

PR-005 (uncataloged)
BILLINGS POINT

ACE 1369660



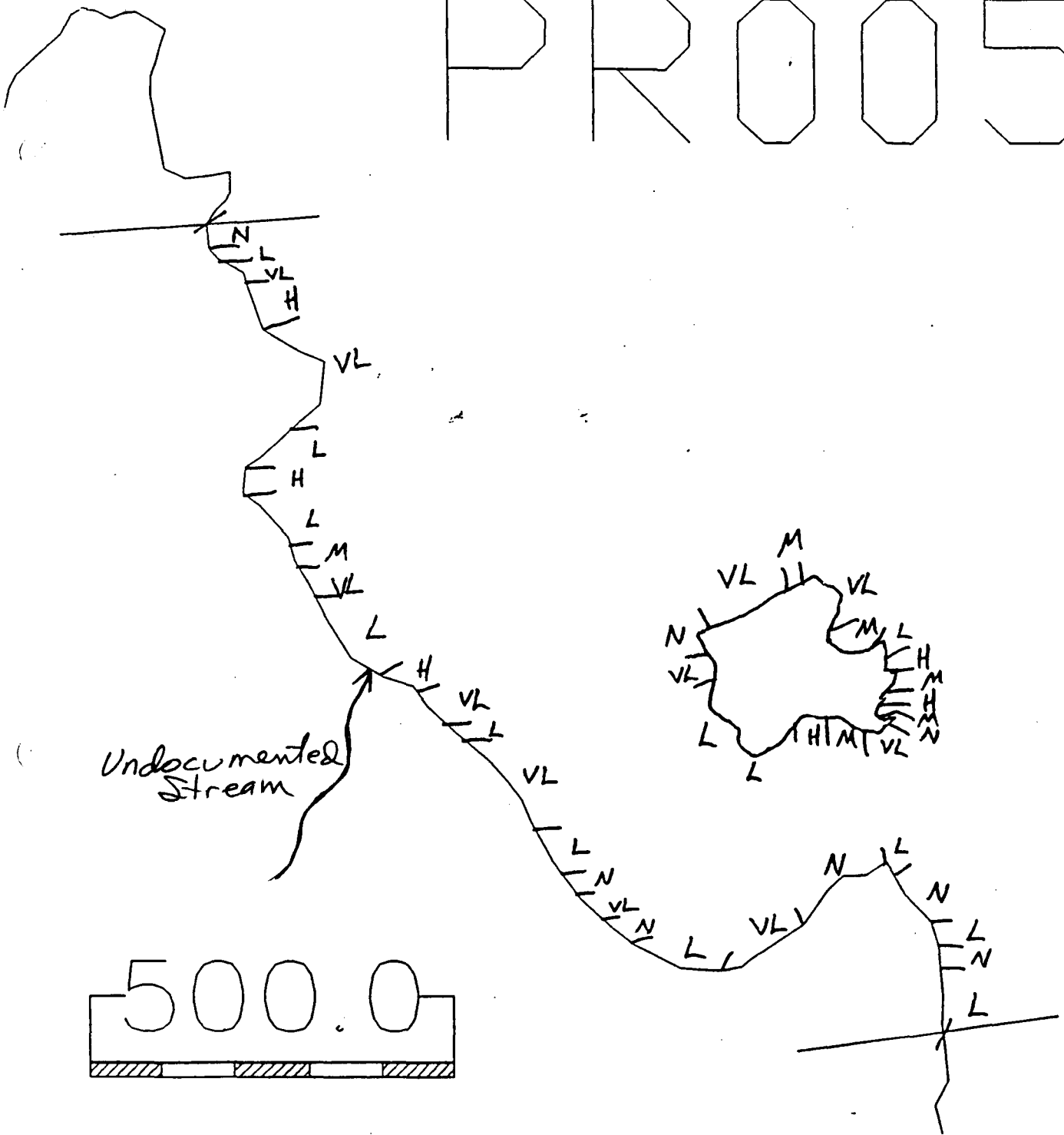
DOCUMENTS IN STREAM FILES

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. (Feb)
____ '90 Other Documents _____

