GROSS DESCRIPTION:

A - Three right upper lobe biopsies, the larger 0.3 cm.

B - Bronchial washings submitted for cell block.

Gross & Microscopic Diagnosis:  
A - Mild chronic bronchitis and lung tissue with asbestos bodies, biopsies from right upper lobe. -2

B - Negative for malignant cells, cell block of bronchial washings. -2
March 26, 1990

MEDICAL SUMMARY

PATIENT NAME: Dale Harmer
DATE SEEN: January 11, 1990

Dale Harmer was evaluated at the Central New York Occupational Health Clinical Center on January 11, 1990. Mr. Harmer is a 49-year-old talc miner from Gouverneur, New York. In the Spring of 1988 the patient underwent a company offered physical examination and was told at that time that he had a heart murmur and that his lungs "looked bad". According to the patient, he was evaluated further with an echocardiogram, more extensive pulmonary function testing, and a treadmill test. The pulmonary function testing included a spirometry which showed a reduced FVC and FEV1 with a normal FEV1/FVC ratio. This suggests restrictive lung disease. Apparently no lung volumes or diffusion capacity were done at that time. The echo cardiogram showed minimal aortic sclerosis and "mild aortic regurgitation" without a significant outflow gradient. Flows across the mitral tricuspid and pulmonic valves were all normal. Left ventricular wall motion was normal as was the ejection fraction. The results of the treadmill tests are unavailable to me.

The patient has had complaints of shortness of breath for approximately the past year, especially when exerting himself at work or climbing stairs. He denies any shortness of breath while walking at his own pace on level ground and he thinks he is able to keep up with others his own age. However, he feels limited at work and is afraid that soon he will not be able to do his job because of his shortness of breath. He is able to ascend approximately 8 to 10 steps before become dyspneic. The patient has also had complaints of cough over the same time period which has become especially pronounced during the past month. It is productive of a significant amount of whitish sputum. He denies any wheezing.

Also, over approximately the past two years the patient has had symptoms of chest cramping that he describes as similar to a "charley horse". Initially this was occurring every two months but now is occurring almost daily. The pain is located in the mid-sternal area and radiates to the left shoulder. It usually lasts a few minutes. It seems to be brought on with certain turning motions and other activities such as when he blows hard during spirometric testing. The pain is sometimes exacerbated by pushing.

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on the chest wall. It is not consistently associated with exertion or emotional upset nor with shortness of breath, diaphoresis, or feelings of faintness. It has happened on a few occasions while the patient was resting in bed.

The patient denies any hemoptysis or fevers. He has had about a six pound weight loss over the past year. To the patient's knowledge there is no previous history of hypertension, increased cholesterol, or diabetes mellitus. His primary care physician prescribed sublingual nitroglycerin which the patient has not used for his chest pain.

The past medical history is significant only for an ulcer in 1985 which is not currently a problem and sinus problems which the patient experienced as a child and which he soon outgrew. The only previous surgery has been a tonsillectomy when the patient was around 8 years old. The patient is currently on no medications. He denies any known allergies. He was in a motor vehicle accident and suffered a fractured spine and broken ribs. In addition, in 1974 the patient's arm got caught in some moving machinery at the Gouverneur Talc mill causing permanent damage to his right upper arm. Apparently, this was a soft tissue injury without bony fracture.

The family history is not significant for coronary artery disease. The patient has one sister who has valvular heart disease. The patient denies any rheumatic fever when he was a child. He has 3 children, all of whom are in good health.

The patient has smoked for the past 27 years and up until a year ago was smoking between one-half to one and one-half packs per day. For the past year he has cut his tobacco intake to almost nothing. He drinks a few beers per month. Hobbies in the past have included hunting and fishing. Though he enjoys hunting he denies extensive shooting and did not usually shoot at all outside of the hunting season. He used a snowmobile many years ago on an occasional basis. He rarely cut wood using a chain saw. He denies any other significant potentially toxic non-occupational exposures.

