



CONTACT INFORMATION
Mining Records Curator
Arizona Geological Survey
416 W. Congress St., Suite 100
Tucson, Arizona 85701
520-770-3500
<http://www.azgs.az.gov>
inquiries@azgs.az.gov

The following file is part of the
James Doyle Sell Mining Collection

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.

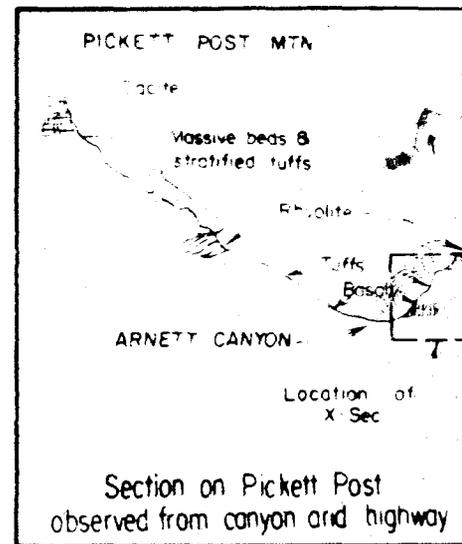
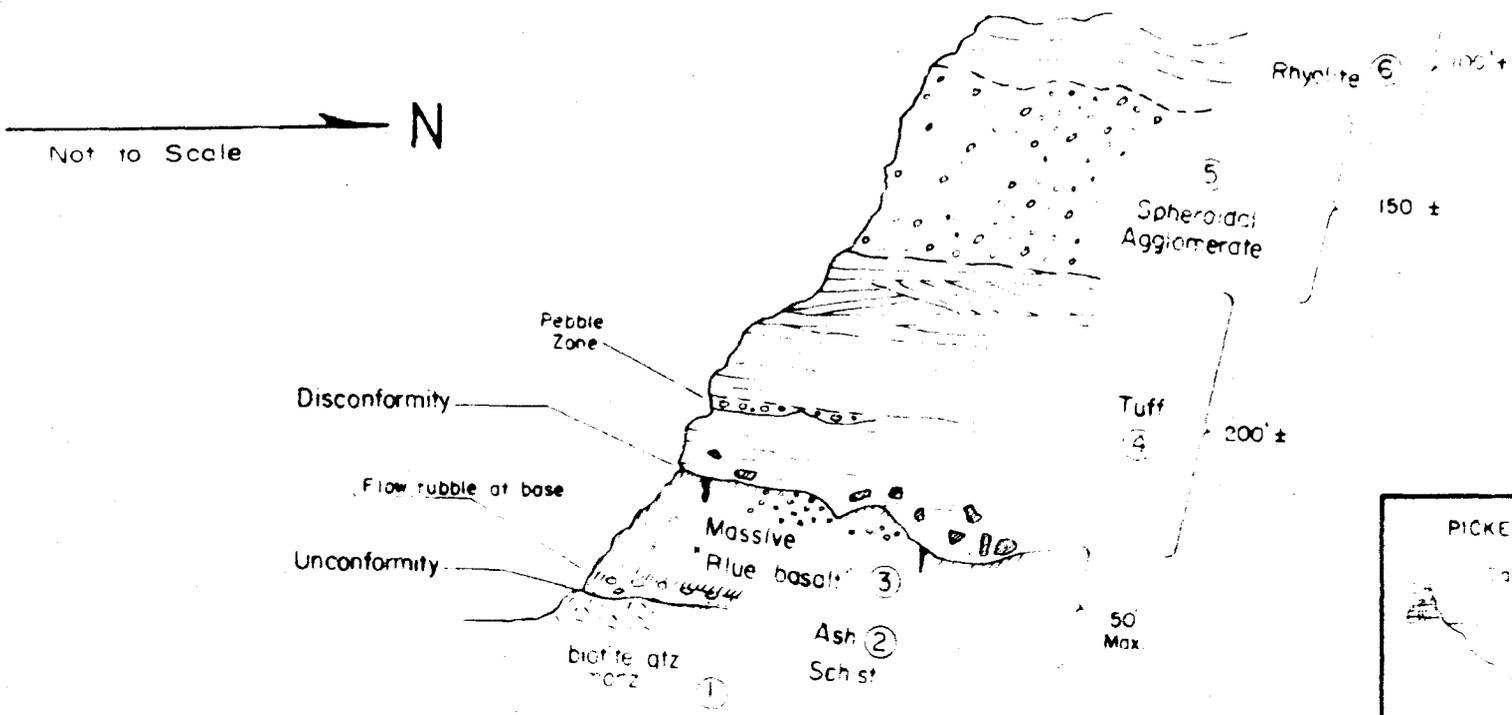
CONSTRAINTS STATEMENT

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.

