EXPLANATION

Qal	Alluvium
Qg	Terrace gravels, older gravels & alluvium
Ths	Hickey Formation: conglomerate & sandstone (member)
Thb	Hickey Formation: basalt (member)
TKr	Laramide rhyolite porphyry dikes
TKg	Laramide granodiorite
pCtg	Texas Gulch Formation: conglomerate overlain by sandstone & purple slate with interbedded quartz tuff
---------- UNCONFORMITY ----------	
pCbbg	Brady Butte granodiorite

IRON KING FORMATION

- **CARBINE MEMBER**
  - pCIc₁
  - pCIc₂ — Rhyodacite
  - pCIc₃ — Calcareous sediments + pelite + dacitic tuffs
  - pCIc₄ — Rhyodacite + calcareous sediments
  - pCIc₅ — Rhyodacite becoming more dacitic to the north + intermediate volcanics to the north
  - pCIc₆
  - pCIc₇ — Rhyodacite + dacite tuffs + chert
  - pCIc₈ — Dacite, rhyodacite, rhyolite + sediments + chert
  - pCIc₉ — Quartz porphyry
- **RAILROAD MEMBER**
  - pCIrs — a: Calc-sediments, graywacke, intermediate volcanics & dacite tuffs; b-e: felsic volcanics; f: epidote quartz sericite alteration; g-j: felsic volcanics
- **BOGGS MEMBER**
  - pCIbo — Felsic volcanics, chert + aluminosilicate alt (k)
  - pCIbb — Quartz porphyry
  - pCIbc — Quartz porphyry
  - pCIbd — Dacite plagioclase porphyry
  - pCIbe — Graywacke sediments + felsic to intermediate tuffs & cherts
  - pCIbf — Polymictic fragmented breccia
  - pCIbg — Marble + chert
  - pCIbh — Intermediate feldspar porphyry flow, locally silicified & brecciated
  - pCIbi — Fragmented quartz porphyry + chert breccia
  - pCIbj — Quartz porphyry
  - pCIbk — Silicic gossan
  - pCIbl — Quartz muscovite schist (felsic tuffs or tuffaceous sediments)
  - pCIbm — Quartz porphyry
  - pCIbn — Quartz muscovite schist (felsic tuffs or tuffaceous sediments)
  - pCIbo — Quartz muscovite schist (felsic tuffs or tuffaceous sediments)
  - pCIbp — Felsic volcanics + quartz porphyry
  - pCIbq — Quartz porphyry
  - pCIbr — Quartz porphyry
  - pCIbs — Fragmental felsic volcanics
  - pCIbt — Quartz muscovite schist + quartz porphyry
  - pCIbu — Felsic volcanics + chert + aluminosilicate alteration (k)
  - pCIbv — Fragmental unit within pCIbu
  - pCIbw — Quartz porphyry
  - pCIbx — Quartz porphyry
  - pCIby — Felsic volcanics
  - pCIbz — Felsic volcanics
  - pCIb₁ — Felsic volcanics, chert + aluminosilicate alt (k)
  - pCIb₂ — Quartz porphyry
  - pCIb₃ — Felsic volcanics & various greenstones
  - pCIb₄ — Bleached andesitic volcanics (?)
  - pCIb₅ — Felsic tuffs & various greenstones
  - pCIb₆ — Felsic volcanics
  - pCIb₇ — Felsic volcanics, locally pyritic + chert
  - pCIb₈ — Felsic volcanics
  - pCIb₉ — Felsic volcanics
  - pCIb₁₀ — Felsic volcanics
  - pCIb₁₁ — Felsic volcanics
  - pCIb₁₂ — Felsic volcanics, locally pyritic, quartz muscovite schist
  - pCIb₁₃ — Intermediate volcanics + volcaniclastic sediments
  - pCIb₁₄ — Rhyodacite
- **PIPELINE MEMBER**
  - pCIpo₁ — Pelitic to psammitic sediments, calcareous pelite, argillaceous ls. + felsic volcanics + hbld. phenocryst andesite
  - pCIpo₂ — Calcareous pelite + argillaceous ls. + cherty siliceous calcareous pelite + chert + basalt
  - pCIpo₃ — Cherty argillaceous sediments + dacitic tuffs
  - pCIpb — Calcareous sediments, graywacke, chert + intermediate volcanic flows + gabbro
  - pCIpr — Felsic volcanics
  - pCIpa — Cherts: fc – ferruginous chert; wc – white chert
  - f — Felsic volcanics
  - k — Kyanite alteration
  - pCIpu — Pipeline member: undivided – Calcareous sediments, graywacke, intermediate flows + chert + gabbro-diorite
  - pCIpx — Silicified felsic tuffs & sediments
  - pCIpy — Quartz porphyry, locally silicified
- cs — Calc-silicate alteration

SPUD MOUNTAIN FORMATION

- pCIsma — Intermediate tuffs & tuffaceous sediments
- pCImb — Intermediate flows & breccias + tuffs and tuffaceous sediments

DANDER SPRING MEMBER

- pCId — Calcareous sediments with intercalated mafic intermediate flows & tuffs + marble + gabbro

SYMBOLS

- Contact, dashed where inferred
- Fault, dashed where inferred
- Overturned anticline, showing plunge, dashed where inferred
- Overturned syncline, showing plunge, dashed where inferred
- Strike and dip of foliation with rake of lineation within foliation plane
- Vertical foliation
- Strike and dip of layering
- Vertical layering

Funded by Long Lac Mineral Exploration Inc.

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FEET

NOTE: Base map traced from uncontrolled, 1:12,000 aerial photos, enlarged to 1:6,000

GEOLOGIC MAP OF THE BIG BUG METALLIC MINERAL DISTRICT, ARIZONA

by

PATRICK F. O'HARA

ARIZONA GEOLOGICAL SURVEY CONTRIBUTED MAP CM 90-A (sheet 2 of 2)

CM 90-A 2 of 2