Plate 2a Grant property, structures and mineralization.

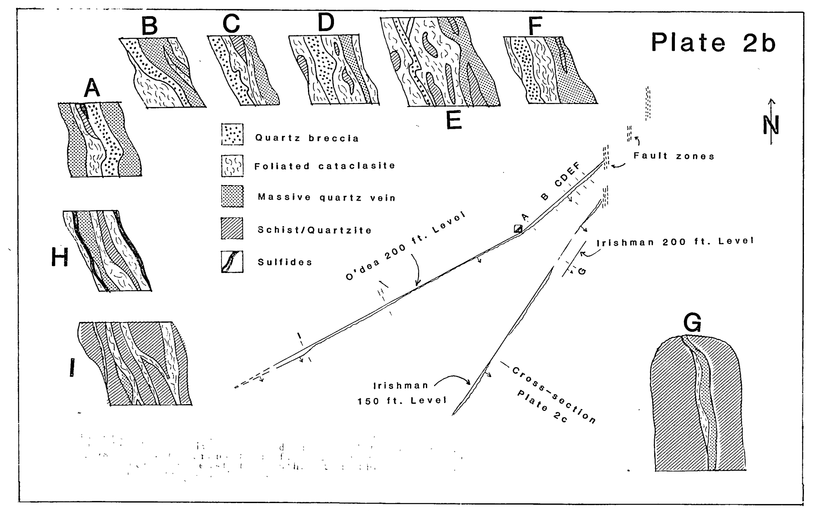
	Description	Relationship to other Structures	Fabric	Relationship to Lithology	Mineralization	Attitudes Dimensions
O'dea	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Trend- N45°W Dip- 40-55°S flattens up dip Width- 1-3 meters
Irishman	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Trend- 55°W Dip- Steep° flattens up dip Width- 1-3 meters

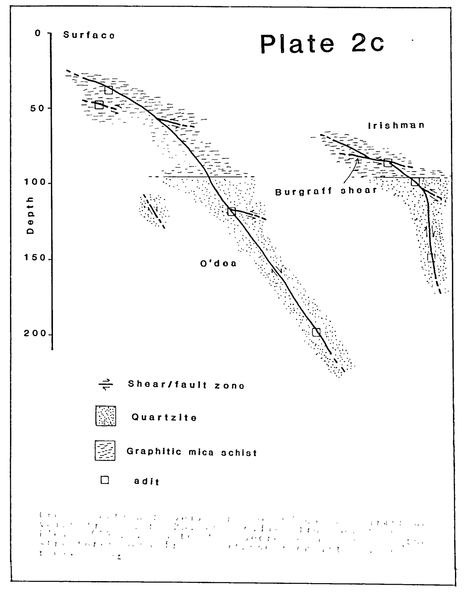
Plate 2d Scrafford property, structures and mineralization.

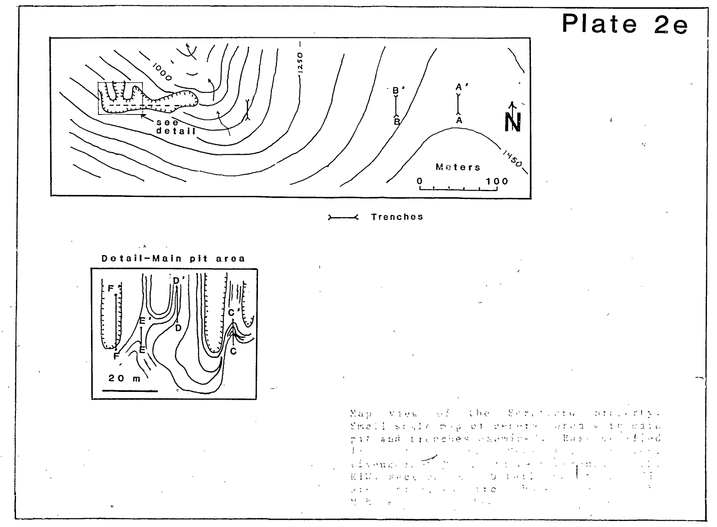
	Description	Relationship to other Structures	Fabric	Relationship to Lithology	Mineralization	Attitudes Dimensions
#1 Vein	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Trend- N85-90°E Dip- 70+65°S #1 vein 45+25°S subsidiar shear & fault veins Width- 1-4 meters
Trench A-A'	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Trend- N85+90°E Dip- 75+85°S Width- 1-5 meters
Trench B-B'	Two conjugate shear subzones zone 1 is a narrow zone of clay and fragmented schist, zone 2 a narrow zone of clay and fragmented schist, which is to the east side of the trench. Zone 1 is an antithetic shear, quartz vein material is seen on the east side in zone 2.	Zone 2 is an axial planar fabric of a large F3 fold. This is apparent on the west side of the trench. Folds along zone 1 suggest normal displacement.	Fabric of both zones are foliated cataclasite ut. dominantly clay matrix, surrounding fragments of mica schist and minor quartzite.	[illegible]	Quartz vein material in zone 2 of the east side is especially barren of mineralization. The veins are spatially close to a large #1 vein, and may be related to it genetically.	Trend- N65-90°E Dip- 80+ -90° Width- 0.1-1 meters