The patient's occupational history began when he worked as a teenager and in his early twenties on a dairy farm. From 1963 until 1969 the patient had a variety of short-term jobs. He worked for two years in an Agway feed mill and was involved in most of the feed mill activities including grinding the feed, and feed delivery. He worked for two years at the Groveton Paper Mill running a perforating machine. He worked for a year at a Kraft foods plant processing cheese. For one year he was employed in a Lowville factory putting lacquer on bowling pins. The patient was also employed for six months at the St. Joe's zinc mine as an underground mucker.
In 1969 the patient went to work for International Talc, where he remained for five years. From 1974 until the present he has been employed by Gouverneur Talc. Initially the patient was employed as a driller in the open pit mine. He held several other relatively short term jobs including driving a truck, in the mill crushing department for two years, less than one year as a packer, and about five months on repairs. Since moving to Gouverneur Talc in 1974, the patient has worked as a milling operator at the No. 3 mill. This mill is an older mill with older machinery. The ore is brought up from underground and is then crushed, milled, packed, and shipped. The patient is responsible for supervising a variety of milling operations. He spends almost all of his time in the mill and is often actually running the milling machinery. He describes the work as continuously dusty and possibly worse over the last couple of years because of potentially inadequate maintenance. The patient routinely leaves work covered with dust. He describes "bad nights" when the dust is quite thick and covers him completely. Prior to leaving he blows off whatever dust he can with an air hose. He wears his work clothes home and they are laundered there. The patient estimates that he has worn a respirator approximately 75% of the time. The respirator is an air purifying half-face piece mask with dust cartridges. The cartridges are changed every 8 hour shift but when the dust is especially thick he is required to change the cartridges two or three times a shift. The respirator has never been formally fit-tested. The conditions are also noisy and the patient wears hearing protection approximately 50% of the time. The mine safety and health administration carries out inspections once or twice a year according to the patient but he does not know the results of these evaluations.

On physical examination the patient appeared older than his stated age but in no acute distress. His pulse was 72 and regular, respirations were 20, and blood pressure 108/80. The HEENT exam was remarkable for a right ear canal which was blocked with cerumen. The left tympanic membrane was normal. The patient was edentulous and his tongue was thickly coated. There was no cervical or supraclavicular lymphadenopathy. On auscultation of the lungs there were crackles in both bases on inspiration. In the left lung these disappeared about halfway up the chest, whereas on the right they disappeared about two-thirds of the way up the chest. On examination of the heart there was an extra heart sound which may have been an S4 or a systolic click. There was also a 1/6 systolic ejection murmur heard best at the apex. The abdominal exam revealed positive bowel sounds without organomegaly or tenderness. Rectal exam showed a prostate which was about 2+ enlarged and was diffuse, smooth, and non-tender. The testes were without masses or tenderness. There was no occult blood or masses noted on rectal examination. Examination of the skin was unremarkable. There was clubbing of the fingernails without cyanosis or edema. Neurological examination was within normal limits.
Additional testing included audiometry which revealed significant hearing loss in the left ear, mild in the lower frequencies and more severe in the 3k to 8k region. On the right hearing was normal in the lower frequencies with a mild degree loss in the 3k to 8k region. There was significant asymmetry between the ears.

On pulmonary function testing the patient's FVC was 3.38 L (78% of predicted), FEV1 was 2.77 L (78% of predicted), FEV1/FVC of 82%, and an FEF 25-75 of 3 L/S (81% of predicted). The chest x-ray, revealed diffuse interstitial markings in the mid and lower lung fields bilaterally. Bullae were identified in the right apex. An ill defined nodular density was identified in the right upper lung peripherally. It was non-calcified with ill defined borders. No definite pleural abnormalities were noted.

Because of the possibility of pulmonary malignancy the patient was referred to Dr. Gregory Loewen, a pulmonologist in Watertown, New York. On pulmonary function testing obtained by Dr. Loewen there was a diminished diffusion capacity with a normal total lung capacity. Obstructive disease was not demonstrated on PFT. Dr. Loewen also obtained a chest x-ray and a CT of the chest. The chest x-ray identified areas of pleural thickening along each lower lateral chest wall in addition to the findings noted on the previous chest film. On CT, the nodule in the right upper lobe was better defined as 2.5 cm. in size with ill defined borders. No definite calcification was noted and malignancy was suspected.

