

89 Stream Survey

ASC NUMBER: LOCATION: STREAM NAME: KODIAK K-UNIT: USGS QUADRANGLE: SHORELINE TYPE: *Lagoon + Beach*

SEGMENT NUMBER: LOCAL STREAM #: YR CATALOGED: LATITUDE: LONGITUDE: LEGAL: WAVE EXPOSURE: *Low + High*

ASC NUMBER: *256-40-10010*
 SURVEY TYPE: *SS*
 METHOD: *F*
 *DATE: *9/4/89*
 START TIME: *1015*
 STOP TIME: *1200*

TEAM RECORDER: *JEFFREY P. BARNHART*
 OBSERVERS: *R. Talvi, R. Dunbar*

AGENCY(IES): *ADF+G*

PHOTOS TAKEN? *Y*
 Roll #: *89-RGT-002-K* Frames: *9-13*
 VIDEO TAKEN? *Y* Tape Number: *H5008*
 Counter Start: *1924*

SAMPLES TAKEN? *Y*
 SAMPLE I.D. NUMBERS: *1. K6-1-1*
4.

2. K6-1-2
3.
5.
6.

OILING DATA

	LENGTH	WIDTH	M2	%	THICK	FEN	OIL TYPE
SITE 1	<i>75m</i>	<i>3m</i>	<i>225</i>	<i>5</i>	<i>1cm</i>	<i>surface 1cm</i>	<i>ms patches</i>
SITE 2	<i>350m +</i>	<i>3m</i>	<i>1050</i>	<i>10</i>	<i>1.27cm</i>	<i>7cm</i>	<i>ms</i>
SITE 3	<i>150m</i>	<i>3m</i>	<i>450</i>	<i>10</i>	<i>1.27cm</i>	<i>12cm</i>	<i>ms</i>
SITE 4	<i>400m</i>	<i>1m</i>	<i>400</i>	<i><1</i>	<i>.635cm</i>	<i>Ø</i>	<i>ms</i>
SITE 5	<i>300m</i>	<i>2m</i>	<i>600</i>	<i>1</i>	<i>1cm</i>	<i>1cm</i>	<i>ms</i>

OVERALL OIL IMPACT: *L-M*

OIL IN STREAM CHANNEL?

SUBSTRATE

Bedrock Granule
 Boulder *X* Sand *X*
 Cobble *X* Silt
 Pebble *X* Veget.

OIL ON BEACH WITHIN 50M OF STREAM MOUTH?

SPECIES	PS	SS			
COUNT	<i>no count</i>	<i>no count</i>			

COMMENTS: *Site K6-1. Sturgeon Lagoon, Kodiak Island. Conditions precluded count of salmon. Salmon escapement counts can be obtained from ADF+G commercial finfish Division.*

Site #2. oil band continues down the beach beyond the end of the area surveyed, for an undetermined distance. The mouse moved through the cobble layer and collected in the small sands and gravel beneath.

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

ASC NUMBER: 256-40-10010
 SURVEY TYPE:
 METHOD:
 DATE: 7/4/89
 START TIME:
 STOP TIME:

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

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

OILING DATA

	LENGTH	WIDTH	M2	%	THICK	FEN	OIL TYPE
SITE 1	200 m	6 m	1200	5	1 cm	1 cm	MS
SITE 2							
SITE 3							
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:

Sturgeon Lagoon, Kodiak Island

FISH HABITAT ASSESSMENT FORM

REGION: PWS KP, CI ☒ AP OBSERVER(S) J. BARNHART
R. DUNBAR
R. TALVI

SITE NO. K6-1 AERIAL PHOTO NO. K1-17 CAT NO. 256-40-10010

STREAM NAME Sturgeon Lagoon ^{River/} LAT 57° 30' 18" N LONG 154° 36' 6" W

DATE ^{8PB} 09/04/89 TIME 1050 TIDE: Low slack Flood High slack Ebb

CATALOGED ANADROMOUS STREAM? ☒ N ANAD. FISH FOUND? ☒ N

OIL FOUND IN STREAM? ^{See notes} Y N OIL FOUND NEAR STREAM (1 MI.)? ☒ N

OIL SAMPLES TAKEN? ☒ N ID NOS. K6-1-1 K6-1-2

35 mm PICTURES TAKEN? ☒ N CONVERTED TO 89-RGT-003-K
 ROLL NO(S). 205A 8PB

EXPOSURE NO.	DESCRIPTION
<u>9</u>	<u>Boom material, rope, plastic bags, 5 gal gas cans, garbage</u>
<u>10</u>	<u>Mousse patches 2 yards from storm tide berm.</u>
<u>11</u>	<u>Mousse that worked its way under cobble and saturated gravel</u>
<u>12</u>	<u>Cobble moved away, showing mousse beneath. Approx</u>
	<u>26 yards from high tide storm berm.</u>
<u>13</u>	<u>Heavily oiled bird, breast eaten away by predators</u>

VIDEO FOOTAGE TAKEN? ☒ N CASSETTE NO(S). H5008

DESCRIPTION: Footage - 1924-2412

ANADROMOUS FISH OBSERVATIONS

PINK CHUM RED KING COHO DOLLY

Aerial								
Ground	yes				yes			

COMMENTS: Conditions precluded actual count. Counts can be
obtained from ADF&G comm. Fish Division.

OIL OBSERVATIONS

EXTENT OF OIL:

See notes in Attached book

WITHIN STREAM

OUTSIDE STREAM

SURFACE COVERAGE

SURFACE THICKNESS

PENETRATION

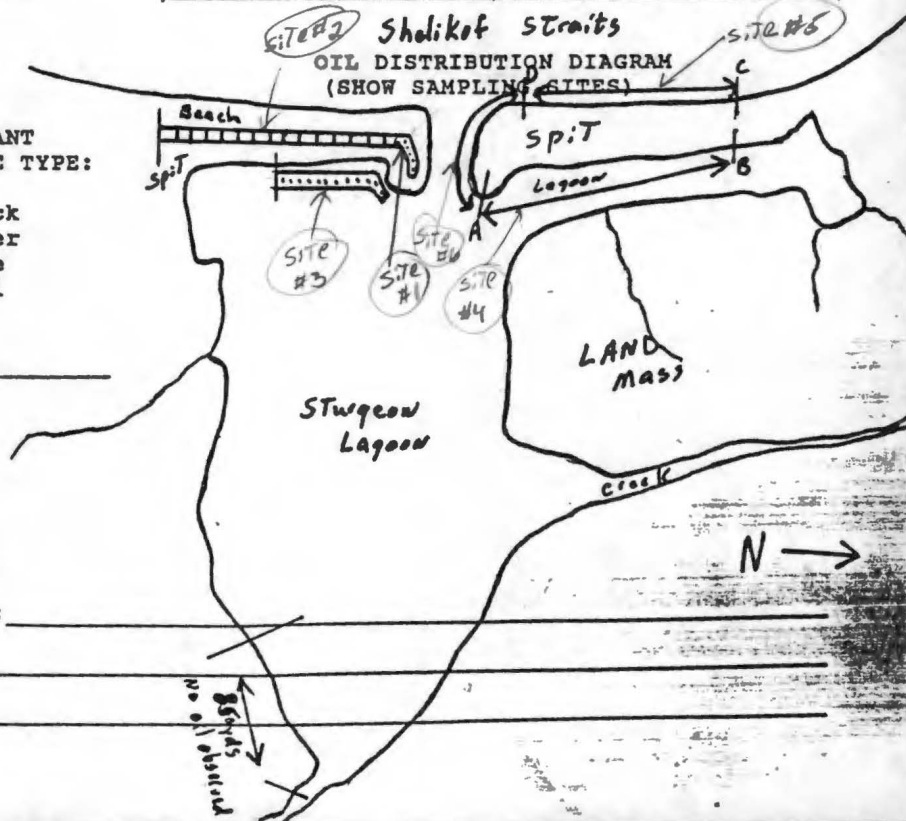
PREDOMINANT
SUBSTRATE TYPE:

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

▨ Moderate
▨ Light

COMMENTS:

Shelikof Straits
OIL DISTRIBUTION DIAGRAM
(SHOW SAMPLING SITES)



K6-1

"*Rite in the Rain*"
ALL-WEATHER WRITING PAPER ®



ALL-WEATHER

LEVEL

Notebook No. 311-M

Alaska Dept. of Fish & Game Hab. Tat Div.
Kodiak, Alaska phone 486-5033

Kodiak Archipelago Anadromous
Fish Habitat Assessment

1
Anadromous Fish Habitat Assessment

Exxon Valdez oil spill

Date: 09/04/89

Site number: K6-1

Location of sampling point:

Latitude: $57^{\circ}30'18''$ N

Longitude: $154^{\circ}30'6''$ W

Other comments: Lat/Long from pilots
Aviation chart

Type of sample: (oil) sediment (circle one)

2

How many samples Taken?

Two samples Taken.

Volume of Samples Taken:

Approx 250 ml.

Date and Time of collection:

09/04/89 Time 1250 hours.

List of sample identification numbers:

K6-1-1 K6-1-2

3

Description of sampling point and sampling methodology

All oil subsamples were Taken on The outside beach approx 250 yards South from The lagoon mouth. Subsamples #1 and #2 were Taken approx. 2 yards below The storm Tide berm. Subsamples 3-7 were Taken approx 26 yards below The storm Tide berm.

Methodology: Sampling protocol as described in The Draft Plan, Anadromous Fish Habitat Assessment Plan, page 9, was followed.

4

References (maps, charts, photo, video)

- Kodiak Area Salmon District map
- Video cassette NO. HS-008 footage 1924-2412.
- 35 mm still photos, Roll 205A exposures 9, 10, 11, 12, 13

Roll # converted to

89-RGT-002-K gpb

- Aerial photograph NO. K1-17

Field observations

Beach, from lagoon mouth, south:

A discontinuous band of light mussel patches and splattering occurs on the beach at the lagoon mouth proper. At approximately 75 yards south of the mouth the band of oil becomes heavier. The band is approx 2-4 meters wide and varies ^{in distance} from 22-26 yards from the storm tide berm. We surveyed a distance of 350 yards from

5

The point where the band became heavier (ie 75 yards south of lagoon mouth).

In other words, from the lagoon mouth to the end of our survey is 425 yds.

The band of oil continues down the beach from the end of the survey for an indefinite distance.

Oil subsamples #1 and #2 were taken approx. 2 yards ~~to~~ below the storm tide berm.

Subsamples #3-#7 were taken 26 yards below the storm tide berm. All samples were taken approximately 250 yards from the lagoon mouth.

The band of oil as described above is moderate to light. Penetration is 2-3 inches in heavier areas. Oil is visible when the cobble is moved away from the surface.

The mussel has moved through the cobble layer and into the small sands and gravel beneath.

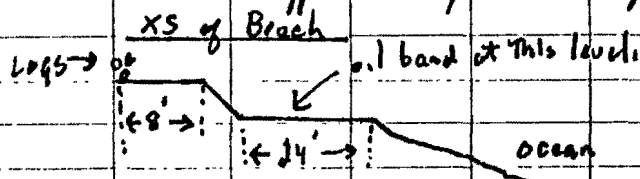
6

Inside lagoon: Survey from inside lagoon mouth to a point 300 yards south. No oil observed in the first 150 yards. In the next 150 yards and continuing past this point occurs a band of oil 3 meters wide, 3 meters from the high tide mark. Mousse patties from $\frac{1}{2}$ " to 4" in diameter are spaced 2 inches to 5 feet apart. Penetration is 2"-6".

Lagoon mouth - North:

Point A to point B inside lagoon. Survey distance 400 yards. Very light oiling at high tide mark. One 2-4 inch mousse patty every 100 feet.

Point C to point D Survey distance 300 yards. Light oiling - mousse patties up to 4 inch diameter mixed with feathers. Approximately 5-20 feet apart.



7

Point D to A Approx 200 yards. Light splattered rocks with a few mousse patties scatter over and around the cobble. Band is approximately 20 feet wide.

Upper lagoon/River. Surveyed approx 850 yards. No oil observed.

Jeff Barnhart
09/4/89

How many samples Taken?

Two samples Taken.

Volume of Samples Taken:

Approx 250 ml.

Date and Time of collection:

09/04/89 Time 1050 hours.

List of sample identification numbers:

K6-1-1 K6-1-2

ACE 1852806

Description of sampling point and sampling methodology

All oil subsamples were Taken on the outside beach approx 250 yards South from the lagoon mouth. Subsamples #1 and #2 were Taken approx. 2 yards below the storm tide berm. Subsamples 3-7 were Taken approx 26 yards below the storm tide berm.

Methodology: Sampling protocol as described in the Draft Plan, Anadromous Fish Habitat Assessment Plan, page 9, was followed.

ACE 1852807

References (maps, charts, photo, video)

- Kodiak Area Salmon District map
- video cassette no. HS.008 footage 1984-2412.
- 35 mm still photos, Roll 20SA exposures 9, 10, 11, 12, 13

Field observations

Beach, from lagoon mouth, south:

A discontinuous band of light mousse patches and splattering occurs on the beach at the lagoon mouth proper. At approximately 75 yards south of the mouth the band of oil becomes heavier. The band is approx 2-4 meters wide and varies in distance from 22-26 yards from the storm tide berm. We surveyed a distance of 350 yards from

The point where the band became heavier (ie 75 yards south of lagoon mouth).

In other words, from the lagoon mouth to the end of our survey is 425 yds.

The band of oil continues down the beach from the end of the survey for an indefinite distance.

Oil subsamples #1 and #2 were Taken approx. 2 yards below the storm tide berm. Subsamples #3-7 were Taken 26 yards below the storm tide berm. All samples were Taken approximately 250 yards from the lagoon mouth.

The band of oil as described above is moderate to light. Penetration is 2-3 inches in heavier areas. Oil is visible when the cobble is moved away from the surface. The mousse has moved through the cobble layer and into the small sands and gravel beneath.

Sturgeon Lagoon

ACE 1852808

ACE 1852809

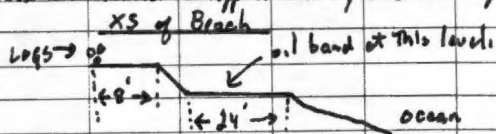
6

Inside lagoon: Survey from inside lagoon mouth to a point 300 yards south. No oil observed in the first 150 yards. In the next 150 yards and continuing past this point occurs a band of oil 3 meters wide, 3 meters from the high tide mark. Mousse patties from $\frac{1}{2}$ " to 4" in diameter are spaced 2 inches to 5 feet apart. Penetration is 2"-6".

Lagoon mouth-North:

Point A to point B inside lagoon. Survey distance 400 yards. Very light oiling at high tide mark. One 2-4 inch mousse patty every 100 feet.

Point C to point D Survey distance 300 yards. Light oiling. Mousse patties up to 4 inch diameter mixed with feathers. Approximately 5-20 feet apart.



7

Point D to A. Approx 200 yards. Light splattered rocks with a few mousse patties scatter over and around the rubble. Band is approximately 20 feet wide.

Upper lagoon/River. Surveyed approx 850 yards. No oil observed.

Jeff Barnhart
09/4/89

Sturgeon Lagoon.

ACE 1852810

ACE 1852811

K6-1

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ALL-WEATHER WRITING PAPER ©



ALL-WEATHER

LEVEL

Notebook No. 311-M

"Rite in the Rain" - A unique All-Weather Writing Paper created to shed water and enhance the written image. It is widely used throughout the world for recording critical field data in all kinds of weather.

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Alaska Dept. of Fish & Game Hab.TaT Div.
Kodiak, Alaska phone 486-5033

Kodiak Archipelago Anadromous
Fish Hab.TaT Assessment

ACE 1852812

Anadromous Fish Hab.TaT Assessment

Exxon Valdez oil spill

Date: 09/04/89

Site number: K6-1

Location of sampling point:

Latitude: 57° 30' 18" N

Longitude: 154° 30' 6" W

Other comments: Lat/Long from pilots
Aviation chart

Type of sample: oil sediment (circle one)

ACE 1852813

26

9/3/89 Sunday A5-1 First site Afognak R.

403 EA (Helicopter) Dave - pilot

Depart ^{Airport} 9:10 am. Land Afognak R.

Depart Afognak R. 10:45 am.

Land Campbell's Lagoon 11:25 am K5-2

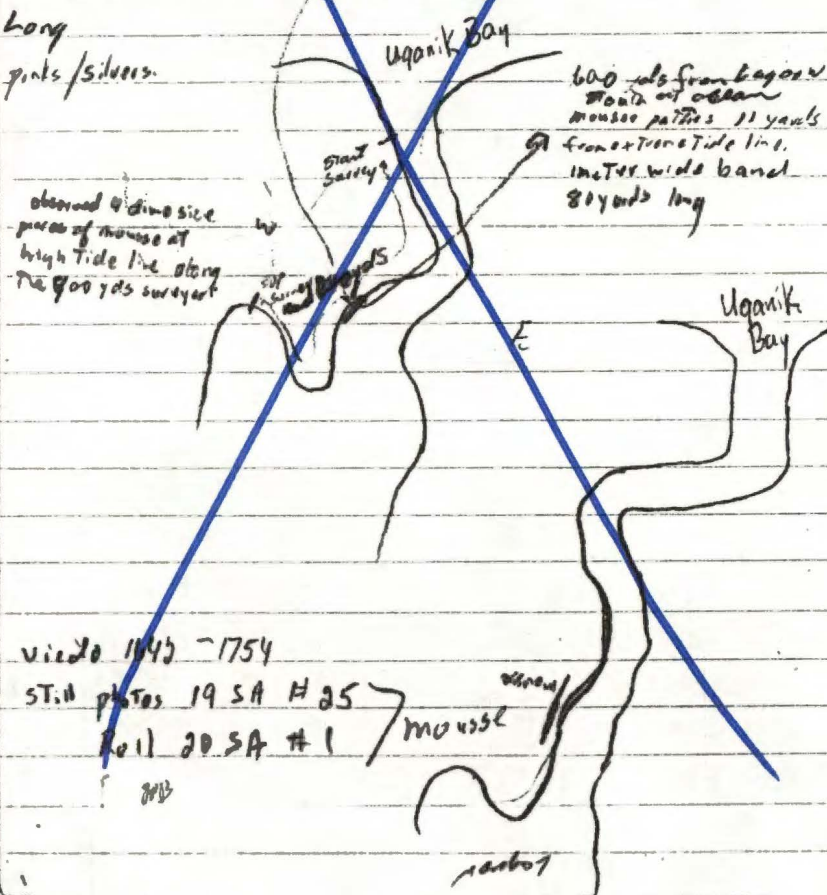
STAT area 252-1/1 creek 100 yd gravel substrate

sample collected 12:20 pm

Lat 57° 51' 45" N 153° 40' 30" W

Long

pink/silvers



video 1843 - 1754

Still photos 19 SA H 25

Roll 20 SA #1

80B

27

K5-3 Little River Land 11:25 pm

K5-4 Stream 405 STAT Area 254-40

Land 2:45 pm, oil (tar) samples taken

at 3:00 pm. 114 yds seaward from storm Tule line. video 1813 - 1924 strong oil band of rock, oil debris, etc. Depart 3:40 pm Land 4:19 pm

9ffB

09/04/89 Depart Airport 9:30 am

965 TwinStar PH2 company Paul

Stop 10:15 am site K6-1 Sturgeon River.

video 1924 -

ACE 1852814

ACE 1852815

30/5/89 Sturgeon River/Lagoon second day K6-1

9:32 AM landed Sturgeon River 57° 30' 28" W mouth of
video 2285 - 2386 154° 30' 6" 1 Sturgeon R

Surveyed inside lagoon N and back south on outside
beach. notes put on previous page with yesterday's
diagram

57° 30' 48" $\lambda_0 = 6"$
154° 31' 6"

The above position is in the upper lagoon approx at the end
of the SEAT survey. Survey 600 yards upper lagoon.
No oil observed. + 250 yards Roger Survey = 850 yds Total.
video. 2386 - 2412 Depart upper lagoon 11:05 AM
508 EH helicopter

K7-1

sub-lagoon land 11:45 AM Drop Roger off on W
side

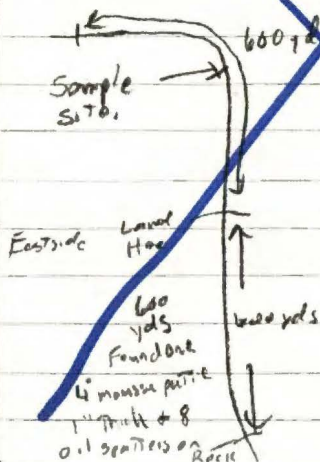
56° 55' 46"

154° 27' 42"

must be beds

Sediment samples

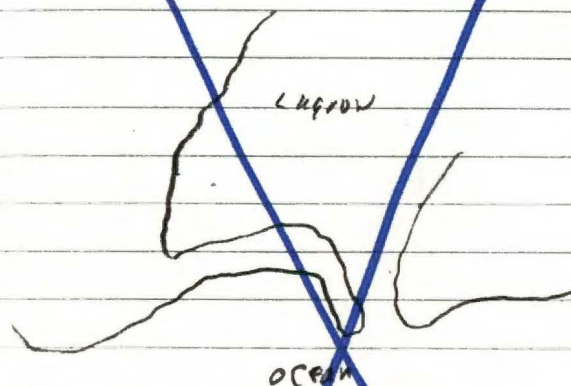
1300 samples Taken



31

land 617 Kalidak Island 1:55 PM
57° 06' 42"
153° 01' 10"

K7-2



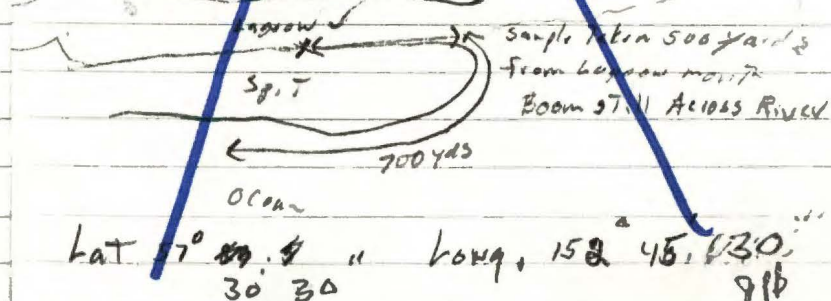
partial survey: Fog rolling in.

254-41-10050

K7-3 Saltery creek

Depart Saltery 4:15
Land 4:30 PM at Airport

X Sediment samples
Taken



Lat 57° 06' 42" Long 152° 45' 130"
30 30 91b

ACE 1852818

ACE 1852819

9/4/89

Chopper - N57965
Pilot - Paul McKee

0930 - Departure

K6-1 Sturgeon Lagoon

Lat - $57^{\circ} 32' 30''$

Long - $154^{\circ} 32' 10''$

Return - 1300

Video -

(20)

K6-2

Sediment samples

(21)

K6-3 259-10-10035

Shoreline

Beach is predominantly sand and gravel, with some large boulders

4yd band 400 yds long - 7yd Stk
From Culvert to cliff

Very light oiling one
mouse pottle found 3" diameter

Video 2285 and Creek Beach
2236 Start sampling macrophytes

"4" pinks from culvert to
stream mouth

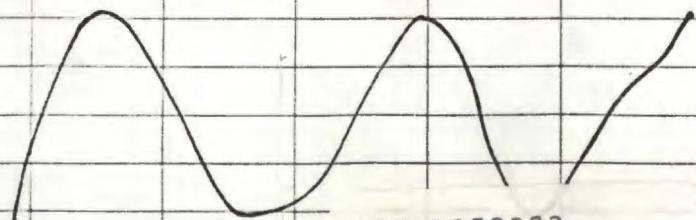
Samples 4:10 pm

Lat - $57^{\circ} 49' 10''$

Long - $152^{\circ} 25' 11''$

~~K5-4 1435 Station 405
around cobbles
15440~~

K6-1 9/4/89 1017 Sturgeon Lagoon
3m band ~~very~~ Light splatting
3m from ex high 2"-6" pen
Cobble Splats from 2' to 5' apart
Clean up has occurred in some
spots
Continues past survey



