CONGOLEUM, INCORPORATED
CEDARHURST PLANT
FINKSBURG, MD

ASBESTOS IN AIR

SUBMITTED BY: Michael D. Ramsey
Loss Prevention Consultant
Industrial Hygiene

Roberta L. Robinson, R.N.
Senior Health Consultant
LIBERTY MUTUAL INSURANCE CO.
May 31, 1977

CONGOLEUM, INCORPORATED
CEDARHURST PLANT
FINKSBURG, MD

ASBESTOS IN AIR

On April 27, 1977 a survey was performed of your operations which use asbestos. Eight personal air samples were collected in the box car unloading and hydropulper areas. These samples were analyzed optically for asbestos fiber concentrations.

CONCLUSIONS

1. All samples indicated concentrations in the neighborhood of 0.2 fibers per milliliter over the eight hour work day. This is substantially below the currently recommended maximum concentration of 2.0 fibers per milliliter.

2. The primary sources of airborne asbestos fiber appears to be leakage from broken bags and dust from box cars. Some contribution may also be made by asbestos- containing slurry spilling out of the hydropulper and drying out on the floor.

3. Although the area in the vicinity of the #1 mixer was not sampled, it is anticipated that this operation generates much higher asbestos concentrations than the hydrapulping operation. This mixer should be used as little as possible and discontinued if not necessary.

4. Asbestos suppliers and plant personnel have been experimenting with various types of packing and shipping methods to minimize bag breakage and asbestos dust generation.

5. A review of medical controls indicates that all currently required medical controls are in effect. For your reference, a copy of our recommended medical controls is attached.

6. Because of the present uncertainty of the scientific community concerning airborne asbestos concentrations needed to present a significant risk of cancer, the recommendations contained in this report should be completed to assure that airborne concentrations are kept to the lowest practical levels.

Michael D. Ramsey
Loss Prevention Consultant
Industrial Hygiene

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ASBESTOS IN AIR

Medical Controls for Asbestos Exposure

At this time any exposure to asbestos fibers requires medical surveillance. The physician responsible will have to include the following components in his medical control program for workers concerned.

Preplacement Physical Examination

A medical and occupational history questionnaire with emphasis on the respiratory system and cigarette smoking.

A pulmonary function determination for Forced Vital Capacity (FVC) and Forced Expiratory Volume for 1 second (FEV_1). This testing may be done by an outside source or a spirometer can be purchased. A spirometer is the instrument used to measure pulmary function tests and the following companies can be contacted for information.

Ohio Medical Products
95 Cedar Lane
Englewood, NJ 07631

Warren E. Collins, Inc.
220 Wood Road
Braintree, MA 02184

Jones Medical Instrument Co.
200 Windsor Drive
Oak Brook, IL 60521

Vitolograph Limited
8347 Quivira Road
Lenexa, Kansas 66215

A 14 x 17 chest X-ray.

A physical examination.

The overall direction of this evaluation should be to identify the presence of existing pulmonary disability in the individual.

Annual & Termination Physical Examinations

The scope of these examinations should follow that of the preplacement physical examination.

Contraindications to having routine spirometry performed are:

1. History of coronary heart disease, angina, myocardial infarct, chest pain.
2. History of chronic middle ear disease, previous membrane rupture.
3. Restrictive lung disease requiring supplemental oxygen.
4. History of pneumothorax.

Peter F. Palmer, M.D.

CONGOLEUM, INCORPORATED
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FINKSBURG, MD

ASBESTOS IN AIR

RECOMMENDATIONS

1. Discontinue the use of #1 mixer for the processing of asbestos. If it must be used, it should only be used as a back-up system when the hydropulper is fully committed. In this case, the following should be accomplished:

   a. Inspect the exhaust system duct work and hood. Repair any damage and close all unnecessary openings.

   b. Remove accumulated dust in the hood and duct work with a vacuum system. A vacuum system is necessary to help limit the asbestos exposure to persons doing the cleaning.

   c. Assure that the ventilation system is properly balanced (see DISCUSSION Section of this report), providing a capture velocity of about 200 to 300 feet per minute. The transport velocity in the duct work should be a minimum of 3500 feet per minute.

   d. A program of routine evaluation and maintenance should be set up to assure the continued efficient operation of this hood. The capture velocity should be checked at least once per month if the system is used frequently.

2. Provide a counter-balanced cover for the hydropulper opening. This will prevent the slurry from splashing out of the hydropulper and contributing to the asbestos accumulation on the floor.

3. Instruct employees to discontinue dropping the cardboard separators on the floor of the box cars. These should be carried carefully into the building for proper disposal. Dropping them on the floor disturbs asbestos dust which has accumulated on the floor of the railroad cars.

4. The box car floors should be cleaned with the vacuum cleaner as soon as possible before the remaining bags are removed. This will help keep dust generation inside the cars to a minimum as bags are unloaded.

DISCUSSION

Because of the handling methods used, the nature of the asbestos used, and the high humidity in the hydropulping area; the airborne asbestos exposure in this area is considered controlled according to presently accepted standards. Since the bags are pulpable, they can be added directly to the hydropulper without being opened. The asbestos being used is a long fiber asbestos, with a significant moisture content. Hence, it tends to agglomerate in storage rather than produce a dust. This helped to reduce dust generation from broken bags. The high humidity in the hydropulping room helps keep spilled slurry from drying out and contributing to airborne dust concentrations

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FINKSBURG, MD

ASBESTOS IN AIR

DISCUSSION - Con't

On the other hand, spilled asbestos does dry out in box cars and visible dust was generated by the movement in and out of the box cars. It is therefore important that movement in this area be kept to a minimum and that the walking surfaces be vacuumed as often as possible while unloading.

The hood and duct work on mixer #1 was operated briefly and the velocity at the vertical slots was measured with an Alnor Velometer. This slot velocity was found to be between 400 and 800 feet per minute. The capture velocity (i.e. the air velocity at the point of dust generation) was difficult to measure primarily because of the high velocity of the supply air behind the operator station. This high velocity caused turbulence at the expected dust generation points and, therefore, made capture velocity measurements inconclusive.

In order to reduce this turbulence, the system should be properly balanced. In this particular system, I believe proper balancing can be accomplished by making sure that the volume of air provided by the supply system is less than or equal to that exhausted by the exhaust system. This will help minimize turbulence and improve the capture efficiency of the hood. If the hood itself can produce capture velocities of 200 to 300 feet per minute at all dust generation points, it may be possible to do away with the supply air entirely.

DATA

Pumps: MSA Model G Personal Sample Pumps

Filter Medium: Millipore AA filters

Sampling Rate: 2.0 liters per minute

Analyzed For: Asbestos fiber concentration

Method of Analysis: Fibers were counted optically with a phase-contrast microscope at a magnification of 400 diameters. A fiber is defined as a particle which is 5.0 microns or longer in length with an aspect ratio of greater than 3.0.

Recommended Maximum Concentration: 2.0 fibers per milliliter for an 8 hour time-weighted average exposure.

SAMPLE	TIME	COMMENTS	CONCENTRATION (fibers/ml.)
1	7:50 133 min.	Personal sample. Hydropulper operator.	0.3

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FINKSBURG, MD

ASBESTOS IN AIR

DATA - Con't

SAMPLE	TIME	COMMENTS	CONCENTRATION (fibers/ml.)
2	7:57 125 min.	Forklift operator in hydropulper room. Moves bags from staging area to hydropulper. Personal sample.	0.2
3	8:09 171 min.	Personal sample on warehouse man. Helped to unload railroad cars. Did not drive forklift. Unloaded 1½ railroad cars during this sample.	0.3
4	8:11 151 min.	Personal sample on warehouse man. Drove forklift. Unloaded 1½ railroad cars during this sample.	0.4
5	12:02 125 min.	Personal sample. Same as #4. Unloaded 2 railroad cars during this sample.	less than 0.0
6	12:16 105 min.	Personal sample. Same as #1.	less than 0.0
7	12:03 128 min.	Personal sample. Same as #3. Unloaded 2 railroad cars during this sample.	less than 0.0
9	12:23 96 min.	Personal sample. Same as #2.	less than 0.0

1966

CO[illegible], I[illegible].

[illegible]

[illegible], N[illegible] J[illegible]

[illegible]

File Sub Folder [illegible] Service Folder [illegible]

[illegible]

[illegible]

[illegible]

May 13, 19[illegible]

5cc: E. Orange L.P. - J. [illegible]

1cc: Home Office L.P. - Ind. Hyg. File

1cc: Hopkinton L.P. - W. R. LaRocque

2cc: Bala Cynwyd L.P. - Ind. Hyg. File

CONGOLEUM-NAIRN, INC.
TILE PLANT
KEARNY, NEW JERSEY

AIRBORNE DUST

On May 12, 1966, air samples were taken for talc, limestone and opalon dust in air at the pre-blend mixing platform. The results of this survey and our observations are summarized as follows:

CONCLUSIONS

1. Airborne dust levels during pre-blending charging ranged from 122 to 198 million particles per cubic foot of air; this was above the suggested threshold limit value of 28 million particles for mixture of mineral dusts.

2. Dust levels after pre-blending charging ranged from 36 to 72 million particles per cubic foot of air.

S. T. Wagner
Senior Industrial Hygienist
Loss Prevention Department

May 13, 1966

STW:oc

RECOMMENDATIONS

1. The pre-blenders should be enclosed as much as possible and a minimum capacity of 150 cubic feet per square foot of remaining open area should be provided.

2. A minimum duct velocity of 3500 feet per minute should be maintained.

3. Respiratory protection approved by the U. S. Bureau of Mines for pneumoconiosis dusts should be provided and worn until adequate ventilation is provided.

The pre- provided. Local exhaust ventilation control with a minimum capacity of 150 cubic feet per minute per square foot provided.

DISCUSSION

The results of air sampling showed that dust levels were far above the suggested threshold limit value for mixtures of mineral dusts during charging of the pre-blenders. There was no local exhaust ventilation and dust was generated during bag opening as indicated by the data sheets. Moreover, dusting continued until the liquids were added.

Local exhaust ventilation should be provided for the blenders and sufficient capacity is required to maintain an inward draft of 150 feet per minute through the open area. It is our understanding that the blender charging will be changed to bulk loading. Even under these circumstances local exhaust ventilation should be provided.

A general room fan was provided in the roof above the pre-blenders. It was observed that this pulled the dust past the breathing zone of the workers.

DATA

ALLOWABLE DUST

Method of Collecting:	Millipore Filter Pump with [illegible] pingers and collected in dist[illegible] water at a rate of 5 liters [illegible] minute.
Method of Analysis:	The samples were counted micr[illegible] microscopically by the light field technique using a Spencer Bri[illegible] Line Hemocytometer C[illegible]ting [illegible].
Threshold Limit Value:	Liberty Mutual suggests 20 m[illegible] particles per cubic foot of [illegible] the basis of mixtures of min[illegible] 1 dusts. (NIPDF)

Sample No.	Location	MPPCF
1.	Breathing zone charging No. 3 pre-blender.	190
2.	Breathing zone charging No. 3 pre-blender.	122
3.	Breathing zone after charging pre-blender.	26.0
4.	Breathing zone after charging pre-blender.	7[illegible].7

1964

CONGOLEUM NAIRN, INCORPORATED
CEDARHURST, MARYLAND

ASBESTOS IN AIR

SUBMITTED BY:
S. T. WAGNER
SENIOR INDUSTRIAL HYGIENIST
LOSS PREVENTION DEPARTMENT
December 22, 1964

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CONGOLEUM NAIRN, INCORPORATED
CEDARHURST, MARYLAND

ASBESTOS IN AIR

On November 25, 1964, air samples were taken for asbestos at the slurry tank on No. 1 Machine. The results of this investigation and our observations are summarized as follows:

CONCLUSIONS

1. Asbestos in air did not exceed the hygienic guide of 5 million particles per cubic foot of air for silicates containing less than 1% crystalline silica.

2. The one-half percent moisture content of the package asbestos apparently prevents excessive dusting.

S. T. Wagner
Senior Industrial Hygienist
Loss Prevention Department

December 22, 1964

STW/kjs

DISCUSSION

The results of air sampling during charging of the slurry tanks in Machine Room No. 1 showed that dust levels ranged from 2.0 to 2.8 million particles per cubic foot of air. This was below the hygienic guide of 5 million particles per cubic foot of air for airborne asbestos dust. It appears that the one-half percent moisture content of the material was the controlling factor in maintaining low dust levels.

Local ventilation was not provided for the charging operation of the slurry tanks. However, if the moisture content is reduced, local exhaust ventilation would be required to control the airborne dust.

It would be desirable to improve the housekeeping conditions at the charging platform. It was observed that asbestos accumulations were on the floor and adjacent equipment. Periodic wash down of the platform with water would improve this condition.

DATA

ASBESTOS IN AIR

Method of Collecting: Millipore Filter Pump with impingers and collected in distilled water at a rate of 5 liters per minute.

Method of Analysis: The samples were counted microscopically by the light field technique using a Spencer Bright-Line Haemacytometer Counting Cell.

Hygienic Guide: 5 million particles per cubic foot of air (MPPCF) for silicates (asbestos) containing less than 1% crystalline silica.

Sample No.	Time	Location	MPPCF
1.	55 min.	Breathing zone dumping asbestos into slurry mixing tank.	2.0
2.	55 min.	General room at asbestos slurry mixing tank.	2.8

1966

CONOCOLEUM NAIRN.

CEDARHURST, MARYLAND

AIRBORNE ASBESTOS DUST

SUBMITTED BY:

S. T. WAGNER
SENIOR INDUSTRIAL HYGIENIST
LOSS PREVENTION DEPARTMENT

April 26, 1966

3cc: Baltimore L.P. - C. Grieco

3cc: E. Orange L.P. - E. Hartenstein

1cc: Home Office L.P. - Ind. Hyg. File

1cc: Hopkinton L.P. - W. R. LaRocque

1cc: Bala Cynwyd L.P. - Ind. Hyg. File

DISCUSSION

The results of air sampling showed that the concentrations of asbestos in air were below the threshold limit value of 5 million particles per cubic foot of air as indicated by the Data Sheet. From the standpoint of good industrial hygiene practice, it would be desirable to provide an industrial vacuum cleaning unit to clean the floors, equipment and remove residual asbestos from the bag.

The threshold limit value was approached at the broke box where the bags were thrown after being dumped into the slurry tank. Visible airborne dust was observed when this was done. Moreover, it was observed that a broom was used to remove spilled material on the floor. For these reasons, it would be advisable to provide a vacuum unit and maintain contamination of the environment at a minimum.

DATA

AIRBORNE ASBESTOS DUST

Method of Collecting: Midget impingers and collected in distilled water at a rate of 5 liters per minute.

Method of Analysis: The samples were counted microscopically by the light field technique using a Spencer Bright-Line Haemacytometer counting cell. All particles including long fibers were counted.

Threshold Limit Value: 5 million particles per cubic foot of air (MPPCF).

Sample No.	Time	Location	MPPCF
1.	60 min.	Breathing zone at control panel dumping asbestos.	1.2
2.	60 min.	Breathing zone at charging position dumping asbestos.	1.7
3.	105 min.	Breathing zone at rewind position removing felt from paper making machine.	0.7
4.	105 min.	Breathing zone at slitter position removing felt from paper making machine.	0.8
5.	45 min.	General room left side of broke box at slurry mixing area.	2.9
6.	45 min.	General room front of broke box.	3.9

CONGOLEUM NAIRN

CEDARHURST, MARYLAND

AIRBORNE ASBESTOS DUST

SUBMITTED BY:

Edward E. Fowler
Loss Prevention Department
Dec. 1, 1970

6cc: Baltimore LP - D.L. Bailey
1cc: Home office LP - Dr. A.L. Cudworth
1cc: Hopkinton LP - R.W. Van Houten
1cc: Baltimore LP - Industrial Hygiene File

CONGOLEUM NAIRN

CEDARHURST MARYLAND

AIRBORNE ASBESTOS DUST

On October 20, 1970, I sampled the mixing and rewind area for airborne asbestos dust. The results of my survey are as follows:

CONCLUSIONS

1. Airborne asbestos dust concentrations at machine #1 were below the Threshold Limit Value of 5 million particles per cubic foot of air.

2. The major dust concentration, 4.0 million particles per cubic foot of air, was at the slurry tank inspection port with the port open.

RECOMMENDATION

1. The inspection port slurry tank inspection port should be kept closed during normal operations.

Edward E. Fowler
Loss Prevention Department

DISCUSSION

For a regular eight hour exposure (forty hour workweek), the Threshold Limit Value (TLV) for asbestos in air is 5 million particles per cubic foot. If this level is not exceeded, the average employee should not show an excessive absorption of asbestos. Short exposure tolerance is not applicable to asbestos.

Air sampling results during charging and mixing of the slurry tanks at machine number 1 disclosed that asbestos dust levels ranged from 0.1 to 4.0 million particles per cubic foot of air. Since this is below the threshold limit value of 5 million particles per cubic foot of air, as outlined by the American Conference of Governmental Industrial Hygienists, it appears that the moisture content of the asbestos is the dust-controlling factor.

Local exhaust ventilation was not provided for machine number 1. However, if the asbestos moisture content is reduced, it is reasonable to expect airborne dust concentrations to be greater and local exhaust ventilation should be considered.

Due to the fact that air borne asbestos concentrations were higher at the open inspection port, it would be advisable to insure that this port be kept closed during charging and mixing operations.

DATA

AIRBORNE ASBESTOS DUST

Method Of Collecting: Midget impingers, collecting medium distilled water at a sampling rate of 5 liters per minute.

Method Of Analysis: Samples were counted microscopically using a light field technique with a Spencer Bright-Line Haemacytometer counting cell. Particles between 2 and 10 microns were counted.

Threshold Limit Value: Asbestos, all types--------5 million particles per cubic foot of air (MPPCF).

SAMPLE NO.	TIME	LOCATION	MPPCF
1.	30 min.	Hopper inspection port, during dumping, port open	4.0
2.	30 min.	Control panel, OBZ, inspection port open, no dumping	1.0
3.	60 min.	Same as No. 2 except inspection port closed	.10
4.	60 min.	Hopper inspection port, no dumping, port closed	2.0
5.	60 min.	General room sample, floor level, south end of operation.	.20

File "Asbestos" Orig

CONGOLEUM INDUSTRIES

FINKSBURG, MARYLAND

ASBESTOS SURVEY

Submitted by:

Edward E. Fowler
Industrial Hygienist
March 29, 1972

cc: Baltimore L.P. - J. Waterbury
Home Office L.P. - Dr. A. L. Cudworth
Home Office L.P. - Dr. J. Donaldson
Hopkinton L.P. - R. W. VanHouten
Hopkinton L.P. - S. Pihl
Baltimore L.P. - Industrial Hygiene File

CONGOLEUM INDUSTRIES
FINKSBURG, MARYLAND

ASBESTOS SURVEY

On February 23 and 24, 1972, I sampled for asbestos in air at numbers 1 and 4 slurry operations. The reason for the survey was to evaluate the possible asbestos exposure presented to your employees and to suggest the necessary controls. The results of the survey are listed below.

Conclusions

1. With the exception of one sample taken at slurry mixer number 4 operation, the Threshold Limit Value of 5 fibers/ml >5 μ in length was not exceeded.

2. The procedure for cleaning asbestos spills from floors and railroad cars should be changed.

3. The hydropulper throws wet asbestos into the work area.

Recommendations

1. Provide a cover for the hydropulper. (in process)

2. Provide a vacuum system to clean spilled asbestos from floors, work surfaces and railroad cars. (completed, but they need refined)

3. Do not throw empty asbestos bags from the number 1 slurry mixer operators platform into the waste cart. → rotating brush cleaning after each shift

4. Improve hygiene as pertains to care and storage of respirators.

5. Increase housekeeping efforts at both slurry mix operations.

Edward E. Fowler
Industrial Hygienist
March 29, 1972

EEF/bb

DISCUSSION

Instrumentation

Instruments used for collecting the samples were a Mine Safety Appliance Monitaire Sampling Pump and Millipore Filters. Samples were read on a phase-contrast microscope.

Standards

The Threshold Limit Value of 5 fibers/ml >5μ in length as determined by the membrane filter method at 400-450 X magnification (4 mm objective) phase contrast illumination was chosen as a standard. This standard can be found in Threshold Limit Values of Airborne Contaminants and Physical Agents with Intended Changes Adopted By The American Conference of Governmental Industrial Hygienists for 1971. The standard used can be found on page 34, notice of Intended Changes.

1. Hydropulper Cover

A cover should be provided for the hydropulper. When the asbestos slurry is mixed some of it is thrown from the hydropulper into the work area. A counter-weighted cover, kept closed except during loading operations should eliminate this condition.

2. Asbestos Spillage Control-Vacuum System

A vacuum cleaner system instead of a broom should be used to clean asbestos from floors, railroad cars, and work surfaces. It is worthwhile to note that the two highest sample results were obtained when the operators were sweeping for part of the sample time: The results were 5.5 and 4.5 fibers/ml (see data sheet).

It should also be noted that sweeping the floors with a broom created a visible dust cloud, which probably accounted for the higher sample results.

3. Dust Control-Empty Asbestos Bags

Empty asbestos bags at slurry mixer number 1 should be carried down the stairs and placed in the waste cart rather than thrown from the operators platform into the cart below. This may be an imposition on the operator, but it will considerably reduce the amount of asbestos that becomes airborne.

4. Respirators-Care and Maintenance

The following improvements in maintenance and care of respirators should be initiated:

1. A program to insure the frequency of changing the filters.

2. A program to insure that respirators are worn where needed.

3. Employee education as to proper storage of respirators and the importance of keeping the face pieces clean.

5. Housekeeping

Housekeeping should be improved in both slurry mix areas because asbestos is realatively light and easily becomes airborne when it is disturbed. Perhaps the best approach to improving housekeeping is to clean all spills as soon as they occur.

DATA

AIRBORNE ASBESTOS

METHOD OF COLLECTING: MSA Monitaire Pump and Millipore Filters. Sampling rate 2.8 liters/minute.

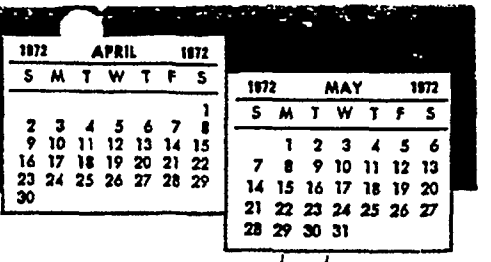
METHOD OF ANALYSIS: Samples were counted on a phase contrast microscope.

THRESHOLD LIMIT VALUE: Asbestos (all types) - 5 fibers/ml > 5 μ in length.

Sample Number	Location	Fibers/ml
29G	Slurry mixer #1 control station first floor.	1.0
30G	#4 slurry mixer - mixer operator wearing portable pump with filter pinned to shirt. Operator sweeping floor.	5.5
39B	Slurry mixer #1, operators station near control panel, 2nd level.	2.5
42D	Same as 39B except at top of stairs.	2.5
42G	Slurry mixer #4 filter & pump worn by operator with filter pinned to collar.	2.1
53F	Same as 42G	1.7
60D	#1 slurry mixer operators station 2nd level.	1.7
63E	Same as above except sample taken at loading of operators station.	1.3
64D	#4 slurry mixer for location.	2.2
71D	#4 slurry mix general room sample.	0.6
95D	Slurry mixer #1 pump & filter worn by operator. Operator sweeping floor.	4.5

memo

FROM



J. F. MORTON

5/2/72

Marty – Of the sixteen tests performed so far, none have exceeded 5.0 fibers/cc, and only three have exceeded 2.0 fibers/cc.

Y.M.

Ced Rafferty

CYANAMID

K

ASBESTOS FIBER ANALYSIS

Sample Location SLURRY MIXER #1 MILL

Specific Materials/Product JM 80% 35 20% LAKE 202 Pump Rate 2 l/min.

Dated Sampled 4-12-72 Time Finished

Sampled By Time Started 11 30 AM

Date Analyzed 4-18-72 Elapsed Time 46.7 min.

Analyzed By Vol. Sampled 93,400 c.c.

Field Area .25 mm x .25 mm Blank

Remarks: R. Mann's shift

5 SLURRIES

Fibers > 5 μ

4
1
9
10
4
8
4
11
2
1
9
3
3
3
3
2
4
4
7
5

2394

$$\frac{4.5 \times 855}{.625 \times 93.4 \times 1000}$$

$$\frac{(4.5)(8.55) \times 10^2}{(6.25)(9.34) \times 10^2} = 0.66$$

OPERATOR S. GAAYBEAL

Analysis: 0.66 Fibers/cc Total: 90

T.L.V. 5.0 Fibers/cc Avg.: 4.5

(M)

ASBESTOS FIBER ANALYSIS

Sample Location Box CAR DOORWAY (#4 MILL)

Specific Materials/Product JM #5

Dated Sampled 4-18-72

Sampled By

Date Analyzed 4-18-72

Analyzed By

Field Area .25 mm x .25 mm

Pump Rate 2 l/min.

Time Finished

Time Started 11:00 AM

Elapsed Time 48.2 min.

Vol. Sampled 96,400 c.c.

Blank

Remarks:

S. R. REDDING working on floor in doorway.

Fibers>5 μ

5
2
5
4
3
4
5
2
1
3
12
5
4
1
4
3
2
0
1
1

Analysis: 0.497 Fibers/cc

T.L.V. 5.0 Fibers/cc

Total: 70

Avg.: 3.5

ASBESTOS FIBER ANALYSIS

Sample Location BROKE Box #1 MILL (EMPTY BAGS)

Specific Materials/Product JM #5 AND LAKE 705 Pump Rate 2 l/min.

Dated Sampled 4-20-72 Time Finished

Sampled By Time Started 2:50 PM

Date Analyzed 4-21-72 Elapsed Time 38.79

Analyzed By Vol. Sampled 77580 c.c.

Field Area .25mm x .25mm. Blank

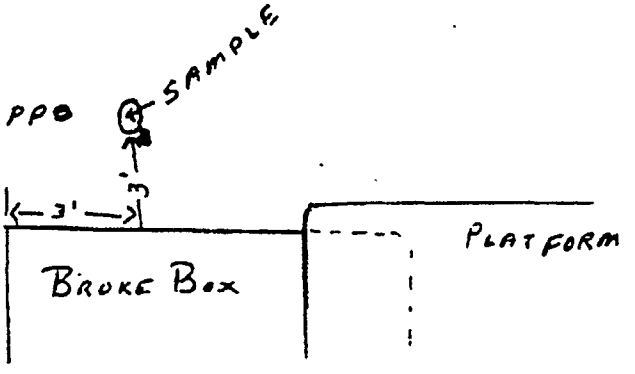
Remarks: M. Barick's shift

STARTED WITH EMPTY

BROKE Box

4 SLURRIES

D. LEPPO



Fibers>5 μ

2
3
0
0
2
3
5
0
4
2
0
0
3
1
1
1
2
0
2
3

Analysis: 0.3 Fibers/cc Total: 34

T.L.V. 5.0 Fibers/cc Avg.: 1.7

ASBESTOS FIBER ANALYSIS

Sample Location REWINDER # 1 MACHINE

Specific Materials/Product 035 WS62 Pump Rate 2 l/min.

Dated Sampled 4-21-72 Time Finished

Sampled By Time Started 2 18 pm

Date Analyzed 4-25-72 Elapsed Time 15.38 min

Analyzed By Vol. Sampled 30,760 c.c.

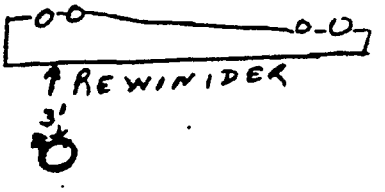
Field Area .25 mm x .25 mm Blank

Remarks:

TURN UP AND REWIND
4 MIN 10 MIN

M. Barrick's shift.

SLITTER POST



Fibers>5 μ

0
17
0
0
1
0
1
0
0
0
0
0
0
0
0
1
1
0
0
0

Analysis: 0.483 Fibers/cc Total: 21

T.L.V. 5.0 Fibers/cc Avg.: 1.05

ASBESTOS FIBER ANALYSIS

Sample Location HAMMER MILL #1 MILL

Specific Materials/Product _____ Pump Rate _____ l/min.

Dated Sampled 4-22-72 Time Finished _____

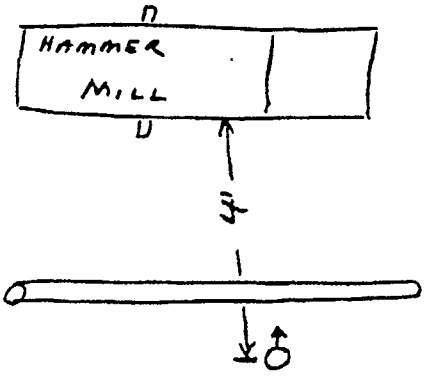
Sampled By _____ Time Started 2 45 pm

Date Analyzed 4-29-72 Elapsed Time 16.69

Analyzed By _____ Vol. Sampled 33,380 c.c.

Field Area .25mm x .25mm Blank _____

Remarks: M. Bomicke's Suit
ASBESTOS BROKE



Fibers>5 μ

2
0
2
3
2
1
1
0
0
0
2
1
3
2
1
0
0
4
0
0

Analysis: 0.492 Fibers/cc Total: 24

T.L.V. 5.0 Fibers/cc Avg.: 1.2

ASBESTOS FIBER ANALYSIS

Sample Location LAB.

Specific Materials/Product JM #5 — Pump Rate 2 l/min.

Dated Sampled 4-21-72 — Time Finished

Sampled By — Time Started 10 05 AM

Date Analyzed 4-26-72 — Elapsed Time 33.45

Analyzed By — Vol. Sampled 66,900 c.c.

Field Area .25 mm x .25 mm — Blank

Remarks:

2 LOTS IN ROTAP

3 CANS IN WILLIAMS DISINTEGRATOR

OPERATOR

WILBER FOURHMAN

Fibers>5 μ
22
16
23
24
14
31
16
17
14
22
16
12
19
14
10
15
14
16
16
14

Analysis: 3.53 Fibers/cc — Total: 345

T.L.V. 5.0 Fibers/cc — Avg.: 17.25

ASBESTOS FIBER ANALYSIS

Sample Location #1 DRY END GENERAL ROOM SAMPLE.

Specific Materials/Product 032 WS55 | Pump Rate 2 l/min.

Dated Sampled 4-25-72 | Time Finished

Sampled By | Time Started 10^05 AM

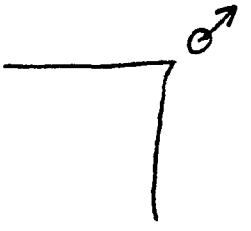
Date Analyzed 4-26-72 | Elapsed Time 66.16 min

Analyzed By | Vol. Sampled 132,320 c.c.

Field Area .25mm X .25mm | Blank

Remarks: W. Green's Shift

CEMENT BASE N.W. CORNER INSPECTION TABLE



UNLOADING ASBESTOS (JM #5)

RUN HAMMER MILL

REWIND 2 ROLLS

Fibers>5 μ

2
0
0
1
0
1
0
0
3
0
0
3
0
2
1
3
0
0
0
1

Analysis: 0.088 Fibers/cc | Total: 17

T.L.V. 5.0 Fibers/cc | Avg.: .85

ASBESTOS FIBER ANALYSIS

Sample Location #4 DRY END GENERAL ROOM SAMPLE

Specific Materials/Product 030 - WSG4

Dated Sampled 4-23-72

Sampled By

Date Analyzed 4-26-72

Analyzed By

Field Area .25 mm x .25 mm

Pump Rate 2 l/min.

Time Finished

Time Started 2 25 PM

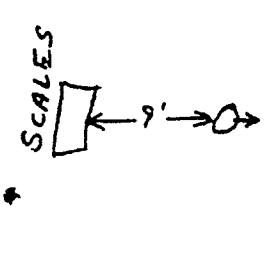
Elapsed Time 62.6

Vol. Sampled 135,202 c.c.

Blank

Remarks: M. Barwick's Shift

REWIND 1 ROLL



Fibers>5 μ

0
0
0
0
0
1
1
0
0
0
0
0
0
0
0
0
0
0
0

Analysis: 0.0101 Fibers/cc

T.L.V. 5.0 Fibers/cc

Total: 2

Avg.: .1

ASBESTOS FIBER ANALYSIS

Sample Location Hydrapulper Room - "General"

Specific Materials/Product WS 62 - JM #5 Pump Rate 2 l/min.

Dated Sampled 4-29-72 Time Finished

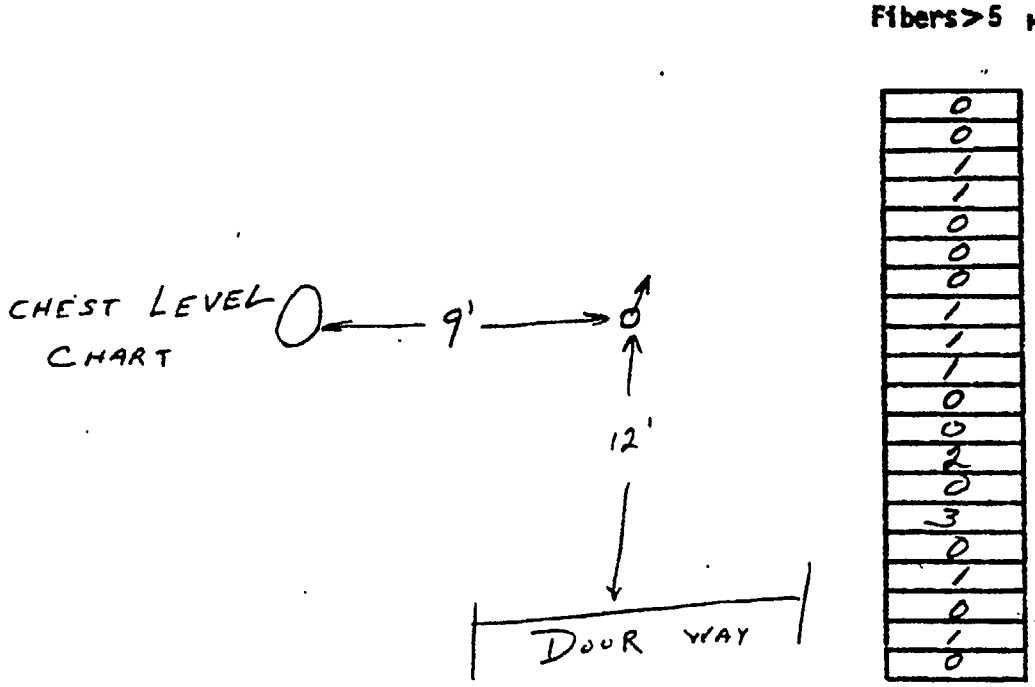
Sampled By Time Started 2 25 PM

Date Analyzed 5-1-72 Elapsed Time 61.02 min.

Analyzed By Vol. Sampled 122,040 c.c.

Field Area .25 mm x .25 mm Blank

Remarks: W. Green's Shift.



Analysis: 0.067 Fibers/cc Total: 12

T.L.V. 5.0 Fibers/cc Avg.: 0.6

ASBESTOS FIBER ANALYSIS

Sample Location: Box CAR - Doorway ONLY #1 mill

Specific Materials/Product: JM #5

Pump Rate: 2 l/min.

Dated Sampled: 4-30-72

Time Finished:

Sampled By:

Time Started: 9 25 Am

Date Analyzed: 5-1-72

Elapsed Time: 19.72 MIN

Analyzed By:

Vol. Sampled: 39,440 c.c.

Field Area: .25mm x .25mm

Blank:

Remarks:

OPERATOR

K. Brooks

Fibers>5 μ

12
7
6
2
2
4
2
5
0
3
4
3
8
1
2
4
3
2
3
3

Analysis: 1.39 Fibers/cc

T.L.V. 5.0 Fibers/cc

Total: 80

Avg.: 4

ASBESTOS FIBER ANALYSIS

Sample Location Box CAR AT #4 MILL AFTER DOOR WAY WAS UNLOAD.

Specific Materials/Product JM No.5 Pump Rate 2 l/min.

Dated Sampled 3-29-72 Time Finished

Sampled By Time Started 9 23 AM

Date Analyzed 3-29-72 Elapsed Time 16.18 MIN

Analyzed By Vol. Sampled 32,360 c.c.

Field Area .25mm x .25mm. Blank Millipore Lot 52924

Remarks:

SAMPLE COLLECTED AT LEFT SIDE OF FORK LIFT OPERATORS CHEST

8 SKIDS of asbestos WERE REMOVED

OPERATOR - A. LOCKARD

Fibers>5 μ

1
1
0
1
1
0
4
1
0
0
0
0
0
0
0
0
0
0
1
0

Analysis: 0.23 Fibers/cc Total: 11

T.L.V. 5.0 Fibers/cc Avg.: .55

ASBESTOS FIBER ANALYSIS

Sample Location SLURRY MIXERS CHEST (#1 MILL)

Specific Materials/Product ~~80% JM 405 20% LAKE~~ 80% JM 405 20% LAKE 725 Pump Rate 2 l/min.

Dated Sampled 3-29-72 Time Finished

Sampled By Time Started 11 15 AM

Date Analyzed 3-29-72 Elapsed Time 24.53 min

Analyzed By Vol. Sampled 49,060 c.c.

Field Area .25mm x .25mm Blank MILLIPORE LOT 52924

Remarks: M Bonick's Shift.

2 COMPLETE SLURRY MIXES

OPERATOR D. LEPPO

Fibers>5 μ
0
2
4
3
2
4
2
1
0
0
0
3
3
3
2
2
1
1
2
0

Analysis: 0.49 Fibers/cc Total: 35

T.L.V. 5 Fibers/cc Avg.: 1.75

ASBESTOS FIBER ANALYSIS

Sample Location SOUTH END CONTROL PANEL, 7" ABOVE VALVE

Specific Materials/Product 80% JM No 5 20% LAKE 7 DS Pump Rate 2 l/min.

Dated Sampled 4-3-72 Time Finished

Sampled By Time Started 2 32 PM

Date Analyzed 4-12-72 Elapsed Time 15.02 MIN.

Analyzed By Vol. Sampled 30,040 c.c.

