ADF&G MULTI-ASSESSMENT FORM
1991 GENERAL ENTRY CHECKLIST

STREAM#: 2423210155
SEGMENT: WB001

DRAFT 10/2/91

DATE PRINTED: 08/19/91

LOCATION: Windy BAY BLACK LAGOON

SURVEY TYPE: 89 AFHS - ~~AG~~ SS

METHOD: FOOT

DATE: 08/07/89

TEAM RECORDER: HILL

START TIME: 1210
END TIME: 1310

OBSERVERS: GLENN RANDALL

TIDES: SLACK
OG/HAB DISCREPANCIES:

AGENCY: FG

PHOTOS TAKEN: Y

STATION: 2423210155

ROLL#: 89DDH015H
FRAME: 01-05

VIDEO TAKEN: Y TAPE#: 89LPG012H
START: 0001 END: 1790

SAMPLES TAKEN: Y

SAMPLE NUMBERS: 89DDH039H

89DDH038H

OIL IN STREAM BED: Y

OVERALL OIL IMPACT: H

OIL ON BEACH BY MOUTH: Y

WAVE EXPOSURE: MOD

SHORELINE TYPE: BEACH

SUBSTRATE TYPE: BEDROCK BOULDER COBBLE 20 VEGETAT

GRAVEL 70 SAND 10 MUD/SILT GRANULE

ANADROMOUS FISH PRESENT: Y

SPECIES: CHUM FRY COUNT: 50

~~PINK SALMON~~ ~~12~~

PINK FRY

How many of those on 8/7?

ACE 10459833 K/S/P

ADF&G MULTI-ASSESSMENT FORM
1991 OILING ENTRY CHECKLIST

DATE PRINTED: 08/26/91

STREAM# : 2423210155
SEGMENT#: WB001

SURVEY TYPE : 89 AFHS - ~~88~~ 89
DATE: 08/07/89
TIMES: 1210 - 1310

LOCATION: BLACK LAGOON

TEAM RECORDER: HILL

-- OILING EXTENT --

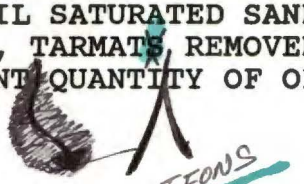
SITE#	SITE TYPE	DEPTH (cm)	LENGTH (m)	WIDTH (m)	AREA (m)	%	THICK (cm)	PEN (cm)	OIL TYPE CODES
1	-0-	-0-	37.0	7	259.0	50	5	25.5	MS PT OP F
2	-0-	-0-	229.0	1	229.0	50	-0-	-0-	ST CT CV
3	-0-	-0-	27.0	.5	13.5	30	5	2.5	MS PT
4	-0-	-0-	27.0	18.0	486.0	40	7.5	2.5	MS PT OP AP
5	-0-	-0-	91.0	32.0	2912.0	50	7.5	2.5	MS OP AP
6	-0-	-0-	165.0	69.0	11385	20.0	7.5	2.5	MS OP AP
7	-0-	-0-	137.0	18.0	2466	60.0	5.0	10.0	MS OP HOR
8	-0-	-0-	27.0	18.0	486	70.0	5.0	40.0	MS OP HOR
9	-0-	-0-	46.0	27.0	1242	25.0	5.0	-0-	MS TB
10	-0-	-0-	18.0	.5	9.0	30.0	5.0	-0-	MS TB
11	-0-	-0-	46.0	27.0	1242	10	2.5	-0-	TB TP
12	-0-	-0-	137.0	37.0	5069	45	10.0	-0-	AP MS HOR
13	-0-	-0-	229.	.5	114.0	50	6.0	-0-	MS TB

ADF&G MULTI-ASSESSMENT FORM
1991 OILING ENTRY CHECKLIST

PAGE 77 DATE PRINTED: 08/19/91

COMMENTS:
SITE 8-1. FILM ROLL #89DDH006H, 89DDH007H. (taken on 6/25/89.) MOUSSE FOUND THROUGHOUT LAGOON (½" TO 1' DIAMETER). OIL OBSERVED FROM ELYMUS ZONE TO FUCUS ZONE. CLEANUP CREW SPENT A CONSIDERABLE AMOUNT OF TIME REMOVING A LARGE QUANTITY OF OIL FROM THE BEACH - NO WORK OCCURRED IN THE SW CORNER OF THE LAGOON WHERE MOUSSE SATURATES THE SUBSURFACE DEAD ORGANIC MATTER. THE BERM AT THE MOUTH OF THE CREEK (NORTH SHORE) IS SATURATED WITH OIL. THE LAGOON OUTLET IS OFTEN DRY ON THE SURFACE. PINK ~~AND~~ SALMON FRY HAVE BEEN OBSERVED IN THE LAGOON. PINK SALMON ADULTS OBSERVED SPAWNING ON ~~8/7 AND~~ 9/10/89. HERMIT AND VARIED THRUSHES HAVE BEEN OBSERVED FEEDING IN THE OIL ON THIS BEACH. LITTORINES AND LIMPETS OBSERVED SMOTHERED IN OIL. OILED MUSSELS. WESTERN SANDPIPERS OBSERVED FEEDING IN OILED SAND/GRAVEL/DEBRIS. OIL SATURATED SAND AND GRAVEL REMOVED FROM LAGOON OUTLET STREAM CHANNEL, TARMATS REMOVED, OILED WOOD BUCKED UP AND BURNED ~~OCCURRED~~. A SIGNIFICANT QUANTITY OF OIL REMAINS IN THE LAGOON.

WAS



SECTIONS

Delete the S on Tarmats and add the word sections

DDH 10/2/91

ACE 10459835 -15

1989 AFHS — Site 8-1 — BLACK LAGOON

ASC NUMBER: 242-32-10155 SEGMENT NUMBER: WB-01A YR CATALOGED:
LOCATION: Windy Bay
STREAM NAME: Black Lagoon
KODIAK K-UNIT: LOCAL STREAM #:
USGS QUADRANGLE: Seldovia A-5
SHORELINE TYPE: Beach
WAVE EXPOSURE: M
ALL SEGMENTS:
LATITUDE: 59 13 51
LONGITUDE: 151 31 5
LEGAL: S 11 S 13W 17

ASC NUMBER:
SURVEY TYPE: SS
METHOD: FOOT
DATE: 8/7/89
START TIME: 1210
STOP TIME: 1310

TEAM RECORDER: Doug Hill
OBSERVERS: Lee Glenn, Rick Randall

AGENCY(IES): ADF+G

PHOTOS TAKEN? Y
Roll #: 89ODH15H Frames: 1→5
VIDEO TAKEN? Tape Number: 89-LPG-012H-V
Counter Start: 001 → 1790

SAMPLES TAKEN?
SAMPLE I.D. NUMBERS: 1. ROR/ODH-8/7/89-1220 2. 89-DDH-003 (89DDHØ39H) 89DDHØ38H
4. ODH-8/7/89-1230 5. 89-DDH-004
3. → TAKEN 6/25/89 ALSO on this date } no need in Chem.
6. Film Roll # 589 ODH 006 589 ODH 007 Comments

	LENGTH m	WIDTH m	M2	%	THICK cm	PEN cm	OIL TYPE
SITE 1	37.0	7	259.0	50	5	25.5	MS, PT, DP, F, Sheen
SITE 2	229.0	1	229.0	50	—	—	ST, CT, CV
SITE 3	27.0	.5	13.5	30	5	2.5	MS, PT
SITE 4	27.0	18.0	486.0	40	7.5	2.5	MS, PT, DP, AP
SITE 5	91.0	32.0	2912.0	50	7.5	2.5	MS, DP, AP

OVERALL OIL IMPACT: H

OIL IN STREAM CHANNEL? Y

SUBSTRATE

Bedrock	Granule
Boulder	Sand 10
Cobble 20	Silt
Pebble 70	Veget.

OIL ON BEACH WITHIN 50M OF STREAM MOUTH? Y

SPECIES	Chum (ok)	Pink (12)			
COUNT	50 Fry	12 Adult → 9/10 + 5 Juvenile → 6/25		8/7	

Comments

	LENGTH m	WIDTH m	M2	%	THICK cm	PEN cm	OIL TYPE
SITE 6	165.0	69.0	11,385	20.0	7.5	2.5	MS, DP, AP
SITE 7	137.0	18.0	2,466	60.0	5.0	10.0	MS, DP, HOR
SITE 8	27.0	18.0	486	~~70.0~~	5.0	~~40.0~~	MS, DP, HOR
SITE 9	~~46.0~~	27.0	1242	25.0	5.0	—	MS, TB
SITE 10	~~18.0~~	.5	9.0	30.0	5.0	—	MS, TB

- Oil data continues on following page
- Comments on following page

ACE 10459836 +/S

	LENGTH m	WIDTH m	M2	%	THICK cm	PEN cm	OIL TYPE
SITE 11	46.0	27.0	1242	10	2.5	—	TB, TP
SITE 12	137.0	37.0	5069	45	10.0	—	AP, MS, HOR
SITE 13	229.0	.5	114.0	50	6.0	—	MS, TB,
SITE 14							
SITE 15							

- Mousse found throughout lagoon (½" to 1' diameter).
- Oil observed from Elymus to Fucus zone.
- Cleanup crew spent a considerable amount of time removing a large quantity of oil from the beach - No work occurred in the SW corner of the lagoon where mousse saturates the sub-surface dead organic matter.
- The berm at the mouth of the creek (North shore) is saturated with oil. The lagoon outlet is often dry on the surface.
- Pink and salmon fry have been observed in the lagoon.
- Pink Salmon adults observed spawning on ~~9/7~~ 9/10/89.
- Vomit and varied thrushes have been observed feeding on the oil on this beach.
- Littorines & limpets observed smothered in oil
- Oil mussels
- Western Sandpipers observed feeding in oiled sand/gravel/debris
- Oil saturated sand + gravel removed from lagoon outlet stream channel, tarmats removed, oiled wood bucked up and burned occurred.

A significant quantity of oil remains in the Lagoon

Nancy - pls enter all (disregard the diagonal line).

FISH HABITAT ASSESSMENT FORM

Windy BAY - BLACK Lagoon

[1]REGION: [2]PWS (3)KP, CI (4)AP [5]OBSERVER(S) Doug Hill, Lee Glenn, Rick Ri

[6]SITE NO. 8-1 [7]AERIAL PHOTO NO. _____ [8]CAT NO. NC

[9]STREAM NAME BLACK LAGOON [10]LAT 59° . 13' . 75" . [11]LONG 151° . 31' . 00" .

[12]DATE 8/7/89 [13]TIME 1220 [14]TIDE: Low (slack) Flood High slack Ebb

[15]CATALOGED ANADROMOUS STREAM? Y (N) [16]ANAD. FISH FOUND? (Y) N

[17]OIL FOUND IN STREAM? (Y) N [18]OIL FOUND NEAR STREAM (1 MI.)? (Y) N

[19]OIL SAMPLES TAKEN? (Y) N [20]ID NOS. RDR/DDH-8/7/89-1220

TAKEN 8/7/89 { 89-DDH-003 / 89-DDH-004

[21]35 mm PICTURES TAKEN? (Y) N [22]ROLL NO(S). 89-DDH-D15

[23]EXPOSURE NO.	[24]DESCRIPTION
1	Mousse under water - Typical patch of oil - mousse ¼" fragments surroun
2	General overview of Area where oil observed - Jar is foreground where sample taken
3	Jar in foreground designates where oil sample taken
4	Rick Randall netting Chum fry in Black Lagoon
5	Chum fry sample

[25]VIDEO FOOTAGE TAKEN? (Y) N [26]CASSETTE NO(S). 89-LPG-012-H-Video

[27]DESCRIPTION: NO. 12 → Capture of Salmon Fry and overview of area (8/7/89), Collection of sample (001-904). Aerial view of Black Lagoon (905-965). Aerial of Lagoon (995-1033). Oil in Lagoon, on streambank, intertidal (1187-1511). Examples of freq. of mousse patties (1512-167 Oil sheen along shore (1671-1790).

ACE 10459838

ACE 7380309

FISH HABITAT ASSESSMENT FORM

Black Lagoon-Cont'd.

[1]REGION: [2]PWS (KP,CI) [4]K,AP [5]OBSERVER(S) Doug Hill

[6]SITE NO. 9-1 [7]AERIAL PHOTO NO._____ [8]CAT NO._____

[9]STREAM NAME_____ [10]LAT ___°___.___' [11]LONG ___°___.___'

[12]DATE_____ [13]TIME_____ [14]TIDE: Low slack Flood High slack Ebb

[15]CATALOGED ANADROMOUS STREAM? Y N [16]ANAD. FISH FOUND? Y N

[17]OIL FOUND IN STREAM? Y N [18]OIL FOUND NEAR STREAM (1 MI.)? Y N

[19]OIL SAMPLES TAKEN? Y N [20]ID NOS._____

[21]35 mm PICTURES TAKEN? Y N [22]ROLL NO(S). 6/25/89 89-DOH-006 89-DOH 007

[23]EXPOSURE NO.	[24]DESCRIPTION
24,25	Oiled logs & General Overview of Black Lagoon
1,2,3,4,5	Oiled logs & rock faces - Black Lagoon
6,7	Location of high oil saturated sand and gravel - Stream outlet
8,9	Depiction of level of oil at time it arrived - 3-4' above current surface
10	→ Same

ACE 7380310

[25]VIDEO FOOTAGE TAKEN? Y N [26]CASSETTE NO(S). 89-LPG-008-H-Video (Documenting After Clean-up Completed)

[27]DESCRIPTION: TAPE 008 - 9/6/89. Lee Glowa Briefing as to what has occurred at Gravgy, what will be filmed (0-270). Intertidal Oil (270-1190). Oil along shore of & within outlet Stream (1190-1570). Oil within Streams Lagoon (1570-1865) Tideline - dead birds, oil, oiled sorbent material (1865-2336). Presence of Salmon (2336-2465). Oil within Lagoon (2465-2839). BAG of mousse (2839-2896). Oil in outlet Stream (2940-2990

ACE 10459839

ANADROMOUS FISH OBSERVATIONS

		PINK	CHUM	RED	KING	COHO	DOLLY		
28	Aerial								
29	Ground								

30 COMMENTS: _____

OIL OBSERVATIONS

EXTENT OF OIL:

	WITHIN STREAM	OUTSIDE STREAM
31 SURFACE COVERAGE		
32 SURFACE THICKNESS		
33 PENETRATION		

34 OIL DISTRIBUTION DIAGRAM
(SHOW SAMPLING SITES)

35 PREDOMINANT SUBSTRATE TYPE:

1. Bedrock
2. Boulder
3. Cobble
4. Gravel
5. Sand
6. Mud
7. Other _____

- A Fair Amount of cleanup Activity occurred in the vicinity of Black Lagoon. Heavily oil saturated sand and gravel removed, tar mats removed, oiled wood bucked up and burned, and some light activity involving mousse paddy removal from with lagoon itself.
- WATER leve of Lagoon Fluctuated very much throughout the June thru Sept (Fluctuated by Approx. 12-14"
- Oil within lagoon has emerged from water and been submerged by water throughout season
- oil arrived on a water level approx 3' above the bottom of the lagoons Southend

36 COMMENTS: _____

ACE 10459840

ACE 7380311

ANADROMOUS FISH OBSERVATIONS

		PINK	CHUM	RED	KING	COHO	DOLLY		
28	Aerial								
29	Ground		12 Adults [redacted] 9/1/89 5 Fry — 8/7/89						

30 COMMENTS: Rick Randall + Lee Glenn Observed Pink Salmon in Gravel bottomed Channel which drains into Lagoon. Lagoon Outlet Channel is frequently dry at low tides (≈ 400 yds of Intertidal flats - very little Slope).

OIL OBSERVATIONS

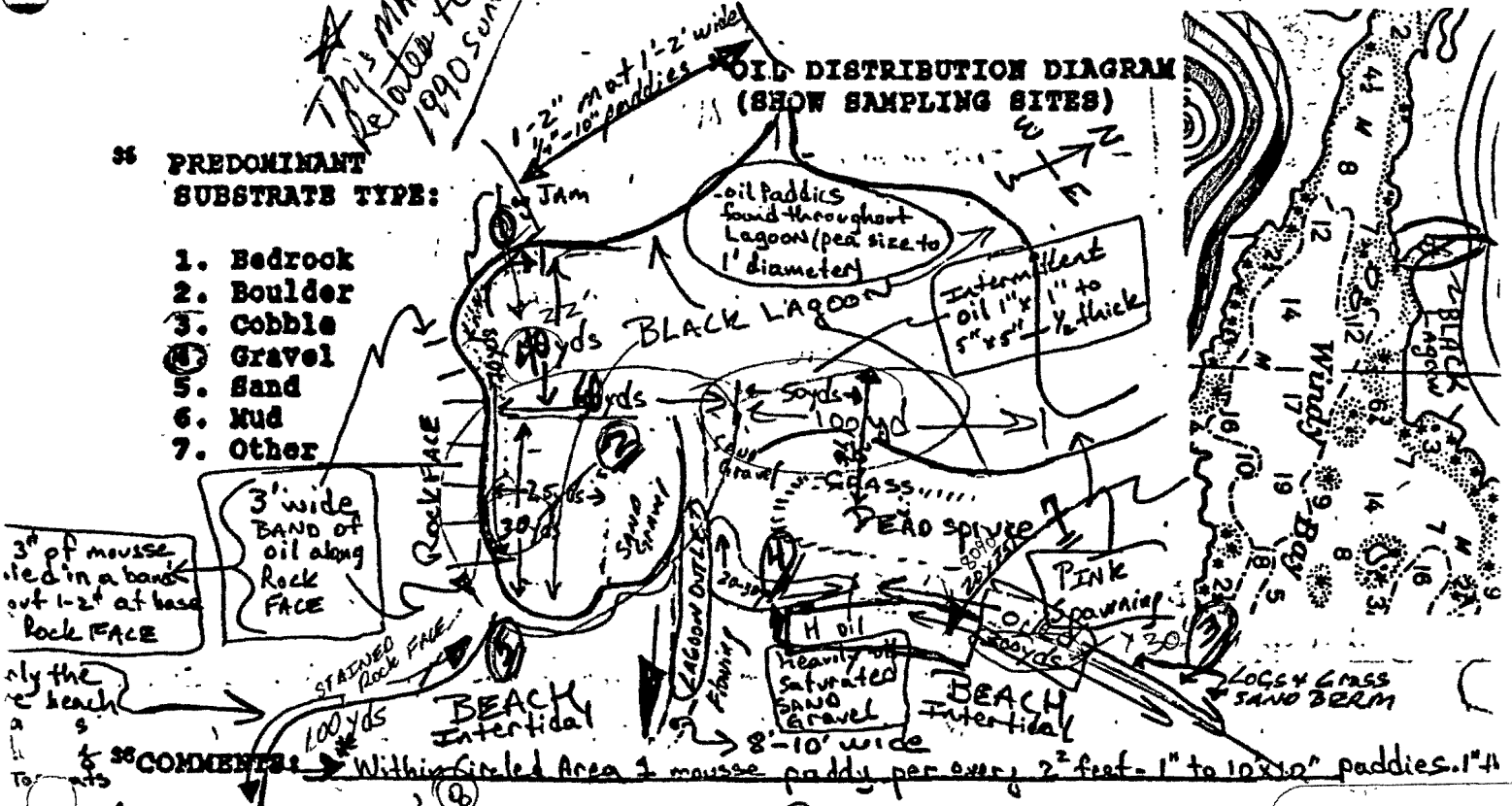
EXTENT OF OIL:

	WITHIN STREAM	OUTSIDE STREAM
31 SURFACE COVERAGE	oil found around perimeter of Lagoon 1-2 mats (w sw shore), oil pressed throughout Lagoon	150 yds x 300 yds Affected by oil
32 SURFACE THICKNESS	1"-2"	1" [redacted]
33 PENETRATION	[redacted] up to 1"	10-12"

★ SEE revised MAP ATTACHED TO MAO TRANSFER Sheet for updated 1989 Dimensions

★ This MAP Related to 1990 survey

OIL DISTRIBUTION DIAGRAM (SHOW SAMPLING SITES)



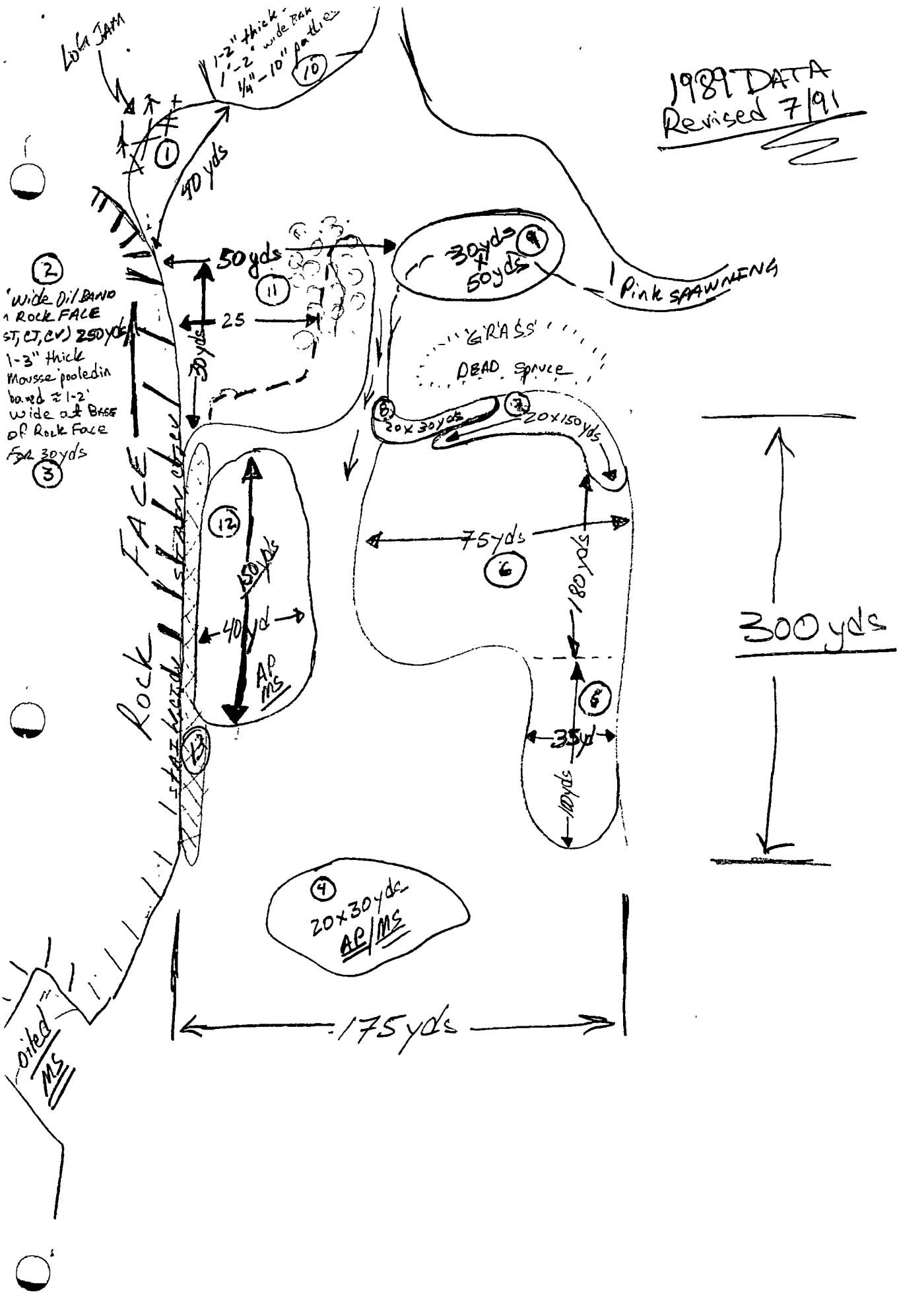
36 PREDOMINANT SUBSTRATE TYPE:

1. Bedrock
2. Boulder
3. Cobble
4. Gravel
5. Sand
6. Mud
7. Other

38 COMMENTS: Within Circled Area 1 mousse paddy per every 2² feet - 1" to 10"x10" paddies. 1"-1" (Interspersed with smaller Fragments). (6) AP ACE 7380312 ACE 10459841

Clean up crews spent a considerable amount of time on this beach

← 150 - 200 yds →



ACE 10459842

1989 - AFHS Site 8-1 Black Lagoon

ASC NUMBER: 242-32-10155 SEGMENT NUMBER: WB-01A YR CATALOGED:
LOCATION: Windy Bay
STREAM NAME: Black Lagoon LATITUDE: 59 13 51
KODIAK K-UNIT: LOCAL STREAM #: LONGITUDE: 151 31 5
USGS QUADRANGLE: Seldovia A-5 LEGAL: S 11S 13W17
SHORELINE TYPE: BEACH ALL SEGMENTS:
WAVE EXPOSURE: M

ASC NUMBER:
SURVEY TYPE: SS
METHOD: FOOT
DATE: 8/7/89
START TIME: 1210
STOP TIME: 1310

TEAM RECORDER: Doug Hill
OBSERVERS: Lee Glenn, Rick Randall

AGENCY(IES): ADF&G

PHOTOS TAKEN? Y
Roll #: 89 DOH 15H Frames: 1→5
VIDEO TAKEN? Y Tape Number: 89LPGD12H video
Counter Start: 001→1790

SAMPLES TAKEN? Y
SAMPLE I.D. NUMBERS: 1. DOH-8/7/89-1230 2. ESR/DOH-8/7/89-1220 3.
4. 5. 6.

	LENGTH m	WIDTH m	M2	%	THICK cm	PEN cm	OIL TYPE
SITE 1	46	7		50			
SITE 2	27	1		70			
SITE 3	274	10					
SITE 4							
SITE 5							

OVERALL OIL IMPACT: H

OIL IN STREAM CHANNEL? Y

SUBSTRATE

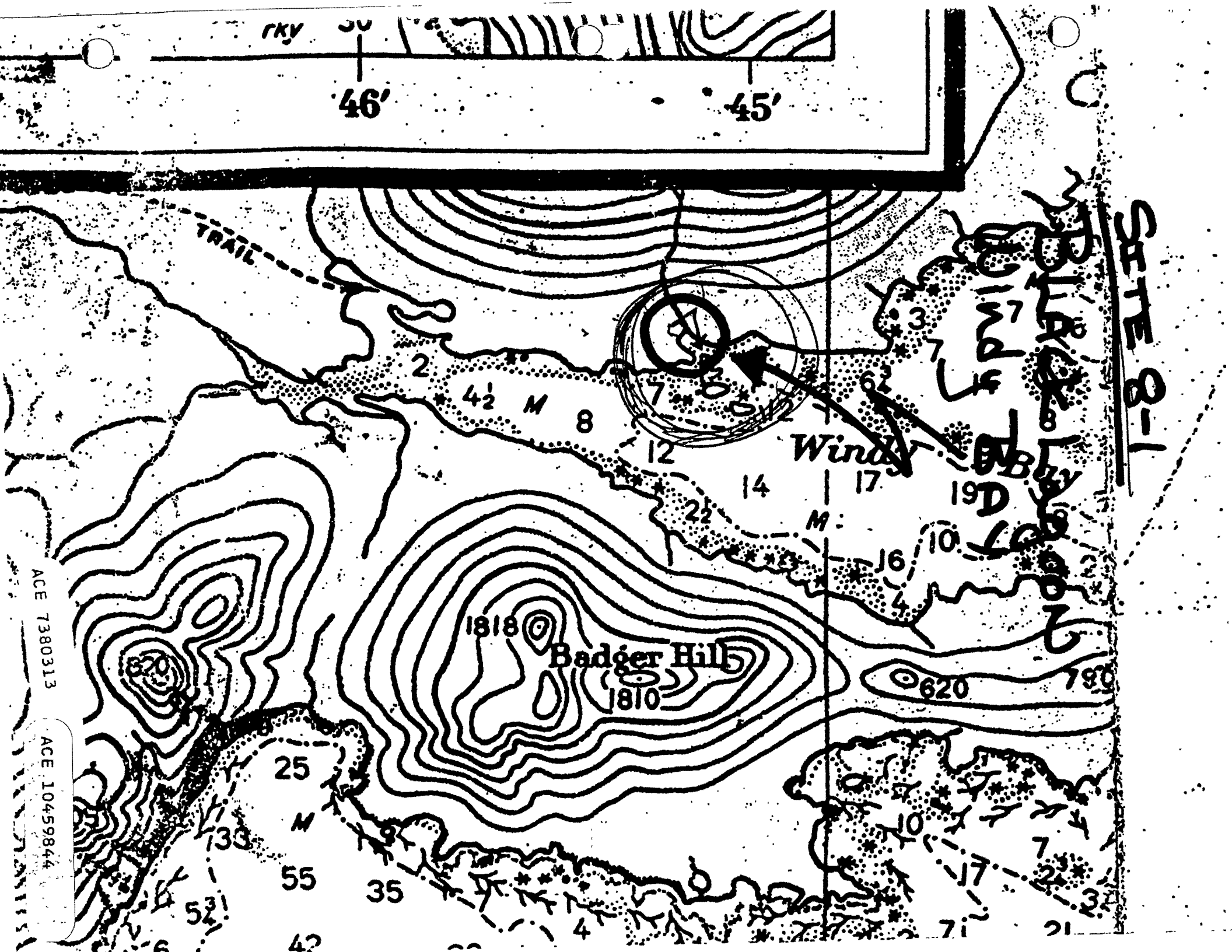
Bedrock	Granule
Boulder	Sand 10
Cobble 20	Silt
Pebble 70	Veget.

OIL ON BEACH WITHIN 50M OF STREAM MOUTH? Y

SPECIES	Chum Salmon				
COUNT	50				

COMMENTS:

ACE 10459843


46'
45'
TRAIL
Windy
Badger Hill
1818
1810
620
SHEET 8-I
ACE 7380313
ACE 10459844

State of Alaska
Department of Fish and Game
Nomination for Waters
Important to Anadromous Fish

Year of Revision

8-1

Anadromous Water Catalog Volume Southcentral Region

USGS Quad Seldovia A-5

Name of Waterway No Official Name-Named "Black Lagoon" due to Oil Spill

Anadromous Water Catalog Number of Waterway NC

Change to _____ Atlas

_____ Catalog

_____ Both

Addition X

Deletion _____

Correction _____

Name addition:

USGS name None

Local name Black Lagoon

For Office Use

Nomination # _____

Regional Supervisor _____ Date _____

_____ _____

Drafted _____ Date _____

Species	Date(s) Observed	Spawning	Rearing	Migration
Pink Salmon	9/10/89, 8/7/89	X	X	

Comments: Provide any clarifying information, including number of fish observed, location of fish survey data, etc.

12 adult and 5 juvenile pink salmon observed within lagoon

Surveyed 1/4 mile of lagoon

Original data on file with state EXXONValdez Oil Spill Lawyers(Rite In Rain)

Attach a copy of a map showing location of mouth and upper points of each species, specific stream reaches identified for spawning or rearing, locations of barriers, such as falls. Attach a copy of the fish survey data, if available.

Name of Observer (please print) Douglas D. Hill

Date: 12/13/89 Signature: Douglas D Hill

Address: Oil Spill Response Center, 509 Sterling Hwy.

Homer, Ak. 99603 235-5322

Signature of Area Biologist: _____

ACE 10459845 -15

ACE 7380308

1989 AEHS — Site 8-1 — BLACK LAGOON

ASC NUMBER: 242-32-10155 SEGMENT NUMBER: WB-01A YR CATALOGED: 10/2/91 DDH
LOCATION: Windy Bay
STREAM NAME: Black Lagoon
KODIAK K-UNIT: LOCAL STREAM #:
USGS QUADRANGLE: Seldovia A-5
SHORELINE TYPE: Beach ALL SEGMENTS:
WAVE EXPOSURE: M

LATITUDE: 59 13 51
LONGITUDE: 151 315
LEGAL: S 11S 13W17

ASC NUMBER:
SURVEY TYPE: SS
METHOD: FOOT
DATE: 8/7/89
START TIME: 1210
STOP TIME: 1310

TEAM RECORDER: Doug Hill
OBSERVERS: Lee Glenn, Rick Randall

AGENCY(IES): ADF+G

PHOTOS TAKEN? Y
Roll #: 89ODH15H Frames: 1→5
VIDEO TAKEN? Tape Number: 89-LPG-012H-V
Counter Start: 001→1790

SAMPLES TAKEN?
SAMPLE I.D. NUMBERS: 1. RDR/DDH-8/7/89-1220 2. S89-DDH-003 3. → TAKEN 6/25/89 ALSO on this date
4. DDH-8/7/89-1230 5. S89-DDH-004 6. Film Roll # S89ODH006 S89ODH007

	LENGTH m	WIDTH m	M2	%	THICK cm	PEN cm	OIL TYPE
SITE 1	37.0	7	259.0	50	5	25.5	MS,PT,DP,F,Sheen
SITE 2	229.0	1	229.0	50	—	—	ST,CT,CV
SITE 3	27.0	.5	13.5	30	5	2.5	MS,PT
SITE 4	27.0	18.0	486.0	40	7.5	2.5	MS,PT,DP,AP
SITE 5	91.0	32.0	2912.0	50	7.5	2.5	MS,DP,AP

OVERALL OIL IMPACT: H

OIL IN STREAM CHANNEL? Y

OIL ON BEACH WITHIN 50M OF STREAM MOUTH? Y

SUBSTRATE

Bedrock		Granule	
Boulder		Sand	10
Cobble	20	Silt	
Pebble	70	Veget.	

SPECIES	Chum	Pink			
COUNT	50 Fry	12 Adult → 9/10; 5 Juvenile → 6/25		DDH 10/2/91	

	LENGTH m	WIDTH m	M2	%	THICK cm	PEN cm	OIL TYPE
SITE 6	165.0	69.0	11,385	20.0	7.5	2.5	MS,DP,AP
SITE 7	137.0	18.0	2,466	60.0	5.0	10.0	MS,DP,HOR
SITE 8	27.0	18.0	486	70.0	5.0	10.0	MS,DP,HOR
SITE 9	46.0	27.0	1242	25.0	5.0	—	MS,TB
SITE 10	18.0	.5	9.0	30.0	5.0	—	MS,TB

- Oil data continues on following page
- Comments on following page

ACE 10459846 t/S

FOLLOWING ACE NUMBER(S) WAS (WERE) NOT USED

ACE NUMBER(S) 10459847 - 11

ACE 10459848-A

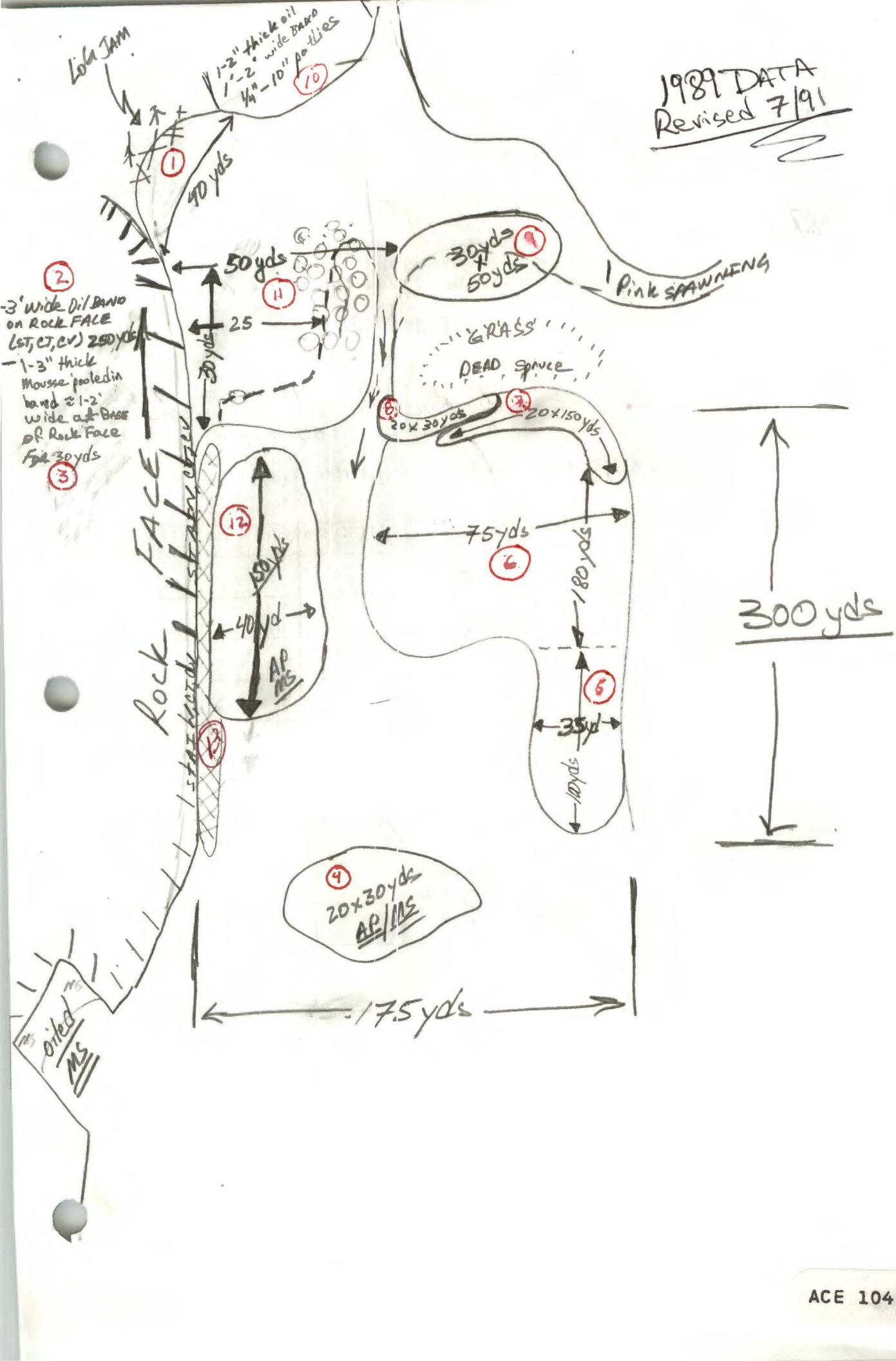
	LENGTH m	WIDTH m	M2	%	THICK cm	PEN cm	OIL TYPE
SITE 11	46.0	27.0	1242	10	2.5	—	TB,TR
SITE 12	137.0	37.0	5069	45	10.0	—	AP,MS,HOR
SITE 13	229.0	.5	114.0	50	6.0	—	MS,TB,
SITE 14							
SITE 15							

- Mousse found throughout lagoon (½" to 1' diameter).
- Oil observed from Elymus to Fucus zone.
- Cleanup crew spent a considerable amount of time removing a large quantity of oil from the beach - No work occurred in the SW corner of the lagoon where mousse saturates the sub-surface dead organic matter.
- The berm at the mouth of the creek (North shore) is saturated with oil. The lagoon outlet is often dry on the surface.
- Pink and salmon fry have been observed in the lagoon.
- Pink Salmon adults observed spawning on 8/7 & 9/10/89.
- Hermit and varied thrushes have been observed feeding on the oil on this beach.
- Littorines & limpets observed smothered in oil
- Oil mussels
- Western Sandpipers observed feeding in oiled sand/gravel/debris
- Oil saturated sand & gravel removed from lagoon outlet stream channel, tarmat(s) removed, oiled wood bucked up and burned occurred.

SEDIMENTS

A significant quantity of oil remains in the Lagoon

ACE 10459848-B



ACE 10459849 +B

1989 - AFHS Site 8-1 Black Lagoon

ASC NUMBER: 242-32-10155 SEGMENT NUMBER: WB-01A YR CATALOGED:
LOCATION: Windy Bay
STREAM NAME: Black Lagoon LATITUDE: 59 13 51
KODIAK K-UNIT: . LOCAL STREAM #: LONGITUDE: 151 31 5
USGS QUADRANGLE: Seldovia A-5 LEGAL: S 11S 13W17
SHORELINE TYPE: BEACH ALL SEGMENTS:
WAVE EXPOSURE: M

ASC NUMBER:
SURVEY TYPE: SS
METHOD: FOOT
DATE: 8/7/89
START TIME: 1210
STOP TIME: 1510

TEAM RECORDER: Doug Hill
OBSERVERS: Lee Glenn, Rick Randall

AGENCY(IES): AOF+G

PHOTOS TAKEN? Y
Roll #: 89 DDH 15H Frames: 1→5
VIDEO TAKEN? Y Tape Number: 89LP4012H video
Counter Start: 001→1790

SAMPLES TAKEN? Y
SAMPLE I.D. NUMBERS: 1. DDH-8/7/89-1230 2. RR/DDH-8/7/89-1220 3.
4. 5. 6.

	LENGTH m	WIDTH m	M2	%	THICK cm	PEN cm	OIL TYPE
SITE 1	46	7		50			
SITE 2	27	1		70			
SITE 3	274	10					
SITE 4							
SITE 5							

OVERALL OIL IMPACT: H

OIL IN STREAM CHANNEL? Y

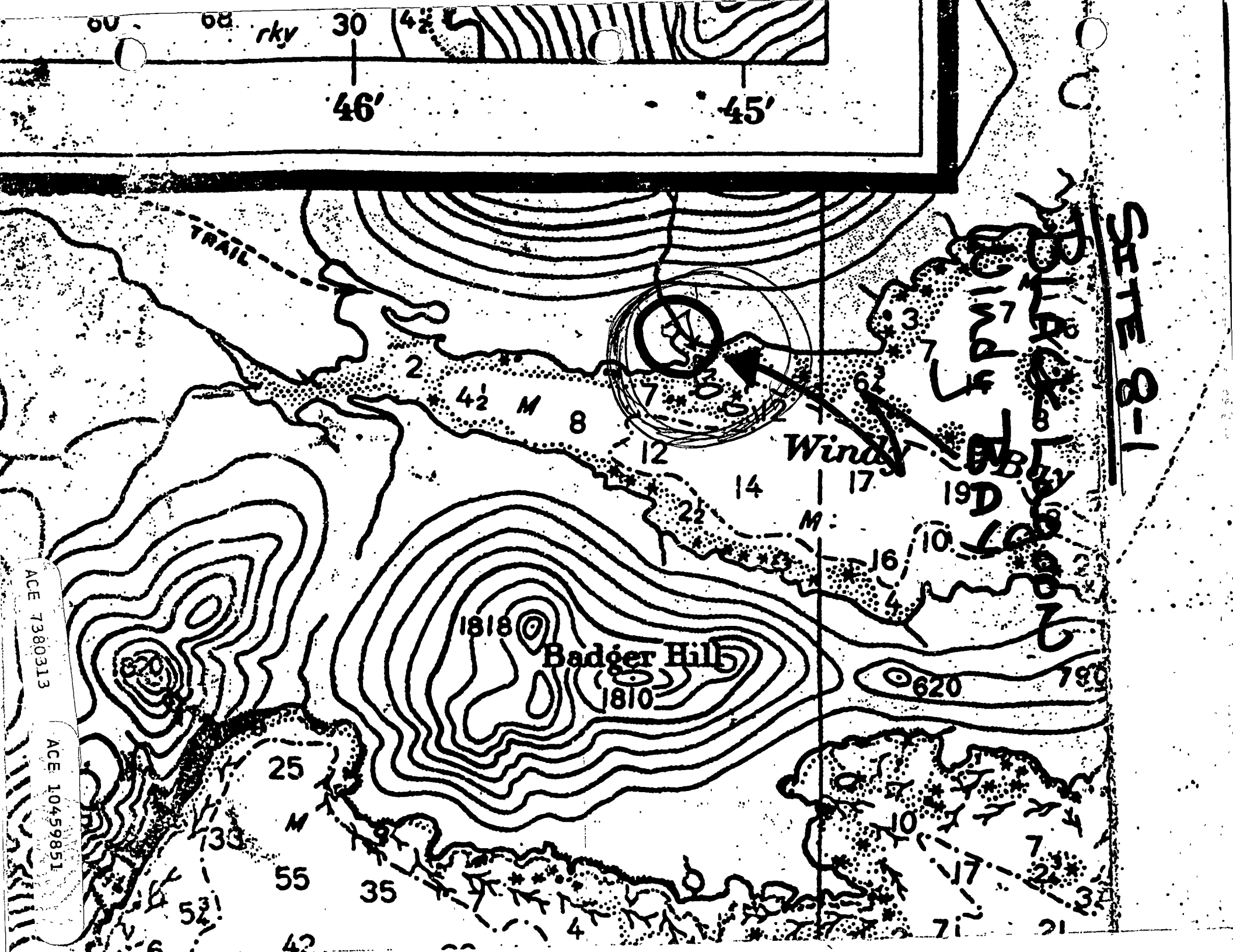
OIL ON BEACH WITHIN 50M OF STREAM MOUTH? Y

SUBSTRATE			
Bedrock		Granule	
Boulder		Sand	10
Cobble	20	Silt	
Pebble	70	Veget.	

