

WYOMING STATE GEOLOGICAL SURVEY

**TEDDY CREEK GOLD PROSPECT, RED
MOUNTAIN QUADRANGLE, ENCAMPMENT
MINING DISTRICT, SIERRA MADRE,
SOUTHEASTERN WYOMING**

by

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MINERAL REPORT MR97-3

1997

This report has not been reviewed for conformity with the editorial standards of the Wyoming State Geological Survey.

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INTRODUCTION

As part of an on-going project to search for economic mineralization in the Encampment Mining district of the Sierra Madre Mountains of southeastern Wyoming, the author investigated a prospect in the W/2 section 2, T14N, R85W on the Red Mountain 1:24,000 quadrangle that was hidden in the forest (Figure 1). The author was provided directions to the prospect by Stan Brooks of Laramie, who had come across the property while hiking in the forest.

Past exploration on the property suggested the mineralization may have been widespread. In particular, several trenches were cut into a broad gossaniferous envelope surrounding a sulfide-bearing milky quartz vein. The presence of several, large, trees growing in the trenches and on the tailings suggested much of the exploration occurred more than two decades ago, and possibly during the first half of the 20th century. A collapsed timbered shaft on the property may also represent an even earlier phase of exploration, possibly near the turn of the 19th century.

This prospect is located in the Encampment mining district. The prospect is underlain by Archean cratonic rocks of the Wyoming Province immediately north of the Cheyenne Belt suture zone, which separates the Archean cratonic rocks from Proterozoic island arc metavolcanic and metasedimentary rocks of the Colorado Province (Hausel, 1986). This region is considered to be one of the most under-explored, potentially highly mineralized Proterozoic terranes in North America. The Encampment mining district contains hundreds of historical base and precious metal prospects and mines, yet this region has seen very little modern exploration activity (Hausel, 1997).

1996 Field Investigation

Samples collected by the author in 1996, were designed to test the vein and adjacent host rock for anomalous gold mineralization (Hausel, 1996). Sample RM3-96 was collected from the milky quartz vein and contained considerable limonite boxworks

after pyrite(?). Based on the appearance of the rock, this sample was anticipated to be anomalous in gold. However the assay yielded only weakly anomalous gold (45 ppb Au).

A second sample (RM4-96) was collected in the limonite-stained wallrock to test for anomalous gold in altered zone surrounding the vein. The altered country rock consists of felsic (?) schist. This sample yielded 7.03 ppm Au, which suggested a potential for large tonnage, open-pitabile gold mineralization, based on the extent of the alteration.

However, the assay results of the two samples were in question. Sample RM3-96 was anticipated to have yielded a higher gold value than RM4-97 due to the presence of limonite boxworks. Thus it was decided to re-examine the property in 1997 and sample in greater detail, to determine the extent of the gold anomaly and to test the altered felsic schist for gold.

1997 Field Investigation

During field investigations in 1997, a sketch map was completed showing the relative locations of samples in relationship to trenches and shafts on the property (Figure 2). Samples were collected across the vein, estimated to be 30 to 35 feet wide at the eastern edge of the property, and were also collected at the western end of the property, where the vein appears to pinch to a narrow structure.

The assay results of the samples collected in 1997, show anomalous gold mineralization associated with the vein and with the adjacent altered host rock. However, the higher gold values are restricted to the vein. Unfortunately, the country rock is only weakly anomalous in gold (Table 1). Based on these results, the assays reported for the 1996 samples appear to have been transposed.

REFERENCES CITED

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Figure 1. Location map of the Teddy Creek gold prospect, Red Mountain 1:24,000 quadrangle, section 2, T14N, R85W.

