Date 7-9-73

Publication No. 73-e48

WA-23-1020

REQUESTED BY RcL

COLLECTED BY RcL

G WATER

WATER

DATE WERE (WILL BE) COLLECTED 7-23

OTHER SEWAGE

PRIORITY: REASONABLY SOON ___ AS SOON AS POSSIBLE X EMERGENCY ___

SAMPLES WILL ARRIVE: DATE 7-23 APPROXIMATE TIME 1700 CARRIER Self

ROUTE DATA SUMMARY TO: RcL

ADDITIONAL INFORMATION (PROBLEM, BACKGROUND, INTERFERENCES, PATTERNS, ETC.)

CENTRALIA STP

For Lab Use Only

Type of Analyses Required	Number of Samples	Approx. Range	Preservative Type - Vol.	Laboratory Number	Analyst	Date	Notes
BOD	4			732657	DTE DB	7-30	
COD	{			V	MH	7/26	
pH				2660	GR	7-24	
COND					GR	7-24	
Turb					GR	7.24	
Solids					GR	7-25	
T. Coli	6				Isa QW	7-25	
	1				QW	7-25	
	TOTAL						

Fill out as completely as possible. Some Analyses (bacteriological, biological, BOD, etc.) and large numbers of samples should be scheduled ahead of time. Specific questions should be directed to the Analyst supervising the particular analysis desired. Lab. phone: 206-753-2362.

STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

WATER QUALITY LABORATORY

ORIGINAL TO: R. Revitt

COPIES TO:

LAB FILES

DATA SUMMAR

Source Centralia STP — Collected By RCD et al

Date Collected 7-23-73 — Goal, Pro./Obj.

Log Number: 73-	2652	58	59	60							STORET
Station:	INF	PRIM EFF	FINAL EFF	CLAR. EFF							
pH	7.5	7.5	7.5								00403
Turbidity (JTU)	130	45	19								00070
Conductivity (umhos/cm)@25°C	500	430	390								00095
COD	653	219	92								00340
BOD (5 day)	220	89	<40								00310
Total Coliform (Col./100ml)				EST 400							31504
Fecal Coliform (Col./100ml)				<10							31616
NO3-N (Filtered)											00620
NO2-N (Filtered)											00615
NH3-N (Unfiltered)											00610
T. Kjeldahl-N (Unfiltered)											00625
O-PO4-P (Filtered)											00671
Total Phos.-P (Unfiltered)											00665
Total Solids	633	282	233								00500
Total Non Vol. Solids	248	129	124								
Total Suspended Solids	419	108	45								00530
Total Sus. Non Vol. Solids	112	3	9								

Note: All results are in PPM unless otherwise specified. ND is "None Detected"
Convert those marked with a * to PPB (PPM X 10^3) prior to entry into STORET

Summary By Stephen D. Nell — Date 8-2-73

BOD DATA SHEET AND CALCULATION

Samples Collected 7-23 Set up on 7-25 at 2 p.m. Read on 7-30 at 9 a.m.

Centralia

Log # and Source	pH	Bottle	Dil. Factor	0-Day D.O.	5-Day D.O.	D.O. Depletion	BOD	Average BOD
21.5 1	6.6	5	100 ml	8.9				220
Inf.		22			6.3	2.2	220	
		50			6.4	2.1	210	
		51	25/L 40	8.7				
		53			2.3	5.9	236	
		54			2.8	5.4	216	
21.5 8	6.5	56	50 20/L	8.8				
Primary		57			6.7	1.6	80	
		60			6.9	1.4	70	
		62	50 2%	8.9				
		63			3.7	4.5	90	89
		116			4.0	4.4	88	
21.5 9	7.4	14	50 2%	8.95				
Final Eff.		15			8.0	.5	25	
		17			8.3	.2	10	
						—		
		18	50/L	9.12				
		19			8.1	.5	10	< 40
		23			8.7	.4	12	
						—		
Control		25		9.0				
		27			8.5	.5		
		34			8.5			

WASHINGTON STATE DEPARTMENT OF ECOLOGY

Source: Centralia STP

Sample No.	STA	pH	Turb. (JTU) Reading	D.F.	Turb. (JTU) Result	Cond. (umhos/cm) Reading	Cond. (umhos/cm) Result	COD (ppm)			Remarks
2657		7.5	65	2	130	5.0×10^4	500				
2658		7.5			45	4.3×10^4	430				
2659		7.5			19	3.9×10^4	390				
ANALYST	GR				GR		GR				

DEPARTMENT OF ECOLOGY

BACTERIOLOGICAL EXAMINATION

Date Collected	Collected By	Lab. No.	Endo Agar											
7-23-73	RCD			Sheen Colonies Per:				Total				Fecal		
Date Reported	Reported By		Time On	.5	2	10						2	10	Count Per 100 ml
7-25-73	gwoodward													
Eff from clarifier		21610		—	—	4		40	EST 1			0	0	<10

COMMENTS: Centralia STP

Coliform Set 5

Coliform Reported 2

SOLIDS DATA AND CALCULATION SHEET

Survey Conducted At: [illegible]

On: / / I. II.

