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REPORT ON
GEOLOGICAL MAPPING
AND SOIL TESTING SURVEY
JULY 13, 1981 TO AUGUST 14, 1981

TATER 1-28 CLAIMS

TESLIN JOINT VENTURE

DAWSON MINING DISTRICT, Y.T.

CLAIM SHEET 116 C/7

LATITUDE 64°27'N

LONGITUDE 140°41'W

091050

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This report has been examined by the Geological Evaluation Unit under Section 53 (4) Yukon Quartz Mining Act and is allowed as representation work in the amount of $ 8,400 — .

RWatson

for Regional Manager, Exploration and Geological Services for Commissioner of Yukon Territory.

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INTRODUCTION

The Tater 1-28 claims were staked for Teslin Joint Venture (Brinco Mining Ltd., Cominco Limited and Exploram Minerals Ltd.) during July, 1981. They cover a poorly-exposed serpentinite body which crosses the eastern boundary of the Clinton Mine lease, about 1½ km east of the Snowshoe Pit.

The ultramafite is marked by loose, serpentinite talus which extends for 100 m along the main haulage road but, in spite of its close proximity to the former asbestos mine, this potential host rock has never been thoroughly explored. Only a single, shallow bulldozer trench on the uppermost portion of the ultramafite is evidence of previous physical work.

The 1981 field work consisted mainly of grid soil sampling, linecutting and geological mapping. Work was conducted from the Clinton Creek townsite and daily transportation to the property was by helicopter and by Ford Econoline Van.

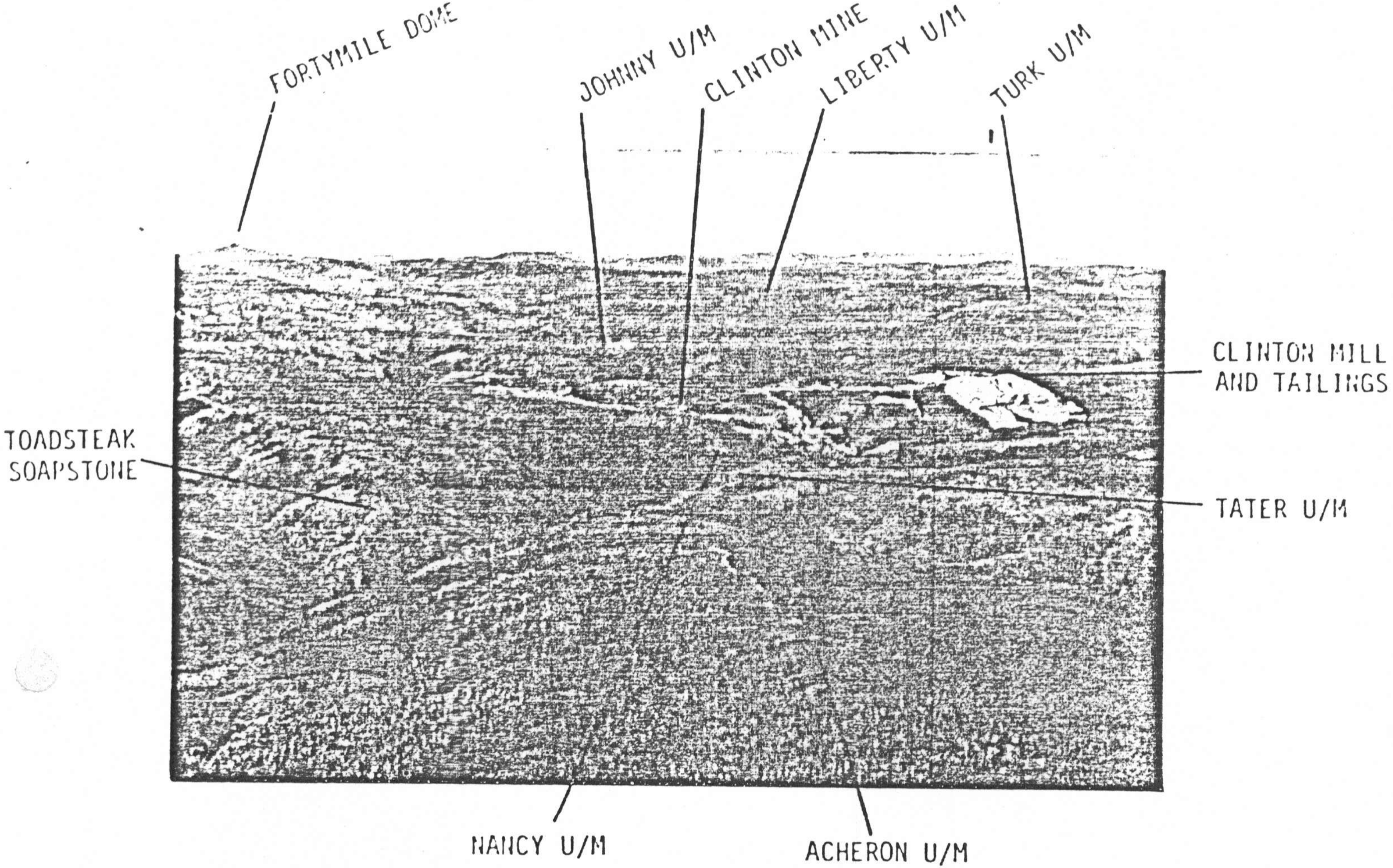
The Archer, Cathro crew consisted of party chief J.S. Murray, geologist J. Ryan, linecutters S. Beckmann and G. Stewart, and samplers C. Chalmers, M. Luxmoore and M. Penner.

PROPERTY, LOCATION AND ACCESS

This property is situated on the northeast side of Clinton Creek, approximately 1½ km east of the Clinton minesite, at 64°27'N and 140°41'W on claim sheet 116C/7. It consists of 28 contiguous mineral claims that were recorded in the name of Archer, Cathro & Associates (1981) Limited in the Dawson Mining District as follows:

Claim Name	No. of Claims	Record Numbers	Expiry Date
Tater 1	1	YA55746	15 July/82
2-9	8	YA55838-YA55745	13 July/82
10-13	4	YA55747-YA55750	15 July/82
14-28	15	YA64201-YA64215	15 July/82
	28		

A Bell 47 G3/B2 helicopter, on charter from Trans North Turbo Air of Whitehorse, was used for crew transport to the most remote parts of the claims; whereas, a Ford Econoline Van was used when working near the mine haulage road. Helicopter landing sites were cleared at four locations for access.



CLINTON CREEK, LOOKING NORTHEAST

FIGURE 1

HISTORY AND PREVIOUS WORK (ASBESTOS)

Cassiar Asbestos Corp. Ltd.

The discovery outcrops on Snowshoe Hill were first staked in April, 1957 by prospectors G. Walters and A. Anderson, who were grubstaked by Fred Caley, a Dawson merchant. Caley had optioned claims covering the Caley asbestos deposit on Cassiar Creek to Conwest the previous year and was successful in stimulating interest in asbestos exploration among residents of the Dawson area. The presence of asbestos in the Clinton Creek area had been known since before 1887, when the rumours were reported by the G.S.C.

Caley's Clinton Creek claims were optioned by Conwest soon after they were recorded and were transferred to an affiliate, Cassiar Asbestos Corp. Ltd., late in 1957 following prospecting and hand trenching. Cassiar explored with trenching, diamond drilling and two adits (250 m) in the main (west) zone on Porcupine Creek and a 365 m adit on a smaller zone 300 m to the east on Snowshoe Hill in 1957-58.

Initial results from the property were disappointing. The adit beneath the high grade outcrops on Snowshoe Hill was situated a few metres below the orebody and the first adit on Porcupine Creek ran out of mineralization within 20 m from the portal. A second adit higher on Porcupine Hill was very close to planned completion in barren serpentinite when the first high grade mineralization was encountered. Even so, only about 5 million tonnes of ore-grade rock was discovered, which was insufficient to begin mining operation.

