

IN-031 A

ASC 16916

(Between Disk and Ingot Islands)

ACE 1369614



- Prince William Sound -
DOCUMENTS IN STREAM FILES

ASC# _____ Segment # _____

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

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



ADF&G MULTI-ASSESSMENT DATA FORM

Pre-ANADSCAT-90

ATW

1 SURVEY TYPE: BS SS DS TS AVS SCHA MMS PTA2 REGION: PWS KP, CI K, APMETHOD: Aerial Ground Boat3 DATE: 4/13/9015 HIGH TIDE TIMES: 121 TEAM RECORDER: P. Gustis4 START TIME: 082616 HIGH TIDE HTS: 122 OBSERVERS: B. Lewan5 STOP TIME: 083517 LOW TIDE TIMES: 123 AGENCY: Exxon6 SEGMENT #: IN 03118 LOW TIDE HTS: 124 PHOTOS TAKEN: Y N

7 STATION #:

19 TIDE HT AT SURVEY:

Roll #: Frame:

8 K-UNIT:

Ebb Slack Flood Slack

25 VIDEO TAKEN: Y N TAPE#:

9 STAT AREA:

20 USCG QUAD:

Start: End:

10 LAT:

11 LONG:

26 SAMPLES TAKEN? Y N Number12 SOURCE: Map Loran13 LOCATION: Ingot Island14 DESCRIPTION: SW side

Oil

Sediment

Biological

Water

EXTENT OF OIL

27 SURFACE COVERAGE

SHORELINE				STREAM			
L	W	M ²	%	L	W	M ²	%
<u>50</u>	<u>10</u>						<u>50</u>

28 SURFACE THICKNESS

29 PENETRATION

30 OVERALL OIL IMPACT: N VL L M H31 OIL TYPE: Pooled Mousse Tar Asphalt Sticky Stain32 OILED DEBRIS? Y N33 SHORELINE TYPE: Headland Low-lying Rocks Beach Cove
Lagoon Marsh34 WAVE EXPOSURE: High Moderate Low35 SUBSTRATE TYPE: Bedrock Boulder Cobble 1Gravel 1 Sand Mud/silt36 CATALOGED ANAD. FISH STREAM? Y N37 CATALOG #: 226-10-16 ATW

38 STREAM NAME:

39 OIL IN STREAM BED? Y N40 OIL ON STREAM BANKS? Y N41 OIL ON BEACH ADJACENT TO MOUTH? Y N
(within 50 meters)42 OIL WITHIN 1 MILE OF STREAM? Y NWhere: Upper/mid intertidal43 ANADROMOUS FISH PRESENT? Y N

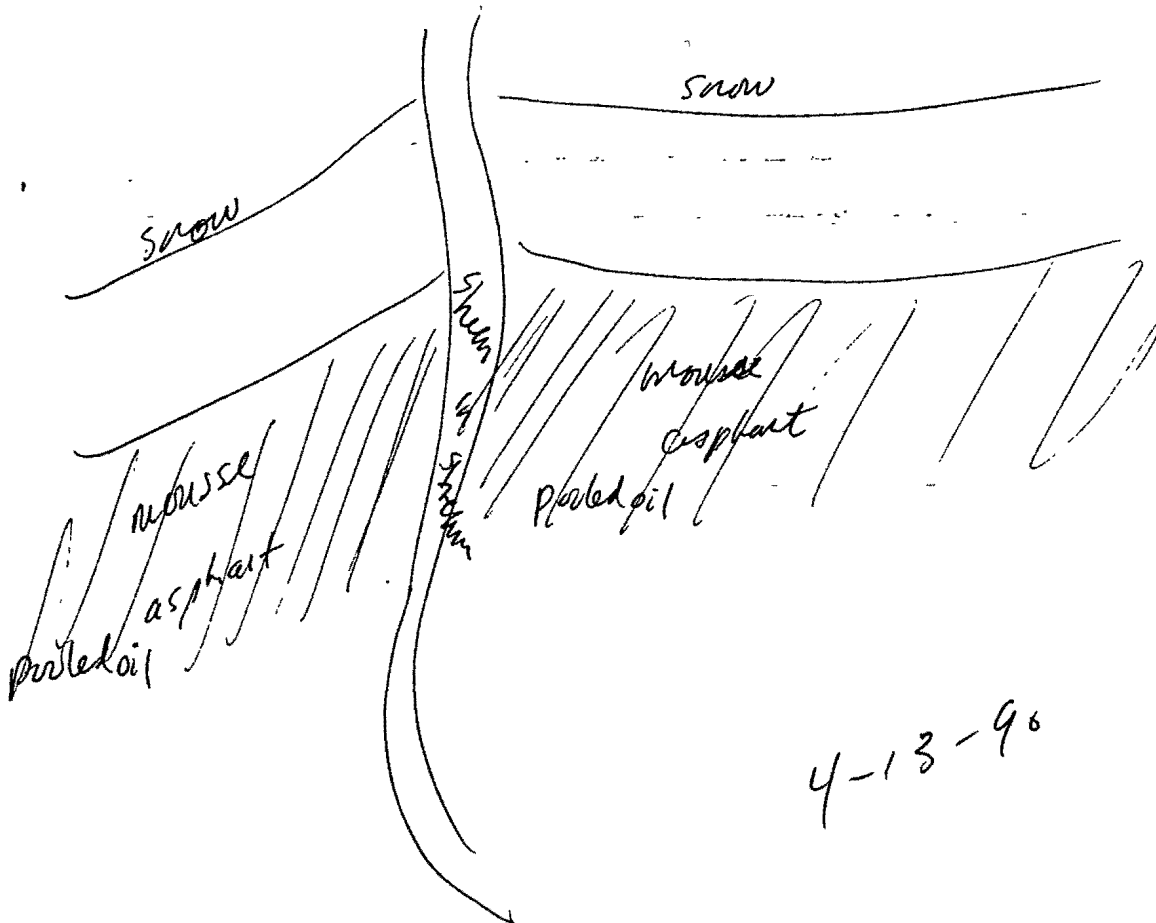
44 ANADROMOUS FISH OBSERVATION

Species Aerial Ground

COMMENTS: Heavily oiled sediments in + outside of stream3-4" penetration down to ground waterstream/shore

FRAME(S)

DESCRIPTION

46 OIL DISTRIBUTION DIAGRAM

4-13-96

IN 31
226-10-16916 ATW

Sample taken
Photo frame # and
shot direction.

ASC NUMBER: 226-10-16916	SEGMENT NUMBER:	YR CATALOGED:
LOCATION:		
STREAM NAME:		LATITUDE:
KODIAK K-UNIT:	LOCAL STREAM #:	LONGITUDE:
USGS QUADRANGLE:		LEGAL: S
SHORELINE TYPE:	ALL SEGMENTS:	

ASC NUMBER:
 SURVEY TYPE:
 METHOD:
 DATE: 4/13/90
 START TIME:
 STOP TIME:

TEAM RECORDER:
 OBSERVERS:

AGENCY(IES):

PHOTOS TAKEN?

Roll #:

Frames:

VIDEO TAKEN?

Tape Number:

Counter Start:

WAVE EXPOS:

SAMPLES TAKEN?

SAMPLE I.D. NUMBERS: 1.
 4.

2.
 5.

3.
 6.

	LENGTH	WIDTH	M2	%	THICK	PEN	OIL TYPE
SITE 1	50 m	10 m					Sor
SITE 2							AP
SITE 3							MS
SITE 4							
SITE 5							

OVERALL OIL IMPACT:

OIL IN STREAM CHANNEL?

OIL ON BEACH WITHIN 50M OF STREAM MOUTH?

SUBSTRATE

Bedrock	Granule
Boulder	Sand
Cobble	Silt
Pebble	Veget.

SPECIES					
COUNT					

COMMENTS:

ANADSCAT-90

ADF&G MULTI-ASSESSMENT DATA FORM

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

METHOD: Aerial Ground Boat

3 DATE: 4/24/90 15 HIGH TIDE TIMES: 1 21 TEAM RECORDER: R. Guste

4 START TIME: 1023 16 HIGH TIDE HTS: 1 22 OBSERVERS: A. Weseman

5 STOP TIME: 1055 17 LOW TIDE TIMES: 1 23 AGENCY: ADF&G

6 SEGMENT #: IN031 18 LOW TIDE HTS: 1 24 PHOTOS TAKEN: Y N

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

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

9 STAT AREA: _____ 20 USCG QUAD: _____ Start: 236 End: 400

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

12 SOURCE: Map Loran 011 _____

13 LOCATION: SW side Ingot Island Sediment _____

14 DESCRIPTION: Foul Pass Biological _____

Water _____

EXTENT OF OIL

	SHORELINE				STREAM			
	L	W	M ²	%	L	W	M ²	%
27 SURFACE COVERAGE								
28 SURFACE THICKNESS	1cm	1cm						
29 PENETRATION	3-4cm	1-2cm						

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 20 Cobble 60'6
Gravel 20 Sand _____ Mud/silt _____

36 CATALOGED ANAD. FISH STREAM? Y N

37 CATALOG #: 226-10-16916

38 STREAM NAME: _____

39 OIL IN STREAM BED? Y N

40 OIL ON STREAM BANKS? Y N

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

42 OIL WITHIN 1 MILE OF STREAM? Y N

Where: _____

43 ANADROMOUS FISH PRESENT? Y N

44 ANADROMOUS FISH OBSERVATION

Species	Aerial	Ground

COMMENTS: Some very thin tar mats along east bank of stream
seen from gravel in stream itself
MITZ - oiled gravels & rock primarily under side west side stream
MITZ - fm mud and oil on streamy banks.

Recommendations
Perform work at proper tide window. 0 - 1.0

Remove thin crust of oiled matt & vegetation along east side of stream in middle & upper I.T.Z.

Remove oiled gravels and sands on west side of stream edge and in areas where sheens occur in the stream bed.

Remove thin patches of oiled matts in upper I.T.Z. on West side of stream.

Remove patches of tar matt on East side of the stream in middle I.T.Z. area.

After removal, till mechanically or with shovels areas skimmed. Till areas which show sheening.

IN 031

226-10-16916

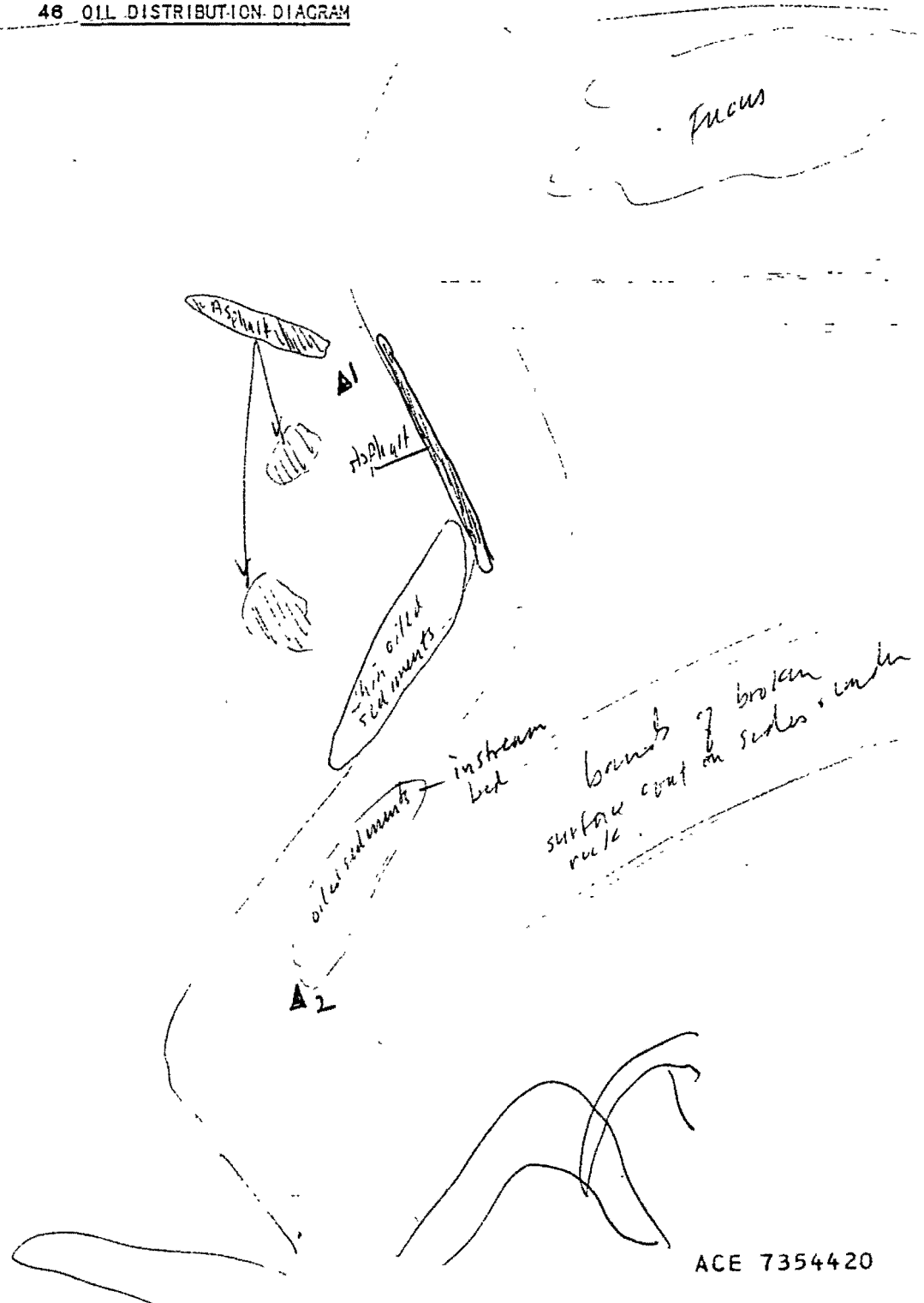
45 PHOTOLOG

FRAME(S)

DESCRIPTION

Pit #1	28 cm deep	Shedding from sediments
Pit #2	20 cm deep	- thinly coated

46 OIL DISTRIBUTION DIAGRAM



sample taken
photo frame # and
not direction.

ACE 7354420

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

ASC NUMBER:
 SURVEY TYPE:
 METHOD:
 DATE: / /
 START TIME:
 STOP TIME:

TEAM RECORDER:
 OBSERVERS:

AGENCY(IES):

PHOTOS TAKEN?

Roll #:

Frames:

VIDEO TAKEN?

Tape Number:

Counter Start:

SAMPLES TAKEN?

SAMPLE I.D. NUMBERS: 1.
 4.

2.
 5.

3.
 6.

	LENGTH	WIDTH	M2	%	THICK	PEN	OIL TYPE
SITE 1							Ag/son
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:

ADF&G MULTI-ASSESSMENT DATA FORM

Pre-ANADSCAT-90

ATW

1 SURVEY TYPE: BS SS DS TS AVS SCHA MMHS PTA2 REGION: PWS KP, CI K, APMETHOD: Aerial Ground Boat3 DATE: 4/13/9015 HIGH TIDE TIMES: 121 TEAM RECORDER: R. Gustis4 START TIME: 082616 HIGH TIDE HTS: 122 OBSERVERS: B. Leman5 STOP TIME: 083517 LOW TIDE TIMES: 123 AGENCY: Exxon6 SEGMENT #: IN 03118 LOW TIDE HTS: 124 PHOTOS TAKEN: Y (N)

7 STATION #:

19 TIDE HT AT SURVEY:

Roll #: Frame:

8 K-UNIT:

Ebb Slack Flood Slack

25 VIDEO TAKEN: Y (N) TAPE#:

9 STAT AREA:

20 USCG QUAD:

Start: End:

10 LAT:

11 LONG:

26 SAMPLES TAKEN? Y (N) Number12 SOURCE: Map Loran

011

13 LOCATION: Ingot Island

Sediment

14 DESCRIPTION: SW side

Biological

Water

EXTENT OF OIL

27 SURFACE COVERAGE

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

36 CATALOGED ANAD. FISH SREAM? (Y) N37 CATALOG #: 226710-ATW
76716

38 STREAM NAME:

28 SURFACE THICKNESS

39 OIL IN STREAM BED? (Y) N

29 PENETRATION

40 OIL ON STREAM BANKS? (Y) N

30 OVERALL OIL IMPACT: N VL L M H

41 OIL ON BEACH ADJACENT TO MOUTH? (Y) N31 OIL TYPE: Pooled Mousse Tar Asphalt Sticky Stain42 OIL WITHIN 1 MILE OF STREAM? (Y) N32 OILED DEBRIS? (Y) NWhere: Upper/mid intertidal33 SHORELINE TYPE: Headland Low-lying Rocks Beach Cove
Lagoon Marsh

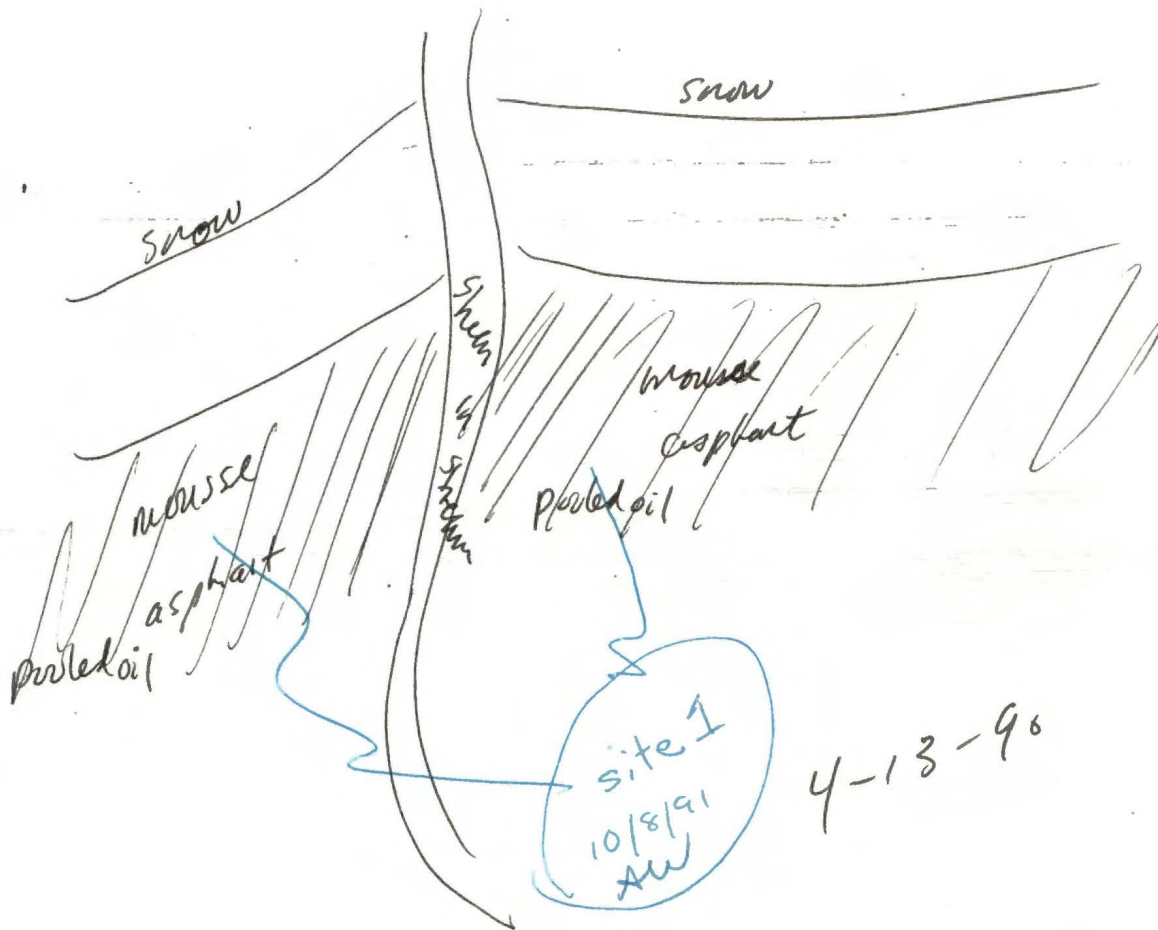
43 ANADROMOUS FISH PRESENT? Y N

34 WAVE EXPOSURE: High Moderate Low44 ANADROMOUS FISH OBSERVATION
Species Aerial Ground35 SUBSTRATE TYPE: Bedrock Boulder Cobble /Gravel / Sand Mud/silt

COMMENTS: Heavily oiled sediments in + outside of stream3-4" penetration down to ground waterstream/shore

FRAME(S)	DESCRIPTION

46 OIL DISTRIBUTION DIAGRAM



IN 31 ATW
226-10-16916

Sample taken
Photo frame # and
shot direction.

ADF&G MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: BS SS DS TS AVS SCHA MMHS PTA2 REGION: PWS KP,CI K,APMETHOD: Aerial Ground Boat3 DATE: 4/24/9015 HIGH TIDE TIMES: 121 TEAM RECORDER: R. Gustaf4 START TIME: 102316 HIGH TIDE HTS: 122 OBSERVERS: A. Weseman5 STOP TIME: 105517 LOW TIDE TIMES: 123 AGENCY: ADF&G6 SEGMENT #: IN03118 LOW TIDE HTS: 124 PHOTOS TAKEN: Y (N)

7 STATION #: _____

19 TIDE HT AT SURVEY: _____

Roll #: _____ Frame: _____

8 K-UNIT: _____

Ebb Slack Flood Slack

25 VIDEO TAKEN: (Y) (N) TAPE#: _____

9 STAT AREA: _____

20 USCG QUAD: _____

Start: 236 End: 400

10 LAT: _____

11 LONG: _____

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

Oil _____

13 LOCATION: SW side Ingot Island

Sediment _____

14 DESCRIPTION: Foul Pass

Biological _____

Water _____

EXTENT OF OIL

27 SURFACE COVERAGE

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

28 SURFACE THICKNESS

1cm	1cm						
3-4cm	1-2cm						

29 PENETRATION

30 OVERALL OIL IMPACT: N VL L M H

31 OIL TYPE: Pooled Mousse Tar Asphalt Sticky Stain32 OILED DEBRIS? (Y) N33 SHORELINE TYPE: Headland Low-lying Rocks Beach Cove
Lagoon Marsh34 WAVE EXPOSURE: High Moderate Low35 SUBSTRATE TYPE: Bedrock _____ Boulder 20 Cobble 60%
Gravel 20 Sand _____ Mud/silt _____36 CATALOGED ANAD. FISH SREAM? (Y) N37 CATALOG #: 226-10-16916

38 STREAM NAME: _____

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

Where: _____

43 ANADROMOUS FISH PRESENT? Y N

44 ANADROMOUS FISH OBSERVATION
Species Aerial Ground

COMMENTS:

Some very thin tar mats along east bank of
stream seen from gravel in stream itself

MITZ - oiled gravel & rock primarily under side west
side stream

MITZ - tar mat and oil on streamy banks.

