

HAGER LABORATORIES, INC.

11234 E. Caley Avenue
Englewood, Colorado 80111
(303) 790-2727 (800) 282-1835

REPORT ON SERVICE NUMBER 28728IH
October 30, 1987

To: Caroline DeYong
Southwestern Refinery
Corpus Christi, Texas

Analysis: The following samples were submitted for analysis:
Three charcoal tube samples and one blank for benzene,
xylene, toluene, ethyl benzene and methyl ethyl ketone.
Three charcoal tube samples for benzene.
Two membrane filter samples and two blanks for asbestos
count.

Method: ASBESTOS (count)
The fiber content of each filter sample was analyzed
following NIOSH procedure 7400. Wedges from each filter
were examined at 450 power using a phase contrast
microscope. Fibers longer than five (5) microns with a
length-to-width ratio of 3:1 or more were counted as
asbestos.

ORGANIC VAPORS

The sample was analyzed as specified above for: benzene,
NIOSH Procedure 1501, methyl ethyl ketone, NIOSH Procedure
S-3, toluene, NIOSH Procedure 1500, xylene, NIOSH
Procedure 1501, and ethyl benzene, NIOSH Procedure 1501.
The organic vapors were desorbed from the media with a
solvent and the solvent analyzed using gas chromatography
with flame ionization detection. Milligram values were
corrected for desorption efficiency. The chromatographic
peak for each analyte was compared to a calibration curve
obtained from standard solutions.

Results: The results are found on Tables 1, 2, and 3.

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

SWRf/Asbestos 1505

SN 28728IH
October 30, 1987

TABLE 3

Sample Number: 87-238

Air Volume: 17.7 liters

Compound	Main (mg)	Back-up (mg)	Air Concentration
benzene	0.068	LT(0.005)	1.2 ppm
methyl ethyl ketone	LT(0.01)	LT(0.01)	LT(0.2) ppm
toluene	0.10	LT(0.01)	1.5 ppm
xylene	0.28	LT(0.01)	3.6 ppm
ethyl benzene	0.06	LT(0.01)	0.8 ppm

Sample Number: 87-240

Air Volume: 25.8 liters

Compound	Main (mg)	Back-up (mg)	Air Concentration
benzene	0.195	LT(0.005)	2.4 ppm
methyl ethyl ketone	LT(0.01)	LT(0.01)	LT(0.2) ppm
toluene	0.24	LT(0.01)	2.5 ppm
xylene	0.62	LT(0.01)	5.5 ppm
ethyl benzene	0.15	LT(0.01)	1.3 ppm

Sample Number: Blank

Air Volume: -

Compound	Main (mg)	Back-up (mg)	Air Concentration
benzene	LT(0.005)	LT(0.005)	-
methyl ethyl ketone	LT(0.01)	LT(0.01)	-
toluene	LT(0.01)	LT(0.01)	-
xylene	LT(0.01)	LT(0.01)	-
ethyl benzene	LT(0.01)	LT(0.01)	-

SN 28728IH
October 30, 1987

TABLE 2

Sample Number: 87-236

Air Volume: 31.8 liters

Compound	Main (mg)	Back-up (mg)	Air Concentration	
<i>Good 204</i> benzene	0.284	LT(0.005)	2.8	ppm
methyl ethyl ketone	LT(0.01)	LT(0.01)	LT(0.2)	ppm
toluene	0.41	LT(0.01)	3.4	ppm
xylene	1.12	LT(0.01)	8.1	ppm
ethyl benzene	0.27	LT(0.01)	2.0	ppm

Sample Number: 87-237A

Air Volume: 1.60 liters

Compound	Main (mg)	Back-up (mg)	Air Concentration	
benzene	LT(0.005)	LT(0.005)	LT(1.)	ppm

Sample Number: 87-237B

Air Volume: 1.60 liters

Compound	Main (mg)	Back-up (mg)	Air Concentration	
benzene	LT(0.005)	LT(0.005)	LT(1.)	ppm

Sample Number: 87-237C

Air Volume: 2.46 liters

Compound	Main (mg)	Back-up (mg)	Air Concentration	
benzene	LT(0.005)	LT(0.005)	LT(0.7)	ppm

SN 28728IH
October 30, 1987

TABLE 1

Sample Number	Counted (fibers)	Counted (fields)	Total (fibers)	Air Volume (liters)	Air Concentration (fibers/cc)
87-239	37.	100.	16200.	798.	0.02
87-241	110.	52.	92600.	903.	0.10
Blank	1.	100.	LT(4380.)	-	-
Blank	1.	100.	LT(4380.)	-	-

Page 2, SN 28728IH
Southwestern Refinery
October 30, 1987

Discussion The OSHA permissible exposure limit (PEL) for the
(cont.) following compounds are:

Compound	PPM
benzene	10
methyl ethyl ketone	200
toluene	200
xylene	100
ethyl benzene	100

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

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

Laboratory data are filed and available upon request.

Hager Laboratories Inc. has been AIHA accredited since 1977.

If you have any questions, please call customer service.

Submitted by:

Maria Aleynikov
Maria Aleynikov
Supervisor

MA/sn

SWRf/Asbestos 1510

1B 000632

BRIEF SAMPLE DESCRIPTIONS ALLEVIATE POSSIBLE ERRORS IN REPORTING

••When using POVM's we need only the time exposed under "Air volume".

[illegible]

Optional Information

What other compounds, not normally found in the air, may have been present in the sampled air?

f sampling occurred at an altitude greater than 1000 feet AND you would like
 1r volumes to be corrected for altitude, provide sampling altitude here.

ADDITIONAL REPORTING REQUIREMENTS