37

ACE 1852822

9/4/89

East arm Meganik Bay
Palm Palm Boom still
there

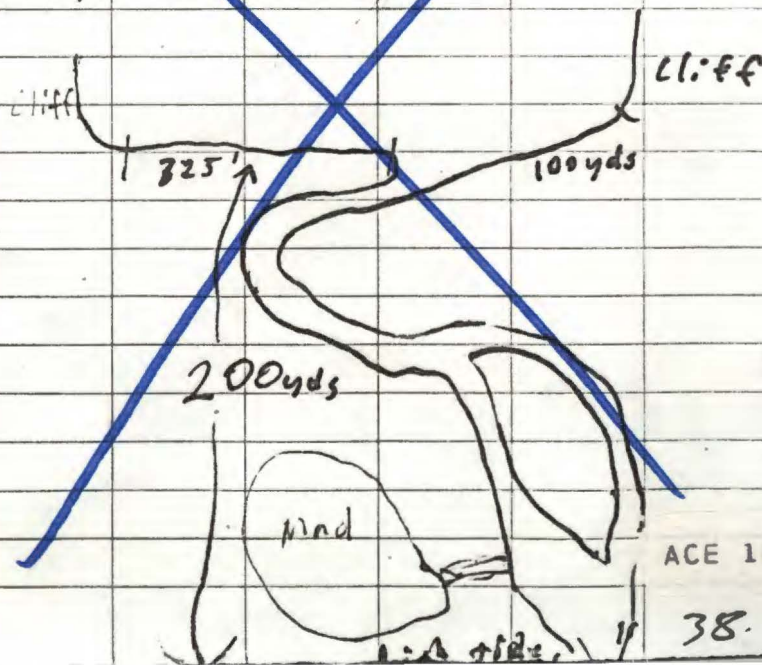
Video Start

Finish 2236

~~K6-2 1440~~

~~259-10 #
Pillar Cr.
sand/cobble~~

~~~4,000 P. Saks  
Poor V's~~



ACE 1852823

38.

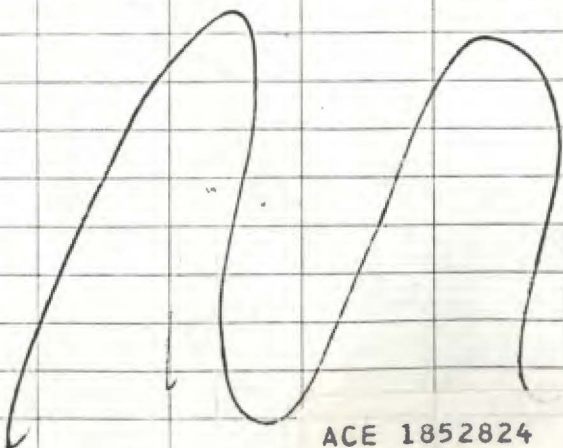
~~K6-3 Mill Creek~~

~~9/5/89 back to  
Sturgeon K6-1~~

North Bank inside Lagoon  
3" pen 3" Band at high tide  
Line

Upper Lagoon

Walked  $\approx$  250yds up from  
helicopter. No oil observed

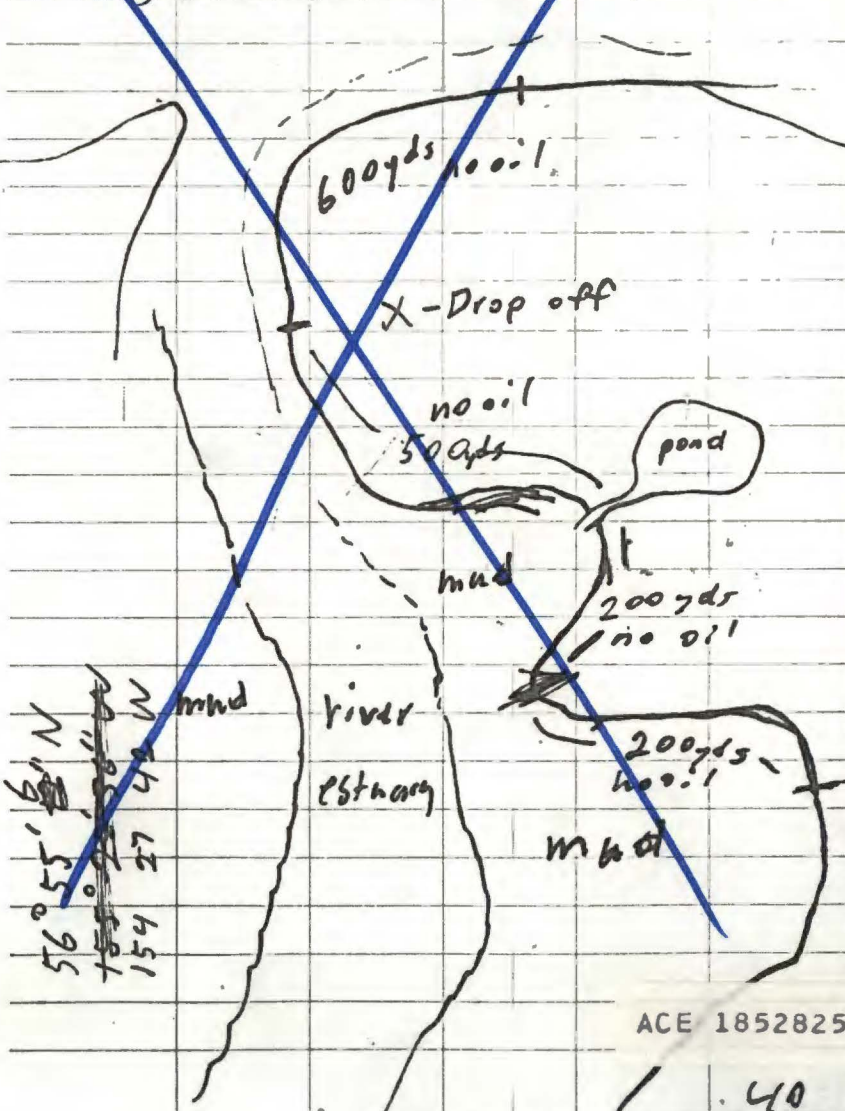


ACE 1852824

~~K7-1 1145~~

~~56-55~~

~~Sand/Gr/Clbb~~



ACE 1852825-1FF

40

| ANADROMOUS FISH OBSERVATIONS |      |      |     |      |      |       |  |  |
|------------------------------|------|------|-----|------|------|-------|--|--|
|                              | PINK | CHUM | RED | KING | COHO | DOLLY |  |  |
| erial                        |      |      |     |      |      |       |  |  |
| round                        | yes  |      |     |      | yes  |       |  |  |

MENTS: Conditions precluded actual count. Counts can be  
obtained from ADF&G comm. Fish Division.

#### OIL OBSERVATIONS

EXTENT OF OIL:  
See notes in Attached book  
 WITHIN STREAM OUTSIDE STREAM

RFACE COVERAGE  
 RFACE THICKNESS  
 NETRATION

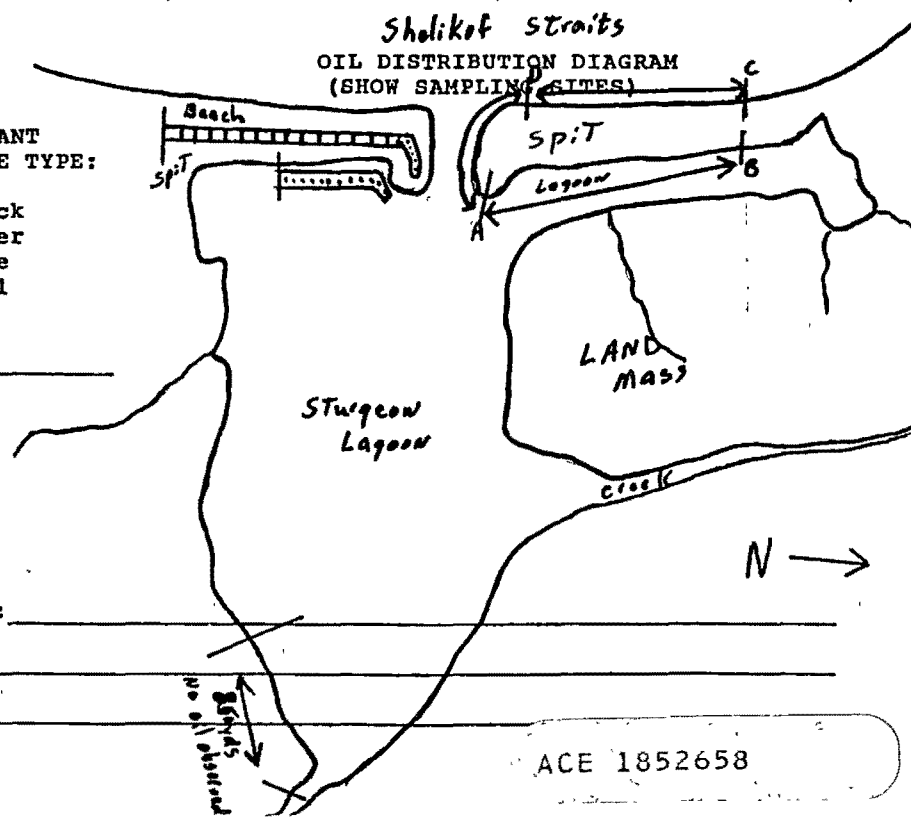
DOMINANT  
 STRATE TYPE:

Bedrock  
 Boulder  
 Cobble  
 Gravel  
 Sand  
 Mud  
 Other

derate  
 ht

MENTS:

Shelikof Straits  
 OIL DISTRIBUTION DIAGRAM  
 (SHOW SAMPLING SITES)



ACE 1852658

Sturgeon Lagoon, Kodiak Island

#### FISH HABITAT ASSESSMENT FORM

REGION: PWS KP, CI (K), AP OBSERVER(S) J. BARNHART  
R. DUNBAR  
R. TALVI

SITE NO. K6-1 AERIAL PHOTO NO. K6-17 CAT NO. 256-40-10010

STREAM NAME Sturgeon Lagoon River/ LAT 57° 30' 18" N LONG 154° 36' 6" W

DATE 8/8 09/04/89 TIME 1050 TIDE: Low slack Flood High slack Ebb

CATALOGED ANADROMOUS STREAM? (Y) N ANAD. FISH FOUND? (Y) N

OIL FOUND IN STREAM? See notes Y N OIL FOUND NEAR STREAM (1 MI.)? (Y) N

OIL SAMPLES TAKEN? (Y) N ID NOS. K6-1-1 K6-1-2

89-RGT-002-K

35 mm PICTURES TAKEN? (Y) N ROLL NO(S). 205A

EXPOSURE NO. DESCRIPTION

- |    |                                                                                      |
|----|--------------------------------------------------------------------------------------|
| 9  | Boom material, rope, plastic bags, Sgol gascans, garbage                             |
| 10 | Mousse patches 2 yards from storm tide berm.                                         |
| 11 | Mousse that worked its way under cobble and saturated gravel                         |
| 12 | Cobble moved away showing mousse beneath. Approx 26 yards from high tide storm berm. |
| 13 | Heavily oiled bird, breast eaten away by predators                                   |

VIDEO FOOTAGE TAKEN? (Y) N CASSETTE NO(S). HS008

DESCRIPTION: Footage - 1924 - 2412

ACE 1852659

# 16/17

## SEGMENT INSPECTION RECORD

ORIG.

ADEC # K6-34

Shoreline Segment: SL-1

Shoreline Treatment Process(es) Completed for this Segment

Yards Signed Off

|                                          |                                                    |
|------------------------------------------|----------------------------------------------------|
| <input type="checkbox"/> Hot water wash  | <input type="checkbox"/> Mechanical                |
| <input type="checkbox"/> Warm water wash | <input checked="" type="checkbox"/> Non-mechanical |
| <input type="checkbox"/> Water deluge    | <input type="checkbox"/> Other                     |

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Exxon Comments

Signature Jack A. Rickner

Date 7/27/89 Time 1652

Printed Name Jack Rickner

Existing Shoreline Condition As  
Visually Determined by USCG  
Surface Oil

|                          |                  |
|--------------------------|------------------|
| Percent                  | Degree of Oiling |
| <input type="checkbox"/> | Heavy            |
| <input type="checkbox"/> | Medium           |
| <input type="checkbox"/> | Light            |
| <input type="checkbox"/> | Very Light       |

100%

Subsurface Oil

☐ Yes ☒ No

Comment Below

☒ Reassessment  
Yes - Necessary

☐ No - Not necessary unless re-oiled

ADEC Rep

Comments

Existing Shoreline Condition As  
Visually Determined by ADEC

Surface Oil

|                          |                  |
|--------------------------|------------------|
| Percent                  | Degree of Oiling |
| <input type="checkbox"/> | Heavy            |
| <input type="checkbox"/> | Medium           |
| <input type="checkbox"/> | Light            |
| <input type="checkbox"/> | Very Light       |

100%

Subsurface Oil

☐ Yes ☐ No

Comment Below

☐ Reassessment  
Yes - Necessary

☐ No - Not necessary unless re-oiled

Signature \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Printed Name

FOSC Rep Type A shoreline Demobilization approved for entire sub-unit

Comments Much of the sub-unit was inspected by aerial observation. Shoreline inspection was conducted on Sturgeon River waterway. Oil discovered on rocky flats near Cape Karluk.

Signature P. J. Cormier, LT, USCG Date 31 July 89 Time 2140

Printed Name P. J. Cormier

Copy: Exxon ADEC FOSC ISOC Return All Signed Originals to Exxon

ACE 1853007+15

## SEGMENT INSPECTION RECORD

ADEC # K6-34

Shoreline Segment: SL-1

Shoreline Treatment Process(es) Completed for this Segment

Yards Signed Off

☐

Hot water wash

☐

Mechanical

☐

Warm water wash

☒

Non-mechanical

☐

Water deluge

☐

Other

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Exxon Comments

Signature

*Jack A Rickner*

Date

7/27/89

Time

1652

Printed Name

Jack Rickner

Existing Shoreline Condition As  
Visually Determined by USCG

Surface Oil

Percent

Degree of Oiling

☐

Heavy

☐

Medium

☐

Light

☐

Very Light

100%

Subsurface Oil

☐

Yes

☒

No

Comment Below

☒

Reassessment

Yes - Necessary

☐

No - Not necessary unless re-oiled

ADEC Rep

Comments

Existing Shoreline Condition As  
Visually Determined by ADEC

Surface Oil

Percent

Degree of Oiling

☐

Heavy

☐

Medium

☐

Light

☐

Very Light

100%

Subsurface Oil

☐

Yes

☐

No

Comment Below

☐

Reassessment

Yes - Necessary

☐

No - Not necessary unless re-oiled

Signature

Date

Time

Printed Name

FOSC Rep

Type A shoreline

Demobilization approved/disapproved for entire subunit.

Comments

Much of the sub-unit was inspected by aerial observation. Shoreline inspection was conducted on Sturgeon River washover. Oil discovered on rocky flats near Cape Karluk. Oil stained rocks.

Signature

*P. J. Cormier, LT, USCG*

Date

31 July 89

Time

2140

Printed Name

*P. J. Cormier*

Copy: Exxon ADEC FOSC ISCC

Return All Signed Originals to Exxon

TYX SHORELINE CLEANUP WORK ORDER

Date: 21 June 89 Shoreline Segment: SL-4, 8  
SL-9, 10, 11, 12, 13, 14, 15, 16, 17  
 Location: (Attach map) Sturgeon Lagoon

ADEC No. K6-34 Shoreline Assessment Date: 6/04/89 & 6/05/89

Recommended Cleanup Activity(ies):

No cleanup recommended at the time of the SCAT assessment.  
 Reevaluation may be necessary if reoiling occurs.

See Attached Sheets.

Priorly Considerations:

see attached "Shoreline Cleanup Program" forms.

Ecological Constraints (from site survey):

Archaeological Constraints:

Exxon Supervisor will review each SCAT report. No cleanup will be conducted until an archeologist is present if so stated for a particular beach segment (SL-11, SL-12, SL-15, SL-16, SL-17)

Archaeological Constraints:

If any archaeological or historical sites or artifacts are discovered during the cleanup activity, they must remain undisturbed and the Exxon archeologist C. Mobley contacted (as per procedures in the "Guideline for Shoreline Cleanup") and the State Historic Preservation Office notified as soon as possible.

Submitted by: Jack A. Rickman  
 Exxon

Date: 22 June 89

State Historic Preservation Officer Telephone Approval (Required)

Date: June 10, 1989 (See Attachment)

Approved: [Signature]  
 Assistant OSC Western Alaska (If appropriate)

Date: \_\_\_\_\_

Approved: [Signature]  
 Federal On-Scene Coordinator

Date: 25 JUN 89

By direction

(version 6/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): STURGEON LAGOON BLOCK K 6-34

Includes Shoreline Segments: SL-1, SL-2, SL-3, SL-4, SL-5, SL-6,  
SL-7, SL-8, SL-9, SL-10, SL-11, SL-12, SL-13, SL-14, SL-15,  
SL-16, SL-17

Submitted: \_\_\_\_\_ Date: \_\_\_\_\_  
(for Exxon)

ISCC Recommendation: \_\_\_\_\_ Date: \_\_\_\_\_

FOSC Approval: \_\_\_\_\_ Date: \_\_\_\_\_

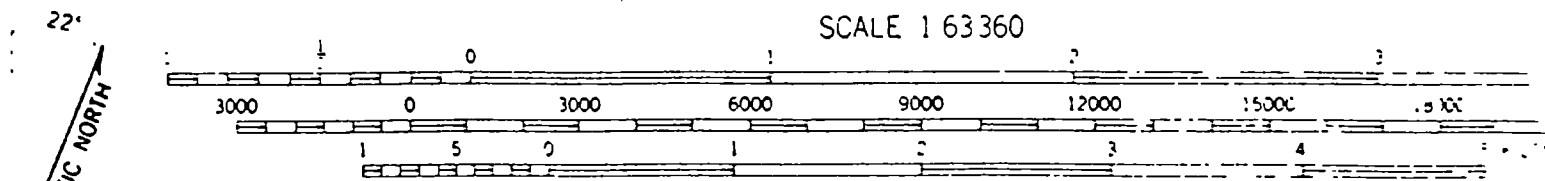
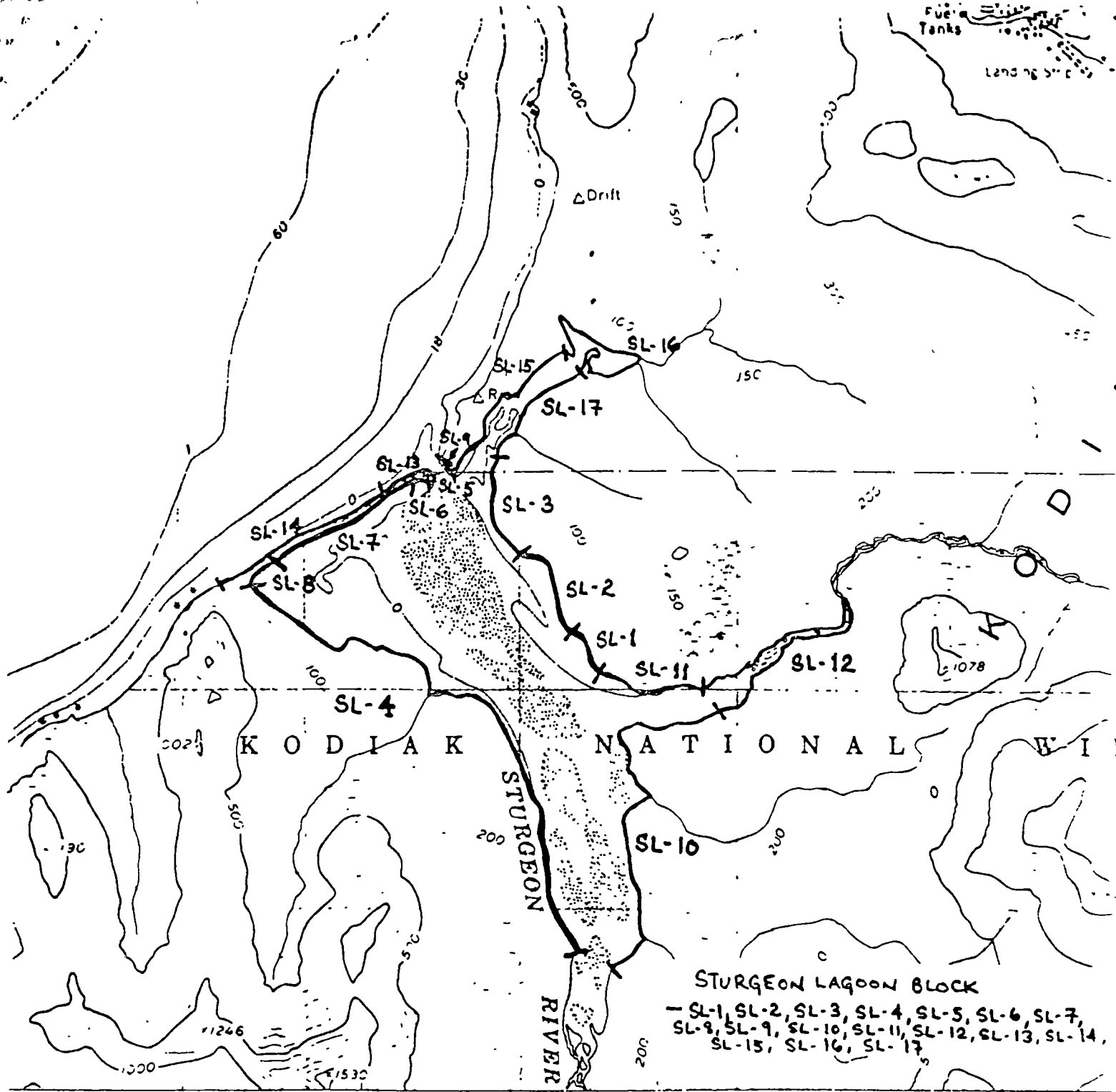
The cleanup procedures identified in the Shoreline Cleanup Program are recommended. Modifications to these systems can be made in the field. Exxon and other field personnel are encouraged to suggest innovations and productivity enhancements to the OSC's on-scene representative. The OSC's representative has the authority to approve on-site modifications. The Field Resource Team should be consulted if these actions do not fit within the Ecological Constraints of the Shoreline Cleanup Program. Requirements for safety and the protection of cultural material must be observed.

Distribution:

Exxon Shoreline Coordinator  
Exxon Shoreline Supervisor  
Exxon SCAT file

FOSC  
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USFW  
A.DEC  
A.FG  
A.DNR  
CAC  
PWSCA  
USFS  
SHPO

ACE 1853010



DATE MEAN  
 OF 1952

CONTOUR INTERVAL 100 FEET  
 DASHED LINES REPRESENT 50 FOOT CONTOURS  
 NATIONAL GEODETIC VERTICAL DATUM OF 1929  
 DEPTH CURVES IN FEET - DATUM IS MEAN LOWER LOW WATER  
 SHORELINE SHOWN REPRESENTS THE APPROXIMATE LINE OF MEAN HIGH WATER  
 THE AVERAGE RANGE OF TIDE IS APPROXIMATELY 11 FEET

FOR SALE BY U S GEOLOGICAL SURVEY ACE 1853011  
 FAIRBANKS ALASKA 99701 DENVER COLORADO 80225 OR RESTON VIRGINIA 20192

(version 4/29/89)

SHORELINE CLEANUP PROGRAM

DATE 6/09/89

SHORELINE SEGMENT SL-16

LOCATION: (see enclosed map) Sturgeon Lagoon-North end.

ADEC NO. K6-34 SHORELINE ASSESSMENT DATE: 6/05/89

Recommended Cleanup Activity(ies):

- No cleanup recommended at this time, due to no oil.

Priorities Considerations:

Ecological Constraints (from site survey): No ecological evaluation form is included because this segment was surveyed from the helicopter only.

Archeological Constraints (from site survey):

If cleanup is planned, a cultural resource assessment should be completed. If cleanup is conducted and heretofore undiscovered cultural materials are uncovered, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

Charles H. Dimes  
State Historic Preservation Officer \*

Date: June 10, 1989

EXXON: Jack A. Rickman

Date: 14 June 89

FOSC: \_\_\_\_\_

Date: \_\_\_\_\_

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

ACE 1853012

(version 5/16/89)

SHORELINE OIL EVALUATION FORM - KONTAK

Date: JUNES/89 Time: 1140

Observer: D. HINES

Surveyed From: Foot/Boat/Helio/Plane

Weather: Sun/Cloud/Rain/Snow/Ice

LOCATION

LOCATION STURGEDA LAGOON - <sup>NORTH</sup>EAST SIDE

SEGMENT I.D. SL - ~~16~~ 16

LENGTH OF SHORELINE SEGMENT: 15.50 m

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

SHORELINE:

Shoreline Type: SPI/BEA/COV/HLD/STET

Slope: LANG/HANG/VER

Wave Exposure: High/Med/Low

Sediment: B\_\_\_% / C\_\_\_% / P\_\_\_% / G\_\_\_% / SEQ% / M\_\_\_% / R\_\_\_%

Drift Debris on Beach: Yes/No Supra/Upper/Mid/Lower Type \_\_\_

OIL

Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved

Total Area of Beach Impact: SU / SP / H / M / L

OIL DISTRIBUTION

Continuous: Y/N Segment % \_\_\_ No. Bands \_\_\_ Width \_\_\_

Sporadic: Y/N Segment % \_\_\_ Min/Max Dia \_\_\_ Impact Width \_\_\_

Est. Oil Thickness where > 1cm: \_\_\_ cm SU / SP / UP / MID / LO

Est. Oil Penetration: \_\_\_ cm SU / SP / UP / MID / LO

Layers? Yes/No No# Layers \_\_\_ Oil Weathering \_\_\_

Drift Debris Oiled? Yes/No Supra/Upper/Mid/Lower Amount: H / H / L / V

OIL MORPHOLOGY

Pooled Oil \_\_\_% "Free" Oil \_\_\_% Spattered \_\_\_% H/H/L/VL Sheen \_\_\_%

OIL WEATHERING (OW)

Fresh Oil \_\_\_% SU/SP/VP/MID/LO Choc Mousse \_\_\_% SU/SP/VP/MID/LO

Pancake Mousse \_\_\_% SU/SP/VP/MID/LO Asphalt Mousse \_\_\_% SU/SP/VP/MID/LO

Tar Formation \_\_\_%

Comments:

NO OIL OBSERVED IN LOW HELICOPTER ASSESSMENT

DOCUMENTATION:

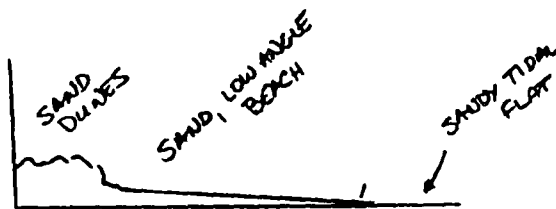
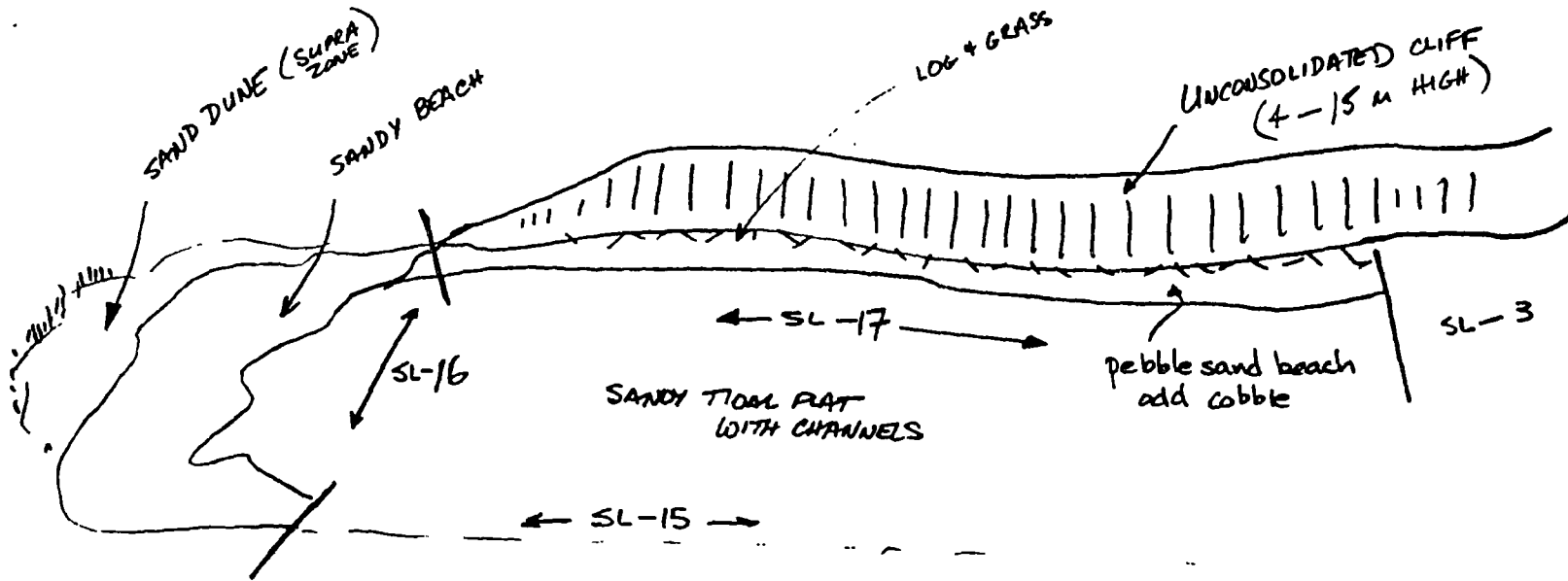
Map/Aerial photo marking segment boundaries See Attached

VTR: Y/N Tape Number(s) \_\_\_\_\_

Photography: Y/N Roll Number(s) \_\_\_\_\_

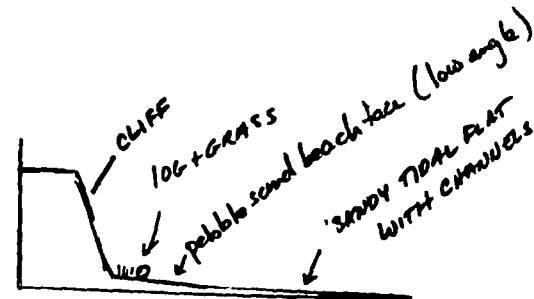
Sample Numbers Collected: N/A

SL-16 / 17



ESTIMATED CROSS SECTION

SL-16



ESTIMATED CROSS SECTION

SL-17

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 6-5-89 Location Sturgeon Lagoon Site NORTHEAST ARM

Location Prefix SL Segment # 16 Length 1550

Survey Method:

Air ✓ (A - indicate on map) Boat \_\_\_\_\_ (A - indicate on map)

Ground \_\_\_\_\_ (G - indicate on map)

Known cultural resources (AHRS #) NONE Data Source \_\_\_\_\_

Oil conditions/beach visibility NONE

Width of beach zone surveyed — m Tree fringe surveyed —

Cultural resources observed in beach zone (AHRS code) —

Cultural resources observed in tree fringe (AHRS code) —

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

Shore Profile SAND BEACH

Fresh Water Sources LARGE STREAM

Sea Exposure PROTECTED INSIDE NORTHEAST ARM OF STURGEON LAGOON

Access/Safety ACCESSIBLE BY BOAT OR HELICOPTER

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 # \_\_\_\_\_ Frames \_\_\_\_\_

B/W Roll # \_\_\_\_\_ Frames \_\_\_\_\_

Observer(s) MIKE YARBOROUGH

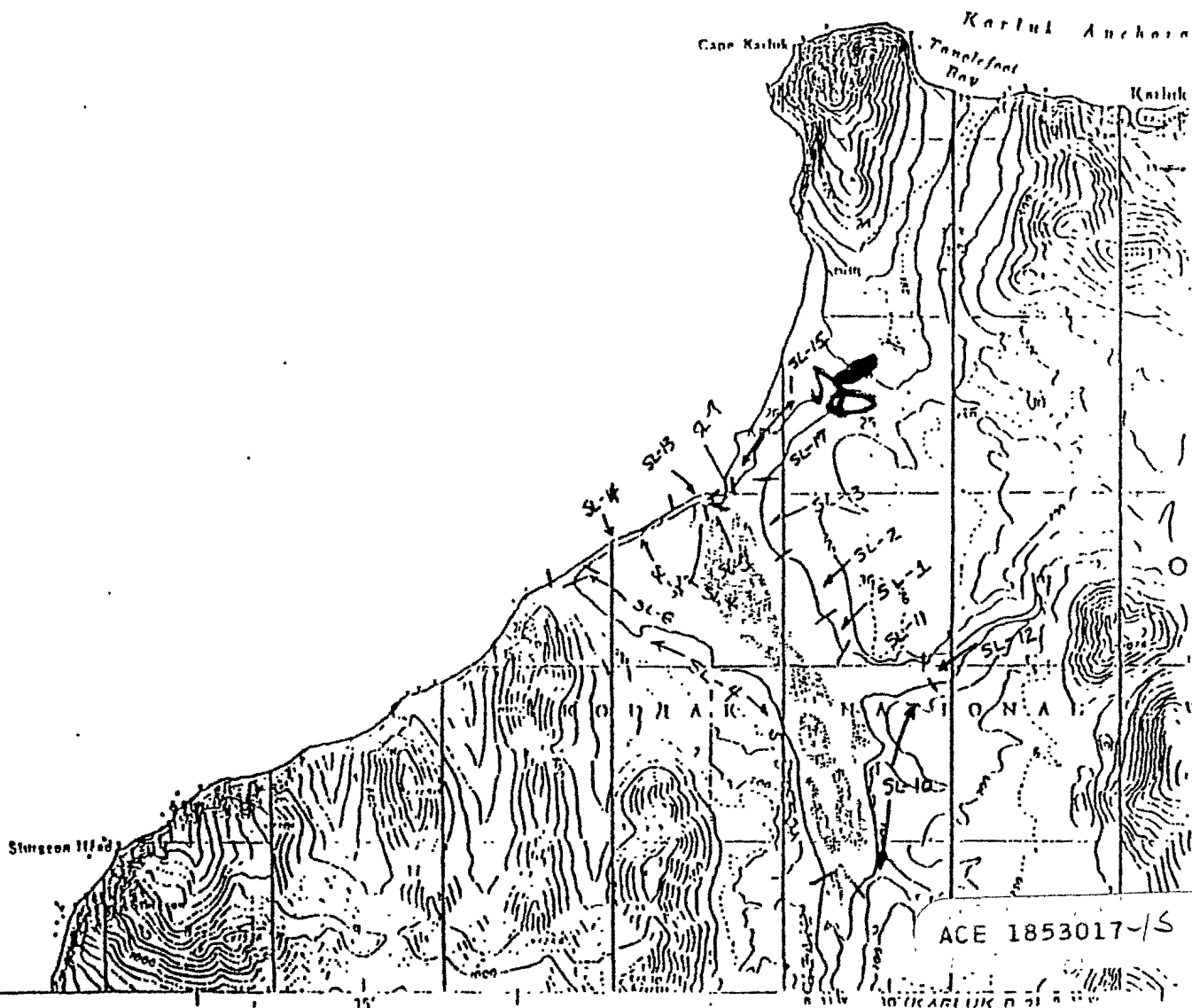
Time survey started 11:30 AM Time survey ended 12:05 PM

Cultural resource considerations/restraints:

NO CLEAN-UP RECOMMENDED AT THIS TIME. CULTURAL

RESOURCE EVALUATION NOT COMPLETED.

S H B L 1 4.



ACE 1853017-15

## SEGMENT INSPECTION RECORD

ADEC # K6-34

Shoreline Segment: SL-1

Shoreline Treatment Process(es) Completed for this Segment

Yards Signed Off

|                                          |                                                    |
|------------------------------------------|----------------------------------------------------|
| <input type="checkbox"/> Hot water wash  | <input type="checkbox"/> Mechanical                |
| <input type="checkbox"/> Warm water wash | <input checked="" type="checkbox"/> Non-mechanical |
| <input type="checkbox"/> Water deluge    | <input type="checkbox"/> Other                     |

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Exxon Comments

Signature Jack A. RicknerDate 7/27/89 Time 1652

Printed Name Jack Rickner

Existing Shoreline Condition As  
Visually Determined by USCG  
Surface Oil

| Percent                  | Degree of Oiling |
|--------------------------|------------------|
| <input type="checkbox"/> | Heavy            |
| <input type="checkbox"/> | Medium           |
| <input type="checkbox"/> | Light            |
| <input type="checkbox"/> | Very Light       |

100%

Subsurface Oil

☐ Yes ☒ No

Comment Below

Reassessment

☒ Yes - Necessary

☐ No - Not necessary unless re-oiled

ADEC Rep

Comments

Existing Shoreline Condition As  
Visually Determined by ADEC  
Surface Oil

| Percent                  | Degree of Oiling |
|--------------------------|------------------|
| <input type="checkbox"/> | Heavy            |
| <input type="checkbox"/> | Medium           |
| <input type="checkbox"/> | Light            |
| <input type="checkbox"/> | Very Light       |

100%

Subsurface Oil

☐ Yes ☐ No

Comment Below

Reassessment

☐ Yes - Necessary

☐ No - Not necessary unless re-oiled

Signature \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Printed Name

FOSC Rep Type A shoreline Demobilization approved for entire sub-unitComments Much of the sub-unit was inspected by aerial observation. Shoreline inspection was conducted on Sturgeon River waterway. Oil discovered on rocky flats near Cape Karluk.Signature P. J. Cormier, LT, USCG Date 31 July 89 Time 2140Printed Name P. J. Cormier

Copy: Exxon ADEC FOSC ISCC Return All Signed Originals to Exxon

# SEGMENT INSPECTION RECORD

ADEC # K-6-34

Shoreline Segment: SL 8-17

Shoreline Treatment Process(es) Completed for this Segment

|                                          |                                                    |
|------------------------------------------|----------------------------------------------------|
| <input type="checkbox"/> Hot water wash  | <input type="checkbox"/> Mechanical                |
| <input type="checkbox"/> Warm water wash | <input checked="" type="checkbox"/> Non-mechanical |
| <input type="checkbox"/> Water deluge    | <input type="checkbox"/> Other                     |

ORIGINAL

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Exxon Comments

Signature *Gayle Cannon* Date 9/6/89 Time 0730

Printed Name GAYLE CANNON

Existing Shoreline Condition As  
Visually Determined by USCG  
Surface Oil

| Percent                                                                                                                                                                                            | Degree of Oiling |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| <div style="border: 1px solid black; width: 100px; height: 20px; position: relative;"><div style="position: absolute; top: -10px; left: 0; right: 0; border-bottom: 1px solid black;"></div></div> | Heavy            |
| <div style="border: 1px solid black; width: 100px; height: 20px; position: relative;"><div style="position: absolute; top: -10px; left: 0; right: 0; border-bottom: 1px solid black;"></div></div> | Medium           |
| <div style="border: 1px solid black; width: 100px; height: 20px; position: relative;"><div style="position: absolute; top: -10px; left: 0; right: 0; border-bottom: 1px solid black;"></div></div> | Light            |
| <div style="border: 1px solid black; width: 100px; height: 20px; position: relative;"><div style="position: absolute; top: -10px; left: 0; right: 0; border-bottom: 1px solid black;"></div></div> | Very Light       |

100%

Subsurface Oil  
☐ Yes ☒ No

Comment Below

Reassessment  
☐ Yes - Necessary

☒ No - Not necessary unless re-oiled

Existing Shoreline Condition As  
Visually Determined by ADEC  
Surface Oil

| Percent                                                                                                                                                                                            | Degree of Oiling |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| <div style="border: 1px solid black; width: 100px; height: 20px; position: relative;"><div style="position: absolute; top: -10px; left: 0; right: 0; border-bottom: 1px solid black;"></div></div> | Heavy            |
| <div style="border: 1px solid black; width: 100px; height: 20px; position: relative;"><div style="position: absolute; top: -10px; left: 0; right: 0; border-bottom: 1px solid black;"></div></div> | Medium           |
| <div style="border: 1px solid black; width: 100px; height: 20px; position: relative;"><div style="position: absolute; top: -10px; left: 0; right: 0; border-bottom: 1px solid black;"></div></div> | Light            |
| <div style="border: 1px solid black; width: 100px; height: 20px; position: relative;"><div style="position: absolute; top: -10px; left: 0; right: 0; border-bottom: 1px solid black;"></div></div> | Very Light       |

100%

Subsurface Oil  
☐ Yes ☒ No

Comment Below

Reassessment  
☐ Yes - Necessary

☒ No - Not necessary unless re-oiled

ADEC Rep

Comments

over for comments

Signature *Scott Shelton* Date 9/5/89 Time 4:45 P.M.

Printed Name SCOTT Shelton

FOSC Rep

Demobilization approved/disapproved

Comments

Agree with ADEC comments. Trash should be removed asap.

Signature *J. Tagli* Date \_\_\_\_\_ Time \_\_\_\_\_

Printed Name \_\_\_\_\_

Copy: Exxon ADEC FOSC ISCC

Return All Signed Originals to Exxon

ACE 1852965

enclosure (5)

DEC. Comments 9/5/89 Sturg. - River

11:55 AM SET DOWN K6-34 (SL-9) Observed

small band of weathered mousse and vegetation  $20 \times 10 \text{ cm}$  meters along NW lagoon shore. Walked 350 yds towards N/E shore of lagoon S-15 ~~SL-15~~ SL-17, SL-3. Very light splinters weathered - Found assorted garbage in white bags along SL-9 lagoon side. Counted 2 doz plastic bags weighted with rocks - Sturgeon River area needs to be cleaned up - Clean up crews have deposited garbage and rolls of plastic bags in location that winter storms could refloat and cause a real mess - 2 doz full rolls of plastic counted on the beach. 1 TENT weighted down with rocks. Boom material found on Beach Cashes could be caught in winter storms as well.

Small oil band could be picked up before this season ends. 1-2 bags should complete the task.

John Shelton

## SEGMENT INSPECTION RECORD

ADEC # K6-34

Shoreline Segment: SL-1

Shoreline Treatment Process(es) Completed for this Segment

☐

Hot water wash

☐

Mechanical

☐

Warm water wash

☒

Non-mechanical

☐

Water deluge

☐

Other

Yards Signed Off

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Exxon Comments

Signature

*Jack A. Rickner*

Date

7/27/89

Time

1652

Printed Name

Jack Rickner

Existing Shoreline Condition As  
Visually Determined by USCG

Surface Oil

Percent Degree of Oiling

☐  
☐  
☐  
☐

Heavy

Medium

Light

Very Light

100%

Subsurface Oil

☐

Yes

☒

No

Comment Below

☒

Reassessment

Yes - Necessary

☐

No - Not necessary unless re-oiled

ADEC Rep

Comments

Existing Shoreline Condition As  
Visually Determined by ADEC

Surface Oil

Percent Degree of Oiling

☐  
☐  
☐  
☐

Heavy

Medium

Light

Very Light

100%

Subsurface Oil

☐

Yes

☐

No

Comment Below

☐

Reassessment

Yes - Necessary

☐

No - Not necessary unless re-oiled

Signature

Date

Time

Printed Name

FOSC Rep Type A shoreline Demobilization approved/disapproved for entire sub unit.

Comments

*Much of the sub-unit was inspected by aerial observation. Shoreline inspection was conducted on Sturgeon River wadlough. Oil discovered on rocky flats near Cape Karluk. (oil stained rocks)*

Signature

*P. J. Cormier, LT, USCG*

Date

31 July 89

Time

2140

Printed Name

*P. J. Cormier*

Copy: Exxon ADEC FOSC ISCC

Return All Signed Originals to Exxon

# TYPE A SHORELINE CLEANUP WORK ORDER

Date: 21 June 89 Shoreline Segment: SL-4, (8)  
SL-9, 10, 11, 12, 13, 14, 15, 16, 17  
 Location: (Attach map) Sturgeon Lagoon

ADEC No. K6-34 Shoreline Assessment Date: 6/04/89 & 6/05/89

## Recommended Cleanup Activity(ies):

No cleanup recommended at the time of the SCAT assessment.  
 Reevaluation may be necessary if reoiling occurs.

See Attached Sheets.

## Priority Considerations:

see attached "Shoreline Cleanup Program" forms.

## Ecological Constraints (from site survey):

### Archaeological Constraints:

Exxon Supervisor will review each SCAT report. No cleanup will be conducted until an archeologist is present if so stated for a particular beach segment (SL-11, SL-12, SL-15, SL-16, SL-17)

### Archaeological Constraints:

If any archaeological or historical sites or artifacts are discovered during the cleanup activity, they must remain undisturbed and the Exxon archeologist C. Mobley contacted (as per procedures in the "Guideline for Shoreline Cleanup") and the State Historic Preservation Office notified as soon as possible.

Submitted by: Jack A. Rickman  
 Exxon

Date: 22 June 89

State Historic Preservation Officer Telephone Approval (Required)

Date: June 10, 1989 (See Attachment)

Approved: [Signature]  
 Assistant OSC Western Alaska (if appropriate)

Date: \_\_\_\_\_

Approved: [Signature]  
 Federal On-Scene Coordinator  
 By direction

Date: 25 JUN 89

ACE 1852968

# TYPE SHORELINE CLEANUP WORK ORDER

Date: 21 June 89 Shoreline Segment: SL-4, 8  
SL-9, 10, 11, 12, 13, 14, 15, 16, 17  
 Location: (Attach map) Sturgeon Lagoon

ADEC No. K6-34 Shoreline Assessment Date: 6/04/89 & 6/05/89

## Recommended Cleanup Activity(ies):

No cleanup recommended at the time of the SCAT assessment.  
 Reevaluation may be necessary if reoiling occurs.

See Attached Sheets.

## Priority Considerations:

see attached "Shoreline Cleanup Program" forms.

## Ecological Constraints (from site survey):

### Archaeological Constraints:

Exxon Supervisor will review each SCAT report. No cleanup will be conducted until an archaeologist is present if so stated for a particular beach segment (SL-11, SL-12, SL-15, SL-16, SL-17)

### Archaeological Constraints:

If any archaeological or historical sites or artifacts are discovered during the cleanup activity, they must remain undisturbed and the Exxon archaeologist C. Mobley contacted (as per procedures in the "Guideline for Shoreline Cleanup") and the State Historic Preservation Office notified as soon as possible.

Submitted by: Jack A. Rickman  
 Exxon

Date: 22 June 89

State Historic Preservation Officer Telephone Approval (Required)

Date: June 10, 1989 (See Attachment)

Approved:

[Signature]  
 Assistant OSC Western Alaska (if appropriate)

Date:                     

Approved:

[Signature]  
 Federal On-Scene Coordinator

Date: 25 JUN 89

By direction

4/30/89

ACE 1852969

(version 4/29/89)

SHORELINE CLEANUP PROGRAM

DATE 6/09/89

SHORELINE SEGMENT SL-12

LOCATION: (see enclosed map) Sturgeon Lagoon-East lagoon  
(Estuary)

ADEC NO. K6-34 SHORELINE ASSESSMENT DATE: 6/05/89

Recommended Cleanup Activity(ies):  
- No cleanup recommended due to no oil.

Priorities Considerations: This area has been declared sensitive due to sockeye, pink and salmon runs.

Ecological Constraints (from site survey): None, since no oil was observed and cleanup is not recommended.

Archeological Constraints (from site survey):  
If cleanup is planned, a cultural resource assessment should be completed.

Charles ZH...  
State Historic Preservation Officer \*

Date: June 10, 1989

EXXON: Jack A. R...

Date: 14 June 89

FOSC: \_\_\_\_\_

Date: \_\_\_\_\_

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

(version 5/16/89)

SHORELINE OIL EVALUATION FORM - KONTAK

Date: JUNE 5/89 / Time: \_\_\_\_\_

Observer: D. HOWES

Surveyed From: Foot/Boat/Helio/Plane

Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION

LOCATION STURGEON LAGOON - EAST SIDE

SEGMENT I.D. SL-12

LENGTH OF SHORELINE SEGMENT: 3500 m

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

SHORELINE:

Shoreline Type: SPI/BEA/COV/HLD/STRT

Slope: LANG/HANG/VER

Wave Exposure: High/Med/Low

Sediment: B \_\_\_% / C \_\_\_% / P 60% / G \_\_\_% / S 40% / M \_\_\_% / R \_\_\_%

Drift Debris on Beach: Yes/No Supra/Upper/Mid/Lower Type \_\_\_\_\_

OIL

Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved

Total Area of Beach Impact: SU / SP / H / M / L

OIL DISTRIBUTION

Continuous: Y/N Segment % \_\_\_\_\_ No. Bands \_\_\_\_\_ Width \_\_\_\_\_

Sporadic: Y/N Segment % \_\_\_\_\_ Min/Max Dia \_\_\_\_\_ Impact Width \_\_\_\_\_

Est. Oil Thickness where > 1cm: \_\_\_\_\_ cm SU / SP / UP / MID / LO

Est. Oil Penetration: \_\_\_\_\_ cm SU / SP / UP / MID / LO

Layers? Yes/No No# Layers \_\_\_\_\_ Oil Weathering \_\_\_\_\_

Drift Debris Oiled? Yes/No Supra/Upper/Mid/Lower Amount: H / H / L / VL

OIL MORPHOLOGY

Pooled Oil \_\_\_% "Free" Oil \_\_\_% Spattered \_\_\_% H/H/L/VL Sheen \_\_\_%

OIL WEATHERING (OW)

Fresh Oil \_\_\_% SU/SP/VP/MID/LO Choc Mousse \_\_\_% SU/SP/VP/MID/LO

Pancake Mousse \_\_\_% SU/SP/VP/MID/LO Asphalt Mousse \_\_\_% SU/SP/VP/MID/LO

Tar Formation \_\_\_%

Comments:

THIS UNIT IS A DELTA/ESTUARY WITH CHANNEL & BARS  
NO OIL OBSERVED ON BARS OR SEDIMENT ALONG PRIDGE

DOCUMENTATION:

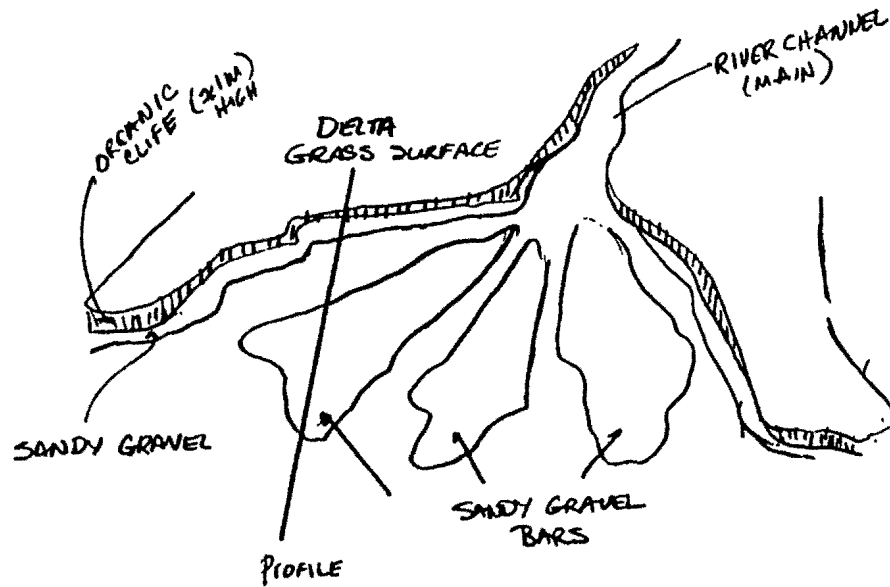
Map/Aerial photo marking segment boundaries See attached

VTR: Y/N Tape Number(s) \_\_\_\_\_

Photography: Y/N Roll Number(s) DMC-12

Sample Numbers Collected: N/A

SL-12 - ESTUARY/DELTA



ESTIMATED CROSS-PROFILE  
OF UNIT

# ECOLOGICAL EVALUATION

LOCATION: Sturgeon Bay SITE: East Lagoon OBSERVER: J. Turpley

LOCATION PREFIX: SL SEG. NO.: 12 LENGTH: 3500 (M)

DATE: 6 / 5 / 89 TIME (HHMM): 1030 TIDE HT.: -0.90 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

## LIVE BIOTA

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

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

Shells only

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

## Littorina

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

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

OTHER OBSERVATIONS: Algal debris high in grass of estuary.  
Marsh grass extensive throughout this segment.

CLEANUP PRECAUTIONS: NONE

MAMMALS: Otters \_\_\_\_\_ Harbor Seals \_\_\_\_\_ Sea Lions \_\_\_\_\_ Whales \_\_\_\_\_  
Other NONE

BIRDS: None

GENERAL OBSERVATIONS: No oil observed. This whole segment is  
an estuary and borders part of lagoon. Could smell salt tide  
from anoxic muds.

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 6-5-89 Location Sturgeon Lagoon Site EAST ALM

Location Prefix SL Segment # 12 Length 3500

Survey Method:

Air ✓ (A - indicate on map) Boat \_\_\_\_\_ (A - indicate on map)

Ground \_\_\_\_\_ (G - indicate on map)

Known cultural resources (AHRS #) NONE Data Source \_\_\_\_\_

Oil conditions/beach visibility NONE

Width of beach zone surveyed — m Tree fringe surveyed —

Cultural resources observed in beach zone (AHRS code) —

Cultural resources observed in tree fringe (AHRS code) —

General observations justifying survey method and segment's site probability

Shore Profile Estuary

Fresh Water Sources LARGE STAGN

Sea Exposure Protected inside Sturgeon Lagoon

Access/Safety Accessible by BOAT OR Helicopter

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 # \_\_\_\_\_ Frames \_\_\_\_\_

B/W Roll # \_\_\_\_\_ Frames \_\_\_\_\_

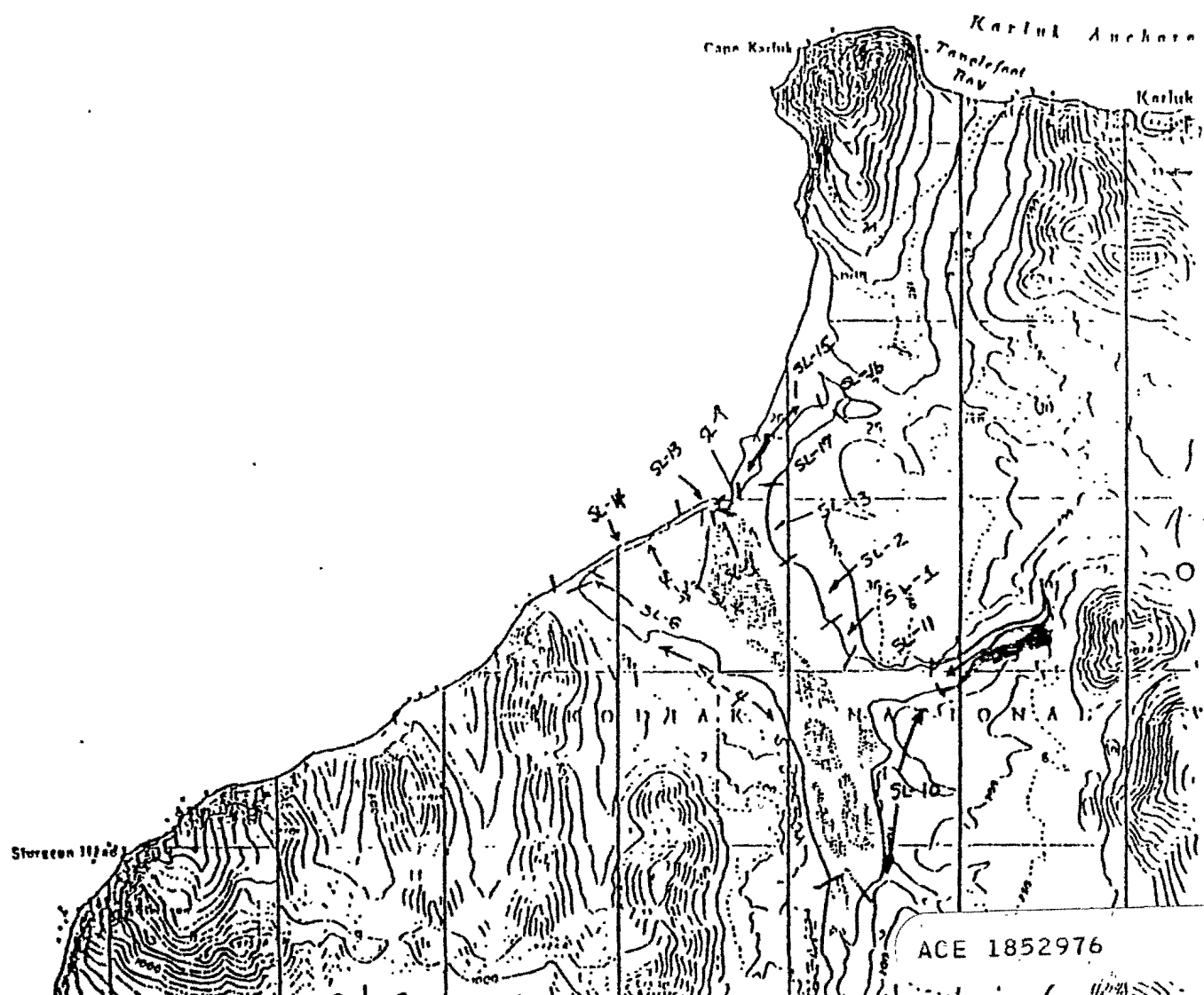
Observer(s) Mike YARBOROUGH

Time survey started \_\_\_\_\_ Time survey ended \_\_\_\_\_

Cultural resource considerations/restraints:

NO clean-up recommended at this time. cultural resource  
evaluation not completed.

S  
H  
B  
L  
V



1000 FEET

1. edited, and published by the Geological Survey

(version 6/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): STURGEON LAGOON BLOCK K 6-34

Includes Shoreline Segments: SL-1, SL-2, SL-3, SL-4, SL-5, SL-6,  
SL-7, SL-8, SL-9, SL-10, SL-11, SL-12, SL-13, SL-14, SL-15,  
SL-16, SL-17

Submitted: \_\_\_\_\_ Date: \_\_\_\_\_  
(for Exxon)

ISCC Recommendation: \_\_\_\_\_ Date: \_\_\_\_\_

FOSC Approval: \_\_\_\_\_ Date: \_\_\_\_\_

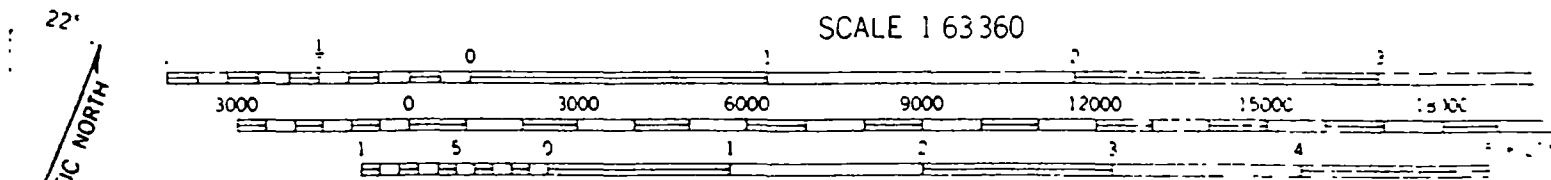
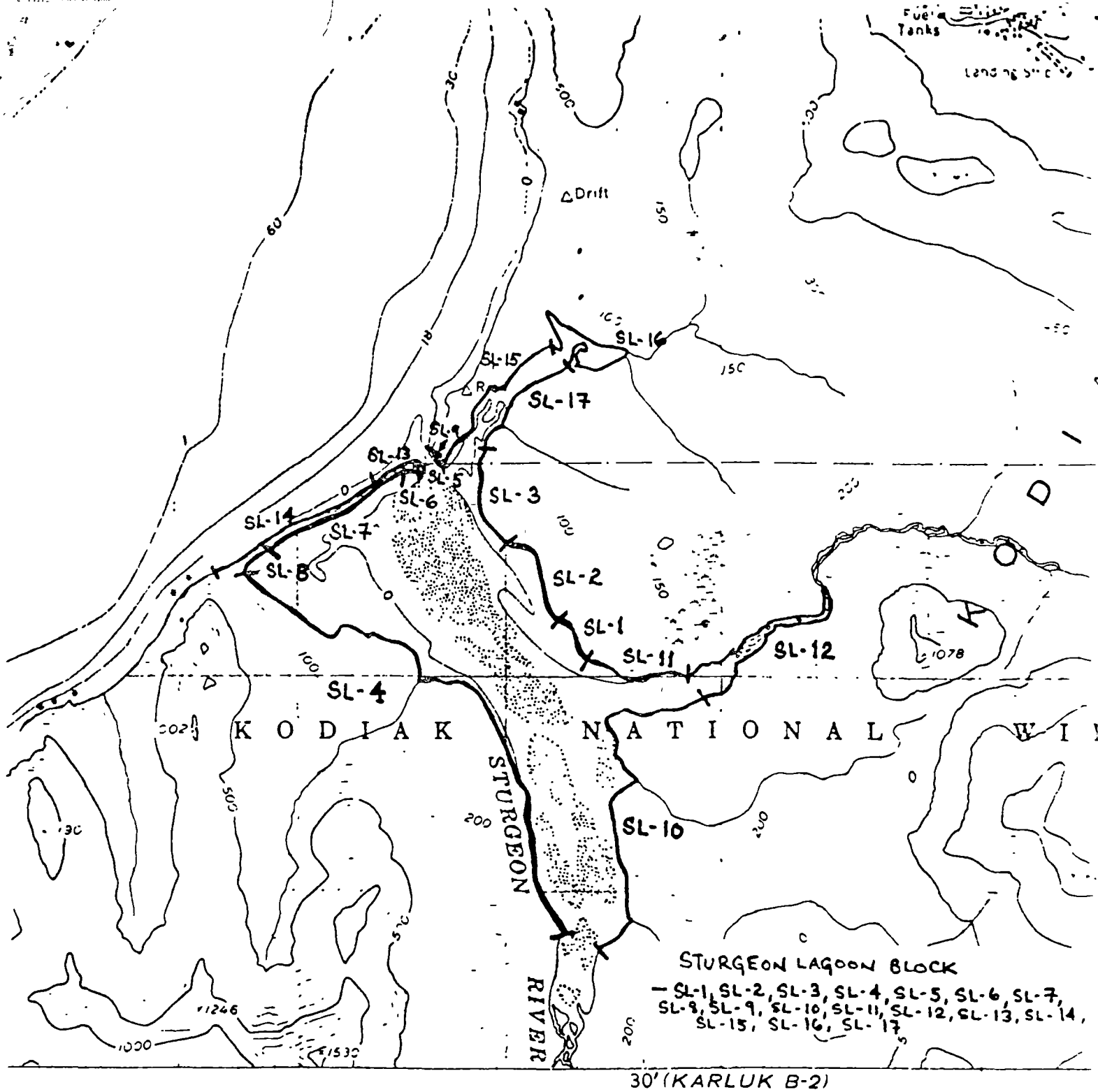
The cleanup procedures identified in the Shoreline Cleanup Program are recommended. Modifications to these systems can be made in the field. Exxon and other field personnel are encouraged to suggest innovations and productivity enhancements to the OSC's on-scene representative. The OSC's representative has the authority to approve on-site modifications. The Field Resource Team should be consulted if these actions do not fit within the Ecological Constraints of the Shoreline Cleanup Program. Requirements for safety and the protection of cultural material must be observed.

Distribution:

Exxon Shoreline Coordinator  
Exxon Shoreline Supervisor  
Exxon SCAT file

