DMA Form 1

DEFENSE MINERALS ADMINISTRATION
Control Slip

CONTROLLED DOCUMENT

DMA Docket No. 3716

DO NOT DETACH THIS SLIP

Action on this document is recorded and controlled in Reports and Records Branch. Any movement of this document between divisions or offices of DMA or movement outside DMA must be reported to the Reports and Records Branch. Actions taken that affect status of the case must also be reported.

Cys to USBM, USGS, and Reg. I Nw.

This document has been recorded as

Exploration

Any action taken to change the type of request for assistance must be promptly reported to the Reports and Records Branch. Use DMA Form 2 for submitting these reports.

Routing Slip

To:	600	Date	3/9/55
To:	Hopkins	Date	3/17/55
To:	Oper Com	Date	3-23-55
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	

DO NOT DETACH

CONTROLLED DOCUMENT

Docket Copy
Surname:
Hopkins
Kennedy
Kelston
J. Kennedy
Geehan
Kiilsgaard
Martin
C.H. Johnson

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
600
WASHINGTON 25, D. C.

AUG 1 0 1955

The Ferris Company
1119 E. Ash Street
Mason, Michigan

Re: Docket No. DMEA-3716 - Asbestos
Talc and Vermiculite
The Ferris Company
Rosebud, Tommy, Johnny, and
Baby Jan Groups of Claims
Carbon County, Montana

Gentlemen:

Your application for aid in an exploration project for asbestos (chrysotile), talc, and vermiculite together with other information available to us in Washington relating to the above-named property has been reviewed.

Projects approved by this Agency must, in its judgment, show definite promise of yielding materials of acceptable grade in quantities that will significantly improve the mineral supply position for the National Defense Program.

Careful study of all our information, although noting asbestos mineral and minor amounts of talc of non-strategic grade on your property, indicates to us that the probability of disclosing minable ore reserves by your proposed program is not sufficiently promising to justify Government participation. We regret to advise you, under these circumstances, that your application for exploration assistance is denied without prejudice to your property. If future work at your property reveals evidence (asbestos or talc of strategic grade) which would materially alter this opinion, be assured we will be pleased to consider a new application.

Vermiculite, which you also mentioned in your application, is not eligible for exploration assistance by the Government.

We wish to thank you for your interest in the Defense Minerals Program and for bringing your property to our attention.

Sincerely yours,

C. O. Mittendorf (for)

Administrator

JHopkins:gad 8/3/55
Rewritten 8/5/55
Copy to: Admr. R. File
Docket
Operating Committee
Mr. Kiilsgaard, 5222
Mr. Kennedy, 3524
Mr. Houk
Mr. Hopkins
Field Team, Region I

Docket Copy
Surname:
Hopkins
J. J. Kennedy

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

600

The Ferris Company
1119 E. Ash Street
Mason, Michigan

~~AUG 17 1955~~

Re: Docket No. DMEA-3716 - Asbestos, et al.
The Ferris Company
Rosebud, Tommy, Johnny, and
Baby Jan Groups of Claims
Carbon County, Montana

Gentlemen:

Your application for aid in an exploration project and other information available to us in Washington relating to the above-named property have been reviewed.

Projects approved by this Agency must, in its judgment, show definite promise of yielding materials of acceptable grade in quantities that will significantly improve the mineral supply position for the National Defense Program.

Careful study of all our information, although noting asbestos mineral of non-strategic grade on your property, indicates to us that the probability of disclosing minable ore reserves by your proposed program is not sufficiently promising to justify Government participation. We regret to advise you, under these circumstances, that your application for exploration assistance is denied without prejudice to your property. If future work at your property reveals evidence (asbestos of strategic grade) which would materially alter this opinion, be assured we will be pleased to consider a new application.

We wish to thank you for your interest in the Defense Minerals Program and for bringing your property to our attention.

Sincerely yours,

C. O. Mittendorf

Administrator

JHopkins:gad 8/3/55
Copy to: Admr. R. File
Docket
Operating Committee
Mr. Kiilsgaard, 5222
Mr. Kennedy, 3524
Mr. Houk
Mr. Hopkins

Field Team, Region I

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C. 600

J. L. Kovanda

August 3, 1955

Memorandum

To: Administrator

From: Nonmetallic Minerals Division

Subject: A denial of exploration assistance and summary report

By: James Hopkins

1. Docket No. DMEA-3716 - Asbestos, Talc and Vermiculite
Property: (Consisting of four groups of four claims each); Rosebud, Tommy, Johnny, and Baby Jan in approximately the S.W.¼ of T.6 S., R.18 E., M.P.B. & M.
Carbon County, Montana

Applicant: The Ferris Company
1119 E. Ash Street
Mason, Michigan

Application: MF-103, dated March 5, 1955.

Work proposed:	2,500 ft. Diamond Drilling @ $3.00	$7,500.00
	Bulldozing & Surface Excavating	34,716.90
	New Buildings	2,000.00
		$44,216.90

No contract: Application denied.

2. Comments:

The asbestos deposit is in the Precambrian rocks of the Beartooth Mountains. The fiber occurs in ultrabasic rock inclusions in an intrusive quartz monzonite.

The ultrabasic rock was altered, in part, to serpentine before intrusion of the monzonite. Close to the quartz monzonite the serpentine has been altered to a rock which may be classified as a soapstone.

Possibly five bodies of serpentine have been exposed by bulldozing on the property. Only one body of soapstone-serpentine rock - 350' long by 140' wide - contains appreciable asbestos fiber.

The exposed zones carrying asbestos fiber are estimated to average about 25 percent cross-fiber; some slip fiber is present.

A rough estimate of the amount of asbestos-bearing rock shows about 5,000 tons of indicated ore and about 8,000 tons of geologically inferred ore that will average about 25 percent fiber.

The 25 percent fiber is estimated to be made up of:

1% over 3/4 inch
4% 3/8" to 3/4"
10% 1/8" to #/8"
10% less than 1/8"
Magnetic iron is 0.9%; total iron is 1.52%.

In spite of the fair grade of fiber, the total possible amount is believed much too little to justify the cost of building a mill and of road improvement.

Copies of a letter from G.S.A. Consultant for Asbestos, Mr. Jesse M. Weaver, stating that a sample showed the asbestos was not stockpile grade is attached herewith.

Mr. Weaver states that the fiber is definitely "harsh" but quite strong. He also emphasizes the fact that it is therefore unsuitable for the National Stockpile. However, he states, "that with a little change from the harsh side to the soft side it could easily become a textile fiber."

Samples of fiber submitted by the applicant were taken in bulldozer trenches and were undoubtedly truly representative of the entire deposit. It is not believed that the "harshness" shown in the tests made by Mr. Weaver could in any manner be attributed to any weathering action.

These trenches were available to examination by the field team. In their report there is no evidence offered that would substantiate the belief that the fiber could be expected to change from a "harsh" to a "soft" type in depth.

I am of the opinion that an exploration project based on the hopes that a soft fiber suitable for the National Stockpile will be encountered in depth is not justified, and would certainly be very unsound practice.

The Nonmetallic Minerals Division concurs in the recommendation of the Field Team that the application be denied without prejudice. The Commodity Divisions of the Bureau of Mines and Geological Survey also concur.

James Hopkins
Nonmetallic Minerals Division

The mineral talc noted by the field examiners occurring as an alteration product of the serpentine cannot be classified as block-steatite. It is, therefore, non-strategic in grade.

The applicant also requested exploration assistance for vermiculite. This mineral, however, is not eligible for Government aid.

