

ER-020 NO ASC NUMBER
NORTH EASTERN TIP OF ISLAND

ACE 1369549



DOCUMENTS IN STREAM FILES

ASC# _____ Segment # _____

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

____ '90 Pre-Anadscat Survey, multi-assessment form
____ '90 Anadscat Survey
____ '90 Anadromous Fish Stream Evaluation (work order)
____ '90 Anadromous Fish Stream Addendum to work order
____ '90 Shoreline Evaluation, SAT and work order for segment
____ '90 Anadromous Fish Stream Authorization, Title 16 permit
____ '90 Stream Treatment Report
____ '90 ADEC Demobilization Report for Bio
____ '90 ADF&G Oiling Condition Survey, for ASAP use (Aug. 1991)
____ '90 ASAP Survey ____ ASAP Rec. ____ ADEC Rec. (1991)
____ '90 Other Documents _____

ADEC EXXON VALDEZ POST-TREATMENT SURVEY REPORT

SEGMENT#: ER021
LOCATION: NE ELRINGTON ISLAND

DATE: 10/11/89
TIME: 15:54

Survey Type: Boat, Ground
Team: B. McCready, G. Winter, P. Montesano

WEATHER AND SEA CONDITIONS

Weather: Sunny
Sea State: Moderate

Wind Direction: NW
Knots: 16-30

Low Tide: 5:18 Feet: 1.32 High Tide: 11:41 Feet: 11.1
Low Tide: 17:41 Feet: 2.77 High Tide: 23:42 Feet: 11.7

SHORELINE DESCRIPTION

Shoretypes: LR,B

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

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

Shoreline Composition: B,C,G

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

OIL CHARACTERISTICS

Degree of Oiling: VL

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

Area of Impact: H,M

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

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

Max. Oil Penetration: 0 cm (35 = 35 cm or greater)

Percent Segment Categorized as Oiled: 100%

Presence of Oiled Driftwood (y/n): n

Oil Types: T,ST

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

Samples: none / none / none / none

DAMAGED OR OILED ORGANISMS

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

Dead Mammals: 1 Dead Birds: 0

SOLID WASTE FOUND

Type: None

Bags Collected: 0

Draft

Printed: 12/12/89 11:14

Walk-a-thon

ACE 7237536-HAC

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7-2-89

SHORELINE SEGMENT ER-20

LOCATION: (see enclosed map) Elrington Island - North end

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 7-1-89

Recommended Cleanup Activity(ies):

- Manually remove contaminated drift material (fucus), free oil and patches of mousse.
- Flood/flush with warm to hot water (up to 140 F) on low angle beaches. Hot water/air injection may be necessary to remove asphalt layer beneath surface gravels.
- Use moderate to high pressure washing on rock and oiled logs.
- Use other approved methods as appropriate.

Priorities Considerations:

Class ~~X-4~~: Heavy to light oil

A: Subsistence resources present.

Hatchery resources

Ecological Constraints (from site survey): Work at mid tide + or take appropriate measures to protect lower intertidal zone, eelgrass and kelp beds. Avoid freshwater stream. *if fish are observed*

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. H. H. H.
State Historic Preservation Officer *

Date: July 2, 1989

ISCC: _____

Date: _____

EXXON: _____

Date: _____

FOSC: _____

Date: _____

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

ACE 7237537+15

SHORELINE OIL EVALUATION

Date: 7/1/89 Time: 6:00 AM - 8:40 AM

Observer: KAROLIEH DEBUSSCH

Surveyed From: Foot/Boat/Helio/Plane

Weather: Sun/Cloud/Rain/Snow/Fc

LOCATION

LOCATION NNE ERLINGTON IS

SEGMENT NUMBER ER-20

LENGTH OF SHORELINE SEGMENT: 1500 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: B25% / C20% / P10% / G15% / S5% / M—% / R25%

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

OIL

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

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

Continuous: Y/N % of Segment 40 Width of Band: < 20 m

Sporadic: Y/N % of Segment 60

Est. Oil Thickness where > 1cm: — cm Est. Oil Penetration: 20 cm

Pooled Oil: 0% "Free" Oil: 45% Coated: H25% / M15% / L15%

Fresh 65% Mousse 20% Tar Formation: 15%

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

Comments:

WORST OIL COVER IS IN LOCATION ④ WHERE ± 250M X 20M

CONT. OIL COVER IS PRESENT W PENETRATION TO 20CM

THE BEACH IS RELATIVELY LOW ANGLE WITH GRAVEL/H/PEBBLE.

