MINERAL REPORT MR-83-2

FIELD REPORT ON THE LONE PINE MINE, LEWISTON DISTRICT, SOUTH PASS GREENSTONE BELT, WYOMING

by W. Dan Hausel

1983

The Lone Pine (Dream) mine was examined and mapped during the fall, 1983 field season by Karl Albert and myself. The purpose of this reconnaissance study was to begin to collect data for a more detailed study of Wyoming's most important gold region known as the South Pass greenstone belt.

The South Pass greenstone belt consists of Archean supracrustals intruded by post-metamorphic granites of the Louis Lake Batholith. Age dates place the batholith at about 2.7 billion years old. Much of the gold produced from the South Pass greenstone belt, was extracted from shear zones in metagreywacke along the margins of metagabbro and metadacite dikes. The shear zones are generally hosted by mica schists and metagreywackes with some gold producing veins hosted by the intruding dikes. These relationships are expressed at many of the mines in the South Pass District. However, not much information is available on mineralized trends in the Lewiston District, which the Geological Survey of Wyoming intends to examine in detail, over the next few years.

The Lone Pine mine is located in the SE¼ section 9, T28N, R98W on the north bank of the Sweetwater River. This mine was developed by an old prospector named Ted R. Hurst. The adit was driven 470 feet across regional

foliation and stopped short by several hundred feet of intersecting shear zones further to the west. To the east of the portal are two undeveloped, one to three feet wide, north-northeast trending aresenopyrite quartz veins (Figure 1). Overall, the Lone Pine mine was drifted on a N65°W trend into 470 feet of unmineralized metagreywacke (Figure 2). One sample (Number SPWD-11-83) of arsenopyrite quartz vein material collected from a one-inch wide vein 117 feet from the mine entrance was assayed for gold and silver. This sample contained no detectable gold, but assayed 0.61 ounces per ton in silver (Figure 3).

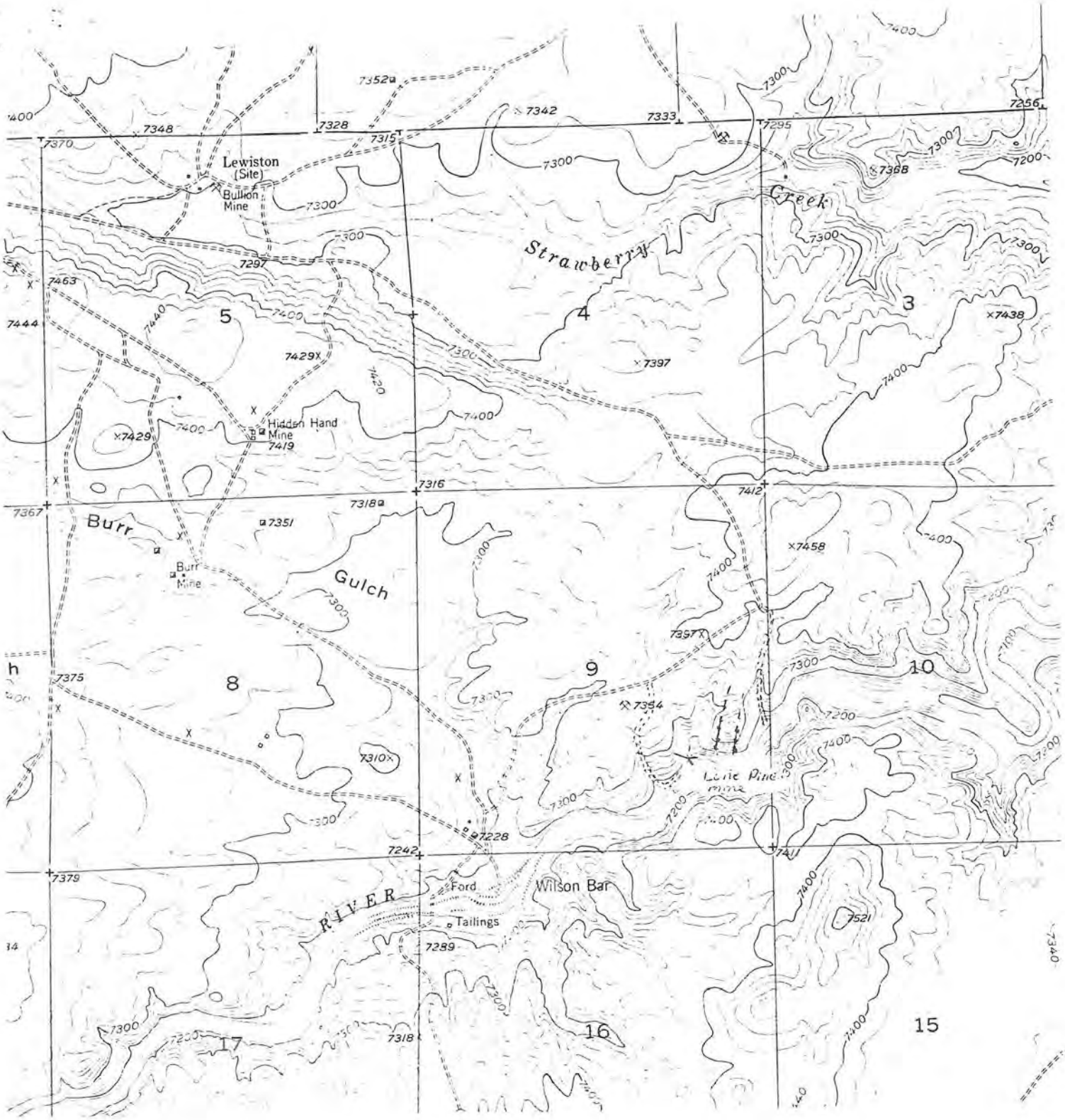

Figure 1. Location map of the Lone Pine (D-) Mine (section 9, T28N, R98W), Lewiston District, Wyoming (modified from the Radium Springs 7½-minute quadrangle.