Field Area .25 mm x 25 mm Blank

Remarks: W. Green's shift.

2 COMPLETE SLURRY MIXES

FAN OFF

(Operator D. Smith)

Fibers>5 μ

15
8
6
9
10
10
12
7
6
13
14
14
17
12
14
12
11
9
6
11

Analysis: 4.93 Fibers/cc Total: 216

T.L.V. Fibers/cc Avg.: 10.8

(H)

ASBESTOS FIBER ANALYSIS

Sample Location 4 HYDRAPULPER OPERATOR #4 MILL

Specific Materials/Product JM 878 5 AND 7 11% M57 Pump Rate 2 l/min.

Dated Sampled 4-11-72 Time Finished

Sampled By Time Started 9 59 AM

Date Analyzed 4-19-72 Elapsed Time 86.6 MIN

Analyzed By Vol. Sampled 173,200 c c.

Field Area .25 mm x .25 mm Blank

Remarks: R. Mann's shift

2 HYDRAPULPER CYCLES

Operator. @ Arnold

Fibers>5 μ

7
6
1
7
6
3
5
1
2
0
6
5
1
1
3
5
2
3
3
2

Analysis: 0.276 Fibers/cc Total: 70

T.L.V. Fibers/cc Avg.: 3.5

(E)

ASBESTOS FIBER ANALYSIS

Sample Location: Box Car at #4 Mill

Specific Materials/Product: JM #5 | Pump Rate: 2 l/min.

Dated Sampled: 4-11-72 | Time Finished:

Sampled By: | Time Started: 12 20 PM

Date Analyzed: 4-12-72 | Elapsed Time: 100.5 MIN.

Analyzed By: | Vol. Sampled: 201,000 c.c.

Field Area: .25 mm x .25 mm | Blank:

Remarks:

Complete Car

Collected By

Fork Lift Operator

A. Lockard

Fibers>5 μ

JS	MI	S	MO
32	14	20	24
	32	32	27
	30	32	29
	35		42
	35		35
			159

152 159
30.4 31.8

Analysis: 9.16 Fibers/cc | Total: 159

T.L.V. 5 Fibers/cc | Avg.: 31.8

1981 ASBESTOS

FIBER ANALYSIS

CEDARHURST

			SHEET #	FIBERS/cc	DATE SAMPLED
RIFFLE SHIFT					
DRY END #5					
	K. GREEN	✓	6	0.047	7-23-8
	S. JONES	✓	19	0.032	7-21-8
WET END #5	STATIONARY	✓	20	0.012	7-21-8
BLDG #60					
	C. RAYER	✓	2	2.269	4-9-81
	C. RAYER	✓	4	0.255	4-9-8
	G CROUSE'		5	0.15	7-22-8
DRILL SHIFT					
DRY END #5					
	J. SNAPP	✓	10	0.015	8-19-8
	G. HOBAN	✓	11	0.03	8-20-8
WET END #5	STATIONARY	✓	9	0.0146	8-18-81
BLDG #60					
	E. EVANS	✓	8	0.029	7-31-8
	A. HERNANDEZ		12	0.067	8-21-8

E. HENRY - REFUSED TO WEAR PUMP AND FILTER 8:30 AM 8-18-

			Sheet		Date Sampled
Fixed Units					
Dry End #5					
	J. Danner	✓	15	0.019	9-14-81
	S. Dolan	✓	17	0.0154	9-15-81
Wet End #5	Stationary	✓	18	0.034	9-15-81
Bldg #60					
	D. Warehime	✓	13	0.054	8-27-81
	E Jones	✓	16	0.008	9-14-81
Unloading Asbestos					
Lift Truck Operator	L. Testerman	✓	1	0.174	4-9-81
	L. Testerman	✓	3	0.3	4-9-81
Helper	D. Meisner	✓	7	0.088	7-24-81
Lab					
Rotap and Disintegrator	G. Crouse	✓*	14	0.54	9-10-81
Rotap	G. Brinkman	✓	22	0.80	9-23-81
Disintegrator	G. Brinkman	✓*	21	11.35	9-24-81
Disintegrator	G. Brinkman	✓*	23	7.93	10-21-81

* Respirator used

ASBESTOS FIBER ANALYSIS

Location: WET END #4 MACHINE

Specific Materials/Product: 030 WS 90 Pump Rate 1.85 l/min

Date Sampled 2-7-79 Time Finished 3:03 PM

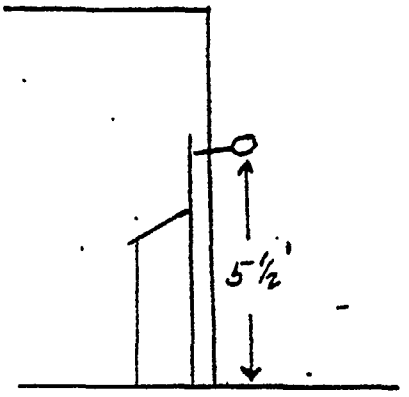
Sampled By J. A. Sies Time Started 11.11 AM

Date Analyzed 4-7-79 Elapsed Time 3:52 232 min

Analyzed By J. A. Sies Vol Sampled 429200 c c

Field Area 0.003025 Blank

Remarks: W. GREEN'S SHIFT



CLAMPED TO DESK AT WET END

Fibers > 5 μ

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	1½	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	0
0	0	0	1	0
0	0	0	0	0
0	0	1	0	0
0	0	0	0	0
1	0	1	1½	1

Analysis: 0.0296 Fibers/cc Total: 4.5

T.L.V _____ Fibers/cc Avg.: 0.045

#2

ASBESTOS FIBER ANALYSIS

Location: #4 WATCHER

Scientific Materials Product: 030 WS90 Pump Rate 1.85 l/min

Date Sampled 2-7-79 Time Finished 3:00 PM

Sampled By J. A. Sias Time Started 11:23 AM

Date Analyzed 4-7-79 Elapsed Time 3:37 217 MIN

Analyzed By J. A. Sias Vol. Sampled 401450 cc

Field Area 0.003025 Blank

Remarks: W. GREEN'S SHIFT

A. HERNANDEZ

Fibers > 5 μ

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	0
0	0	0	2	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	0
0	1/2	0	0	0
0	0	0	0	0
3	1/2	0	2	0

Analysis: 0.0387 Fibers/cc Total: 5.5

T.L.V. _____ Fibers/cc Avg.: 0.055

D5

ASBESTOS FIBER ANALYSIS

Location: WET END #5 MACHINE

Specific Material Sampled: 030 WS66 Pump Rate: 1.82 l/min.

Date Sampled: 2-10-79 Time Finished: 2:50

Sampled By: J.A. Sills Time Started: 10:24

Date Analyzed: 4-7-79 Elapsed Time: 4:26 266 MIN.

Analyzed By: J.A. Sills Vol. Sampled: 484120 cc

Field Area: 0.003025 Blank:

Remarks: W. GREEN'S SHIFT
5½' OFF FLOOR, ON
FRAME ABOVE CLOCK.
SOUTH END OF CONTROLS

Fibers > 5 µ

0	0	0	0	0
0	0	0	0	0
2	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	0
0	0	0	0	0
4	0	0	0	2

Analysis: 0.035 Fibers/cc Total: 6

T.L.V. _____ Fibers/cc Avg.: 0.06

Sample Location: #5 MACHINE WATCHER

Certificate/Batch/Lot Number: 040 WS 68 Pump Rate 2.0 l/min

Date Sampled 2-10-79 Time Finished 2:40 PM

Sampled By J. D. Lee Time Started 10:40 AM

Date Analyzed 4-8-79 Elapsed Time 4:00 240 min

Analyzed By J. D. Lee Vol. Sampled 480000 cc

Field Area 0.003025 Blank

Remarks: W. GREEN'S SHIFT

C. HALE

Fibers > 5 μm

0	0	0	0	0
0	0	1	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	2	1/2
0	0	0	1	0
0	0	0	0	0
1	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1/2	1/2	0
0	0	0	0	0
0	0	0	0	1/2
0	1	0	0	0
0	0	0	0	0
0	0	0	3	0
1	0	0	0	0
0	0	0	0	0
0	1/2	0	2	0
0	0	1	0	0
2	1 1/2	2 1/2	8 1/2	1

Analysis: 0.091 Fibers/cc Total: 15.5

T.L.V. _____ Fibers/cc Avg.: 0.155

#5

ASBESTOS FIBER COUNT

Location: #4 MIXING SYSTEM (OLD MILL)

Specific Material Sampled: 030 WS 64 Pump Rate: 1.88 l/min

Date Sampled: 2-11-79 Time Finished: 1:31 pm

Sampled By: J. A. Lee Time Started: 9:31 AM

Date Analyzed: 4-8-79 Elapsed Time: 4:00 240 min

Analyzed By: J. A. Lee Vol. Sampled: 451.200 cc

Field Area: 0.003025 Blank:

Remarks: W. GREEN'S SHIFT

MIXER; A. LEPPO

2 HRS. ON DUTY
2 HRS. OFF.

Fibers > 5 µm

3 4 4

1	2½ : 1½	
1	½ : 2½	
2	4 : 3	
0	4½ : 1½	
0	3 : 2½	
2	0 : 2	
3	1 : 0	
2	1½ : 1½	
½	½ : 2	
3	1½ : 2½	
1½	1½ : 2	
½	2½ : 1	
1	1½ : 1	
1	2 : 1½	
0	1 : 3	
1½	3 : 2½	
1½	3 : 2½	
2½	2 : 0	
2½	0 : 0	
2	0 : 1	

27½ 33½

33½

Analysis: 1.01 Fibers/cc Total: 96.5

T.L.V. _____ Fibers/cc Avg.: 1.61

[illegible] : #5 MACHINE WATCHER

[illegible] Product 030WS88 — Pump Rate 1.85 l/min.

[illegible] 2-16-79 — Time Finished 2:02 PM

[illegible] By J. L. Sies — Time Started 9:45 AM

[illegible] 4-8-79 — Elapsed Time 4:17 257 min

Analyzed By J. L. Sies — Vol. Sampled 475450 cc

Field Area 0.003025 — Blank

Remarks: R. MANN'S SHIFT

J. GRAHAM

Fibers > 5 μ

2	3	1		1
0	0	1	1½	1½
0	1½	0	1	1½
1	0	1	0	0
2	1	0	1	0
1	1	0	0	0
½	0	0	0	0
1½	1½	0	0	0
1½	½	0	0	0
1½	0	0	3	0
1	½	0	0	0
0	½	0	0	0
0	1½	0	0	1
0	0	1½	0	0
0	0	1	1	1
2	1	0	0	0
0	1½	1	0	0
0	0	0	0	0
½	0	1	0	0
0	0	0	0	1
0	1	1½	0	0
12½	11½	6	7½	6

Analysis: 0.26 Fibers/cc — Total: 43.5

T.L.V. - Fibers/cc — Avg: 0.435

P-1

ASBESTOS FIBER ANALYSIS

Location: WET END #5 MACHINE

Specific Pump Calibrated: 030 WS 88 Pump Rate 1.85 l/min

Date Sampled: 2-16-79 Time Finished 1:56 PM

Sampled by: J. Lee Time Started 9:50 AM

Date Analyzed 4-9-79 Elapsed Time 4:06 246 min

Analyzed By J. Lee Vol. Sampled 455.100 cc

Field Area 0.003025 Blank

Remarks: R. MANN'S SHIFT

5½' OFF FLOOR, ON FRAME ABOVE CLOCK. SOUTH END OF CONTROLS

Fibers > 5 μ

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	1	0
0	0	0	0	0
0	0	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	½	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	½	1	1

Analysis: 0.016 Fibers/cc Total: 2.5

T.L.V. _____ Fibers/cc Avg.: 0.025

#8

BLDG #60

Location: See Below — Pump No: 1.85

Date Sampled: 2-27-79 — Time Finish: 10:48 AM

Sampled By: J. L. Sisk — Time Started: 8:48 AM

Date Analyzed: 4-9-79 — Elapsed Time: 2:00 120 MIN

Analyzed By: J. L. Sisk — Vol Sampled: 222000

Field Area: .003025 — Blank:

Remarks:

UNLOADING ASBESTOS

1 CAR 7D5

1 CAR #5

L. TESTERMAN

LIFT TRUCK OPERATOR

Fibers/cc =

0	0	0	0
0	0	0	0
0	2	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	1
0	0	0	•
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	1	0	0
0	0	0	0
0	0	0	•
2	1		1

Analysis: 0.051 Fibers/cc

T.L.V. _____ Fibers/cc

Total: 4

Avg.: 0.04

#4

ASBESTOS FIBER ANALYSIS

Location: BLDG #60

Certified Laboratory/Product: 040 WS 88 Pump Rate: 1.85 l/min.

Date Received: 2-27-79 Time Finished: 1:36 PM

Sampled by: J. Chilies Time Started: 9:04 AM

Date Analyzed: 4-9-79 Elapsed Time: 4:32 272 MIN

Analyzed By: J. Chilies Vol. Sampled: 503200 cc

Field Area: 0.003025 Blank:

Remarks:

W. GREEN'S SHIFT

ASBESTOS MIXING

S. OWEN

Fibers>5 →

0	0	0	0	1
0	0	1/2	0	1/2
0	0	0	0	0
0	0	0	0	0
1	3	0	0	1
0	0	0	1	0
1	0	0	0	0
0	1	0	0	1/2
0	0	0	0	0
0	0	0	0	0
0	1/2	0	0	0
0	0	0	1 1/2	0
1	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	1/2	1
0	0	1	0	0
1 1/2	0	0	2	0
0	0	0	0	0
0	1	0	0	0
4 1/2	5 1/2	1 1/2	5	3

Analysis: 0.11 Fibers/cc Total: 195

T.L.V _____ Fibers/cc Avg.: 0.195

-14

ASBESTOS FIBER ANALYSIS

Sample Location: LAB

Specific Materials/Process: SEE BELOW Pump Rate 1.85 l/min

Dated Sampled 3-1-79 Time Finished 3:57 PM

Sampled By J. A. Lee Time Started 1:09 PM

Date Analyzed 4-10-79 Elapsed Time 2.742 162 min

Analyzed by J. A. Lee Vol Sampled 299700 c c

Field Area 0.003025 Blank

Remarks:

DEAN BLIZZARD

10 SAMPLES THRU DISINTEGRATOR

3 SAMPLES #5 IN ROTAP

1 SAMPLE 7DS IN ROTAP.

Fibers > 5 μ

2	2	2	
2½	½	2½	
1	2	2½	
3	2½	½	
2½	2	1½	
1	3	3½	
1	0	5	
7	0	1	
1½	0	0	
2	4	0	
4	1	1½	
3	2	1½	
4	½	1½	
4	3½	½	
½	3	1	
2	1	0	
1½	1	2	
0	2	2	
2	1	2½	
1½	0	1	
45	31	32	

Analysis: 1.02 Fibers/cc Total: 108

T.L.V _____ Fibers/cc Avg.: 1.08

711

ASBESTOS FIBER ANALYSIS

Sample Location: WET END #4

Specific Materials/Product: WS 88 — Pump Rate: 1.85 l/min

Date Sampled: 3-5-79 — Time Finished: 3:06

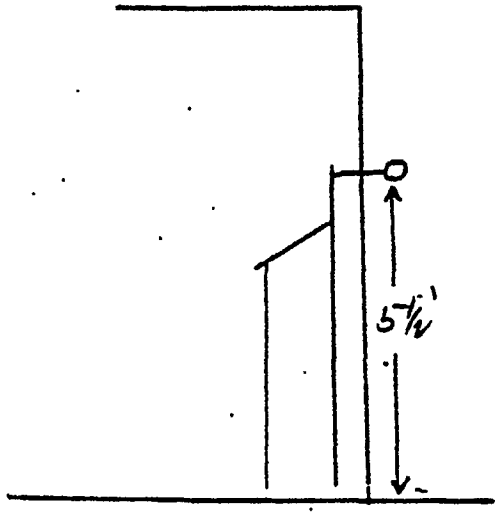
Sampled By: J. L. Lies — Time Started: 10:44

Date Analyzed: 4-10-79 — Elapsed Time: 4:22 262 min

Analyzed By: J. L. Lies — Vol Sampled: 484700 cc

Field Area: 0.003025 — Blank:

Remarks: R MANN'S SHIFT
WS 88 START-UP



CLAMPED TO DESK AT WET END

Fibers ≥ 5 μm

0	0	0	0	0
0	0	0	0	0
0	0	1	0	0
0	0	0	0	0
0	1/2	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	1	0
0	0	0	0	0
1/2	0	0	0	0
0	0	0	0	0
0	1	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1/2	1 1/2	1	1	0

Analysis: 0.023 Fibers/cc — Total: 4

T.L.V _____ Fibers/cc — Avg.: 0.04

#12

BLDG #60

Sample Material/Name: WS 81 — Pump No.: 1.85

Date Sampled: 3-5-79 — Time Finished: 3:03 PM

Sampled By: J. Lee — Time Started: 10:52 AM

Analyzed: 4-10-79 — Elapsed Time: 4:11 251 min

Analyzed By: J. Lee — Vol Sampled: 464350 cc

Field Area: 0.003025 — Blank:

Remarks:

R. MANN'S SHIFT

ASBESTOS MIXING

L. BITZEL

Fibers: 5 per

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	0
0	0	1½	0	1
0	0	0	0	0
0	1	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	1	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	1	1½	1	1

Analysis: 0.033 Fibers/cc — Total: 5.5

T.L.V _____ Fibers/cc — Avg.: 0.055

F13

ASBESTOS FIBER DATA

Location: #4 WATCHER

Specific Material Sampled: WS 90 Pump Rate: 1.85 l/min

Date Sampled: 3-6-79 Time Finished: 1:52 PM

Sampled By: J. d. Lee Time Started: 8:47 AM

Date Analyzed: 4-12-79 Elapsed Time: 5:05 305 min

Analyzed By: J. d. Lee Vol. Sampled: 564.50 l c

Field Area: 0.003025 Blank:

Remarks:

R. MANNS SHIFT

G. MARKEL

USED HAMMER MILL 10 MIN.

Fibers > 5 μ

0	0	0	0	0
1/2	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1 1/2	1	0	0
0	0	0	1	0
0	0	0	0	0
0	0	0	0	0
0	0	1	1	0
0	1/2	0	0	0
0	0	0	1	0
0	0	0	0	1/2
1	0	1/2	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

1 1/2 2 2 1/2 3 1/2

Analysis: 0.048 Fibers/cc

T.L.V. _____ Fibers/cc

Total: 9.5

Avg.: 0.095

#14

ASBESTOS FIBER ANALYSIS

Location: #4 MIXING SYSTEM (OLD MILL)

Specific Material/Product: WS 90 | Pump Rate: 1.85 l/min

Date Sampled: 3-6-79 | Time Finished: 1:36 PM

Sampled By: J. Chelius | Time Started: 8:56 AM

Date Analyzed: 4-12-79 | Elapsed Time: 4:40 280 min

Analyzed By: J. Chelius | Vol. Sampled: 518000 cc

Field Area: 0.003025 | Blank:

Remarks:

R. MANN'S SHIFT

MIXER - R. FOBLE.

2 1/2 HRS. MIXING

Fibers ≥ 5 μm

2 1/2	1	1 3/4	1	1/4
1/4	1/4	2	1	2
1 1/4	2	1 1/4	2	1
2 1/4	0	0	0	1 3/4
1/4	1	1	1 1/4	1/4
3 1/4	3	3 1/4	0	1 1/4
1	2	1 1/4	0	1
0	1	0	1 1/4	2
2 1/4	3 1/4	2 1/4	3	1/4
2 1/4	1 1/4	2 1/4	3 1/4	1 1/4
2 1/4	1	1	2	0
0	1	2	4 1/4	1 1/4
0	1	1	1	1/4
0	1 1/4	2	1	2
1/4	3	3	1 1/4	2
2	3	1/4	2	1
1/4	2	1	1	1 1/4
1 1/4	1	2 3/4	3	0
1	1	1/4	2	2 3/4
2 1/4	1	3 1/4	1/4	1/4
28 1/4	31	35	32	23 1/4

Analysis: 0.818 Fibers/cc

T.L.V. _____ Fibers/cc

Total: 150

Avg.: 1.50

#13

ASBESTOS FIBER ANALYSIS

Location: ASBESTOS · UNLOADING (OLD MILL)

Specific Determination/Process: #5 Pump Rate: 1.85 l/min

Date Sampled: 3-7-79 Time Finished: 2:32 PM

Sampled By: J. L. Lira Time Started: 1:00 PM

Date Analyzed: 4-1-79 Elapsed Time: 1:32 92 min

Analyzed By: J. L. Lira Vol. Sampled: 170200 cc

Field Area: 0.003.025 Blank:

Remarks:

L. TESTER MAN

LIFT TRUCK OPERATOR

1 CAR LOAD OF

#5 FIBERS

Fibers > 5 μ

0	0	0	0	1
0	0	0	0	1/2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	0
0	0	0	0	1 1/2
0	0	0	0	0
1	0	0	0	0
0	0	0	0	0
0	0	0	1/2	0
0	0	0	0	0
0	0	0	0	1
0	0	1	0	0
0	0	1	1	0
0	0	0	0	0
0	0	0	0	1/2
0	0	0	1	1
0	0	0	0	0
0	0	0	0	0
1	1	1	2 1/2	5 1/2

Analysis: 0.18 Fibers/cc Total: 11

T.L.V. _____ Fibers/cc Avg.: 0.11

~ 10

ASBESTOS FIBER ANALYSIS

Location: ASBESTOS UNLOADING (OLD MILL)

Specific Determination/Product: #5 Pump Rate: 1.85 l/min

Date Sampled: 3-7-79 Time Finished: 9:33 PM

Sampled By: J. A. Sias Time Started: 1:00 PM

Date Analyzed: 4-1-79 Elapsed Time: 1:33 93 min

Analyzed By: J. A. Sias Vol. Sampled: 172050 cc

Field Area: 0.003025 Blank:

Remarks:

R. MILLER (HELPER)

1 CAR LOAD OF #5 FIBERS

Fibers>5 μ

0	0	0	0
0	0	1/2	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	2 1/2	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	0
0	0	0	0	1
0	0	0	0	0
4	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	1
0	0	0	0	0
0	0	0	0	0
5	2 1/2	1/2	0	2

Analysis: 0.16 Fibers/cc Total: 10

T.L.V. _____ Fibers/cc Avg.: 0.1

#11

ASBESTOS FIBER ANALYSIS

Sample Location: DRY END #5 MACHINE

Specific Materials/Process: 030 WS88

Pump Rate: 1.85 l/min

Date Sampled: 3-13-79

Time Finished: 1:49 PM

Sampled By: J. L. Lee

Time Started: 8:43 AM

Date Analyzed: 4-12-79

Elapsed Time: 5:06 306 min

Analyzed by: J. L. Lee

Vol Sampled: 5661000 cc

Field Area: 0.003025

Blank:

Remarks:

S. RIFFLE'S SHIFT

W. CRONE WATCHER

Fibers ≥ 5 μ

0	0	0	0	0
0	0	0	0	0
1/2	0	0	0	0
0	0	2	0	0
0	0	0	1	0
0	0	0	0	0
0	0	0	0	0
0	1/2	1/2	0	0
0	0	0	1	0
0	0	0	0	0
0	0	0	0	1/2
1	1/2	0	0	0
0	0	1/2	0	0
0	0	0	0	0
0	1	0	0	0
1	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1/2	0	0	0	0
0	0	0	0	0
3	2	3	2	1/2

Analysis: 0.052 Fibers/cc

T.L.V _____ Fibers/cc

Total: 10.5

Avg.: 0.105

#18

ASBESTOS FIBER ANALYSIS

Location: WET END #5 MACHINE

Sampling Rate into Impinger: 030 WS 58 Pump Rate: 1.85 l/min

Date Sampled: 3-13-79 Time Finished: 1:44 PM

Sampled by: [signature] Time Started: 8:50 AM

Date Analyzed: 4-18-79 Elapsed Time: 4:54 294 MIN

Analyzed By: [signature] Vol. Sampled: 543900 cc

Field Area: 0.003025 Blank:

Remarks: S. RIFFLE'S SHIFT
5½' OFF FLOOR, ON
FRAME ABOVE CLOCK.

SOUTH END OF CONTROLS

Fibers > 5 μ

1	0	½	0	0
0	0	0	0	0
0	0	0	½	0
0	0	0	0	0
1	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	½
0	½	0	0	0
0	0	0	0	0
1	0	0	0	0
0	0	0	0	1
0	0	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	1
0	½	0	0	0
0	0	0	½	0
0	0	0	0	0
3	2	½	1	3½

Analysis: 0.052 Fibers/cc Total: 10

T.L.V. _____ Fibers/cc Avg.: 0.1

ASBESTOS FIBER ANALYSIS

Sample Location: DRY END #4 MACHINE

Specific Materials/Process: WS 90 Pump Rate 1.85 l/min.

Date Sampled 3-14-79 Time Finished 2:29 p.m.

Sampled By J. A. Lee Time Started 8.41 AM

Date Analyzed 4-18-79 Elapsed Time 5:48 348 min

Analyzed By J. A. Lee Vol Sampled 643800 c c

Field Area 0.003025 Blank

Remarks:
S. RIFFLE'S SHIFT

J. ARBAUGH - WATCHER

Fibers > 5 μ

0	0	0	0	0
0	0	0	0	1
0	0	1	0	0
0	0	0	1	1
0	0	1	0	0
1	0	0	0	0
0	1	0	0	0
0	0	0	0	1
0	0	0	0	1/2
0	0	0	1	0
0	0	0	0	0
1	0	0	0	0
0	0	0	1	0
0	0	0	0	0
1	0	1	1	0
0	0	0	1	0
0	0	1	0	0
0	0	0	0	0
0	0	1	1	0
1	1	0	0	0

5 0 1 0 1/2

Analysis: 0.024 Fibers/cc Total: 5.5

T.L.V _____ Fibers/cc Avg.: 0.035

#20

ASBESTOS FIBER ANALYSIS

Sample Location: WET END #4 MACHINE

Specific Materials/Product: WS 90 | Pump Rate 1.85 l/min.

Date Sampled 3-14-79 | Time Finished 2:24 PM

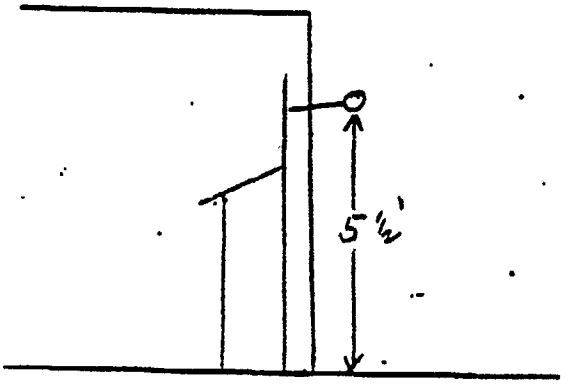
Sampled By J. Chelius | Time Started 8:47 AM

Date Analyzed 4-18-79 | Elapsed Time 5:37 337 min

Analyzed By J. Chelius | Vol Sampled 623450 c c

Field Area 0.003025 | Blank

Remarks: S. RIFFLE'S SHIFT



CLAMPED TO DESK AT WET END

Fibers > 5 µ

0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	1	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	2	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
½	0	1	0	0
0	1	0	0	0
0	0	0	0	0
0	0	0	0	0
1½	5	1	1	

Analysis: 0.039 Fibers/cc | Total: 8.5

T.L.V _____ Fibers/cc | Avg.: 0.085

#21

ASBESTOS FIBER ANALYSIS

Sample Location: #4 MIXING SYSTEM (COLD MILL)

Specific Materials/Product: WS 90 Pump Rate 1.85 l/min.

Date Sampled 3-15-79 Time Finished 2:04 PM

Sampled By J. Riffle Time Started 9:22 AM

Date Analyzed 4-16-79 Elapsed Time 4:42 282 min

Analyzed By J. Riffle Vol Sampled 521700 c.c.

Field Area 0.0003025 Blank

Remarks: S. RIFFLE'S SHIFT

K. WAGNER

TOTAL OF 1½ HRS MIXING

Fibers>5 μ

1½	0 : 0	½	1
1	1½ : ½	0	½
0	2½ : ½	0	0
1	1 : 1½	0	0
2	2½ : 0	0	0
0	0 : 0	0	0
0	1 : 1½	½	½
1½	0 : 0	0	1½
2	3½ : 0	2	3
1	1½ : 0	1½	3½
0	0 : 0	1	0
2	0 : 0	1	1½
1½	0 : 0	0	0
2	0 : 2½	2	1½
1	0 : 0	1	1½
0	0 : 0	1	0
1	1½ : ½	1	4½
2	½ : 1	½	1½
4	0 : 1½	1	0
1	0 : 1	2	0
23½	15½	15	20½
	10½		

Analysis: 0.46 Fibers/cc Total: 85

T.L.V Fibers/cc Avg.: 0.85

ASBESTOS FIBER ANALYSIS

Sample Location: BLDG #60

Specific Materials/Product: WS 88

Pump Rate: 1.85 l/min

Date Sampled: 3-15-79

Time Finished: 1:43 PM

Sampled By: J. L. Lee

Time Started: 9:52 AM

Date Analyzed: 4-16-79

Elapsed Time: 3:51 231 min

Analyzed By: J. L. Lee

Vol Sampled: 427350 c c.

Field Area: 0.003025

Blank:

Remarks: S. RIFFLE'S SHIFT

ASBESTOS MIXING

R. FRANKLIN

Fibers > 5

0	1½	0	½	0
0	0	1	0	0
½	1	½	0	0
0	0	0	0	0
0	0	0	1	0
½	0	0	0	0
0	0	½	0	1
0	0	0	1	0
0	0	0	1	½
½	0	0	½	0
0	½	0	0	0
0	0	0	0	2
0	0	1½	½	0
1	1½		0	0
0	0	2	½	0
½	1	2	0	0
0	½	0	0	½
0	0	0	2½	0
0	0	1	0	0
0	0	1½	1	0
5	5	9	8½	5

Analysis: 0.21 Fibers/cc

Total: 32.5

T.L.V _____ Fibers/cc

Avg.: 0.325

#25

ASBESTOS FIBER ANALYSIS

Sample Location: BLDG #60

Specific Materials/Product: SEE BELOW

Pump Rate: 1.85 l/min.

Date Sampled: 3-22-79

Time Finished: 3:41 PM

Sampled By: J.C. Lies

Time Started: 12:49 PM

Date Analyzed: 4-16-79

Elapsed Time: 2:51 171 min.

Analyzed By: J.C. Lies

Vol Sampled: 316.35 c c.

Field Area: 0.003025

Blank:

Remarks:

UNLOADING ASBESTOS

B. ROOP - HELPER

1 LOAD 7D1

1 LOAD 7MS7

1 LOAD #5

Fibers > 5 μ

0	0	0	0	0
1	1	0	1/2	1/2
1/2	0	1/2	0	0
0	1	0	0	0
1/2	0	0	0	0
0	0	0	2	0
1	0	0	0	1
0	2	0	0	1
1	0	0	0	0
0	0	0	1/2	0
1/2	0	2	0	0
0	0	0	0	1/2
1/2	0	0	1/2	1/2
0	0	1	0	0
0	0	0	0	0
0	1/2	0	0	1
0	0	0	1	0
0	0	1/2	0	0
0	0	0	1	0
0	0	0	0	0
6	4 1/2	1	6 1/2	5 1/2

Analysis: 0.237 Fibers/cc

Total: 26.5

T.L.V _____ Fibers/cc

Avg.: 0.265

#24

ASBESTOS FIBER ANALYSIS

Sample Location: LAB

Specific Materials/Product: SEE BELOW

Pump Rate: 1.83 l/min.

Date Sampled: 4-22-79

Time Finished: 3:58 PM

Sampled By: J. Ch. Lee

Time Started: 1:13 PM

Date Analyzed: 4-24-79

Elapsed Time: 2:45 165 min.

Analyzed By: J. Ch. Lee

Vol Sampled: 305250 c c.

Field Area: 0.003025

Blank:

Remarks: D. BLIZZARD

8 ASBESTOS SAMPLES IN ROTAP

6 - #5

1 - 7MS1

1 - 6D04

Fibers>5 µ

4	0	12½		
½	1	2		
4	3	13½		
1	4	1½		
5½	½	1		
2½	1	0		
3	1	1½		
2½	2½	4½		
2	1	1½		
2	2	1½		
1½	0	1		
0	1	2½		
1½	1	1½		
1½	3½	1		
3	2	3		
2½	4	2½		
2½	3	1½		
3½	3½	0		
2	3	½		
1	2½	2½		

44.0 34.5 30.5

Analysis: 1.76 Fibers/cc

Total: 114

T.L.V _____ Fibers/cc

Avg.: 1.9

NIKON

HYDRAPULPER OPERATOR #4 MILL

JM #5 80% 20% 2

5-19-72

10 STD/Am

62.79

125,580

.035 x .055

030 WS62

USING GUM ARABIC

1 HYDRAPULPER LOAD

OPERATOR; E. HENRY

W. GREEN'S SHIFT

DOOR OPEN, UNLOADING CAR

Fibers

1
0
1
1
1
0
1
0
0
2
0
2
2
0
0
0
1
0
0
0

1.35 Fibers

5.0 Fibers

Total: 12

Avg: .6

27 #10
NIKON

SLURRY MIXER #1 MILL ✓

JM #5 20% 20s 2 ✓

5-19-72

20s FM

66.65 min

133,300

.05" x .05"

W. GREEN'S SHIFT

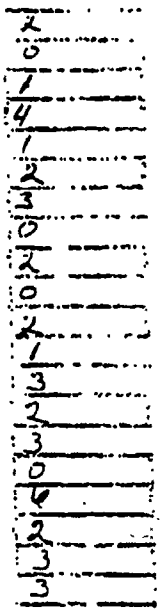
D. HILL OPERATOR

8/4 WS62

FAN ON

NO DEFLECTORS

Fibers



4.24 Fibers/cc Total 40

5.0 Fibers/cc Avg. 2.0

28 -11
NIKON

SLURRY MIXER

60% 30%
#5 7D5 2

8-16-72

9:05 AM

2 HRS 45.5 MIN.

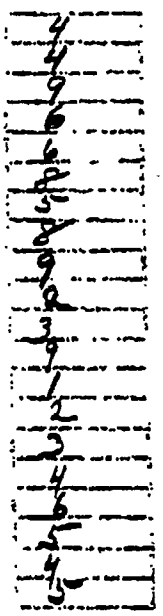
491,000

R. MANN'S SHIFT

R. STARNER - OPERATOR

FAN ON
NO DEFLECTORS

Fibers



2.96 Fibers

5.0 Fibers

Total 103

Avg 5.15

#31 (14)

NIKON
1+1

SLURRY MIXER

30% TDS 60% #5 2

10-4-72

Finished

Started 1 10 PM

Run Time 12 3.32 MIN

Counted 246,640

.055 x .055

.003025

D. LEPPO JR. OPERATOR

M. BARRICKS SHIFT

FAN ON

DEFLECTOR DOWN

8/4 035 WSG2

Fibers 5

1	
6	
12	
6	
3	
3	
2	
9	
8	
6	
6	
5	
5	
6	
10	
3	
4	
4	
8	
5	
5	
8	

27.5

920

Amplitude 7.05 Fibers/cc Total 123

5.0 Fibers/cc Avg. 6.15

6.15
.20
123.0

NIKON

#1 MACHINE (WET END)

035 WSGL 8/4 2

10-5-72

9:30 AM

128.06

256,120

.055 × .055

SOUTH WEST CORNER

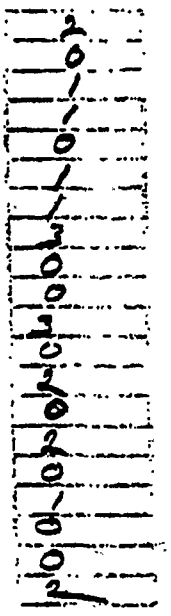
SUPPORT FOR BAUER

MILL PLATFORM

5' ABOVE FLOOR

Fibers

24



1.05 Fibers/cc

5.0 Fibers/cc

Total: 19

Avg 0.95

4 machine

030 WS62

10-24-72

2

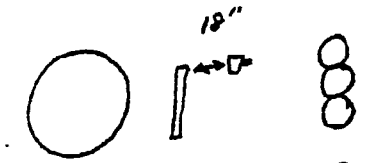
1 25/PM

92.5 min

185,000

.055 mm x .055 mm
.00 3025

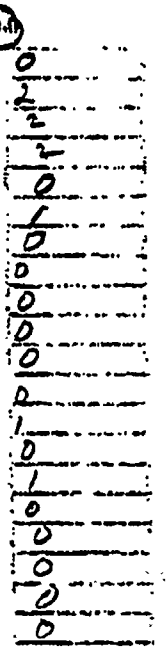
E.P.R. M.H. 6920
CODE # J 447



DRYER RAIL CALENDER

6' from front of dryer
18" from rail
5' from floor

11-17 fibers

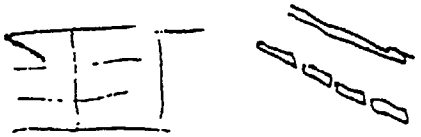


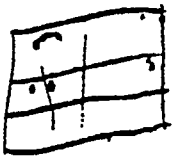
Width: 0.69 Fibers cc

Y 5.0 Fibers cc

Total: 9

Avg .45





SLURRY MIXER #1

30%TDS 60%DS 2

12-1-72

Started 12 00 Noon

Run Time 123.15 MIN.

Sampled 246,300

.055 mm x .055 mm

8/4 WS 62

FAN ON, OPENING COVERED

AIR →

MACHINE DOWN ½ HR.

