

## CONTENTS.

CHAPTER I.	PAGE
<b>Introduction.....</b>	1
General statement.....	1
Field work and acknowledgments.....	3
Situation.....	3
History.....	3
Previous work and bibliography.....	5
<b>CHAPTER II.</b>	
<b>General character of district.....</b>	7
Topography.....	7
Regional.....	7
Local.....	8
Climate and flora.....	8
<b>CHAPTER III.</b>	
<b>General geology.....</b>	10
General description of formations.....	10
Paleozoic.....	10
Mesozoic.....	10
Tertiary.....	11
Quaternary.....	11
Table of formations.....	12
Comparative table, Deadwood and Phoenix.....	12
Detailed description of formations.....	13
Paleozoic.....	13
Knob Hill Group.....	13
Introduction.....	13
Distribution and structure.....	13
Lithology.....	14
Jasperoids.....	14
Cherts.....	15
Tuffs.....	16
Brooklyn formation.....	17
Introduction.....	17
Distribution and structure.....	17
Lithology.....	18
Chemical composition.....	19
Quartz porphyrite.....	19
Mesozoic.....	20
Igneous rocks.....	20
Introduction.....	20
Grenodiorite group.....	21
Distribution.....	21
Lithology.....	22
Hornblende porphyrite.....	24
Tertiary.....	25
Igneous rocks.....	25
Introduction.....	25
Lithology.....	26
Olivine basalt.....	26
Augite porphyrite.....	27
Monzonite porphyry.....	29
Pulaskite porphyry.....	30
Quaternary.....	31
<b>CHAPTER IV.</b>	
<b>Economic geology.....</b>	32
Deadwood mineral zone.....	32