



CONTACT INFORMATION
Mining Records Curator
Arizona Geological Survey
416 W. Congress St., Suite 100
Tucson, Arizona 85701
602-771-1601
<http://www.azgs.az.gov>
inquiries@azgs.az.gov

The following file is part of the JABA, Inc. Tombstone Mining Records

ACCESS STATEMENT

These digitized collections are accessible for purposes of education and research. We have indicated what we know about copyright and rights of privacy, publicity, or trademark. Due to the nature of archival collections, we are not always able to identify this information. We are eager to hear from any rights owners, so that we may obtain accurate information. Upon request, we will remove material from public view while we address a rights issue.

CONSTRAINTS STATEMENT

The Arizona Geological Survey does not claim to control all rights for all materials in its collection. These rights include, but are not limited to: copyright, privacy rights, and cultural protection rights. The User hereby assumes all responsibility for obtaining any rights to use the material in excess of "fair use."

The Survey makes no intellectual property claims to the products created by individual authors in the manuscript collections, except when the author deeded those rights to the Survey or when those authors were employed by the State of Arizona and created intellectual products as a function of their official duties. The Survey does maintain property rights to the physical and digital representations of the works.

QUALITY STATEMENT

The Arizona Geological Survey is not responsible for the accuracy of the records, information, or opinions that may be contained in the files. The Survey collects, catalogs, and archives data on mineral properties regardless of its views of the veracity or accuracy of those data.

Rayrock Yellowknife

Secret Pass
development plans

Page 3

Diamonds

BHP testing
offshore mining concession

Page 6

Adrian Resources

Drilling tests
Panama land package

Page 20



The Northern Miner



*cut Gross w/fe value
min tons x \$160.34 = \$962 min*

*Value/Ton
45 Lbs JT Ni x
\$ 3.25 = \$146.90
1.2 Lbs Cu
1.20 = 13.44
\$160.34/Ton*

*if it were Cu
rate would have
to be @ \$1.20 Cu
33.62 Lbs) ton
6.7% Cu
2.00 Cu
4.0% Cu*

*Ni - \$
this i
Cu #*

Value of lower ore is

$102 \text{ lbs Cu @ } 1.20 = 122.4/H + 38 \text{ lbs Ni @ } 3.25 = 123.5 + 0.22 \text{ opt Ag @ } 400 = 88 \text{ GT} = 339.9$

2 The Northern Miner November 7, 1994

If this were all Cu - grade would have to be @ \$1.20 Cu = 14.2% Cu
@ \$2.00 = 8.35% Cu

GMV = \$339 x 7 mm tons = \$2.4 bill.

Inco

Lac properties

recovered in the Sierrita concentrator from copper ore extracted at Cyprus' Twin Buttes Mine. Molybdenum output at the Twin Buttes property was reported separately by the company for 1988, the year when operations began at the mine; in that year, 36.7 metric tons (81,000 pounds) was produced.⁷

The second largest producer of molybdenum in Arizona was the Cyprus-owned Bagdad Mine in Yavapai County. Output at the mine was 3,950 metric tons (8.7 million pounds), according to the company's 1989 Form 10-K. Other properties that produced molybdenum were the Pinto Valley and San Manuel Mines owned by Magma and the Morenci Mine owned by Phelps Dodge. Production at each of these mines, respectively, was 575 metric tons (1.3 million pounds), 1,380 metric tons (3 million pounds), and 860 metric tons (1.9 million pounds).

Silver.—Arizona was ranked fifth in the United States in silver output in 1989. Production increased more than 12% over that of the previous year to about 171 metric tons (5.5 million troy ounces). This quantity was more than 8% of total domestic production of silver.

Five mines in the State were among the 25 leading silver operations in the Nation. These mines plus two others, all primary copper producers, were responsible for nearly 97% of Arizona's output. Cyprus' Sierrita Mine, including the Twin Buttes property, was the largest producer of byproduct silver. Asarco's Mission Complex, ranking second, produced 42.4 metric tons (1,362,000 troy ounces) according to the company's 1989 annual report. Production of silver at Asarco's Ray Mine was reported to be 13.7 metric tons (439,000 troy ounces). Magma stated in its 1989 annual report that the combined output of the Pinto Valley and San Manuel divisions was about 44.9 metric tons (1,445,000 troy ounces), with San Manuel contributing more than 60% of the total. Phelps Dodge's Morenci Mine and Cyprus' Bagdad Mine were large producers of byproduct silver.

