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400

DEC 27 1955

Mr. Lorne Knisley
Route 3, Box 775
Fort Collins, Colorado

Re: Docket No. DMEA-3910,
Tungsten
Faircount Group
Boulder County, Colorado

Dear Mr. Knisley:

Your application for aid for an exploration project and other data available to us in Washington concerning the above-referenced property have been reviewed.

Projects approved by the Defense Minerals Exploration Administration 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 our information, although noting that tungsten mineralization occurs on the Faircount group of claims, indicates to us that the probability of disclosing minable tungsten ore reserves is not sufficiently promising to justify Government participation. Under these circumstances, we regret to advise you that your application is denied.

We wish to thank you for your interest in the Defense Minerals Exploration Administration program and for bringing this property to our attention.

Sincerely yours,

G. D. Mitscher

Administrator

cc: Docket
Code 400
Oper. Comm.
Adm. Read. File
T. Kiilsgaard, USGS
R. W. Holliday, USBM
FT, Region 3

TLChapman/ls
12/21/55

Denied

400

cc: Docket
Code 400
Oper. Comm.
Adm. Read. File

December 21, 1955

MEMORANDUM

To: Administrator, DMEA

From: Iron and Ferro Alloys Division, DMEA

Subject: Denial of request for exploration assistance in the amount of $62,550.44
Docket No. DMEA 3910, Tungsten
Lorne Knisley
Faircount Group of Claims
Boulder County, Colorado

Denial of the subject application is recommended by this Division based on the following information:

(1) Lorne Knisley, Route 3, Box 775, Fort Collins, Colorado, applied for exploration assistance in the amount of $62,550.44, Government participation at 75 percent $46,912.83, for 2,000 feet of drifting and crosscutting.

(2) The applicant controls, by a sub lease, five patented lode mining claims located in sec. 36, T. 1 N., R. 72 W., Boulder County, Colorado, as follows:

Name	U.S.Mineral Survey No.	Book No.	Page No.
Faircount	6980A	106	129
Pike	18940	339	131
Denver	18940	339	131
Meriden	18940	339	131
Faircount Mill Site	6980B	106	129

The property, owned by C. L. Stub, 827 Milwaukee Street, Denver, Colorado, was leased to William F. Widdows and James P. Donnel, by a lease dated December 7, 1951, and sub-leased to Lorne Knisley, by the sub lease dated March 31, 1955.

(3) The proposed program is to explore the Pike and Fair count veins at a depth of about 500 feet, with an extension of drift on Pike vein for 1,000 feet to intersect the Faircount vein and then drift 1,000 feet on the Faircount vein.

(4) The Field Team concludes that while the veins are strong, the mineralization is light and erratic. No appreciable amounts of ore have been discovered with extensive exploration and apparently there is little possibility of making a significant discovery.

(5) The Commodity Divisions of the Geological Survey and the Bureau of Mines, concur with the conclusions of the Field Team.

W. S. Martin

TLChapman/ls 12/21/55

W. S. Martin, Chief
Iron and Ferro Alloys Division

IN REPLY REFER TO:

400

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

RECEIVED
DEC 14 1955

December 13, 1955

Re: DMEA 3910
Lorne Knisley
Fair Count Group
Boulder Co., Colo.
$62,550.44 - Tungsten

Memorandum

To: W. S. Martin, Defense Minerals Exploration Administration

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

Subject: Review of Field Team report.

The applicant requested assistance in driving 2,000 feet of crosscuts and drifts to and on the persistent east-west Fair Count vein at a depth of 500 feet below the outcrop.

The quartz-pyrite vein has been extensively prospected but shows little mineralization by tungsten. The examiners and Field Team conclude that further prospecting of the vein almost barren of tungsten is not justified and recommend denial of the application.

I concur with the recommendation.

N. E. Nelson

N. E. Nelson

NENelson:iml
G-12/13/55
cc: Director's reading, 4212
Branch reading, 4212
DMEA (3)
Docket file
R. Holliday, 3513

40V

December 16, 1955

Memorandum

To: Chief, Iron & Ferroalloys Division-DMEA
Through: Acting Chief, Branch of
Ferrous Metals & Ferroalloys

From: Commodity Specialist-Tungsten

Subject: Review of Examination report
Docket No. DMEA-3910
Fair Count Group
Boulder County, Colorado
Lorne Knisley
Route 3, Box 775 Fort Collins, Colorado
$62,550.44-Tungsten

Applicant proposed exploration by 2000 feet of drifting and crosscutting.

In view of the unfavorable evidence regarding mineralization and the relatively high cost of this project, I concur with the field team recommendation that the application be denied.

R. W. Holliday

RWHolliday/tra

Copy to: Mr. Holliday
Mr. Geehan
Files
Docket file DMEA-3910

400

RECEIVED

AUG 29 1955

Sec. Op. Comm. (2)

August 25, 1955

Memorandum

To: John F. Shaw

From: Superintendent, Denver Experiment Station, Reg. III

Subject: Docket DMEA 3910 (Tungsten), Lorne Knisley, Faircount Group, Boulder County, Colorado

The subject application in the amount of $62,550.00 is enclosed herewith. The application and attachments consist of the following:

1. Form MF-103 and accompanying answer sheets
2. Report by W. I. Holmes
3. Excerpts quoted from reports by J. G. Barrie and others
4. Copy of letter from R. S. Newcomer concerning right-of-way
5. Claim map, Faircount Group
6. Consent to sublease and mining lease and option
7. Copy of memo from N. E. Nelson of USGS to W. S. Martin
8. Copy of letter of transmittal from Chairman Operating Committee
9. Copy of Executive Officer's memo of transmittal to this office

A field examination and suitable report are required. The completed report should be forwarded direct to the Executive Officer with a copy of the memo of transmittal to this office.

W. H. KING

W. H. King

Copy to: E. N. Karshman
W. M. Traver (3)

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

224 New Customhouse
Denver 2, Colorado

August 22, 1955

Memorandum

To: W. H. King (w/brochure)
E. N. Harshman

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA-3910 (Tungsten), Lorne Knisley, Faircount Group, Boulder County, Colorado

Enclosed is the subject application in the amount of $62,550.00. The brochure consists of:

1. Copy of a letter from the Chairman of the Operating Committee and attached memorandum from N. E. Nelson, USGS.

2. MF-103 and accompanying answer sheets.

3. Report on property by W. I. Holmes.

4. Condensed reports of J. G. Barrie and others.

5. Copy of a letter from R. S. Newcomer concerning right-of-way.

6. Claim map, Faircount Group.

7. Consent to sublease and mining lease and option.

A field investigation and suitable report are required.

W. M. TRAVER

W. M. Traver

Enclosures
HMC:pw
cc: DMEA-3910
Chron
Sec.Op.Comm. (2)

224 New Customhouse
Denver 2, Colorado

August 22, 1955

Memorandum

To: W. H. King (w/brochure)
E. N. Harshman

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA-3910 (Tungsten), Lorne Knisley, Faircount Group, Boulder County, Colorado

Enclosed is the subject application in the amount of $62,550.00. The brochure consists of:

1. Copy of a letter from the Chairman of the Operating Committee and attached memorandum from N. E. Nelson, USGS.

2. MF-103 and accompanying answer sheets.

3. Report on property by W. I. Holmes.

4. Condensed reports of J. G. Barrie and others.

5. Copy of a letter from R. S. Newcomer concerning right-of-way.

6. Claim map, Faircount Group.

7. Consent to sublease and mining lease and option.

A field investigation and suitable report are required.

W. M. TRAVER,

W. M. Traver

Enclosures
HMC:pw
cc: DMEA-3910
Chron
Sec.Op.Comm. (2)

400

AUG 17 1955

Mr. W. M. Traver, Executive Officer
DMEA Field Team, Region III
224 New Custom House
Denver 2, Colorado

Re: Docket No. DMEA-3910, Tungsten
Lorne Knisley
Faircount Group
Boulder County, Colorado

Dear Mr. Traver:

The above docketed application for exploration assistance is being referred to your office for review and a field examination of the property if necessary.

Two copies of a relevant memorandum, dated August 2, 1955, by N. E. Nelson, U. S. Geological Survey, are enclosed for your information.

Sincerely yours,

George C. Selfridge
Chairman, Operating Committee

Enclosures

APPROVED:

/s/ Robert W. Geehan
Member, Bureau of Mines

Thor H. Kiilsgaard
Member, Geological Survey

cc: Docket
FT, Reg. 3
Oper. Comm.
Code 400
Adm. Read. File
Thor Kiilsgaard, USGS
Robt. Holliday, USBM

TLChapman/ls
8/15/55

400

AUG 17 1955

Mr. Lorne Knisley
Route 3, Box 775
Fort Collins, Colorado

Re: Docket No. DMEA 3,10, Tungsten
Faircount Group
Boulder County, Colorado

Dear Mr. Knisley:

The above docketed application for exploration assistance for tungsten ores has been reviewed by the Iron and Ferro Alloys Division of the Defense Minerals Exploration Administration and is being referred to Mr. W. M. Traver, Executive Officer, DMEA Field Team, Region III, 214 New Custom House, Denver 2, Colorado, for review and a possible field examination of the property.

If a field examination is considered necessary, any assistance that you may give the members of the Field Team will be appreciated.

Sincerely yours,

C. O. Mittendorf

Administrator

cc: Docket
Adm. Read. File
FT, Reg. 3
Code 400
Oper. Comm.
Thor Kiilsgaard, USGS
Robt. Holliday, USBM

TLChapman/ls
8/15/55

IN REPLY REFER TO:

400

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

RECEIVED

August 2, 1955

Re: DMEA 3910
Lorne Baisley
Faircount Group
Boulder Co., Colorado
$62,550.44 - Tungsten

Memorandum

To: W. S. Martin, Defense Minerals Exploration Administration

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

Subject: Review of Application.

The application pertains to an ambitious deep level drive on the Pike north-northeast vein to a possible intersection with the Faircount east-west vein and drifts on that vein. The Denver-Roosevelt vein might be cut, also the Venis. The Meriden vein if it crosses the Denver vein would seem to be in the line of the proposed Pike tunnel.

We have little detailed information on the veins mentioned. The geologic map in Professional Paper 245, Geology and Ore Deposits of the Boulder County Tungsten District by Lovering and Tweto (1953) shows the various veins. A vein which traverses the Faircount claim from end to end, continues westerly into the Pleasant Dream claim and easterly into the Parker claim. As shown the vein is upwards of one and a half miles long and a system of which it may be considered a part is over two miles long.

The vein is ferberite (iron tungstate) bearing in the Pleasant Dream-Good Friday area, but no ferberite appears to have been seen in the eastern reaches of the vein which would include the part thru the Faircount claim. Horn quartz, characteristic of the tungsten veins is noted but not the tungsten mineral.

No ferberite is ascribed by the map to the Pike or Meriden veins. The Denver vein, as shown bears no ferberite in the Denver claims, but its extension, the Roosevelt vein, has produced some tungsten, probably the only production between the Good Friday mine and mines in the Millionaire Gulch area, the most easterly tungsten producing area in the district.

The Good Friday mine "has been highly productive and the single large ore shoot . . . . has the largest area of any ore shoot in the district." Lovering and Tweto (1953).

As inferred from the Lovering-Tweto map, the near surface traces of the Faircount, Venis, Pike, Denver, and Meriden veins lack attraction. Reports by several engineers, part of the application, do not exactly agree with the map. The report by Fred A. Fuller (1916) ascribes small tungsten production to the Faircount vein, in 1906-1907. J. G. Barrie, (1905), mentioned tungsten in the Faircount and Pike lodes. Wm. and J. N. Smith speak of tungsten in the Meriden and Denver veins.

The applicant is not a mining man, but, being a builder may know if work is being efficiently done.

A review by the Field Team is indicated. Perhaps a recommendation can be made from information at hand. If not a field examination may be advisable. Referral to the Field Team is recommended.

N. E. Nelson

N. E. Nelson

NENelson:iml
G-8/2/55

cc: Director's reading, 4212
Branch reading, 4212
DMEA (3)
Docket file
R. Holliday, 3513

DEC - 7 1955

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

400

124 New Customhouse
Denver 2, Colorado

December 5, 1955

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Field Team, Region III

Subject: Joint Report of Examination, DMEA Docket 1918 (Tungsten)
Lorna Knisley, Fair Count group, Boulder County, Colorado

Enclosed are the original and three copies of the report pertaining to the above application.

The examiners concluded that the proposed exploration program would not result in the discovery of a significant amount of tungsten ore. They recommend that the application be denied.

We concur in this recommendation.

E. M. Hardman

E. M. Marshman
Acting Executive Officer, DMEA
Field Team, Region III

Enclosures

TRANSMITTED.

DEC 5 1955

IN REPLY REFER TO:

DMEA
Date Rec'd
DEC 2 1955
BUREAU OF MINES
Denver, Colorado

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
Defense Minerals Exploration Administration
Denver Federal Center
Denver, Colorado

RECEIVED
DEC - 7 1955

December 2, 1955

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: John F. Shaw
E. N. Harshman

Subject: DMEA Docket 3910 (Tungsten), Lorne Knisley, Fair Count group, Boulder County, Colorado

Enclosed are the original and eight copies of a joint geologic and engineering report by N. L. Balmer, Bureau of Mines, and E. N. Harshman, Geological Survey, covering their examination of the subject property.

The applicant applied for DMEA assistance to explore for tungsten ore on the Fair Count vein by 2,000 feet of combined drifting and crosscutting at an estimated total cost of $62,550.44.

The examiners conclude that the requested program will not result in the discovery of significant amounts of tungsten ore and recommend that the application be denied.

We concur with this recommendation.

John F. Shaw
John F. Shaw
Supervising Mining Engineer

E. N. Harshman
E. N. Harshman
Member, Field Team

Enclosures (9)

ENHarshman:arh

TRANSMITTED
DEC 5 1955

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DEC - 7 1955

UNITED STATES
DEPARTMENT OF THE INTERIOR
DOUGLAS McKAY, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION III

DMEA 3910

Lorne Knisley

Fair Count Group

Sugar Loaf Mining District

Boulder County, Colorado

Tungsten

Joint Geologic and Engineering Report

by

E. N. Harshman, Geologist
Geological Survey

R. L. Bolmer, Mining Engineer
Bureau of Mines

November 30, 1955

RECEIVED
DEC - 7 1955

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Proposed exploration	10
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ILLUSTRATIONS

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1. Index map of Boulder County Tungsten District, Colo., showing location of Fair Count claim group (Lorne Knisley DMEA 3910)	3
2. Claim map showing principal veins, Fair Count claim group, Boulder County, Colo. DMEA 3910	5

DMEA Docket 3910

LORNE KNISLEY
FAIR COUNT GROUP
SUGAR LOAF MINING DISTRICT
BOULDER COUNTY, COLORADO

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Lorne Knisley, Route 3, Box 775, Fort Collins, Colorado, applied to the Defense Minerals Exploration Administration for assistance to explore for tungsten ore on the Fair Count (Faircount in the application) group of claims in sec. 36, T. 1 N., R. 72 W., 6th P. M., Boulder County, Colorado.

The applicant proposed to explore the Fair Count vein, at a depth of about 900 feet (actually 500 feet) below its outcrop by 2,000 feet of crosscutting and drifting at an estimated cost of $62,550.44, Government participation 75 percent or $46,912.83.

The Fair Count vein can be traced for the entire length of the Fair Count claim and for some distance both east and west of that claim. It is a well defined structure, 1 to 5 feet wide, striking due east to N. 85° W., and dipping 60° to 70° north. Both walls are granite.

The vein has been prospected along the outcrop by several shallow open cuts, at least three shafts, estimated to be 30 to 75 feet deep, and an unknown amount of drifting from the shafts.

It is concluded that the Fair Count vein, although one of the stronger veins in the Boulder Tungsten district, is not well mineralized,

and that the rather ambitious program of exploration proposed by the applicant is not warranted.

Denial of the application for exploration assistance is recommended by the examining team.

INTRODUCTION

On July 18, 1955, the Defense Minerals Exploration Administration received an application for exploration assistance from Lorne Knisley, Route 5, Box 775, Fort Collins, Colorado. The applicant proposed to explore for tungsten ore on the Fair Count group of claims by approximately 1,000 feet of crosscutting and 1,000 feet of drifting on the Fair Count vein. His estimated total cost of the project is $62,550.44.

In a letter of August 20, 1955, Mr. Knisley requested that action on the application be deferred. Accordingly, the field examination was deferred until November 3, 1955, when the property was examined by R. L. Bolmer, Bureau of Mines, and E. N. Hershman, Geological Survey. The examining team was accompanied by the applicant.

Data from U. S. G. S. Professional Paper 245, titled "Geology and Ore Deposits of the Boulder County Tungsten District, Colorado," by Tweto and Lovering has been used freely in this report.

LOCATION, TOPOGRAPHY, AND PHYSICAL FEATURES

The Fair Count claim group is located in sec. 36, T. 1 N., R. 72 W., 6th P. M., Sugar Loaf Mining district, Boulder County, Colorado. The claims are on the steep north slope of Middle Boulder Creek canyon in the eastern part of the Boulder County tungsten district (fig. 1). Altitudes range from 6,800 feet on the Fair Count mill site to over 7,700 feet on the Denver claim. The outcrop of the Fair Count vein, on the Fair Count claim, is at an average altitude of about 7,350 feet.