SPECIES	Chum Salmon				
COUNT	50				

COMMENTS:

ACE 10459850


rky
30
46'
45'
TRAIL
Windy
Badger Hill
1818
1810
620
SHEET 8-1
ACE 7380313
ACE 10459851

State of Alaska
Department of Fish and Game
Nomination for Waters
Important to Anadromous Fish

Year of Revision

9-1

Anadromous Water Catalog Volume Southcentral Region

USGS Quad Seldovia A-5

Name of Waterway No Official Name-Named "Black Lagoon" due to Oil Spill

Anadromous Water Catalog Number of Waterway NC

Change to _____ Atlas

_____ Catalog

_____ Both

Addition X

Deletion _____

Correction _____

Name addition:

USGS name None

Local name Black Lagoon

For Office Use

Nomination # _____

Regional Supervisor _____ Date _____

Drafted _____ Date _____

Species	Date(s) Observed	Spawning	Rearing	Migration
Pink Salmon	9/10/89, 8/7/89	X	X	

Comments: Provide any clarifying information, including number of fish observed, location of fish survey data, etc.

12 adult and 5 juvenile pink salmon observed within lagoon

Surveyed 1/4 mile of lagoon

Original data on file with state EXXONValdez Oil Spill Lawyers(Rite In Rain)

Attach a copy of a map showing location of mouth and upper points of each species, specific stream reaches identified for spawning or rearing, locations of barriers, such as falls. Attach a copy of the fish survey data, if available.

Name of Observer (please print) Douglas D. Hill

Date: 12/13/89 Signature: Douglas D Hill

Address: Oil Spill Response Center, 509 Sterling Hwy.

Homer, Ak. 99603 235-5322

Signature of Area Biologist: _____

ACE 10459852

ACE 7380308

FISH HABITAT ASSESSMENT FORM

Windy BAY - Black Lagoon

[1]REGION: [2]PWS [3]KP, CI [4]AP [5]OBSERVER(S) Doug Hill, Lee Glenn, Rick Ra

[6]SITE NO. 8-1 [7]AERIAL PHOTO NO. _____ [8]CAT NO. NC

[9]STREAM NAME BLACK LAGOON [10]LAT 59° . 13' . 75" [11]LONG 151° . 31' . 00" .

[12]DATE 8/7/89 [13]TIME 1220 [14]TIDE: Low slack Flood High slack Ebb

[15]CATALOGED ANADROMOUS STREAM? Y (N) [16]ANAD. FISH FOUND? (Y) N

[17]OIL FOUND IN STREAM? (Y) N [18]OIL FOUND NEAR STREAM (1 MI.)? (Y) N

[19]OIL SAMPLES TAKEN? (Y) N [20]ID NOS. RDF/DDH-8/7/89-1220

Taken on 8/7/89 { 89-DDH-003
89-DDH-004

[21]35 mm PICTURES TAKEN? (Y) N [22]ROLL NO(S). 89-DDH-D15

[23]EXPOSURE NO.	[24]DESCRIPTION
1	Mousse under water - Typical patch of oil - numerous ¼" fragments surroun
2	General overview of Area where oil observed - Jar in foreground where sample taken
3	Jar in foreground designates where oil sample taken
4	Rick Randall netting Chum fry in Black Lagoon
5	Chum fry sample

[25]VIDEO FOOTAGE TAKEN? (Y) [26]CASSETTE NO(S). 89-LPG-012-H-Video

[27]DESCRIPTION: No. 12 => Capture of Salmon Fry - and overview of area (8/7/89), Collection of sample (001-904). Aerial view of Black Lagoon (905-965). Aerial of Lagoon (995-1033). Oil in Lagoon, on streambank, intertidal (1187-1511). Examples of freq. of mousse patties (1512-167 Oil sheen along shore (1671-1790).

ACE 10459853

ACE 7380309

FISH HABITAT ASSESSMENT FORM

Black Lagoon-Cont'd.

[1]REGION: [2]PWS [3]KP,CI [4]K,AP [5]OBSERVER(S) Doug Hill

[6]SITE NO. 9-1 [7]AERIAL PHOTO NO. _____ [8]CAT NO. _____

[9]STREAM NAME _____ [10]LAT ___°___.___' [11]LONG ___°___.___'

[12]DATE _____ [13]TIME _____ [14]TIDE: Low slack Flood High slack Ebb

[15]CATALOGED ANADROMOUS STREAM? Y N [16]ANAD. FISH FOUND? Y N

[17]OIL FOUND IN STREAM? Y N [18]OIL FOUND NEAR STREAM (1 MI.)? Y N

[19]OIL SAMPLES TAKEN? Y N [20]ID NOS. _____

[21]35 mm PICTURES TAKEN? Y N [22]ROLL NO(S). 89-DOH-006 (6/25/89) 89-DOH 007

[23]EXPOSURE NO.	[24]DESCRIPTION
24,25	Oiled logs & General Overview of Black Lagoon
1,2,3,4,5	Oiled logs & rock faces - Black Lagoon
6,7	Location of high oil saturated sand and gravel - Stream outlet
8,9	Depiction of level of oil at time it arrived - 3-4' above current surface
10	Same

ACE 7380310

[25]VIDEO FOOTAGE TAKEN? Y N [26]CASSETTE NO(S). 89-LPG-008-H-Video (Documenting After Clean-up Completion)

[27]DESCRIPTION: TAPE 008 - 9/6/89. Lee Glenn Briefing as to what has occurred at Grungy, what will be filmed (0-270). Intertidal Oil (270-1190). Oil along shore & within outlet Stream (1190-1570). Oil within Streams Lagoon (1570-1865) Tideline - dead birds, oil, oiled sorbent material (1865-2336). Presence of Salmon (2336-2465). Oil within Lagoon (2465-2839). Bag of mousse (2839-2896). Oil in outlet Stream (2940-2990

ACE 10459854

ANADROMOUS FISH OBSERVATIONS

		PINK	CHUM	RED	KING	COHO	DOLLY		
28	Aerial								
29	Ground								

30 COMMENTS: _____

OIL OBSERVATIONS

EXTENT OF OIL:

	WITHIN STREAM	OUTSIDE STREAM
31 SURFACE COVERAGE		
32 SURFACE THICKNESS		
33 PENETRATION		

34 OIL DISTRIBUTION DIAGRAM (SHOW SAMPLING SITES)

35 PREDOMINANT SUBSTRATE TYPE:

1. Bedrock
2. Boulder
3. Cobble
4. Gravel
5. Sand
6. Mud
7. Other _____

- A Fair Amount of cleanup Activity occurred in the vicinity of Black Lagoon. Heavily oil saturated sand and gravel removed, tar mats removed, oiled wood bucked up and burned, and some light activity involving mousse paddy removal from with lagoon itself.
- WATER level of Lagoon Fluctuated very much throughout the June thru Sept (Fluctuated by Approx. 12-14"
- Oil within lagoon has emerged from water and been submerged by water throughout season
- oil arrived on a water level approx 3' above the bottom of the Lagoons Southend

36 COMMENTS: _____

ACE 10459855

ACE 7380311

ANADROMOUS FISH OBSERVATIONS

		PINK	CHUM	RED	KING	COHO	DOLLY		
28	Aerial								
29	Ground		12 Adults [redacted] 9/1/89 5 Fry — 8/7/89						

30 COMMENTS: Rick Randall & Lee Glenn Observed Pink Salmon in Gravel bottomed Channel which drains into Lagoon. Lagoon Outlet Channel is frequently dry at low tides (≈ [redacted] 400yds of Intertidal flats - very little Slope).

OIL OBSERVATIONS

240' x 420'

EXTENT OF OIL:

★ SEE revised MAP ATTACHED TO MAO TRANSFER Sheet for updated 1989 Dimensions

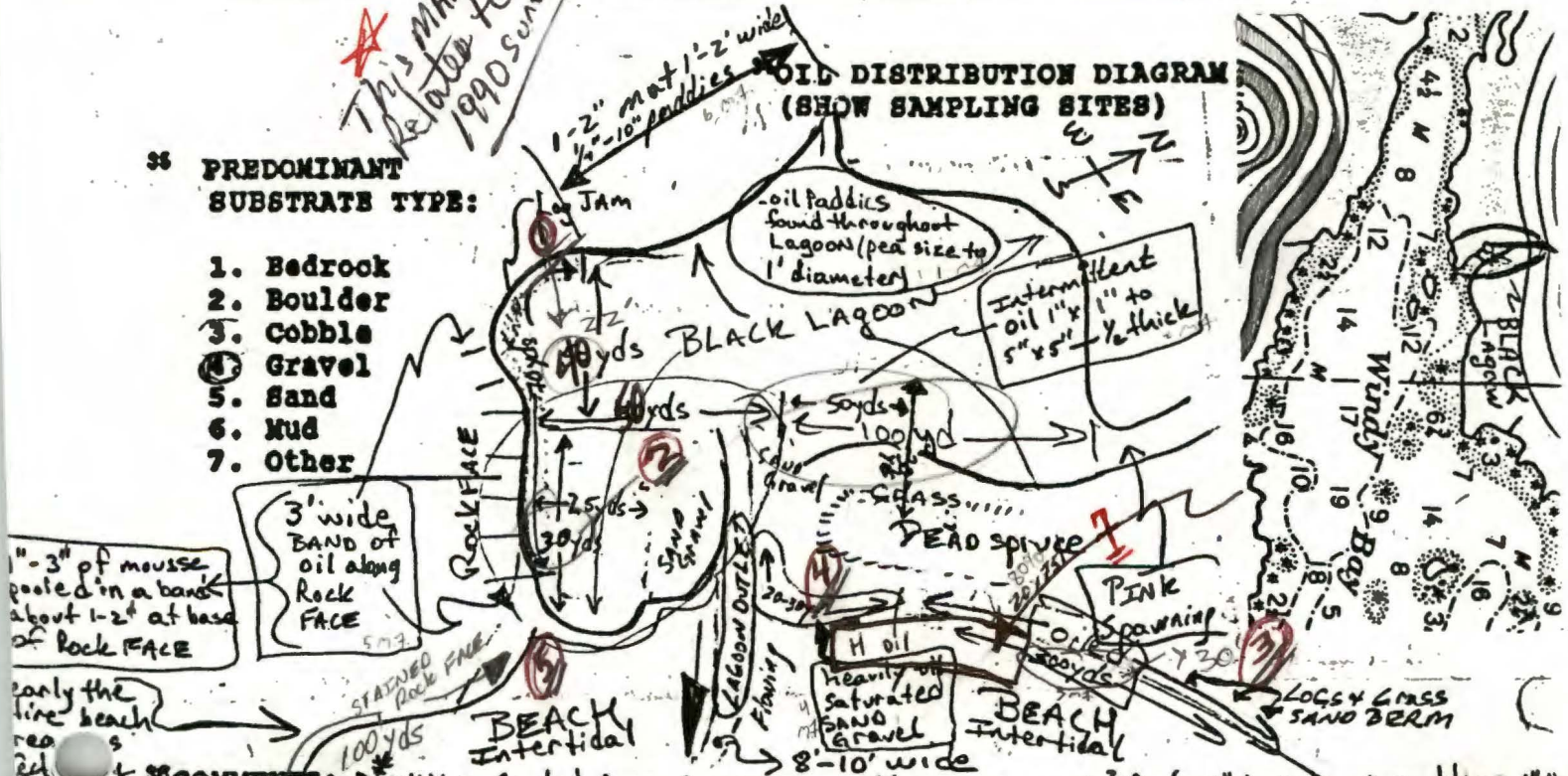
	WITHIN STREAM	OUTSIDE STREAM
31 SURFACE COVERAGE	oil found around perimeter of Lagoon 1-2" mats (mostly shore) oil presumed throughout Lagoon *	150yds x 300yds Affected by oil
32 SURFACE THICKNESS	1"-2"	1" [redacted]
33 PENETRATION	[redacted] up to 1"	10-12"

★ This MAP Related to 1990 SURVEY

35 PREDOMINANT SUBSTRATE TYPE:

1. Bedrock
2. Boulder
3. Cobble
4. Gravel
5. Sand
6. Mud
7. Other

OIL DISTRIBUTION DIAGRAM (SHOW SAMPLING SITES)



36 COMMENTS: Within Circled Area 1 mousse paddy per every 2² feet - 1" to 10"x10" paddies. 1"-11" (interspersed with smaller fragments).

ACE 7380312 ACE 10459856

Clean up crews spent a considerable amount of time on this beach

150 - 200 yds

ADF&G MULTI-ASSESSMENT FORM
1991 GENERAL ENTRY CHECKLIST

STREAM#: 2423210155
SEGMENT: WB001

 DATE PRINTED: 10/15/91

LOCATION: BLACK LAGOON

SURVEY TYPE: 89 - SS METHOD: GROUND

DATE: 09/10/89 TEAM RECORDER: RANDALL

START TIME: 1210 OBSERVERS: GLENN
END TIME: 1310

TIDES: -0- AGENCY: FG
OG/HAB DISCREPANCIES: -

PHOTOS TAKEN: Y

STATION: 2423210155 ROLL#: RDR-16
FRAME: 01-03

VIDEO TAKEN: Y TAPE#: 89LPG002H
START: 0001 END: 0800

SAMPLES TAKEN: N

SAMPLE NUMBERS: -0- -0-

-0- -0-

-0- -0-

OIL IN STREAM BED: Y

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

WAVE EXPOSURE: MOD SHORELINE TYPE: BEACH

SUBSTRATE TYPE: BEDROCK -0- BOULDER -0- COBBLE 20 VEGETAT -0-

GRAVEL 70 SAND 10 MUD/SILT -0- GRANULE -0-

ANADROMOUS FISH PRESENT: Y

SPECIES: PINK SALMON COUNT: 12
-0- -0-
-0- -0-
-0- -0-
-0- -0-

ACE 10459857 #5

ADF&G MULTI-ASSESSMENT FORM
1991 OILING ENTRY CHECKLIST

 DATE PRINTED: 10/15/91

COMMENTS:
1ST VISIT TO THIS AREA WAS IN LATE MAY. AT THAT TIME MUCH OF THE INITIAL OILING HAD ALREADY BEEN WASHED BACK TO SEA. AT THAT TIME TAR BALLS WERE FOUND SCATTERED IN AND AROUND THE LAGOON (WHERE THE PINKS ARE PRESENTLY SPAWNING), ON THE BERM AT THE MOUTH OF THE CREEK AND ALONG THE LENGTH OF THE BEACH AT THE MOUTH OF THE STREAM. THE PRIMARY CLEANUP EFFORT AT RB-4 OCCURRED ON THE POCKET BEACH TO THE SE OF THE SALMON STREAM (SCURVY CREEK). DEC TRANSECT #'S 304, 305 & 306 WERE RUN IN NEAR VICINITY OF THE CREEK. OTHER PHOTOS TAKEN 89DDH002H AND 003H.

ADF&G MULTI-ASSESSMENT FORM
1991 OILING ENTRY CHECKLIST

DATE PRINTED: 10/15/91

STREAM# : 2423210155
SEGMENT#: WB001

SURVEY TYPE : 89 - SS
DATE: 09/10/89
TIMES: 1210 - 1310

LOCATION: BLACK LAGOON

TEAM RECORDER: RANDALL

-- OILING EXTENT --

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

COMMENTS:
FRESH MOUSSE PATTY OBSERVED AT RECENT HIGH TIDE LINE. SALMON OBSERVED IN CHANNEL ON NORTH SHORE OF LAGOON. DEAD BIRD FOUND IN KELP. 30-40 OIL CONTAMINATED APPLES FOUND IN KELP.

END OF REPORT

ASC NUMBER: ~~2~~ 2423210155 SEGMENT NUMBER: WB-001 YR CATALOGED:
LOCATION: Windy Bay, Black Lagoon
AM NAME BLACK LAGOON
AK K-UNIT: , LOCAL STREAM #: LATITUDE: 59 13 51
US QUADRANGLE: Seldovia A-5 LONGITUDE: 151 31 05
SHORELINE TYPE: Beach ALL SEGMENTS: LEGAL: S11S 13W17
WAVE EXPOSURE: M

SC NUMBER:
URVEY TYPE: SS
ETHOD: FOOT
ATE: 9/10/89
TART TIME: 1210
TOP TIME: 1310

TEAM RECORDER: ~~Doug Hill~~ Rick Randall
OBSERVERS: Lee Glenn

AGENCY(IES): ADF+G

PHOTOS TAKEN? Y
Roll #: ROR-16 Frames: 1→3
VIDEO TAKEN? Y Tape Number: 89LPG-002H
Counter Start: 001→0800

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

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

VERALL OIL IMPACT: H

IL IN STREAM CHANNEL? Y

OIL ON BEACH WITHIN 50M OF STREAM MOUTH? Y

SUBSTRATE

Bedrock	Granule
Boulder	Sand 10
Cobble 20	Silt
Pebble 70	Veget.

SPECIES	Pink Salmon				
COUNT	12 ADULTS				

MMENTS: Salmon observed in ~~south~~ channel on north shore of Lagoon.
Fresh mousse patty observed at recent high tide line.
- Dead bird found in kelp
- 30-40 oil contaminated apples found in kelp

ACE 10459860 P

ADF&G MULTI-ASSESSMENT FORM
1991 GENERAL ENTRY CHECKLIST

STREAM#: 2423210155
SEGMENT: WB001

PAGE 28 DATE PRINTED: 06/21/91

LOCATION: BLACK LAGOON

SURVEY TYPE: 90 PRE SCREEN - SS METHOD: GROUND

DATE: 04/16/90 TEAM RECORDER: HILL

START TIME: 1145 OBSERVERS: MCLANE
END TIME: 1320

AGENCY: FG

OG/HAB DISCREPANCIES: -

PHOTOS TAKEN: Y

STATION: 2423210155 ROLL#: 90DDH005H
FRAME: 4-21

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

SAMPLES TAKEN: Y

SAMPLE NUMBERS: ?? 9ØDDHØ69H -0-

?? 9ØDDHØ7ØH -0-

-0- -0-

OIL IN STREAM BED: Y

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

WAVE EXPOSURE: -0- SHORELINE TYPE: BEACH LAGOON

SUBSTRATE TYPE: BEDROCK -0- BOULDER -0- COBBLE 20 VEGETAT -0-

GRAVEL 70 SAND 10 MUD/SILT -0- GRANULE -0-

ANADROMOUS FISH PRESENT: ~~N~~ Y

SPECIES: PINK ~~FRY~~ SALMOD COUNT: -0-
-0- -0-
-0- -0-
-0- -0-
-0- -0-

ACE 10459874 HS

ADF&G MULTI-ASSESSMENT FORM
1991 OILING ENTRY CHECKLIST

DATE PRINTED: 06/21/91

STREAM# : 2423210155
SEGMENT#: WB001

SURVEY TYPE : 90 PRE SCREEN - SS LOCATION: BLACK LAGOON
DATE: 04/16/90
TIMES: 1145 - 1320 TEAM RECORDER: HILL

-- OILING EXTENT --

SITE#	SITE TYPE	DEPTH (cm)	LENGTH (m)	WIDTH (m)	AREA (m)	%	THICK (cm)	PEN (cm)	OIL TYPE CODES
1	-0-	-0-	46	7	-0-	50	5	25.4	MS PT OP F
2	-0-	-0-	27	1	-0-	50	2.5	2.5	MS PT CT CV
3	-0-	-0-	274	10	-0-	35	5	2.5	PT AP ST
4	-0-	-0-	27	2	-0-	70	5	2.5	AP PT
5	-0-	-0-	95	3	-0-	70	2.5	2.5	TP AP ST CT
6	-0-	-0-	9	9	-0-	8	-0-	2.5	AP

ADF&G MULTI-ASSESSMENT FORM
1991 OILING ENTRY CHECKLIST

PAGE 32 DATE PRINTED: 06/21/91

COMMENTS:
SW CORNER OF LAGOON (LOG PILE AREA) - NEARLY EVERY STEP IN THIS AREA PRODUCES A SHEEN, BLOBS OF MOUSSE (AT LEAST 4" THICK) SATURATED THE DEAD ORGANIC MATTER THAT HAS ACCUMULATED ON BOTTOM OF LAGOON. SHEEN WAS PRESENT ON LAGOON SURFACE WHEN WE ARRIVED. THIS AREA IS APPROX 7M X 46M. THE HEAVIEST ACCUMULATION IS IN THE EXTREME SW CORNER. MOVING NE ALONG THE SHORE SPORADIC MOUSSE PATTIES (<18" X 18") ARE FOUND IN UP TO 2-3" WATER. ST, CT FOUND ON LOGS IN BOTH AREAS. 1 POMPOM FOUND ON BOTTOM OF LAGOON. SCOOP LAGOON BOTTOM SEDIMENTS OFTEN OIL NOT READILY VISIBLE. HOWEVER, THE SMELL OF OIL IS ~~EASILY ACKNOWLEDGED~~ READILY APPARENT AS ~~WELL AS~~ A BLUISH HUE ~~THAT~~ BEGINS TO SHOW. THE SMELL OF OIL IS VERY NOTICEABLE ALONG WEST & NW SHORE OF LAGOON. SHEEN COMMON AMONG LOGS PRIOR TO DISTURBANCE. BEACH BERM WHERE LAGOON OUTLET FLOWS THROUGH-LARGE AREA OF SHEENING ACCURRING AT MOUTH OF LAGOON. SOUTH BANK: 2' X 4' TARMAT. NORTH BANK: OIL STAINED DRIFTWOOD SE FACING BEACH/NORTH SIDE OF LAGOON OUTLET, TARMATS - SOUTH FACING BEACH/NORTH SIDE OF LAGOON OUTLET, TARMATS. SW SHORE LAGOON ROCK FACES: 2-3' WIDE BAND, APPROX 100' LONG, ST/CT/CV, SPRUCE NEEDLES CEMENTED TO ROCK FACE & ENCRUSTED WITH OIL. BASE OF ROCK FACE: MOUSSE PATTIES ABOVE & BELOW SURFACE OF WATER-OIL FOUND TO A DEPTH OF 18" IN WATER. SOUTH SIDE OF TIDE FLATS - TARMATS (AP), TAR PATTIES (<5CM THICK, 5" X 5" & UP). ROCK WALL: TAR PATTIES AT BASE, STAINED/CV ROCKS & ROCK FACE. BAND OF STAIN/CT & NEEDLES ON ROCK FACE (APPROX 1M WIDE X 100 YARDS LONG). NORTH SIDE TIDE FLATS - TARMATS (AP), TAR PATTIES, STAINED LOGS. TIDE FLATS - TAR PATTIES, AP. PINK SALMON FRY IN LAGOON.
OIL ON STREAM BANKS: YES
OIL WITHIN 1 MILE OF STREAM: YES, JUST ABOUT ANYWHERE ON THE NORTH SHORE OF WINDY BAY

ACE 10459876 15

ADF&G MULTI-ASSESSMENT FORM
1991 GENERAL ENTRY CHECKLIST

STREAM#: 2423210155
SEGMENT: WB001

PAGE 6 DATE PRINTED: 07/29/91

LOCATION: BLACK LAGOON

SURVEY TYPE: 91 MAYSAP - ~~8~~ 55 METHOD: ~~GROUND~~ FOOT

DATE: 05/15/91 TEAM RECORDER: HILL FITZGERALD

START TIME: 0925 OBSERVERS: GLENN
END TIME: 1040

TIDES: ~~-3.0/1.5~~ EBB-SLACK AGENCY: FG
OG/HAB DISCREPANCIES: -

PHOTOS TAKEN: Y

STATION: 2423210155 ROLL#: 91DDH002H NOAA 6-15
FRAME: 26-28 12→18

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

SAMPLES TAKEN: N

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

OIL IN STREAM BED: Y

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

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

SUBSTRATE TYPE: BEDROCK -0- BOULDER -0- COBBLE 5 VEGETAT -0-
GRAVEL 70 SAND 10 MUD/SILT 15 GRANULE -0-

ANADROMOUS FISH PRESENT: N

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

ADF&G MULTI-ASSESSMENT FORM
1991 OILING ENTRY CHECKLIST

DATE PRINTED: 07/29/91

STREAM# : 2423210155
SEGMENT#: WB001

SURVEY TYPE : 91 MAYSAP - ~~BS~~
DATE: 05/15/91
TIMES: 0925 - 1040

LOCATION: BLACK LAGOON

TEAM RECORDER: HILL FITZGERALD

-- OILING EXTENT --

SITE#	SITE TYPE	DEPTH (cm)	LENGTH (m)	WIDTH (m)	AREA (m)	%	THICK (cm)	PEN (cm)	OIL TYPE CODES
1	-0-	-0-	6	6	36	-0-	>1	-0-	MS
2	-0-	-0-	2	1	2	30	<7.5	2	AP
3	-0-	-0-	3	2	6	80	<5	-0-	AP
4	-0-	-0-	4	1	4	70	-0-	-0-	CT ST
5	-0-	-0-	200	~~1~~ .5	100	50	-0-	-0-	CT CV ST
6	-0-	-0-	8	4	32	10	<4	<1	AP
7	-0-	-0-	1	1	1	20	<4	<1	AP
8	-0-	-0-	1	1	1	80	-0-	-0-	ST

ADF&G MULTI-ASSESSMENT FORM
1991 OILING ENTRY CHECKLIST

X

 DATE PRINTED: 07/29/91

COMMENTS:
ALL OIL OBSERVED AND ACCESSIBLE WAS NOT PICKED UP BY VECO WORKERS AS SUGGESTED BY THE OG ON THE OG MAP. 'AP' (OR 'SOR' AS THE OG SO FONDLY CALLS EVERYTHING) REMAINS WHERE THE VECO WORKERS PICKED OIL UP. THE VECO WORKERS DO NOT USUALLY HAVE ENOUGH TIME TO PICK UP ALL RETRIEVABLE OIL. THEIR SCHEDULE IS BASED ON THE RATE AT WHICH THE EXXON REP PUSHES THEM. WHICH IS USUALLY QUITE FAST SINCE THE EXXON REP IS MOST CONCERNED ABOUT GETTING BACK TO TOWN TO DO PAPERWORK - TO SKEW THE REAL WORLD WITH PAPER. MOUSSE RAMAINS ON THE BOTTOM OF THE LAGOON. SHEEN SURFACED WITH LITTLE AGITATION OF THE DEAD ORGANIC MATTER ON THE LAGOON BOTTON (SITE #1).

Nancy pls review
this one.
ks 08/19/91

MAYSAP – Windy BAY
BLACK Lagoon

ADF&G MULTI-ASSESSMENT DATA FORM

ANAO

1) SURVEY TYPE: ~~ES~~ (SS)
2) REGION: PWS (KP,CI) K,AP OK
METHOD: Aerial (Ground) Boat
3) DATE: 5/15/91
4) START TIME: 0925
5) STOP TIME: 1040
6) SEGMENT #: WB-01A
7) K-UNIT: _____
8) LAT: 59 13 51
9) LONG: 151 31 5
10) ASC #: 242-32-10155
11) STREAM NAME: BLACK Lagoon
12) LOCATION: KAOC, Windy BAY
13) WAVE EXPOSURE: High (Moderate) Low
14) SHORELINE TYPE: Headland (Low-lying Rocks) (Beach)
Cove (Lagoon) Marsh
15) HIGH TIDE TIME: 0341/1649
16) HIGH TIDE HTS: 20.7/18.7
17) LOW TIDE TIMES: 0935/2140
18) LOW TIDE HTS: -4.7/1.5
19) TIDE HT AT SURVEY: -3.0/1.5
Ebb Slack Flood Slack
20) USCG QUAD: Seldovia A-5
21) TEAM RECORDER: Doug Hill (ADF&G) Duncan Fitzgerald (OG
22) OBSERVERS: Lee Glenn (ADF&G)
23) AGENCY: _____
24) PHOTOS TAKEN: (Y) N
ROLL #: 90100H002H FRAMES: 26,27,28
25) VIDEO TAKEN: Y (N)
TAPE # _____
START: _____ STOP: _____
26) SAMPLES TAKEN? Y (N)
SAMPLE I.D. _____

27) EXTENT OF OIL

	LENGTH m	WIDTH m	M2	%	THICK cm	PEN cm	OIL TYPE
SITE 1	6	6	36	~~?~~	7/CM	~~?~~	MS
SITE 2	2	1	2	30	<7.5	2	AP
SITE 3	3	2	6	80	<5	—	AP
SITE 4	4	1	4	70	—	—	CT/ST
SITE 5	200	1/2	100	50	—	—	CT/CV/ST

28) OVERALL OIL IMPACT:

H = >6m band with ≥50% oil coverage

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

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

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

N = No oil observed

29) OIL IN STREAMBED: (Y) N

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

31) SUBSTRATE TYPE (PERCENT):

Bedrock ____ Boulder ____ Gravel 70% Sand 10% Cobble 20% Mud/Silt ____

32) ANADROMOUS FISH PRESENT: Y (N)

33) WILDLIFE OBSERVATION

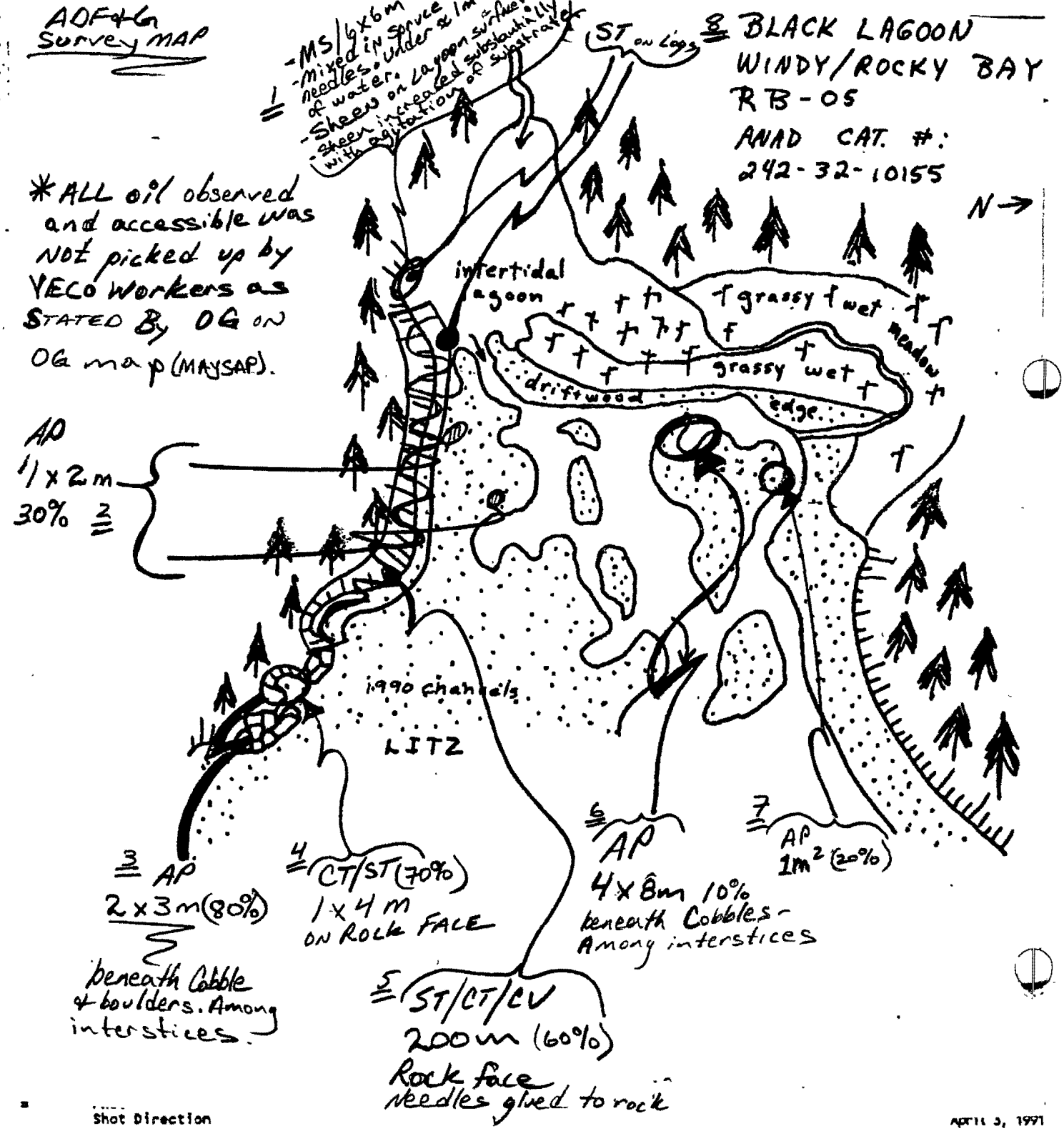
Species	Number

34) COMMENTS: All oil observed and accessible was not picked up by VECO workers as suggested by the OG on the OG map. AP (or SOR as the OG so fondly calls everything) remains where the VECO workers picked oil up. The VECO workers do not usually have enough time to pick up all retrievable oil - their schedule is based on the rate at which the Exxon Rep. pushes them, which is usually quite fast since the Exxon Rep. is most concerned about getting back to town to do paperwork --- to skew the real world with paper. Mousse remains on the bottom of the Lagoon. Sheen surfaced with little agitation of the Dead organic matter on the Lagoon bottom (site 2)

36) PHOTOLOG

FRAME(S)	DESCRIPTION
	See Photo location map from MAYSAP survey
	GARY Shigenaka (NOAA) took photos Roll 6-15, Frames 12-18
26	Oil Sheen on lagoon Survey - from mousse saturated substrate
27	" " " " " " " " " "
28	Lee Glenn showing the OG+Land Manager the Mousse we pulled out of the lagoon - beneath 1 in of water

AOF+G Survey MAP



2 = Shot Direction

April 3, 1991

WB-1A CONT'D

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: _____ 16) HIGH TIDE TIME: _____ 22) TEAM RECORDER: _____

5) START TIME: _____ 17) HIGH TIDE HTS: _____ 23) OBSERVERS: _____

6) STOP TIME: _____ 18) LOW TIDE TIMES: _____ 24) AGENCY: _____

7) SEGMENT #: _____ 19) LOW TIDE HTS: _____ 25) PHOTOS TAKEN: Y N

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

9) LAT: _____ Ebb Slack Flood Slack 26) VIDEO TAKEN: Y N

10) LONG: _____ 21) USCG QUAD: _____ TAPE # _____

11) ASC #: _____ START: _____ STOP: _____

12) STREAM NAME: _____ 27) SAMPLES TAKEN? Y N

13) LOCATION: _____ 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 # 6	8	4	32	10	<4	<1	AP
SITE # 7	1	1	1	20	<4	<1	AP
SITE # 8	1	1	1	80	—	—	ST
SITE #							
SITE #							

29) OVERALL OIL IMPACT:

H = >6m band with ≥50% oil coverage

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

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

VL = ≤10% oil coverage regardless of band width

N = No oil observed

30) OIL IN STREAMBED: (Y) N

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

32) SUBSTRATE TYPE (PERCENT):

Bedrock ____ Boulder ____ Gravel ____ Sand ____ Cobble ____ Mud/Silt ____

33) ANADROMOUS FISH PRESENT: Y (N)

34) WILDLIFE OBSERVATION

Species	Number

35) COMMENTS: _____

ASC # 242-32-10155

1991 MAYSAP EVALUATION

SEGMENT: WB 001 **SUB:** A **REGION:** KEN **SURVEY DATE:** 5/15/91

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

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

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

SHPO Signature: _____ Date: _____

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

COMMENTS:
INITIAL: Remove Soft in Lagoon Site E
+ NOAA, Ex = NTR, concerned whether can actually get submerged material out?

TAG: NTR - State may re-evaluate,

FOSC: _____

TAG APPROVAL DATE: 5/24/91 **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.

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

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

TEAM NO. 6 Helo SEGMENT WB-001 242-32-10155 SUBDIVISION A DATE 5/15/91

ADEC
NAME Lee Glenn A.D.F.&G ~~Doug Hill~~ SIGNATURE [signature]

☐ NTR ☒ Treatment Recommended

A Thick layer of brown mousse mixed with organic debris is submerged on the southeast side of the lagoon and is about 6m wide by 9m long. This oil should be removed from the lagoon which is habitat for migrating pink salmon. Other scattered oil is submerged and creates a sheen on the surface when wading through it, however the character of this oil/debris mixture would be difficult to recover.

I concur with comments made by NOAA on oil located in the tide flats, along border on the north beach fringe and the south rock face area.

EXXON
NAME Rex Coulter SIGNATURE Rex R. Coulter

☑ NTR LOCATION E IS MAIN AREA OF CONCERN IN THIS SUBDIVISION. INTRUSION INTO THE AREA (LOC. E) TO RECOVER THE SOR INCORPORATED INTO THE DECAYING ORGANIC MATTER WOULD PROVIDE NO MAJOR BENEFIT. RECOVERY IN THE LAGOON AREA WOULD BE DIFFICULT AND SHOULD NOT POSE ANY THREAT TO THE ENVIRONMENT. DISSAPATION AND DEGRADATION SHOULD BE LEFT TO NATURAL PROCESSES. THE HEALTHY AND ABUNDANT BIOTA AT THIS SUBDIVISION IS QUITE IMPRESSIVE.

LANDMANAGER
NAME Seraphim Megranick OF Port Graham SIGNATURE [signature]

☐ NTR ☒ Treatment Recommended ON BACK of Black Lagoon [illegible] Manual Pick up Stains on Banks and sor patches on the [illegible] 6x6 meters

Around The Corner in The Cove 1x4 Band Vertical Face
2x3 meters Sor Out by The Entrance

USCG/NOAA
NAME Chief Jensen / Gary Shigenaka SIGNATURE Robert D. Jensen Gary Shigenaka

☐ (NTR) I would recommend "NTR" on this segment. It should be noted that there is some SOR (2x6m x 3cm thick) at the end of the Lagoon. This can be found about one meter under the water. Lee Glenn ADF&G was concerned about it. It is accessible with workers wearing hip boots & looks to be 3 hours work. However, I would guess that due to the degraded condition of this SOR it probably would not be a significant threat to the environment.

SURVEYED PORTION OF THE SEGMENT WAS A BROAD, LOW-SLOPING COBBLE BEACH WITH STEEP ROCK FACES COMPRISING NORTHEAST & SOUTH PERIMETERS, AND DEAD TREES BORDERING TO THE NORTHWEST. A STREAM BISECTED THE BEACH, AND THIS STREAM FLOWED FROM A TIDALLY-INFLUENCED LAGOON TO THE WEST. A LARGE MUSSEL BED COVERED MUCH OF THE MID- TO LOWER INTERTIDAL PORTION OF THE BEACH, AND THE MYTILUS WERE IN THE PEBBLE SUBSTRATE. LITTORINA SITKANA WERE ALSO ABUNDANT IN ROCKIER SUBSTRATE AROUND THE PERIMETER. STAIN AND COAT WERE OBSERVED ON THE ROCK FACES TO THE SOUTH OF THE TIDAL FLAT. AT THE SOUTHEAST END OF THE SURVEYED PORTION, SOR WAS FOUND IN AND REMOVED FROM ANGULAR BOULDER-COBBLE SUBSTRATE IN THE UITZ. AN ISOLATED PATCH OF SOR WAS RECOVERED FROM SIMILAR SUBSTRATE ON THE NORTH SIDE OF THE BEACH. ON THE BEACH OR TIDAL FLAT ITSELF, COHESIVE LUMPS OF SOR WERE FOUND AT ISOLATED LOCATIONS IN THE MID TO UPPER ITZ—THESE WERE ALSO RECOVERED. A LARGER BAND OF SOR WAS DISCOVERED ON THE NORTHWEST SIDE OF THE STREAM IN THE UITZ, AND TO THE EXTENT POSSIBLE WAS RECOVERED. THE LAGOON, ABOVE THE BEACH AT A SEEMINGLY SUPRA INTERTIDAL LEVEL, HAD OBVIOUSLY BEEN OILED (COAT, BATHTUB RING STILL VISIBLE ON SOUTH WALL BORDERING LAGOON) BUT NO OTHER OILING WAS EASILY ACCESSIBLE. ADF&G REPS HILL AND GLENN DID VENTURE TO THE SOUTHWEST CORNER OF THE LAGOON, [illegible] AND FOUND RELATIVELY LARGER AMOUNTS OF SOR IN A VEGETATIVE MATRIX, i.e. SPRUCE NEEDLES.