The Porcupine ultramafite was poorly exposed except for a small fibre showing below a quartz-carbonate outcrop on Porcupine Creek and a side hill vegetation anomaly along Clinton Creek. Hand pits were dug across the vegetation anomaly at 7.6 m intervals but nothing but fibre mat was discovered. Thicker overburden on the ridge promoted heavier vegetation growth than on the sidehill, giving the impression that the ultramafite was small. Early dip-needle magnetic surveys on the ridge failed to indicate the true size of the ultramafite and it was not until a fluxgate magnetometer survey was performed in 1961 that the major portion of the Porcupine ultramafite was outlined.

The property remained idle until 1963, when diamond drilling resumed to test the magnetic anomaly. About 45 surface holes and 29 underground holes led to the discovery of the Porcupine orebody and in 1965, a feasibility study was completed that recommended production.

Following a $36.5 million investment, mining commenced in October, 1967 and fluctuated between 3,600 and 4,100 tonnes per day. A total of 63.3 million tonnes of waste were removed to permit the milling of 15.9 million tonnes of open-pit ore, for a total production of about 940,000 tonnes of fibre. Of this. 12.35 million tonnes of ore were mined from the Porcupine pit, 3.25 million tonnes from the Snowshoe pit and the other 0.25 million tonnes from the Caley pit, several miles away. Operations ceased with the exhaustion of economic ore reserves in August, 1978.

Throughout the production period, exploration was restricted to the mine area and consisted mainly of defining the ore boundaries and maintaining grade control within the Porcupine and Snowshoe reserves. The deepest portion of the Porcupine orebody, which plunged to the west and was known as the Bear Creek deposit, was diamond drilled up to 1975. It was found to contain about 4 million tonnes of ore-grade mineralization but was declared uneconomic because it required about 60 million tonnes of waste stripping.

The Clinton Mine serpentinite is one of the largest bodies in the Clinton Creek camp. It is at least 1500 m long and 300 m wide at the minesites and may have extended as far as the serpentinite bodies on Trace Hill and Wolverine Hill, over a kilometre to the northeast, prior to downcutting of Clinton and Wolverine Creeks. The serpentinite bodies hosting the Snowshoe and Porcupine pits are contiguous, but the Snowshoe portion is only an erosional remnant less than 100 m thick. The Tater ultramafite is a smaller body that probably separated from the Clinton ultramafite prior to emplacement.

The Porcupine serpentinite was found to be a dome-shaped body 1,500 m long and 300 m wide that plunges to the southwest at about 20° beneath enveloping graphitic shale. Most of the body consisted of partly- to highly-sheared, barren serpentinite with several small lenses of marginal-grade, blocky serpentinite scattered throughout. The commercial grade zone was restricted to the periphery of the ultramafite and ranged in dip from 40° NW at the northeast end to nearly vertical toward Bear Creek. The mineable portion was from 15 to 75 m wide, decreasing at depth, and had a strike length of about 300 m. The southwestern extension (Bear Creek zone) was traced by drilling for another 200 m and is still open to depth.

Other exploration carried out by Cassiar during the development and mining period included:

(a) Mine Lease

(1) Diamond drilling on Trace Hill, near the millsite - about 6 holes.

(2) Diamond drilling and trenching on Wolverine Hill, across Clinton Creek from the Snowshoe Pit - 4 holes.

(3) Ground magnetometer surveys of pit areas and the Nancy ultramafite.

(4) Ground magnetomer survey and some trenching on the Tater ultramafite.

(b) Surrounding Area

(1) Staking and trenching of the Judy serpentinite, 5 km east of the mine.

(2) Staking and magnetometer surveys of the Turk serpentinite, west of the airport (now Turk claims).

(3) Staking of the Bill serpentinite, northwest of the Johnny showing.

(4) Prospecting elsewhere in the camp with two-man teams between 1958 and 1963.

Cassiar geologists also visited all other exploration properties in the area that were being investigated by others and were prepared to option any property that showed merit. Exploration activity died down shortly after the mine opened, however, and no option agreements were ever made.

Exploration By Others

The earliest reported asbestos discovery away from the Clinton Mine was located on the west bank of the Yukon River, about 3 km south of Fortymile. It was staked initially in 1895, restaked as the Aurora claims in 1912 and subsequently restaked as the Verlene claims in 1928. The 1912 claim application stated that this was an asbestos occurrence. Chrysotile fibre up to 5 mm long occurs at this locality. It is associated with fibrous tremolite in two small, highly sheared, ultramafite bodies, one of which is capped by Tertiary columnar basalt. Much of the chrysotile is slip fibre and total fibre content is less than 1%. The showing has no current economic potential.

Modern exploration in the camp dates from the optioning of the Caley and Clinton asbestos discoveries by Conwest in 1956 and 1957, respectively. Some of the most aggressive early grass-roots asbestos exploration in the camp, however, was conducted by a joint venture between Asbestos Corp. Ltd. and Yukon Consolidated Gold Corp. Ltd. (Y.C.G.C.), which carried out an aeromagnetic survey of the

Clinton Creek valley in early 1957 and staked many of the magnetic anomalies and exposed ultramafites near the Clinton Mine. By 1964, the joint venture had performed grid magnetometer surveys and mapping on several ultramafites, including the Liberty, Tipp, Turk and Easter; trenching on the Acheron target; and trenching and drilling on the Foxy target. No important asbestos occurrences were found and the project was terminated.

Other work performed in the camp is tabulated below:

(1) Mag survey and trenching of the Johnny ultramafite by Canex Aerial Exploration Ltd. in 1958.

(2) Aeromagnetic survey of the Clinton valley and follow-up ground mag surveys of the Turk, Liberty, Acheron and Bill targets in 1966 and 1967 by Sphere Development Corp. Ltd.

(3) Bulldozer trenching of the Easter ultramafite by Voels International Development Ltd. in 1967.

(4) Bulldozer trenching and diamond drilling (3 holes) on the Acheron ultramafite by Acheron Mines Ltd. in 1971 and 1972, and additional trenching by Pan Acheron Resources Ltd. in 1976.

(5) Magnetometer survey on the Liberty ultramafite by Minas de Cerro Dorada Ltd. in 1973.

Summary

The difficulty that was experienced in locating asbestos mineralization beneath overburden is reflected in the fact that trenching was restricted to the best exposed portions of three ultramafites. Only the Foxy and Acheron ultramafites were ever drilled - the Foxy with two diamond drill holes (3024 m); and the Acheron with three diamond drill holes (277 m). Although results were disappointing, the drilling was directed only by magnetometer work and was insufficient to test the true potential of either ultramafite. None of the other targets in the region were sufficiently exposed to stimulate even minimal physical work and most were virtually unexplored when the Clinton Mine closed in 1978.

GEOMORPHOLOGY

The Tater claims are situated within the unglaciated portion of the Yukon Plateau which is marked by poor bedrock exposures. Regional uplift in the late Tertiary, together with disrupted drainage patterns to the east caused by glacial advance in the Pleistocene from the Ogilvie Mountains, has resulted in substantial rejuvenation and some disruption of the drainage system. Major tributaries, such as Clinton Creek, are incised into steep, V-shaped valleys with low gradients and steep headwalls.

The Tater claims cover all three elements of terrain in this district - plateau, incised valleys, and alluvial terraces. Gravels resembling the Klondike White Channel Gravel are present at about 700 m elevation on the Clinton Mine lease and probably extend onto the Tater claims at similar elevations. Clay is common in overburden below the 700 m elevation and may be alluvial in origin. Vegetation consists of thick black spruce, alder, aspen and poplar except on the moss-covered, north-facing slopes where permafrost occurs.

REGIONAL GEOLOGY

The Clinton Creek camp is situated within the Yukon Plateau and is sharply bounded to the northeast by the late Cretaceous Tintina Fault. The district has a complex geological history resulting from tectonic activity that has thoroughly deformed and intermixed several major rock assemblages. Ages are difficult to estimate since the fossil record has been obliterated by deformation and regional metamorphism and contacts are obscured by overburden cover.

