

CU-014 ~~X~~ ASC 13054
SOUTH OF ENTRANCE OF HIDDEN BAY

ACE 1369534



- Prince William Sound -

DOCUMENTS IN STREAM FILES

ASC# _____ Segment # _____

____ '89 Intertidal Assessment Survey, Sport/Com. Fish
____ '89 Shoreline Clean-Up Program (SAT)
____ '89 Anadromous Fish Stream Authorization, for instream work
____ '89 Stream Treatment Reports
____ '89 Demobilization Reports ____ Bioremediation ____ other
____ '89 RLS Sheet ____ Oil sed. sample ____ Egg sample
____ '89 Fall Walk-a-thon Survey, ADEC
____ '89 Winter Assess. Study Site ____ Winter Stream Survey Form
____ '89 Other Documents _____

____ '90 Pre-Anadscat Survey, multi-assessment form
____ '90 Anadscat Survey
____ '90 Anadromous Fish Stream Evaluation (work order)
____ '90 Anadromous Fish Stream Addendum to work order
____ '90 Shoreline Evaluation, SAT and work order for segment
____ '90 Anadromous Fish Stream Authorization, Title 16 permit
____ '90 Stream Treatment Report
____ '90 ADEC Demobilization Report for Bio
____ '90 ADF&G Oiling Condition Survey, for ASAP use (Aug. surv.)
____ '90 ASAP Survey ____ ASAP Rec. ____ ADEC Rec. (Fall)
____ '90 Other Documents _____

CATALOG NUMBER: 2242013034 SEGMENT#: CU014 A LOCATION: CULROSS ISLAND, HIDDEN BAY, SOUTH OF ENTRANCE							
DATE	SURVEY	SITE	W x L (m) SITE TYPE	PERCENT OIL	THICKNESS & PENETR. (cm)	OIL TYPES, DEPTH INTERVAL(cm)	SITE SPECIFIC COMMENTS
04/13/90	PRE-ANADS CAT	1	SURFACE			MS	
04/13/90	PRE-ANADS CAT	2	SURFACE			AP	

MAD vs. OG:
COMMENTS:
BANDS OF MOUSSE AND ASPHALT 4-5 FEET WIDE. OILED LOGS.

CATALOG NUMBER: 2242013034 SEGMENT#: CU014 A LOCATION: CULROSS ISLAND, HIDDEN BAY, SOUTH OF ENTRANCE							
DATE	SURVEY	SITE	W x L (m) SITE TYPE	PERCENT OIL	THICKNESS & PENETR. (cm)	OIL TYPES, DEPTH INTERVAL(cm)	SITE SPECIFIC COMMENTS
04/25/90	ANADSCAT	2	1 x 1 SURFACE	11-50	2-4	AP	SOUTH SIDE: SCATTERED TAR PATTIES IN UITZ.
04/25/90	ANADSCAT	2	1 x 1 SURFACE	11-50	2-4	PT	SOUTH SIDE: SCATTERED TAR PATTIES IN MITZ.
04/25/90	ANADSCAT	3	SURFACE			ST PT MS	NORTH SIDE: SOME PT, MOUSSY GRAVELS AND SLIGHT STAIN IN UITZ.

MAD vs. OG:
COMMENTS:
THIS STREAM RUNS THROUGH A SMALL COBBLE/GRAVEL POCKET BEACH WHICH IS SANDWICHED BETWEEN BEDROCK HEADLANDS. THE OILING WE FOUND CONSISTED OF SCATTERED MOUSSE AND TAR PATTIES IN THE UITZ AND SUPRA ITZ ON THE SOUTH SIDE OF THE STREAM, AND STAIN AND TAR PATTIES ON THE NORTH SIDE IN THE SAME ZONE. AN OILED LOG IS PRESENT IN THE SITZ ON THE SOUTH BANK. SCATTERED TAR PATTIES BY AND BENEATH DOWN LOGS AND BOULDER IN UITZ AND SUPRA ITZ 1 X 1M X 2-4CM, COVER. RECOMMENDATIONS: REMOVE SCATTERED TAR PATTIES IN THE UITZ & SITZ ON NORTH AND SOUTH SIDES OF STREAM. REMOVE OILED PARTS OF LOG ON SOUTH BANK. IF POSSIBLE, REMOVE TRASHED ZODIAC.

CATALOG NUMBER: 2242013034 SEGMENT#: CU014 A LOCATION: CULROSS ISLAND, HIDDEN BAY, SOUTH OF ENTRANCE							
DATE	SURVEY	SITE	W x L (m) SITE TYPE	PERCENT OIL	THICKNESS & PENETR. (cm)	OIL TYPES, DEPTH INTERVAL(cm)	SITE SPECIFIC COMMENTS

04/25/90	OG'S ANADSCAT	1	1 x 1 SURFACE	1-10	2	TB PT	SOUTH SIDE: SPLASHES OF TAR BALLS AND PATTIES IN UITZ.
04/25/90	OG'S ANADSCAT	2	1 x 1 SURFACE	1-10	2	TB PT	SOUTH SIDE: SPLASHES OF TP AND PT IN MITZ.
04/25/90	OG'S ANADSCAT	3	4 x 10 SURFACE	51-90	<.1	ST	NORTH SIDE: BROKEN STAIN IN UITZ.
04/25/90	OG'S ANADSCAT	4	SUBSURF			NONE	1 PIT DUG IN UITZ - NO OIL OBSERVED.

MAD vs. OG: MAD HAS TB ON NORTH SIDE OF STREAM-UITZ, OG DOES NOT. SLIGHT DIFFERENCE IN % COVERAGE.
COMMENTS:

CATALOG NUMBER: 2242013034

SEGMENT#: CU014 A

LOCATION: CULROSS ISLAND, HIDDEN BAY, SOUTH OF ENTRANCE

DATE	SURVEY	SITE	W x L (m) SITE TYPE	PERCENT OIL	THICKNESS & PENETR. (cm)	OIL TYPES, DEPTH INTERVAL(cm)	SITE SPECIFIC COMMENTS
05/14/91	MAYSAP	1	.1 x .1 SURFACE	<1		AP CV	SOUTH SIDE: UITZ.
05/14/91	MAYSAP	2	.1 x .1 SURFACE	<1		CV	NORTH SIDE: UITZ.

MAD vs. OG:
COMMENTS:
SMALL POCKET COVE. VERY LITTLE OILING FOUND HERE. SMALL PATCHES OF 'CV' AND SPATTER IN UITZ. ALSO A VERY SMALL AREA OF 'AP', 1 FT SQ IN SITE #1 WAS REMOVED DURING THE TIME OF SURVEY. JUVENILE SALMON FRY MILLING AT MOUTH AND IN TIDE POOL.



ADF&G MULTI-ASSESSMENT DATA FORM

Pre-ANAD SCAT-90 ^{ATW}1 SURVEY TYPE: BS SS DS TS AVS SCHA MMHS PTA2 REGION: PWS KP,CI K,APMETHOD: Aerial Ground Boat3 DATE: 4-13-9015 HIGH TIDE TIMES: 121 TEAM RECORDER: R. Gustin4 START TIME: 1053^F16 HIGH TIDE HTS: 122 OBSERVERS: B Lemon5 STOP TIME: 110017 LOW TIDE TIMES: 123 AGENCY: Exxon6 SEGMENT #: C001418 LOW TIDE HTS: 124 PHOTOS TAKEN: Y N

7 STATION #: _____

19 TIDE HT AT SURVEY: _____

Roll #: _____ Frame: _____

8 K-UNIT: _____

Ebb Slack Flood Slack

25 VIDEO TAKEN: Y N TAPE#: _____

9 STAT AREA: _____

20 USCG QUAD: _____

Start: _____ End: _____

10 LAT: _____

11 LONG: _____

26 SAMPLES TAKEN? Y N Number _____12 SOURCE: Map Loran13 LOCATION: Culross Is.14 DESCRIPTION: East Coast

Oil _____

Sediment _____

Biological _____

Water _____

EXTENT OF OIL

27 SURFACE COVERAGE

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

28 SURFACE THICKNESS

--	--	--	--	--	--	--	--

29 PENETRATION

--	--	--	--	--	--	--	--

30 OVERALL OIL IMPACT: N VL L M H31 OIL TYPE: Pooled Mousse Tar Asphalt Sticky Stain32 OILED DEBRIS? Y N33 SHORELINE TYPE: Headland Low-lying Rocks Beach Cove
Lagoon Marsh34 WAVE EXPOSURE: High Moderate Low35 SUBSTRATE TYPE: Bedrock Boulder Cobble
Gravel Sand Mud/silt36 CATALOGED ANAD. FISH SREAM? Y N37 CATALOG #: 224-20-13034

38 STREAM NAME: _____

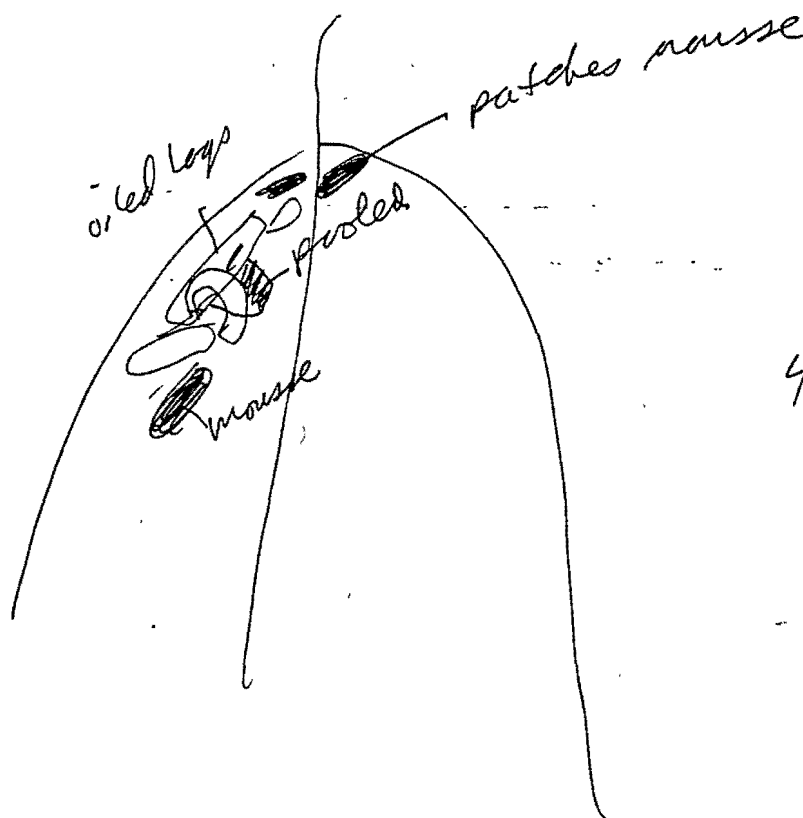
39 OIL IN STREAM BED? Y N40 OIL ON STREAM BANKS? Y N41 OIL ON BEACH ADJACENT TO MOUTH? Y N
(within 50 meters)42 OIL WITHIN 1 MILE OF STREAM? Y NWhere: upper intertidal43 ANADROMOUS FISH PRESENT? Y N44 ANADROMOUS FISH OBSERVATION
Species Aerial Ground

COMMENTS:

Banks of mousse and asphalt
4-5 feet wide.shovel / stream

FRAME(S)

DESCRIPTION

48 OIL DISTRIBUTION DIAGRAM

4-13-80

CU014 ATW
224-20-13034

• Sample taken
• Photo frame # and
shot direction.

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

ASC NUMBER: 224-20-13034
 SURVEY TYPE:
 METHOD:
 DATE: 4/13/90
 START TIME:
 STOP TIME:

TEAM RECORDER:
 OBSERVERS:
 AGENCY(IES):
 PHOTOS TAKEN?
 Roll #: Frames:
 VIDEO TAKEN? Tape Number:
 Counter Start:

SAMPLES TAKEN?

SAMPLE I.D. NUMBERS: 1. 2. 3.
 4. 5. 6.

	LENGTH m	WIDTH m	M2	%	THICK cm	PEN cm	OIL TYPE
SITE 1							MS
SITE 2							AP
SITE 3							
SITE 4							
SITE 5							

OVERALL OIL IMPACT: Meo

OIL IN STREAM CHANNEL?

OIL ON BEACH WITHIN 50M OF STREAM MOUTH? Yes

SUBSTRATE

Bedrock	Granule
Boulder	Sand
Cobble	Silt
Pebble	Veget.

SPECIES					
COUNT					

COMMENTS:

ADF&G MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: ES SS CS TS AVS SCHA MMS PTA

2 REGION: PWS KP,CI K,AP

METHOD: Aerial Ground Boat

3 DATE: 4-25-90

15 HIGH TIDE TIMES: 1

21 TEAM RECORDER: Aimee Weseman

4 START TIME: 1000

16 HIGH TIDE HTS: 1

22 OBSERVERS: Rick Gustin

5 STOP TIME: 1020

17 LOW TIDE TIMES: 1

23 AGENCY: ADF&G

6 SEQUENCE #: C4014

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 TAPES: 90-AJW-002 SS

9 STAT AREA:

20 USCG QUAD: SC3

Start: 643 End: 698

10 LAT:

11 LONG:

26 SAMPLES TAKEN? Y N Number

12 SOURCE: Map Loran

Oil

13 LOCATION: SE Culross I coastline-south of

Sediment

14 DESCRIPTION: hidden bay

Biological

Water

EXTENT OF OIL

	SHORELINE				STREAM			
	L	W	M ²	%	L	W	M ²	%
27 SURFACE COVERAGE	1m	1m						
28 SURFACE THICKNESS	tar mats 2-4cm							
29 PENETRATION	0							

36 CATALOGED ANAD. FISH SREAM? Y N

37 CATALOG #: 224-20-13034

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:

30 OVERALL OIL IMPACT: N VL L M H

31 OIL TYPE: Pooled Mousse Tar Asphalt Sticky Stain

32 OILED DEBRIS? Y N

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

34 WAVE EXPOSURE: High Moderate Low

35 SUBSTRATE TYPE: Bedrock 20 Boulder 10 Cobble 25
Gravel 40 Sand 5 Mud/silt

44 ANADROMOUS FISH OBSERVATION

Species Aerial Ground

COMMENTS: this stream runs through a small cobble/gravel pocket beach which is sandwiched between bedrock headlands. The oiling we found consisted of scattered mousse & tar patties in the UTIZ & supra ITZ on the south side of the stream, and stain & tar patties on the north side in the same zone. An oiled log is present in the SITZ on the south bank.

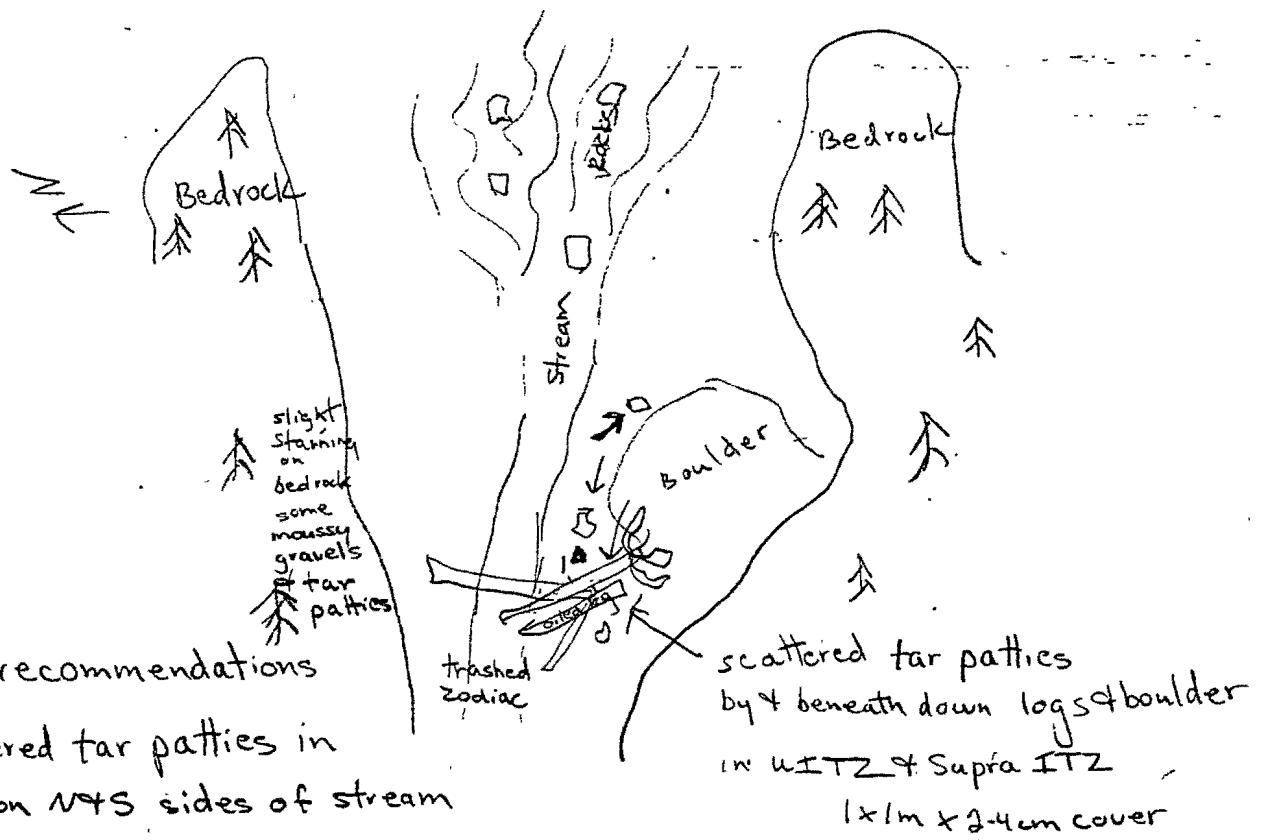
ACE 7236968+15

FF (S)

DESCRIPTION

pit 1 - 24cm nonrecoverable oil

48 OIL DISTRIBUTION DIAGRAM



treatment recommendations

Remove scattered tar patties in the U+ITZ on N+S sides of stream

Remove oiled parts of log on south bank

If possible - remove trashied zodiac

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

ASC NUMBER: 224-20-13034
 SURVEY TYPE:
 METHOD:
 DATE: 4/25/90
 START TIME:
 STOP TIME:

TEAM RECORDER:
 OBSERVERS:
 AGENCY(IES):
 PHOTOS TAKEN?
 Roll #: Frames:
 VIDEO TAKEN? Tape Number:
 Counter Start:

SAMPLES TAKEN?

SAMPLE I.D. NUMBERS: 1. 2. 3.
 4. 5. 6.

	LENGTH m	WIDTH m	M2	%	THICK cm	PEN cm	OIL TYPE
SITE 1							PT/LG
SITE 2	1	1			2-4		AP
SITE 3							ST
SITE 4							MS/PT
SITE 5							

OVERALL OIL IMPACT:

OIL IN STREAM CHANNEL?

OIL ON BEACH WITHIN 50M OF STREAM MOUTH?

SUBSTRATE

Bedrock Granule
 Boulder Sand
 Cobble Silt
 Pebble Veget.

SPECIES

COUNT

COMMENTS:

Scattered tar patches by & beneath down logs and boulder
 in U+ITZ & supraITZ 1x6±2-4cm over.

Treatment recommendations -

Remove scattered tar patches in the U+ITZ
 on north + south sides of stream. Remove
 oiled parts of log on south bank. If possible,
 remove washed zoediac.

ADF&G MULTI-ASSESSMENT DATA FORM

- 1) SURVEY TYPE: BS SS 2) REGION: PWS KP, CI K, AP
- 3) METHOD: Aerial Ground Boat
- 4) DATE: 5-14-91 16) HIGH TIDE TIME: _____ 22) TEAM RECORDER: TOM CROWE
- 5) START TIME: 1730 17) HIGH TIDE HTS: _____ 23) OBSERVERS: _____
- 6) STOP TIME: 1830 18) LOW TIDE TIMES: 2000 24) AGENCY: ADF&G
- 7) SEGMENT #: C4014A 19) LOW TIDE HTS: +2 25) PHOTOS TAKEN: Y N
- 8) K-UNIT: _____ 20) TIDE HT AT SURVEY: +6.2 to +4 ROLL #: _____ FRAMES: _____
- 9) LAT: _____ EBF Slack Flood Slack 26) VIDEO TAKEN: Y N
- 10) LONG: _____ 21) USCG QUAD: _____ TAPE #: _____
- 11) ASC #: 224-20-13034 (AVON CO) START: _____ STOP: _____
- 12) STREAM NAME: _____ 27) SAMPLES TAKEN? Y N
- 13) LOCATION: EAST COAST CULROSS IS. SAMPLE I.D. _____
- 14) WAVE EXPOSURE: High Moderate Low
- 15) SHORELINE TYPE: Headland Low-lying Rocks Beach
- Cove Lagoon Marsh

28) EXTENT OF OIL

	LENGTH m	WIDTH m	M2	%	THICK cm	PEN cm	OIL TYPE
SITE 1	.1	.1		<1			AP
SITE 2	.1	.1		<1			CY
SITE 3							
SITE 4							
SITE 5							

- 29) OVERALL OIL IMPACT: 33) ANADROMOUS FISH PRESENT: Y N

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

- 30) OIL IN STREAMBED: Y N
- 31) OIL ON BEACH ADJACENT TO MOUTH: Y N
- 32) SUBSTRATE TYPE (PERCENT):

Bedrock 30 Boulder 40 Gravel 25 Sand _____ Cobble 5 Mud/Silt _____

- 35) COMMENTS: SMALL POCKET COVE. VERY LITTLE OILING FOUND HERE. SMALL PATCHES OF CY AND SPATTER IN WHITE ALSO A VERY SMALL AREA OF AP 1 FT² IN SITE #1 WAS REMOVED DURING THE TIME OF SURVEY.

34) WILDLIFE OBSERVATION

Species Number

JUVENILE SALMON FRY
MILLING AT MOUTH +
TIDE POOL

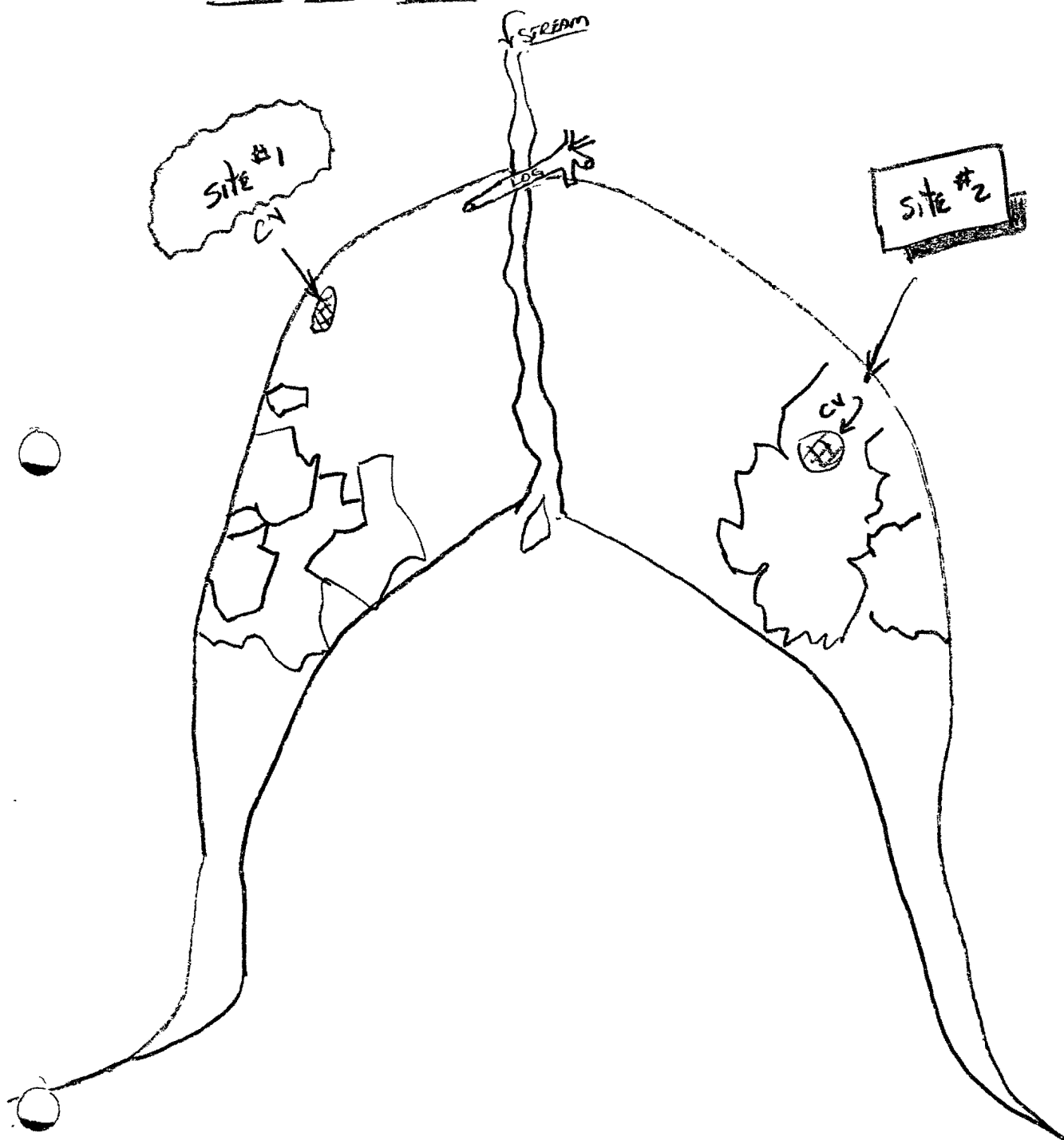
not in comments

CULROSS ISLAND
MAY SAP

DATE: 5.14.91

CU 014A

ASC 224-20-13034



CATALOG NUMBER: 2242013034 SEGMENT#: CU014 A LOCATION: CULROSS ISLAND, HIDDEN BAY, SOUTH OF ENTRANCE							SEQ:
DATE	SURVEY	SITE	W x L (m) SITE TYPE	PERCENT OIL	THICKNESS & PENETR. (cm)	OIL TYPES, DEPTH INTERVAL (cm)	SITE SPECIFIC COMMENTS
04/13/90	PRE-ANADS CAT	1	SURFACE			MS	
04/13/90	PRE-ANADS CAT	2	SURFACE			AP	
MAD vs. OG: COMMENTS: BANDS OF MOUSSE AND ASPHALT 4-5 FEET WIDE. SHOVEL/STEAM. OILED LOGS.							

CATALOG NUMBER: 2242013034 SEGMENT#: CU014 A LOCATION: CULROSS ISLAND, HIDDEN BAY, SOUTH OF ENTRANCE							SEQ:
DATE	SURVEY	SITE	W x L (m) SITE TYPE	PERCENT OIL	THICKNESS & PENETR. (cm)	OIL TYPES, DEPTH INTERVAL (cm)	SITE SPECIFIC COMMENTS
04/25/90	ANADSCAT	2	1 x 1 SURFACE	11-50	2-4	PT	SOUTH SIDE: SCATTERED TAR PATTIES IN MITZ.
04/25/90	ANADSCAT	2	1 x 1 SURFACE		2-4	AP	SOUTH SIDE: SCATTERED TAR PATTIES IN ^{IN} UITZ.
04/25/90	ANADSCAT	3	SURFACE			<u>ST PT/ms</u>	NORTH SIDE: SOME PT, MOUSSY GRAVELS AND SLIGHT STAIN IN UITZ.
MAD vs. OG: COMMENTS: THIS STREAM RUNS THROUGH A SMALL COBBLE/GRAVEL POCKET BEACH WHICH IS SANDWICHED BETWEEN BEDROCK HEADLANDS. THE OILING WE FOUND CONSISTED OF SCATTERED MOUSSE AND TAR PATTIES IN THE UITZ AND SUPRA ITZ ON THE SOUTH SIDE OF THE STREAM, AND STAIN AND TAR PATTIES ON THE NORTH SIDE IN THE SAME ZONE. AN OILED LOG IS PRESENT IN THE SITZ ON THE SOUTH BANK. SCATTERED TAR PATTIES BY AND BENEATH DOWN LOGS AND BOULDER IN UITZ AND SUPRA ITZ 1 X 1M X 2-4CM COVER. RECOMMENDATIONS: REMOVE SCATTERED TAR PATTIES IN THE UITZ & SITZ ON NORTH AND SOUTH SIDES OF STREAM. REMOVE OILED PARTS OF LOG ON SOUTH BANK. IF POSSIBLE, REMOVE TRASHED ZODIAC.							

CATALOG NUMBER: 2242013034 SEGMENT#: CU014 A LOCATION: CULROSS ISLAND, HIDDEN BAY, SOUTH OF ENTRANCE							SEQ:
DATE	SURVEY	SITE	W x L (m) SITE TYPE	PERCENT OIL	THICKNESS & PENETR. (cm)	OIL TYPES, DEPTH INTERVAL (cm)	SITE SPECIFIC COMMENTS

04/25/90	OG'S ANADSCAT	1	1 x 1 SURFACE	1-10	2	TB PT	SOUTH SIDE OF STREAM : SPLASHES OF TAR BALLS AND PATTIES ⁱⁿ UITZ.
04/25/90	OG'S ANADSCAT	2	1 x 1 SURFACE	1-10	2	TB PT	SOUTH SIDE OF STREAM : UITZ - SPLASHES OF TP AND PT ⁱⁿ UITZ
04/25/90	OG'S ANADSCAT	3	4 x 10 SURFACE	51-90	<.1	ST	NORTH SIDE OF STREAM - BROKEN STAIN IN UITZ.
04/25/90	OG'S ANADSCAT	4	SUBSURF			NONE	1 PIT DUG IN UITZ - NO OIL OBSERVED.

MAD vs. OG: MAD HAS TB ON NORTH SIDE OF STREAM-UITZ, OG DOES NOT. SLIGHT DIFFERENCE IN % COVERAGE.
COMMENTS:

CATALOG NUMBER: 2242013034

SEGMENT#: CU014 A

LOCATION: CULROSS ISLAND, HIDDEN BAY, SOUTH OF ENTRANCE

SEQ:

DATE	SURVEY	SITE	W x L (m) SITE TYPE	PERCENT OIL	THICKNESS & PENETR. (cm)	OIL TYPES, DEPTH INTERVAL (cm)	SITE SPECIFIC COMMENTS
05/14/91	MAYSAP	1	.1 x .1 SURFACE	<1		<u>AP & CV</u>	<u>South side of stream - UITZ</u>
05/14/91	MAYSAP	2	.1 x .1 SURFACE	<1		CV	<u>North side of stream - UITZ</u>

MAD vs. OG:

COMMENTS:

SMALL POCKET COVE. VERY LITTLE OILING FOUND HERE. SMALL PATCHES OF 'CV' AND SPATTER IN UITZ. ALSO A VERY SMALL AREA OF 'AP', 1 FT SQ IN SITE #1 WAS REMOVED DURING THE TIME OF SURVEY. JUVENILE SALMON FRY MILLING AT MOUTH AND TIDE POOL.

¹
in

OG SUPPLEMENTAL INFO TO MAD

RECORDER: Weseman RED-DATE: 10/4/91

PAGE

CATALOG NUMBER: 224-20-13034

STREAM NAME:

LOCATION: Eculvoss Island.

SEGMENT NUMBER: C4014 A

SHORELINE TYPE: ~~coastline~~

DATE: 4/25/90 TIME:

TIME:

OG vs. MAD:

Mad has TB on north side of stream U12
OG does not. Slight difference in % coverage.

[illegible]

CATALOG NUMBER: 2242013034

STREAM NAME:

LOCATION: CULROSS ISLAND, HIDDEN BAY, SOUTH OF ENTRANCE

SEGMENT NUMBER: CU014 A

SHORELINE TYPE:

DATE: 04/13/90 TIME: COVE -1100

SITE	WIDTH (m)	LENGTH (m)	AREA (sqm)	PERCENT OIL	THICKNESS (cm)	PENETRATION (cm)	SURFACE SUBSURF	OIL TYPES	COMMENTS
1	1-2						SURFACE	MS/AP	- near south side of stream
2							SURFACE	AP/MS	- north side of stream

COMMENTS:

BANDS OF MOUSSE AND ASPHALT 4-5 FEET WIDE. SHOVEL/STEAM.
YES, UPPER INTERTIDAL.

oiled logs

OIL WITHIN 1 MILE OF STREAM:

CATALOG NUMBER: 2242013034

STREAM NAME:

LOCATION: CULROSS ISLAND, HIDDEN BAY, SOUTH OF ENTRANCE

SEGMENT NUMBER: CU014 A

SHORELINE TYPE:

DATE: 04/25/90 TIME: COVE -1020

SITE	WIDTH (m)	LENGTH (m)	AREA (sqm)	PERCENT OIL	THICKNESS (cm)	PENETRATION (cm)	SURFACE SUBSURF	OIL TYPES	COMMENTS
1	1	1		11-50	2-4		SURFACE	PT	South side of stream - MITZ - scattered T.P.
2	1	1		11-50	2-4		SURFACE	AR TP	South side of stream - scattered TP in UITZ
3				1-10			SURFACE	ST PT MS	North side of stream - UITZ - some PT, mossy
							SURFACE	MS PT	gravels + slight stain

COMMENTS:

THIS STREAM RUNS THROUGH A SMALL COBBLE/GRAVEL POCKET BEACH WHICH IS SANDWICHED BETWEEN BEDROCK HEADLANDS. THE OILING WE FOUND CONSISTED OF SCATTERED MOUSSE & TAR PATTIES IN THE UITZ AND SUPRA ITZ ON THE SOUTH SIDE OF THE STREAM, AND STAIN & TAR PATTIES ON THE NORTH SIDE IN THE SAME ZONE. AN OILED LOG IS PRESENT IN THE SITZ ON THE SOUTH BANK. SCATTERED TAR PATTIES BY AND BENEATH DOWN LOGS AND BOULDER IN UITZ & SUPRA ITZ 1 X 1M X 2-4CM COVER.

RECOMMENDATIONS: REMOVE SCATTERED TAR PATTIES IN THE UITZ & SITZ ON NORTH AND SOUTH SIDES OF STREAM. REMOVE OILED PARTS OF LOG ON SOUTH BANK. IF POSSIBLE, REMOVE TRASHED ZODIAC.

CATALOG NUMBER: 2242013034

STREAM NAME:

LOCATION: CULROSS ISLAND, HIDDEN BAY, SOUTH OF ENTRANCE

SEGMENT NUMBER: CU014 A

SHORELINE TYPE:

DATE: 05/14/91 TIME: COVE -1830

SITE	WIDTH (m)	LENGTH (m)	AREA (sqm)	PERCENT OIL	THICKNESS (cm)	PENETRATION (cm)	SURFACE SUBSURF	OIL TYPES	COMMENTS
1	.1	.1		<1			SURFACE	AP	
2	.1	.1		<1			SURFACE	CV	

COMMENTS:
SMALL POCKET COVE. VERY LITTLE OILING FOUND HERE. SMALL PATCHES OF 'CV' AND SPATTER IN UITZ. ALSO A VERY SMALL AREA OF 'AP', 1-FT SQ IN SITE #1 WAS REMOVED DURING THE TIME OF SURVEY. JUVENILE SALMON FRY MILLING AT MOUTH AND TIDE POOL.

ANADROMOUS FISH STREAM EVALUATION ADDENDUM

CONSTRAINTS FOR STREAM NO. 224-20-13034

SEGMENT CU-14 SUBDIVISION A

WORK WINDOW	
Manual Pickup	OPEN

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A,1B	Salmon Stream	ADF&G catalogued anadromous streams (224-20-13036 and 224-20-13034) are present in Subdivision A. No constraint to manual pickup.
1I	Gill Net Area	No constraint to manual pickup.
2K	Purse Seine Hook-off	No constraint to manual pickup
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

No disturbance to stream bed or banks. 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. Avoid any unnecessary disturbance or damage to unrolled biota and substrate.

SEE SUBDIVISION CONSTRAINT ADDENDUM CU-14A
FOR ADDITIONAL CONSTRAINT INFORMATION.

TAG APPROVAL DATE _____
ADEC _____
EXXON HANS O. JAHNS dated 6/8/90
NOAA _____
USCG _____

FOSC W L

Date 6-8-90

ACE 7236953 +1SG

ANADROMOUS FISH SITE! EVAL
(224-20-13034)

CU-15

INACTIVE NEST

ANADROMOUS STREAM 100m ZONE

INACTIVE NEST

CU-14

TREATMENT AREA

ANADROMOUS STREAM
(224-20-13036)

Anadromous Stream
(224-20-13034)

ACTIVE NEST

400m EAGLE NEST ZONE

CU-13

ANADROMOUS STREAM
(224-20-13034)
13036

CU-12

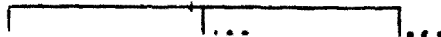
INCORPORATES USFWS 6/1/90
MAP OF ACTIVE EAGLE NESTS.



Exxon Company, USA
Map Key: PMS-CU-14



ECOLOGY MAP
SEGMENT CU-14
SUBDIVISION A (1 of 1)
METERS



- ★ Seabird Colony
- ▲ Eagle Nest

1 inch = 1397 feet

ACE 7236954.

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/ CU-14 STREAM NO: 224-20-13034 DATE 4/25/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Subject stream and one additional stream 224-20-13036, Ps, 2/90

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

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

1I Gill net area (6/7 to 8/31)

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

5T-3 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)

6Y Recreation: Special use destination

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 exists 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

 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 pickup of oiled vegetation, cleanup debris (zodiac), and mousse patties in areas indicated on sketch map. Work should be conducted after 6/1 with approval of USFWS regarding eagle nest.

TAG COMMENTS:

TAG APPROVAL DATE: 5/10/90
ADEC ART WEINER
EXXON ANN TEE
NOAA Bruce Wescott
USCG D.D. ROME

FOSC: [Signature] DATE: 5-18-90

NOTIFY CUE 24 HRS PRIOR TO WORK.

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/ CU-14 STREAM NO: 224-20-13034 DATE 4/25/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Subject stream and one additional stream 224-20-13036, Ps, 2/90

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

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

1I Gill net area (6/7 to 8/31)

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

5T-3 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)

6Y Recreation: Special use destination

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 exists 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

 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 pickup of oiled vegetation, cleanup debris (zodiac), and mousse patties in areas indicated on sketch map. Work should be conducted after 6/1 with approval of USFWS regarding eagle nest.

TAG COMMENTS: _____

TAG APPROVAL DATE: 5/10/90

ADEC Art Weiner

EXXON Arny TGA

NOAA Burk Wasscott

USCG D.D. Rome

FOSC: [Signature] DATE: 5-18-90

NOTIFY CUC 24 HRS PRIOR TO WORK.

ACE 7236956+156'

OG CAL LARSON

SEGMENT STICUOIA N

STREAM ZZA-20-13034

DATE 4 125 90

CHECKLIST

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

LEGEND

1 Δ
Pit - No Subsurface Oil

2 $\blacktriangle$
Pit - Subsurface Oil

$\boxed{CT/C}$
Continuous Distribution

$\boxed{CT/B}$
Broken Distribution

$\boxed{CT/P}$
Patchy Distribution

$\boxed{CT/S}$
Splashed Distribution

$\lll$
Oiled Vegetation

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

SKETCH MAP
LITZ

MITZ

UITZ

SUP

DEAD F

STAND LUG

RAFT

POCKET COVE

1X1M COVER X24H

SV/B
10X4

35M

Oil Character Length (m): AP PO CV CT ST 10 MS T .5 TB .5 FL NO

REVISION 03/24/90

ACE 7236957

RECEIVED
MAY 07 1990

Dept. of
ENVIRONMENTAL CONSERVATION

ANADROMOUS FISH STREAM ASSESSMENT

REGION: PRINCE WILLIAM SOUND

SEGMENT: CU-14 *A*

STREAM NO: 224-20-13034

LARSON SKETCH LACKS TAR PATTIES ON N. SIDE OF
STREAM - N. OF LOG. - REMOVE

ORIGINAL FIELD MAP
ALTERED

work plan does not have tar patties
on North side of stream slated for removal
or oiled parts of log by stream
perform work before July 10
ACE 7236958
HIS

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/ CU-14 STREAM NO: 224-20-13034 DATE 4/25/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Subject stream and one additional stream 224-20-13036, Ps, 2/90

- 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
- 1B Salmon stream mouth - spawning (7/10 to 8/31)
- 1I Gill net area (6/7 to 8/31)
- 1J Purse seine area (7/20 to 9/30)
- 5T-3 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
- 6Y Recreation: Special use destination

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 exists 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 | ☐ 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 manual pickup of oiled vegetation, cleanup debris (zodiac), and mousse patties in areas indicated on sketch map. Work should be conducted after 6/1 with approval of USFWS regarding eagle nest.

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

ACE 7236959

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

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / CU-014 SUBDIVISION: ASC# 13034 ^{KRO} 224-20-13054 DATE 25 APR 9

USCG

NAME Kerwin L. Dreher SIGNATURE CWO R. L. Dreher

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

~~ADFC~~ ^{ADFC}

NAME Rick Gustin SIGNATURE Richard S. Gustin

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

Remove scattered tar patties in the upper+supra ITZ
on north and south sides of stream

Remove oiled parts of log on south bank
If possible remove trashed Zodiac:

~~LAND MANAGER~~ ^{NONE}

NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

SHORELINE OILING SUMMARY (ANAD)

REVISION NO. 0

OG CAL LARSEN USCG DREHER, CWE SEGMENT ST/ CUOIAN 18/

BIO KEN CRITCHLOW LAND REP STREAM 22A-20-15041 OF

EXXON DARLHL YOGS ADFG 2A-K DUTIN-AIMEE WESEMAN TIME 10:00 to 10:25

TEAM NO. 18 TIDE LEVEL -0-FT DATE 4/25/90

EST. SUBDIVISION LENGTH: 25 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow

UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock

SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo

SURFACE SEDIMENTS: R 20 % B 40 % C 30 % P 5 % G 5 % S 5 % M 5 % V 5

SLOPE: Long 40 % Hang 60 % Vert 5 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High

OIL CATEGORY LENGTH: W 5 m M 5 m N 5 m VL 5 m NO 20

SURFACE OIL

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

PAVEMENT H F S 3 sq. m by 3PATTIES / TARBALLS 3 BNEAR SHORE SHEEN? ☒ BR RW SL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs	✓		
Vegetation			
Trash			
Debris			

Did you Col
DEBRIS
☐ YES ☒ NO

TYPE 3#BAGS 3

Photographs:

Roll No. 8Frames 11-17

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 SUBSURF SEDIMENT
		OP	OR	OL	OF	NO		US	UC	1	2	3	4	SU	U	M	L				
1	24					✓	•									✓			N		22,7562/
							•														
							•														
							•														
							•														
							•														

COMMENTS

VERY LITTLE OIL FOUND ON THIS BEACH -

REVIEWED 76DATE 4-28-9

ACE 7236962

DATE 4/25/90

CHECKLIST

_____ N Arrow
 _____ Appen. Scale
 _____ Seg/Sub Body
 _____ Oil Dml.
 _____ Width
 _____ Length
 _____ % Cover
 _____ Substrate Character
 _____ Est. INVA/LVA
 _____ SSI
 _____ Profile Location(s)
 _____ Profile(s)
 _____ PR Location(s)
 _____ Photo Location(s)

LEGEND

1 Δ
PM - No Subsurface Oil

PM - Subsurface Oil ...

CT/C
Continued Distribution

CT/B
Broken Distributor

CT/P
Patchy Distribution

CT/S
Selected Distribution

Oil Vegetation

Photo location, direction,
and number

SKETCH MAP
LITZ

MITZ

UTZ

Sup

DEAD FA

MALE REMOVE OILY VEGETATION

part DENT

MANUALLY REMOVE
CLEAN UP DEBRIS
(7001AC)

...

THE UNIVERSITY OF CHICAGO

2. C

...

10.