Dr. Loewen carried out endoscopy and according to his report the histology of the biopsies taken did not reveal malignancy. The biopsies and the bronchial alveolar lavage, however, was remarkable for numerous ferruginous bodies and inflammation. Dr. Gerald Abraham also reviewed the bronchial alveolar lavage at the SUNY Health Science Center in Syracuse and found very high numbers of ferruginous bodies in the lavage fluid.

**IMPRESSION AND RECOMMENDATIONS:**

Dale Harmer's symptoms, physical examination, chest x-ray, and pulmonary function testing are all consistent with pneumoconiosis which is most likely asbestosis or combined talcosis and asbestosis. The patient has worked for approximately 20 years as a talc miner and miller. During that time according to his history he was exposed to significant amounts of talc and other dusts which included Tremolite and Anthophyllite. He describes exposure to the fibrous forms of these minerals especially during the early years of his employment. Respiratory protection has been worn a significant amount of time but it is unclear whether the cartridges used were of the appropriate type, or whether they were appropriate for the exposure levels reached. The respirator has never been fit tested. On bronchoscopy the patient's bronchial alveolar lavage fluid and biopsy material was found to contain very high numbers
of ferruginous bodies which are consistent with asbestos fiber exposure. Consequently it is my opinion that Mr. Harmer's pneumoconiosis is an occupational lung disease and has been contracted as a direct result of his exposures working as a talc miner and miller.

In addition the patient has a lung nodule which is suspicious for malignancy. The negative bronchoscopy reduces but does not rule out the possibility of a lung tumor. As recommended by Dr. Loewen the patient must be followed quite closely and if the nodule enlarges an open lung biopsy will be necessary to definitively evaluate it. If the nodule is not malignant it is most likely a pneumoconiotic nodule as noted by Dr. Loewen.

The patient is experiencing significant breathlessness with exertion. His dyspnea is making it very difficult for him to carry out his job duties. He has evidence of a reduced diffusion capacity on pulmonary function testing. Consequently it is likely that his symptoms are due to decreased oxygenation as a result of his occupational lung disease. The patient's pneumoconiosis puts him at increased risk of progression of his disease as well as of malignancy with any further exposure to dusts at the talc mine and mill. Because of his symptoms and the necessity of no further exposure I would consider Mr. Harmer to be totally disabled by his lung disease. The patient's lung disease is permanent and may be progressive.

Recommendations for future treatment of the patient's lung disease include the following:
1. No further exposure to talc, Tremolite, Anthophyllite or asbestos containing dust, or any other fibrosis causing dust.
2. Close evaluation as recommended by Dr. Loewen for the possibility of right upper lobe malignancy.
3. Aggressive treatment of possible respiratory infection and the patient should be vaccinated for both the influenza and pneumococcus.
4. The patient should locate a primary care physician in his local area who can be responsible for coordinating all of his medical care.

If there are any questions regarding this report, please call me at (315) 464-6422.

Sincerely,

Michael B. Lax, MD, MPH
Medical Director
CNYOHCC
SUPREME COURT
STATE OF NEW YORK ST. LAWRENCE COUNTY

LEONARD GAUMES, et al  Plaintiffs,

v.

R. T. VANDERBILT COMPANY, INC., GOUVERNEUR TALC COMPANY, INC., ST. JOE MINERALS CORP., and FLUOR CORP.,

Defendants.

AFFIDAVIT

STATE OF NEW YORK )
COUNTYOFONONDAGA)SS:

I, Dale Harmer, being duly sworn, deposes and says:

1. I am one of the plaintiffs in the lawsuits against R. T. Vanderbilt Company, Inc., Gouverneur Talc Company, Saint Joe Minerals Corp., and Fluor Corporation and I understand that R. T. Vanderbilt and Gouverneur Talc Company have made a motion to dismiss my action. I know that this affidavit will be used as a means of opposing that motion.