LOOSE GUM ARABIC

Fibers

2
2
1
2
2
3
3
4
4
5
6
3
3
2
3
2
3
3
2
4

H. DADERER - OPERATOR

R. MANNS - SHIFT

Max: 3.67 Fibers

Min: 5.0 Fibers

Total: 64

Avg. 3.2

ASBESTOS FIBER [illegible]

[illegible] Location SLURRY MIXER #1

[illegible] Materials/Product JM 70 a.5 / 20% 705 [illegible] Rate 2 [illegible]

Date Sampled 12-4-72 Time Finished

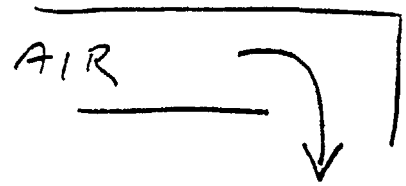
Sampled By Time Started 1 05 PM

Date Analyzed Elapsed Time 130.9 MIN

Analyzed By Vol Sampled 261,800 cc

[illegible] Size .055mm X .055mm .003025 Blank

[illegible] 8/4 WS62



FAN ON

LOOSE GUM ARABIC

J. LISTER - OPERATOR

[illegible] SPENCER - SHIFT

Fibers > 5 µ
0
1
3
2
2
0
6
1
5
2
3
1
4
2
2
2
3
3
1
2

Analysis: 2.48 Fibers/cc Total: 46

T.L.V. 5.0 Fibers/cc Avg.: 2.3

3/24.33
299343
130.90

ASBESTOS FIBER ANALYSIS

Sample Location #4 70% Slurry room 30%

Specific Materials/Product 5 7M57 Pump Rate 2 l/min

Dated Sampled 12-6-72 Time Finished

Sampled By Time Started 1 25 PM

Date Analyzed Elapsed Time 118.07 min.

Analyzed By Vol Sampled 236,140 c c

Field Area .003 mm X .005 mm Blank

Name of WSG2

Slurry mixer

F. ZIEGLER

M. BARRICKS' SHIFT

Fibers = 5

3
2
1
1
3
2
0
2
2
3
2
1
0
3
4
3
0
1
2
0

Analysis 209 Fibers/cc Total: 35

T.L.V Fibers/cc Avg.: 1.75

32426
31245
118.07

ASBESTOS FIBER ANALYSIS

Location: WET LAB

Material/Product: JM 5-7M57-7D5 Sample No: 2

Date Sampled: 12-8-72 Time Finished:

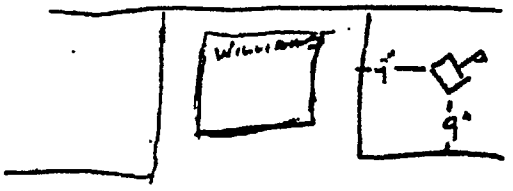
Sampled By: Time Started: 1 32

Date Analyzed: Elapsed Time: 89.63 min.

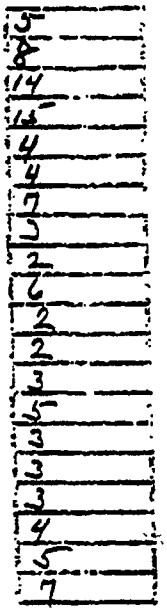
Analyzed By: Vol Sampled: 179260

Field Area: .055 x .055 Blank:

Remarks: 18 LOTS WILLIAMS DISINTEGRATOR
2 LOTS ROTAP



4½' above Floor



Amosite: 8.28 Fibers/cc Total: 105

T.L.V 5.0 Fibers/cc Avg: 5.25

3332.35
3242.75
89.6

(5)

[illegible]

[illegible]	SLURRY MIXER		#1 MACHINE
[illegible]	JM 5	7D5	[illegible] 2 [illegible]
[illegible]	12-12-72		[illegible] Finished
[illegible]			[illegible] Started 1 05 pm
Date Analyzed			[illegible] Time 122.60 MIN
Analyzed By			[illegible] Sampled 245.200
[illegible]	.055 mm x .055 mm		[illegible]

030 WSG4 12/4

W. GREEN. SHIFT

W. FRANK.

Fibers [illegible]
4
7
4
3
5
3
3
9
11
8
7
6
7
2
3
4
1
4
3
8

Analysis: 5.99 Fibers/cc

T L V 5.0 Fibers/cc

Total: 104

Avg: 5.2

345510
333250
122.60

BROKE BOX #1 SLURRY

70% JM5 20% 7D5 — 2

12-13-72

Time Started 9 45 pm

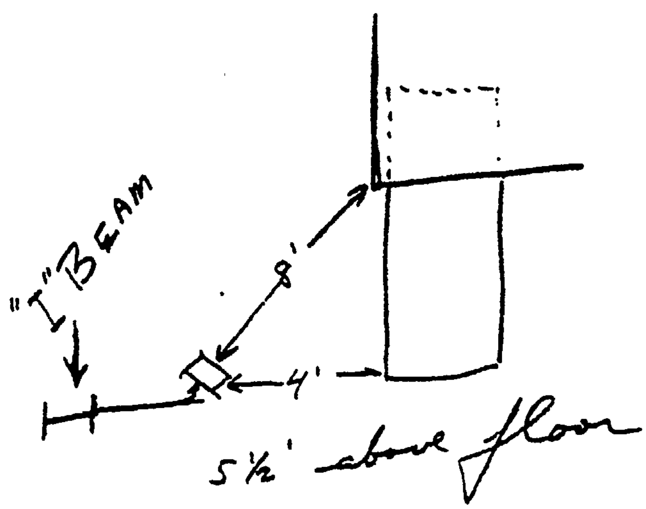
Elapsed Time 100.24

Vol. Sampled 200,480

.055 mm x .055 mm

Blank

030 - WS64



Fibers ÷ 5

0
0
0
0
2
0
0
1
0
1
1
0
1
0
1
0
0
3
0
0

Analysis 0.705 Fibers/cc

Fibers/cc

Total: 10

Avg.: .5

3555.33
3455.09
100.24

[illegible]

[illegible] SLURRY MIXER #1

70% 20%

[illegible] Materials [illegible] JM #5 7D5 [illegible] 2

[illegible] 12-18-72 Time Finished ______

[illegible] Time Started 9 20 am

[illegible] Elapsed Time 130.78

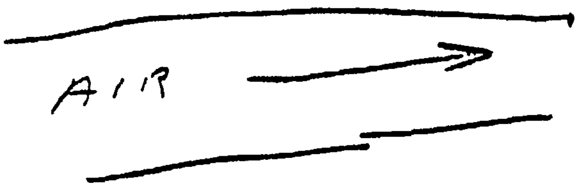
[illegible] Sampled 261,560

[illegible] .055 mm x .055 mm [illegible]

032-WSG2

R. STARNER

R. MANNS SHIFT



...bers: 5

2
0
1
0
0
1
2
6
2
2
3
1
2
1
2
1
0
3
0
2

Analysis: 1.67 Fibers/cc

[illegible] ______ Fibers/cc

Total: 31

Avg.: 1.55

3 686.30
3 5552
130.78

2

#4 - addition

30% 3M#5 - 30% 7MS7 ... 2

12-20-72

... ed 1) 5:55 PM

... Time 141.51

... sampled 283,020

.055mm x .053mm

030-WS64

C. Arnold.

M. BARRICKS SHIFT

Fibers ...

1
1
2
0
1
1
1
1
4
0
3
0
0
0
0
0
0
1
0
0

3831.0
3689.5
141.5

... 0.65 Fibers/cc

... 5.0 Fibers/cc

Total: 13

Avg. .65

BOX CAR (old mill)

Analyst: JM #5

Date: 12-20

Time finished

Time started 2 10 PM

Date filtered 1-6-73

Elapsed Time 50.41 min

Vol Sampled 100,820 cc

Area: .053 mm x .053 mm

Blank

K. Brooks

many broken bags

BAD CAR.

Fibers = 5

3
2
4
0
0
2
2
2
0
2
2
3
1
0
0
1
4
0
1
1

3881.5
3831.1
50.4

Analysis: 4.90 Fibers/cc

T.L.V. 5.0 Fibers cc

Total: 35

Avg.. 1.75

[illegible]

[illegible]: #4 70% 30%

[illegible]/Product: #5 7MS7 | [illegible]:

[illegible]: 1-4-73 | [illegible] Finished:

[illegible] By: | [illegible] Started: 10 $\frac{35}{Am}$

[illegible] Analyzed: 1-6-73 | [illegible] Time: 129.81

[illegible] By: | [illegible] Sampled: 259,620

[illegible] Area: .035 x .035 | [illegible]:

030 - W2C4

W. GREENS SHIFT

O. BROTHERS

No GUM ARABIC OR P 341

Fibers > 5 μ

0
0
0
1
0
0
0
0
0
0
2
1
1
0
0
1
0
0
0
0

1-6-73 Re run specks

Analysis: 0.33 Fibers/cc | Total: 6

[illegible]: 5.0 Fibers/cc | Avg.: .3

401165 388184 129081

500/4000

#13

ASBESTOS FIBER COUNT SHEET

Sample Location HYDRAPULPER Room #4

Sample Material/Product #5 50% JAS7 50% Job No. 2

Date Sampled 1-6-73 Time Finished

Sampled By Time Started 11 10 AM

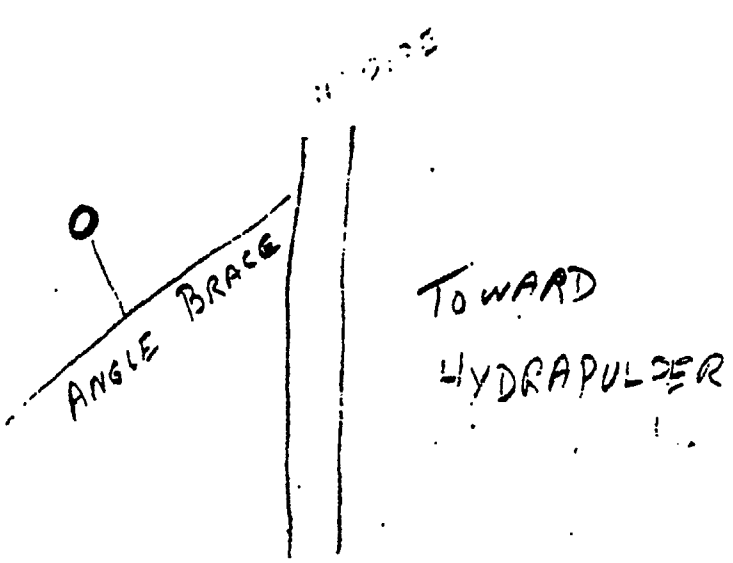
Date Analyzed 1-6-73 Elapsed Time 161.56

Analyzed By Vol Sampled 323.120

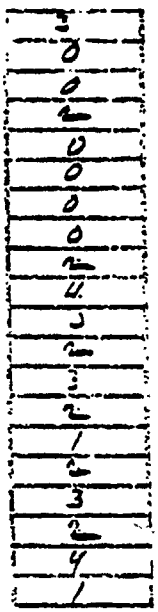
Filter Area .05 5 cm x .05 5 cm Plant

Comments

WS 64



Fibers ≥ 5 μm



Analysis 635 Fibers/cc Total 31

T L V 50.0 Fibers/cc Avg. 1.55

41 73.65 ml
40 11.65
161.56

ASBESTOS FIBER ANALYSIS

Sample Location *slurry platform #4 mill*

Job #/ Material/Product *25 - 7MS70* Pump Rate *2* l/min

Date Sampled *1-12-73* Time Finished

Sampled By Time Started *1:05 pm*

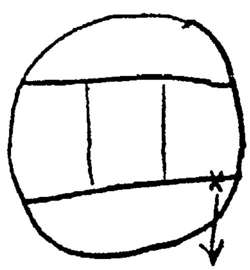
Date Analyzed *1-20-73* Elapsed Time *153.65*

Analyzed By Vol Sampled *307,300* cc

Field Area *.055 x .055* Tank
.003025

Remarks
WS62

4' above FLOOR



#1 slurry tank

Fibers ≥ 5 μ

0
0
1
0
1
0
2
0
0
0
0
0
2
1
0
0
0
0
0
1

Analysis *0.368* Fibers/cc Total: *8*

TLV *5.0* Fibers/cc Avg: *.4*

432686
417321
153.65

Concentration Tests 15

ASBESTOS FIBER ANALYSIS

Sample Location WET LAB

Specific Materials/Product JM5-7M57-7D5 Flow Rate 2 l/min

Date Sampled 1-13-73 Time Finished

Sampled By Time Started 8 05 AM

Date Analyzed 1-19-73 Elapsed Time 218.30

Analyzed By Vol Sampled 436,620 c c

Field Area .055 x .055 Blank

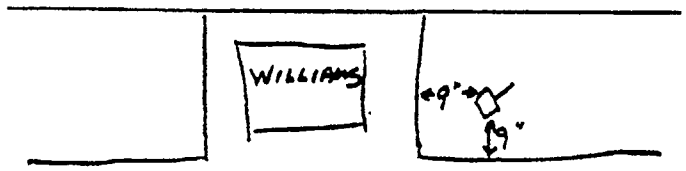
.003025

Remarks

4 - ROTAP

21 - WILLIAMS DISINTEGRATOR

4'6" above floor



Fibers > 5 μ

18
16
8
11
14
10
12
3
17
12
9
10
8
12
14
9
4
6
16
11

Analysis: 7.12 Fibers/cc Total: 220

T.L.V 5.0 Fibers/cc Avg : 11

3.5/89.7

41545.16
43268.6
7.1830

WET LAB

JMS — 2 -

1-13-73

12 02 PM

1-20-73 — Time 231.75

463,500

.055 x .055

4 in ROTAP

follow up of

15

spill of about 1-gal of asbestos fibers by janitor

	2
	5
	1
	0
	0
	3
	1
	4
	3
	4
	5
	3
	2
	4
	3
	0
	4
	2
	3
	2

1,52 fibers/cc — Total: 50

50 fibers/cc — Avg: 25

4776.91
43'4516
231.75

Box Car (OLD MILL)

JM #5 2

1-18-73 8 10 AM

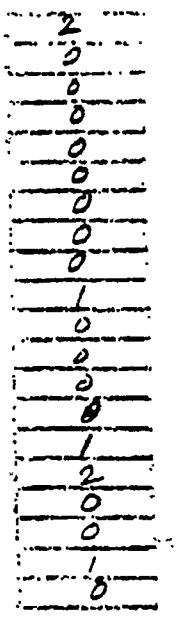
1-19-73 17.93 MIN

35,860

.055" × .055"

H. BITZEL

start of Box car door way



2.76 Fibers/cc Total. 7

5.0 Fibers/cc Avg. 0.35

4794.84
4776.91
17.93

N019. 19

[illegible]

[illegible] 1 slurry

[illegible] Materials/Product JM#5 | [illegible] Rate 2 l/min

[illegible] 1-23-73 | [illegible] Finished

[illegible] by | [illegible] Started 9 13 Am

Date Analyzed 1-23-73 | [illegible] Time 14.71

[illegible] by | Vol Sampled 29,420 cc

Field Area .055 x .055 mm .003025 | Blank

[illegible] 320 WS62

-gum arabic in Bags
1 slurry cycle

Fibers ≥ 5

0
0
0
0
1
0
0
0
0
0
0
0
0
0
0
0
1
0
0
0

[illegible] ON

W. G[illegible] [illegible]

W. FRANK

Analysis 0.96 Fibers/cc | Total: 2

[illegible] 5.0 Fibers/cc | Avg.: 0.1

4809.55
4794.84
14.71

ASBESTOS FIBER ANALYSIS

#4

Sample Location Box Car

Sampling Materials Product JM #5

Date Sampled 1-23-73

Sampled By

Date Analyzed 1-23-73

Analyzed By

Effective Area .055 mm x .055 mm
.003025

Pump Rate 2 l/min

Time Finished

Time Started 1:08 pm

Elapsed Time 17.53 min

Vol Sampled 35.060 cc

Blank

Fibers > 5 μm

N. GESSELL

Door way of car.

0
0
1
0
2
0
1
0
1
0
0
0
0
2
0
2
0
1
0
1

Analysis: 4.43 Fibers/cc

TLV 5.0 Fibers/cc

Total: 11

Avg.: 0.55

4827.0
4809.5
17.5

SBESTOS FIBER [illegible]

[illegible] Location #1 Slurry [illegible]

[illegible] Materials/Product [illegible] 775 | Pump Rate 2 [illegible] min

[illegible] Sampled 1-2?-73 | Time Finished

[illegible] By | Time Started 807 Am

Date Analyzed 1-25-73 | Elapsed Time 419.35

Analyzed By | Vol Sampled 838,700 cc

[illegible] Area | Blank

[illegible] 925 [illegible] 8/4

Bagged [illegible]

[illegible] [illegible]

W. FRANK

Fibers>5

1
1
1
1
2
1
3
2
2
7
6
6
2
2
2
2
3
1
0
2

Analysis: 0.81 Fibers/cc

[illegible] L.V 5.0 Fibers/cc

Total: 48

Avg.: 2.4

5246.43
4827.08
419.35

ASBESTOS FIBER ANALYSIS

Sample Location #1 DRY END

Sample Materials/Product 030 WS64 Pump Rate 2 l/min

Area Sampled 1-25-73 Time Finished

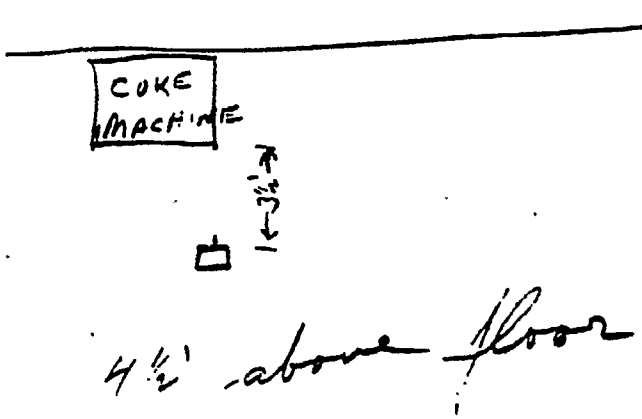
Sampled By Time Started 9 10 Am

Date Analyzed 3-13-73 Elapsed Time 349.70 min

Analyzed By Vol Sampled 699400 c c

Field Area Blank

Time Off W. GREENS SHIFT



Fibers > 5 µ

0	1	0	0	0
0	0	0	0	0
1	0	1	0	0
1	1	0	0	0
0	0	0	0	0
1	0	0	0	0
4	0	0	0	0
2	0	1	0	1
1	0	0	2	0
3	0	0	3	0
2	0	0	0	1
0	1	3	1	0
1	0	0	0	0
1	2	0	1	0
0	3	1	0	1
0	1	1	0	0
0	0	0	0	0
0	0	0	0	0
1	1	0	0	0
1	0	0	0	1
19	10	7	7	4

Analysis: 0.1899 Fibers/cc Total: 47

T. L. V Fibers/cc Avg.: .47

5-59613
5-246.43
349.70

ASBESTOS FIBER ANALYSIS

Sample Location #1 dry end.

Scientific Measurements/Product 037 WS62 Flow Rate 2 l/min

Filter Supplied 1-26-73 Time Finished

Sampled By Time Started 8 20 AM

Date Analyzed Elapsed Time 353.92 min.

Analyzed By Vol Sampled 711,840 cc

Field Area Blank

Shift

W. GREENS SHIFT

Fibers > 5 μ

1	0	2	2	0
1	0	1	0	1
0	0	0	0	0
1	0	0	0	0
3	1	1	0	1
0	1	0	3	2
0	0	4	0	1
0	3	0	0	3
1	0	0	0	0
1	2	1	4	2
0	0	0	1	0
1	2	1	0	0
2	0	1	0	0
1	0	0	2	0
0	0	1	0	0
1	0	1	0	0
0	0	2	0	0
0	0	1	0	1
1	2	0	0	0
2	2	0	0	0
16	13	16	12	11

SOUTH INSP. TABLE ←5'→

5' above floor.

Analysis: 0.274 Fibers/cc

F.L.V. Fibers/cc

Total: 69

Avg.: .69

595 0.05
-586.13
353.92

ASBESTOS FIBER ANALYSIS

Sample Location BRIKE BEATTER

Specific Materials/Product JM #5 Pump Rate _____ l/min

Date Sampled 1-30-73 Time Finished _____

Sampled By _____ Time Started 2 30 pm

Date Analyzed _____ Elapsed Time 3.09 MIN

Analyzed By _____ Vol Sampled _____ c c

Field Area _____ Blank _____

Remarks.

1 Box of asbestos bags

D. ROBBINS

R. MANNS SHIFT

Fibers ≥ 5 μ

1	3	0	0	1
0	1	2	1	0
0	0	0	0	8
1	0	5	2	0
0	0	3	0	0
0	0	0	0	0
2	1	0	0	0
0	1	19	0	0
0	0	0	0	2
0	0	1	0	0
3	0	0	1	0
0	2	0	1	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	1	2
0	0	0	0	1
1	0	0	4	2
0	0	2	0	1
2	1	7	0	0
10	9	39	10	19

Analysis: 39.79 Fibers/cc Total: 87

T.L.V _____ Fibers/cc Avg.: .87

59 5-31.4
59 5 0.05
3.09

ASBESTOS FIBER ANALYSIS

Sample Location ±3 machine Dryend

Suspected Materials/Product _____ Pump Rate _____ l/min

Date Sampled 2-22-73 Time Finished _____

Sampled By _____ Time Started 9 50 AM - 4 53 PM

Date Analyzed _____ Elapsed Time 344.96

Analyzed By _____ Vol Sampled 689,920 cc

Field Area _____ Blank _____

Remarks:

DRYER CAL

0,8

10'

4 ½" from floor

Fibers > 5 μ

1	0	0	0	0
0	0	1	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
2	1	1	1	0
0	0	0	0	1
1	0	0	0	0
1	0	1	1	0
1	0	0	0	0
0	0	0	1	0
0	0	0	0	2
0	0	0	0	0
0	0	0	0	0
1	0	1	0	0
0	0	0	0	1
0	0	0	0	1
0	0	1	0	0
0	0	0	0	0
0	0	0	0	1
7	1	4	3	6

Analysis: .0086 Fibers/cc Total: 21

T.W.A. _____ Fibers/cc Avg.: .21

6301,81
595685
344.96

AS

ASBESTOS FIBER ANALYSIS

Sample Location shop

Specific Materials/Product _____ Pump Rate _____ l/min

Date Sampled 2-23-73 Time Finished _____

Sampled By _____ Time Started 8 40 AM

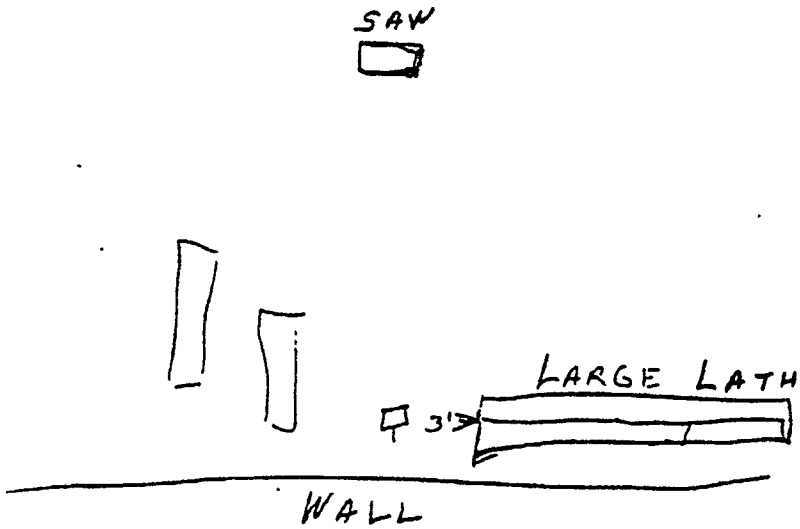
Date Analyzed 3-16-73 Elapsed Time 389.19

Analyzed By _____ Vol Sampled 778,380 c c

Field Area _____ Blank _____

Comments:

Fibers ≥ 5 μ



2	0	0	0	0
0	0	0	0	1
2	1	0	0	1
0	0	0	0	0
1	0	1	0	0
0	0	0	1	0
0	0	0	0	0
0	1	0	0	0
0	1	0	1	0
0	2	0	1	0
0	0	0	0	0
1	0	0	0	0
0	0	0	0	0
1	0	0	0	0
3	0	0	0	0
0	0	0	0	0
1	0	0	0	0
0	0	0	0	0
0	0	0	0	1
0	0	0	0	0
9	5	1	3	4

Analysis: 0.0799 Fibers/cc Total: 22

T & V _____ Fibers/cc Avg.: .22

069283
630364
389.19

ASBESTOS FIBER ANALYSIS

Sample Location #4 cal

Specific Materials/Product 035 WS62 Run Time 2 Min

Date Sampled [redacted] 2-26-73 Time Finished

Sampled By Time Started 9 25 AM

Date Analyzed Elapsed Time 349.40

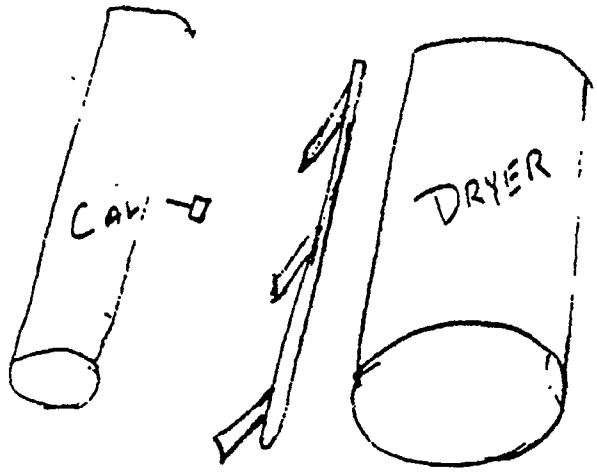
Analyzed By Vol Sampled 698,820 c c

Field Area .055 x .055 Blank

.003025

Remarks.

4½' from floor



Fibers > 5 µ

0	1	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	1
0	0	0	0	0
1	0	0	0	0
0	0	0	0	0
1	0	1	0	0
1	0	0	0	0
0	0	0	0	0
0	0	0	0	1
0	0	0	0	0
0	0	2	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	0	0
0	0	1	0	0
1	0	0	0	0
1	0	0	0	0
5	1	5	0	2

Analysis: .0525 Fibers/cc

T L V Fibers/cc

Total: 13

Avg.: .13

70 44 38
66 94 98
349.40

[redacted]

ASBESTOS FIBER ANALYSIS

Sample Location #1 WAREHOUSE

Specific Materials/Product _____ Pump Rate _____ l/min

Date Sampled 1-27-73 Time Finished 9:20 AM

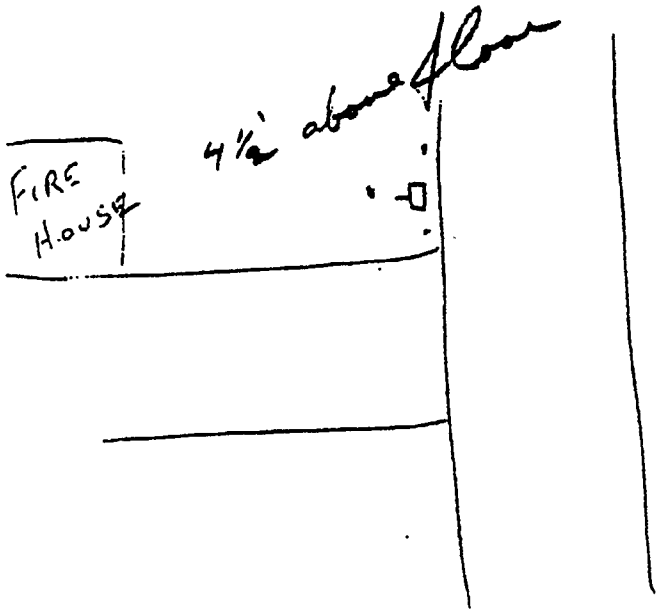
Sampled by _____ Time Started _____

Date Analyzed _____ Elapsed Time 318.52 min

Analyzed By _____ Vol Sampled 637,040 c.c.

Field Area _____ Blank _____

Remarks: 1 CAR LOAD JM5 UNLOADED



Fibers > 5 μ

1	1	1		
3	1	4		
2	2	1		
2	4	1		
4	4	1		
5	3	1		
1	0	0		
2	5	2		
0	0	2		
0	1	0		
2	3	1		
2	0	0		
2	0	0		
0	0	2		
4	0	3		
3	2	3		
1	4	0		
4	2	2		
2	3	0		
1	0	0		
41	35	24		

Analysis: .7365 Fibers/cc Total: 100

S.V _____ Fibers/cc Avg.: 1.66

7363.64
7045.12
318.5

ASBESTOS FIBER ANALYSIS

Sample Location #1 Slurry

Specific Materials/Product [illegible] Pump Rate _____ l/min

Date Sampled 3-1-23 Time Finished _____

Sampled By _____ Time Started 8 [illegible]

Date Analyzed _____ Elapsed Time 356.61 min.

Analyzed By _____ Vol Sampled 713,220 c c

Field Area _____ Blank _____

Name of [illegible]

[illegible]

Fibers > 5 µ

9	1		
2	2		
2	0		
2	6		
4	2		
4	0		
5	1		
4	4		
3	5		
5	2		
3	1		
1	2		
2	0		
2	4		
3	2		
0	0		
5	2		
5	2		
1	0		
2	5		
64	41		

W. GREEN SHIFT

D. LEPPO JR.

Analysis 1.04 Fibers/cc Total: 105

T L V _____ Fibers/cc Avg.: 2.625

77 21.3
73 64.7
356.6

#3

ASBESTOS FIBER ANALYSIS

Sample Location Slurry Mixer #1

Specific Materials/Product JM #5 Pump Rate _____ l/min

Date Sampled 3-12-73 Time Finished _____

Sampled By _____ Time Started 8:58 AM

Date Analyzed _____ Elapsed Time 357.62

Analyzed by _____ Vol Sampled 715, 240 c.c.

Field Area _____ Blank _____

Temp/Hum 030 WS 55

R. STARNER

Fibers ≥ 5 µ

FAN ON

Above gum Arabic

3	7		
3	2		
2	4		
3	2		
4	1		
5	5		
1	3		
6	3		
2	1		
3	2		
4	0		
0	1		
4	5		
2	0		
2	3		
0	0		
4	0		
4	0		
3	3		
7	4		
63	46		

Analysis 1,076 Fibers/cc Total: 109

TLV _____ Fibers/cc Avg.. 2.725

DECEMBER

1 - 14

4 - 23

3 - 16 + 23

8079.78

7722.16

357.62

ASBESTOS FIBER ANALYSIS

Sample Location #4 Hydrapulper

Specific Materials/Product 7ms7 JM#5 Flow Rate 2 l/min

Dated Sampled 3-16-73 Time Finished

Sampled by Time Started 8:45 AM

Date Analyzed 3-21-73 Elapsed Time 365.52

Analyzed By Vol. Sampled 731,040 cc

Field Area .055 x .055 Blank

Remarks:

C. ARNOLD

Fibers > 5 μ

2	1	2	2	1
2	0	1	1	3
4	0	2	1	1
1	0	4	1	1
3	1	3	1	1
3	3	2	3	2
2	2	0	0	2
1	1	0	0	2
1	0	2	0	0
1	0	1	0	2
1	0	1	0	3
1	0	2	0	1
3	0	1	0	2
2	0	1	0	2
2	0	4	2	0
1	0	1	3	0
1	0	1	0	0
1	1	0	0	0
2	1	0	0	0
1	1	2	0	2
37	11	30	14	25

Aggregate .4523 Fibers/cc

TWA Fibers/cc

Total: 117

Avg.: 1.17

68-31.13
846.561
365.52

(33)

ASBESTOS FIBER ANALYSIS

Sample Location #4

Specific Materials/Product JM #5 7MS7 Pump Rate _____ l/min

Dated Sampled 3-19-73 Time Finished _____

Sampled By _____ Time Started 920 AM

Date Analyzed 3-21-73 Elapsed Time 325.19 min

Analyzed By _____ Vol. Sampled 650,380 c c

Fiber Area _____ Blank _____

Analyst:

C. RAVER

Fibers > 5 μ

5 : 2	0 : 0			
1 : 2	0 : 0			
4 : 0	2 : 0			
2 : 0	1 : 0			
1 : 0	1 : 0			
2 : 0	1 : 0			
2 : 0	3 : 0			
3 : 0	4 : 0			
1 : 0	2 : 0			
1 : 0	2 : 0			
6 : 3	2 : 0			
1 : 2	2 : 0			
2 : 1	3 : 3			
4 : 1	2 : 2			
2 : 1	2 : 1			
1 : 1	1 : 1			
1 : 2	0 : 2			
1 : 0	0 : 1			
1 : 0	0 : 0			
2 : 0	0 : 0			
44	15	36	10	

Analysis: .5692 Fibers/cc Total: 105

T.L.V 5.0 Fibers/cc Avg.: 1.31

915727
883208
325.19

ASBESTOS FIBER ANALYSIS

Sample Location #1 Slurry

Specific Materials/Product _____ Pump Rate 2 l/min

Dated Sampled 3-21-73 Time Finished _____

Sampled By _____ Time Started 8 23 AM

Date Analyzed 4-3-73 Elapsed Time 383.00

Analyzed By _____ Vol Sampled 766,000 c c

Field Area .055 x .055 Blank _____

Stain: D. Lead
tagged gum Arabic

Fibers > 5 μ

AIR →

11			
5			
7			
6			
3			
7			
5			
3			
6			
6			
7			
7			
6			
8			
8			
10			
4			
5			
6			
9			
3			

128

Analysis: 2,361 Fibers/cc Total: 128

L.V. _____ Fibers/cc Avg.: 6.4

9541.59
9158.59
383.00

(33

ASBESTOS FIBER ANALYSIS

Sample Location BLDG #59

Specific Materials/Product _____ Pump Rate 2 l/min

Date Sampled 3-22-73 Time Finished _____

Sampled By _____ Time Started 9 10 AM

Date Analyzed 4-3-73 Elapsed Time 343.49

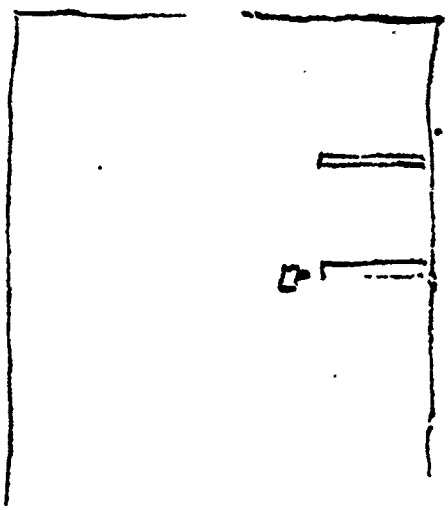
Analyzed By _____ Vol Sampled _____ c c

Field Area _____ Blank _____

Remarks:

moved in 10 rocks of Slaters

Fibers > 5 →



0 : 0	0 . 3	1
0 : 0	0 : 0	0
0 : 2	1 : 0	0
0 : 0	0 : 0	0
0 : 0	0 : 0	2
0 : 0	0 : 0	0
0 : 0	0 : 0	0
0 : 1	0 : 0	0
0 : 0	0 : 0	0
0 : 0	0 : 0	0
0 : 1	2 : 0	1
3 : 3	0 . 2	0
0 : 0	0 : 0	0
0 : 0	0 : 0	2
0 : 2	0 : 0	0
1 . 2	1 : 0	0
0 : 1	0 : 1	0
0 : 1	0 : 0	0
0 : 4	0 : 0	2
0 : 1	0 : 1	0
4	11	5	7	10

Analysis: .1975 Fibers/cc Total: 48

T.L.V. 5.0 Fibers/cc Avg.: .48

9886.
9542.
343.

Rosenau

ASBESTOS FIBER ANALYSIS

Sample Location #1 Lenny

Specific Materials/Product WS64 Pump Rate 2 l/min

Date Sampled 3-27-73 Time Finished

Sampled By Time Started 12 34

Date Analyzed 4-3-73 Elapsed Time 132.19 min

Analyzed By Vol Sampled 264,380 c c

Fiber Area .0053mm x .0053mm Blank

Comments:

Loose from 6 lb overhead batch

Fibers ≥ 5 μ

W. FRANK

FAN ON

2	0	3		
3	3	2		
7	1	2		
3	1	1		
3	3	1		
4	1	6		
4	1	1		
2	3	2		
1	3	3		
1	3	3		
3	0			
2	3			
3	3			
3	2			
1	3			
6	3			
1	1			
0	2			
1	3			
3	2			

53 43 26

Analysis: 2.6 Fibers/cc Total: 122

T.L.V.: 5.0 Fibers/cc Avg.: 2.44

10019.72
9887.53
132.19

ASBESTOS FIBER ANALYSIS

Sample Location #4 Hydrapulper

Specific Materials/Product JM #5 - 7MS7 Pump Rate 2 l/min.

Date Sampled 3-28-73 Time Finished

Sampled By Time Started 8 40 AM

Sample Analysis Elapsed Time 289.50 min.

Analyzed By Vol. Sampled 579,000 cc

Work Area Blank

Comments

E. HENRY

Fibers > 5 μ

1	0	1	0	0
2	0	1	0	0
1	0	1	0	0
1	0	1	0	0
1	0	1	0	0
1	0	1	1	0
1	0	1	2	0
0	0	2	1	1
0	0	1	1	2
0	0	2	1	1
0	0	0	1	3
0	0	0	1	0
0	0	0	2	0
0	0	0	1	0
2	0	0	0	0
1	0	0	0	0
1	0	0	0	0
2	1	0	0	0
2	1	0	0	0
1	2	0	0	0
18	3	12	14	7

Analysis: 0.264 Fibers/cc Total: 54

Blank Fibers/cc Avg.: .54

0.015
0.065
0.184
289.50

ASBESTOS FIBER ANALYSIS

Sample Location #4

Specific Materials/Product JM 55 -7057 Pump Rate 2 l/min

Date Sampled 3-30-73 Time Finished

Sampled By Time Started 9 3/4 AM

Date Analyzed Elapsed Time 339.08 min

Analyzed By Vol. Sampled 678, 160 c c

Field Area Plant

Analyst: D. Brothers Observer:

1	1	0	2	
2	1	2	1	
0	0	3	0	
1	1	0	0	
2	3	0	0	
2	1	1	2	
2	3	0	1	
0	1	2	0	
0	3	1	2	
2	2	2	1	
4	1	0	1	
3	2	0	2	
1	0	1	1	
3	2	1	1	
2	2	0	1	
2	2	1	1	
0	3	1	2	
0	0	1	0	
0	1	1	2	
3	2	0	2	

30 31 17 22

f/cc: 0.521 Total: 100

f/cc: Avg.: 1.25

0 65020
0 31112
339.08

Slurry mixer #1

jms 705 2

4-3-73

9 05

342.69

685,380

030 WS62

H. DODERER

Bagged gum Arabic

4	2		
4	5		
3	4		
3	[illegible]		
3	4		
4	2		
5	2		
3	3		
9	4		
5	6		
4	5		
5	2		
3	1		
4	1		
0	1		
4	4		
6	2		
5	4		
1	4		
2	3		
77	61		

Analysis: 1.423 Fibers/cc

V _______ Fibers/cc

Total: 138

Avg: 3.45

0993.26
063-0.57
342.69

I 7.

