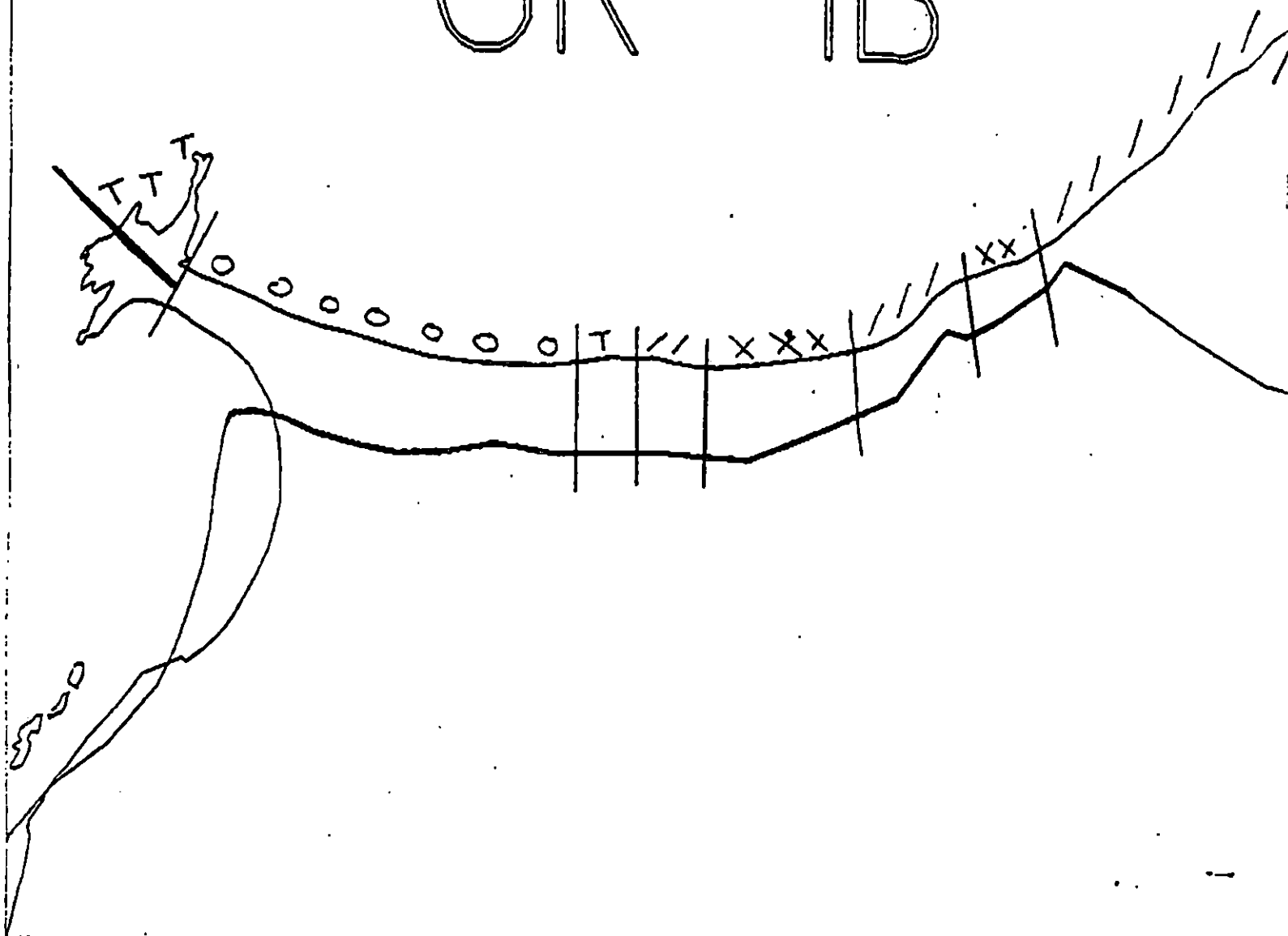
Wildlife Observations/ General Comments: 3 very small streams flowing off adjacent bedrock; low intertidal not observed; 2 sea otters observed offshore. No sensitivities or priorities.

Ecological Considerations: With exception of gastropods and amphipods, most biota were concentrated on the upper tidal flat. Large colonies of *S. cariosus* and *Littorina setacea*, *N. setacea* + *C. persiana* + moderate to dense concentrations of brooding *Littorina setacea*. Large *S. cariosus* abundant at low tide on bedrock at west end of segment. *Siphonaria* common on *Fuc*

Segment: GR-1B Date: 4/4/80 Bio: S. Schroeter OG: B. Berglund

This segment consists of cobble and gravel pocket beaches bounded by bedrock headlands. With the exception of amphipods and gastropods (mainly Littorina sitkana and Notoacmaea scutum), most of the biota were concentrated on the bedrock headlands. There were 3 very small streams draining through bedrock channels in the cobble/gravel pocket beaches. Here, in the Mid intertidal were moderate to dense patches of mussels and barnacles and moderate numbers of adult and juvenile Fucus. Boulders and large cobbles overlaying the bedrock had high densities of L. sitkana, N. scutum, N. parsona, and moderate to dense concentrations of brooding Leptasterias hexactis. The predatory snails N. lamellosa and Scaphesia dira were also common under these boulders and cobbles. Katherina tunicata were common among large S. cariosus in the mid intertidal (+5.0). Siphonaria were common on Fucus in the same habitat.

GR-1B



XXXX Wide

GR-1B

/// Medium

--- Narrow

ADEC Segment Length: 952m

TTTT Very Light

OOOO No Oil



Map Key: PWS-257a

Name: T.B. Berglund

Date: 4/4/90

Date Entered:

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT GR-18 SUBDIVISION **A** (1 of 1)

WORK WINDOW

Manual Pickup Less Than 400m From Active Nest	CLOSED
Manual Pickup More Than 400m From Active Nest	OPEN
Bioremediation Less Than 400m From Active Nest	CLOSED
Bioremediation More Than 400m From Active Nest	WORK 6/15 TO 8/15

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

2M	Herring Spawning	Closed to bioremediation prior to 6/15. No constraint to manual pickup.
5T	Bald Eagle Nest	USFWS 6/1/90 map indicates an active nest in Subdivision A. Closed to manual pickup and bioremediation within 400m of active nest. No constraint to manual pickup and bioremediation more than 400m from active nest.
5S	Shorebird/Waterfowl Concentration	No constraint to manual pickup and bioremediation after 5/15.
7II	Subsistence: Deer Harvesting	Closed to bioremediation after 8/15. No constraint to manual pickup.
5R	Seabird Colony	NO CONSTRAINT. Work area is more than 800m from colony.

OTHER ECOLOGICAL CONSIDERATIONS

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

FOSC

Date

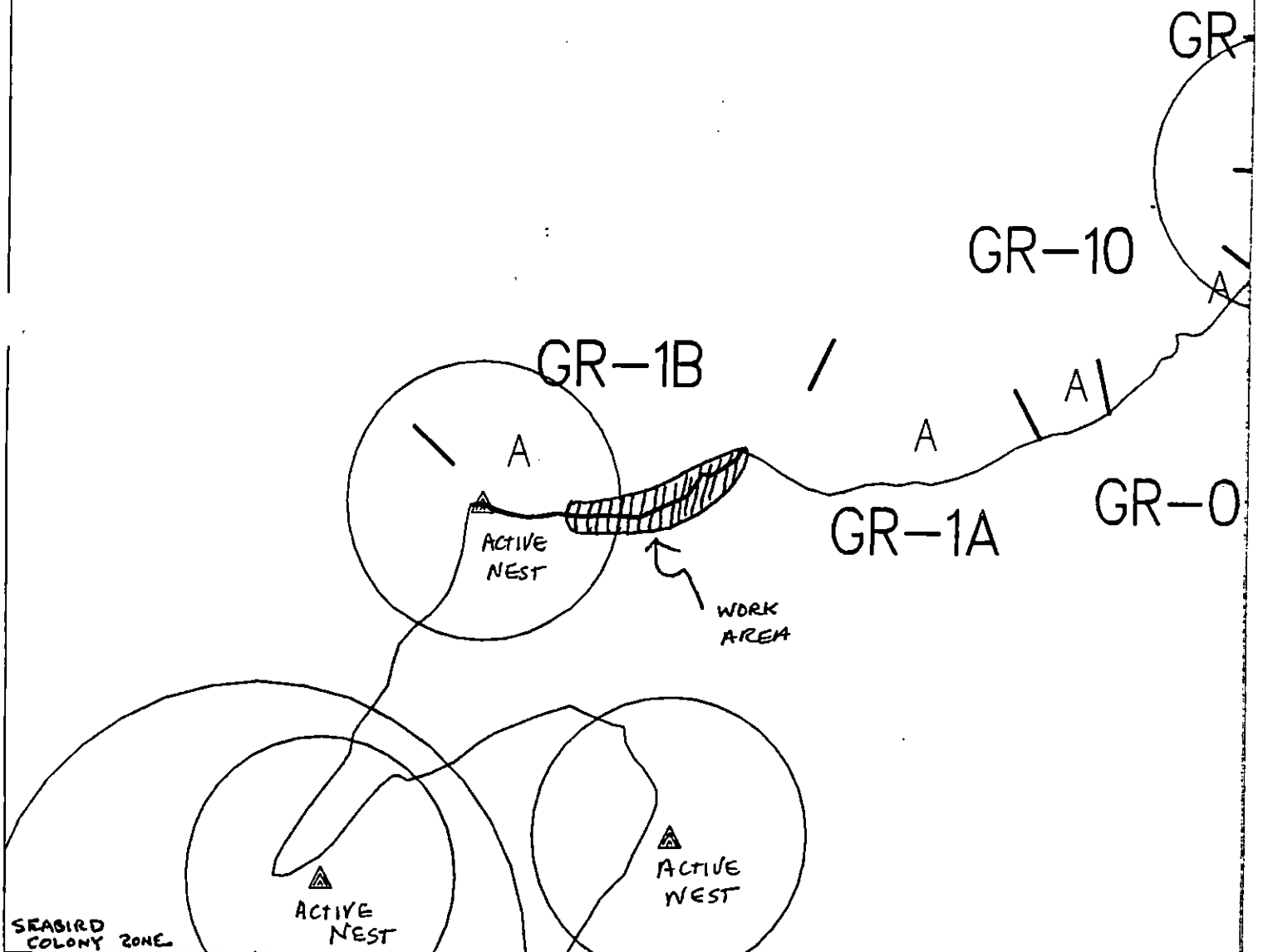
6-10-90

Prepared by

Date

6/10/90

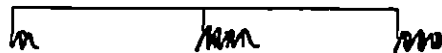
SEABIRD COLONY
BUFFER ZONE



Exxon Company, USA
Map Key: PWS-GR-1B
June 05, 1990



ECOLOGY MAP
SEGMENT GR-1B
SUBDIVISION A (1 of 1)
METERS



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

Handwritten note: *Handwritten scribbles*

SHORELINE EVALUATION

SEGMENT ST/ GR-1B SUBDIVISION A (1 OF 1) DATE 4/4/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

2M Herring spawning (4/1 to 6/15)
5S Shorebird/Waterfowl concentration (4/1 to 5/15)
6U Recreation: Tent sites (6/1 to 9/15)
6V Recreation: Anchorages (6/1 to 9/15)
6Y Recreation: Special use destination
7II Subsistence area: Deer harvesting (8/15 to 2/28)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact a member of Exxon's Cultural Resource Program immediately (564-3657; 564-3658 or 564-3276).

SHPO SIGNATURE: Charles E. H. [Signature] DATE: 4/20/90

OILING CATEGORIZATION:

Wide 240m: Medium 240 m: Narrow 0 m: V.Light 58 m: No Oil 341 m
Subsurface Oil Observed: Yes X No Maximum Depth 60+ cm

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: ☐ Breakup	☐ <u> </u> Beach Cleaner
☐ Removal	☐ Other (see comments)

COMMENTS: Recommend pick up of mousse patties and oiled vegetation and bioremediation of areas shown on sketch map. Treatment should be conducted between 6/15 and 8/15.

MONITORS TO ASSESS SUITZ DURING/PRIOR TO TREATMENT
SEE ADDENDUM dated 6/10/90/PP

TAG COMMENTS:

TAG APPROVAL DATE: 4/19/90

ADEC ART WEINER
EXXON AMY TEE
NOAA Burt Weis
USCG KENNETH KEANE

FOSC:

DATE: 4-26-90

SEGMENT: GR 001 SUB: A REGION: PWS SURVEY DATE: 4/30/91

Work Window(s) OPEN 6/1 - 8/15, RESTRICTED 8/15 - 9/15

Ecological/Constraints (see page two for details) Herring spawning, Fish Harvest area, Subsistence - Deer harvesting

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

SHPO Signature: Charles E. Hines Date: 5/10/91

<u>RECOMMENDATIONS:</u>	<u>INITIAL</u>	<u>TAG</u>	<u>FOSC</u>
TREATMENT REQUIRED (Y or N)	<u>N</u>	<u>2</u>	<u>2</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>	<u> </u>
Other <u> </u>	<u> </u>	<u> </u>	<u> </u>

INITIAL:

TAG:

FOSC:

TAG APPROVAL DATE: 1 MAR 60 1991

FOSC APPROVAL DATE: 5/14/91

ADEC 

FOSC

EXXON *Dea*

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

USCG 31166

NOAA

**ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES**

Herring Spawning: No treatment before June 1. Avoid disturbance to kelp and eelgrass.

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

Subsistence - Deer Harvesting: Unlimited treatment prior to 8/15.

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 3 SEGMENT GR-1 SUBDIVISION A DATE 4/30/91

ADEC

NAME Wesley Ghormley SIGNATURE Wesley Ghormley 

☒ NTR ☐ TREATMENT RECOMMENDED

MOST OF THIS SUBDIVISION CONSISTS OF ONLY OILS/STAINS. DUE TO THE HIGH ENERGY ENVIRONMENT & CONDITION OF THE OIL (WEATHERED) I BELIEVE FURTHER TREATMENT IS NOT NECESSARY.

- 6 oiled POM-POMS WERE RETRIEVED FROM THE SUBDIVISION -

EXXON

NAME Jon Carnecki SIGNATURE Jon Carnecki

☒ NTR No major oiling seen on and around boulders. No treatment required.

LANDMANAGER

NAME Carol S Huber OF USFS SIGNATURE Carol S Huber

☐ NTR Recommend treatment. This area is utilized by seabirds & pinnipeds. Mobil oil is a concern here, as indicated by abundant sheering. Manual pickup where feasible (TB and HOR) Possible further TAG evaluation.

USCG/NOAA

NAME MOONEY / Baratz SIGNATURE Tim Mooney / Andy Baratz

☒ NTR EASTERN HALF OF THIS SEGMENT CONSISTS OF BOULDER AMOUR ON BEDROCK WITH OIL SHEENS IN POCKETS OF SEDIMENT. OVERALL SUBSURFACE OILING AND STAINS IS MINIMAL. PINNIPEDS AND SEABIRDS WOULD NOT BE ENDANGERED.

Not a
USFWS-designated
seabird colony
or
NMFS-designated
pinniped haulout
D.Mc.

PAGE 1 OF 1

SEGMENT GR-01A

SUBDIVISION A

DATE 4 130 191

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 172 m N 0 m VL 776 m NO 0 m US 0 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-

1. 11
CAMERA DIED
3 - 05 FRAMES 12

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

Surface oiling consists primarily of weathered splate and drips in the VITE/MITE area. Many of the coats have a "blistered" organic crust surface indicating biodegradation. Sheenlets

06 1 of 7

REVIEWED: F.W. 5/3/90

REVIEWED: MC 5/4/91

PAGE 2 OF 2

DATE Feb 130 191

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

Subsurface oiling is generally light (heaviest oiling identified was MOR in Pit # 2) and patchy. The MOR identified in Pit # 2 is probably similar in distribution to SOR/L mapped in the area (Location G).

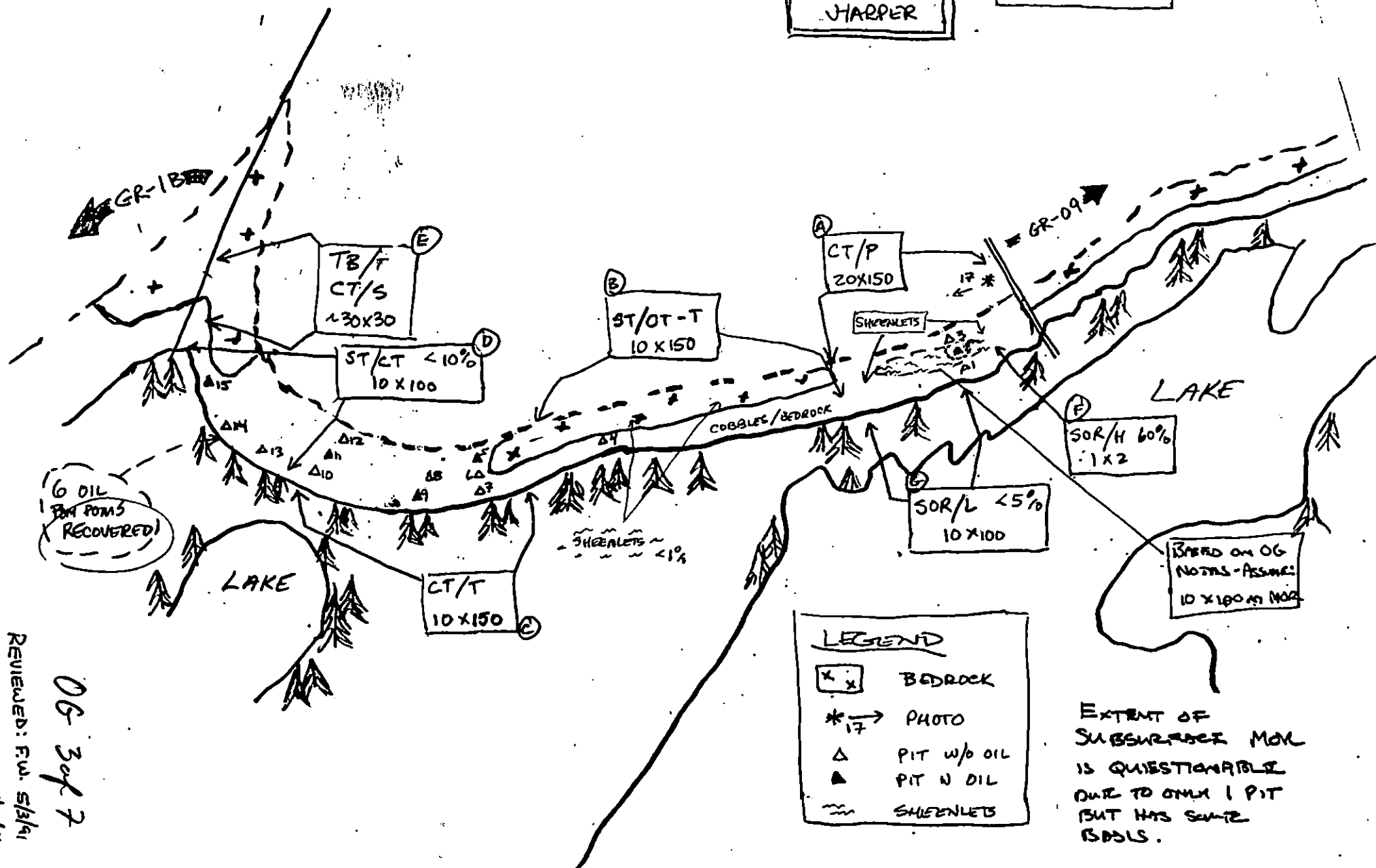
REVIEWED: MC 5/4/9/

SKETCH MAP

GR-1A

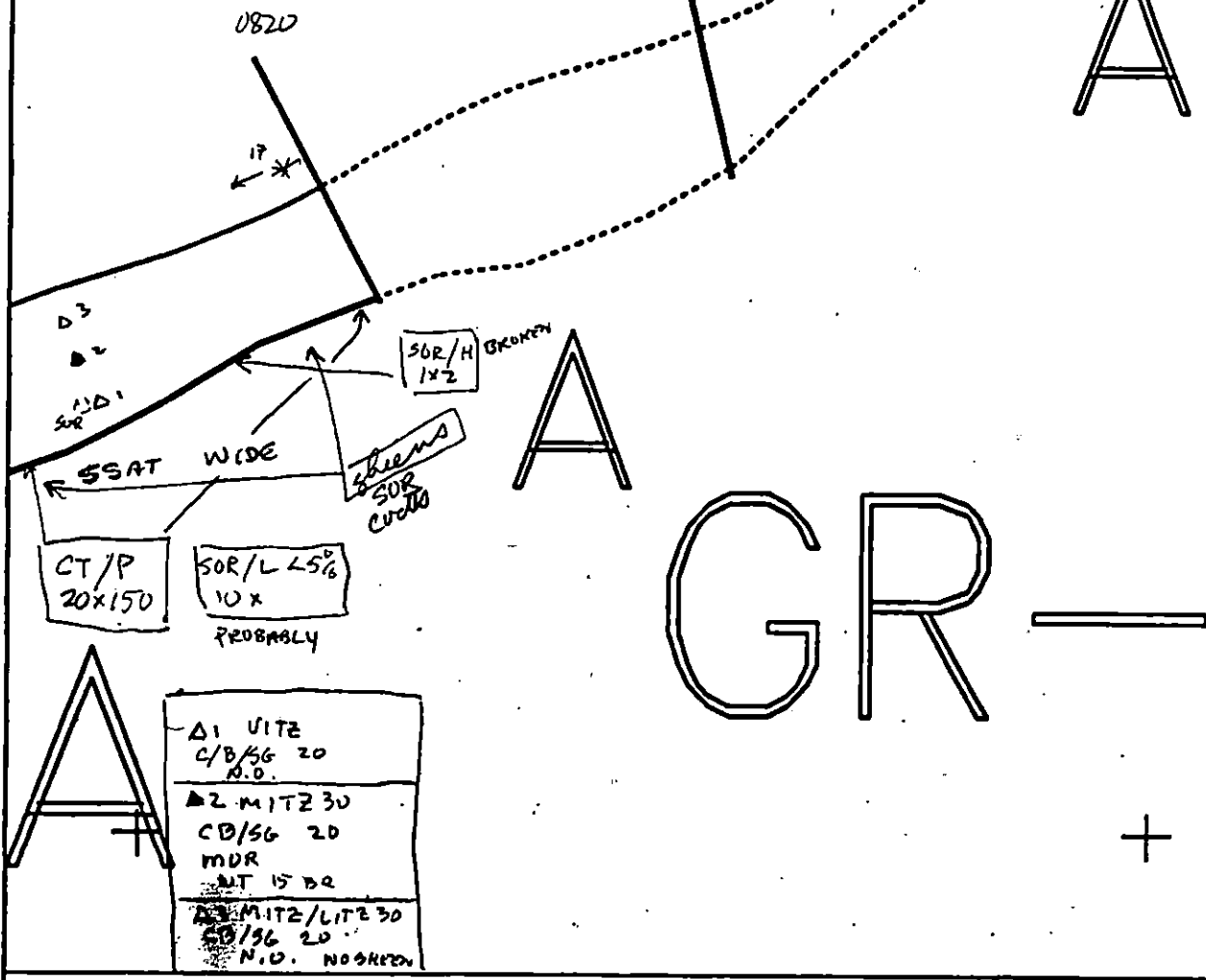
30 APRIL 91
0820 - 0935
HARPER

BASE MAP
AIR PHOTO OVERLAY
EX-VD 3-6 NO. 4



REVIEWED: F.W. 5/3/91
REVISED: M. 5/14/91

OG 3047



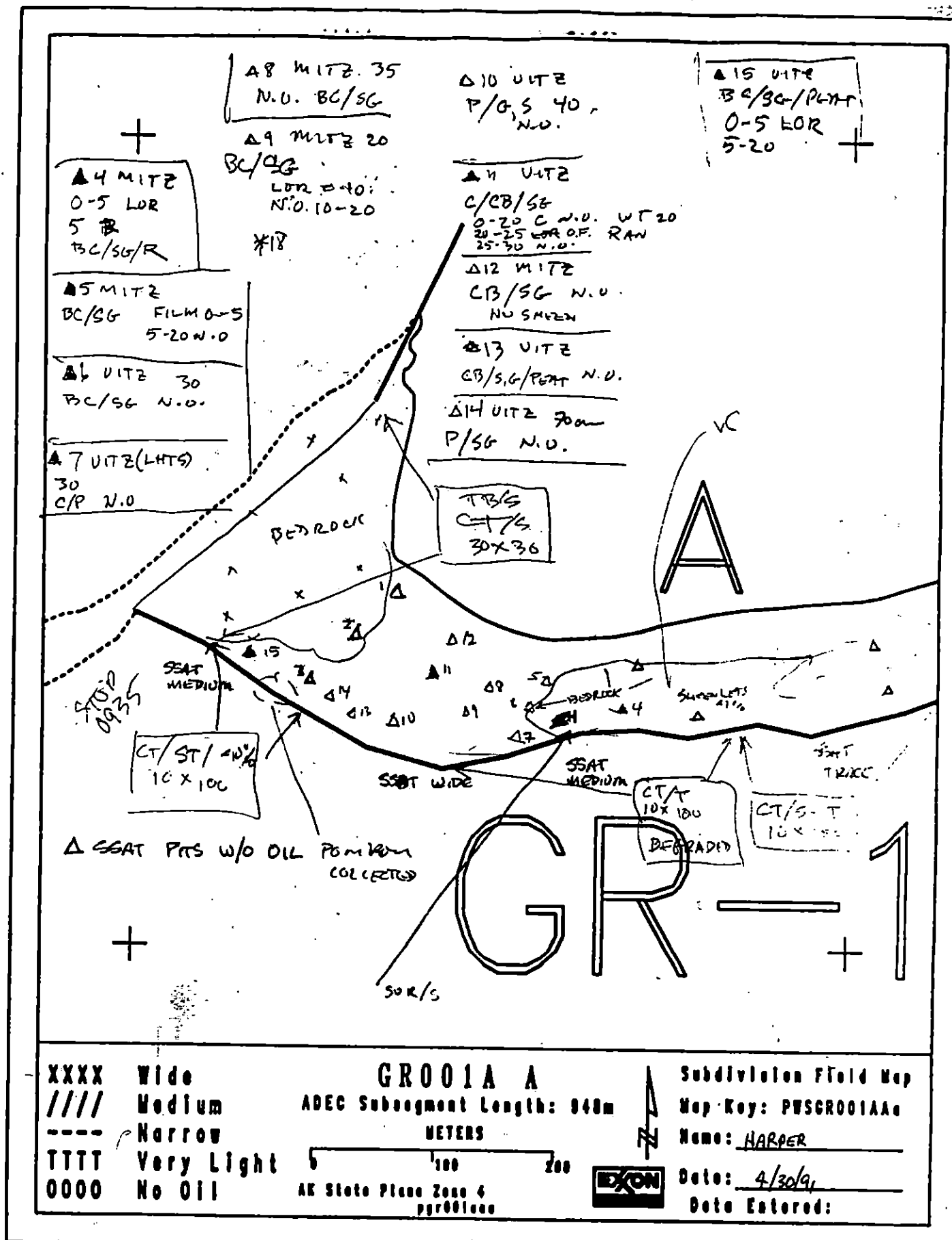
XXXX	Wide	GROO1A A ADEC Subsegment Length: 948m METERS 100 200 AK State Plane Zone 4 proj01aeb	Subdivision Field Map
////	Medium		Map Key: PWSCROO1AAb
----	Narrow		Name: <u>HARPER</u>
TTTT	Very Light		Date: <u>4-30-91</u>
0000	No Oil		Date Entered:

Page 2 of 2

OG leaf 7

REVIEWED: F.W. 5/3/91

REVISOR: MC 5/4/91



Page 1 of 2

06 7 of 7

REVIEWED: F.W. 5/3/91

REVIEWED: M.C. 5/4/91

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 3 DATE 4/30/91
 SEGMENT # CRO1 TIDAL HEIGHT(Range) -2 to -2'
 SUBDIVISION A BIOLOGIST STOKER
 SEA STATE 0-1' WIND SPEED/DIRECTION NE 10-15
 PHOTOGRAPHS: ROLL # FRAME #

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

Sparse biota in upper intertidal due to exposure and substrate instability. High energy beach of rounded cobble/boulder and rock outcrops, with some finer sediments in the lower intertidal.

Biota generally abundant and diverse, though variable, in the lower mid intertidal and below, consisting primarily of dense new Fuus, alga, Halosaccion and other red algae, surf grass (Phyllospadix), dense settlements of barnacles and spat, dense patches of small Mytilus, dense Littorina (some spawning), dense populations of juvenile and adult limpets, amphipods, isopods (Idotea), Pagurus, eel blennies (some with egg clusters), Leptasterias, Nucella, Scerlaria, anemones, and chitons (K. Tunicata). Particularly dense settlements of barnacles (some very large individuals) were observed sporadically in the lower MIZ-LTZ, with dense spat settlement in LTZ.

Numerous clam shells (Mya, Prosthaca, Macoma) present in LTZ, probably indicative of resident populations.

Biota generally sparse within or directly adjacent to oiled areas, probably reflecting substrate instability and position in the upper intertidal. Taxa observed in close proximity to oil include barnacles and spat, limpets, Littorina, and filamentous green algae. Biota further downslope appears healthy, abundant and diverse, as described above, and should not be disturbed if further treatment is undertaken.

WILDLIFE OBSERVATIONS

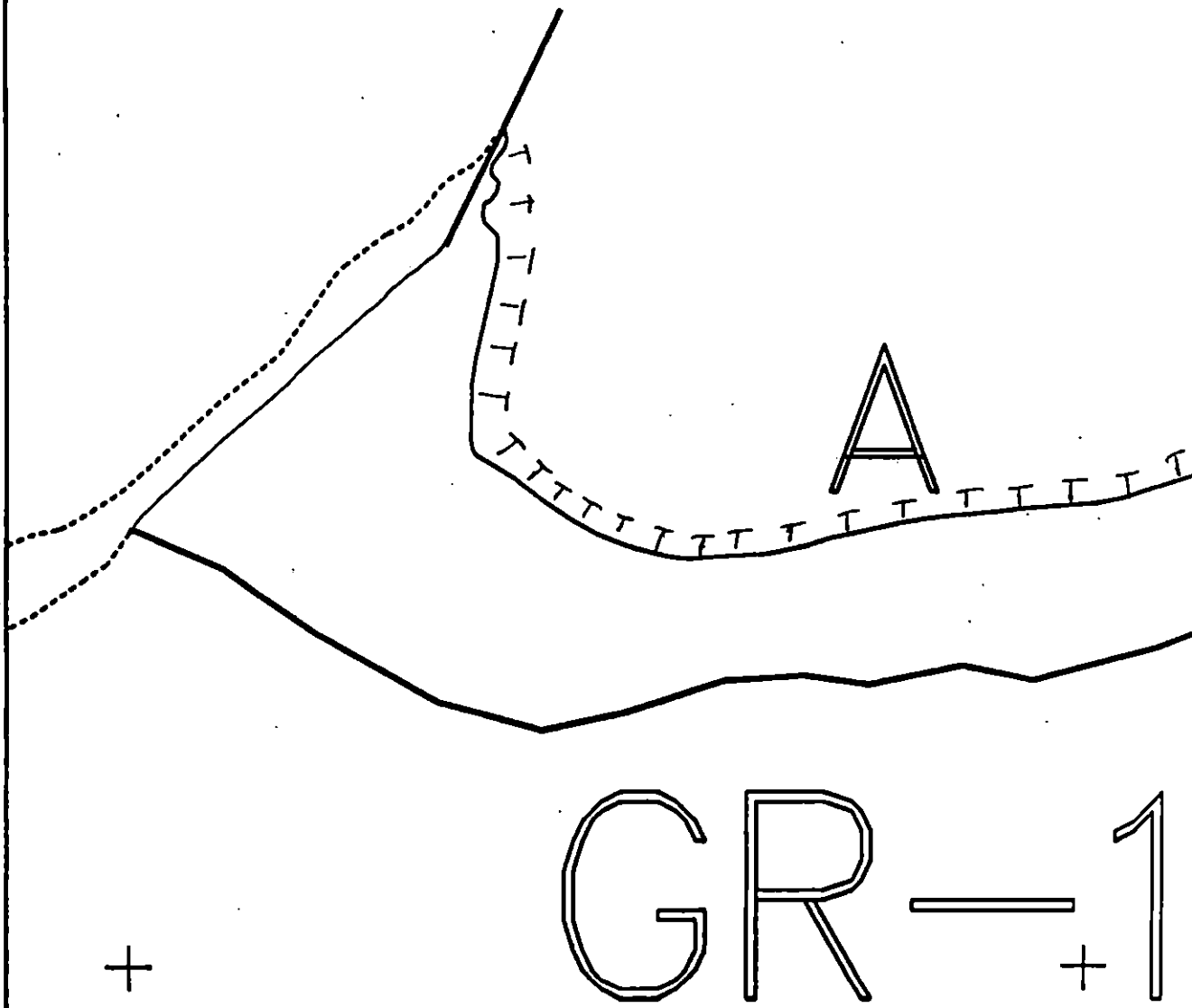
TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1	1	
Seabirds			
Waterfowl			
Gulls/Kittiwakes	1	5-10	
Shorebirds			
Corvids			
Other Birds			

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

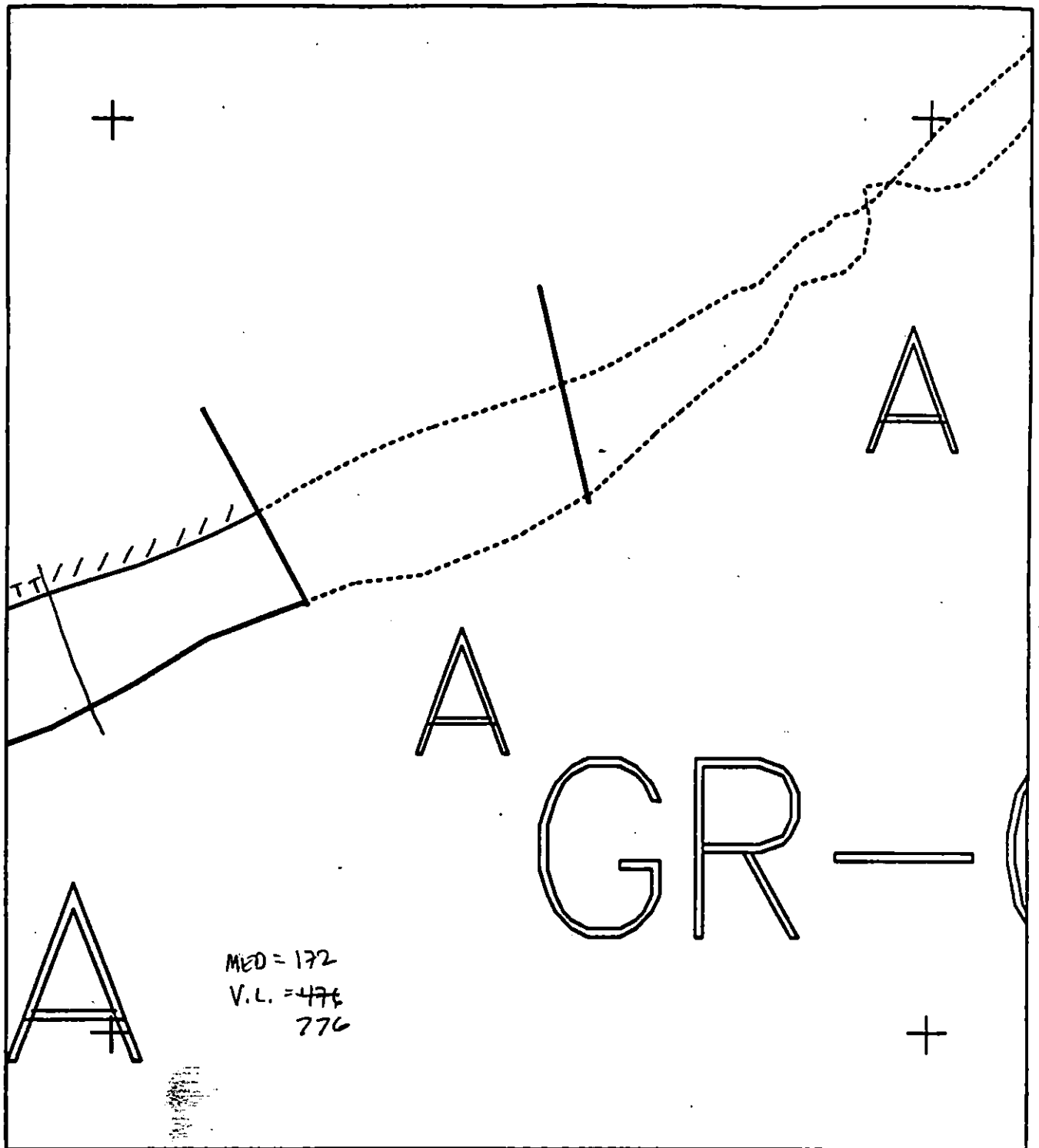
Shoreline subdivision map showing important biological features attached.

REVIEWED: MC 5/4/91



XXXX	Wide	GR001A A ADEC Subsegment Length: 948m METERS 0 100 200 AK State Plane Zone 4 pg001000	Subdivision Field Map Map Key: PWSGR001AAa Name: <u>HARPER</u> Date: <u>30 April 91</u> Date Entered:
////	Medium		
----	Narrow		
TTTT	Very Light		
0000	No Oil		

OG 5 of 7
 REVIEWED: F.W. 5/3/91
 REVIEWED: MC 5/4/91



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

GR001A A
 ADEC Subsegment Length: 948m
 METERS
 0 100 200
 AK State Plane Zone 4
 pr001aeb



Subdivision Field Map
 Map Key: PWSGR001AAB
 Name: HARPER
 Date: 30 APRIL 91
 Date Entered:

OG 4 of 7

REVIEWED: F.W. 5/3/91
 REVIEWED: MC 5/4/91

1991 MAYSAP EVALUATION

SEGMENT: GR001B SUB: A REGION: PWS SURVEY DATE: 4/30/91

ENVIRONMENTAL SENSITIVITIES:

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

Ecological/Constraints (see page two for details) Eagle nest, Herring spawning, Subsistence - Deer harvesting

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO Signature: Charles H. Jones

Date: 5/10/91

RECOMMENDATIONS:

INITIAL

TAG

FOSC

TREATMENT REQUIRED (Y or N)

N

N

N

Manual Pickup (Check as Req.)

Spot Washing

Bio-Customblen Only

Bio-Inipol/Customblen

Other

Other

COMMENTS:

INITIAL:

TAG:

FOSC:

TAG APPROVAL DATE: MAY 10 1991

FOSC APPROVAL DATE: 5/14/91

ADEC

FOSC

EXXON

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

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.

Herring Spawning: No treatment before June 1. Avoid disturbance to kelp and eelgrass.

Subsistence - Deer Harvesting: Unlimited treatment prior to 8/15.

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 3 SEGMENT GR-1B SUBDIVISION A DATE 4/30/91

ADEC

NAME Wesley Gahrmley SIGNATURE Wesley Gahrmley

☐ NTR ☒ TREATMENT RECOMMENDED - Seals, & birds present during survey.

Roll Boulders in area of 10X50 MOR Area of 50X50

Manually remove oiled sediment using hand tools, oil would be very easy to recover with a little physical work. String SNAPE boom to absorb oil residue. This beach is of High Energy and due to the presence of the heavy oil I believe the boulders are keeping Mother Nature from cleaning it. Seals & birds in the area, the subdivision would recover nicely with these two areas cleaned.

EXXON

NAME Jon Czarnicki SIGNATURE Jon Czarnicki

☒ NTR 11 PITS were dug 1 with Hor, 1 Mor, and 1 oil film. The beach is healthy and turning & feel any additional work damage the beach far more than it would cost if money which is doing good.

LANDMANAGER

NAME Carol S Huber OF USFS SIGNATURE Carol S Huber

☒ NTR Surface oiling minor to none. Subsurface oil confined to relatively small area. Treatment would be more intrusive than the oil is. Biota is healthy & abundant. Let nature have this one.

USCG/NOAA

NAME DOONEY / BARATS SIGNATURE Timothy / Amy Barats

☐ NTR Eastern portion of beach is comprised of gravel & sand with very little to no oil (surface or subsurface). Western portion of beach is comprised of boulder, cobble veneer on bedrock. Sediment deposited in "pockets" areas have MOR-HOR subsurface conditions. Occurrence of these oil sediments are sporadic in the MIZ zone and is estimated to be confined to a 10m by 50m area. Numerous oil sheens are also present. Any plans for treatment should be restricted to this zone with efforts directed to specific "pockets of sediment" to reduce the overall impact on a strong biota in the MIZ.

PAGE 1 OF 2

OG 1 of 5
ΣT raised 5/4

PAGE 2 OF 2

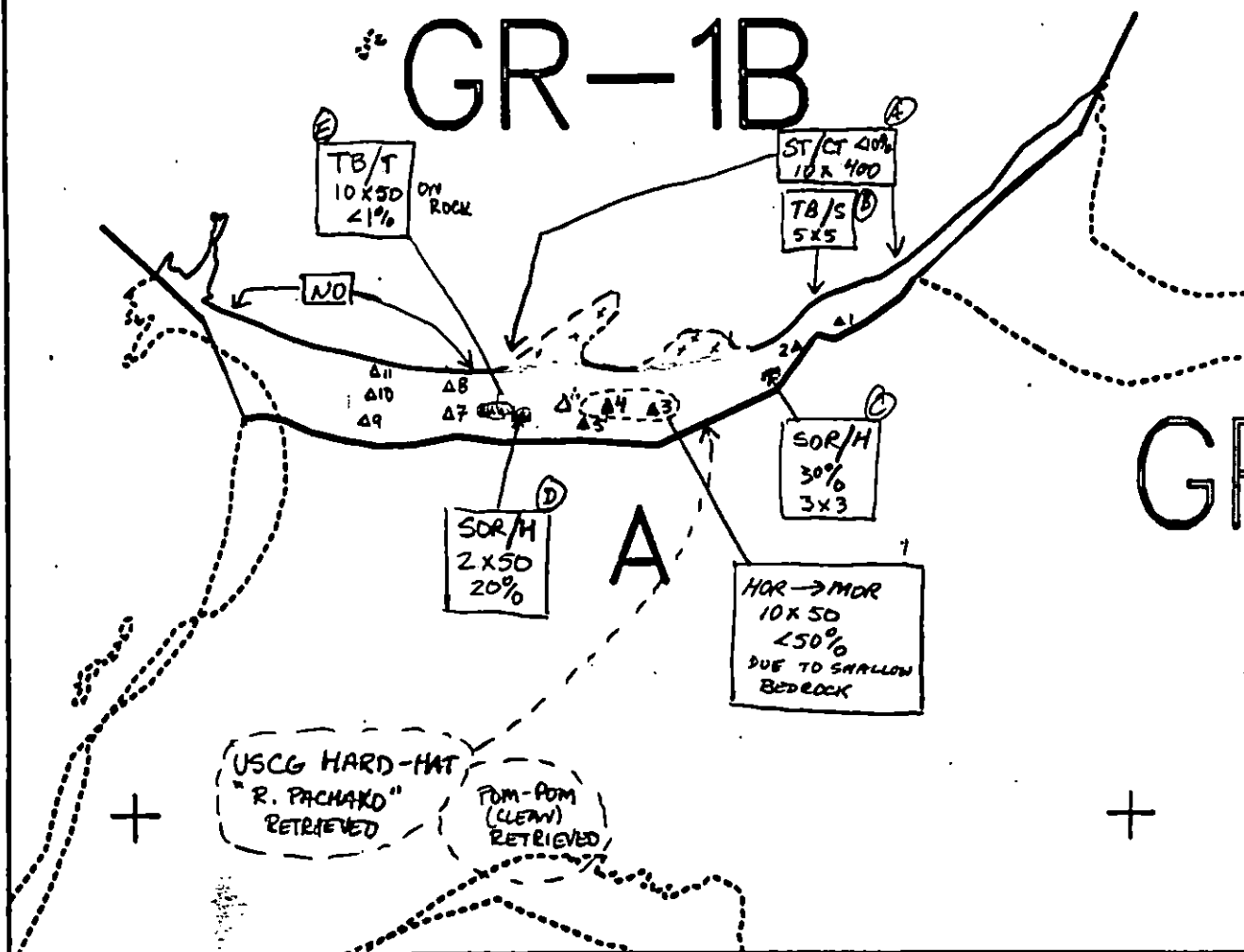
DATE 4,30 191

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

Dark area of heavier subsurface ailing was identified. Based on the distribution of sherds, morphology and two pits (#3 & 4) the area of subsurface ailing was estimated at 10 x 50m with 450% occurrence due to shallow bedrocks.

OG 2 of 5
EX revised SK4

SKETCH MAP



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

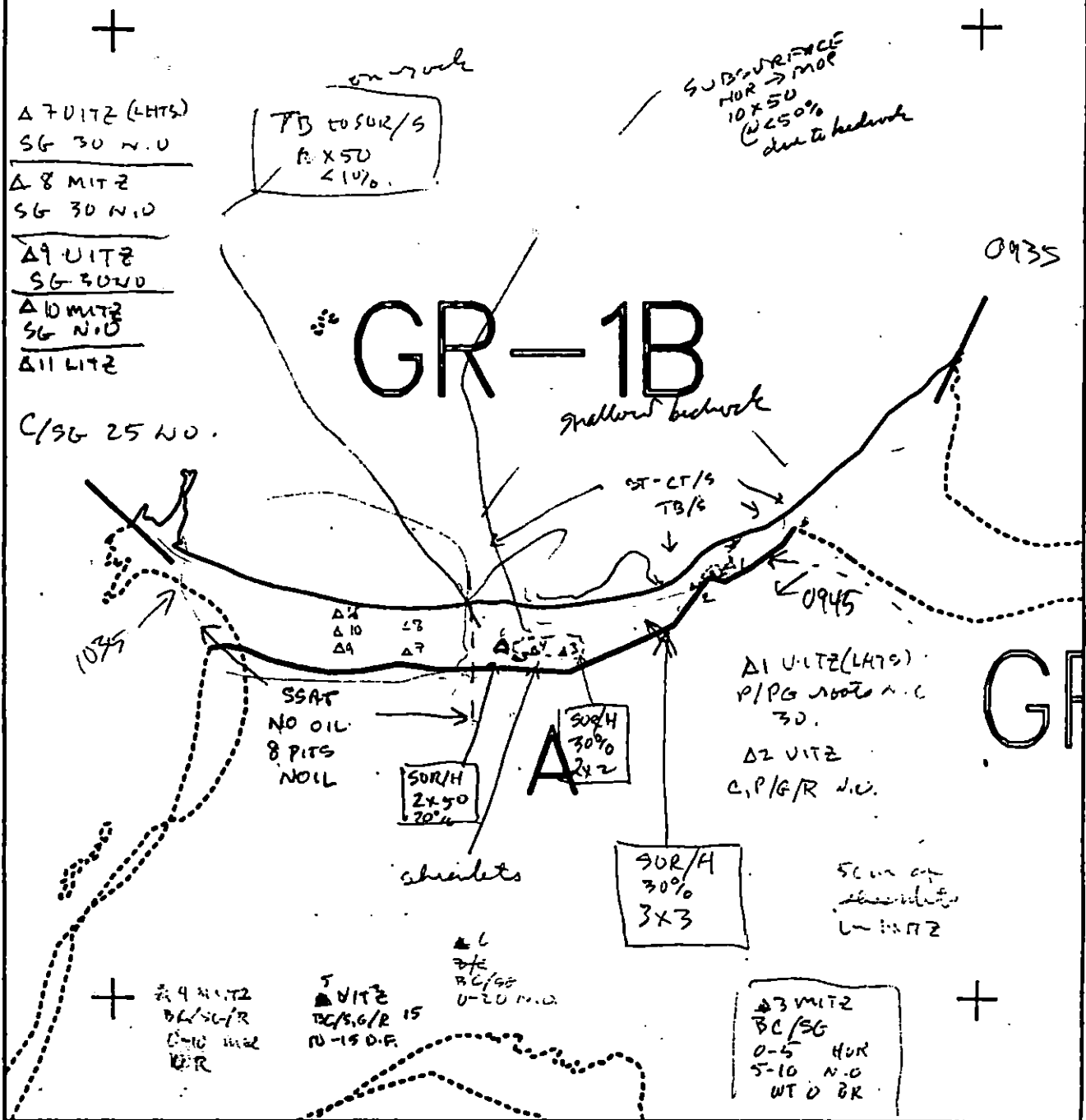
GROO1B A
 ADEC Subsegment Length: 871m
 METERS
 AK State Plane Zone 4
 1800100

Subdivision Field Map
 Map Key: PWSGROO1BA
 Name: HARPER
 Date: 30 APR 91
 Date Entered:

SKETCH MAP

OG 3af5

ES revised 5/4



XXXX	Wide	GROO1B A ADEC Subsegment Length: 871m METERS AK State Plane Zone 4 4800110	Subdivision Field Map
////	Medium		Map Key: PWSGROO1BA
----	Narrow		Name: _____
TTTT	Very Light		Date: _____
0000	No Oil		Date Entered: _____

FIELD MAP

Page 1 of 1
OG 5 of 5

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 3

DATE 4/30/91

SEGMENT # CROIB

TIDAL HEIGHT(Range) -2 to +2

SUBDIVISION A

BIOLOGIST STOKER

SEA STATE 1-2+

WIND SPEED/DIRECTION NE 15-20

PHOTOGRAPHS: ROLL #

FRAME #

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

Relatively high energy beach of mixed substrates (bedrock, rounded cobble/boulder/pebble, sand).

Biota variably sparse to moderately abundant in the upper intertidal, increasing down slope in both overall abundance and diversity.

Biota of the mid to lower intertidal consists primarily of variable (depending on substrate) settlements of barnacles + spat, *Mytilus* (both attached and interbedded; many small individuals), *Littorina* (often dense and with egg masses), limpets, *Pagurus*, *Scorlosia*, *Nucella* + eggs, amphipods, spirorbis, isopods (*Idotea* and *Gnathosphaeroma*), anemones, *Chitons* (*K. Tunicata*), sea stars (*Leptasterias*, *Pycnopodia*), *Fucus* (new growth + recruitment), ulva, *Halosaccus* + other red algae, and *Phyllospadix*. In addition, numerous clam shells (*Saxidomus*, *Protothaca*, *Macoma*, *Mya*, *Clinocardium*) observed in the LIT, probably indicative of resident populations. Edible mussels, some with eggs, also observed.

Biota in the LIT and oiled zone consists of patches of barnacles and spat, *Mytilus*, new-growth *Fucus*, unidentified red algae, limpets, and *Littorina* (sometimes in dense clatters with egg masses). Biota down slope increases in both overall abundance and diversity, as described above.

Any plans for further treatment should include minimal disturbance to established biota, which appears healthy, abundant, and well on its way to recovery.

WILDLIFE OBSERVATIONS

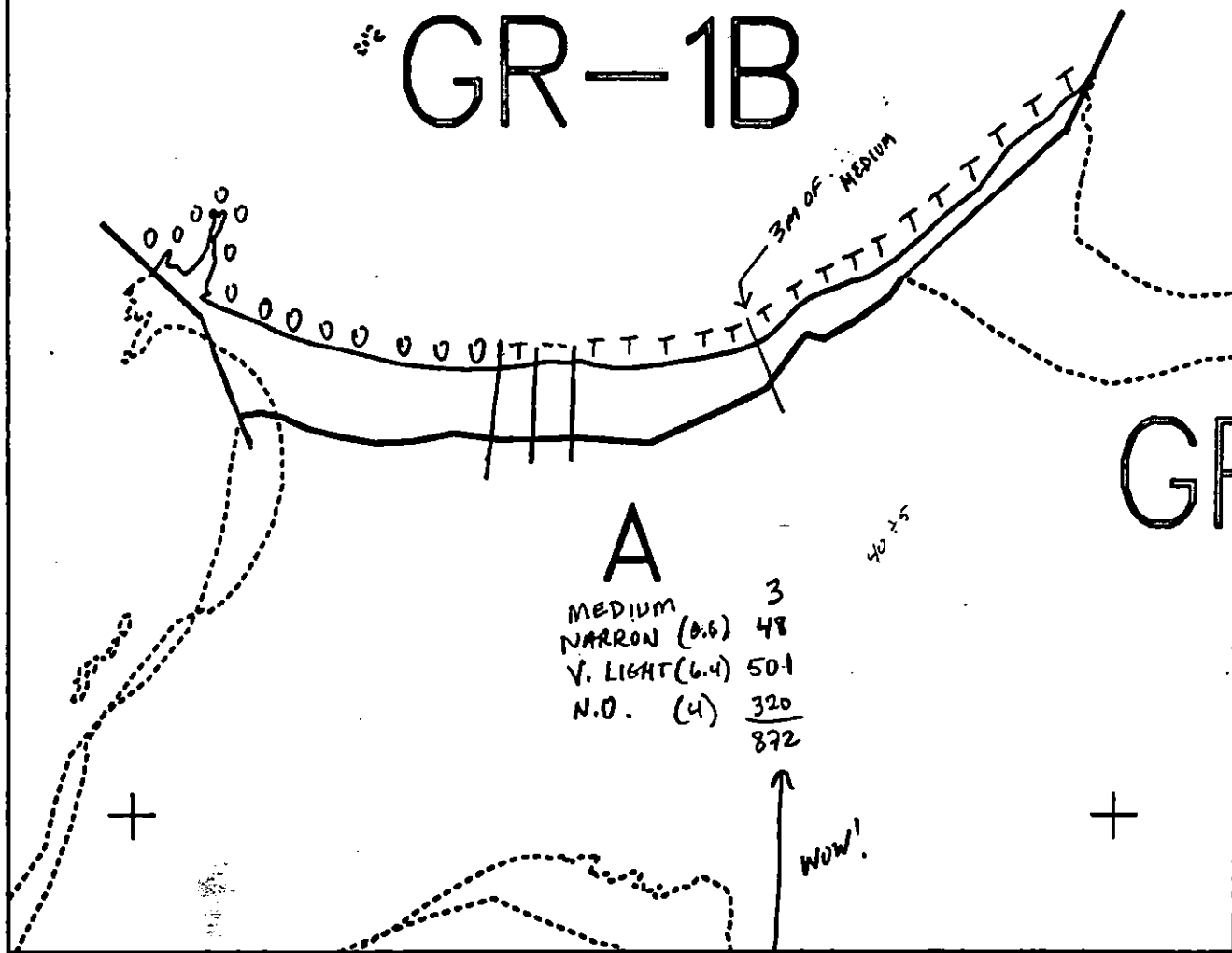
TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1	2 (nest)	cal blennies
Seabirds			
Waterfowl	2	4	
Gulls/Kittiwakes	1	10-20	
Shorebirds	oystercatchers	2	
Corvids			
Other Birds			

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters	2	Deer Sign	
Pinnipeds(specify)	Harbor Seal - 2		
Whales(specify)			

Shoreline subdivision map showing important biological features attached.

GR-1B



A
 MEDIUM 3
 NARROW (0.6) 48
 V. LIGHT (6.4) 501
 N.O. (4) 320
 872

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

GROO1B A
 ADEC Subsegment Length: 871m
 METERS
 0 200 400
 AK State Plane Zone 4
 pr001ba

Subdivision Field Map
 Map Key: PWSGROO1BA
 Name: HARPER
 Date: 30 APRIL 91
 Date Entered:



SURFACE OILING MAP

OG 4 of 5
 EC revised 5/14

1991 MAYSAP EVALUATION

SEGMENT: GR001B SUB: A REGION: PWS SURVEY DATE: 4/30/91

ENVIRONMENTAL SENSITIVITIES:

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

Ecological/Constraints (see page two for details) Eagle nest,
Herring spawning, Subsistence - Deer harvesting

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.

Herring Spawning: No treatment before June 1. Avoid disturbance to kelp and eelgrass.

Subsistence - Deer Harvesting: Unlimited treatment prior to 8/15.

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 3 SEGMENT GR-1B SUBDIVISION A DATE 4/30/91

ADEC

NAME Wesley Ghermley SIGNATURE Wesley Ghermley

☐ NTR ☒ TREATMENT RECOMMENDED - Seals, & birds present during survey.

Roll Boulders in area of 10X50 MOR Area of 50XH (2X50)

Manually remove oiled sediment using hand tools, oil would be very easy to recover with a little physical work. String SNARE boom to absorb oil residue. This beach is of high energy and due to the presence of the heavy oil I believe the boulders are keeping Mother Nature from cleaning it. Seals & birds in the area, the subdivision would recover nicely with these two areas cleaned.

EXXON

NAME Jon Czarnecki SIGNATURE Jon Czarnecki

☒ NTR 11 PITS were dug 1 with H₂O, 1 M₂O, and 1 oil film. The beach is healthy and turning & feel any additional work damage the beach far more than it would cost if recovery which is doing good.

LANDMANAGER

NAME Carol S Huber OF USFS SIGNATURE Carol S Huber

☒ NTR Surface oiling minor to none. Subsurface oil confined to relatively small area. Treatment would be more intrusive than the oil is. Biota is healthy & abundant. Let nature have this one.

USCG/NOAA

NAME MOONEY / BARATS SIGNATURE Tony Mooney / Tony Barats

☐ NTR Eastern portion of beach is comprised of gravel & sand with very little to no oil (surface or subsurface).

Western portion of beach is comprised of boulder, cobble & sand on bedrock. Sediment deposited in "pockets" areas have MOR-H₂O subsurface conditions. Occurrence of these oil sediments are sporadic in the MIZ zone and is estimated to be confined to a 10m by 50m area. Numerous oil sheens are also present. Any plans for treatment should be restricted to this zone with efforts directed to specific "pockets of sediment" to reduce the overall impact on a strong biota in the MIZ.

DATE 4 / 30 / 91

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 3 m N 48 m VL 501 m NO 320 m US 0 m

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

— CAMERA DEAD —

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

Surface oiling is generally light or not present. Two areas of SOR were identified. At location E the SOR/H is on the lee side of a bedrock outcrop - the western SOR/H (LOCATION D) is in an area off bedrock over boulders.

OG 1 of 5.
2T raised 5/4

PAGE. 2 OF 2

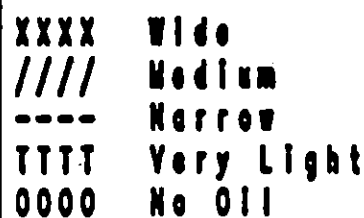
DATE 4/30/91

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

One area of heavier subsurface oiling was identified. Based on the distribution of spherules, morphology and two pits (#3 & 4) the area of subsurface oiling was estimated at 10 x 50m with 450% occurrence due to shallow bedrocks.

OG 2 of 5

GR-1B



G R O O 1 B A

ADEC Subsegment Length: 871m

METERS

AK State Plane Zone 4
pr001ba



Subdivision Field Map

Map Key: PWSGR001DA

Name: HARPER

Date: 30 APR 91

Data Entered:

SKETCH MAP

OG 3 of 5

Er revised 5/4

Δ 7 UITE (LHTS)
SG 30 N.O

Δ 8 MITZ
SG 30 N.O

Δ 9 UITE
SG 30 N.O

Δ 10 MITZ
SG N.O

Δ 11 UITE

C/SG 25 N.O.

TB to SUR/S
R X 50
4 10%

SUBSURFACE
HOR → MOR
10 X 50
10 X 50%
due to bedrock

GR-1B

0935

shallow bedrock

ST-CT/S
TB/S

0945

Δ 1 UITE (LHTS)
P/P/G roots N.O.
30.

Δ 2 UITE
C.P/G/R N.O.

SSAT
NO OIL
8 PITS
NOIL

SUR/H
2x50
20%

SUR/H
30%
2x2

SUR/H
30%
3x3

SG 100
L-1002

sharlets

Δ 6
AC/G
U-20 N.O.

Δ 4 MITZ
BC/G/R
C-10 N.O.
UR

Δ 5 UITE
BC/S,G/R 15
10-15 D.F.

Δ 3 MITZ
BC/SG
0-5 HOR
5-10 N.O.
WT 0 BK

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

GROO1B A

ADEC Subsegment Length: 87m

METERS

5 100 200

AK State Plane Zone 4
projections



Subdivision Field Map

Map Key: PWSGROO1BA

Name: _____

Date: _____

Date Entered: _____

FIELD MAP

Page 1 of 1
OG 5 of 5

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 3

DATE 4/30/91

SEGMENT # GR01B

TIDAL HEIGHT(Range) -2 to +2

SUBDIVISION A

BIOLOGIST STOKER

SEA STATE 1-2+

WIND SPEED/DIRECTION NE 15-20

PHOTOGRAPHS: ROLL #

FRAME #

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

Relatively high energy beach or mixed substrates (bedrock, rounded cobble/boulder/pebble, sand).

Biota variably sparse to moderately abundant in the upper intertidal, increasing down slope in both overall abundance and diversity.

Biota of the mid to lower intertidal consists primarily of variable (depending on substrate) settlements of barnacles + spat, Mytilus (both attached and interbedded; many small individuals), Littorina (often dense and with egg masses), limpets, Pagurus, Scudicaria, Nucella + eggs, amphipods, spiracles, Isopods (Idotea and Gnathopysacroma), anemones, Chitons (K. Tunicata), Sea stars (Leptasterias, Pyrenopodia), Fucus (new growth + recruitment), ulva, Halosaccion & other red algae, and Rhyllospadix. In addition, numerous clam shells (Saxidomus, Prototheca, Macoma, Mya, Clinocardium) observed in the LIT, probably indicative of resident populations. Ed blonnes, some with eggs, also observed.

Biota in the LIT and oiled zone consists of patches of barnacles and spat, Mytilus, new-growth Fucus, unident. red algae, limpets, and Littorina (sometimes in dense clusters with egg masses). Biota down slope increases in both overall abundance and diversity, as described above.

Any plans for further treatment should include minimal disturbance to established biota, which appears healthy, abundant, and well on its way to recovery.

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

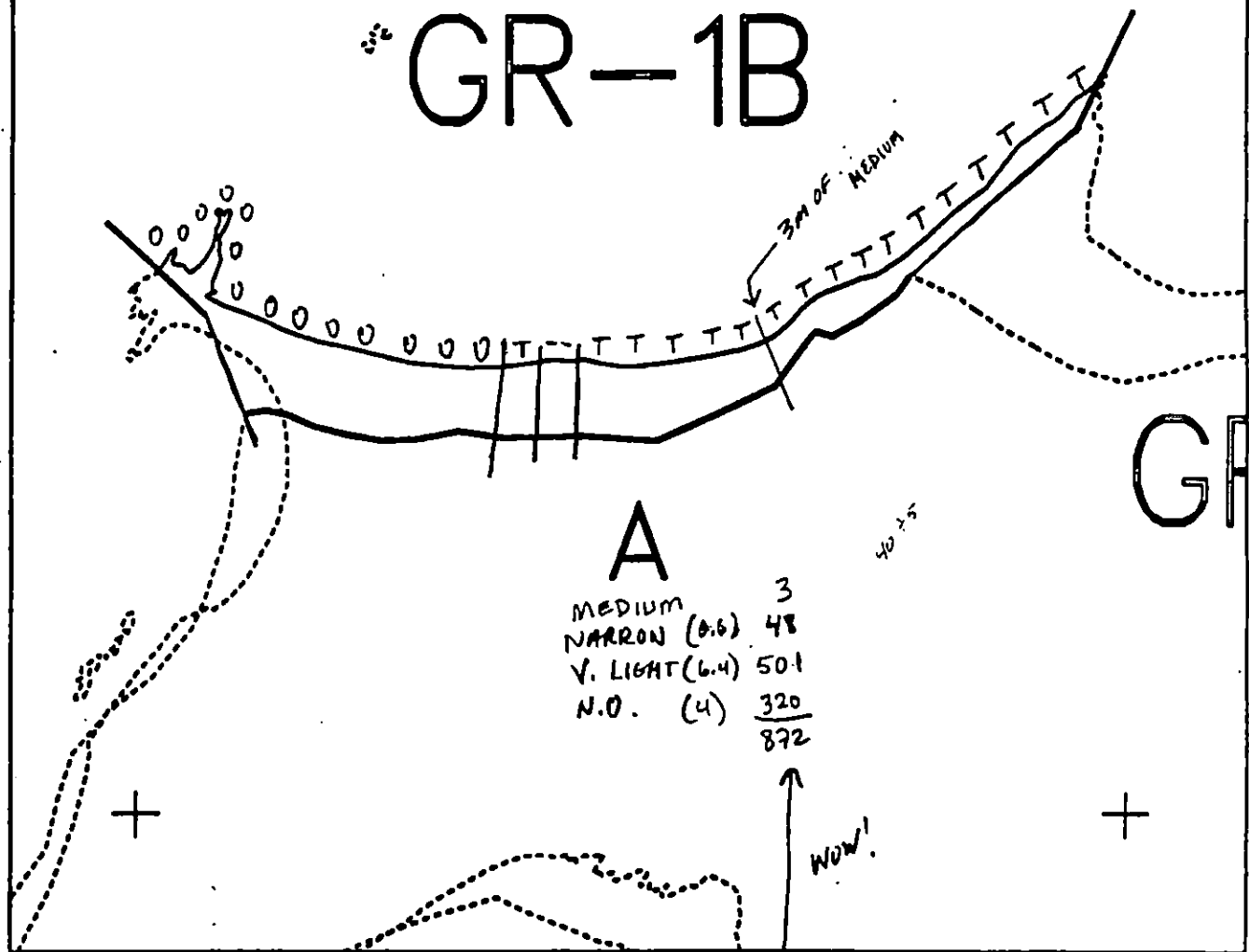
BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1	2 (nest)	cal blonnes
Seabirds			
Waterfowl	2	4	
Gulls/Kittiwakes	1	19-20	
Shorebirds	oviferous	2	
Corvids			
Other Birds			

LAND MAMMALS

MARINE MAMMALS	# OBSERVED	SPECIES	# OBSERVED
Sea Otters	2	Deer Sign	
Pinnipeds(specify)	Harbor Seal - 2		
Whales(specify)			

Shoreline subdivision map showing important biological features attached.

GR-1B



XXXX	Wide	GR001B A ADEC Subsegment Length: 871m METERS AR State Plane Zone 4 projection	Subdivision Field Map Map Key: PWSGR001BA Name: <u>HARPER</u> Date: <u>30 APRIL 91</u> Date Entered:
////	Medium		
----	Narrow		
TTTT	Very Light		
0000	No Oil		

SURFACE OILING
MAP

OG 4 of 5
26 revised 5/4

1991 MAYSAP EVALUATION

SEGMENT: GR 001 SUB: A REGION: PWS SURVEY DATE: 4/30/91

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) OPEN 6/1 - 8/15, RESTRICTED 8/15 - 9/15

Ecological/Constraints (see page two for details) Herring
spawning, Fish Harvest area, Subsistence - Deer harvesting

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**

Herring Spawning: No treatment before June 1. Avoid disturbance to kelp and eelgrass.

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

Subsistence - Deer Harvesting: Unlimited treatment prior to 8/15.

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 3SEGMENT GR-1SUBDIVISION ADATE 4/30/91

ADEC

NAME Wesley GhormleySIGNATURE Wesley Ghormley☒ NTR ☐ TREATMENT RECOMMENDED

Most of this subdivision consists of only OTS/stains. Due to the high energy environment & condition of the oil (weathered) I believe further treatment is not necessary.

- 6 oiled POM-poms were retrieved from the subdivision -

EXXON

NAME Jon CzarnickiSIGNATURE Jon Czarnicki☒ NTR

No major oiling seen on and around shoreline. No treatment required.

LANDMANAGER

NAME Carol S HuberOF USFSSIGNATURE Carol S Huber☐ NTR

Recommend treatment. This area is utilized by seabirds & pinnipeds. Mobil oil is a concern here, as indicated by abundant sheering. Manual pickup where feasible (TB and HOR) Possible further TAG evaluation.

USCG/NOAA

NAME MOONEYBaratzSIGNATURE Tim MooneyBaratz☒ NTR

EASTERN HALF OF THIS SEGMENT CONSISTS OF Boulders AMONG ON BEDROCK WITH OIL SHEENS IN POCKETS OF SEDIMENT. OVERALL SUBSURFACE OILING AND STAINS IS MINIMAL. PINNIPEDS AND SEABIRDS WOULD NOT BE ENDANGERED.

Not a
USFWS - no uprated
Seabird colony
or

NMFS - 3: marked
pinnip. haulout
N.C.

REVISOR: MC 5/4/91

DATE 7 / 30 / 91

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

Subsurface oiling is generally light (heaviest oiling identified was MOR in Pit #2) and patchy. The MOR identified in Pit #2 is probably similar in distribution to SOR/L mapped in the area (Location G).

REVIEWED: MC 5/4/9/

SKETCH MAP

GR-1A

30 APRIL 91

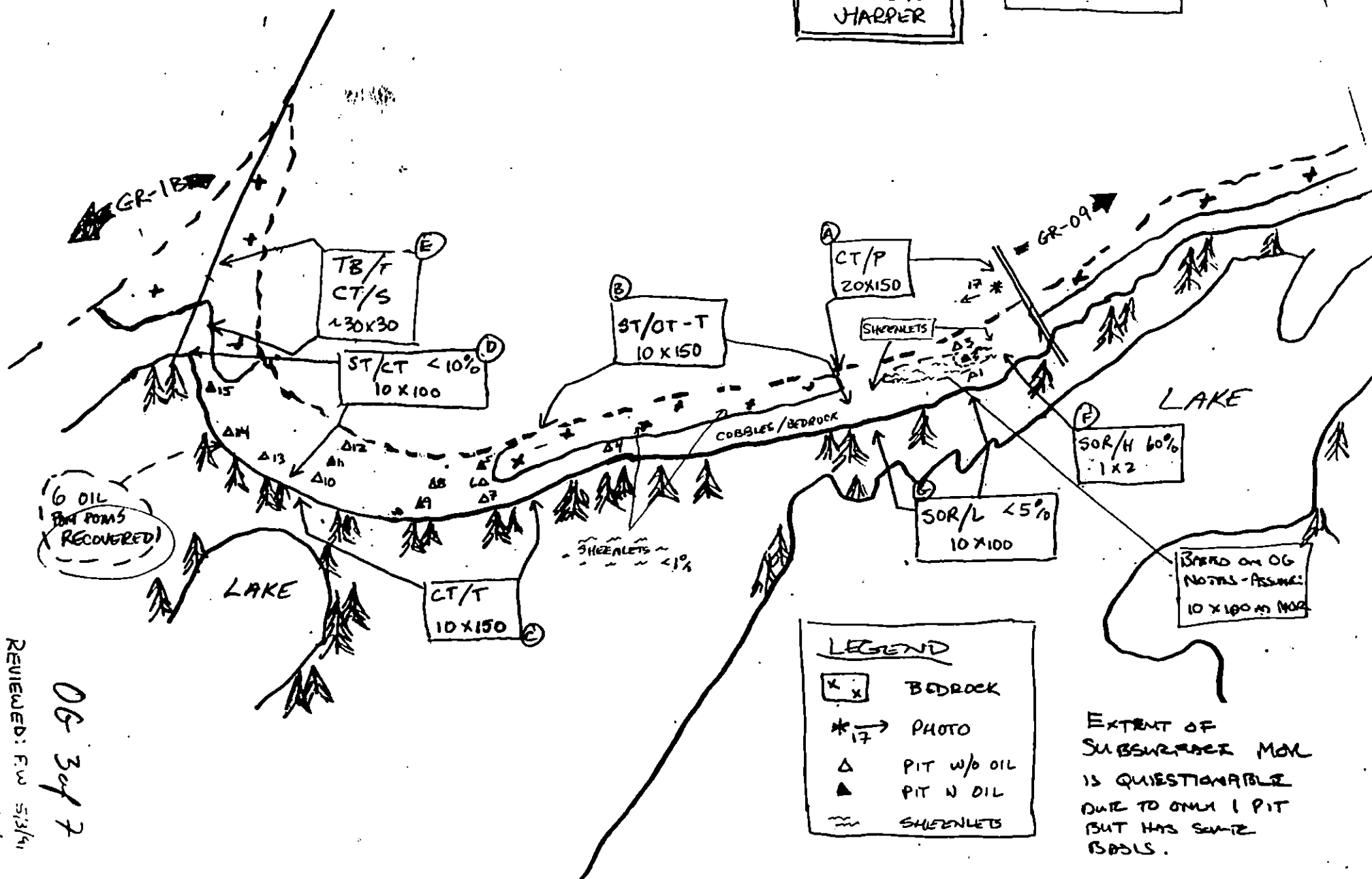
0820 - 0935

HARPER

BASE MAP

AIR PHOTO OVERLAY

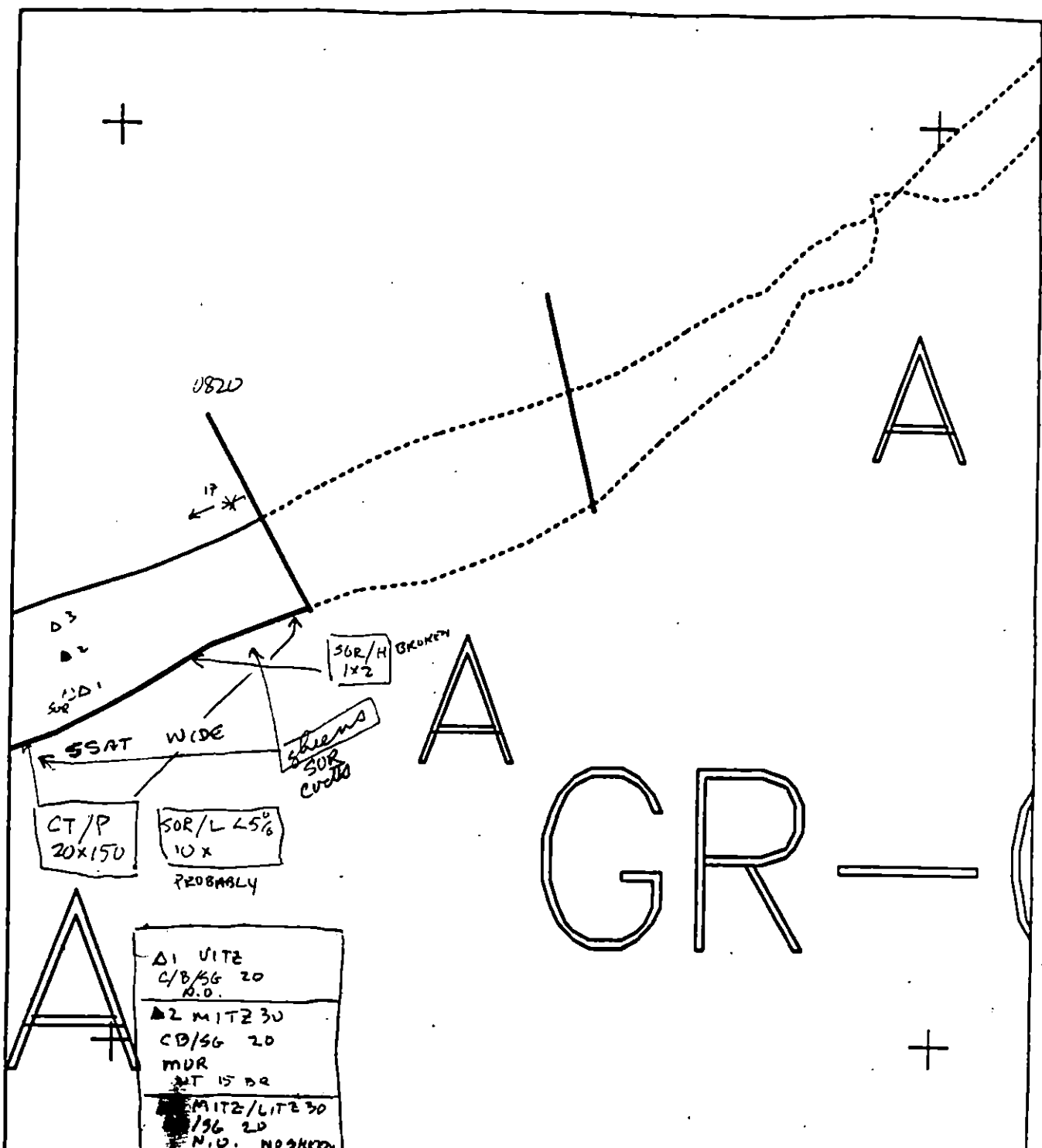
EX-VD 3-6 NO. 4



EXTENT OF
SUBSURFACE MAP
IS QUESTIONABLE
DUE TO ONLY 1 PIT
BUT HAS SOME
BASIS.