REVISION: 202408

ACE 7236963

OE Character Length (m): AP _____ PO _____ CV ✓ CT _____ ST 10 MS _____ PT .5 TB .5 FL _____ NO _____

15/28

Seg ID: CU-014

Subdiv: 224-20-13034

Survey Date: 4/25/90

Comments by: Ken Critchlow

Very little oil was observed in the vicinity of the stream at this site. Scattered tarballs and patties were present in the upper MITZ and lower STZ on the south side, some distance from the stream. A log in this vicinity was stained sporadically. Stain was also observed on boulders and bedrock at the same elevation on the opposite side of the stream. An uncoiled Avon raft/boat was stranded as debris in the STZ channel.

I suggest that the tarballs and patties be removed by a small crew using shovels and trowels. This should be sufficient since a pit in this location didn't indicate the presence of subsurface oil. The oil stained log could be scraped and shouldn't be removed. Bio-remediation isn't required.

KR Critchlow

23/28

ADFG MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: BS ES TS AVS SCVA MMS PTA2 REGION: PR XP, CI K, APMETHOD: Aerial Cruise Boat3 DATE: 4-25-9015 HIGH TIDE TIMES: 121 TEAM RECORDER: Aimee L. Wesenc4 START TIME: 100016 HIGH TIDE HTS: 122 OBSERVERS: Rick Gustin5 STOP TIME: 102517 LOW TIDE TIMES: 123 AGENCY: ADFG6 SEGMENT #: C401418 LOW TIDE HTS: 124 PHOTOS TAKEN: Y (N)

7 STATION #:

19 TIDE HT AT SURVEY:

Roll #: Frame:

8 K-UNIT:

Sub Slack Flood Slack

25 VIDEO TAKEN: (Y) N TAPES: 90-ASW-01

9 STAT AREA:

20 USCG QUAD: SC3Start: 643 End: 698

10 LAT:

11 LONG:

26 SAMPLES TAKEN: Y (N) Number12 SOURCE: Map Loren

Oil

13 LOCATION: se Culross I coastline-south of

Sediment

14 DESCRIPTION: hidden bay

Biological

Water

EXTENT OF OIL

	SHORELINE				STREAM			
	L	V	N	S	L	V	N	S
27 SURFACE COVERAGE	1	1						

35 CATALOGED ANAD. FISH STREAM? (Y) N

	SHORELINE				STREAM			
	L	V	N	S	L	V	N	S
28 SURFACE THICKNESS	thin mat 2-4cm							
29 PENETRATION	0							

37 CATALOG #: 224-20-13034

38 STREAM NAME:

30 OVERALL OIL IMPACT: N VL (L) N N39 OIL IN STREAM BED? Y (N)31 OIL TYPE: Pooled Mousse Tar Asphalt Sludge Stone

40 OIL ON STREAM BANK? Y N

32 OILED DEBRIS: (Y) N41 OIL ON BEACH ADJACENT TO MOUTH? (Y) N
(within 50 meters)42 OIL WITHIN 1 MILE OF STREAM? (Y) N33 SHORELINE TYPE: Headland Low-lying Rocks Beach Cave
Lagoon Marsh

Where:

43 ANADROMOUS FISH PRESENT? Y N

34 WAVE EXPOSURE: High Moderate Low

44 ANADROMOUS FISH OBSERVATION

35 SUBSTRATE TYPE: Bedrock 20 Boulder 10 Cobble 25Gravel 40 Sand 5 Mud/silt

Species Aerial Ground

Species	Aerial	Ground

COMMENTS: this stream runs through a small rubble/gravel pocket beach which is so between bedrock headlands. The oiling we found consisted of scattered mousse & tar patties in the UTTZ & supra ITZ on the south side of the stream, and stain & tar patties on the north side in the same zone.

2A/28

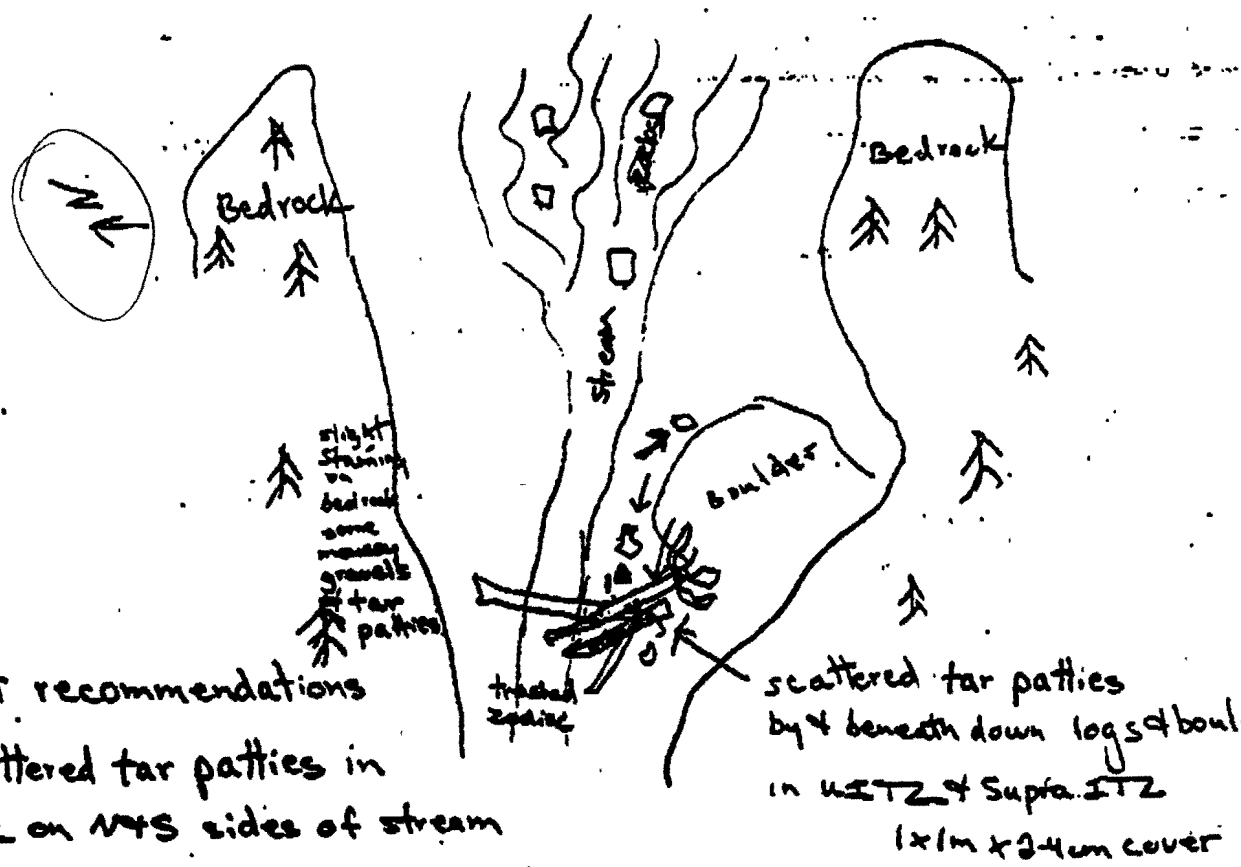
45 PHOTOLOG

FRAME(S)

DESCRIPTION

pit 1 24cm measurable oil

46 OIL DISTRIBUTION DIAGRAM



treatment recommendations
Remove scattered tar patties in
the U+STZ on N+S sides of stream
Remove oiled parts of log on south bank
If possible - remove crashed zodiac

ACE 7236966

Sample taken
Photo frame # and

13042

TOPOGRAPHICAL MAP

(11 1714-1130-1)

1A 1F

5T(1)

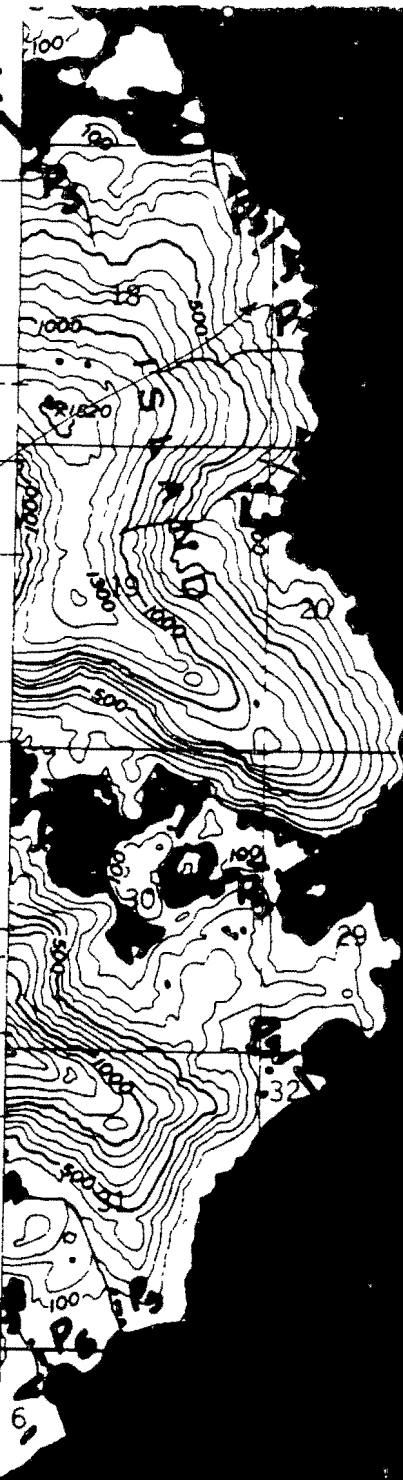
1T 1S

6Y

SUBJECT ANALYTICALS
STATION

#224-20-13034
(15.2/16)

(SEWARD C-4)



ADF&G MULTI-ASSESSMENT DATA FORM

ATW
Pre-ANAD SCAT-90

1 SURVEY TYPE: BS SS DS TS AVS SCHA MMHS PTA2 REGION: PWS KP, CI K, APMETHOD: Aerial Ground Boat3 DATE: 4-13-9015 HIGH TIDE TIMES: 121 TEAM RECORDER: R. Costa4 START TIME: 1053^h16 HIGH TIDE HTS: 122 OBSERVERS: B. Lemon5 STOP TIME: 110017 LOW TIDE TIMES: 123 AGENCY: Exxon6 SEGMENT #: CU01418 LOW TIDE HTS: 124 PHOTOS TAKEN: Y N

7 STATION #: _____

19 TIDE HT AT SURVEY: _____

Roll #: _____ Frame: _____

8 K-UNIT: _____

Ebb Slack Flood Slack

25 VIDEO TAKEN: Y N TAPE#: _____

9 STAT AREA: _____

20 USCG QUAD: _____

Start: _____ End: _____

10 LAT: _____

11 LONG: _____

26 SAMPLES TAKEN? Y N Number _____12 SOURCE: Map Loran

Oil _____

13 LOCATION: Culross Is.

Sediment _____

14 DESCRIPTION: East Coast

Biological _____

Water _____

EXTENT OF OIL

SHORELINE

L W M² %

STREAM

L W M² %

27 SURFACE COVERAGE

--	--	--	--	--	--	--	--

28 SURFACE THICKNESS

--	--	--	--	--	--	--	--

29 PENETRATION

--	--	--	--	--	--	--	--

30 OVERALL OIL IMPACT: N VL L M H

31 OIL TYPE: Pooled Mousse Tar Asphalt Sticky Stain32 OILED DEBRIS? Y N33 SHORELINE TYPE: Headland Low-lying Rocks Beach Cove
Lagoon Marsh34 WAVE EXPOSURE: High Moderate Low35 SUBSTRATE TYPE: Bedrock _____ Boulder / Cobble /Gravel / Sand _____ Mud/silt _____36 CATALOGED ANAD. FISH SREAM? Y N37 CATALOG #: 224-20 13034

38 STREAM NAME: _____

39 OIL IN STREAM BED? Y N40 OIL ON STREAM BANKS? Y N41 OIL ON BEACH ADJACENT TO MOUTH? Y N
(within 50 meters)42 OIL WITHIN 1 MILE OF STREAM? Y NWhere: Upper intertidal

43 ANADROMOUS FISH PRESENT? Y N

44 ANADROMOUS FISH OBSERVATION

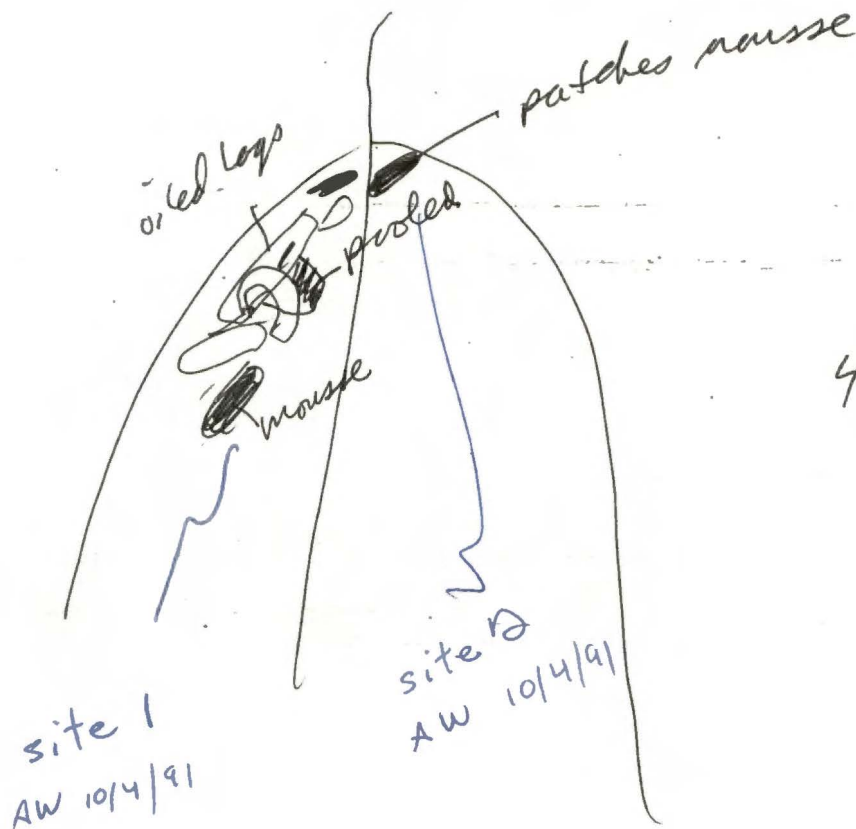
Species Aerial Ground

COMMENTS: Bands of mousse and asphalt4-5 feet wide.Shoal / stream

ACE 7236977 +15

FRAME(S)

DESCRIPTION

46 OIL DISTRIBUTION DIAGRAM

4-13-90

CU014 ATW
 224-20-13034

= Sample taken
 = Photo frame # and
 shot direction.

ADF&G MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: ES SS DS TS AVS SCHA MMS PTA2 REGION: PWS KP, CI K, APMETHOD: Aerial Ground Boat3 DATE: 4-25-9015 HIGH TIDE TIMES: 121 TEAM RECORDER: Aimee Weseman4 START TIME: 100016 HIGH TIDE HTS: 122 OBSERVERS: Rick Gustin5 STOP TIME: 102017 LOW TIDE TIMES: 123 AGENCY: ADF&G6 SEGMENT #: C401418 LOW TIDE HTS: 124 PHOTOS TAKEN: Y N

7 STATION #: _____

19 TIDE HT AT SURVEY: _____

Roll #: _____ Frame: _____

8 K-UNIT: _____

Ebb Slack Flood Slack

25 VIDEO TAKEN: Y N TAPE#: 90-AJW-002 SSS

9 STAT AREA: _____

20 USCG QUAD: SC3Start: 643 End: 698

10 LAT: _____

11 LONG: _____

26 SAMPLES TAKEN? Y N Number _____12 SOURCE: Map Loran

Oil _____

13 LOCATION: se Culross I coastline-south of

Sediment _____

14 DESCRIPTION: hidden bay

Biological _____

EXTENT OF OIL

Water _____

	SHORELINE				STREAM			
	L	W	M ²	%	L	W	M ²	%
27 SURFACE COVERAGE	1m	1m						

36 CATALOGED ANAD. FISH SREAM? Y N

	SHORELINE				STREAM			
	L	W	M ²	%	L	W	M ²	%
28 SURFACE THICKNESS	tar mats 2-4cm							
29 PENETRATION	<u>0</u>							

37 CATALOG #: 224-20-13034

38 STREAM NAME: _____

30 OVERALL OIL IMPACT: N VL L M H39 OIL IN STREAM BED? Y N31 OIL TYPE: Pooled Mousse Tar Asphalt Sticky Stain

40 OIL ON STREAM BANKS? Y N

32 OILED DEBRIS? Y N41 OIL ON BEACH ADJACENT TO MOUTH? Y N
(within 50 meters)42 OIL WITHIN 1 MILE OF STREAM? Y N

Where: _____

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

43 ANADROMOUS FISH PRESENT? Y N

34 WAVE EXPOSURE: High Moderate Low44 ANADROMOUS FISH OBSERVATION
Species Aerial Ground35 SUBSTRATE TYPE: Bedrock 20 Boulder 10 Cobble 25
Gravel 40 Sand 5 Mud/silt _____

Species	Aerial	Ground

COMMENTS: this stream runs through a small cobble/gravel pocket beach which is sandwiched between bedrock headlands. The oiling we found consisted of scattered mousse & tar patties in the UITZ & supra ITZ on the south side of the stream, and stain & tar patties on the north side in the same zone. An oiled log is present in the SITZ on the south bank.

ACE 7236968 +/S

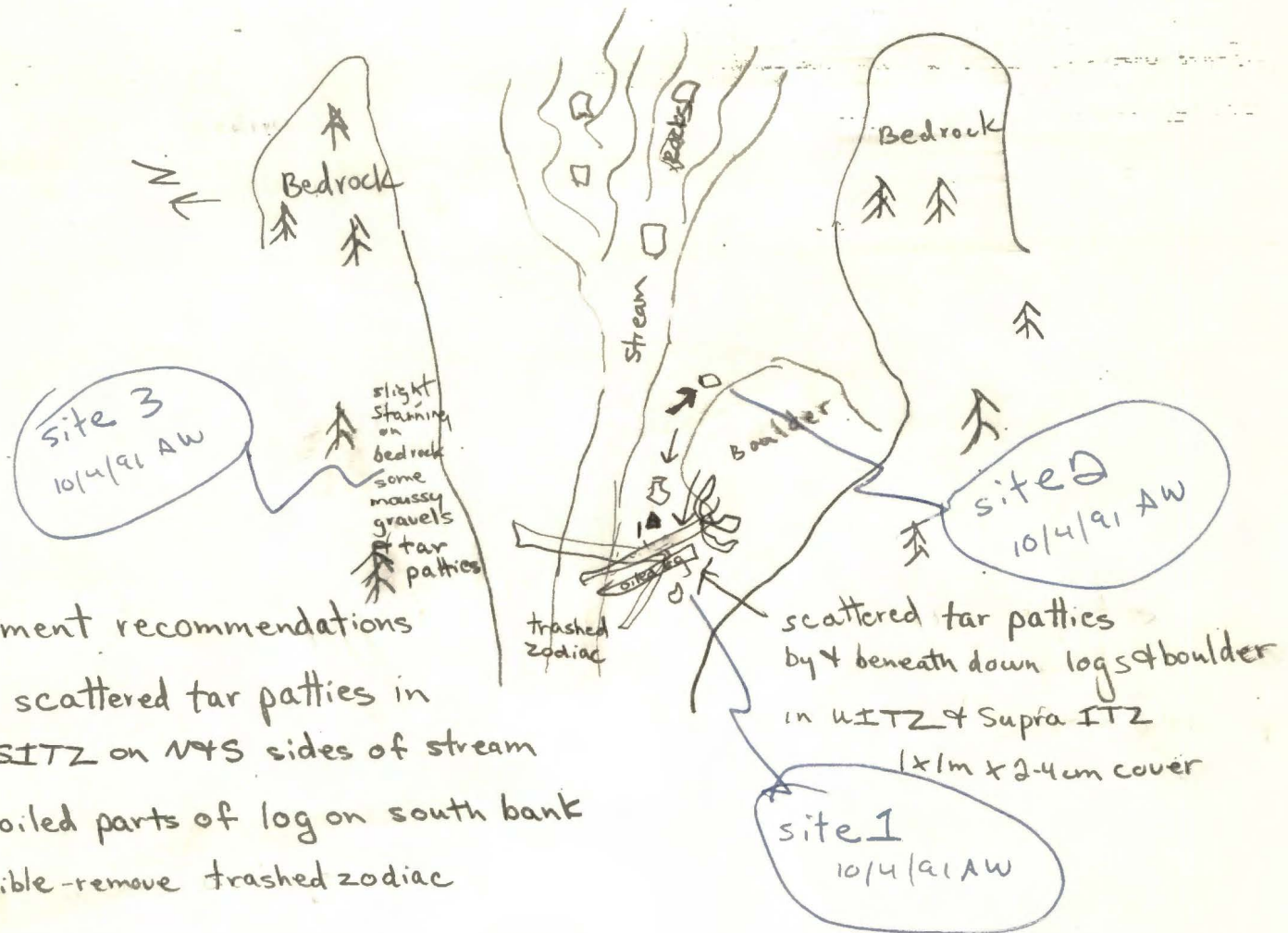
CU 014
224-20-13034

FRAME(S)

DESCRIPTION

pit 1 - 24cm no noticeable oil

46 OIL DISTRIBUTION DIAGRAM



OG CAL LARSON

SEGMENT ST/CO 014 N

STREAM 22A-204303A

DATE 4 125 90

CHECKLIST

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

LEGEND

1 Δ
Pit - No Subsurface Oil

2 Δ
Pit - Subsurface Oil

$\boxed{\text{CT/C}}$
Continuous Distribution

$\boxed{\text{CT/B}}$
Broken Distribution

$\boxed{\text{CT/P}}$
Patchy Distribution

$\boxed{\text{CT/S}}$
Splashed Distribution

eee
Oiled Vegetation

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

SKETCH MAP
LITZ

MITZ

UITZ

SUP

DEAD

STAND LOG

RAFT DE

POCKET COVE

25

site 1
Aw
10/4/91

site 2
Aw
10/4/91

site 3
Aw
10/4/91

5/8
10x4

35 ft

Oil Character Length (m): AP PO CV CT ST 10 MS PT .5 TB .5 FL NO

REVISION: 03/24/90

ACE 7236970

FIELD SHORELINE COMMENT SHEET

SEGMENT ST 1 CU-014 SUBDIVISION: ^{ASC#} 224-20-13054 ¹³⁰³⁴ ^{KRU} DATE 25 APR 90

USCG

NAME Kerwin L. Dreher SIGNATURE CWO K. L. Dreher

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

~~ADEC~~ → ~~ADFG~~

NAME RICK Gustin SIGNATURE Richard S Gustin

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

Remove scattered far patties in the upper+supra ITZ
on north and south sides of stream
Remove oiled parts of log on south bank
If possible remove trashed zodiac:

~~LAND MANAGER~~ → NONE

NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

ACE 7236971

OPERATIONS FIELD NOTES

See Back for Instructions

SEGMENT ID CU-014
 STREAM ID # 224-20-13034 N
 ANNOTATED MAP INCLUDED ☒ N

DATE 4-25-90
 NAME DARIN YOE
 TEAM # 14

SURFACE OIL	Quantities in Meters			Treatment Recommendation						
	Length	Width	Area	None	Bioremediation		Tilling		Spot Hot Water	
					Y/N	% Treat	Y/N	% Treat	Y/N	% Treat
Wide Band	< 100 Below									
Medium Band										
Narrow Band										
Very Light										
TOTAL MANDAYS										

SUBSURFACE OIL

Other (Describe)?	<u>NO SUBSURFACE OIL FOUND</u>

TARMATS	Quantities in Meters			Treatment Rec			# of Bags	Mandays Required	
	Length	Width	Thick(cm)	None	Breakup	Remove		Breakup	Remove
Area #1	<u>NONE</u>								
Area #2									
Area #3									
Area #4									
Sporadic Mats									

MANUAL PICKUP	Type of Debris			In Meters		# of Bags	Pickup	Manday
	Mousse Pots Fertilizer	Oiled Veget	Cleanup Debris	Length	Width		Y/N	Estimate
"Pocket" #1	☒			<u>2</u>	<u>2</u>	<u>3</u>	<u>Y</u>	<u>1</u>
"Pocket" #2	☒	☒		<u>5</u>	<u>1</u>	<u>2</u>	<u>Y</u>	<u>1</u>
"Pocket" #3	☒		<u>?</u> (ZODIAC)			<u>2</u>	<u>Y</u>	<u>1</u>
Random/Continuous								

OILED LOGS ☒ N	OILING ☒ M/L	QUANTITY L/M ☒ S	BURN ☒ N
--	--	--	--

Is there Other Debris on the Beach? ☒ N How Many Bags? 2 Is it mingled with the Oiled Debris ☒ N

GENERAL

Snow covering 0 % of the Supratidal Zone?
 Wave Exposure H/M/L Access Limitations: NARROW CORRIE / BOULDER BEACH
 Snare Boom/Pom Poms Recommended? NO
 Would the production Craft have to be relocated to complete work on this subdivision? ☒ N # of Times

COMMENTS:

ALL WORK SHOULD BE PLANNED FOR PERIOD 5-15 - 7-10
CONTACT ADE 96 BEFORE STARTING WORK

Seg ID: CU-014

Subdiv: 224-20-13034

Survey Date: 4/25/90

Comments by: Ken Critchlow

Very little oil was observed in the vicinity of the stream at this site. Scattered tarballs and patties were present in the upper MITZ and lower STZ on the south side, some distance from the stream. A log in this vicinity was stained sporadically. Stain was also observed on boulders and bedrock at the same elevation on the opposite side of the stream. An uncoiled Avon raft/boat was stranded as debris in the STZ channel.

I suggest that the tarballs and patties be removed by a small crew using shovels and trowels. This should be sufficient since a pit in this location didn't indicate the presence of subsurface oil. The oil stained log could be scraped and shouldn't be removed. Bio-remediation isn't required.

KR Critchlow

OG CAL LARSON USCG DREHER, CWE SEGMENT ST/ C0014 N
 BIO KEN CRITCHLO LAND REP STREAM 22A-20-130341 OF 1
 EXXON DARRELL YOE ADFG ELIK GUSTIN-AIMEE WESEMAN TIME 10:00 to 10:25
 TEAM NO. 14 TIDE LEVEL -0-FT DATE 4 125 190
 EST. SUBDIVISION LENGTH: 25 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo
 SURFACE SEDIMENTS: R 20 % B 40 % C 30 % P 5 % G 5 % S % M % V %
 SLOPE: Lang 40 % Hang 60 % Vert % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W m M m N m VL 5 m NO 20 m

SURFACE OIL

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

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

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs	✓		
Vegetation			
Trash			
Debris			

Did you COLLECT
 DEBRIS
☐ YES ☒ NO

TYPE #BAGS

Photographs:

Roll No. 8Frames 11-17

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-DM)	BELOW		OIL / FILM COLOR						PIT ZONE				A N A	SHEEN (Y/N)	⚠	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	SR BR	DR RW	GY SL	DR TL	LR	SU	UI	MR	U					
1	24					✓	•										✓			N		CR, RBGZ / SP, GZ	
							•																
							•																
							•																
							•																
							•																

COMMENTS VERY LITTLE OIL FOUND ON THIS BEACH -

REVIEWED DATE

ACE 7236974

GENERAL DATA

SEG ID: CU-014 SUBDIV: 224-20
13034 TEAM: 14 SURVEY DATE: 4/25/90
PAVEMENT: CHAR — AREA — THICKNESS — TARBALLS X
OILED: LGS SM VEG — TRH — DBR — WAVE EXP: LW — MD — HG X
FAX RCVD: — DT: — AGENCY DISAGREE: —
EST SUBDIV LGTH: 25 OIL CATEGORY: W — M — N — VL 5 NO 20 U —

SURFACE DATA

SURFACE SEDIMENT: BRK 20 BLD 40 COB 30 PEB 5 GRN 5 SAN — MUD — VEG —

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

CHAR #: 2 OIL CHAR: TB OIL DIST: CONT — BRKN — PTCH — SPLH X
OIL CLR: DBL FILM CLR: RW TIDAL ZONE: SU — UI — MI — LI X

CHAR #: 3 OIL CHAR: ST OIL DIST: CONT — BRKN — PTCH — SPLH X
OIL CLR: DBL FILM CLR: RW TIDAL ZONE: SU X UI — MI — LI —

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

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

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

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

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

ANAD
SSAT DATA ENTRY FORM

SUBSURFACE DATA

PAGE 2 OF 2

SEGMENT ID: CU-014 SUBDIV: 224-20
13034

PIT # 1 PIT DEPTH 24 OIL CHARACTER NO OIL INTVAL: FROM — TO —
QUANT: — OIL CLR: — FLM CLR: — ZONE: SU — UI — MI — LI X
SUBSURF SEDIMENT: BRK — BLD — COB — PEB — GRN X SAN X MUD — VEG —

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

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

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

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

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

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

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

PROBLEMS: _____

4.2.5.11
Sub Ace
1199710

STREAM TREATMENT REPORT
Alaska Department of Fish and Game
Tom Crowe

June 22, 1990

ASC # 255-10-13034

Segment CU014

Observations

This stream mouth is in a very small pocket beach that is moderately exposed. Oiling occurs as fresh oozing viscous tar flops on both sides of the stream channel. Manual removal of these tar blobs is the only practical way of treating this site. Work crews should be able to clean this area quickly.

June 21, 1990

1700 Randy Boyer (EXXON), Bob McCready (DEC), Rick Gustin and I arrived at this site with the work crews. The crews began shoveling up the tar patties. This oiling did not penetrate and was easily removed down to clean sediment. Bioremediation was not necessary.

1/2 supersack of oiled sediments were removed.

ACE 1967897



OFFICIAL PHOTOGRAPH

ADEC

OFFICIAL PHOTOGRAPH ADF&G EXXON VALDEZ OIL SPILL

OFFICE: VALDEZ

DATE: 09/09/89

TIME: -0-

224-20-13034
SEGMENT#:

-0-

04014

STATION#: -0-

LOCATION: EAST COAST CULROSS ISLAND

REASON FOR TAKING PHOTO: AERIAL VIEW - DOCUMENTING UNDOCUMENTED
SALMON SPAWNING HABITAT. (148°05'42"/60°41'54")

TAKEN BY: RICK GUSTIN

INITIALS: _____

ROLL #: 89RLG006V FRAME #: 06

EVIDENCE ID#: 10209

Roll #:

Frame #:

ACE 7236925

Final Anadromous Stream Treatment Information

Segment ID - Stream ID	NTR	Bio	Bio Start	Bio End	Man	Man Start	Man End
BA002 226-40-16450	X						
BA002 226-40-16451		X	6/22/90	6/23/90	X	6/22/90	6/23/90
BP004 226-20-16388					X	7/1/90	7/2/90
BP004 226-20-16392					X	7/2/90	7/3/90
BP004 226-20-16395					X	7/3/90	7/4/90
BP004 226-20-16397		X	7/7/90	8/27/90	X	7/4/90	7/7/90
CB003 242-20-10190					X	6/14/90	6/14/90
CH001 226-20-16280					X	6/16/90	6/16/90
CH002 226-20-16180		X	7/3/90	9/12/90	X	6/16/90	6/16/90
CH009 226-20-16182		X	7/4/90	9/12/90	X	7/4/90	7/4/90
CH014 226-20-16255					X	6/20/90	6/20/90
CH016 226-20-16258	X						
CH0900 226-20-16200					X	7/3/90	7/3/90
CU001 224-20-12995					X	5/18/90	5/23/90
CU007 224-20-13010	X						
CU013 224-20-13030					X	6/3/90	6/3/90
CU014 224-20-13034					X	6/21/90	6/21/90
CU014 224-20-13036					X	6/21/90	6/21/90
EI001 242-10-10270					X	7/1/90	7/1/90
EL015 226-10-16906					X	6/30/90	6/30/90
EL052 226-10-16902		X	6/28/90	9/4/90			
ER005 226-50-16432					X	6/21/90	6/21/90
ER006 226-50-16430					X	6/20/90	6/20/90
ER007 226-50-16428					X	6/20/90	6/20/90
ER019 226-50-16406	X						
EV003 226-40-16590					X	6/10/90	6/10/90
EV007 226-40-16559	X						
EV012 EV012-UNCAT		X	6/22/90	6/23/90	X	6/22/90	6/23/90
EV014 226-40-16640					X	6/23/90	6/23/90
EV017 226-40-16620					X	6/19/90	6/19/90
EV017 226-40-16630					X	6/19/90	6/19/90
EV025 226-40-16613		X	7/1/90	7/1/90	X	6/9/90	6/9/90
EV027 226-40-16610					X	7/8/90	7/8/90
EV070 226-40-16509		X	6/12/90	9/1/90	X	6/12/90	6/12/90
EV071 226-40-16484		X	7/5/90	9/1/90	X	6/21/90	6/21/90
FL002 226-40-16390	X						
FL005 226-40-16400	X						
GR007 GR007-UNCAT					X	6/27/90	6/27/90
GR013 227-20-17890	X						
GR103 227-20-17880					X	6/24/90	6/26/90
IN031 226-10-16916					X	7/5/90	7/5/90
K0101-SI008 251-81-10010	X						
K0101-SI014 251-82-10090					X	7/3/90	7/3/90
K0112-SS009 251-50-10045					X	7/2/90	7/2/90
K0201-SI013 251-81-812	X						
K0302-IB005 252-31-10020					X	6/5/90	6/5/90
K0911-CD018 262-10-10100					X	7/5/90	7/7/90
K0911-CD020 262-10-10040					X	7/3/90	7/8/90
K0911-CD020 262-10-10070	X						

ADEC EXXON VALDEZ POST-TREATMENT SURVEY REPORT

SEGMENT#: CU014
LOCATION: E CULROSS ISLAND

DATE: 09/14/89
TIME: 10:40

Survey Type: Boat, Ground
Team: C. Robinson, M. Ebel, D. Zobrist

WEATHER AND SEA CONDITIONS

Weather: Cloudy, Rain Wind Direction: NE
Sea State: Calm Knots: 0-15

Low Tide: 7:16 Feet: -1. High Tide: 13:35 Feet: 12.2
Low Tide: 19:29 Feet: 0.48 High Tide: 0:50 Feet: 13.

SHORELINE DESCRIPTION

Shoretypes: H,LR,B
(H=headland, LR=low-lying rock, B=beach, C=cove, L=lagoon, M=marsh)

Wave Exposure: H,M (H=high, M=moderate, L=low)
Shoreline Composition: R,B,C
(R=bedrock, B=boulder, C=cobble, G=gravel, S=sand, M=silt)

OIL CHARACTERISTICS

Degree of Oiling: N,VL,L,M
(N=none, VL=very light, L=Light, M=moderate, H=heavy)
Area of Impact: H
(S=supratidal, H=high intertidal, M=mid tidal, L=low intertidal)

Max. Oil Thickness: 1 mm (1 = 1 mm or less, 0 = no oil)
Max. Oil Penetration: 30 cm (35 = 35 cm or greater)

Percent Segment Categorized as Oiled: 50%
Presence of Oiled Driftwood (y/n): y
Oil Types: M
(P=pooled, M=mousse, SY=sticky, T=tar, A=asphalt, ST=stain)
Samples: none / none / none / none

DAMAGED OR OILED ORGANISMS

Fucus (y/n): n Barnacles (y/n): n Mussels (y/n): n
Dead Mammals: 0 Dead Birds: 1

SOLID WASTE FOUND

Type: Boom
Bags Collected: 0

Draft

Printed: 12/12/89 11:06

Walk-a-thon

ACE 7236927+/AC

. STREAM TREATMENT REPORT
Alaska Department of Fish and Game
Tom Crowe

June 22, 1990

ASC # 255-10-13034

Segment CU014

Observations

This stream mouth is in a very small pocket beach that is moderately exposed. Oiling occurs as fresh oozing viscous tar flops on both sides of the stream channel. Manual removal of these tar blobs is the only practical way of treating this site. Work crews should be able to clean this area quickly.

June 21, 1990

1700 Randy Boyer (EXXON), Bob McCready (DEC), Rick Gustin and I arrived at this site with the work crews. The crews began shoveling up the tar patties. This oiling did not penetrate and was easily removed down to clean sediment. Bioremediation was not necessary.

1/2 supersack of oiled sediments were removed.

ACE 7236928

ADEC BIOREMEDIATION DAILY REPORT

DATE: 8/28/90

ADEC Monitor: Rowann Hudnall

TIDES: TIME: HEIGHT:
 Low - -
 High 05:58 10.6
 Low 12:13 0.2
 High 19:01 11.3

WEATHER: Cloudy Rain Fog
 TEMP: 60°F SEA COND: chop
 WIND DIR: N-NE-E-SE-S-SW-W-NW
 WIND SPEED 0-15 16-30 30+

(Sun)

USCG Dan Percy

Exxon Frank Bay

OOPS James Byars

Other _____

OGS Dan Mann, John Wardrop

Segment	Sub	No. Sites	Inipol (gal)	Custom (lbs.)	Comments
---------	-----	-----------	--------------	---------------	----------

MA02	A	4	0	60	
------	---	---	---	----	--

AE05	B	5	9	12	
------	---	---	---	----	--

Cu 14	A	5	23	11	
-------	---	---	----	----	--

Cu 17	A	6	0	6	
-------	---	---	---	---	--

DEMOS
BINDER

\shorelin\rowann\biorept 8/7/90

ADEC DEMOBILIZATION REPORT
FOR INIPOL AND CUSTOMBLEN TREATMENT

To: Alaska Department of Environmental Conservation
Oil Spill Response Center
Anchorage, Alaska

Attn: John Bauer
FAX 265-4666

From: _____ (please print)
RE: SEGMENT NUMBER CW14 SUBSEGMENT NUMBER A

ADEC REP Rowann Hudnall USCG REP Dan Pearcy

EXXON REP Frank Box BOAT NAME/SQUAD NUMBER Don Bollinger
Squad 3

Site #	Length (along shore m)	Area m ²	Inipol (gallons)	Customblen (lbs.)
--------	---------------------------	------------------------	---------------------	----------------------

see Daily report + OG report for details.

Has work been completed as stated on the work order? If your answer is no please explain in detail how the work performed was different from the work order language.

Yes. bio reapplication. Tarmats in UITZ removed prior to bio

Describe the amount of oil remaining (type, size of area and location). SOR in between cobbles +

boulders 5 x 30 m^{band} broken distribution
UITZ.

Additional Comments (keep objective)

area should be checked for reforming
tarmats

signature Rowann T. Hudnall

Date and time of demobilization from segment. 8/28/90

Shoremon\Demob.bio 55/30/90

To: Alaska Department of Environment Conservation
Oil Spill Response Center
Anchorage, Alaska

Attn: John Bauer
FAX 265-4666

From: Steven Blank (please print)

RE: SEGMENT NUMBER C4-14 SUBSEGMENT NUMBER A

ADEC REP Steven Blank USCG REP Mike Zenone

EXXON REP Al Snook BOAT NAME/SQUAD NUMBER Don Bollinger

Site #	Length (along shore ft)	Area sq. ft.	Ini pol (gallons)	Custom blen (lbs.)
1	30	150	12	6
2	20	80	6	3
3	40	240	19	10
4	50	75	6	3

Has work been completed as stated on the work order? If your answer is no please explain in detail how the work performed was different from the work order language.

Yes, work has been completed as stated on the work order to the best of my knowledge.

Describe the amount of oil remaining (type, size of area and location).

The oiling was in a Cont form in the UETZ

Additional Comments (keep objective)

This segment did not appear on my copy of the Squad report.

Signature Steve Blank

Date and time of demobilization from segment 8-2-90

Shoremon/Demob. LSO 55/30/90

ADEC DEMOBILIZATION REPORT
FOR PHYSICAL/MECHANICAL TREATMENT AND CUSTOMER

To: Alaska Department of Environmental Conservation
Oil Spill Response Center
Anchorage, Alaska

Attn: John Bauer
FAX 265-4666, 265-4656

RE: SEGMENT NUMBER CW-14 SUBSEGMENT NUMBER A

DEC REP Bob McCready USCG REP Henry Raymond

EXXON REP Randy Boyer BOAT NAME/SQUAD NUMBER Built #6

Has work been completed as stated on the work order? If your answer is no please explain in detail how the work performed was different from the work order language.

yes

Is there additional oil remaining which can be removed with further physical/mechanical treatment? If yes what is the recommended treatment method.

No

Describe the amount of oil remaining (type, size of area and location).

Additional Comments (keep objective)

signature Robert G. McCready

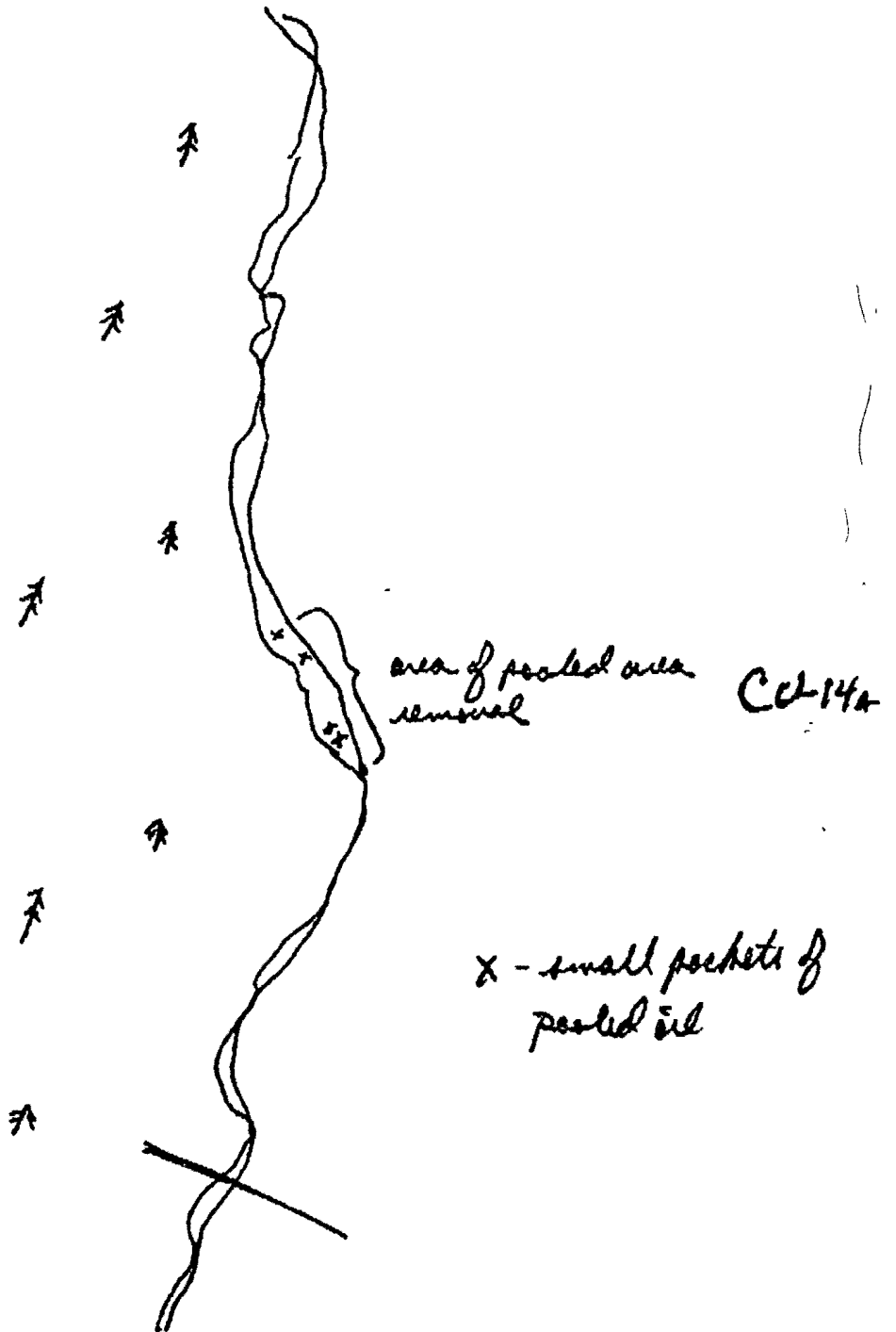
Date and time of demobilization from segment 6/22/90 1530

Shoremon\55 5-12-90

ACE 7236933

Bob McReady
6/22/90

Demo. Map
CV-14a



Robert B. McReady

ACE 7236934

**ADEC DEMOBILIZATION REPORT
FOR PHYSICAL/MECHANICAL TREATMENT AND CUSTOMBLEND**

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

RE: SEGMENT NUMBER CU-14 SUBSEGMENT NUMBER 224-20-13054

DEC REP Bob McCreary USCG REP Larry Raymond

EXXON REP Randy Beyer BOAT NAME/SQUAD NUMBER Beulah #6

Has work been completed as stated on the work order? If your answer is no please explain in detail how the work performed was different from the work order language.

yes

Is there additional oil remaining which can be removed with further physical/mechanical treatment? If yes what is the recommended treatment method.