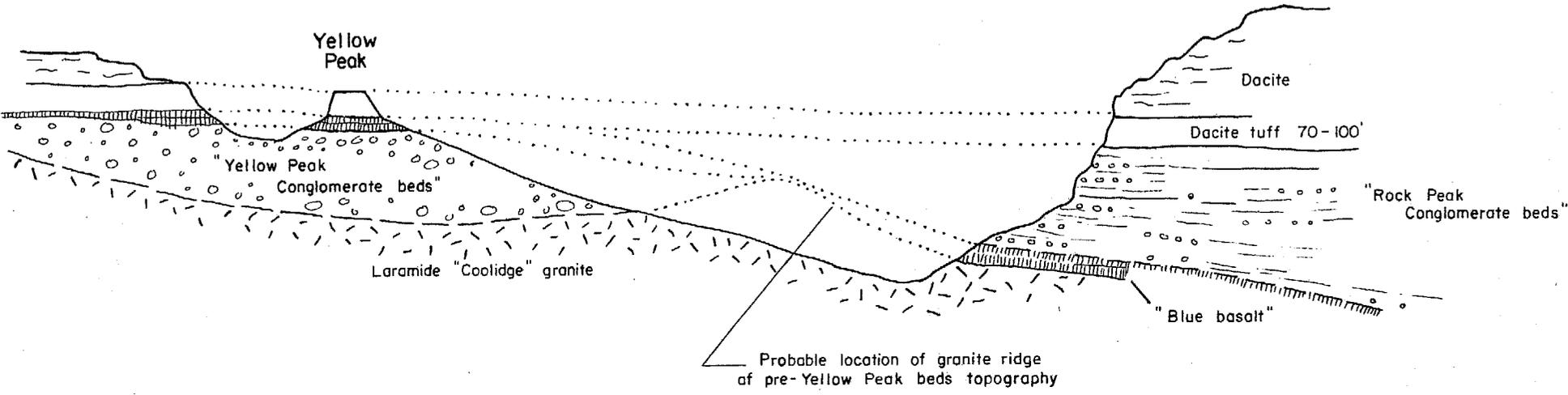


- 1. "Laramide" intrusive; qtz monz intrudes Pinal schist.
- 2. Brown to red-brown ash and tuff agglomerate, probably water laid. Contains fragments of (1). Probably equivalent of "Oiberg beds"
- 3. "Blue basalt" Massive blue-black basalt with altered red crystals. Vesiculae toward top locally. Contains 1-5 zones of hematite-lined flow breccia. Probably equivalent to Blue basalt in San Tan Mtns.
- 4. Tan water-laid tuff. Cross-bedded and generally thin-or-medium-bedded. Deposited on eroded surface of blue basalt. A pebble zone 20' above base contains basalt cobbles.
- 5. Dacite or rhyolite agglomerate with siliceous spheroidal nodules, few black obsidian pebbles. This is probably the perlite zone.
- 6. Brown finny rhyolite with wavy flow bands.

DIAGRAMMATIC CROSS SECTION
 ARNETT CANYON
 North base of Pickett Post Mountain
 LOOKING WEST

→ Northerly

1 mile S.W. of Rock Peak
(Lumpy Butte)

