



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
ALASKA
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COMPILED FROM THE GEOLOGICAL SURVEY ALASKA RECONNAISSANCE TOPOGRAPHIC SERIES, SCALE 1:250,000, AND OTHER OFFICIAL SOURCES

1 INCH APPROXIMATELY 80 MILES
150 KILOMETERS

DATUM IS MEAN SEA LEVEL
BASE MAP ADAPTED FROM U.S. GEOLOGICAL SURVEY MAP E, 1954 EDITION

METALLOGENIC PROVINCES OF ALASKA
(WITH SIGNIFICANT PROSPECTS AND PAST PRODUCING PROPERTIES)
Prepared for U.S. Bureau of Mines by C. C. Hawley-1977

| MAIN CATEGORY | ENVIRONMENT | EXPLANATION | ASSOCIATED ROCK TYPE | ASSOCIATED ELEMENTS |
|---------------|----------------------------|--|--|--|
| Igneous | p-Plutonic | (g) Granite | (g) Granite | Sn, W, Be, U, Mo |
| | h-(Hypabyssal) | (gd) Quartz monzonite granodiorite | (gd) Quartz monzonite granodiorite | Cu, Mo |
| | | (gb) Gabbro | (gb) Gabbro | Cu, Ni |
| | | (s) Syenite | (s) Syenite | Mo, U, Ti |
| | | (um) Ultramafic | (um) Ultramafic | Cr, Ni, Cu, Fe, Ti |
| | | v-Volcanic | (r) Calc-alkaline, rhyolite | Cu, Zn, Au |
| Sedimentary | m-Marine | (ph) Black shale, chert, phosphorite | (ph) Black shale, chert, phosphorite | P ₂ O ₅ , oil shale, V, Mo, Ag, Zn, Ba, Zn, Pb, Ba, Cu |
| | | (sh) Black shale-limestone | (sh) Black shale-limestone | Fe, Mn |
| | | (if) Iron formation | (if) Iron formation | Fe, Mn |
| Hydrothermal | e-Epithermal & Mesothermal | (a) Diverse rock types, including graywacke-argillite, schist and phyllite | (a) Diverse rock types, including graywacke-argillite, schist and phyllite | Au, Ag, Sb, Hg, As |
| | | (b) Basaltic | (b) Basaltic | Cu, Ag |

SIGNIFICANT DEPOSITS

| | |
|---|--|
| □ Magmatic deposit (irregular to stratiform) | □ Mantle deposit (including Mississippi Valley type) |
| ● Porphyry-type deposit | ◇ Vein-type deposit |
| ▲ Skarn or talciferous deposit | ▣ Placer deposit |
| ■ Stratiform deposit (either sedimentary or volcanogenic) | x Unclassified deposit |
| ■ Unlisted deposit | |