MAYSAP SHORELINE OILING SUMMARY

TEAM NO. 6-Helo

SEGMENT WB-01

OG D. FitzGerald   BIO T. Schröeder

SUBDIVISION A

ADEC Lee GLEN & ADFG   LANDMANAGER S. McCormick for Port Graham

DATE 15 / May / 91

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

TIME 9 : 25 to 10 : 40   TIDE LEVEL -3.0 ft. to 1.5 ft.   ENERGY LEVEL: ☐ H ☐ M ☒ L

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

TOTAL LENGTH SHORELINE SURVEYED: 451 m   NEAR SHORE SHEEN: ☐ BR ☒ RB ☒ SL ☐ NONE

EST. OIL CATEGORY LENGTH: W — m M — m N — m VL 22 m NO 429 m US — m

LOC	AP	MS	TB	SOR	CV	CT	ST	FL	DB	NO	SURFACE SEDIMENT TYPE	SHORE SLOPE VHML	AREA WIDTH m	AREA LENGTH m	ZONE S	ZONE UI	ZONE MI	ZONE LI	NOTES
A-1						T	T				BR	M	1	4	X				ON BR FACE SUTZ
A2				T							B-C-BR	M	2	3		X			I/U Boulder/COBBLES
B				T							C-B-S	L	1	1			X		I/U Around C+B
C1				T							B-C-G-S	L	1	2			X		↓
C2				T							B-C-G-S	L	1	1			X		↓
D				T							B-C-G-S	L	4	8			X		↓
E				T							S-M	L	6	6					→ Underwater MS mixed org matte

Light ↓

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

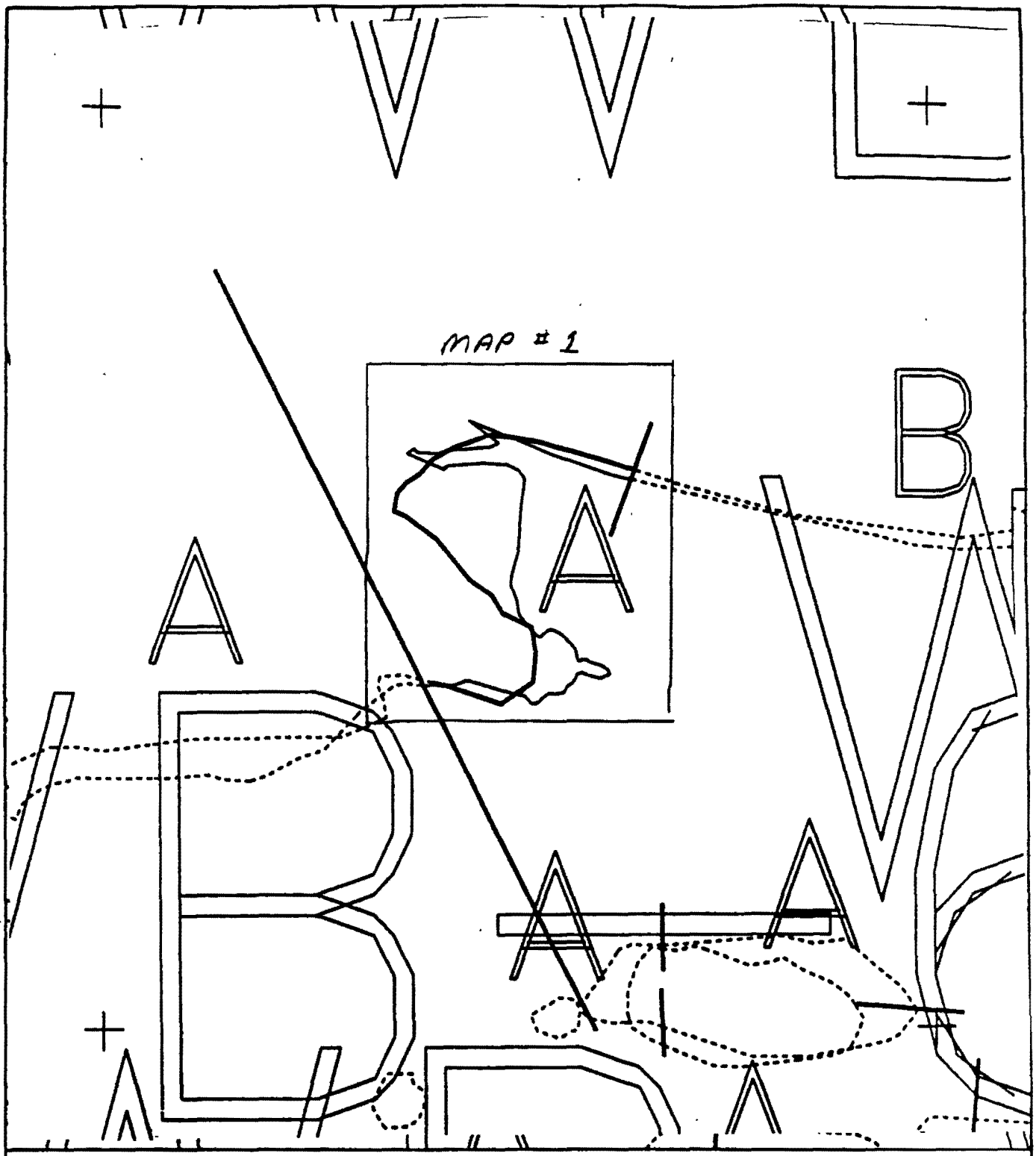
SLOPE: V = VERTICAL; H = HIGH ANGLE; M = MEDIUM ANGLE; L = LOW ANGLE   PHOTO ROLL # MAYSAP- 6 - 15   FRAMES 12-18

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

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

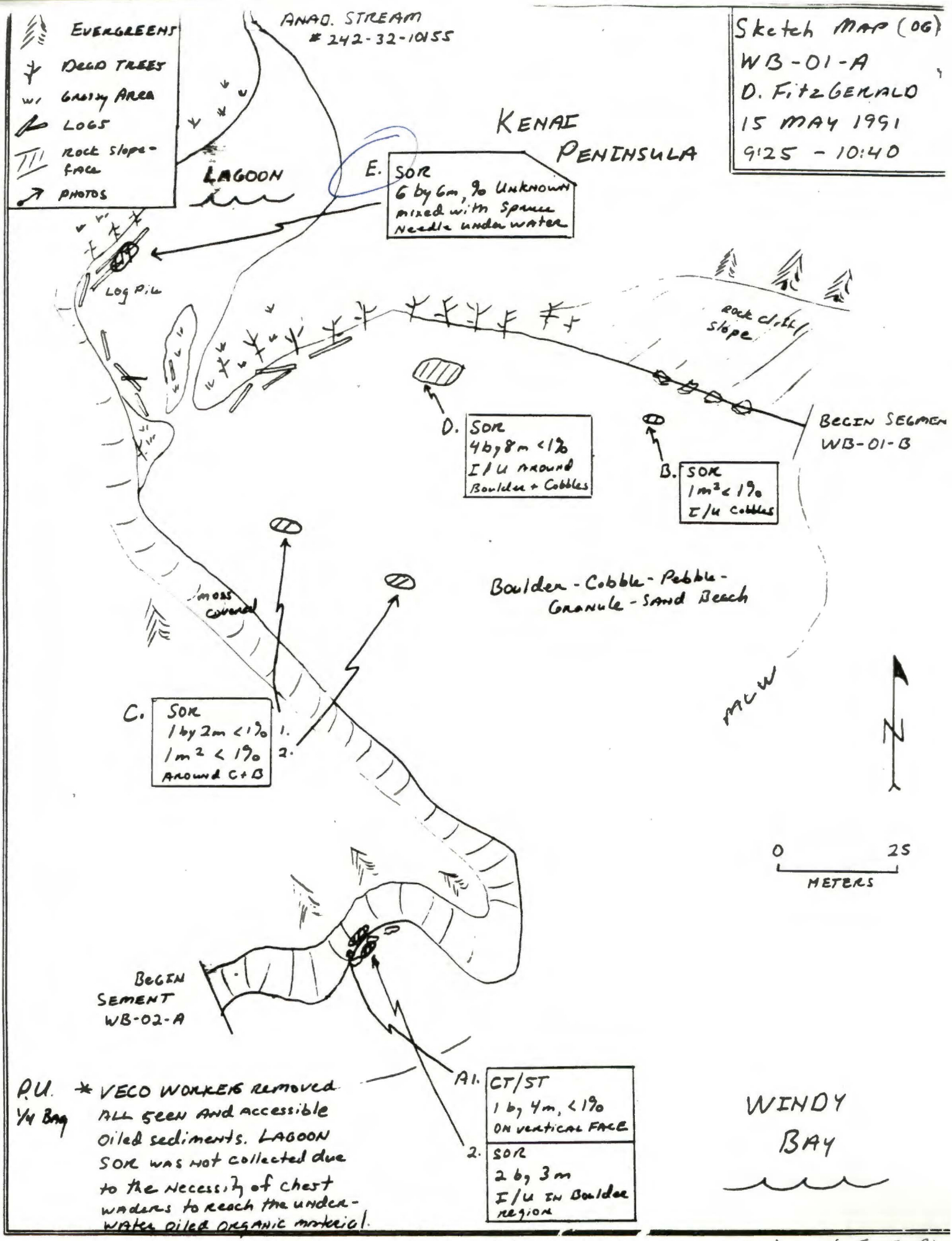
OG COMMENTS: This segment is located along the north shore of Windy Bay in a small embayment with ANAD. STREAM # 242-32-10155. The embayment contains a small lagoon behind a beach and drowned forest complex. Most of the embayment is intertidal consisting of Boulders + cobbles with granules and sand. The oiling is found in three major areas: 1) In a small pocket beach at the southwest end of the segment consisting of CT-ST and SOR in a boulder region, 2) within the intertidal portion of the embayment where small SOR areas are found, and 3) in the lagoon where SOR occurs a meter below the water surface. VECO worker collected all observed and accessible oiled sediment, totalling 1/4 bag

reviewed 5.17.91 [initials]
EG revised 5/17



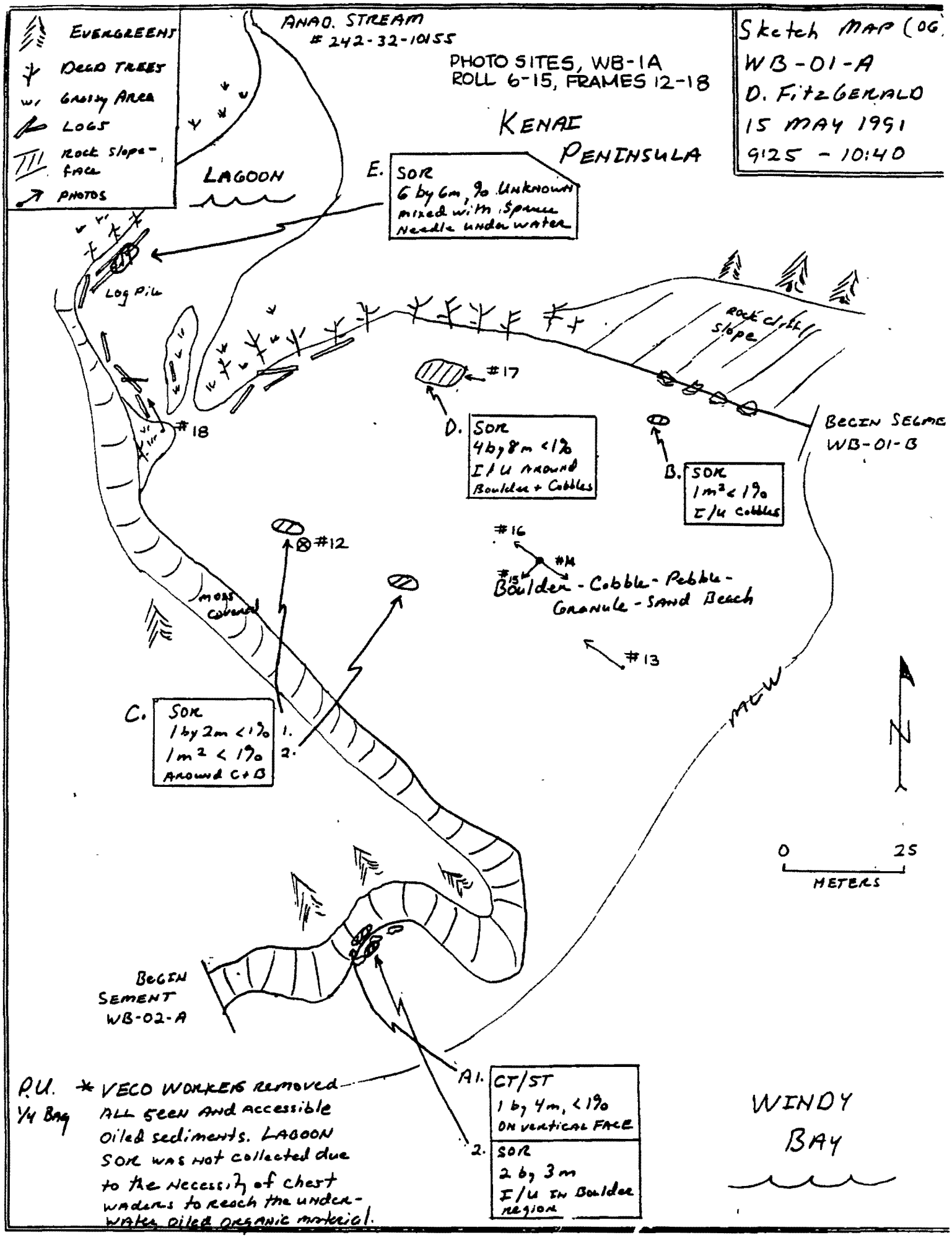
reviewed 5.17.91 gy

25 reviewed 5/17



Sketch MAP (OG)
WB-01-A
D. FitzGERALD
15 MAY 1991
9:25 - 10:40

reviewed 5-7-91
ES reviewed 5/7


Evergreens
Decid Trees
Grassy Area
Logs
Rock Slope-face
Photos
Anao. Stream
242-32-10155
Photo Sites, WB-1A
Roll 6-15, Frames 12-18
Kenai Peninsula
Sketch Map (OG)
WB-01-A
D. FitzGerald
15 May 1991
9:25 - 10:40
Lagoon
E. SOR
6 by 6m, 9% Unknown
mixed with Spruce
Needle under water
Log Pile
#17
#18
Rock cliff slope
D. SOR
4 by 8m <1%
I/U around
Boulder + Cobbles
B. SOR
1m² <1%
I/U cobbles
Begin Segment
WB-01-B
#12
#16
#14
#15
Boulder - Cobble - Pebble -
Granule - Sand Beach
#13
moss covered
C. SOR
1 by 2m <1%
1m² < 1%
Around C+B
1.
2.
MLLW
N
0
25
Meters
Begin
Sement
WB-02-A
A1. CT/ST
1 by 4m, <1%
on vertical face
2. SOR
2 by 3m
I/U in Boulder
region
P.U. * VECO workers removed
1/4 Bag all seen and accessible
oiled sediments. Lagoon
SOR was not collected due
to the necessity of chest
waders to reach the under-
water oiled organic material.
Windy
Bay

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM #	6	DATE	5/15/91
SEGMENT #	WB-001	TIDAL HEIGHT (Range)	-3.0 to 0 ft
SUBDIVISION	A	BIOLOGIST	T.A. Schroeder
SEA STATE	light chop	WIND SPEED/DIRECTION	S.W. = 5-10 mph
PHOTOGRAPHS: ROLL #		FRAME #	

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

(A) = Rock outcropping on the southern side of this beach segment contains a thriving community of littorine snails, barnacles and various types of algae. Every type of [illegible] red/brown algae, Laminaria and Fucus completely covered the rocks. Sand fleas, hermit crabs and limpets were on or under every rock in the LITZ. A small patch of eelgrass extended across the LITZ. SOR & CTST oil was not effecting these organisms.

(B+D) = Again a thick Fucus kelp bed was located on the northern shoreline from a rock outcropping and extending easterly along the MITZ to the LITZ. Littorine snails and barnacles were very numerous.

The UITZ on this beach is exposed to strong surf action and the smaller gravel substrate is unstable and supports few organisms. Rock mussel regrowth was occurring in the lower portion of the UITZ to the LITZ and was restabilizing some portions of the beach. This stream has always been a non-entity as far as salmon production is concerned. The stream leaving the lagoon is basically sub-surface in the summer during most years. It has never been stocked from commercial fishing activities and it is questionable whether fish returning to this system spawn successfully and produce their own progeny. Intertidal communities are high and thriving and support large numbers of feeding shorebirds. Remaining oil does not appear to be effecting these organisms.

WILDLIFE OBSERVATIONS
TO BE COMPLETED IN ALL SUBDIVISIONS

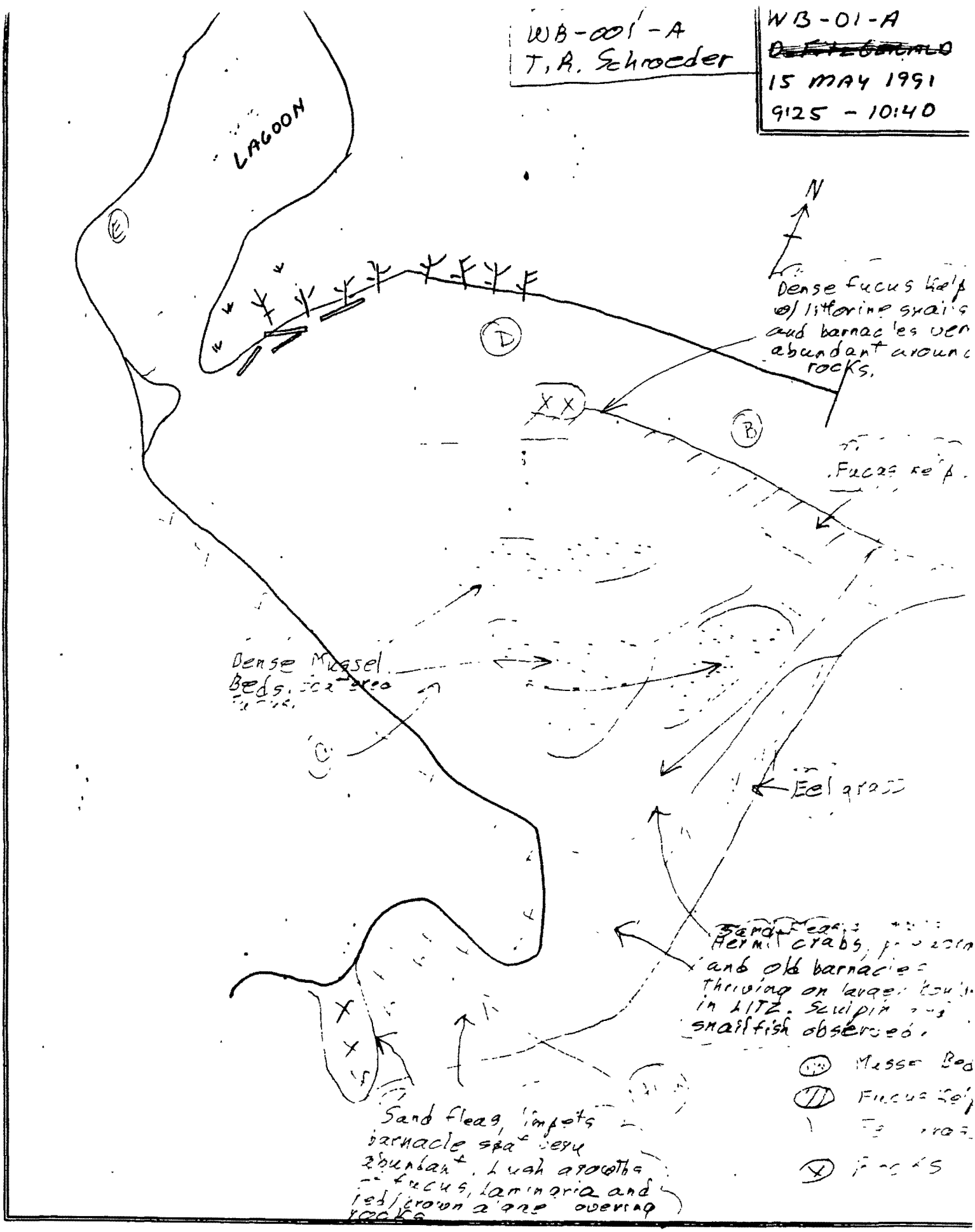
BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1 (bald eagle)	1	1 sculpin
Seabirds			1 snailfish
Waterfowl	1 wigeon	2	
Gulls/Kittiwakes	1 gull	8	
Shorebirds	1 sandpiper	50	
Corvids			
Other Birds			

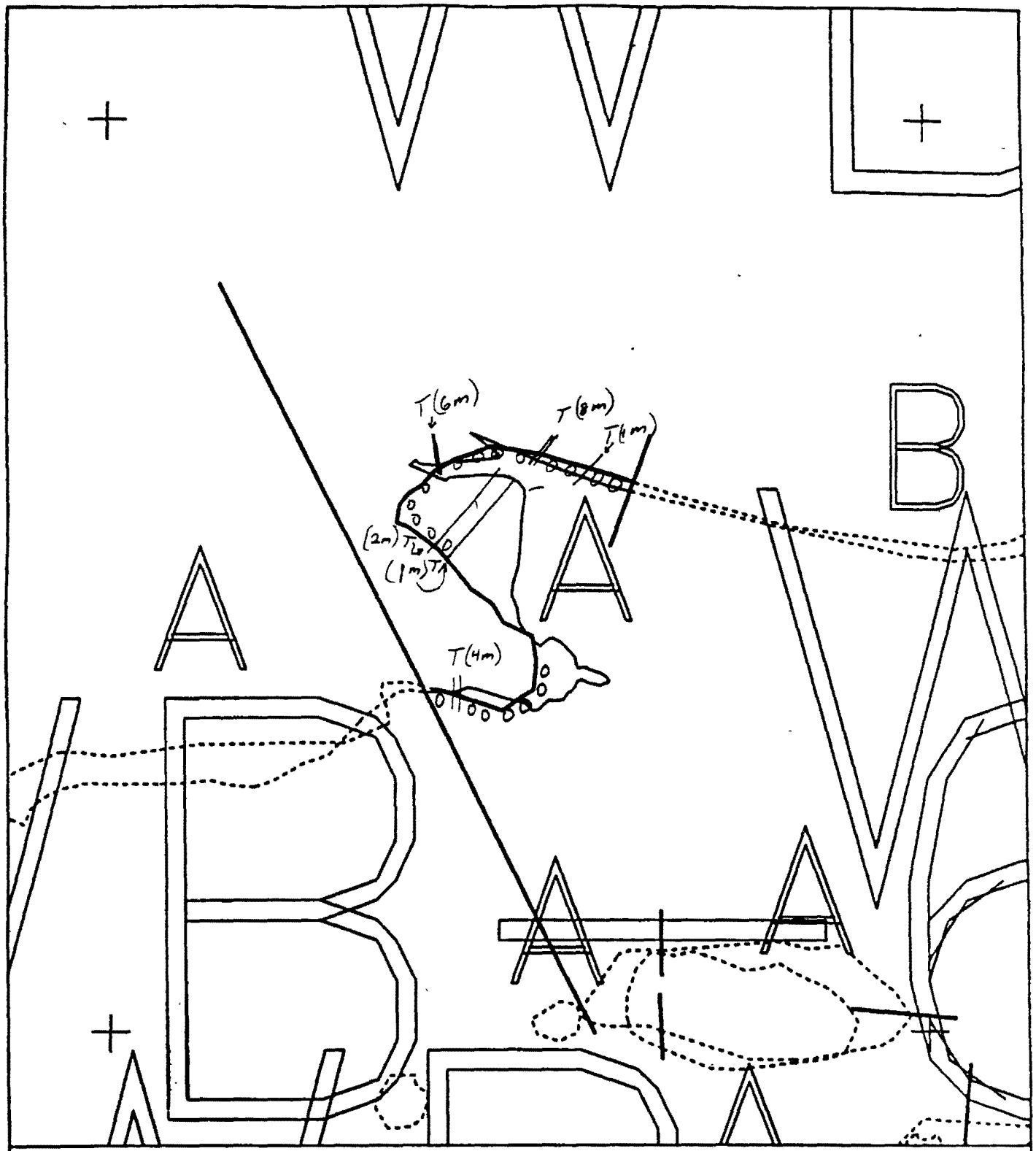
MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters			
Pinnipeds (specify)			
Whales (specify)			

Shoreline subdivision map showing important biological features attached.

WB-001'-A
T, R. Schroeder

WB-01-A
~~D. FitzGerald~~
15 MAY 1991
9125 - 10:40





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

WB001 A

ADEC Subsegment Length: 451m

METERS

0 100 200

AK State Plane Zone 4 subsets

EXXON

Subdivision Field Map

Map Key: KENWB001A

Name: Fitzgerald

Date: 15 May 91

Date Entered:

revised 5.17.91

ES revised 5/17

ADF&G MULTI-ASSESSMENT FORM
1991 GENERAL ENTRY CHECKLIST

STREAM#: 2423210155
SEGMENT: WB001

PAGE 27 DATE PRINTED: 06/21/91

LOCATION: BLACK LAGOON

SURVEY TYPE: 90 PRE SCREEN - ~~[illegible]~~ SS METHOD: GROUND

DATE: 04/07/90 TEAM RECORDER: HILL

START TIME: 0753 OBSERVERS: GLENN
END TIME: 0815

AGENCY: FG

OG/HAB DISCREPANCIES: -

PHOTOS TAKEN: N

STATION: 2423210155 ROLL#: -0-
FRAME: -0-

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

SAMPLES TAKEN: N

SAMPLE NUMBERS: -0- -0-

-0- -0-

-0- -0-

OIL IN STREAM BED: Y

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

WAVE EXPOSURE: MOD SHORELINE TYPE: LAGOON

SUBSTRATE TYPE: BEDROCK -0- BOULDER -0- COBBLE 20 VEGETAT -0-

GRAVEL 70 SAND 10 MUD/SILT -0- GRANULE -0-

ANADROMOUS FISH PRESENT: -

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

ACE 10459861 +/S/C

ADF&G MULTI-ASSESSMENT FORM
1991 OILING ENTRY CHECKLIST

DATE PRINTED: 06/21/91

STREAM# : 2423210155
SEGMENT#: WB001

SURVEY TYPE : 90 PRE SCREEN - ~~BS~~ SS LOCATION: BLACK LAGOON
DATE: 04/07/90
TIMES: 0753 - 0815 TEAM RECORDER: HILL

-- OILING EXTENT --

SITE#	SITE TYPE	DEPTH (cm)	LENGTH (m)	WIDTH (m)	AREA (m)	%	THICK (cm)	PEN (cm)	OIL TYPE CODES
1	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	NOT AVAIL

COMMENTS:
ROCK FACE SW PORTION OF LAGOON- ~~APPROX 100 YARDS~~ - 100 feet long & wid - 1-4' BAND OF STAINED/COATED ROCK FACE - SPRUCE NEEDLES GLUED ON ROCK FACE. TARMAT EVIDENCE ON EAST SIDE OF STREAM WHERE STREAM CUTS THROUGH BEACH BERM - 3 MATS VISIBLE 1' X 1' X 5". A DOZEN 5" X 5" X 2" BALLS. SPORADIC TARMATS <2" THICK OBSERVED THROUGHOUT THE TIDE FLAT AREA. APPROX 10% OF THIS AREA HAS OIL. BUFFLEHEADS, GOLDENEYES AND MURRELETS PRESENT JUST OFF TIDE FLATS. SITE 8-1 OF 1989 ANADROMOUS FISH HABITAT ASSESSMENT.
OIL ON STREAM BANKS: YES
OIL WITHIN 1 MILE OF STREAM: YES, JUST ABOUT ANYWHERE ON NORTH SHORE OF WINDY ~~B~~ BAY..

ASC NUMBER: 242-32-10155 SEGMENT NUMBER: WB-1 YR CATALOGED:
LOCATION: KP, QC, Windy Bay
STREAM NAME: Black Lagoon LATITUDE: 59 13 51
KODIAK K-UNIT: . LOCAL STREAM #: LONGITUDE: 151 31 5
USGS QUADRANGLE: Seldovia A-5 LEGAL: S
SHORELINE TYPE: Beach Lagoon ALL SEGMENTS:
WAVE EXPOSURE: Moderate

ASC NUMBER:
SURVEY TYPE: Pre-screening
METHOD: Foot
DATE: 4/17/90
START TIME: 0753
STOP TIME: 0815

TEAM RECORDER: Doug Hill
OBSERVERS: Lee Eakin

AGENCY(IES): ADF&G

PHOTOS TAKEN?
Roll #: Frames:
VIDEO TAKEN? Tape Number:
Counter Start:

SAMPLES TAKEN? ☒ NO
SAMPLE I.D. NUMBERS: 1. 2. 3.
4. 5. 6.

	LENGTH m	WIDTH m	M2	%	THICK cm	PEN cm	OIL TYPE
SITE 1							
SITE 2	SEE 4/16/90 Survey Comments below for oiling loc						
SITE 3							
SITE 4							
SITE 5							

OVERALL OIL IMPACT: [redacted]m

OIL IN STREAM CHANNEL? Y

OIL ON BEACH WITHIN 50M OF STREAM MOUTH? Y

SUBSTRATE

Bedrock		Granule	
Boulder		Sand	10%
Cobble	20%	Silt	
Pebble	70%	Veget.	

SPECIES					
COUNT					

COMMENTS: Rock Face SW portion of Lagoon ⇒ ≈ 100 yds - 1-4' band of stained/coated rock face - spruce needle glued on rock face.
Tarmat evidence on east side of stream where stream cuts through beach berm - 3 mats visible 1' x 1' x 5". A dozen 5" x 5" x 2" balls of mousse observed in this area also.
Sporadic tarmats < 2" thick observed throughout the tide flat area. ≈ 10% of this area has oil.
Buffleheads, goldeneyes and murrelets present just off tide flats.

* Site 8-1 of 1989 Anad. fish habitat assessment
* See field log for further info

ACE 10459863 1/5

Pre-Screening
Black Lagoon

ADF&G MULTI-ASSESSMENT DATA FORM

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

METHOD: Aerial (Ground) Boat

3 DATE: 4/7/90 16 HIGH TIDE TIMES: 0102 / 1310 21 TEAM RECORDER: Doug Hill

4 START TIME: 0753 16 HIGH TIDE HTS: 11.8 / 11.5 22 OBSERVERS: Lee Glenn

5 STOP TIME: 0815 17 LOW TIDE TIMES: 0702 / 1915 23 AGENCY: ADF&G

6 SEGMENT #: 16 LOW TIDE HTS: 1.3 / 0.5 24 PHOTOS TAKEN: (Y) N

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

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

9 STAT AREA: 242-32 20 USCG QUAD: Seldovia A-5 Start: End:

10 LAT: 59 13 51 11 LONG: 151 31 5 26 SAMPLES TAKEN? Y (N) Number

12 SOURCE: Map Loran Oil

13 LOCATION: KP, OC, Windy Bay Black Lagoon Sediment

14 DESCRIPTION: North shore Windy Bay - Low Angle Cobble beach Biological

EXTENT OF OIL Water

	SHORELINE L	W	H²	%	STREAM L	W	H²	%
27 SURFACE COVERAGE								
28 SURFACE THICKNESS								
29 PENETRATION								

30 OVERALL OIL IMPACT: N VL L M H

31 OIL TYPE: Pooled (Mousse) Tar (Asphalt) Sticky SHEEN

32 OILED DEBRIS? (Y) N

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

34 WAVE EXPOSURE: High (Moderate) Low

35 SUBSTRATE TYPE: Bedrock Boulder Cobble 20 Gravel 70 Sand 10 Mud/silt

36 CATALOGED ANAD. FISH STREAM? (Y) N

37 CATALOG #: 242-32-10155

38 STREAM NAME: Black Lagoon

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

Just About anywhere on
Where: North shore of Windy

43 ANADROMOUS FISH PRESENT? Y ? (N)

44 ANADROMOUS FISH OBSERVATION

Species	Aerial	Ground

ACE 10459864 -/S

COMMENTS: Rock face SW side of lagoon & tide flats - 100 yds or so of a 1-4' wide band of ST/CT/CV rock (spruce needles glued to rocks). Tarmat evidence on flats & stream where it cuts through beach berm (3 mats 1'x1'x5" thick near berm/stream intersection. 12 5"x5"x2" thick balls of mousse observed in intersection area also. Sporadic tarmats to 2" thick observed throughout lagoon flats area (below beach berm). Buffleheads Goldeneye, murrelets off lagoon tide flats

SHORELINE EVALUATION

SEGMENT ST/ WB-01 SUBDIVISION A (1 OF 2) DATE 4/8/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:
Avoid any unnecessary disturbance or damage to unoiled biota and substrate.

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

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

OILING CATEGORIZATION:

Wide 0 m: Medium 166 m: Narrow 286 m: V.Light 0 m: No Oil 0 m
Subsurface Oil Observed: Yes X No ____ Maximum Depth 27 cm

RECOMMENDATIONS:

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

COMMENTS: Recommend tarmat removal, manual pick up of mousse, oiled debris (debris, vegetation), ~~and oiled logs if >10% coverage and splash impact~~. Work should be conducted between 5/16 and 7/9 due to salmon stream constraints. MANUAL TILL/RAKE IN AREA OF PITS 5, 6 + 7 PRIOR TO BIO.

TAG COMMENTS: ____

TAG APPROVAL DATE: 4/20/90
ADEC ART WEINER Art Weiner
EXXON Andy Teal
NOAA Paul Wermett
USCG KENNETH KEANE

FOSC: [signature] DATE: 5-12-90

ACE 10459873

ACE 1941180

ASC NUMBER: 242-32-10155 SEGMENT NUMBER. WB-1 YR CATALOGED
LOCATION. KP, QC, Windy Bay
STREAM NAME. Black Lagoon
KODIAK K-UNIT LOCAL STREAM #:
USGS QUADRANGLE: Seldovia A-5
SHORELINE TYPE Beach Lagoon ALL SEGMENTS
WAVE EXPOSURE Moderate
LATITUDE. 59 13 51
LONGITUDE. S 151 31 5
LEGAL. S

ASC NUMBER
SURVEY TYPE. Pre-screening
METHOD. Foot
DATE 4/17/90
START TIME 0753
STOP TIME 0815

TEAM RECORDER Doug Hill
OBSERVERS. Lee Eakin

AGENCY(IES) ADF&G

PHOTOS TAKEN?
Roll # Frames.
VIDEO TAKEN? Tape Number.
Counter Start.

SAMPLES TAKEN? ~~X~~ NO
SAMPLE I D NUMBERS 1 2 3
4 5 6

	LENGTH m	WIDTH m	M2	%	THICK cm	PEN cm	OIL TYPE
SITE 1							
SITE 2	See		4/16/90	Survey			
SITE 3							
SITE 4							
SITE 5							

OVERALL OIL IMPACT M

OIL IN STREAM CHANNEL? Y

SUBSTRATE

Bedrock	Granule
Boulder	Sand 10%
Cobble 20%	Silt
Pebble 70%	Veget

OIL ON BEACH WITHIN 50M OF STREAM MOUTH? Y

SPECIES					
COUNT					

COMMENTS: Rock Face Sw portion of Lagoon ⇒ ≈ 100 yds - 1-4' band of stained/coated rock face - spruce needle glued on rock face.

Tarmat evidence on east side of stream where stream cuts through beach berm - 3 mats visible 1' x 1' x 5". A dozen 5" x 5" x 2" balls of mousse observed in this area also.

Sporadic tarmats < 2" thick observed throughout the tide flat area. ≈ 10% of this area has oil

Buffleheads, goldeneyes and murrelets present just off the flats

ACE 10459865 4/5/94

* Site 8-1 of 1989 Awad fish habitat assessment
* See field log for further info

Pre-Screening
Black Lagoon

ADF&G MULTI-ASSESSMENT DATA FORM

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

METHOD: Aerial (Ground) Boat

3 DATE: 4/7/90 15 HIGH TIDE TIMES: 0102 / 1310 21 TEAM RECORDER: Doug Hill

4 START TIME: 0853 16 HIGH TIDE HTS: 11.8 / 11.5 22 OBSERVERS: Lee Glenn

5 STOP TIME: 0815 17 LOW TIDE TIMES: 0702 / 1915 23 AGENCY: ADF&G

6 SEGMENT #: 18 LOW TIDE HTS: 1.3 / 0.5 24 PHOTOS TAKEN: (Y) N

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

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

9 STAT AREA: 242-32 20 USCG QUAD: Seldovia A-5 Start: End:

10 LAT: 59 13 51 11 LONG: 151 21 5 26 SAMPLES TAKEN? Y (N) Number

12 SOURCE: Map Loran Oil

13 LOCATION: Kdy OC, Windy Bay, Black Lagoon Sediment

14 DESCRIPTION: North shore Windy Bay - Low Angle Cobble beach Biological

EXTENT OF OIL Water

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

30 OVERALL OIL IMPACT: N VL L M H

31 OIL TYPE: Pooled (Mousse) (Tar) (Asphalt) (Sticky) (Sheen)

32 OILED DEBRIS? (Y) N

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

34 WAVE EXPOSURE: High (Moderate) Low

35 SUBSTRATE TYPE: Bedrock Boulder Cobble 20 Gravel 70 Sand 10 Mud/silt

36 CATALOGED ANAD. FISH STREAM? (Y) N

37 CATALOG #: 242-32-10155

38 STREAM NAME: Black Lagoon

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: Just About anywhere on North Shore of Windy

43 ANADROMOUS FISH PRESENT? Y (?) N

44 ANADROMOUS FISH OBSERVATION

Species	Aerial	Ground

ACE 10459866 +/S

COMMENTS: Rock Face SW side of Lagoon & tide flats - 100 yds or so of a 1-4' wide band of ~~oil~~ (spruce needles glued to rocks). Tarmat evidence on flats & stream where it cuts through beach berm. 3 mats 1'x1'x.5" thick near berm/stream intersection. 12 5"x5"x2" thick balls of mousse observed in intersection Area also. Sporadic tarmats to 2" thick observed throughout lagoon flats area (below beach berm). Buffleheads Goldeneye, murrelets off lagoon tide flats

46 PHOTOLOG

FRAME(S)	DESCRIPTION

46 OIL DISTRIBUTION DIAGRAM

= Sample taken
= Photo frame # and shot direction.

ASC NUMBER: 242-32-10155 SEGMENT NUMBER: WB-1A YR CATALOGED:
LOCATION: OC, KP, Windy Bay
STREAM NAME: Black Lagoon LATITUDE: 59 13 51
KODIAK K-UNIT: . LOCAL STREAM #: LONGITUDE: 151 31 05
USGS QUADRANGLE: Seldovia A-5 LEGAL:
SHORELINE TYPE: Beach, Lagoon ALL SEGMENTS:
WAVE EXPOSURE: Moderate/High

ASC NUMBER: 242-32-10155
SURVEY TYPE: Pre-screening
METHOD: Foot
DATE: 4/16/90
START TIME: 1145
STOP TIME: 1320

TEAM RECORDER: Doug Hill
OBSERVERS: Susan McLane
AGENCY(IES): ADF+G
PHOTOS TAKEN? Yes
Roll #: 90DDH005H Frames: 4 → 21
VIDEO TAKEN? No Tape Number:
Counter Start:

SAMPLES TAKEN? Yes
SAMPLE I.D. NUMBERS: 1. DDH-4/16/90-1145 2. DDH-4/16/90-1200 3.
4. 5. 6.

	LENGTH m	WIDTH m	M2	%	THICK cm	PEN cm	OIL TYPE
SITE 1	46	7		40	5	25.4	MS, PT, DP, F, sheen
SITE 2	27	1		50	2.5	2.5	MS, PT, CT, CV, ST
SITE 3	274	10		35	5	2.5	PT, AP, ST
SITE 4	27	2		40	5	2.5	AP, PT
SITE 5	95	3		50	2.5	2.5	TP, AP, ST, CT, CV
* site 6	9	9		8		2.5	AP

OVERALL OIL IMPACT: Hm

OIL IN STREAM CHANNEL? OIL ON BEACH WITHIN 50M OF STREAM MOUTH? Y

SUBSTRATE

Bedrock		Granule	
Boulder		Sand	10
Cobble	20	Silt	
Pebble	70	Veget.	

SPECIES	Pink SALMON Fry in LAGOON				
COUNT					

(2) SW shore Lagoon ⇒ Rock Face: 2-3' wide band, ≈100' Long, ST/CT/CV, spruce needles cemented to rock face + encrusted with oil. Base of Rock face: Mousse patties above + below surface of water - oil found to a depth of 18" in water.

COMMENTS: (1)
SW Corner of Lagoon (Log pile area) ➔ Nearly every step in this area produces a sheen + thick blobs of mousse (at least 4" thick) saturated the dead organic matter that has accumulated on bottom of lagoon. Sheen was present on lagoon surface when we arrived. This area is approx 7m x 46m. The heaviest accum. is in the extreme SW corner. Moving along the shore sporadic mousse patties (12"x18"), are found in up to 2-3' of water. ST, CT, found on logs in both areas. 1 pom found on bottom of Lagoon.
Lagoon bottom sediments ⇒ oil not readily visible - however, the smell of oil is easily acknowledged, as well as a bluish hue that begins to show. The smell of oil is very noticeable along west + NW shore of lagoon. Sheen common among logs prior to disturbance.
Beach Berm - where lagoon outlet flows through ⇒ Large area of sheening occurring at mouth of Lagoon. South bank: 2'x4' tarmat. North Bank: Oil stained driftwood
SE Facing Beach (North side of Lagoon outlet) → TARMATS
South " " " " " " " → TARMATS

ACE 10459867
+13

Cont'd Next PAGE ⟹

ASC NUMBER: 242-32-10155 SEGMENT NUMBER: WB-1A YR CATALOGED:
LOCATION:
STREAM NAME: BLACK Lagoon LATITUDE:
KODIAK K-UNIT: . LOCAL STREAM #: LONGITUDE:
USGS QUADRANGLE: LEGAL:
SHORELINE TYPE: ALL SEGMENTS:
WAVE EXPOSURE:

ASC NUMBER:
SURVEY TYPE:
METHOD:
DATE: 4/16/90
START TIME: 1145
STOP TIME: 1320

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							
SITE 2							
SITE 3							
SITE 4							
SITE 5							

OVERALL OIL IMPACT:

OIL IN STREAM CHANNEL?

SUBSTRATE	
Bedrock	Granule
Boulder	Sand
Cobble	Silt
Pebble	Veget.

OIL ON BEACH WITHIN 50M OF STREAM MOUTH?

SPECIES					
COUNT					

COMMENTS: South Side of tide flats => Tarmats, tarpatties (<5cm thick, 5"x5" + up) (AP)
Rock wall: Tarpatties at base, stained/CV rocks + rock Face, Band of stain/CV + needles on Rock Face (≈ 1m wide x 100 yds long)
North Side tide flats => Tarmats (AP), tar patties, stained logs
Tide flats => Tar patties, AP
- SEE: 1990 Field Log for further info
1990 SSAT
1990 ASAP

ACE 10459868

Group A

ADF&G MULTI-ASSESSMENT DATA FORM — Prescreening

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

METHOD: Aerial (Ground) Boat — Cordova

3 DATE: 9-16-90 — 15 HIGH TIDE TIMES: 0513, — 21 TEAM RECORDER: Doug Hill

4 START TIME: 1145 — 16 HIGH TIDE HTS: 11.2' — 22 OBSERVERS: Susan McLane

5 STOP TIME: 1320 — 17 LOW TIDE TIMES: 1229, — 23 AGENCY: ADF&G

6 SEGMENT #: WB-I — 18 LOW TIDE HTS: 1.5' — 24 PHOTOS TAKEN: (Y) N — 4,5,6,7,8,9,10,11,12

7 STATION #: — 19 TIDE HT AT SURVEY: low — Roll #: 90-DOH-005 Frame: 13,14,15,16,17,18,19,20

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

9 STAT AREA: 242-32 — 20 USCG QUAD: SELDOVIA A-5 — Start: End:

10 LAT: 59° ~~14' 00"~~ 13 51 — 11 LONG: 151° ~~35' 00"~~ 31 05 — 26 SAMPLES TAKEN? (Y) N Number

12 SOURCE: Map Loran — AFS# 242-32-10155 — DOH-4/16/90-1200

13 LOCATION: Windy Bay Black Lagoon — Oil: SW. shore of Lagoon-taken from log jam area- found

14 DESCRIPTION: ~~North Shore, Windy Bay~~ — Sediment: 1 ft below Lagoon surface.

Biological

Water

EXTENT OF OIL

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

30 OVERALL OIL IMPACT: N VL L M H

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

32 OILED DEBRIS? (Y) N

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

34 WAVE EXPOSURE: High (Moderate) Low

35 SUBSTRATE TYPE: Bedrock ____ Boulder ____ Cobble 20%

Gravel 70% Sand 10% Mud/silt ____

36 CATALOGED ANAD. FISH STREAM? (Y) N

37 CATALOG #: 242-32-10155

38 STREAM NAME: Black Lagoon

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: Just About Anywhere on ~~the South Shore~~ the North shore of Windy Bay

43 ANADROMOUS FISH PRESENT? Y (N)

44 ANADROMOUS FISH OBSERVATION

Species	Aerial	Ground

COMMENTS: Tarmats found on both sides of stream channels. On S.E side oil was situated closer to driftline. Continuous coating & staining of rocks along edge of driftline. Fresh mousse under tar mat surface. Mass growing on some tar patties in stream channel.

ACE 10459869

Com.