SOME HEAVY CORTEXED BOULDERS ARE ALSO FOUND IN CONT. BANDS

(LOC ②, ③.) THIS SEGMENT HAS EXPERIENCED EXTENSIVE IMPACT

NO ACCESSIBLE HIGH ENERGY AREA IS CLOSE BY TO REMOVE EASILY OILED MATERIAL, WASH IT, & REPLACE IT

* LOCATION ①

LOSS

BOULDERS
& COBBLES

BOULDERS
COBBLES
& PEBBLES

GRAVEL
SAND

PEBBLES
& COBBLES

BOULD.
& COBBLES

SU SP U H M L

* LOCATION ②

CLIFF

OLD
COBB

LOSS 2' ALGHE
OIL SPLASH

CLIFF

SPORADIC OIL PATCHES

PEBB
GRAN
COBB
BLD

HEAVY OIL
SPORADIC

* LOCATION ③

CLIFF

BLD
COBB

BLD
COBB

COBBLE
& BLD

* LOCATION ④

LOSS 2' ALGHE

CONT OIL 1.5 M WIDE

PIT 4.5 CM

PEBB & GRAN
SAND 0.6 P/G
PEB

PEBB
& GRAN

PIT 30 CM

PEBB
& GRAN

25 CM OIL

SPORADIC OIL PATCHES 1.5 M WIDE

PIT 30 CM
PEBB & GRAN
SAND 0.5
S/G/P/C
P

COBB
PEB
GRAN

COBB
& PEBBLES

NO OIL

SU SP H M L

11/1/89

K. DENUSSCHER

GR-20 6:00 AM

LOCATION ① (START TO BE E OR CLIFF) DEER

COVE: HIGH GRADIENT BEACH

OIL SPLASH AT H & M TIDE ON LARGE BOULDERS AND CLIFF
BORDERING COVE

MOST OIL ON E-WALL: BAND OF 1.5 X 4 M TYPE (A)

P(26) TIME? LIMPETS ON OIL BLOB W FUCUS

P(27) " " " " " " " "

CLIFF TO →

LOCATION ②

PEBBLE-GRAN BEACH

DRIFT (KELP & WOOD) → OILED

OIL IN HIGH TIDE & UPPER

MOST OIL ON E-WALL (W-FACING) ± 4 M WIDE BAND

LOCATION ③

→ EXTENSION OF ②

BOULDER BEACH

WORST OIL COVER ON NW-WALL → EXTENSIVE MOUSE

ALGAE LOGS ARE OILED

HIGH TIDE & SOME SPLASH ON UPPER

OIL THINS OUT TOWARD NE & E

P(28) 6:56 LOC 3 → OIL IN CREVICE (A ON SKETCH) } WORST
P(29) 6:57 " → OIL & DRIFT (OILED) (B " ") } OIL COV.

FURTHER EAST

ALTERNATING CLIFFS & BLD BEACHES W. SHALE CHARACTER

EX P(30) 7:30: COVE W OIL ON N-E-FACING WALL

ON CLIFF B/W OIL RING - SPORADIC

LOCATION ④

LARGE GRANULH BEACH HEAVILY OILED

P(31) 7:11 GENERAL VIEW OF BEACH

P(32) 7:13 TAKEN FROM M/H TIDE TOWARDS SE OVERVIEW
OF EXTENSIVE OIL COVER.

7/1/89

LER-20-CONT

BANK OF OIL $\pm$ 250 X 20 M 20-25 CM DEEP

LOW TIDE IS OIL FREE

CONT'D OIL - HEAVY

SOME FREE OIL

HEFT OF SUN MAKES THE OIL WEE UP (ABSORBENT)

P(33) 7:48 PIT B $\rightarrow$ OIL IN PIT

RT LOCATION (4) SOME AREAS HAVE BEDROCK OUTCROPS

RT. SOUTHWARD SIDE OF BEACH $\rightarrow$ BEDROCK IS THICKLY COVERED

RT SHOREFACE HIGH TIDE NOT WASH?

LITTLE CREEK IN SE CORNER OF DRY

 $\rightarrow$ DANGER FOR PREVENT IN CONT BEACH

P(34) ? LOCATION FROM OFFSHORE OF (4)

R LOCATION (5) CLIFFS HIGH TIDE OIL MARK

MOSTLY (SE-WALL) NOW FACING $\pm$ 1 M WIDE

R LOC. (6) LITTLE DRY AS IN (4)

R " (7) - HIGH GRADIENT BED BEACH $\pm$ 1.5 M WIDE - OIL

- CLIFF

- OIL

- BEACH AS IN (4)

- HOLD

- BED BEACH AROUND HOLD - (4)

- CLIFF

R LOC (8) CORBLE & PEB BEACH: ONE PATCH IN NW-CORNER

 $\pm$ 10 X 3 M $\rightarrow$ SURFICIAL

CREEK

- CLIFF

- PEBBLE BEACH $\rightarrow$ N: $\pm$ CONT ON SURFACE $\rightarrow$ S: FINE: OIL $\pm$ 15 CM THICK 5-10 CM

