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Milt C. F. 6

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Item 84

UNITED STATES GOVERNMENT

Memorandum

TO : For the Record

DATE: March 18, 1969

FROM : Bob Reeves

SUBJECT: Conversation with S. C. Creasey on aeromagnetic survey of Eugene Mountains and Rose Creek quadrangles

Following the instructions of Don Mabey, I called Cy Creasey on March 17 to ascertain whether or not Nevada Coop funds would be available to obtain aeromagnetic data of the Eugene Mountains and Rose Creek quadrangles (117° 45' W to 118° 15' W, 40° 45' N to 41° N). These data would be most useful in completing the geologic map of the Eugene Mountains special sheet (Ward Smith, Bob Reeves, Milt Wiltse) and the study of the tungsten and other ore deposits of the Eugene Mountains (Dwight Lemmon, Bob Reeves, Milt Wiltse). The cost is estimated at about \$5,000. Cy did not know whether or not Nevada Coop funds would be available for this. When Max Crittenden returns, Cy will discuss it with him, and if it appears that funds may be available, will take it up with Vernon Scheid.

If funds are available and their expenditure is approved for an aeromagnetic survey of these quadrangles, it would be advantageous to have the data prior to doing field work in the area next summer (late July, August, early September).

Copies to:
S. C. Creasey
M. D. Crittenden
D. H. Lemmon
D. R. Mabey
W. C. Smith



UNITED STATES GOVERNMENT

Memorandum

TO : For the record

DATE: February 18, 1969

FROM : R. G. Reeves

SUBJECT: Discussion on February 18 with D. M. Lemmon regarding the tungsten deposits of the Eugene Mountains

Following my discussion with Ward Smith, I called Dwight Lemmon to ascertain his views on the idea of completing the Eugene Mountain geologic map and the possibility of incorporating his work on the tungsten deposits both in the Pershing County report and, in more detail, in a separate paper on the major deposits (principally the Nevada-Massachusetts mine).

Dwight informs me that the last time he worked there was about 25 years ago. He did visit the mine, with Don Tatlock and Bob Wallace, in 1958, just before it was closed down. Dwight agrees with me that it's probably inaccessible for the most part; especially the lower workings where ore was mined most recently and, thus, which have not been studied geologically in detail. He also brought up the question of ownership-has the mine been sold.

I agreed to visit Eldredge Nash (the last superintendent of the Nevada-Massachusetts mine) on my trip to Nevada in April, to see what information he has, where the mine maps and assay records are, and get his views on publishing a report on the deposits. During my visit with Vernon Scheid, I will also see what information the NEM has on the Nevada-Massachusetts and other deposits in the Eugene Mountains.

Dwight agreed to get in touch with Charlie Segerstrom, to see if the Nevada-Massachusetts Company still owns the mine, and to get permission to publish information obtained or obtainable from that company.

Dwight mentioned that he is moving to California in June, and suggested getting together with Milt and me in the field. This is most agreeable with me; I certainly would welcome the opportunity to work on the tungsten deposits and general geology of the Eugene Mountains with Dwight Lemmon.

copies to:
Chief Geologist
M. D. Crittenden, Jr.
D. M. Lemmon
W. C. Smith
D. B. Tatlock
M. C. Wiltse



UNITED STATES GOVERNMENT

Memorandum

TO : For the record

DATE: February 19, 1969

FROM : Robert G. Reeves

SUBJECT: Discussion on February 14 with Ward Smith re Eugene Mountains

To further the Pershing County investigation, I raised the possibility of bringing the Eugene Mountains geologic map up-to-date and publishing it as an MF or GQ map. Ward after pointing out the problems, seemed receptive to the idea. The major problems seem to be

1. Some complex and (or) concealed (by a thick mantle of hornfels rubble) areas are not mapped to his satisfaction; this would require some additional field work.
2. Uncertainty as to overturning of the section in certain areas. According to Ward, Fergies criteria may not always be valid in the Eugene Mountains. However, paleontologic finds and studies by Norm Silberling should help.

As the Eugene Mountains and their ore deposits are very important to the "geology and mineral resources of Pershing County", and as considerable effort has been expended by Ward Smith, I suggested that he, Milt Wiltse and I attempt to complete the mapping, at least to a point where it can be published as a "Preliminary geologic map and sections of the Eugene Mountains" in the MF Series. Suggested (tentative) authorship: W. Smith, D. M. Lemmon, R. G. Reeves, N. Silberling, M. Wiltse, depending of course on contribution by each.

Ward seemed agreeable to a joint project, and expressed a desire to spend some time in the field with Milt and me this summer. I would welcome this, and believe it would be beneficial to the study of Pershing County.

copies to: Chief Geologist
M. D. Crittenden, Jr.
D. M. Lemmon /
W. Smith
D. B. Tatlock
M. A. Wiltse



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2/28/69

UNITED STATES GOVERNMENT

Memorandum

TO : For the Record

DATE: February 18, 1969

FROM : R. G. Reeves

SUBJECT: Geology and ore deposits of the Eugene Mountains

The Eugene Mountains, in north central Pershing and south central Humboldt counties, Nevada, contain one of the largest tungsten deposits in the United States, the Nevada-Massachusetts Tungsten Mine. This mine is presently closed down, but is believed to contain large reserves of tungsten ore that could be operated at a price of \$65-\$100/unit WO_3 at today's mining and treatment costs. The deposit was studied by Kerr (1934, 1946) and Lemmon and others (1943). Ward Smith mapped the Eugene Mountains special sheet some 30 years ago; the extreme southern part of the mountains are included in the Inlay quadrangle, mapped geologically by Silberling and Wallace (1967).