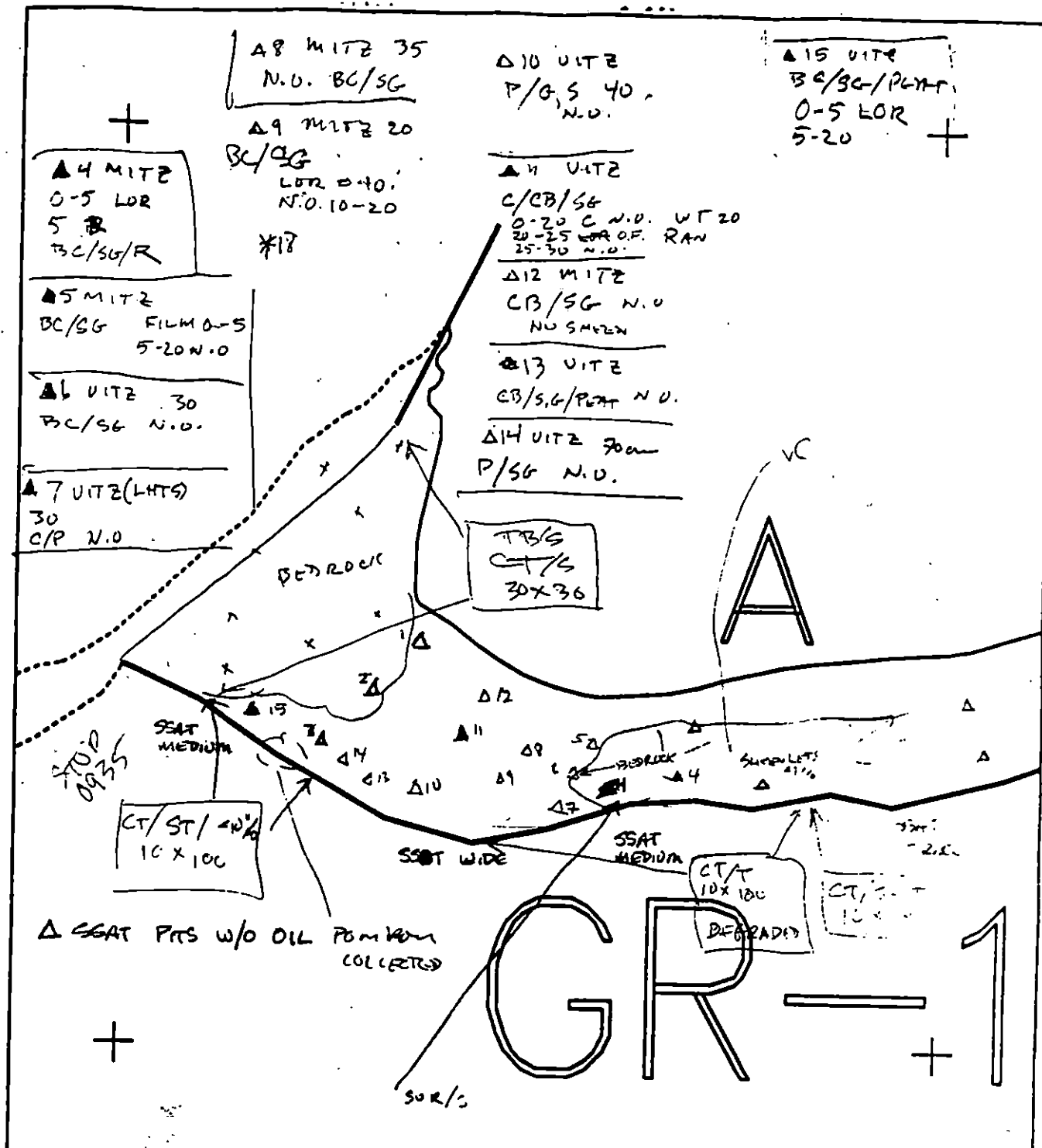
REVIEWED: F.W. 5/3/91
REVISED: MC 5/4/91

OG 347



XXXX	Wide	GROOIA A ADEC Subsegment Length: 948m METERS 5 100 200 AK State Plane Zone 4 per001aeb	Subdivision Field Map
////	Medium		Map Key: PW5GROO1AAb
----	Narrow		Name: <u>HARPER</u>
TTTT	Very Light		Date: <u>4-30-91</u>
0000	No Oil		Date Entered:

Page 2 of 2
 OG Leaf 7
 REVIEWED: F.W. 5/3/91
 REVISOR: MC 5/4/91



XXXX	Wide	GR001A A	Subdivision Fold Map
////	Medium	ADEC Subsegment Length: 948m	Map Key: PWSGR001AA
----	Narrow	METERS	Name: HARPER
TTTT	Very Light	0 100 200	Date: 4/30/91
0000	No Oil	AK State Plane Zone 4	Date Entered:
		pg001000	

Page 1 of 2
 OG 7 of 7
 REVIEWED: F.W. 5/3/91
 REVIEWED: M.C. 5/4/91

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 3	DATE 4/30/91
SEGMENT # GR01	TIDAL HEIGHT(Range) -2 to -2'
SUBDIVISION A	BIOLOGIST STOKER
SEA STATE 0-1'	WIND SPEED/DIRECTION NE 10-15
PHOTOGRAPHS: ROLL #	FRAME #

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

Sparse biota in upper intertidal due to exposure and substrate instability. High energy beach of rounded cobbles/boulder and rock outcrops, with some finer sediments in the lower intertidal.

Biota generally abundant and diverse, though variable, in the lower mid intertidal and below, consisting primarily of dense new Fuus, alga, Heterosaccus and other red algae, surf grass (Phyllospadix), dense settlements of barnacles and spat, dense patches of small Mytilus, dense Littorina (some spawning), dense populations of juvenile and adult limpets, amphipods, isopods (Idotea), Pagurus, sea blennies (some with egg clusters), Leptasterias, Nucella, Scerlosia, anemones, and chitons (K. Tunicata). Particularly dense settlements of barnacles (some very large individuals) were observed sporadically in the lower MIZ-LTZ, with dense spat settlement in LTZ.

Numerous clam shells (Mya, Prosthaca, Macoma) present in LTZ, probably indicative of resident populations.

Biota generally sparse within or directly adjacent to oiled areas, probably reflecting substrate instability and position in the upper intertidal. Taxa observed in close proximity to oil include barnacles and spat, limpets, Littorina, and filamentous green algae. Biota further downslope appears healthy, abundant and diverse, as described above, and should not be disturbed if further treatment is undertaken.

WILDLIFE OBSERVATIONS

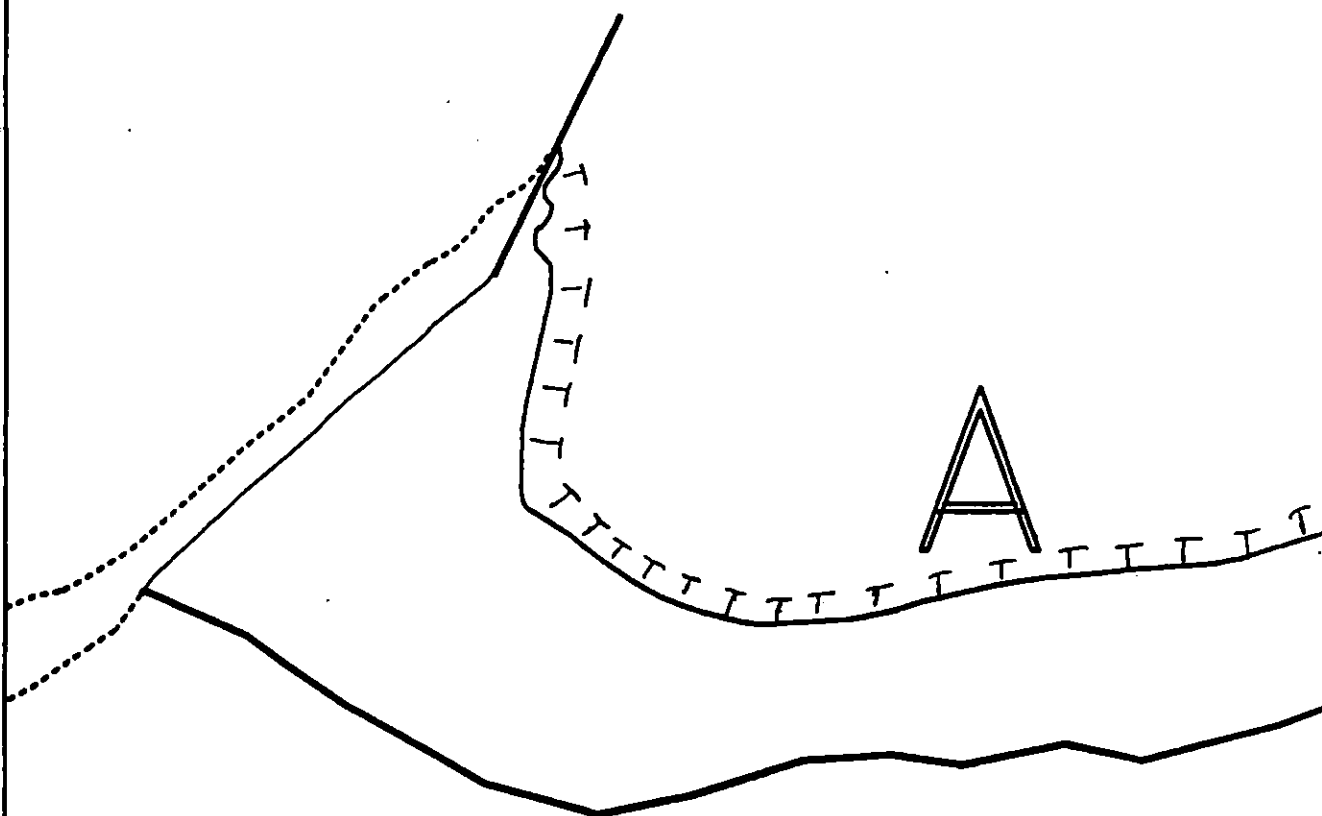
TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1	1	
Seabirds			
Waterfowl			
Gulls/Kittiwakes	1	5-10	
Shorebirds			
Corvids			
Other Birds			

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

Shoreline subdivision map showing important biological features attached.

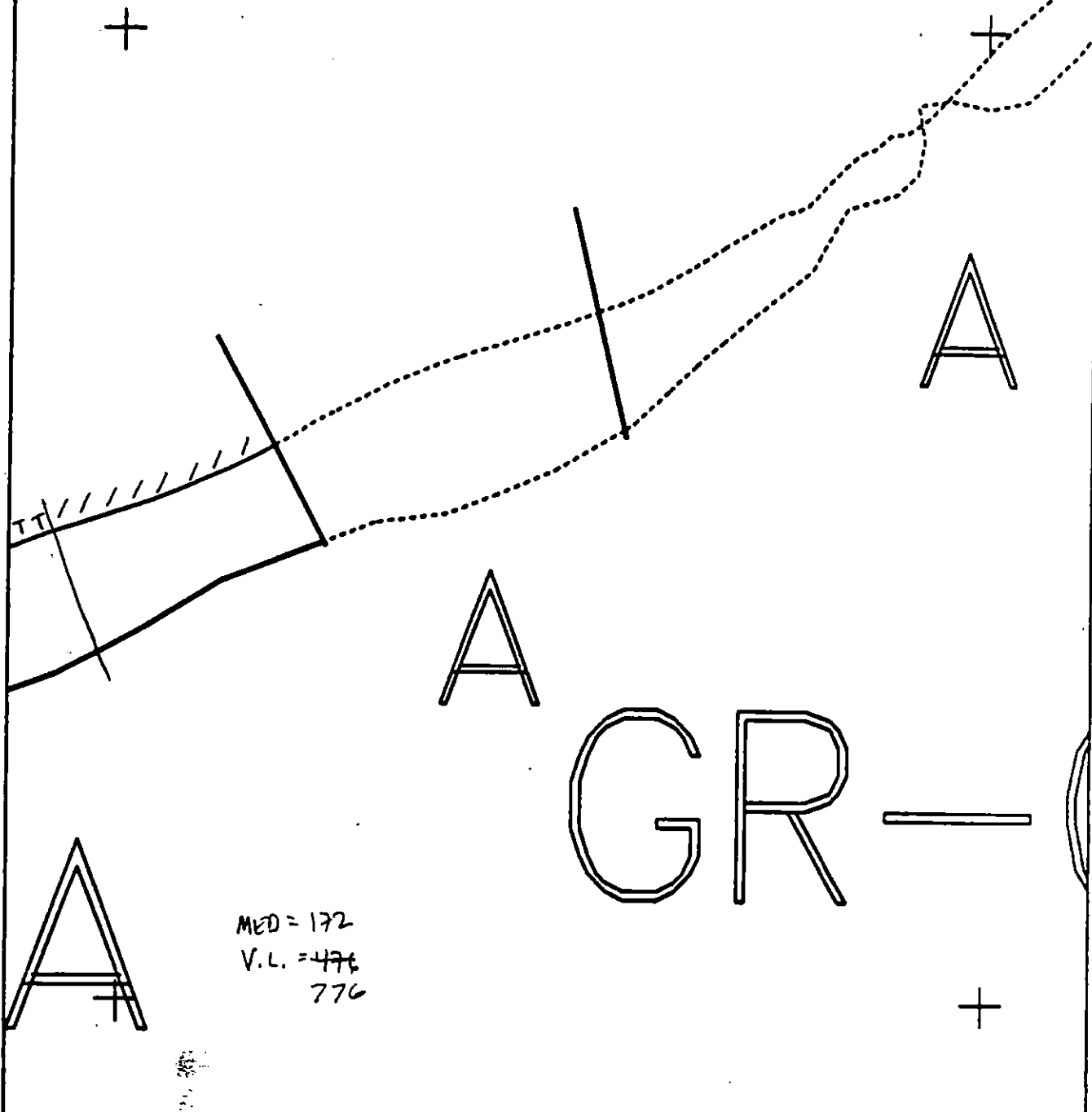
REVIEWED: MC 5/4/91



GR-1

XXXX	Wide	GR001A A ADEC Subsegment Length: 948m METERS 0 100 200 AK State Plane Zone 4 projections	 	Subdivision Field Map
////	Medium			Map Key: PWSGR001AAc
----	Narrow			Name: <u>HARPER</u>
TTTT	Very Light			Date: <u>30 April 91</u>
0000	No Oil			Date Entered:

OG 5 of 7
 REVIEWED: F.W. 5/3/91
 REVIEWED: MC 5/4/91



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

GROOIA A
 ADEC Subsegment Length: 948m
 METERS
 0 100 200
 AK State Plane Zone 4
 pr001aeb

Subdivision Field Map
 Map Key: PWSGROOIAAB
 Memo: HARPER
 Date: 30 APRIL 91
 Date Entered:



06 4 of 7

REVIEWED: F.W. 5.3/91
 REVIEWED: MC 5/11/91

ASAP

WORK PLAN MODIFICATION RECOMMENDATION

SEGMENT 68-1 SUBDIVISION A DATE 7/31/90

MODIFICATION CLASS I (Customblend) CLASS II (inipol) application of inipol was unclear to where it was applied.

1. REASON FOR MODIFICATION

Reapplication of Customblend followed by inipol to site #1

2. SUGGESTED ADJUSTMENT TO WORK PLAN

Reapplication of Customblend followed by inipol to site #1.

3. TIMING ISSUES

711 - Subsistence: Deer Harvesting:
Closed to bioremediation after 8/15.

ADEC Wesley Shumley 

EXXON Ray Sott

NOAA-USGS Art Warner

LAND MANAGER John Ebel (if field rep is on scene)

WORK PLAN MODIFICATION RECOMMENDATION

SEGMENT GR-1 SUBDIVISION A DATE 7/31/90

MODIFICATION CLASS I

1. REASON FOR MODIFICATION

Mousse $\dot{\text{O}}$ P that was previously unlocated was located during ASAP. Area is located at Uitz-mitz between FAP stakes #8 & 9.

- Area 10x3m x 5-10 cm under clean Cobble.
- Monitors should dig more pits in line with the band to locate any more mousse if present.
- ASAP could not conduct more excavation pits due to time frames.

2. SUGGESTED ADJUSTMENT TO WORK PLAN

- MANUAL excavation of Mousse $\dot{\text{O}}$ P that is located under Cobble armor.
- Cobbles will have to be removed to expose oil, manual removal of Mousse $\dot{\text{O}}$ P using available hand tools. Cobbles returned to area.
- Pom-poms or sorbant pads will need to be used to remove oil residue.

3. TIMING ISSUES

- No Constraints to manual removal.

(SEE 7/31/90 GR-1A MAP for location)

ADRC

Wesley Shumley

EXXON

Ray Smith

NOAA USCG

Dix Warner

LAND MANAGER

John Ebel (if field rep is on scene)

WORK PLAN MODIFICATION RECOMMENDATION

SEGMENT GR-1A(Site #2) SUBDIVISION A DATE 7/31/90

MODIFICATION CLASS I

1. REASON FOR MODIFICATION

Reapplication of Custom blend to site #2.
Refer to ASAP Survey data sheet.

2. SUGGESTED ADJUSTMENT TO WORK PLAN

Reapplication of Custom blend to site #2.

3. TIMING ISSUES

711 Subsistence: Deer Harvesting:
Closed to bioremediation after 8/13.

ADEC Wesley Sherman 

EXXON Ray Selt

NOAA-USCG Art Weir

LAND MANAGER John Elrod (if field rep is on scene)

FIELD SHORELINE COMMENT SHEET

SEGMENT AS/ GR 1 SUBDIVISION: A SITE: 1 DATE 7-31-90

ISCG NOAA PSI Leo Bersziona, USCG Leo Bersziona

NAME ART WEINER SIGNATURE Art Weiner

☒ YES

☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

TO ASSESS EFFICACY OF BIOREMEDIATION ON OIL LOCATED BEHIND SURFACE ARMOR. OIL ON UNDERSURFACE OF THIS COBBLE ARMOR WILL PROBABLY BE PROTECTED FROM WINTER WEATHERING EFFECTS AND MAY NEED TO BE BIOREMEDIATED DURING THE SUMMER OF 1991.

ADEC

NAME Wesley Ghormley SIGNATURE Wesley Ghormley 

☒ YES

☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

Reassessment will be necessary to determine the effects of bioremediation & winter activity. Boulders may need to be rolled to expose underside where oil may be still present in 91.

LAND MANAGER

NAME John Ebel SIGNATURE John Ebel

☒ YES

☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

To evaluate the result of bio treatment on existing oil conditions, and to assess if treatment is useful w/ existing technology.

EXXON

NAME Ray Suter SIGNATURE Ray Suter

☐ YES

☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

Considering the ailing condition on this site, recommend reassessment of bioremediation application in '91.

FIELD SHORELINE COMMENT SHEET

SEGMENT AS/ GR-1 SUBDIVISION: A SITE: 2 DATE 7/31/90

USCG NOAA PSI Leo Bersfione USCG Leo Bersfione
NAME ART WEINER SIGNATURE Art Weiner

☒ YES

☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

TO DETERMINE EFFICACY OF CUSTOMBLEND ON SUBSURFACE OIL
TO DETERMINE WEATHERING IMPACT UPON SURFACE COATS + COVERS.

ADEC

NAME Wesley Ghormley SIGNATURE Wesley Ghormley

☒ YES

☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

To determine the effects of both bioremediation & the winter storms on both surface & subsurface oil.

LAND MANAGER

NAME John Ebel SIGNATURE John Ebel

☒ YES

☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

To evaluate the result of bio treatments on existing oil condition; and to assess if further treatment is useful w/ existing technology.

EXXON

NAME REV SUTEL SIGNATURE Rev Sutel

☒ YES

☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

Reassessment should be done to follow-up on re-application of custumblend.

CHANEY

SEGMENT S... R-1

SUBDIVISION A

DATE July 31 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)
- Plt Location(s)
- Photo Location(s)

LEGEND

1 PII - No Subsurface Oil

2 PII - Subsurface Oil

CT/C
Continuous Distribution

CT/B
Broken Distribution

CT/P
Patchy Distribution

CT/S
Splashed Distribution

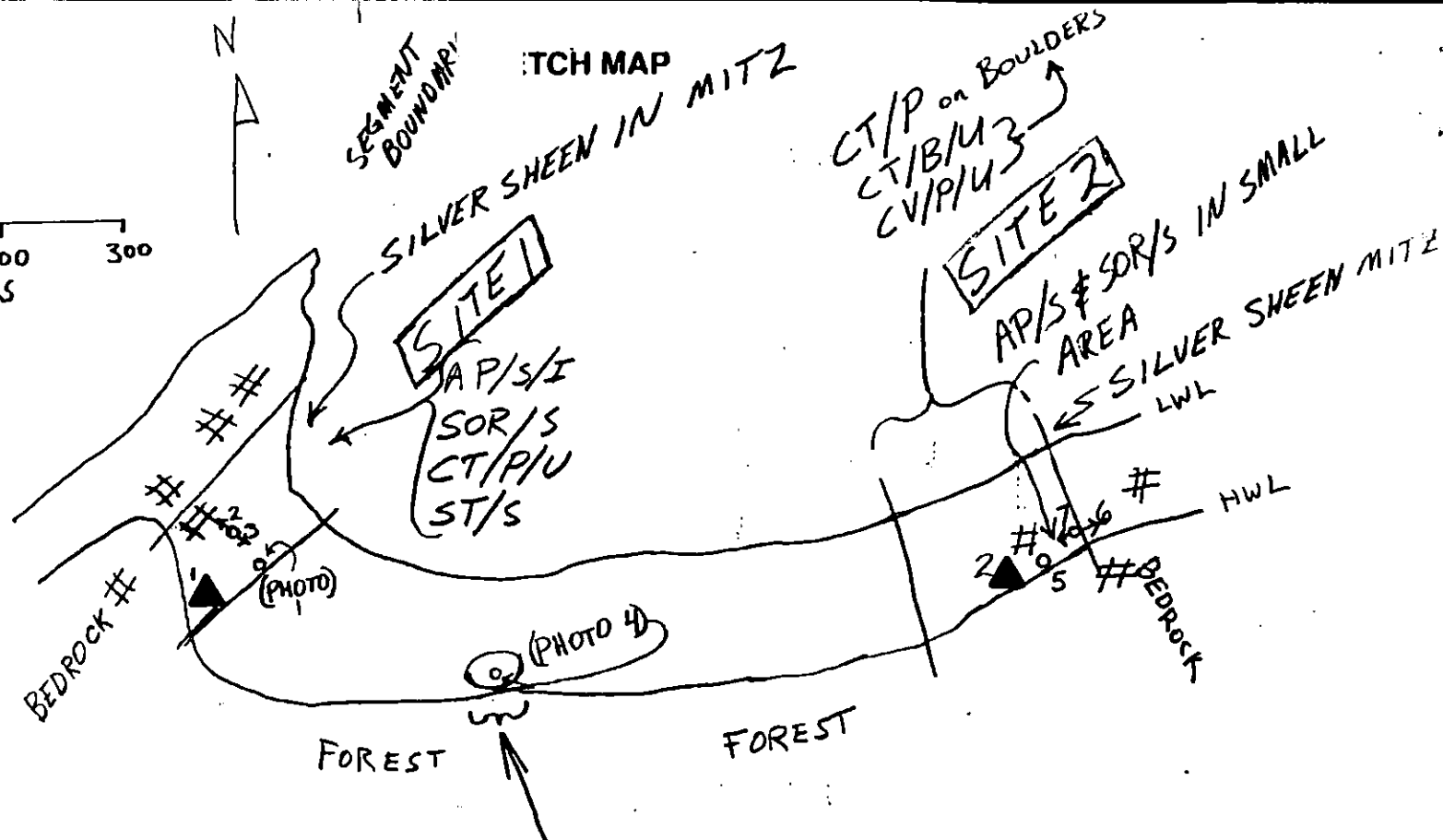
Oiled Vegetation

1 Photo location, direction, and number

THIS MAP WAS TRACED FROM B. Bergland's MAP. IT IS NOT INTENDED TO STAND ALONE. MAJORITY OF CONDITIONS ARE VERY SIMILAR

CUSTOM BLEN WAS LOCATED ON BOTH BEACH SITES

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



THIS LOCATION NOT IN DESIGNATED SITES BUT SUBSURFACE OILING WAS DISCOVERED. AREA LOCATED BETWEEN F.A.P. STAKES #8 & #9. IN THE UITZ A CONDITION EXISTS WHERE A FINER GRAINED SUBSTRATE IS COVERED BY LARGE COBBLES. AT THE COBBLE/FINE INTERFACE MOUSSE OR. IS PRESENT. LAYER IS 5 to 10 cm THICK.



LEARNING ASAP 2

EACH OTELLO RAY

SEGMENTAS GR

USGS BERSALONA, LEO

SUBDIVISION 7

DATE JULY 13 1990

TIME 09:30 11:08 AM

TOTAL NO. SITES 2

TOTAL EST LENGTH OF SHORELINE SURVEYED: 170

TIDE LEVEL 6 ft 10 6.5 ft

SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WEATHER: ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow

OIL CATEGORY LENGTH: W m M m N 170 m VL m NO m US 78 m

SURFACE OIL

F20M
SUTCH 7 PM 40
SITE 1

NOT VISIBLE

SITE 2

NOT VISIBLE

SITE 3

CHARACTER	DISTRIBUTION				OILED ZONES			
	/C	/B	/P	/S	SU	MI	MI	MI
ASPHALT				X	X			
S.O.R.				X	X			
POOLED								
COVER								
COAT			X		X	X	X	X
STAIN				X	X	X	X	X
MOUSSE								
PATTIES/T.B.								
FILM								
NO OIL								
EST. SITE LENGTH					50m			

[illegible][illegible]

SUBSURFACE OIL

[illegible]

Photographs: *ASAP2*

Roll No.

Frames 1 to 7

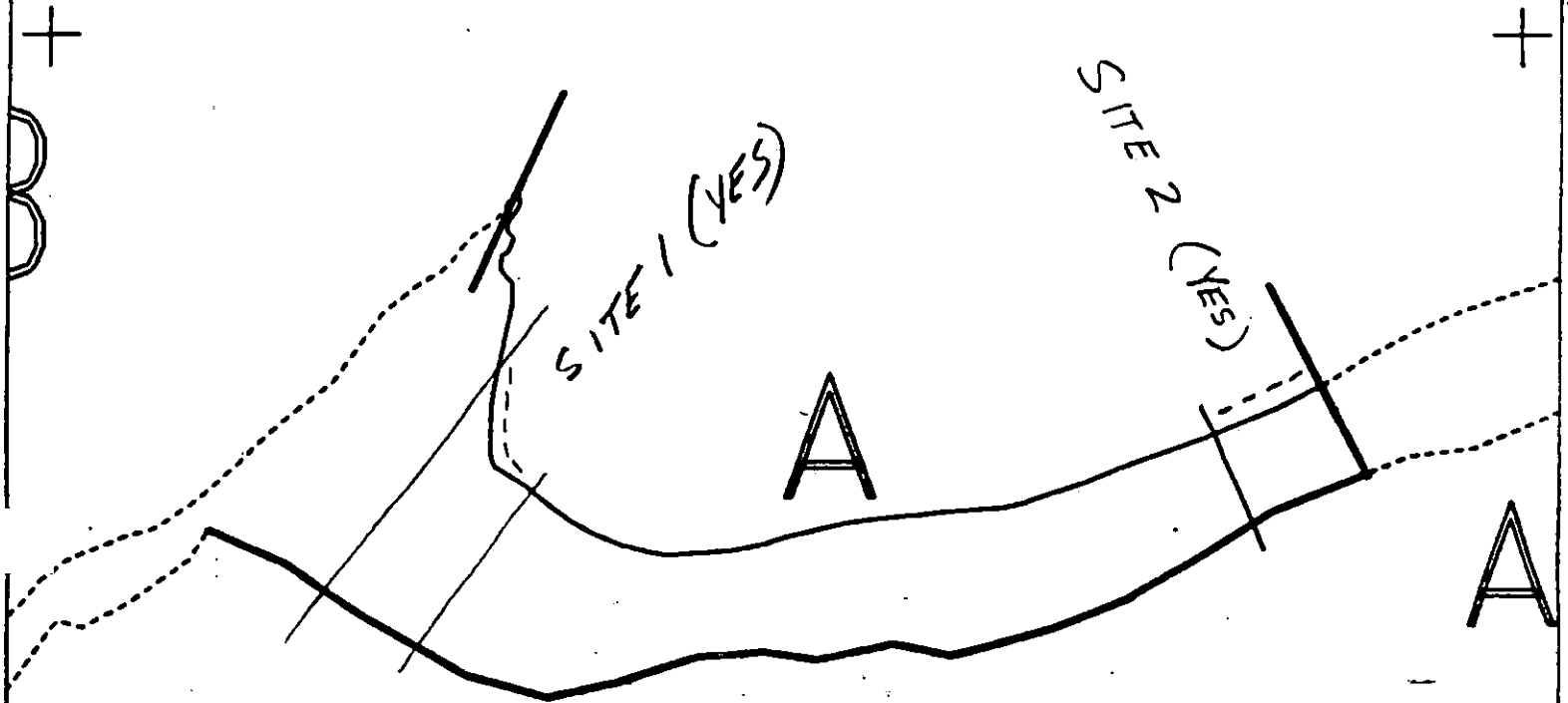
REVIEWED

8/6/90 7/10

COMMENTS Oiling noted on original segment report seems to still be primarily valid. Custom blen is present on beach. Small amount of AP/S/I & SOR/S was observed in areas where manual removal took place. See notes on map.

REVISION NO. 2

GR-1



GR-1A

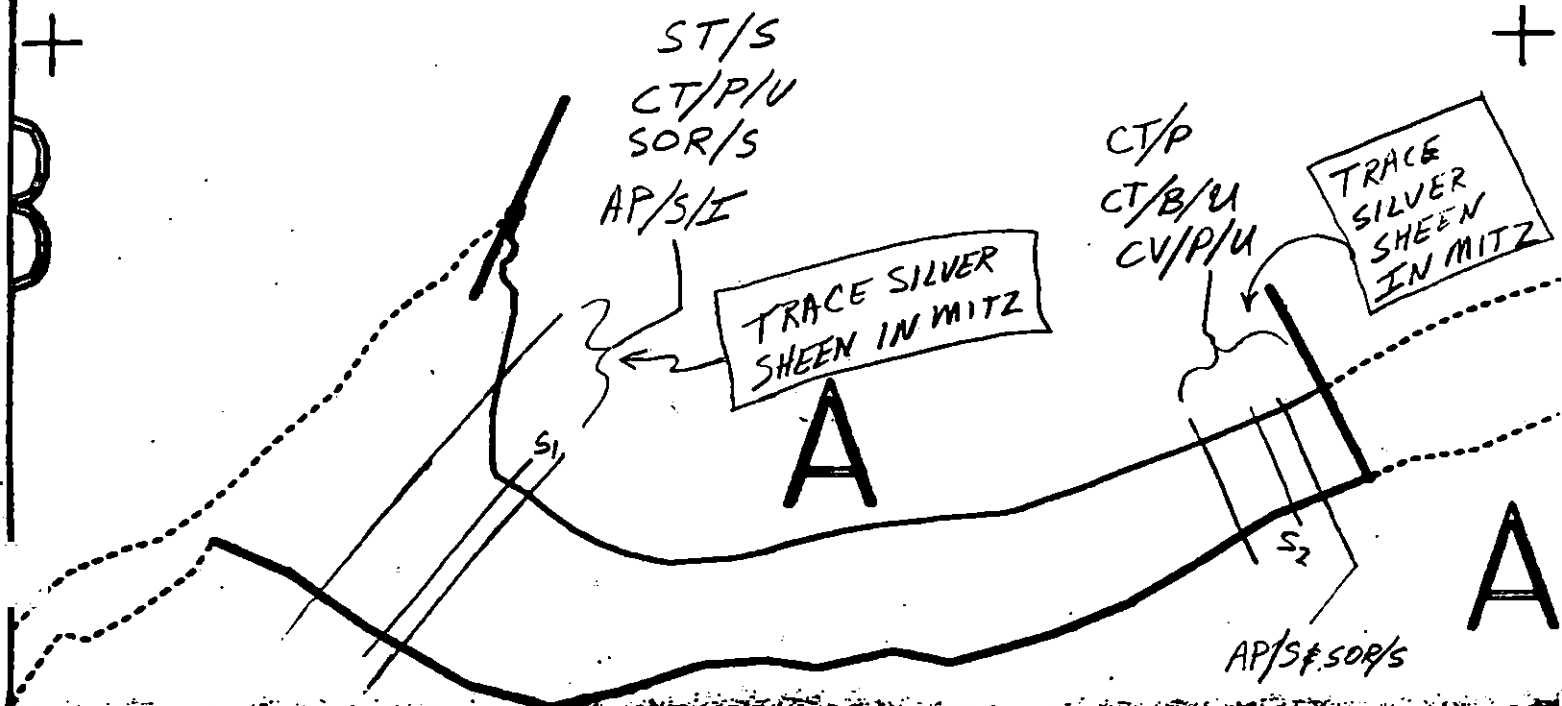
Subdivision Field Map

Map No. 00302-1A

CHANEY

31/1990

GR-1



GR-1A

NR 1140
1140-1140
1140-1140
1140-1140
1140-1140

GR-1A A
ADEC Subsegment Length: 840m
1140-1140
1140-1140
1140-1140
1140-1140
AR State Plane Zone 4 1:8010

Subdivision Field Map
Map Key: PUSOR-1AA
Name: CHANEY
Date: JULY 31 1990
Date: 11/11/11

ASAP

WORK PLAN MODIFICATION RECOMMENDATION

SEGMENT GR-1 SUBDIVISION B DATE 7/31/90

MODIFICATION CLASS I CLASS II (unsure where inipol was applied previously)

1. REASON FOR MODIFICATION

Small patches of asphalt/Pavement are present in interstices of Cobble/boulders and small patches of asphalt/Pavement are also present on slated bedrock.

Area 280m in length marked with orange flagging on western side of subdivision.
- Reapplication of Custom blend & innipol.

2. SUGGESTED ADJUSTMENT TO WORK PLAN

Continuation of work plan.

Remove stakes, survey ribbon, Painted rocks etc. Multiple sites located with orange ribbon tied on Rocks; remove tape.

3. TIMING ISSUES

- Constraint SHEET UNAVAILABLE to us, so we are unsure of Constraints.

ADEC

Wesley Ghormley

EXXON

Ray Satt

NCAA

USEG

Art Warren

LAND MANAGER

John Ebel

(if field rep is on scene)

TAG: Re bio + pick up trash
ADR

FIELD SHORELINE COMMENT SHEET

SEGMENT AS/ GR1 SUBDIVISION: B SITE: 1 DATE 7-31-90

ISCG NOAA PS1 LEO Bersalona USCG LEO Bersalona

NAME ART WEINER SIGNATURE Art Weiner

☐ YES

☒ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

REMAINING OIL DOES NOT POSE A THREAT TO NATURAL RESOURCES.
OIL LEFT AFTER BIOREMEDIATION ACTIVITY CEASES WILL PROBABLY BE
REMOVED BY WINTER WEATHERING PROCESSES.

ADEC

NAME Wesley Ghormley SIGNATURE Wesley Ghormley 

☒ YES

☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

Due to the fact there is subsurface oil with small
patches of A/P thru-out site #1 Reassessment will be
Necessary in 1991.

LAND MANAGER

NAME John Ebel SIGNATURE John Ebel

☐ YES

☒ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

High energy wave exposure, limited effectiveness of available technology for
removing or recovering oil

EXXON

NAME REY SOTELO SIGNATURE Rey Sotelo

☐ YES

☒ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

Oil remaining is weathering nicely and will be removed in most
decs due to the high energy created on this shoreline. Recommend no
further treatment or reassessment.

TEAM NO. ACHPZ

SURFACE OIL

SITE 1 NOT VISIBLE

SITE 2

SITE 3

[illegible][illegible]

SUBSURFACE OIL

[illegible]**Photographs:**

Roll No. ASAP 2

Frames Roll #/

OR/H

REVIEWED
8/6/90 YW

COMMENTS Trends documented in original SSAT survey still valid, however oil is more weathered now. Most of the MS/I is now AP/I. Scattered silver sheens present in MITZ. Regions where manual removal took place now harbor shallow SOR/W/P & AP/S

REVISION NO. 7/27/98

ASAP July 31/11 CHANEY

ADOPTED FROM SSAT SURVEY

NOT INTENDED TO STAND ALONE
BASIC OBSERVATIONS FROM SSAT STILL VALID

REGIONS WHICH WERE
MANUALLY TREATED APPEAR
TO HARBOR SHALLOW SOR/H/S
AND AP/S SEDIMENTS

10x30cm
POCKET OF
POOLED OIL ON
BEDROCK OUTCROP

CERCLA
979

PHOTO 8

PIT #1

SCATTERED
FRAGMENTS
AP/S IN BEDDING
PLANES OF SLAT
UITZ.

PHOTO 10

ORANGE FLAGGING ON DRIFT LOG

280 METERS

AREA RECOMMENDED FOR
AP/S & SOR/H/S PICKUP
BY AGENCY REPS.

ORANGE FLAGS AT EACH END
RE-APPLICATION OF CUSTOM BLEN & INIPOL

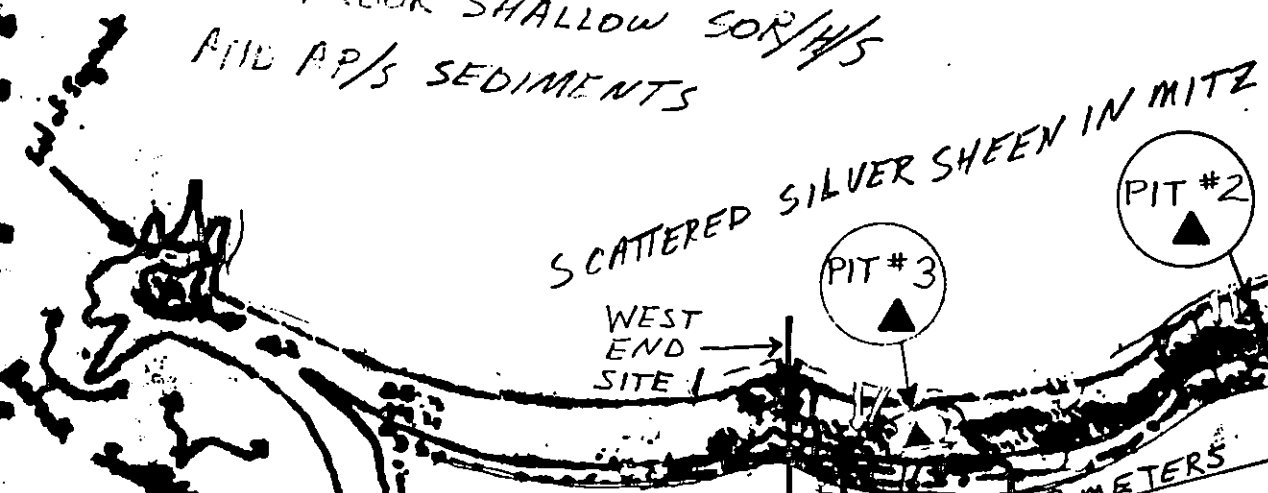
LARGE DRIFT LOG
ROOTS WITH ORANGE
FLAGGING

WEST
END
SITE 1

PIT #3

PIT #2

PHOTO 9



GR-1B

YES
SITE

A

G

GR-1B A

ADOC Subsegment Length: 871m

Subdivision Field Map

Map Key: PUSOR-10A

Name: CHANEY

Date: July 31 90

AS State Place 00000 0:0000

GR-1B

SITE I

PO
S₁

S₂

S₃

0

50 A

100

100

50

SEGMENT GR-1B

Segment Location Map

Map Key: PWSOL-1B

METERS

July 20, 1990

1:7100



GENERAL DATA

SEG ID: GR 1 SBDV: B SITE: 1 TEAM: 1 DATE: 7/31/90
SITE LGTH 465 OIL CATEGORIES: W 170 N 285 VL NO U 416
1991 REASSESSMENT: USCG: N ADEC: X LDMGR: N EXXON: N
NOAA

SURFACE DATA

CHAR #: 1 OIL CHAR: AP OIL DIST: CONT BRKN PTCH SPLH ✓
TIDAL ZONE: SU UI ✓ MI LI

CHAR #: 2 OIL CHAR: SOR OIL DIST: CONT BRKN PTCH SPLH ✓
TIDAL ZONE: SU UI ✓ MI LI

CHAR #: 3 OIL CHAR: CT OIL DIST: CONT BRKN ✓ PTCH SPLH ✓
TIDAL ZONE: SU UI ✓ MI LI

CHAR #: 1 OIL CHAR: OIL DIST: CONT BRKN PTCH SPLH
TIDAL ZONE: SU UI MI LI

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

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TIDAL ZONE: SU UI MI LI

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

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

ASAP DATA ENTRY FORM

SUBSURFACE DATA

PAGE 1 OF 1

SEGMENT ID: GR-01 SUBDIV: B SITE: 1

PIT # 1 PIT DEPTH 15 OIL CHARACTER OF OIL INTVAL: FROM 10 TO 15
CLEAN BELOW: N PIT ZONE: SU UI MI LI

SUBSURF SEDIMENT: BRK X BLD COB PEB GRN SAN MUD VEG

PIT # 2 PIT DEPTH 20 OIL CHARACTER OR OIL INTVAL: FROM 0 TO 20

CLEAN BELOW: N PIT ZONE: SU UI MI LI

SUBSURF SEDIMENT: BRK X BLD COB PEB GRN SAN MUD VEG

PIT # 3 PIT DEPTH 20 OIL CHARACTER OR OIL INTVAL: FROM 0 TO 15

CLEAN BELOW: X PIT ZONE: SU UI MI LI

SUBSURF SEDIMENT: BRK X BLD COB PEB GRN SAN MUD VEG

PIT # PIT DEPTH OIL CHARACTER OIL INTVAL: FROM TO

CLEAN BELOW: PIT ZONE: SU UI MI LI

SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG

PIT # PIT DEPTH OIL CHARACTER OIL INTVAL: FROM TO

CLEAN BELOW: PIT ZONE: SU UI MI LI

SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG

PIT # PIT DEPTH OIL CHARACTER OIL INTVAL: FROM TO

CLEAN BELOW: PIT ZONE: SU UI MI LI

SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG

PIT # PIT DEPTH OIL CHARACTER OIL INTVAL: FROM TO

CLEAN BELOW: PIT ZONE: SU UI MI LI

SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG

PIT # PIT DEPTH OIL CHARACTER OIL INTVAL: FROM TO

CLEAN BELOW: PIT ZONE: SU UI MI LI

SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG

PIT # PIT DEPTH OIL CHARACTER OIL INTVAL: FROM TO

CLEAN BELOW: PIT ZONE: SU UI MI LI

SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG

ADDENDUM: SUBDIVISION CONSTRAINTS

* SEGMENT GR-2 SUBDIVISION A (1 of 1)

WORK WINDOW

Bioremediation Less Than 400m From Active Nest	CLOSED
Bioremediation More Than 400m From Active Nest	WORK 6/15 to 7/1

* EXXON A STUDY SITE # AP-7 - DO NOT REMOVE STAKES FROM BACK OF INTERTIDAL ZONE.

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

2M	Herring Spawning	Closed to bioremediation before 6/15.
5S	Shorebird/Waterfowl Concentration	No constraint after 5/15.
5T	Bald Eagle Nest	USFWS 6/1/90 map indicates an active nest in Subdivision A. Closed to bioremediation within 400m of active nest. No constraint to bioremediation more than 400m from active nest.
7II	Subsistence: Deer Harvesting	Closed to bioremediation after 8/15.
7Z	Subsistence: Salmon Harvesting	Closed to bioremediation after 7/1 per Gail Evenoff/Chenega Corp. to Tom Kelley/Exxon on 6/8/90.

OTHER ECOLOGICAL CONSIDERATIONS

Avoid any unnecessary disturbance or damage to unloiled substrate and biota especially intertidal and subtidal algae and seagrass. 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. Restrict boat and beach disturbance to essential minimum after 7/1.

FOSC

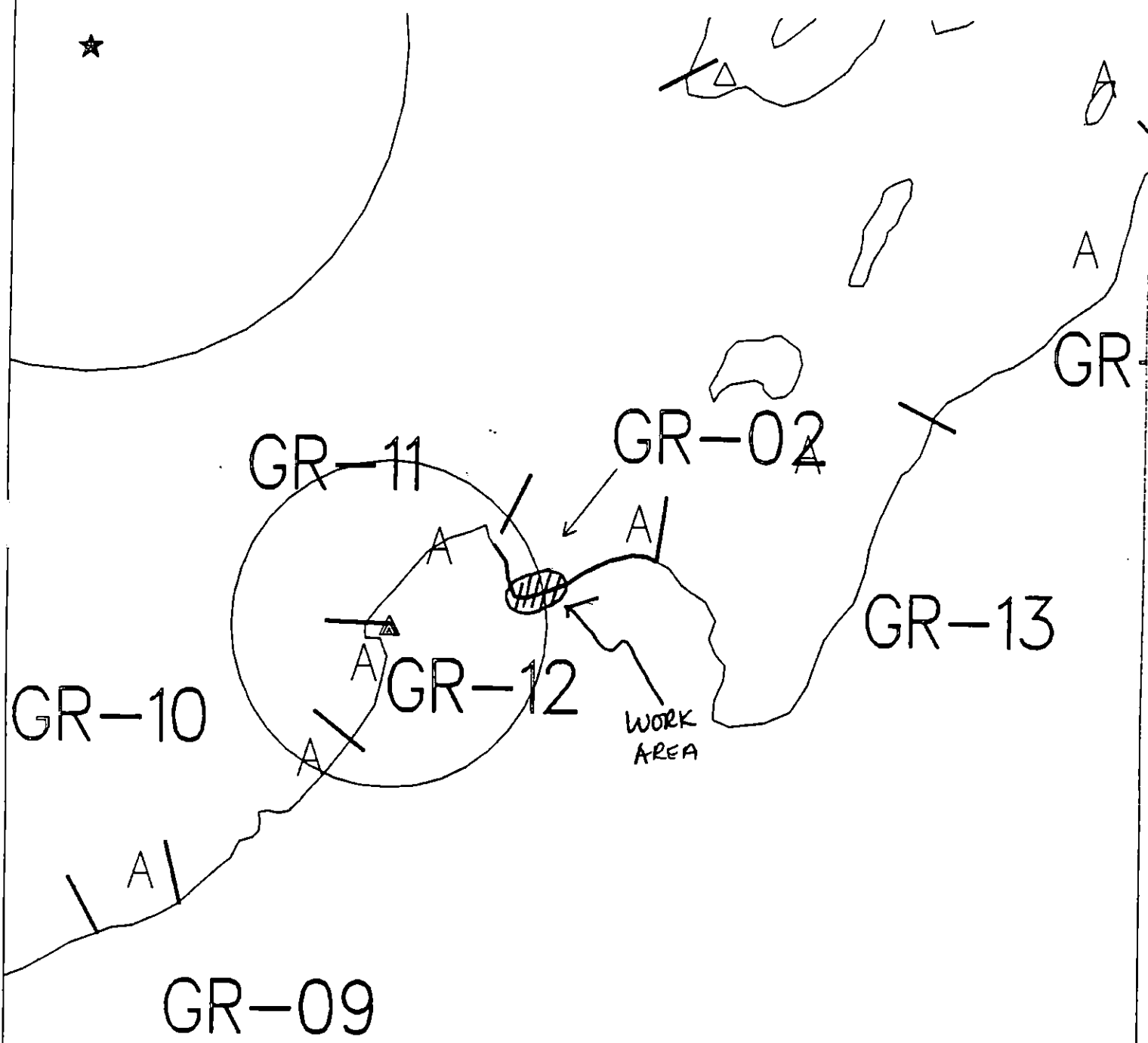
Date

6-12-90

Prepared by

Date

6/11/90



Exxon Company, USA

Map Key: PWS-GR-2

June 04, 1990

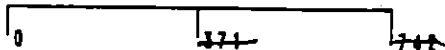


ECOLOGY MAP

SEGMENT GR-2

SUBDIVISION A (1 of 1)

METERS



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

1 inch = ~~1210~~ feet

SHORELINE EVALUATION

SEGMENT ST/ GR-02 SUBDIVISION A (1 OF 1) DATE 3/30/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Shorebird/Waterfowl concentration (5S) - 4/25 to 5/15; Herring spawning (2M) - 4/1 to 6/15; Salmon harvesting (7Z) - 5/1 to 9/30 (consult ADF&G and Chenega Bay for dates); Tent site area (6U) - 6/1 to 9/15; Deer harvesting (7II) - 8/15 to 3/1; Deer habitat - no dates.

SUBDIVISION ECOLOGICAL CONSTRAINTS: Restrict disturbance of rich biota on headlands at east and west end of segment, and the LITZ of central beach area.

ARCHAEOLOGICAL CONSTRAINTS: If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact a member of Exxon's Cultural Resource Program immediately (564-3657; 564-3658 or 564-3276).

SHPO SIGNATURE: Rachel Dan Dale DATE: 4/10/90

OILING CATEGORIZATION:

Wide 101m: Medium 158m: Narrow 0 m: V.Light 167m: No Oil 98 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> </u> Manual Pickup	<u> </u> Absorbents (pads, rolls, etc)
<u>X</u> Bioremediation	<u> </u> Spot Washing: <u> </u> Wands
<u> </u> Tarmat: <u> </u> Breakup	<u> </u> Beach Cleaner
<u> </u> Removal	<u> </u> Other (see comments)

COMMENTS: Recommend bioremediation of areas where cover found.
All work after 6/15 based on herring spawning restraints.

SEE ECOLOGICAL CONSTRAINTS ADDENDUM dated 6/10/90

TAG COMMENTS:

TAG APPROVAL DATE: 4/10/90

ADEC JOHN BAUER

EXXON ANDY GAN

NOAA Burl Abbott

USCG GA REITER

FOSC: DATE:

Do not treat
After - Don't treat

SHORELINE EVALUATION

SEGMENT ST/ GR-02 SUBDIVISION A (1 OF 1) DATE 3/30/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Shorebird/Waterfowl concentration (5S) - 4/25 to 5/15; Herring spawning (2M) - 4/1 to 6/15; Salmon harvesting (7Z) - 5/1 to 9/30 (consult ADF&G and Chenega Bay for dates); Tent site area (6U) - 6/1 to 9/15; Deer harvesting (7II) - 8/15 to 3/1; Deer habitat - no dates.

SUBDIVISION ECOLOGICAL CONSTRAINTS: Restrict disturbance of rich biota on headlands at east and west end of segment, and the LITZ of central beach area.

ARCHAEOLOGICAL CONSTRAINTS: If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact a member of Exxon's Cultural Resource Program immediately (564-3657; 564-3658 or 564-3276).

SHPO SIGNATURE: Rachel Jean Darr DATE: 4/10/90

OILING CATEGORIZATION:

Wide 101m: Medium 158m: Narrow 0 m: V.Light 167m: No Oil 98 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> </u> Manual Pickup	<u> </u> Absorbents (pads, rolls, etc)
<u>X</u> Bioremediation	<u> </u> Spot Washing: <u> </u> Wands
<u> </u> Tarmat: <u> </u> Breakup	<u> </u> Beach Cleaner
<u> </u> Removal	<u> </u> Other (see comments)

COMMENTS: Recommend bioremediation of areas where cover found.
All work after 6/15 based on herring spawning restraints.

TAG COMMENTS:

TAG APPROVAL DATE: 4/10/90
ADEC JOHN BAUER
EXXON ANDY GAN
NOAA Burl G. Wright
USCG G.A. REITER

FOSC: DATE: 4-19-90

Do not bioremediate!
NOAA

3 Plan Marie ch

SKETCH MAP

SEGMENT ST/ QR wa

DIVISION Nemo

DATE March 30/90

CHECKLIST

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

LEGEND

1 ▲
 No Subsurface Oil

2 ▲
 Subsurface Oil

CT/C
 Continuous Distribution

CT/B
 Isolated Distribution

CT/P
 Patchy Distribution

CT/S
 Streaked Distribution

Oil Vegetation

→
 to location, direction,
 number

Character Length (m): AP — PO — CV 40 CT — ST 10 MS — PT — TB — FL — NO —

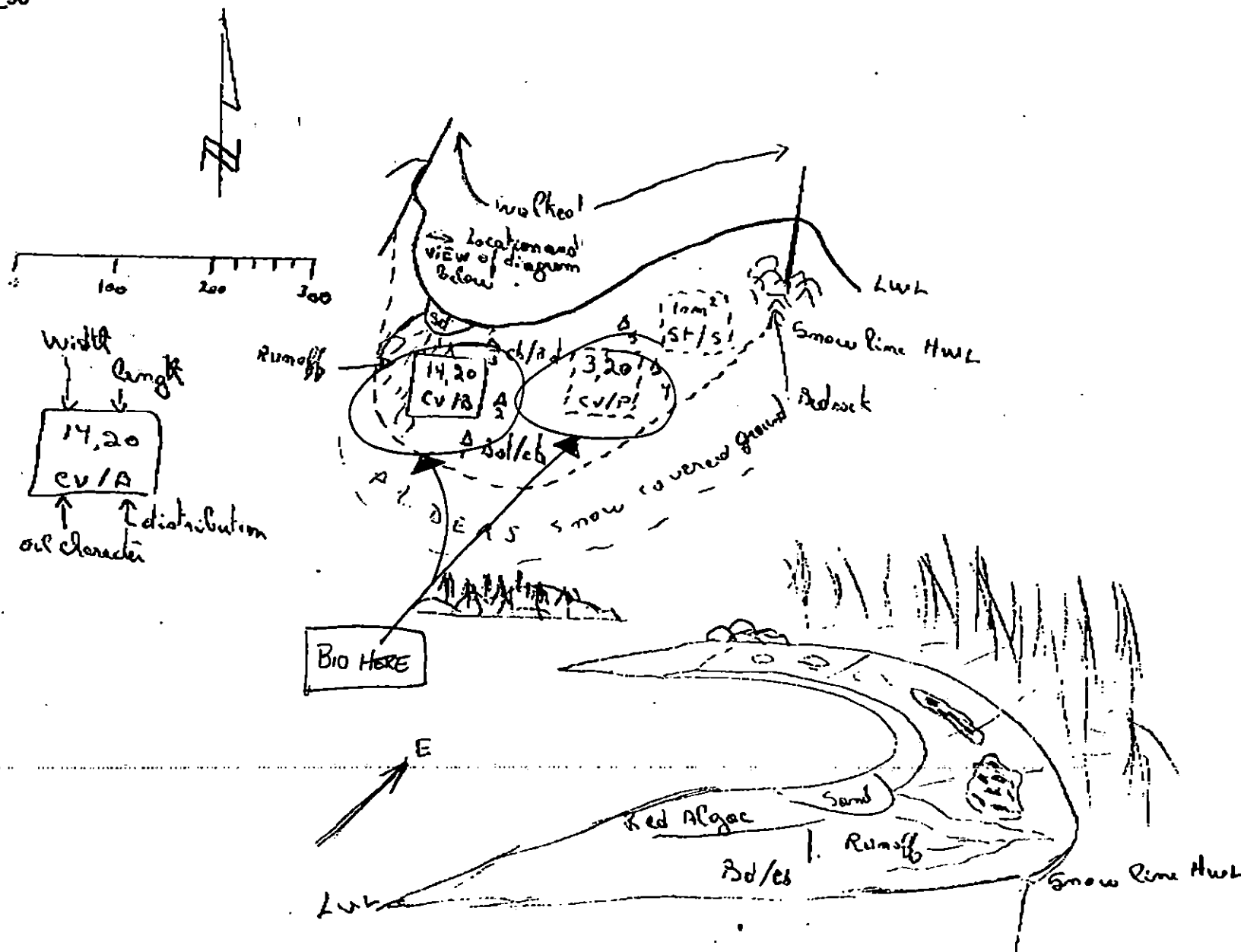
REVISION: 930419

APR-01-1990 20:02 FROM DON BOLLINGER 2152

TO

SCHE P. 10

QR-02 P. 3 of 6



GR-02 p. 4 of 6

GR-02

GR-12

XXXX Wide
//// Medium
--- Narrow

GR-2

ADEC Segment Length: 523m

Map Key: PWS-258

Name: Don Marie Sample

WORK PLAN ADDENDUM

Segment GR-02

Subdivision A

Dated 7/5/90

MODIFICATION

1. REASON FOR MODIFICATION

Add manual pick up to additional work area.

2. ADJUSTMENT TO WORK PLAN

Manual pick up of oiled boom and bag of oiled trash from area indicated on attached map

SHPO APPROVAL NEEDED YES X SHPO SIGNATURE Rachel Jean Dike 7/5/90
NO

TAG APPROVAL DATE 7/5/90

ADEC Ray Moncrie R. Moncrie

EXXON ANDY GEAR Andy Gear

NOAA Joseph Talbot Joseph Talbot

USCG G.A. REITER G.A. Reiter

FOSC W L DATE 7-10-90

SEGMENT: GR 002 SUB: A REGION: PWS SURVEY DATE: 4/29/91

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

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

SHPO Signature: Charles E. Jones Date: 5/9/91

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

INITIAL: _____

TAG: _____

FOSC: _____

TAG APPROVAL DATE: MAY 9 1991 FOSC APPROVAL DATE: 5/13/91

ADEC [Signature] FOSC [Signature]

EXXON Deal E. E. TROTT, JR., USCG
CHIEF OF STAFF, EOSC

USCG *[Signature]*

NOAA John C. Lane

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

**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.

Herring Spawning: No treatment before June 1. Avoid disturbance to kelp and eelgrass.

Subsistence, Deer Harvesting: Unlimited treatment prior to 8/15.

Subsistence, Salmon Harvesting: 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.

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. Three SEGMENT GR 002 SUBDIVISION A DATE 4/29/91

ADEC

NAME Wesley Ghormley SIGNATURE Wesley Ghormley

☒ NTR ☐ TREATMENT RECOMMENDED

• Survey crew removed old mousse patties that were not retrieved in 1990. STAINS on some boulders thru-out subdivision. Signs of 1990 INIPOL Treatment on rocks.

- Dead sea Lion (with bullet hole present) observed-

EXXON

NAME Jon P. Czarnicki SIGNATURE Jon P. Czarnicki

☒ NTR 12 pits no sub-surface oil. Broke up some S.O.R. in upper Inner Tide zone. No major surface oiling. Picked up what was there while on survey.

LANDMANAGER

NAME Carol S. Huber OF US Forest Service SIGNATURE Carol S. Huber

☒ NTR No subsurface, and minor surface oil. Lots of fresh water flushing beach. This one is better left to nature.

USCG/NOAA

NAME MOOREY SIGNATURE Tim Moorey

☒ NTR Some Patties in segments (the patties broken up and dispersed around area. Good fresh water channel along beach from SUTZ.

PAGE 1 OF 1

DATE 4 12 / 91

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 101 m NO 422 m US 0 m

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

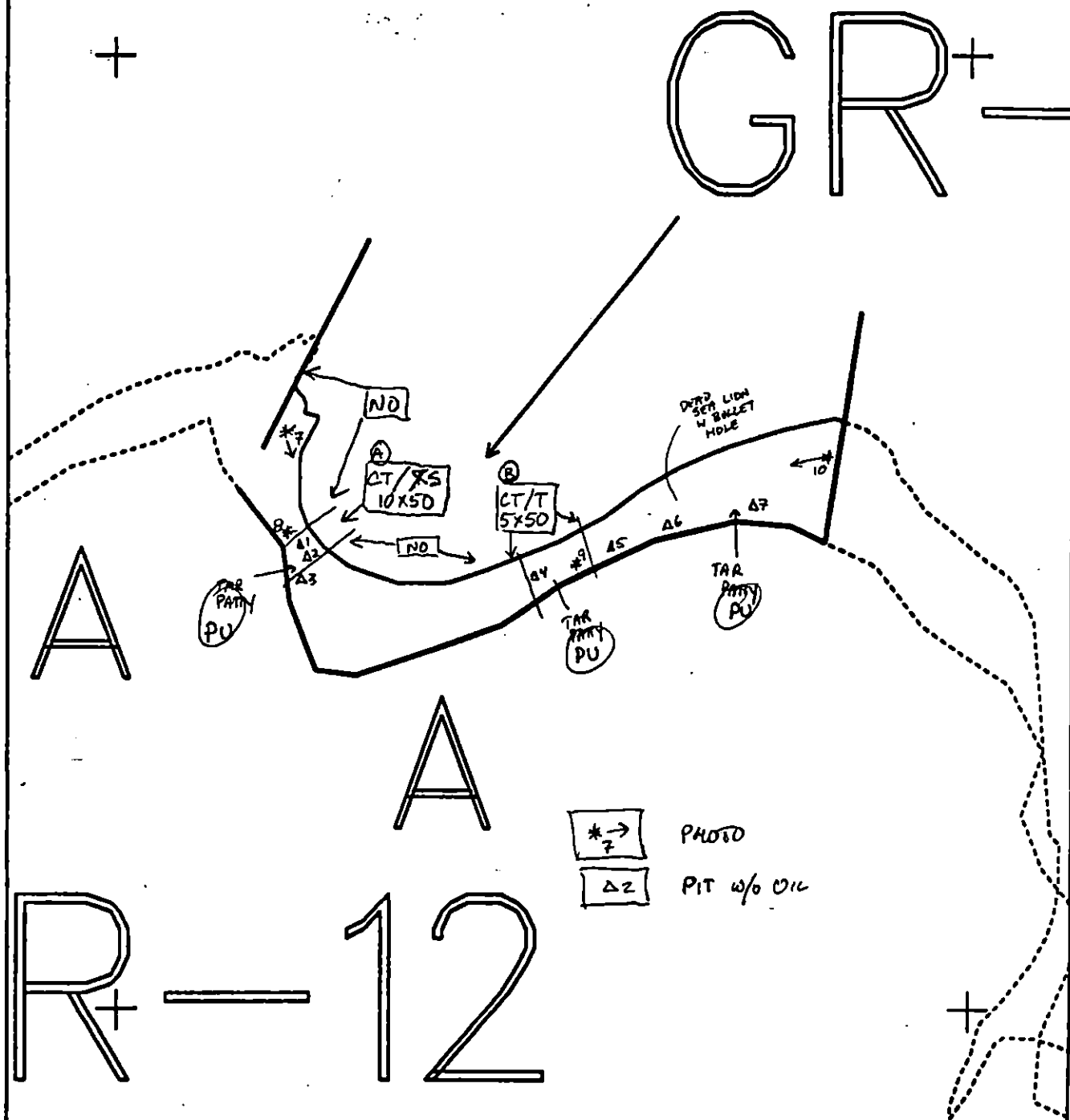
SLOPE: V = VERTICAL; H = HIGH ANGLE; M = MEDIUM ANGLE; L = LOW ANGLE

PHOTO ROLL # MAYSAP- 3 - 4 FRAMES 6-10

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

no subsurface ciling was observed in the pits and it very unlikely given the lack of surface ciling and fresh water runoff over the beach.

REVIEWED: F.W. 5/2/91
REVIEWED: MC 5/2/91

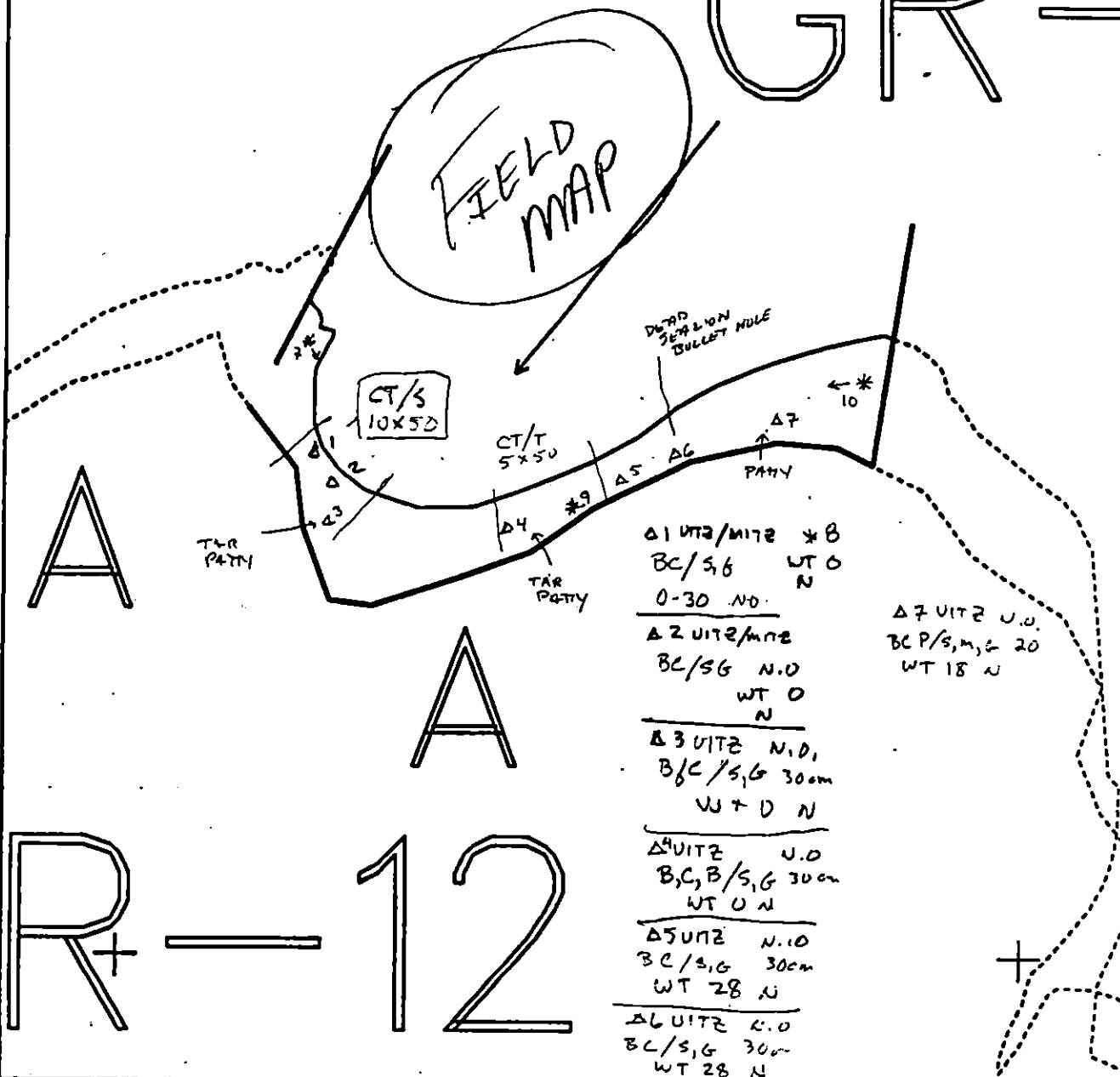


XXXX	Wide	GR002 A	Subdivision Field Map
////	Medium	ADEC Subsegment Length: 523m	Map Key: PWSGR002A
----	Narrow	METERS	Name: <u>HARPER</u>
TTTT	Very Light	0 100 200	Date: <u>29 APR 91</u>
0000	No Oil	AK State Plane Zone 4	Data Entered:
		pg002a	

REVIEWED: F.W. 5/2/91 OG 2 of 4
 REINTERVIEWED: M.C. 5/1/91
 REVISOR

GR-002
29 APRIL 91
0735 -
+

GR+



XXXX	Wide	GR002 A	Subdivision Field Map
////	Medium	ADEC Subsegment Length: 523m	Map Key: PW5GR002A
----	Narrow	METERS	Name: <u>HARPER</u>
TTTT	Very Light	0 100 200	Date: <u>29 APR 91</u>
0000	No Oil	AK State Plane Zone 4 pg002a	Date Entered:

FIELD MAP

REVIEWED: F.W. 5/2/91

OB 4 of 4

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 3

DATE 4/29/91

SEGMENT # G02

TIDAL HEIGHT(Range) -1' to -2'

SUBDIVISION A

BIOLOGIST STOKOR

SEA STATE 1-2'

WIND SPEED/DIRECTION

PHOTOGRAPHS: ROLL #

FRAME #

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

Moderate energy beach of cobble/boulder with bedrock outcrop. Biota relatively sparse in upper intertidal, increasing downslope through MTZ-LTZ. Biota in lower intertidal includes Fuus (some new growth), Halosaccora & unidentified red algae, ulva, limpets (dense concentrations of small individuals), barnacles and spat, chitons (Tonicella?), Scaevola, Rugellia, amphipods, Littorina, Mytilus, Pisaster, Leptasterias and eel blennies. Barnacle density increases in MTZ, lower in LTZ. Mytilus, Littorina only found in MTZ.

Biota generally sparse in upper intertidal within zone of remaining oil, increasing downslope as described above. In general, biota appears healthy and is relatively abundant and diverse, with evidence of new growth and recent recruitment. If any further treatment is undertaken, care should be used to not disturb established biota.

