DEPARTMENT OF THE INTERIOR UNITED STATES GEOLOGICAL SURVEY OPEN-FILE 80-393 HOLE NO: 1 C-79 LOCATION: Center of NE 1/4 of Section 23, T 14 N, TR 14 W, Tyonek (B-5) Quadrangle, Alaska COLLAR ELEVATION: 580 meters LITHOLOGIC SYMBOLS NO RECOVERY CONGLOMERATE DISCONTINUITIES BEDDING BREAK **S**EPARATIONS (cm) MN/m² | MN/m² | MN/m² | CONTENT | FT DESCRIPTION M FT MIN AVG DIAMICTON, (Glacial deposits), largely unconsolidated with low matrix recovery, materials range in size from clay to boulders, mostly volcanics and granitics with some metamorphic and sedimentary clasts 23.5 > 0.44 40 50 22.2 10 -CLAYSTONE, medium gray, mostly massive 21.8 .11 | 2.64 | >.44 22.8 .16 3.84 20.5 16.5 20.0 .15 | 3.60 CLAYSTONE, medium dark gray to light olive gray to brownish -10_ 20 black, mostly massive, upper and lower parts carbonaceous .07 | 1.68 18.0 and slightly fissile, 0.1 m COAL parting at base of upper _60 15.4 and lower parts, middle part silty 7.68 .07 27.8 .20 COAL, grayish black with 0.1 m SHALE parting, slightly fissile COAL, brownish black COAL, brownish black to grayish brown 20-COAL, brownish black 70— 14.4 10 >.44 4 CLAYSTONE, medium gray, silty, micaceous, massive 19.0 SANDSTONE, medium gray, fine grained >.44 20.0 SILTSTONE, medium gray with fine grained SANDSTONE interbeds 1.68 >.44 .07 10 20 18.3 23.7 CLAYSTONE, medium dark gray, slightly calcareous with 0.1 m 25-6.8 fissile coaly parting 36.4 1.92 >.44 SILTSTONE, medium gray, COAL parting in middle 18.6 18.8 18.7 10 12 15 SANDSTONE, medium gray, very fine to medium grained, upper part 0.72 >.44 .03 interbedded with SILTSTONE and CLAYSTONE 17.0 10.9 Interbedded CLAYSTONE and SILTSTONE, medium dark gray with .03 .72 | >.44 thin COAL lens 30-20 .07 1.68 19.3 CLAYSTONE, medium dark gray to medium gray, upper half carbonaceous and fissile, lower half massive 16.7 SANDSTONE, medium gray, very fine to medium grained,
SILTSTONE interbeds, carbonaceous laminae
SILTSTONE, medium gray, interbedded with medium gray, 0.72 17.0 17.1 very fine grained SANDSTONE SANDSTONE, medium light gray, very fine grained, interbedded 25 20 .96 17.0 .04 >.44 with SILTSTONE .08 | 1.92 | >.44 CLAYSTONE, medium dark gray to medium gray, interbedded with SILTSTONE and very fine grained SANDSTONE 21.2 10 15 20 SANDSTONE, medium gray, fine grained, friable, massive .29 16.7 CLAYSTONE, medium gray, silty, occasional carbonaceous .11 2.64 15.4 stringers, massive -45° SANDSTONE, medium gray, fine grained, occasional 21.9 Too Weak to Test carbonaceous stringers, friable, massive 17.2 CLAYSTONE, medium gray to dark gray, 0.1m SILTSTONE interbed at top, many buff colored concretions > .44 21.5 40-130-16.6 0.5 0.7 (iron oxide ?) in upper half, increasingly carbonaceous 17.8 >.44 14.5 >.44 COAL, brownish black to black, 0.2 m SILTSTONE parting 10.7 Interbedded CLAYSTONE, coaly SHALE, SILTSTONE and SANDSTONE 22.5 COAL, brownish black SANDSTONE, medium light gray, very fine grained CLAYSTONE, medium light gray, carbonaceous .14 | 3.36 | > .44 12.2 COAL, dusky pale brown, massive 45-150-20 10 > .44 > .44 COAL, dusky brown to brownish black, massive 160-160-12 20 > .44 10 20 10 | 20 > . 44 .03 0.72 SILTSTONE, medium dark gray to brownish gray, carbonaceous, > . 44 massive SANDSTONE, light brownish gray to medium gray, fine to very fine grained, very friable in lower half SANDSTONE, medium gray, fine to very fine grained SILTSTONE, medium light gray, coarsens downward .25 14.5 .39 16.7 SANDSTONE, medium gray to olive gray, fine grained .18 4.20 SILTSTONE, medium light gray, coarsens downward SANDSTONE, olive gray, very fine to fine grained, 0.1 m SILTSTONE parting near top, thin SILTSTONE lenses throughout 190-.39 SANDSTONE, medium gray to olive gray, very fine to fine grained, increasingly friable > .44 SILTSTONE, medium dark gray to medium light gray 14.9 10 12 Too Weak to Test SANDSTONE, medium light gray, fine grained, Friable in part 19.8 SANDSTONE, medium light gray, fine to medium grained, friable Too Weak to Test in part 210-SANDSTONE, medium gray, medium grained thin COAL lens, friable 65-SANDSTONE, medium gray, medium grained, carbonaceous stringers, Too Weak to Test friable 230 -70-230-240-240-250-260-260-80-270-Based on outcrop studies, geophysical logs, and drilling information, this no recovery zone is largely comprised of very friable SANDSTONE, SILTSTONE, and small-pebble CONGLOMERATE 85—280— 90-100-330-SANDSTONE, medium light gray, medium to coarse grained, friable Too Weak to Test. 20.9 CONGLOMERATE, medium light gray, pebbles to 2 cm., mostly quartz, coarse sand and carbonaceous stringers at bottom 105-Too Weak to Test SANDSTONE, medium light gray, coarse grained, friable CONGLOMERATE, medium light gray, pebbles to 2 cm., COAL fragments coarsens downward, friable 20.7 Too Weak to Test 110-1>.44 5 | 13 | 30 COAL, brownish black 370-COAL, brownish black CLAYSTONE, medium gray, coal stringers .12 | 2.88 | >.44 COAL, brownish black, 0.1 m carbonaceous CLAYSTONE parting 115-10 35 CLAYSTONE, medium light gray, 0.1 m SANDSTONE parting, carbon-14.9 .05 | 1.20 | >.44 aceous fragments near base >.44 COAL, black to brownish black, 0.05 m SILTSTONE parting in top third 0 4 1 390-

ALASKAN GEOLOGY BRANCH TECHNICAL DATA FILE

minimum separation of bedding breaks in cms. ie the smallest pieces were 3 cm. long

degrees shown indicate approximate angle joint forms with the horizontal

strata broken into non-cylindrical fragments

minimum separation of bedding breaks in cms. ie average length of cored pieces was 6 cm.

maximum separation of bedding breaks in cms. ie the largest peice was 18 cm. long

Explanation Comparison of the largest dimension of the largest fragment was approx. 2 cm. across.

typical dimension of most of the broken diversity to the

1)

Explanation of notation in the discontinuity columns (modified from Rankilor, 1974)

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