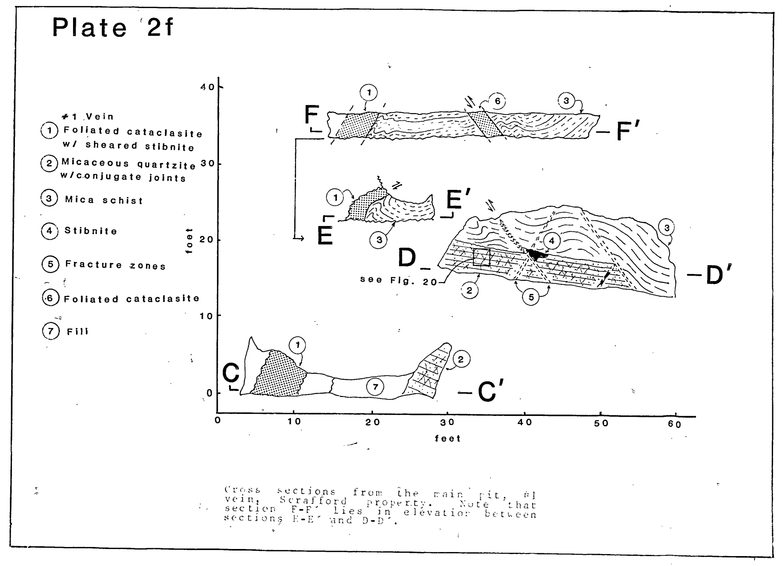
Plate 2h Vetter-Sheldon property, structures and mineralization.