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SHPO

ACE 1852977



CONTOUR INTERVAL 100 FEET  
 DASHED LINES REPRESENT 50 FOOT CONTOURS  
 NATIONAL GEODETIC VERTICAL DATUM OF 1929  
 DEPTH CURVES IN FEET - DATUM IS MEAN LOWER LOW WATER  
 SHORELINE SHOWN REPRESENTS THE APPROXIMATE LINE OF MEAN HIGH WATER  
 THE AVERAGE RANGE OF TIDE IS APPROXIMATELY 11 FEET

DATE MEAN  
 JAN 1952

FOR SALE BY U S GEOLOGICAL SURVEY ACE 1852978 -/S  
 FAIRBANKS ALASKA 99701 DENVER COLORADO 80225 OR RESTON VIRGINIA 22092

## SEGMENT INSPECTION RECORD

ADEC # K6-34

Shoreline Segment: SL-1

Shoreline Treatment Process(es) Completed for this Segment

Yards Signed Off

|                                          |                                                    |
|------------------------------------------|----------------------------------------------------|
| <input type="checkbox"/> Hot water wash  | <input type="checkbox"/> Mechanical                |
| <input type="checkbox"/> Warm water wash | <input checked="" type="checkbox"/> Non-mechanical |
| <input type="checkbox"/> Water deluge    | <input type="checkbox"/> Other                     |

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Exxon Comments

Signature Jack A RicknerDate 7/27/89Time 1652Printed Name Jack RicknerExisting Shoreline Condition As  
Visually Determined by USCG  
Surface Oil

|                          |                  |
|--------------------------|------------------|
| Percent                  | Degree of Oiling |
| <input type="checkbox"/> | Heavy            |
| <input type="checkbox"/> | Medium           |
| <input type="checkbox"/> | Light            |
| <input type="checkbox"/> | Very Light       |

100%

Subsurface Oil

☐ Yes ☒ No

Comment Below

☒ Reassessment  
Yes - Necessary☐ No - Not necessary unless re-oiled

ADEC Rep

Comments

Existing Shoreline Condition As  
Visually Determined by ADEC

Surface Oil

|                          |                  |
|--------------------------|------------------|
| Percent                  | Degree of Oiling |
| <input type="checkbox"/> | Heavy            |
| <input type="checkbox"/> | Medium           |
| <input type="checkbox"/> | Light            |
| <input type="checkbox"/> | Very Light       |

100%

Subsurface Oil

☐ Yes ☐ No

Comment Below

☐ Reassessment  
Yes - Necessary☐ No - Not necessary unless re-oiled

Signature \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Printed Name \_\_\_\_\_

FOSC Rep Type A shoreline Demobilization approved for entire subunit.Comments Much of the sub-unit was inspected by aerial observation. Shoreline inspection was conducted on Sturgeon river wauhouer. Oil discovered on rocky flats near Cape Karluk. Oil stained rocks.Signature P. J. Cormier, LT, USCGDate 31 July 89 Time 2140Printed Name P. J. Cormier

Copy: Exxon ADEC FOSC ISCC Return All Signed Originals to Exxon

ACE 1852949+15

DEC. COMMENTS - 9/5/89 Sturg. - River

11:55 AM SEI DOWN 116-34 (SL-9) observed small band of weathered mussel and vegetation  $20 \times 10$  cm along NW lagoon shore. Walked 350 yds towards N/E shore of lagoon S-15 ~~SL-15~~ SL-17, SL-3. Very light splatters weathered - Found assorted garbage in white bags along SL-9 lagoon side. Counted 2 doz plastic bags weighted with rocks - Sturgeon River area needs to be cleaned up - Clean up crews have deposited garbage and rolls of plastic bags in location that winter storms could refloat and cause a real mess - 2 doz full rolls of plastic counted on the beach. 1 TENT weighted down with rocks. Boom material found on Beach Cashes could be caught in winter storms as well.

Small oil band could be picked up before this season ends. 1-2 bags should complete the task. *John Shelton*

# SEGMENT INSPECTION RECORD

ADEC # K-6-34

Shoreline Segment: SL 8-17

Shoreline Treatment Process(es) Completed for this Segment

|                                          |                                                    |
|------------------------------------------|----------------------------------------------------|
| <input type="checkbox"/> Hot water wash  | <input type="checkbox"/> Mechanical                |
| <input type="checkbox"/> Warm water wash | <input checked="" type="checkbox"/> Non-mechanical |
| <input type="checkbox"/> Water deluge    | <input type="checkbox"/> Other                     |

ORIGINAL

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Exxon Comments

Signature *Gayle Cannon* Date 9/6/89 Time 0730

Printed Name GAYLE CANNON

Existing Shoreline Condition As  
Visually Determined by USCG  
Surface Oil

|                          |                  |
|--------------------------|------------------|
| Percent                  | Degree of Oiling |
| <input type="checkbox"/> | Heavy            |
| <input type="checkbox"/> | Medium           |
| <input type="checkbox"/> | Light            |
| <u>1-2%</u>              | Very Light       |

100%

Subsurface Oil

☐ Yes ☒ No

Comment Below

☐ Reassessment  
☐ Yes - Necessary

☒ No - Not necessary unless re-oiled

ADEC Rep

Comments

over For Comments

Signature *Scott Shelton* Date 9/5/89 Time 4:45 P.M.

Printed Name

SCOTT Shelton

FOSC Rep

Demobilization approved/disapproved

Comments

Agree with ADEC comments. Trash should be removed asap.

Signature *J. Tagli* Date \_\_\_\_\_ Time \_\_\_\_\_

Printed Name

Copy: Exxon ADEC FOSC ISCC

Return All Signed Originals to Exxon

ACE 1852951

enclosure (5)

# TY. SHORELINE CLEANUP WORK ORDER

Date: 21 June 89 Shoreline Segment: SL-4, (8)  
SL-9, 10, 11, 12, 13, 14, 15, 16, 17  
 Location: (Attach map) Sturgeon Lagoon

ADEC No. K6-34 Shoreline Assessment Date: 6/04/89 & 6/05/89

## Recommended Cleanup Activity(ies):

No cleanup recommended at the time of the SCAT assessment.  
 Reevaluation may be necessary if reoiling occurs.

See Attached Sheets.

## Priority Considerations:

see attached "Shoreline Cleanup Program" forms.

## Ecological Constraints (from site survey):

### Archaeological Constraints:

Exxon Supervisor will review each SCAT report. No cleanup will be conducted until an archeologist is present if so stated for a particular beach segment (SL-11, SL-12, SL-15, SL-16, SL-17)

### Archaeological Constraints:

If any archaeological or historical sites or artifacts are discovered during the cleanup activity, they must remain undisturbed and the Exxon archeologist C. Mobley contacted (as per procedures in the "Guideline for Shoreline Cleanup") and the State Historic Preservation Office notified as soon as possible.

Submitted by: Jack A. Rickman  
 Exxon

Date: 22 June 89

State Historic Preservation Officer Telephone Approval (Required)

Date: June 10, 1989 (See Attachment)

Approved: [Signature]  
 Assistant OSC Western Alaska (If appropriate)

Date: \_\_\_\_\_

Approved: [Signature]  
 Federal On-Scene Coordinator

Date: 25 JUN 89

By direction

(version 4/29/89)

SHORELINE CLEANUP PROGRAM

DATE 6/09/89

SHORELINE SEGMENT SL-11

LOCATION: (see enclosed map) East side Sturgeon Lagoon

ADEC NO. K6-34 SHORELINE ASSESSMENT DATE: 6/05/89

Recommended Cleanup Activity(ies):

- No cleanup recommended at this time due to no oil.

Priorities Considerations:

Ecological Constraints (from site survey): None, since no oil was observed.

Archeological Constraints (from site survey):

If cleanup is planned, a cultural resource assessment should be completed. If cleanup is conducted and heretofore undiscovered cultural materials are uncovered, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

Charles E. Adams  
State Historic Preservation Officer \*

Date: June 10, 1989

EXXON: Jack A. Rickman

Date: 14 June 89

FOSC: \_\_\_\_\_

Date: \_\_\_\_\_

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

(version 5/16/89)

SHORELINE OIL EVALUATION FORM - KONTAK

Date: JUNE 5/89 Time: 1015

Observer: D. HOWES

Surveyed From: Foot / Boat / Helio / Plane

Weather: Sun / Cloud / Rain / Snow / Fog

LOCATION

LOCATION STURGEON LAGOON - EAST SIDE

SEGMENT I.D. SL-11

LENGTH OF SHORELINE SEGMENT: 875 m

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

SHORELINE:

Shoreline Type: SPI/BEA/COV/HLD/STRT

Slope: LANG/HANG/VER

Wave Exposure: High/Med/Low

Sediment: B5-7% / C\_\_% / P55-65% / G\_\_% / S25-35% / M\_\_% / R\_\_%

Drift Debris on Beach: Yes/No Supra/Upper/Mid/Lower Type LOGS / SEAWEED

OIL

Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved

Total Area of Beach Impact: SU / SP / H / M / L

OIL DISTRIBUTION

Continuous: Y/N Segment # \_\_\_\_\_ No. Bands \_\_\_\_\_ Width \_\_\_\_\_

Sporadic: Y/N Segment # \_\_\_\_\_ Min/Max Dia \_\_\_\_\_ Impact Width \_\_\_\_\_

Est. Oil Thickness where > 1cm: \_\_\_\_\_ cm SU / SP / UP / MID / LO

Est. Oil Penetration: \_\_\_\_\_ cm SU / SP / UP / MID / LO

Layers? Yes/No No# Layers \_\_\_\_\_ Oil Weathering \_\_\_\_\_

Drift Debris Oiled? Yes/No Supra/Upper/Mid/Lower Amount: H / H / L / VL

OIL MORPHOLOGY

Pooled Oil \_\_\_\_\_% "Free" Oil \_\_\_\_\_% Spattered \_\_\_\_\_% H/H/L/VL Sheen \_\_\_\_\_%

OIL WEATHERING (OW)

Fresh Oil \_\_\_\_\_% SU/SP/VP/MID/LO Choc Mousse \_\_\_\_\_% SU/SP/VP/MID/LO

Pancake Mousse \_\_\_\_\_% SU/SP/VP/MID/LO Asphalt Mousse \_\_\_\_\_% SU/SP/VP/MID/LO

Tar Formation \_\_\_\_\_%

Comments:

30% TRAVERSED BY FOOT; REST OF SEGMENT SURVEYED BY HELIO  
NO OIL OBSERVED

DOCUMENTATION:

Map Aerial photo marking segment boundaries See Attached

VTR: Y/N Tape Number(s) \_\_\_\_\_

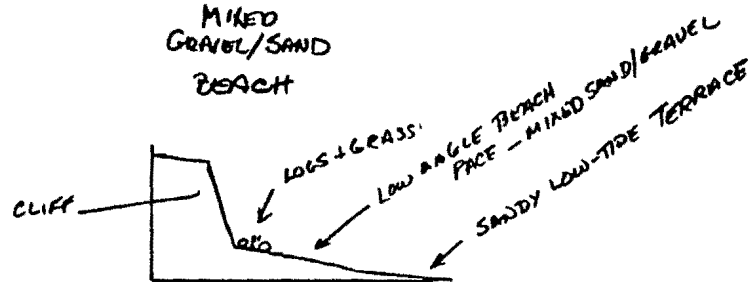
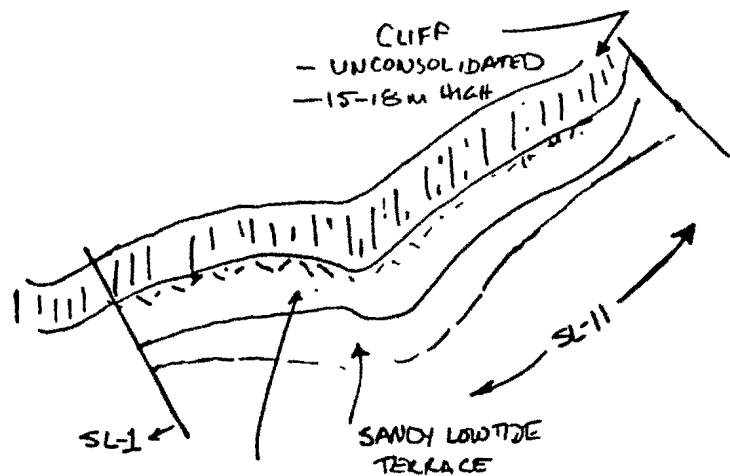
Photography: Y/N Roll Number(s) \_\_\_\_\_

Sample Numbers Collected: N/A

ACE 1852955

SL-11

MIXED SAND/GRAVEL BEACH



ESTIMATED CROSS UNIT PROFILE

# ECOLOGICAL EVALUATION

LOCATION: EAST Side of  
STURGEON LAGOON SITE: \_\_\_\_\_ OBSERVER: D. McCormick

( ) LOCATION PREFIX: SL SEG. NO.: 11 LENGTH: 875 (M)

DATE: 6/5/89 TIME (HHMM): 1015 TIDE HT.: -1.0 (M)

OILED ZONE: Splash High Medium Low None

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

## LIVE BIOTA

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

Fucus at strand line

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

Shells only

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

Mud to low ITZ. unsoiled, healthy

## Littorina

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

( Low to subtidal ITZ

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

OTHER OBSERVATIONS: Amphipods subtidally feeding on algae + at strand line in seaweed debris; Dungeness crab shells; bull kelp

CLEANUP PRECAUTIONS: None

MAMMALS: Otters \_\_\_\_\_ Harbor Seals \_\_\_\_\_ Sea Lions \_\_\_\_\_ Whales \_\_\_\_\_  
 Other \_\_\_\_\_

BIRDS: \_\_\_\_\_

GENERAL OBSERVATIONS: No cleanup - no oil.

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 6-4-89 Location Sturgeon Lagoon Site EAST Shore

Location Prefix SL Segment # 11 Length 875 m

Survey Method:

Air ✓ (A - indicate on map) Boat \_\_\_\_\_ (A - indicate on map)

Ground ✓ (G - indicate on map)

Known cultural resources (AHRS #) NONE Data Source \_\_\_\_\_

Oil conditions/beach visibility NONE

Width of beach zone surveyed up to 25 m Tree fringe surveyed —

Cultural resources observed in beach zone (AHRS code) NONE

Cultural resources observed in tree fringe (AHRS code) NONE

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

Shore Profile Mixed gravel, cobble, Boulder Beach below a 15m CLIFF

Fresh Water Sources NONE

Sea Exposure Protected inside Sturgeon Lagoon

Access/Safety Accessible both by Helicopter and Boat

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 # \_\_\_\_\_ Frames \_\_\_\_\_

B/W Roll # \_\_\_\_\_ Frames \_\_\_\_\_

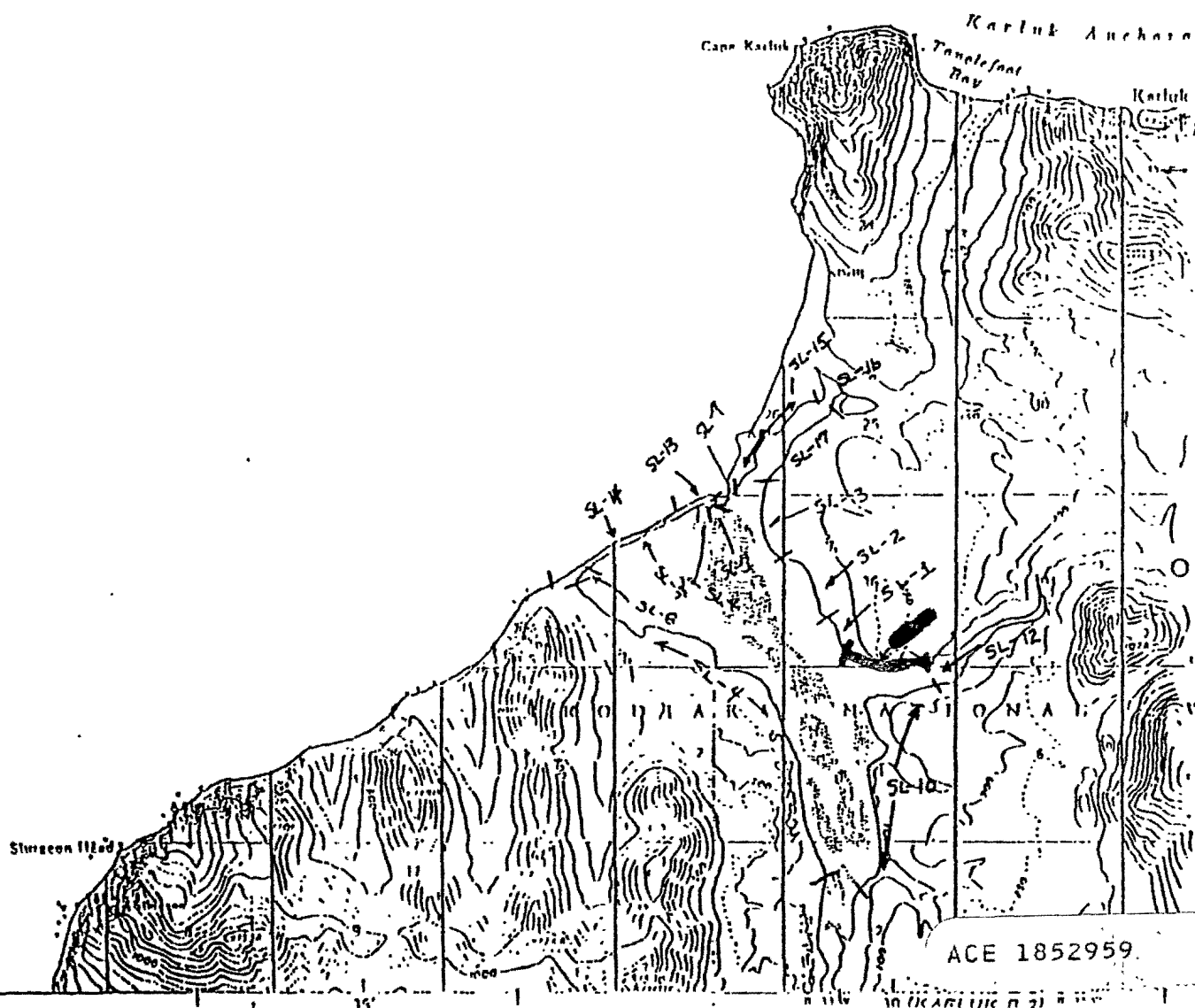
Observer(s) Mike YARBOROUGH, Chris WOOLEY

Time survey started \_\_\_\_\_ Time survey ended \_\_\_\_\_

Cultural resource considerations/restraints:

NONE - NO cleanup recommended AT this time

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ACE 1852959

# TYR SHORELINE CLEANUP WORK DER

Date: 21 June 89 Shoreline Segment: SL-4, 8  
SL-9, 10, 11, 12, 13, 14, 15, 16, 17  
 Location: (Attach map) Sturgeon Lagoon

ADEC No. K6-34 Shoreline Assessment Date: 6/04/89 & 6/05/89

## Recommended Cleanup Activity(ies):

No cleanup recommended at the time of the SCAT assessment.  
 Reevaluation may be necessary if reoiling occurs.

See Attached Sheets.

## Priority Considerations:

see attached "Shoreline Cleanup Program" forms.

## Ecological Constraints (from site survey):

### Archaeological Constraints:

Exxon Supervisor will review each SCAT report. No cleanup will be conducted until an archeologist is present if so stated for a particular beach segment (SL-11, SL-12, SL-15, SL-16, SL-17)

### Archaeological Constraints:

If any archaeological or historical sites or artifacts are discovered during the cleanup activity, they must remain undisturbed and the Exxon archaeologist C. Mobley contacted (as per procedures in the "Guideline for Shoreline Cleanup") and the State Historic Preservation Office notified as soon as possible.

Submitted by: Jack A. Rickman  
 Exxon

Date: 22 June 89

State Historic Preservation Officer Telephone Approval (Required)

Date: June 19, 1989 (see Attachment)

Approved:

[Signature]  
 Assistant OSC Western Alaska (if appropriate)

Date:                     

Approved:

[Signature]  
 Federal On-Scene Coordinator

Date: 25 JUN 89

By direction

on 8-5-88 In yoda  
Sturgeon River Lagoon  
Cleanup Complete - Except  
SL-1 & SL-11 - A 15 m  
Band by 200 m extra remains  
to be cleaned when complete  
the Village Tran Subunit  
will be demarcated

D. MAGuire

(version 6/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): STURGEON LAGOON BLOCK K 6-34

Includes Shoreline Segments: SL-1, SL-2, SL-3, SL-4, SL-5, SL-6,  
SL-7, SL-8, SL-9, SL-10, SL-11, SL-12, SL-13, SL-14, SL-15,  
SL-16, SL-17

Submitted: \_\_\_\_\_ Date: \_\_\_\_\_  
(for Exxon)

ISCC Recommendation: \_\_\_\_\_ Date: \_\_\_\_\_

FOSC Approval: \_\_\_\_\_ Date: \_\_\_\_\_

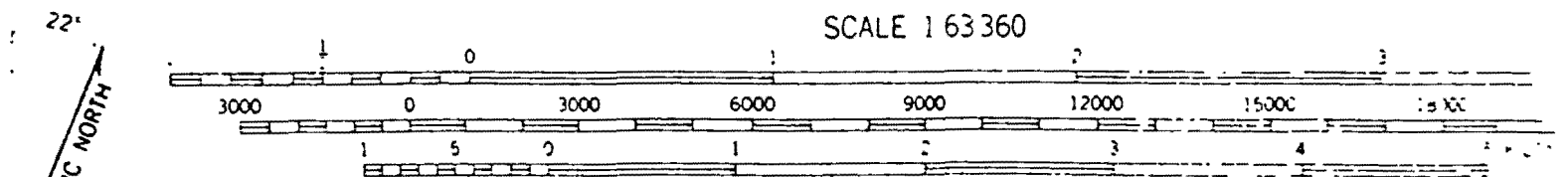
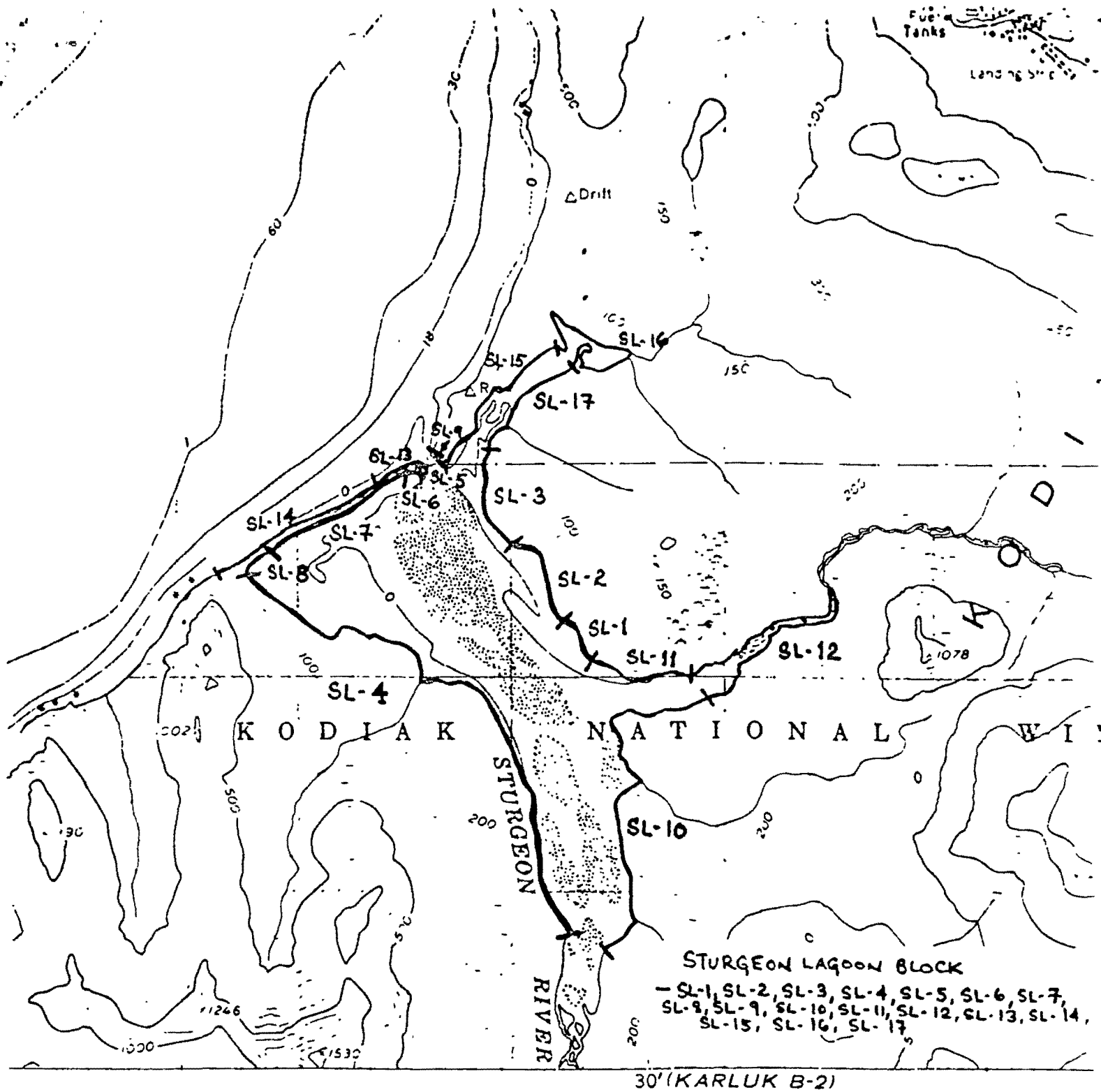
The cleanup procedures identified in the Shoreline Cleanup Program are recommended. Modifications to these systems can be made in the field. Exxon and other field personnel are encouraged to suggest innovations and productivity enhancements to the OSC's on-scene representative. The OSC's representative has the authority to approve on-site modifications. The Field Resource Team should be consulted if these actions do not fit within the Ecological Constraints of the Shoreline Cleanup Program. Requirements for safety and the protection of cultural material must be observed.

Distribution:

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ACE 1852962



CONTOUR INTERVAL 100 FEET  
 DASHED LINES REPRESENT 50 FOOT CONTOURS  
 NATIONAL GEODETIC VERTICAL DATUM OF 1929  
 DEPTH CURVES IN FEET - DATUM IS MEAN LOWER LOW WATER  
 SHORELINE SHOWN REPRESENTS THE APPROXIMATE LINE OF MEAN HIGH WATER  
 THE AVERAGE RANGE OF TIDE IS APPROXIMATELY 11 FEET

FOR SALE BY U.S. GEOLOGICAL SURVEY  
 FAIRBANKS, ALASKA 99701 DENVER, COLORADO 80225 OR RESTON, VIRGINIA 20192

ACE 1852963-15

ORIGINAL

## SEGMENT INSPECTION RECORD

ADEC # K6-34

Shoreline Segment: SL-1

Shoreline Treatment Process(es) Completed for this Segment

Yards Signed Off

|                          |                 |                                     |                |
|--------------------------|-----------------|-------------------------------------|----------------|
| <input type="checkbox"/> | Hot water wash  | <input type="checkbox"/>            | Mechanical     |
| <input type="checkbox"/> | Warm water wash | <input checked="" type="checkbox"/> | Non-mechanical |
| <input type="checkbox"/> | Water deluge    | <input type="checkbox"/>            | Other          |

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Exxon Comments

Signature Jack A RicknerDate 7/27/89Time 1652

Printed Name Jack Rickner

Existing Shoreline Condition As  
Visually Determined by USCG  
Surface Oil

|                          |                  |
|--------------------------|------------------|
| Percent                  | Degree of Oiling |
| <input type="checkbox"/> | Heavy            |
| <input type="checkbox"/> | Medium           |
| <input type="checkbox"/> | Light            |
| <input type="checkbox"/> | Very Light       |

100%

Subsurface Oil

☐ Yes
 ☒ No

Comment Below

☒ Reassessment  
☐ Yes - Necessary

☐ No - Not necessary unless re-oiled

ADEC Rep

Comments

Existing Shoreline Condition As  
Visually Determined by ADEC

|                          |                  |
|--------------------------|------------------|
| Percent                  | Degree of Oiling |
| <input type="checkbox"/> | Heavy            |
| <input type="checkbox"/> | Medium           |
| <input type="checkbox"/> | Light            |
| <input type="checkbox"/> | Very Light       |

100%

Subsurface Oil

☐ Yes
 ☐ No

Comment Below

☐ Reassessment  
☐ Yes - Necessary

☐ No - Not necessary unless re-oiled

Signature \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Printed Name

FOSC Rep Type A Shoreline Demobilization approved for entire sub-unit.

Comments

Much of the sub-unit was inspected by aerial observation. Shoreline inspection was conducted on Sturgeon River wadlough. Oil discovered on rocky flats near Cape Karluk.

Signature P. J. Cormier, LT, USCGDate 31 July 89 Time 2140Printed Name P. J. Cormier

Copy: Exxon ADEC FOSC ISCC Return All Signed Originals to Exxon

ACE 1852912+15

TY. A SHORELINE CLEANUP WORK ORDER

Date: 21 June 89 Shoreline Segment: SL-4, (8)  
SL-9, 10, 11, 12, 13, 14, 15, 16, 17  
Location: (Attach map) Sturgeon Lagoon

ADEC No. K6-34 Shoreline Assessment Date: 6/04/89 & 6/05/89

Recommended Cleanup Activity(ies):

No cleanup recommended at the time of the SCAT assessment.  
Reevaluation may be necessary if reoiling occurs.

See Attached Sheets.

Priority Considerations:

see attached "Shoreline Cleanup Program" forms.

Ecological Constraints (from site survey):

Archaeological Constraints:

Exxon Supervisor will review each SCAT report. No cleanup will be conducted until an archeologist is present if so stated for a particular beach segment (SL-11, SL-12, SL-15, SL-16, SL-17)

Archaeological Constraints:

If any archaeological or historical sites or artifacts are discovered during the cleanup activity, they must remain undisturbed and the Exxon archaeologist C. Mobley contacted (as per procedures in the "Guideline for Shoreline Cleanup") and the State Historic Preservation Office notified as soon as possible.

Submitted by: Jack A. Rickman  
Exxon

Date: 22 June 89

State Historic Preservation Officer Telephone Approval (Required)

Date: June 10, 1989 (See Attachment)

Approved: [Signature]  
Assistant OSC Western Alaska (if appropriate)

Date: \_\_\_\_\_

Approved: [Signature]  
Federal On-Scene Coordinator

Date: 25 JUN 89

By direction

(version 4/29/89)

SHORELINE CLEANUP PROGRAM

DATE 6/09/89

SHORELINE SEGMENT SL-8

LOCATION: (see enclosed map) Sturgeon Lagoon-Southwest end of  
Cobble Spit on lagoon side of beach.

ADEC NO. K6-34 SHORELINE ASSESSMENT DATE: 6/04/89

Recommended Cleanup Activity(ies):

- No cleanup recommended at this time, due to very light oiling and minimum anticipated environmental impact.

Priorities Considerations:

Ecological Constraints (from site survey): None, since no cleanup is recommended. Oiling is primarily confined to grassy areas in high intertidal zone, which cannot be cleaned. If cleanup is conducted, ecological constraints must be reconsidered.

Archeological Constraints (from site survey):

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

Charles E. H. H. H.  
State Historic Preservation Officer \*

Date: June 10, 1989

EXXON: Jack A. Rickman

Date: 14 June 89

FOSC: \_\_\_\_\_

Date: \_\_\_\_\_

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

ACE 1852914

(version 5/16/89)

SHORELINE OIL EVALUATION FORM - KODIAK

Date: JUNE 4/89 / Time: 15:00

Observer: D. HOWES

Surveyed From: FOOT/Boat/Helio/Plane

Weather: Sun/CLOUD/Rain/Snow/Hazy

LOCATION

LOCATION STURGEON LAGOON - NORTH END

SEGMENT I.D. SL-8

LENGTH OF SHORELINE SEGMENT: 75 m

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

SHORELINE:

Shoreline Type: SPT/BEA/COV/HLD/STRT

Slope: LANG HANG/VER

Wave Exposure: High/Med/Low

Sediment: B \_\_\_% / CD 3% / PD 2% / G \_\_\_% / S \_\_\_% / M \_\_\_% / R \_\_\_%

Drift Debris on Beach: Yes/No Supra/Upper/Mid/Lower Type logs

OIL

Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved/U. LIGHT

Total Area of Beach Impact: SU / SP / H / M / L

OIL DISTRIBUTION

Continuous: Y/N Segment % \_\_\_\_\_ No. Bands \_\_\_\_\_ Width \_\_\_\_\_

Sporadic: Y/N Segment % 100 Min/Max Dia \_\_\_\_\_ Impact Width 1-2

Est. Oil Thickness where > 1cm: \_\_\_\_\_ cm SU / SP / UP / MID / LO

Est. Oil Penetration: 0 cm SU / SP / UP / MID / LO

Layers? Yes/No No# Layers \_\_\_\_\_ Oil Weathering \_\_\_\_\_

Drift Debris Oiled? Yes/No Supra/Upper/Mid/Lower Amount: H / H / L / VL

OIL MORPHOLOGY

Pooled Oil \_\_\_\_\_% "Free" Oil 20% Spattered 80% H/VL/VL Sheen \_\_\_\_\_

OIL WEATHERING (OW)

Fresh Oil \_\_\_\_\_% SU/SP/VP/MID/LO Choc Mousse 100% SU/SP/VP/MID/LO

Pancake Mousse \_\_\_\_\_% SU/SP/VP/MID/LO Asphalt Mousse \_\_\_\_\_% SU/SP/VP/MID/LO

Tar Formation \_\_\_\_\_%

Comments:

LIGHT CHOCO MOUSSE SPLATTERED ON GRAVELS.

PIL COAT ON GRASS

DOCUMENTATION:

Map/Aerial photo marking segment boundaries

See Attached

VTR:

Y/N

Tape Number(s)

Photography:

Y/N

Roll Number(s)

Sample Numbers Collected:

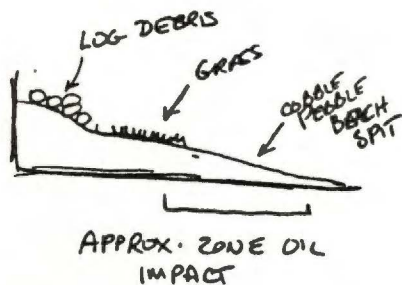
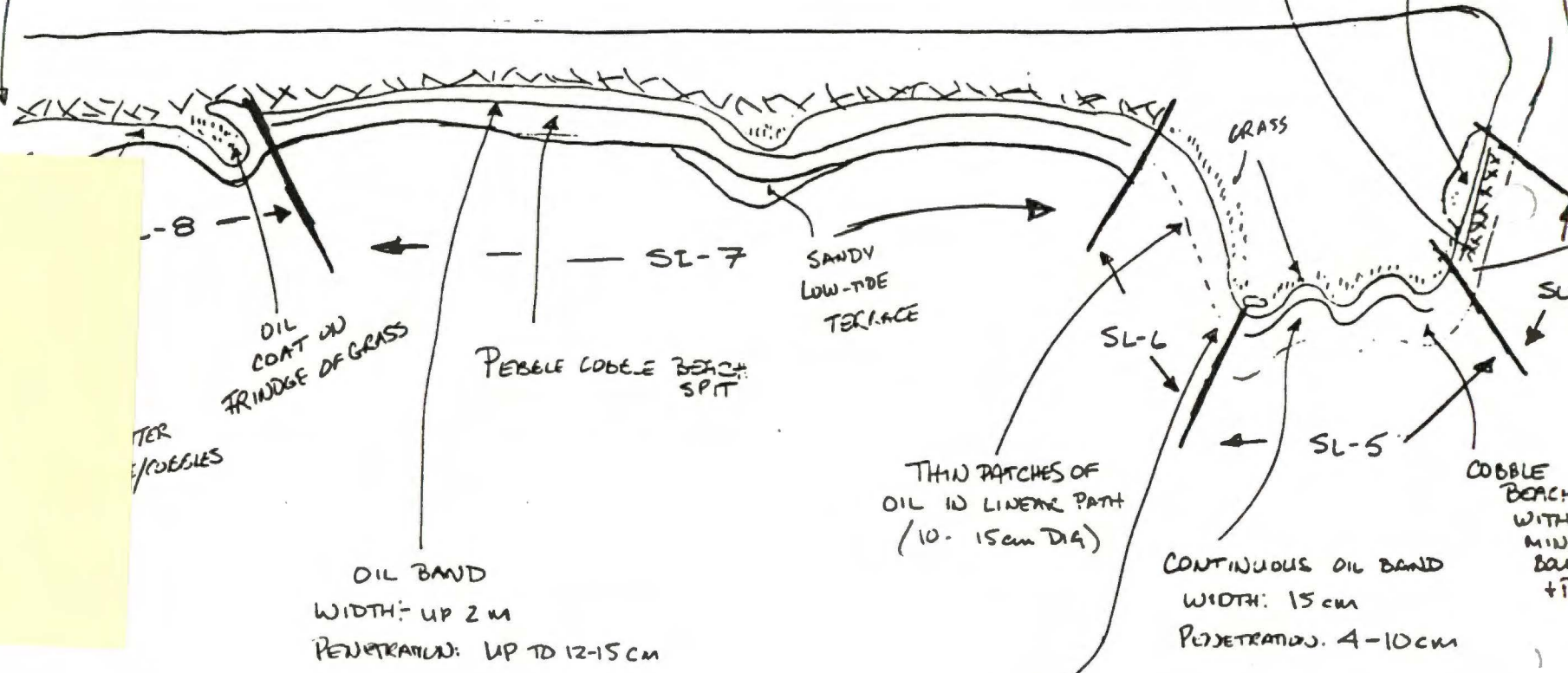
N/A

LOG LINE (NO OIL ON LOG)

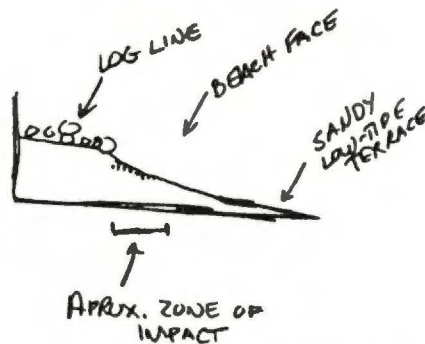
SL-5, 6, 7, 8, 9

OIL BAND UP 4 M WIDE 45-50 CM PENETRATION

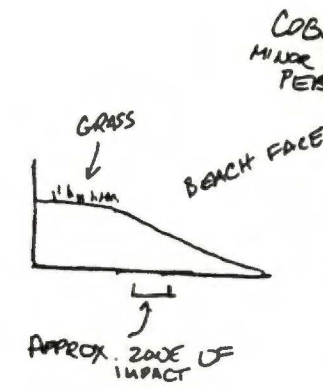
COBBLE STORM BERM



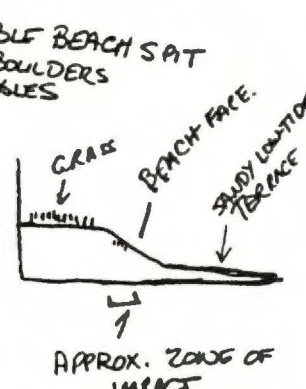
ESTIMATED CROSS-PROFILE  
SL-8



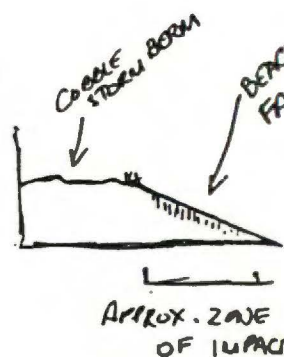
ESTIMATED CROSS-PROFILE  
SL-7



ESTIMATED PROFILE  
SL-6

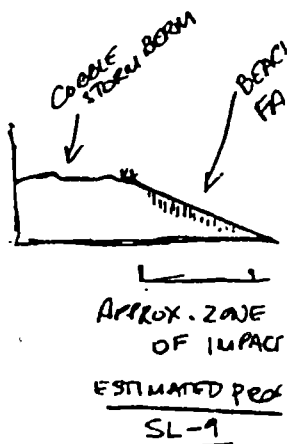
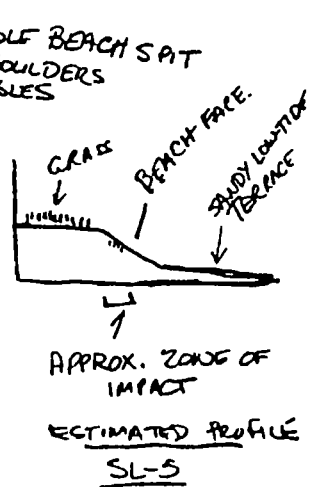
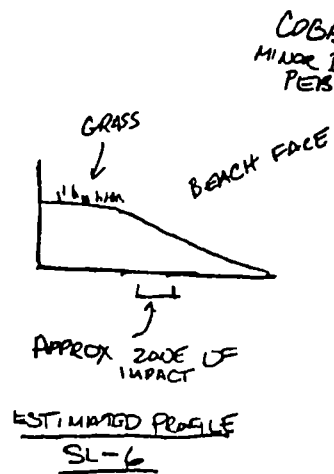
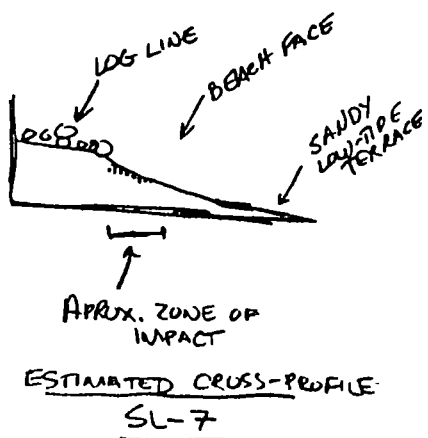
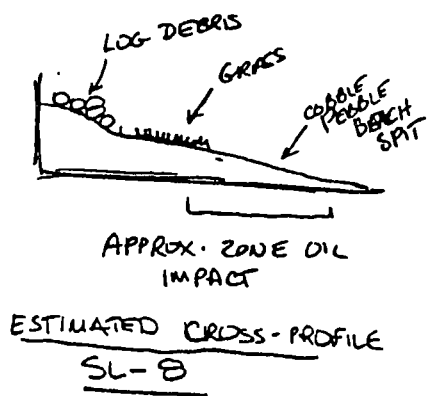
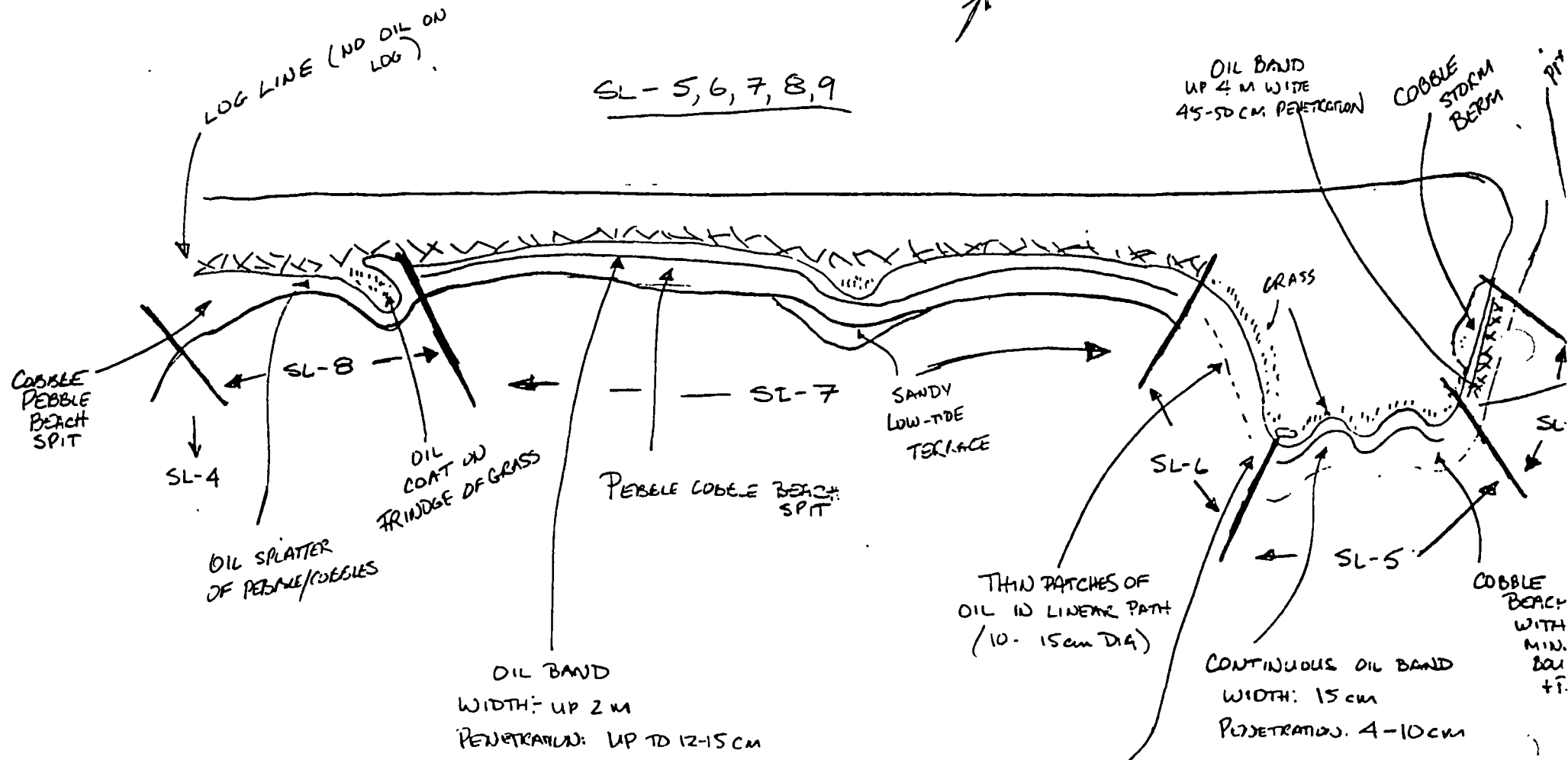


ESTIMATED PROFILE  
SL-5



ESTIMATED PROFILE  
SL-9

ACE 1852917



## STURGEON LAGOON

## ECOLOGICAL EVALUATION

Extreme West end of cobble spit

LOCATION: on lagoon side

SITE: \_\_\_\_\_

OBSERVER: D. McCosmickLOCATION PREFIX: SLSEG. NO.: 8LENGTH: 7.5 (M)DATE: 6/4/89TIME (HHMM): 1500TIDE HT.: 2.0 (M)OILED ZONE: Splash High Medium LowSUBSTRATUM: Rocks Boulder Cobble Gravel Sand MudLIVE BIOTAFucus (algae): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/NMytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/NBalanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/NLittorinaPatchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/NLimpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/NOTHER OBSERVATIONS: Oiled grass in high ITZ; crab carapacesCLEANUP PRECAUTIONS: None, since oiling is confined to grass primarily. Do not remove.MAMMALS: Otters \_\_\_\_\_ Harbor Seals \_\_\_\_\_ Sea Lions \_\_\_\_\_ Whales \_\_\_\_\_  
Other \_\_\_\_\_

BIRDS: \_\_\_\_\_

GENERAL OBSERVATIONS: patchy oiled seaweed in oiled band at high ITZ - mostly as charol. mouse w/ some splatter on lower end of band

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 6-4-89 Location Sturgeon Lagoon Site Coastal Spit

Location Prefix SL Segment # 8 Length 75m

Survey Method:

Air \_\_\_\_\_ (A - indicate on map) Boat \_\_\_\_\_ (A - indicate on map)

Ground ✓ (G - indicate on map)

Known cultural resources (AHRS #) NONE Data Source \_\_\_\_\_

Oil conditions/beach visibility Very Light

Width of beach zone surveyed 5 m Tree fringe surveyed -

Cultural resources observed in beach zone (AHRS code) NONE

Cultural resources observed in tree fringe (AHRS code) NONE

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

Shore Profile DRIFT wood topped coastal spit

Fresh Water Sources NONE

Sea Exposure protected inside the lagoon

Access/Safety Accessible by both boat and helicopter

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 # \_\_\_\_\_ Frames \_\_\_\_\_

B/W Roll # \_\_\_\_\_ Frames \_\_\_\_\_

Observer(s) Mike YARBOROUGH, Chris WOOLEY

Time survey started 3:00 pm Time survey ended 3:25 pm

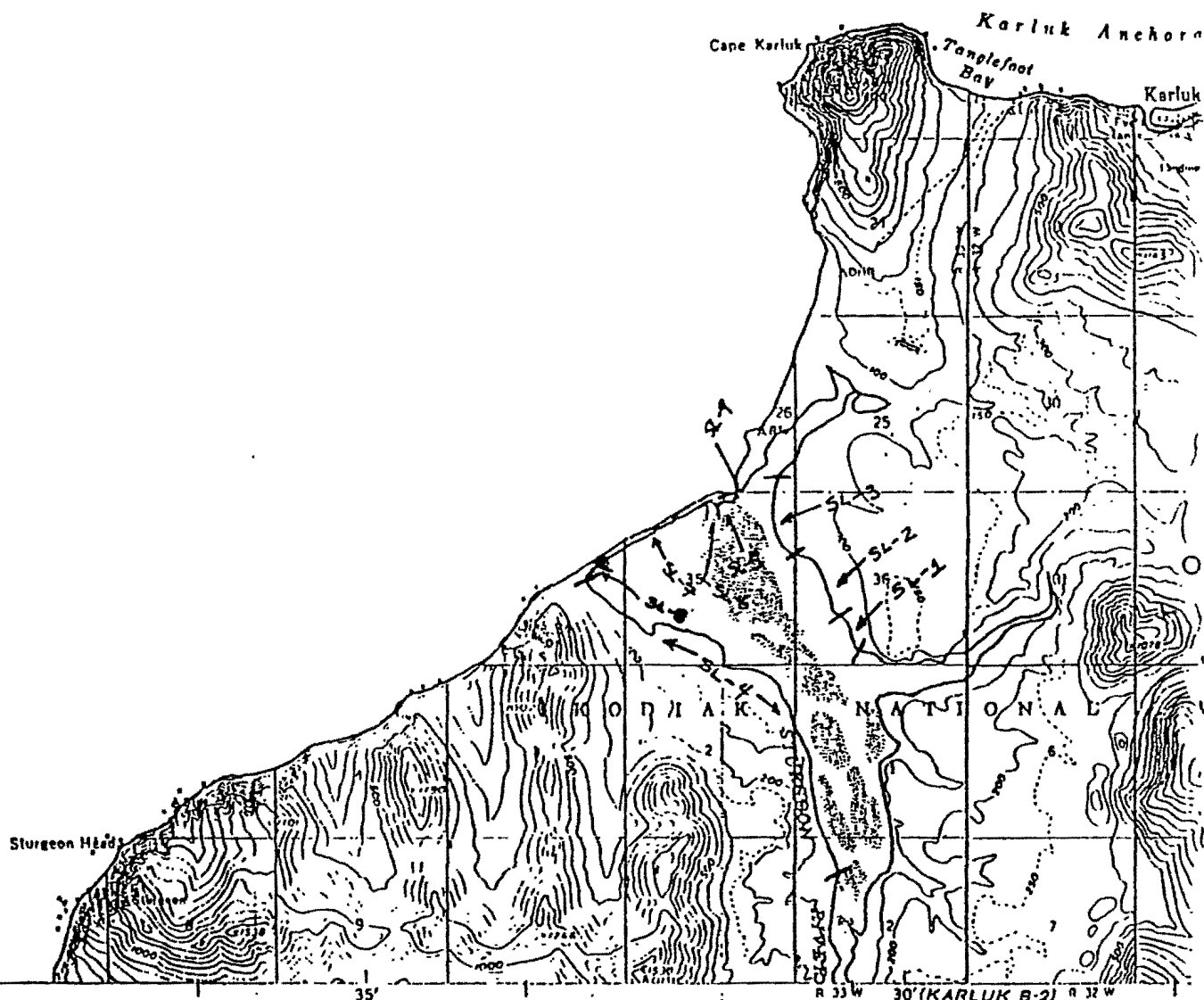
Cultural resource considerations/restraints:

IF heretofore undiscovered cultural remains are found

during clean-up, contact Exxon's Director of Field

Archaeology immediately

S H E L I K



30° 13' 00" N

35°

R 33 W

30° (KARLUK B-2) N 32 W

Maped, edited, and published by the Geological Survey  
 by ROS/MOAA and USCE  
 by photogrammetric methods from aerial photographs  
 1961-1962. Map not field checked

22°

SCALE 1:63,760

ACE 1852920

(version 6/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): STURGEON LAGOON BLOCK K 6-34

Includes Shoreline Segments: SL-1, SL-2, SL-3, SL-4, SL-5, SL-6,  
SL-7, SL-8, SL-9, SL-10, SL-11, SL-12, SL-13, SL-14, SL-15,  
SL-16, SL-17

Submitted: \_\_\_\_\_ Date: \_\_\_\_\_  
(for Exxon)

ISCC Recommendation: \_\_\_\_\_ Date: \_\_\_\_\_

FOSC Approval: \_\_\_\_\_ Date: \_\_\_\_\_

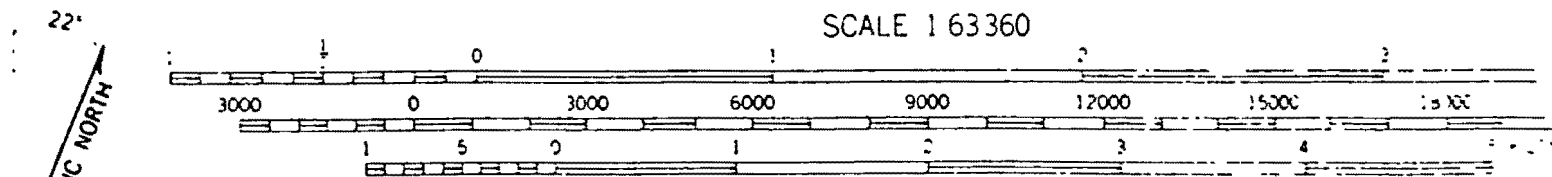
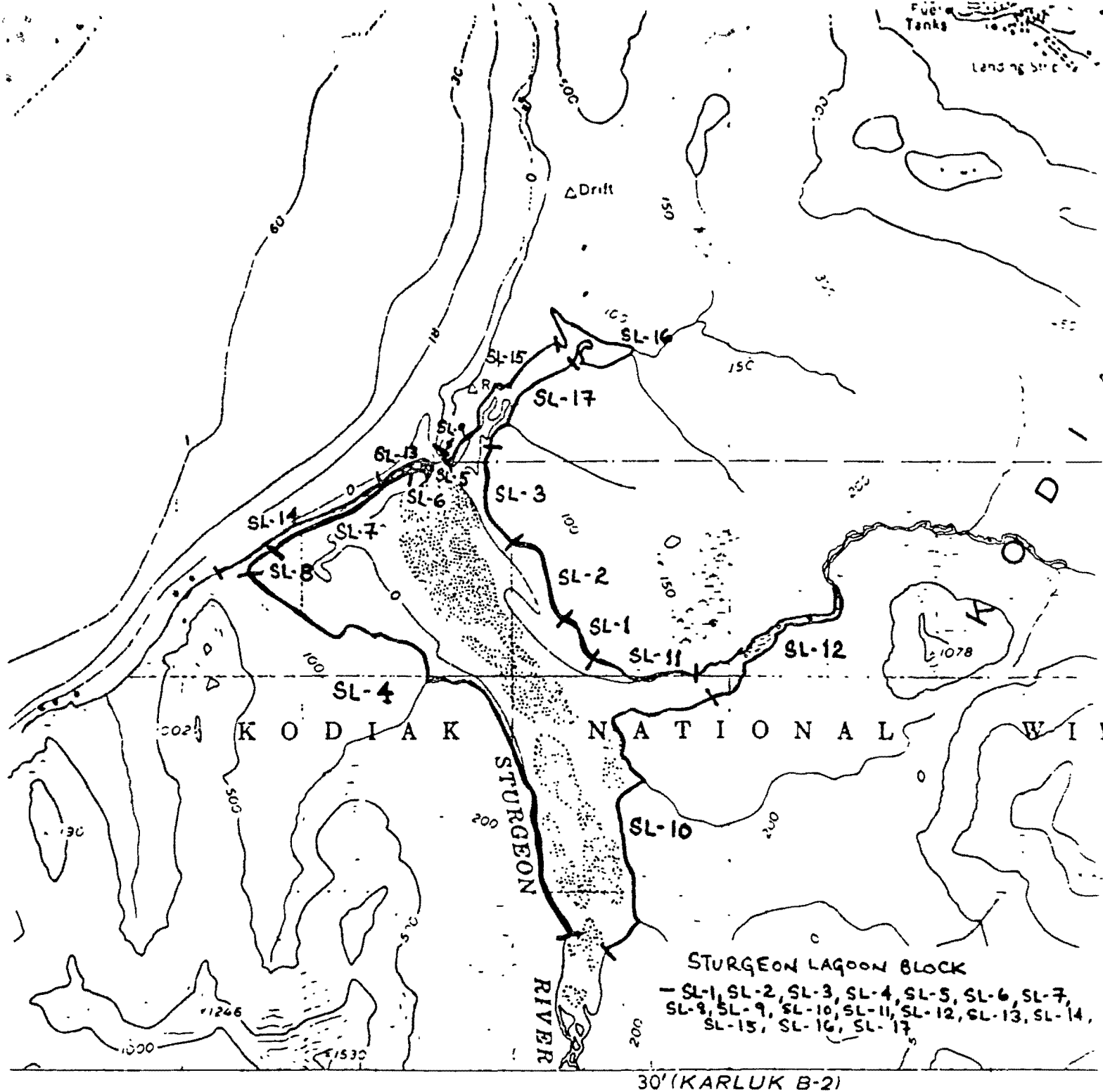
The cleanup procedures identified in the Shoreline Cleanup Program are recommended. Modifications to these systems can be made in the field. Exxon and other field personnel are encouraged to suggest innovations and productivity enhancements to the OSC's on-scene representative. The OSC's representative has the authority to approve on-site modifications. The Field Resource Team should be consulted if these actions do not fit within the Ecological Constraints of the Shoreline Cleanup Program. Requirements for safety and the protection of cultural material must be observed.

**Distribution:**

Exxon Shoreline Coordinator  
Exxon Shoreline Supervisor  
Exxon SCAT file

FOSC  
CDFU  
NOAA  
EPA  
USDA (FS)  
USFW  
A.DEC  
A.FG  
A.DNR  
CAC  
PWSCA  
USFS  
SHPO

ACE 1852921



DATE MEAN  
 OF 1952

CONTOUR INTERVAL 100 FEET  
 DASHED LINES REPRESENT 50 FOOT CONTOURS  
 NATIONAL GEODETIC VERTICAL DATUM OF 1929  
 DEPTH CURVES IN FEET - DATUM IS MEAN LOWER LOW WATER  
 SHORELINE SHOWN REPRESENTS THE APPROXIMATE LINE OF MEAN HIGH WATER  
 THE AVERAGE RANGE OF TIDE IS APPROXIMATELY 11 FEET

FOR SALE BY U.S. GEOLOGICAL SURVEY ACE 1852922-15  
 FAIRBANKS ALASKA 99701 DENVER COLORADO 80225 OR RESTON VIRGINIA 22092

## SEGMENT INSPECTION RECORD

ADEC # K6-34

Shoreline Segment: SL-1

Shoreline Treatment Process(es) Completed for this Segment

Yards Signed Off

|                          |                 |                                     |                |
|--------------------------|-----------------|-------------------------------------|----------------|
| <input type="checkbox"/> | Hot water wash  | <input type="checkbox"/>            | Mechanical     |
| <input type="checkbox"/> | Warm water wash | <input checked="" type="checkbox"/> | Non-mechanical |
| <input type="checkbox"/> | Water deluge    | <input type="checkbox"/>            | Other          |

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Exxon Comments

Signature

*Jack A. Rickner*

Date

7/27/89

Time

1652

Printed Name

Jack Rickner

Existing Shoreline Condition As  
Visually Determined by USCG

Surface Oil

| Percent                  | Degree of Oiling |
|--------------------------|------------------|
| <input type="checkbox"/> | Heavy            |
| <input type="checkbox"/> | Medium           |
| <input type="checkbox"/> | Light            |
| <input type="checkbox"/> | Very Light       |

100%

Subsurface Oil

☐ Yes
 ☒ No

Comment Below

Reassessment

☒ Yes - Necessary

☐ No - Not necessary unless re-oiled
Existing Shoreline Condition As  
Visually Determined by ADEC

Surface Oil

| Percent                  | Degree of Oiling |
|--------------------------|------------------|
| <input type="checkbox"/> | Heavy            |
| <input type="checkbox"/> | Medium           |
| <input type="checkbox"/> | Light            |
| <input type="checkbox"/> | Very Light       |

100%

Subsurface Oil

☐ Yes
 ☐ No

Comment Below

Reassessment

☐ Yes - Necessary

☐ No - Not necessary unless re-oiled

ADEC Rep

Comments

Signature

Date

Time

Printed Name

FOSC Rep Type A shoreline Demobilization approved/disapproved for entire sub-unit.

Comments

Much of the sub-unit was inspected by aerial observation. Shoreline inspection was conducted on Sturgeon River waterway. Oil discovered on rocky flats near Cape Karluk.

Signature

*P. A. Cormier, LT, USCG*

Date

31 July 89

Time

2140

Printed Name

*P. A. Cormier*

Copy: Exxon ADEC FOSC ISCC

Return All Signed Originals to Exxon

# TYPE A SHORELINE CLEANUP WORK ORDER

Date: 21 June 89 Shoreline Segment: SL-4, 8  
SL-9, 10, 11, 12, 13, 14, 15, 16, 17  
 Location: (Attach map) Sturgeon Lagoon

ADEC No. K6-34 Shoreline Assessment Date: 6/04/89 & 6/05/89

## Recommended Cleanup Activity(ies):

No cleanup recommended at the time of the SCAT assessment.  
 Reevaluation may be necessary if reoiling occurs.

See Attached Sheets.

## Priority Considerations:

see attached "Shoreline Cleanup Program" forms.

## Ecological Constraints (from site survey):

### Archaeological Constraints:

Exxon Supervisor will review each SCAT report. No cleanup will be conducted until an archeologist is present if so stated for a particular beach segment (SL-11, SL-12, SL-15, SL-16, SL-17)

### Archaeological Constraints:

If any archaeological or historical sites or artifacts are discovered during the cleanup activity, they must remain undisturbed and the Exxon archeologist C. Mobley contacted (as per procedures in the "Guideline for Shoreline Cleanup") and the State Historic Preservation Office notified as soon as possible.

Submitted by: Jack A. Rickman  
 Exxon

Date: 22 June 89

State Historic Preservation Officer Telephone Approval (Required)

Date: June 10, 1989 (See Attachment)

Approved:

[Signature]  
 Assistant OSC Western Alaska (if appropriate)

Date: \_\_\_\_\_

Approved:

[Signature]  
 Federal On-Scene Coordinator

Date: 25 JUN 89

By direction

(version 4/29/89)

SHORELINE CLEANUP PROGRAM

DATE 6/09/89

SHORELINE SEGMENT SL-4

LOCATION: (see enclosed map) Southwest side of Sturgeon Lagoon

ADEC NO. K6-34 SHORELINE ASSESSMENT DATE: 6/04/89

Recommended Cleanup Activity(ies):

- No cleanup recommended at this time due to no oil.

Priorities Considerations:

Ecological Constraints (from site survey): None, since no oiling was observed anywhere along this segment and cleanup is not recommended.

Archeological Constraints (from site survey):

If cleanup is conducted, an archaeological monitor should be present during cleanup of the northwest 1/3 of the segment. If cleanup is conducted and heretofore undiscovered cultural materials are uncovered, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

Charles E. Holmes  
State Historic Preservation Officer \*

Date: June 10, 1989

EXXON: Jack A. Ricketts

Date: 14 June 89

