JOHN SPELLMAN
Governor

DONALD W. MOOS
Director

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
7272 Cleanwater Lane, LU-11 • Olympia, Washington 98504 • (206) 753-2353

July 6, 1981

Mr. Greg Allen
Lilyblad Petroleum Company
2244 Port of Tacoma Road
Tacoma, Washington 98401

RE: Solvent Spill - July 1, 1981

Dear Mr. Allen:

Thank you for working with us and lowering the product level in an overfilled, dirty solvent tank in your storage facility located within the Old Fletcher Oil Terminal on Alexander Avenue. Our concerns and responsibilities are not only to protect surface waters, but ground water as well. Repeated minor spills and improper waste disposal by many companies have all added up to cause a larger problem in Commencement Bay.

We understand that this newly added storage is temporary until your new complex is built within a few years. However, we would encourage you take the following measures at this site:

1. Number each tank for driver reference.

2. Arrange, possibly with the neighboring manned terminal, for inspection of the area.

3. Pressure test the tankage (without product) as this was reportedly the third small leak at this small farm.

4. Add better gauging as driver may not always climb the tanks to take tank product level measurements.

5. Set tank fill limits, adjusted to the tank's black color, and nature of product, related to maximum local ambient temperatures.

In related matters, we will shortly forward to Mr. Tegen our updated bulk plant design guidelines, plus add your company's name to our public handout list of solvent recyclers.

Also, as discussed with Mr. Tegen, we do encourage that your company develop either singularly or in a co-op with other petroleum storagers/transporters spill response kit/units. This was really emphasized again for the Highway 101 Hoods Canal area as the third recent gasoline tanker event occurred June 25, 1981, taking a long time to resolve because necessary equipment was not available locally.

If you should have further questions, please contact me at (206) 753-2353 in Olympia.

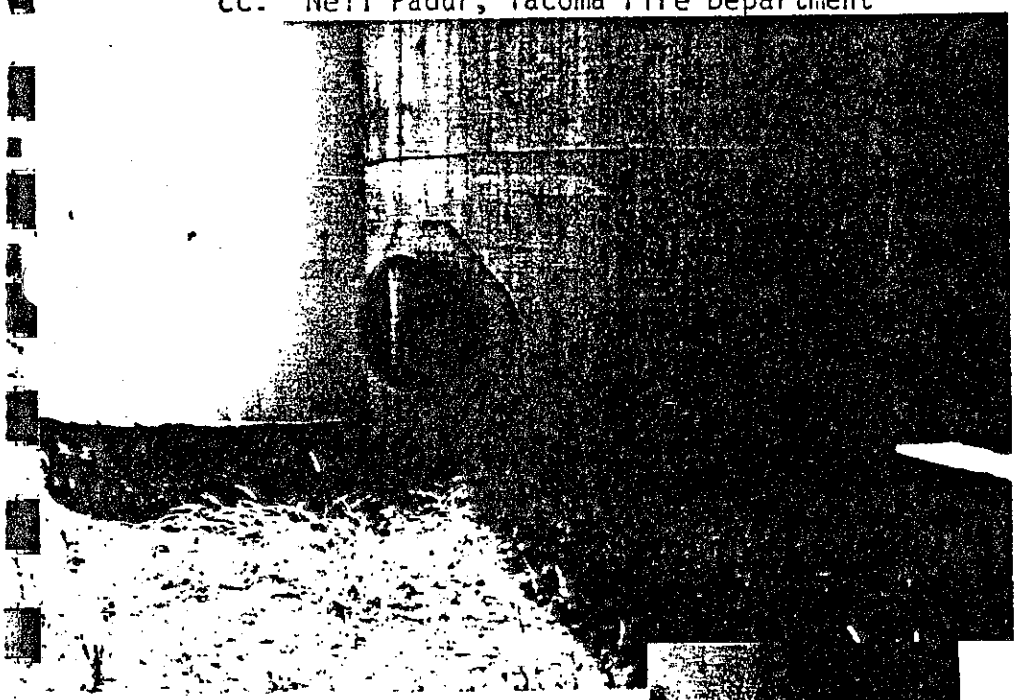
Sincerely,

Jim Oberlander

Jim Oberlander
Environmental Quality Inspector

JO:si

cc: Neil Padur, Tacoma Fire Department



Leaky - "fixed AM"
gasoline
Tank

EXHIBIT "2"

State of Washington
Department of Ecology

INSPECTION REPORT

To District 3

Inspector Will Abercrombie Jim Oberlander

Date of Visit 1-6-82

Permit Number yes

Name of Entity Hooker Chemical Suspected dump behind Chempro

Permit Expires

City Tacoma County Pierce

New Industry

Person Contacted Lyle Feller -

Type of Facility Chemical

Receiving Water ground

Type of Treatment System none

Operation: ? ☐ Satisfactory ☐ Fair ☐ Unsatisfactory

☐ Does not comply with permit conditions

Describe Took Lyle Feller over to the newly uncovered gray/white sludge found on Tilyblads property just behind Chemical Processors. Took composite samples of sludge with shovel and split samples with Lyle. Also took sample of water in hole dug by Tilyblad. Water has "light product" sheen and heavy oil product was found on north side of pond. Oil appears to be coming from surrounding soil. See attached map. Took 35 mm photos.

1-8-82 Talked with Glen Tegen from Tilyblad - B&L Trucking (Bill 272-5656) did backhoe and loading work. Material was disposed of at two sites. One in Tope and the Corkie dump dump site. Glen said they ran into "heavy oil bottoms" (approx 2 load) which accounts for heavy oil on pond surface. Bruce Smith, owner

CC

ECY 040-2-116

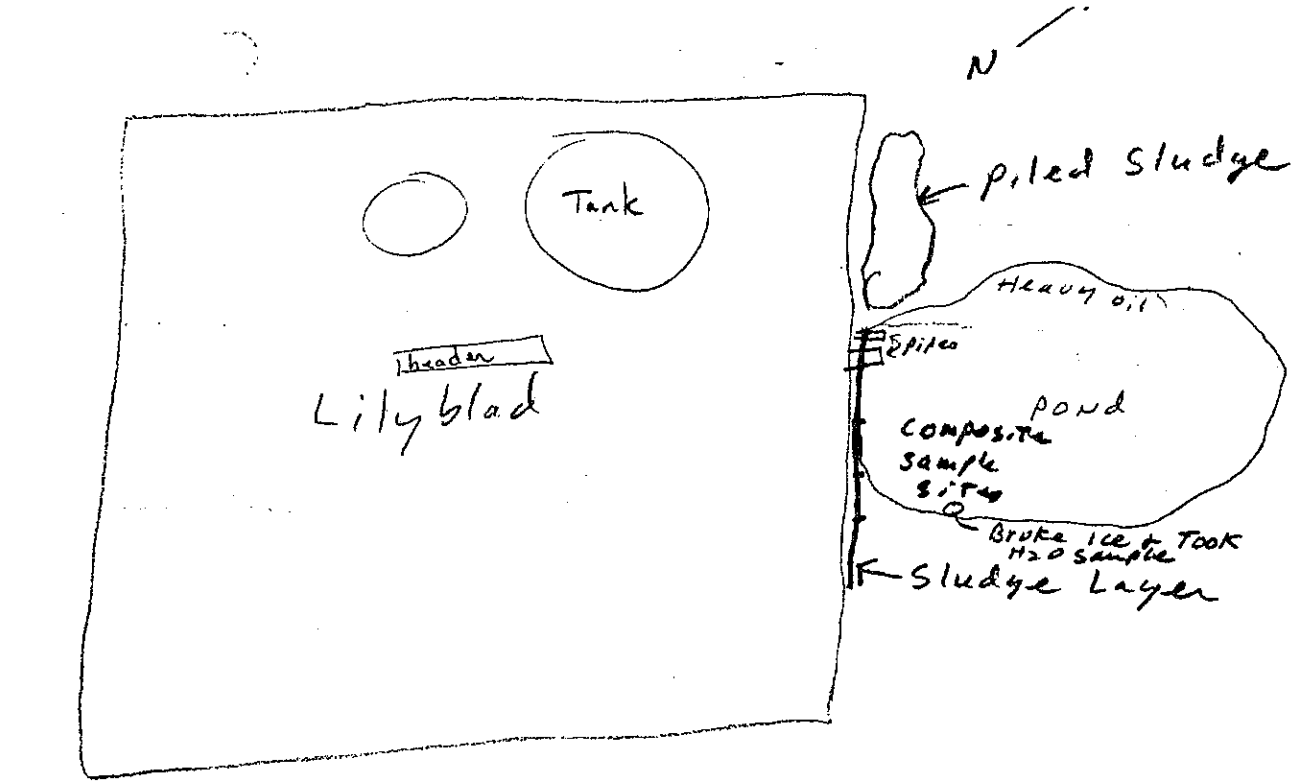
over

of the old Acology oil where Chempro now sits, said they did, dumped lime used in their oil treatment system in the area. Also, Dantar may have dumped lime in the area.

Talked to Libby Goldsby of Dames & Moore. She said that methylmercuric phosphate sludge may have been dumped in the area.

Analyzing for:	Sludge	water
pH		X
Total Chl. Org	X	X
TCE	X	X
PCE	X	X
Na^+	X	X
$CaCO_3$	X	X
Bioassay 100+1000	X	
Hg		X

35mm photos taken



Chempro

UNICO

Alexander Acres

1-6-81

Lily Pad Tuna

Tacoma

(3) area's composited solids

1-6-82 g.o.