2. My lawyers tell me that R. T. Vanderbilt and Gouverneur Talc Company deny that they ever made any misrepresentations to me concerning my health and deny that they concealed from me the true condition of my health. I have also been told that they deny that there is asbestos in the mines, and deny that they concealed from us the fact that there is asbestos in the mines. Those denials are false and I will explain how I know that from my own personal experience.

3. I am fifty-two years old and went to work for International Talc Company on October 6, 1969 in the "open pit." Then, when Gouverneur Talc Company took over International Talc Company in 1974, Gouverneur Talc Company hired me. Therefore, since 1969, I have worked in and about the talc mines and pits owned first by International Talc Company and then by Gouverneur Talc Company, which in turn, I am told, is owned and controlled by R. T. Vanderbilt Company.
4. With respect to the condition of my health, I want to say that every year the employees of International Talc Company and then Gouverneur Talc Company would undergo physical examinations by the plant doctor, which included chest x-rays. So for the approximately twenty years that I worked for International Talc Company and Gouverneur Talc Company, I had yearly chest x-rays and breathing tests performed by the plant doctors. Prior to 1989, I never once was told that there was anything wrong with my lungs or anything else.

5. Sometime after I filed a Workers Compensation claim, in November of 1989, my lawyers gave me copies of some medical reports they had received from Gouverneur Talc Company.

6. Included in the medical reports, there was a report by Dr. Dodd, the plant doctor back in 1979, dated October 10, 1979, which stated: "Comparison with the previous exam of October 11, 1978, now reveals an increase of pulmonary markings throughout both lung fields, somewhat more accentuated in the right base." I am not a doctor, but it reads to me like something was going on way back then. I was not told by Dr. Dodd or any other doctor at that time that I had any lung or respiratory problems at all. Even when I began to feel sick, I wasn't told that I shouldn't work there anymore.

7. During the last part of 1989, I got to a point where I got tired going up and down stairs. I was spitting up a lot, and my lungs were feeling bad. Somewhere around the spring of 1989, I had a physical examination by the plant doctor, who was then Dr. Fung. He talked to me after the physical examination. He told me that I had a heart murmur and he said that my lungs didn't look too good right then. Dr. Fung told me that I had a real small spot starting in my right upper lung, but it wasn't significant enough at the time to really do anything about it. He sent me down to the hospital for some tests and again said it wasn't serious enough to do anything about. He didn't tell me to stop working and I kept on working because I didn't know anything was wrong.

8. I kept getting worse and worse. Finally, my wife and I decided I better do something else and that is when I went to Dr. Lax, somewhere around January 1990. By that time, I was feeling pretty bad. Shortly after that, Dr. Lax diagnosed that I had lung cancer. I want to know why I wasn't told about Dr. Dodd's examination report of October 10, 1979, which said I had some trouble "somewhat more accentuated in the right base," especially since that is where the lung cancer started.
9. My true physical condition was concealed from me, but, G. E. Erdman's Inter-Office Memorandum was placed on the bulletin board, put up there for all of us employees to see, and we all saw it. (A copy is attached to my statement, by my lawyer, and marked Exhibit A.) Please note the next to last sentence in the memorandum "Even though you shouldn't need to worry about getting cancer from our dust, you must respect the possibility of getting talcosis." My information is that, at that point, several of the miners had developed cancer and since then several more of them have developed cancer, but on this memorandum, we have the manager of Gouverneur Talc Company telling us we don't have to worry.

10. I think, concerning my medical condition, they kept from me the true nature of it and they even tried to tell me there was nothing wrong. The manager, Mr. Erdman, even told us not to worry about getting cancer from the dust. If I had known that I was going to get sick from being in the mines, I would have looked for other employment that was not so unsafe to my health. I relied on what the company was telling me and also what they were not telling me in making my determination to continue working in the mines.