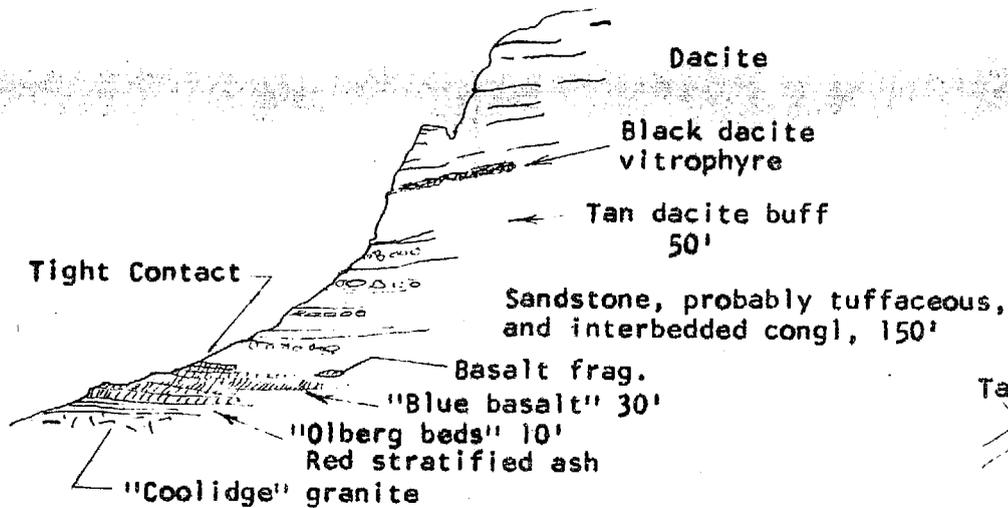


Looking Easterly
 Length of section about 1 1/2 miles
 Not to Scale

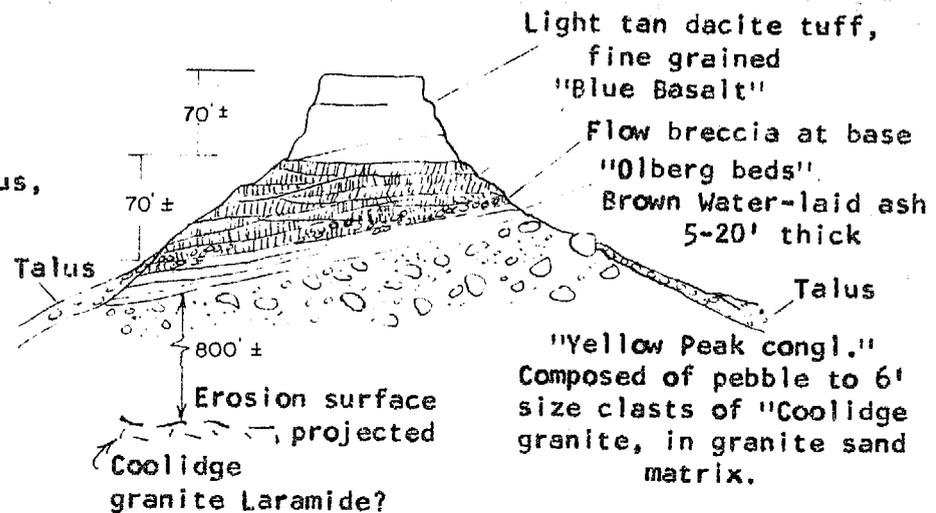
DIAGRAMMATIC CROSS SECTION
 Showing Interpretation of Tertiary Conglomerate
 Depositional Basins
 SAN TAN MOUNTAINS ARIZONA

