

OIL SPILL PUBLIC INFO. CENTER



3 6653 00006332 5

EVOS
GC
1552
.P75
S42
1989
v.2

[Shoreline evaluations, 1989].

Volume 2

Granite Bay, Dangerous Passage, Paddy Bay, Ewan Bay

Title supplied by cataloger. This title page is supplied by Alaska Resources Library and Information Services (ARLIS).

ARLIS

Alaska Resources Library & Information Services
Library Building, Suite 111
3211 Providence Drive
Anchorage, AK 99508-4614

LIST OF KEY CODES USED ON SHORELINE CLEANUP EVALUATION FORMS

pg-3

ISLANDS (Locations)

Naked Is.	NA
Peak Is.	PE
Stoney Is.	ST
Eleanor Is.	EL
Ingot Is.	IN
Block Is.	BL
Entrance Is.	EN
Sphinx Is.	SP
Disk Is.	DI
Knight Is.	KN
Smith Is.	SM
Seal Is.	SE
Applegate Is.	AP
Green Is.	GR
L. Green Is.	LG
Agnes (Bass) Is.	AB
L. Smith Is.	LS
Gore Point	GP
Montague Is.	MN
Aguliak Is.	AG
Squirrel Is.	SL
New Year Is.	NY
Murray Is.	MU
Squire Is.	SQ
Crafton Is.	CR
Pt. Nowell	PN
Junction Is.	JU
Chenega Is.	CH
Pleiades Is.	PL
Bainbridge Is.	BA
Flemming Is.	FL
Evans Is.	EV
Elrington Is.	ER
Latouche Is.	LA
Danger Is.	DA

* GEOLOGIC SEDIMENT TYPE

Boulder (>256mm)	B
Cobble (64-256)	C
Pebble (4-64)	P
Granule (2-4)	G
Sand (0.06-2)	S
Mud (less 0.06)	M
Rock	R

** DEGREE OF OILING

Heavy	HV
Moderate	MD
Light	LT
No Oil	NO
Unobserved	UN

AREA OF BEACH IMPACT

Supratidal (+SHWL)	SU
HWL to SHWL	SP
Upper 1/3 ITZ	H
Middle 1/3 ITZ	M
Lower 1/3 ITZ	L

ADEC IMPACT SURVEY

Heavy	HVY
Moderate	MOD
Light	LT
No Oil	NO
Unobserved	UNOBS

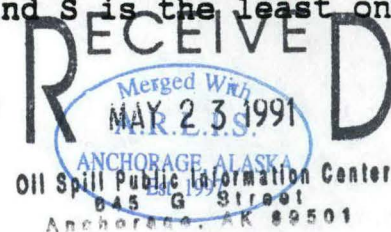
SHORELINE TYPE

Beach	BEA
Cove	COV
High Angle	HANG
Low Angle	LANG
Vertical	VER
Headland	HLD
Spit	SPI

Comments:

* Multiple entry is acceptable, use decreasing order of type found.
(ie. C/G/S where C is most predominant type and S is the least one.)

** Heavy (>6m wide and/or >1.0 cm thick)
Moderate (3-6m wide and/or 0.2-1.0 cm thick)
Light (0.1 -3m wide and/or <0.2 cm thick)
No Oil (free of visible oil)



(version 8/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): GRANITE BAY BLOCK

Includes Shoreline Segments: GB-01, GB-02

Submitted : *Sunny H. Bailey* Date: 8-8-89
(for Exxon)

ISCC Recommendation: *Sharon K. Christopher* Date: 8-14-89

FOSC Approval: *D.E. Canaway* Date: 8-14-89

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

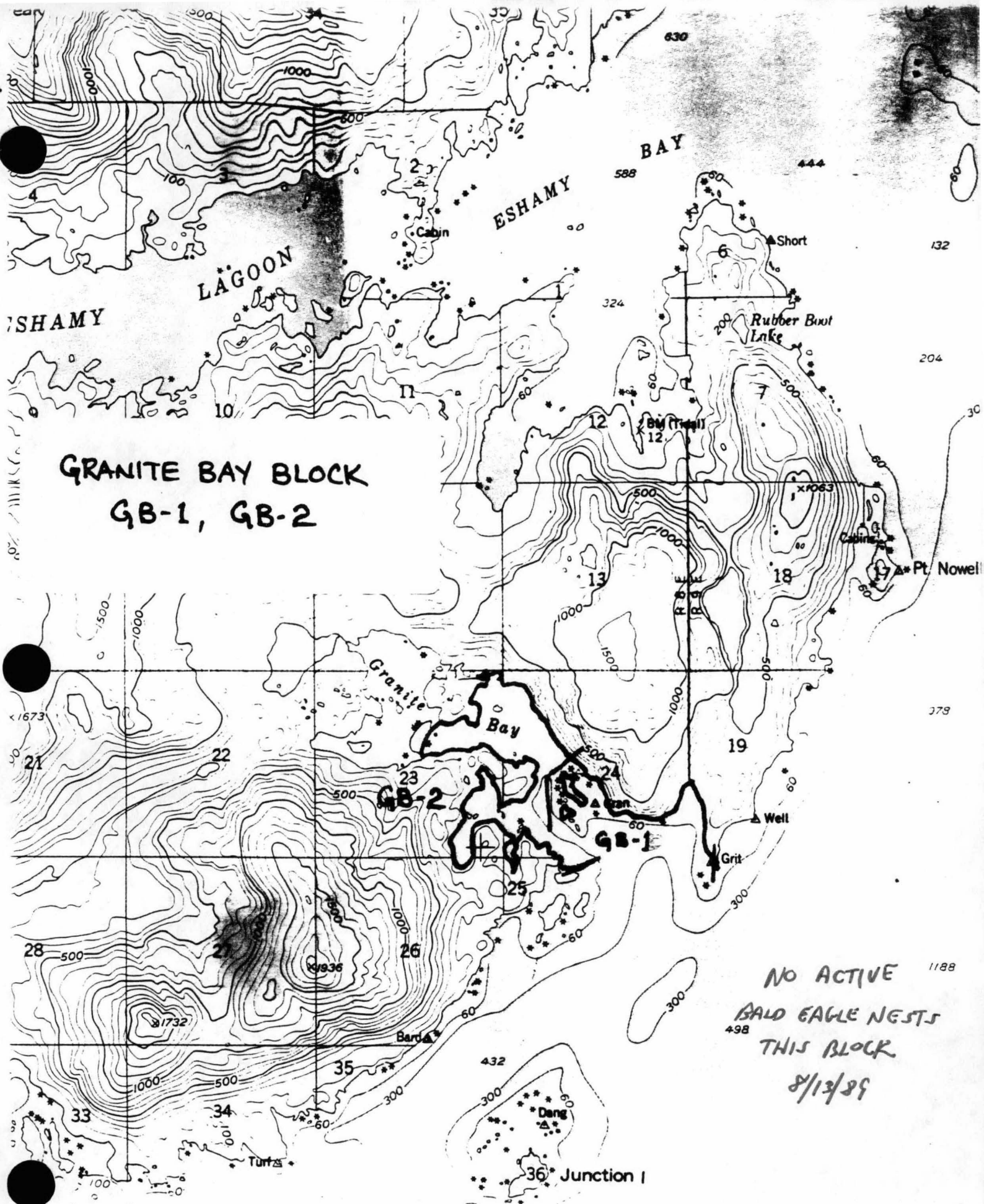
SHPO
FOSC
CDFG
NOAA
EPA
USDA (FS)
USFW
A.DEC
A.FG
A.DNR
CAC
PWSCA
USFS

******* SCOT NOTE *******

**THERE ARE ITEMS OF GREAT CONCERN IN THIS APPROVAL BLOCK
THAT AFFECT THE DEPLOYMENT OF CREWS AND EQUIPMENT.**

READ THIS FIRST

**SHORELINE SEGMENTS WITHIN GRANITE BAY BLOCK ARE ON
LANDS OWNED BY CHENEGA VILLAGE CORPORATION. PERMIT NO
ACCESS TO UPLAND AREAS AT ANY TIME.**



GRANITE BAY BLOCK
GB-1, GB-2

NO ACTIVE
BALD EAGLE NESTS
THIS BLOCK
8/13/89

Paddy Pt Luck
SAGE

Enter

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 8/6/89

SHORELINE SEGMENT GB-01

LOCATION: (see enclosed map) GRANITE BAY-EAST SIDE OF MOUTH
(GRANITE BAY BLOCK)

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 7/26/89

Recommended Cleanup Activity(ies):

No cleanup recommended at this time (subject to FOSC reassessment at a later date), due to light, discontinuous oil.

Priorities Considerations:

Class 4: Light oil
B: Resources absent

Ecological Constraints (from site survey):

If cleanup is conducted, work at mid tide + or take appropriate measures to protect lower intertidal zones.

Archeological Constraints (from site survey):

If cleanup is conducted, an archeological monitor should brief crew at the start of work to advise them of cultural resources in segment. Post cleanup assessment is recommended. If 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 Z. Holmes
State Historic Preservation Officer *

Date: August 8, 1989

ISCC: Sharon K. Christopher

Date: 8-14-89

EXXON: James D. Teft

Date: 8-14-89

FOSC: S. E. Long

Date: 8-14-89

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

SHORELINE OIL EVALUATIONDate: 7/26/89 / Time: 12:30 - 4:00 PMObserver: Norma BiggsSurveyed From: Foot/Boat/Helio/PlaneWeather: Sun Cloud/Rain/Snow/FoLOCATIONLOCATION E. side of mouth of Granite Bay SEGMENT NUMBER GB-1LENGTH OF SHORELINE SEGMENT: 4,000 mACCESS: Foot/Vehicle/Boat/Barge/Helio/Float PlaneSHORELINE:Shoreline Type: SPI/SEA/COV/HLD/STRT

Slope: LANG/HANG/VER

Wave Exposure: High/Med/LowSediment: B25% / C05% / P___% / G___% / S___% / M___% / R70%Drift Debris on Beach: Yes/No Supra/Upper/Mid/Lower Type logs, kelp,
LocallyOILDegree of Oiling: Heavy/Moderate/Light/No Oil/UnobservedArea of Beach Impact: SU / SP / H / M / LContinuous: Y/N % of Segment 30 Width of Band: max 2 mSporadic: Y/N % of Segment 30
commonly ≤ 10cmEst. Oil Thickness where > 1cm: N/A cm Est. Oil Penetration: N/A cmPooled Oil: 0% "Free" Oil: 0% Coated: H___% / M___% / L100%Fresh 0% Mousse 0% Tar Formation: 100%Drift Debris oiled? Yes/No Supra/Upper/Mid/Lower Amount: H/M/L/

Comments:

Very light oiling observed over most of this segment. Most heavy spattering
was observed on SE-facing ends of islands facing Dangerous Passage -
Islands seemed to have formed an effective barrier that prevented
oil from getting into Granite Bay.

Photos 12 to 14, Roll 7564

ECOLOGICAL EVALUATION

LOCATION: Prince William Sl SITE: Granite Bay OBSERVER: E.R. White

LOCATION PREFIX: G.B. SEG. NO.: 1 LENGTH: 4000 (M)

DATE: 07/26/89 TIME (HHMM): 1400-1600 TIDE HT.: 1.0-1.7 (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 continuous on rocks / discontinuous / patchy on lower beach faces

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

- dense beds in mid / lower beach faces

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

- mostly in high-mid intertidal

Littorina

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

also some whelks G.S. dirax & N. kamelosa in mid-low intertidal

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

OTHER OBSERVATIONS: intermittent subtidal eelgrass beds throughout this segment / schools of small (10-15 cm) fish observed above eelgrass

CLEANUP PRECAUTIONS: do not re-introduce hydrocarbons to water in vicinity of eelgrass beds / do not contaminate unoiled lower intertidal

MAMMALS: Otters 2 - see others. Harbor Seals Sea Lions Whales
Other

BIRDS: 10-15 small gulls / 2 merganser with 4 chicks.

GENERAL OBSERVATIONS: - this segment is sheltered & biologically productive - impact of oil appears to be minimal to date

- there are two small creeks at the head of the cove (see map); these are not likely to be utilized by anadromous fish - check with DFG on this.

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 7/26/89 Location GRANITE BAY Site POINT GRIT
Location Prefix GB Segment # 1 Length 4,000 M

Survey Method:

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

Ground X _____ (G - indicate on map)

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

Oil conditions/beach visibility LIGHT OIL - DRIP LINE AND SPLATTER, EXCELLENT

Width of beach zone surveyed 5-10 m Tree fringe surveyed 10-15 M ^{BEACH VISIBILITY}

Cultural resources observed in beach zone (AHRS code) HTD, HTI

Cultural resources observed in tree fringe (AHRS code) CMT'S

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

Shore Profile Vertical high angle rock w/ Boulder and rocky Trz, One gravel beach in cove
NW of Point Grit.

Fresh Water Sources Two creeks at head of cove NW of Point Grit.

Sea Exposure Protected By Point Grit - open to South

Access/Safety Easy access by small boat only - numerous rocks and shallows

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

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

Photos: Color Roll # None Frames _____

B/W Roll # I2-RR-8 Frames 1-14

Observer(s) Bob Betts

Time survey started 1347 Time survey ended 1559

Cultural resource considerations/restraints:

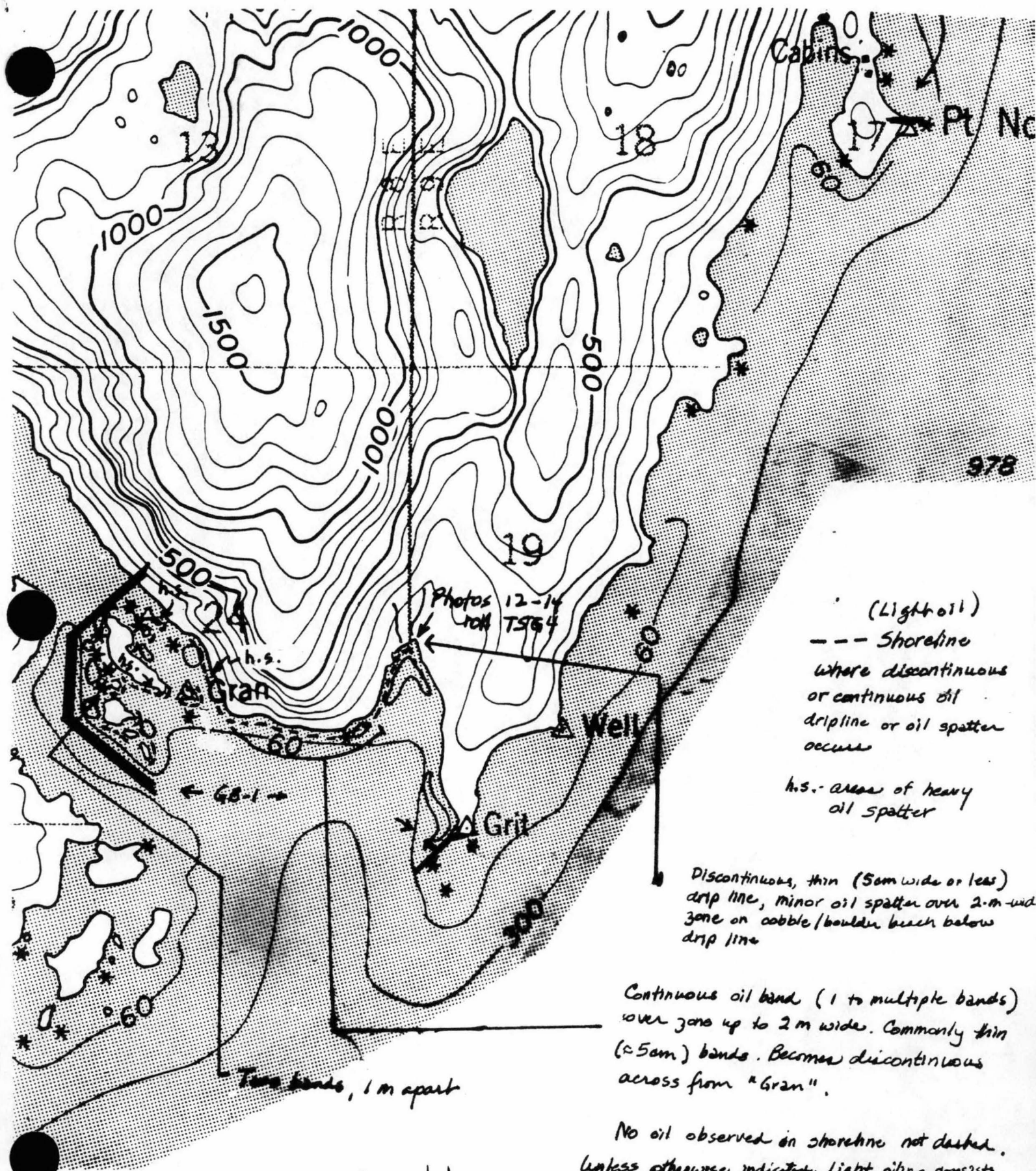
SHOULD CLEAN UP OCCUR IN THIS SEGMENT,

AN ARCHAEOLOGICAL MONITOR SHOULD VISIT CREWS AT START OF OPERATIONS, AND

AGAIN AT END OF CLEAN-UP FOR POST-ASSESSMENT OF IMPACT TO CULTURAL

RESOURCES.