*No. Bioremediation was not recommended ~~by~~ on work order but
Customblend was applied to areas of tar/mat/mousse partly removed.
Tom Cruise ADF-6 and Rick Easter ADF-6 were present and provided
Customblend application.*

Describe the amount of oil remaining (type, size of area and location).

Additional Comments (keep objective)

signature Robert B. McCreary
Date and time of demobilization from segment 6/21/90-1820
Shoremon\55 5-12-90

ADEC DEMOBILIZATION REPORT
FOR PHYSICAL/MECHANICAL TREATMENT AND CUSTOMBLEND

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

RE: SEGMENT NUMBER CN-14

SUBSEGMENT NUMBER 1 (224-20-13036)

DEC REP Bob McCready

USCG REP Larry Raymond

EXXON REP Randy Boyer

BOAT NAME/SQUAD NUMBER Bendish - #1

Has work been completed as stated on the work order? If your answer is no please explain in detail how the work performed was different from the work order language.

yes

Is there additional oil remaining which can be removed with further physical/mechanical treatment? If yes what is the recommended treatment method.

No. Bioremediation was not recommended on work order but Customblend was applied to areas of tar mat and tar patches that were manually removed. Tom Cruise and Rick Buster ADFG were present and were surprised to see Customblend used on this segment.

Describe the amount of oil remaining (type, size of area and location).

Additional Comments (keep objective)

signature Robert B. McCready

Date and time of demobilization from segment 6/21/90 1645

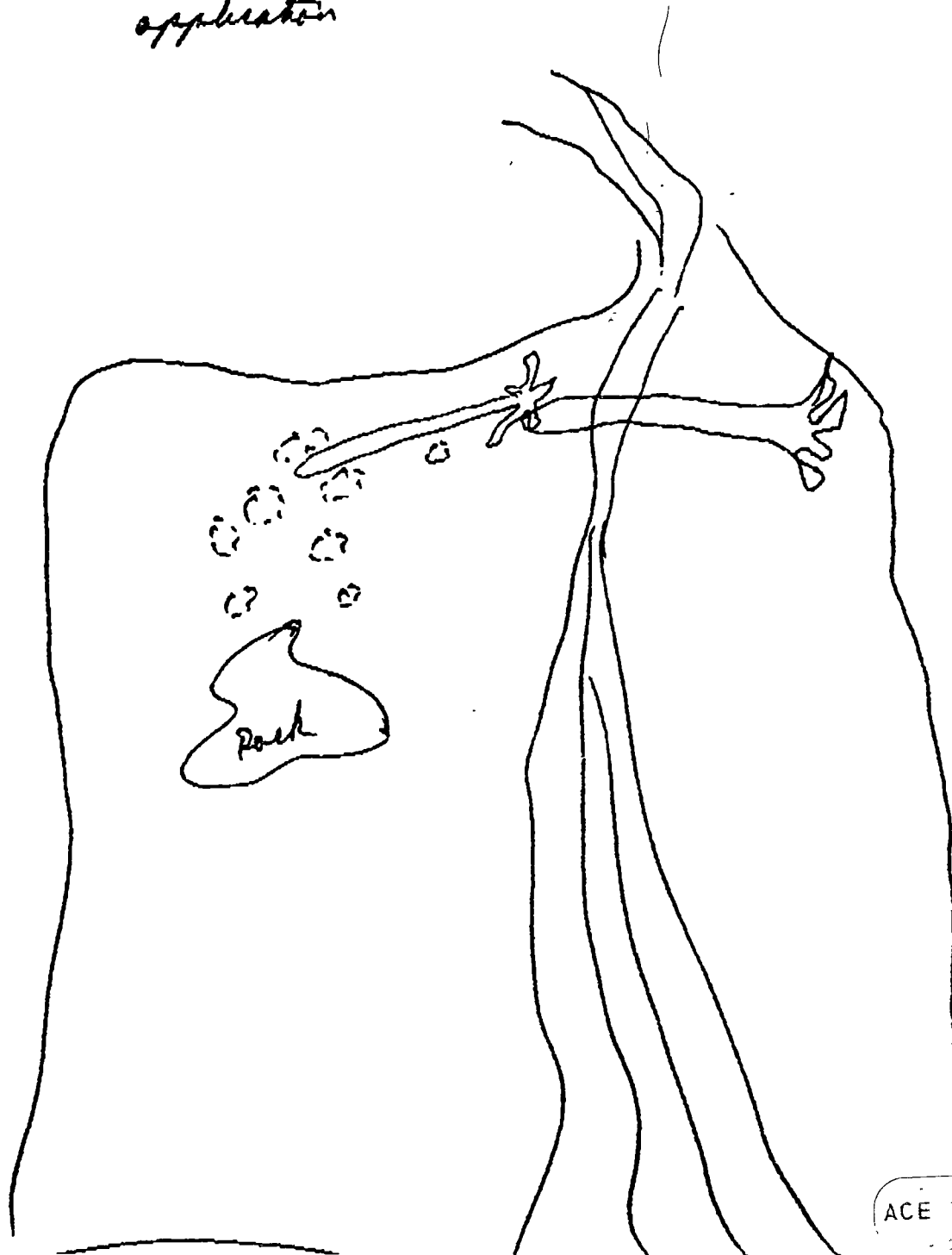
Shoremon\55 5-12-90

ACE 7236937

Bob McCreedy
6/21/90

Demo. Maps
CU-14A 224-20-13036

Areas of tarant and mouse paths
removed and custombined
application



Robert M. Creedy

STREAM TREATMENT REPORT
Alaska Department of Fish and Game
Tom Crowe

June 22, 1990

ASC # 255-10-13034

Segment CU014

Observations

This stream mouth is in a very small pocket beach that is moderately exposed. Oiling occurs as fresh oozing viscous tar flops on both sides of the stream channel. Manual removal of these tar blobs is the only practical way of treating this site. Work crews should be able to clean this area quickly.

June 21, 1990

1700 Randy Boyer (EXXON), Bob McCready (DEC), Rick Gustin and I arrived at this site with the work crews. The crews began shoveling up the tar patties. This oiling did not penetrate and was easily removed down to clean sediment. Bioremediation was not necessary.

1/2 supersack of oiled sediments were removed.

ASAP survey 90

SEGMENT AS / Cu-14 SUBDIVISION: A SITE: 1 DATE 8-22-90

SCG NOAA REPRESENTS USCG & USFS

NAME DONALD W. CLINE SIGNATURE [Signature]

☒ YES ☐ NO PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

Manually remove AP (sporadic). Apply bio to stain, BOR
and CV. Reassess in '91.

ADEC

NAME Bob McCreedy SIGNATURE [Signature]

☒ YES ☐ NO PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

P/AP remains with associated submergible aid. The
area appears to have been mechanically but not manually
worked. Recommend manual removal of remaining AP and
submergible aid. Reassess in '91.

LAND MANAGER

NAME _____ SIGNATURE _____

☐ YES ☐ NO PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

EXXON

NAME Al Snook SIGNATURE [Signature]

☒ YES ☐ NO PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

CONTINUE BIO TREATMENTS THRU THIS SUMMER. RAKE OILED
AREAS PRIOR TO BIO. REASSESS IN 1991. BEACHES FACE EAST,
NORTHEAST & NORTH & ALL ARE MEDIUM TO HIGH ENERGY.

SEGMENT AS CU-14 SUBDIVISION: A SITE: 2 DATE 8-22-91

SCG NOAA REPRESENTS USCG & USFS

NAME DONALD W. CLINE SIGNATURE [Signature]
☒ YES ☐ NO PRIORITY SITE FOR REASSESSMENT IN 1991
 REASON:

Rake SOR and apply bio. Remove sporadic tar patties, +
 apply bio to 8x2m stain area. Reassess in '91.

 ADEC
 NAME Bob McCreedy SIGNATURE [Signature]
☒ YES ☐ NO PRIORITY SITE FOR REASSESSMENT IN 1991
 REASON:

Very small amounts of SOR remain. Oiling remaining
 does not warrant further '90 treatment. Reassess in '91.

LAND MANAGER

NAME _____ SIGNATURE _____

☐ YES ☐ NO PRIORITY SITE FOR REASSESSMENT IN 1991
 REASON:

EXXON

NAME Al Snook SIGNATURE [Signature]
☒ YES ☐ NO PRIORITY SITE FOR REASSESSMENT IN 1991
 REASON:

VERY FEW SMALL TAR PATTIES OBSERVED IN UPPER ITC ~~AREA~~
 NORTH ~~END~~ OF ^{ANAD STREAM} ~~A SUBDIVISION~~ - REMOVE THESE WHEN BIDDING
 NORTH END OF SUBDIVISION. CONTINUE BIO TREATMENTS ON
 NORTH END OF SUBDIVISION THRU SUMMER. REASSESS IN 1991.

22 **ASW**

22 **ASW**

22 **ASW**

PRIORITY SITE FOR REASSESSMENT IN 1991

PRIORITY SITE FOR REASSESSMENT IN 1991

PRIORITY SITE FOR REASSESSMENT IN 1991

ADEC

NAME Bo McCaskey SIGNATURE Bo McCaskey

PRIORITY SITE FOR REASSESSMENT IN 1991

PRIORITY SITE FOR REASSESSMENT IN 1991

PRIORITY SITE FOR REASSESSMENT IN 1991

LAND MANAGER

NAME _____ SIGNATURE _____

PRIORITY SITE FOR REASSESSMENT IN 1991

PRIORITY SITE FOR REASSESSMENT IN 1991

EXXON

NAME Al Snook SIGNATURE Al Snook

PRIORITY SITE FOR REASSESSMENT IN 1991

PRIORITY SITE FOR REASSESSMENT IN 1991

PRIORITY SITE FOR REASSESSMENT IN 1991

SITE 3 WAS DIFFICULT TO LOCATE WITH THE MAP BASE. THE IMPROVED AREA CONSISTED

SECTION 1/ U14A

SKETCH MAP

SUBDIVISION A SITE 1

DATE 8/2/90

CHECKLIST

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

LEGEND

△
PH - Subsurface Oil

▲
PH - Subsurface Oil

CT/C
Continuous Distribution

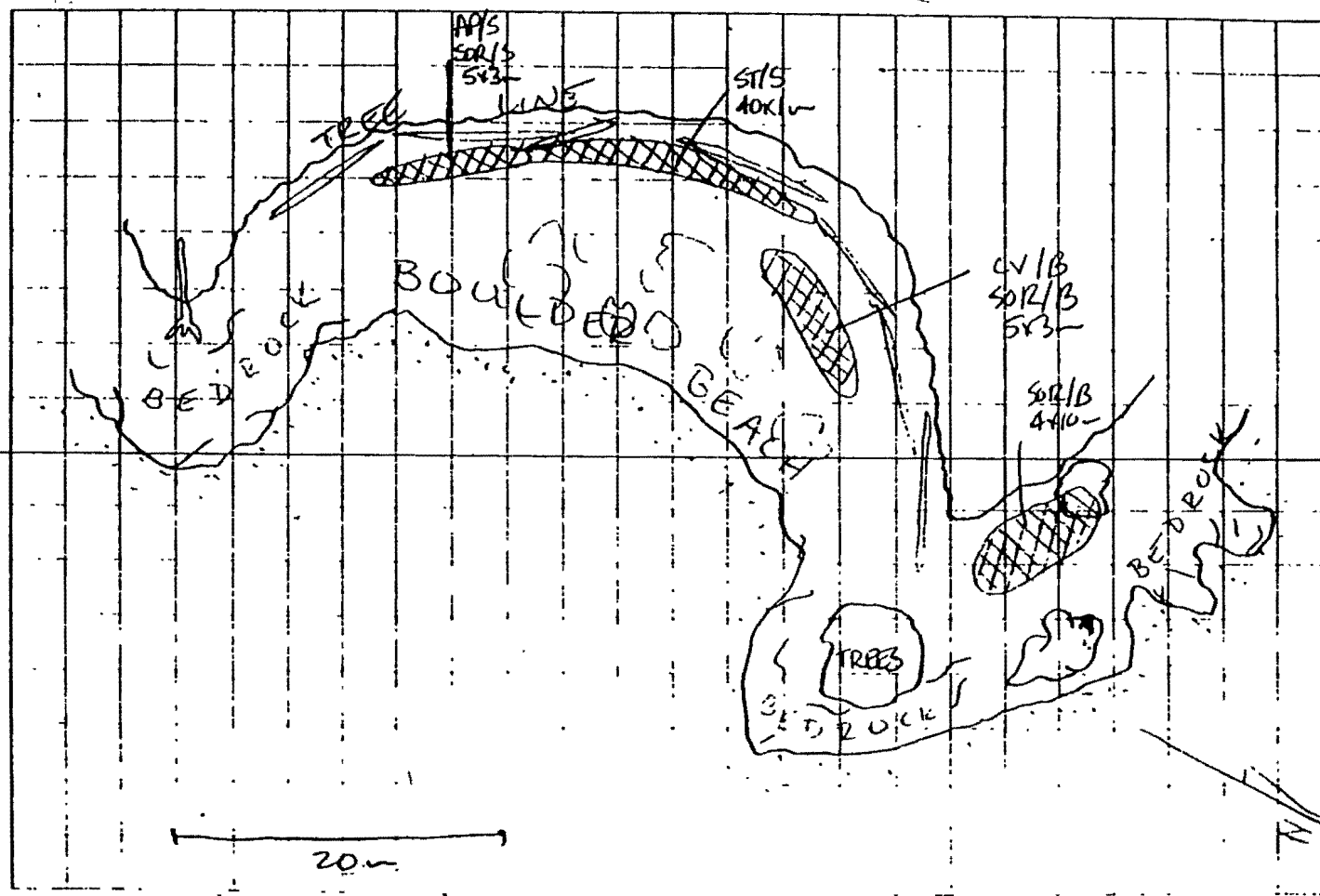
CT/B
Broken Distribution

[]
Patchy Distribution

[]
Splasher Distribution

[]
Other Vegetation

PROBABILITY direction,
and number



Oil Distribution Length (m) AP

PO

CV

CT

ST

MS

PT

TB

FI

NI

ACE 7236943

CL. E '90
REVISION 00/00

ST 101 ST 101A

SKETCH MAP

SUBDIVISION SITE 2

DATE 8/22/90

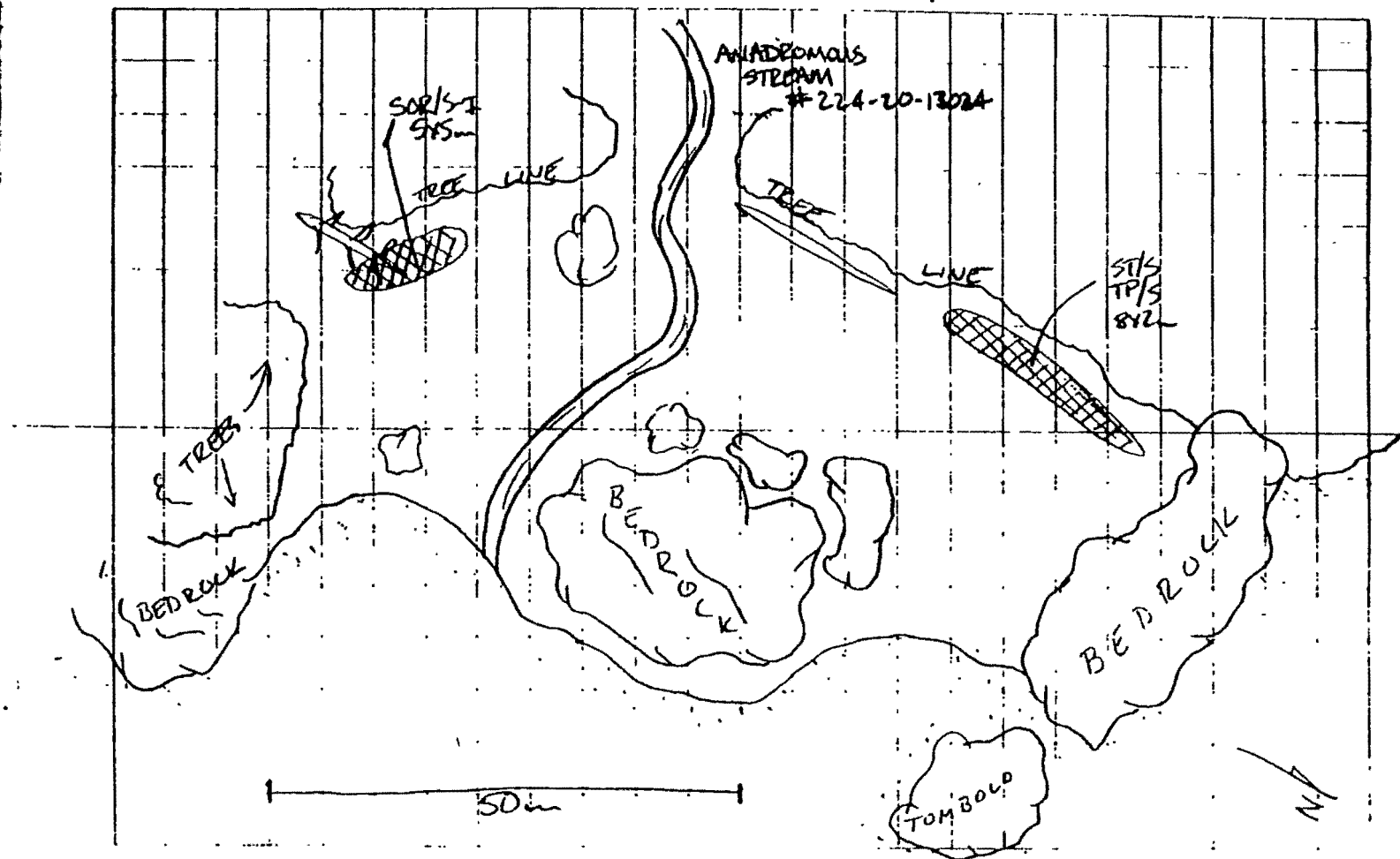
CHECKLIST

N Arrow
Approx. Scale
Seg/Sub Bndry
Oil Dist
Width
Length
% Cover
Substrate Character
(st HWL/LWL
SSI
Profile Location(s)
Profile(s)
PB Location(s)
Photo Location(s)

LEGEND

△
Photo Subsurface Oil
▲
Photo Subsurface Oil
[C/C]
Continuous Distribution
[C/B]
Broken Distribution
[]
Patchy Distribution
[]
Sparsely Distributed
[]
No Distribution

Photo quality, direction
and number



Oil ... length (m) AP

PO

CV

CT

ST

MS

PT

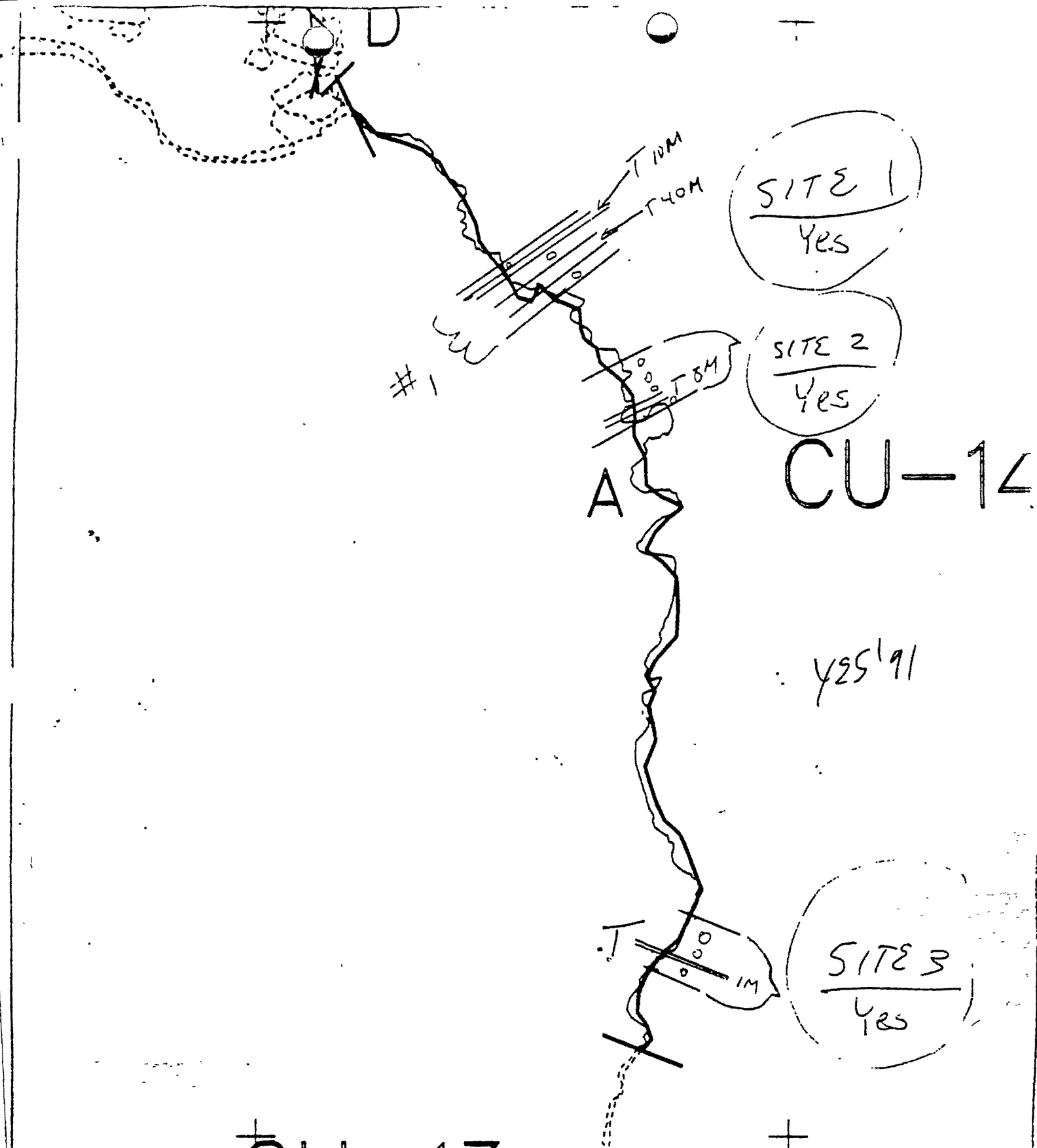
TR

FI

NO

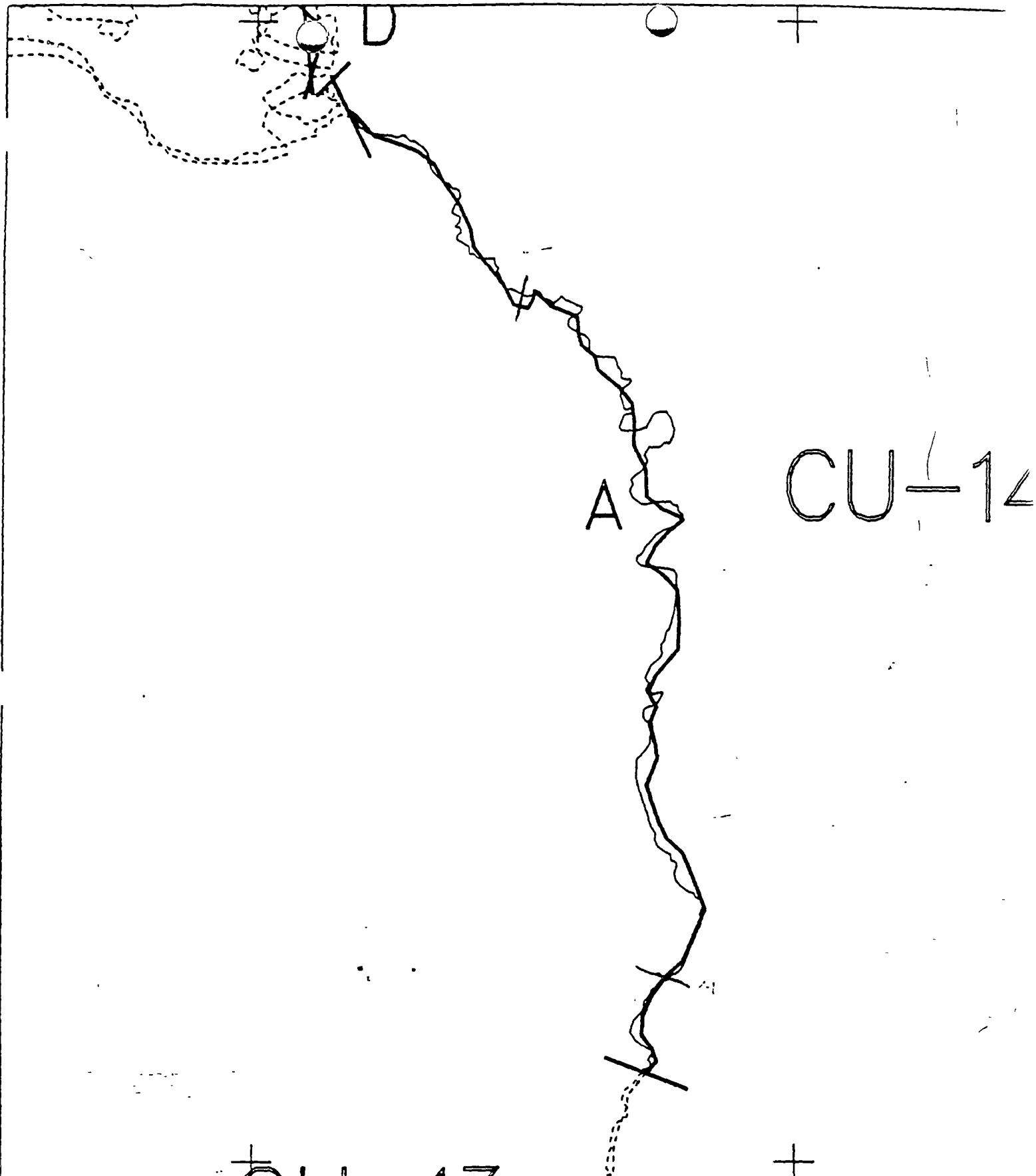
Cline 40
REVISION 10/2/90

ACE 7236944



XXXX	Wide	CU-14 A ADEC Subsegment Length: 2293m METERS 0 241 482 AK State Plane Zone 4 1:9480 pcu-14a	Subdivision Field Map
////	Medium		Map Key: PWSCU-14A
----	Narrow		Name: <u>NAKASNIMA</u>
TTTT	Very Light		Date: <u>8/22/92</u>
0000	No Oil		Date Entered:

ACE 7236945



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

CU-14 A

ADEC Subsegment Length: 2293m

METERS

0 241 482

AK State Plane Zone 4 1:9480
 pcu-14a



Subdivision Field Map

Map Key: PWSCU-14A

Name:

ACE 7236946

Date:

Data Entered:

A.S.A.P.

CU-14A
site 1

August 22, 1990

ADEC recommends the following treatment:

- 1) Manually remove all AP, MS, OP and OR subsurface oil.
- 2) Bioremediate all treatment areas and areas with residual oil.
- 3) Monitor segment and repeat steps 1 and 2 as needed.

ACE 7236947-1/S

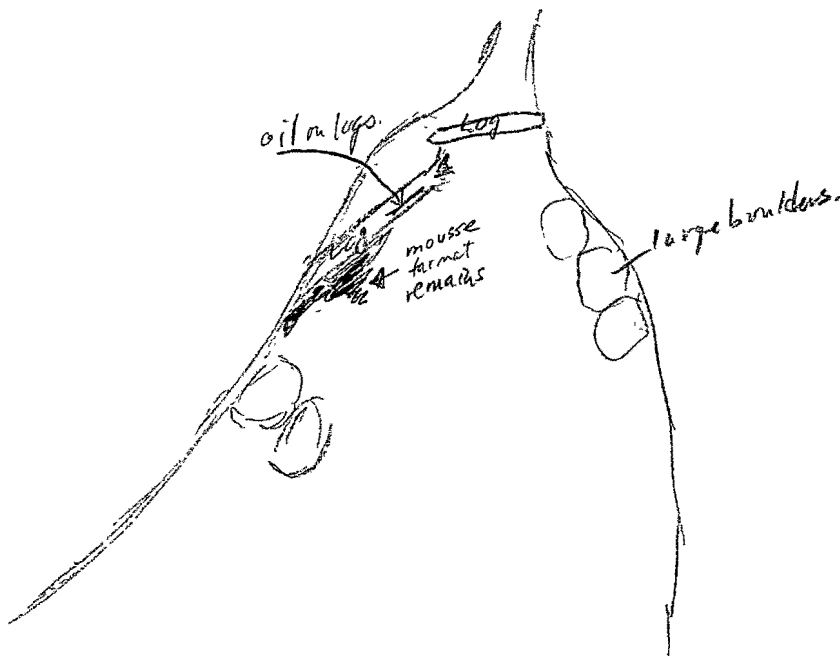
Pre-ASAP

ANADROMOUS FISH STREAMS/OILING CONDITION
PWS

Segment # CU 014 ASC# 224-20-13034 Location Culross 7s
Date 8-14-90 Recorder/Observer T. Lowe / R. Gustafson
Oil in streambed No Oil on streambanks Yes
Oil within 50m of mouth Yes Anadromous Fish present No

Description of oil and comments Oiling condition consists of patches of mousse and some small amounts of OR which were not picked up during the manual removal process. From rechecking this stream it doesn't seem necessary to do further manual removal this summer, nor does more bioremediation seem called for. Re-evaluate the site in the Spring of '91

Oil Distribution Diagram

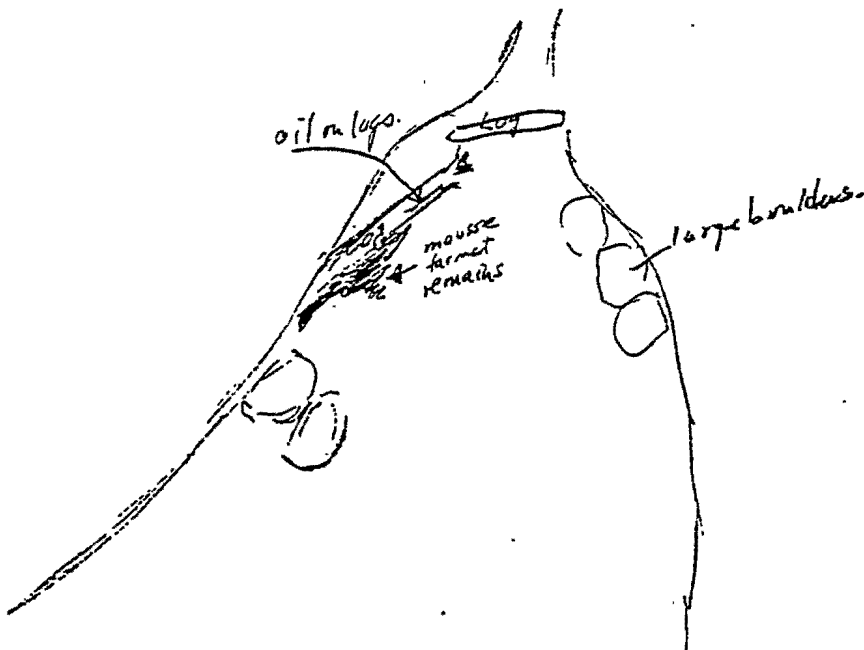


ANADROMOUS FISH STREAMS/OILING CONDITION
PWS

Segment # CU 014 ASC# 224-20-13034 Location Culross Is
Date 8-14-90 Recorder/Observer T. Crowe / R. Foster
Oil in streambed No Oil on streambanks Yes
Oil within 50m of mouth Yes Anadromous Fish present No

Description of oil and comments Oiling condition consists of
patches of mousse and some small amounts of OR which
were not picked up during the manual removal process.
From rechecking this stream it doesn't seem necessary to
do further manual removal this summer, not does more
bioremediation seem called for. Re-evaluate the site in
the Spring of '91

Oil Distribution Diagram



(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 8/16/89

SHORELINE SEGMENT CU-14

LOCATION: (see enclosed map) CULROSS ISLAND-EAST SIDE
(CULROSS ISLAND EAST BLOCK)

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 8/9/89

Recommended Cleanup Activity(ies):

- manual removal of oiled seaweed and debris from location #2 and #3.
- manual removal of patches of asphalt from location #4.

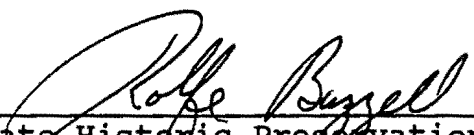
Priorities Considerations:

3-4 B

Ecological Constraints (from site survey):
Crews should avoid trampling mussel beds.

Archeological Constraints (from site survey):

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

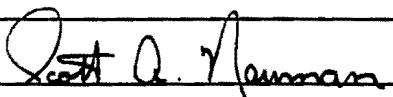


State Historic Preservation Officer *

Date: 8/18/89

ISCC: _____

Date: _____

EXXON: 

Date: 8/18/89

FOSC: _____

Date: _____

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

ACE 7236979 +15

The shore zone consists of rocky headlands with pocket boulder / cobble beaches. Beaches contain pebble storm berms in the supra intertidal zone.

There is a continuous light oil/tar band 0.5 meters wide located in the SUPRA intertidal zone through most of the rocky shore zone. There is generally light oiling with some moderate oiling on some of the pocket boulder cobble beaches (see map 1).

Given the exposure of this site, wave action can be expected to eventually remove any residual oil contamination especially along the exposed rocky headlands, therefore no cleanup activities ~~for lightly~~ are recommended at this time for lightly oiled areas.

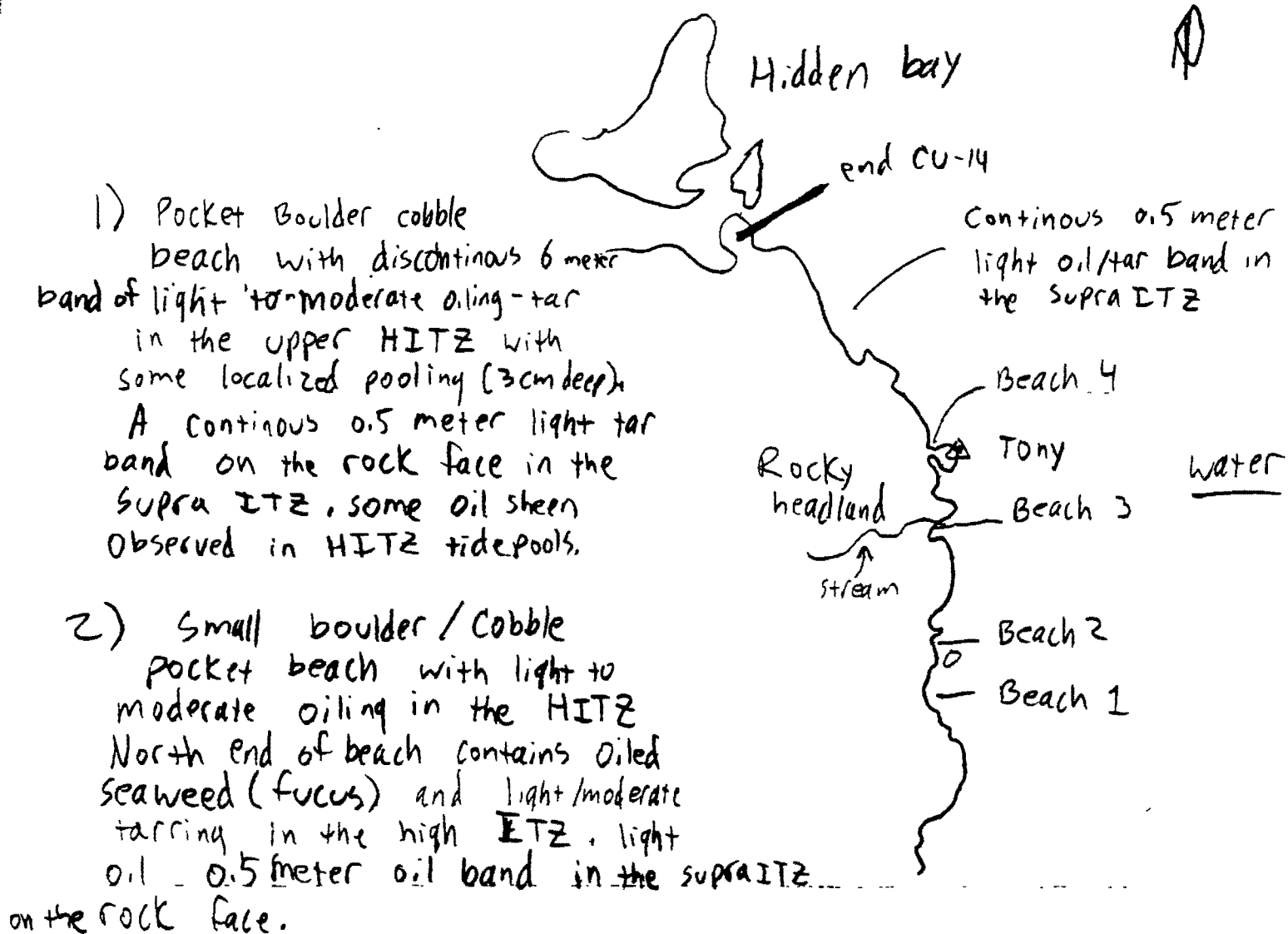
Oil in areas of moderately contaminated cobble and boulders in the area shown (map 1) should be removed. Moderate to high pressure hot water will likely be required to remove tar deposits with deluge flushing if appropriate. Moderately contaminated pebble storm berms (indicated on map 1) should be cleaned using approved methods as deemed appropriate. Contaminated drift logs and seaweed (fucus) should be manually removed. This volume of material is however, small.

Culross Is.
Team #4

CU-14
Mike Foget

6/6/89

map 1



CU 13 5/6

boulder cobble beach
with light oiling in 2 m band

CU 14 9:30

rock walls

B/C Pock beach disconuous

located 1.4 m - mod oiling in 2 m band
some pooling 2 m thickness 6 m or less

new 30 cm 1 m or band in 1 x 2 area

1-2 some o. spec. in 2 m 2 m points

AX+ beach 2 small B/C pock beach

mod oiling in 2 m N. End

ed focus N. end on boulders light/mod

ring in 2 m 2 m oiled focus

Rock Cur 2 1/2 m or 1 m al in

Pock beach 3 disconuous

light o. in 2 m band

oiled focus with a stream

Pock Beach 4 some gravel

Pock beach - some tar/pavement wall
+ 1 m 2 m N. end beach light/mod oiling

14 m band with a 4 m x 2 m section

moderate oiling with some pooling 3 m or

light oiling of gravel in storm berm + 1 m

small amount light oil dr. focus

Located in town Pt

Finished 12:05

Photo 11 N. end Cur facing

5) N. end Segment next to mouth

across Hidden Bay Rock boulder

w/ moderate oiling/tar some pooling

pooling 10 m band

ACE 7236982

ACE 7236983

ECOLOGICAL EVALUATION

Patty Crank (Bio)
Mike Foget (Co.)
Bob Belts (Arche)

LOCATION: Culross Island SITE: on East shore of Culross
South of Hidden Bay OBSERVER: Bob Belts (Arche)
LOCATION PREFIX: CU SEG. NO.: CU 14 LENGTH: 2400 (M)
DATE: 6/6/89 TIME (HHMM): 0930 TIDE HT.: 10W (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

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

Contin. population with moderate to dense concentrations

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

Frequent dense patches - noticeable on rocky headland south of beach 4

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

Dominant fauna species

Littorina

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

Contin. population with moderate to dense concentrations

Limpets: Patchy Y/N Contin. Y/N Moderate Dense Y/N Sparse Y/N None Y/N

Contin. population with moderate to dense concentrations

OTHER OBSERVATIONS: Seagulls nesting on beach 4

Contin. population with moderate to dense concentrations

CLEANUP PRECAUTIONS: Contin. population with moderate to dense concentrations

Contin. population with moderate to dense concentrations

MAMMALS: Otters — Harbor Seals — Sea Lions — Whales —
Other —

BIRDS: 2 Murrelets

GENERAL OBSERVATIONS: Beach 4 - high water mark

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

SECOAST CULROSS SOUTH OF

Date 6-6-89 Location CULROSS ISLAND Site HIDDEN BAY

Location Prefix CLL Segment # 14 Length 2400 M

Survey Method:

Air _____ (A - indicate on map) Boat X (95%) (A - indicate on map)

Ground X (5%) (G - indicate on map)

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

Oil conditions/beach visibility light oiling - discontinuous - good beach visibility

Width of beach zone surveyed 10-15 m Tree fringe surveyed 10 M

Cultural resources observed in beach zone (AHRS code) NONE

Cultural resources observed in tree fringe (AHRS code) NONE

General observations justifying survey method and segment's site probability:

Shore Profile 95% Vertical or high angle rock - 2 pocket beaches, cobbles and boulder beaches

Fresh Water Sources Beach #2 has a small creek - Several very small creeks along segment

Sea Exposure highly exposed coastline - coves offer little protection

Access/Safety Safe access by boat only in calm seas. Numerous rocks and shoals off shore

Probability of undiscovered sites in beach zone (circle one) (1) 2 3 4 5

Monitoring during cleanup needed yes (no) Collection yes (no)

Photos: Color Roll # NONE Frames _____

B/W Roll # NONE Frames _____

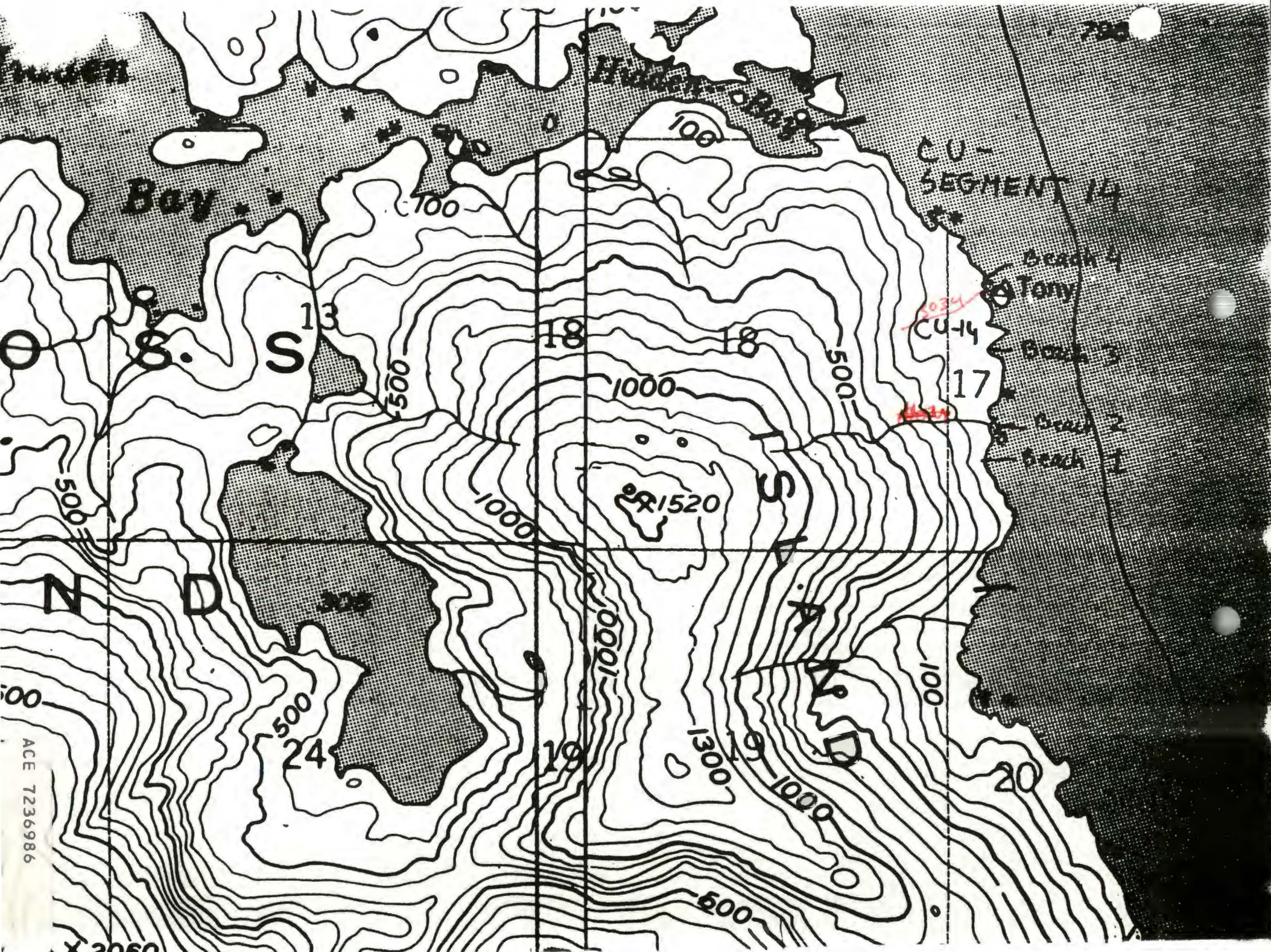
Observer(s) Bob Bette

Time survey started C939 Time survey ended 1027

Cultural resource considerations/restraints:

Standard Statement. No Archaeological resources

located.