FOSC: \_\_\_\_\_

Date: \_\_\_\_\_

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

ACE 1852866

(version 5/16/89)

SHORELINE OIL EVALUATION FORM - KONTAK

Date: JUNE 4/89 / Time: \_\_\_\_\_

Observer: D. HOWES

Surveyed From: Foot/Boat/Helio/Plane

Weather: Sun/Cold/Rain/Snow/ Fog

LOCATION

LOCATION STURGEDON BAY - WEST SIDE

SEGMENT I.D. SL-4

LENGTH OF SHORELINE SEGMENT: 2390 m

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

SHORELINE:

Shoreline Type: SPI/BEA/COV/HLD/STET

Slope: LAUN/HANG/VER

Wave Exposure: High/Med/Low

Sediment: BD-5% / C3-6% / P70% / G\_\_\_% / S20-25% / M\_\_\_% / R\_\_\_%

Drift Debris on Beach: Yes/No Supra/Upper/Mid/Lower Type LOG/SEALED

OIL

Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved

Total Area of Beach Impact: SU / SP / H / M / L

OIL DISTRIBUTION

Continuous: Y/N Segment % \_\_\_\_\_ No. Bands \_\_\_\_\_ Width \_\_\_\_\_

Sporadic: Y/N Segment % \_\_\_\_\_ Min/Max Dia \_\_\_\_\_ Impact Width \_\_\_\_\_

Est. Oil Thickness where > 1cm: \_\_\_\_\_ cm SU / SP / UP / MID / LO

Est. Oil Penetration: \_\_\_\_\_ cm SU / SP / UP / MID / LO

Layers? Yes/No No# Layers \_\_\_\_\_ Oil Weathering \_\_\_\_\_

Drift Debris Oiled? Yes/No Supra/Upper/Mid/Lower Amount: H / M / L / V

OIL MORPHOLOGY

Pooled Oil \_\_\_\_\_% "Free" Oil \_\_\_\_\_% Spattered \_\_\_\_\_% H/U/L/VL Shcen \_\_\_\_\_%

OIL WEATHERING (OW)

Fresh Oil \_\_\_\_\_% SU/SP/VP/MID/LO Choc Mousse \_\_\_\_\_% SU/SP/VP/MID/LO

Pancake Mousse \_\_\_\_\_% SU/SP/VP/MID/LO Asphalt Mousse \_\_\_\_\_% SU/SP/VP/MID/LO

Tar Formation \_\_\_\_\_%

Comments:

NO OIL OBSERVED - 100% OF SEGMENT SURVEYED BY HELICOPTER  
- 30% OF SEGMENT TRAVELLED BY BOAT

DOCUMENTATION:

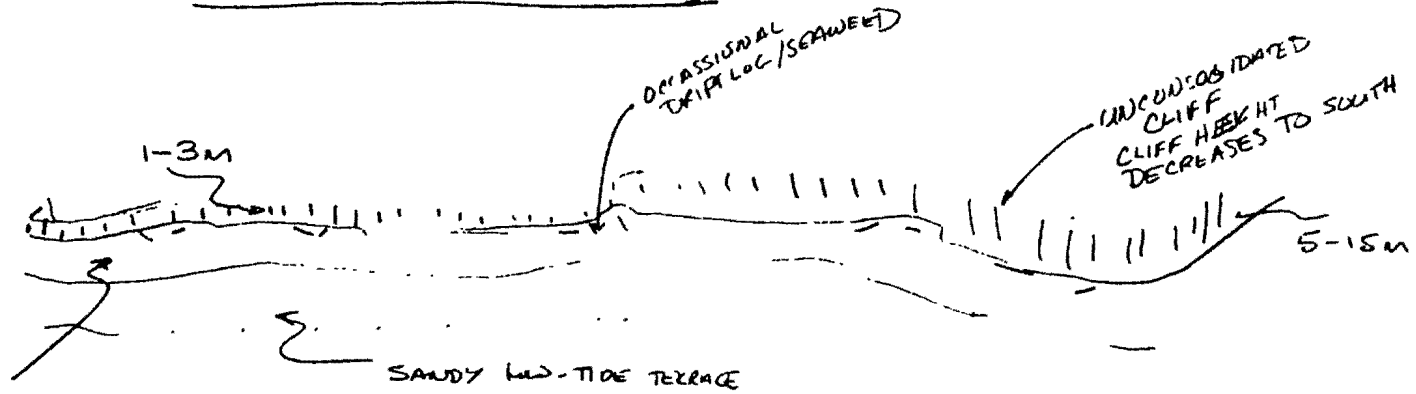
Map/Aerial photo marking segment boundaries See Attached

VTR: Y/N Tape Number(s) \_\_\_\_\_

Photography: Y/N Roll Number(s) DMC-11 + DMC-12

Sample Numbers Collected: N/A

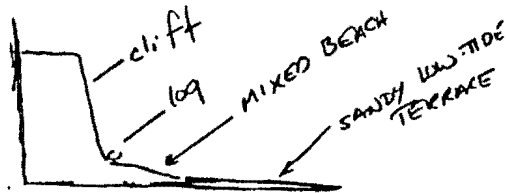
# SL-4 (SEGMENT WALKED)



MIXED BEACH

Texture varies from:

- ① cobble pebble beach over sandy gravels
- ② cobble sand pebble beach



ESTIMATE CROSS-UNIT PROFILE

# ECOLOGICAL EVALUATION

LOCATION: SW side of SURGEDN LAGOON SITE: \_\_\_\_\_ OBSERVER: D. McCormick  
 LOCATION PREFIX: SL SEG. NO.: 4 LENGTH: 2390 (M)  
 DATE: 6/4/89 TIME (HHMM): 1240 TIDE HT.: -1.5 (M)  
 OILED ZONE: Splash High Medium Low No Oil  
 SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

## LIVE BIOTA

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

Live at low ITZ - in debris strand at high ITZ

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

Shells only

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

Dense only on larger boulders

## Littorina

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

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

OTHER OBSERVATIONS: eagles, tideflats; crab shells, dense algal mat  
at lower ITZ - clear

CLEANUP PRECAUTIONS: None

MAMMALS: Otters \_\_\_\_\_ Harbor Seals \_\_\_\_\_ Sea Lions \_\_\_\_\_ Whales \_\_\_\_\_

Other 1 starry flounder - half eaten but alive

BIRDS: eagles; gulls; sandpipers; terns

GENERAL OBSERVATIONS: This beach had no oil on it

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 6-4-89 Location Sturgeon Lagoon Site west shore

Location Prefix SL Segment # 4 Length 2,390

Survey Method:

Air ✓ (A - indicate on map) Boat \_\_\_\_\_ (A - indicate on map)

Ground ✓ (G - indicate on map)

Known cultural resources (AHRS #) KAR-16, 92, 94, 95 Data Source AHRS Files  
97 & 100

Oil conditions/beach visibility NONE observed

Width of beach zone surveyed 10 m Tree fringe surveyed up to 15 m

Cultural resources observed in beach zone (AHRS code) NONE

Cultural resources observed in tree fringe (AHRS code) HPS, MDN

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

GRASS, Alder thicket and tundra covered upland above a low angle  
Shore Profile COBBLE/pebble beach.

Fresh Water Sources ONE SMALL STREAM

Sea Exposure Protected inside Sturgeon Lagoon

Access/Safety Accessible by both helicopter and boat

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 # CW-1 Frames 14 - 18

B/W Roll # \_\_\_\_\_ Frames \_\_\_\_\_

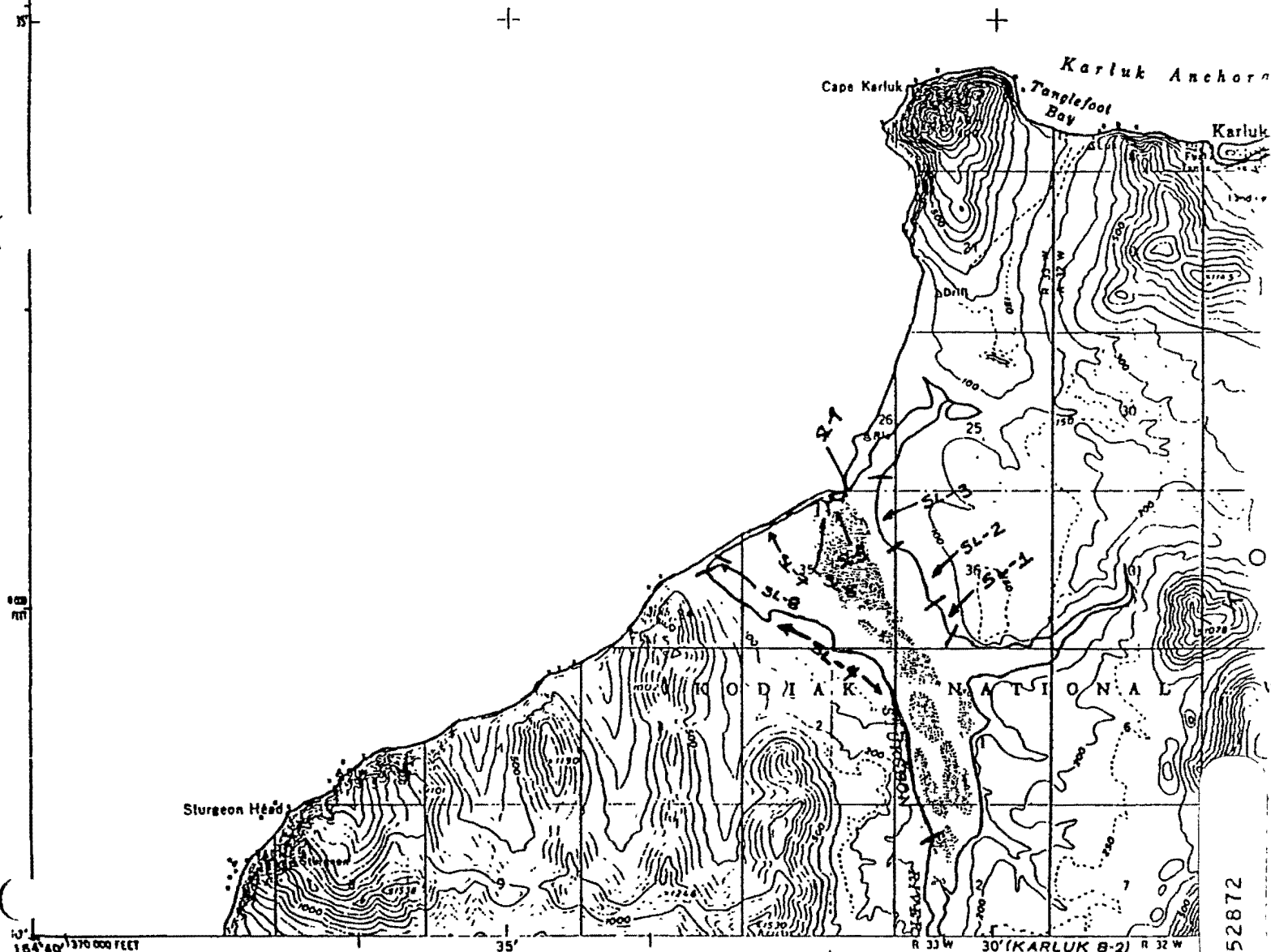
Observer(s) MIKE YARBOROUGH, CHRIS WOOLEY

Time survey started 12:43 pm Time survey ended 1:50 pm

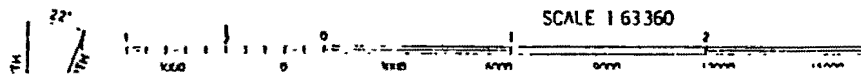
Cultural resource considerations/restraints:

NONE - cleanup NOT recommended.

S H E L L K



Map compiled, edited, and published by the Geological Survey  
 by photogrammetric methods from aerial photographs  
 1951-1952. Map not field checked



ACE 1852872

(version 6/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): STURGEON LAGOON BLOCK K 6-34

Includes Shoreline Segments: SL-1, SL-2, SL-3, SL-4, SL-5, SL-6,  
SL-7, SL-8, SL-9, SL-10, SL-11, SL-12, SL-13, SL-14, SL-15,  
SL-16, SL-17

Submitted: \_\_\_\_\_ Date: \_\_\_\_\_  
(for Exxon)

ISCC Recommendation: \_\_\_\_\_ Date: \_\_\_\_\_

FOSC Approval: \_\_\_\_\_ Date: \_\_\_\_\_

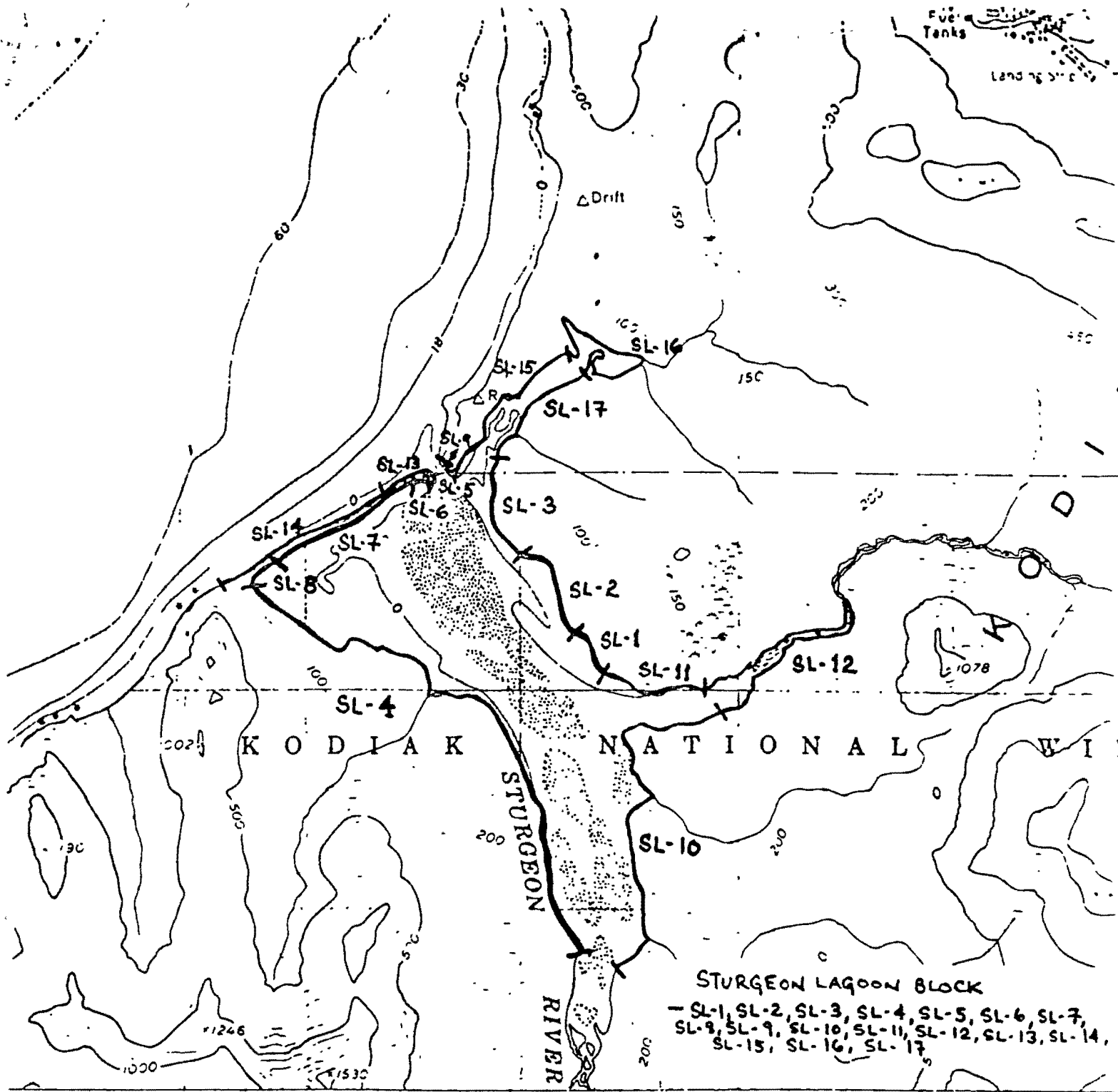
The cleanup procedures identified in the Shoreline Cleanup Program are recommended. Modifications to these systems can be made in the field. Exxon and other field personnel are encouraged to suggest innovations and productivity enhancements to the OSC's on-scene representative. The OSC's representative has the authority to approve on-site modifications. The Field Resource Team should be consulted if these actions do not fit within the Ecological Constraints of the Shoreline Cleanup Program. Requirements for safety and the protection of cultural material must be observed.

Distribution:

Exxon Shoreline Coordinator  
Exxon Shoreline Supervisor  
Exxon SCAT file

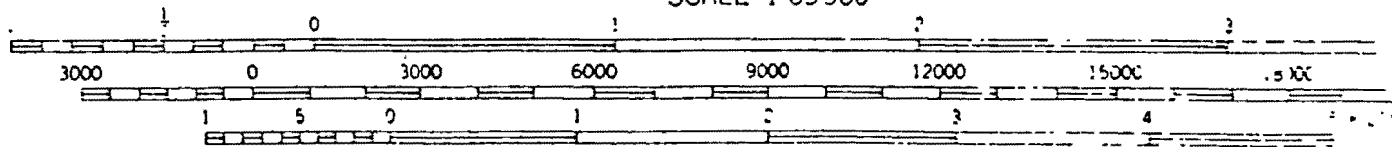
FOSC  
CDFU  
NOAA  
EPA  
USDA (FS)  
USFW  
A.DEC  
A.FG  
A.DNR  
CAC  
PWSCA  
USFS  
SHPO

ACE 1852873



30' (KARLUK B-2)

SCALE 1 63360



CONTOUR INTERVAL 100 FEET

DASHED LINES REPRESENT 50 FOOT CONTOURS

NATIONAL GEODETIC VERTICAL DATUM OF 1929

DEPTH CURVES IN FEET - DATUM IS MEAN LOWER LOW WATER

SHORELINE SHOWN REPRESENTS THE APPROXIMATE LINE OF MEAN HIGH WATER  
THE AVERAGE RANGE OF TIDE IS APPROXIMATELY 11 FEET

FOR SALE BY U S GEOLOGICAL SURVEY

ACE 1852874 -15

FAIRBANKS ALASKA 99701 DENVER COLORADO 80225 OR RESTON VIRGINIA 22092

MAGNETIC NORTH  
DATE MEAN  
JULY 1952

# SEGMENT INSPECTION RECORD

ADEC # K6-34Shoreline Segment: SL-1

Shoreline Treatment Process(es) Completed for this Segment

Yards Signed Off

|                                          |                                                    |
|------------------------------------------|----------------------------------------------------|
| <input type="checkbox"/> Hot water wash  | <input type="checkbox"/> Mechanical                |
| <input type="checkbox"/> Warm water wash | <input checked="" type="checkbox"/> Non-mechanical |
| <input type="checkbox"/> Water deluge    | <input type="checkbox"/> Other                     |

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Exxon Comments

Signature Jack A. RicknerDate 7/27/89Time 1652Printed Name Jack RicknerExisting Shoreline Condition As  
Visually Determined by USCG  
Surface Oil

|                      |                  |
|----------------------|------------------|
| Percent              | Degree of Oiling |
| <input type="text"/> | Heavy            |
| <input type="text"/> | Medium           |
| <input type="text"/> | Light            |
| <input type="text"/> | Very Light       |

100%

Subsurface Oil

☐ Yes      ☒ No

Comment Below

☒ Reassessment  
☒ Yes - Necessary

☐ No - Not necessary unless re-oiled

ADEC Rep

Comments

Existing Shoreline Condition As  
Visually Determined by ADEC  
Surface Oil

|                      |                  |
|----------------------|------------------|
| Percent              | Degree of Oiling |
| <input type="text"/> | Heavy            |
| <input type="text"/> | Medium           |
| <input type="text"/> | Light            |
| <input type="text"/> | Very Light       |

100%

Subsurface Oil

☐ Yes      ☐ No

Comment Below

☐ Reassessment  
☐ Yes - Necessary

☐ No - Not necessary unless re-oiled

Signature \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Printed Name

FOSC Rep Type A shoreline Demobilization approved/disapproved for entire sub-unit.Comments Much of the sub-unit was inspected by aerial observation. Shoreline inspection was conducted on Sturgeon river wadlough. Oil discovered on rocky flats near Cape Karluk.Signature P. J. Cormier, LT, USCG Date 31 July 89 Time 2140Printed Name P. J. Cormier

Copy: Exxon ADEC FOSC ISCC Return All Signed Originals to Exxon

ACE 18528264/510

# TYPE A SHORELINE CLEANUP WORK ORDER

ORIGINAL

Date: 21 June 89 Shoreline Segment: SL-1

Location: (Attach map) Sturgeon Lagoon

ADEC No. K6-34 Shoreline Assessment Date: 6/04-05/89

## Recommended Cleanup Activity(ies):

Type A manual cleanup only. <sup>COBBLE</sup> MINOR REMOVAL OF OILED SURFACE ROCK RECOMMENDED. SHOULD NOT GO FURTHER THAN 2" FOLLOWING SURFACE CLEANUP, ADDITIONAL TREATMENT OPTIONS WILL BE EVALUATED IF NECESSARY.

See Attachment

## Priority Considerations:

see Attachment

## Ecological Constraints (from site survey):

- No specific knowledge of artifacts present
- Use General Guidelines (Attachment)

## Archaeological Constraints:

If any archaeological or historical sites or artifacts are discovered during the cleanup activity, they must remain undisturbed and the Exxon archaeologist C. Mobley contacted (as per procedures in the "Guideline for Shoreline Cleanup") and the State Historic Preservation Office notified as soon as possible.

Submitted by: Joshua Pickens  
Exxon

Date: 21 June 89

State Historic Preservation Officer Telephone Approval (Required)

Date: 10 June 89 See Attachment

Approved: L. M. [Signature]  
Assistant OSC Western Alaska (If appropriate)  
By direction

Date: 25 JUN 89

Approved: [Signature]  
Federal On-Scene Coordinator  
By direction

Date: 25 JUN 89

4/30/89

ACE 1852827

(version 4/29/89)

SHORELINE CLEANUP PROGRAM

DATE 6/09/89

SHORELINE SEGMENT SL-1

LOCATION: (see enclosed map) Sturgeon Lagoon-Northeast shore

ADEC NO. \_\_\_\_\_ SHORELINE ASSESSMENT DATE: 6/04/89

Recommended Cleanup Activity(ies):

- Manually remove surface oil by appropriate means.

Priorities Considerations: This area is priority for salmon-sockeye, chum and pink.

Ecological Constraints (from site survey): None. Manual cleanup of oiled band at mid-high zone will not adversely impact lower, uncontaminated intertidal zone.

Archeological Constraints (from site survey):

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

Charles E. Adams  
State Historic Preservation Officer \*

Date: June 10, 1989

EXXON: Jack A. Rusk

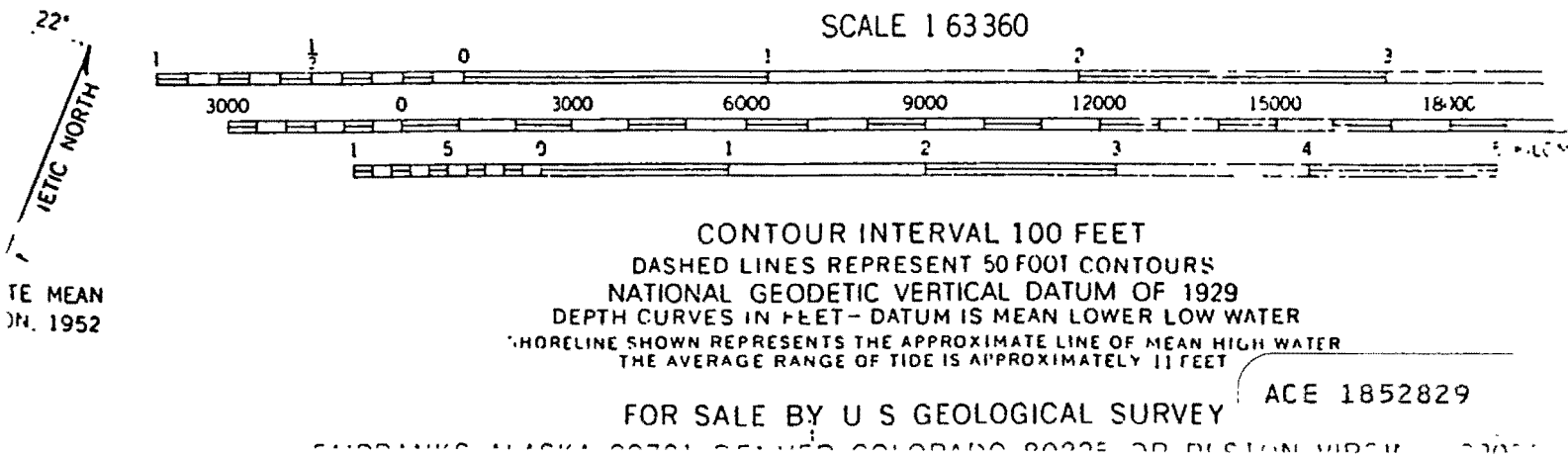
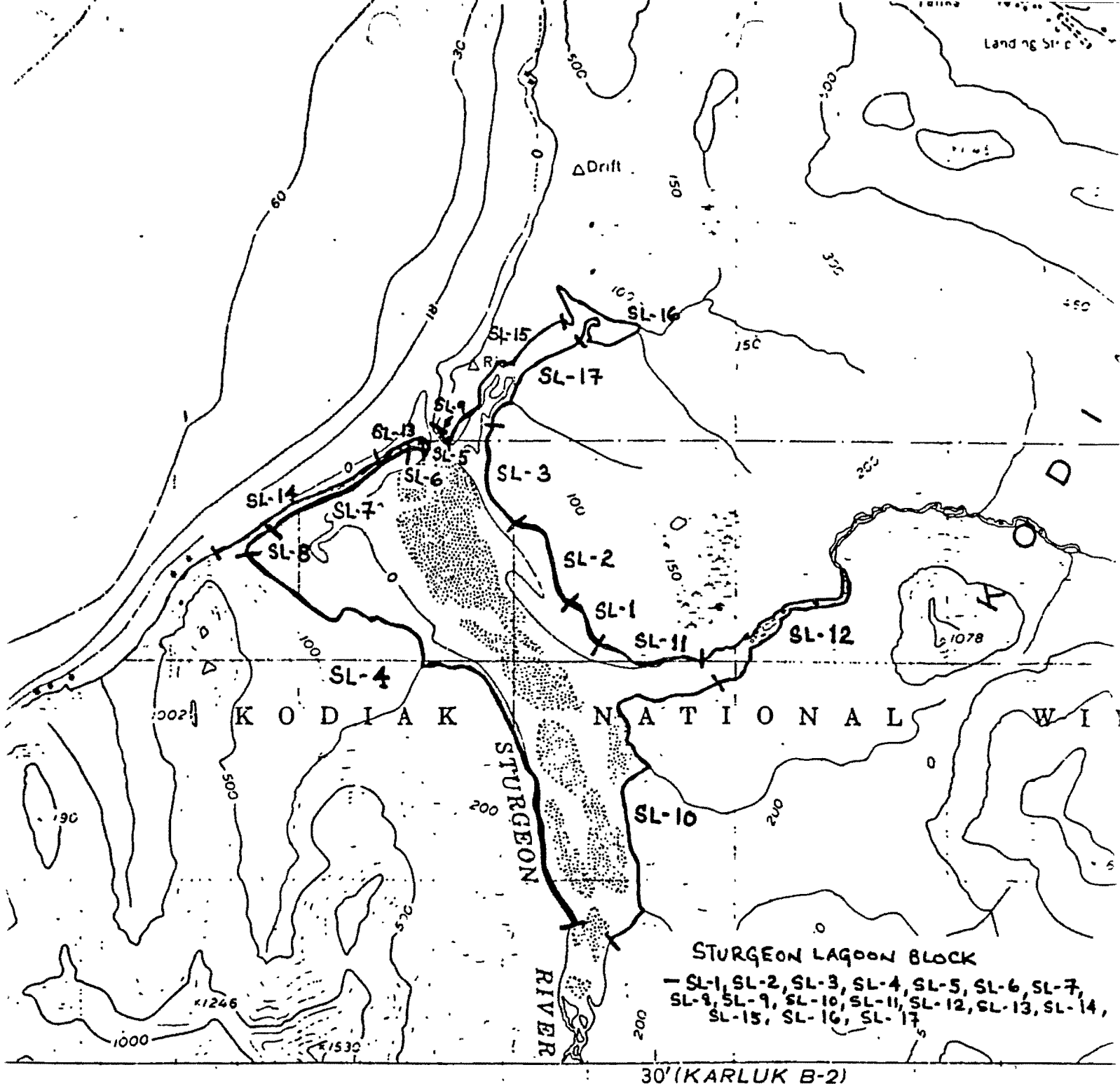
Date: 14 June 89

FOSC: \_\_\_\_\_

Date: \_\_\_\_\_

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

ACE 1852828



(version 4/29/89)

SHORELINE CLEANUP PROGRAM

DATE 6/09/89

SHORELINE SEGMENT SL-1

LOCATION: (see enclosed map) Sturgeon Lagoon-Northeast shore

ADEC NO. K6-3 SHORELINE ASSESSMENT DATE: 6/04/89

Recommended Cleanup Activity(ies):

- Manually remove surface oil by appropriate means.

Priorities Considerations: This area is priority for salmon-sockeye, chum and pink.

Ecological Constraints (from site survey): None. Manual cleanup of oiled band at mid-high zone will not adversely impact lower, uncontaminated intertidal zone.

Archeological Constraints (from site survey):

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

Charles E. Adams  
State Historic Preservation Officer \*

Date: June 10, 1989

EXXON: Jack A. Rusk

Date: 14 June 89

FOSC: \_\_\_\_\_

Date: \_\_\_\_\_

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

Date: JUNE 4/89 Time: \_\_\_\_\_Observer: D. HowesSurveyed From: Foot/Boat/Helicopter/PlaneWeather: Cloudy/Rain/SnowLOCATIONLOCATION STURGEON LAGOON - EAST SIDE SEGMENT I.D. SL-1LENGTH OF SHORELINE SEGMENT: 440 mACCESS: Foot/Vehicle/Boat/Barge/Helicopter/Float PlaneSHORELINE:Shoreline Type: SPI/BEA COV/HID/STETSlope: LAUGHING/VERWave Exposure: High/Med/LowSediment: B-1 % / C \_\_\_ % / P-55 % / G \_\_\_ % / S-21 % / M \_\_\_ % / R \_\_\_ %Drift Debris on Beach: Yes/No Supra Upper/Mid/Lower Type logs/sawedOILDegree of Oiling: Heavy/Moderate/Light/No Oil/UnobservedTotal Area of Beach Impact: SU / SP H / M / LOIL DISTRIBUTIONContinuous: Y/N Segment % 100 No. Bands 1/2 Width 1-3

Sporadic: Y/N Segment % \_\_\_\_\_ Min/Max Dia \_\_\_\_\_ Impact Width \_\_\_\_\_

Est. Oil Thickness where &gt; 1cm: \_\_\_\_\_ cm SU / SP / UP / MID / LO

Est. Oil Penetration: .5-2 cm SU / SP / UP / MID / LOLayers? Yes/No No# Layers \_\_\_\_\_ Oil Weathering \_\_\_\_\_Drift Debris Oiled? Yes/No Supra/Upper/Mid/Lower Amount: H / M / LOIL MORPHOLOGYPooled Oil \_\_\_\_\_ % "Free" Oil 96 % Splattered 5 % H/M/LO L Shores \_\_\_\_\_ %OIL WEATHERING (OW)Fresh Oil \_\_\_\_\_ % SU/SP/VP/MID/LO Choc Mousse 00 % SU/SP/UP/MID LO

Pancake Mousse \_\_\_\_\_ % SU/SP/VP/MID/LO Asphalt Mousse \_\_\_\_\_ % SU/SP/VP/MID/LO

Tar Formation \_\_\_\_\_ %

Comments:

- BAND OF OIL THAT OCCASSIONALLY SPLITS INTO TWO SINGLE BANDS GENERALLY 2-3 METERS WIDE. OIL CHOC MOUSSE HAS PENETRATED UP TO 2 CM.
- OIL SPATTER ON THE PEBBLES/CORBLES USUALLY ABOVE BAND IN TIDAL ZONE

DOCUMENTATION:

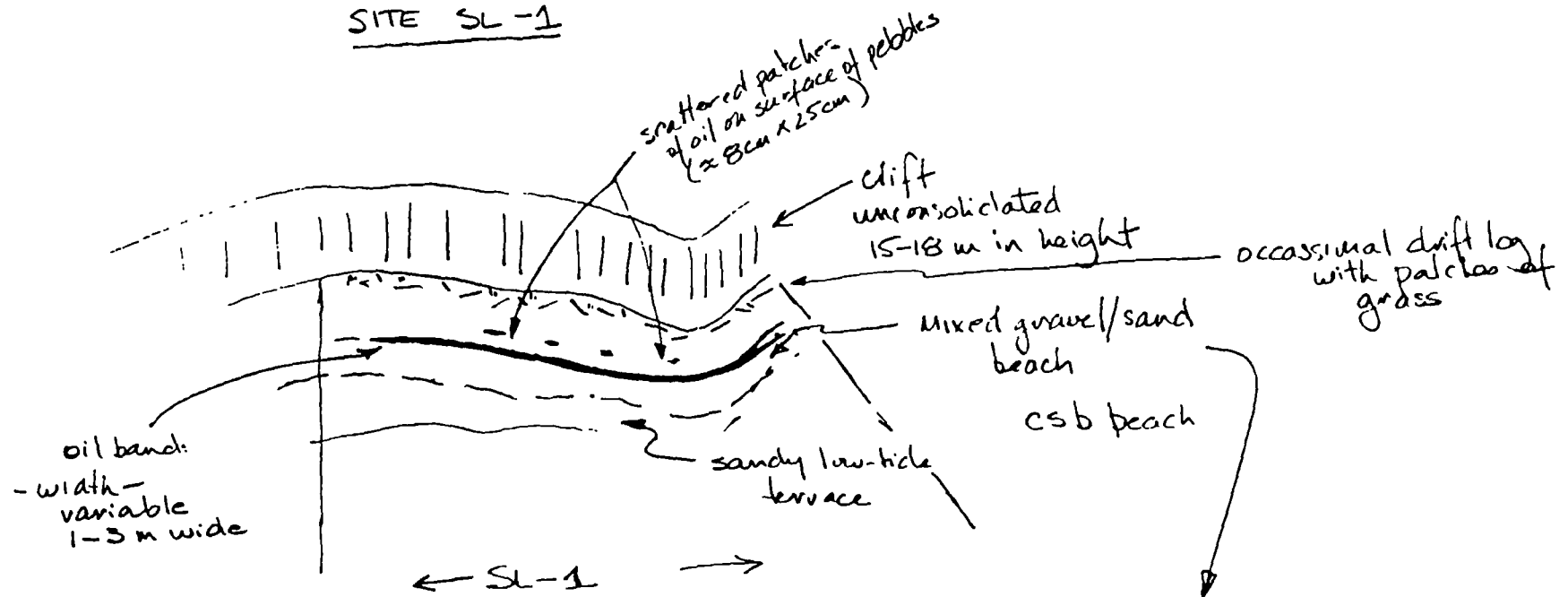
Map Aerial photo marking segment boundaries See Attached

VTR: Y N Tape Number(s) \_\_\_\_\_

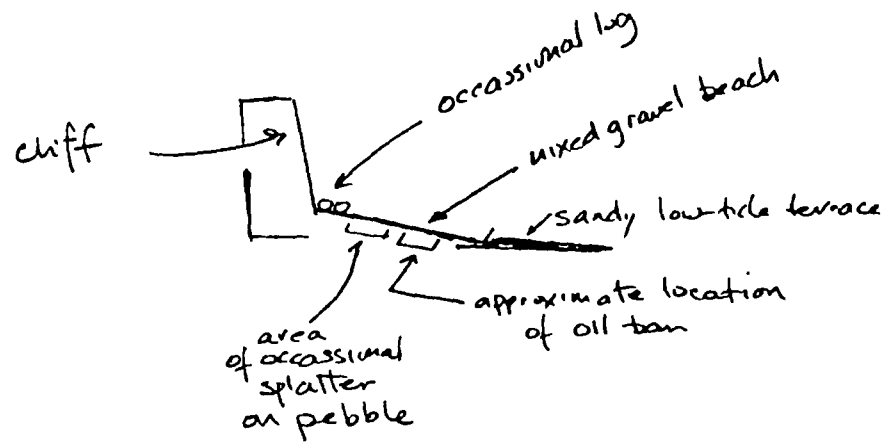
Photography: Y N Roll Number(s) DMC-11

Sample Numbers Collected: N/A

# SITE SL-1



beach texture:  
Cobble: 5-7%  
sand: 25-35%  
pebble: 55-65%



ESTIMATED CROSS SEGMENT PROFILE

(N) EAST SIDE

LOCATION: STURGEON LAGOON SITE: \_\_\_\_\_ OBSERVER: D. McCormick

LOCATION PREFIX: SL SEG. NO.: 1 LENGTH: 440 (M)

DATE: 6/4/89 TIME (HHMM): 0930 TIDE HT.: -2.5 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

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

Fucus at strand line @ 20% oiled

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

Shells only.

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

Mid to low ITZ, uniled, healthy

Littorina

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

low to subtidal ITZ

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

OTHER OBSERVATIONS: 2 deer carcasses; lots of amphipods subtidally feeding on algae, and at strand line in seaweed debris; dugress crab shells, bull kelp

CLEANUP PRECAUTIONS: None. Manual cleanup of oil band will not impact lower, uncolonized ITZ.

MAMMALS: Otters \_\_\_\_\_ Harbor Seals \_\_\_\_\_ Sea Lions \_\_\_\_\_ Whales \_\_\_\_\_  
Other \_\_\_\_\_

BIRDS: \_\_\_\_\_

GENERAL OBSERVATIONS: Lagoon channels are subinhabited. The narrow band of oil here is not impacting the sensitive, lower ITZ.

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 6-4-89 Location STURGEON Lagoon Site EAST shore

Location Prefix SL Segment # 1 Length 440 m

Survey Method:

Air \_\_\_\_\_ (A - indicate on map) Boat \_\_\_\_\_ (A - indicate on map)

Ground ✓ (G - indicate on map)

Known cultural resources (AHRS #) NONE Data Source \_\_\_\_\_

Oil conditions/beach visibility 2-3 m Band Across the mid-tide line

Width of beach zone surveyed 50 m Tree fringe surveyed 10m

Cultural resources observed in beach zone (AHRS code) NONE

Cultural resources observed in tree fringe (AHRS code) NONE

General observations justifying survey method and segment's site probability

Shore Profile Mixed gravel, COBBLE and Boulder Beach BELOW A 15m high Erode = CLIFF?

Fresh Water Sources NONE

Sea Exposure Protected inside the Lagoon

Access/Safety Accessible By Helicopter; Accessible By Boat only AT high tide

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 # \_\_\_\_\_ Frames \_\_\_\_\_

B/W Roll # \_\_\_\_\_ Frames \_\_\_\_\_

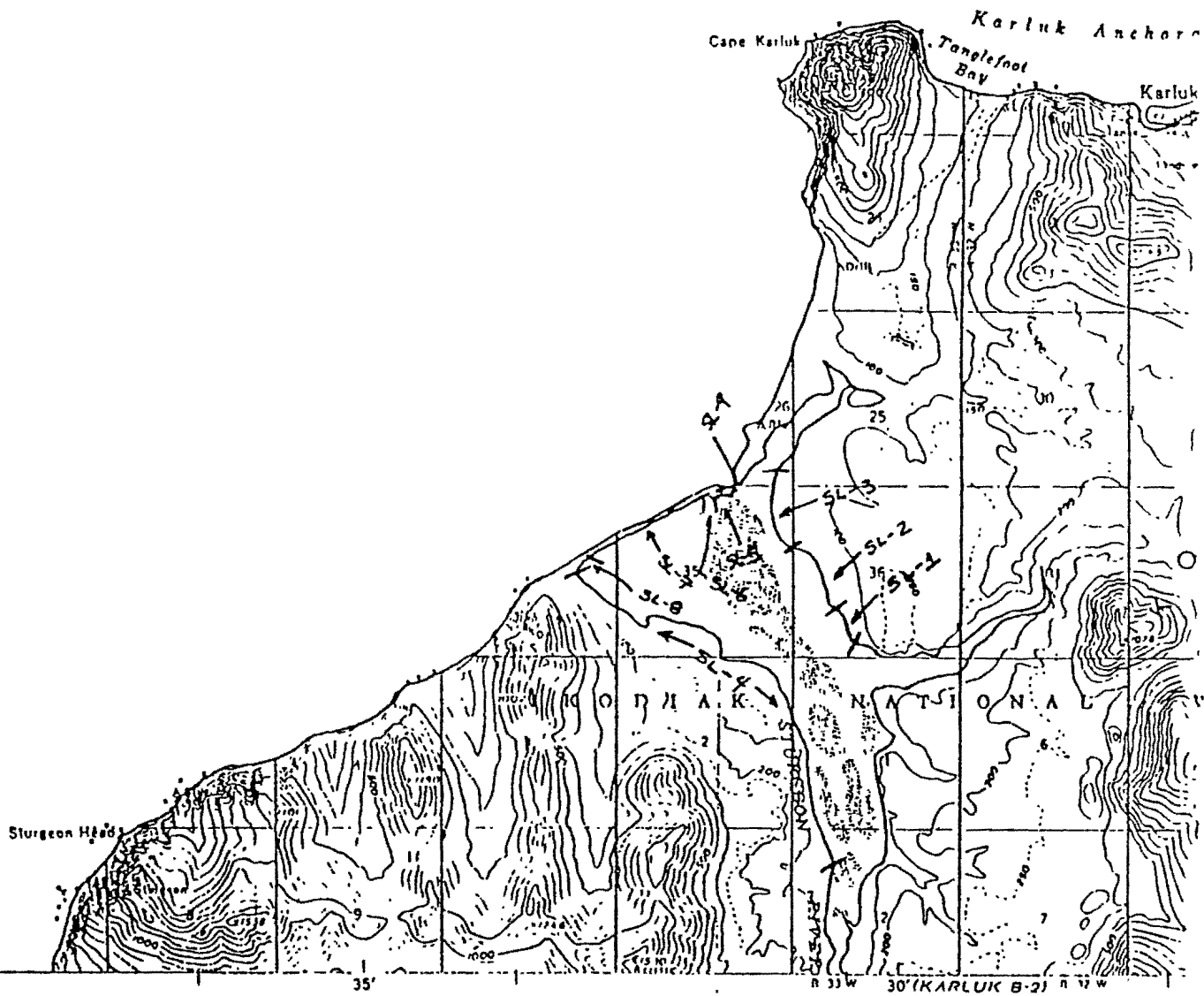
Observer(s) MIKE YARBOROUGH, CHRIS WOOLEY

Time survey started 9:24 AM Time survey ended 9:45 AM

Cultural resource considerations/restraints:

IF heretofore undiscovered cultural remains ARE uncovered during clean-up, CONTACT Exxon's Director of Field Archaeology immediately.

# S H E L I K



1:370 000 FEET

Maped, edited, and published by the Geological Survey

Control by NOS/MOAA and USCE

Maped by photogrammetric methods from aerial photographs  
 1:370 000. Map not field checked

SCALE 1:63 700 ACE 1852836

(version 6/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): STURGEON LAGOON BLOCK *K 6-34*

Includes Shoreline Segments: SL-1, SL-2, SL-3, SL-4, SL-5, SL-6,  
SL-7, SL-8, SL-9, SL-10, SL-11, SL-12, SL-13, SL-14, SL-15,  
SL-16, SL-17

Submitted: \_\_\_\_\_ Date: \_\_\_\_\_  
(for Exxon)

ISCC Recommendation: \_\_\_\_\_ Date: \_\_\_\_\_

FOSC Approval: \_\_\_\_\_ Date: \_\_\_\_\_

The cleanup procedures identified in the Shoreline Cleanup Program are recommended. Modifications to these systems can be made in the field. Exxon and other field personnel are encouraged to suggest innovations and productivity enhancements to the OSC's on-scene representative. The OSC's representative has the authority to approve on-site modifications. The Field Resource Team should be consulted if these actions do not fit within the Ecological Constraints of the Shoreline Cleanup Program. Requirements for safety and the protection of cultural material must be observed.

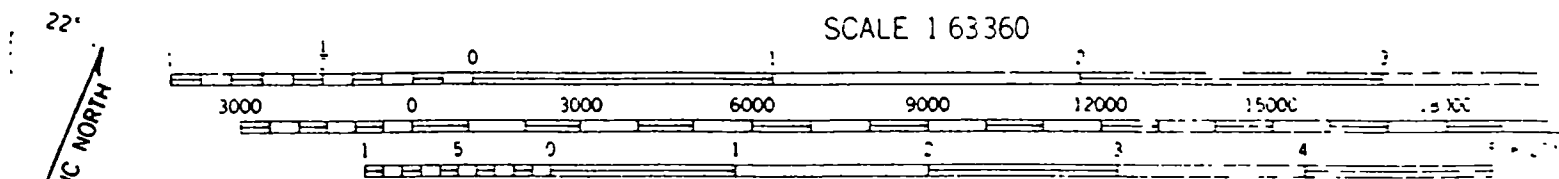
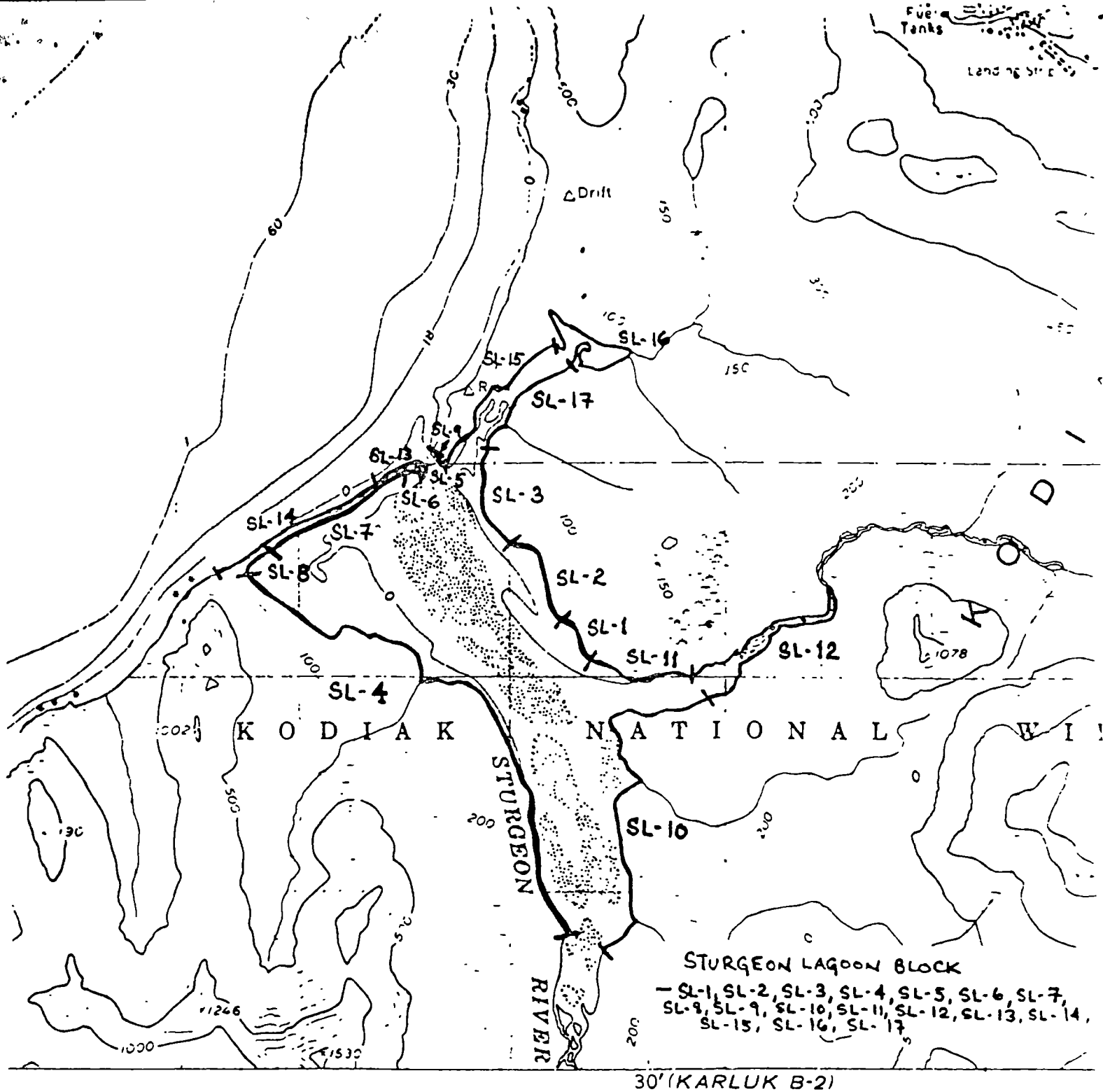
**Distribution:**

Exxon Shoreline Coordinator  
Exxon Shoreline Supervisor  
Exxon SCAT file

FOSC  
CDFU  
NOAA  
EPA  
USDA (FS)  
USFW  
A.DEC  
A.FG  
A.DNR  
CAC  
PWSCA  
USFS  
SHPO

*on 7-5-88 In progress  
Sturgeon River Lagoon  
Cleanup Complete - Except  
SL-1 & SL-11 - A 15m  
Band by 200m extent remains  
to be cleaned when complete  
the Village Team Submit  
will be demonstrated.  
J. M. A. G. G.*

ACE 1852837



DATE MEAN  
 OF 1952

CONTOUR INTERVAL 100 FEET  
 DASHED LINES REPRESENT 50 FOOT CONTOURS  
 NATIONAL GEODETIC VERTICAL DATUM OF 1929  
 DEPTH CURVES IN FEET - DATUM IS MEAN LOWER LOW WATER  
 SHORELINE SHOWN REPRESENTS THE APPROXIMATE LINE OF MEAN HIGH WATER  
 THE AVERAGE RANGE OF TIDE IS APPROXIMATELY 11 FEET

FOR SALE BY U.S. GEOLOGICAL SURVEY PRICE 1852838-15  
 FAIRBANKS, ALASKA 99701 DENVER, COLORADO 80225 OR RESTON, VIRGINIA 22092

# SEGMENT INSPECTION RECORD

ADEC # K6-34Shoreline Segment: SL-2

Shoreline Treatment Process(es) Completed for this Segment

Yards Signed Off

|                                          |                                                    |
|------------------------------------------|----------------------------------------------------|
| <input type="checkbox"/> Hot water wash  | <input type="checkbox"/> Mechanical                |
| <input type="checkbox"/> Warm water wash | <input checked="" type="checkbox"/> Non-mechanical |
| <input type="checkbox"/> Water deluge    | <input type="checkbox"/> Other                     |

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Exxon Comments

Signature Jack A. RicknerDate 7/27/89 Time 1652Printed Name Jack RicknerExisting Shoreline Condition As  
Visually Determined by USCG  
Surface Oil

| Percent              | Degree of Oiling |
|----------------------|------------------|
| <input type="text"/> | Heavy            |
| <input type="text"/> | Medium           |
| <input type="text"/> | Light            |
| <input type="text"/> | Very Light       |

100%

Subsurface Oil

☐ Yes      ☐ No

Comment Below

Reassessment

☐ Yes - Necessary

☐ No - Not necessary unless re-oiled

ADEC Rep

Comments

Existing Shoreline Condition As  
Visually Determined by ADEC  
Surface Oil

| Percent              | Degree of Oiling |
|----------------------|------------------|
| <input type="text"/> | Heavy            |
| <input type="text"/> | Medium           |
| <input type="text"/> | Light            |
| <input type="text"/> | Very Light       |

100%

Subsurface Oil

☐ Yes      ☐ No

Comment Below

Reassessment

☐ Yes - Necessary

☐ No - Not necessary unless re-oiled

Signature \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Printed Name \_\_\_\_\_

FOSC Rep Type A shoreline Demobilization approved/disapproved

Comments

See K6-34-541Signature P.J. Cormier Date 31 July 89 Time 2140Printed Name P.J. Cormier, USCG

Copy: Exxon ADEC FOSC ISCC Return All Signed Originals to Exxon

ACE 1852839415

(version 6/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): STURGEON LAGOON BLOCK K 6-34

Includes Shoreline Segments: SL-1, SL-2, SL-3, SL-4, SL-5, SL-6,  
SL-7, SL-8, SL-9, SL-10, SL-11, SL-12, SL-13, SL-14, SL-15,  
SL-16, SL-17

Submitted: \_\_\_\_\_ Date: \_\_\_\_\_  
(for Exxon)

ISCC Recommendation: \_\_\_\_\_ Date: \_\_\_\_\_

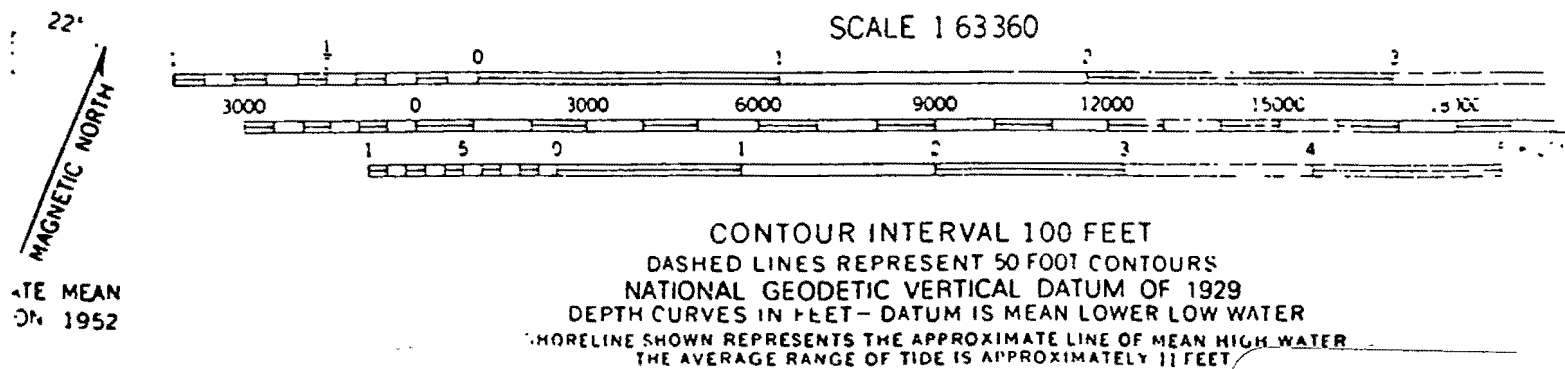
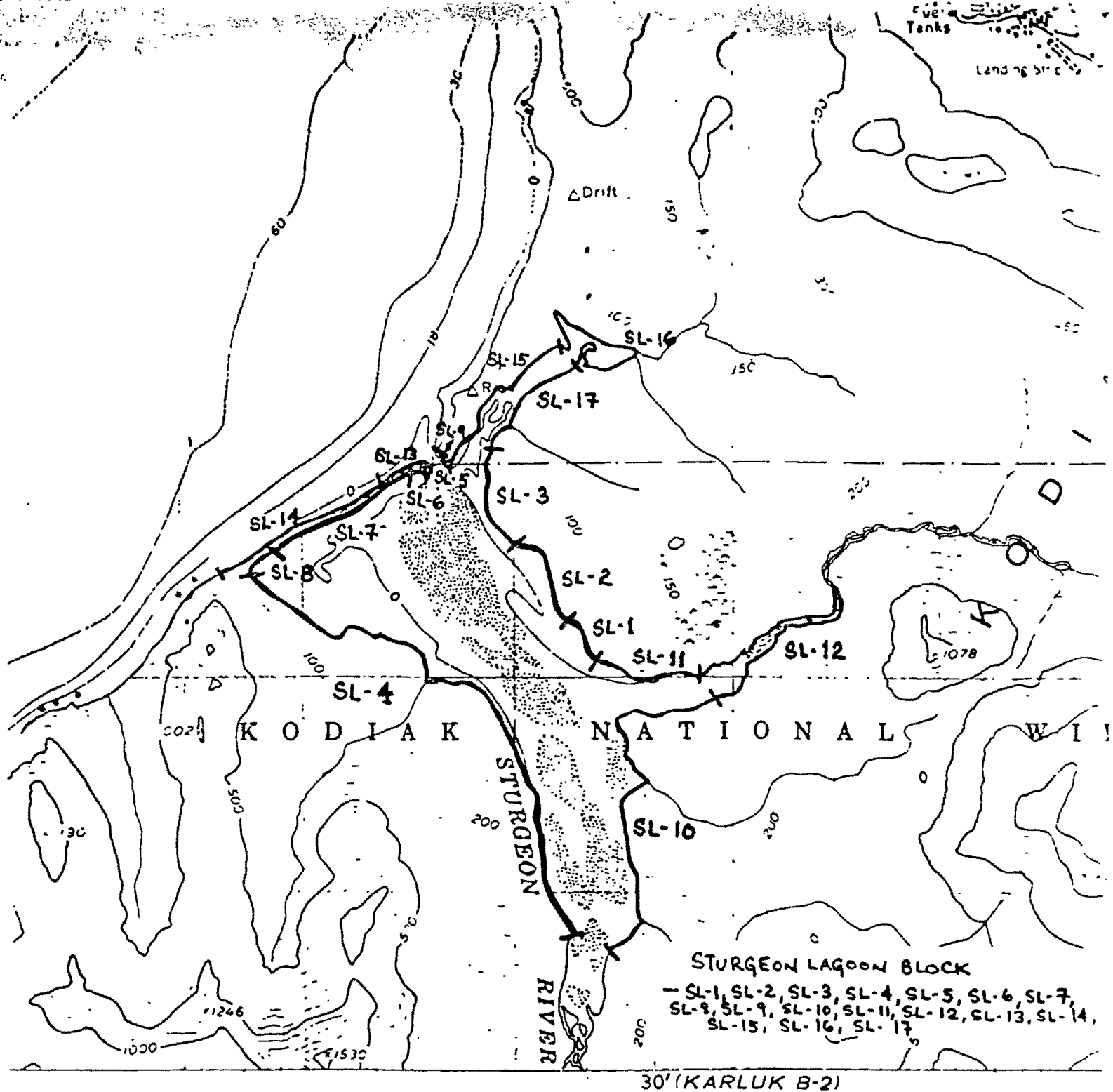
FOSC Approval: \_\_\_\_\_ Date: \_\_\_\_\_

The cleanup procedures identified in the Shoreline Cleanup Program are recommended. Modifications to these systems can be made in the field. Exxon and other field personnel are encouraged to suggest innovations and productivity enhancements to the OSC's on-scene representative. The OSC's representative has the authority to approve on-site modifications. The Field Resource Team should be consulted if these actions do not fit within the Ecological Constraints of the Shoreline Cleanup Program. Requirements for safety and the protection of cultural material must be observed.

**Distribution:**

Exxon Shoreline Coordinator  
Exxon Shoreline Supervisor  
Exxon SCAT file

FOSC  
CDFU  
NOAA  
EPA  
USDA (FS)  
USFW  
A.DEC  
A.FG  
A.DNR  
CAC  
PWSCA  
USFS  
SHPO



DATE MEAN  
ON 1952

FOR SALE BY U.S. GEOLOGICAL SURVEY

ACE 1852841

FAIRBANKS ALASKA 99701 DENVER COLORADO 80225 OR RESTON VIRGINIA 22092

## TYPE A SHORELINE CLEANUP WORK ORDER

Date: 21 June 89 Shoreline Segment: SL-2Location: (Attach map) Sturgeon LagoonADEC No. K6-34 Shoreline Assessment Date: 6/04/89

## Recommended Cleanup Activity(ies):

Manual clean up only of surface oiling. Do Not remove more than 2" of surface segment.  
 Clean up crews are required to have archaeological monitor during cleaning of this segment. See Attachment

## Priority Considerations:

(see attached)

## Ecological Constraints (from site survey):

Archaeological Monitor Required during cleanup of this segment

## Archaeological Constraints:

If any archaeological or historical sites or artifacts are discovered during the cleanup activity, they must remain undisturbed and the Exxon archaeologist C. Mobley contacted (as per procedures in the "Guideline for Shoreline Cleanup") and the State Historic Preservation Office notified as soon as possible.

Submitted by: Jack A. Rickner  
ExxonDate: 21 June 89

State Historic Preservation Officer Telephone Approval (Required)

Date: 10 June 89 See AttachmentApproved: A. M. Friend, LT, USCG  
Assistant OSC Western Alaska (if appropriate)  
By directionDate: 25 JUN 89Approved: R. B. Meyer  
Federal On-Scene Coordinator,  
By directionDate: 25 JUN 89

4/30/89

ACE 1852842

(version 4/29/89)

SHORELINE CLEANUP PROGRAM

DATE 6/09/89

SHORELINE SEGMENT SL-2

LOCATION: (see enclosed map) Sturgeon Lagoon-Northeast shore

ADEC NO. \_\_\_\_\_ SHORELINE ASSESSMENT DATE: 6/04/89

Recommended Cleanup Activity(ies):

- Manually remove surface oil by appropriate means. This area has a lower priority than SL-1 segment, but could be cleaned when SL-1 is.

Priorities Considerations:

- Sensitivity has been designated to this bay due to sockeye, chum and pink salmon runs.

Ecological Constraints (from site survey): You may rake dune grass to clear oil debris, however, do not remove the grass.

Archeological Constraints (from site survey):

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

Charles F. Holmes  
State Historic Preservation Officer \*

Date: June 10, 1989

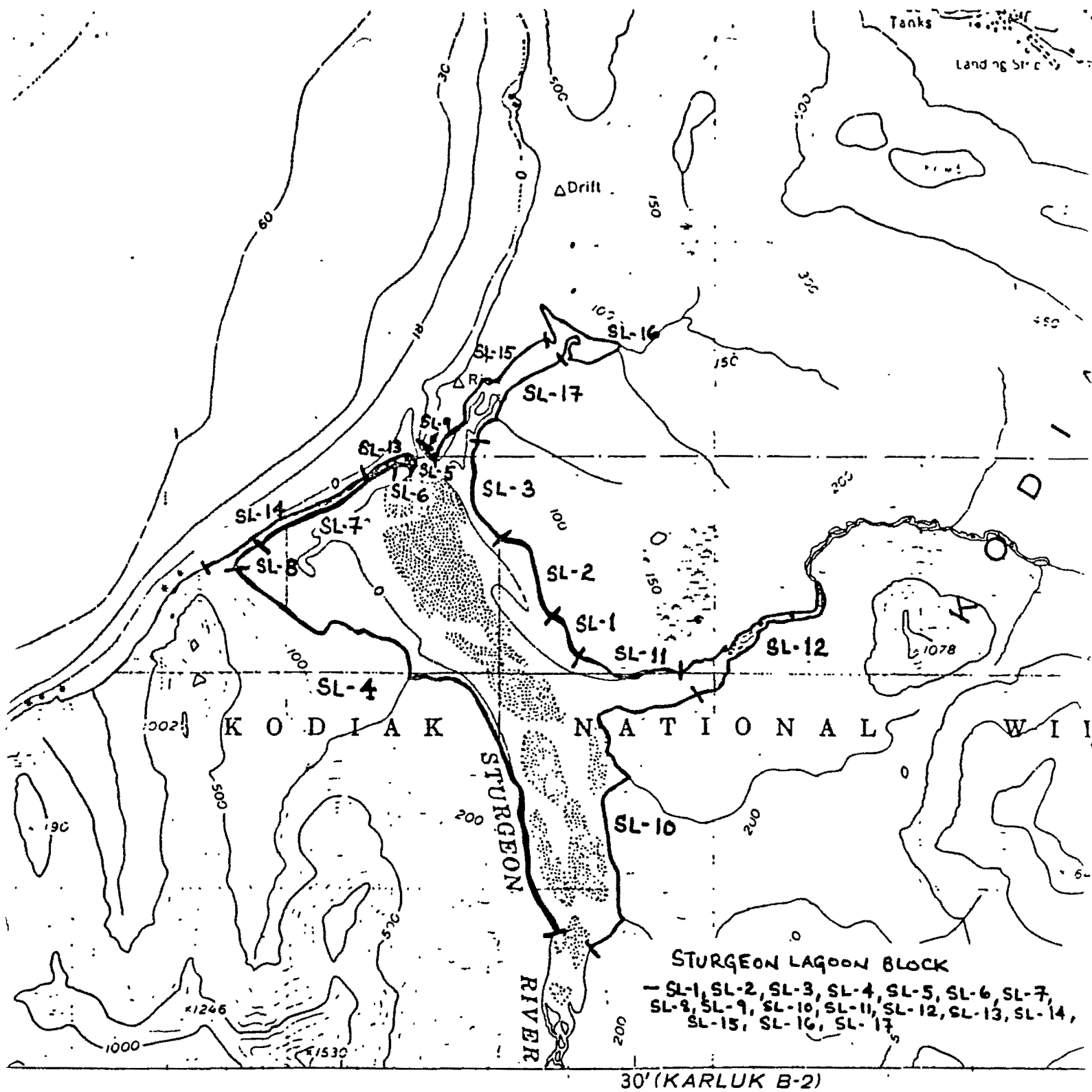
EXXON: Jack A. Ruckin

Date: 14 June 89

FOSC: \_\_\_\_\_

Date: \_\_\_\_\_

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



(version 4/29/89)

SHORELINE CLEANUP PROGRAM

DATE 6/09/89

SHORELINE SEGMENT SL-2

LOCATION: (see enclosed map) Sturgeon Lagoon-Northeast shore

ADEC NO. K 12-31 SHORELINE ASSESSMENT DATE: 6/04/89

Recommended Cleanup Activity(ies):

- Manually remove surface oil by appropriate means. This area has a lower priority than SL-1 segment, but could be cleaned when SL-1 is.

Priorities Considerations:

- Sensitivity has been designated to this bay due to sockeye, chum and pink salmon runs.

Ecological Constraints (from site survey): You may rake dune grass to clear oil debris, however, do not remove the grass.

Archeological Constraints (from site survey):

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

Charles F. Holmes  
State Historic Preservation Officer \*

Date: June 10, 1989

EXXON: Jack A. Ruckin

Date: 14 June 89

FOSC: \_\_\_\_\_

Date: \_\_\_\_\_

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

ACE 1852845

(Version 5/16/89)

SHORELINE OIL EVALUATION FORM, MODIFIED

Date: JUNE 4/89 / Time: 10:30

Observer: D. HODGES

Surveyed From: Foot/Boat/Helio/Plane

Weather: Cloudy / Rain / Snow / Fog

LOCATION

LOCATION STARKEA LAGOON - EAST SIDE

SEGMENT I.D. SL-2

LENGTH OF SHORELINE SEGMENT: 860 m

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

SHORELINE

Shoreline Type: SPI/BEA/COV/HLD/STFT

Slope: LAND/HANG/VEP

Wave Exposure: High/Med/Low

Sediment: B-7 / C\_\_\_ / PSS / G\_\_\_ / SX-1 / M\_\_\_ / R\_\_\_

Drift Debris on Beach: Yes/No Supra/Upper/Mid/Lower Type LG/SEAWeed

OIL

Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved/V. LIGHT

Total Area of Beach Impact: SU / SP / H / M / L

OIL DISTRIBUTION

Continuous: Y/N Segment 66 No. Bands 1 Width 5-20cm

Sporadic: N Segment 66 Min/Max Dia 1 Impact Width

Est. Oil Thickness where > 1cm: 1 cm SU / SP / UP / MID / LO

Est. Oil Penetration: 1 cm SU / SP / UP / MID / LO

Layers? Yes/No No# Layers 1 Oil Weathering 1

Drift Debris Oiled? Yes/No Supra/Upper/Mid/Lower Amount: H / M / L

OIL MORPHOLOGY

Pooled Oil 10 % "Free" Oil 10 % Spattered 30 % HLD/VL Sheen 1 %

OIL WEATHERING (OW)

Fresh Oil 10 % SU/SP/VP/MID/LO Choc Mousse 100 % SP/SE/UP/MID/LO

Pancake Mousse 10 % SU/SP/VP/MID/LO Asphalt Mousse 10 % SU/SP/VP/MID/LO

Tar Formation 1 %

Comments:

- 2/3 OF UNIT IS A CONTINUOUS BAND 15-20 CM WIDE - OIL HAS NOT PENETRATED  
4 SITS ON THE SURFACE
- NORTHERN 1/3 OF UNIT ABOVE STREAM NO EVIDENCE OF BAND - SPATTER ON  
THE PEBBLES/OBBLES (SEE SKETCH)

DOCUMENTATION:

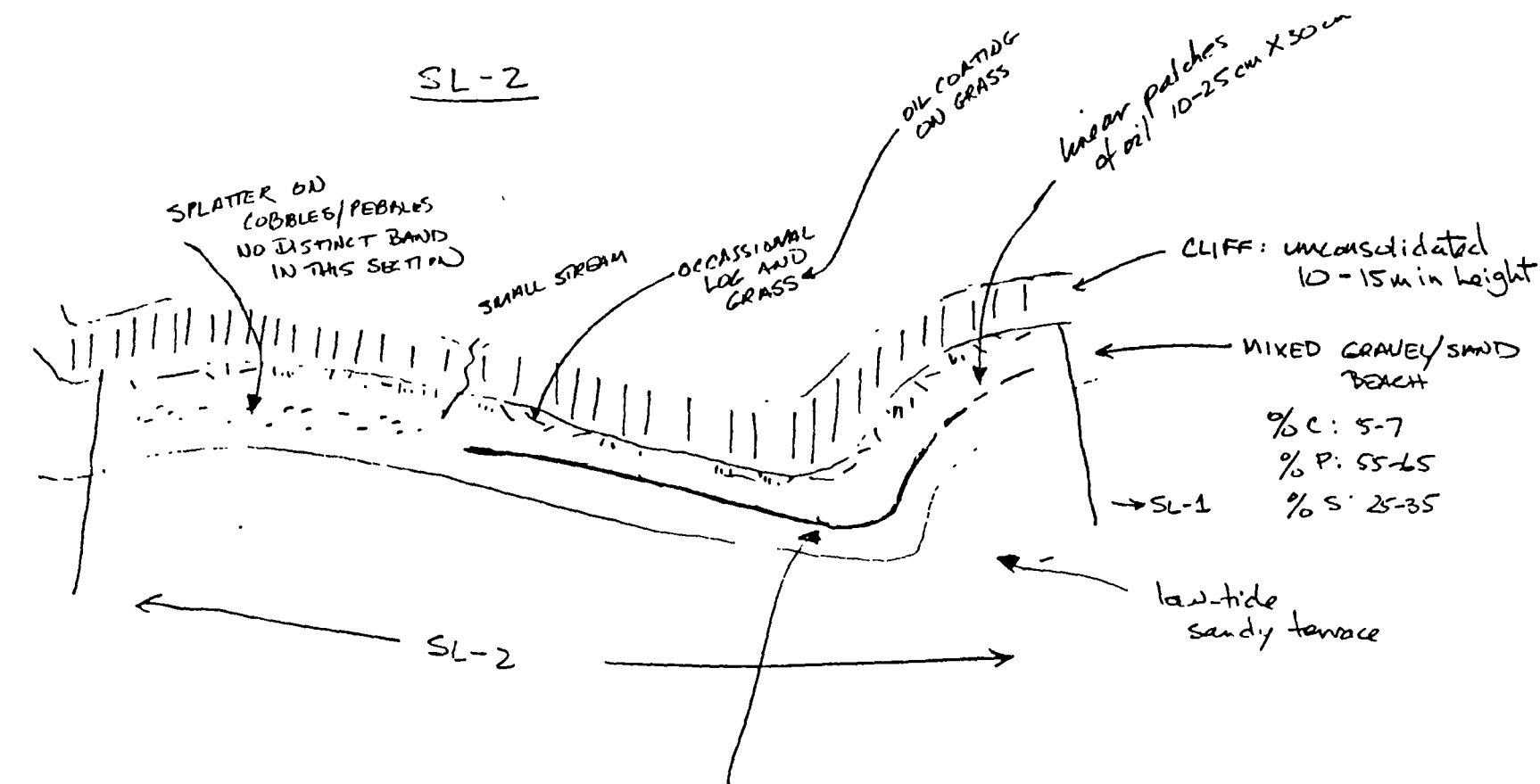
(Map) Aerial photo marking segment boundaries see attached

VTR: Y/N Tape Number(s) \_\_\_\_\_

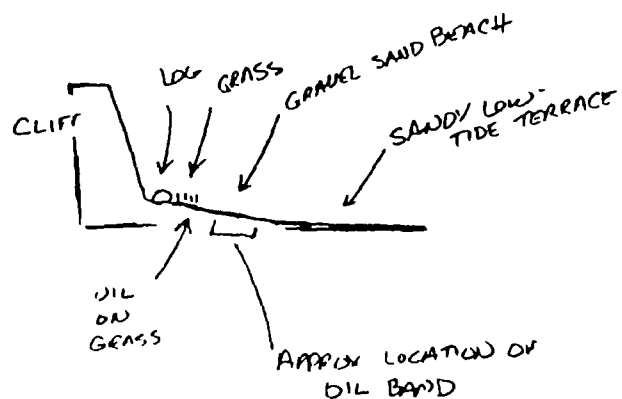
Photography: Y/N Roll Number(s) Imc-11

Sample Numbers Collected: none

SL-2



- CONTINUOUS OIL BAND
- $< 1$  m wide  $\approx 15$ -20 cm width
- penetration (surface)  $< 1$  cm
- oil 'choco' mousse
- some splatter on pebbles in this segment



### ESTIMATE CROSS-SHORE PROFILE

# ECOLOGICAL EVALUATION

LOCATION: Sturgeon Bay SITE: NE shore OBSERVER: J. TAPLEY  
 LOCATION PREFIX: SL SEG. NO.: 2 LENGTH: 260 (M)  
 DATE: 6/7/89 TIME (HHMM): 1030 TIDE HT.: -0.75 (M)  
 OILED ZONE: Splash High Medium Low  
 SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

## LIVE BIOTA

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

Healthy - low ITZ below oil line

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

Healthy - low ITZ below oil line

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

Healthy - low ITZ below oil line

## Littorina

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

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

OTHER OBSERVATIONS: Mytilus shell debris throughout segment -

CLEANUP PRECAUTIONS: NONE

MAMMALS: Otters        Harbor Seals        Sea Lions        Whales         
                   Other NONE

BIRDS: NONE

GENERAL OBSERVATIONS: Oil band in mid tidal band where there's  
not much ecological impact. Oil is down grass at base of  
grass slope Oiled fucus dirt present at high tide line.

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 6-4-89 Location Sturgeon Lagoon Site EAST Shore  
Location Prefix SL Segment # 2 Length 360 m  
Survey Method:  
Air \_\_\_\_\_ (A - indicate on map) Boat \_\_\_\_\_ (A - indicate on map)  
Ground ✓ (G - indicate on map)  
Known cultural resources (AHRS #) NONE Data Source \_\_\_\_\_  
Oil conditions/beach visibility LIGHT BAND  
Width of beach zone surveyed up to 50 m Tree fringe surveyed 10 m  
Cultural resources observed in beach zone (AHRS code) NONE  
Cultural resources observed in tree fringe (AHRS code) HPS, MON, FCR, HT2  
General observations justifying survey method and segment's site probability  
Rolling tundra and grass upland.  
Shore Profile 1.5-5 m high face above a mixed gravel beach.  
Fresh Water Sources one stream - the only stream along this portion of shore.  
Sea Exposure Protected within the Lagoon  
Access/Safety Accessible by BOAT at high tide, and by helicopter  
Probability of undiscovered sites in beach zone (circle one) 1 2 3 4 5) 5  
Monitoring during cleanup needed (yes)/no Collection yes/(no)  
Photos: Color Roll # CW1 Frames 2-10  
B/W Roll # \_\_\_\_\_ Frames \_\_\_\_\_  
Observer(s) Mike YARBOROUGH, Chris WOOLEY  
Time survey started 9:45 AM Time survey ended 10:45 AM  
Cultural resource considerations/restraints:  
NO ACCESS ABOVE THE ACTIVE BEACH. Should be monitored  
during cleanup. Should henceforth undiscovered cultural remains  
be found during cleanup, contact Exxon's Director or Field  
Archaeology immediately.

ACE 1852850

\$

H E

1

4



35'

30' (KARLUK B-2)

22.

SCALE 1 63 360

ACE 1852851 -/S

## SEGMENT INSPECTION RECORD

ADEC # K6-34

Shoreline Segment: SL-3

Shoreline Treatment Process(es) Completed for this Segment

Yards Signed Off

|                          |                 |                                     |                |
|--------------------------|-----------------|-------------------------------------|----------------|
| <input type="checkbox"/> | Hot water wash  | <input type="checkbox"/>            | Mechanical     |
| <input type="checkbox"/> | Warm water wash | <input checked="" type="checkbox"/> | Non-mechanical |
| <input type="checkbox"/> | Water deluge    | <input type="checkbox"/>            | Other          |

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Exxon Comments

Signature Jack A RicknerDate 7/27/89Time 1652Printed Name Jack RicknerExisting Shoreline Condition As  
Visually Determined by USCG  
Surface Oil

| Percent              | Degree of Oiling |
|----------------------|------------------|
| <input type="text"/> | Heavy            |
| <input type="text"/> | Medium           |
| <input type="text"/> | Light            |
| <input type="text"/> | Very Light       |

100%

Subsurface Oil

☐ Yes ☐ No

Comment Below

☒ Reassessment  
☒ Yes - Necessary

☐ No - Not necessary unless re-oiled

ADEC Rep

Comments

Existing Shoreline Condition As  
Visually Determined by ADEC

Surface Oil

| Percent              | Degree of Oiling |
|----------------------|------------------|
