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

GEOLOGICAL SURVEY

Just Recorded on Reference card: Working copy + Docket Book

OME-6577

OCT 14 1966

Memorandum

To: Field Officer, Region III

From: Chief, Office of Minerals Exploration

Subject: OME-6577 (Copper-Silver-Gold)
Loren E. Smith
Forest Hill Mine--Park Vein
Gunnison County, Colorado

The application is referred to Region III for review, a field examination if you consider it necessary, and recommendations.

Our review and your comments of October 5, 1966, suggest that possibly a more moderate project to explore the Park vein by crosscutting and drifting than that previously proposed by the Applicant might be eligible for Government assistance under the current OME criteria.

This is the third of three successive applications for three separate projects on six of the seven known veins on the Forest Hill mine property. The first application resulted in a contract, and the second was denied. Salient features of the three applications are summarized as follows:

OME-6227 (Silver-Gold-Lead-Zinc-Copper)
Gaddis Mining Company
Forest Hill Mine (Springfield vein)
Gunnison County, Colorado
Contract 2154, dated June 27, 1962
Total cost 3,200 feet of drilling in 7 holes $25,481.42
(An eighth hole - 360 feet - drilled at Operator's expense.)
Government participation @ 50% $12,740.71
Certified: Royalty and 6% interest until June 27, 1973.
Ore reserves - Operator's estimate, November 1963:

Tons	Au	Ag	Cu	Pb	Zn	Total, including old assays
140,500	0.07 oz.	10.4 oz.	0.7%	6.8%	11.7%	
Prices 1963	$35	$1.26	30¢	10.5¢	11.5¢	
Value 1963	$2.45	13.10	$4.20	$14.28	$26.91	$60.94

Operator's conclusion: ". . . The reserves indicated by the (OME) drilling program and the old workings are large enough to amortize the cost of developing the mine and constructing a mill, but . . .

not sufficient to . . . return a reasonable profit . . . . It is indicated that additional exploration of other nearby veins will be required to develop sufficient ore reserves to justify . . . operation . . . ."

OME-6439 (Silver)
Loren E. Smith
Forest Hill Mine (Park, Compromise, Goldfield, Gilt Edge veins)
Gunnison County, Colorado
Project proposed by Applicant consisted of extending the existing 470-foot lower tunnel an additional 1,600 feet northwest to crosscut the four veins, drifting an aggregate of 1,500 feet along the veins, and raising 500 feet where indicated.

Application denied without a field examination May 7, 1965. Principal value of the ore was in base metals which were not eligible for OME assistance. The Applicant requested reconsideration on the basis that the potential of the property is 400,000 tons containing 4,000,000 oz. silver, that silver is the principal product in the Park vein and also in the upper (mined out) part of theSpringfield vein, and that silver represents 28% of the recoverable value($46.83) of the reserves at 1965 prices. The denial was reconfirmed because the foregoing factors provide no basis for eligibility of the proposed project. The Applicant was informed by letters and also orally at the OME Washington office that if additional work indicates a greater potential for the discovery of new or undiscovered silver deposits on the property, we shall be glad to reopen the application.

Copper was added to the list of minerals eligible for OME assistance July 17, 1966.

The subject application, OME-6577, received October 11, 1966, presents a more modest project to explore the Park vein at a depth of about 100 feet, which is probably still in the oxide zone where silver values are commonly higher. The high ratio of silver to base metals in the Park vein is confirmed by two samples, one from the Pittenger tunnel and one from the upper tunnel dump. The dump sample is from the vein above the area to be explored and assayed as follows:

	Au	Ag	Cu	Pb	Zn	Total
	0.06 oz.	9.5 oz.	1.16%	0.7%	4.7%	
Prices 1966	$35	$1.29	36¢	15¢	15¢	
Value 1966	$2.10	$12.25	$8.35	$2.10	$14.10	$38.90
Total Au, Ag, Cu						$22.70

Additional but indirect confirmation that silver may be the principal mineral in the area to be explored is found in the four settlement sheets accompanying the application, all of which indicate that silver is more than half the gross value of the shipments. All of these

shipments were from the oxide zone of the Yale vein which, although in the same area, is not the vein to be explored.

The project proposed by the Applicant consists of rehabilitation of the 470-foot lower adit, crosscutting about 270 feet northwest to the Park vein, drifting 400 feet along the vein, and sampling at 5-foot intervals along the vein. An alternative method of exploration by surface trenching on the Park and Compromise veins was attempted in 1963 but was unsuccessful due to the depth of overburden and weathering.