ACE 7354418 + 1/5

Recommendations

Perform work at proper tide window. 0 → -1.0

Remove thin crust of oiled matt & vegetation along east side of stream in middle & upper I.T.Z.

Remove oiled gravels and sands on west side of stream edge and in ~~some~~ areas where sheens occur on the stream bed.

Remove thin patches of oiled matts in upper I.T.Z. on West side of stream.

Remove patches of tar matt on East side of the stream in middle I.T.Z. area.

After removal, till mechanically or with shovels areas skimmed. Till areas which show sheening.

FRAME(S)

DESCRIPTION

Pit #1 28 cm deep Sheering from sediments
 Pit #2 20 cm deep - thinly coated

46 OIL DISTRIBUTION DIAGRAM



SEGMENT ST/IN 031

STREAM 226-10-16916

DATE 4 124 90

CHECKLIST

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

LEGEND

- 1 Δ
Plt - No Subsurface Oil

- 2 ▲
Pit - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

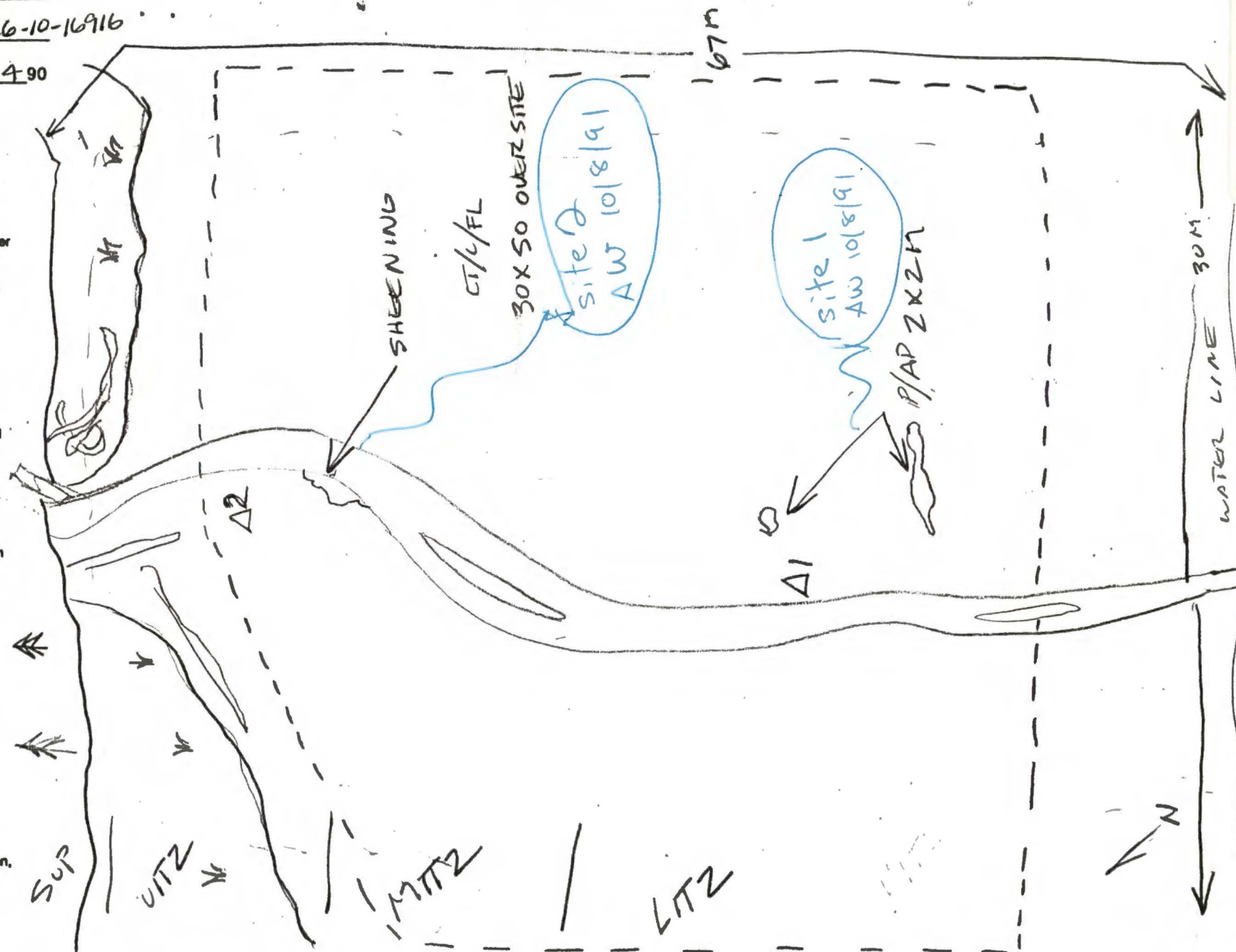
Patchy Distribution

CT/5

Splashed Distribution

Oiled Vegetation

- 1 
- Photo location, direction,
and number



Oil Character Length (m): AP 2 PO _____ CV _____ CT _____ ST _____ MS _____ PT _____ TB _____ FL 30 NO _____

REVISION:03/24/99

ACE 7354421

3/0/90
SEGMENT ST/IN 031

STREAM 226-10-16916.

DATE 4 / 24 / 90

CHECKLIST

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

LEGEND

1 Δ

Pit - No Subsurface Oil

2 Δ

Pit - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

[CT/P]

Patchy Distribution

[CT/S]

Splashed Distribution

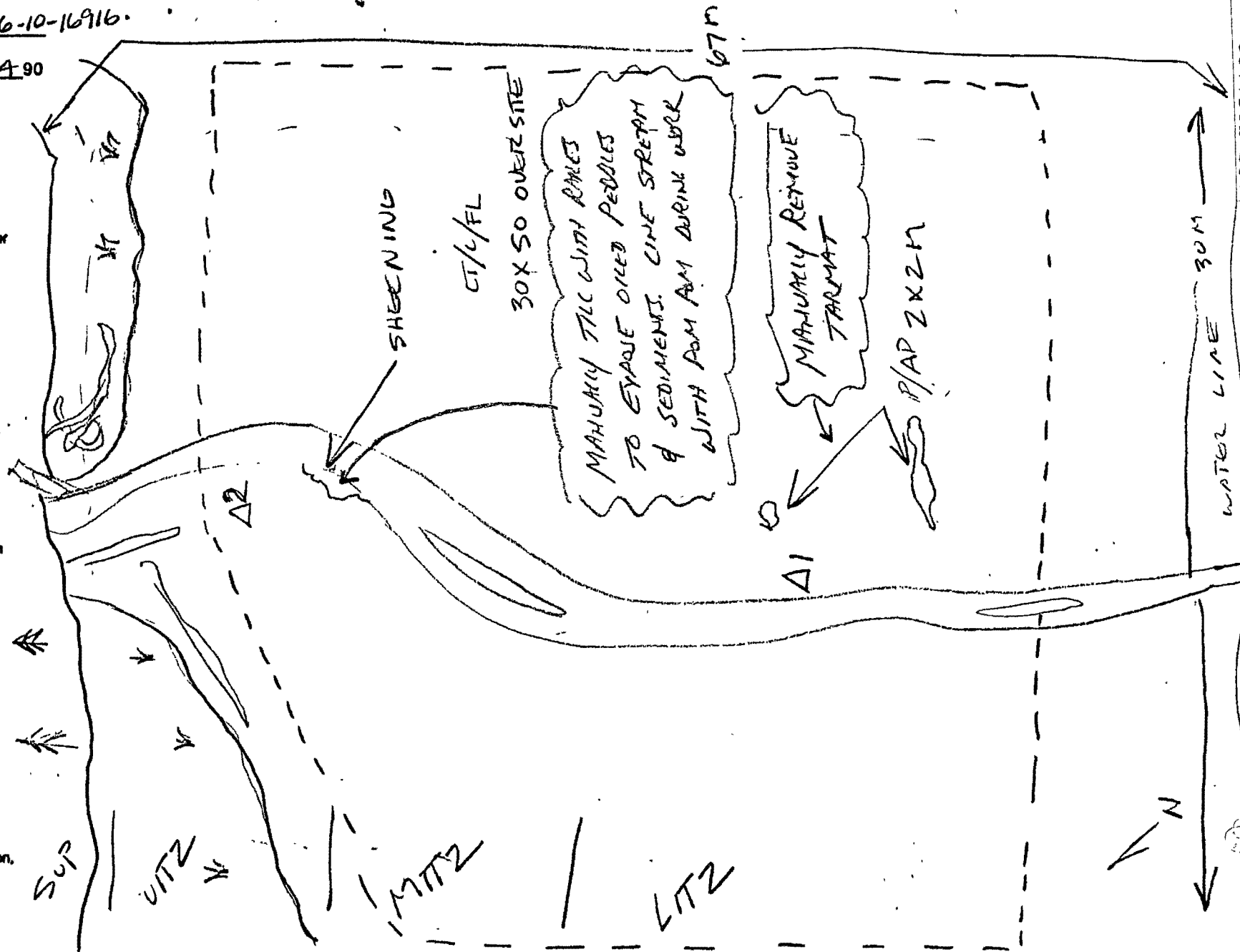
Oiled Vegetation

1 $\rightarrow$

Photo location, direction, and number

Oil Character Length (m): AP 2 PO CV CT ST MS PT TB FL 30 NO

REVISION: 9/24/90



29/48

FIELD SHORELINE COMMENT SHEET

SEGMENT ST 1 IN-031 SUBDIVISION: ^{ASC#} 226-10-16902 DATE 24 APR 90

USCG

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

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

~~ADEC~~ → ADFG

NAME Rick Gustin SIGNATURE Richard J Gustin

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS Recommend working at proper tide window 0 → -1.0

Remove thin crust of oiled matt and vegetation along east side of stream in middle & upper I.T.Z. Remove oiled gravels and sands on west side of stream edge and in areas where sheens occur in the stream bed. Remove thin patches of oiled matts in upper I.T.Z.

~~LAND MANAGER~~ → NONE

NAME Rick Gustin SIGNATURE Richard J Gustin

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

on west side of stream.

Remove patches of tar matt on east side of the stream in middle I.T.Z area.

After removal till mechanically or with shovels. Till areas which show sheening.

30/48

OPERATIONS FIELD NOTES

See Back for Instructions

SEGMENT ID ANAD IN-031
 STREAM ID # 226-10-16916
 ANNOTATED MAP INCLUDED GIN

DATE 4-24-90
 NAME DARAYL YATES
 TEAM # 14

SURFACE OIL	Quantities in Meters			Treatment Recommendation						
				None	Bioremediation		Tilling		Spot Hot Water	
	Length	Width	Area		Y/N	% Treat	Y/N	% Treat	Y/N	% Treat
Wide Band	30	50	1500		N		Y	100	N	
Medium Band							← (MANUALLY w/ RAKE)			
Narrow Band										
Very Light										
TOTAL MANDAYS							3			

SUBSURFACE OIL

Other (Describe)? NO SUBSURFACE OIL FOUND

TARMATS	Quantities in Meters			Treatment Rec			# of Bags	Mandays Required	
	Length	Width	Thick(cm)	None	Breakup	Remove		Breakup	Remove
Area #1	12	2	1			✓	2		1
Area #2									
Area #3									
Area #4									
Sporadic Mats									

MANUAL PICKUP	Type of Debris			In Meters		# of Bags	Pickup Y/N	Manday Estimate
	Mousse Tarballs	Oiled Veget	Cleanup Debris	Length	Width			
"Pocket" #1	NONE							
"Pocket" #2								
"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? 2 Is it mingled with the Oiled Debris Y/N

2 UNOILED LOGS

GENERAL

Snow covering 0 % of the Supratidal Zone?

Wave Exposure H/M/L

Access Limitations: GOOD ACCESS

Snare Boom/Pom Poms Recommended? YES - TO PROTECT STREAM DURING MANUAL TILLING

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

COMMENTS:

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

ACE 7354424

Seg ID: IN-031 Subdiv: 226-10-16916

Survey Date: 4/24/90

Comments by: Ken Critchlow

This stream site was lightly oiled with a small amount of asphalt pavement in the LITZ, and sediments producing sheen from a film on a gravel bar adjacent to the stream in the MITZ. No subsurface oil was observed in pits located in the UITZ and MITZ.

This site can be cleaned by a small crew using shovels to remove the upper 4 cm of contaminated sediments in oiled areas.

KR Critchlow

SHORELINE OILING SUMMA (ANAD)

REVISION NO. 04/13/90

OG CAL LARSON USCG DREHER, CWE SEGMENT ST/ IN 031 35/48
 BIO KEN CRITCHLOW LAND REP STREAM 226-10-16916 (OF)
 EXXON DARLYL YOE ADFG ILK GUSTIN-AIMEE WESEMAN TIME 10:20 to 10:45
 TEAM NO. 14 TIDE LEVEL -2 FT DATE 4/28/90
 EST. SUBDIVISION LENGTH: 30 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo
 SURFACE SEDIMENTS: R 5 % B 5 % C 40 % P 35 % G 20 % S 0 % M 0 % V 0 %
 SLOPE: Lang 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 30 m NO 0 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	IC	IB	IP	IS	BR	BL	FW	GY	SL	DR	TL	LR	SU	U	M	U
ASPHALT PAVEMENT				☒		☒										☒
POOLED																
COVER																
COAT																
STAIN																
MOUSSE																
PATTIES																
TARBALLS																
FILM	☒						☒			☒			☒	☒	☒	☒
NO OIL													☒			

PAVEMENT H F S 2 sq. m by .4 cm

PATTIES / TARBALLS _____ 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					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SHEEN (Y/N)	!	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	BR	BL	FW	GY	SL	DR	TL	LR	SU	U	M	U				
1	28					☒	.		.											☒			Y	☒	CB, PB GR / CB, PB GR
2	20					☒	.		.											☒			N		CB, PB GR / CB, PB GR
							.		.																
							.		.																
							.		.																
							.		.																

COMMENTS OILED SAKIDOMUS SHELL / LIGHT FILM OBSERVED OVER SITE.

REVIEWED _____ DATE _____

ACE 7354426

ANAD
SSAT DATA ENTRY FORM

PAGE 1 OF 2

GENERAL DATA

226-10
SEG ID: IN-031 SUBDIV: 16916 TEAM: 14 SURVEY DATE: 4/24/90
PAVEMENT: CHAR S AREA 2 THICKNESS 4 TARBALLS -
OILED: LGS - VEG - TRH - DBR - WAVE EXP: LW X MD - HG -
FAX RCVD: - DT: - AGENCY DISAGREE: -
EST SUBDIV LGTH: 30 OIL CATEGORY: W - M - N - VL 30 NO - U -

SURFACE DATA

SURFACE SEDIMENT: BRK - BLD 5 COB 40 PEB 35 GRN 20 SAN - MUD - VEG -

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

CHAR #: 2 OIL CHAR: FL OIL DIST: CONT X BRKN - PTCH - SPLH -
OIL CLR: GY FILM CLR: SL TIDAL ZONE: SU - UI X MI X LI X
LBR

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

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

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

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

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

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

34
13
/48

ANAD
SSAT DATA ENTRY FORM

SUBSURFACE DATA

PAGE 2 OF 2

SEGMENT ID: IN-031 SUBDIV: 226-10
16916

PIT # 1 PIT DEPTH 28 OIL CHARACTER NO OIL INTVAL: FROM — TO —
QUANT: — OIL CLR: — FLM CLR: — ZONE: SU — UI — MI X LI —
SUBSURF SEDIMENT: BRK — BLD — COB X PEB X GRN X SAN — MUD — VEG —

PIT # 2 PIT DEPTH 20 OIL CHARACTER NO OIL INTVAL: FROM — TO —
QUANT: — OIL CLR: — FLM CLR: — ZONE: SU — UI X MI — LI —
SUBSURF SEDIMENT: BRK — BLD — COB X PEB X GRN X 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: —

OPERATIONS FIELD NOTES

See Back for Instructions

30/AE

SEGMENT ID ANAD IN-031
 STREAM ID # 226-10-16916
 ANNOTATED MAP INCLUDED GIN

DATE 4-24-90
 NAME DAVEY JONES
 TEAM # 14

SURFACE OIL	Quantities in Meters			None	Treatment Recommendation					
	Length	Width	Area		Bioremediation		Tilling		Spot Hot Water	
					Y/N	% Treat	Y/N	% Treat	Y/N	% Treat
Wide Band	30	50	1500		N		Y	100	N	
Medium Band							(MANUALLY w/ BACK)			
Narrow Band										
Very Light										
TOTAL MANDAYS								3		

SUBSURFACE OIL

Other (Describe)?	NO SUBSURFACE OIL FOUND									

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

MANUAL PICKUP	Type of Debris			In Meters		# of Bags	Pickup Y/N	Manday Estimate
	Mousse Tarballs	Oiled Veget	Cleanup Debris	Length	Width			
* Pocket #1	NONE							
* Pocket #2								
* 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? 2 Is it mingled with the Oiled Debris Y/N
2 UNOILED LOGS

GENERAL Snow covering 0 % of the Supratidal Zone?
 Wave Exposure H/M/L Access Limitations: GOOD ACCESS
 Snare Boom/Pom Poms Recommended? YES - TO PROTECT STRAIT DURING MANUAL TILLING
 Would the production Craft have to be relocated to complete work on this subdivision? Y/N # of Times

COMMENTS: ALL WORK SHOULD BE PLANNED FOR PERIOD 5-15 → 7-15
CONTACT AOE & K BEFORE STARTING WORK

CATALOG NUMBER: 2261016916

STREAM NAME:

LOCATION: INGOT ISLAND, FOUL PASS, FACING DISK ISLAND

SEGMENT NUMBER: IN031 A

SHORELINE TYPE:

DATE: 04/13/90 TIME: COVE -0835

SITE	WIDTH (m)	LENGTH (m)	AREA (sqm)	PERCENT OIL	THICKNESS (cm)	PENETRATION (cm)	SURFACE SUBSURF	OIL TYPES	COMMENTS
1					> 10cm		SURFACE SUBSURF SURFACE	SOR MS, AP AP MS	Both sides of stream - MITZ Sheen in stream

COMMENTS:

HEAVILY OILED SEDIMENTS IN AND OUTSIDE OF STREAM. 3-4" PENETRATION DOWN TO GROUND WATER. STEAM/SHOVEL. OIL ON STREAM BANKS: YES OIL WITHIN 1 MILE OF STREAM: YES, UPPER/MID INTERTIDAL

CATALOG NUMBER: 2261016916

STREAM NAME:

LOCATION: INGOT ISLAND, FOUL PASS, FACING DISK ISLAND

SEGMENT NUMBER: IN031 A

SHORELINE TYPE:

DATE: 04/24/90 TIME: COVE -1055

SITE	WIDTH (m)	LENGTH (m)	AREA (sqm)	PERCENT OIL	THICKNESS (cm)	PENETRATION (cm)	SURFACE SUBSURF	OIL TYPES	COMMENTS
1							SURFACE	AP SOR	east side of stream - thin tar mat

COMMENTS:

SOME VERY THIN TARMATS ALONG EAST BANK OF STREAM. SHEEN FROM GRAVELS IN STREAM ITSELF. UITZ - OILED GRAVELS & ROCK PRIMARILY UNDERSIDE WEST SIDE STREAM. MITZ - TARMAT AND OIL ON STREAM BANKS. RECOMMENDATIONS: PERFORM WORK AT PROPER TIDE WINDOW 0 - 1.0. REMOVE THIN CRUST OF OILED MAT & VEGETATION ALONG EAST SIDE OF STREAM IN MIDDLE & UPPER ITZ. REMOVE OILED GRAVELS AND SANDS ON WEST SIDE OF STREAM EDGE AND IN AREAS WHERE SHEENS OCCUR IN THE STREAMBED. REMOVE THIN PATCHES IF OILED MATS IN UPPER ITZ ON WEST SIDE OF STREAM. REMOVE PATCHES OF TARMAT ON EAST SIDE OF THE STREAM IN MIDDLE ITZ AREA. AFTER REMOVAL, TILL MECHANICALLY OR WITH SHOVELS. AREAS SKIMMED. TILL AREAS WHICH SHOW SHEENING. OIL ON STREAM BANKS: YES OIL WITHIN 1 MILE OF STREAM: YES

site

2

percent oil

51-90

surf

oil types

CT/AP

west stream bank - oiled sediments in stream itself & band of broken surface coat on sediments

OG SUPPLEMENTAL INFO TO MAD

REC-DATE:

PAGE

OG vs. MAD:

[illegible]

ADEC EXXON VALDEZ POST-TREATMENT SURVEY REPORT

SEGMENT#: IN031

DATE: 09/16/89

LOCATION: LOWER PASSAGE, INGOT I.

TIME: 8:40

Survey Type: Boat, Ground

Team: C. Pavia, G. Winter, K. Dutcher, J. Krieger

WEATHER AND SEA CONDITIONS

Weather: Sunny
Sea State: Calm

Wind Direction: 0
Knots: 0

Low Tide: 8:28	Feet: -1.1	High Tide: 14:42	Feet: 14.
Low Tide: 20:53	Feet: -1.8	High Tide: 2:23	Feet: 13.5

SHORELINE DESCRIPTION

Shoretypes: H,LR,B,C

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

Wave Exposure: H,M,L (H=high, M=moderate, L=low)

Shoreline Composition: R,B,C,G

(R=bedrock, B=boulder, C=cobble, G=gravel, S=sand, M=silt)

OIL CHARACTERISTICS

Degree of Oiling: L,M,H

(N=none, VL=very light, L=Light, M=moderate, H=heavy)

Area of Impact: H,M

(S=supratidal, H=high intertidal, M=mid tidal, L=low intertidal)

Max. Oil Thickness: 1 mm (1 = 1 mm or less, 0 = no oil)

Max. Oil Penetration: 30 cm (35 = 35 cm or greater)

Percent Segment Categorized as Oiled: 100%

Presence of Oiled Driftwood (y/n): y

Oil Types: SY,T,A,ST

(P=pooled, M=mousse, SY=sticky, T=tar, A=asphalt, ST=stain)

Samples: IN031-1 / IN031-2 / none / none

DAMAGED OR OILED ORGANISMS

Fucus (y/n): n Barnacles (y/n): n Mussels (y/n): y

Dead Mammals: 0 Dead Birds: 0

SOLID WASTE FOUND

Type: None

Bags Collected: 0

Draft

Printed: 12/12/89 11:27

Walk-a-thon

ACE 7354378

Final Anadromous Stream Treatment Information

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

DEPARTMENT OF FISH AND GAME

STEVE COWPER, GOVERNOR

333 RASPBERRY ROAD
ANCHORAGE, ALASKA 99518-1599
PHONE (907) 344-0541

EXXON Valdez Oilspill Cleanup

Anadromous Fish Stream Authorization

Date 6/14/90

EXXON Authorized Representative _____

Shoreline Segment IN-31A

Anadromous Fish Stream Number(s) 226-10-16916

Approved Cleanup Techniques are to be in accordance with the AnadScat stream work order approved by the FOSC with special emphasis on manual removal of all oil of any form within the stream channel and bottom substrate, and on the stream banks within the high water limits. Minimize removal of stream bank substrate and surface components to that required for removing oiled materials.