Site visit with
L. Feller, Hooker Chemicals

State of Washington
Department of Ecology

INSPECTION REPORT

To Dist. III

Inspector Will A, Jim Oberlander

Date of Visit 1-27-82 1200 hrs

Permit Number

Name of Entity Lilyblad

Permit Expires

City Tacoma County Pierce

New Industry

Person Contacted Greg Allen

Type of Facility

Receiving Water

Type of Treatment System

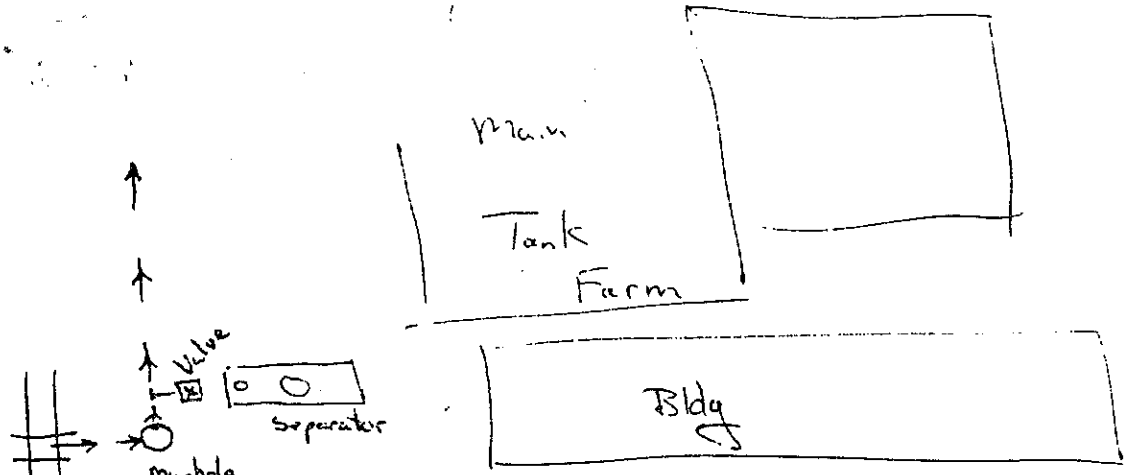
Operation: ☐ Satisfactory ☐ Fair ☐ Unsatisfactory

☐ Does not comply with permit conditions

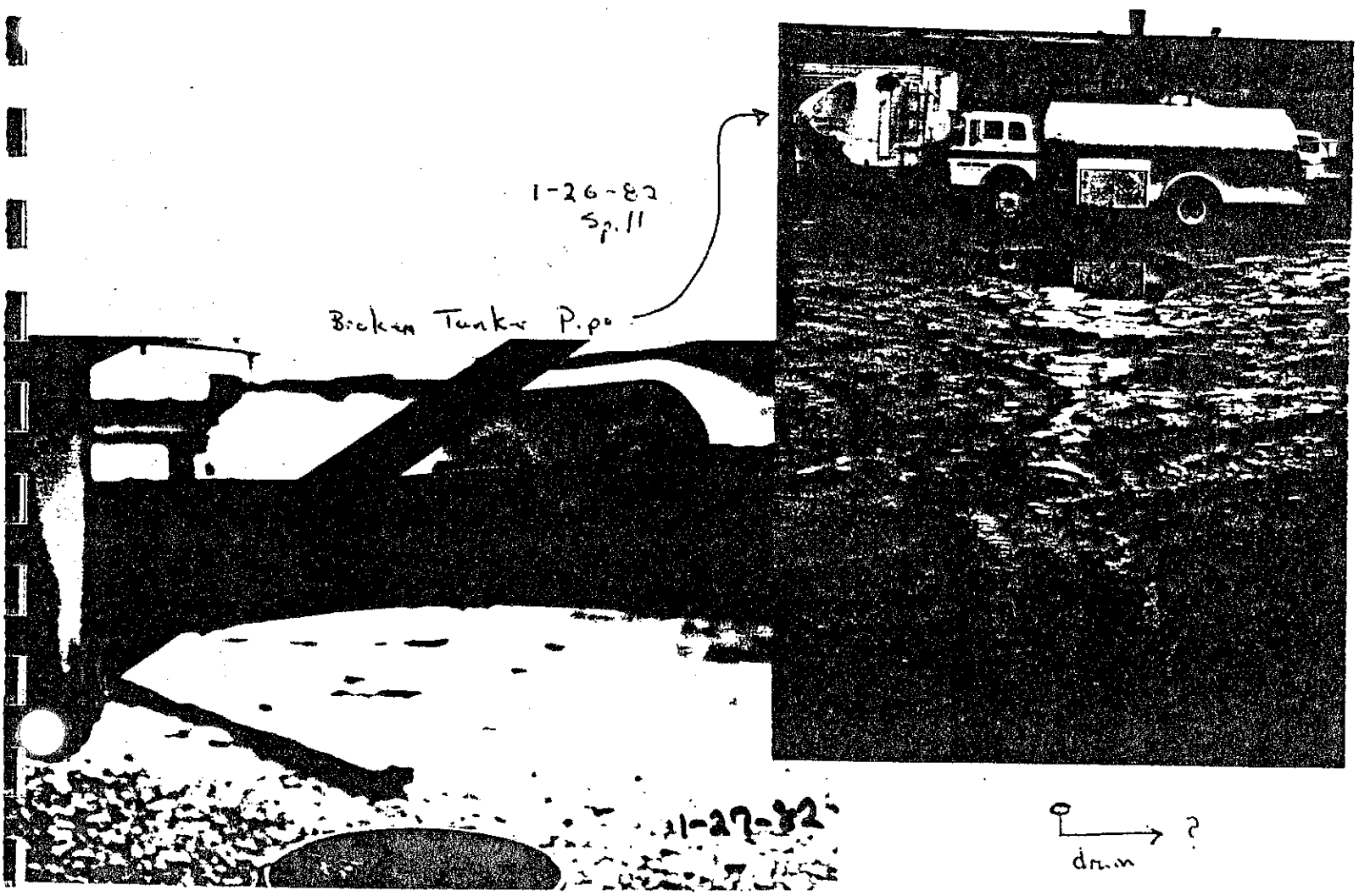
Describe Visit to sample separator eff. However, because of hot water flows from solvents still, entering eff. Tee did not sample. Main Tank Farm floor now sealed. Their is a manhole after Separator (always there) but may not allow easy eff. monitoring. They are cleaning it out, after a good cleaning we'll need to check.
Discussed up comming RCRA inspection.
Solvents plant requires batches of (10) drums.
Also looked at oil spill clean up ajoining lot that happened 1-26-82 (1500 hrs.). We placed dye in catch basin & asked Greg to trace.
Discussed oil on pit/pond near Lilyblads Tankage behind ChemPro - Requested he clean up spillage.
Known by "Poligen" Name

CC

ECY 040-2-116



Solvent
St. 11

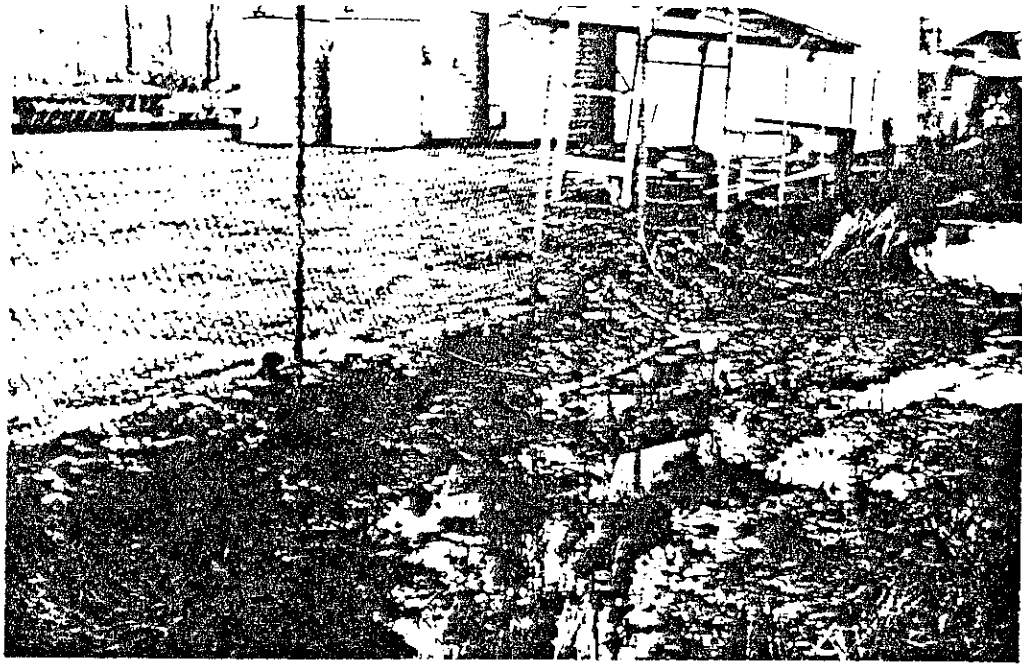


drain ?