ACE 1955674

45 PHOTOLOG

FRAME(S)	DESCRIPTION
	Aerials of Black Lagoon
4, 5, 6	<3/4" thick mousse within lagoon (submerged), 2-3' Band of stain/coat of oil and spruce needles on Rock FACE - west shore of Black Lagoon
7, 8, 9	Mousse found submerged in Black Lagoon (<1/2" thick)
10, 11	(10) Mousse on Lagoon bottom (<3/4" thick), (11) ⇒ Mousse above & below water surface ⇒ heavily oiled needles
12, 13	Oil Sheen on Surface of Black Lagoon - Log Jam Area (Common ALONG SW Shore of Lagoon)
14	Heavily oil saturated Dead Organic Matter, sheen on water surface
15	Oiled logs SW corner of Black Lagoon
16, 17	Pom Pom found in 3-4' of ~~water~~ = SW shore
18	Mousse patty beneath 2' of ~~water~~ SW shore
19	Sheen arising from oil saturated sediment
20	Another remnant of the "pom pom" - A Common sight.

46 OIL DISTRIBUTION DIAGRAM

Group A

Faxed Anch: 4/20/90

Prescreening

ADF&G MULTI-ASSESSMENT DATA FORM

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

METHOD: Aerial (Ground) Boat — Cordova

3 DATE: 4-16-90 — 15 HIGH TIDE TIMES: 0513 — 21 TEAM RECORDER: Doug Hill

4 START TIME: 1145 — 16 HIGH TIDE HTS: 11.2 — 22 OBSERVERS: Susan McLane

5 STOP TIME: 1320 — 17 LOW TIDE TIMES: 1229 — 23 AGENCY: ADF&G

6 SEGMENT #: WB - I — 18 LOW TIDE HTS: 1.5 — 24 PHOTOS TAKEN: (Y) N

7 STATION #: — 19 TIDE HT AT SURVEY: low — Roll #: 90-DDH-005-H Frame: 4,5,6,7,8,9,10,11,12, 13,14,15,16,17,18,19,20

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

9 STAT AREA: 242-32 — 20 USCG QUAD: SELDOVIA A-5 — Start: End:

10 LAT: 59° 14' 00" — 11 LONG: 151° 31' 00" — 26 SAMPLES TAKEN? (Y) N Number

12 SOURCE: Map Loran — AFS# 242-32-10155

Oil: DDH-4/16/90-1200, S.W. shore of Lagoon - taken from log jam area - found 1 ft below Lagoon surface.

Sediment

13 LOCATION: Windy Bay Black Lagoon

14 DESCRIPTION: ~~North Shore, Windy Bay~~

Biological

Water

EXTENT OF OIL

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

36 CATALOGED ANAD. FISH SREAM? (Y) N

37 CATALOG #: 242-32-10155

38 STREAM NAME: Black Lagoon

39 OIL IN STREAM BED? (Y) N

40 OIL ON STREAM BANKS? (Y) N

30 OVERALL OIL IMPACT: N VL L M H

41 OIL ON BEACH ADJACENT TO MOUTH? (Y) N (within 50 meters)

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

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

32 OILED DEBRIS? (Y) N

Where: Just About Anywhere on the North Shore

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

43 ANADROMOUS FISH PRESENT? Y (N)

34 WAVE EXPOSURE: High (Moderate) Low

44 ANADROMOUS FISH OBSERVATION

Species	Aerial	Ground

35 SUBSTRATE TYPE: Bedrock ____ Boulder ____ Cobble 20%

Gravel 70% Sand 10% Mud/silt ____

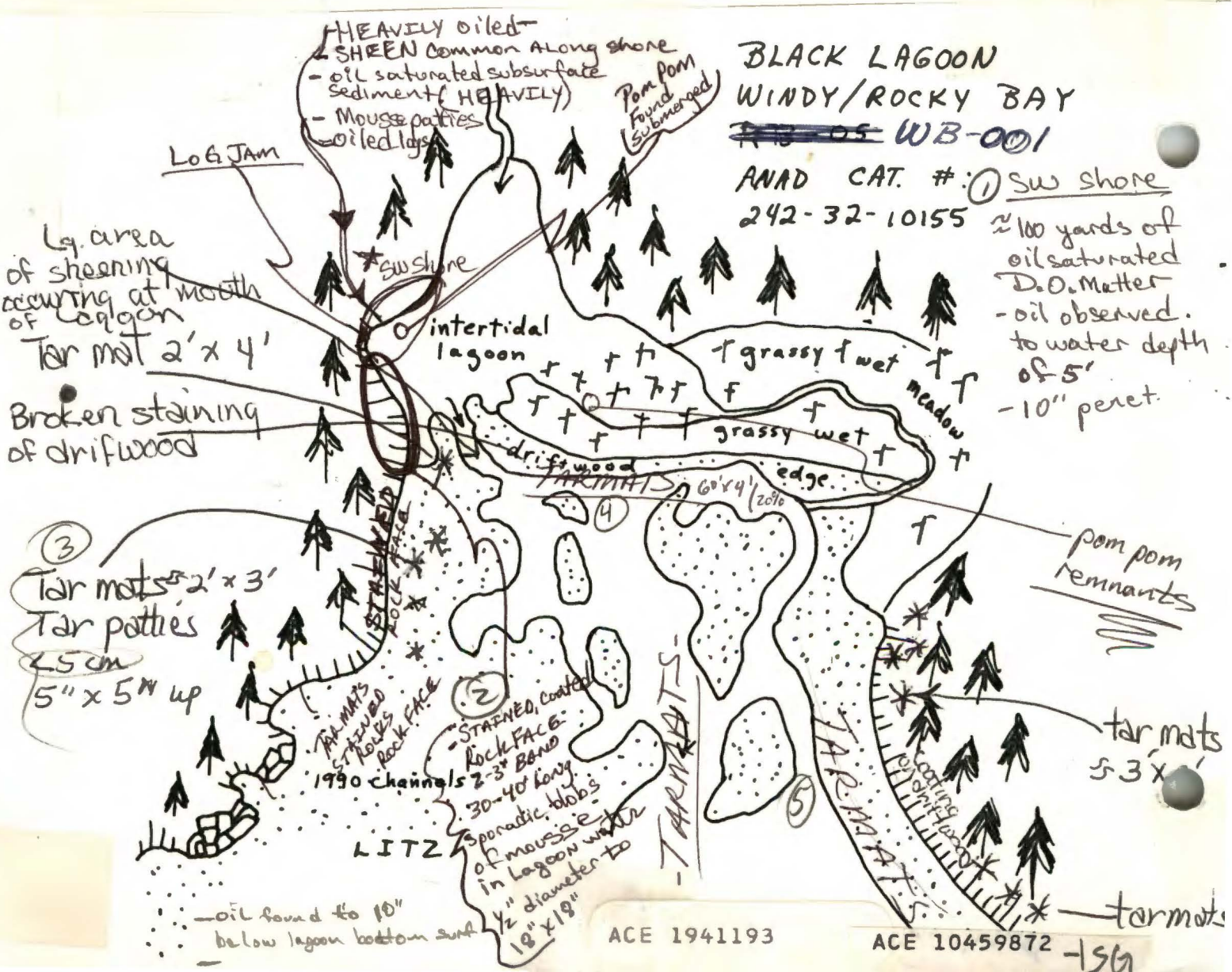
COMMENTS: Tarmats found on both sides of stream channels. On S.E side oil was situated closer to driftline. Continuous coating & staining of rocks along edge of driftline. Fresh mousse under tar mat surface. Moss growing on some tar patties in stream channel.

ACE 10459871 →

ACE 1941192

FRAME(S)	DESCRIPTION
4,5,6	Aerials of Black Lagoon
7,8,9	<¾" thick mousse within lagoon (submerged), 2-3' Band of stain/coa oil and spruce needles on Rock FACE - west shore of Black Lagoon Mousse found submerged in Black Lagoon (< 1½" thick)
10,11	(10) Mousse on Lagoon bottom (<¾" thick), (1) → Mousse above & below water surface → heavily oiled needles → Common ALONG SW shore of Lagoon
12,13	Oil Sheen on Surface of Black Lagoon - Log Jam Area
14	Heavily oil saturated Dead Organic Matter, sheen on water surface
15	Oiled logs SW corner of Black Lagoon
16,17	Pom Pom found in 3-4' of ~~water~~ - SW shore
18	Mousse patty beneath 2' of ~~water~~ SW shore
19	Sheen arising from oil saturated sediment
20	Another remnant of the "pom pom" - A common sight.

46 OIL DISTRIBUTION DIAGRAM



ASC NUMBER: 242-32-10155 SEGMENT NUMBER: WB-1A YR CATALOGED:
LOCATION: OC, KP, Windy Bay
STREAM NAME: Black Lagoon LATITUDE: 59 13 51
KODIAK K-UNIT: . LOCAL STREAM #: LONGITUDE: 151 31 05
USGS QUADRANGLE: Seldovia A-5 LEGAL:
SHORELINE TYPE: Beach, Lagoon ALL SEGMENTS:
WAVE EXPOSURE: Moderate/High

ASC NUMBER: 242-32-10155
SURVEY TYPE: Pre-Screening
METHOD: Foot
DATE: 4/16/90
START TIME: 1145
STOP TIME: 1320

TEAM RECORDER: Doug Hill
OBSERVERS: Susan McLane

AGENCY(IES): ADF&G

PHOTOS TAKEN? Yes
Roll #: 90DOH005H Frames: 4 → 21
VIDEO TAKEN? NO Tape Number:
Counter Start:

SAMPLES TAKEN? Yes
SAMPLE I.D. NUMBERS: 1. DOH-4/16/90-1145 2. DOH-4/16/90-1200 3.
4. 5. 6.

	LENGTH m	WIDTH m	M2	%	THICK cm	PEN cm	OIL TYPE
SITE 1	46	7		50	5	25.4	MS, PT, OP, F, she
SITE 2	27	1		50	2.5	2.5	MS, PT, CT, CV, ST
SITE 3	274	10		35	5	2.5	PT, AP, ST
SITE 4	27	2		70	5	2.5	AP, PT
SITE 5	95	3		70	2.5	2.5	TP, AP, ST, CT, CV
* site 6	9	9		8		2.5	AP

OVERALL OIL IMPACT: L/M

OIL IN STREAM CHANNEL? Y

OIL ON BEACH WITHIN 50M OF STREAM MOUTH? Y

SUBSTRATE

Bedrock		Granule	
Boulder		Sand	10
Cobble	20	Silt	
Pebble	70	Veget.	

SPECIES	Pink salmon	Fry in Lagoon			
COUNT	100				

(2) SW shore Lagoon ⇒ Rock Face: 2-3' wide band, ≈100' Long, ST/CT/CV/spruce needles cemented to rock face + encrusted with oil. Base of Rock face: Mousse patties above + below surface of water-oil found to a depth of 18" in water.

COMMENTS:

(1) SW Corner of Lagoon (log pile area) ⇒ Nearly every step in this area produces a sheen + thick blobs of mousse (at least 4" thick) saturated the dead organic matter that has accumulated on bottom of lagoon. Sheen was present on lagoon surface when we arrived. This area is approx 7m x 46m. The heaviest accum. is in the extreme SW Corner. Moving NE along the shore sporadic mousse patties (6-18" x 18") are found in up to 2-3' water. ST, CT, found on logs in both areas. 1 pom found on bottom of Lagoon.

Scoop: Lagoon bottom sediments often oil not readily visible - however, the s... of oil is easily acknowledged, as well as a blueish hue that begins to show. The smell of oil is very noticeable along west + NW shore of Lagoon. Sheen common among logs prior to disturbance.

Beach Berm - where lagoon outlet flows through ⇒ Large area of sheening accumu... at mouth of Lagoon. South bank: 2'x4' tarmat. North Bank: Oil stained driftwood SE Facing Beach (North side of Lagoon outlet) → TARMATS
South " " " " " " " → TARMATS

Site 8-1 of 1989 AFHA

ACE 10459877 +SG1

next PAGE →

ASC NUMBER: 242-32-10155 SEGMENT NUMBER: WB-1A YR CATALOGED:
LOCATION:
STREAM NAME: BLACK Lagoon
KODIAK K-UNIT: . LOCAL STREAM #:
GS QUADRANGLE:
SHORELINE TYPE: ALL SEGMENTS:
WAVE EXPOSURE:

LATITUDE:
LONGITUDE:
LEGAL:

ASC NUMBER:
SURVEY TYPE:
METHOD:
DATE: 4 /16 /90
START TIME: 1145
STOP TIME: 1320

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							
SITE 2							
SITE 3							
SITE 4							
SITE 5							

OVERALL OIL IMPACT: M

OIL IN STREAM CHANNEL?

SUBSTRATE	
Bedrock	Granule
Boulder	Sand
Cobble	Silt
Pebble	Veget.

OIL ON BEACH WITHIN 50M OF STREAM MOUTH?

SPECIES					
COUNT					

COMMENTS: South Side of tide flats => Tarmats, tarpatties (<5CM thick, 5"x5" + up) (AP)
Rock wall: Tarpatties at base, stained/cv rocks + rock Face. Band of stain/cv + needles on Rock Face (≈ 1m wide x 100 yds long)
North Side tide flats => Tarmats (AP), tar patties, stained logs
Tide flats => Tar patties, AP
- SEE: 1990 Field Log for further info
1990 SSAT
1990 ASAP

ACE 10459878 1/52

Group A

ADF&G MULTI-ASSESSMENT DATA FORM — Prescreening

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

METHOD: Aerial (Ground) Boat Cordova

3 DATE: 9-16-90 — 15 HIGH TIDE TIMES: 0513, — 21 TEAM RECORDER: Doug Hill

4 START TIME: 1145 — 16 HIGH TIDE HTS: 11.2' — 22 OBSERVERS: Susan McLone

5 STOP TIME: 1320 — 17 LOW TIDE TIMES: 1229, — 23 AGENCY: ADF&G

6 SEGMENT #: WB-I — 18 LOW TIDE HTS: 1.5' — 24 PHOTOS TAKEN: (Y) N

7 STATION #: _____ — 19 TIDE HT AT SURVEY: low — Roll #: 90-DOH-905H Frame: 13,14,15,16,17,18,19,20 4,5,6,7,8,9,10,11,12

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

9 STAT AREA: 242-32 — 20 USCG QUAD: SELDOVIA A-5 — Start: _____ End: _____

10 LAT: 59° 14' 00" — 11 LONG: 151° 31' 00" — 26 SAMPLES TAKEN? (Y) N Number

12 SOURCE: Map Loran AFS# 242-32-10155 — DOH-4/16/90-1200

13 LOCATION: Windy Bay Black Lagoon — Oil: S.W. shore of Lagoon - taken from log jam area - found

14 DESCRIPTION: North Shore, Windy Bay — Sediment: 1 ft below Lagoon surface.

Biological _____

Water _____

EXTENT OF OIL

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

36 CATALOGED ANAD. FISH STREAM? (Y) N

37 CATALOG #: 242-32-10155

38 STREAM NAME: Black Lagoon

39 OIL IN STREAM BED? (Y) N

40 OIL ON STREAM BANKS? (Y) N

30 OVERALL OIL IMPACT: N VL L M H

41 OIL ON BEACH ADJACENT TO MOUTH? (Y) N (within 50 meters)

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

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

32 OILED DEBRIS? (Y) N — Where: Just About Anywhere on the North Shore of Windy Bay

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

43 ANADROMOUS FISH PRESENT? Y (N)

34 WAVE EXPOSURE: High (Moderate) Low

44 ANADROMOUS FISH OBSERVATION

Species	Aerial	Ground

35 SUBSTRATE TYPE: Bedrock _____ Boulder _____ Cobble 20%

Gravel 70% Sand 10% Mud/silt _____

COMMENTS: Tarmats found on both sides of stream channels. On S.E. side, oil was situated closer to driftline. Continuous coating & staining of rocks along edge of driftline. Fresh mousse under tar mat surface. Mass growing on some tar puddles in stream channel.

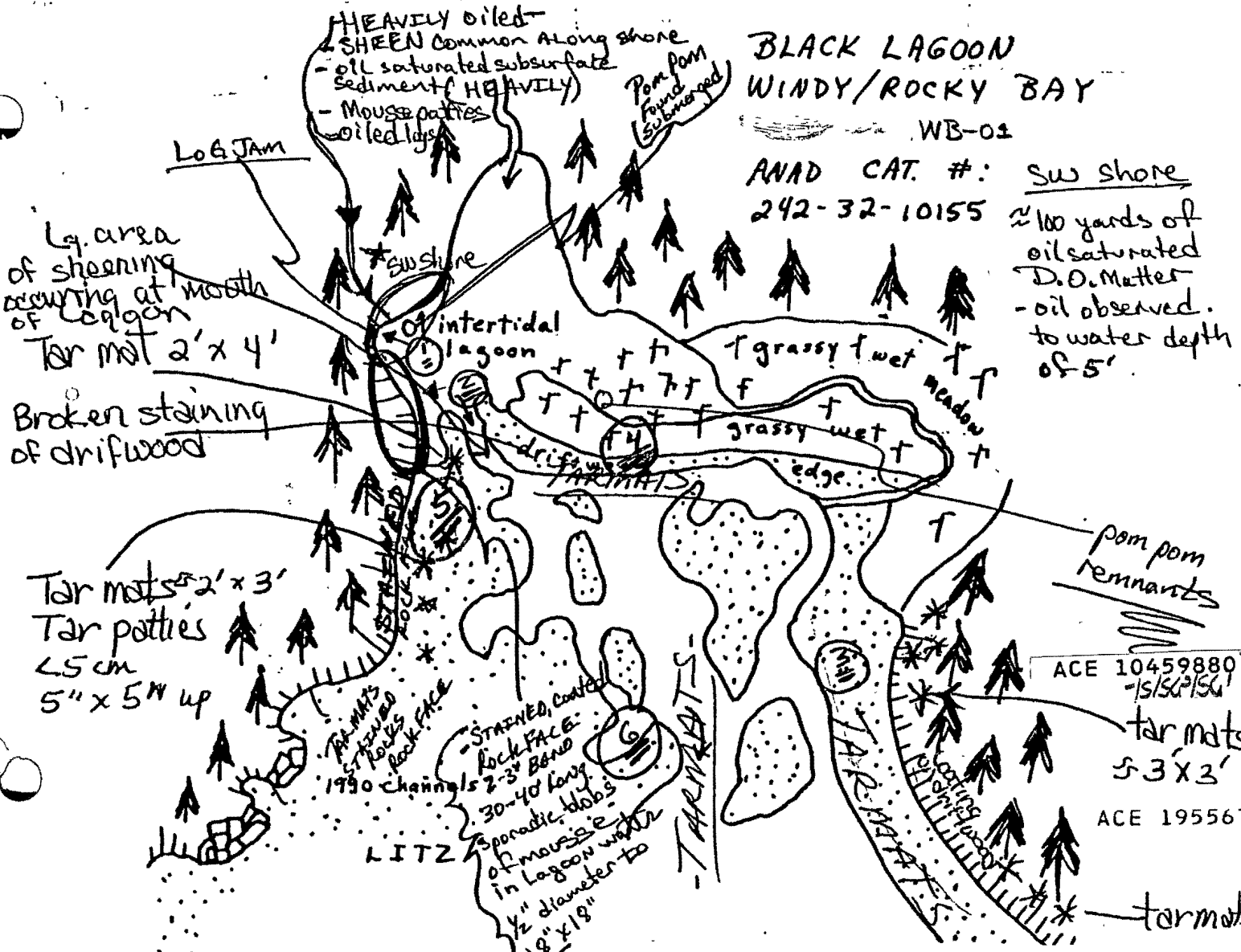
ACE 10459879 4/5

Com. _____ ACE 1955674

46 PHOTOLOG

FRAME(S)	DESCRIPTION
	Aerials of Black Lagoon
4, 5, 6	<3/4" thick mousse within lagoon (submerged); 2-3' Band of stain/coat of oil and spruce needles on Rock FACE - west shore of Black Lagoon
7, 8, 9	Mousse found Submerged in Black Lagoon (<1/2" thick)
10, 11	(10) Mousse on Lagoon bottom (<3/4" thick); (11) Heavily-oiled needles; Mousse above + below water surface
12, 13	Common ALONG SW shore of Lagoon Oil Sheen on Surface of Black Lagoon - Log Jam Area
14	Heavily oil saturated Dead Organic Matter, sheen on water surface
15	Oiled logs SW corner of Black Lagoon
16, 17	Pom Pom found in 3-4' of water - SW shore
18	Mousse patty beneath 2' of water SW shore
19	Sheen arising from oil saturated sediment
20	Another remnant of the "pom pom" - A Common sight.

46 OIL DISTRIBUTION DIAGRAM



ADF&G MULTI-ASSESSMENT FORM
1991 GENERAL ENTRY CHECKLIST

STREAM#: 2423210155
SEGMENT: WB001

PAGE 15 DATE PRINTED: 07/25/91

LOCATION: BLACK LAGOON

SURVEY TYPE: 90 STREAM SURVEY METHOD: ~~GROUND~~ FOOT

DATE: 04/27/90 TEAM RECORDER: HILL

START TIME: 1440 OBSERVERS: GLENN
END TIME: -0-

TIDES: ~~-0-~~ FLOOD AGENCY: FG
OG/HAB DISCREPANCIES: -

PHOTOS TAKEN: -N

STATION: 2423210155 ROLL#: -0-
FRAME: -0-

VIDEO TAKEN: Y TAPE#: 90LPG022H
START: 4775 END: 5051

SAMPLES TAKEN: - N

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

OIL IN STREAM BED: Y

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

WAVE EXPOSURE: MOD SHORELINE TYPE: BEACH LAGOON

SUBSTRATE TYPE: BEDROCK -0- BOULDER -0- COBBLE ~~15~~ 5 VEGETAT -0-
GRAVEL 70 SAND 10 MUD/SILT ~~15~~ GRANULE -0-

ANADROMOUS FISH PRESENT: U

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

ACE 10459881 +/S

ADF&G MULTI-ASSESSMENT FORM
1991 OILING ENTRY CHECKLIST

PAGE 15 DATE PRINTED: 07/26/91

STREAM# : 2423210155
SEGMENT#: WB001

SURVEY TYPE : 90 STREAM SURVEY LOCATION: BLACK LAGOON
DATE: 04/27/90
TIMES: 1440 - -0- TEAM RECORDER: HILL

-- OILING EXTENT --

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

COMMENTS:
STOPPED TO SHOW LEE THE SIGNIFICANT QUANTITY OF OIL WITHIN BLACK LAGOON. HOWEVER, EXCEPT FOR THE LOWER APPROX 10 YARDS OF THE LAGOON, THE LAGOON IS HEAVILY SILTED DUE TO THE LOGGING OPERATION (ROAD BUILDING). THE SILT IS SO THICK A PERSON CAN NOT SEE A ½" INTO THE WATER. HENCE WE CAN NOT SEE THE OIL WHICH LIES ON THE BOTTOM OF THE LAGOON. SHEEN, HOWEVER, CAN EASILY BE BROUGHT TO THE LAGOON SURFACE AS WE WALK ALONG THE SW SHORE OF THE LAGOON. TAKING BLIND "GRAB" SAMPLES I COME UP WITH OIL/MOUSSE SATURATED DEAD ORGANIC MATTER. SHEEN AND THE SMELL OF OIL IS VERY APPARENT HERE. I HOPE THE SILT CLEARS SOON OR WE WILL NOT BE ABLE TO CONDUCT AN ANADSCAT. THE SILT IS COMING DOWN THE NORTH SHORE SALMON SPAWNING STREAM. THE WESTERN CREEK IS RUNNING CLEAR. WE OBSERVED SPRUCE CUTTING WITHIN 10' OF THE LAGOON.

ACE 10459882 -S

WB-1
BLACK LAGOON

ADF&G MULTI-ASSESSMENT DATA FORM

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

METHOD: Aerial (Ground) Boat

3 DATE: 4/27/90 15 HIGH TIDE TIMES: 0238 / 1545 21 TEAM RECORDER: Doug Hill

4 START TIME: 1440 16 HIGH TIDE HTS: -3.7 / 1.5 22 OBSERVERS: Lee Glenn

5 STOP TIME: _____ 17 LOW TIDE TIMES: 0915 / 2115 23 AGENCY: ADF&G

6 SEGMENT #: WB-1 18 LOW TIDE HTS: 15.2 / 12.2 24 PHOTOS TAKEN: Y N

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

8 K-UNIT: _____ Ebb Slack Flood Slack 25 VIDEO TAKEN: (Y) N TAPE#: 90LPG022H

9 STAT AREA: _____ 20 USCG QUAD: Seldovia A-5 Start: 4775 End: 5051

10 LAT: 59 13 51 11 LONG: 151 31 5 26 SAMPLES TAKEN? Y N Number

12 SOURCE: Map Loran Oil _____

13 LOCATION: KPyDC, Windy BAY, North Shore Sediment _____

14 DESCRIPTION: Low Angle Beach, Lagoon Biological _____

EXTENT OF OIL Water _____

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

36 CATALOGED ANAD. FISH SREAM? (Y) N

37 CATALOG #: 242-32-10155

38 STREAM NAME: BLACK Lagoon

39 OIL IN STREAM BED? (Y) N

40 OIL ON STREAM BANKS? (Y) N

30 OVERALL OIL IMPACT: N VL (L) M H

41 OIL ON BEACH ADJACENT TO MOUTH? (Y) N (within 50 meters)

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

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

32 OILED DEBRIS? (Y) N Where: WB-1+2

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

43 ANADROMOUS FISH PRESENT? Y ? N

34 WAVE EXPOSURE: High (Moderate) Low

35 SUBSTRATE TYPE: Bedrock _____ Boulder _____ Cobble 5

Gravel 70 Sand 10 Mud/silt 15

44 ANADROMOUS FISH OBSERVATION

Species	Aerial	Ground

ACE 10459883

COMMENTS: STOPPED to show Lee the significant quantity of oil within Black Lagoon. However, except for the lower ≈10 yds. of the Lagoon - the Lagoon is heavily silted due to the logging operation (road building). The silt is so thick a person can not see an 1/2 an inch into the water. Hence, we can not see the oil which lies on the bottom of the lagoon. Sheen, however, can easily be brought to the lagoon surface as we walk along the SW shore of the Lagoon. Taking blind ("Grab") samples I come up with oil/mousse over

FRAME(S)	DESCRIPTION

46 OIL DISTRIBUTION DIAGRAM

saturated dead organic matter. Sheen and the smell of oil is very apparent here. I hope the silt clears soon or we'll not be able to conduct an ANADSCAT.

The silt is coming down the north shore salmon spawning stream. the western creek is running clean.

We observed ~~a~~ spruce cutting within 10' of the lagoon

= Sample taken
= Photo frame # and shot direction.

WB-1
BLACK LAGOON

ADF&G MULTI-ASSESSMENT DATA FORM

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

METHOD: Aerial (Ground) Boat

3 DATE: 4/27/90
4 START TIME: 1440
5 STOP TIME: _____
6 SEGMENT #: WB-1
7 STATION #: _____
8 K-UNIT: _____
9 STAT AREA: _____
10 LAT: 59 13 51
11 LONG: 151 31 5
12 SOURCE: Map Loran
13 LOCATION: KP,DC, Windy Bay, North Shore
14 DESCRIPTION: Low Angle Beach, Lagoon

15 HIGH TIDE TIMES: 0223 1545
16 HIGH TIDE HTS: -3.7 11.5
17 LOW TIDE TIMES: 0915 1211S
18 LOW TIDE HTS: 15.2 12.2
19 TIDE HT AT SURVEY: _____
Ebb Slack Flood Slack
20 USCG QUAD: Seldovia A-5

21 TEAM RECORDER: Doug Hill
22 OBSERVERS: Lee Glenn
23 AGENCY: ADF&G
24 PHOTOS TAKEN: Y (N)
Roll #: _____ Frame: _____
25 VIDEO TAKEN: (Y) N TAPE#: 90LP6022H
Start: 4775 End: 5051
26 SAMPLES TAKEN? Y (N) Number
Oil _____
Sediment _____
Biological _____
Water _____

EXTENT OF OIL

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

30 OVERALL OIL IMPACT: N VL (L) M H

31 OIL TYPE: Pooled (Mousse) Tar (Asphalt) (Sticky) (Stain)
32 OILED DEBRIS? (Y) N
HS TP AP SOR ST HDR, MDR

33 SHORELINE TYPE: Headland Low-lying Rocks (Beach) Cove (Lagoon) Marsh
34 WAVE EXPOSURE: High (Moderate) Low
35 SUBSTRATE TYPE: Bedrock _____ Boulder _____ Cobble 20
Gravel 70 Sand 10 Mud/silt _____

36 CATALOGED ANAD. FISH STREAM? (Y) N
37 CATALOG #: 242-32-10155
38 STREAM NAME: BLACK Lagoon
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: WB-1+2
43 ANADROMOUS FISH PRESENT? Y ? N

44 ANADROMOUS FISH OBSERVATION

Species	Aerial	Ground

ACE 10459885 +S

COMMENTS: STOPPED to show Lee the significant quantity of oil within Black Lagoon. However, except for the lower ≈10 yds. of the Lagoon - the Lagoon is heavily silted due to the logging operation (road building). The silt is so thick a person could not see an 1/2 an inch into the water. Hence, we can not see the oil which lies on the bottom of the lagoon. Sheen, however, can easily be brought to the lagoon surface as we walk along the SW shore of the Lagoon. Taking "blind ("grab") samples I come up with oil/mousse over →

DESCRIPTION

46 OIL DISTRIBUTION DIAGRAM

saturated dead organic matter. Sheen and the smell of oil is very apparent here. I hope the silt clears soon or we'll not be able to conduct an ANADSCAT.

The silt is coming down the north shore salmon spawning stream. the western creek is running clear.

We observed spruce cutting within 10' of the lagoon

= Sample taken

= Photo frame # and direction.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / WB-1 SUBDIVISION: ASCOT 242-32-10155 DATE 29 APR 90

USCG
NAME Kerwin L. Dreher SIGNATURE cwo K.L. Dreher

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

Type A manual pickup.

~~ADEC~~ A.O.F.S.G.
NAME Lee Glenn SIGNATURE Lee Glenn

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS Type A manual removal -

Remove oil from rock face wall on south side of stream and lagoon. Clean oil from the bottom of the lagoon (under floating debris) including some floating oily organic material, located just beyond this rock wall.

Remove tarmats in the intertidal zone.

Contact Lee Glenn prior to the start of this work so that an A.O.F.S.G observer can be placed on site.

The attached A.O.F.S.G assessment completed on 4-16-90 has not changed from the 4-29-90 AnadSeat survey.

LAND MANAGER
NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

ACE 10459887 +/S

ACE 1941194 +/S

REVISION NO. 03/21/90

ANAD

SSAT DATA ENTRY FORM

SUBSURFACE DATA

SEGMENT ID: WB-001 SUBDIV: 10155 242-32

PIT # 1 PIT DEPTH 25 OIL CHARACTER NO OIL INTVAL: FROM — TO —
QUANT: — OIL CLR: — FLM CLR: — ZONE: SU — UI X MI — LI —
SUBSURF SEDIMENT: BRK — BLD — COB — PEB X 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:___

ANAD

SSAT DATA ENTRY FORM PAGE 1 OF 2

GENERAL DATA

SEG ID: WB-001 SUBDIV: 242-32 10155 TEAM: 14 SURVEY DATE: 4/29/90
PAVEMENT: CHAR H AREA 25 THICKNESS 3 TARBALLS —
OILED: LGS MD VEG SM TRH — DBR — WAVE EXP: LW — MD — HG X
FAX RCVD: _____ DT: _____ AGENCY DISAGREE: _____
EST SUBDIV LGTH: 120 OIL CATEGORY: W — M 120 N — VL — NO — U —

SURFACE DATA

SURFACE SEDIMENT: BRK — BLD — COB 20 PEB 10 GRN 10 SAN 40 MUD 10 VEG —

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

CHAR #: 2 OIL CHAR: PO OIL DIST: CONT — BRKN — PTCH X SPLH —
OIL CLR: SBL FILM CLR: BR TIDAL ZONE: SU X UI X MI — LI —

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

CHAR #: 4 OIL CHAR: ST OIL DIST: CONT X BRKN — PTCH — SPLH —
OIL CLR: DBL FILM CLR: RW TIDAL ZONE: SU X UI X MI — LI —

CHAR #: 5 OIL CHAR: MS OIL DIST: CONT — BRKN X PTCH X SPLH —
OIL CLR: DBR FILM CLR: TL TIDAL ZONE: SU — UI X MI X LI —

CHAR #: 6 OIL CHAR: PT OIL DIST: CONT — BRKN X PTCH X SPLH —
OIL CLR: DBL FILM CLR: RW TIDAL ZONE: SU — UI X MI X LI —

CHAR #: 7 OIL CHAR: FL OIL DIST: CONT — BRKN — PTCH — SPLH X
OIL CLR: GY FILM CLR: SL TIDAL ZONE: SU — UI X MI — LI —

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

ACE 10459889

ACE 1941196

Seg ID: WB-001 Subdiv: No ASC #
Survey Date: 4/29/90
Comments by: Ken Critchlow

This high energy site was apparently oiled during a very high tide and/or storm that resulted in deposition of oil in the lagoon above the beach storm berm. The stream discharges across a broad area of beach below the storm berm. In this region a narrow band of mousse/patties was observed in the UITZ along both shores. Oil stain was also noted in the same locations. The storm berm adjacent to the right (east) bank was partially covered by asphalt pavement. The lower half of the lagoon on the west side was characterized by pooled oil trapped in cracks, stain and cover. Within the lagoon, disturbed sediments produced sheen; logs were stained.

ACE 1941197

I recommend that mousse/patties along the shores below the storm berm be removed by shovel. The asphalt pavement in the storm berm can also be removed by shovel; a pit in this location didn't indicate subsurface oil. Sediments that produce sheen in the lagoon should be removed by shovel. Pooled oil in rock cracks may be removed using towels and subsequently bioremediated.

ACE 10459890

K R Critchlow

SHORELINE OILING SUMMARY (ANAD)

REVISION NO. 04/13/90

OG CAL LARSON USCG DREHER, CWE SEGMENT ST/ CUB-01
BIO KEN CRITCHLOW LAND REP _____ STREAM ZA2-32-10155 (OF)
EXXON DARRYL YOES ADFG LEE GLENN TIME 04:00 to 04:45
TEAM NO. 14 TIDE LEVEL +6FT. DATE 4 / 29 / 90
EST. SUBDIVISION LENGTH: 120 m ☐ Sun ☑ Clouds ☐ Fog ☐ Rain ☐ Snow
UPLANDS DESCRIPTION: ☑ Grass ☑ Forest ☑ Rock _____
SURVEYED FROM: ☑ Foot ☐ Boat ☐ Helo
SURFACE SEDIMENTS: R ____ % B ____ % C 20 % P 10 % G 10 % S 40 % M 10 % V ____ %
SLOPE : Lang 100 % Hang ____ % Vert ____ % WAVE EXPOSURE: ☐ Low ☐ Med ☑ High
OIL CATEGORY LENGTH: W ____ m M 120 m N ____ m VL ____ m NO ____ m

SURFACE OIL

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

PAVEMENT (H) F S 25 sq. m by .3 cm
PATTIES / TARBALLS 40 BAGS
NEAR SHORE SHEEN? NO BR RW (SL) TL

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

Did you COLLECT DEBRIS ☐ YES ☑ NO
TYPE _____
#BAGS _____

Photographs:
Roll No. _____
Frames _____

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER OP	OR	OL	OF	NO	OILED INTERVAL (CM-CM)	BELOW UO	UC	OIL / FILM COLOR SBL/BR	DBL/RW	GY/SL	DBR/TL	LBR	PIT ZONE SU	UI	MI	LI	ANA	SHEEN (Y/N)	▼	SURFACE - SUBSURFACE SEDIMENTS
1	25					✓	-									✓						SD,GR SD,GR,PB
							-															
							-															
							-															
							-															
							-															

COMMENTS IN BACK INTERTIDAL COAST GARD REP. OBSERVED POOLED OIL IN CRACKS/INTERSTICES - UNABLE TO DETERMINE EXTENT OF OILING. SOME SHEENING OBSERVED IN BACK INTERTIDAL LAGOON.

ACE 10459891

REVIEWED _____ DATE _____

ACE 1941198

OG CAL CARSON

SEGMENT STA WB-1

STREAM 242-32-10155

DATE 4 / 29 / 90

SKETCH MAP

CHECKLIST

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

LEGEND

1 △ Pit - No Subsurface Oil

2 ▲ Pit - Subsurface Oil

CT/C Continuous Distribution

CT/B Broken Distribution

CT/P Patchy Distribution

CT/S Splashed Distribution

Oiled Vegetation

1 → Photo location, direction, and number

ACE 1941199

ACE 10459892

Oil Character Length (m): AP 5 PO ? CV 50 CT ____ ST 100 MS 25 PT 25 TB ____ FL 5 NO ____

REVISION:03/24/90

OPERATIONS FIELD NOTES

See Back for Instructions

SEGMENT ID ANAD WR-001 (BLACK LAGOON).
STREAM ID # 2H2-32-10155
ANNOTATED MAP INCLUDED (Y) / N

DATE 4-29-90
NAME DARAH YOES
TEAM # 14

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

SUBSURFACE OIL

Other (Describe)?	NONE FOUND

TARMATS	Quantities in Meters			Treatment Rec			# of Bags	Mandays Required	
	Length	Width	Thick(cm)	None	Breakup	Remove		Breakup	Remove
Area #1	5	5	1			✓	30		1
Area #2									
Area #3									
Area #4									
Sporadic Mats									

MANUAL PICKUP	Type of Debris			In Meters			Pickup Y/N	Manday Estimate
	Mousse Tarballs	Oiled Veget	Cleanup Debris	Length	Width	# of Bags		
"Pocket" #1	✓			100	10	25	Y	2
"Pocket" #2	✓			80	10	20	Y	3
"Pocket" #3								
Random/Continuous								

OILED LOGS Y/(N)	OILING H/M/L	QUANTITY L/M/S	BURN Y/N	

Is there Other Debris on the Beach? (Y) / N How Many Bags? LOGS Is it mingled with the Oiled Debris Y/(N)

GENERAL

Snow covering 0 % of the Supratidal Zone?

Wave Exposure (H) / M / L Access Limitations: TARMAT & DEBRIS >100 YDS FROM RD
↳ STREAM & INTERTIDAL ZONE IS SHELTERED

Snare Boom/Pom Poms Recommended? NO

Would the production Craft have to be relocated to complete work on this subdivision? Y/(N), # of Times ___

COMMENTS:

ACE 10459893 -/S

MOUSSE ON BEACHFACE IS IN LAKE AND WILL REQUIRE HIP BOOTS FOR WORKERS

ACE 1941200 -/S

ALL WORK SHOULD BE PLANNED FOR PERIOD 5-15 → 7-10
CONTACT ADF&G BEFORE STARTING WORK

ANADROMOUS FISH STREAM EVALUATION

Black Lagoon

SEGMENT ST/ WB-001 STREAM NO: 242-32-10155 DATE 4/29/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
1J Purse seine area (7/1 to 8/31)
5T All bald eagle nests (3/1 to 6/1)
Active eagle nests (3/1 to 9/1) - one additional eagle nest located within adjacent segment WB-02

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Subject stream is located within subdivision A (1 of 2). No additional ecological constraints.

ARCHAEOLOGICAL CONSTRAINTS:

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact Exxon's Cultural Resource Program immediately (564-3276 (Anchorage) or 229-1508 (24 hrs.)).

SHPO SIGNATURE: Rachel Gardner DATE: 5/22/90

Subsurface Oil Observed: Yes____ No X Maximum Depth____

RECOMMENDATIONS:

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

COMMENTS: Recommend manual removal of pavement, mousse and patties in the UITZ and MITZ. Work from 6/2 to 7/1 with approval of USFWS regarding eagle nests.

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

SPOT WASH AS REQUIRED TO REMOVE POOLED OIL FROM CRACKS IN ROCK FACE AS INDICATED ON SKETCH

TAG APPROVAL DATE: 5/18/90
ADEC ART WEINER
EXXON ANDY TEAL
NOAA GARY STRAUS
USCG G.A. REITER

FOSC: [illegible] DATE: 6-June 90

ACE 10459894

ACE 1941165 +/S

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / WB-1 SUBDIVISION: ASC# 242-32-10155 DATE 29 APR 90

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

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

Type A manual pickup.

~~ADEC~~ A.O.F.S.G.
NAME Lee Glenn SIGNATURE Lee Glenn

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS Type A manual removal -

Remove oil from rock face wall on south side of stream and lagoon. Clean oil from the bottom of the lagoon (under floating debris) including some floating oily organic material, located just beyond this rock wall.

Remove tarmats in the intertidal zone.

Contact Lee Glenn prior to the start of this work so that an A.O.F.S.G observer can be placed on site.

The attached A.O.F.S.G assessment completed on 4-16-90 has not changed from the 4-29-90 AnchSeat survey.

LAND MANAGER
NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

ACE 10459895 +LS

REVISION NO. 03/21/90

ANAD

SSAT DATA ENTRY FORM

SUBSURFACE DATA

SEGMENT ID: WB-001 SUBDIV: 242-32 10155

PIT # 1 PIT DEPTH 25 OIL CHARACTER NO OIL INTVAL: FROM — TO —
QUANT: — OIL CLR: — FLM CLR: — ZONE: SU — UI X MI — LI —
SUBSURF SEDIMENT: BRK — BLD — COB — PEB X 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:____

ANAD

SSAT DATA ENTRY FORM PAGE 1 OF 2

GENERAL DATA

242-32

SEG ID: WB-001 SUBDIV: 10155 TEAM: 14 SURVEY DATE: 4/29/90

PAVEMENT: CHAR H AREA 25 THICKNESS 3 TARBALLS —

OILED: LGS MD VEG SM TRH — DBR — WAVE EXP: LW — MD — HG X

FAX RCVD: _____ DT: _____ AGENCY DISAGREE: _____

EST SUBDIV LGTH: 120 OIL CATEGORY: W — M 120 N — VL — NO — U —

SURFACE DATA

SURFACE SEDIMENT: BRK — BLD — COB 20 PEB 10 GRN 10 SAN 40 MUD 10 VEG —

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

CHAR #: 2 OIL CHAR: PO OIL DIST: CONT — BRKN — PTCH X SPLH —
OIL CLR: SBL FILM CLR: BR TIDAL ZONE: SU X UI X MI — LI —

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

CHAR #: 4 OIL CHAR: ST OIL DIST: CONT X BRKN — PTCH — SPLH —
OIL CLR: DBL FILM CLR: RW TIDAL ZONE: SU X UI X MI — LI —

CHAR #: 5 OIL CHAR: MS OIL DIST: CONT — BRKN X PTCH X SPLH —
OIL CLR: DBR FILM CLR: TL TIDAL ZONE: SU — UI X MI X LI —

CHAR #: 6 OIL CHAR: PT OIL DIST: CONT — BRKN X PTCH X SPLH —
OIL CLR: DBL FILM CLR: RW TIDAL ZONE: SU — UI X MI X LI —

CHAR #: 7 OIL CHAR: FL OIL DIST: CONT — BRKN — PTCH — SPLH X
OIL CLR: GY FILM CLR: SL TIDAL ZONE: SU — UI X MI — LI —

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

Seg ID: WB-001 Subdiv: No ASC #
Survey Date: 4/29/90
Comments by: Ken Critchlow

This high energy site was apparently oiled during a very high tide and/or storm that resulted in deposition of oil in the lagoon above the beach storm berm. The stream discharges across a broad area of beach below the storm berm. In this region a narrow band of mousse/patties was observed in the WITZ along both shores. Oil stain was also noted in the same locations. The storm berm adjacent to the right (east) bank was partially covered by asphalt pavement. The lower half of the lagoon on the west side was characterized by pooled oil trapped in cracks, stain and cover. Within the lagoon, disturbed sediments produced sheen; logs were stained.