GB-1



(Light oil)
 --- Shoreline
 where discontinuous
 or continuous oil
 dripline or oil spatter
 occurs

h.s. - areas of heavy
 oil spatter

Discontinuous, thin (5cm wide or less)
 drip line, minor oil spatter over 2-m-wide
 zone on cobble/boulder beach below
 drip line

Continuous oil band (1 to multiple bands)
 over zone up to 2 m wide. Commonly thin
 (~5cm) bands. Becomes discontinuous
 across from "Gran".

No oil observed on shoreline not dashed.
 Unless otherwise indicated, light oiling consists
 of discontinuous dripline, usually consisting of
 more than 1 thin (~10cm) band, over zone
 ~ 0.5 m wide.

○ - eol grain beds
 ~ - stream

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 8/6/89

SHORELINE SEGMENT GB-02

LOCATION: (see enclosed map) GRANITE BAY-INSIDE OF BAY

(GRANITE BAY BLOCK)

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 7/27/89

Recommended Cleanup Activity(ies):

No cleanup recommended at this time (subject to FOSC reassessment at a later date), due to no oil.

Priorities Considerations:

No oil

Ecological Constraints (from site survey):

If cleanup is conducted, work at mid tide + or take appropriate measures to protect lower intertidal zone.

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.

Shawn K. Christopher
State Historic Preservation Officer *

Date: August 8, 1989

ISCC: Shawn K. Christopher

Date: 8-14-89

EXXON: Daniel S. Tipton

Date: 8-14-89

FOSC: S. E. L

Date: 8-14-89

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

SHORELINE OIL EVALUATIONDate: 7/27/91 Time: 5 to 7 AMObserver: Norma BiggarSurveyed From: Foot Boat Helio/PlaneWeather: Sun Cloud/Rain/Snow/FogLOCATIONLOCATION GRANITE BaySEGMENT NUMBER GB-2LENGTH OF SHORELINE SEGMENT: 12,500 mACCESS: Foot/Vehicle Boat Barge/Helio/Float PlaneSHORELINE:Shoreline Type: SPI/BEA/COV/HLD/STRTSlope: LANG HANG VERWave Exposure: High/Med LowSediment: B 30 % / C ___ % / P ___ % / G ___ % / S ___ % / M ___ % / R 70 %Drift Debris on Beach: Yes No Supra/Upper/Mid/Lower Type Fucus
(very little, if any)OILDegree of Oiling: Heavy/Moderate Light No Oil Unobserved

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

Continuous: Y N % of Segment 0.001? Width of Band: ≤ 3 cm mSporadic: Y N % of Segment 0.001?Est. Oil Thickness where > 1cm: N/A cm Est. Oil Penetration: N/A cmPooled Oil: 0 % "Free" Oil: 0 % Coated: H ___ % / M ___ % / L 100 %Fresh 0 % Mousse 0 % Tar Formation: 100 %Drift Debris Oiled? Yes No Supra/Upper/Mid/Lower Amount: H/M/L/

Comments:

The bay is virtually free of oil. Very thin ^{black} bands were observed in two locations ^(see map). Locally there is also a thin gray band that is felt to be associated with the spill, but it is considered to be of very low significance and is not shown on enclosed map.

No photos taken

ECOLOGICAL EVALUATION

LOCATION: Prince William Id. SITE: Granite Bay OBSERVER: E.R. White

LOCATION PREFIX: GB SEG. NO.: 2 LENGTH: 12,500 (M)

DATE: 07/27/89 TIME (HHMM): 0500-715 TIDE HT.: 0.6-1.6 (M)

OILED ZONE: Splash High Medium Low ϕ

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

- discontinuous/dense on rock some Gigartina subtidally

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

occasional small dense colonies on rock faces - 80% of segment without any

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

small acorn barnacles @ high-mid intertidal

Littorina

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

Very sparse - only near high tide level or among Fucus - also N. lamellosa

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

- 4 species observed

OTHER OBSERVATIONS: schools of capelin-like fish observed in bay (no
positive identification) / extensive eelgrass beds throughout bay.

CLEANUP PRECAUTIONS: no oil / no cleanup / no precautions

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

BIRDS: 2 loons / 1 bald eagle / 20-30 gulls / 8-10 murrelets

GENERAL OBSERVATIONS: _____

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 7-27-89 Location GRANITE BAY Site —

Location Prefix GB Segment # 2 Length 12,500

Survey Method:

Air — (A - indicate on map) Boat X (99%) (A - indicate on map)

Ground X (1%) (G - indicate on map)

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

Oil conditions/beach visibility No oil - No beaches

Width of beach zone surveyed — m Tree fringe surveyed Ø

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 Steep Forested Slopes down to vertical rock or boulder ITZ - almost

fresh Water Sources no flat ground. Several small creeks

Sea Exposure Very well protected Bay

Access/Safety Safe, easy access by boat - no helicopter access.

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 # NONE Frames —

B/W Roll # NONE Frames —

Observer(s) Bob Betts

Time survey started 0500 Time survey ended 0700

Cultural resource considerations/restraints:

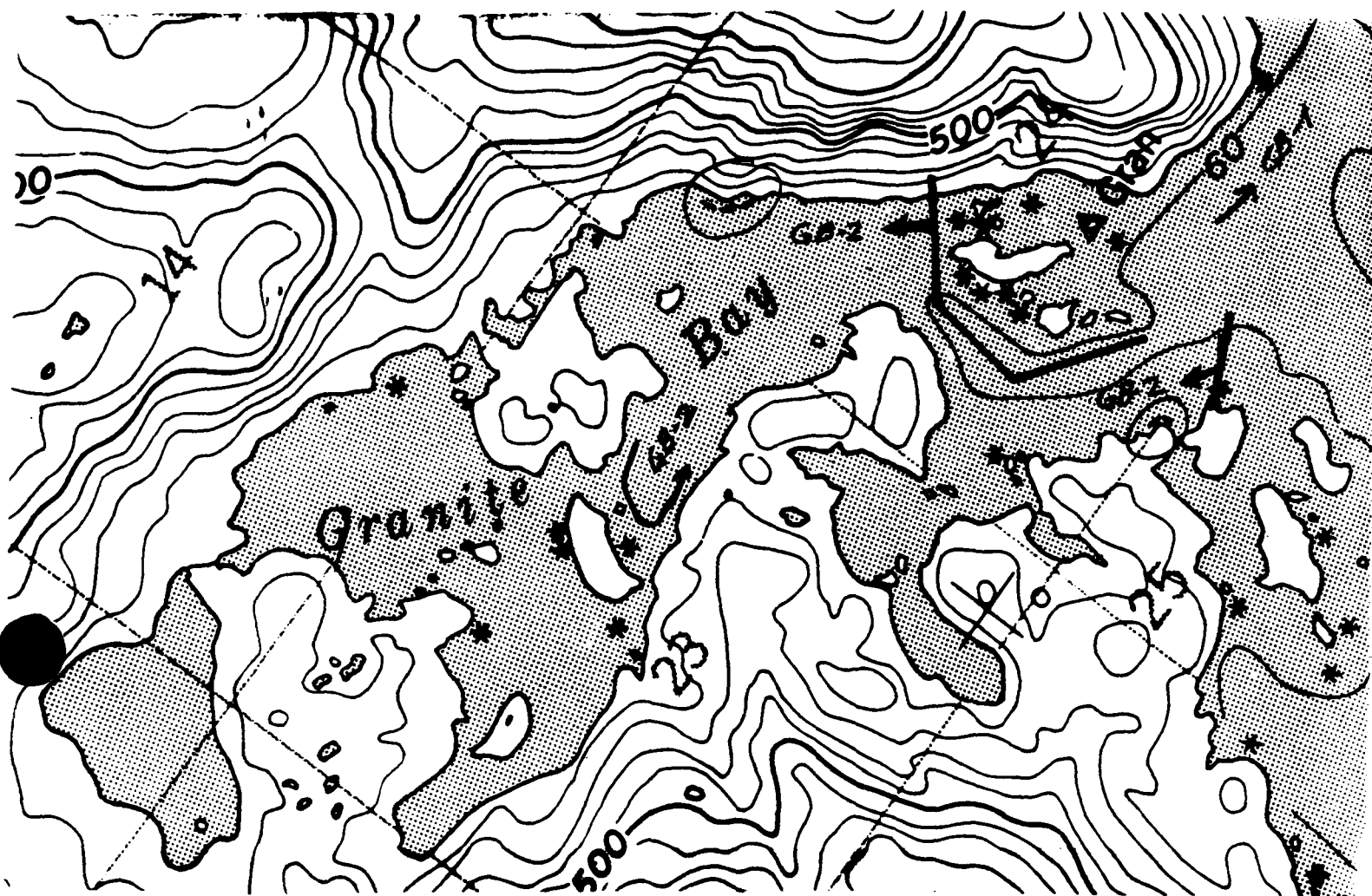
Standard Archaeological reporting requirements - no additional
restraints.

Norma Biggar

Date July 27, 1989

Tide: +2 to +5 ft.

Location: Granite Bay
Base map: Sewna B4



-- Very thin oil band (a 3cm or less wide) observed -
near SE end of Gb-2, and near the SW end.

Granite Bay

GB-1

TREATMENT MANUAL CHANGE 1

SEG GB-1 INSPECTION # 1

SEGMENT

DATE 8/25/89

INSPECTION RECORD

Shoreline Treatment Process(es) Completed for this Segment

☐

Hot water wash

☐

Mechanical

☐

Warm water wash

☐

Non-mechanical

☐

Water deluge

☒

Other No cleanup recommended

Exxon

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

Comments Treatment of segment GB-1 is complete. Ready for demobilization and deployment to new segment.

Signature Michael J. Tydings Date: 8/25/89 Time: 1:05 PM

Printed Name Michael J. Tydings

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil
Percent Degree of Oiling

0
0
1
0
0

100 %

Heavy
Medium
Light
Very Light
None

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

100 %

Heavy
Medium
Light
Very Light
None

Subsurface Oil

☐

Yes

☐

No

COMMENT BELOW

Reassessment

☐

Yes - necessary

☐

No - not necessary unless re-oiled

ADEC rep

Comments REP DECLINED TO PARTICIPATE

Signature

Date: / / Time:

Printed Name

FOSC rep

Demobilization approved/disapproved Not Required

Comments NO OIL CONTAMINATION

Signature

Date: 8/25/89 Time: 1:30

Printed Name

COPY: EXXON ADEC FOSC ISCC

GB2

TREATMENT MANUAL (CHANGE 1)

SEG GB-2 INSPECTION # 1

SEGMENT

DATE 8/25/89

INSPECTION RECORD

Shoreline Treatment Process(es) Completed for this Segment

☐

Hot water wash

☐

Mechanical

☐

Warm water wash

☐

Non-mechanical

☐

Water deluge

☒Other No cleanup recommended

Exxon

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

Comments Treatment of segment GB-2 is complete. Ready for demobilization and deployment to new segment.

