



April 12, 1991

North Kern Water Storage District  
P. O. Box 1195  
Bakersfield, CA 93302

Attn: Mr. C. H. Williams - Manager

Dear Chuck:

Re: Canal Discharge Testing

As part of our obligation to provide the District with updated testing on our discharge, the attached analyses by BC Labs are provided for your information. At the time sampled, our discharge was into the Carrier Canal; however, the analyses are representative of our current discharge to the Beardsley Canal.

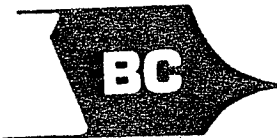
If you have questions, please contact Dave Wright at 392-2248.

Very truly yours,

M. L. SMITH  
Division Manager  
Bakersfield Producing Division

DEW/dph  
Attachments  
919.ADM

cc: Mr. John Jones - Cawelo Water District  
Mr. Florn Core - City of Bakersfield  
Mr. Bob Bellue - Kern County Water Agency



# LABORATORIES, INC.

J. J. EGLIN, REG. CHEM. ENGR.

4100 ATLAS CT., BAKERSFIELD, CALIFORNIA 93308 PHONE (805) 327-4911 FAX (805) 327-1918

TEXACO PRODUCING  
P. O. BOX 5197-X  
BAKERSFIELD, CA 93388  
Attn.: FRED HAGIST 399-2961

Date Reported: 02/28/91  
Date Received: 02/06/91  
Laboratory No.: 1044-1

Sample Description: DISCHARGE TO CARRIER CANAL, 02-06-91 @ 10:00AM, SAMPLED BY DAVID RITTENHOUSE of BC LABORATORIES

## WATER ANALYSIS

<u>Constituents</u>	<u>Results</u>	<u>D.L.R.</u>	<u>Units</u>	<u>Method</u>
Calcium	24.	0.1	mg/L	SW-6010
Magnesium	4.0	0.01	mg/L	SW-6010
Sodium	160.	0.1	mg/L	SW-7770
Potassium	8.2	0.1	mg/L	SW-7610
Total Cations	8.70	0.01	epm	Calculated
Hydroxide	None Detected	0.8	mg/L	SM-403
Carbonate	None Detected	2.6	mg/L	SM-403
Bicarbonate	236.	2.6	mg/L	SM-403
Chloride	129.	1.8	mg/L	SW-9251
Sulfate	67.	5.0	mg/L	SW-9036
Nitrate as NO3	None Detected	0.4	mg/L	EPA-353.2
Nitrate as N	None Detected	0.1	mg/L	EPA-353.2
Fluoride	0.66	0.05	mg/L	EPA-340.3
Bromide	0.61	0.05	mg/L	EPA-300.0
pH	7.7	0.1	pH Units	SW-9040
Electrical Conductivity @ 25 C	930.	1.	umhos/cm	SW-9050
Total Suspended Solids using 1.20 micron paper	3.5	0.5	mg/kg	EPA-160.2
Color	20.	1.0	Color Units	EPA-110.2
Odor	50.	NA	Odor Units	EPA-140.1
MBAS	0.20	0.02	mg/L	EPA-425.1
Total Dissolved Solids by summation	629.	10.	mg/l	Calculated
Hardness as CaCO3	76.5	0.3	mg/L	Calculated
SAR	7.96	0.01	-	Calculated
Adjusted SAR	12.82	0.01	-	Calculated
ESP	9.49	0.01	-	Calculated
pHc	7.79	0.01	-	Calculated
Gypsum Requirement	10.27	0.01	#100% gyp./	Calculated
Boron	1.1	0.1	mg/L	SW-6010
Hexavalent Chromium	None Detected	10.	µg/L	SW-7196
Zinc	None Detected	10.	µg/L	SW-6010
Total Aluminum	None Detected	50.	µg/L	SW-6010
Total Antimony	None Detected	100.	µg/L	SW-6010
Total Arsenic	27.	2.	µg/L	SW-7060
Total Barium	None Detected	100.	µg/L	SW-6010
Total Beryllium	None Detected	10.	µg/L	SW-6010
Total Cadmium	None Detected	5.	µg/L	SW-6010
Total Chromium	None Detected	10.	µg/L	SW-6010
Total Cobalt	None Detected	10.	µg/L	SW-6010
Total Copper	None Detected	10.	µg/L	SW-6010