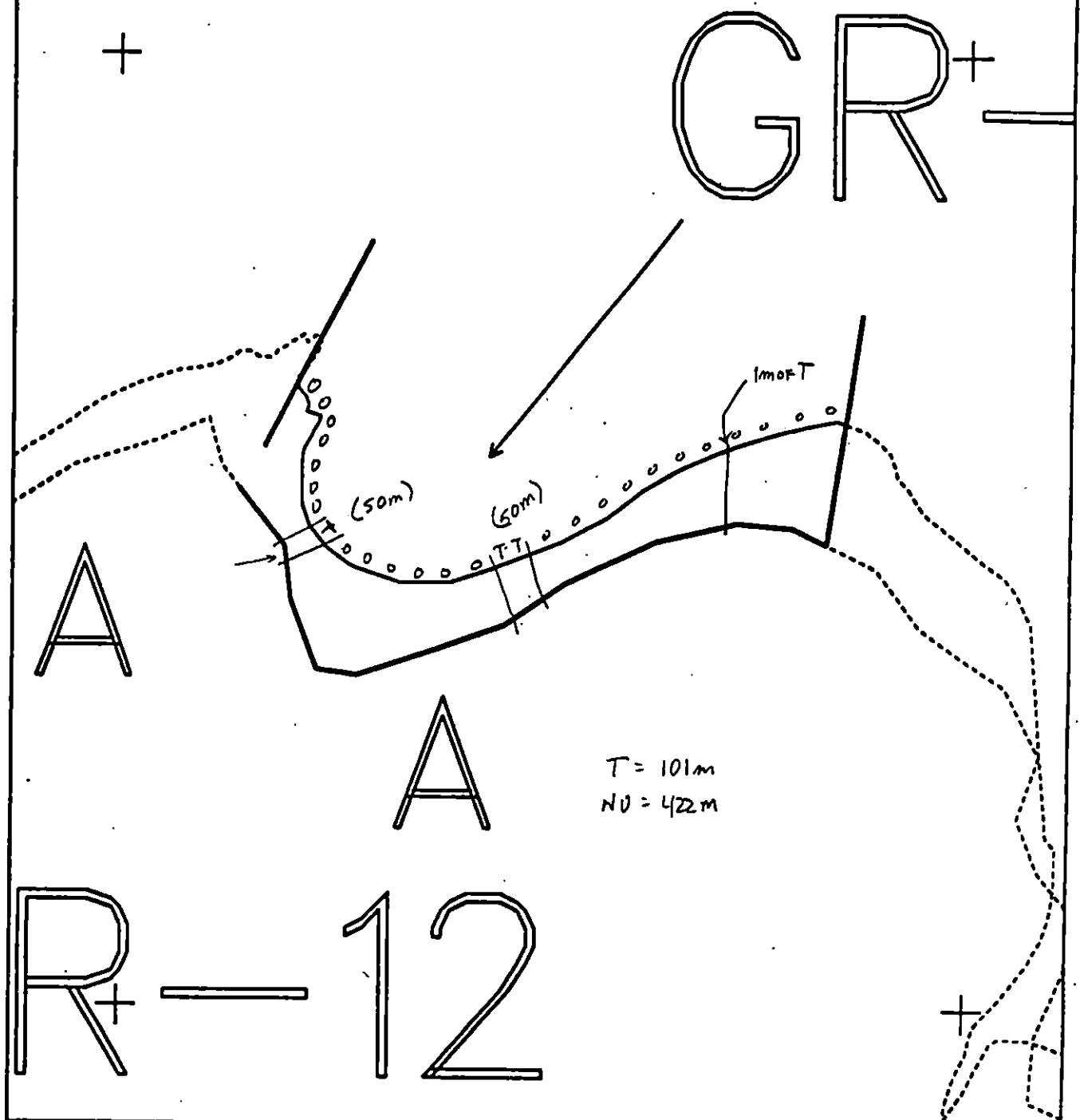
WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1	2 adults	eel blennies
Seabirds	2	4	
Waterfowl	2	4	
Gulls/kittiwakes	2	20-30	
Shorebirds			
Corvids	1 (crows)	4	
Other Birds			

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters	1		
Pinnipeds(specify)			
Sea lion	1 dead (shot)		
Whales(specify)			

Shoreline subdivision map showing important biological features attached.



XXXX	Wide	GR002 A ADEC Subsegment Length: 523m METERS 0 100 200 AK State Plane Zone 4 pg002a	Subdivision Field Map Map Key: PWSGR002A Name: <u>HARPER</u> Date: <u>29 APRIL 91</u> Date Entered:
////	Medium		
----	Narrow		
TTTT	Very Light		
0000	No Oil		

REVIEWED: F.W. 5/2/91 OG 3af 4

REVIEWED: M.C. 5/2/91

1991 MAYSAP EVALUATION

SEGMENT: GR 002 SUB: A REGION: PWS SURVEY DATE: 4/29/91

ENVIRONMENTAL SENSITIVITIES:

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

Ecological/Constraints (see page two for details) **Eagle nest,**
Herring spawning, Subsistence, deer harvesting, Subsistence,
salmon harvesting

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.

Herring Spawning: No treatment before June 1. Avoid disturbance to kelp and eelgrass.

Subsistence, Deer Harvesting: Unlimited treatment prior to 8/15.

Subsistence, Salmon Harvesting: 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.

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. Three SEGMENT GR 002 SUBDIVISION A DATE 4/22/91

ADEC

NAME Wesley Gbormley SIGNATURE Wesley Gbormley☒ NTR ☐ TREATMENT RECOMMENDED

- Survey crew removed old mousse patties that were not retrieved in 1990. STAINS on some boulders thru-out subdivision. Signs of 1990 INIPOL Treatment on rocks.
- Dead sea Lion (with bullet hole present) observed-

EXXON

NAME Jon P. Czernicki SIGNATURE Jon P. Czernicki

☒ NTR 12 pds no sub-surface oil. Pick up some ~~to~~ S.O.R. in upper Inner Tide zone. No major surface oiling. Picked up what was there while on survey.

LANDMANAGER

NAME Carol S Huber OF US Forest Service SIGNATURE Carol S. Huber

☒ NTR No sub-surface, and minor surface oil. Lots of fresh water flushing beach. This one is better left to nature.

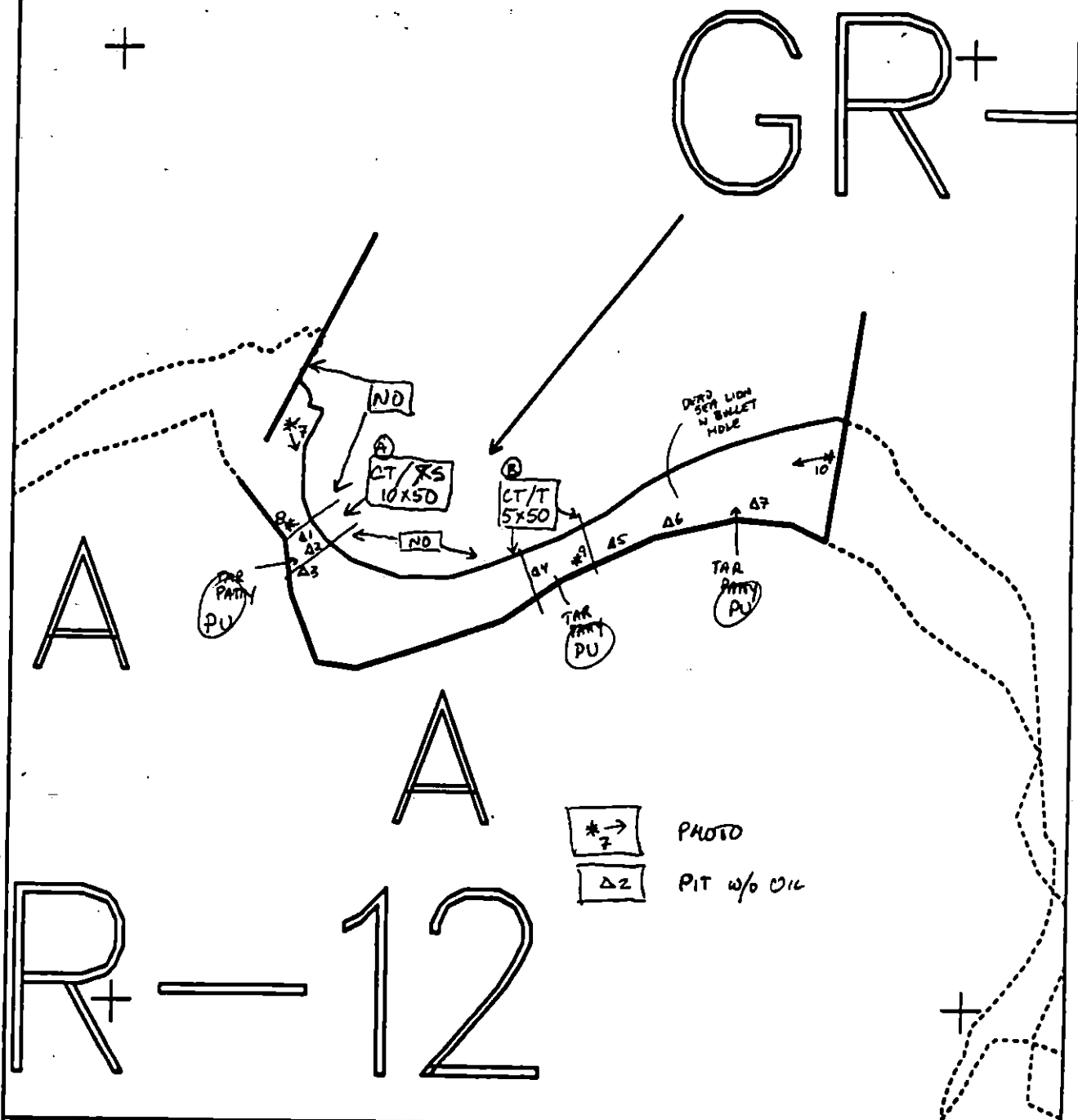
USCG/NOAA

NAME MOOREY SIGNATURE Tim Moorey

☒ NTR Some Patties in SEAMENTS (The Patties broken up and dispersed around area. Good FRESH WATER CHANNEL ALONG BEACH FROM SUITE.

REVIEWED: F.W. 5/2/91
REVIEWED: MC 5/2/91

OG 1 of 4



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

GR002 A
 ADEC Subsegment Length: 523m
 METERS
 5 100 200
 AK State Plane Zone 4
 pr002a

Subdivision Field Map
 Map Key: PWSGR002A
 Name: HARPER
 Date: 29 APR 91
 Date Entered:

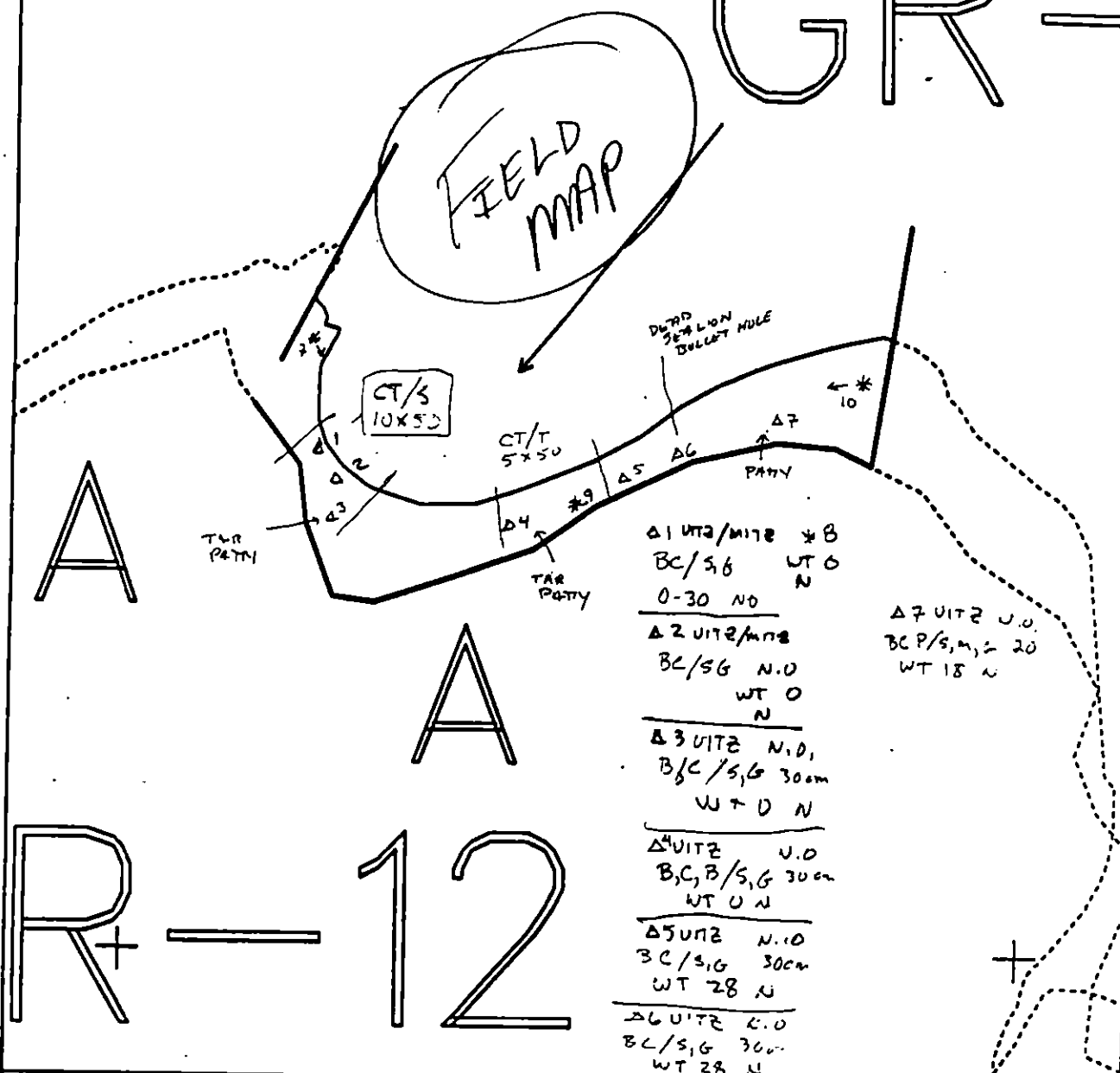
REVIEWED: F.W. 5/2/91
 REENTRANCE: M.L. 5/2/91
 REVISOR

OG 2 of 4

GR-002
29 APRIL 91
0735 -



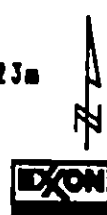
GR+



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

GR002 A
ADEC Subsegment Length: 523m
METERS

AK State Plane Zone 4
pg 002a



Subdivision Field Map
Map Key: PWSGR002A
Name: HARPER
Date: 29 APR 91
Data Entered:

FIELD MAP

REVIEWED: F.W. 5/2/91
OB 4 of 4

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 3

DATE 4/29/91

SEGMENT # G02

TIDAL HEIGHT(Range) -1' to -2'

SUBDIVISION A

BIOLOGIST STOKOR

SEA STATE 1-2'

WIND SPEED/DIRECTION

PHOTOGRAPHS: ROLL #

FRAME #

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

Moderate energy beach of cobble/boulder with bedrock outcrop. Biota relatively sparse in upper intertidal, increasing downslope through MTZ-LTZ. Biota in lower intertidal includes Eucema (some new growth), Heterosaccus & unidentified red algae, ulva, limpets (dense concentrations of small individuals), barnacles and spat, chitons (Tonicella?), Scapharia, Puzosia, amphipods, Littorina, Mytilus, Pisaster, Leptasterias and eel blennies. Barnacle density increases in MTZ, lower in LTZ. Mytilus, Littorina only found in MTZ.

Biota generally sparse in upper intertidal within zone of remaining oil, increasing downslope as described above. In general, biota appears healthy and is relatively abundant and diverse, with evidence of new growth and recent recruitment. If any further treatment is undertaken, care should be used to not disturb established biota.

WILDLIFE OBSERVATIONS

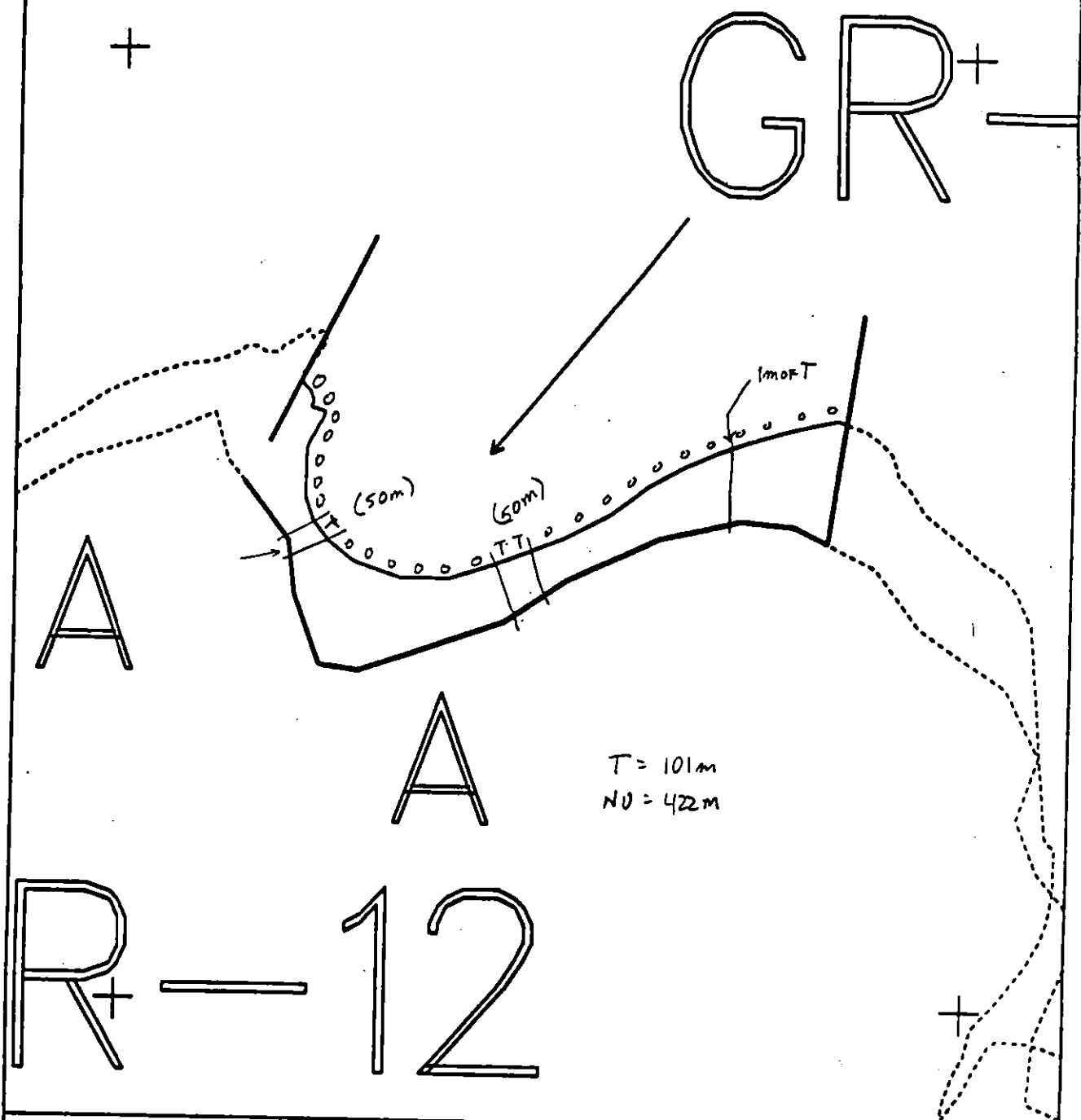
TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1	2 adults	eel blennies
Seabirds	2	4	
Waterfowl	2	4	
Gulls/kittiwakes	2	20-30	
Shorebirds			
Corvids	1 (crow)	4	
Other Birds			

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters	1		
Pinnipeds (specify)			
Sea lion	1 dead (shot)		
Whales (specify)			

Shoreline subdivision map showing important biological features attached.

Reviewed 5/2/91 Lm



XXXX	Wide	GR002 A	Subdivision Field Map
////	Medium	ADEC Subsegment Length: 523m	Map Key: PWSGR002A
----	Narrow	METERS	Name: <u>HARPER</u>
TTTT	Very Light	0 100 200	Date: <u>29 APRIL 91</u>
0000	No Oil	AK State Plane Zone 4 pr002a	Date Entered:

REVIEWED: F.W. 5/2/91 OG 3 of 7
 REVIEWED: M.C. 5/2/91

ASAP

WORK PLAN MODIFICATION RECOMMENDATION

SEGMENT GR-2 SUBDIVISION A (site #2) DATE 7/31/90

MODIFICATION CLASS I

1. REASON FOR MODIFICATION

Small patches of asphalt/pavement sporadic thru-out site #2.

2. SUGGESTED ADJUSTMENT TO WORK PLAN

Manual removal of small sporadic A/P patches using available hand tools.

3. TIMING ISSUES

72 - Salmon Harvesting 8/1 - 9/30 (Consult ADFG and Cheney Bay for dates)

60 - Tent site area 6/1 - 9/15.

72 - Deer harvesting 8/15 - 3/1

Deer habitat - no dates.

ADEC

EXXON

NOAA-USGS

LAND MANAGER

Wesley Shumley

Ray Gitt

Art Weiner

John Bell

(if field rep is on scene)

TAG: NTR

FIELD SHORELINE COMMENT SHEET

SEGMENT AS/ GR 2 SUBDIVISION: A SITE: 1 DATE 7-31-90

ISCG NOAA PSI Leo Bersalona, USCG Leo Bersalona

NAME Art Weiner SIGNATURE Art Weiner

☒ YES ☐ NO PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

TO ASSESS EFFECTS OF BIOREMEDIATION AND WINTER WEATHERING

ADEC

NAME Wesley Ghormley SIGNATURE Wesley Ghormley

☒ YES ☐ NO PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

Reassessment will be necessary to determine the effects of bioremediation.

LAND MANAGER

NAME John Abel SIGNATURE John Abel

☒ YES ☐ NO PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

To Evaluate bioremediation effects

EXXON

NAME Ray Sotelo SIGNATURE Ray Sotelo

☐ YES ☒ NO PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

No further assessment should be necessary.

TAG: NTR

FIELD SHORELINE COMMENT SHEET

SEGMENT AS/ GR 2 SUBDIVISION: A SITE: 2 DATE 7-31-90

ISCG NOAA PSI Wed Bernalona, USCG Les Bernalona

NAME Art Weiner SIGNATURE Art Weiner

☐ YES

☒ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

Proposed MANUAL REMOVAL will ELIMINATE ACCESSIBLE OIL.

ADEC

NAME Wesley Ghormley SIGNATURE Wesley Ghormley

(To be determined upon completion of work modification)

☐ YES

☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

Reassessment should be determined upon completion of work requested on modification. If proper removal is applied reassessment will not be necessary at this time.

LAND MANAGER

NAME _____ SIGNATURE _____

☐ YES

☒ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

Reassessment after work modification completed by demob. crew.

EXXON

NAME Ray Sotelo SIGNATURE Ray Sotelo

☐ YES

☒ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

No reassessment should be necessary if work is completed in '90 as specified in work modification plan.

FIELD SHORELINE COMMENT SHEET

SEGMENT AS / GR 2 SUBDIVISION: A SITE: 3 DATE 7-31-90

USEG NOAA PSI Leo Bersillon & USCG Lt. Bercaloni

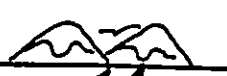
NAME ART WEINER SIGNATURE Art Weiner

☒ YES ☐ NO PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

TO ASSESS EFFECTS OF INIPOL + WINTER WEATHERING.

ADEC

NAME Wesley Ghormley SIGNATURE Wesley Ghormley 

☒ YES ☐ NO PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

Inipol was applied on 7/31/90, so Reassessment will be necessary to determine the effects of bioremediation.

LAND MANAGER

NAME John Ebel SIGNATURE John Ebel

☒ YES ☐ NO PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

To evaluate the result of bio treatment on existing oil condition; and to assess if further treatment is useful with existing technology

EXXON

NAME Ray Settel SIGNATURE Ray Settel

☐ YES ☒ NO PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

This site was bioremediated following ASAP ~~survey~~ survey. No further reassessment is necessary.

SITE 3

CHARACTER	DISTRIBUTION				OILED ZONES			
	/C	/B	/P	/S	SU	U	M	L
ASPHALT								
S.O.R.								
POOLED								
COVER								
COAT		X				X		
STAIN								
MOUSSE								
PATTIES/T.B.								
FILM								
NO OIL					X		X	X
EST. SITE LENGTH					4x4m			

[illegible][illegible]

SUBSURFACE OIL

[illegible]**Photographs:**

Roll No. ASAP2 Roll #

Frames 11, 12, 13

COMMENTS Site #1 is a small area but its broken coat was noted in this area. Random splashed coats were observed between the sites. Site #2 has a splashed coat. Site #3 has an area in center roughly 10x10m CT/B. The rest of site 3 is CT/P. Oil seems to have a "bubbled" rough appearance possibly from 1st Inipol application. 2nd application is a little smoother.

COMMENTS Site #1 is a small area but its broken coat was located in this area. Random splashed coats were observed between the sites. Site #2 has a splashed coat. Site #3 has an area in center roughly 10x10m CT/B. The rest of site 3 is CT/P. Oil seems to have a "bubbled" rough appearance possibly from 1st Imipol applicat.

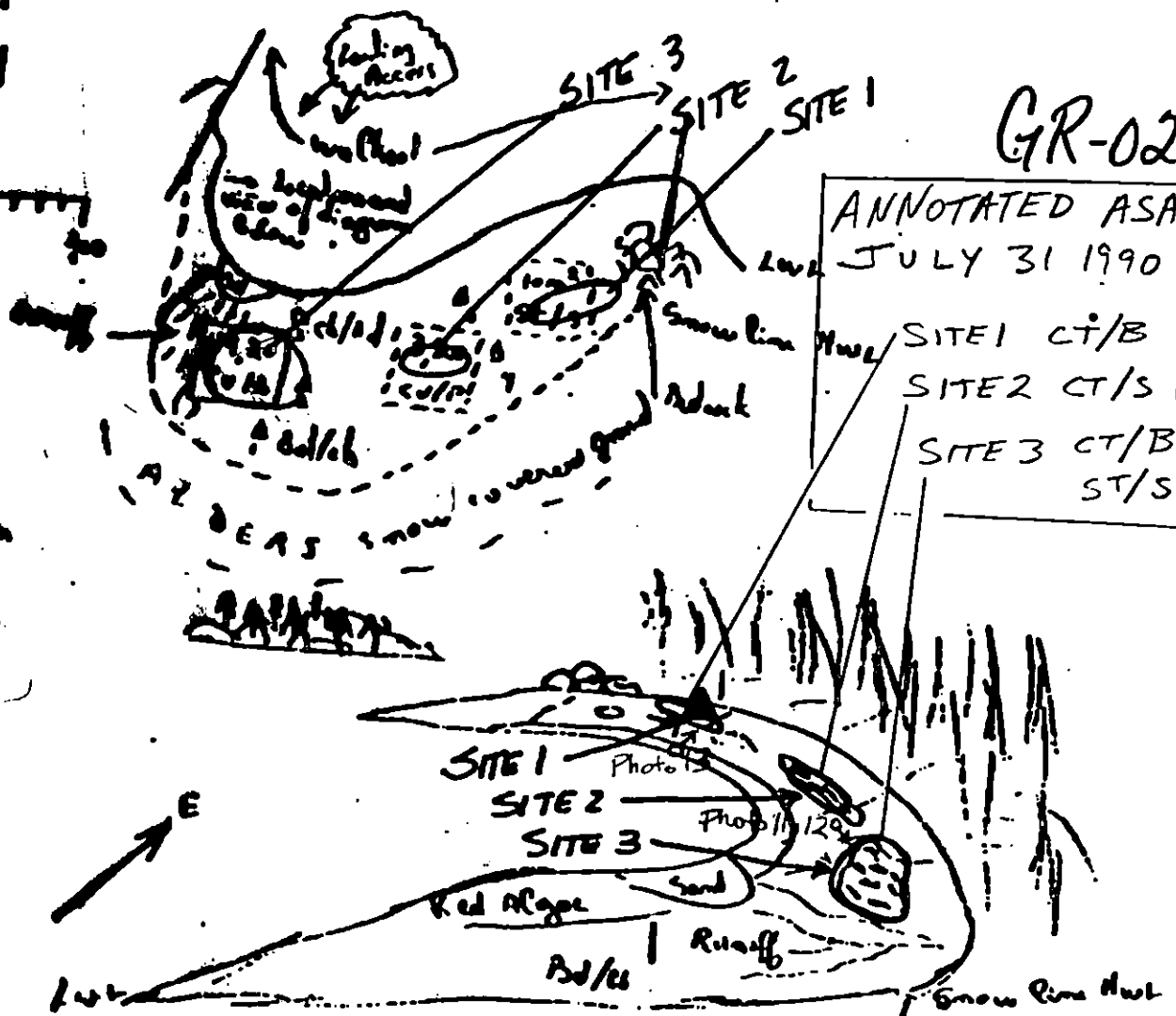
SKETCH MAP

Page 4 of 4

GR-02

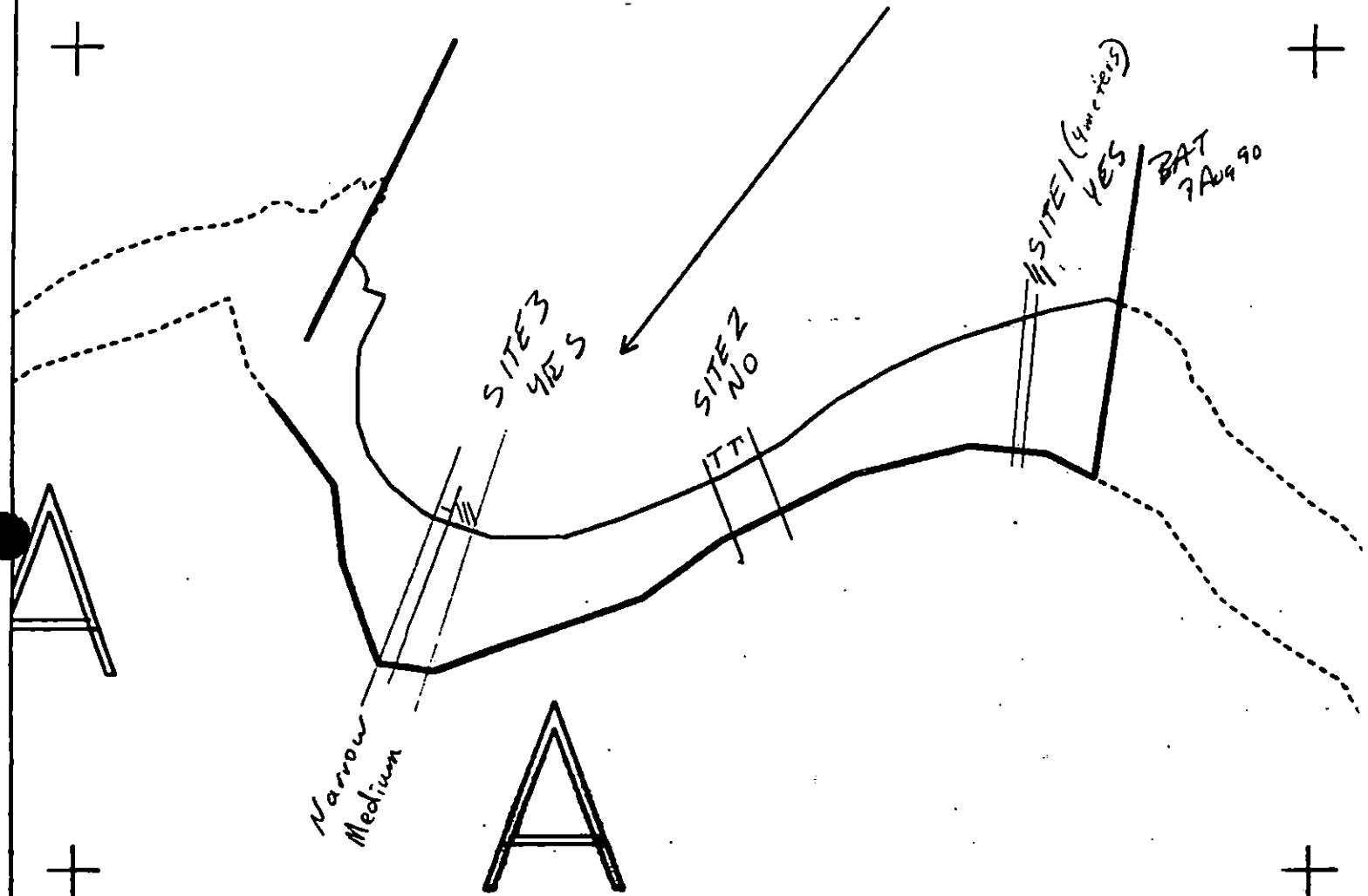
GR-02-A

ANNOTATED ASAP
JULY 31 1990 CHANE,
SITE 1 CT/B (4x4m)
SITE 2 CT/S (20x3)
SITE 3 CT/B (20x1)
ST/S



GR-02-A - PO - CV H₂O CT - ST 10 - NO - PT - TE - FL - NO

GR-



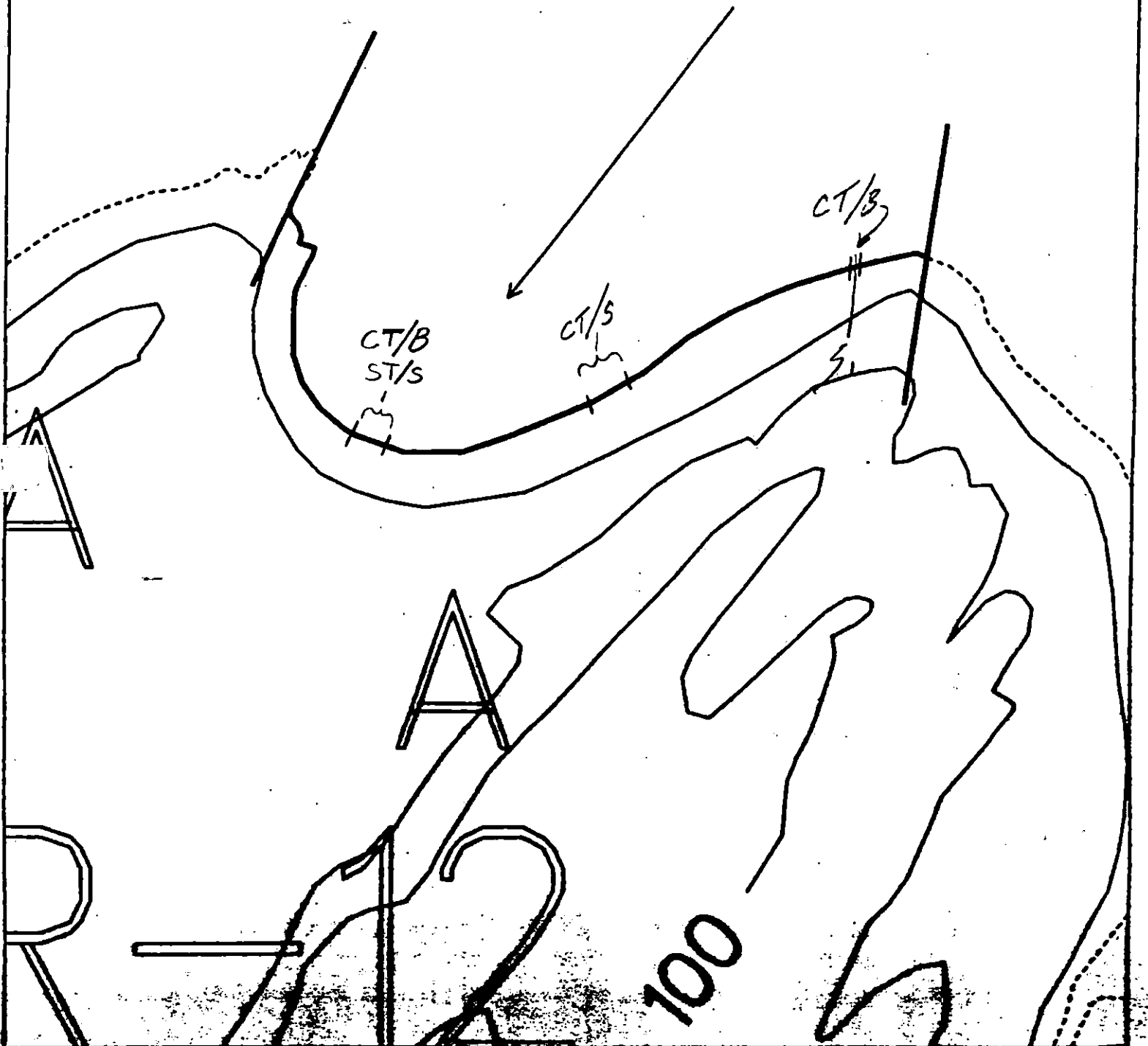
R-12

Subdivision Field Map

Map No: 90103-2A

THOMAS CHANEY

GR-



SEGMENT GR-2

Segment Location Map

Map No: 70562-2

July 19, 1969

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/GR-03

SUBDIVISIONS: A (1 OF 1)

SHORELINE EVALUATION

SEGMENT ST/ GR-03 SUBDIVISION A (1 OF 1) DATE 4/5/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

2M Herring spawning (4/1 to 6/15)
5S Shorebird/Waterfowl concentration (4/1 to 5/15)
5T All eagle nest (3/1 to 6/1)-Active eagle nest (3/1 to 9/1)
6U Recreation: Tent sites (6/1 to 9/15)
7Z Subsistence area: Salmon harvesting (5/1 to 9/30)
7II Deer harvesting (8/15 to 2/28)
9FF Deer habitat

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 0 m: Medium 98 m: Narrow 0 m: V.Light 246 m: No Oil 0 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: _____ Breakup	_____ Beach Cleaner
_____ Removal	_____ Other (see comments)

COMMENTS: _____

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

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

9FF

Dear Habitat

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / GL 03A SUBDIVISION: NO Sub Division DATE 25 APR 96

JSCG

NAME James C. Gambill SIGNATURE James C. Gambill

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

Patchie Oil Spot: Natural Cleanly will probably take care of it

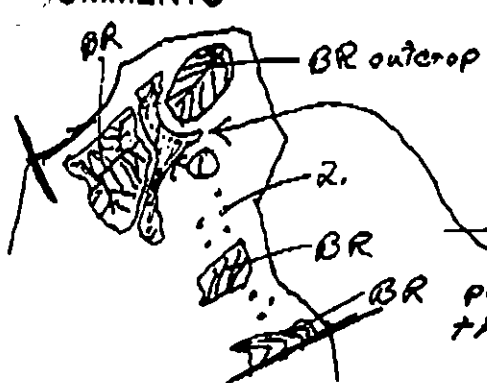
ADEC

NAME Brian K. FitzSimons SIGNATURE Brian K. FitzSimons

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS


 1 Broken Coat B → CT
 0-10m → PFS → OP
 BR → CT } Located in saddle of peninsula and extending in @ 10m band to south for 50m.
 2. Discontinuous Mousse splashes
 possibly treat saddle on peninsula w Bio (if possible use HIGHT Waderlood 12) - Exposure is such that natural wave action may be sufficient

LAND MANAGER

NAME Carol S Huber SIGNATURE Carol S Huber

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

Recommend continued natural cleansing. Oiling mostly splashy. Numerous resource sensitivities include; pinniped pupping and molting, subsistence deer harvesting, seabird colony, shorebird concentration, bald eagle nests, special use destination and herring spawning. Bear scat observed above beach.

SHORELINE OILING SUMMARY

REVISION NO. 03/22/90

OG B. Berglund USCG J. Gamble SEGMENT ST/ GR-3
 BIO S. Schroeder LAND REP C. Hubes (NES) SUBDIVISION A (1081)
 EXXON C. Levine ADEC B. Fritzsims TIME 18:15 to 19:00
 TEAM NO.: 2 TIDE LEVEL: 1.7 to 2.2 DATE 4/5/90
 EST. SUBDIVISION LENGTH: 438 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 40 % C 10 % P 10 % G 10 % S 0 % M 0 % V 0 %
 SLOPE: Long 80 % Hang 20 % Vert 0 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 256 m N 0 m VL 187 m NO 0 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES				
	C	B	P	S	BR	OR	OL	OF	NO	CM	CR	CL	TL	SU	U	M	U
ASPHALT PAVEMENT																	
POOLED																	
COVER																	
COAT			X	✓			X								✓	X	
STAIN																	
MOUSSE																	
PATTIES																	
TARBALLS																	
FILM				X			X								X		
NO OIL														X		X	X

PAVEMENT: H F S None sq. m by 0 cmPATTIES / TARBALLS None BAGSNEAR SHORE SHEEN? ☒ BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☐ YES ☒ NOTYPE 0#BAGS 0

Photographs:

Roll No. ST-1-3Frames 9

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	BR BR	OR OR	OL OL	OF OF	NO NO	CM CM	CR CR	CL CL	TL TL	LR LR			SU	UI	MI
1	30					X	-		X										X					P/G
2	30					X	-		X										X					P/G
							-																	
							-																	
							-																	
							-																	

COMMENTS

The segment is relatively oil free except for the very tip of the bedrock point. In this locality there is a patchy coat, confined to locally low areas (cracks, depressions) which have collected gravels. Gravel sediments are saturated up to 1cm thick. Boulder and bedrock surfaces are oil free.

This oiling zone is located only near the HWL (upper, upper intertidal).

Subsurface oiling does not appear present on the rocky beach.

REVIEWED JKDATE 4-9-90

OG B. Mangrove

SEGMENT SR-3

SUBDIVISION A

DATE 4/5/90

CHECKLIST

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

LEGEND

1 Pit - No Subsurface Oil

2 Pit - Subsurface Oil

CT/C
Continuous Distribution

CT/B
Broken Distribution

CT/P
Patched Distribution

CT/S
Splashed Distribution

Oiled Vegetation

1 Photo location, direction, and number

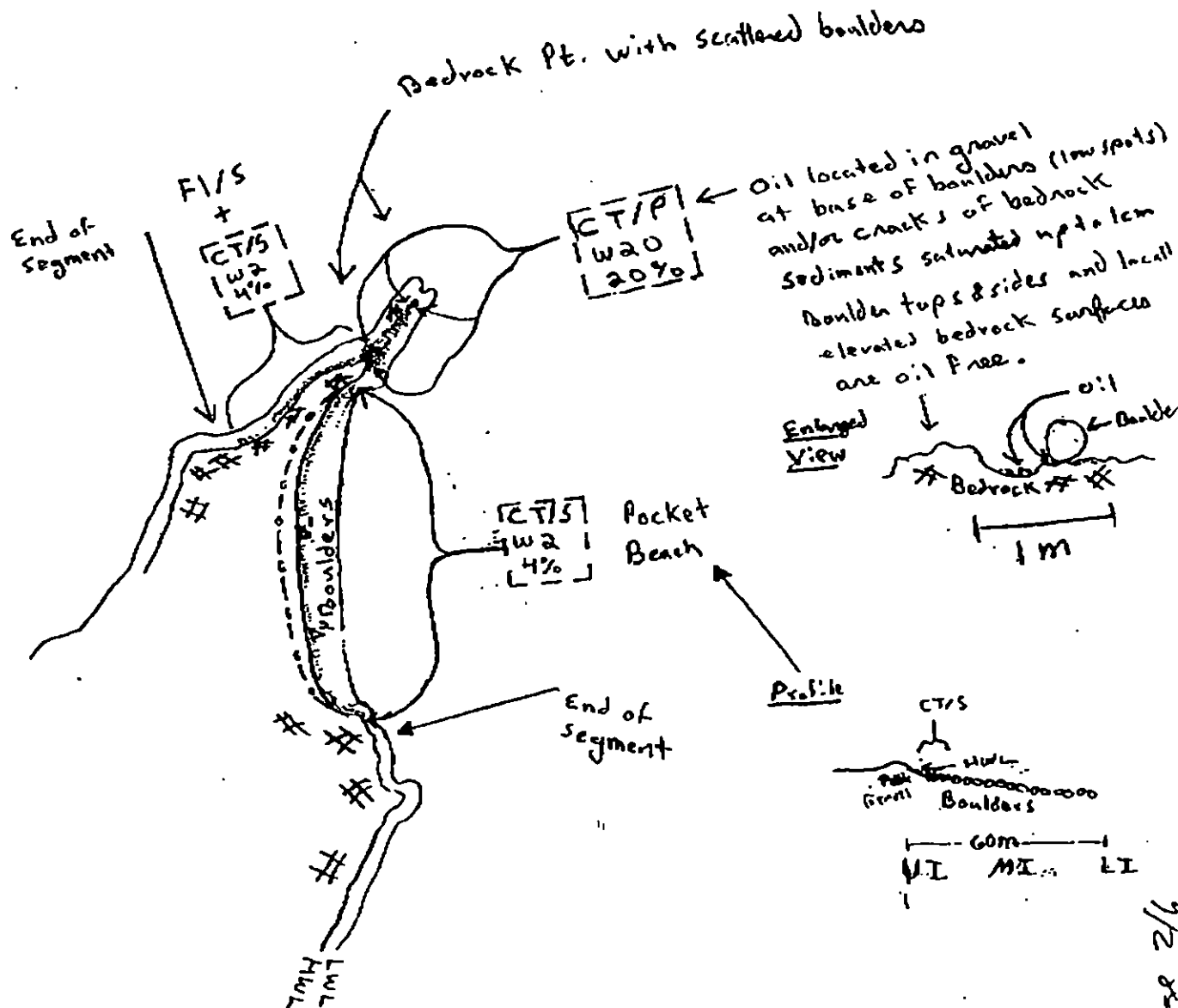
Exposed bedrock
--- SSL (where significantly different than HWW)

CT/P
Width
Length
% cover

Oiling Zone shaded

Meters
0 100

TCH MAP



Oil Character Length (m): AP _____ PO _____ CV _____ CT 438 ST _____ MS _____ PT _____ TB _____ FL 80 NO _____

REVISION 03/24/90

Page 2/6

SHORELINE ECOLOGICAL SUMMARY

REVISION: 02/22/90

Segment ST/ GR03 Subdivision A Date (mo / day / yr) 4 / 5 / 90Time (24 hr) 1822 1824 Biologist S. Schroeter

(A) Substrate type and % of segments:

(1) Bedrock 35 (2) Boulder 45 (3) Cobble 10 (4) Pebble 10 (5) Sand 0 (6) Silt 0(B) Overall % cover of biota (% of segment): Dense 40 Moderate 30 Low 30

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

Photographs:

Roll No. N/AFrames None

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS

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

NOT PRESENT

FUCUS

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

NOT PRESENT

Wildlife Observations/ General Comments:

Tidal Range: ST. 8

Sensitivity/ priority } None listed

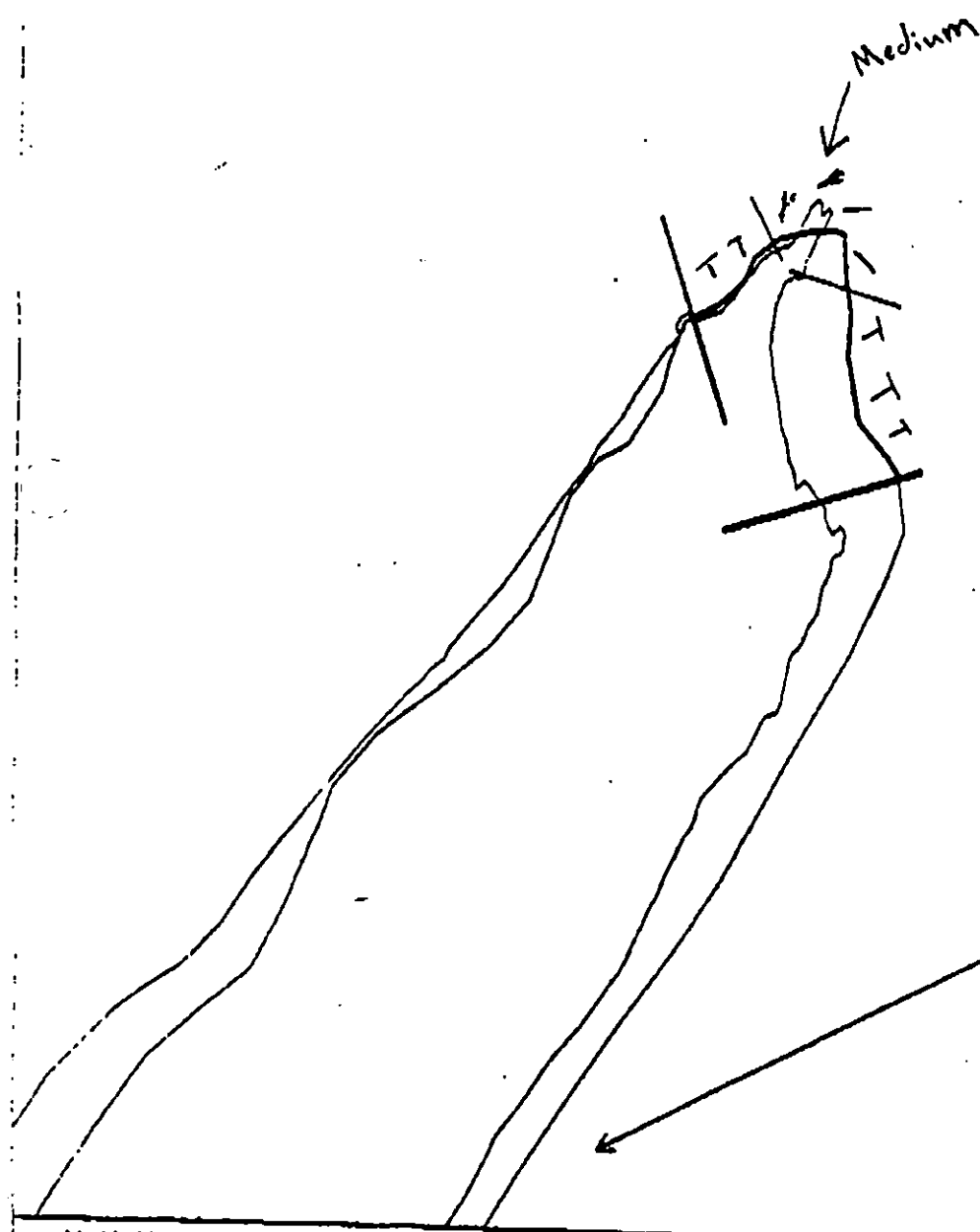
Ecological Considerations:

Rocky bedrock hard land along 7/3 of segment u. boulder/cobble pocket beach along SE 1/3. Dense algae in low, mid + low/upper intertidal; dense patches of barnacles & mussels on hard. Anthopleura, Epinephelus, & Teredinid crustaceans common in mid + upper pools. Shore pools are notable for relatively low (~20%) cover of coralline crusts. Alaria abundant in low + lower middle intertidal. K. lincolni present but rare in S. crustaceans beds in the mid intertidal.

Segment: GR-03 Subdivision: A
BIO: S. Schroeter CG: B. Berglund

Date: April 5, 1990
Tidal Range: > +1.8

GR03 is mainly a bedrock headland on the NE end of GR101. 2/3 of the segment is shale bedrock; the remainder is large boulder pocket beach. Algae are dense in the low, mid, and low-upper intertidal. The red alga, Rhodysalia lanix occurs in moderate to dense patches on shale bedrock platforms in the mid intertidal. There are dense patches of barnacles and mussels in the mid intertidal along the headland. Anthopleura elegantissima, Epiactis proliferata, and Tealia are common to abundant in mid and low-upper intertidal pools. These pools are notable for relatively low (~20%) cover of crustose coralline algae. There are dense patches of S. cariosus on bedrock in the mid intertidal. K.tunicata occur rarely in the spaces among the barnacles.



GR-0

GR-1

XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

GR-3A

ADEC Segment Length: 438m



Map Key: PWS-307

Name: _____

Date: _____

Data Entered: _____

OG B. ^ glund

SEGMENT ST/GR-3

SUBDIVISION A

DATE 4/5/90

CHECKLIST

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

LEGEND

1 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

Exposed bedrock

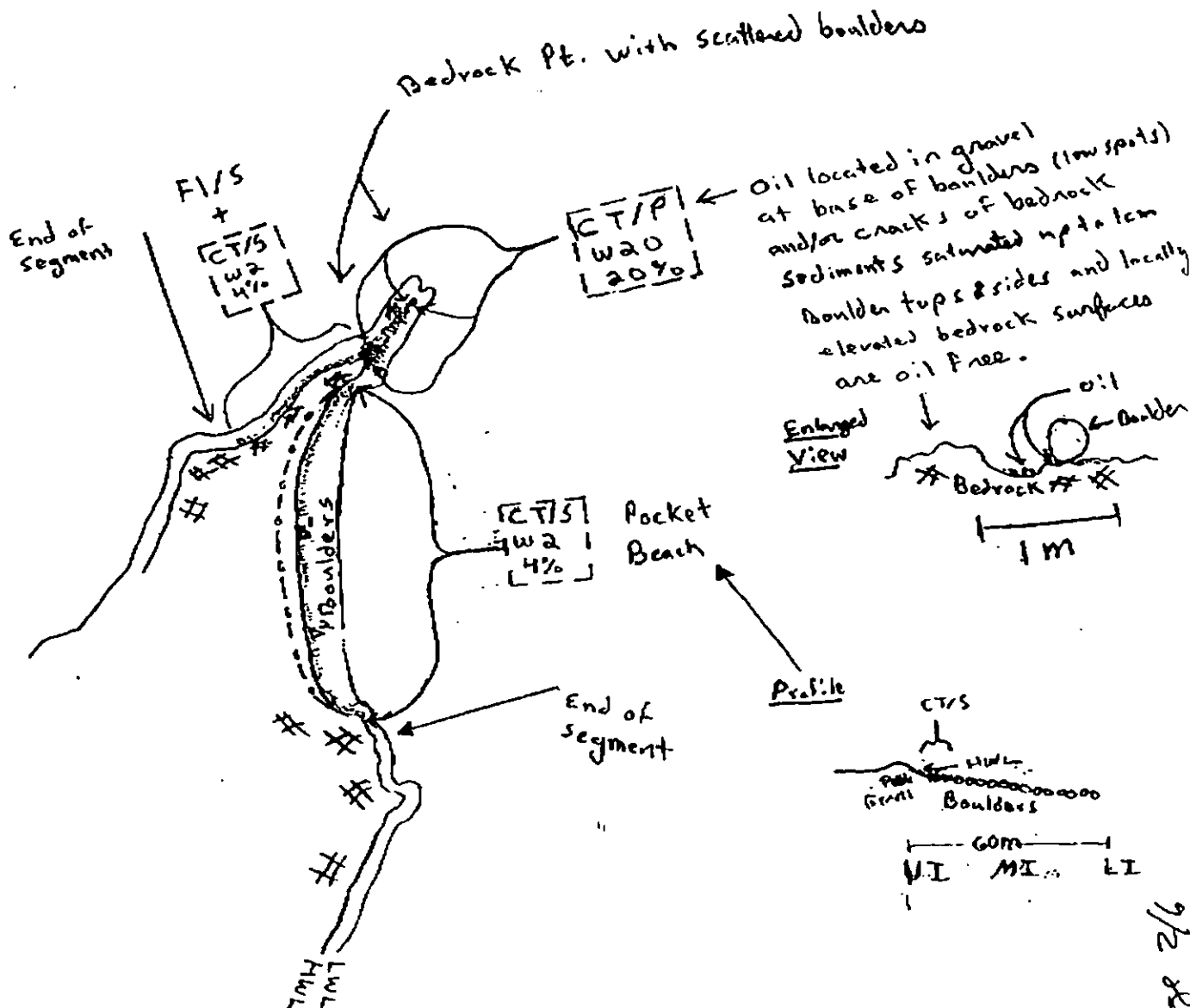
- - - - - SSL (where significantly different than HML)

Width CT/P WS 30% COVER

Oiling Zone Shaded

TCH MAP

Meters
0 100



Oil Character Length (m): AP 438 PO 438 CV 438 CT 438 ST 438 MS 438 PT 438 TB 438 FL 80 NO 438

REVISION 03/24/90

Page 2/6

SHORELINE EVALUATION

SEGMENT ST/ GR-03 SUBDIVISION A (1 OF 1) DATE 4/5/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

2M Herring spawning (4/1 to 6/15)
5S Shorebird/Waterfowl concentration (4/1 to 5/15)
5T All eagle nest (3/1 to 6/1)-Active eagle nest (3/1 to 9/1)
6U Recreation: Tent sites (6/1 to 9/15)
7Z Subsistence area: Salmon harvesting (5/1 to 9/30)
7II Deer harvesting (8/15 to 2/28)
9FF Deer habitat
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

SUBDIVISION ECOLOGICAL CONSIDERATIONS:
Avoid any unnecessary disturbance or damage to uncoiled biota and substrate.

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: Charles E. Orme DATE: 4/18/90

OILING CATEGORIZATION:

Wide 0 m: Medium 98 m: Narrow 0 m: V.Light 246 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: ☐ Breakup	☐ Beach Cleaner
☐ Removal	☐ Other (see comments)

COMMENTS: _____

TAG COMMENTS: _____

TAG APPROVAL DATE: 4/18/90.
 ADEC ART WEINER Art Weiner
 EXXON ANDY TEAL Andy Teal FOSC: My L DATE: 4-22-90
 NOAA Burl Wercott Burl Wercott
 USCG G.A. REITER G.A. Reiter

OG 13. ^ glund
 SEGMENT ST/ 6 R-3
 SUBDIVISION A
 DATE 4 / 5 90

Meters
 0 100

TCH MAP

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Sed/Sol Entry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HW/LA/WL
- ☐ 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

Oil

Oil Vegetation

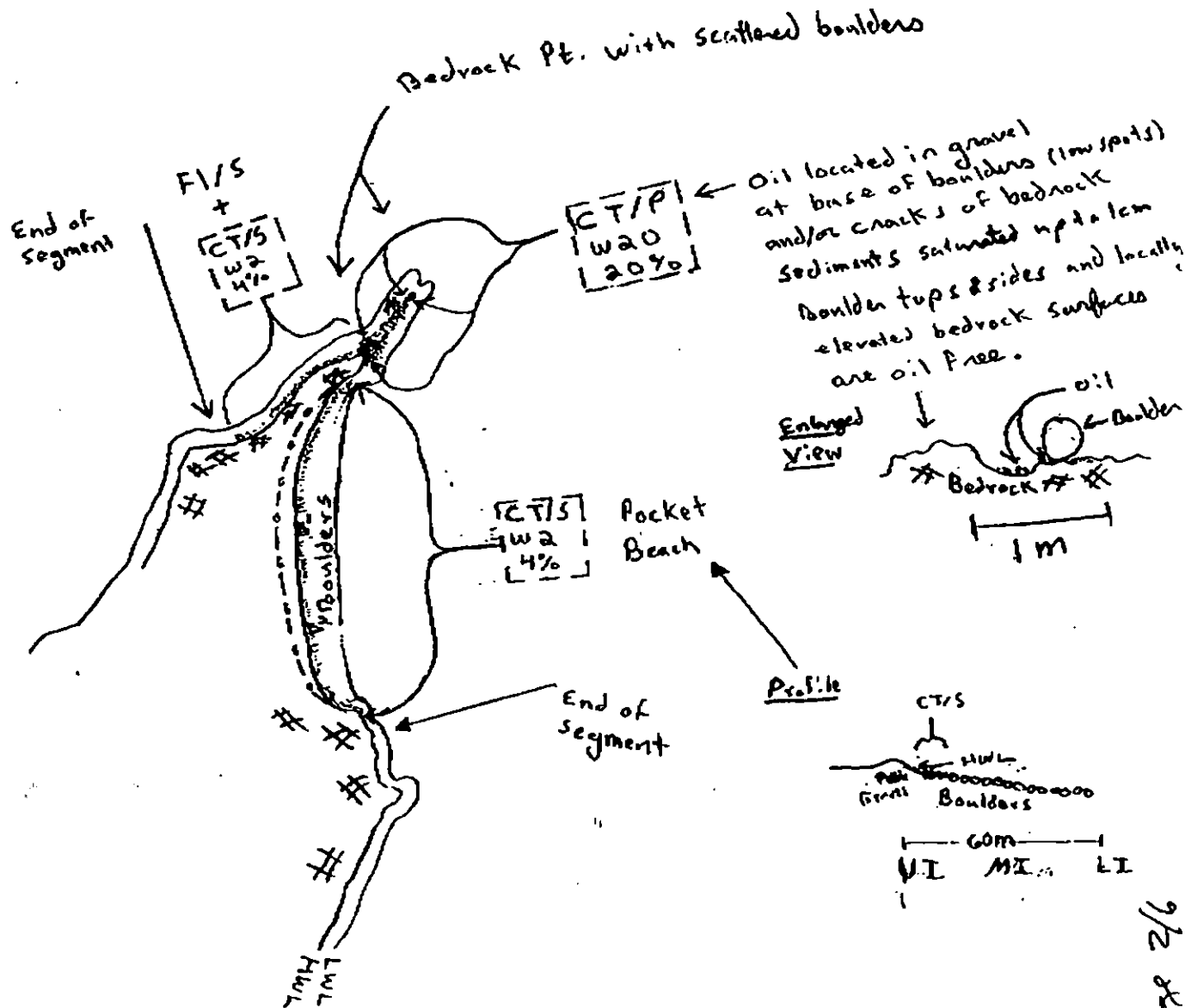
1 ●

Photo location, direction, and number

Exposed bedrock
 -o-o- SSL (where significantly different than HWL)

Width
 0.5
 1
 2
 3
 4
 5
 6
 7
 8
 9
 10
 11
 12
 13
 14
 15
 16
 17
 18
 19
 20
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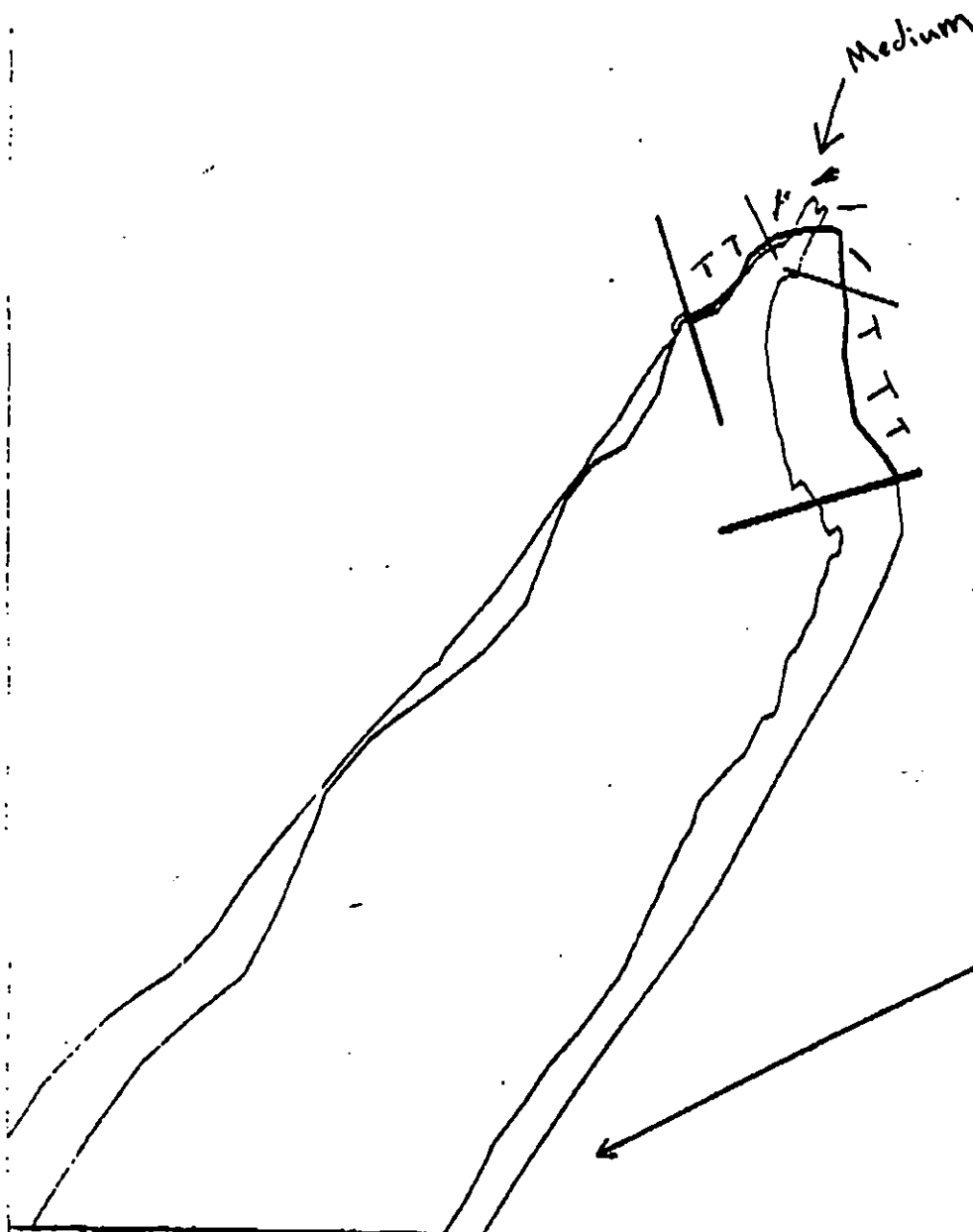
Oiling Zone Shaded



Oil Character Length (m): AP PO CV CT 438 ST MS PT TB FL 80 NO

REVISION 007460

Page 2/6



GR-0

GR-3

XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

GR-3A

ADEC Segment Length: 438m



Map Key: PWS-307

Name: _____

Date: _____

Data Entered: _____

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/GR-04

SUBDIVISIONS: A (1 OF 1)

SHORELINE EVALUATION

SEGMENT ST/ GR-04 SUBDIVISION A (1 OF 1) DATE 4/8/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

2M Herring spawning (4/1 to 6/15)
3N,3P Harbor seal and sea lion pupping (5/15 to 7/1)
3O,3Q Harbor seal and sea lion molting (8/15 to 9/15)
5R Seabird colony (5/1 to 9/1)
5T All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
7II Subsistence area: Deer harvesting (8/15 to 2/28)

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 17 m: No Oil 245 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: _____ Breakup	_____ Beach Cleaner
_____ Removal	_____ Other (see comments)

COMMENTS: _____

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
- 1B Salmon stream mouth - spawning (7/10 to 8/31)
No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream. Contact ADF&G Habitat Division prior to treatment for permits.
- 1C Salmon fry nursery area (4/31 to 7/31)
- 1D Esther Hatchery release (4/15 to 6/1)
- 1E Main Bay Hatchery release (4/20 to 5/10)
- 1F Sawmill Bay Hatchery release (4/15 to 6/1)
- 1G Cannery Creek Hatchery release (4/21 to 6/1)
- 1H Remote release site
- 1I Gill net area (6/7 to 8/31)
- 1J Purse seine area (7/20 to 9/30)
- 1K Purse seine hook-off (7/20 to 9/30)
- 1L Set net sites (6/11 to 7/25)
For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.

- 2M Herring spawning (4/1 to 6/15)
Restrict boat traffic to essential minimum. Avoid damage to uncoiled intertidal and subtidal algae and seagrass. Contact ADF&G for specific dates and locations.

- 3N, 3P Harbor seal and sea lion pupping (5/15 to 7/1)
- 3O, 3Q Harbor seal and sea lion molting (8/15 to 9/15)
Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts.

- 5R Seabird colony (5/1 to 9/1)
Restrict air traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance. Contact ADF&G and USFWS prior to treatment.

- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
Restrict all activity to essential minimum, especially air traffic.

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

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

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

- 7HH Finfish harvesting

- 7H Deer harvesting (8/15 to 2/28)

- 7JJ Invertebrate harvesting

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

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ G 1 0 4 SUBDIVISION: _____ DATE 4/8

CG
NAME Robert Jensen SIGNATURE Robert Jensen

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

ADEC
NAME Rowann T. Hudnall SIGNATURE Rowann T. Hudnall

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

Few splashes only.

LAND MANAGER

NAME U.S. Forest Service SIGNATURE Lee Kelly

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

Found one small area of scattered splatter
in middle of island on west side
Continue Natural cleaning

SHORELINE OILING SUMMARY

REVISION NO. 03/22/90

OG Team: Jesse Semple USCG Boat: Jensen SEGMENT ST/ QR-04
 BIO C. B. Dixon LAND REP Les Kelen SUBDIVISION A
 EXXON Jim Ellison ADEC Roseanna Hudnell TIME 09:52 to 10:45
 TEAM NO. 2 TIDE LEVEL: +5' to +7' DATE April 8 190
 EST. SUBDIVISION LENGTH: 2741 m ☐ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: All around
 SURFACE SEDIMENTS: R 35 % B 6 % C 3 % P 35 % G 0 % S 19 % M 0 % V 0 %
 SLOPE: Lang _____ % Hang _____ % Vert _____ % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 40 m NO 2701 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR						IMPACTED ZONES			
	/C	/B	/P	/S	SBL BR	DBL RW	CY SL	DBL TL	LBL		SU	UI	M	U
ASPHALT PAVEMENT														
POOLED														
COVER														
COAT														
STAIN				X		X					X			
MOUSSE														
PATTIES														
TARBALLS														
FILM														
NO OIL											X	X	X	

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

OILED DEBRIS <u>(NO)</u>	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☐ YES ☒ NOTYPE 0#BAGS 0

Photographs:

Roll No. ST-2-11Frames 15-19

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR						PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	SBL BR	DBL RW	CY SL	DBL TL	LBL		SU	UI	M	U		
1	30					"	-									X				"	Pb / SS'
2	30					"	-										X			"	"
3	30					"	-									X				"	"
							-														
							-														
							-														

COMMENTS

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST / GR-04 Subdivision N/A Date (mo / day / yr) 04/08/90
 Time (24 hr) 0952 - 1045 Biologist John Dixon

- (A) Substrate type and % of segments:
 (1) Bedrock 35 (2) Boulder 6 (3) Cobble 8 (4) Pebble 32 (5) Sand 19 (6) Silt _____
- (B) Overall % cover of biota (% of segment): Dense 9 Moderate 16 Low 75
- (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-2-11
 Frames 15 - 19

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

ASTROPODS

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

NOT PRESENT

FUCUS

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

NOT PRESENT

Wildlife Observations/ General Comments: Water line +3.5' - +6.0' during observations. Bald eagle in standing dead tree. Magpies on island. Oystercatchers in intertidal. Much sea otter scat in supra tidal grass.

Ecological Considerations: listed sensitivities: 3N,P; 3O,G; 6U; 2M.

This small island is made up of an elevated area to the S.W. with several rock protrusions & a long spit with little relief to the NE. Bedrock outcrops form intertidal benches at the SW end & along 2/3 of the side. The rest of the intertidal is pebble beach with no epibiota. On the benches & vertical outcrops there is a sparse cover of Fucus & Balanus cariosus in the M.I. with Mytilus locally abundant on horizontal surfaces. Snails are mostly limpets & sparse. Much Rickettsia on the high shore. There are more snails - mostly Littorines.

5

Channel Island, GR-04, April 8, 1990

Segment GR-04 includes the shorelines of Channel Island, a small island located a few kilometers south of Green Island. It is exposed to a long fetch on the northeastern and southwestern ends, and to a moderate fetch on the north and south sides.

The island is composed of bedrock ramps at the southwestern and northeastern extremities. The southwestern half of the island includes a number of stalks among the northeasterly trending, steeply dipping metamorphic rocks. Both shores of the northeastern half of this island consist of pebble, sand and some cobbles. Throughout this section, the backshore consists of a small flat grassy area that appears to be eroding and forming low (30 cm) unconsolidated bluffs.

Stains of splatters were found on the north central shore of this island, over a cobble/bedrock ramp. These are very scattered and do not cover more than 5% of the area throughout which they occur. No oil was found along the rest of the island or in several test pits dug at different locations along the shore.

GR-04

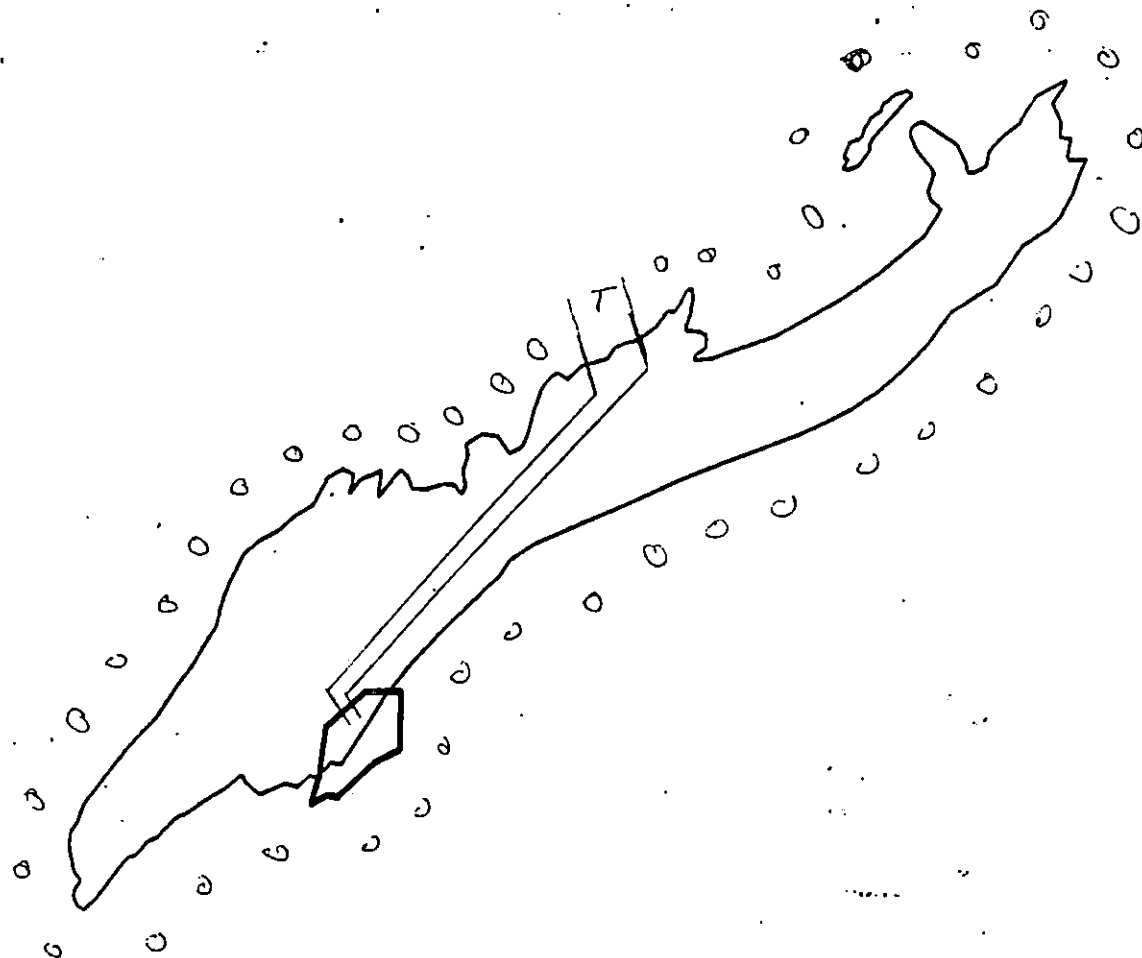
0952-1045

(+3.5' - +6')

This small island has a small (50m x 100m) rock pinnacle at the S.W. end. The pinnacle has sheer sides but sufficient soil on top to support a stand of pines. Surrounding this feature on the south & east is an area of small pines. There are two unvegetated rock pinnacles at the extreme S.W. end. This rest of the island is low relief. The central portion of N.E. $\frac{2}{3}$ of the island is a grassy turf that is bordered on both sides by pebble beach. There is a small area of bed rock outcrops at the N.W. end of the island & extensive bed rock bench from the S.W. end $\frac{2}{3}$ of the way up the north side of the island & about $\frac{1}{3}$ the way up the south side.