A.G. Blucher
 J.E. Kinnison

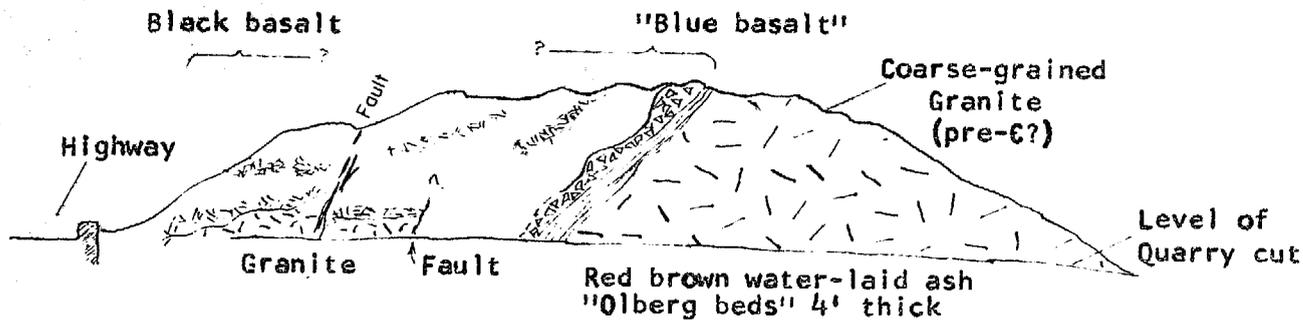
Reconnaissance
 February, 1960



THROUGH PART OF LUMPY BUTTE
1 MILE WEST OF ROCK PEAK
Looking North



THROUGH TOP OF YELLOW PEAK
SAN TAN MOUNTAINS
Looking North

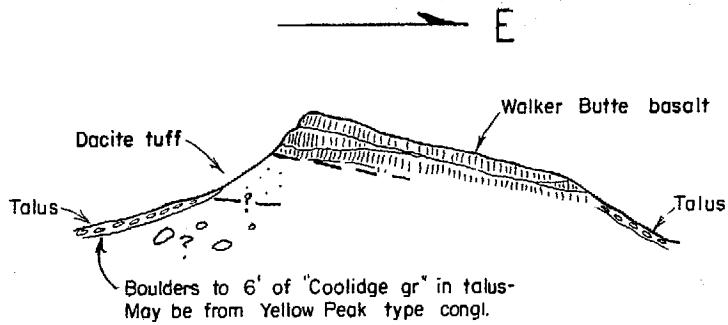


THROUGH OLBERG HILL, THE SMALL
HILL AT OLBERG STATION,
SAN TAN MOUNTAINS
Looking North

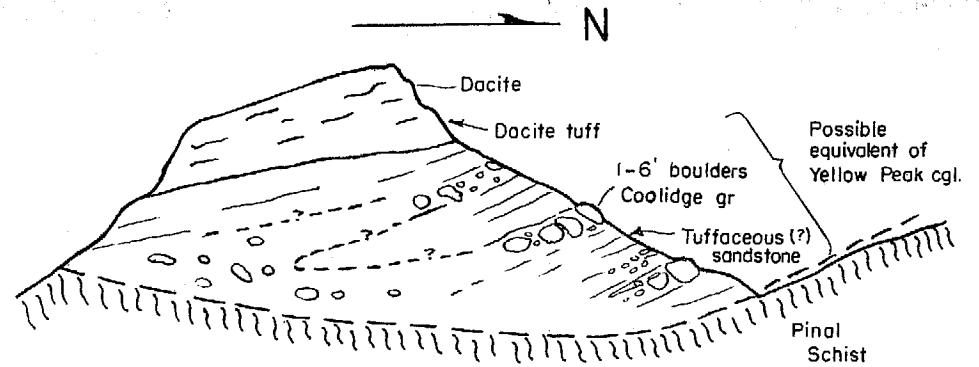
Note: Black basalt resembles the post dacite "Walker Butte" basalt. This outcrop may consist of black basalt overlying the "Blue Basalt". The contact is not apparent, however.

DIAGRAMMATIC CROSS SECTIONS
SAN TAN MOUNTAINS
Showing Some Stratigraphic
Relationships of Tertiary
Volcanics and Sediments

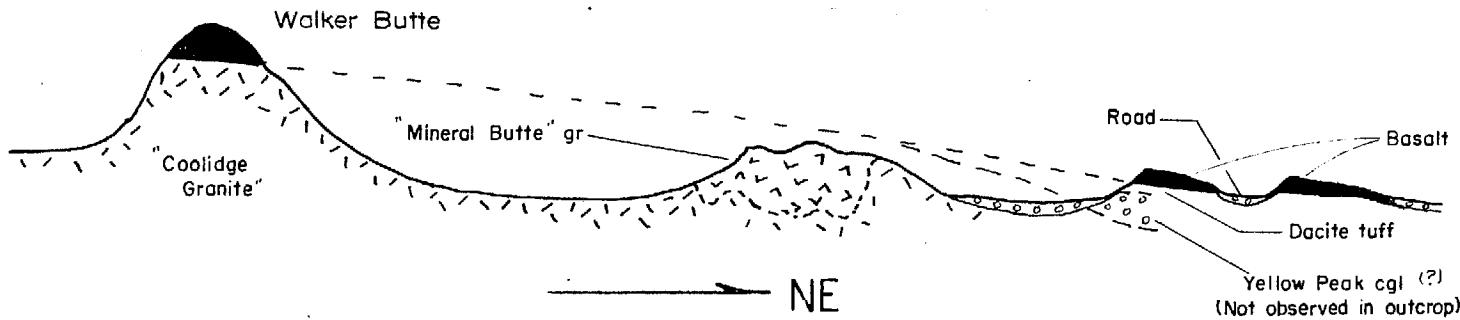
A. G. Blucher Reconnaissance
J. E. Kinnison February, 1960



1 1/2 miles NE of Walker Butte
Looking North



Dacite Capped Butte
1/2 mile west of bomb craters along
power line road, SE of Mineral Butte
Looking West

