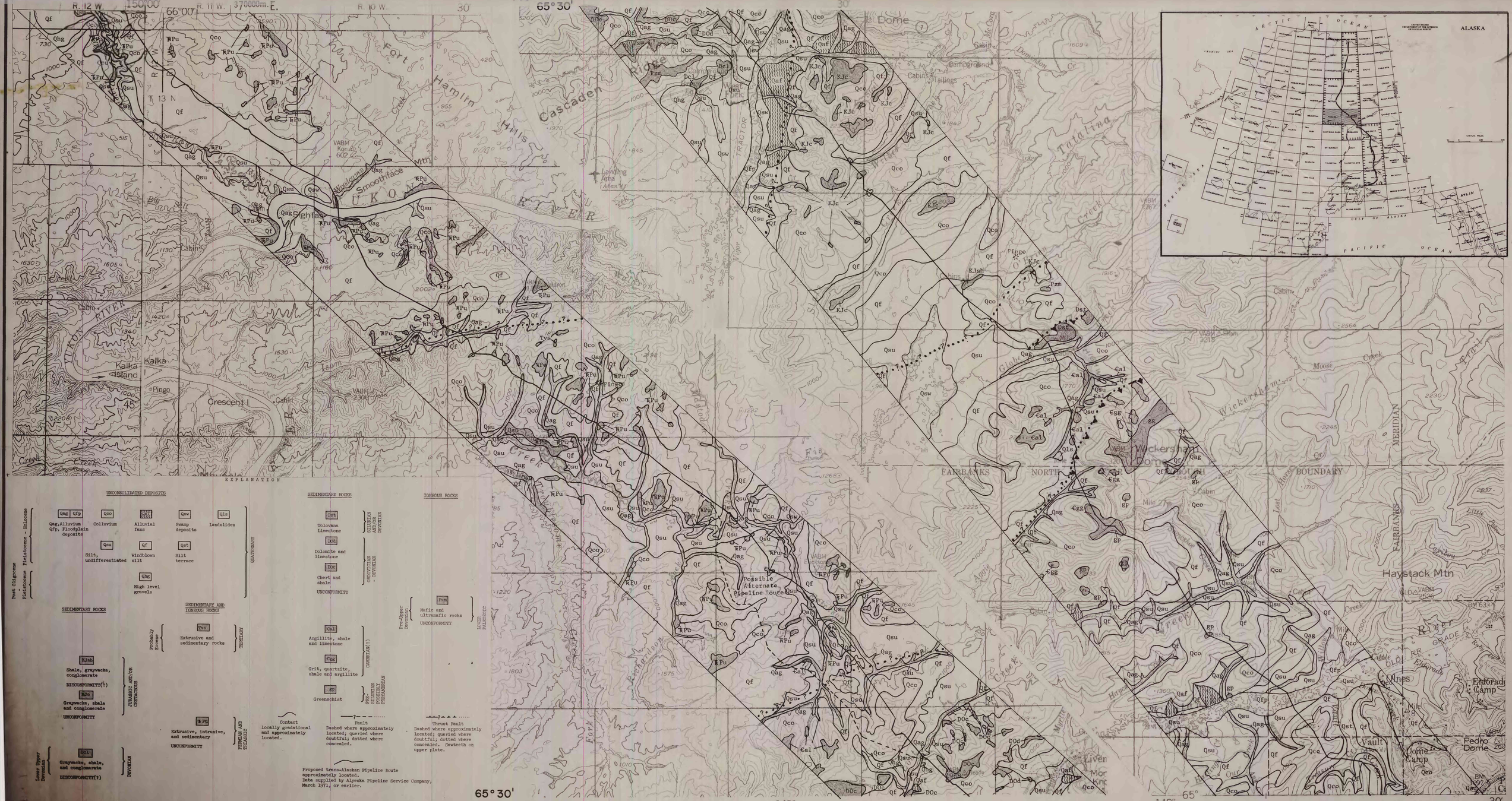
DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

OPEN FILE MAP

SHEET 1 OF 2



EXPLANATION

UNCONSOLIDATED DEPOSITS

- Qag, Qfp — Qag, Alluvium Qfp, Floodplain deposits
- Qco — Colluvium
- Qaf — Alluvial fans
- Qsw — Swamp deposits
- Qls — Landslides
- Qsu — Silt, undifferentiated
- Qf — Windblown silt
- Qst — Silt terrace
- Qhg — High level gravels

Post Oligocene – Pleistocene – Holocene; Pleistocene – Holocene — QUATERNARY

SEDIMENTARY ROCKS

- Kjsh — Shale, greywacke, conglomerate
- DISCONFORMITY(?)
- Kfs — Greywacke, shale and conglomerate
- UNCONFORMITY

JURASSIC AND/OR CRETACEOUS

- ₹Pu — Extrusive, intrusive, and sedimentary
- UNCONFORMITY

PERMIAN AND TRIASSIC

- Dck — Greywacke, shale, and conglomerate
- DISCONFORMITY(?)

Lower Upper Devonian — DEVONIAN

SEDIMENTARY AND IGNEOUS ROCKS

Probably Eocene

- Tvs — Extrusive and sedimentary rocks

TERTIARY

SEDIMENTARY ROCKS

- Dst — Tolovana limestone
- Dod — Dolomite and limestone
- Dss — Chert and shale
- UNCONFORMITY

DEVONIAN AND/OR SILURIAN — DEVONIAN(?) — SILURIAN

- Cal — Argillite, shale and limestone
- Cgg — Grit, quartzite, shale and argillite

CAMBRIAN(?)

- gr — Greenschist

PRE-SILURIAN PRESUMABLY PRECAMBRIAN

IGNEOUS ROCKS

Pre-Upper Devonian

- Pzm — Mafic and ultramafic rocks
- UNCONFORMITY

LOWER PALEOZOIC

Contact
locally gradational and approximately located.

Fault
Dashed where approximately located; queried where doubtful; dotted where concealed.

Thrust Fault
Dashed where approximately located; queried where doubtful; dotted where concealed. Sawteeth on upper plate.

Proposed trans-Alaskan Pipeline Route approximately located.
Data supplied by Alyeska Pipeline Service Company, March 1971, or earlier.

Geology by Reuben Kachadoorian, 1969,
Reuben Kachadoorian and H. J. Moore II, 1970.
Bedrock geology by R. M. Chapman, F. R. Weber, and W. E. Yeend, 1970.

Bedrock units shaded.

PRELIMINARY ENGINEERING GEOLOGIC MAPS OF THE PROPOSED TRANS-ALASKA PIPELINE ROUTE, TANANA AND LIVENGOOD QUADRANGLES

Compiled by Reuben Kachadoorian 1971

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