	I.	II.	
g No. S. S. C.No.	Tare + T.S. 64.7926	Tare + T.S. 65.2051	Ave. (mg/l)T.S. 633
[illegible] 39 5	Tare + T.S. — Burn 64.7544	Tare + T.S. — Burn 65.1664	T.N.V.S. 248
Ac. Neut. N ml	Tare 64.7296	Tare 65.1415	
[illegible] 26	T.S. .0630	T.S. .0636	
	T.N.V.S. .0248	T.N.V.S. .0249	
	Tare + T.S.S. 24.1460	Tare + T.S.S. 22.6586	Ave. (mg/l)T.S.S. 419
	Tare + T.S.S. — Burn 24.1300	Tare + T.S.S. — Burn 22.6439	T.S.N.V.S. 112
	Tare 24.1242	Tare 22.6385	
	T.S.S. .0218	T.S.S. .0201	
	T.S.N.V.S. .0058	T.S.N.V.S. .0054	
Log No. S. S. C.No.	Tare + T.S. 64.0400	Tare + T.S. 62.3561	Ave. (mg/l)T.S. 282
[illegible] 49 38	Tare + T.S. — Burn 64.0241	Tare + T.S. — Burn 62.3414	T.N.V.S. 129
Ac. Neut. N ml	Tare 64.0117	Tare 62.3279	
[illegible] 26 29	T.S. .0283	T.S. .0282	
	T.N.V.S. .0124	T.N.V.S. .0135	
	Tare + T.S.S. 24.3543	Tare + T.S.S. 22.0652	Ave. (mg/l)T.S.S. 108
	Tare + T.S.S. — Burn 24.3486	Tare + T.S.S. — Burn 22.0606	T.S.N.V.S. 3
	Tare 24.3423	Tare 22.0606	
	T.S.S. .0060	T.S.S. .0048	
	T.S.N.V.S. 0003	T.S.N.V.S. 0	
Log No. S. S. C.No.	Tare + T.S. 60.1030	Tare + T.S. 63.7336	Ave. (mg/l)T.S. 233
[illegible] 14 18	Tare + T.S. — Burn 60.0919	Tare + T.S. — Burn 63.7229	T.N.V.S. 124
Ac. Neut. N ml	Tare 60.0795	Tare 63.7104	
[illegible]	T.S. .0235	T.S. .0232	
	T.N.V.S. .0124	T.N.V.S. .0125	
	Tare + T.S.S. 22.2567	Tare + T.S.S. 22.6260	Ave. (mg/l)T.S.S. 45
	Tare + T.S.S. — Burn 22.2528	Tare + T.S.S. — Burn 22.6227	T.S.N.V.S. 9
	Tare 22.2489	Tare 22.6175	
	T.S.S. .0039	T.S.S. .0052	
	T.S.N.V.S. 0	T.S.N.V.S. .0019	
Log No. S. S. C.No.	Tare + T.S.	Tare + T.S.	Ave. (mg/l)T.S.
	Tare + T.S. — Burn	Tare + T.S. — Burn	T.N.V.S.
	Tare	Tare	
	T.S.	T.S.	
Ac. Neut. N ml	T.N.V.S.	T.N.V.S.	
	Tare + T.S.S.	Tare + T.S.S.	Ave. (mg/l)T.S.S.
	Tare + T.S.S. — Burn	Tare + T.S.S. — Burn	T.S.N.V.S.
	Tare	Tare	
	T.S.S.	T.S.S.	
	T.S.N.V.S.	T.S.N.V.S.	

STATE OF WASHINGTON
Department of Ecology

SPECIAL TEST WORK SHEET
CHEMICAL OXYGEN DEMAND

Date run _____ Code _____ Analyst _____

STANDARD	Assumed N (Nt) = _____ Actual N (N) = Nt X 10 ÷ Rs K = (N)(8,000)	Reading (Rs) = 10.05 Actual N = K =
BLANK	Reading (Rb) = 10.00	

Sample Number	Sub No.	Sample Vol (SV) (ml)	Test Reading (Rx)	Difference (D)	Factor (F)	COD
32657	9	25	5.90			653
2658	10	50	7.25			219
2659	11	50	8.85			92

DEFINITIONS & FORMULAE

Rb = Reading for Blank
Rx = Reading for Sample
D = Rb - Rx
SV = Sample Volume

$$COD = \frac{(D)(N)(8,000)}{SV}$$

$$K = (N)(8,000)$$

$$COD = \frac{(D)(K)}{SV}$$

$$F = \frac{K}{SV}$$

$$COD = (D)(F)$$