Signature

Michael J. TydingsDate: 8/25/89 Time: 1:05 PM

Printed Name

Michael J. Tydings

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil

Percent Degree of Oiling

0

Heavy

0

Medium

>1

Light

0

Very Light

0

None

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

0

Heavy

0

Medium

0

Light

0

Very Light

0

None

100 %

Subsurface Oil

☐

Yes

☐

No

COMMENT BELOW

Reassessment

☐

Yes - necessary

☐

No - not necessary unless re-oiled

ADEC rep

Comments

Rep DECLINED TO PARTICIPATE

Signature

Date: 1 / 1 Time:

Printed Name

FOSC rep

Comments

Demobilization approved/disapproved (not required)

Signature

Date: 8/28/89 Time: 1:30

Printed Name

Paul R. Taylor

(version 8/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): DANGEROUS PASSAGE NORTHWEST BLOCK

Includes Shoreline Segments: DP-01, DP-02

Submitted : Jerry H. Bailey Date: 8-8-89
(for Exxon)

ISCC Recommendation: Sharon K. Christopherson Date: 8-14-89

FOSC Approval: D. E. Cavanaugh Date: 8-14-89

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

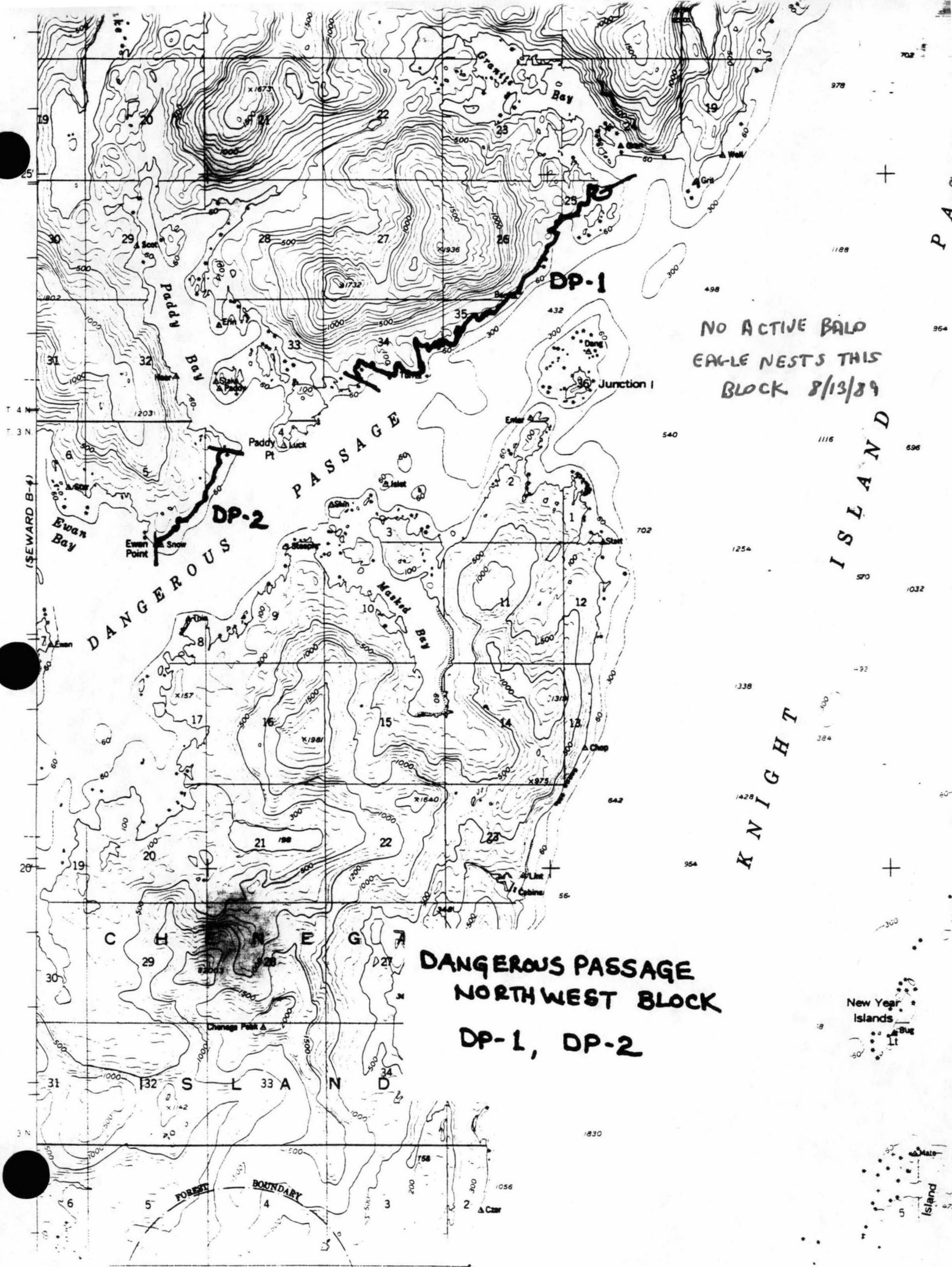
SHPO
FOSC
CDFU
NOAA
EPA
USDA (FS)
USFW
A.DEC
A.FG
A.DNR
CAC
PWSCA
USFS

******* SCOT NOTE *******

**THERE ARE ITEMS OF GREAT CONCERN IN THIS APPROVAL BLOCK
THAT AFFECT THE DEPLOYMENT OF CREWS AND EQUIPMENT.**

READ THIS FIRST

**SHORELINE SEGMENTS WITHIN DANGEROUS PASSAGE NORTHWEST
BLOCK ARE ON LANDS OWNED BY CHENEGA VILLAGE
CORPORATION. PERMIT NO ACCESS TO UPLAND AREAS AT ANY
TIME.**



NO ACTIVE BALD
EAGLE NESTS THIS
BLOCK 8/13/89

DANGEROUS PASSAGE
NORTH WEST BLOCK
DP-1, DP-2

SHORELINE CLEANUP PROGRAM

DATE 8/6/89

SHORELINE SEGMENT DP-01

LOCATION: (see enclosed map) DANGEROUS PASSAGE-BETWEEN GRANITE
BAY AND PADDY BAY (NORTHWEST BLOCK)

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 7/27/89

Recommended Cleanup Activity(ies):

- Manually remove contaminated drift material (fucus and driftwood) and pooled oil.
- Flood/flush with warm to hot water (up to 140 F) on low angle beaches.
- Use moderate to high pressure washing on rock.
- Use other approved methods as appropriate.

Priorities Considerations:

Class 4: Light oil
A: Resources present

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

Archeological Constraints (from site survey):

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

Charles S. Holmes
State Historic Preservation Officer *

Date: August 8, 1989

ISCC: Sharon K. Christopherson

Date: 8-14-89

EXXON: Daniel D. Tipton

Date: 8-14-89

FOSC: J. E. Conway

Date: 8-14-89

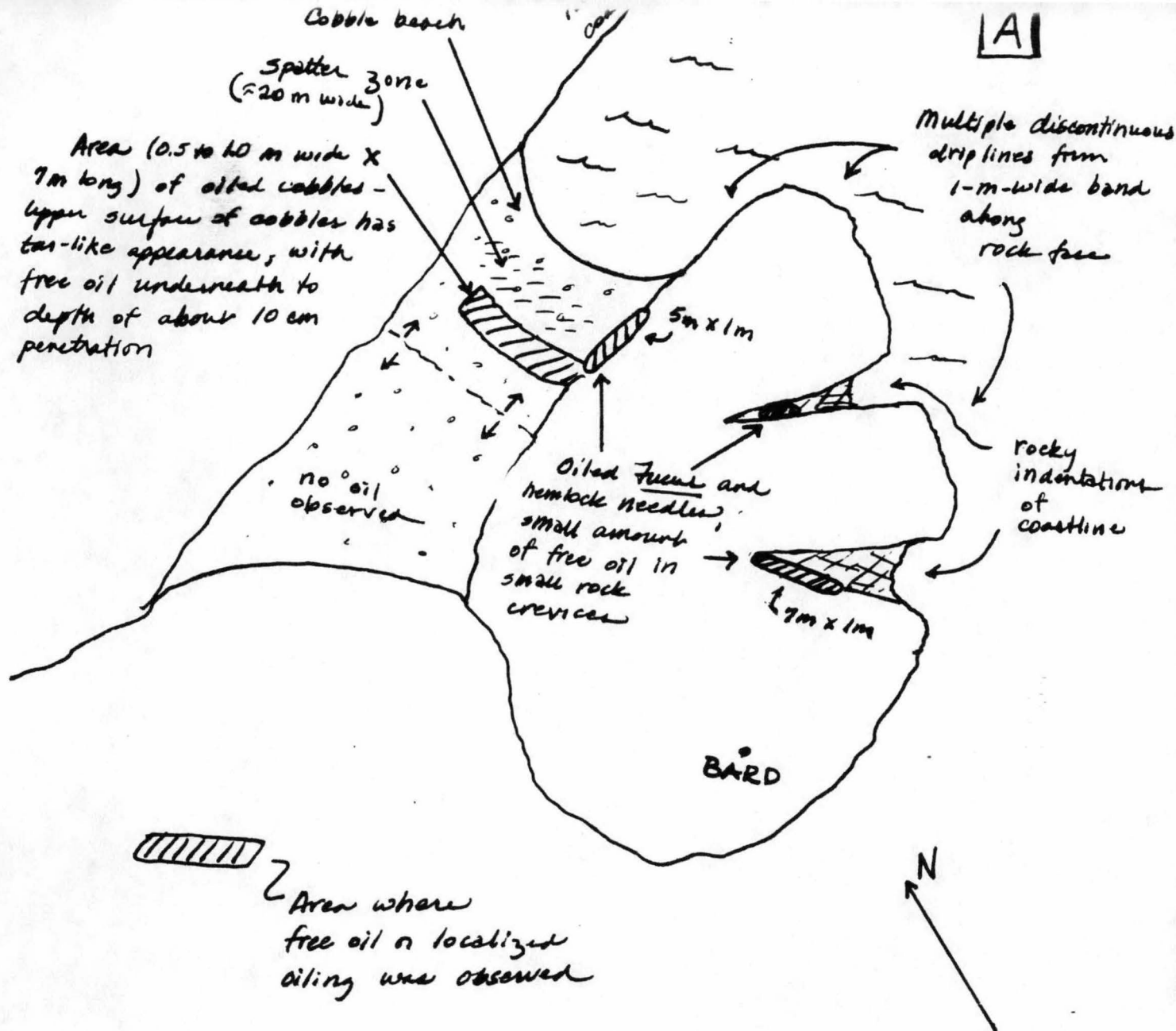
* Signature required to satisfy stipulations in Alaska DNR land

SHORELINE OIL EVALUATIONDate: 7/27/89 Time: 2:00 - 6:24 PMObserver: Norma BiggarSurveyed From: Foot/Boat/Helio/PlaneWeather: Sun/Cloud/Rain/Snow/FogLOCATIONLOCATION NW end of Dangerous Passage
between Granite and Paddy BaysSEGMENT NUMBER DP-1LENGTH OF SHORELINE SEGMENT: 7,300 mACCESS: Foot/Vehicle/Boat/Barge/Helio/Float PlaneSHORELINE:Shoreline Type: SPI/SEA/COV/HLD/STRTSlope: LANG/HANG/VERWave Exposure: High/Med/LowSediment: B25% / C5% / P___% / G___% / S___% / M___% / R70%Drift Debris on Beach: Yes/No Supra/Upper/Mid/Lower Type Wood, FucusOILDegree of Oiling: Heavy/Moderate/Light/No Oil/UnobservedArea of Beach Impact: SU / SP / H / M / LContinuous: Y/N % of Segment 5 Width of Band: 0.5 to 2 mSporadic: Y/N % of Segment 70Est. Oil Thickness where > 1cm: N/A cm Est. Oil Penetration: max 10 cmPooled Oil: 0.05% "Free" Oil: 5% Coated: H___% / M___% / L95%Fresh 10% Mousse _____% Tar Formation: 90%Drift Debris oiled? Yes/No Supra/Upper/Mid/Lower Amount: H/M/L/

Comments:

Evidence of oil contamination was not observed over much of the segment.
A minor amount was observed over most of the remaining distance (discontinuous
oil dripline less than 0.5 meter wide). At four pocket beaches, a higher
degree of oil contamination was observed. Free oil was observed to a depth of about
10 cm over areas up to 15m x 200m on cobble beaches. Oiled fucus and debris
and small amounts of free oil in rock crevices were also observed at
these locations.

Photos: 15 & 17, Roll T564

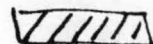
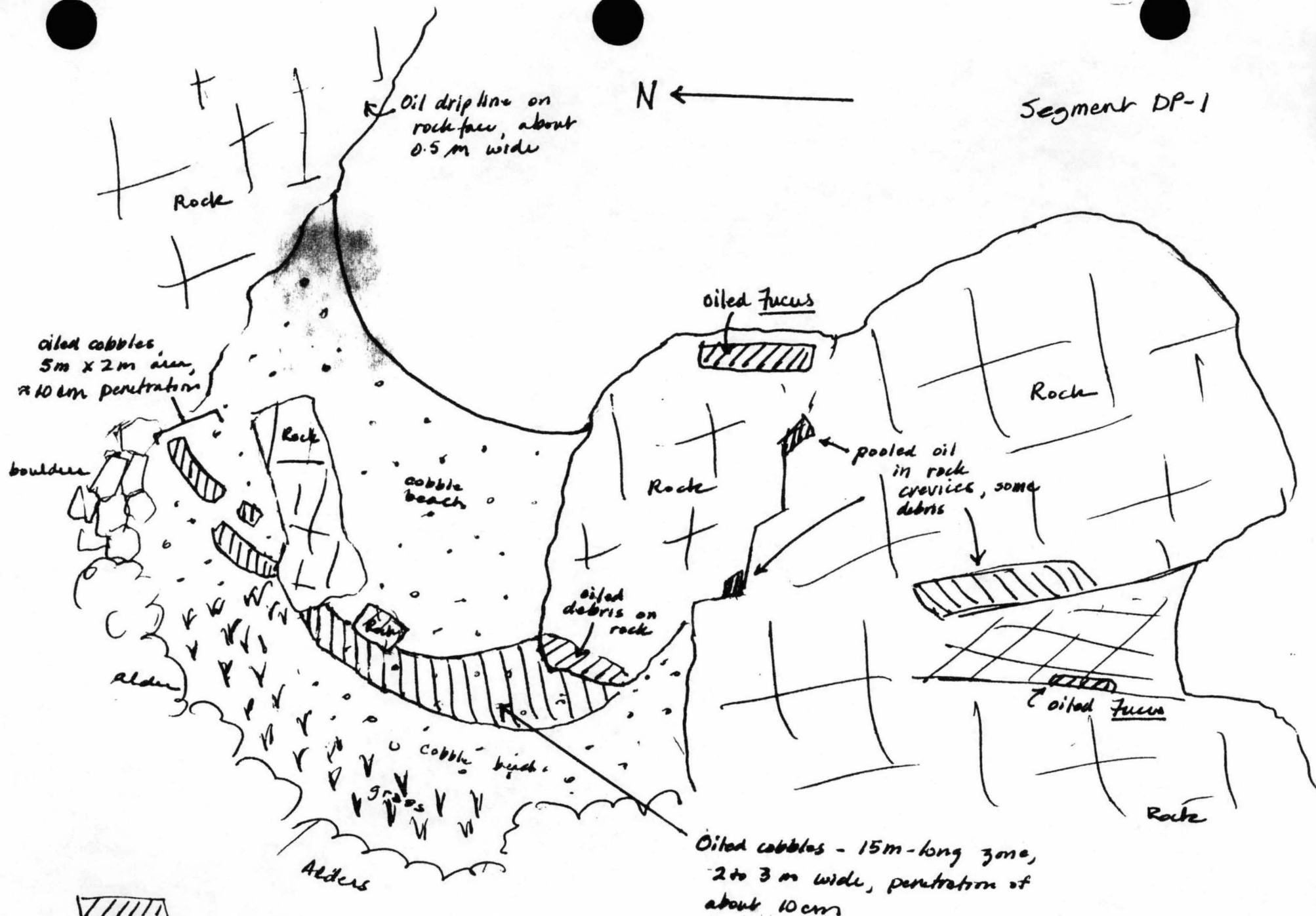