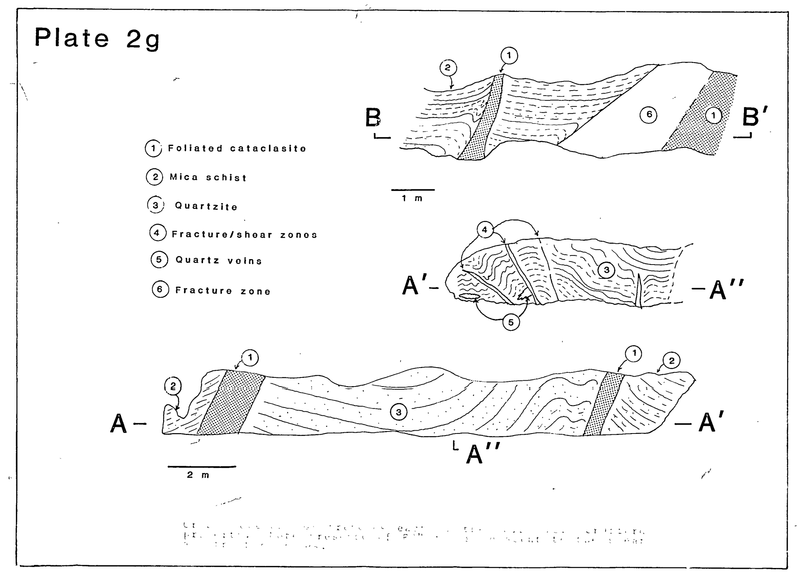
	Description	Relationship to other Structures	Fabric	Relationship to Lithology	Mineralization	Attitudes Dimensions
Christina Adit	The vein structure, the Christina, consists of a massive white quartz breccia vein surrounded by sheared, fractured and sometimes schistose, vein material composed of fragments of vein quartz, later introduced silica. The Christina vein occurs as a zone 1-3 meters thick with 10-15% crushed quartz and clay, and a 1-2 meter thick white quartz vein is found adjacent to the hanging wall.	The Christina structure is an axial planar fabric within an F3 fold.	The fabric of the Christina vein zone is foliated cataclasite containing clay gouge and fragments of sericitized fractured and sheared schist, as well as fragments of vein quartz, and quartzite.	[illegible]	Pyrite, gold is in the Christina vein which fills the quartz breccia. The quartz vein is associated with the Christina structure is adjacent to the shear zone and may have introduced into the shear zone[illegible] fracturing, brecciation, silicification by[illegible] or by damage, od silica precipitating from the retrograde hot rock.	Christina: Trend- 280-90°E Dip- 45-75°S Width- 0.5-1 meters Christina: Trend- 90-85°E Dip- 70-35°S Width- 1-3 meters
Trench A-A'	Narrow shear zone with intense foliation, in hornfels wall schist.	Zone F3 is on the south[illegible] of the narrow shear zone. The wall rock has an intense[illegible] linear orientation[illegible] that is subparallel to the strike and dip of the shear zone. Quartz veins in the quartz are at approximately the shear zone.	Rock in F3 fold are cataclasite and schist[illegible] by fracturing and silica.	[illegible]	[illegible]	[illegible]
Trench B-B'	Five sheer and fracture zones are identified. Zone 1 is a curved fault at a shear zone with adjacent parallel zone 2. Zone 3 is a[illegible] zone. Zone 4 is a[illegible] shear zone with intense foliation, and pitch[illegible] stretching[illegible].	Zone 1 is the F3° fabric of the F3 fold. The curved nature of the zone causes the folds to[illegible] are overturned as the[illegible] of the zone[illegible] Zones 2,4, and 5 are nearly vertical zones striking[illegible] as described in Fig. 11. Zone 3 appears to be complex to zones 2,4, and 5.	Zone 1 and 2 are foliated cataclasite with[illegible] fabric of the F3 fold. Zone 3 is a[illegible] zone with[illegible] fabric. Zone 4 is a[illegible] shear zone with intense foliation and[illegible] stretching[illegible] fabric. Zone 5 appears to be a[illegible] shear zone with[illegible] fabric.	[illegible]	[illegible]	Zone 1: Trend- [illegible] Dip- [illegible] Width- [illegible] Zones 2,3,4, and 5: Trend- 235-90°E Dip- 80+65°S Width- 0.5-1 meters
Trench C-C'	Zone 1 is a shear zone with[illegible] foliation and[illegible] shear zone. Zone 2 is a[illegible] shear zone with[illegible] shear zone defined by[illegible] foliation.	Zones 1 and 2 are[illegible] to the[illegible] zone. The[illegible] orientation of zone 2 seems to exist as an F3° ductile shear.	Fabric of the zone[illegible] is cataclastic with[illegible] of quartzite[illegible] and[illegible] matrix. The zone 2 shear zone[illegible] fragments of quartzite, clay, and rock[illegible] fragments of[illegible] fracture[illegible] quartzite[illegible] foliated surrounding[illegible] schist.	The[illegible] wall side of zone 1 is quartzite. The[illegible] wall side of zone 2 is[illegible] schist.	Quartz veins with visible[illegible] in the fracture zone. The quartz vein is fragmented, and stained by iron oxide.	Zone 1: Trend- [illegible] Dip- [illegible] Width- 1[illegible] Zone 2: Trend- [illegible] Dip- [illegible] Width- [illegible] meters
Trench D-D'	Complex shear and fracture zone with[illegible] veins of both massive and brecciated/sheared varieties.	Relationship with other minor fold structures is not clear.	Fabric of the shear zone is foliated cataclasite with clay gouge, sheared mica schist, and angular fragments of quartzite and[illegible] vein material. The[illegible] fabric is parallel to the massive quartz veins. The foliation is defined by streaks of gray and white quartz and[illegible] trains of scroll vn.s.	The host quartzite and quartz mica schist is highly fractured and silicified.	Massive quartz vein on footwall side is zoned and composed of quartz, pyrite and vuggy quartz.	Trend- N85-90°E Dip- 50-55°S Width- 2 meters