Rocks in this region have been subdivided by government geologists into three major packages: Nasina Suite (OSD); Anvil Allochthon (CPv); and, Klondike Schist (PPK). In the continental collision model proposed by Tempelman-Kluit (1979), the Nasina Suite represents the North American plate margin material. The Anvil Allochthon and Klondike Schist represent seafloor material and continental "Stikinia" plate rocks obducted onto the North American plate during a collision in Jurassic(?) time. The thrust faulting associated with the collision resulted in complex interfingering of the three units, destruction of sedimentary features and development of new cataclastic textures.

Anvil Allocthon

The allochthonous overthrust block consists of an ophiolite suite composed of alpine-type ultramafite, gabbro, basalt, chert and limestone. In the Clinton Creek camp, these rock types are usually present as their metamorphosed equivalents: serpentinite with associated hornblende diorite, amphibolite, and chlorite schist. The ophiolite assemblage has become highly dismembered by thrusting and most serpentinite bodies are enveloped in graphitic schists of the Nasina Suite.

The ultramafites (CPub) are typically fairly small bodies composed of massive, dark green, fine to medium grained magnetic serpentinite derived from both peridotite and dunite. Most of them are highly sheared, reflecting a stressful emplacement, and are enclosed in metamorphosed host rocks. No relationship has been established yet to link the metamorphic grade of surrounding rocks to fibre development within serpentinite. However, it seems probable that strong shearing in the wall rocks is important in creating islands of unsheared serpentinite within which tensional fracturing and fibre veins can develop.

Cross fibre veins in commercial-grade mineralization seldom show straining or strong disruption except within localized shear zones, indicating they formed at a late stage in the emplacement and alteration of the ultramafite. In the Clinton Creek and Caley orebodies, blocky fracturing with commercial fibre lengths and quantities constitute less than 10 per cent of the serpentinite. These zones are surrounded by sheared varieties of serpentinite such as fish-scale that are typical of other bodies in the camp.

Some serpentinite bodies contain augen-like bodies of relic, massive serpentinite or lens-shaped bodies of diorite. A few of the massive lenses, such as those at the Tjop property, contain cross fibre veins that may have formed during or shortly after emplacement. Some of the fibre veins near the edges of these bodies are highly deformed and drawn out. Similarly, fibre veins that formed in the black wall alteration zones surrounding diorite lenses (black pods), such as those at the Toc property, often exhibit curved veins and chrysotile fibres that are bent in the direction of movement. Both types of bodies are usually too widely dispersed through a sheared serpentinite to have economic importance.

The margins of many serpentinite bodies are altered to soapstone; for example at the Tjop and Tiza properties. This suggests that temperatures exceeded 400°C for a short period after emplacement, probably during regional metamorphism. Quartz-carbonate alteration, which consists of magnesite, talc and opaline silicates, is common and is probably also a post-mineralization event since the alteration is sometimes pseudomorphic after chrysotile fibre. Transformations from serpentinite to quartz-carbonate are displayed best in the Clinton Creek Mine, where long fibre veins can occasionally be traced from serpentinite into highly altered rock. This is a gradual change from silky chrysotile to harsh opal along the veins and is not accompanied by physical disruption.

Fine to medium grained, light grey to dark green, biotite or hornblene-rich diorites occur along with the ultramafites at several locations and are usually considered to be part of the Anvil Allochthonous suite. The diorites occur as small lens-shaped bodies or "dykes" that are enclosed by serpentinite and often are associated with black-pod mineralization, as at the Toc property. Alternatively, diorite forms large, stock-like bodies up to several hundred metres across adjacent to the ultramafites, as at the Tjop property. Contacts between the larger bodies of diorite and serpentinite are usually altered to quartz-carbonate, whereas the smaller dykes usually exhibit "blackwall" alteration. This suggests that the diorites are slightly younger than the ultramafites. The smallest dykes are usually enveloped by highly sheared serpentinite and appear to have been squeezed and dismembered into their present lensy form by strong tectonic forces.

Nasina Suite

The Nasina suite has been defined by Tempelman-Kluit (1976) as a distal sequence of carbonaceous and quartz-rich sedimentary rocks. They have been mostly metamorphosed to greenschist facies and now consist of pale green quartz-mica-chlorite schist, grey to silvery coloured quartz-muscovite schist, graphitic schist, chloritic quartzite and minor quartz-biotite gneiss. Although the sequence is not well understood and correlations are difficult to establish, a tentative age of Ordovician to Devonian has been assigned to the Nasina. Rubidium/strontium and potassium/argon age determinations by Htoon (1979) near the Clinton Mine suggest a Permian age, although one sample of biotite schist returned a rubidium/strontium age of 470 ma, which is Ordovician. The younger dates possibly reflect the date of latest metamorphism or of regressive (biotite to chlorite zone) metamorphism, whereas the Ordovician date may reflect the age of deposition or of earlier metamorphism.

Preliminary mapping by J.G. Abbott of DIAND in the vicinity of Clinton Mine during 1981 revealed the presence of slightly metamorphosed carbonaceous mudstone, limy sandstone and tuffaceous phyllite that he tentatively assigned to the Nasina suite. These rocks probably represent the unmetamorphosed equivalents of the common Nasina suite rocks. They resemble rocks mapped elsewhere in Yukon that are Triassic in age, although no fossils have been found in the Clinton Creek camp yet. Abbott was able to demonstrate fairly conclusively that the Nasina suite underlies the allochthonous assemblage and concluded that the graphite schist adjoining the orebody was derived from Nasina rocks.

Klondike Schist

The Klondike schist is a cataclastic rock that is thought to be derived from felsic intrusive rocks. In the Clinton Creek camp, quartz-rich cataclastics, gneisses and quartz-muscovite cataclastic schist are common. Age relationships are difficult to determine as the Klondike schists cannot be related to other rock units. Radiometric ages of 138 and 145 ma were obtained from samples of cataclastic material by Tempelman-Kluit (1976). These dates are late Jurassic and probably reflect the time of cataclasism.

Igneous Rocks

Igneous rocks in the belt consist of lower Cretaceous biotite granodiorite and quartz monzonite and Tertiary feldspar porphries. These have been combined for simplicity on Figure 3 as unit Tqfp but are differentiated on GSC Map 1284a. One of the largest quartz monzonite stocks in the district is located about 2 km west of the Tjop claims. It consists of plagioclase, biotite and altered grains of hornblende with minor amounts of potash feldspar, quartz and magnetite.

Granitic gneiss and amphibolite have developed along contact zones. The eastern contact of this body was explored for tungsten mineralization by Noranda during 1981.

Small bodies of feldspar porphyry occur throughout the region. These rocks are characterized by phenocrysts of feldspar and quartz up to several mm in length in a light grey to grey-green, fine grained groundmass. One of the largest of these porphyry bodies, on Cassiar Dome, was staked by Cominco for molybdenum-tungsten potential as the Pluto claims and was drilled in 1981. A porphyry dyke at the southeast corner of the Tjop claims was staked in 1927 for sulphide mineralization as the Roal occurrence (see 1979 TJV Final Report). Also, basalt associated with a small porphyry dyke on the Thane grid area was found to contain traces of uranium mineralization. The porphyry bodies are probably more numerous than was previously known and some may host important base metal mineralization.

Olivine basalt (T_V) occurs locally in the region and is probably the youngest rock type as it overlies all other units.

References

Htoon, M.
1979: Geology of the Clinton Creek asbestos deposit, Yukon Territory; unpublished M.Sc. Thesis, University of British Columbia

Tempelman-Kluit, D.J.
1976: The Yukon crystalline terrane: Enigma in the Canadian Cordillera; Geological Society of America Bulletin, v. 87, pp. 1343-1357.

1979: Transported cataclasite, ophiolite and granodiorite in Yukon: Evidence of arc-continent collision; G.S.C. Paper 79-14.

GEOLOGY AND MINERALIZATION

Talus composed of highly sheared and well serpentinized ultramafite fragments is exposed on a steep hillside for about 100 m along the mine road in the south-central portion of the claims. In addition, some serpentinite chips were discovered along an old bulldozer trail on the ridge between Tater and Eagle Creeks, which is mainly overburden covered. The ultramafite is apparently large and may extend all the way from the mine road to the bulldozer trail on the ridges.