DEEP 2 ON SURFACE - (4)

ALL BEACHES $\pm$ LOW ANGLE

2 CREEKS

END 8:40

ECOLOGICAL EVALUATION

LOCATION: Prince William Sl. SITE: Elrington Is. OBSERVER: E. R. White
 LOCATION PREFIX: ER SEG. NO.: 20 LENGTH: 1500 (M)
 DATE: 07 / 01 / 89 TIME (HHMM): 0600-0830 TIDE HT.: -0.3 - +0.3 (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
diverse algal community in low tide zone - Halosaccion; Alaria; Ulva; Cladophora

Mytilus (Mussels): Patchy (Y/N) Contin. Y/N Dense (Y/N) Sparse Y/N None Y,
- sparse mussel set on rock faces; some dense mussel beds in mid-tide

Balanus (Barnacles): Patchy Y/N Contin. (Y/N) Dense Y/N Sparse (Y/N) None Y,
level of benches
continuous colonization of B. Glandula in high tide zone; scattered coloni
of B. Cariosus in mid-low tide zone

Littorina

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

also Nucella lamellosa and Scarlearia litra

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

- distributed through out mid-low tide elevations.

OTHER OBSERVATIONS: lower benches support a very productive & diverse
fauna - including hermit crabs; star fish; gunnels; amphipods & several species
of clams. There are intermittent kelp beds & eelgrass beds offshore.

CLEANUP PRECAUTIONS: protect lower intertidal; offshore kelp beds &
subtidal eelgrass beds from contamination (see map)

MAMMALS: Otters 2 (See) Harbor Seals Sea Lions 1 Whales
Other one small whitetail deer observed in intertidal zone;
several deer tracks (set of) found on benches.

BIRDS: 2 bald eagles; 3 ravens; 2 magpies

GENERAL OBSERVATIONS: There is one stream in this segment which
has the potential to be used by anadromous fish. Check with ADF&G
before initiating clean up operations. (See map)

(version of 4/29/9)

CULTURAL RESOURCE EVALUATION

ELYING SOUND (C-3) + JAD

Date 7/1/89 Location N. END ELLINGTON ISLAND Site

Location Prefix ER- Segment # 20 Length 1500 m

Survey Method:

Air (A - indicate on map) Boat ✓ (50%) (A - indicate on map)

Ground ✓ (50%) (G - indicate on map)