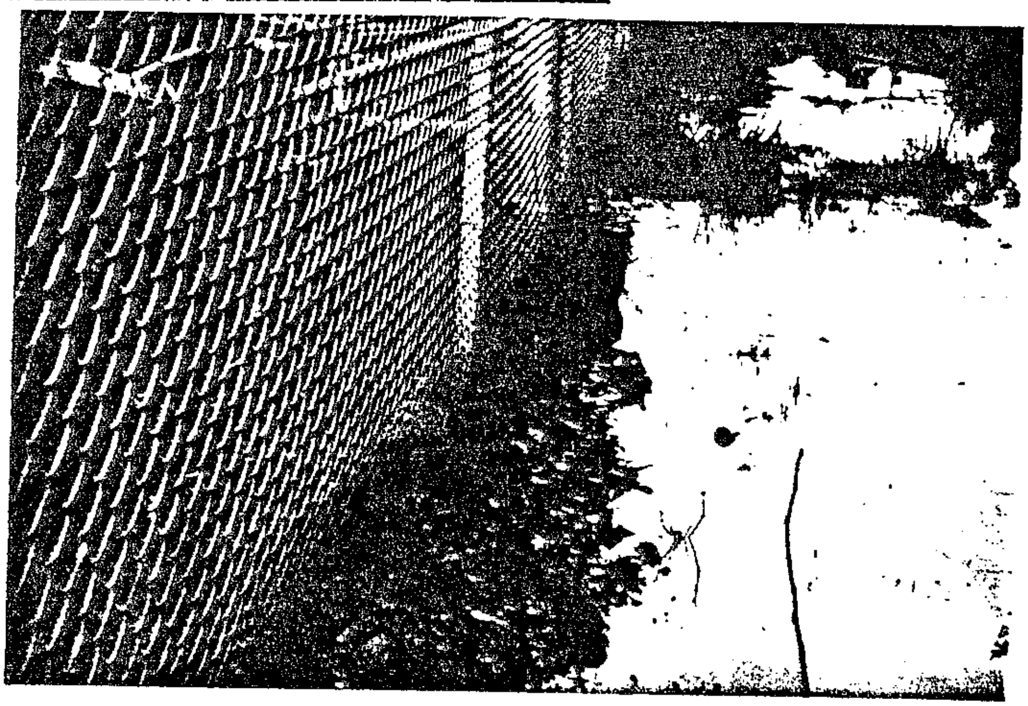
Poligen

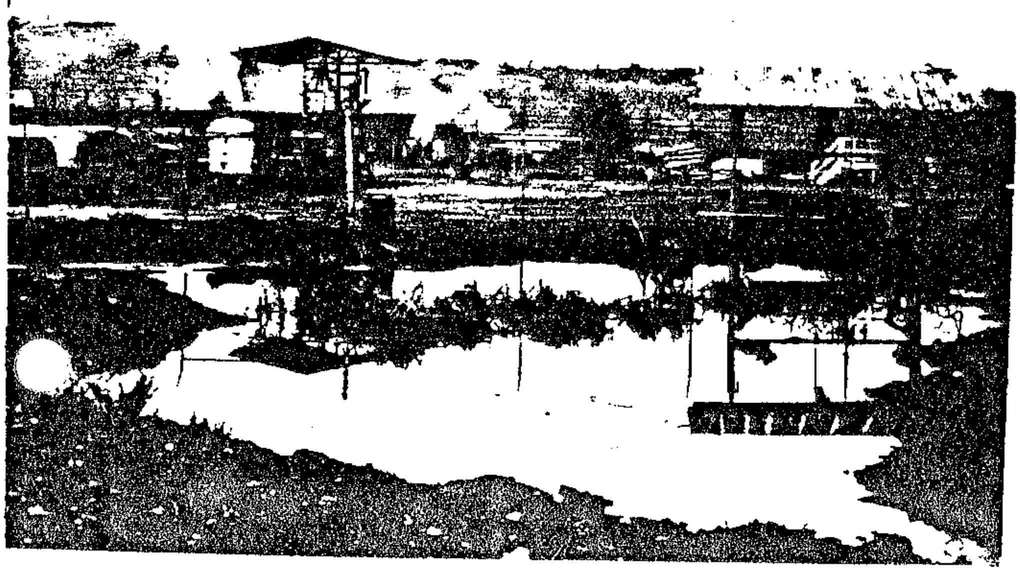
(Lily blvd)

Tacoma

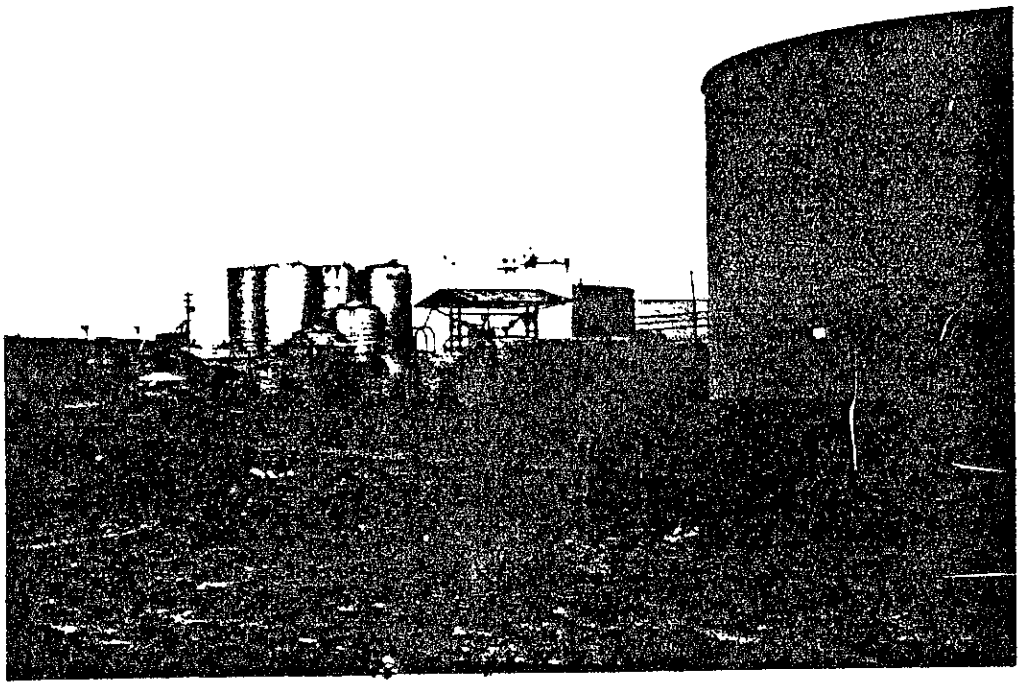


← drain to other side of property



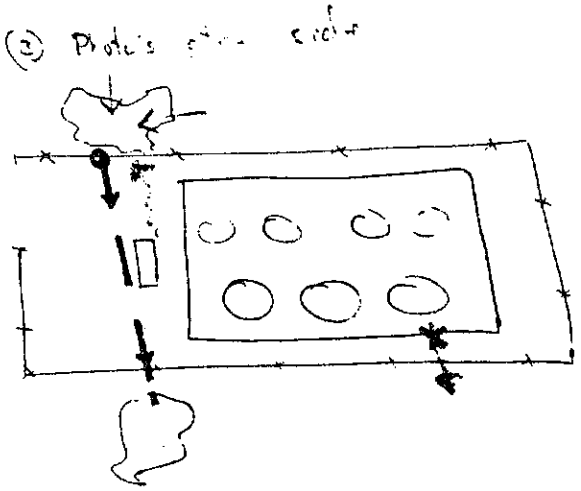


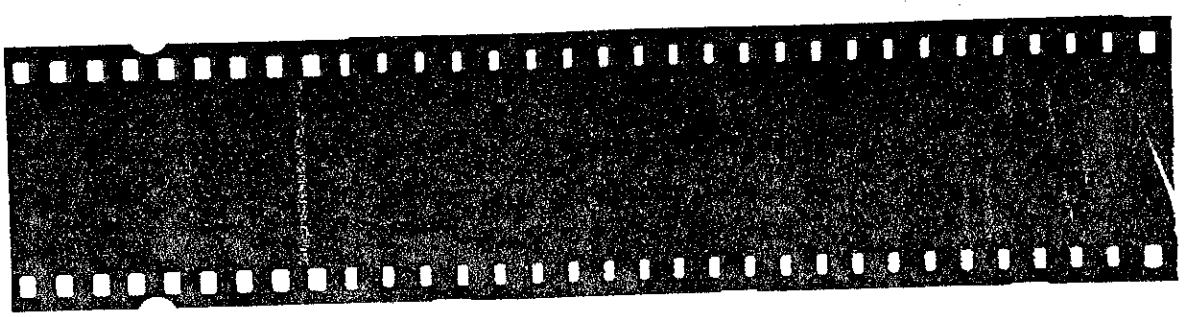
Polygen
(Lilybaild)



open dike drain

1-27-82 g.c





4/

State of Washington
Department of Ecology

INSPECTION REPORT

Will Abercrombie

To Dist. III

Inspector Jim Oberlander

Date of Visit 1-27-82

Permit Number

Name of Entity "Lilyblad Pond"

Permit Expires

City Tacoma County

New Industry

Person Contacted None

Type of Facility

Receiving Water

Type of Treatment System

Operation: ☐ Satisfactory ☐ Fair ☐ Unsatisfactory

☐ Does not comply with permit conditions

Composite
Describe Sample Taken for priority pollutants scan. Noted several trenchs dug beyond this pond N. N.E. along fence. The "clay" (?) shows in several. The oil on this pond is comming from Lily blds loading area, run off. I've asked Lily blad to clean it up. Also found stormwater + a little oil discharge from tank farm dike (Poligen)

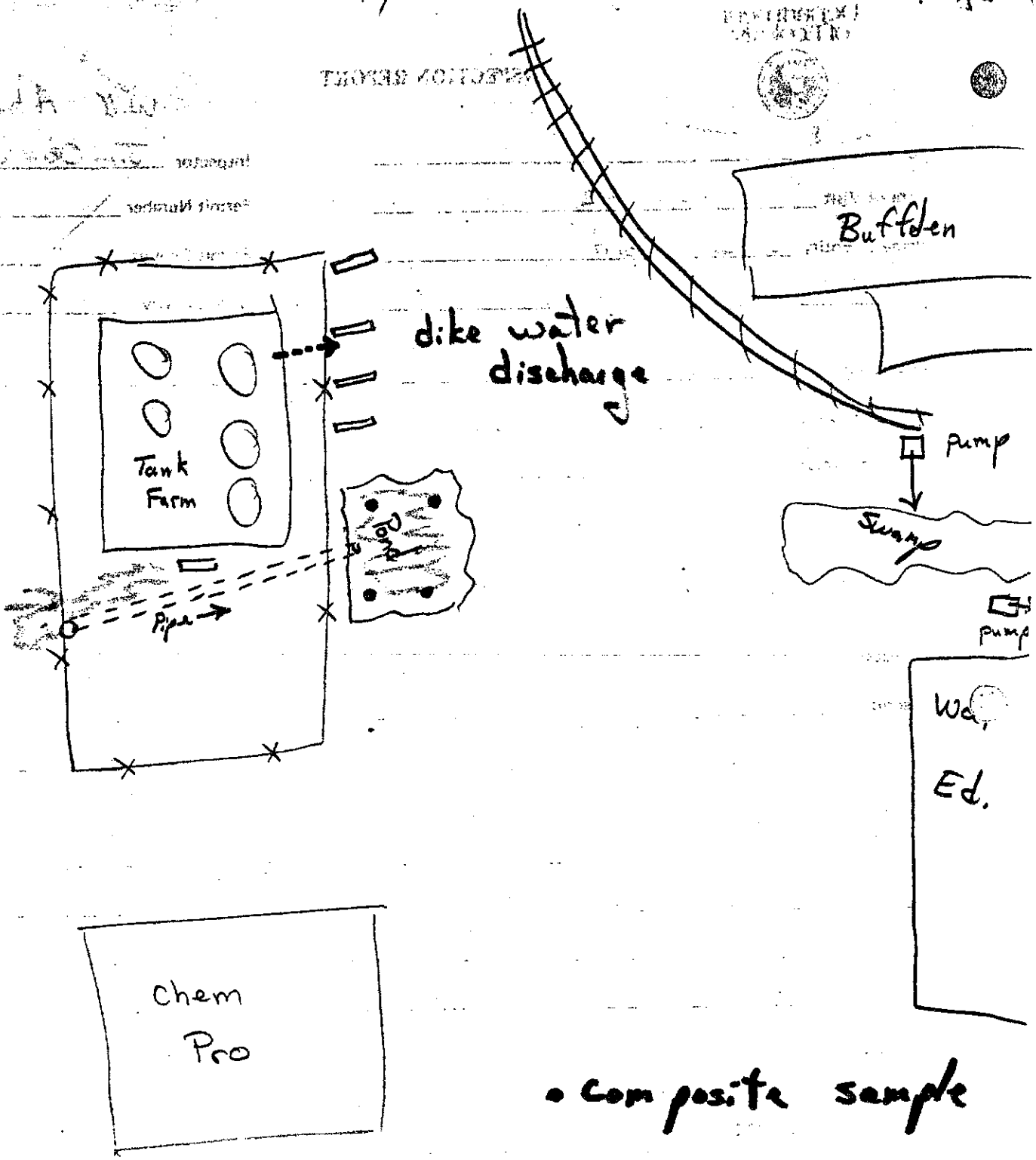
Plus found 2nd Buffalo groundwater dewatering pump station serving this area. 35mm photo's Taken