CU-14

EXXON COMPANY, U.S.A.

POST OFFICE BOX 670 • VALDEZ, ALASKA 99686-0670

O R HARRISON
GENERAL MANAGER

July 6, 1989

Prince William Sound Salmon Harvest Task Force
P. O. Box 1351
Cordova, Alaska 99574

RE: CULROSS ISLAND OILING

ATTN: Floyd Hutchins (PWSSA)
James Brady (ADFG)

We have given careful consideration to your June 30 letter requesting that the lightly oiled shoreline areas between Culross Light and Hidden Bay be treated prior to the Esther Hatchery Pink Salmon run in late July.

We dispatched a team to resurvey the oiled areas in question and have attached their report which is self explanatory. Given the findings of this survey and the commitment of facilities and personnel to heavily oiled high priority areas defined by the Shoreline Committee, we don't believe that redeployment of resources to clean Culross Island at this time is appropriate.

Also, even though no loose oiled debris such as popweed was found, the popweed retrieval and a cleanup operation, operating out of West Twin Bay on Perry Island, is routinely patrolling Perry Passage to keep it clear of oily debris.

Sincerely,

KC Walker
for ORH

ORH/mm/522

cc: R. L. Mastracchio
W. L. Rainey
A. Teal
M. N. Silbert

June 30, 1989

Otto Harrison
General Manager
Exxon Company USA
P.O. Box 670
Valdez Ak. 99686-0670

Dear Otto,

The P.W.S.S.H.T.F. strongly recommends that Exxon immediately begin cleaning areas in the Perry Passage area that under our interpretation of zero tolerance do not meet the criteria for being clean. There are several small areas of light oiling between Culross Lt. and Hidden Bay that if cleaned would lessen the potential conflicts between gear types in the Esther Subdistrict. We feel that your immediate attention to this problem could justify some extension of the Purse Seine area and lessen these conflicts. We also feel that time is of the essence as these conflicts will arise during the forecast 10 million pink salmon return to the Esther Hatchery starting in late July.

Boyd J. Hatcher President P.W.S.S.A.
James A. Brady Area Biol. - A.D.F.G.
H. Dennis Hurl Gillnetter
R.M. Dyer P.W.S.S.A.
Malcolm Brown Trawl-Plus
Kathy Halgren
Ken Adams COFV
Jimmy McCune President Cordova Dist. Fishermen United
Stuart L. Lee Gillnetter

ACE 7236988

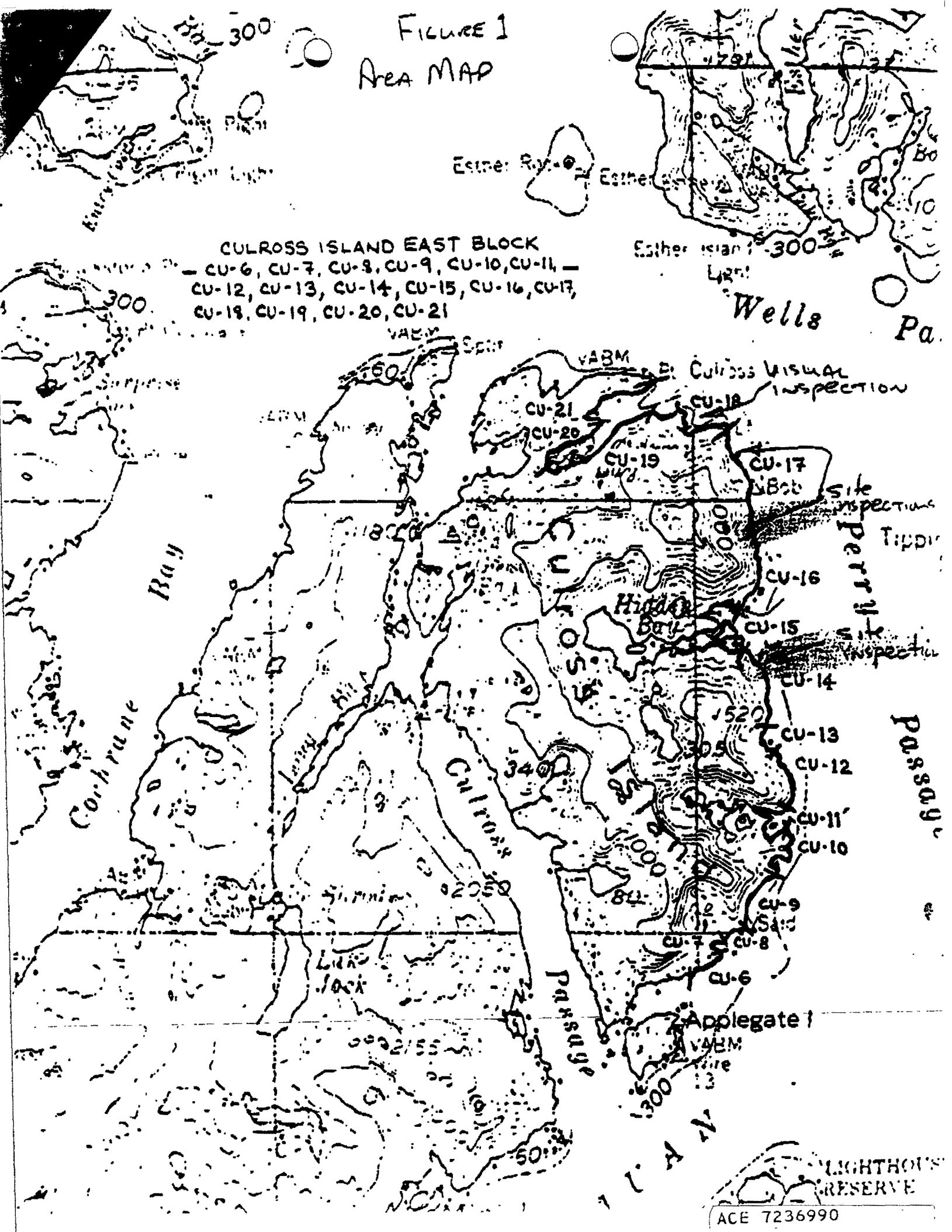
Survey of CU-14

The area was also lightly to moderately oiled and consisted of extremely rocky headlands with a pocket beach. There was evidence of prior oil contamination but no free oil was found. All the oil seen was extremely weathered and located above the supra tide line. Cleanup activities are not warranted for this area. Figure 3 notes the area surveyed.

General Observations

1. The Scat Team reports were generally accurate with the exception that the cleanup recommendations were not warranted.
2. There are no signs of any free oil on the water.
3. All the oil present on the shoreline is located at the supra tide line indicating that the oil was deposited during a spring high tide.
4. The oil was extremely weathered and generally located in crevices and underneath rocks. There were no indications of any subsurface oil. No oiled fucus was observed.
5. The oil observed is not mobile and should not pose any hazard to the fishery. It is also unlikely that any further impact on wildlife can be measured.
6. Due to the nature of these areas, cleanup would be difficult and pose numerous safety hazards. Additionally, passive cleanup would do little to remove any oil and warm water washing would contaminate areas below the supra tide line.

FIGURE 1
Area MAP

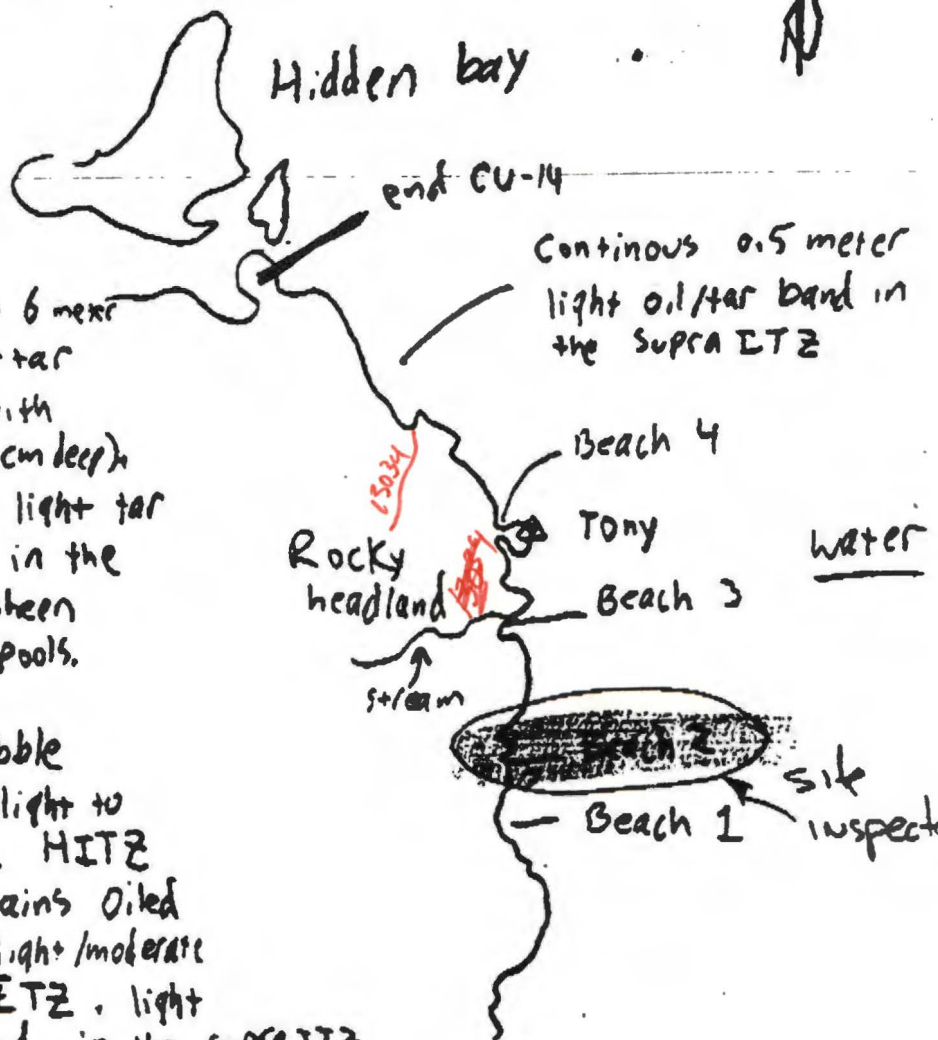


Culross Is.
Team #4

CU-14
Mike Foget

6/6/89

map 1

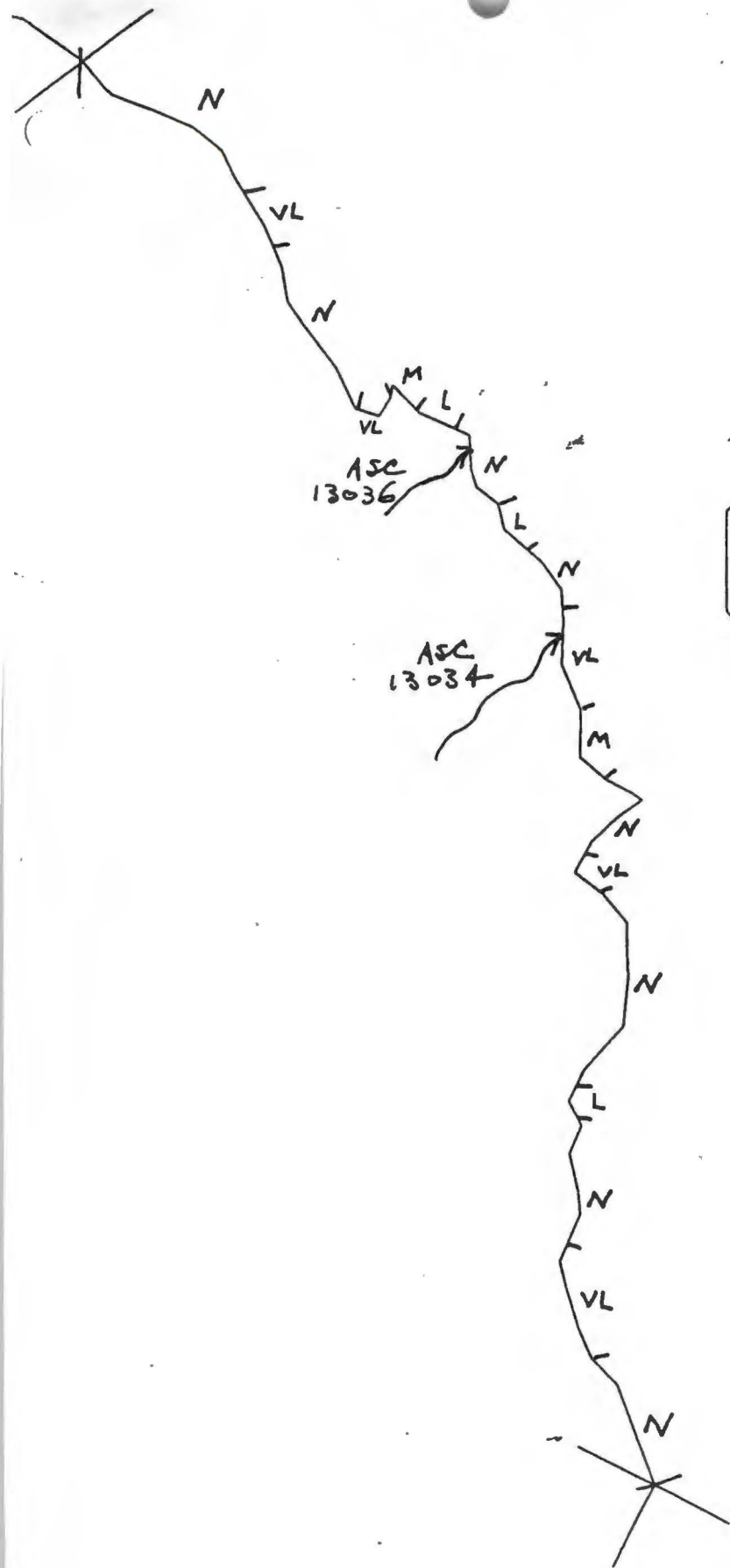


1) Pocket Boulder cobble beach with discontinuous 6 meter band of light to moderate oiling - tar in the upper HITZ with some localized pooling (3cm deep). A continuous 0.5 meter light tar band on the rock face in the supra ITZ, some oil sheen observed in HITZ tide pools.

2) Small boulder / cobble pocket beach with light to moderate oiling in the HITZ. North end of beach contains oiled seaweed (fucus) and light/moderate tarring in the high ITZ. light oil 0.5 meter oil band in the supra ITZ on the rock face.

3) Discontinuous light oiling in the supra ITZ and some oiled fucus.

4) Pocket cobble / gravel beach with some tar / asphalt balls in the supra ITZ. North end of beach contains light to moderate tar - oil in a 14 meter wide band. North end also contains a 20m x 4m area with moderate oiling and some pooling (3cm deep). Gravel storm berm in the supra ITZ is lightly oiled with a small amount of lightly oiled drift fucus (seaweed).



Long

CU014

500.0

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

ACE 7236992-1/L/AC/FF

SEGMENT: CU 014 SUB: A REGION: PWS SURVEY DATE: 5/14/91ENVIRONMENTAL SENSITIVITIES:Work Window(s) RESTRICTED 3/1 - 9/15Ecological/Constraints (see page two for details) Eagle nest,
Anadromous stream, Fish harvest areaARCHAEOLOGICAL CONSTRAINTS:

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find, and contact Exxon's Cultural Resource Program immediately: 564-3276; 564-3657; (Anchorage) or 229-1514 (24 hrs.). *884*

for SIPPO Charles E. Homan *5/30/91*

RECOMMENDATIONS:	INITIAL	TAG	FOSC
TREATMENT REQUIRED (Y or N)	<u>Y</u>	<u>Y</u>	<u>Y</u>
Manual Pickup (Check as Req.)	<u>X</u>	<u>X</u>	<u>X</u>
Spot Washing	<u> </u>	<u> </u>	<u> </u>
Bio-Customblen Only	<u>X</u>	<u>X</u>	<u>X</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: Remove easily accessible mousse and high SOR at
locations F1, F2 and G. Apply Customblen at locations F1, F2,
and G.

TAG: (Agree)FOSC: (Agree)TAG APPROVAL DATE: MAY 29 1991FOSC APPROVAL DATE: 6/3/91ADEC *[Signature]*FOSC *[Signature]*EXXON *[Signature]*E. E. PAGE, CDR, USCG
CHIEF OF STAFF, FOSCUSCG *[Signature]*NOAA *[Signature]*

MAYSAP FIELD SHORELINE COMMENT SHEET



TEAM NO. 1 SEGMENT CU 014 SUBDIVISION A DATE 05/14/91

ADEC

NAME JEFF GINALAS SIGNATURE [Signature] Tom CROWE ADFTG

☐ NTR ADFTG VERY LITTLE OILING, 1,200 YDS AT STREAM SITE 224-20-1303.
ALL REMAINING VISIBLE AP/SOR OILING WAS PICKED UP AND REMOVED.
AT THE TIME OF THE SURVEY RECOMMEND NO TREATMENT FOR THIS STREAM. ONLY
TRACE CV/CT DEPOSITS FOUND AT STREAM # 224-20-13034 IN BOULDER BEDROCK AREAS
TREATMENT HERE IS NOT RECOMMENDED.

☒ TREATMENT RECOMMENDED AT OG MAP SITES F₁, F₂, & G. Mousse/High SOR LOCATED JUST BELOW
 SURFACE ARMOR. WILL REQUIRE MANUAL WORK, ROCK & ROLL BOULDERS. EASY ACCESS BY SKIFF.
 FULL CREW, ONE DAY. Site LOOKS LIKE TREATMENT MISSED LAST YEAR, ALTHOUGH CUSTOMER
 OBSERVED IN OIL. AT HEAVY IMPACT AREA (F₁) OIL COVERAGE EXCEEDS 50% OF 5'x20' AREA.
 AREA IN VICINITY OF FISHING SETS, KAYAKERS (PER KEN MILLER, WHITTIER LOCAL RESPONSE)

EXXON

NAME RANDALL K. BOYER SIGNATURE [Signature]

☐ NTR AREA F₁, F₂ & G CONTAINED A BAND OF TREATABLE OILING
IN THE UPPER INTERTIDAL ZONE. IN THE SMALLER SEDIMENTS
AP CONSISTENCY OF 1m² PATCHES WERE PRESENT. THE SURVEY
TEAM DID NOT HAVE THE TIME TO PICK UP ALL THE TREATABLE OIL.
AREAS SURROUNDING THE ANAORONIOUS FISH STREAMS LOOKED IN GOOD
SHAPE WITH NO FURTHER TREATMENT RECOMMENDED. IN AREA F₁,
F₂ AND G, I WOULD NOT RECOMMEND REMOVING THE BOULDER ARMOR TO ACCESS OIL.

LANDMANAGER

NAME MARSHA HALL OF DNR SIGNATURE [Signature]

☐ NTR ☒ Treatment Stream sites are fine.
Manual labor → remove surface cobble boulder
take out lens, leave treated area exposed for tides
come back in to put armor layer back at site
F₁. Manual removal of MS at location F₂ and G.
Attempted to remove oil at F₁ but too much there
for this team to deal with.

USCG/NOAA

NAME SCHULTZ / CHICOS SIGNATURE [Signature]

☐ NTR TREATABLE OILING EXISTED IN F₁ F₂-G (SEG MAP) AND SHOULD BE ADDRESSED
HOWEVER NO TREATMENT AT ANY OTHER LOCATION

High Angle Bedrock Outcrop Shoreline w/ Isolated Pocket Beaches.
Beaches consist of subangular to sub rounded poorly sorted BCP's - Much of
underlay BCP's in several locations. Two ANAD. streams in Subdiv. Oiling observed was
typical remnants - low SOR very degraded, CT & AS in protected spots. A non
continuous layer of sub surface oil observed in N'ly part site "A".

1991 MAYSAP EVALUATION

SEGMENT: CU 014 SUB: A REGION: PWS SURVEY DATE: 5/14/91

ENVIRONMENTAL SENSITIVITIES:

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

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

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)

Y

Manual Pickup (Check as Req.)

X

Spot Washing

Bio-Customblen Only

X

Bio-Inipol/Customblen

Other _____

Other _____

COMMENTS:

INITIAL: Remove easily accessible mousse and high SOR at
locations F1, F2 and G. Apply Customblen at locations F1, F2,
and G. *Agree*

5/19/91 TAG: *Agree*

FOSC: _____

TAG APPROVAL DATE: _____

FOSC APPROVAL DATE: _____

ADEC _____

FOSC _____

EXXON _____

USCG _____

NOAA _____

**ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES**

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

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

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

ADEC
 NAME Jeff G. Adams SIGNATURE Tom CAONE ADFTG
 (ANADROMOUS STREAM SEGMENT)
☐ NTR ADFTG VERY LITTLE OILING REMAINING AT STREAM SITE 224-20-13036
ALL REMAINING VISIBLE AP/SOA OILING WAS PICKED UP AND REMOVED
AT THE TIME OF THE SURVEY. RECOMMEND NO TREATMENT FOR THIS STREAM. ONLY
TRACE CV/CT DEPOSITS FOUND AT STREAM # 224-20-13034 IN BOULDER BEDROCK AREAS.
TREATMENT HERE IS NOT RECOMMENDED. Tom CAONE
☒ TREATMENT RECOMMENDED AT OG MAP SITES F₁, F₂, & G. MORRIS/HIGH SOR LOCATED JUST BELOW
SURFACE ARMOR. WILL REQUIRE MANUAL WORK, ROCK & ROLL BOULDERS. EASY ACCESS BY SKIFF.
FULL CREW, ONE DAY. SITE LOOKS LIKE TREATMENT MISSED LAST YEAR, ALTHOUGH CUSTOMER
OBSERVED IN OIL. AT HEAVY IMPACT AREA (F₁) OIL COVERAGE REACHED 50% OF 5x20m AREA.
AREA IN VICINITY OF FISHING SITS, KAYAKERS (PER KEN MILLER, WHITTIER LOCAL RESIDENT)

EXXON
 NAME RANDALL K. BOYER SIGNATURE Randall K. Boyer
☐ NTR AREA F₁, F₂ & G CONTAINED A BAND OF TREATABLE OILING
IN THE UPPER INTER TIDE ZONE. IN THE SANDIER SEDIMENTS
AP CONSISTENCY OF 1m² PATCHES WERE PRESENT. THE SURVEY
TEAM DID NOT HAVE THE TIME TO PICK UP ALL THE TREATABLE OIL.
AREAS SURROUNDING THE ANADROMOUS FISH STREAMS LOOKED IN GOOD
SHAPE WITH NO FURTHER TREATMENT RECOMMENDED. IN AREA F₁,
F₂ AND G, I WOULD NOT RECOMMEND REMOVING THE BOULDER ARMOR TO ACCESS OIL.

LANDMANAGER
 NAME MARSHA HALL OF DNR SIGNATURE Marsha Hall
☐ NTR ☒ Treatment Stream sites are fine.
Manual labor → remove surface cobble boulder
take out lens, leave treated area exposed for tide
come back in to put armor layer back at site
F₁. Manual removal of MS at location F₂ and G.
Attempted to remove oil at F₁ but too much there
for this team to deal with.

USCG/NOAA
 NAME SCHULTZ SIGNATURE J. A. Schultz
☐ NTR TREATABLE OILING EXISTED IN F₁, F₂, & G (SEE MAP) AND SHOULD BE ADDRESSED
HOWEVER NO TREATMENT AT ANY OTHER LOCATION

High Angle Bedrock Outcrop & Shoreline w/ Isolated Pocket Beaches.
 Beaches consist of subangular to sub rounded poorly sorted BCP's - mud & peat
 underlay BCP's in several locations. Two Anad. streams in Subdiv. Oiling observed was
 typical remnants - low SOR very degraded, CT & AS in protected spots. A non
 continuous layer of subsurface oil observed in N'ly part site "A".

Discrepancy comment AC014A 224-20-13034 KZ

HAB

Site 1 0.1 * 0.1 m
CT
AP

no correspdy _____

Site 2 .1 * .1 m —
CT
CT

OG

C2 5 * 10 m
CT

C1 3 m long
ST
CT

C3 MS/T
CT

OG sheet has more oiling than HAB

ADF&G MULTI-ASSESSMENT DATA FORM

- 1) SURVEY TYPE: BS (SS) 2) REGION: (PWS) KP, CI K, AP
- 3) METHOD: Aerial (Ground) Boat
- 4) DATE: 5-14-91 16) HIGH TIDE TIME: _____ 22) TEAM RECORDER: Tom Crowe
- 5) START TIME: 1730 17) HIGH TIDE HTS: _____ 23) OBSERVERS: _____
- 6) STOP TIME: 1830 18) LOW TIDE TIMES: 2000 24) AGENCY: ADF&G
- 7) SEGMENT #: CUBIYA 19) LOW TIDE HTS: +2 25) PHOTOS TAKEN: Y (N)
- 8) K-UNIT: _____ 20) TIDE HT AT SURVEY: +6.2 to +4 ROLL #: _____ FRAMES: _____
- 9) LAT: _____ (Ebb) Slack Flood Slack 26) VIDEO TAKEN: Y (N)
- 10) LONG: _____ 21) USCG QUAD: _____ TAPE # _____
- 11) ASC #: 224-20-13034 (AVON C) START: _____ STOP: _____
- 12) STREAM NAME: _____ 27) SAMPLES TAKEN? Y (N)
- 13) LOCATION: EAST COAST CULROSS IS. SAMPLE I.D. _____
- 14) WAVE EXPOSURE: High Moderate Low
- 15) SHORELINE TYPE: Headland Low-lying Rocks Beach
- (Cove) Lagoon Marsh

28) EXTENT OF OIL

	LENGTH m	WIDTH m	M2	%	THICK cm	PEN cm	OIL TYPE
SITE 1	.1	.1		<1			AP
SITE 2	.1	.1		<1			CV
SITE 3							
SITE 4							
SITE 5							

29) OVERALL OIL IMPACT:

H = >6m band with ≥50% oil coverage

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

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

(VI) = ≤10% oil coverage regardless of band width

N = No oil observed

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

32) SUBSTRATE TYPE (PERCENT):

Bedrock 30 Boulder 40 Gravel 25 Sand _____ Cobble 5 Mud/Silt _____

35) COMMENTS: SMALL POCKET COVE. VERY LITTLE OILING FOUND
HERE. SMALL PATCHES OF CV AND SPATTER IN WHITE ALSO
A VERY SMALL AREA OF AP 1 FTsq IN SITE #1 WAS REMOVED
DURING THE TIME OF SURVEY.

33) ANADROMOUS FISH PRESENT: (Y) N

34) WILDLIFE OBSERVATION

Species _____ Number _____

JUVENILE SALMON FRY
MILLING AT MOUTH +
TIDE POOL
Black Prickleback

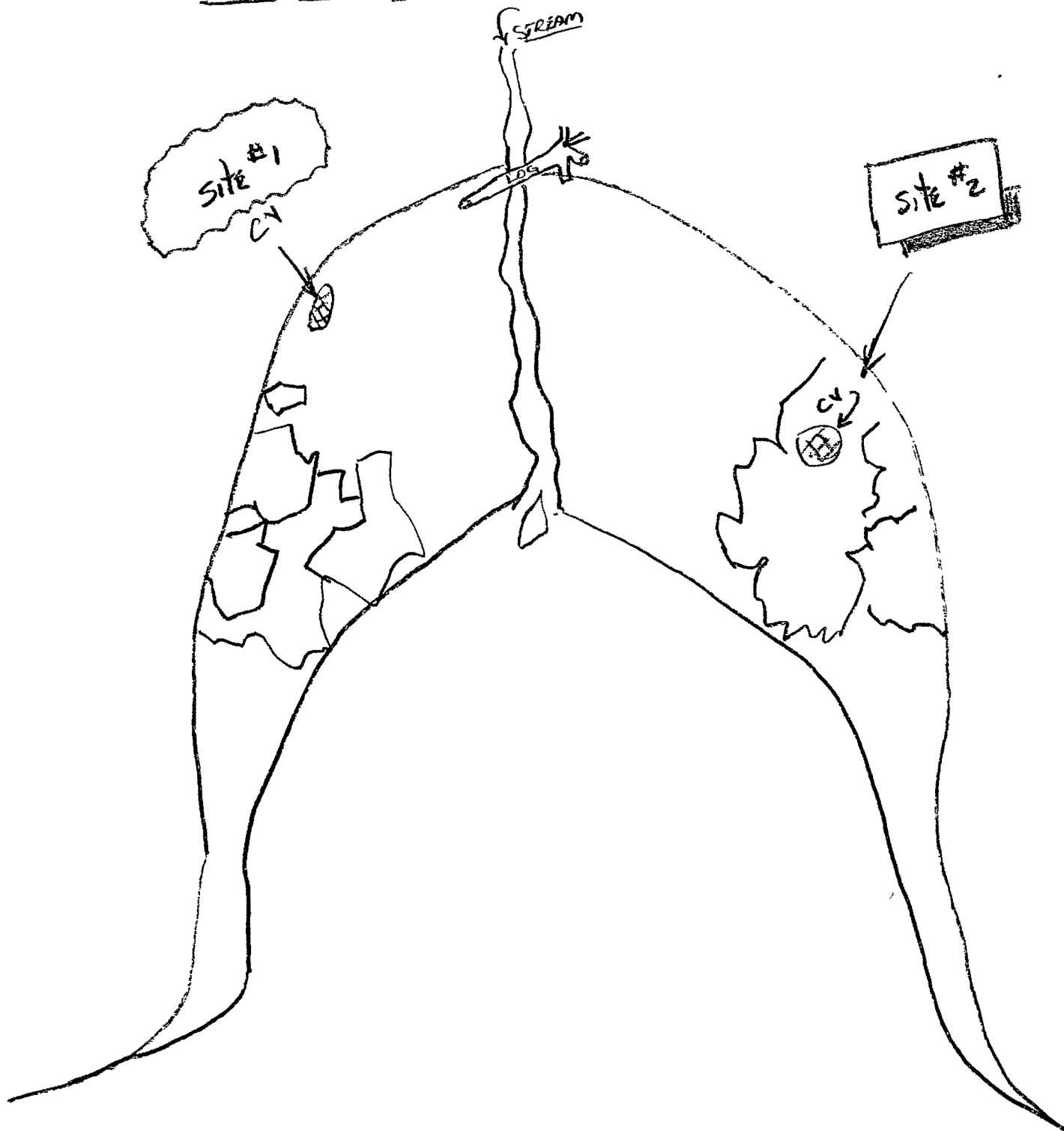
CULROSS ISLAND

MAY SAP

DATE: 5.14.91

CU 014A

ASC 224-20-13034



MAYSAP SHORELINE OILING SUMMARY

PAGE 1 OF 2

TEAM NO. 1

OG G. MACDONALD

BIO M. FAWCETT

SEGMENT CU-14

ADEC J. G. NAWAS

LANDMANAGER M. HALL for DNR

SUBDIVISION A

EXXON R. BOYER

USCG/NOAA SCHULTZ/CHILD

DATE 5/14/91

TIME 17:15 to 19:45

TIDE LEVEL +6.2 ft. to +2.0 ft.

ENERGY LEVEL: ☐ H ☒ M ☒ L

SURVEYED FROM: ☒ FOOT ☐ BOAT ☐ HELO

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

TOTAL LENGTH SHORELINE SURVEYED: ~1100 m

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

EST. OIL CATEGORY LENGTH: W 1 m M 30 m N 1 m VL 310 m NO ~750 m US ~1200 m

L O C	SURFACE OIL CHARACTER										SURFACE SEDIMENT TYPE	SHORE SLOPE VHML	AREA		ZONE				NOTES
	AP	MS	TB	SOR	CV	CT	ST	FL	DB	NO			WIDTH m	LENGTH m	S	UI	MI	LI	
A				T							PC	L	1	100		X			after PU. 10 SOR
B1		S											1/2	1	X				interstices
B2				S							BCV	L	5	10	X				
C1							S				RV	M	1/2	3	X				on log
C2						T					RB	H	5	10		X			
C3	T										R	H	0.1	0.1	X				
I	S					S	T				BPR	H	1 1/2	65	X	X			surveyed 5.15.91
D			T			T					RB	H	1	50		X			
E				T		T					CPB	M	8	5	X	X	X		10 SOR
F1	B										CPG	L	5	20		X			
F2	P		P		P						RBC	M	3	10	X	X			hi sol
G	S										CPB	M	1	6					partly treated - PU
H				S		T					RBC	H	6	15	X	X			hi sol

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- 1-22 FRAMES 17-25

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	15				X				10-12	Y	-			X			CG-GPMV	
2	15						X		10-13	Y	-			X			" "	
3	20						X		12-15	Y	-			X			PCB-GPM	
4	15							X	-		-				X		BC-GC	
5	15							X	-		-		X				PC-GP	
6	15						X		8-10	Y	-			X			CL-GPMV	
7	12							X	-		-			X			BC-GCP	
8	10							X	-		-			X			" "	
9	15							X	-		10	N			X		BC-PG	

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

OG COMMENTS:

Steep rocky shore w/ some coarse-grained beaches on breacher in the rock wall. Two ANAD. fish streams were surveyed w/ TOM CHAVE - ADF & G. Sketches 1 & 2 show remnant low SOR & traces of CT & MS associated w/ past AP. A thin, sporadic layer of subsurface cl

PAGE 2 OF 2

DATE 5, 14 / 91

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

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 1 DATE 14 & 15 May 91
 SEGMENT # CV 014 TIDAL HEIGHT (Range) 2.0 - +7ft, 3.0 - 4.2 ft
 SUBDIVISION A BIOLOGIST Michael Fawcett
 SEA STATE 1 ft swell WIND SPEED/DIRECTION NE 10-15 knots
 PHOTOGRAPHS: ROLL # _____ FRAME # _____

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

Completed anadromous stream sites and two other sites with Tom Crowe (ADF&G monitor) on May 14; returned May 15 to survey 5th site (Sketch #5). See sketches 1-5 for descriptions of biota near each oiled site. Salmon fry were observed in the intertidal zone near the mouth of the smaller stream (#224-20-13034). SOR & CT Typically found in VTZ-SUTZ areas at +10-12ft MLLW, above most biota except lichen, limpets, Amphipods & oligochaete worms. MTZ areas below oil typically have dense Rockweed and barnacle spat, and variable densities of Littorinids, mussels, limpets, Rhodomeles, etc. Whelks (*Nucella emarginata*) are abundant in MTZ-LTZ throughout the subdivision, *N. lamellosa* sparse.

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1	1	salmon fry
Seabirds			black prickleback
Waterfowl			
Gulls/Kittiwakes	1 (G-W Gull)	3	
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.B. ¹³ 5/17/91

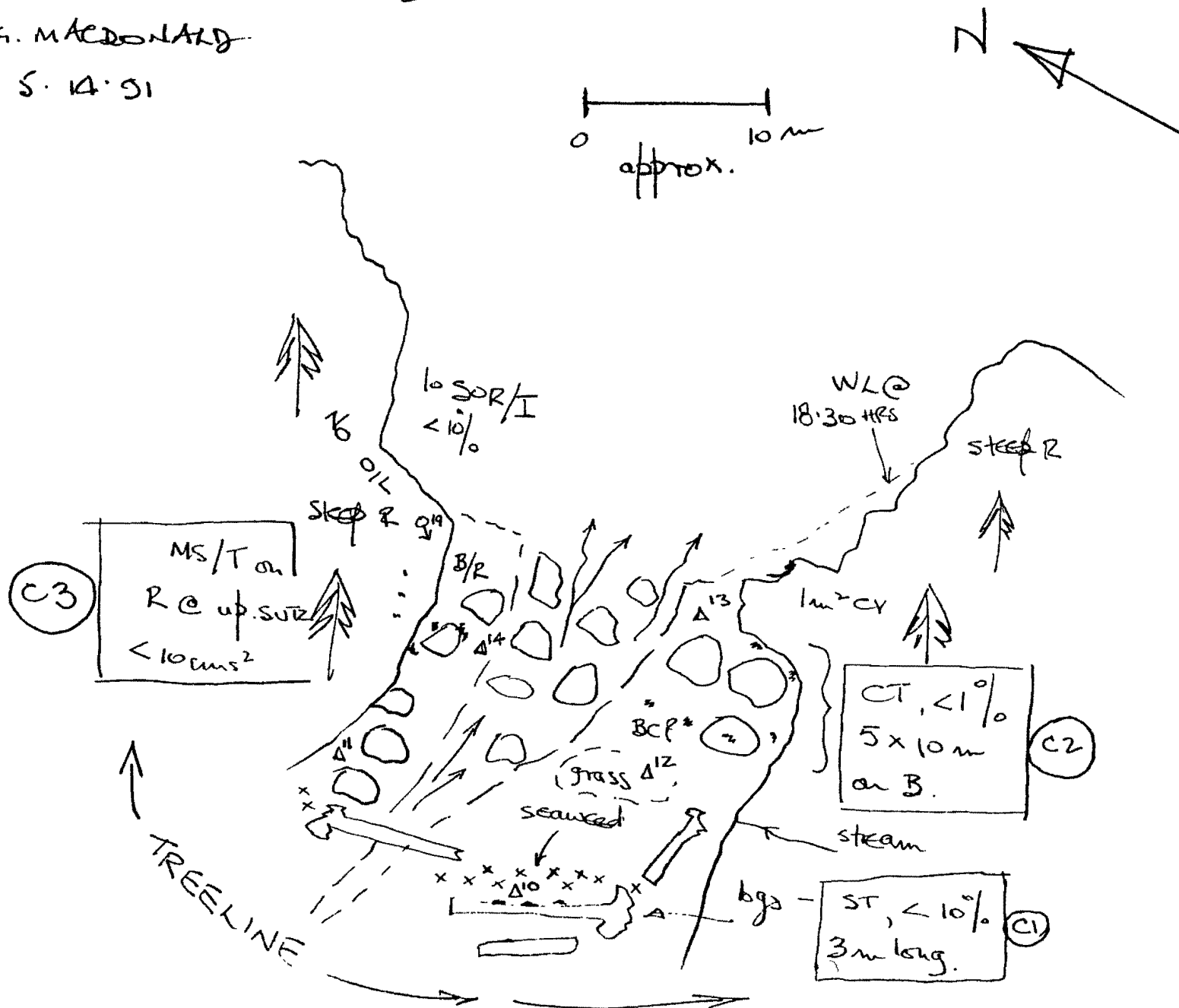
Reviews 5/17/91/MS

ASC # 2242013034

G. MACDONALD

S. 14.91

Sketch # 2



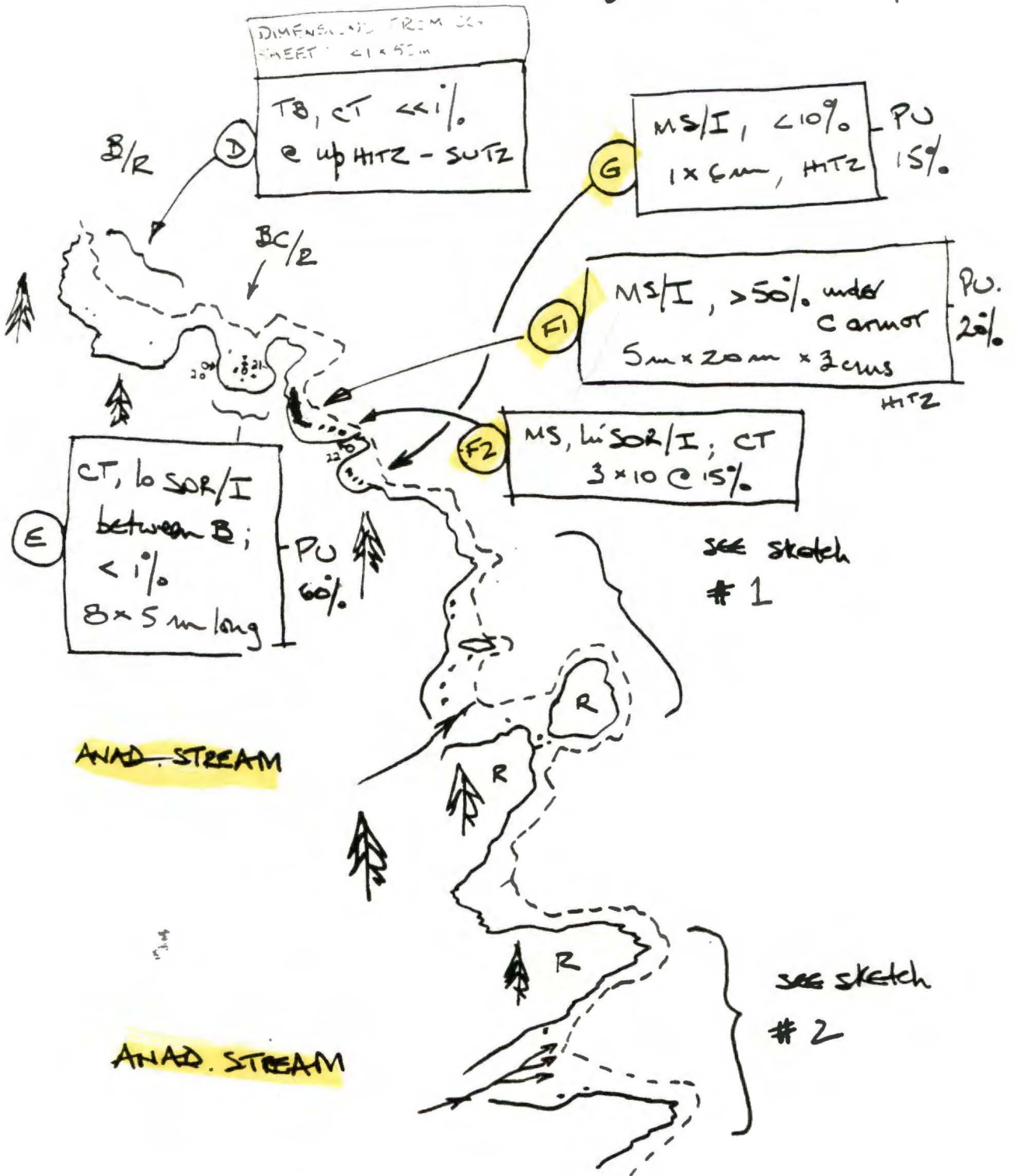
CU-14 A

Sketch #3

G. MACDONALD

5-14-91

approx.
0 100m

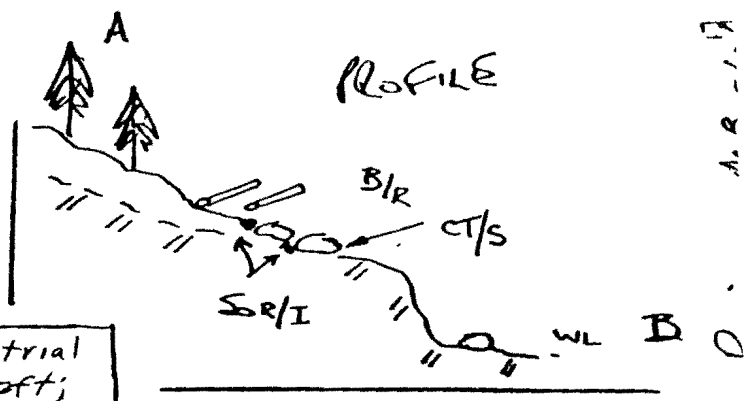


revised 5/10/91 K
revised 5/17

H-V. R clift

(H)

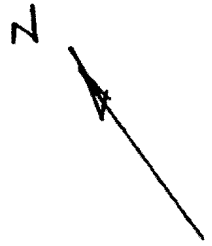
No biota except lichen, terrestrial grass near SOR + CT at 10-12ft;
Tidepools 2m downshore with dense littorinids, plus hermit crabs, and coralline algae; rockweed, limpets, littorinids, sparse barnacles around pools on BR; LT2-MT2 tidepools with typical diverse biota



massive B over R

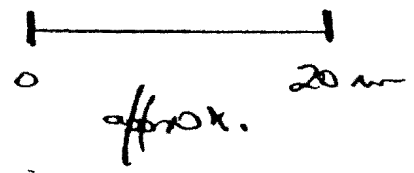


Bedrock bench w/ massive B



Sketch #4

Bio Sketch Map
CU 14A, 14 May 91
M.H. Fauzett

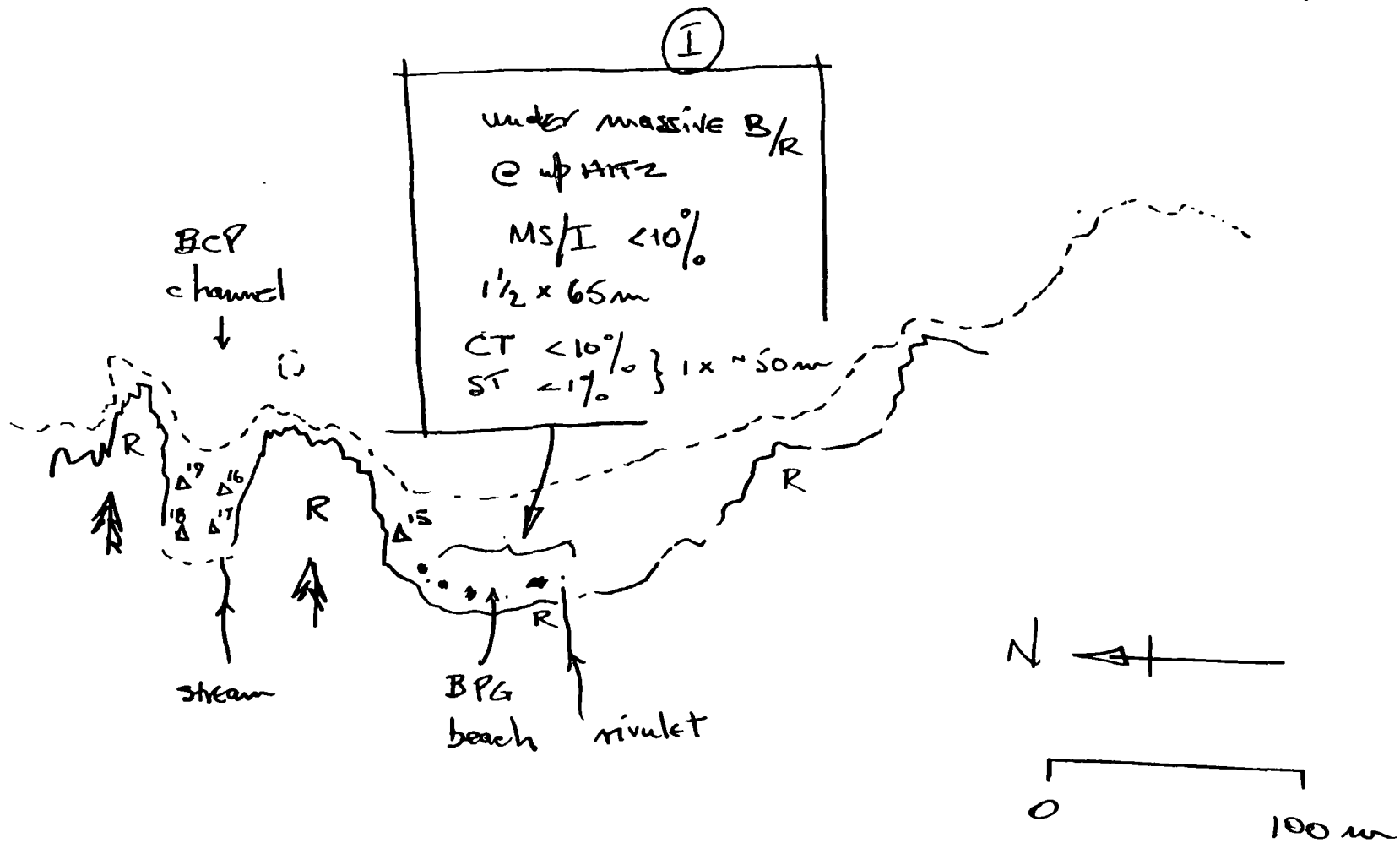


CU-14A

G. MACDONALD

5.15.91

Sketch #5



11.45 - 12.15 HRT
+ 4'0" - + 5'1/2" tide.

