

MEMORANDUM  
Department of Ecology  
P. O. Box 829  
OLYMPIA, WASHINGTON  
98504

Publication No. 71-e01

TO: Nelson Graham

DATE: December 13, 1971

FROM: Bob Bishop

SUBJECT: Weyerhaeuser Wood Division Survey, Longview

On September 22, 1971, Ron Devitt and I conducted an industrial efficiency study on two treatment and collection systems at Weyerhaeuser Wood Products Division at Longview. The survey was conducted after the strike ended and when the plant was on full schedule. Ron and I collected composites at the 46 foot clarifier and the 85 foot clarifier, respectively, and collected grab samples at the indicated pump stations, Figure 1. Ron reported his results in a memo.

I began the composite of influent and effluent for the 85 foot clarifier at 0830 hours. Influent to the clarifier was generated from the barker, steam vat, plywood plant and technical center. At 1045 hours it was learned that the center inflow apron of the clarifier where influent sample was being taken, was not representative of complete influent due to recycling of sludge. The composite was dumped, and a new one was begun at 1100 hours from the main influent line at the base of the clarifier. The influent composite from 1100 to 1700 hours was composed of 1.5 liter samples from every 30 minutes. The influent total coliform sample was taken at 1330 hours. Settleable solids were tested at 1230 and 1400 hours.

At 1100 hours the effluent sampling point was changed from the west trough outflow to the main effluent outflow at the east end of the clarifier. The total coliform sample was taken at 1340 hours. Settleable solid samples were measured at 1240 and 1410 hours. Composite sampling was 1.5 liters for every 30 minutes.

The lab report sheet and efficiency study report form give survey parameter results for clarifier influent and effluent sampling.

Pump station flow readings were recorded prior to and after survey sampling, Table. 1.

Temperature and pH for grab samples at pump stations 4,5 and 6 were:

<u>p.s.</u>	<u>time</u>	<u>temp. °C</u>	<u>pH</u>
4	1455	24.8	7.1
5	1445	26.6	9.2
6	1430	50.0	7.0

COLUMBIA RIVER →

EXIST. 16"  $\phi$  FM.

P.S.#6

STEAM VAT

85' DIA. CLARIFIER

POWERHOUSE

46' DIA. CLARIFIER

CARRIER WASHING

TO PULP WASTE SYSTEM

P.S.#2

'B' LINE

EXIST. GRAVITY LINE

PLYWOOD PLANT

RESIN PLANT

SPECIALTY PLANT

P.S.#1

'C' LINE

END & EDGE GLUE PLANT

MACHINE SHOP

LEGEND

- OIL INTERCEPTOR
- PUMP STATION
- SUBMERSIBLE PUMP STATION
- GRAVITY LINE
- FORCEMAIN

'G' LINE

'E' LINE

TECHNICAL CENTER

P.S.#4

'I' LINE

DRYING KILNS

P.S.#3

'F' LINE

PRESTO-LOG PLANT

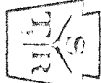
PLANNING MILL

Figure 1. SCHEMATIC LAYOUT OF COLLECTION SYSTEM

WEYCO - LONGVIEW, WN. 69-P-800.002 JAN. 71

COAL CREEK SLOUGH →

9-22-71



Stevens, Thompson & Dunbar, Inc. Engineers/Planners PORTLAND SEATTLE BOISE

~~STP~~ SURVEY REPORT FORM

(EFFICIENCY STUDY)

City Weyco Longview Plant Type wood mill Population Served — Design Capacity —  
 Receiving Water Columbia River Engineer Leo Theonius  
 Date 9-22-71 Survey Period 0700-1730 Survey Personnel Bob Desjardis, Bob Bishop  
 Comp. Sampling Frequency 1.5 l. each 1/2 hr. (last 48 hours) Weather Conditions overcast, no rain  
 Sampling Aliquot —

PLANT OPERATION

Total Flow — How Measured —  
 Max. (Flow) — Time of Max. — Min. — Time of Min. —  
 Pre Cl<sub>2</sub> — #/day Post Cl<sub>2</sub> — #/day

FIELD RESULTS

Determinations	Influent				Effluent			
	Max.	Min.	Mean	Median	Max.	Min.	Mean	Median
Temp. °C	24.3	22.6	23.6	—	25.0	23.6	24.4	—
pH	8.2	7.3	7.6	—	7.8	7.4	7.5	—
Conductivity (umhos/cm)	—	—	—	—	—	—	—	—
Settleable Solids 3.0 ml. at 123 hrs.	—	—	—	—	—	—	—	—
3.5 ml. at 1400 hrs. → effluent 0.3 ml. at 1230 + 0.1 ml. at 1400 hrs.	—	—	—	—	—	—	—	—