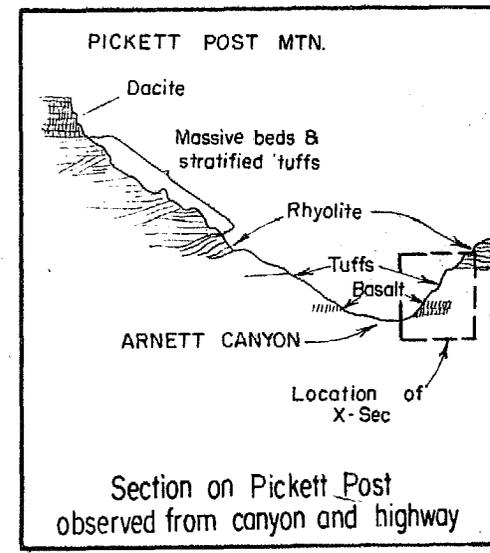
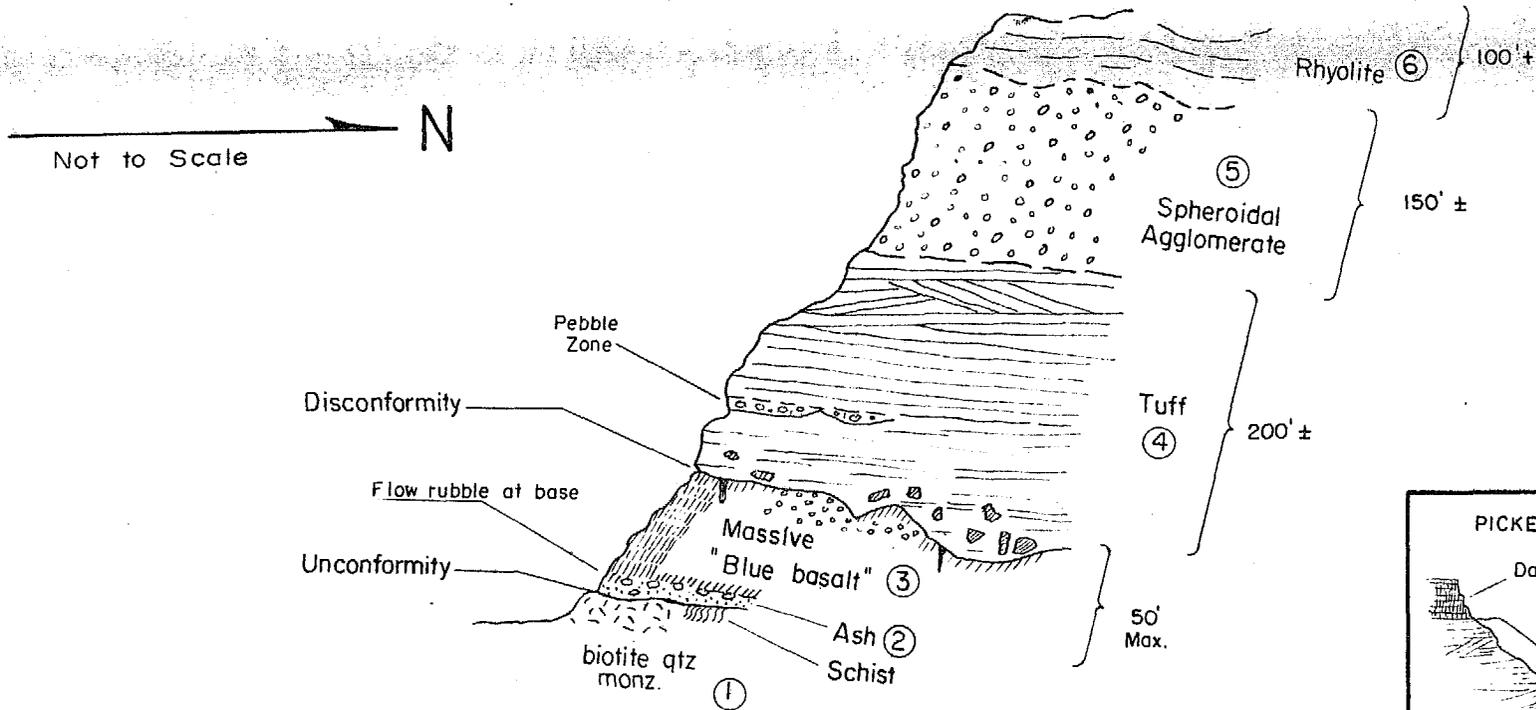


NE
Length of section about 2 miles
Looking N.W.