Only the middle & upper intertidal was observed. The pebble beaches have no epiphytes but the bed rock areas exhibit the pattern typical for this area. There is a sparse cover of Fucus & B. canaliculatus in the M.I. with Mytilus locally abundant on horizontal surfaces. Gastropod sparse & mostly limpets. ~~has~~ Substratum cover of red algae, esp. Rhodomena. Higher on the shore gastropods density increases & a greater proportion of the snail are Littorina. 1 Herminia in M.I.

REVISION: 03/24/00



XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

GR-4

ADEC Segment Length: 262m



Map Key: PWS-263

Name: Don. P. S. Semp

Date: April 2/1990

Data Entered:

SHORELINE EVALUATION

SEGMENT ST/ GR-04 SUBDIVISION A (1 OF 1) DATE 4/8/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

2M Herring spawning (4/1 to 6/15)
3N,3P Harbor seal and sea lion pupping (5/15 to 7/1)
3O,3Q Harbor seal and sea lion molting (8/15 to 9/15)
5R Seabird colony (5/1 to 9/1)
5T All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
7II Subsistence area: Deer harvesting (8/15 to 2/28)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: Charles E. H. Jones DATE: 4/20/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 17 m: No Oil 245 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: <u> </u> Breakup	☐ Beach Cleaner
<u> </u> Removal	☐ Other (see comments)

COMMENTS:

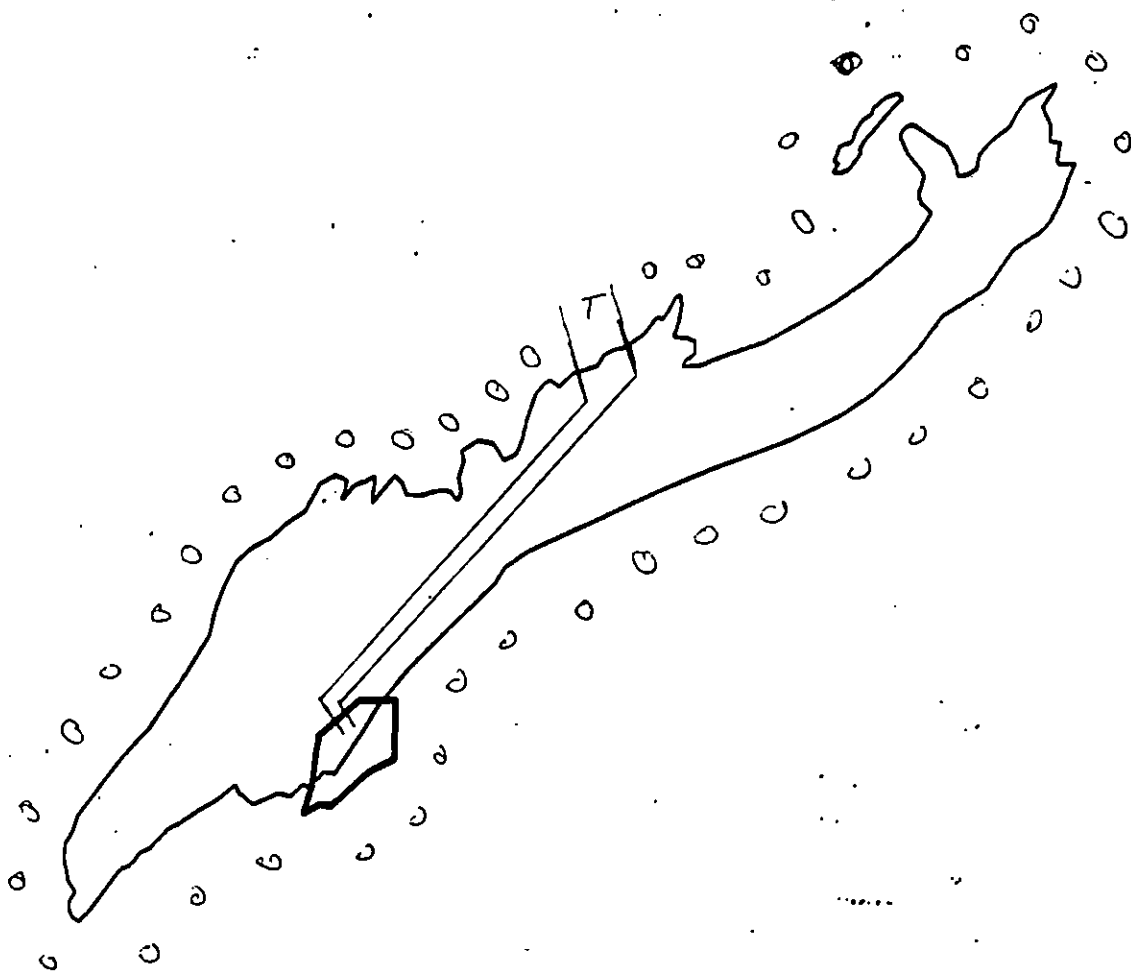
TAG COMMENTS:

TAG APPROVAL DATE: 4/20/90
ADEC ART WEAVER
EXXON ANDY TATE
NOAA Burt Wescott
USCG KENNETH KEANE

FOSC: DATE: 4-26-90

REVISION:03/24/99

2000



XXXX Wide

GR-4

/// Medium

--- Narrow

ADEC Segment Length: 262m

TTTT Very Light

0000 No Oil



Map Key: PWS-263

Name: Leon F. Sempé

Date: Apr. 2/1990

Data Entered:

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/GR-05

SUBDIVISIONS: A (1 OF 1)

SHORELINE EVALUATION

SEGMENT ST/ GR-05 SUBDIVISION A (1 OF 1) DATE 4/5/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

2M Herring spawning (4/1 to 6/15)
3N,3P Harbor seal and sea lion pupping (5/15 to 7/1)
3O,3Q Harbor seal and sea lion molting (8/15 to 9/15)
5S Shorebird/Waterfowl concentration (4/1 to 5/15)
7II Subsistence area: Deer harvesting (8/15 to 2/28)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact a member of Exxon's Cultural Resource Program immediately (564-3657; 564-3658 or 564-3276).

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 0 m: Medium 44 m: Narrow 0 m: V.Light 121 m: No Oil 826 m
Subsurface Oil Observed: Yes X No _____ Maximum Depth 1 cm

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes 1) manual break up and re-
moval of tarmat shown on attached sketch map. Work should be conducted
between 7/1 and 8/15 based on pinned constraints.

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

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

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / GR-65 SUBDIVISION: North Point DATE 05/12/96

USCG

NAME James C. Gombell SIGNATURE James C. Gombell

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

Patchy oil spot, naturally cleaning will take care of it.

ADEC

NAME Brian K. FitzSimons SIGNATURE Brian K. FitzSimons

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS Low density oil splashes observed scattered around the land B → Ct

PS → OR (OP) } 0-5cm ↓
BR → Ct } All at HITZ

It would be possible to manually remove most oiled area to LITZ due to small size of island - but due to exposure continued natural cleansing may be just as effective.

LAND MANAGER

NAME Carol S. Huber SIGNATURE Carol S. Huber

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS Small, high energy bedrock and talus island. Minor amounts of oil observed. Recommend continued natural cleansing. Pinniped haulout's primary resource. (Not so listed in data table)

SHORELINE OILING SUMMARY

REVISION NO. 03/22/90

OG B. Bernaldo USCG J. Gamble SEGMENT ST/ GR-5
 BIO S. Schroeder LAND REP C. Hubbs (NFS) SUBDIVISION A (1088)
 EXXON C. Levine ADEC B. Frittsimons TIME 17:02 10 18:00
 TEAM NO.: 2 TIDE LEVEL: 1.2 to 1.5 DATE 4/5/90
 EST. SUBDIVISION LENGTH: 1081 m ☐ Sun ☐ Clouds ☐ Fog ☒ Rain ☐ Snow
 ISLANDS DESCRIPTION: ☐ Grass ☐ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 40 % B 30 % C 10 % P 10 % G 10 % S 0 % M 0 % V 0 %
 SLOPE: Long 7.0 % Hang 3.0 % Vert 1.0 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 2.5 m N 0 m VL 120 m NO 936 m

SURFACE OIL

CHARACTER	DISTRIBUTION					OIL / FILM COLOR					IMPACTED ZONES				
	10	15	20	25	30	35	40	45	50	55	SU	U	M	L	U
ASPHALT PAVEMENT					X		X					X			
POOLED															
COVER															
COAT				X	X		X					X			
STAIN															
MOUSSE															
PATTIES															
TARBALLS					X		X					X			
FILM					X		X					X			
NO OIL											X		X	X	

PAVEMENT: H F S 25 / sq. m by 2 cmPATTIES / TARBALLS 2 BAGSNEAR SHORE SHEEN? (NO) BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation	X		
Trash			
Debris			

DEBRIS COLLECTED
☐ YES ☒ NOTYPE 1#BAGS 1

Photographs:

Roll No. 54-1-3Frames 8

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		VO	VG	SP	EP	DP	FM	GA	SB	TL	LT	SU	U	M	L		
1	10	1					0-1		X		✓						X					B, G (At base of bond)	
2	30					X	.		X								X					B, P/G (At base of bond)	
							.																
							.																
							.																
							.																

COMMENTS

Oiling is very light. In isolated spots, near the HWL there is a splashy coat. Gravels next to the base of boulders in localities are saturated with oil (in some areas approximating pavement). A splash film on sheen is also present. As the Island is largely bedrock, subsurface oiling does not appear to be a problem.

SHORELINE ECOLOGICAL SUMMARY

REVISION: 02/22/80

Segment ST / GR05 Subdivision A Date (mo / day / yr) 4/5/90
 Time (24 hr) 1702 Biologist S. Schroeter

- (A) Substrate type and % of segments:
 (1) Bedrock 24 (2) Boulder 53 (3) Cobble 9 (4) Pebble 4 (5) Sand 0 (6) Silt 0
- (B) Overall % cover of biota (% of segment): Dense 35 Moderate 30 Low 35
- (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: N/A
 Roll No. N/A

Frames None

BARNACLES

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

MYTILUS

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

GASTROPODS

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

FUCUS

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

Wildlife Observations/ General Comments: Sensitivity N/A
my eyes in that Sensitivity
listed for GR06 apply to this
segment Priority N/A

Tidal Range: >+

Ecological Considerations: GR05A is a small island several hundred meters offshore from GR101 + GR03. The upper intertidal is predominantly bedrock (~70%) whereas the mid + lower intertidal are predominantly boulder with some rubble + pebble. There are dense mixed beds of *L. saccharum* + *Agardh* in the low intertidal + shallow subtidal on the side of the island facing GR101. There are remarkably high densities of stars in the low intertidal (5 of 8 boulders overtopped on the seaward side had stars (primarily *Pycnopoda*). On the lee side of the island there was at least 1 *Pycnopoda* + 1 *Urechis* every 2 meters.

Segment: GR05 Subdivision: A
BIO: S.Schroeter OG: B.Berglund

Date: April 5, 1990
Tidal Range: > +1.2

This segment is a small offshore island several hundred meters offshore from GR03 and GR101. The upper intertidal is about 70% shale bedrock. The mid and lower intertidal are predominantly boulders (~85%) and cobble (5-10%). Gastropods (littorines and *N. scutum*) occur in dense patches in the mid and low-upper intertidal. Adult and newly recruited *Fucus* are very dense in the mid intertidal. The low intertidal is dominated by various red algae and has remarkably high densities of sea stars. About 80% of the stars encountered are small (<15cm) to medium (15-30cm) *Echinopodia*. In order of decreasing abundance, *Leptasterias*, *Dermasterias*, and *Pisaster ochraceus* make up the remainder. On the exposed side of the island most stars are found beneath boulders, whereas on the leeward side they are both on top and under boulders. There is about 1 sea star per 2 meters of shoreline on the tops of boulders in the low intertidal on the leeward side of the island. On the lee side of the island, there is also a dense mixed bed of large *L. saccharina* and *Agarum* in the low intertidal and shallow subtidal.

OG 13.13 England

SEGMENT GR-5

SUBDIVISION A

DATE 4 / 5 90

CHECKLIST

- ☐ Name
- ☐ Approx. Scale
- ☐ Seg/Sub Entry
- ☐ Oil Det.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HWA/LWL
- ☐ SSL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ Pt Location(s)
- ☐ Photo Location(s)

LEGEND

1 Δ
Pt - No Subsurface Oil

2 Δ
Pt - Subsurface Oil

CT/C
Continuous Distribution

CT/B
Broken Distribution

CT/P
Patchy Distribution

CT/S
Splashed Distribution

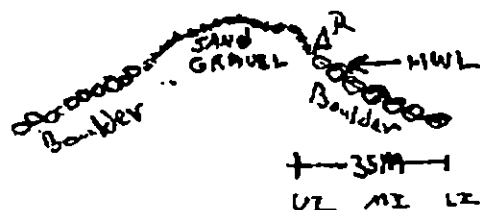
Oil Vegetation

1 ●

Photo location, direction, and number

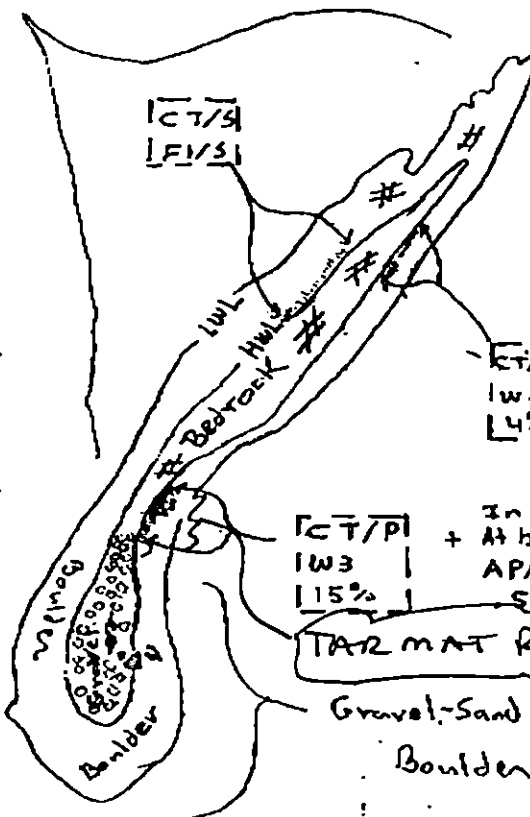
Width → [CT/P] [W10] [30%]
→ Length
% Cover

Profile (Across Southern End)



* Exposed Bedrock

Bedrock with Scattered Boulders

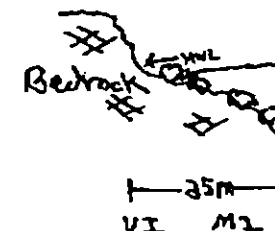


ETCH MAP

3/4 Island consists of bedrock with scattered boulder. The Southern tip consists of a gravel spit in the Supratidal.

Profile 1

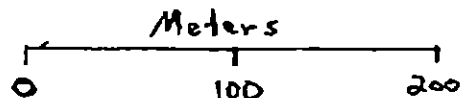
FI/S
CT/S



gravel at base of boulders occasionally saturated with oil
tar mat 2cm thick 1x.5

In gravel
At base of boulders
AP/H
S², 2cm thick
TAR MAT REMOVAL

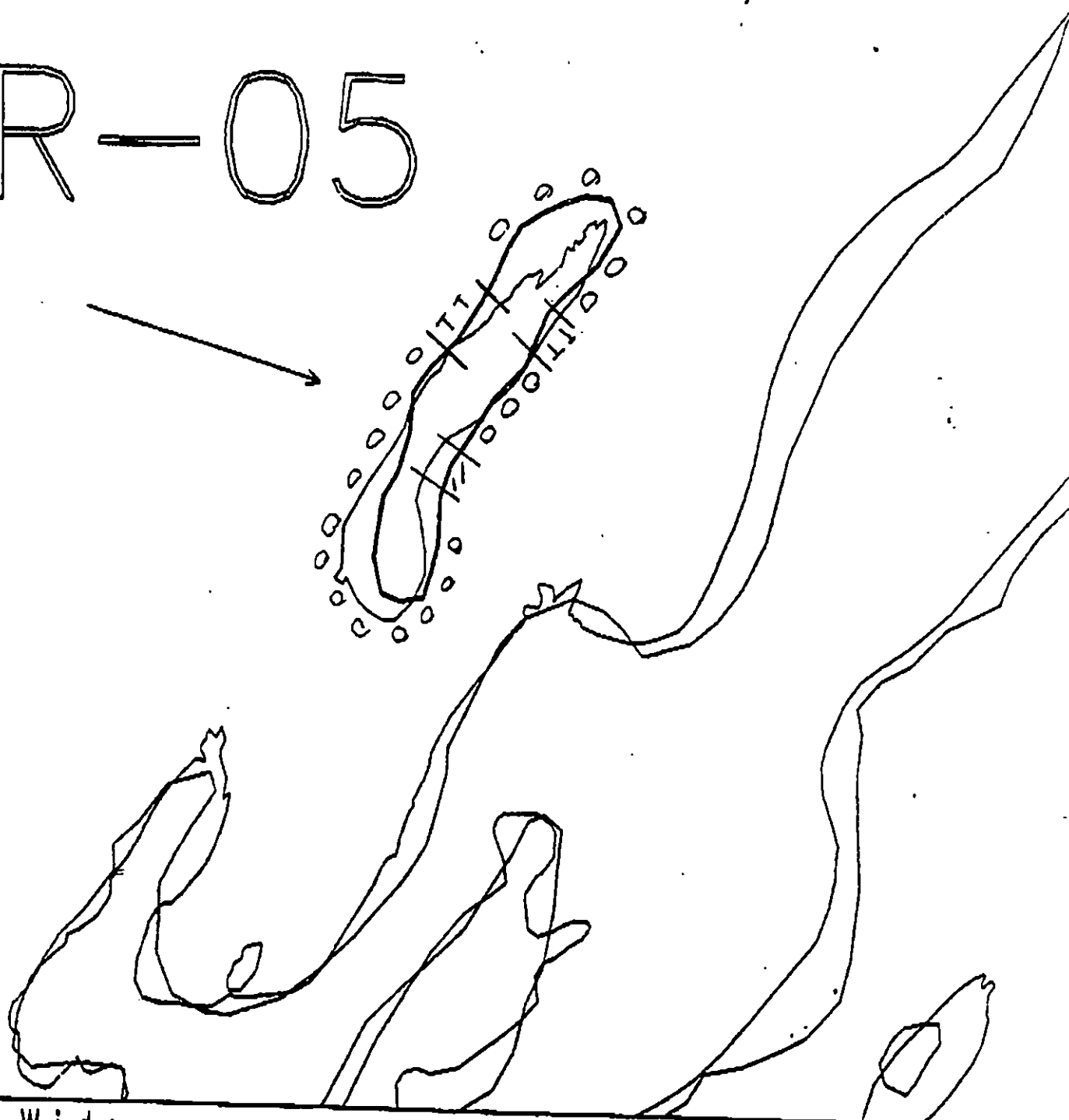
Gravel-Sand Spit (Supra)
Boulder (Intertidal)



Oil Character Length (m): AP 0.5 PO CV CT 145 ST MS PT TB 1 FL 145 NO 936

REVISION: 02/2000

GR-05



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

GR-5

ADEC Segment Length: 991m



Map Key: PWS-264

Name: B. Bengland

Date: 4/5/90

Data Entered:

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT GR-5 SUBDIVISION A (1 of 1)

WORK WINDOW	
Tarmat Removal	CLOSED

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

2M	Herring Spawning	No constraint to tarmat removal.
3N,O,P,Q	Harbor Seal & Sea Lion Pupping and Molting	Closed to tarmat removal before 7/2 and after 8/14.
5S	Shorebird/Waterfowl Concentration	No constraint after 5/15.
5R	Seabird Colony	Closed to tarmat removal before 9/1.
5T	Bald Eagle Nest	NO CONSTRAINT. USFWS 6/1/90 map indicates no active nest within 400m of Subdivision A work site.
7II	Subsistence: Deer Harvesting	No constraint to tarmat removal.

OTHER ECOLOGICAL CONSIDERATIONS

Restrict boat traffic to essential minimum. Avoid any unnecessary disturbance or damage to unloiled substrate and biota especially intertidal and subtidal algae and seagrass. Restrict air traffic and beach disturbance to essential minimum after 8/15. Do not chase or harass seals or sea lions, and do not approach pups under any circumstances. When working on or near haulouts, complete the job as quickly as possible with minimum personnel, equipment, noise and disturbance. Keep boats and personnel as far from actual haulouts as is practical to do the work specified. Minimize air traffic near haulouts, maintain elevation as is practical, and avoid repeated overflights of the same haulout areas.

FOSC

Date

6-12-90

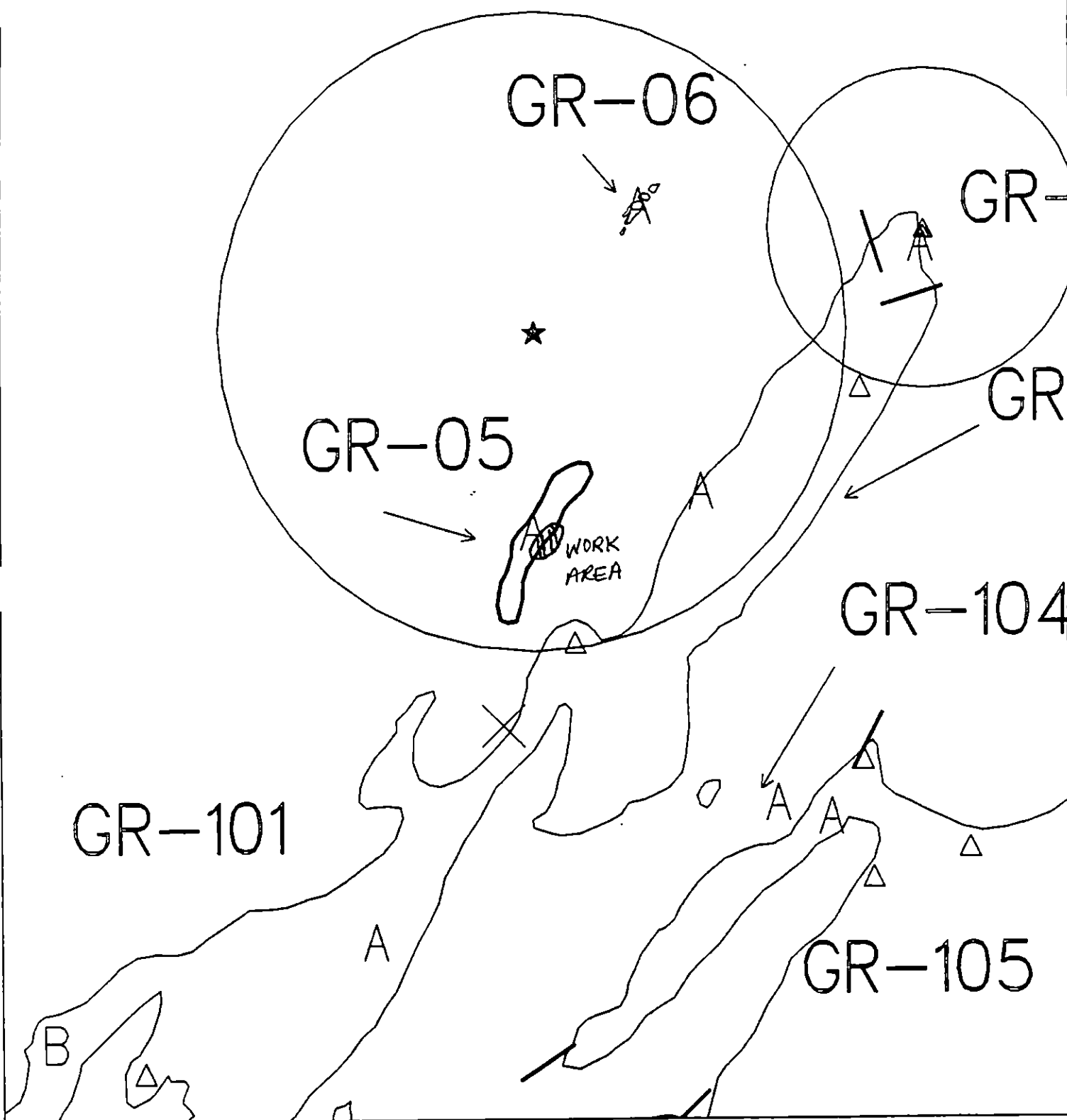
Prepared by

S. P. Phillips

6-10-90
am

Date

6/12/90



Exxon Company, USA
Map Key: PWS-GR-5
June 04, 1990



ECOLOGY MAP
SEGMENT GR-5
SUBDIVISION A (1 of 1)
METERS
0 100 200

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

Handwritten signature

SHORELINE EVALUATION

SEGMENT ST/ GR-05 SUBDIVISION A (1 OF 1) DATE 4/5/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

2M Herring spawning (4/1 to 6/15)
3N,3P Harbor seal and sea lion pupping (5/15 to 7/1)
3O,3Q Harbor seal and sea lion molting (8/15 to 9/15)
5S Shorebird/Waterfowl concentration (4/1 to 5/15)
7II Subsistence area: Deer harvesting (8/15 to 2/28)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact a member of Exxon's Cultural Resource Program immediately (564-3657; 564-3658 or 564-3276).

SHPO SIGNATURE: Charles E. H. [Signature] DATE: 4/20/90

OILING CATEGORIZATION:

Wide 0 m: Medium 44 m: Narrow 0 m: V.Light 121 m: No Oil 826 m
Subsurface Oil Observed: Yes X No Maximum Depth 1 cm

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes 1) manual break-up and re-
moval of tarmat shown on attached sketch map. Work should be conducted
between 7/1 and 8/15 based on pinned constraints.

SFS CONSTRAINTS - ADD DOWN DATE 6/12/90 JJP

TAG COMMENTS:

TAG APPROVAL DATE: 4/20/90
ADEC APR WEAVER [Signature]
EXXON AMON TEE [Signature]
NOAA BILL WESCOTT [Signature]
USCG KENNETH KERR [Signature]

FOSC: [Signature] DATE: 4-26-90

SHORELINE EVALUATION

SEGMENT ST/ GR-05 SUBDIVISION A (1 OF 1) DATE 4/5/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

2M Herring spawning (4/1 to 6/15)
3N,3P Harbor seal and sea lion pupping (5/15 to 7/1)
3O,3Q Harbor seal and sea lion molting (8/15 to 9/15)
5S Shorebird/Waterfowl concentration (4/1 to 5/15)
7II Subsistence area: Deer harvesting (8/15 to 2/28)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact a member of Exxon's Cultural Resource Program immediately (564-3657; 564-3658 or 564-3276).

SHPO SIGNATURE: *Charles E. H. [Signature]* DATE: 4/20/90

OILING CATEGORIZATION:

Wide 0 m: Medium 44 m: Narrow 0 m: V.Light 121 m: No Oil 826 m
Subsurface Oil Observed: Yes X No Maximum Depth 1 cm

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes 1) manual break-up and re-
moval of tarmat shown on attached sketch map. Work should be conducted
between 7/1 and 8/15 based on pinneped constraints.

TAG COMMENTS: _____

TAG APPROVAL DATE: 4/20/90.
ADEC ART WEINER
EXXON AMY TEAL
NOAA Bull Wescott
USCG KENNETH KERR

FOSC: *[Signature]* DATE: 4-26-90

OG 13. Berglund

SEGMENT GR-5

SUBDIVISION A

DATE 4 / 5 90

SKETCH MAP

CHECKLIST

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

LEGEND

1 Δ PR - No Subsurface Oil

2 Δ PH - Subsurface Oil

CT/C Continuous Distribution

CT/B Broken Distribution

CT/P Patchy Distribution

CT/S Splashed Distribution

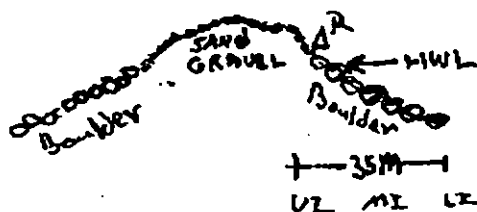
Oil Vegetation

Photo location, direction, and number

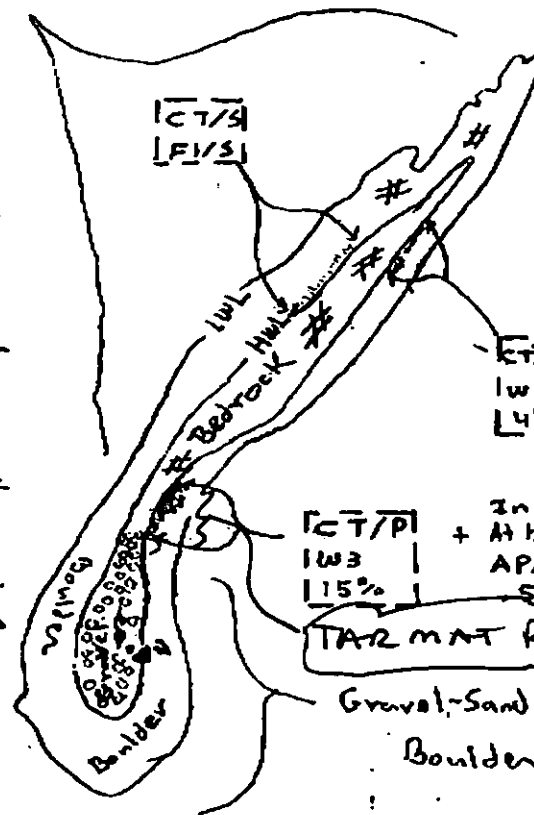
Width → [CT/P] W10 30% → Length

% Cover

Profile (Across Southern End)



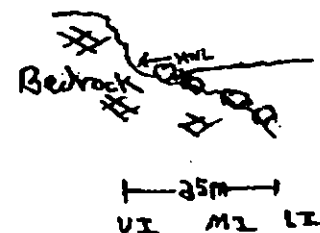
Bedrock with Scattered Boulders



3/4 Island consists of bedrock with scattered boulder. The Southern tip consists of a gravel spit in the Supratidal.

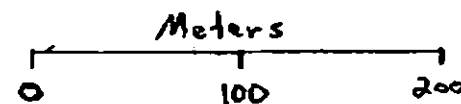
Profile 1

F1/S CT/S



gravels at base of boulders occasionally saturated with oil

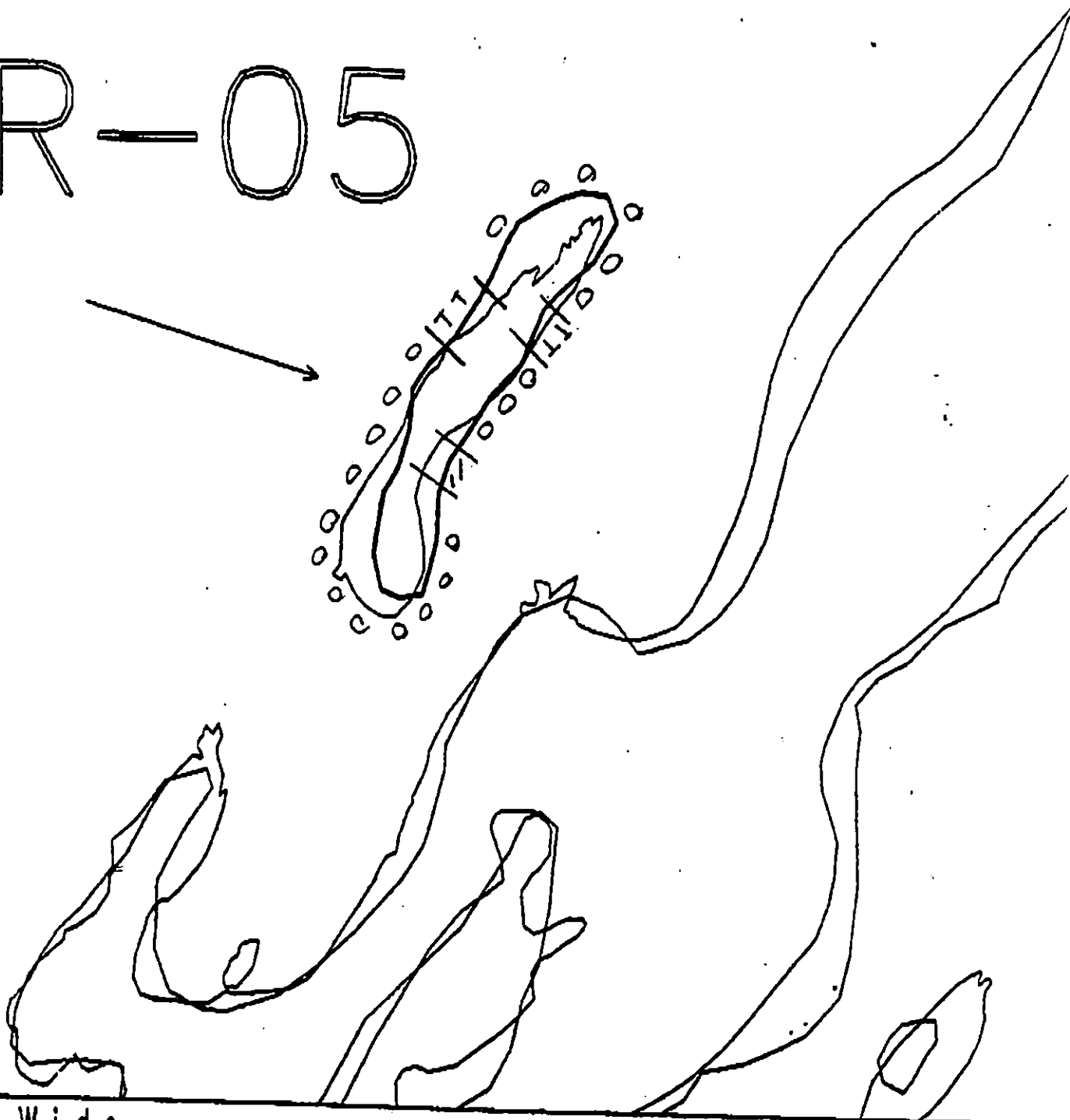
a tar mat 2cm thick 1x.5



Oil Character Length (m): AP 0.5 PO CV CT 145 ST MS PT TB 1 FL 145 NO 936

REVISION: 000000

GR-05



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

GR-5

AOEC Segment Length: 991m



Map Key: PWS-264

Name: B. Bengland

Date: 4/5/90

Data Entered:

1991 MAYSAP EVALUATION

SEGMENT: GR 005 SUB: A REGION: PWS SURVEY DATE: 4/30/91

ENVIRONMENTAL SENSITIVITIES:

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

Ecological/Constraints (see page two for details) Seabird colony,
Pinniped haulout, Eagle nest, Herring spawning, Subsistence -
Deer harvesting

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 _____

**ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES**

Seabird Colony: Access restricted. USF&WS authorization required after 5/15. Maintain 1000' vertical and 1/2 mile horizontal buffer.

Pinniped Haulout: Access restricted from 5/15 to 6/30 and 8/15 to 9/15 unless approved by NMFS. Maintain 1000' vertical and 1/2 mile (3 mile for sea lions at all times) horizontal buffer.

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

Herring Spawning: No treatment before June 1. Avoid disturbance to kelp and eelgrass.

Subsistence - Deer Harvesting: Unlimited treatment prior to 8/15.

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 3 SEGMENT GR-05 SUBDIVISION A DATE 4/30/91

ADEC

NAME Wesley Ghormley SIGNATURE Wesley Ghormley **

☐ NTR ☒ TREATMENT RECOMMENDED

- Additional work needs to be done in the area that consists of HOR/H. Boulders need to be rolled, use hand shovels/trowels to recover oil. Oil is very easy to recover if cobbles/boulders are rolled. Seals & birds in area. IF this one area was cleaned this island would be in good shape & would cause no further harm to wildlife.

EXXON

NAME Jon Czarnicki SIGNATURE Jon Czarnicki

☒ NTR There is some SCR around the corner. The amount of oil there is very hard to estimate.

LANDMANAGER

NAME Carol S Huber OF USFS SIGNATURE Carol S Huber

☐ NTR Treatment recommended: Heavy SCR could be manually removed. This is a seabird & pinniped ^(handout) use area. Oil is still fairly fresh, suggesting natural cleansing here would be a slow process and the creatures that use this area would be subject to the influence of the oil over a long period of time.

USCG/NOAA

NAME MOONEY / Bonat SIGNATURE Tom Mooney / Arj Bonat

☒ NTR AREA CONSISTS OF BOULDER, COBBLE, GRAVEL AMONG ON BEDROCK. MINOR AMOUNTS OF OIL RESIDUE IS LOCATED ALONG A 60 DEGREE SLOPE AT THE TOP OF THE SUTZ. DUE TO THIS SLOPE AND DISTANT DISTANCE TO WATER PINNIPED USE WOULD BE VERY MINIMAL. PINNIPEDS LIKE TO BE CLOSE TO WATER'S EDGE FOR ESCAPE TO INTRUDER'S.

DATE 4 / 30 / 91

EST. OIL CATEGORY LENGTH: W 0 m M 40 m N 30 m VL 0 m NO 80 m US 840 m

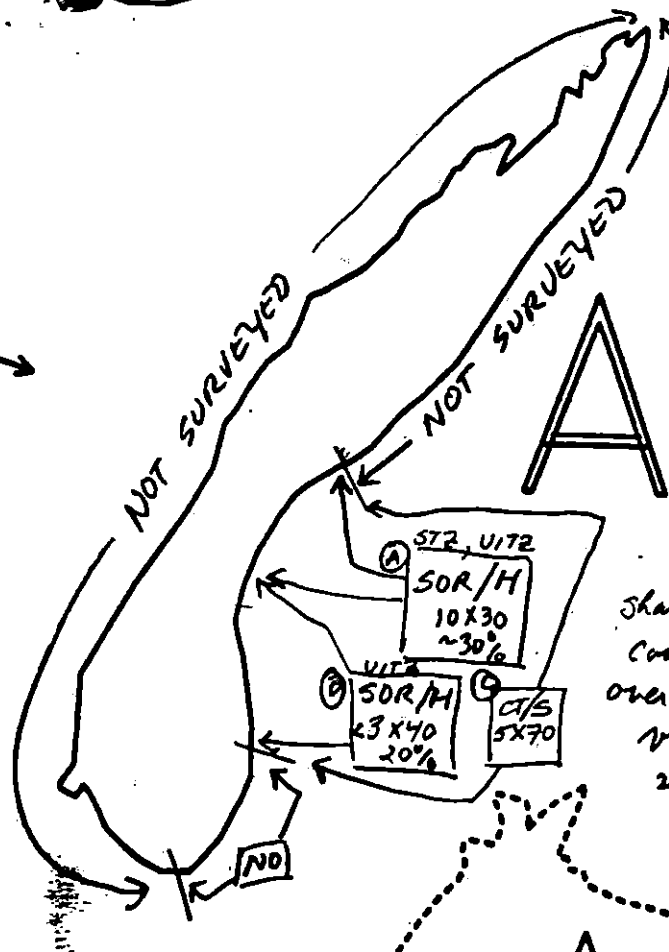
SLOPE: V = VERTICAL; H = HIGH ANGLE; M = MEDIUM ANGLE; L = LOW ANGLE PHOTO ROLL # MAYBAP-_____ FRAMES

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

No pits were dug due to bedrock in the subsurface.

OG 1 of 4
REVIEWED: F.W. 5/3/91

+
- 05



SKETCH
MAP

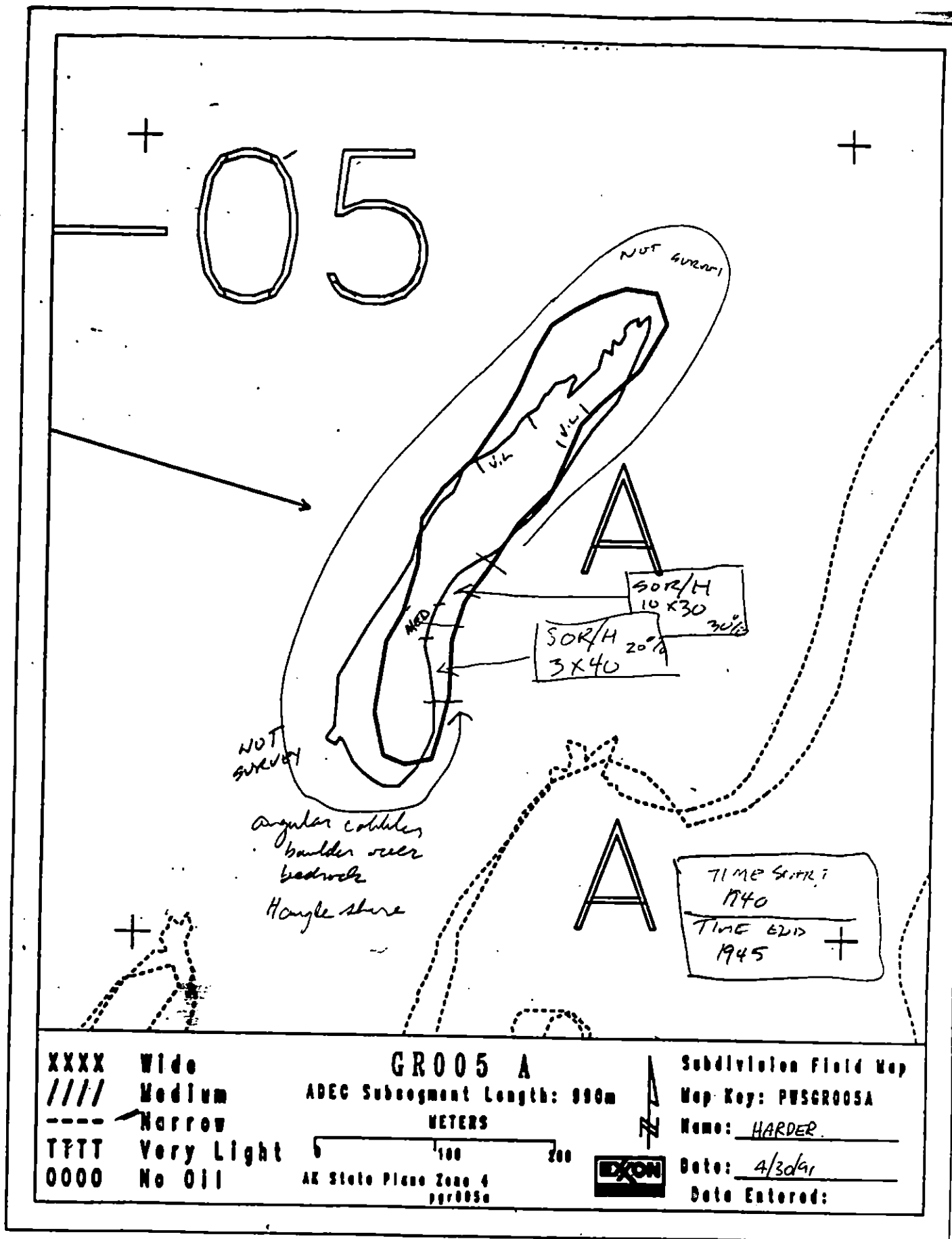
OG 2 of 4

GR005 A

Subdivision Field Map

Map Key: PUSGR005A

REVIEWED: F.W. 5/3/91



FIELD
NOTES

Page 1 of 1

OG 4 of 4

REVIEWED: F.W. 5/3/91

NAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 3 DATE 4/30/91
 SEGMENT # GRO5 TIDAL HEIGHT(Range) 3-4'
 SUBDIVISION A BIOLOGIST STOKER
 SEA STATE 1-2' WIND SPEED/DIRECTION NE 15-20
 PHOTOGRAPHS: ROLL # _____ FRAME # _____

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

High energy beach of boulder & bedrock on NW shore, moderate energy angular boulder/cobble/bedrock on SE shore of island.
 Biota on SE shore sparse to moderate in overall abundance and low diversity, consisting of patchily distributed barnacles and spat, sparse and patchy Fucus, Littorina, limpets and amphipods.
 Biota on NW side appeared to be more abundant and diverse, but was not observed in detail.
 Biota within & closely adjacent to the oiled area on the SE shore consists of sparse barnacles, Littorina and limpets.
 Biota below oiled area increases somewhat in abundance as described above. Low intertidal unobserved due to tide height.
 If treatment is undertaken, disturbance to established biota should be kept to a minimum.

WILDLIFE OBSERVATIONS TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles			
Seabirds			
Waterfowl			
Gulls/Kittiwakes	1	5-10	
Shorebirds			
Corvids			
Other Birds	unident. shorebird	chicks on island.	

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

Shoreline subdivision map showing important biological features attached.

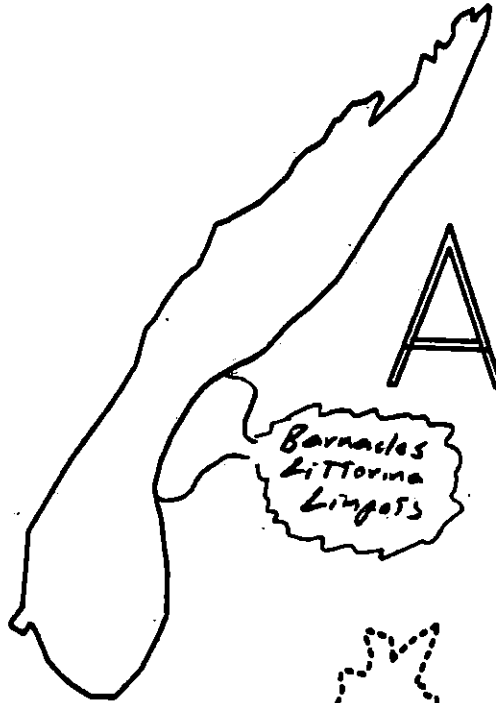
Reviewed M.B. 5/3/91

Bio Map

+

+

-05



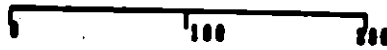
+

+



GR005 A

NEVER



AK State Plane Zone 4
NAD83

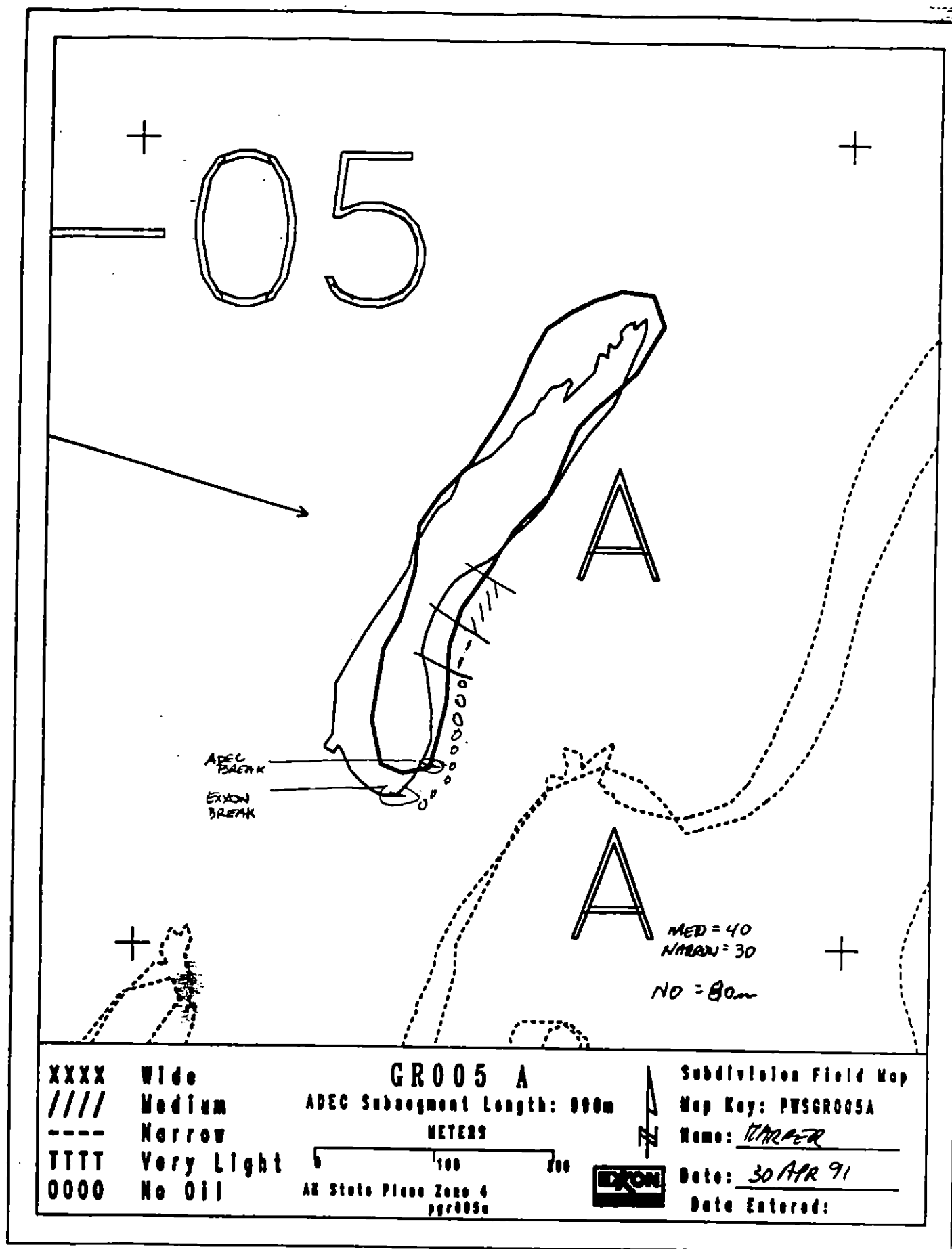
Subdivision Field Map

Map Key: PVSGR005A

Name: _____

Date: _____

Reviewed dr.B. 5/3/91



SURFACE OILING MAP

OG 3 of 4

REVIEWED: F.W. 5/3/91

REVISION 1
7/13/90
APP

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT GR-5 SUBDIVISION A (1 of 1)

WORK WINDOW	
Tarmat Removal	WORK PRIOR TO 8/15 CLOSED

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

2M	Herring Spawning	No constraint to tarmat removal.
3N,O,P,Q	Harbor Seal & Sea Lion Pupping and Molting	Closed to tarmat removal before 7/2 and after 8/14.
5S	Shorebird/Waterfowl Concentration	No constraint after 5/15.
5R	Seabird Colony	No constraint to tarmat removal as per letter to USFWS Closed to tarmat removal before 9/1. Otto Harrison for
5T	Bald Eagle Nest	NO CONSTRAINT. USFWS 6/1/90 map indicates no active nest within 400m of Subdivision A work site.
7II	Subsistence: Deer Harvesting	No constraint to tarmat removal.

OTHER ECOLOGICAL CONSIDERATIONS

Restrict boat traffic to essential minimum. Avoid any unnecessary disturbance or damage to unloiled substrate and biota especially intertidal and subtidal algae and seagrass. Restrict air traffic and beach disturbance to essential minimum after 8/15. Do not chase or harass seals or sea lions, and do not approach pups under any circumstances. When working on or near haulouts, complete the job as quickly as possible with minimum personnel, equipment, noise and disturbance. Keep boats and personnel as far from actual haulouts as is practical to do the work specified. Minimize air traffic near haulouts, maintain elevation as is practical, and avoid repeated overflights of the same haulout areas.

FOSC

Date

6-12-90

Prepared by

P. Phillips

6-10-90

Date

6/12/90

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/GR-06

SUBDIVISIONS: A (1 OF 1)

SHORELINE EVALUATION

SEGMENT ST/ GR-06 SUBDIVISION A (1 OF 1) DATE 4/5/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

2M Herring spawning (4/1 to 6/15)
5S Shorebird/Waterfowl concentration (4/1 to 5/15)
6Y Recreation area: Special use destination
7II Subsistence area: Deer harvesting (8/15 to 2/28)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

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 0 m: No Oil 398 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: _____ Breakup	_____ Beach Cleaner
_____ Removal	_____ Other (see comments)

COMMENTS: _____

TAG COMMENTS: _____

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

FOSC: _____ DATE: _____

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

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

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / GR 06 A SUBDIVISION: no subdivision DATE 12/15/98

USCG

NAME James C. Goshill SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

No oil founded: ~~observed~~ observed from skiff due to being unable to get closer

ADEC

NAME Brian K. FitzSimons SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

Surveyed by skiff - small bedrock island with no visible oil contamination

LAND MANAGER

NAME Carol S. Huber SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

Small, high energy, bedrock island; surveyed from zodiac-type craft. No oil observed.

SHORELINE OILING SUMMARY

REVISION NO. 05/22/90

OG B. Berglund USCG J. Gamble SEGMENT ST/ GR-6
 BIO S. Schroeder LAND REP C. Hubes (NES) SUBDIVISION A (1 of 1)
 EXXON C. Levine ADEC B. Fritzsman TIME 16:47 to 17:00
 TEAM NO.: 1 TIDE LEVEL: 1.5 to 1.2 DATE 4/5/90
 EST. SUBDIVISION LENGTH: 399 m ☐ Sun ☐ Clouds ☐ Fog ☒ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☐ Forest ☒ Rock
 SURVEYED FROM: ☐ Foot ☒ Boat ☐ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 80 % B 20 % C 0 % P 0 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 40 % Hang 40 % Vert 20 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 0 m NO 399 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	IC	IS	IP	IR	BR	NR	OR	OL	OT	OB	TL	LR	SU	U	ME	U
ASPHALT PAVEMENT																
POOLED																
COVER																
COAT																
STAIN																
MOUSSE																
PATTIES																
TARBALLS																
FILM																
NO OIL													X	X	X	X

PAVEMENT: H F S None sq. m by 0 cmPATTIES / TARBALLS None BAGSNEAR SHORE SHEEN? ☒ NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☐ YES ☒ NOTYPE 0#BAGS 0

Photographs:

Roll No. NoneFrames None

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-GM)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	BR	NR	OR	OL	OT	OB	TL	LR	SU	U	ME	U		

COMMENTS

GR-6 is an offshore Is land consisting of almost 100% bedrock and a few large boulders. It barely breaks the water at high tide, most of the segment being intertidal. Due to the seas and the relatively steep, slippery bedrock it was surveyed by boat rather than foot. No oil was visible. Its high wave exposure probably removed any previous accumulations.

OG B. Berglund

SI CH MAP

SEGMENT SL R-6

SUBDIVISION A

DATE 4/5/90

CHECKLIST

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

LEGEND

1 ▲

Fl - No Subsurface Oil

2 ▲

Pt - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

Splashed Distribution

2

Oiled Vegetation

1 ➡

Photo location, direction,
and number



Boat Surveyed

Bedrock Island

Approximately all
intertidal

No visible oil

Meters
0 100



Oil Character Length (m): AP _____ PO _____ CV _____ CT _____ ST _____ MS _____ PT _____ TB _____ FL _____ NO 398

REVISION 03/2000

Page 2 of 6

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST / GR06 Subdivision A Date (mo / day / yr) 4/5/90
 Time (24 hr) 1647 Biologist S. Schroeten Tidal Range +1.2

- (A) Substrate type and % of segments:
 (1) Bedrock 95 (2) Boulder 5 (3) Cobble 0 (4) Pebble 0 (5) Sand 0 (6) Silt 0
- (B) Overall % cover of biota (% of segment): Dense 50 Moderate 30 Low 20
- (C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)

Photographs: N/A
 Roll No. N/A
 Frames None

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 (Not observed)

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:

SCATTERED slowly by frost
 so no observations of
 newly settled organisms

Sensitivity 7 11 6 4 5 5 2 M
 Priority 4 3 1 3

These probably
 apply to GR06
 which is 5 times
 the GR06

Ecological Considerations:

This is a small bed rock peninsula offshore of
 GR03/GR10. Biota were dense in the low + mid intertidal &
 adult Alaria were dense in the low intertidal. All substrates
 but bedrock negligible. Gastropods not observed.

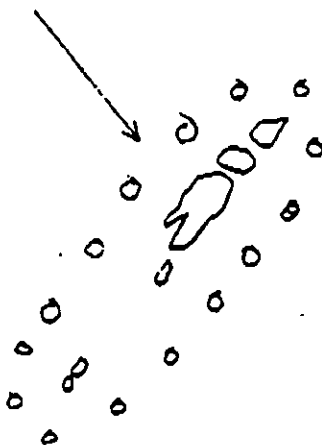
Segment: GR06 Subdivision: A
 BIO: S. Schroeter OG: B. Berglund

Date: April 5, 1990
 Tidal Range: > +1.2

This segment is a small rocky bedrock pinnacle with negligible amounts of substrate other than bedrock. The segment was "SCATTED" by a very close, very slow boat ride. As a result, observations weren't made on newly recruited organisms or gastropods of any size. Biota were dense in the low and mid intertidal. The low intertidal was dominated by various red alga (e.g. *Iridea*) and adult and juvenile *Alaria*.

The priorities & sensitivities listed for GR#6 are probably meant for GR#5, which is small, but 5-10 times the area of GR#6

GR-06



No Oil
Entire Segment
(Boat Surveyed)

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

OOOO No Oil

GR-6

ADEC Segment Length: 398m



Map Key: PWS-313

Name: B. Berglund

Date: 4/5/90

Data Entered:

SHORELINE EVALUATION

SEGMENT ST/ GR-06 SUBDIVISION A (1 OF 1) DATE 4/5/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

2M Herring spawning (4/1 to 6/15)
5S Shorebird/Waterfowl concentration (4/1 to 5/15)
6Y Recreation area: Special use destination
7II Subsistence area: Deer harvesting (8/15 to 2/28)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: Charles E. H. H. H. DATE: 4/18/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 398 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS:

TAG COMMENTS:

TAG APPROVAL DATE: 4/18/90
ADEC JOHN BAUER
EXXON ANDY TON
NOAA Burt Wescott
USCG G.A. TRITEL
FOSC: DATE: 4-22-90

SEGMENT S 1R-6

SUBDIVISION A

DATE 4 / 5 90

CHECKLIST

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

LEGEND

1 Δ

Fl - No Subsurface Oil

2 Δ

Fl - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

Splashed Distribution

20

Oil Vegetation

1 $\Rightarrow$

Photo location, direction, and number



00

Boat Surveyed

Bedrock Island

Approximately all
intertidal

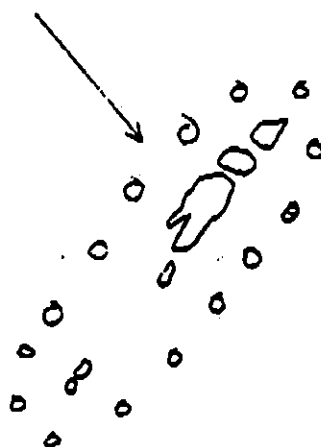
No visible oil

Meters
0 100



Oil Character Length (m): AP _____ PO _____ CV _____ CT _____ ST _____ MS _____ PT _____ TB _____ FL _____ NO 398

GR-06



No Oil
Entire Segment
(Boat Surveyed)

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

GR-6

ADEC Segment Length: 398m



Map Key: PWS-313

Name: B. Berglund

Date: 4/5/90

Data Entered:

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/ GR-07 STREAM NO: UNCATALOGUED DATE 4/23/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Subject salmon stream (P, 12/89)

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

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

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

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

6Y Recreation: Special use destination

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

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

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unopened biota and substrate. Subject stream is located within Subdivision A (1 of 1).

ARCHAEOLOGICAL CONSTRAINTS:

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact a member of Exxon's Cultural Resource Program immediately (564-3657; 564-3658 or 564-3276).

SHPO SIGNATURE: [Signature] DATE: 5/10/90

Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

 No Treatment Recommended

X Treatment Recommended

X Manual Pickup

 Bioremediation

X Tarmat Removal

 Snare/Absorbent Booms

 Oil Snares (pom poms)

 Absorbents (pads, rolls, etc)

 Spot Washing: Wands

 Beach Cleaner

 Other (see comments)

COMMENTS: Recommended treatment includes manual removal of tar patties and tarmats in areas indicated on sketch map. Work should be conducted between 6/15 and 7/10 due to herring and salmon stream constraints.

TAG COMMENTS:

TAG APPROVAL DATE: 5/10/90

ADEC ART WENGER

EXXON ANDY KATZ

NOAA Burl Wescott

USCG D.D. Rome

FOSC: [Signature] DATE: 5-15-90

OG CALLARSON

SEGMENT ST/6800

4/1/41
STREAK NO. NUMBER

DATE 4 123 90

CHECKLIST

- N Arrow
- Approx. Scale
- Supplied Grid
- OR DMC
- Wet
- Length
- % Cover
- Substrate Character
- Est. HTH/LWL
- SSL
- Profile Location(s)
- Profile(s)
- Pt Location(s)
- Photo Location(s)

LEGEND

1 A

Pt - No Substrate Or

2 A

Pt - Substrate Or

CT/C

CT/B

Station Description

CT/P

Purity Description

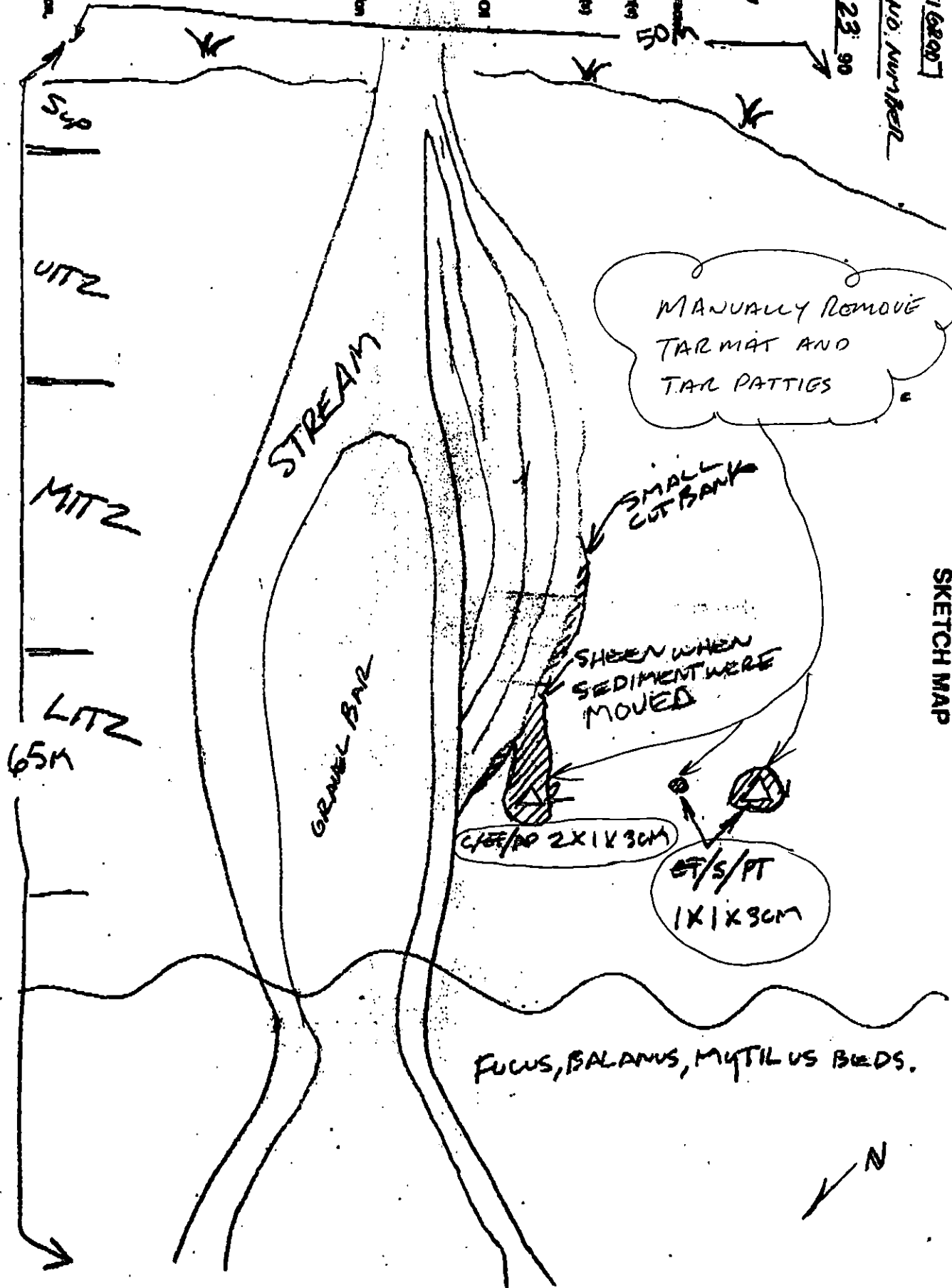
CT/S

Station Distribution

Old Vegetation

Photo location, direction, and number

SKETCH MAP



On Chart: npt: AP 2 PO CV CT ST MS 1 TB FL NO

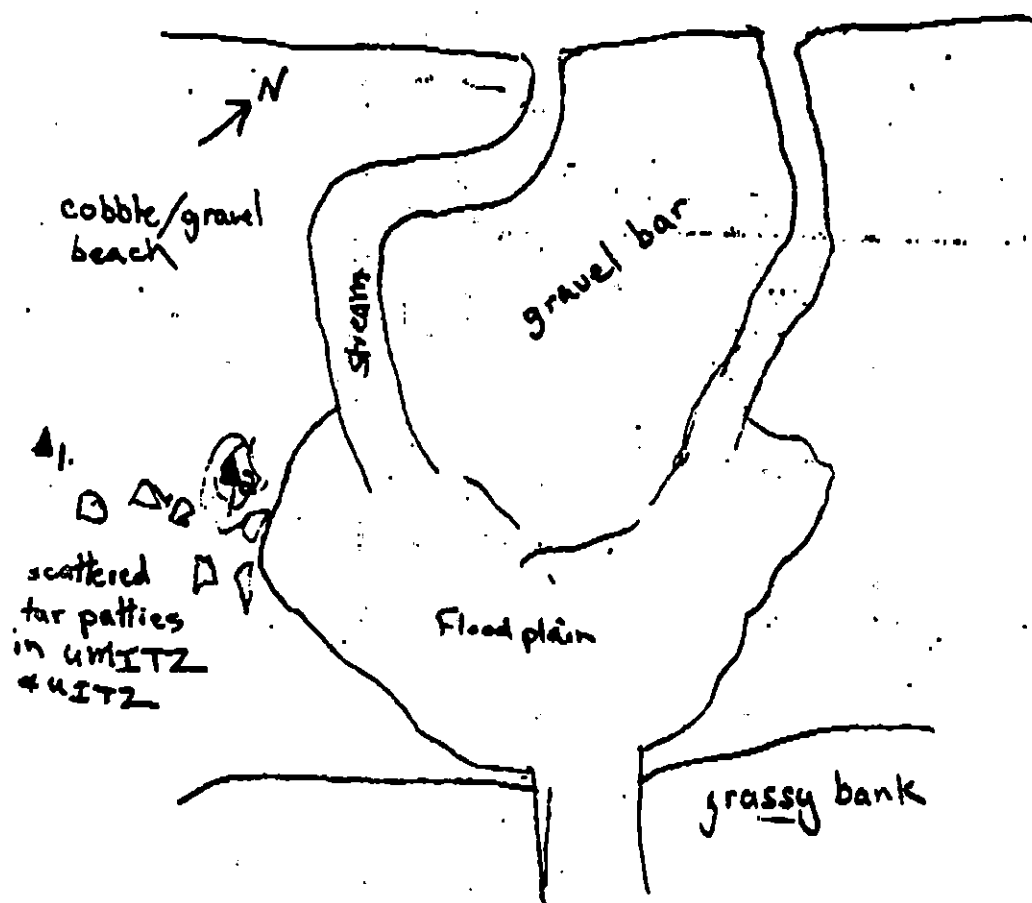
48 PHOTOLOG

FRAME(S)

DESCRIPTION

pit 1 14cm dp 1cm oil pit 2 10cm 2cm oil 1cm tap

48 OIL DISTRIBUTION DIAGRAM



Recommendations

Manual removal of tar patties on LSFD - southside

ECOLOGICAL MAP

1A, 1B
2M, 5S, 6Y, 7II, 7Z

GF

ANADROMOUS STREAM
UNCATALOGUED
BY ADF&G
LOCATED WITHIN

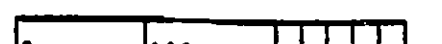
GR-07-A (1 of 1)

GR-07

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

GR-7

ADEC Segment Length: 933m



Map Key: PWS-265
Name: *San Francisco Bay*
Date: *March 30/1990*

ANADROMOUS FISH STREAM EVALUATION ADDENDUM

CONSTRAINTS FOR STREAM NO. UNCATALOGUED

SEGMENT GR-7 SUBDIVISION A

WORK WINDOW	
Manual Pickup Tarmat Removal	OPEN

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A,1B	Salmon Stream	An ADF&G uncatalogued anadromous stream is in Subdivision A. No constraint to manual pickup and tarmat removal.
2M	Herring Spawning	No constraint to manual pickup and tarmat removal.
5S	Shorebird/Waterfowl Concentration	No constraint to manual pickup and tarmat removal.
7II	Subsistence: Deer Harvesting	No constraint to manual pickup and tarmat removal.
7Z	Subsistence: Salmon Harvesting	No constraint to manual pickup and tarmat removal.

OTHER ECOLOGICAL CONSIDERATIONS

No disturbance to stream bed or banks. Avoid any unnecessary disturbance or damage to unrolled substrate and biota especially intertidal and subtidal algae and seagrass. Restrict boat and air traffic and beach disturbance to essential minimum after 7/1.

SEE SUBDIVISION CONSTRAINT ADDENDUM GR-7A
FOR ADDITIONAL CONSTRAINT INFORMATION.

FOSC

[Signature]

Date

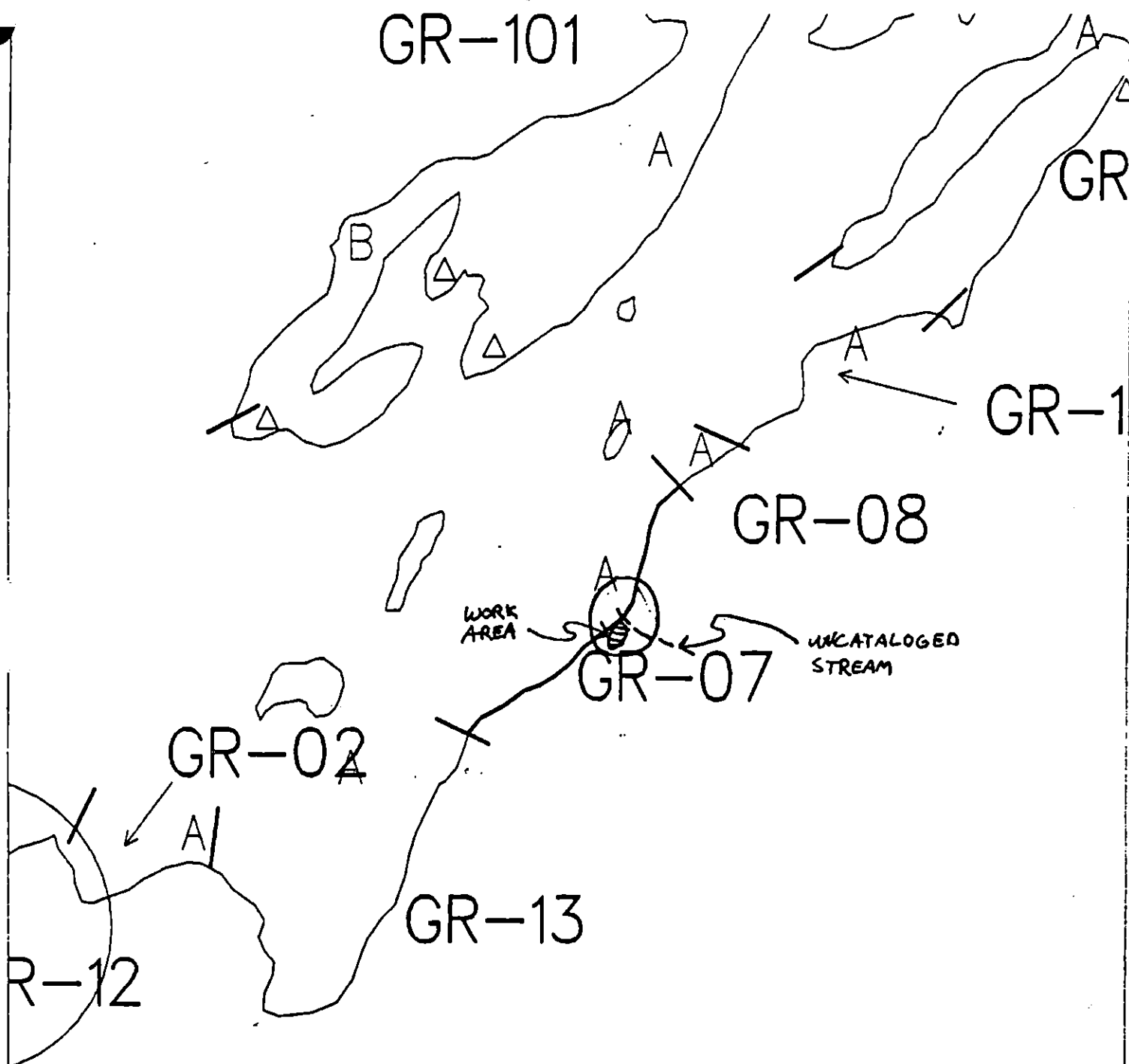
6/13/90

Prepared by

[Signature]

Date

6/12/90



Exxon Company, USA
Map Key: PWS-GR-7
June 04, 1990



ECOLOGY MAP
SEGMENT GR-7
SUBDIVISION A (1 of 1)
METERS



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

1 inch = ~~4000~~ 1000 feet

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/ GR-07 STREAM NO: UNCATALOGUED DATE 4/23/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Subject salmon stream (P, 12/89)
 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
 1B Salmon stream mouth - spawning (7/10 to 8/31)
 2M Herring spawning (4/1 to 6/15)
 5S Shorebird/Waterfowl concentration (4/1 to 5/15)
 6Y Recreation: Special use destination
 7II Subsistence area: Deer harvesting (8/15 to 2/28)
 7Z Subsistence area: Salmon harvesting (5/1 to 9/30)
 See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to uncoiled biota and substrate. Subject stream is located within Subdivision A (1 of 1).