Owing to the importance of the area, its position in Pershing County, and the amount of work, largely unpublished, by Geological Survey geologists (Lemmon, Smith, Klepper), I suggest that consideration be given to the following:

1. Preparation of a preliminary geologic map and sections of the Eugene Mountains, for publication in the MF series, by some or all of the following: W. C. Smith, D. M. Lemmon, N. J. Silberling, R. G. Reeves; and M. A. Wiltse.
2. Preparation of a paper "Geology and mineral deposits of the Eugene Mountains" for publication as a U.S.G.S. bulletin or professional paper, or outside (Economic Geology, GSA). The preliminary geologic map would be brought up to publication standards, additional work on the stratigraphy, metamorphism and metamorphic rocks, igneous rocks, and ore deposits would be done. Latest information available from the Nevada-Massachusetts Company would be incorporated. When and by whom this would be done would have to be worked out by those directly involved and their supervisors. Involving Eldredge Nash as an author should be considered. All of those who have worked in the area could share in the task.

Certainly, even if a detailed paper is not prepared, and the geologic map not completed, Milt Wiltse and I will have to do enough to have a reasonable geologic map at a scale of 1:250,000 of the area, and to be able to summarize the geology, mining and production, including information available up to the time that the mine was closed down.



To assist in the geologic mapping and especially in delimiting the intrusive bodies and determining their geometry, aeromagnetic coverage of the Eugene Mountains area is suggested. Ground magnetic and gravity work will be done where necessary to assist in the mapping. The aeromagnetic coverage will tie on to the Unionville 5 quad aeromagnetic survey, at the north end of the Imlay quadrangle.

References:

Kerr, P. F., 1934, Geology of the tungsten deposits near Mill City, Nevada:

Nevada Univ. Bull., v. 28, no. 2, 46 p.

_____, 1946, Tungsten mineralization in the United States: Geol. Soc.

Mem. 15, p. 23, 24, 32, 34, 48, 182-188.

Klepper, M. R. and others, 1943, Tungsten deposits near Mill City, Nevada:

U. S. Geol. Survey Open file report 1-E.

Lemmon, D. M., Tungsten deposits of the Eugene Mountains (Mill City district):

U. S. Geological Survey report (unpublished).

copies to:
Chief Geologist
H. D. Crittenden
H. R. Klepper
D. M. Lemmon
W. C. Smith
D. B. Tatlock
H. A. Wilcox

PROJECT MONTHLY REPORT

From

To

PROJECT NUMBER AND TITLE

PROJECT LEADER

Robert Reeves

REPORT WHEN APPROPRIATE ON THE FOLLOWING TOPICS

- I. Status of manuscripts and manuscripts reviewed. List project manuscripts only twice: when approved by the Director; and when published.
- II. Initiation of new research. State aims and purposes.
- III. Noteworthy results. Describe only significant accomplishments and items of timely interest.
- IV. Trips, visitors, conferences, and committee tasks.
- V. Personnel additions or separations.
- VI. Referred samples completed and on hand at the end of the month.

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- IV. (1) Field work mainly gravity in the Humboldt and East Ranges and Buena Vista Valley, Pershing County, Nevada.
- (2) Visited Nevada Bureau of Mines, Reno, Nevada (Vernon Scheid, Arthur Baker III, Bert Slemmons, Joe Lintz, Peter Chapman, Peter Brennen) to obtain geologic, geophysical, and mineral resources data on Pershing County.
- (3) Visited Eldredge Nash, Manager, Cordero Mine, the last manager of the Nevada-Massachusetts Mine, regarding information on the lower levels of the Nev-Mass Mine. He agreed to assist in obtaining data from company, permission to publish data, and to collaborate with Dwight Lemmon, Ward Smith, and me in preparation of a report on the Nevada Massachusetts Mine.
- (4) Visited by:
- Prof. Peter Kronberg,
Technische Universität Clausthal.
- Prof. João José Bigarella
Director, Instituto de Geologia
Univ. Fed do Parana.
- Mark Cruzon, graduate student,
Geology Dept.,
Colorado School of Mines.

Continued work on radar geology, Pershing County, remote sensing/economic geology, and Unionville aeromagnetic manuscripts.

Presented a lecture on "Application of Remote Sensing to Economic Geology" at the Advanced Seminar in Geochemical Exploration at the Colorado School of Mines (as part of teaching responsibility in "Advanced Ore Deposits").

NOTED

APR 24 1969

Dwight M. Lemmon
Assistant Chief Geologist
Engineering Geologist

MRK

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

506 Federal Building
Salt Lake City, Utah
January 2, 1943

Mr. M. R. Klepper
U. S. Geological Survey
Mill City, Nevada

Dear Klepper:

Your letter of December 26 to Mr. Lasky regarding Mill City has been turned over to me, since I handled the Survey work in connection with the Bureau's Mill City project.

I am enclosing some material, which should be helpful, and may have some more in my closed files which are now in storage. I will look them over and pass on anything which may help you.

Also enclosed is a copy of a report summarizing the work. The illustrations which accompany it are in Ward Smith's hands in Washington, and I have never received copies nor has Mr. Lasky, other than the copies enclosed. Most of these copies are maps of the Bureau which were to be revised by Ward for use with the report.

Figures on reserves are shown on the illustrations, and I believe your best bet is to get them from Mr. Nolan in Washington. It may also be possible to get a copy of the Bureau report from Allen in Reno.

Let me know if I can help you further.

Sincerely yours,

A. E. Granger
A. E. Granger