| <input type="text"/> | Heavy            |
| <input type="text"/> | Medium           |
| <input type="text"/> | Light            |
| <input type="text"/> | Very Light       |

100%

Subsurface Oil

☐ Yes ☐ No

Comment Below

☐ Reassessment  
☐ Yes - Necessary

☐ No - Not necessary unless re-oiled

Signature \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Printed Name \_\_\_\_\_

FOSC Rep Type A shoreline Demobilization approved / disapproved

Comments

See K6-34-SC1Signature P.J. Cormier Date 31 July 89 Time 2140Printed Name P.J. Cormier, LT, USCG

Copy: Exxon ADEC FOSC ISCC Return All Signed Originals to Exxon

ACE 1852852 +15

## TYPE A SHORELINE CLEANUP WORK ORDER

Date: 21 June 89 Shoreline Segment: SL-3Location: (Attach map) Sturgeon LagoonADEC No. K6-34 Shoreline Assessment Date: 6/04/89

Recommended Cleanup Activity(ies):

Manually remove surface oil (Type A). NO DIGGING 2' - 1.0 2"

Priority Considerations:

See Attached - Salmon Fishing Area

Ecological Constraints (from site survey):

See Attached - Do Not Remove Insects. Logix Marine Inc.

Archaeological Constraints:

If any archaeological or historical sites or artifacts are discovered during the cleanup activity, they must remain undisturbed and the Exxon archaeologist C. Mobley contacted (as per procedures in the "Guideline for Shoreline Cleanup") and the State Historic Preservation Office notified as soon as possible.

Submitted by: Jack A. Rickman  
ExxonDate: 21 June 89

State Historic Preservation Officer Telephone Approval (Required)

Date: \_\_\_\_\_

Approved: A.M. [Signature] LT, USCG  
Assistant OSC Western Alaska (If appropriate)  
By directionDate: 25 JUN 89Approved: [Signature]  
Federal On-Scene CoordinatorDate: 25 JUN 89

(version 6/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): STURGEON LAGOON BLOCK K 6-34

Includes Shoreline Segments: SL-1, SL-2, SL-3, SL-4, SL-5, SL-6,  
SL-7, SL-8, SL-9, SL-10, SL-11, SL-12, SL-13, SL-14, SL-15,  
SL-16, SL-17

Submitted: \_\_\_\_\_ Date: \_\_\_\_\_  
(for Exxon)

ISCC Recommendation: \_\_\_\_\_ Date: \_\_\_\_\_

FOSC Approval: \_\_\_\_\_ Date: \_\_\_\_\_

The cleanup procedures identified in the Shoreline Cleanup Program are recommended. Modifications to these systems can be made in the field. Exxon and other field personnel are encouraged to suggest innovations and productivity enhancements to the OSC's on-scene representative. The OSC's representative has the authority to approve on-site modifications. The Field Resource Team should be consulted if these actions do not fit within the Ecological Constraints of the Shoreline Cleanup Program. Requirements for safety and the protection of cultural material must be observed.

Distribution:

Exxon Shoreline Coordinator  
Exxon Shoreline Supervisor  
Exxon SCAT file

FOSC  
CDFU  
NOAA  
EPA  
USDA (FS)  
USFW  
A.DEC  
A.FG  
A.DNR  
CAC  
PWSCA  
USFS  
SHPO

ACE 1852854

(version 4/29/89)

SHORELINE CLEANUP PROGRAM

DATE 6/09 /89

SHORELINE SEGMENT SL-3

LOCATION: (see enclosed map) Sturgeon Lagoon-East shore of north lagoon

ADEC NO. \_\_\_\_\_ SHORELINE ASSESSMENT DATE: 6/04/89

Recommended Cleanup Activity(ies):

- Manually remove surface oil by appropriate means.

Priorities Considerations: This bay has been designated a sensitive area due to sockeye, pink and chum salmon runs.

Ecological Constraints (from site survey): Do not remove live grass from oiled grass areas. Avoid low intertidal zone mussel beds.

Archeological Constraints (from site survey):

Cleanup crews anchored in the northeast arm of the lagoon should be restricted in the active beach. If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

Charles E. Holmes  
State Historic Preservation Officer \*

Date: June 10, 1989

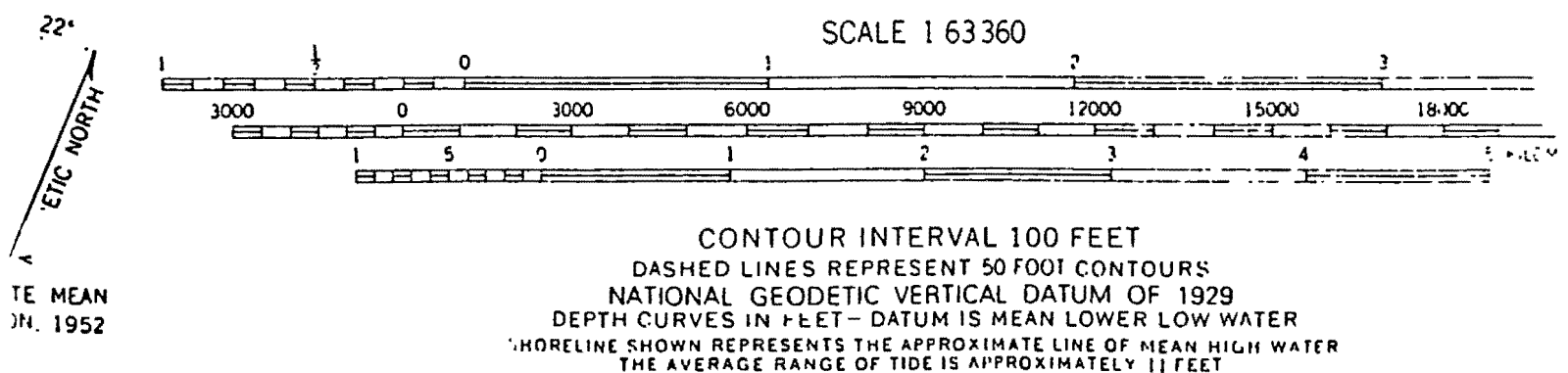
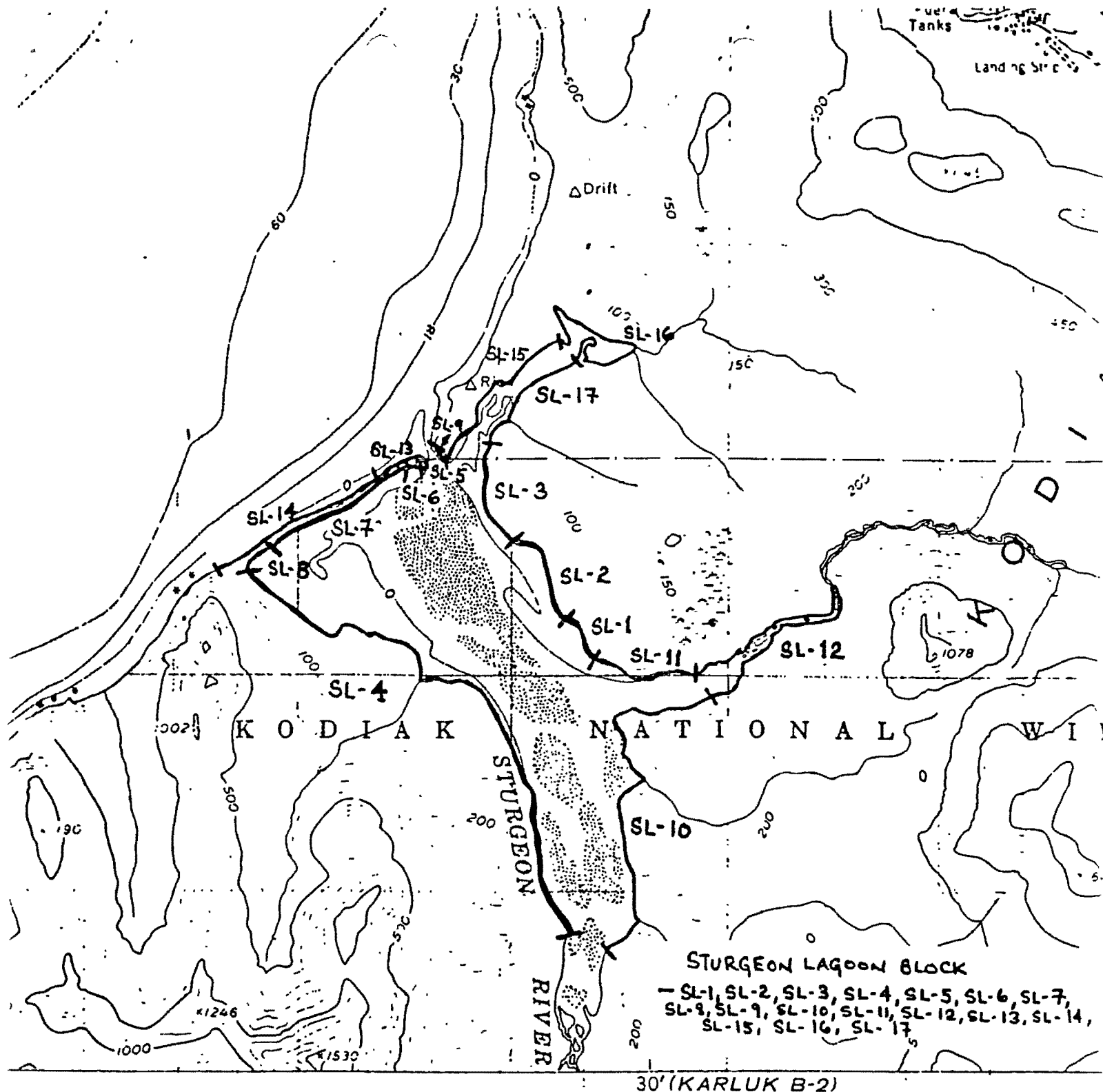
EXXON: Jack Ricken

Date: 14 June 89

FOSC: \_\_\_\_\_

Date: \_\_\_\_\_

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



(version 4/29/89)

SHORELINE CLEANUP PROGRAM

DATE 6/09 /89

SHORELINE SEGMENT SL-3

LOCATION: (see enclosed map) Sturgeon Lagoon-East shore of north lagoon

ADEC NO. K-26 SHORELINE ASSESSMENT DATE: 6/04/89

Recommended Cleanup Activity(ies):

- Manually remove surface oil by appropriate means.

Priorities Considerations: This bay has been designated a sensitive area due to sockeye, pink and chum salmon runs.

Ecological Constraints (from site survey): Do not remove live grass from oiled grass areas. Avoid low intertidal zone mussel beds.

Archeological Constraints (from site survey):

Cleanup crews anchored in the northeast arm of the lagoon should be restricted in the active beach. If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

Charles E. Holmes  
State Historic Preservation Officer \*

Date: June 10, 1989

EXXON: Jack A. Rickman

Date: 14 June 89

FOSC: \_\_\_\_\_

Date: \_\_\_\_\_

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

ACE 1852857

(Version 5/16/89)

SHORELINE OIL EVALUATION FORM - MONTAR

Date: JUNE 4/89 / Time: 11:25

Observer: D. Hawes

Surveyed From: Foot/Boat/Helio/Plane

Weather: Sun/Cloudy/Rain/Storm

LOCATION

LOCATION STURGEON LAGOON - EAST SHORE

SEGMENT I.D. SL-3

LENGTH OF SHORELINE SEGMENT: 875 m

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

SHORELINE:

Shoreline Type: SPI/BEA/COV/HLD/STFT

Slope: LAND/HANG/VEP

Wave Exposure: High/Med/Low

Sediment: S-15% / C-55% / P-15% / G 5% / S 5% / M 5% / R 5%

Drift Debris on Beach: Yes/No

Supra/Upper/Mid/Lower Type logs  
(occasional)

OIL

Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved/V. LIGHT

Total Area of Beach Impact: SU / SP / H / M / L

OIL DISTRIBUTION

Continuous: Y/N Segment % 100 No. Bands 1 Width 5-6m

Sporadic: Y/N Segment % 100 Min/Max Dia 5-25cm Impact Width 5-6m

Est. Oil Thickness where > 1cm: 5 cm SU / SP / UP / MID / LO

Est. Oil Penetration: 5 cm SU / SP / UP / MID / LO

Layers? Yes/No No# Layers 1 Oil Weathering 1

Drift Debris Oiled? Yes Supra Upper Mid Lower Amount: H / M / L 1

OIL MORPHOLOGY

Pooled Oil 0 % "Free" Oil 30 % Spattered 70 % H/H/L/VL Shown 4 %

OIL WEATHERING (OW)

Fresh Oil 0 % SU/SP/VP/MID/LO Choc Mousse 100 % SU/SP/VP/MID/LO

Pancake Mousse 0 % SU/SP/VP/MID/LO Asphalt Mousse 0 % SU/SP/VP/MID/LO

Tar Formation 0 %

Comments:

NO OBSERVED PENETRATION OF OIL  
TEXTURE OF BEACH CHANGES TO DEPTH (SEE SKETCH)  
ONE PATCH OF HERB OBSERVED  
SMALL SPLATTER/FREE OIL ON TEBBLE/COBBLE/BOULDERS AND ON BEACH SURFACE  
OIL COATING ON TINE GRASS (SOME)

ACE 1852858

DOCUMENTATION:

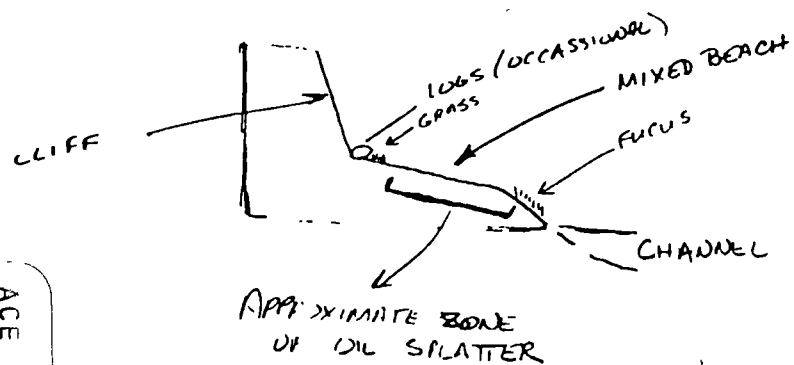
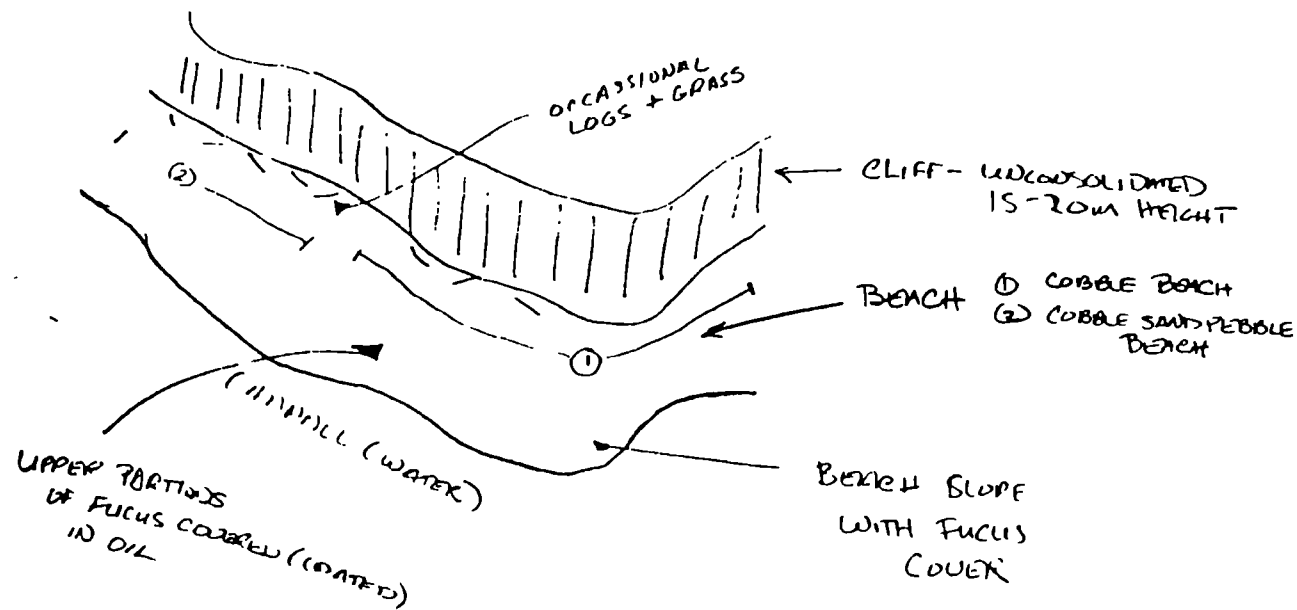
Map/Aerial photo marking segment boundaries See attached

VTR: Y/N Tape Number(s) \_\_\_\_\_

Photography: Y/N Roll Number(s) Dmc - 11

Sample Numbers Collected: N/A

SL-3



ESTIMATED CROSS-PROFILE  
OF SEGMENT

# ECOLOGICAL EVALUATION

LOCATION: Strigean Bay SITE: East shore OBSERVER: J. TAPLEY  
 LOCATION PREFIX: SL SEG. NO.: 3 LENGTH: 275 (M)  
 DATE: 6/4/89 TIME (HHMM): 1125 TIDE HT.: -0.75 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

## LIVE BIOTA

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

low ITZ - along channel -

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

low ITZ - along & in channel

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

medium to low ITZ below oil band into channel

## Littorina

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

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

OTHER OBSERVATIONS: Fucus Mytilus Balanus in low ITZ along channel  
banks healthy / Midtidal Fucus oiled / Oil in dune grass at high ITZ

CLEANUP PRECAUTIONS: If there is any cleanup, avoid low ITZ  
mussel beds & Balanus on rocks.

MAMMALS: Otters      Harbor Seals      Sea Lions      Whales       
 Other      Deer Tracks at High ITZ

BIRDS: None

GENERAL OBSERVATIONS: Oil in dune grasses and a little oiled  
drift algae high ITZ at base of grass slope  
Remove oiled drift & and oiled debris in grass, but do not remove  
live grasses.

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 6-4-89 Location Sturgeon Lagoon Site Northeast shore

Location Prefix SL Segment # 3 Length 875 m

Survey Method:

Air \_\_\_\_\_ (A - indicate on map) Boat \_\_\_\_\_ (A - indicate on map)

Ground ✓ (G - indicate on map)

Known cultural resources (AHRS #) KAR-017; KAR-101 Data Source AHRS

Oil conditions/beach visibility Light

Width of beach zone surveyed 10 m Tree fringe surveyed 5-20m

Cultural resources observed in beach zone (AHRS code) NONE

Cultural resources observed in tree fringe (AHRS code) HPS, MDN

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

Shore Profile GRAVEL, COBBLE AND BOULDER BEACH BELOW A 10M HIGH ERODED CLIFF

Fresh Water Sources NONE

Sea Exposure Protected within Sturgeon Lagoon

Access/Safety Accessible by helicopter OR BOAT

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 # CW-1 Frames 12-13

B/W Roll # \_\_\_\_\_ Frames \_\_\_\_\_

Observer(s) Mike YARBOROUGH, Chris Woolley

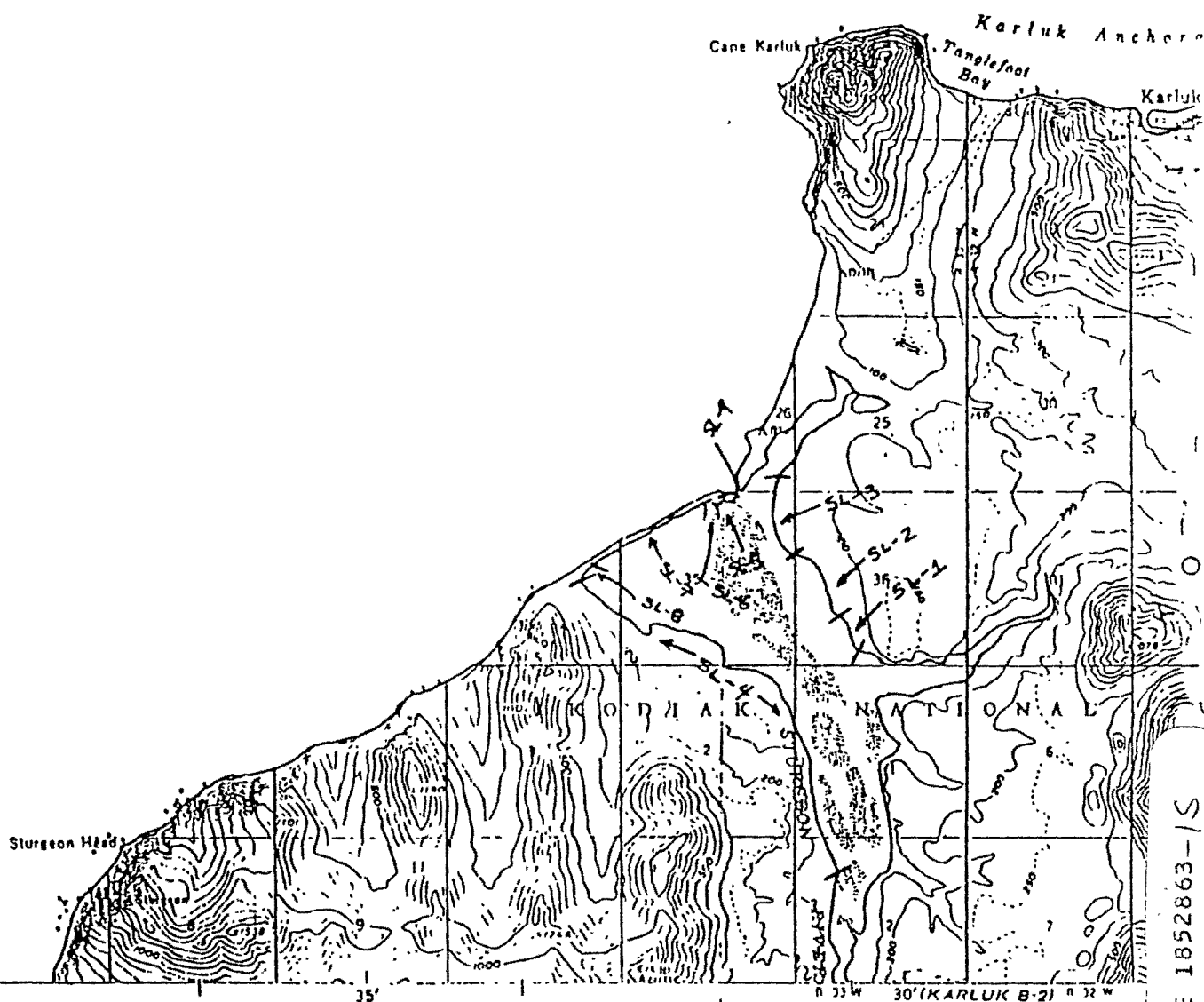
Time survey started 10:45 AM Time survey ended 12:30 PM

Cultural resource considerations/restraints:

CLEAN-UP CREWS ANCHORED IN THE NORTHEAST ARM OF THE  
LAGOON SHOULD BE RESTRICTED TO THE ACTIVE BEACH.

ACE 1852862

S H E E T



1:50,000  
 Map, edited, and published by the Geological Survey  
 by photogrammetric methods from aerial photographs  
 1952. Map not filed abroad

SCALE 1:63,360

ACE 1852863-1S

ORIGINAL

## SEGMENT INSPECTION RECORD

ADEC # K6-34

Shoreline Segment: SL-5

Shoreline Treatment Process(es) Completed for this Segment

Yards Signed Off

☐

Hot water wash

☐

Mechanical

☐

Warm water wash

☒

Non-mechanical

☐

Water deluge

☐

Other

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Exxon Comments

Signature *Jack A. Rickner*

Date

7/27/89

Time

1652

Printed Name

Jack Rickner

Existing Shoreline Condition As  
Visually Determined by USCG

Surface Oil

Percent Degree of Oiling

Heavy

Medium

Light

Very Light

100%

Subsurface Oil

☐

Yes

☐

No

Comment Below

Reassessment

☒

Yes - Necessary

☐

No - Not necessary unless re-oiled

ADEC Rep

Comments

Existing Shoreline Condition As  
Visually Determined by ADEC

Surface Oil

Percent Degree of Oiling

Heavy

Medium

Light

Very Light

100%

Subsurface Oil

☐

Yes

☐

No

Comment Below

Reassessment

☐

Yes - Necessary

☐

No - Not necessary unless re-oiled

Signature

Date

Time

Printed Name

FOSC Rep

Type A Shoreline Demobilization approved/disapproved

Comments

See K6-34-5C1

Signature

*P.J. Cormier*

Date

31 July 89

Time

2140

Printed Name

P.J. Cormier, LT, USCG

Copy: Exxon

ADEC

FOSC

ISCC

Return All Signed Originals to Exxon

ACE 18528754/5

TY: A SHORELINE CLEANUP WORK ORDER

ORIGINAL

Date: 21 June 89 Shoreline Segment: SL-5

Location: (Attach map) Sturgeon Lagoon

ADEC No. K6-34 Shoreline Assessment Date: 6/04/89

Recommended Cleanup Activity(ies):

*See attachment - Free oil, Mousse Pickup, Removal of Heavy oil on  
Rock, if FOUND. NO EXCAVATION OVER 2"  
Separate work order is needed for type B removal already  
in progress.*

Priority Considerations:

*SALMON Stream*

Ecological Constraints (from site survey):

*See Attachment*

Archaeological Constraints:

If any archaeological or historical sites or artifacts are discovered during the cleanup activity, they must remain undisturbed and the Exxon archaeologist C. Mobley contacted (as per procedures in the "Guideline for Shoreline Cleanup") and the State historic Preservation Office notified as soon as possible.

Submitted by: *Jack A. Rickner*  
Exxon

Date: 21 June 89

State Historic Preservation Officer Telephone Approval (Required)

Date: 10 June 89 *See Attachment*

Approved:

*A. M. Hansen, LT, USCG*  
Assistant OSC Western Alaska (if appropriate)  
*By direction*

Date: 25 JUN 89

Approved:

*R. B. Meyer*  
Federal On-Scene Coordinator  
*By direction*

Date: 25 JUN 89

(version 6/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): STURGEON LAGOON BLOCK *K 6-34*

Includes Shoreline Segments: SL-1, SL-2, SL-3, SL-4, SL-5, SL-6,  
SL-7, SL-8, SL-9, SL-10, SL-11, SL-12, SL-13, SL-14, SL-15,  
SL-16, SL-17

Submitted: \_\_\_\_\_ Date: \_\_\_\_\_  
(for Exxon)

ISCC Recommendation: \_\_\_\_\_ Date: \_\_\_\_\_

FOSC Approval: \_\_\_\_\_ Date: \_\_\_\_\_

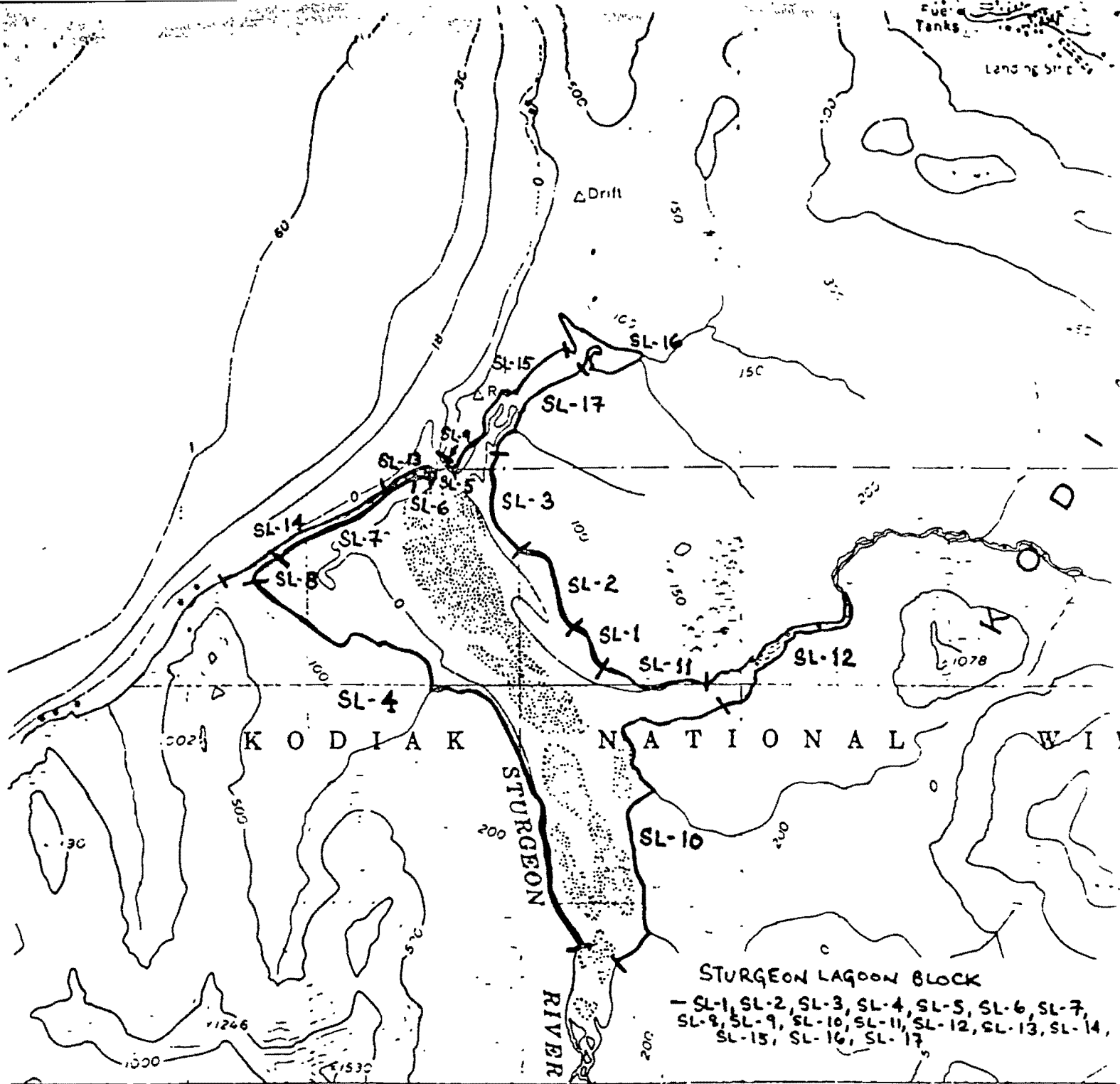
The cleanup procedures identified in the Shoreline Cleanup Program are recommended. Modifications to these systems can be made in the field. Exxon and other field personnel are encouraged to suggest innovations and productivity enhancements to the OSC's on-scene representative. The OSC's representative has the authority to approve on-site modifications. The Field Resource Team should be consulted if these actions do not fit within the Ecological Constraints of the Shoreline Cleanup Program. Requirements for safety and the protection of cultural material must be observed.

Distribution:

Exxon Shoreline Coordinator  
Exxon Shoreline Supervisor  
Exxon SCAT file

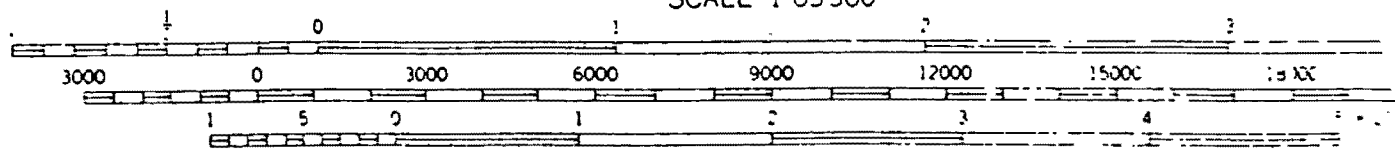
FOSC  
CDFU  
NOAA  
EPA  
USDA (FS)  
USFW  
A.DEC  
A.FG  
A.DNR  
CAC  
PWSCA  
USFS  
SHPO

ACE 1852877



30' (KARLUK B-2)

SCALE 1:63,360



CONTOUR INTERVAL 100 FEET

DASHED LINES REPRESENT 50 FOOT CONTOURS

NATIONAL GEODETIC VERTICAL DATUM OF 1929

DEPTH CURVES IN FEET - DATUM IS MEAN LOWER LOW WATER

SHORELINE SHOWN REPRESENTS THE APPROXIMATE LINE OF MEAN HIGH WATER

THE AVERAGE RANGE OF TIDE IS APPROXIMATELY 11 FEET

FOR SALE BY U S GEOLOGICAL SURVEY

ACE 1852878

FAIRBANKS ALASKA 99701 DENVER COLORADO 80225 OR RESTON VIRGINIA 22092

MAGNETIC NORTH

DATE MEAN  
ON 1952

(version 4/29/89)

SHORELINE CLEANUP PROGRAM

DATE 6/09/89

SHORELINE SEGMENT SL-5

LOCATION: (see enclosed map) Sturgeon Lagoon-West side at east  
end of Cobble Spit

ADEC NO. \_\_\_\_\_ SHORELINE ASSESSMENT DATE: 6/04/89

Recommended Cleanup Activity(ies):

- Manually remove surface oil by appropriate means. This segment may be a lower priority than SL-7.

Priorities Considerations: This bay is designated sensitive due to sockeye, pink and chum salmon runs.

Ecological Constraints (from site survey): During manual cleanup of oil coated rocks, avoid cross-contamination to lower intertidal zone and clean lagoon channel.

Archeological Constraints (from site survey):

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

Charles E. Jones  
State Historic Preservation Officer \*

Date: June 10, 1989

EXXON: Jack A. Rickman

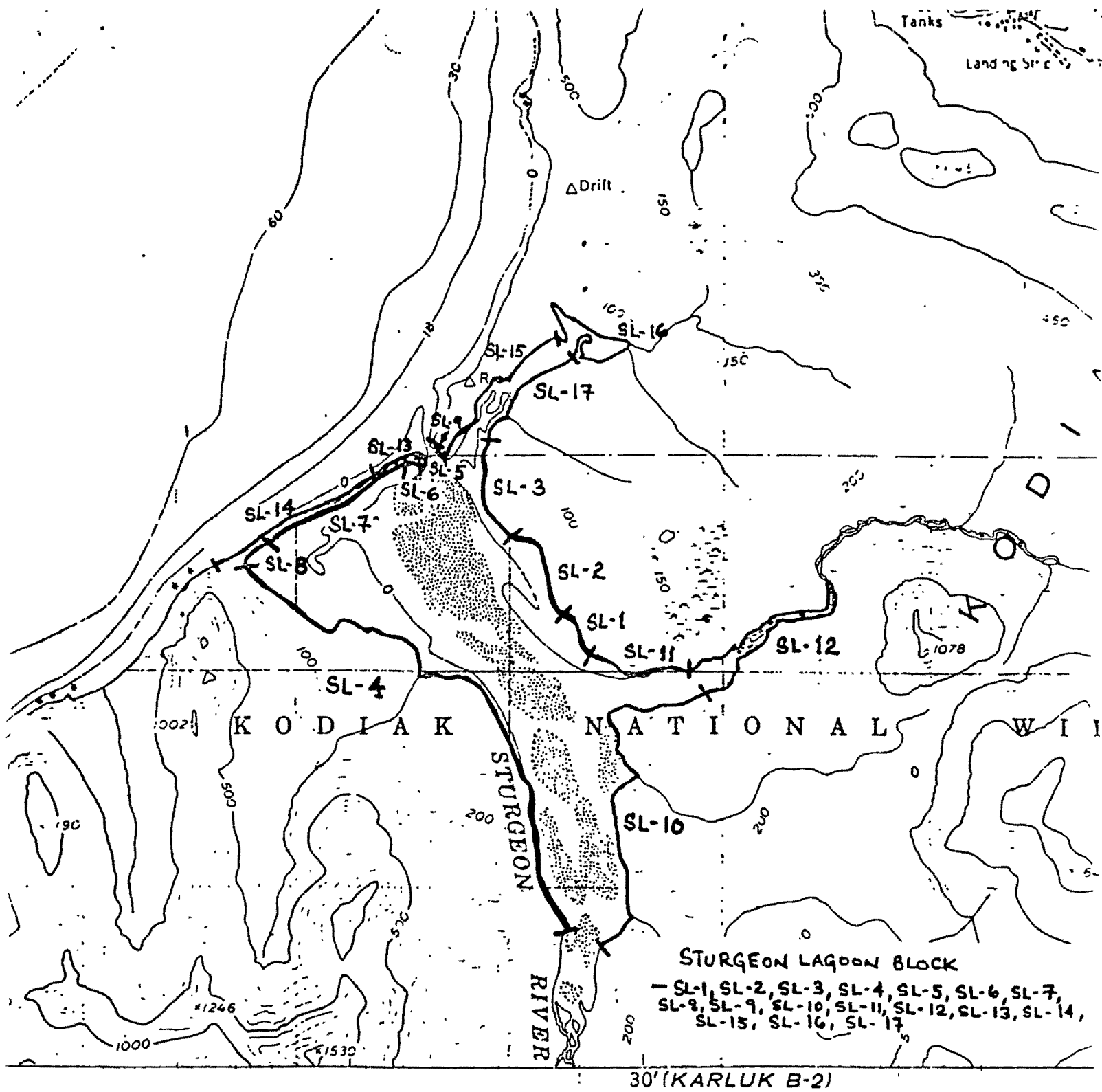
Date: 14 June 89

FOSC: \_\_\_\_\_

Date: \_\_\_\_\_

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

ACE 1852879



(version 4/29/89)

SHORELINE CLEANUP PROGRAM

DATE 6/09/89

SHORELINE SEGMENT SL-5

LOCATION: (see enclosed map) Sturgeon Lagoon-West side at east  
end of Cobble Spit

ADEC NO. K-11-1 SHORELINE ASSESSMENT DATE: 6/04/89

Recommended Cleanup Activity(ies):

- Manually remove surface oil by appropriate means. This  
segment may be a lower priority than SL-7.

Priorities Considerations: This bay is designated sensitive due  
to sockeye, pink and chum salmon runs.

Ecological Constraints (from site survey): During manual cleanup  
of oil coated rocks, avoid cross-contamination to lower inter-  
tidal zone and clean lagoon channel.

Archeological Constraints (from site survey):

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

Charles E. Holmes  
State Historic Preservation Officer \*

Date: June 10, 1989

EXXON: Jack A. Rickman

Date: 14 June 89

FOSC: \_\_\_\_\_

Date: \_\_\_\_\_

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

ACE 1852881

(version 5/16/89)

SHORELINE OIL EVALUATION FORM - FOOTAR

Date: JUNE 4/89 Time: 1400

Observer: D. HOWES

Surveyed From: Foot/Boat/Helio/Plane

Weather: Good Cloudy Drizzle

LOCATION

LOCATION STURGEON LAGOON - NORTH END

SEGMENT I.D. SL-5

LENGTH OF SHORELINE SEGMENT: 75 m

ACCESS: Foot/Vehicle Boat Barge Helio Float Plane

SHORELINE:

Shoreline Type: SPI BEA COV HLD STET

Slope: LAND HANG VEP

Wave Exposure: High/Med/Low

Sediment: B2S / C60 / P15 / G / S / M / R

Drift Debris on Beach: Yes/No Supra/Upper/Mid/Lower Type Seaweed

OIL

Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved/V. LIGHT

Total Area of Beach Impact: SU / SP H / M / L

OIL DISTRIBUTION

Continuous: Y/N Segment 100 No. Bands 1 Width 5-20cm

Sporadic: Y/N Segment 1 Min/Max Dia 1 Impact Width 1

Est. Oil Thickness where > 1cm: 1 cm SU / SP UP / MID / LO

Est. Oil Penetration: 4-9 cm SU / SP / UP / MID / LO

Layers? Yes/No No# Layers 1 Oil Weathering 1

Drift Debris Oiled? Yes/No Supra/Upper/Mid/Lower Amount: H / M / L / V

OIL MORPHOLOGY

Pooled Oil 1 "Free" Oil 86 Spattered 5 H/H/L/VL Sheen 1

OIL WEATHERING (OW)

Fresh Oil 1 SU/SP/VP/MID/LO Choc Mousse 100 SU/SP UP / MID / LO

Pancake Mousse 1 SU/SP/VP/MID/LO Asphalt Mousse 1 SU/SP/VP/MID/LO

Tar Formation 1

Comments:

NO EVIDENCE OF OIL ON DRIFT DEBRIS

PENETRATION UP TO ABOUT 10 CM FILLING IN PLACES VOIDS IN SANDS

OIL - CONTINUOUS BANDS - MOUSSE CHOCOLATE

SPATTER ON THE COBBLES

DOCUMENTATION:

Map/Aerial photo marking segment boundaries

See Attached

VTR:

Y/N

Tape Number(s)

Photography:

Y/N

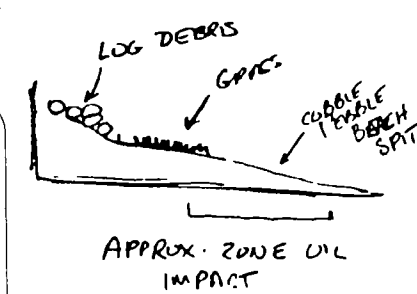
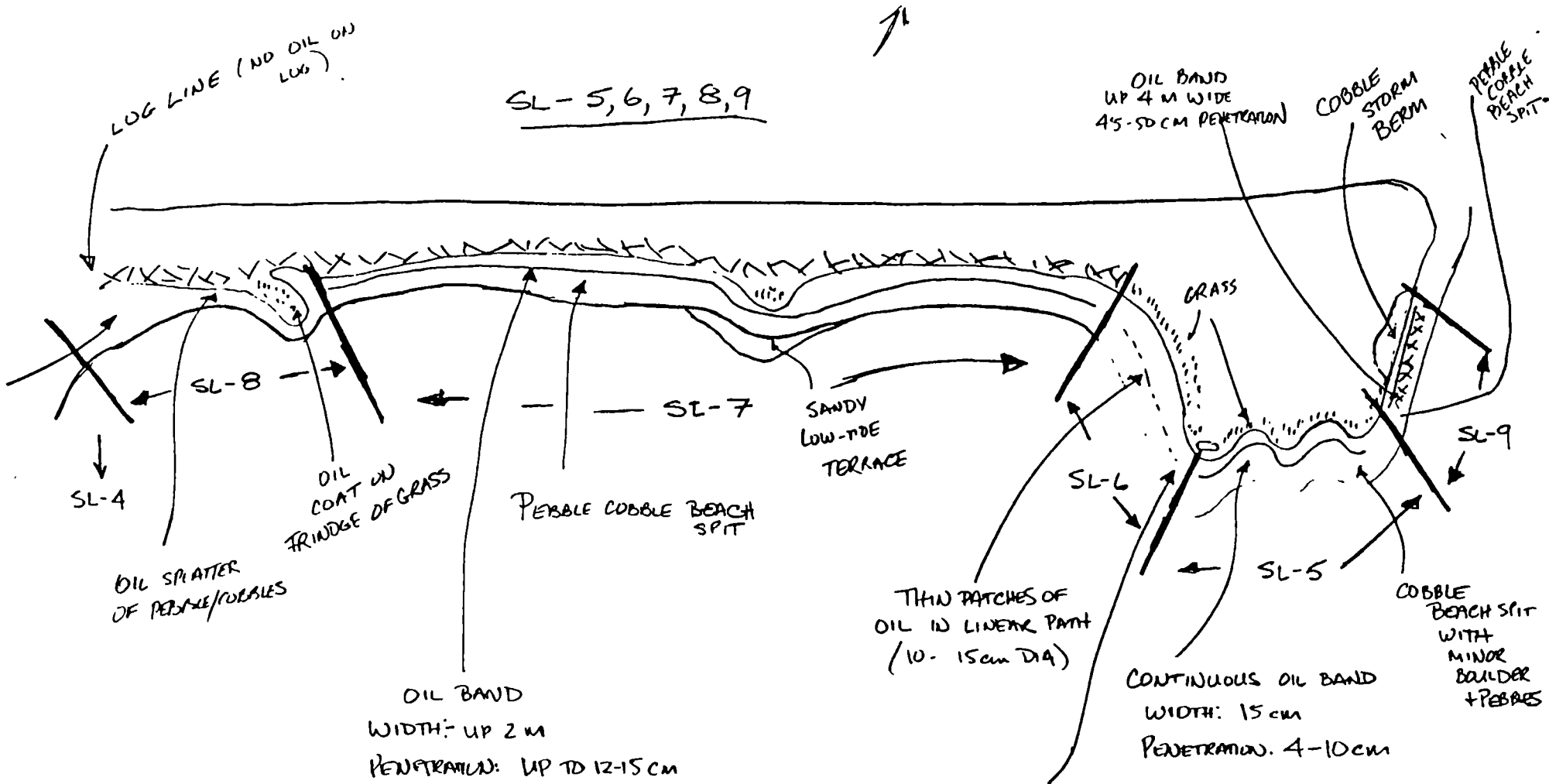
Roll Number(s)

DMC-12

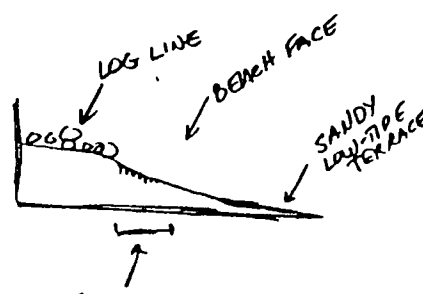
Sample Numbers Collected:

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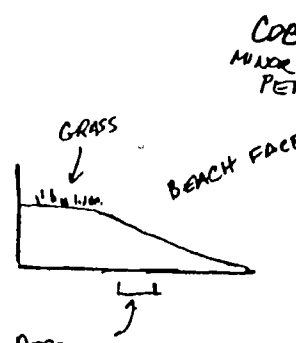
SEE  
BBLE  
ACH  
PIT



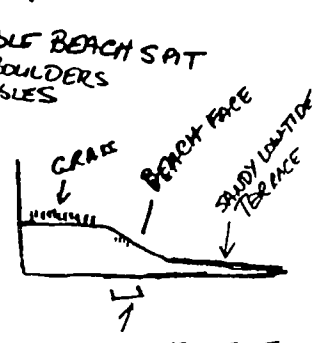
ESTIMATED CROSS-PROFILE  
SL-8



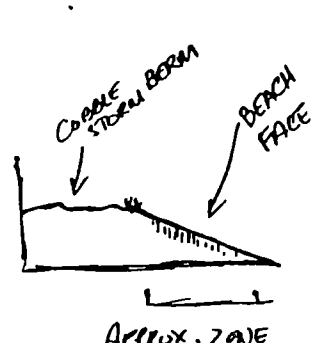
ESTIMATED CROSS-PROFILE  
SL-7



ESTIMATED PROFILE  
SL-6



ESTIMATED PROFILE  
SL-5



ESTIMATED PROFILE  
SL-9

ACE 1852884

# ECOLOGICAL EVALUATION

STATION NUMBER  
Just inside E. K. of spit on

LOCATION: NW side of lagoon entrance SITE: \_\_\_\_\_ OBSERVER: D. McCormick  
LOCATION PREFIX: SL SEG. NO.: 5 LENGTH: 7.5 (M)  
DATE: 6/4/89 TIME (HHMM): 1400 TIDE HT.: -1.0 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

## LIVE BIOTA

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

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

Very dense mussel beds

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

## Littorina

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

Sub low ITZ

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

In stream channel

OTHER OBSERVATIONS: Spongia in debris line at high ITZ; very dense population of (presumably) salmon fry associated with seaweed patches in lagoon channels, clam shells

CLEANUP PRECAUTIONS: during manual cleanup of oiled rocks stay away from clean lower ITZ.

MAMMALS: Otters \_\_\_\_\_ Harbor Seals \_\_\_\_\_ Sea Lions 3 Whales \_\_\_\_\_  
Other \_\_\_\_\_

BIRDS: Semipalmated plover

GENERAL OBSERVATIONS: This area is very rich in biota, very sensitive due to salmon populations. Any cleanup should occur away from lower ITZ so cross-contamination from oiled band at high ITZ does not take place.

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 6-4-89 Location Sturgeon Lagoon Site Coastal spit

Location Prefix SL Segment # 5 Length 75m

Survey Method:

Air \_\_\_\_\_ (A - indicate on map) Boat \_\_\_\_\_ (A - indicate on map)

Ground ✓ (G - indicate on map)

Known cultural resources (AHRS #) none Data Source \_\_\_\_\_

Oil conditions/beach visibility very light

Width of beach zone surveyed 5 m Tree fringe surveyed 10-15'

Cultural resources observed in beach zone (AHRS code) none

Cultural resources observed in tree fringe (AHRS code) none

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

Shore Profile GRASS AND TUNDRA COVERED BEACH RIDGES ABOVE A COASTAL BEACH

Fresh Water Sources none

Sea Exposure protected inside the Lagoon

Access/Safety Accessible by both BOAT AND helicopter

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 # \_\_\_\_\_ Frames \_\_\_\_\_

B/W Roll # \_\_\_\_\_ Frames \_\_\_\_\_

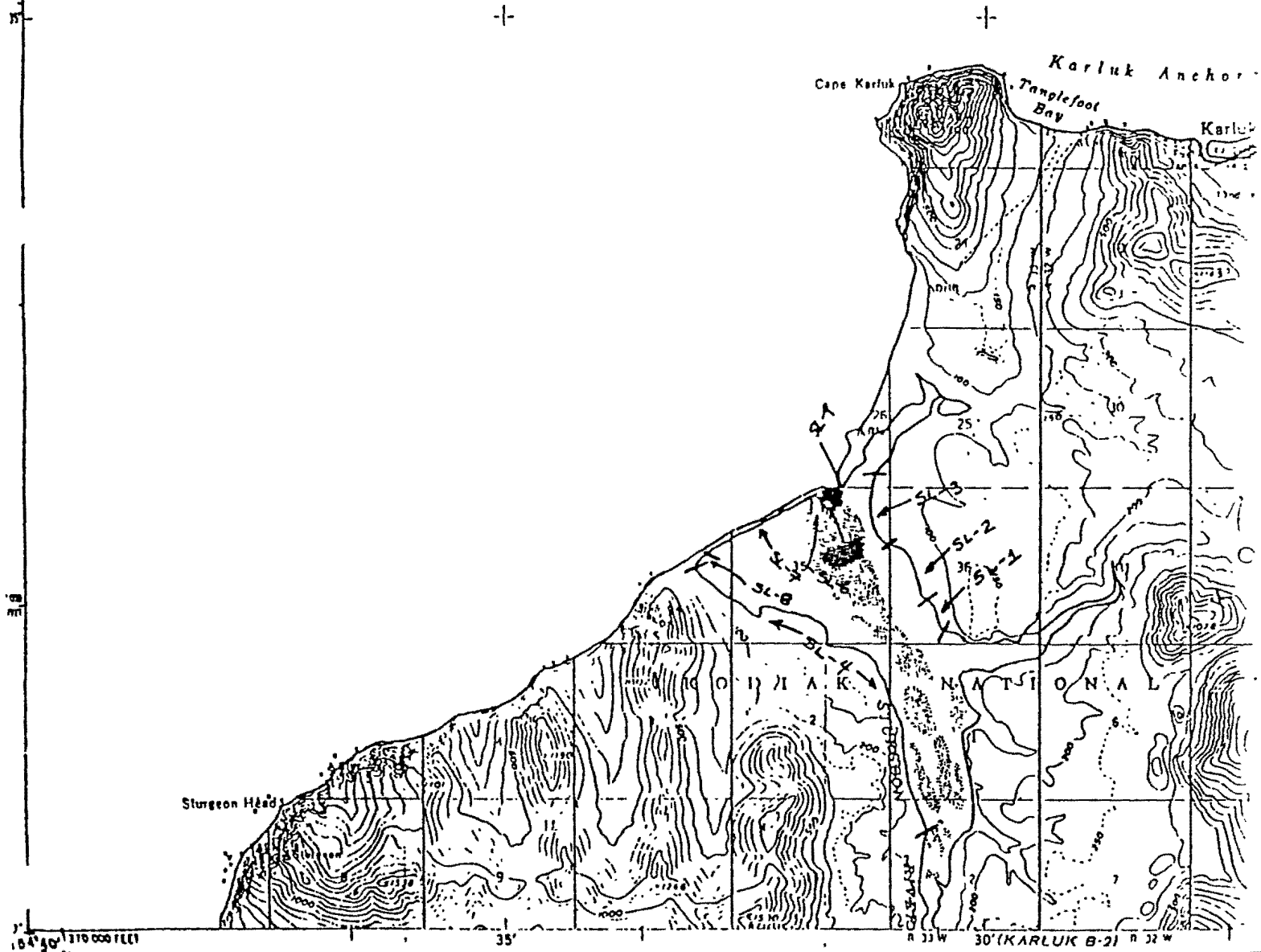
Observer(s) MIKE YARBOROUGH, CHRIS WOOLEY

Time survey started 2:00 pm Time survey ended 2:20 pm

Cultural resource considerations/restraints:

IF heretofore undiscovered cultural remains are found during  
clean-up, contact Exxon's Director of Field Archeology  
immediately.

S H E L I K



## SEGMENT INSPECTION RECORD

ADEC # K6-34Shoreline Segment: SL-6

Shoreline Treatment Process(es) Completed for this Segment

Yards Signed Off

☐

Hot water wash

☐

Mechanical

☐

Warm water wash

☒

Non-mechanical

☐

Water deluge

☐

Other

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Exxon Comments Work Orders SL-1 thru SL-7 were submitted to the Coast Guard and signed on 6/25/89. We only today 7/26/89 received the originals back and SL-6 work order was missing. we have inserted a substitute work order in its place. We can only assume that the original one was misplaced.  
A type "A" manual cleanup of surface oil, debris and mousse patties was done.

Signature Jack A RicknerDate 7/27/89Time 1652Printed Name Jack RicknerExisting Shoreline Condition As  
Visually Determined by USCG

Surface Oil

| Percent                  | Degree of Oiling |
|--------------------------|------------------|
| <input type="checkbox"/> | Heavy            |
| <input type="checkbox"/> | Medium           |
| <input type="checkbox"/> | Light            |
| <input type="checkbox"/> | Very Light       |

100%

Subsurface Oil

☐ Yes ☐ No

Comment Below

Reassessment

☒ Yes - Necessary

☐ No - Not necessary unless re-oiled

ADEC Rep

Comments

Existing Shoreline Condition As  
Visually Determined by ADEC

Surface Oil

| Percent                  | Degree of Oiling |
|--------------------------|------------------|
| <input type="checkbox"/> | Heavy            |
| <input type="checkbox"/> | Medium           |
| <input type="checkbox"/> | Light            |
| <input type="checkbox"/> | Very Light       |

100%

Subsurface Oil

☐ Yes ☐ No

Comment Below

Reassessment

☐ Yes - Necessary

☐ No - Not necessary unless re-oiled

Signature \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Printed Name \_\_\_\_\_

FOSC Rep

Demobilization approved /disapproved

Comments

Signature P J Cornier Date 31 July 89 Time 2140Printed Name P J. Cornier

Copy: Exxon ADEC FOSC ISCC Return All Signed Originals to Exxon

ACE 1852888+15

# TYPE A SHORELINE CLEANUP WORK ORDER

Date 6/21/89

Shoreline Segment SL-6

## Location (see map)

Sturgeon Lagoon

ADEC No. K6-34

Shoreline assessment date 6/4/89

## Recommended Cleanup Activities

Type A Cleanup only. Manual removal of surface oil, debris, and mousse patties

## Priority Considerations

This bay has been designated sensitive, due to sockeye, pink and chum salmon runs.

## Ecological Constraints

Stay out of lower intertidal zone. Do not allow oil to get into water channels.

## Archaeological Constraints (from site survey)

If any archaeological or historical sites or artifacts are discovered during the clean up activity, they must remain undisturbed and the Exxon archaeologist Jim Haggarty contacted (486-5680) (take action prescribed in the "Guideline for Shoreline Cleanup" dated 4/21/89 as ammended ).

Submitted by:

Exxon

Date

Approved:

Federal On-Scene Coordinator Representative

Date

(version 6/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): STURGEON LAGOON BLOCK K6-34

Includes Shoreline Segments: SL-1, SL-2, SL-3, SL-4, SL-5, SL-6,  
SL-7, SL-8, SL-9, SL-10, SL-11, SL-12, SL-13, SL-14, SL-15,  
SL-16, SL-17

Submitted: \_\_\_\_\_ Date: \_\_\_\_\_  
(for Exxon)

ISCC Recommendation: \_\_\_\_\_ Date: \_\_\_\_\_

FOSC Approval: \_\_\_\_\_ Date: \_\_\_\_\_

The cleanup procedures identified in the Shoreline Cleanup Program are recommended. Modifications to these systems can be made in the field. Exxon and other field personnel are encouraged to suggest innovations and productivity enhancements to the OSC's on-scene representative. The OSC's representative has the authority to approve on-site modifications. The Field Resource Team should be consulted if these actions do not fit within the Ecological Constraints of the Shoreline Cleanup Program. Requirements for safety and the protection of cultural material must be observed.

**Distribution:**

Exxon Shoreline Coordinator  
Exxon Shoreline Supervisor  
Exxon SCAT file

FOSC  
CDFU  
NOAA  
EPA  
USDA (FS)  
USFW  
A.DEC  
A.FG  
A.DNR  
CAC  
PWSCA  
USFS  
SHPO

ACE 1852890

(version 4/29/89)

SHORELINE CLEANUP PROGRAM

DATE 6/09/89

SHORELINE SEGMENT SL-6

LOCATION: (see enclosed map) Inside hook of southwest Spit of  
Sturgeon Lagoon

ADEC NO. 86-34 SHORELINE ASSESSMENT DATE: 6/04/89

Recommended Cleanup Activity(ies):

- Manually remove surface oil by appropriate means.

Priorities Considerations: This bay has been designated sensitive, due to sockeye, pink and chum salmon runs.

Ecological Constraints (from site survey): Stay out of lower intertidal zone. Do not allow oil to get into water channels.

Archeological Constraints (from site survey):

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

Charles E. Hines  
State Historic Preservation Officer \*

Date: June 10, 1989

EXXON: Jack A. Rickman

Date: 14 June 89

FOSC: \_\_\_\_\_

Date: \_\_\_\_\_

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

(version 5/16/89)

SHORELINE OIL EVALUATION FORM - KONTAK

Date: JUNE 4/89 Time: 14:20

Observer: D. HOWES

Surveyed From: Foot/Boat/Helio/Plane

Weather: Sun/Cloudy/Rain/Snow/Fog

LOCATION

LOCATION STURGEDA LAGOON - NORTH END

SEGMENT I.D. SL-6

LENGTH OF SHORELINE SEGMENT: 50 m

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

SHORELINE:

Shoreline Type: SPI/BEA/COV/HLD/STRT

Slope: LANG/HANG/VER

Wave Exposure: High/Med/Low

Sediment: B 10% / C 15% / P 15% / G \_\_\_% / S \_\_\_% / M \_\_\_% / R \_\_\_%

Drift Debris on Beach: Yes/No Supra/Upper/Mid/Lower Type Seaweed

OIL

Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved V. LIGHT

Total Area of Beach Impact: SU / SP H / M / L

OIL DISTRIBUTION

Continuous: Y/N Segment % \_\_\_ No. Bands \_\_\_ Width \_\_\_

Sporadic: Y/N Segment % 100 Min/Max Dia 10-15cm Impact Width 1-2m

Est. Oil Thickness where > 1cm: \_\_\_ cm SU / SP / UP / MID / LO

Est. Oil Penetration: 2-4 cm SU / SP / UP / MID / LO

Layers? Yes/No No# Layers \_\_\_ Oil Weathering \_\_\_

Drift Debris Oiled? Yes/No Supra/Upper/Mid/Lower Amount: H / M / L / VL

OIL MORPHOLOGY

Pooled Oil \_\_\_% "Free" Oil 30% Spattered 70% H/M/L/VL Sheen \_\_\_

OIL WEATHERING (OW)

Fresh Oil \_\_\_% SU/SP/VP/MID/LO Choc Mousse 100% SU/SP/VP/MID/LO

Pancake Mousse \_\_\_% SU/SP/VP/MID/LO Asphalt Mousse \_\_\_% SU/SP/VP/MID/LO

Tar Formation \_\_\_%

Comments:

OIL - SPLATTER ON BOULDERS/CORALS  
- FREE OIL SPLATS ON BEACH SEDIMENTS  
MOST OIL APPEARS TO BE ON THE WAX SURFACE 2-4 CM PENETRATION

ACE 1852892

DOCUMENTATION:

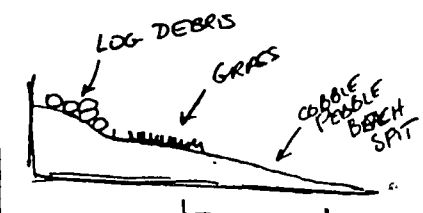
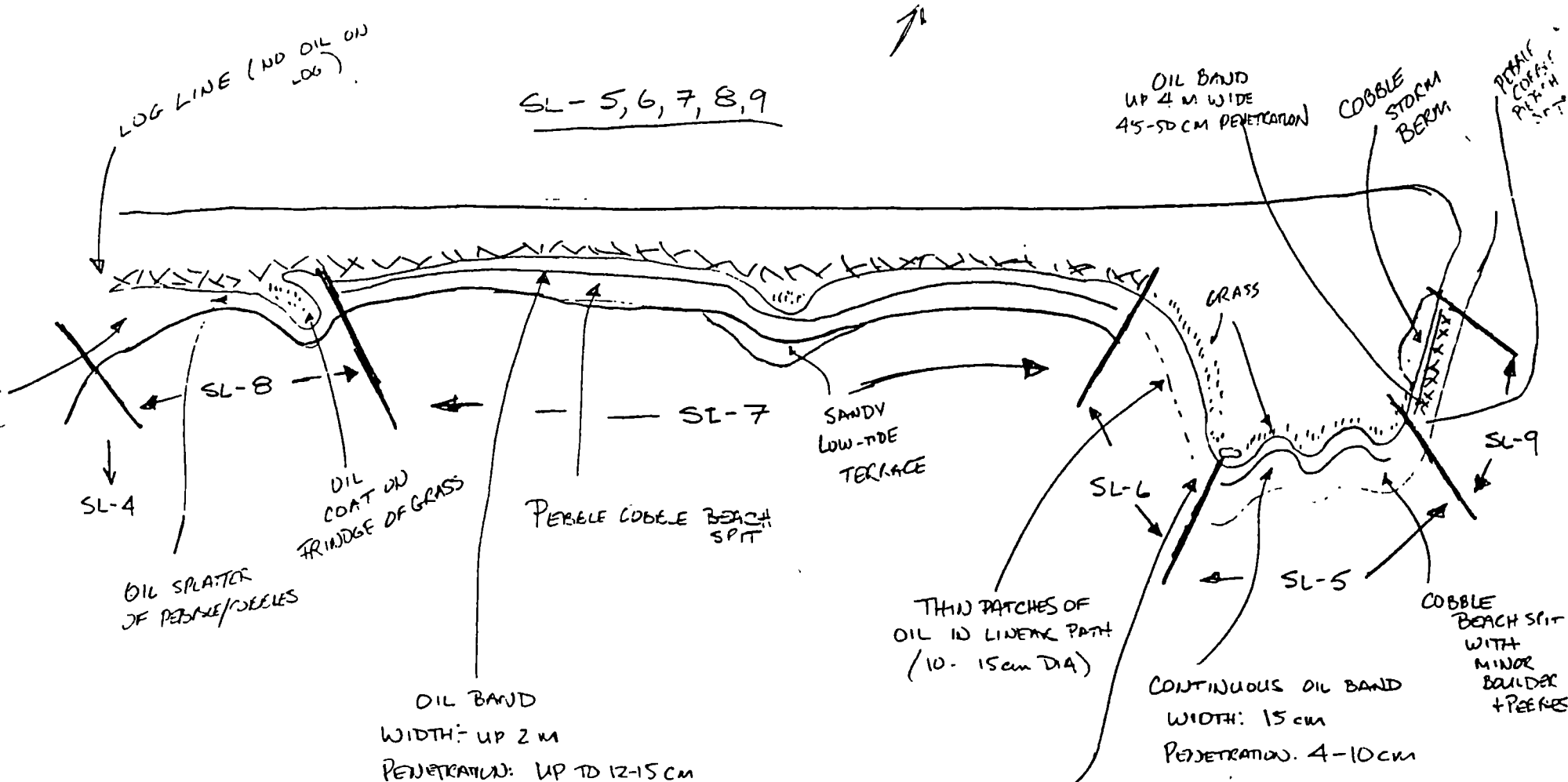
Map/Aerial photo marking segment boundaries See attached

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Photography: Y/N Roll Number(s) Dmc-12

Sample Numbers Collected: N/A

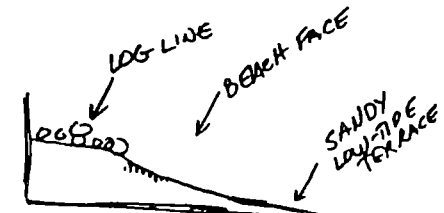
586  
EBB...  
FLCH  
PIT



APPROX. ZONE OIL IMPACT

ESTIMATED CROSS-PROFILE

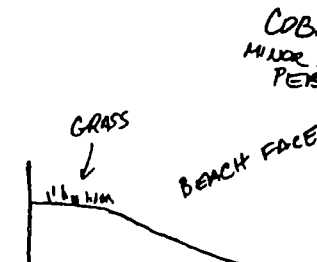
SL-8



APPROX. ZONE OF IMPACT

ESTIMATED CROSS-PROFILE

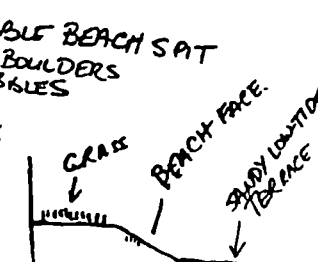
SL-7



APPROX. ZONE OF IMPACT

ESTIMATED PROFILE

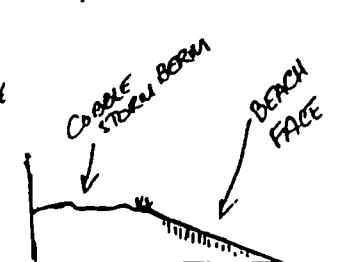
SL-6



APPROX. ZONE OF IMPACT

ESTIMATED PROFILE

SL-5



APPROX. ZONE OF IMPACT

ESTIMATED PROFILE

SL-9

ACE 1852894

# ECOLOGICAL EVALUATION

LOCATION: Sturgeon Bay SITE: Inside hulk of ship OBSERVER: J. Tappin  
 LOCATION PREFIX: SL SEG. NO.: 6 LENGTH: 50m (M)  
 DATE: 6/4/89 TIME (HHMM): 1410 TIDE HT.: +0.80 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

## LIVE BIOTA

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

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

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

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

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

OTHER OBSERVATIONS: \_\_\_\_\_

CLEANUP PRECAUTIONS: NONE

MAMMALS: Otters \_\_\_\_\_ Harbor Seals \_\_\_\_\_ Sea Lions \_\_\_\_\_ Whales \_\_\_\_\_  
 other NONE

BIRDS: NONE

GENERAL OBSERVATIONS: Drift is oiled in places. Clean-up procedures  
already taking place along this segment. Avoid low tide  
If oil gets into stream flows may have impact on salmon

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 6-4-89 Location Sturgeon Lagoon Site COBBLE SPIT

Location Prefix SL Segment # 6 Length 50 m

Survey Method:

Air \_\_\_\_\_ (A - indicate on map) Boat \_\_\_\_\_ (A - indicate on map)

Ground ✓ (G - indicate on map)

Known cultural resources (AHRS #) NONE Data Source \_\_\_\_\_

Oil conditions/beach visibility Very Light

Width of beach zone surveyed 5 m Tree fringe surveyed -

Cultural resources observed in beach zone (AHRS code) NONE

Cultural resources observed in tree fringe (AHRS code) NONE

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

Shore Profile DRIFTWOOD topped COBBLE SPIT

Fresh Water Sources NONE

Sea Exposure protected inside the Lagoon

Access/Safety Accessible by BOTH BOAT AND helicopter

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 # \_\_\_\_\_ Frames \_\_\_\_\_

B/W Roll # \_\_\_\_\_ Frames \_\_\_\_\_

Observer(s) MIKE YARBOROUGH, CHRIS WOOLEY

Time survey started 2:20 pm Time survey ended 2:30 pm

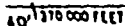
Cultural resource considerations/restraints:

IF heretofore undiscovered cultural remains are found

during clean-up, contact Exxon's Director of Field

Archaeology immediately

+



22.

ACE 1852897-1S

## SEGMENT INSPECTION RECORD

ADEC # K6-34Shoreline Segment: SL-7

Shoreline Treatment Process(es) Completed for this Segment

Yards Signed Off

|                                          |                                                    |
|------------------------------------------|----------------------------------------------------|
| <input type="checkbox"/> Hot water wash  | <input type="checkbox"/> Mechanical                |
| <input type="checkbox"/> Warm water wash | <input checked="" type="checkbox"/> Non-mechanical |
| <input type="checkbox"/> Water deluge    | <input type="checkbox"/> Other                     |

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Exxon Comments

Signature Jack A Rickner Date 7/27/89 Time 1652Printed Name Jack RicknerExisting Shoreline Condition As  
Visually Determined by USCG  
Surface Oil

| Percent              | Degree of Oiling |
|----------------------|------------------|
| <input type="text"/> | Heavy            |
| <input type="text"/> | Medium           |
| <input type="text"/> | Light            |
| <input type="text"/> | Very Light       |

100%

Subsurface Oil

☐ Yes ☐ No

Comment Below

☒ Reassessment  
Yes - Necessary☐ No - Not necessary unless re-oiled

ADEC Rep

Comments

Existing Shoreline Condition As  
Visually Determined by ADEC  
Surface Oil

| Percent              | Degree of Oiling |
|----------------------|------------------|
| <input type="text"/> | Heavy            |
| <input type="text"/> | Medium           |
