

TO: Northwest Region, Ron Pine, Ron Devitt
and Files

FROM: Jim Armstrong

SUBJECT: Consolidated Dairy Products Efficiency Study

DATE: September 6, 1973

State of
Washington
Department of
Ecology



On Wednesday, August 15, 1973, an efficiency survey was conducted at Consolidated Dairy Products (Darigold) in Lyndon, WA. The survey lasted from 1100 hours to 1500 hours with samples taken every half hour.

Total flow from the city water meters from 0920 hours to 1520 hours was 640 cubic feet.

The high intake for the preceding seven day period was on August 11, 1973, with 1,085,000 pounds of milk.

The milk intake for August 15, 1973, was 840,000 pounds of milk. 10% of that was cream for a total of 84,000 pounds of cream and 756,000 pounds of milk. The milk was processed into 68,000 pounds of powdered milk and 687,000 pounds of waste fluid.

JA:jmh

**STP SURVEY REPORT FORM
(EFFICIENCY STUDY)**

City Lyndon Plant Type Darigold Population Served _____ Design Capacity _____
 Receiving Water Nooksack River Engineer _____
 Date August 15, 1973 Survey Period 1100-1500 hours Survey Personnel Armstrong
 Comp. Sampling Frequency Every 1/2 hr. Weather Conditions Clear, hot
 (last 48 hours)
 Sampling Alequot 600 mls.

PLANT OPERATION

Total Flow 640 cu. ft. 687,000 pounds How Measured City meter, calculations
city meter waste from milk
 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					31.8	30	30.9	30.8
pH					7.0	6.6		6.8
Conductivity (umhos/cm)								
Settleable Solids					<.1	<.1	<.1	<.1

LABORATORY RESULTS ON COMPOSITE IN PPM

Laboratory Number	Influent	Effluent	% Reduction
5-Day BOD		< 20	
COD		20	
T.S.		120	
T.N.V.S.		61	
T.S.S.		3	
N.V.S.S.		0	
pH		7.8	
Conductivity		240	
Turbidity		9	

BACTERIOLOGICAL RESULTS

Added previous
 $\text{Na}_2\text{S}_2\text{O}_3$ added to sample to sample After _____ min.

LAB #	SAMPLING TIME	COLONIES/100 MLS (MF)	Cl Residual	
			ppm	(after secs)
2978		> 800		
2979		> 800		

Operator's Name _____ Phone # _____

Comments: _____