11. Maybe the pay is not as good being a farmer or something like that, but at least you don't end up with lung cancer.

12. I have a few comments as far as this asbestos thing is concerned. Before OSHA came in, everybody talked about asbestos being in the mines and in some areas, there were more fibrous materials which we all called asbestos. After OSHA came in, we noticed that the word asbestos disappeared from management's vocabulary and they took a position with us, as well as with OSHA, as far as I know which is shown in Mr. Erdman's memorandum, attached as Exhibit A, in the first paragraph: "NIOSH knows these facts but is reluctant to recognize their earlier error in classing tremolite as an asbestos mineral that is not a cancer causing agent." and "but the weight of increasing evidence continues to indicate that our products are not causing abnormal amounts of cancer."

13. I am told by my lawyers, who have retained well known mineralogist, Dr. Arthur Rohl, who is familiar with our talc mines, and environmental pathologist, Dr. Jerrold Abraham, that there is no question that there is asbestos in the mines up here and it gets into the lungs of the miners and has been seen there by Dr. Abraham.
14. Of course, I have read, over the last fifteen to twenty years, about the dangers of asbestos. All of us miners up here were interested in that because, all along, we have been calling some of the products coming out of the mines asbestos. Now, our employer and the company that owns our employer, are telling us that there isn't any asbestos up here. If anybody had ever told me what I have found out since we brought this lawsuit and my lawyers went out and hired experts, and if I had known then what they have said, I would have gotten out of those mines years ago. The only reason why I kept working was because Gouverneur Talc Company and R. T. Vanderbilt kept telling me that there wasn't any asbestos in the mines.

15. I remember, a few years ago, a gentlemen by the name of Hugh Vanderbilt, a big wheel with R. T. Vanderbilt, came up to the mines and talked to a lot of us at the mine head. He told us that the government was claiming that there was asbestos in the mines and he said that we didn't have asbestos. He said he had a senator in his back pocket and there weren't going to be any problems with our jobs because he could appeal any finding that we did have asbestos for years, so we wouldn't have to worry about our jobs and there wasn't any asbestos up here anyway.

16. We miners and ex-miners up here are a very close knit group. When we are working, we have to depend on each other so that each one does his job and everybody is safer and better off. I know that none of them would have worked in those mines if they had known it was going to harm their health and especially if they had known that they were being exposed to asbestos.

Dated: May 14, 1993

Dale Harmer

Signed and Sworn to before me this 17th of May, 1993

Anne L. Bennett
Notary Public

ANNE L. BENNETT
Notary Public, State of New York
Qualified in St. Lawrence County
Commission Expires June 30, 1993
October 30, 1990

RE: HARMER, DALE
D.O.B.: 08/19/40
Emp.: R.T. Vanderbilt Company
Inj.: 11/01/89
Exam.: Pulmonology Consultation
10/26/90
Carrier #: 30999031-062
WCB #: 6891 5142

The State Insurance Fund
901 James Street
Syracuse, New York 13203

ATTN: Charmaine Hauff

Dear Ms. Hauff:

Thank you for referring Dale Harmer to Riverfront Medical Services. I spoke with and evaluated him on October 26, 1990.

HISTORY

As you know, he is a 50-year-old, white male who on 6/1/90 underwent right thoracotomy and upper lobectomy for adenocarcinoma of the lung. Pathologic examination of resected lung material revealed not only the carcinoma, but also numerous ferruginous materials and asbestos bodies as well.

Lung tissue was examined by Dr. Abraham who concluded that the lung showed focal interstitial fibrosis with associated asbestos and ferruginous bodies. In Dr. Abraham's opinion, these findings were "sufficient for a diagnosis of pulmonary talcosis and asbestosis."

ADMINISTERED BY EMPIRE MEDICAL MANAGEMENT, LTD.
PAST MEDICAL HISTORY

He has a history of having been a significant cigarette smoker for many years.

PHYSICAL EXAMINATION

Physical examination reveals a 5'8" tall, 152 1/2 pound male. Blood pressure is 130/88.

The examinee has a well-healed right thoracotomy incision with a moderate degree of hyperinflation bilaterally. There are no wheezes, rhonchi or rales. Expiratory phase is only mildly prolonged. The balance of the physical examination is unremarkable.