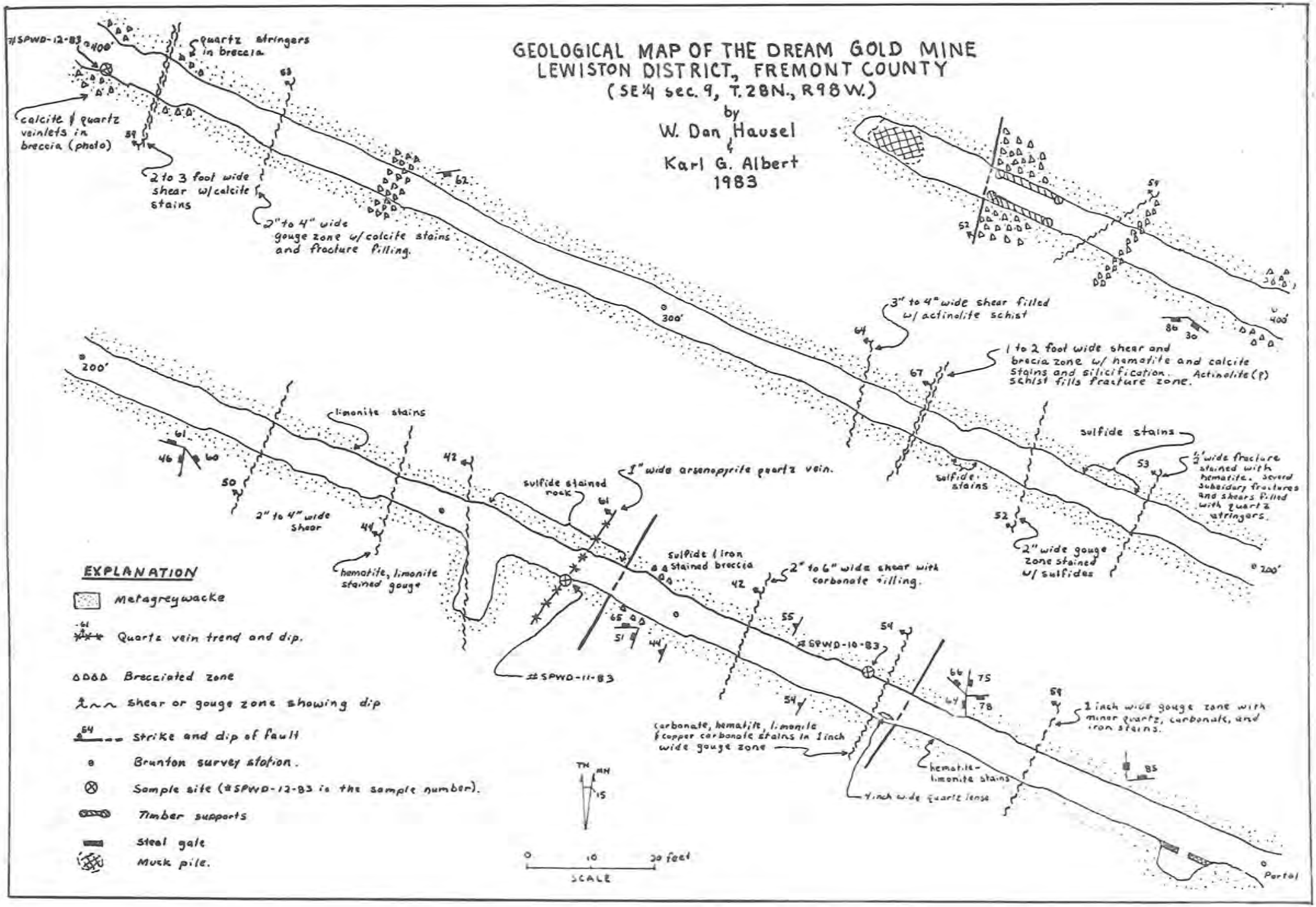

Figure 2. Geologic map of the Lone Pine (Dream) mine (SE¼ sec. 9, T28N, R98W), by W. D. Hausel and K. G. Albert, 1983.

WYOMING ANALYTICAL LABORATORIES, INC.

~~Box 638~~ • 605 South Adams (307) 742-7995 LARAMIE, WYOMING 82070

Dan Hausel
Wyoming Geological Survey
Box 3008, University Station
Laramie, WY 82071

Request No: 1874
Date: December 14, 1983

REPORT OF ANAYSIS

Customer ID		SPLN-8-83 Lewiston Mine 11/2/83	SPBR-14-83 Burr Mine 11/2/83	SPLN-9-83 Sec. 33, 29N, 98W 11/2/83	SPWD-11-83 Drean Gold Mine, 11/2/83
Lab No.		A2193	A2194	A2195	A2196
Gold	oz/ton	<0.01	<0.01	<0.01	<0.01
Silver	oz/ton	X	X	X	0.61
Tungsten	mg/kg	<100	<100	<100	X

Figure 3. Assay report on sample SPWD-11-83, a chip sample of arsenopyrite-stained vein material collected 117 feet from the mine entrance of the Lone Pine Mine (sec. 9, T28N, R98W).