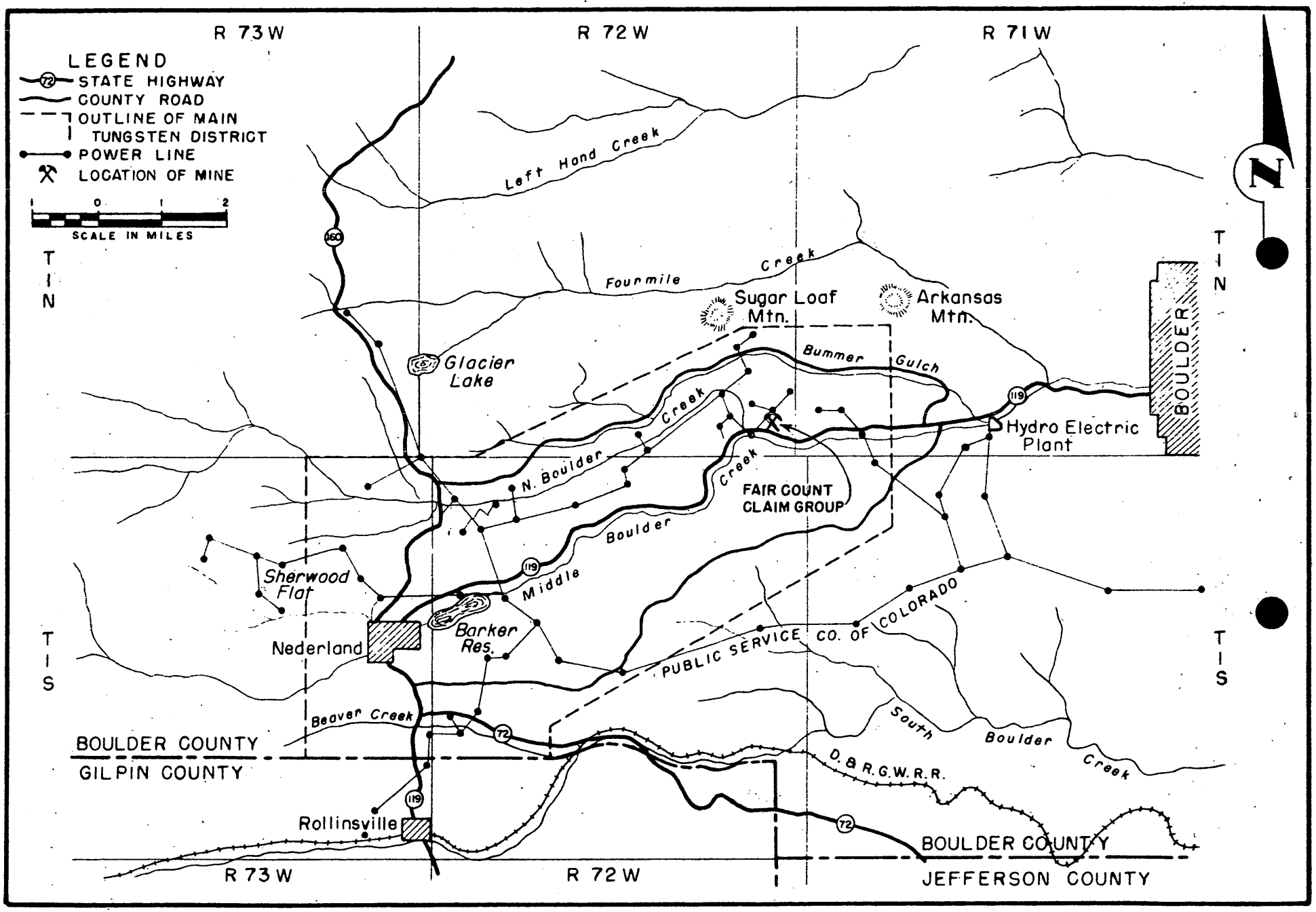

FIGURE 1 - INDEX MAP OF BOULDER COUNTY TUNGSTEN DISTRICT, COLO., SHOWING LOCATION OF FAIR COUNT CLAIM GROUP
(LORNE KNISLEY DMEA 3910)

The area is one of cool summers and moderate winters. Average annual precipitation is low, but severe storms of short duration may occur in any season. The Pike adit, which the applicant proposes to extend to cut the Fair Count vein, is about 200 feet north of and 75 feet above State Highway 119, an all season paved road extending from Boulder to Nederland, Colorado. The portal of the Pike adit would be accessible even during periods of heavy winter snows.

Supply points are Boulder, Colorado, 6 miles to the east, and Denver, Colorado, 30 miles to the southeast of the property. Transportation facilities are excellent. Mine timber is present on the property, public power lines pass within one-half mile of the Pike adit, and water is available from Middle Boulder Creek, a few hundred feet south of the adit. Mine labor generally can be secured in the district.

HISTORY, PRODUCTION, AND OWNERSHIP

Prospecting in the area of the Fair Count claim group probably began about 1900 and, according to old reports included with the application, much of the work that has been done on the claims was completed prior to 1908. Repeated references to gold-silver tellurides suggests that much of the exploration may have been directed toward finding gold ore. It appears that the claims were prospected intermittently until about 1915 or 1916, but that since that date there has been little or no activity on them.

There are no accurate records of production from the claims in the Fair Count group but from the extent of the limited workings on the claims, production of tungsten is believed to be insignificant, probably not over a few hundred units.

The Fair Count claim group consists of five patented claims (fig. 2). They are shown in the records of Boulder County, Colorado, as follows:

Fair Count	U. S. Mineral Survey (No. 6980A)	Book 106, page 129
Pike	U. S. Mineral Survey (No. 18940)	Book 339, page 131
Denver	U. S. Mineral Survey (No. 18940)	" " " "
Meriden	U. S. Mineral Survey (No. 18940)	" " " "
Fair Count Mill Site	U. S. Mineral Survey (No. 6980B)	Book 106, page 129

The claims are owned by C. L. Stuba, 827 Milwaukee Street, Denver, Colo. On December 7, 1951, William F. Widdows and James F. Donnel leased the claims from the owner for a period of 5 years. On March 31, 1955, Lorne Knisley, the applicant, sub-leased the claims from Widdows and Donnel.

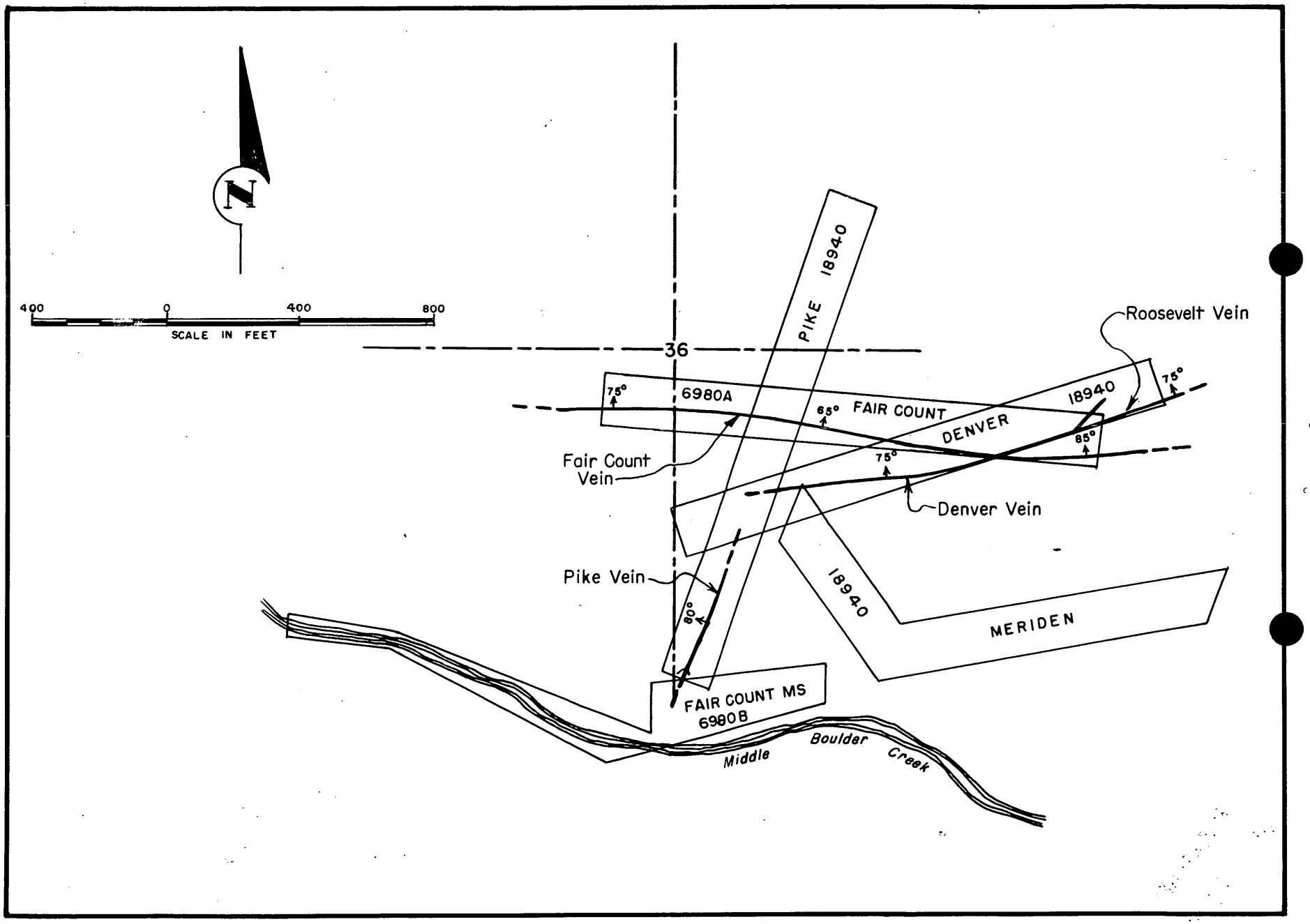

FIGURE 2 - CLAIM MAP SHOWING PRINCIPAL VEINS, FAIR COUNT CLAIM GROUP, BOULDER COUNTY, COLO. DMEA 3910

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DEC - 7 1966

GEOLOGY

The Boulder tungsten district is on the east flank of the Colorado Front Range and on the northeast end of the Front Range Mineral Belt. The district is underlain by Precambrian rocks, including coarse-grained gneissic granite (quartz monzonite) of the Boulder Creek batholith, and older schists and gneisses of the Idaho Springs formation. Pegmatite and gneissic aplite, probably related to the Boulder Creek granite, occur in dikes and irregular masses. The Precambrian rocks are intruded by dikes of various rock types, all believed to be Tertiary in age.

The most conspicuous structural feature in the district is a series of persistent northwesterly striking brecciated shear zones or "breccia reefs." They are probably Paleocene in age and pre-date the northwesterly to easterly trending fractures that contain the ferberite-bearing veins.

The Fair Count claim group is in the eastern part of the Boulder tungsten district. The area is underlain by granitic rocks of the Boulder Creek batholith. Although aplitic and pegmatitic dike rocks are exposed north and east of the claims, these rocks were not noted on the claims. No schist or gneiss of the Idaho Springs formation is exposed in the area.

The Boulder Creek granite is technically a quartz monzonite and, in certain local areas, a granodiorite. It is a dark grey coarse-grained rock composed of quartz, microcline, plagioclase, and biotite.

It is slightly porphyritic and generally somewhat gneissic. The Boulder Creek granite is an excellent host for tungsten ore deposits. It forms the wall rocks in the Good Friday mine a few thousand feet northwest of the subject property.

The principal vein on the Fair Count claim group, and the target of the proposed exploration program, is the Fair Count vein (fig. 2). It is a well defined structure which continues west of the Fair Count claim, where it is known as the Pleasant Dream vein, and east of subject property where it extends through the Parker and Ellmettie claims.

On the Fair Count claim group the Fair Count vein is a strong structure which strikes due east to N. 85° W. and dips 60° to 70° north. It ranges in width from 1 to 5 feet and consists of sheared, altered, and silicified wall rock, containing 6-inch to 1-foot wide zones of vein quartz. Minor amounts of pyrite are disseminated through the vein material. Hard quartz is very sparingly present in narrow veinlets, and ferberite occurs as paper-thin coatings on fractures or as a cement in very small lenticular masses of fractured vein material.

There are several splits or branches from the Fair Count-Pleasant Dream vein, and it is along these northeasterly branches that most of the tungsten ore mined in the area has been found. In the Good Friday mine, a few thousand feet northwest of the subject property, tungsten ore is found along the Good Friday vein northeast of its junction with the Pleasant Dream vein and west of the junction where the Good Friday vein and the Pleasant Dream vein occupy the same fracture. In the composite vein west of the junction, the earlier quartz-pyrite mineralization

of the Pleasant Dream vein can be readily distinguished from the horn quartz-ferberite mineralization of the Good Friday vein.

Ore has been mined on the Little Lester vein, a northeasterly trending structure that junctions with the Fair Count-Pleasant Dream vein a few hundred feet west of the Fair Count claim.

The Roosevelt vein splits from the Fair Count vein a few hundred feet west of the east end line of the Fair Count claim (fig. 2) and continues northeasterly to the Roosevelt mine. In a 50-foot drift just east of the Fair Count claim the Roosevelt vein consists of a 1- to 3-foot wide zone of sheared and altered granite containing vein quartz, occasional narrow stringers of horn quartz, and traces of ferberite along joints and cementing small brecciated masses of vein material.

The Denver vein is exposed on the Denver claim south of the Fair Count vein. On figure 2 it appears to be a southwesterly continuation of the Roosevelt vein, but it is believed to be a separate structure which junctions with the Fair Count vein at about the same point as does the Roosevelt vein. The Denver vein strikes S. 80° W., dips 70° to 75° north and appears to contain little or no ferberite.

A 74-foot drift on the southern end of the Pike claim has exposed a 2- to 5-foot wide zone of sheared, altered, and silicified granite known as the Pike vein (fig. 2). The structure strikes N. 10° to 20° E. and dips 70° to 85° W. It has rather well defined walls and is, in part, silicified. Very minor amounts of horn quartz were noted along the back of the drift and perhaps a trace of

ferberite is associated with the horn quartz. Sample RLB-135, taken across the 5-foot vein zone exposed in the breast of the Pike adit, assayed 0.02 percent tungsten trioxide. It is along this structure that the applicant proposes to drift to the intersection with the Fair Count vein.

PRESENT STATUS

Exploration and development

The Fair Count vein has been prospected on the subject property by a number of shallow open pits and at least three shafts reported to be from 30 to 75 feet deep. The shafts are not accessible, and the amounts of drifting from them, if any, is unknown.

The Roosevelt vein has been explored a few hundred feet east of the Fair Count claim by a short (55-foot) drift and some surface work, perhaps a shallow shaft. About 1,000 feet northeast of the subject property some ore has been produced from the Roosevelt vein in the Roosevelt mine.

The Denver vein has been prospected by a few shallow pits most of which are now caved.

The Pike vein has been explored by a 74-foot drift on the extreme southern end of the claim.

Mining Equipment and Facilities

None.

ORE RESERVES

None.

PROPOSED EXPLORATION

The applicant proposes to explore the Fair Count vein (Faircount in the application) by 2,000 feet of combined cross-cutting and drifting at an estimated total cost of $62,550.44. The proposal calls for extending the Pike drift approximately 1,000 feet along the Pike vein to its intersection with the Fair Count vein and 1,000 feet of drifting along the Fair Count vein. Although dump room for the rather extensive underground exploration program is somewhat limited by the steep slopes above the Boulder-Nederland road, the proposed project otherwise is considered feasible.

The overall unit cost as estimated by the applicant ($31.28 per foot of drift or crosscut) is about the average of that currently experienced for similar types of work performed elsewhere in the district.

The proposed work would cut the Fair Count vein at a depth of about 500 feet below the outcrop - not 900 as stated in the application.

CONCLUSIONS AND RECOMMENDATIONS

The Fair Count-Pleasant Dream vein probably was formed prior to the period of maximum deposition of tungsten in the area. It appears to consist principally of quartz and pyrite with only very minor amounts of ferberite. Significant amounts of tungsten ore have been found only in later splits or branches from this vein or in areas where the vein has been refractured and subjected to a later period of mineralization.

Although the Fair Count vein has been extensively prospected or explored for a considerable distance along and to a shallow depth below its outcrop on the subject claims, no significant amounts of tungsten ore were discovered. It is believed improbable that the character of the vein will change materially with increasing depth. The Pike and Denver veins appear to be even less attractive exploration targets.

Denial of the application for exploration assistance, DMEA Docket 3910, therefore, is recommended.

DOCKET
Surname:
Chapman
Martin
Kilsgaard
Geehan
Selfridge
K Jones

400

DEC 27 1955

Mr. Lorne Knisley
Route 3, Box 775
Fort Collins, Colorado

Re: Docket No. DMEA-3910,
Tungsten
Faircount Group
Boulder County, Colorado

Dear Mr. Knisley:

Your application for aid for an exploration project and other data available to us in Washington concerning the above-referenced property have been reviewed.

Projects approved by the Defense Minerals Exploration Administration 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 our information, although noting that tungsten mineralization occurs on the Faircount group of claims, indicates to us that the probability of disclosing minable tungsten ore reserves is not sufficiently promising to justify Government participation. Under these circumstances, we regret to advise you that your application is denied.

We wish to thank you for your interest in the Defense Minerals Exploration Administration program and for bringing this property to our attention.

