

Map number	Prospect name and description	Commodity	Reference (listed below)
1	Meier Lake	Cu	4
2	Hogan Hill	Cu	4
3	Hogan Hill	Cu	4
4	Indian Creek, West Fork, Burns	Cu, Pb	4
5	Indian: Silver-sulfide-gold-bearing quartz-carbonate veins in porphyritic quartz-diorite	Ag, Pb, Au	2, 4
6	Long Lake: Veinlets and disseminations of sulfides and minor molybdenite within altered rocks of Ahzell Pluton. Geochemically anomalous area	Cu, Mo	2, 3, 4
7	The Dome	Cu, Pb	4
8	Ahtell Creek, West Fork	Cu, Pb, Ag	4
9	Unnamed	Cu	4
10	Judy	Cu, Au	4
11	Unnamed	Cu	4
12	Silver Creek: Silver-sulfide-gold-bearing quartz-carbonate veins in hornfels in a fault zone at the contact between a diorite and a volcanic and sedimentary package	Cu, Au, Pb, Ag, Zn	2, 4
13	Gold-quartz	Cu, Au, Pb, Ag, Zn	4
14	Silver Shield	Pb, Ag	4
15	Unnamed	Cu, Pb, Ag	4
16	Lyons	Cu	4
17	Cryshake	Au, Ag, Cu	4
18	Slope Creek	Au, Ag, Bi	4
19	Granite Creek	Au	4
20	Hidden Creek	Au	4
21	Ahtell Creek	Au	4
22	Boulder Creek	Au	4

Oil and Gas
The eleven abandoned exploratory wells did not contain significant oil or gas shows (Alaska Oil and Gas Conservation Commission, 1980). In addition there are few known reservoirs with adequate porosities and permeabilities. Based on this and the lack of seeps or other indications of hydrocarbons in the basin, the potential for commercial accumulations is considered low.

Coal
There are no reported coal occurrences in this quadrangle, although there is an unknown potential for coal at depth within Tertiary sediments of the Copper River Basin.

Carbonate Rocks
There are no significant deposits of carbonate rocks (including limestone, dolomite, and marble) reported in this quadrangle.

Geothermal
Although the entire Wrangell Mountain area, composed of Quaternary volcanoes, is considered to be of moderate to high potential for geothermal resources the area on the west flank of Mt. Drum, delineated with a dashed line, is considered of highest potential and is under active investigation. Previous work has shown that in addition to the mud volcanoes in the area there are geophysical and geochemical anomalies that indicate possible geothermal water at depth (Wescott and Turner, 1982).

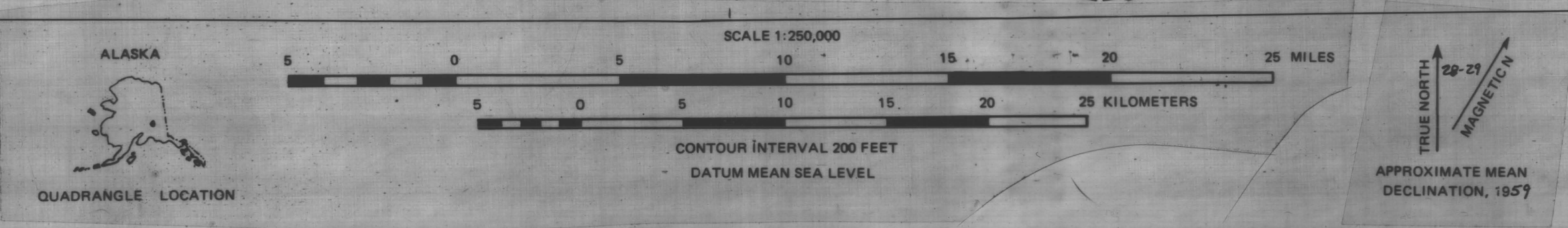
- REFERENCES**
- Alaska Oil and Gas Conservation Commission, 1980, Copper River Basin Well Location Map: Alaska Oil and Gas Conservation Commission, 3901 Porcupine Drive, Anchorage, Alaska.
 - Cobb, E.H., 1979, Summary of references to mineral occurrences (other than mineral fuels and construction materials) in the Gulkana Quadrangle, Alaska: U.S. Geological Survey Open-File Report 79-1247.
 - Richter, D.H., 1964, Geology of the Gulkana district, south-central Alaska: Alaska Division of Mines and Minerals Geologic Report 21, 51 p.
 - Richter, D.H., and Watson, H.A., 1982, Metallic mineral resources map of the Gulkana Quadrangle, Alaska: U.S. Geological Survey Miscellaneous Field Studies Map MF-419.
 - Wescott, E.H., and Turner, D.L., 1983, Final report on the investigation of the geothermal energy resource potential of the eastern Copper River Basin, Alaska: Geophysical Institute, University of Alaska, submitted to Alaska Division of Geological and Geophysical Survey, USA 83-XX-679, February 1983.

EXPLANATION
This map shows the approximate location of all reported mineral deposits and areas of potential for oil and gas, geothermal, coal, and carbonate rock resources within this quadrangle. The reader is guided to the list of references on this map for additional information regarding these resources.

Minerals	Oil and Gas	Geothermal	Coal	Carbonate Rocks
Significant sites or exploration potential	Dry and abandoned oil and gas well	Area of high geothermal potential	Coal location (approximate)	Carbonate rock location (approximate)
Lode deposit		Geothermal spring and temperature		
Placer deposit				

Note: This map is intended only for general land management and planning purposes; site specific projects will require ground verification of the information presented.

Compiled by Staff, Division of Geological and Geophysical Surveys



MINERAL AND ENERGY RESOURCES, GULKANA QUADRANGLE, ALASKA