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## WATER ANALYSIS

Constituents	Results	D.L.R.	Units	Method
Total Lead	None Detected	5.	µg/L	SW-7421
Total Manganese	86.	10.	µg/L	SW-6010
Total Mercury	None Detected	0.2	µg/L	EPA-245.2
Total Molybdenum	12.	10.	µg/L	SW-6010
Total Nickel	None Detected	50.	µg/L	SW-6010
Total Selenium	None Detected	2.	µg/L	SW-7740
Total Silver	None Detected	10.	µg/L	SW-6010
Total Tin	None Detected	15.	µg/L	EPA-282.2
Total Thallium	None Detected	100.	µg/L	SW-6010
Total Zinc	22.	10.	µg/L	SW-6010
Total Cyanide	None Detected	0.02	mg/L	EPA-335.3
Ammonia as NH3	1.9	0.02	mg/L	EPA-350.1
Total Sulfide	None Detected	0.1	mg/L	SM-427D
Oil & Grease	30.	10.	mg/L	EPA-413.2
Total Petroleum Hydrocarbons	2.	1.0	mg/L	EPA-418.1
Non-Volatile Organic Carbon	25.	1.0	mg/L	SW-9060
Biochemical Oxygen Demand	5.2	0.30	mg O/L	EPA-405.1
Chemical Oxygen Demand	120.	4.0	mg O/L	EPA-410.2

D.L.R. = Detection Limit for Reporting purposes.

N.D. = None Detected

SW = "Test Methods For Evaluating Solid Waste", SW 846

SM = "Standard Methods For the Examination of Water and Wastewater"

EPA = "Methods For Chemical Analysis of Water and Wastes"

ASTM = "American Society For Testing and Materials"

BC = BC Laboratories "In-House" Methodology

BY *J. J. Eglin*  
J. J. Eglin

ENVIRONMENTAL  
CHEMICAL ANALYSIS  
PETROLEUM



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## Volatile Organic Analysis (8240)

TEXACO PRODUCING  
P. O. BOX 5197-X  
BAKERSFIELD, CA 93388  
Attn.: FRED HAGIST 399-2961

Date of  
Report: 02/12/91  
Lab #: 1044-1

Sample Description: DISCHARGE TO CARRIER CANAL, 02-06-91 @ 10:00AM, SAMPLED BY DAVID RITTENHOUSE of BC LABORATORIES

Test Method: EPA Method 8240 / 1624  
As Received Basis GCMS

Sample Matrix: Water

Date Sample  
Collected:  
02/06/91

Date Sample  
Received @ Lab:  
02/06/91

Date Analysis  
Completed:  
02/12/91

<u>Constituents</u>	<u>Reporting Units</u>	<u>Analysis Results</u>	<u>Minimum Reporting Level</u>
Benzene	µg/L	None Detected	2.0
Bromodichloromethane	µg/L	None Detected	2.0
Bromoform	µg/L	None Detected	2.0
Bromomethane	µg/L	None Detected	2.0
Carbon tetrachloride	µg/L	None Detected	2.0
Chlorobenzene	µg/L	None Detected	2.0
Chloroethane	µg/L	None Detected	2.0
2-Chloroethylvinyl ether	µg/L	None Detected	2.0
Chloroform	µg/L	None Detected	2.0
Chloromethane	µg/L	None Detected	2.0
Dibromochloromethane	µg/L	None Detected	2.0
1,2-Dichlorobenzene	µg/L	None Detected	2.0
1,3-Dichlorobenzene	µg/L	None Detected	2.0
1,4-Dichlorobenzene	µg/L	None Detected	2.0
1,1-Dichloroethane	µg/L	None Detected	2.0
1,2-Dichloroethane	µg/L	None Detected	2.0
1,1-Dichloroethene	µg/L	None Detected	2.0
trans-1,2-Dichloroethene	µg/L	None Detected	2.0
1,2-Dichloropropane	µg/L	None Detected	2.0
cis-1,3-Dichloropropene	µg/L	None Detected	2.0
trans-1,3-Dichloropropene	µg/L	None Detected	2.0
Ethyl Benzene	µg/L	None Detected	2.0