Sincerely yours,

C. O. Mitterndorf

Administrator

cc: Docket
Code 400
Oper. Comm.
Adm. Read. File
T. Kiilsgaard, USGS
R. W. Holliday, USBM
FT, Region 3

TLChapman/ls
12/21/55

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

December 21, 1955

MEMORANDUM

To: Administrator, DMEA

From: Iron and Ferro-Alloys Division, DMEA

Subject: Denial of request for exploration assistance in the amount of $62,550.44
Docket No. DMEA-3910, Tungsten
Lorne Knisley
Faircount Group of Claims
Boulder County, Colorado

Denial of the subject application is recommended by this Division based on the following information:

(1) Lorne Knisley, Route 3, Box 775, Fort Collins, Colorado, applied for exploration assistance in the amount of $62,550.44, Government participation at 75 percent - $46,912.83, for 2,000 feet of drifting and crosscutting.

(2) The applicant controls, by a sub-lease, five patented lode mining claims located in sec. 36, T. 1 N., R. 72 W., Boulder County, Colorado, as follows:

Name	U.S.Mineral Survey No.	Book No.	Page No.
Faircount	6980A	106	129
Pike	18940	339	131
Denver	18940	339	131
Meriden	18940	339	131
Faircount Mill Site	6980B	106	129

The property, owned by C. L. Stub, 827 Milwaukee Street, Denver, Colorado, was leased to William F. Widdows and James P. Donnel, by a lease dated December 7, 1951, and sub-leased to Lorne Knisley, by the sub-lease dated March 31, 1955.

(3) The proposed program is to explore the Pike and Faircount veins at a depth of about 500 feet, with an extension of drift on Pike vein for 1,000 feet to intersect the Faircount vein and then drift 1,000 feet on the Faircount vein.

(4) The Field Team concludes that while the veins are strong, the mineralization is light and erratic. No appreciable amounts of ore have been discovered with extensive exploration and apparently there is little possibility of making a significant discovery.

(5) The Commodity Divisions of the Geological Survey and the Bureau of Mines, concur with the conclusions of the Field Team.

W S Martin
W. S. Martin, Chief
Iron and Ferro-Alloys Division

DOCKET
Surname: Chapman Martin

400

cc: Docket
Code 400
Oper. Comm.
Adm. Read. File

December 21, 1955

MEMORANDUM

To: Administrator, DMEA

From: Iron and Ferro Alloys Division, DMEA

Subject: Denial of request for exploration assistance in the amount of $62,550.44
Docket No. DMEA 3910, Tungsten
Lorne Knisley
Faircount Group of Claims
Boulder County, Colorado

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(4) The Field Team concludes that while the veins are strong, the mineralization is light and erratic. No appreciable amounts of ore have been discovered with extensive exploration and apparently there is little possibility of making a significant discovery.

(5) The Commodity Divisions of the Geological Survey and the Bureau of Mines, concur with the conclusions of the Field Team.

W. S. Martin

TLChapman/ls 12/21/55

W. S. Martin, Chief
Iron and Ferro Alloys Division

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

December 16, 1955

Memorandum

To: Chief, Iron & Ferroalloys Division-DMEA
Through: Acting Chief, Branch of Ferrous Metals & Ferroalloys

From: Commodity Specialist-Tungsten

Subject: Review of Examination report
Docket No. DMEA-3910
Fair Count Group
Boulder County, Colorado
Lorne Knisley
Route 3, Box 775 Fort Collins, Colorado
$62,550.44-Tungsten

Applicant proposed exploration by 2000 feet of drifting and crosscutting.

In view of the unfavorable evidence regarding mineralization and the relatively high cost of this project, I concur with the field team recommendation that the application be denied.

R. W. Holliday

R. W. Holliday

Copy to: Mr. Holliday
Mr. Geehan
Files
Docket file DMEA-3910

December 16, 1955

Memorandum

To: Chief, Iron & Ferroalloys Division-DMEA
Through: Acting Chief, Branch of Ferrous Metals & Ferroalloys

From: Commodity Specialist-Tungsten

Subject: Review of Examination report
Docket No. DMEA-3910
Fair Count Group
Boulder County, Colorado
Lorne Knisley
Route 3, Box 775 Fort Collins, Colorado
$62,550.44-Tungsten

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R. W. Holliday

RWHolliday/trs

Copy to: Mr. Holliday
Mr. Geehan
Files
Docket file DMEA-3910

December 16, 1955

Memorandum

To: Chief, Iron & Ferroalloys Division-DMEA
Through: Acting Chief, Branch of
Ferrous Metals & Ferroalloys

From: Commodity Specialist-Tungsten

Subject: Review of Examination report
Docket No. DMEA-3910
Fair Count Group
Boulder County, Colorado
Lorne Knisley
Route 3, Box 775 Fort Collins, Colorado
$62,550.44-Tungsten

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R. W. Holliday

RWHolliday/tra

Copy to: Mr. Holliday
Mr. Geehan
Files
Docket file DMEA-3910

Docket

IN REPLY REFER TO:

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

RECEIVED
DEC 14 1955

December 13, 1955

Re: DMEA 3910
Lorne Knisley
Fair Count Group
Boulder Co., Colo.
$62,550.44 - Tungsten

WSM

Memorandum

To: W. S. Martin, Defense Minerals Exploration Administration

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

Subject: Review of Field Team report.

The applicant requested assistance in driving 2,000 feet of crosscuts and drifts to and on the persistent east-west Fair Count vein at a depth of 500 feet below the outcrop.

The quartz-pyrite vein has been extensively prospected but shows little mineralization by tungsten. The examiners and Field Team conclude that further prospecting of the vein almost barren of tungsten is not justified and recommend denial of the application.

I concur with the recommendation.

N. E. Nelson

N. E. Nelson

IN REPLY REFER TO:

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

RECEIVED
DEC 14 1955

December 13, 1955

Re: DMEA 3910
Lorne Knisley
Fair Count Group
Boulder Co., Colo.
$62,550.44 - Tungsten

Memorandum

To: W. S. Martin, Defense Minerals Exploration Administration

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

Subject: Review of Field Team report.

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The quartz-pyrite vein has been extensively prospected but shows little mineralization by tungsten. The examiners and Field Team conclude that further prospecting of the vein almost barren of tungsten is not justified and recommend denial of the application.

I concur with the recommendation.

N. E. Nelson

N. E. Nelson

NENelson:iml
G-12/13/55
cc: Director's reading, 4212
Branch reading, 4212
DMEA (3)
Docket file
R. Holliday, 3513

IN REPLY REFER TO:

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

RECEIVED
DEC 14 1955

December 13, 1955

Re: DMEA 3910
Lorne Bailey
Fair Count Group
Boulder Co., Colo.
$62,550.44 - Tungsten

Memorandum

To: W. S. Martin, Defense Minerals Exploration Administration

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

Subject: Review of Field Team report.

The applicant requested assistance in driving 2,000 feet of crosscuts and drifts to and on the persistent east-west Fair Count vein at a depth of 500 feet below the outcrop.

The quartz-pyrite vein has been extensively prospected but shows little mineralization by tungsten. The examiners and Field Team conclude that further prospecting of the vein almost barren of tungsten is not justified and recommend denial of the application.

I concur with the recommendation.

H. E. Nelson

H. E. Nelson

HENelson:iml
G-12/13/55
cc: Director's reading, 4212
Branch reading, 4212
DMEA (3)
Docket file
R. Holliday, 3513

Docket

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

RECEIVED
DEC - 7 1955

224 New Customhouse
Denver 2, Colorado

December 5, 1955

WJM

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Field Team, Region III

Subject: Joint Report of Examination, DMEA Docket 3910 (Tungsten)
Lorne Knisley, Fair Count group, Boulder County, Colorado

Enclosed are the original and three copies of the report pertaining to the above application.

The examiners concluded that the proposed exploration program would not result in the discovery of a significant amount of tungsten ore. They recommend that the application be denied.

We concur in this recommendation.

E. N. Harshman

E. N. Harshman
Acting Executive Officer, DMEA
Field Team, Region III

Enclosures

Reviewed by
DMEA OPERATING COMMITTEE
12-12-55
(date)

TRANSMITTED

DEC 5 1955

IN REPLY REFER TO:

DMEA Date Rec'd DEC 2 1955

UNITED STATES

DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY

Defense Minerals Exploration Administration
Denver Federal Center
Denver, Colorado

BU OF MINES Denver, Colorado

RECEIVED DEC - 7 1955

December 2, 1955

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: John F. Shaw
E. N. Harshman

Subject: DMEA Docket 3910 (Tungsten), Lorne Knisley, Fair Count group, Boulder County, Colorado

Enclosed are the original and eight copies of a joint geologic and engineering report by R. L. Bolmer, Bureau of Mines, and E. N. Harshman, Geological Survey, covering their examination of the subject property.

The applicant applied for DMEA assistance to explore for tungsten ore on the Fair Count vein by 2,000 feet of combined drifting and crosscutting at an estimated total cost of $62,550.44.

The examiners conclude that the requested program will not result in the discovery of significant amounts of tungsten ore and recommend that the application be denied.

We concur with this recommendation.

John F. Shaw
Supervising Mining Engineer

E. N. Harshman
Member, Field Team

Enclosures (9)

ENHarshman:arh

Reviewed by
DMEA OPERATING COMMITTEE
12-12-55
(date)

TRANSMITTED
DEC 5 1955

UNITED STATES
DEPARTMENT OF THE INTERIOR
DOUGLAS McKAY, SECRETARY

RECEIVED
DEC - 7 1955

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION III

DMEA 3910

Lorne Knisley

Fair Count Group

Sugar Loaf Mining District

Boulder County, Colorado

Tungsten

Joint Geologic and Engineering Report

by

E. N. Harshman, Geologist
Geological Survey

R. L. Bolmer, Mining Engineer
Bureau of Mines

November 30, 1955

Reviewed by
DMEA OPERATING COMMITTEE
12-12-55
(date)

RECEIVED
DEC - 7 1955

CONTENTS

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Introduction	3
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Proposed exploration	10
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ILLUSTRATIONS

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2. Claim map showing principal veins, Fair Count claim group, Boulder County, Colo. DMEA 3910	5

DMEA Docket 3910

RECEIVED
DEC - 7 1955

LORNE KNISLEY
FAIR COUNT GROUP
SUGAR LOAF MINING DISTRICT
BOULDER COUNTY, COLORADO

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Lorne Knisley, Route 3, Box 775, Fort Collins, Colorado, applied to the Defense Minerals Exploration Administration for assistance to explore for tungsten ore on the Fair Count (Faircount in the application) group of claims in sec. 36, T. 1 N., R. 72 W., 6th P. M., Boulder County, Colorado.

The applicant proposed to explore the Fair Count vein, at a depth of about 900 feet (actually 500 feet) below its outcrop by 2,000 feet of crosscutting and drifting at an estimated cost of $62,550.44, Government participation 75 percent or $46,912.83.

The Fair Count vein can be traced for the entire length of the Fair Count claim and for some distance both east and west of that claim. It is a well defined structure, 1 to 5 feet wide, striking due east to N. 85° W., and dipping 60° to 70° north. Both walls are granite.

The vein has been prospected along the outcrop by several shallow open cuts, at least three shafts, estimated to be 30 to 75 feet deep, and an unknown amount of drifting from the shafts.

It is concluded that the Fair Count vein, although one of the stronger veins in the Boulder Tungsten district, is not well mineralized,

and that the rather ambitious program of exploration proposed by the applicant is not warranted.

Denial of the application for exploration assistance is recommended by the examining team.

INTRODUCTION

RECEIVED
DEC - 7 1955

On July 18, 1955, the Defense Minerals Exploration Administration received an application for exploration assistance from Lorne Knisley, Route 3, Box 775, Fort Collins, Colorado. The applicant proposed to explore for tungsten ore on the Fair Count group of claims by approximately 1,000 feet of crosscutting and 1,000 feet of drifting on the Fair Count vein. His estimated total cost of the project is $62,550.44.

In a letter of August 20, 1955, Mr. Knisley requested that action on the application be deferred. Accordingly, the field examination was deferred until November 3, 1955, when the property was examined by R. L. Bolmer, Bureau of Mines, and E. N. Harshman, Geological Survey. The examining team was accompanied by the applicant.

Data from U. S. G. S. Professional Paper 245, titled "Geology and Ore Deposits of the Boulder County Tungsten District, Colorado," by Tweto and Lovering has been used freely in this report.

LOCATION, TOPOGRAPHY, AND PHYSICAL FEATURES

The Fair Count claim group is located in sec. 36, T. 1 N., R. 72 W., 6th P. M., Sugar Loaf Mining district, Boulder County, Colorado. The claims are on the steep north slope of Middle Boulder Creek canyon in the eastern part of the Boulder County tungsten district (fig. 1). Altitudes range from 6,800 feet on the Fair Count mill site to over 7,700 feet on the Denver claim. The outcrop of the Fair Count vein, on the Fair Count claim, is at an average altitude of about 7,350 feet.

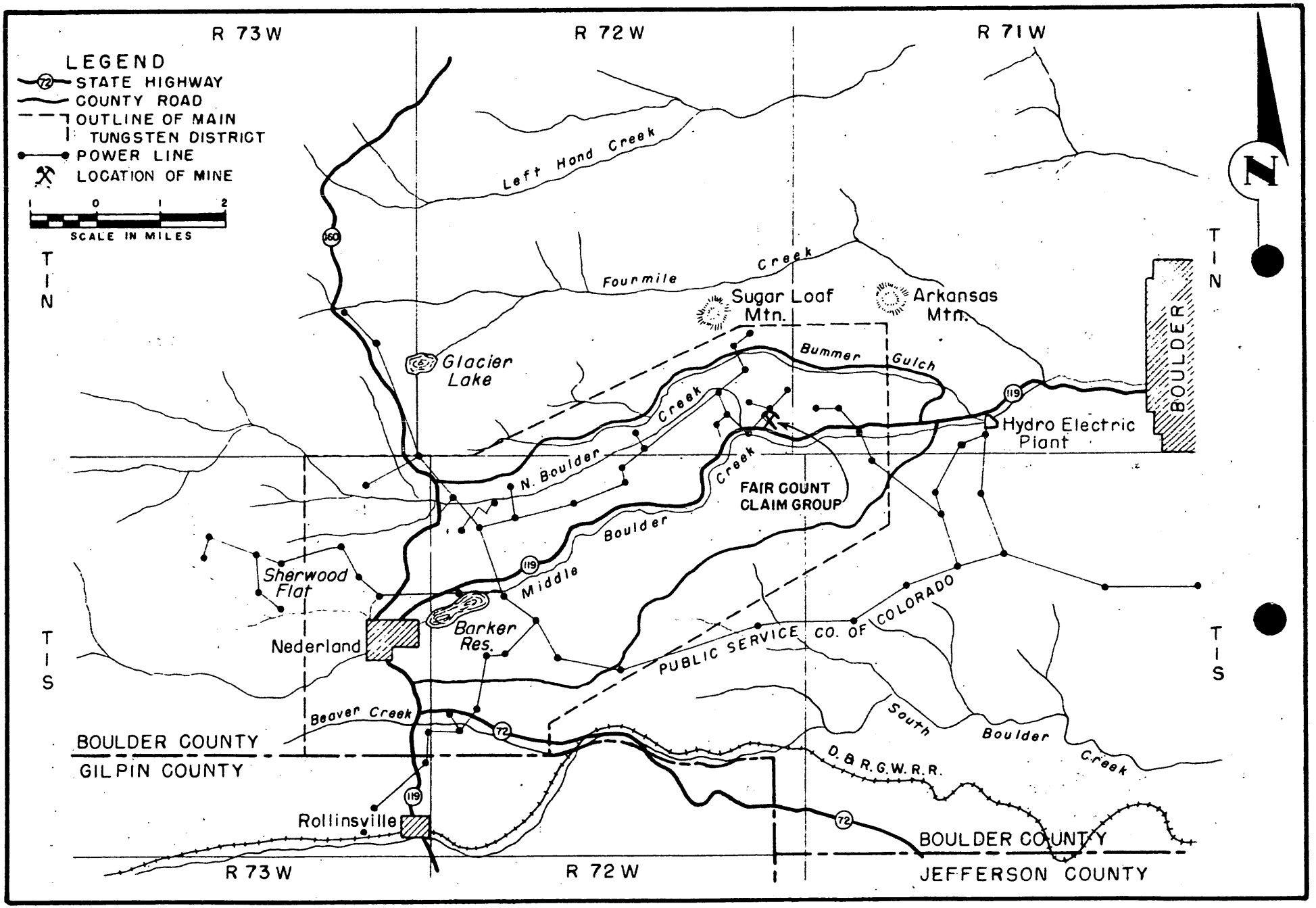

FIGURE 1 - INDEX MAP OF BOULDER COUNTY TUNGSTEN DISTRICT, COLO., SHOWING LOCATION OF FAIR COUNT CLAIM GROUP
(LORNE KNISLEY DMEA 3910)

RECEIVED
DEC - 7 1959

The area is one of cool summers and moderate winters. Average annual precipitation is low, but severe storms of short duration may occur in any season. The Pike adit, which the applicant proposes to extend to cut the Fair Count vein, is about 200 feet north of and 75 feet above State Highway 119, an all season paved road extending from Boulder to Nederland, Colorado. The portal of the Pike adit would be accessible even during periods of heavy winter snows.

Supply points are Boulder, Colorado, 6 miles to the east, and Denver, Colorado, 30 miles to the southeast of the property. Transportation facilities are excellent. Mine timber is present on the property, public power lines pass within one-half mile of the Pike adit, and water is available from Middle Boulder Creek, a few hundred feet south of the adit. Mine labor generally can be secured in the district.