Approximately two-thirds of the remaining silver production in the State was derived from siliceous ores shipped to copper smelters. The largest of these producers was the underground Ash Peak Mine operated by Arizona Flux Mines Inc. in Greenlee County. Other major sources of silver-bearing flux were the Commonwealth tailings in Cochise County and the Mammoth tailings and

the Reymert lode mine in Pinal County. According to the 1989 annual report of the Plexus Resources Corp., the Reymert Mine produced 5.2 metric tons (167,000 troy ounces) of silver during the fiscal year that ended June 30. Plexus held a royalty interest in the mine, which was operated by Triple Nickel Inc. for Cyprus Minerals.

PBR Minerals Inc. began to heap leach precious-metal-bearing materials at its Grand Central property in Tombstone (Cochise County) in 1989.⁸ The company initially treated ore that had been previously crushed, agglomerated, and leached by Tombstone Exploration Inc., which closed its operation in mid-1984. PBR expended about \$2.5 million to bring the property into production. During the year, the company produced 1.85 metric tons (59,604 troy ounces) of silver and 28.2 kilograms (907 troy ounces) of gold. #238.4K Ag @ 4.00% #363K Au @ 4.10%

Other Metals.—Arizona was the only State in which rhenium was recovered in 1989. It was produced by Cyprus at the Sierrita Mine. The metal, occurring as a trace element in molybdenite, was recovered as ammonium perrhenate by roasting molybdenum concentrates.

Approximately 15% of the Nation's domestically produced uranium was mined in Arizona. In 1989, six uranium mines in Arizona, in Coconino and Mohave Counties, were either in production or under development by Energy Fuels Nuclear Inc.

A relatively small amount of lead was produced as a byproduct at the Mission copper complex, and lode tin was recovered at the Cheops property in Graham County. There was no recorded production of other metals during the year in the State except trace metals recovered at copper refineries.

Industrial Minerals

Cement.—Arizona ranked in the top half of all cement-producing States during the year. Output, however, of masonry cement has continued to decline since 1987, and, in 1989, was about 20% less than that of the previous year. The production of portland cement decreased 5% from that of 1988. Compared with the previous year, the average price in 1989 increased about 6% for masonry cement and decreased about 1% for portland cement.

Arizona Portland Cement Co., a

subsidiary of the Calmat Co., was the largest producer of cement in the State. According to Calmat's 1989 Form 10-K, its Rillito plant in Pima County has an annual production capacity of 900,000 short tons of clinker. During the year, the company completed the installation of a roll press and high-efficiency separator at the facility. The company continued to reduce fuel costs by burning rubber tire chips in kilns at the cement plant.

Southwestern Sunbelt Cement, a subsidiary of Southdown Inc., began construction during early 1989 of a \$2.5 million cement distribution terminal in Casa Grande (Pinal County). At the time of construction, the new terminal was jointly owned by Southdown and Cementos Mexicanos SA, which was the largest producer of cement in Mexico. The terminal will receive cement imported from Mexico.

After dissolving its association with Cementos Mexicanos, however, Southdown initiated and led six other U.S. cement producers in Arizona, Florida, New Mexico, and Texas in the filing of an antidumping petition against Mexican cement producers. The petition, filed in September 1989 with the International Trade Commission (ITC), alleged that cement from Mexico was being sold in these States at less than fair-market value. By yearend, the ITC issued a preliminary determination that there was a reasonable indication of material injury to the domestic producers. A final ruling was to be issued in 1990.

Clays.—In 1989, production of all clays increased almost 12% over that of the previous year. The output of common clay and shale rose about 6% to 151,400 metric tons (166,800 short tons) and that of bentonite increased sharply by more than 41% to 36,900 metric tons (40,600 short tons). Most of the bentonite produced in Arizona was the low-swelling calcium variety.

