

GEOLOGY AND ORE DEPOSITS
OF
THE FULFORD MINING DISTRICT, EAGLE COUNTY, COLORADO

With Reconnaissance
of
The Brush Creek Mining District

By
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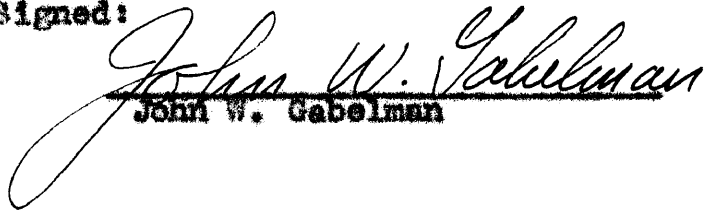
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CONTENTS

	<u>Page</u>
Abstract	1
Introduction	2
Map Control	7
Location of Area	7
Pre-existing Maps	7
Base Map Preparation	8
Field Mapping Procedure	10
Topographic Names	10
Surface Features	12
Geography	12
Physiography	12
Climate	21
Vegetation	22
Industry	23
Quaternary Geology	24
Pleistocene Glacial Geology	24
Recent Deposits	32
Geology of the Bedrock	35
Pre-Cambrian Rocks	35
General Statement	35
Injection Gneiss	36
Albite Granite	40
Granite Aplite	43
Granite Pegmatite	44
Age and Correlation of Granite	46

	<u>Page</u>
Origin of Granite	49
Paleozoic and Mesozoic Stratigraphy	52
General Statement	52
Cambrian System	54
Ordovician System	61
Devonian System	62
Mississippian Series	65
Pennsylvanian Series	69
Permo-Triassic Beds	76
Jurassic System	77
Cretaceous System	79
Tertiary Igneous Rocks	81
Early Quartz Monzonite Porphyry	81
Late Quartz Monzonite Porphyry	90
Granite Pegmatite	99
Rock Alterations	100
Andesite Porphyry	107
Basalt	109
Structure	113
General Statement	113
Pre-Cambrian Structure	113
Paleozoic and Mesozoic Structures	114
Laramide Structures	114
Ore Deposits	141
History and Production	141
Mineralization	147

	<u>Page</u>
Gold-Copper-Quartz Veins	147
Wall-Rock Alterations	150
Structural Control	151
Limestone Replacement Deposits	153
Deposits in Radial Faults	155
Ores of the Brush Creek District	155
Suggestions for Prospecting	158
Gold-Copper-Quartz Veins	158
Limestone Replacement Ore Bodies	159
Deposits in Radial Faults	160
Brush Creek District	161
Mine Descriptions	162
Pulford District	162
General Statement	162
Adelaide Mine	162
Alabama Mine	163
Calientes Mine	163
Comstock Castle Mine	164
Elsie Mine	165
Gold Dust Mine	167
Granite Squaw Mine.	170
Jack Pot Mine	172
Left Bower Mine	174
Rucy Mine	176
Merry Widow Mine	178
New York Mine	180
Polar Star Mine	182

LIST OF ILLUSTRATIONS

<u>Figure</u>		<u>Page</u>
1	Index Map	3
2A	Northern Sawatch Range from lower Brush Creek .	13
2B	Lower Fulford	13
3	Panorama from Porphyry Mountain	14
4	Panorama from New York Mountain	16
5A	Upper West Lake Creek from Barida Cabins . . .	17
5B	New York Mountain from Craig Peak	17
6A	West Lake Creek from Station Burgess	18
6B	New York Mountain from Salt Creek parks	18
7A	Yeoman Park	19
7B	Mt. Finnigan and New York Mountain from Salt Creek Basin	19
8A	Upper Salt Creek Basin	20
8B	Lower Salt Creek Basin	20
9A	Nolan Basin	25
9B	Nigger Basin	25
10A	Joe Basin	27
10B	Arête Ridge between East and West Lake Creeks .	27
11A	Nolan Lake	29
11B	New York Lake	29
12A	Lateral moraine in East Brush Creek	31
12B	Lateral moraine in Nolan Creek	31
13	Aerial photograph of New York Lake	33
14	Injection gneiss	37
15	Contacts between granite and injection gneiss .	39