PR005



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

ADEC Sep/Oct 1989 Survey

ACE 1494536

ADEC EXXON VALDEZ POST-TREATMENT SURVEY REPORT

SEGMENT#: PR005
LOCATION: NE PERRY ISLAND

DATE: 09/13/89
TIME: 14:15

Survey Type: Boat, Ground
Team: E. Gundlach, G. Winter, C. Pavia, M. Mangiaracina

WEATHER AND SEA CONDITIONS

Weather: Sunny, Cloudy
Sea State: Calm

Wind Direction: 0
Knots: 0

Low Tide: 6:40 Feet: -0.3 High Tide: 13:01 Feet: 11.1
Low Tide: 18:47 Feet: 2.09 High Tide: 0:01 Feet: 12.2

SHORELINE DESCRIPTION

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

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

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

OIL CHARACTERISTICS

Degree of Oiling: N,VL,L,M,H
(N=none, VL=very light, L=Light, M=moderate, H=heavy)

Area of Impact: H,M
(S=supratidal, H=high intertidal, M=mid tidal, L=low intertidal)

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

Max. Oil Penetration: 5 cm (35 = 35 cm or greater)

Percent Segment Categorized as Oiled: 90%

Presence of Oiled Driftwood (y/n): n

Oil Types: M,T,ST

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

Samples: PR005-1 / PR005-2 / none / none

DAMAGED OR OILED ORGANISMS

Fucus (y/n): n Barnacles (y/n): n Mussels (y/n): n
Dead Mammals: 0 Dead Birds: 0

SOLID WASTE FOUND

Type: Few localities; Pom poms
Bags Collected: 1

Draft

Printed: 12/12/89 11:53

ACE 1494535

**ASAP Follow-Up Recommendations
TAG Recommendations - August 27, 1990**

SEGMENT

DI-67	A Site 1	Manually rake #SOR prior to bioremediation - reapply bioremediation avoid mussel bed
GR-103	B Site 2	Reapply bioremediation
IN-21	A Site 2	Reapply bioremediation
IN-22	A Site 3	Manual pickup of 1 x 3 m patch of AP indicated on sketch and reapply bioremediation on oiling areas remaining (L.P.)
IN-33	A Site 2	NTR - Reassessment in 1991
LN-02	A Site 1	Manual pickup of mousse/pooled oil followed by bioremediation (H.P.)
LN-08	A Site 2	Reapply bioremediation and reassessment in 1991
LN-06	A Site 1	Reapply bioremediation and reassessment in 1991
MA-05	A Site 2	Reapply bioremediation in areas of SOR and reassessment in 1991
PR-03	A Site 1	NTR - Reassessment in 1991
PR-03	B Site 1	Manual pickup of AP manual raking as required followed by reapplication of bioremediation
PR-04	A Site 2	NTR - Reassessment in 1991
PR-05	C Site 1	Manual pickup of accessible mousse and reapply bioremediation
	Site 2	NTR
PR-07	A Site 1	NTR - Reassessment in 1991
PR-08	B Site 2	NTR - Reassessment in 1991
PR-08	C Site 1	Reapply bioremediation - reassessment in 1991
	Site 2	Reapply bioremediation - reassessment in 1991
PR-13	A Site 2	Manual till where feasible and re-bioremediate
PR-16	A Site 1	Mechanically till mid and UITZ work with rising tide and use snare boom to collect oil
PR-03	D Site 1	Complete manual pickup of mousse and bioremediate
PR-02	A Site 1	Mechanically till use rising tide and snares and apply bioremediation
	Site 2	Mechanically till use rising tide and use snares to recover oil. Reapply bioremediation