If you recommend a contract, the Applicant should be requested to list the nine patented claims owned in fee, and to furnish Lien and Subordination Agreements from Dr. J. P. Irish, James Alkire, and C. H. Gilman. Estimated costs should be detailed so that the cost of pipe, rail, and other salvageable items are itemized separately. The cost of assays should be separate from sampling. The bids in Docket OME-6439 are not applicable to the smaller project. New bids should be requested if you consider it advisable.

Frank E. Johnson

Frank E. Johnson

Region III

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

OME
DEPARTMENT OF THE INTERIOR
JUN 11 1965
REGION III
DENVER, COLORADO

JUN 9 1965

Hon. Wayne N. Aspinall
U. S. House of Representatives
Washington, D. C. 20515

Re: OME-6439 (Silver)
Loren E. Smith
Forest Hill Mine
Gunnison County, Colorado

Dear Mr. Aspinall:

This will acknowledge receipt of your letter of June 3, 1965, concerning the subject application for financial assistance in minerals exploration.

A review of this application was made in response to Mr. Smith's letter to us of May 26, 1965. A copy of our reply to him of June 2, 1965, is enclosed for your information. Although silver is one of the constituents of the mineralization on the property, the data in Mr. Smith's application and the results of the previous OME contract on his property clearly indicate that the principal value of the mineralization is in the base metals which currently are not eligible for exploration assistance. However, if Mr. Smith should perform additional work on the property and submit the results of representative sampling of mineralization exposed by this work which indicates greater potential for the discovery of new or undiscovered silver deposits on the property, we shall be glad to reopen his application.

Sincerely yours

George Fumich, Jr.

Acting Director

Enclosure

FEJohnson/bih
6/8/65
cc to: Files
Dir. reading file
Reg. III w/cy incoming letter
Mr. Johnson

Region III

U.S. DEPARTMENT OF THE INTERIOR
DEPARTMENT OF THE INTERIOR
1965
REGION III
DENVER, COLORADO

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

JUN 2 1965

Mr. Loren E. Smith
Suite 1409
1700 Broadway
Denver, Colorado 80202

Re: OME-6439 (Silver)
Loren E. Smith
Forest Hill Mine
Gunnison County, Colorado

Dear Mr. Smith:

We have received the material enclosed with your letter of May 26, 1965, requesting reconsideration of your application for financial assistance to explore the Forest Hill Mine in Gunnison County, Colorado.

The information in your letter and enclosures, of course, were available to us when your application was originally considered. An analysis of all the data available reaffirms our previous conclusion that the principal products of the mineralization on your property are base metals, which currently are not eligible for exploration assistance.

The results of the most recent work on the property which was done under OME Contract 2134, Docket No. 6277, substantiate our position. Consequently, we regret that we have no basis on which to change our decision. However, if you should reopen the present mine workings or trench across structures on the surface, and submit the results of representative samples taken on the mineralization exposed by such work, that show greater promise of silver values with respect to the base metals than presently indicated, we shall be glad to reopen your application.

Sincerely yours,

George Fumich, Jr.

Acting Director

FEJohnson/bih
6/2/65
cc to: Files
Dir. reading file
Region III - Mr. F. E. Johnson

LOREN E. SMITH

SUITE ~~XXX~~ 1409
1700 BROADWAY
DENVER 80202 COLORADO
PHONE 623-5204

OME
DEPARTMENT OF THE INTERIOR
JUN 3 1965
REGION III
DENVER, COLORADO

May 26, 1965

Mr. George Fumich, Jr.
Acting Director
United States Department of the Interior
Office of Minerals Exploration
Washington 25, D.C.

Re: OME-6439 (Silver)
Loren E. Smith
Forest Hill Mine
Gunnison County, Colorado

Dear Mr. Fumich:

In reference to your letter of May 7, 1965, whereby my application for financial assistance in exploring the Forest Hill Mine was denied because the principle value of the ore occurs in base metals, I would like to request that you reconsider the application for the following reasons:

1. The information obtained from surface samples and mapping of the four veins East of the Springfield vein, diamond drilling, and the old reports indicate the property has a potential of 400,000 tons of ore containing 4,000,000 ounces of silver.