The serpentinite seen was essentially barren and very few of the talus pieces examined contained any visible fibre. The largest vein seen was only about 10 cm long and 3 mm wide. The fragments were generally highly weathered but did not display any "blocky" surface features that can sometimes be attributed to weathered-out asbestos veins. However, these ultramafites strongly resemble those found in the sheared, footwall waste rocks of the Porcupine Pit only 3 km to the west, and better mineralization may be present at depth or covered by overburden higher on the hillside.

Surrounding rocks are mainly graphitic schists and chlorite schists of the Nasina Series and Anvil Series, respectively. Rock exposures are mainly limited to along the mine road but it is evident that these rocks are highly thrust fauled and thoroughly intermixed; however, Nasina Series graphitic schist is usually found adjacent to the ultramafite, where exposed.

FIBRE DISPERSION SURVEY

Soil sampling grids were established throughout the Clinton District in 1981 to investigate anomalous silt and soil responses from reconnaissance traverses performed earlier. The Tater grid consisted of two surveyed picket lines totalling 6.3 km that were cut 900 m apart. Samples were collected on flagged compass lines normal to the baselines that were extended to the edge of the claims on either side. About 750 soil samples were collected from the grid. No trenching was performed because sample analysis was delayed until after the end of the field season.

Anomaly M consists of two soil lines with extremely high point scores at the northeast corner of the Tater claims. The high scores probably resulted from poor sample collection techniques in an area sensitive to airborne contamination. Point scores of up to 267b (9.2 mm) and 428c (8.1 mm) occur along both lines but not in soils from adjacent lines. These soils were collected by an inexperienced sampler and may have been contaminated with surface organic material. This area is particularly susceptible to airborne contamination because it is situated less than 2 km east of the Clinton mill and mill tailings. Nearby soils collected by other samplers normally contain no fibre, although a few erratic "d" samples with high points are present on nearly every line on the grid. The anomalous lines should be resampled and the grid should be extended to the northeast.

Anomaly N is a large, kidney-shaped collection of soils that occurs at the southern end of the Tater claims and extend to the west onto the mine lease. The anomaly is still open to the east where it crosses onto unstaked ground.

Anomalous soils cluster into approximately three positions across the anomaly. At the northwestern edge, point scores up to 166a are fringed uphill and to the east by soils with "b" and "c" quantity values. The highest values occur within 100 m of the Clinton road and could be caused by contamination from the mine road. The central anomalous cluster is over a vegetation anomaly and is underlain by sheared serpentinite. Point scores are generally low but erratic point values up to 92a occur near the northern part of the vegetation zone. The extreme eastern part of the anomaly has small clusters of soils with point scores up to 84a. Between this area and the vegetation anomaly, points range from 40d to 80c.

CONCLUSIONS AND RECOMMENDATIONS

The Tater claims cover a poorly exposed, but potentially large, ultramafite body located on a steep hillside less than 2 km from the former Clinton minesite. Ultramafite talus on the claims consists of serpentinite fragments that are generally devoid of visible fibre but strongly resemble the kind of serpentinite that formed the footwall rocks at the Porcupine Pit.

High point values from soil-covered areas may indicate that long-fibre asbestos mineralization is present in ultramafites buried beneath the overburden or may reflect only a surface concentration of settled-out fibres that were released to the atmosphere by the former mining and milling operations nearby.

A one week program of trenching and hand pitting is recommended to expose and evaluate the bedrock in the most anomalous areas.

Respectfully submitted,

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

/mc

J.S. Murray

STATEMENT OF QUALIFICATIONS

J. Scott Murray

Scott Murray was raised at Abbotsford, B.C. and attended U.B.C., B.C.I.T. and Selkirk College. He was employed by Cassiar Asbestos Corp. from 1973 to 1978 as a geological technician at both the Cassiar and Clinton Mines. During this period he was engaged in all phases of mapping, surveying, grade control and exploration for asbestos fibre. From 1979 to present Mr. Murray has supervised asbestos exploration for Archer, Cathro & Associates (1981) Limited.

J. Scott Murray

APPENDIX

APPENDIX 1

FIBRE DISPERSION SURVEYS

THEORY

Fibre dispersion surveys take advantage of the fact that chrysotile is chemically resistant to weathering and maintains its fibrous integrity during weathering and erosion. Thus, fibre can be detected in soils whether it is being dispersed by normal residual erosion in unglaciated areas, such as the Clinton Creek camp, or by glacial scouring. Experience has shown that chrysotile fibre is so much more resistant to weathering than its host serpentinite that it can be found in soil in areas that are devoid of obvious serpentinite outcrops or talus.

In theory, the amount of fibre in the soil should be directly proportional to the amount of underlying mineralization, since the bulk of the fibre occurs in simple veins that break apart readily when subjected to weathering. Like conventional geochemical surveys, however, simple dispersion patterns and strongly anomalous contrasts only occur around buried fibre occurrences that are covered by simple soil profiles. TJV sampling has shown that all serpentinite bodies contain fibre and that even those that are apparently unmineralized have a low background level that is detectable in soil.

Fibre veins pinch and swell, and are usually divided along their length by a central parting. Weathering of chrysotile mineralization frees fibre veins from the walls and breaks their partings, causing the veins to disintegrate into rod-shaped fragments called fibre bundles (or spicks). Further weathering will cause these bundles to split lengthwise into thinner strands called fibrils. Experience has shown that individual fibrils are unusually strong and that they will seldom break transversely, although they can split longitudinally into thinner fibrils.

In soils, the longest fibrils reflect the maximum width of veins between partings, but seldom the distance between the vein walls.

Much of what is known about the relationship between length and quantity in a fibre deposit has come from milling practise. TJV has assumed that the weathering of fibre is analagous to the milling of fibre to produce a commercial blend of lengths. Milling experience has shown that fibre lengths in a deposit are inversely proportional to the quantity of short fibres, and that the total quantity of fibre in the rock is roughly proportional to fibre length. This suggests that, under most conditions, the number of fibre veins that develop in a block of serpentinite is fairly constant and that the main variable is fibre length (vein thickness). Thus, if conditions are favourable, longer fibres will form in many of the fractures, thereby increasing both the average length (and value) as well as the proportion of the rock that is fibre (ore). When conditions are unfavourable, only short fibre will form and the total fibre content of the rock will remain low. The validity of this concept is confirmed by the fact that long fibres are seldom found in lower grade ores.

The laboratory technique and interpretation methods used by TJV have been designed to identify samples that contain longer fibres and, by definition, have a better probability of having been derived from commercial mineralization. Most commercial deposits contain abundant 6.5 mm fibre. For example, Group 5 specifications stipulate that about 20% must exceed that length. Since 6.5 mm fibres are rare in TJV samples and have only been found in samples collected near important occurrences, that length has been chosen as an important threshold in fibre dispersion surveys.

POINT VALUES

In the TJV sampling, it has been found that most samples contain less than 100 fibres and that quantities exceeding 10,000 fibres are only obtained when sampling has encountered a fibre mat. A fibre mat is fairly uncommon in TJV sampling, either because the sample cannot be collected deep enough or because there is insufficient fibre in bedrock. Alternatively, some soils are too mixed by solifluction to permit the development of a mature profile. As a result, most samples do not contain enough fibres to be sure that the longest fibre present in the bedrock source are represented.

For example, the probability of collecting a fibre 6.5 mm long in soil over asbestos veins containing some fibres 6.5 mm long is high if the sample contains over 10,000 fibres (a fibre mat) but is poor if the sample contains only 10 fibres.

To overcome this difficulty, a "point" value is calculated by the laboratory at Kamloops which utilizes standard relationships between fibre lengths and quantities and greatly simplified the interpretation of soil results.

By permitting the comparison of samples containing different quantities of fibre, the points help to overcome the field difficulty of collecting samples of uniform quality.