Letter to Lilyblad to be written.

MAP OVER

CC

Taylor Way


Buffalo
dike water discharge
Tank Farm
Pond
Pipe
Pump
Swamp
pump
Wa
Ed.
Chem Pro
• Composite sample
oil spillage

JOHN SPELLMAN
Governor

DONALD W. MOOS
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STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
7272 Cleanwater Lane, LU-11 • Olympia, Washington 98504 • (206) 753-2353

M E M O R A N D U M

TO: File

FROM: Jim Oberlander J.O.

SUBJECT: "Lilyblad Pond" and Related Fill, Tacoma

DATE: March 5, 1982

This property, once a tidal wet land, has been filled with a mix of waste from local industrial activity. The general location is centered between 11th and Lincoln Avenue, Taylor Way and Alexander Avenue; near Chemical Processors, Poligen and behind the Washington Educators factory.

Mr. Glenn Tegen of Lilyblad Petroleum, also part owner of the Poligen Petroleum Tank Farm, wishes to develop a ten-acre site, southeast of the Poligen area. Fill removal and site grading exposed the present pond and revealed an unusual waste.

Working closely with Mr. Tegen, 23 test (backhoe) pits and several trenches were dug on the proposed site for observation and necessary reviews.

The following comments were recorded while reviewing each recently dug pit. A map with pit station location and property layout is attached. An area photo was taken as well as 35 mm photo of some of the pits. Some samples were also taken.

The field inspections February 18, and February 22, 1982, were conducted after a period of very heavy rains.

JO:cl

Attachment

JOHN SPELLMAN
Governor

DONALD W. MOOS
Director

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
Mail Stop PV-11 • Olympia, Washington 98504 • (206) 753-2800

TO: Merley McCall

FROM: D. Huntamer

SUBJECT: Analysis of Water Samples from Commencement Bay, Tacoma and International Paper, Longview, WA.

DATE: March 4, 1982

The following water samples were received at the EPA Region 10 Environmental Laboratory for analysis of organic acid, base-neutral and volatile compounds.

EPA#	DOE#	Received	
① 04511		1-27-82	Lilyblad Pond behind Chem Pro
② 04512		1-27-82	96" Storm Drain - City Waterway, Tacoma
04513	82-0327	2-1-82	International Paper Storm Water Ditch
04514	82-0328	2-1-82	International Paper Discharge Pond #2
04515	-	2-1-82	Field Blank
06500	82-0575	2-11-82	International Paper - Well #2A

The analysis results are attached

① Liquid Composite
①+② Samples by Jim Oberlander
Will Abercrombie

VOLATILES

PROJECT: DOE COMPILED BY: JM Blazevich DATE: 3-3-82

LABORATORY: Region X - EPA REVIEWED BY: JM Blazevich DATE: 3-3-82

← Lilyblad Pond Composite

	SAMPLE # :	04511	04512	04513	04514	04515		06500
	UNITS :	ug/l	ug/l	ug/l	ug/l	ug/l		ug/l
	LOQ :	—	—	—	—	—		—
1.	acrolein	100u	10u →		50u	10u		50u
2.	acrylonitrile	50u	5u →		25u	5u		25u
3.	benzene	20u	2u →		10m	2u		10u
4.	carbon tetrachloride	20u	2u →		10u	2u		10u
5.	chlorobenzene	20m ✓	2u	10u	10u	2u		10u
6.	1,2-dichloroethane	20u	2u →		10u	2u		10u
7.	1,1,1-trichloroethane	20u	2m	2u	10u	2u		10u
8.	1,1-dichloroethane	20u	2u →		10u	2u		10u
9.	1,1,2-trichloroethane	20u	2u	10u	10u	2u		10u
10.	1,1,2,2-tetrachloroethane	20u	2u	10u	10u	2u		10u
11.	chloroethane	20u	2u →		10u	2u		10u
12.	2-chloroethylvinyl ether	20u	2u →		10u	2u		10u
13.	chloroform	20m ✓	3,1	2u	10u	2u		10u
14.	1,1-dichloroethylene	20u	2u →		10u	2u		10u
15.	1,2-trans-dichloroethylene	250 ✓	2m	2u	10u	2u		10u
16.	1,2-dichloropropane	20u	2u →		10u	2u		10u
17.	1,3-dichloropropylene	20u	2u	10u	10u	2u		10u
18.	ethylbenzene	20m ✓	2m	10	650	2u		63
19.	methylene chloride	300 ✓	2u →		10u	2u		10u
20.	methyl chloride	20u	2u →		10u	2u		10u
21.	methyl bromide	20u	2u →		10u	2u		10u
22.	bromoform	20u	2u	10u	10u	2u		10u

VOLATILES(Continued)

PROJECT: DoE COMPILED BY: JM Blazevich DATE: 3-3-82

LABORATORY: Region X - EPA REVIEWED BY: JM Blazevich DATE: 3-3-82

SAMPLE # :	04511	04512	04513	04514	04515		06500	
UNITS :	ug/l	ug/l	ug/l	ug/l	ug/l		ug/l	
LOQ :	—	—	—	—	—		—	
23. dichlorobromomethane	20u	2u	→	10u	2u		10u	
24. trichlorofluoromethane	20u	2u	→	10u	2u		10u	
25. dichlorodifluoromethane	20u	2u	→	10u	2u		10u	
26. chlorodibromomethane	20u	2u	10u	10u	2u		10u	
27. tetrachloroethylene	980	2m	10u	10u	2u		10u	
28. toluene	20m	8.3	18	450	2u		25	
9. trichloroethylene	450	2m	10u	10u	2u		10u	
30. vinyl chloride	20u	2u	2u	10u	2u		10u	

u = value less than detection limit

m = greater than detection limit but less than LOQ

BASE/NEUTRAL COMPOUNDS

PROJECT: DOE COMPILED BY: J M Blazevich DATE: 3-3-82

LABORATORY: Region X - EPA REVIEWED BY: J M Blazevich DATE: 3-3-82

	SAMPLE # :	04511	04512	04513	04514	04515		06500
	UNITS :	ug/l	ug/l	ug/l	ug/l	ug/l		ug/l
	LOQ :	—	—	—	—	—		—
1.	acenaphthene	50u	0.5u	68	310,000			2300
2.	benzidine	120u	12u	12u	240u			12u
3.	1,2,4-trichlorobenzene	40u	4u	4.0u	80u			8u
4.	hexachlorobenzene	20u	2u	20u	40u			2u
5.	hexachloroethane	40u	4u	40u	80u	NA		8u
6.	bis(2-chloroethyl) ether	10u	1u	1.0u	20u			3u
	2-chloronapthalene	7u	0.7u	0.7u	14u			0.8u
	1,2-dichlorobenzene *septic additive degreaser*	30	1u	1.0u	20u			2u
9.	1,3-dichlorobenzene	10u	1u	10u	20u	378 wt 5		1u
10.	1,4-dichlorobenzene	5u	0.5u	0.5u	10u			0.4u
11.	3,3'-dichlorobenzidine	120u	12u	120u	240u			10u
12.	2,4-dinitrotoluene	20u	2u	2u	40u			2u
13.	2,6-dinitrotoluene	30u	3u	30u	60u			3u
14.	1,2-diphenylhydrazine (as azobenzene)	2u	0.2u	0.2u	4u			0.2u
15.	fluroanthene	4u	0.4u	15	430			30
16.	4-chlorophenyl phenyl ether	9u	9u	9u	180u			13u

TENTATIVELY IDENTIFIED COMPOUNDS

PROJECT: DOE COMPILED BY: JM Blazevich DATE: 3-3-82

LABORATORY: EPA Region X REVIEWED BY: JM Blazevich DATE: 3-3-82

VOA FRACTION: SAMPLE # :	04511	04512	04513	04514	04515		06500	
CAS # NAME	ug/l	ug/l	ug/l	ug/l	ug/l		ug/l	
1. 622-96-8 methylethylbenzene	170 est	ND	F,t (778) PRESENT	F,t (881)	ND		(F,t 949)	
2. 108-38-3 Xylenes	ND	ND	conc. 630	F,t (977)	↓		conc. 20	
3. 271-89-6 benzofuran	↓	↓	ND	500 (est)	↓		(F,t 916)	
4. 13466-78-9 Δ^3-Carene	↓	↓	↓	280 (est)	↓		ND	
5. 99-85-4 1,4-p-cyclohexadiene -1-methyl-4-(1-methylethyl)	↓	↓	↓	19000 (est)	↓		ND	
6.								
7.								
8.								
9.								
10.								