LABORATORY RESULTS ON COMPOSITE IN PPM

Laboratory Number	Influent	Effluent	% Reduction
5-Day BOD	60	55	8.3
COD	380	335	11.8
T.S.	495	324	34.5
T.N.V.S.	92	98	—
T.S.S.	323	139	56.9
N.V.S.S.	64	44	31.2
pH	7.0	7.1	—
Conductivity	—	—	—
Turbidity	35	35	0.0

\* Filtered, Whatman 40

STATE OF WASHINGTON

Routing

DEPARTMENT OF ECOLOGY

OFFICE OF TECHNICAL SERVICES

Original to LABORATORY

ANALYTICAL REPORT SHEET

Copies to:

To:

Bob Bishop

Nelson Graham

Bob Bishop

Ron Davitt

Merley McCall

The following are the analytical results from survey conducted at:

Weyerhaeuser @ Longview

03-02.23

9/22/71

LAB. NO.	STATION NO.	ppm		pH	J.T.U. Turbidity	Collected	ppm	
		BOD	CO <sub>2</sub>			colonies / 100ml	Phenols	Oils
71-3159	Lg Clarifier Influent	60.	380.	7.0	35.	600,000.		
3160	Lg Clarifier Effluent	55.	335.	7.1	35.	200,000.	.112	2.
3161	Sm Clarifier Inf 2 <sup>nd</sup> Mill	90.	390.	5.9	50.	400.		
3162	Sm Clarifier Inf P. Station	15.	130.	10.7	45.	>160,000.		
3163	Sm Clarifier Inf 1 <sup>st</sup> Mill	115.	970.	5.4	55.			
3164	Sm Clarifier Effluent	70.	350.	6.7	50.		.089	2.
3165	Pump Station # 2	15.	105.	10.9	40.			
3166	Pump Station # 3	125.	300.	6.0	4.			.8.
3167	Pump Station # 4	5.	25.	7.2	3.			
3168	Pump Station # 5	45.	380.	9.0	20.		.470	5.
3169	Pump Station # 6	350.	780.	6.5	5.			
3170	Sm Clarifier Inf -> Comp.	85.	650.	5.9	55.			

Notes:

Summarized by

Pat Lee

Date

9/30/71

STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

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The following are the analytical results from survey conducted at:

Weyerhaeuser @ Longview

03-02.23

Collected 9/22/71

LAB. NO.	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
	Total Solids	TNVS	TSS	TSNVS	TSUS	Whatman 40 TSS	Whatman 40 TSNVS	Whatman 40 TSUS
71-3159	495.	92.	323.	64.	259.	242.	51.	191.
3160	324.	98.	139.	44.	95.	134.	34.	100.
3161	440.	134.	316.	105.	<del>211.</del>	207.	70.	137.
3162	2,343.	2,124.	328.	214.	114.	122.	85.	37.
3163	557.	118.	425.	86.	339.	294.	62.	232.
3164	640.	354.	150.	72.	78.	98.	47.	51.
3165	<del>614.</del>	105.	65.	26.	39.	N:1	N:1	N:1
3166	291.	8.	15.	3.	12.	17.	8.	9.
3167	119.	75.	7.	2.	5.	N:1	N:1	N:1
3168	231.	0.	78.	8.	70.	44.	9.	35.
3169	584.	65.	30.	9.	21.	N:1	N:1	N:1
3170	422.	64.	332.	86.	246.	168.	68.	100.

Notes:

Summarized by Pat Lee

Date 9/30/71

Table 1. Pump Station Flow Readings

Pump Station	Hrs. of Survey Time	Time	Pump No.	Reading Hours	Flow Rate GPM	Motor HP	Pump on, hrs.	Gal. for Survey hr.
1	0920	1730 0810	1	297.3 297.1	200	5	0.2	2,400
			2	301.1 300.9				
2	0935	1740 0805	1	2376.1 2376.1	600	7.5	0.0	0.0
			2	2388.9 2384.7				
3	0935	1735 0800	1	315.0 314.7	90	1.5	0.3	1,620
			2	165.6 165.3				
4	0935	1725 0750	1	2468.8 2465.2	270	7.5	3.6	58,320
			2	1467.1 1464.7				
5	0935	1720 0745	1	1277.2 1274.1	900	75	3.1	167,400
			2	11303.0 11300.0				
6	0935	1715 0740	1	206.8* 206.2	150	20	0.6	5,400
			2	315.4 314.8				

\*reading error, will call it 260.8  
206.8

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98504

Check

Information	
For Action	
Permit	
Other	

TO: Nelson GRAHAM

DATE: June 29, 72

FROM: Poo DEVITT

SUBJECT: DEL MONTE FRUIT - LONGVIEW

ON JUNE 8, 1972, Gary Rothwell and I met with Mr. Claude Scott at Del Monte Fruit in Longview.

Preparations were being made to install a Parshall flume. The concrete south of the building was being broken up. The sewer line to the street was already in, the end capped off near where the discharge from the flume will leave their property. Intentions were to have the system operable before July 1 when the beans are to be processed.

The industry has provided the capability to route their cooling water to either the storm system or the domestic sewer.