Approved Cleanup Period 5/15/90 to 7/10/90

Alaska Department of Fish and Game

[Signature]
Authorized Officer

[Signature]
Permittee's Signature

Approved Cleanup techniques have been reviewed and complied with:

EXXON Authorized Field Representative

Date _____

ACE 7354384+156

ANADROMOUS FISH STREAM EVALUATION ADDENDUM

CONSTRAINTS FOR STREAM NO. 226-10-16916

SEGMENT IN-31 SUBDIVISION A

WORK WINDOW

Tarmat Removal *
Manual Raking

CLOSED

* EXXON STUDY SITE AP-4 - DO NOT REMOVE STAKES FROM BACK OF INTERTIDAL ZONE

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A,1B Salmon Stream

ADF&G catalogued anadromous stream - (226-10-16916) is in Subdivision A. No constraint to tarmat removal and manual raking.

5T Bald Eagle Nest

USFWS 6/1/90 map indicates an active nest in Subdivision A. Closed to within 400m of active nest. No constraint to more than 400m from active nest.

OTHER ECOLOGICAL CONSIDERATIONS

If eagle nest constraint is removed, other ecological considerations will apply.

SEE SUBDIVISION CONSTRAINT ADDENDUM IN-31A
FOR ADDITIONAL CONSTRAINT INFORMATION.

FOSC

Date

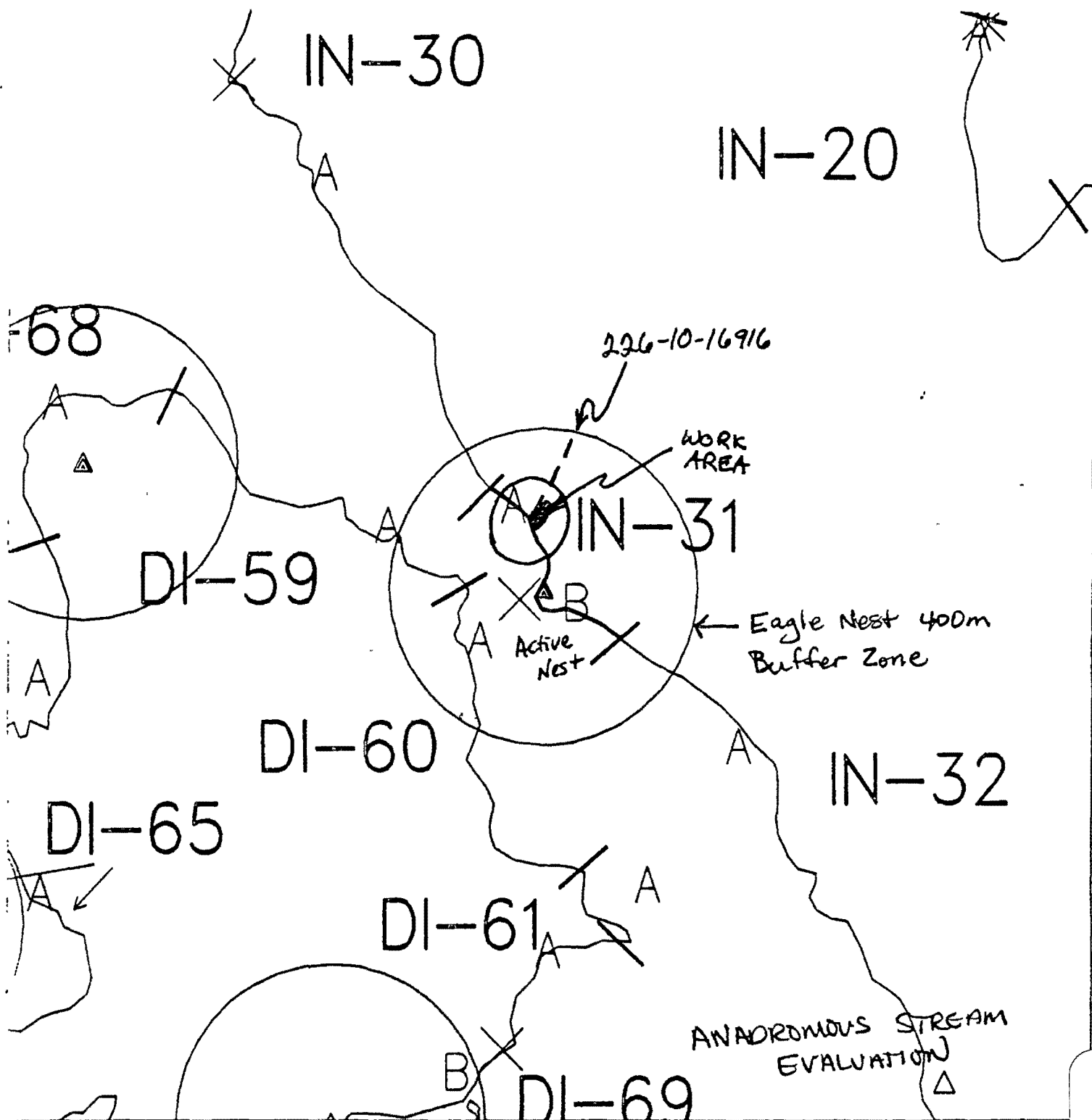
6-10-90

Prepared by

Date

6/10/90

ACE 7354385+HS



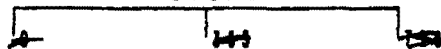
Exxon Company, USA

Map Key: PWS-IN-31

June 04, 1990

ECOLOGY MAP
SEGMENT IN-31
SUBDIVISION A (1 of 2)

METERS



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

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/ IN-31 STREAM NO: 226-10-16916 DATE 4/24/90

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)
6Y Recreation: Special use destination
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to uncoiled biota and substrate. No ecological constraints re: intertidal biota. Subject stream is located within Subdivision A (1 of 2).

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: [Signature] DATE: 5/3/90

Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment is 1) manual removal of tarmat as indicated on sketch map.

SEE ANAD. FISH ADDENDUM dated 6/10/90 JPP

TAG COMMENTS: MONITOR TO ADDRESS AREA INDICATED AS "SHEENING"
and SKETCH. ADDRESS SOURCE + NEED TO RAKE.

TAG APPROVAL DATE: 5/10/90.

ADEC Art Weimer
EXXON Amy Katz
NOAA Burt Werry
USCG D.D. Rome

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

STATE OF ALASKA

DEPARTMENT OF FISH AND GAME

STEVE COWPER, GOVERNOR

333 RASPBERRY ROAD
ANCHORAGE, ALASKA 99518-1599
PHONE: (907) 344-0541

EXXON Valdez Oilspill Cleanup

Anadromous Fish Stream Authorization

Date 6/14/90

EXXON Authorized Representative _____

Shoreline Segment IN-31A

Anadromous Fish Stream Number(s) 226-10-16916

Approved Cleanup Techniques are to be in accordance with the AnadScat stream work order approved by the FOSC with special emphasis on manual removal of all oil of any form within the stream channel and bottom substrate, and on the stream banks within the high water limits. Minimize removal of stream bank substrate and surface components to that required for removing oiled materials.

Approved Cleanup Period 5/15/90 to 7/10/90

Alaska Department of Fish and Game

[Signature]
Authorized Officer

[Signature]
Permittee's Signature

Approved Cleanup techniques have been reviewed and complied with: _____

EXXON Authorized Field Representative

Date _____

ACE 7354388 -15

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/ IN-31 A STREAM NO: 226-10-16916 DATE 4/24/90

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)

6Y Recreation: Special use destination

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiled biota and substrate. No ecological constraints re: intertidal biota. Subject stream is located within Subdivision A (1 of 2).

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: *J. David McManis* DATE: 5/10/90

Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

 No Treatment Recommended

X Treatment Recommended

 Manual Pickup

 Bioremediation

X Tarmat Removal

 Snare/Absorbent Booms

 Oil Snares (pom poms)

 Absorbents (pads, rolls, etc)

 Spot Washing: Wands

 Beach Cleaner

 Other (see comments)

COMMENTS: Recommended treatment is 1) manual removal of tarmat as indicated on sketch map.

TAG COMMENTS: MONITORS TO ASSESS AREA INDICATED AS SHEENING ON SKETCH. ASSESS SOURCE + NEED TO RAKE.

TAG APPROVAL DATE: 5/10/90.

ADEC ART WEAVER D. Williams

EXXON AMY RAY Real

NOAA BILL WERRY Bryant

USCG D.D. ROME A. Rome

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

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/ IN-31 STREAM NO: 226-10-16916 DATE 4/24/90

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)

6Y Recreation: Special use destination

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiled biota and substrate. No ecological constraints re: intertidal biota. Subject stream is located within Subdivision A (1 of 2).

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: *J. Daniel McManis* DATE: 5/10/90

Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment is 1) manual removal of tarmat as indicated on sketch map.

TAG COMMENTS: MONITORS TO ASSESS AREA INDICATED AS "SHEENING"
ON SKETCH. ASSESS SOURCE + NEED TO RAKE.

TAG APPROVAL DATE: 5/10/90.

ADEC ART WENGER D. Williams

EXXON AMY KAL Deal

NOAA Burt Werroff B. Williams

USCG D.D. ROME D. Rome

FOSC: *ML* DATE: 5-15-90

03 CALLARSON

SKETCH MAP

SEGMENT ST/IN 03

STREAM 226-10-1A16

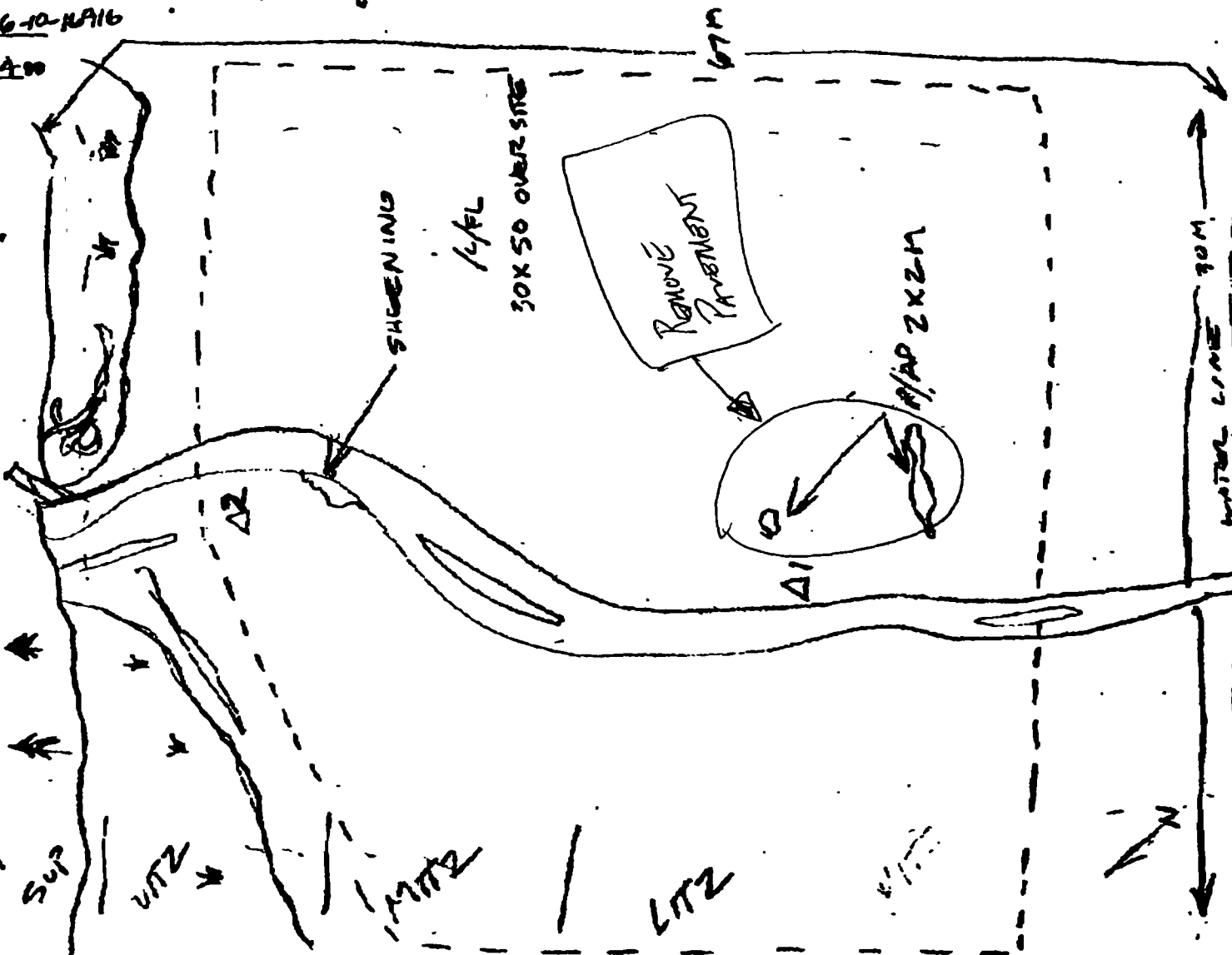
DATE 4 12400

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Day/24 Hr Day
- ☐ On Unit
- ☐ Width
- ☐ Length
- ☐ S. Curve
- ☐ Substrate Character
- ☐ Eri. 100/LINE
- ☐ SCL
- ☐ Photo Location(s)
- ☐ Path(s)
- ☐ P/L Location(s)
- ☐ Photo Location(s)

LEGEND

- 1 A
- PS No Substrate C/L
- 2 A
- PS Substrate C/L
- CV/C
- Channel Distribution
- CT/B
- Bank Distribution
- CT/P
- Fully Distribution
- CT/P
- Bank Distribution
- lll
- Other Vegetation
- 1 00
- Photo location, direction, and number



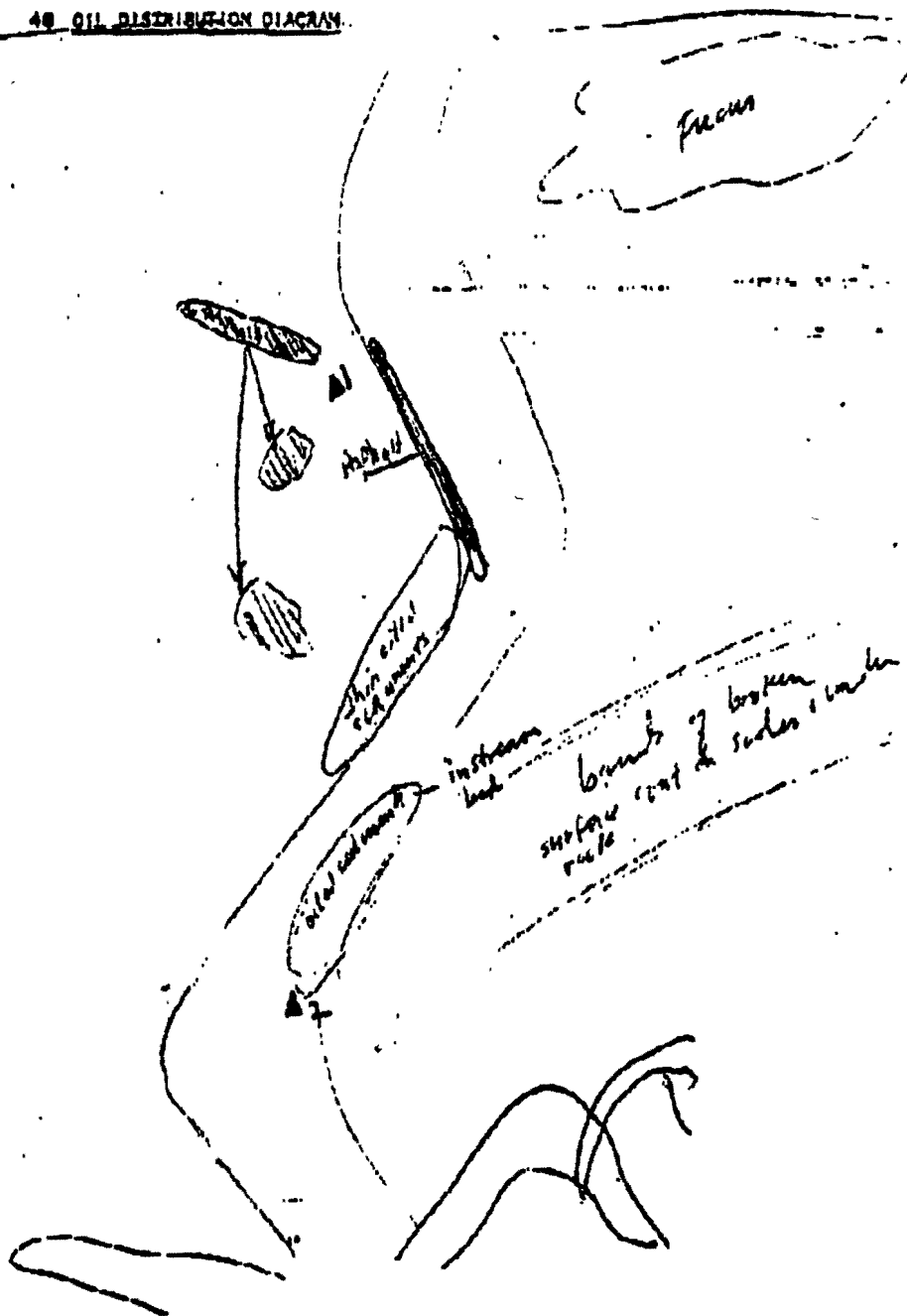
On Character Length Int: AP 2 PD CV CT ST ME PT TB FL 30 NO

FRAME(S)

DESCRIPTION

Pit 01 2.8 cm deep Shearwater from sediment
 Pit 02 2.0 cm deep - mostly coral

48 OIL DISTRIBUTION DIAGRAM



sample taken
 from frame 8 and
 10 direction.

SUBJECT STREAM is
LOCATED in
IN-31A
(1 of 2)

IN-31

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

IN-31

ADEC Segment Length: 824

0 100 200 300
METERS

Map Key: PWS-276
Name: James Sprin
Date: 4/7/90
Data Entered:

ACE 7354393 -15/56'

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/ IN-31 STREAM NO: 226-10-16916 DATE 4/24/90

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)

6Y Recreation: Special use destination

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiled biota and substrate. No ecological constraints re: intertidal biota. Subject stream is located within Subdivision A (1 of 2).

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: J. David McMillan DATE: 5/10/90

Subsurface Oil Observed: Yes _____ No X Maximum Depth _____

RECOMMENDATIONS:

 No Treatment Recommended

X Treatment Recommended

 Manual Pickup

 Bioremediation

X Tarmat Removal

 Snare/Absorbent Booms

 Oil Snares (pom poms)

 Absorbents (pads, rolls, etc)

 Spot Washing: _____ Wands

 Beach Cleaner

 Other (see comments)

COMMENTS: Recommended treatment is 1) manual removal of tarmat as indicated on sketch map.

TAG COMMENTS: MONITORS TO ASSESS AREA INDICATED AS "SHEENING" ON SKETCH. ASSESS SOURCE + NEED TO RAKE.

TAG APPROVAL DATE: 5/10/90.

ADEC ART WEAVER D. Williams

EXXON AMY KAT Real

NOAA Burt Werry B. Williams

USCG D.D. ROME A. Home

FOSC: ML DATE: 5-15-90

RECEIVED
MAY 07 1990

DEPT. OF
ENVIRONMENTAL CONSERVATION

ANADROMOUS FISH STREAM ASSESSMENT

REGION: PRINCE WILLIAM SOUND

SEGMENT: IN-31A

STREAM NO: 226-10-16916

Exxon Geomorphologist map in this report has been significantly altered since it was drawn in the field.

manually fill + rake oiled sediments + line stream with pump was removed from map. - a copy of map is included

Please follow our recommendations for removal of oiled sediments in stream bank, bed etc. This is not an Exxon's recommendations.

Change in treatment rec & removal
of CT designation from original
map

copy of original on back

~~changed treatment~~

ANALOGOUS FISH STREAM EVALUATION

SEGMENT ST/ IN-31 STREAM NO: 226-10-16916 DATE 4/24/90

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)

6Y Recreation: Special use destination

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiled biota and substrate. No ecological constraints re: intertidal biota. Subject stream is located within Subdivision A (1 of 2).

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: _____ DATE: _____

Subsurface Oil Observed: Yes _____ No X Maximum Depth _____

RECOMMENDATIONS:

_____ No Treatment Recommended

X Treatment Recommended

_____ Manual Pickup

_____ Bioremediation

X Tarmat Removal

_____ Snare/Absorbent Booms

_____ Oil Snares (pom poms)

_____ Absorbents (pads, rolls, etc)

_____ Spot Washing: _____ Wands

_____ Beach Cleaner

_____ Other (see comments)

COMMENTS: Recommended treatment is 1) manual removal of tarmat as indicated on sketch map.

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____

EXXON _____

NOAA _____

USCG _____

FOSC: _____ DATE: _____

ACE 7354396

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

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

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

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

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

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

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

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

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

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

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

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

1H Remote release site

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

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

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

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

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

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

1L Set net sites (6/11 to 7/25)

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

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

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

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

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

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

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

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

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

ADF&G Don Calkins 267-2403

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

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

AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

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

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

AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

ADF&G Tom Roth 267-2206

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

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

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

AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

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

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

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

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

Special use destination

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

7HH Finfish harvesting

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

7JJ Invertebrate harvesting

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

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

ACE 7354397

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / IN-031 SUBDIVISION: ASC# 226-10-169¹⁶ DATE 24 APR 9

USCG

NAME Kerwin L. Draher SIGNATURE K. L. Draher

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

~~ADEC~~ → ADFG
NAME Rick Gustin

SIGNATURE Richard J. Gustin

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

Recommend working at proper tide window 0 →
Remove thin crust of oiled matt and vegetation
along east side of stream in middle & upper I.T.Z
Remove oiled gravels and sands on west side of stream
edge and in areas where sheens occur in the stream
bed. Remove thin patches of oiled matts in upper.

~~LAND MANAGER~~ → NONE

NAME Rick Gustin

SIGNATURE Richard J. Gustin

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

on west side of stream.

Remove patches of tar matt on east side of the
stream in middle I.T.Z area.

After removal fill mechanically or with shovels
Fill area with...