Using the example quoted above, the sample containing 10 fibres and a longest fibre of 3.2 mm would have the same point score (50 points) as the fibre mat sample with 10,000 fibres and a maximum length of 6.5 mm. A point score of 50 seems to be a good threshold value since nearly all soils tested from commercial-grade asbestos showings have scores of 50 or more.

Field testing of this method in 1981 showed that it loses its statistical validity once the number of fibres in the soil falls to a low level. For example, a soil sample containing only three fibres will give a point score of 34 if the longest fibre is 2 mm long, but a much higher score of 75 if the longest fibre measures 3 mm.

To overcome this weakness, it was necessary to rate samples according to the number of fibres present by adding a suffix to the point number. Points with an "a" suffix have the highest reliability and those marked "d" the lowest, as shown below:

Suffix	Fibre quantity/sample
a	more than 100 fibres
b	10 to 99 fibres
c	4 to 9 fibres
d	1 to 3 fibres

Samples with quantity "a" are usually collected where soils are thinnest over ultramafites. Soils with "d" ratings generally fringe ultramafite bodies, contain spurious fibre because of contamination, or reflect deeper and more complex overburden profiles. For a given ultramafite, scores derived from "a" soils and from "d" soils will be roughly similar but the "d" scores will be more erratic. Statistics show that over 90% of all "d" scores were less than 50 points and fibres 3 mm or more in length seldom occur in "d" soils. A graph of point value frequencies for each quantity suffix is shown on Figure 2 on the following page.

POINT VALUE FREQUENCIES

Quantity suffixes	No. of samples
a	394
b	512
c	378
d	916
TOTAL	2200

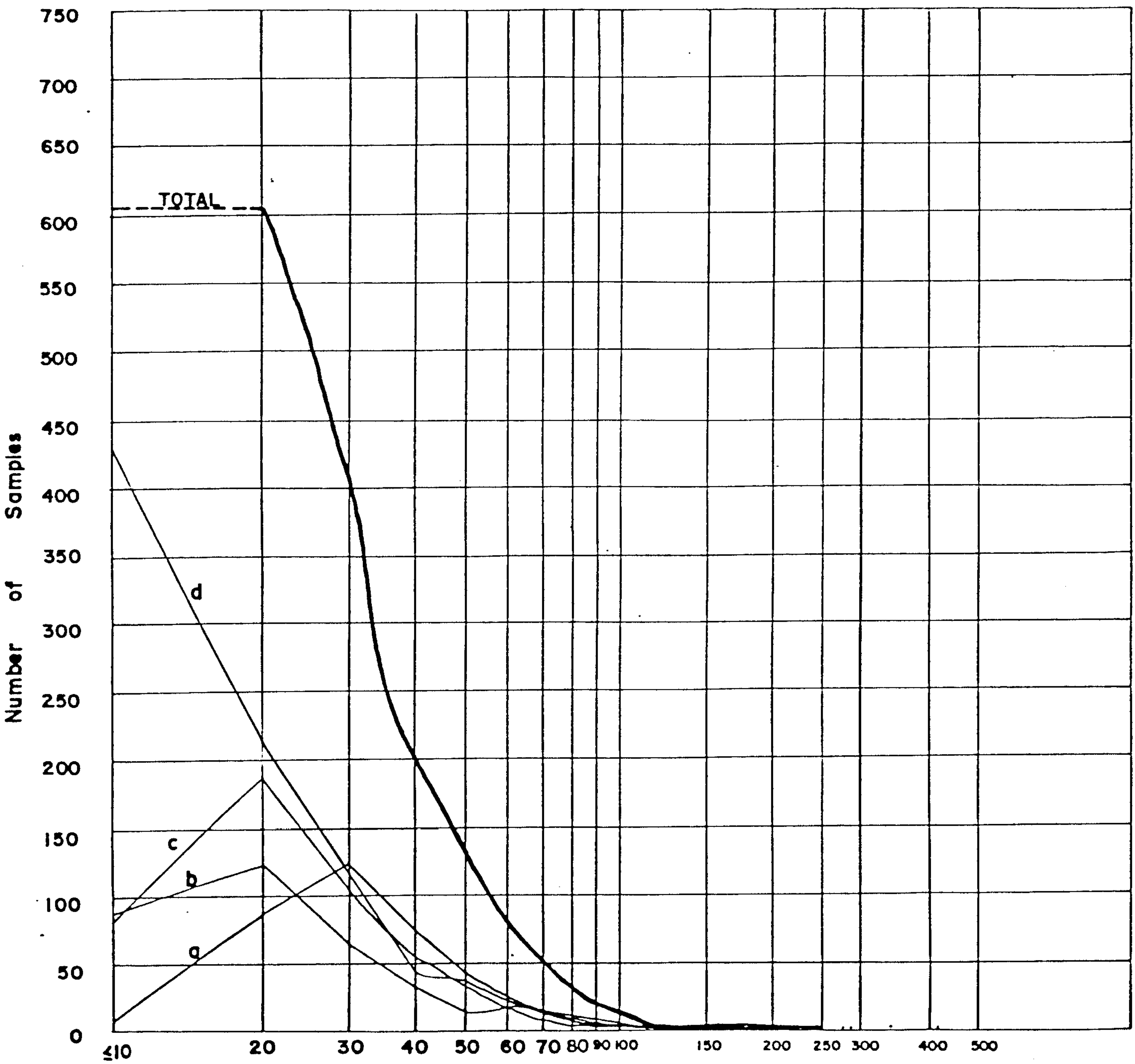


Figure 2

ARCHER, CATHRO
& ASSOCIATES (1981) LIMITED
CONSULTING GEOLOGICAL ENGINEERS

BOX 4127, 3125 THIRD AVENUE
WHITEHORSE, Y. T. Y1A 3S9

(403) 667-4415

OCT 4 1982
DAWSON, Y.T.
I.A. & N.D

AFFIDAVIT

I, Joan Mariacher, of Whitehorse, Y.T., make oath and say:

That to the best of my knowledge the attached Statement of Expenditures for exploration work on the Tater 1-28 mineral claims on Claim Sheet 116C/7 is accurate.

Joan Mariacher

Sworn before me at Whitehorse, Y.T.
this 1st day of October, 1982.

091050

Notary, Yukon Territory

1016-510 WEST HASTINGS STREET, VANCOUVER, B. C. V6B 1L8 (604) 688-2568

Statement of Expenditures
Fibre Dispersion Geology
Tater 1-28 Claims
May 25, 1982

Labour

July 13 - 20, 1981		$ 2,007.00

Expenses

Room and board - 19 mandays at $35/day	$ 655.00	
Geotor Services Inc. - 750 assays at $7/sample	5,250.00	
Trans North contract Bell 47G3/B2 - 5.7 hours at $322/hour including fuel	1,835.40	
Report preparation	1,000.00	8,740.40
Total		$10,747.40

