

December 28, 1973

WA-13-0020

State of
Washington
Department
of Ecology



Memo to: Mike Price and Ron Robinson

From: Jim Armstrong

Subject: Seashore Villa Sewage Treatment Plant Study.

On Wednesday, December 5, 1973, an efficiency study was conducted at the Seashore Villa sewage treatment plant. The survey lasted from 0830 hours to 1630 hours with samples taken every one half hour.

The plant is well fenced and locked at all times. There should be more warning signs posted.

The BOD was 20 ppm with an 89% reduction and the suspended solids was 23 with an 83% reduction.

The settleability was as follows:

TIME	15 min.	30 min.	45 min.	60 min.
0955	975 mls.	950 mls.	950 mls.	925 mls.
1155	975 mls.	950 mls.	925 mls.	900 mls.
1400	975 mls.	950 mls.	925 mls.	900 mls.

The fecal coliforms were both less than 100 colonies per 100 mls.

JA:jmh

STP SURVEY REPORT FORM

(EFFICIENCY STUDY)

City Seashore Villa Plant Type Ext. Aeration Population Design
 Served Capacity
 Receiving Water Budd Inlet Engineer Mike Price
 Date 12-5-73 Survey Period 0830-1630 hours Survey Personnel Jim Armstrong
 Comp. Sampling Frequency every 1/2 hour Weather Conditions Rain
 (last 48 hours)
 Sampling Alequot

PLANT OPERATION

AVE. Total Flow .004 MGD How Measured
 Max. (Flow) Time of Max. Min. Time of Min.
 Pre Cl₂ #/day Post Cl₂ #/day

FIELD RESULTS

Determinations	Influent				Effluent			
	Max.	Min.	Mean	Median	Max.	Min.	Mean	Median
Temp. °C	13.9	10.2	11.5	11.2	10.8	10.2	10.5	10.4
pH	9.0	6.6	--	6.8	7.2	6.2	--	6.6
Conductivity (umhos/cm)	600	200	--	300	300	200	--	250
Settleable Solids	23	1.5	10.3	6.5	.1	<.1	<.1	<.1

LABORATORY RESULTS ON COMPOSITE IN PPM

Laboratory Number	Influent	Effluent	% Reduction
	73-4474	73-4475	
5-Day BOD	185	20	89%
COD	300	40	13%
T.S.	445	242	46%
T.N.V.S.	178	164	8%
T.S.S.	133	23	83%
N.V.S.S.	13	1	92%
pH	8.1	7.2	--
Conductivity	360	290	--
Turbidity	60	8	87%

Seashore Villa

BACTERIOLOGICAL RESULTS

Na₂S₂O₃ added to sample before sampling after _____ min.

LAB #	SAMPLING TIME	COLONIES/100 MLS (MF)		Cl Residual	
		Total	Fecal	ppm	(after secs.)
73-4476	1105	1240	<100	.75	3 min.
73-4477	1505	<40	<100	>1	3 min.

Operator's Name _____ Phone # _____

Comments: _____

Nutrients

NO ₃ -N Filtered	1.80
NO ₂ -N Filtered	.01
NH ₃ -N Unfiltered	1.40
T-Kjeldahl-N Unfiltered	3.20
O-PO ₄ -P Filtered	.14
Total Phos-P Unfiltered	.90

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

WATER QUALITY LABORATORY

DATA SUMMARY

ORIGINAL TO:
J. ARISTARQUE
COPIES TO:
.....
.....
LAB FILES

Source Seashore Villa

Collected By J.A.

Date Collected 12/5/73

Goal, Pro./Obj. _____

Log Number:	73-	4474	75	76	77							STORET
Station:		INF	EFF	1105	1505							
pH		8.1	7.2									00403
Turbidity (JTU)		60.	8.									00070
Conductivity (umhos/cm)@25°C		360.	290.									00095
COD		300.	40.									00340
BOD (5 day)		185	20.									00310
Total Coliform (Col./100ml)		-	-	1240	<100							31504
Fecal Coliform (Col./100ml)		-	-	<40	<200							31616
NO3-N (Filtered)		-	1.80									00620
NO2-N (Filtered)		-	.01									00615
NH3-N (Unfiltered)		-	1.4									00610
T. Kjeldahl-N (Unfiltered)		-	3.2									00625
O-PO4-P (Filtered)		-	.14									00671
Total Phos.-P (Unfiltered)		-	.90									00665
Total Solids		445	242									00500
Total Non Vol. Solids		178	164									
Total Suspended Solids		133	23									00530
Total Sus. Non Vol. Solids		13	1									

Note: All results are in PPM unless otherwise specified. ND is "None Detected"
Convert those marked with a * to PPB (PPM X 10³) prior to entry into STORET

Summary By Stephen P. Roll Date 12-27-73

Pages 5 through 9 of this publication are too illegible to be viewed online. To request a printed copy, please contact the Environmental Assessment Program at the Washington State Department of Ecology.