SKETCH MAP of **A** at BARD MARKER

Segment DP-1

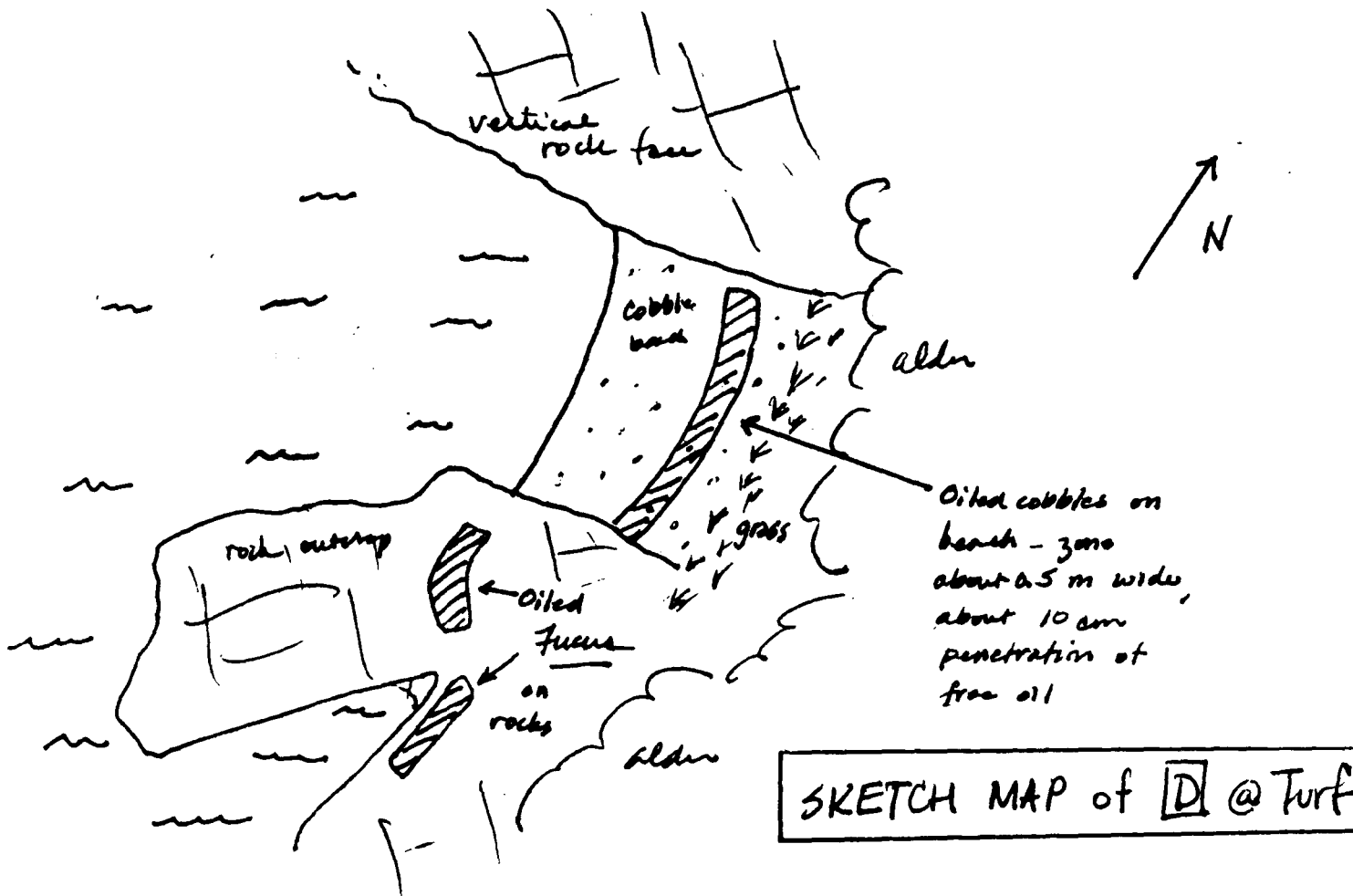
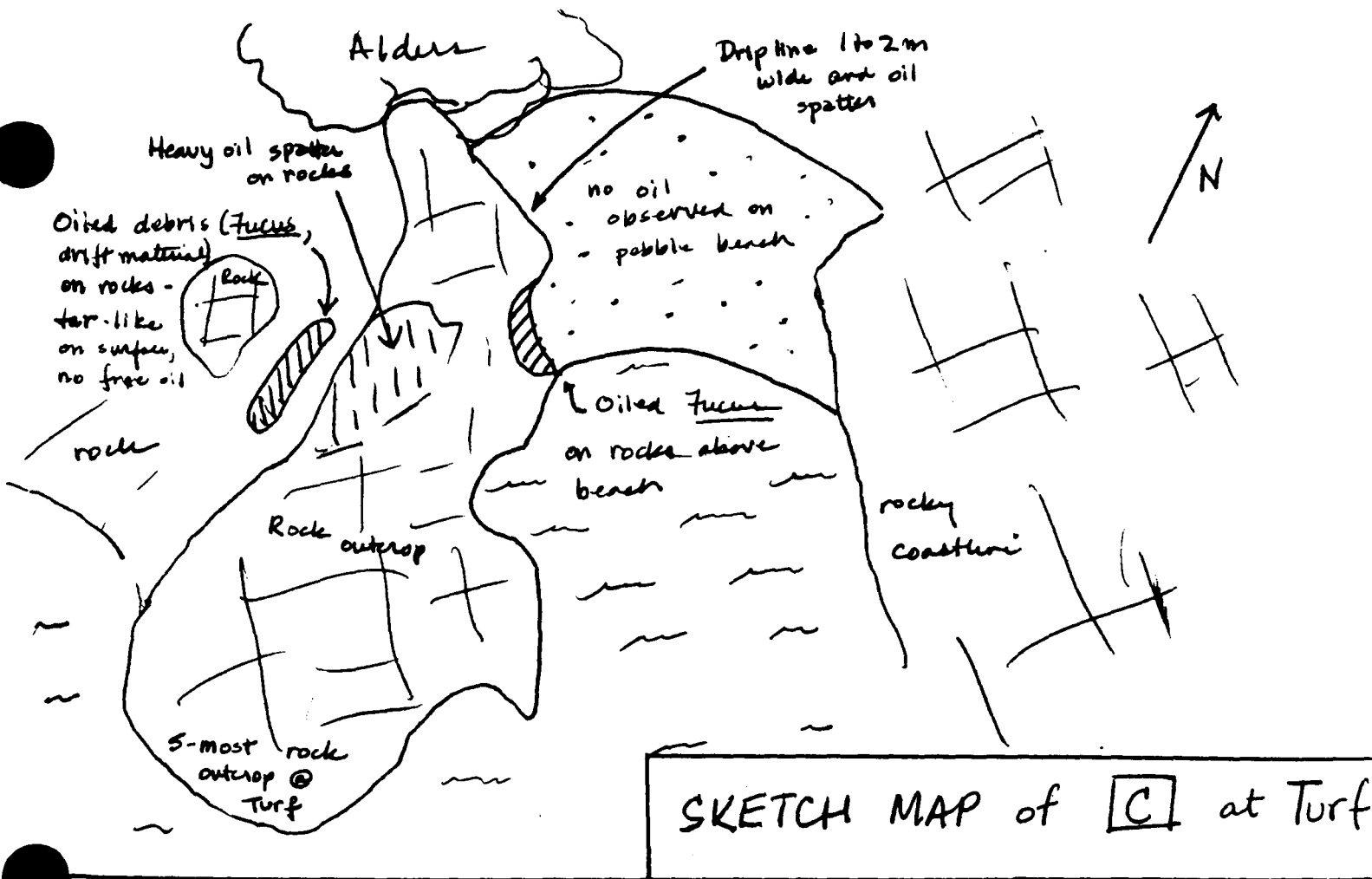
N ←

Segment DP-1



Area where free
oil observed

SKETCH MAP of [B] at Turt Marker



ECOLOGICAL EVALUATION

LOCATION: Prince William Id. SITE: Dangerous Passage OBSERVER: ER White

LOCATION PREFIX: DP SEG. NO.: 1 LENGTH: 7,300 (M)

DATE: 07/27/89 TIME (HHMM): 1400-1830 TIDE HT.: 1.2-1.7 (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

-continuous @ mid tide level on rock / sparse or absent on beaches

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

scattered dense colonies in beach Pools / some small dense colonies on rock
otherwise sparse

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

-continuous small acorn barnacles @ high-mid tide level

Littorina

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

littorine snails always sparse - some dense w. lamellosa

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

-long sections with scattered individual limpets

OTHER OBSERVATIONS: discontinuous eelgrass front this segment / school
of capelin-like fish observed (no positive identification) / 1 salmon
stream @ west end (see map) - fry observed in stream

CLEANUP PRECAUTIONS: do not re-introduce hydrocarbons to water near eelgrass
beds / check with ADF&G with respect to activity near salmon stream
5 ♀ sea otters with pups & 4 single adults

MAMMALS: Otters Harbor Seals Sea Lions Whales
Other black bear tracks & sign near mouth of salmon stream

BIRDS: ♀ golden eye with 5 chicks / ♀ merganser with 6 chicks / 2 bald eagles
quail throughout / murrelets offshore

GENERAL OBSERVATIONS: the islands at the NE end of this segment appear
to be forage habitat for nursing sea otters - minimize disturbance
in this area.

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 7-27-89 Location DANGEROUS PASSAGE Site GRANITE BAY To PADDY BAY
Location Prefix DP Segment # 1 Length 7,300

Survey Method:

Air _____ (A - indicate on map) Boat X (98%) (A - indicate on map)

Ground X (2%) (G - indicate on map)

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

Oil conditions/beach visibility Light oil - Splatter and Drip lines - good visibility

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

Cultural resources observed in beach zone (AHRS code) None

Cultural resources observed in tree fringe (AHRS code) RCS

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

Shore Profile Vertical rock and Boulder ITZ - Very few pocket beaches

Fresh Water Sources Numerous creeks

Sea Exposure Open to Dangerous Passage

Access/Safety Access only by small boat in calm seas

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

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

Photos: Color Roll # None Frames _____

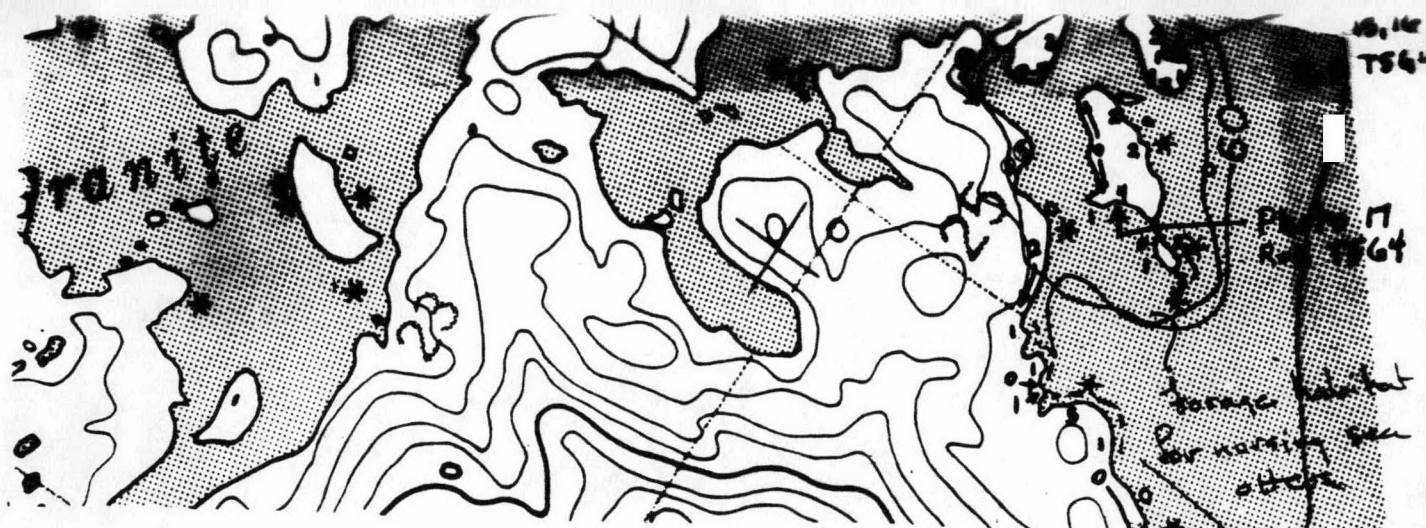
B/W Roll # None Frames _____

Observer(s) Bob Bern

Time survey started 1343 Time survey ended 1834

Cultural resource considerations/restraints:

Standard Archaeological Statement. No additional restraints.



S.C.A.T. Team 1 Segment: DP-1

Date: July 27, 1989 Tide: +4 to +9

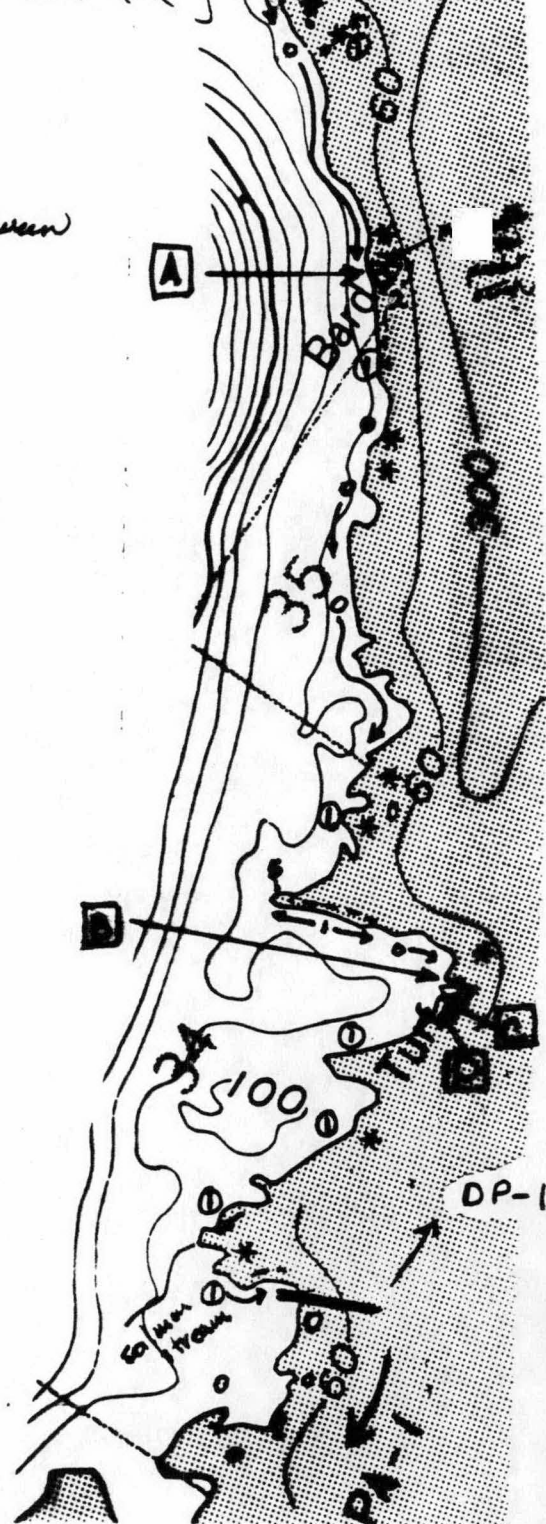
Location: NW side of Dangerous Passage, between Granite Bay and Paddy Bay

KEY

- ① Discontinuous oil dripline, ≤ 0.5 m wide
commonly < 10 cm wide
- ② Discontinuous oil dripline, 0.5 to 1.0 m wide
- ③ Oil dripline, 1-to 2-m-wide band
- ④ Oil dripline, 1 to 1.5-m wide, with 0.5-m-wide continuous upper band, some oiled Fucus
- ⑤ Random / few oil spatter / blotches
- Ⓐ, Ⓑ, etc. Oiled areas - see attached sketch maps for more detail
- Ⓢ - No oil observed

NOTE: Areas observed having significant oil in this segment are labeled A, B, C, and D.