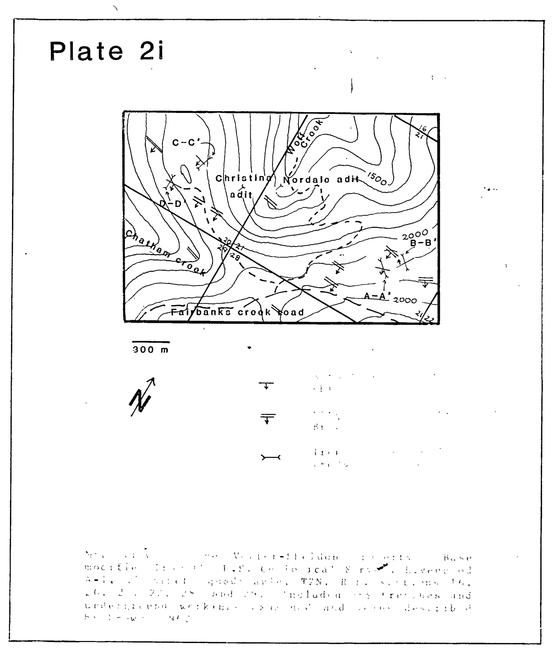


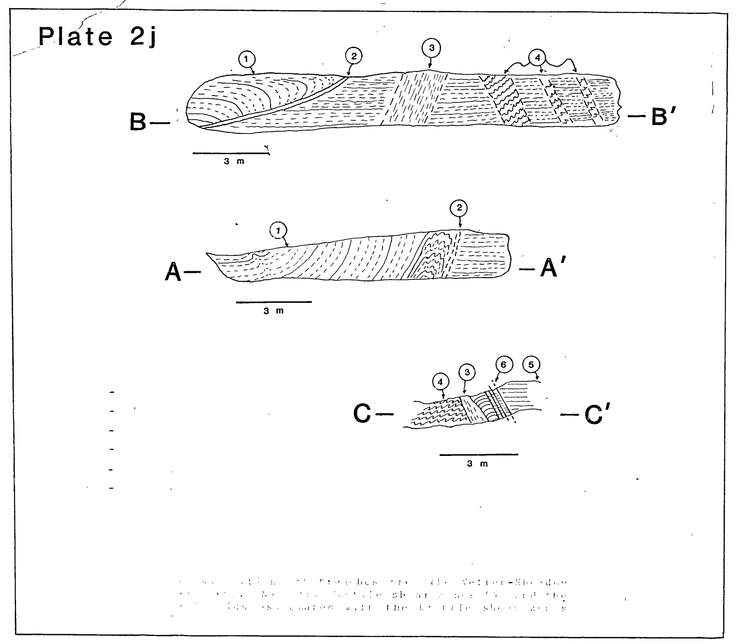












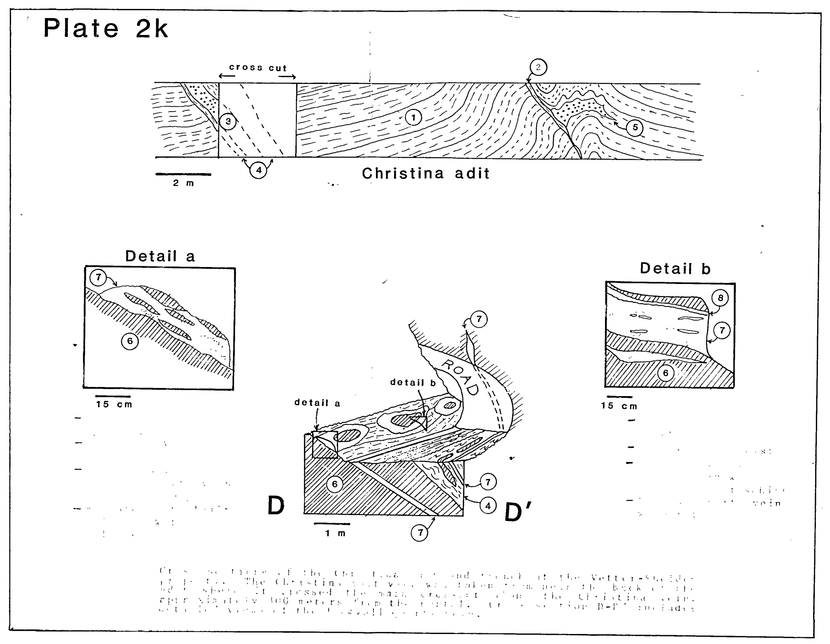


PLATE 2

Selected descriptions of structure and mineralization at the Grant, Scrafford, and Vetter-Sheldon properties, Fairbanks Alaska, with maps and cross-sections.

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DEPARTMENT OF NATURAL RESOURCES

STRUCTURAL GEOLOGY OF THE FAIRBANKS MINING DISTRICT, CENTRAL ALASKA

MARK HALL
1985