ARCHAEOLOGICAL CONSTRAINTS:

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact a member of Exxon's Cultural Resource Program immediately (564-3657; 564-3658 or 564-3276).

SHPO SIGNATURE: [Signature] DATE: 5/11/90

Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes manual removal of tar patties and tarmats in areas indicated on sketch map. Work should be conducted between 6/15 and 7/10 due to herring and salmon stream constraints.

SEE CONSTRAINTS ADDENDUM dated 6/12/90

TAG COMMENTS:

TAG APPROVAL DATE: 5/10/90
 ADEC ART Wenzel
 EXXON Andy Katz
 NOAA Burl Wescott
 USCG D.D. Rome

FOSC: W L DATE: 5-15-90

ANADROMOUS FISH STREAM ASSESSMENT

REGION: PRINCE WILLIAM SOUND

SEGMENT: GR-07

STREAM NO: UNCATALOGUED

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/ GR-07 STREAM NO: UNCATALOGUED DATE 4/23/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Subject salmon stream (P, 12/89)

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

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

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

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

6Y Recreation: Special use destination

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

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

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiled biota and substrate. Subject stream is located within Subdivision A (1 of 1).

ARCHAEOLOGICAL CONSTRAINTS:

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact a member of Exxon's Cultural Resource Program immediately (564-3657; 564-3658 or 564-3276).

SHPO SIGNATURE: _____ DATE: _____

Subsurface Oil Observed: Yes _____ No X Maximum Depth _____

RECOMMENDATIONS:

 No Treatment Recommended

X Treatment Recommended

X Manual Pickup

 Bioremediation

X Tarmat Removal

 Snare/Absorbent Booms

 Oil Snares (pom poms)

 Absorbents (pads, rolls, etc)

 Spot Washing: _____ Wands

 Beach Cleaner

 Other (see comments)

COMMENTS: Recommended treatment includes manual removal of tar patties and tarmats in areas indicated on sketch map. Work should be conducted between 6/15 and 7/10 due to herring and salmon stream constraints.

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____

EXXON _____

NOAA _____

USCG _____

FOSC: _____ DATE: _____

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

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

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

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

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

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

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

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

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

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

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

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

1H Remote release site

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

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

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

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

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

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

1L Set net sites (8/11 to 7/25)

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

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

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

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

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

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

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

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

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

ADF&G Don Calkins 267-2403

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

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

AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

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

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

AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

ADF&G Tom Roth 267-2206

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

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

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

AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

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

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

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

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

6Y Special use destination

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

Finfish harvesting

Deer harvesting (8/15 to 2/28)

Invertebrate harvesting

Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.

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

7/41

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / GR-007 SUBDIVISION: not cataloged DATE 23 APR 90

USCG

NAME Kerwin L. Drcher SIGNATURE CWO K. L. Drcher☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

Agree.

~~ADFG~~ → ADFGNAME Aimee Weseman SIGNATURE Aimee Weseman☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

manual removal of scattered tar patties on south side
of stream (LSFBS) in upper MITZ & UITZ~~LAND MANAGER~~ → NONE

NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

OG GAL LARSON USCG DREHER, CWE SEGMENT ST/ 6200.7
 BIO KEN CLECHLAN LAND REP STREAM: NO NUMBER OF
 EXXON DARRYL YOE ADFG RAKANTIN-AIMEE WISEMAN TIME 6:40 to 1:00
 TEAM NO. 14 TIDE LEVEL +3 Ft DATE 4/23/90
 EST. SUBDIVISION LENGTH: 50 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo
 SURFACE SEDIMENTS: R 0 % B 0 % C 50 % P 50 % G 0 % S 0 % 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 3 m VL 0 m NO 47 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	R	B	P	S	1	2	3	4	5	SU	U	M	L
ASPHALT PAVEMENT	✓					✓							✓
POOLED													
COVER													
COAT													
STAIN													
MOUSSE													
PATTIES				✓		✓							✓
TARBALLS													
FILM													
NO OIL										✓	✓		✓

PAVEMENT H P 6 sq. m by .3 cm

PATTIES / TARBALLS 2 BAGS

NEAR SHORE SHEEN? NO BR RW 50 TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

Did You Collect?
 DEBRIS 0
☐ YES ☐ NO
 TYPE _____
 #BAGS _____

Photographs:

Roll No. 6
 Frames 1-5

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		NO	UG	1	2	3	4	5	SU	U	M	L				
1	14					✓	•								✓					N		CB, PB/CB, PB
2	10					✓	•								✓					N		CB, PB/CB, PB
							•															
							•															
							•															
							•															
							•															

COMMENTS NO STREAM NUMBER AT THIS SITE. VERY LITTLE OIL.

REVIEWED JW DATE 4-26-90

OG CAL LARSON
 SEGMENT ST/6200
 4/1/91

STREAM NO. NUMBER

DATE 4 123 90

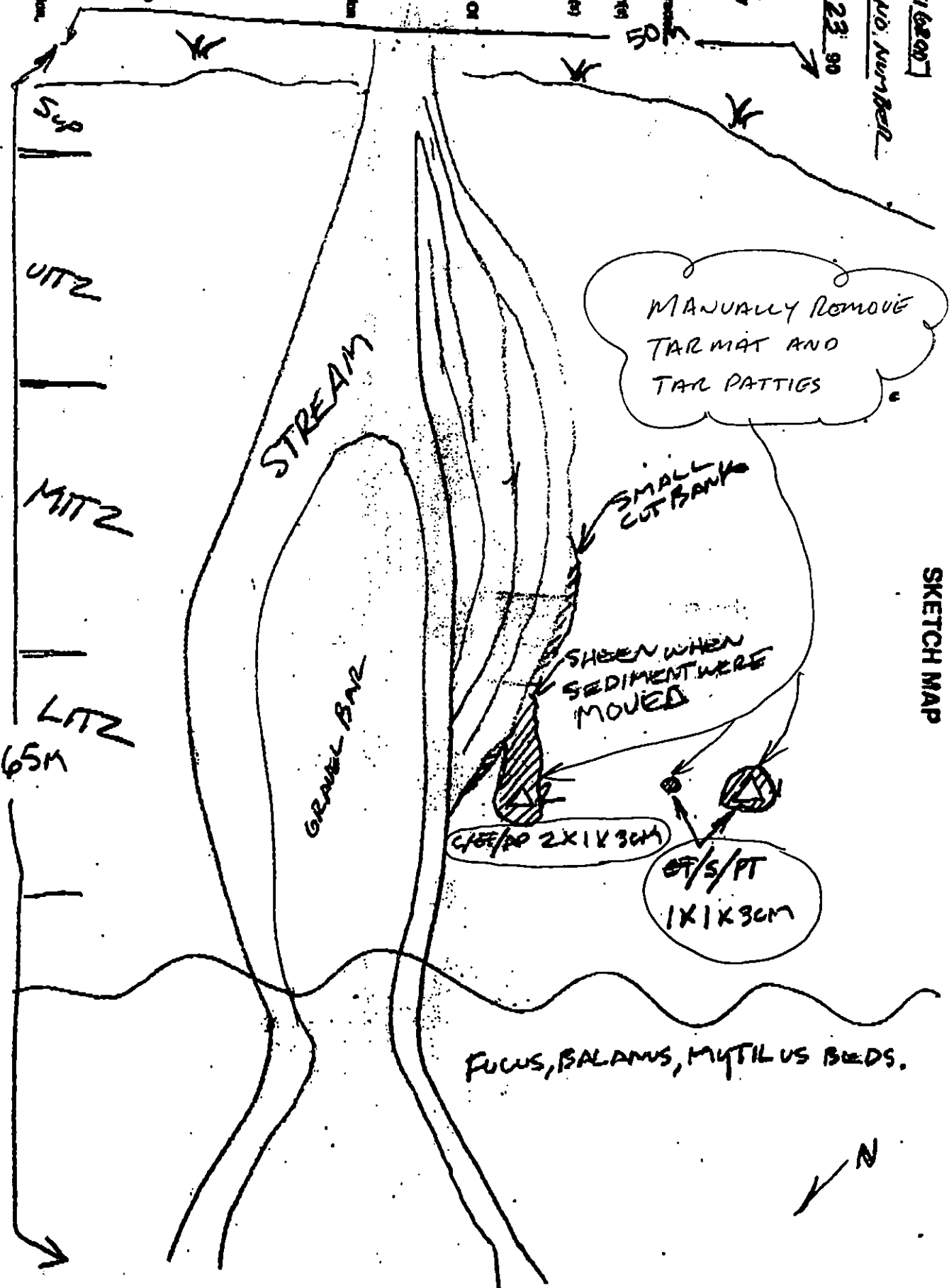
CHECKLIST

- ✓ N Arrows
- ✓ Approx. Scale
- ✓ Sediment Entry
- ✓ On Disk
- ✓ Notes
- ✓ Legend
- ✓ % Cover
- ✓ Sediment Channel
- ✓ Est. HMLAW
- ✓ SBL
- ✓ Profile Location(s)
- ✓ Profile(s)
- ✓ Pt Location(s)
- ✓ Photo Location(s)

LEGEND

- 1 A
- M - M/S Sediment Co
- 2 A
- M - Sediment Co
- CT/C
- Confined Distribution
- CT/B
- Basin Distribution
- CT/P
- Petty Distribution
- CT/S
- Spaced Distribution
- 200
- Dist Vegetation
- 1 00
- Photo location, direction, and number

SKETCH MAP



On Character: AP 2 PO CV OT ST MS 1 TB FL NO

REVISIONS

4/41

Seq. ID: BR-007 Subdiv: No ASC #
Survey Date: 4/23/90
Comments of: Ken Critchlow

A small area of asphalt pavement was observed along the west bank of the stream; a few patties were present in the same area. Some sheen was produced in the area containing pavement when oiled sediments were disturbed. Two pits in this area revealed no subsurface oil.

This stream area can be cleaned by a small crew using shovels to remove contaminated sediments to a depth of 3-4 cm in the MITZ.

7R Critchlow

5/41

ADFG MULTI-ASSESSMENT DATA FORM

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

METHOD: Aerial (Ground) Base

3 DATE: 4-23-90 15 HIGH TIDE TIMES: 7 21 TEAM RECORDER: Aimee Weseman

4 START TIME: 1640 16 HIGH TIDE HTS: 1 22 OBSERVERS: Rick Gustin

5 STOP TIME: 1700 17 LOW TIDE TIMES: 1 23 AGENCY: Aimee Weseman

6 SEGMENT #: GR007 18 LOW TIDE HTS: 1 24 PHOTOS TAKEN: Y (N)

7 STATION #: _____ 19 TIDE HT AT SURVEY: _____ Roll #: _____ Frame: _____

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

9 STAT AREA: _____ 20 USOC QUAD: S B D Starts: _____ Ends: _____

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

12 SOURCE: (Map) Locan

13 LOCATION: North side Green Island

14 DESCRIPTION: _____

EXTENT OF OIL

	SHORELINE				STREAM			
	L	W	H	N	L	W	H	N
27 SURFACE COVERAGE	2m	1m						
28 SURFACE THICKNESS	1cm	2cm						
29 PENETRATION	NO							

30 OVERALL OIL IMPACT: N YL (L) N H

31 OIL TYPE: Peeled Mousse (Tar) Asphalt Sticky Stain

32 OILED DEBRIS: Y (N)

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

34 WAVE EXPOSURE: High Moderate (Low)

35 SUBSTRATE TYPE: Bedrock Boulder Cobble 40
Gravel 50 Sand 7 Mud/silt 3

36 CATALOGED ANAD. FISH STREAM? Y (N)

37 CATALOG #: _____

38 STREAM NAME: _____

39 OIL IN STREAM BED? Y (N)

40 OIL ON STREAM BANKS? (Y) N

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

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

Where: _____

43 ANADROMOUS FISH PRESENT? Y N

44 ANADROMOUS FISH OBSERVATION

Species	Aerial	Ground

COMMENTS: scattered tar patches 1-2cm deep on beach approx 2 square meters in size in UTT

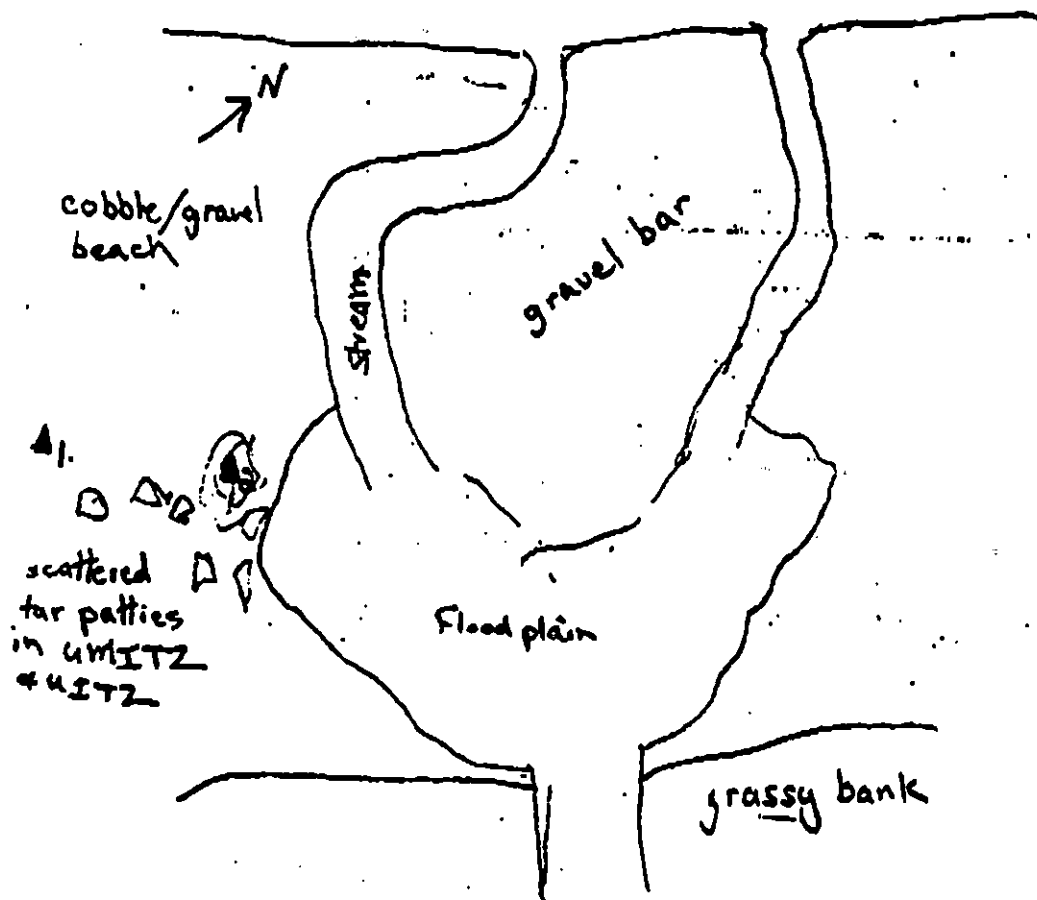
48 PHOTOLOG

FRAME(S)

DESCRIPTION

pit 1 14cm dp 1cm oil pit 2 10cm 8cm oil 1cm top

48 OIL DISTRIBUTION DIAGRAM



Recommendations

Manual removal of tar patties on LSFD - southside

ECOLOGICAL MAP

1A, 1B
2M, 5S, 6Y, 7H, 7Z

GF

ANADROMOUS STREAM
UNCATALOGUED
BY ADF&G

LOCATED WITHIN

GR-07-A(1 of 4)

GR-07

XXXX Wide

//// Medium

--- Narrow

TTTT

GR-7

ADEC Segment Length: 933m

Map Key: PWS-265

Name: *San Francisco*

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT GR-8 SUBDIVISION A (1 of 1)

WORK WINDOW	
Bioremediation Manual Raking	WORK 6/15 to 7/1

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

2M	Herring Spawning	Closed to bioremediation and manual raking before 6/15.
5S	Shorebird/Waterfowl Concentration	No constraint after 5/15.
7II	Subsistence: Deer Harvesting	Closed to bioremediation and manual raking after 8/15.
7Z	Subsistence: Salmon Harvesting	Closed to bioremediation and manual raking after 7/1 per Gail Evanoff/Chenega Corp. to Tom Kelley/Exxon on 6/8/90.

OTHER ECOLOGICAL CONSIDERATIONS

Restrict boat and air traffic and beach disturbance to essential minimum prior to 6/15 and after 7/1. Avoid any unnecessary disturbance or damage to unrolled substrate and biota especially intertidal and subtidal algae and seagrass.

FOSC

DATE 6-10-90

Prepared By: J. P. Phillips

6-10-90
Ann

DATE 6/10/90

GR-101

GR-

GR-14

GR-08

GR-07

R-02

GR-13

WORK
AREA



Exxon Company, USA

Map Key: PWS-GR-8

June 04, 1990



ECOLOGY MAP
SEGMENT GR-8

SUBDIVISION A (1 of 1)

METERS



Seabird Colony



Active Eagle Nest



Inactive Eagle Nest

ORIGINAL

SHORELINE EVALUATION

SEGMENT ST/ GR-08 SUBDIVISION A (1 OF 1) DATE 3/30/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Shorebird/Waterfowl concentration (5S) - 4/25 to 5/15; Herring spawning (2M) - 4/1 to 6/15; Medium recreation use (6/1 to 9/15); High subsistence value area - consult ADF&G and Chenega Bay for dates.

SUBDIVISION ECOLOGICAL CONSTRAINTS: Avoid disturbance/damage to un-oiled 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 a member of Exxon's Cultural Resource Program immediately (564-3657; 564-3658 or 564-3276).

SHPO SIGNATURE: Charles J. Hansen DATE: April 11, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 122 m: Narrow 0 m: V.Light 75 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> </u> Manual Pickup	<u> </u> Absorbents (pads, rolls, etc)
<u>X</u> Bioremediation	<u> </u> Spot Washing: <u> </u> Wands
<u> </u> Tarmat: <u> </u> Breakup	<u> </u> Beach Cleaner
<u> </u> Removal	<u> </u> Other (see comments)

COMMENTS: Recommend bioremediation of area where patchy surface cover found. (See sketch map). Work after 6/15 based on herring constraints - consult ADF&G and Chenega Bay.

RAKE SMALLER SEDIMENTS PRIOR TO BIOREMEDIATION IF POSSIBLE

SEE CONSTRAINTS ADDENDUM dated 6/14/90 JPP

TAG COMMENTS:

TAG APPROVAL DATE: 4/11/90.

ADEC JOHN BAWER
EXXON ANDY GEAR
NOAA Burl Watt
USCG G.A. REITER

FOSC: DATE: 4-19-90

ORIGINAL

SHORELINE EVALUATION

SEGMENT ST/ GR-08 SUBDIVISION A (1 OF 1) DATE 3/30/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Shorebird/Waterfowl concentration (5S) - 4/25 to 5/15; Herring spawning (2M) - 4/1 to 6/15; Medium recreation use (6/1 to 9/15); High subsistence value area - consult ADF&G and Chenega Bay for dates.

SUBDIVISION ECOLOGICAL CONSTRAINTS: Avoid disturbance/damage to un-oiled 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 a member of Exxon's Cultural Resource Program immediately (564-3657; 564-3658 or 564-3276).

SHPO SIGNATURE: Charles Z. Homan DATE: April 11, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 122 m: Narrow 0 m: V.Light 75 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> </u> Manual Pickup	<u> </u> Absorbents (pads, rolls, etc)
<u>X</u> Bioremediation	<u> </u> Spot Washing: <u> </u> Wands
<u> </u> Tarmat: <u> </u> Breakup	<u> </u> Beach Cleaner
<u> </u> Removal	<u> </u> Other (see comments)

COMMENTS: Recommend bioremediation of area where patchy surface cover found. (See sketch map). Work after 6/15 based on herring constraints - consult ADF&G and Chenega Bay.

RAKE SMALLER SEDIMENTS PRIOR TO BIOREMEDIATION IF POSSIBLE

TAG COMMENTS:

TAG APPROVAL DATE: 4/11/90
ADEC JOHN BAUER
EXXON ANDY GAZ FOSC: DATE: 4-19-90
NOAA Burl Wessett
USCG G.A. REITER

OG ~~from~~ ~~Sample~~
 SEGMENT ST/PT: 8
 SUBDIVISION NO: 11
 DATE: Mar 13 / 90

ATCH MAP

Legend
 w. dolt
 12.15 Length
 cv/p Dist. Cut-on.
 Character

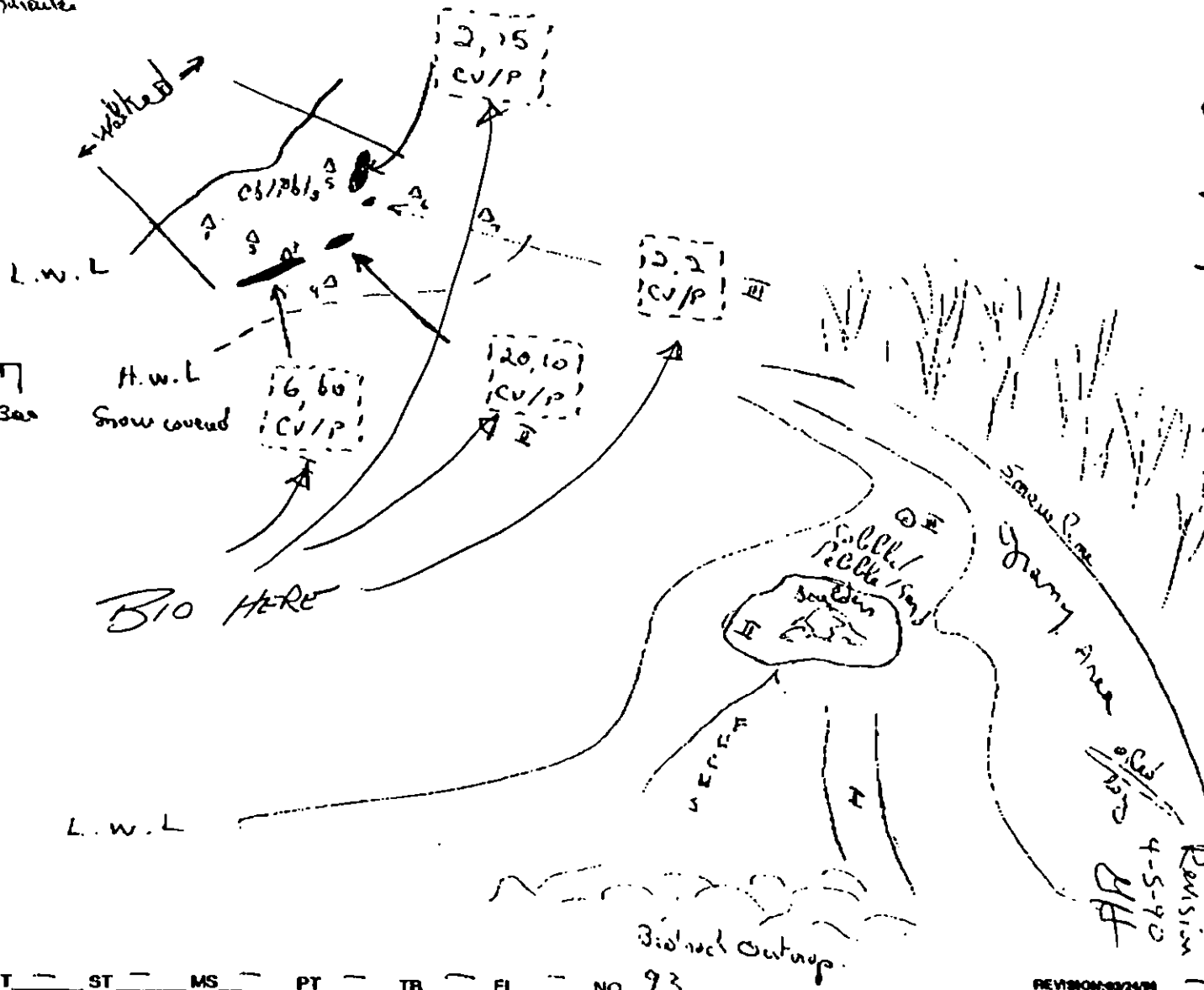
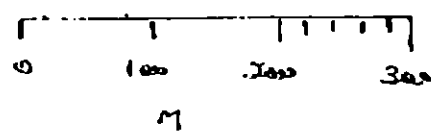
⊗
 ⊗

CHECKLIST

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

LEGEND

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



Oil Character Length (m): AP — PO — CV 87 CT — ST — MS — PT — TB — FL — NO 93

Revision 1 4-5-70
BH

GR-8

GR

GR-07

XXXX Wide
// Medium
--- Narrow
TTTT Very Light
0000 No 0

GR-8

ADEC Segment Length: 933m



Map Key: PWS-265
Name: San Luis Canal
Date: March 30/70
Data Entered:

1991 MAYSAP EVALUATION

SEGMENT: GR 008 SUB: A REGION: PWS SURVEY DATE: 4/29/91

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) OPEN 5/1 - 7/10 (EXCEPT STREAM BED); RESTRICTED 7/10 - 9/15

Ecological/Constraints (see page two for details) Subsistence, Deer harvesting, Subsistence, Salmon harvesting

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO Signature: Charles E. Adams Date: 5/9/91

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:

TAG APPROVAL DATE: MAY 9 1991 FOSC APPROVAL DATE: 5/13/91

ADEC [Signature] FOSC [Signature]

EXXON [Signature] E. E. PAGE, CDR, USCG
CHIEF OF STAFF, FOSC

USCG [Signature]

NOAA [Signature]

**ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES**

Subsistence, Deer Harvesting: Unlimited treatment prior to 8/15.

Subsistence, Salmon Harvesting: 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.

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. Three SEGMENT GR 008 SUBDIVISION A DATE 4/29/91

ADEC

NAME Wesley Ghormley

SIGNATURE Wesley Ghormley 

☐ NTR ☒ TREATMENT RECOMMENDED.

THIS subdivision is a classic example of past inadequate work. A band of old mousse patties lies thru out area. Where work was previously done small cobbles/boulders were never rolled to retrieve patty & are still present. Recommend a small crew to manually pick up (w/shovels) mousse band and patties thru-out area. Rolling cobble/boulder is necessary, dab up remaining oil with pom-poms. Canadian geese were observed walking in area, (Possibly feeding) - This area is a major staging area for water fowl, it is also low energy environment and natural cleaning would be a slow process. Causing a threat to the wildlife if oil is not retrieved.

EXXON

NAME Jon P. Czarnicki

SIGNATURE Jon Czarnicki

☒ NTR Very soft sand. little oil. The sor that was picked up or broken up was in a 3 meter band at MITZ to cover HITZ. Broke up most sor. Left beach due to completion of survey and cold temps. No major oiling. This beach is healthy and supports lots of biota and inner tidal life.

LANDMANAGER

NAME Carol S Huber OF USFS

SIGNATURE Carol S Huber

☒ NTR Even after two treatments, some surface oil remains. This oil is still mobil (if oiled sediments are disturbed, rainbow to silver sheening appears). However, I suggest that further treatment would be more intrusive than the oil is. There is a lot of fresh water flowing across beach and will eventually remove the mobil oil, leaving the inert oil to slowly break down by weathering processes.

USCG/NOAA

NAME MOOREY

SIGNATURE Steve Moorey

☒ NTR NO TREATMENT RECOMMENDED, HOWEVER, SEVERAL OLD MOUSSE PATTIES ARE LOCATED AT THE NORTHEAST END OF SEGMENT CONSISTING OF 1 METER BY 1 METER IN SIZE AND 2 CM IN THICKNESS. ONE SITE WAS 3 METER TO 30 METERS AND 2 CM THICK. SEGMENT WORKED TWICE BEFORE. CANADIAN GESE WERE SIGHTED IN NORTHWEST SIDE. SEGMENT IS SHELTERED AND IS IN MODERATE TO LOW ENERGY ZONE.

PAGE 7 OF 7

SEGMENT 6R-08

SUBDIVISION A

DATE 4 / 27 / 91

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 30 m N 10 m VL 13 m NO 144 m US 0 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-

NO photos / camera broke -
FRAMES rain!

FRAMES

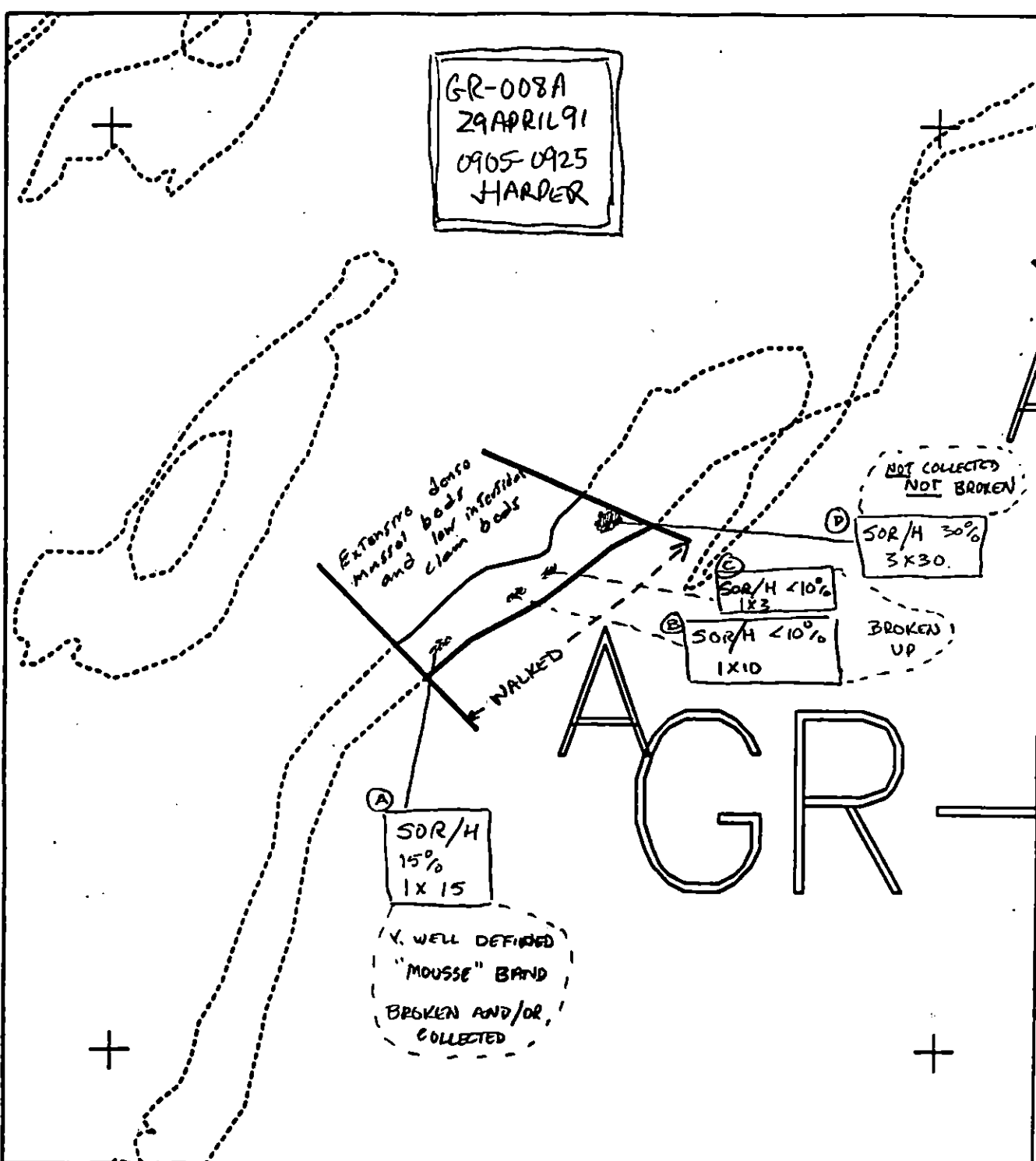
SHEEN COLOR: B = BROWN: R = RAINBOW: S = SILVER: N = NONE

Surface oiling was concentrated in a discontinuous, narrow band of SOR/14 that probably originated as a band of mouse patties. Most of this was broken up or collected but the 3x30m (Location D) at the north end of the segment was left.

"Informal" pits did not reveal any subsurface viling - SOR appeared less than 5cm at all locations due to the fine nature of sediments.

REVIEWED: F.W. 5/2/91 OG 1 of 4
 Reviewed: M.C. 5/2/91

GR-008A
29 APRIL 91
0905-0925
HARPER



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

GR008 A

ADEC Subsegment Length: 187m
METERS

AK State Plane Zone 4
990000



Subdivision Field Map

Map Key: PWSGR008A

Name: HARPER

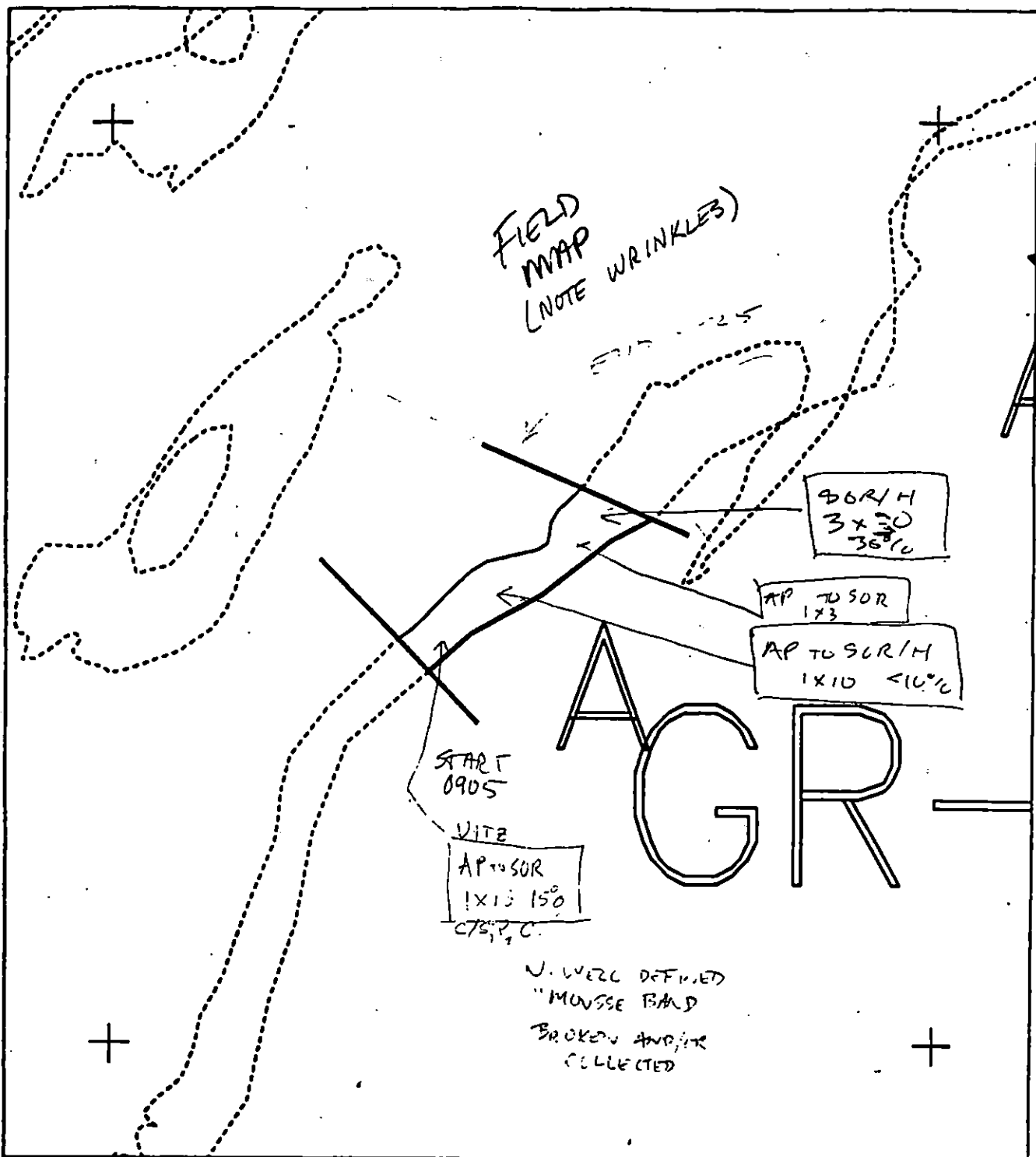
Date: 29 APRIL 91

Date Entered:

REVIEWED: F.W. 5/2/91

REVIEWED: M.C. 5/2/91

OG 2af4



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

GR008 A
ADEC Subsegment Length: 197m
METERS
AK State Plane Zone 4
pg008a



Subdivision Field Map
Map Key: PWSGR008A
Name: HARPER
Date: 29 APRIL 91
Data Entered:

FIELD
MAP

Reviewed: F.W. 5/2/91
Reviewed: M.C. 5/2/91

OG 4 of 4

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 3 DATE 4/29/91
 SEGMENT # GR08 TIDAL HEIGHT(Range) -1' to -2'
 SUBDIVISION A BIOLOGIST STANOR
 SEA STATE 1-2' WIND SPEED/DIRECTION NE 15-25
 PHOTOGRAPHS: ROLL # FRAME #

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

Low energy beach of angular rubble/pebble/sand.
Biotic community extends throughout intertidal range, consisting
of barnacles and spat (often dense), limpets, whelks (Nucella,
Scarcellia), Littorina (and Littorina egg masses), Nemertean worms,
Signatulids, Pagurus, Fucus and incident red algae, and
clams (shells of Pododemus, Saxidomus, Protothaca, Mya, Macoma,
Clinocardium). Extensive interbedded Mytilus and new-growth
Fucus in mid intertidal, clam beds in lower intertidal/shallow
subtidal.
Biota within oiled zone characterized by barnacles and spat,
Fucus (with new growth), limpets (often dense clusters of small
individuals), Pagurus, and Littorina (often dense clusters with
egg masses). Biota downlope from oiled zone as described above.
In general, biota appears healthy and relatively abundant
and diverse, with evidence of new growth and recruitment.
If additional treatment is planned, care should be taken to
minimize disturbance to established biota. This applies especially to
dense and extensive Mytilus beds in the mid to lower intertidal
and clam beds in the lower intertidal.

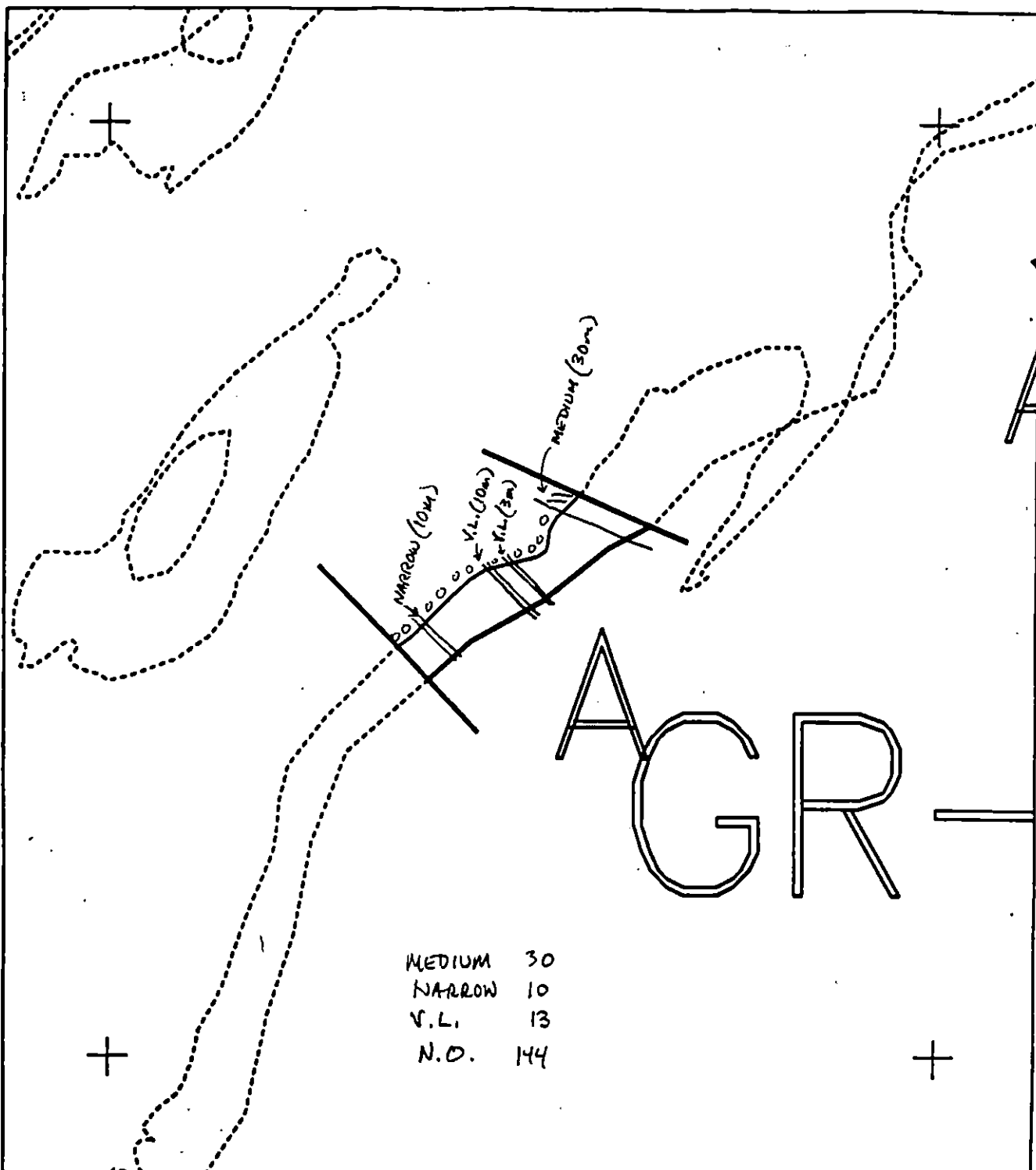
WILDLIFE OBSERVATIONS
TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles			
Seabirds			
Waterfowl	Canada goose	4	
Gulls/kittiwakes	2	10-20	
Shorebirds			
Corvids			
Other Birds			

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

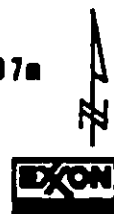
Shoreline subdivision map showing important biological features attached.

REVIEWED: M.C. 5/2/91
 DM 5/2/91



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

GROOB A
 ADEC Subsegment Length: 187m
 METERS
 0 100 200
 AK State Plane Zone 4
 pgr008a



Subdivision Field Map
 Map Key: PWGRO08A
 Name: HARPER
 Date: 29 APR 91
 Date Entered:

REVIEWED: F.W. 5/2/91 G 3 of 4
 REVIEWED: M.C. 5/7/91

1991 MAYSAP EVALUATION

SEGMENT: GR 008 **SUB:** A **REGION:** PWS **SURVEY DATE:** 4/29/91

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) OPEN 5/1 - 7/10 (EXCEPT STREAM BED); RESTRICTED 7/10 - 9/15

Ecological/Constraints (see page two for details) Subsistence, Deer harvesting, Subsistence, Salmon harvesting

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)	<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 _____

**ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES**

Subsistence, Deer Harvesting: Unlimited treatment prior to 8/15.

Subsistence, Salmon Harvesting: 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.

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. Three SEGMENT GR 008 SUBDIVISION A DATE 4/29/91

ADEC

NAME Wesley Gihormley SIGNATURE Wesley Gihormley

☐ NTR ☒ TREATMENT RECOMMENDED.

THIS subdivision is a classic example of past inadequate work. A band of old mousse patties lies thru out area. Where work was previously done small cobbles/boulders were never rolled to retrieve patty & are still present. Recommend a small crew to manually pick up (w/shovels) mousse band and patties thru-out area. Rolling cobble/boulder is necessary, dab up remaining oil with pom-poms. Canadian geese were observed walking in area, (Possibly feeding) - This area is a major staging area for water fowl, it is also low energy environment and Natural cleaning would be a slow process. Causing a threat to the wildlife if oil is not retrieved.

EXXON

NAME Jon P. Czarnicki SIGNATURE Jon Czarnicki

☒ NTR Very soft SAND. little oil. The sor that was picked up or broken up was in a 3 meter band at MITZ to lower MITZ. Broke up most sor. Left beach due to completion of survey and cold temps. No major oiling. This beach is healthy and supports sea biota and inner tidal life.

LANDMANAGER

NAME Carol S Huber OF USFS SIGNATURE Carol S Huber

☒ NTR Even after two treatments, some surface oil remains. This oil is still mobil (if oiled sediments are disturbed, rainbow to silver sheening appears). However, I suggest that further treatment would be more intrusive than the oil is. There is a lot of fresh water flowing across beach and will eventually remove the mobil oil, leaving the inert oil to slowly break down by weathering processes.

USCG/NOAA

NAME MOONEY SIGNATURE Steve Mooney

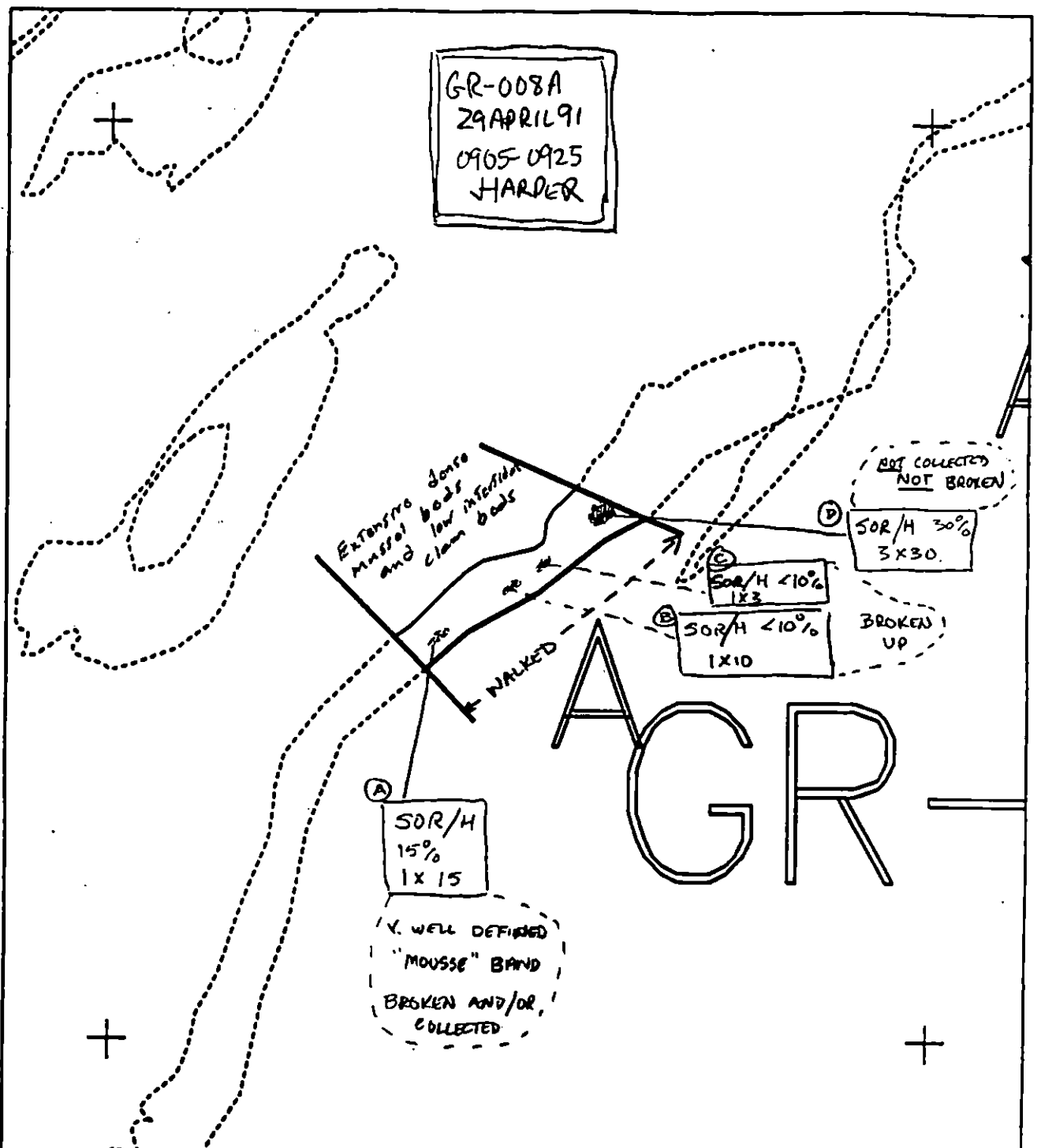
☒ NTR NO TREATMENT RECOMMENDED, HOWEVER, SEVERAL OLD MOUSSE PATTIES ARE LOCATED AT THE NORTHEAST END OF SEGMENT CONSISTING OF 1 METER BY 1 METER IN SIZE AND 2 CM IN THICKNESS. ONE SITE WAS 3 METERS TO 30 METERS AND 2 CM THICK. SEGMENT WORKED TWICE BEFORE. CANADIAN GESE WERE SIGHTED IN NORTHWEST SIDE. SEGMENT IS SHELTERED AND IS IN MODERATE TO LOW ENERGY ZONE.

DATE 4 / 27 / 91

EST. OIL CATEGORY LENGTH: W 0 m M 30 m N 10 m VL 13 m NO 144 m US 0 m

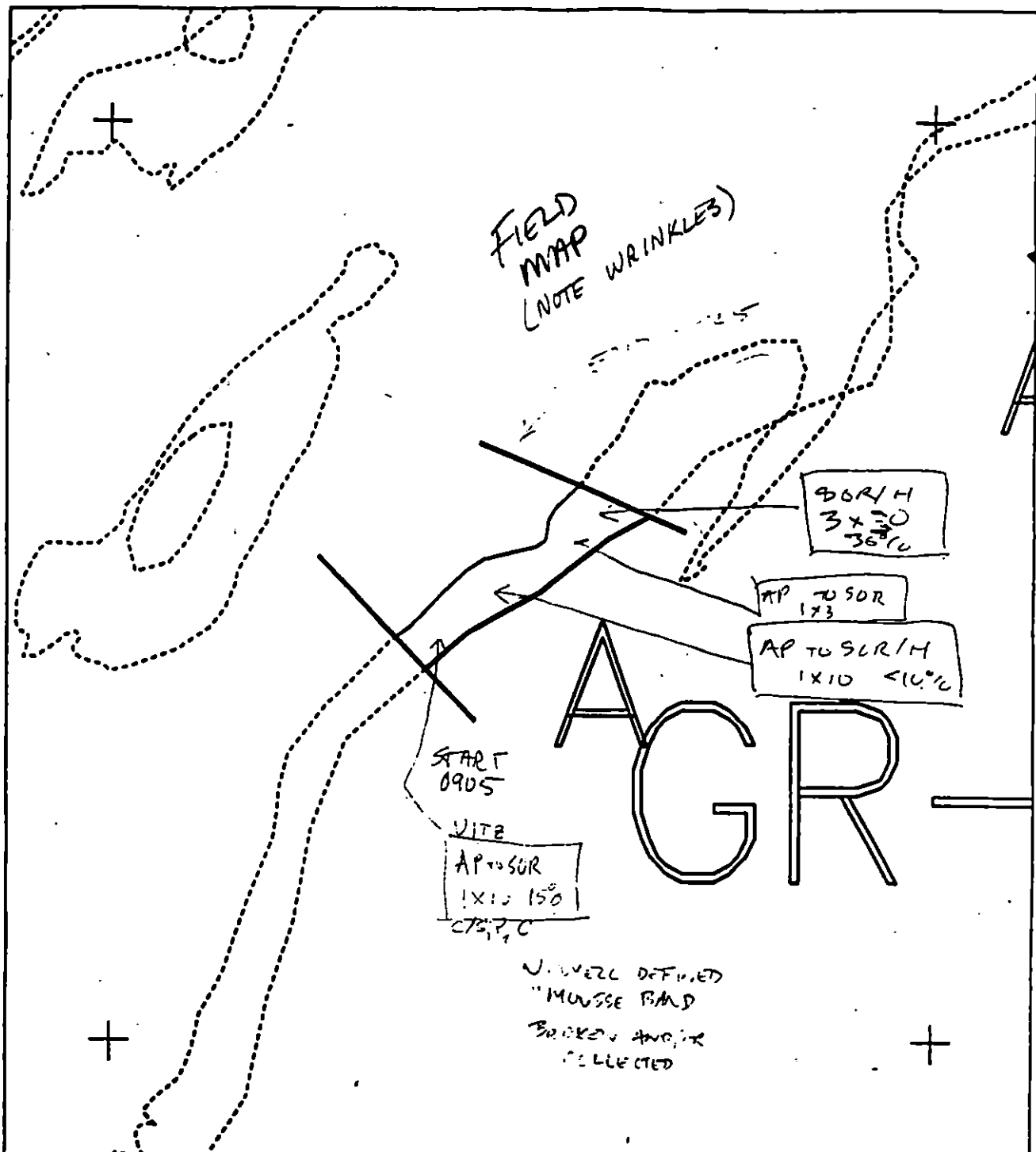
SHEEN COLOR: B = BROWN; R = RAINBOW; S = SILVER; N = NONE

REVIEWED: F.W. 5/2/91 *OG 1 of 4*
 Reviewed: M.C. 5/2/91



XXXX	Wide	GROOB A ADEC Subsegment Length: 197m METERS AK State Plane Zone 4 pg008a	Subdivision Field Map Map Key: PWSGROOB A Name: <u>HARPER</u> Date: <u>29 APRIL 91</u> Date Entered:
////	Medium		
----	Narrow		
TTTT	Very Light		
0000	No Oil		

REVIEWED: F.W. 5/2/91
 REVIEWED: M.C. 5/2/91
 OG 2 of 4



XXXX	Wide	GROOB A ADEC Subsegment Length: 197m METERS 0 100 200 AK State Plane Zone 6 pg008a	Subdivision Field Map Map Key: PWSGROOB A Name: HARPER Date: 29 APRIL 91 Date Entered:
////	Medium		
----	Narrow		
TTTT	Very Light		
0000	No Oil		

FIELD
MAP

Reviewed: F.W. 5/2/91
 Approved: M.C. 5/2/91
 OG 4 of 4

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 3 DATE 4/29/91
 SEGMENT # GR08 TIDAL HEIGHT(Range) -1' to -2'
 SUBDIVISION A BIOLOGIST STANOR
 SEA STATE 1-2' WIND SPEED/DIRECTION NE 15-25
 PHOTOGRAPHS: ROLL # _____ FRAME # _____

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

Low energy beach of angular rubble/pobble/sand.
Biotic community extends throughout intertidal range, consisting
of barnacles and spat (often dense), limpets, whelks (Nucella,
scarlosia), Littorina (and Littorina egg masses), Nemertean worms,
Signatulids, Pagurus, Fucus and unident red algae, and
clams (shells of Pectodermus, Saxidomus, Protothaca, Mya, Macoma,
Chione). Extensive interbedded Mytilus and new-growth
Fucus in mid intertidal, clam beds in lower intertidal/shallow
subtidal.
Biota within oiled zone characterized by barnacles and spat,
Fucus (with new growth), limpets (often dense clusters of small
individuals), Pagurus, and Littorina (often dense clusters with
egg masses). Biota downlogs from oiled zone as described above.
In general, biota appears healthy and relatively abundant
and diverse, with evidence of new growth and recruitment.
If additional treatment is planned, care should be taken to
minimize disturbance to established biota. This applies especially to
dense and extensive Mytilus beds in the mid to lower intertidal
and clam beds in the lower intertidal.

WILDLIFE OBSERVATIONS

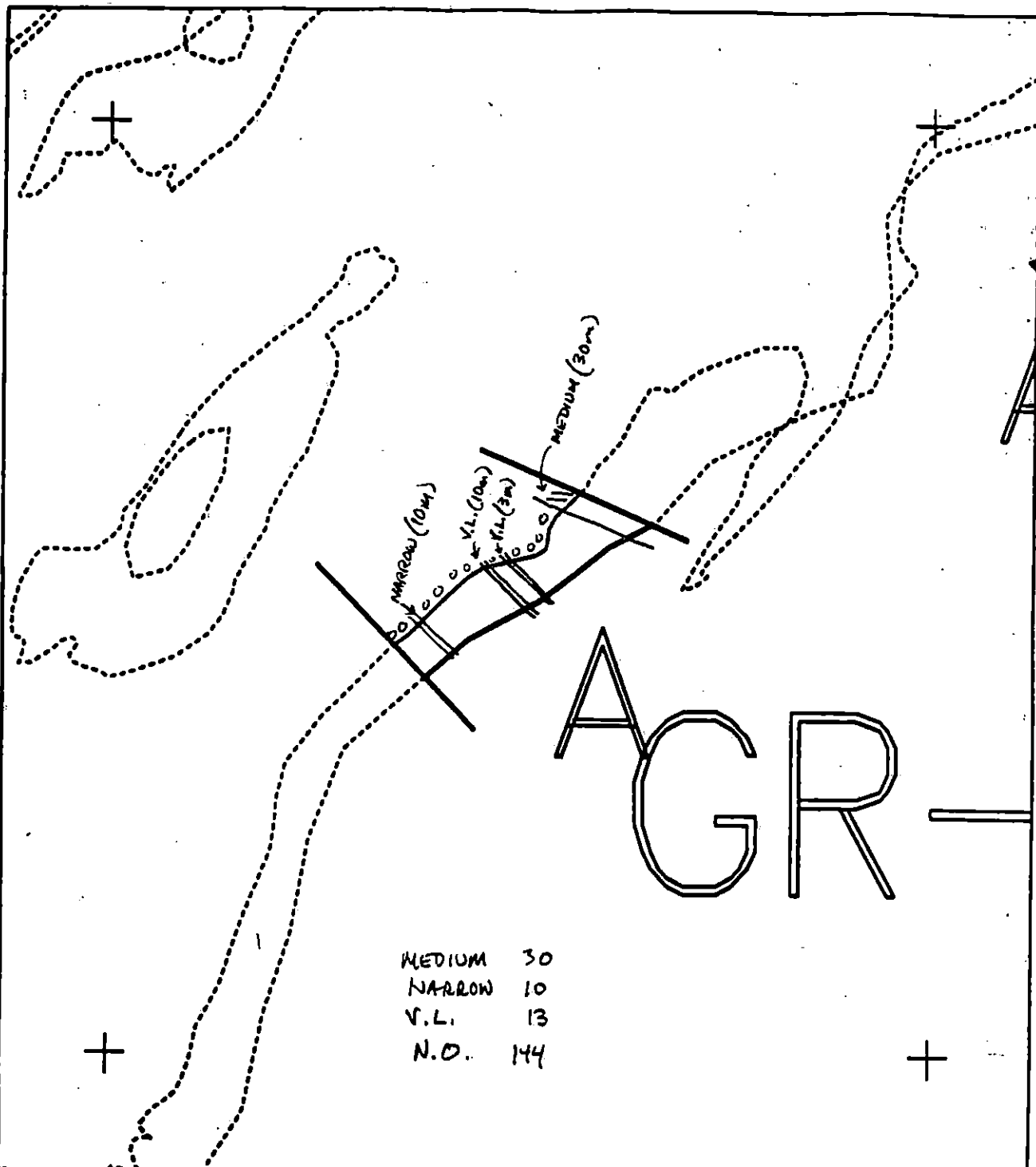
TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles			
Seabirds			
Waterfowl			
Gulls/kittiwakes	<u>Canada goose</u>	<u>4</u>	
Shorebirds	<u>2</u>	<u>10-20</u>	
Corvids			
Other Birds			

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

Shoreline subdivision map showing important biological features attached.

REVIEWED: M.C. 5/4/91
 DM 5/2/91



MEDIUM 30
 NARROW 10
 V.L. 13
 N.O. 144

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

GROOB A
 ADEC Subsegment Length: 197m
 METERS
 0 100 200
 AK State Plane Zone 4
 990000

Subdivision Field Map
 Map Key: PWSGRO08A
 Name: HARPER
 Date: 29 APR 91
 Date Entered:

REVIEWED: F.W. 5/2/91 3 of 4
 REVIEWED: M.C. 5/1/91

1991 MAYSAP EVALUATION

SEGMENT: GR 009 **SUB:** A **REGION:** PWS **SURVEY DATE:** 4/30/91

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) RESTRICTED 8/15 - 9/15

Ecological/Constraints (see page two for details) Herring
spawning, Subsistence - Deer harvesting

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**

Herring Spawning: No treatment before June 1. Avoid disturbance to kelp and eelgrass.

Subsistence - Deer Harvesting: Unlimited treatment prior to 8/15.

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 3 SEGMENT GR-9 SUBDIVISION A DATE 4/30/91

ADEC

NAME Wesley Gormley SIGNATURE Wesley Gormley☒ NTR ☐ TREATMENT RECOMMENDED

VECO CREW REMOVED ONE large patty. High energy environment
Recommend NO Further TREATMENT.

EXXON

NAME Jon P. Carmichael SIGNATURE Jon Carmichael☒ NTR

This beach looked good and clean, with a active inter tide zone. The beach is healthy and supporting a wide range of life. Very little oil and what is there doesn't feel would harm anything. Coats and stain make up most of the oily.

LANDMANAGER

NAME Carol S Huber OF USFS SIGNATURE Carol S Huber☒ NTR

Not much surface oil & that mostly weathered. No near shore sheen noted. Only one small pocket of subsurface medium residue. Not enough oil here to disturb established biota.

USCG/NOAA

NAME MOONEY / Barab SIGNATURE Tim Mooney / Fred Barab☒ NTR

SEGMENTS CONSISTS OF Boulder COBBLE AMONG ON BROCK WITH MINIMAL OIL STAIN AND COAT IN POCKETS OF SEDIMENT IN THE BROCK.

REVIEWED: M.C. 5/3/41

MAYSAP SHORELINE OILING SUMMARY (cont.)

TEAM NO. 3

PAGE 2 OF 2

SEGMENT GR-09

SUBDIVISION A

DATE 4/30/91

[illegible]

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

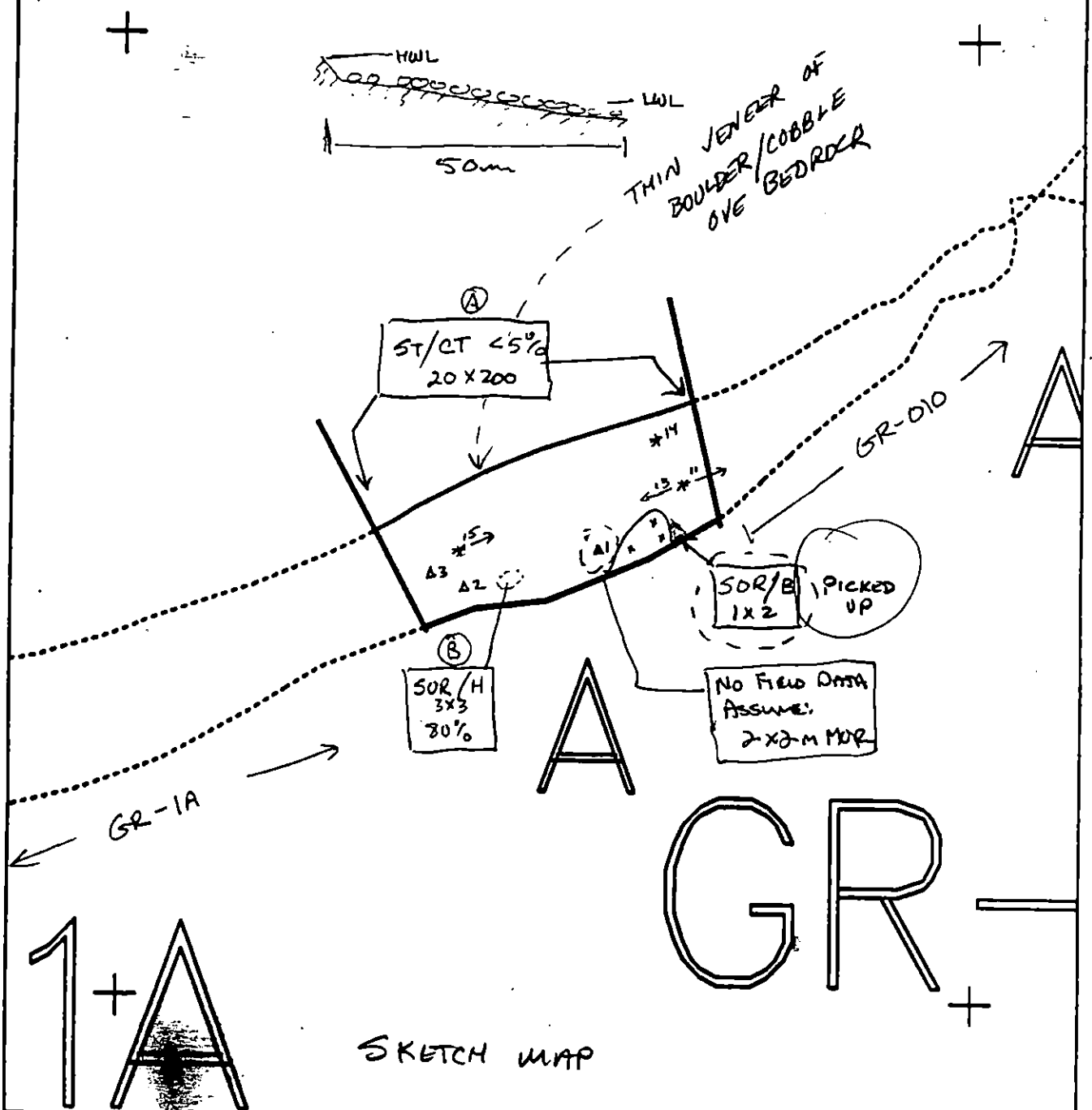
OG COMMENTS:

Subsurface ailing conditions were noted in one pit, MOR in the subsurface sand granular sediment. This type of ailing may occur elsewhere in the segment but is likely to be in small lenses due to the shallow nature of the bedrock surface.

OG 2 auf 5

REVIEWED: F.W. 5/3/41

REVIEWED: M.C. 5/3/91



XXXX	Wide	GR009 A	Subdivision Field Map
////	Medium	ADEC Subsegment Length: 210m	Map Key: PWSGR000A
----	Narrow	METERS	Name: <u>HARRAR</u>
TTTT	Very Light	0 100 200	Date: <u>20 APRIL</u>
0000	No Oil	AK State Plane Zone 4 pr0000	Date Entered:

"SKETCH MAP"

OG 3af5

REVIEWED: F.W. 5/2/91
REVISOR: M.C. 5/5/91

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 3 **DATE** 4/30/91
SEGMENT # CRO9 **TIDAL HEIGHT(Range)** -1 to -2'
SUBDIVISION A **BIOLOGIST** STOKOR
SEA STATE 0-1' **WIND SPEED/DIRECTION** NE 5-10
PHOTOGRAPHS: ROLL # **FRAME #**

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

High energy beach of rounded cobble/boulder with rock outcrops.
 Biota generally sparse in the upper intertidal (LUT2) due to exposure and substrate instability. Biota below about the mid intertidal (MT2) moderately abundant and diverse, consisting primarily of sometimes dense patches of Fucus (with new growth), ulva, Halosaccion & other red algae, surfgrass (Phyllospadix), dense patches of Mytilus, barnacles + spat, limpets, Littorina + egg masses, Pagurus, amphipods, Nucella, Scaphesia, Leptasterias, isopods (Idotea), eel blennies (sometimes with eggs).
 Biota in oiled zone is generally sparse due to substrate instability and position in the intertidal (LUT2), consisting primarily of sparse settlements of barnacles + spat, new-growth Fucus, and some Littorinids. Biota downslope from the oiled zone appears healthy and relatively abundant, as described above. Any further treatment should avoid disturbing this established biota.

WILDLIFE OBSERVATIONS

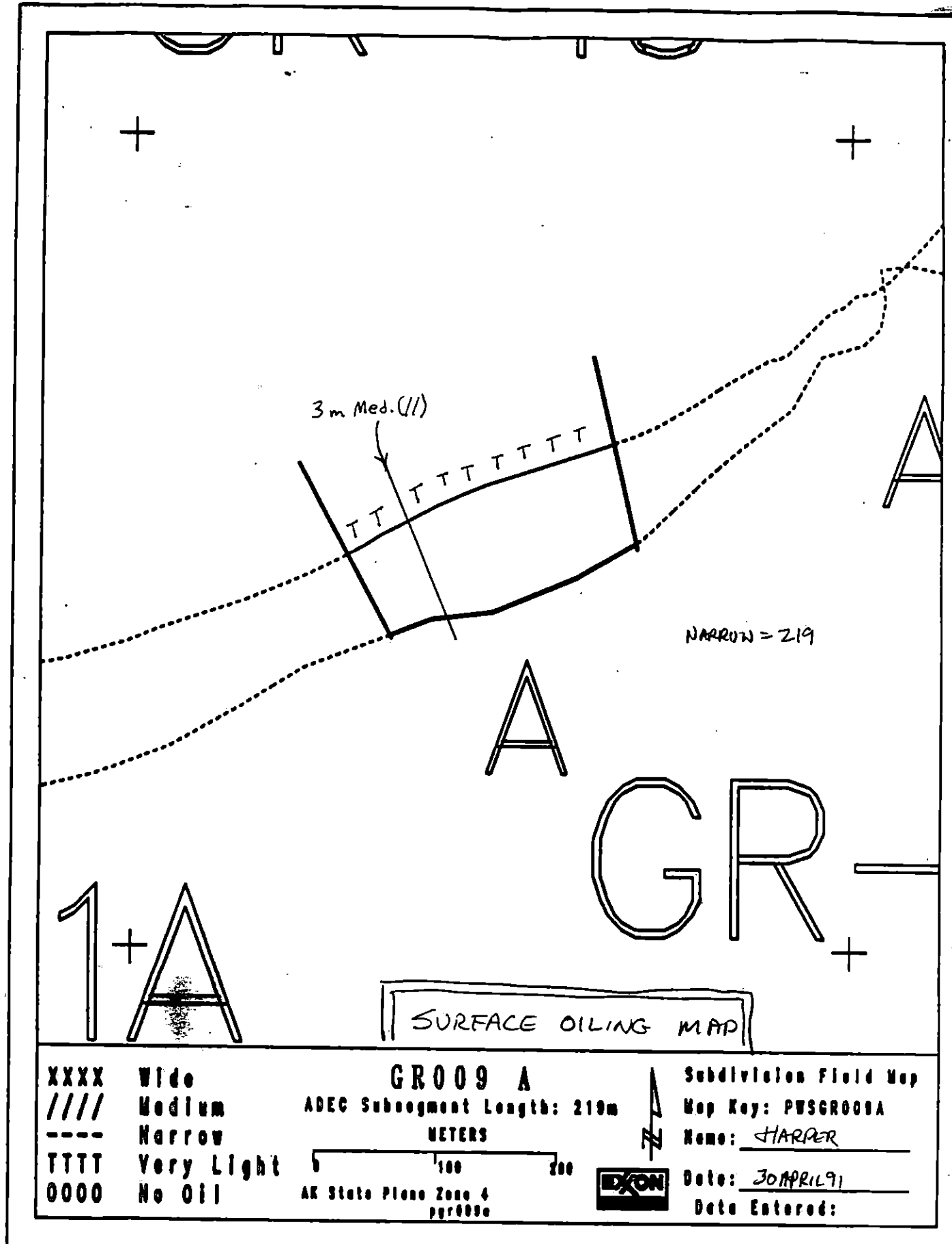
TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles			eel blennies
Seabirds			
Waterfowl	1	10-15	
Gulls/Kittiwakes	1	6-8	
Shorebirds			
Corvids			
Other Birds			

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

Shoreline subdivision map showing important biological features attached.

Reviewed 5/3/91 M.B.