2. The surface samples taken on the veins to be explored indicate that silver is one of the principle products, and the underground samples from the Park vein indicate that silver is the principle product in this vein (Figure 7 attached).

3. In the shipments of crude ore from the Springfield vein as shown on Table 2 (attached), silver is the most valuable metal and the principle product. The shipments were made from the highgrade zone of the vein and did not include the entire mineralized portion of the vein.

4. Silver is one of the principle products in the reserves of the Springfield vein and represents 28% of the actual value per ton. The average grade, assay value, percent recovered and the actual value after milling and smelter losses and penalties are as follows:

Metal	Average Grade	Price	Value Per Ton	% Recovered	Actual Value/Ton
Gold	0.07 oz./ton	$35.00/oz.	$ 2.45	95%	$ 2.33
Silver	10.4 oz./ton	1.29/oz.	13.42	95%	12.69
Lead	6.8%	15¢/lb.	20.40	65%	13.26
Copper	0.7%	31¢/lb.	4.34	50%	2.17
Zinc	11.7%	14¢/lb.	32.76	50%	16.38
			$ 73.37/Ton		$ 46.83

It is anticipated that the grade of the veins to be explored will be of equivalent value.

Your consideration of the above points would be appreciated.

Very truly yours

Loren E. Smith

LES:ep

Encls.

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

MAY 7

OME
DEPARTMENT OF THE INTERIOR
MAY 13 1965
REGION III
DENVER, COLORADO

Mr. Loren E. Smith
Suite 2111, 1700 Broadway
Denver, Colorado 80202

Re: OME-6439 (Silver)
Loren E. Smith
Forest Hill Mine
Gunnison County, Colorado

Dear Mr. Smith:

Your application for financial assistance in exploring the subject property and other information available to us, including that developed under OME-6227, have been reviewed.

The review has shown that the principal value of the ore occurs in the base metals, lead, zinc, and copper, which were removed from the list of commodities eligible for exploration assistance on July 1, 1962. In view of this, we regret to inform you that the subject application for exploration assistance is denied.

Sincerely yours,

George Fumich, Jr.

Acting Director

FMMurphy/gla (4-23-65)
Rewritten:
GCSelfridge/gla (5-4-65)
cc to: Director's Reading File
Docket
Review Committee
Region III
Mr. Selfridge
120M

LOREN E. SMITH
5401 Western Avenue
Boulder, Colorado

APPENDIX A

Proposed Exploration Program
Park Vein
Forest Hill Mine

INTRODUCTION

It is proposed that the lower tunnel at the Forest Hill Mine be rehabilitated and extended 270 feet to intersect the Park Vein. Upon completion of the cross-cut, 400 feet of drifting will be done to explore the Park Vein. (See attached map.)

GEOLOGY

The Park Vein can be traced on the surface by float for over 3000 feet and was exposed in a short adit on the Yale claim and also in the Pittenger tunnel on the Paymaster No. 2 claim. Both of these tunnels are now caved and intersect the vein less than 75 feet below the surface. The vein as described in the old reports is a fault zone, with mineralization on the foot and hanging walls of the fault. Dump specimens from the vein contain galena, sphalerite and chalcopyrite, no silver minerals were identified but is probably contained in the galena.

Samples from the Yale vein are as follows:

Paymaster Claim Channel Samples

Width	Au	Ag	Pb	Cu
5'	0.02	21.2	-	3.9
4'	0.06	18.8	-	3.5
2'	0.12	16.32	10.2	1.3
4'	0.02	6.5	-	1.4

Yale Claim Samples - Underground

Width	Au	Ag	Cu
Unknown	0.08	61.5	-
Unknown	0.10	38.5	9.8
Unknown	0.04	64.2	0.8

(These are probably picked samples)

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Boulder, Colorado

Dump Sample by Gaddis Mining Co.

Au	Ag	Pb	Cu	Zn
0.06	9.5	0.07	1.16	4.7

Note: The Paymaster Channel sample information was obtained from the old reports but the location and description of the samples are not available. The Yale claim sample information is also from the old reports and no width of samples was given, indicating picked specimens.

PAST PRODUCTION

During the summer and fall of 1941, four shipments were made from the Yale vein thru the Pittenger tunnel. The settlement sheet from these shipments are attached. No other information is available on this operation.