ES reviewed 5/17

CU-014A

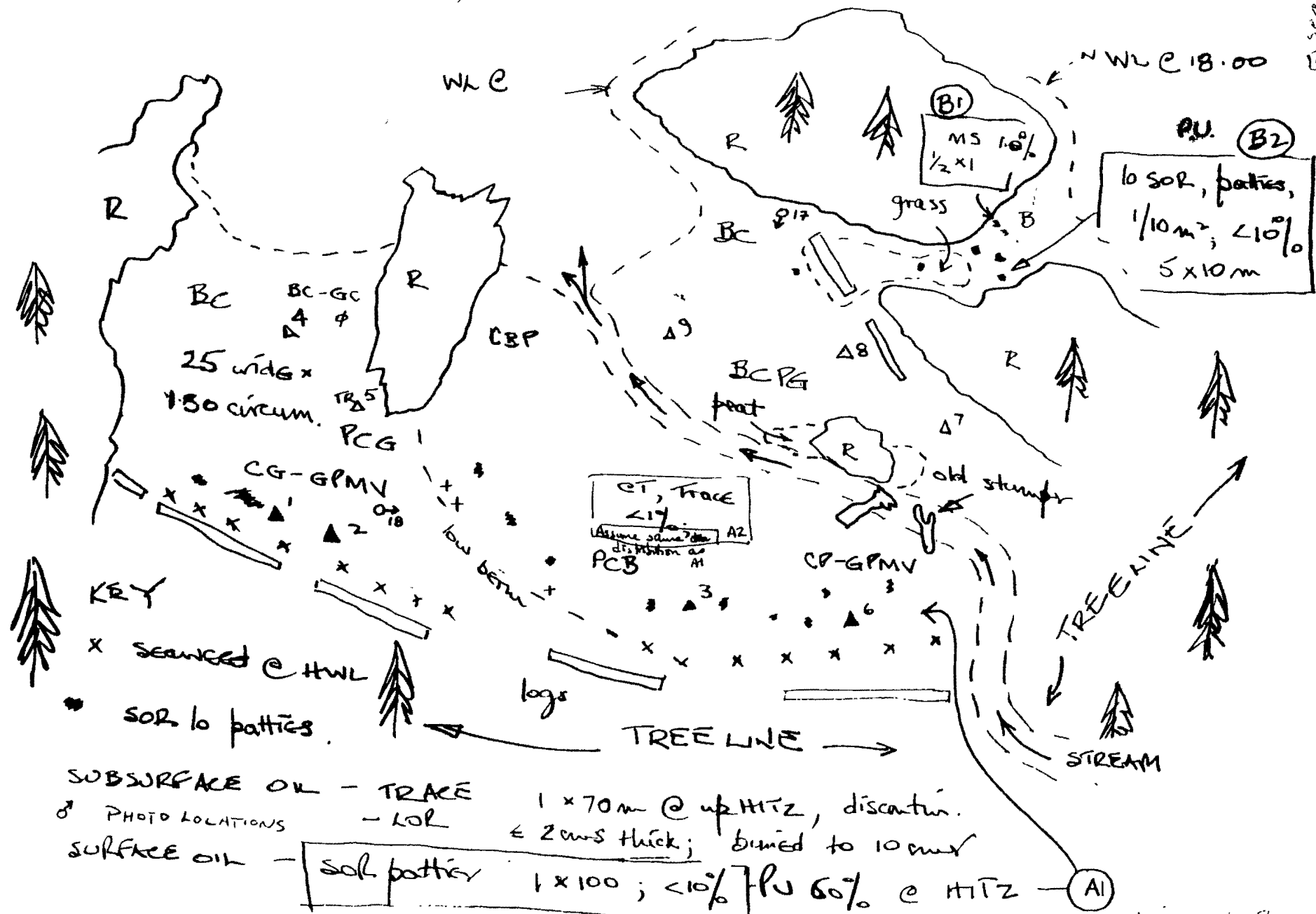
G. MACDONALD 5.14.91

ASC # 2242013036



Sketch #1

0 approx. 25 m



CU 14A Arr 1715 Fawcett
5/14/91 wind NE 5-10, rain

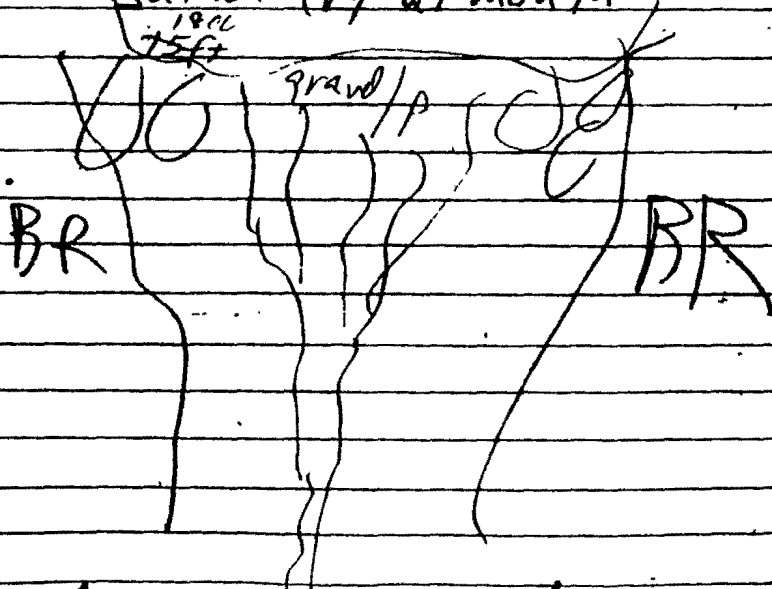
Sub A/P, ~~smaller~~ stream
1 ~~smaller~~ low over
1 gal

Site 9 1800 hrs

smaller stream (9)
steep shore, ~~BR~~

spouse ~~road~~ + 4-8 ft on boulders
4 BR - very dense barn, which
no ~~idea~~ in stream

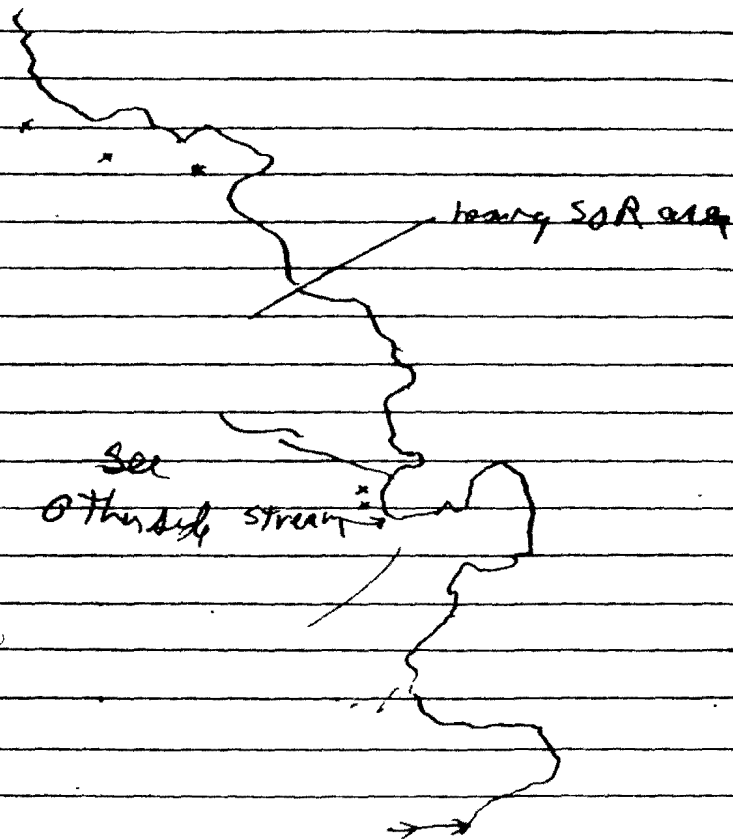
salmon fry at mouth



depart 1820, went north

CU 14A

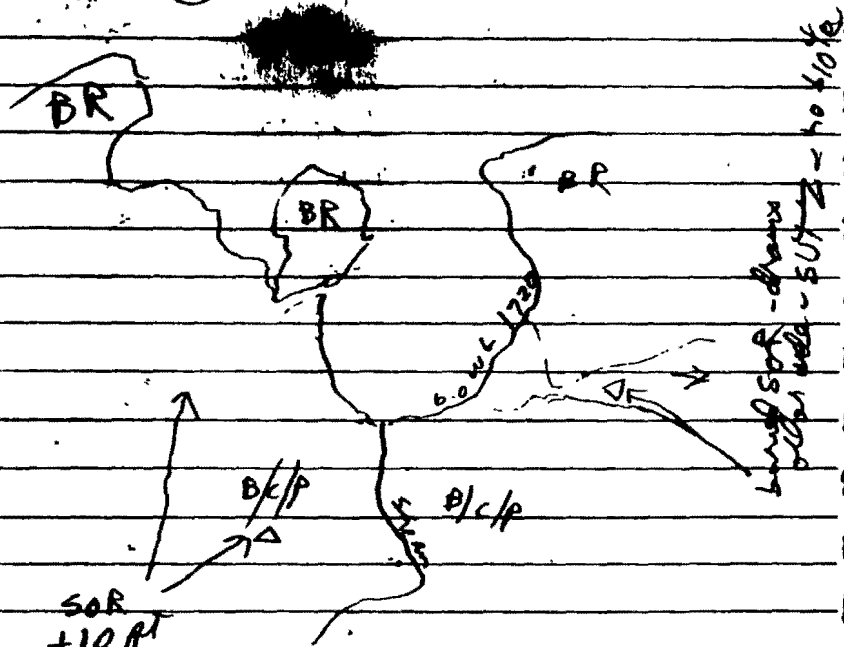
N
↑



over →

CV 14a (cont) 5/14/91 Fawcett

Side (A) 17.5



SOR
+10 ft

no b infla

Spans barn, 1 imp, 1 ft, ultra, Enter
mms, Focus downshov - also demo spat
5m at 10 p

14. May (cont)

state - no's eqn

5 plates 50R + CT 11/2 + 10-14 ft. 17

lee of outcrop - B/dP - no rock
was upper end in SUTZ, but

3 Purple Finches & Linps near
SQR (picked up) at 110 ft,

dense Fucus, Sarg., fil. reds
whelps, etc down to sloth,

2m below at 78-9ft - walked
north to end of subduron

same rel. dist. of birds &
traces of CT at 10 ft -

4 *M. lamellosa* breeding under ledge at +3 ft. near end of segment

1900 hrs - heaviest SOR side/see

Graham's map - 50% cases 14

UTZ-SUTZ + 10-12 feet - only
boulders are sparse N. personā, a very
few

- sports barracks, Little by 3m
dormitory ~~modular~~ space

Fire on full down at $\pm 4-5$ ft
w/ dense bare spot, patch dense
mats, dense N. more,
a few N. lamellaria

CU 14A (cont) 14 May, Fawcett
12:30 hrs

last only south end of
S. R. CT in VTZ-SUTZ
10-12 ft boulders above biota - 2m

down shore on BR bend are
pools w/ Litho, hermits, Litt,
but sparse algae ^(mostly Littorina) mod
dense Fucus on BR around pools -
Litt, limp, - sparse barn

- pools in LTZ-MTZ w/ rich
Litho - very dense N empty
all over the subterranean

gulls

Finish 1945

15 May 91 Returned to CU 14A

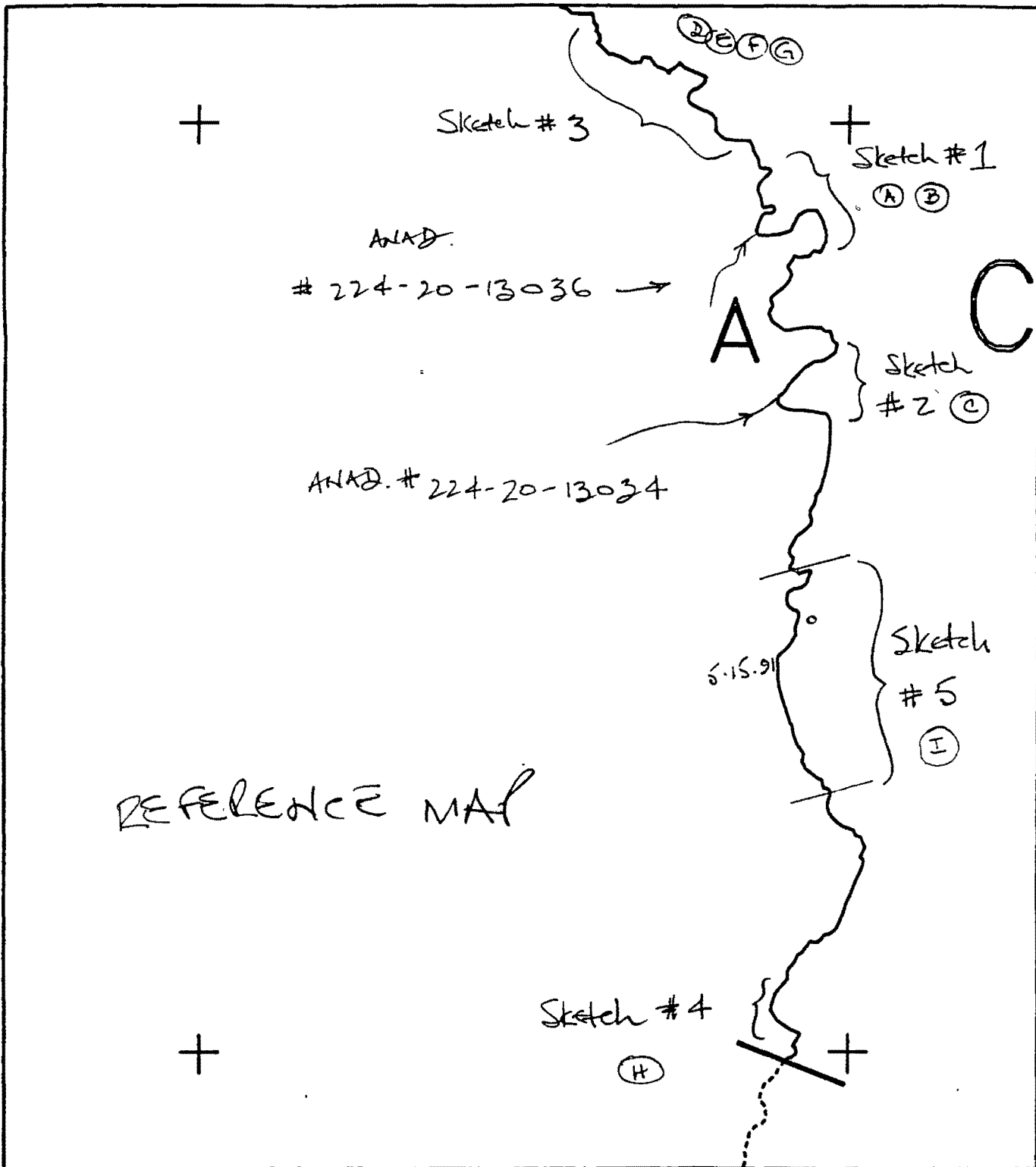
11:45 hrs - area missed
yesterday -

- shallow B/c cave - SOR SUTZ
in crevices of cave - no biota except
sparse limp 5m down shore at ~8 ft - dense
Fucus - sparse barn (some dense
patches), mod. Litt, limp,
sparse mussels

sparse Rhodo, Urosalpinx, U. 1/4
LTZ - purple backs, feeding
Litt, dense spat

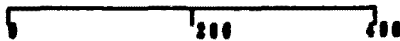
Band of SOR just at edge of
N person & Litt. - Limpets
very dense (10-20 per boulder)
just below and (+8-10 ft)

Finish 1215 hrs



CU014 A

METERS



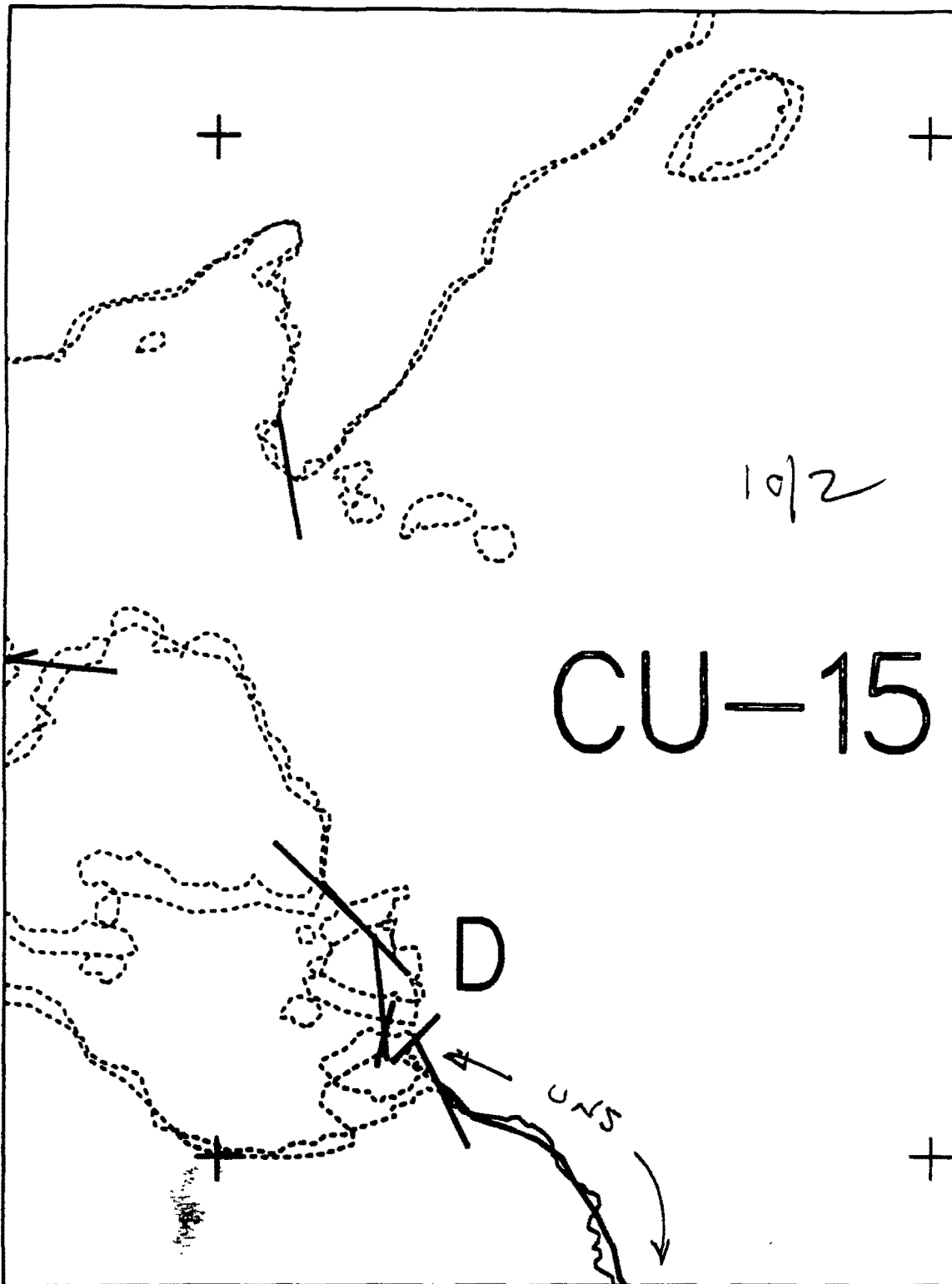
AK State Plane Zone 4
psad1400

Subdivision Field Map

Map Key: PUSCU014Aa

Name: GM

Date: 5.14.91



CU-15

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

CU014 A

ADEC Subsegment Length: 2293m

METERS

0 200 400

AK State Plane Zone 4
 psn014ab



Subdivision Field Map

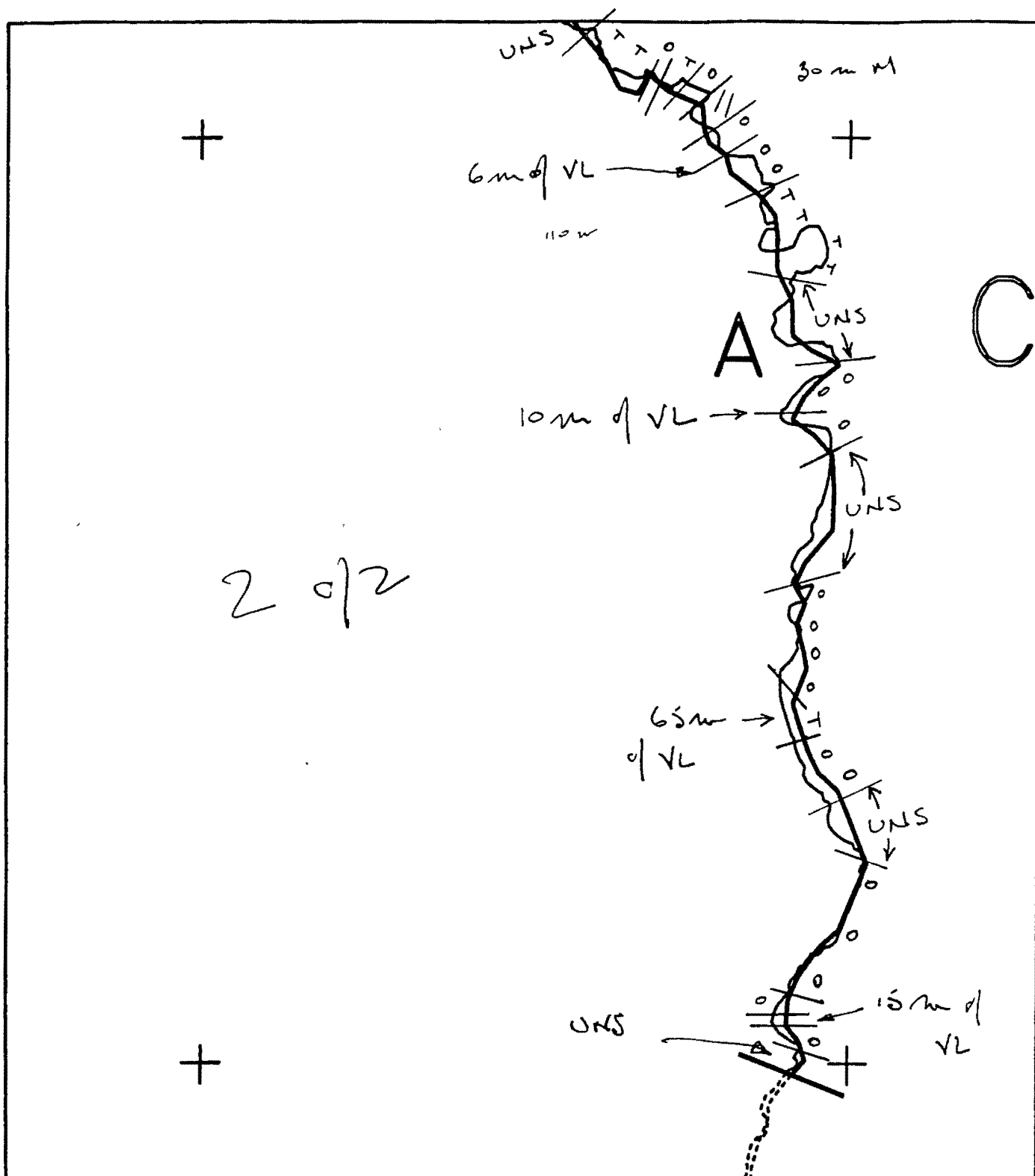
Map Key: PWSCU014Ab

Name: GM

Date: 5-15-91

Date Entered:

reviewed 9/16/91 KLG
 95 reviewed 5/17



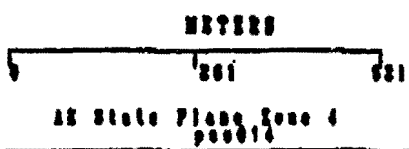
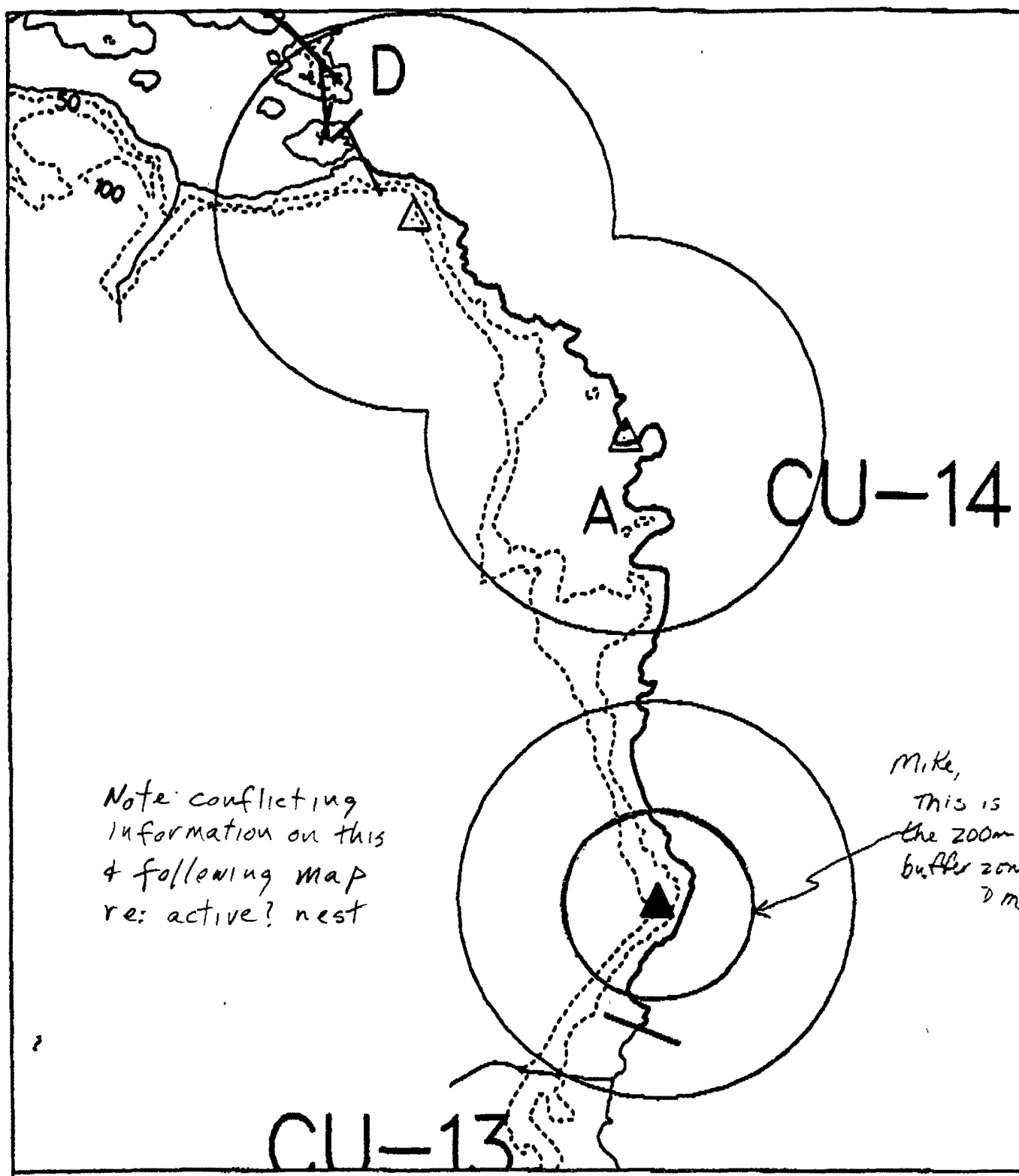
XXXX Wide
 //// Medium
 ---- Narrow
 TTTT Very Light
 0000 No Oil

CU014 A
 ADEC Subsegment Length: 2293m
 METERS

AK State Plane Zone 4
 1200
 200



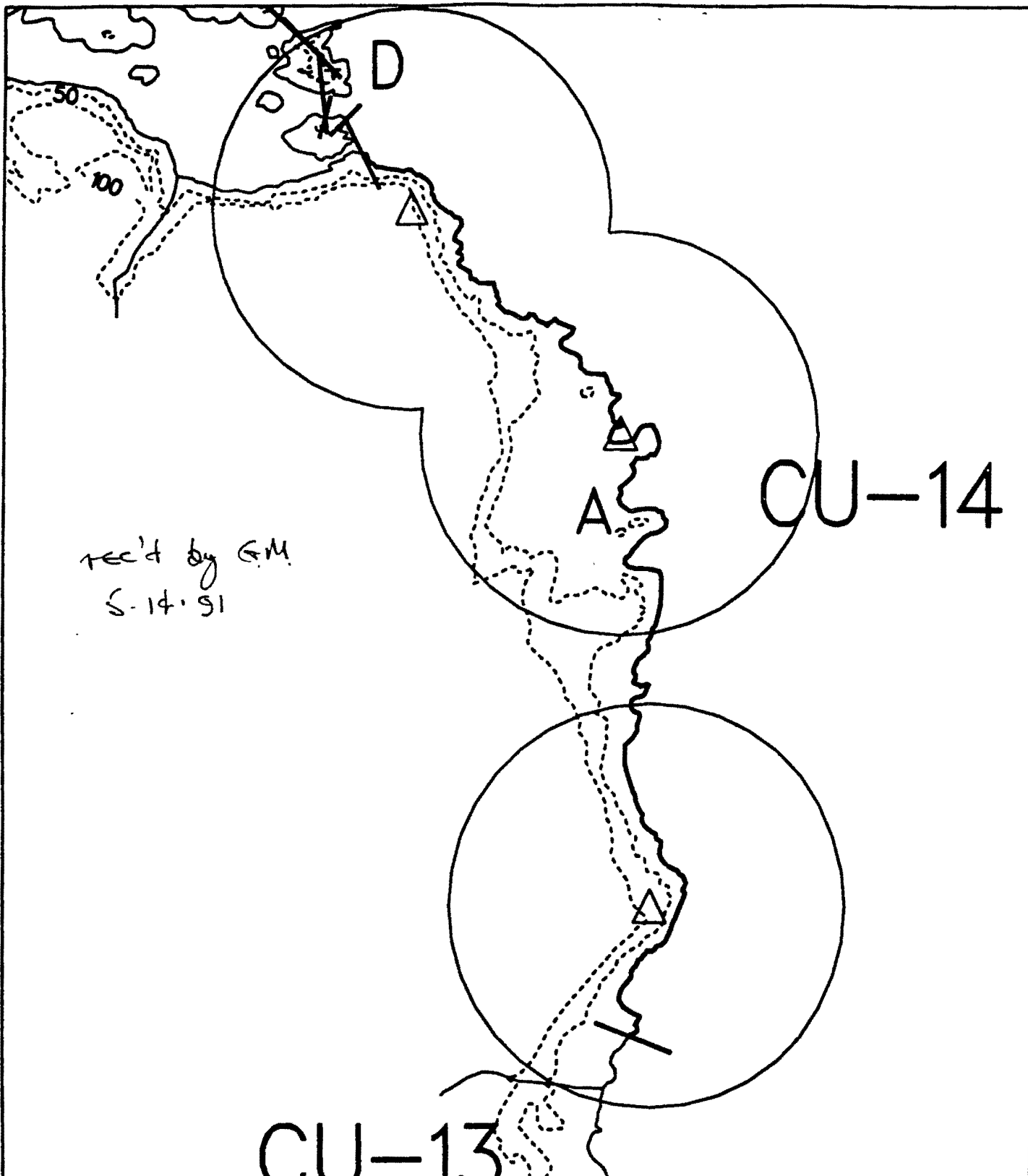
Subdivision Field Map
 Map Key: PWSCU014Aa
 Name: G.M.
 Date: 5-15-91
 Date Entered:



CU014

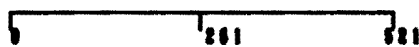
Segment Reference Map
Map Key: PVSCU014


EAGLE NEST



CU014

METERS



AK State Plane Zone 4
ps0014

Segment Reference Map
Map Key: PWSCU014



EAGLE NEST

1991 STREAM FILE LOG HABITAT

STREAM CATALOG # : 224-20-13034
STREAM NAME : Culross Island

LOCATION : P.W.S.
SEGMENT : CH-014A

[illegible]

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. _____

Tim -

M/V AVRIGA
SQUAD ONE

DATE 05/14/91

ADEC
NAME _____☐ NTRAT TA
TRACE C
TREATM☒ TREATMSURFACE
FULL C
OBSERVED
AREA

This is a segment worked w/ Tom
Crowe, ADFTG (5-14-91). HE REQUESTED
A COPY OF PAPERWORK. COULD YOU ROUTE
HIS WAY? GRACIOUS

J. Ginalins

Tom CROWE
ADFTG

LE 224-20-13036.
ED UP AND REMOVED
IT FOR THIS STREAM. ONLY
POCKET BEDROCK AREAS.

LOCATED JUST BELOW
ING ACCESS BY SKIFF.
ONE, ALTHOUGH CUSTOMER
OF 5x20 M AREA.
(LOCAL RESPONSE)

EXXON

NAME RANDALL K. BOYER

SIGNATURE

Randall K. Boyer

☐ NTR

AREA F₁, F₂ & G CONTAINED A BAND OF TREATABLE OILING
IN THE UPPER INTER TIDE ZONE. IN THE SMALLER SEDIMENTS
AP CONSISTENCY OF 1m² PATCHES WERE PRESENT. THE SURVEY
TEAM DID NOT HAVE THE TIME TO PICK UP ALL THE TREATABLE OIL.
AREAS SURROUNDING THE ANADROMOUS FISH STREAMS LOOKED IN GOOD
SHAPE WITH NO FURTHER TREATMENT RECOMMENDED. IN AREA F₁,
F₂ AND G, I WOULD NOT RECOMMEND REMOVING THE BOULDER AREA TO ACCESS OIL.

LANDMANAGER

NAME MARSHA HALL OF DNR

SIGNATURE

Marsha Hall

☐ NTR☒ Treatment

Stream sites are fine.

Manual labor → remove surface cobble boulder
take out lens, leave treated area exposed for tide
come back in to put armor layer back at site
F₁. Manual removal of MS at location F₂ and G.
Attempted to remove oil at F₁ but too much there
for this team to deal with.

USCG/NOAA

NAME SCHULTZ / CHILDS

SIGNATURE

J. A. Schultz / Z2C

☐ NTR

TREATABLE OILING EXISTED IN F₁-F₂-G (SEE MAP) AND SHOULD BE ADDRESSED
HOWEVER NO TREATMENT AT ANY OTHER LOCATION

High Angle Bedrock Outcrop & Shoreline w/ Isolated Pocket Beaches.
Beaches consist of subangular to sub rounded poorly sorted BCP's - mud & peat
underlay BCP's in several locations. Two Anad. streams in subdr. Oiling observed was
typical remnants - low sor very degraded, CT & MS in protected spots. A non
continuous layer of sub-surface oil observed in N'ly part site "A".

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 1 SEGMENT CU 014 SUBDIVISION A DATE 05/14/91

ADEC
NAME JEFF GIVILAS SIGNATURE [Signature] Tom CAWLE ADF16

☐ NTR ADF16 (ANADROMOUS STREAM SEGMENT) VERY LITTLE OILING REMAINING AT STREAM SITE 224-20-13036. ALL REMAINING VISIBLE AP/SOR OILING WAS PICKED UP AND REMOVED AT THE TIME OF THE SURVEY. RECOMMEND NO TREATMENT FOR THIS STREAM. ONLY TRACE CV/CT DEPOSITS FOUND AT STREAM # 224-20-13034 IN BOULDER BEDROCK AREAS. TREATMENT HERE IS NOT RECOMMENDED. Tom Cawle

☒ TREATMENT RECOMMENDED AT OG MAP SITES F₁, F₂, & G. MOUSSE/HIGH SOR LOCATED JUST BELOW SURFACE ARMOR. WILL REQUIRE MANUAL WORK, ROCK & ROLL BOULDERS. EASY ACCESS BY SKIFF. FULL CREW, ONE DAY. ~~Site~~ SITE LOOKS LIKE TREATMENT MISSED LAST YEAR, ALTHOUGH CUSTOMER OBSERVED IN OIL. AT HEAVY IMPACT AREA (F₁) OIL COVERAGE EXCEEDS 50% OF 5'x20' AREA. AREA IN VICINITY OF FISHING SETS, KAYAKERS (PER KEN MILLER, WHITTIER LOCAL RESIDENT)

EXXON
NAME RANDALL K. BOYER SIGNATURE Randall K. Boyer

☐ NTR AREA F₁, F₂ & G. CONTAINED A BAND OF TREATABLE OILING IN THE UPPER INTER TIDE ZONE. IN THE SMALLER SEDIMENTS AP CONSISTENCY OF 1m² PATCHES WERE PRESENT. THE SURVEY TEAM DID NOT HAVE THE TIME TO PICK UP ALL THE TREATABLE OIL. AREAS SURROUNDING THE ANADROMOUS FISH STREAMS LOOKED IN GOOD SHAPE WITH NO FURTHER TREATMENT RECOMMENDED. IN AREA F₁, F₂ AND G₁, I WOULD NOT RECOMMEND REMOVING THE BOULDER ARMOR TO ACCESS OIL.

LANDMANAGER
NAME MARSHA HALL OF DNR SIGNATURE Marsha Hall

☐ NTR ☒ Treatment Stream sites are fine.

MANUAL labor → remove surface cobble boulder take out lens, leave treated area exposed for tide come back in to put armor layer back at site F₁. Manual removal of MS at location F₂ and G₁. Attempted to remove oil at F₁ but too much there for this team to deal with.

USCG/NOAA
NAME SCHULTZ / CHILDS SIGNATURE J. A. Schultz / [Signature]

☐ NTR TREATABLE OILING EXISTED IN F₁-F₂-G (SEE MAP) AND SHOULD BE ADDRESSED HOWEVER NO TREATMENT AT ANY OTHER LOCATION

High Angle BEDROCK OUTCROP SHORELINE W/ ISOLATED POCKET BEACHES. BEACHES CONSIST OF SUBANGULAR TO SUB-ROUNDED POORLY SORTED BCP'S - AND 1' PEAT UNDERLAY BCP'S IN SEVERAL LOCATIONS. TWO ANAD. STREAMS IN SUBDIV. OILING OBSERVED WAS TYPICAL REMINANTS - LOW SOR VERY DEGRADED, CT & MS IN PROTECTED SPOTS. A NON CONTINUOUS LAYER OF SUB-SURFACE OIL OBSERVED IN N'LY PART SITE "A".