SURFACE OILING MAP

OB 4 of 5

REVISED: F.W. 5/3/91
REVIEWED: M.C. 5/3/91

ASAP TAG REVIEW SHEET

Segment: GR009 Subd: A Site: 1

Date
PRE-Review 18 Aug

Priority For Addressing In 1990

☐ HIGH

☐ MEDIUM

☐ LOW

☐ NTR

X None

Treatment
Recommended:

No Ogs

Sheet

The Og Sheet There
IS for upland +
stem born only
Not whole Reach

Priority Site For Reassessment In 1991

YES NO
☐ CG ☐

YES NO
☐ ADEC ☐

YES NO
☐ EXXON ☐

YES NO
☐ LAND MGR ☐

ASAP FOLLOWUP RECOMMENDATIONS

Sent: AS/GR 09 Subd.: A Size: 1 Date: Aug 14 1990

Conditions Observed: The region of greatest oil concentration is located near three welded oil drums on the beach. The surface of this site is covered with boulders. These boulders have CT/B and CV/B/U to the 7 foot water line (tide level at survey time.) A rather unique oiling condition was observed below the boulders. The surface layer of 50 cm diameter boulders was underlain by a broken asphalt pavement. The boulders themselves were not incorporated into it but the interstitial pebbles were held together by a 10 cm thick pavement which retained it's form in the direct sun. This pavement is easy to miss if the surface boulders are not moved.

Followup Recommendations: FOLLOW UP RECOMMENDATIONS FROM EACH AGENCY ARE NOTED AS FOLLOWS:

Completed by Pickup Crew: ☐ YES ☒ NO

Priority for Addressing in 1990: ☐ High ☐ Mod. ☐ Low

ADBC

Wesley Ghormley
(name)

Wesley Ghormley
(signature)

Comments: Manual removal of patches of A/P in interstices of boulders is recommended. A/P was observed to 10 cm and inipul and custom blend seem to have no effect on it. This is a moderate priority for 1990 and if not worked will most likely need attention in 1991.

Exxon

RANDALL K. BOYER
(name)

Randall K. Boyer
(signature)

Comments: I CONCUR WITH THE OG'S OBSERVED CONDITIONS. I DO NOT RECOMMEND A FOLLOW UP IN 1990. MANUAL REMOVAL OF OILED SEDIMENT UNDER BOULDERS WOULD NOT AN EFFICIENT WAY TO FINISH UP THE 4 WEEKS OF CLEAN-UP LEFT, TOO tedious FOR MANUAL PICK UP. LOOK AT THIS SITE IN 1990.

USCG

PS1 Leo Bersalona
(name)

Leo Bersalona
(signature)

Comments: I observed the site from a distance and can attest to the diminishing oil conditions of the area. This site is not a priority for 1990, but the garbage should be picked.

Land Rep.

John Ethel
(name)

John Ethel
(signature)

Comments: Site open to large wave fetch. Overwinter conditions could improve cost & covers. A/P could be manually removed especially if boulders are rolled. Recommended to roll boulders (small) remove heavy oil & heavily oiled sediments. fill and cemented. Please CT/ST after winter conditions.

SHORELINE OILING SUMMARY

SECTION NO. 1

OG MANN USCG Fazio SEGMENT ST/ 1
 BIO LAND REP SUBDIVISION 1 (1 OF 1)
 EXXON ADEC Montesano TIME 16:22 to 17:15
 TIDE LEVEL +3 DATE 6/12/90
 T. SUBDIVISION LENGTH: 228 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 20 % B 30 % C 30 % P 20 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 95 % Hang 5 % Vert 0 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 200 m NO 28 m

SURFACE OIL

CHARACTER	DISTRIBUTION					OIL / FILM COLOR					IMPACTED ZONES			
	C	R	P	B	NO	SP	OR	OL	OF	NO	SU	U	M	U
ASPHALT PAVEMENT														
POOLED														
COVER			✓	✓		✓					✓			
COAT			✓	✓		✓					✓			
STAIN				✓		✓					✓			
MOUSSE														
PATTIES														
TARBALLS														
NO OIL														

PAVEMENT H F S 0 sq. m by 0 cmPATTIES / TARBALLS 3-5 BAGS

NEAR SHORE SHEEN? NO BR RW SL TL

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

DID YOU COLLECT DEBRIS?

YES ☒ NO ☐TYPE tarballs#BAGS 1/6

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		UO	UC	SP	OR	OL	OF	NO	SU	U	M	U				
1	20		✓				0-10		✓	✓					✓				N	N	N	CP
2	30		✓				0-10		✓	✓					✓				N	N	N	CP
3	15		✓				0-5		✓	✓					✓				N	N	N	CP
4	15	✓					0-2		✓	✓					✓				N	N	N	CP
5	15	✓					0-5		✓	✓					✓				N	N	N	CBP
6	20	✓					0-2		✓	✓					✓				N	N	N	CBP

COMMENTS

Accumulations of oiled wood, debris, and seaweed occur on boulder/cobble beaches between bedrock outcrops along the lower border of the SITE.

Although the boulder armor is largely clean (<10% cover), oil persists in the subsurface in pockets indicated by X's on sketch map.

Manual cleanup is suggested. Bioremediation may prove effective in pockets of pebble-cobble sediments with subsurface oil.

REVIEWED — DATE —

SKETCH MAP

SEGMENT ST/GR?

SUBDIVISION A

DATE 6 / 2 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)
- ☐ Pnt Location(s)
- ☐ Photo Location(s)

LEGEND

1

Pnt - No Subsurface Oil

2

Pnt - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

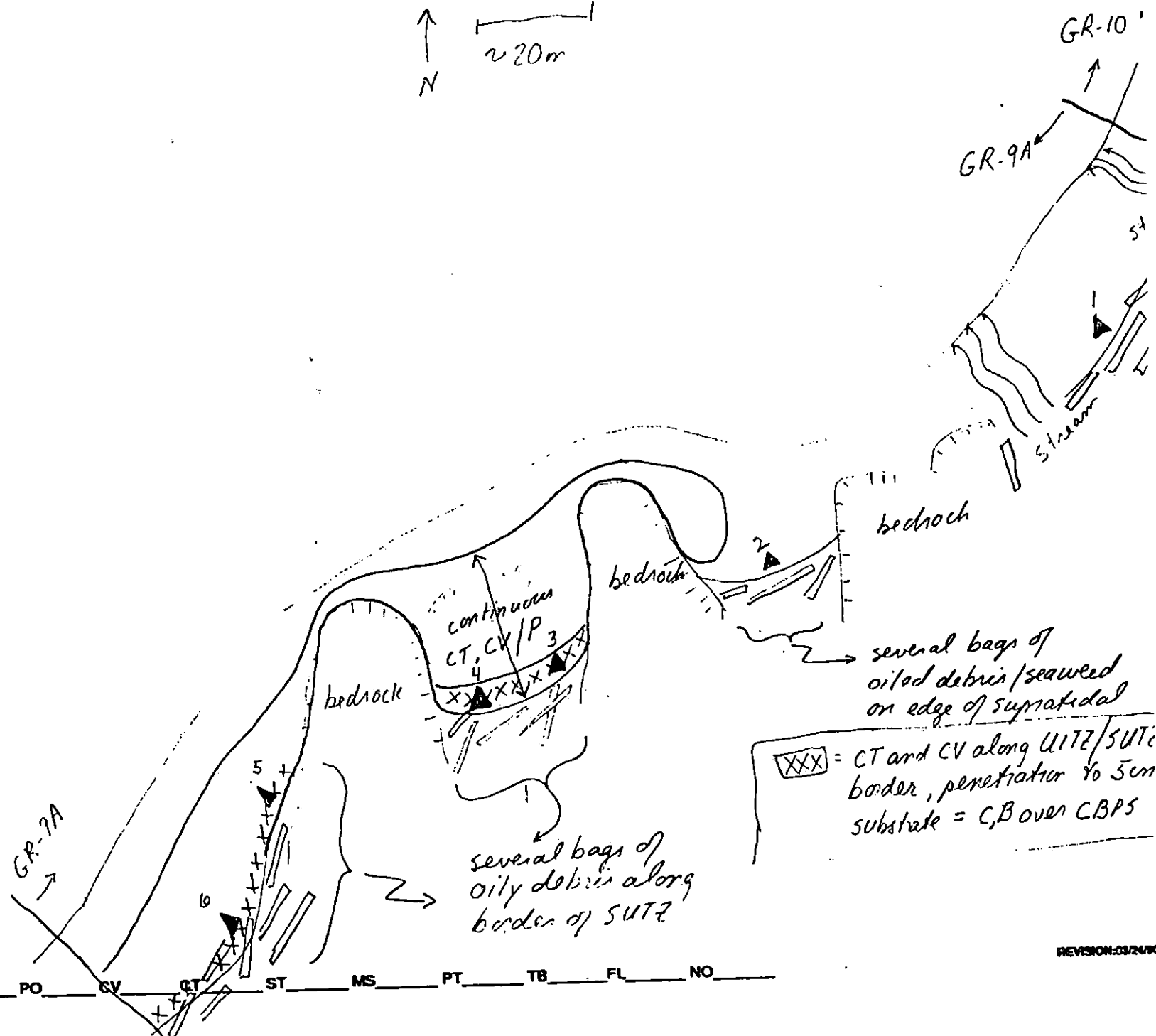
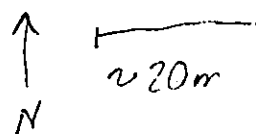
Splashed Distribution

ooooo

Oiled Vegetation

1

Photo location, direction, and number



FIELD SHORELINE COMMENT SHEET

SEGMENT ST / GR9 SUBDIVISION: A DATE 6-2-90

USCG

NAME RA' FAZIO SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

Concur with OG sheet

ADEC

NAME Peter Montecano SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

I concur with OG form and sketch. Manually remove debris, oiled organics, and remove/wipe oiled sediments where accessible.

LAND MANAGER

NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/GR-09

SUBDIVISIONS: A

SHORELINE EVALUATION

SEGMENT ST/ GR-09 SUBDIVISION A* DATE 3/31/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Shorebird/Waterfowl concentration (5S)-4/25 to 5/15; Herring spawning area (2M) 4/1 to 6/15; Special use destination (6Y)- 6/1 to 9/15; Deer harvesting (7 II)- 8/15 TO 2/28; Restrict disturbance of oiled fucus in lower and middle intertidal zones.

SUBDIVISION ECOLOGICAL CONSTRAINTS: Same as above.

ARCHAEOLOGICAL CONSTRAINTS: Consultation and inspection with an Exxon archaeologist is required prior to treatment. Specific on-site monitoring requirements will be determined at that time.

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

0 m Wide, 0 m Medium, 219m Narrow, 0 m V. Light, 0 m No Oil
Subsurface Oil Observed Yes X No Maximum Depth _____

RECOMMENDATIONS:

 No Treatment Recommended
 X Treatment Recommended
 X Manual Pickup Snare Booms/Sorbents Tarmat Breakup/Removal
 X Bioremediation SPOT WASHING Other
 Wands
 Beach Cleaner

Comments: Recommend manual pickup of oiled vegetation and mousse tarballs in Pocket 1. (see Sketch Map) Also recommended bio-remediation of area where surface coat found. All work after 6/15/90 based on constraints.

TAG COMMENTS: _____

G APPROVAL DATE: _____

DEC _____
EXXON _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

*Subdivision covers entire segment.

SHORELINE OILING SUMMARY

REVISION NO. 03/22/77

OG B. Berglund USCG J. Gamble SEGMENT ST/ GR-9
 BIO S. Schreyer LAND REP C. Hixson SUBDIVISION ---
 EXXON C. Levine ADEC B. Fritzsimons TIME 10:30 to 11:20
 TEAM NO.: 1 TIDE LEVEL: -1.8 to +0.5 DATE 7/30/90
 EST. SUBDIVISION LENGTH: 228 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 40 % C 15 % P 10 % G 5 % S --- % M --- % V ---
 SLOPE: Long 90 % Hang 10 % Vert --- % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W --- m M 228 m N --- m VL --- m NO --- m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	R	B	C	P	BR	BL	PR	PL	GR	GL	TR	TL	SU	UI	M	V
ASPHALT PAVEMENT																
POOLED																
COVER																
COAT		X	V								X		X	V		
STAIN																
MOUSSE																
PATTIES																
TARBALLS																
FILM																
NO OIL																

PAVEMENT: H F S --- sq. m by ---

PATTIES / TARBALLS --- BAGS

NEAR SHORE SHEEN? (NO) BR RW SL TL

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

DEBRIS COLLECTED: ☐ YES ☒ NO

TYPE ---

#BAGS ---

Photographs:

Roll No. ST-1-1

Frames 23-24

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW	OIL / FILM COLOR								PIT ZONE				A N A	SUBSURFACE SEDIMENTS			
		OP	OR	OL	OF	NO			UO	UC	SBL BR	DBL BW	GY SL	TBL TL	LBR	SU	UI	M	U						
1	20					✓	.		✓								✓								
2	15					✓	.		✓										✓						B/P/G
3	20					✓	.		✓											✓					B/P/G/R
							.											✓							B/P/G/R
							.																		
							.																		
							.																		

COMMENTS

GR-10 is similar to GR-1A. Bedrock is close to surface or exposed in many areas. Oil coats boulders and fills interstices between boulders. Fine sediment beneath & between boulders are saturated with oil. But oil is not penetrating beyond 3-5 cm in fines.

Begin: 11:00: -1.2
End: 11:20: +1.0

Upper & mid intertidal boulders or boulders over
bedrock w/ patches of red rock w/ sparse cover
of organisms. Few stars in lower intertidal
oil sheen & odor when rocks were turned
in low intertidal. No eelgrass or *Leptocarpus*
patches in lower intertidal. Several
dense patches of *Fucus* in mid intertidal

Seg 10 3/30/60 S. Schroeter Team 3/3

11:30 = +1.0
12:30 = +4.0 } only 1 part of lower intertidal

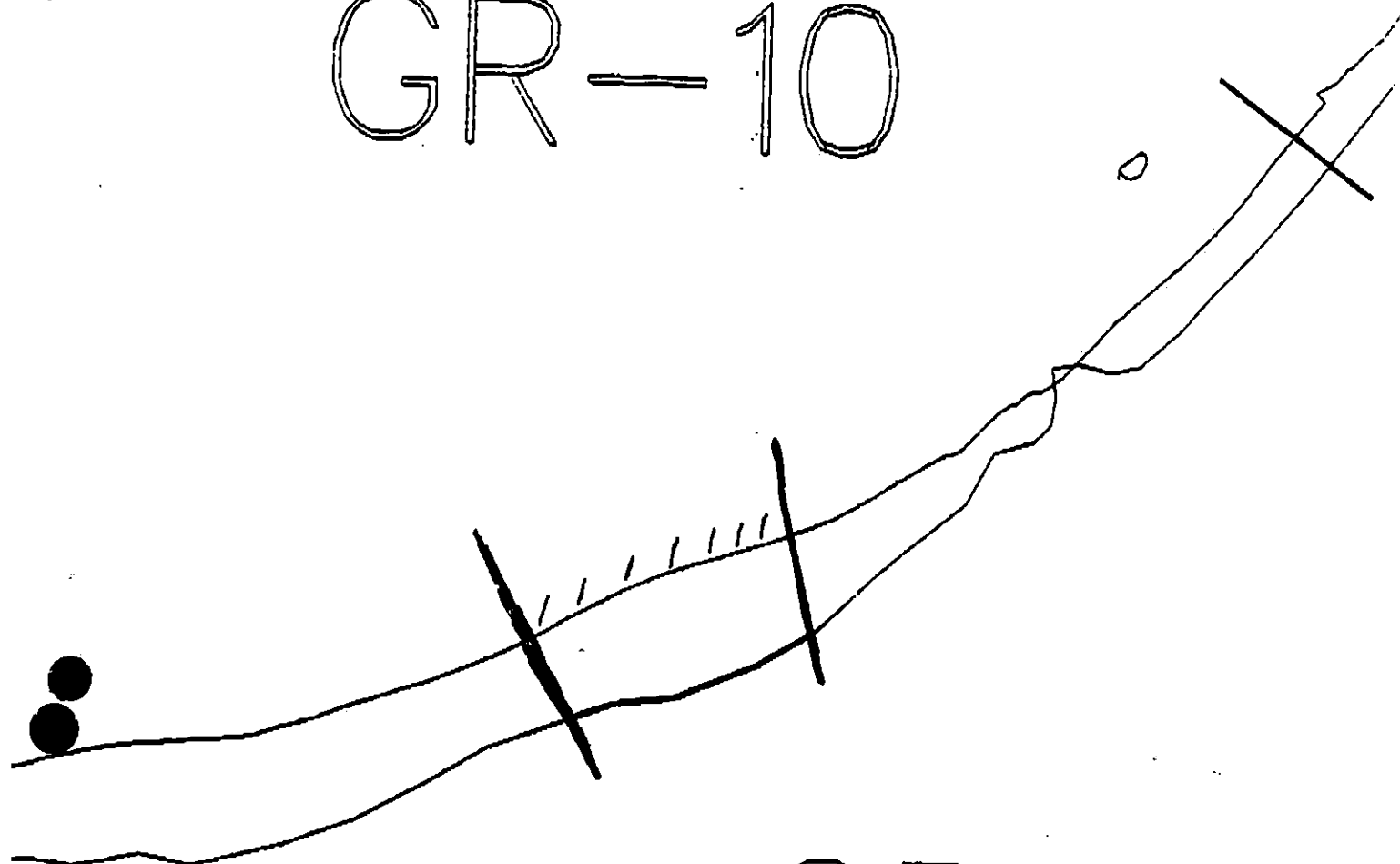
40 w/ Boulder } mid/upper IT
60 w/ bedrock }

Dense patches of *unus* & *Fucus* on bedrock
boulder *degradiata* also common. No *Scutaria*
+ *P. scutellaria* in bedrock ridge
Stars & red algae not abundant, but very little
low *S. granosa*

GR-10



2



R-1A

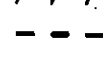
GR-09



Wide



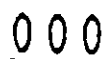
Medium



Narrow



Very Light



No Oil

GR-9

ADEC Segment Length: 219m



Map Key: PWS-267

Name: B. Berglund

Date: 3/30/90

Data Entered:

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT GR-9 SUBDIVISION A (1 of 1)

WORK WINDOW	
Manual Pickup	OPEN
Bioremediation	WORK FROM 6/15 TO 8/15

ARCHAEOLOGICAL INSPECTION/CONSULTATION REQUIRED.

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

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

2M	Herring Spawning	Closed to bioremediation prior 6/15. No constraint to manual pickup.
5S	Shorebird/Waterfowl Concentration	No constraint to bioremediation and manual pickup.
7II	Subsistence: Deer Harvesting	Closed to bioremediation after 8/15. No constraint to manual pickup.

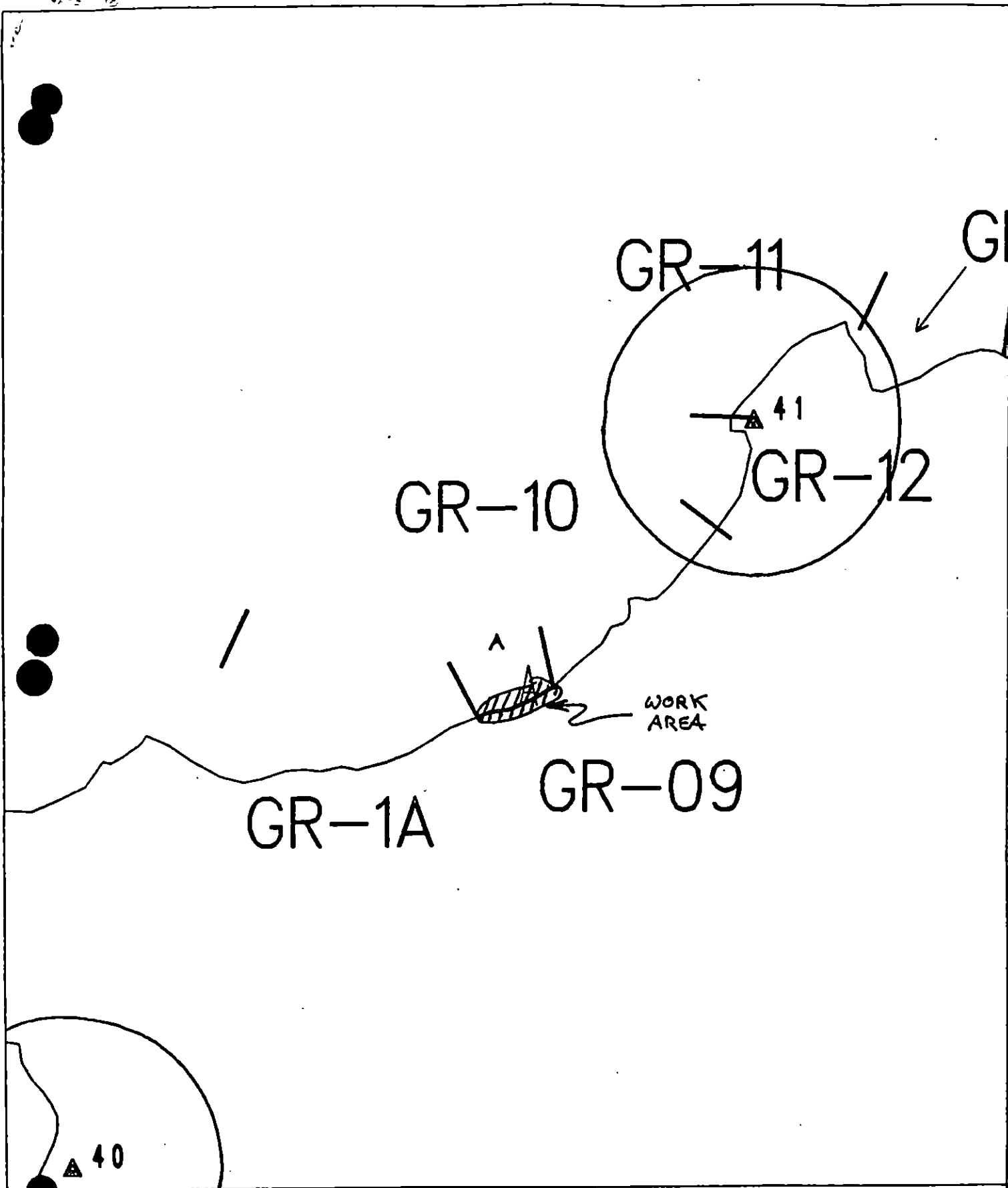
OTHER ECOLOGICAL CONSIDERATIONS

Avoid damage to unrolled intertidal and subtidal substrate, algae and seagrass. Restrict disturbance of unrolled *Fucus* (rockweed) in lower and middle intertidal zones. Restrict boat and air traffic and beach disturbance to essential minimum after 8/15.

TAG APPROVAL DATE 5/24/90
ADEC Alex Weiner
EXXON AMY TEAR
NOAA B. W. W. W.
USCG W. J. HALL

FOSC W. J. HALL Date 5-24-90

Prepared by Anders May Date 5/22/90



Exxon Company, USA
Map Key: PWS-GR-9
May 11, 1990



ECOLOGY MAP
SEGMENT GR-9
SUBDIVISION A (1 of 1)



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

1 inch = 1131 feet

SHORELINE EVALUATION

SEGMENT ST/ GR-09 SUBDIVISION A* DATE 3/31/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Shorebird/Waterfowl concentration (5S)-4/25 to 5/15; Herring spawning area (2M) 4/1 to 6/15; Special use destination (6Y)- 6/1 to 9/15; Deer harvesting (7 II)- 8/15 TO 2/28; Restrict disturbance of oiled fucus in lower and middle intertidal zones.

SUBDIVISION ECOLOGICAL CONSTRAINTS: Same as above.

ARCHAEOLOGICAL CONSTRAINTS: Consultation and inspection with an Exxon archaeologist is required prior to treatment. Specific on-site monitoring requirements will be determined at that time.

SHPO SIGNATURE: [Signature] DATE: April 5, 1990

OILING CATEGORIZATION:

0 m Wide, 0 m Medium, 219m Narrow, 0 m V. Light, 0 m No Oil
Subsurface Oil Observed Yes X No Maximum Depth

RECOMMENDATIONS:

 No Treatment Recommended
 X Treatment Recommended
 X Manual Pickup Snare Booms/Sorbents Tarmat Breakup/Removal
 X Bioremediation SPOT WASHING Other
 Wands
 Beach Cleaner

Comments: Recommend manual pickup of oiled vegetation and debris and any asphalt patches in Pocket 1. (see Sketch Map) Also recommended bio-remediation of area where surface coat found. All work after 6/15/90 based on constraints.
→ [See Addendum Dated 5/22/90] was

TAG COMMENTS: Ove. to inconsistencies contained within the report that were clarified within TAG. modifications to the recommended approach were warranted

TAG APPROVAL DATE:

DEC JOHN BALLER FOSC: DATE:
EXXON ANDY TOL
NOAA Burl Wesscott
USCG G.A. REITER

*Subdivision covers entire segment.

SHORELINE EVALUATION

SEGMENT ST/ GR-09 SUBDIVISION A* DATE 3/31/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Shorebird/Waterfowl concentration (5S)-4/25 to 5/15; Herring spawning area (2M) 4/1 to 6/15; Special use destination (6Y)- 6/1 to 9/15; Deer harvesting (7 II)- 8/15 TO 2/28; Restrict disturbance of oiled fucus in lower and middle intertidal zones.

SUBDIVISION ECOLOGICAL CONSTRAINTS: Same as above.

ARCHAEOLOGICAL CONSTRAINTS: Consultation and inspection with an Exxon archaeologist is required prior to treatment. Specific on-site monitoring requirements will be determined at that time.

SHPO SIGNATURE: [Signature] DATE: April 5, 1990

OILING CATEGORIZATION:

0 m Wide, 0 m Medium, 219m Narrow, 0 m V. Light, 0 m No Oil
Subsurface Oil Observed Yes X No Maximum Depth

RECOMMENDATIONS:

 No Treatment Recommended
 X Treatment Recommended
 X Manual Pickup Snare Booms/Sorbents Tarmat Breakup/Removal
 X Bioremediation SPOT WASHING Other
 Wands
 Beach Cleaner

Comments: Recommend manual pickup of oiled vegetation and debris and any asphalt patches in Pocket 1. (see Sketch Map) Also recommended bio-remediation of area where surface coat found. All work after 6/15/90 based on constraints.

TAG COMMENTS: Ove to inconsistencies contained within the report that were clarified within TAG, modifications to the recommended approach were warranted

TAG APPROVAL DATE:

DEC JOHN BAUER EXXON ANDY TAYLOR FOSC: [Signature] DATE: 4-19-90
JOAA Burl Wescott USCg G.A. REITER

*Subdivision covers entire segment.

GR-10



R-1A

GR-09

XXXX Wide

/// Medium

- - - Narrow

TTTT Very Light

0000 No Oil

GR-9

ADEC Segment Length: 219m



Map Key: PWS-267

Name: B. Berglund

Date: 3/30/90

Data Entered:

1991 MAYSAP EVALUATION

SEGMENT: GR 009 SUB: A REGION: PWS SURVEY DATE: 4/30/91

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) RESTRICTED 8/15 - 9/15

Ecological/Constraints (see page two for details) Herring spawning, Subsistence - Deer harvesting

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO Signature: Charles E. Holmes Date: 5/10/91

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>	<u> </u>
Other <u> </u>	<u> </u>	<u> </u>	<u> </u>

COMMENTS:

INITIAL:

TAG:

FOSC:

TAG APPROVAL DATE: MAY 10 1991

FOSC APPROVAL DATE: 5/14/91

ADEC [Signature]

FOSC [Signature]

EXXON [Signature]

E. E. PAGE, LCDR, USN
CHIEF OF STAFF, FOSC

USCG [Signature]

NOAA [Signature]

**ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES**

Herring Spawning: No treatment before June 1. Avoid disturbance to kelp and eelgrass.

Subsistence - Deer Harvesting: Unlimited treatment prior to 8/15.

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 3 SEGMENT GR-9 SUBDIVISION A DATE 4/30/91

ADEC

NAME Wesley Ghermley SIGNATURE Wesley Ghermley

☒ NTR ☐ TREATMENT RECOMMENDED

VECO CREW REMOVED ONE large patty. High energy environment
Recommend NO Further TREATMENT.

EXXON

NAME Jon P. Cannella SIGNATURE Jon Cannella

☒ NTR This beach looked good and clean, with a actual inter tide zone. The beach is healthy and supporting a wide range of life. Very little oil and what is there doesn't feel would harm anything. Coats and stain make up most of the oiling.

LANDMANAGER

NAME Carol S. Huber OF USFWS SIGNATURE Carol S. Huber

☒ NTR Not much surface oil & that mostly weathered. No near shore sheen noted. Only one small pocket of subsurface medium residue. Not enough oil here to disturb established biota.

USCG/NOAA

NAME Mooney / Barato SIGNATURE Tom Mooney / Fritz Barato

☒ NTR SEGMENTS CONSISTS OF Boulder COBBLE AMONG ON BROCK. WITH MINIMAL OIL STAIN AND COAT IN POCKETS OF SEDIMENT IN THE BROCK.

PAGE 1 OF 2

SEGMENT GR-09

SUBDIVISION 7

DATE 4, 30 / 91

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 3 m N 0 m VL 216 m NO 0 m US 0 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- 3 - 05 FRAMES 12-15

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

Surface ailing consists of sporadic stains and coats, largely weathered tar drips and splats, and two small areas of 50R, one of which has recovered.

OG 1af5

REVISED: F.W. 5/3/91

REWRITTEN: M.C. 5/3/91

MAYSAP SHORELINE OILING SUMMARY (cont.)

PAGE 2 OF 2

TEAM NO. 3

SEGMENT GR-09

SUBDIVISION A

DATE 4, 30 / 91

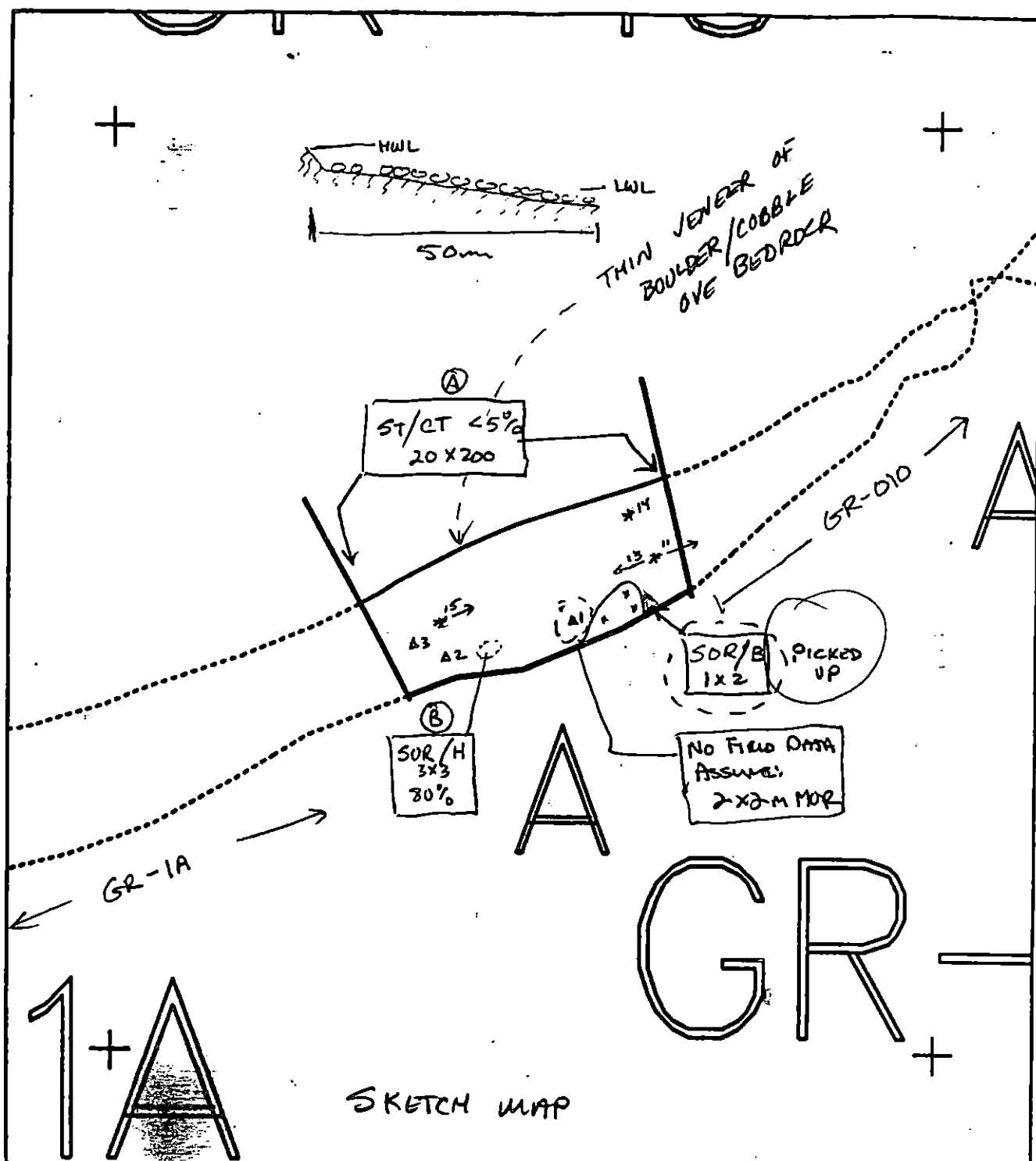
[illegible]

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

OG COMMENTS:

Subsurface ailing conditions were noted in one pit, MOR in the subsurface sand granular sediment. This type of ailing may occur elsewhere in the segment but is likely to be in small lenses due to the shallow nature of the bedrock surface.

OG 2 of 5
REVIEWED: F.W. 5/3/91
REVIEWED: M.C. 5/3/91



SKETCH MAP

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

GR009 A
 ADEC Subsegment Length: 210m
 METERS
 0 100 200
 AK State Plane Zone 4
 ppr000a

Subdivision Field Map
 Map Key: PWSGR000A
 Name: HARPER
 Date: 20 APRIL
 Date Entered:



"SKETCH MAP"

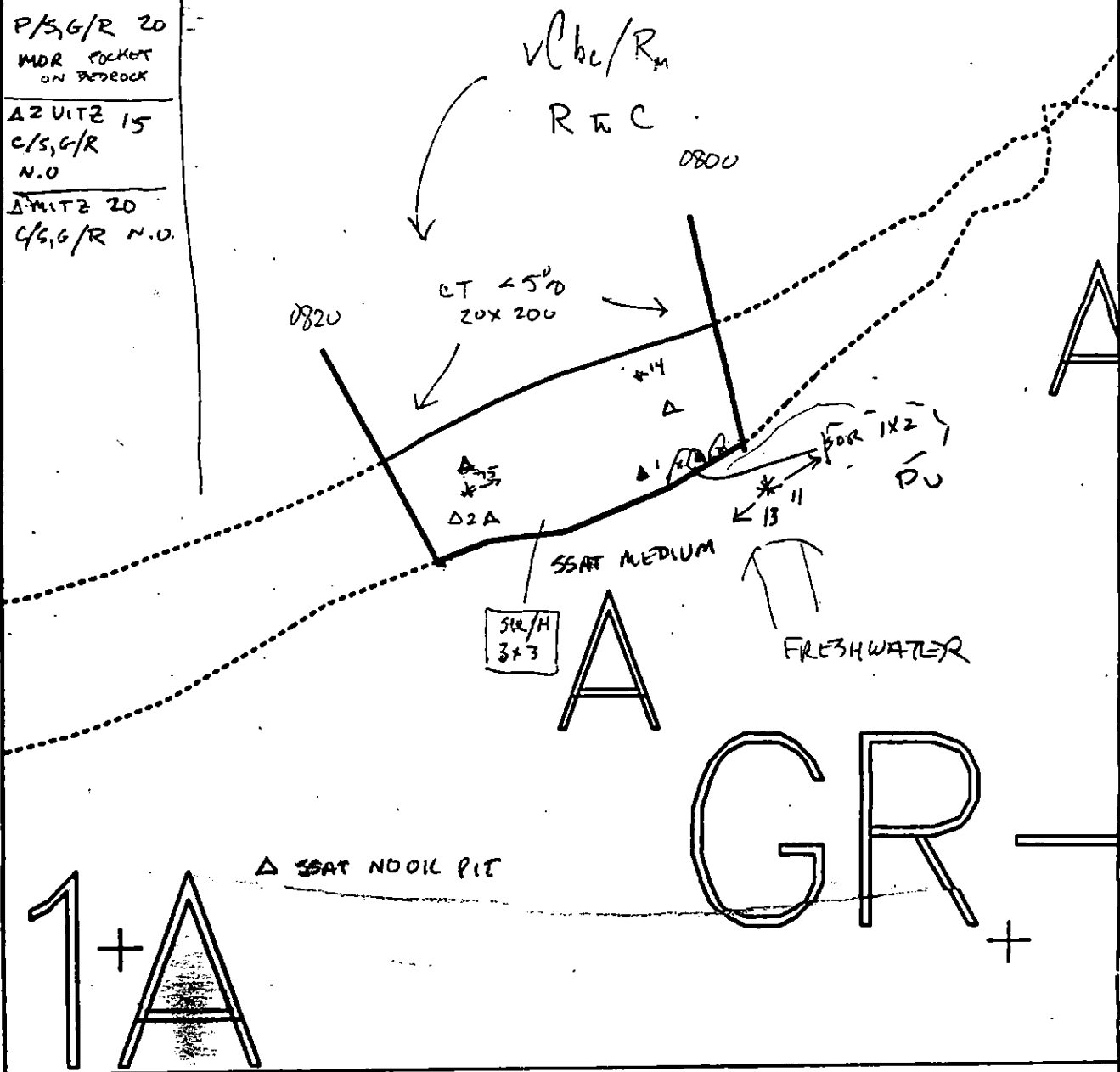
OG 3af5

REVIEWED: F.W. 5/3/91
 REVISED: M.C. 5/3/91

+
 10172
 P/S, G/R 20
 MDR POCKET
 ON BEDROCK

 A2 VITZ 15
 C/S, G/R
 N.O.

 A-MITZ 20
 C/S, G/R N.O.



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

GRO09 A
 ADEC Subsegment Length: 218m
 METERS
 0 100 200
 AK State Plane Zone 4
 990000

Subdivision Field Map
 Map Key: PWSGRO09A
 Name: _____
 Date: _____
 Date Entered: _____

FIELD MAP

Page 1 of 1
 06 5 of 5
 REVIEWED: F.W. 5/3/91
 REVIEWED: M.C. 5/3/91

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 3 DATE 4/30/91
 SEGMENT # GRO9 TIDAL HEIGHT(Range) -1 to -2'
 SUBDIVISION A BIOLOGIST STOKER
 SEA STATE 0-1' WIND SPEED/DIRECTION NE 5-10
 PHOTOGRAPHS: ROLL # _____ FRAME # _____

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

High energy beach of rounded cobbles/boulder with rock outcrops.
Biota generally sparse in the upper intertidal (LUT2) due to
exposure and substrate instability. Biota below about the mid intertidal
(MT2) moderately abundant and diverse, consisting primarily of
sometimes dense patches of Fucox (with new growth), ulva,
Halimeda or other red algae, surfgrass (Phyllospadix), dense
patches of Mytilus, barnacles + spat, limpets, Littorina + egg masses,
Pagurus, amphipods, Nucella, Scartesia, Leptasterias, isopods (Idotea),
and blennies (sometimes with eggs)
Biota in oiled zone is generally sparse due to substrate
instability and position in the intertidal (LUT2), consisting primarily
of sparse settlements of barnacles + spat, new-growth Fucox,
and some Littorinids. Biota downlope from the oiled zone appears
healthy and relatively abundant, as described above. Any further
treatment should avoid disturbing this established biota.

WILDLIFE OBSERVATIONS

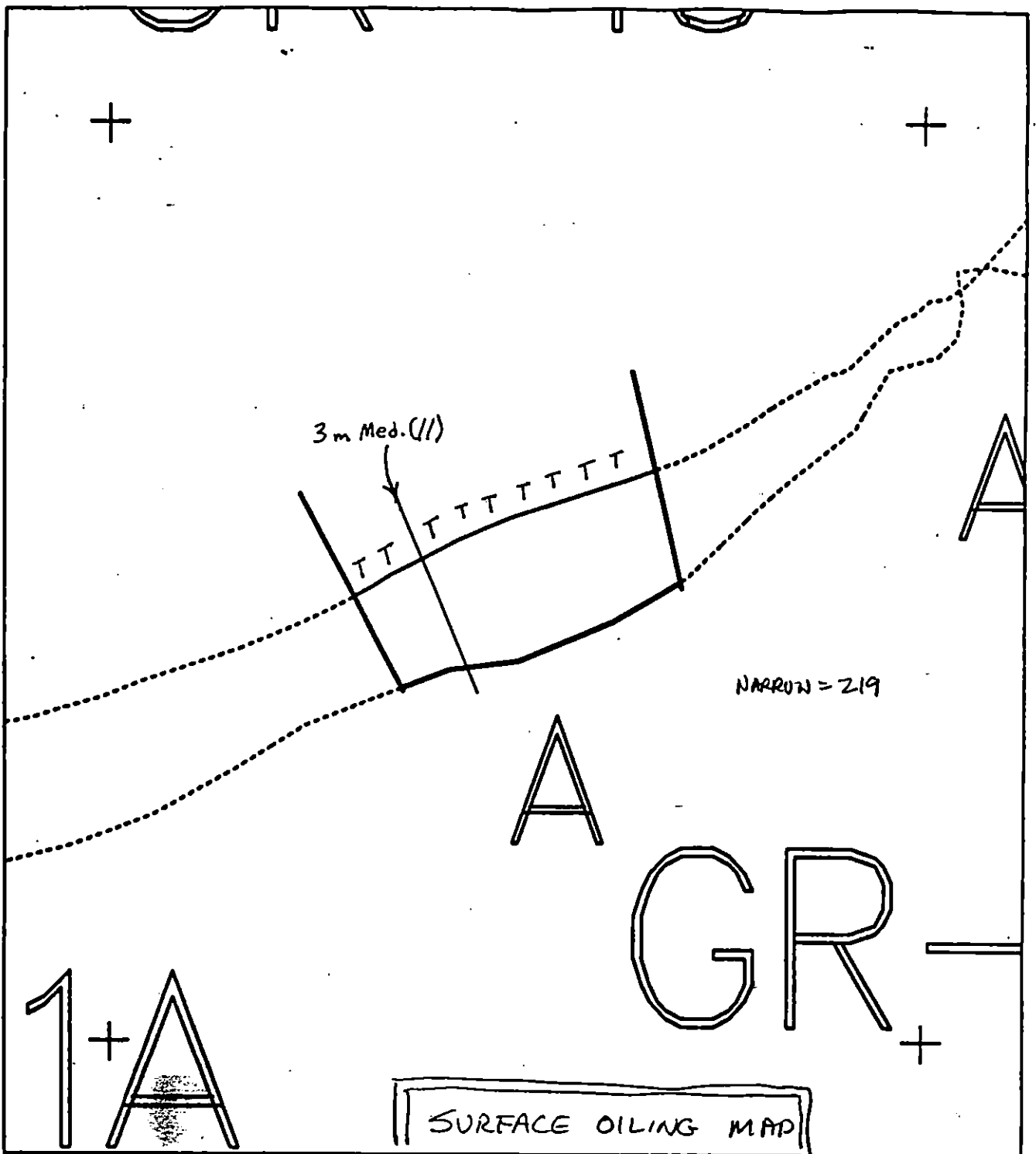
TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles			eel blennies
Seabirds			
Waterfowl	1	10-15	
Gulls/kittiwakes	1	6-8	
Shorebirds			
Corvids			
Other Birds			

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

Shoreline subdivision map showing important biological features attached.

Reviewed 5/3/91 M.B.



XXXX	Wide	GR009 A	Subdivision Field Map
////	Medium	ADEC Subsegment Length: 219m	Map Key: PW5GR009A
---	Narrow	METERS	Name: <u>HARPER</u>
TTTT	Very Light	5 100 200	Date: <u>30 APRIL 91</u>
0000	No Oil	AK State Plane Zone 4 pg 0090	Date Entered:

SURFACE OILING MAP

OB 4 of 5
REVISED: F.W. 5/3/91
REVIEWED: M.C. 5/3/91

1991 MAYSAP EVALUATION

SEGMENT: GR 010 **SUB:** A **REGION:** PWS **SURVEY DATE:** 4/30/91

ENVIRONMENTAL SENSITIVITIES:

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

Ecological/Constraints (see page two for details) Eagle nest,
Herring spawning, Subsistence - Deer harvesting

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.

Herring Spawning: No treatment before June 1. Avoid disturbance to kelp and eelgrass.

Subsistence - Deer Harvesting: Unlimited treatment prior to 8/15.

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO: 3 SEGMENT GR-10 SUBDIVISION A DATE 4/30/91

ADEC

NAME Wesley Ghormley SIGNATURE Wesley Ghormley 

☐ NTR ☒ TREATMENT RECOMMENDED

- A significant amount of Subsurface HOR is present under rollable boulders. The area is approx. 20x100M and is very easily recoverable. I would not consider this a small area as described below. Abundance of biota is present but out of the oiled zone. Manually roll boulders, scrape oil w/ hand trowels, (oil lies on bedrock) string SNARE boom after removal to capture oil residue. I believe over-lying boulders are keeping this beach from natural cleaning and the consistency of the oil is too high to weather.

EXXON

NAME Jon Czarnecki SIGNATURE Jon Czarnecki

☒ NTR This is a fairly exposed beach. 18 ~~large~~ ^{small} shells were seen 16 of them had oil coming from them & tips. The beach is rocky when are abundant of biota.

LANDMANAGER

NAME Carol S Huber OF Forest Service SIGNATURE Carol S Huber

☒ NTR High energy beach shows signs of recovery. Very light surface oil in W. 1/3. Biota downslope from oiled zone is healthy & abundant. Subsurface oil would be difficult to clean & appears fairly stable where tucked in behind bedrock outcrops. Also subsurface oilings is confined to a relatively small area.

USCG/NOAA

NAME MOORE SIGNATURE Tina Moore

☐ NTR North Eastern half of this segment has very little to no oil shows on a thin cover of Boulders on bedrock. The Southwestern half of the segment is a cobble boulder armor with "sediment pockets" in the bedrock with LOR to HOR (10cm). The area of concern is 20meters by 10meters in size. Thick oil coating on boulders when rolled over are present.

PAGE 1 OF 2

TEAM NO.

OG

BIO

SEGMENT *OR-10*

ADEC

LANDMANAGER

for *FS*

SUBDIVISION

EXXON

'USCG/NOAA

DATE 4 / 30 / 91

TIME 07:05 to 08:00

TIDE LEVEL 1.25 ft. to -0.93 ft.

ENERGY LEVEL: ☐ H ☒ M ☐ L

SURVEYED FROM: ☒ FOOT ☐ BOAT ☐ HELO

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

TOTAL LENGTH SHORELINE SURVEYED: 639 m

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

EST. OIL CATEGORY LENGTH:

W 0 m M 0 m N 23 m VL 20200 m NO 436 m US 0 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- 3 - 05 FRAMES 6-11

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER							OILED ZONE cm-cm	CLEAN BELOW Y/N	H2O LEVEL (cm)	SHEEN COLOR B R S N	PIT ZONE				SURFACE-SUBSURFACE SEDIMENTS	NOTES
		OP	HOR	MOR	LOR	OF	TR	NO					S	UI	MI	LI		
1	30							X	-					X			CP/B	LHTS
2	30							X	-						X		B, 6 IR	
3	30							X	-							X	BC / B, 6	
4	30							X	-					X			P/O, S	
5	30							X	-					X			C / 6, S	
6	30							X	-						X		CP / 5, 6 / R	
7	7							X	-					X			C, P / B	
8	30							X	-					X			P / P (100%)	LHTS
9	20				X				10-15	Y	15	R		X			B / 5, 6	

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

OG COMMENTS:

This beach generally has a thin veneer of boulders and cobbles over bedrock. The eastern area is partially protected by a headland further east - this headland probably "shadowed" the eastern area from oil contact during the spill.

Surface oiling is light. The eastern $2/3$'s of the subdivision has virtually no oil, the western third a sporadic stain to coat.

(CONT'D)

OG 1 of 5

REVIEWED: F.W. 5/3/91

REVISED: M. C. 5/3/91

MAYSAP SHORELINE OILING SUMMARY (cont.)

PAGE 2 OF 2

TEAM NO. 3

SEGMENT *GR-10*

SUBDIVISION 4

DATE 4/30 / 1991

[illegible]

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

OG COMMENTS:

Initial oiling appears to have been a viscous mousse as much of the residual stain and coat bears the appearance of weathered drips and splats. The area appears to have been bio-remediated as evidenced by (a) degraded coats (organic crusts) and (b) lichen halo's.

An area of relatively broken subsurface oiling, ranging from HOR to MOR conditions is present near the western end. The HOR condition is generally a 1 to 5 cm thick layer at the sand/granule surface (below cobble, boulder veneer). The layer tends to be in lenses due to shallow bedrock and probably covers about 50% of a 20x100 m area. A concentrated area of freshwater runoff limits the western extent of this subsurface oiling.

PITS = 18 # HDR PITS = 3 (17%) N.O. PITS = 11 (61%)

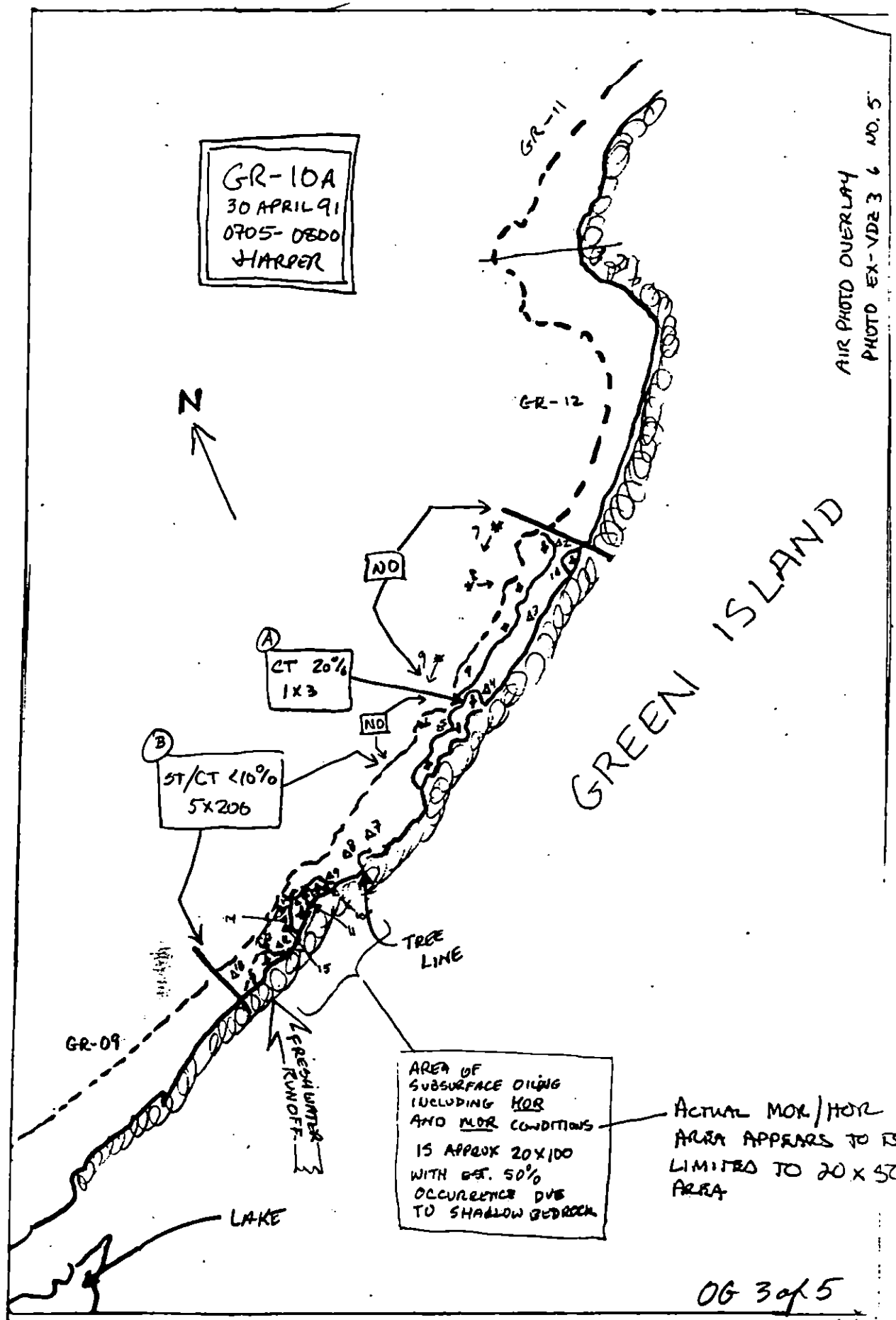
OG 2 of 5

REVIEWED: F.W. 5/3/91

REVIEWED: M.C. 5/3/91

GR-10A
30 APRIL 91
0705-0800
HARPER

AIR PHOTO OVERLAY
PHOTO EX-VD23 6 NO. 5



OG 3 of 5

REVIEWED: F.W. 5/3/91
REVISED: M.C. 5/3/91

Page 1 of 1
OG 5 of 5
REVIEWED: F.W. 5/3/91
REMOVED: M.C. 5/3/91

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 3 DATE 4/30/91
 SEGMENT # GR10 TIDAL HEIGHT(Range) 0-2'
 SUBDIVISION A BIOLOGIST STOKER
 SEA STATE 0-1' WIND SPEED/DIRECTION NE 0-5
 PHOTOGRAPHS: ROLL # FRAME #

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

High energy beach of rounded boulder/cobble with bedrock outcrops.
 Biota in upper intertidal (UTE) generally sparse due to exposure and substrate instability.

Biota in mid intertidal (MTE) and below is relatively abundant and diverse, consisting primarily of Fuca (with abundant new growth) ulva, Halosaccus and other red algae, dense patches of Mytilus and barnacles + spat on stable substrate, dense clusters of limpets and Littorina (with egg masses), amphipods, Pagurus, chitons (K. Tunicata), isopods (Idotea), anemones (Telia) and surf grass (Phyllospadix).

Biota generally sparse in proximity to oiled zone, primarily due to its intertidal location (UTE) and unstable substrate.

Biota downlope from oiled zone appears healthy and abundant, as described above. If further treatment is undertaken, avoid disturbance of the established biota.

WILDLIFE OBSERVATIONS

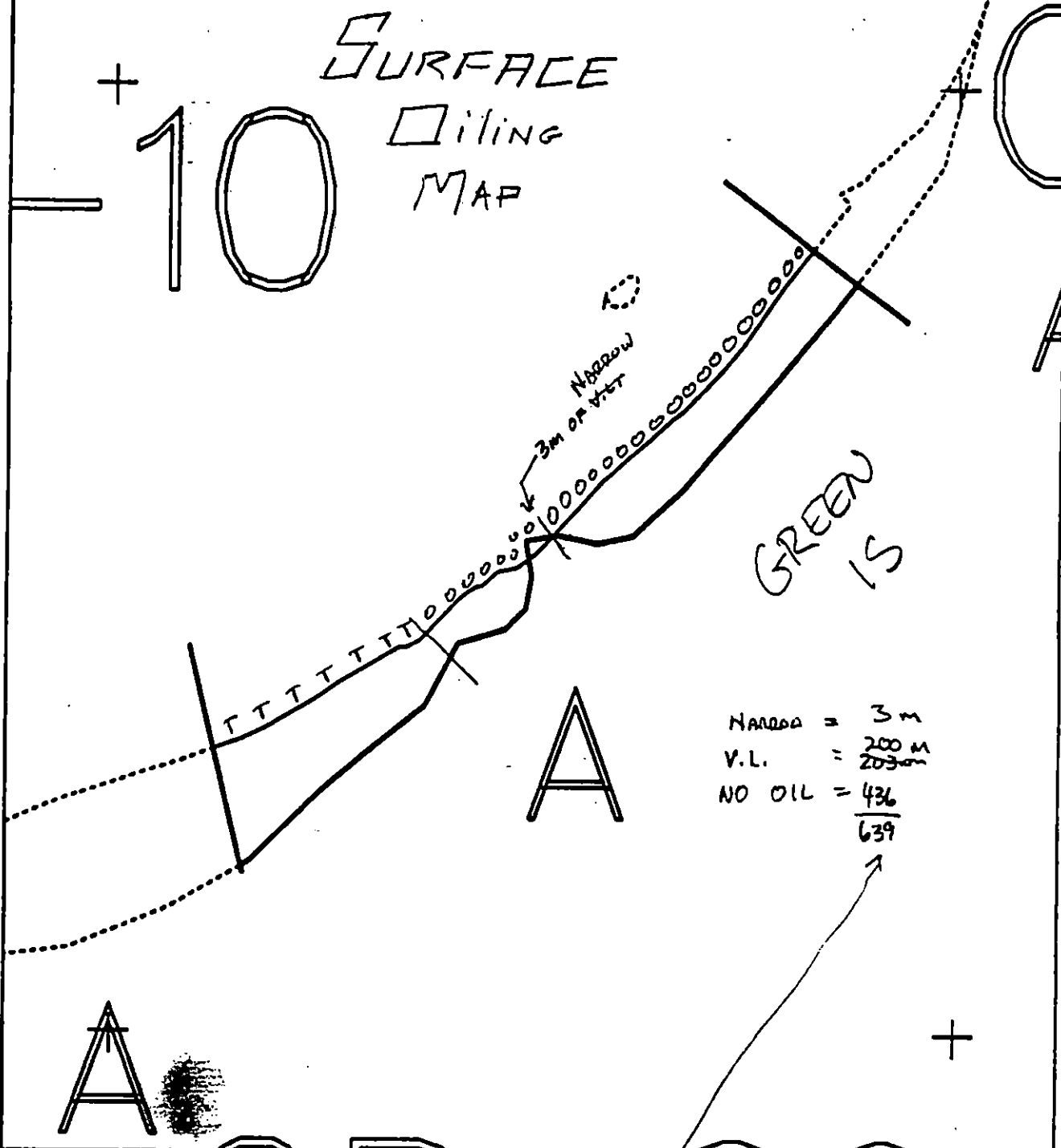
TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1	1	cal glaucus
Seabirds	1	2	
Waterfowl	2	20-30	
Gulls/kittiwakes	1	10-20	
Shorebirds			
Corvids			
Other Birds			

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters	1 + 1 skeleton		
Pinnipeds(specify)			
Whales(specify)			

Shoreline subdivision map showing important biological features attached.

Reviewed M.B. 5/3/91
 REVIEWED M.C. 5/3/91



NARROW = 3m
 V.L. = $\frac{200m}{203m}$
 NO OIL = $\frac{436}{639}$

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

GRO10 A
 ADEC Subsegment Length: 639m
 METERS
 0 100 200
 AK State Plane Zone 4
 pr010a

Subdivision Field Map
 Map Key: PWSGRO10A
 Name: HARPER
 Date: 30 APR 91
 Date Entered:

OG 4 of 5
 REVIEWED: F.W. 5/3/91
 REVIEWED: M.C. 5/3/91

1991 MAYSAP EVALUATION

SEGMENT: GR 010 SUB: A REGION: PWS SURVEY DATE: 4/30/91

ENVIRONMENTAL SENSITIVITIES:

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

Ecological/Constraints (see page two for details) Eagle nest, Herring spawning, Subsistence - Deer harvesting

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO Signature: Leslie Jean Davis Date: 5/17/91

RECOMMENDATIONS:

INITIAL**TAG**

FOSC

TREATMENT REQUIRED (Y or N)

N

N

Manual Pickup (Check as Req.)

Spot Washing

Bio-Customblen Only

Bio-Inipol/Customblen

Other

Other

COMMENTS:

INITIAL:

TAG:

FOSC:

TAG APPROVAL DATE: MAY 17 1941

FOSC APPROVAL DATE: 5/25/91

ADEC

FOSC



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

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.

Herring Spawning: No treatment before June 1. Avoid disturbance to kelp and eelgrass.

Subsistence - Deer Harvesting: Unlimited treatment prior to 8/15.

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 3 SEGMENT GR-10 SUBDIVISION A DATE 4/30/91

ADEC

NAME Wesley Ghormley SIGNATURE Wesley Ghormley☐ NTR ☒ TREATMENT RECOMMENDED

- A significant amount of subsurface HOB is present under rollable boulders. The area is approx. 20X100M and is very easily recoverable. I would not consider this a small area as described below. Abundance of biota is present but out of the oiled zone. Manually roll boulders, scrape oil w/ hand trowels, (oil lies on bedrock) string SNARE boom after removal to capture oil residue. I believe over-lying boulders are keeping this beach from natural cleaning and the consistency of the oil is too high to weather.

EXXON

NAME Jon CZARNECKI SIGNATURE Jon Czarnicki☒ NTR

This is a fairly exposed beach. 18 ~~small~~ pits were dug 16 of them had oil coming from film & HOB. The beach is healthy with an abundance of biota.

LANDMANAGER

NAME Carol S Huber OF Forest Service SIGNATURE Carol S Huber☒ NTR

High energy beach shows signs of recovery. Very light surface oil in U.S. 13. Biota downslope from oiled zone is healthy & abundant. Subsurface oil would be difficult to clean & appears fairly stable where tucked in behind bedrock outcrops. Also subsurface oilings is confined to a relatively small area.

USCG/NOAA

NAME MOORELY SIGNATURE Tina Moore☐ NTR

North Eastern half of this segment has very little to no oil shows are a thin cover of Boulders on bedrock. The Southeastern half of the segment is a cobble boulder armor with "sediment pockets" in the bedrock with LOR to HOB (10cm). The mean of concern is 20meters by 100meters in size. Thick oil coating on boulders when rolled over are present.

PAGE 1 OF 2

SEGMENT *OR-10*

SUBDIVISION 4

DATE 4 / 30 / 91

ENERGY LEVEL: ☐ H ☒ M ☐ L

EST. OIL CATEGORY LENGTH: W 0 m M 0 m N 23 m VL 203 m NO 436 m US 0 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- 3 - 05 FRAMES 6-11

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

Surface oiling is light. The eastern $2\frac{1}{3}$'s of the subdivision has virtually no oil, the western third a sporadic stain to coat.

OG-1045 (CONT'D)

REVIEWED: F.W. 5/3/91
 REWISTED: M.C. 5/3/91

MAYSAP SHORELINE OILING SUMMARY (cont.)

PAGE 2 OF 2

TEAM NO. 3

SEGMENT GR-10

SUBDIVISION

DATE 4 / 30 / 91

[illegible]

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

OG COMMENTS:

Initial oiling appears to have been a viscous mousse as much of the residual stain and coat has the appearance of weathered drips and splats. The area appears to have been bio-remediated as evidenced by (a) degraded coats (organic crusts) and (b) lichen halo's.

An area of relatively broken subsurface oiling, ranging from HOR to MOR conditions is present near the western end. The HOR condition is generally a 1 to 5 cm thick layer at the sand/granule surface (below cobble, boulder veneer). The layer tends to be in lenses due to shallow bedrock and probably covers about 50% of a 20x100 m area. A concentrated area of freshwater runoff limits the western extent of this subsurface oiling.

PITS = 18 # HOR PITS = 3 (17%) N.O. PITS = 11 (61%)

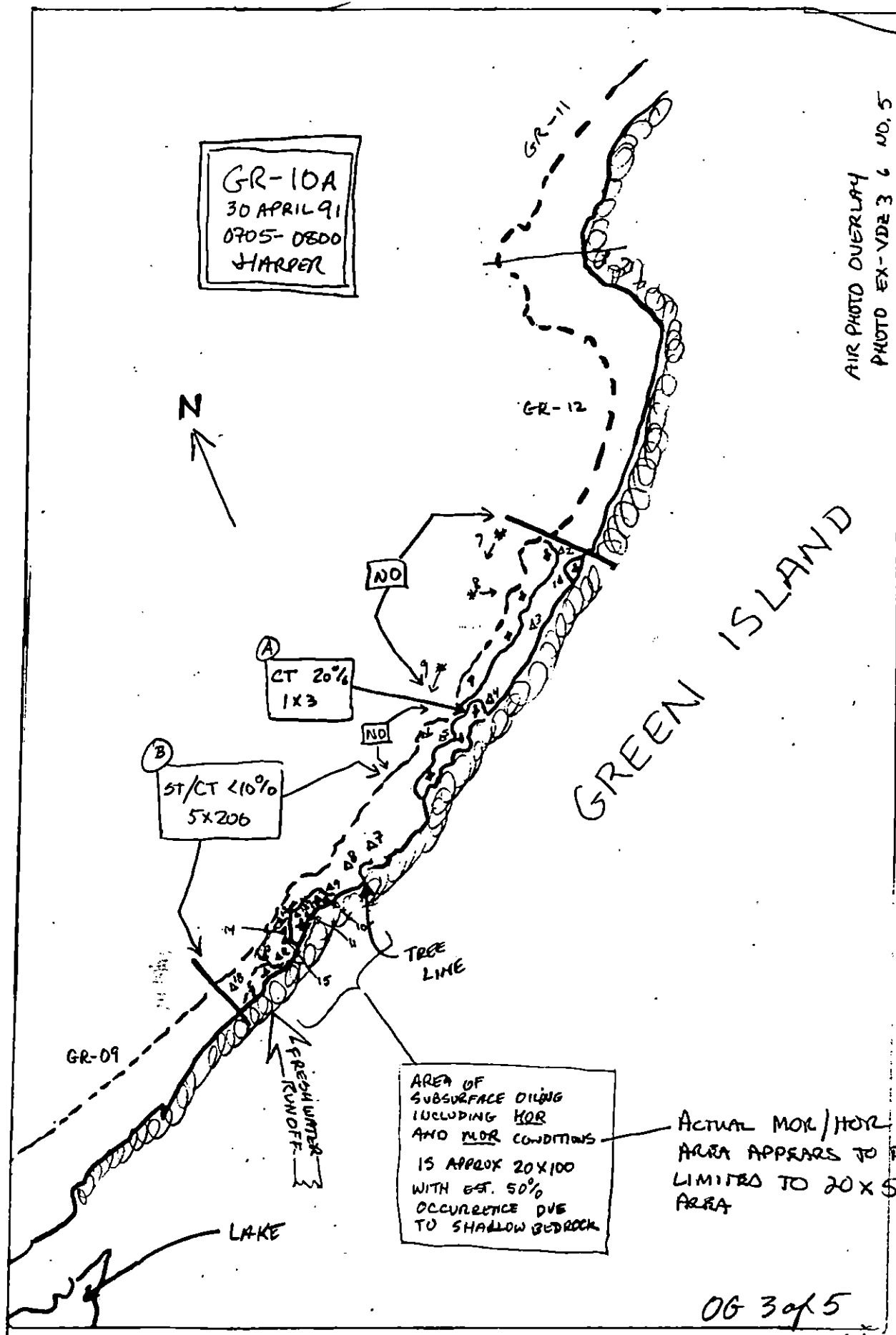
OG 2 of 5

REVIEWED: F.W. 5/3/91

REVIEWED: M.C. 5/3/91

GR-10A
30 APRIL 91
0705-0800
HARPER

AIR PHOTO OVERLAY
PHOTO EX-VDE 3 6 NO. 5



OG 3 of 5

REVIEWED: F.W. 5/3/91
RAISED: M.C. 5/3/91

10

STARTER

FIELD

NOTES

CT 20
1 x 3
4 x 20-40

0800

CT 20
1 X 3
VERTICAL

CP/SIG N.O
30cm

Δ2 M1 = 230
S.G / R W.O

$\Delta 3 \text{ m} 172 \text{ 30}$
B,C/S,C

Δ 4 VIT 2 30
P/8,5 N.O.

Δ5 0172 30
C/G, 3 N.O

Δ6 m172 30
C, P/S, G/R n.c

Δ7 6172 7
C.P/R N.O.

AS UNIT NO.
P. P. CULT. NO.

Δ9 UTE + 1000
B/S COLOR

2410

SSAT
OLED PITS

Δ 18 MITE
BL/SG
N.O
FRESH WATER
RUNOFF

ALB UITE
B,C/S,G
RUR 0-10
WT. 15 3

▲ 7 MITE
BL/SIG
MOR
0-5
5-15

M AMITZ/UITZ
~~30~~ WT 15 i
 TBC/S, G, P
 0-5 MOR
 5-20 N.O.

15 AUG 1972
B, C, S, G, P
0-5 MUR/HUR
5-20
WT 5R → 0

▲ 10 VITZ
BCP/S, G 25cm
WT 20 R
Time

▲ 11 VIT 730
BC / S, G LUR
BUT 25 R

12 MITZ
 BC/SG
 0-3 HOR ←
 3-10 N.O.
 30R
 BUT BECAUSE
 UNDER ARMOVIC
 SUBSURFACE OIL
 WT. 20 R.

Δ13 MIT-2 30
BC/S, G, P N.O
WT 25 R

G R 0 1 0 A
ADEC Subsegment Length: 830m
METERS

AZ State Plane Zone 4
prg010a

Map Key: PWSGR010A

Name: HARPER

Date: 30 APRIL 91

Data Entered:

FIELD MAP
NOTE WRINKLED SURFACE
AND BLURRED INK!

Page 1 of 1
OG 5 of 5
REVIEWED: F.W. 5/3/91
REMOVED: M.C. 5/3/91

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 3 DATE 4/30/91
 SEGMENT # GR10 TIDAL HEIGHT(Range) 0-2'
 SUBDIVISION A BIOLOGIST STOKER
 SEA STATE 0-1' WIND SPEED/DIRECTION NE 0-5
 PHOTOGRAPHS: ROLL # FRAME #

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

High energy beach of rounded boulder/cobble with bedrock outcrops.
 Biota in upper intertidal (UTE) generally sparse due to exposure and substrate instability.

Biota in mid intertidal (MTE) and below is relatively abundant and diverse, consisting primarily of Fuens (with abundant new growth) ulva, Halosaccion and other red algae, dense patches of Mytilus and barnacles + spat on stable substrate, dense clusters of limpets and Littorina (with egg masses), amphipods, Pagurus, chitons (K. Tunicata), isopods (Idotea), anemones (Telia) and surf grass (Phyllospadix).

Biota generally sparse in proximity to oiled zone, primarily due to its intertidal location (UTE) and unstable substrate.

Biota downlope from oiled zone appears healthy and abundant, as described above. If further treatment is undertaken, avoid disturbance of this established biota.

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1	1	cel blannier
Seabirds	1	2	
Waterfowl	2	20-30	
Gulls/Kittiwakes	1	14-20	
Shorebirds			
Corvids			
Other Birds			

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters	1 + 1 skeleton		
Pinnipeds(specify)			
Whales(specify)			

Shoreline subdivision map showing important biological features attached.

Reviewed M.B. 5/3/91
 REVIEWED M.C 5/3/91

+ 10

Narrow
or V.T.T

GREEN 15

NARADA = 3m
 V.L. = $\frac{200m}{203m}$
 NO OIL = $\frac{436}{639}$

G R O I O A

METERS

AK State Plane Zone 4
pg000c

Data Entered:

OG 4/25

REVIEWED: F.W. 5/3/91
REVIEWED: M.C. 5/3/91

GR-10

well-hidden stream in
cobble and boulders

SZS
6/2/90

R-1A ? should be
here ?

GR-09

(this segment is
difficult to locate —
see GR10 map and
Sketch map)

XXX Wide

/// Medium

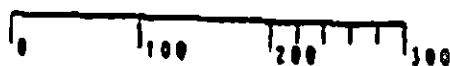
--- Narrow

TTT Very Light

ooo No. 0:1

GR-9

ADEC Segment Length: 219m



Map Key: PWS-267

Name: B. Berglund

Date: 3/30/90



ASAP TAG REVIEW SHEET

Segment: GR 103

Subd: A

Site: 1

Date

PRE-Review 18 Aug

Priority For Addressing In 1990

 HIGH

 MEDIUM

 LOW

 NTR

Treatment

Recommended:

NTR

pool oil - very small (10x10cm)
1cm
No lead oiling

Priority Site For Reassessment In 1991

YES

NO

 CG

YES

NO

 ADEC

YES

NO

 EXXON

YES

NO

 LAND MGR

ASAP TAG REVIEW SHEET

Segment: GR 103 Subd: A Site: 2

Date
PRE-Review 16 Aug

Priority For Addressing In 1990

 HIGH MEDIUM LOW NTR

Treatment
Recommended:

M/P Asphalt pool oil
Spotic Asphalt
Spotic pool oil

Priority Site For Reassessment In 1991

YES NO YES NO YES NO YES NO
CG X ADEC ✓ EXXON ✓ LAND MGR ✓

ASAP FOLLOWUP RECOMMENDATIONS

Project: AS/GR-103 Subd.: A Size: 1 Date: Aug 14 1990

Conditions Observed: The SSAT map describes the oiling in this area quite well. Particular attention should be directed to the profile of the proposed work site. The boulders have broken coats and patchy covers. In some cases the covers are half a centimeter thick. Oil on the site is weathered to a "tacky" tar but it is very black and shiny. Patches of asphalt pavement were observed in the interstitial pebbles and cobbles. Patches of oiled vegetation were found in the SITZ. Some manual removal had taken place. At the edge of one of these removal sites a 10x10 centimeter patch of shallow pooled mousse (1 cm.) was observed. The area had signs of Inipol and Customblen application. No pits were dug due to time constraints (tide was rising.)