| <input type="text"/> | Light            |
| <input type="text"/> | Very Light       |

100%

Subsurface Oil

☐ Yes ☐ No

Comment Below

☐ Reassessment  
Yes - Necessary☐ No - Not necessary unless re-oiled

Signature \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Printed Name \_\_\_\_\_

FOSC Rep Type A Shoreline Demobilization approved/disapproved

Comments

See K 6-34-541Signature R.J. Cormier Date 31 July 89 Time 2140Printed Name R.J. Cormier, LT USCG

Copy: Exxon ADEC FOSC ISCC Return All Signed Originals to Exxon

# TYPE A SHORELINE CLEANUP WORK ORDER

ORIGINAL

Date: 21 June 89 Shoreline Segment: SL-7

Location: (Attach map) Sturgeon Lagoon

ADEC No. K6-34 Shoreline Assessment Date: 6/04/89

## Recommended Cleanup Activity(ies):

Type A cleanup, manual removal of surface oil. See Attachment.  
Do NOT remove more than 2" of sediment and only that when required. Upon completion of surface cleanup, reevaluation of beach condition will be conducted.

## Priority Considerations:

Attached - Section Stream

## Ecological Constraints (from site survey):

Attached

## Archaeological Constraints:

If any archaeological or historical sites or artifacts are discovered during the cleanup activity, they must remain undisturbed and the Exxon archaeologist C. Mobley contacted (as per procedures in the "Guideline for Shoreline Cleanup") and the State Historic Preservation Office notified as soon as possible.

Submitted by: Jack A. Ruckner  
Exxon

Date: 21 June 89

## State Historic Preservation Officer Telephone Approval (Required)

Date: 10 June 89 See Attachment

Approved: A. M. [Signature] LT. USCG  
Assistant OSC Western Alaska (if appropriate)  
By direction

Date: 25 JUN 89

Approved: [Signature]  
Federal On-Scene Coordinator  
By direction

Date: 25 JUN 89

4/30/89

ACE 1852899

(version 6/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): STURGEON LAGOON BLOCK K6-34

Includes Shoreline Segments: SL-1, SL-2, SL-3, SL-4, SL-5, SL-6,  
SL-7, SL-8, SL-9, SL-10, SL-11, SL-12, SL-13, SL-14, SL-15,  
SL-16, SL-17

Submitted: \_\_\_\_\_ Date: \_\_\_\_\_  
(for Exxon)

ISCC Recommendation: \_\_\_\_\_ Date: \_\_\_\_\_

FOSC Approval: \_\_\_\_\_ Date: \_\_\_\_\_

The cleanup procedures identified in the Shoreline Cleanup Program are recommended. Modifications to these systems can be made in the field. Exxon and other field personnel are encouraged to suggest innovations and productivity enhancements to the OSC's on-scene representative. The OSC's representative has the authority to approve on-site modifications. The Field Resource Team should be consulted if these actions do not fit within the Ecological Constraints of the Shoreline Cleanup Program. Requirements for safety and the protection of cultural material must be observed.

Distribution:

Exxon Shoreline Coordinator  
Exxon Shoreline Supervisor  
Exxon SCAT file

FOSC  
CDFU  
NOAA  
EPA  
USDA (FS)  
USFW  
A.DEC  
A.FG  
A.DNR  
CAC  
PWSCA  
USFS  
SHPO

ACE 1852900

(version 4/29/89)

SHORELINE CLEANUP PROGRAM

DATE 6/09/89

SHORELINE SEGMENT SL-7

LOCATION: (see enclosed map) Sturgeon Lagoon-Northwest side of  
lagoon entrance, lagoon side of Cobble Spit.

ADEC NO. \_\_\_\_\_ SHORELINE ASSESSMENT DATE: 6/04/89

Recommended Cleanup Activity(ies):

- Manually remove surface oil by appropriate means. Emphasis of cleanup should be placed on the upper margin of the band where oil is concentrated. (see ecological constraints below)

Priorities Considerations: This bay is designated sensitive, due to sockeye, pink and chum salmon runs.

Ecological Constraints (from site survey): During manual cleanup of oil-coated rocks, avoid cross-contamination to lower inter-tidal zone and clean lagoon channel.

Archeological Constraints (from site survey):

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

Charles E. Adams

State Historic Preservation Officer \*

Date: June 10, 1989

EXXON: Jack A. Rickner

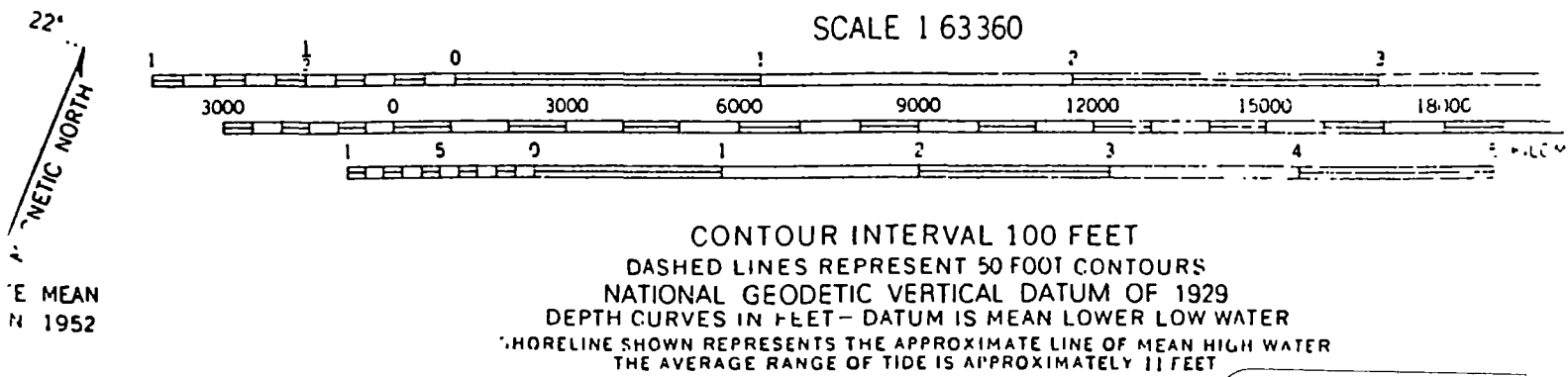
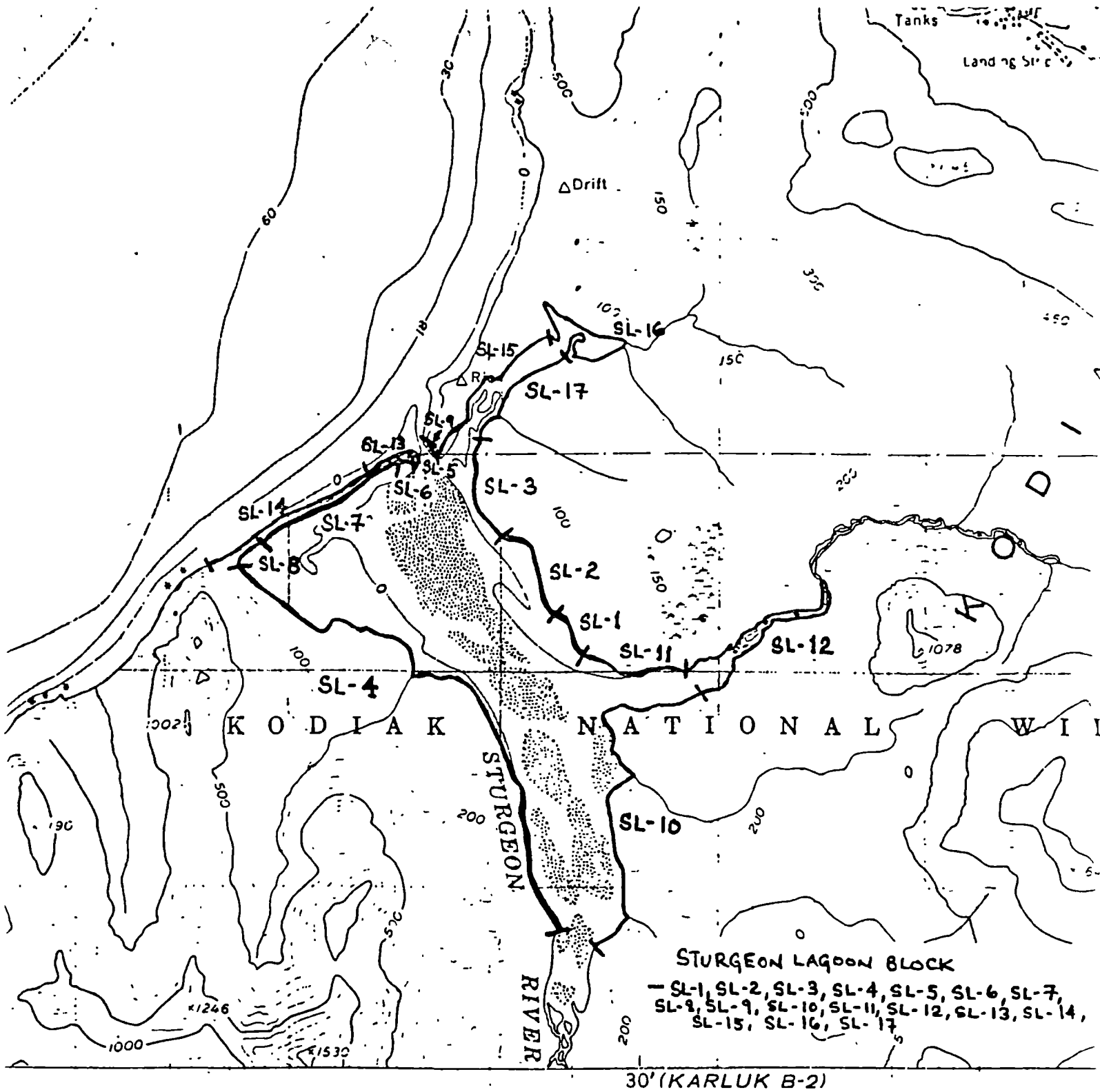
Date: 14 June 89

FOSC: \_\_\_\_\_

Date: \_\_\_\_\_

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

ACE 1852901



(version 4/29/89)

SHORELINE CLEANUP PROGRAM

DATE 6/09/89

SHORELINE SEGMENT SL-7

LOCATION: (see enclosed map) Sturgeon Lagoon-Northwest side of  
lagoon entrance, lagoon side of Cobble Spit.

ADEC NO. K6-30 SHORELINE ASSESSMENT DATE: 6/04/89

Recommended Cleanup Activity(ies):

- Manually remove surface oil by appropriate means. Emphasis of cleanup should be placed on the upper margin of the band where oil is concentrated. (see ecological constraints below)

Priorities Considerations: This bay is designated sensitive, due to sockeye, pink and chum salmon runs.

Ecological Constraints (from site survey): During manual cleanup of oil-coated rocks, avoid cross-contamination to lower inter-tidal zone and clean lagoon channel.

Archeological Constraints (from site survey):

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

Charles E. Adams  
State Historic Preservation Officer \*

Date: June 10, 1989

EXXON: Jack A. Rickner

Date: 14 June 89

FOSC: \_\_\_\_\_

Date: \_\_\_\_\_

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

(version 5/16/89)

SHORELINE OIL EVALUATION FORM - KONTAK

Date: Jun 29 / Time: 14:30

Observer: D. HOWES

Surveyed From: Foot/Boat/Helio/Plane

Weather: Sun Cloud Rain Snow Fog

LOCATION

LOCATION STURGEON LAGOON - NORTH END

SEGMENT I.D. SL-7

LENGTH OF SHORELINE SEGMENT: 1320 m

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

SHORELINE:

Shoreline Type: SPI/BEA/COV/HLD/STFT

Slope: LAKE HANG/VER

Wave Exposure: High/Med/Low

Sediment: B&D / C&G / P&S / G / S / M / R

Drift Debris on Beach: Yes/No Supra/Upper/Mid/Lower Type logs

OIL

Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved/V. LIGHT

Total Area of Beach Impact: SU / SP / H / M / L

OIL DISTRIBUTION

Continuous: Y/N Segment % 100 No. Bands 1 Width 1.5-2.5m

Sporadic: Y/N Segment %        Min/Max Dia        Impact Width       

Est. Oil Thickness where > 1cm: 2 cm SU / SP / UP / MID / LO

Est. Oil Penetration: 12 cm SU / SP / UP / MID / LO

Layers? Yes/No No# Layers        Oil Weathering       

Drift Debris Oiled? Yes/No Supra/Upper/Mid/Lower Amount: H / H / L / VL

OIL MORPHOLOGY

Pooled Oil        % "Free" Oil 85 % Spattered 15 % H/H/L/VL Sheen %

OIL WEATHERING (OW)

Fresh Oil        % SU/SP/VP/MID/LO Choc Mousse 100 % SU/SP/VP/MID/LO

Pancake Mousse        % SU/SP/VP/MID/LO Asphalt Mousse        % SU/SP/VP/MID/LO

Tar Formation        %

Comments:

OIL - choc mousse in band varies in thickness from <1cm to about 2cm, it is thicker  
on its upper end & fills voids between rock particles  
- choc mousse splatter on the cobbles & boulders on the surface

\* NOTE: THE OIL IS THICKER AND MORE CONCENTRATED AT THE UPPER MARGIN & CLEANUP SHOULD  
FOCUS ON THIS PORTION OF THE BAND

DOCUMENTATION:

Map Aerial photo marking segment boundaries See Attached

VTR: Y/N Tape Number(s) \_\_\_\_\_

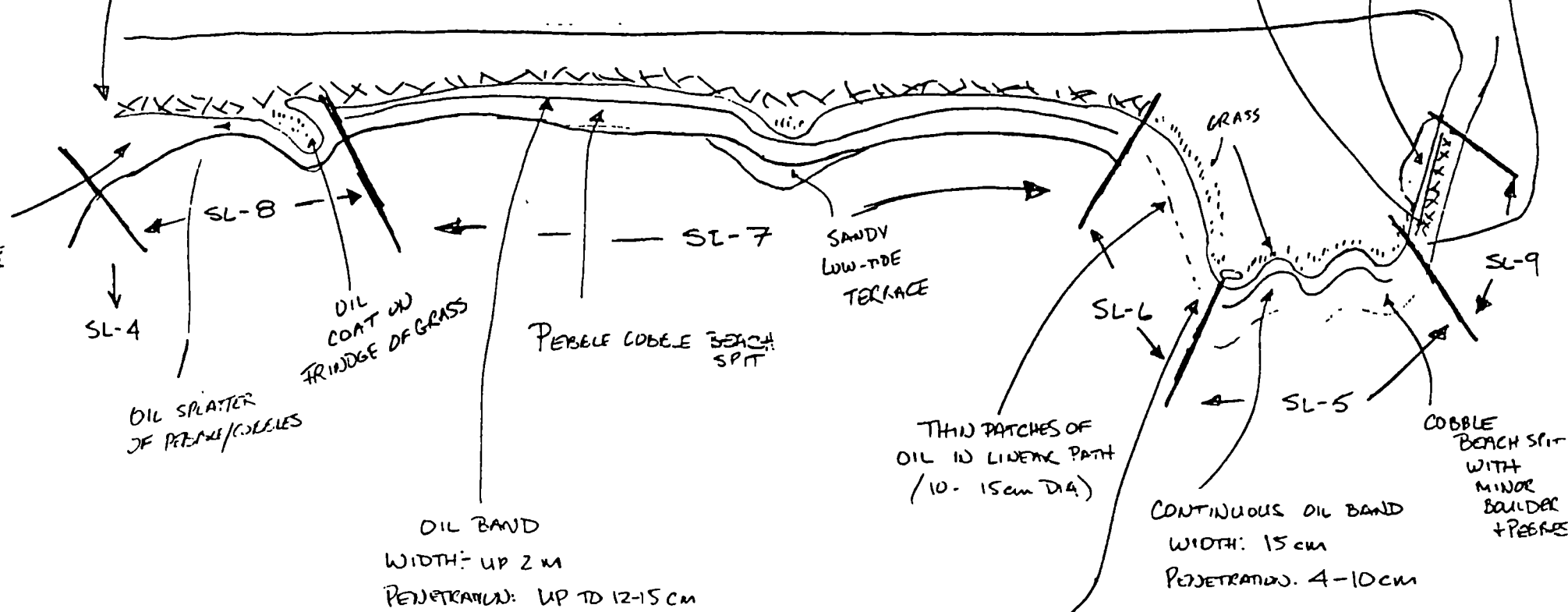
Photography: Y/N Roll Number(s) DMC-12

Sample Numbers Collected: N/A

SE EBBING  
W/CH  
SPIT

SL-5,6,7,8,9

LOG LINE (NO OIL ON LOG)

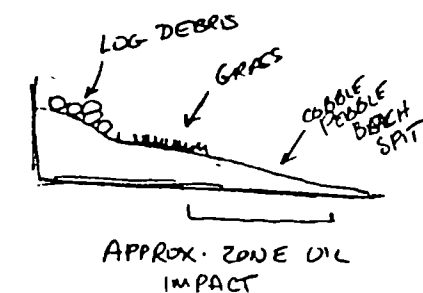


OIL BAND  
WIDTH: UP 2 M  
PENETRATION: UP TO 12-15 CM

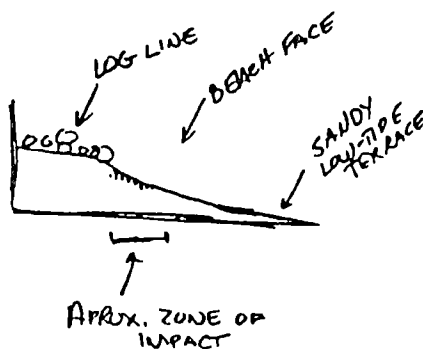
THIN PATCHES OF  
OIL IN LINEAR PATH  
(10-15 cm DIA)

CONTINUOUS OIL BAND  
WIDTH: 15 cm  
PENETRATION: 4-10 cm

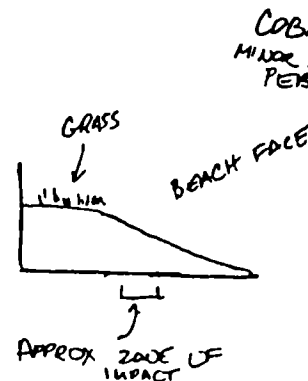
COBBLE BEACH SPIT  
WITH  
MINOR  
BOULDER  
+ PEBBLES



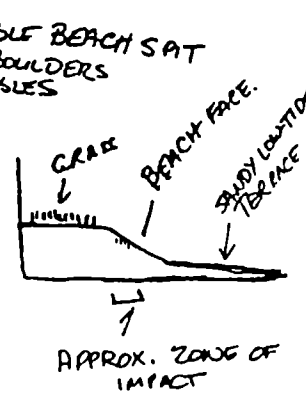
ESTIMATED CROSS-PROFILE  
SL-8



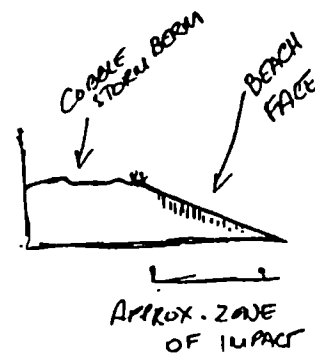
ESTIMATED CROSS-PROFILE  
SL-7



ESTIMATED PROFILE  
SL-6



ESTIMATED PROFILE  
SL-5



ESTIMATED PROFILE  
SL-9

ACE 1852906

# STURGEON LAGOON ECOLOGICAL EVALUATION

lagoon side of cobble spit

LOCATION: NW side of lagoon entrance SITE: \_\_\_\_\_ OBSERVER: D. McCormick

LOCATION PREFIX: SL SEG. NO.: 7 LENGTH: 1313 (M)

DATE: 6/4/89 TIME (HHMM): 1430 TIDE HT.: 1.50 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

## LIVE BIOTA

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

Present at high ITZ debris line

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

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

## Littorina

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

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

OTHER OBSERVATIONS: sponges in debris line at high ITZ; crab carapaces

CLEANUP PRECAUTIONS: Avoid cross-contamination to lower, clean ITZ.

MAMMALS: Otters \_\_\_\_\_ Harbor Seals \_\_\_\_\_ Sea Lions \_\_\_\_\_ Whales \_\_\_\_\_  
Other \_\_\_\_\_

BIRDS: plovers, eagles

GENERAL OBSERVATIONS: Clean-up already taking place by native group; oil is present as mousse on underside of rocks.

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 6-4-89 Location Sturgeon Lagoon Site COBBLE SPIT

Location Prefix SL Segment # 7 Length 1320

Survey Method:

Air \_\_\_\_\_ (A - indicate on map) Boat \_\_\_\_\_ (A - indicate on map)

Ground ✓ (G - indicate on map)

Known cultural resources (AHRS #) NONE Data Source \_\_\_\_\_

Oil conditions/beach visibility Light

Width of beach zone surveyed 5 m Tree fringe surveyed -

Cultural resources observed in beach zone (AHRS code) NONE

Cultural resources observed in tree fringe (AHRS code) NONE

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

Shore Profile DRIFT wood topped COBBLE spit

Fresh Water Sources NONE

Sea Exposure Protected inside the Lagoon

Access/Safety Accessible by BOTH BOAT and helicopter

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 # \_\_\_\_\_ Frames \_\_\_\_\_

B/W Roll # \_\_\_\_\_ Frames \_\_\_\_\_

Observer(s) MIKE YARBOROUGH, CHRIS WOOLEY

Time survey started 2:30 pm Time survey ended 3:00 pm

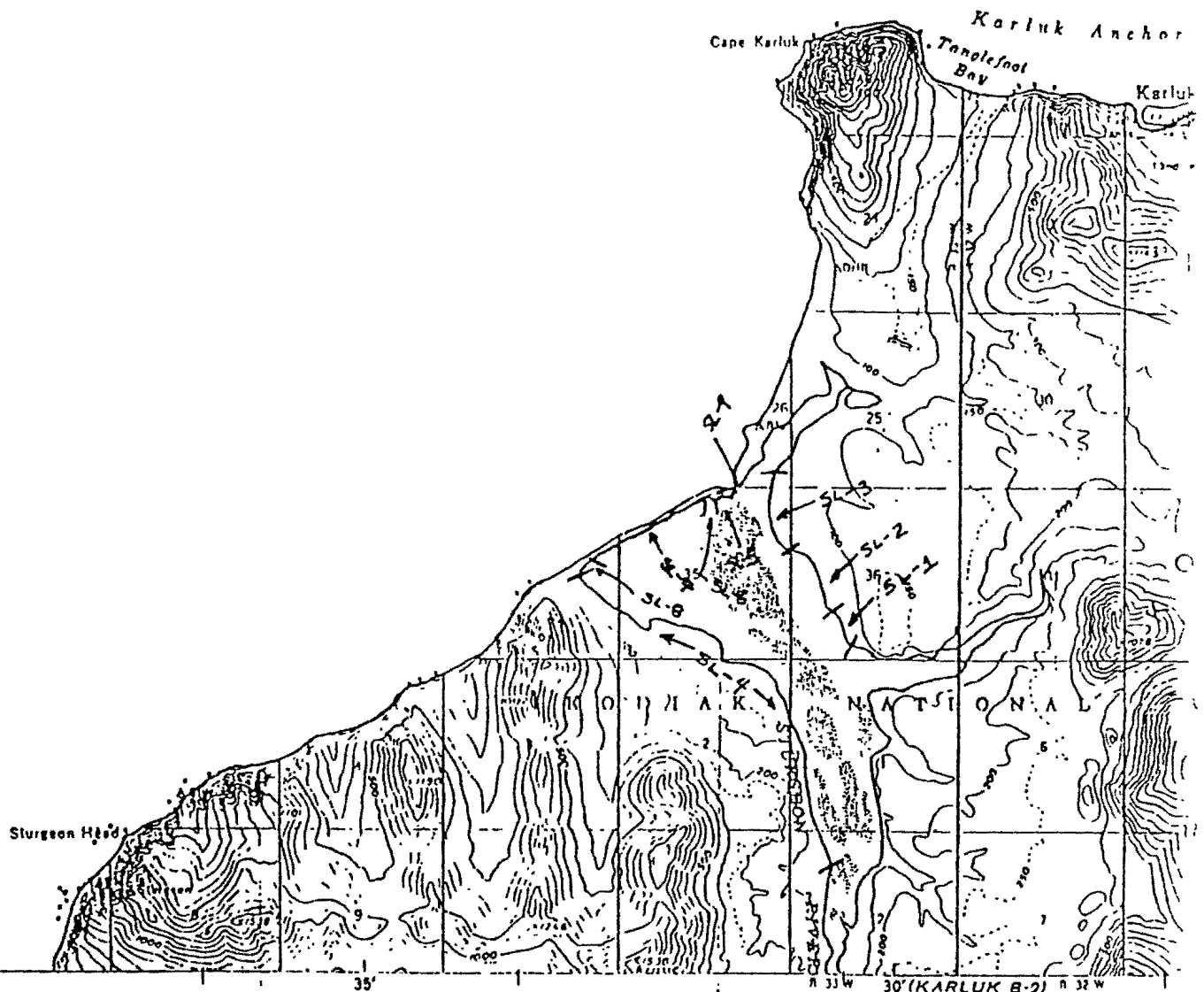
Cultural resource considerations/restraints:

IF heretofore undiscovered cultural remains are found

during clean-up, contact Exxon's Director of Field

Archaeology immediately

# S H E L I K



1:50,000 1:50,000 1:50,000

Maped, edited, and published by the Geological Survey

Control by NOS/NOAA and USCE

Maped by photogrammetric methods from aerial photographs  
1:1-1982 Map and Field sketch

SCALE 1:63360

ACE 1852909 -15

# SEGMENT INSPECTION RECORD

ADEC # K-6-34

Shoreline Segment: SL 8-17

Shoreline Treatment Process(es) Completed for this Segment

|                                          |                                                    |
|------------------------------------------|----------------------------------------------------|
| <input type="checkbox"/> Hot water wash  | <input type="checkbox"/> Mechanical                |
| <input type="checkbox"/> Warm water wash | <input checked="" type="checkbox"/> Non-mechanical |
| <input type="checkbox"/> Water deluge    | <input type="checkbox"/> Other                     |

ORIGINAL

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Exxon Comments

Signature *Gayle Cannon* Date 9/6/89 Time 0730

Printed Name GAYLE CANNON

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil

|                                                                                                                                                                             |                  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Percent                                                                                                                                                                     | Degree of Oiling |
| <div style="border: 1px solid black; width: 100px; height: 20px; background: linear-gradient(to top right, transparent 49%, black 49%, black 51%, transparent 51%);"></div> | Heavy            |
| <div style="border: 1px solid black; width: 100px; height: 20px; background: linear-gradient(to top right, transparent 49%, black 49%, black 51%, transparent 51%);"></div> | Medium           |
| <div style="border: 1px solid black; width: 100px; height: 20px; background: linear-gradient(to top right, transparent 49%, black 49%, black 51%, transparent 51%);"></div> | Light            |
| <div style="border: 1px solid black; width: 100px; height: 20px; background: linear-gradient(to top right, transparent 49%, black 49%, black 51%, transparent 51%);"></div> | Very Light       |

100%

Subsurface Oil

☐ Yes ☒ No

Comment Below

Reassessment

☐ Yes - Necessary

☒ No - Not necessary unless re-oiled

ADEC Rep

Comments over For Comments

Existing Shoreline Condition As Visually Determined by ADEC

Surface Oil

|                                                                                                                                                                             |                  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Percent                                                                                                                                                                     | Degree of Oiling |
| <div style="border: 1px solid black; width: 100px; height: 20px; background: linear-gradient(to top right, transparent 49%, black 49%, black 51%, transparent 51%);"></div> | Heavy            |
| <div style="border: 1px solid black; width: 100px; height: 20px; background: linear-gradient(to top right, transparent 49%, black 49%, black 51%, transparent 51%);"></div> | Medium           |
| <div style="border: 1px solid black; width: 100px; height: 20px; background: linear-gradient(to top right, transparent 49%, black 49%, black 51%, transparent 51%);"></div> | Light            |
| <div style="border: 1px solid black; width: 100px; height: 20px; background: linear-gradient(to top right, transparent 49%, black 49%, black 51%, transparent 51%);"></div> | Very Light       |

100%

Subsurface Oil

☐ Yes ☒ No

Comment Below

Reassessment

☐ Yes - Necessary

☒ No - Not necessary unless re-oiled

Signature *Scott Shelton* Date 9/5/89 Time 4:45 P.M.

Printed Name SCOTT Shelton

FOSC Rep Demobilization approved/disapproved

Comments Agree with ADEC comments. Trash should be removed asap.

Signature *J. Tagli* Date \_\_\_\_\_ Time \_\_\_\_\_

Printed Name \_\_\_\_\_ ACE 1853018 + 1 S

Copy: Exxon ADEC FOSC ISCC Return All Signed Originals to Exxon

enclosure (5)

DEC. COMMENTS 4/5/89 Sturgeon River

11:55 AM SE. DOWN K6-34 (SL-9) Observed

small band of weathered musse and vegetation  $20 \times 10 \text{ cm}$  meters along N/W lagoon shore. Walked 350 yds towards N/E shore of lagoon S-15 ~~SL-15~~ SL-17, SL-3. Very light splatters weathered - Found assorted garbage in white bags along SL-9 lagoon side. Counted 2 doz plastic bags weighted with rocks - Sturgeon River area needs to be cleaned up - Clean up crews have deposited garbage and rolls of plastic bag in location that winter storms could refloat and cause a real mess - 2 doz full rolls of plastic counted on the beach. 1. T.E.H. weighted down with rocks. Boom material found on Beach Cashes could be caught in winter storms as well.

Small oil band could be picked up before this season ends. 1-2 bags should complete the task.

John Shelton

## SEGMENT INSPECTION RECORD

ADEC # K6-34

Shoreline Segment: SL-1

Shoreline Treatment Process(es) Completed for this Segment

Yards Signed Off

|                                          |                                                    |
|------------------------------------------|----------------------------------------------------|
| <input type="checkbox"/> Hot water wash  | <input type="checkbox"/> Mechanical                |
| <input type="checkbox"/> Warm water wash | <input checked="" type="checkbox"/> Non-mechanical |
| <input type="checkbox"/> Water deluge    | <input type="checkbox"/> Other                     |

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Exxon Comments

Signature

*Jack A. Rickner*

Date

7/27/89

Time

1652

Printed Name

Jack Rickner

Existing Shoreline Condition As  
Visually Determined by USCG  
Surface Oil

|                          |                  |
|--------------------------|------------------|
| Percent                  | Degree of Oiling |
| <input type="checkbox"/> | Heavy            |
| <input type="checkbox"/> | Medium           |
| <input type="checkbox"/> | Light            |
| <input type="checkbox"/> | Very Light       |

100%

Subsurface Oil

☐ Yes ☒ No

Comment Below

☒ Reassessment  
Yes - Necessary

☐ No - Not necessary unless re-oiled

ADEC Rep

Comments

Existing Shoreline Condition As  
Visually Determined by ADEC  
Surface Oil

|                          |                  |
|--------------------------|------------------|
| Percent                  | Degree of Oiling |
| <input type="checkbox"/> | Heavy            |
| <input type="checkbox"/> | Medium           |
| <input type="checkbox"/> | Light            |
| <input type="checkbox"/> | Very Light       |

100%

Subsurface Oil

☐ Yes ☐ No

Comment Below

☐ Reassessment  
Yes - Necessary

☐ No - Not necessary unless re-oiled

Signature

Date

Time

Printed Name

FOSC Rep

Type A shoreline Demobilization approved/disapproved for entire sub-unit:

Comments

Much of the sub-unit was inspected by aerial observation. Shoreline inspection was conducted on Sturgeon River waterway. Oil discovered on rocky flats near Cape Canby. Oil stained rocks.

Signature

*P. J. Cormier, LT, USCG*

Date

31 July 89

Time

2140

Printed Name

*P. J. Cormier*

Copy: Exxon ADEC FOSC ISCC

Return All Signed Originals to Exxon

# TYN SHORELINE CLEANUP WORK ORDER

Date: 21 June 89 Shoreline Segment: SL-4, 8  
SL-9, 10, 11, 12, 13, 14, 15, 16, 17  
 Location: (Attach map) Sturgeon Lagoon

ADEC No. K6-34 Shoreline Assessment Date: 6/04/89 & 6/05/89

## Recommended Cleanup Activity(ies):

No cleanup recommended at the time of the SCAT assessment.  
 Reevaluation may be necessary if reoiling occurs.

See Attached Sheets.

## Priority Considerations:

see attached "Shoreline Cleanup Program" forms.

## Ecological Constraints (from site survey):

## Archaeological Constraints:

Exxon Supervisor will review each SCAT report. No cleanup will be conducted until an archeologist is present if so stated for a particular beach segment (SL-11, SL-12, SL-15, SL-16, SL-17)

## Archaeological Constraints:

If any archaeological or historical sites or artifacts are discovered during the cleanup activity, they must remain undisturbed and the Exxon archeologist C. Mobley contacted (as per procedures in the "Guideline for Shoreline Cleanup") and the State Historic Preservation Office notified as soon as possible.

Submitted by: Jack A. Rickman  
 Exxon

Date: 22 June 89

State Historic Preservation Officer Telephone Approval (Required)

Date: June 10, 1989 (See Attachment)

Approved: [Signature]  
 Assistant OSC Western Alaska (If appropriate)

Date:                     

Approved: [Signature]  
 Federal On-Scene Coordinator

Date: 25 JUN 89

By direction

ORIGINAL

# SEGMENT INSPECTION RECORD

ADEC # K6-34

Shoreline Segment: SL-1

Shoreline Treatment Process(es) Completed for this Segment

Yards Signed Off

|                                          |                                                    |
|------------------------------------------|----------------------------------------------------|
| <input type="checkbox"/> Hot water wash  | <input type="checkbox"/> Mechanical                |
| <input type="checkbox"/> Warm water wash | <input checked="" type="checkbox"/> Non-mechanical |
| <input type="checkbox"/> Water deluge    | <input type="checkbox"/> Other                     |

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Exxon Comments

Signature Jack A Rickner

Date 7/27/89

Time 1652

Printed Name Jack Rickner

Existing Shoreline Condition As  
Visually Determined by USCG  
Surface Oil

|                          |                  |
|--------------------------|------------------|
| Percent                  | Degree of Oiling |
| <input type="checkbox"/> | Heavy            |
| <input type="checkbox"/> | Medium           |
| <input type="checkbox"/> | Light            |
| <input type="checkbox"/> | Very Light       |

100%

Subsurface Oil

☐ Yes ☒ No

Comment Below

Reassessment

☒ Yes - Necessary

☐ No - Not necessary unless re-oiled

ADEC Rep

Comments

Existing Shoreline Condition As  
Visually Determined by ADEC

Surface Oil

|                          |                  |
|--------------------------|------------------|
| Percent                  | Degree of Oiling |
| <input type="checkbox"/> | Heavy            |
| <input type="checkbox"/> | Medium           |
| <input type="checkbox"/> | Light            |
| <input type="checkbox"/> | Very Light       |

100%

Subsurface Oil

☐ Yes ☐ No

Comment Below

Reassessment

☐ Yes - Necessary

☐ No - Not necessary unless re-oiled

Signature \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Printed Name

FOSC Rep Type A shoreline Demobilization approved for entire subunit.

Comments Much of the sub-unit was inspected by aerial observation. Shoreline inspection was conducted on Sturgeon River wadlough. Oil discovered on rocky flats near Cape Karluk. Oil stained rocks.

Signature P. J. Cormier, LT, USCG

Date 31 July 89 Time 2140

Printed Name P. J. Cormier

Copy: Exxon ADEC FOSC ISCC Return All Signed Originals to Exxon

ACE 1853022

(version 6/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): STURGEON LAGOON BLOCK K 6-34

Includes Shoreline Segments: SL-1, SL-2, SL-3, SL-4, SL-5, SL-6,  
SL-7, SL-8, SL-9, SL-10, SL-11, SL-12, SL-13, SL-14, SL-15,  
SL-16, SL-17

Submitted: \_\_\_\_\_ Date: \_\_\_\_\_  
(for Exxon)

ISCC Recommendation: \_\_\_\_\_ Date: \_\_\_\_\_

FOSC Approval: \_\_\_\_\_ Date: \_\_\_\_\_

The cleanup procedures identified in the Shoreline Cleanup Program are recommended. Modifications to these systems can be made in the field. Exxon and other field personnel are encouraged to suggest innovations and productivity enhancements to the OSC's on-scene representative. The OSC's representative has the authority to approve on-site modifications. The Field Resource Team should be consulted if these actions do not fit within the Ecological Constraints of the Shoreline Cleanup Program. Requirements for safety and the protection of cultural material must be observed.

Distribution:

Exxon Shoreline Coordinator  
Exxon Shoreline Supervisor  
Exxon SCAT file

FOSC  
CDFU  
NOAA  
EPA  
USDA (FS)  
USFW  
A.DEC  
A.FG  
A.DNR  
CAC  
PWSCA  
USFS  
SHPO

ACE 1853023

(version 4/29/89)

SHORELINE CLEANUP PROGRAM

DATE 6/09/89

SHORELINE SEGMENT SL-17

LOCATION: (see enclosed map) Sturgeon Lagoon-East shore

ADEC NO. K6-34 SHORELINE ASSESSMENT DATE: 6/05/89

Recommended Cleanup Activity(ies):

- No cleanup recommended at this time, due to no oil.

Priorities Considerations:

Ecological Constraints (from site survey): No ecological evaluation form is included here since this segment was surveyed by helicopter only.

Archeological Constraints (from site survey):

If cleanup is planned, a cultural resource assessment should be completed.

Charles E. Holmes  
State Historic Preservation Officer \*

Date: June 10, 1989

EXXON: Jack A. Ristman

Date: 14 June 89

FOSC: \_\_\_\_\_

Date: \_\_\_\_\_

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

ACE 1853024

(version 5/16/89)

SHORELINE OIL EVALUATION FORM - KONTAK

Date: JUNES/A / Time: 12:05

Observer: D. HONES

Surveyed From: Foot/Boat/Helicopter/Plane

Weather: Sun Cloud/Rain/Snow/Fog

LOCATION

LOCATION STURGEON BAY - EAST SIDE

SEGMENT I.D. SL-17

LENGTH OF SHORELINE SEGMENT: 875 m

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

SHORELINE:

Shoreline Type: SPI/BEA/COV/HID/STET

Slope: LAUG/HANG/VER

Wave Exposure: High/Med/Low

Sediment: B \_\_\_ % / C1-3 \_\_\_ % / PSS-40 / G \_\_\_ % / S3K-40 / M \_\_\_ % / R \_\_\_ %

Drift Debris on Beach: Yes No

Supra/Upper/Mid/Lower Type logs/scum

OIL

Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved

Total Area of Beach Impact: SU / SP / H / M / L

OIL DISTRIBUTION

Continuous: Y/N Segment % \_\_\_\_\_ No. Bands \_\_\_\_\_ Width \_\_\_\_\_

Sporadic: Y/N Segment % \_\_\_\_\_ Min/Max Dia \_\_\_\_\_ Impact Width \_\_\_\_\_

Est. Oil Thickness where > 1cm: \_\_\_\_\_ cm SU / SP / UP / MID / LO

Est. Oil Penetration: \_\_\_\_\_ cm SU / SP / UP / MID / LO

Layers? Yes/No No# Layers \_\_\_\_\_ Oil Weathering \_\_\_\_\_

Drift Debris Oiled? Yes/No Supra/Upper/Mid/Lower Amount: H / U / L / V

OIL MORPHOLOGY

Pooled Oil \_\_\_\_\_ % "Free" Oil \_\_\_\_\_ % Spattered \_\_\_\_\_ % H/U/L/VL Sheen \_\_\_\_\_ %

OIL WEATHERING (OW)

Fresh Oil \_\_\_\_\_ % SU/SP/VP/MID/LO Choc Mousse \_\_\_\_\_ % SU/SP/VP/MID/LO

Pancake Mousse \_\_\_\_\_ % SU/SP/VP/MID/LO Asphalt Mousse \_\_\_\_\_ % SU/SP/VP/MID/LO

Tar Formation \_\_\_\_\_ %

Comments:

NO OIL OBSERVED ON LOW HELICOPTER TRAJECT AND 30% OF AREA  
ASSESSED BY FOOT

DOCUMENTATION:

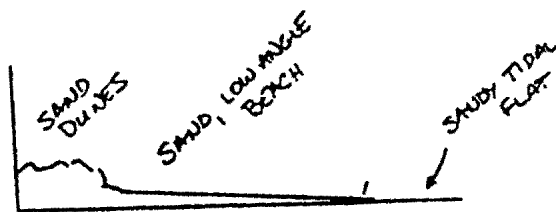
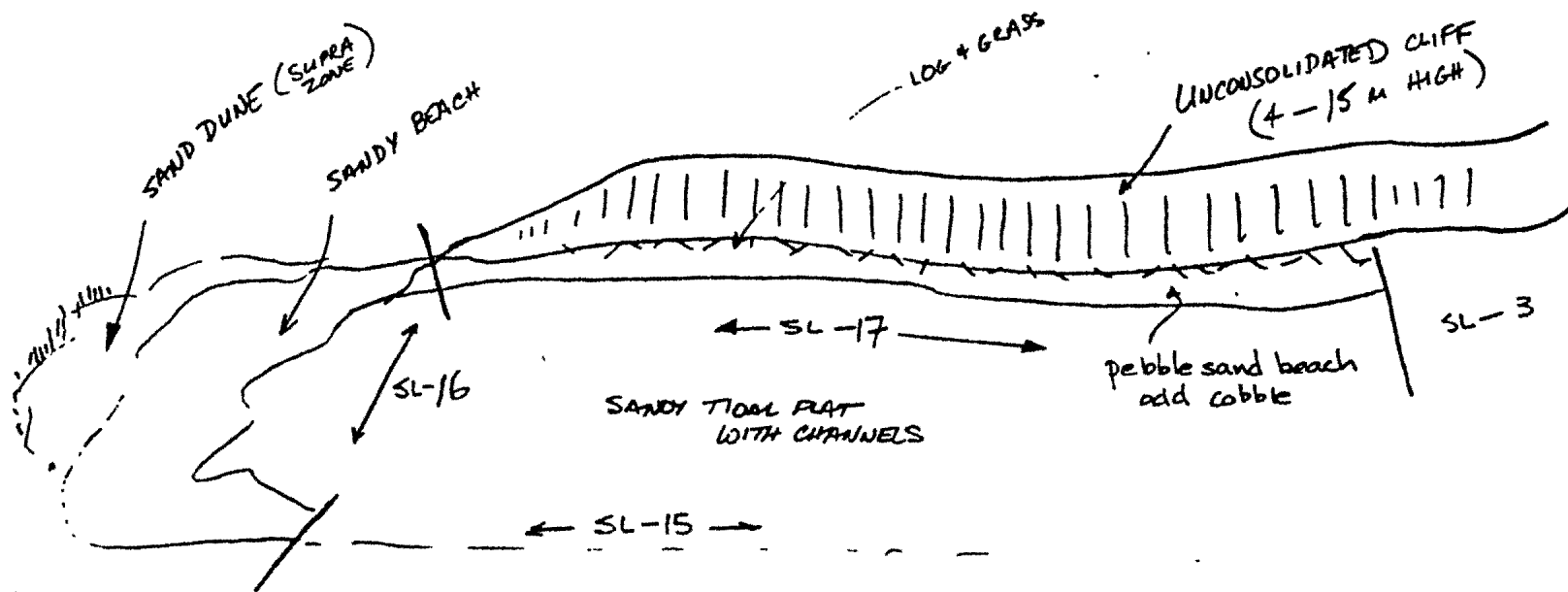
Map Aerial photo marking segment boundaries See Attached

VTR: Y/N Tape Number(s) \_\_\_\_\_

Photography: Y/N Roll Number(s) \_\_\_\_\_

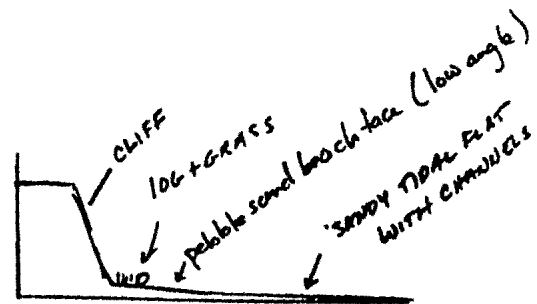
Sample Numbers Collected: N/A

SL-16 / 17



ESTIMATED CROSS SECTION

SL-16



ESTIMATED CROSS SECTION

SL-17

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 6-5-89 Location Sturgeon Lagoon Site Northeast Area

Location Prefix SL Segment # 17 Length 875 m

Survey Method:

Air ✓ (A - indicate on map) Boat \_\_\_\_\_ (A - indicate on map)

Ground \_\_\_\_\_ (G - indicate on map)

Known cultural resources (AHRS #) KAR - 79 Data Source AHRS files

Oil conditions/beach visibility NONE

Width of beach zone surveyed - m Tree fringe surveyed -

Cultural resources observed in beach zone (AHRS code) -

Cultural resources observed in tree fringe (AHRS code) -

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

Shore Profile mixed sand & gravel beach below a 4-15m high, eroded cliff

Fresh Water Sources one stream

Sea Exposure Protected inside Sturgeon Lagoon

Access/Safety Accessible by Air or Boat

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 # \_\_\_\_\_ Frames \_\_\_\_\_

B/W Roll # \_\_\_\_\_ Frames \_\_\_\_\_

Observer(s) Mike Varborough

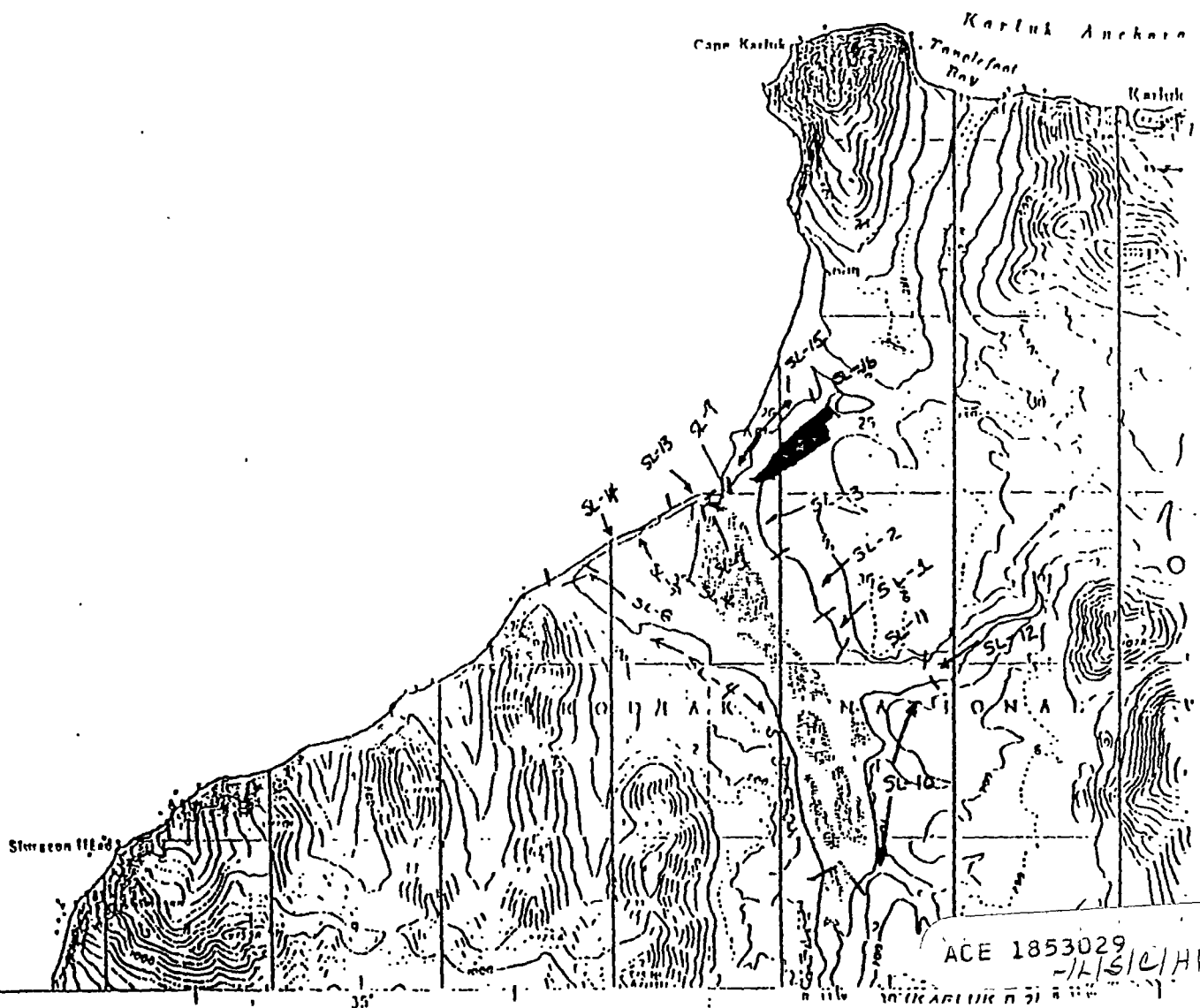
Time survey started 11:30 AM Time survey ended 12:05 PM

Cultural resource considerations/restraints:

No clean-up recommended at this time. Cultural

Resource Evaluation not completed.

S H B L 1 4.



# SEGMENT INSPECTION RECORD

ADEC # K-6-34

Shoreline Segment: SL 8-17

Shoreline Treatment Process(es) Completed for this Segment

|                                          |                                                    |
|------------------------------------------|----------------------------------------------------|
| <input type="checkbox"/> Hot water wash  | <input type="checkbox"/> Mechanical                |
| <input type="checkbox"/> Warm water wash | <input checked="" type="checkbox"/> Non-mechanical |
| <input type="checkbox"/> Water deluge    | <input type="checkbox"/> Other                     |

ORIGINAL

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Exxon Comments

Signature *Gayle Cannon* Date 9/6/89 Time 0730

Printed Name GAYLE CANNON

Existing Shoreline Condition As  
Visually Determined by USCG

Surface Oil

|                                          |                  |
|------------------------------------------|------------------|
| Percent                                  | Degree of Oiling |
| <input type="checkbox"/>                 | Heavy            |
| <input type="checkbox"/>                 | Medium           |
| <input type="checkbox"/>                 | Light            |
| <input checked="" type="checkbox"/> 1-2% | Very Light       |

100%

Subsurface Oil

☐ Yes ☒ No

Comment Below

Reassessment  
☐ Yes - Necessary

☒ No - Not necessary unless re-oiled

ADEC Rep

Comments

over For Comments

Existing Shoreline Condition As  
Visually Determined by ADEC

Surface Oil

|                                          |                  |
|------------------------------------------|------------------|
| Percent                                  | Degree of Oiling |
| <input type="checkbox"/>                 | Heavy            |
| <input type="checkbox"/>                 | Medium           |
| <input type="checkbox"/>                 | Light            |
| <input checked="" type="checkbox"/> 1-2% | Very Light       |

100%

Subsurface Oil

☐ Yes ☒ No

Comment Below

Reassessment  
☐ Yes - Necessary

☒ No - Not necessary unless re-oiled

Signature *Scott Shelton* Date 9/5/89 Time 4:45 P.M.

Printed Name SCOTT Shelton

FOSC Rep

Demobilization approved/disapproved

Comments

Agree with ADEC comments. Trash should be removed asap.

Signature *J. A. Stagliano* Date 9/5/89 Time 1700

Printed Name J. A. STAGLIANO

Copy: Exxon ADEC FOSC ISCC

Return All Signed Originals to Exxon

ACE 1852992+15

enclosure (5)

DEC. Comments - 9/5/89 Sturgis, - River

11:55 AM SEI DOWN 116-34 (SL-9) Observed <sup>10 cm</sup> 20' Meters

small band of weathered mousse and vegetation along N/W lagoon shore. Walked 350 yds towards N/E shore of lagoon S-15 ~~SL-15~~ SL-17, SL-3. Very light

sp/rtrees weathered - Found assorted garbage in white bags along SL-9 lagoon side. Counted

2 doz plastic bags weighted with rocks - Sturgis River area needs to be cleaned up. Clean up crews have deposited garbage and rolls of plastic bags in location that winter storms could refloat and cause a real mess - 2 doz full rolls of plastic counted on the beach. 1. TENT weighted down with rocks. Boom material found on Beach Cashes could be caught in winter storms as well.

Small oil band could be picked up before this season ends. 1-2 bags should complete the task.

John Shelton

## SEGMENT INSPECTION RECORD

ADEC # K6-34Shoreline Segment: SL-1

Shoreline Treatment Process(es) Completed for this Segment

Yards Signed Off

☐

Hot water wash

☐

Mechanical

☐

Warm water wash

☒

Non-mechanical

☐

Water deluge

☐

Other

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Exxon Comments

Signature

Jack A. Rickner

Date

7/27/89

Time

1652

Printed Name

Jack Rickner

Existing Shoreline Condition As  
Visually Determined by USCG  
Surface Oil

Percent Degree of Oiling

☐  
☐  
☐  
☐

Heavy

Medium

Light

Very Light

100%

Subsurface Oil

☐

Yes

☒

No

Comment Below

☒

Reassessment

Yes - Necessary

☐

No - Not necessary unless re-oiled

ADEC Rep

Comments

Existing Shoreline Condition As  
Visually Determined by ADEC  
Surface Oil

Percent Degree of Oiling

☐  
☐  
☐  
☐

Heavy

Medium

Light

Very Light

100%

Subsurface Oil

☐

Yes

☐

No

Comment Below

☐

Reassessment

Yes - Necessary

☐

No - Not necessary unless re-oiled

Signature

Date

Time

Printed Name

FOSC Rep

Type A shoreline Demobilization approved/disapproved for entire sub-unit

Comments

Much of the sub-unit was inspected by aerial observation. Shoreline inspection was conducted on Sturgeon river mouth. Oil discovered on rocky flats near Cape Karluk. Oil stained rocks

Signature

P. J. Cormier, LT, USCG

Date

31 July 89

Time

2140

Printed Name

P. J. Cormier

Copy: Exxon ADEC FOSC ISCC