Known cultural resources (AHRS #) AHRS FILES UNAVAILABLE Data Source

Oil conditions/beach visibility MODERATE/HEAVY OIL; POOR BEACH VISIBILITY

Width of beach zone surveyed 60 m Tree fringe surveyed 10 m

Cultural resources observed in beach zone (AHRS code) NONE

Cultural resources observed in tree fringe (AHRS code) NONE

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

Shore Profile MODERATE GRADIENT GRAVEL BEACH / ROCKY HEADLANDS

Fresh Water Sources YEAR AROUND STREAM

Sea Exposure SOMEWHAT PROTECTED

Access/Safety BARGE ACCESS POSSIBLE

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

Monitoring during cleanup needed yes/no no Collection yes/no no

Photos: Color Roll # Frames

B/W Roll # PFB7M4 5 Frames 32-36

PFB7M4 6 1-11

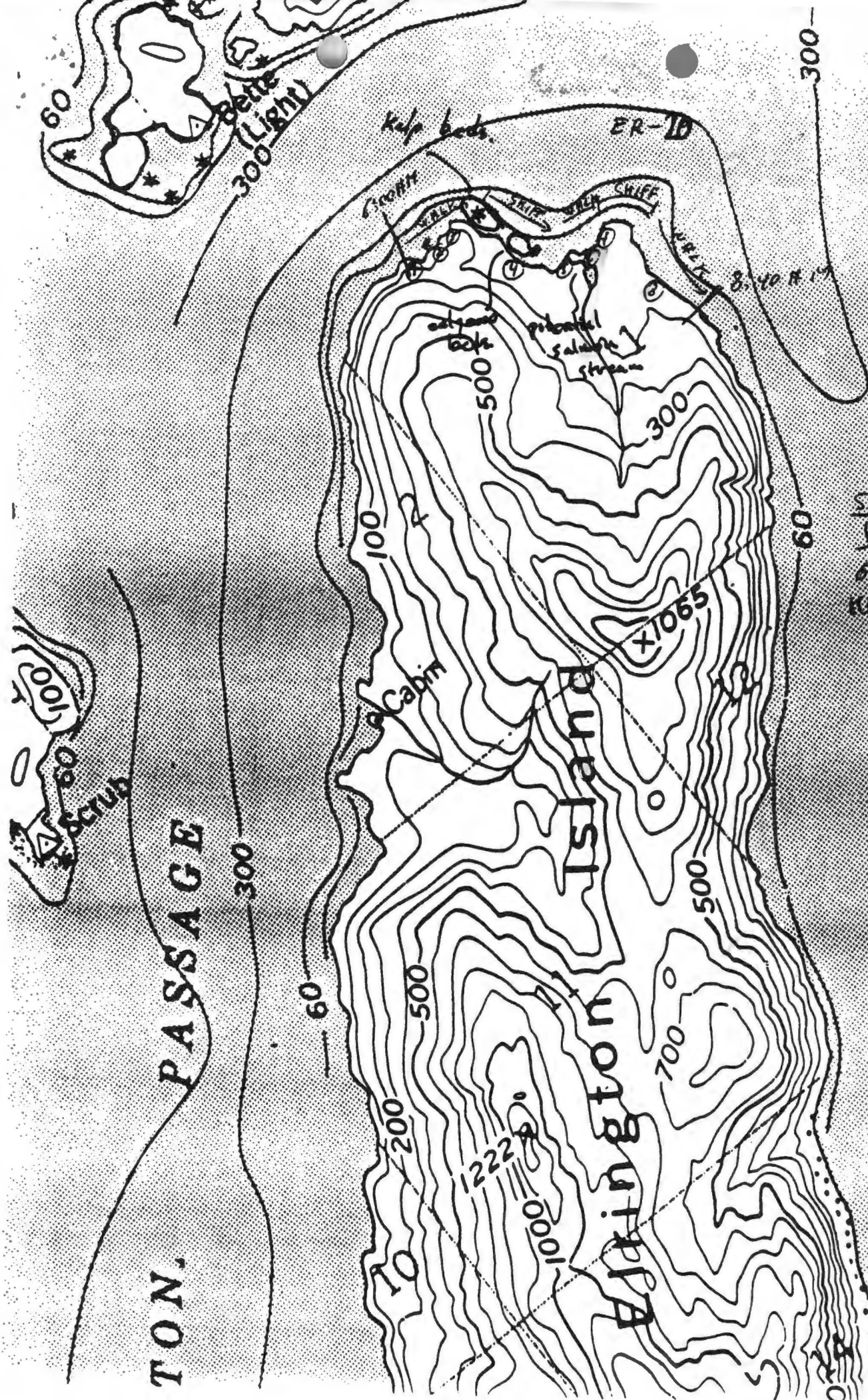
Observer(s) P. BUCK

Time survey started 0607 Time survey ended 0840

Cultural resource considerations/restraints:

"STANDARD CONSTRAINTS"

ACE 7237544



ER-020 NO ASC NUMBER
NORTHEAST TIP OF ELRINGTON ISLAND

ACE 1369550



DOCUMENTS IN STREAM FILES

ASC# _____ Segment # _____

____ '89 Intertidal Assessment Survey, Sport/Com. Fish
____ '89 Shoreline Clean-Up Program (SAT)
____ '89 Anadromous Fish Stream Authorization, for instream work
____ '89 Stream Treatment Reports
____ '89 Demobilization Reports ____ Bioremediation ____ other
____ '89 RLS Sheet ____ Oil sed. sample ____ Egg sample
____ '89 Fall Walk-a-thon Survey, ADEC
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____ '90 Pre-Anadscat Survey, multi-assessment form
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____ '90 Anadromous Fish Stream Evaluation (work order)
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____ '90 Stream Treatment Report
____ '90 ADEC Demobilization Report for Bio
____ '90 ADF&G Oiling Condition Survey, for ASAP use (Aug. surv.)
____ '90 ASAP Survey ____ ASAP Rec. ____ ADEC Rec. (____)
____ '90 Other Documents _____

ACE 7237545
HF/S/lt/FFI-/S/lt

Rev'd 9-1-89
jam

MEMORANDUM

To: Chairperson, ISCC

August 31, 1989

From: John Bauer *JB*

Re: Shoreline Segments for Additional Treatment

As per your August 30, 1989 request, we feel the following shoreline segments need additional treatment before bioremediation is applied or the winter transition is completed:

1) ER-20: According to the SCAT report and ADEC field personnel this is a heavily oiled segment with free oil, patches of mousse and subsurface oil penetration to 20cm. Hot water/air injection was recommended to remove the asphalt layer beneath the surface gravels. Since ER-20 is in close proximity to the Sawmill Bay area maximum effort should be expended to remove and/or stabilize all mobile or potentially mobile (subsurface) oil. This is a resource sensitive area and ADEC and ADF&G request specific attention be paid to it.

