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TO: Ron Pine & Mike Price

FROM: Darrel Anderson

SUBJECT: M & R Timber Co. Dredge Operation – Port Angeles

DATE: April 10, 1973

State of Washington Department of Ecology

On March 27, 1973, M & R Timber Company initiated a dredging project in front of the old Fiberboard dock in Port Angeles Harbor. Due to the presence of sludge beds in the immediate area, water quality standards were of a major concern.

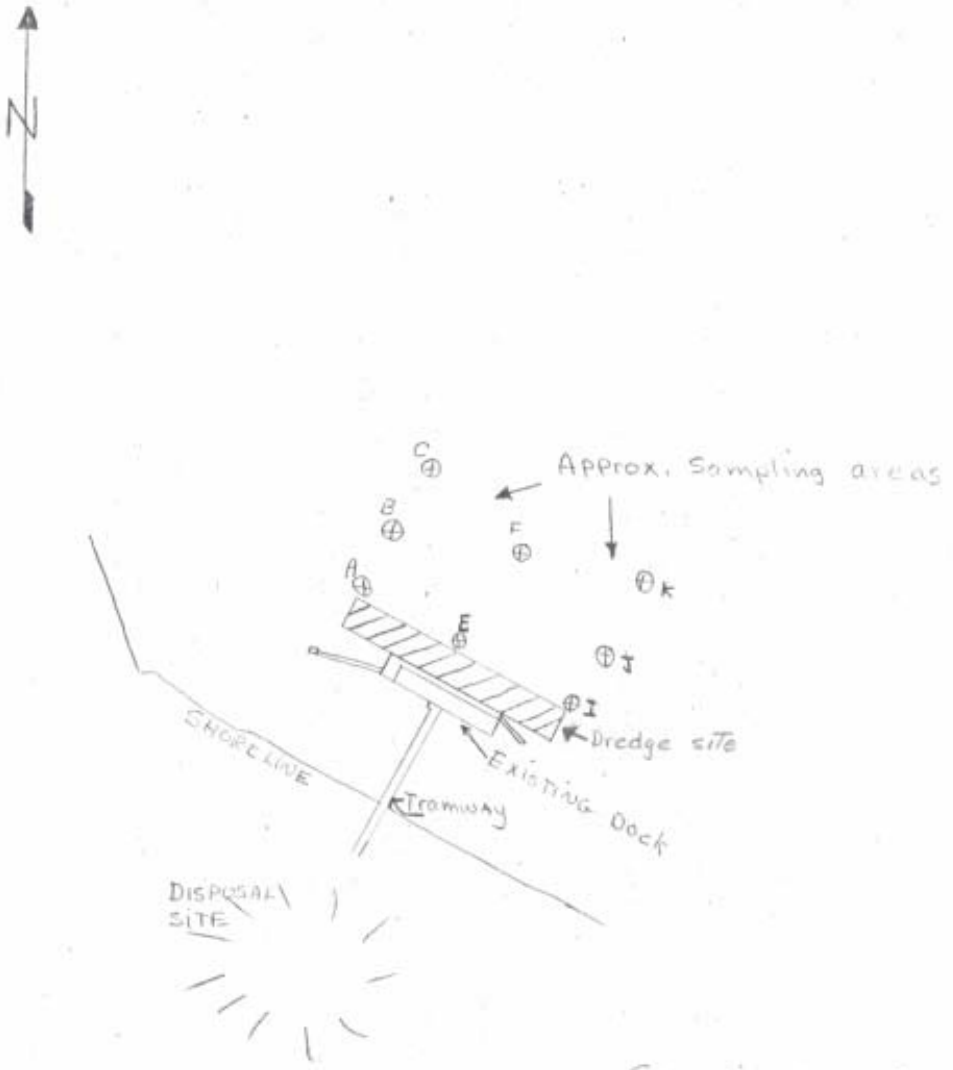
Preliminary to the dredging, water samples were taken at various stations near the dredging site. Secchi-disk readings ranged from 10 to 12 feet, dissolved oxygen averaged 6.9 ppm and sulfides were zero.