Return All Signed Originals to Exxon

# TYPE SHORELINE CLEANUP WORK ORDER

Date: 21 June 89 Shoreline Segment: SL-4, 8  
SL-9, 10, 11, 12, 13, 14, 15, 16, 17  
 Location: (Attach map) Sturgeon Lagoon

ADEC No. K6-34 Shoreline Assessment Date: 6/04/89 & 6/05/89

## Recommended Cleanup Activity(ies):

No cleanup recommended at the time of the SCAT assessment.  
 Reevaluation may be necessary if reoiling occurs.

See Attached Sheets.

## Priority Considerations:

see attached "Shoreline Cleanup Program" forms.

## Ecological Constraints (from site survey):

### Archaeological Constraints:

Exxon Supervisor will review each SCAT report. No cleanup will be conducted until an archeologist is present if so stated for a particular beach segment (SL-11, SL-12, SL-15, SL-16, SL-17)

### Archaeological Constraints:

If any archaeological or historical sites or artifacts are discovered during the cleanup activity, they must remain undisturbed and the Exxon archeologist C. Mobley contacted (as per procedures in the "Guideline for Shoreline Cleanup") and the State Historic Preservation Office notified as soon as possible.

Submitted by: Jack A. Rickman  
 Exxon

Date: 22 June 89

State Historic Preservation Officer Telephone Approval (Required)

Date: June 19, 1989 (See Attachment)

Approved: [Signature]  
 Assistant OSC Western Alaska (if appropriate)

Date: \_\_\_\_\_

Approved: [Signature]  
 Federal On-Scene Coordinator

Date: 25 JUN 89

By direction

ACE 1852995-15

## SEGMENT INSPECTION RECORD

ADEC # K6-34

Shoreline Segment: SL-1

Shoreline Treatment Process(es) Completed for this Segment

Yards Signed Off

|                                          |                                                    |
|------------------------------------------|----------------------------------------------------|
| <input type="checkbox"/> Hot water wash  | <input type="checkbox"/> Mechanical                |
| <input type="checkbox"/> Warm water wash | <input checked="" type="checkbox"/> Non-mechanical |
| <input type="checkbox"/> Water deluge    | <input type="checkbox"/> Other                     |

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Exxon Comments

Signature Jack A RicknerDate 7/27/89Time 1652Printed Name Jack RicknerExisting Shoreline Condition As  
Visually Determined by USCG  
Surface Oil

|                          |                  |
|--------------------------|------------------|
| Percent                  | Degree of Oiling |
| <input type="checkbox"/> | Heavy            |
| <input type="checkbox"/> | Medium           |
| <input type="checkbox"/> | Light            |
| <input type="checkbox"/> | Very Light       |

100%

Subsurface Oil

☐ Yes ☒ No

Comment Below

☒ Reassessment  
Yes - Necessary

☐ No - Not necessary unless re-oiled

ADEC Rep

Comments

Existing Shoreline Condition As  
Visually Determined by ADEC

Surface Oil

|                          |                  |
|--------------------------|------------------|
| Percent                  | Degree of Oiling |
| <input type="checkbox"/> | Heavy            |
| <input type="checkbox"/> | Medium           |
| <input type="checkbox"/> | Light            |
| <input type="checkbox"/> | Very Light       |

100%

Subsurface Oil

☐ Yes ☐ No

Comment Below

☐ Reassessment  
Yes - Necessary

☐ No - Not necessary unless re-oiled

Signature \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Printed Name \_\_\_\_\_

FOSC Rep Type A shoreline Demobilization approved for entire subunit.

Comments

Much of the sub-unit was inspected by aerial observation. Shoreline inspection was conducted on Sturgeon River wadlough. Oil discovered on rocky flats near Cape Karlu.

Signature P. J. Cormier, LT, USCGDate 31 July 89 Time 2140Printed Name P. J. Cormier

Copy: Exxon ADEC FOSC ISCC Return All Signed Originals to Exxon

ACE 1852996415

(version 6/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): STURGEON LAGOON BLOCK K 6-34

Includes Shoreline Segments: SL-1, SL-2, SL-3, SL-4, SL-5, SL-6,  
SL-7, SL-8, SL-9, SL-10, SL-11, SL-12, SL-13, SL-14, SL-15,  
SL-16, SL-17

Submitted: \_\_\_\_\_ Date: \_\_\_\_\_  
(for Exxon)

ISCC Recommendation: \_\_\_\_\_ Date: \_\_\_\_\_

FOSC Approval: \_\_\_\_\_ Date: \_\_\_\_\_

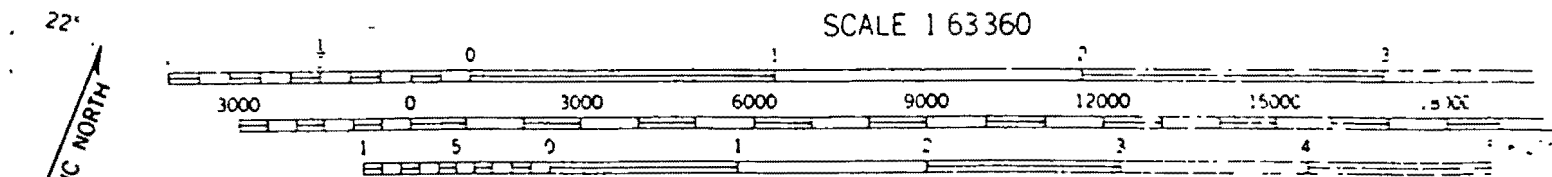
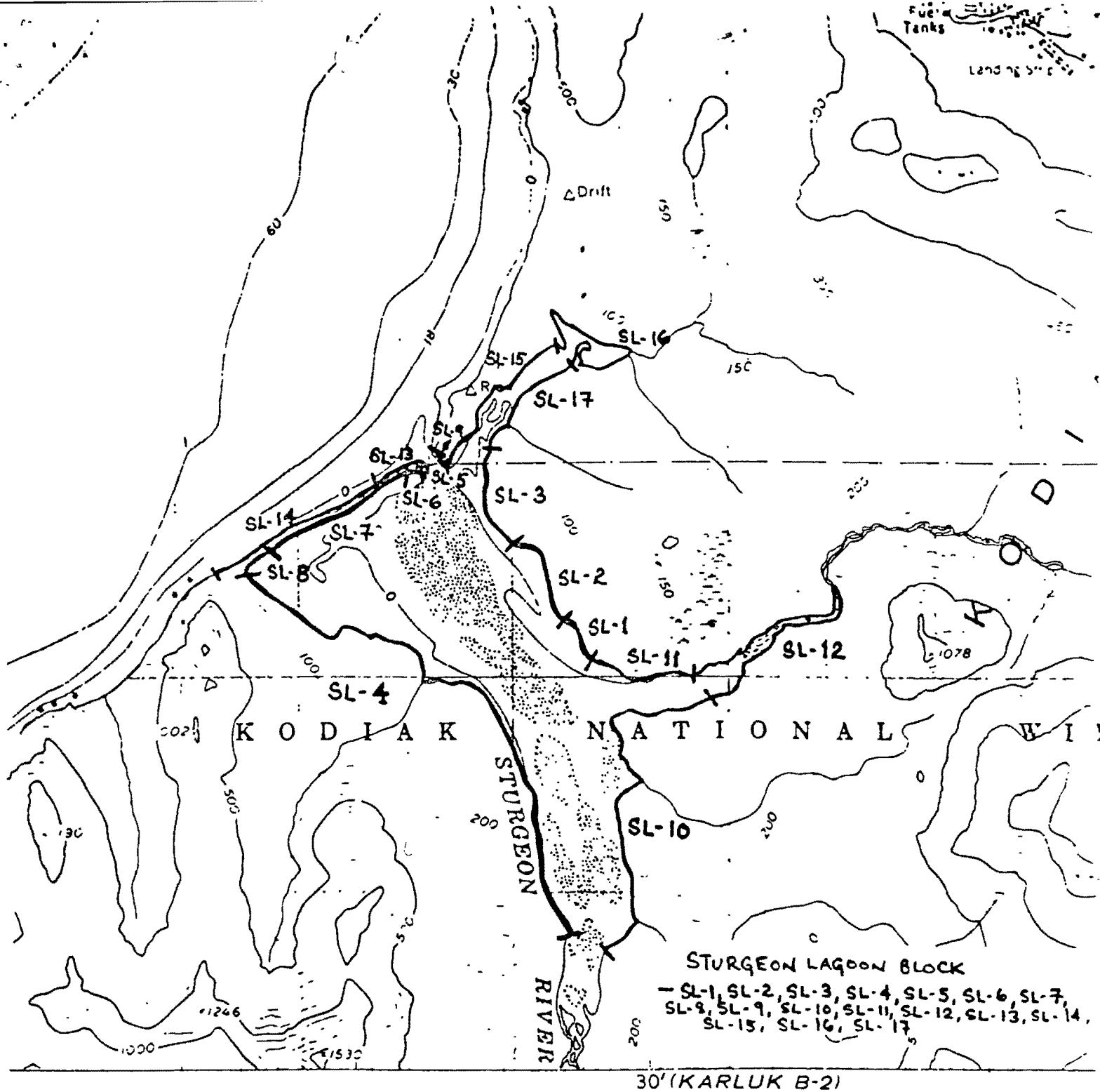
The cleanup procedures identified in the Shoreline Cleanup Program are recommended. Modifications to these systems can be made in the field. Exxon and other field personnel are encouraged to suggest innovations and productivity enhancements to the OSC's on-scene representative. The OSC's representative has the authority to approve on-site modifications. The Field Resource Team should be consulted if these actions do not fit within the Ecological Constraints of the Shoreline Cleanup Program. Requirements for safety and the protection of cultural material must be observed.

Distribution:

Exxon Shoreline Coordinator  
Exxon Shoreline Supervisor  
Exxon SCAT file

FOSC  
CDFU  
NOAA  
EPA  
USDA (FS)  
USFW  
A.DEC  
A.FG  
A.DNR  
CAC  
PWSCA  
USFS  
SHPO

ACE 1852997



CONTOUR INTERVAL 100 FEET  
 DASHED LINES REPRESENT 50 FOOT CONTOURS  
 NATIONAL GEODETIC VERTICAL DATUM OF 1929  
 DEPTH CURVES IN FEET - DATUM IS MEAN LOWER LOW WATER  
 SHORELINE SHOWN REPRESENTS THE APPROXIMATE LINE OF MEAN HIGH WATER  
 THE AVERAGE RANGE OF TIDE IS APPROXIMATELY 11 FEET

FOR SALE BY U S GEOLOGICAL SURVEY

ACE 1852998

FAIRBANKS ALASKA 99701 DENVER COLORADO 80225 OR RESTON VIRGINIA 20192

(version 4/29/89)

SHORELINE CLEANUP PROGRAM

DATE 6/09/89

SHORELINE SEGMENT SL-15

LOCATION: (see enclosed map) Sturgeon Lagoon-Northwest side of  
northern lagoon

ADEC NO. 16-34 SHORELINE ASSESSMENT DATE: 6/05/89

Recommended Cleanup Activity(ies):

- No cleanup recommended at this time, due to very light oiling and minimum anticipated environmental impact.

Priorities Considerations: This area has been designated sensitive, due to sockeye, pink, chum and salmon runs.

Ecological Constraints (from site survey): None, since no cleanup occurs, ecological constraints must be reconsidered.

Archeological Constraints (from site survey):

If cleanup is planned, a cultural resource assessment should be completed.

Charles E. Hines  
State Historic Preservation Officer \*

Date: June 19, 1989

EXXON: Jack A. Putnam

Date: 14 June 89

FOSC: \_\_\_\_\_

Date: \_\_\_\_\_

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

(version 5/16/89)

SHORELINE OIL EVALUATION FORM - KONTAK

Date: JUNE 5/89 Time: 11:40

Observer: DHAMES

Surveyed From: Foot/Boat/Helio/Plane

Weather: SUN Cloud/Rain/Snow/Fog

LOCATION

LOCATION STURGEDN LAGODN - NORTHERN

SEGMENT I.D. SL-15

LENGTH OF SHORELINE SEGMENT: 1300 m

ACCESS: Foot/Vehicle/Boat/Hargo/Helio/Boat Plane

SHORELINE:

Shoreline Type: SPI/BEA/COV/HID/STET

Slope: LAUG/HANG/VER

Wave Exposure: High/Med/Low

Sediment: B \_\_\_ % / C 5 % / POW % / G \_\_\_ % / S&S % / M \_\_\_ % / R \_\_\_ %

Drift Debris on Beach: Yes/No

Supra/Upper/Mid/Lower Type \_\_\_

OIL

Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved/V-LIGHT

Total Area of Beach Impact: SU / SP / H / M / L

OIL DISTRIBUTION

Continuous: Y/N Segment % \_\_\_ No. Bands \_\_\_ Width \_\_\_

Sporadic: Y/N Segment % 70 Min/Max Dia \_\_\_ Impact Width 10-15cm

Est. Oil Thickness where > 1cm: \_\_\_ cm SU / SP / UP / MID / LO

Est. Oil Penetration: \_\_\_ cm SU / SP / UP / MID / LO

Layers? Yes/No No# Layers \_\_\_ Oil Weathering \_\_\_

Drift Debris Oiled? Yes/No Supra/Upper/Mid/Lower Amount: H / H / L / V

OIL MORPHOLOGY

Pooled Oil \_\_\_ % "Free" Oil \_\_\_ % Spattered 100 % 112 H/L/VL Sheen \_\_\_ %

OIL WEATHERING (OW)

Fresh Oil \_\_\_ % SU/SP/VP/MID/LO Choc Mousse \_\_\_ % SU/SP/VP/MID/LO

Pancake Mousse 100 % SU/SP/VP/MID/LO Asphalt Mousse \_\_\_ % SU/SP/VP/MID/LO

Tar Formation \_\_\_ %

Comments:

DISCONTINUOUS BANDS OF SPLATTER (≈ 10 CM WIDTH) ON THE COARSER  
FRAGMENTS (PEBBLES, COBBLES)  
THIS BAND IS DISCONTINUOUS & PATCHY, < 1% TOTAL UNIT AFFECTED  
PAKAKE MOUSSE (VERY MINOR)

ACE 1853000

DOCUMENTATION:

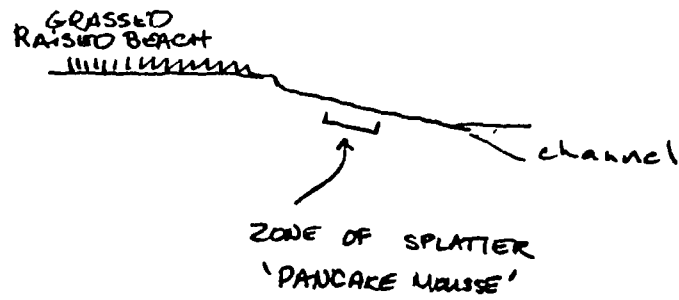
Map Aerial photo marking segment boundaries See Attached

VTR: Y N Tape Number(s) \_\_\_\_\_

Photography: Y N Roll Number(s) Dmc-12

Sample Numbers Collected: N/A

SL-15



# ECOLOGICAL EVALUATION

LOCATION: Sturgeon Bay SITE: NW side of N. Lagoon OBSERVER: J. Tierney

LOCATION PREFIX: SL SEG. NO.: 15 LENGTH: 1300 (M)

DATE: 6/5/89 TIME (HHMM): 1135 TIDE HT.: -0.40 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

## LIVE BIOTA

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

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

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

## Littorina

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

( Became denser closer towards the bay.

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

Became denser closer towards the bay.

OTHER OBSERVATIONS: Benthic infauna present; polychaete worms present  
Scud droller shells present; fish (8-10cm) in stream; "Eggs" found  
on surface of mud flat Translucent  
Black

CLEANUP PRECAUTIONS: NONE

STAY AWAY FROM SALMON STREAM.

MAMMALS: Otters        Harbor Seals        Sea Lions        Whales         
 Other NONE

BIRDS: Terrestrial birds amongst marsh grass

GENERAL OBSERVATIONS: Benthic Flies abundant. Parakee mussels in  
mid ITZ very light.

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 6-5-89 Location Sturgeon Lagoon Site NORTHEAST ARM

Location Prefix SL Segment # 15 Length 1300 m

Survey Method:

Air \_\_\_\_\_ (A - indicate on map) Boat \_\_\_\_\_ (A - indicate on map)

Ground ✓ (G - indicate on map)

Known cultural resources (AHRS #) KAR 98 Data Source AHRS Files

Oil conditions/beach visibility Very Light splatter

Width of beach zone surveyed - m Tree fringe surveyed -

Cultural resources observed in beach zone (AHRS code) -

Cultural resources observed in tree fringe (AHRS code) -

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

Shore Profile COBBLE to Boulder Beach; Rolling GRASS covered dunes

Fresh Water Sources LARGE stream AT the head OF the Arm

Sea Exposure Protected inside Sturgeon Lagoon

Access/Safety ACCESSIBLE BY BOAT OR AIR

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 # \_\_\_\_\_ Frames \_\_\_\_\_

B/W Roll # \_\_\_\_\_ Frames \_\_\_\_\_

Observer(s) MIKE YARBOROUGH

Time survey started 11:30 AM Time survey ended 12:05 PM

Cultural resource considerations/restraints:

NO clean-up recommended AT this time. Cultural Resource

Evaluation NOT completed.

# SEGMENT INSPECTION RECORD

ADEC # R-6-34

Shoreline Segment: SL 8-17

Shoreline Treatment Process(es) Completed for this Segment

|                                          |                                                    |
|------------------------------------------|----------------------------------------------------|
| <input type="checkbox"/> Hot water wash  | <input type="checkbox"/> Mechanical                |
| <input type="checkbox"/> Warm water wash | <input checked="" type="checkbox"/> Non-mechanical |
| <input type="checkbox"/> Water deluge    | <input type="checkbox"/> Other                     |

ORIGINAL

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Exxon Comments

Signature

*Gayle Cannon*

Date

9/6/89

Time

0730

Printed Name

GAYLE CANNON

Existing Shoreline Condition As  
Visually Determined by USCG

Surface Oil

Percent Degree of Oiling

|      |
|------|
|      |
|      |
|      |
| 1-2% |

Heavy

Medium

Light

Very Light

100%

Subsurface Oil

☐ Yes

☒ No

Comment Below

Reassessment

☐ Yes - Necessary

☒ No - Not necessary unless re-oiled

ADEC Rep

Comments

over For Comments

Signature

*Scott Shelton*

Date

9/5/89

Time

4:45

Printed Name

SCOTT SHELTON

FOSC Rep

Demobilization approved/disapproved

Comments

Agree with ADEC comments. Trash should be removed asaf

Signature

*J. Tagle*

Date

Time

Printed Name

Copy: Exxon ADEC FOSC ISCC

Return All Signed Originals to Exxon

ACE 1853005

enclosure (5)

DEC. Comments 9/5/89 Sturgeon River

11:55 AM SEI DOWN K6-34 (SL-9) observed small band of weathered mousse and vegetation 20<sup>x10cm</sup> meters along NW lagoon shore. Walked 350 yds towards NE shore of lagoon S-15 ~~SL-15~~ SL-17, SL-3. Very light splatters weathered - Found assorted garbage in white bags along SL-9 lagoon side. Counted 2 doz plastic bags weighted with rocks - Sturgeon River area needs to be cleaned up - Clean up crews have deposited garbage and rolls of plastic bags in local that winter storms could refloat and cause a real mess - 2 doz full rolls of plastic counted on the beach 1. TENT weighted down with rocks. Boom material found on Beach catches could be caught in winter storms as well.

Small oil band could be picked up before this season ends. 1-2 bags should complete the task. *John Shelton*

# SEGMENT INSPECTION RECORD

ADEC # K-6-34

Shoreline Segment: SL 8-17

Shoreline Treatment Process(es) Completed for this Segment

|                                          |                                                    |
|------------------------------------------|----------------------------------------------------|
| <input type="checkbox"/> Hot water wash  | <input type="checkbox"/> Mechanical                |
| <input type="checkbox"/> Warm water wash | <input checked="" type="checkbox"/> Non-mechanical |
| <input type="checkbox"/> Water deluge    | <input type="checkbox"/> Other                     |

ORIGINAL

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Exxon Comments

Signature *Gayle Cannon*

Date 9/6/89

Time 0730

Printed Name GAYLE CANNON

Existing Shoreline Condition As  
Visually Determined by USCG  
Surface Oil

|                                                                                                                                                                             |                  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Percent                                                                                                                                                                     | Degree of Oiling |
| <div style="border: 1px solid black; width: 100px; height: 20px; background: linear-gradient(to top right, transparent 49%, black 49%, black 51%, transparent 51%);"></div> | Heavy            |
| <div style="border: 1px solid black; width: 100px; height: 20px; background: linear-gradient(to top right, transparent 49%, black 49%, black 51%, transparent 51%);"></div> | Medium           |
| <div style="border: 1px solid black; width: 100px; height: 20px; background: linear-gradient(to top right, transparent 49%, black 49%, black 51%, transparent 51%);"></div> | Light            |
| <div style="border: 1px solid black; width: 100px; height: 20px; background: linear-gradient(to top right, transparent 49%, black 49%, black 51%, transparent 51%);"></div> | Very Light       |

100%

Subsurface Oil

☐ Yes ☒ No

Comment Below

Reassessment

☐ Yes - Necessary

☒ No - Not necessary unless re-oiled

ADEC Rep

Comments

over for comments

Existing Shoreline Condition As  
Visually Determined by ADEC  
Surface Oil

|                                                                                                                                                                             |                  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Percent                                                                                                                                                                     | Degree of Oiling |
| <div style="border: 1px solid black; width: 100px; height: 20px; background: linear-gradient(to top right, transparent 49%, black 49%, black 51%, transparent 51%);"></div> | Heavy            |
| <div style="border: 1px solid black; width: 100px; height: 20px; background: linear-gradient(to top right, transparent 49%, black 49%, black 51%, transparent 51%);"></div> | Medium           |
| <div style="border: 1px solid black; width: 100px; height: 20px; background: linear-gradient(to top right, transparent 49%, black 49%, black 51%, transparent 51%);"></div> | Light            |
| <div style="border: 1px solid black; width: 100px; height: 20px; background: linear-gradient(to top right, transparent 49%, black 49%, black 51%, transparent 51%);"></div> | Very Light       |

100%

Subsurface Oil

☐ Yes ☒ No

Comment Below

Reassessment

☐ Yes - Necessary

☒ No - Not necessary unless re-oiled

Signature *Scott Shelton*

Date 9/5/89 Time 4:45 P.M.

Printed Name SCOTT Shelton

FOSC Rep

Demobilization approved/disapproved

Comments

Agree with ADEC comments. Trash should be removed asap.

Signature *J. Tagh*

Date \_\_\_\_\_ Time \_\_\_\_\_

Printed Name \_\_\_\_\_

Copy: Exxon ADEC FOSC ISCC

Return All Signed Originals to Exxon

ACE 1852979+1S

enclosure (5)

DEC. Comments 9/5/89 Sturg. River

11:55 AM DEI DOWN 116-34 (SL-9) observed <sup>10 cm</sup> 20' Meters  
small band of weathered mussel and vegetation along NW lagoon shore. Walked 350 yds towards N/E  
shore of lagoon S-15 ~~SL-15~~ SL-17, SL-3. Very light  
sp/rtrees weathered - Found assorted garbage in  
white bags along SL-9 lagoon side. Counted  
2 doz plastic bags weighted with rocks - Sturgeon River  
area needs to be cleaned up - Clean up crews have  
1 - deposited garbage and rolls of plastic bags in location  
that winter storms could refloat and cause a real  
mess - 2 doz full rolls of plastic counted on the beach.  
1. TENT weighted down with rocks. Boom material  
found on Beach Cashes could be caught in winter storms  
as well.

Small oil band could be picked up  
before this season ends. 1-2 bags should  
complete the task.

John Shelton

ORIGINAL

## SEGMENT INSPECTION RECORD

ADEC # K6-34

Shoreline Segment: SL-1

Shoreline Treatment Process(es) Completed for this Segment

|                                          |                                                    |
|------------------------------------------|----------------------------------------------------|
| <input type="checkbox"/> Hot water wash  | <input type="checkbox"/> Mechanical                |
| <input type="checkbox"/> Warm water wash | <input checked="" type="checkbox"/> Non-mechanical |
| <input type="checkbox"/> Water deluge    | <input type="checkbox"/> Other                     |

Yards Signed Off

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Exxon Comments

Signature Jack A RicknerDate 7/27/89Time 1652

Printed Name Jack Rickner

Existing Shoreline Condition As  
Visually Determined by USCG  
Surface Oil

|                          |                  |
|--------------------------|------------------|
| Percent                  | Degree of Oiling |
| <input type="checkbox"/> | Heavy            |
| <input type="checkbox"/> | Medium           |
| <input type="checkbox"/> | Light            |
| <input type="checkbox"/> | Very Light       |

100%

Subsurface Oil

☐ Yes ☒ No

Comment Below

☒ Reassessment  
Yes - Necessary

☐ No - Not necessary unless re-oiled

ADEC Rep

Comments

Existing Shoreline Condition As  
Visually Determined by ADEC  
Surface Oil

|                          |                  |
|--------------------------|------------------|
| Percent                  | Degree of Oiling |
| <input type="checkbox"/> | Heavy            |
| <input type="checkbox"/> | Medium           |
| <input type="checkbox"/> | Light            |
| <input type="checkbox"/> | Very Light       |

100%

Subsurface Oil

☐ Yes ☐ No

Comment Below

☐ Reassessment  
Yes - Necessary

☐ No - Not necessary unless re-oiled

Signature \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Printed Name

FOSC Rep Type A shoreline Demobilization approved for entire sub-unit.Comments Much of the sub-unit was inspected by aerial observation. Shoreline inspection was conducted on Sturgeon River wadlough. Oil discovered on rocky flats near Cape Karluk.Signature P. J. Cormier, LT, USCG Date 31 July 89 Time 2140Printed Name P. J. Cormier

Copy: Exxon ADEC FOSC ISCC Return All Signed Originals to Exxon

ACE 1852981

(version 4/29/89)

SHORELINE CLEANUP PROGRAM

DATE 6/09/89

SHORELINE SEGMENT SL-13

LOCATION: (see enclosed map) Sturgeon Lagoon-Ocean side of spit  
near mouth.

ADEC NO. K6-34 SHORELINE ASSESSMENT DATE: 6/05/89

Recommended Cleanup Activity(ies):

- No cleanup recommended at this time, due to light oiling and high energy environment.

Priorities Considerations:

Ecological Constraints (from site survey): None, since no cleanup is recommended. If cleanup is conducted, ecological constraints should be reconsidered.

Archeological Constraints (from site survey):

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

Charles E. Holmes  
State Historic Preservation Officer \*

Date: June 10, 1989

EXXON: Jack A. Rutten

Date: 14 June 89

FOSC: \_\_\_\_\_

Date: \_\_\_\_\_

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

(version 5/16/89)

SHORELINE OIL EVALUATION FORM - MONTAK

Date: JUNE 5/89 / Time: 10:40

Observer: D. HOWES

Surveyed From: Foot/Boat/Helio/Plane

Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION

LOCATION STURGEON LAGOON - NORTH END

SEGMENT I.D. SL-13

LENGTH OF SHORELINE SEGMENT: 660 m

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

SHORELINE:

Shoreline Type: SPL/BEA/COV/HID/STET

Slope: LAAG/HANG/VER

Wave Exposure: High/Med/Low

Sediment: BSS % / C40 % / P/S % / G % / SO % / M % / R %

Drift Debris on Beach: Yes/No

Supra/Upper/Mid/Lower Type LOGS/SEAWEED

OIL

Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved

Total Area of Beach Impact: SU / SP / H / M / L

OIL DISTRIBUTION

Continuous: Y/N Segment % 100 No. Bands 1 Width 1-3 M

Sporadic: Y/N Segment %        Min/Max Dia        Impact Width       

Est. Oil Thickness where > 1cm:        cm SU / SP / UP / MID / LO

Est. Oil Penetration: AVG 15 cm SU / SP / UP / MID / LO  
LAYER OF STONES

Layers? Yes/No No# Layers        Oil Weathering       

Drift Debris Oiled? Yes/No Supra/Upper/Mid/Lower Amount: H / M / L / VL

OIL MORPHOLOGY

Pooled Oil        % "Free" Oil 15 % Spattered 85 % H/H/L/VL Sheen        %

OIL WEATHERING (OW)

Fresh Oil        % SU/SP/VP/MID/LO Choc Mousse 70 % SU/SP/VP/MID/LO

Pancake Mousse 20 % SU/SP/VP/MID/LO Asphalt Mousse 10 % SU/SP/VP/MID/LO

Tar Formation        %

Comments:

AREA HAS BEEN SUBJECT TO SUCCESSIVE IMPACTS. AS THE MOUSSE WEATHERING VARIES FROM CHOCO TO ASPHALT, THE BAND AT BASE BEACH FACE (UPPER 1/2) IS 'RECENT' - IT IS SPLATTER + FREE OIL IN POCKETS - OIL HERE HAS PENETRATED THE SURFACE BOULDER/COBBLE LAYER. ELSEWHERE OIL OCCURS AS A LIGHT SPLATTER ON THE SURFACE COBBLE/BOULDERS NO LAYERS - NO PENETRATION BEHIND SURFACE GRAVEL LAYER.  
INSUFFICIENT OIL TO MERIT MECHANIZED CLEANING (SMALL SEGMENT), ALSO HIGH NATURAL ENERGY SHORE WEEP CLEANING PROCESS AND ~~AND~~ MECHANIZED (WAS HUNG) WOULD HARM MUSSELS BELOW. NO CLEANING RECOMMENDED FOR SITE.

ACE 1852983

DOCUMENTATION:

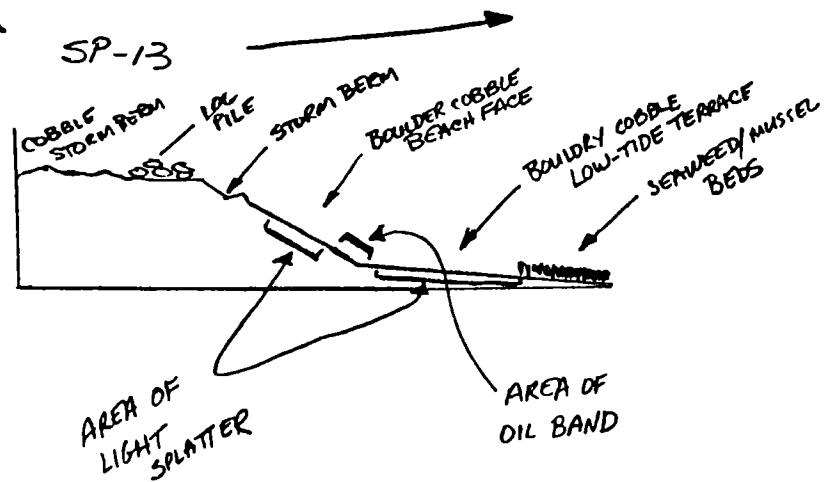
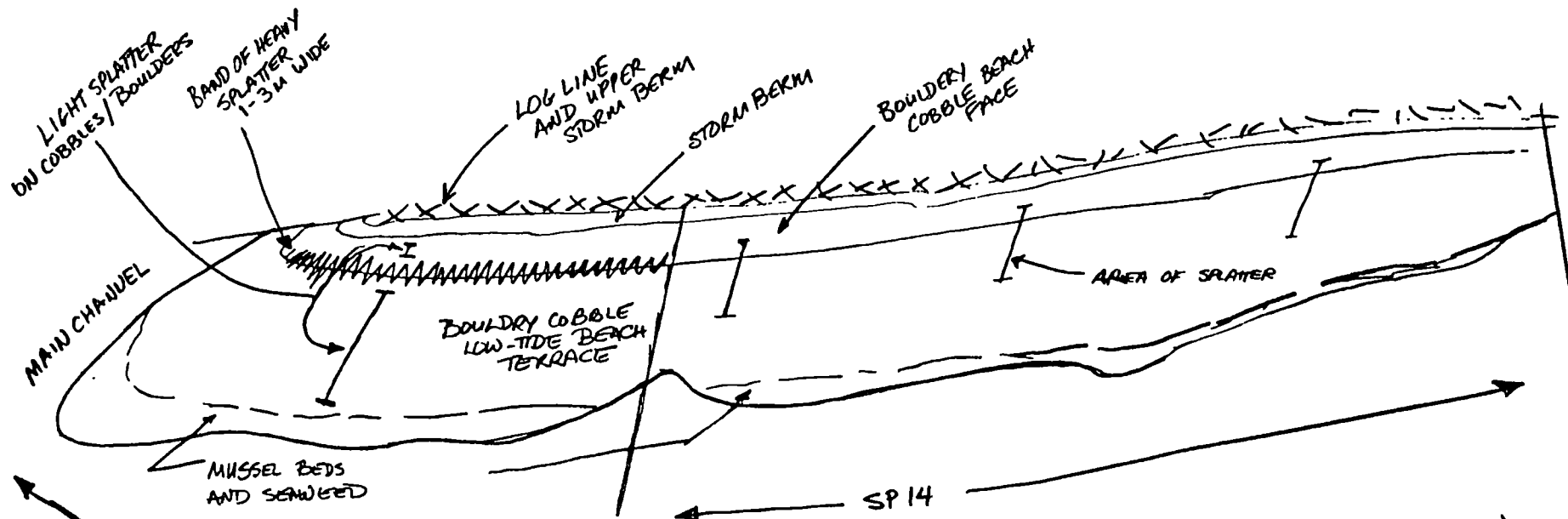
Map/Aerial photo marking segment boundaries See Attached

VTR: Y/N Tape Number(s) \_\_\_\_\_

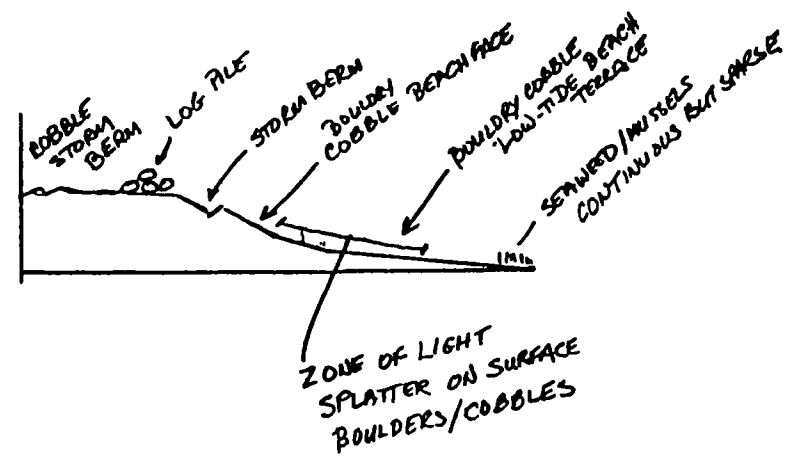
Photography: Y/N Roll Number(s) DMC-12

Sample Numbers Collected: N/A

SP13 - SP14 - EXPOSED COBBLE SPIT -



CROSS SECTION OF UNIT SP-13



CROSS SECTION OF UNIT SP-14

# ECOLOGICAL EVALUATION

LOCATION: Sturgeon Bay SITE: Downside of Spit OBSERVER: J. Tarpley

LOCATION PREFIX: SL SEG. NO.: 13 LENGTH: 660 (M)

DATE: 6/5/89 TIME (HHMM): 040 TIDE HT.: -0.80 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

## LIVE BIOTA

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

Located in low ITZ - not oiled

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

Shell debris High ITZ: Located in low ITZ - not oiled

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

Located in low ITZ: not oiled

## Littorina

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

High ITZ

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

OTHER OBSERVATIONS: All biota primarily at low ITZ. Biota separated into zones: Balanus zone; Mytilus/Balanus/Littorina zone; Fucus/Balanus zone; Kelp zone. These zones were 15-25m wide & the entire length of the segment.

CLEANUP PRECAUTIONS: NONE

MAMMALS: Otters        Harbor Seals        Sea Lions        Whales         
Other NONE

BIRDS: NONE

GENERAL OBSERVATIONS: Splattered mousse found from high ITZ down to high edge of Mytilus/Balanus zone.

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 6-5-89 Location Sturgeon Lagoon Site Spit

Location Prefix SL Segment # 13 Length 660m

Survey Method:

Air \_\_\_\_\_ (A - indicate on map) Boat \_\_\_\_\_ (A - indicate on map)

Ground ✓ (G - indicate on map)

Known cultural resources (AHRS #) NONE Data Source \_\_\_\_\_

Oil conditions/beach visibility Light splatter

Width of beach zone surveyed 5-10 m Tree fringe surveyed -

Cultural resources observed in beach zone (AHRS code) None

Cultural resources observed in tree fringe (AHRS code) None

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

Shore Profile DRIFTWOOD topped COASTAL SPIT

Fresh Water Sources NONE

Sea Exposure Exposed high Energy Beach

Access/Safety Accessible by helicopter or BOAT

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 # \_\_\_\_\_ Frames \_\_\_\_\_

B/W Roll # \_\_\_\_\_ Frames \_\_\_\_\_

Observer(s) MIKE YARBOROUGH

Time survey started 10:36 AM Time survey ended 11:26

Cultural resource considerations/restraints:

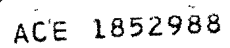
IF HERETOFORE UNDISCOVERED CULTURAL REMAINS ARE

FOUND DURING CLEANUP, CONTACT EXXON'S DIRECTOR OR

FIELD ARCHEOLOGY IMMEDIATELY.

ACE 1852987

-1-



# TYPE A SHORELINE CLEANUP WORK ORDER

Date: 21 June 89 Shoreline Segment: SL-4, 8  
SL-9, 10, 11, 12, 13, 14, 15, 16, 17  
 Location: (Attach map) Sturgeon Lagoon

ADEC No. K6-34 Shoreline Assessment Date: 6/04/89 & 6/05/89

## Recommended Cleanup Activity(ies):

No cleanup recommended at the time of the SCAT assessment.  
 Reevaluation may be necessary if reoiling occurs.

See Attached Sheets.

## Priority Considerations:

see attached "Shoreline Cleanup Program" forms.

## Ecological Constraints (from site survey):

### Archaeological Constraints:

Exxon Supervisor will review each SCAT report. No cleanup will be conducted until an archeologist is present if so stated for a particular beach segment (SL-11, SL-12, SL-15, SL-16, SL-17)

### Archaeological Constraints:

If any archaeological or historical sites or artifacts are discovered during the cleanup activity, they must remain undisturbed and the Exxon archeologist C. Mobley contacted (as per procedures in the "Guideline for Shoreline Cleanup") and the State Historic Preservation Office notified as soon as possible.

Submitted by: Jack A. Rickman  
 Exxon

Date: 22 June 89

State Historic Preservation Officer Telephone Approval (Required)

Date: June 19, 1989 (See Attachment)

Approved: [Signature]  
 Assistant OSC Western Alaska (if appropriate)

Date: \_\_\_\_\_

Approved: [Signature]  
 Federal On-Scene Coordinator

Date: 25 JUN 89

By direction

(version 6/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): STURGEON LAGOON BLOCK K6-34

Includes Shoreline Segments: SL-1, SL-2, SL-3, SL-4, SL-5, SL-6,  
SL-7, SL-8, SL-9, SL-10, SL-11, SL-12, SL-13, SL-14, SL-15,  
SL-16, SL-17

Submitted: \_\_\_\_\_ Date: \_\_\_\_\_  
(for Exxon)

ISCC Recommendation: \_\_\_\_\_ Date: \_\_\_\_\_

FOSC Approval: \_\_\_\_\_ Date: \_\_\_\_\_

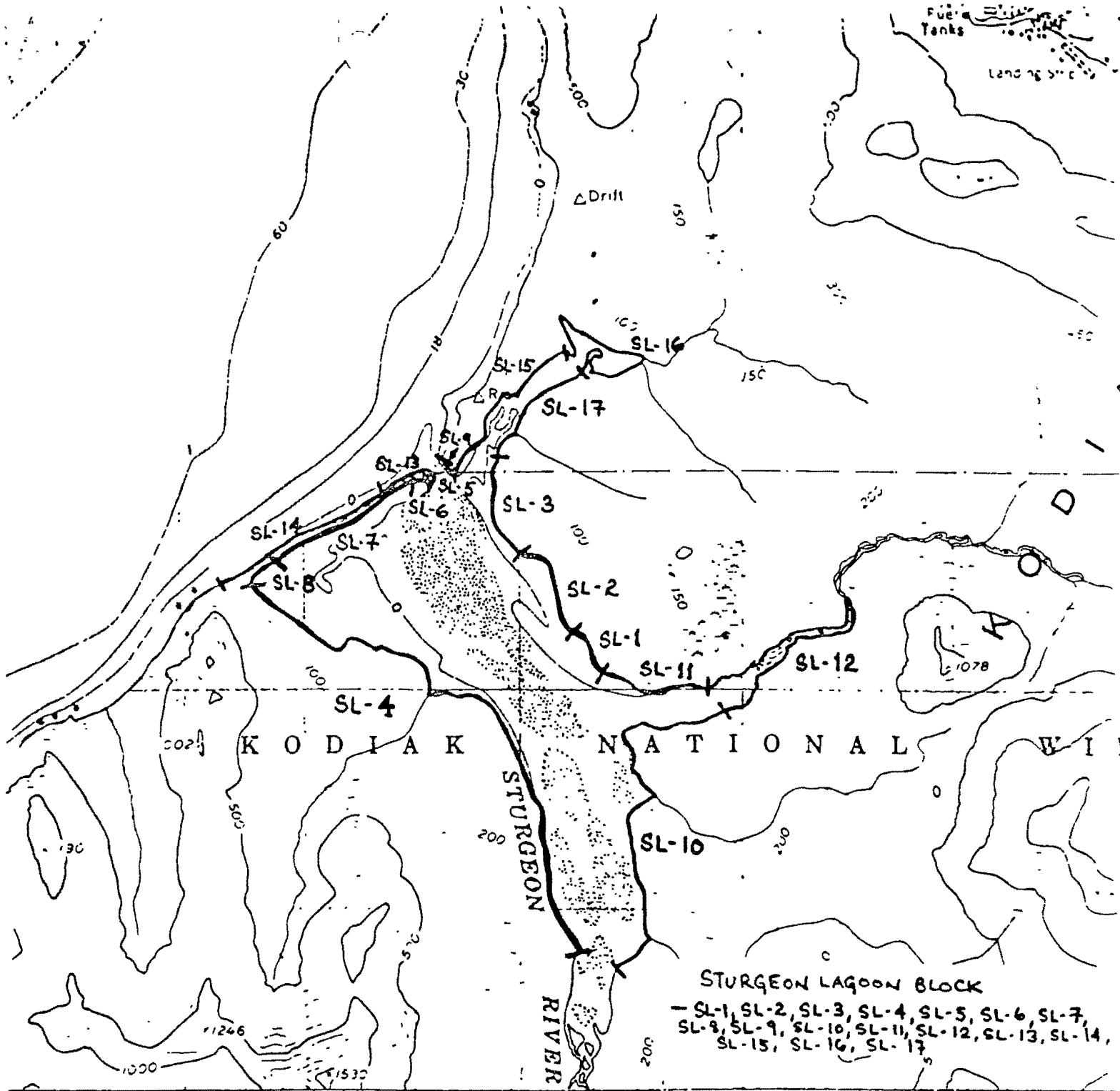
The cleanup procedures identified in the Shoreline Cleanup Program are recommended. Modifications to these systems can be made in the field. Exxon and other field personnel are encouraged to suggest innovations and productivity enhancements to the OSC's on-scene representative. The OSC's representative has the authority to approve on-site modifications. The Field Resource Team should be consulted if these actions do not fit within the Ecological Constraints of the Shoreline Cleanup Program. Requirements for safety and the protection of cultural material must be observed.

Distribution:

Exxon Shoreline Coordinator  
Exxon Shoreline Supervisor  
Exxon SCAT file

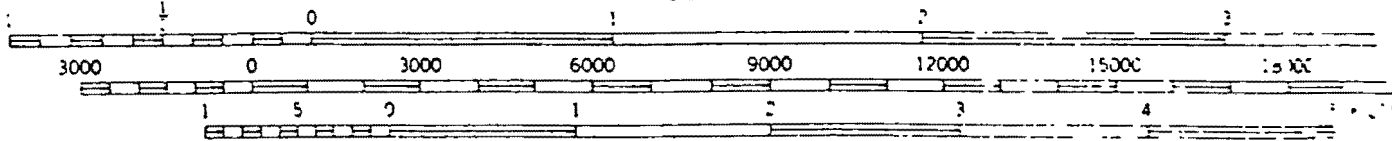
FOSC  
CDFU  
NOAA  
EPA  
USDA (FS)  
USFW  
A.DEC  
A.FG  
A.DNR  
CAC  
PWSCA  
USFS  
SHPO

ACE 1852990



30' (KARLUK B-2)

SCALE 1:63,360



CONTOUR INTERVAL 100 FEET

DASHED LINES REPRESENT 50 FOOT CONTOURS

NATIONAL GEODETIC VERTICAL DATUM OF 1929

DEPTH CURVES IN FEET - DATUM IS MEAN LOWER LOW WATER

SHORELINE SHOWN REPRESENTS THE APPROXIMATE LINE OF MEAN HIGH WATER

THE AVERAGE RANGE OF TIDE IS APPROXIMATELY 11 FEET

22°  
MAGNETIC NORTH

DATE MEAN  
JULY 1952

FOR SALE BY U S GEOLOGICAL SURVEY

ACE 1852991-15

FAIRBANKS ALASKA 99701 DENVER COLORADO 80225 OR RESTON VIRGINIA 22061

# SEGMENT INSPECTION RECORD

ADEC # R-6-34

Shoreline Segment: SL 8-17

Shoreline Treatment Process(es) Completed for this Segment

- |                                          |                                                    |
|------------------------------------------|----------------------------------------------------|
| <input type="checkbox"/> Hot water wash  | <input type="checkbox"/> Mechanical                |
| <input type="checkbox"/> Warm water wash | <input checked="" type="checkbox"/> Non-mechanical |
| <input type="checkbox"/> Water deluge    | <input type="checkbox"/> Other                     |

ORIGINAL

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Exxon Comments

Signature *Gayle Cannon*

Date 9/6/89

Time 0730

Printed Name GAYLE CANNON

Existing Shoreline Condition As  
Visually Determined by USCG

Surface Oil

|                                                                                                                                                                                                   |                  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Percent                                                                                                                                                                                           | Degree of Oiling |
| <div style="border: 1px solid black; width: 50px; height: 20px; position: relative;"><div style="position: absolute; top: -10px; left: 0; right: 0; border-bottom: 1px solid black;"></div></div> | Heavy            |
| <div style="border: 1px solid black; width: 50px; height: 20px; position: relative;"><div style="position: absolute; top: -10px; left: 0; right: 0; border-bottom: 1px solid black;"></div></div> | Medium           |
| <div style="border: 1px solid black; width: 50px; height: 20px; position: relative;"><div style="position: absolute; top: -10px; left: 0; right: 0; border-bottom: 1px solid black;"></div></div> | Light            |
| <div style="border: 1px solid black; width: 50px; height: 20px; position: relative;"><div style="position: absolute; top: -10px; left: 0; right: 0; border-bottom: 1px solid black;"></div></div> | Very Light       |

100%

Subsurface Oil

☐ Yes ☒ No

Comment Below

☐ Reassessment

☐ Yes - Necessary