EXPLORATION PROGRAM

Rehabilitation: There are no useable buildings on the property and a temporary compressor house will be necessary. The portal of the tunnel was cleaned out in 1961 but will require the removal of approximately 75 tons of rock and the installation of 5 sets of portal timber. Two hundred feet of track and ties are needed from the portal to the dump area. The tunnel is 470 feet and has two caves containing approximately 125 tons of rock. Neither of these caves will require spiling and can be held with 8 sets of timbers. There is old track in the tunnel but it has deteriorated and will require replacement. Air and vent line will be required for the present tunnel.

CROSS-CUT

A 5 x 7 foot cross-cut will be driven from the end of the present

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Boulder, Colorado

tunnel, 250 to 270 feet on a bearing of N 70 W to intersect the Park Vein. The dip of the Park Vein has not been accurately established, but is assumed to be near vertical.

DRIFTING

Upon intersection of the Park Vein by the cross-cut, it is proposed that 400 feet of drifting be done to explore the vein, 200 feet South of the cross-cut and 200 feet North. It is estimated that 150' of timbering will be required along the vein.

At the time of his examination in March 1917 only the 192-foot level was accessible and the results of his sampling of this level are shown on Table 4.

TABLE 4. Assay results of Sampling by Dr. A. H. Elftman, M.E., March 1917
192-Foot Level

	Sample Location	Width, description	Gold oz.	Silver oz.	Lead %	Zinc %
1.	127' to 187' south of shaft, stope No.1	3' wide, on hanging and footwall (vein 10 to 16' wide)	0.10	11.20	1.50	14.90
2.	200' south of shaft, drift sample	4 feet	0.08	4.0	1.50	18.0
3.	285' south of shaft, drift sample	4' (part of vein)	0.04	6.00	4.40	17.80
4.	300' south of shaft, drift sample	6' (part of vein)	0.08	10.05	4.30	18.0
5.	360' south of shaft, north end stope No.2	6 feet	0.05	4.90	0.90	15.40
6.	380' south of shaft, center of stope No.2	8 feet	0.02	4.90	3.50	9.20
7.	400' south of shaft, south end stope No.2	10 feet	0.08	10.62	0.60	7.40
8.	450' south of shaft, north end stope No.3	8 feet	0.02	8.50	3.80	8.30
9.	470' south of shaft, south end stope No.3	8 feet	0.02	4.10	3.5	9.12
	Average		0.054	7.14	2.69	13.12
10.	450' to 470' south of shaft, highgrade streak	6" to 2' (not included in 8 and 9 above)	0.01	20.80	19.80	27.95
11.	450' to 470' south of shaft, highgrade streak	6" to 2' (not included in 8 and 9 above)	0.18	25.0	38.0	22.00
12.	450' to 470' of shaft, highgrade streak	6" to 2' (not included in 8 and 9 above)	0.18	25.04	22.00	30.00

Table 5 contains the results of the sample analysis of core and sludge samples obtained from the diamond drilling program.