est = estimate

BASE/NEUTRAL COMPOUNDS (continued)

PROJECT: DoE COMPILED BY: J M Blazevich DATE: 3-3-82

LABORATORY: EPA Region X REVIEWED BY: J M Blazevich DATE: 3-3-82

SAMPLE # :	04511	04512	04513	04514	04515		06500	
UNITS :	ug/l	ug/l	ug/l	ug/l	ug/l		ug/l	
LOQ :	—	—	—	—	—		—	
39. acenaphthylene	1u	0.1u	0.6u	40u	1		.1u	
40. anthracene	4u	0.4m	41	950	N.		110	
41. benzo(ghi)perylene	60u	6u	6u	120u	O		0.6u	
42. fluorene	2u	0.2u	49	940			320	
43. phenanthrene	3u	0.4u	0.4u	8u	S		0.4u	
44. dibenzo(a,h)anthracene	60u	6u	6u	120u	AMP		6u	
45. Indeno(1,2,3-cd)pyrene	60u	6u	6u	120u	LE		6u	
46. pyrene	4u	0.4u	7	170	37		12	
47. TCDD	ND	ND	ND	ND	1		ND	

u = not detected value less than detection limit

m = detected, but less than limit of quantification

ND = not detected

BASE NEUTRAL COMPOUNDS (continued)

PROJECT: DOE COMPILED BY: JM Blazevich DATE: 3-3-82

LABORATORY: EPA - Region X REVIEWED BY: JM Blazevich DATE: 3-3-82

SAMPLE # :	04511	04512	04513	04514	04515		06500
UNITS :	ug/l	ug/l	ug/l	ug/l	ug/l		ug/l
LOQ :	—	—	—	—	—		—
17. 4-bromophenyl phenyl ether	20u	2u	2u	40u			2u
18. bis(2-chloroisopropyl) ether	6u	0.6u	0.6u	12u			0.6u
19. bis(2-chloroethoxy) methane	10u	1u	10u	20u			1u
20. hexachlorobutadiene	40u	4u	40u	80u			5u
21. hexachlorocyclopentadiene	120u	12u	12u	240u			12u
22. isophorone	90u	9u	9u	180u			12u
23. napthalene	10^x	2.5	53	4u			36500
24. nitrobenzene	20u	2u	20u	40u			2u
25. N-nitrosodimethylamine	1u	0.1u	0.1u	2u			0.1u
26. N-nitrosodiphenylamine	60u	6u	10u	20u			2u
27. N-nitrosodi-n-propylamine	10u	0.1u	6u	20u			1u
28. bis(2-ethyl hexyl) phthalate	4u	1.4	4u	8u			0.2u
29. butyl benzyl phthalate	5u	0.5u	0.5u	4u			0.3u
30. di-n-butyl phthalate	0.8u	0.08u	0.3	4u			0.1u
31. di-n-octyl phthalate	4u	0.4u	0.4u	40u			0.1u
32. diethyl phthalate	2u	0.2u	0.2u	4u			0.1u
33. dimethyl phthalate	2u	0.2u	0.2u	4u			0.2u
34. benzo(a)anthracene	20u	2u	2u	40u			1u
35. benzo(a)pyrene	60u	6u	6u	120u			3u
36. 3,4-benzofluroanthene	20u	2u	2u	40u			0.7u
37. benzo(k)fluoranthene	20u	2u	2u	40u			0.7u
38. chrysene	40u	4u	4u	40u			1.5

TENTATIVELY IDENTIFIED COMPOUNDS

PROJECT: DOE COMPILED BY: JM Blazevich DATE: 3-3-82

LABORATORY: EPA Region X REVIEWED BY: JM Blazevich DATE: 3-3-82

ACID/BN FRACTION SAMPLE # :		04511	04512	04513	04514	04515		06500	
CAS #	NAME	F.t	F.t	F.t	F.t	F.t		F.t	
611 1.-14-3	benzene, 1ethyl-2-methyl	953	982	ND	968			ND	
124 2.-18-5	decane	920	ND		ND				
95 3.-63-6	benzene, 1,2,4-trimethyl	932			972				
42769 4.-38-0	1,3-butadiene, 1,1,3,4-tetrachloro	940			ND	ND			
4926 5.-90-3	cyclohexane, 1-ethyl-1-methyl	917							
563 6.-16-6	hexane, 3,3-dimethyl	922							
874 7.-41-9	benzene, 1-ethyl-2,4-dimethyl	830			761	3 Add'l			
535 8.-77-3	benzene, 1-methyl-3-(1-methylethyl)	985			ND				
17801 9.-22-3	undecane, 2,5-dimethyl	920							
91 10.-57-6	2-methylnaphthalene	884							

ACID COMPOUNDS

PROJECT: DOE COMPILED BY: J M Blazevich DATE: 3-3-82

LABORATORY: Region X - EPA REVIEWED BY: J M Blazevich DATE: 3-3-82

SAMPLE # :	04511	04512	04513	04514	04515		06500	
UNITS :	ug/l	ug/l	ug/l	ug/l	ug/l		ug/l	
LOQ :	—	—	—	—	—		—	
1. 2,4,6-trichlorophenol	30u	3u	3u	60u			4u	
2. p-chloro-m-cresol	20u	2u	2u	40u	ND		12u	
3. 2-chlorophenol	10u	1u	1u	20u			0,3u	
4. 2,4-dichlorophenol	30u	3u	3u	60u			12u	
5. 2,4-dimethyl phenol	20u	2u	390	40u	[illegible]		0,8u	
6. 2-nitrophenol	40u	4u	4u	80u			5u	
7. 4-nitrophenol	120u	12u	12u	240u			49u	
8. 2,4-dinitrophenol	1200u	120u	120u	2400u			122u	
9. 4,6-dinitro-o-cresol	400u	40u	40u	800u			14u	
10. pentachlorophenol	100u	10u	850	72000			3400	
11. phenol	6u	0,6u	18000	12u			0,3u	

u = less than detection limit

m = greater than detection limit but less than limit of Quantification

TENTATIVELY IDENTIFIED COMPOUNDS

PROJECT: DOE COMPILED BY: J N Blazevich DATE: 3-3-82

LABORATORY: EPA Region X REVIEWED BY: J N Blazevich DATE: 3-3-82

~~ACID~~/B/N FRACTION: SAMPLE # :

CAS #	NAME	04571	04572	04573	04514	04515		04510	
		Fit	Fit	Fit	Fit	Fit		Fit	
21. 921-47-1	hexane, 2,3,4-trimethyl	ND	ND	ND	915	1		ND	
22. 108-99-6	Pyridine, 3-methyl	↓	↓	↓	852	No		↓	
23. 108-48-5	Pyridine 2,6-dimethyl	↓	↓	↓	945			↓	
24. 103-65-1	benzene, propyl	↓	↓	↓	967	[illegible]		976	
25. 766-97-2	benzene, 1-ethynyl-4-methyl	↓	↓	↓	984	[illegible]		ND	
26. 1074-17-5	benzene, 1-methyl-2-propyl	↓	↓	↓	825	[illegible]		↓	
27. 1074-43-7	benzene, 1-methyl-3-propyl	↓	↓	↓	850	↓		↓	
28. 1120-21-4	Undecane	↓	↓	↓	948	↓		↓	
29. 4265-25-2	benzofuran, 2-methyl	↓	↓	↓	934	↓		955	
30. 99-87-6	benzene, 1-methyl-4-(1-methylethyl)-	↓	↓	↓	982	↓		ND	

TENIATIVELY IDENTIFIED COMPOUNDS

PROJECT: DOE COMPILED BY: JM Blazevich DATE: 3-3-82

LABORATORY: EPA - Region X REVIEWED BY: JM Blazevich DATE: 3-3-82

ACID/B/N FRACTION: SAMPLE # :

CAS #	NAME	04511	04512	04513	04514	04515		06500	
		Fit	Fit	Fit	Fit	Fit		Fit	
11. 571-58-4	naphthalene, 1,4-dimethyl	957	ND	ND	ND	↓		ND	
12. 581-40-8	Naphthalene, 2,3-dimethyl	892	ND	↓	↓	↓		ND	
13. 526-73-8	benzene, 1,2,3-trimethyl	ND	987	↓	↓	ND		974	
14. 13475-78-0	heptane, 5-ethyl-2-methyl	↓	898	↓	↓			ND	
15. 98-06-6	benzene (1,1-dimethylethyl)	↓	899	↓	↓			↓	
16. 99-87-6	benzene, 1-methyl-4-(1-methylethyl)	↓	988	↓	↓			↓	
17. 496-11-7	1-H-indene, 2,3-dihydro	↓	ND	944	948			978	
18. 95-48-7	phenol, 2-methyl	↓	↓	967	ND	↓		939	
19. 90-12-0	naphthalene, 1-methyl	↓	↓	945	↓	↓		957	
20. 109-06-8	Pyridine, 2-methyl	↓	↓	ND	920			ND	

ND = not detected

[1000 Conf. Level]

TENTATIVELY IDENTIFIED COMPOUNDS

PROJECT: DOE COMPILED BY: JM Blazevich DATE: 3-3-82

LABORATORY: EPA Region X REVIEWED BY: JM Blazevich DATE: 3-3-82

ACID/B/N FRACTION:	SAMPLE # :	04511	04512	04513	04514	04515		06560	
CAS #	NAME	F,+	F,+	F,+	F,+	F,+		F,+	
92 41.-52-4	1,1'-biphenyl	ND	ND	ND	ND	ND		982	
14315 42.-11-8	benzo-[B]-thiophene, 4-methyl	ND	ND	ND		ND		794	
2219 43.-73-0	phenol, 4-ethyl - 2-methyl							985	
4565 44.-32-6	benzo [B] furan, 2,3-dihydro							864	
95 45. 87-4	phenol, 2,5-dimethyl							934	
105 46.-67-9	phenol, 2,4-dimethyl							992	
767 47.-58-8	1H-indene, 2,3-dihydro -1-methyl							915	
104 48.-85-8	benzonitrile, 4-methyl							929	
106 49.-44-5	phenol, 4-methyl							950	
766 50. 97-2	2-benzene, 1-ethynyl -4-methyl							986	