TAG APPROVAL DATE

Aug 27 90

SHPO

EXXON

ANDY EARL

ADEC

RAY MARKIS, D. MORGAN

USCG

G.A. DEITER G.A. Deiter

FOSC

NOAA

Burl Wescott Burl Wescott

DATE

ACE 6331881

**ASAP Follow-Up Recommendations
TAG Recommendations - August 27, 1990**

SEGMENT

DI-67	A Site 1	Manually rake #SOR prior to bioremediation - reapply bioremediation avoid mussel bed
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PR-05	C Site 1	Manual pickup of accessible mousse and reapply bioremediation
	Site 2	NTR
PR-07	A Site 1	NTR - Reassessment in 1991
PR-08	B Site 2	NTR - Reassessment in 1991
PR-08	C Site 1	Reapply bioremediation - reassessment in 1991
	Site 2	Reapply bioremediation - reassessment in 1991
PR-13	A Site 2	Manual till where feasible and re-bioremediate
PR-16	A Site 1	Mechanically till mid and UITZ work with rising tide and use snare boom to collect oil

TAG APPROVAL DATE Aug 27 - 90.

SHPO _____

EXXON ANDY TAN

ADEC Ray Morris

USCG G.A. REITER

FOSC _____

NOAA Burl Wescott

DATE _____

(version 4/29/89)

SHORELINE CLEANUP PROGRAM

DATE 5/24/89

SHORELINE SEGMENT PR-5

LOCATION: (see enclosed map) Perry Island - East shore and

"DAD: Island (Dad is a benchmark designation).

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 5/18/89

Recommended Cleanup Activity(ies): Vacuum or scoop up pooled oil on beach #2. Collect oiled fucus (beaches 1 & 4). Hot (up to 140 F)

water, pressure flushing on boulders and cobbles. Hot water, low pressure flushing on sand areas of island. Use cold water dilution near healthy muscle beds (beach #7). Protect mid and lower intertidal zone from oiling. Avoid stream on beach #5.

Priorities Considerations:

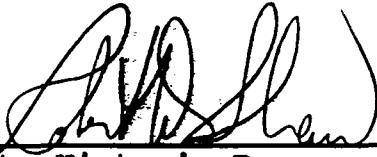
Class 2: heavy oil.

Class A: resources present.

Ecological Constraints (from site survey): Restrict cleanup activity to mid-high tide to avoid oiling of biota in mid-low tide zone. Avoid as much as possible the patchy mussel beds at lower tide line. Use cold water flooding with hot pressure on beach #7, a second hose of cold below cleanup area to cool hot water prior to contact with extensive low-tide mussel beds may be appropriate. On beach #7 protection of the mussel beds should be a priority.

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.



State Historic Preservation Officer *

Date: May 25, 1989

EXXON: _____

Date: _____

FOSC: _____

Date: _____

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

SHORELINE OIL EVALUATION

Date: 5/18/89 Time: 1615-1645

Observer: C. Dillon

Surveyed From: Foot/Boat/Helio/Plane

Weather: Sun/Cloud/Rain/Snow/Fc

LOCATION

LOCATION Perry Island

SEGMENT NUMBER PR-5 (Beaches 1 & 2)

LENGTH OF SHORELINE SEGMENT: ~ 50 m (beach 1) ~ 20 m (beach 2)

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: B³⁰ / C⁷⁰ / P / G / S / M / R⁵

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

OIL

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

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

Continuous: Y/N % of Segment 30 Width of Band: 3-5 m

Sporadic: Y/N % of Segment 40

Est. Oil Thickness where > 1cm: 5-6 cm Est. Oil Penetration: 0 cm

Pooled Oil: 5 % "Free" Oil: 45 % Coated: H⁵ / M¹⁰ / L⁷⁵

Fresh (Stained) 95 % Mousse 5 % Tar Formation: %

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

Comments:

Beach 1 has heavy band of oil on vertical rocks at north extent of beach and some lightly oiled algae at the Upper ITZ. See Diagram #1 for details
Beach 2 has 2 pools of mousse 5-6 cm deep at South end of beach trapped among the boulders on the Upper ITZ and middle ITZ. See diagram #1 for details.