TABLE 5. Core Drilling Sample Analysis

Sample No.	Hole No.	Interval	Thickness	Au	Ag	Pb	Zn	Cu	Type
#301	1	353.0-358.0	5.0'	0.001	0.02	0.7	None	NA*	Core
#302	1	358.0-358.7	0.7'	0.01	1.33	1.1	0.8	0.19	Core
#303	1	358.7-360.7	2.0'	0.26	7.4	15.8	8.7	0.14	Core
#304	1	360.7-363.1	2.4'	0.01	1.23	0.85	0.2	0.09	Core
#305	1	363.1-368.1	5.0'	0.002	0.08	0.5	None	NA	Core
#306	1	358.0-361.0	3.0'	0.07	None	2.0	1.3	NA	Sludge
#307	1	361.0-364.0	3.0'	0.01	None	0.75	None	NA	Sludge
#308	2	501.6-502.2	0.6'	0.02	0.8	0.8	1.3	0.2	Core
#309	2	502.2-506.7	4.5'	0.001	0.1	0.04	None	0.02	Core
#310	2	506.7-509-6	2.9'	0.004	0.3	0.3	0.6	0.04	Core
#311	2	509.6-513.6	4.0'	0.002	0.28	0.06	0.03	0.01	Core
#312	2	513.6-513.9	0.3'	0.03	1.4	4.3	5.6	9.13	Core
#313	3	401.6-403.1	1.5'	0.01	1.1	0.25	9.2	0.14	Core
#314	3	510.0-511.0	1.0'	0.001	0.4	0.2	0.4	0.26	Core
#315	2	502.0-505.0	3.0'	0.01	1.5	0.4	1.1	NA	Sludge
#316	2	505.0-508.0	3.0'	0.02	0.6	0.2	0.6	NA	Sludge
#317	2	508.0-511.0	3.0'	0.002	0.6	0.23	0.8	NA	Sludge
#318	2	511.0-514.0	3.0'	0.002	0.44	0.44	0.7	NA	Sludge
#318A	4	415.2-416.7	1.5'	0.064	5.2	8.0	7.4	1.6	Core
#319	4	416.7-420.2	3.5'	0.008	0.2	0.23	0.12	0.03	Core
#320	4	420.2-423.7	3.5'	0.001	0.15				Core
#321	4	423.7-428.7	5.0'	0.014	0.15	0.14	None	0.12	Core
#322	4	428.7-433.7	5.0'	0.001	None				Core
#323	4	433.7-438.7	5.0'	0.001	None				Core
#324	4	438.7-442.4	3.7'	0.002	0.18	0.02	None	0.03	Core
#325	4	442.4-443.4	1.0'	0.05	7.0	2.2	22.8	0.7	Core
#326	4	443.4-448.4	5.0'	0.01	0.5	0.03	None	0.03	Core
#327	4	448.4-453.4	5.0'	0.03	0.15				Core
#328	4	453.4-456.1	1.7'	0.005	0.15				Core
#329	4	455.1-458.4	3.3'	0.001	0.04				Core
#330	4	413.2-415.2	2.0'	0.002	0.24	0.7	0.23	0.04	Core
#331	5	386.2-387.5	1.3'	0.15	12.35	1.5	13.8	1.97	Core
#332	5	447.5-449.5	2.0'	0.02	3.6	4.9	4.7	0.33	Core
#333	5	449.5-451.8	2.3'	0.05	10.4	5.45	5.3	0.44	Core
#334	5	451.8-455.5	3.7'	0.002	0.14	0.12	0.55	0.006	Core
#335	5	455.5-457.2	1.7'	0.09	11.3	11.3	11.1	0.18	Core
#336	5	457.2-459.2	2.0'	0.02	0.02	0.03	0.04	0.02	Core
#337	6	142.0-143.4	1.4'	0.005	0.15	0.37	0.24	0.08	Core
#338	6	267.4-269.0	1.6'	0.005	6.1	10.5	4.6	0.35	Core
#339	7	287.9-288.4	0.5'	0.1	6.15	7.3	9.7	0.2	Core
#340	8	286.0-287.0	1.0'	0.025	1.88	25.5	2.9	1.7	Core
			110.6	0.02	83.63	107.21	114.81	18.40	
			2.7' ave.		2.03	3.06	4.78	0.69	

*NA - no assay.

A comparison of the averages of the assays shown on the Vertical Section (Figure 6) for the 192-foot level with the average assays of the sampling done by A. H. Elftman (Table 4) on the 192-foot level is as follows:

Source	Gold oz.	Silver oz.	Lead %	Zinc %
Vertical Sections	0.05	7.15	10.99	16.36
Dr. A. H. Elftman	0.054	7.14	2.69	13.12

None of these samples are weighted as to widths, but the results of the two groups of samples are reasonably close except for the lead. The discrepancy in the lead content can possibly be explained by the fact that no lead assays are shown for most of the samples on the vertical section which indicates that no lead anaylsis was made unless highgrade lead was observed in the sample.

Three stopes were started on the 192-foot level but the grade and tonnage removed is unknown: Dr. Elftman[3/] reports mill heads from the first stope on the 192-foot level averaged 11 percent zinc and 9 percent lead. Stopping was done above the 243-foot level in the area of the shaft but the grade and tonnage removed is unknown. It is reported that copper mineralization in this stope was significant.