SEGMENT DP-1



version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 8/6/89

SHORELINE SEGMENT DP-02

LOCATION: (see enclosed map) DANGEROUS PASSAGE-BETWEEN PADDY

BAY AND EWAN BAY

DEC NO. _____ SHORELINE ASSESSMENT DATE: 7/28/89

Recommended Cleanup Activity(ies):

No cleanup recommended at this time (subject to FOSC reassessment at a later date), due to very little, discontinuous, light oil.

Priorities Considerations:

Class 4: Light oil

B: Resources absent

Biological Constraints (from site survey):

If cleanup is conducted, work at mid tide + or take appropriate measures to protect lower intertidal zone.

Archaeological 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.

Heather E. Hodman

State Historic Preservation Officer *

Date: August 8, 1989

By: Sharon K. Christopherson

Date: 8-14-89

By: Daniel S. Tipton

Date: 8-14-89

By: D. E. Conway

Date: 8-14-89

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

SHORELINE OIL EVALUATIONDate: 7/28/89 Time: 5:20 - 6:30 AMObserver: Norma BiggarSurveyed From: Foot/Boat/Helio/PlaneWeather: Sun/Cloud/Rain/Snow/FogLOCATIONLOCATION NW side of Dangerous Passage,
between Paddy and Ewan BlysSEGMENT NUMBER DP-2LENGTH OF SHORELINE SEGMENT: 1700 mACCESS: Foot/Vehicle/Boat/Barge/Helio/Float PlaneSHORELINE:Shoreline Type: SPI/BEA/COV/HLD/SPRTSlope: LANG/HANG/VERWave Exposure: High/Med/LowSediment: B25 % / C 5 % / P % / G % / S % / M % / R 70 %Drift Debris on Beach: Yes/NoSupra/Upper/Mid/Lower Type Frame

minor amounts

OILDegree of Oiling: Heavy/Moderate/Light/No Oil/UnobservedArea of Beach Impact: SU / SP / H / M / LContinuous: Y/N % of Segment 0 Width of Band: mSporadic: Y/N % of Segment 5Est. Oil Thickness where > 1cm: N/A cm Est. Oil Penetration: N/A cmPooled Oil: 0 % "Free" Oil: 0 % Coated: H % / M % / L 100 %Fresh % Mousse % Tar Formation: 100 %Drift Debris Oiled? Yes/No Supra/Upper/Mid/Lower Amount: H/M/L/

Comments:

Very little to no oil observed throughout this segment. Where present it
primarily occurs as thin (≤ 10 cm-wide) ^{discontinuous} bands on rock faces.Northeast of marker 'Snow' the discontinuous driplines (bands)
are up to 50 cm wide. Very little spatter observed on beach material.No photos

ECOLOGICAL EVALUATION

LOCATION: Prince William Id SITE: Dangerous Passage OBSERVER: E.P. White

LOCATION PREFIX: DP SEG. NO.: 2 LENGTH: 1700 (M)

DATE: 07 / 28 / 87 TIME (HHMM): 0500-0630 TIDE HT.: 6.0-0.5 (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

continuous fucus (60%) / patchy / sparse fucus (40% by length) - several other algae @ low-mid tide level & Gigartina subtidally

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

occasional dense colonies on rock or in beach faces

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

continuous - sometimes dense - cover of acorn barnacles @ high mid tide / patchy occurrence @ low-mid

Littorina

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

sparse on rock & among fucus / other whelks (N. lamellosa & S. diva)

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

- 4 species found

OTHER OBSERVATIONS: eelgrass beds occur fronting 60-70% of segment

CLEANUP PRECAUTIONS: do not contaminate low intertidal or subtidal habitats

MAMMALS: Otters Harbor Seals Sea Lions Whales
Other

BIRDS: 40-60 gulls / 20-30 murrelets

GENERAL OBSERVATIONS: oil appears to have had minimal impact

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 7-28-89 Location DANGEROUS PASSAGE Site BETWEEN ADDY & EWAN BAYS

Location Prefix DP-2 Segment # 2 Length NO DECK MAP

Survey Method:

Air _____ (A - indicate on map) Boat x (99%) (A - indicate on map)

Ground x (1%) (G - indicate on map)

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

Oil conditions/beach visibility Light oil - Drip line only - visibility excellent

Width of beach zone surveyed 10 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 Vertical Rock & boulders - angular rock pocket beaches

Fresh Water Sources Several small creeks

Sea Exposure Open to Dangerous Bay

Access/Safety Small boat only in calm weather

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

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

Photos: Color Roll # NONE Frames _____

B/W Roll # NONE Frames _____

Observer(s) See Borts

Time survey started 0520 Time survey ended 0634

Cultural resource considerations/restraints:

Standard Statement. No additional Archaeological
Restraints.

SEGMENT DP-2

KEY

- ① Discontinuous thin (≤ 10 cm) dripline or light spatter on beach
- ② Discontinuous dripline 10 to 50 cm wide

N



EWAN BAY

1 mile

Phooby Bay

PA-1

DP-2

evidence of oil mainly absent, where present, is

①

Dangerous Passage

EWAN POINT

SNOW

DP-2

S.C.A.T. Team 1

Norma Biggar

July 28, 1989

Tide: 0 to +2 feet

Location: Dangerous Passage

Base Map: Seward 84

Dangers Passag

5010557211-4 180705555505; #10
TREATMENT MANUAL, CHANGE 1

DP-1

SEG DP-1 INSPECTION # 1

SEGMENT

DATE 8/25/89

INSPECTION RECORD

Shoreline Treatment Process(es) Completed for this Segment

☐

Hot water wash

☐

Mechanical

☐

Warm water wash

☐

Non-mechanical

☐

Water deluge

☒

Other None

Exxon

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

Comments Treatment for segment DP-1 is complete. Ready for demobilization and deployment to new segment.

Signature Michael J. Tydings

Date: 8/25/89 Time: 1:05 PM

Printed Name Michael J. Tydings

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil

Percent

Degree of Oiling

Heavy

Medium

Light

Very Light

None

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

Heavy

Medium

Light

Very Light

None

100 %

Subsurface Oil

☐

Yes

☐

No

COMMENT BELOW

Reassessment

☐

Yes - necessary

☐

No - not necessary unless re-oiled

ADEC rep

Comments

Rep declined to participate

Signature

Date: / / Time:

Printed Name

FOSC rep

Demobilization approved/disapproved/ Not Required

Comments

No Gross Contamination

Signature

Date: 8/25/89 Time: 1:30

Printed Name

Paul Peterson

DP-2

SEG DP-2 INSPECTION # 1

SEGMENT

DATE 8/25/89

INSPECTION RECORD

Shoreline Treatment Process(es) Completed for this Segment

☐

Hot water wash

☐

Mechanical

☐

Warm water wash

☐

Non-mechanical

☐

Water deluge

☒

Other No cleanup recommended

Exxon

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

Comments Treatment for segment DP-2 is complete. Ready for demobilization and deployment to new segment.

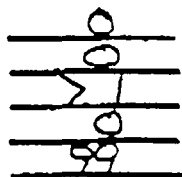
Signature Michael J. Tydings

Date: 8/25/89 Time: 1:05 PM

Printed Name Michael J. Tydings

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil
Percent Degree of Oiling

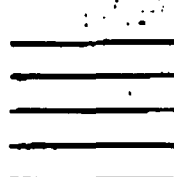


Heavy
Medium
Light
Very Light
None

100 %

Existing Shoreline Condition As Visually Determined by ADEC

Surface Oil
Percent Degree of Oiling



Heavy
Medium
Light
Very Light
None

100 %

Subsurface Oil

☐

Yes

☒

No

COMMENT BELOW

Reassessment

☐

Yes - necessary

☒

No - not necessary unless re-oiled

Subsurface Oil

☐

Yes

☐

No

COMMENT BELOW

Reassessment

☐

Yes - necessary

☐

No - not necessary unless re-oiled

ADEC rep

Comments

REP DECLINED TO PARTICIPATE

Signature

Date: / / Time:

Printed Name

FOSC rep

Demobilization approved/disapproved/ Not Required

Comments

Signature

Date: 8/28/89 Time: 1:31

Printed Name

COPY: EXXON ADEC FOSC ISCC

(version 5/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): PADDY BAY BLOCK

Includes Shoreline Segments: PA-01

Submitted : *William C. Hines* Date: 7/2/89
(for Exxon)

RECOMMENDATION
ISCC Approval: *Joseph L. Michel* Date: 7/31/89

FOSC Approval: *Q. S. Robinson* Date: 7/31/89

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

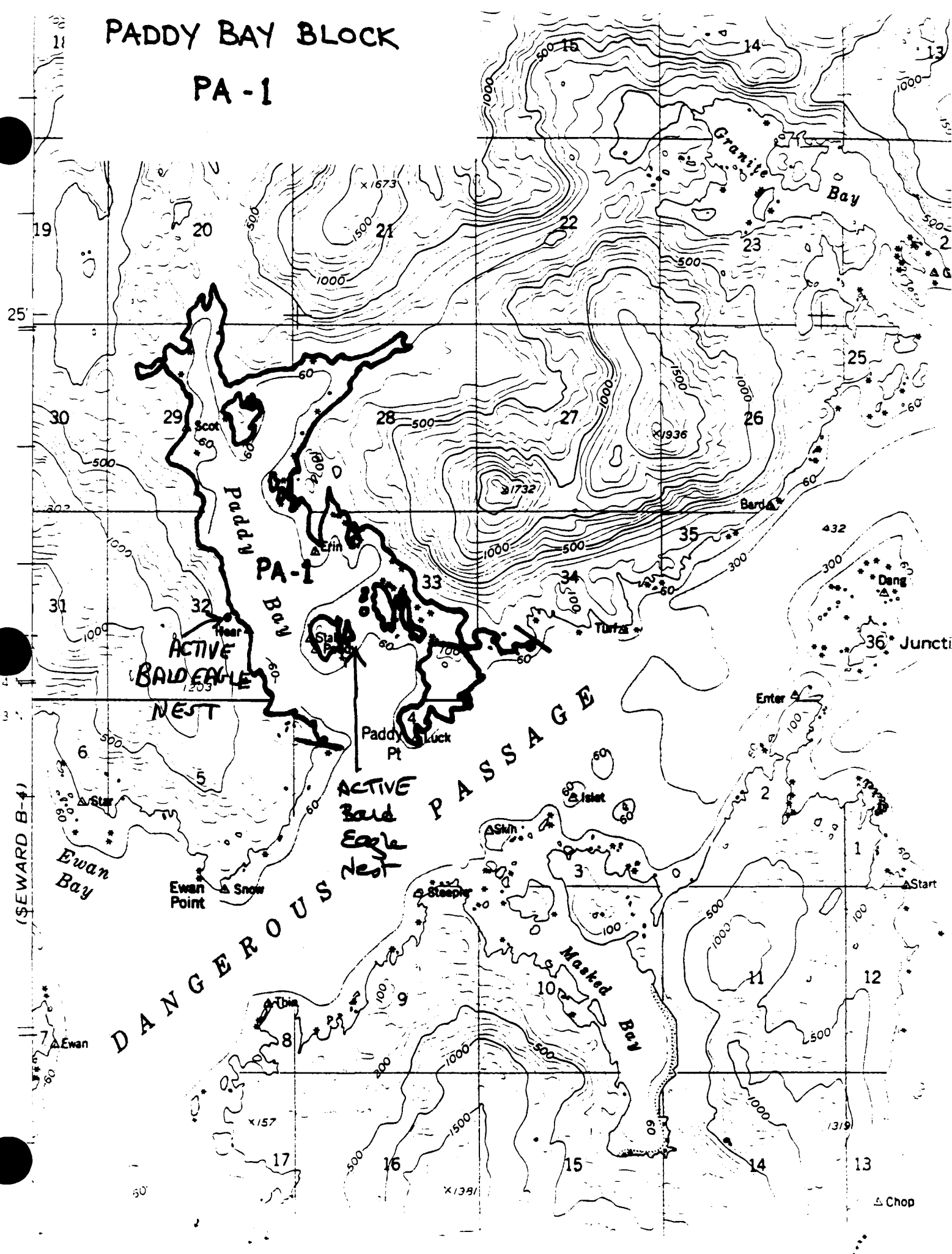
FOSC
CDFU
NOAA
EPA
USDA (FS)
USFW
A.DEC
A.FG
A.DNR
CAC
PWSCA
USFS
SHPO

KA

SCOT NOTE

SHORELINE SEGMENTS WITHIN
THIS BLOCK ARE ON LANDS
OWNED BY CHENEGA VILLAGE
CORPORATION. NO ACCESS TO
UPLAND AREAS AT ALL TIMES.

PA - 1



(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/26/89 SHORELINE SEGMENT PA-01
LOCATION: (see enclosed map) PADDY BAY-Northwest end of
Dangerous Passage
ADEC NO. _____ SHORELINE ASSESSMENT DATE: 7/19/89 - 7/22/89

Recommended Cleanup Activity(ies):

No cleanup recommended at this time (subject to FOSC reassessment at a later date), due to light discontinuous oil and ecological constraints.

Priorities Considerations:

Class 4: Light oil
Class A: Resources present

Ecological Constraints (from site survey)
Cleanup is not recommended. The active bald eagle's nest (see advice from other foraging grounds, dense anadromous streams. (NOS. 226-20-16020, 226-20-16010). CONTACT ADEC PRIOR TO ANY CLEANUP.

STILL,
OUR SURVEY INDICATED
ONLY ONE ACTIVE NEST IN
A DIFFERENT LOCATION FROM
SCAT MAP, SO THERE MAY
ACTUALLY BE 3 ACTIVE
NESTS.

s two
river
two
8907-31
JH
H/L

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.

Douglas Reger
State Historic Preservation Officer *

Date: 7/28/89

ISCC: Jaqueline Michel
EXXON: Don Stirling
FOSC: CS Pollock

Date: 7/31/89
Date: 7/22/89 8907-31
Date: 7/31/89

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

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/26/89

SHORELINE SEGMENT PA-01

LOCATION: (see enclosed map) PADDY BAY-Northwest end of

Dangerous Passage

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 7/19/89 - 7/22/89

Recommended Cleanup Activity(ies):

No cleanup recommended at this time (subject to FOSC reassessment at a later date), due to light discontinuous oil and ecological constraints.

Priorities Considerations:

Class 4. Light oil

Class A: Resources present

Ecological Constraints (from site survey):

Cleanup is not recommended. This segment contains two active bald eagle's nest (see advisory), sea otter and river otter foraging grounds, dense eel grass beds and two anadromous streams. (NOS 226-20-16020, 226-20-16010) CONTACT

ADFRG PRIOR TO ANY CLEANUP

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.