In Account With

Project – TESLIN JOINT VENTURE

Date – – JULY 31, 1981

		Total
MANAGEMENT		
July	. A	2,500.
LABOUR		
Supervisory M. PHILLIPS · 1 HR. TOC ASSESSMENT (JUNE)	B	31
Field S. MURRAY – JULY 1-31 AT 2800/mo	2800.00	
J. RYAN – JULY 1-31 AT 2600/mo	2600.00	
I. TALBOT – JULY 1-31 AT 1750/mo	1750.00	
M. PENNER – JULY 1-31 AT 1350/mo	1350.00	
G. STEWART – JULY 1-31 AT 1400/mo	1400.00	
S. BECKMANN – JULY 1-31 AT 1650/mo	1650.00	
M. LUXMOORE – JULY 1-31 AT 1350/mo	1350.00	
L. JOHNSTON – JULY 1-15 AT 1750/mo	847.00	B 13747.0
plus 50 %		B 6873.50
Casual		
C. CHALMERS – July 10-31, 22 days @ $140/d		B 3080.0
J. MILNER – JUNE & JULY – 8 HRS PLOTTING GEOCHEM. AT $16/HR		B 128.00
EXPENSES		
Accounting July	400.00	C3
Expediting July 1-31	900.00	DV
Room & Board Whse TALBOT 1; LUXMOORE 1; CHAMBERS 1		
total 3 days at $ 35 / day	105.00	DV
Field equipment from AC stock		
Xerox copies, 699 copies at 25¢/copy	174.75	C1
Radio rental SBX 10 July 1-31	250.00	D1
Rental AC BLUE truck JULY 1-31 at $ 30 / ~~mo.~~ day		
plus (16485 to 20855) 4370 kms at 20¢ /km	1804.00	DV
Petty cash .70 D1 + 85.83 [illegible] + 40.95 DV + 5.00 DV + 5.00 DV + 88.37 [illegible] DV – 71.70	225.85	CV – 38.20; D1 – [illegible]; DV – 188.65
Telephone		
Blueprinting, 305 sq. ft. Ozalid at 30 c/ft. plus 150 sq. ft. Dilar at $ 2.50 /ft.	466.50	C1
Drafting, 75 1/2 hrs. at $ 18 /hr.	1359.00	C1
Kit. Camera	12.40	D1
[illegible]	23.50	D1
Receiver General 2.50 + 9.00	11.50	CV
Carmacks Hotel	19.10	DV
S. Murray – truck repairs	30.00	DV
Bank [illegible] charges	15.00	CV
		32156.75
Credit –		
White Horse Motors –	38.99	DV
ICG Can [illegible]	200.00	D1
[illegible]	77.50	D1
Petty cash – June addition error CV	20.00	CV 336 [illegible]
Total		31[illegible]

In Account With

Project- TESLIN JOINT VENTURE

Date -- NOVEMBER 30, 1981

		Total
MANAGEMENT		
November		2500.00
	A	
LABOUR		
Supervisory		
Field S. MURRAY - NOVEMBER 1-30 AT 2800/mo	2800.00	B
J. RYAN. - NOVEMBER 1-30 AT 2800/mo	2800.00	
L. GREXTON - 1/2 NOVEMBER AT 2100/MO	1050.00	6650.00
		B
Casual plus 50 %		3325.00
K. Wyllie - 9 hrs drafting @ $18/h	A	162.00
EXPENSES		
Accounting November	400.00	C3
Drafting, 55 1/2 hrs. at 18 /hr.	999.00	C1
Xerox copies, 372 copies at 25¢ /copy	93.00	C1
Petty cash 2.65 + 7.00 + 14.00	23.65	CV
Telephone 3.40	3.40	CV
Hougen's	21.72	D1
Williams + Mackie	14.54	CV
Vancal	3.29	CV
M. Phillips expense alc CV	3.85	CV
M. Phillips expense alc CV	1.83	CV
		1564.28
		14,201.28
(G1 - 54 [illegible]; G3 - 7[illegible])		
CREDIT		
Shirley Air overcharge - 1/2 credit - crossed with CVB	477.10	G1
Cominco - helicopter time + fuel sublet	7196.17	
Receiver General - overpayment on Tiger 45-76 ch	20.00	P
		7693.27
Total		6,508.01

GEOTOR SERVICES INCORPORATED
485 – 12th AVENUE
KAMLOOPS, B.C. V2C 3Y5

INVOICE

OUR NUMBER 066744

DATE [illegible]

SOLD TO: ARCHER CATHRO & ASSOC. LTD.
1016 – 510 W. HASTINGS ST.
VANCOUVER, B.C. V6B 1L8

SHIPPED TO

ADDRESS

VIA

	[illegible] 5 [illegible]				
	[illegible]			[illegible]	[illegible]

REDIFORM - 7M31

INVOICE

GEOTOR SERVICES INCORPORATED
485 – 12th AVENUE
KAMLOOPS, B.C. V2C 3X[illegible]

OUR NUMBER 066745

DATE

SOLD TO ARCHER CATHRO & ASSOC. LTD.
1016 – 510 W. HASTINGS ST.
VANCOUVER, B.C. V6B 1L3

SHIPPED TO

ADDRESS

VIA

REDIFORM · 7M31

GEOTOR SERVICES INCORPORATED
485 – 12th AVENUE
KAMLOOPS, B.C. V2C 3Y6

OUR NUMBER 066746

DATE

SOLD TO ARCHER CATHRO & ASSOC. LTD.
1016 – 510 W. HASTINGS ST.
VANCOUVER, B.C. V6B 1L8

SHIPPED TO

ADDRESS VIA

INVOICE

				130
				4200
				4330
	pd Sept 15/81 #761			

REDIFORM · 7M31

TRANS NORTH TURBO AIR LTD.
BOX 4338, WHITEHORSE, YUKON Y1A 3T6
TELEPHONE (403)668-2177 • TELEX 036-8-290

ACCOUNT NUMBER: 116

54212

INVOICE DATE: 20 07 81

AREA: B.C. / YUKON / NWT / ALTA.

CHARTERER: ARCHER CATHRO

BILLING ADDRESS: TIV

A/C TYPE: 47B2

AIRCRAFT REGISTRATION: FCKIT

FLIGHT DATE: DAY 13 MONTH 07 YEAR 81

PURCHASE ORDER NO.

FUEL & OIL-X TNTA	CUST.	TNTA FUEL USED	HRS.-GALS.	FROM

FROM / TO	MILES	HOURS	ZONE	REMARKS - NO. OF PASS - FREIGHT LBS.
FROM CLINTON CK. TO LOCAL		2.4		TARTZHART - .7
				TATER - .7
				Reg - 1.0

SUB	G.L.	AMOUNT
8145	50020	552 00

2.4 @ 230.00		552 00
@		
@		
@		
WAITING TIME	@ /HR.	
FUEL:	@ /GAL.	
FUEL:	@ /GAL.	
MEALS & LODGING		
OTHER		
OTHER		

TERMS: NET 30 DAYS
1.75% INTEREST PER MONTH (21% PER ANNUM) WILL BE CHARGED ON ALL OUTSTANDING AMOUNTS OVER 30 DAYS.

X [signature] CHARTERER'S SIGNATURE

RRC INITIALS — [signature] PILOT'S SIGNATURE

CO-PILOT'S NAME

ENGINEER'S NAME

RGM BOB MOONEY

FLIGHT ATTENDANT

RA TOTAL $ 552 00

FLIGHT REPORT INVOICE

TNT

TRANS NORTH TURBO AIR LTD.
BOX 4338, WHITEHORSE, YUKON Y1A 3T6
TELEPHONE (403)668-2177 • TELEX 036-8-290

ACCOUNT NUMBER: 1 1 6

54213

INVOICE DATE: 20 07 81

AREA: B.C. / YUKON / NWT / ALTA.

CHARTERER: ARCHER-CATHRO

BILLING ADDRESS: TJV

A/C TYPE: 402

AIRCRAFT REGISTRATION C-: F C R H

FLIGHT DATE: DAY 14 MONTH 07 YEAR 81

PURCHASE ORDER NO.

FUEL & OIL-X TNTA	CUST.	TNTA FUEL USED	HRS.-GALS.	FROM

FROM / TO	MILES	HOURS	ZONE	REMARKS - NO. OF PASS - FREIGHT LBS.
FROM CLINTON CK. TO LOCAL		2.9		TATER - .8
				REG - 2.1

SUB	G.L.	AMOUNT
8415	5020	667.00

2.9	@ 230.00		667.00
	@		
	@		
	@		
WAITING TIME	@	/HR.	
FUEL:	@	/GAL.	
FUEL:	@	/GAL.	
MEALS & LODGING			
OTHER			
OTHER			

TERMS: NET 30 DAYS
1.75% INTEREST PER MONTH (21% PER ANNUM) WILL BE CHARGED ON ALL OUTSTANDING AMOUNTS OVER 30 DAYS.

X JJB
CHARTERER'S SIGNATURE

INITIALS: RRC
PILOT'S SIGNATURE

COPILOT'S NAME

ENGINEER'S NAME

RGM BOB MOONEY
FLIGHT ATTENDANT

TOTAL $ 667.00

FLIGHT REPORT INVOICE

TRANS NORTH TURBO AIR LTD.
BOX 4338, WHITEHORSE, YUKON Y1A 3T6
TELEPHONE (403)668-2177 • TELEX 036-8-290

ACCOUNT NUMBER: 116

54214

INVOICE DATE: 05 01 8 8 11

AREA: B.C. / YUKON / NWT / ALTA.