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

July 15, 1955

Re: DMEA 3716
The Ferris Co.
Rosebud Group
Carbon Co., Mont.
$44,216.90 - Asbestos

Memorandum

To: L. G. Houk, Defense Minerals Exploration Administration

From: N. E. Nelson, U. S. Geological Survey

Subject: Review of Field Team report

This asbestos showing, considering the length of time it has been known, the work done upon it and the amount and high grade of the material uncovered, is entitled to more work. Apparently, as indicated by the map, a large area of unknown depth is potential ground. Probably the applicant can and will continue the work. However with the exposures already made, further work could be considered exploration and a contract would not be out of order.

The zone could no doubt be outlined with a magnetometer and a few drill holes would point up the over-all potentialities at less cost than the work proposed under 6-D of the application.

Consideration of such a program, if agreed to by the applicant, should be accorded this application.

N. E. Nelson

N. E. Nelson

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

RECEIVED
AUG - 1 1955

July 29, 1955

Re: DMEA 3716
The Ferris Co.
Rosebud Group
Carbon Co., Mont.
$44,216.90 - Asbestos

Memorandum

To: L. G. Houk, Defense Minerals Exploration Administration

From: N. E. Nelson, U. S. Geological Survey

Subject: Review of Comment on quality of asbestos fiber.

In the opinion of Mr. Weaver, the fiber submitted is not of textile grade, but "with a little change to the soft side it could easily become textile fiber." The change presumedly might come with greater depth.

In the circumstances the applicant should demonstrate the suitability of the surface and near surface material or obtain samples which because of greater depth show the change Mr. Weaver considers possible.

In the light of the opinion, I concur with the recommendation of the Field Team.

N. E. Nelson

N. E. Nelson

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
WASHINGTON 25, D. C.

RECEIVED
JUL 25 1955

July 22, 1955

Memorandum

To: Lawrence G. Houk, Chief, Non-Metallic Minerals Division, Defense Minerals Exploration Administration

From: Commodity Specialist, Branch of Construction and Chemical Materials

Subject: Docket No. DMEA 3716 (asbestos) - The Ferris Company, Rosebud, et. al. claims, Carbon County, Montana

The report on the Ferris Company asbestos claims indicates that there is little hope of developing a deposit large enough for sustained production. The exposed segments of serpentine containing asbestos are small and such drilling as has been done shows a limited depth for the asbestos bearing rock.

We therefore concur with the recommendation that the application be denied without prejudice.

D. O. Kennedy

D. O. Kennedy

Copy to: Files
Div. of Minerals
Br. of Const. & Chem. Mats.
Mr. Kennedy
Thor H. Kiilsgaard, Room 5222, Geological Survey

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

RECEIVED
JUL 11 1955

July 7, 1955

Mr. George C. Selfridge, Chairman
DMEA Operating Committee
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA 3716 (asbestos)
The Ferris Company
Rosebud, et al claims
Carbon County, Montana

Dear Mr. Selfridge:

Enclosed are four copies of a geologic appraisal of the cited application by J. S. Vhay and D. F. Kellum, geologists, U. S. Geological Survey.

It is pointed out in the memorandum that although the deposit contains asbestos fiber having good chemical and physical properties, there is much too little possible tonnage in the known serpentine bodies for a profitable operation.

The Field Team therefore concurs with the recommendation of the examiners that the application be denied without prejudice. The Field Team believes, however, that the applicant should be encouraged to prospect for similar and larger asbestos-bearing serpentine bodies, which, if found, might justify granting a contract on a new application.

By Field Team, Reg. I, NW District

A. E. Weissenborn
A. E. Weissenborn, Exec. Officer
U. S. Geological Survey

Wing G. Agnew
Wing G. Agnew, Member
U. S. Bureau of Mines

cc: USBM (2)
USGS (SRO)
Vhay
Kellum

Reviewed by
DMEA OPERATING COMMITTEE
7-15-55
(date)

DMEA

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
So. 157 Howard Street
Spokane 4, Washington

RECEIVED
JUL 11 1955

June 9, 1955

MEMORANDUM

To: DMEA Field Team, Region I, Northwest District

From: J. S. Vhay and Donald Kellum, Geologists, U. S. Geological Survey

Subject: Docket No. DMEA-3716 (asbestos), Application examination of the Rosebud, Tommy, Johnny, and Baby Jan Groups of Claims, Carbon County, Montana, The Ferris Company, 1119 E. Ash Street, Mason, Michigan.

Introduction

An application, Docket No. DMEA-3716 (asbestos), was received at the Spokane office on March 14, 1955, from The Ferris Company, through the Washington office, together with supporting evidence that indicated that the asbestos fiber was of acceptable quality. The property, and vicinity, was examined by J. S. Vhay assisted by Donald Kellum on May 1 to 4, 1955. E. E. Ferris, president of The Ferris Company, and Louis Psenda, discoverer of the deposit, accompanied the examiners.

Recommendations

As the possible amount of asbestos in the known serpentine bodies is too small to justify road improvements and the building of a mill, it is recommended that the present application be denied without prejudice, unless the DMEA is willing to assist in a straight prospecting program aimed at finding more and larger asbestos-bearing serpentine bodies in the general vicinity.

Reviewed by
DMEA OPERATING COMMITTEE
7-15-55
(date)

Location and Accessibility of Property

The property is approximately in the SW¼ of T. 6 S., R. 18 E., Carbon County, Montana. It is on the east side of the East Rosebud River at the top of the main canyon where the river leaves the Beartooth Mountains, about 1,300 feet above the bottom of the canyon, at an assumed altitude of 6,500 feet.

The deposit is 4 miles by a rough wagon road from a point on a county road about 28 miles northwest of Red Lodge, Montana; the road from Red Lodge is "blacktopped" for about 14 miles, and either gravel or dirt the rest of the way.

The property consists of four groups of four claims each, which, according to the application, are recorded on pages 254 to 268 and 280 to 294, Book No. 7, in the record book of Carbon County, Montana. The area around the original discovery of asbestos has been considerably trenched by bulldozer, and the applicant had an oil-well driller put down some shallow holes (maximum depth 70 feet) with a rotary drill. The drill holes are located, some only approximately, on plate 1.

Geology

The deposit is in the Precambrian rocks of the Beartooth Mountains, a short distance south of where the Precambrian rocks are thrust over Paleozoic limestones; on the west side of the East Rosebud River the Paleozoic rocks are believed to be entirely covered by the older rocks, and the younger (Mesozoic) rocks are covered almost completely by large lateral moraines.

The asbestos occurs in ultrabasic rock inclusions in an intrusive quartz monzonite, which is present under large areas in the Beartooth Mountains. Near the contacts with the ultrabasic rock the quartz monzonite has apparently taken up, by reaction, some of the magnesium in the older rock, inasmuch as it shows rosettes of talc or tremolite which have replaced some of the minerals of the quartz monzonite. Numerous narrow dikes of diabase cut the quartz monzonite throughout the property; the mistaken identification of the diabase float material as serpentine gave the applicant the impression that there was much more serpentine on the property than is actually the case.

The ultrabasic inclusions in the quartz monzonite (see plate 1) consisted originally of olivene and some pyroxene (probably the orthorhombic variety). The ultrabasic rock may have been similar to that found in the Stillwater Complex, but more likely was similar and related to that found west of Red Lodge. It is believed that the ultrabasic was altered, in part, to serpentine before intrusion of the quartz monzonite. The serpentine rock shows various colors, from a light-yellowish green through green to extremely dark green, approaching black. In places, it is massive, elsewhere it is streaky in appearance because of layers of magnetite. In thin section it is seen to consist principally of antigorite; another chlorite mineral, more yellowish brown in color is present and may be a replacement of the original pyroxene in the rock.

