

(EFFICIENCY STUDY)

City SPOKANE Plant Type PRIMARY Population Served 184600 Design Capacity 225000

Receiving Water SPOKANE RIVER Engineer GREENLY & HANSEN

Receiving Water Classification A

Date 3/5/74 Survey Period 0800-1600 Survey Personnel HENSEN-NELSON

Comp. Sampling Frequency 1/2HOURLY Weather Conditions (last 48 hours) OVERCAST

Sampling Size 9.09ML/MGD

PLANT OPERATION

Total Flow 28.49MGD How Measured TOTALIZER

Max. (Flow) 47.5MGD Time of Max. 1020 Min. 16.8MGD Time of Min. 0700

Post C12 2000 #/day

FIELD RESULTS

	Influent				Effluent				
	#	Max.	Min.	Mean	Median	Max.	Min.	Mean	Median
Temp °C	17	13.20	11.50	12.50	12.80	13.20	11.30	12.34	12.70
pH	17	7.80	7.30	7.54	7.60	7.60	7.30	7.47	7.40
Conductivity (umhos/cm)	17	850	650	724	720	850	560	709	710
Settleable Solids	3	4.75	2.75	3.41	2.75	< 0.10	< 0.10	< 0.10	< 0.10

LABORATORY RESULTS ON COMPOSITE IN PPM

	Influent	Effluent	% Reduction
5-day BOD	78	43	44
COD	464	239	48
T. S.	558	549	1
T. N. V. S.	251	259	0
T. S. S.	150	78	48
N. V. S. S.	142	70	50
Turbidity	38	32	15
T-P04	6.440	5.680	11
O-P04	2.380	2.190	7
NO3-N	1.400	1.400	0
NO2-N	0.130	0.120	7
NH3-N	11.000	12.000	0

Operator's Name A.J. REISDORPH Phone Number 456-4305

BACTERIOLOGICAL RESULTS

Sampling Time	Flow mgd	Total Coliforms #/100ml	Fecal Coliforms #/100ml	Cl Residual	
				15Sec	3Min
1030	37.000	7000	4900	0.15	1.00
1130	33.000	35000	4600	0.10	0.50
1230	36.500	240000	240000	< 0.10	0.50
1330	35.000	7000	3300	< 0.10	0.25
1430	35.500	22000	3900	< 0.10	0.50
1530	32.500	24000	13000	< 0.10	0.50
Minimum Value	32.500	7000	3300	0.10	0.25
Maximum Value	37.000	240000	240000	0.15	1.00
Mean	34.916	55833	44950	0.10	0.54
Median	35.250	23000	4750	0.10	0.50
Geometric Mean	34.876	24520	9835	0.10	0.50

SPOKANE- MAIN TREATMENT PLANT

LABORATORY RESULTS ON 24-HR COMPOSITE  
IN PPM

	EFFLUENT*
5-DAY BOD	70
COD	224
T.S.	445
T.N.V.S.	298
T.S.S.	66
N.V.S.S.	12
TURBIDITY	35
T-PO4	6.48
O-PO4	2.46
NO3-N	1.3
NO2-N	.12
NH3-N	10

\* AFTER CHLORINATION