HISTORY, PRODUCTION, AND OWNERSHIP

Prospecting in the area of the Fair Count claim group probably began about 1900 and, according to old reports included with the application, much of the work that has been done on the claims was completed prior to 1908. Repeated references to gold-silver tellurides suggests that much of the exploration may have been directed toward finding gold ore. It appears that the claims were prospected intermittently until about 1915 or 1916, but that since that date there has been little or no activity on them.

There are no accurate records of production from the claims in the Fair Count group but from the extent of the limited workings on the claims, production of tungsten is believed to be insignificant, probably not over a few hundred units.

The Fair Count claim group consists of five patented claims (fig. 2). They are shown in the records of Boulder County, Colorado, as follows:

Fair Count	U. S. Mineral Survey (No. 6980A)	Book 106, page 129
Pike	U. S. Mineral Survey (No. 18940)	Book 339, page 131
Denver	U. S. Mineral Survey (No. 18940)	" " " "
Meriden	U. S. Mineral Survey (No. 18940)	" " " "
Fair Count Mill Site	U. S. Mineral Survey (No. 6980B)	Book 106, page 129

The claims are owned by C. L. Stubs, 827 Milwaukee Street, Denver, Colo. On December 7, 1951, William F. Widdows and James P. Donnel leased the claims from the owner for a period of 5 years. On March 31, 1955, Lorne Knisley, the applicant, sub-leased the claims from Widdows and Donnel.

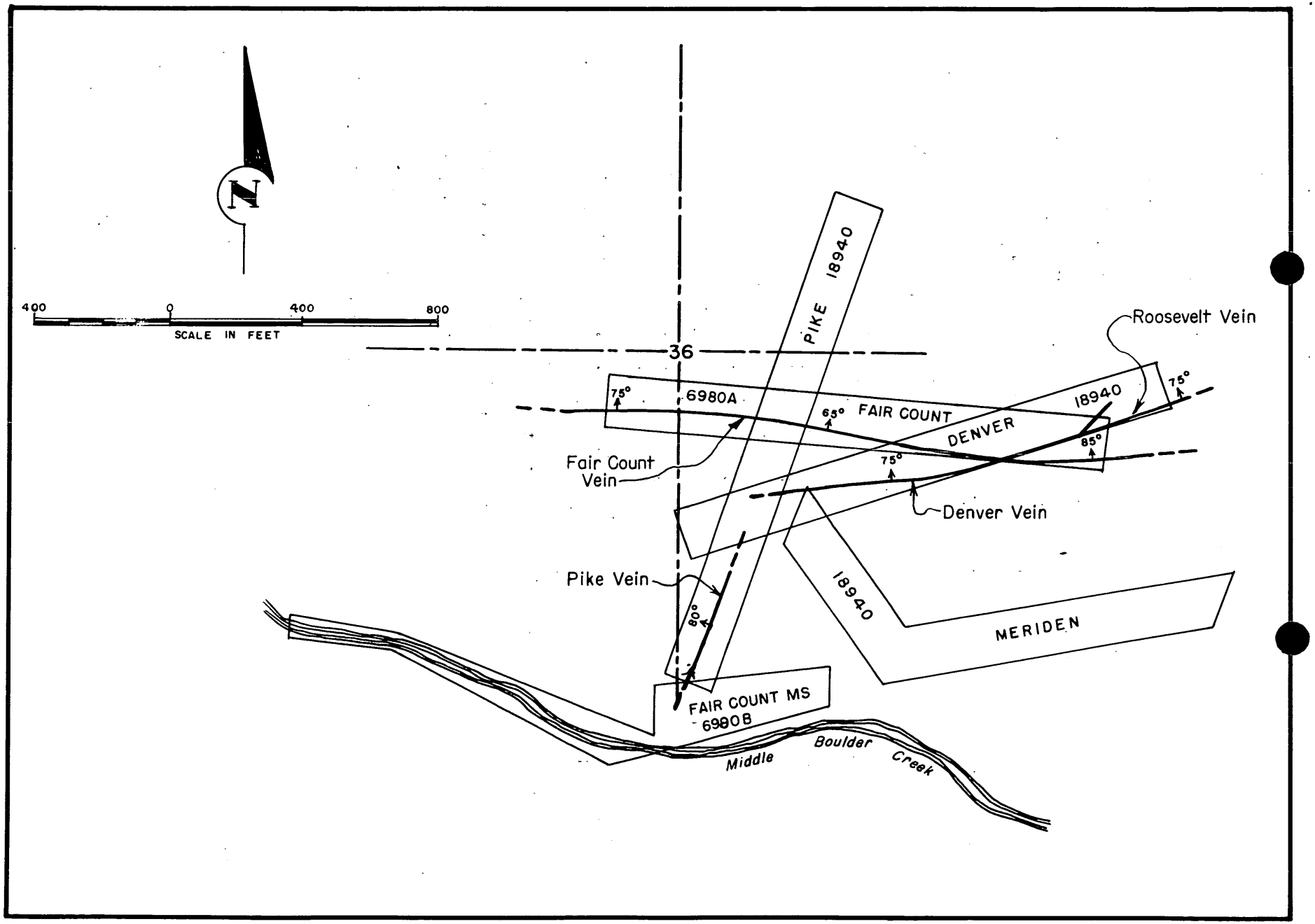

FIGURE 2 - CLAIM MAP SHOWING PRINCIPAL VEINS, FAIR COUNT CLAIM GROUP, BOULDER COUNTY, COLO. DMEA 3910

GEOLOGY

The Boulder tungsten district is on the east flank of the Colorado Front Range and on the northeast end of the Front Range Mineral Belt. The district is underlain by Precambrian rocks, including coarse-grained gneissic granite (quartz monzonite) of the Boulder Creek batholith, and older schists and gneisses of the Idaho Springs formation. Pegmatite and gneissic aplite, probably related to the Boulder Creek granite, occur in dikes and irregular masses. The Precambrian rocks are intruded by dikes of various rock types, all believed to be Tertiary in age.

The most conspicuous structural feature in the district is a series of persistent northwesterly striking brecciated shear zones or "breccia reefs." They are probably Paleocene in age and pre-date the northeasterly to easterly trending fractures that contain the ferberite-bearing veins.

The Fair Count claim group is in the eastern part of the Boulder tungsten district. The area is underlain by granitic rocks of the Boulder Creek batholith. Although aplitic and pegmatitic dike rocks are exposed north and east of the claims, these rocks were not noted on the claims. No schist or gneiss of the Idaho Springs formation is exposed in the area.

The Boulder Creek granite is technically a quartz monzonite and, in certain local areas, a granodiorite. It is a dark grey coarse-grained rock composed of quartz, microcline, plagioclase, and biotite.

It is slightly porphyritic and generally somewhat gneissic. The Boulder Creek granite is an excellent host for tungsten ore deposits. It forms the wall rocks in the Good Friday mine a few thousand feet northwest of the subject property.

The principal vein on the Fair Count claim group, and the target of the proposed exploration program, is the Fair Count vein (fig. 2). It is a well defined structure which continues west of the Fair Count claim, where it is known as the Pleasant Dream vein, and east of subject property where it extends through the Parker and Ellmettie claims.

On the Fair Count claim group the Fair Count vein is a strong structure which strikes due east to N. 85° W. and dips 60° to 70° north. It ranges in width from 1 to 5 feet and consists of sheared, altered, and silicified wall rock, containing 6-inch to 1-foot wide zones of vein quartz. Minor amounts of pyrite are disseminated through the vein material. Horn quartz is very sparingly present in narrow veinlets, and ferberite occurs as paper-thin coatings on fractures or as a cement in very small lenticular masses of fractured vein material.

There are several splits or branches from the Fair Count-Pleasant Dream vein, and it is along these northeasterly branches that most of the tungsten ore mined in the area has been found. In the Good Friday mine, a few thousand feet northwest of the subject property, tungsten ore is found along the Good Friday vein northeast of its junction with the Pleasant Dream vein and west of the junction where the Good Friday vein and the Pleasant Dream vein occupy the same fracture. In the composite vein west of the junction, the earlier quartz-pyrite mineralization

of the Pleasant Dream vein can be readily distinguished from the horn quartz-ferberite mineralization of the Good Friday vein.

Ore has been mined on the Little Lester vein, a northeasterly trending structure that junctions with the Fair Count-Pleasant Dream vein a few hundred feet west of the Fair Count claim.

The Roosevelt vein splits from the Fair Count vein a few hundred feet west of the east end line of the Fair Count claim (fig. 2) and continues northeasterly to the Roosevelt mine. In a 50-foot drift just east of the Fair Count claim the Roosevelt vein consists of a 1- to 3-foot wide zone of sheared and altered granite containing vein quartz, occasional narrow stringers of horn quartz, and traces of ferberite along joints and cementing small brecciated masses of vein material.

The Denver vein is exposed on the Denver claim south of the Fair Count vein. On figure 2 it appears to be a southwesterly continuation of the Roosevelt vein, but it is believed to be a separate structure which junctions with the Fair Count vein at about the same point as does the Roosevelt vein. The Denver vein strikes S. 80° W., dips 70° to 75° north and appears to contain little or no ferberite.

A 74-foot drift on the southern end of the Pike claim has exposed a 2- to 5-foot wide zone of sheared, altered, and silicified granite known as the Pike vein (fig. 2). The structure strikes N. 10° to 20° E. and dips 70° to 85° W. It has rather well defined walls and is, in part, silicified. Very minor amounts of horn quartz were noted along the back of the drift and perhaps a trace of

ferberite is associated with the horn quartz. Sample RLB-135, taken across the 5-foot vein zone exposed in the breast of the Pike adit, assayed 0.02 percent tungsten trioxide. It is along this structure that the applicant proposes to drift to the intersection with the Fair Count vein.

PRESENT STATUS

Exploration and development

The Fair Count vein has been prospected on the subject property by a number of shallow open pits and at least three shafts reported to be from 30 to 75 feet deep. The shafts are not accessible, and the amounts of drifting from them, if any, is unknown.

The Roosevelt vein has been explored a few hundred feet east. of the Fair Count claim by a short (53-foot) drift and some surface work, perhaps a shallow shaft. About 1,000 feet northeast of the subject property some ore has been produced from the Roosevelt vein in the Roosevelt mine.

The Denver vein has been prospected by a few shallow pits most of which are now caved.

The Pike vein has been explored by a 74-foot drift on the extreme southern end of the claim.

Mining Equipment and Facilities

None.

ORE RESERVES

None.

PROPOSED EXPLORATION

The applicant proposes to explore the Fair Count vein (Faircount in the application) by 2,000 feet of combined cross-cutting and drifting at an estimated total cost of $62,550.44. The proposal calls for extending the Pike drift approximately 1,000 feet along the Pike vein to its intersection with the Fair Count vein and 1,000 feet of drifting along the Fair Count vein. Although dump room for the rather extensive underground exploration program is somewhat limited by the steep slopes above the Boulder-Nederland road, the proposed project otherwise is considered feasible.

The overall unit cost as estimated by the applicant ($31.28 per foot of drift or crosscut) is about the average of that currently experienced for similar types of work performed elsewhere in the district.

The proposed work would cut the Fair Count vein at a depth of about 500 feet below the outcrop - not 900 as stated in the application.

CONCLUSIONS AND RECOMMENDATIONS

The Fair Count-Pleasant Dream vein probably was formed prior to the period of maximum deposition of tungsten in the area. It appears to consist principally of quartz and pyrite with only very minor amounts of ferberite. Significant amounts of tungsten ore have been found only in later splits or branches from this vein or in areas where the vein has been refractured and subjected to a later period of mineralization.

Although the Fair Count vein has been extensively prospected or explored for a considerable distance along and to a shallow depth below its outcrop on the subject claims, no significant amounts of tungsten ore were discovered. It is believed improbable that the character of the vein will change materially with increasing depth. The Pike and Denver veins appear to be even less attractive exploration targets.

Denial of the application for exploration assistance, DMEA Docket 3910, therefore, is recommended.

Docket

RECEIVED
AUG 29 1955

Sec. Op. Comm. (2)

August 25, 1955

Memorandum

Copy retained 400

To: John F. Shaw

From: Superintendent, Denver Experiment Station, Reg. III

Subject: Docket DMEA 3910 (Tungsten), Lorne Knisley, Faircount Group, Boulder County, Colorado

The subject application in the amount of $62,550.00 is enclosed herewith. The application and attachments consist of the following:

1. Form MF-103 and accompanying answer sheets
2. Report by W. I. Holmes
3. Excerpts quoted from reports by J. G. Barrie and others
4. Copy of letter from R. S. Newcomer concerning right-of-way
5. Claim map, Faircount Group
6. Consent to sublease and mining lease and option
7. Copy of memo from N. E. Nelson of USGS to W. S. Martin
8. Copy of letter of transmittal from Chairman Operating Committee
9. Copy of Executive Officer's memo of transmittal to this office

A field examination and suitable report are required. The completed report should be forwarded direct to the Executive Officer with a copy of the memo of transmittal to this office.

W. H. KING

W. H. King

Copy to: E. N. Harshman
W. M. Traver (3)

DOCKET
Surname:
Holt
Chapman
Holliday
Selfridge

400

AUG 17 1955

Mr. W. M. Traver, Executive Officer
DMEA Field Team, Region III
224 New Custom House
Denver 2, Colorado

Re: Docket No. DMEA-3910, Tungsten
Lorne Knisley
Faircount Group
Boulder County, Colorado

Dear Mr. Traver:

The above-docketed application for exploration assistance is being referred to your office for review and a field examination of the property if necessary.

Two copies of a relevant memorandum, dated August 2, 1955, by N. E. Nelson, U. S. Geological Survey, are enclosed for your information.

Sincerely yours,

George C. Selfridge
Chairman, Operating Committee (JB)

Enclosures

APPROVED:

/s/ Robert W. Geehan (JB)
Member, Bureau of Mines

Thor H. Kiilsgaard (JB)
Member, Geological Survey

cc: Docket
FT, Reg. 3
Oper. Comm.
Code 400
Adm. Read. File
Thor Kiilsgaard, USGS
Robt. Holliday, USBM

TLChapman/ls
8/15/55

DOCKET
Surname:
Holt
Chapman
Holliday
Geehan
Kilsgaard
Selfridge

400

AUG 17 1955

Mr. Lorne Knisley
Route 3, Box 775
Fort Collins, Colorado

Re: Docket No. DMEA-3910, Tungsten
Faircount Group
Boulder County, Colorado

Dear Mr. Knisley:

The above-docketed application for exploration assistance for tungsten ores has been reviewed by the Iron and Ferro-Alloys Division of the Defense Minerals Exploration Administration and is being referred to Mr. W. M. Traver, Executive Officer, DMEA Field Team, Region III, 224 New Custom House, Denver 2, Colorado, for review and a possible field examination of the property.

If a field examination is considered necessary, any assistance that you may give the members of the Field Team will be appreciated.

Sincerely yours,

C. O. Mittendorf

Administrator

cc: Docket
Adm. Read. File
FT, Reg. 3
Code 400
Oper. Comm.
Thor Kiilsgaard, USGS
Robt. Holliday, USBM

TLChapman/ls
8/15/55

IN REPLY REFER TO:

Docket

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

RECEIVED

AUG 3 1955

August 2, 1955

Re: DMEA 3910
Lorne Knisley
Faircount Group
Boulder Co., Colorado
$62,550.44 - Tungsten

Memorandum

W3a

To: W. S. Martin, Defense Minerals Exploration Administration

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

Subject: Review of Application.

The application pertains to an ambitious deep level drive on the Pike north-northeast vein to a possible intersection with the Faircount east-west vein and drifts on that vein. The Denver-Roosevelt vein might be cut, also the Venis. The Meriden vein if it crosses the Denver vein would beem to be in the line of the proposed Pike tunnel.

We have little detailed information on the veins mentioned. The geologic map in Professional Paper 245, Geology and Ore Deposits of the Boulder County Tungsten District by Lovering and Tweto (1953) shows the various veins. A vein which traverses the Faircount claim from end to end, continues westerly into the Pleasant Dream claim and easterly into the Parker claim. As shown the vein is upwards of one and a half miles long and a system of which it may be considered a part is over two miles long.

The vein is ferberite (iron tungstate) bearing in the Pleasant Dream-Good Friday area, but no ferberite appears to have been seen in the eastern reaches of the vein which would include the part thru the Faircount claim. Horn quartz, characteristic of the tungsten veins is noted but not the tungsten mineral.

No ferberite is ascribed by the map to the Pike or Meriden veins. The Denver vein, as shown bears no ferberite in the Denver claim, but its extension, the Roosevelt vein, has produced some tungsten, probably the only production between the Good Friday mine and mines in the Millionaire Gulch area, the most easterly tungsten producing area in the district.

Copy retained 400

The Good Friday mine "has been highly productive and the single large ore shoot . . . . has the largest area of any ore shoot in the district." Lovering and Tweto (1953).

As inferred from the Lovering-Tweto map, the near surface traces of the Faircount, Venis, Pike, Denver, and Meriden veins lack attraction. Reports by several engineers, part of the application, do not exactly agree with the map. The report by Fred A. Fuller (1916) ascribes small tungsten production to the Faircount vein, in 1906-1907. J. G. Barrie, (1905), mentioned tungsten in the Faircount and Pike lodes. Wm. and J. N. Smith speak of tungsten in the Meriden and Denver veins.