Diagrammatic Cross Sections EAST SIDE SAN TAN MOUNTAINS

A.G. Blucher
J.E. Kinnison

Reconnaissance
February, 1960

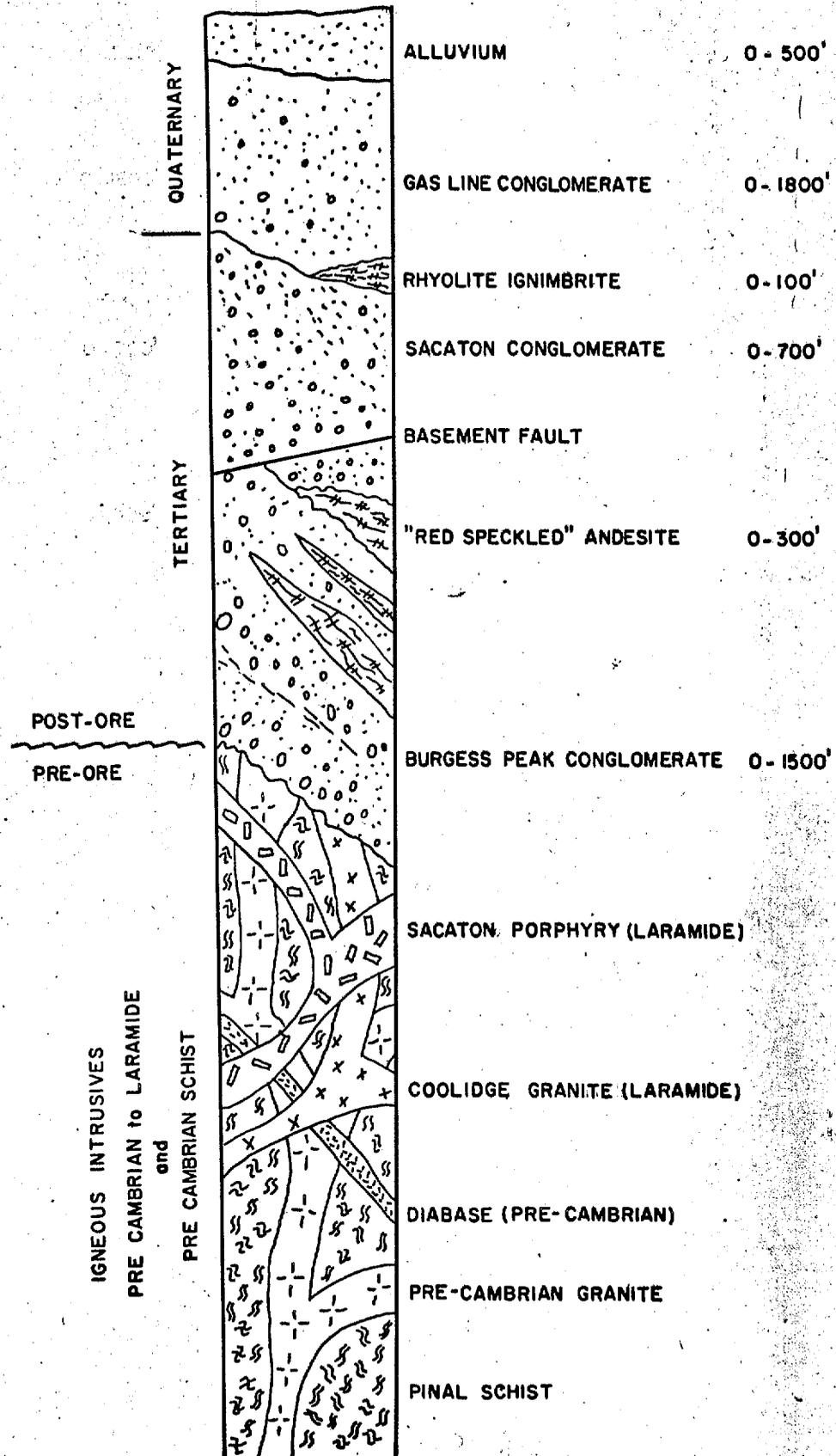


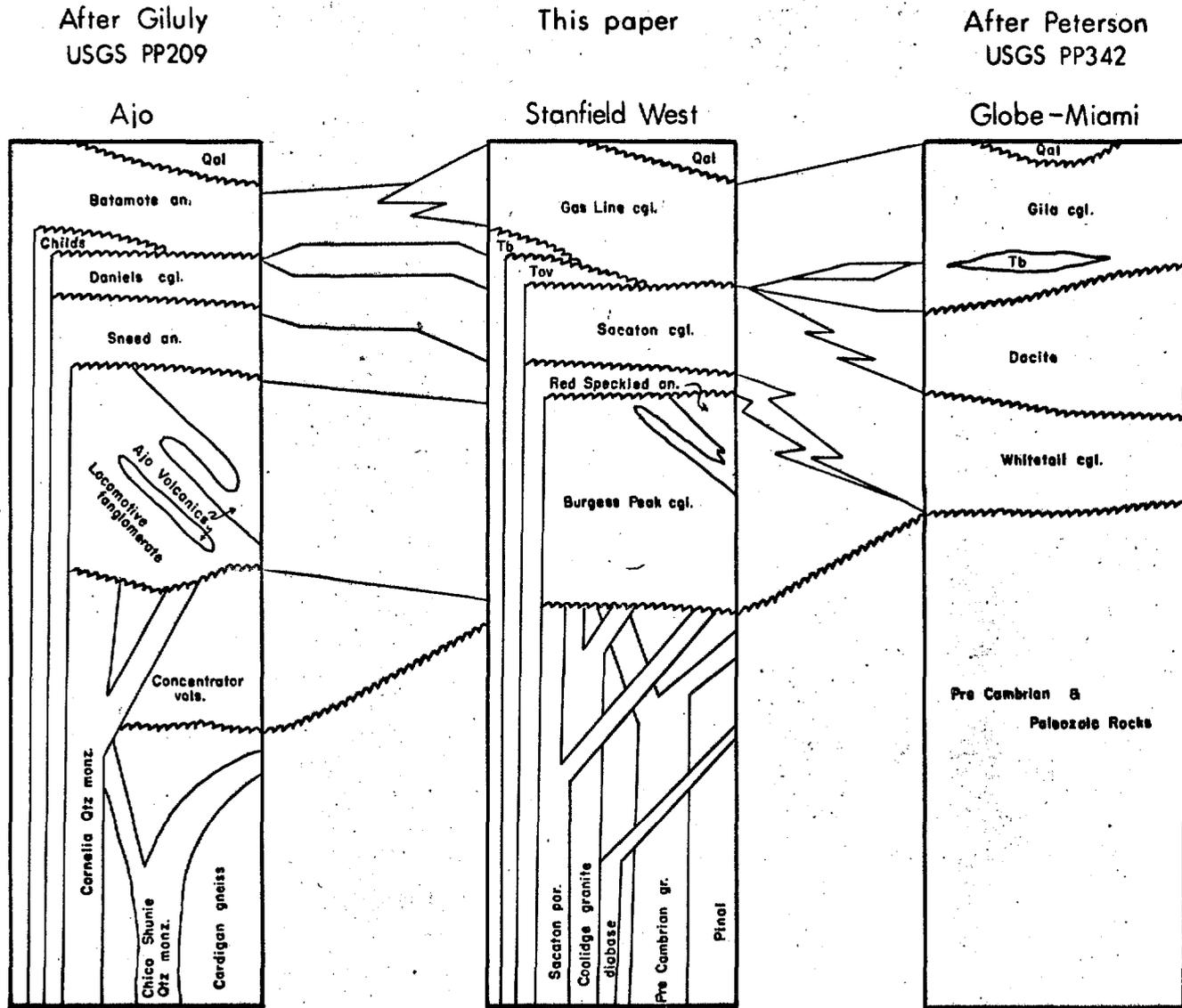
1. "Laramide" intrusive; qtz monz. Intrudes Pinal schist.
2. Brown to red-brown ash and tuff-agglomerate, probably water laid. Contains fragments of (1). Probably equivalent of "Olberg beds."
3. "Blue basalt" Massive blue-black basalt with altered red crystals. Vesicular toward top locally. Contains 1-5' zones of hematite-red flow breccia. Probably equivalent to Blue basalt in San Tan Mtns.
4. Tan water-laid tuff. Cross-bedded and generally thin-or-medium-bedded. Deposited on eroded surface of blue basalt. A pebble zone 20' above base contains basalt cobbles.
5. Dacite or rhyolite agglomerate with siliceous spheroidal nodules, few black obsidian pellets. This is probably the perlite zone
6. Brown flinty rhyolite with wavy flow bands.

DIAGRAMMATIC CROSS SECTION
 ARNETT CANYON
 North base of Pickett Post Mountain
 LOOKING WEST

COLUMNAR SECTION

SANTA CRUZ AREA





A comparison of Cenozoic geology across Southwestern Arizona based on drill holes in the Casa Grande Valley.