Date: 5/18/89 Time: 1640-1730

Observer: C. DILLON

Surveyed From: Foot/Boat/Helio/Plane

Weather: Sun/Cloud/Rain/Snow/Fo

LOCATION

LOCATION PERRY Island

SEGMENT NUMBER PR-5 (Beaches 3 & 4)

LENGTH OF SHORELINE SEGMENT: 800 m (for both beaches)

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

SHORELINE:

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

Slope: LANG/HANG/VER

Wave Exposure: High/Med/Low

Sediment: B 5% / C 50% / P 30% / G / S / M / R 5%

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

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: 1-10 m

Sporadic: Y/N % of Segment

Est. Oil Thickness where > 1cm: < 4 cm Est. Oil Penetration: 1-4 cm

Pooled Oil: 0 % "Free" Oil: < 5 % Coated: H 65% / M 30% / L %

Fresh 90 % Mousse 10 % Tar Formation: %

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

Comments:

Beach 3 is clean except for a 15 x 5 ft band of heavy oil on the northern bordering headland rocks.

Beach 4 has one large log with some oil on one side and some lightly oiled algae (at the northern end of the beach). The log can probably be cleaned rather than cut up and disposed of.

See Diagram #2 for details.

Date: 5/18/89 Time: 1730-1800

Observer: C. Dillon

Surveyed From: Foot/Boat/Helio/Plane

Weather: Sun/Cloud/Rain/Snow/Fc

LOCATION

LOCATION Perry Island SEGMENT NUMBER PR-5 (Island)

LENGTH OF SHORELINE SEGMENT: 150 m (west shore of island only)

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

SHORELINE:

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

Slope: LANG/HANG/VER

Wave Exposure: High/Med/Low

Sediment: B 10% / C 70% / P 10% / G 0% / S 5% / M 0% / R 5%

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

OIL

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

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

Continuous: Y/N % of Segment 90 Width of Band: _____ m

Sporadic: Y/N % of Segment _____

Est. Oil Thickness where > 1cm: 4 cm Est. Oil Penetration: 3-10 cm

Pooled Oil: 0% "Free" Oil: 5% Coated: H 0% / M 90% / L 5%

Fresh 60% Mousse 15% Tar Formation: 15%

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

Comments:

See Diagram #2 for details

Date: 5/18/89 Time: 1800-1900

Observer: C. Dillon

Surveyed From: Foot/Boat/Helio/Plane

Weather: Sun/Cloud/Rain/Snow/Fc

LOCATION

LOCATION PERRY ISLAND

SEGMENT NUMBER PR-5 (Beaches 5 & 6)

LENGTH OF SHORELINE SEGMENT: 900 m (both beaches and headlands)

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 25% / C 55% / P 15% / G ___% / S ___% / M ___% / R 5%

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

OIL

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

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

Continuous: Y/N % of Segment 90 Width of Band: 2-15 m

Sporadic: Y/N % of Segment _____

Est. Oil Thickness where > 1cm: 4 cm Est. Oil Penetration: < 8 cm — see comr

Pooled Oil: 0% "Free" Oil: 5% Coated: H 55% / M 40% / L ___%

Fresh 70% Mousse 30% Tar Formation: ___%

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

Comments:

Beach 5 had an algae and pebble berm on the upper ITZ that is about 30 cm deep. Underneath the berm is a layer of moussed sediment. Recommend not disturbing this during cleanup since it is adjacent to the stream.

See Diagram #3 for details

(note) Diagram #3 is not attached???

Date: 5/18/89 Time: 1900-1945

Observer: C. Dillon

Surveyed From: Foot/Boat/Helio/Plane

Weather: Sun/Cloud/Rain/Snow/Fc

LOCATION

LOCATION Perry Island SEGMENT NUMBER PR-5 (Beach 7)

LENGTH OF SHORELINE SEGMENT: 50 m (end of segment)

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

SHORELINE:

see comments → offshore away from rocks

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

Slope: LANG/HANG/VER

Wave Exposure: High/Med/Low

Sediment: B 45 % / C 5 % / P % / G % / S % / M % / R 50 %

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

OIL

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

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

Continuous: Y/N % of Segment 70 Width of Band: 8 m

Sporadic: Y/N % of Segment

Est. Oil Thickness where > 1cm: <4 cm Est. Oil Penetration: 0 cm

Pooled Oil: 0 % "Free" Oil: 5 % Coated: H 60 % / M 20 % / L 15 %

Fresh 80 % Mousse 20 % Tar Formation: %

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

Comments:

Beach 7 is a large boulder pile bordered all around (including along the water's edge) by high angle and vertical rocks. Access is very difficult and may only be feasible at high tide. See Diagram #4 for details.