The applicant is not a mining man, but, being a builder may know if work is being efficiently done.

A review by the Field Team is indicated. Perhaps a recommendation can be made from information at hand. If not a field examination may be advisable. Referral to the Field Team is recommended.

N. E. Nelson

N. E. Nelson

July 26, 1955

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: Chief, Operation's Control and Statistics Division

Subject: Assignment of Docket Number

There is listed below the assigned docket number to an application recently received from Region III.

DMEA-3910 Lorne Knisley

Robert E. Adams,
Chief, Operation's Control
and Statistics Division

July 26, 1955
Subject: DMEA-3910
Re: Exploration Assistance
Faircount Group

Lorne Knisley
R3, Box 775
Fort Collins, Colorado

Dear Mr. Knisley:

The receipt of your application dated April 6, 1955 for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA-3910 and referred to the Iron & Ferro-Alloys 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

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

RECEIVED
JUL 22 1955

224 New Customhouse
Denver 2, Colorado

July 20, 1955

Memorandum

To: Secretary to the Operating Committee

From: Executive Officer, DMEA Field Team, Region III

Subject: Application for DMEA assistance (Tungsten), Lorne Knisley, Faircount group of claims, Sugar Loaf Mining District, Boulder County, Colorado

Enclosed are the original and two copies of an application for Government assistance to explore the Faircount group for tungsten at an estimated cost of $62,550.44.

Please note that the Smith claim (Survey No. 17744) controlled by Colorado Tungsten Corporation has prior right over the Pike claim upon which exploration work is proposed. The applicant is in the process of obtaining mining rights to this ground in conflict - note Exhibit F of application.

One copy of the application has been retained in this office.

W. M. Traver

Enclosures

DMEA
Date Rec'd. 4m

MF-103
(Revised April 1952)

JUL 18 1955

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

BUREAU OF MINES
Denver, Colorado

RECEIVED
JUL 22 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. 3910
Metal ~~or Mineral~~ Tungsten
Date Received 7-22-55
Estimated Cost $62,550.44
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: Lorne Knisley,
R3, Box 775,
Ft. Collins,
Colorado.

(*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.

(*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 6980A Faircount, 18940 Pike, 18940 Denver, 18940 Meriden and 6980B Faircount M.S. All patented claims. (See Sheet #1 and Sheet #2).

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

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise Sub-Lessee

(*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. See Exhibit, A, B, C and D.

(*e*) If you own the land, describe any liens or encumbrances on it Legal owner- C.L. Stubbs, 827 Milwaukee, Denver, Colo. (See Exhibit A, B, C and D.

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice. The land is patented.

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 Page 1, 4a.

(*b*) State past and current production, and ore reserves, if any, giving quantities and grades. See Page 2, 4b.

(*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 Page 2, 4c. Also Sheet #2. Also Item 1, Exhibit A

(*d*) State the facts with respect to the accessibility of the project: Access roads, distances to shipping, supply and residence points. See Page 2, 4d.

(*e*) State the availability of manpower, materials, supplies, equipment, water, and power. See Page 2, 4e.

5. *The exploration project.*—(*a*) State the mineral or minerals for which you wish to explore Tungsten

(*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. See Page 2, 5b. Also Sheet #2.

(*c*) The work will start within 60 days and be completed within 15 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. See Page 3, 5d.

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: $62,550.44

(*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.). None.

(*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. See Page 3, 6b.

(*c*) *Operating materials and supplies.*—Furnish an itemized list, including items of equipment costing less than $50 each, and power, water and fuel. See Page 3, 6c.

(*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. See Page 4, 6d.

(*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. None.

(*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. See Page 4, 6f.

(*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. See Page 4, 6g.

(*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 [ ] Use of equipment owned by you [ ] Other

Explain in detail on acompanying paper. See Page 5, 7b.

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 4/6, 1955

Lone Knisley
(Applicant)

By

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

FAIRCOUNT GROUP - Lorne Knisley, R3, Box 775, Ft. Collins, Colo.

Physical description:

RECEIVED
JUL 22 1955

4a.

The Faircount group, consisting of the 6980A Faircount and 6980B Faircount Millsite, recorded in Book 106 at page 129 of the records of Boulder County, State of Colorado; and the 18940 Pike, 18940 Denver and 18940 Meriden, recorded in Book ~~339 at page~~ 131 of the records Boulder County, State of Colorado, all patented claims, lies of the south slope of Sugar Loaf Mountain, at an elevation of between 7000 and 7900 feet, approximately eight miles westerly from the city limits of Boulder, Colorado. (See Sheet #1)

Ore was discovered on these veins about the turn of the century, and some activity is evidenced dating mostly about 1904 and 1905, consisting of little more than prospect holes. A small effort at exploitation probably occurred again about 1912 and 1916-17. A side tunnel was started at the south extremity of the Pike Lode, less than one hundred feet from where is now the Boulder-Nederland highway, for the purpose of cutting the Faircount vein at depth. This tunnel was only driven about sixty feet, and is on the Pike vein. Although a cave-in has nearly obstructed the portal, entry may be gained for inspection purposes.

It is the purpose of this application for an exploration contract to drive the Pike tunnel to cut the Faircount vein and ascertain the quantity and quality of the tungsten ores therein. (See Sheet #2). We believe that this procedure will make possible the exploitation of a large quantity of high grade tungsten ore.

The topography of the area is such that 800 to 900 feet of drifting will give a depth of about 900 feet. Besides the advantages to be gained by a side tunnel is to be considered the adjacency of a paved highway which is open throughout the year. The Pike tunnel could become a desirable facility for the developement of other properties in the vicinity. As this tunnel has been started on the Pike vein, and it is planned to follow the Pike vein on in, it is probable that commercial deposits of ore will be encountered as drifting progresses.

There are strong indications, evidenced by old shafts and the workings in the neighboring Good Friday mine, that the Faircount vein dips to the north at an angle of about 75 degrees. Therefore it is possible, if the dip continues with depth, that the Pike tunnel will have to be driven a distance of 1000 to 1100 feet to cut the Faircount vein. (See Cross Section, Sheet #2).

After cutting the Faircount vein the applicant suggests that drifting be continued both ways along the vein until a total of 2000 feet of tunnel has been driven, in order to properly ascertain and evaluate the resources contained therein.

Due to the rotting of cribs and timbering that has occurred during four or five decades past, there are only a couple of old shafts that may be descended into. Old records indicate that the deepest of these was 75 feet. Several tunnels are readily accessable.

FAIRCOUNT GROUP - Lorne Knisley, R3, Box 775, Ft. Collins, Colo.

4b.

The old records dating back forty to fifty years probably do not have too much value, but all that is available to the applicant are enclosed herewith, for what they are worth. (See Item #1).

4c.

The ore expected to be encountered in this exploration project is Ferberite, the iron tungstate, which, judging from other mines in the vicinity, as well as old workings on the Faircount group, will be in true fissure type veins, clearly defined within granitic wall rock. The terrain is such that in drifting the Pike tunnel depth will be gained rapidly, and shouldopen up an immense quantity of stoping ore.

4d.

A good all weather surfaced road exists, as already stated, less than 100 feet from the Pike tunnel portal. Several custom mills are operating in the area, which at the present time are milling tungsten ore of the same type that is expected to occur at depth in the Faircount group. Supplies and materials may be obtained in Denver, a distance of about thirty five miles. The nearby City of Boulder affords adequate housing facilities for labor.

4e.

The applicant will hire experienced miners, whom are available in the Boulder area. Equipment is available in Denver. Water must be pumped from nearby Middle Boulder creek. Electric power is available by constructing one fourth mile of transmission line from the tipple of the Good Friday mine.

5b.

The Faircount vein has an east-west strike and is bounded on the west by the Good Friday-April Fool group which has been a long term good producer of tungsten. The Good Friday is now operating with good ore being found at a depth somewhat below the elevation that the Pike tunnel will cut the Faircount vein.

The Roosevelt-Parker group bounds the Faircount on the east, and while it's ores have not the quality of the Good Friday's, they are not by any means depleted. It has not been worked to any considerable depth. A road of sorts has been built through this group to nearly the eastern extremity of the Faircount, but as one approaches the Faircount from the east - or west - the terrain becomes exceedingly rough and precipitious. A good road gives access to the April Fool-Good Friday properties, but does not approach near to the Faircount.

Interest in the old workings along the Faircount vein was probably gold, not tungsten, and any ore that was removed had to be taken out by pack mule. Tungsten ore shows in the outcrops and old workings of the Faircount vein today, and it is reasonable to presume that the ore persists with depth. By driving the Pike tunnel to intersect the Faircount vein one will come in under the Faircount at an estimated depth of nearly 800 feet at the west end and 900 feet or more at the east end. A servicable adit of about 5 by 6½ to 7 feet is planned. Exploratory work should be carried on by drifting both

FAIRCOUNT GROUP - Lorne Knisley, R3, Box 775, Ft. Collins Colo.

5b. Continued:

ways on the Faircount vein after intersecting it, until a total of 2000 feet of drifting has been accomplished, in order to fully evaluate the property. This tunnel can be driven at an average cost of $31.28 per foot. The Denver and Meriden lodes can be worked from this tunnel. It will also give access to other properties on both sides, contingent upon suitable future arrangements with the owners thereof.

5d.

Arrangements have been made with M. S. Brandt, M.E., 1424 Pearl, Boulder, Colo., for advisory and consultory service. The applicant is a contractor, having been successfully engaged in residetial building and land developement operations for a number of years. The applicant respectfully submits the following references:

The Poudre Valley Bank, Ft. Collins, Colo.
Howard E. Evans, Reg. Engineer, 110 N. Whitcomb, Ft. Collins, Colo.
Dr. M.G.Van Der Schouw, Poudre Valley Bank Bldg. Ft. Collins, Colo.

6b. Labor:

Per shift - 2 men @ $1.80 per hr.---	$ 28.80	per shift.	
1 foreman - @ 2.10 " " ---	16.80	" "	
	45.60	" "	
	2	shifts per day	
	91.20	per day	
	5	day week	
	456.00	per "	
1 man - supervisory ----------	120.00	" "	
	576.00	" "	
	4	week month	
	2304.00	per "	
Engineer- advisory consultory --	100.00	" "	
	2404.00	" "	
	13	months	
Total labor and services ----	$31252.00	----------	$31,252.00

6c. Operating materials and supplies:

Pipe (air) 2" gal. 2000' @ 53¢ per ft.-	$ 1060.00	
" (water)1" gal. 2100' @ 28¢ per ft.-	588.00	
" (ventil.)10" -- 2000' @ 70¢ Per ft.-	1400.00	
Rails-4600'-12 tons @150.00 per ton ---	1800.00	
Ties- 24" O.C.--1150 @ 56¢ ea.---------	644.00	
Splice bars-- 300 pr. @ 50¢ per pr.----	150.00	
Spikes -- 1100 lbs. @ $13.00 cwt ------	143.00	
Track bolts--- @ $23.00 cwt ----------	57.50	
Drill steel-- @ 20¢ per lb. ----------	60.00	
Bits--30' drift per bit,65 bits @ $14.50ea	942.00	
Explosives-@ 27¢ per lb, 20,000 lbs.---	5400.00	
Steel plates- 14 ga.-160 sq ft @ 13¢ lb-	65.00	
Hose (air) 100 ft @ $1.00 per ft ------	100.00	
Hose (water) 50 ft @ 25¢ per ft -------	12.50	
Detonator ----------	50.00	
Elec. wire. acessories(Rome#10single$102M)	622.00	
Timbering- 200' @ $6.00 per ft --------	1200.00	
	14294.00	
Sales tax --------	285.88	
Transportation ---	710.00	
	$15289.88	----------$15,289.88

FAIRCOUNT GROUP - Lorne Knisley, R3, Box 775, Ft. Collins, Colo.

6d. Operating equipment:

Compressor	$1850.00	
Line tank	95.00	
Jackleg-sinker	695.00	
Volume blower and motor	245.00	
Water pump and tank	220.00	
Mucking machine	1950.00	
Elec. tram car tractor	2225.00	
Tram cars	900.00	
	$8180.00	
Sales tax	163.60	
Total	$8343.60	$ 8,343.60

6f. New buildings, improvements, installations:

Portal house, including lumber, door, window, roofing, hardware, heating stove, labor	$ 542.00	
Tunnel portal, mucking and timbering	220.00	
Power transmission line	1204.00	
Installation, costs- compressor, water pump, wiring	232.00	
	$2198.00	$ 2,198.00

6g. Miscellaneous:

O.A.B., Social Security, liability, (Emp. liab. & Comp. ins. $55.40 per $1000.00), 8% of payroll ($23,712.00)	$1896.96	
Assays	650.00	
Power and fuel	2160.00	
Repairs and maintainance	600.00	
Survey costs	160.00	
	$5466.96	$ 5,466.96
Total		$62,550.44

FAIRCOUNT GROUP - Lorne Knisley, R3, Box 775, Ft. Collins, Colo.

7b.

The applicant has $6000.00 cash working capital on hand, which will be held exclusively for and applied to the exploration project. The applicant in addition has under construction five new all modern two bedroom homes with attached garages, located in the applicant's Mountain Veiw Meadow subdivision at Ft. Collins. These are already roughed-in and will be finished and sold within the next few months, making available to the applicant an additional sum of not less than $10,000.00; and making a total of not less than $16,000.00 working capital in all.

The applicant has on hand three trucks, Catapillar tractor with bulldozer, two hand winches, both oxy-acytelene and 220V AC arc welding equipment, pipe dies and numerous small tools which can and will be used on the exploration project, and on which depreciation need not be taken into consideration.

Exhibit E - Item I

REPORT

on the

(NO. FORT [illegible])

Denver County, Colorado.

Superior Mining District.

by

J. I. Smith 1910

1910

(These four sheets are photostatic copies of report #24 from the Colorado School of Mines Library, Golden, Colo.)

LIBRARY
COLORADO SCHOOL OF MINES
GOLDEN, COLORADO

Report furnished by V. I. Eckman,
Denver, Colorado.

J.N. SMITH, Mining Engineer.
Colorado Bldg.
Denver. Colorado.

August 27, 1920.

Mr. J. H. Bartley,
Kingsley Hotel,
Denver, Colorado.

Dear Sir:

On July third, I visited, at your request, the mining property known as the FAIR COURT GROUP, composed of the Fair Court, Elm, Denver, Meridom and the Fair Court Hillside, all situated in the Sugar Loaf Mining District, Boulder County, Colorado.

I have made a full examination of the workings and property and submit for your inspection and approval the following report, giving in detail the conditions found and recommendations for further working and development of this property.

I have also included attached extracts of reports made by J.G.Hart, Wm. J. Smith, Prof. F. A. Fuller, E. Eberhardt, and Prof. H.I.Simons of London, England, all capable mining engineers. It is unnecessary for me to recite their findings over again, only to state that they all agree that the property has the making of a mine, that with the proper expenditure of time and money should return handsome profits in dividends for years to come.

Respectfully submitted,

(Signed) J.N. Smith, E.M.

LOCATIONS:

The group of claims embraced in this property lies due west of the City of Boulder, Boulder County, State of Colorado distant about 12 miles by road. The property lies in Boulder Canyon proper and extends from the highway well upon the north slope and to that might be taken as one of the southern foothills of Sugar Leaf Mt. The Hillside belonging to the property lies along the side of Boulder Creek and taken in approximately sixteen hundred and fifty feet of that stream. This property is included in what is known as the Sugar Leaf Mining District. The Colorado and Northwestern R.R. passes up Boulder Canyon to Four Mile Creek, thence up Four Mile Creek to Sunset, where it divided, one line goes to Ward, the other winding back and passing on the south side of Sugar Leaf Mountain and continuing westward to Nederland.

The station called Crabell, the nearest railroad point to the property by the road in the canyon, lies about six miles, while from the Fair Court Claim northwest the railroad in only one and one-half miles away, access in this direction being up-grade but not difficult, the highway lying about one quarter mile away from the Fair Court Claim.

The property lies in the first mineral bearing zone after passing out from the plains, and is one of the most interesting, rare mineral belts in the State of Colorado.

ALTITUDE:

The group lies between 7,000 and 7,500 feet above sea level, the Hillside being about 7,000 feet elevation.

ACCESSIBILITY.

The property is accessible in every part by trail, but the hillsides are steep and at places the general contour has a slope of 45 degrees. The ideal manner of working this property is by tunnel, for by driving in on the Fair Lode a depth of 500 feet would be gained on the Fair Count Lode, making all parts of the property easily worked and readily accessible from the road in the canyon. The highway is built on a gradually rising grade, and at no point on the way to Boulder is there excessive grade, but a gradual incline, making transportation easy at all seasons. The rainfall is merely more than a few inches and on account of the location clears quickly, thus giving access at all times to the property, and communication with the surrounding country is always open.

TRANSPORTATION.

The transportation of ore would necessarily be by auto truck and as the Colorado and Northwestern is a narrow gauge line, ship-ment to a distance would be made at Boulder. The rate for truck transportation is about $4 per ton per mile. The property can be reached by stage from Boulder at a cost of $4 each way per passenger. Round trip from Denver to Boulder is $1.00. Freight rates from Boulder to Denver are about $1.25 per ton of crude ore, but are somewhat on the value in the ore.

ROADS.

The highway from the property to Boulder is one of the best roads in the State and the traction problem is not difficult as it is all down grade to Boulder. An ordinary truck should be capable of hauling from five to ten tons per load with comparative ease and should make fair time. At no time of year is the road impassable and in winter it is comparatively free from snow.

