[REDACTED]

GEH-20,873

4.158

PROJECT 9536

FILE

300 ✓

Route List

1. C. W. Harrison 76/224

2.

3.

4.

5.

● DATE 3-26-43

SUBJECT Water Analyses - Project 9536

To J. A. Grady

FROM H. T. Daniels

COPY No. 1-~~3-1-1~~

BEFORE READING THIS DOCUMENT, SIGN AND DATE BELOW:

COPY - 2. JULY 1961

[illegible][illegible]

[REDACTED]

MASTER

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I. du Pont de Nemours & Company
Wilmington, Delaware

Engineering Department

NEW File

CO: W. J. Sloan (2)

J. C. Maroussi

War Record File

E. B. Showell

F. W. Porges - File

H. D. Perkins

D. O. Carmichael

W. T. Homewood - G.S. Coffin

G. M. Read - War Rec. File

See record

*300
Water Analyses*

March 26, 1943

600

Xtra

File

S. A. GRADY (4)
EXPLOSIVES DEPARTMENT - TNX DIV.
ROOM 6519 NEMOURS BLDG.

WATER ANALYSES - PROJECT 9536

In accordance with your request, we are forwarding, attached to this letter, several copies of all the analyses which we have to date for the Columbia River, State of Washington.

DESIGN DIVISION

H. T. Daniels

H. T. Daniels

WJS:kw

WATER ANALYSES - PROJECT 9536

Columbia River Water - Gable Site
Taken at Waluke Ferry Landing - South side of river.

Sample No.	Date	Analyses Made by
1	2-12-43	Laucks Laboratories Inc
2	2-13-43	911 Western Ave.
3	2-14-43	Seattle, Washington
4	2-15-43	

Columbia River Water - Pasco, Washington - 1910-1911

Item No.	Max. compiled by E. B. Showell
5	Min.
	Mean

Taken from U. S. Geological Survey Professional Paper 135
"Composition of River and Lake Waters of the United States"
Published 1924.

Columbia River Water - Wenatchee, Washington.

Item No.	Max. compiled by E. B. Showell
6	Min.

Wenatchee Filter Plant Records as supplied by Washington State
Board of Health District Engineer, E. C. Jensen.

W. J. Sloan, 3/26/43

WATER ANALYSES - PROJECT 9536

Sample No.	1	2	3	4	5	6
Analysis - ppm						
Pht Alk.	None	None	None	None	Max.	Min.
NO Alk	73.0	69.0	70.0	73.0	67	14
Total Hardness	73.5	72.1	72.1	71.6	-	60
Non-Carb Hard	72.2	66.9	69.5	33.7	-	96
Carb-Hard	1.3	5.2	2.6	37.9	-	30
pH	7.38	7.73	7.92	8.02	-	31
CO ₂	4.4	2.8	2.1	2.3	-	-
Sulfates as SO ₄	14.4	17.0	19.2	28.6	21	7.4
Chlorides as Cl	34.1	22.5	15.0	7.0	4.1	11
Nitrates as NO ₃	None	None	None	None	.5	.7
Turbidity	12	8	44	52	70	.14
Color	15	5	15	30	-	9
Total Dissolved Solids	97	96	97	100	100	25
Volatile Solids	-	-	-	-	73	0
Fixed Residue	-	-	-	-	-	None
Suspended Solids	-	-	-	29.2	-	None
Silica-Dissolved	10.8	8.4	8.4	8.0	18	-
Calcium	22.2	20.0	21.8	22.8	20	7.7
Magnesium	6.0	6.9	7.4	5.8	7	18
Iron	0.04	0.02	0.05	0.05	0.32	4.5
Aluminum	-	-	-	-	.01	.04
Copper	-	-	-	-	-	-
Manganese	-	-	-	-	-	-
Sodium & Potassium as Na	3.6	6.4	6.8	3.8	10	6

W. J. Sloan, 3/26/43

T.B. DREW'S FILE
WK Woods 5881

Columbia River

5yr. Record of Temperature at Bonneville Dam 1938-43

year-round average {
 max. = 55°F = 13°C
 min. = 30°F = -1°C
 avg. = 42°F = 5.6°C

Woods - 1/1/43

150 9-24-43

ATTACHED TO LT. COL. H.R. KADLFC'S LETTER OF 4-27-43