Closer to the quartz monzonite, the serpentine has been altered by the later intrusive to a rock which, in general, may be classified as a soapstone. It consists principally of talc, replacing an amphibole (tremolite?) some of which remains in the rock, plus chlorite, magnetite, and, in places, a biotite which might be classified as vermiculite. In places, the rock nearer the quartz monzonite consists almost entirely of chlorite, or chlorite (after amphibole) with seams of talc.

At a few places the soapstone or the serpentine contains, mostly on joints, a bright red hematite which has been mistaken for cinnabar. Elsewhere, near the contact, the white quartz veins appear to have been squeezed into sheared serpentine (now talc) mechanically.

Possibly five bodies of serpentine have been exposed by bulldozing on the property (see plate 1). Of the two bodies to the northwest, the smaller one to the south appears to consist principally of soapstone. Only three small "tails" from this one, consisting of talc and vermiculite, are exposed in the trench; part of it is exposed in an outcrop above the trench, and the rest of it is covered by soil and moraine. The larger body consists mostly of soapstone in the trench; a little serpentine is exposed downhill to the northwest for about 100 feet. Above the trench some soapstone and serpentine can be found up until it is covered by morainal material. A little cross fiber asbestos (some of it up to 1.5 inches in length) is exposed in the bottom of the trench and some slip fiber is present in the wall of the trench.

The soapstone-serpentine body shown in the southwest part of the map (plate 1) is the only one which contains appreciable asbestos fiber. Where it is exposed in the lower trench, a strong shear zone striking N. 15° W. and dipping 35° NE. is overlain by about 4 feet of serpentine containing considerable asbestos fiber between one-eighth and half an inch long; 2 feet more of the serpentine contains rare veinlets of cross fiber and apparently some slip fiber. On the south side of this serpentine body a zone containing abundant asbestos strikes about N. 80° E. and dips 70° N.; it is separated from the quartz monzonite by about 2 feet of amphibole-talc rock. On the northeast side of this body, exposed in a trench about 30 feet north-northwest of Drill Hole No. 1, is a shear zone striking N. 5° E., dipping 80° E., east of which is about 8 feet of serpentine containing both cross and slip fiber. The largest area containing asbestos is approximately where these two zones intersect, around Drill Holes No. 1 and 2. The east end of this area of fiber is not exposed, but farther east a strip about 25 feet wide and 70 feet long consists of soapstone (talc, chlorite, and a little relic amphibole), which represents the east end of the inclusion.

Two more inclusions lie farther east. Parts of them are exposed in bulldozer trenches; float indicates further extensions of them, and some of the contacts were indicated by a Fischer M-Scope, which gives a decided change of reaction when it is carried across a contact. No asbestos was found in either of these inclusions, which consist, in part, of partially serpentinized ultrabasic rock, in part of straight serpentine, and which have narrow bands of soapstone along their contacts with the quartz monzonite.

Estimated Grade and Reserves

The exposed zones carrying asbestos fiber are estimated to average about 25 percent cross fiber; some slip fiber is present, but probably not enough to change the estimated grade appreciably. The 25 percent fiber is estimated to be made up of 1 percent over three-fourths inch in length, 4 percent three-eights to three-fourths inch, 10 percent one-eighth to three-eighths inch, and 10 percent less than one-eighth inch. According to a letter from George C. Selfridge to A. E. Weissenborn (3/24/55), "* * * the test of sample submitted by the applicant shows * * * The magnetic iron [to be] 0.9% and the total iron 1.52%. A preliminary examination of the fiber strength indicates it is acceptable."

A rough estimate of the amount of asbestos-bearing rock in the southwest inclusion (too little asbestos was seen in the northwest inclusion to justify any estimate) shows about 5,000 tons of indicated ore and about 8,000 tons of geologically inferred ore.

In spite of the good grade of fiber and the amount present in the asbestos-bearing rock, the total possible amount is believed much too little to justify the cost of building a mill and of road improvement. Unless much more asbestos-bearing serpentine can be found in this area, it is believed that the deposit cannot be mined at a profit.

Summary

The Ferris asbestos deposit occurs in a serpentine inclusion about 350 feet long and 140 feet wide in quartz monzonite. Of three other serpentine inclusions of about the same size and one much smaller one, only one shows a little asbestos fiber. The asbestos-bearing rock carries considerable fiber averaging about one-quarter inch long, of good grade chemically and physically; however, it is recommended that the application be denied without prejudice until much more asbestos-bearing serpentine is discovered.

Enclosure
Distribution:
DMEA(4)
USBM(2)
USGS(SRO)
Decker
Kellum
Vhay

GENERAL SERVICES ADMINISTRATION

Emergency Procurement Service
Washington 25, D. C.

In reply refer to: EPO

April 27, 1955

Defense Minerals Exploration Administration
U. S. Department of Interior
Washington 25, D. C.

Attention: Mr. Lawrence G. Houk
Chief, Nonmetallic Minerals Division

Dear Mr. Houk:

Re: DMEA - 3716 Asbestos

Reference is made to your letter of March 28, 1955 and sample of asbestos for evaluation as to acceptability for the Stockpile. Report on this sample has been delayed because of Mr. Weaver's trip to Venezuela.

A copy of his report dated April 14, 1955 is enclosed. It appears that the material in the form in which it was submitted for examination would not be acceptable for the Stockpile but he has suggested possibilities for its use in industry.

Very truly yours,

H. C. Maull, Jr.
Director, Purchase Division

Enclosure

When the F.T. sample is submitted if a contract is recommended we will require another evaluation from Weaver. DENIED

GENERAL SERVICES ADMINISTRATION

Emergency Procurement Service
Washington 25, D. C.

In reply refer to: EPO

April 27, 1955

Defense Minerals Exploration Administration
U. S. Department of Interior
Washington 25, D. C.

Attention: Mr. Lawrence G. Houk
Chief, Nonmetallic Minerals Division

Dear Mr. Houk:

Re: DMEA - 3716 Asbestos

Reference is made to your letter of March 28, 1955 and sample of asbestos for evaluation as to acceptability for the Stockpile. Report on this sample has been delayed because of Mr. Weaver's trip to Venezuela.

A copy of his report dated April 14, 1955 is enclosed. It appears that the material in the form in which it was submitted for examination would not be acceptable for the Stockpile but he has suggested possibilities for its use in industry.

Very truly yours,

H. C. Mauli, Jr.
Director, Purchase Division

Enclosure

Wrooks/b

GENERAL SERVICES ADMINISTRATION

Emergency Procurement Service
Washington 25, D.C.
4411 North 18th street
Phoenix, Arizona

April 14, 1955.

Emergency Procurement Service,
7th & D Streets S.W.
Washington, D.C.

EPO

Capt. H. C. Maull, jr.,
Director, Purchase Division.

Dear Capt. Maull:

[redacted] Asbestos
DMEA - 3716
EPS No. 1104.

A closer examination of the sample than it was possible to make in Washington has improved my opinion of it. Although it is a harsh asbestos it is a strong fiber, a characteristic not usually found in the harsh type. It may well be that the character of the deposit would improve with development to learn what can be found at greater depth.