ACE 7354398

Remove thin crust of oiled mat + vegetation ^{37/48}
along east side of stream in middle + upper I.T.Z.

Remove oiled gravels and sands on west side of
stream edge and in ... area where
sheens occur on the stream bed.

Remove thin patches of oiled mats in upper I.T.Z.
on West side of stream.

Remove patches of tar mat on East side of
the stream in middle I.T.Z. area.

After removal, till mechanically over the shovels
areas skimmed. Till areas which show
Sheening.

SHORELINE OILING SUMMA (ANAD)

REVISION NO. 04/13/88

OG CAL LARSON USCG DRAPER, CWE SEGMENT ST/ IN 031
 BIO KEN CRITCHLOW LAND REP STREAM 220-10-16/16 OF
 EXON DARIN L YOUNG ADFG KAUSTON-AUTEE WESEMAN TIME (D: 22 to 10:45
 TEAM NO. 14 TIDE LEVEL -2 FT DATE 4/22/90
 EST. SUBDIVISION LENGTH: 20 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo
 SURFACE SEDIMENTS: R 5 % B 5 % C 40 % P 35 % Q 20 % S 0 % M 0 % V 0 %
 SLOPE: Long 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 30 m NO 0 m

SURFACE OIL

CHARACTER	DISTRIBUTION	OIL / FILM COLOR	IMPACTED ZONES			
			W	M	N	VL
ASPHALT PAVEMENT	☒	☒	☒	☒	☒	☒
POOLED	☐	☐	☐	☐	☐	☐
COVER	☐	☐	☐	☐	☐	☐
COAT	☐	☐	☐	☐	☐	☐
STAIN	☐	☐	☐	☐	☐	☐
MOUSSE	☐	☐	☐	☐	☐	☐
PATTIES	☐	☐	☐	☐	☐	☐
TARBALLS	☐	☐	☐	☐	☐	☐
FILM	☒	☒	☒	☒	☒	☒
NO OIL	☐	☐	☐	☐	☐	☐

PAVEMENT H P S 2 sq. m by .4 cm

PATTIES/TARBALLS 0 BAGS

NEAR SHORE SHEEN? NO BR RW SL TL

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

Did You Collect DEBRIS
☐ YES ☒ NO

TYPE 0

#BAGS 0

Photographs:

Roll No. 0

Frame 0

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR	PIT ZONE				A N A	SHEEN (cm)	Y	SURFACE - SUBSURFACE SEDIMENTS
		CP	CR	CL	CF	NO		NO	LO		W	U	M	L				
1	20					☒	0-20			☒						Y	☒	LS, P, S, C, B, M, V, Q, R, N, A
2	20					☒	0-20			☒						N	☒	LS, P, S, C, B, M, V, Q, R, N, A

COMMENTS OILED SANDWICH SHELL / LIGHT FILM OBSERVED OVER SITE.

REVIEWED JW DATE 4-25-90

ACE 7354400

03 CALLARSON

SKETCH MAP

SEGMENT STATION 03

STREAM 226-10-NA16

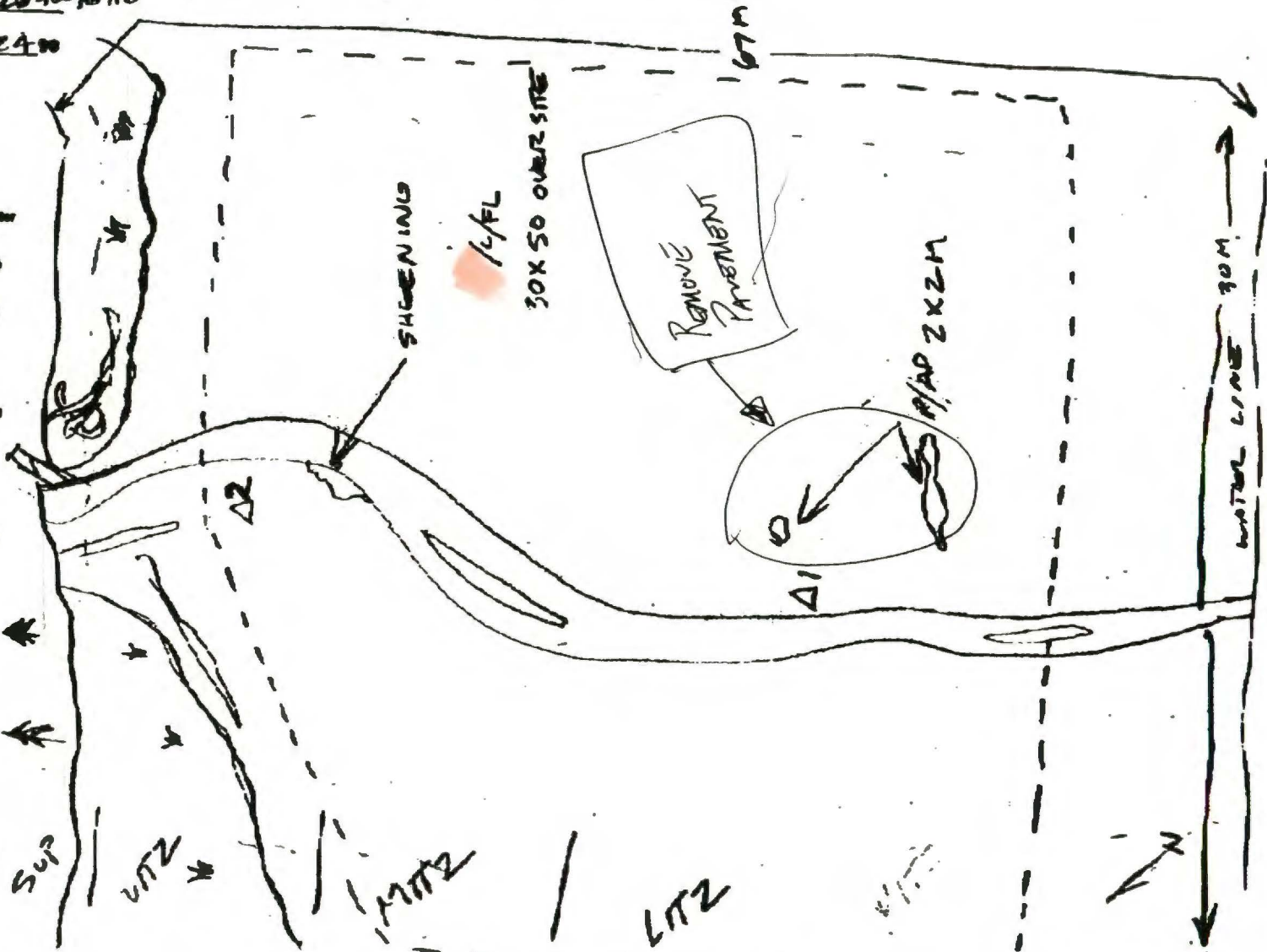
DATE 4/24/00

CHECKLIST

- Map
- Appar. Bathy
- Spot/Sub Bathy
- Ch. Dist.
- Width
- Length
- % Cover
- Substrate Character
- Em. INFLAME
- SSL
- Profile Location(s)
- Profile(s)
- PH Location(s)
- Photo Location(s)

LEGEND

- 1 A
- PO - No Substrate Ch.
- 2 A
- PH - Substrate Ch.
- CT/C
- Continuous Distribution
- CT/B
- Broken Distribution
- CT/2
- Patchy Distribution
- CT/3
- Isolated Distribution
- lll
- Open Vegetation
- 1 00
- Photo location, direction, and number



This copy diff
from our field copy
lacking inst for sheening area
by pit 24

Ch Character Length (m): AP 2 PO CV OT ST MS PT TB FL 30 NO

ASFCO MULTI-ASSESSMENT DATA FORM

36/48

1 SURVEY TYPE: BE 22 05 TO AVS SCM HTS PTA 2 REGION: SPR 12,C: KJS

METHOD: ASPIAT Ground Base

3 DATE: 4/24/90 16 HIGH TIDE TIMES: 1 21 TEAM RECIPIENT: R. G. M. Jr.

4 START TIME: 1023 18 HIGH TIDE HTS: 1 22 OBSERVER: A. W. W. W.

5 STOP TIME: 1055 17 LOW TIDE TIMES: 1 23 AGENCY: ADFG

6 SECTOR #: IN031 19 LOW TIDE HTS: 1 24 PHOTOS TAKEN: Y (X)

7 STATION #: 18 TIDE HT AT SURVEY: Roll #: Frame:

8 K-UNIT: Ebb Slack Flood Slack 25 VIDEO TAKEN: (X) TAPE:

9 STAT AREA: 26 UNCL CLASH: Steps: 236 End: 400

10 LAT: 11 LONG: 28 SAMPLES TAKEN: Y (X) Number

12 SOURCE: Bay Loran 29

13 LOCATION: SW side Ingot Island 30

14 DESCRIPTION: Full 1000 31

EXTENT OF OIL

32 SURFACE COVERAGE

SHORELINE				STREAM			
L	V	H	N	L	V	H	N

 36 CATALOGED ANAD. FISH BREAST (X) N

37 SURFACE THICKNESS

1 cm	1 cm						
------	------	--	--	--	--	--	--

 37 CATALOG # 226-10-16916

38 PENETRATION

3-4 cm	1-2 cm						
--------	--------	--	--	--	--	--	--

 38 STREAM NAME:

39 OVERALL OIL IMPACT: N VL L M N 39 OIL IN STREAM BED? (X) N

40 OIL TYPE: Pooled Moist Tar Asphalt Sticky Slush 40 OIL ON STREAM BANK? (X) N

41 OILED SEDIMENT: (X) N 41 OIL ON BEACH ADJACENT TO MOUTH? (X) N

42 SHORELINE TYPE: Headland Low-lying Rocks Beach Cove 42 OIL WITHIN 1 MILE OF STREAM? (X) N

43 WAVE EXPOSURE: High Moderate Low 43 WHERE:

44 SUBSTRATE TYPE: Bedrock Boulder 20 Gravel 60' to 44 ANADROMOUS FISH PRESENT? Y N

45 GRAVEL 20 SAND MUD/SILT 45 ANADROMOUS FISH OBSERVATION

46 COMMENTS: Some very thin tar matts along east bank of

stream - stream from gravel in stream itself

NOTE - oiled gravel & rock primarily under side west

side stream

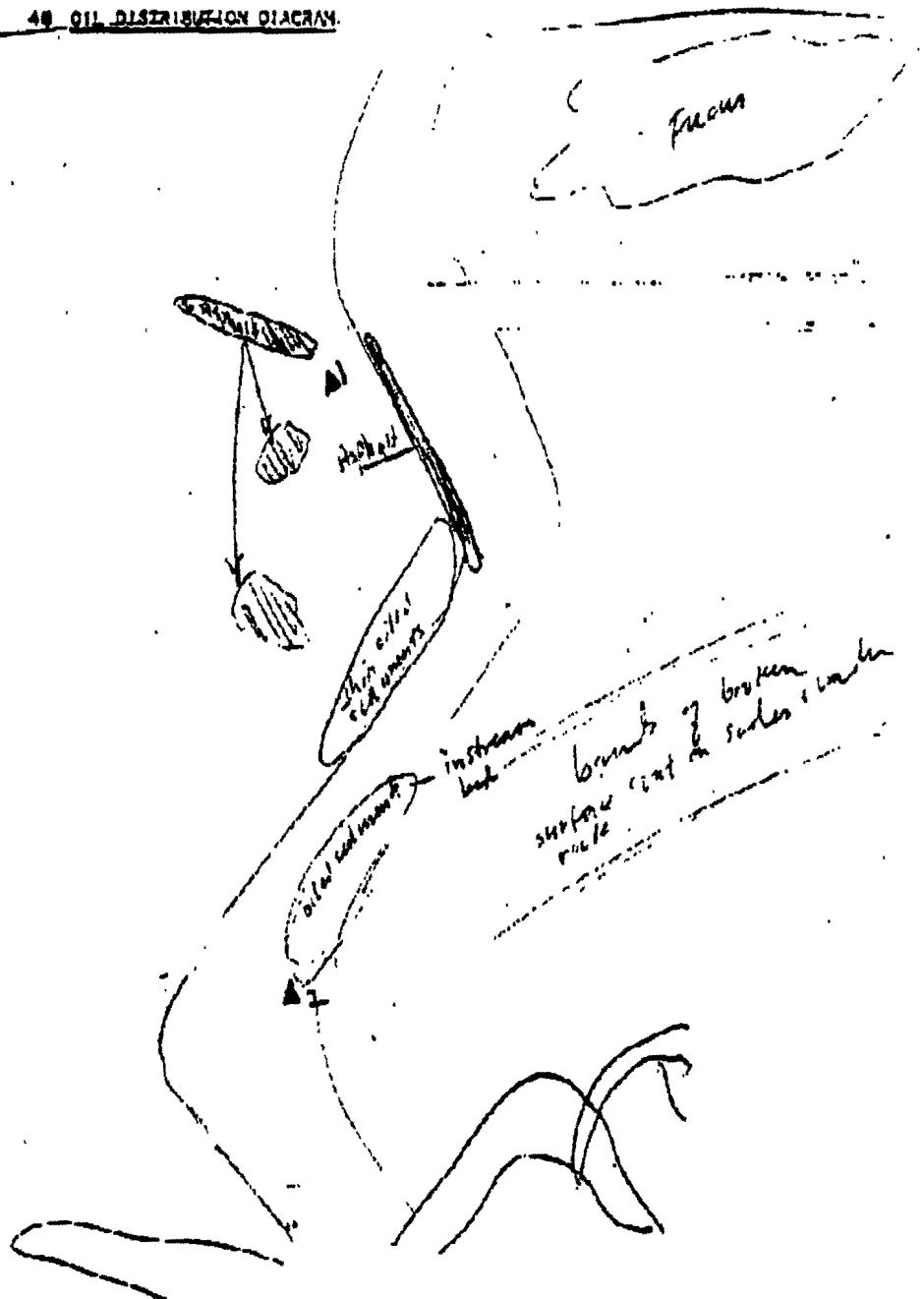
NOTE - tar matt and oil on stream bank.

FRAME(S)

DESCRIPTION

Pit #1 2.8 cm deep Shallow lime sediments
 Pit #2 2.0 cm deep - thinly coated

48 OIL DISTRIBUTION DIAGRAM



circle taken
 from frame 8 and
 on direction.

11/48
Seg ID: IN-031 Subdiv: 226-10-16916
Survey Date: 4/24/90
Comments by: Ken Critchlow

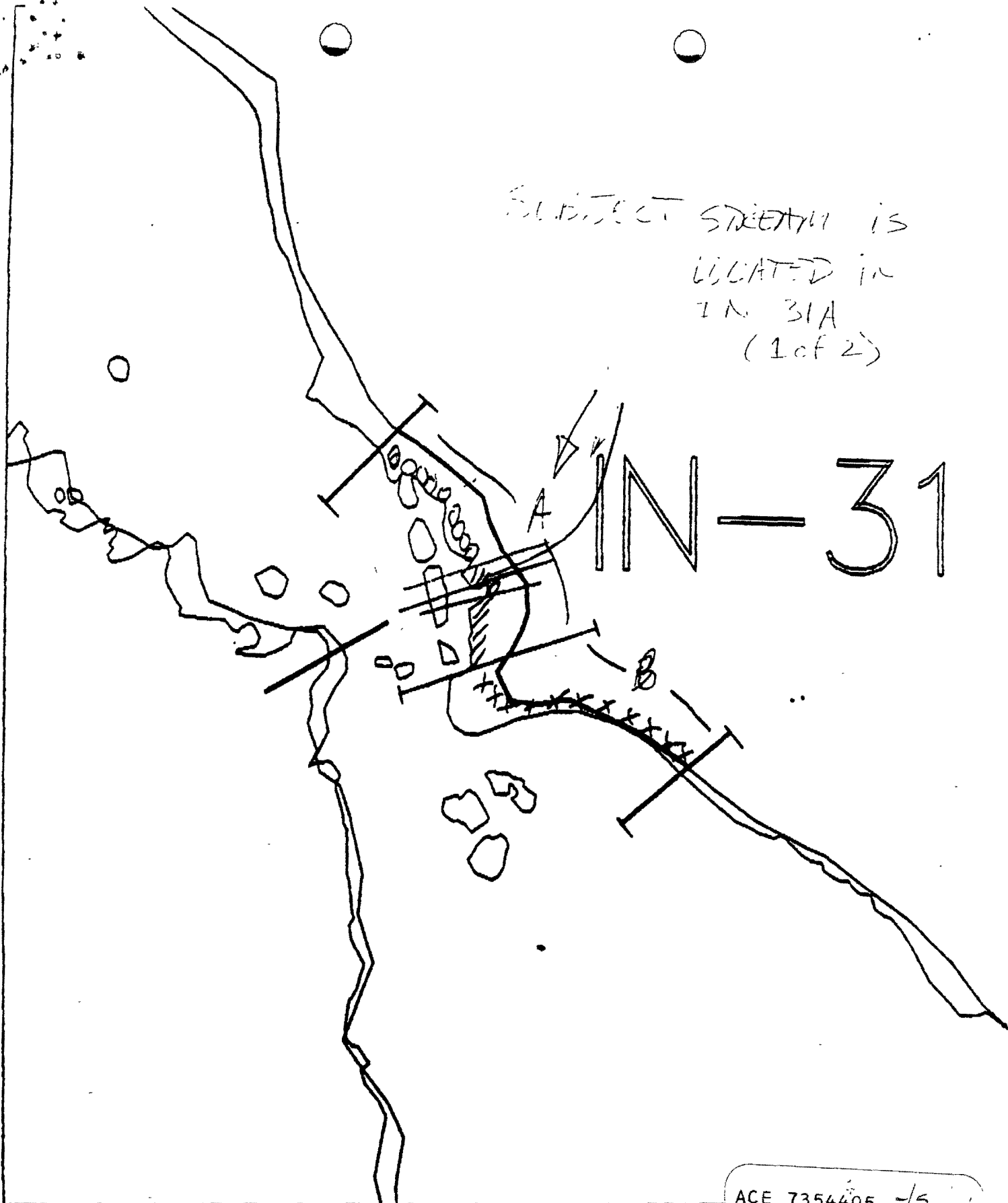
This stream site was lightly oiled with a small amount of asphalt pavement in the LITZ, and sediments producing sheen from a film on a gravel bar adjacent to the stream in the MITZ. No subsurface oil was observed in pits located in the LITZ and MITZ.

This site can be cleaned by a small crew using shovels to remove the upper 4 cm of contaminated sediments in oiled areas.

KR Critchlow

SUBJECT STREAM IS
LOCATED IN
IN-31A
(1 of 2)

IN-31



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

OOOO No Oil

IN-31

ADEC Segment Length: ⁸²⁴~~610~~



ACE 7354405 -15

Map Key: PWS-276

Name: James Sprin

Date: 4/7/90

Date Entered:

SKETCH MAP

ACE 7354406

SEGMENT ST/IN 031

STREAM 226-10-16916

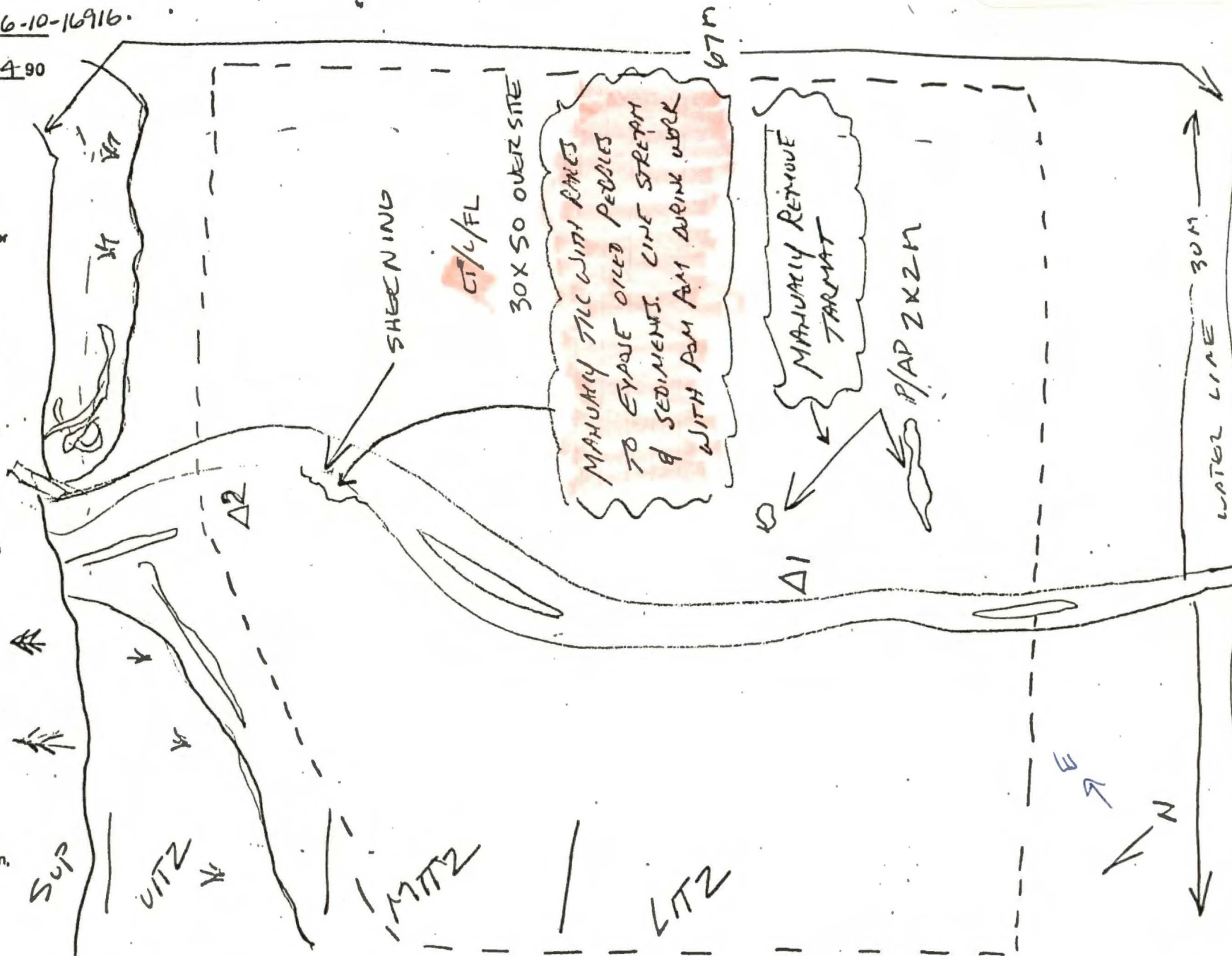
DATE 4 / 24 / 90

CHECKLIST

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

LEGEND

- 1 Δ
PII - No Subsurface Oil
- 2 Δ
PII - Subsurface Oil
- CT/C
Continuous Distribution
- CT/B
Broken Distribution
- CT/P
Pachy Distribution
- CT/S
Splashed Distribution
- eee
Oiled Vegetation
- 1 $\rightarrow$
Photo location, direction, and number