Gem Stones.—Arizona slipped from third to fourth place nationally in the value of production of gem stones. The State ranked second in the Nation, however, as a source of inorganically derived gem materials. Arizona produced a greater variety of gem stones than any other State. Output included agate, amethyst, antlerite, azurite, chrysocholla, garnet, jade, malachite, obsidian, onyx, opal, peridot, petrified wood, shattuckite, smithsonite, and turquoise.

Structural Regional Studies along The Carlin Trend and in the Central Betze Orebody, Goldstrike Mine

by

Stephen G. Peters (U.S. Geological Survey, Reno Field Office, Mackay School of Mines, University of Nevada, Reno, Nevada 89557-0047)

Abstract

- 1). Two structural domains are present in the area of the Carlin trend area: **Domain I**, an area of NE-SW-trending, shallow-plunging axial planes, mostly in the Oroidivician Vinini Formation; and, **Domain II**, a narrow NW-trending zone which contains mainly NNW-SSE-trending, shallow-plunging fold axes--mainly involving "lower plate" rocks, but also some upper plate rocks of the Roberts Mountain allochthon.
- 2). A consistent structural grain is present within the Carlin trend. The *linear fabric* is defined by the NNW-SSE-trending fold axes. The *planar fabric* is a NW-striking, 30 deg., NE-dipping zone, which contains both the NNE-trending, older axes and has rotated them to the west. This plane is the axial plane to *all* folds along the Carlin trend. Many steep-dipping, brittle faults along the Carlin trend, such as the Post Fault, contain the plunge of the NNW fold axes., which are co-planar with the fold axes. NE-trending brittle faults are commonly coplanar with the older NE-SW axes.
- 3). The Central Betze orebody is hosted within the Dillon deformation zone, which cross cuts the nose of the Betze syncline, and strikes parallel to much of the Devonian Popovich-granodiorite contact. The orebody is also hosted within the Betze anticline, which may have formed as the result of shear folding along the Dillon deformation zone.
- 4). At least six separate ore types are defined within the Central Betze orebody, based on geologic setting, mineralogy, geochemistry and morphology. The ore types are partitioned spatially within the orebody in discrete oreshoots, which have demonstrable spatial relationships to the Popovich-Devonian(?) Rodeo Creek and Popovich-granodiorite contacts and the Dillon deformation zone. The oreshoots are zoned from the footwall to the hangingwall of the orebody, with pyrite ores on the outside (top), arsenic ores in the center, and antimony ores at the bottom.