2) LA-16, 17, 18, 19, 20: All of these shoreline segments are in Sleepy Bay and have all been approved for demobilization. The Segment Inspection Records indicate the following oil conditions:

LA-16	Surface Oil		Subsurface Oil	
	Percent	Degree	Yes	No
	5	Heavy	X	Heavy subsurface contamination
	25	Medium		
	70	Light		
	0	Very Light		
	0	None		
LA-17	Surface Oil		Subsurface Oil	
	Percent	Degree	Yes	No
		Heavy	X	Heavy subsurface contamination
		Medium		
	100	Light		
		Very Light		
		None		
LA-18	Surface Oil		Subsurface Oil	
	Percent	Degree	Yes	No
	0	Heavy	X	Heavy subsurface contamination
	50	Medium		
	50	Light		
	0	Very Light		
	0	None		

LA-19	Surface Oil		Subsurface Oil	
	Percent	Degree	Yes	No
	1	Heavy	X	Heavy Subsurface
	78	Medium		oil
	21	Light		
	0	Very Light		

'Beach has already started to leach and recoil. Recommend reassessment on 1 Sep. Sawmill Hatchery and Exxon agreement not to work from 15 Jul- 1 Sep.'

USCG Comments

LA-20	Surface Oil		Subsurface Oil	
	Percent	Degree	Yes	No
	25	Heavy	X	Heavy subsurface
	70	Medium		oil
	5	Light		
	0	Very Light		
	0	None		

'Heavy surface contamination. Demobilization only approved due to agreement between Exxon and Sawmill Bay fish hatchery to suspend work from 15 Jul to 1 Sep.'

USCG Comments

Based upon the amount of surface and subsurface oil left on these beach segments at the end of treatment before the fishery window closed, ADEC and ADF&G feel it is imperative that Exxon continue to treat the Sleepy Bay area to remove additional oil before any bioremediation is applied.

3) LA-15: This is a heavily oiled 4355m shoreline segment with a 300m set aside site at the lower southwest end. It was identified in the SCAT report as acting as an oil trap in southern segments. Although LA-15 received treatment prior to the July 15 Sawmill Bay protection window and recently received treatment, ADEC and ADF&G request that this area continue to be treated until all potentially mobile oil is removed and does not pose a threat to the hatchery area.

4) LA-37: This is considered to be a heavily oiled shoreline segment and is directly east of Sawmill Bay. The SCAT report notes standing oil and penetration to 35cm at location A. ADF&G also reported that Horseshoe Bay is heavily oiled and requires treatment. Horseshoe Bay was not SCAT'ed due to the presence of a bear, thus the SCAT report for this area is incomplete. Due to the sensitivity of the Sawmill Bay fishery a concerted treatment effort should be expended on this segment before application of bioremediation.

5) MA-2: This shoreline segment was approved for demobilization on August 24, 1989. ADEC team leader Ed Meggert indicated that there was still gross contamination present. ADEC requests that this shoreline segment be reassessed. If gross contamination is found this area should be retreated before bioremediation occurs.

6) EV-53 and EV-54: Both of these shoreline segments were approved for demobilization on July 16, 1989 to conform with the Sawmill Bay fishery protection window. At that time ADEC inspector Doug Dasher noted gross surface contamination and subsurface oil remained. ADEC and ADF&G request that these shoreline segments be reassessed. If gross contamination still remains these segments should be retreated before bioremediation occurs because of the proximity to Sawmill Bay Hatchery.

7) KN-500: This shoreline segment was approved for demobilization on July 23, 1989. ADEC Stan Justice indicated that there was still gross contamination present. ADEC requests that this shoreline segment be reassessed. If gross contamination is found this area should be retreated before bioremediation occurs.

As we continue to review Segment Inspection Records and coordinate with our field personnel we may update this list with additional shoreline segments. Thank you for your action on this request.

(version 5/13/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): Elrington Island Northeast Block

Includes Shoreline Segments: ER-20, ER-21

Submitted : *Scott A. Naumen* Date: 7/2/89

ISCC Approval: *Recommended (for Exxon)* *Jaqueline Michel* Date: 7/5/89

FOSC Approval: *[Signature]* Date: 7/6/89

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 7237549+15

(version 5/13/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): Elrington Island Northeast Block

Includes Shoreline Segments: ER-20, ER-21

Submitted :  Date: 7/2/89
(for Exxon)

ISCC Approval: _____ 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 7237550

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7-2-89

SHORELINE SEGMENT ER-20

LOCATION: (see enclosed map) Elrington Island - North end

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 7-1-89

Recommended Cleanup Activity(ies):

- Manually remove contaminated drift material (fucus), free oil and patches of mousse.
- Flood/flush with warm to hot water (up to 140 F) on low angle beaches. Hot water/air injection may be necessary to remove asphalt layer beneath surface gravels.
- Use moderate to high pressure washing on rock and oiled logs.
- Use other approved methods as appropriate.