1 3
Map/Aerial photo marking segment boundaries Adjusted

VTR: Y/N Tape Number(s) _____

Photography: Y/N Roll Number(s) _____

Sample Numbers Collected: None

ACE 6331889

DIAGRAM 1

A PR-4 SE side of Island - clear	VERT STR/BE	Beach 2: ~ 20 m wide
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1615 ^{PK-5} 5/19/89 Segment PK-5 E. side of Gul.

~ 50 m ~~process~~: boat, barge, float plane

Beach headland, Viet/HANG

HANG

	75% Cobbles			
--	-------------	--	--	--

3-5 m - merodic band

between boulders (~ 2%)

Vertical rocks at North

oil is a dry stain with

[Handwritten signature]

Some glass oiled lightly

10-11-12	10-11-12	10-11-12	10-11-12
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1000

30. m

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11-12-13-14-15-16-17-18-19-20-21-22-23-24-25-26-27-28-29-30-31-32-33-34-35-36-37-38-39-40-41-42-43-44-45-46-47-48-49-50-51-52-53-54-55-56-57-58-59-60-61-62-63-64-65-66-67-68-69-70-71-72-73-74-75-76-77-78-79-80-81-82-83-84-85-86-87-88-89-90-91-92-93-94-95-96-97-98-99-100-101-102-103-104-105-106-107-108-109-110-111-112-113-114-115-116-117-118-119-120-121-122-123-124-125-126-127-128-129-130-131-132-133-134-135-136-137-138-139-140-141-142-143-144-145-146-147-148-149-150-151-152-153-154-155-156-157-158-159-160-161-162-163-164-165-166-167-168-169-170-171-172-173-174-175-176-177-178-179-180-181-182-183-184-185-186-187-188-189-190-191-192-193-194-195-196-197-198-199-200-201-202-203-204-205-206-207-208-209-210-211-212-213-214-215-216-217-218-219-220-221-222-223-224-225-226-227-228-229-230-231-232-233-234-235-236-237-238-239-240-241-242-243-244-245-246-247-248-249-250-251-252-253-254-255-256-257-258-259-260-261-262-263-264-265-266-267-268-269-270-271-272-273-274-275-276-277-278-279-280-281-282-283-284-285-286-287-288-289-290-291-292-293-294-295-296-297-298-299-300-301-302-303-304-305-306-307-308-309-310-311-312-313-314-315-316-317-318-319-320-321-322-323-324-325-326-327-328-329-330-331-332-333-334-335-336-337-338-339-340-341-342-343-344-345-346-347-348-349-350-351-352-353-354-355-356-357-358-359-360-361-362-363-364-365-366-367-368-369-370-371-372-373-374-375-376-377-378-379-380-381-382-383-384-385-386-387-388-389-390-391-392-393-394-395-396-397-398-399-400-401-402-403-404-405-406-407-408-409-410-411-412-413-414-415-416-417-418-419-420-421-422-423-424-425-426-427-428-429-430-431-432-433-434-435-436-437-438-439-440-441-442-443-444-445-446-447-