CHARTERER: ARCHER CATHRO

BILLING ADDRESS: TJ ✓

A/C TYPE: 412 B

AIRCRAFT REGISTRATION: C-FCRH

FLIGHT DATE: DAY 15 MONTH 07 YEAR 81

PURCHASE ORDER NO.

FUEL & OIL-X TNTA	CUST.	TNTA FUEL USED	HRS.-GALS.	FROM
	✓			

FROM / TO	MILES	HOURS	ZONE	REMARKS - NO. OF PASS - FREIGHT LBS.
FROM CLINTON CK. TO Local		2.0		TARTZHART - .7
				TATER - 1.3

SUB	G.L.	AMOUNT	
845	5020	460	00

2.0 @ 230.00		460	00
@			
@			
@			
WAITING TIME @ /HR.			
FUEL: @ /GAL.			
FUEL: @ /GAL.			
MEALS & LODGING			
OTHER			
OTHER			

TOTAL $ 460 00

TERMS: NET 30 DAYS
1.75% INTEREST PER MONTH (21% PER ANNUM) WILL BE CHARGED ON ALL OUTSTANDING AMOUNTS OVER 30 DAYS.

X SST [signature]
CHARTERER'S SIGNATURE

RRC
INITIALS

PILOT'S SIGNATURE

CO-PILOT'S NAME

ENGINEER'S NAME
RGM Bob Moorey

FLIGHT ATTENDANT

p.m.

FLIGHT REPORT INVOICE

TRANS NORTH TURBO AIR LTD.
BOX 4338, WHITEHORSE, YUKON Y1A 3T6
TELEPHONE (403)668-2177 • TELEX 036-8-290

ACCOUNT NUMBER: 116

54215

INVOICE DATE: 05 08 81

AREA: B.C. / YUKON / NWT / ALTA.

CHARTERER: ARCHER CATHRO

BILLING ADDRESS: TJV

A/C TYPE: 7762

AIRCRAFT REGISTRATION C-: FCRH

FLIGHT DATE: DAY 16 MONTH 07 YEAR 81

PURCHASE ORDER NO.

FUEL & OIL-X TNTA	CUST.	TNTA FUEL USED	HRS.-GALS.	FROM
	✓			

FROM / TO	MILES	HOURS	ZONE	REMARKS - NO. OF PASS - FREIGHT LBS.
FROM CLINTON CK.				
TO LOCAL		3.0		Kirtzhurt - .6
				Tater - 1.3
				TIZA - 1.1

SUB	G.L.	AMOUNT
8415	80020	690.00

3.0 @ 230.00		690.00
@		
@		
@		
WAITING TIME	@ /HR.	
FUEL:	@ /GAL.	
FUEL:	@ /GAL.	
MEALS & LODGING		
OTHER		
OTHER		

TERMS: NET 30 DAYS
1.75% INTEREST PER MONTH (21% PER ANNUM) WILL BE CHARGED ON ALL OUTSTANDING AMOUNTS OVER 30 DAYS.

X [signature]
CHARTERER'S SIGNATURE

RRC [signature]
INITIALS — PILOT'S SIGNATURE

CO-PILOT'S NAME

ENGINEER'S NAME
RGM BOB MOONEY

FLIGHT ATTENDANT

TOTAL $ 690.00

P.O.

FLIGHT REPORT INVOICE

TRANS NORTH TURBO AIR LTD.
BOX 4338, WHITEHORSE, YUKON Y1A 3T6
TELEPHONE (403)668-2177 • TELEX 036-8-290

ACCOUNT NUMBER: 116

54217

INVOICE DATE: 05 08 81

AREA: B.C. / YUKON / NWT / ALTA.

CHARTERER: ARCHER CATHRO

BILLING ADDRESS: TJV

A/C TYPE: 1782

AIRCRAFT REGISTRATION: FCBH

FLIGHT DATE: DAY 1 | MONTH 07 | YEAR 81

PURCHASE ORDER NO.

FUEL & OIL-X TNTA	FUEL & OIL-X CUST.	TNTA FUEL USED	HRS.-GALS.	FROM
	✓			

FROM / TO	MILES	HOURS	ZONE	REMARKS - NO. OF PASS - FREIGHT LBS.
FROM CLINTON CK. TO LOCAL		3.0		Twitzhat - .6
				TATER - 1.3
				TIZA - 1.1

SUB	G.L.	AMOUNT
845	5020	690.00

3.0	@ 230.00	690	00
	@		
	@		
	@		
WAITING TIME	@ /HR.		
FUEL:	@ /GAL.		
FUEL:	@ /GAL.		
MEALS & LODGING			
OTHER			
OTHER			

TERMS: NET 30 DAYS
1.75% INTEREST PER MONTH (21% PER ANNUM) WILL BE CHARGED ON ALL OUTSTANDING AMOUNTS OVER 30 DAYS.

X J. Smith
CHARTERER'S SIGNATURE

RRC
INITIALS

PILOT'S SIGNATURE

COPILOT'S NAME

ENGINEER'S NAME

RGM

FLIGHT ATTENDANT

Ypo

TOTAL $ 690.00

FLIGHT REPORT INVOICE

TRANS NORTH TURBO AIR LTD.
BOX 4338, WHITEHORSE, YUKON Y1A 3T6
TELEPHONE (403)668-2177 • TELEX 036-8-290

ACCOUNT NUMBER: 1 1

54219

INVOICE DATE: 05 08 81

AREA: B.C. / YUKON / NWT / ALTA.

CHARTERER: ARCHER CATHRO

BILLING ADDRESS: TTV

A/C TYPE	AIRCRAFT REGISTRATION C-
47B2	FCRH

FLIGHT DATE	DAY	MONTH	YEAR
	20	07	81

PURCHASE ORDER NO.

FUEL & OIL-X TNTA	FUEL & OIL-X CUST.	TNTA FUEL USED	HRS.-GALS.	FROM
	✓			

FROM / TO	MILES	HOURS	ZONE	REMARKS - NO. OF PASS - FREIGHT LBS.
FROM CLINTON CK				
TO LOCAL		2.7		Tuckstank - .5
				TATER - .3
				TIZA - 1.1
				REG - .8

SUB	G.L.	AMOUNT
845	5020	621.00

2.7	@	230.00	621.00
	@		
	@		
	@		
WAITING TIME	@	/HR.	
FUEL:	@	/GAL.	
FUEL:	@	/GAL.	
MEALS & LODGING			
OTHER			
OTHER			

TERMS: NET 30 DAYS
1.75% INTEREST PER MONTH (21% PER ANNUM) WILL BE CHARGED ON ALL OUTSTANDING AMOUNTS OVER 30 DAYS.

X J.C. Smith
CHARTERER'S SIGNATURE

RRC — PILOT'S SIGNATURE
INITIALS
CO-PILOT'S NAME
ENGINEER'S NAME
RGM BOB MOCNEY
FLIGHT ATTENDANT

P.D.

TOTAL $621.00

FLIGHT REPORT INVOICE

ARCHER, CATHRO
& ASSOCIATES (1981) LIMITED
CONSULTING GEOLOGICAL ENGINEERS

BOX 4127, 3125 THIRD AVENUE
WHITEHORSE, Y.T. Y1A 3S9
(403) 667-4415

RECEIVED
OCT 4 1982
MINING RECORDER
DAWSON, Y.T
I.A. & N.D

AFFIDAVIT

I, Joan Mariacher, of Whitehorse, Y.T., make oath and say:

That to the best of my knowledge the attached Statement of Expenditures for exploration work on the Tiza 1-4,9,11,25-30,33-44,50,52 54 and 56 mineral claims on Claim Sheet 116C/8 is accurate.

Joan Mariacher

Sworn before me at Whitehorse, Y.T.

this 1st day of October, 1982.