The fiberized material is very short---too much hammer milling. If fiberized to a considerably coarser stage, thereby preserving length of fiber, it is very probable that the material would be suitable for the asbestos-cement branch of the asbestos industry. With a little change to the soft side it could easily become a textile fiber.

Yours very truly,

Jesse M. Weaver,
Consultant.

xxxxxxxxxxxxxxxxxx
So. 157 Howard Street
Spokane 4, Washington

April 13, 1955

Mr. E. E. Ferris, President
The Ferris Company
1119 E. Ash Street
Mason, Michigan

Re: Docket No. DMEA-3716 - Asbestos, et al.
The Ferris Company
Rosebud, Tommy, Johnny, and Baby Jan
Groups of Claims
Carbon County, Montana

Dear Mr. Ferris:

Thank you for your letter of March 28, 1955, relative to your application for exploration assistance.

This office may send out field examiners to appraise your property. We would therefore like to be advised as to when the property is free of snow and accessible, when we should contact in order to find out the location of the property, and the roads to take to reach it.

Sincerely yours,

John S. Vhay
For: A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I
Northwest District

cc: DMEA (2) w/cp incoming
USBM (2)
Quinlan

xxxxxxxxxxxxxxxxxx
So. 157 Howard Street
Spokane 4, Washington

April 13, 1955

Mr. E. E. Ferris, President
The Ferris Company
1119 E. Ash Street
Mason, Michigan

Re: Docket No. DMEA-3716 - Asbestos, et al.
The Ferris Company
Rosebud, Tommy, Johnny, and Baby Jan
Groups of Claims
Carbon County, Montana

Dear Mr. Ferris:

Thank you for your letter of March 28, 1955, relative to your application for exploration assistance.

This office may send out field examiners to appraise your property. We would therefore like to be advised as to when the property is free of snow and accessible, whom we should contact in order to find out the location of the property, and the roads to take to reach it.

Sincerely yours,

John S. Vhay
For: A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I
Northwest District

cc: DMEA (2) w/cys incoming
USBM (2) "
Quinlan

THE FERRIS COMPANY

INCORPORATED

MASON, MICHIGAN

Mason Phones 2-7703 or 2-7701

CONTRACTING
Bituminous Surface
Treatments
Excavation

CIVIL ENGINEERING
Plans and Specifications
Supervision
Estimates

March 28, 1955

REFER TO	ACTION	NOTED	DATE
al			
Jack			
ANSWERED			

Mr. A. E. Weissenborn, Executive Officer,
D.M.E.A. Field Team, Region 1,
South 157 Howard St.,
Spokane 4, Washington

Re: Docket No. D.M.E.A.-3716 Asbestos
The Ferris Company
Rosebud, Tommy, Johnny and
Baby Jan Groups of Claims
Carbon County, Montana

Dear Mr. Weissenborn:

Today we received a letter from your Washington office stating that our application for Exploratory Aid had been received by their Nonmetallic Minerals Division and has been referred to you for further study and a possible field examination.

It is our sincere desire to want to help you in every possible way so that you will get a clear and thorough picture of the property. At the present time we are confronted with the snow problem, which we hope will melt or blow off in the next week or so.

Last fall when we left the property we bulldozed rock over the existing veins to a certain degree and if you examine the property, we would like to uncover these veins again so that you can examine the Asbestos in it's natural position.

We have a Boyles Ex-Ray Core Drill that takes a 3/4" core. However, we do not know if this drill will work satisfactorily or be economical to use in this type of rock, but we would be glad to have it on the job if you feel it would be desirable. The drill is now here in Michigan. It is our understanding that all expense in connecting with moving in and operating the above equipment or any other machines would be paid by us for this preliminary examination.

RECEIVED
MAR 31 1955
U.S.G.S.
SPOKANE, WASH.

It is our deisre to explore this property thoroughly with D.M.E.A. aid and then if Asbestos in commercial quality and quantity is found, to attempt to get the mine in production by carry Fall.

Very truly yours,

The Ferris Company

E. E. Ferris

E. E. Ferris

EF:wp

THE FERRIS COMPANY

INCORPORATED

MASON, MICHIGAN

Mason Phones 2-7708 or 3-7701

CONTRACTING
Bituminous Surface
Treatments
Excavation

CIVIL ENGINEERING
Plans and Specifications
Supervision
Estimates

March 28, 1955

REFER TO	ACTION	NOTED	DATE
al			
Jack			
ANSWERED			

Mr. A. E. Weissenborn, Executive Officer,
D.M.E.A. Field Team, Region I,
South 157 Howard St.,
Spokane 4, Washington

Re: Docket No. D.M.E.A.-3716 Asbestos
The Ferris Company
Rosebud, Tommy, Johnny and
Baby Jan Groups of Claims
Carbon County, Montana

Dear Mr. Weissenborn:

Today we received a letter from your Washington office stating that our application for Exploratory Aid had been received by their Nonmetallic Minerals Division and has been referred to you for further study and a possible field examination.

It is our sincere desire to want to help you in every possible way so that you will get a clear and thorough picture of the property. At the present time we are confronted with the snow problem, which we hope will melt or blow off in the next week or so.

Last fall when we left the property we bulldozed rock over the existing veins to a certain degree and if you examine the property, we would like to uncover these veins again so that you can examine the Asbestos in it's natural position.

We have a Boyles Ex-Ray Core Drill that takes a 3/4" core. However, we do not know if this drill will work satisfactorily or be economical to use in this type of rock, but we would be glad to have it on the job if you feel it would be desirable. The drill is now here in Michigan. It is our understanding that all expense in connecting with moving in and operating the above equipment or any other machines would be paid by us for this preliminary examination.

RECEIVED
MAR 31 1955
U. S. G. S.
SPOKANE, WASH.

It is our deisre to explore this property thoroughly with D.M.E.A. aid and then if Asbestos in commercial quality and quantity is found, to attempt to get the mine in production by early Fall.

Very truly yours,

The Ferris Company

E. E. Ferris

EF:wp

E. E. Ferris

Docket Copy
Surname:
Houk
Selfridge
F. Johnson

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

600

MAR 24 1955

Mr. A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I
Northwest District
South 157 Howard Street
Spokane 4, Washington

Subject: Docket No. DMEA-3716
Asbestos, et al.
The Ferris Company
Rosebud, Tommy, Johnny, and
Baby Jan Groups of Claims
Carbon County, Montana

Dear Mr. Weissenborn:

Please review the subject application and arrange for a field examination if you deem it necessary.

During the field investigation an estimate should be made on the average fiber length. It should be based upon measurement of the fiber in place, and separated into plus 3/4", minus 3/4", plus 3/8", and minus 3/8".

A representative sample of the asbestos fiber should be obtained at the time of the examination. This sample should be analysed for total iron and magnetic iron. A sample should be submitted to this office for determination of the tensile strength. The results of the test of sample submitted by the applicant shows there was 28.3% asbestos fiber in the composite made of the nine samples. The magnetic iron was 0.9% and the total iron 1.52%. A preliminary examination of the fiber strength indicates it is acceptable.

We are returning the Owner's Consent to Lien forms which are to be corrected in accordance with the instructions in the Operating Committee Minutes No. 469, dated January 21, 1955. If a contract is recommended please make the corrections and have them initialed by the signers.

Copies of memoranda from the Geological Survey, dated March 15, 1955, and from the Bureau of Mines, dated March 16, 1955, are enclosed for your information.