I recommend that mousse/patties along the shores below the storm berm be removed by shovel. The asphalt pavement in the storm berm can also be removed by shovel; a pit in this location didn't indicate subsurface oil. Sediments that produce sheen in the lagoon should be removed by shovel. Pooled oil in rock cracks may be removed using towels and subsequently bioremediated.

SHORELINE OILING SUMMARY (ANAO)

REVISION NO. 04/13/90

OG CAL LARSON USCG DREHER, CWE SEGMENT ST/ CB-01
BIO KEN CRITCHLOW LAND REP STREAM 2A2-32-10155 (OF)
EXXON DARRYL YOES ADFG LEE GLENN TIME 04:00 to 04:45
TEAM NO. 14 TIDE LEVEL +6 FT. DATE 4 /29 /90
EST. SUBDIVISION LENGTH: 120 m ☐ Sun ☑ Clouds ☐ Fog ☐ Rain ☐ Snow
UPLANDS DESCRIPTION: ☑ Grass ☑ Forest ☑ Rock
SURVEYED FROM: ☑ Foot ☐ Boat ☐ Helo
SURFACE SEDIMENTS: R ___ % B ___ % C 20 % P 10 % G 10 % S 40 % M 10 % V ___ %
SLOPE : Lang 100 % Hang ___ % Vert ___ % WAVE EXPOSURE: ☐ Low ☐ Med ☑ High
OIL CATEGORY LENGTH: W ___ m M 120 m N ___ m VL ___ m NO ___ m

SURFACE OIL

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

PAVEMENT (H) F S 25 sq. m by .3 cm
PATTIES / TARBALLS 40 BAGS
NEAR SHORE SHEEN? NO BR RW (SL) TL

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

Did you collect DEBRIS ☐ YES ☑ NO
TYPE ___
#BAGS ___

Photographs:
Roll No. ___
Frames ___

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER OP	OR	OL	OF	NO	OILED INTERVAL (CM-CM)	BELOW UO	UC	OIL / FILM COLOR SHR BR	DBL RW	GY SL	DBR TL	LBR	PIT ZONE SU	UI	MI	LI	ANA	SHEEN (Y/N)	▼	SURFACE - SUBSURFACE SEDIMENTS
1	25					✓	-									✓						SD, GR SD GR, PB
							-															
							-															
							-															
							-															
							-															

COMMENTS IN BACK INTERTIDAL COAST GARD REP. OBSERVED POOLED OIL IN CRACKS/INTERSTICES - UNABLE TO DETERMINE EXTENT OF OILING. SOME SHEENING OBSERVED IN BACK INTERTIDAL LAGOON.

REVIEWED ___ DATE ___

ACE 10459899

OG CAL - ARSON

SEGMENT ST/ C3-1

STREAM 242-32-10155

DATE 4 / 29 / 90

CHECKLIST

- ___N Arrow
- ___Approx. Scale
- ___Seg/Sub Bndry
- ___Oil Dist.
  - Width
  - Length
  - % Cover
- ___Substrate Character
- ___Est. HWL/LWL
- ___SSL
- ___Profile Location(s)
- ___Profile(s)
- ___Pit Location(s)
- ___Photo Location(s)

LEGEND

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

ACE 10459900

Oil Character Length (m): AP 5 PO ? CV 50 CT ____ ST 100 MS 25 PT 25 TB ____ FL 5 NO ____

REVISION:03/24/88

OPERATIONS FIELD NOTES

See Book for Instructions

SEGMENT ID ANAD WR-001 (BLACK LAGOON)
STREAM ID # 242-32-10153
ANNOTATED MAP INCLUDED (Y)/N

DATE 4-29-90
NAME DARAH YOES
TEAM # 41

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

SUBSURFACE OIL

Other (Describe)?	NONE FOUND

TARMATS	Quantities in Meters			Treatment Rec			# of Bags	Mandays Required	
	Length	Width	Thick(cm)	None	Breakup	Remove		Breakup	Remove
Area #1	5	5	1			✓	30		1
Area #2									
Area #3									
Area #4									
Sporadic Mats									

MANUAL PICKUP	Type of Debris			In Meters			Pickup Y/N	Manday Estimate
	Mousse Tarballs	Oiled Veget	Cleanup Debris	Length	Width	# of Bags		
"Pocket" #1	✓			100	10	25	Y	2
"Pocket" #2	✓			80	10	20	Y	3
"Pocket" #3								
Random/Continuous								

OILED LOGS Y/(N)	OILING H/M/L	QUANTITY L/M/S	BURN Y/N	

Is there Other Debris on the Beach? (Y)/N How Many Bags? LOTS Is it mingled with the Oiled Debris Y/(N)

GENERAL

Snow covering 0 % of the Supratidal Zone?

Wave Exposure (H)/M/L Access Limitations: TARMAT & DEBRIS >100 YDS FROM RD
↳ STREAM & INTERTIDAL CAVE IS SHELTERED

Snare Boom/Pom Poms Recommended? NO

Would the production Craft have to be relocated to complete work on this subdivision? Y/(N), # of Times ___

COMMENTS:

MOUSSE ON ROCKFACE IS IN LAKE AND WILL REQUIRE HIP BOOTS FOR WORKERS

ACE 10459901 -15

ALL WORK SHOULD BE PLANNED FOR PERIOD 5-15 → 7-10
CONTACT ADF&G BEFORE STARTING WORK

Seg ID: WB-001 Subdiv: No ASC #
Survey Date: 4/29/90
Comments by: Ken Critchlow

This high energy site was apparently altered during a very high tide and/or storm that resulted in deposition of oil in the lagoon above the beach storm berm. The stream discharges across a broad area of beach below the storm berm. In this region a narrow band of mousse/patties was observed in the WITZ along both shores. Oil stain was also noted in the same locations. The storm berm adjacent to the right (east) bank was partially covered by asphalt pavement. The lower half of the lagoon on the west side was characterized by pooled oil trapped in cracks, stain and cover. Within the lagoon, disturbed sediments produced sheen; logs were stained.

ACE 1941166

I recommend that mousse/patties along the shores below the storm berm be removed by shovel. The asphalt pavement in the storm berm can also be removed by shovel; a pit in this location didn't indicate subsurface oil. Sediments that produce sheen in the lagoon should be removed by shovel. Pooled oil in rock cracks may be removed using towels and subsequently bioremediated.

ACE 10459902 +15

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / WB-1 SUBDIVISION: ASCII 242-32-10155 DATE 29 APR 90

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

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

Type A manual pickup.

ADEC A.O.F.S.G.
NAME Lee Glenn SIGNATURE Lee Glenn

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS Type A manual removal -

Remove oil from rock face wall on south side of entrance and lagoon. Clean oil from the bottom of the lagoon (under floating debris) including some floating oily organic material, located just beyond this rock wall.

Remove tarmats in the intertidal zone.

Contact Lee Glenn prior to the start of this work so that an A.O.F.S.G. observer can be placed on site.

The attached A.O.F.S.G. assessment completed on 4-16-90 has not changed since the 4-29-90 Anan Scat survey.

LAND MANAGER
NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

ACE 10459903

ACE 1941167

REVISION NO. 03-2...00

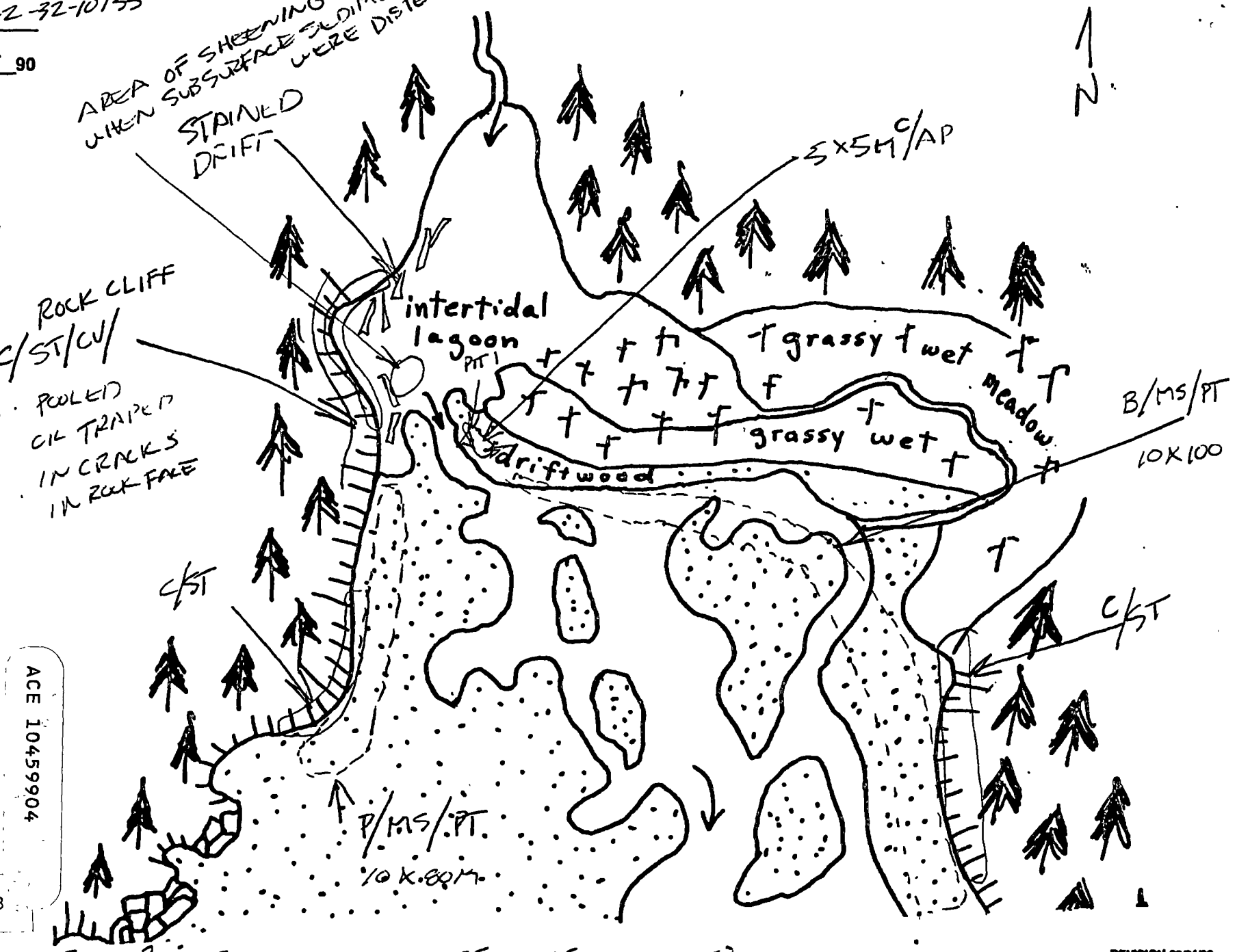
OG CAL-ARSON

SEGMENT ST. UB-1

STREAM 242-32-10155

DATE 4/29/90

SKETCH MAP



CHECKLIST

- ___N Arrow
- ___Approx. Scale
- ___Seg/Sub Bndry
- ___Oil Dist.
  - Width
  - Length
  - % Cover
- ___Substrate Character
- ___Est. HWL/LWL
- ___SSL
- ___Profile Location(s)
- ___Profile(s)
- ___Pit Location(s)
- ___Photo Location(s)

LEGEND

1 △ Pit - No Subsurface Oil

2 ▲ Pit - Subsurface Oil

CT/C Continuous Distribution

CT/B Broken Distribution

CT/P Patchy Distribution

CT/S Splashed Distribution

Oiled Vegetation

1 → Photo location, direction, and number

ACE 10459904

ACE 1941168

Oil Character Length (m): AP 5 PO ? CV 50 CT ____ ST 100 MS 25 PT 25 TB ____ FL 5 NO ____

REVISION:03/24/98

5/18/90

ANADROMOUS FISH STREAM ASSESSMENT

REGION: KENAI

SEGMENT: WB-001

SUBDIVISION: A

STREAM NO: 242-32-10155

Grewe

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

1A **Salmon stream mouth - fry outmigration (3/1 to 5/15)**
1B **Salmon stream mouth - spawning (7/10 to 8/31)**
No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream without authorization from ADF&G. No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G. Treatment which is not intrusive and which will not affect nearshore oil or toxicity levels, such as manual removal, can probably proceed without adherence to time constraints. In any case, contact ADF&G Habitat Division prior to treatment for consultation and/or permit application.
AGENCY CONTACT PERSON: ADF&G John Morison 267-2324

1C **Salmon fry nursery area (4/31 to 7/31)**
No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to July 31 unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G prior to treatment for confirmation and advice.
AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214

1D **Esther Hatchery release (4/15 to 6/15)**
1E **Main Bay Hatchery release (4/20 to 6/15)**
1F **Sawmill Bay Hatchery release (4/15 to 6/1)**
1G **Cannery Creek Hatchery release (4/21 to 6/1)**
1H **Remote release site**
No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G and/or PWS Aquaculture Association. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G or PWS Aquaculture Association for confirmation and authorization.
AGENCY CONTACT PERSON: 1E ADF&G Larry Peltz 424-3214
1D 1F 1G PWS Aquaculture Association John McMillan or Bruce Suzomoto 424-7511

1I **Gill net area (6/7 to 8/31)**
✓ 1J **Purse seine area (7/20 to 9/30)**
1K **Purse seine hook-off (7/20 to 9/30)**
1L **Set net sites (6/11 to 7/25)**
Contact ADF&G for specific dates, locations and constraints. Restrict boat and air traffic to essential minimum. When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
AGENCY CONTACT PERSON: ADF&G James Brady 424-3212

2M **Herring spawning (4/1 to 6/15)**
Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to unoiled intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
AGENCY CONTACT PERSON: ADF&G Evelyn Biggs 424-3235

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

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

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

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

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

7Z **Subsistence area: Salmon harvesting (5/1 to 9/30)**
Finfish harvesting
Deer harvesting (8/15 to 2/28)
7JJ **Invertebrate harvesting**
Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.
AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2359

ACE 10459906

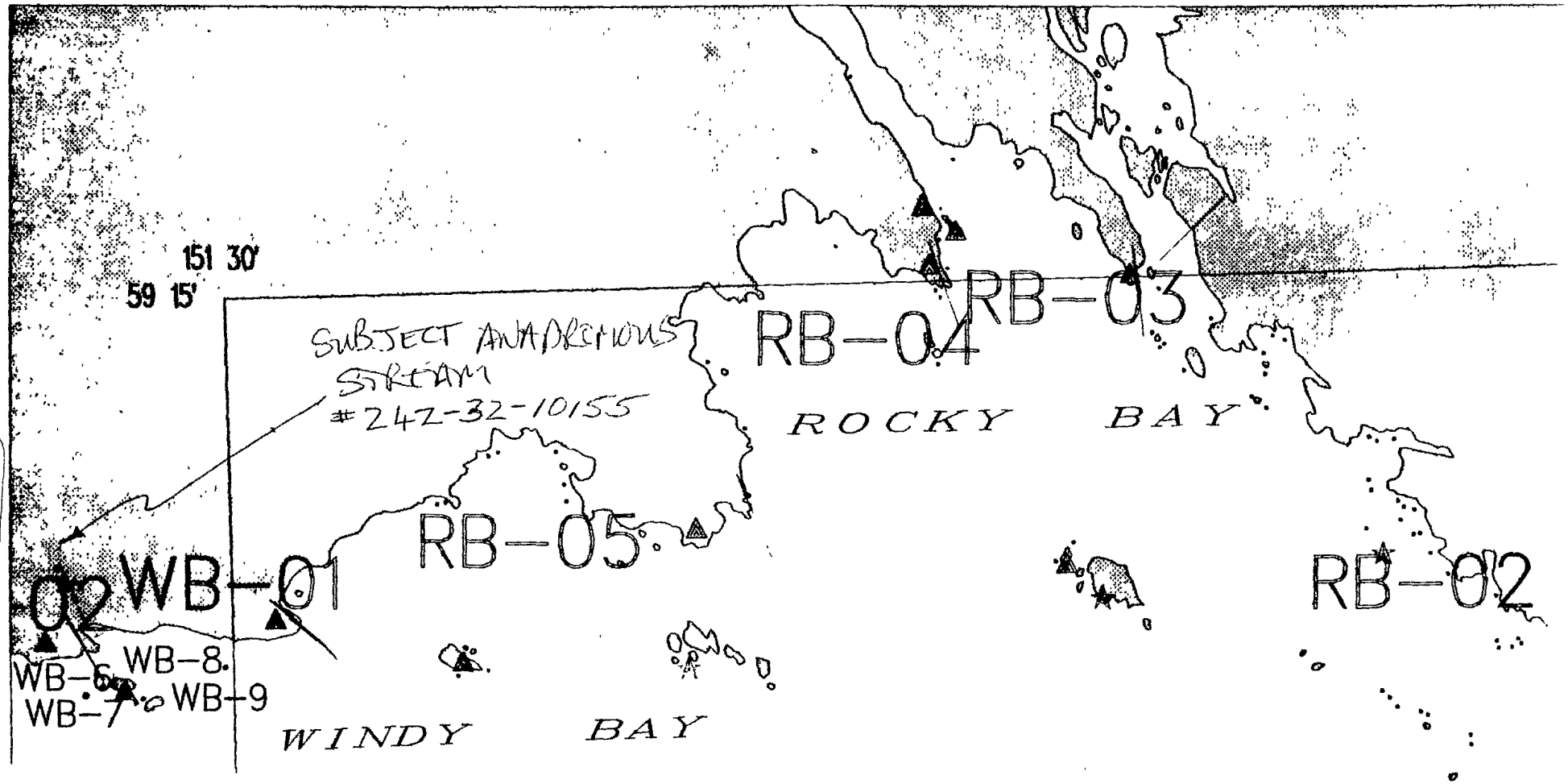
ACE 1941170

ECOLOGICAL MAP

5T-1 1A 1B
1T+

WB-01
(SUBDIVISION # A HAS SUBJECT STREAM)

SE
EAGLE NESTS



ACE 1941171

ACE 10459907

OG CALLARSON

SEGMENT ST/ CAB-1

STREAM 242-32-K155

DATE 4/29/90

CHECKLIST

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

LEGEND

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

SKETCH MAP

AREA OF SHEENING WHEN SUBSURFACE SEDIMENT WERE DISTURBED

STAINED DRIFT

SPOT WASH

ROCK CLIFF

C/ST/CV

POOLED OIL TRAPPED IN CRACKS IN ROCK FACE

intertidal lagoon

REMOVE PAVEMENT

5X5M C/AP

grassy wet meadow

MANUALLY REMOVE MOUSSE

B/MS/PT

10X100

drift wood

grassy wet

C/ST

REMOVE MOUSSE AND PATTIES

P/MS/PT

10X80M

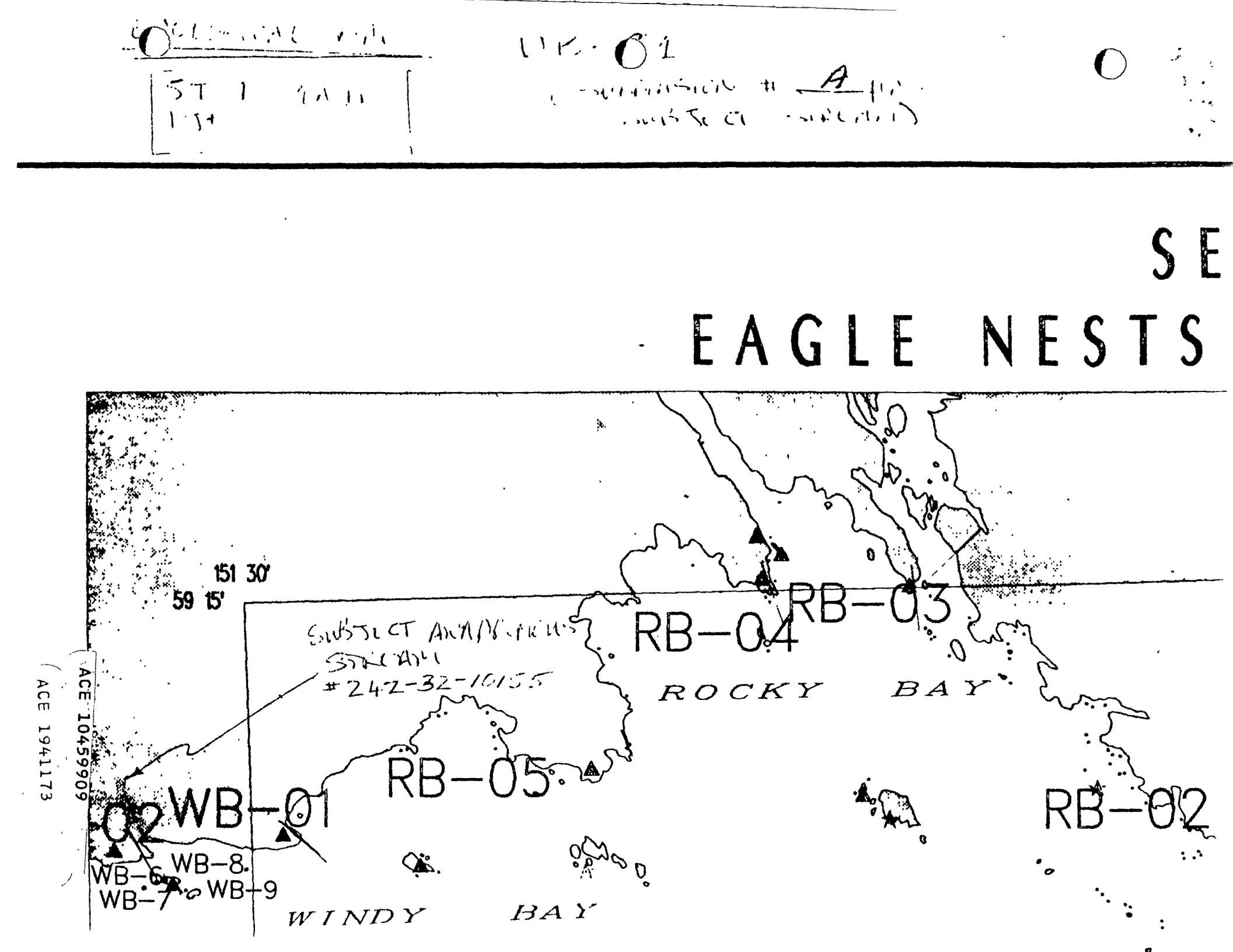
C/ST

N

ACE 10459908

ACE 1941172

Character Length (m): AP 5 PO ? CV 50 CT ____ ST 110 MS 35 PT 25 TB ____ PI ____ NO ____


SE
EAGLE NESTS
151 30'
59 15'
RB-04
RB-03
ROCKY BAY
RB-05
RB-02
WB-01
WB-6
WB-8
WB-7
WB-9
WINDY BAY
ACE 1045909
ACE 1941173

OPERATIONS FIELD NOTES

See Back for Instructions

SEGMENT ID ANMD WR-001 (BLACK LAGOON)
STREAM ID # 242-32-10155
ANNOTATED MAP INCLUDED (Y)/N

DATE 4-29-90
NAME DARRYL YOES
TEAM # 14

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

SUBSURFACE OIL

Other (Describe)?	NONE FOUND

TARMATS	Quantities in Meters			Treatment Rec			# of Bags	Mandays Required	
	Length	Width	Thick(cm)	None	Breakup	Remove		Breakup	Remove
Area #1	5	5	1			✓	30		1
Area #2									
Area #3									
Area #4									
Sporadic Mats									

MANUAL PICKUP	Type of Debris			In Meters			Pickup Y/N	Manday Estimate
	Mousse Tarballs	Oiled Veget	Cleanup Debris	Length	Width	# of Bags		
"Pocket" #1	✓			100	10	25	Y	2
"Pocket" #2	✓			80	10	20	Y	3
"Pocket" #3								
Random/Continuous								

OILED LOGS Y/(N)	OILING H/M/L	QUANTITY L/M/S	BURN Y/N	

Is there Other Debris on the Beach? (Y)/N How Many Bags? LOTS Is it mingled with the Oiled Debris Y/(N)

GENERAL

Snow covering 0 % of the Supratidal Zone?

Wave Exposure (H)/M/L

Access Limitations: TARMAT & DEBRIS >100 YDS FROM RIG
↳ STREAM & INTERTIDAL ZONE IS SHATTERED

Snare Boom/Pom Poms Recommended? NO

Would the production Craft have to be relocated to complete work on this subdivision? Y/(N), # of Times ___

ACE 10459910

COMMENTS:

MOUSSE ON BOATFACE IS IN LAKE AND WILL REQUIRE HIP BOOTS FOR WORKERS

ACE 1941174

ALL WORK SHOULD BE PLANNED FOR PERIOD 5-15 → 7-10
CONTACT ADF&G BEFORE STARTING WORK

SHORELINE OILING SUMMARY (ANAD)

REVISION NO. of

OG CAL LARSON USCG DREHER, CWE SEGMENT ST/ WB-01
BIO KEN CRITCHLOW LAND REP _____ STREAM 242-32-10155 (OF)
EXXON DARRYL YOES ADFG LEE, GLENN TIME 1004 : 45
TEAM NO. 14 TIDE LEVEL +6 FT. DATE 4 / 29 / 90
EST. SUBDIVISION LENGTH: 120 m ☐ Sun ☑ Clouds ☐ Fog ☐ Rain ☐ Snow
UPLANDS DESCRIPTION: ☑ Grass ☑ Forest ☑ Rock
SURVEYED FROM: ☑ Foot ☐ Boat ☐ Helo
SURFACE SEDIMENTS: R ___ % B ___ % C 20 % P 10 % G 10 % S 40 % M 10 % V ___
SLOPE: Lang 100 % Hang ___ % Vert ___ % WAVE EXPOSURE: ☐ Low ☐ Mod ☑ High
OIL CATEGORY LENGTH: W ___ m M 120 m N ___ m VL ___ m NO ___ m

SURFACE OIL

CHARACTER	DISTRIBUTION AC	AB	AP	AS	OIL / FILM COLOR					IMPACTED ZONES SU	LI	MI	LI
ASPHALT PAVEMENT	✓					✓					✓	✓	
POOLED			✓		✓					✓	✓		
COVER	✓					✓				✓	✓		
COAT													
STAIN	✓					✓				✓	✓		
MOUSSE		✓	✓					✓			✓	✓	
PATTIES		✓	✓			✓					✓	✓	
TARBALLS													
FILM				✓			✓				✓		
NO OIL													✓

PAVEMENT (H) F S 25 sq. m by .3 c
PATTIES / TARBALLS 40 BAG
NEAR SHORE SHEEN? NO BR RW (SI) TL

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

Did You Collect DEBRIS
☐ YES ☑ NO
TYPE ___
#BAGS ___

Photographs:
Roll No. ___
Frames ___

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER OP	OR	OL	OF	NO	OILED INTERVAL (CM-CM)	BELOW UO	UC	OIL / FILM COLOR					PIT ZONE SU	LI	MI	LI	ANA	SHEEN (Y/N)	▼	SURFACE SUBSURFACE SEDIMENT
1	25					✓	•									✓					SD CR-SDC.B
							•														
							•														
							•														
							•														
							•														

COMMENTS IN BACK INTERTIDAL COAST GARD REP. OBSERVED POOLED OIL IN CRACKS/INTERSTICES - UNABLE TO DETERMINE EXTENT OF OILING. SOME SHEENING OBSERVED IN BACK INTERTIDAL LAGOON.

ACE 10459911

REVIEWED ___ DATE ___

ACE 1941175

ANAD

SSAT DATA ENTRY FORM PAGE 1 OF 2

GENERAL DATA

242-32

SEG ID: WB-001 SUBDIV: 10155 TEAM: 14 SURVEY DATE: 4/29/90
PAVEMENT: CHAR H AREA 25 THICKNESS 3 TARBALLS —
OILED: LGS MD VEG SM TRH — DBR — WAVE EXP: LW — MD — HG X
FAX RCVD: _____ DT: _____ AGENCY DISAGREE: _____
EST SUBDIV LGTH: 120 OIL CATEGORY: W — M 120 N — VL — NO — U —

SURFACE DATA

SURFACE SEDIMENT: BRK — BLD — COB 20 PEB 10 GRN 10 SAN 40 MUD 10 VEG —

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

CHAR #: 2 OIL CHAR: PO OIL DIST: CONT — BRKN — PTCH X SPLH —
OIL CLR: SBL FILM CLR: BR TIDAL ZONE: SU X UI X MI — LI —

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

CHAR #: 4 OIL CHAR: ST OIL DIST: CONT X BRKN — PTCH — SPLH —
OIL CLR: DBL FILM CLR: RW TIDAL ZONE: SU X UI X MI — LI —

CHAR #: 5 OIL CHAR: MS OIL DIST: CONT — BRKN X PTCH X SPLH —
OIL CLR: DBR FILM CLR: TL TIDAL ZONE: SU — UI X MI X LI —

CHAR #: 6 OIL CHAR: PT OIL DIST: CONT — BRKN X PTCH X SPLH —
OIL CLR: DBL FILM CLR: RW TIDAL ZONE: SU — UI X MI X LI —

CHAR #: 7 OIL CHAR: FL OIL DIST: CONT — BRKN — PTCH — SPLH X
OIL CLR: GY FILM CLR: SL TIDAL ZONE: SU — UI X MI — LI —

ACE 10459912 A

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

ACE 1941176

FOLLOWING ACE NUMBER(S) WAS (WERE) NOT USED

ACE NUMBER(S) 10459913 - 11

ACE 10459912-B

ANAD
SSAT DATA ENTRY FORM

SUBSURFACE DATA

SEGMENT ID: WB-001 SUBDIV: 10155 242-32

PIT # 1 PIT DEPTH 25 OIL CHARACTER NO OIL INTVAL: FROM — TO —
QUANT: — OIL CLR: — FLM CLR: — ZONE: SU — UI X MI — LI —
SUBSURF SEDIMENT: BRK — BLD — COB — PEB X 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:______________________________

Group A

Faxed Anch. 4/20/90

Prescreening

ADF&G MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: BS (SS) DS TS AVS SCHA MMHS PTA

2 REGION: PWS (KP) CI K,AP

METHOD: Aerial (Ground) Boat Cordova

3 DATE: 4-16-90

4 START TIME: 1145

5 STOP TIME: 1320

6 SEGMENT #: WB-I

7 STATION #:

8 K-UNIT:

9 STAT AREA: 242-32

10 LAT: 59° 14' 00"

11 LONG: 151° 31' 00"

12 SOURCE: Map Loran AFS# 242-32-10155

13 LOCATION: Windy Bay Black Lagoon

14 DESCRIPTION: North Shore, Windy Bay

15 HIGH TIDE TIMES: 0513,

16 HIGH TIDE HTS: 11.2,

17 LOW TIDE TIMES: 1229,

18 LOW TIDE HTS: 1.5,

19 TIDE HT AT SURVEY: low

Ebb (Slack) Flood Slack

20 USCG QUAD: SELDOVIA A-5

21 TEAM RECORDER: Doug Hill

22 OBSERVERS: Susan McLane

23 AGENCY: ADF&G

24 PHOTOS TAKEN: (Y) N

Roll #: 90-DOH-905-H Frame: 13,14,15,16,17,18,19,20 4,5,6,7,8,9,10,11,12

25 VIDEO TAKEN: Y (N) TAPE#:

Start: End:

26 SAMPLES TAKEN? (Y) N Number

DOH-4/16/90-1200

Oil SW shore of Lagoon-taken from log jam area-found 1 ft below Lagoon surface.

Sediment

Biological

Water

EXTENT OF OIL

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

30 OVERALL OIL IMPACT: N VL L M H

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

32 OILED DEBRIS? (Y) N

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

34 WAVE EXPOSURE: High (Moderate) Low

35 SUBSTRATE TYPE: Bedrock Boulder Cobble 20%

Gravel 70% Sand 10% Mud/silt

36 CATALOGED ANAD. FISH STREAM? (Y) N

37 CATALOG #: 242-32-10155

38 STREAM NAME: Black Lagoon

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: Just About Anywhere on the North Shore

43 ANADROMOUS FISH PRESENT? Y (N)

44 ANADROMOUS FISH OBSERVATION

Species	Aerial	Ground

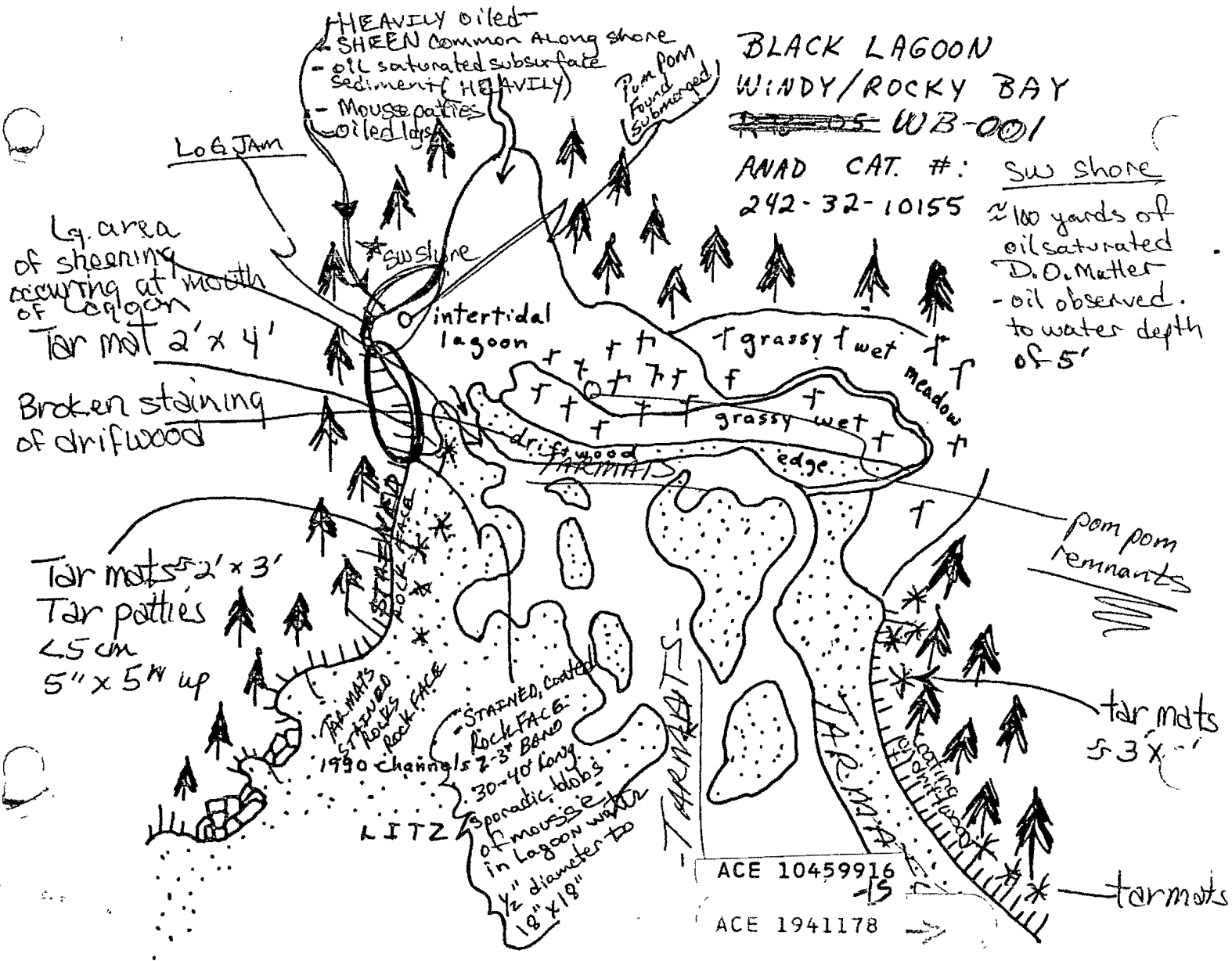
COMMENTS: Tarmats found on both sides of stream channels. On S.E side oil was situated closer to driftline. Continious coating & staining of rocks along edge of driftline. Fresh mousse under tar mat surface. Mass growing on some tar patties in stream channel.

ACE 10459915

ACE 1941179 7/S

FRAME(S)	DESCRIPTION
4, 5, 6	Aerials of Black Lagoon
7, 8, 9	<3/4" thick mousse within Lagoon (submerged), 2-3' Band of stain/coat oil and spruce needles on Rock FACE - west shore of Black Lagoon. Mousse found submerged in Black Lagoon (< 1/2" thick)
10, 11	(10) Mousse on Lagoon bottom (< 3/4" thick), (11) Mousse above + below water surface → Heavily oiled needles → Common Along SW shore of Lagoon
12, 13	Oil Sheen on Surface of Black Lagoon - Log Jam Area
14	Heavily oil saturated Dead Organic Matter, sheen on water surface
15	Oiled logs SW corner of Black Lagoon
16, 17	Pom Pom found in 3-4' of ~~water~~ = SW shore
18	Mousse patty beneath 2' of ~~water~~ SW shore
19	Sheen arising from oil saturated sediment
20	Another remnant of the "pom pom" - A common sight.

46 OIL DISTRIBUTION DIAGRAM



ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT WB-1 SUBDIVISION A (1 of 2)

WORK WINDOW	
Manual Pickup Tarmat Removal	OPEN
Bioremediation Over 100m From Stream Manual Tilling/Raking	OPEN
Bioremediation Less Than 100m From Stream Manual Tilling/Raking	WORK PRIOR TO 7/1 (ADF&G MONITOR REQ.)

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A,1B Salmon Stream — ADF&G catalogued anadromous stream (242-32-10155) is in Subdivision A. This subdivision is closed to bioremediation and manual raking/tilling less than 100m from stream 7/10 to 8/31. Before 7/10, bioremediation and manual tilling/raking are permitted less than 100m from stream with on-site ADF&G monitor or ADEC alternate present. No constraint to bioremediation and manual raking/tilling more than 100m from stream. No constraint to manual pickup and tarmat removal.

1J Purse Seine Area — No constraint to manual pickup and tarmat removal; closed to bioremediation and manual tilling/raking after 7/1.

5T Bald Eagle Nest — NO CONSTRAINT. USFWS bald eagle impact assessment completed on 5/19/90 by Mary Portner indicates no active nests within 400m of the work area.

OTHER ECOLOGICAL CONSIDERATIONS

No disturbance to stream bed or bank. No flushing of pollutants or sediment into stream drainage; do not allow Inipol to enter stream flow. On-site examination and consultation by ADF&G monitor is required prior to bioremediation in order to authorize a setback distance from the stream during chemical application; if ADF&G monitor's presence is impossible, authorization may be given by the ADEC monitor. Restrict boat and air traffic to essential minimum after 7/1. Avoid any unnecessary disturbance or damage to unoiled biota and substrate.

SEE ANADROMOUS FISH STREAM EVALUATION ADDENDUM (STREAM NO. 242-32-10155) FOR ADDITIONAL CONSTRAINT INFORMATION

TAG APPROVAL DATE 5/29/90.
ADEC Art Weiner Art Weiner
EXXON Andy Teal [signature]
NOAA Blenchett Blenchett
USCG G.A. Reiter G.A. Reiter

FOSC [signature] Date 5/29/90

ACE 10459917

ACE 1941181

ANADROMOUS FISH STREAM EVALUATION ADDENDUM

CONSTRAINTS FOR STREAM NO. 242-32-10155

SEGMENT WB-1 SUBDIVISION A

WORK WINDOW	
Manual Pickup Tarmat Removal	**OPEN**
Spot Washing	**OPEN**
Bioremediation More Than 100m From Stream	**OPEN**
Bioremediation Less Than 100m From Stream	**WORK PRIOR TO 7/1 (ADF&G MONITOR REQ.)**

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A,1B	**Salmon Stream**	ADF&G catalogued anadromous stream (242-32-10155) is in Subdivision A. This subdivision is closed to bioremediation less than 100m from stream 7/10 to 8/31. Before 7/10, bioremediation and are permitted less than 100m from stream with on-site ADF&G monitor or ADEC alternate present. No constraint to bioremediation more than 100m from stream. No constraint to manual pickup, tarmat removal or spot washing.
1J	**Purse Seine Area**	No constraint to manual pickup and tarmat removal. Closed to bioremediation and spot washing after 7/1.
5T	**Bald Eagle Nest**	NO CONSTRAINT. USFWS bald eagle impact assessment completed on 5/19/90 by Mary Portner indicates no active nests within 400m of the work area.

OTHER ECOLOGICAL CONSIDERATIONS

Restrict boat and air traffic to essential minimum after 7/1. No disturbance to stream bed or bank. No flushing of pollutants or sediment into stream drainage; do not allow Inipol to enter stream flow. On-site examination and consultation by ADF&G monitor is required prior to bioremediation in order to authorize a setback distance from the stream during chemical application; if ADF&G monitor's presence is impossible, authorization may be given by the ADEC monitor. Avoid any unnecessary disturbance or damage to unoiled biota and substrate.

ACE 10459918

SEE SUBDIVISION CONSTRAINT ADDENDUM WB-1A FOR ADDITIONAL CONSTRAINT INFORMATION.

ACE 1941182

TAG APPROVAL DATE 5/29/90
ADEC Art Weiner Art Weiner
EXXON Andy Teal
NOAA
USCG G.A. Reiter

FOSC [signature] DATE 5/29/90

WORK PLAN MODIFICATION RECOMMENDATION

SEGMENT WB-01- SUBDIVISION A DATED 6-JUNE-90

ANAD-242-32-10155

MODIFICATION : CLASS I ✓ CLASS II _____ CLASS III _____

1. REASON FOR MODIFICATION.

RECOMMENDATION OF LAND MANAGER - (ADF&G)

2. SUGGESTED ADJUSTMENT TO WORK PLAN

NO BID (CUSTOM BLEN) REQUIRED; - LAND MANAGER IS SATISFIED WITH PRESENT CONDITION WITHOUT BID.

3. TIMING ISSUES

ASAP - THIS SEGMENT IS ON SCHEDULE FOR SAT. 6/23/90

ADEC Russell Kunkel

EXXON M Dean

USCG 253 J A Sobieski

LAND MANAGER _____ (If field rep is on scene)

A.O.F&G T. O. Griffin

ACE 10459919

ACE 1941184 +/S

ADEC DAILY SHORELINE ASSESSMENT EXXON ATLAS

LOCATION: Windy Bay SEG W5001 SUBSEG A
MONITOR(S): Claire E. Crosby
DATE: 06/19/90 TIME: BEGIN ~ END

TIDES:	TIME:	HEIGHT:
LOW	0506	-0.4
HIGH	1130	9.2
LOW	1648	3.3
HIGH	2306	13.5

WEATHER: (CLOUDY) RAIN (FOG) SUN
TEMP: 48° SEA COND: (Lt Chop)
WIND DIR: N-NE-(E)-SE-S-SW-W-NW
WIND SPEED (KNOTS): 0-15 (16-30) 30+

ENVIRONMENTAL CONSTRAINTS: (SEAL HAULOUTS, EAGLE NESTS, MUSSEL BEDS, ETC.)