=4 HYDRAPULPER

WS 64 2

4-14-73

9:00 Am

318.84

637 680

Loose gum Arabic
2 lb. each load.

F. ZIEGLER

Fibers: 5 μ

2 : 1	0 : 1	1
2 : 1	0 : 0	2
1 : 1	0 : 0	1
2 : 1	0 : 0	1
3 : 1	0 : 0	0
1 : 1	0 : 4	0
2 : 2	0 : 1	0
1 : 2	0 : 4	0
2 : 1	0 : 1	0
1 : 4	0 : 2	0
1 : 1	0 : 1	0
1 : 1	0 : 1	0
3 : 1	0 : 2	0
3 : 1	0 : 3	0
2 : 2	0 : 2	2
3 : 1	0 : 1	1
1 : 1	0 : 1	0
2 : 0	0 : 1	0
2 : 0	0 : 3	1
1 : 0	0 : 1	3
36	23	29	13

Analysis: .447 Fibers/cc

T. & V. _____ Fibers/cc

Total: 101

Avg: 1.01

131269
09938 5
318.84

41
42

Location: WET LAB

Material/Product: #5 - 7D-5 Time: 2 min

Date Sampled: 4-26-73 Time Finished:

Sampled by: Time Started: 12 45 PM

Date Analyzed: 5-7-73 Elapsed Time: 191.09 min.

Analyzed by: Vol. Sampled: 382,180 cc

Work Area: Blank:

Comments:

12 45 PM to 1 32 PM

12 samples in Williams Disintegrator

2 samples in Rotap

total # 0 in Rotap

new funnel top on Williams Disintegrator

Fibers: 5

1	4
1	3
1	1
3	1
0	3
4	0
4	3
4	0
6	2
3	3
5	3
2	3
1	6
2	0
1	3
2	2
3	1
5	2
4	4
1	6
53	50

Analysis: 1.90 Fibers/cc Total: 103

T.L.V _____ Fibers/cc Avg.: 2.575

1503.89
1312.80
191.09

Sample Location #1 Slurry mixer

Job No./Asbestos/Type JM #5. 7D5 Sample No. 2

Date Sampled 12-13-73 Time Finished

Sampled By Time Started 8 35 A.M.

Analyzed Elapsed Time 335. 35 MIN.

Checked By Vol Sampled 670, 700 cc

Field Area .055 mm x .055 mm Blank

Time to WS62

H. DODERER

R. MANN SHIFT

2 MEN, 1 HR. ON - 1 HR. OFF

WORKED 3 HRS.

USED C.M.C.

NO FRESH AIR IN.

OUT VENT FAN "ON"

Fibers = 5

5	3
4	0
3	1
4	7
4	1
2	4
2	2
3	3
2	3
2	5
3	2
1	2
1	1
3	0
0	4
2	2
1	1
3	1
4	2
1	0
59	48

Analysis: 1.07 Fibers/cc Total: 102

T.L.V. Fibers/cc Avg.: 2.55

ASBESTOS MINERALS

Location #1 Slurry mixer

Manufacturer/Product JM #5-725 Filter Type 2

Date Sampled 12-14-73 Time Finished

Sampled By Time Started 9 30 Am

Date Analyzed Elapsed Time 325.16

Analyzed By Vol Sampled 752,320 cc

Field Area .055 MM x .055 MM Blank

WS 62
B. RICKETS

Fibers = 5 ×

2. MANN SHIFT

2 MEN, 1 HR. ON - 1 HR. OFF

USED CMC

FRESH AIR "IN" FAN ON

11 30 Am To 12 30 Pm RICKETS WORK

1 30 Pm To 2 30 Pm RICKETS WORK

OUT VENT FAN "ON"

3	2			
1	2			
5	4			
0	6			
1	2			
3	0			
3	5			
4	2			
3	2			
3	3			
4	3			
2	3			
3	1			
2	3			
2	4			
2	2			
2	3			
1	1			
4	4			
3	3			
53	55			

Analysis: 1.02 Fibers/cc Total: 108

TLV Fibers/cc Avg.: 2.7

[illegible]

[illegible] #4 [illegible]

[illegible] /Product [illegible] 7MS7 [illegible] 2

[illegible] Sampled 12-18-73 Time Finished

[illegible] Time Started 9 30 AM

Date Analyzed Elapsed Time 254.75 MIN.

[illegible] Vol Sampled 509 [illegible]

[illegible] .055 mm [illegible] .255 mm Blank

[illegible] WS 64

USED C.M.C.

F. ZIEGLER

I. SPENCERS SHIFT

Fibers > 5 [illegible]

0	1	0		
2	5	0		
2	1	3		
2	0	1		
1	1	1		
1	0	1		
2	2	2		
0	1	2		
2	2	5		
2	2	3		
1	1	4		
3	2	3		
1	2	3		
3	2	2		
0	0	2		
5	3	1		
1	5	3		
0	2	1		
3	4	1		
3	2	0		
34	38	41		

Analysis 1.54 Fibers/cc

[illegible] Fibers/cc

Total: 113

Avg: 1.88

ASBESTOS FIBER ANALYSIS

Name of Sample on #4 Hydrapulper

Sample Materials/Product JM #5 - 7MS7 Pump Rate 2 l/m

Date Sampled 12-19-73 Time Finished

Sampled by Time Started 9 10 AM

Date Analyzed Elapsed Time 256.12 MIN

Analyzed By Vol Sampled 5-12, ±40 c c

Field Area .955 mm x .255 mm Blank

Comments MS 64

USED C.M.C.

C. RAVER

I. SPENCERS SHIFT

Fibers ≥ 5 μm

2	5-			
3	11			
0	0			
3	1			
5-	12			
4	5-			
5-	3			
2	1			
1	1			
0	1			
3	5-			
4	2			
1	2			
5-	10			
1	3			
1	3			
3	1			
0	1			
5-	3			
1	2			
59	65			

Analysis: 1.7 Fibers/cc Total: 124

F.L.V Fibers/cc Avg.: 3.1

#47

SPECIFIC FIBER ANALYSIS

Sample Location #1 [illegible]

Specific Materials/Product ( ) Pump Rate ______ l/min

Date Sampled 1-9-74 Time Finished ______

Sampled by ______ Time Started 845 Am

Date Analyzed 1-16-74 Elapsed Time 352.65 min

Analyzed By ______ Vol. Sampled 705,300 cc

Field Area ______ Blank ______

Remarks WS & 2

W. FERGUSON

air out – on

air in – off

1 hr. on – 1 hr. [illegible]

3 hrs slurry.

LOOSE CMC

Fibers > 5 μ

4	3			
4	2			
3	4			
1	2			
2	2			
3	3			
3	2			
1	3			
8	3			
2	3			
2	4			
1	2			
2	2			
2	1			
2	2			
6	0			
0	1			
3	1			
4	2			
3	3			
60	46			

Analysis: 1.06 Fibers/cc Total: 106

TLV ______ Fibers/cc Avg.: 2.65

345089
309824
352.65

#4 2

ASBESTOS SAMP ANAL

Sample Location #1 Slurry

Raw Materials, Product JM #5 35 Sample Size

Date Sampled 1-11-74 Time Finished

Sampled By Time Started 8 35 Am

Date Analyzed 1-16-74 Elapsed Time 349.75

Analyzed By Vol. Sampled 699,500 cc

Filter Area Blank

Tube #534

J. LEPPO JR.

air out ON

in in OFF

Fibers > 5 μ

7	0		
3	2		
2	0		
5	3		
6	3		
8	3		
7	1		
4	3		
9	6		
2	7		
3			
8			
2			
2			
6			
4			
7			
1			
4			
3			

95

Analysis: 1.62 Fibers/cc

TWA ______ Fibers/cc

Total: 121

Avg.: 4.03

350064
345089
349.75

=-7

ASBESTOS FIBER ANALYSIS

Sample Location #1 – Slurry

Specific Materials/Product		Pump Rate	2 l/min
Date Sampled	1-15-74	Time Finished	
Sampled By		Time Started	9:07 am
Date Analyzed	1-23-74	Elapsed Time	264.73 min
Analyzed By		Vol. Sampled	529,460 cc
Plant Area		Blank	

Remarks: in 264 min

out in "on"

in an "off"

S. GRAYBEAL

1hr on 1hr off.

about 3 hrs worked

Fibers > 5 µ

3	2		
1	6		
1	4		
3	2		
0	2		
3	12		
1	4		
0	3		
2	0		
1	2		
4	2		
3	0		
4	3		
4	1		
4	3		
5	2		
2	0		
2	2		
2	5		
4	2		

Analysis 1.4 Fibers/cc

TLV Fibers/cc

Total: 106

Avg.: 2.65

406537
380064
264.73

ASBESTOS FIBER ANALYSIS

Sample Location #1 S. Curry

Specific Materials/Product _____ Pump Rate 2 l/min

Dated Sampled 1-16-74 Time Finished _____

Sampled By _____ Time Started 10 10 Am

Date Analyzed 1-23-74 Elapsed Time 288.56

Analyzed By _____ Vol Sampled 577,120 cc

Field Area _____ Blank _____

Remarks WS 62

out air on

in air off

W. FRANK

1 hr. on 1 hr. off

VERY LARGE PARTICALS

NOT THESE asbestos fibers, rather fiberglass, or other large particles

Fibers > 5

6				
4				
5				
8				
5				
2				
3				
6				
4				
5				
4				
2				
4				
1				
8				
5				
5				
3				
1				
4				

89

Analysis 2.3 Fibers/cc Total: 89

TLV _____ Fibers/cc Avg.: 4.45

435-3.93
4065.37
288.56

ASBESTOS FIBER ANALYSIS

Sample Location #1 Slurry

Specific Materials/Product _____ Pump Rate _____ l min

Date Sampled 1-24-74 Time Finished _____

Sampled By _____ Time Started 9 03 AM

Date Analyzed 1-30-74 Elapsed Time 336.23 min

Analyzed By _____ Vol Sampled 672 460 c c

Field Area _____ Blank _____

Remarks:

R. STARNER.

OUT FAN "ON"

IN FAN "OFF"

LOOSE CMC

about 3 hrs.

Fibers>5 μ

0	1	2	2	0
0	1	2	2	4
1	1	2	1	0
0	2	1	7	2
2	0	1	2	2
2	0	1	2	1
0	3	1	0	4
1	1	2	2	0
2	0	0	1	1
2	1	1	1	3
1	1	0	1	2
0	3	2	3	4
0	2	1	1	2
1	0	2	4	2
2	0	0	3	1
2	0	2	1	1
1	1	0	2	1
1	5	0	2	2
1	0	0	0	0
2	2	0	0	2

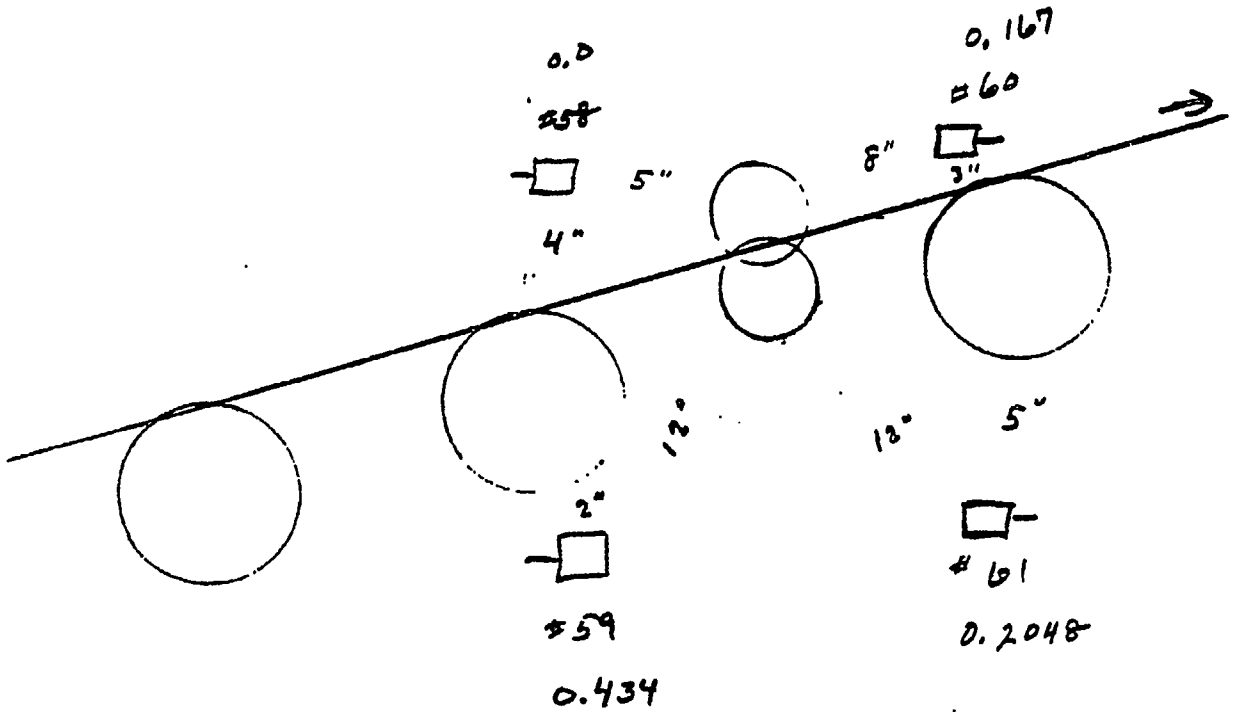
Analysis: 0.59 Fibers/cc

T.L.V _____ Fibers/cc

Total: 140

Avg.: 1.4

4690.16
4353.93
336.23


0.0
#58
5"
4"
0.167
#60
8"
3"
12"
12"
5"
2"
#59
0.434
#61
0.2048

[illegible]

[illegible]: #1 rewinders (slitters)

[illegible]: WS 55 [illegible]: 2 [illegible]

[illegible]: 2-27-74 [illegible] Finished: 10 35 Am

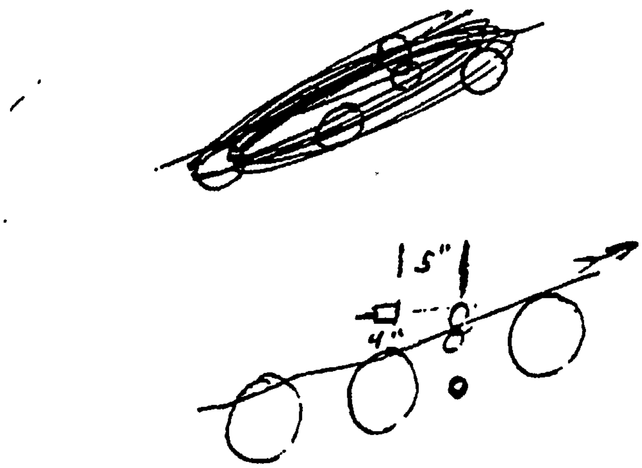
[illegible]: Time Started:

[illegible]: 3-8-74 Elapsed Time: 7.86 min

[illegible] [illegible] Sampled: 15,720 [illegible]

[illegible] [illegible]

[illegible] 45



Fibers: 5

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	[illegible]	0
0	0	0	0	
0	0	0	0	0
0	[illegible]	[illegible]	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

Analysis: 0 Fibers/cc Total: 0

[illegible] Fibers/cc Avg:

55933
558552
7.86

#1 rewinders (slitters)

WS 55 — 2

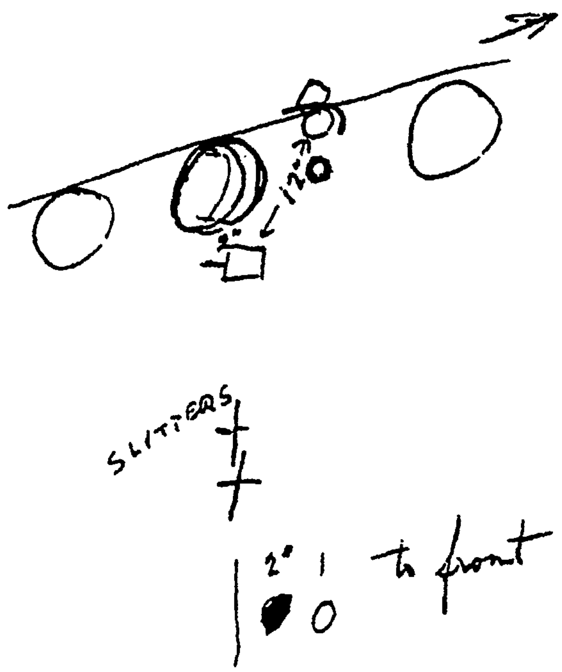
2-27-74 — Time Finished

Time Started 11 12 pm

3-8-74 — Elapsed Time 9.76 min

Vol Sampled 19,520 cc

Blank



Fibers

1	0	0	0	0
1	0	0	0	0
1	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

Analysis 0.434 Fibers/cc

Fibers/cc

Total: 3

Avg.: .03

5603.12
5593.36
9.76

ASBESTOS FIBER ANALYSIS

Sample location #1 reminder (Glitter)

Material Received/Produced WS 5-5 Flow Rate 2 l/min

Date Sampled 2-27-74 Time Finished

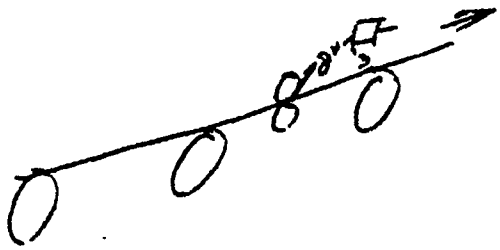
Sampled by Time Started 1 40 pm

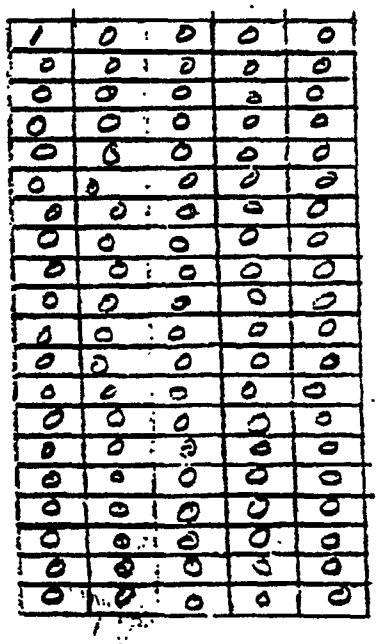
Date Analyzed 3-8-74 Elapsed Time 2.44

Analyzed by Vol Sampled 16,880 cc

Plant Area Blank

Fibers > 5 μ





Analysis: 0.167 Fibers/cc Total: 1

T L.V - Fibers/cc Avg : .01

#6

[illegible]

Sample Location #1 rewinder slitters

Source Materials/Product WS 055

Flow Rate 2 ℓpm

Date Sampled 2-27-74

Time Finished

Sampled By

Time Started 2:20 pm

Date Analyzed 3-8-74

Elapsed Time 6.9 min

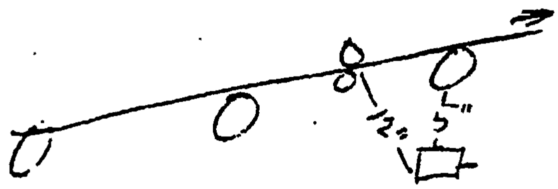
Analyzed By

Vol. Sampled 13,800 cc

Work Area

Blank

Remarks



Fibers > 5 μ

0	1	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

Analysis. 0.2048 Fibers/cc

[illegible].V ______ Fibers/cc

Total: 1

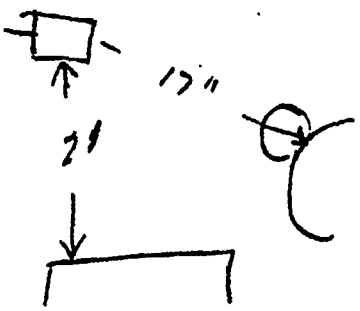
Avg: .01

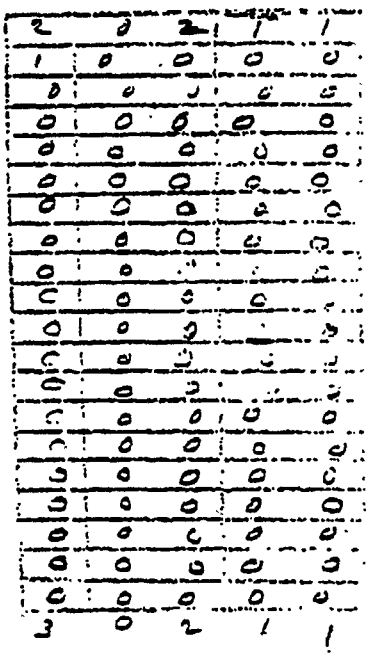
5618.46
5611.56
6.90

BACK OF #4 reminder (slitter)
WS 62 2
2-28-74

10 50/Am
3-8-74 6.54 min
13,080.

old slitter





1.51

7
.07

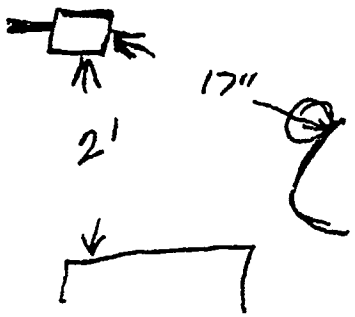
5-6 25.00
5-6 18.46
6.54

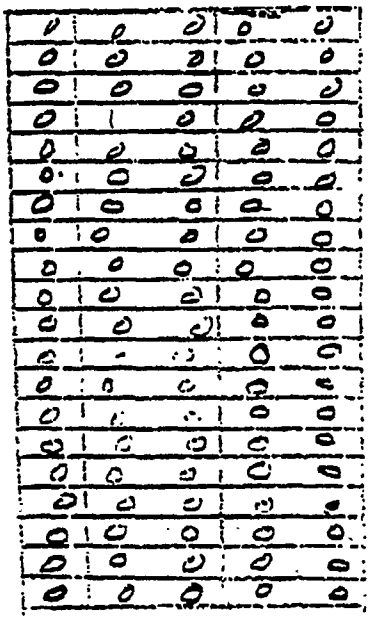
BACK OF #4 REWINDERS (SLITTERS)

2-28-74

3-8-74 ..... 2 20/pm
4.83
9,660

new slitter





0.29 1
.01

5629.83
5625.00
4.83

= 1 machine 2 cutters

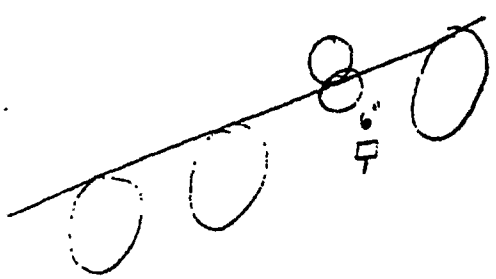
WS 62 2

3-15-74

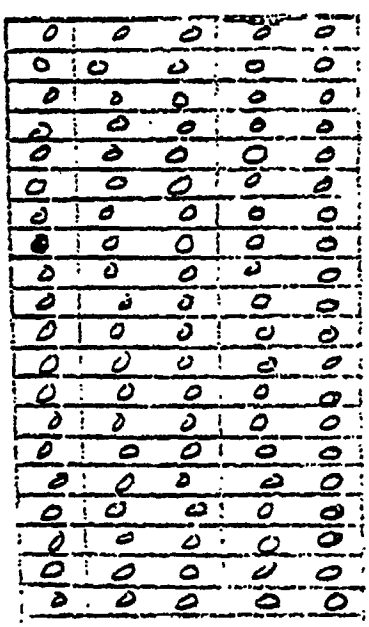
÷ 2/am

3-15-74 7.59 min

15,180



large particals tapped from filter before slide was made



5-64305
5635.46
7.59

6

42

#1 WAREHOUSE TENANT SWEEPER 2

8-21-74

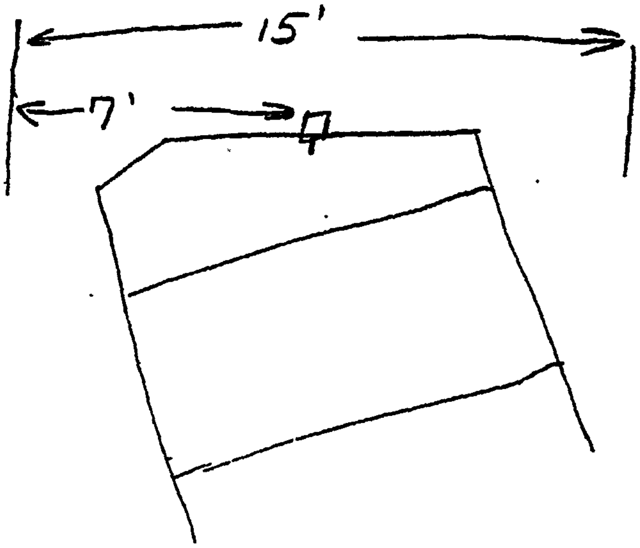
1. 32 pm

8-26-74 11.17 min

22,340

.053mm × .053mm Blank

4' above floor



0

565422
564305
11.17

2

8-21-74

1 47 PM

8-26-74

11.16 MIN

22,320

.055 mm x .055mm

sweeps
main Brush

0	0	1	0	0
0	0	1	0	0
1	0	0	0	0
0	1	0	0	0
0	0	0	0	0
0	0	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
3	1	1		1

0.76

6

.06

56 65 38
56 59 40 side Brushdown
56 54 24 start
11.16

8-21-74

8-26-74

2

2 01/pm

21.16

42,320

clean machine

sweep B of car

main brush and side brush

1	0	1	3	0
0	0	0	0	0
0	3	1	1	0
0	0	0	0	0
0	0	0	0	0
0	1	1	0	0
0	0	0	1	1
0	0	0	0	0
1	0	0	0	0
0	0	0	1	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1
0	0	1	0	1
0	0	0	0	0
1	0	0	0	0
4	5	4	7	3

1.54 Fibers/cc

Fibers/cc

Total 23

Avg .23

5686.54

5665.38

21.16

8-21-74	Time Finished
	Time Started 2 30
8-26	Elapsed Time 13.52
	Vol Sampled 27,040
.055mm + .055mm	Blank

same as #66
after sweeping

5700 1.6
5686.6 K
13.52

Fibers

_______ Fibers/cc

_______ Fibers/cc

Total: 0

Avg:

7223.00 at (11:30 pm)
22
41

56:25
56.416

7223.00
56.42
7279.42

7273.05
7223.00
50.05

57.006

$\frac{50.05}{56.42} = .8871$

bldg #60 unloading asbestos

Job # 7MS7 Sample # 2

Date 11-24-75 Time Finished

Pump # Time Started 1 30 pm

Date Analyzed 12-6-75 Elapsed Time 48.32 min

Received By Vol Sampled 96640.

Field Area Blank

Remarks Lou Testerman
lift truck operator
DWC 58 23 03
same time as #86

Fibers/mm²

0	0	0	0
0	0	0	0
0	0	0	2
0	0	0	0
0	1	0	0
0	1	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	1	0	0
0	1	0	0
0	0	0	0
0	1	0	0
0	0	0	0
0	0	0	0

5 2

Analyst 0.2 Fibers/cc Total 7

TLV Fibers/cc Avg 0.07

3433.34
3387.44
45.90

#20 95%

HP3 recounted

#85

#8

#1 side unloading asbestos #5

JM #5 V 2

11-20-75

10 15 AM

12-6-75 79.34 min.

158,680

C# 592332

dunnage bags in car

slight breeze

R. Jones

same time as #84

1	0	1	1	0
2	0	0	0	0
0	6	1	0	0
1	0	0	0	0
0	1	0	0	0
1	0	0	0	0
0	1	0	0	0
0	2	0	2	0
0	0	0	0	1
0	0	0	0	0
0	2	0	1	0
0	0	0	0	0
0	0	0	0	0
0	3	1	0	0
2	3	0	0	1
2	2	0	2	0
1	0	0	0	0
0	0	0	1	0
0	1	0	1	0
0	0	0	2	0
10	21	3	11	6

Total 51

Avg. 0.51

0.91 fibers/cc

fibers/cc

3387.44

3312.07

75.37

79.34 min. total

Pump 20 95%

5-1

#60 bldg. Unloading asbestos

Pump Nos 2

Date: 11-15-75

Time Finished

Time Started 8:30 AM

Elapsed Time 141.07 min (corr.

Vol Sampled 282,140

Blank

D Bitzel (helper)
CN 592397 good
Bags

1/2 of CN 592748 good.
(room filled with bags).
dunnage bags
in both cars.
taken same time as #82

0	1	0	1
0	1	0	0
4	1	0	2
2	2	1	0
0	3	1	0
1	0	0	1
0	0	0	0
1	1	0	0
0	1	0	0
2	0	0	1
0	1	1	2
0	0	1	3
0	0	1	0
0	0	0	0
0	1	0	2
0	1	0	0
2	2	2	0
1	4	2	0
1	2	3	5
1	1	0	0
15	35	18	16

24

Analysis: 1.082 Fibers/cc

Total: 108

T L V _____ Fibers/cc

Avg.: 1.08

#20

3312.06
3178.04
134.02

95% 141.07

#60 bldg unloading asbestos

JM #5 — 2

11-11-75 — Time [illegible]

Time Started 8:17 AM

11-12-75 — Elapsed Time 169.90 MIN (Cor

Vol Sample 339.800

Blank

CN 592313 FAIR
CN 592407 FAIR
calm day.

G. Gladfelter (helper)

Taken same time as #79

1	1	0	1	2
3	0	0	1	3
0	1	2	2	4
5	0	2	5	0
2	6	0	0	0
0	1	3	0	6
2	1	1	1	0
0	1	0	3	1
2	0	0	0	1
0	1	1	0	0
0	0	2	1	2
0	0	2	1	0
2	1	0	0	0
0	1	0	2	0
1	3	0	1	1
1	1	0	2	4
1	0	1	3	0
0	0	2	0	0
1	0	0	0	0
4	0	1	1	0
25	18	17	24	24

Analysis 0.898 Fibers/cc — Total 108

T L V _____ Fibers/cc — Avg 1.08

Survey #73

8290.21
813560
154.61

91%

169.90

#4

[illegible] #4 Hydro

[illegible] Product ______ Pump Rate 2 LPM

[illegible] 4/27 Time Finished 201

[illegible] MJ[illegible] Time Started 1219

[illegible] 5-3-77 Elapsed Time 102 min

[illegible] J. A. [illegible] Vol Sampled 204000 [illegible]

[illegible] Area 0.003025 Blank ______

Remarks

15 [illegible] all [illegible]

[illegible] = 1

Fibers [illegible] 5 μ

0	0	0	1	0
0	0	0	1	0
2	0	0	0	0
0	6	0	1	1
0	0	1	0	0
0	1	1	0	2
0	0	0	0	0
0	0	0	1	0
1	0	0	0	1
0	0	0	0	0
0	0	0	0	1
1	0	0	0	0
0	0	0	1	0
0	2	0	1	0
0	0	0	0	0
1	0	0	0	0
0	0	0	0	0
1	0	0	0	0
0	0	0	0	0
0	1	0	0	0
6	10	2	6	5

Analysis: 0.402 Fibers/cc Total 29

T L V ______ Fibers/cc Avg: 0.29

Congoleum Corporation
Resilient Flooring Division
Cedarhurst Plant

May 4, 1977

The following represents the work schedule followed by F. Neumann on April 28, 1977:
+ L. Testerman 27

8:00 - 9:00 A.M. - No exposure to asbestos
Involved in vehicle transportation

9:00 - 11:30 A.M. - Asbestos unloading in Bldg. 60
from R.R. car

11:30 - 12:00 A.M. - LUNCH

12:00 - 3:00 P.M. - Asbestos unloading in Bldg. 60
from R.R. car

3:00 - 4:10 P.M. - Unloading cardboard in Bldg. 2
No asbestos exposure

4:10 - 4:30 P.M. - Wash Up

Hydrapulper operator

WS 64

11-11-75

11-17-75

.045 mm ± .015 mm

Time Started 8:20 AM

Elapsed Time 228.52 min (cor)

Vol Sampled 457.040

Blank

R. Franklin

Taken same time as #80

2	0	5	0	1
0	1	0	0	0
2	0	1	0	0
1	0	2	0	0
0	0	0	0	3
1	0	2	0	0
0	2	0	1	0
0	0	1	0	0
1	0	1	0	0
0	0	0	0	2
0	0	0	0	1
1	0	0	0	0
1	4	0	1	0
1	0	0	1	3
1	0	0	0	1
2	0	1	3	0
0	0	0	2	1
0	1	1	0	2
0	0	2	0	2
0	0	2	0	3
13	8	18	8	19

Analysis: 0.408 Fibers/cc

T.L.V. Fibers/cc

Total: 66

Avg: .066

Pump #20

3178.04
2960.95
217.09

95% 228.52

4 side Bldg # 60

PB #5 2

8-27-75

Time started: 10:50 Am

Finished 11-17-75 Elapsed time 50.44

Pump No. Vol sampled 100880

Area Blank

CN 592611

slight breeze

F. NEWMAN (helper)

good clean car

no broken bags

Fibers per

	20	20	5
4	2	1	
3	1	7	
3	0	0	
2	4	5	
1	0	2	
2	3		
1	0		
3	2		
0	2		
2	1		
1	6		
7	0		
1	2		
0	12		
0	0		
5	1		
6	2		
0	0		
9	1		
9	3		
	55	42	15

Analysis: 6.98 Fibers/cc Total: 112

T.W.A. _____ Fibers/cc Avg.: 2.49

Note. not corrected for TWA

Only one car unloaded this day

2438.02
2387.58
50.44

#8

#1 side unloading asbestos #5

JM #5 — Filter 2

11-20-75 — Time finish

Time started 10:15 AM

12-6-75 — Elapsed Time 68.08 min

Vol Sampled 136 160

Blank

CN 59 2332
dunnage bags in car
slight freeze
W. Reese
same time as #83

Fibers: 5

0	0	1	0	0
1	0	2	2	0
0	2	0	0	0
0	0	0	0	0
0	0	0	0	0
0	2	0	0	0
0	0	3	1	0
0	0	4	0	0
0	2	1	0	0
2	0	0	0	0
0	0	1	1	5
1	1	1	0	0
1	0	0	0	0
1	2	0	0	1
1	0	0	0	0
0	0	0	0	0
0	0	0	5	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	0
8	10	13	9	6

Daily: 0.95 Fibers/cc — Total: 46

TWA: _____ Fibers/cc — Avg: 0.46

small dirt

84935.5
84360
61.95

Pump 73
91%

68.08 corrected

#4 side Blds = 60
PB #5
8-28-75

11-17-75

2

8 45 ~~PM~~
59.39
118 780

Very slight breeze
CN592643
Bad car
~~Fumigated~~
F. NEWMAN (helper)

99

0	2	2
16	3	5
3	2	1
5	0	2
1	3	3
6	0	
0	2	
4	3	
6	1	
3	3	
2	0	
6	2	
5	2	
4	2	
0	0	
0	1	
3	1	
0	1	
4	1	
0	2	

68

Inbound: 593 Fibers/cc
Total: 112
Avg. 2.49

Not corrected for TWA
Only one car unloaded this day

2497.41
2438.02
59.39

Hydrapulper

W564-W565

11-15-75

2

11-18-75

Start Time 8:17 AM

Stop Time 15:55.37 MIN CG

Total Counted 310,747

Blank

C Raver

taken same time as #81

3	5	2	8	0
2	0	1	0	2
2	0	1	1	0
2	2	0	0	1
1	2	1	5	3
1	0	2	3	0
1	1	3	4	3
3	5	0	0	0
0	0	0	0	1
1	1	0	0	1
0	0	0	0	0
2	2	3	1	1
1	1	0	0	3
4	1	0	1	4
2	0	1	0	1
0	1	1	0	3
0	2	2	0	0
2	0	2	0	0
1	0	0	1	1
0	0	0	1	3
28	23	19	33	27

#73 Analysis: 1.18 Fibers/cc

TLV _____ Fibers/cc

Total: 130

Avg.: 1.3

8431.60

8290.21

141.39

9.1%

15:55.37

ASBESTOS FIBER ANALYSIS

Sample Location #1 Box CAR

Specific Materials/Product #5 Pump Rate _____ l/min

Date Sampled 1-30-74 Time Finished _____

Sampled By _____ Time Started 1 25 pm

Date Analyzed 2-4-74 Elapsed Time 103.81

Analyzed By _____ Vol. Sampled 207,620 c c.

Field Area _____ Blank _____

Remarks. P.P

NO WIND

CLEAN PALLET

BAD CAR

8 bags fallen in doorway
4 were broken open
Total 17 bags broken in car
Dust heavy.

Fibers>5 μ

24				
43				
47				
49				
33				
38				
27				
32				
25				
43				

Analysis: 49.14 Fibers/cc Total: 361

T.L.V _____ Fibers/cc Avg.: 36.1

This slide does not meet the equirement of not counting a field with over 20 fibers and counting a minimum of 20 fields

479 3.97
469 0.16
103.81
1

#5

ASBESTOS FIBER ANALYSIS

Sample Location #1 Box car.