DESCRIPTION OF PROPERTY

The property comprises four lode mining claims, viz; Fair Count, Fire, Verdon and the Fair Count Mill-Site, all being patented. The lodes are each 150 X 1500 feet and comprise about sixteen acres on account of the irregular of the lodes as shown on the annexed sketch of claims. The mill site covers about five acres. This makes a total of about 21 acres in the entire property.

BRYDEN LODE, (TUNGSTEN.)

The vein on this lode is exposed by a tunnel driven on the vein for a distance of about forty-five feet, the vein is well defined, having a northeast and southwest strike, and shows presence of bins of value. The vein varies from one to three feet in width and is marked here and there by stringers of tellurium, indicating that good values may be encountered should further development be made. The working is in good condition and the walls are firm and at the present time depth require no timbering. The breast of the tunnel exposes a vein from top to bottom, well marked and shows an increasing width.

FAIR COURT LODE:

The Fair Court Lode has been exploited largely by shafts, six of which have been opened on the vein and vary in depth from two to twenty-five feet. These shafts were opened by various interests and at different periods. In every case the shafts are more or less filled with debris caused by disintegration going in on the exposed walls of the shaft. Two of the shafts contained timbering, but in both cases it was stands lonely in the shafts and is perfectly useless as any practical utility is concerned. The parties responsible for this timbering were evidently ignorant of the requirements of the case, or were to negligent in the matter of safety to trouble themselves to make a clean-cut, workman-like job of timbering.

"The following report of the Faircount, Denver, Pike and Meriden lode claims, and the Faircount Millsite, which is included in the Faircount group, is condensed from the reports of J. G. Barrie, J. E. and Wm. J. Smith, and Prof. H. J. Simmons, all recognized engineers. Fred A. Fuller, M.E. has also made a separate report.

"Mr. Fred A. Fuller, M.E. says: 'I visited the property April, 1916. I found several more openings in the tungsten ore on the eastern end of the Denver claim than reported by Barrie, showing good tungsten ore in all places. Where the Denver and Faircount veins junction the surface enlargement is very pronounced, the quartz of the vein showing up to 7 feet in width with tungsten through it. Nothing but mere surface work has been done here, but the character of the quartz is ideal for tungsten. ---all indications are favorable for finding a large body of ore with a small amount of work.

" ' ---Tungsten showing continued to the east in several openings on the Denver claim until the eastern end is reached where it endlines the little block of ground which has been sold from the extreme southeast corner of the claim -- is owned by Jos. Rafter.

" ' This Rafter block of ground carries one of the Denver tungsten veins for it's length, and I found it being worked and high grade tungsten ore being produced from it and sorted out the day I was there. A tunnel has been run on the vein nearly the length of the block, starting to within ten to fifteen feet of the western end lines of the block --- a shaft has been sunk 105 feet --- and in ore. Shipments have been made since last fall of the tungsten ore fro mthe block of ground which have netted the lessors, I am informed, about $23,000.

" ' The main working tunnel for the property --- is plainly the lower Pike tunnel, already started near the Faircount mill site --- it will make an ideal transportation tunnel --- and may be run very cheaply, being on the Pike vein and not in country rock.

" ' The Meriden vein has two courses to the veins it covers. --- On the eastern end of this vein are two openings disclosing a strong vein of tungsten from one to three feet in width, in places wider, and in character about like the tungsten showing on the Denver claim. This should be a very profitable vein to work and should produce a large tonnage of ore averaging in grade from 2% to 6% for the full width of the vein.'

"Tungsten shipments for Faircount:

	Kind	Wt. lbs	%WO3	per unit	value
11-17, 1906	Lump --	878 lbs ---	43.23% WO3	--$4.25 --	$80.43
11-17, 1906	Mill --	2506 " ---	17.60 "	-- 3.35 --	73.90
1-25, 1907	Lump --	821 " ---	47.35 "	-- 5.85 --	111.63
2-28, 1907	Mill --	3099 " ---	18.26 "	-- 3.25 --	82.89
2-28, 1907	Lump --	260 " ---	37.43 "	-- 6.20 --	29.30
2-25, 1907	Mill --	930 " ---	15.22 "	-- 4.60 --	32.45 "

"I am quoting now from a report made by J. G. Barrie, S.E., C.E., M.E. Mr. Barrie describes the property in detail. The report is dated April 1, 1935 and has the following in condensed form:

" 'Altitude: The group lies between 7000 and 7900 feet above sea level, the millsite being 7000 feet elevation. ---the property is accessable in every part, but the inclines are steep and in several places 45 degrees. The ideal manner in working this property is by tunnel, for by drifting in the Pike tunnel, a depth of 900 feet will be obtained, making all parts of the property easily worked. The snow fall is rarely more than a few inches and because of its location clears away quickly.

" 'Improvements: The Faircount lode has been exploited by six shafts on the vein, varying in depth from 12 to 75 feet. I examined each of these shafts and found that they were sunk on the vein, the vein varying in width from three to five feet and clearly defined in each instance. The vein is traceable from end to end of the claim and has a general east and west strike. At the third shaft from the west and 55 feet deep there is a cross tunnel connected with the shaft from the west end, and here is a forty foot drift in an easterly direction. The vein in the workings is well defined and has tellurium gold streaks from 2 to six inches, and in some places widens to 10 inches, and passing from side to side. The Faircount vein has a dip of 75 degrees to the north. The Meriden vein is well defined --- it is from one to three feet in width and is marked here and there by stringers of tellurium. The Denver vein has been exploited by an open cut exposing the vein one foot in width with a general trend northeast and southwest. At the upper end of this claim is an outcrop of wolframite, or tungsten. This outcrop is very promising, carrying values of from 12% to 58% wolframite.

" ' On the Pike lode a tunnel 120 feet in length has been run in on the vein. The vein is from 2 to 5 feet in width, with stringers of tellurium ore all through it. From this tunnel, properly extended, the whole property can be worked, and also adjoining mines.

" 'Assays: The assays following, made from samples from various parts of the property as stated, indicate that ore of sufficient value can be produced to warrant thorough exploration. Sugar Loaf mining district is one of the best in Boulder County. Assays are as follows:

	OZ.AU	VALUE
Denver lode, tellurium	12.00	$ 240.00
Faircount, "	56.00	1112.00
Picked quartz	1.15	23.00
Denver lode, across vein	0.60	12.00
Meriden lode, quartz	1.36	27.20
Combined average veins, except tellur.	0.60	12.00
Talc	0.81	16.20
Pike lode, footwall	0.60	12.00
Faircount, tunnel	4.48	89.60
Faircount, breccia quartz, tunnel	5.50	110.00
Faircount, hard quartz, tunnel	5.00	100.00
Faircount, soft quartz, tunnel	3.50	70.00
Faircount, mixed quartz, tunnel	1.50	30.00

All vein matter, except tellurium	0.84	16.80
Faircount tunnel, pulp	1.44	28.80
Faircount tunnel, average	5.50	110.00

" '--- The tellurium ore occurs in the veinsin streaks and sometimes in mass with general dissemination throughout the gangue. There is also present sulfide of iron finely divided and scattered through the vein. There are many places in the vein where high mineral values are present. Another mineral present is wolframite, and by thorough exploration will become a great revenue to the property. ---The amount of work done on the property consists of 212 feet of shafts, 40 feet of drifts, and 260 feet of tunnels, but no stoping has been done.' ""

"H. Ehrhardt, M.E. says: 'No. 5 shaft is sunk near the top of a cliff, at the foot of which a cross-cut tunnel has been started but never finished --- if this tunnel is continued 75 to 100 feet furthur it will cut the vein on the Faircount claim at a depth of 180 to 200 feet below the surface. At the bottom of No. 5 shaft is a streak of tellurium ore 6" in thickness which gives assay returns of 167 ounces to the ton or $3340.00 per ton.' (Dated July 12, 1912)

"In 1912 Barrie made a report on the Faircount and again in 1908. Following are excerpts from the report made in 1908: '---- there has been, however, a tracing out by prospecting, the existence of a tungston lead in, and along side of the Faircount lode. ----just beyond the west side line of the claim on the Faircount extension, exists a very strong tungston vein of considerable width and running high in value, which strikes longitudinally across the Faircount claim, and at a depth of 100 feet shows valuable deposits. An assay of the tungstem lead shown in the openings along the Faircount leads gives 5% tungstic acid in the wolframite in the vein. This is a good value, and concentration of 12 to 15 to one would give a product worth $400.00 or more per ton'

Denver lode:
'Since my last visit, the deposits have been exploited quite extensively ---- sampling of the tungsten this vein gave returns of 11½% tungstic acid which would indicate an exceedingly valuable deposit and worth $75.00 per ton without concentration.

'Pike lode: ---This tungsten vein carries tellurium gold streaks and cuts the Faircount tungsten lead at an angle of about 30 degrees.

"(Writers note: The paragraph, second above refers to the Pike lode and not to the Denver lode as indicated.)

" 'Metallurgy: The tungsten ores should be concentrated to a 60% grade and the concentrates shipped. Demand for it is constantly increasing as new fields of usefulness are developed. I should say this property would be valuable for the tungsten alone, as the values shown would make the mining thereof extremely remunerative.' "

"Wm. and J. N. Smith, both engineers-geologists in their report say: '---the veins are true fissures in character, withwell defined granite walls, having an average of 12" to 26" of marketable ore, the veins being highly mineralized. ----tungsten deposits on the Denver lode and Meriden lode will assay from 12% to 30% tungsten, and the present developement discloses strong veins from 5 to 24 inches in width. This is an important feature of the property, as tungsten commands a ready market, the production being quite limited, Boulder county supplying more than any other district in this country.---- the crude ore from these veins will average 15% tungsten. This ore, as well as the gold and silver ores can be cheaply and successfully concentrated on the ground at a cost of from $1.25 to $1.75 per ton. With a little amount of developement, the property can be put on a productive basis, but the principle work should be prosecuted on the Pike tunnel, which is now in about 120 feet, and will open and cut the many veins centering at the junction of these lodes.--- the cost of running the tunnel would be nominal because it would be on the vein and no doubt sufficient ore could be mined to practically meet the expense, as well as to open up an immense area of stoping ground. From a point on the mill site, or Pike tunnel portal, to the center of the Faircount, Denver and Meriden claims, the mountain rises at an angle of 35 to 65 degrees, thus indicating the rapid rise in depth which may be obtained by driving said tunnel.

	Gold oz.	Silver oz.
Denver, 6 feet across lode	0.60	
Denver, 18" quartz	1.15	
Denver, 10" across	1.16	
Meriden, tellurium	0.60	
Meriden, talc	0.10	
Meriden, vein matter	0.12	
Various shallow workings, vein matter	0.55	
Faircount, tellurium	55.00	
Faircount, tunnel breast	4.52	
Faircount, all vein matter	0.53	
Faircount, bottom 53' shaft	7.30	30.12
Faircount, 75 ft. shaft, 6" tellurium	166.00	77.00
Pike, talc	0.60	
Pike, hard quartz	5.00	
Pike, soft quartz	3.50	

Statement of tungsten run for J. N. Smith & Son by Henry E. Wood& Co., August 24, 1905:

Crude ore, 107 lbs.	WO3	13.80%
Concentrates, 140 lbs.	"	52.80%
Fine conc. 41.11 lbs.	"	60.40%
Slime conc., 7.25 lbs.	"	38.25%
Total conc., 188.75 lbs.	"	53.40%

Ratio of conc. 5.70 tons to one. Savings on crude WO3 ---- 67.90%
53.40% @ $4.50 per unit equals $240.30 per ton.
188.75 lbs. @ $240.30 per ton - $22.68

Signed, Henry E. Wood & Co.

Exhibit F

PAIRMOUNT GROUP # Lorne Knisley, M3, Box 775, Ft. Collins, Colo.

RECEIVED

JUL 22 1956

Attached hereto is a copy of a letter from Mr. Ralph S. Newcomer, attorney for The Colorado Tungsten Corporation, to the applicant, which is self-explanatory.

The agreement with the Colorado Tungsten Corporation will also include a consent to lien.

Mr. Lorne Knisley
Box775, Route 3
Fort Collins, Colorado

Dear Mr. Knisley:

The discussion, as I have it in my notes, between you and Mr. Wherry about the leasing or sale by the Colorado Tungsten corporation of its four mining claims near your Fair Count group, led to the conclusion that Mr. Wherry would be willing to submit to his stockholders a proposal to make a lease and option, or contract of sale, of the claims to you for $20,000, of which $1,000 would be paid down on signing of the agreement and one-fifth of the remaining $19,000 to be paid in each of the succeeding five calender years.

This would involve also a right of way across the Smith lode, as I understand, for your Pike tunnel. On all the ores taken from the date of the agreement, royalty of 20% would be payable on the net returns of concentrates sold; that is the returns after the deductions of milling costs. Royalties paid would apply on the next due payments on the option price. There would be the right to sublet part of the claims to George Jump subject to all of the other terms of the contract. Any amount payable to the United States Goverment would be paid out of your share of the ores. Other terms to as stipulated by Mr. Wherry's Company.

Mr. Wherry suggested that he would be willing to submit a proposal along these lines to his Company.

Yours very truly

for Newcomer & Douglass

RECEIVED

JUL 23 1958

CONSENT TO SUBLEASE AND CONSENT TO LIEN

WHEREAS, the undersigned is the legal owner of that certain mine and mining property situate in the Southeast quarter (SE¼) of Section 36, Township 1 N., Range 72 W. in the Sugar Loaf Mining District, County of Boulder, State of Colorado, to-wit:

Patented lode claims: Denver, Meriden and Pike, Survey No. 18940, Faircount, Survey No. 6980A, and patented mill site known as Faircount Mill site, together with the appurtenances;

AND, WHEREAS, heretofore the undersigned entered into a mining lease and option with Wm. F. Widdows and James P. Donnel for said property under date of December 7, 1951, and a supplemental agreement with said lessees on August 18, 1952, and

WHEREAS, the said lessees desire to enter into a sublease with Lorne Knisley, and

WHEREAS, the said Lorne Knisley desires to procure a Defense Minerals Exploration loan from the United States Government for an exploration project in connection with the above described property, and

WHEREAS, it is necessary for the undersigned to consent to said sublease under the terms of the original lease, and it is further necessary for the undersigned to consent to the lien of the Government for the obtaining of said exploration loan, and

WHEREAS, true copies of said mining lease and option of December 7, 1951, Supplemental Agreement of August 18, 1952, and Sublease between said lessees and Lorne Knisley dated March 31, 1955, are attached hereto and made a part hereof by reference thereto.

NOW, THEREFORE, in consideration of the premises and the sum of $1.00, receipt whereof is herewith acknowledged, the undersigned does herewith consent to the Sublease by Wm. F. Widdows and James P. Donnel to Lorne Knisley, and does further consent to the terms of said Sublease except as herein expressly changed.

1. The undersigned does further consent to the lien of the United States Government in the event said exploration loan is obtained, and agrees to execute such instruments as may be required of the owner in connection with the obtaining of said exploration loan.

2. The term of the original Mining Lease and Option dated December 7, 1951, as amended, shall not be extended by the execution of this consent.

3. The lien granted to the United States in connection with the loan to be made by the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, and Lorne Knisley, shall not be greater than a lien on all minerals mined or produced, and actually severed from the land, to secure the payment of a royalty as provided in the loan agreement, but not in excess of 5% of the gross proceeds or value of all minerals mined or produced from the leased lands as follows:

(1) regardless of any certification of discovery or development, from the date of the contract until the lapse of the time within which the Government may make such certification, or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first; or (2) if the Government makes a certification of discovery or development, within a period of ten years from the date of the contract, or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first.

4. All payments made by the Sub-lessee for monthly payments of $50.00 each or for the purchase of an interest in the option shall immediately upon receipt thereof by the lessees named in the original lease be remitted to the undersigned Lessor to be applied on the option price; provided, however, that payment in full by the sub-lessee of one half of the option price shall not entitle him or the lessees under the original Mining Lease and Option to receive a conveyance of any interest in the leased premises, but his and their right shall continue to be that of sub-lessee and lessees only until the purchase price of the option specified in the original lease shall be paid in full.

5. Lessees under the original lease and the sub-lessee under the sublease shall be entitled to use the Pike Tunnel during the term of the original lease, as amended, and any extension which may hereafter be granted, and the lessees or sub-lessee may use the tunnel for the purpose of working any adjacent properties owned or leased by them until the termination of the lease, and provided further that after the termination of said original lease, as amended, and any extension thereof, the sub-lessee, his heirs and assigns, may continue to use the Pike Tunnel in working other properties for a period of 25 years, upon payment of a rental of $0.25 per car of material or ore transported through the tunnel, and payment of his proportionate share of the maintenance and operation of the tunnel. Neither the lessees named in the original lease, as amended, nor the lessee named in the sublease, nor their heirs or assigns, shall have any right to the use of the Pike Tunnel except as provided in this paragraph, and the provision of paragraph 9 of the Sub-Lease providing for a perpetual right to the use of the Pike Tunnel is hereby expressly repudiated and denied.

6. If the sub-lessee shall erect a mill on the Faircount mill site as contemplated in paragraph 7 of the attached sub-lease, he shall not have the right to use the same to mill ores from other than the leased properties except so long as he is complying fully with the work requirements on the leased premises or enters into a mutually satisfactory rental agreement for the millsite.