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

SURFACE SEDIMENTS: R___% B___% C___% P___% G 20 % S 30 % M 50 %
SUBSURFACE SEDIMENTS: R___% B___% C___% P___% G___% S___%

OIL CHARACTERISTICS

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

TREATMENT TECHNIQUES

MANUAL RAKING/TILLING HEADER FLOOD (HOT/COLD)
MANUAL REMOVAL: PO-(MS)-AP-TB BIOREMEDIATION
SPOT WASHING MECHANICAL
OTHER

EQUIPMENT USED: Shovels
NAMES OF REPS & OTHER AGENCIES: EXXON John Dean
USCG Jerry Schultz OTHER:
WORKERS ON SITE: ORTS 5 OTHER: Jeff Glenn & Doug Hill (ADF&G)

WASTE HANDLING/DISPOSAL

ITEMS USED TO ABSORB/CONTAIN OIL
OF BAGS COLLECTED:
OILED DEBRIS____ OIL & SEDIMENTS ~10 cc OILED VEG.____
OILED LOGS PRESENT: Y N # OF LOGS REMOVED

ACE 10459920 H/S

4/20/90

ACE 1941185

PHOTO/VIDEO DOCUMENTATION

PHOTOGRAPHS: ROLL # — FRAME(S): _____ REASON: _____
Doug Hill
VIDEO: TAPE # _____ REASON: _____

COMMENTS :

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

OBSERVATIONS: TREATMENT EFFICIENCY, POSSIBLE IMPROVEMENTS, ETC.
Due to crew being split to work two different segments ~~of~~ ~~was~~ Leland Glenn & Doug Hill were monitored on site.

SIGNATURE Clara S. Crosby
06/19/90

ACE 10459921

ACE 1941186

ADEC DEMOBILIZATION REPORT
FOR PHYSICAL/MECHCANICAL TREATMENT AND CUSTOMBLEN

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

5/16/90

RE: SEGMENT NUMBER WB-001 SUBSEGMENT NUMBER A

DEC REP STEPHEN FERGUSON USCG REP RANDOLPH HUBBARD

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

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

YES

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

NOT AT THIS TIME / BUT THERE IS SOME RESIDUAL OIL MIXED IN WITH SEDIMENTS WHICH MAY END UP IN WARMER WEATHER CAUSING A BIT MORE AREA OF RECOVERABLE OIL (MOUSSE PATTIES OR/AND PAVEMENT)

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

AT THIS TIME NOT RECOVERABLE / BUT ESTIMATE AT MOST ANOTHER 10 BAGS MAY BE POSSIBLE TO REMOVE WITH WARMER WEATHER → CAUSING A FEW MORE PATTIES + SOME ASPHALTING

Additional Comments (keep objective)

WOULD RECOMMEND HOLDING OFF UNTIL WARMER WEATHER / ALSO SOME SUBSURFACE DUE TO TIDAL AREA + SEDIMENT BUILD UP MAY BECOME OILING VISIBLE / DUE TO SALMON CONSIDERATIONS WOULD CHECK AGAIN IN WARMER WEATHER

signature Stephen Ferguson

Date and time of demobilization from segment _____

Shoremon\55 5-12-90

→ AREAS TO WATCH (SEE MAP [NEXT PAGE]) YELLOWED + CHECKERED GRID AREAS

ACE 10459922

ACE 1941187

SEGMENT ST ___
SUBDIVISION A
DATE 4 / 2 90

CHECKLIST
- ___ N Arrow
- ___ Approx. Scale
- ___ Seg/Sub Bndry
- ___ Oil Dist.
  - Width
  - Length
  - % Cover
- ___ Subsurface Character
- ___ Est. HW/LEWL
- ___ SSL
- ___ Profile Location(s)
- ___ Profile(s)
- ___ Pit Location(s)
- ___ Photo Location(s)

LEGEND

1 △ PR - No Subsurface Oil

2 ▲ PR - Subsurface Oil

CT/C Continuous Distribution

CT/B Broken Distribution

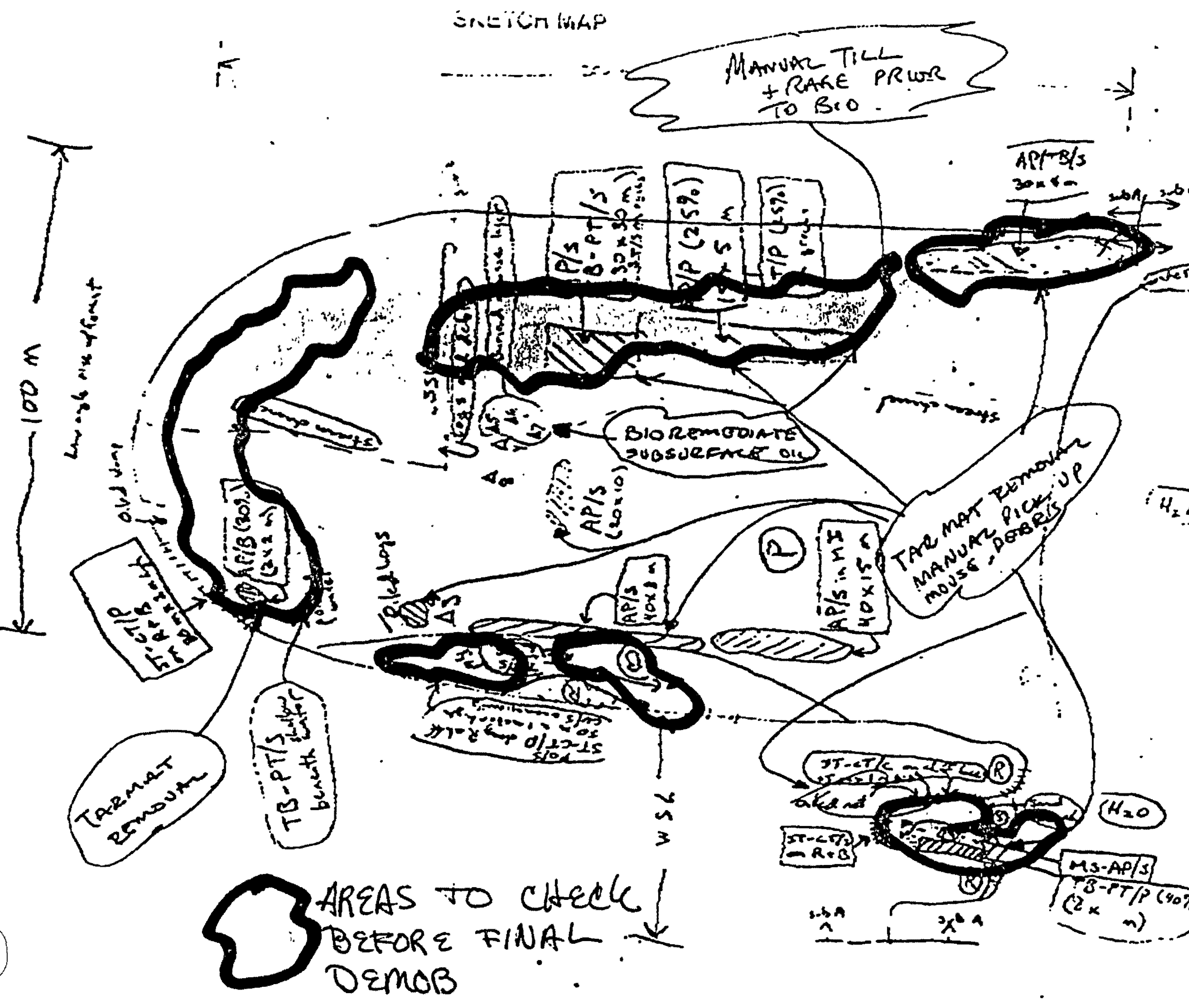
CT/P Patchy Distribution

CT/S Splashed Distribution

Oiled Vegetation

1 → Photo location, direction, and number

SKETCH MAP



Oil C. n) AP 50 PO 5 CV n/A CT ___ ST ___ MS ___ P___ TB 5 FL n/A NO n/A

REVISION

EXXSCO ATLAS SQUAD # 4

ADEC DAILY SHORELINE ASSESSMENT

LOCATION: WINDY BAY (BLACK LAGOON) SEG WB 001 SUBSEG A
MONITOR(S): STEPHEN FERGUSON
DATE: MAY 16, 1990 TIME: BEGIN 0700 1740 END 1200 1930

TIDES: TIME: HEIGHT:
LOW —
HIGH 0553 + 10.4
LOW 1258 + 0.9
HIGH 2002 + 18.2

WEATHER: (CLOUDY) (RAIN) FOG SUN
TEMP: 40° SEA COND: 2-3 FT.
WIND DIR: N-NE-E-SE-S-SW-W-NW
WIND SPEED (KNOTS): 0-15 (16-30) 30+

ENVIRONMENTAL CONSTRAINTS: (SEAL HAULOUTS, EAGLE NESTS, MUSSEL BEDS, ETC.) SALMON STREAM MOUTH

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

SURFACE SEDIMENTS: R 15 % B 15 % C 10 % P 30 % G 15 % S 10 % M 5 %
SUBSURFACE SEDIMENTS: R ___ % B ___ % C ___ % P ___ % G ___ % S ___ %

OIL CHARACTERISTICS

SURFACE: POOLED - (MOUSSE) - (TARBALL) - (COVER) - (COAT) - (STAIN) * SMALL AREA AP(S)/C
SUBSURFACE: OP - OR - OF

TREATMENT TECHNIQUES

MANUAL RAKING/TILLING
(MANUAL REMOVAL) PO-MS-AP-TB
SPOT WASHING
OTHER
HEADER FLOOD (HOT/COLD)
BIOREMEDIATION
MECHANICAL

EQUIPMENT USED: SHOVELS / RAKES / CEMENT TRAWLS
NAMES OF REPS & OTHER AGENCIES: EXXON JOHN CZARENSKI
USCG HUBBARD RANDOLPH — OTHER: (OOPS) RICHARD HAGLIN
WORKERS ON SITE: ORTS 9 OTHER: (VECO) MIKE REAVIS
WASTE HANDLING/DISPOSAL ADEC: RUSSELL KUNIBE, ADEC: DAVE KENAGY 1145—1220
ITEMS USED TO ABSORB/CONTAIN OIL Poly / BAGS TRANSFERRED TO SUPER SACK
OF BAGS COLLECTED:
OILED DEBRIS 10 OIL & SEDIMENTS 40 OILED VEG. —
OILED LOGS PRESENT: (Y) N # OF LOGS REMOVED 0
* OILED LOGS APPROX. 5 HAD LESS THAN 10% OILING ON THEM

AUG 30 '05

4/20/90

ACE 10459924

ACE 1941189

1 super stack – WB-1 A
" " – WB-2 F

PHOTO/VIDEO DOCUMENTATION

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

VIDEO: TAPE # —— REASON: ——

COMMENTS

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

NA

OBSERVATIONS: TREATMENT EFFICIENCY, POSSIBLE IMPROVEMENTS, ETC.

(1) ≈5 OIL STAINED LOGS IN BACKWATER / ALL HAD LESS THAN 10% OILING

(2) TIMES OF 1740 – 1930 REPRESENT BAG REMOVAL FROM AREA [DUE TO LONG TIDAL FLATS AND FEW WORKERS AVAILABLE TO MOVE BAGS OVER LONG DISTANCES AT LOWER PARTS OF TIDE cycle]

(3) EXXON REP. + MYSELF WENT BACK AND SURVEYED BANKS AREA OF BACKWATER + BANKS OF SALMON STREAM AREA NOTED ON ANADS SURVEY PICKED UP 3 OILY (MOUSSE PATTIES + TARBALLS) IN SURVEY

SIGNATURE Stephen Ferguson

ACE 10459925

ACE 1941190

SKETCH MAP

SUBDIVISION A

DATE 4 / 2 / 90

CHECKLIST

- ___N Arrow
- ___Approx. Scale
- ___Seg/Sub Bndry
- ___Oil Dist.
  - Width
  - Length
  - % Cover
- ___Subsurface Character
- ___Est. HWL/LWL
- ___SSL
- ___Profile Location(s)
- ___Profile(s)
- ___Pit Location(s)
- ___Photo Location(s)

LEGEND

1 △ PR - No Subsurface Oil

2 ▲ PR - Subsurface Oil

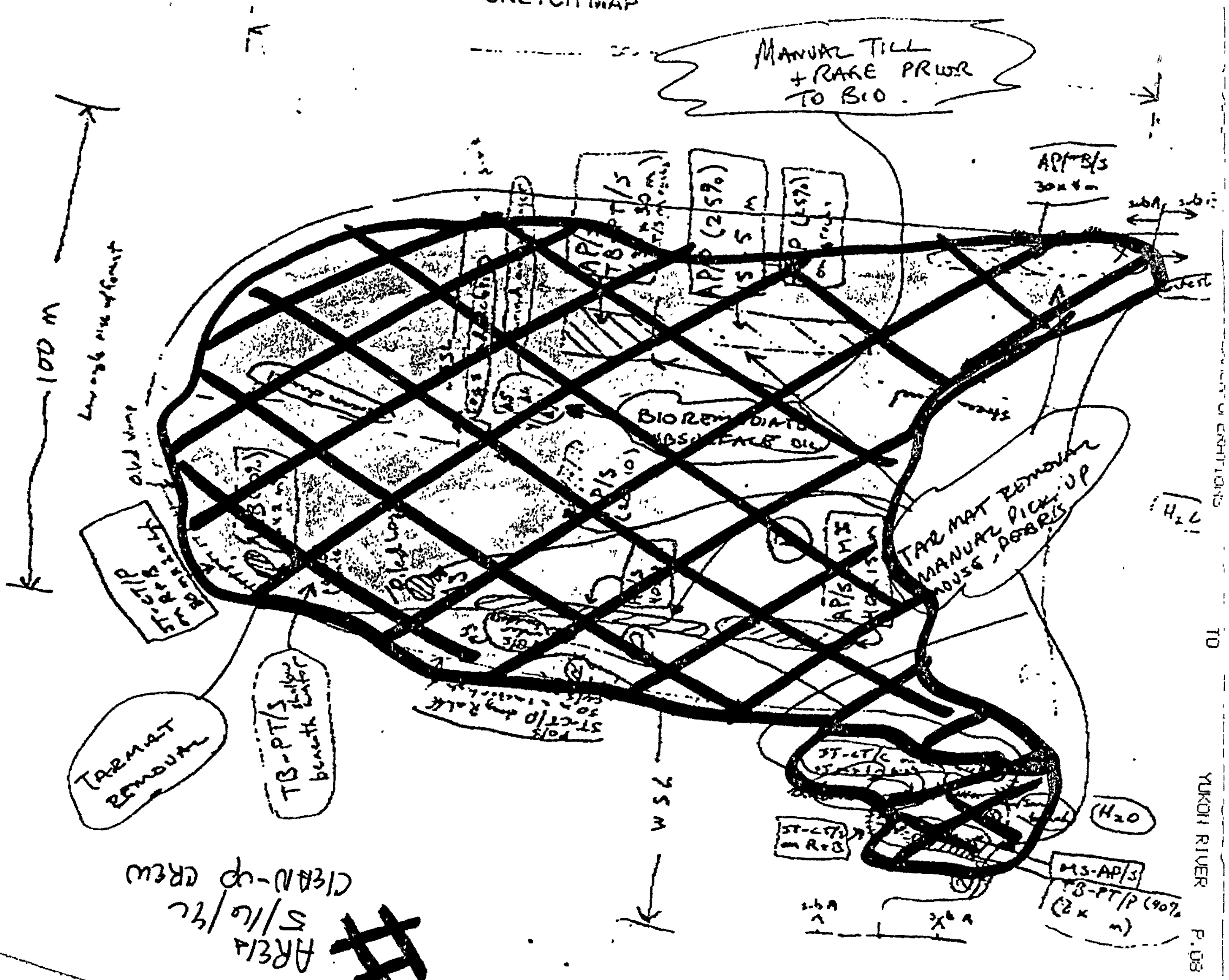
CT/C Continuous Distribution

CT/B Broken Distribution

CT/P Patchy Distribution

CT/ Sporadic

Oile



MS___ PT___ TB___ FL___ NO___

ADF&G MULTI-ASSESSMENT FORM
1991 GENERAL ENTRY CHECKLIST

DRAFT 10/9/91

STREAM#: 2423210155
SEGMENT: WB001

 DATE PRINTED: 08/23/91

LOCATION: BLACK LAGOON

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

DATE: 06/19/90 TEAM RECORDER: HILL

START TIME: 1345 OBSERVERS: GLENN
END TIME: 1715

TIDES: -0- EBB. SLACK AGENCY: FG
OG/HAB DISCREPANCIES: -

PHOTOS TAKEN: Y

STATION: 2423210155 ROLL#: 90DDH015H
FRAME: 12

VIDEO TAKEN: Y TAPE#: 90LPG023H
START: 4818 END: 4858

SAMPLES TAKEN: N

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

OIL IN STREAM BED: Y

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

WAVE EXPOSURE: M SHORELINE TYPE: BEACH LAGOON

SUBSTRATE TYPE: BEDROCK -0- BOULDER -0- COBBLE 5 VEGETAT -0-
GRAVEL 70 SAND 10 MUD/SILT 15 GRANULE -0-

ANADROMOUS FISH PRESENT: U

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

END OF REPORT

ACE 10459927 +S

ADF&G MULTI-ASSESSMENT FORM
1991 OILING ENTRY CHECKLIST

DATE PRINTED: 08/23/91

STREAM# : 2423210155
SEGMENT#: WB001

SURVEY TYPE : 90 CLEANUP MONITORING LOCATION: BLACK LAGOON
DATE: 06/19/90
TIMES: 1345 - 1715 TEAM RECORDER: HILL

-- OILING EXTENT --

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

COMMENTS:
LITTLE WORK HAS BEEN DONE HERE THIS YEAR. NONE HAS OCCURRED IN THE LAGOON. STEVE FERGUSON (ADEC) AND JOHN CZARNECKI (EXXON) PICKED UP A BIT OF OIL ALONG THE ROCK WALL ON THE SW SHORE OF THE LAGOON - THEY DID THIS PRIOR TO RECEIVING A WORK ORDER BECAUSE THEY FELT IT OUGHT TO BE PICKED UP (GOOD JOB GUYS). THE WORK ACCOMPLISHED THEN AND TODAY IS HARDLY NOTICEABLE AS MOUSSE IS STILL VISIBLE ALONG THE ROCK WALL AND THE HEAVILY OILED LOG JAM AREA STILL HARBORS ALL THE OIL WE'VE SEEN EARLIER THIS YEAR. APPARENTLY ALL THE CREW DID NOT KNOW THE OIL EXISTED AT THE LOG JAM (THE OIL IN THE WATER ON THE BOTTOM OF THE LAGOON). THE WATER LEVEL IS UP TO THE TOPS OF THE HIP WADERS, ALONG THE ROCK FACE, TOUGH TO CARRY STUFF OUT OF HERE. CLARA CROSBY (ADEC), JOHN DEAN (EXXON) AND JERRY SCHULTZ (USCG) ARRIVED WHILE WE WERE ON BEACH. JOHN DEAN HAS HIP WADERS SO WE SHOW HIM THE OIL IN THE WATER. SHEEN ARISES FROM THE SEDIMENT BELOW THE WATERS SURFACE AS WE WALKED ALONG THE ROCK WALL AND IN THE LOG JAM AREA (SW CORNER OF LAGOON). JOHN SAYS THEY'LL HAVE A CREW OVER TO WORK ON REMOVING LAGOON OIL. CREW OF 4 PLUS MIKE REVIS (VECO SUPERVISOR) PICKING UP OIL FROM ALONG THE SW SHORE (ROCK WALL AND LOG PILE AREA). LEE & I SHOWED THE CREW THE LOCATION OF THE SUBMERGED OIL. OIL SHEEN COVERS THE WATER IN ALL AREAS WHERE WE (LEE & I) AND THE CREW WALKED ALONG THE ROCK WALL, NEAR THE LOG PILE AND IN THE VICINITY OF THE LOG PILE. WE DID TAKING BLIND SCOOPS IN THE CLOUDED WATER COMING UP ABOUT EVERY 4TH OR 5TH SCOOP WITH A BLOB OF MOUSSE OR HEAVILY MOUSSE SATURATED DEAD ORGANIC MATTER (BLUE-GRAY OIL SHEEN & LIGHT BROWN MOUSSE - THE DEAD ORGANIC STUFF WITHOUT THICK MOUSSE IS BLUE-GRAY AND ~~WREAKS~~ REEKS OF OIL). THE SMELL OF OIL FILLS THE AIR.

END OF REPORT

BLACK Lagoon WB-01A } A bit of Cleanup

ADF&G MULTI-ASSESSMENT DATA FORM

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

METHOD: Aerial (Ground) Boat

3 DATE: 6/19/90 15 HIGH TIDE TIMES: 1148 / 2324 21 TEAM RECORDER: Doug Hill

4 START TIME: 1345/1644 16 HIGH TIDE HTS: 9.2 / 13.5 22 OBSERVERS: Lee Glenn

5 STOP TIME: 1500/1715 17 LOW TIDE TIMES: 0526 / 1708 23 AGENCY: ADF&G

6 SEGMENT #: WB-01A 18 LOW TIDE HTS: -0.4 / 13.3 24 PHOTOS TAKEN: (Y) N

7 STATION #: _____ 19 TIDE HT AT SURVEY: _____ Roll #: 9000H/SH Frame: 12

8 K-UNIT: _____ Ebb Slack Flood Slack 25 VIDEO TAKEN: (Y) N TAPE#: 90LAG023H

9 STAT AREA: _____ 20 USCG QUAD: Seldovia A-5 Start: 4818 End: 4858

10 LAT: 59 13 51 11 LONG: 151 31 5 26 SAMPLES TAKEN? Y (N) Number

12 SOURCE: Map Loran Oil _____

13 LOCATION: Windy Bay, BLACK Lagoon Sediment _____

14 DESCRIPTION: _____ Biological _____

Water _____

EXTENT OF OIL

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

30 OVERALL OIL IMPACT: N VL L (M) H

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

32 OILED DEBRIS? (Y) N

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

34 WAVE EXPOSURE: High (Moderate) Low

35 SUBSTRATE TYPE: Bedrock _____ Boulder _____ Cobble _____

Gravel 70 Sand 10 Mud/silt 15

36 CATALOGED ANAD. FISH SREAM? (Y) N

37 CATALOG #: 242-32-10155

38 STREAM NAME: BLACK Lagoon

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: Tide Flats, WB-02

43 ANADROMOUS FISH PRESENT? Y ? N

44 ANADROMOUS FISH OBSERVATION

Species	Aerial	Ground

ACE 10459929 +/S

1345hrs - 1500hrs

COMMENTS: Little work has been done here this - None has occurred in the lagoon. Steve Ferguson (ADEC) + John Cannechile (Exxon) picked up a bit of oil along the rock wall on the SW shore of the lagoon - they did this prior to recieving a work order because they felt it ought to be picked up ~ Good Job guys. The work accomplished then + today is hardly noticeable as mousse is still visible along the rock wall and the heavily oiled log jam area still

45 PHOTOLOG

FRAME(S)	DESCRIPTION
12	Pom Pom Lodged in bottom of Lagoon, And get "another" fugitive Pom

46 OIL DISTRIBUTION DIAGRAM BLACK LAGOON

Comments Cont'd.

Still harbors all the oil we've seen earlier this year. Apparently all the crew did not know the oil existed at the log jam (the oil in the water on the bottom of the lagoon).

The water level is up to the tops of the hip waders, along the rock face, ~~has risen~~ the level has risen substantially since a week ago. It will be tough carry stuff out of here. Clara Crosby (ADEC), John Dean (Exxon), and Jerry Scholtz (USCG) arrived while we were on beach. John Dean has hip waders so we show him the oil in the water. Sheen arises from the sediment below the water's surface as we walked along the rock wall and in the log jam area (sw corner of lagoon). John says they'll have a crew over to work on removing lagoon oil.

1646 ⇒ 1715 hrs ⇒ Crew of 4 plus Mike Revis (VECO supervisor) picking up oil from along the SW shore (rock wall and log pile area). Lee + I showed the crew the location of the submerged oil. Oil sheen covers the water in all areas where we (Lee + I) + the crew walked — along the rock wall, near the log pile and in the vicinity of the log pile. We dig taking blind scoops in the clouded water — coming up about every 4th or 5th scoop with a blob of mousse or heavily mousse saturated dead organic matter (Blue-gray oil sheen + light brown mousse — the Dead Organic stuff without thick mousse is blue-gray and wreaks of oil). The smell of oil fills the air.

~~After talking to~~

= Sample taken
= Photo frame # and shot direction.

ACE 10459930

ACE 10459931 -15

BLACK Lagoon
WB-01A

A bit of Cleanup monitoring

ADF&G MULTI-ASSESSMENT DATA FORM

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

OK.

METHOD: Aerial (Ground) Boat

3 DATE: 6/19/90
4 START TIME: 1345/1644
5 STOP TIME: 1500/1715
6 SEGMENT #: WB-01A
7 STATION #:
8 K-UNIT:
9 STAT AREA:
10 LAT: 59 13 51
11 LONG: 151 31 5
12 SOURCE: Map Loran
13 LOCATION: Windy BAY, BLACK Lagoon
14 DESCRIPTION:

15 HIGH TIDE TIMES: 1148 / 2324
16 HIGH TIDE HTS: 9.2 / 13.5
17 LOW TIDE TIMES: 0526 / 1708
18 LOW TIDE HTS: -0.4 / 13.3
19 TIDE HT AT SURVEY:
Ebb Slack Flood Slack
20 USCG QUAD: Seldovia A-5

21 TEAM RECORDER: Doug Hill
22 OBSERVERS: Lee Glenn
23 AGENCY: ADF&G
24 PHOTOS TAKEN: (Y) N
Roll #: 9000HISH Frame: 12
25 VIDEO TAKEN: (Y) N TAPE#: 90LAG034
Start: 4818 End: 4858
26 SAMPLES TAKEN? Y (N) Number
Oil
Sediment
Biological
Water

EXTENT OF OIL

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

30 OVERALL OIL IMPACT: N VL L (M) H
31 OIL TYPE: Pooled (Mousse) Tar (Asphalt) (Sticky) (Sheen)
32 OILED DEBRIS? (Y) N MS TP AP SOL ST HOR MOR
33 SHORELINE TYPE: Headland Low-lying Rocks (Beach) Cove (Lagoon) Marsh
34 WAVE EXPOSURE: High (Moderate) Low
35 SUBSTRATE TYPE: Bedrock Boulder Cobble
Gravel 70 Sand 10 Mud/silt 15

36 CATALOGED ANAD. FISH STREAM? (Y) N
37 CATALOG #: 242-32-10155
38 STREAM NAME: BLACK Lagoon
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: Tide Flats, WB-02
43 ANADROMOUS FISH PRESENT? Y ? N

44 ANADROMOUS FISH OBSERVATION

Species	Aerial	Ground

ACE 10459932 +/S

1345hrs - 1500hrs

COMMENTS: Little work has been done here this - None has occurred in the lagoon. Steve Ferguson (ADEC) + John Cannechile (Exxon) picked up a bit of oil along the rock wall on the SW shore of the lagoon - they did this prior to recieving a work order because they felt it ought to be picked up ~ Good Job guys. the work ~~done~~ accomplished then + ~~today~~ is hardly noticeable as mousse is still visible along the rock wall and the heavily oiled log jam area still

48 PHOTOLOG

FRAME(S)	DESCRIPTION
12	Barn Boom lodged in bottom of Lagoon, And yet "another" fugitive B

48 OIL DISTRIBUTION DIAGRAM BLACK LAGOON

Comments Cont'd.

Still harbors all the oil we've seen earlier this year. Apparently all the crew did not know the oil existed at the log jam (the oil is in the water on the bottom of the lagoon).

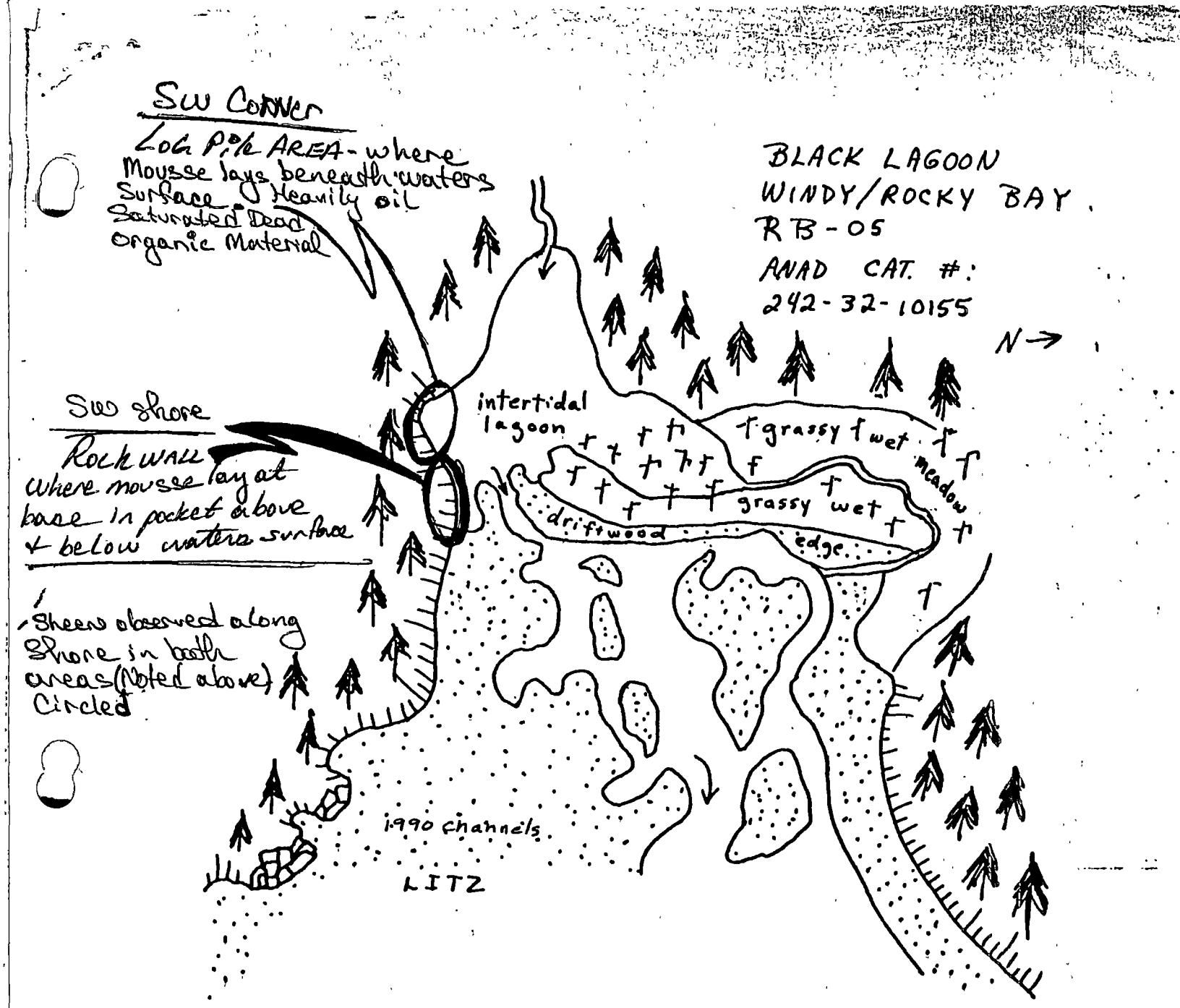
The water level is up to the tops of the hip waders, along the rock face, ~~has risen~~ the level has risen substantially since a week ago. It will be tough carry stuff out of here. Clara Crosby (ADEC), John Dean (Exxon), and Jerry Scholtz (USCG) arrived while we were on beach. John Dean has hip waders so we show him the oil in the water. Sheen arises from the sediment below the water's surface as we walked along the rock wall and in the log jam area (corner of lagoon). John says they'll have a crew over to work on removing lagoon oil.

1646 ⇒ 1715 hrs ⇒ Crew of 4 plus Mike Revis (VECO supervisor) picking up oil from along the SW shore (rock wall and log pile area). Lee + I showed the crew the location of the submerged oil. Oil sheen covers the water in all areas where we (Lee + I) + the crew walked — along the rock wall, near the log pile and in the vicinity of the log pile. We dig taking blind scoops in the clouded water --- coming up about every 4th or 5th scoop with a blob of mousse or heavily mousse saturated dead organic matter (Blue-gray oil sheen + light brown mousse --- the Dead Organic stuff without thick mousse is blue-gray and wreaks of oil). The smell of oil fills the air.

~~After talking to~~

= Sample taken
= Photo frame # and shot direction.

ACE 10459933



ACE 10459934 - 15

FIELD SHORELINE COMMENT SHEET ASAP

SEGMENT AS / WB-01 SUBDIVISION: A SITE: 01 DATE 06 Aug 1990

SCG
NAME AEC Vandepols SIGNATURE AEC Vandepols

☐ YES ☒ NO PRIORITY SITE FOR REASSESSMENT IN 1991
REASON:
After crew picks up the AP that is present, no more work or reassessment required.

ADEC
NAME CLARA S. Crosby SIGNATURE Clara S. Crosby -

☒ YES ☐ NO PRIORITY SITE FOR REASSESSMENT IN 1991
REASON: Anadromous stream - ? flat Suggest a thorough reassessment in '91. Crew currently working in small bight to South -

The lagoon was not surveyed: MS (thick) was reported in the bottom of lagoon - (Ref. Lee Glenn ADF&G).

LAND MANAGER
NAME PATRICK NORMAN SIGNATURE Patrick Norman

☒ YES ☐ NO PRIORITY SITE FOR REASSESSMENT IN 1991
REASON: some subsurface mousse was found on the right ~~hand~~ side of the cove, more may be exposed over the winter.

EXXON
NAME JON CZARNECKI SIGNATURE Jon Czarnecki

☐ YES ☒ NO PRIORITY SITE FOR REASSESSMENT IN 1991
REASON:
The beach looked good Very Light Sheen. No Reason TO Re assess This . The Reds ARE IN The TWO West STREAMS NOTHING ON The one here yet.

ACE 10459935 +/S
ACE 1941201 +/S

REVISION NO. 7/26/90

ASAP SHORELINE OILING SUMMARY

TEAM NO 04 EXXON Jon Czarnecki SEGMENT AS/ WB — 01
OG Rich Marty ~~USCG~~ USCG AEC Vandepeis SUBDIVISION A
ADEC Clara Crosby LAND REP Pat Norman (PGr) TOTAL NO. SITES 1
DATE 06 / Aug / 90 TIME 18 :45 to 19 :00 TIDE LEVEL to
TOTAL EST LENGTH OF SHORELINE SURVEYED: 450 m
SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WEATHER: ☐ Sun ☒ Clouds ☐ Fog ☒ Rain ☐ Snow
OIL CATEGORY LENGTH: W — m M 90 m N 60 m VL 300 m NO — m US — m

SURFACE OIL

CHARACTER	SITE 1 DISTRIBUTION /C	/B	/P	/S	SITE 1 OILED ZONES SU	UI	MI	LI	SITE 2 DISTRIBUTION /C	/B	/P	/S	SITE 2 OILED ZONES SU	UI	MI	LI	SITE 3 DISTRIBUTION /C	/B	/P	/S	SITE 3 OILED ZONES SU	UI	MI	LI
ASPHALT	—	—	I	I	–	X I	I	—																
S.O.R.	—	—	X	—	—	X	X	—																
POOLED																								
COVER																								
COAT																								
STAIN	–	X	—	—	—	X	—	—																
MOUSSE	—	—	X	X	–	X	X	—																
PATTIES/T.B.																								
FILM																								
NO OIL					X	—		X																
EST. SITE LENGTH					450m																			

SUBSURFACE OIL

SITE NO.	PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER OP	OR	OF	NO	OILED INTERVAL (CM-CM)	CLEAN BELOW (Y/N)	PIT ZONE SU	UI	MI	LI	SURFACE-SUBSURFACE SEDIMENTS
	NO	PITS					-						
							-						
							-						
							-						
							-						
							-						
							-						
							-						
							-						
							-						
							-						
							-						

Photographs: ASAP-04-02
Roll No. — CC
Frames 4-6 (pan)

COMMENTS
It takes a concerted effort to find the oil on this beach

ACE 10459936

REVISION NO. 7/27/00

ACE 1941202

SKETCH MAP

SEGMENT ST/ ASAP WB-01

SUBDIVISION A

DATE 06 / Aug 90

CHECKLIST

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

LEGEND

1 △ Pit - No Subsurface Oil

2 ▲ Pit - Subsurface Oil

CT/C Continuous Distribution

CT/B Broken Distribution

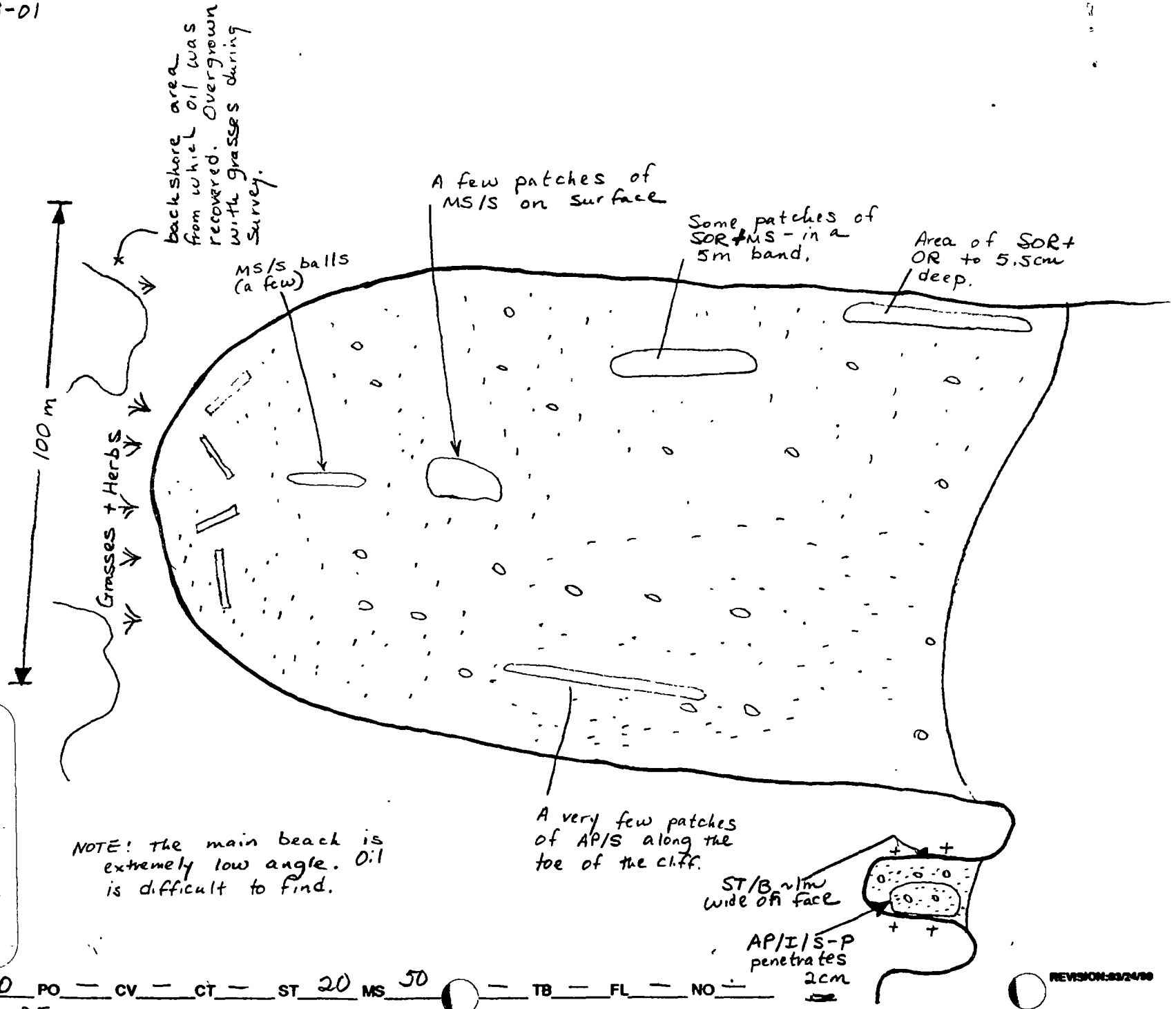
CT/P Patchy Distribution

CT/S Splashed Distribution

lll Oiled Vegetation

1 ●→ Photo location, direction, and number

TL = 125m



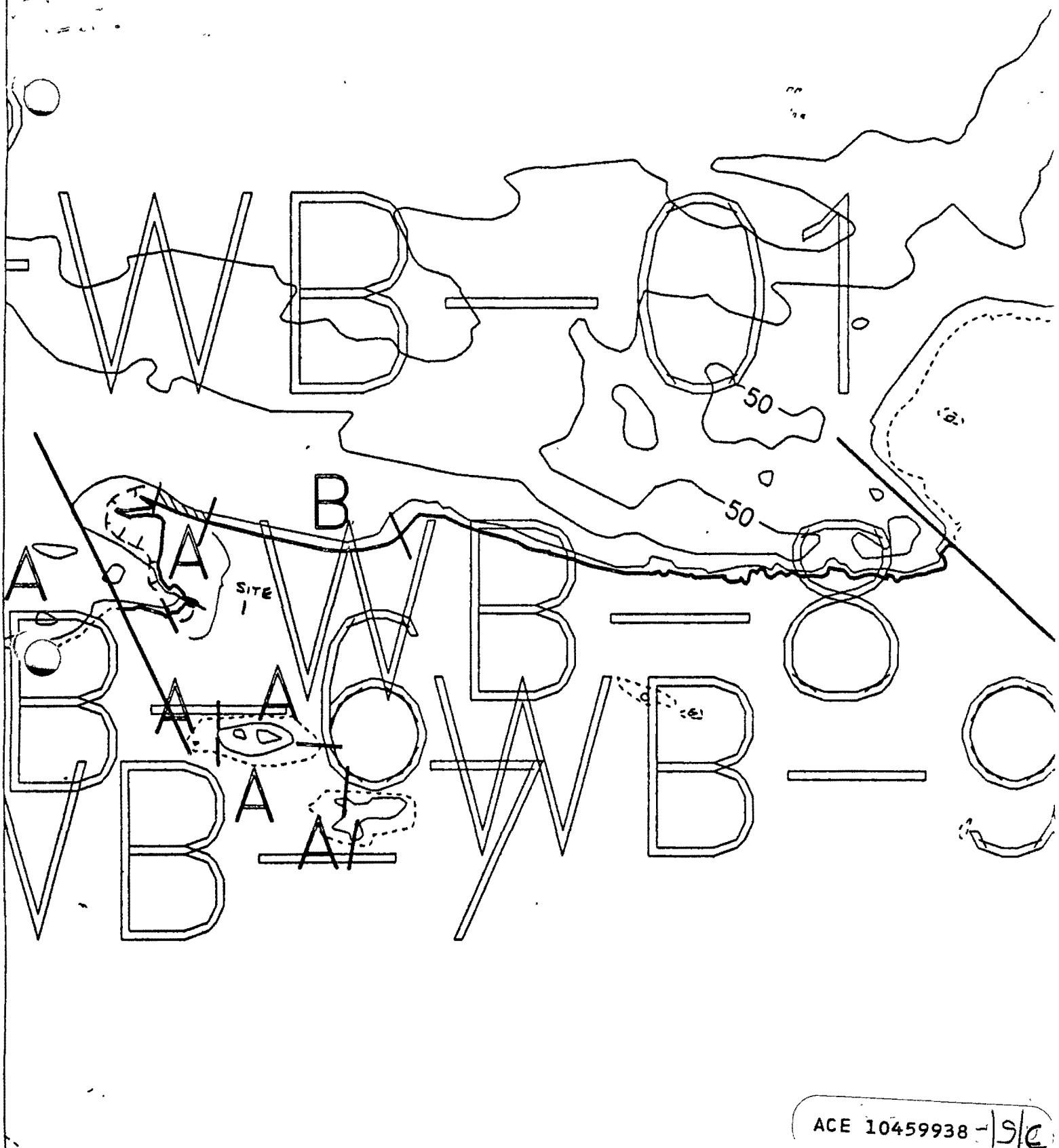
NOTE! The main beach is extremely low angle. 0:1 is difficult to find.