Specific Materials/Product _____ Pump Rate 2 l/min

Date Sampled 2-1-74 Time Finished _____

Sampled By _____ Time Started 8 20 Am

Date Analyzed 2-5-74 Elapsed Time 65.15

Analyzed By _____ Vol. Sampled 130,300 c c

Field Area _____ Blank _____

Remarks:

BARNES (lift truck)

light wind
good car.

test in 2 parts

Fibers > 5 μ

2	2			
0	1			
2	3			
3	2			
5	.			
3	.			
9	3	-		
4	5			
2	2			
3	1			
0	5			
1	2			
1	2			
2	1			
0	-			
3	1			
1	2			
1	3			
0				
0	-			

Analysis: 5.75 Fibers/cc

T L V _____ Fibers/cc

Total: 106

Avg.: 2.65

48 59 12
47 93.97
65.15

ASBESTOS FIBER ANALYSIS

Sample Location #41 Car

Specific Materials/Product #5 — Pump Rate 2 l/min

Date Sampled 2-6-74 — Time Finished

Sampled By — Time Started 10 40

Date Analyzed 2-14-74 — Elapsed Time 53.73

Analyzed By — Vol. Sampled 107,460 c c

Field Area — Blank

Remarks: A. LOCKARD

good car

some mind

Fibers ≥ 5 μ

0	1	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	0
1	0	0	1	2
0	0	0	0	0
0	1	2	0	1
0	0	0	2	0
0	6	0	1	1
3	1	0	0	0
2	2	0	0	0
0	1	0	0	0
0	0	0	0	0
0	3	0	0	0
3	0	0	0	0
0	0	0	0	0
1	2	0	0	3
0	2	2	0	0
0	0	0	0	0
0	1	0	2	0
11	21	4	6	7

0

Analysis: 1.3 Fibers/cc — Total: 49

T.L.V — Fibers/cc — Avg.: .49

4912.85
4859.12
53.73

ASBESTOS FIBER ANALYSIS

Sample Location #4 Box CAR

Specific Materials/Product _____ Pump Rate 2 l/min

Dated Sampled 2-8-74 Time Finished _____

Sampled By _____ Time Started 10 35 AM

Date Analyzed 2-13-74 Elapsed Time 64.74

Analyzed By _____ Vol Sampled 129,480 c c

Field Area _____ Blank _____

Remarks

LOW

about 15 broken bags

Fibers>5 μ

2	5	2
0	1	1
9	5	3
1	3	0
4	1	0
2	0	1
6	3	4
1	2	0
1	3	3
1	2	0
3	2	
1	2	
1	0	
0	3	
2	0	
3	1	
2	0	
1	5	
11	0	
2	1	
51	39	14

50

Analysis: 4.54 Fibers/cc Total: 104

T.L.V _____ Fibers/cc Avg.: 2.08

4977,59
4912,85
64.74

ASBESTOS FIBER ANALYSIS

Sample Location #4 HYDRAPULPER

Specific Materials/Product _____ Pump Rate _____ l/min

Dates Sampled 2-15-74 Time Finished _____

Sampled By _____ Time Started 8 45 AM

Date Analyzed 2-20-74 Elapsed Time 216.86 MIN

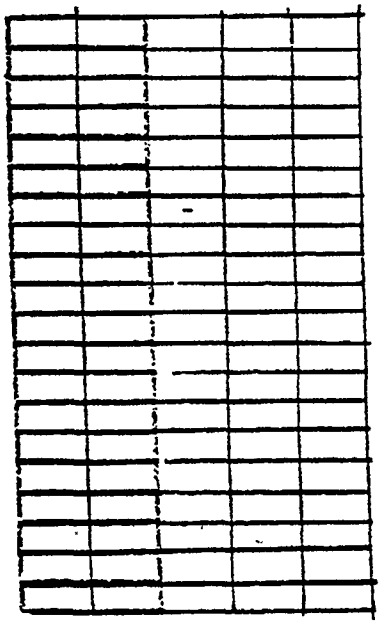
Analyzed By _____ Vol. Sampled _____ c c

Field Area _____ Blank _____

Remarks: R. Mann Shift
C. ARNOLD
WS 62

Loose C.M.C.

Fibers > 5 μ



To MANY MISCELLANEOUS PARTICALS

Analysis: _____ Fibers/cc Total: _____

T L V _____ Fibers/cc Avg.: _____

5294.45
4977.59
216.86

ASBESTOS FIBER ANALYSIS

Sample Location #4 HYDRAPULPER OPERATOR

Specific Materials/Product _____ Pump Rate 2 l/min

Dated Sampled 2-16-74 Time Finished _____

Sampled By _____ Time Started 9⁰⁰ pm

Date Analyzed 2-20-74 Elapsed Time 291.07 min.

Analyzed By _____ Vol. Sampled 582,140. c c.

Field Area _____ Blank _____

Remarks: R. Mann Shift
E. JONES

WS64
Lone C.M.C.

Fibers > 5 μ

2	0	0	1	2
1	1	0	0	0
1	1	0	1	0
1	0	1	0	2
1	0	3	1	1
0	3	0	1	2
1	0	0	0	0
0	1	0	1	0
0	0	0	0	0
1	0	0	0	0
0	0	0	0	0
0	0	1	3	0
4	2	1	1	0
1	0	0	0	0
1	0	1	0	4
0	0	1	0	0
0	1	2	0	0
0	0	0	0	1
2	0	3	1	0
0	0	2	0	1
16	9	15	10	13

Analysis: 0.3 Fibers/cc Total: 63

T L.V _____ Fibers/cc Avg.: 0.63

5 5 8 5 5 2 1
5 2 9 4 4 5
5 / 2 9 1.0 7

Bldg #60 unloading asbestos

7M37 — Pump No. 2

Date: 11-24-75 — Time Finished

Technician — Time Started: 1 30 pm

Date Mailed: 12-6-75 — Elapsed Time: 54 78 min

Delivered By — Vol Sampled: 109,560

Job No. — Blank

Remarks:
helper
car DWC 582303
Gladfelter
same time as #85

Fibers Counted

1	3	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
1	0	0	0	0	
1	2	0	0	0	
0	0	2	1	1	
3	0	0	0	2	
0	0	0	3	0	
0	1	0	2	0	
0	1	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	3	0	0	0	
0	2	0	0	0	
6	12	2	5	3	

Analysis: 0.72 Fibers/cc — Total 28

T L V ____ Fibers/cc — Avg: 0.28

85434.0
84935.5
49.85
73 91%

unloading asbestos #60 bldg.

7M VS7

12-2-75

Time Started 12 40

12-20-75

Elapsed Time 56.76 min

Vol Sampled 113520

Blank

G Gladfelter
(helper)

DWC 582416
good car.

Fibers = 5

0	0	0	0	0
0	0	0	0	0
0	0	0	0	1
0	2	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	3
0	0	0	1	0
0	0	1	0	0
0	1	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	0
1	0	0	0	0
0	0	1	0	0
0	0	0	0	0
0	0	0	3	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	1

1 4 2 4 5

Analysis: 0.4 Fibers/cc

T L V Fibers/cc

Total 16

Avg : 0.16

8679.44
-8627.79
51.65

56.76 corrected

#73 9%

Location #1 side unloading asbestos

Sampled by JM #5 Pump No. 2

Date 12-1-75 Time Initiated

Analyzed by Time Started 1 00 pm

Date Analyzed 12-5-75 Elapsed Time 92.67

Checked By Vol Sampled 185.340

Work Done Blank

Notes

Dunnage bags
D.W.C. 581880
N. FENOFF (HELPER)
BOTTOM BAGS
OF 1 SKID BROKEN,
MOVED 1/2 OF BAGS
BY HAND.

Fibers on Edge

2	14	1	1	1
0	0	0	0	0
1	2	6	0	1
1	0	3	0	0
4	2	0	0	0
3	1	0	0	2
1	0	0	2	2
1	0	0	0	2
0	0	0	0	0
0	1	1	0	0
0	0	2	0	0
1	0	1	0	6
0	1	0	0	2
1	1	0	0	0
2	0	0	0	0
0	0	1	0	0
2	1	0	3	0
0	2	1	0	1
0	1	1	0	0
0	1	0	1	1
19	27	17	7	18

Analysis: 1.34 Fibers/cc Total: 88

Field Fibers/cc Avg: .88

8627.73
85340
84.33 : 91%

#23

#2 unloading asbestos

CAREY
FELTBESTOS

10-30-74

11-5-74

.055 mm x .055 mm

2

1 1/2

Elapsed Time 111.9 min

Vol Sampled 223400

Blank

DAVE MUNCH

CAR C.P. 5758

ends of bags not glued properly.
Poor loading, extra bags
loose on top of South end
Iman cleaning car and
floor (DAVE) 8 min.
2 men unloading
very dirty shields from
machine room

Fibers

3	
16	
7	
11	
8	
6	
12	
5	
9	
11	
11	
6	
5	
7	
8	
18	
12	
23	
5	
4	

182

Analysis: 11.51 Fibers/cc

T. L. V. _____ Fibers/cc

Total: 182

Avg: 9.1

5811.86
5700.16
111.70

3.1
3.08

#70
recheck

Time Started

Elapsed Time

Vol Sampled 223,400 c

Blank

Fibers:

12		
14		
11		
*		
6		
7		
2		
8		
16		
5		
3		
3		
14		
14		
9		
8		
6		
3		
9		
9		
11		

* 20

Analysis: 11.0 Fibers/cc

TLV Fibers/cc

Total: 174

Avg.. 8.7

22-30
90

#71

ASBESTOS FIBER ANALYSIS

BLDG #60

#5 asbestos — Pump Rate 2

11-7-74 — Time Finished

Time Started 8:45 AM

11-13-74 — Elapsed Time 54.24 MIN

Vol Sampled 110, 400

Blank

E. DAVISON

unload car

DWC 581801

1 broken bag

good car (loaded OK)

4 min. to sweep out car.

Fibers

3	0	0	
0	2	0	
3	1	0	
0	2	1	
1	10	4	
2	2	5	
4	1	0	
4	1	1	
2	5	1	
2	1	3	
1	0	2	
0	1	3	
6	1	2	
2	3	0	
1	2	3	
4	4	1	
2	0	2	
2	6	7	
1	2	7	
3	1	3	
43	45	50	

Analysis: 5.99 Fibers/cc

T L V _____ Fibers/cc

Total: 138

Avg: 2.3

28

58662.0
581186
54.24

#72

BLDG #60

Sample Type: P.B. #5 Sample No: 2

Date: 11-13-74 Time Finished:

Sampled By: Time Started: 10 10 Am

Date Analyzed: 11-15-74 Elapsed Time: 55.35 min.

Analyzed By: Vol Sampled: 110,700 cc

Flow Rate: .003025 Blank:

Analyzed by: DAVE MUNCH

CAR CN 543297

windy day.

1 broken bag

5 min - clean out car.

Fibers/cc =

1	0 2	0
3	2 0	0
1	12 0	3
2	2 3	1
1	2 0	0
2	3 0	0
1	0 3	1
2	2 1	0
2	2 1	2
2	2 1	0
1	0 0	
0	2 3	
9	0 1	
1	2 1	
5	0 1	
0	0 1	
2	1 4	
0	0 1	
0	2 1	
0	1 0	

35 35 26 7

Results: 3.75 Fibers/cc Total: 103

Fibers/cc Avg. 1.47

5921.45
5866.10
55.35

#73

#1 side
PB #5
11-21-74

2

12-2-74

1 25 pm

92.57

197, 40

CAR CN 592737
I. BARNES
2 men working in car.

uneven and Broken floor
3 slide in doorway
no card board
4 bags broken by trucker
empty tub of asbestos
sweepings in Dumpster Bucket

1	0	0
0	5	0
4	1	2
1	1	0
3	2	4
0	0	4
0	0	0
0	2	3
0	2	4
1	0	3
3	1	2
2	2	1
2	1	0
6	0	0
2	5	4
3	5	2
4	3	2
1	2	2
1	2	2
2	1	1
38	35	40

Analysis: 2.72 Fibers/cc
T L V _____ Fibers/cc

Total: 113
Avg.: 1.9

28 min cleanup

602 0.02
5 92145
98.57

14

60 BLDG.
PB #5
11-26-74

Time Started 10:10 AM
12-3-74 Elapsed Time 43.16
Vol Sampled 56,320
Blank

CN543355

E. Damage of clean car
VERY WINDY
FLOOR DIRTY (IN BLDG)
2 broken Bags
6 min to clean out car
car more dirty when started

Fibers/cc

3	2 : 0	1 : 0		
2	3 : 1	0 : 1		
2	0 : 0	0 : 2		
1	0 : 1	0 : 1		
0	0 : 0	1 : 2		
5	0 : 0	1 : 2		
1	1 : 2	2 : 0		
1	1 : 2	2 : 0		
1	0 : 0	1 : 1		
1	1 : 0	1 : 6		
1	0 : 1	3 : 3		
0	0 : 0	0 : 0		
0	0 : 0	0 : 1		
0	1 : 0	1 : 0		
1	0 : 0	4 : 2		
0	1 : 2	0 : 1		
2	4 : 1	0 : 1		
3	2 : 0	0 : 0		
0	0 : 0	1 : 0		
1	0 : 1	0 : 1		
25	16	11	18	26

Analysis: 3.14 Fibers/cc
FLD Fibers/cc

Total 96
Avg 9.6

6063.18
6020.02
43.11

11

#75

#60 BLDG

PB #5

11-26-74

Time Started 2 10 PM

12-4-74

Elapsed Time 66.45 min

Vol Sampled 132,900

Blank

EL 57064

E. DAVIDSON

clean door way and tops of bags with Vac.

Very Windy

bags shifted in doorway

8 min. cleaning Car.

8 broken bags

1	2	0	0
0	2	4	3
1	1	5	3
0	0	1	5
3	0	0	0
1	1	5	1
1	1	9	0
0	4	5	2
4	2	4	1
4	0	2	0
0	3	0	
2	2	3	
3	3	0	
5	4	0	
3	2	0	
0	2	3	
1	3	0	
1	2	4	
1	0	0	
0	1	1	

70

27 31 43 15

Blank: 3.53 Fibers/cc

Total: 116

Fibers/cc

Avg: 1.66

Broken bags
44 11

61 29.63
60 63.18
66.45

= 76

#1 side

PB #5

11-27-74

Time Started 2 00 PM

12-4-74

Elapsed Time 64.25 min

Vol Sampled 129,700 cc

Blank

CN 592406

slight breeze
good air.
N. FENOPE
no broken bags
sweep up 10 min

Fibers: 5 ..

1	1	1	0	3
4	4	1	1	1
0	1	0	0	2
0	0	0	0	1
1	5	3	0	0
1	0	0	1	1
0	0	2	2	0
3	1	4	0	1
0	0	0	0	0
1	2	0	0	0
1	1	3	0	0
2	3	1	1	2
1	0	0	1	0
1	4	1	0	1
0	1	0	2	0
0	1	2	2	1
1	2	0	1	0
4	1	3	0	0
0	0	0	0	0
0	0	0	0	0
22	27	21	15	17

Analysis 2.2 Fibers/cc

TLV _____ Fibers/cc

Total 102

Avg. 1.02

6194.48
6129.63
64.85

[illegible] Slurry Platform

[illegible] 1975

[illegible] Dodderer & W. Frank were alternating [illegible] of duty on the slurry [illegible] (i.e. 4 hours per shift on the platform)

Since Mr. Lloyd wanted a 2 hour [illegible] Dodderer volunteered [illegible] for 2 straight hours [illegible] done

---

[illegible] difference between timer reading [illegible] actual reading (114.16 vs. 118 mins)

C-E EASTWOOD

"THE PAPER BOYS"

1/24/75

Pump timer was found to be in error.

After being fully charged, the pump was run for exactly 300 minutes.

At the end of this time, the timer gave a reading of 263.4 minutes

$\frac{263.4}{300} \times 100 = 87.8\%$

$\frac{300}{263.4} = 1.13895$

To get correct time using timer, multiply the timer value by 1.139

10/28 · 50.05 mins on pump in 56.42 min

$\frac{50.05}{56.42} \times 100 = 88.7\%$

$\frac{56.42}{50.05} = 1.127$

Tests run 3 months ago
with OSHA ...

21 slurry

1-28-75

2-7-75

.055mm × .055mm

2

12 28/Am

10 21/Am

114.16 MIN

228, 320.0

BLANK

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

Analysis: 0.012 Fibers/cc

T L V _____ Fibers/cc

Total 1

Avg .01

#1 slurry

2

1-22-75 — Time Started: 12 25 AM

Time Stopped: 10 20 AM

1-31-75 — Elapsed Time: 114.16 min

Vol. Sampled: 228,320.0

Dia. .055 mm X .033 mm — Blank

M. DODRER

1	0	0	0	0
2	0	0	0	0
0	0	0	0	1
2	0	0	2	0
0	1	0	0	0
3	1	3	0	2
0	0	2	0	0
1	0	0	1	0
0	1	0	0	2
0	0	0	0	1
1	1	0	1	2
1	0	0	0	1
0	0	0	0	0
1	1	0	6	0
1	0	4	0	1
1	0	0	0	1
0	6	0	0	2
1	0	0	1	1
0	0	0	1	0
0	0	0	0	0
15	11	9	12	14

Analyst: 0.76 Fibers/cc — Total: 61

T L V _____ Fibers/cc — Avg .61

7099.75
6985.59
114.16

BLDG #60

1-28-75 Time: 2 ~~27~~ PM

Time: 12 ~~32~~ PM

1-31-75 Elapsed Time: 111.46 MIN.

Total Counts: 222,920.0

.055 mm x .055 mm Blank

E. HENRY

1	1	0	0	0
0	0	1	4	0
0	1	0	2	0
1	0	0	1	0
0	0	1	2	0
2	1	0	2	0
1	0	0	2	1
0	0	0	0	0
0	0	0	1	0
0	0	0	0	0
0	0	2	0	0
2	3	0	1	2
0	0	1	1	4
0	1	1	0	0
0	1	1	3	0
0	0	0	0	0
0	0	2	1	2
1	2	0	1	1
0	1	0	1	1
0	0	0	0	1
8	11	9	22	12

Analysis: 0.79 Fibers/cc

T L V ____ Fibers/cc

Total: 62

Avg .62

72 11.21
7099.75
111.46

BLDG = 22

1-28-75

2-7-25

.055 mm x .055 mm

2

2 $\frac{ST}{PM}$

12 $\frac{ST}{PM}$

111.46 MIN

222,920

BLANK

0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	1
0	0	0	0
0	0	0	0
0	0	0	0
1	0	0	0
0	0	0	0
0	0	0	0
0	0	1	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	1
0	0	0	0
0	0	0	0

Analysts: 0.051 Fibers/cc

Total: 4

Fibers/cc

Avg .04

		Sheet #	Fibers/cc (not time weighted)	Date Sample
	Greens Shift			
Dry End #5	M. Sherril	3	0.365	2-21-8
	J. Graham	12	0.05	8-6-8
	J. Danner	13	0.02	8-6-8
Wet End #5		19	0	9-19-8
Bldg #60	O. Brothers	8	0.0386	8-4-8
	E. Evans	9	0.16	8-4-8
	Dixons Shift			
Dry End #5	A. Dell	14	0.054	9-3-8
	S. Jones (Slide Dirty-JFM)	15	0.102	9-3-8
Wet End #5		23	0.037	9-25-8
Bldg. #60	D. Warehime	21	0.047	9-24-
	Jim Long	22	0.087	9-24-
	Riffles Shift			
Dry End #5	J. Arbaugh	16	0.019	9-11-8
	J. Stephan	17	0.03	9-11-8
Wet End #5		25	0.005	10-20-
Bldg #60	G. Crouse	26	0.086	10-22-
	W. Ferguson	27	0.096	10-23-

		FIBERS/cc	
N. DEWANS OFFICE	1	0.059	1-21-8
N. DEWANS OFFICE	2	0.05	1-21-8
ROTAPS G. BRINKMAN	20	0.427	9-22-
WILLIAMS DISINTEGRATOR RESPIRATOR USED G. BRINKMAN	18	3.06	10-8-
UNLOADING ASBESTOS N. BARNES	10	4.85	8-5-
UNLOADING ASBESTOS N. BARNES	24	0	10-20-
UNLOADING ASBESTOS L. TESTERMAN	11	0.133	8-5-8
#7 LAGOON	4	0.00196	7-14-
#6 AND #7 LAGOONS	5	0.0118	7-14-
#6 LAGOON	6	0.0116	7-15-
#6 LAGOON	7	0.0319	7-15-

Wet end #5 machine

Sample Number: 035WS64 — Pump No.: 2

Date Sampled: 12-14-75 — Time Finished:

Sampled By: — Time Started: 9 15 AM

Date Analyzed: 12-20-75 — Elapsed Time: 238.18

Analyzed By: — Vol Sampled: 476,360

Field Area: — Blank:

Remarks:
south end console
5-½' above floor
right angle to isle

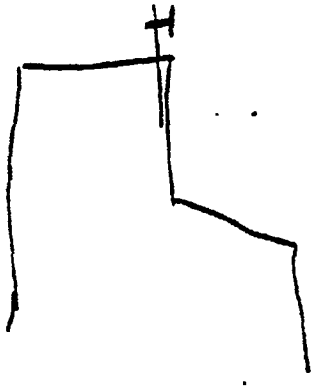


Diagram:

0	0	2	0	0
0	0	1	0	0
0	0	0	0	0
2	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	0
0	0	0	0	0
0	0	0	1	0
1	1	0	0	0
2	0	1	0	0
0	0	0	0	0
0	0	0	0	0
0	0	2	0	1
1	0	0	0	0
7	1	4	1	1

Analysis: 0.08 Fibers/cc — Total 14

Field: _____ Fibers/cc — Avg. 0.14

911 1.44
8894.69
216.75 91%

#73

#6

Location BLDG #60

Asbestos Product JM #5

Date 12-21-75

Time Started 12 30 PM

Elapsed Time 164.08 min

Vol Sampled 328 160

Blank

ED. DAVIDSON

no dunnage bags

helper

same time as #92.

Two cars

CN - 566350 - Fair

CN 566370 - good

Fibers/F	
1	2
3	0
1	2
3	4
2	6
1	2
5	3
1	0
3	2
1	0
5	0
3	0
3	3
3	4
3	6
0	9
3	0
4	1
3	7
7	8
54	59

Analysis: 2.43 Fibers/cc

T.L.V. Fibers/cc

Total 113

Avg. 2.825

3590.61
3434.73
1558

164.08 corrected

#20 95%

#9

Bldg #60

JM #5

12-21-75

Time started 12 30 pm

Elapsed Time 150.29 min

Vol Sampled 300 580

Blank

Lou. Testerman

Fibers

no dunnage bags
Lift truck operator.

same time as #91

Two Cars.
CN 5-92680 Fair
CN 5-66370 good.

0	0	1	2	3
0	0	1	1	1
1	0	4	4	1
0	0	1	0	0
3	2	2	4	7
0	0	0	0	3
0	6	0	0	2
4	1	3	0	4
0	0	0	0	2
0	5	0	2	0
1	0	0	0	0
0	0	3	1	0
3	1	1	0	2
0	0	1	0	0
0	0	0	0	0
1	0	5	0	0
0	8	0	0	3
0	1	0	3	0
5	1	0	0	4
0	2	0	2	0
18	27	28	19	32

Analysis: 1.17 Fibers/cc

T L V _____ Fibers/cc

Total 124

Avg 1.24

9248.40
9111.64
136.76

#73

91%

15a 29 corrected

Bldg #60

Date: 1-7-76

Time Started: 9 00 AM

Elapsed Time: 133.11

Vol Sampled: 266220

Blank

Fibers / 5

Sample

Lou Testerman
Lift truck operator
Same as #94

2 case
CN 592432
CN 592534
good case
dunnage tags
Total 8 turn tags.

0	0	0	0
1	0	0	0
0	1	0	3
0	0	2	0
2	0	2	0
0	0	0	2
0	0	0	0
0	0	0	0
3	0	0	0
0	0	0	0
0	0	0	0
0	1	0	1
0	0	0	1
0	0	0	3
1	0	0	2
2	0	2	0
0	10	1	0
0	1	0	1
2	0	0	1
2	2	0	2
19	15	7	12

11

Analysis: 0.68 Fibers/cc

Total 64

Blank: _____ Fibers/cc

Avg. 0.64

9369.53
9248.40
121.13

#73

9170

Bldg #60

Project JM #5 Page No. 2

Date 1-7-76 Time Sampled

Sampled by Time started 9 00 AM

Location Elapsed Time 137.09

Test No. Vol Sampled 274 180

Analyst Blank

Fred Newman
Helper
same time as #93
2 cars
CN 592 432
CN 592 534
good cars
dunnage bags
total 8 bum bags

Fibers/cc

0	3	0	0	0
0	0	0	0	0
0	0	0	1	0
0	0	0	0	3
0	0	2	0	0
0	0	0	0	0
2	0	0	3	0
0	1	0	0	0
0	1	0	0	1
0	0	0	0	0
0	0	2	0	0
1	0	1	0	0
0	0	0	0	2
0	0	0	1	0
1	0	0	0	0
2	0	0	0	1
0	0	0	0	0
0	0	0	3	0
0	1	0	0	3
0	0	0	0	0
8	6	5	8	11

Analysis: 0.39 Fibers/cc

Total 38

Avg: 0.38

#20
37 20.85
35 90.61
130.24

95%

37 D'2 START 10 74 2

ASBESTOS FIBER ANALYSIS

#5 Hammer mill 4 Dry End

[illegible] 2cm

7/15 Time Finished 3.03

MJL Time Started 1:51

Elapsed Time 72

Vol Sampled 144,000

Blank

ROBERT HOTT

hammer mill ran 40 min.

Analysis effected by unknown contamination on slide. [signature]

Fibers [illegible]

0	0	0	0	0
0	2	0	0	0
0	0	0	1	0
0	0	0	0	0
1	0	0	0	0
0	0	2	0	0
0	0	0	0	0
0	3	0	1	0
1	0	0	1	1
0	0	0	0	1
0	0	0	0	0
0	0	0	1	0
0	1	0	0	0
0	0	0	0	1
0	1	0	0	0
1	0	0	0	0
0	0	0	0	1
0	0	0	0	0
0	0	1	0	0
0	0	0	0	0
3	7	3	4	4

Analysis: 0.41 Fibers/cc

TWA ______ Fibers/cc

Total: 21

Avg. 0.21

I-51

C-20

532018
START 500172
31 8.46

ASBESTOS FIBER ANALYSIS

Description: asbestos storage #485 mach area sample

Cassette Size: _____ Pump Rate _____

Date: 7/15 Time Initiated 2:52

Operator: MDL Time Started ?

Calibrated _____ Elapsed Time 318.46

Lot No _____ Vol Sampled 636920

Work Area _____ Blank _____

Fibers

0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	1
0	0	0	0
0	0	0	1
0	0	0	1
0	0	0	1
0	0	0	0
0	0	0	0
1	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

42.75
~~10463~~
1927

Analysis: 0.022 Fibers/cc Total: 5

T L V _____ Fibers/cc Avg : .05

#32 C-73

START 0516 55

ASBESTOS FIBER ANALYSIS

#4 MIX 4YD

24m

Time Finished 2154

Time Started 9:19

Elapsed Time 395

Vol Sampled 790.000

Blank

MJS

7/15

7/16/75

MJS

mike

Fibers

1	0	0	0
0	0	0	0
0	0	0	0
0	0	1	0
0	0	0	0
0	0	0	1
0	0	0	0
0	0	0	0
0	0	0	0
1	0	1	0
0	1	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	1	0
0	1	0	0
0	0	0	0
0	0	5	0
0	0	0	0

128.25
2389.75

354
41
95

Analysis .0536 Fibers/cc

Fibers/cc

Total: 15

Avg . .15

21 PK 70342
START 65758

[illegible]

[illegible] #1 SET SIX [illegible]

[illegible] Time [illegible] 2 pm

[illegible] 7/15 Time Finished 11:00

[illegible] MTL Time Started 9:17

[illegible] 7/16 Elapsed Time 103

[illegible] MTA Vol Sampled 206000

[illegible] Blank

TARRA/ SCAR [illegible]

0	0	0	0	0
0	1	0	0	0
1	0	0	0	0
0	0	0	0	0
0	0	0	1	0
0	0	0	0	0
0	0	0	0	0
0	0	1	0	0
0	0	1	0	0
0	1	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	1	0
3	0	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	1
0	0	0	0	0
0	0	2	1	1
0	0	0	0	0

Analysis: .219 Fibers/cc

Total 16

T L V ________ Fibers/cc

Avg .16

H 50 Box D 1 START 38174

ASBESTOS FIBER ANALYSIS

	Type ZLPM
7/15/76	Time Sampled 10:59
MJA	Time Stopped 916
7/16/76	Elapsed Time 103
MJA	Vol Sampled 206000
	Blank

FKSI NEWMAN

0	0	1	0
0	0	0	1
1	0	0	1
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	1	0	0
0	0	0	0
0	0	0	1
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	1	0
0	0	0	0
0	0	0	0
0	0	0	0

Analysis 1646 Fibers/cc Total 12

TLV Fibers/cc Avg .12

II 47 C 13

05/655
START 04453

ASBESTOS FIBER ANALYSIS

#5 DRY

Time Sampled 2 PM

7/14 Time Finished 306

MJA Time Started 1104

Elapsed Time 122

Vol Sampled 244000

Blank

STATE HALE

0	0	0
0	0	0
0	0	0
0	1	0
0	0	0
0	0	0
0	0	1
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
1	0	1
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0

Analysis 0.07 Fibers/cc Total: 6

Blank Fibers/cc Avg. 0.06

28

C-20

STOP 500172
START 488086

ASBESTOS FIBER ANALYSIS

[illegible] #5 Dry Broke man 1/2 wk Grind

[illegible] ✓ — Samp rate 2LPM

[illegible] 7/14 — Time Finished 307

[illegible] MJF — Time Started 102

Elapsed Time 125

Vol Sampled 250.000

Blank

ROBERT H. OTT

Fibers [illegible]

0	0	0	0	0
0	0	0	1	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	0
0	0	0	0	0
0	0	0	0	0

Analysis: 0.034 Fibers/cc — Total: 3

TWA ______ Fibers/cc — Avg. 0.03

27 B'L SHIFT WORK
SIOP 65758

ASBESTOS FIBER ANALYSIS

#5 Dry

Flow Rate 2LPM

Date 7/14 Time Finished 306

Analyst MJL Time Started 1248

Elapsed Time 138

Vol Sampled 276.000

Blank

Fibers: A

12
126
138

0	0 : 0	0 : 0
0	0 : 0	0 : 0
1	0 : 0	0 : 0
0	0 : 0	0 : 0
0	0 : 0	0 : 0
0	0 : 0	0 : 0
0	0 : 0	0 : 0
0	0 : 0	0 : 0
0	0 : 0	0 : 0
0	0 : 0	0 : 0
0	0 : 0	1 : 0
0	1 : 0	0 : 0
0	0 : 0	0 : 0
0	0 : 0	0 : 0
0	0 : 0	0 : 0
0	0 : 0	0 : 0
0	0 : 0	0 : 0
0	0 : 0	0 : 0
0	0 : 0	0 : 0
0	0 : 0	0 : 0

Analysis: 0.02 Fibers/cc

T L V Fibers/cc

Total 2

Avg 0.02

#26

STOP. 38173
START 32707

ASBESTOS FIBER ANALYSIS

[illegible]: #5 Machine Dry End

[illegible] | [illegible]: 2LPM

[illegible]: 7/14/76 | Time Finished: 3:04

[illegible]: MJL | Time Started: 1257

[illegible] Analyzed: | Elapsed Time: 127 min

[illegible] | Vol Sampled: 254.050

[illegible] | Blank:

[illegible]

ALFRED DELL

Fibers [illegible]

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	1	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0		0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

3
120
4
―――
127

[illegible] 0.33 [illegible] | Total 3

[illegible] | Avg. 0.03

25 C-20 STOP 488086 START 481637

ASBESTOS FIBER ANALYSIS

Sample location #1 Box Car

Collection Method Pump Rate 2 LPM

Time Started 7/14 Time Finished 1148

" MTA " 1041

" " " 67

" " Total Volume 134000

" " Filter

Analyst

N BARNES

BARNES

15
4
45
07

Fiber				
0	0	0	0	0
1	0	0	0	0
1	0	0	0	0
0	0	2	0	0
0	0	0	0	0
0	0	0	0	0
0	1	2	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	2	0
0	0	0	0	0
0	0	0	0	0
0	0	1	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	1
0	0	2	0	0
1	0	0	0	0
0	0	0	0	0

Min 0.40 Fibers/cc 19

Max Avg 0.19

24

C-73

STOP 041453
START 035589

#1 Box car

2 lpm

7/14

1149

MTA

1047

67 min.

134 000

DAVID-MUNCH

44
18
67

Dunnage slipped

0	0	0	0
0	0	1	1
0	0	0	0
0	0	0	0
0	0	0	1
0	0	0	0
0	1	0	0
0	0	0	0
2	0	0	2
0	0	0	0
0	0	0	0
0	1	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	1
0	0	0	0
0	0	0	0
0	0	0	3
0	0	0	0
0	0	0	0

Analysis 0.316 Fibers/cc

T L V _____ Fibers/cc

Total 15

Avg 0.15

#25 101

32707
START 30380

#4 BOX CAR (OAR 600)

24m

7/14

MTL

11:22

10:28

Elapsed Time 4.54

Vol 107 000

Blank

FRED NEWMAN

32
22
54

0	0	0	0	0
0	0	0	0	0
0	2	1	0	1
0	0	0	0	0
1	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	1
0	0	0	0	0
1	0	0	0	0
0	0	0	0	0
0	0	0	1	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	2	0
0	0	0	0	0
0	0	1	0	0
0	1	0	0	0
0	0	0	0	0

Results 0.236 fibers/cc

T W V fibers/cc

Total 9

Avg 0.09

Car Good

60112
START 57586

#4 BOX CAR

#5 / 3PLY 24Pm

7/14 Time Finished 11:24

By MJS Time Started 1026

Elapsed Time 58 min

Vol Sampled 116.000

Blank

TERRY GLADFELTER

24
34
58

0	0	0	[illegible]	0
0	0	1	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	0	0
0	0	0	0	0
0	0	1	0	0
1	1	0	0	[illegible]
0	0	0	0	0
0	[illegible]	[illegible]	0	0
0	[illegible]	0	0	0
0	[illegible]	0	0	0
0	0	0	1	0
0	0	0	0	0
0	1	0	0	0
0	0	0	0	0
0	0	0	0	0

Analysis: 0.17 Fibers/cc Total 7

TLV - Fibers/cc Avg. 0.07

#41 B2

START 54387

STOP 57586

#4 LOADING TRAILER VERY Poor Bx

7 MS 7 4PM

7/14/76 10:22

MJL Time started: 9:07

Elapsed Time 75 min

Vol Sampled 150000

Blank

TERRY GLADFELTER

2	1	1	0
0	0	0	0
0	0	0	0
1	1	0	0
0	3	1	1	0
1	0	0	0	0
0	0	0	0	0
0	3	0	0	1
0	3	1	0	0
0	1	0	3	0
0	1	0	0	3
2	2	0	0	1
0	1	0	0	2
0	0	0	0	2
1	1	1	1	0
0	0	0	0	0
1	0	0	0	0
1	0	1	1	0
0	2	1	0	0
0	0	0	0	1

53
22
75

Fibers/cc 0.94 Total 50

Fibers/cc Avg .5

A 10 B-1 SAME AS 21 4 TRUCK/OFF

STOP 30380
START 27176

#4 LOADING TRAILER

7M57 24M

7/14

M.J.K

Time Started 10.23

Time Stopped 9:07

Elapsed Time 76 MIN

Vol Sampled 152.000

Blank

FRED NEWMAN

0	0	0	0	1
2	0	0	0	2
0	0	0	0	0
0	2	0	0	0
3	2	1	0	1
1	1	0	1	0
0	0	2	1	0
0	1	0	5	0
0	0	0	1	1
1	0	0	0	0
1	2	0	1	0
1	1	0	0	0
0	0	1	2	0
0	0	0	0	1
1	0	0	1	0
0	2	0	0	0
0	0	1	0	0
0	1	4	0	1
4	0	0	0	1
0	0	1	1	4
14	10	10	13	12

59

53
23
76

Analysis 1.097 Fibers/cc

Total 59

B.V. Fibers/cc

Avg .59

14 C-20 START 468666 10971

#4 HYDROPULPER

7/14 Time Started 10:30

M+F Time Started 8:18

Elapsed Time 49

Vol Sampled 109.71

Blank 21.9420

MIKE ALMONY

0	0	0	1
0	0	0	0
0	1	0	0
0	0	0	1
0	1	0	0
0	1	0	3
0	0	0	0
1	0	0	0
0	0	1	3
1	0	0	0
0	0	0	0
0	0	0	0
0	1	0	1
0	0	1	0
0	0	0	0
1	0	0	0
2	0	0	0
0	1	1	0
0	0	0	0
0	0	0	0

Analysis: 0.335 Fibers/cc Total: 26

T L V _____ Fibers/cc Avg.: 0.26

II 18 C-1

STOP 035588
START 024043
11546

#4 HYDROWLPER

2 LPM

7/14 1030

MJA 8:19

11546

230920

Blank

WM BITZEL

0	0	0	0
0	0	1	0
0	0	1	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
1	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	1	0	0
0	0	1	0
1	1	0	0
0	0	0	0
0	0	0	0

Analysis: 0.11 Fibers/cc Total: 9

T L V _____ Fibers/cc Avg. 0.09

2-11 B-2 21HRI 02148

STOP 54388

#4 Box car

2LPM

7/14 9.03

MJL 815

48 min

96.000

Blank

TERRY GLADFELTER

Fibers

4

0	0	1
0	0	0
0	0	0
0	0	0
0	0	
0	0	
0	0	
0	0	
0	0	
0	0	
0	0	
0	0	
0	0	
0	0	
0	0	
0	0	
0	0	
0	0	
0	0	
1	0	0

Analysis: 0.147 Fibers/cc

Total: 5

Fibers/cc

Avg. 0.05

#16 D-1

STOP 22176
START 24919

#4 Box car

2 PM

7/14

MJL

8:14

9:05 = 51 min

162 000

FRED - NEUMANN

46
5
5-1

0	0	0	0	0
0	0	0	0	0
0	0	0	0	1
1	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	0	0
0	0	0	0	0
0	0	1	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	1
1	0	0	0	0
0	0	0	0	0
0	0	0	1	0

Analysis: 0.166 Fibers/cc

T L V _____ Fibers/cc

Total: 6

Avg : 0.06

#10 NJ START 16316
STOP 24918

ASBESTOS FIBER ANALYSIS

Sample Location #1- MIX

Specific Materials/Product _____ Pump Rate 2 LPM

7/13

MT Londoki

749

4:24

205 min

410000

DAVE ALLWINE

1	5
6	3
3	1
5	0
0	7
0	2
6	4
6	5
1	4
0	2
2	1
9	4
2	2
1	1
2	0
1	1
5	3
4	1
2	3
6	2
62	51

12
3 3
n 0 5

1.95

113

2.825

(#14)

C 13

007763 STAT
024043 STOI

ASBESTOS FIBER ANALYSIS

Sample Location #4 HYDROPULPER

Specific Materials/Product

Pump

24m

7/13

730

MJ Landoli

4.06

163.30

326600

BRAVER – CARLOS

0	0	1	1	0
2	0	0	0	0
0	0	0	0	0
0	1	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	1
0	0	0	0	0
0	1	0	0	0
1	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	2	0
0	0	0	0	0
1	0	0	0	0
0	1	0	0	0
4	3	1	3	1

0,104

12

0,12

#1

ASBESTOS FIBER ANALYSIS

START 52126
43822
33304
207.5

Sample Location #4 HYDROPULPER

Specific Material/Product ____ Pump Rate 2 CFM

7/13/76 Time Begin 729

MJ Sendaki Time End 413

Filter 196

Total Sampled 272000

RUSSELL FRANKLIN

1	0	0	0	0
0	0	0	0	0
0	0	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	0
0	0	0	1	0
0	0	0	0	0
0	0	0	0	0
0	0	0	1	0
0	0	0	0	0
0	0	0	0	0

563/883.3

1057

Fibers 6

Av. .06

II 1'2

STOP 468666
START 446275
22391

ASBESTOS FIBER ANALYSIS

Sample Location #1 MACH SLURRY

Specific Materials/Product ______ Pump rate 2CPM

7/13/75 ... 743

MJ Sandeki ... 339

... 244

... 488.000

DAVID LEPPO SR.