7. Lessees and Sub-lessee agree that if the above mentioned Pike Tunnel is constructed and thereafter permanently discontinued that the portal to said tunnel will be effectively closed, and if discontinued temporarily that adequate safeguards will be taken so that persons being on the premises will not be subjected to an unnecessary hazard.

8. Wherever the terms and conditions of this consent differ from the provisions of the original Mining Lease and Option, Supplemental Agreement, and Sub-lease, the provisions in this consent shall supersede the provisions of the first three instruments mentioned, but except as so modified the provisions of the Mining Lease and Option and Supplemental Agreement shall remain in full force and effect.

9. No further assignment of said Mining Lease and Option, Supplemental Agreement and Sub-Lease, or of any rights thereunder, shall be permitted without first obtaining the written consent of the undersigned owner.

10. This consent shall be effective when accepted by Wm. F. Widdows, James F. Donnel and Lorne Knisley on the date on which the contract between Lorne Knisley and the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, for a defense minerals exploration loan becomes effective, and shall be binding upon and enure to the benefit of C. L. Stubbs, Wm. F. Widdows, James F. Donnel, and Lorne Knisley, and their respective heirs and assigns.

The undersigned, C. L. Stubbs, owner, agrees that the aforementioned Mining Lease and Option and Supplemental Agreement are in full force and effect, and that all payments required under said instruments have been paid up to April 1, 1955.

Dated at Fort Collins, Colorado, this 14 day of April, 1955.

C. L. Stubbs
Owner

STATE OF COLORADO)
) ss
COUNTY OF LARIMER)

The foregoing instrument was acknowledged before me this 14th day of April, 1955, by G. L. Stubbs.
WITNESS my hand and official seal.
My commission expires: September 7, 1958

Notary Public

ACCEPTANCE OF CONDITIONS OF CONSENT

The undersigned hereby accept all of the terms and conditions of the foregoing Consent signed by G. L. Stubbs, Owner, and agree that the Mining Lease and Option, Supplemental Agreement and Sub-Lease, shall be modified accordingly.

IN WITNESS WHEREOF the parties hereto have hereunto set their hands and seals on the 14th day of April, 1955.

(Wm. F. Widdows)

(James P. Donnel)

(Lorne Knisley

STATE OF COLORADO)
) ss
COUNTY OF LARIMER)

The foregoing instrument was acknowledged before me this 14th day of April, 1955, by Wm. F. Widdows.
WITNESS my hand and official seal.
My commission expires: September 7, 1958

Notary Public

STATE OF COLORADO)
) ss
COUNTY OF LARIMER)

The foregoing instrument was acknowledged before me this 14th day of April, 1955, by James P. Donnel.
WITNESS my hand and official seal.
My commission expires: September 7, 1958.

Notary Public

STATE OF COLORADO)
) ss
COUNTY OF LARIMER)

The foregoing instrument was acknowledged before me this 14th day of April, 1955, by Lorne Knisley.
WITNESS my hand and official seal.
My commission expires: September 7, 1958.

Arthur J. Marsh
Notary Public

SUB-LEASE

THIS AGREEMENT made and entered into this 31 day of March, A. D. 1955, between WM. F. WIDDOWS and JAMES P. DONNEL of Fort Collins, State of Colorado, Lessees, and LORNE KNISLEY of Fort Collins, State of Colorado, Sub-Lessee, WITNESSETH:

WHEREAS, by a lease dated December 7, 1951, C. L. Stubbs leased the following described property situate in the Southeast quarter (SE¼) of Section 36, Township 1 N., Range 72 W. in the Sugar Loaf Mining District, County of Boulder, State of Colorado, to-wit:

> Patented lode claims: Denver, Moriden and Pike, Survey No. 16940, Faircount, Survey No. 6960A, and patented mill site known as Faircount Mill site, together with the appurtenances;

said lease being for a term of 5 years from date thereof with option to purchase, a copy of which lease and option is hereto annexed, marked exhibit "A" and made a part hereof by reference thereto, and

WHEREAS, the original terms of said lease and option were amended by supplemental agreement entered into on August 18, 1952, which provided for monthly payments of $50.00 each until said mining property was put on a production basis, to be credited to the original lease in lieu of royalties, and

WHEREAS, said lease and supplemental agreement are still in full force and effect, and

WHEREAS, sub-lessee desires to obtain a sub-lease for said properties covered by the above mentioned lease and option provided said sub-lessee can obtain a defense minerals exploration loan for which sub-lessee agrees to make immediate application.

NOW, THEREFORE, in consideration of the premises and the terms of this agreement it is mutually agreed as follows:

Exhibit C

1. Lessees hereby sub-lease to sub-lessee all of the property leased to lessees by the above mentioned lessor for the term of the original lease and for any additional term covered by any extension of said original lease.

2. Sub-lessee agrees therefor to pay unto lessees as rental a royalty of 20 percent of the net smelter returns and net receipts from the sale of any ore or metal to be extracted from said premises, which said royalty lessees in turn agree to pay to the above mentioned lessor until full payment has been made to lessor in accordance with the terms of said original lease.

3. Sub-lessee agrees to make immediate application for the above mentioned defense minerals exploration loan for the purpose of running an exploration tunnel of an approximate length of 2,000 feet along the Pike with cross cuts on the Faircount. It is mutually understood that the within lease is conditioned not only upon the obtaining of the consent of the lessor to the within sub-lease but also to the obtaining of the above mentioned defense minerals exploration loan. If either of said conditions are not met then the within sub-lease shall become null and void and of no effect whatever. Sub-lessee agrees to notify lessees immediately upon rejection or acceptance of said application for loan.

4. In the event the above mentioned lessor consents to the terms hereof and said loan is obtained, sub-lessee agrees within 60 days to commence work to be done in connection with said exploration loan and to proceed expeditiously therewith in accordance with the commitments made by said sub-lessee with the Government in obtaining said loan.

5. In the event the Government issues a certification of discovery or development sub-lessee agrees to put said leased property into production and to work said mines or premises in a mine fashion, and to bring said premises to the best possible stage of production with due regard to efficient and economical mining, to pay from the proceeds of said mining all royalties due to the

Government under said loan, and to make all royalty payments required hereunder, and to keep said premises free and clear from all liens and encumbrances except the lien of the Government for said exploration loan.

6. In further consideration of sub-lessee applying for said exploration loan and the work to be done thereunder provided said loan is obtained, lessees grant unto sub-lessee the option for a period of 5 years hereafter subject to any termination of the original lease and option to purchase a one-half interest of the interest of lessees in said demised premises, said option to be exercised by payment of the purchase price therefor in the amount of $10,000.00, which said sum shall be payable by sub-lessee either in a lump sum or by the payment of additional royalties. Manner of payment shall be at the option of sub-lessee, provided, however, that the entire purchase price shall be payable within 5 years from date hereof. Any deferred payments shall bear interest from the date of exercising of the option from date thereof until paid at the rate of 5 percent per annum, payable annually. In the event sub-lessee continues to operate hereunder under his lease after exercising his option to purchase lessees shall still receive the 20 percent royalty of the net smelter returns and receipts for their retained one-half interest in said properties.

7. It is mutually understood and agreed that sub-lessee may at his option during the term of this sub-lease install a mill on the Faircount mill site and have exclusive rights thereto during the term of the within sub-lease. At the termination of the within sub-lease or any extension thereof sub-lessee shall have the right to remove said mill including any machinery, buildings or other improvements pertinent thereto. If such mill is installed sub-lessee shall have the right to mill ores from other properties. Sub-lessee's charges for milling ore from the Faircount group shall be reasonable and based on actual operating, maintenance and depreciation costs, and shall in no event exceed charges made by custom mills in the vicinity for milling similar ores.

8. In the event sub-lessee exercises his right of option and purchases a one-half interest in the demised premises and does install a mill then lessees may at their option purchase a one-half interest in said mill. The price thereof being based on the initial installation costs less reasonable depreciation. In the event such latter option is exercised lessees shall receive a one-half interest in the Pike tunnel rights hereinafter mentioned, however if lessees exercise said option right but sub-lessee makes separate arrangements for the exploitation of other properties in another area which can use the Pike tunnel to move such foreign ores, sub-lessee may use said transportation tunnel without charge keeping said tunnel in repair at his own expense for such purpose, provided that lessees may, if they so desire, join with sub-lessee in such arrangements for the exploitation of such foreign properties.

9. It is mutually understood and agreed that subject to the above mentioned option to purchase sub-lessee shall have an exclusive perpetual right to the use of the Pike tunnel insofar as the same may be used for the working of properties other than those in the Faircount group, which right may be sold, leased or assigned by sub-lessee without consideration of his other rights herein.

10. For the purposes of this agreement it is mutually understood that net revenues shall mean the sum or sums of money received from the sale of ores and ore concentrates removed from the demises premises and sold by sub-lessee less shipping, freight and transportation costs, milling costs, penalties and other costs involved other than those incurred in the actual mining of the ore.

11. It is expressly understood and agreed that if lessees fail, neglect or refuse to exercise the option contained in the original lease and option within the time of exercising the same that lessees will assign their right to sub-lessee so that the option may be exercised at the option of said sub-lessee.

12. It is mutually understood and agreed that title to all mining equipment and improvements placed on said premises by sub-lessee shall remain in sub-lessee subject to the above mentioned Government loan, and in the event said lease is for any reason terminated sub-lessee or the Government shall have the right to remove said property.

13. In the event of a right to cancel the within lease by lessees or the original lessor for any default on the part of sub-lessee, it is mutually understood and agreed that there shall be a 30 day notification of intent to so cancel specifying the grounds for cancellation, and during said 30 day period sub-lessee may correct any default on his part and reinstate said agreement.

14. Sub-lessee agrees, as an additional consideration for the granting of the within sub-lease, to make the monthly $50.00 payments required under the supplemental agreement of August 18, 1952, which payments shall be applied to the option contained in paragraph 6.

IN WITNESS WHEREOF the parties hereto have hereunto set their hands and seals the day and year first above written.

Wm. A. Sullivan (SEAL)

James P. Howard (SEAL)
Lessees

Lone Knisley (SEAL)
Sub-Lessee

STATE OF COLORADO)
) ss
COUNTY OF LARIMER)

The foregoing instrument was acknowledged before me this 31st day of March, A. D. 1955, by Wm. F. Widdows, James P. Donnel and Lorne Knisley.

WITNESS my hand and official seal.

My commission expires: September 7, 1958.

Notary Public

EXHIBIT "B"

SUPPLEMENTAL AGREEMENT

THIS SUPPLEMENTAL AGREEMENT made and entered into this 18th day of August, A. D. 1952, by and between C. L. STUBBS, hereinafter designated as lessor, and Wm. F. WIDDOWS and JAMES P. DONNEL, hereinafter designated as lessee, WITNESSETH:

WHEREAS, the parties hereto entered into a mining lease and option on December 7, 1951, and

WHEREAS, lessee has entered into possession of that certain mine and mining property situate in the SE¼ of Section 36, Township 1 N., Range 72 W. in the Sugar Loaf Mining District, County of Boulder, State of Colorado, to-wit:

> Denver, Meriden and Pike, Survey No. 18940, Fairecunt, Survey No. 6980A; and patented mill site known as Fairecunt Mill Site, together with the appurtenances;

AND, WHEREAS, lessee has encountered difficulties in marketing the ore produced by reason of the presence of phosphorous such that no mill so far contracted will accept the ore, and

WHEREAS, lessor has given notice of termination of the lease to lessee, and

WHEREAS, it is mutually desired to cancel the effect of said notice and to reinstate the lease on the same terms as originally entered into except for the provisions herein contained.

NOW, THEREFORE, in consideration of the premises and the terms of this agreement, it is mutually agreed as follows:

1. Lessee agrees to pay to lessor the sum of $50.00 each month commencing with the date of execution of this agreement, such payments to continue until the mining property is put on a production basis.

2. It is mutually agreed that said payments shall be paid and received in lieu of royalties to be paid to the lessor under the terms of the original lease and shall be credited to the account of lessee as though said payments were royalties.

Exhibit B

3. Lessor agrees that as long as the aforesaid payments are made that the same shall be received in lieu of work to be done on the premises as provided for in said lease and in lieu of royalty payments, provided, however, that if and when any ore is mined and said mining property is put on a production basis the payments mentioned herein shall cease and lessor shall receive the royalty payments specified in the lease of December 7, 1951.

4. Lessor agrees to and does herewith reinstate said lease of December 7, 1951, and it is mutually agreed that all of the terms of said lease, except as expressly changed herein, shall remain in full force and effect. Each and every clause in covenant of this indenture shall extend to the heirs, executors, administrators and lawful assigns of all parties hereto.

IN WITNESS WHEREOF the said parties have hereunto set their hands and seals.

_____ (SEAL)
Lessor

_____ (SEAL)

James T. Dorinel (SEAL)
Lessee

EXHIBIT A

EXHIBIT A

MINING LEASE AND OPTION

THIS INDENTURE made this 7th day of December, in the year of our Lord one thousand nine hundred and fifty-one between C. L. STUBBS, of Denver, State of Colorado, lessor, and Wm. F. WIDDOWS and JAMES P. DONNEL, of Fort Collins, State of Colorado, lessee or tenant, WITNESSETH:

That the said lessor, for and in consideration of $1,000.00, receipt whereof is hereby acknowledged, and the royalties hereinafter reserved, and the covenants and agreements hereinafter expressed, and by the lessee to be kept and performed, hath GRANTED, DEMISED and LET and by these presents doth GRANT, DEMISE and LET unto the said lessee all of the following described mine and mining property, situate in the Southeast Quarter (SE¼) of Section 36, Township 1 North, Range 72 West in the Sugar Loaf Mining District, County of Boulder, State of Colorado, to-wit:

> Patented lode claims: Denver, Meriden and Pike, Survey No. 18940, Faircount, Survey No. 6980A; and patented Mill Site known as Faircount Mill Site, together with the appurtenances.

TO HAVE AND TO HOLD unto the said lessee, for the term of five (5) years from the date hereof, expiring at noon on the 7th day of December, 1956, unless sooner forfeited or determined through the violation of any covenant against the said tenant reserved, and the lessor further agrees with the lessee to keep the said demised premises free and clear of all tax liens and other legal claims and judgments during the term of this lease.

And in consideration of such demise, the said lessee doth covenant and agree with said lessor as follows, to-wit:

1. To enter upon said mines or premises, and work the same mine fashion, to finance and conduct a comprehensive program of exploration and development to bring the demised premises to the best possible stage of production with due regard to efficient and economical mining.

Exhibit A

2. To begin the actual operations of exploration and development by tunnel, shaft, or adit within 60 days from the execution of this lease. Failure to comply with this covenant shall be cause for forfeiture of all lease and option rights at the election of lessor and upon lessor's written notice of forfeiture.

3. To work and mine said premises as aforesaid steadily and continuously from the commencement of operations as aforesaid with at least 250 man hours performed each month, except where prevented by extraordinary conditions.

4. To well and sufficiently timber said mine at all points where proper in accordance with good mining; to conduct all operations in accordance with the mining laws and safety regulations of the State of Colorado.

5. To allow said lessor and his agents from time to time, to enter upon and into all parts of said mine for purposes of inspection.

6. To not assign this lease or any interest thereunder, and to not sublet the said premises or any part thereof, without the written consent of said lessor, and to not allow any person not in privity with the parties hereto to take or hold possession of said premises, or any part thereof, under any pretense whatever, provided, however, that consent is herewith expressly given by lessor to lessee to assign this lease and option to a mining corporation which said lessee is presently contemplating forming with others to conduct the mining operations contemplated by this lease, and provided further, that at such time as total payments hereunder to lessor shall have reached the amount of $5,000.00 that the then lessee may sublet to responsible party or parties such part of the demised property as such lessee may deem advisable, provided that such sub-lessee shall pay to lessor the royalties herein provided which said payments shall inure to the benefit of the lessee.

7. To occupy and hold all cross or parallel lodes, spurs or mineral deposits of any kind which may be discovered by the said lessee, or any person under him, in any manner, by working within the demised ground, as the property of said lessor with privilege to said lessee of working the same as parcel of said demised premises.

8. To keep at all times the drifts, shafts, tunnels and other workings thoroughly drained and clear of loose rock and rubbish, unless prevented by extraordinary mining casualty, or unless the same is not economically feasible.

9. To pay to said lessor as royalty 20% of the net smelter returns and net receipts from the sale of any ore or metal, to be extracted from said premises, by delivery of such ore with all convenient speed in lots as mined to some mill or regular ore buyer, and for delivery to the lessor; provided that when such royalty payments have reached an aggregate of $20,000.00, the lessee shall be deemed to have exercised the option to purchase the said demised premises, hereinafter set forth.

10. To at all times fully comply with the provisions of the Workmen's Compensation Laws of the State of Colorado.

11. To deliver to said lessor the said premises with the appurtenances, and all improvements in good order and condition, with all drifts, shafts, tunnels and other passages thoroughly clear of loose rock and rubbish, and drained, and the mine ready for immediate continued working (accident not arising from negligence alone excusing) without demand or further notice on the said 7th day of December, A. D. 1956, at noon, or at any time previous upon demand for forfeiture.

