Tom McCann, Ron Pine, Ron Devitt and Files TO: State of Washington Jim Armstrong FROM: Department of **Ecology** San Juan Island Cannery Efficiency Study SUBJECT: DATE: September 6, 1973

On Thursday, August 16, 1973, an efficiency survey was conducted at San Juan Island Cannery in LaConnor, WA. The survey lasted from 1000 hours to 1800 hours. Samples were taken every half hour.

The total flow for the period beginning at 0600 hours 8/16 thru 0600 hours 8/17 was 137,100 cu. ft. or 1,025,508 gallons. The flow from the effluent alone from 0930 hours thru 1800 hours was 341,858 gallons.

The total raw products processed was 348,905 pounds of peas and carrots. The products produced included the following:

Type of cans	Number of cans	Pounds of product
8 oz.	119,520	41,085
#303	374,808	269,393
gallon	3,240	15,188
-260 cases left for next shift	497,568 cans -6,240	325,666 pounds -4,485
Total	491,328 cans	321,181 pounds

348,905 pounds of raw product

-321,181 pounds of canned

27,724 pounds of waste

-27,300 pounds hauled to garbage

424 pounds unaccounted for

The temperature of the seawater used for cooling was 24.8°. The freshwater effluent pump for overflow was 42°. The effluent from the retort drain was 32.4°.

The cannery employs 125 people for a total of 1250 gallons of water for sewage at 10 gallons per person.

Memo to: T. McCann, R. Pine, R. Devitt

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At times during the day, the blancher overflows into the effluent and causes the conductivity to go up drastically.

All floor drains should run through the effluent screens as there is a large amount of solid material being washed from under the building and into the channel.

JA:jmh

STP SURVEY REPORT FORM

(EFFICIENCY STUDY)

		San Juan			112.0
City LaConnor	Plant Type	Is. Cannerypo	pulation_	De	sign
		Se	erved	Ca	pacity
Receiving Water Swind	omish Channe	1	_Engineer_		
Date August 16, 1973	Survey Peri	od 1000-1800	hrs. Surve	y Personnel_	Armstrong
Comp. Sampling Frequenc	y Every half	hr. Weather (Overcast,	rain
Sampling Alequot					
		PLANT OPERAT	NOI		
Total Flow 0600 8/16 -	- 0600 8/17	1,025,508 How	Measured_	City meter	
Max. (Flow)	Time of Max		Min	Tim	e of Min
Pre Cl ₂	_0/day	Post Cl ₂		#/day	

FIELD RESULTS

Influent

Effluent

Determinations	Max.	Min.	Mean	Median
Temp. °C	21.6	15.6	19.6	20
PH	7.8	5.2		6.6
Conductivity (wmhos/cm)	off m 71800	eter 0 800		2250
Settleable Solids	15	10	11.6	10

Max.	Min.	Mean	Median
23.6	16	19.3	19.6
6.7	5.6		6.4
17000	800		2625
1.0	.5	.7	.7

LABORATORY RESULTS ON COMPOSITE IN PPM

	Influent	Effluent	% Reduction
Laboratory Number			
5-Day BOD	1250	1020	18
COD	2350	1770	25
T.S.	5193	3486	33
r.n.v.s.	3761	2287	39
r.s.s.	360	293	19
N.V.S.S.	104	99	1 5
pH	5.2	5.6	
Conductivity	7700	5100	Yes and the second second
Turbidity	80	80	0

DEPARTMENT OF ECOLOGY

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DATA SUMMARY_ LAB FILES

Date Collected 8/16/73				95	G	al, P	co./0b			
Log Number:)3-	3020	3021								STORET
Station:	INF									
pН	5.2	5.6								60403
Turbidity (JTU)	80	80								00070
Conductivity (umhos/cm)@28c	7700	5100								00095
COD	2350	1770		1						00340
BOD (5 day)	1250	1020								00310
Total Coliform (Col./100ml)	-		1							31504
Fecal Coliform (Col./100ml)	_	-		1			V		ė.	31616
NO3-N (Filtered)	.02	. 11								00620
NO2-N (Filtered)	.010	.025					-	7		00615
NH3-N (Unfiltered)										00610
T. Kjeldahl-N (Unfiltered)										00625
O-PO4-P (Filtered)										00671
Total PhosP (Unfiltered)	4.50	5.00								00665
Total Solids	5193	3486								00500
Total Non Vol. Solids	3761	2287								
Total Suspended Solids	360	293								00530
Total Sus. Non Vol. Solids	104	99								
COLOR	76	72								
1										
Note: All results are in P										