TENTATIVELY IDENTIFIED COMPOUNDS

PROJECT: DOE COMPILED BY: JM Blazevich DATE: 3-3-82

LABORATORY: EPA Region X REVIEWED BY: JM Blazevich DATE: 3-3-82

ACID FRACTION	SAMPLE # :	04511	04512	04513	04514	04515		06500
CAS #	NAME	F,t	F,t	F,t	F,t	F,t		F,t
824 31.-22-6	1H-indene, 2,3-dihydro -4-methyl	ND	ND	ND	944	1'		ND
526 32.-75-0	phenol, 2,3-dimethyl				970	2N		987
1687 33.-61-2	phenol, 2-ethyl -5-methyl				893			957
17059 34.-48-2	1H indene, 2,3-dihydro -1,6-dimethyl				932	4+5		ND
98 35. 82-8	benzene, (1-methylethyl)				ND	4+5		955
58 36. 90-2	2,3,4,6-tetrachloro phenol					3+4		manual OK
262 37. 12-4	dibenzo-[b,e][1,4] -dioxin					—		manual OK
939 38. 27-5	naphthalene, 2-ethyl							914
573 39.-98-8	naphthalene, 1,2-dimethyl							959
575 40.-41-7	naphthalene 1,3-dimethyl	↓	↓	↓	↓	↓		988

JOHN SPELLMAN
Governor

DONALD W. MOOS
Director

STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

Mail Stop PV-11 • Olympia, Washington 98504 • (206) 753-2800

TO: Merley McCall, Jim Oberlander

FROM: D. Huntamer

SUBJECT: Analysis of Water Samples from Commencement Bay, Tacoma for Pesticides and PCB's

DATE: April 26, 1982

The following water samples were analyzed for pesticides and PCB's at the EPA Region 10 Laboratory.

EPA#	DOE#	RECEIVED	
04511	---	1/27/82	Lilyblad Pond behind Chem-Pro
04512	---	1/27/82	96" Storm Drain-City Waterway, Tacoma (outfall) Nalley Valley

The analyses results are attached.

PESTICIDES

PROJECT: _____ COMPILED BY: O-Hanlaimon DATE: 4/26/87

LABORATORY: Region X EPA REVIEWED BY: _____ DATE: _____

↓ Lily blad Pond

SAMPLE # :	04-	511	512						
UNITS :	µg/L								
LOQ :									
1. aldrin		.005u	.005u						
2. dieldrin									
3. chlordane									
4. 4,4'-DDT									
5. 4,4'-DDE									
6. 4,4'-DDD									
7. -endosulfan I									
8. -endosulfan II									
9. endosulfan sulfate									
10. endrin									
11. endrin aldehyde									
12. heptachlor									
13. heptachlor epoxide									
14. - BHC A									
15. - BHC B									
16. - BHC G									
17. - BHC D									
18. PCB - 1242		0.05u	0.05u						

PESTICIDES (continued).

PROJECT: _____ COMPILED BY: O. Hentzen DATE: 4/26/82

LABORATORY: Region X EPA REVIEWED BY: _____ DATE: _____

Lily blad Pond 1-27-82

SAMPLE # :	04-	511	512						
UNITS :	µg/l								
LOQ :									
19. PCB - 1254		1.12	0.05u						
20. PCB - 1221		0.05u	↓						
21. PCB - 1232		↓	↓						
22. PCB - 1248		↓	↓						
23. PCB - 1260		↓	↓						
24. PCB - 1016		↓	↓						
25. toxaphene		0.30u	0.30u						

JOHN SPELLMAN
Governor

DONALD W. MOOS
Director

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
7272 Cleanwater Lane, LU-11 • Olympia, Washington 98504 • (206) 753-2353

June 11, 1982

Mr. Glen Tegen
Lilyblad Petroleum, Inc.
2244 Port of Tacoma Road
Tacoma, Washington 98401

Subject: Undeveloped Ten Acre Site East of Poligen Tank Farm, 1700 Block Alexander Avenue, Tacoma

Dear Glen:

During the last several months, we have worked with Greg Allen of your staff to review fill material deposited in this area which you recently purchased. The evaluations have been an attempt to establish any present or potential environmental liabilities associated with the materials; both at the site or potentially migrating off-site. Then, if possible, make recommendations that would work to reduce impacts.

The task has been slow because we lacked factual information as to what waste was dumped here and where it came from.

One test result would give us direction on other needed tests. Your cooperation and assistance to dig test pits was of considerable help.

Our review cannot be considered an indepth study, but the following facts and comments can be drawn.

1. I have worked as an inspector in the Tacoma area for eight years and have observed some of the filling activities in this general area.

   To the best of my knowledge, waste filling has occurred upon the native river delta/tidal marsh soils. Reportedly, some of this area may have once been tilled and used as agricultural land. A 1957 air photo shows part of the area as a small lake. The Hart Crowser and Associates, Inc., report, Geology of the Port of Tacoma, is a good reference which describes soil conditions. The Dames and Moore report, 1982 Historic Land Use Survey of the Tacoma Tideflats, also adds some insight. Thus, the fill material of concern would probably be no deeper than the reach of the back hoe used for the test pits.

2. Present surface water and upper groundwaters on your new property in the porous fill may move towards the east and be pumped (Buffelen Woodworking Company pump stations) to the Lincoln Street Ditch. This ditch discharges to the Blair Waterway.

Surface drainage to the far west of the Poligen Area reaches a storm catch basin near 11th Street which is piped to the Hylebos Waterway.

To totally define the hydrology in this area of mixed fill would be very difficult.

3. Fill material in this ten-acre area varies from dredge sand on the south, old domestic garbage and concrete on the east, woodwaste and possibly a little bag house dust in the middle and north; plus stone blocks, wood waste and a considerable amount of white clay-like substance along the west border (see field notes on Test Pits for detail, memo enclosed).

4. I surmise the white clay-like substance extends well under your Poligen Property and reaches mid-center of this new property; probably, in a close arc around the pond that existed during the investigation.

5. The white clay material may have come from Hooker Chemicals, Tacoma, Organics Plant waste pond closed/removed several years ago.

   Our test data on a composite of this material reflects the levels of organics to be low. A fish bioassay test on the material reflects the material to be a dangerous waste per WAC 173-303. This category of solid waste was only regulated as of March 11, 1982.

   The high salt content of the substance may account for the fish kill. We use fresh water organism for the bioassay test.

   Mr. Lyle Feller, of Hooker Chemical, Tacoma, who also sampled this material and has related his test data. He found the organics levels way below what was thought to have been in their pond sludge, but the conductivity may be related to their salt brine production method. We do know as a fact organics plant sludge was dumped at several sites; though, the site for this area was thought to be more toward the west.

6. A very detailed priority pollutant scan from a composite water sample out of the site pond (1-27-82) may or may not reflect groundwater/or run-off pollutants. Pollutants (oils) on the surface of this pond came, in a large part, from your own tank farm loading rack next door.

   These identified chemicals and concentrations also could vary related to possible chemical stratification in this pond.

To-date, the numbers reflected in this priority pollutants liquid scan are higher than any other liquid data gathered in Commencement Bay. The "priority pollutants" concentrations (typed chemicals) were under 1 part per million. Some of the same water sample chemicals were also found in the white clay-like sludge. A majority of the chemicals are also found in oils, solvents and degreasers. The liquid and soil samples taken on January 6, 1982, found Tetrachloroethylene at 4. and 7. ppm, respectively.

The test hole #11 soil sampling data (February 22, 1982) showed interesting levels of total Arsenic and Mercury. However, the EP toxicity levels were below the federal RCRA limits.

A sampling of flows discharged by the Buffelen Pump Station and towards 11th Street for priority pollutants and heavy and trace metals would be most useful.

7. A "control (baseline) sample(s)" are most difficult to establish anywhere in the Tacoma Tideflats because of the many potential current sources, past practices, airborn fallout, etc.

   Standards and/or health/environmental limits are not set or even known for many chemicals.

Washington Department of Ecology (WDOE) posture for this ten-acre site is that development of this site may proceed, encouraging development which will provide a tight, impervious cap with an impervious side seal; shallow monitoring wells with french/drain laterals and a tightly lined stormwater system away from the area. This will hopefully provide entombment with monitoring access and potential limited pumping accessibility.

If, in the future, a serious environmental problem were to develop, additional steps might be requested.

I am not totally familiar with all the aspects of the Federal Superfund Legislation and the U. S. Environmental Protection Agency's (EPA's) "game plan" for the Commencement Bay area. I would suggest a scheduled sit down review with them. Phil Wong, EPA, at (206) 442-7216, would be the contact.

During our February 5, 1982, meeting, we briefly discussed steps involving WDOE on new plant construction at this site. We would require engineering plans and specifications for review and approval 180 days prior to construction. It is necessary that a SEPA checklist be completed and filed with the city planning department. Prior to operation of the facility, we would require a SPCC plan be completed. If the facility requires a waste discharge permit or hazardous waste TSD permit, they will also have to be started prior to site operation. Enclosed are several construction guidelines that you will find helpful.

If you should have any questions on these matters, please contact me at (206) 753-0135 in Olympia.

Sincerely,

Jim Oberlander

Jim Oberlander
Environmental Quality Inspector

JO:si

Enclosures

cc: Ken Lepic, Chem Security Systems, Inc.
Ron West, ChemPro, Seattle
Lyle Feller, Hooker Chemical Co.
Phil Wong, EPA
Doug Pierce, Tacoma-Pierce County Health Department
Frank Monahan, WDOE

FEBRUARY 18, 1982

PIT NO.

