



November 9, 1988

Harding Lawson Associates  
1355 Willow Way, Suite 109  
Concord, CA 94520

Attention: Mr. Randy Stone

Subject: Report of Data - Case Number 2534

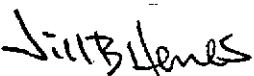
Dear Mr. Stone:

The technical staff at CHEMWEST is pleased to provide our report for the analysis you requested: BTEX - EPA Method 602.

One water sample for Project Texaco #8; Grand, Project Number 2251,081.03 were received October 25, 1988 in good condition. Results of the analysis, along with the analytical methodology and appropriate reporting limits, are presented on the following pages.

Thank you for choosing CHEMWEST Laboratories. Should you have questions concerning this data report or the analytical methods employed, please do not hesitate to contact Toni Weeks, our Technical Service Representative, or your project manager. We hope that you will consider CHEMWEST Laboratories for your future analytical support and service requirements.

Sincerely,

  
Jill B. Henes, Ph.D.  
Vice President of Technical Services

and

  
Kirk Pohan  
Project Manager

KP:bw

cc: Joel Bird, President  
File

## ANALYTICAL METHODOLOGY

BTEX (Benzene, Toluene, Ethyl Benzene, and Xylenes) by Purge & Trap and GC-PID

WATER - Method 602 or 8020

A 5 ml sample volume, or 5 ml of a suitable dilution, is purged on a suitable purge and trap system with helium. The purged sample is analyzed on a Gas Chromatograph equipped with a Photoionization Detector (PID). A packed column is used to separate the compounds.

SOIL - Method 8020

A 10 gram, or other appropriate aliquot of soil, is weighed into a clean VOA vial. Soils received in brass core tubes are sampled by discarding 2-5 centimeters of soil from each end of the tubes (this is done to reduce the possibility of analyzing a portion of soil that has been exposed to sampling technique contamination). Equal aliquots of soil are then removed from each end of the tube and combined in the VOA vial. Soil in jars or bags is aliquoted using a similar technique, which discards exposed sample surfaces. A 10 ml, or other appropriate volume of methanol, is added to the soil and the soil is shaken with the solvent. 100 ul of the extract, or a reduced aliquot or volume of a suitable dilution, is injected into 5 ml of laboratory blank water and analyzed by the same technique used for water samples.

CHEMWEST ANALYTICAL LABORATORIES  
BENZENE, TOLUENE, ETHYL BENZENE, XYLENES

Client I.D.: MW-8E-1&2  
Date Analyzed: 11/02/88

CHEMWEST I.D.: 2534  
Matrix : Water

| Compound          | Amount<br>Detected<br>(ug/L) | RL<br>(ug/L) |
|-------------------|------------------------------|--------------|
| Benzene           | 1400                         | 25           |
| Toluene           |                              | 50           |
| Ethyl Benzene     |                              | 100          |
| Total-Xylenes (1) | 100                          | 50           |

| Surrogate           | %<br>Recovery | Acceptance<br>Window |
|---------------------|---------------|----------------------|
| ortho-Chlorotoluene | 108%          | 50-150%              |

BRL: Below Reporting Limit.  
RL: Reporting Limit.

(1): Total of P-, M-, and O- Xylenes.

Approved by: VP

REV2.9.88

CHEM WEST ANALYTICAL LABORATORIES, INC.

600 West North Market Blvd.  
Sacramento, California 95834  
(916) 923-0840 FAX (916) 923-1938

# CLIENT

Order No. 2534  
Date Rec'd. 10/25/88  
Compl. Date  
Section Kirk program

CLIENT: Harding & Co. Inc.  
1355 Willow Way Suite 109  
Orland, CA 94520

Project Name: 7251, 081.03  
Project No. Texaco #8; Grand  
P.O. NO.  
Contact  
Phone (415) 687-9660

ANALYSIS: one water sample rec'd under chain of custody  
in 40ml vial (2) to be analyzed for BTEX

\* Seven day turnaround !!!

| Sample ID | Date      | Time  | Analysis | Matrix | Container          |
|-----------|-----------|-------|----------|--------|--------------------|
| 25314     | HW-8E-142 | 10/25 | 10:52    | BTEX   | Water 2-40ml vials |

AC  
M.T. MICHELLE TOUVER

ChemWest (Orion)