X-RAYS

An x-ray taken in January of 1990 showed chronic obstructive as well as interstitial change and a nodular density in the right upper lobe which turned out to be an adenocarcinoma.

A review of the examinee's chest x-ray supports the analysis provided above by Dr. Gerle in January of this year.

CONCLUSION

DIAGNOSIS: The question at hand is whether the patient suffers from occupational lung disease. This question must be answered in the affirmative. Not only does he have biopsy-proven pulmonary fibrosis associated with asbestos and talc particles, he also has a carcinoma of the lung occurring in this setting.
CAUSAL RELATIONSHIP: We may, therefore, conclude that the examinee's pneumoconiosis derives solely from his occupational dust exposures and that, given his smoking history, his carcinoma derives, in part, from his occupational exposure. As you may know, asbestos exposure and cigarette usage act synergistically to dramatically increase the risk of carcinoma. The risk of lung cancer in nonsmoking asbestos workers is not known for sure, but is felt to be very, very low. Indeed, finding a nonsmoking asbestos worker may be difficult as the classic studies in this area referred only to asbestos workers who "never regularly smoked". Additional studies have failed to take into account the presence of passive smoke and may be flawed by virtue of reliance on smoking histories which are notoriously misleading.

What we can say is that if asbestos in and of itself operates as a carcinogen, it is very weak. The combination of cigarette usage and asbestos exposure is, however, known to be a very strong risk factor for the development of lung carcinoma. In 1990 it is accepted that if a carcinoma develops against a background of clinically or pathologically proven asbestosis, it can be assumed that asbestos exposure played a role in the development of this cancer. Certainly this is the case with Mr. Harmer who has asbestosis as suggested by x-ray and proven by biopsy. The absence of crackles on his lung exam does not mitigate against the diagnosis of asbestosis. Because Mr. Harmer has asbestosis, it can be concluded that his lung cancer derives, in large measure, from his asbestos exposure and also from his long-term usage of cigarettes.

APPORTIONMENT: Apportionment of this contribution is very difficult but it is reasonable to conclude that 50% of the examinee's lung cancer risk derived from occupational exposure to asbestos.

Thank you again for this referral.
"I certify and affirm that the foregoing report is true to the best of my knowledge, under the penalties of perjury."

Sincerely,

David J. Davin, M.D.
Pulmonologist

DJD/ss

cc: Worker's Compensation Board
   Atty. Michael Oot, 501 E. Washington St., Syracuse, NY 13202
   Gregory Loewen, M.D., 830 Washington St., Watertown, NY 13601
   Joseph Meyer, M.D., 826 Washington St., Suite 106, Watertown, NY 13601
   Michael Lax, M.D., 550 Harrison Center, Suite 300, Syracuse, NY 13202
Jovan G. Kuan, M.D.
Pathologist
The House of the Good Samaritan
830 Washington Street
P.O. Box 517
Watertown, New York 13601

Re: Dale Harmer, S90-3467
My # JA90-34

Dear Dr. Kuan:

Thank you very much for sending the right upper lobectomy specimen from Mr. Harmer for my study, as requested by Dr. Loewen and Dr. Lax. I have prepared several sections from the lung tissue, but apparently all of the tumor was removed for study in your lab. If possible, I would appreciate a few unstained sections of representative slides of tumor for my file. I am enclosing two unstained sections representative of the lung tissue in the remaining lung.

The lung shows focal honeycombing with mucus accumulation and epithelial metaplasia. There is focal interstitial fibrosis and marked accumulation of strongly birefringent dust consistent with talc and numerous asbestos bodies as well as larger ferruginous bodies which may be based on-talc or other minerals. Mr. Harmer did relate verbally to me that he had worked in the Wollastonite processing mill for several years.

These findings are sufficient for a diagnosis of pulmonary talcosis and asbestosis. Studies to identify the types of fibers and other particles present in the lung tissue are underway and the results should be available within a few weeks I hope.

Looking forward to hearing from you.

Sincerely,

Jerrold L. Abraham, M.D.
Associate Professor and
Director of Environmental and
Occupational Pathology

JLA/cd
cc: Dr. Loewen
Dr. Lax