11/15/94
This description appears to have many similarities
to Tomblston JAB

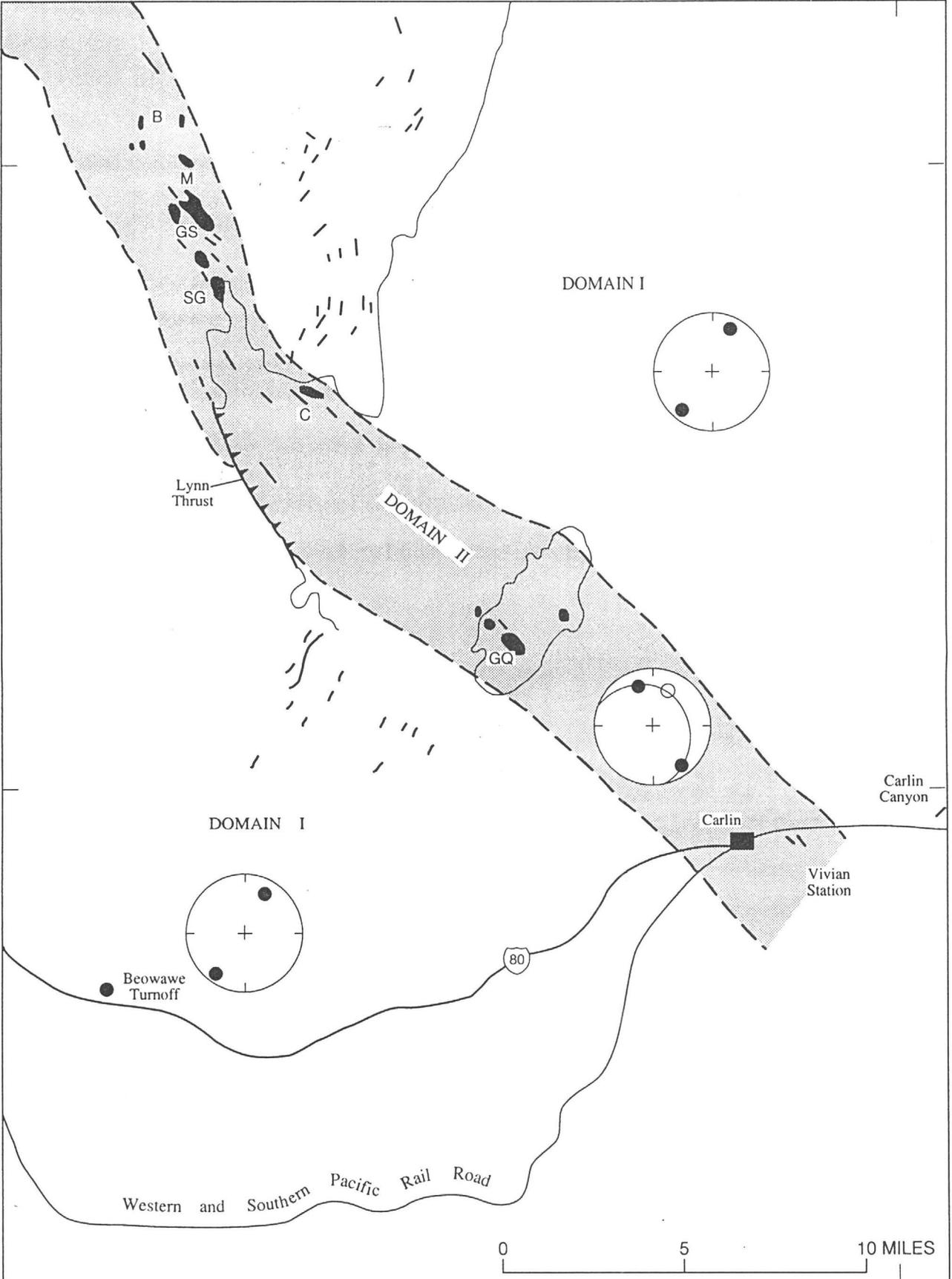
received
11/15/94

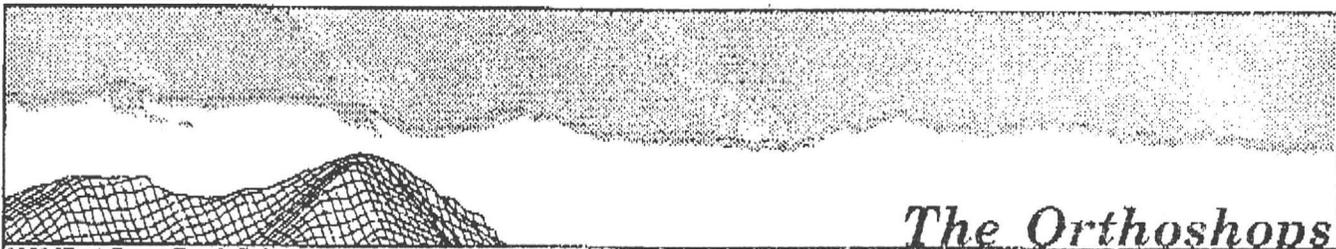


116°00'

41°

42°





The Orthoshops

1121 West Grant Road, Suite 401
Tucson, Arizona 85705
(800) 568-9792

1723 27th Avenue, N.E.
Calgary, Alberta T2E 7E1
(800) 568-1740

FAX COVER SHEET

To: Jim Briscoe
Company James A. Briscoe & Assoc.
FAX (602) 298-6688
Date: June 27, 1994

From: Lyle Slater
Pages.....2.....(including cover page)
Topic: Tombstone

Message:

Dear Jim,

Attached is the price sheet previously sent to you.

The original mapping photo used in Tombstone was 1:12500. From this photo, your horizontal and vertical error should fall just under one foot.

Thanks!

If you do not receive all pages, please call and advise.