43
180
21
244

2223
1476.2

3	3	4
3	1	5
4	0	4
5	1	2
1	0	4
2	3	
6	3	
0	3	
2	3	
2	5	
4	2	
0	0	
5	4	
2	2	
1	4	
1	2	
4	5	
3	0	
3	0	
3	3	
54	44	19

÷ 45

1.5 ... Total 117

... 2.6

II 11 B-2

STOP 43821
START - 40453

ASBESTOS FIBER ANALYSIS

Sample Location #5 DRY End

Pump: 2 LPM
7/13/76 Time: 3:02
MJ Sendabi 1:45
77 min
154000

Robert Hatt

15
62
77

62.75
465.75

0				
0	0			0
0	1			0
0	0			0
0	0			0
0	0			0
0	0			0
0	0			0
0	0			0
0	0			0
3	0			0
0	0			
0	0			
0	0			
0	0			0
0	0	0	0	0
0	0	0		0
0	0	0		0
0	0	0		0
0	0	0	0	0
3	1	0	1	0

1091 5

.05

#10 B1

STOP [redacted] 16316
START 10490

#4 MACH DRY END

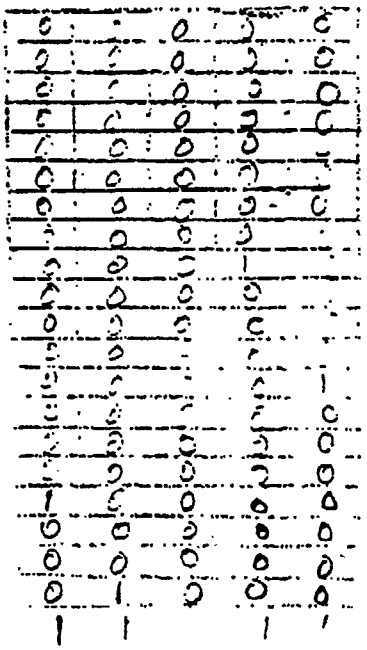
7/13/76
MT Sandvik

2 LPM
2:54
1235
139 min
278 000

JAY FREBERTSHAUSER

34.4
DUC.

114
25
139



.040

4
.04

#9 C73

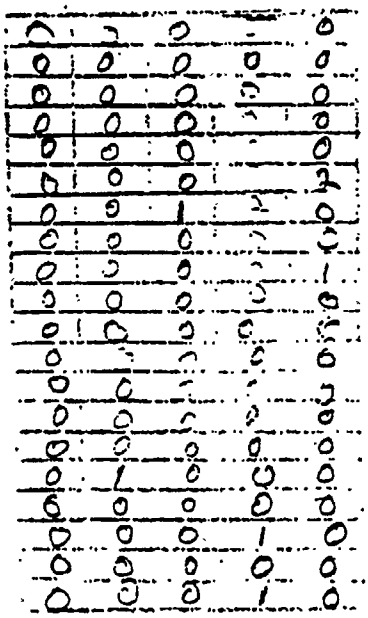
1007713 STOP
START 995786
119.27

#4 HYDROPULPER

7/13/76
MJ Sindelar

2 LPM
2:49
12:27
119.27
238540.

NM N ~~BIT~~
BIT 2RL



119.27

0.08

7
0.07

#8.

C-20

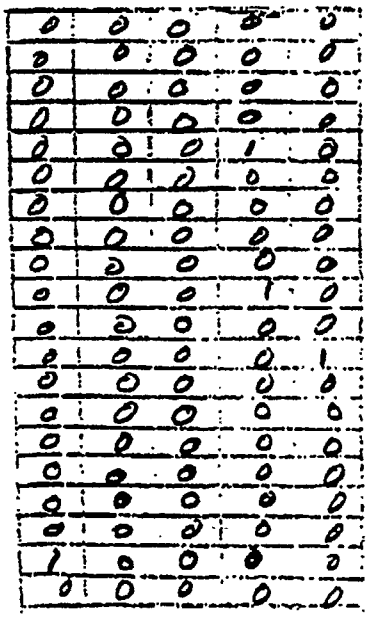
446275
436114 START
10161

#4 HYDROPULPER

7/13/76
MT Sandecki

24PM
2:08
12:24
101.61
203 230

Mike ALMONY



0.06

4

0.04

#1 B2 35762

~~1047~~

#1 BOX CAR AREA NO UNLOADING

2LPM

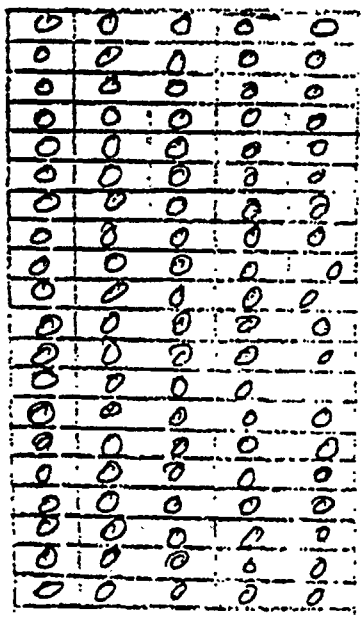
7/13/76 1:20

MT Sendaki 1132

108 min

216000

28
80
108



0 0

0 0

#6

32283 START
35762 STOP

#1 BOX CAR

#5

2 LPM

7/13/76
M J [illegible]

10:05
11.26 = 81 min
162 000

~~NELSON FINOFF~~
LAN WITT

55
26
81

1	0	0	0	0
0	0	0	0	1
0	1	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	1	0
0	1	1	0	0
0	2	0	0	0
0	0	0	0	0
3	0	0	0	0
0	0	1	0	0
0	0	1	0	0
0	0	1	0	0
0	0	0	0	0
0	0	0	0	0

.2617

15
.15

#1

995784 S/D P
988708-START
7076

1 BOX CAR
#5
24m

7/13/76
MT Kendall

10:05
11:24 8/min
162 000

~~1 UNIT~~

NELSON FENOFF

7

55
24
21

0	0	0	1	0
0	0	2	0	0
0	0	0	0	0
0	0	0	0	1
0	0	1	0	0
0	0	0	0	0
2	0	0	2	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	2	0
0	0	0	2	0
0	0	0	0	0
2	0	0	0	0
4	0	0	0	1
0	0	0	0	0
0	0	0	0	0

0.28

16

0.16

#4

32283 STOP
29076 START

#4 BOX CAR
#5

2 < PM
9.37
8:27
~~9~~ 3 70 min
140 ccc

7/13/
MT / Sondaki

FRED NEWMAN

74.0
423.

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	0
0	0	0	0	1
0	0	0	1	0
0	0	0	0	0
1	0	0	0	0
0	0	1	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	1	0
0	0	0	0	0
0	0	0	1	0
0	0	0	0	1
0	0	2	0	0
0	0	0	0	0
0	0	0	0	0

0122

11

0.11

#4 Box car

#5

7/13

MJ Sindelski

24m

9:37

8:28

69 min

138000

TOKKY CLADFILTER

0	0	0	0	0
0	1	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	1
1	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	1
0	0	0	0	0
0	0	0	0	0
0	1	0	1	0
0	0	0	0	0
0	0	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
0	0	0	0	0

0.16

8

.08

436114

MARK 20018 START 0

#1 mix

2 CAR

7/13/76

11 00 mix time

MJ Sandahl

8:13

167 min.

334 000

B. ECKER

0	3	1	3
2	0	2	0
1	5	0	0
2	3	2	4
3	0	0	2
0	1	4	0
4	2	0	0
6	2	0	0
0	2	0	0
0	0	2	3
0	1	3	0
3	0	2	2
1	0	4	2
6	3	2	0
0	0	0	1
1	1	1	0
2	5	0	0
2	0	0	0
1	1	1	2
0	2	0	3
34	31	24	22

1188.45

1010.35

LUNCH 11:30

1.18

111.

1.3875

16474

1 Mix

7/13/76
MJ Sandulski

2 LAM
1124
7:58
3 Hr + 6 min = 206 n
412000

B STOUFOER

LUNCH AT 1230

0	1	1
0	2	2
2	1	0
1	2	2
5	3	3
2	4	0
0	2	0
1	2	6
3	2	2
1	0	4
0	1	1
2	0	1
5	2	3
6	2	4
1	0	1
1	3	1
2	2	0
2	3	0
2	1	3
1	0	3
37	33	37

1.22 107

1.78

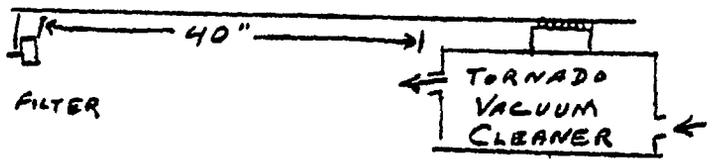
LAB COUNTER

2

12-21-76

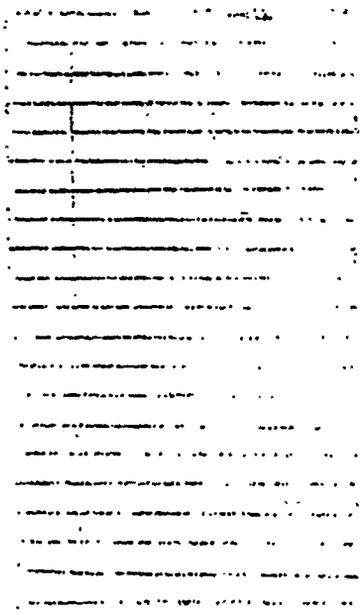
1 00 PM

10.00 MIN



NO ASBESTOS FIBERS
IN AREA.

NEW CLEANER BAG



0

0795.43

Made along with Liberty Mutual tests

5-2-77

11:04

754

190 min

380000

0.003025

0	0	0	0	0
0	0	0	0	2
1	0	0	0	0
0	0	0	1	0
0	0	0	0	0
0	1	0	0	0
0	2	0	0	1
0	0	1	1	0
1	0	0	3	0
0	0	0	0	0
0	1	0	0	0
0	0	3	0	0
2	0	1	0	0
0	0	0	0	2
0	0	0	0	0
0	0	1	0	0
0	1	0	0	0
1	0	0	0	1
0	3	0	2	0
0	0	1	0	0
5	8	3	7	6

Average: 0.216 fibers/cc

Total: 29

fibers/cc

Avg: 0.29

4.28.

4/27/77

5-2-77

0.003025

11 04

3.11

178 min

356 000

Paul L Tallman

1	0	0	0	1
0	0	0	2	0
0	2	1	1	0
0	0	1	1	0
0	0	0	0	0
2	0	0	0	0
0	0	0	0	0
0	0	0	0	1
2	0	0	0	0
0	0	0	1	0
0	4	0	1	0
0	3	0	1	0
1	0	3	1	0
1	0	0	0	2
0	0	1	0	1
0	5	4	0	0
1	0	0	0	0
0	1	0	0	1
2	7	0	2	0
0	1	0	3	0
10	15	10	13	6

0.429 fibers/cc

Total 54

Avg 0.54

#3

Time Finish 203

Time Started 1204

Elapsed Time 119 min

Vol Sampled 238000

Blank

Fibers:

0	1	0	0	0
0	0	0	0	1
0	0	1	0	0
1	1	1	0	0
0	0	1	0	0
1	0	0	0	0
0	0	0	0	1
1	0	3	0	1
0	2	0	0	0
0	0	0	0	0
0	3	0	1	0
0	0	0	1	0
1	0	0	0	2
0	0	0	0	0
0	0	0	0	0
2	1	0	0	0
0	0	0	0	3
0	0	0	2	1
1	0	0	0	1
0	0	0	3	0
7	12	6	6	10

Analysis: 0.487 Fibers/cc

T.L.V. _____ Fibers/cc

Total: 41

Avg: 0.41

ASBESTOS FIBER ANALYSIS

Sample Location: WET END #4 MACHINE

Specific Materials/Product: 030 WS 96 Pump Rate 1.85 l/min.

Date Sampled 2-7-79 Time Finished 3:03 PM

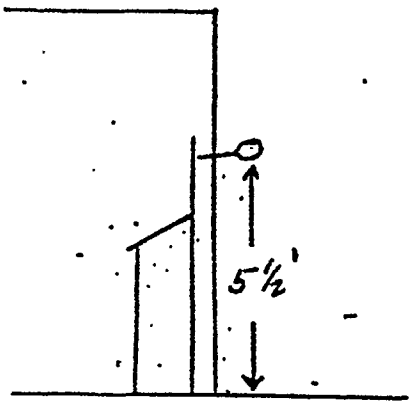
Sampled By J. L. Sies Time Started 11:11 AM

Date Analyzed 4-7-79 Elapsed Time 3:52 232 min

Analyzed By J. L. Sies Vol Sampled 429200 c c

Field Area 0.003 d25 Blank

Remarks: W. GREEN'S SHIFT



CLAMPED TO DESK AT WET END

Fibers > 5 μ

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	½	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	0
0	0	0	1	0
0	0	0	0	0
0	0	1	0	0
0	0	0	0	0
1	0	1	1½	1

Analysis: 0.0296 Fibers/cc

T.L.V Fibers/cc

Total: 4.5

Avg.: 0.045

#2

ASBESTOS FIBER ANALYSIS

Sample Location: #4 WATCHER

Specific Materials/Product: 030 WS90 Pump Rate: 1.85 l/min

Date Sampled: 2-7-79 Time Finished: 3:00 PM

Sampled By: J. A. Sias Time Started: 11:23 AM

Date Analyzed: 4-7-79 Elapsed Time: 3:37 217 MIN

Analyzed By: J. A. Sias Vol. Sampled: 40145-0 cc

Field Area: 0.003025 Blank:

Remarks: W. GREEN'S SHIFT

A. HERNANDEZ

Fibers > 5 μ

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	0
0	0	0	2	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	0
0	1/2	0	0	0
0	0	0	0	0
3	1/2	0	2	0

Analysis: 0.0387 Fibers/cc Total: 5.5

T.L.V _____ Fibers/cc Avg.: 0.055

ASBESTOS FIBER ANALYSIS

Name or Location: WET END #5 MACHINE

Specific Material/Product: 030 WS68 — Pump Rate: 1.82 l/min

Date Sampled: 2-10-79 — Time Finished: 2:50

Sampled By: J.C. Sies — Time Started: 10:24

Date Analyzed: 4-7-79 — Elapsed Time: 4:26 266 min.

Analyzed By: J.C. Sies — Vol. Sampled: 484120 c c.

Field Area: 0.003025 — Blank:

Remarks: W. GREENS SHIFT 5½' OFF FLOOR, ON FRAME ABOVE CLOCK: SOUTH END OF CONTROLS

Fibers>5 μ

0	0	0	0	0
0	0	0	0	0
2	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	0
0	0	0	0	0
4	0	0	0	2

Analysis: 0.035 Fibers/cc — Total: 6

T.L.V. _____ Fibers/cc — Avg.: 0.06

ASBESTOS FIBER ANALYSIS

Sample Location #5 MACHINE WATCHER

Specific Material/Product 040 WS 88 Pump Rate 2.0 l/min

Date Sampled 2-10-79 Time Finished 2:40 PM

Sampled By J. D. Lee Time Started 10:40 AM

Date Analyzed 4-8-79 Elapsed Time 4:00 240 min

Analyzed By J. D. Lee Vol. Sampled 480000 cc

Field Area 0.003025 Blank

Remarks: W. GREEN'S SHIFT

C. HALE

Fibers > 5 μm

0	0	0	0	0
0	0	1	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	2	1/2
0	0	0	1	0
0	0	0	5	0
1	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1/2	1/2	0
0	0	0	0	0
0	0	0	0	1/2
0	1	0	0	0
0	0	0	0	0
0	0	0	3	0
1	0	0	0	0
0	0	0	0	0
0	1/2	0	2	0
0	0	1	0	0
2	1 1/2	2 1/2	8 1/2	1

Analysis: 0.091 Fibers/cc Total: 15.5

T.L.V. _____ Fibers/cc Avg.: 0.155

ASBESTOS FIBER ANALYSIS

Sample Location: #4 MIXING SYSTEM (OLD MILL)

Specific Materials/Product: 030 WS64 Pump Rate: 1.88 l/m

Date Sampled: 2-14-79 Time Finished: 1:31 pm

Sampled By: J. A. Lee Time Started: 9:31 AM

Date Analyzed: 4-8-79 Elapsed Time: 4:00 240 min

Analyzed By: J. A. Lee Vol. Sampled: 451.2 00 c c

Field Area: 0.003025 Blank:

Remarks: W. GREEN'S SHIFT

MIXER; A. LEPPO

2 HRS. ON DUTY
2 HRS. OFF.

Fibers ≥ 5 μ

3 4 4

1	2½	1½	
1	½	2½	
2	4	3	
0	4½	1½	
0	3	2½	
2	0	2	
3	1	0	
2	1½	1½	
½	½	2	
3	1½	2½	
½	1½	2	
½	2½	1	
1	1½	1	
1	2	1½	
0	1	3	
1½	3	2½	
1½	3	2½	
2½	2	0	
2½	0	0	
2	0	1	

27½ 33½

30½

Analysis: 1.01 Fibers/cc Total: 96.5

T.L.V. _____ Fibers/cc Avg.: 1.61

ASBESTOS FIBER ANALYSIS

Sample Location: #5 MACHINE WATCHER

Specific Material/Product: 030 WS 88 Pump Rate: 1.85 l/min

Date Sampled: 2-16-79 Time Finished: 2:02 PM

Sampled By: J. L. Lieu Time Started: 9:45 AM

Date Analyzed: 4-8-79 Elapsed Time: 4:17 257 min

Analyzed By: J. L. Lieu Vol. Sampled: 475450 cc

Field Area: 0.003025 Blank:

Remarks: R. MANN'S SHIFT

J. GRAHAM

Fibers ≥ 5 μ

2	3	1	1
0	0 : 1	1½	1½
0	1½ : 0	1	1½
1	0 : 1	0	0
2	1 : 0	1	0
1	1 : 0	0	0
1½	0 : 0	0	0
1½	1½ : 0	0	0
1½	1½ : 0	0	0
1½	0 : 0	3	0
1	1½ : 0	0	0
0	1½ : 0	0	0
0	1½ : 0	0	1
0	0 : 1½	0	0
0	0 : 1	1	1
2	1 : 0	2	0
0	1½ : 1	0	0
0	0 : 0	0	0
1½	0 : 1	0	0
0	0 : 0	0	1
0	1 : 1½	0	0
12½	11½	6	7½ 6

Analysis: 0.26 Fibers/cc Total: 43.5

T.L.V _____ Fibers/cc Avg.: 0.435

ASBESTOS FIBER ANALYSIS

Sample Location: WET END #5 MACHINE

Specific Material/Product: 030 WS 88 Pump Rate: 1.85 l/min

Date Sampled: 2-16-79 Time Finished: 1:56 PM

Sampled By: J. di Sisto Time Started: 9:50 AM

Date Analyzed: 4-9-79 Elapsed Time: 4:06 246 min

Analyzed By: J. di Sisto Vol. Sampled: 455100 cc

Field Area: 0.003025 Blank:

Remarks: R. MANN'S SHIFT

5½' OFF FLOOR, ON FRAME ABOVE CLOCK. SOUTH END OF CONTROLS

Fibers>5 µm

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	1	0
0	0	0	0	0
0	0	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	½	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	½	1	1

Analysis: 0.016 Fibers/cc Total: 2.5

T.L.V _____ Fibers/cc Avg.: 0.025

NIOSH [illegible]

Sample Location: BLDG #60

Specific Materials/Product: SEE BELOW | Pump Rate: 1.85 l/min

Date Sampled: 2-27-79 | Time Finished: 10:48 AM

Sampled By: J.L. Sills | Time Started: 8:48 AM

Date Analyzed: 4-9-79 | Elapsed Time: 2:00 120 MIN

Analyzed By: J.L. Sills | Vol. Sampled: 222000 cc

Field Area: .003025 | Blank:

Remarks:

UNLOADING ASBESTOS

1 CAR 7D5

1 CAR #5

L. TESTERMAN

LIFT TRUCK OPERATOR

Fibers>5 μ

0	0	0	0
0	0	0	0
0	2	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	1
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	1	0
0	0	0	0
0	0	0	0
2	1		1

Analysis: 0.051 Fibers/cc

T.L.V. _____ Fibers/cc

Total: 4

Avg.: 0.04

-1

ASBESTOS FIBER ANALYSIS

Sample Location: BLDG #60

Specific Material/Product: 040 WS 88 Pump Rate: 1.85 l/m

Date Sampled: 2-27-79 Time Finished: 1:36 PM

Sampled By: J. Chalfies Time Started: 9:04 AM

Date Analyzed: 4-9-79 Elapsed Time: 4:32 272 m

Analyzed By: J. Chalfies Vol. Sampled: 503200 c

Field Area: 0.003025 Blank:

Remarks:

W. GREEN'S SHIFT

ASBESTOS MIXING

S. OWEN

Fibers>5 μm

0	0	0	1
0	0	0	1/2
0	0	0	0
0	0	0	0
1	2	0	1
0	0	1	0
1	0	0	0
0	1	0	1/2
0	0	0	0
0	0	0	0
0	1/2	0	0
0	0	1/2	0
1	0	0	0
0	0	0	0
0	0	0	0
0	0	0	1/2
0	0	0	1
1/2	0	0	0
0	0	0	0
0	1	0	0
4	5 1/2	1 1/2	5 3

Analysis: 0.11 Fibers/cc Total: 195

T.L.V. Fibers/cc Avg.: 0.195

ASBESTOS FIBER ANALYSIS

Sample Location: WET END #4

Specific Materials/Product: WS 88

Pump Rate: 1.85 l/min.

Dated Sampled: 3-5-79

Time Finished: 3:06

Sampled By: J. L. Lies

Time Started: 10:44

Date Analyzed: 4-10-79

Elapsed Time: 4:22 262 min

Analyzed by: J. L. Lies

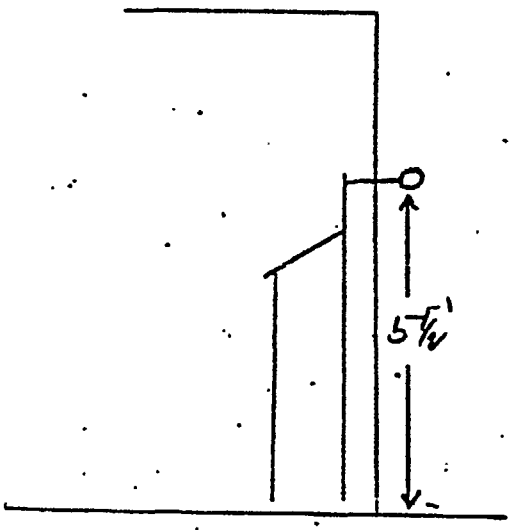
Vol Sampled: 484700 c c

Field Area: 0.003025

Blank:

Remarks: R MANN'S SHIFT
WS 88 START-UP

Fibers ≥ 5 μ



CLAMPED TO DESK AT WET END

0	0	0	0	0
0	0	0	0	0
0	0	1	0	0
0	0	0	0	0
0	½	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	1	0
0	0	0	0	0
½	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
½	1½	1	1	0

Analysis: 0.023 Fibers/cc

Total: 4

T.L.V _____ Fibers/cc

Avg.: 0.04

#12

ASBESTOS FIELD ANALYSIS

Sample Location: BLDG #6

Specific Materials/Product: WS 81 — Pump Rate: 1.85 l/min

Date Sampled: 3-5-79 — Time Finished: 3:03 PM

Sampled By: J. Cl. Lee — Time Started: 10:52 AM

Date Analyzed: 4-10-79 — Elapsed Time: 4:11 — 251 min

Analyzed By: J. Cl. Lee — Vol. Sampled: 464350 cc

Field Area: 0.003025 — Blank:

Remarks:

R. MANN'S — SHIFT

ASBESTOS MIXING

O.

L. BITZEL

Fibers > 5 μ

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	0
0	0	1½	0	1
0	0	0	0	0
0	1	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	1	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	1½	1	1	

Analysis: 0.033 Fibers/cc — Total: 57.5

T.L.V. - Fibers/cc — Avg.: 0.055

ASBESTOS FIBER ANALYSIS

Sample Location: #4 WATCHER

Specific Material/Product: WS 9.0

Pump Rate: 1.85 l/min.

Date Sampled: 3-6-79

Time Finished: 1:52 PM

Sampled By: J. Lee

Time Started: 8:47 AM

Date Analyzed: 4-12-79

Elapsed Time: 5:05 305 min

Analyzed By: J. Lee

Vol. Sampled: 564250 cc.

Field Area: 0.003025

Blank:

Remarks:

R. MANNS - SHIFT

G. MARKEL

USED HAMMER MILL 10 MIN.

Fibers > 5 μ

1½	2	2½	3	½
•	•	0	•	0
½	•	•	•	•
0	•	0	•	0
•	0	0	0	0
•	1½	1	•	0
0	0	0	1	0
0	0	0	•	0
•	•	•	•	0
0	0	1	1	•
•	½	0	0	0
0	0	0	1	0
0	•	•	0	½
1	0	½	0	0
0	0	0	0	0
0	0	0	•	0
0	0	•	•	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

Analysis: 0.048 Fibers/cc

Total: 9.5

T.L.V. _____ Fibers/cc

Avg.: 0.095

ASBESTOS FIBER ANALYSIS

Sample Location: #4 MIXING SYSTEM (OLD MILL)

Specific Materials/Product: WS 90 | Pump Rate: 1.85 l/min

Dated Sampled: 3-6-79 | Time Finished: 1:36 PM

Sampled By: J.C. Lies | Time Started: 8:56 AM

Date Analyzed: 4-12-79 | Elapsed Time: 4:40 280 min

Analyzed By: J.C. Lies | Vol. Sampled: 518000 cc

Field Area: 0.003025 | Blank:

Remarks:

R. MANN'S SHIFT

MIXER - R. FOBLE.

2½ HRS. MIXING

Fibers ≥ 5 μ

2½	1	3½	1	½
1½	½	2	1	2
1½	2	1½	2	1
2½	0	0	0	1½
½	1	1	1½	½
3½	3	3½	0	1½
1	2	1½	0	1
0	1	0	1½	2
2½	3½	2½	3	½
2½	1½	2½	3½	1½
2½	1	1	2	0
0	1	2	4½	1½
0	1	1	1	½
0	1½	2	1	2
½	3	3	1½	2
2	3	½	2	1
½	2	1	0	1½
1½	1	2½	3	0
1	1	½	2	2½
2½	1	3½	½	½
28½	31	35	32	23½

Analysis: 0.818 Fibers/cc

T.L.V. _____ Fibers/cc

Total: 150

Avg.: 1.50

ASBESTOS FIBER ANALYSIS

Sample Location: ASBESTOS - UNLOADING (OLD MILL)

Specific Material/Product: #5 Pump Rate: 1.85 l/min.

Date Sampled: 3-7-79 Time Finished: 2:32 PM

Sampled By: J. L. Lee Time Started: 1:00 PM

Date Analyzed: 4-1-79 Elapsed Time: 1:32 92 min

Analyzed By: J. L. Lee Vol. Sampled: 170200 c.c.

Field Area: 0.003025 Blank:

Remarks:

L. TESTERMAN

LIFT TRUCK OPERATOR

1 CAR LOAD OF

#5 FIBERS

Fibers ≥ 5				
0	0	0	0	1
0	0	0	0	1/2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	0
0	0	0	0	1/2
0	0	0	0	0
1	0	0	0	0
0	0	0	0	0
0	0	0	1/2	0
0	0	0	0	0
0	0	0	0	1
0	0	1	0	0
0	0	0	1	0
0	0	0	0	0
0	0	0	0	1/2
0	0	0	1	1
0	0	0	0	0
0	0	0	0	0
1	1	1	2 1/2	5 1/2

Analysis: 0.18 Fibers/cc Total: 11

T.L.V. _____ Fibers/cc Avg.: 0.11

ASBESTOS FIBER ANALYSIS

Sample Location: ASBESTOS UNLOADING (OLD MILL)

Specific Materials/Product: #5 | Pump Rate: 1.85 l/m

Dated Sampled: 3-7-79 | Time Finished: 9:33 PM

Sampled By: J. A. Sisco | Time Started: 1:00 PM

Date Analyzed: 4-1-79 | Elapsed Time: 1:33 93 min

Analyzed By: J. A. Sisco | Vol. Sampled: 172050 cc

Field Area: 0.003025 | Blank:

Remarks:

R. MILLER (HELPER)

1 CAR LOAD OF #5 FIBERS

Fibers > 5 μ

2	0	0	0
0	0	1/2	0
0	0	0	0
0	0	0	0
0	0	0	0
0	2 1/2	0	0
0	0	0	0
0	0	0	0
0	0	0	0
1	0	0	0
0	0	0	1
0	0	0	0
4	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	1
0	0	0	0
0	0	0	0

5 2 1/2 0 2

Analysis: 0.16 Fibers/cc

T.L.V Fibers/cc

Total: 10

Avg.: 0.1

#11

ASBESTOS FIBER ANALYSIS

Sample Location: DRY END #5 MACHINE

Specific Materials/Product: 030 WS88 Pump Rate 1.85 l/min.

Date Sampled 3-13-79 Time Finished 1:49 PM

Sampled By J. L. Sills Time Started 8:43 AM

Date Analyzed 4-12-79 Elapsed Time 5:06 306 min

Analyzed by J. L. Sills Vol Sampled 5661000 c.c.

Field Area 0.003025 Blank

Remarks:

S. RIFFLE'S SHIFT

W. CRONE WATCHER

Fibers > 5 μ

0	0	0	0	0
0	0	0	0	0
1/2	0	0	0	0
0	0	2	0	0
0	0	0	1	0
0	0	0	0	0
0	0	0	0	0
0	1/2	1/2	0	0
0	0	0	1	0
0	0	0	0	0
0	0	0	0	1/2
1	1/2	0	0	0
0	0	1/2	0	0
0	0	0	0	0
0	1	0	0	0
1	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1/2	0	0	0	0
0	0	0	0	0
3	2	3	2	1/2

Analysis: 0.052 Fibers/cc Total: 10.5

T.L.V Fibers/cc Avg.: 0.105

F 18

ASBESTOS FIBER ANALYSIS

Sample Location: WET END #5 MACHINE

Specific Material/Product: 030 WS 88 Pump Rate: 1.85 l/min

Date Sampled: 3-13-79 Time Finished: 1:44 PM

Sampled By: J. C. Lies Time Started: 8:50 AM

Date Analyzed: 4-18-79 Elapsed Time: 4:54 294 MIN

Analyzed By: J. C. Lies Vol. Sampled: 543900 cc

Field Area: 0.003025 Blank:

Remarks: S. RIFFLE'S SHIFT 5½' OFF FLOOR, ON FRAME ABOVE CLOCK.

SOUTH END OF CONTROLS

Fibers>5 μ

1	0	½	0	0
0	0	0	0	0
0	0	0	½	0
0	0	0	0	0
1	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	½
0	1½	0	0	0
0	0	0	0	0
1	0	0	0	0
0	0	0	0	1
0	0	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	1
0	½	0	0	0
0	0	0	½	0
0	0	0	0	0
3	2	½	1	3½

Analysis: 0.052 Fibers/cc Total: 10

T.L.V _____ Fibers/cc Avg.: 0.1

ASBESTOS FIBER ANALYSIS

Sample Location: DRY END #4 MACHINE

Specific Materials/Product: WS 90 Pump Rate 1.85 l/min.

Date Sampled 3-14-79 Time Finished 2:29 PM

Sampled By J. A. Lee Time Started 8:41 AM

Date Analyzed 4-18-79 Elapsed Time 5:48 348 min

Analyzed By J. A. Lee Vol Sampled 643800 c c.

Field Area 0.003025 Blank

Remarks:
S. RIFFLE'S SHIFT

J. ARBAUGH - WATCHER

Fibers ≥ 5 μ

0	0	0	0	0
0	0	0	0	1
0	0	1	0	0
0	0	0	1	1
0	0	0	0	0
1	0	0	0	0
0	1	0	0	0
0	0	1	1	1
0	0	0	0	1½
0	0	0	1	0
0	0	0	0	0
1	0	0	0	0
0	0	0	1	0
0	0	0	0	0
0	0	0	0	0
1	0	1	1	0
0	0	0	1	0
0	0	1	0	0
0	0	0	1	0
1	0	1	0	0
3	0	1	0	1½

Analysis: 0.024 Fibers/cc Total: 5.5

T.L.V Fibers/cc Avg.: 0.053

1

A20

ASBESTOS FIBER ANALYSIS

Sample Location: WET END #4 MACHINE

Specific Materials/Product: WS 90 | Pump Rate 1.85 l/min.

Date Sampled 3-14-79 | Time Finished 2:24 PM

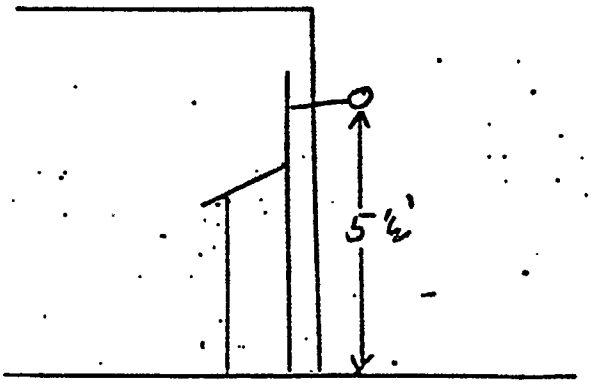
Sampled By J. L. Lies | Time Started 8:47 AM

Date Analyzed 4-18-79 | Elapsed Time 5:37 337 min.

Analyzed by J. L. Lies | Vol Sampled 623450 c c.

Field Area 0.003025 | Blank

Remarks: S. RIFFLE'S SHIFT



CLAMPED TO DESK AT WET END

Fibers > 5 μ

0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	1	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	2	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
½	0	1	0	0
0	1	0	0	0
0	0	0	0	0
0	0	0	0	0

1½ 5 1 1

Analysis: 0.039 Fibers/cc | Total: 8.5

T.L.V Fibers/cc | Avg.: 0.085

ASBESTOS FIBER ANALYSIS

Sample Location: #4 MIXING SYSTEM (OLD MILL)

Specific Materials/Product: WS 90 Pump Rate 1.85 l/min

Date Sampled 3-15-79 Time Finished 2:04 PM

Sampled By J. C. Lee Time Started 9:22 AM

Date Analyzed 4-16-79 Elapsed Time 4:42 282 min

Analyzed By J. C. Lee Vol Sampled 521700 c.c.