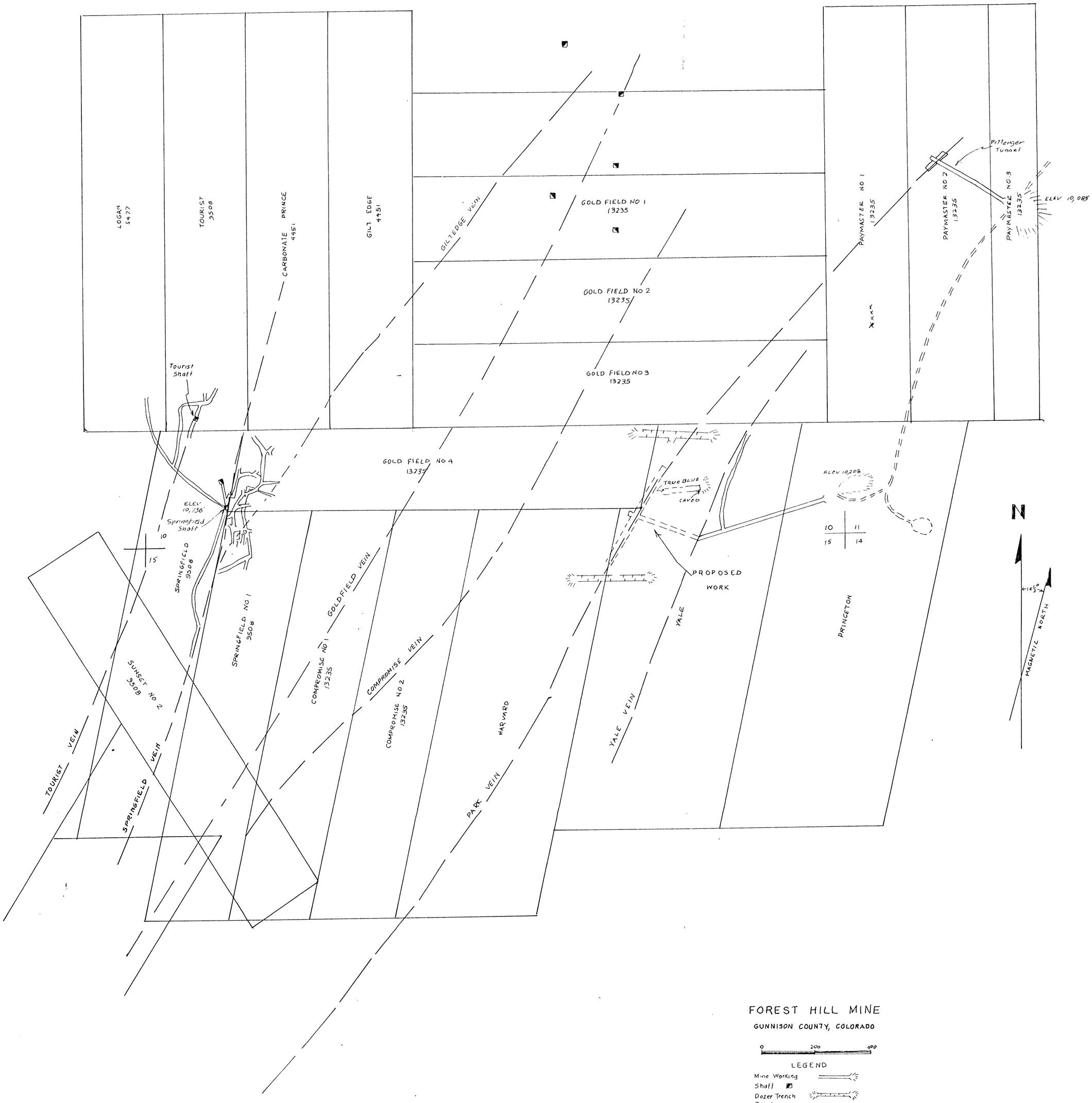
On the 332-foot level a crosscut was driven 60 feet east from the shaft to intersect the down dip extension of the Springfield vein. A drift was then driven 350 feet south of the crosscut and at the end of this drift the vein is reported to be 10 to 16 feet wide and assayed as follows:

Description	Gold oz.	Silver oz.	Lead %	Zinc %
3,000 lb. sample	0.18	22.0	8.0	32.0
3,000 lb. sample	0.18	22.5	9.0	38.0
Several sacks	-	-	-	34.0

3. Elftman, A. H., 1917 Appendix C

DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

OFFICE OF MINERALS EXPLORATION
DOCKET 6577



FOREST HILL MINE

GUNNISON COUNTY, COLORADO

0 200 400

LEGEND

Mine Working
Shaft
Dozer Trench
Road
Prospect Pit
Vein
Proposed Underground Workings

FIGURE 1

ADAPTED FROM APPLICANT'S MAP 8/9/67 by JWH