Santa Cruz Summary, S.R. Wojcik, March 2, 1966

Sequence and character of rocks in the Ajo quadrangle

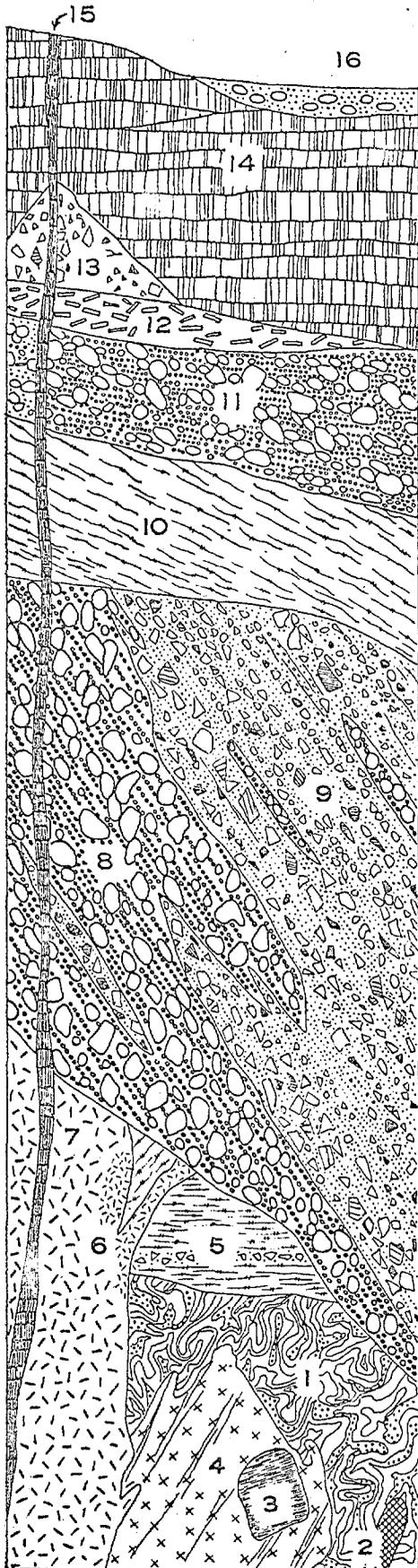


FIGURE 3.—Generalized diagrammatic section illustrating the principal rock formations and their age relations in the Ajo quadrangle.

No. on fig. 3	Formation	Thickness (feet)	Lithology and remarks	Age
16	Alluvium.	800+	Stream gravels, sand, and silt, largely unconsolidated but locally cemented with caliche.	Pleistocene and Recent
15	Basalt.	(?)	Dense to coarsely crystalline hypersthene olivine basalt forming dikes associated with old volcanoes. Includes some olivine andesite in the Childs Mountains.	Pliocene (?)
14	Basaltic andesite.	1,500+	Basaltic olivine-andesite, augite andesite, and some hornblende andesite in flows 20 to 60 feet thick. Constitutes Black Mountain, Batamote Mountain, and most of Childs Mountain.	
13	Basaltic breccia.	300+	Scoriaceous red basalt and andesite breccia forming what is probably the throat of a volcano (Batamote Peak) and cinder cones (Childs Mountain). Some older and some younger than 14 and 15 but probably little age difference between them.	
12	Childs latite	700±	Augite latite, coarsely porphyritic, in thick flows of aa and block lava. May be intercalated in Batamote andesite. Probably related to Hospital porphyry dikes.	Pliocene (?)
11	Daniels conglomerate	200+	Coarse stream gravels, partly cemented. Includes a little interbedded quartz latite.	Middle (?) Tertiary.
10	Sneed andesite.	3,000?	Hornblende andesites, commonly much altered. Largely flows but some breccias.	Middle (?) Tertiary.
9	Ajo volcanics.	3,500-5,000+	Biotite and hornblende andesite tuffs and breccias passing upward into flows. Interfingers with Locomotive fanglomerate.	Middle (?) Tertiary.
8	Locomotive fanglomerate.	6,000-12,000	Chiefly coarse alluvial fan deposits, poorly sorted and interbedded with tuff and breccia. Some sandstone and shale toward the top and in southeasterly exposures. Interfingers with Ajo volcanics.	Middle (?) Tertiary.
7	Cornelia quartz monzonite (main facies).	(?)	Porphyritic to equigranular quartz monzonite, cut by aplite dikes and a few small pegmatites. Forms stock with crosscutting contacts. Carries ore of New Cornelia mine.	Early Tertiary (?)
6	Cornelia quartz monzonite (dioritic border facies).	(?)	Fine-grained equigranular diorite, locally with poikilitic orthoclase. Forms discontinuous slightly older border around 7.	Early Tertiary (?)
5	Concentrator volcanics.	Several hundred to perhaps 3,000+	Andesite, keratophyre, and quartz keratophyre flows, breccias, and tuffs, highly altered and of complex structure.	Cretaceous (?)
4	Chico Shunie quartz monzonite.	(?)	Quartz monzonites, mostly sheared, some partly or wholly recrystallized. As mapped on plate 3, includes some potash granite, albite granite, quartz diorite, and trondhjemite, which may be of several ages.	Mesozoic (?)
3	Hornfels.	1,000±	Altered sandstone, shale, andesite, and rhyolite, hornfelsed by Chico Shunie quartz monzonite, in which they occur as inclusions.	Paleozoic (?)
2	Hornblendite.	(?)	Massive to foliated dark-green rocks in small rounded masses in Cardigan gneiss.	Pre-Cambrian (?)
1	Cardigan gneiss.	(?)	Contorted gneiss, showing injection features and refoliation, possibly of two ages. Probably chiefly of igneous (quartz dioritic) origin.	Pre-Cambrian (?)