Dredging started at about 1030 and two trucks were used to transport spoils to fill site. Initial water samples near the dredge indicated sulfide readings of .2 - .4 ppm, samples taken 20 - 30 feet away had zero sulfide readings. Secchi-disk readings near the dredge were 4 - 6 feet and 20 - 30 feet away the readings were 8 - 12 feet.

All water quality problems stayed very localized in the immediate area of the dredge. Fish or marine life mortality was not observed during the three days of observation. An oil film was observed on the water during the second day of dredging but was not significant enough to warrant cleanup action.

DFA:bj

Attachments



Sampling locations for:
Port Angeles Harbor
Dredging at OLD FIBERBOARD
Dock.
M & R Timber Co.

TABLE OF RESULTS

Field Results

S--Surface
M--Mid-depth
B--Bottom

3-27-73 Before Dredging (0925 - 1020 hours)

Station	Secchi-Disk (Feet)	Sulfides (ppm)	D.O. (ppm)
I-B	10	0	6.7
E-B	12	0	6.5
E-S	--	0	---
K-B	9.5	0	7.5

3-27-73 After Dredging Started

Time	Station	Secchi-Disk (Feet)	Sulfides (ppm)	D.O. (ppm)
*1055	I-B	--	<.4	---
1105	I-S	4	--	---
1120	I-M	8	.2	6.3
1200	I-B	4.5	0	7.5
1335	I-S	5	0	7.0
1345	K-B	12	0	---

*Sample taken next to dredge.

3-28-73 Dredging in Progress

Time	Station	Secchi-Disk (Feet)	Sulfides (ppm)	D.O. (ppm)
0840	A-S	16	0	---
0845	A-M	--	0	8.2
0900	E-S	10	0	---
0915	E-B	--	0	7.6
0930	F-S	14	0	8.4
0945	F-B	--	0	---
*1130	I-S	--	.4	---
1330	E-S	10	0	---
*1345	I-S	--	.4	---
1400	E-B	--	0	7.9

* Sample taken at dredge upwelling - sulfides localized

Field Results (Continued)

3-29-73

All field results follow same pattern as previous day.

3-30-73

No dredging - both trucks broke down.

Lab Results

Station	Time	Date	pH	Turbidity JTU	PBI	Salinity °/100
I-B	1200	3-27	7.7	3	50	29
I-M	1330	3-27	7.8	5	28	29
I-S	1340	3-27	7.4	2	50	28
E-B	0915	3-28	7.7	2	18	29
E-S	0930	3-28	7.8	1	28	28
*I-S	1130	3-28	7.6	1	41	29
*E-B	1400	3-28	7.8	9	63	28

*I-S COD - 478

* At dredge upwelling

STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

WATER QUALITY LABORATORY

ORIGINAL TO: D. Armstrong

COPIES TO:

LAB FILES

DATA SUMMARY

Source Port Angeles Dredging Collected By D. A.

Date Collected 3-28 to 3-30-73 Goal, Pro./Obj.

Log Number: 73- 1266 1267 1268 1269 1270 1271 1272 1273

Station:	E-SW	E-B	F-B	E-M	E-B	F-S	E-B	E-B			STORET
pH	—	7.7	7.8	7.8	7.7	7.4	7.6	7.8			00403
Turbidity (JTU)	—	2	1	5	3	2	1	9			00070
Conductivity (umhos/cm)@25°C											00095
COD	478										00340
BOD (5 day)											00310
Total Coliform (Col./100ml)											31504
Fecal Coliform (Col./100ml)											31616
NO3-N (Filtered)											00620
NO2-N (Filtered)											00615
NH3-N (Unfiltered)											00610
T. Kjeldahl-N (Unfiltered)											00625
O-PO4-P (Filtered)											00671
Total Phos.-P (Unfiltered)											00665
Total Solids											00500
Total Non Vol. Solids											
Total Suspended Solids											00530
Total Sus. Non Vol. Solids											
PBI	—	18	28	28	50	50	41	63			
SALINITY (‰)	—	29	28	29	29	28	29	28			

Note: All results are in PPM unless otherwise specified. ND is "None Detected"
Convert those marked with a * to PPB (PPM X 10^3) prior to entry into STORET

Summary By Stephen D. Roll Date 4-10-73