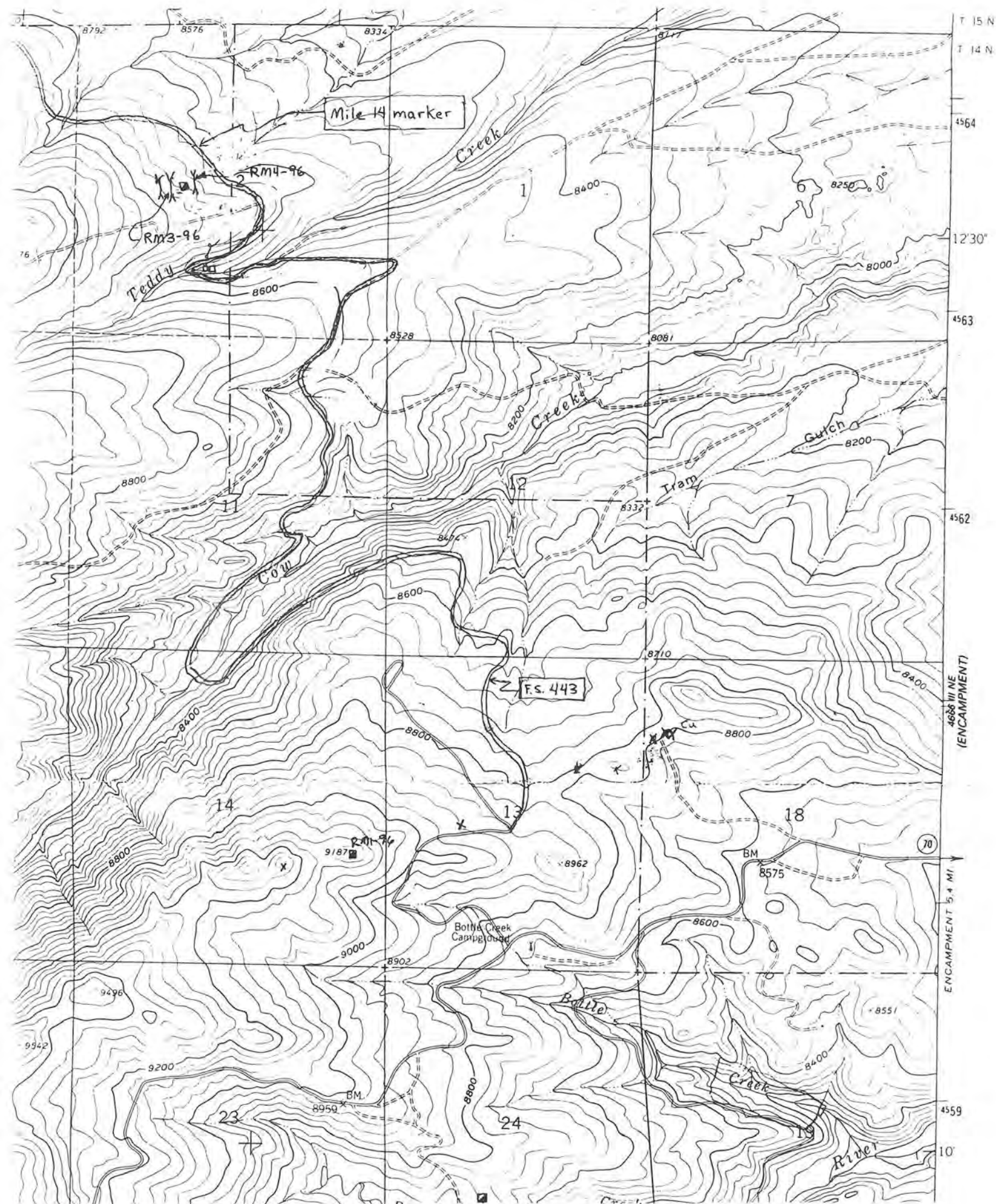


Figure 2. Sketch map of the property showing locations of samples.

- TC1-97 ⊗ chip sample location
- ⌈ composite chip sample
- ⌋ trench
- X prospect pit
- ⊠ shaft
- ⌒ adit
- ⊘ tailings
- ⌒ open cut
- - - approximate trend of quartz vein