448-449-450-451-452-453-454-455-456-457-458-459-460-461-462-463-464-465-466-467-468-469-470-471-472-473-474-475-476-477-478-479-480-481-482-483-484-485-486-487-488-489-490-491-492-493-494-495-496-497-498-499-500-501-502-503-504-505-506-507-508-509-510-511-512-513-514-515-516-517-518-519-520-521-522-523-524-525-526-527-528-529-530-531-532-533-534-535-536-537-538-539-540-541-542-543-544-545-546-547-548-549-550-551-552-553-554-555-556-557-558-559-560-561-562-563-564-565-566-567-568-569-570-571-572-573-574-575-576-577-578-579-580-581-582-583-584-585-586-587-588-589-590-591-592-593-594-595-596-597-598-599-600-601-602-603-604-605-606-607-608-609-610-611-612-613-614-615-616-617-618-619-620-621-622-623-624-625-626-627-628-629-630-631-632-633-634-635-636-637-638-639-640-641-642-643-644-645-646-647-648-649-650-651-652-653-654-655-656-657-658-659-660-661-662-663-664-665-666-667-668-669-670-671-672-673-674-675-676-677-678-679-680-681-682-683-684-685-686-687-688-689-690-691-692-693-694-695-696-697-698-699-700-701-702-703-704-705-706-707-708-709-710-711-712-713-714-715-716-717-718-719-720-721-722-723-724-725-726-727-728-729-730-731-732-733-734-735-736-737-738-739-740-741-742-743-744-745-746-747-748-749-750-751-752-753-754-755-756-757-758-759-760-761-762-763-764-765-766-767-768-769-770-771-772-773-774-775-776-777-778-779-780-781-782-783-784-785-786-787-788-789-790-791-792-793-794-795-796-797-798-799-800-801-802-803-804-805-806-807-808-809-810-811-812-813-814-815-816-817-818-819-820-821-822-823-824-825-826-827-828-829-830-831-832-833-834-835-836-837-838-839-840-841-842-843-844-845-846-847-848-849-850-851-852-853-854-855-856-857-858-859-860-861-862-863-864-865-866-867-868-869-870-871-872-873-874-875-876-877-878-879-880-881-882-883-884-885-886-887-888-889-890-891-892-893-894-895-896-897-898-899-900-901-902-903-904-905-906-907-908-909-910-911-912-913-914-915-916-917-918-919-920-921-922-923-924-925-926-927-928-929-930-931-932-933-934-935-936-937-938-939-940-941-942-943-944-945-946-947-948-949-950-951-952-953-954-955-956-957-958-959-960-961-962-963-964-965-966-967-968-969-970-971-972-973-974-975-976-977-978-979-980-981-982-983-984-985-986-987-988-989-990-991-992-993-994-995-996-997-998-999-1000-1001-1002-1003-1004-1005-1006-1007-1008-1009-1010-1011-1012-1013-1014-1015-1016-1017-1018-1019-1020-1021-1022-1023-1024-1025-1026-1027-1028-1029-1030-1031-1032-1033-1034-1035-1036-1037-1038-1039-1040-1041-1042-1043-1044-10