MAYSAP SHORELINE OILING SUMMARY

PAGE 1 OF 2

TEAM NO. 1OG G. MACDONALDBIO M. FAWCETTSEGMENT CU-14ADEC J. G. HALLASLANDMANAGER M. HALL for DNRSUBDIVISION AEXXON R. BOYERUSCG/NOAA SCHWARTZ/CHINDDATE 5/14/91TIME 17:15 to 19:45TIDE LEVEL +6.2 ft. to +2.0 ft.ENERGY LEVEL: ☐ H ☒ LSURVEYED FROM: ☒ FOOT ☐ BOAT ☐ HELOWEATHER: ☐ SUN ☐ CLOUDS ☐ FOG ☒ RAIN ☐ SNOWTOTAL LENGTH SHORELINE SURVEYED: ~1100 mNEAR SHORE SHEEN: ☐ BR ☐ RB ☐ SL ☒ NONEEST. OIL CATEGORY LENGTH: W 1 m M 30 m N 1 m VL 310 m NO ~750 m US ~1200 m

L O C	SURFACE OIL CHARACTER										SURFACE SEDIMENT TYPE	SHORE SLOPE VHML	AREA		ZONE				NOTES
	AP	MS	TB	SOR	CV	CT	ST	FL	DB	NO			WIDTH m	LENGTH m	S	UI	MI	LI	
A				T							PC	L	1	100		X			after PU. 10 SOR
B1		S									BCV	L	1/2	1	X				interstices
B2				S									5	10	X				
C1							S				RV	M	1/2	3	X				on log
C2						T					RB	H	5	10		X			
C3		T									R	H	0.1	0.1	X				
I		S				S	T				BPR	H	1 1/2	65	X	X			surveyed 5.15.91
D			T			T					RB	H	1	50		X			
E				T		T					CPB	M	8	5	X	X	X		10 SOR
F1		B									CPG	L	5	20		X			
F2		P		P		P					RBC	M	3	10	X	X			hi SOR
G		S									CPB	M	1	6					partly treated - PU
H				S		T					RBC	H	6	15	X	X			hi SOR

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-

1-22FRAMES 17-25

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	15				X				10-12	Y	-			X			CG-GPMV	
2	15							X	10-13	Y	-			X			" "	
3	20							X	12-15	Y	-			X			PCB-GPM	
4	15							X	-		-				X		BC-GC	
5	15							X	-		-		X				PC-GP	
6	15							X	8-10	Y	-			X			CP-GPMV	
7	12							X	-		-			X			BC-GCP	
8	10							X	-		-			X			" "	
9	15							X	-		-	10	I			X	BC-PG	

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

OG COMMENTS:

Steep rocky shore w/ some coarse-grained beaches on breacher in the rock wall. Two ANAD. fish streams were surveyed w/ TOM CRAWLE - ADF's G.

Sketches 1 & 2 show remnant low SOR & traces of CT & MS associated w/ past AL. A thin, sporadic layer of subsurface oil

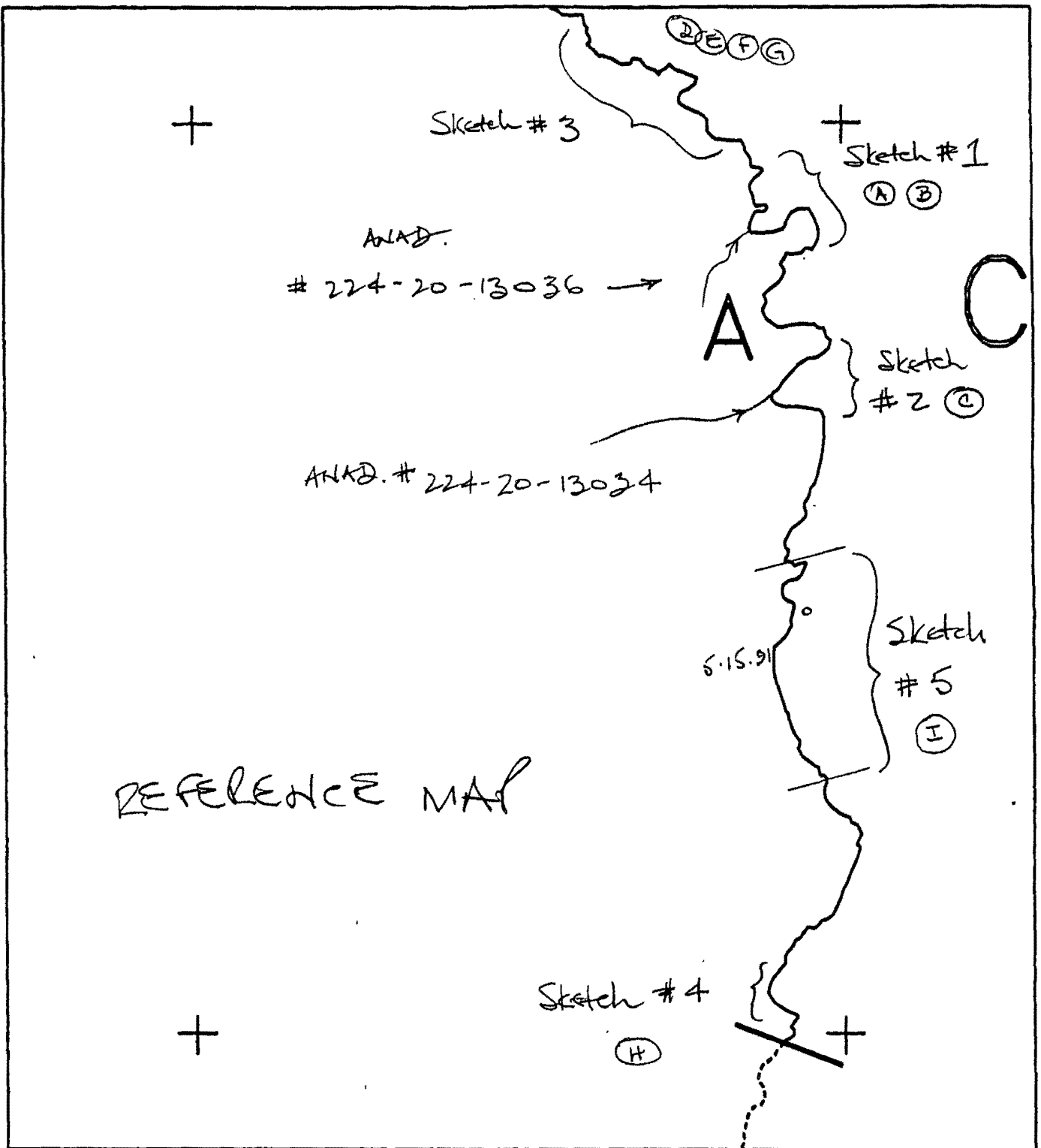
DATE 5, 14 / 91

OG COMMENTS: remains on N end @ sketch 1 stream (-13036),
trapped under PG, over a Ppeat layer.
Oil locations for remaining sites were poorly located by SSAT '90
& subsequent visits by ASAT '90 missed 2 out of 3 oiled sites.
Sketch #3 illustrates oiling identified by SSAT '90 survey sketch.
MS & hi sor bands to 20 m long, under CB armor typifying
these sites.
Sketch #4 illustrates remnant oiling @ rocky pocket, thought
to be location of pooled oil (SSAT '90); Boyer confirmed
that site lying ~ 1/4 mile N. - surveyed 5.15.91.
Sketch #5 illustrates site of 5.15: it had MS/I under massive B
and some associated CT.

[illegible]

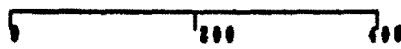
SHEEN COLOR: B - BROWN; R - RAINBOW; S - SILVER; N - NONE

2



CU014 A

METERS



AK State Plane Zone 4
published

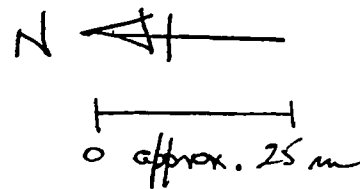
Subdivision Field Map

Map Key: PVSCU014Aa

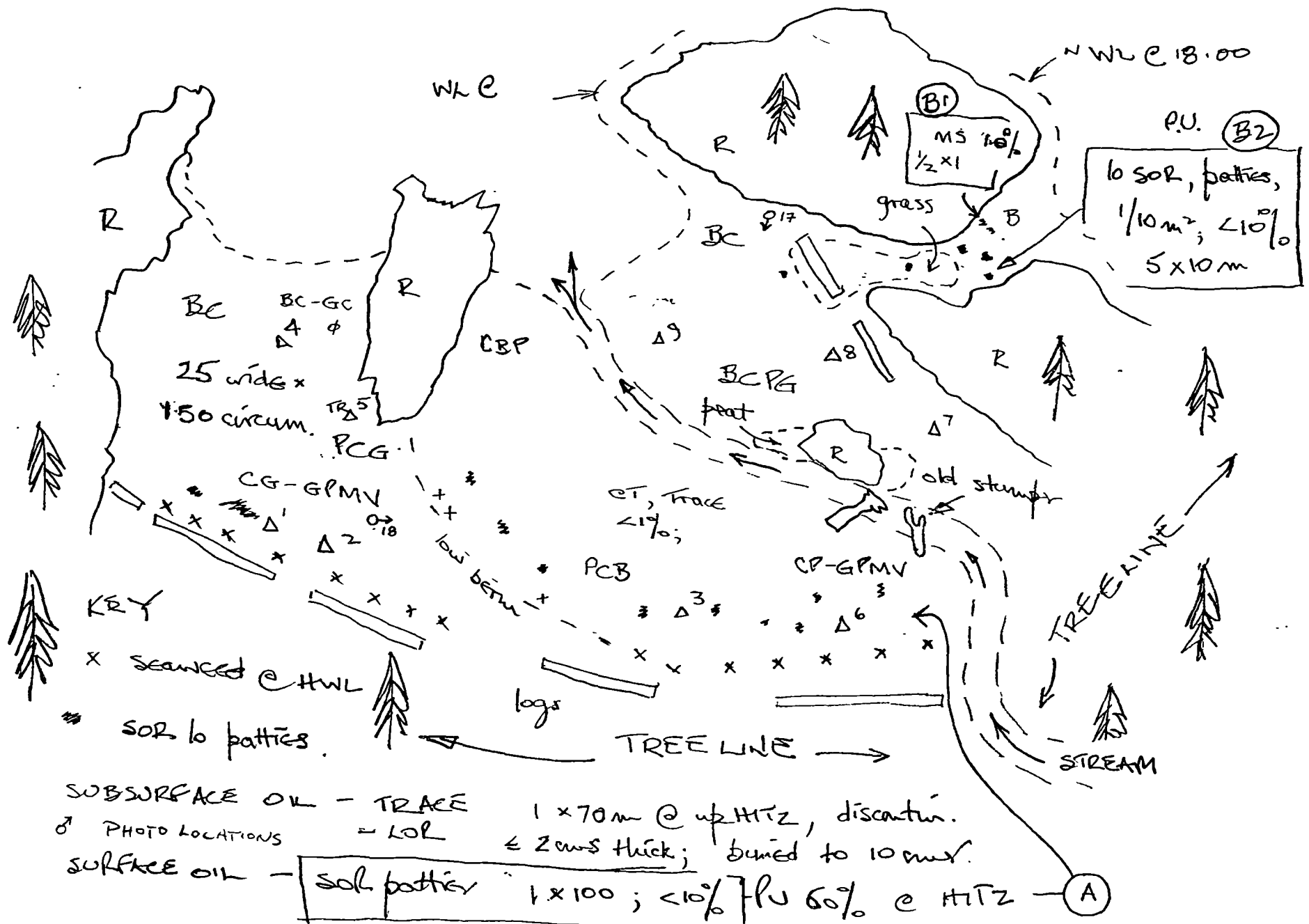
Name: GM

Date: 5.14.91

G. MACDONALD S. 14.91
ASC # 2242013036



Sketch #1



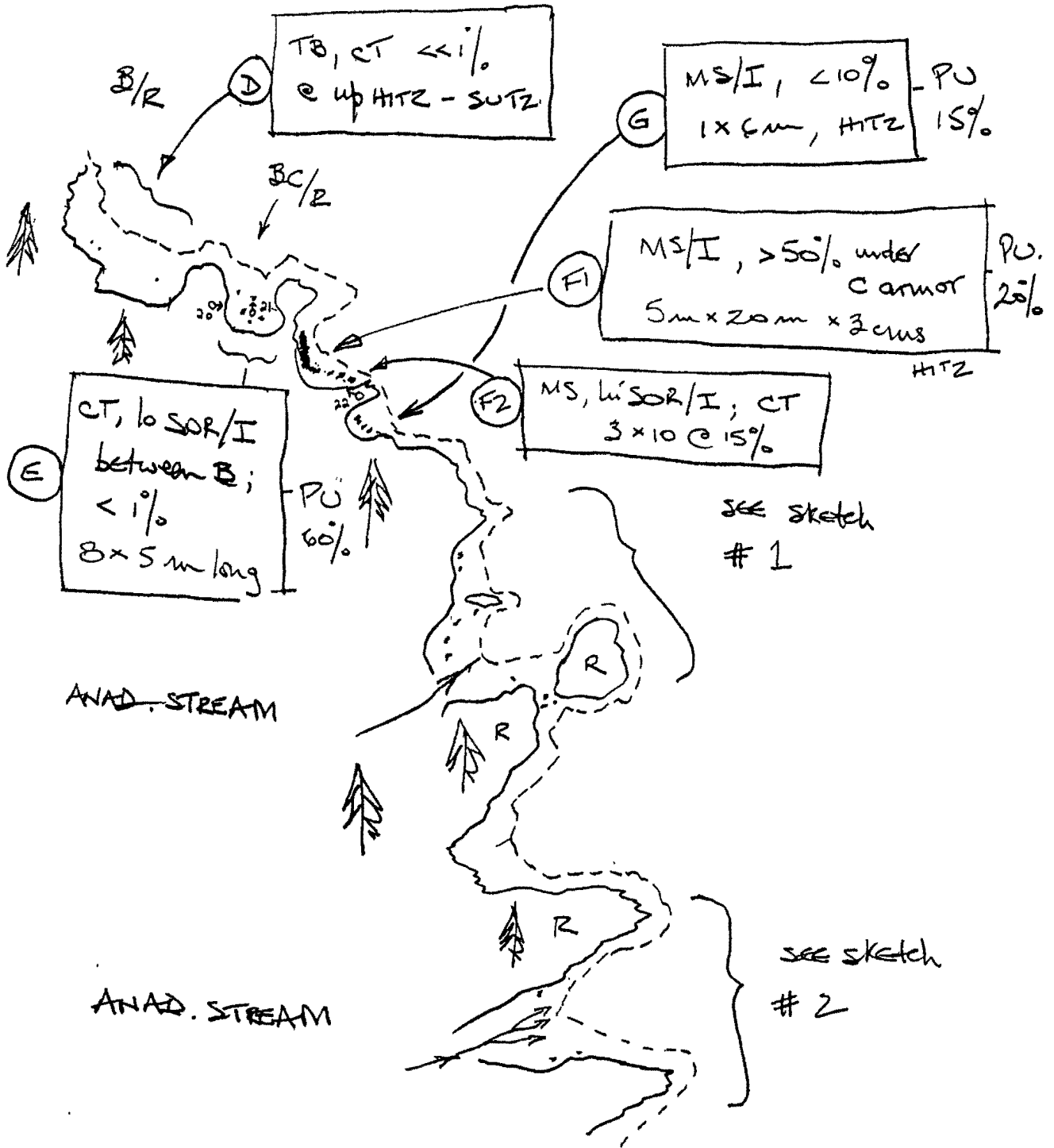
CU-14 A

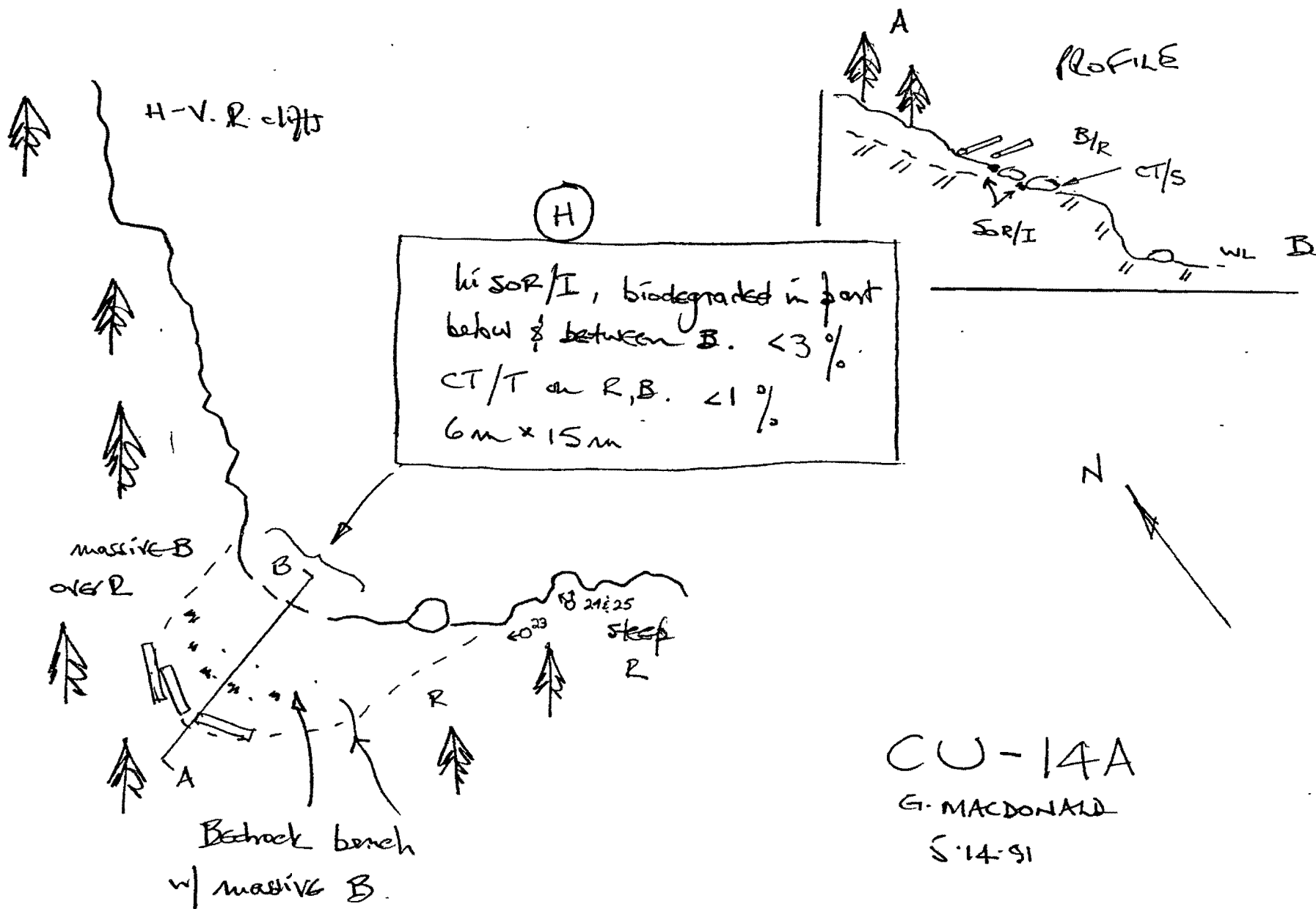
Sketch #3

G. MACDONALD

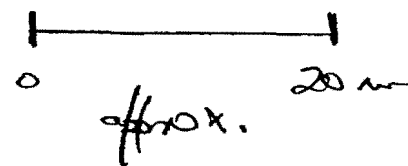
5.14.91

approx.
0 100m





Sketch #4



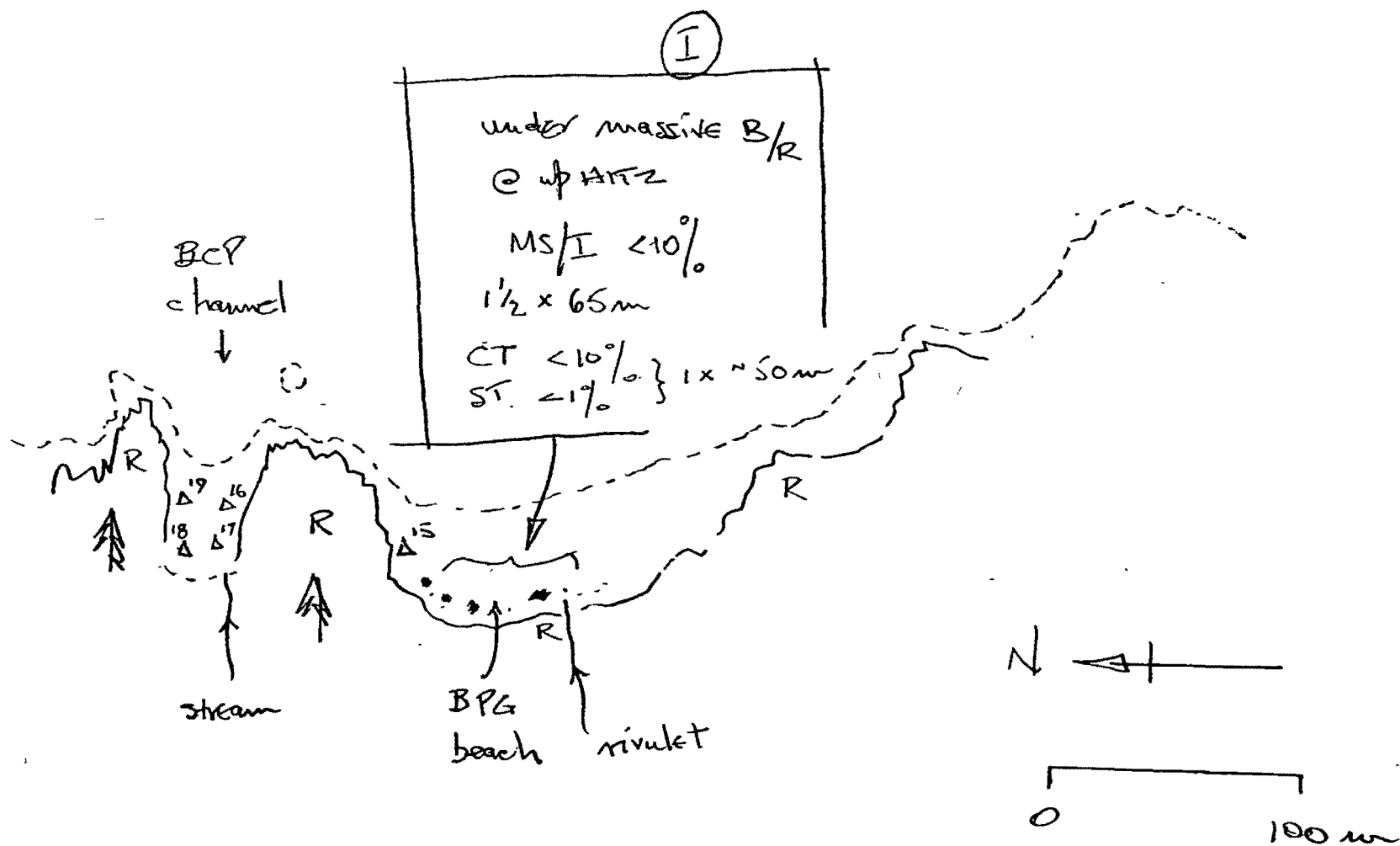
CU-14A

G. MACDONALD

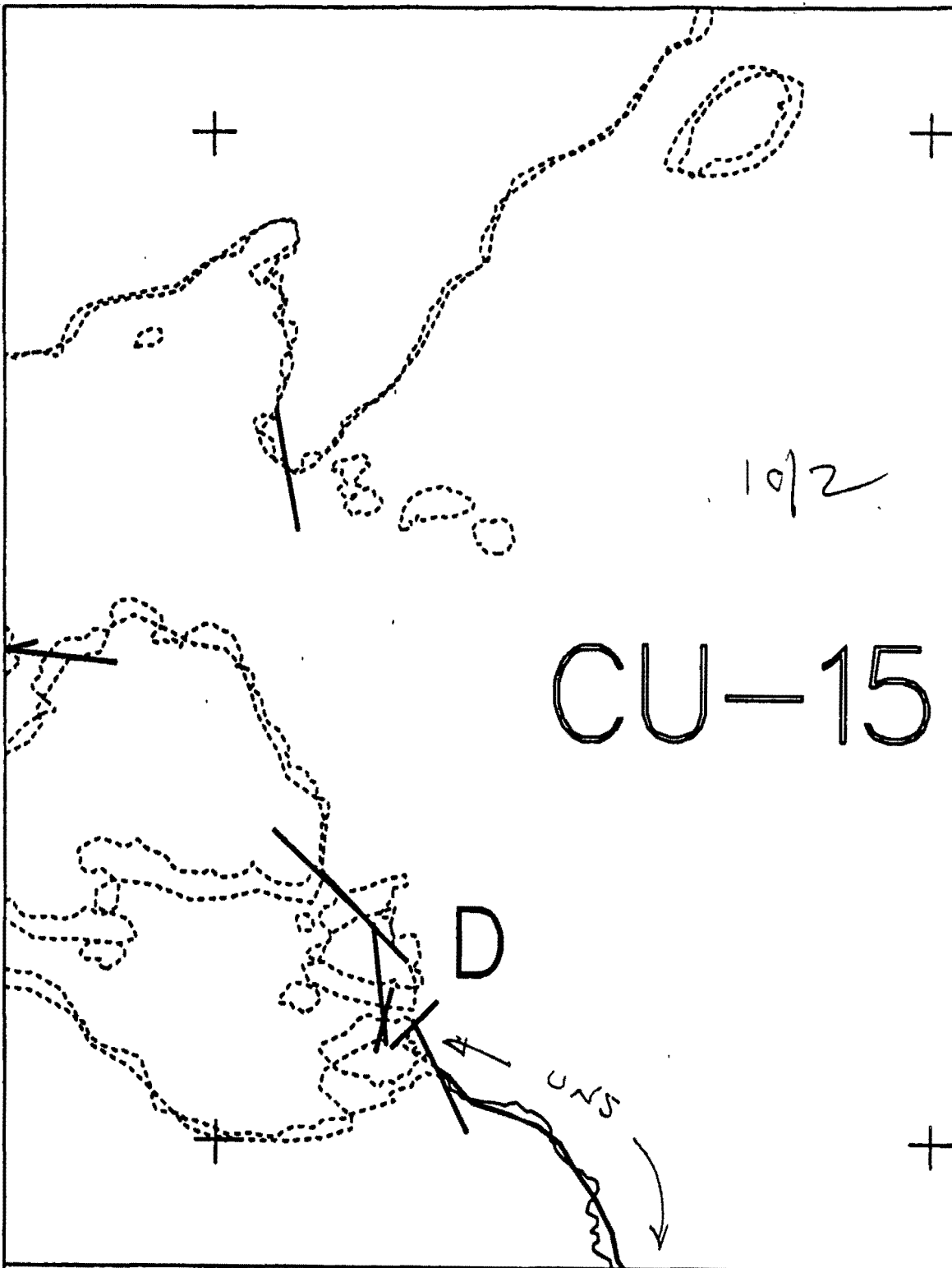
5.15.91

Sketch #5.

8



11.45 - 12.15 HRTZ
+ 4.0' - + 5 1/2' tide.



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

CU014 A
 ADEC Subsegment Length: 2293m
 METERS

0 200 400

AK State Plane Zone 4
 psu014ab



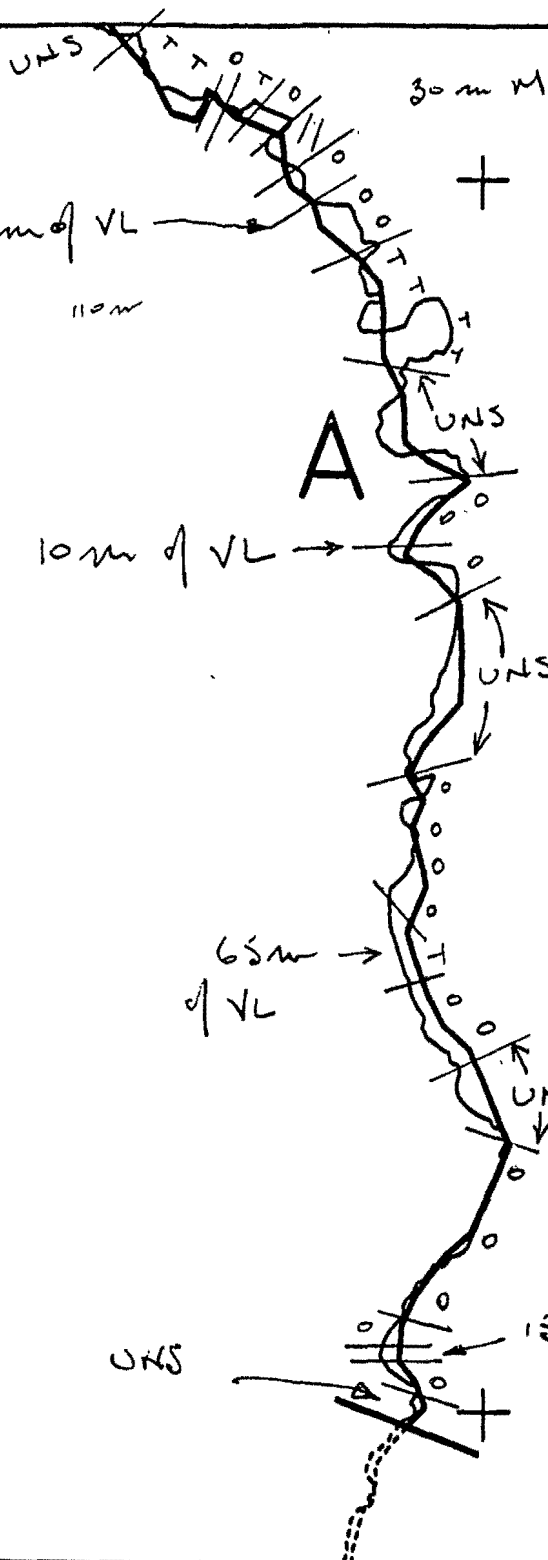
Subdivision Field Map
 Map Key: PWSCU014Ab
 Name: GM
 Date: 5-15-91
 Data Entered:

+

+

C

2 of 2



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

CU014 A

ADEC Subsegment Length: 2293m

METERS

0 200 400

AK State Plane Zone 4
 pcu01400

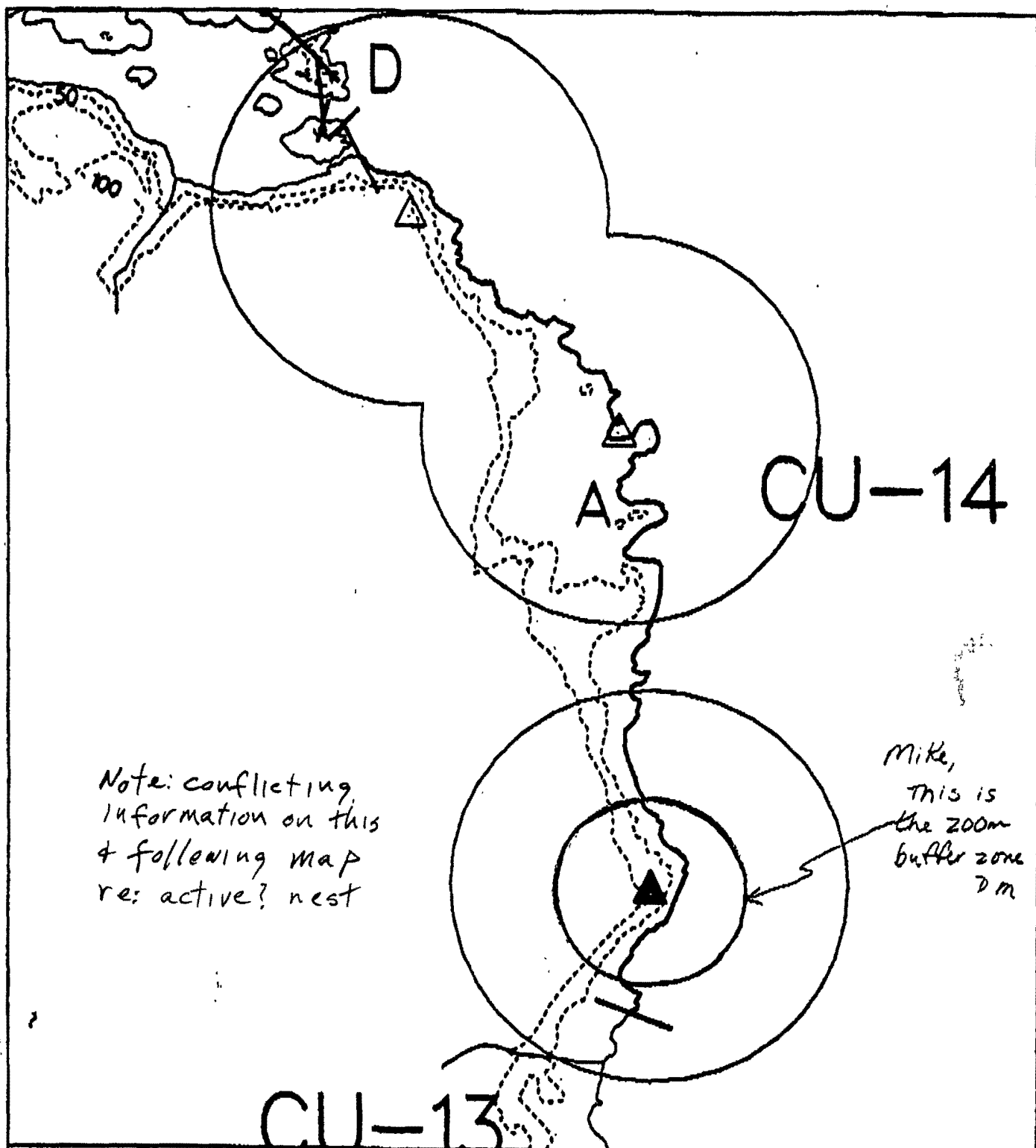
Subdivision Field Map

Map Key: PWSCU014Aa

Name: GM

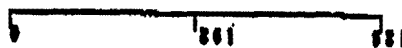
Date: 5-15-91

Date Entered:



CU014

METERS

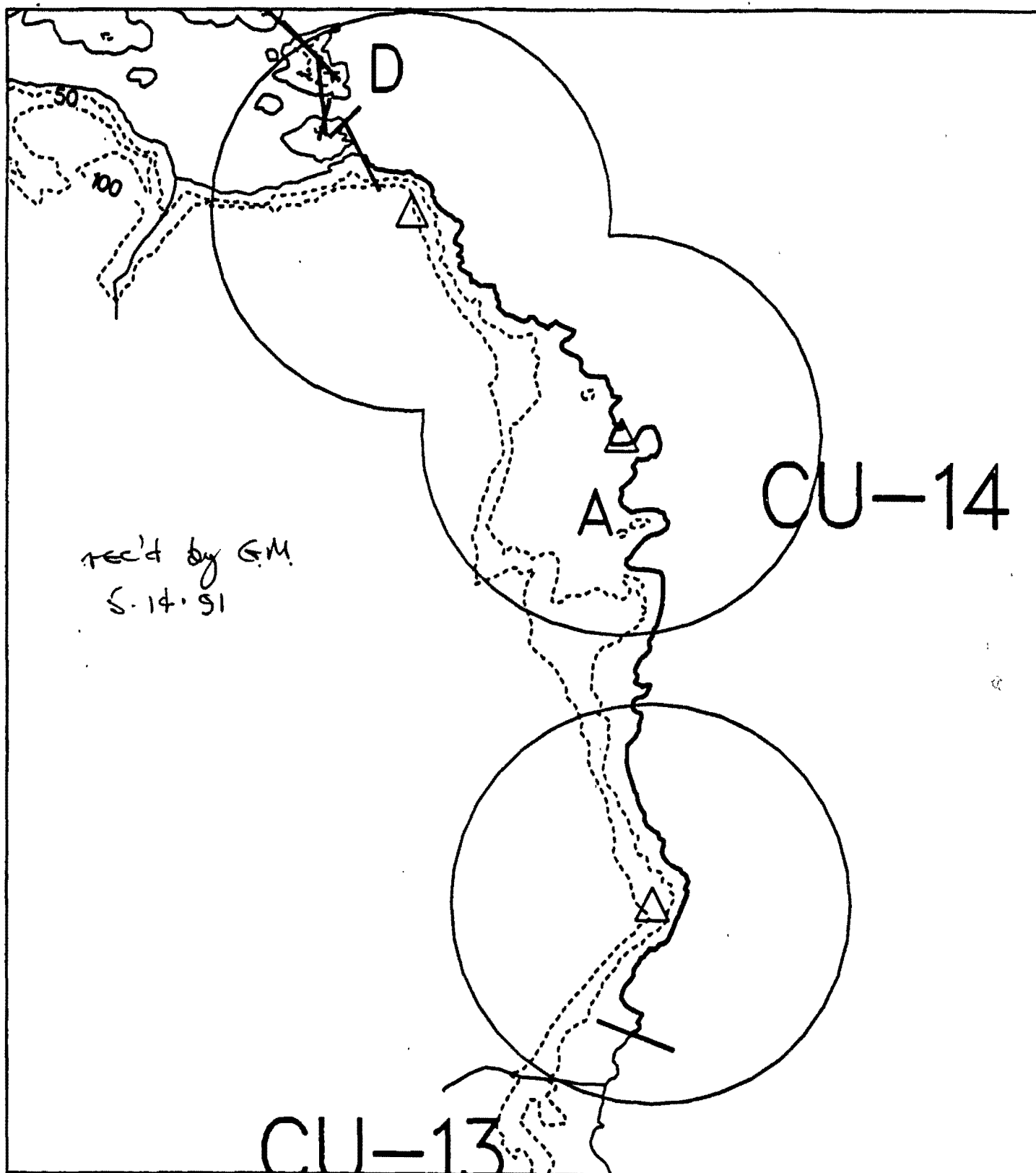


AS State Planning Zone 4

Segment Reference Map
Map Key: PUSCU014

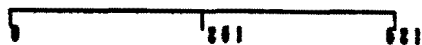


EAGLE NEST



CU014

METERS



AK State Plane Zone 4
psu014

Segment Reference Map
Map Key: PVSCU014



EAGLE NEST

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 1 DATE 14 & 15 May 91
 SEGMENT # CV 014 TIDAL HEIGHT (Range) 2.0-4.7ft, 3.0-4.2 ft
 SUBDIVISION A BIOLOGIST Michael Fawcett
 SEA STATE 1 ft swell WIND SPEED/DIRECTION NE 10-15 knots
 PHOTOGRAPHS: ROLL # FRAME #

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

Completed anadromous stream sites and two other sites with Tom Crowe (ADF&G monitor) on May 14; returned May 15 to survey 5th site (Sketch #5), see sketches 1-5 for descriptions of biota near each oiled site. Salmon fry were observed in the intertidal zone near the mouth of the smaller stream (#224-20-13034). SOR & CT Typically found in VTZ-SVTZ areas at +10-12ft MLLW, above most biota except lichen, limpets, Amphipods & oligochaete worms. MTZ areas below oil typically have dense Rockweed and barnacle spat, and variable densities of Littorinids, mussels, limpets, Rhodomele, etc. Whelks (*Nucella emarginata*) are abundant in MTZ-LTZ throughout the subdivision, *N. lamellosa* sparse.

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1	1	Salmon fry
Seabirds			black prickleback
Waterfowl			
Gulls/Kittiwakes	1 (G-W Gull)	3	
Shorebirds			
Corvids			
Other Birds			

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

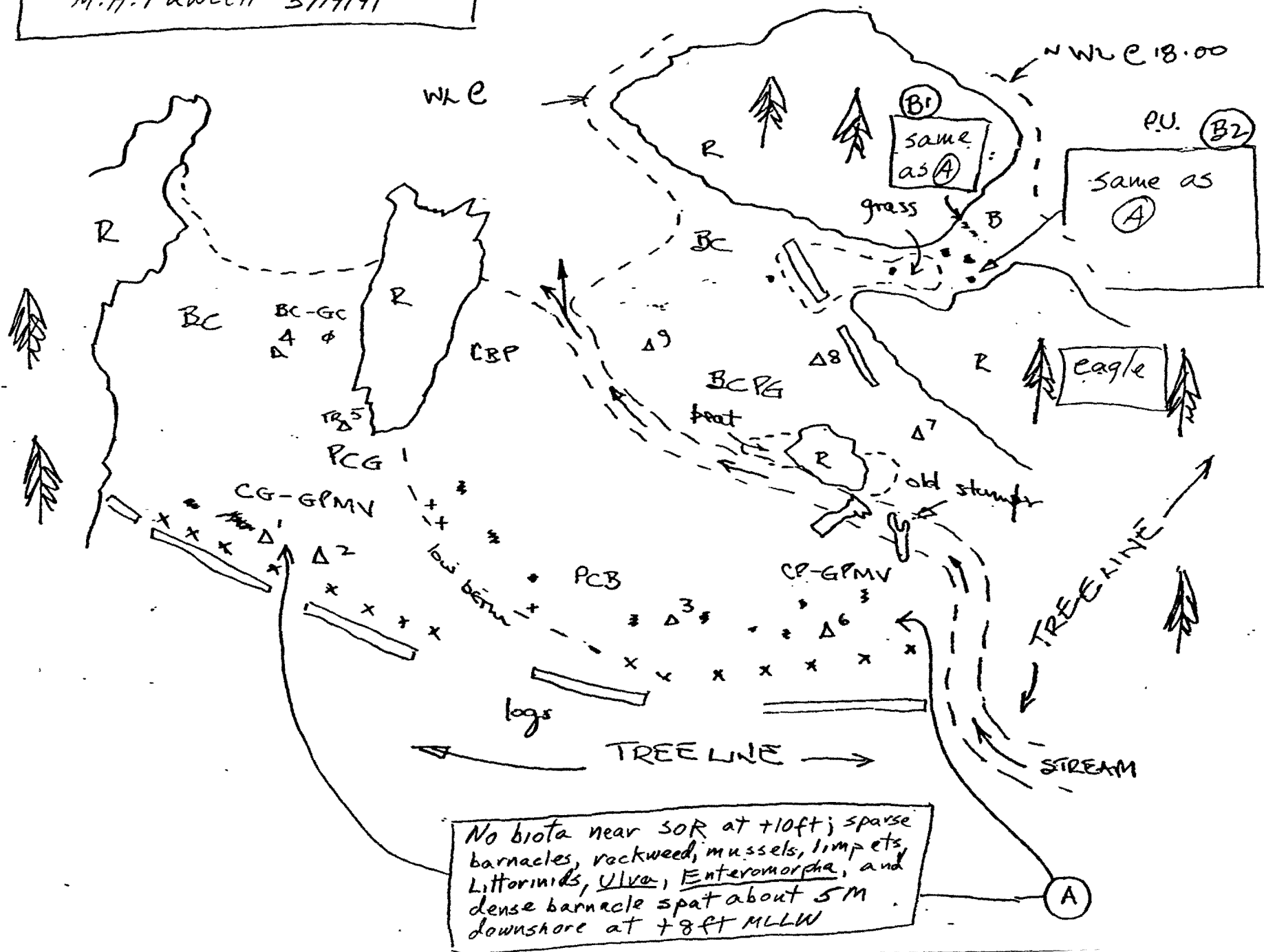
Shoreline subdivision map showing important biological features attached.