Oil Character Length (m): AP 20 PO — CV — CT — ST 20 MS 50 — TB — FL — NO —
SOR 25

REVISION:03/24/90

ACE 1941203

ACE 10459937



ACE 10459938 - 1S/C

SEGMENT WB-1

Segment Location Map

Map Key: KENWB-1

July 18, 1990

1:8890

METERS

0 226 m 452

ACE 1941204 - 1S

MAYSAP - Windy BAY
BLACK Lagoon

ADF&G MULTI-ASSESSMENT DATA FORM

ANAO

1) SURVEY TYPE: (BS) SS

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

3) METHOD: Aerial (Ground) Boat

DNR 10/9/91

Duncan Fitzgerald log

4) DATE: 5/15/91

5) START TIME: 0925

6) STOP TIME: 1040

7) SEGMENT #: WB-01A

8) K-UNIT: _____

9) LAT: 59 13 61

10) LONG: 151 31 5

11) ASC #: 242-32-10155

12) STREAM NAME: BLACK Lagoon

13) LOCATION: KAOC, Windy BAY

14) WAVE EXPOSURE: High (Moderate) Low

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

16) HIGH TIDE TIME: 0341/1649

17) HIGH TIDE HTS: 20.7/18.7

18) LOW TIDE TIMES: 0935/2140

19) LOW TIDE HTS: -4.7/1.5

20) TIDE HT AT SURVEY: -3.0/1.5
Ebb Slack Flood Slack

21) USCG QUAD: Seldovia A-5

22) TEAM RECORDER: Doug Hill (ADF&G)

23) OBSERVERS: Lee Glenn (ADF&G)

24) AGENCY: _____

25) PHOTOS TAKEN: (Y) N
ROLL #: 90DDH002H FRAMES: 26,27,28

26) VIDEO TAKEN: Y N
TAPE # _____
START: _____ STOP: _____

27) SAMPLES TAKEN? Y (N)
SAMPLE I.D. _____

28) EXTENT OF OIL

	LENGTH m	WIDTH m	M2	%	THICK cm	PEN cm	OIL TYPE
SITE 1	6	6	36	?	7/CM	?	MS
SITE 2	2	1	2	30	<7.5	2	AP
SITE 3	3	2	6	80	<5	—	AP
SITE 4	4	1	4	70	—	—	CT/ST
SITE 5	200	1/2	100	50	—	—	CT/CY/ST

29) OVERALL OIL IMPACT:

H = >6m band with ≥50% oil coverage

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

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

VL = ≤10% oil coverage regardless of band width

N = No oil observed

30) OIL IN STREAMBED: Y (N)

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

32) SUBSTRATE TYPE (PERCENT):

Bedrock ____ Boulder ____ Gravel 70% Sand 10% Cobble ~~20%~~ 5 Mud/Silt 15

33) ANADROMOUS FISH PRESENT: Y (N)

34) WILDLIFE OBSERVATION

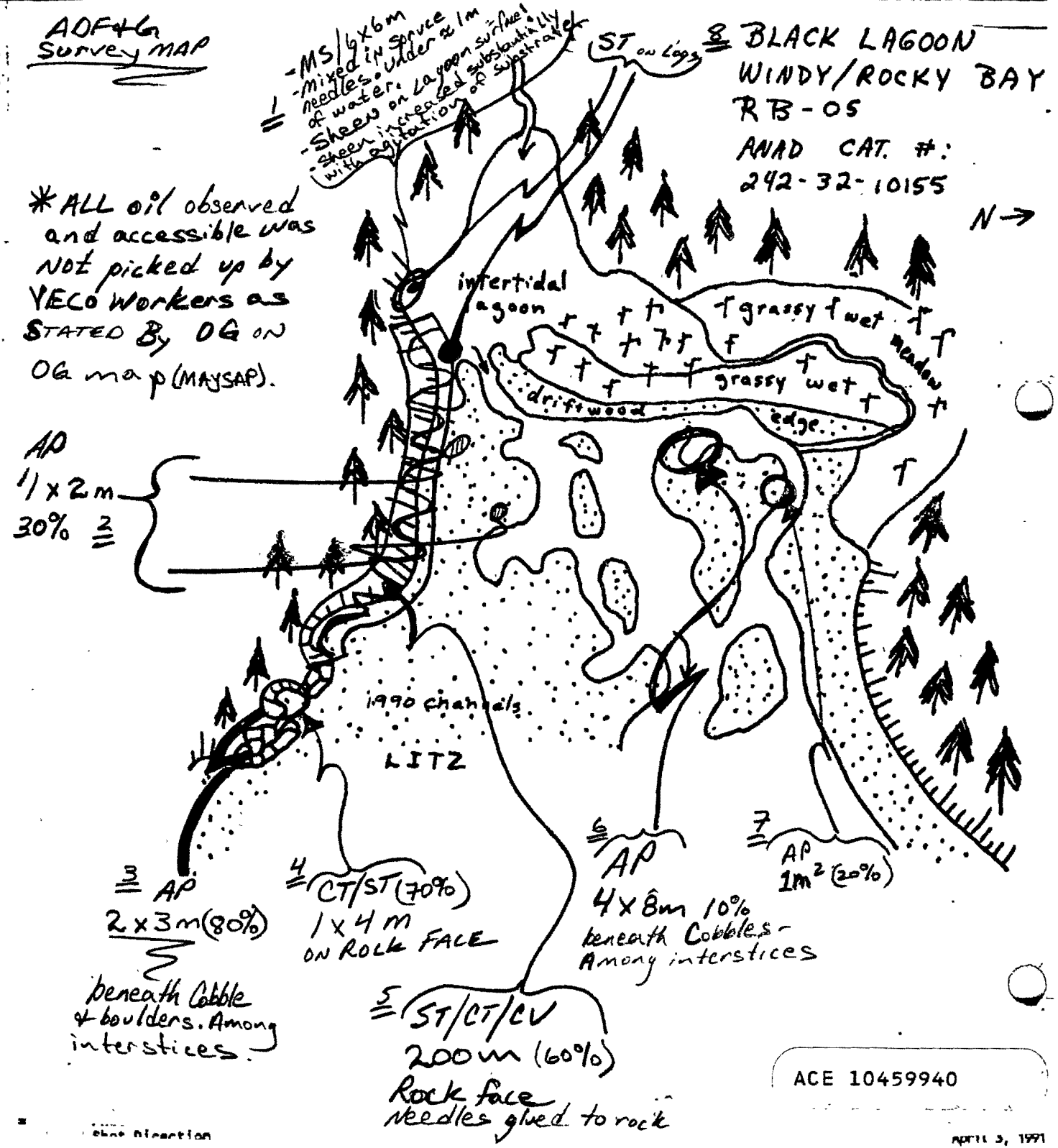
Species	Number

35) COMMENTS: All oil observed and accessible was not picked up by VECO workers as suggested by the OG on the OG map. AP (or SOR as the OG so fondly calls everything) remains where the VECO workers picked oil up. The VECO workers do not usually have enough time to pick up all retrievable oil - their schedule is based on the rate at which the Exxon Rep. pushes them all which is usually quite fast since the Exxon Rep is most concerned about getting back to town to do paperwork---to skew the real world with paper. Mousse remains on the bottom of the Lagoon. Sheen surfaced with little agitation of the [illegible] matter on the Lagoon bottom (site 2)

ACE 10459939 +S/D

FRAME(S)	DESCRIPTION
	See Photo location map from MAYSAP survey
	GARY Shigenaka (NOAA) took photos Roll 6-15, Frames 12-18
26	Oil Sheen on lagoon Survey - from mousse saturated Substrate
27	" " " " " " " " " "
28	Lee Glenn showing the OG+Land Manager the Mousse we pulled out of the lagoon - beneath 1m of water

AOF+G Survey MAP



ACE 10459940

2 = shot direction

APRIL 3, 1991

WB-1A CONT'D

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: _____ 16) HIGH TIDE TIME: _____ 22) TEAM RECORDER: _____

5) START TIME: _____ 17) HIGH TIDE HTS: _____ 23) OBSERVERS: _____

6) STOP TIME: _____ 18) LOW TIDE TIMES: _____ 24) AGENCY: _____

7) SEGMENT #: _____ 19) LOW TIDE HTS: _____ 25) PHOTOS TAKEN: Y N

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

9) LAT: _____ Ebb Slack Flood Slack 26) VIDEO TAKEN: Y N

10) LONG: _____ 21) USCG QUAD: _____ TAPE # _____

11) ASC #: _____ START: _____ STOP: _____

12) STREAM NAME: _____ 27) SAMPLES TAKEN? Y N

13) LOCATION: _____ 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 # 6	8	4	32	10	<4	<1	AP
SITE # 7	1	1	1	20	<4	<1	AP
SITE # 8	1	1	1	80	—	—	ST
SITE #							
SITE #							

29) OVERALL OIL IMPACT:

H = >6m band with ≥50% oil coverage

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

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

VL = ≤10% oil coverage regardless of band width

N = No oil observed

30) OIL IN STREAMBED: (Y) N

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

32) SUBSTRATE TYPE (PERCENT):

Bedrock ____ Boulder ____ Gravel ____ Sand ____ Cobble ____ Mud/Silt ____

33) ANADROMOUS FISH PRESENT: Y (N)

34) WILDLIFE OBSERVATION

Species	Number

35) COMMENTS: _____

ACE 10459941 -15

EXXON MAYSAP

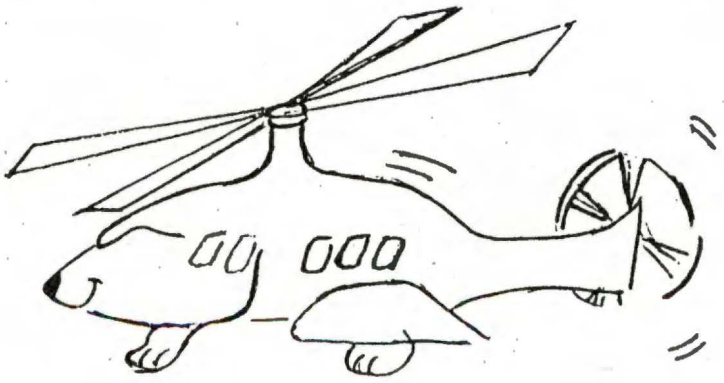
May Shoreline Assessment Program

1991

SEGMENT: WB-01

SUBDIVISION: A

DATE: 15 MAY 1991



Team # 6 Pumas

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 6 Helo SEGMENT WB-001 SUBDIVISION A DATE 5/15/91

ADEC
NAME ~~Doug Hill~~ Lee Glenn A.O.F.&G SIGNATURE Leland P. Glenn

☐ NTR ☒ Treatment Recommended

A Thick layer of brown mousse mixed with organic debris is submerged on the southeast side of the lagoon and is about 6m wide by 9m long. This oil should be removed from the lagoon which is habitat for migrating pink salmon. Other scattered oil is submerged and creates a sheen on the surface when wading through it, however the character of this oil/debris mixture would be difficult to recover.

I concur with comments made by NOAA on oil located in the Tide flats, along border on the north beach fringe and the south rock face area.

EXXON
NAME Rex Coulter SIGNATURE Rex R. Coulter

☑ NTR LOCATION E IS MAIN AREA OF CONCERN IN THIS SUBDIVISION. INTRUSION INTO THE AREA (LOC. E) TO RECOVER THE SOR INCORPORATED INTO THE DECAYING ORGANIC MATTER WOULD PROVIDE NO MAJOR BENEFIT. RECOVERY IN THE LAGOON AREA WOULD BE DIFFICULT AND SHOULD NOT POSE ANY THREAT TO THE ENVIRONMENT. DISSAPATION AND DEGRADATION SHOULD BE LEFT TO NATURAL PROCESSES. THE HEALTHY AND ABUNDANT BIOTA AT THIS SUBDIVISION IS QUITE IMPRESSIVE.

LANDMANAGER
NAME Seraphim Megranick OF Port Graham SIGNATURE Seraphim Megranick

☐ NTR ☒ Treatment Recommended on Back of Black Lagoon unknown Manual Pick up Stains on Banks and sor patches on The one band 6x6 meters
Around The Corner in The cove 1x4 Band Vertical Face
2x8 meters Sor out by The Entrance

ACE 10459943

USCG/NOAA
NAME Chief Jensen / Gary Shigenaka SIGNATURE Robert D. Jensen Gary Shigenaka

☐ (NTR) I would recommend "NTR" on this segment. It should be noted that there is some SOR (2x6m x 8cm thick) at the end of the Lagoon. This can be found about one meter under the water. Lee Glenn ADF&G was concerned about it. It is accessible with workers wearing hip boots & looks to be 3 hours work. However, I would guess that due to the degraded condition of this SOR it probably would not be a significant threat to the environment.

SURVEYED PORTION OF THE SEGMENT WAS A BROAD, LOW-SLOPING COBBLE BEACH WITH STEEP ROCK FACES, COMPRISING NORTHEAST & SOUTH PERIMETERS, AND DEAD TREES BORDERING TO THE NORTHWEST. A STREAM BISECTED THE BEACH, AND THIS STREAM FLOWED FROM A TIDALLY-INFLUENCED LAGOON TO THE WEST. A LARGE MUSSEL BED COVERED MUCH OF THE MID- TO LOWER INTERTIDAL PORTION OF THE BEACH, AND THE MYTILUS WERE IN THE PEBBLE SUBSTRATE. LITTORINA SITKANA WERE ALSO ABUNDANT IN ROCKIER SUBSTRATE AROUND THE PERIMETER. STAIN AND COAT WERE OBSERVED ON THE ROCK FACES TO THE SOUTH OF THE TIDAL FLAT. AT THE SOUTHEAST END OF THE SURVEYED PORTION, SOR WAS FOUND IN AND REMOVED FROM ANGULAR BOULDER-COBBLE SUBSTRATE IN THE UITZ. AN ISOLATED PATCH OF SOR WAS RECOVERED FROM SIMILAR SUBSTRATE ON THE NORTH SIDE OF THE BEACH. ON THE BEACH OR TIDAL FLAT ITSELF, COHESIVE LUMPS OF SOR WERE FOUND AT ISOLATED LOCATIONS IN THE MID TO UPPER ITZ—THESE WERE ALSO RECOVERED. A LARGER BAND OF SOR WAS DISCOVERED ON THE NORTHWEST SIDE OF THE STREAM IN THE UITZ, AND TO THE EXTENT POSSIBLE WAS RECOVERED. THE LAGOON, ABOVE THE BEACH AT A SEEMINGLY SUPRA INTERTIDAL LEVEL, HAD OBVIOUSLY BEEN OILED (COAT, BATHTUB RING STILL VISIBLE ON SOUTH WALL BORDERING LAGOON) BUT NO OTHER OILING WAS EASILY ACCESSIBLE. ADF&G REPS HILL AND GLENN DID VENTURE TO THE SOUTHWEST CORNER OF THE LAGOON (IN HIP WADERS) AND FOUND RELATIVELY LARGER AMOUNTS OF SOR IN A VEGETATIVE MATRIX, i.e. SPRUCE NEEDLES.

MAYSAP SHORELINE OILING SUMMARY

PAGE 1 OF 1

TEAM NO. 6-Helo

SEGMENT WB-01

OG D. FitzGerald BIO T. Schroeder

SUBDIVISION A

ADEC Lee Glen or ADFG LANDMANAGER S. McCranick for Port Graham

DATE 15 / May / 91

EXXON R. Coulter USCG/NOAA Chief Jensen / G. Shigenaka

TIME 9 : 25 to 10 : 40 TIDE LEVEL -3.0 ft. to 1.5 ft. ENERGY LEVEL: ☐ H ☐ M ☒ L

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

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

EST. OIL CATEGORY LENGTH: W ____ m M ____ m N ____ m VL 22 m NO 393 m US — m

LOC	SURFACE OIL CHARACTER										SURFACE SEDIMENT	SHORE SLOPE	AREA		ZONE				NOTES
	AP	MS	TB	SOR	CV	CT	ST	FL	DB	NO	TYPE	V H M L	WIDTH m	LENGTH m	S	UI	MI	LI	
A-1						T	T				BR	M	1	4	X				ON BR FACE SUTZ
2				T							B-C-BR	M	2	3		X			I/U Boulder/cobbles
B				T							C-B-S	L	1	1			X		I/U around C+B
C-1				T							B-C-G-S	L	1	2			X		
2				T							B-C-G-S	L	1	1			X		
D				T							B-C-G-S	L	4	8			X		
E				T							S-M	L	6	6					→UNDERWATER MS mixed w/ orig. material

Light ↓

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

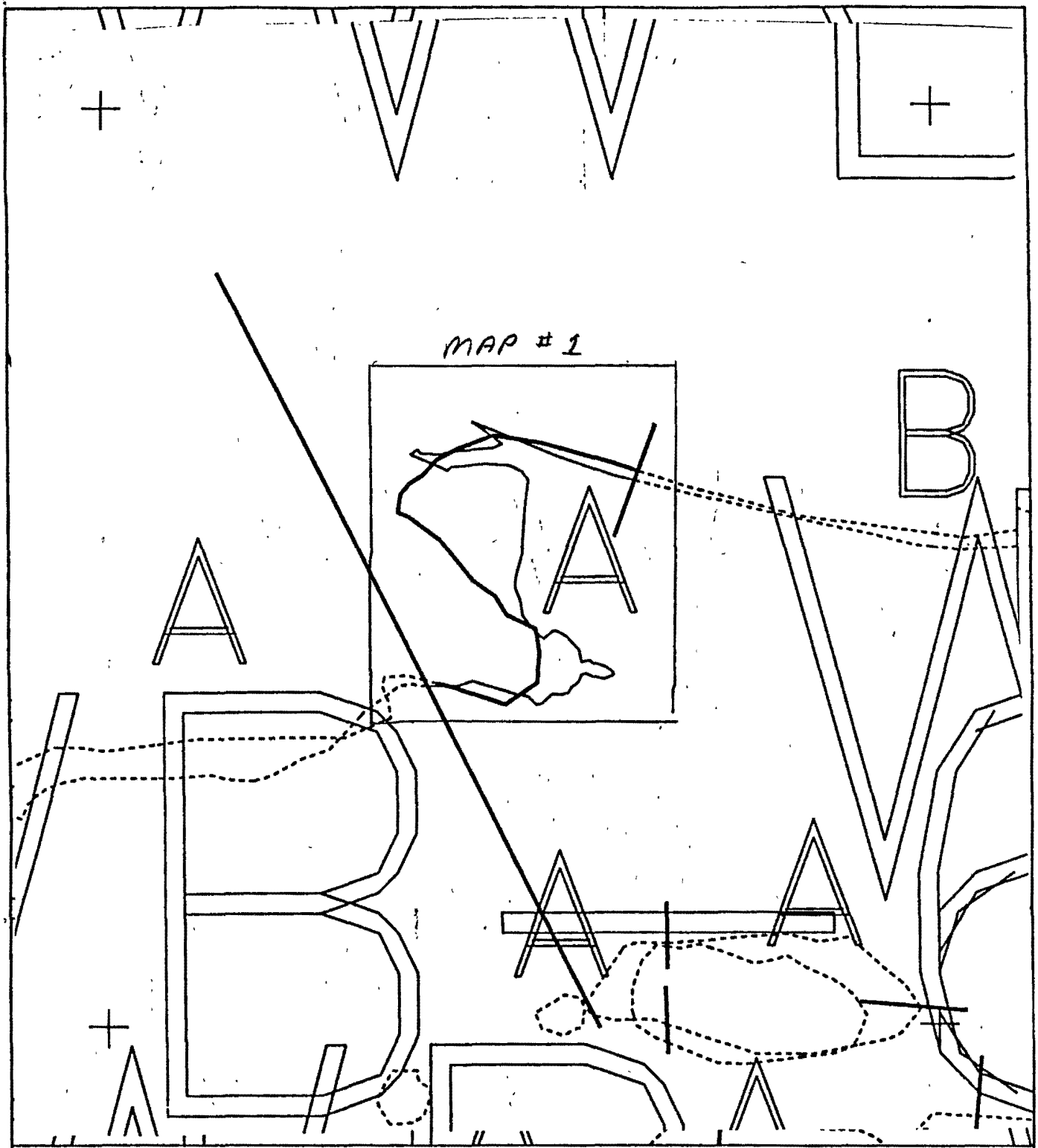
SLOPE: V = VERTICAL; H = HIGH ANGLE; M = MEDIUM ANGLE; L = LOW ANGLE PHOTO ROLL # MAYSAP- 6 - 15 FRAMES 12-18

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

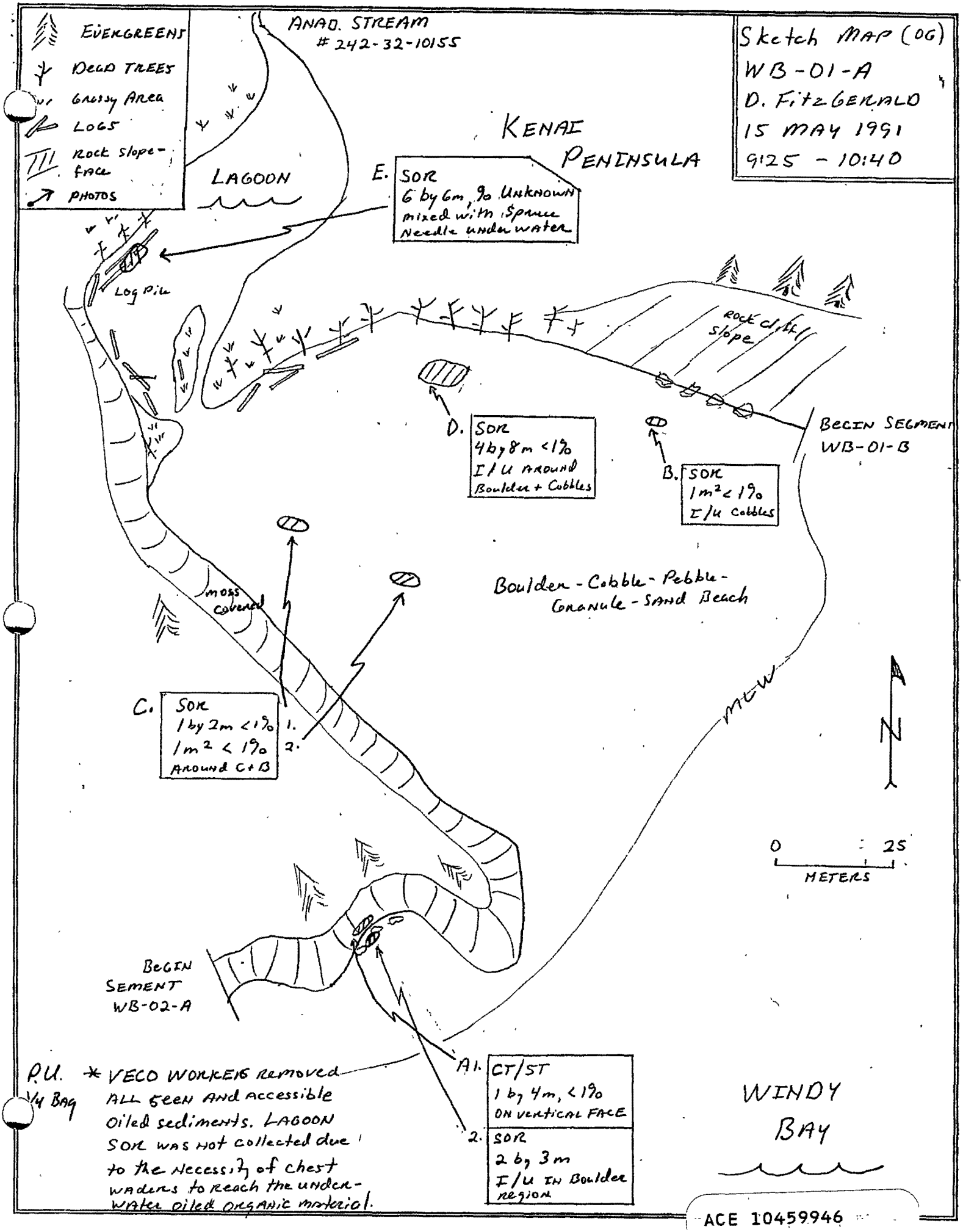
SHEEN COLOR: B = BROWN; R = RAINBOW; S = SILVER; N = NONE

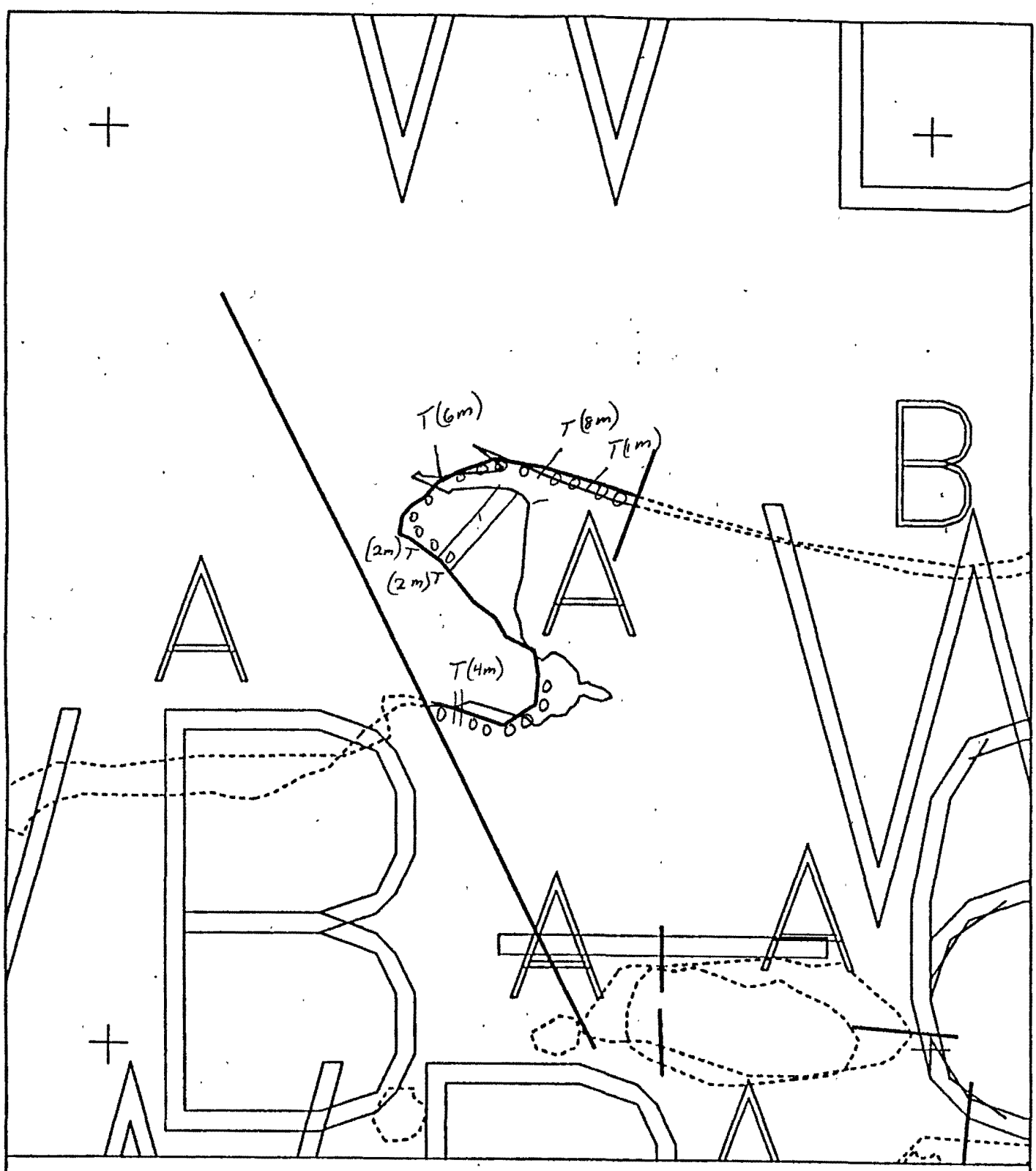
OG COMMENTS: This segment is located along the north shore of Windy Bay in a small embayment with ANAD. STREAM # 242-32-10155. The embayment contains a small lagoon behind a beach and drowned forest complex. Most of the embayment is intertidal consisting of boulders + cobbles with granules and sand. The oiling is found in three major areas: 1) in a small pocket beach at the southwest end of the segment consisting of CT-ST and SOR in a boulder region, 2) within the intertidal portion of the embayment where small SOR areas are found, and 3) in the lagoon where SOR occurs a meter below the water surface. VECO workers collected all observed and accessible oiled sediment, totalling 1/4 bag.

ACE 10459944



ACE 10459945


EVERGREENS
DEAD TREES
GRASSY AREA
LOGS
ROCK SLOPE-FACE
PHOTOS
ANAD. STREAM
242-32-10155
Sketch MAP (OG)
WB-01-A
D. FitzGERALD
15 MAY 1991
9125 - 10:40
KENAI PENINSULA
LAGOON
E. SOR
6 by 6m, 9% UNKNOWN
mixed with Spruce
Needle under WATER
Log Pile
ROCK CLIFF/SLOPE
D. SOR
4 by 8m <1%
I/U AROUND
Boulder + Cobbles
B. SOR
1m² < 1%
I/U Cobbles
BEGIN SEGMENT
WB-01-B
moss covered
Boulder - Cobble - Pebble -
Granule - Sand Beach
C. SOR
1 by 2m <1% 1.
1m² < 1% 2.
AROUND C+B
MLLW
N
0 25
METERS
BEGIN
SEMENT
WB-02-A
A1. CT/ST
1 by 4m, <1%
ON VERTICAL FACE
2. SOR
2 by 3m
I/U IN Boulder
region
P.U. 1/4 Bag
* VECO WORKERS removed ALL SEEN AND accessible Oiled sediments. LAGOON SOR WAS NOT collected due to the Necessity of chest waders to reach the UNDER-WATER Oiled ORGANIC material.
WINDY BAY
ACE 10459946



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

WB001 A

ADEC Subsegment Length: 451m

METERS

0 100 200

AK State Plane Zone 4
NAD83

EXXON

Subdivision Field Map

Map Key: KENWB001A

Name: _____

Date: _____

Date Entered:

ACE 10459947

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 6 | DATE 5/15/91
SEGMENT # WB-001 | TIDAL HEIGHT (Range) -3.0 to 0 ft
SUBDIVISION A | BIOLOGIST T.R. Schroeder
SEA STATE light chop | WIND SPEED/DIRECTION S.W. = 5-10 mph
PHOTOGRAPHS: ROLL # | FRAME #

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

(A) = Rock outcropping on the southern side of this beach segment contained a thriving community of littorine snails, barnacles and various types of algae. Several types of [illegible] red/brown algae, [illegible] and [illegible] completely covered the rocks. Sand fleas, hermit crabs and limpets were on or under every rock in the LITZ. A small patch of eel grass extended across the LITZ. SOR & CT/ST oil was not effecting these organisms.

(B+D) = Again a thick fucus kelp bed was located on the northern shoreline from a rock outcropping and extending easterly along the MITZ to the UITZ. Littorine snails and barnacles were very numerous.

The UITZ on this beach is exposed to strong surf action and the smaller gravel substrate is unstable and supports few organisms. Good mussel regrowth was occurring in the lower portion of the UITZ to the LITZ and was restabilizing some portions of the beach. This stream has always been a non-entity as far as salmon production is concerned. The stream behind the lagoon is basically sub-surface in the summer during most years. It has never been stocked from commercial fishing activities and it is questionable whether fish returning to this system spawn successfully and produce their own progeny. Intertidal communities are lush and thriving and supporting large numbers of feeding shore birds. Remaining oil does not appear to be effecting these organisms.

WILDLIFE OBSERVATIONS
TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1 (Bald-Adult)	1	1 sculpin
Seabirds			1 snailfish
Waterfowl	1 widgeon	2	/
Gulls/Kittiwakes	1 gull	8	
Shorebirds	1 sandpipers	50	
Corvids			
Other Birds			

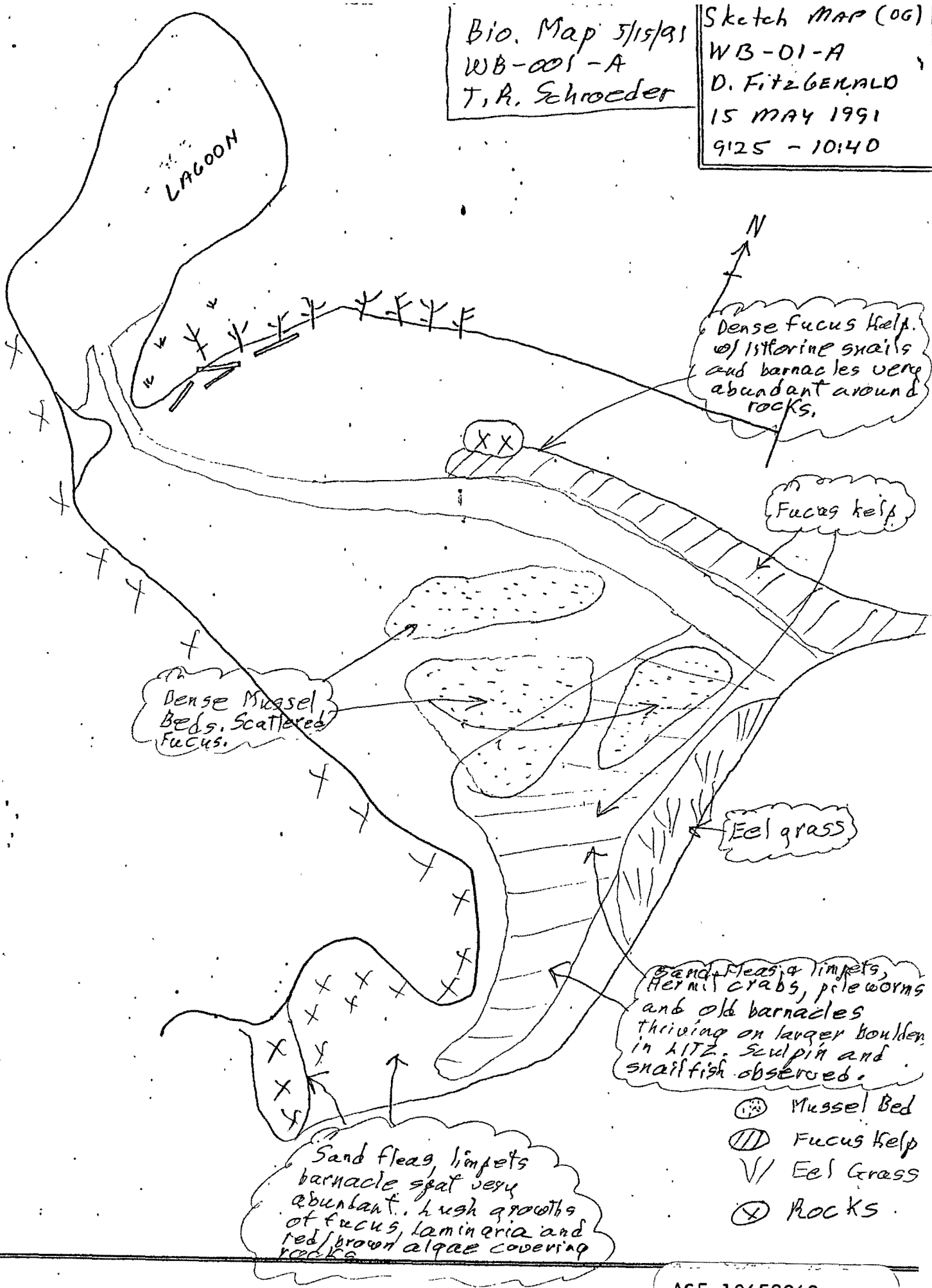
MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters			
Pinnipeds (specify)			
Whales (specify)			

ACE 10459948

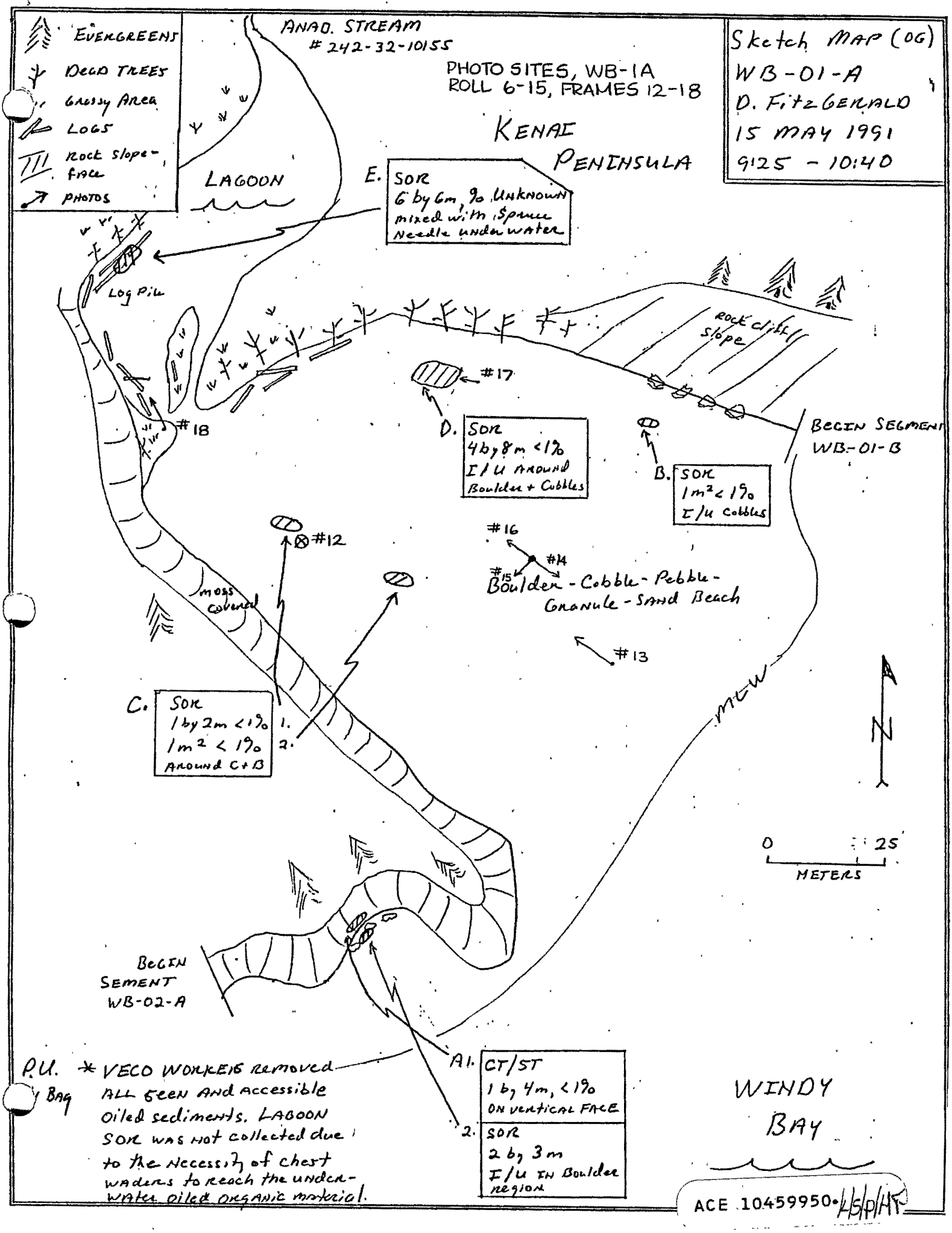
Shoreline subdivision map showing important biological features attached.