1. Clear Water
   No Oil
   No Odor
   All Dredge Soil Sand
   Ground Water at Surface

2. Clear Water
   No Oil
   No Odor
   Dredge Sand Spoils
   Ground Water at Surface

3. Clear Water
   No Oil
   Dredge Spoils
   Ground Water near Surface

4. Clear Water
   No Odor
   Dredge Spoil
   Ground Water near Surface

5. Clear Water
   No Odor
   Dredge Spoils and Some Old Domestic Garbage
   Ground Water near Surface

6. Clear Water
   No Odor
   Pit Run and Some Domestic Garbage
   Ground Water at Surface

7. Clear Water
   Mix of Wood and a Little White Lime
   Ground Water 3' Below Grade

8. Clear Water
   No Oil
   No Odor
   Woodwaste and a Little Concrete
   Ground Water 3' Below Grade

9. Minor Unknown Sheen on Water
   Woodwaste and Concrete
   Ground Water 4½' Below Grade

10. Clear Water
    Woodwaste and Concrete
    Ground Water 4' Below Grade

11. Woodwaste and Concrete
Surface Soil Cap of Clay Like/White unknown Material
Ground Water 4' Below Grade
Sample Taken of Clay Material

12. Clear Water
Woodwaste and Concrete
Lots of a Clay Like White Unknown Material Cap

13. Clear Water
Woodwaste, Concrete, Pit Run and Clay Like White Unknown Material
Ground Water 3' Below Grade

FEBRUARY 22, 1982

14. Clear Water
Woodwaste and Concrete
Ground Water 3' Below Grade

15. "Flakes on Water"
Concrete and Clay Like, White Unknown Material
Ground Water 2' Below Grade

16. Brown Flakes on Water
Concrete Blocks and N.E. Side of Hole Clay Like White Unknown Material
Ground Water 18" Below Grade

17. Clear Water
Concrete Blocks and Dirt
Ground Water 6" Below Grade

18. Clear Water
Dirt and Stone Blocks
Ground Water 18" Below Grade

19. Clear (muddy) Water
Dirt, Stone Blocks and Sand Blasting Sand
Ground Water 2' Below Grade

20. Clear (muddy) Water
Stone Blocks, Dirt and Dredge Sand
Ground Water 18" Below Grade

21. Clear (muddy) Water
Stone Blocks and Dredge Sand
Ground Water 12" Below Grade

22. Clear (muddy) Water
Stone Blocks and Mostly Dredge Sand
Ground Water 18" Below Grade

23. Clear (muddy) Water
Stone Blocks and Dirt
Ground Water 12" Below Grade

TRENCHES Along Poligen Fence

T-1 All woodwaste with a little clay like, white unknown material on top.

Ground Water 3' Below Grade

T-2 A little oil on water (from Poligen Tank Farm drain)
Mostly woodwaste with a little white clay
Ground Water 3' Below Grade

T-3 Water appeared to be woodwaste leachate
Woodwaste with "white clay" material below

T-4 Woodwaste but mostly white clay material
Ground Water 2½' Below Grade

T-5 Mostly "white clay"
Ground Water 3' Below Grade

This field data was gathered working with Greg Allen of Lilyblad.

