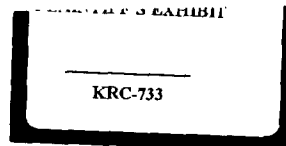




Received  
2-1-89  
SJS



11234 East Coley Avenue  
Englewood, Colorado 80111  
(303) 790-2727 (800) 282-1835  
FAX # (303) 790-2756

REPORT ON SERVICE NUMBER 39557IH  
January 27, 1989

Customer Project Code: 2034

To: Ms. Stephanie Settles  
Southwestern Refining  
P.O. Box 9217  
Corpus Christi, TX 78469

Analysis: The following samples were submitted for analysis:  
Two 3M Badge samples for benzene.  
Three membrane filter samples and one blank for asbestos count.

Method: FIBER (count)  
The fiber concentration of each filter sample was determined following NIOSH Method 7400 (A Rules). Wedges from each filter were examined at 400 power using phase contrast microscopy. All fibers longer than five (5) microns with a length-to-width ratio of 3:1 or more were counted.

#### ORGANIC VAPORS

Each sample was analyzed as specified above for benzene. The organic vapors were desorbed from the media with a solvent and the solvent analyzed using gas chromatography with flame ionization detection. The chromatographic peak for each analyte was compared to a calibration curve obtained from standard solutions. Milligram values were corrected for desorption efficiency.

Results: The results are found on Tables 1 and 2.

Discussion: The OSHA permissible exposure limit (PEL) for benzene is 1 ppm (5 ceiling) and a sampling rate of 35.5 cc/min was used for concentration calculations.

The present OSHA permissible exposure limit (PEL) for asbestos is 0.2 fibers/cc.

Sample no. HT 1776 was confirmed on a second column for benzene.

Sample no. 30088 was received with the membrane filter behind the support pad. The sample could not be analyzed.

The sampling rates used were obtained from the 3M Compound Guide R35AG(611)R May 1981.

LT( ) indicates "less than" with the lower limit of quantification shown in parentheses.

All samples have been corrected for the blank unless otherwise noted.

1B 001618

Page 2, SN 39557IH  
Sothwestern Refining  
January 27, 1989

Discussion (cont.) Hager Laboratories, Inc., has been accredited by the American Industrial Hygiene Association (AIHA) since 1977 and is enrolled in the AIHA Proficiency Analytical Testing (PAT) Program for phase contrast microscopy. Microscopists have completed the NIOSH 582 course "Sampling and Evaluating Airborne Asbestos Dust".

Hager Laboratories, Inc., has been AIHA accredited since 1977.

Laboratory data are filed and available upon request.

If you have any questions, please call customer service.

Submitted by: Maria Aleynikov  
Maria Aleynikov  
Supervisor

MA/agg

1B 001619

SWRf/Asbestos 2215

SN 39557IH  
January 27, 1989

TABLE 1

Compound: benzene

| Sample Number | Total<br>(mg) | Sample Time<br>(minutes) | Air Concentration |
|---------------|---------------|--------------------------|-------------------|
| HT 1705       | LT(0.001)     | 473.                     | LT(0.02) ppm      |
| HT 1776       | 0.037         | 473.                     | 0.69 ppm          |

1B 001620

SN 39557IH  
January 27, 1989

TABLE 2

| Sample Number | Counted<br>(fibers) | Counted<br>(fields) | Total<br>(fibers) | Air Volume<br>(liters) | Air Concentration<br>(fibers/cc) |
|---------------|---------------------|---------------------|-------------------|------------------------|----------------------------------|
| 30088         | -                   | -                   | -                 | 717.                   | - VOIP                           |
| 32088         | 50.                 | 100.                | 24400.            | 251.                   | 0.1                              |
| 33088         | 40.                 | 100.                | 19500.            | 206.                   | 0.09                             |
| BLANK         | 0.                  | 100.                | LT(4870.)         | -                      | -                                |

SWRf/Asbestos 2217

1B 001621