Field Area 0.0003025 Blank

Remarks: S. RIFFLE'S SHIFT

K. WAGNER

TOTAL OF 1½ HRS MIXING

Fibers > 5 μ

1½	0 | 0	½	1
1	1½ | ½	0	½
0	2½ | ½	0	0
1	1 | 1½	0	0
2	2½ | 0	0	0
0	0 | 0	0	0
0	1 | 1½	½	½
1½	0 | 0	0	1½
2	3½ | 0	2	3
1	1½ | 0	1½	3½
0	0 | 0	1	0
2	0 | 0	1	1½
1½	0 | 0	0	0
2	0 | 2½	2	1½
1	0 | 0	1	1½
0	0 | 0	1	0
1	1½ | ½	1	4½
2	½ | 1	½	1½
4	0 | 1½	1	0
1	0 | 1	2	0
23½	15½	15	20½

10½

Analysis: 0.46 Fibers/cc Total: 85

T.L.V Fibers/cc Avg.: 0.85

ASBESTOS FIBER ANALYSIS

Sample Location: BLDG #60

Specific Material/Product: WS 88 — Pump Rate: 1.85 l/

Date Sampled: 3-15-79 — Time Finished: 1:43 PM

Sampled By: J. L. Lee — Time Started: 9:52 AM

Date Analyzed: 4-16-79 — Elapsed Time: 3:51 231 MI

Analyzed By: J. L. Lee — Vol Sampled: 427350 cc

Field Area: 0.003625 — Blank:

Remarks: S. RIFFLE'S SHIFT

ASBESTOS MIXING

R. FRANKLIN

Fibers>5

0	1½	0	½	0
0	0	1	0	0
½	1	½	0	0
0	0	0	0	-
0	0	0	1	0
½	0	0	0	0
0	0	½	0	1
0	0	0	1	0
0	0	0	1	½
½	0	0	½	0
0	½	0	0	0
0	0	0	0	2
0	0	½	½	0
1	1½		0	0
0	0	2	½	0
1½	0	2	0	0
0	½	0	0	1½
0	0	0	2½	0
0	0	1	0	0
0	0	1½	1	0
5	5	9	8½	5

Analysis: 0.21 Fibers/cc — Total: 32.5

T.L.V _____ Fibers/cc — Avg.: 0.325

#4

ASBESTOS FIBER ANALYSIS

Sample Location: BLDG #60

Specific Materials/Product: SEE BELOW

Pump Rate: 1.85 l/min

Date Sampled: 3-22-79

Time Finished: 3:41 PM

Sampled By: J.C. Lee

Time Started: 12:49 PM

Date Analyzed: 4-16-79

Elapsed Time: 1:51 171 min

Analyzed by: J.C. Lee

Vol Sampled: 316.35 cc

Field Area: 0.003025

Blank:

Remarks:

UNLOADING ASBESTOS

B. ROOP - HELPER

1 LOAD 7D1

1 LOAD 7MS7

1 LOAD #5

Fibers > 5 μ

0	0	0	0	0
1	1	0	1/2	1/2
1 1/2	0	1/2	0	0
0	1	0	0	0
1/2	0	0	0	0
0	0	0	2	0
1	0	0	0	1
0	2	0	0	1
1	0	0	0	0
0	0	0	1/2	0
1/2	0	2	0	0
0	0	0	0	1/2
1/2	0	0	1/2	1/2
0	0	1	0	0
0	0	0	0	0
0	1/2	0	0	1
0	0	0	1	0
0	0	1/2	0	0
0	0	0	1	0
0	0	0	0	0
6	4 1/2	1	6 1/2	5 1/2

Analysis: 0.237 Fibers/cc

Total: 26.5

T.L.V _____ Fibers/cc

Avg.: 0.265

ASBESTOS FIBER ANALYSIS

Sample Location: LAB

Specific Materials/Product: SEE Below — Pump Rate: 1.83 l/min

Date Sampled: 4-22-79 — Time Finished: 3:58 PM

Sampled By: J. Lee — Time Started: 1:13 PM

Date Analyzed: 4-24-79 — Elapsed Time: 2:45 165 min

Analyzed by: J. Lee — Vol Sampled: 305.50 c c.

Field Area: 0.003025 — Blank:

Remarks: D. BLIZZARD

8 ASBESTOS SAMPLES. IN ROTAP

6 - #5
1 - 7MS1
1 - 6D04

Fibers > 5 µ

4	0	2½	
½	1	2	
4	3	3½	
1	4	1½	
5½	½	1	
2½	1	0	
3	1	1½	
2½	2½	4½	
2	1	1½	
2	2	1½	
1½	0	1	
0	1	2½	
1½	1	1½	
½	3½	1	
3	2	3	
2½	4	2½	
2½	3	1½	
3½	3½	0	
2	3	1½	
1	2½	2½	

44.0 39.5 30.5

Analysis: 1.76 Fibers/cc — Total: 114

T.L.V ____ Fibers/cc — Avg.: 1.9

		Sheet #	Fibers/cc	Date Sample
	Greens Shift			
Dry End #5	M. Sherril	3	0.365	2-21-8
	J. Graham	12	0.05	8-6-8
	J. Danner	13	0.02	8-6-8
Wet End #5		19	0	9-19-8
Bldg #60	O. Brothers	8	0.0386	8-4-8
	E. Evans	9	0.16	8-4-8
	Dixons Shift			
Dry End #5	A. Dell	14	0.054	9-3-8
	S. Jones (Slide Dirty Jen)	15	0.102	9-3-8
Wet End #5		23	0.037	9-25-8
Bldg. #60	D. Warehime	21	0.047	9-24-8
	Jim Long	22	0.087	9-24-8
	Riffles Shift			
Dry End #5	J. Arbaugh	16	0.019	9-11-8
	J. Stephan	17	0.03	9-11-8
Wet End #5		25	0.005	10-20-
Bldg #60	G. Crouse	26	0.086	10-22-
	W. Ferguson	27	0.096	10-23-

		FIBERS/cc	
1. DEWANS OFFICE	1	0.059	1-21-80
DEWANS OFFICE	2	0.05	1-21-80
ROTAPS G. BRINKMAN	20	0.427	9-22-8
WILLIAMS DISINTEGRATOR RESPIRATOR USED G. BRINKMAN	18	3.06	10-8-8
UNLOADING ASBESTOS N. BARNES	10	4.85	8-5-8
UNLOADING ASBESTOS N. BARNES	24	0	10-20-8
UNLOADING ASBESTOS L. TESTERMAN	11	0.133	8-5-8
#7 LAGOON	4	0.00196	7-14-8
#6 AND #7 LAGOONS	5	0.0118	7-14-8
#6 LAGOON	6	0.0116	7-15-8
#6 LAGOON	7	0.0319	7-15-8

2 - 8 ✓

ASBESTOS FIBER ANALYSIS

Sample Location B. DEWANS OFFICE

Specific Materials/Product ______ Pump Rate 2.0 / 1.4 l/min.

Dated Sampled 1-21-80 Time Finished 15.25

Sampled By J I S I E S Time Started 12.50 PM

Date Analyzed 2-26-80 Elapsed Time 2.35 (155 min)

Analyzed By J I S I E S Vol Sampled 310 000 c c.

Field Area 0.003025 Blank ______

Remarks: day after new floor was installed

"STAND"

Fibers ≥ 5 μ

0	0	0	0	0
0	0	0	1	0
0	0	0	0	0
0	0	0	1/2	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	0	0
0	0	0	0	0
0	0	0	0	0
3	0	0	0	0
0	0	0	0	0
3		1	1½	

8" ABOVE FLOOR

Analysis: 0.05 Fibers/cc Total: 5.5

T.L.V ______ Fibers/cc Avg.: 0.055

no asbestos

707833
695659
121.74

3-80

DRY END #5 MACHINE

WS 88 — 2.0

2-21-80 — 11.19

J.I. SIES — 9.19

8-26-80 — 2 hrs = 120 min

JI SIES — 240000

0.003025

M. Carroll Watcher 3-H

W. Grimes ... 1/4

Doctor opened for Broke.

0	0	0	0	0
0	0	1	1	0
0	0	0	0	0
0	2	0	0	1 1/2
1	0	1 1/2	0	0
0	0	0	1	0
1 1/2	0	0	0	1
0	1 1/2	0	0	0
0	0	0	1 1/2	1 1/2
0	0	1	0	0
1 1/2	0	1	0	0
1 1/2	0	0	0	1 1/2
0	1	0	1 1/2	0
0	0	0	0	1 1/2
2 1/2	0	1	0	0
0	0	0	0	0
0	0	0	0	2
1	0	1 1/2	0	1
0	1 1/2	0	2	0
0	0	0	0	1
6	5	6	5	9

265.05

0.31 × 855

.003025 × 240000

726

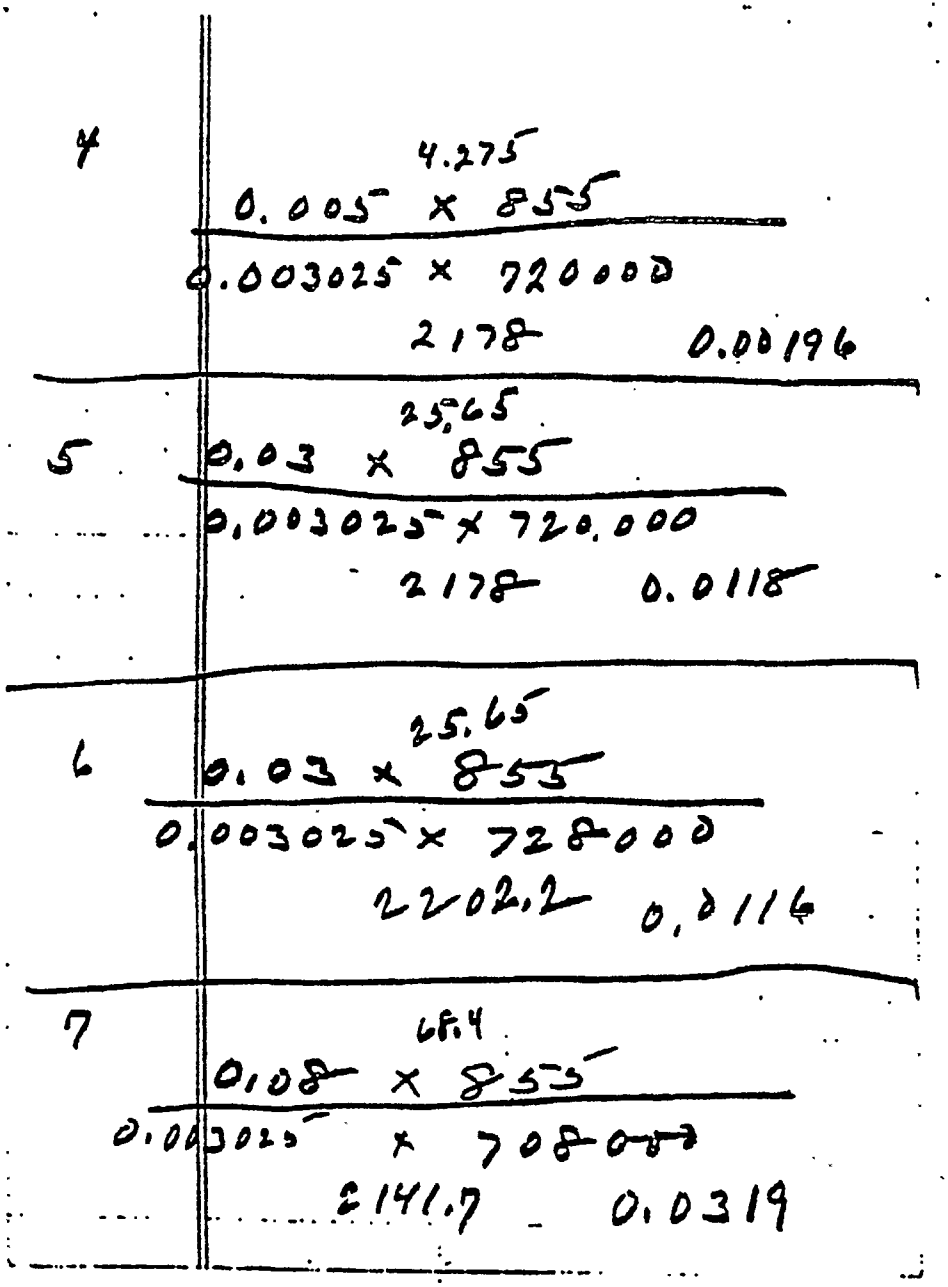
0.365

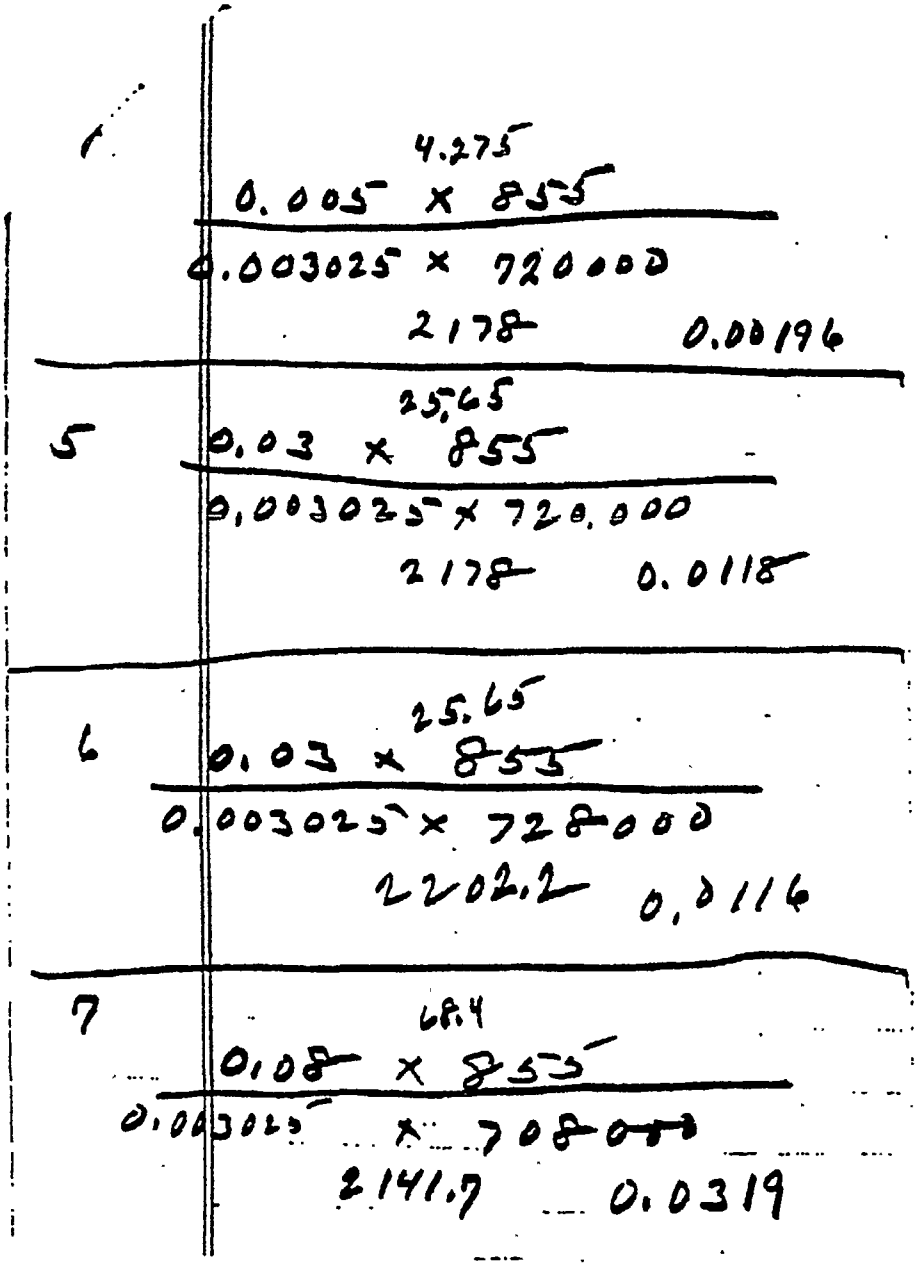
31

0.31

7339.42

7232.31


4
4.275
0.005 × 855
0.003025 × 720000
2178
0.00196
5
25.65
0.03 × 855
0.003025 × 720.000
2178
0.0118
6
25.65
0.03 × 855
0.003025 × 728000
2202.2
0.0116
7
64.4
0.08 × 855
0.003025 × 708000
2141.7
0.0319


1
4.275
0.005 × 855
0.003025 × 720000
2178
0.00196
5
25.65
0.03 × 855
0.003025 × 720.000
2178
0.0118
6
25.65
0.03 × 855
0.003025 × 720000
2202.2
0.0116
7
68.4
0.08 × 855
0.003025 × 708000
2141.7
0.0319

BENDIX

#7 LAGOON

7-14-80

J. I. SIES

8-6-80

J. I. SIES

0.003025

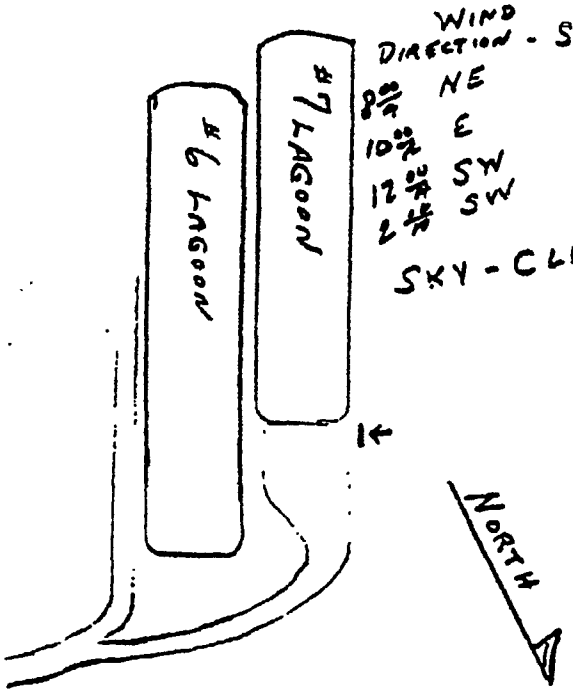
2.0

15 20/FM

9 20/FM

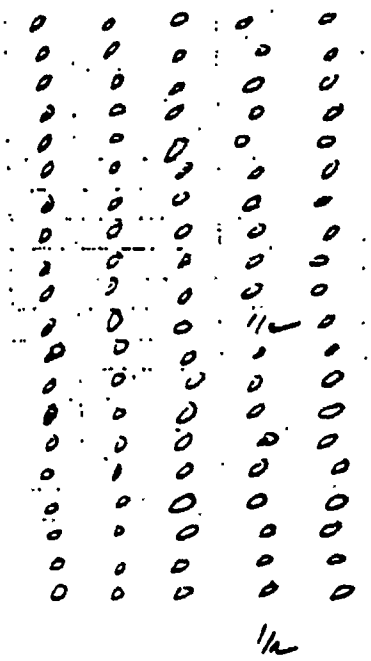
6 HRS = 360 MIN

720000



	WIND DIRECTION	SPEED	TEMP
8 00 A	NE	0	60°
10 00 A	E	3	70°
12 00 A	SW	4	78°
2 00 P	SW	4	80°

SKY - CLEAR.



1/2

0.00196

0.5

0.005

WILLSON

ASBESTOS FIBER ANALYSIS

#6 LAGOON AND #7 LAGOON

Pump Rate: 20

7-14-80

1525

J.I. SIES

9 2/3 Am

8-6-80

6 HRS = 360 MIN

J.I. SIES

720.000

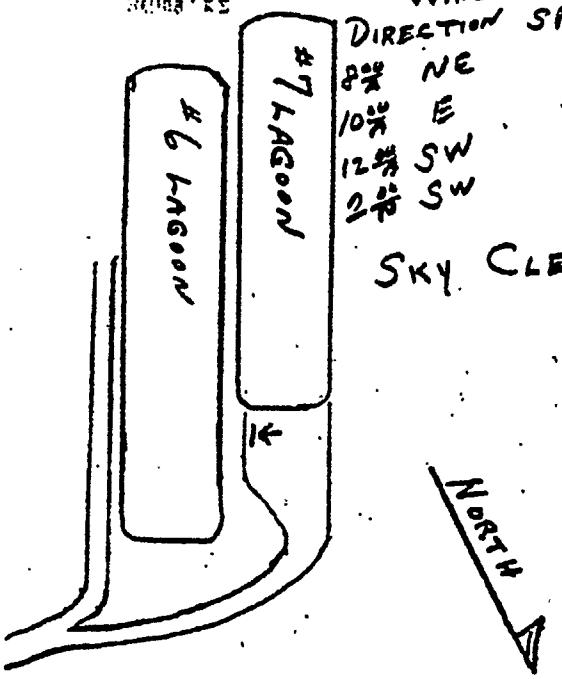
0.003025

Blank

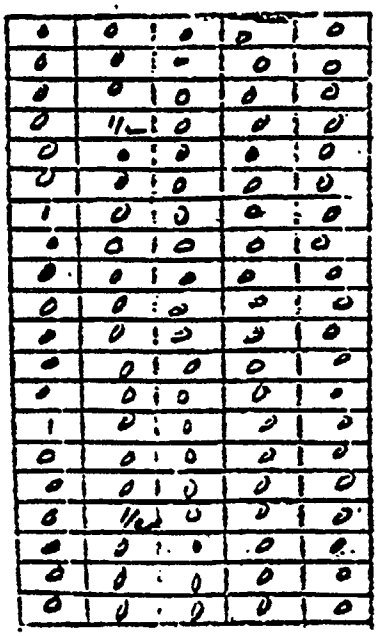
Remarks

	WIND DIRECTION	SPEED	TEMP
8 AM	NE	0	60°
10 AM	E	3	70°
12 PM	SW	4	78°
2 PM	SW	4	80°

SKY CLEAR



Fibers = 5



2 1

Analysis: 0.0118 Fibers/cc

T.L.V. _____ Fibers/cc

Total: 3

Avg.: 0.03

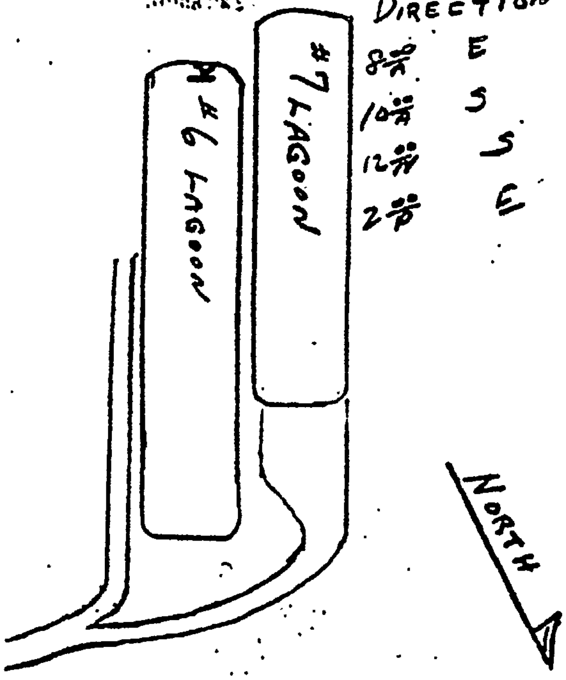
BENDIX ✓

#6 LAGOON

7-15-80	14 40
J I SIES	8 36
8-6-80	[illegible] Time 6 hr. 4 min = 364 min
J. I. SIES	[illegible] Sampled 728 000
0.003025	Blank
	2.0

Remarks:

	WIND DIRECTION	SPEED	TEMP	SKY
		1	67	CLEAR
8 AM	E	1	74	PART
10 AM	S	1	81	PART
12 PM	S	6	88	PART
2 PM	E	8		



Fibers > 5 μ

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	1/2	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1/2	0	0	0
0	0	0	0	0
	1/2		1/2	2

Analysis: 0.0116 fibers/cc

T.L.V ______ fibers/cc

Total: 3

Avg.: 0.03

1-0

WILLSON

ASBESTOS ANALYSIS

#6 LAGOON

7-15-80

J.I.SIES

8-6-80

J.I.SIES

0.003025

2.0

14:40

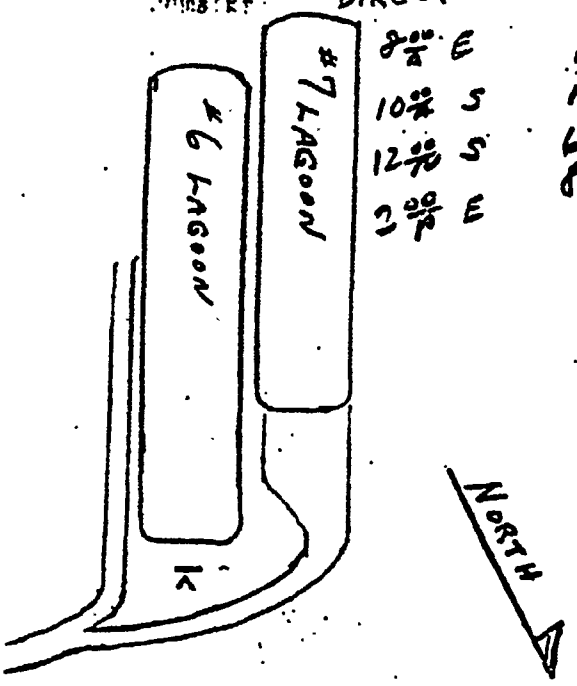
8 4/4 hrs

5 HRS. 54 MIN = 354

708000

Blank

	WIND DIRECTION	SPEED	TEMP	SKY
	8 1/2 E	1	67	CLEAR
	10 1/2 S	1	74	PART
	12 1/2 S	6	81	PART
	2 1/2 E	8	88	PART



Fibers > 5 μm

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	0	0
1	0	0	0	0
0	0	0	0	0
0	0	1	0	0
0	0	0	0	0
0	1	0	0	0
0	0	0	0	1
0	0	1/4	0	0
0	0	0	0	0
0	1/4	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	0
0	0	0	0	0
1	0	0	0	0
0	0	0	0	0

3 1/2 24 0 1

Analysis: 0.0319 Fibers/cc

T.L.V _____ Fibers/cc

Total: 8

Avg.: 0.08

Bond

Bldg 60
WS88

8-4-80
J L Lies (signature, struck through)
9-16-80
J L Lies (signature)
0.003025

~~14 10~~ 13 70
8:59
5 hr 11 min 3 Usm
622000

Greens shift
O. Brothers
WS88

#5
7 MS1
7 D5
6 D04

10 pulper batches
+ 90°
Mo-freeze

0	0	0	0	0
1	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	½	0	0	0
0	0	1	1	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	1	0	1	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	0
0	0	0	0	0
0	0	0	0	1
0	0	0	0	0
2	2½	1	2	1

0.0386

8.5
0.085

$$\frac{0.085 \times 855}{0.003025 \times 622000} \qquad 72.675 \qquad 1881.55$$

y-o
Wilson

Bldg 60
WS 88
8-4-80
J. Sica
9-16-80
J. Sica
0.003025

2
14:07
9:06
5 hrs - 1 min 301 min
602000

Grams shift

E. EVANS

WS 88

#5

7 mi S1

7-D5

6-D04

10 pulper batches
+ 90°
-110 - breeze

2	1	0	1	0
1½	2½	0	2	0
0	0	0	0	0
0	1	0	1	0
0	0	0	0	0
0	0	1	0	0
1	0	0	0	0
2	0	0	1½	0
0	0	0	0	0
0	3½	0	0	0
0	0	1	0	0
1	½	0	0	0
0	0	0	0	0
0	0	0	1	0
2	0	0	0	0
0	0	0	1	0
0	0	0	1	½
0	2	0	0	1
0	1	0	0	1
8½	9½	6	8½	2½

0.16

35
0.35

299.25
0.35 × 855
0.003025 × 602000
1821.05

WILSON

Bldg 60

PB5 - 7M57

8-5-00

9-7-00

0.003025

2

12 10.5

13: 45

8:47

4hrs 8min 298mi.

596 000

N. BARNES

Help unload asbestos

Trucks: 0.

cars: 1-PB5
1-7M57

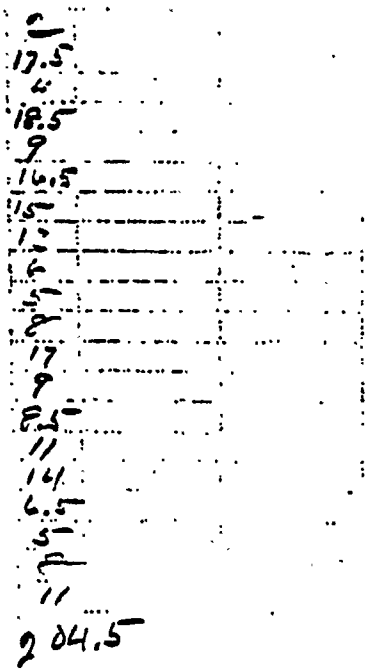
slight breeze

8:742.375

$$\frac{10.225 \times 85}{.003025 \times 596000}$$

1802.9

4.85



204.5

10.225

8.3.9.

BENDIX

BLDG 60.

PB-5 7MS7

8-5-80

J. L. Sies

9-7-80

J. L. Sies

0.003025

2.0

12-10.3

~~2.43~~

8.5-1

4 1/2 5 2mm (292 m

584 000

L. TESTERMAN

unload asbestos

Trucks. 0

cars. 1-PB5

1-7MS7

slight Breeze

235.125

$\frac{0.275 \times 855}{0.003025 \times 584000}$

1766.6

0.133

•	1	0	0	0
1	1/2	0	0	0
0	0	1/2	0	0
0	0	0	1	1/2
1/2	0	0	0	0
0	0	1	•	•
1/2	0	0	0	0
0	0	0	1 1/2	0
1	1/2	0	•	0
0	0	0	0	0
1	1/2	0	2	0
0	1 1/2	0	0	1/2
0	1	0	0	0
0	0	0	1/2	0
0	0	0	•	•
0	0	1/2	0	1
0	1/2	0	0	2
1 1/2	1	0	1	0
2	0	0	0	0
1	1/2	0	0	0
8.5	7	2	6	4

27.5

0.275

#5 DRY END

WS88 NOS

8-6-80

9-7-80

0.003025

2.0

13:57

9:38

4 hr 19 m 259 m

518000

J.-GRAHAM - 4TH HAND

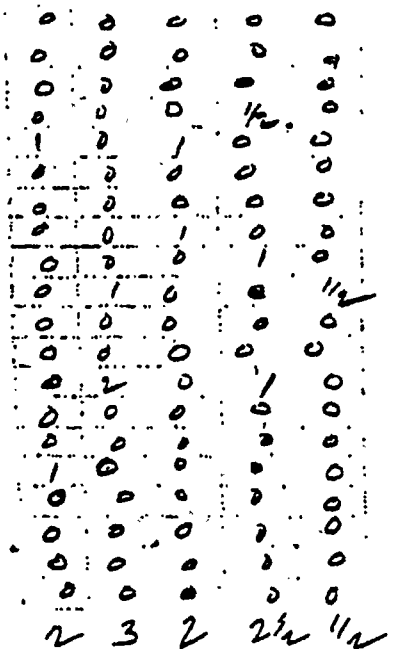
W. GREENS SHIFT

10 - 168" rolls

85.5

$$\frac{0.10 \times 85.5}{0.003025 \times 518000}$$

1710.7



0.05

10

0.10

BENDING

#5 DRY END

WSFF N05

8-6-80

9-6-80

0.003025

O.D

13:52

9:32

4 hrs 30 min = 270 min

540 000

J. DANNER - 3RD HAND

W. GREENS SHIFT

10 - 168" rolls.

$$\frac{34.2}{0.04 \times 855} \Big/ \frac{}{0.003025 \times 540\,000}$$

16 33.5

0.0209

1	0	0	0	0
0	½	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	1	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	0	0
½	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1½	½	1	1	0

4

0.04

Bendix

#5 dry end
WS 88

9-3-80
[redacted]
10-2-80
[redacted]
0.003025

2.0
1 3/4
13:00
9:58
3 - 2 182 mi
364000

A. DELL 3rd hand.

DIXONS SHIFT

59.85

$$\frac{0.07 \times 853}{0.003025 \times 364000}$$

1101.1

0.054

0	1/2	0	0	0
0	1	0	1/2	0
0	0	1	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	0
0	0	0	0	1
0	0	0	1	0
1	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	0
0	0	0	0	0
2	2 1/2	1	1 1/2	1

7
0.07

-150
Willson

#5 dry end.
WS 88
9-3-80
J. Lies
10-13-80
J. Lies
0.003025

2.0
14:54
10.01
4H 53m 293 MIN
586 000

S. JONES 2nd hand.

DIXONS SHIFT

Slide extremely dirty, small randomly shaped pieces of dirt - a few might meet the 3-1 aspect ratio, but nothing in the slide resembles asbestos fibers

$$\frac{181.1}{\frac{0.22 \times 855}{0.003025 \times 586000}}$$

17 72.65

0.102

1	0	0	0	0
1	0	0	0	1
1	0	0	0	0
1½	0	0	0	0
0	0	0	0	0
0	0	1	0	0
0	0	0	2½	0
0	0	0	2	1
½	0	0	0	0
1	1½	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
0	1	0	0	0
0	1	0	1	0
1	0	2	0	0
8	35	2	55	3

22

0.22

10...

Bendi

#5 dry end
WSEP

9-11-80

9-28-80

0.003025

2
14.32
8.52
5.836
672000

Arbaugh 3-H

Riffle

38.475

$$\frac{0.045 \times 853}{0.003025 \times 672000}$$

2032.8

0.019

		2		
0				
1/2				0
0				0
0				1
0		0	0	0
	1	0	0	0
0	0	0	0	0
	0	0	0	0
0	0	0	0	0
	0	0	0	0
0	0	0	0	0
	0	0	0	0
0	0	0	0	0
1/2	1	2	0	1

4.5

0.045

Wilson

#5 original.

WSC88

9-11-80

0.003025

2

14.33

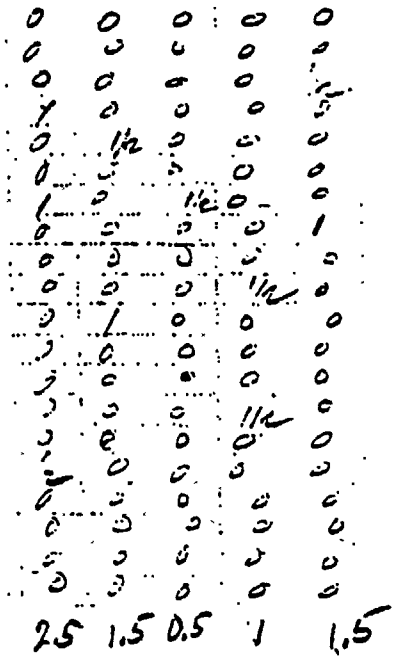
9.01

5 - 32 332

664000

J. Stephan 2-H

Riffle



$$\frac{59.85 \quad 0.07 \times 85^{-5}}{0.003025 \times 664000} = 2008.6$$

0.03

7

0.07

LAB

9-17-80
[signature]
10-8-80
[signature]
0,003025

2
3 : 58
3 '16
42
84000

9 - #5 14 samples W[illegible] Williams Disintegrator
1 - 7m37 G. Brankman
.7m51
3 .7D1
1 - 7D1 Vac on

exh fan off.

[initials] 5 min Clean up.