JO:cl

cc: Greg Allen
Will Abercrombie, DOE
Doug Pierce, Pierce Cty. Health

Tacoma

Trenches

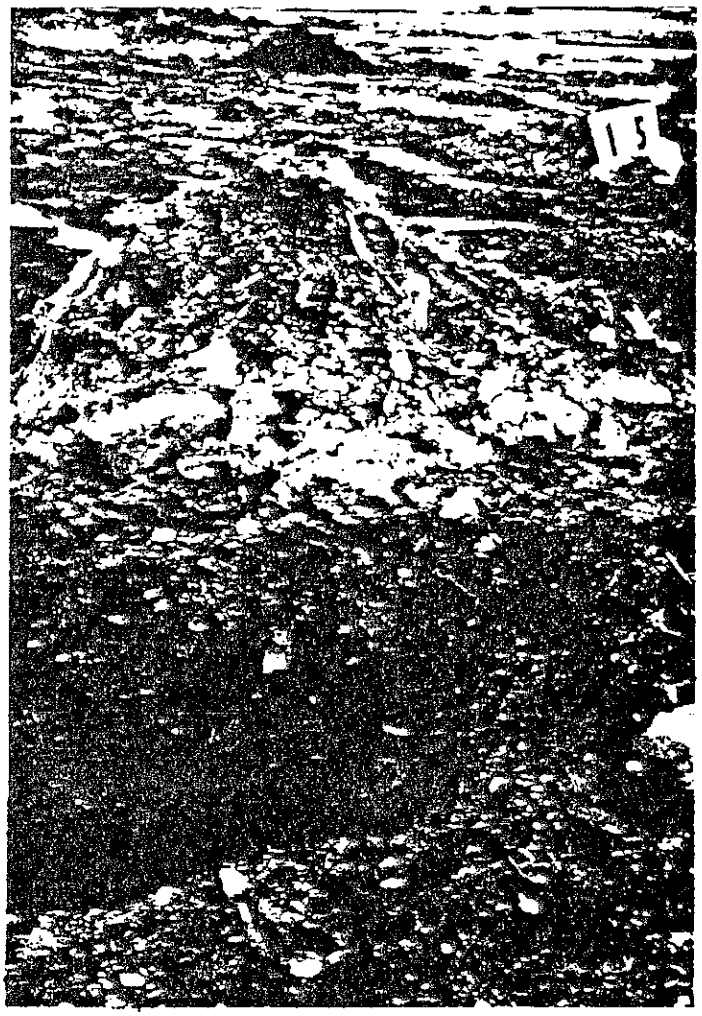
T-41

Lilyblad Pond

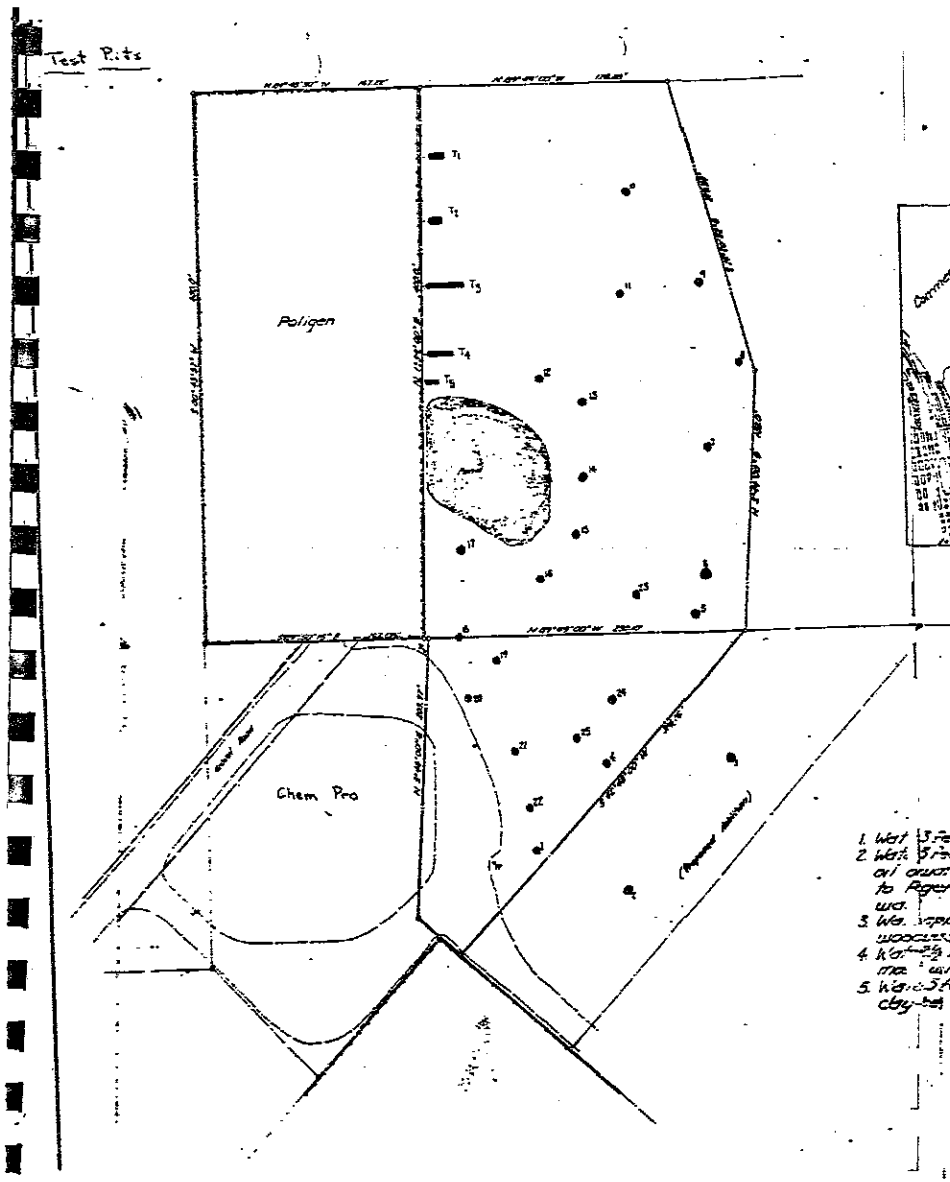
Test Pit

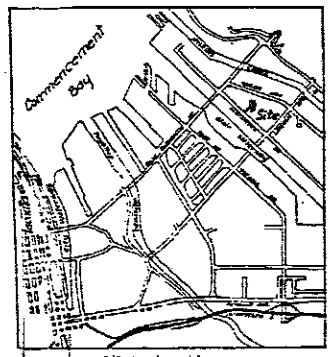
Tacoma

Tacoma



Test Pits





Vicinity Map

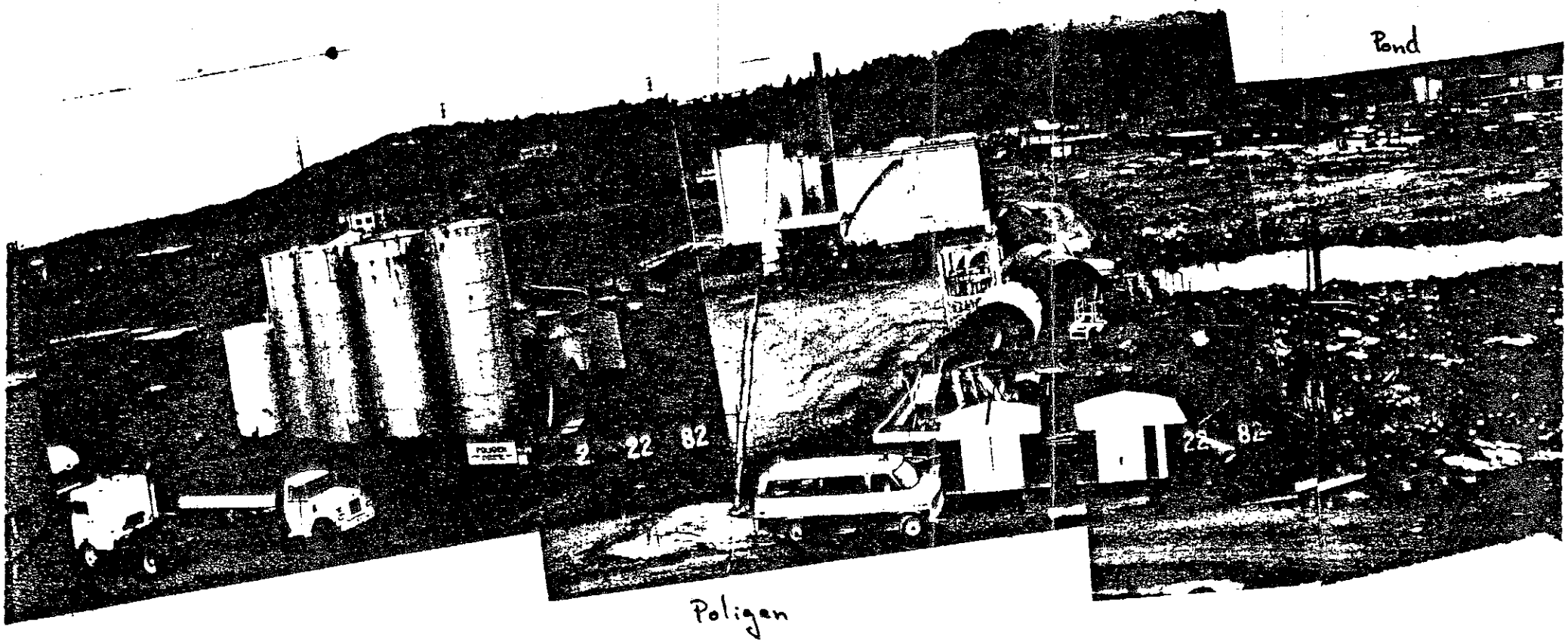
Trenches

1. Wat 3 feet below grade, all wood waste.
2. Wat 3 feet below grade, tiny amount of oil counter, a little clay-like material next to Pogen drainage line, mostly wood was.
3. Wa. appears to have wood waste leachate, wood waste, clay like material along trench.
4. Wa 2½ feet below grade, wood waste, me white clay-like material.
5. Wa 3 feet below grade, mostly white clay-like material.

Test Holes

1. Clear/muddy water, no odor or oil, dredge spoils.
2. Clear/muddy water, no odor or oil, dredge spoils.
3. Clear/muddy water, no odor or oil, dredge spoils.
4. Clear/muddy water, no odor or oil, dredge spoils.
5. Clear/muddy water, no odor or oil, dredge spoils, old domestic type garbage.
6. Clear/muddy water, no odor, domestic type garbage, pit run.
7. Clear/muddy water, water level lowered 3 feet, wood waste mixture of lime.
8. Muddy water, water level 3 feet below grade no odor, wood waste, a small amount of concrete.
9. Minor unknown sheen on water, water 4½ feet below grade, wood waste, concrete, H.D hose.
10. Water 4 feet below grade, wood waste, concrete.
11. Clear/muddy water, water 4 feet grade wood waste, concrete, surface soil appear to be a clay-like (white) material.
12. Clear/muddy water, water 3 feet below grade, wood waste concrete, cap of clay-like material.
13. Clear/muddy water, water 3 feet below grade, wood waste, concrete, pit run with clay cap.
14. Water 3 feet below grade, wood waste, concrete.
15. Water 2 feet below grade, flakes on water. Concrete white, clay material appears the same as samaid material along fence line.
16. Water 1½ feet below grade, white clay like material on north side, brown flakes on water, concrete.
17. Clear/muddy water, water 6 inch below grade, concrete blocks and dirt.
18. Clear/muddy water, water 1½ feet below grade, stone blocks and dirt.
19. Clear/muddy water, water 2 feet below grade, dirt, blocks and sand blasting sand.
20. Clear/muddy water, water 1½ feet below grade dirt, blocks, dredge sand.
21. Clear/muddy water, water 1 feet below grade, blocks, dredge sand.
22. Clear/muddy water, water 1½ feet below grade, dredge sand, blocks.
23. Clear/muddy water, water 1 foot below grade, blocks, dirt.
24. Same as 21.
25. Same as 21.

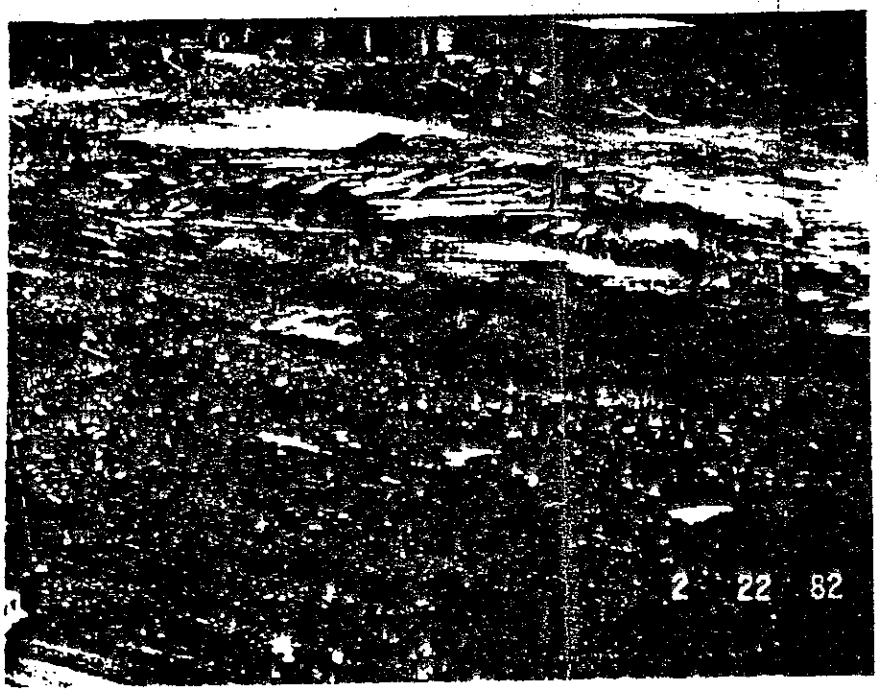
TEST HOLES



Poligan

Lily Blad Tend

Tacoma



Proposed New
Lily blad
Plant

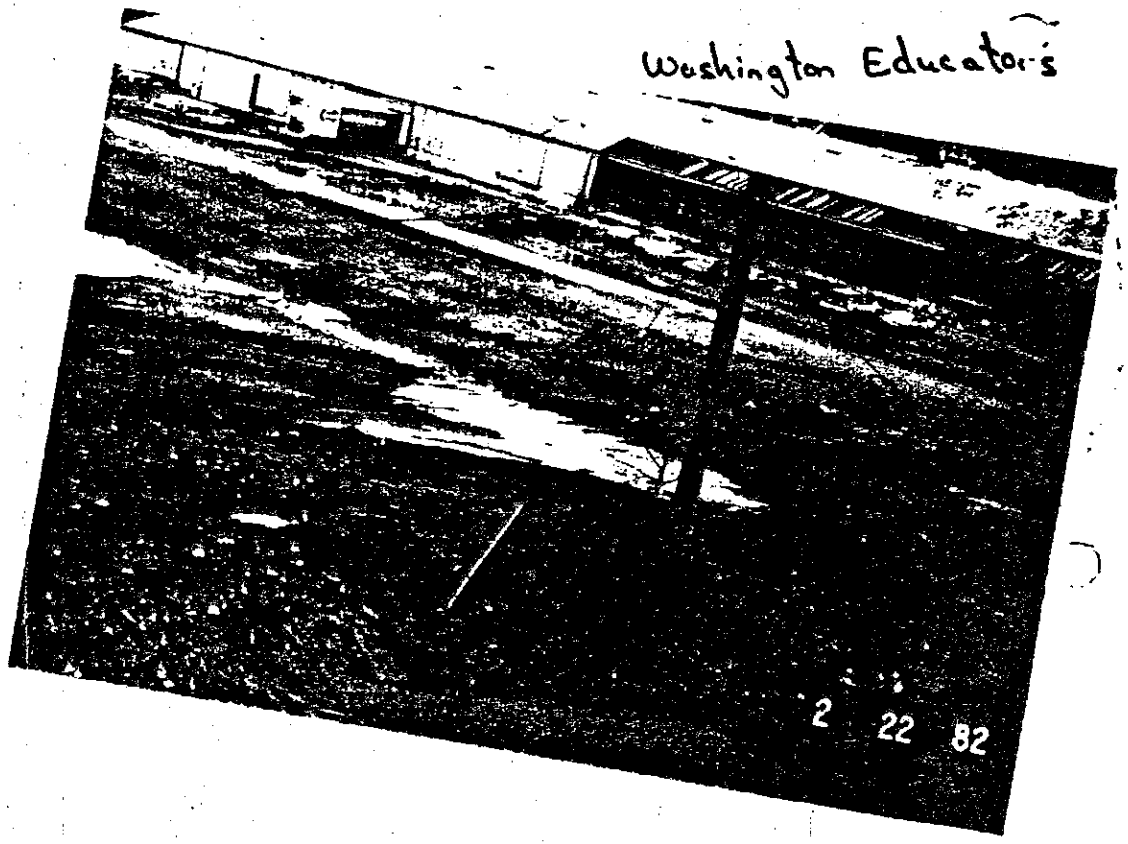


EXHIBIT "3"