Douglas Rege
State Historic Preservation Officer *

Date: 7/28/89

ISCC. Jaqueline Michel

Date: 7/31/89

EXXON: John Stirling

Date: 7/22/89 8907-31

FOSC. C. E. Robinson

Date: 7/31/89

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

Date: 7/19-7/22/81 Time: 19:51 (7/19)

Observer: Greg Chaney, Norma Biggar

Surveyed From: Foot/Boat/Helio/Plane

Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION

LOCATION Paddy's Bay SEGMENT NUMBER PA-1

LENGTH OF SHORELINE SEGMENT: 24,000 m (≈15 miles)

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

SHORELINE:

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

Slope: LANG/HANG/VER

Wave Exposure: High/Med/Low

Sediment: B 5 % / C 40 % / P 5 % / G % / S % / M % / R 50 %

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

OIL

Degree of Oiling: Heavy/Moderate/Light^{to}/No Oil/Unobserved

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

Continuous: Y/N % of Segment 0 Width of Band: up to 0.5 m

Sporadic: Y/N % of Segment 40

Est. Oil Thickness where > 1cm: N/A cm Est. Oil Penetration: N/A cm

Pooled Oil: 0 % "Free" Oil: 0 % Coated: H 0 % / M 5 % / L 95 %

Fresh 0 % Mousse 0 % Tar Formation: 100 %

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

Comments:

Oil observed on this segment is primarily in the form of tar, very discontinuous, and concentrated near the mouth of Paddy Bay. In that area, it's present primarily as a band up to 0.5m wide with drip lines up to 1m. long on near-vertical rock faces and boulders, as tar spatter on beach cobbles and boulders, locally as isolated tar balls, and in drift debris. Inside the bay, observed occurrences consist primarily of isolated tar balls, oiled debris, tar spatter, and a sheen at one location. Length of segment reflects lack of observable oil/tar inside the bay. No oil observed in vicinity of booms. Likely near-shore sub-tidal rocks in areas where tar bands and drip lines occur near mouth of bay.

Map/Aerial photo marking segment boundaries see attached map

VTR: Y/N Tape Number(s) N/A

Photography: Y/N Roll Number(s) TSG4 #s 1-4

Sample Numbers Collected: _____

ECOLOGICAL EVALUATION

LOCATION: Prince William Sound SITE: Paddy Bay OBSERVER: S.L. Dean
 LOCATION PREFIX: _____ SEG. NO.: PA+1 LENGTH: 24 000 !! (M)
 DATE: ^{completed:} 07 / 22 / 89 ^{begin segment:} TIME (HHMM): 19:55 +/11 ^{end segment 13:45 7/22} TIDE HT.: 02.5 - 05.0 ft (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

Continuous band of dense Fucus present along shore of Paddy Bay. Fucus on cobble beach area appears to be drift Fucus but is actually clusters of plants attached to small pebbles + cobbles.

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
Small clusters of mussels are present on vertical rock walls + at bases of cobbles and boulders across beaches. Fucus plants are also used as substrate mussels. Some areas of the bay have higher densities of mussels - eg, rocky headlands + low angle beaches with sand/mud pockets.

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
A continuous band of barnacles is present on vertical rock walls. Many cobbles + boulders across beaches also have dense clusters of barnacles, as do pieces of shale on shingle beaches.

Littorina

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

Some aggregations of Littorines present on green algal mats. Generally, Littorines are scattered across/throughout segment in a random type distribution - some areas having more individuals. See areas having fewer. Littorines were present at all locations in segment. Observed on light-medium oiled Fucus.

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

Observed both under Fucus blades + on bare rocks of upper intertidal.

OTHER OBSERVATIONS: Dense patches + beds of eelgrass occur in the shallow subtidal areas of the bay. Two anadromous fish streams were located: ADF + 6 streams # 16010 + # 16020. Bears + pos. river otter scat were found along banks of fish streams. Several fish skeletons were also seen probably the remains of a river otter or bear feeding session. Many Lion's Mane Jellyfish (Cyanea) were seen in the eelgrass beds. Several pocket beaches had sand/mud which contained clams + mud.

CLEANUP PRECAUTIONS: No oil was seen on the banks of either fish stream + the absorbent boom crossing both streams were free of oil. Active eagle's nests are present in the segment - Main a minimum distance of 300ft from these locations (see map). Since the amount of oil (tar) present is very minimum, the disturbance to the environment associated with cleanup is not warranted. No cleanup is recommended at this time due to this ecological constraint.

MAMMALS: Otters 2 (feeding) Harbor Seals 1 Sea Lions Whales
Other

BIRDS: Black Oyster Catchers - adults + juveniles 2 Eagle Nests (see Map) Several eagles Glaucous-winged gulls Black-legged Kittiwakes Arctic terns Gulls + Steller Jays - Rhyacion

GENERAL OBSERVATIONS: Species diversity + abundance appears to be relatively uniform throughout the bay. As typical of habitats with lower amounts of disturbance, this calm, sheltered bay has apparently lower diversity of organisms than nearby areas of increased disturbance (eg outer exposed coastline). However, this lower amount of species diversity does not detract from the overall importance of the bay - 2 major anadromous fish streams, eagle nest sea otter + river otter foraging grounds, + dense eelgrass beds make this an important ecological region.

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 7-22-89 Location Perry Bay, PWS Site ENTIRE BAY

Location Prefix PR Segment # 1 Length 24,000 M (15 MILES)

Survey Method:

Air _____ (A - indicate on map) Boat X (SEE MAP) (A - indicate on map)

Ground X (SEE MAP) (G - indicate on map)

Known cultural resources (AHRS #) SEW 431 Data Source McALLISTER/GRIFFIN PWS SITE LOCATION NOV. 1988

Oil conditions/beach visibility VERY LIGHT TRACE - EXCELLENT BEACH VISIBILITY

Width of beach zone surveyed 5-10 m Tree fringe surveyed 0-30+ M

Cultural resources observed in beach zone (AHRS code) RCS

Cultural resources observed in tree fringe (AHRS code) RCS, CMT'S

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

Shore Profile VERTICAL OR HIGH ANGLE ROCK WITH NARROW ANGULAR ROCK STRIPS, MODERATE TO HIGH ANGLE ROCK BENCHES (SMALL POCKET BEACHES) - VERY FEW LOWER ROCK OR GRAVEL BEACHES.

Fresh Water Sources NUMEROUS SMALL CREEKS, LARGE SALMON STREAM AT HEAD OF NW AND NE ARMS.

Sea Exposure EXCEPT FOR AREA FROM BEACH #1 TO LOOK POINT IN SE PART OF SEGMENT (EXPOSED COAST) MOST OF SEGMENT IS IN WELL PROTECTED LOW ENERGY ENVIRONMENT.

Access/Safety DEEP, WELL PROTECTED BAY WITH GOOD ANCHORAGES - EASY SAFE ACCESS

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 # ROLL Frames _____

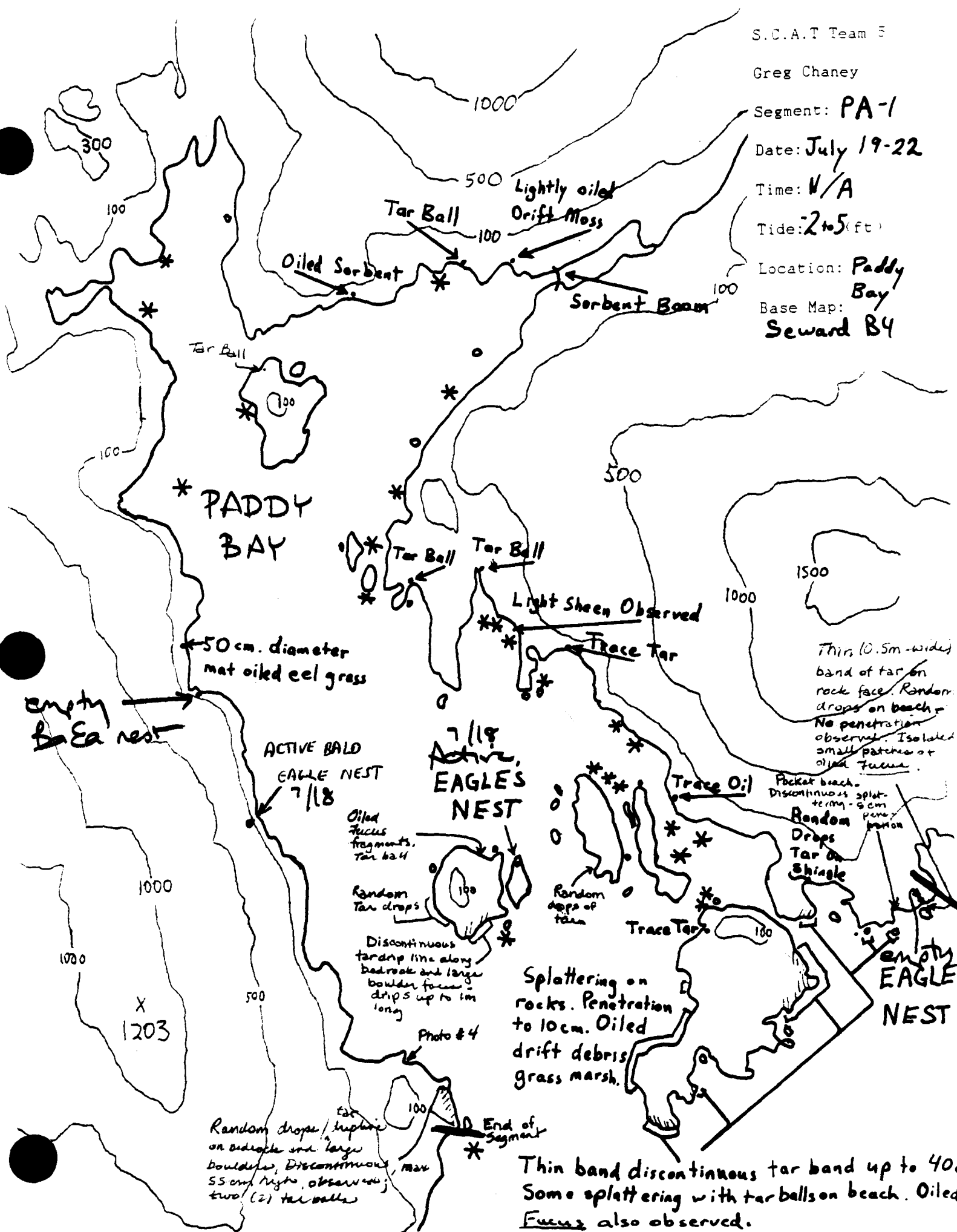
B/W Roll # ROLL Frames _____

Observer(s) BOB BETTS

Time survey started 7/19/89 1951 Time survey ended 7/22/89 1951

Cultural resource considerations/restraints:

STANDARD STATEMENT, CLEAN-UP CREWS SHOULD BE RESTRICTED FROM ACCESS TO PRIVATE PROPERTY AT NORTH END OF LARGE ISLAND AT HEAD OF BAY AND FROM ACCESS TO THE INTERIOR OF THIS ISLAND. RESTRICTED ACCESS TO AREA BEYOND BEACH ZONE SHOULD BE ENFORCED. NO ADDITIONAL ARCHAEOLOGICAL RESTRAINTS.



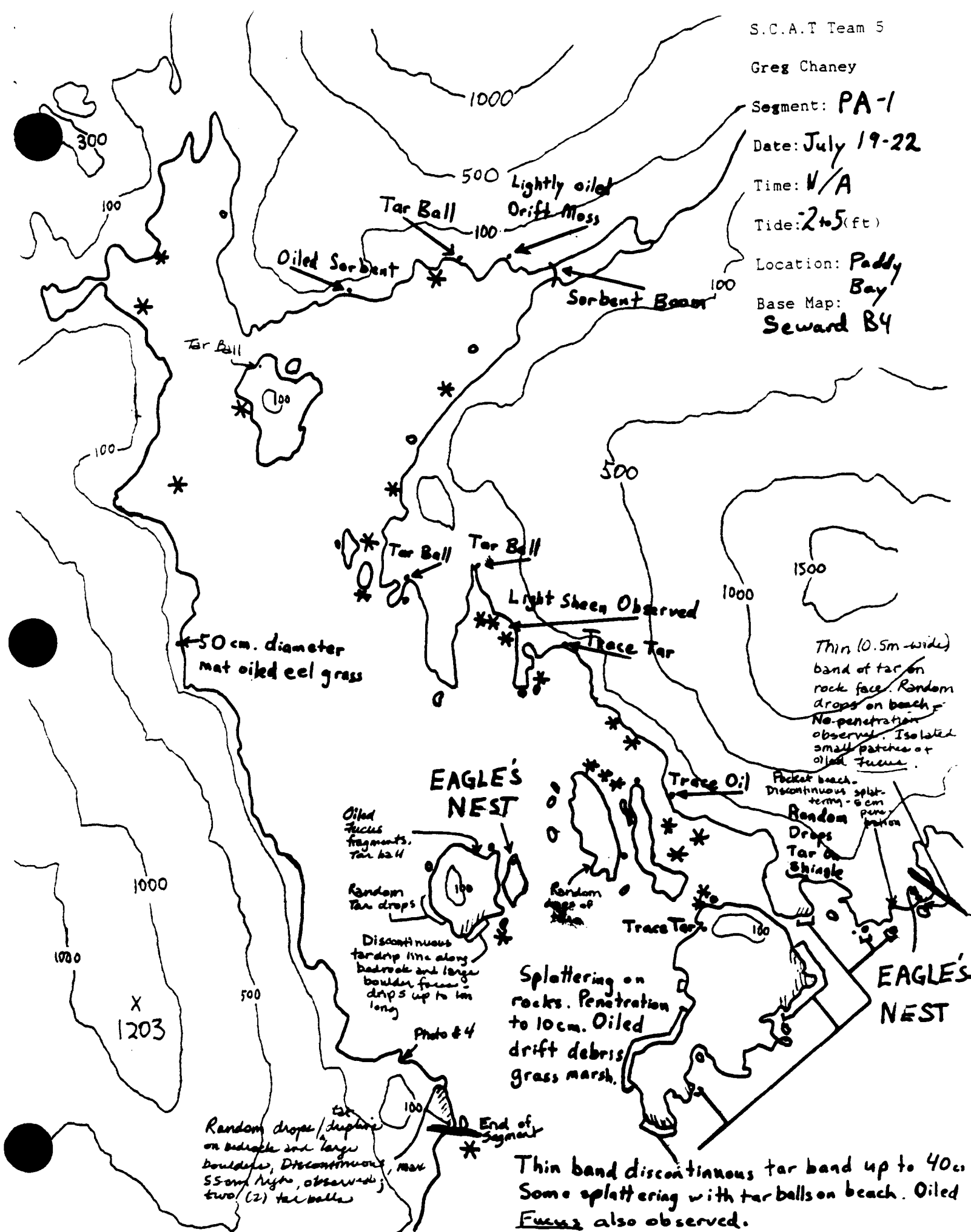
Greg Chaney

Segment: PA-1

Date: July 19-22

Time: V/A

Tide: 2 to 5 (ft)

Location: Paddy Bay
Base Map: Seward B4

Addy Bay

TREATMENT MANUAL, 6/15/89

SEG PA-1 INSPECTION # _____

SEGMENT

DATE 8/11/89

INSPECTION RECORD

Shoreline Treatment Process(es) Completed for this Segment

☐

Hot water wash

☐

Mechanical _____

☐

Warm water wash

☐

Non-mechanical _____

☐

Water deluge

☒Other NONE

Exxon

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

Comments Treatment of Segment PA-1 is complete.Ready for Demobilization and Deployment to new segmentSignature Michael J. Tidings Date: 8/11/89 Time: 5:30 PMPrinted Name Michael J. Tidings

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil

Subsurface Oil

Percent Degree of Oiling

☒

Yes

☐

No

Heavy

Medium

Light

2%

Very Light

98

None

100 %

Comments Very Minor Staining
observed near oil

Reassessment

☒

Yes - necessary

☐

No - not necessary unless re-oiled

ADEC rep Comments _____

Signature _____

Date: / / Time: _____

Printed Name _____

FOSC rep

Demobilization approved/disapproved

Comments Minor Staining near Pipeline Bridge. NoExcess Contamination foundSignature Kelly V. Garbure Date: 8/11/89 Time: 11:53Printed Name Kelly V. Garbure

(version 8/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): EWAN BAY BLOCK

Includes Shoreline Segments: EW-01

Submitted : Jerry H. Bailey Date: 8-8-89
(for Exxon)

ISCC Recommendation: Sharon K. Christopherson Date: 8-14-89

FOSC Approval: [Signature] Date: 8-14-89

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

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

******* SCOT NOTE *******

**THERE ARE ITEMS OF GREAT CONCERN IN THIS APPROVAL BLOCK
THAT AFFECT THE DEPLOYMENT OF CREWS AND EQUIPMENT.**

READ THIS FIRST

**SHORELINE SEGMENTS WITHIN EWAN BAY BLOCK ARE ON LANDS
OWNED BY CHENEGA VILLAGE CORPORATION. PERMIT NO ACCESS
TO UPLAND AREAS AT ANY TIME.**

Even Point

W-1

DANGEROUS

8

8/12/89

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 8/6/89

SHORELINE SEGMENT EW-01

LOCATION: (see enclosed map) EWAN BAY

(EWAN BAY BLOCK)

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 7/28/89

Recommended Cleanup Activity(ies):

No cleanup recommended at this time (subject to FOSC reassessment at a later date), due to very little, discontinuous, light oil.