ENVIRONMENTAL  
CHEMICAL ANALYSIS  
PETROLEUM



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## Volatile Organic Analysis (8240)

TEXACO PRODUCING  
P. O. BOX 5197-X  
BAKERSFIELD, CA 93388  
Attn.: FRED HAGIST 399-2961

Date of  
Report: 02/12/91  
Lab #: 1044-1

Sample Description: DISCHARGE TO CARRIER CANAL, 02-06-91 @ 10:00AM, SAMPLED BY DAVID RITTENHOUSE of BC LABORATORIES

<u>Constituents</u>	<u>Reporting Units</u>	<u>Analysis Results</u>	<u>Minimum Reporting Level</u>
Methylene Chloride	µg/L	None Detected	2.0
1,1,2,2-Tetrachloroethane	µg/L	None Detected	2.0
Tetrachloroethene	µg/L	None Detected	2.0
Toluene	µg/L	None Detected	2.0
1,1,1-Trichloroethane	µg/L	None Detected	2.0
1,1,2-Trichloroethane	µg/L	None Detected	2.0
Trichloroethene	µg/L	None Detected	2.0
Trichlorofluoromethane	µg/L	None Detected	2.0
1,1,2-Trichloro- 1,2,2-trifluoroethane	µg/L	None Detected	2.0
Vinyl Chloride	µg/L	None Detected	2.0
m-Xylene	µg/L	None Detected	2.0
o-Xylene	µg/L	None Detected	2.0
p-Xylene	µg/L	None Detected	2.0

Comments:

California D.O.H.S. Cert. #1186

BY

J. J. Eglin  
J. J. Eglin

Stuart S. Buttman  
Analyst

ENVIRONMENTAL  
CHEMICAL ANALYSIS  
PETROLEUM



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Base Neutral and Acid Extractables  
Organic Analysis  
(8270)

TEXACO PRODUCING  
P. O. BOX 5197-X  
BAKERSFIELD, CA 93388  
Attn.: FRED HAGIST 399-2961

Date of  
Report: 02/12/91  
Lab #: 1044-1

Sample Description: DISCHARGE TO CARRIER CANAL, 02-06-91 @ 10:00AM, SAMPLED BY DAVID RITTENHOUSE of BC LABORATORIES

Test Method: EPA Method 8270  
As Received Basis

Sample Matrix: Water

Date Sample  
Collected:  
02/06/91

Date Sample  
Received @ Lab:  
02/06/91

Date Analysis  
Completed:  
02/11/91

<u>Constituents</u>	<u>Reporting Units</u>	<u>Analysis Results</u>	<u>Minimum Reporting Level</u>
Acenaphthene	µg/L	None Detected	3.
Acenaphthylene	µg/L	None Detected	3.
Aldrin	µg/L	None Detected	3.
Aniline	µg/L	None Detected	3.
Anthracene	µg/L	None Detected	3.
Benzo (a) anthracene	µg/L	None Detected	3.
Benzo (b) fluoranthene	µg/L	None Detected	3.
Benzo (k) fluoranthene	µg/L	None Detected	3.
Benzo (a) pyrene	µg/L	None Detected	3.
Benzo (ghi) perylene	µg/L	None Detected	3.
Benzoic Acid	µg/L	None Detected	3.
Benzyl Alcohol	µg/L	None Detected	3.
Butyl Benzyl phthalate	µg/L	None Detected	3.
alpha-BHC	µg/L	None Detected	3.
beta-BHC	µg/L	None Detected	3.
delta-BHC	µg/L	None Detected	3.
gamma-BHC	µg/L	None Detected	3.
bis(2-chloroethyl)ether	µg/L	None Detected	3.
bis(2-chloroethoxy)methane	µg/L	None Detected	3.
bis(2-ethylhexyl)phthalate	µg/L	None Detected	3.
bis(2-chloroisopropyl)ether	µg/L	None Detected	3.
4-Bromophenyl phenyl ether	µg/L	None Detected	3.
4-Chloroaniline	µg/L	None Detected	3.
2-Chloronaphthalene	µg/L	None Detected	3.
4-Chlorophenyl phenyl ether	µg/L	None Detected	3.
Crysene	µg/L	None Detected	3.
4,4-DDD'	µg/L	None Detected	3.
4,4-DDE'	µg/L	None Detected	3.
4,4-DDT'	µg/L	None Detected	3.
Dibenzo (a,h) anthracene	µg/L	None Detected	3.



