016823

CHAPPELLE ADIT NClaster August '73.

Elevation of portal 5,420 feet

At this point limonite gossan 10 feet thick capping intensely pyritized ~~takyr~~ Takla volcanics

Feet

45 First 45 feet of cross-cut is timbered; rock here is intensely fractured and pyritized; abundant pink lomonite alteration; fractures appear to be fairly randomly oriented; no dominant direction discernable to this point; surface oxidation of pyrite continues to this point.

65 At this point 6-inch wide sheer zone cutting volcanic rocks; trend of sheer zone is 315 degrees ~~with~~ and vertical to steeply dipping. In this area volcanic rock appears to be equa-granular and grey to green in colour; abundant lomonite continues to this point. Pyrite seems particularly concentrated on fracture faces; with quartz some carbonate and lomontite; quartz stringers appear to trend in a north-westerly direction transverse to trend of cross-cut.

100 Specimen of volcanic rock NC 73-29.

120 Dominant fracture direction 310.90 degrees. At beginning of slashed drill station from last point volcanic rocks are more intensely fractured and sheared, contain more lomontite and quartz and still a significant amount of pyrite; at this point syenite prophry dyke cuts transversely across cross-cut; trend of dyke is 310 degrees with a 70 degree dip to the south; this is an attitude taken on the hang-wall which is sharply defined by a fault of the dyke. The dyke here appears to be up to 20 feet wide, that is, it continues in the slashed drill station up to the north end of the station where the foot-wall is marked again by a very sharp sheer zone; the trend of which

is 275 degrees with a 75 degree dip to the north so that it appears to be a horst of syenite or monzonite prophyry. The dyke is a distinctive salmon pink colour with green hornblendes scattered throughout the matrix and phenocrysts of feldspar probably plagioclase are occuping or making up most of the rock at this point; the hornblendes may be fresh, in any case, have taken a sample here for possible potassium argon determination numbered KR Chappelle No. 1. A specimen of the rock is NC 73-30. Unlike the preceeding volcanics the rock appears to contain very little pyrite certainly less than five per cent; fracturing does not seem to be as intense either; rather the regular rocks here I seems to be a massive looking piece of drift where the cross-cut ran out. This earlier has been rock bolted and timbered and obviously pretty messed up by a few significant looking faults and slip-planes into which the syenite was seemingly emplaced

210 from last point intensely fractured takla volcanics as previous. At this point three inch wide gouge zone striking 280 degrees with an 80 degree dip to the north

305 At this point six inch sheer zone at 270 degrees with a 75 degree dip to the north

310 At this point three foot wide basic dyke maybe four feet wide in places transverse to cross-cut. Foot wall measured on south side of cross-cut trends 320 degrees and dips 65 degrees to the south. This dyke is fine grained dark with spots of carbonate. Specimen NC 73-31, sample taken for possible KR; KR sample Chappelle No. 2. This dyke appears to be cut off by preceding sheer zone and as such trends across back but does not seem to go down the north wall of cross-cut. Volcanic rocks in this section have abundant coarsely crystilline pyrite on fracture faces, again

this section like the preceeding one contains abundant timber in the cross-cut; intensely fractured and sheered volcanics to this point

Near 400 pyrite is intense on fractures Specimen NC 73-31. Outstanding feature of first 400 feet of crosscut is the intense fracturing of the takla volcanic rocks, seemingly these rocks are similar composition being probably basalts or andicites and with little or no sign of argite phenocrysts; some fragmental texture noted; pyrite is abundant througout this section and seemingly lacking only in the syenite and in the post mineral basic dyke; quartz occurs as stringers along the fractures with and without carbonate; lomontite , pink lomontite is prevalent throughout the first 400 feet From 400 foot mark to junction of drift and cross-cut rock takes on a lighter grey colour, appears to be solicified and contains abundant disseminated pyrite and also pyrite on fractures; intensely fractured in this zone. Specimen of the material NC 73-32. At junction of drift and cross-cut in back fault at 300 dipping 30 degrees north; this fault marks boundry between solisified footwall rocks and quartz vein ; the vein extends at this point from a point three feet beyond cross-cut in a drift extension to opposite side of cross-cut giving a good vein width of approximately 10ft. eight to ten feet at this point. Chip sample, sample number 1 was taken across the vein at this point; vein is dipping steeply to the north hanging wall is well marked and sharp with ~~the~~ chlorite well developed in a zone one foot beside the vein and the hanging wall at this point trends 040 degrees with a 73 degree dip to the north. The vein at this point is intensely fractured quite drusey with numerous open spaces and abundant pyrite. A specimen of vein material at this point NC 73-33. In drift extension wall rocks here are intensely fractured and pyritized, pyrite seemingly