CU 0174
Bio Sketch Map
ASC # 2242013036
M.H. Fawcett 5/14/91



Sketch #1

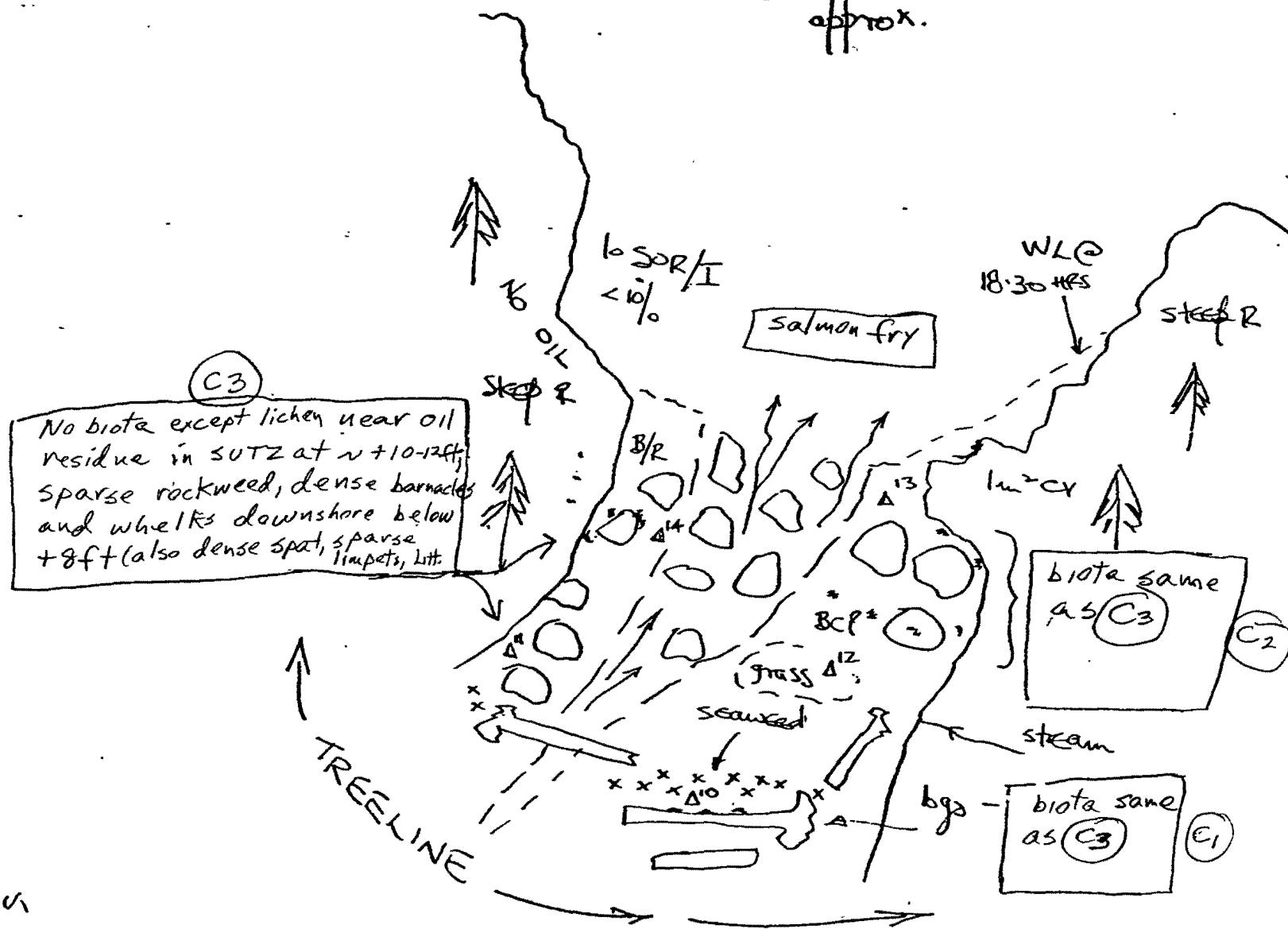
14



Bio Sketch Map M. Faucett
ASC # 2242013034
CU 014-A 5/14/91

Sketch #2

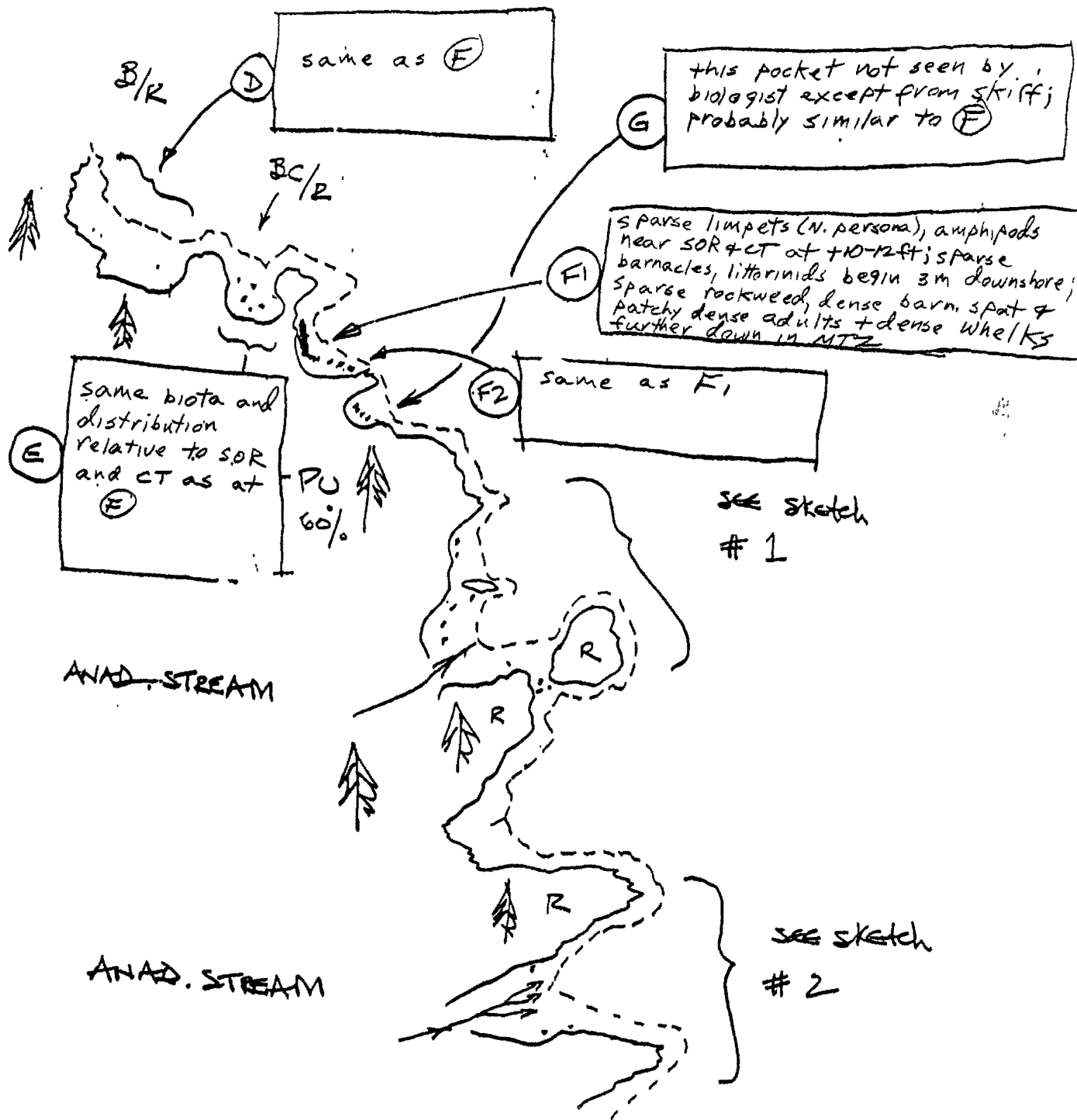
0 10 m
approx.



BIO. sketch Map
CU-14 A
14 May 91
M. Fawcett

Sketch #3

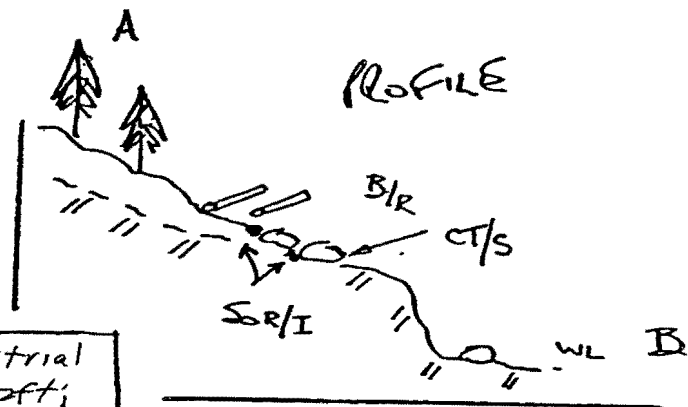
approx.
0 100m



H-V. R. cl 1775

(H)

No biota except lichen, terrestrial grass near SOR + CT at 102ft;
Tidepools 2m downshore with dense littorinids, plus hermit crabs, and coralline algae; rockweed, limpets, littorinids, sparse barnacles around pools on BR; LTZ-MTZ tidepools with typical diverse biota



massive B
over R



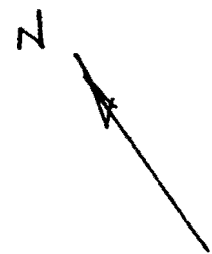
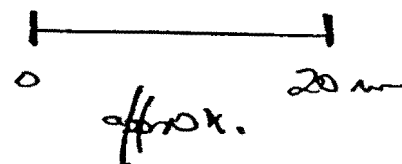
Beach bench
w/ massive B.

steep
R



Sketch #4

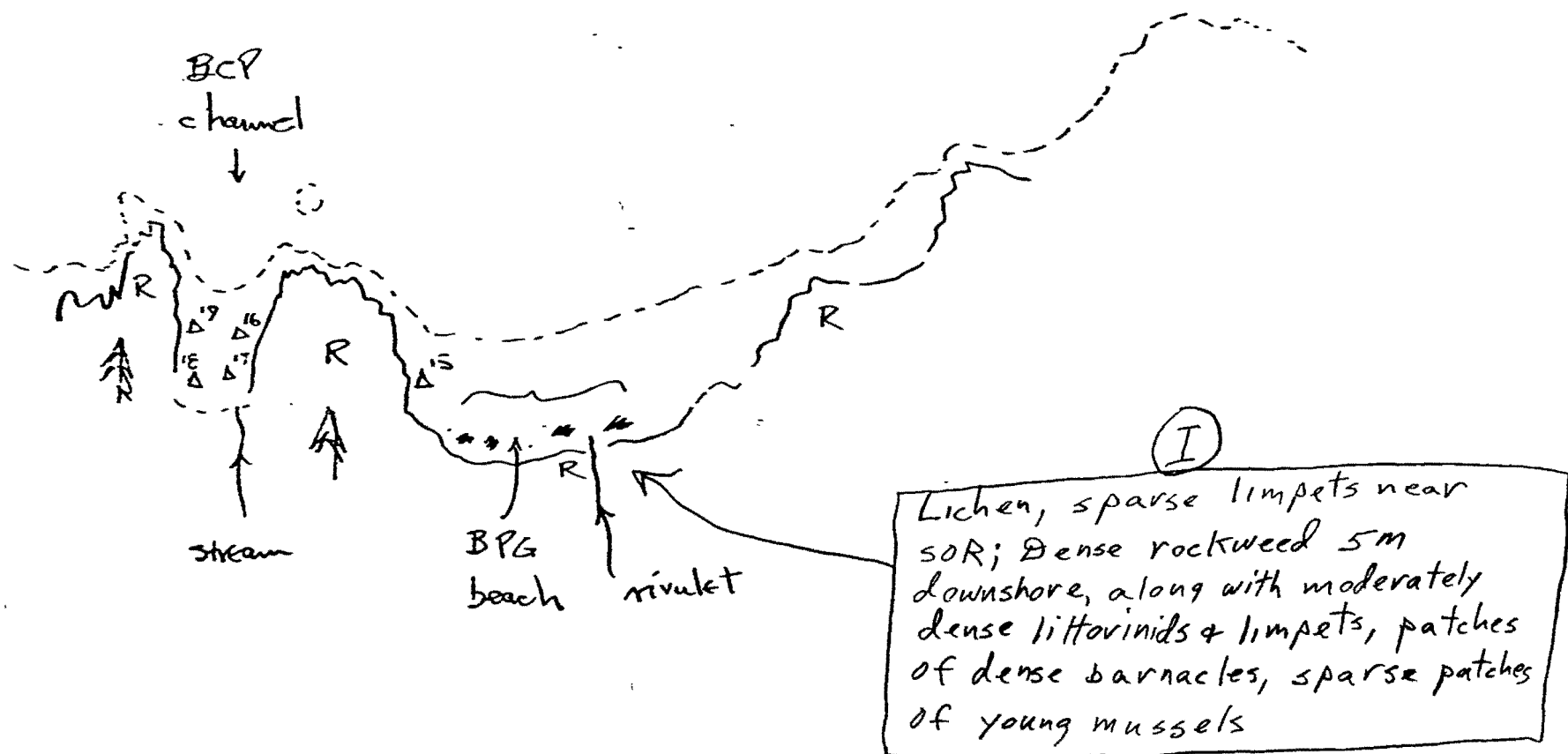
Bio Sketch Map
CU 14A, 14 May 91
M.H. Fauzett



DIO - Neich map
 CU-14A
 15 May 91
 M. Fawcett

Sketch #5.

18



CV 14A Arr 1715 : Fawcett
5/14/91 wind NE 5-10, rain

Sub A

Pink salmon stream

1 eagle flew over

1 gull

Site 1800 hrs

- smaller than stream (a)

sleep shore, no

spouse washed + 4-8 ft on boulders

4 BR - very dense barn, which

no idea in stream

- salmon fry at mouth

1800
75ft

grand/p

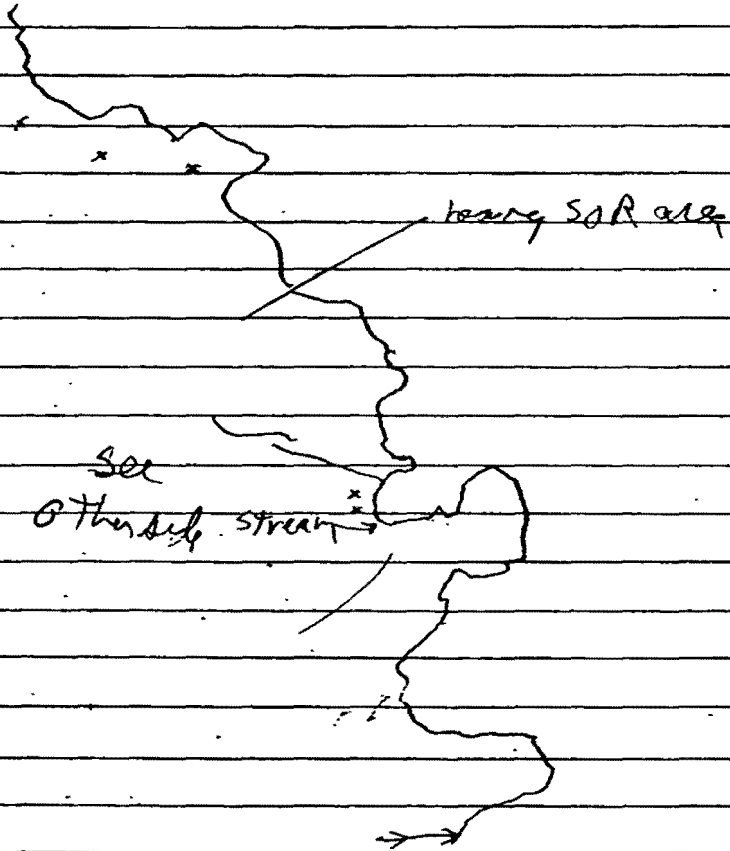
BR

BR

depart 1820, went north

CV 14A

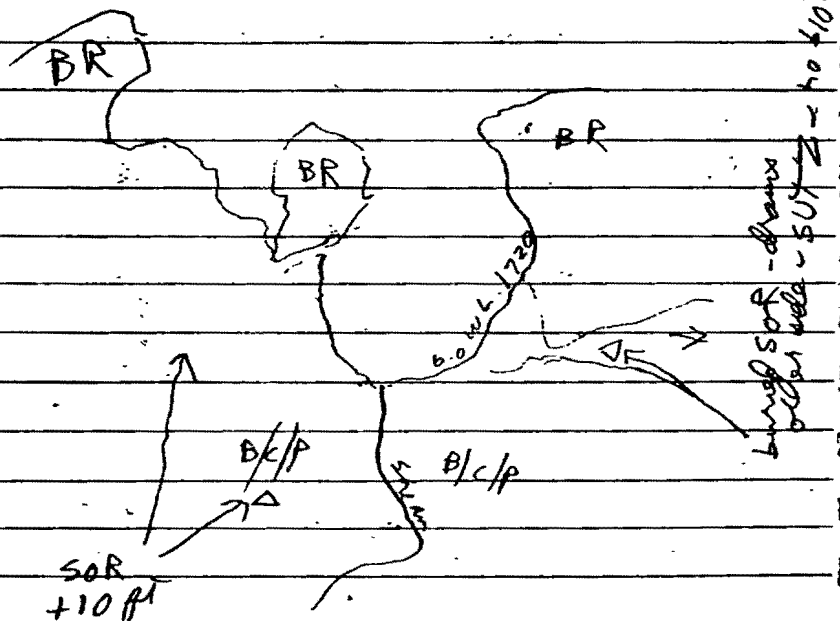
N
↑



over →

C^U 14a (cont) 5/14/91 Fawcett

Site (A) 1715



no b. o. w. l.
sparse barn, limf, litt, ulva, Entery
moss, Fucus downshore - also dense spa +
5m at +8 ft

14 May (cont)

Site C - no shore

splashed SOR + CT UTZ + 10-14 ft. 17
lee of outcrop - B/d/p - no b. o. w. l.
near upper end in SUTZ, but
3 dense Fucus & limpa near
SOR (picked up) at +10 ft,
dense Fucus, barn, fil. reds
whelks, etc downshore, sloping
2m below at +8-9 ft - walked
north to end of subdivision -
same rel. dist. of b. o. w. l. &
traces of CT at 10 ft -
d. N. lamellosa breeding under
ledge at +3 ft. near end of segment

1900 hrs - nearest SOR side/see
Graham's map - 50% cover 14
UTZ - SUTZ + 10-12 feet - only
b. o. w. l. are sparse N. personia, amph,
worms
- sparse barnacles, Litt begin 3m
downshore, moss, dense sparse
Fucus further down at +4-5 ft
w/ dense barn spot, polychaete
adults, dense N. lamellosa
a few N. lamellosa

CU 14A (Cont) 14 May, Fairport
12:30 hrs

last mile, south end of
Segment - SOR, CT in VTZ-SUTZ
10-12 ft boulders above biota - 2m
down shore on BR bench are
pools w/ Litho, hermits, Litt,
but sparse algae ^(mostly Littorina) mod
dense Fucus on BR around pools -
Litt, limp, sparse barn
- pools in LTZ-MTZ w/ rich
biota - very dense N among
all over the subdorsum

* gulls

Finish 1945

15 May 91 Returned to CU 14A

11:45 hrs - area missed
yesterday -

- shallow B/c cove - SOR SUTZ
in crevices of cove - no biota except
sparse limp 5m down shore at ~8ft - dense
Fucus - sparse barn (some dense
patches, mod. Litt, limp,
sparse mussels

21
sparse Rhodo, Ulvospira, UVA
LTZ - purple backs, breeding
Litt, dense spat

Band of SOR just at edge of
N person & Litt. - limpets
very dense (10-20 per boulder)
just below ord (+8-10ft)

Finish 1215 hrs

ADF&G MULTI-ASSESSMENT DATA FORM

- 1) SURVEY TYPE: BS SS 2) REGION: PWS KP, CI K, AP
- 3) METHOD: Aerial Ground Boat
- 4) DATE: 5-14-91 16) HIGH TIDE TIME: _____ 22) TEAM RECORDER: Tom Crowe
- 5) START TIME: 1730 17) HIGH TIDE HTS: _____ 23) OBSERVERS: _____
- 6) STOP TIME: 1830 18) LOW TIDE TIMES: 2000 24) AGENCY: ADF&G
- 7) SEGMENT #: CUMIYA 19) LOW TIDE HTS: +2 25) PHOTOS TAKEN: Y N
- 8) K-UNIT: _____ 20) TIDE HT AT SURVEY: +6.2 to +4 ROLL #: _____ FRAMES: _____
- 9) LAT: _____ Ebb Slack Flood Slack 26) VIDEO TAKEN: Y N
- 10) LONG: _____ 21) USCG QUAD: _____ TAPE # _____
- 11) ASC #: 224-20-13034 (AVON CO) START: _____ STOP: _____
- 12) STREAM NAME: _____ 27) SAMPLES TAKEN? Y N
- 13) LOCATION: EAST COAST CULROSS IS. SAMPLE I.D. _____
- 14) WAVE EXPOSURE: High Moderate Low
- 15) SHORELINE TYPE: Headland Low-lying Rocks Beach
- Cove Lagoon Marsh

28) EXTENT OF OIL

	LENGTH m	WIDTH m	M2	%	THICK cm	PEN cm	OIL TYPE
SITE 1	<u>1</u>	<u>1</u>		<u><1</u>			<u>AP</u>
SITE 2	<u>1</u>	<u>1</u>		<u><1</u>			<u>CV</u>
SITE 3							
SITE 4							
SITE 5							

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

- 30) OIL IN STREAMBED: Y N
- 31) OIL ON BEACH ADJACENT TO MOUTH: Y N
- 32) SUBSTRATE TYPE (PERCENT):

Bedrock 30 Boulder 40 Gravel 25 Sand _____ Cobble 5 Mud/Silt _____

- 35) COMMENTS: Small pocket cove. Very little oiling found here. Small patches of CV and spatter in Uitz. Also a very small area of AP 1 ft sq in site #1 was removed during the time of survey.

34) WILDLIFE OBSERVATION

Species _____ Number _____

JUVENILE SALMON FRY

MILLING AT MOUTH +

TIDE ROCK

36) PHOTOLOG

FRAME(S)

DESCRIPTION

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

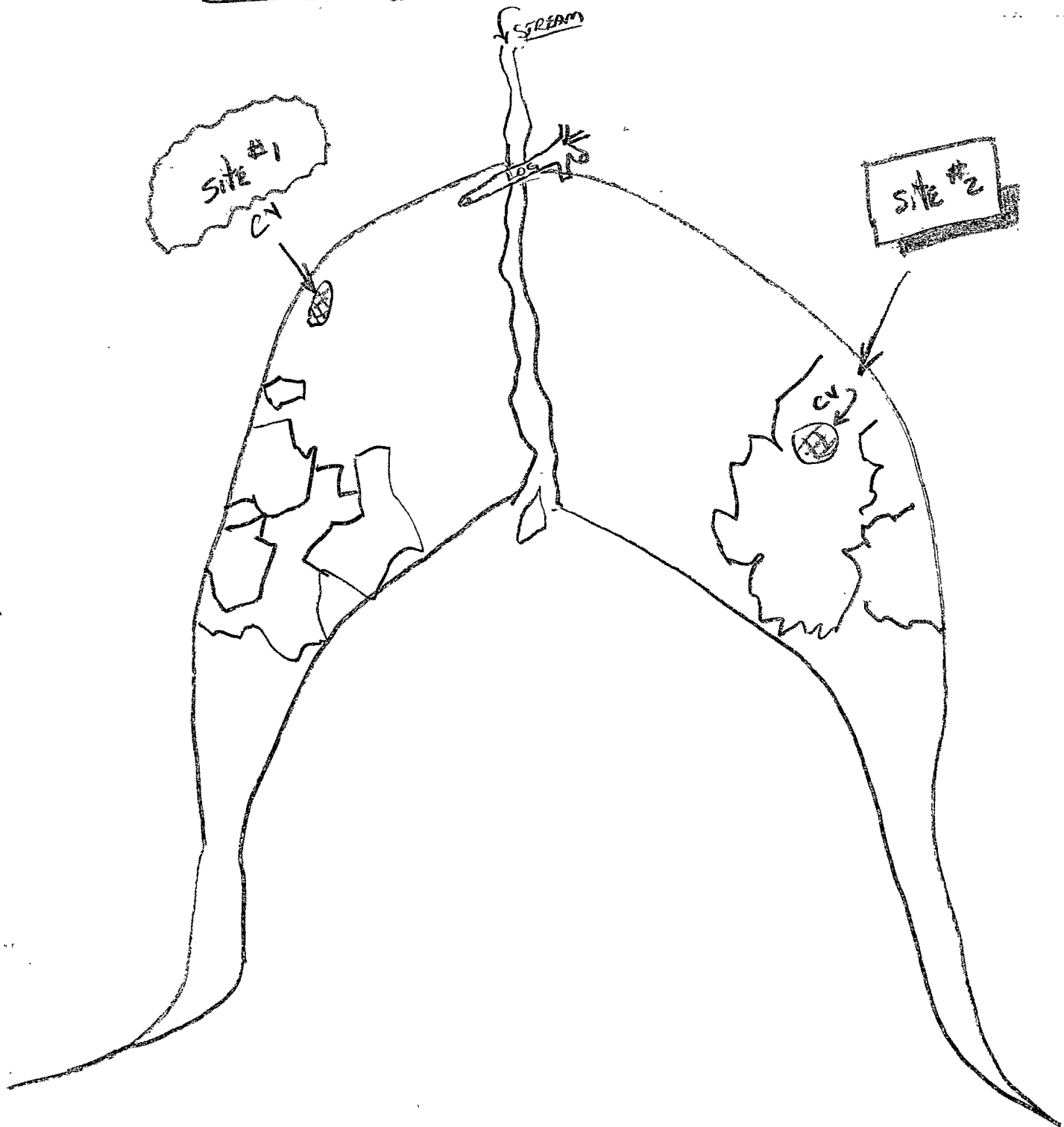
Culross Island

MAY SAP

DATE: 5.14.91

CU 014A

ASC 224-20-13034



MAYSAP SHORELINE OILING SUMMARY

PAGE 1 OF 2

TEAM NO. 1

OG G. MACDONALD

BIO M. FAWCETT

SEGMENT CU-14

ADEC J. G. HAWAS

LANDMANAGER M. HALL for JNR

SUBDIVISION A

EXXON R. BOYER

USCG/NOAA SCHULTZ/CHILDS

DATE 5/14/91

TIME 17:15 to 19:45

TIDE LEVEL +6.2 ft. to +2.0 ft.

ENERGY LEVEL: ☐ H ☒ M ☒ L

SURVEYED FROM: ☒ FOOT ☐ BOAT ☐ HELO

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

TOTAL LENGTH SHORELINE SURVEYED: ~1100 m

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

EST. OIL CATEGORY LENGTH: W 1 m M 30 m N 1 m VL 310 m NO ~750 m US ~1200 m

L O C	SURFACE OIL CHARACTER										SURFACE SEDIMENT TYPE	SHORE SLOPE VHML	AREA		ZONE				NOTES
	AP	MS	TB	SOP	CV	CT	ST	FL	DB	NO			WIDTH m	LENGTH m	S	UI	MI	LI	
A				T							PC	L	1	100		X			after PU. 10 SOP
B1		S											1/2	1	X				interstices
B2				S							BCV	L	5	10	X				
C1							S				RV	M	1/2	3	X				on log
C2						T					RB	H	5	10		X			
C3		T									R	H	0.1	0.1	X				
I		S				S	T				BPCR	H	1/2	65	X	X			surveyed 5.15.91
D			T			T					RB	H	1	50		X			
E				T		T					CPB	M	8	5	X	X	X		10 SOP
F1		B									CPG	L	5	20		X			
F2		P		P		P					RBC	M	3	10	X	X			hi sol
G		S									CPB	M	1	6					partly treated - PU
H				S		T					RBC	H	6	15	X	X			hi sol

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- 1-22 FRAMES 17-25

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	15				X				10-12	Y	-			X			CG-GPMV	
2	15						X		10-13	Y	-			X			" "	
3	20						X		12-15	Y	-			X			PCB-GPM	
4	15							X	-		-				X		BC-GC	
5	15							X	-		-		X				PC-GP	
6	15						X		8-10	Y	-			X			CP-GPMV	
7	12							X	-		-			X			BC-GCP	
8	10							X	-		-			X			" "	
9	15							X	-		10	N			X		BC-PG	

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

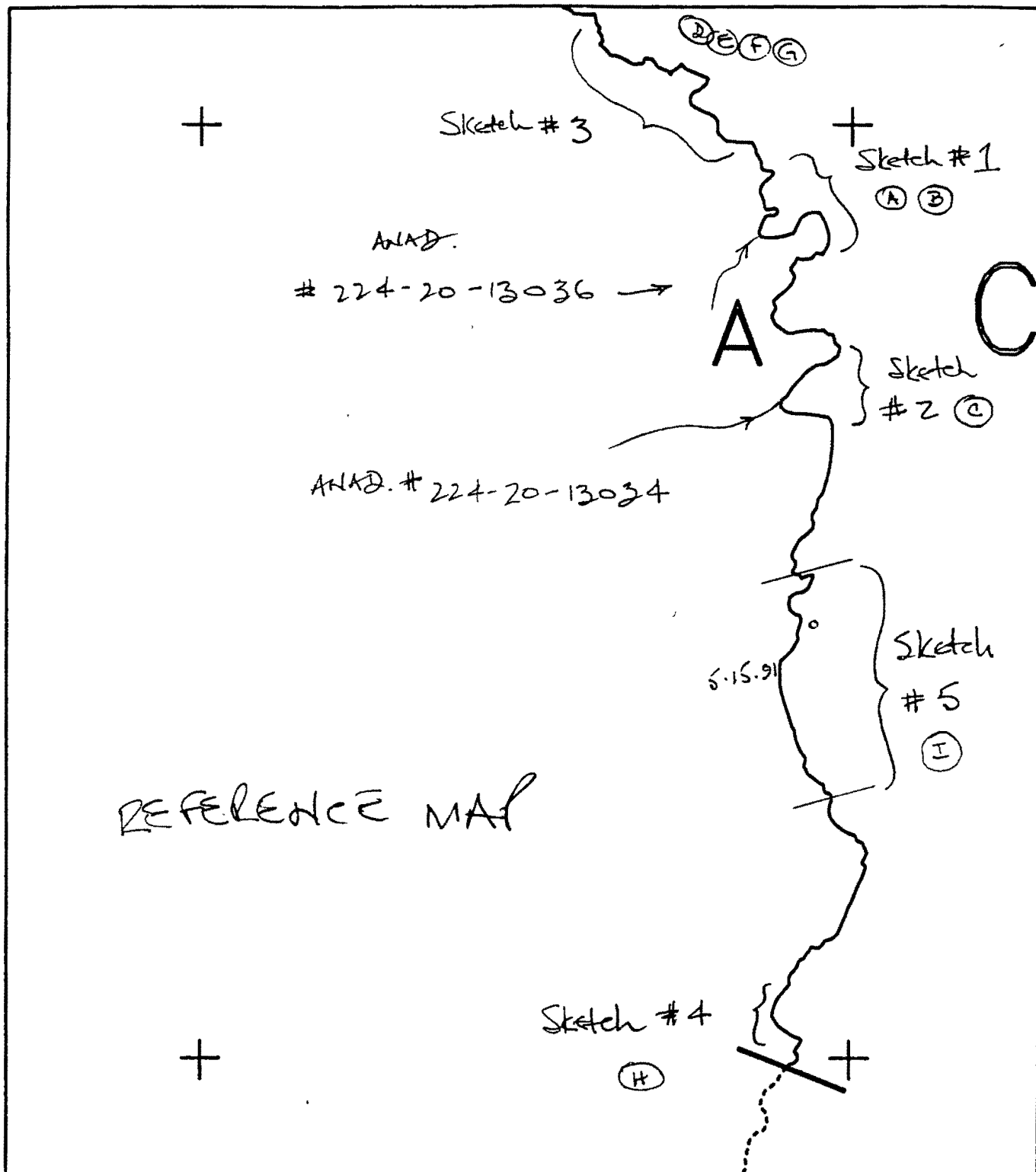
OG COMMENTS:

Steep rocky shore w/ some coarse-grained beaches on breacher in the rock wall. Two ANAD. fish streams were surveyed w/ TOM CRAWLE - ADFG. Sketches 1 & 2 show remnant low SOP & traces of CT & MS associated w/ past AL. A thin, sporadic layer of subsurface cl

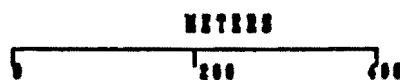
DATE 5 / 14 / 91

Sketch #5 illustrates site of S.15: it had MS/I under massive B and some associated CT.

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



CU014 A



AK State Plane Zone 4
published

Subdivision Field Map

Map Key: PUSCU014Aa

Name: GM

Date: 5.14.91

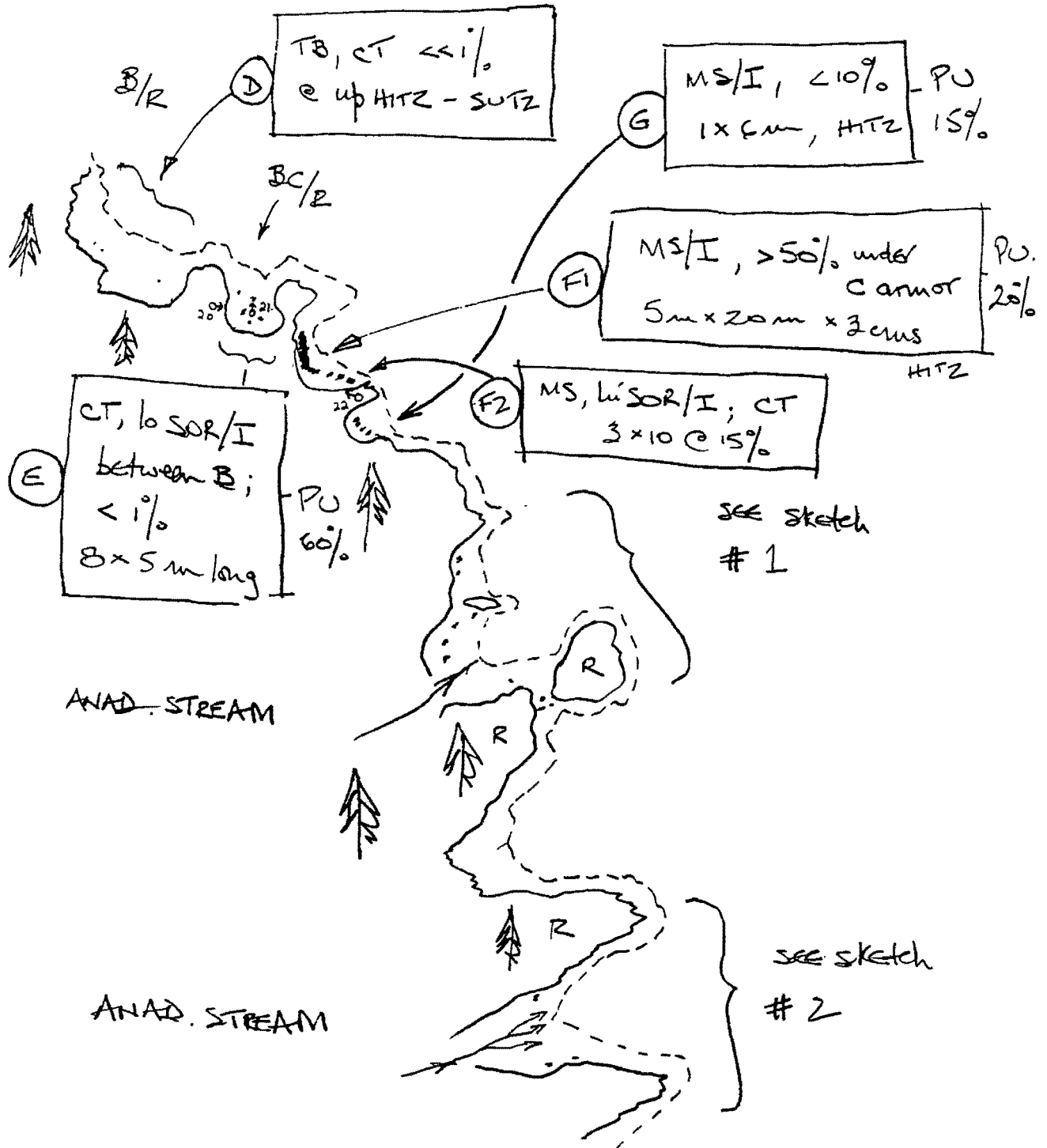
CU-14 A

Sketch #3

G. MACDONALD

5-14-91

approx.
0 100m



H-V. R cliffs

(H)

in SOR/I, biodegraded in part
below & between B. $< 3\%$
CT/T on R, B. $< 1\%$
6m x 15m

massive B
over R



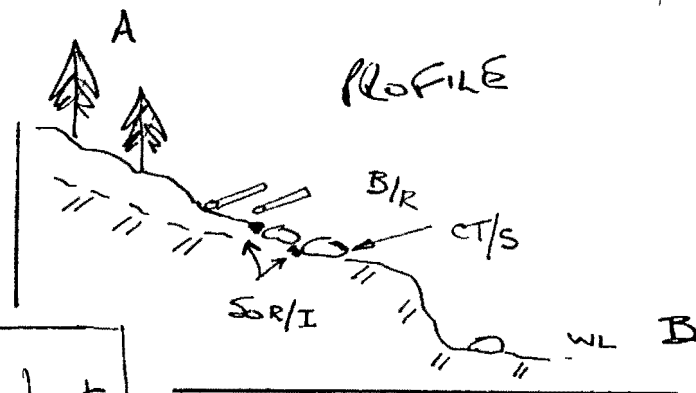
Bedrock bench
w/ massive B



20²³



21/25
steep
R

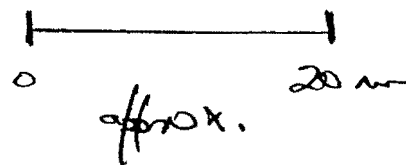


CU-14A

G. MACDONALD

S. 14.91

Sketch #4



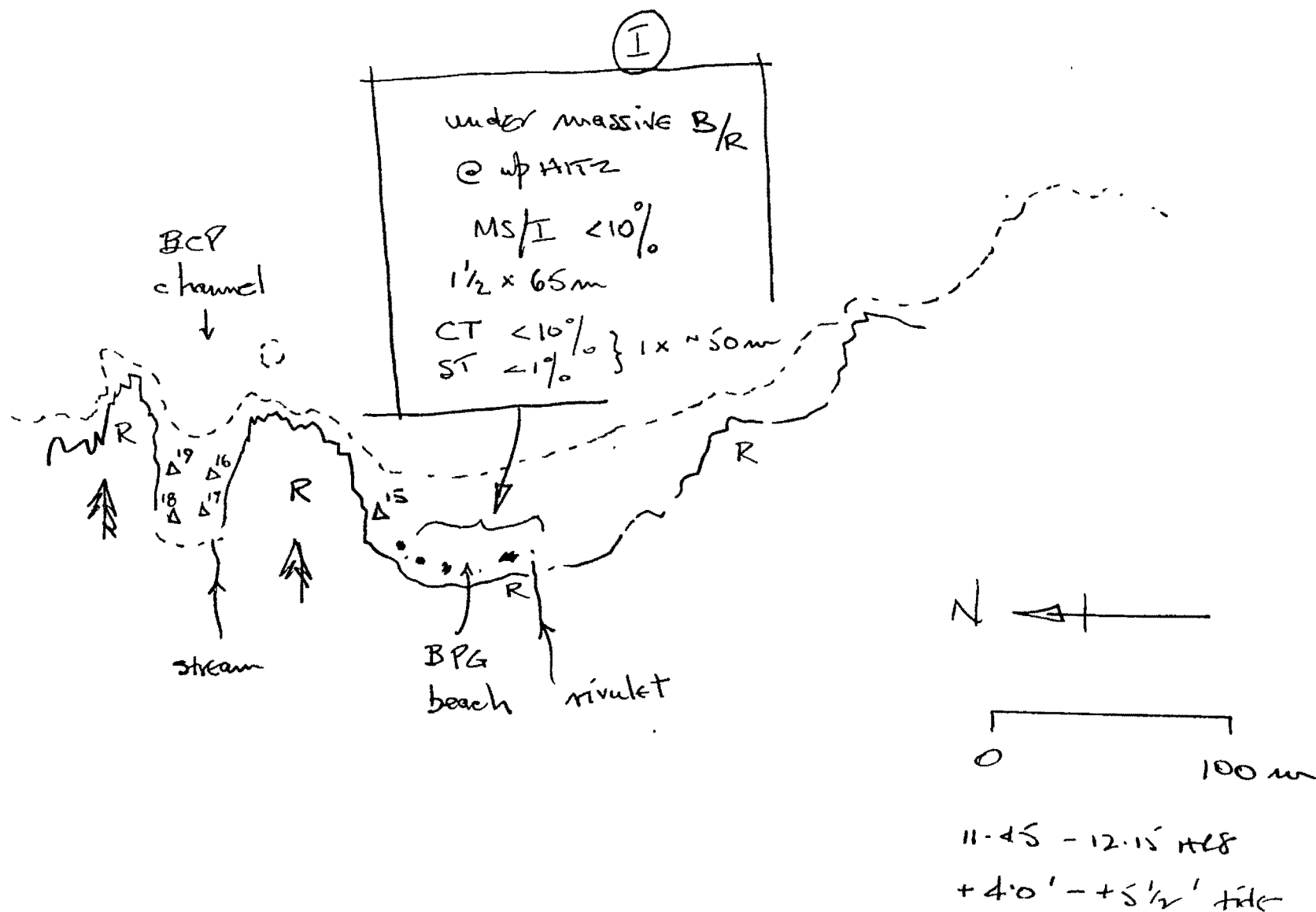
CU-14A

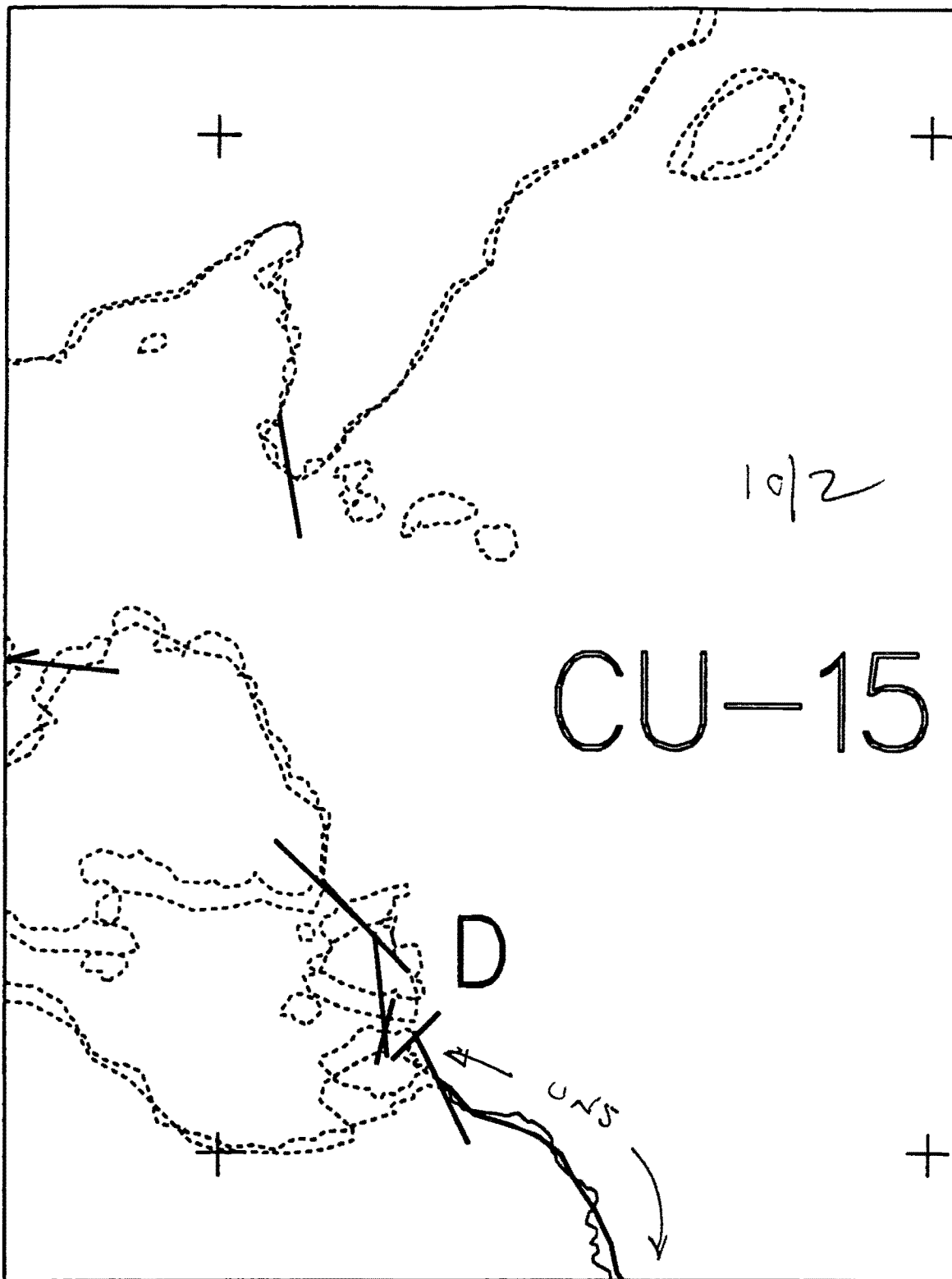
G. MACDONALD

5.15.91

Sketch #5.