Tele: 602-798-1323

FAX: 602-798-1569

TOMBSTONE ESTIMATE BREAKDOWN

ITEM	SECTIONS DONE INDIVIDUALLY	ALL SECTIONS DONE AT ONCE	COST VARIANCE
AIR PHOTO	\$2,438.00	\$2,438.00	\$0.00
COLOR REPRO (ALL)	\$896.00	\$896.00	\$0.00
JOB PREP AND ANALYTICAL TRIANGULATION	\$1,694.00	\$1,694.00	\$0.00
ORTHOPHOTO NEGATIVE @ 1:12000	\$418.25	\$418.25	\$0.00
ORTHO REPRODUCTION @ 1:6000	\$329.75	\$329.75	\$0.00
TOPOGRAPHICAL MAPPING			
SECTION 26	\$1,373.00		
SECTION 27	\$1,498.00		
SECTION 28	\$1,373.00		
SECTION 29	\$1,498.00		
SECTION 33	\$1,249.00		
SECTION 34	\$1,373.00		
SECTION 35	\$1,249.00		
SECTIONS DONE INDIVIDUALLY	\$9,613.00		
ALL SECTIONS - SAME TIME		\$6,142.00	
TOTAL COSTS	\$15,389.00	\$11,918.00	\$3,471.00