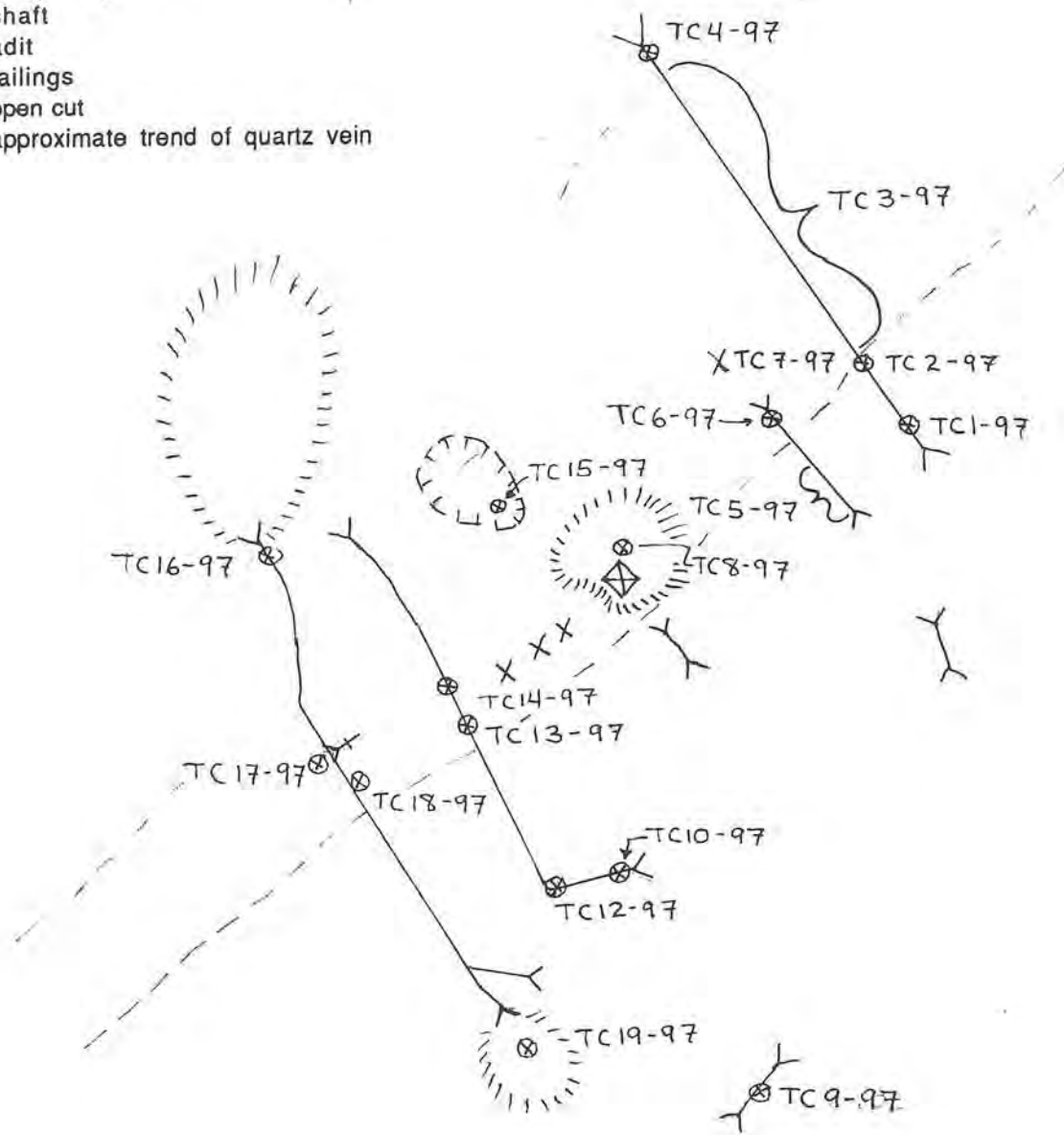


Table 1. Assay results and sample descriptions for the Teddy Creek gold prospect, Encampment mining district.

<i>Sample No.</i>	<i>Au (ppb)</i>	<i>Pt (ppb)</i>	<i>Ag (ppm)</i>	<i>Cu (ppm)</i>	<i>Pb (ppm)</i>	<i>Zn (ppm)</i>	<i>Ni (ppm)</i>	<i>Cr (ppm)</i>	<i>Co (ppm)</i>
RM396	45	-	-	-	-	-	-	-	-
RM496	7030	-	-	-	-	-	-	-	-
TC197	20	-	0.2	61	<2	10	-	-	-
TC297	<5	-	<0.1	-	-	-	-	-	-
TC397	1751	-	0.6	18	<2	3	-	-	-
TC497	14	-	<0.1	-	-	-	-	-	-
TC597	<5	-	<0.1	-	-	-	-	-	-
TC697	87	-	2.5	-	-	-	-	-	-
TC797	5174	-	0.5	-	-	-	-	-	-
TC897	456	-	<0.1	-	-	-	-	-	-
TC1097	5	<5	<0.1	-	-	-	85	-	48
TC1297	155	-	<0.1	-	-	-	74	-	-
TC1397	859	-	<0.1	-	-	-	-	-	-
TC1497	17	-	<0.1	-	-	-	84	-	-
TC1597	113	-	<0.1	-	-	-	62	-	-
TC1697	<5	-	<0.1	-	-	-	44	-	-
TC1797	2396	-	0.3	-	-	-	-	30	-
TC1897	24	-	<0.1	-	-	-	136	-	-
TC1997	70	-	0.5	-	-	-	-	-	-

Sample Descriptions

- TC1-97: Chip sample of milky quartz with some limonite-stained felsic schist collected in trench.
- TC2-97: Altered limonite stained felsic schist collected adjacent to vein about 25 feet north of TC1-97 in same trench.
- TC3-97: Composite chip sample collected across 30 to 35 foot wide vein. This is a milky quartz vein with boxworks after pyrite.
- TC4-97: Limonite-stained felsic schist.
- TC5-97: Composite chip sample of altered country rock. Sample width approximately 15 feet.
- TC6-97: Chip sample of quartz vein with boxworks.
- TC7-97: Milky quartz vein with minor limonite boxworks after pyrite.
- TC8-97: Select sample of limonite-stained quartz vein chips and altered, limonite-stained schist collected on mine dump.
- TC9-97: Sample of metapyroxenite.
- TC10-97: Chip sample of altered felsic schist.
- TC12-97: Highly altered felsic schist.
- TC13-97: Milky quartz vein with boxworks after pyrite.
- TC14-97: Altered felsic wallrock adjacent to vein, with some quartz stringers.
- TC15-97: Composite chip sample containing altered host rock, quartz vein, and altered greenstone.
- TC16-97: Altered host rock.
- TC17-97: Boxwork quartz chips collected near collapsed adit.
- TC18-97: Altered host rock with some dark-brown limonite and minor quartz.
- TC19-97: Altered wallrock with minor quartz fragments collected from mine dump.