☒ No - Not necessary unless re-oiled

ADEC Rep

Comments

over For Comments

Signature *Scott Shelton*

Date 9/5/89

Time 4:45 P.M.

Printed Name

SCOTT Shelton

FOSC Rep

Demobilization approved/disapproved

Comments

Agree with ADEC comments. Trash should be removed asap.

Signature *J. Tagh*

Date \_\_\_\_\_ Time \_\_\_\_\_

Printed Name \_\_\_\_\_

Copy: Exxon ADEC FOSC ISCC

Return All Signed Originals to Exxon

ACE 1852936+1S

enclosure (5)

DEC. Comments 9/5/89 Sturgeon River

11:55 AM SEI DOWN 116-34 (SL-9) Observed <sup>10cm</sup> small band of weathered mussel and vegetation 20<sup>x</sup> meters along N/W lagoon shore. Walked 350 yds towards N/E shore of lagoon S-15 ~~SL-15~~ SL-17, SL-3. Very light splintered weathered - Found assorted garbage in white bags along SL-9 lagoon side. Counted 2 doz plastic bags weighted with rocks - Sturgeon River area needs to be cleaned up. Clean up crews have deposited garbage and rolls of plastic bags in location that winter storms could refloat and cause a real mess - 2 doz full rolls of plastic counted on the beach. 1. TENT weighted down with rocks. Broom material found on Beach Cashes could be caught in winter storms as well.

Small oil band could be picked up before this season ends. 1-2 bags should complete the task.

John Shelton

# TYN SHORELINE CLEANUP WORK ORDER

Date: 21 June 89 Shoreline Segment: SL-4, 8  
SL-9, 10, 11, 12, 13, 14, 15, 16, 17  
 Location: (Attach map) Sturgeon Lagoon

ADEC No. K6-34 Shoreline Assessment Date: 6/04/89 & 6/05/89

## Recommended Cleanup Activity(ies):

No cleanup recommended at the time of the SCAT assessment.  
 Reevaluation may be necessary if reoiling occurs.

See Attached Sheets.

## Priority Considerations:

see attached "Shoreline Cleanup Program" forms.

## Ecological Constraints (from site survey):

### Archaeological Constraints:

Exxon Supervisor will review each SCAT report. No cleanup will be conducted until an archeologist is present if so stated for a particular beach segment (SL-11, SL-12, SL-15, SL-16, SL-17)

### Archaeological Constraints:

All any archaeological or historical sites or artifacts are discovered during the cleanup activity, they must remain undisturbed and the Exxon archeologist C. Mobley contacted (as per procedures in the "Guideline for Shoreline Cleanup") and the State Historic Preservation Office notified as soon as possible.

Submitted by: Jack A. Rickman  
 Exxon

Date: 22 June 89

State Historic Preservation Officer Telephone Approval (Required)

Date: June 10, 1989 (See Attachment)

Approved: [Signature]  
 Assistant OSC Western Alaska (If appropriate)

Date:                     

Approved: [Signature]  
 Federal On-Scene Coordinator

Date: 25 JUN 89

By direction

## SEGMENT INSPECTION RECORD

ADEC # K6-34

Shoreline Segment: SL-1

Shoreline Treatment Process(es) Completed for this Segment

Yards Signed Off

☐

Hot water wash

☐

Mechanical

☐

Warm water wash

☒

Non-mechanical

☐

Water deluge

☐

Other

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Exxon Comments

Signature

*Jack A. Rickner*

Date

7/27/89

Time

1652

Printed Name

Jack Rickner

Existing Shoreline Condition As  
Visually Determined by USCG

Surface Oil

Percent

Degree of Oiling

☐  
☐  
☐  
☐

Heavy

Medium

Light

Very Light

100%

Subsurface Oil

☐

Yes

☒

No

Comment Below

☒

Reassessment

Yes - Necessary

☐

No - Not necessary unless re-oiled

ADEC Rep

Comments

Existing Shoreline Condition As  
Visually Determined by ADEC

Surface Oil

Percent

Degree of Oiling

☐  
☐  
☐  
☐

Heavy

Medium

Light

Very Light

100%

Subsurface Oil

☐

Yes

☐

No

Comment Below

☐

Reassessment

Yes - Necessary

☐

No - Not necessary unless re-oiled

Signature

Date

Time

Printed Name

FOSC Rep Type A shoreline Demobilization approved/disapproved for entire sub-unit.

Comments

*Much of the sub-unit was inspected by aerial observation. Shoreline inspection was conducted on Sturgeon River waterway. Oil discovered on rocky flats near Cape Karluk. Oil stained rocks*

Signature

*P. J. Cormier, LT, USCG*

Date

31 July 89

Time

2140

Printed Name

*P. J. Cormier*

Copy: Exxon ADEC FOSC ISCC

Return All Signed Originals to Exxon

(version 6/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): STURGEON LAGOON BLOCK K 6-34

Includes Shoreline Segments: SL-1, SL-2, SL-3, SL-4, SL-5, SL-6,  
SL-7, SL-8, SL-9, SL-10, SL-11, SL-12, SL-13, SL-14, SL-15,  
SL-16, SL-17

Submitted: \_\_\_\_\_ Date: \_\_\_\_\_  
(for Exxon)

ISCC Recommendation: \_\_\_\_\_ Date: \_\_\_\_\_

FOSC Approval: \_\_\_\_\_ Date: \_\_\_\_\_

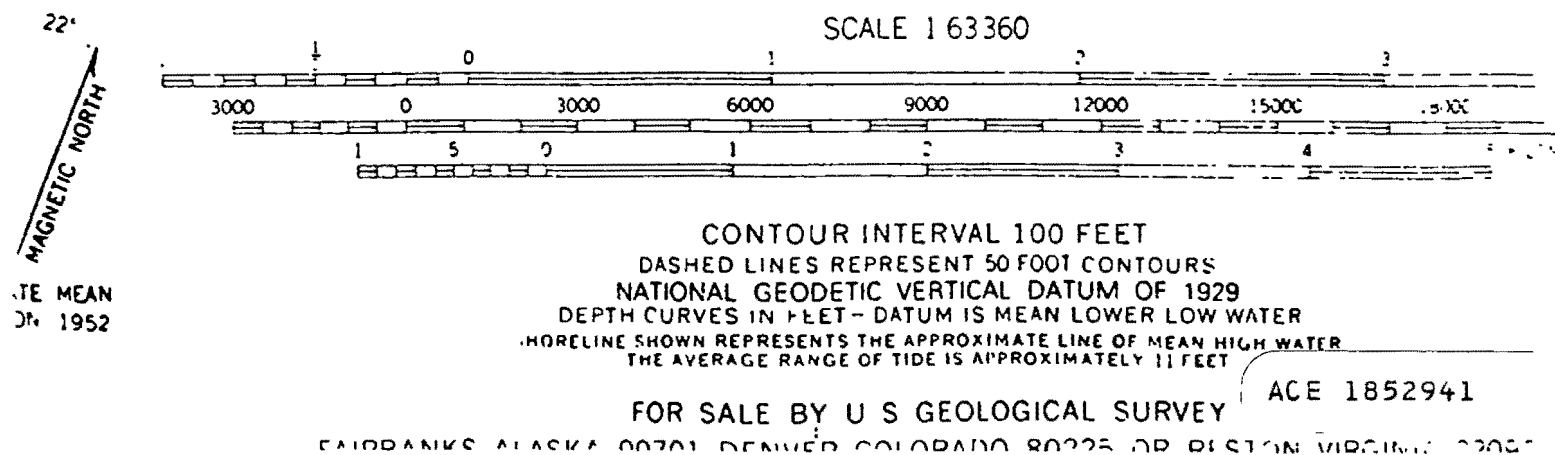
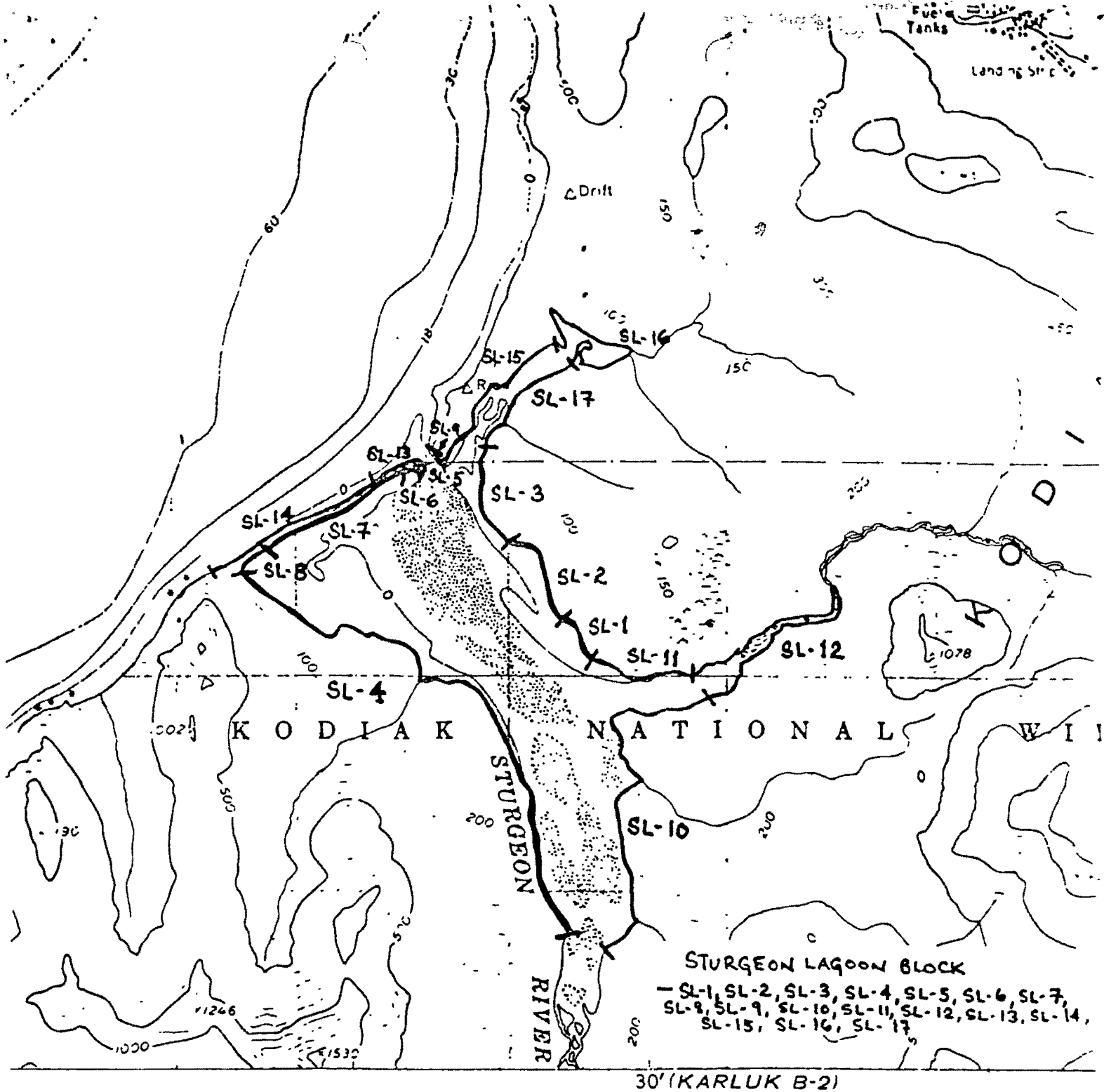
The cleanup procedures identified in the Shoreline Cleanup Program are recommended. Modifications to these systems can be made in the field. Exxon and other field personnel are encouraged to suggest innovations and productivity enhancements to the OSC's on-scene representative. The OSC's representative has the authority to approve on-site modifications. The Field Resource Team should be consulted if these actions do not fit within the Ecological Constraints of the Shoreline Cleanup Program. Requirements for safety and the protection of cultural material must be observed.

Distribution:

Exxon Shoreline Coordinator  
Exxon Shoreline Supervisor  
Exxon SCAT file

FOSC  
CDFU  
NOAA  
EPA  
USDA (FS)  
USFW  
A.DEC  
A.FG  
A.DNR  
CAC  
PWSCA  
USFS  
SHPO

ACE 1852940



(version 4/29/89)

SHORELINE CLEANUP PROGRAM

DATE 6/09/89

SHORELINE SEGMENT SL-9

LOCATION: (see enclosed map) Sturgeon Lagoon - Extreme northeast  
end of Cobble Spit at lagoon entrance.

ADEC NO. K6-34 SHORELINE ASSESSMENT DATE: 6/04/89

Recommended Cleanup Activity(ies):

- No cleanup recommended at this time. Segment is short, there are ecological constraints (anadromous stream) and segment should be subject to wave action. Impossible to clean without removing gravel or by mechanical means, which is inappropriate for the site.

Priorities Considerations: This bay is designated sensitive, due to sockeye, pink and chum salmon runs.

Ecological Constraints (from site survey): Avoid oil contamination to clean mid and lower intertidal, if any cleanup is conducted.

Archeological Constraints (from site survey):

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

Charles E. Holmes  
State Historic Preservation Officer \*

Date: June 10, 1989

EXXON: Jack A. Rickman

Date: 14 June 89

FOSC: \_\_\_\_\_

Date: \_\_\_\_\_

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

(version 5/16/89)

SHORELINE OIL EVALUATION FORM - KONTAK

Date: JUN 4/89 Time: 15:25

Observer: D. Howes

Surveyed From: FOOT/Boat/Helio/Plane

Weather: Sun/Cloud/Rain/Snow/Hog

LOCATION

LOCATION STURGES LAKE NORTH END SEGMENT I.D. SL-9

LENGTH OF SHORELINE SEGMENT: 45 m

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

SHORELINE:

Shoreline Type: SPI/BEA/COV/HLD/STRT Slope: LANG/HANG/VER

Wave Exposure: High/Med/~~Low~~

Sediment: B 5% / C 60% / P 35% / G \_\_\_% / S \_\_\_% / M \_\_\_% / R \_\_\_%

Drift Debris on Beach: Yes/No Supra/Upper/Mid/Lower Type logs

OIL

Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved

Total Area of Beach Impact: SU / SP / H / M / L

OIL DISTRIBUTION

Continuous: Y/N Segment % 100 No. Bands 1 Width 4-5m

Sporadic: Y/N Segment % \_\_\_ Min/Max Dia \_\_\_ Impact Width \_\_\_

Est. Oil Thickness where > 1cm: 5-25 cm SU / SP / UP / MID / LO

Est. Oil Penetration: 45-50 cm <sup>(may be deeper)</sup> SU / SP / UP / MID / LO

Layers? Yes/No No# Layers \_\_\_ Oil Weathering \_\_\_

Drift Debris Oiled? Yes/No Supra/Upper/Mid/Lower Amount: H / M / L / VL

OIL MORPHOLOGY

Pooled Oil \_\_\_% "Free" Oil 95% Spattered 5% H/H/L/VL Sheen \_\_\_

OIL WEATHERING (OW)

Fresh Oil \_\_\_% SU/SP/VP/MID/LO Choc Mousse 100% SU/SP/VP/MID/LO

Pancake Mousse \_\_\_% SU/SP/VP/MID/LO Asphalt Mousse \_\_\_% SU/SP/VP/MID/LO

Tar Formation \_\_\_%

Comments:

'FRESH' OR RECENT CHOC MOUSSE DEPOSIT; OIL HAS PENETRATED THE SEDIMENTS UP TO AT LEAST 50 CM + FILLED SOME OF THE Voids BETWEEN PARTICLES  
SEDIMENT IS FINE & COARSE TEXTURED

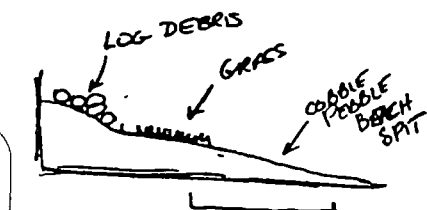
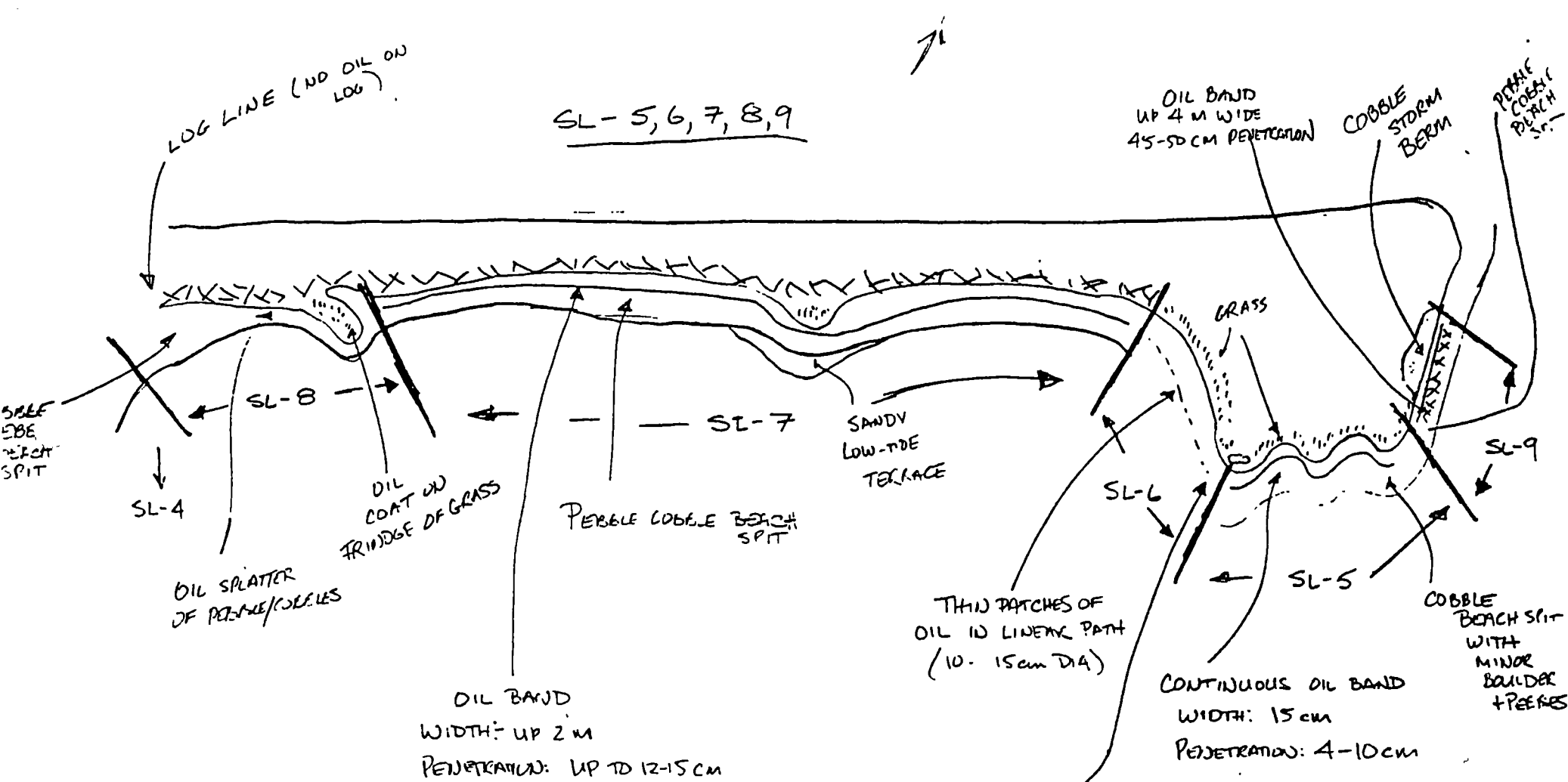
DOCUMENTATION:

Map Aerial photo marking segment boundaries See Attached

VTR: Y/N Tape Number(s) \_\_\_\_\_

Photography: Y/N Roll Number(s) DMC-12

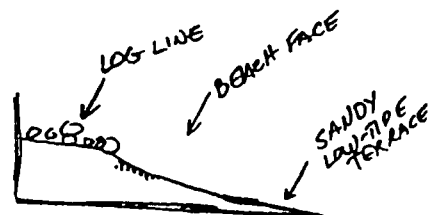
Sample Numbers Collected: N/A



APPROX. ZONE OF OIL IMPACT

ESTIMATED CROSS-PROFILE

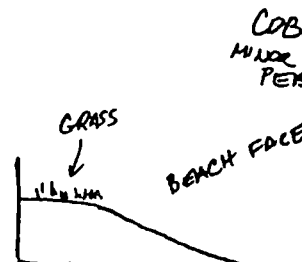
SL-8



APPROX. ZONE OF IMPACT

ESTIMATED CROSS-PROFILE

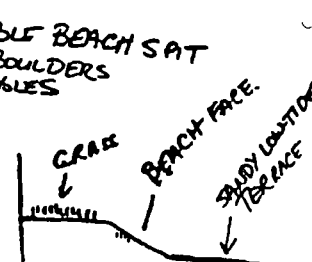
SL-7



APPROX. ZONE OF IMPACT

ESTIMATED PROFILE

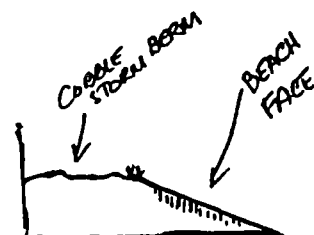
SL-6



APPROX. ZONE OF IMPACT

ESTIMATED PROFILE

SL-5



APPROX. ZONE OF IMPACT

ESTIMATED PROFILE

SL-9

## ECOLOGICAL EVALUATION

STURGEON LAGOON  
 extreme NE end of cobble spit at lagoon entrance  
 LOCATION: \_\_\_\_\_ SITE: \_\_\_\_\_ OBSERVER: D. McCormick

LOCATION PREFIX: SL SEG. NO.: 9 LENGTH: 4.5 (M)

DATE: 6/4/89 TIME (HHMM): 1525 TIDE HT.: 2.5 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

## LIVE BIOTA

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

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

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

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

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

OTHER OBSERVATIONS: 2 red fox seen foraging in log debris; 3 healthy-looking sea lions 1/4 mi offshore

CLEANUP PRECAUTIONS: Avoid contaminating mid and lower ITZ.

MAMMALS: Otters \_\_\_\_\_ Harbor Seals \_\_\_\_\_ Sea Lions 3 Whales \_\_\_\_\_  
 Other 2 red fox

BIRDS: \_\_\_\_\_

GENERAL OBSERVATIONS: This segment at the mouth of lagoon was most heavily oiled for this Bay; relatively high energy area which may clean itself

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 6-4-89 Location Sturgeon Lagoon Site COBBLE spit

Location Prefix SL Segment # 9 Length 4.5 m

Survey Method:

Air \_\_\_\_\_ (A - indicate on map) Boat \_\_\_\_\_ (A - indicate on map)

Ground ✓ (G - indicate on map)

Known cultural resources (AHRS #) NONE Data Source \_\_\_\_\_

Oil conditions/beach visibility moderate

Width of beach zone surveyed 5 m Tree fringe surveyed —

Cultural resources observed in beach zone (AHRS code) NONE

Cultural resources observed in tree fringe (AHRS code) NONE

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

Shore Profile DRIFT WOOD topped COBBLE spit

Fresh Water Sources NONE

Sea Exposure protected inside the Lagoon

Access/Safety Accessible by BOTH BOAT AND helicopter

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 # \_\_\_\_\_ Frames \_\_\_\_\_

B/W Roll # \_\_\_\_\_ Frames \_\_\_\_\_

Observer(s) MIKE YARBOROUGH, CHRIS WOOLEY

Time survey started 3:25 Time survey ended 4:04 pm

Cultural resource considerations/restraints:

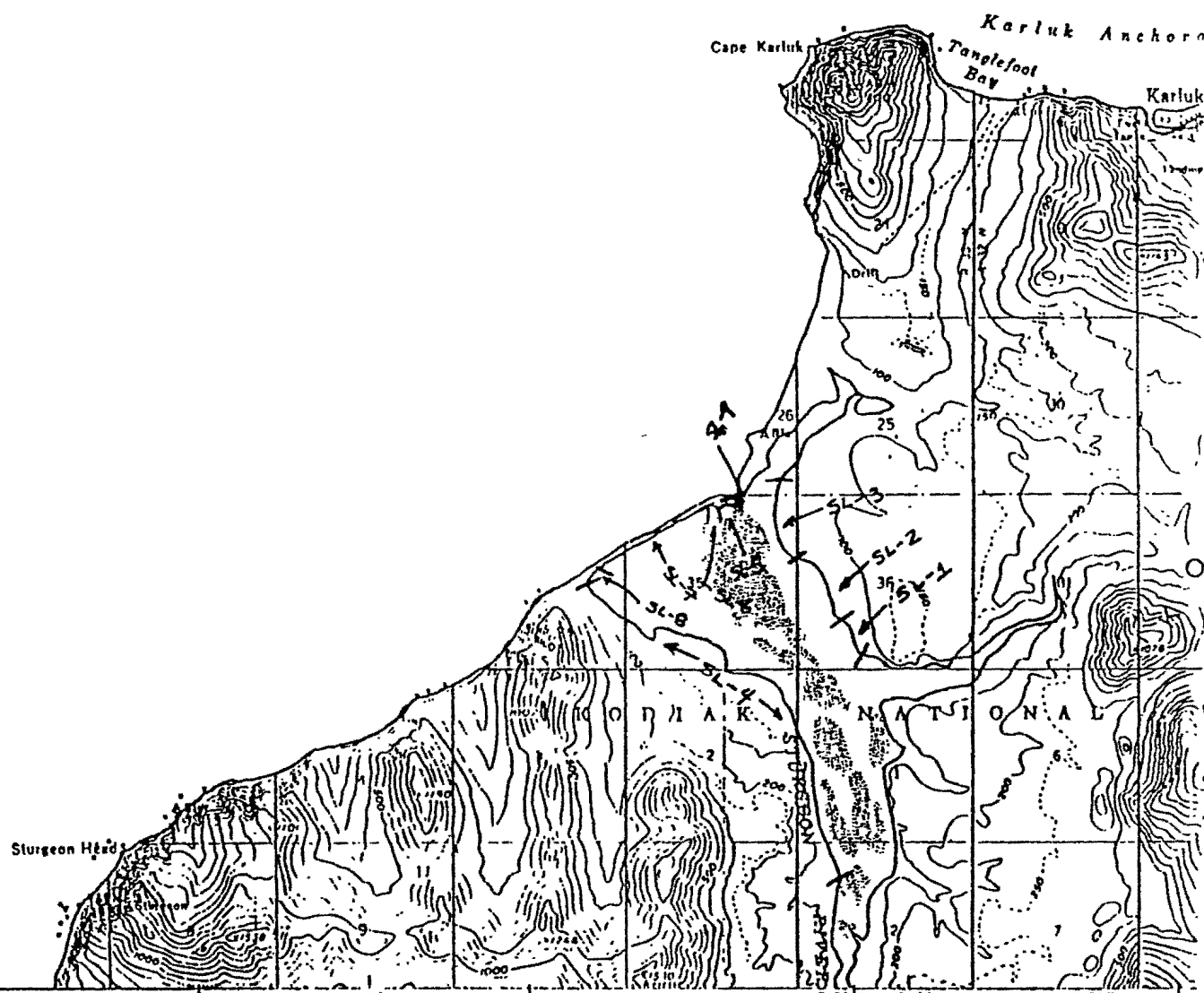
IF heretofore undiscovered cultural remains are found

during clean-up, contact Exxon's Director of Field

Archaeology immediately

ACE 1852947

S H E L L K



1:250,000 FEET

35'

R 33 W

30' (KARLUK B-2) R 12 W

Maped, edited, and published by the Geological Survey

by NOS/MOAA and USCE

Map by photogrammetric methods from aerial photographs  
1:100,000. Map not field checked

SCALE 1:61,160

ACE 1852948

-15

# SEGMENT INSPECTION RECORD

ADEC # K-6-34

Shoreline Segment: SL 8-17

Shoreline Treatment Process(es) Completed for this Segment

|                                          |                                                    |
|------------------------------------------|----------------------------------------------------|
| <input type="checkbox"/> Hot water wash  | <input type="checkbox"/> Mechanical                |
| <input type="checkbox"/> Warm water wash | <input checked="" type="checkbox"/> Non-mechanical |
| <input type="checkbox"/> Water deluge    | <input type="checkbox"/> Other                     |

ORIGINAL

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Exxon Comments

Signature *Gayle Cannon* Date 9/6/89 Time 0730

Printed Name GAYLE CANNON

Existing Shoreline Condition As  
Visually Determined by USCG  
Surface Oil

|                                                                                                                                                                                                    |                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Percent                                                                                                                                                                                            | Degree of Oiling |
| <div style="border: 1px solid black; width: 100px; height: 20px; position: relative;"><div style="position: absolute; top: -10px; left: 0; right: 0; border-bottom: 1px solid black;"></div></div> | Heavy            |
| <div style="border: 1px solid black; width: 100px; height: 20px; position: relative;"><div style="position: absolute; top: -10px; left: 0; right: 0; border-bottom: 1px solid black;"></div></div> | Medium           |
| <div style="border: 1px solid black; width: 100px; height: 20px; position: relative;"><div style="position: absolute; top: -10px; left: 0; right: 0; border-bottom: 1px solid black;"></div></div> | Light            |
| <div style="border: 1px solid black; width: 100px; height: 20px; position: relative;"><div style="position: absolute; top: -10px; left: 0; right: 0; border-bottom: 1px solid black;"></div></div> | Very Light       |

100%  
Subsurface Oil  
☐ Yes ☒ No

Comment Below

Reassessment  
☐ Yes - Necessary

☒ No - Not necessary unless re-oiled

ADEC Rep

Comments

over For Comments

Signature *Scott Shelton* Date 9/5/89 Time 4:45 P.M.

Printed Name SCOTT Shelton

FOSC Rep Demobilization approved/disapproved

Comments Agree with ADEC comments. Trash should be removed asap.

Signature *J. Tagli* Date \_\_\_\_\_ Time \_\_\_\_\_

Printed Name \_\_\_\_\_

Copy: Exxon ADEC FOSC ISCC Return All Signed Originals to Exxon

ACE 1852923 +15

enclosure (5)

DEC. Comments 9/5/89 Sturgis River

11:55 AM SEI DOWN K6-34 (SL-9) observed

small band of weathered mousse and vegetation  $20 \times 10 \text{ cm}$  meters along N/W lagoon shore. Walked 350 yds towards N/E shore of lagoon S-15 ~~SL-15~~ SL-17, SL-3. Very light splatters weathered - Found assorted garbage in white bags along SL-9 lagoon side. Counted 2 doz plastic bags weighted with rocks - Sturgis River area needs to be cleaned up - Clean up crews have deposited garbage and rolls of plastic bags in location that winter storms could refloat and cause a real mess - 2 doz full rolls of plastic counted on the beach. 1 TENT weighted down with rocks. Boom material found on Beach Cashes could be caught in winter storms as well.

Small oil band could be picked up before this season ends. 1-2 bags should complete the task.

John Shelton

## SEGMENT INSPECTION RECORD

ADEC # K6-34

Shoreline Segment: SL-1

Shoreline Treatment Process(es) Completed for this Segment

Yards Signed Off

|                          |                 |                                     |                |
|--------------------------|-----------------|-------------------------------------|----------------|
| <input type="checkbox"/> | Hot water wash  | <input type="checkbox"/>            | Mechanical     |
| <input type="checkbox"/> | Warm water wash | <input checked="" type="checkbox"/> | Non-mechanical |
| <input type="checkbox"/> | Water deluge    | <input type="checkbox"/>            | Other          |

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Exxon Comments

Signature Jack A RicknerDate 7/27/89Time 1652

Printed Name Jack Rickner

Existing Shoreline Condition As  
Visually Determined by USCG  
Surface Oil

|                          |                  |
|--------------------------|------------------|
| Percent                  | Degree of Oiling |
| <input type="checkbox"/> | Heavy            |
| <input type="checkbox"/> | Medium           |
| <input type="checkbox"/> | Light            |
| <input type="checkbox"/> | Very Light       |

100%

Subsurface Oil

☐ Yes ☒ No

Comment Below

☒ Reassessment  
Yes - Necessary

☐ No - Not necessary unless re-oiled

ADEC Rep

Comments

Existing Shoreline Condition As  
Visually Determined by ADEC  
Surface Oil

|                          |                  |
|--------------------------|------------------|
| Percent                  | Degree of Oiling |
| <input type="checkbox"/> | Heavy            |
| <input type="checkbox"/> | Medium           |
| <input type="checkbox"/> | Light            |
| <input type="checkbox"/> | Very Light       |

100%

Subsurface Oil

☐ Yes ☐ No

Comment Below

☐ Reassessment  
Yes - Necessary

☐ No - Not necessary unless re-oiled

Signature \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Printed Name

FOSC Rep Type A Shoreline Demobilization approved for entire sub unit

Comments

Much of the sub-unit was inspected by aerial observation. Shoreline inspection was conducted in Sturgeon River mouth. Oil discovered on rocky flats near Cape Karluk. Oil stained rocks.

Signature P. J. Cormier, LT, USCGDate 31 July 89 Time 2140Printed Name P. J. Cormier

Copy: Exxon ADEC FOSC ISCC Return All Signed Originals to Exxon

ACE 1852925+15

# TYPE A SHORELINE CLEANUP WORK ORDER

Date: 21 June 89 Shoreline Segment: SL-4, 8  
SL-9, 10, 11, 12, 13, 14, 15, 16, 17  
 Location: (Attach map) Sturgeon Lagoon

ADEC No. K6-34 Shoreline Assessment Date: 6/04/89 & 6/05/89

## Recommended Cleanup Activity(ies):

No cleanup recommended at the time of the SCAT assessment.  
 Reevaluation may be necessary if reoiling occurs.

See Attached Sheets.

## Priority Considerations:

see attached "Shoreline Cleanup Program" forms.

## Ecological Constraints (from site survey):

### Archaeological Constraints:

Exxon Supervisor will review each SCAT report. No cleanup will be conducted until an archeologist is present if so stated for a particular beach segment (SL-11, SL-12, SL-15, SL-16, SL-17)

### Archaeological Constraints:

If any archaeological or historical sites or artifacts are discovered during the cleanup activity, they must remain undisturbed and the Exxon archeologist C. Mobley contacted (as per procedures in the "Guideline for Shoreline Cleanup") and the State Historic Preservation Office notified as soon as possible.

Submitted by: Jack A. Rickman  
 Exxon

Date: 22 June 89

State Historic Preservation Officer Telephone Approval (Required)

Date: June 19, 1989 (see Attachment)

Approved:

[Signature]  
 Assistant OSC Western Alaska (If appropriate)

Date:                     

Approved:

[Signature]  
 Federal On-Scene Coordinator

Date: 25 JUN 89

By direction

(version 6/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): STURGEON LAGOON BLOCK *K 6-34*

Includes Shoreline Segments: SL-1, SL-2, SL-3, SL-4, SL-5, SL-6,  
SL-7, SL-8, SL-9, SL-10, SL-11, SL-12, SL-13, SL-14, SL-15,  
SL-16, SL-17

Submitted: \_\_\_\_\_ Date: \_\_\_\_\_  
(for Exxon)

ISCC Recommendation: \_\_\_\_\_ Date: \_\_\_\_\_

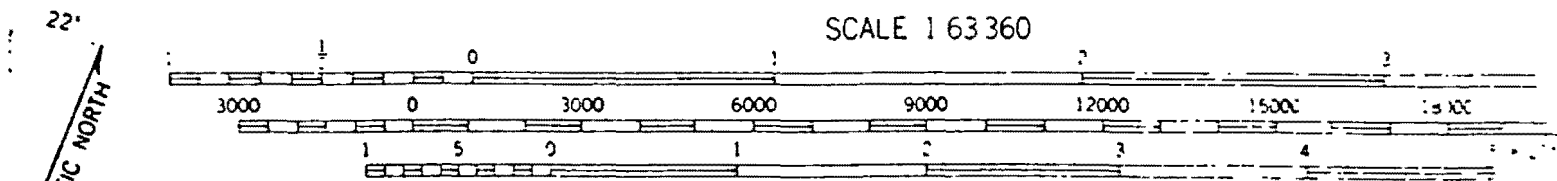
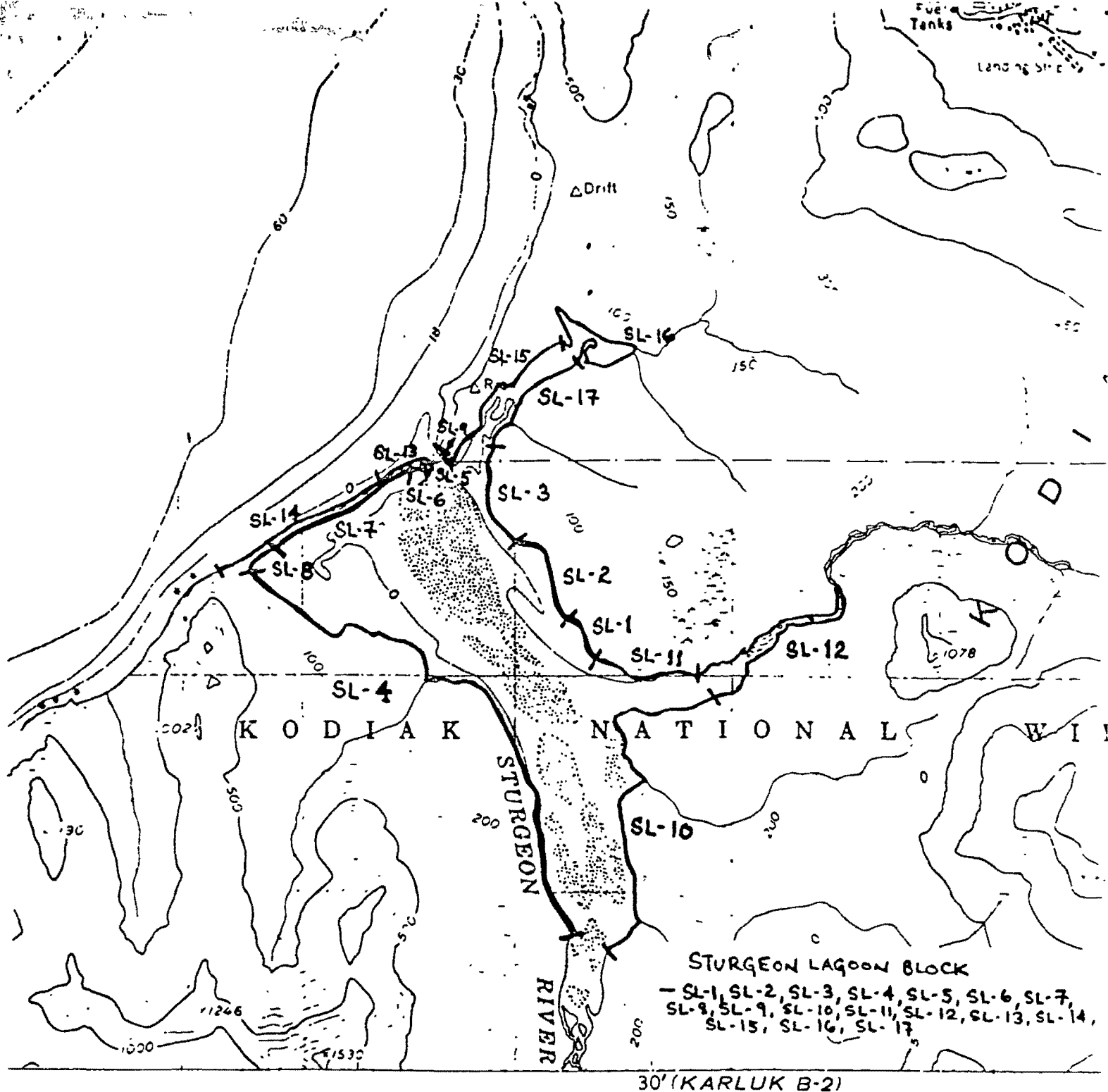
FOSC Approval: \_\_\_\_\_ Date: \_\_\_\_\_

The cleanup procedures identified in the Shoreline Cleanup Program are recommended. Modifications to these systems can be made in the field. Exxon and other field personnel are encouraged to suggest innovations and productivity enhancements to the OSC's on-scene representative. The OSC's representative has the authority to approve on-site modifications. The Field Resource Team should be consulted if these actions do not fit within the Ecological Constraints of the Shoreline Cleanup Program. Requirements for safety and the protection of cultural material must be observed.

Distribution:

Exxon Shoreline Coordinator  
Exxon Shoreline Supervisor  
Exxon SCAT file

FOSC  
CDFU  
NOAA  
EPA  
USDA (FS)  
USFW  
A.DEC  
A.FG  
A.DNR  
CAC  
PWSCA  
USFS  
SHPO



DATE MEAN  
JULY 1952

CONTOUR INTERVAL 100 FEET  
DASHED LINES REPRESENT 50 FOOT CONTOURS  
NATIONAL GEODETIC VERTICAL DATUM OF 1929  
DEPTH CURVES IN FEET - DATUM IS MEAN LOWER LOW WATER  
SOLID LINE SHOWN REPRESENTS THE APPROXIMATE LINE OF MEAN HIGH WATER  
THE AVERAGE RANGE OF TIDE IS APPROXIMATELY 11 FEET

FOR SALE BY U S GEOLOGICAL SURVEY

ACE 1852928

FAIRBANKS ALASKA 99701 DENVER COLORADO 80225 OR RESTON VIRGINIA 22092

(version 4/29/89)

SHORELINE CLEANUP PROGRAM

DATE 6/09/89

SHORELINE SEGMENT SL-10

LOCATION: (see enclosed map) East side Sturgeon Lagoon

ADEC NO. K6-34 SHORELINE ASSESSMENT DATE: 6/05/89

Recommended Cleanup Activity(ies):

- No cleanup recommended at this time due to very light oiling and minimal anticipated environmental impact.

Priorities Considerations:

Ecological Constraints (from site survey): None, since no cleanup is recommended. If cleanup is conducted, ecological constraints must be reconsidered.

Archeological Constraints (from site survey):

No access above the active beach zone. If cleanup is conducted and heretofore undiscovered cultural materials are uncovered, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

Charles F. Himes  
State Historic Preservation Officer \*

Date: June 10, 1989

EXXON: Jack A. Parker

Date: 14 June 89

FOSC: \_\_\_\_\_

Date: \_\_\_\_\_

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

(version 5/16/89)

SHORELINE OIL EVALUATION FORM - KODIAK

Date: JUNE 5/89 Time: 0930

Observer: D. H. WES

Surveyed From: Foot/Boat/Helio/Plane

Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION

LOCATION STURGEDA LAGOON - EAST SIDE

SEGMENT I.D. SL-10

LENGTH OF SHORELINE SEGMENT: 2840 m

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

SHORELINE:

Shoreline Type: SPI/BEA/COV/HLD/STRT

Slope: LANG/HANG/VER

Wave Exposure: High/Med/Low

Sediment: B0-2% / C5-15% / P20-40% / G\_\_\_% / S30-40% / M\_\_\_% / R\_\_\_%

Drift Debris on Beach: Yes/No Supra/Upper/Mid/Lower Type seaweed

OIL

Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved/V. LIGHT

Total Area of Beach Impact: SU / SP (H) / M / L

OIL DISTRIBUTION

Continuous: Y/N Segment %\_\_\_ No. Bands\_\_\_ Width\_\_\_

Sporadic: (Y)/N Segment % 10 Min/Max Dia 10-25cm Impact Width 25cm

Est. Oil Thickness where > 1cm:\_\_\_cm SU / SP / UP / MID / LO

Est. Oil Penetration:\_\_\_cm SU / SP / UP / MID / LO

Layers? Yes/No No# Layers\_\_\_ Oil Weathering\_\_\_

Drift Debris Oiled? Yes/No Supra/Upper/Mid/Lower Amount: H / H / L / V

OIL MORPHOLOGY

Pooled Oil\_\_\_% "Free" Oil\_\_\_% Spattered 100% (H)H/L/VL Sheen\_\_\_%

OIL WEATHERING (OW)

Fresh Oil\_\_\_% SU/SP/VP/MID/LO Choc Mousse 100% SU/SP/UP/MID/LO

Pancake Mousse\_\_\_% SU/SP/VP/MID/LO Asphalt Mousse\_\_\_% SU/SP/VP/MID/LO

Tar Formation\_\_\_%

Comments:

THIS SEGMENT IS ESSENTIALLY FREE OF OIL - ONLY TWO SMALL SPLATTER  
PATCHES OF CHOC MOUSSE WERE OBSERVED - NO PENETRATION OF THE OIL  
- 60% OF UNIT TRAVERSED ON FOOT, 100% HELICOPTER SURVED INCLUDING TWO  
SPOT LANDINGS

DOCUMENTATION:

Map/Aerial photo marking segment boundaries See Attached

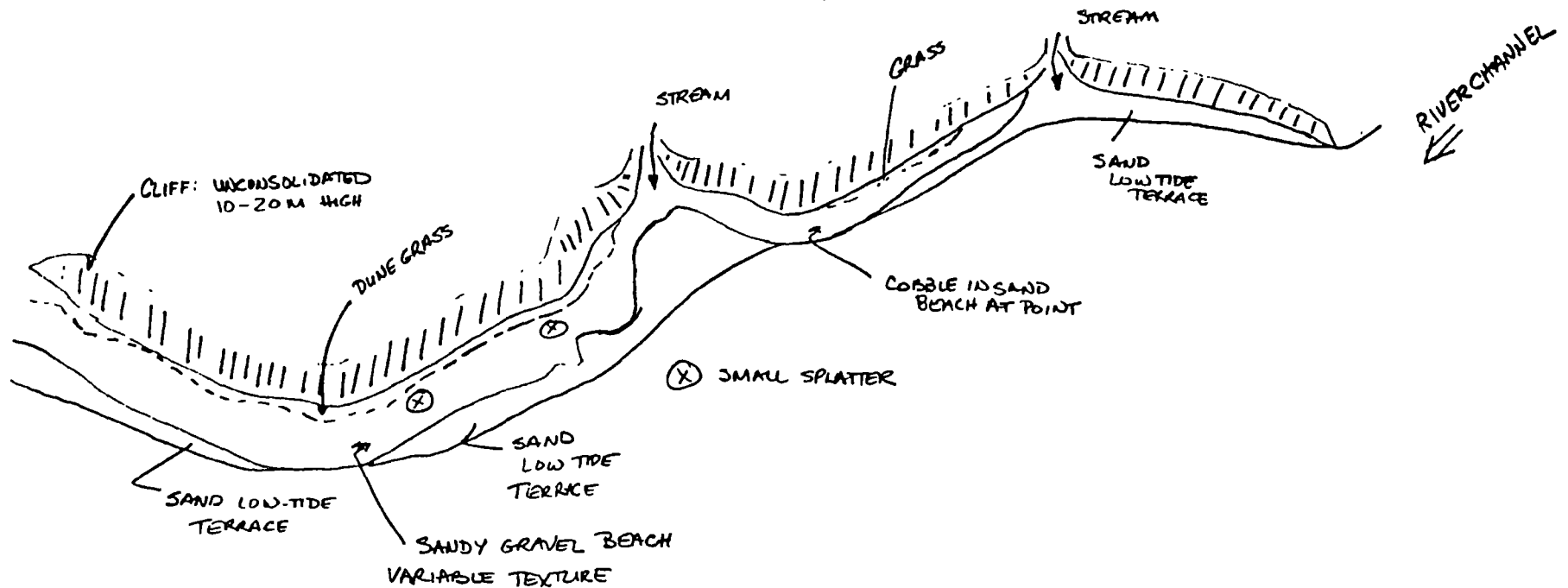
VTR: Y/N Tape Number(s) \_\_\_\_\_

Photography: Y/N Roll Number(s) DMC-12

Sample Numbers Collected: N/A

SL-10

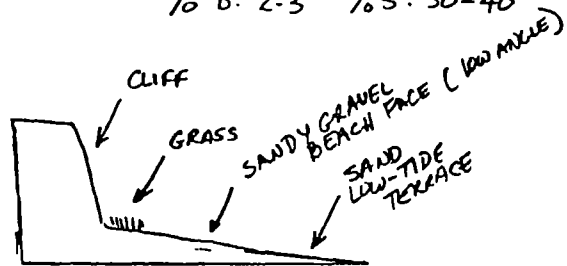
MIXED SANDY/GRAVEL BEACH



SANDY GRAVEL BEACH  
VARIABLE TEXTURE

% C: 5-10 % P: 50-60

% B: 2-3 % S: 30-40



ESTIMATED CROSS UNIT PROFILE

# ECOLOGICAL EVALUATION

E SIDE

LOCATION: STURGEON LAGOON SITE: \_\_\_\_\_ OBSERVER: D. McCORMICK

LOCATION PREFIX: SL SEG. NO.: 10 LENGTH: 2840 (M)

DATE: 6/5/89 TIME (HHMM): 0930 TIDE HT.: -1.4 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

## LIVE BIOTA

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

Present at mid-low ITZ

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

Shells only

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

## Littorina

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

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

OTHER OBSERVATIONS: Crab shells; only 2 mouse patches seen on this entire stretch of beach.

CLEANUP PRECAUTIONS: None.

MAMMALS: Otters \_\_\_\_\_ Harbor Seals \_\_\_\_\_ Sea Lions \_\_\_\_\_ Whales \_\_\_\_\_  
Other \_\_\_\_\_

BIRDS: Bald Eagle

GENERAL OBSERVATIONS: No cleanup.

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 6-5-89 Location Sturgeon Lagoon Site Southeast shore

Location Prefix SL Segment # 10 Length 2840

Survey Method:

Air ✓ (A - indicate on map) Boat \_\_\_\_\_ (A - indicate on map)

Ground ✓ (G - indicate on map)

Known cultural resources (AHRS #) none Data Source \_\_\_\_\_

Oil conditions/beach visibility very light

Width of beach zone surveyed 5 m Tree fringe surveyed 10-15m

Cultural resources observed in beach zone (AHRS code) none

Cultural resources observed in tree fringe (AHRS code) HPS, CPS

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

Shore Profile coarse / Boulder Beach below 10m high eroded cliffs

Fresh Water Sources none

Sea Exposure Protected inside Sturgeon Lagoon

Access/Safety Accessible Both By Helicopter and Boat

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 # \_\_\_\_\_ Frames \_\_\_\_\_

B/W Roll # may 5 Frames 19-22

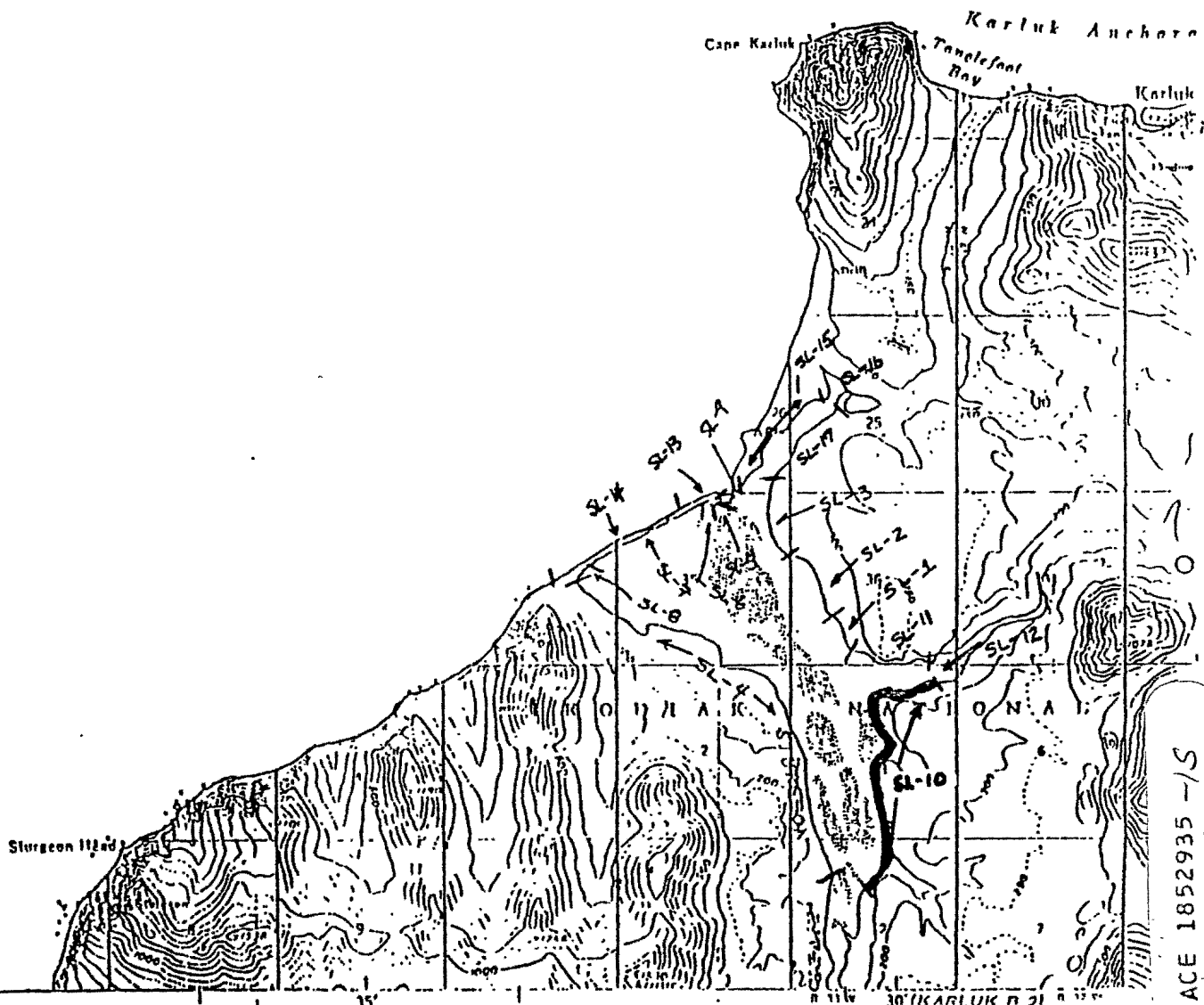
Observer(s) Mike YARBOROUGH

Time survey started 9:30 AM Time survey ended 10:30 AM

Cultural resource considerations/restraints:

none - no clean-up recommended

S H B L I K



1378 000 7111

red, edited, and published by the Geological Survey  
by MOSMORA and USCE

ACE 1852935 -/S

# SEGMENT INSPECTION RECORD

ADEC # K-6-34

Shoreline Segment: SL 8-17

Shoreline Treatment Process(es) Completed for this Segment

|                                          |                                                    |
|------------------------------------------|----------------------------------------------------|
| <input type="checkbox"/> Hot water wash  | <input type="checkbox"/> Mechanical                |
| <input type="checkbox"/> Warm water wash | <input checked="" type="checkbox"/> Non-mechanical |
| <input type="checkbox"/> Water deluge    | <input type="checkbox"/> Other                     |

ORIGINAL

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Exxon Comments

Signature *Gayle Cannon*

Date 9/6/89

Time 0730

Printed Name GAYLE CANNON

Existing Shoreline Condition As  
Visually Determined by USCG  
Surface Oil

|                                                                                                                                                                                                    |                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Percent                                                                                                                                                                                            | Degree of Oiling |
| <div style="border: 1px solid black; width: 100px; height: 20px; position: relative;"><div style="position: absolute; top: -10px; left: 0; right: 0; border-bottom: 1px solid black;"></div></div> | Heavy            |
| <div style="border: 1px solid black; width: 100px; height: 20px; position: relative;"><div style="position: absolute; top: -10px; left: 0; right: 0; border-bottom: 1px solid black;"></div></div> | Medium           |
| <div style="border: 1px solid black; width: 100px; height: 20px; position: relative;"><div style="position: absolute; top: -10px; left: 0; right: 0; border-bottom: 1px solid black;"></div></div> | Light            |
| <div style="border: 1px solid black; width: 100px; height: 20px; position: relative;"><div style="position: absolute; top: -10px; left: 0; right: 0; border-bottom: 1px solid black;"></div></div> | Very Light       |
| 100%                                                                                                                                                                                               |                  |

Subsurface Oil  
☐ Yes ☒ No

Comment Below

Reassessment  
☐ Yes - Necessary

☒ No - Not necessary unless re-oiled

ADEC Rep

Comments

over For Comments

Existing Shoreline Condition As  
Visually Determined by ADEC  
Surface Oil

|                                                                                                                                                                                                    |                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Percent                                                                                                                                                                                            | Degree of Oiling |
| <div style="border: 1px solid black; width: 100px; height: 20px; position: relative;"><div style="position: absolute; top: -10px; left: 0; right: 0; border-bottom: 1px solid black;"></div></div> | Heavy            |
| <div style="border: 1px solid black; width: 100px; height: 20px; position: relative;"><div style="position: absolute; top: -10px; left: 0; right: 0; border-bottom: 1px solid black;"></div></div> | Medium           |
| <div style="border: 1px solid black; width: 100px; height: 20px; position: relative;"><div style="position: absolute; top: -10px; left: 0; right: 0; border-bottom: 1px solid black;"></div></div> | Light            |
| <div style="border: 1px solid black; width: 100px; height: 20px; position: relative;"><div style="position: absolute; top: -10px; left: 0; right: 0; border-bottom: 1px solid black;"></div></div> | Very Light       |
| 100%                                                                                                                                                                                               |                  |

Subsurface Oil  
☐ Yes ☒ No

Comment Below

Reassessment  
☐ Yes - Necessary

☒ No - Not necessary unless re-oiled

Signature *Scott Shelton*

Date 9/5/89 Time 4:45 P.M.

Printed Name SCOTT Shelton

FOSC Rep

Demobilization approved/disapproved

Comments

Agree with ADEC comments. Trash should be removed asap.

Signature *J. A. Stagliano*

Date 9/5/89 Time 1200

Printed Name J. A. STAGLIANO

Copy: Exxon ADEC FOSC ISCC Return All Signed Originals to Exxon

ACE 1852910 +15

enclosure (5)

DEC. Comments 9/5/89 Sturgeon River

11:55 AM SEI DOWN 116-34 (SL-9) observed <sup>10cm</sup> 20' Meters  
small band of weathered mousse and vegetation along N/W lagoon shore. Walked 350 yds towards N/E  
shore of lagoon S-15 ~~SL-15~~ SL-17, SL-3. Very light  
splatters weathered - Found assorted garbage in  
white bags along SL-9 lagoon side. Counted  
2 doz plastic bags weighted with rocks - Sturgeon River  
area needs to be cleaned up - Clean up crews have  
1 - deposited garbage and rolls of plastic bags in location  
that winter storms could refloat and cause a real  
mess - 2 doz full rolls of plastic counted on the beach.  
1 TENT weighted down with rocks. Boom material  
found on Beach Cashes could be caught in winter storms  
as well.

Small oil band could be picked up  
before this season ends. 1-2 bags should  
complete the task. *John Shelton*