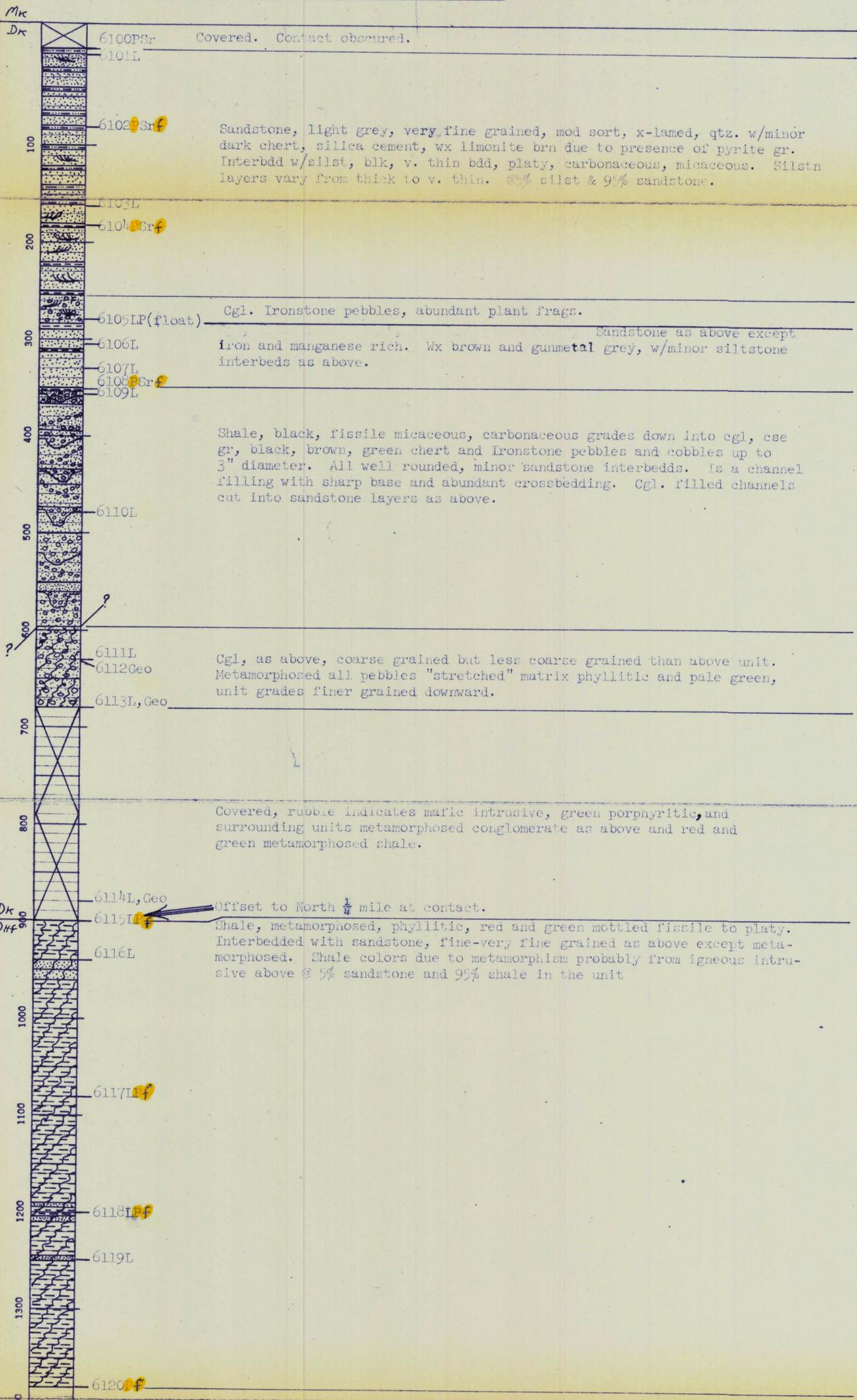
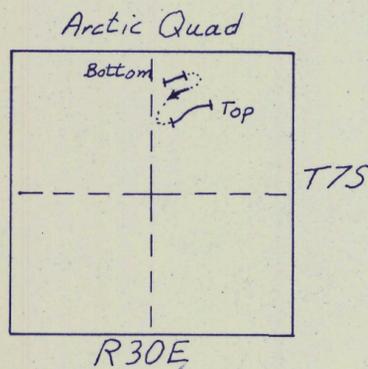


**Amoco Production Company
Surface Log**

Name NORTH RED SHEEP CREEK SECTION
 COUNTY SE BROOKS RANGE STATE ALASKA
 LOCATION °N °W Sec. NE 1/4 TWN 7S RNG 30E
 MEASURED BY Fehlmann, Harkinson DATE 6/23/71
 INTERVAL Kanayut - Hunt Fork
 REMARKS Kanayut is complete. A portion of the Upper
Hunt Fork may be faulted out.



North Red Sheep Creek - 1971 (Kanayut Hunt Fork)

At North Red Sheep Creek, Amoco measured 1,405' of section which includes a complete Kanayut and a partial Hunt Fork (Devonian) section. The basal 480' of the section is assigned to the Hunt Fork and consists of interbedded, metamorphosed shales, siltstones, and sandstones. The shales are fissile, red and green phyllites, while the quartzose sandstones are fine-grained, moderately sorted, and contain abundant pyrite and dark chert grains. The overlying 900' of section includes the entire Kanayut formation. Its contact with the Hunt Fork lies in a basal 220' covered zone which includes an igneous intrusive of unknown thickness. It is this intrusive which is responsible for the metamorphism of the underlying Hunt Fork and overlying 80' of metamorphosed Kanayut conglomerate. The Kanayut above the basal covered zone consists of interbedded, coarse conglomerates and sandstones which exhibit cross bedding and ubiquitous cut-and-fill channel structures. These conglomerates grade upward into interbedded fine-grained, cross laminated, sandstones and siltstones. The sandstone and conglomerate grains are dominantly quartz but include ironstone pebbles and black, brown, and green chert. Plant fragments are abundant at scattered intervals throughout the section and the black siltstones of the upper Kanayut are carbonaceous and micaceous. Pyrite is also abundant and causes the characteristic brown weathering color. Sandstones and conglomerates form about 95% of the section in contrast to only 5% for the Hunt Fork below.

The depositional environment of the Hunt Fork, as indicated by the poorly sorted sandstones interbedded with siltstones, was that of a protected lagoon or shallow nearshore, but below wave base, basin. This environment changed to nonmarine, alluvial fan deposition for the lower Kanayut conglomerates and then back to protected nearshore marine or lagoonal for the upper Kanayut sandstones and shales. The lagoonal Kayak has been observed to be gradational with the underlying Kanayut at several localities in the Brooks Range.

The top of this section is at nearly the same stratigraphic level as the base of the East Red Sheep Creek section. The two sections may be stacked.