12. And finally, that upon violation of any covenant or covenants hereinbefore reserved and on the part of the tenant to be performed the term of this lease shall, at the option of the said lessor, expire, and the same

and said premises, with the appurtenances, shall become forfeit to said lessor; and said lessor or his agent may thereupon, after demand of possession in writing, enter upon said premises and dispossess all persons occupying the same, with or without force and with or without process of law; or at the option of said lessor the said tenant and all persons found in occupation may be proceeded against as guilty of unlawful detainer, provided, however, that in the event of any violation of any covenant by lessor before the above mentioned forfeiture shall be effective lessor shall notify lessee in writing of such violation and lessee shall have 30 days from receipt of such notice within which to correct or remove the violation, and failing so to do said forfeiture shall be operative.

13. And in consideration of the acceptance of the foregoing lease and the expenditures to be made thereunder and the well and faithful keeping of the covenants thereof, the said lessee shall have the right to purchase the said demised premises by payment of the sum of Twenty Thousand ($20,000.00) Dollars, on or before the 7th day of December, 1956, it being understood that the $1,000.00 cash payment made at the time of the signing of this lease to the lessor and that all royalty payments paid to the lessor during the term of this lease shall, at the election of the lessee, be applied upon said purchase price, and the net sum payable as the purchase price shall be the difference between the sum of $20,000.00 and the total amount of royalties paid to lessor under the foregoing lease; time being of the essence of the contract as to such final payment. And upon the tender of such payment, the lessor will make, execute and deliver at his own cost and charges, good and sufficient deed or deeds of warranty to be delivered to the lessee or such company or person as he shall nominate, conveying the said premises clear of incumbrance, together with abstract or abstracts of title showing good and marketable title in lessor.

Lessor doth further covenant and agree with said lessee and their assigns as follows, to-wit:

1. That lessee may use so much of the timber as may be located on the demised premises as may be needed or deemed advisable to be used by lessee, provided that said timber shall be used in connection with the mining operations to be conducted on the demised premises.

2. That lessee may on termination of this lease for any reason whatsoever remove all of the equipment placed on said premises by lessee with the exception of any buildings or any timbering.

3. That lessee or their assigns may terminate this lease in the event they consider the mining operations unprofitable, provided, however, that in the case of such termination any payments made to lessor shall be retained by lessor as rental for the term said lease is held.

The forfeiture, surrender or termination of the above lease for any cause shall render this option void, and the above mentioned final payment may not thereafter be tendered; and failure to make said final payment shall, at the option of the lessor, render said lease forfeited and void.

Each and every clause and covenant of this indenture shall extend to the heirs, executors, administrators and lawful assigns of all parties hereto.

IN WITNESS WHEREOF, the said parties have hereunto set their hands and seals.

/s/ C. L. Stubbs (SEAL)
Lessor

James P. Donnel
/s/ James P. Donnel (SEAL)

/s/ Wm. F. Widdows (SEAL)
Lessee

STATE OF COLORADO)
) ss
COUNTY OF LARIMER)

The foregoing instrument was acknowledged before me this 7th day of December, A. D. 1951 by C. L. Stubbs, Wm. F. Widdows and James F. Donnel.

WITNESS my hand and official seal.

My commission expires: September 6, 1954

/s/ Arthur E. March
Notary Public

ARTHUR E. MARCH

O. REX WELLS

LAW OFFICES
OF
ARTHUR E. MARCH
FORT COLLINS, COLORADO

Farrcourt Group [redacted]

Lorne Knisley

P.O. Box 707,

Fort Collins, Colo

(PMGC)

OFFICIAL BUSINESS

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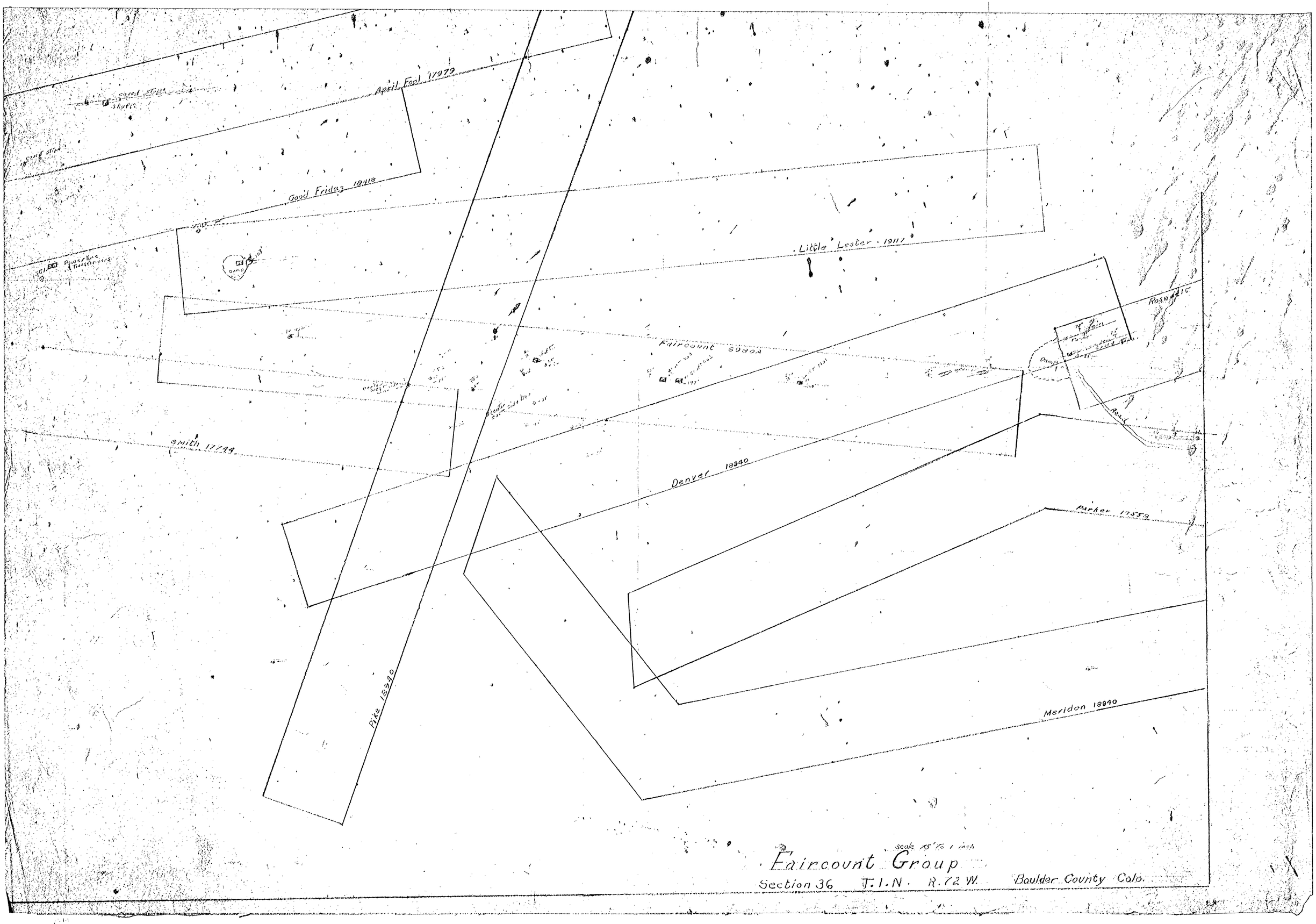
Operating Committee, D M E A
Dept. of the Interior
Washington 25, D. C.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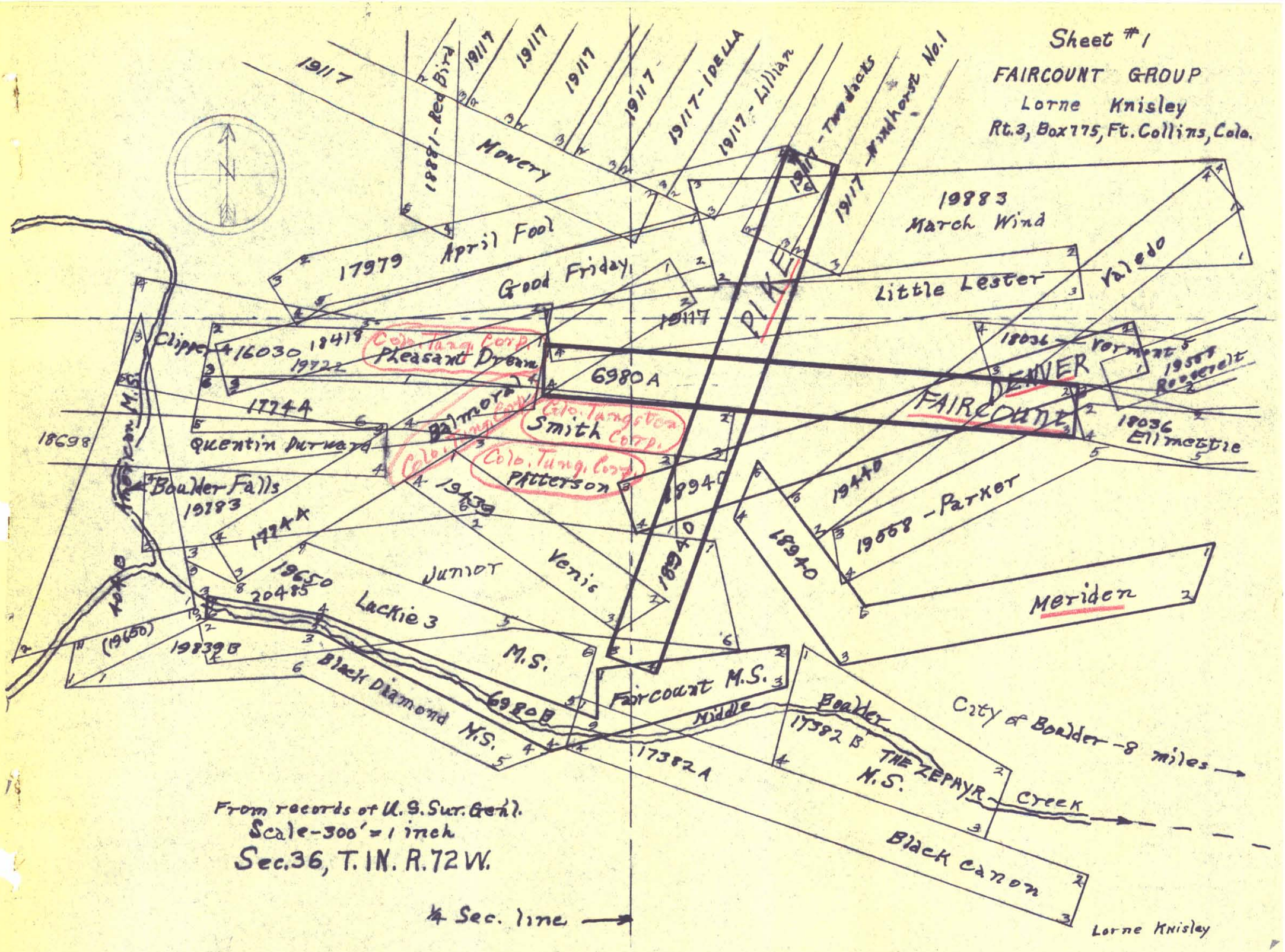
Parker 17559
Pike 18940
Meridan 18940
Road
Faircount Group
Section 36 T.1.N. R.72 W. Boulder County Colo.

Sheet #1

FAIRCOUNT GROUP

Lorne Knisley

Rt.3, Box 775, Ft. Collins, Colo.



From records of U.S. Sur. Gen'l.

Scale - 300' = 1 inch

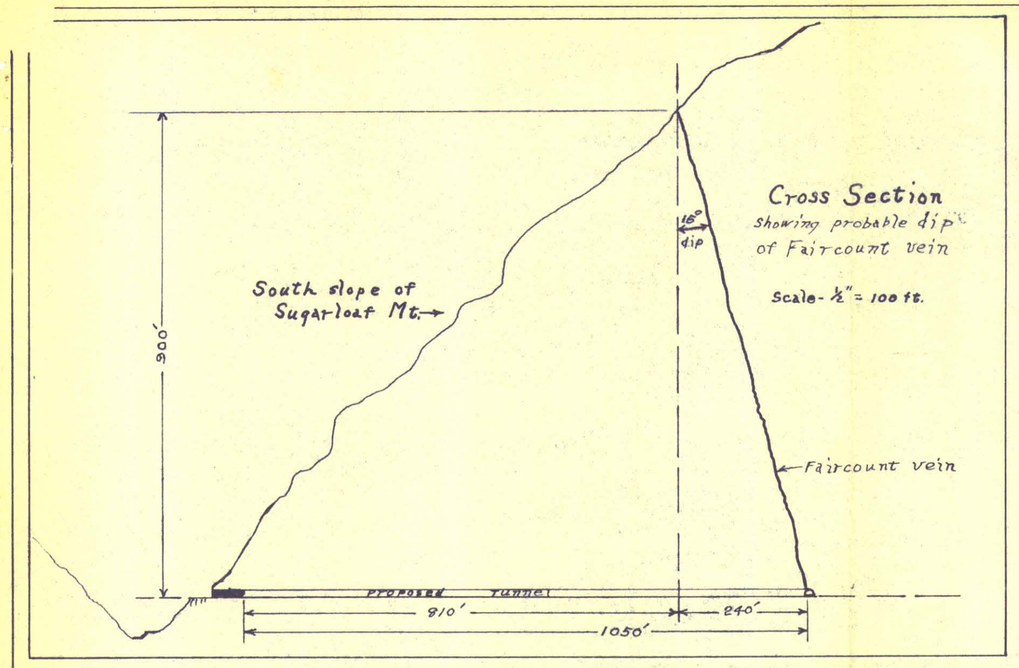
Sec. 36, T. 1N. R. 72W.

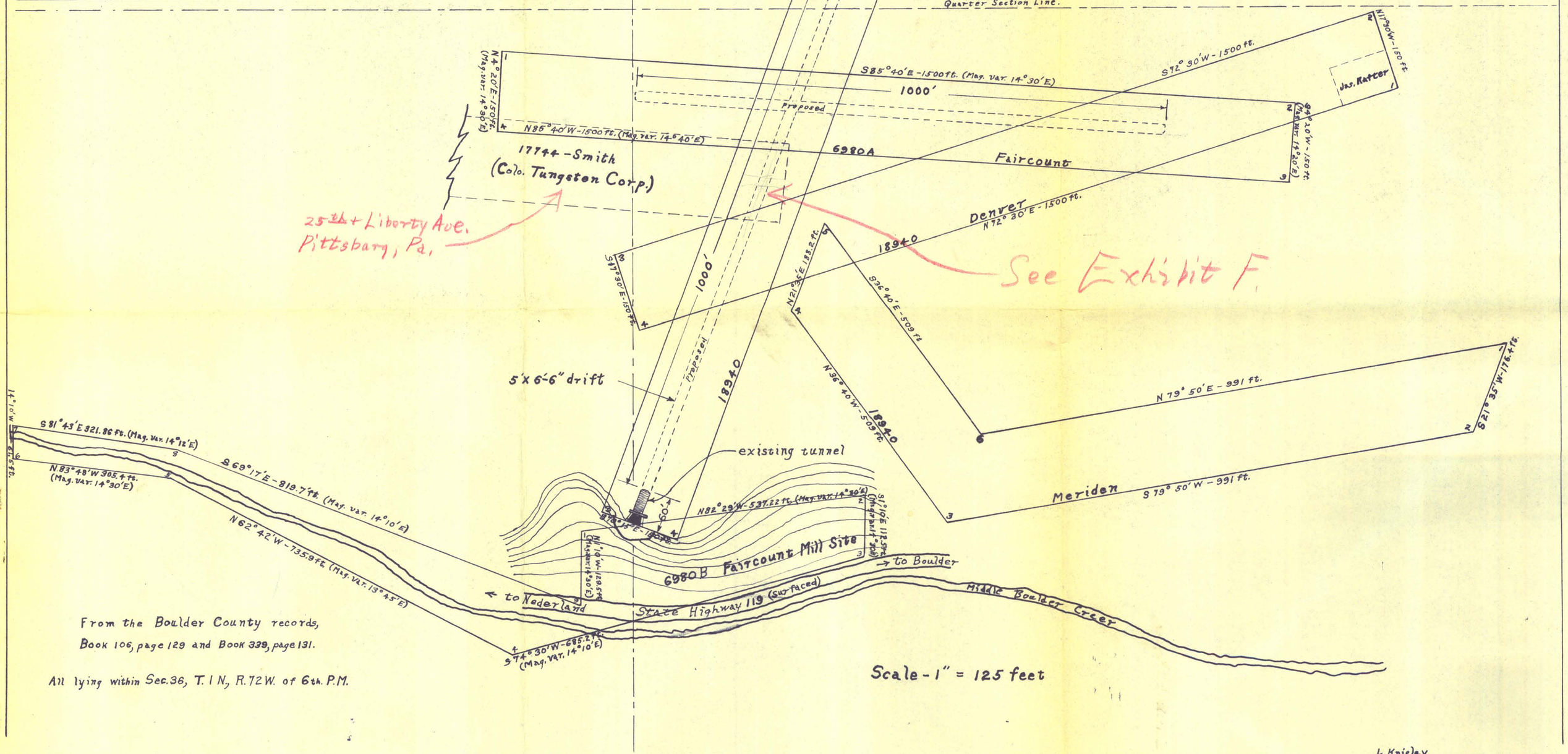
Lorne Knisley

FAIRCOUNT GROUP

SHEET #2

Lorne Knisley, Rt. 3, Box 775, Ft. Collins, Colo.





From the Boulder County records, Book 106, page 129 and Book 339, page 131.

All lying within Sec. 36, T. 1 N., R. 72 W. of 6th. P.M.

L. Knisley