Approved:

J. H. Hedges (3/18)
Member, Bureau of Mines

Thor H. Kiilsgaard (3/18)
Member, Geological Survey

Enclosures 8

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (3/18)

LGHouk:gad 3/23/55
Copy to: Admr. R. File Docket
Operating Committee Mr. Houk
Mr. Kiilsgaard, 5222
Mr. Dietrich, 3061

R.C.S.

Docket Copy
Surname:

Houk
Kiilsgaard
Selfridge
Hedges
Johnson

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION 600
WASHINGTON 25, D. C.

MAR 24 1955

The Ferris Company
1119 E. Ash Street
Mason, Michigan

Re: Docket No. DMEA-3716 - Asbestos, et al.
The Ferris Company
Rosebud, Tommy, Johnny, and
Baby Jan Groups of Claims
Carbon County, Montana

Gentlemen:

Your application for assistance in exploring the subject property has been reviewed by the Nonmetallic Minerals Division of the Defense Minerals Exploration Administration and has been referred to Mr. A. E. Weissenborn, Executive Officer, DMEA Field Team, Region I, South 157 Howard Street, Spokane 4, Washington, for further consideration and possibly a field examination.

The Regional Office will contact you at an early date if an examination is to be made. Any assistance that you may give the members of the field team during the examination will be appreciated.

Sincerely yours,

C. O. Mittendorf
(by ESF)
Administrator

LGHouk:gad 3/11/55
Copy to: Admr. R. File
Docket
Operating Committee
Field Team, Region I (Northwest District)
Mr. Kiilsgaard, 5222
Dr. Bowles, 35161
Mr. Houk

R.G.S.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

COLLEGE PARK, MARYLAND

March 18, 1955

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAR 21 1955

Memorandum

To: Mr. Lawrence G. Houk, Chief, Nonmetallic Minerals Division, DMEA

From: P. M. Ambrose, Superintendent, Eastern Experiment Station, Region V

Subject: Evaluation and analysis of asbestos samples.

The samples of asbestos rock from Carbon County, Montana, Docket No. DMEA-3716, were crushed and tested. The asbestos was quantitatively determined by crushing, air classification, screening and hand picking. The rock contained 28.3 percent asbestos of which most was short fiber.

A dried 10-gram sample of the asbestos was heated to 815°C for one hour. The roasted sample was then ground to minus 100-mesh and treated in a Davis tube magnetic separator.

The iron present in the asbestos as magnetite was 0.9 percent while the total iron including that as magnetite was 1.52 percent.

P. M. Ambrose

P. M. AMBROSE

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
WASHINGTON 25, D. C.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAR 17 1955

March 16, 1955

Memorandum

To: Mr. Lawrence G. Houk, Chief, Non-Metallic Minerals Division, Defense Minerals Exploration Administration

From: Commodity Specialist, Branch of Construction and Chemical Materials

Subject: Docket No. 3716, The Ferris Co.

This application appears to be reasonable and from a visual inspection of the samples the deposit seems to be worthy of investigation. If the samples prove to be of strategic grade, I would recommend that the field team make an examination of the deposit.

Oliver Bowles

Oliver Bowles

Copy to: Files
Div. of Minerals
Br. of Const. & Chem. Mats.
Dr. Bowles

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
APR 18 1955

March 15, 1955

Re: DMEA-3716
The Ferris Company
(Rosebud, Tommy,
Johnny & Baby Jan
Claim Groups)
Carbon Co., Montana
$44,216.90 - Asbestos

Memorandum

To: L. G. Houk, Defense Minerals Exploration Administration

From: E. L. Newcomb, U. S. Geological Survey

Subject: Review of application

The applicant requests assistance to further explore a recently discovered asbestos occurrence which is about 28 miles from Red Lodge, Montana. The proposed work consists of bulldozing and 2500 feet of diamond drilling.

We do not have any information on this prospect, but a note in our files indicates that asbestos specimens from a property near Red Lodge were brought in to the Bureau of Mines office at Spokane by an unidentified prospector in 1954. It seems possible that the specimens came from the applicant's claims.

A field examination cannot be made for some weeks because of winter conditions. In the meantime, before a field referral is made, I suggest the Field Team (Bureau and Survey) be asked for information they may have regarding the possible merit of this new prospect.

E. L. Newcomb

E. L. Newcomb

March 9, 1955

The Ferris Company, Inc.
1119 E. Ash Street
Mason, Michigan

Subject: DMEA 3716
Re: Exploration Assistance
Rosebud, Tommy, Johnny,
and Baby Jan Groups

Gentlemen:

The receipt of your application dated March 5, 1955 for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA 3716 and referred to the Nonmetallic Minerals Division.

Kindly identify all future correspondence relating to your application by this docket number.

Sincerely yours,

Robert E. Adams, Chief
Operations Control and
Statistics Division

60932

THE FERRIS COMPANY

INCORPORATED

MASON, MICHIGAN

Mason Phones 2-7703 or 2-7701

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAR 8 - 1955

CONTRACTING
Bituminous Surface Treatments
KOMAC—The All-Weather Patching Mix
General Contracting

CIVIL ENGINEERING
Plans and Specifications
Supervision
Estimates

March 5, 1955

Mr.L.G.Houk
Defense Minerals Exploration Administration
U.S.Department of Interior
C - Between 18th and 19th,N.W.,Room 4459
Washington, D.C.

Dear Mr.Houk: Re: MONTANA ASBESTOS

On January 31,1955, we visited you and discussed the possibility of obtaining exploration aid on a new deposit of Asbestos we have in Montana. While in Washington we also visited Dr.Bowls, Mr.Maull in the Emergency Procurement Service, and Mr.Fedell of the Expansion Branch of the General Services Administration. We were treated fine, and want to thank you personally for your time and interest shown to us.

Application for Exploration Aid, Waiver of lien, and Asbestos sample accompany this letter. We have attempted to answer all questions as thoroughly and honestly as we could.

Last fall, when we left the mine area we brought out several hundred pounds of ore with us and left it in Red Lodge with Mr.Louis Psenda who owns the mining claims. During the winter he sent Asbestos samples to various schools, etc. When I wrote him for samples to send to you he informed me that he had sent out all the long fiber he had on hand and was not able to get any more at the time at the mine area due to three feet of snow up in the hills. Although we are not able to send any at this time we do have fibers up to 1 1/2 inches long. These 1 1/2 inch fibers are not too plentiful and their physical characteristics appear to be the same as the shorter fibers.

All the fibers were taken on or near the surface. We used a bull dozer to uncover the material we now are showing. We understand that with depth the fibers may be stronger, as they tend to lose their strength through weathering on the surface.

It is hoped that the fibers will meet the Government's approval, and that we will be able to start an exploration project early this spring.

Respectfully submitted

THE FERRIS COMPANY

By E. E. Ferris
President

EF:s

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAR 8 - 1955

INDEX OF ASBESTOS SAMPLES

Sample No. 1

Fiber from Vein

Sample No. 2

Serpentine with Fiber

Sample No. 3

Serpentine with ribbon veins of Fiber

Sample No. 4

Ribbons veins - longer loose fiber broken off from these veins

Sample No. 5

Fibers 1" long were attached to this sample, but fell off during excessive handling this winter

Sample No.6

Slip Fibers in Serpentine.

Sample No.7

Ribbon Fibers in Serpentine

Sample No.8

Serpentine with Fibers

Sample No.9

Serpentine with Fibers.