Oil Character Length (m): AP 2 PO CV CT ST MS PT TB FL 30 NO

REVISION: 03/24/90

our copy from the file AS

HEAVY

LIGHT

SNOW

IN-31
ASC 16916
1-4-90
FOUL PASSAGE

0 5 10 20 30 METERS

OCEAN

TAPE# WTCOIVHS
FRAME 663

ACE 7354456



ADEC BIOREMEDIATION DAILY REPORT

DATE: 9/8/90ADEC Monitor: Rouxann Hudnall

TIDES:	TIME:	HEIGHT:	WEATHER: Cloudy <u>Rain</u> Fog Sun
Low	_____	_____	TEMP: <u>50</u> SEA COND:
High	_____	_____	WIND DIR: N-NE-E-SE-S-SW-W-NW
Low	_____	_____	WIND SPEED 0-15 16-30 30+
High	_____	_____	

USCG Scott Rainsford
OOPS James ByarsExxon Q1 Snook
Other _____OGS Jim Conner

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

IN30	A	1	0	46	5rd treat
IN31	B	3	183	135	3rd treat
IN32	A	11	0	331	3rd treat
IN33	A	4	32	103	3rd treat 2nd treat
IN24	B	2	211	105	3rd treat
KN104	A	3	30	236 205	3rd treat

\shorelin\rowann\biorept 8/7/90

ADF&G WINTER STREAM SURVEY FORM

Shoreline Segment No: IN031 Stream Catalog No: ASC 16916
Geographic Location: FOWL PASS INGOT ISLAND

Date: 1-4-90 Start Time: 1231 End Time: 1305
Observers: TOM CROWE, VINCE MATHEWS (ONR)

Low Tide: (time and height) 1243 PM
High Tide: 7:03 PM

SHORELINE DIMENSIONS AT STREAM SITE

Intertidal Zone: 45 METERS

Area to Right of Stream: 100 METERS

Area to Left of Stream: 100 METERS

Wave Exposure: HIGH MEDIUM LOW X

SHORELINE TYPE

Steep Bedrock Low Angle Bedrock Gravel (0.1 to 2 inch
dia) X Cobble (2 to 10 inch) Boulder (>10 inches)
Other

STREAM CHARACTERISTICS

Length through Intertidal Zone: 60 METERS

Average Width: 1 METERS

Channel/Bed Configuration:

Single Channel X Multiple Channels Number

Note: (see diagram attached)

BIOLOGICAL OBSERVATIONS

DEER TRACKS IN SNOW. BALD EAGLE SITTING ON THE
STREAM BANK AS WE LANDED

CHARACTERISTICS OF OIL DEPOSITS

DEPOSIT A

Distance from Stream ADJACENT
 Surface Area _____
 Thickness 1" - 2"
 Penetration Depth COULD NOT DETERMINE
 Tar x Asphalt _____
 Mousse _____ Stain _____
 % Coverage of Deposit 80%
 Tidal Zone UPPER
 Comments: _____

DEPOSIT B

Distance from Stream ADJACENT
 Surface Area _____
 Thickness 1" - 2"
 Penetration Depth CANNOT DETERMINE
 Tar x Asphalt _____
 Mousse _____ Stain x
 % Coverage of Deposit _____
 Tidal Zone LOWER
 Comments: LIGHT OILING

DEPOSIT C

Distance from Stream _____
 Surface Area _____
 Thickness _____
 Penetration Depth _____
 Tar _____ Asphalt _____
 Mousse _____ Stain _____
 % Coverage of Deposit _____
 Tidal Zone _____
 Comments: _____

DEPOSIT D

Distance from Stream _____
 Surface Area _____
 Thickness _____
 Penetration Depth _____
 Tar _____ Asphalt _____
 Mousse _____ Stain _____
 % Coverage of Deposit _____
 Tidal Zone _____
 Comments: _____

DEPOSIT E

Distance from Stream _____
 Surface Area _____
 Thickness _____
 Penetration Depth _____
 Tar _____ Asphalt _____
 Mousse _____ Stain _____
 % Coverage of Deposit _____
 Tidal Zone _____
 Comments: _____

DEPOSIT F

Distance from Stream _____
 Surface Area _____
 Thickness _____
 Penetration Depth _____
 Tar _____ Asphalt _____
 Mousse _____ Stain _____
 % Coverage of Deposit _____
 Tidal Zone _____
 Comments: _____

PHOTOGRAPHIC EVIDENCE

VIDEO

Cassette No. _____ Photographer _____
 Beginning Footage _____ Ending Footage _____

35 MM

Roll Number _____ Photographer _____
 Frame Numbers _____

Polaroid

Number of Prints _____ Photographer _____

ADEC DEMOBILIZATION REPORT
FOR PHYSICAL/MECHANICAL TREATMENT AND CUSTOMER

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

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

RE: SEGMENT NUMBER IN-31 SUBSEGMENT NUMBER A

DEC REP Wesley Ghormley USCG REP Scott Thomas

EXXON REP Ray Sotelo BOAT NAME/SQUAD NUMBER Beulah Candies/Squad 6

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

Is there additional oil remaining which can be removed with further physical/mechanical treatment? If yes what is the recommended treatment method. NO.

Describe the amount of oil remaining (type, size of area and location). - NONE.

Additional Comments (keep objective)

- Active Eagle Nest present, USFWS monitor Dmg stine presence

signature Wesley Ghormley
Date and time of demobilization from segment 7/5/90 - 0900 Hrs.
Shoremon\55 5-12-90

TODAY'S DATE 5/9/90

DEC REP J. J. J. USCG REP J. G. J.

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*

Tarmats beyond 50 yds. of two stream beds were manually removed. Exxon followed criteria sent out by ADF+G regarding treatment near stream beds.

Is there additional oil remaining? If yes then describe amount of oil remaining (type, size of area and location). *Yes*

Oil remaining consists of small isolated tar mats and
1 Band along streambank 2m x 6m wide. Band + Tar Mats
3 cm. ss. oiling - SS. oiling 1 OR + 2 cm. OF ~~1 cm OR~~^{1 cm OR} ~~2 cm OF~~^{2 cm OF}. See sketch map
on the back of this for extent of oil remaining in stream area
Date and Time of demobilization from segment 5/3/40 18.00

COMPLETE THIS FORM AND FAX TO ANCHORAGE AFTER DEMOBILIZATION FROM EACH SEGMENT.

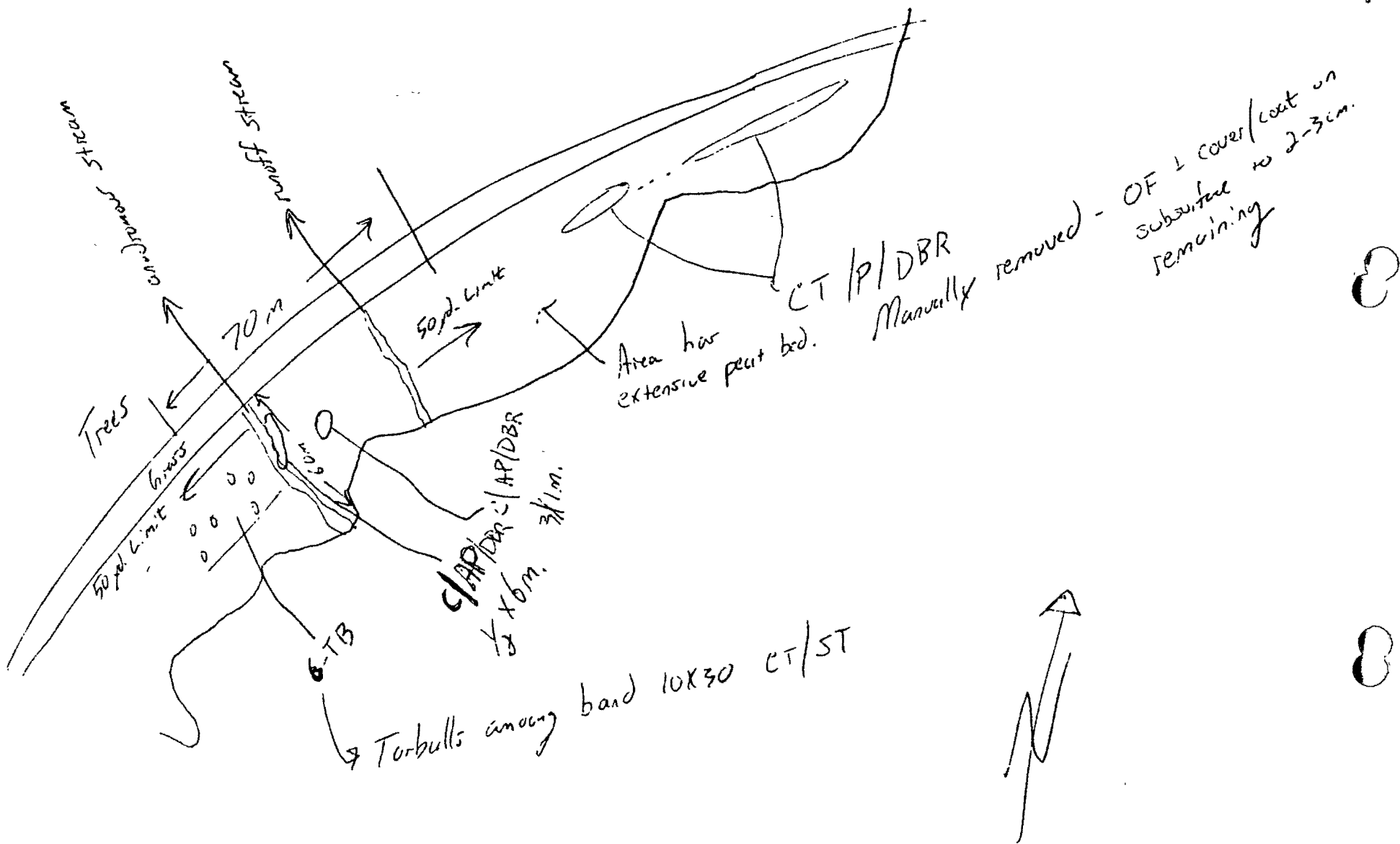
Additional Comments (keep objective)

Stream beds (2) 1 And. 1 runoff should be evaluated again for possible treatment later this season.

signature

Revised 5/8/90

ACE 7354382



8

8

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/ IN-31 STREAM NO: 226-10-16916 DATE 4/24/90

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)

6Y Recreation: Special use destination

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to uncoiled biota and substrate. No ecological constraints re: intertidal biota. Subject stream is located within Subdivision A (1 of 2).

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: [Signature]

DATE: 5/10/90

Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

 No Treatment Recommended

X Treatment Recommended

 Manual Pickup

 Bioremediation

X Tarmat Removal

 Snare/Absorbent Booms

 Oil Snares (pom poms)

 Absorbents: (pads, rolls, etc)

 Spot Washing: Wands

 Beach Cleaner

 Other (see comments)

COMMENTS: Recommended treatment is 1) manual removal of tarmat as indicated on sketch map.

TAG COMMENTS:

MONITORS TO ASSESS AREA INDICATED AS "SHEENING"
ON SKETCH. ASSESS SOURCE + NEED TO RAKE.

TAG APPROVAL DATE: 5/10/90

ADEC

EXXON

NOAA

USCG

ART WEAVER D. D. ROME
AMY KAT D. D. ROME
BILL WEAVER D. D. ROME
D. D. ROME D. D. ROME

FOSC:

DATE: 5-15-90

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry distribution (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 constraints. In any case, contact ADF&G Habitat Division prior to treatment for consultation and/or permit application.
 AGENCY CONTACT PERSON: ADF&G John Morison 267-2324
- 1C Salmon fry nursery area (4/31 to 7/31)
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to July 31 unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G prior to treatment for confirmation and advice.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1D Esther Hatchery release (4/15 to 6/15)
 1E Main Bay Hatchery release (4/20 to 6/15)
 1F Sawmill Bay Hatchery release (4/15 to 6/1)
 1G Cannery Creek Hatchery release (4/21 to 6/1)
 1H Remote release site
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G and/or PWS Aquaculture Association. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G or PWS Aquaculture Association for confirmation and authorization.
 AGENCY CONTACT PERSON: 1E ADF&G Larry Peltz 424-3214
 1D 1F 1G PWS Aquaculture Association John McMillan or Bruce Suzumoto 424-7511
- 1I Gill net area (6/7 to 8/31)
 1J Purse seine area (7/20 to 9/30)
 1K Purse seine hook-off (7/20 to 9/30)
 1L Set net sites (6/11 to 7/25)
 Contact ADF&G for specific dates, locations and constraints. Restrict boat and air traffic to essential minimum. When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G James Brady 424-3212
- 2M Herring spawning (4/1 to 6/15)
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to unopened intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G Evelyn Biggs 424-3235
- 3N, 3P Harbor seal and sea lion pupping (5/15 to 7/1)
 3O, 3Q Harbor seal and sea lion molting (8/15 to 9/15)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31). Contact ADF&G and USFWS prior to treatment for confirmation.
 AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
 ADF&G Don Calkins 267-2403
- 5R Seabird colony (5/1 to 9/1)
 Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
 ADF&G Tom Roth 267-2206
- 5T All Bald Eagle nests (3/1 to 6/1)
 Active Bald Eagle nests (3/1 to 9/1)
 Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 6U Recreation: Tent sites (6/1 to 9/15)
 6V Anchorages (6/1 to 9/15)
 6W Forest Service cabins (6/1 to 9/15)
 6X Lodge (6/1 to 9/15)
 Special use destination
- 7Z Subsistence area: Salmon harvesting (5/1 to 9/30)
 7HH Finfish harvesting
 7I Deer harvesting (8/15 to 2/28)
 7JJ Invertebrate harvesting
 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 7354409

03 CALLARSON

SKETCH MAP

SEGMENT STN 031

STATION 226-10-NA16

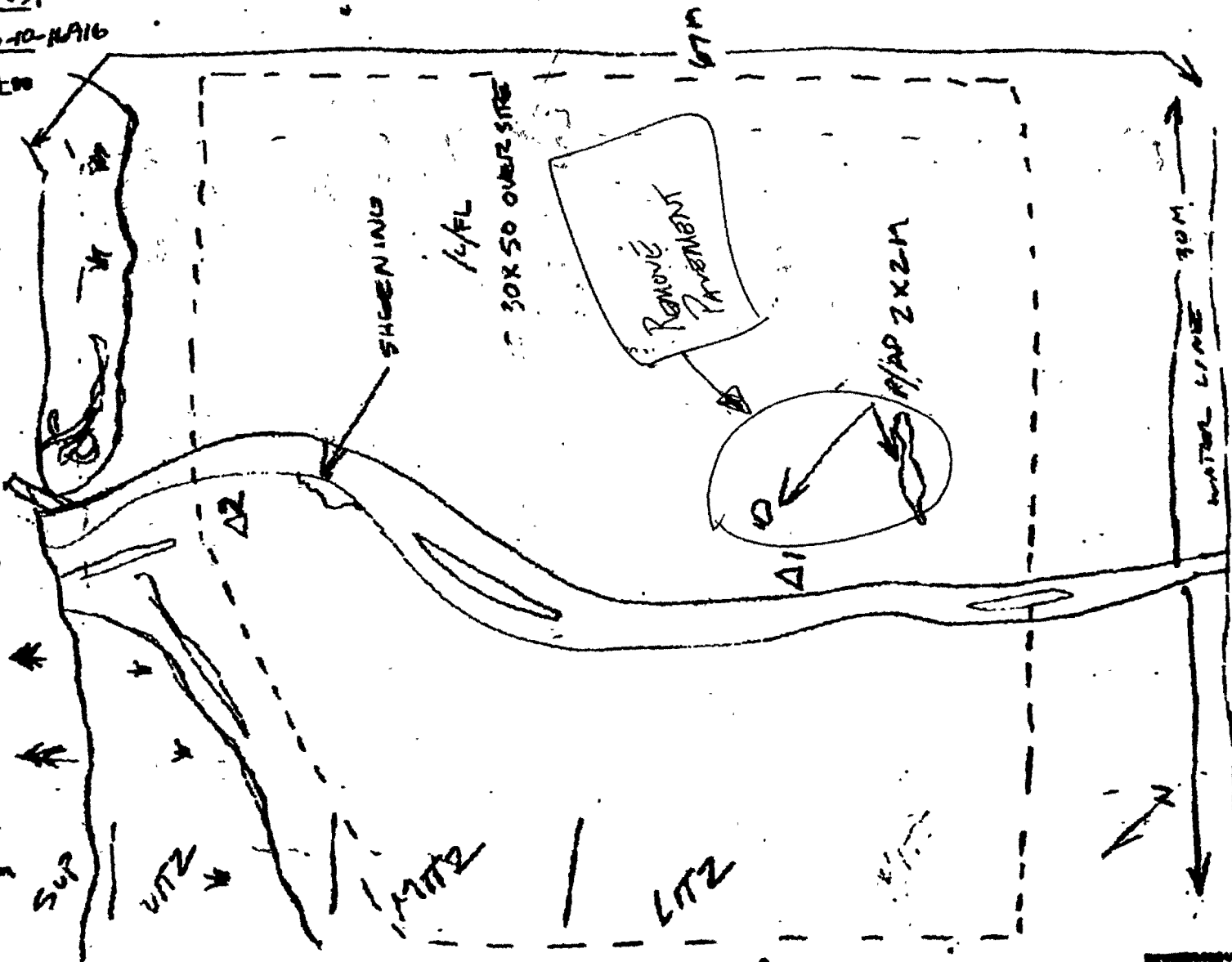
DATE 4/24/90

CHECKLIST

- ☐ Name
- ☐ Approx. Scale
- ☐ Day/Date Entry
- ☐ C/L Dist.
- ☐ Width
- ☐ Length
- ☐ S. Curve
- ☐ Substrate Character
- ☐ Est. VOLUME
- ☐ S/L
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ Photo Location(s)
- ☐ Photo Location(s)

LEGEND

- 1 Δ
- PS No Substrate CB
- 2 Δ
- PS Substrate CB
- CT/C
- Continuous Distribution
- CT/B
- Scattered Distribution
- CT/D
- Patchy Distribution
- CT/E
- Scattered Distribution
- lll
- Other Vegetation
- 1 -
- Flow direction, direction, and number



Channel Length (m): 0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30

ACE 7354410

SHORELINE OILING SUMMARY (ANAD)

REVISION 102, 08/13/88

OG CAL L. SAN USCG SPRUE, C.W.E. SEGMENT ST/ IN Q31
 BIO REN L. EHLER LAND REP STREAM 22m-10-16/16 OF 14/46
 EXON DARWIN YVES ADF RAK KANTH - ALPER WISEMAN TIME ID: 20 10 43
 TEAM NO. 14 TIDE LEVEL -2 FT DATE 4/22/90
 EST. SUBDIVISION LENGTH: 20 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo
 SURFACE SEDIMENTS: R 5 % B 3 % C 40 % P 35 % Q 20 % S 5 % M 5 % V 5 %
 SLOPE: Long 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 0 m NO 0 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR				IMPACTED ZONES			
	A	B	P	S	1	2	3	4	W	M	N	U
ASPHALT PAVEMENT												
POOLED												
COVER												
COAT												
STAIN												
MOUSSE												
PATTIES												
TARBALLS												
FILM												
NO OIL												

PAVEMENT H P S 2 sq. m by .4 cm

PATTIES / TARBALLS 0 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 0

#BAGS 0

Photographs:

Roll No. 0

Frames 0

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR				PIT ZONE				A	N	A	S	U	V	Y	SURFACE SUBSURFACE SEDIMENTS
		CP	CR	CL	BP	NO		SO	NO	1	2	3	4	W	M	N	U								
1	20																								LS, 100% / 100% / 100%
2	20																								LS, 100% / 100% / 100%

COMMENTS OILED SANDWICH SHELL / LIGHT FILM OBSERVED OVER SITE.

REVIEWED JW DATE 4-25-90

FIELD SHORELINE COMMENT SHEET

SEGMENT ST 1 IN-031 SUBDIVISION: ASC# 226-10-169¹⁶ DATE 24 APR 9

USCG
NAME Kevin L. Drahan SIGNATURE CWO K. L. Drahan

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

~~ADEC~~ → ADEC G
NAME Rick Gustin SIGNATURE Richard J. Gustin

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

Recommend working at proper tide window 0 → -
Remove thin crust of oiled matt and vegetation
along east side of stream in middle & upper I.T.Z
Remove oiled gravels and sands on west side of stream
edge and in areas where sheens occur in the stream
bed. Remove thin patches of oiled matt in upper.

~~LAND MANAGER~~ → NAME
NAME Rick Gustin SIGNATURE Richard J. Gustin

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

on west side of stream.
Remove patches of tar matt on east side of the
stream in middle I.T.Z area.
After removal fill mechanically or with shovels
Fill area with clean material.

Remove thin crust of oil and vegetation ^{37/42}
along east side of stream in middle & upper I.T.Z.

Remove oiled gravels and sands on west side of
stream edge and in areas where
sheens occur in the stream bed.

Remove thin patches of oil and matts in upper I.T.Z.
on West side of stream.

Remove patches of tar matt on East side of
the stream in middle I.T.Z. area.

After removal, till mechanically over the shovels
areas skimmed. Till areas which show
sheening.

Seq ID: IN-031 Subdiv: 226-10-16916

Survey Date: 4/24/90

Comments by: Ken Critchlow

This stream site was lightly oiled with a small amount of asphalt pavement in the LITZ, and sediments producing sheen from a film on a gravel bar adjacent to the stream in the MITZ. No subsurface oil was observed in pits located in the LITZ and MITZ.

This site can be cleaned by a small crew using shovels to remove the upper 4 cm of contaminated sediments in oiled areas.