Priorities Considerations:

Class ~~2~~ ⁴: Heavy to light oil / THE SENSITIVE

A: Subsistence resources present. / HATCHERY VERY NEARBY

7/5/89
gmc

Ecological Constraints (from site survey): Work at mid tide + or take appropriate measures to protect lower intertidal zone, eelgrass and kelp beds. Avoid freshwater stream.

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: July 2, 1989

ISCC: Jacqueline Michel

Date: 7/5/89

EXXON: [Signature]

Date: July 5 1989

FOSC: A. E. Robinson

Date: 7-6-89

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

ACE 7237551

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7-2-89

SHORELINE SEGMENT ER-20

LOCATION: (see enclosed map) Elrington Island - North end

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 7-1-89

Recommended Cleanup Activity(ies):

- Manually remove contaminated drift material (fucus), free oil and patches of mousse.
- Flood/flush with warm to hot water (up to 140 F) on low angle beaches. Hot water/air injection may be necessary to remove asphalt layer beneath surface gravels.
- Use moderate to high pressure washing on rock and oiled logs.
- Use other approved methods as appropriate.

Priorities Considerations:

Class 2-4: Heavy to light oil

A: Subsistence resources present.

Ecological Constraints (from site survey): Work at mid tide + or take appropriate measures to protect lower intertidal zone, eelgrass and kelp beds. Avoid freshwater stream.

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: July 2, 1989

ISCC: _____

Date: _____

EXXON: _____

Date: _____

FOSC: _____

Date: _____

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

ACE 7237552-15

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7-2-89

SHORELINE SEGMENT ER-20

LOCATION: (see enclosed map) Elrington Island - North end

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 7-1-89

Recommended Cleanup Activity(ies):

- Manually remove contaminated drift material (fucus), free oil and patches of mousse.
- Flood/flush with warm to hot water (up to 140 F) on low angle beaches. Hot water/air injection may be necessary to remove asphalt layer beneath surface gravels.
- Use moderate to high pressure washing on rock and oiled logs.
- Use other approved methods as appropriate.

Priorities Considerations:

Class 2-4: Heavy to light oil

A: Subsistence resources present.

Hatchery for 1.4

Ecological Constraints (from site survey): Work at mid tide + or take appropriate measures to protect lower intertidal zone, eelgrass and kelp beds. Avoid freshwater stream. *if higher up.*

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. H. H. H.
State Historic Preservation Officer *

Date: July 2, 1989

ISCC: _____

Date: _____

EXXON: _____

Date: _____

FOSC: _____

Date: _____

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

ACE 7237553 +15

SHORELINE OIL EVALUATION

Date: 7/1/89 Time: 6:00 AM - 8:40 AM

Observer: KAROLIEH DEBUSSCHE

Surveyed From: Foot/Boat/Helio/Plane

Weather: Sun/Cloud/Rain/Snow/Fc

LOCATION

LOCATION NNE ERLINGTON IS

SEGMENT NUMBER ER-20

LENGTH OF SHORELINE SEGMENT: 1500 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: B25% / C20% / P10% / G15% / S5% / M—% / R25%

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

OIL

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

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

Continuous: Y/N % of Segment 40 Width of Band: ≤ 20 m

Sporadic: Y/N % of Segment 60

Est. Oil Thickness where > 1cm: — cm Est. Oil Penetration: 20 cm

Pooled Oil: 0% "Free" Oil: 45% Coated: H25% / M15% / L15%

Fresh 65% Mousse 20% Tar Formation: 15%

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

Comments:

WORST OIL COVER IS IN LOCATION ④ WHERE ± 250M X 20M

EDNT. OIL COVER IS PRESENT W/ PENETRATION TO 20CM

THE BEACH IS RELATIVELY LOW ANGLE WITH GRAVEL/PEBBLE.

SOME HEAVY COATED BOULDERS ARE ALSO FOUND IN CONT. BANDS

(LOC ②, ③, ...) THIS SEGMENT HAS EXPERIENCED EXTENSIVE IMPACT

NO ACCESSIBLE HIGH ENERGY AREA IS CLOSE BY TO REMOVE

EASILY OILED MATERIAL, WASH IT, & REPLACE IT

DOCUMENTATION:

Map/Aerial photo marking segment boundaries ATTACHED

VTR: Y/N Tape Number(s) _____

Photography: Y/N Roll Number(s) 1

Sample Numbers Collected: _____

FIELD NOTES

ACE 7237555

LOCATION ①

LOGS

BOULDERS
& COBBLES

BOULDERS
COBBLES
& PEBBLES

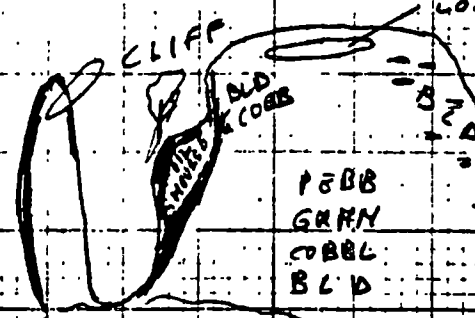
GRAVEL
SAND

PEBBLES
& COBBLES

BOULDERS
& COBBLES

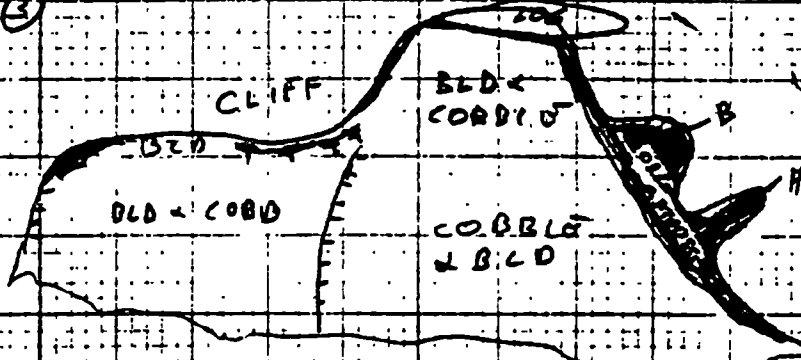
SU SP U H M L

LOCATION ②



HEAVY OIL
SPORADIC

LOCATION ③



LOCATION ④

LOGS

LOGS

PEBB
& GRAVEL

PIT 30CM

PEBB
& GRAM

25CM OIL

CONT OIL 15M WIDE

PIT 45CM

PEBB & GRAM
SAND 6/P/C
PEB

SPORADIC OIL PATCHES 15M WIDE

PIT 30CM
PEBB & GRAM
GRAM < 5
S/G/P/C
P

NO OIL

COBB
PEB
GRAM

COBB
& PEBBLES

SU SP H M L

7/1/89

K. DEBUSSCHERE

ER-20 6:00 AM

LOCATION ① (START TO THE E OR CLIFF) DEER

COVE: HIGH GRADIENT BEACH

OIL SPLASH AT H & M TIDE ON LARGE BOULDERS AND CLIFF
BORDERING COVE

MOST OIL ON E-WALL: BAND OF 1.5 X 4 M. TYPE (A)

P(26) TIME? LIMPETS ON OIL BLOB W FUCUS

P(27) " " " " " " " "

CLIFF TO →

LOCATION ②

PEBBLE-GRAH BEACH

DRIFT (KELP & WOOD) → OILED

OIL IN HIGH TIDE & UPPER

MOST OIL ON E-WALL (W-FACING) ± 4 M WIDE BAND

LOCATION ③

→ EXTENSION OF ②

BOULDER BEACH

WORST OIL COVER ON NW-WALL → EXTENSIVE MOUSE

ALGAE LOGS ARE OILED

HIGH TIDE & SOME SPLASH ON UPPER

OIL THINS OUT TOWARD NE & E

P(28) 6:56 LOC 3 → OIL IN CREVICE (A ON SKETCH) }
P(29) 6:57 " → OIL & DRIFT (OILED) (B " ") } WORST OIL COV.

FURTHER EAST

ALTERNATING CLIFFS & BLD BEACHES W SHALE CHARAC

EX P(30) - 7:30: COVE W OIL ON N-E FACING WALL

ON CLIFF B/W OIL RING - SPORADIC

LOCATION ④

LARGE GRANULAH BEACH HEAVILY OILED

P(31) 7:16 GENERAL VIEW OF BEACH

P(32) 7:18 TAKEN FROM M/H TIDE TOWARDS SE OVERVIEW
OF EXTENSIVE OIL COVER.

7/1/89

K. DEBUSSCHERE

LR-20 - CONT

BANK OF OIL $\pm$ 250 X 20 M 20-25 CM DEEP

LOW TIDE IS OIL FREE

CONT'D OIL - HEAVY

SOME FREE OIL

HEAT OF SUN MAKES THE OIL WEE UP (ABSORBENT)

P(33) 7:48 PIT B $\rightarrow$ OIL IN PIT

RT LOCATION (4) SOME AREAS HAVE BEDROCK OUTCROPS

RT. SOUTHWARD SIDE OF BENCH $\rightarrow$ BEDROCK IS THICKLY COVERED

RT SURFACE HIGH TIDE HOT WASH?