The Orthoshop-Tucson

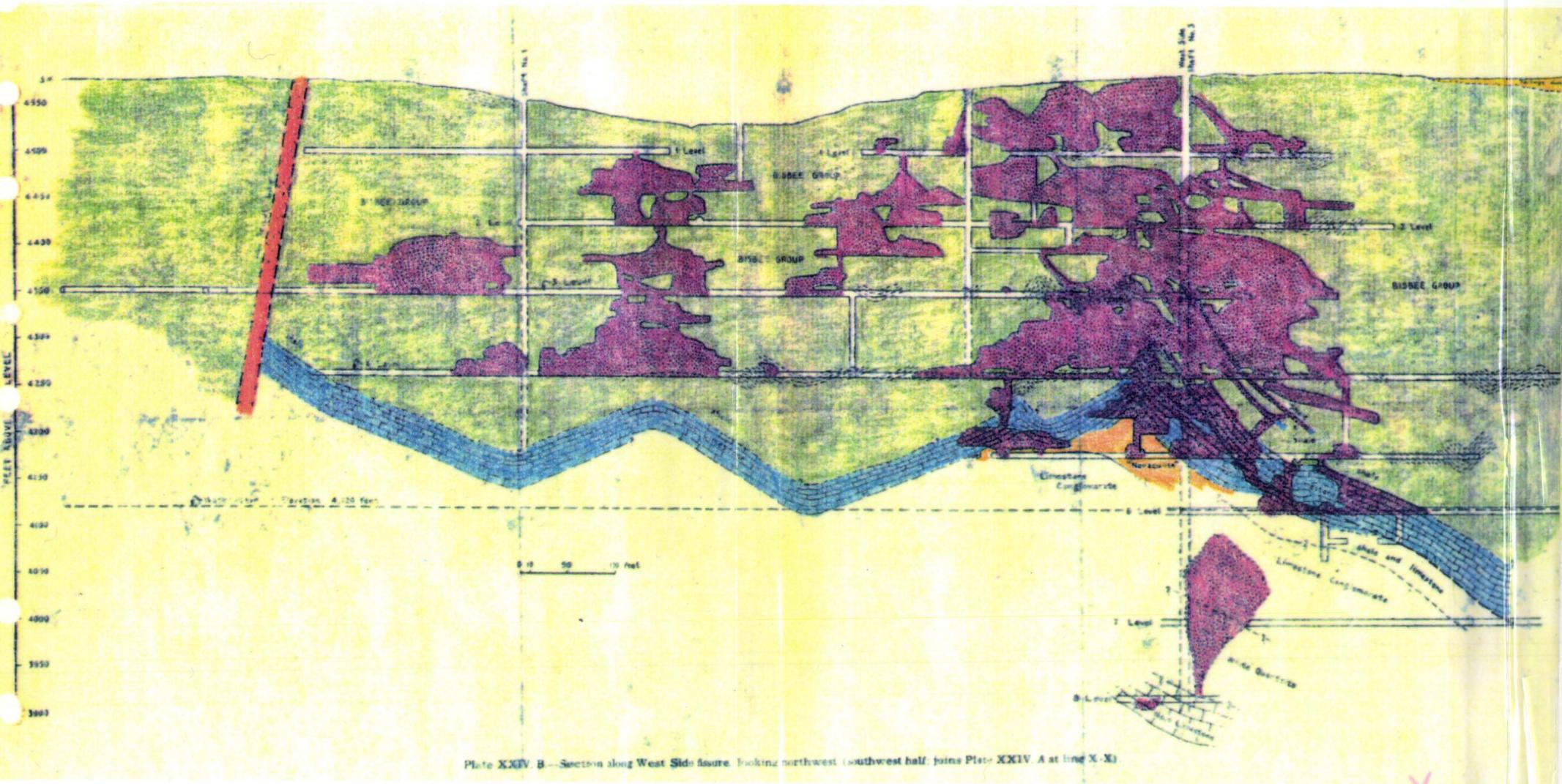


Plate XXIV B—Section along West Side fissure, looking northwest (southwest half, joins Plate XXIV A at line X-X)