| Prospect Name and Number | Metals | Prospect Name and Number | Metals | Prospect Name and Number | Metals |
|--|-------------------|--|--------------------|---------------------------------------|-----------------|
| 1. Poovookuk Mtn. | Cu, Mo, W, Sn | 49. Banto-Oulley Hill | Au, Ag, Pb, Zn | 98. Tuxedni Bay | Fe |
| 2. Nome Beach Placers | Au | 50. State Creek | Sb | 99. Iliamna | Fe |
| 3. Hoogendorn | Pb, Zn, F, Ba | 51. Mt. Eielson | Zn, Pb, Ag | 100. Kasilak | Cu |
| 4. Aurora Creek | Pb, Zn | 52. Purkupit | Ag, Sn, U, Be | 101. McNeil | Cu |
| 5. Big Narrah | Au | 53. Shellabarger Pass | Cu, Zn | 102. Keasei Mtn. | Cu |
| 6. Cape Mtn. | Sn | 54. Post River - Sheep Creek | Pb, Zn, Ag, (Cu) | 103. Bear Creek | Cu (Mo, Au) |
| 7. Potato Mtn. | Sn | 55. Unnamed | Cu, Ag, Au, Ni | 104. Mallard Duck Bay | Cu, Cu |
| 8. Lost River | Sn, W, U, Be | 56. Coal Creek | Cu, Ag, Au | 105. Warner Bay | Cu, Mo |
| 9. Lar Mtn. | Cu | 57. Unnamed | Cu, Ag, Au | 106. Bearskin | Cu |
| 10. Ward | Cu | 58. Upper Ohio Creek | Mo, Ag, Hn, Sn | 107. Ivanof Bay | Cu, Cu |
| 11. Wheeler | Cu | 59. Post Creek | Zn, Ag, Pb, Zn | 108. Braded Mtn. | Cu, Mo, Au |
| 12. Independence Creek | Ag, Pb, Zn, Sn | 60. Upper Ohio Creek | Sn, W, Ag | 109. Apollis | Au, Ag, Cu |
| 13. Onalik | Cu | 61. Head of Cape | Sn, Ag, Pb, Zn, Cu | 110. White Mtn. | Hg |
| 14. Canale | Cu | 62. Golden Zone | Sn, Ag, Pb, Zn, Cu | 111. Red Dell - Barometer | Hg, Sb |
| 15. Unalakleet | Cu | 63. Mt. Costello Creek | Cu, Mo, Au | 112. DeCourcy Mtn. | Hg |
| 16. Granite Mtn. | Pb, Zn, Mo, Sn, U | 64. Post Creek (Donall) | Cu, Mo, Au | 113. Nixon Fork | Au, Ag, Cu |
| 17. Red Bog | Pb, Zn, Ba | 65. Slate Creek | Cu, Au, Ag | 114. Golden Horn | Hg |
| 18. Umar | Cu | 66. Long Lake | Mo (Cu, Ag, Pb) | 115. Cinnabar Creek | Hg |
| 19. Frost | Ba, Zn (Cu) | 67. Grabstake | Au (Cu) | 116. Goodnews Bay | Pb metals |
| 20. Sorfite (Ruby Creek) | Cu (Zn, Ag) | 68. Indian Pass Lake | Au (Cu) | 117. Marmot Group | Au, Ag, Zn, Pb |
| 21. Smelter | Zn, Cu, Pb, Ag | 69. Nabesna | Au (Cu) | 118. Marmot Group (Talciferous Creek) | Au |
| 22. Horse Creek | Zn, Cu, Pb, Ag | 70. Monte Cristo | Mo (Cu) | 119. Klukken | Fe, Ti |
| 23. Sunshine Creek | Zn, Cu, Pb, Ag | 71. Orange Hill | Cu, Mo | 120. Haines | Fe, Ti |
| 24. Arctic | Zn, Cu, Pb, Ag | 72. Bond Creek | Cu, Mo | 121. Nunatak | Mo, Cu |
| 25. Cliff | Cu, Zn, Pb | 73. Carl Creek | Cu | 122. Bruce Hills | Mo, Cu |
| 26. White Creek | Zn | 74. Bagbyuff | Cu | 123. Leroy Mtn. | Cu, Ni |
| 27. E-J | Cu, Zn, Pb, Ag | 75. Hordley | Cu, Ag, Au | 124. Mt. Frostweather | Ni, Cu |
| 28. Stahopus | Zn, Cu, Pb, Ag | 76. Ptarmigan Creek | Cu, Ag, Au | 125. Brady Glacier | Ni, Cu |
| 29. Finch Creek | Zn, Cu, Pb, Ag | 77. Brooker | Cu, Ag | 126. Boulder Basin, Flapjack | Ni, Cu |
| 30. Red Water Lake | Zn, Cu, Pb | 78. Nelson | Cu, Ag | 127. Stagg Bay | Fe |
| 31. Ana-Aso Group | Pb, Zn, Ag | 79. Peavine | Cu, Ag | 128. Mirny Harbor | Fe, Ni, Cu |
| 32. J. Jig | Zn, Cu | 80. Ketchikan (also includes Green Butte) | Cu, Ag | 129. Chichagof | Au |
| 33. Victor-Venus | Cu | 81. Dan Creek | Au, Cu | 130. Red Bluff Bay | Cr |
| 34. Horace Mtn. | Cu | 82. Yonina | Au, Cu | 131. Marx Springs Bay | Ni, Cu |
| 35. (Prospect) | Mo, Cu | 83. Willow Creek Group (includes Independence-Gold Gerd) | Cu | 132. Snipe Bay | Ni, Cu |
| 36. George Mt. | Au, Ag, Sb | 84. Alaska-Juneau | Cr | 133. Comet-Kensington-Juulin | Au |
| 37. Little Squaw - Mikado | Au, Ag, Sb | 85. Wolverine | Cu, Fe | 134. Lake River | Au, Pb |
| 38. Livengood | Au | 86. Red Mtn | Cr | 135. Nevada Creek | Mo, Pb |
| 39. Hordley Group (H-Yu-Clear Hill-McCarthy) | Au | 87. Claim Point | Cr | 136. Treadwell | Mo, Pb |
| 40. Sperm Lode | Sb | 88. Laidlaw (Beatson) | Cu, Fe, S, (Zn) | 137. Tracy Arm | Zn, Cu |
| 41. Stepanich (Prospect) | Sb | 89. Horseshoe Bay | Cu, Fe, S | 138. Southern Kasan | Cu, Fe |
| 42. Taurus | Cu, Mo | 90. Big Cove (Knight Island) | Cu, Fe, S | 139. Salt Chuck | Pt, Cu |
| 43. Taurus | Cu, Mo | 91. Elanor | Cu, Ag, Au | 140. Bush and Brown | Cu, Au |
| 44. Dennis | Cu | 92. Kigas | Cu, Mo, Au | 141. Oive Island | Fe, Ti |
| 45. Tol | Cu | 93. Pitagao | Cu, Ag | 142. Holtis - Flagstaff Area | Au |
| 46. Hogata | Au, Ag, Bi, As | 94. Kaseva Creek | Cu, Mo | 143. Jumbo Basin (Copper Mtn.) | Cu, Fe |
| 47. Liberty Belle | Sb | 95. Trimbie Glacier (Naves Glacier) | Cu, Mo | 144. Copper City - Lime Point | Ba, Zn, Cu |
| 48. Liberty Belle | Sb | 96. Mt. Estelle | Au, Cu, Ag | 145. Forrester Island | Cu |
| | | 97. Jimmy Lake | Mo, Sn, Ag | 146. Baker Island | Cu, Mo |
| | | | | 147. San Juan Batista | Cu, Mo |
| | | | | 148. Noyes Island | Cu, Mo |
| | | | | 149. Coronation Island | Pb, Zn, Cu |
| | | | | 150. Bogan Mtn. | U, Th, R.E., Cu |
| | | | | 151. Niblack | Zn |
| | | | | 152. Chomondley Sound | Cu, Fe, S |
| | | | | 153. Chayye | Cu |
| | | | | 154. Big Harbor | Cu |

— Past Producer
- - - Under Exploration
- - - - - Chemical symbols without brackets denote minerals of primary importance
- - - - - (Ag) Chemical symbols within brackets denote minerals of secondary importance

FIGURE 6. Metallogenic provinces in Alaska