<u>Figure</u>	<u>Page</u>
16 Photomicrograph of albite granite	42
17A Microcline replacing albite granite	45
17B Photomicrograph of microlinized granite	45
18A Zoned aplite-pegmatite dike	47
18B Albite granite with pegmatite stringers	47
19 Composition of albite granite, aplite, and pegmatite	48
20 Stratigraphic column	53
21 A,B,C, Outcrops of Sawatch quartzite	56
21D Photomicrograph of Sawatch quartzite	57
21E Photomicrograph of edgewise conglomerate	57
22A Calcite-encrusted cobbles in Fulford Gaves	71
22B Belden shale outcrop	71
23A Outcrop of Maroon red beds	78
23B Mesozoic sediments on ridge west of Porphyry Mountain	78
24 Photographs of Porphyry Mountain	84
25 Flaty structure in early quartz monzonite porphyry	86
26A Hand specimen of early quartz monzonite porphyry	88
26B Photomicrograph of early quartz monzonite porphyry	88
27 Composition of early quartz monzonite porphyry	89
28 Outcrops of late quartz monzonite porphyry	93
29 Photomicrograph of late quartz monzonite porphyry	95
30 Composition of late quartz monzonite porphyry	98
31 Photomicrographs of hydrothermally altered rocks	103

<u>Figure</u>		<u>Page</u>
32A	Hand specimen of andesite porphyry	108
32B	Photomicrograph of andesite porphyry	108
33A	Bellyache Mountain	111
33B	Photomicrograph of Bellyache Mountain basalt	111
34A	Sawatch quartzite on Craig Peak	115
34B	Dyer limestone at Barida Cabins	115
35A	East Lake Creek thrust in East Lake Creek	120
35B	Breccia from East Lake Creek thrust	120
36A	New York fold	131
36B	Adam and Eve mountains showing Hot Creek syncline	131
37	Veins on ridge near Elsie mine	149
38	Ore shoots controlled by strike and dip changes in a vein	152

<u>Plate</u>		<u>Page</u>
1	Sections AA ¹ through GG ¹	In back ✓
2	Section HH ¹	135
3	Map of Elsie mine	166
4	Map of Gold Dust mine	168
5	Map of Granite Squaw mine	171
6	Map of Jack Pot tunnel	173
7	Map of Left Bower tunnel	175
8	Map of Lucy mine	177
9	Map of Merry Widow mine	179
10	Map of New York mine	181
11	Map of Lower Polar Star tunnel	184

Map

I	Holy Cross National Forest, index map	In back
✓ II	Topography of Pulford and Brush Creek mining districts	In back
X ✓ III	Quaternary deposits of Brush Creek mining district	In back
IV	Geologic map of Brush Creek mining district	In back
V	Structural and economic geology of Brush Creek mining district	In back

ABSTRACT

The Fulford mining district, 18 miles southeast of Eagle, Colorado, and the Brush Creek district, seven miles southeast of Eagle, lie on a line parallel to, and several miles inside of, the curved tectonic axis joining the Sawatch Range with the White River Plateau. The line between the two districts, at the northwest tip of the Sawatch Range, represents a zone in which northeast-southwest and east-west trending structures intersect. The northeast-southwest structures consist of thrust faults and asymmetric folds caused by northwest compression acting against a buttress formed by the hook at the northern end of the Sawatch Range. The east-west structures consist of a monoclinical north dip of the sediments and high angle faults on the northeast flank of a large anticline in Frying Pan Creek, a Uintah type structure caused by compression from the north. In the narrow zone of intersecting structures are found folds and faults of varying trends, and all the intrusive rocks and metallic mineral deposits of both districts. Sediments from Cambrian quartzite lying on a crystalline basement to Cretaceous Mancos shale are exposed. Tertiary intrusive rocks consist of a stock of early quartz monzonite porphyry differentiated from quartz diorite to granite pegmatite, dikes and sills of late quartz monzonite porphyry, and pipes of andesite porphyry. Extrusive flows of basalt are found in the northern part of the area. The intrusive rocks are highly altered deuterically and hydrothermally, but the confining sediments are unaltered. Ore deposits in the Fulford district consist of gold-quartz and gold-copper-quartz veins in the basement and Lower Paleozoic sediments, gold-copper-quartz ore deposited in limestone solution caves, minor gold-copper replacements in limestone, and traces of lead-silver deposits in radial faults in the porphyry stock. Only small amounts of gold have been produced. Ore deposits in the Brush Creek district consist of impregnations of secondary silver-copper ore in the Entrada sandstone. There has been substantial silver production.

The original material for this dissertation includes a significant number of oversized pages. The full text can be viewed by accessing the supplement file.