KR Critchlow

36/48

1 SURVEY TYPE: BS 25 50 75 AVG SON PPS PTA2 REGION: PVE 19,01 KABMETHOD: Aerial Ground Sea3 DATE: 4/24/9016 HIGH TIDE TIMES: 121 TEAM RECORD: P. Gust4 START TIME: 102318 HIGH TIDE HTS: 122 OBSERVERS: A. Weisman5 STOP TIME: 105517 LOW TIDE TIMES: 123 AGENCY: ADFG6 SECTOR #: IN03119 LOW TIDE HTS: 124 PHOTOS TAKEN: Y 10

7 STATION #:

10 TIDE HT AT SURVEY:

Roll #: _____ Frame: _____

8 K-UNIT:

Kb Stock Floor Stack

25 VIDEO TAKEN: Y 236 TAPES: _____

9 STAT AREA:

20 LINE CHAS: _____

Sheet: _____ Rod: 400

10 LAT: _____

11 LONG: _____

26 SAMPLES TAKEN: Y 10 Number _____12 SOURCE: Dis Loran

Oil _____

13 LOCATION: SW side Ingot Island

Sediment _____

14 DESCRIPTION: Foul loss

Biological _____

Water _____

EXTENT OF OIL

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

28 SURFACE THICKNESS	1 cm	1 km						
----------------------	------	------	--	--	--	--	--	--

29 PENETRATION	3-4 cm	1-2 km						
----------------	--------	--------	--	--	--	--	--	--

30 OVERALL OIL IMPACT:	N	VL	L	M	H
------------------------	---	----	---	---	---

31 OIL TYPE: Pooled Heavy Top Asphalt Slicky Stale36 CATALOGED ANNO. FISH EVENT Y N37 CATALOG # 226-10-16916

38 STREAM NAME: _____

39 OIL IN STREAM BED: Y N40 OIL ON STREAM BANK: Y N41 OIL ON BEACH ADJACENT TO MOUTH (within 30 meters) Y N42 OIL WITHIN 1 MILE OF MOUTH Y N

Where: _____

32 SHORELINE TYPE: Headland Low-lying Rocks Beach Cove43 ANADROMOUS FISH PRESENT? Y N33 WAVE EXPOSURE: High Moderate Low

44 ANADROMOUS FISH OBSERVATION

34 SUBSTRATE TYPE: Bedrock Boulder 20 Gravel 60'6

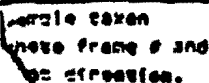
Species Aerial Ground

Gravel 20 Sand _____ Red/silt _____

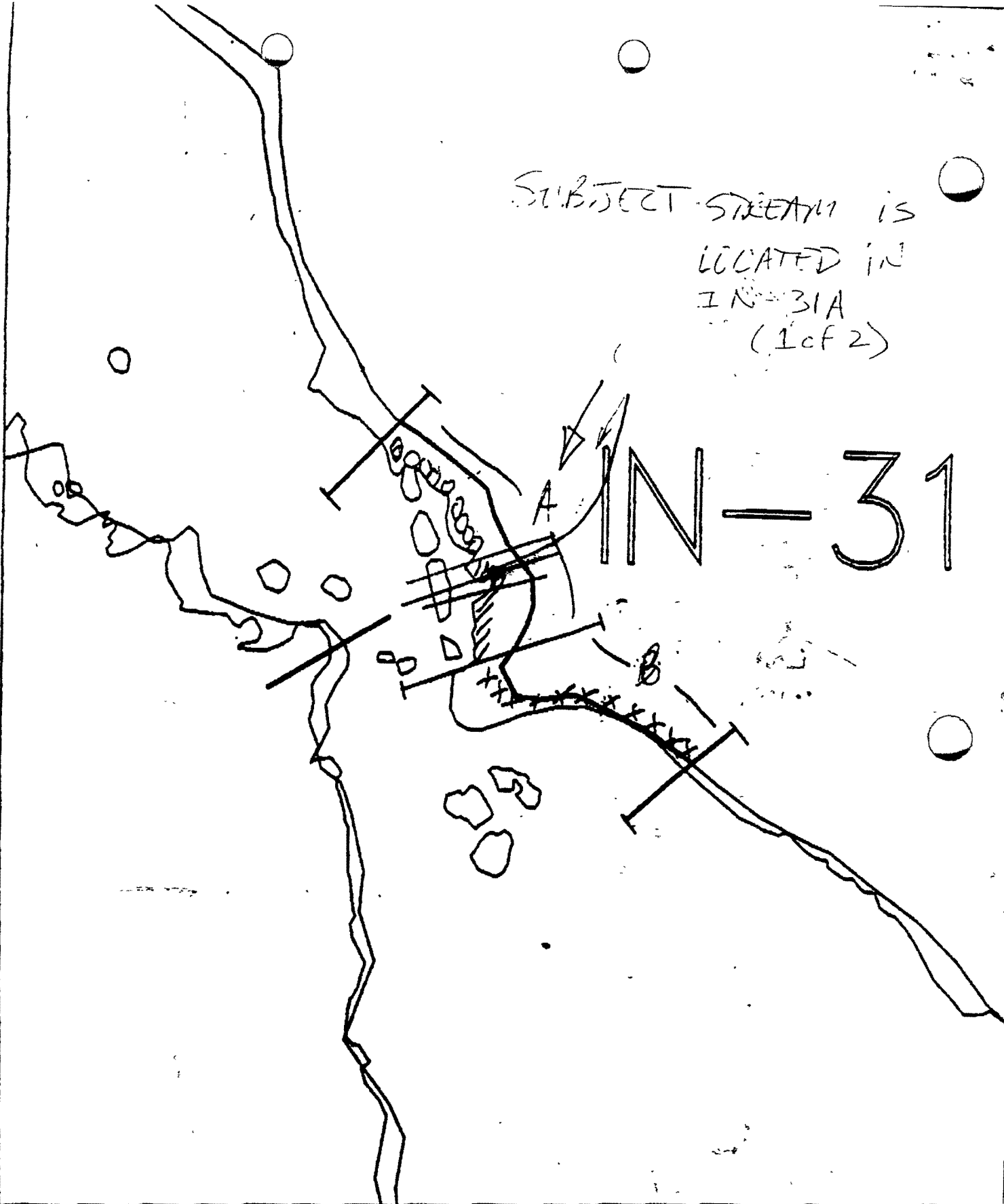
Species	Aerial	Ground

COMMENTS: Some very thin tar mats along and down of
stream - seen from ground in stream itself
NOTE - oil ground + rock primarily under side west
side stream
NOTE - tar mat and oil on stream bank.

40. OIL DISTRIBUTION DIAGRAM.



SUBJECT STREAM is
 LOCATED IN
 IN-31A
 (1 of 2)



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

IN-31

ADEC Segment Length: ~~440m~~ 824



Map Key: PWS-276

Name: James Spill

Date: 4/7/90

Date Entered:

ACE 7354417 -15

Drussell
4/21/90
RH

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/IN-31

SUBDIVISIONS: A (1 OF 2)

noname
rec'd for - Harv's looking
for water even in
practical.

SHORELINE EVALUATION

SEGMENT ST/ IN-31 SUBDIVISION A (1 OF 2) DATE 4/7/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

ADF&G anadromous stream catalogue no. 226-10-16916
1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
6Y Recreation: Special use destination

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiled biota and substrate. Avoid disturbance of salmon stream bed and bank. Stream will be surveyed during ANAD scat.

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 0 m: Medium 112 m: Narrow 0 m: V.Light 0 m: No Oil 215 m
Subsurface Oil Observed: Yes _____ No X Maximum Depth _____

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes 1) manual removal of tarmats.
Work should be conducted after 5/1, contact ADF&G regarding stream
constraint.

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

ACE 7354432

FIELD SHORELINE COMMENT SHEET

SEGMENT ST IN-31 SUBDIVISION: A DATE 04/07/90

USCG

NAME AEC Vandepels SIGNATURE AEC Vandepels

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

I suggest picking up tar mats, hot water wash, till + bio. of the area of IN-31 sub A from the stream south 100 M distant by 10 wide.

ADEC

NAME Michelle Paer SIGNATURE MPaer

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

This area is a very nice anchorage, ~~and~~ ^{and} tent site, with a salmon stream, ~~mussel~~ ^{mussel} and clam beds. ~~when it~~
I concur with the Land Manager's recommendations. When the hand tilling of the 10 x 100m and 10 x 30m areas occurs, special consideration should be made to stay away from the salmon stream.

LAND MANAGER

NAME DAN LOGAN SIGNATURE D Logan

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

I RECOMMEND MANUALLY REMOVE TARMATS, ~~TREES~~ ^{TREES} DUE TO THE DENSE FLORA AND FAUNA POPULATIONS IN THE LITL ANA MITZV ^{AND THE ADJACENT STREAM} THE 10x100m AND 10x30m ST/P BANDS SHOULD BE HAND TILLED WITH NO FERTILIZER APPLICATION.

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

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

SHORELINE OILING SUMMARY

REVISION NO. 02/00/98

OG J. Springer USCG R. Vandepels SEGMENT ST/ IN-31
 BIO P. Crank LAND REP D. Logan SUBDIVISION AC10F21
 EXXON T. Tomblin ADEC M. Baer TIME 08:15 to 08:55
 TEAM NO.: 5 TIDE LEVEL: +2 to +4 DATE 04/07/90
 EST. SUBDIVISION LENGTH: 450 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: NW to SE
 SURFACE SEDIMENTS: R 5 % B 10 % C 50 % P 25 % G 7 % S 3 % M 0 % V 0 %
 SLOPE: Long 95 % Hang 5 % Vert 0 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 130 m N 0 m VL 0 m NO 316 m

SURFACE OIL

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

PAVEMENT: H F S 0 sq. m by 0 cmPATTIES / TARBALLS 2 BAGS

NEAR SHORE SHEEN? NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☐ YES ☒ NOTYPE —
#BAGS —

Photographs:

Roll No. —Frames —

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CH)	BELOW	OIL / FILM COLOR	PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO				SU	U	M	U		
1	25					X	.	X	-				X		PGS
2	20					X	.	X			X				PGS
3	30					X	.	X			X				CPGS
4	30					X	.	X			X				PMV
5	60					X	.	X			X				PGV
							.	X							

COMMENTS

26

OG 11/12/88

SEGMENT ST/N-31

SUBMISSION A

DATE 04/07/90

CHECKLIST

- ☒ Map Area
- ☒ Approx. Scale
- ☒ Substrate Grd
- ☒ Oil Dist.
- ☒ Width
- ☒ Length
- ☒ % Cover
- ☒ Substrate Character
- ☒ Est. HW/LA/WL
- ☒ PSI
- ☒ Profile Location(s)
- ☒ Photo Location(s)
- ☒ Photo Location(s)

LEGEND

1 Δ

PR - No Subsurface Oil

2 Δ

PR - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

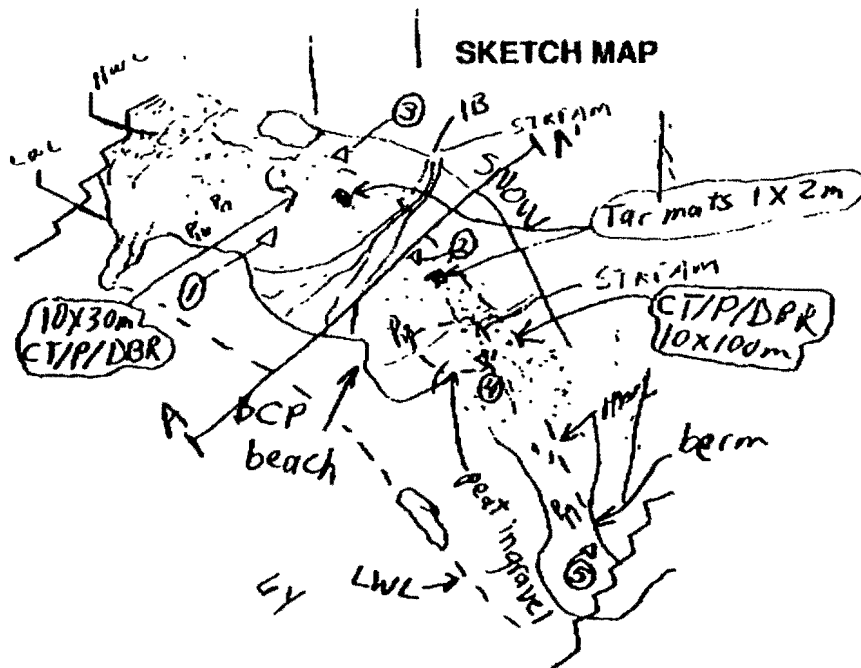
Splashed Distribution

Oiled Vegetation

1 $\Rightarrow$

Photo location, direction,
and number

SKETCH MAP



0 100
METERS

Oil Character Length (m): AP PO CV CT 130 ST MS PT TB 4 FL NO 316

REVISION: 000000

22

ACE 7354436

SHORELINE ECOLOGICAL SUMMARY pg 1 of 3

REVISION: 00

Segment ST/ IN 31 Subdivision A Date (mo / day / yr) 4/1/92
 Length 450m
 Time (24 hr) 0810-0910 Biologist Crank Tide Height +2 to +3 ft

- (A) Substrate type and % of segments:
 (1) Bedrock 5 (2) Boulder 10 (3) Cobble 50 (4) Pebble 25 (5) Sand 10 (6) Silt _____
- (B) Overall % cover of biota (% of segment): Dense 80 Moderate 10 Low 10
- (C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)

Photographs:
 Roll No. ST-5-4

Frames 16-19

BARNACLES

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

NOT PRESEN

MYTILUS

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

NOT PRESEN

GASTROPODS

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

NOT PRESEN

FUCUS

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

NOT PRESEN

Wildlife Observations/ General Comments:

- 1 Sea Otter 2 Pelagic Cormorants-in breeding plumage
 1 Glaucous-wing Gull Deer on Ingot
 5 Barrow's Goldeneye 6-unidentified Marine birds
 4 Tufted Puffin

Ecological Considerations:

- 64- Special Use Destination
 10- Salmon Stream

28

1-BEDROCK 2-BOULDER 3-COBBLE 4-PEBBLE 5-SAND 6-SILT

29

4/7/90

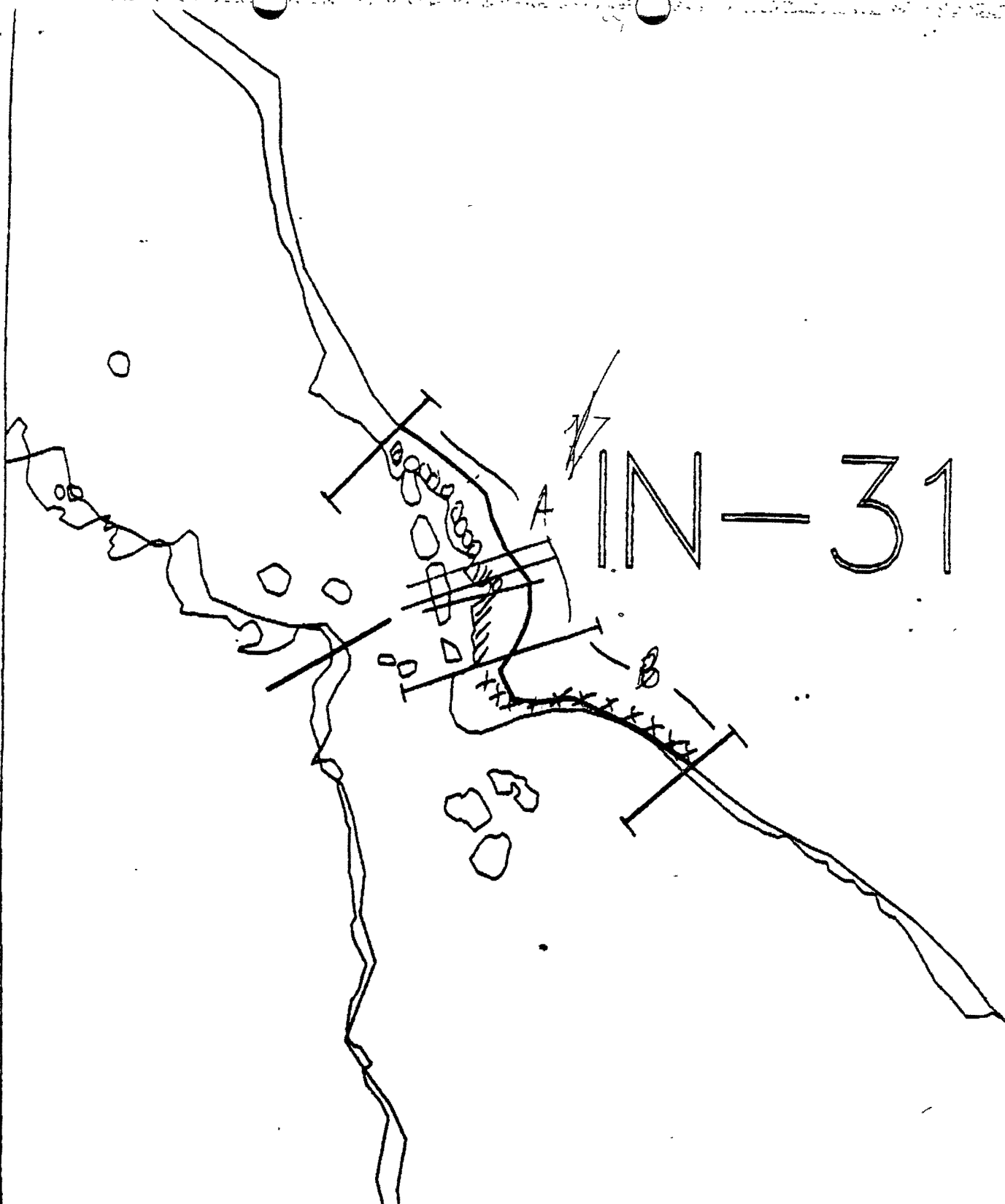
CRANK

pg 3 of 3



Comments

- The LIT2 and MIT2 are a rich Saxidomus; Prototheca clam bed. Within the clam bed dense concentrations of Protatypus gastropods, Littorina, Pagurus, and various worms. Littorina, Nucella and Lunatia egg cases are dense.
- Fucus is in a discontinuous band along the MIT2 cobble. There are 2 dense patches ($\approx 3m^2$) in MIT2 345 with high recruitment.
- There is a $150m \times 30m$ Intertidal/cobble mussel bed. Concentration is sparse on the north end but increases to dense on the southern end. Northern end has been heavily grazed upon by Predatory gastropods.
- Barnacles are a minor portion of the biota in this subdivision. Recruitment is only evident on the bedrock and then in moderate to sparse concentrations. Scarring is present on Rock outcrops.
- This area appears healthy and precautionary measures should be taken to avoid damage to the well-established ecosystem.



XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

IN-31

ADEC Segment Length: ⁸²⁴~~610~~m



Map Key: PWS-276

Name: James Spruiell

Date: 4/7/90

Date Entered:

ACE 7354440

-15

*Processed
7/21
R4-*

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/IN-31

SUBDIVISIONS: B (2 OF 2)

Carroll Smith

SHORELINE EVALUATION

SEGMENT ST/ IN-31 SUBDIVISION B (2 OF 2) DATE 4/7/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

6Y Recreation: Special use destination
No specific constraints identified.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 283 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 0 m
Subsurface Oil Observed: Yes X No _____ Maximum Depth 15 cm

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes 1) manual removal of tarmats.
2) manual pick up of tarballs, 3) bioremediation of areas shown on
attached sketch map. No specific constraints for performing work.

TAG COMMENTS: _____

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

FOSC: _____ DATE: _____

ACE 7354442

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

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

FIE SHORELINE COMMENT SHEET

SEGMENT ST / EN-31 SUBDIVISION: B DATE 04/07/90

USCG

NAME AEC Vandepels SIGNATURE AEC Vandepels

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS

I suggest picking up tar mats, hot water wash, till + bio. of the 15x100 band in this sub sec.

ADEC

NAME Michelle Baer SIGNATURE MBaer

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS

This area should have a second opinion due to the characteristics of the sub-segment. We discussed the pros & cons of several treatments which have been outlined by the land manager. In addition, the two of the outer islands require treatment. I walked around both of them and found a band varying from CV → CT of 1M in width and a band of CT → ST 2M in width (below the 1st band). Hot water wash and manual removal of patches and tarballs are both possibilities, but the LITZ is very rich and should be kept in consideration. The B and C surrounding the island is approx. a 40% slope.

LAND MANAGER

NAME DAN LOGAN SIGNATURE Dan Logan

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS

Segment IN-31(B) is a 300M low energy, high recreational value beach. This area should be listed as a camp site on the resource sensitivity list. Except for the western most 50M which is a cobble/gravel/sand beach the subdivision is 49 comprised of Rock/boulder over a cobble/gravel/sand substrate. The mid/lower intertidal zone has dense mussel, fucus, gastropod production and moderate to light barnacle density.

Starting at the approximate location of the 100M x 15M mat of AP/F.

REVISION NO. 02/21/90

SSAT P.05

TO

ARCTIC SALVOR

FROM 08:00 08:00 1990

ACE 7354444

I recommend this area to be treated by breaking up the asphalt mat by hand, removing the oiled material, then apply fertilizer. This procedure should be done only after the area has been cleared by an archeologist.

Immediately south east of the asphalt section is 15M x 20M of broken cover which can be easily recognized from the water. The cover appears to be stable and is above mean high tide. I suggest a review of the segment and one of the following three alternatives selected:

ALTERNATIVE 1 - NO TREATMENT

The advantage of this alternative is the oil appears to be stable at this time and no further disturbance would eliminate the risk of oil moving into the mid-intertidal zone. The disadvantage is that on this low energy beach the oil will remain visible for several years.

ALTERNATIVE 2 - REMOVE OILED MATERIAL

Removing oiled rocks and boulders will require the use of heavy equipment which will remove the oil but will leave a deep scar on the upper/supra intertidal zone. Removing the rocks and boulders will create a risk of mass slumping down the immediate shoreline.

ALTERNATIVE 3 - HOT WATER WASH

A hot water, high pressure wash of 150°F or greater will be necessary to break down the stable coat. The hot water wash will convert the stable surface oil to a liquid which approximately 10% will be recovered. This alternative will remove the oil from the visible surface but should be evaluated against the effects of hot water (150°F) on intertidal ecology. The transport of stable surface oil to unstable sub-surface oil should also be considered. The 150°F water temperature is above the current maximum acceptable 120°F standard.

I recommend alternative 3 as this will have the least effect on upper and supra-intertidal geomorphology while significantly reducing visible oil. If the wash is conducted during a plus 4 tide or greater the movement of oil to lower intertidal zone should be reduced. The movement of sub-surface oil could be further reduced by constructing a 20cm ditch at the 4 foot tide mark. The 150°F hot water wash could possibly be mitigated by reducing the total water volume sprayed at one time to allow sub-tidal water to dissipate high temperature faster. This area should have 51 an archaeological clearance prior to any disturbance.