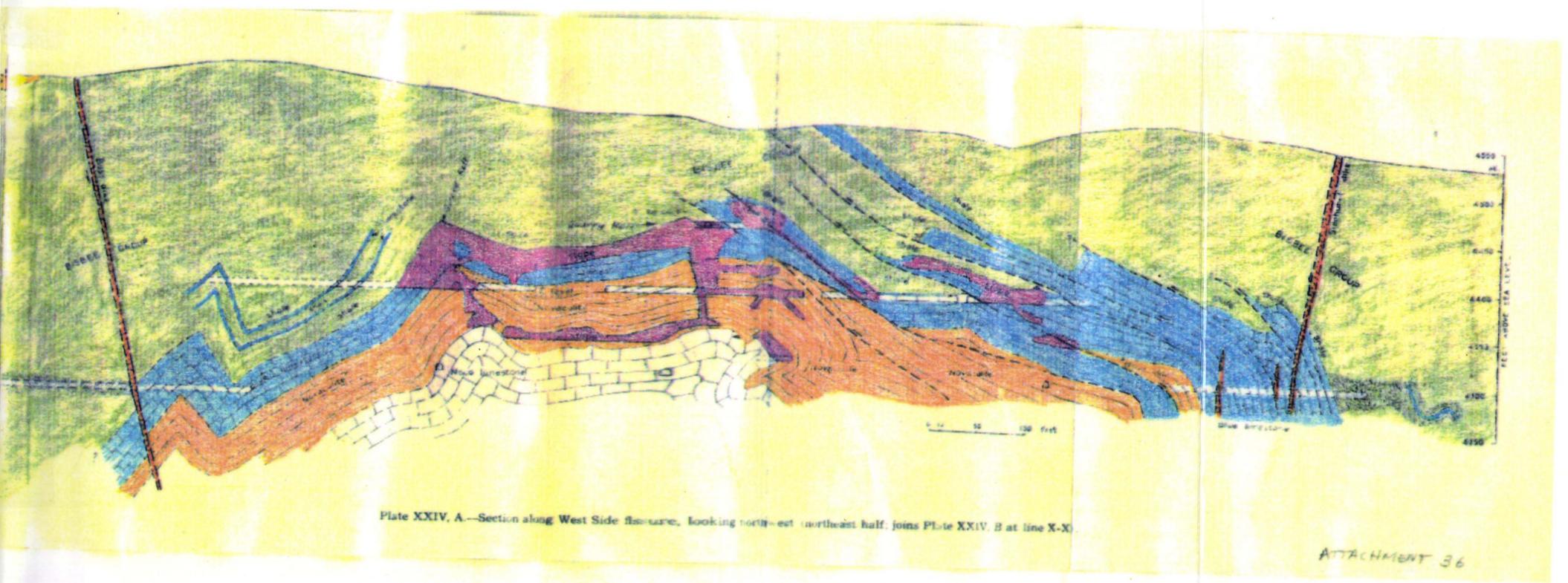
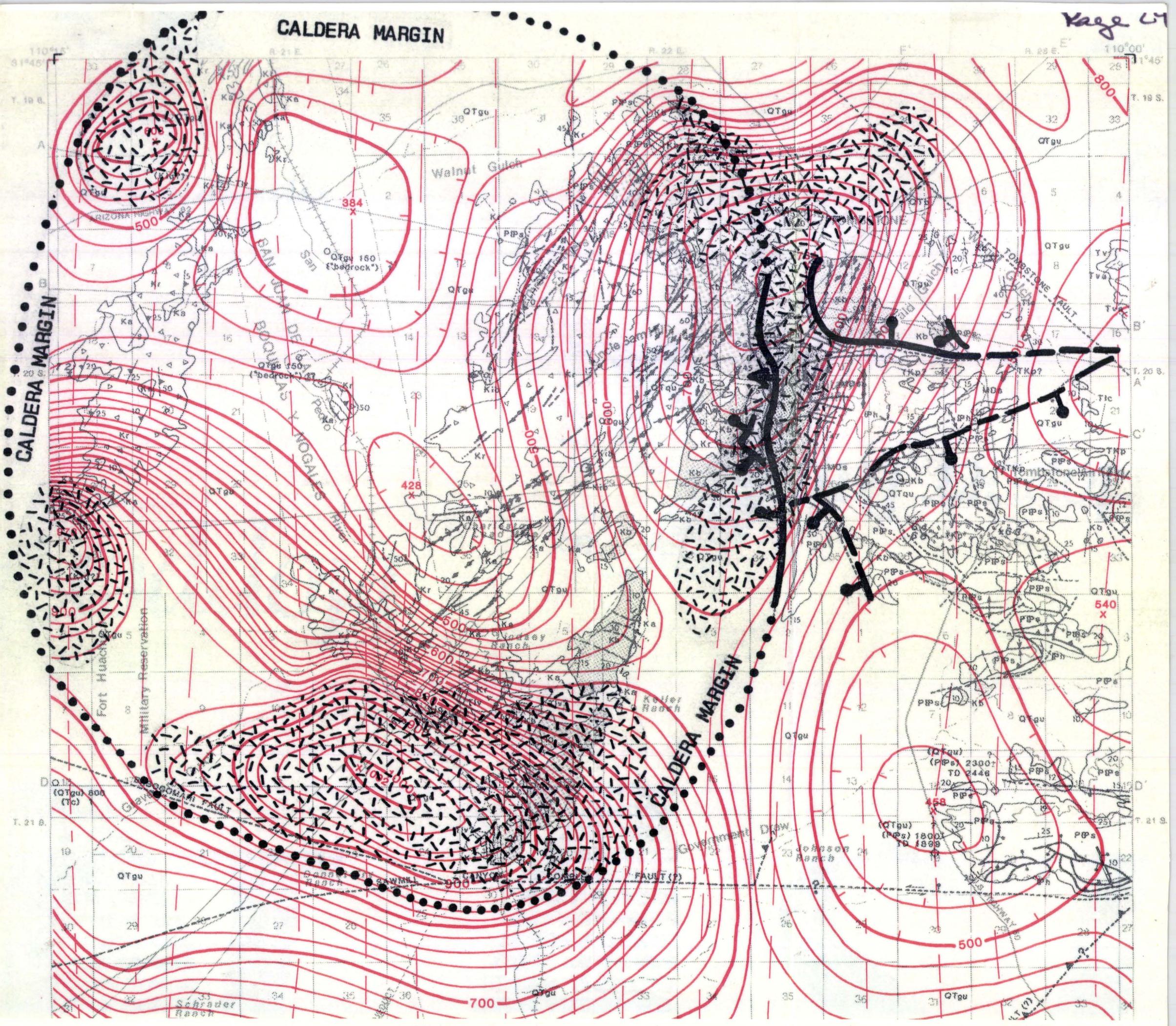


Plate XXIV A.—Section along West Side fissure, looking north-east (northeast half, joins Plate XXIV B at line X-X)

ATTACHMENT 36

PLATE XXIV : Cross Section along West Side fissure, A28M, Bull. 143 By Wilson & others (1938), 1:100

CALDERA MARGIN



WALNUT CREEK MINERALS LTD.

*Tomestone
Townsite*

**TDC
PATENTED
CLAIMS**

**PORPHYRY
COPPER
CENTER**

**CONTENTION LEASE
(EXCELLON)**

CONTENTION OPEN PIT