Priorities Considerations:

Class 4: Light oil

A: Resources present

Ecological Constraints (from site survey): ^{CAT #} (226-20-16040)

There are ~~2~~ ¹⁵ cataloged anadromous streams located in this segment. If cleanup is to occur, contact ADF&G and RAT prior to beginning activities. Minimize disturbance to seabird colonies in this segment.

Archeological Constraints (from site survey):

If cleanup is planned, additional archeological assessment is required. If 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 G. Holmes
State Historic Preservation Officer *

Date: August 8, 1989

ISCC: Sharon K. Christopher

Date: 8-14-89

EXXON: Daniel D. Tipton

Date: 8-14-89

FOSC: D. E. Craven

Date: 8-14-89

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

SHORELINE OIL EVALUATIONDate: 7/28/89 Time: 16:15 - 18:12Observer: Norma BiggarSurveyed From: Foot/Boat/Helio/PlaneWeather: Sun/Cloud/Rain/Snow/FogLOCATIONLOCATION Ewan BaySEGMENT NUMBER EW-1LENGTH OF SHORELINE SEGMENT: 12,500 mACCESS: Foot/Vehicle/Boat/Barge/Helio/Float PlaneSHORELINE:Shoreline Type: SPI/BEA/COV/HLD/STRTSlope: LANG/HANG/VERWave Exposure: High/Med/LowSediment: B45% / C5% / P5% / G__% / S__% / M__% / R45%Drift Debris on Beach: (Yes) No
Locally Supra/Upper/Mid/Lower Type Fucus
some kelpOILDegree of Oiling: Heavy/Moderate/Light/No Oil/UnobservedArea of Beach Impact: SU / SP / (H) / M / LContinuous: Y/N % of Segment _____ Width of Band: _____ mSporadic: Y/N % of Segment 51Est. Oil Thickness where > 1cm: N/A cm Est. Oil Penetration: N/A cmPooled Oil: 0% "Free" Oil: 0% Coated: H__% / M__% / L100%Fresh 0% Mousse 0% Tar Formation: 100%Drift Debris Oiled? Yes/No Supra/Upper/Mid/Lower Amount: H/M/L/

Comments:

Very little evidence of oil contamination was observed in the bay. Where observed the oil was present as thin (usually ≤ 10 cm) drip bands on SE exp points of islands and SE portions of coves, etc. At two locations in the segment the drip band was up to 0.5 m wide - and discontinuous. In the most part, at the areas interpreted as having "light" oiling from video tapes, no evidence of oil was observed.

ECOLOGICAL EVALUATION

LOCATION: Prince William Id SITE: Evan Bay OBSERVER: ER White

LOCATION PREFIX: EW SEG. NO.: 1 LENGTH: 12.5 km (M)

DATE: 07/28/89 TIME (HHMM): 0630-0930 TIDE HT.: 0.6-1.8 (M)

OILED ZONE: Splash High Medium Low ϕ

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

80% of segment has continuous Fucus / 20% has sparse-scattered Fucus
- some beaches have dense cover of drift Fucus

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

Sparse - absent over 90% of segment / small colonies on rock faces / dense beds
in tidal channel @ lagoon entrance

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

continuous dense set of spat throughout bay @ mid tide level / some older
individuals & colonies.

Littorina

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

continuous in Fucus & as infusoria of beaches / sparse on rock faces

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

- intermittent occurrence / 4 species observed

OTHER OBSERVATIONS: eelgrass beds occur subtidally through 70-80% of
segment / 2 obvious salmon streams; 1 possible /

CLEANUP PRECAUTIONS: minimal oil / no clean up / no precautions.

MAMMALS: ^{sea} Otters 8 Harbor Seals _____ Sea Lions _____ Whales _____
 Other _____

BIRDS: nesting colony of mew gulls (see map) / observed marbled murrelets / murrelets
house finches gulls & arctic terns in Bay.

GENERAL OBSERVATIONS: _____

all disturbances should be minimized.

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 7-28-89 Location EVAN BAY site (DANGEROUS PASSAGE)

Location Prefix EW Segment # 1 Length 12,500 M

Survey Method:

Air _____ (A - indicate on map) Boat X (99%) (A - indicate on map)

Ground X (1%) (G - indicate on map)

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

Oil conditions/beach visibility ALMOST NO OIL - ALMOST NO BEACHES

Width of beach zone surveyed 0 m Tree fringe surveyed 10-20 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:

Thore Profile Vertical & high angle rock - rock & boulder ITZ

Fresh Water Sources many small creeks

Sea Exposure Protected Bay

Access/Safety Easy, safe access

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

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

Photos: Color Roll # NONE Frames _____

B/W Roll # NONE Frames _____

Observer(s) Bob Goss

Time survey started 0634 Time survey ended 1807

Cultural resource considerations/restraints:

Two.
Standard Statement. Large Coves on west side of Bay, SW of
Gard Point, require ground survey should any clean up activity
be conducted in this segment. No oil was observed in this area
during the present survey. If ground survey is not conducted
prior to clean-up operations an archaeological monitor is required
for these two coves.

SEGMENT EW-1

S.C.A.T. Team 1

Norma Bigger

July 28, 1989

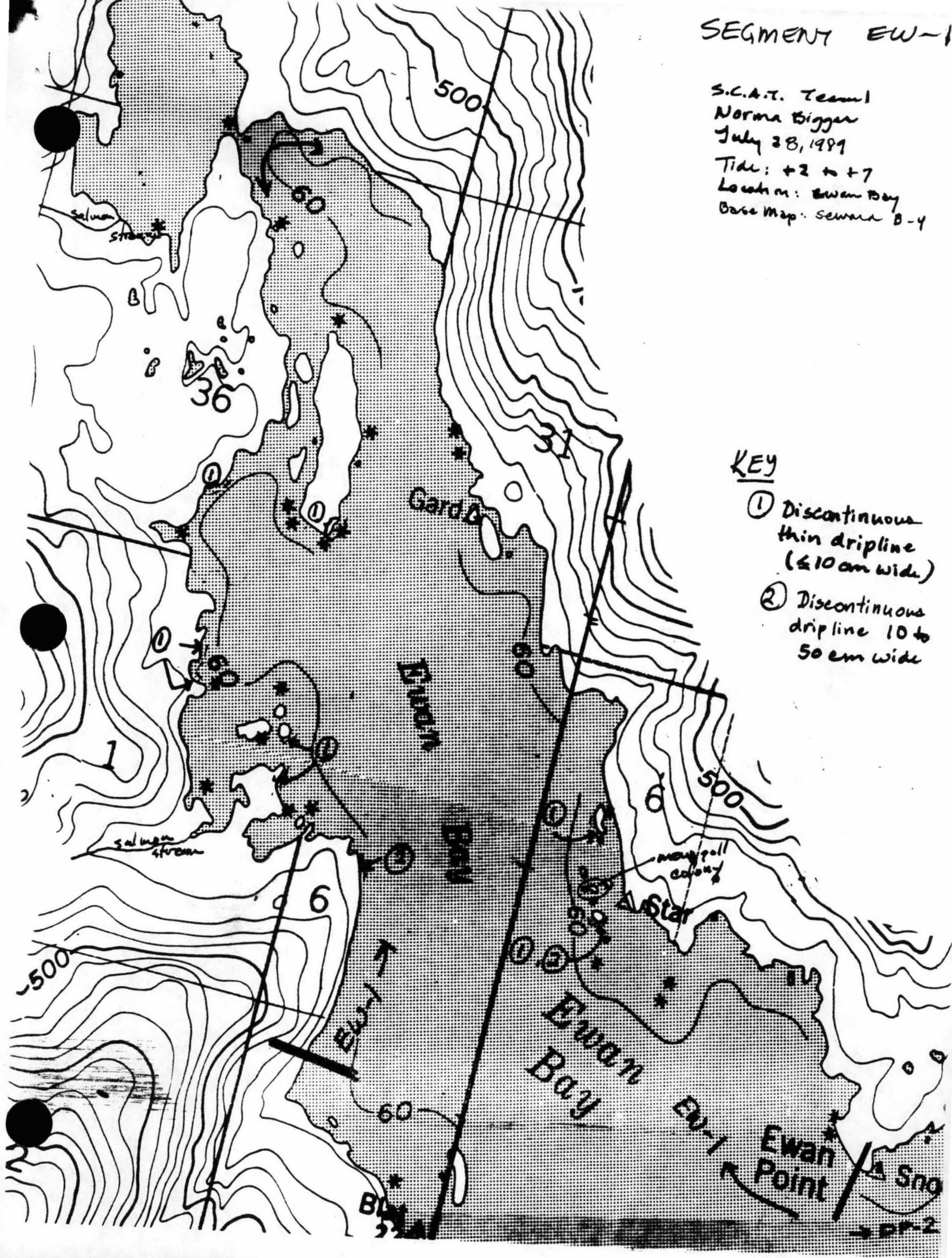
Tide: +2 to +7

Location: Ewan Bay

Base Map: Seaward B-4

KEY

- ① Discontinuous thin dripline (≤ 10 cm wide)
- ② Discontinuous dripline 10 to 50 cm wide



Ewan Bay |

ENVIRONMENTAL RESOLUTION INMCO-620 : 8-25-89 4:25PM

800357213- 18078355205: # 8
TREATMENT MANUAL, CHAPTER 1

EW-1

SEG EW-1 INSPECTION #

SEGMENT

DATE 8/25/89

INSPECTION RECORD

Shoreline Treatment Process(es) Completed for this Segment

☐

Hot water wash

☐

Mechanical

☐

Warm water wash

☐

Non-mechanical

☐

Water deluge

☒

Other No cleanup recommended

Exxon

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

Comments Treatment of segment EW-1 is complete. Ready for demobilization and deployment to new segment.

Signature Michael J. Tydings Date: 8/25/89 Time: 1:45 AM

Printed Name Michael J. Tydings

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil
Percent Degree of Oiling

0
0
0
21
99

100 %

Heavy
Medium
Light
Very Light
None

Subsurface Oil
☐ Yes ☒ No

COMMENT BELOW

Reassessment

☐ Yes - necessary
☒ No - not necessary unless re-oiled

ADEC rep

Comments REP DECLINED TO PARTICIPATE

Existing Shoreline Condition As Visually Determined by ADEC

Surface Oil
Percent Degree of Oiling

100 %

Heavy
Medium
Light
Very Light
None

Subsurface Oil
☐ Yes ☐ No

COMMENT BELOW

Reassessment

☐ Yes - necessary
☐ No - not necessary unless re-oiled

Signature

Date: / / Time:

Printed Name

(version 8/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): EWAN BAY SOUTH BLOCK

Includes Shoreline Segments: EW-900

Submitted :

W. E. Wicks
(for Exxon)

Date: 8-29-89

ISCC Recommendation: Sharon K. Christensen Date: 9-1-89

FOSC Approval: W. E. Wicks Date: 8-1-89

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

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

******* SCOT NOTE *******

**THERE ARE ITEMS OF GREAT CONCERN IN THIS APPROVAL BLOCK
THAT AFFECT THE DEPLOYMENT OF CREWS AND EQUIPMENT.**

READ THIS FIRST

**ALL SHORELINE SEGMENTS WITHIN THE EWAN BAY SOUTH BLOCK
ARE ON LANDS OWNED BY CHENEGA VILLAGE CORPORATION.
PERMIT NO ACCESS TO UPLAND AREAS AT ANY TIME.**

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 8/27/89

SHORELINE SEGMENT EW-900

LOCATION: (see enclosed map) DANGEROUS PASSAGE-EWAN BAY TO

JACKPOT POINT (EWAN BAY SOUTH BLOCK)

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 8/20/89

Recommended Cleanup Activity(ies):

No cleanup recommended at this time (subject to FOSC reassessment at a later date), due to discontinuous, light oil and medium to high wave exposure.

Priorities Considerations:

Class 4: Light oil

A: Resources present

Ecological Constraints (from site survey):

Rich intertidal life may be adversely effected by cleanup activities, therefore, no cleanup recommended. A cataloged anadromous stream (#16050) is located in this segment. If cleanup is planned notify ADF&G and RAT forty eight hours prior to beginning cleanup activities.

Archeological Constraints (from site survey):

If cleanup is planned, a full archeological assessment must be conducted.