SHORELINE OILING SUMMARY

REVISION NO. 000000

OG J. Springer USCG R. Vandepels SEGMENT ST/ IN-31
 BIO P. Crank LAND REP D. Lagan SUBDIVISION B(2092)
 EXXON T. Tomblin ADEC M. Baer TIME 08:55 to 10:00
 TEAM NO.: 5 TIDE LEVEL: +4 to +6 DATE 04/07/90
 EST. SUBDIVISION LENGTH: 374 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: NW to SE
 SURFACE SEDIMENTS: R 10 % B 60 % C 15 % P 10 % G 5 % S 0 % M 0 % V 0 %
 SLOPE: Long 95 % Hang 5 % Vert 0 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 280 m M 30 m N 0 m VL 0 m NO 0 m
0 7a 0 7a

SURFACE OIL

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

PAVEMENT: H F S 0 sq. m by 0 cmPATTIES / TARBALLS 300 BAGSNEAR SHORE SHEEN? ☒ NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☐ YES ☒ NO

TYPE _____

#BAGS _____

Photographs:

Roll No. ST-5-4Frames 20-25, 33-36

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-DM)	BELOW		OIL / FILM COLOR				PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UC	UC	1	2	3	4	SU	U	M	L		
1	50	X					0-15	X				X		X					CPGS
2	10	X					0-7	X				X		X					GS

COMMENTS LITZ covered by tide.

* oil depths ≤ 5 cm do not constitute
 subsurface oiling. 44

OG T SPRINGER

SEGMENT ST/IN-31

SUBDIVISION B

DATE 04/07/90

CHECKLIST

- ☒ H Arrow
- ☒ Approx. Scale
- ☒ Seg/Sub Entry
- ☒ Oil Dist.
- ☒ Width
- ☒ Length
- ☒ % Cover
- ☒ Substrate Character
- ☒ Est. HML/LML
- ☒ SSL
- ☒ Profile Location(s)
- ☒ Profile(s)
- ☒ PE Location(s)
- ☒ Photo Location(s)

LEGEND

1 Δ
P1 - No Subsurface Oil

2 Δ
P1 - Subsurface Oil

CT/C
Continuous Distribution

CT/B
Broken Distribution

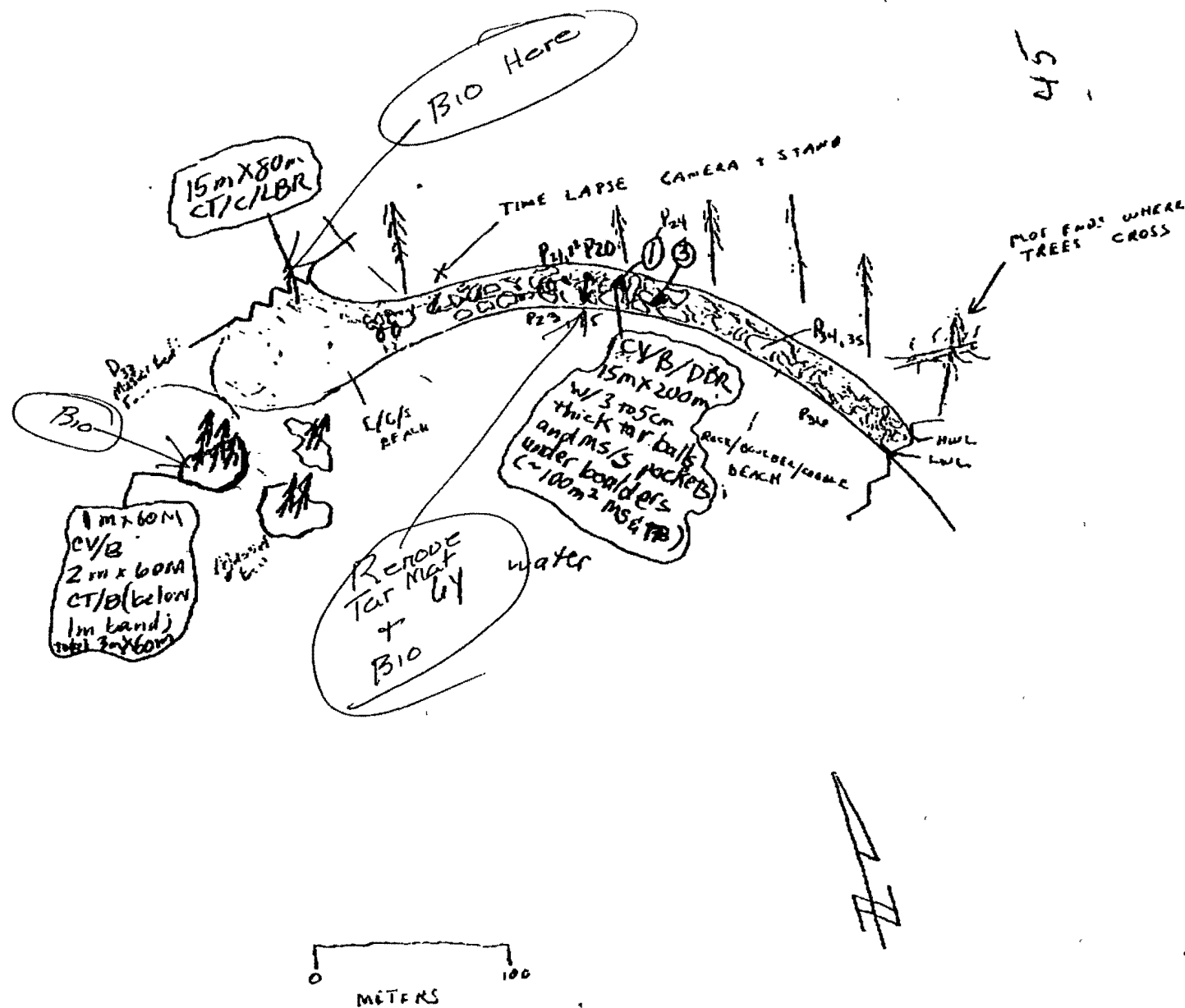
CT/P
Patchy Distribution

CT/S
Splashed Distribution

Oil Vegetation

1 ●
Photo location, direction,
and number

SKETCH MAP



Oil Character Length (m): AP _____ PO _____ CV 260 CT 80 ST _____ MS _____ PT _____ TB _____ FL _____ NO 34

REVISION: 03/04/90

ACE 7354448

PER-02-1350 D-1-01 FINAL MK SKETCH

10

554T

P.01

ORELINE ECOLOGICAL SUMMARY

pg 1 of 3

REVISION: 03

Segment ST/IN 31 Subdivision B

Date (mo/day/yr) 4/1/90, 4/2

Time (24 hr) 0910-1045 Biologist Crank

Tide Heights +5 → +8
0 → +1 ft.

(A) Substrate type and % of segments:

(1) Bedrock (2) Boulder (3) Cobble (4) Pebble (5) Sand (6) Silt

(B) Overall % cover of biota (% of segment): Dense 5 Moderate 20 Low 75

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

Photographs:

Roll No. ST-5-4

Frames 33-36

BARNACLES

Dense
1U 1M 1L
2 2 2
3 3 3
4 4 4
5 5 5
6 6 6

Moderate
1U 1M 1L
2 2 2
3 3 3
4 4 4
5 5 5
6 6 6

Sparse
1U 1M 1L
2 2 2
3 3 3
4 4 4
5 5 5
6 6 6

Rare
1U 1M 1L
2 2 2
3 3 3
4 4 4
5 5 5
6 6 6

NOT PRESENT

MYTILUS

Dense
1U 1M 1L
2 2 2
3 3 3
4 4 4
5 5 5
6 6 6

Moderate
1U 1M 1L
2 2 2
3 3 3
4 4 4
5 5 5
6 6 6

Sparse
1U 1M 1L
2 2 2
3 3 3
4 4 4
5 5 5
6 6 6

Rare
1U 1M 1L
2 2 2
3 3 3
4 4 4
5 5 5
6 6 6

NOT PRESENT

GASTROPODS

Dense
1U 1M 1L
2 2 2
3 3 3
4 4 4
5 5 5
6 6 6

Moderate
1U 1M 1L
2 2 2
3 3 3
4 4 4
5 5 5
6 6 6

Sparse
1U 1M 1L
2 2 2
3 3 3
4 4 4
5 5 5
6 6 6

Rare
1U 1M 1L
2 2 2
3 3 3
4 4 4
5 5 5
6 6 6

NOT PRESENT

FUCUS

Dense
1U 1M 1L
2 2 2
3 3 3
4 4 4
5 5 5
6 6 6

Moderate
1U 1M 1L
2 2 2
3 3 3
4 4 4
5 5 5
6 6 6

Sparse
1U 1M 1L
2 2 2
3 3 3
4 4 4
5 5 5
6 6 6

Rare
1U 1M 1L
2 2 2
3 3 3
4 4 4
5 5 5
6 6 6

NOT PRESENT

Wildlife Observations/ General Comments:

1 - Harbor Seal - Adult

2 - Others

5 - Glaucous-winged Gulls

Ecological Considerations:

1 - dark unidentified Marine Bird

2 - Cormorants

2 - Tufted Puffins

3 - Mergansers

1 - Spruce Grains

6Y - Special Use Designation

There is high tenting potential for this area

46

SEGMENT: ST/ 11131 SUBDIVISION 6 LENGTH 374 m BIOLOGIST Frank

DATE 4/3/90 TIME 0910-1045 TIDE HEIGHT +5 → +8 ft

pg 2 of 3

4/8/90 0720-0830 0 → +1 ft
1 = BEDROCK 2 = BOULDER 3 = COBBLE 4 = PEBBLE 5 = SAND 6 = SILT

FLORA:

SPECIES	UNTZ	MITZ	LTZ	COMMENTS
BOSSIELLA/CORALLINA				
CALLIARTHRON/CORALLINA				
CLADOPHORA SPP				
COSTARIA SPP				Drift
ENDOCLADIA MURICATA				
FILAMENTOUS GREENS		432	236	Dense on MITZ cobble
FILAMENTOUS REDS		34	24	
GLOIOPELTIS FURCATA	12	123		
HALOSACCION GLANDIFORME		123	123	
LAMINARIA SPP				in drift
LITHOTHAMNION		12	13	
NEREOCYSTIS SPP				
PORPHYRA SPP				
RALPHSIA/HILDENBRANDIA		32		
RHODOMELA LARIX		123	123	
RHODOMENIA PALMATA		1234	1234	
SCYTOSIPHON SPP				
ULVA SPP				
ZOSTERA MARINA				
Cryptosiphonia		123	123	

FAUNA:

ANTHOPELURA SPP				
(SEM) BALANUS CARIOSUS		21	12	
B. GLANDULA	1234	1234	1234	
BRYOZOANS				
CHITONS (OTHER THAN K. TUNICATU)				
CLAMS		345	345	High Clam Production
CRABS		34	34	Hemigrapsus
DERMASTERIAS IMBRICATA		2	3	
KATHARINA TUNICATA		2		
LEPTASTERIAS HEXACTIS		34	34	Brooding - Dense
LIMPETS	1234	12345	12345	
LITTORINA SPP	12341	2345	2345	
NUCELLA SPP	3412	1234	1234	
PAGURUS SPP		345	345	Dense
PISASTER OCHRACEUS				
POLYCHAETES				
PYDNOFODIA HELIANTHOIDES			345	Dense
SEARLESIA DIRA		234	234	
SERPULIDS				
SIPHONARIA THERSITES		1		
TEALIA				
Juvenile Eels		34	34	
Mitridium sp.			4	
Sea urchins			345	Moderate Sparse Cirs 50x30m
Echinura			45	
Lunatia			45	Dense Sand Collars

47

Seg: ST 1N31B

Date: 4/17/90

4/8/90

Time: 0910-1045

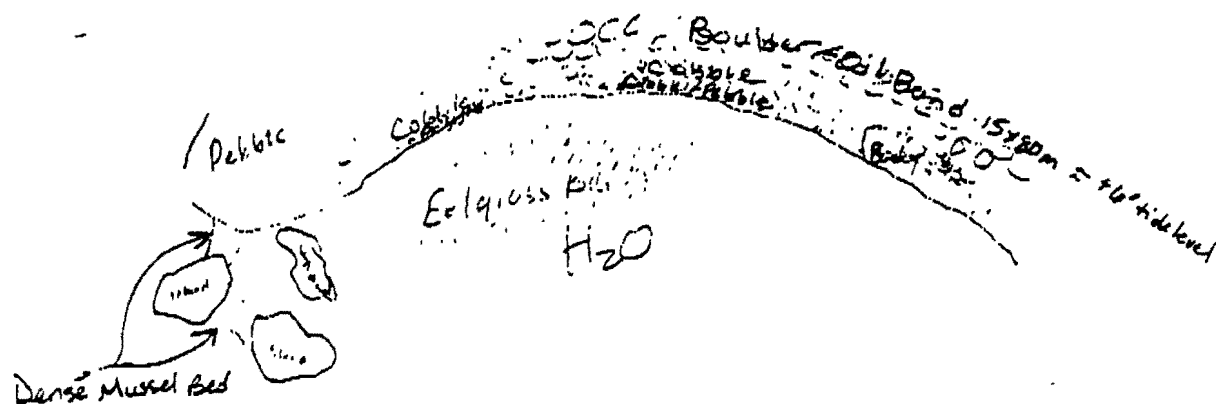
0720-0830

Tide Height: +5 to +8 ft

0 to +1 ft

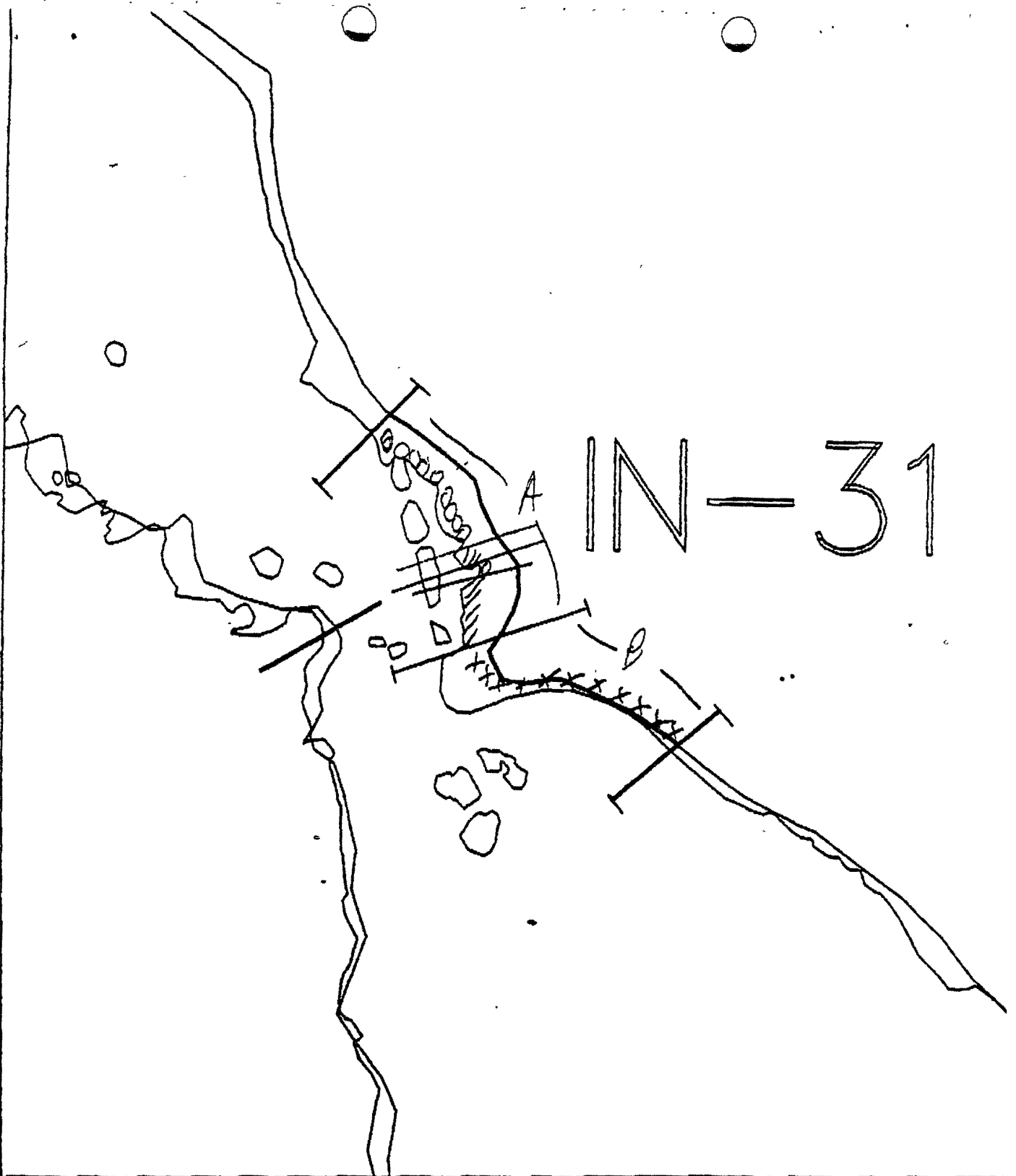
Length 374 m

PG 297



Comments

- Sub-division has rich flora/fauna community below 3 ft tide level.
- Directly below: oil band in boulder field, Filamentous Green dominate the +3 to +5 ft. range.
- LITZ is a clam bed, utilized by others.
- There is a 80 x 30 m eelgrass bed (opposed to in diatom ...).
- Area has high environmental potential.
- That area - possible ecological site?
- To protect LITZ any work done in this area should be performed at +4 or higher; taking precautions not to contaminate clam beds.



IN-31

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

IN-31

ADEC Segment Length: ⁸²⁴~~610~~m



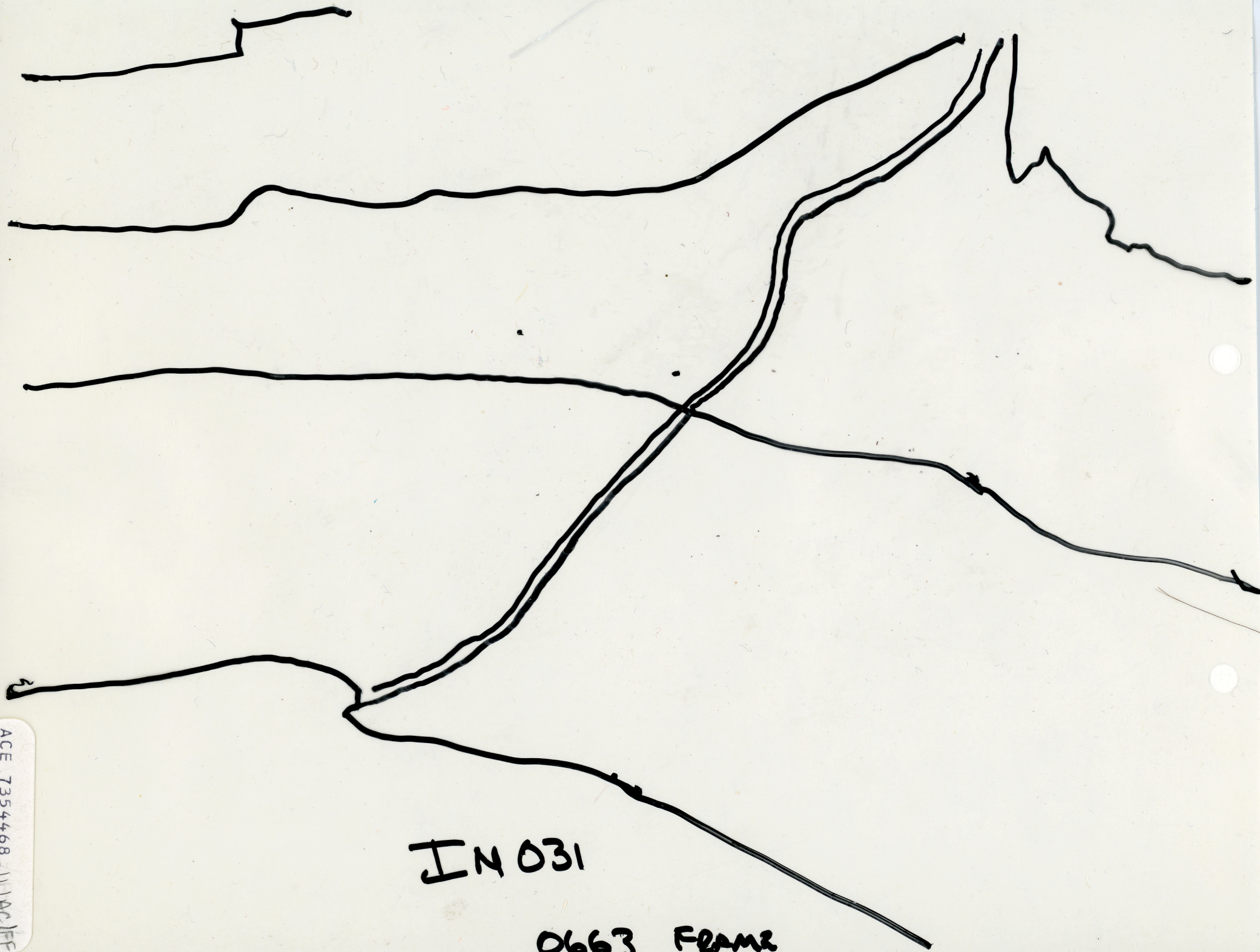
Map Key: PWS-276
 Name: James Spring
 Date: 4/7/90
 Date Entered:

SSAT P.08

TO

APR-09-1990 08:03 FROM ARCTIC SALVOR

ACE 7354452 -/5



IN 031

0663 FRAME

ACE 7354468 -1L1AC/FF

THO31 OPP3
name

ACE 7354467

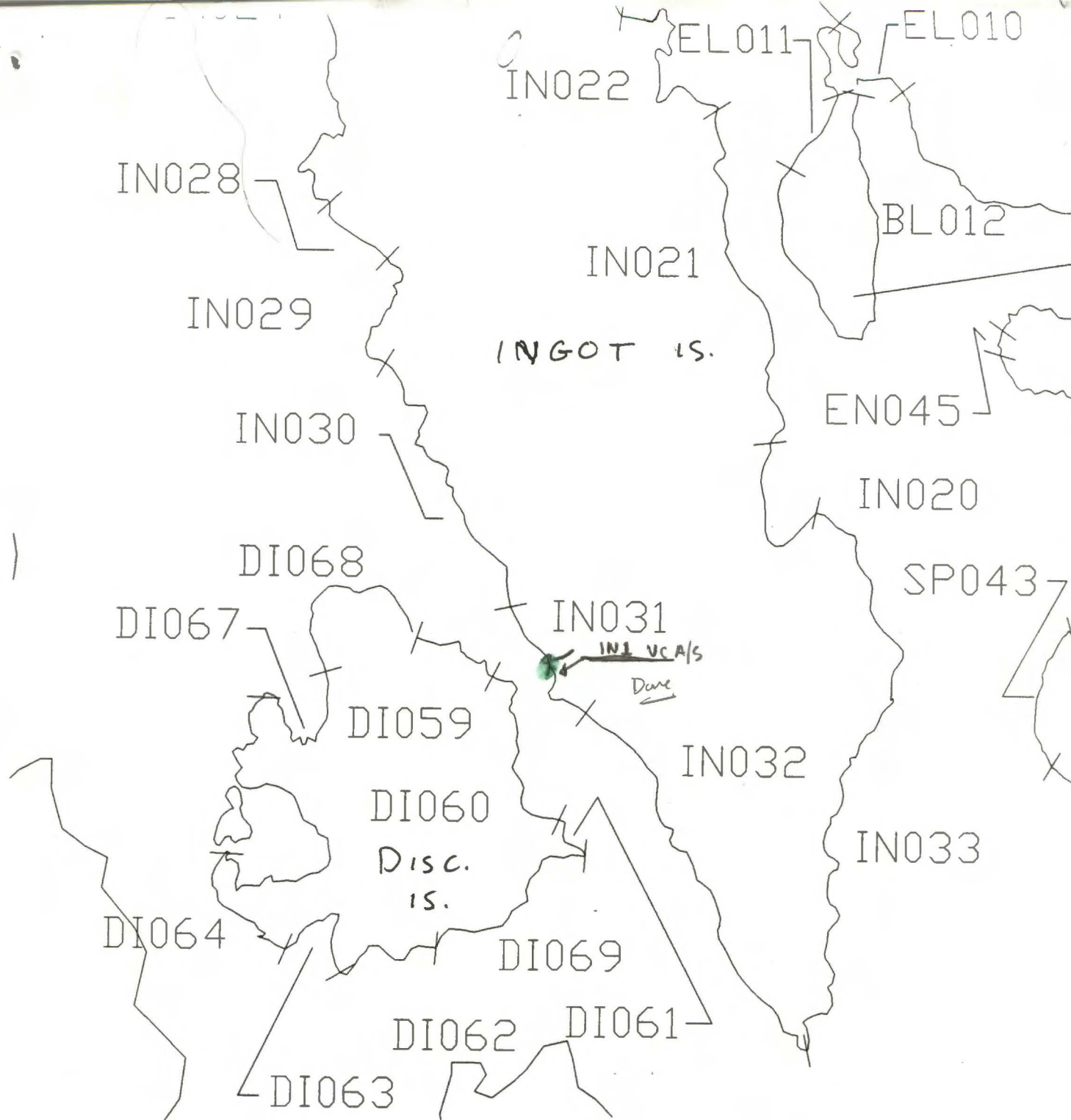
5000

INO31

ASC
16916

ACE 7354455

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



X UN-CAT A/S

X CAT A/S

* Marked on AWARD
MAPS

9/15/89

SEE VIDEO 89ME005V

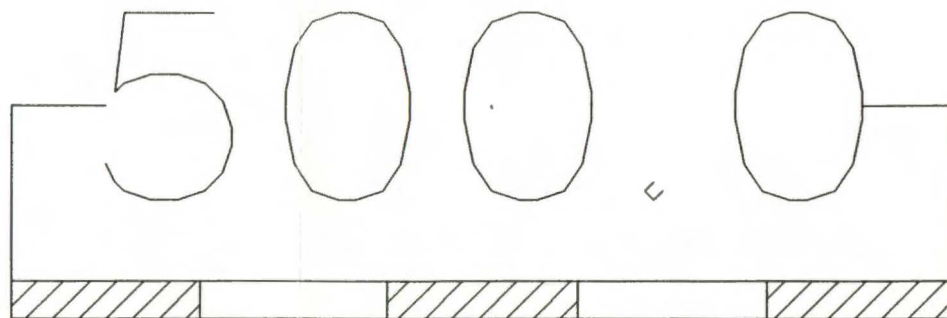
UNCAT A/S INGOT ISLAND 9/15/89

Heavily Oiled (15M Band +)

NO live PINKS Salmon present
6+ CARCASSES in intertidal

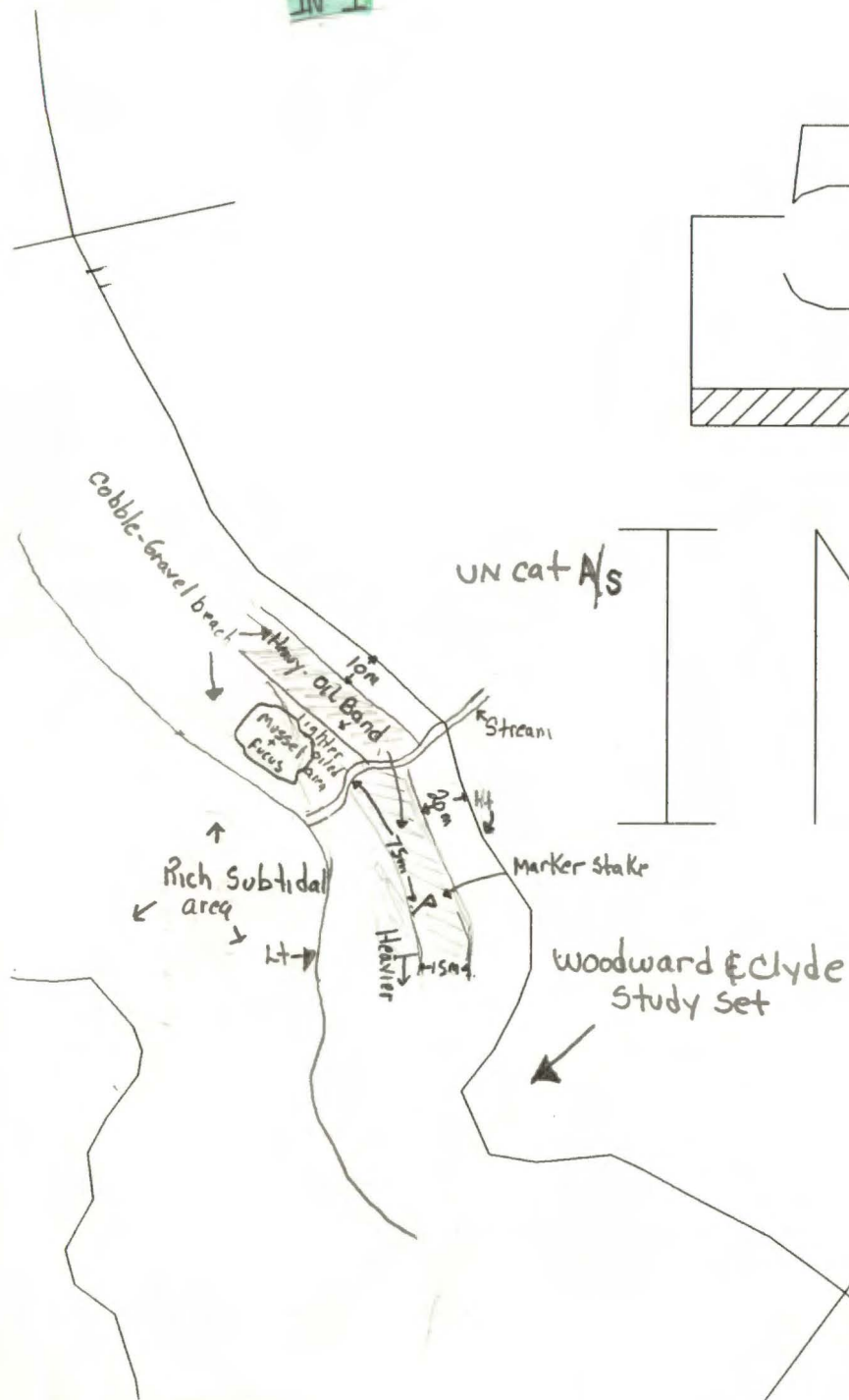
Foul PASS

IN 1



UN cat A/s

IN 031



(version 4/28/89)

SHORELINE CLEANUP PROGRAM

DATE: May 1, 1989

SHORELINE SEGMENT IN-31

LOCATION: (see enclosed map) Ingot Island, Foul Pass

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 4-17-89

Recommended Cleanup Activity(ies):

Washing/flooding

Low/high pressure washing, warm water if necessary.

Priorities Considerations:

Heavy oiling, potential for re-oiling, and relative abundance of otters and seals suggest priority cleanup for this area.

Ecological Constraints (from site survey):

Avoid dislodging live rockweed or mussel clumps do no clean stream mouths.

Archeological Constraints (from site survey):

Cleanup work should be monitored closely by on-site archaeologist. Avoid damage to culturally modified trees (to be flagged by archaeologist) during cleanup operations. Consultation with on-site archaeologist during cleanup is recommended.

Charles E. Holmes
State Historic Preservation Officer *

Date: 5/2/89

EXXON: _____

Date: _____

FOSC: _____

Date: _____

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

ACE 7354457 4/5

ECOLOGICAL EVALUATION

IN-31

John Mattson

LOCATION Ingot Island

SITE Foul Pass 31

OBSERVER Ken Holbrook

DATE 4 / 17 / 1989

TIME (HHMM) 1200-1500

TIDE HT. (m) _____

OILED ZONE: SPLASH HIGH MED LOW

SUBSTRATUM: ROCKS BOULDER COBBLE GRAVEL SAND MUD

LIVE BIOTA / DENSITY (#/m² or %cover-algae):

Fucus 20-30 Mytilus 5-10 Balanus 50 Littorina 25-50

Nucella _____ Pagurus 20 Limpets 1-2 Halosaccion _____

Gelidium _____ Other Laminaria in channel, green algae - filamentous and sea lettuce

Oil Damaged Biota within the oil zone all biota is dead and dying

Clean-up Precautions Do not remove fucus hold fast and mussel clumps

OILED ZONE: SPLASH HIGH MED LOW

SUBSTRATUM: ROCKS BOULDER COBBLE GRAVEL SAND MUD

LIVE BIOTA / DENSITY (#/m² or %cover-algae):

Fucus _____ Mytilus _____ Balanus _____ Littorina _____

Nucella _____ Pagurus _____ Limpets _____ Halosaccion _____

Gelidium _____ Other _____

Oil Damaged Biota _____

Clean-up Precautions _____

MAMMALS (#): OTTERS 6 HARBOR 2 DALL _____ OTHER sealion 2

OTHER _____

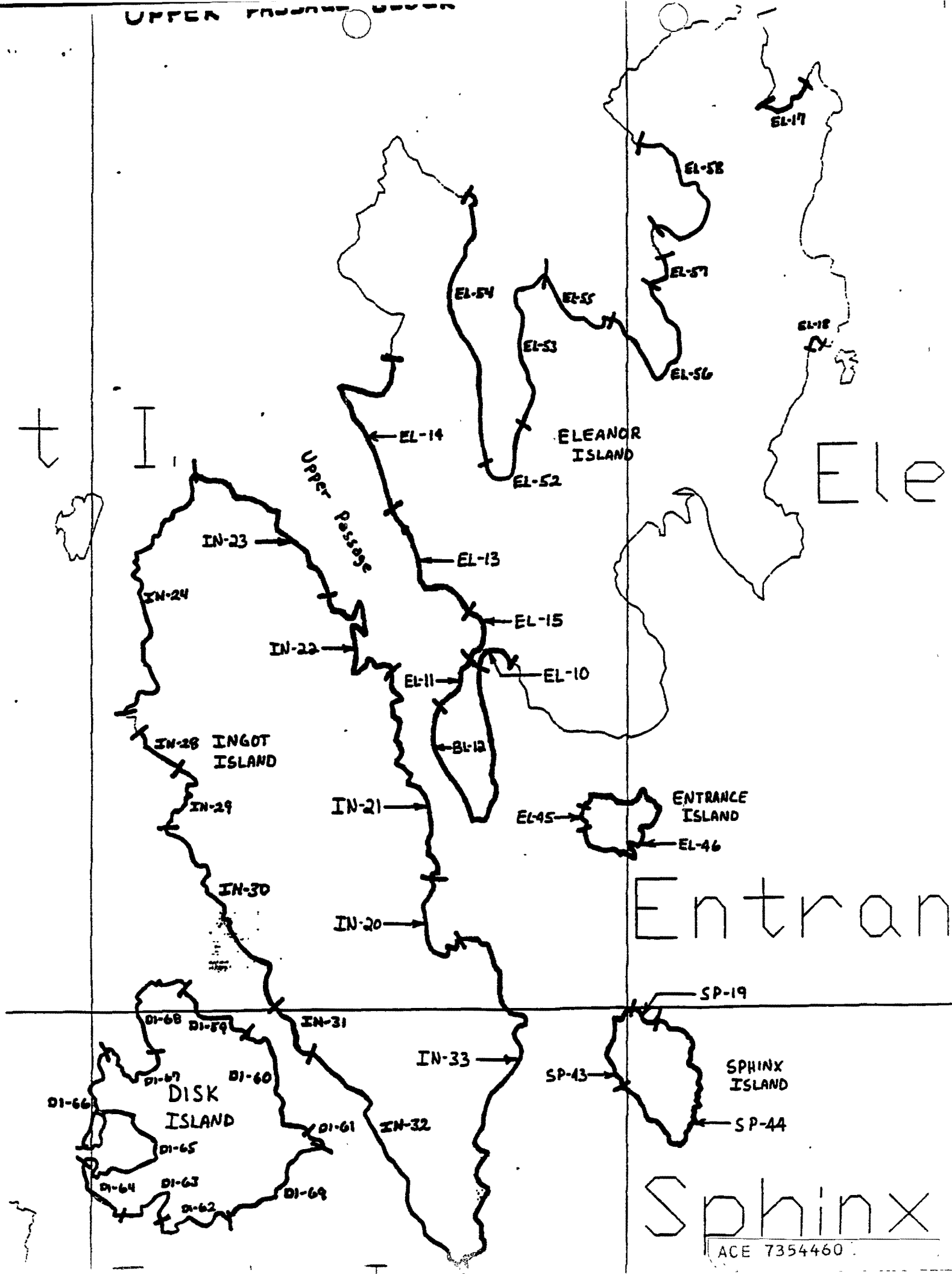
BIRDS: lots of birds

GENERAL OBSERVATIONS: very productive area. The animals not covered by oil are alive but getting weak.

(version of 4/17/89)

CULTURAL RESOURCE EVALUATION FOR OILED SHORELINE

Date 4/17/89 Location Ingot Island Site Foul Pass
 Location Prefix IN Segment # 31 Length 400 m
 Survey Method: Air ☒ (A - indicate on map)
 Ground ☒ (G - indicate on map)
 Known cultural resources (AHRS #) NO Data Source NO
 Oil conditions/beach visibility Heavy oil & mousse on south end. Stream estuary heavy oil
 Width of beach zone surveyed 3-50 m Tree fringe surveyed YES
 Cultural resources observed in beach zone (AHRS code) NO
 Cultural resources observed in tree fringe (AHRS code) GMT/FRC/HTD/RCS
 General observations justifying survey method and segment's site probability:
 Shore Profile Variable. Gently sloping sand and gravel to large angular boulders
 Fresh Water Sources 2 small unnamed streams
 Sea Exposure Protected
 Probability of undiscovered sites in beach zone (circle one) 1 2 3 4 (5)
 Monitoring during cleanup needed yes/no Collection yes/no
 Photos: Color Roll # 10 Frames 1 → 22
 B/W Roll # _____ Frames _____
 Observer(s) John L. Mattson and Kenneth E. Holbrook
 Time survey started 12:00 PM Time survey ended 3:00 PM
 Cultural resource considerations/restraints:
The quantity of cultural resources present coupled with the observed marine food resources and a remnant forest below the mean high tide line indicate potential for impacts to archaeological material will be high. Cleanup work on this segment should be closely observed by a professional archeologist. Monitoring and supervisory personnel should be alerted and sensitive to the probable discovery of artifacts. If
 C:\WP\DATA\CULTURED.SHO
heretofore undiscovered cultural materials are uncovered, notify Exxon archeologist C. Mobley immediately.



Ele

Entran

Sphinx

(version 4/22/89)

SHORELINE CLEANUP PROGRAM

DATE: April 22, 1989

SHORELINE SEGMENT

IK-31

LOCATION: (see enclosed map)

Fingot Island, Foul Pass

SHORELINE ASSESSMENT DATE:

4-17-89

Recommended Cleanup Activity(ies):

Washing/flooding
low/high pressure washing, warm water if necessary

Priorities Considerations:

heavy oiling, potential for re-oiling, and relative
abundance of others and seals suggests priority
cleanup for the area

Ecological Constraints (from site survey):

Avoid dislodging live rockweed or mussel clumps
do not clean stream mouths

Archeological Constraints (from site survey):

High probability of presence of cultural materials. Cleanup
work should be monitored closely by archaeologist. If heretofore
undiscovered cultural materials are discovered, notify
archaeologist C. Mobley immediately

State Historic Preservation Officer *

Date: _____

EXXON: _____

Date: _____

FOSC: _____

Date: _____

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

IN-31

SHORELINE OIL EVALUATION

[revised 11 Apr 89]

Date: 4 / 17 / 89

Observer: Ken Holbrook, John Mattson

Time: 1200 - 1500
h m

Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION

LOCATION Ingot Island SITE Foul Pass

LOCATION PREFIX IN ~~FOUL PASS~~ 31

LATITUDE: 6 d m s LONGITUDE: 147 d m s

LENGTH OF SHORELINE SEGMENT: 400 m

ACCESS: Foot/Vehicle/Boat/Barge/Helio/Float Plane

This area was surveyed by foot

SHORELINE

SHORELINE CHARACTER:

Open Coast

Sheltered Coast ✓

Rock Y/N

Vertical/High Angle/Low Angle

SEDiment Y/N

BEach/SPit/Cove

SEDIMENT TYPE: B / C / P / G / S / M / R

OIL

LOCATION OF OIL: SU / SP / H / M / L

CONTINUOUS: Y/N WIDTH OF CONTINUOUS BAND: 3-50 m

PATCHY: 10 / 20 / 30 / 40 / 50 / 60 / 70 / 80 / 90 % coverage

EST. OIL THICKNESS: .5-10 cm EST. OIL PENETRATION: 20+ cm

POOLED OIL: Y/N

"FREE" OIL: Y/N

WEATHERED: Y/N

DOCUMENTATION

VTR: Y/N Tape Number(s) N

PHOTOGRAPHY: Y/N Roll Number(s) N

ACE 7354462

SAMPLE NUMBERS COLLECTED: N

Foul Pass is a gravel spit and beach with rocks and cliffs at both ends of the transect. The rocks on the south end have very heavy oil with noise and pools to 15 cm penetration on the south beach is 20 cm. The central portion is fines with grass flats. The width is 7-50 meters. 10 cm penetration. Over

ECOLOGICAL EVALUATION

IN-31

John Mattson

LOCATION Ingot Island

SITE Foul Pass 31

OBSERVER Ken Holbrook

DATE 4 / 17 / 1989

TIME (HHMM) 1200-1500

TIDE HT. (m) _____

OILED ZONE: SPLASH HIGH MED LOW

SUBSTRATUM: ROCKS BOULDER COBBLE GRAVEL SAND MUD

LIVE BIOTA / DENSITY (#/m² or %cover-algae):

Fucus 20-30 Mytilus 5-10 Balanus 50 Littorina 25-50

Nucella _____ Pagurus 20 Limpets 1-2 Halosaccion _____

Gelidium _____ Other (aminaria in channel, green algae - filamentous and green lettuce)

Oil Damaged Biota within the oil zone all biota is dead and dying

Clean-up Precautions Do not remove fucus hold fast and mussel clumps

OILED ZONE: SPLASH HIGH MED LOW

SUBSTRATUM: ROCKS BOULDER COBBLE GRAVEL SAND MUD

LIVE BIOTA / DENSITY (#/m² or %cover-algae):

Fucus _____ Mytilus _____ Balanus _____ Littorina _____

Nucella _____ Pagurus _____ Limpets _____ Halosaccion _____

Gelidium _____ Other _____

Oil Damaged Biota _____

Clean-up Precautions _____

MAMMALS (#): OTTERS 6 HARBOR 2 DALL _____ OTHER sealion 2

OTHER _____

BIRDS: lots of birds

GENERAL OBSERVATIONS: very productive area. The animals not covered by oil are alive but getting weak.

Ken Holbrook

ACE 7354463

(version of 4/17/89)

CULTURAL RESOURCE EVALUATION FOR OILED SHORELINEDate 4/17/89 Location Ingot Island Site Foul PassLocation Prefix IN Segment # 31 Length 400 mSurvey Method: Air ☒ (A - indicate on map)Ground ☒ (G - indicate on map)Known cultural resources (AHRS #) NO Data Source NOOil conditions/beach visibility Heavy oil & mousse on south end. Stream estuary heavy oilWidth of beach zone surveyed 3-50 m Tree fringe surveyed YESCultural resources observed in beach zone (AHRS code) NOCultural resources observed in tree fringe (AHRS code) GMT/ERC/HTD/RCS

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

Shore Profile Variable, Gently sloping sand and gravel to large angular bouldersFresh Water Sources 2 small unnamed streamsSea Exposure ProtectedProbability of undiscovered sites in beach zone (circle one) 1 2 3 4 5Monitoring during cleanup needed yes/no Collection yes/noPhotos: Color Roll # 10 Frames 1 → 22

B/W Roll # _____ Frames _____

Observer(s) John L. Mattson and Kenneth E. HolbrookTime survey started 12:00 PM Time survey ended 3:00 PM

Cultural resource considerations/restraints:

The quantity of cultural resources present coupled with the observed marine food resources and a remnant forest below the mean high tide line indicate potentialfor impacts to archeological material will be high. Cleanup work on this segment should be closely observed by a professional archeologist. Monitoring and supervisory personnel should be alerted and sensitive to the probable discovery of artifacts. If
C:\WP\DATA\CULTURED.SHOheretofore undiscovered cultural materials are uncovered, notify Exxon archeologist C. Mobley immediately.

CLEANUP ASSESSMENT REPORT

[10 Apr 89]

IN-31

Assessment Date: 4 / 17 / 89

Recommendation Date: 4 / 17 / 89

LOCATION: Ingot Island SITE: Foul Pass # 31

LENGTH OF SEGMENT: 400 m

ACCESS: Foot / Vehicle / Boat / Barge / Helio / Float Plane

RECOMMENDATION FOR CLEANUP TECHNIQUE:

Prepared By: _____

ECOLOGICAL CONSIDERATION/RESTRAINTS: (incl. ARCH.)

Prepared By: Kenneth E. Holbrook

Biological: Do not remove fucus hold fast and mussel clumps

Archaeological: Cleanup work on this segment should be closely observed by a professional archaeologist. Monitoring and supervisory personnel should be alerted and sensitive to the probable discovery of artifacts. If heretofore undiscovered cultural materials are uncovered, notify Exxon archaeologist C. Mobley immediately.

CLEANUP STARTED: _____ / _____ / 89

CLEANUP FINISHED: _____ / _____ / 8

ACE 7354465