8





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

CU014 A
 ADEC Subsegment Length: 2293m
 METERS

AK State Plane Zone 4
 post14ab



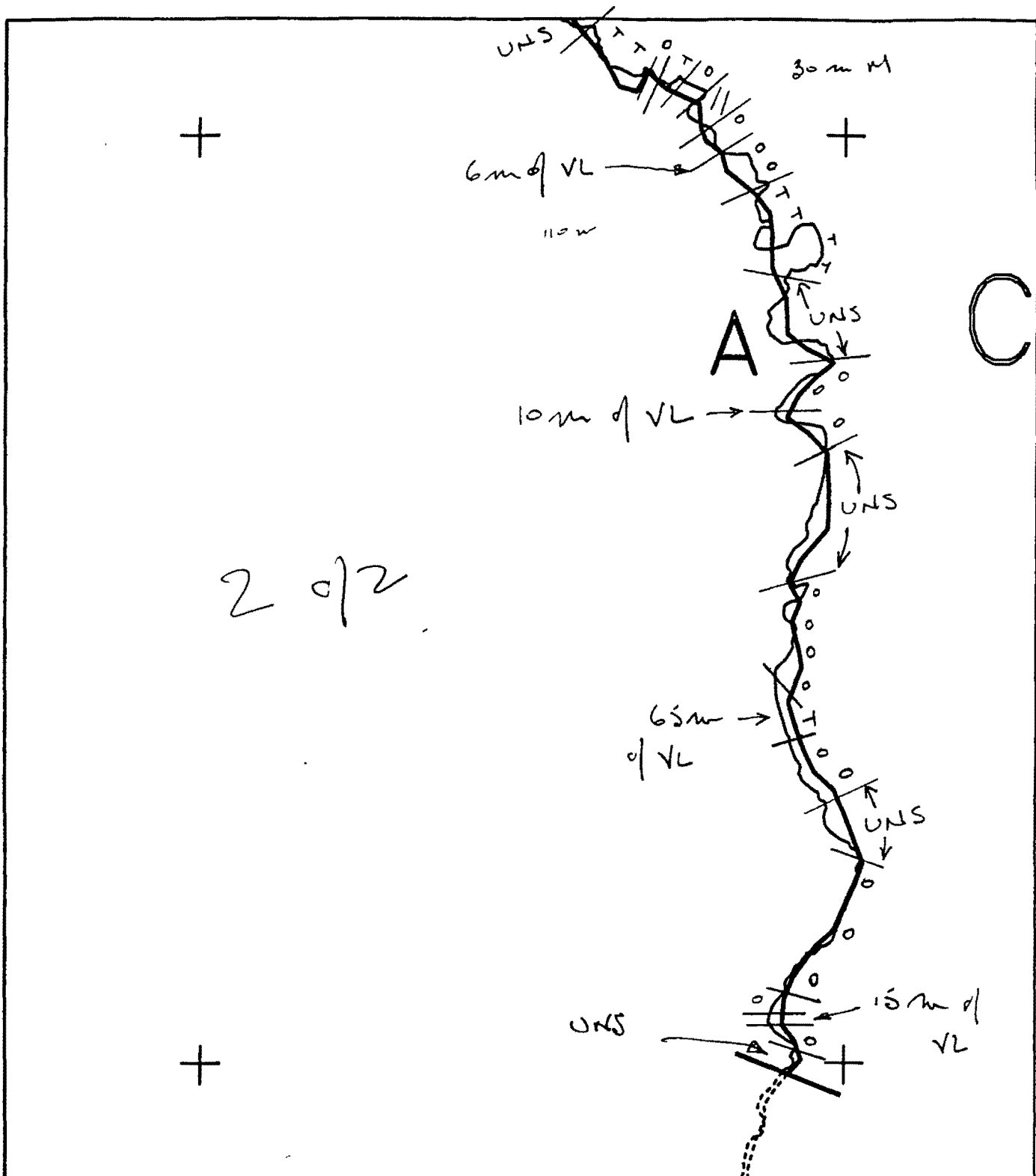
Subdivision Field Map

Map Key: PWSCU014Ab

Name: GM

Date: 5-15-91

Date Entered:

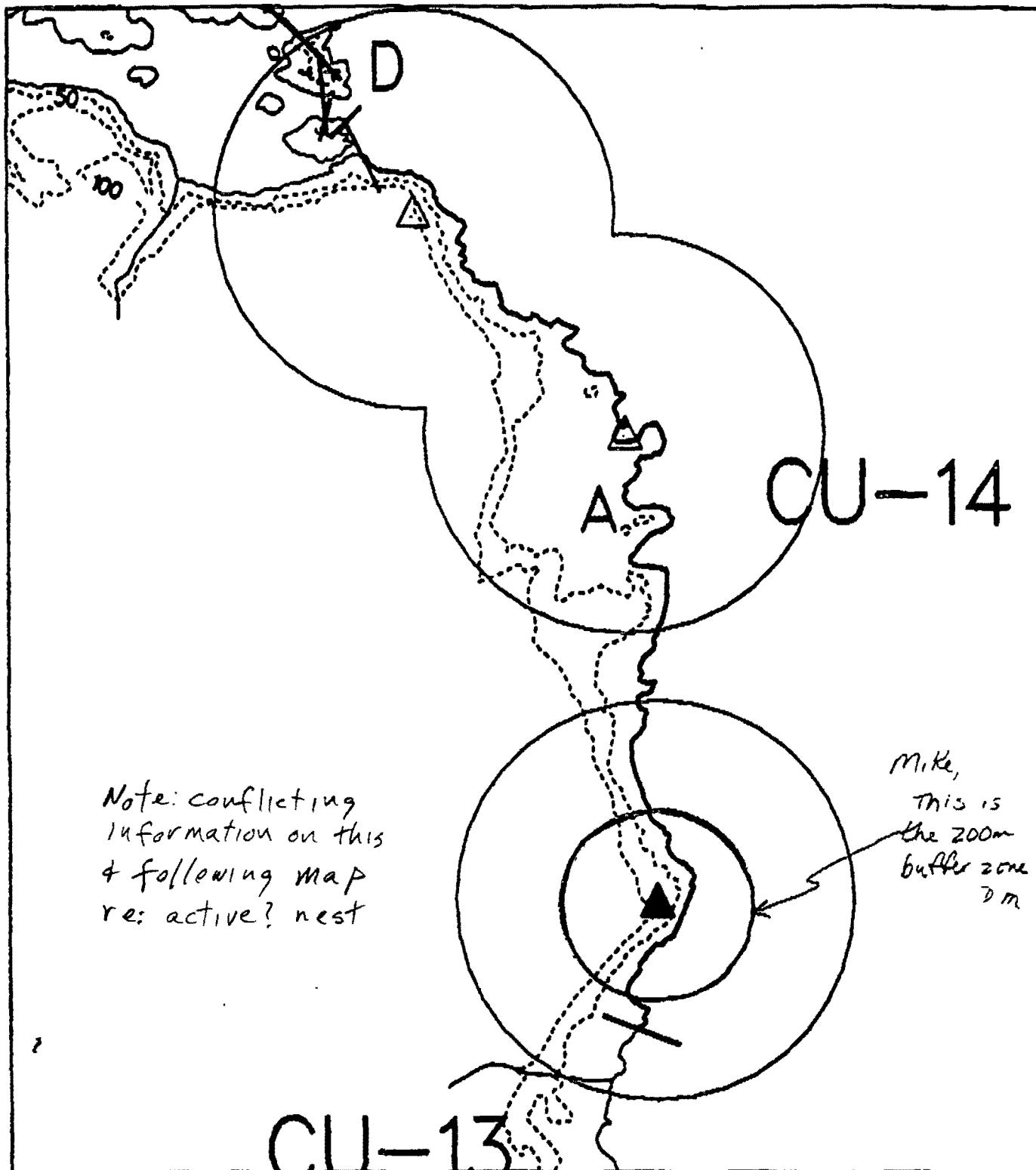


XXXX Wide
 //// Medium
 ---- Narrow
 TTTT Very Light
 0000 No Oil

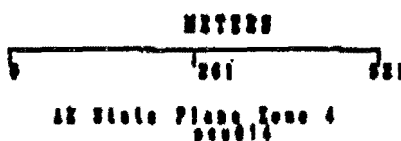
CU014 A
 ADEC Subsegment Length: 2293m
 METERS
 0 200 400
 AK State Plane Zone 4
 prn814aa



Subdivision Field Map
 Map Key: PWSCU014Aa
 Name: G M
 Date: 5-15-91
 Date Entered:



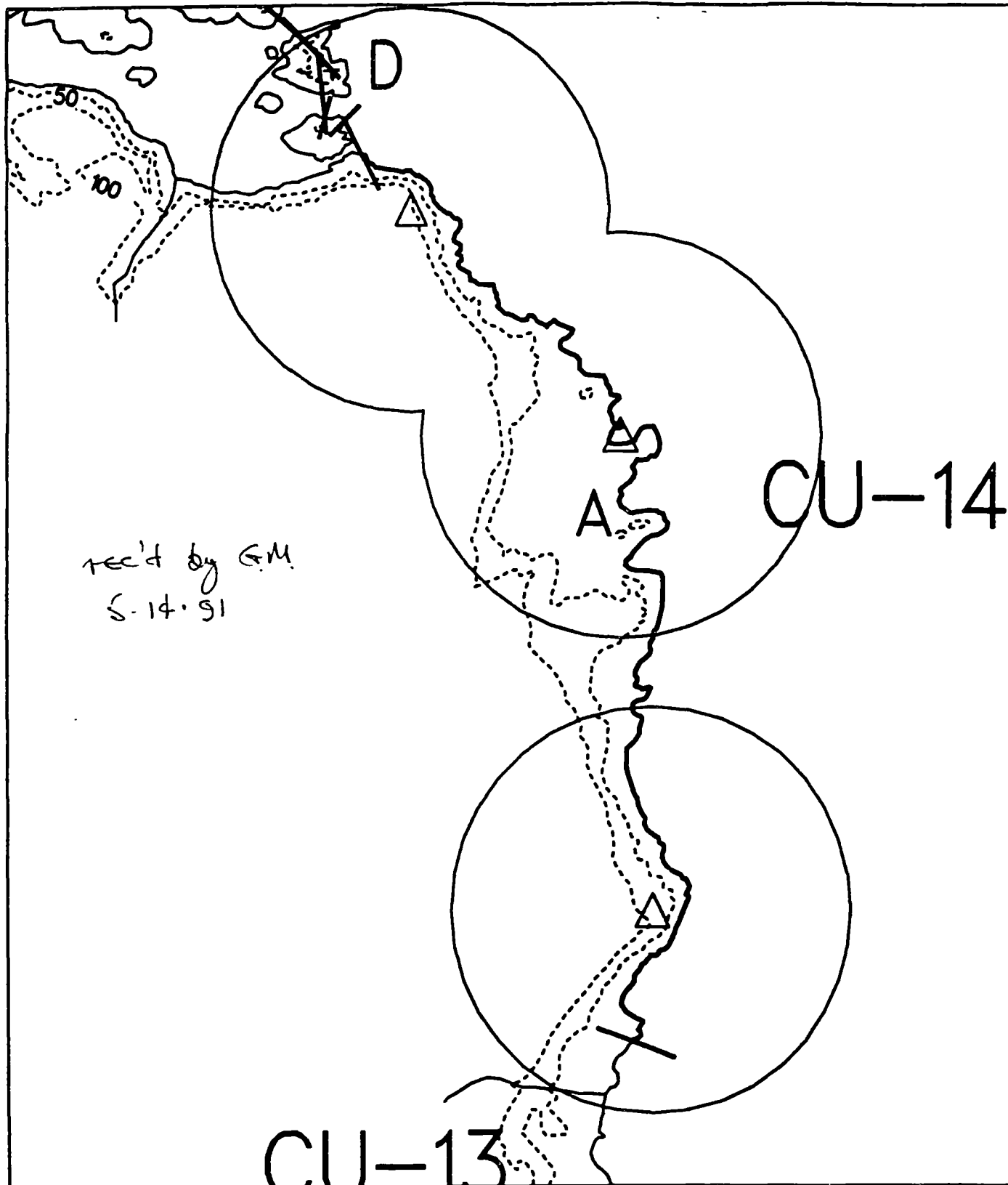
CU014



Segment Reference Map
Map Key: PVSCU014

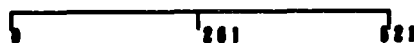


EAGLE NEST



CU014

METERS



AK State Plane Zone 4
psu014

Segment Reference Map
Map Key: PWSCU014



EAGLE NEST

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 1 DATE 14 & 15 May 91
 SEGMENT # CV 014 TIDAL HEIGHT (Range) 2.0-+7ft, 3.0-4.2 ft
 SUBDIVISION A BIOLOGIST Michael Fawcett
 SEA STATE 1 ft swell WIND SPEED/DIRECTION NE 10-15 knots
 PHOTOGRAPHS: ROLL # _____ FRAME # _____

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

Completed anadromous stream sites and two other sites with Tom Crowe (ADF&G monitor) on May 14; returned May 15 to survey 5th site (Sketch #5), see sketches 1-5 for descriptions of biota near each oiled site. Salmon fry were observed in the intertidal zone near the mouth of the smaller stream (#224-20-13034). SOR & CT Typically found in VTZ-SUTZ areas at +10-12ft MLLW, above most biota except lichen, limpets, Amphipods & oligochaete worms. MTZ areas below oil typically have dense Rockweed and barnacle spat, and variable densities of littorinids, mussels, limpets, Rhodomele, etc. Whelks (*Nucella emarginata*) are abundant in MTZ-LTZ throughout the subdivision, *N. lamellosa* sparse.

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1	1	salmon fry
Seabirds			black prickleback
Waterfowl			
Gulls/kittiwakes	1 (G-W Gull)	3	
Shorebirds			
Corvids			
Other Birds			

LAND MAMMALS

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

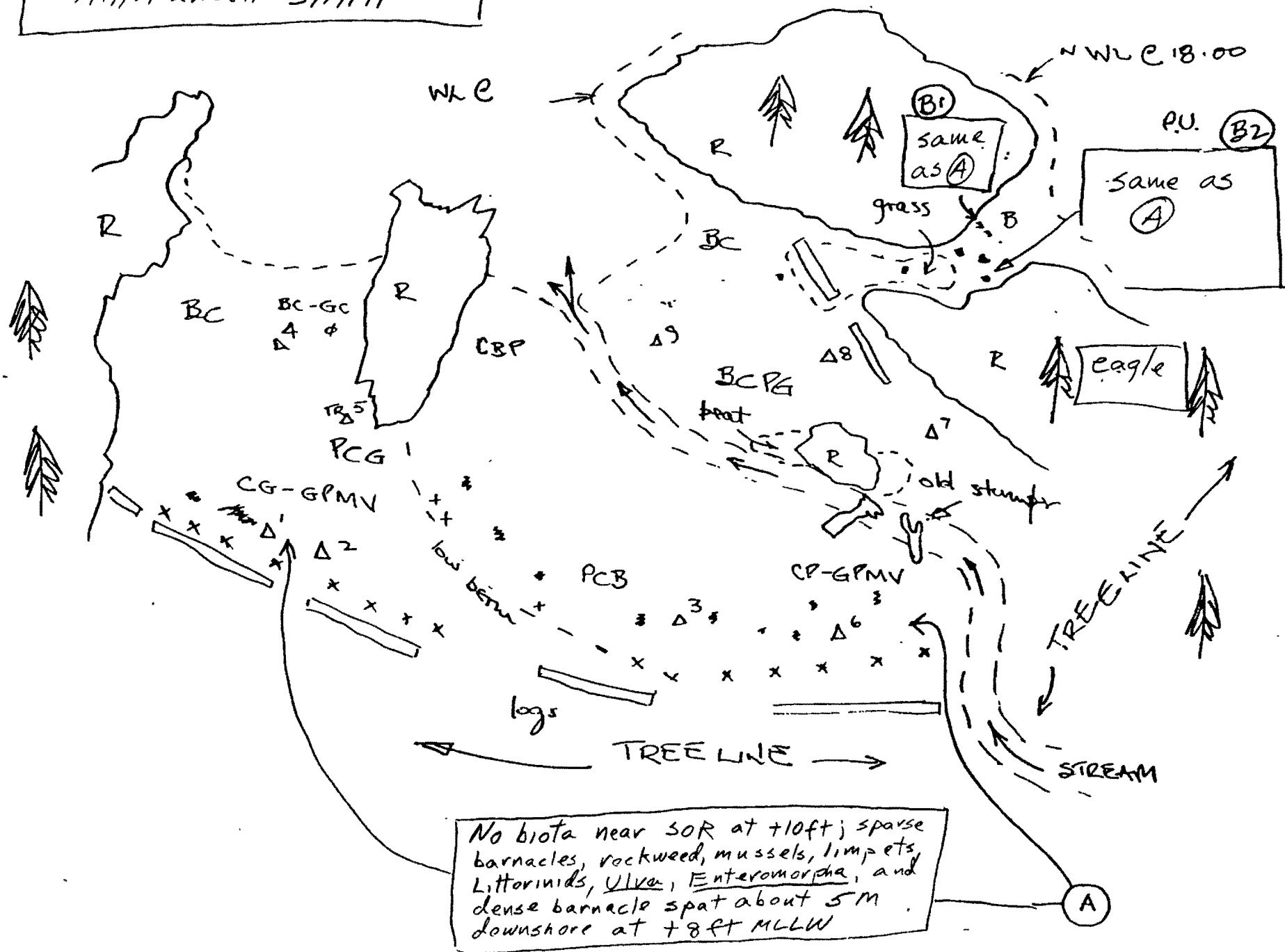
Shoreline subdivision map showing important biological features attached.

CU 014 A
Bio Sketch Map
ASC # 2242013036
M.H. Fawcett 5/14/91



Sketch #1

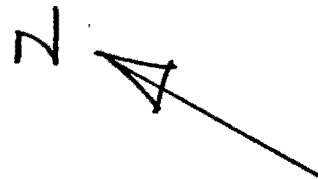
14



Bio Sketch Map M. Fawcett
 ASC # 2242013034
 CU 014-A 5/14/91

Sketch #2

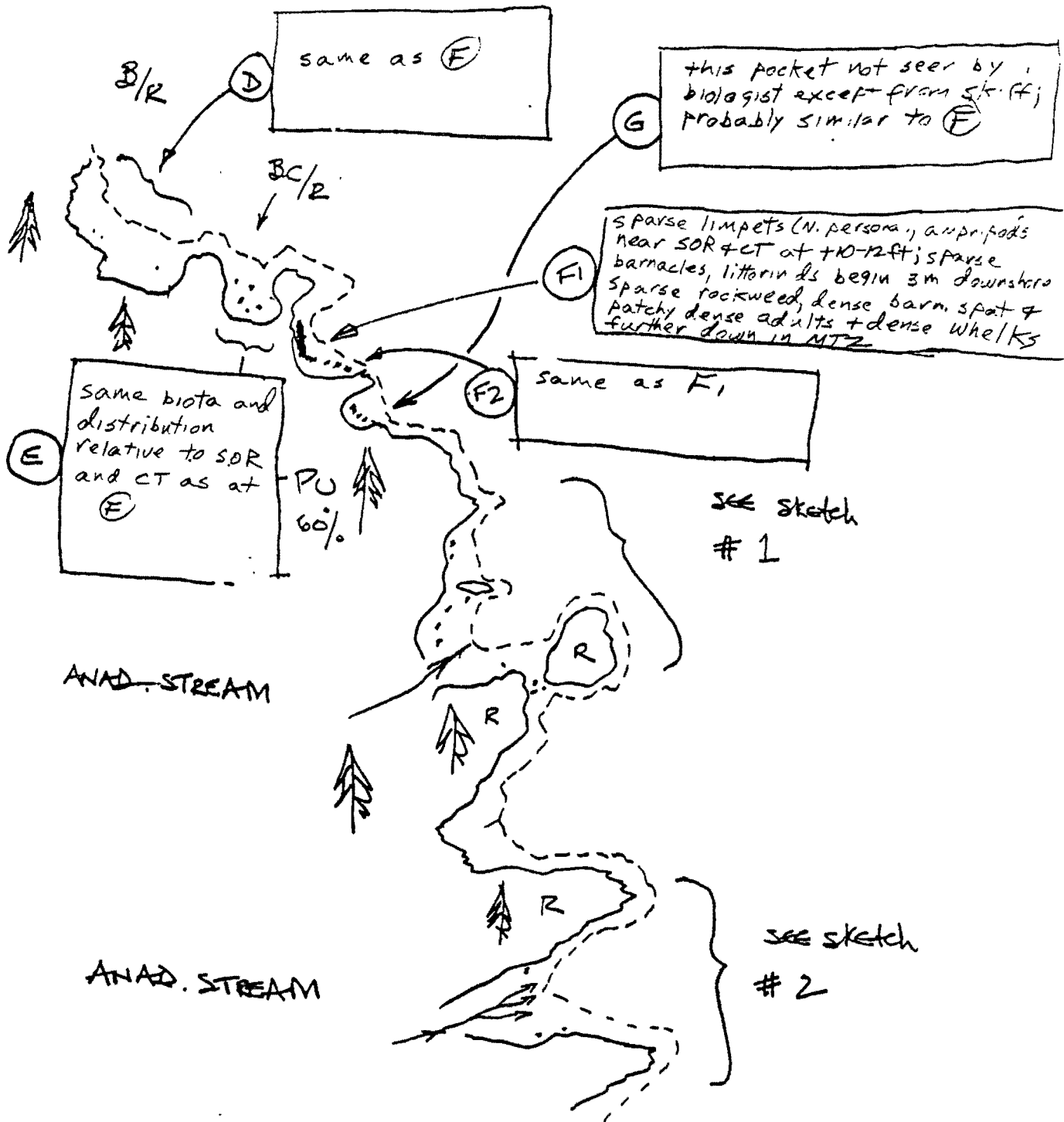
0 10 m
 approx.



BIO. sketch Map
CU-14 A
14 May 91
M. Fawcett

Sketch #3

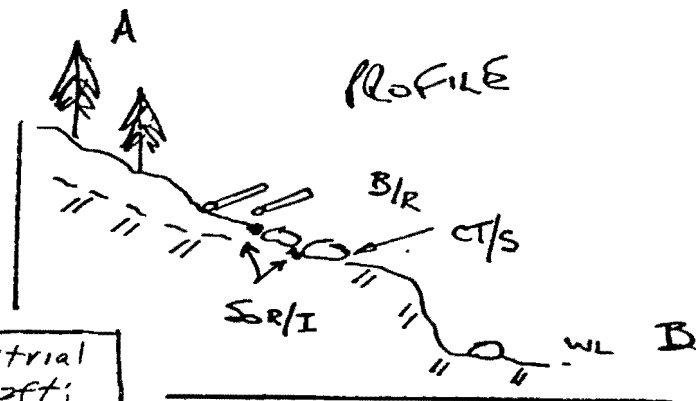
approx.
0 100m



H-V. R. clfts

(H)

No brota except lichen, terrestrial grass near SOR + CT at 10-12ft;
Tidepools 2m downshore with dense littorinids, plus hermit crabs, and coralline algae; rockweed, limpets, littorinids, sparse barnacles around pools on BR; LTZ-MTZ tidepools with typical diverse brota



massive B
over R



Beach bench
w/ massive B.

steep
R

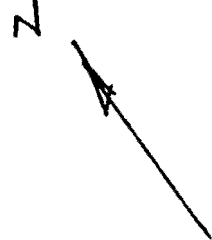
R



Sketch #4

Bio Sketch Map
CU 14A, 14 May 91
M.H. Fauzett

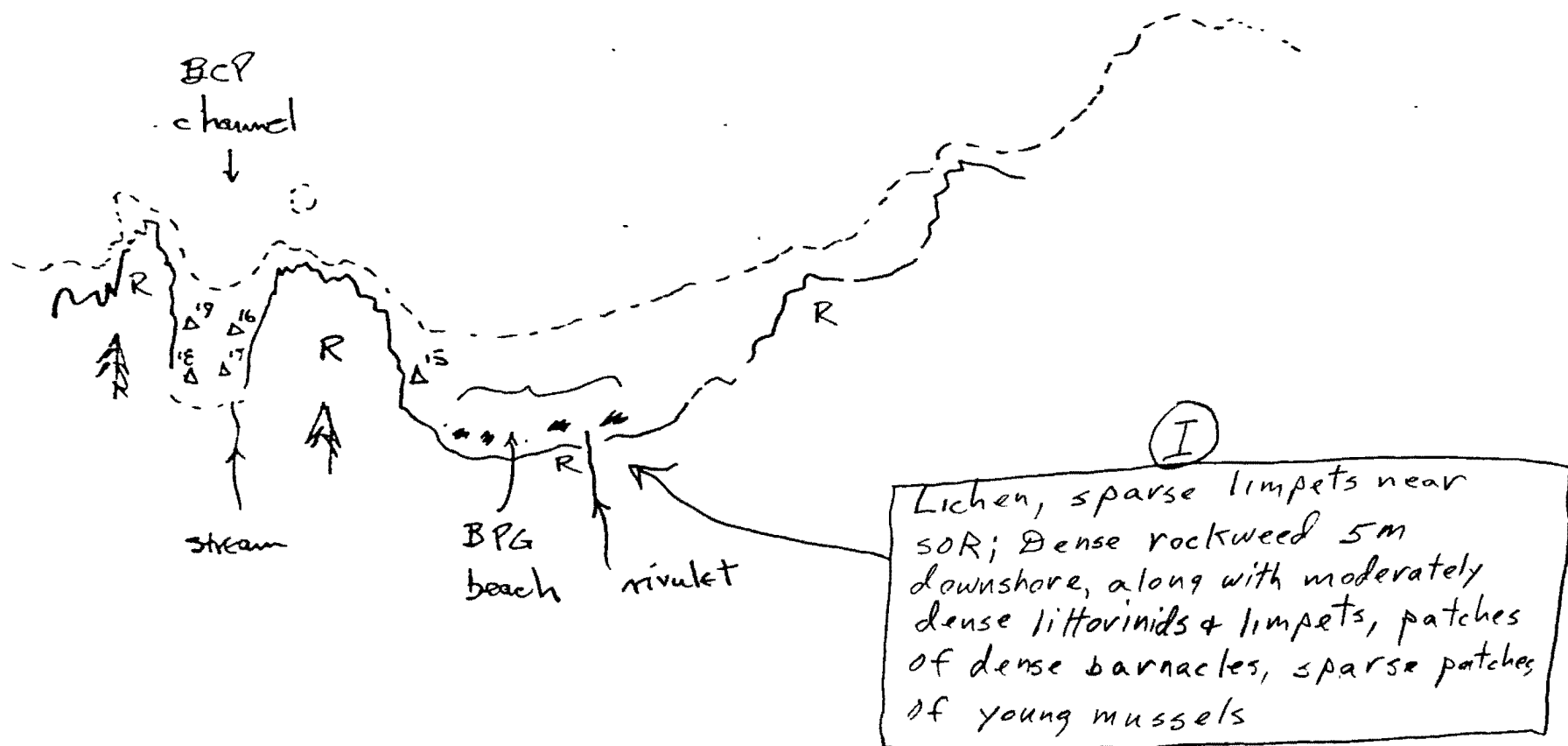
0 20m
approx.



BIO Sketch Map
CU-14A
15 May 91
M. Fawcett

Sketch #5.

18

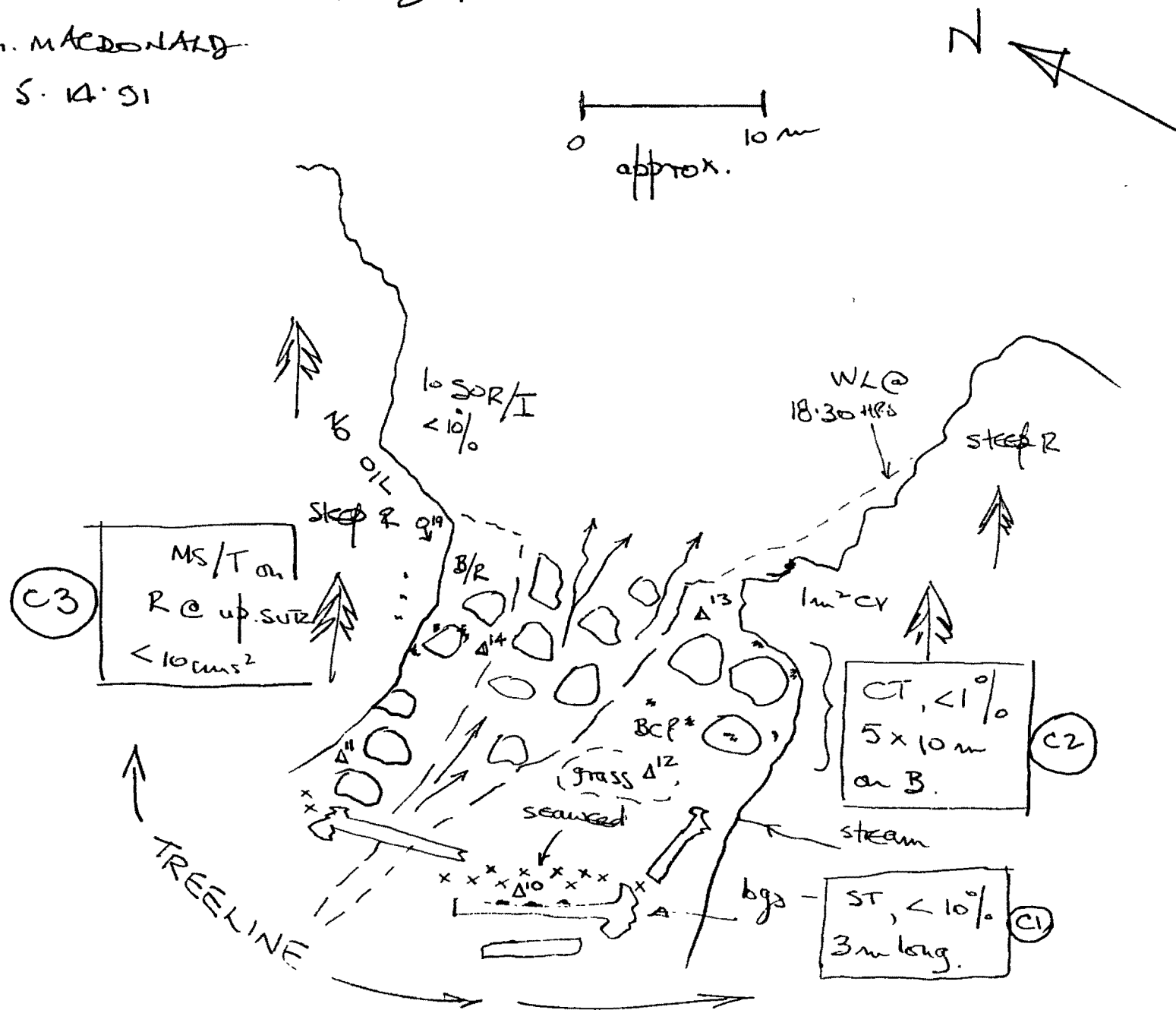


ASC # 2242013034

G. MACDONALD

S. 14.91

Sketch #2



CU 14A Arr 1715 Fawcett
5/14/91 wind NE 5-10, rain

Sub A Pink salmon stream

1 eagle flew over

1 gull

Site 8 1800 hrs

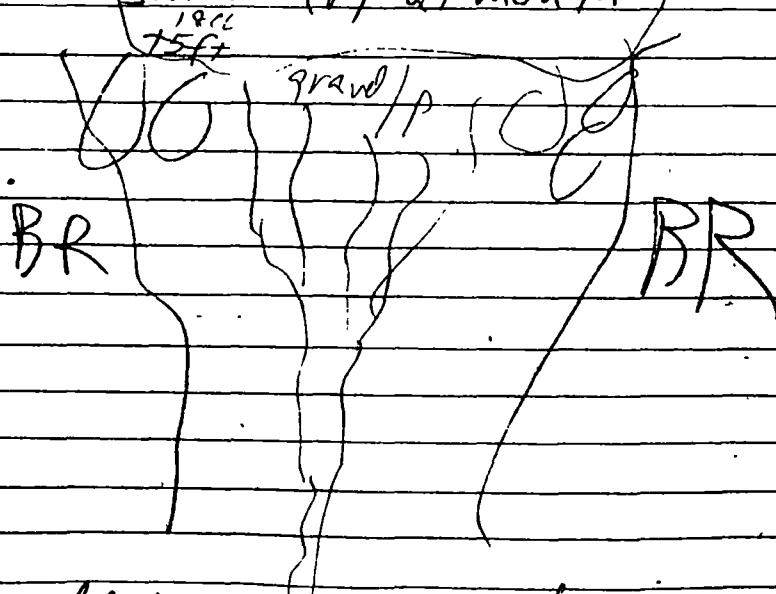
- smaller than stream (9)

steep shore, ~~no~~

5 parse ~~rodent~~ + 4-8 ft on boulders
4 BR - very dense barn, which

no water in stream

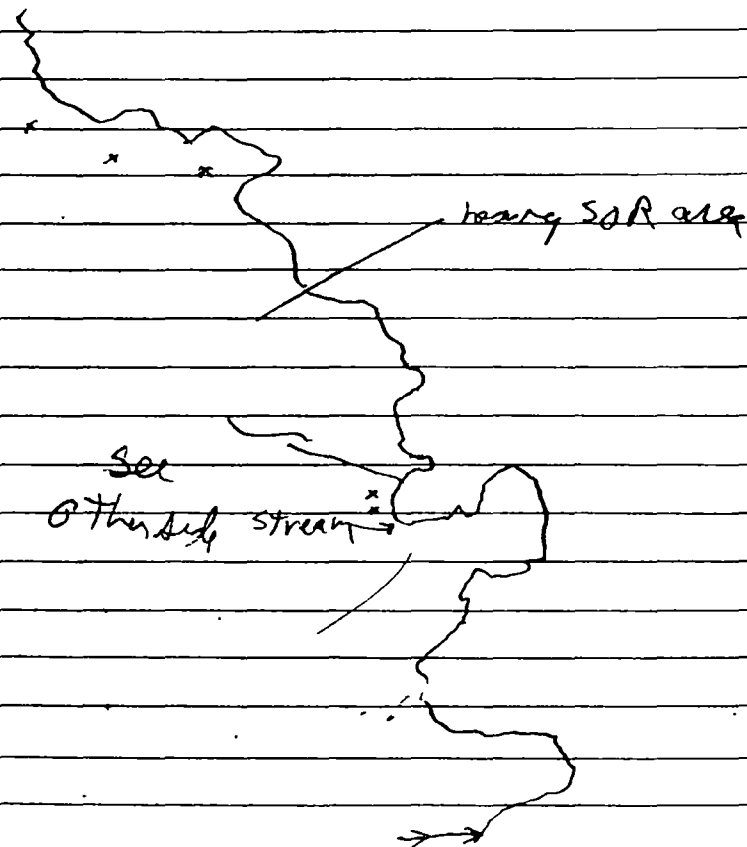
- salmon fry at mouth



depart 1820, west North

CU 14A

N
↑

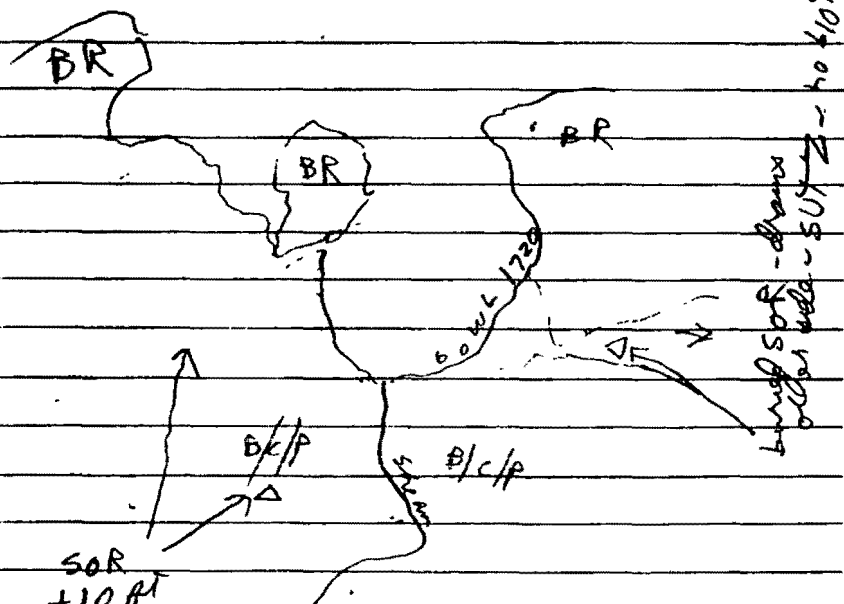


over →

C^U 14a (cont)

5/14/91 Fawcett

Site (A) 1715



SOR
+10 ft

no biota

spare barn, limp, litt, ulva, Enteromorpha
mass, Fucus downshore - also dense sp +
5m at +8 ft

14 May (cont)

Site C - no SOR

slabs SOR + CT UTZ +10-14 ft in

lee of outcrop - B/c/p - no biota

was upper end in SUTZ, but

3 sparse Fucus & limps near

SOR (picked up) at +10 ft,

dense Fucus, barn, fil. reds

in helix, etc downshore, starting

2m below at +8-9 ft - walked

north to end of subdorsum -

same rel dist. of biota &

traces of CT at 10 ft -

@ N. lamellosa breeding under

ledge at +3 ft. near end of segment

1900 hrs - nearest SOR side/see

Graham's map - 50% cover 14

UTZ-SUTZ +10-12 feet - only

biota are sparse N. persona, amph,

worms

- sparse barnacles, Litt begin 3m

downshore mod dense sparse

Fucus further down at +4-5 ft

in dense barn, pat, pale dense

adults, dense N. lamella

a few N. lamellosa

CU 14A (cont) 14 May, Fawcett

12:30 hrs

last mile, south end of
Segment - SOR, CT in VTZ-SUTZ
10-12 ft boulders above biota - 2m

down shore on BR bench are
pools w/ Litho, hermits, Litt.
but sparse algae ^(too dry / little) mod
dense Fucus on BR around pools -
Litt, lump, sparse barn

- pools in LTZ-MTZ w/ rich
biota - very dense N among
all over the subdivision

* gulls

Finish 1945

15 May 91 Returned to CU 14A

11:45 hrs - area missed
yesterday -

- shallow B/c cave - SOR SUTZ
in crevices of cave - no biota except
sparse limpets down at ~8 ft - dense

Fucus - sparse barn (some dense
patches), mod Litt, lump,
sparse mussels

21
same Rhodo, Urosalpinx, U/VA
LTZ - purple backs, breeding
Litt, dense spat

Band of SOR just at edge of ^{upper}
N pavement & Litt. - limpets
very dense (10-20 per boulders)
just below and (+8-10 ft)

Finish 1215 hrs

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 1 SEGMENT CU 014 SUBDIVISION A DATE 05/14/91

ADEC

NAME JEFF GINAWAS

SIGNATURE [Signature]

TOM CROWE

[Signature] AD-19

(ANADROMOUS STREAM SEGMENT)

☐ NTR AOF19 VERY LITTLE OILING IN ANADROMOUS AT STREAM SITE 224-20-1303. ALL REMAINING VISIBLE AP/SOI - NO OIL; PICKED UP AND REMOVED. AT THE TIME OF THE SURVEY, NO TREATMENT IS RECOMMENDED FOR THIS STREAM. ONLY TRACE CV/CT DEPOSITS FOUND AT STREAM # 224-20-13034 IN BOULDER BEDROCK AREAS. TREATMENT HERE IS NOT RECOMMENDED.

☒ TREATMENT RECOMMENDED AT OIL MAP SITES F1, F2, & G. MOSSY/HIGH SOI LOCATED JUST BELOW SURFACE ARMOR. WILL REQUIRE MANUAL WORK, ROCK & ROLL BOULDERS. EASY ACCESS BY SKIFF. FULL CREW, ONE DAY. ~~SITE~~ SITE LOOKS LIKE TREATMENT MISSED LAST YEAR, ALTHOUGH CUSTODIAN OBSERVED IN OIL. AT HEAVY IMPACT AREA (F1) OIL COVERAGE EXCEEDS 50% OF 5X20 M AREA. AREA IN VICINITY OF FISHING SETS, KAYAKERS (PER KEN MILLER, WHITTIER LOCAL RESIDENT)

EXXON

NAME RANDALL E. BOYER

SIGNATURE [Signature]

☐ NTR AREA F1, F2 & G CONTAINED A BAND OF TREATABLE OILING IN THE UPPER INTERTIDAL ZONE. IN THE SANDIER SEDIMENTS AP CONSISTENCY OF 1M² PATCHES WERE PRESENT. THE SURVEY TEAM DID NOT HAVE THE TIME TO PICK UP ALL THE TREATABLE OIL. AREAS SURROUNDING THE ANADROMOUS FISH STREAMS LOOKED IN GOOD SHAPE WITH NO FURTHER TREATMENT RECOMMENDED. IN AREA F1, F2 AND G, I WOULD NOT RECOMMEND REMOVING THE BOULDER ARMOR TO ACCESS OIL.

LANDMANAGER

NAME MARSHA HALL OF DNR

SIGNATURE [Signature]

☐ NTR ☒ Treatment STREAM sites ARE FINE. MANUAL labor → remove surface cobble boulder take out lens, leave treated area exposed for tides come back in to put armor layer back at site F1. Manual removal of MS at location F2 AND G. Attempted to remove oil at F1 but too much there for this team to deal with.

USCG/NOAA

NAME SCHULTZ / CHILDS

SIGNATURE [Signature]

☐ NTR TREATABLE OILING EXISTED IN F1-F2-G (SEE MAP) AND SHOULD BE ADDRESSED HOWEVER NO TREATMENT AT ANY OTHER LOCATION

High Angle BEDROCK OUTCROP SHORELINE W/ ISOLATED POCKET TREATABLES. BEACHES CONSIST OF SUBANGULAR TO SUB-ROUNDED POORLY SORTED BCP'S - MUCH OF UNDERLAY BCP'S IN SEVERAL LOCATIONS. TWO ANAD. STREAMS IN SUBDIV. OILING OBSERVED W. TYPICAL REMINANTS - LOW SOI VERY DEGRADED, CT & MS IN PROTECTED SPOTS. A NO CONTINUOUS LAYER OF SUBSURFACE OIL OBSERVED IN N.14 PART SITE "A".