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Form Approved.
Budget Bureau No. 42-R1035.2.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAR 8 - 1955

APPLICATION FOR AID IN AN EXPLORATION PROJECT, PURSUANT TO DMEA ORDER 1, UNDER THE DEFENSE PRODUCTION ACT OF 1950, AS AMENDED

Not to be filled in by applicant

Docket No. 3716
Metal or Mineral Asbestos, Talc, Mica
Date Received 3-8-55
Estimated Cost $44,216.90
Participation (Government %)

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address: The Ferris Company
1119 E.Ash Street
Mason,Michigan
Incorporated under the laws of Michigan,January,1946

(*b*) If other than an individual, add to your name above whether a corporation, partnership, etc., and the name of the State in which incorporated or otherwise organized.

(*c*) If a corporation, add to above statement, titles, names and addresses of officers. See attached sheets

(*d*) If a partnership, add to the above statement the names and addresses of all partners.

2. *General.*—Read DMEA Order 1, "Government Aid in Defense Exploration Projects," before completing this application. Submit this application and all accompanying papers in quadruplicate (four copies), with your name and address on each sheet of the application and on all accompanying papers. Where sufficient space is not provided on the form for all required information, state it on an accompanying paper, with a reference in each case to the instruction to which it refers by number. Comply with all applicable instructions; or, if not applicable, so state. File the application with Defense Minerals Exploration Administration, Department of the Interior, Washington 25, D. C., or with the nearest field executive officer thereof.

3. *Applicant's property rights.*—(*a*) State the legal description of the land upon which you wish to explore, including all land which you possess or control that may be benefited by the exploration, and excluding any land or interest in land which is not to be included in the exploration project contract See attached sheets

(*b*) State any mine name by which the property is known.

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise we have leased the claims. Typed copy of lease inclosed.

(*d*) If you are not the owner, submit with this application a copy of the lease, contract, or other document under which you control the property. Typed copy of our lease inclosed.

(*e*) If you own the land, describe any liens or encumbrances on it

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice. See 3A on attached sheets

4. *Physical description.*—(*a*) Describe in detail any mining or exploration operations which have been or now are being conducted upon the land, including existing mine workings and production facilities. State your interest, if any, in such operations. Also describe accessibility of mine workings for examination purposes. See attached sheets

(*b*) State past and current production, and ore reserves, if any, giving quantities and grades. See attached sheets

(*c*) Describe the geologic features of the property, including mineralization, type of deposit (vein, bedded, etc.), and your reasons for wishing to explore. Illustrate with maps or sketches. Send with your application (but not necessarily as a part of it) any geologic or engineering report, assay maps, or other technologic information you may have, indicating on each whether you require its return to you. See attached sheets

(*d*) State the facts with respect to the accessibility of the project: Access roads, distances to shipping, supply and residence points. See attached sheets

(*e*) State the availability of manpower, materials, supplies, equipment, water, and power. See attached sheets

5. *The exploration project.*—(*a*) State the mineral or minerals for which you wish to explore Asbestos (Chrysotile) - Talc and Vermiculite as secondary minerals.

(*b*) Describe fully the proposed work, including a map or sketch of the property showing a plan (and cross sections if needed) of any present mine workings, and the location of the proposed exploration work as related to such features as contacts, veins, ore-bearing beds, etc.

(*c*) The work will start within 30 days and be completed within 5 months from the date of an exploration project contract.

(*d*) State the operating experience and background of the applicant with relation to the ability to carry out such exploration project, and also that of the person or persons who will supervise the operations.

6. *Estimate of costs.*—Furnish a detailed estimate of the costs of the proposed work (you will have to use a separate sheet), under the following headings. Add the totals under all headings to give the estimated total cost of the project:

(*a*) *Independent contracts.*—(Note.—If the applicant does not intend to let any of the work to contractors, write "none" after this item. To the extent that the work is to be contracted, do not repeat the cost of the contract-work in subsequent items.) State the cost of any proposed independent contracts for the performance of all or any part of the work, expressed in terms of units of work (such as per foot of drilling, per foot of drifting, per hour of bulldozer operations, per cubic yard of material moved, etc.).

(*b*) *Labor, supervision, consultants.*—Include an itemized schedule of numbers, classes and rates of wages, salaries or fees for necessary labor, supervision and engineering and geological consultants.

(*c*) *Operating materials and supplies.*—Furnish an itemized list, including items of equipment costing less than $50 each, and power, water and fuel.

(*d*) *Operating equipment.*—Furnish an itemized list of any operating equipment to be rented, purchased, or which is owned and will be furnished by the Operator, with the estimated rental, purchase price, or suggested use-allowance based on present value, as the case may be.

(*e*) *Rehabilitation and repairs.*—Furnish a detailed list showing the cost of any necessary initial rehabilitation or repairs of existing buildings, installations, fixtures, and movable operating equipment, now owned by the Operator and which will be devoted to the exploration project.

(*f*) *New buildings, improvements, installations.*—Furnish a detailed list showing the cost of any necessary buildings, fixed improvements, or installations to be purchased, installed or constructed for the benefit of the exploration project.

(*g*) *Miscellaneous.*—Furnish a detailed list showing the cost of repairs to and maintenance of operating equipment (not including initial rehabilitation or repairs of the Operator's equipment), analytical work, accounting, workmen's compensation and employers' liability insurance, and payroll taxes.

(*h*) *Contingencies.*—Give an estimate of any necessary allowances for contingencies not included in the costs stated above.

NOTE.—No items of general overhead, corporate management, interest, taxes (other than payroll and sales taxes), or any other indirect costs, or work performed or costs incurred before the date of the contract, should be included in the estimate of costs.

7. (*a*) Are you prepared to furnish your share of the cost of the proposed project in accordance with the regulations on Government participation (Sec. 7, DMEA No. 1)? Yes

(*b*) How do you propose to furnish your share of the costs?

[X] Money [X] Use of equipment owned by you [ ] Other

Explain in detail on acompanying paper.

CERTIFICATION

The undersigned, whether as an individual, corporate officer, partner, or otherwise, both in his own behalf and acting for the applicant, certifies that the information set forth in this form and accompanying papers is correct and complete, to the best of his knowledge and belief.

Dated March 5, 1955

THE FERRIS COMPANY
(Applicant)

By E. E. Ferris, Pres.

Title 18, U. S. Code (Crimes), Section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

U. S. GOVERNMENT PRINTING OFFICE 16—66551-1

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
REC'D
MAR 8 - 1955

THE FERRIS COMPANY,
1119 E.Ash Street,
Mason, Michigan

ADDITIONS TO FORM MF-103:

Question No.1-C: Edward E.Ferris,President
1119 E.Ash Street,Mason,Michigan

Ernest T.Thouin,Vice-President
946 Santa Barbara Drive,S.E.,
Grand Rapids,Michigan

Ruth V.Ferris,Ass't.Secy.and Treas.,
1119 E.Ash Street
Mason, Michigan

Sadie Thouin, Treasurer
946 Santa Barbara Drive,S.E.,
Grand Rapids, Michigan

Question No.3-A: Comprised of 16 mining claims as follows:
Rosebud Group - 4 claims
Tommy Group - 4 claims
Johnny Group - 4 claims
Baby Jan Group- 4 claims

These claims are recorded in the mining claims record book of Carbon County,Montana. Book #7,Pages 254 to Page 268,and Pages 280 to 294.

Question No.4-A: The discovery was made in the early summer of 1954. We looked over the geological formation and leased the claims in August,1954. At that time we bull dozed an area of approximately 150 feet square and uncovered several rich Asbestos veins.