USING.
3M-8710 DUST RESPIRATOR

1	0	2	2	5½
0	2½	1	0	3
1	0	0	0	½
0	1½	3½	0	0
1	0	0	0	1
1½	2	2	2	0
1	0	1½	2	0
1	1½	0	1½	0
2½	0	0	2	1
2	0	0	0	1
2	2½	0	½	2
2	0	3½	0	1
0	1½	0	0	0
½	0	[illegible]	0	½
0	0	1½	0	0
½	0	0	1½	3
0	1	0	0	0
0	4	2	0	0
2	1	1½	0	1
0	2	0	2	0
18	19.5	21.5	13.5	18½

$$\frac{0.91 \times 855}{0.003025 \times 84000}$$

778.05

254.1

3.06

91
0.91

WET END #5 MACHINE

030 WS 88

9-19-80

10-13-80

0.003025

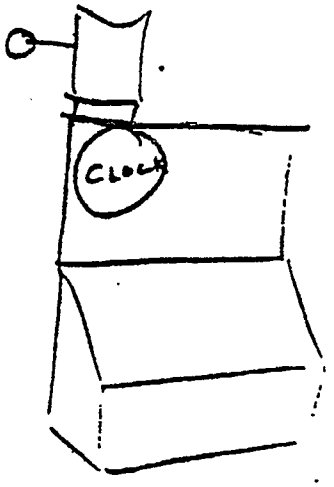
12 10 4

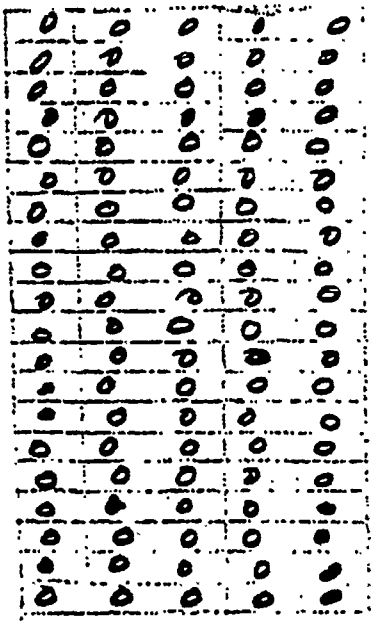
8:49

4hr 55min 295m

590 000

GREEN'S SHIFT





C D

LAB

9-22-80

10-18-80

0.003025

152 62

~~16102~~

13:33

2 hr 2 9 min

298000

G. Brinkman

Run Rotapr

6 - #5

384.75

0.45 × 855

0.003025 × 298000

901.45

0.427

45

0.45

0	0	0	1	0
2	0	0	0	0
0	0	2	0	0
1/2	1/2	0	2	0
0	0	0	2	0
0	0	1	1/2	0
0	0	1	1	0
0	0	0	0	0
0	1	0	0	0
0	0	0	2	2
1	0	0	1	0
0	0	0	1	0
0	0	0	0	3
2	0	1	1	0
1	1	1	1/2	0
2	0	3	0	0
0	1/2	2	0	0
0	0	0	1	0
2	0	0	2	0
0	0	0	0	1/2
10.5	5	11	15	5.5

21-0
Bending

Bldg 60

WSSF N.O.S. 2

9-24-80 14.18

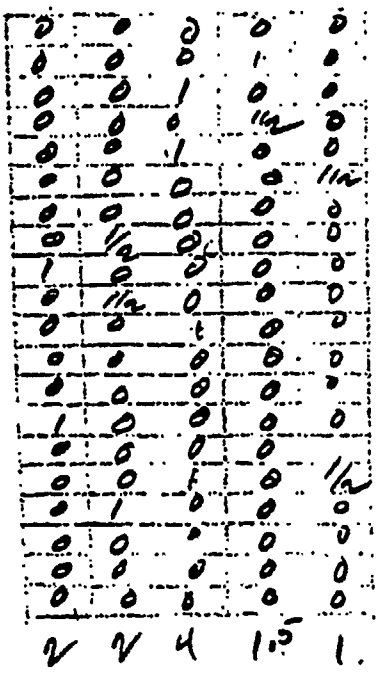
JCL 9.05

10-18-80 5hr 13 min 313 min

JCL 626 000

0.003025

Dave Warehime
Dixons shift
17 pulpers total
WSSF NNOS



89.775

0.105 × 855 / 0.003025 × 626000

1893.65

0.047

10.5

0.105

Willso

KAMLOOPS FIBER ANALYSIS

Bldg #60

WS 8 & N 05

9-24-80

Jack Lees

10-20-80

Jack Lees

0.003025

Jump # 2

Time Finish 14:16

9:08

5hr 8min 308min

616 000

Jim Long

Dixons shift

17 pulp loads

WS 8 & W 105

162.45

$$\frac{0.19 \times 855}{0.003025 \times 616000}$$

18634

0	0	0	0	0
0	1	0	1	0
1	0	0	0	0
0	0	0	1½	0
0	0	2	0	1
1	0	0	1½	0
0	0	1	2	0
0	0	1	0	0
0	0	0	0	0
0	0	0	1	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1½
0	0	0	0	1
0	0	0	0	0
1	1½	0	0	0
0	0	0	0	0
0	0	0	0	2
0	0	0	0	0
0	0	3	0	0
2	2.5	5	4	5.5

Total 0.087

Number 19

Ave 0.19

25-0-

Bendi

ASPHALT FILM ANALYSIS

Test Location: West end #5

Sample Number: 130 WSG4

Sampled: 9-25-80

J. L. Lee

10-20-80

0.003025

Pump No.: 14 2 92 2

Time Started: 9:51

Time Finished: 5hr 41m 39s

Gal. Pumped: 682000

Plant:

0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	1	0	0	0
0	0	0	0	0
0	0	0	0	0
2	0	0	0	0
0	0	0	0	0
0	0	0	1	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	0
0	0	1	1	0
3	2	1	2	1

$$\frac{76.95}{0.09 \times 855} = \frac{}{0.003025 \times 682000} = \frac{}{2063.05}$$

Residue: 0.037

Total: 9

Ave.: 0.09

Bendix

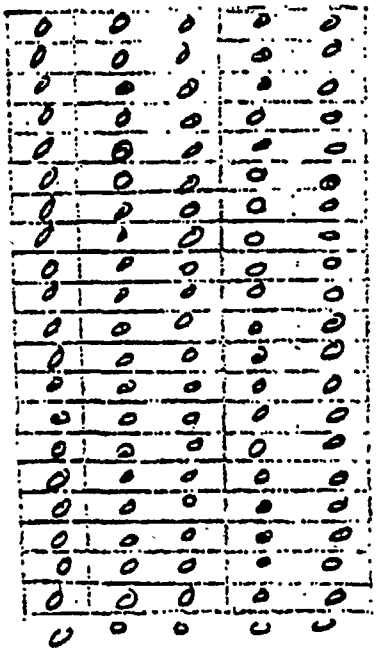
Bldg 60
PBS
10-20-80
J. Chiles
12-5-80
J. Chiles
0.003025

2.0
~~11.19~~ 10.0
10.21
56 min
112000

N. BARNES

1 can PBS

Wind
West 6 MPH



25-80

b Willson

Wet end #5
030WS88
10-20-80
[signature]
12-8-80
[signature]
0.003025

2
14.76
~~15.16~~

10:23

4 hr 4.3 min (283000

566000

Riffle shift

same

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

1

8.55

$$\frac{0.01 \times 855}{0.003025 \times 566000}$$

1712.15

0.005

1

0.01

Ben

Bldg 60
WS ~~88~~
10-22-~~80~~
~~[illegible]~~
12-8-80
~~[illegible]~~
0.003025

2
14:58
8:41
6:17 (377 min)
754000

6. Course Riffles shift

0	0	0	0	0
0	1	0	1	0
0	0	0	0	0
0	0	0	0	1
1	1½	1½	1	0
1	0	1	0	0
1	1	1½	0	1½
0	1½	0	0	0
0	0	2	1½	0
0	0	0	0	0
0	0	0	0	0
0	0	1½	0	0
0	½	0	0	1½
0	0	0	½	0
0	0	1	0	0
0	0	0	0	0
0	0	0	0	0
0	0	½	0	0
1	0	0	0	0
0	0	0	0	0
4	3.5	8.5	4	3

196.65

0.23 × 85

0.003025 × 754000

2280.85

0.086

23

0.23

210

Bldg 60

WS 88 — Pump. St. 2

10-23-80 — Time Finished 14:58

J.L. Sies — Time Started 9:45 A

12-8-80 — Elapsed Tim. 5h13m (313m)

J.L. Sies — Vol. 626000

0.003025

W. FERGUSON

Riffler shift.

$$\frac{0.21 \times 855}{0.003025 \times 626000} \quad 179.55 \;/\; 1893.65$$

0	0	0	0	0
0	0	0	0	1/2
0	2½	0	0	0
1	0	0	0	0
0	1½	0	0	1
0	0	0	0	0
1	0	1	0	0
0	1	0	1½	0
0	1	0	0	0
0	0	0	0	0
3½	0	0	0	0
0	0	0	0	1½
0	½	0	2	0
0	0	1	0	0
0	0	0	0	2
0	0	0	0	0
0	0	0	0	0
0	0	1	0	0
0	0	3	0	0
0	0	0	0	0
5.5	5.5	2	3.5	4.5

0.096

Total 21

Avg 0.21

ASBESTOS FIBER ANALYSIS

Sample Location LAB

Specific Materials/Process ASBESTOS — Pump Rate 1.8 l/min.

Dated Sampled 10-12-81 — Time Finished 12.33

Sampled By J. C. Lee — Time Started 12.12

Date Analyzed 10-14-81 — Elapsed Time 21 MIN

Analyzed By J. C. Lee — Vol. Sampled 37800 c.c.

Field Area .003025 — Blank

Remarks: 5 ASBESTOS SAMPLES
4 - PBS
1 - 7MS1
G BRINKMAN
SAMPLES THRU WILLIAMS DISINTERGRATOR

PLASTIC COVER DOWN
EXHAUST FAN OFF
VACUUM CLEANER ON
RESPIRATOR USED

Fibers > 5 μ

2½	0	2½	0	2
1	4	0	0	1
½	0	0	2	2½
1	1	0	0	0
0	1½	0	0	0
0	1	1	0	0
2½	0	1	2	0
2½	2	2	0	0
2	0	1½	3½	1
0	0	1½	0	2
0	1	1	1½	1½
0	0	2	1½	3½
1½	2	2	2	0
2	0	0	0	1½
1½	3	0	1	2
1½	2	2½	2	0
1½	2	0	1½	0
3½	1½	1½	1	1½
0	1	1	0	1
1½	0	1½	2	1
1	0	0	2½	0

23 22 20 225 18.5

Analysis: 7.93 Fibers/cc — Total: 106

T.L.V. ____ Fibers/cc — Avg.: 1.06

$$\frac{1.06 \times 85^{5}}{.003025 \times 37800}$$

ASSESTOS FIBER ANALYSIS

Sample Location LAB

Specific Materials/Product asbestos

Pump Rate 1.8 l/min.

Dated Sampled 9-24-81

Time Finished 15:38

Sampled By J. L. Sides

Time Started 12:38

Date Analyzed 9-28-81

Elapsed Time 3 HRS = 180 min

Analyzed By J. L. Sides

Vol. Sampled 324000 c.c

Field Area 0.00302 in²

Blank

Remarks:

G Brinkman
run no Tape

7 total

4 - #5

2 - 7 MST

1 - 7 D1

$$\frac{0.92 \times 85}{0.00302 \times 324000}$$

Fibers > 5 μ

2½	1	1½	0	3
1	0	0	1	0
2	1	2	3	1
1	1	0	0	0
0	1	½	1	1
2½	2	0	0	2½
0	0	1	2	0
1½	½	2	2	2
	3	1½	1	0
2	2½	0	0	½
0	0	½	0	1
1	1	0	0	0
1	2½	0	0	1
0	0	0	0	2
2½	2	0	0	0
3	½	0	1	1
0	0	1	1½	2
0	0	2	1	0
0	2	1	0	0
0	1	½	2	0

20 23½ 17 14.5 17

Analysis: 0.80 fibers/cc

Total: 92

T.L.V. _____ Fibers/cc

Avg.: 0.92

ASBESTOS FIBER ANALYSIS

Sample Location LAB

Specific Materials/Product asbestos

Pump Rate 1.8 l/min.

Dated Sampled 9-22-81

Time Finished 2:39

Sampled By L. C. Lee

Time Started 2:08

Date Analyzed 9-25-81

Elapsed Time 31 min

Analyzed By L C Lee

Vol. Sampled 55800 c.c.

Field Area .003025

Blank

Remarks: G. BRINKMAN
14 asbestos samples thru Williams disintegrator (respirator used)

Fibers > 5 μ

2	1½	1½		
4½	1	1		
4	2	1		
4	3	1		
1	4			
2	2			
4	2			
3	½			
3	1			
3½	1			
4	4			
2	2½			
0	1½			
4½	1			
3½	5½			
1	4½			
5	2			
2	4			
2½	3			
2	3			

$$\frac{2.42 \times 855}{.003025 \times 55800}$$

Analysis: 11.35 Fibers/cc

Total: 106.5 (44)

T.L.V. Fibers/cc

Avg.: 2.42

ASBESTOS FIBER ANALYSIS

Sample Location: Wet end #5

Specific Materials/Product: 030WS88

Pump Rate: 1.8 l/min.

Dated Sampled: 9-21-81

Time Finished: 15:38

Sampled By: J. Lee

Time Started: 11:26

Date Analyzed: 9-25-81

Elapsed Time: 4hr 21 min (451 min)

Analyzed By: J. Lee

Vol. Sampled: 469800 c.c

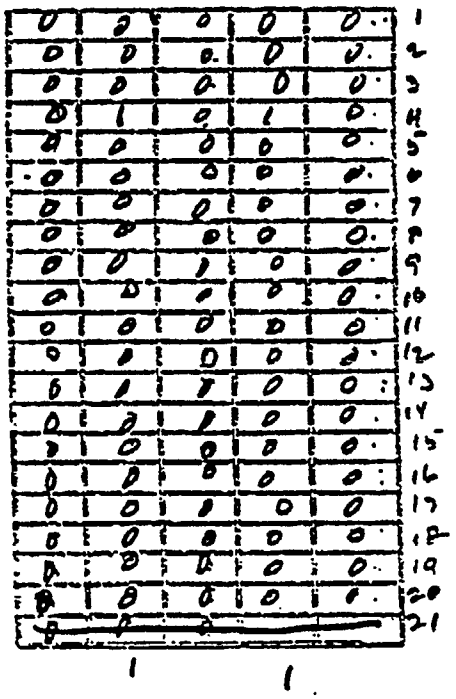
Field Area: 003025

Blank:

Remarks:

Riffler shift

Fibers > 5 μm



$$\frac{0.02 \times 85}{0.003025 \times 469800}$$

Analysis: 0.012 Fibers/cc

Total: 2

T.L.V. _____ Fibers/cc

Avg.: 0.02

ASBESTOS FIBER ANALYSIS

Sample Location: Dry end #5

Specific Materials/Product: 030 WS 88 — Pump Rate: 1.8 l/min.

Dated Sampled: 9-21-81 — Time Finished: 15:32

Sampled By: J. A. Lee — Time Started: 11:26

Date Analyzed: 9-25-81 — Elapsed Time: 4hr 6 min (246 min)

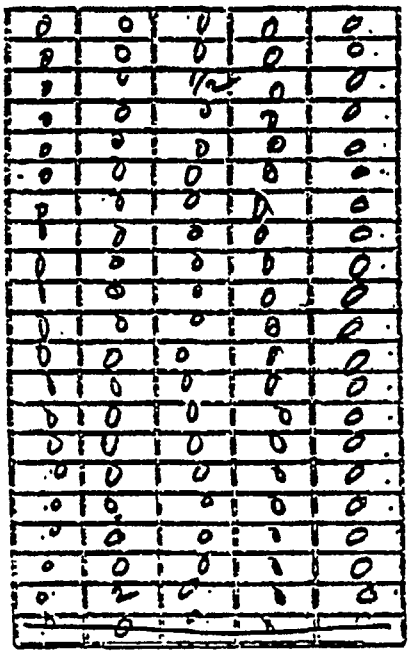
Analyzed By: J. A. Lee — Vol. Sampled: 442800 c.c

Field Area: .003025 — Blank:

Remarks:

S. Jones
watcher
Riffler shift

Fibers > 5 μ



2 1/2

$$\frac{0.05 \times 855}{0.003025 \times 442800}$$

Analysis: 0.032 Fibers/cc — Total: 2.5

T.L.V. Fibers/cc — Avg.: 0.025

ASBESTOS FIBER ANALYSIS

Sample Location: Wet end #5

Specific Materials/Product: 025 WS 88 — Pump Rate: 1.8 l/min.

Dated Sampled: 9-15-81 — Time Finished: 14:12

Sampled By: J. Lee — Time Started: 11:24

Date Analyzed: 9-22-81 — Elapsed Time: 3 hrs 48 min 228 m.

Analyzed By: J. Lee — Vol. Sampled: 410400 c.c.

Field Area: .003025 — Blank:

Remarks:

Dyson shift

Fibers > 5 μm

0	0	0	0	0
0	0	0	0	0
0	0	1	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	1	0
0	0	0	0	0
0	0	0	0	1
0	0	0	0	0
0	1	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
2	1	1	1	

$$\frac{0.05 \times 855}{0.003025 \times 410400}$$

Analysis: 0.034 Fibers/cc — Total: 5

T.L.V. Fibers/cc — Avg: 0.05

Dry end #5

.025 WS 88

9-15-81

L. L. Lees

9-22-81

L. L. Lees

Time finished 14:46

Time started 10:31

4:1.5 (253 min)

459000

watcher

S. Dolan

Dixons shift

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1/4	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	0
0	0	0	0	0
0	0	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1/4	1		1	

$$\frac{0.025 \times 855}{.023025 \times 459000}$$

0.0154

2.5

0.025

Bldg #60

020 WS64 1.8

9-14-81 Time Finished 14:27

J C Lee Time Started 10.13

9-22-81 Elapsed 4 HRS 1 4 MIN (254

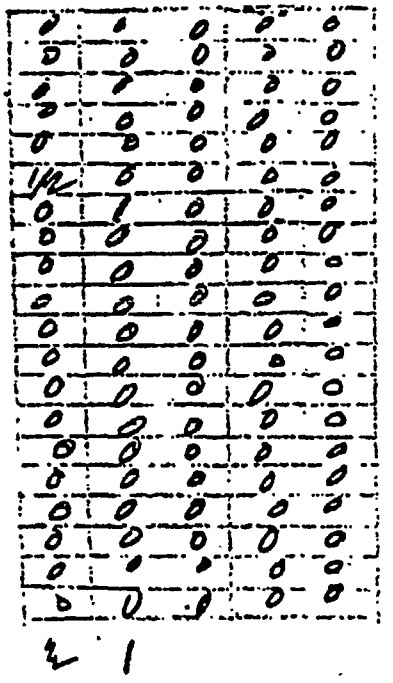
J C Lee 457200

E JONES

asbestos Refiner

operator

Dixon shift



2 1

$$\frac{0.015 \times 855}{0.003025 \times 527400}$$

0.008 1.5

0.015

Dry end #5

020 WS64

9-14-81

J. Davies

9-22-81

J. Davies

Pump Rate 1.8

Time Finished ~~11.36~~ 9.43

Elapsed Time 4 HRS 3 MIN (293 m

Vol. Pumped 527400

Blank

Watcher

J. DANNER

Dixons Shift

Fiberstat

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1½
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	0
0	0	0	0	0
0	0	0	1	0
0	0	0	0	0
0	0	0	0	0
1	1	1	1½	

$$\frac{0.035 \times 855}{0.003025 \times 527400}$$

0.019

3½

0.035

LAB

9-10-81

J.I SIES

9-15-81

J.I.SIES

.003025

Pump Rate 1.8

Time Finished 15:57

12:10

3 HRS 47 min (227 min)

408600

G. CROUSE

asbestos samples
(Respirator used)
6 in Williams disintegrator
8 in Rotap

2	1	0	0	1/2
2	2	0	0	1
2	2	0	0	2
1	1 1/2	0	2	1
2	3 1/2	1	0	1
3	0	1 1/2	0	0
1	2	1	0	0
2 1/2	0	0	0	0
0	2	2 1/2		0
0	0	1 1/2	2 1/2	0
0	1/2	1		0
0	0	0	1 1/2	0
3	0	1 1/2		0
1 1/2	0	0	2	2
0	0	2		0
1/2	0	0	1 1/2	1
0	0	1	0	0
2 1/2	0	2 1/2	0	1
1	0	0	1	1 1/2
3	0	0	0	2 1/2
27	15.5	15.5	8.5	11.5

$$\frac{0.78 \times 855}{0.003025 \times 408600}$$

0.54

78

0.78

ASBESTOS FIBER ANALYSIS

Sample Location: BLDG #60

Specific Materials/Product: 030 WS 88 Pump Rate 1.8 l/min

Date Sampled 8-27-81 Time Finished 14:44

Sampled By J.J. SIES Time Started 9:07 (5 hrs. 37 min)

Date Analyzed 9-15-81 Elapsed Time 337 min

Analyzed by J. Sies Vol Sampled 606 600 cc

Field Area 0.003 025 Blank

Remarks:

DIXONS SHIFT

D. WAREHIME

ASBESTOS REFINER

OPERATOR

Fibers > 5 μ

0	0	0	0	0
0	0	0	0	0
1½	0	0	0	0
0	0	0	0	0
0	1½	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	0
1	0	1½	0	0
0	0	0	0	0
0	0	0	0	0
0	3½	0	0	0
0	0	0	1	0
0	0	0	0	0
0	1½	0	0	0
0	0	0	0	0
0	1	0	0	0
0	0	0	0	1
0	0	0	0	0
0	0	0	0	0
2½	6½	½	1	1

$$\frac{0.115 \times 85^{5}}{0.003025 \times 606600}$$

Analysis: 0.054 Fibers/cc

T.L.V Fibers/cc

Total: 11.5

Avg.: 0.115

BLDG #60

030 WS88 | Pump ... 1.8 ...

8-21-81 | Time Finished ~~10:25~~ 9:83

J.I. SIES | Time Started 8:37

8-27-81 | (1 HR 46 MIN) 106

J.I. SIES | Vol Sample 190 800

.003025 | Blank

W. DELLS SHIFT

PAPER CUTTER

A. HERNANDEZ

SHORT TIME, CHANGED JOBS, WENT TO #4 PIT.

Fibers:

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	1	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1/2	0	0	0
0	0	0	0	0
0	0	0	1/2	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1/2	0	0	0
0	0	0	0	0
0	0	0	0	0
1	1	1	1/2	1

$$\frac{0.045 \times 855}{0.003025 \times 190800}$$

0.067

Total 4.5

0.045

DRY END #5 MACHINE

Product 030WS88 Pump Area 1.8

8-20-81 Time Finished 1.3-41

J.I. SIES Time Started 8-26

8-27-81 Elapsed Time (5HR 15MIN) 315MIA

J.I. SIES Total Counts 567000

0,003025 Blank

W. DELLS SHIFT

G. HOBAN
WATCHER

0	1	0	5
0	0	0	0
0	0	0	0
0	0	0	0
0	0	1	0
0	0	0	0
0	0	1	0
0	0	0	0
0	1	1	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	2
0	0	0	0
0	0	1	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
2	2	0	2

$$\frac{0,06 \times 85}{0,003025 \times 567000}$$

0.03

6

0,06

DRY END #5 MACH

Paper Mfg. Product 035 WS88 Pump Rate 1.8

Date Finished 8-19-81 Time Finished 15:19

J. I. SIES Time Started 9.14

8-27-81 Elapsed Time 6HR 5MIN 365MIN

J. I. SIES Vol Sampled 657.000

.003025 Blank

W. DELLS SHIFT

WATCHER

J. SNAPP

Fiberglass

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	0
1	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	2	0	0	0
0	0	0	0	0
0	0	0	1/2	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	0	0
0	0	1	0	0
0	1	0	0	0
0	1	0	0	0
0	0	0	0	0
0	0	0	1	0
0	0	0	0	0
1	2	0	1/2	0

$$\frac{0.035 \times 853}{0.003025 \times 657000}$$

0.015

3.5

0.035

WET END #5 MACHINE

Material Ordered 037 WS 81 — Pump Rate 1.8 (15 63)

8-18-81 — Time Finished ~~16.03~~

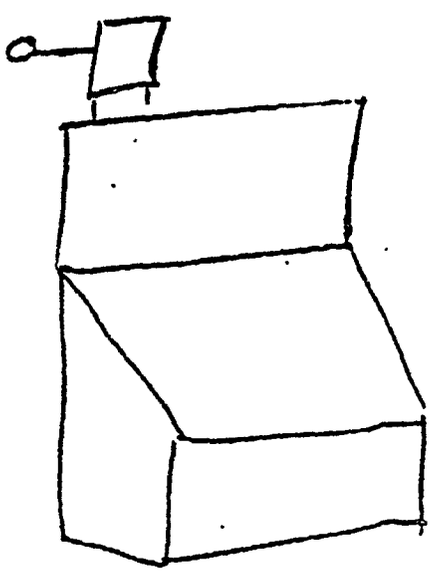
J. I. SIES — Time Started 9.47

8-27-81 — Elapsed Time (6 HR 6 MIN) 376

J. I. SIES — Basis Weight 676800

0.003025 — Diam

SOUTH END



0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	½	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	0	0
1	½	1	0	1

$$\frac{0.035 \times 853}{0.003025 \times 676800}$$

0.0146

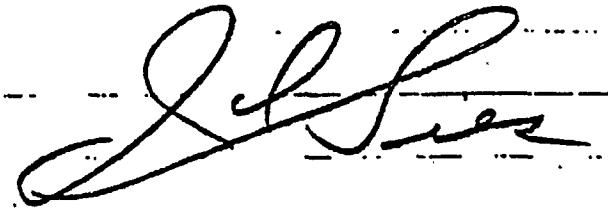
3.5

0.035

8-18-81
8 30 AM

E. HENRY REFUSED

TO WEAR PUMP AND FILTER



BLDG #60

030 WSBP NOS — 1.8

7-31-81 — 13.56

J.I. SIES — 8:29

8-21-81 — 327 MIN

J.I. SIES — 588600

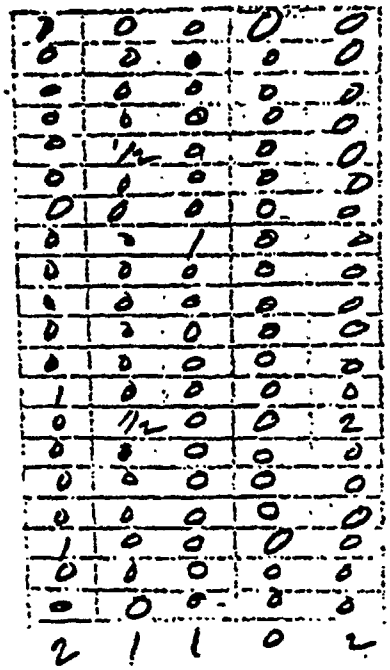
0.003025

W. DELLS SHIFT

EARL EVANS

ASBESTOS REFINER OPERATOR

CUTTING PLASTIC OFF OF ASBESTOS SKIDS, OPERATE LIFT TRUCK



$$\frac{0.06 \times 855}{0.003025 \times 588600}$$

0.029

6

0.06

BLDG #60

JM#5 + 7MS7 — 1.8 10 65

7-24-81 — ~~11:05~~ AM

J. I. SIES — 9:27 AM

8-21-81 — 1 HR 3 8 MIN 98 MIN

J. I. SIES — 17640

0.003025

① Asbestos unloading Helper

② B. Meisner

③ 4 truck loads
2 pallets of 7MS7
rest was JM#5

④ all were wrapped in plastic

⑤ slight freeze

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
2	0	0	0	0
0	0	1	0	0
1/2	0	0	0	0
0	0	0	0	0
0	0	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
3½	0	1	0	1

0.088

5.5

0.055

$$\frac{0.055 \times 855}{0.003025 \times 176400}$$

DRY END #5 MACHINE

025 WSBP — 1.8 / 1.1 104

7-23-81 — ~~12:44~~ PM

J. I. SIES — 8:52 AM

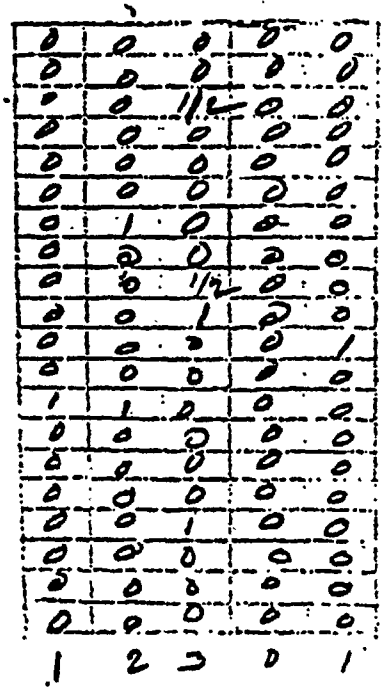
8-20-81 — 3 HRS 52 MIN. 232 MOA

J. I. SIES — 417600

0.003025

K. GREEN - WATCHER - 3RD HAND

RIFFLES SHIFT



1 2 3 0 1

$$\frac{0.07 \times 855}{.003025 \times 417600}$$

0.047

7

0.07

BLDG #60

WS87 15% PAPER — L-3

7-22-81 — 1530

J.I.SIES — 1300

8-20-81 — 2HR 30 MIN — 150 MIN

J.I.SIES — 225000

0.003025

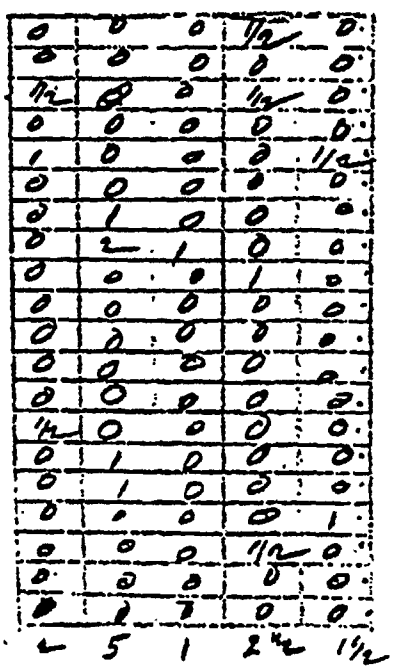
GEORGE CROUSE

PAPER CUTTER

SLIGHT BREEZE

RIFFLES SHIFT

$$\frac{0.12 \times 853}{.003025 \times 225000}$$



0, 1/2, 0
0, 0, 0, 0
1/2, 0, 0, 1/2, 0
0, 0, 0, 0, 0
1, 0, 0, 0, 1/2
0, 0, 0, 0, 0
0, 1, 0, 0, 0
0, 2, 1, 0, 0
0, 0, 0, 1, 0
0, 0, 0, 0, 0
0, 0, 0, 0, 0
0, 0, 0, 0, 0
0, 0, 0, 0, 0
1/2, 0, 0, 0, 0
0, 1, 0, 0, 0
0, 1, 0, 0, 0
0, 0, 0, 0, 1
0, 0, 0, 1/2, 0
0, 0, 0, 0, 0
0, 1, 1, 0, 0
5 1 2 1/2 1 1/2

0.15

12

0.12

Bldg #60

0.030 0.375

4-9-81

5-7-81

0.003025

2.0

14 21

~~15 27~~

11-48

3-39 219 min

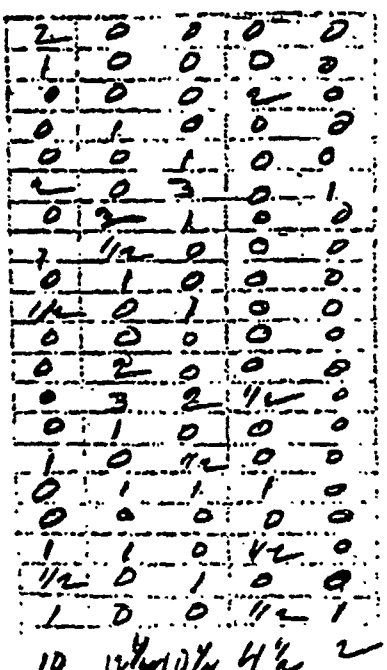
438 000

carlon Rayon Rufflerstift

1.5 2

11:48

slurry mixer



10 12½ 10½ 4½ 2

$$\frac{0.395 \times 85^{5}}{0.003025 \times 438000}$$

0.255

39.5

.395

asbestos unloading Bldg #61

7D5

4-9-81

Jack Sias

5-7-81

Jack S.

.003025

Lon. Tester-man #3

13-13 OFF

10-39 ON

Lift truck operator

second car

unloaded in Bldg #61

Bad-car

load shifted

0	1	0	½	1½
1	1	0	0	1
1	1	2	0	1
0	0	0	0	0
1	0	0	0	1
0	0	0	0	0
1	1	½	½	1
½	0	½	1	1
1	1	0	1	1
0	0	0	0	0
0	0	0	0	0
0	1	0	0	0
0	2	1½	0	0
1	0	0	0	0
0	0	½	0	0
0	0	1	0	1
1	0	0	0	1
0	1	1	½	0
0	1	½	0	1
1	0	1	½	½
0	0	0	1	0
7½	6	8½	4	5

$$\frac{0.31 \times 855}{.003025 \times 292600}$$

0.3

31

0.31

Bldg #60

030WS75

4-9-81

[illegible]

5-7-81

[illegible]

.003025

20-

11.48 AM

8.44 AM

3h. 4m. 184 min

368000

Carlos Rower Riffles shift

11-48 OFF

8-44- ON

slurry mixer

0	0	0	0	0
0	1	0	1	1½
0	0	0	½	0
0	½	0	0	0
2	0	½	0	1
1	1½	1	1½	½
0	0	0	0	0
0	0	0	0	0
0	1½	0	0	0
½	0	1½	1	0
0	0	0	½	0
2	0	0	0	1½
0	0	0	0	2
0	0	0	0	0
1	1	0	0	0
1	0	0	1	0
0	0	0	0	0
0	0	1	0	0
2	0	0	0	0
0	1	2	0	0
9½	5½	8	5½	6½

$$\frac{0.35 \times 855}{.003025 \times 368000}$$

0.269

35

0.35

Asbestos unloading, Bldg #61

D7MS7 [redacted]

4-9-81

5-7-81

.003025

1.9

10 39

8.35

2 HRS 4 min 124 min

235600

#3

12 PIG

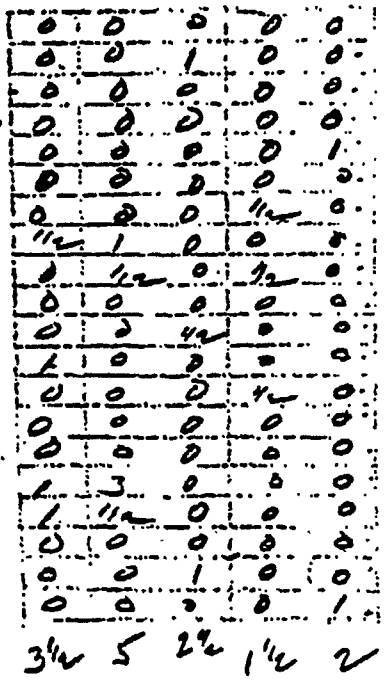
10-39-0 OFF

8-34-45 IN

Low 1st car.

Low 1st car. Lift truck operator

Bad car, load shifted



$$\frac{.145 \times 855}{.003025 \times 235600}$$

.174

14.5

.145

			Lib Mut	Ced.
1.	8:34 am	F.L.O.	0.2	0.174
2.	8:43 am	Sl. Mix op. FL	1.6	0.269
3.	8:52	Latex mixer 2nd level	0.2	—
4	10:37	FLO (same as 1) covered full work shift	0.6	0.3
5		same as #2	0.005	0.255
6		same as No 3	N.D..	—

LAB

(1) 100 '4 PBS

6-2-82

6-17-82

.003025

1.8

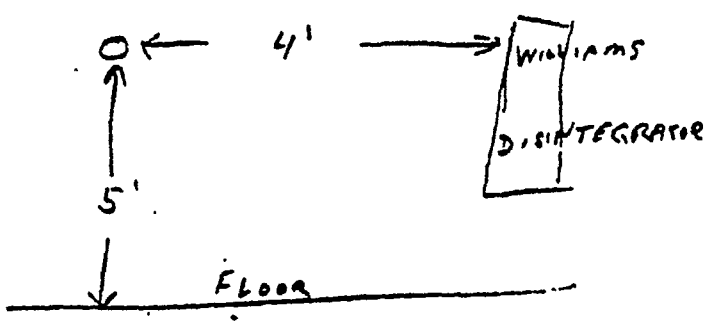
9:56

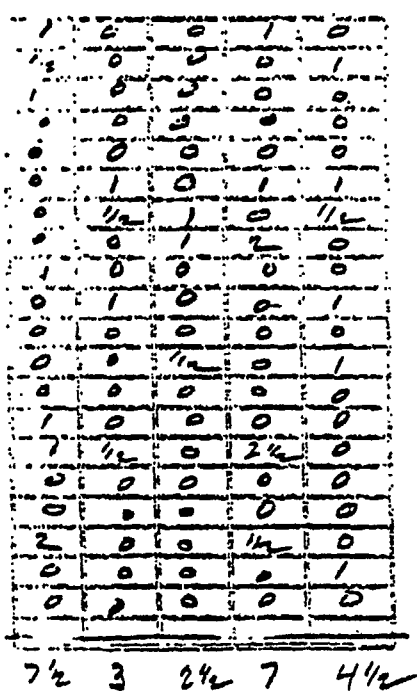
1:19 = 79 min

142200

G. BRINKMAN
USING WILLIAMS
DISINTEGRATOR

STATIONARY SET UP





Analysis: 0.49

Total: 24.5

Tot W

Avg: 0.245

$$\frac{= 29.495}{0.245 \times 855}$$

$$.003025 \times 142200$$

$$430.155$$

LAB

(1) TEST(=) PES

6-2-82

6-17-82

.003025

1.8

10:20

55 min

99000

G BRINKMAN
RUNNING R. TAP.

0	0	0	1/2	0
1	2	1/2	0	0
0	2	1/2	1	1 1/2
0	2 1/2	0	0	1
1	3	0	1/2	0
1	0	0	0	1/2
0	1	0	0	0
2	0	1/2	1/2	0
3	0	3 1/2	0	2
0	0	1 1/2	1 1/2	0
0	2	0	0	0
0	1	1	0	0
0	0	1	0	0
1	0	0	0	1
0	0	0	3	0
0	2	0	0	1
3 1/2	2	1	0	1
2	1	1	0	1
1	2 1/2	2	1	0
0	0	0	1	0
16.5	21	13.5	9	9

Analyte: 1.97

T.L.V.: _____

Time: 69

Amt: 0.69

$$\frac{0.69 \times 855}{.003025 \times 99000} \quad \frac{589.95}{299.475}$$

LAB

(1) PBS

1.8

6-2-82

10:19

J. L. Lee

10:11

6-17-82

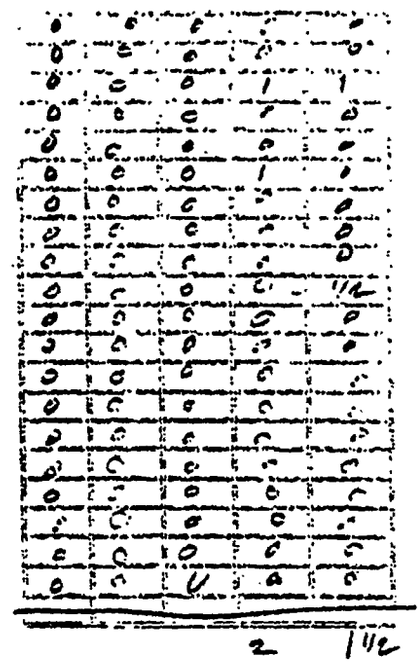
5 MIN

J. L. Lee

.003025

G BRINKMAN
USING WILLIAMS
DISINTEGRATOR.

RESPIRATOR USED



Analysis: 0.69

Tech: 3.5

Avg: 0.035

$$\frac{0.035 \times 855}{0.00325 \times 1440} \quad \begin{matrix} 29.925 \\ 11\ 3.56 \end{matrix}$$

Run along with MOSH test - (They completed 15 mins total time with 7 min of RoTap)

LAB

(1) TDI (2) PDI

7-16-82

.003025

1.2

7

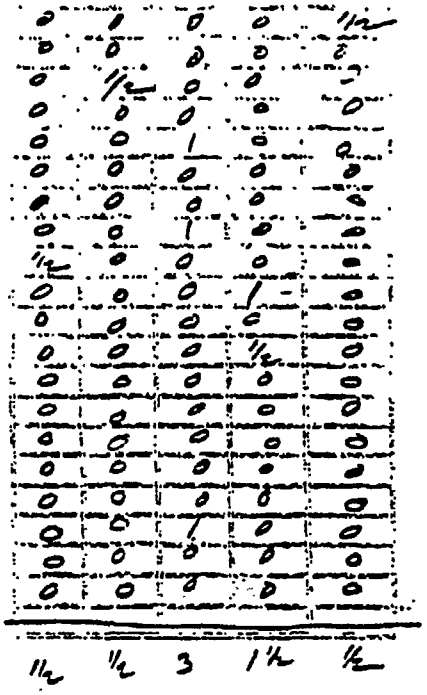
9:56

15 MIN

27000

G. BRINKMAN
USING WILLIAMS
DISINTEGRATOR

RESPIRATOR USED



0	0	0	0	1/2
0	0	0	0	0
0	1/2	0	0	0
0	0	0	0	0
0	0	1	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	0	0
1/2	0	0	0	0
0	0	0	1	0
0	0	0	0	0
0	0	0	1/2	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	0	0
0	0	0	0	0
0	0	0	0	0
1/2	1/2	3	1 1/2	1/2

Analysis: 0.63

T.L.V. _____

6

6.06

$$\frac{0.06 \times 855}{.003025 \times 27000} \quad \frac{51.3}{81.675}$$

Run along with MOSH test.