LITTLE CREEK IN SE CORNER OF DRY

$\Rightarrow$ DANGER FOR DRUGMENT IN CONT BEND

P(34) ? LOCATION FROM OFFSHORE OF (4)

* LOCATION (5) CLIFFS HIGH TIDE OIL MARK

MOSTLY (SE-WALL) NOW FACING $\pm$ 1 M WIDE

* LOC (6) LITTLE DRY AS IN (4)

* " (7) - HIGH GRADIENT BED BENCH $\pm$ 1.5 M WIDE - OIL

- CLIFF

- OIL

- BENCH AS IN (4)

- HOLD

- BED BENCH AROUND HOLD - (4)

- CLIFF

* LOC (8) CORBLE & PEB BENCH: ONE PATCH IN NW-CORNER

$\pm$ 10 X 3 M $\rightarrow$ SURFICIAL

CREEK

- CLIFF

- PEBBLE BENCH $\rightarrow$ N: $\pm$ CONT ON SURFACE

$\rightarrow$ S: FINE: OIL $\pm$ 15 CM THICK $\pm$ 10 CM

DEEP 2 ON SURFACE - (4)

ALL BENCHES $\pm$ LOW ANGLE

2 CREEKS

END 8:40

ACE 7237558

ECOLOGICAL EVALUATION

LOCATION: Prince William Sl. SITE: Elrington Is. OBSERVER: E. R. White
 LOCATION PREFIX: ER SEG. NO.: 20 LENGTH: 1500 (M)
 DATE: 07 / 01 / 89 TIME (HHMM): 0600-0830 TIDE HT.: -0.3 - +0.3 (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
diverse algal community in low tide zone - Halosaccion; Alaria; Ulva; Cladophora
Mytilus (Mussels): Patchy (Y/N) Contin. Y/N Dense (Y/N) Sparse Y/N None Y/
- sparse mussel set on rock faces; some dense mussel beds in mid-tide
level of beaches
Balanus (Barnacles): Patchy Y/N Contin. (Y/N) Dense Y/N Sparse (Y/N) None Y/
continuous colonization of B. Glandula in high tide zone; scattered coloniz
of B. Cariosus in mid-low tide zone
Littorina
 Patchy Y/N Contin. (Y/N) Dense Y/N Sparse (Y/N) None Y/N
also Nucella lamellosa and Scarlearia diva

Littorina: Patchy Y/N Contin. (Y/N) Dense Y/N Sparse (Y/N) None Y/N
- distributed through out mid-low tide elevations.

OTHER OBSERVATIONS: lower beaches support a very productive & diverse
fauna - including hermit crabs; star fish; gnnels; amphipods & several species
of clams. There are intermittent kelp beds & eelgrass beds offshore.

CLEANUP PRECAUTIONS: protect lower intertidal; offshore kelp beds &
subtidal eelgrass beds from contamination (see map)

MAMMALS: Otters 2 (Sea) Harbor Seals Sea Lions 1 Whales
 Other one small whitetail deer observed in intertidal zone;
several deer tracks (set of) found on beaches.

BIRDS: 2 bald eagles; 3 ravens; 2 magpies

GENERAL OBSERVATIONS: There is one stream in this segment which
has the potential to be used by anadromous fish. Check with AD&G
before initiating clean up operations. (see map)

CULTURAL RESOURCE EVALUATION

ELYING SANDS (C-3) 4040

Date 7/1/89 Location N. END ELLINGTON ISLAND Site

Location Prefix ER- Segment # 20 Length 1500 m

Survey Method:

Air (A - indicate on map) Boat ✓ (50%) (A - indicate on map)

Ground ✓ (50%) (G - indicate on map)

Known cultural resources (AHRS #) AHRS FILES UNAVAILABLE Data Source

Oil conditions/beach visibility MODERATE/HEAVY OIL; POOR BEACH VISIBILITY

Width of beach zone surveyed 60 m Tree fringe surveyed 10 m

Cultural resources observed in beach zone (AHRS code) NONE

Cultural resources observed in tree fringe (AHRS code) NONE

General observations justifying survey method and segment's site probability

Shore Profile MODERATE GRADIENT GRAVEL BEACH / ROCKY HEDDLANDS

Fresh Water Sources YEAR AROUND STREAM

Sea Exposure SOMEWHAT PROTECTED

Access/Safety BARGE ACCESS POSSIBLE

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 # PEB TM4 5 Frames 32-36

PEB TM4 6 1-11

Observer(s) P. BUCK

Time survey started 0607 Time survey ended 0840

Cultural resource considerations/restraints:

"STANDARD CONSTRAINTS"

L A T



SEGMENT ER-10
JULY 1 1989
6:00 - 8:40 H
KAROLIN DEB

EROS

Uncataloged

N