State Historic Preservation Officer *

Date: Aug 29, 89

ISCC: Shawn K. Christopherson

Date: 9-1-89

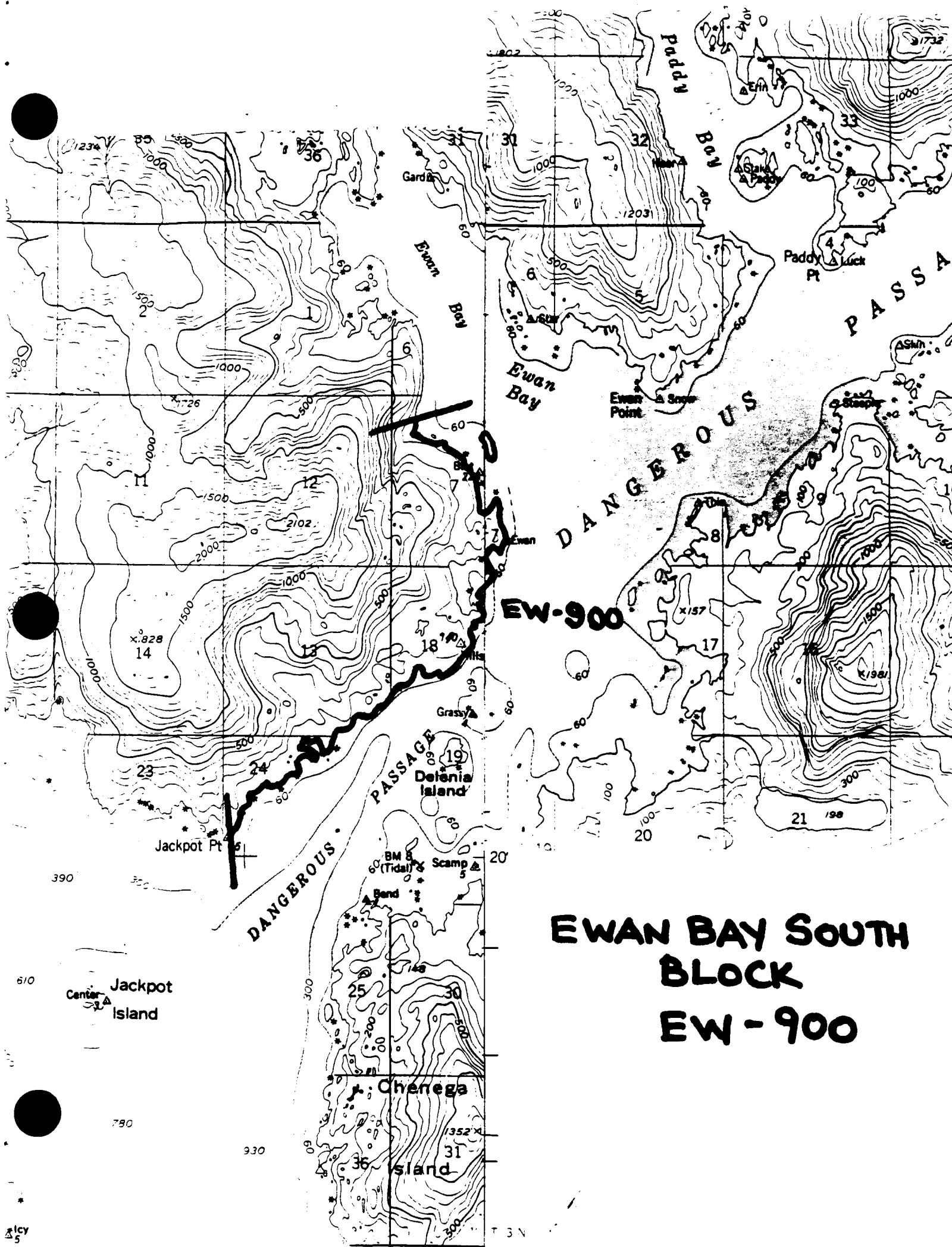
EXXON: Daniel R. Tapp

Date: 9-1-89

FOSC: C. E. Robbins

Date: 9-1-89

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



EWAN BAY SOUTH BLOCK EW-900

SHORELINE OIL EVALUATIONDate: 8/20/89 Time: 08:10Observer: G. MacDonaldSurveyed From: Foot/Boat/Helio/PlaneWeather: Sun/Cloud/Rain/Snow/FogLOCATIONEwan Bay → Jackpot Pt.

LOCATION

SEGMENT NUMBER

EW - 900LENGTH OF SHORELINE SEGMENT: 6,700 mACCESS: Foot/Vehicle/Boat/Barge/Helio/Float PlaneSHORELINE:Shoreline Type: SPI/BEA/COV/HLD/STRTSlope: LANG/HANG/VERWave Exposure: High/Med/LowSediment: B 10% / C 10% / P 10% / G 10% / S Trace% / M Trace% / R 70%Drift Debris on Beach: Yes/No

Supra/Upper/Mid/Lower Type

OILDegree of Oiling: Heavy/Moderate/Light/No Oil/UnobservedArea of Beach Impact: SU / SP / H / M / LContinuous: Y/N % of Segment _____ Width of Band: ≤ 1 mSporadic: Y/N % of Segment ≤ 10Est. Oil Thickness where > 1cm: _____ cm Est. Oil Penetration: ≤ 5 cmPooled Oil: _____ % "Free" Oil: _____ % Coated: H _____ % / M _____ % / L 100%Fresh _____ % Mousse 30% Tar Formation: 70%Drift Debris Oiled? Yes/No Supra/Upper/Mid/Lower Amount: H/M/L/Comments:ONLY light oil south of Δ EWAN ; ≤ 30 of steep rock
outcrop has traces of tar lines @ up. HRTZ → SP.light oil is single ≤ 1/2 m band @ up. HRTZ, max.
continuous length is ~ 30 m.

DOCUMENTATION:

Map/Aerial photo marking segment boundaries Map attached
VTR: Y/~~N~~ Tape Number(s) _____
Photography: ~~Y~~/N Roll Number(s) Ti Gi # 29, 30
Sample Numbers Collected: NONE

#29 1/2 m wide light oil band, far @
upper HRTZ → sr, south of ΔEWAN

#30 oil free "EWAN LAGOON", looking N.

8/20/89 a.m.
G. MARDONALD



0.5 MILE

v. thin mousse coat-
≤ 1m x 60m x Ø

alluvial fan

Sea Grass

faint trace
tar line c
up. HITZ

Anadromous fish
stream

0.15m x
40m x 5cms
HITZ - SP.

BLAT

KEY

- trace oil
- light oil

Sea Grass dense and common
all along shore

low relief, mod. sheltered,

mod. angle rocky shore w/
steep rock outcrop; sheltered
cob-peb-gvl strands;

Eagles observed:

- 4 Adult
- 2 sub Adult (2 yr old)
- 2 juveniles (1-1 1/2 yr old)

low, mod.
sheltered alluvial
outwash.

Anadrom.
fish
stream

stream w/
waterfall

mod. L
cob-peb-gvl
pocket beaches

HILLS Δ

tar band, L
1/2 m wide c
up HITZ - SP;
discontinuous,
visible on steep
rock outcrop.

mod. exposed, rocky shore,
steep, occasional sheltered cob-peb.
gvl. pocket beaches. no oil.

Eagle
nest

JACKPOT
POINT

SEGMENT
EW-900

DAINGEROUS
PASSAGE

WAT
BLAT

Photo
#29
(TIGI)

tar band, L
1/2 m wide c
up HITZ - SP;
discontinuous,
visible on steep
rock outcrop.

8/20/89 Ewan Bay - Jackpot Pt.

08.10 ... SEGMENT EW-900

Sheltered rocky shore; once submerged (drowned tree stump in post), currently raised part way again; sheared Clugach Terrane - v. susceptible to frost-shattering; shattered rock, pebb. size mod. shore trace mousse @ JF-Supra, ..

alluvial fan; v. thin mousse stain/shreen @ JF-Supra; < 5cm deep; some hand-size spots - a blds/cobs; occasional (1 per 10m) debris laden mouse balls; wave energy here can cause washover of slaty pebbles; mouse band on outcrop @ tip of focus band - < 15cm wide, max. continuous length ~ 35m.

photo #29 max width of fresh fan band

#30 Ewan began 10.00 HRS.

trace oil to S, then Ø.

rock, low relief w/ pockets, mod. exposed - Dangerous Passage.

Jackpot Pt. no oil, END of SEGMENT.

11.30 HRS

ECOLOGICAL EVALUATION

LOCATION: Prince William Sound SITE: Swan Bay - Jackpot Pt. OBSERVER: S. Dearn
Ingonia Passage
 LOCATION PREFIX: _____ SEG. NO.: ZW-900 LENGTH: 6.700 (M)
 DATE: 08/20/89 TIME (HHMM): 0815-1130 TIDE HT.: 3.0 - 1.0 ft
 OILED ZONE: Splash High Medium Low
 SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud trace

LIVE BIOTA

Fucus (algae): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
 Oiled Fucus present in places.
 Other present in extensive rafts of unattached, living plants (especially in stream mouth)

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
 Present in amongst pbbles beneath Fucus rafts. Clusters found on vertical rock

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N
 Dense, on larger boulders, cobbles + vertical rock walls.

Littorina

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

Scattered in amongst Fucus blades + on high intertidal bare rocks.

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

Present on high intertidal bare rocks.

OTHER OBSERVATIONS: Dense eelgrass beds nearshore (SEE MAP). Several anadromous fish streams with spawning pink salmon present (SEE MAP). 1 eagle (adult) - observed swimming in lagoon area - this individual "swam" to shore, remained on the rocks 3-4 min, tried to fly again but hit water + swam again to shore. Bear beds + fish remains observed along shore near streams.

CLEANUP PRECAUTIONS: Insufficient amounts of oil do not warrant disturbances/damage to ecologically sensitive areas brought about via cleanup procedures. ∴ No cleanup is recommended.

MAMMALS: Otters River 2 Harbor Seals _____ Sea Lions _____ Whales _____
 Other _____

BIRDS: 16 Common Mergansers, Glaucous-winged gulls, Crows foraging intertidally, 8 eagles - 4 adults, 2 subadults (2-2½ yrs), 2 juveniles (1-1½ yrs). 1 eagle nest (SEE MAP). 2 Great Bl. Herons.

GENERAL OBSERVATIONS: This segment contains some very productive areas, eelgrass beds, stream areas. It supports a large number of organisms. Many eagles are present in this area.

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 8-20-89 Location Dangerous Passage Site SE EWMAN Bay/Jackson

Location Prefix EW Segment # EW-900 Length 6700m

Survey Method:

Air _____ (A - indicate on map) Boat ☒ _____ (A - indicate on map)

Ground ☒ _____ (G - indicate on map)

Known cultural resources (AHRS #) SEW-065 Data Source AHRS files

Oil conditions/beach visibility Very light to trace, good visibility

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

Cultural resources observed in beach zone (AHRS code) NONE

Cultural resources observed in tree fringe (AHRS code) RCS

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

Shore Profile Mod. angle gravel/cobble beaches to vertical rock 3-5m

Fresh Water Sources numerous clearwater & anadromous streams

Sea Exposure Semi-protected to moderately exposed

Access/Safety access good, but with numerous reefs, safety good

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 _____

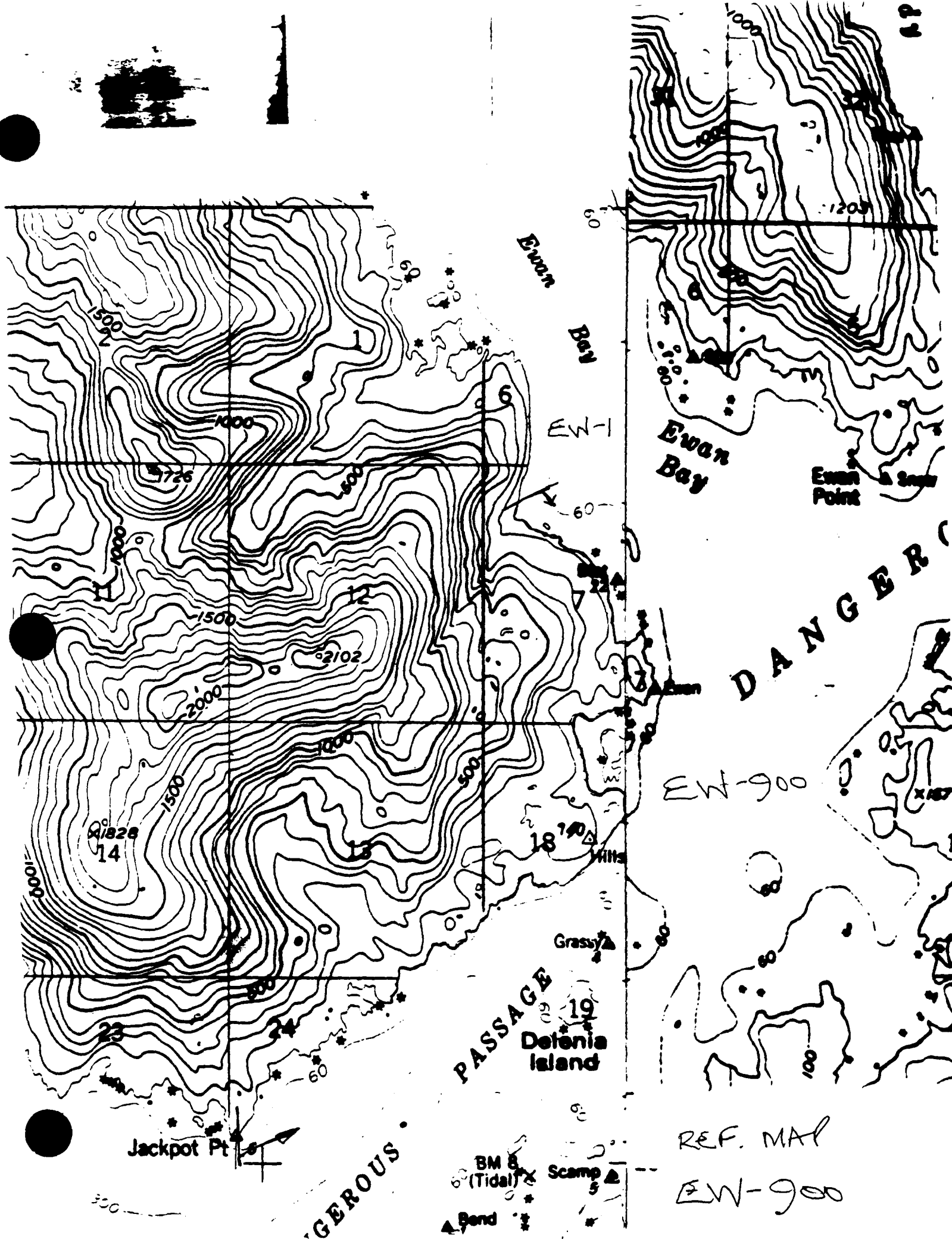
B/W Roll # PBP #15, 1-9 Frames 1-9

Observer(s) P. G. Phappen

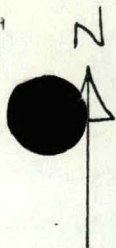
Time survey started 0815 Time survey ended 1130

Cultural resource considerations/restraints:

Standard conservation



8/20/89 a.m.
G. MARDONALD



0.5 MILE

KEY

- trace oil
- light oil

Eagles observed:

- 4 Adult
- 2 sub Adult (2 yr old)
- 2 juveniles (1-1 1/2 yr old)

low, mod.
shattered alluvial
outwash.

Anadrom.
fish
stream

Eagle
nest

JACKPOT
POINT

SEGMENT
EW-900

dangerous
passage

v. thin mousse coat-
≤ 1m x 60m x Ø

alluvial fan

Sea Grass

Anadromous fish
stream.

0.15m x
40m x 5cm
HITZ-SF.

BLAT

Sea Grass dense and common
all along shore.

low relief, mod. shattered,
mod. angle rocky shore w/
steep rock outcrop; shattered
cob-peb-gvl strands;

stream w/
waterfall

mod. <
cob-peb.gvl
pocket beaches

mod. exposed, rocky shore,
steep, occasional shattered cob-peb-
gvl. pocket beaches. no oil.

EWAN
BAY

joint tree
tar line @
up. HITZ

Photo
#29
(TIGI)

tar band, <
1/2 m wide @

up HITZ-SF;
discontinuous,
visible on steep
rock outcrop.

HILLS