In October,1954,we again worked on the property and uncovered more rich asbestos which was about 150 feet below the original find. We also discovered surface Serpentine in two other areas approximately 2000 feet from each other and about 1/2 mile from the original find. This surface Serpentine showed strong indication of fibre, in fact, very small veins were present in the rock.

Due to heavy snows during the winter months we have not explored further. This is a new discovery and no previous work or exploration had been done.

The area can be reached by jeep or truck from the county road 4 miles away. Another road that runs in the valley below the asbestos deposit is open all year. Our claims extend to this road. The known asbestos deposit is between 1000 feet and 1500 feet above this road,but a road could be built up the hill from the valley suitable for trucks by constructing switch-backs. It would require a bull dozer and a grader for about 1 week to build this road.

Question No.4-C: The Chrysotile is located on a finger that slopes westerly away from a high mountain. This finger is about 1 mile long and about 1/2 mile wide. At the west end of this finger before it drops abruptly 1000 to 1500 feet to the valley below is the area where we uncovered the Asbestos. South of this finger is another finger of about the same character and north of this

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAR 8 - 1955

Question No.4-C (cont'd.)

finger are two other ridges somewhat rugged and cut up.

The east fork of the Rosebud River runs through the valley below. The known asbestos deposit is located on the brow of the hill just before it plunges into the valley below. It is fairly safe to assume that we have about 125,000 cubic yards of ore traced. In this assumption we are assuming that the surface that we have uncovered reaches at least 150 feet in depth to meet the asbestos that we have uncovered in our cut 150 feet below the surface. Surface serpentine in other areas of the same character as that where the fibre was uncovered give a good indication that the deposit could be very large. We feel that the area needs further exploration to determine if the volume and quality warrant a mill on the site. The serpentine makes contact with granite and very rich ore is found next to this contract.

We visited the mines at Asbestos and Telford, Canada, Hyde Park, Vermone, and Globe, Arizona. Although the ore we have uncovered is a harsher fiber it is many times more plentiful than the fiber we saw at any of these operating mines.

Since this is a new discovery, we do not have any maps or Engineer reports on previous workings.

Question No.4-D.

Two days work with a dozer and grader will build a good year around road from the county road 4 miles away. This would require rolling the rocks from the existing jeep road and blading. Several days work with the same grader and dozer would build a switch back road up to the deposit from the valley road below. This construction would also surface test this area for Asbestos fiber which we feel should be done as we have found surface serpentine in several locations down the hill. If we should find Asbestos at the foot of the hill we would be only 700 feet from the existing highway.

The deposit is located 28 miles from Red Lodge, Montana. About 14 miles of this is black top road, the balance gravel and dirt. Red Lodge, Montana, is served by the Burlington Railroad. Billings, Montana, 70 miles from the mine, is a thriving city and nearly all business is represented there. Denver, Colorado, is 600 miles south.

Question No.4-E.

The People in Red Lodge, Montana, are very hopeful that this Asbestos deposit will materialize into a mine to help relieve an unemployment problem, especially after the tourist season. Red Lodge serves a rich ranching area to the north and is the gateway (north-east entrance) to Yellowstone Park.

Supplies can be purchased at Red Lodge, Billings, or Denver, Colorado.

We are in the road construction business here in Michigan and own most of the equipment necessary to explore the area but would probably purchase some equipment out in Montana rather than ship it from here. Plenty of pure mountain water is available in the valley river, and in a small creek that is on the property. The Montana Power Company high line is about 1½ miles from the site.

Question 5-B.

We propose to further explore the area by core drilling, trenching with bull dozer, excavating with power shovel, blasting and other means necessary to accomplish the job. See attached picture.

Question 5-D.

The applicants are in the gravel and highway construction business. We are registered professional engineers. Although we have neve explored for asbestos before, we plan to conduct the work outselves under the direction of Jesse Weaver, Asbestos Consultant, of Phoenix, Arizona, and some reputable core drilling company. We are also hopeful of obtaining technical help from the Government. We own a small X-ray core drill and most all of the other machinery necessary to conduct an exploration operation, but it is our desire to hire an experienced core drilling company to do the drilling. For our honesty and dependability we refer you to:

Michigan State Highway Department, Lansing, Michigan
Dart National Bank, Mason, Michigan

Question 6-A.

Contract Core Drilling

2500 feet @ $3.00 per foot		$ 7,500.00

Question 6-B.

Survey (estimate) Local county surveyor Property is now on unsurveyed land,	$ 450.00	
Consultant fee - Jesse Weaver	700.00	
Supervision - $600. per month, 4 months @ $600.00	2,400.00	
Powder man	1,000.00	
Engineering	1,000.00	
Labor - 5 men @ $15.00 each per day - $75. for 40 days	3,000.00	8,550.00

Question 6-C

Powder, Drill Bits, Small tools, estimated @ $1,100.00		1,100.00

Question 6-D

1-TD 18 - Dozer, fully manned, @ $120. per day for 40 days	4,800.00	
1-1½ yd. shovel @ $150.00 per day for 40 days	6,000.00	
2 Compressors @ $200.00 per day for 40 days	8,000.00	
2 Heavy duty dump Trucks @ $80. per day for 40 days	3,200.00	
1 Jeep @ $10.00 per day for 40 days	400.00	
1-X-ray core drill @ $2.00 per foot, for 500 feet	1,000.00	23,400.00

Question 6-E. None.

Question 6-F.

We would like to construct a small building of a temporary nature for small tools, and as an office - estimated @ $2,000.00 $ 2,000.00

Question 6-G.

Repairs and maintenance on all equipment would be done by the owners under this proposed schedule. The hired core drilling company would be required to furnish a proof of suitable insurance. Our own taxes and insurance that we now have would be extended to cover the Montana project - our present rates are as follows:

Unemployment	. 010
Workmen's compensation	. 045
Social Security	. 020
Federal Unemployment	. 003
	. 078 cents

per $1.00 of payroll
From Item 6-B - $8,550.00 x .078 666.90

Question 6-H.

We estimate an allowance of $1,000.00 to cover unforeseen items of expense 1,000.00

Question 7-B.

We would furnish our share of the cash and all the equipment listed, except a large core drilling machine.

TOTAL ESTIMATED COST OF EXPLORATION PROJECT $ 44,216.90
9500
34716.90

DISTRICT OF THE INTERIOR
Lease Minerals Administration
RECEIVED
MAR 8 1955

A G R E E M E N T.

THIS AGREEMENT made and entered into this 24th day of August, 1954, by and between THE FERRIS COMPANY, a corporation organized and existing under and by virtue of the laws of the State of Michigan, with its office and principal place of business at Mason, Michigan, THE PARTY OF THE FIRST PART, and LOUIS PSENDA, a single man, KATHERINE EGENES, MARY M. RADOSEVICH, and BAPTIST J. PSENDA, a single man, of Red Lodge, Carbon County, Montana, THE PARTIES OF THE SECOND PART, WITNESSETH:

WHEREAS, the parties of the second part are the owners of and have the legal possession of eight ~~(8)~~ 16 mining claims known as the Rosebud Quartz Lode Mining Claims and the Tommy Quartz Lode Mining Claims, recorded in Book 7 of Mining Locations, Pages 236 and 237, Records of Carbon County, Montana, and it appears that there maybe a vein of asbestos located thereon, and any additional claims contiguous thereto filed on by the second parties are to be included under the terms of this agreement, and

WHEREAS, the party of the first part has agreed with the parties of the second part to do certain exploration and development as hereinafter specified.