Followup Recommendations: THE FOLLOWUP RECOMMENDATIONS
BY TEAM MEMBERS ARE LISTED BELOW

Completed by Pickup Crew: ☐ YES ☒ NO Priority for Addressing in 1990: ☐ High ☐ Mod. ☐ Low

ADEC Wesley Ghormley
(name)

Wesley Ghormley
(signature)

Comments: This area consists of a very heavy black coat on boulders in protected areas. Spot washing is recommended to coats where recent application of inipol seemed to have little effect. Manual removal of patchy A/P and removal of PO and oiled vegetation at the extreme LITE is also recommended.

Exxon RANDALL E. BOYER
(name)

Randall E. Boyer
(signature)

Comments: THE SITE HAD EVIDENCE OF RECENT BIOREMEDIATION APPLICATION. THE ASAP VECB CREW REMOVED SMALL AMOUNTS OF OIL VEGETATION AND THE POOLED MOUSSE AS DESCRIBED. THE TACKY COATING ON BOULDERS COULD HAVE BEEN A SPOT WASHING CANDIDATE. NEED TO CONSIDER 1990 SPOT WASHING EFFORTS ON INIPOL APPLICATION

USCG Leo Bersalong
(name)

Leo Bersalong
(signature)

Comments: This area situated next to a recreation bench area should be considered for re-washing and reclamation by water blasting and manual removal in 1991 or sooner

Land Rep. John Ebel
(name)

John Ebel
(signature)

Comments: Spot wash coats, because heavy coats exist as hazard to wildlife, especially mammals. Area appears unsightly. Spot wash using perm-perms to recover oil. Recommend treatment for 1990 if schedule will not conflict w/ migrating birds or penning construction.

ASAP FOLLOWUP RECOMMENDATIONS

Project: AS/GR-103 Subd.: A Site: 2 Date: Aug 14 1990

Conditions Observed:

This site rests on an uplifted bedrock wave cut terrace. At least 50% of the surface is comprised of relatively flat bedrock. The SSAT map describes the oiling condition in this area quite well. Particular attention should be directed to the profile of the proposed work site. Boulders and bedrock have patchy coats and covers (roughly 30% surface distribution.) This oil is weathered to a black "tacky" tar. Patches of asphalt pavement were observed in bedrock pockets. These pockets of asphalt would be tedious to remove manually. In one of these pockets a 20x20 centimeter patch of pooled mousse (2 cm. deep) was observed after the surface pavement was disturbed. The area had no signs of Inipol or Customblen application. No pits were dug due to shallow bedrock. The tide stand was 8 ft. when the survey was conducted. Pockets of pavement were observed 2 ft. below the water's surface at that time. It was not possible to assess how low in the intertidal the oil extended.

Followup Recommendations: SEE TEAM FOLLOWUP RECOMMENDATIONS Below.

Completed by Pickup Crew: ☐ YES ☒ NO

Priority for Addressing in 1990: ☐ High ☐ Mod. ☐ Low

ADEC Wesley Ghormley
(name)

Wesley Ghormley
(signature)

Comments: Manual removal of A/P is requested for this area, followed by Custom Blend application. Due to A/P being located on flat bedrock I believe it could be easily removed with a small crew with hand tools.

Exxon RANDALL E. BOYER
(name)

Randall E. Boyer
(signature)

Comments: ASAP VECO INITIATED SOME MANUAL PICKUP OF AP SEDIMENT BETWEEN BEDROCK POCKETS. THERE WAS NO EVIDENCE OF BIOREMEDIATION APPLICATIONS ON THIS SITE WHICH COULD PROVE EFFECTIVE. MEDIUM TO HIGH ENERGY BEACH WITH NORTH WINDS. MANUAL REMOVAL WOULD BE TOO TEDIOUS FOR TIME REMAINING IN 1990. BIOREMEDIATE AND ASSESS IN 1990.

USCG PS1 Leo Bersalona
(name)

Leo Bersalona
(signature)

Comments: The heavy A/P have fossilized in the cracks of the rocks and in some spots sea life are growing on them. An area under water with the tides should be left alone.

Land Rep. John Ebel
(name)

John Ebel
(signature)

Comments: Significant quantities of oil residue A/P could be manually removed or mechanically (i.e. vacuum) recovered. A/P is either on bedrock or close to surface. Manually fill Customblen sites where A/P removed.

FIELD SHORELINE COMMENT SHEET

SEGMENT AS 16R-103 SUBDIVISION: A SITE: #1 DATE 14 August 1990USCG 11 NOAANAME PS1 Leo Bersztein SIGNATURE Leo Bersztein☒ YES☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

This area is located in a hook-like cove in which tide action does not have the proper energy impact to clean it. I believe a second application of high pressurized steam wash will be necessary to get rid of the broken coat/cover in the rocks since it is high to recreation beach area which has tremendous revenue potential.

ADEC

NAME Wesley Ghormley SIGNATURE Wesley Ghormley☒ YES☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

A work modification was submitted for additional work. Reassessment necessary to evaluate any remaining oil.

LAND MANAGER

NAME John Ebel SIGNATURE John Ebel☒ YES☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

Heavy oil cover dripping in sand.
Injunct. Applied, a customizer visible.
SCR/H to Asphalt pavement in SATZ - MITE (spash)
To Evaluate effect of winter conditions on remaining oil
Strong washing of coals would reduce regards of oil in remaining fuel.

EXXON

NAME Randall K. Boyer SIGNATURE Randall K. Boyer☒ YES☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

ASAP RECO CREW Removed some Pooled MOOSE AND Oiled
VEGETATION IN THE VITE. Reassess in 1990 FOR THE EFFECTS
OF INJOL & CUSTOMER APPLIED IN 1990.

FIELD SHORELINE COMMENT SHEET

SEGMENT AS GR-103 SUBDIVISION: A SITE: #2 DATE 14 August 1991

USCG / NOAA

NAME PSI Leo Bersolona SIGNATURE Leo Bersolona

☐ YES ☒ NO PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

Area in question is very localized, and it will recover in time. The coast could have reached a hardness state in which sea urchins and mussels are growing. Furthermore, it disappears under water during high tides.

ADEC

NAME Wesley Ghormley SIGNATURE Wesley Ghormley

☒ YES ☐ NO PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

A work mod was submitted to remove retrievable oil. Reassess to evaluate area after winter activities

LAND MANAGER

NAME John Ebel SIGNATURE John Ebel

☒ YES ☐ NO PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

Asphalt pavement patches - sporadic distribution
Mussel undercoils

To evaluate effects of winter conditions on remaining oil

Site recommended for work that will be completed. High Priority

EXXON

NAME RANDALL K. BOYER SIGNATURE Randall K. Boyer

☒ YES ☐ NO PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

GR-103 A SHOULD BE ASSESSED AS A SUBDIVISION
IN 1991 TO MONITOR AND DOCUMENT THE RESULTS OF
CUSTOMER & INIPOL APPLICATIONS APPLIED IN 1990

SEGMENT AS1 GR 103 SUBDIVISION: 4 SITE: 3 DATE 8/15/90

USCG 11 NOAA

NAME PSI Leo Bersaloni

SIGNATURE Leo Bersaloni

☒ YES
REASON:

☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

The asphalt patches discovered were rather few in number around the running creek beds in which the fish were busy copulating in a final orgy all about the stream bed. The asphalt sediment emitted a rainbow when it was scraped with a shovel in the wet ground. It would be best to leave this site alone and do harm to the spawning ground.

ADEC

NAME Wesley Ghormley

SIGNATURE Wesley Ghormley

☒ YES

☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

This area would have been recommended for additional work thru a work order mod. if not for being located adjacent to a very active anad. stream. Hundreds of fish were observed directly in front of work site and as tide rose sheens would have been produced from work area. High priority FOR 91, manually remove A/P. Do Not apply inipol to area!

LAND MANAGER

NAME John Ebel

SIGNATURE John Ebel

☒ YES

☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

Treatment would be recommended but due to salmon spawning in area, treatment should be delayed. To evaluate effect of winter conditions on remaining oil. Treatment should be delayed until after out-migration and before returning adults.

EXXON

NAME RANDALL E. BOYER

SIGNATURE Randall E. Boyer

☒ YES

☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

THIN, INTERMITTENT Asphalt patches were identified AND were customblended by the ASAP VECO CREW CREW. Removal of this oiling should be reserved ~~to~~ IN 1990 because of fish running a near by ANAD STREAM. A Look IN 1991 would be Warranted.

PAGE - OF

SEGMENT AS/ GR 103
SUBDIVISION A
TOTAL NO. SITES 3
TIDE LEVEL 7 to 8 ft.

SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WEATHER: ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snc
OIL CATEGORY LENGTH: W 180 m M 75 m N - m VL - m NO - m US 659 m

SITE 3

[illegible]

NOT OBSERVED-

[illegible]

Photographs: ASAP#
Roll No. Roll #4
17
Frames 20, 21, 22

NO PITS
DUE TO
BOULDERS
& SHALLOW
BEDROCK.

REVIEWED
8/17/90 Y-U

COMMENTS

SEE ATTACHED COMMENTS

The SSAT map describes the oiling in this area quite well. Particular attention should be directed to the profile of the proposed work site. The boulders have broken coats and patchy covers. In some cases the covers are half a centimeter thick. Oil on the site is weathered to a "tacky" tar but it is very black and shiny. Patches of asphalt pavement were observed in the interstitial pebbles and cobbles. Patches of oiled vegetation were found in the SITZ. Some manual removal had taken place. At the edge of one of these removal sites a 10x10 centimeter patch of shallow pooled mousse (1 cm.) was observed. The area had signs of Inipol and Customblen application. No pits were dug due to time constraints (tide was rising.)

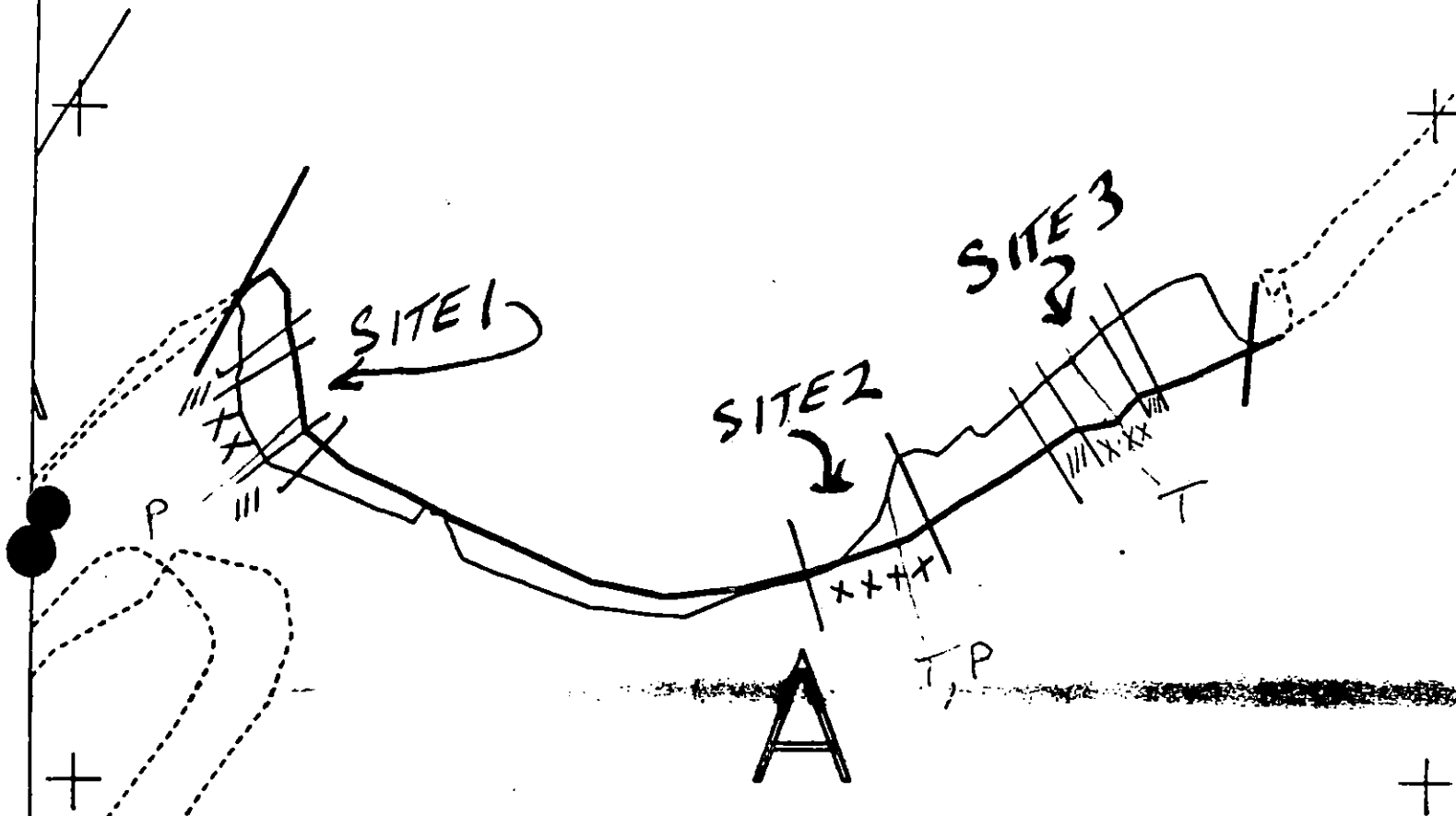
SITE 2

This site rests on an uplifted bedrock wave cut terrace. At least 50% of the surface is comprised of relatively flat bedrock. The SSAT map describes the oiling condition in this area quite well. Particular attention should be directed to the profile of the proposed work site. Boulders and bedrock have patchy coats and covers (roughly 30% surface distribution.) This oil is weathered to a black "tacky" tar. Patches of asphalt pavement were observed in bedrock pockets. These pockets of asphalt would be tedious to remove manually. In one of these pockets a 20x20 centimeter patch of pooled mousse (2 cm. deep) was observed after the surface pavement was disturbed. The area had no signs of Inipol or Customblen application. No pits were dug due to shallow bedrock. The tide stand was 8 ft. when the survey was conducted. Pockets of pavement were observed 2 ft. below the water's surface at that time. It was not possible to assess how low in the intertidal the oil extended.

SITE 3

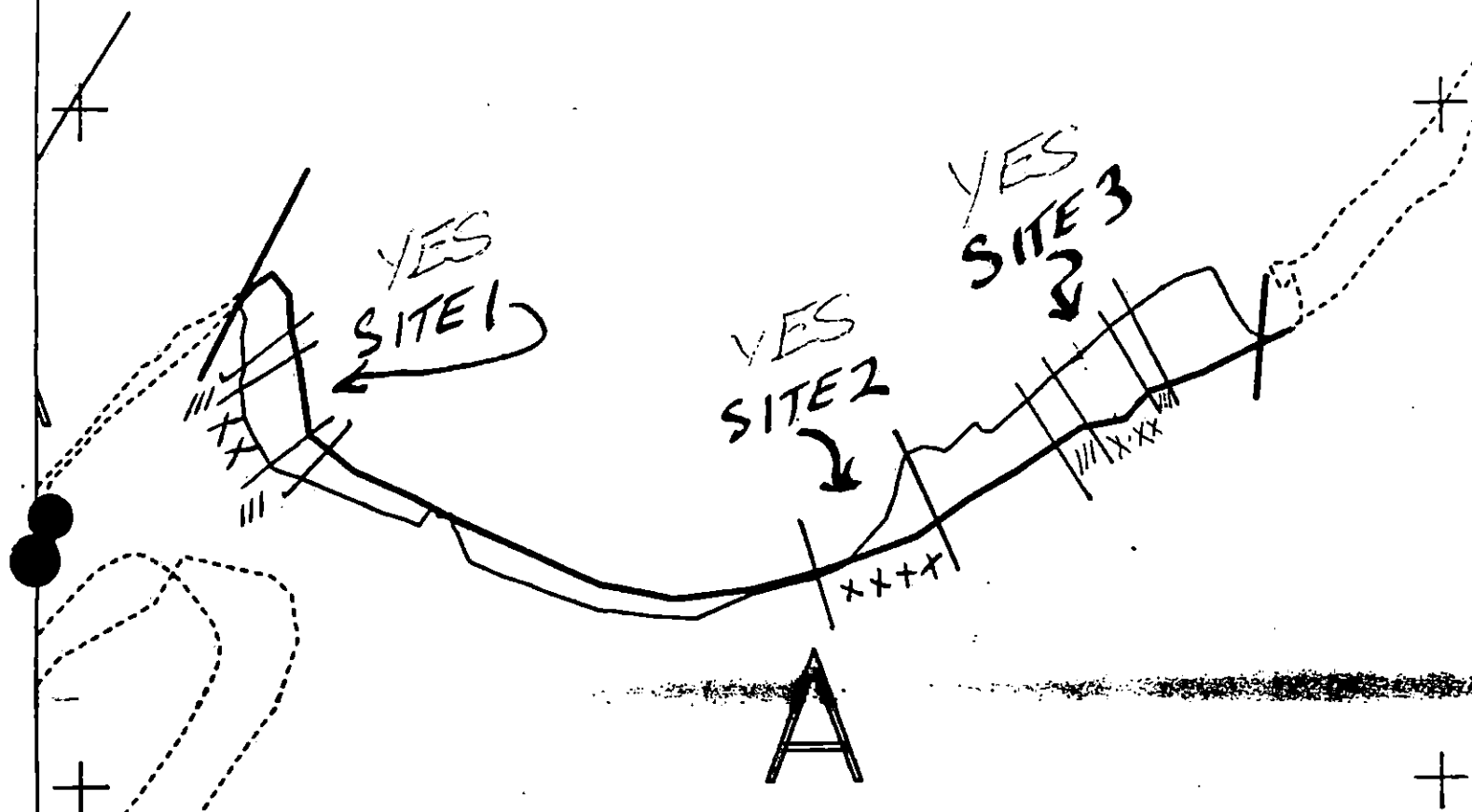
This site is underlain by a wavecut terrace of vertically bedded slate. The gaps in these vertical bedding planes have trapped AP/P/I and it is difficult to dislodge. Rainbow sheen in tide pools. Heaviest concentration of patchy asphalt is located 150 paces west of the stream channel. A small pile of drift material marks the spot on the storm berm. In this location is a 35x20 area of patchy pavement up to 10 centimeters deep. The patches are large enough to be worked tediously with a shovel and trowel. Our VECO crew conducted additional removal at this location. Original OG comments are still very accurate except that the April interstitial mousse has become August AP/P/I.

GR-104



GR-105

GR-104



GR-105

XXX Wide
/// Medium
--- Narrow
YYY Light

GR-103 A

ADEC Subsegment Length: 914m

AK State Plane Zone 1:3075

Subdivision Field Map

Map Key: PWSGR-103A

Name: CHANEY

Date: AUG 15 1990

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT GR-10 SUBDIVISION A (1 of 1)

WORK WINDOW	
Manual Pickup	OPEN
Bioremediation Spot Washing	WORK 6/15 to 8/15

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

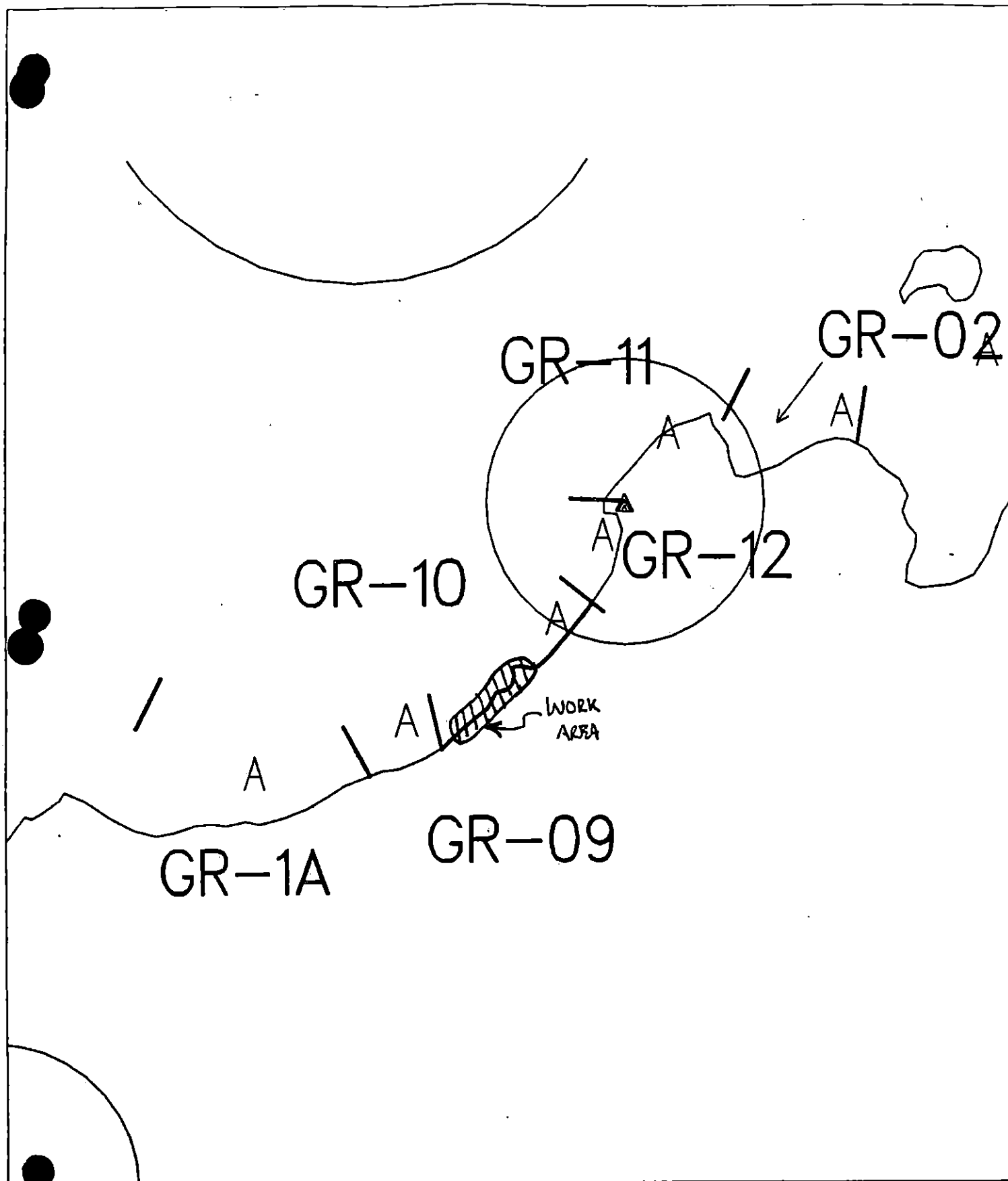
APPLICABLE ECOLOGICAL TIME CONSTRAINTS

2M	Herring Spawning	Closed to bioremediation and spot washing before 6/15. No constraint to manual pickup.
5S	Shorebird/Waterfowl Concentration	No constraint after 5/15.
5T	Bald Eagle Nest	NO CONSTRAINT. USFWS 6/1/90 map indicates no active nest within 400m of Subdivision A work site.
7II	Subsistence: Deer Harvesting	Closed to bioremediation and spot washing after 8/15. No constraint to manual pickup.

OTHER ECOLOGICAL CONSIDERATIONS

Restrict boat traffic to essential minimum. Avoid any unnecessary disturbance or damage to unrolled substrate and biota especially intertidal and subtidal algae and seagrass. Restrict disturbance of unrolled *Fucus* in LITZ and MITZ. Restrict air traffic and beach disturbance to essential minimum 8/15.

FOSC Date 6-10-90
Prepared by J. P. Phillips ⁶⁻¹⁰⁻⁹⁰ _{amm} Date 6/10/90



Exxon Company, USA
Map Key: PWS-GR-10



ECOLOGY MAP
SEGMENT GR-10
SUBDIVISION A (L of L)
METERS

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

SHORELINE EVALUATION

SEGMENT ST/ GR-10 SUBDIVISION A (1 OF 1) DATE 3/3090

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Shorebird/Waterfowl concentration (5S) - 4/25 to 5/15; Herring spawning (2M) - 4/1 to 6/15; Special use destination (6Y) - 6/1 to 9/15; Deer harvesting (7II) - 8/15 to 2/28.

SUBDIVISION ECOLOGICAL CONSTRAINTS: Restrict disturbance of unoiled fucus in lower and middle intertidal zones.

ARCHAEOLOGICAL CONSTRAINTS: If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact a member of Exxon's Cultural Resource Program immediately (564-3657; 564-3658 or 564-3276).

SHPO SIGNATURE: Charles E. Humea DATE: April 11, 1990

OILING CATEGORIZATION:

Wide 75 m: Medium 178 m: Narrow 0 m: V. Light 306 m: No Oil 0 m
Subsurface Oil Observed: Yes X No Maximum Depth 20 cm

RECOMMENDATIONS:

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

COMMENTS: Recommend bioremediation where coat indicated on sketch map. Also recommend removal of debris from supra-tide zone on pocket #1. Recommend all work after 6/15 based on herring spawning constraints. SPOTWASH AS REQUIRED AND INDICATED ON SKETCH

SEE ADDENDUM dated 6/10/90

TAG COMMENTS: _____

TAG APPROVAL DATE: 4/10/90
ADEC JOHN BAUER
EXXON ANDY TEAL FOSC: DATE: 4-19-90
NOAA Burl Gusscott
USCG G.A. REITER

SHORELINE EVALUATION

SEGMENT ST/ GR-10 SUBDIVISION A (1 OF 1) DATE 3/3090

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Shorebird/Waterfowl concentration (5S) - 4/25 to 5/15; Herring spawning (2M) - 4/1 to 6/15; Special use destination (6Y) - 6/1 to 9/15; Deer harvesting (7II) - 8/15 to 2/28.

SUBDIVISION ECOLOGICAL CONSTRAINTS: Restrict disturbance of unopened fucus in lower and middle intertidal zones.

ARCHAEOLOGICAL CONSTRAINTS: If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact a member of Exxon's Cultural Resource Program immediately (564-3657; 564-3658 or 564-3276).

SHPO SIGNATURE: Charles Hoffman DATE: April 11, 1990

OILING CATEGORIZATION:

Wide 75 m: Medium 178 m: Narrow 0 m: V.Light 306 m: No Oil 0 m
Subsurface Oil Observed: Yes X No Maximum Depth 20 cm

RECOMMENDATIONS:

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

COMMENTS: Recommend bioremediation where coat indicated on sketch map. Also recommend removal of debris from supra-tide zone on pocket #1. Recommend all work after 6/15 based on herring spawning constraints. SPOTWASH AS REQUIRED AND INDICATED ON SKETCH

TAG COMMENTS: _____

TAG APPROVAL DATE: 4/10/90

ADEC

EXXON

NOAA

USCG

JOHN BAUER

ANDY TEN

Burt Wescott

G.A. REITER

John Bauer
Burt Wescott
G.A. Reiter

FOSC:

DATE: 4-19-90

OG _____

SEGMENT ST/ _____

SUBDIVISION _____

DATE ____ / ____ / 90

CHECKLIST

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

LEGEND

1 Δ
Pit - No Subsurface Oil

2 Δ
Pit - Subsurface Oil

CT/C
Continuous Distribution

CT/B
Broken Distribution

CT/P
Patchy Distribution

CT/S
Splashed Distribution

CT/S
Splashed Distribution

Oiled Vegetation

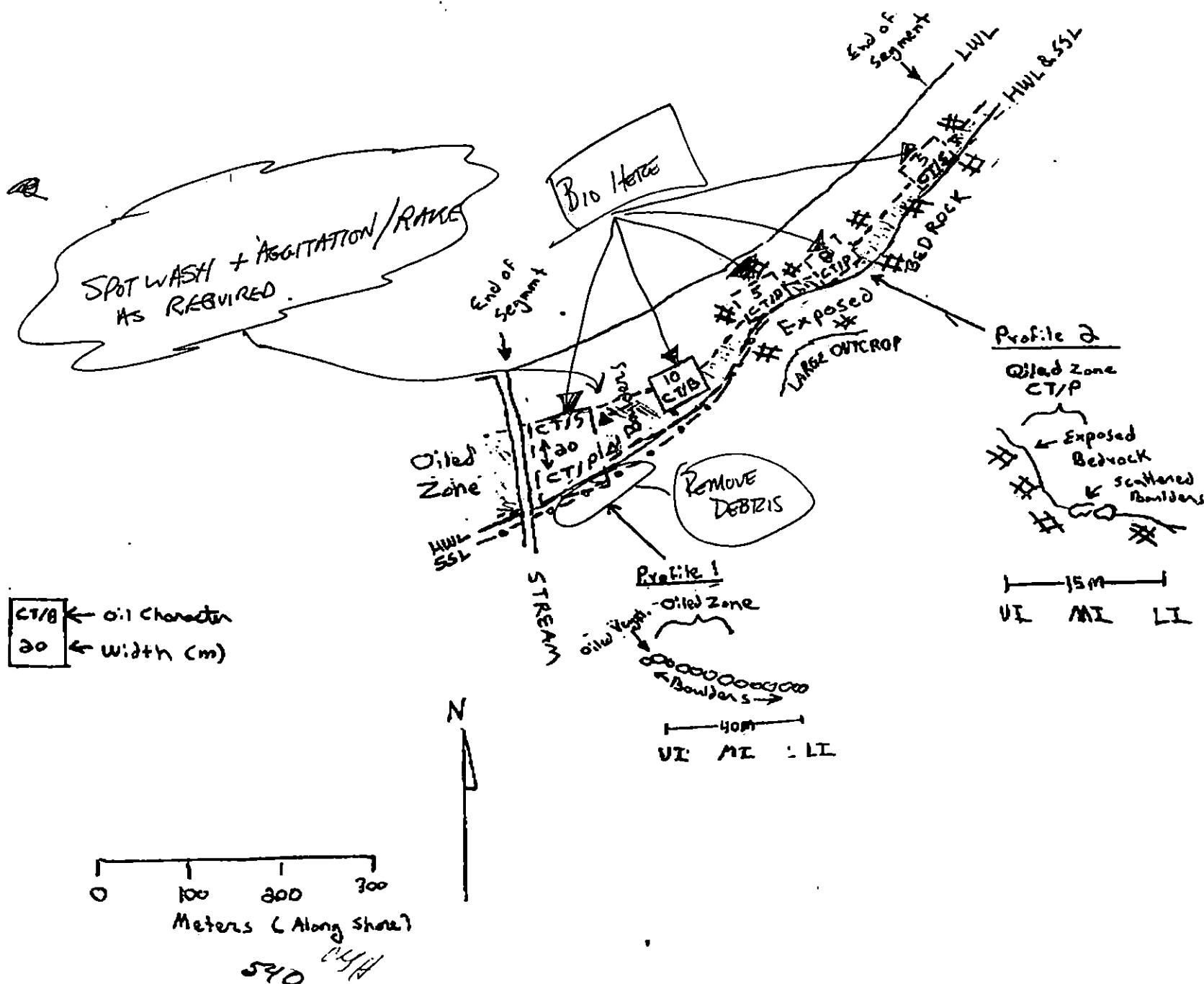
1 ●

Photo location, direction, and number

Exposed Bedrock

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

BEACH MAP



GR-10

GR-

GR-09

XX Wide

/ Medium

- Narrow

TT Very Light

OO No Oil

GR-10

ADEC Segment Length: 639m



Map Key: PWS-246

Name: B. Berglund

Date: 3/30/90

Data Entered:

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/ GR-11

SUBDIVISIONS: A (1 OF 1)

SHORELINE EVALUATION

SEGMENT ST/ GR-11 SUBDIVISION A (1 OF 1) DATE 3/30/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Herring spawning area (2M) - 4/1 to 6/15; active bald eagle nests
(5T) - 3/1 to 6/1; Shorebird/Waterfowl concentrations (5S) - 4/25
to 5/15; Deer harvesting (7II) - 8/15 to 2/28; Deer habitat (9FF).
Limit air and boat traffic to minimum necessary.

SUBDIVISION ECOLOGICAL CONSTRAINTS: Avoid disturbance/damage to un-
oiled biota and substrate.

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

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 9 m: No Oil 445 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: _____ Breakup	_____ Beach Cleaner
_____ Removal	_____ Other (see comments)

COMMENTS: No treatment recommended.

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

FIELD SHORELINE COMMENT SHEET

8-11 10:25

SEGMENT ST GR-11 SUBDIVISION: None DATE March 30, 1990

NAME Robert Jensen SIGNATURE Robert Jensen

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

ADEC

NAME Rowann T. Hudnall SIGNATURE Rowann T. Hudnall

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

Small splashes of oil only. Rocky outcrop w/ healthy & abundant biota. Treacherous walking.

LAND MANAGER

NAME U.S. Forest Service SIGNATURE Ray Keeler

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

5-6 splashes of very small size is all that was found -

SHORELINE OILING SUMMARY

REVISION NO. 03/22/80

OG Tom Marie Sempel USCG Bob Jensen SEGMENT ST/ OR-11
 BIO Sharon Dixon LAND REP Lee Keeler SUBDIVISION Loose A (10F1)
 EXXON Jim E. Dixon ADEC Reverend Hudnell TIME 11:30 to 12:13
 TEAM NO: 2 TIDE LEVEL: 0' to +2' DATE MARCH 1 30 / 90
 EST. SUBDIVISION LENGTH: 550 m ☐ Sun ☒ Clouds ☐ Fog ☒ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock Snow covered dunes 4th
 SURVEYED FROM: ☐ Foot ☐ Boat ☐ Helo WORKING DIRECTION: East to West
 SURFACE SEDIMENTS: R 20 % B 60 % C 10 % P 10 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W — m M — m N — m VL 1 m NO 540 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	IC	IB	IF	IS	NO	OR	OL	OF	NO	OR	OL	OF	SU	U	M	U
ASPHALT PAVEMENT																
POOLED																
COVER																
COAT																
STAIN				X									X		X	
MOUSSE																
PATTIES																
TARBALLS																
FILM																
NO OIL													X		X	X

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

OILED DEBRIS NO	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED

☐ YES ☒ NOTYPE —#BAGS —

Photographs:

Roll No. CameraFrames DefectiveSUBSURFACE OIL NO

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	NO	OR	OL	OF	NO	OR	OL	OF	SU	U	M	U		
							-																
							-																
							-																
							-																
							-																
							-																
							-																

COMMENTS

GR-11, Green Island, March 30, 1990

Segment GR-11 is located on the north-central coast of Green Island. It is exposed to a fetch of about 20 km to the northwest and to a larger fetch to the north. Its exposure window is also large (180 degrees).

The shoreline consists of large boulders and some cobbles over a gently sloping bedrock ramp in the intertidal zone, backed by bedrock cliffs. At several locations along this segment, bedrock forms low-lying outcrops. At the time of field work, snow covered the backshore and hinterland areas. With the exception of a small area at the northeastern end of the segment where stains of splashes occur, no oil was found on this segment.

SHORELINE ECOLOGICAL SUMMARY

REVISION: 08/22/90

Segment ST / GR-11 Subdivision N/A Date (mo / day / yr) 03/30/96
 Time (24 hr) 1145 - 1215 Biologist John Dixon

- (A) Substrate type and % of segments:
 (1) Bedrock 20 (2) Boulder 60 (3) Cobble 10 (4) Pebble 10 (5) Sand (6) Silt
- (B) Overall % cover of biota (% of segment): Dense 10 Moderate 30 Low 60
- (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. NONE
 Frames

BARNACLES

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

MYTILUS

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

GASTROPODS

Dense	Moderate	Sparse	Rare	
1U 1M 1L	XU XM 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	XU XM 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: Tide at +2.0 feet at start of survey
 NO DATA for low intertidal zone. Wren in intertidal.

Ecological Considerations:

This segment begins to the NE at a rocky headland with heterogenous habitats & a very diverse biota. This the exposed side of the headland & Fucus & Mytilus extend higher than on the other side. 80-100% cover of algae in low & lower mid zones on large boulders & bedrock. As one proceeds S.W. the size of the boulders decreases & the general appearance in the mid & high intertidal is of a very physically disturbed area. Most biota on large stable surfaces; barnacles & limpets are small.

300 GR-11 3/30/90

1. Same kind of as at
GR-02. More exposed
side. Fucus, mussels
much higher. Mussels
overall sparse but
dense in crevices etc.
gen. small ~ 2.5 cm.
Tide pools on top surface.
Tadpole anemones, coralline
around sparse to none.
Barnacles.

Vertical Trans at 1:
1150 +2

0-2m +2-+4) 80 B
20 C

80-100% algal cover
30% Fucus, 30% Red
Sparse barnacles mostly
very lg. Bacteria Green
Fucus or smaller Red
Dense amphipods on rubble

300 GR-11 2/8

Big Barnacles, patches
40% Red

Sparse H. sutton under rocks
2-15 m +4-+6

Fucus zone most 30% cover
red - sparse brown
Sparse Myt except in
patches of Red on Reddish
where dense. H. I
Sparse 1m high

15-20m +6-+10

Relatively bare rock & sparse
barnacles & fucus

Barnacles ~ 150m
from pt. Barnacles
Dense on Beach in H. I
Dense Barnacles among
barnacles. Nototaxia Fucus
Coralline.

ADD GR-11 3/13

As one piece of substrate
decreases & DL ga approx
is it a very physically
disturbed area - most
found on bed rock or lg boulders
Barnacles, ga small - small
Chthamalus 5m 11
Anchors, in place of under
rocks in 1st I

1211 +5 - +9'

0 - 10m 20' slope
2% Bed 80 B 20 C

(under in relation; kelp)
Tup. 5m 10m under, near
out. p, whop call

Most Fucus on lg surface
Sparse Barn, Gotta Nysta

Overall Substrate 80 Bed
60 Boulders
10 Cattle

JDD GR-12 3/18/90

① 1230 +4'

Dawn 1m - 8m 60 B 40 C
Most Fucus
Sparse - most large & 1.0m
under boulders
Nerily scattered very
Sparse Barnacles

- mostly 1m - 5m
Tumbled & scattered boulders
Sparse Fucus
No Mytilus
Very Sparse Barn
Most 1.0m & 1.5m
under Rock that small
150 peds

overall

Bed	2
Boulders	40
Cattle	40
Bubble	18

OG from the sample

SEGMENT S

SUBDIVISION NONE

DATE March 30 / 90

CHECKLIST

- ☒ N Arrow
- ☒ Approx. Scale
- ☒ Seg/Sub Bndry
- ☒ Oil Dist.
- Width
- Length
- % Cover
- ☒ Substrate Character
- ☒ Est. HW/LA/WL
- ☒ SSI
- ☒ Profile Location(s)
- ☒ Profile(s)
- ☒ Pk Location(s)
- ☒ Photo Location(s)

LEGEND

1  PK - No Subsurface Oil

2  PK - Subsurface Oil

 CT/C
Continuous Distribution

 CT/B
Broken Distribution

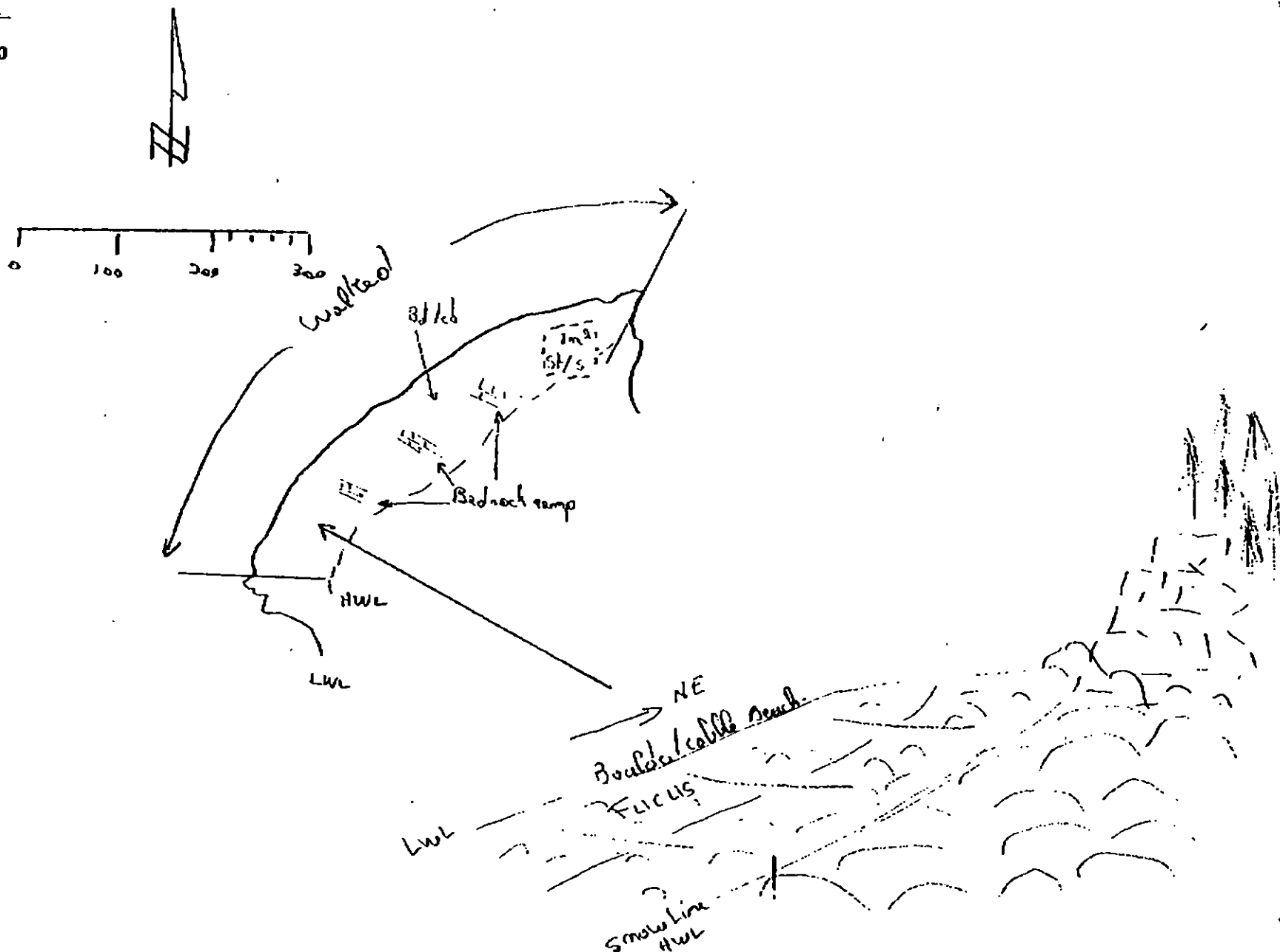
 CT/P
Patchy Distribution

 CT/S
Splashed Distribution

Oiled Vegetation

1  Photo location, direction, and number

SKETCH MAP



Oil Character Length (m): AP PO CV CT ST 1 MS PT TB FL NO 549

REVISION: 03/24/90

GR-11 p 3 of 5

GR-11

GR-11 p. 4 of 5

(very light)

GR-12

XXXX Wide

//// Medium

---- Narrow ADEC Segment Length: 350m

TTTT Very Light

0000 No Oil

GR-11



Map Key: PWS-253

Name: Leon: Maria Sampaio

Date: March 31 / 90

Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ GR-11 SUBDIVISION A (1 OF 1) DATE 3/30/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Herring spawning area (2M) - 4/1 to 6/15; active bald eagle nests
(5T) - 3/1 to 6/1; Shorebird/Waterfowl concentrations (5S) - 4/25
to 5/15; Deer harvesting (7II) - 8/15 to 2/28; Deer habitat (9FF).
Limit air and boat traffic to minimum necessary.

SUBDIVISION ECOLOGICAL CONSTRAINTS: Avoid disturbance/damage to un-
oiled biota and substrate.

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

SHPO SIGNATURE: Marka 3/4/90 DATE: April 11, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V. Light 9 m: No Oil 445 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS: No treatment recommended.

TAG COMMENTS:

TAG APPROVAL DATE: 4/11/90
ADEC JOHN BAUER John Bauer
EXXON ANDY TEN Andy Ten FOSC: DATE: 4-19-90
NOAA Burt Glescott Burt Glescott
USCG G.A. REITER G.A. Reiter

OG *for Trench*

SEGMENT S *2*

SUBDIVISION *None*

DATE *March 30 / 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)
- ☒ 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

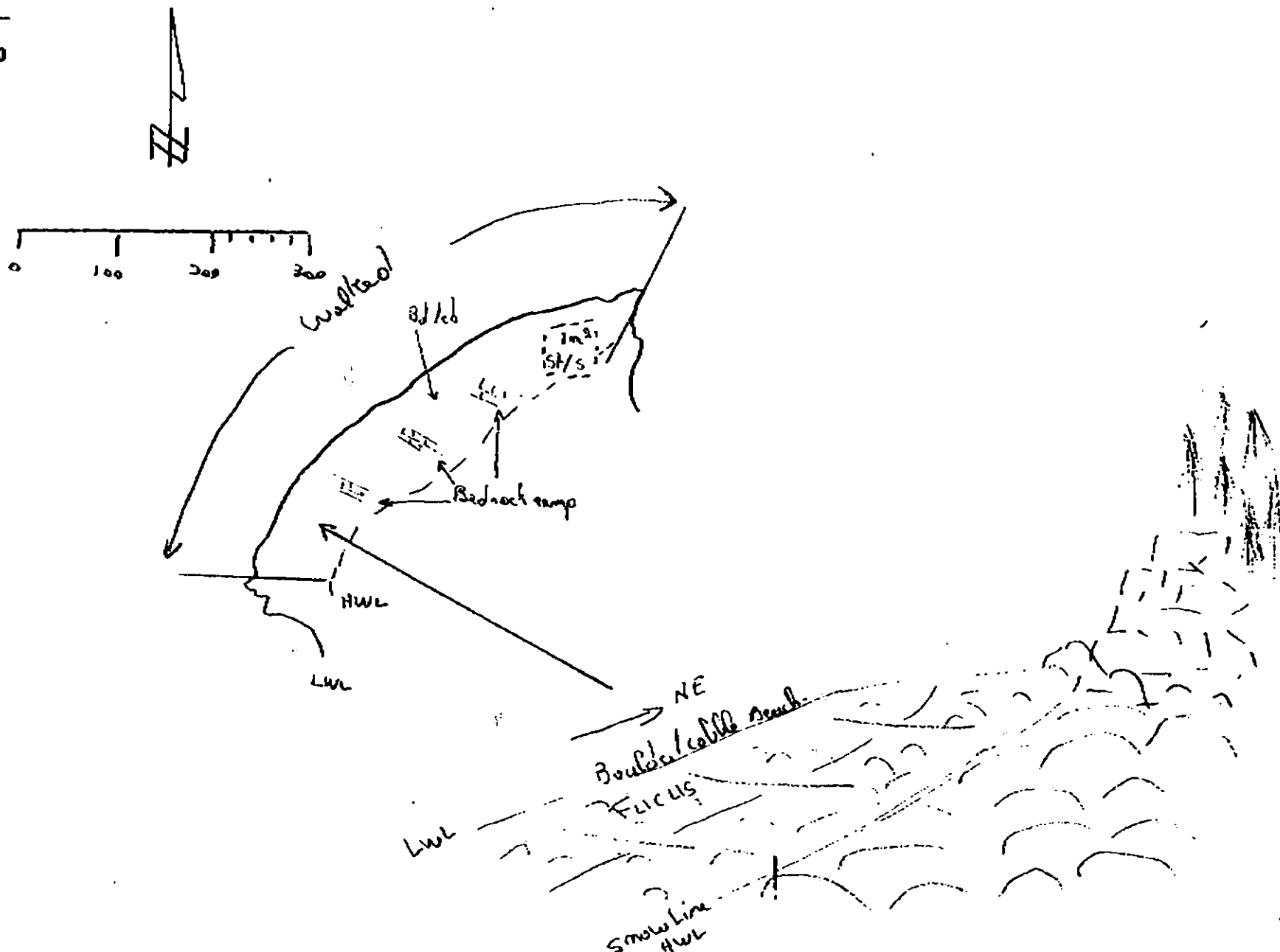
Splashed Distribution

Oil on Vegetation

1 

Photo location, direction,
and number

SKETCH MAP



Oil Character Length (m): AP *—* PO *—* CV *—* CT *—* ST *1* MS *—* PT *—* TB *—* FL *—* NO *549*

REVISION 88/24/90

GR-11 p 3 of 5

GR-11

GR-11 p 4 of 5

(very light)

GR-12

XXX Wide

/// Medium

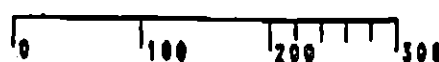
--- Narrow

TTTT Very Light

OOOO No Oil

GR-11

ADEC Segment Length: 350m



Map Key: PWS-253

Name: John: Marie Smith

Date: March 31/90

note: ...

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/ GR-12

SUBDIVISIONS: A (1 OF 1)

SHORELINE EVALUATION

SEGMENT ST/ GR-12 SUBDIVISION A (1 OF 1) DATE 3/30/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Deer harvesting area (7II) - 8/15 to 2/28; Herring spawning area
(2M) - 4/1 to 6/15; Shorebird/Waterfowl concentration (5S) - 4/25
to 5/15; Deer habitat area (9FF); Anchorages (6V) - 6/1 to 9/15.
Limit boat and air traffic to essential minimum.

SUBDIVISION ECOLOGICAL CONSTRAINTS: Avoid disturbance/damage to un-
oiled biota and substrate.

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

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 9 m: No Oil 341 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: _____ Breakup	_____ Beach Cleaner
_____ Removal	_____ Other (see comments)

COMMENTS: _____

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____

EXXON _____

NOAA _____

USCG _____

FOSC: _____ DATE: _____

FIELD SHORELINE COMMENT SHEET

2812 p. 2 of 5

SEGMENT ST / GR-12 SUBDIVISION: _____ DATE March 30, 1990US NAME Robert Jensen SIGNATURE _____☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTSADEC
NAME Rowann T. Hudnall SIGNATURE Rowann T. Hudnall☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

ashes of stain + star on cobble, boulder beach. No subsurface oil

LAND MANAGER
NAME U.S. Forest Service SIGNATURE Leon Kuehn☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

No oil found of any significance.
1 small 10' wide x 30' long band of small
oil weathered splashes - Let Natural forces continue
to work on.

SHORELINE OILING SUMMARY

REVISION NO. 02/22/88

OG John Teru Simpel USCG Sgt Jensen SEGMENT ST/ GR-12
 BIO John Dixon LAND REP John K. Lee SUBDIVISION None A (1 of 1)
 EXXON John Dixon ADEC Robert Hudnell TIME 15:15 to 12:50
 AM NO: 2 TIDE LEVEL: +2' to +5.4' DATE March 13, 1990
 ST. SUBDIVISION LENGTH: 4100 m ☐ Sun ☒ Clouds ☐ Fog ☒ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☐ Rock Some covered above HTL
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: North to South
 SURFACE SEDIMENTS: R 2 % B 40 % C 40 % P 18 % G 0 % S 0 % 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 5 m NO 395 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR						IMPACTED ZONES			
	IC	IB	IP	IS	SB	DB	WB	GB	LB	TB	SU	UI	MI	LU
ASPHALT PAVEMENT														
POOLED														
COVER														
COAT														
STAIN				X							X	X		
MOUSSE														
PATTIES														
TARBALLS														
FILM														
NO OIL											X	X	X	

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

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs	<u>0</u>		
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☐ YES ☒ NOTYPE 0
#BAGS 0

Photographs:

Roll No. Camera defunctFrames 0SUBSURFACE OIL NO

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	SB	DB	WB	GB	LB	TB	SU	UI	MI	LU		
							-														
							-														
							-														
							-														
							-														
							-														
							-														

COMMENTS

GR-12, Green Island, March 30, 1990

Segment GR-12 occurs on the north-central coast of Green Island. It is exposed to a moderate fetch to the west, less than 20 km, although waves from Montague Strait could reach this beach by refraction.

The shoreline consists of a uniform rounded cobble/pebble beach with some boulders and low-lying bedrock. With the exception of a small area of stains of splashes at the northern extremity, no oil was found on this beach.

SHORELINE ECOLOGICAL SUMMARY

REVISION: 02/22/90

Segment ST/ GR-12 Subdivision N/A Date (mo / day / yr) 03/30/95Time (24 hr) 1230-1245 Biologist John Dixon(A) Substrate type and % of segments:
(1) Bedrock 2 (2) Boulder 40 (3) Cobble 40 (4) Pebble 18 (5) Sand (6) Silt (B) Overall % cover of biota (% of segment): Dense 5 Moderate 20 Low 75

(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. NONEFrames

BARNACLES

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

NOT PRESENT

GASTROPODS

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

NOT PRESENT

FUCUS

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

NOT PRESENT

Wildlife Observations/ General Comments: Arrive 1230 when water line at +4 feet. Waded out 8m to examine to about +2 ft. No Data for Low intertidal!

Ecological Considerations:

This is a high energy beach made up of rounded & scoured boulders & cobbles. Most biota is on the low shore although gastropods are common under rocks in the higher areas, as are isopods.

JDD GR-12 2/2

Bed Rock at east
headland.

+5' to +10'

Sparse Fucus, Sparse Barn

Sparse MyT (H. verrucosa)

Sparse Gasts

Neck emergence

only holding in UZ + me

JDD GR-08 7/30/89

land 1300 Tide +5.5

NW Headland - Rock outcrop
in HZ: 80C 20B 60W

+5.5 5m Band 20% Fucus

<10% Barn Most R. T. T. T.

4/mut among cobbles Sparse
but fairly uniform cover of
MyT. Lvs settled among cobbles

10-30 along shore is
depression of sparse

Filamentous red algae from

+5' - +6' 30% cobb

80% pebb

10% sand

2. Mid Segment

1312 +6' at water line

0-20m Filamentous Red/Orange
moss, scattered Fucus

10% Barn cover on cobbles

15% 75% pebbles, 10% sand

most Littorina under cobbles

Sparse overall

OG from Maria Temples

SEGMENT STA 2

SUBDIVISION Nom

DATE Mar 31 / 90

CHECKLIST

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

LEGEND

1 ▲

Pk - No Subsurface Oil

2 ▲

Pk - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

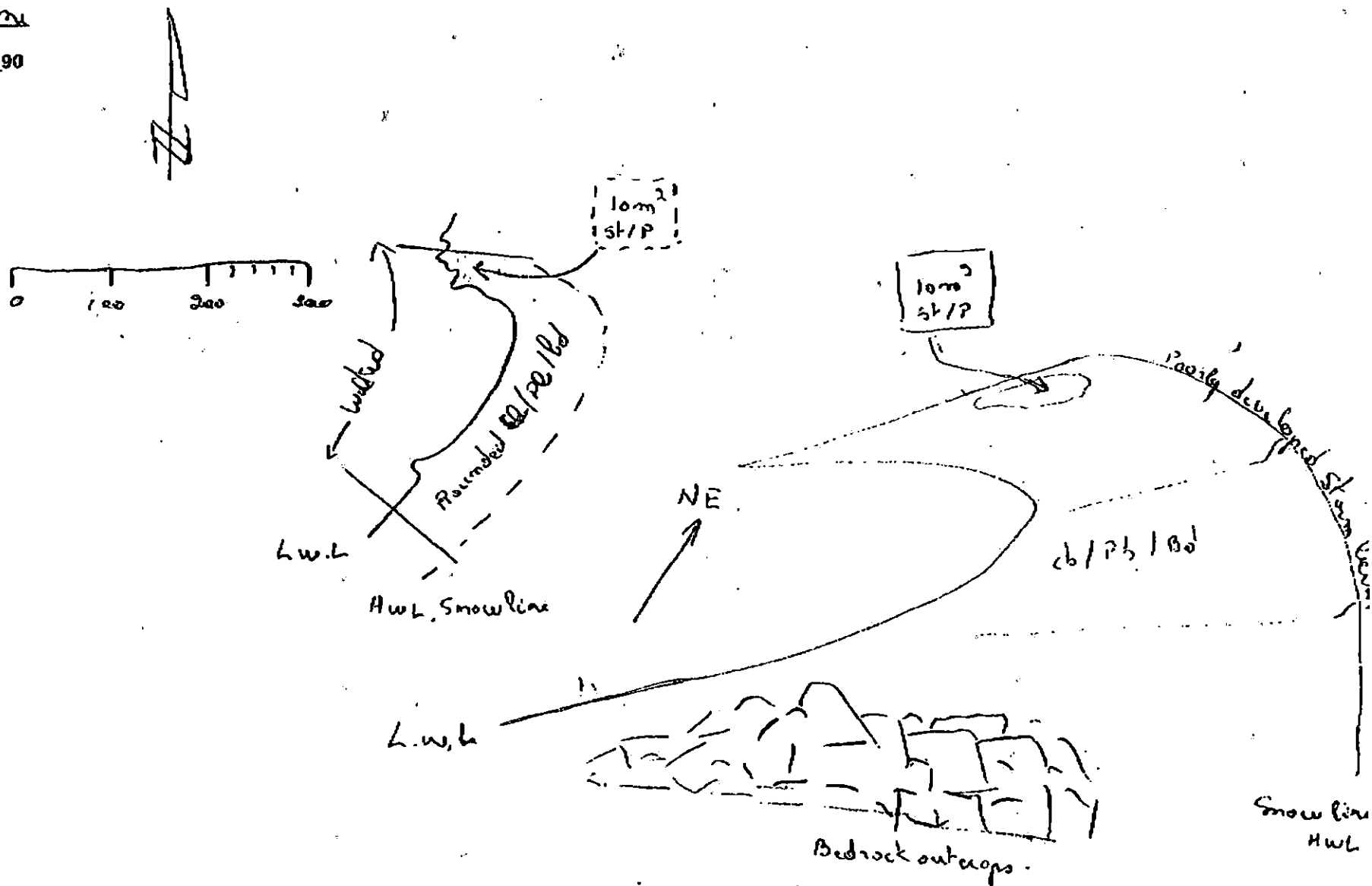
Splashed Distribution

Oil Vegetation

1 ➡

Photo location, direction,
and number

SKETCH MAP



Oil Character Length (m): AP PO CV CT ST 5 MS PT TB FL NO 375

REVISION: 03/24/90

810 p. 365

HER-01-1590

20:22

FROM

DON BULLINGER 2152

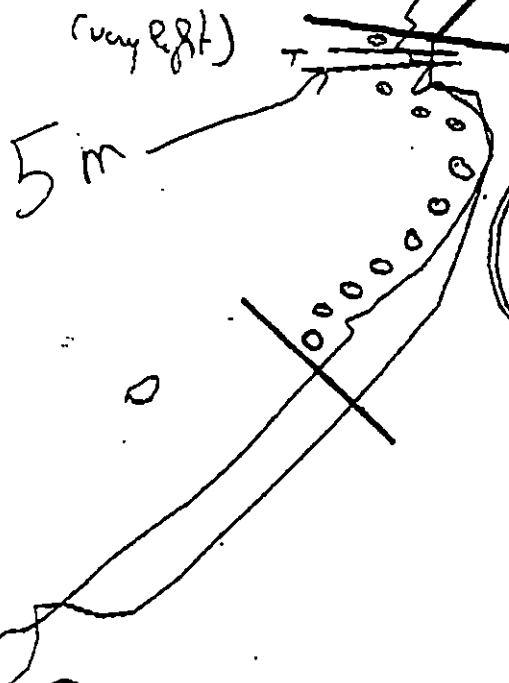
TO

SCHT

P.05

GR-11

GR-11

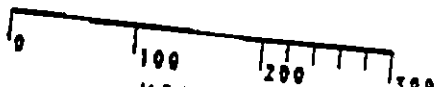


GR-12

Wide
Medium
Narrow
Very Light
No Oil

GR-12

ADEC Segment Length: 454m



Map Key: PWS-252

Name: *John T. ...*

Date: *Mar 23 / 90*

SHORELINE EVALUATION

SEGMENT ST/ GR-12 SUBDIVISION A (1 OF 1) DATE 3/30/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Deer harvesting area (7II) - 8/15 to 2/28; Herring spawning area (2M) - 4/1 to 6/15; Shorebird/Waterfowl concentration (5S) - 4/25 to 5/15; Deer habitat area (9FF); Anchorages (6V) - 6/1 to 9/15.
Limit boat and air traffic to essential minimum.

SUBDIVISION ECOLOGICAL CONSTRAINTS: Avoid disturbance/damage to un-oiled biota and substrate.

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

SHPO SIGNATURE: Charles E. Hume DATE: April 11, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 9 m: No Oil 341 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS:

TAG COMMENTS:

TAG APPROVAL DATE: 4/11/90
ADEC JOHN BAUER
EXXON ANN TISAL
NOAA Burt Wesscott
USCG G.A. REITER
FOSC: My L DATE: 479-90

OG James Harris Temple

SEGMENT ST/ 12

SUBDIVISION NONE

DATE Mar 31 / 90

CHECKLIST

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

LEGEND

1 Δ
Pk - No Subsurface Oil

2 Δ
Pk - Subsurface Oil

CT/C
Continuous Distribution

CT/B
Broken Distribution

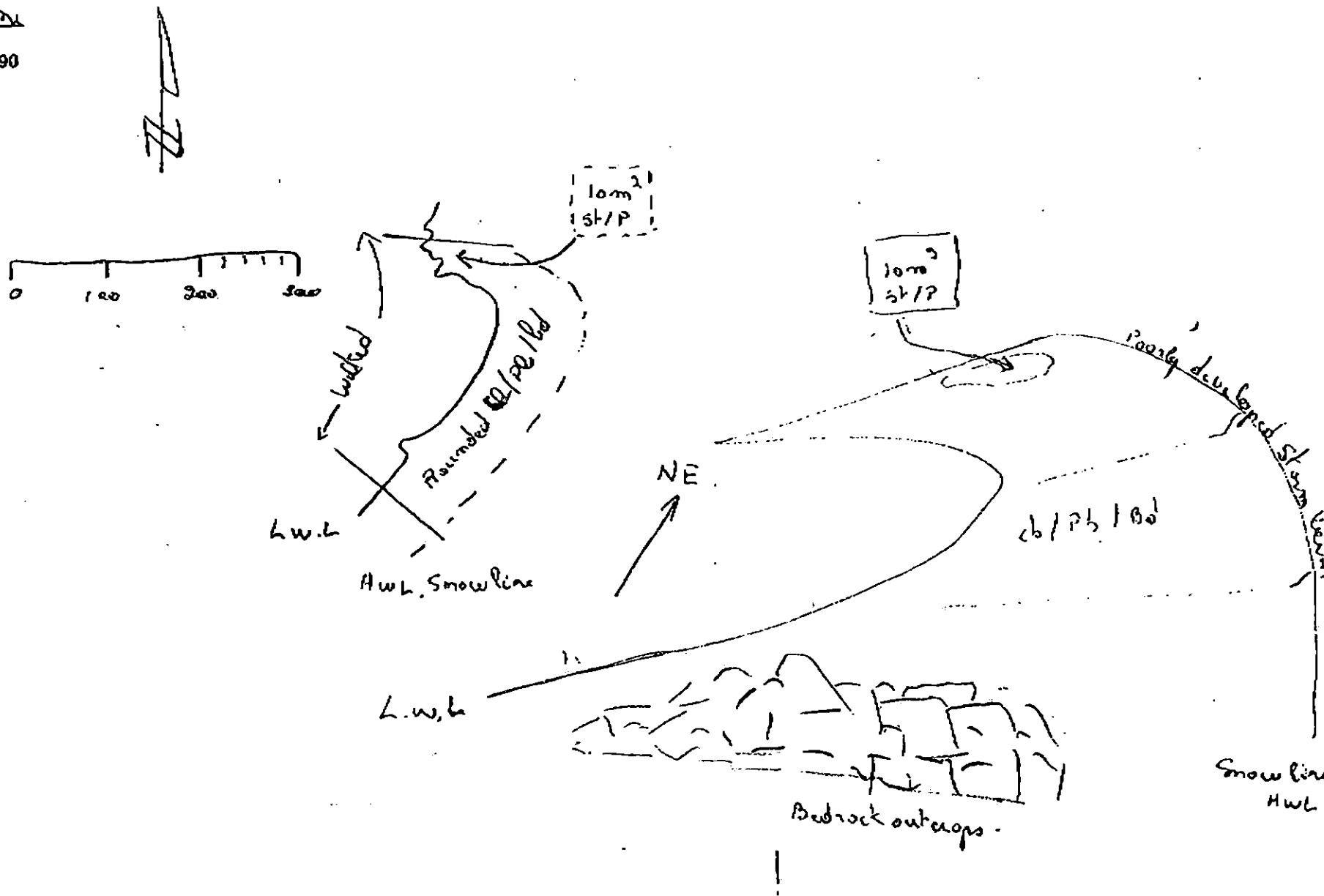
CT/P
Patchy Distribution

CT/S
Splashed Distribution

Oiled Vegetation

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

SKETCH MAP



Oil Character Length (m): AP PO CV CT ST 5 MS PT TB FL NO 395

REVISION 03/24/90

GR12 p.395

YK12 p.4065

GR-11

GR

(very light)
5m
GR-12

XXX Wide

//// Medium

--- Narrow ADEC Segment Length: 454m

TTTT Very Light

OOOO No Oil

GR-12

0 100 200 300

Map Key: PWS-252

Name: John Terrell

Date: March 30 / 90

Data Entered:

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/GR-13

SUBDIVISIONS: A (1 OF 1)

SHORELINE EVALUATION

SEGMENT ST/ GR-13 SUBDIVISION A (1 OF 1) DATE 4/4/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

ADF&G anadromous stream no. 227-20-17890

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

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

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 1504 m: No Oil 0 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: _____ Breakup	_____ Beach Cleaner
_____ Removal	_____ Other (see comments)

COMMENTS: _____

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

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

FIELD SHORELINE COMMENT SHEET

GR 3 p. 9, 9

SEGMENT ST / GR 13 SUBDIVISION: _____ DATE 4/4/90USCGNAME Robert Jensen SIGNATURE [Signature]☒ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

Patchy / sporadic Splashes - very few.

ADECNAME Rowann T. Hudnall SIGNATURE Rowann T. Hudnall☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

Scattered tar spots in mid intertidal,
Continue natural cleaning

LAND MANAGERNAME U.S. Forest Service SIGNATURE Zee Traylor☐ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

Continue Natural Cleanings

Found very scattered splashes of oil

Very small and hard to locate.

Heaviest in area near ^{junction} with GR 02

SHORELINE OILING SUMMARY

REVISION NO. 03/22/90

OG John M. Simpson USCG Bob Johnson SEGMENT ST/ GR-13
 BIO John Dixon LAND REP De Keuler SUBDIVISION A
 EXXON Jim Ellison ADEC Reween Hudmell TIME 13:50 to 15:00
 TEAM NO. 2 TIDE LEVEL: +6 to +2.5 DATE April 4 / 90
 EST. SUBDIVISION LENGTH: 1775 m ☐ Sun ☒ Clouds ☐ Fog ☒ Rain ☒ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: W to E
 SURFACE SEDIMENTS: R 1 % B 20 % C 49 % P 20 % G 0 % S 10 % M 0 % V 0 %
 SLOPE: Long 60 % Hang 40 % Vert 0 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 930 m NO 855 m
1775 0

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR						IMPACTED ZONES			
	/C	/B	/P	/S	SU	UI	M	U	BR	RW	SL	TL	LB	
ASPHALT PAVEMENT														
POOLED														
COVER		X						X						
COAT				X		X		X						
STAIN				X		X		X						
MOUSSE														
PATTIES														
TARBALLS														
FILM														
NO OIL														

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

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☐ YES ☒ NOTYPE B#BAGS 0

Photographs:

Roll No. ST-2-6Frames 7-22

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR						PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	SBL BR	OBL RW	GY SL	TBR TL	LBR	SU	U	M	U			
1	30					X	-									X			NO	pl/sd/cl	
2	35					X	-										X		"	"	
3	30					X	-											X	"	"	
4	30					X	-									X			"	"	
5	30					X	-										X		"	"	
6	30					X	-											X	"	"	

COMMENTS

OG from: McKean

SEGMENT ST/ PR-13

SUBDIVISION Name

DATE April 14/1990

CHECKLIST

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

LEGEND

1 Δ
Pit - No Subsurface Oil

2 Δ
Pit - Subsurface Oil

$\boxed{CT/C}$
Continuous Distribution

$\boxed{CT/B}$
Broken Distribution

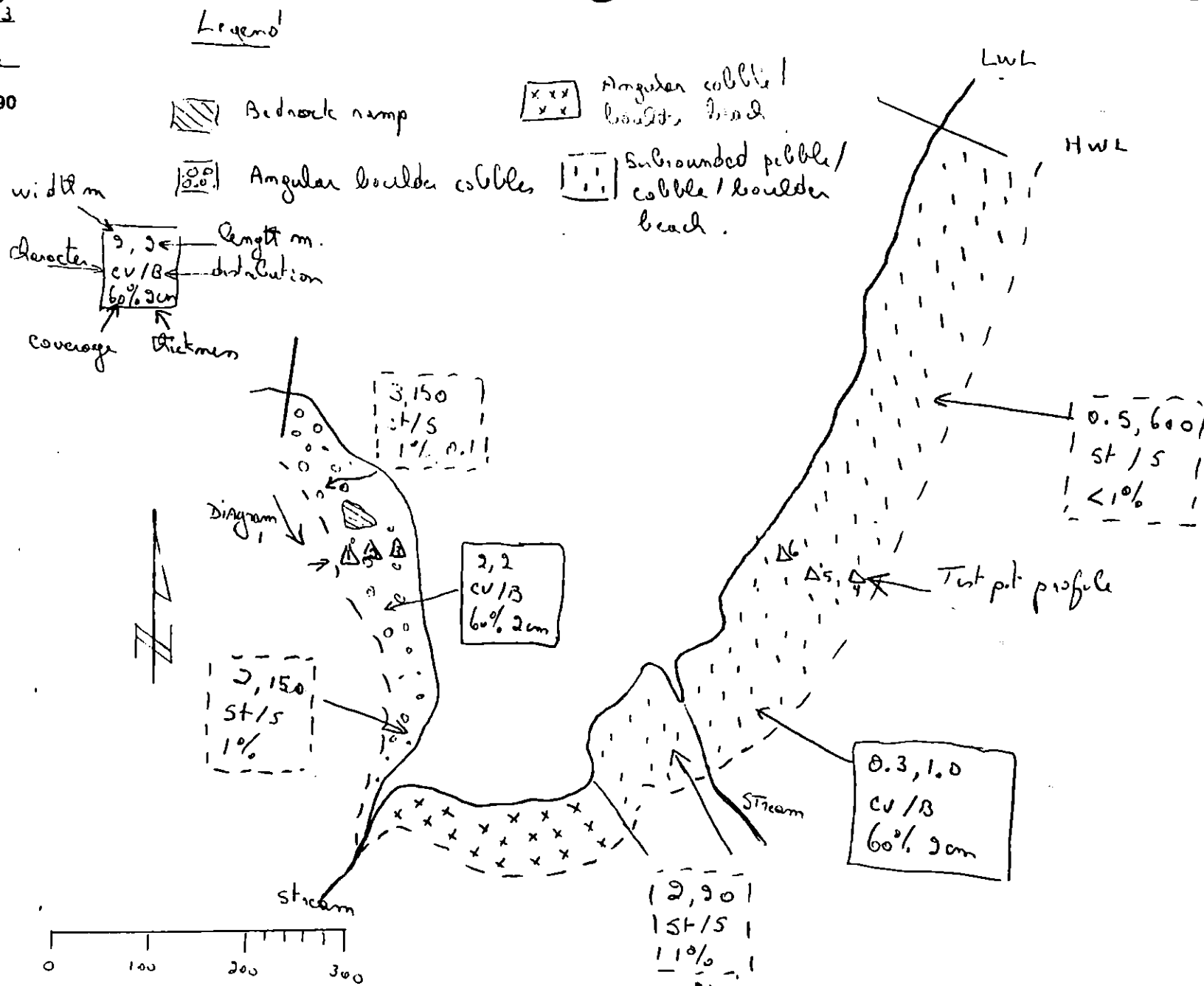
$\boxed{CT/P}$
Patched Distribution

$\boxed{CT/S}$
Splashed Distribution

Oiled Vegetation

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

SKETCH MAP



Oil Character Length (m): AP _____ PO _____ CV 3 CT 150 ST 770 MS _____ PT _____ TB _____ FL _____ NO _____

REVISION: 03/24/90

0813 P279

DIAGRAM 2

Green Island, GR-13, April 4, 1990

Segment GR-13 is a 1.7 km long section of shoreline located on the central north coast of Green Island. It is exposed to a relatively long fetch to the northwest that is blocked by several small nearshore islands and shoals. The segment is indented and has a very limited fetch window. The sediments reflect this very well and only on the east side of the head of the central cove do they show any evidence of sorting and rounding.

Very little bedrock is present in this segment, the shoreline consists, from west to east, of angular boulder/cobble/pebbles, angular cobble/boulder/pebble, and subrounded pebble/cobble/boulder beaches. Two streams intersect this segment.

Oil is present throughout this segment mostly as 1: small stains on cobbles and pebbles on the western part, small coatings of splatters on the eastern part, and two very small patches totalling about 2.5 sq. m. that were broken up during the field work. All evidence of oil occurs in the lower part of the upper intertidal zone. The backshore and upper part of the upper intertidal zone were obscured at the time of the field work by a heavy and light snow cover respectively.

SHORELINE ECOLOGICAL SUMMARY

323 p 6, 9

REVISION: 03/22/90

Segment ST / GR-13 Subdivision N/A Date (mo / day / yr) 04/04/90

Time (24 hr) 1250-1440 Biologist John Dixon

(A) Substrate type and % of segments:
(1) Bedrock 1 (2) Boulder 20 (3) Cobble 49 (4) Pebble 20 (5) Sand 10 (6) Silt

(B) Overall % cover of biota (% of segment): Dense 10 Moderate 50 Low 40

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

Photographs: Roll No. ST 2-6

Frames 10, 22

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

NOT PRESENT

GASTROPODS

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

NOT PRESENT

Wildlife Observations/ General Comments: Tide varied from +6' to ~ +2.5' during the period of observations.