Bio. Map 5/15/91
WB-001-A
T. R. Schroeder

Sketch MAP (OG)
WB-01-A
D. FitzGERALD
15 MAY 1991
9125 - 10:40



ACE 10459949


Evergreens
Dead Trees
Grassy Area
Logs
Rock Slope - Face
Photos
Anad. Stream
242-32-10155
Photo Sites, WB-1A
Roll 6-15, Frames 12-18
Kenai Peninsula
Sketch Map (OG)
WB-01-A
D. FitzGerald
15 May 1991
9:25 - 10:40
Lagoon
E. SOR
6 by 6m, 9% Unknown mixed with Spruce Needle under water
Log Pile
Rock cliff/slope
#17
#18
D. SOR
4 by 8m <1%
I/U around Boulder + Cobbles
Begin Segment WB-01-B
B. SOR
1m² <1%
I/U Cobbles
#16
#14
#15
Boulder - Cobble - Pebble - Granule - Sand Beach
#12
moss covered
#13
C. SOR
1 by 2m <1% 1.
1m² <1% 2.
around C+B
MLW
N
0 25
Meters
Begin Segment WB-02-A
A1. CT/ST
1 by 4m, <1%
on vertical face
2. SOR
2 by 3m
I/U in Boulder region
Windy Bay
P.U. Bag
* VECO workers removed all seen and accessible oiled sediments. Lagoon SOR was not collected due to the necessity of chest waders to reach the underwater oiled organic material.
ACE 10459950 4/5/91/HT

MAYSAP - Windy BAY
BLACK Lagoon

ADF&G MULTI-ASSESSMENT DATA FORM

ANAO

1) SURVEY TYPE: (BS) SS
2) REGION: PWS (KP,CI) K,AP
3) METHOD: Aerial (Ground) Boat
4) DATE: 5/15/94
5) START TIME: 0925
6) STOP TIME: 1040
7) SEGMENT #: WB-01A
8) K-UNIT: _____
9) LAT: 59 13 51
10) LONG: 151 31 5
11) ASC #: 242-32-10155
12) STREAM NAME: BLACK Lagoon
13) LOCATION: KAGE, Windy BAY
14) WAVE EXPOSURE: High (Moderate) Low
15) SHORELINE TYPE: Headland (Low-lying Rocks) (Beach) Cove (Lagoon) Marsh
16) HIGH TIDE TIME: 0341/1649
17) HIGH TIDE HTS: 20.7/18.7
18) LOW TIDE TIMES: 0935/2140
19) LOW TIDE HTS: -4.7/1.5
20) TIDE HT AT SURVEY: -3.0/1.5
Ebb Slack Flood Slack
21) USCG QUAD: Seldovia A-5
22) TEAM RECORDER: Doug Hill (ADF&G) Duncan Fitzgerald (OGS)
23) OBSERVERS: Lee Glenn (ADF&G)
24) AGENCY: _____
25) PHOTOS TAKEN: (Y) N
ROLL #: 9088H002H FRAMES: 26,27,28
26) VIDEO TAKEN: Y N
TAPE # _____
START: _____ STOP: _____
27) SAMPLES TAKEN? Y (N)
SAMPLE I.D. _____

28) EXTENT OF OIL

	LENGTH m	WIDTH m	M2	%	THICK cm	PEN cm	OIL TYPE
SITE 1	6	6	36	?	?/CM	?	MS
SITE 2	2	1	2	30	<7.5	2	AP
SITE 3	3	2	6	80	<5	—	AP
SITE 4	4	1	4	70	—	—	CT/ST
SITE 5	200	1/2	100	50	—	—	CT/CY/ST

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

30) OIL IN STREAMBED: (Y) N
31) OIL ON BEACH ADJACENT TO MOUTH: (Y) N
32) SUBSTRATE TYPE (PERCENT):
Bedrock ____ Boulder ____ Gravel 70% Sand 10% Cobble 20% Mud/Silt ____

33) ANADROMOUS FISH PRESENT: Y (N)

34) WILDLIFE OBSERVATION

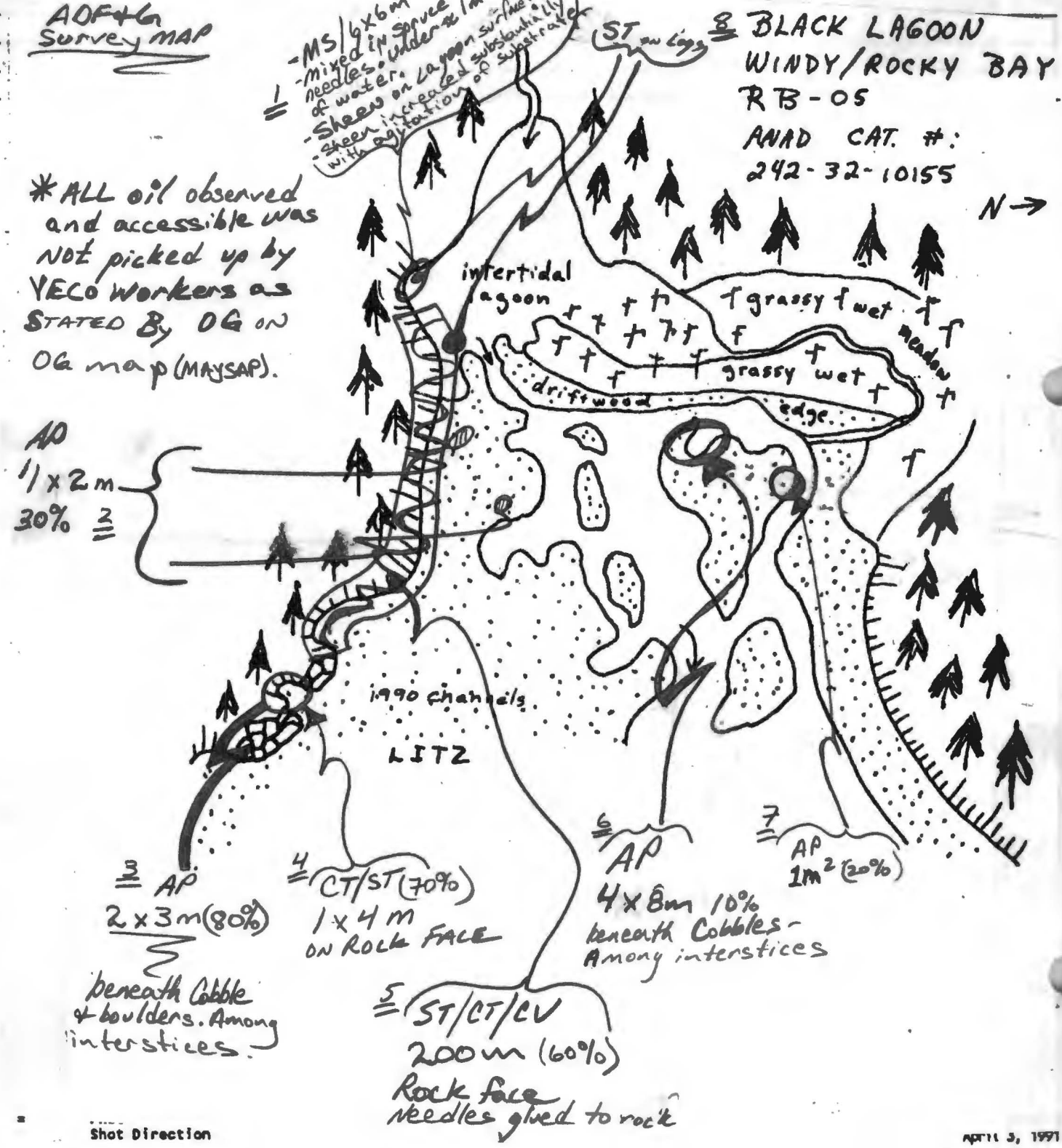
Species	Number

35) COMMENTS: All oil observed and accessible was not picked up by VECO workers as suggested by the OG on the OG map. AP (or SOR as the OG 'so fondly calls everything') remains where the VECO workers picked oil up - The VECO workers do not usually have enough time to pick up all retrievable oil - their schedule is based on the rate at which the Exxon Rep. pushes them. Which is usually quite fast since the Exxon Rep. is most concerned about getting back to town to do paperwork---to skew the real world with paper. Mousse remains on the bottom of the Lagoon 2. Sheen surfaced with little agitation of the Dead organic matter on the Lagoon bottom (site 2)

36) PHOTOLOG

FRAME(S)	DESCRIPTION
	See Photo location map from MAYSAP survey
	GARY Shigenaka (NOAA) took photos Roll 6-15, Frames 12-18
26	Oil Sheen on lagoon Survey - from Mousse saturated Substrate
27	" " " " " " " " " "
28	Lee Glenn showing the OG&E Land Manager the Mousse we pulled out of the lagoon - beneath 1m of water

AOF&G Survey MAP



▲ 2/ = ... Shot Direction

April 3, 1991

WB-1A CONT'D

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) START TIME: _____

6) STOP TIME: _____

7) SEGMENT #: _____

8) K-UNIT: _____

9) LAT: _____

10) LONG: _____

11) ASC #: _____

12) STREAM NAME: _____

13) LOCATION: _____

14) WAVE EXPOSURE: High Moderate Low

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

16) HIGH TIDE TIME: _____

17) HIGH TIDE HTS: _____

18) LOW TIDE TIMES: _____

19) LOW TIDE HTS: _____

20) TIDE HT AT SURVEY: _____
Ebb Slack Flood Slack

21) USCG QUAD: _____

22) TEAM RECORDER: _____

23) OBSERVERS: _____

24) AGENCY: _____

25) PHOTOS TAKEN: Y N
ROLL #: _____ FRAMES: _____

26) VIDEO TAKEN: Y N
TAPE # _____
START: _____ STOP: _____

27) SAMPLES TAKEN? Y N
SAMPLE I.D. _____

28) EXTENT OF OIL

	LENGTH m	WIDTH m	M2	%	THICK cm	PEN cm	OIL TYPE
SITE # 6	8	4	32	10	<4	<1	AP
SITE # 7	1	1	1	20	<4	<1	AP
SITE # 8	1	1	1	80	—	—	ST
SITE #							
SITE #							

29) OVERALL OIL IMPACT:

H = >6m band with ≥50% oil coverage

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

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

VL = ≤10% oil coverage regardless of band width

N = No oil observed

30) OIL IN STREAMBED: (Y) N

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

32) SUBSTRATE TYPE (PERCENT):

Bedrock ____ Boulder ____ Gravel ____ Sand ____ Cobble ____ Mud/Silt ____

33) ANADROMOUS FISH PRESENT: Y (N)

34) WILDLIFE OBSERVATION

Species	Number

35) COMMENTS: _____

Date: 5/15/91 No. 902

Title: WB001A

Segment No WB-1 Subdivision A
Date 5/15/91 Log Frame No 14
Photographer GARY SHIGENAKA
Location WINDY BAY
Comments VIEW FROM THE CENTRAL PART OF THE BROAD BEACH, FACING EAST.

Roll No MAYSAP-6-15 Neg. No 13
Control No 902 (Office Use Only)

Segment No WB-1 Subdivision A
Date 5/15/91 Log Frame No 12
Photographer GARY SHIGENAKA
Location WINDY BAY
Comments LARGE SOR PATTY FOUND ADJACENT TO HELO ON TIDAL FLAT OF WB-1A.

Roll No MAYSAP-6-15 Neg. No 11
Control No 902 (Office Use Only)

Segment No WB-1 Subdivision A
Date 5/15/91 Log Frame No 15
Photographer GARY SHIGENAKA
Location WINDY BAY
Comments SAME LOCATION AS #14, FACING SOUTH

Roll No MAYSAP-6-15 Neg. No 14
Control No 902 (Office Use Only)

Segment No WB-1 Subdivision A
Date 5/15/91 Log Frame No 13
Photographer GARY SHIGENAKA
Location WINDY BAY
Comments PARTIAL VIEW OF EXTENSIVE MUSSEL BED IN COBBLE-PEBBLE SUBSTRATE TYPICAL OF MID TO LOWER INTERTIDAL. ORIENTATION IS TO THE WEST

Roll No MAYSAP-6-15 Neg. No 12
Control No 902 (Office Use Only)

Date: 5/15/91 No. 902

Title: WB001A

Segment No WB-1 Subdivision A
Date 5/15/91 Log Frame No 18
Photographer GARY SHIGENAKA
Location WINDY BAY
Comments VIEW ACROSS THE SOUTH END OF BLACK LAGOON. COAT ON ROCK WALL SHOULD BE VISIBLE CENTER LEFT. ORIENTATION IS SOUTHWESTERLY

Roll No MAYSAP-6-15 Neg. No 17
Control No 902 (Office Use Only)

Segment No WB-1 Subdivision A
Date 5/15/91 Log Frame No 16
Photographer GARY SHIGENAKA
Location WINDY BAY
Comments SAME LOCATION AS # 14 & 15, FACING WEST.

Roll No MAYSAP-6-15 Neg. No 15
Control No 102 (Office Use Only)

Segment No WB-1 Subdivision A
Date 5/15/91 Log Frame No 17
Photographer GARY SHIGENAKA
Location WINDY BAY
Comments VIEW OF AREA ON THE NORTHWEST SIDE OF THE STREAM WHERE SOR WAS FOUND IN FAIRLY REGULAR OCCURRENCE, SUBSEQUENTLY RECOVERED OR BROKEN UP.

Roll No MAYSAP-6-15 Neg. No 16
Control No 902 (Office Use Only)

MAYSAP-Y

242-37-10155

1991 MAYSAP EVALUATION

SEGMENT: WB 001 **SUB:** A **REGION:** KEN **SURVEY DATE:** 5/15/91

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

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

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

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

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

COMMENTS:
INITIAL:

TAG:

FOSC:

TAG APPROVAL DATE: MAY 24 1991 **FOSC APPROVAL DATE:** 6/1/91

ADEC

EXXON Real

USCG E J Mack

NOAA

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

→ The state will further consider the need for treatment.

MAPSAP

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

KENAI

SEGMENT: WB001 **SUBDIVISION:** A **SITE:**
anadromous fish stream, commercial fishing area, recreation area

---

RECOMMENDED TREATMENT:

In area E (submerged in the lagoon):
- Manually remove MS and organic mixture.
- Note that this area is submerged about 1 m and that hip waders may be required.

ENVIRONMENTAL SENSITIVITIES:

anadromous stream
Eagle nest must be cleared prior to work.

WORK WINDOW: 05/24/91 - 07/10/91

CLEANUP PLAN AND COST ESTIMATE DUE:

DATE SUBMITTED: 05/24/91

STATE ON SCENE COORDINATOR:

1991 STREAM FILE LOG
HABITAT

STREAM CATALOG # : 242-32-10155
STREAM NAME : Black Lagoon

LOCATION : Homer
SEGMENT : WB-001A

DATE	NAME	ACTIVITY	REASON/STATUS

ADF&G MULTI-ASSESSMENT FORM
1991 GENERAL ENTRY CHECKLIST

OK

OK AD 7/ 10/2/91

STREAM#: 2423210160
SEGMENT: WB003

DATE PRINTED: 08/14/91

LOCATION: WINDY BAY

SURVEY TYPE: 89 AFHS - ~~BS~~ SS

METHOD: ~~GROUND~~ FOOT

DATE: 06/23/89

TEAM RECORDER: HILL

START TIME: 1000
END TIME: 1200

OBSERVERS: SPANGLER

TIDES: Ebb

AGENCY: FG

OG/HAB DISCREPANCIES:

PHOTOS TAKEN: N

STATION: 2423210160

ROLL#:
FRAME:

VIDEO TAKEN: N TAPE#:
START: END:

SAMPLES TAKEN: ~~N~~ Y

SAMPLE NUMBERS: 8900H0634

OIL IN STREAM BED: Y

OVERALL OIL IMPACT: M/H

OIL ON BEACH BY MOUTH: Y

WAVE EXPOSURE: MOD

SHORELINE TYPE: BEACH

SUBSTRATE TYPE: BEDROCK 10 BOULDER COBBLE 30 VEGETAT

GRAVEL 15 SAND 20 MUD/SILT 10 GRANULE 15

ANADROMOUS FISH PRESENT: Y

SPECIES: Chum salmon (FRY) ~~PINK salmon~~

COUNT: ~~X~~ 1 1

~~X~~

ACE 10460001 H/S/P

ADF&G MULTI-ASSESSMENT FORM
1991 OILING ENTRY CHECKLIST

DATE PRINTED: 08/14/91

STREAM# : 2423210160
SEGMENT#: WB003

SURVEY TYPE : 89 AFHS - ~~AS~~ SS
DATE: 06/23/89
TIMES: 1000 - 1200

LOCATION: WINDY BAY
TEAM RECORDER: HILL

-- OILING EXTENT --

SITE#	SITE TYPE	DEPTH (cm)	LENGTH (m)	WIDTH (m)	AREA (m)	%	THICK (cm)	PEN (cm)	OIL TYPE CODES
1			152	1.5	228	80	2.5	7.5	H-MOR OR OP
2			15	15	225	5	2.5	1.5	TB PT
3			46	1	46	20	2.5	5.0	HOR MOR OP
4			152	18	2736	50	2.5	5.0	HOR MOR OP
5			274	1	274	10	1.5	2.5	MS PT TB ST
6			6	3	18	80			MS
7			304	1.8	547	15	<15		MS TB CT CV

ADF&G MULTI-ASSESSMENT FORM
1991 OILING ENTRY CHECKLIST

ok

DATE PRINTED: 08/14/91

COMMENTS:
SITE 1A-1. THE OVERALL OILING TO THE STREAM ABOVE THE BEACH BERM WAS MODERATE. HOWEVER, THE UPPER, MIDDLE AND LITZ OF THE BEACHES ADJACENT THE STREAM MOUTH (SUBDIVISIONS WB-3 A, B, C, D) WERE HEAVILY OILED AS WAS NEARLY THE ENTIRE NORTH SHORE OF WINDY BAY (WB-02). THE TIDE FLATS (EELGRASS BEDS) AT THE MOUTH OF THE CREEK, THE GRASSY INTERTIDAL FLATS ABOVE THE BEACH BERM, THE INTERTIDAL STREAMBED ABOVE THE BEACH BERM AND SLOUGH ABOVE THE BEACH BERM PROBABLY RECEIVED oil TAINTED WATER AFTER THE INITIAL OIL IMPACT - THROUGH TIDAL FLUSHING ~~AND TIDAL FLUSHING~~ IN CONJUNCTION WITH WAVE ACTION. THE CREEK WAS BOOMED OFF AT THE BEACH BERM WITH 3 SORBENTS AND ONE SEA CURTAIN UNTIL AROUND THE 6TH OF JULY. SALMON FRY (PINK AND CHUM) WERE OBSERVED PERIODICALLY IN THE SLOUGH ON THE STREAMS NORTH SHORE JUST ABOVE THE BEACH BERM (AS WELL AS OTHER PORTIONS OF THE STREAM). ALSO OBSERVED 18 ADULT CHUM ON 7/7/89. THE BANK OF THE SLOUGH COULD HAVE USED SOME CLEANUP IN 1989. ALTHOUGH CLEANUP WAS REQUESTED, NO CLEANUP ABOVE THE BEACH BERM OCCURRED IN 1989. CLEANUP CREWS WERE ON THE BEACHES TO THE SOUTH OF THE STREAM MOUTH PERIODICALLY THROUGHOUT THE SUMMER. THE BEACH IMMEDIATELY SOUTH OF THE STREAM ("MAIN BEACH" WB03B) WAS PROBABLY THE MOST HEAVILY OILED BEACH AT THE HEAD OF THE BAY AND ONE OF MOST HEAVILY BEACHES IN WINDY BAY. THE BOOMS ACROSS THE CREEK WERE REPONSIBLE TO SOME DEGREE FOR DECREASING THE OIL IMPACT WITHIN THE UITZ PORTION OF THE STREAM. THE F/V MURRELET (BOOM TENDER/SKP ROBERT Pelkey ???) WAS IN WINDY BAY AT THE TIME OF INITIAL OILING. SITE #1 ALSO CONTAINS OIL TYPE - ~~OR~~, PT, ST, CT, CV. SITE #3 ALSO CONTAINS OIL TYPE - TP, PT, ST, CV, CT. SITE #4 ALSO CONTAINS OIL TYPES - TB, ST, ~~CT~~, ~~CV~~.

D

YES DDH

ADD TO Comments DDH

~~Photos of the area~~

Photos taken in the vicinity of this stream prior to 6/23/89 are as follows: 5/31/89

Roll #	Frame #
89DDH10H	9, 10, 11, 22 → 28
89DDH02H	6, 25
89DDH03H	1, 2, 3
89DDH04H	1 → 16

DDH 8/29/89

ACE 10460003 -15

1989 - AFHS ★ Site 1A-1 Windy Right Crk

ASC NUMBER: 242-32-10160 SEGMENT NUMBER: WB-3B YR CATALOGED:
LOCATION: Windy Bay, Head of Bay, North shore
STREAM NAME: Windy Right Creek
KODIAK K-UNIT: LOCAL STREAM #:
USGS QUADRANGLE: Seldovia A-5
SHORELINE TYPE: Beach ALL SEGMENTS:
WAVE EXPOSURE: Moderate
LATITUDE: 59 14 07
LONGITUDE: 151 33 34
LEGAL:

ASC NUMBER:
SURVEY TYPE: ~~BS~~ '89
METHOD: Ground
DATE: 6/23/89
START TIME: 1000 hrs
STOP TIME: 1200 hrs

TEAM RECORDER: Doug Hill
OBSERVERS: Jerry Sponagle (skiff operator F/V Sea Mist)
AGENCY(IES): ADF&G
PHOTOS TAKEN? N
Roll #: Frames:
VIDEO TAKEN? N Tape Number:
Counter Start:

SAMPLES TAKEN? N
SAMPLE I.D. NUMBERS: 1. ~~89 DDH 001~~ (This is 89DDH010, and was taken on 7/15/89) 2. 3.
4. 5. 6.

"Approximations"

	LENGTH m	WIDTH m	M2	%	THICK cm	PEN cm	OIL TYPE
SITE 1	152 m	1.5	228	80%	2.5	7.5	H-MOR, OP MS, TB, AP, PT, ST, CT, CV
SITE 2	115	15	225	5	2.5	1.5	TB, PT
SITE 3	46	1.0	46	20	2.5	5.0	HOR, MOR, OP MS, AP, TB, PT, ST, CT, CV
SITE 4	152	18	2736	50	2.5	5.0	HOR, MOR, OP MS, PT, TB, ST, CT, CV
SITE 5	274	1	274	10	1.5	2.5	MS, PT, TB, ST, CT, CV
site 6	6	3	18	80	?	?	MS

OVERALL OIL IMPACT: MODERATE - HEAVY ANAD FISH: Y

OIL IN STREAM CHANNEL? Yes OIL ON BEACH WITHIN 50M OF STREAM MOUTH? Y site 7 →

SUBSTRATE

Bedrock 10	Granule
Boulder	Sand 20
Cobble 30	Silt 10
Pebble 30	Veget.

SPECIES	6/23 one Chum Fry	7/7/89 18 chum Adults			
COUNT	OK	comments			

COMMENTS: The overall oiling to the stream above the beach berm was moderate. However the upper, middle & LITZ of the beaches adjacent the stream mouth (subdivisions WB-3 A,B,C,D) were heavily oiled as was nearly the entire north shore of Windy Bay (WB-02). The tide flats (eelgrass beds) at the mouth of the creek, the grassy intertidal 'flats' above the beach berm, the intertidal stream bed above the beach berm and slough above the beach berm probably recieved oil tainted water after the initial oil impact -- through tidal flushing and tidal flushing in conjunction with wave action. The creek was boomed off at the beach berm with 3 sorbents and one sea curtain until around the 6th of July. ~~[struck through]~~
~~[struck through] above the beach berm in 1989~~.

ACE 10460004 +/S

over →

salmon fry (pink + chum) were observed periodically in the slough on the streams north shore just above the beach berm (as well as other portions of the stream). The bank of the slough could have used some cleanup in 1989. ok

Although cleanup was requested no cleanup above the beach berm occurred in 1989. Cleanup crews were on the beaches to the south of the stream mouth perodically throughout the summer. The beach immediately south of the stream ("main Beach" - WB-3B) was probably the most heavily oil beach at the head of the bay and one of most heavily beaches in Windy Bay. The booms across the creek were responsible to some degree for decreasing the oil impact within the VIT2 portion of the stream.

	Length	width	m2	%	thick cm	Pen cm	oil Type
Site 7	304	1.8	547	15	<15	?	MS, TB, CT, CV, ST

Comments cont'd. => The F/V Murrelet (Boom tender - skp => Robert Pelkey of Homer) was in Windy Bay at the time of initial oiling.

FISH HABITAT ASSESSMENT FORM

Windy Right Creek

[1]REGION: [2]PWS (3)KP,CI [4]K,AP [5]OBSERVER(S) Doug Hill

[6]SITE NO. 14-1 [7]AERIAL PHOTO NO. _____ [8]CAT NO. 242-32-10160

[9]STREAM NAME Windy Right Ck [10]LAT 59 ° 14 . 07 ' [11]LONG 151 ° 33 . 31 '

[12]DATE 6/23 [13]TIME 1000 [14]TIDE: Low slack Flood High slack Ebb

[15]CATALOGED ANADROMOUS STREAM? (Y) N [16]ANAD. FISH FOUND? (Y) N

[17]OIL FOUND IN STREAM? (Y) N [18]OIL FOUND NEAR STREAM (1 MI.)? (Y) N

[19]OIL SAMPLES TAKEN? (Y) N [20]ID NOS. SCF 7/27/89-1315hrs (ADEC)
DDH/LPG-7/15/89-1930
89NAD56 (89-9-16/1040)
RDR/9/25/89-1600-RHC

[21]35 MM PICTURES TAKEN? (Y) N [22]ROLL NO(S). See Photos

we have these in Circulars. Dates are ≠ survdate. Do not enter.

[23]EXPOSURE NO. [24]DESCRIPTION

SEE Photos on Following Page

Where??

[25]VIDEO FOOTAGE TAKEN? Y N [26]CASSETTE NO(S). _____

[27]DESCRIPTION: _____

ACE 10460006

ACE 7380049

ANADROMOUS FISH OBSERVATIONS

		PINK	CHUM	RED	KING	COHO	DOLLY		
28	Aerial		1*			1			
29	Ground								

30 COMMENTS: 1* Chum (7/5/89)

OIL OBSERVATIONS

EXTENT OF OIL:

		WITHIN STREAM	OUTSIDE STREAM
31	SURFACE COVERAGE		
32	SURFACE THICKNESS		
33	PENETRATION		

34 OIL DISTRIBUTION DIAGRAM (SHOW SAMPLING SITES)

35 PREDOMINANT SUBSTRATE TYPE:

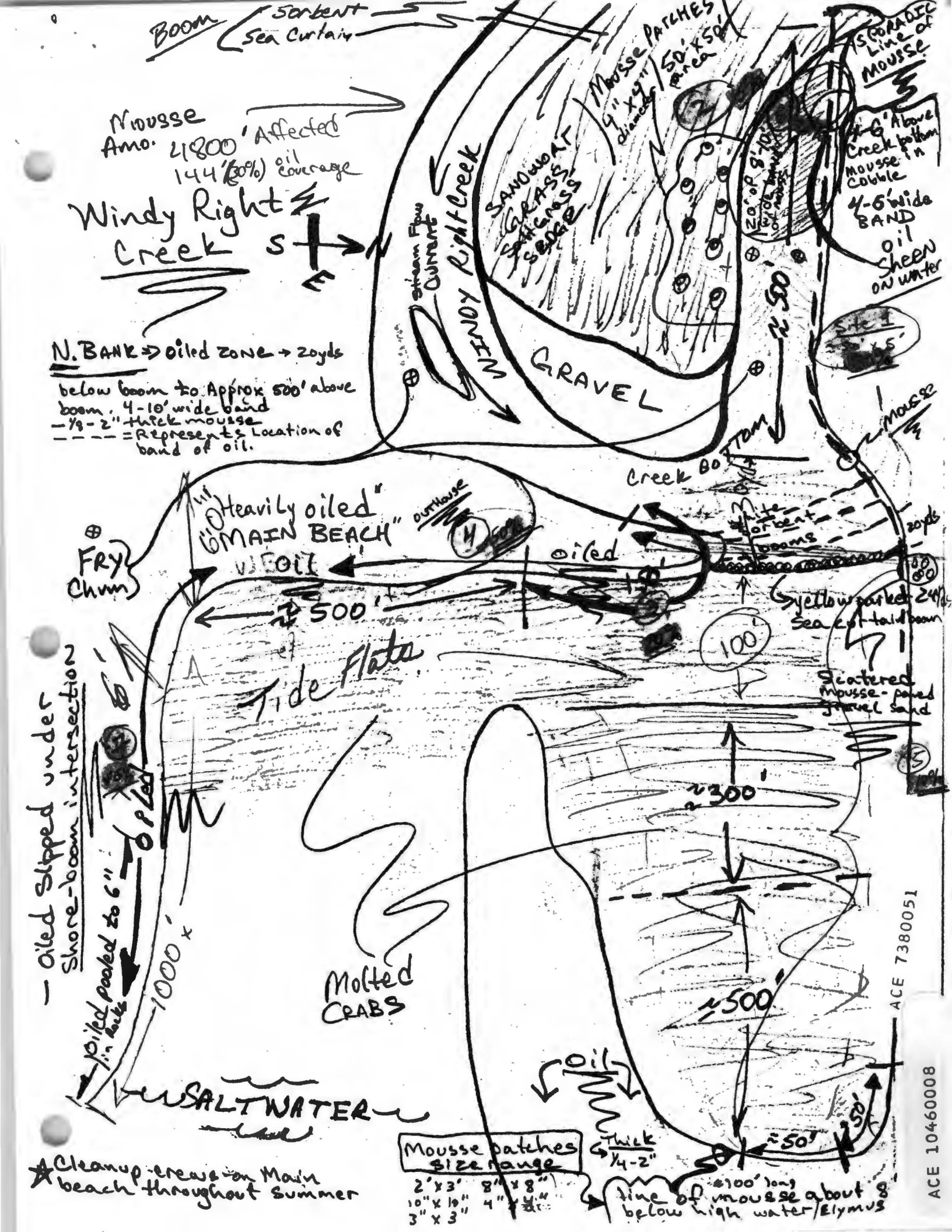
1. Bedrock
2. Boulder
3. Cobble
4. Gravel
5. Sand
6. Mud
7. Other_____

~~SEE~~ Map that follows

36 COMMENTS:_____

ACE 7380050

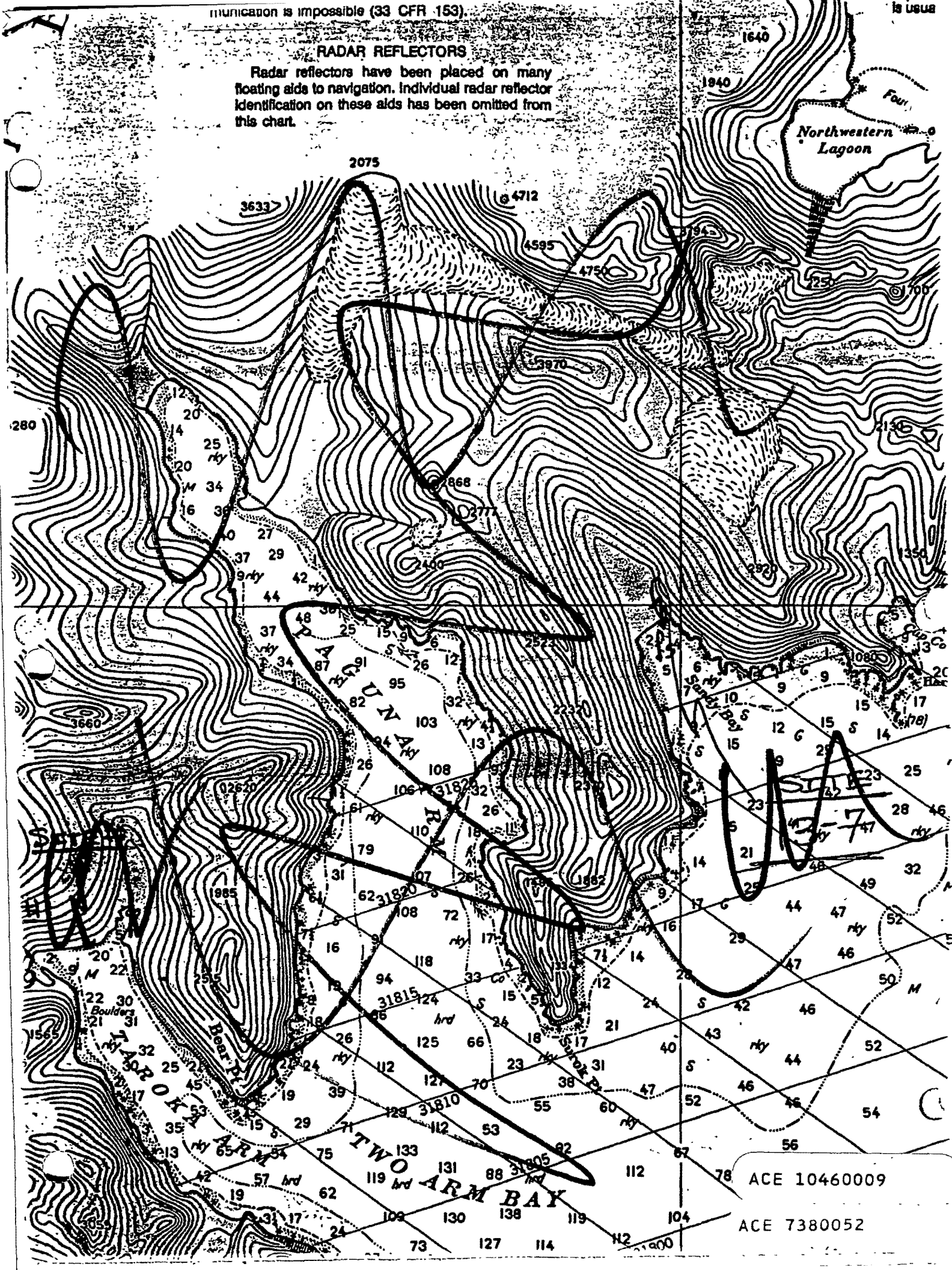
ACE 10460007


Boom
Sorbent
Sea Curtain
Mousse
Amo. 41800' Affected
144' (80%) oil coverage
Windy Right Creek
Mousse Patches 4" x 4" diameter / 50' x 50' area
Sporadic Line of Mousse
Sand/Gravel
Grass
Sedge
Stream Flow Current
Windy Right Creek
Gravel
Mousse Cobble
4-6' wide BAND oil
Sheen on water
N. BANK ⇒ oiled zone → 20yds
below boom to Approx 500' above boom. 4-10' wide band
⅛-2" thick mousse
= = = = Represents Location of band of oil.
Creek Bottom
Mousse
"Heavily oiled" "MAIN BEACH"
Outhouse
FRY Chum
oil
oiled
20yds
Yellow packet 24yds
Sea cot tail boom
≈500'
Tide Flats
100'
Scattered mousse-pocked gravel sand
≈300'
Oiled Slipped under Shore-boom intersection
Oiled pocked to 6"
1000'±
Molted Crabs
≈500'
ACE 7380051
SALTWATER
oil
Mousse patches size range
2' x 3'
10" x 10"
3" x 3"
8" x 8"
4" x 4"
Thick ¼-2"
≈50'
≈100' long line of mousse about 8' below high water/Elymus
ACE 10460008
★ Cleanup crews on Main beach throughout summer

munication is impossible (33 CFR 153).

RADAR REFLECTORS

Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.



ACE 10460009

ACE 7380052

1989- AFHS Site 1A-1 Windy Right Crk

ASC NUMBER: 242-32-10160 SEGMENT NUMBER: WB-3B YR CATALOGED:
LOCATION: Windy Bay, Head of Bay, North shore
STREAM NAME: Windy Right Creek
KODIAK K-UNIT: . LOCAL STREAM #:
USGS QUADRANGLE: Seldovia A-5
SHORELINE TYPE: Beach ALL SEGMENTS:
WAVE EXPOSURE: moderate

LATITUDE: 59 14 07
LONGITUDE: 151 33 34
LEGAL:

ASC NUMBER:
SURVEY TYPE: ~~E~~SS
METHOD: ~~Ground~~ FOOT
DATE: 6/23/89
START TIME: 1000 hrs
STOP TIME: 1200 hrs

TEAM RECORDER: Doug Hill
OBSERVERS: Jerry Spangler (skiff operator F/V Sea Mist)

AGENCY(IES): ADF&G

PHOTOS TAKEN? N
Roll #: Frames:
VIDEO TAKEN? N Tape Number:
Counter Start:

SAMPLES TAKEN?
SAMPLE I.D. NUMBERS: 1. 89 DDH 001 2. 3.
4. 5. 6.

"Approximations"

SEE Site 7 opposite side

	LENGTH m	WIDTH m	M2	%	THICK cm	PEN cm	OIL TYPE
SITE 1	152 m	1.5	228	80%	2.5	7.5	H-MOR, OP MS, TB, AP, PT, ST, CT, CV
SITE 2	15	15	225	5	2.5	1.5	TB, PT
SITE 3	46	1.0	46	20	2.5	5.0	HOR, MOR, OP MS, AP, TB, PT, ST, CT, CV
SITE 4	152	18	2736	50	2.5	5.0	HOR, MOR, OP MS, PT, TB, ST, CT, CV
SITE 5	274	1	274	10	1.5	2.5	MS, PT, TB, ST, CT, CV
site 6	6	3	18	80	?	?	MS

OVERALL OIL IMPACT: M/H

ANAD FISH: Y

OIL IN STREAM CHANNEL? Yes OIL ON BEACH WITHIN 50M OF STREAM MOUTH? Y

SUBSTRATE

Bedrock 10		Granule 15	
Boulder		Sand 20	
Cobble 30		Silt 10	
Pebble 15		Veget.	

	6/23	7/7/89			
SPECIES	one Chum Fry	18 chum Adults			
COUNT					

COMMENTS: The overall [illegible] to the stream above the beach berm was gaoff moderate. However the upper, middle & LITZ of the beaches adjacent the stream mouth (subdivisions WB-3 A, B, C, D) were heavily oiled as was nearly the entire North shore of Windy Bay (WB-02). The tide flats (eelgrass beds) at the mouth of the creek, the grassy intertidal flats above the beach berm, the intertidal stream bed above the beach berm and slough above the beach berm probably recieved oil tainted water after the initial oil impact -- through tidal flushing and tidal flushing in conjunction with wave action. The creek was boomed off at the beach berm with 3 sorbents ~~and~~ one sea curtain until around the 6th of July. [illegible]
[illegible]

ACE 10460011
t/s

(over →)

salmon fry (pink + chum) were observed periodically in the slough on the streams north shore just above the beach berm (as well as other portions of the stream). The bank of the slough could have used some cleanup in 1989.

Although cleanup was requested no cleanup above the beach berm occurred in 1989. Cleanup crews were on the beaches to the south of the stream mouth perodically throughout the summer. The beach immediately south of the stream ("main Beach" - WB-3B) was probably the most heavily oil beach at the head of the bay and one of most heavily beaches in Windy Bay. The booms across the creek were responsible to some degree for decreasing the oil impact within the WB2 portion of the stream.

	Length	Width	m2	%	thick cm	Pen cm	oil Type
Site 7	304	1.8	547	15	<15	?	MS, TB, CT, CV, ST

Comments cont'd. => the F/V Mornelet (Boomtender/skp => Robert Pelke of Homer) was in Windy Bay at the time of initial oiling.

FISH HABITAT ASSESSMENT FORM

Windy Right Creek

[1]REGION: [2]PWS (3)KP,CI [4]K,AP [5]OBSERVER(S) Doug Hill

[6]SITE NO. IA-1 [7]AERIAL PHOTO NO. _____ [8]CAT NO. 242-32-10160

[9]STREAM NAME Windy Right Crk [10]LAT 59 ° 14 . 07 ' [11]LONG 151 ° 33 . 34 '

[12]DATE 6/23 [13]TIME 1000 [14]TIDE: Low slack Flood High slack Ebb

[15]CATALOGED ANADROMOUS STREAM? (Y) N [16]ANAD. FISH FOUND? (Y) N

[17]OIL FOUND IN STREAM? (Y) N [18]OIL FOUND NEAR STREAM (1 MI.)? (Y) N

SCF 7/27/89-1315hrs (ADEC)

[19]OIL SAMPLES TAKEN? (Y) N [20]ID NOS. DDH/LPG-7/15/89-1930

89 NAD 56 (89-9-16/1040)

RDR/9/25/89-1600-RHC

[21]35 MM PICTURES TAKEN? (Y) N [22]ROLL NO(S). See Photos

[23]EXPOSURE NO. [24]DESCRIPTION

SEE Photos on Following Page

[25]VIDEO FOOTAGE TAKEN? Y N [26]CASSETTE NO(S). _____

[27]DESCRIPTION: _____

ACE 10460013

ACE 7380049

ANADROMOUS FISH OBSERVATIONS

		PINK	CHUM	RED	KING	COHO	DOLLY		
28	Aerial		1*			1			
29	Ground								

30 COMMENTS: 1* Chum (7/5/89)

OIL OBSERVATIONS

EXTENT OF OIL:

	WITHIN STREAM	OUTSIDE STREAM
31 SURFACE COVERAGE		
32 SURFACE THICKNESS		
33 PENETRATION		

34 OIL DISTRIBUTION DIAGRAM (SHOW SAMPLING SITES)

See Map that follows

35 PREDOMINANT SUBSTRATE TYPE:

1. Bedrock
2. Boulder
3. Cobble
4. Gravel
5. Sand
6. Mud
7. Other_____

ACE 10460014

ACE 7380050

36 COMMENTS: _____

original 1989 MAP 10014

Boom
Sorbent
Sea Curtain

Mousse Amo.
41800' Affected
144' (30%) oil coverage

Windy Right Creek

N. BANK ⇒ oiled zone → 20yds
below boom to Approx 500' above boom. 4-10' wide band
—⅛-2" thick mousse
– – – – = Represents Location of band of oil.

Stream Flow Current
WINDY Right Creek
SANDWEAR GRASS
Saltgrass
Sedge
GRAVEL
Mousse Patches 4" x 4" diameter / 50' x 50' area
SPORADIC Line of MOUSSE
4-6' Above Creek bottom mousse in Cobble
4-6' wide BAND oil Sheen on water
20'± of 8-10' wide band of mousse
Site 1 ≈ 50' x 5'
50'
Mousse
Creek BOTTOM
Mousse
6'± "Heavily oiled" "MAIN BEACH" oil
outhouse
4 50%
FRY Chum
oiled
150'
3
20%
≈500' of Tide Flats
White Sorbent booms
20yds
yellow packed 24" Sea curtain boom
100'
Scattered mousse-paved gravel sand
5
10%
≈300'
17
15%
oiled
oiled slipped under shore-boom intersection
oiled pooled to 6"
oiled in rocks
1000'±
Molted CRABS
≈500'
SALTWATER
oil
Thick ¼-2"
50'±
≈50'
Mousse patches size range
2'x3' 8"x8"
10"x10" 4"x4"
3"x3"
≈100' long line of mousse about 8' below high water/Elymus

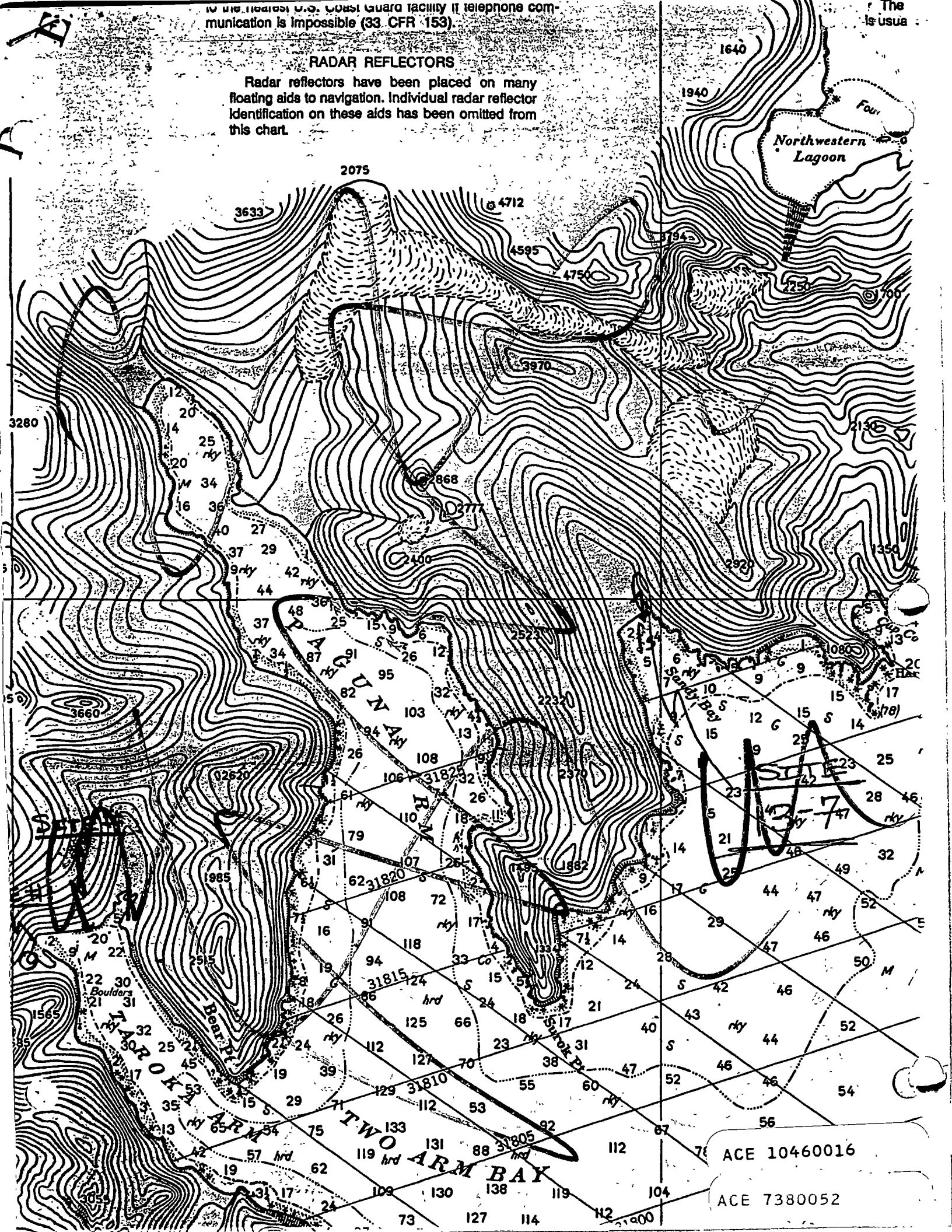
★ Cleanup crews on Main beach throughout Summer

ACE 7380051
ACE 10460015

to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).

RADAR REFLECTORS

Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.




Red Mt.
3500
2800
2400
Site #1
Windy Right
SOW # 242
32+10160
Rocky River
3000
2700
2600
Mt. Mills
2247
2600
2400
2200
2358
(chart 16645)
RT CHATHAM
Cone Mt.
1800
Windy Bay
Rock Mt
2000
1820
1818
7000
2375
2200
2525
55
Chugach
Bay
Rk
Co
2250
1740
1875
61
31
20
14
46
57
OBSCURED
LIGHT
SG
(chart 16646)
ACE 10460017 -S/P