NOW, THEREFORE, in consideration of the mutual covenants and agreements herein contained, the parties of the second part agree to permit the party of the first part to enter upon said mining claims for the removal of asbestos and other minerals that might be found in the above claims for a period from the date hereof to September 1, 1955, parties of the second part to receive fifteen per cent (15%) of the net profits received from the sale of asbestos and other minerals produced from said claims.

IT IS FURTHER UNDERSTOOD AND AGREED between the parties hereto that LOUIS PSENDA of the parties of the second part will be employed during all periods when work is being done on said claims under this agreement by the party of the first part in the development of said claims and production of minerals from said claims at the rate of Five Hundred Dollars ($500.00) per month for each month's work performed by said LOUIS PSENDA.

IT IS FURTHER UNDERSTOOD AND AGREED between the parties hereto that said LOUIS PSENDA is to have the power to sign for all the parties of the second part any instrument and to make any decision that may be required on behalf of the parties of the second part in any and all business pertaining to the development of said claims under this agreement.

The party of the first part agrees to hire a bulldozer within one (1) week of the date of this agreement for approximately twelve (12) hours of work to explore and uncover a probable vein of asbestos located on said mining claims.

In the event that the party of the first part has spent the sum of Five Thousand Dollars ($5,000.00) for development of said claims during the term of this agreement, or in the event that said claims have been developed by the party of the first part to the extent that ore is being produced and sold in commercial quantities, then and in that event the party of the first part shall have a first option to renew this agreement for a period of one (1) year and as long thereafter as asbestos or other minerals are produced and marketed from said mining claims in commercial quantities.

The party of the first part may terminate this agreement and cease operation at any time upon giving the parties of the second part ten (10) days' notice in writing, acknowledged before a notary public, releasing the parties of the second part from all further obligations under this agreement, and no claims may be filed against either party by the other party after the termination of this agreement.

Said party of the first part further agrees that it will not permit any mechanic, labor or materialmen's liens to be filed against said mining claims during the term of this agreement and that it will keep said mining claims free and clear of such liens.

All express or implied covenants of this agreement shall be subject to all Federal and State Laws, Executive Orders, Rules or Regulations, and this agreement shall not be terminated, in whole or in part, nor either party held liable in damages, for failure to comply therewith, if compliance is prevented by, or if such failure is the result of, any such Law, Order, Rule or Regulation.

The terms and conditions hereof shall extend to and bind the heirs, executors, administrators, successors and assigns of each and all of the the parties hereto.

DATED at Red Lodge, Carbon County, Montana, this 24th day of August, 1954.

THE FERRIS COMPANY, a corporation,

By Edward E. Ferris
President.
PARTY OF THE FIRST PART.

Louis B Paenda

Katherine Egenes

Mary M. Radosevich

Baptist J. Paenda
PARTIES OF THE SECOND PART.

San Francisco, Calif.

OFFICIAL BUSINESS

CALIF. 66

photograph

~~Defense Minerals Exploration Administration~~
~~Interior Building~~
~~Washington 25, D. C.~~

photograph

4 Claims 1500' x 600' Each - Rosebud Group
" " " " " - Tommy Group
" " " " " - Johnie Group
" " " " " - Baby Jan Group
N
We Bull dozed this area and found good Asbestos
East Rosebud River
We dozed below brow of Hill & found good Fiber
surface Serpentine here shows traces of Fiber. It has not been explored

The Ferris Co
Mason, Mich.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAR 8 - 1955

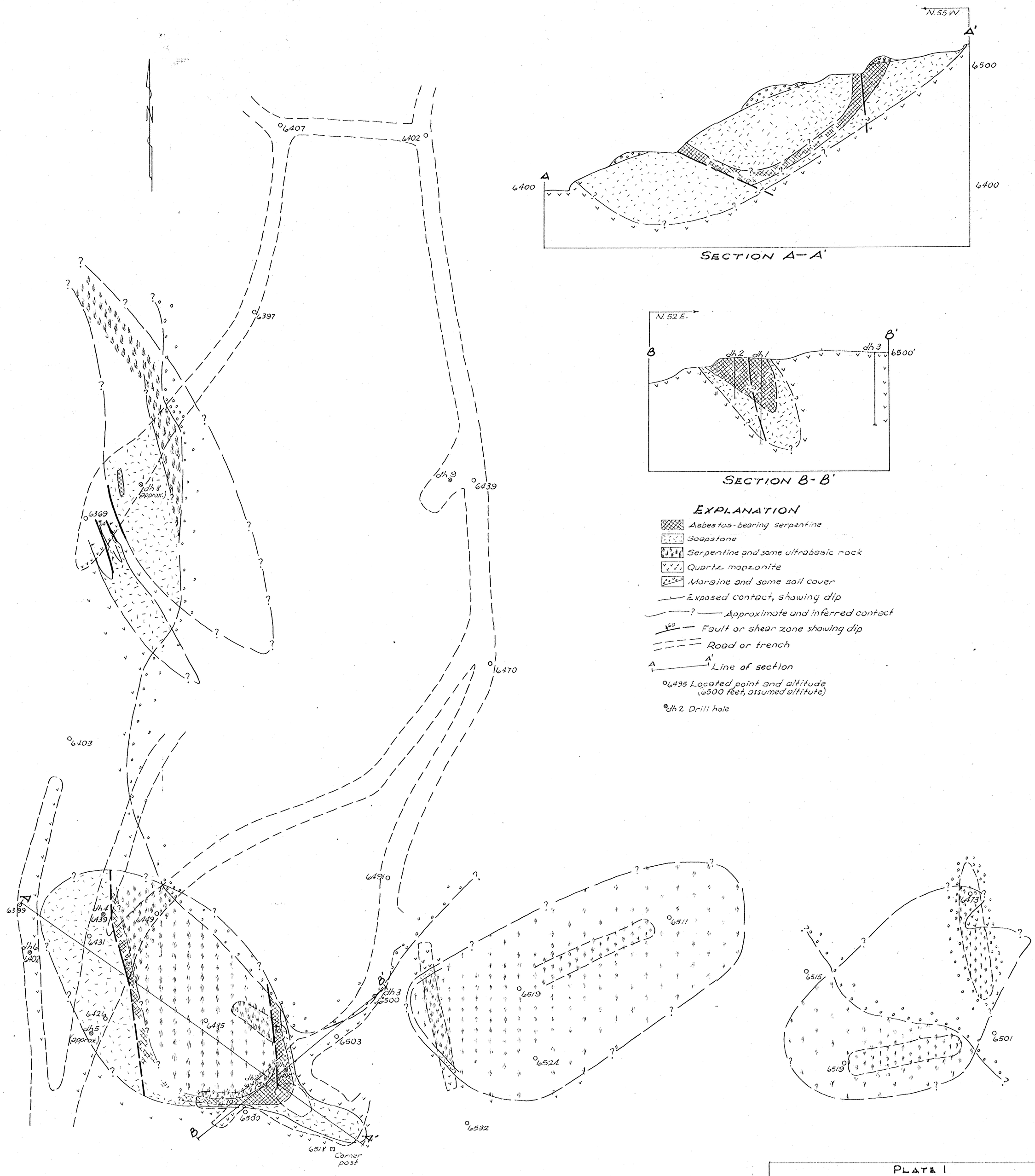

PLATE I

GEOLOGIC MAP AND CROSS SECTIONS OF
FERRIS ASBESTOS DEPOSIT
CARBON COUNTY, MONTANA

Scale: 50 0 50 100 150 Feet

Brunton and tape survey by J. S. Vhay and D. F. Kellum