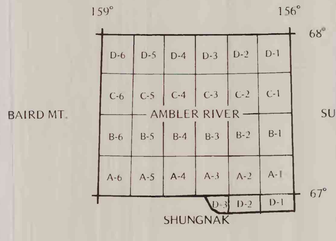
U. S. GEOLOGICAL SURVEY
OPEN FILE REPORT
OF 78-120K
Sheet 2 of 3

Hackett- LINEAMENT AND ANOMALY MAP

DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

Base from U.S. Geological Survey
1:250,000 Topographic Series, 1956

SCALE 1:250,000
5 0 5 10 15 20 25 Miles
5 0 5 10 15 20 25 Kilometers
CONTOUR INTERVAL 200 FEET
DATUM IS MEAN SEA LEVEL



QUADRANGLE LOCATION

EXPLANATION

MAGNETIC LINEAMENTS

- Readily apparent (clear) expression
- Interrupted expression
- Vague expression
- Probable extension
- Approximate boundary of major magnetic terrane

Criteria for recognizing aeromagnetic lineaments:

1. Change in magnetic gradient
2. Termination of magnetic highs or lows
3. Linear patterns of magnetic contours
4. Selected alignments of magnetic highs or lows or combinations of 1-3

ANOMALY TRENDS

- Alignment axis of major magnetic highs
- Alignment axis of major magnetic lows
- Axis of broad magnetic highs
- Axis of broad magnetic lows
- Broken where inferred
- Queried where doubtful

Note: "TOPO" indicates that some components may be partly caused by topographic relief.

EXPLANATION FOR GENERALIZED GEOLOGIC MAP

(Geology generalized from Pessel and Brosgé, 1977; Mayfield and Tailleur, 1978)

CORRELATION OF MAP UNITS

SURFICIAL DEPOSITS
Qu — QUATERNARY

SEDIMENTARY AND METASEDIMENTARY ROCKS
Kq, Kc — CRETACEOUS
Unconformity
M — MISSISSIPPIAN
Unconformity
De, Db — DEVONIAN
Pzm — DEVONIAN AND OLDER

METASEDIMENTARY ROCKS OF UNCERTAIN AGE
MzPzpw — MESOZOIC OR PALEOZOIC
Pzcq, Pzbs, Pzu — PALEOZOIC
uqm — PALEOZOIC AND OLDER (?)

IGNEOUS AND META-IGNEOUS ROCKS
Kgr — CRETACEOUS? OR PALEOZOIC
Ju — JURASSIC
mi, fs, Pzi — MESOZOIC AND (OR) PALEOZOIC

DESCRIPTION OF MAP UNITS

SURFICIAL DEPOSITS

Qu — UNCONSOLIDATED SURFICIAL DEPOSITS (QUATERNARY)

SEDIMENTARY AND METASEDIMENTARY ROCKS

Kq — QUARTZ CONGLOMERATE, SANDSTONE, AND MUDSTONE (CRETACEOUS)

Kc — IGNEOUS PEBBLE-COBBLE CONGLOMERATE (CRETACEOUS)

M — LISBURNE GROUP AND UPPER PART OF ENDICOTT GROUP (MISSISSIPPIAN)—INCLUDES KAYAK SHALE AND KEKIKTUK CONGLOMERATE

De — LOWER PART OF ENDICOTT GROUP (DEVONIAN)-MAINLY SLATE AND SANDSTONE

Db — DARK CALCAREOUS SCHIST, LIMESTONE, AND SILICEOUS PHYLLITE (DEVONIAN)

Pzm — LIMESTONE AND MARBLE (DEVONIAN AND OLDER)

METASEDIMENTARY ROCKS OF UNCERTAIN AGE

MzPzpw — PHYLLITE AND MAFIC VOLCANIC WACKE (MESOZOIC OR PALEOZOIC)

Pzcq — CHLORITIC QUARTZITE AND SCHIST (PALEOZOIC)-LOCALLY INCLUDES FELDSPATHIC ORTHOGNEISS

Pzbs — GRAPHITIC PHYLLITE AND SCHIST (PALEOZOIC)

Pzu — UNDIFFERENTIATED METAMORPHIC ROCKS (PALEOZOIC)-INCLUDES MARBLE, QUARTZITE, CALC-SCHIST, AND LESSER QUARTZ-MICA SCHIST

uqm — GRAY PHYLLITE AND QUARTZ-MICA SCHIST (PALEOZOIC AND OLDER(?))

IGNEOUS AND META-IGNEOUS ROCKS

Kgr — META-GRANITIC PLUTONIC ROCKS (CRETACEOUS? OR PALEOZOIC)

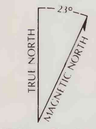
Ju — ULTRAMAFIC ROCKS AND SERPENTINITE (JURASSIC)

mi — BASALT, DIABASE, AND GREENSTONE (MESOZOIC AND/OR PALEOZOIC)

fs — FELSIC SCHIST (MESOZOIC AND/OR PALEOZOIC) MAY BE, IN PART, VOLCANIC

Pzi — INTERMEDIATE META-IGNEOUS ROCKS (MESOZOIC AND/OR PALEOZOIC) MAY BE PLUTONIC AND (OR) VOLCANIC, MOSTLY GRANODIORITE OR QUARTZ DIORITE IN COMPOSITION

- LITHOLOGIC CONTACT; dashed where uncertain
- HIGH ANGLE FAULT; dashed where uncertain, dotted where concealed
- THRUST FAULT; dotted where concealed



APPROXIMATE MEAN DECLINATION, 1976

MAGNETIC LINEAMENT AND ANOMALY TREND MAP

AEROMAGNETIC INTERPRETATION MAPS OF THE AMBLER RIVER QUADRANGLE, ALASKA

by Steve W. Hackett

State of Alaska, Department of Natural Resources
Division of Geological and Geophysical Surveys

1980

This map is preliminary and has not been reviewed for conformity with U.S. Geological Survey editorial standards and stratigraphic nomenclature.

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