Base Neutrals and Acids (Continued)

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<u>Constituents</u>	<u>Reporting Units</u>	<u>Analysis Results</u>	<u>Minimum Reporting Level</u>
Dibenzofuran	µg/L	None Detected	3.
Di-n-butyl phthalate	µg/L	None Detected	3.
1,3-Dichlorobenzene	µg/L	None Detected	3.
1,2-Dichlorobenzene	µg/L	None Detected	3.
1,4-Dichlorobenzene	µg/L	None Detected	3.
3,3-Dichlorobenzidine	µg/L	None Detected	3.
Dieldrin	µg/L	None Detected	3.
Diethyl phthalate	µg/L	None Detected	3.
Dimethyl phthalate	µg/L	None Detected	3.
2,4-Dinitrotoluene	µg/L	None Detected	3.
2,6-Dinitrotoluene	µg/L	None Detected	3.
Di-n-octylphthalate	µg/L	None Detected	3.
1,2-Diphenylhydrazine	µg/L	None Detected	3.
Endosulfan sulfate	µg/L	None Detected	3.
Endrin aldehyde	µg/L	None Detected	3.
Fluoranthene	µg/L	None Detected	3.
Fluorene	µg/L	None Detected	3.
Heptachlor	µg/L	None Detected	3.
Heptachlor epoxide	µg/L	None Detected	3.
Hexachlorobenzene	µg/L	None Detected	3.
Hexachlorobutadiene	µg/L	None Detected	3.
Hexachloroethane	µg/L	None Detected	3.
Ideno (1,2,3-cd) pyrene	µg/L	None Detected	3.
Isophorone	µg/L	None Detected	3.
2-Methylnaphthalene	µg/L	None Detected	3.
Naphthalene	µg/L	None Detected	3.
2-Nitroaniline	µg/L	None Detected	3.
3-Nitroaniline	µg/L	None Detected	3.
4-Nitroaniline	µg/L	None Detected	3.
Nitrobenzene	µg/L	None Detected	3.
N-Nitrosodi-n-propylamine	µg/L	None Detected	3.
Phenanthrene	µg/L	None Detected	3.
Pyrene	µg/L	None Detected	3.
1,2,4-Trichlorobenzene	µg/L	None Detected	3.
4-Chloro-3-methylphenol	µg/L	None Detected	3.
2-Chlorophenol	µg/L	None Detected	3.
2,4-Dichlorophenol	µg/L	None Detected	3.
2,4-Dimethylphenol	µg/L	None Detected	3.
2,4-Dinitrophenol	µg/L	None Detected	3.



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Base Neutrals and Acids (Continued)

Page 3

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<u>Constituents</u>	<u>Reporting Units</u>	<u>Analysis Results</u>	<u>Minimum Reporting Level</u>
2-Methyl-4,6-dinitrophenol	µg/L	None Detected	3.
2-Methylphenol	µg/L	None Detected	3.
4-Methylphenol	µg/L	None Detected	3.
2-Nitrophenol	µg/L	None Detected	3.
4-Nitrophenol	µg/L	None Detected	3.
Pentachlorophenol	µg/L	None Detected	3.
Phenol	µg/L	None Detected	3.
2,4,6-Trichlorophenol	µg/L	None Detected	3.
2,4,6-Trichlorophenol	µg/L	None Detected	3.
Benzidene	µg/L	None Detected	3.
Endosulfan I	µg/L	None Detected	3.
Endosulfan II	µg/L	None Detected	3.
Endrin	µg/L	None Detected	3.
Hexachlorocyclopentadiene	µg/L	None Detected	3.
2-Naphthylamine	µg/L	None Detected	3.
N-Nitrosodimethylamine	µg/L	None Detected	3.
N-Nitrosodiphenylamine	µg/L	None Detected	3.

Comments:

California D.O.H.S. Cert. #1186

BY

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*Stuart L. Rittenhouse*  
Analyst