Ecological Considerations: 2 streams - prob. anadromous. This segment is predominantly small cobble beach in the mid & high zones with a moderate cover of barnacles (*B. glandula* & *Chthamalus*), *Fucus* & *Mytilus*. The mussels tend to be small & nestled among the pebbles & cobbles rather than attached to a particular rock. Gastropods are abundant & small, mostly *Littorina sitkana*, *L. scutulata*, *Notornis scutulata* & *Nucella*. The proportion of limpets increases in the higher shore. Interspersed sand & gravel is close to the surface. The density of gastropods

Wednesday 4/4/98

2.191

Segment GR-13

Observed From 1250 - 1440
(+6' - +2.5')

This segment is composed of 3 sections distinguishable on the basis of substrate composition, beach profile, & biota. From the N.W. point to the stream at the back of the inlet the beach is narrow and relatively steep. There are bedrock outcrops at the point but the rest of this section of beach is about 40% B, 50% C & 10% T. From +6' to +10' there is scattered Fucus & Rhodospira and sparse Barnacles (B. glandula & C. thalassia), Mytilus and gastropods (Littorina saxatilis, L. saxatilis, & Littorina saxatilis). The proportion of limpets increased higher on the shore. The noticeable brown band of barnacles & Fucus is about 4 m wide. Fucus & barnacles continue into the mid zone but red algae predominates below about +2'.

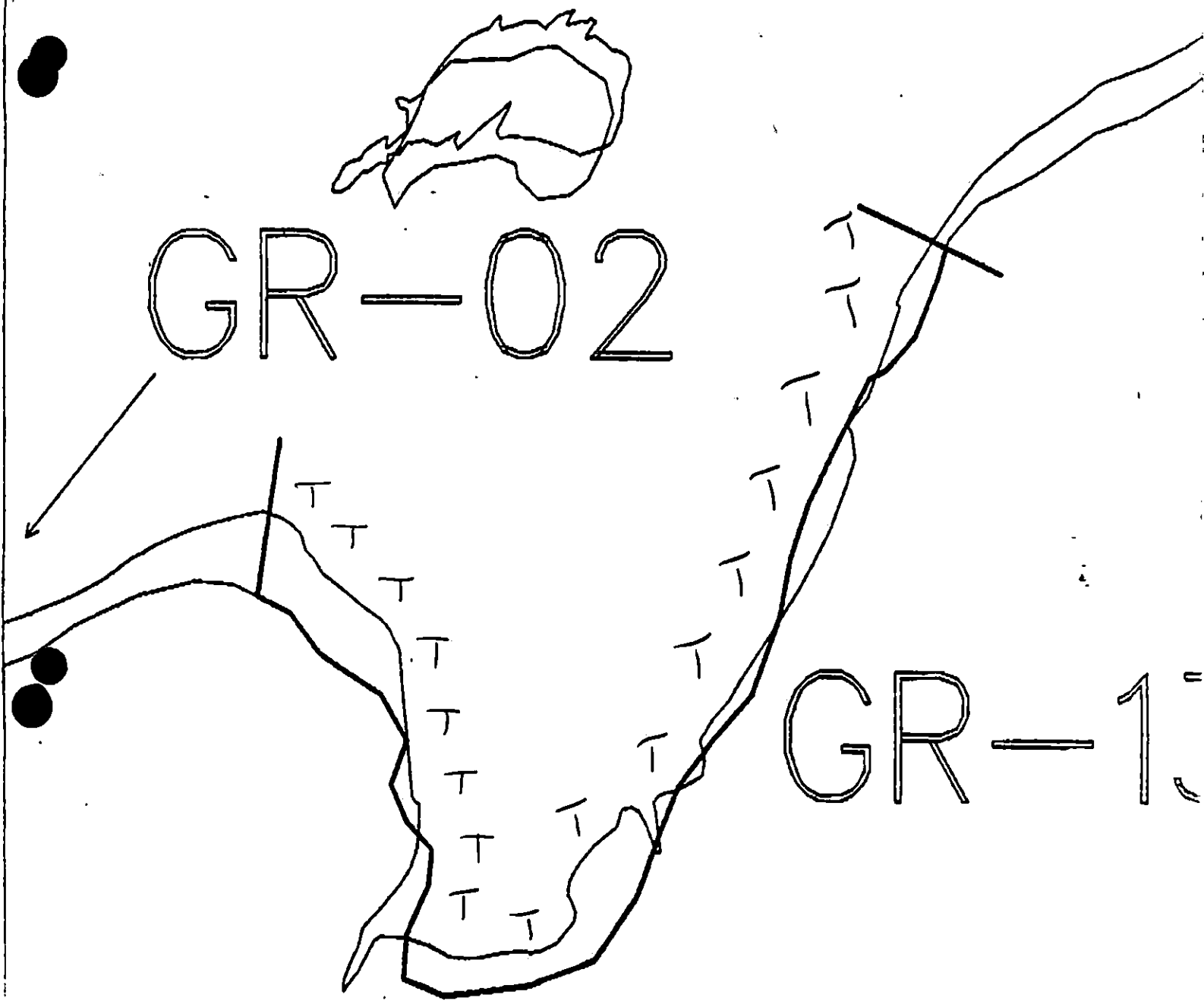
Between the 2 anadromous streams at the back of the inlet the substrate is much finer with a high proportion of sand and pebbles. A large wedge E. of the first stream is about 80% sand. There is a moderate cover of Odonthalia & Mytilus on the low sloping mid intertidal. Dense shell pack of mussels and clams.

Beyond the second stream the beach is still relatively wide with a gentle slope but the substrate is coarser - similar in composition to the first section. However, there is less Fucus, barnacles & Mytilus in the upper intertidal.

GR-13 p. 1-1

GR-02

GR-1



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

GR-13

ADEC Segment Length: 1775m



Map Key: PWS-311

Name: Ben Tonic Sempah

Date: April 4/1990

Date Entered:

OG *from M. J. Simpson*

SEGMENT ST/ *QR-13*

SUBDIVISION *Name*

DATE *April 14/1990*

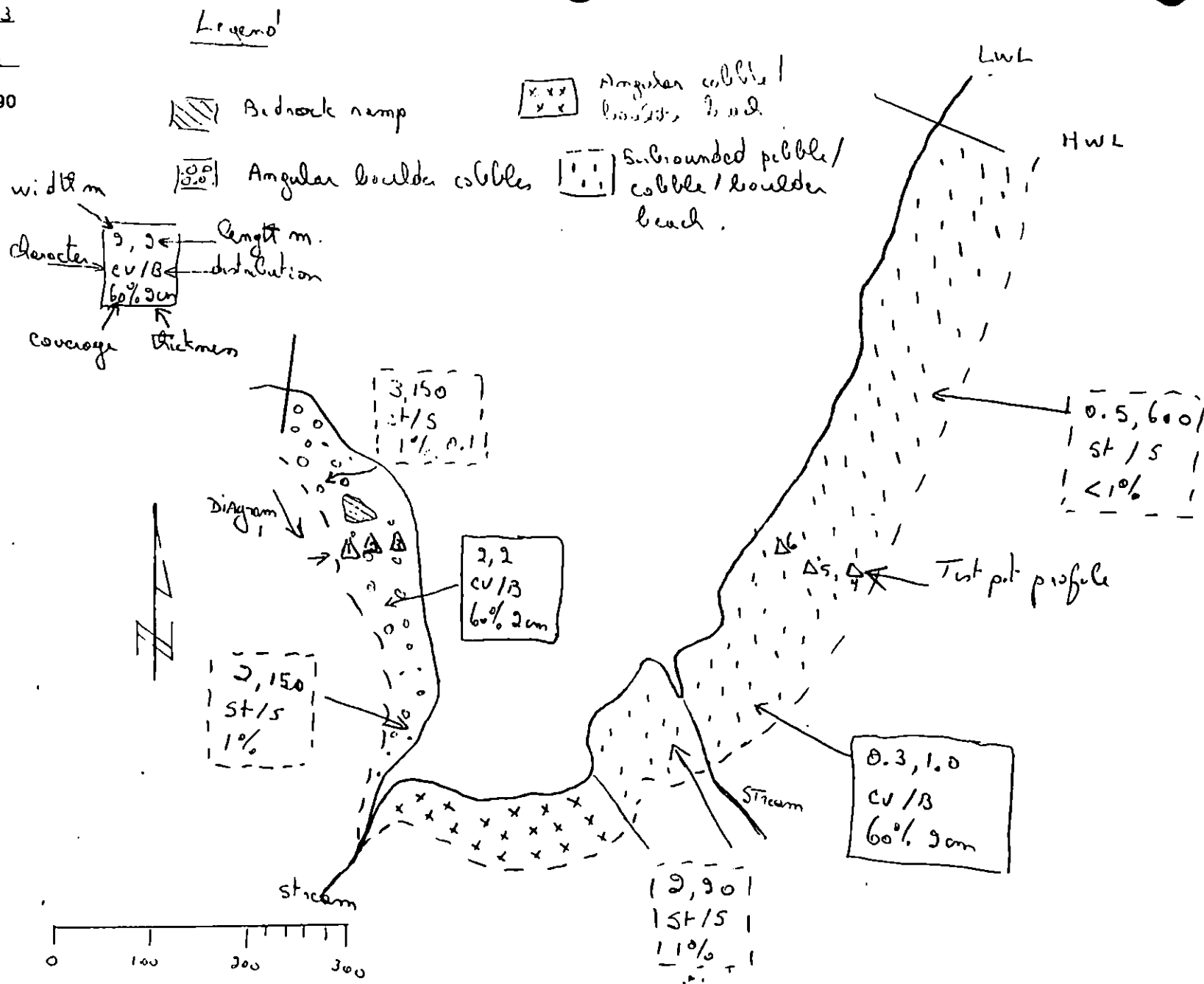
CHECKLIST

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

LEGEND

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

Sketch Map



Oil Character Length (m): AP _____ PO _____ CV *3* CT *150* ST *770* MS _____ PT _____ TB _____ FL _____ NO _____

REVISION: 03/24/90

QR-13 P-279

GR-13 P-1

GR-02

GR-1

XXXX Wide
/// Medium

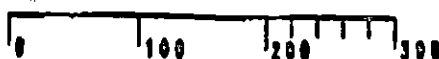
---- Narrow

TTTT Very Light

0000 No Oil

GR-13

ADEC Segment Length: 1775m


METERS

Map Key: PWS-311

Name: Ben Zeric SempichDate: April 4/1990

Data Entered:

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/ GR-13 STREAM NO: 227-20-17890 DATE 4/23/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

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

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

Subject anadromous stream (P, 12/89)

No additional ecological constraints.

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to uncoiled biota and substrate. Subject stream is located in Subdivision A (1 of 1).

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: J. David McMahon DATE: 5/8/90

Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

X 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:

TAG COMMENTS:

TAG APPROVAL DATE: 5/7/90.

ADEC ART WEINER Art Weiner

EXXON ANDY TALL Andy Tall

NOAA GARY PATRICK Gary Patrick

USCG G.A. BEITER G.A. Beiter

FOSC: ML DATE: 5-15-90

37/c

SEGMENT ST/62013

STREAM 227-26-17070

DATE 4/23/90

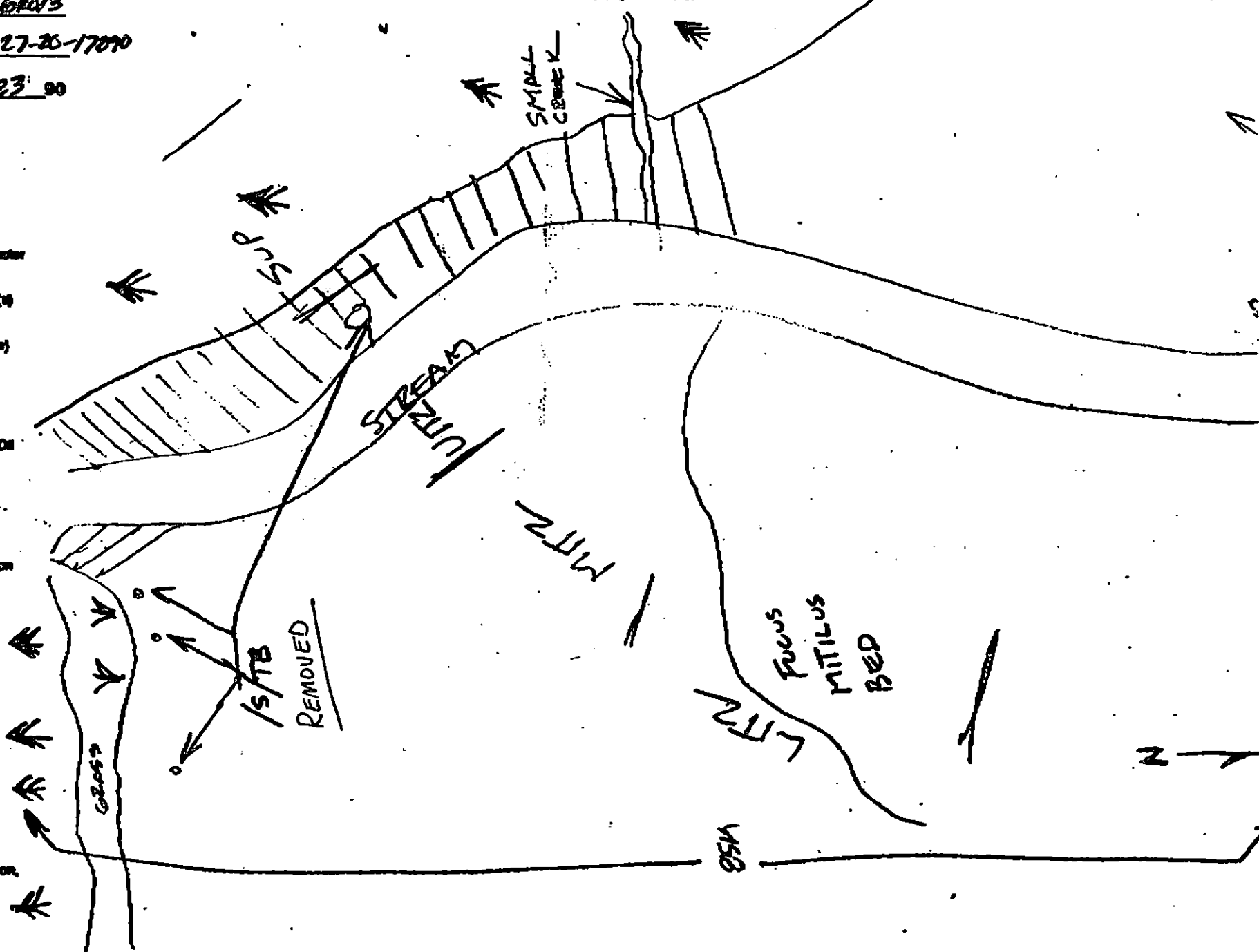
CHECKLIST

- ☐ M Ancor
- ☐ Appox. Scale
- ☐ Seg/Sub Entry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HW/LW/L
- ☐ SBL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ P/L Location(s)
- ☐ Photo Location(s)

LEGEND

- 1 Δ
PR - No Subsurface Oil
- 2 Δ
PR - Subsurface Oil
- CT/C
Continuous Distribution
- CT/B
Broken Distribution
- CT/P
Pecdy Distribution
- CT/S
Splashed Distribution
- eee
Oiled Vegetation
- 1 ●
Photo location, direction, and number

SKETCH MAP



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

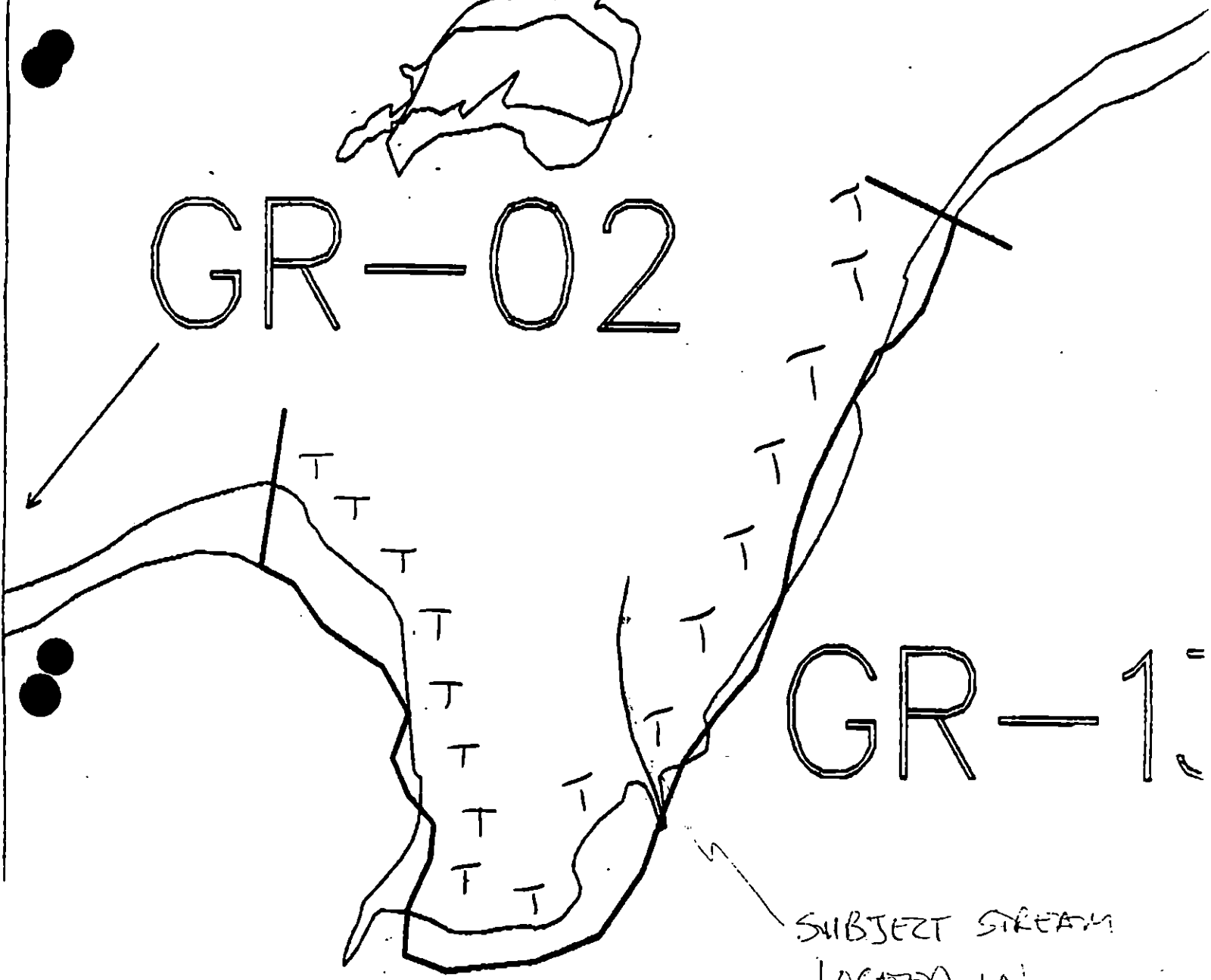
REVISION 007400

GR-13

GR-02

GR-1

SUBJECT STREAM
LOCATED IN
GR-13A (1 of 1)



GR-13

ADEC Segment Length: 1775m



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

Map Key: PWS-311

Name: Ben Tomic Sempich

Date: April 4/1990

Data Entered:



ANADROMOUS FISH STREAM ASSESSMENT

REGION: PRINCE WILLIAM SOUND

SEGMENT: GR-13

STREAM NO: 227-20-17890

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/ GR-13 STREAM NO: 227-20-17890 DATE 4/23/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

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

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

Subject anadromous stream (P, 12/89)

No additional ecological constraints.

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to uncoiled biota and substrate. Subject stream is located in Subdivision A (1 of 1).

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: _____ DATE: _____

Subsurface Oil Observed: Yes _____ No X Maximum Depth _____

RECOMMENDATIONS:

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

COMMENTS: _____

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____

EXXON _____

NOAA _____

USCG _____

FOSC: _____ DATE: _____

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

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

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

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

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

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

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

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

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

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

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

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

1H Remote release site

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

ADF&G Don Calkins 267-2403

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

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

AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

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

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

AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

ADF&G Tom Roth 267-2206

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

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

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

AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

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

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

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

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

6Y Special use destination

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

7H Finfish harvesting

7I Deer harvesting (8/15 to 2/28)

7J Invertebrate harvesting

Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.

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

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / 013 GR-103 SUBDIVISION: ASC # 227-20-17890 DATE 23 APR 90

USCG
NAME Kerwin L. Dreher SIGNATURE Gave H. L. Dreher

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

ADEC → ADFG
NAME Aimee Weseman SIGNATURE Aimee Weseman

☒ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

located & removed several small tar patties & oiled grass

LAND MANAGER NONE
NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

SHORELINE OILING SUMMARY (ANAD)

REVISION NO. 04/07

36/4

OG EAL LARSON USCG DREHER, CWE SEGMENT ST/ 62013
 BIO KEN CLITCHLOW LAND REP STREAM 227-20-1780 (OF)
 EXXON DALLIN YOE ADFG 22 K. ADWIN-ALPHEE WISEMAN TIME 17:10 to 17:40
 TEAM NO. 14 TIDE LEVEL +2 FT DATE 4/23/90
 EST. SUBDIVISION LENGTH: 125 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo
 SURFACE SEDIMENTS: R %B %C 20 %P 20 %G %S 20 %M 40 %V
 SLOPE: Long 60 % Hang 40 % Vert % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W m M m N m VL m NO 125 m

SURFACE OIL

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

PAVEMENT H F S sq. m by c

PATTIES / TARBALLS BAGS

NEAR SHORE SHEEN? ☒ BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

Did you collect DEBRIS

☒ YES ☐ NO

TYPE

#BAGS 1

Photographs:

Roll No. 6

Frames 6-7

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR	PIT ZONE				A N A	REMARKS	↓	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		NO	NO		BU	M	U	U				

COMMENTS REMOVED SMALL QUANTITY OF TARBALLS / REST OF SITE CLEAN.
NO PITSPUG DUE TO NO OILING.

REVIEWED JW DATE 4-26-90

37/0
SEGMENT ST/624/3

STATION 227-25-17090

DATE 4/23/90

CHECKLIST

- ☐ M. Area
- ☐ Approx. Scale
- ☐ Significant Study
- ☐ On Day
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Eel Habitat
- ☐ SST
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ Photo Location(s)
- ☐ Photo Location(s)

LEGEND

1 A

Pr. No. Substrate Or

2 A

Pr. Substrate Or

CT/C
Conductivity Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

Spotted Distribution

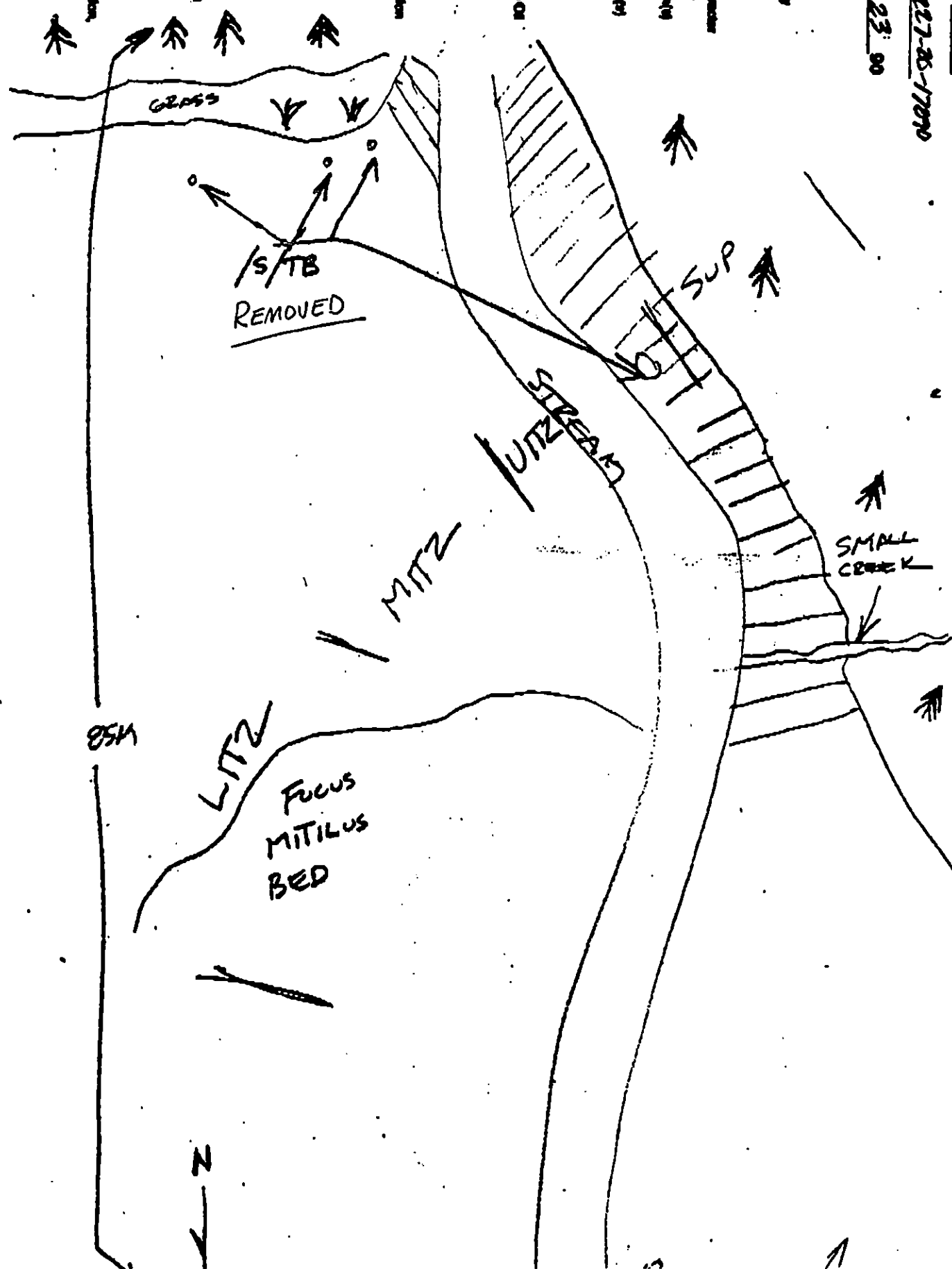
CT/C

Other Vegetation

1 0-0

Profile location, direction, and number

SKETCH MAP



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

REVISIONS

11/11

ADFG MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: 25 SS 26 DS 27 AVS 28 SCH 29 MMS 30 PTA3 REGION: PN 4 NP,CI 5 K,JPMETHOD: Aerial Ground Boat6 DATE: 4-23-9016 HIGH TIDE TIMES: 121 TEAM RECORDER: A Weseman4 START TIME: 121518 HIGH TIDE HTS: 122 OBSERVERS: R Gustin5 STOP TIME: 173517 LOW TIDE TIMES: 123 AGENCY: ADFG8 SEGMENT #: GR-01319 LOW TIDE HTS: 124 PHOTOS TAKEN: Y (N)

7 STATION #1: _____

19 TIDE HT AT SURVEY: _____

Roll #: _____ Frame: _____

9 K-UNIT: _____

25 VIDEO TAKEN: Y (N) TAPES: _____

9 STAT AREA: _____

20 USCG QUAD: 3 A3

Starts: _____ Ends: _____

10 LAT: _____

11 LONG: _____

26 SAMPLES TAKEN Y (N) Number: _____

12 SOURCE: Map Loran

13 LOCATION: N side Green Island

14 DESCRIPTION: _____

Oil: _____

Sediment: _____

Biological: _____

Water: _____

EXTENT OF OIL

	SHORELINE				STREAM			
	L	Y	N		L	Y	N	
27 SURFACE COVERAGE								
28 SURFACE THICKNESS	<u>○</u>							
29 PENETRATION	<u>○</u>							

30 OVERALL OIL IMPACT: N (VL) L N N31 OIL TYPE: Pooled House Tar Asphalt Stinky Stain32 OILED DEBRIS: (Y) N33 SHORELINE TYPE: Headland Low-lying Rocks Beach Cave
Lagoon Marsh

34 WAVE EXPOSURE: High Moderate Low

35 SUBSTRATE TYPE: Bedrock Boulder Cobble 25
Gravel 23 Sand 25 Mud/silt 2536 CATALOGED ANAD. FISH STREAM? (Y) N37 CATALOG #: 222-20-17890

38 STREAM NAME: _____

39 OIL IN STREAM BED? Y (N)

40 OIL ON STREAM BANKS? Y N

41 OIL ON BEACH ADJACENT TO MOUTH? (Y) N
(within 50 meters)42 OIL WITHIN 1 MILE OF STREAM? (Y) N

Where: _____

43 ANADROMOUS FISH PRESENT? Y N

44 ANADROMOUS FISH OBSERVATION
Species Aerial Ground

COMMENTS: located several small tar patties & removed
also removed some oiled grasses

Seg. ID: GR-013 Subdiv: 227-20-17890

Survey Date: 4/23/90

Comments of: Ken Critchlow

A few scattered tarballs were observed, scooped-up and 1 bag returned to Cordova for disposal.

This stream site can now be considered as no longer oiled.

KR Critchlow

GR-02

GR-1

SUBJECT STREAM
LOCATED IN
GR-13A (1 of 1)

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

GR-13

ADEC Segment Length: 1775m



Map Key: PWS-311

Name: Ben Zeric Sempch

Date: April 4/1990

Data Entered:

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/GR-15

SUBDIVISIONS: A (1 OF 1)

SHORELINE EVALUATION

SEGMENT ST/ GR-15 SUBDIVISION A (1 OF 1) DATE 4/7/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

3N,3P Harbor seal and sea lion pupping (5/15 to 7/1)
3O,3Q Harbor seal and sea lion molting (8/15 to 9/15)
5S Shorebird/Waterfowl concentration (4/1 to 5/15)
2 eagle nests nearby in GR-101.

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:

Cultural resource survey in progress. Shoreline treatment cannot proceed until field data have been assessed and a formal archaeological constraint entered on the shoreline evaluation form.

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 0 m: Medium 81 m: Narrow 0 m: V.Light 607 m: No Oil 1335 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 includes bioremediation of areas indicated on sketch map. Work should be conducted between 7/1 and 8/15 due to seal and sea lion pupping, and with approval of USFWS due to eagle nest constraint.

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

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

FIELD SHORELINE COMMENT SHEET

Inner Islands Between Green and Pioneer Islands

SEGMENT ST Islands (6) Underwater SUBDIVISION: None

DATE 4/7

USCG

NAME Robert Jansen

SIGNATURE

[Signature]

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

NO evidence of oil found on small island #2. The remaining islands had a very few splatters in a very small area.

ADEC

NAME Rowann T. Hudnall SIGNATURE Rowann T. Hudnall

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

Splattered rocks found on Islands 1, 3, 4, 5, 6. Island 1 has broken distribution - suggest bioremediation.

LAND MANAGER

NAME U.S. Forest Service SIGNATURE Dea Keeler

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

6 Islands surveyed, Numbered 1-6, North to South. Found oil on ~~the~~ west side Island 1

No oil on rocky Island #2

small patch on Island 3 east side,

small patches on Island 4

small area on Island 5

few scattered splatters on one small area #6

Big heavier areas on shores of on Greenbelt M.A.s

SHORELINE OILING SUMMARY

GR-15 A REVISION NO. 03/22/98

OG John Toxic Samples USCG Bolyfensen SEGMENT ST/ Inna Islands GR
 BIO John Dixon LAND REP Leo Kuter SUBDIVISION None
 EXXON Jim Ellison ADEC Rouanna Hudnell TIME 08:52:10 09:25
 TEAM NO. 2 TIDE LEVEL: 4.5' to 5.5' DATE 4/17/90
 EST. SUBDIVISION LENGTH: Unknown m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☐ Rock ☐ A
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: E to W
 SURFACE SEDIMENTS: R 29 % B 16 % C 33 % P 21 % G 0 % S 1 % M 0 % V 0 %
 SLOPE: Long 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 80 m N 0 m VL 525 m NO? 0 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	IC	IS	IP	IS	SP	DP	RP	GP	SL	DR	TL	LR	SU	UI	MI	U
ASPHALT PAVEMENT																
POOLED																
COVER																
COAT				X		X								X		
STAIN				X		X								X		
MOUSSE																
PATTIES																
TARBALLS																
FILM																
NO OIL													X		X	X

PAVEMENT: H F S NO sq. m by 0 cm

PATTIES / TARBALLS NO BAGS

NEAR SHORE SHEEN? NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☐ YES ☒ NO

TYPE Q

#BAGS 0

Photographs:

Roll No. ST-2-9 ST-2-10

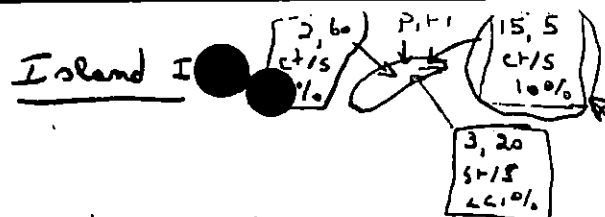
Frames 26-34 1-7

SUBSURFACE OIL

None found

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CH)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		VO	UC	SP	DP	RP	GP	SL	DR	TL	LR	SU	UI	MI	U		
1	30					X	-											X				NO	Pb/sd/cb
2	30					X	-											X				"	"
3	30					X	-											X				"	"
4	30					X	-											X				"	"
5	30					X	-											X				"	"
6	30					X	-											X				"	"

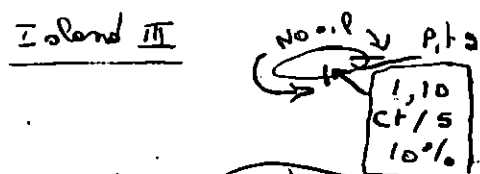
COMMENTS



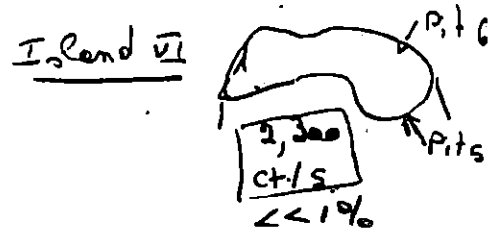
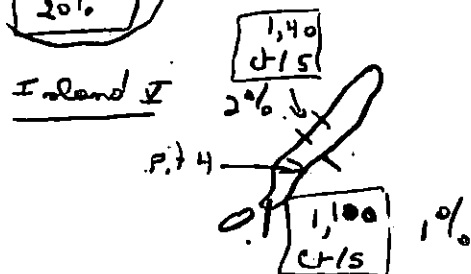
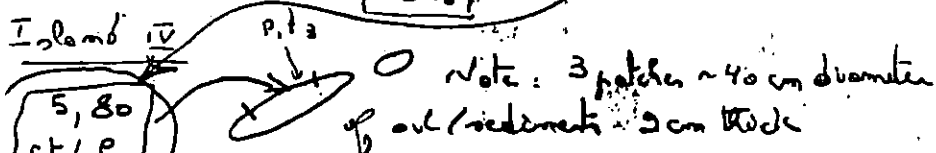
Team: Marie Simyeh
 Segment: R-Imma Island
 Subdivision: None
 DATE: April 7/1990

Island II Zodiac
 survey, intertidal rocks, no oil seen

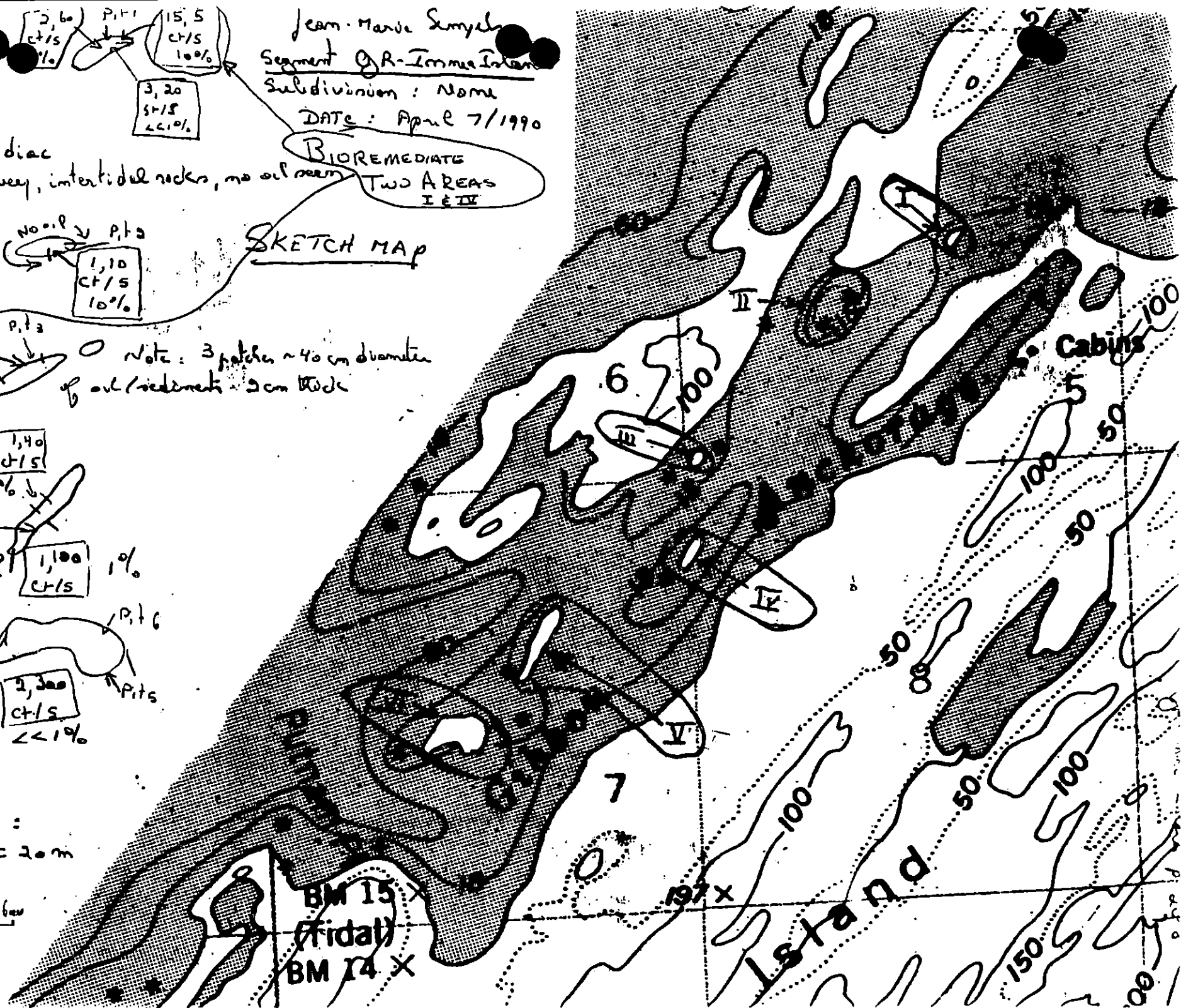
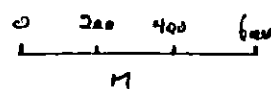
BIOREMEDIATE
 Two AREAS
 I & II



SKETCH MAP



Scale 1 m = 20 m



Green Island, GR-Inner Islands, April 7, 1990

Segment GR-Inner Islands was surveyed on April 7, 1990. Although not part of the assigned list of segments and not part of the GIS data base, our presence in the area and the presence of oil on shorelines in the vicinity led us to survey 6 small islands located in Gibbon Anchorage, on the north coast of Green Island.

All 6 islands are in a sheltered environment except for the northwestern shore of islands 5 and 6. These last two sections are exposed to a long fetch in a northwesterly direction and have a narrow fetch window. Shorelines in this segment consist of low bedrock bluffs with small talus, short sections of bedrock ramps, or beaches of angular pebble/cobble.

Oil was found on 5 of the 6 islands; island no. 2 is an intertidal island and was observed from the zodiac only. Most of the oil occurs as scattered stains or coatings of splatters in a band along the upper intertidal zone.

Island 4 shows the heaviest concentration in a band 5 x 80 m of patchy coatings with 20% coverage.

SHORELINE ECOLOGICAL SUMMARY

25 - 1000 Islands 1.5.78
REVISION: 03/22/90

Segment ST Small Islands 1-6 Subdivision N/A Date (mo / day / yr) 04/07/90
Time (24 hr) 0852-1030 Biologist John Dixon

- (A) Substrate type and % of segments:
(1) Bedrock 27 (2) Boulder 16 (3) Cobble 33 (4) Pebble 21 (5) Sand 1 (6) Silt
- (B) Overall % cover of biota (% of segment): Dense 10 Moderate 25 Low 65
- (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-2-9 / ST-2-10
Frames 26-34 / 1-7

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

NOT PRESENT

GASTROPODS

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

NOT PRESENT

Wildlife Observations/ General Comments: +4.5' and higher observed.

Ecological Considerations: These islands are made up of boulder & pebble beaches with small areas of bedrock outcrop, typically toward the E & W ends. The density & vertical extent of Fucus, Mytilus, Gastropods, & barnacles considerably higher on the shaded 'N' sides of the islands than on the S sides.

Inner Islands 1002

Control No.
(Office Use Only)

PHOTOGRAPHY LOG

ROLL NO. 972-9 FROM _____ TO _____
TEAM NO. 2 PWS / KENAI / KODIAK / AK. PENINSULA

FRAME NUMBER	PHOTOGRAPHER	DATE	TIME	LOCATION	REMARKS
--------------	--------------	------	------	----------	---------

1st Island

26	Kuler	4/7		Looking from beach to Barn	
27	8:50 AM			on 15 scale 1st Island	
27	8:50 AM			Looking NE along shore 1st Island	
28				Looking at Rocky Pt at head of Island	
29				Looking SW along shore 1st Island	
30	9:00			Looking West along shore	

2nd Island

31	Kuler	4/7		Looking at Rocky Island on Noctid Pass	
----	-------	-----	--	--	--

3rd Island

32	Kuler	4/7		Looking from E side from Barn	
33				to water from Barn	
34				clean from Barn from Island 3	

PHOTOGRAPHY LOG

FROM **TO**

PWS / KENAI / KODIAK / AK. PENINSULA

FRAME NUMBER	PHOTO- GRAPHER	DATE	SITE ID	LOCATION/COMMENTS
-----------------	-------------------	------	------------	-------------------

Poland 174

1	Kuler	4/7		Regulus catchers on Rocks at S end of Island 4
2	9:40 AM			Feeding N on West side Island 4
3				Feeding at Rocks on S end Island 4
4				Feeding N on E side Island 4
5				Feeding at Northern 1/2 of West side Island 4
6				

Island #6

6	Fisher	4/7		Feeding up beach from water at N side Island
7	10:00 AM			Feeding S along shore Island #6

Charting Map:

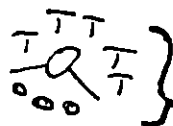
Jean-Marie Sempels

Segment: QR-Former Islands

Subdivision: None

Date: April 7/1990

Island
I



Island
II



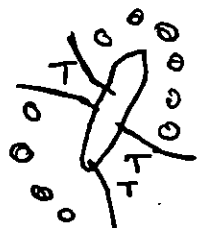
Island
III



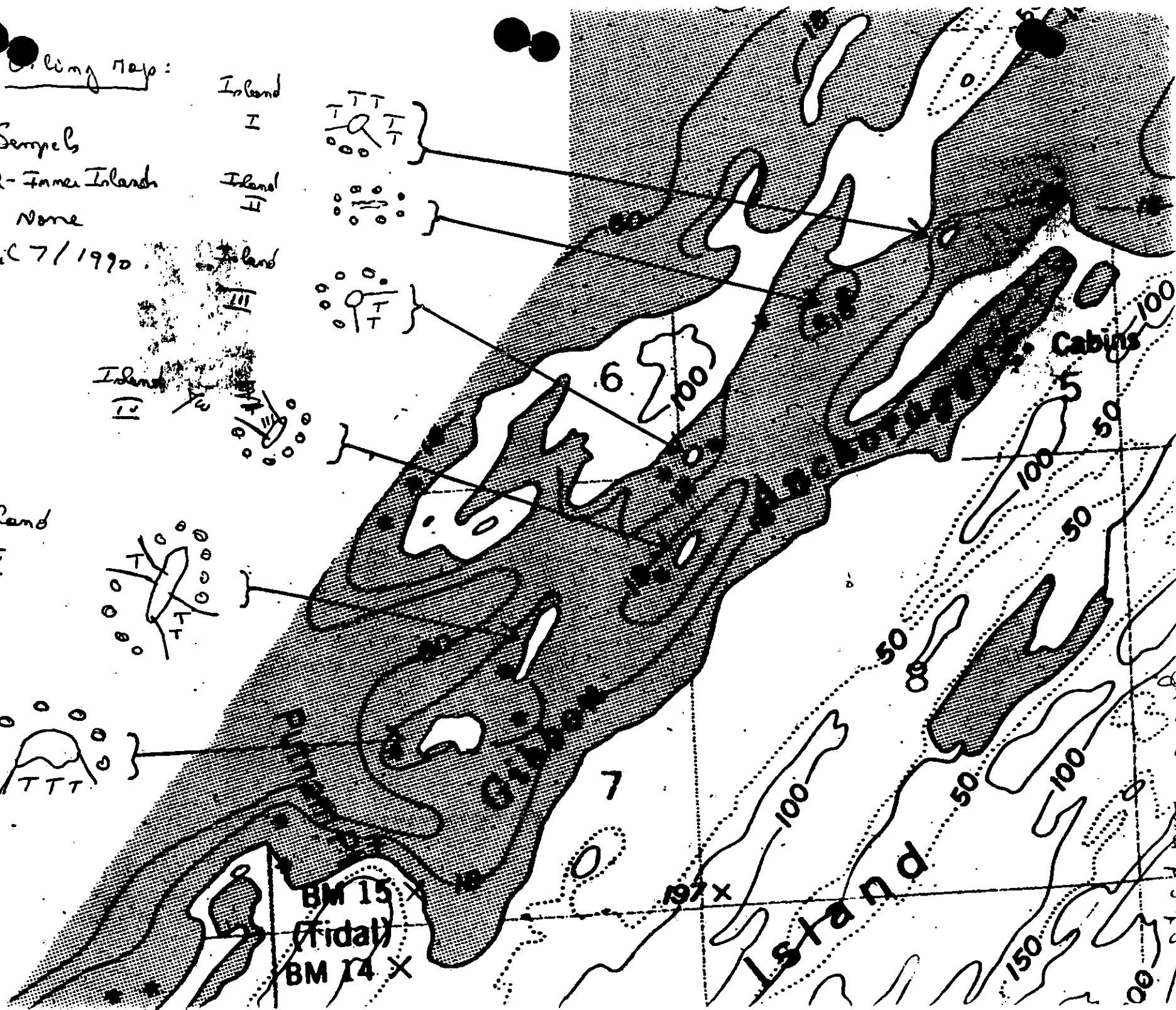
Island
IV



Island
V



Island
VI



Username: dee

Date/Time: 4/12/1990 6:52 PM

Plotfiles: gibbon1

GR-02

NEW SEGMENT
GR-15

A



Gibbon

GR-07

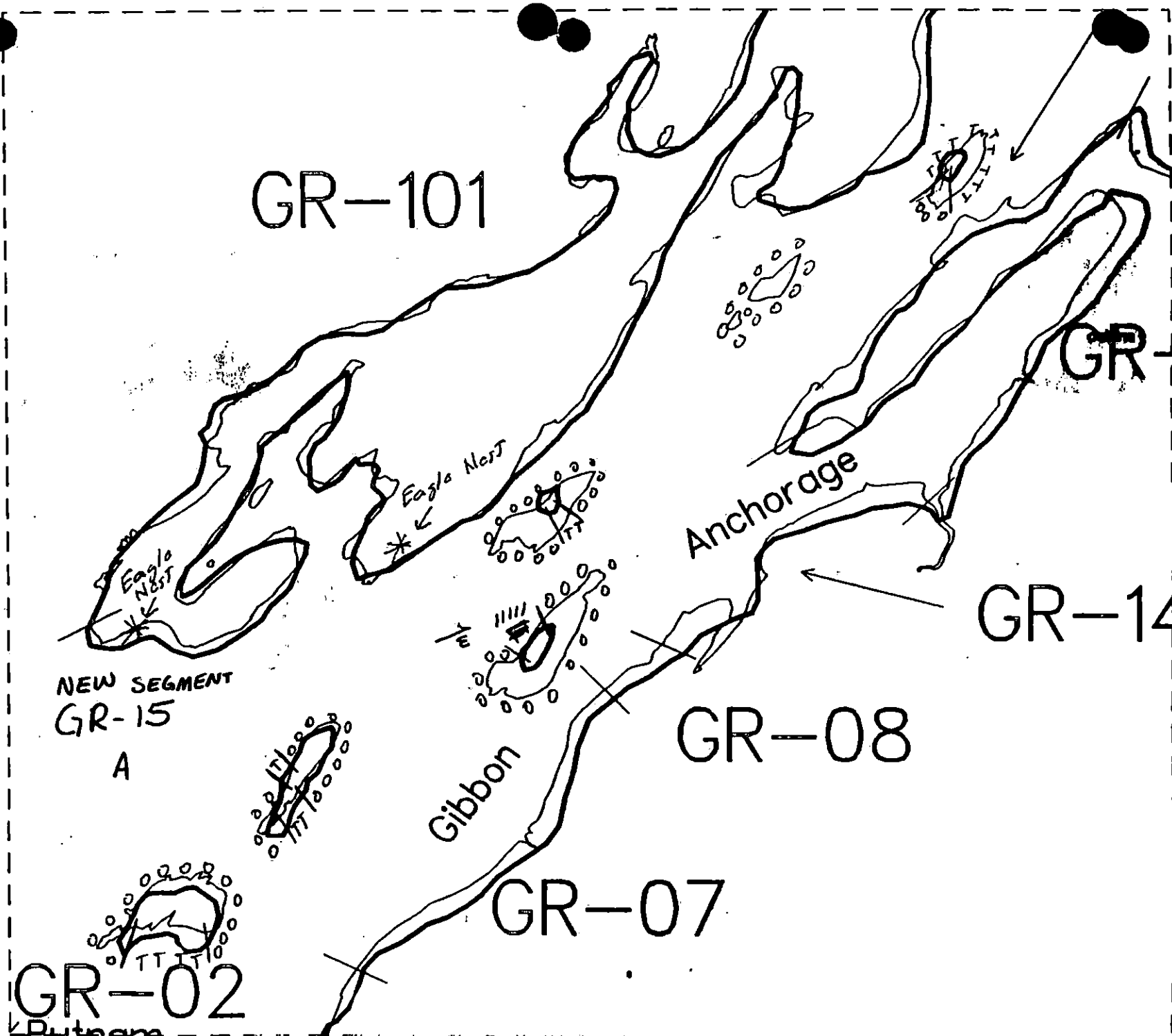
GR-08

Anchorage

GR-14

GR-

GR-101



ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT GR-15 SUBDIVISION A (1 of 1)

WORK WINDOW	
Bioremediation	WORK 7/1 to 7/31

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

3N,O,P,Q	Harbor Seal & Sea Lion Pupping and Molting	Closed to bioremediation prior to 7/1 and after 7/31.
5S	Shorebird/Waterfowl Concentration	No constraint to bioremediation.
5T	Bald Eagle Nest	NO CONSTRAINT. USFWS 6/1/90 map indicates no active nest within 400m of Subdivision A work site.

OTHER ECOLOGICAL CONSIDERATIONS

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

FOSC

[Signature]

Date

6/13/90

Prepared by

[Signature]

Date

6/12/90

SHORELINE EVALUATION

SEGMENT ST/ GR-15 SUBDIVISION A (1 OF 1) DATE 4/7/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

3N,3P Harbor seal and sea lion pupping (5/15 to 7/1)
30,3Q Harbor seal and sea lion molting (8/15 to 9/15)
5S Shorebird/Waterfowl concentration (4/1 to 5/15)
2 eagle nests nearby in GR-101.

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.)).

SHPO SIGNATURE: Rachel Jean Darr DATE: 5/25/90

OILING CATEGORIZATION:

Wide 0 m: Medium 81 m: Narrow 0 m: V.Light 607 m: No Oil 1335 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> </u> Manual Pickup	<u> </u> Absorbents (pads, rolls, etc)
<u>X</u> Bioremediation	<u> </u> Spot Washing: <u> </u> Wands
<u> </u> Tarmat Removal	<u> </u> Beach Cleaner
	<u> </u> Other (see comments)

COMMENTS: Recommended treatment includes bioremediation of areas indicated on sketch map. Work should be conducted between 7/1 and 8/15 due to seal and sea lion pupping, and with approval of USFWS due to eagle nest constraint.

SEE CONSTRAINTS ADDENDUM dated 6/12/90 JPD

TAG COMMENTS: BIO DUE TO ENVIRONMENTAL SENSITIVITY - WATERFOWL

TAG APPROVAL DATE: 4/30/90
ADEC ART WILSON
EXXON ANDY ISA
NOAA GARY PETRO
USCG KIRK

FOSC: [Signature] DATE: 6/4/90

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT GR-15 SUBDIVISION A (1 of 1)

WORK WINDOW	
Bioremediation	WORK 7/1 to 7/31

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

3N,O,P,Q	Harbor Seal & Sea Lion Pupping and Molting	Closed to bioremediation prior to 7/1 and after 7/31.
5S	Shorebird/Waterfowl Concentration	No constraint to bioremediation.
5T	Bald Eagle Nest	NO CONSTRAINT. USFWS 6/1/90 map indicates no active nest within 400m of Subdivision A work site.

OTHER ECOLOGICAL CONSIDERATIONS

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

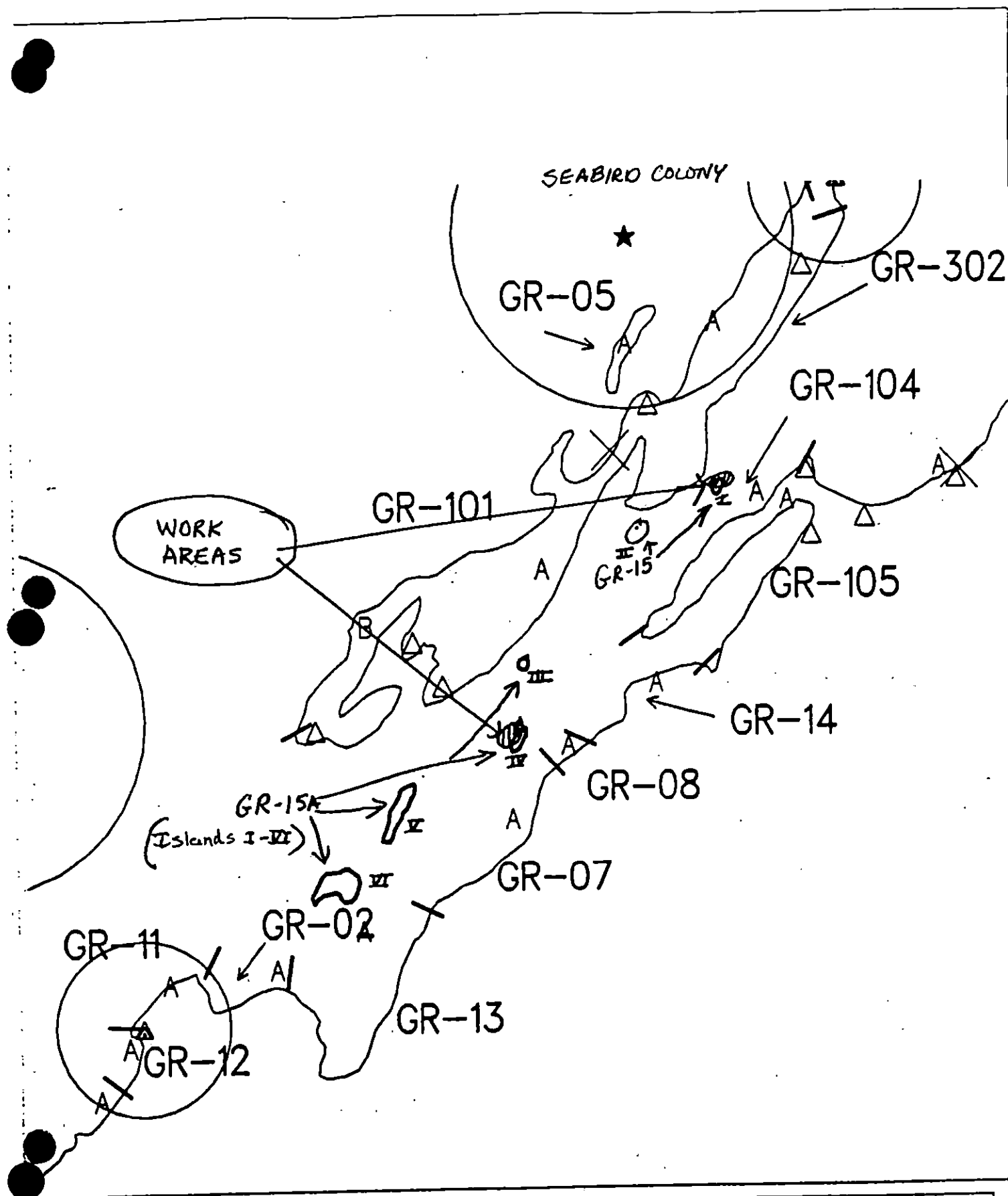
FOSC

[Signature]
111

Date

6/17/00

01/12/00



Exxon Company, USA



ECOLOGY MAP
 SEGMENT GR-15
 SUBDIVISION A (1 of 1)
 METERS

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

SHORELINE EVALUATION

SEGMENT ST/ GR-15 SUBDIVISION A (1 OF 1) DATE 4/7/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

3N,3P Harbor seal and sea lion pupping (5/15 to 7/1)
30,3Q Harbor seal and sea lion molting (8/15 to 9/15)
5S Shorebird/Waterfowl concentration (4/1 to 5/15)
2 eagle nests nearby in GR-101.

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.)).

SHPO SIGNATURE: Rachel Jean Darr DATE: 5/25/90

OILING CATEGORIZATION:

Wide 0 m: Medium 81 m: Narrow 0 m: V.Light 607 m: No Oil 1335 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> </u> Manual Pickup	<u> </u> Absorbents (pads, rolls, etc)
<u>X</u> Bioremediation	<u> </u> Spot Washing: <u> </u> Wands
<u> </u> Tarmat Removal	<u> </u> Beach Cleaner
	<u> </u> Other (see comments)

COMMENTS: Recommended treatment includes bioremediation of areas indicated on sketch map. Work should be conducted between 7/1 and 8/15 due to seal and sea lion pupping, and with approval of USFWS due to eagle nest constraint.

SPR CONSTRAINTS ADDENDUM dated 6/12/90 JPP

TAG COMMENTS: BLO DUE TO ENVIRONMENTAL SENSITIVITY - WHISKEY

TAG APPROVAL DATE: 4/30/90

ADEC ART WIGGINS
EXXON ANDY CEC
NOAA GARY PETRAS
USCG KIRK... [signature]

FOSC: [signature] DATE: 6/4/90

SHORELINE EVALUATION

SEGMENT ST/ GR-15 SUBDIVISION A (1 OF 1) DATE 4/7/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

3N,3P Harbor seal and sea lion pupping (5/15 to 7/1)
3O,3Q Harbor seal and sea lion molting (8/15 to 9/15)
5S Shorebird/Waterfowl concentration (4/1 to 5/15)
2 eagle nests nearby in GR-101.

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.)).

SHPO SIGNATURE: Rachel Ann Darr DATE: 5/25/90

OILING CATEGORIZATION:

Wide 0 m: Medium 81 m: Narrow 0 m: V.Light 607 m: No Oil 1335 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> </u> Manual Pickup	<u> </u> Absorbents (pads, rolls, etc)
<u>X</u> Bioremediation	<u> </u> Spot Washing: <u> </u> Wands
<u> </u> Tarmat Removal	<u> </u> Beach Cleaner
	<u> </u> Other (see comments)

COMMENTS: Recommended treatment includes bioremediation of areas indicated on sketch map. Work should be conducted between 7/1 and 8/15 due to seal and sea lion pupping, and with approval of USFWS due to eagle nest constraint.

TAG COMMENTS: BIO DUE TO ENVIRONMENTAL SENSITIVITY - WATERFOWL.

TAG APPROVAL DATE: 4/30/90

ADEC ART WEINER
EXXON ANDY GIL
NOAA GARY PETROS
USCG KENNETH KEANE

FOSC: [Signature] DATE: 6/4/90

Island

3, 60
ct/s
0%

Pit 1

15, 5
ct/s
100%

3, 20
ct/s
<10%

Jean-Marie Sany
Segment of R-Immune Islands
Subdivision: Name
DATE: April 7/1990

BIOREMEDIATE
TWO AREAS
I & II

Island II Zodiac

survey, intertidal rocks, no oil seen

Island III

No oil
Pit 2

1, 10
ct/s
10%

SKETCH MAP

Island IV

Note: 3 patches ~ 40 cm diameter
of oil / sediments ~ 2 cm thick

Island V

1, 40
ct/s
2%

Pit 4

1, 100
ct/s
10%

Island VI

2, 300
ct/s
<10%

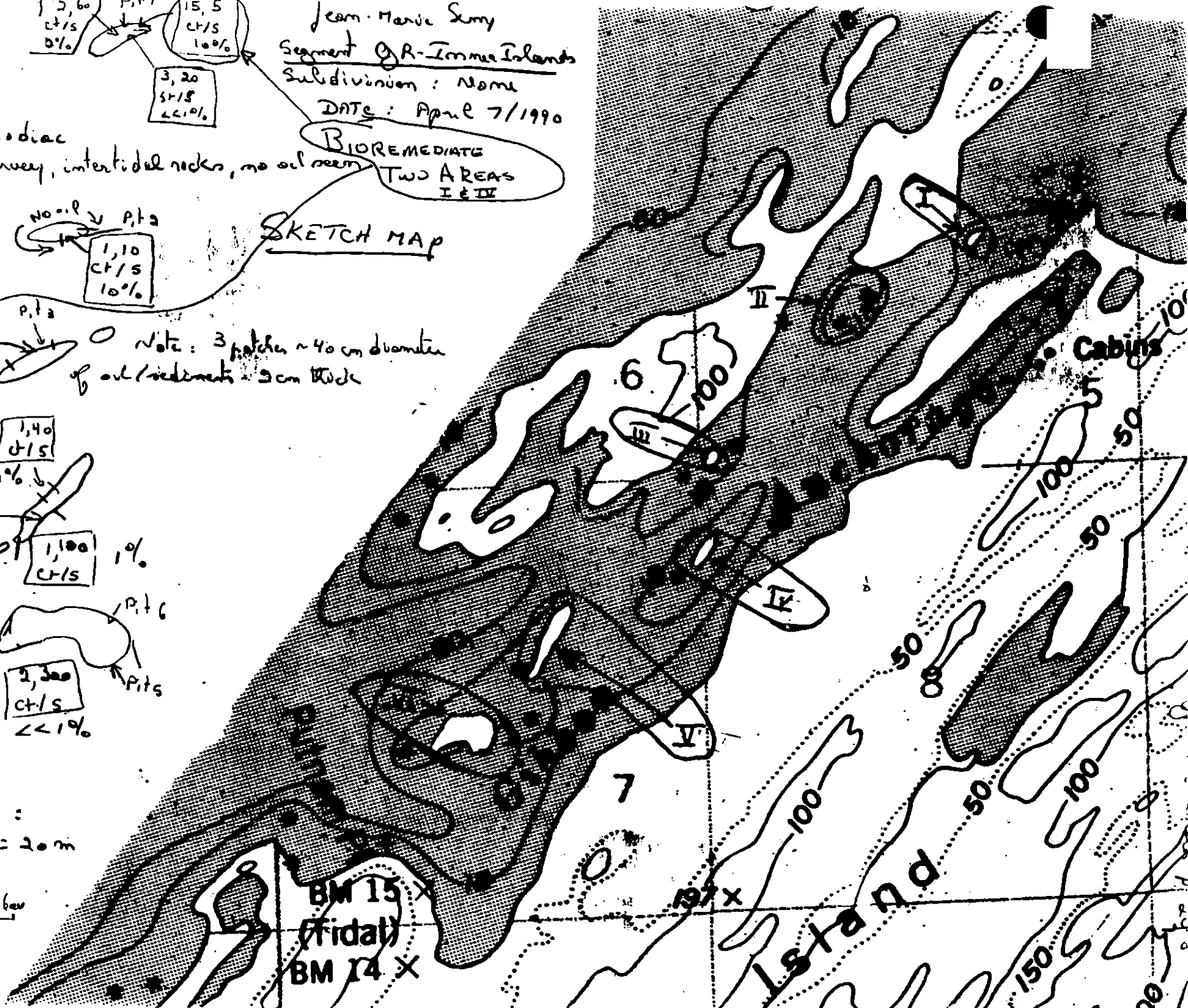
Pit 6

Pits

Scale 1 m = 20 m

0 200 400 600
m

BM 15 X
(Tidal)
BM 14 X



Diving Map:

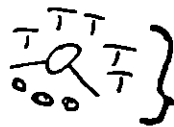
Jean-Marie Sempels

Segment: QR-Inner Islands

Subdivision: None

Date: April 7/1990

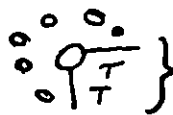
Island
I



Island
II



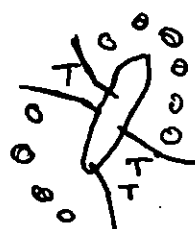
Island
III



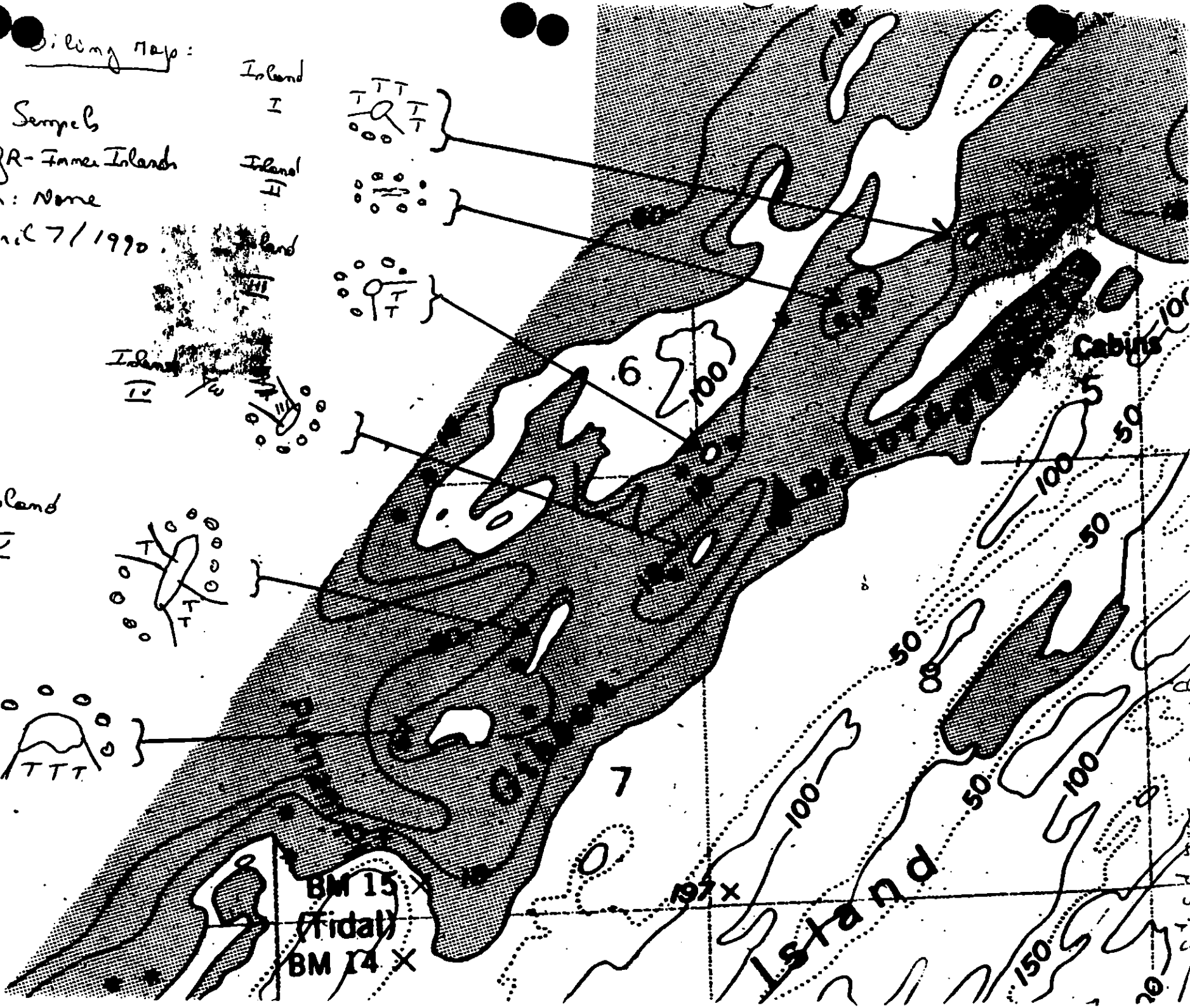
Island
IV



Island
V



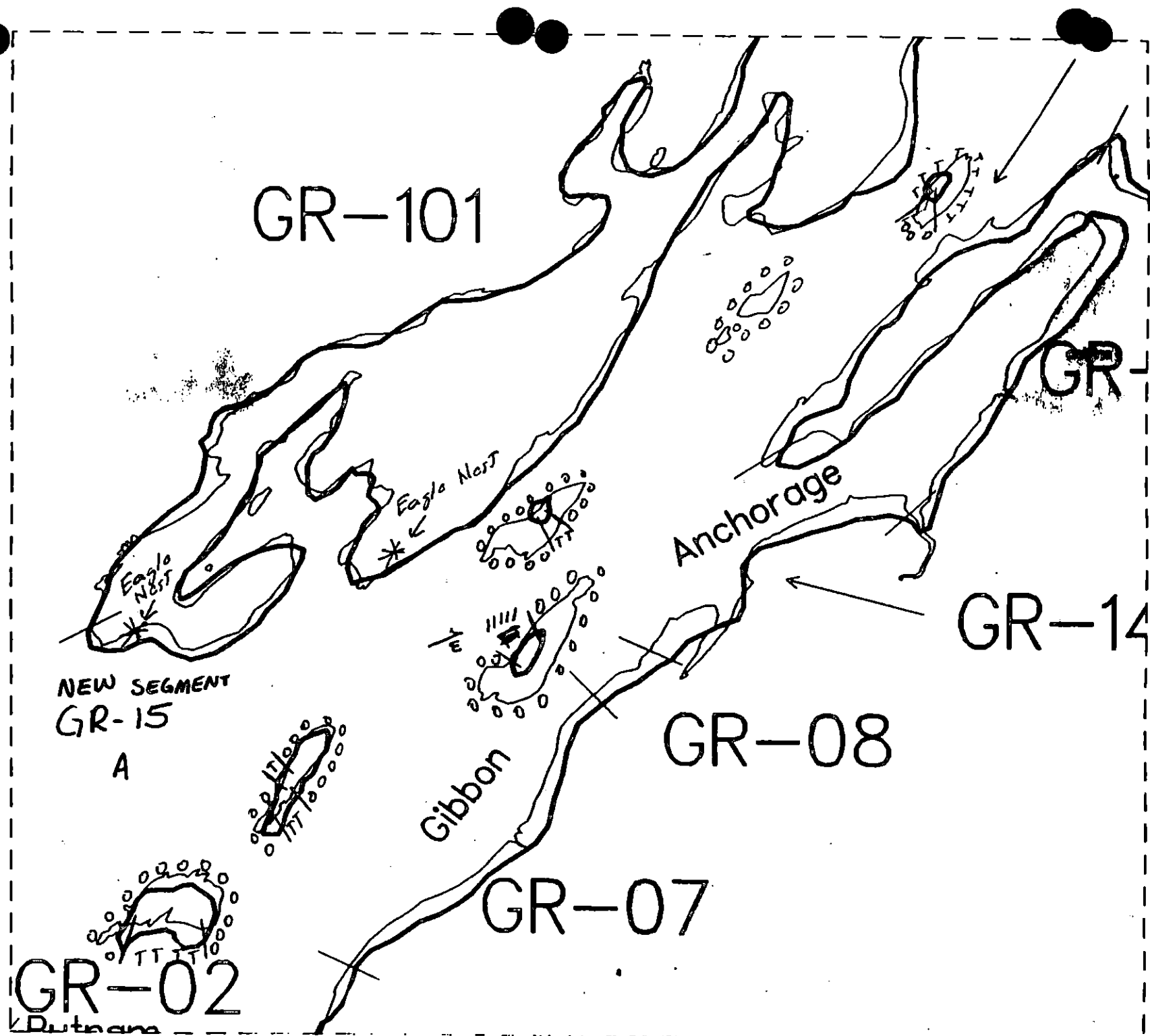
Island
VI



BM 15 x
(Tidal)
BM 14 x

Island
VII

Username: dee
Date/Time: 4/12/1990 6:52 PM
Plotfile: gibbon1



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