distributed throughout the rock and not just confined to fracture plains; some parallel quartz veins, inches wide, occur in this hanging wall section; about the only alteration appears to be a foot or so of chloride alteration adjacent to the vein so seemingly there is little or no solisification in the rock at this point; vein in drift occupies main drift width to a point five feet past survey station ~~548~~ 54-8 where here it swings out of the north wall of drift into the central portion and has a width of about four feet; again hanging wall here is still well exposed with abundant chlorite alteration. At survey station 54-10 the vein here is approximately four feet wide and occurs with the hanging wall situated approximately, oh maybe, four or five feet south from the north wall, the vein then extends to the opposite wall in the back of the drift, again pyrite continues, the vein is quite vuggy, numerous crystals of quartz growing in open spaces. Grey solicified country rock occurs on foot wall of vein . Ten feet past station 54-10 vein widens out to nearly drift width, this occupies area of first underground drill station, such that beyond here we are getting a width of approximately six or seven feet on the vein; hanging wall still well exposed, if anything at this point perhaps a little steeper; pyrite appears to be lessening in the vein; hanging wall or rather footwall is not well marked. Twenty feet past survey station 54-10 second sample taken across back through more or less full width of drift at this point.— 8ft

Sample No. 2. Random chips across back.

End of side 1

UNDERGROUND WORK AT CHAPPELLE PROPERTY

Continuing along vein in drift.

Vein continues seemingly occuping back of drift to a point 20 feet from 20 feet south of survey station of 54-11. Vein at this point occupies the north side of the drift and is approximately four feet wide, here is it apparently cut off by a fault trending 060 degrees and dipping 45 degrees to the north; vein is apparently reversed into north wall of drift; beyond this point rock is a uniform athanetic grey colour with seemingly little indication that it is the same rock as previous; pyrite is widely distributed throughout the rock; this may in fact be a ~~solisified~~ solisified version of the typical type of volcanics ; this continues on both sides of the drift to station 54-11. Specimen of this material NC 73-34. At this point vein reappears in drift occuping an entire width and walls of drift adjacent to a fault striking 101 and dipping 35 degrees to the north; apparently at this point the vein carried some gold and silver value, although seemingly there is not nearly as much pyrite in this section as previous. Sample no. 3 taken across drift width at this point. Specimen of vein NC 73-35. Seven feet past survey station X 54-11 vein hanging wall appears out of north side of drift and extends accross back for a distance of several feet such that the vein appears only in a two or three foot width along the south side of the back; the hanging wall here is a fine grained grey solisified rock. Forty feet beyond survey station 54-11 the vein seemingly dies out or fades into south wall of drift; beyond this point wall rocks are chloritized, andecites or basalts on the north wall and on the south wall they are seemingly fine-grained grey solisfied volcanics. Lomontite alteration also reappears at this point in both rock types. Fifty feet beyond survey station 54-11 grey solisified wall rocks seemingly on both sides of adit at this point

are in fault contact with dark green chlortized material; fault trends 110 degrees and dips 40 to 45 degrees to the north. At beginning of slashed out drill station grey solisified rock reappears with a sharp contact with green volcanics at 105 degrees and dipping 40 degrees to the north. Rock almost appears dyke-like with seemingly chul margins banded against contact Ten feet north of this point in north side of drift two foot wide quartz vein appears trending parallel to wall actually turning into wall into [redacted] north wall at this point and dipping 70 degrees to the south. From a point ten feet from face of drift quartz vein six inches to one foot wide extends across back from north wall to south wall and is vertical to steeply north dipping vein branches in face of , wall rocks in face are fine grained grey solisfied volcanics which contain abundant pyrite; alteration here seems almost gradational with some green volcanics irregularly occuring particularly along last ten feet of drift along south wall but alteration here appears gradational seemingly no sharp contact between the two rocks. This marks end of examination of Chappelle Underground programme