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10

14 m

1. The first step is to identify the problem or question that needs to be answered. This involves understanding the context and the specific requirements of the task.

ACE 6331890

DIAGRAM #2
 ① Beach 3 further North of beach 2 is clean except for a band of heavy oil on the vertical headland rock separating it from Beach 4. The band is about 4-5 ft. wide and 12-15 ft. long. There is lim. mussels and snail biota just underneath the oil band.

Beach 4 (ends on 13)
 N half of beach: U-M ITZ is oiled mod-hvy continuous coating. 80% C | 15% P | 5% B.

S. half of beach:
 M ITZ Continuous band. 40% of beach heavily coated w/ fresh oil. Free oil in crevices between boulders ~ 5% fresh oil. Lt. cm pen. free is ~ 2 cm deep.

L + U ITZ is clean. One log on beach is oiled on one side. Other logs and algae strands are clean.

50% C | 30% B | 20% P
 Hot water mod-high Pres. Clean at High-Mid tide
 low-med wave exp.

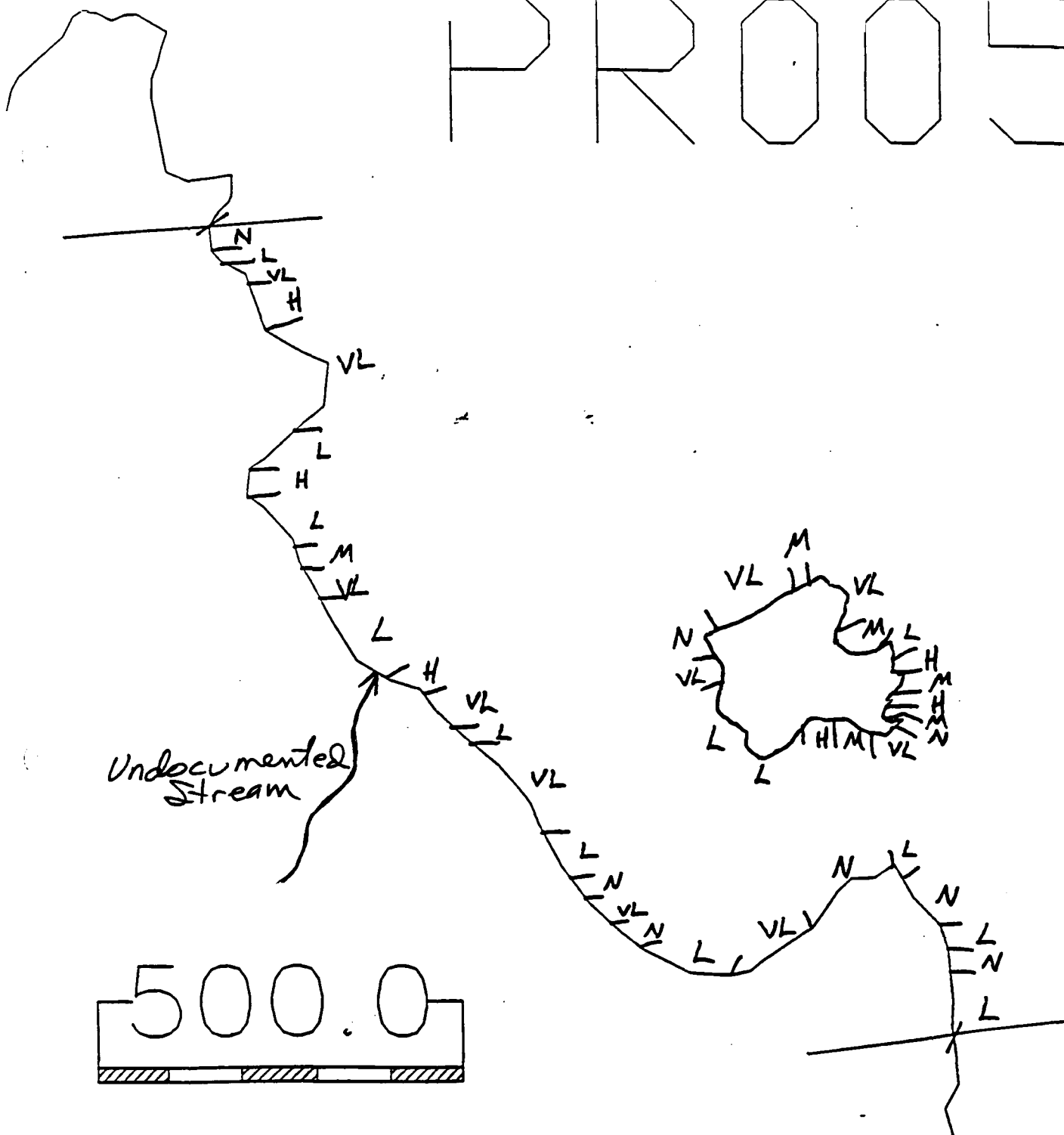
Beach 2
 oil band
 VERT rock

5/18/730 PR-5 ISLAND on W. side of Island off (12) E. side of Cove on Perry IS.

Foot survey
 low wave exposure
 boat, barge, flat plane
 Hanging rocks
 HANGY Rocks
 Boulders
 10% Boulders
 75% Cobbles
 10% Pebbles
 5% Sand
 M-U ITZ moderately coated. Continuous 90%
 - some free oil ~ 5%
 - tarry coating and thick free oil (up to 4 cm thick)
 L ITZ is light - clean with weathered faces and a lot of sand
 Hot water, mod-low Pres. clean at mid-High tide
 VERT ROCKS
 Woods
 algae
 logs, algae
 strands
 clean



PR0005



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

ADEC Sep/Oct 1989 Survey

ACE 6331892
-16/AC/FF