Notary, Yukon Territory

1016 - 510 WEST HASTINGS STREET, VANCOUVER, B.C. V6B 1L8 (604) 688-2568

Statement of Expenditures
Trenching and Pitting
Tiza 1-4,9,11,25-30,33-44,50,52,54 and 56 Claims
May 25, 1982

Ibex Contracting Ltd. - contract excavator	$17,390.00

ARCHER, CATHRO
& ASSOCIATES (1981) LIMITED
CONSULTING GEOLOGICAL ENGINEERS

BOX 4127, 3125 THIRD AVENUE
WHITEHORSE, Y.T. YIA 3S9

(403) 667-4415

RECEIVED
OCT 4 1982
MINING RECORDER
DAWSON, Y.T
I.A. & N.D.

AFFIDAVIT

I, Joan Mariacher, of Whitehorse, Y.T., make oath and say:

That to the best of my knowledge the attached Statement of Expenditures for exploration work on the Tartzhart 25 and 27-38 mineral claims on Claim Sheet 116C/7 & 8 is accurate.

Joan Mariacher

Sworn before me at Whitehorse, Y.T.
this 1st day of October, 1982.

Notary, Yukon Territory

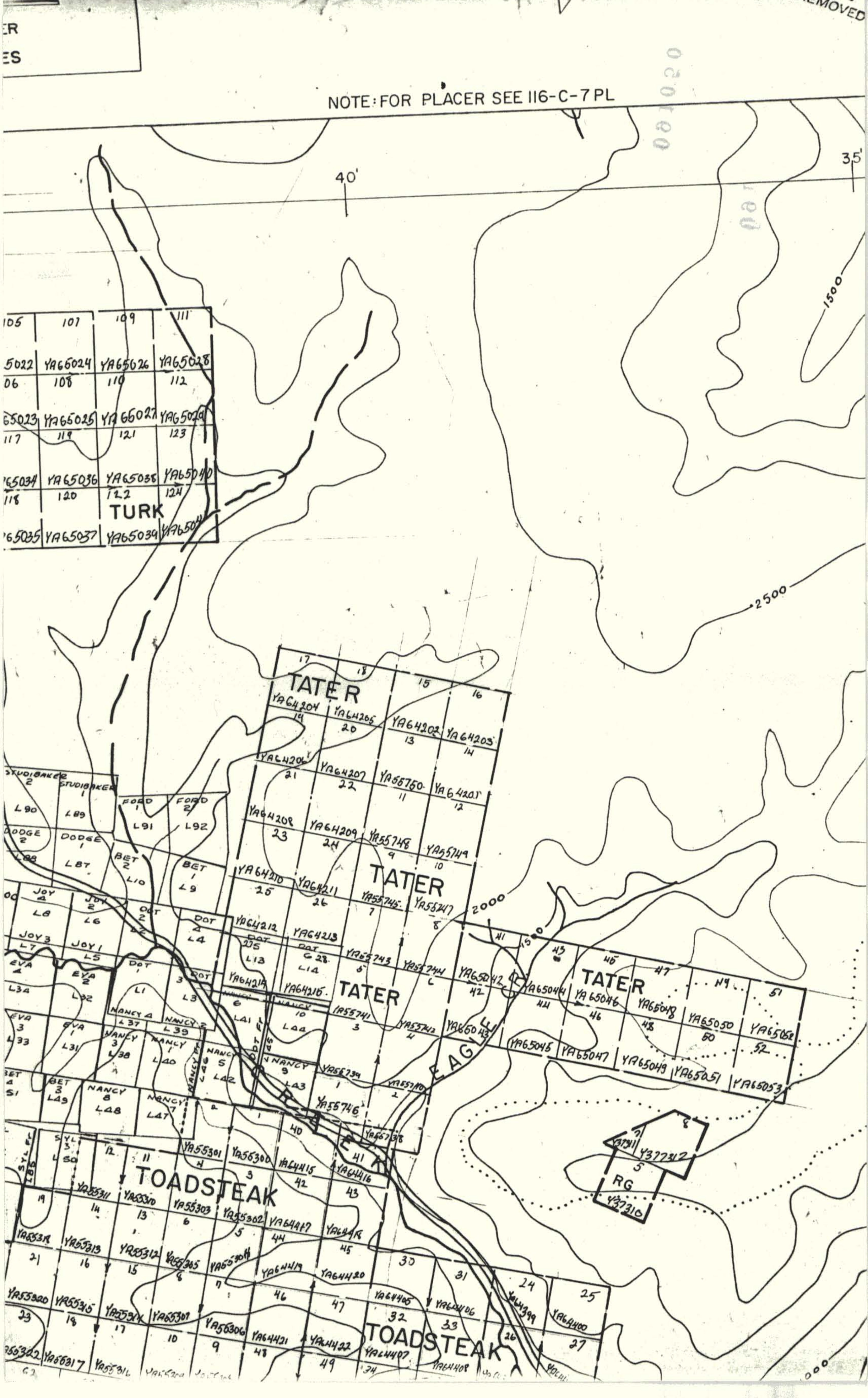
1016-510 WEST HASTINGS STREET, VANCOUVER, B.C. V6B IL8 (604) 688-2568

Statement of Expenditures
Trenching and Pitting
Tartzhart 25 and 27-38 Claims
May 25, 1982

Ibex Contracting Ltd. - contract excavator	$6,016.00
Trans North Air - contract Bell 47 G3/B2 helicopter at $322/hour including fuel - 7 hours	2,254.00
Total	$8,270.00

ER
ES
TO BE REMOVED
NOTE: FOR PLACER SEE 116-C-7 PL
40'
35'
1500
2500
2000
TURK
YA65024
YA65026
YA65028
YA65025
YA65036
YA65038
YA65039
TATER
YA64204
YA64202
YA64203
YA64207
YA55750
YA64208
YA64209
YA55748
YA55749
YA64210
YA64211
YA55745
YA55247
YA64212
YA64213
YA55743
YA55744
YA65042
YA65044
YA65046
YA65048
YA65050
YA65045
YA65047
YA65049
YA65051
YA65053
YA55741
YA55742
YA55746
YA55734
YA66738
STUDIBAKER
FORD
DODGE
BET
JOY
DOT
EVA
NANCY
SYL
RG
Y37310
Y37312
EAGLE
TOADSTEAK
YA55301
YA55300
YA64415
YA64416
YA55311
YA55310
YA55303
YA55302
YA64417
YA55313
YA55312
YA55305
YA64419
YA64420
YA55320
YA55315
YA55314
YA55309
YA55306
YA64421
YA64422
YA64405
YA64406
YA64399
YA64400
YA64407
YA64408
YA55317


MAP AREA
LOCATION MAP
SCALE - 1:1,000,000
CLINTON MINE LEASE BOUNDARY
TATER CLAIMS BOUNDARY
TOADSTEAK CLAIMS BOUNDARY
CLINTON MINE
TRACE HILL
WOLVERINE HILL
ASBESTOS MILL 2 km
CLINTON TOWNSITE 4km
TAILINGS
ORE
ANOMALY M
ANOMALY N
ANOMALY E
NANCY
ANOMALY D
ANOMALY C
TATER
CLINTON CREEK
Eagle Creek
91E
100E
145E
130N
120N
110N
100N
64°28'
64°26'
LEGEND
QUATERNARY
Qt Elevated alluvial terrace conglomerate, sand, silt
CARBONIFEROUS TO PERMIAN
CPub Dark green serpentinite and quartz carbonate rocks
CPqc Quartz carbonate I and II
CPqc II Quartz carbonate II and soapstone
CPdi Dark weathering diorite, metadiorite, gabbro
ORDOVICIAN TO DEVONIAN
OSD Undifferentiated grey quartz mica schist, chlorite schist carbonaceous mudstone, phyllite, limy sandstone
OSDs Carbonaceous mudstone, orange brown siltstone, pale green tuffaceous, phyllite, black weathering limy sandstone
OSDgs Grey to black graphite schist
OSDqm Grey and white quartz muscovite schist
OSDchs Chlorite schist, may contain graphite
PALEOZOIC AND/OR PRECAMBRIAN
PPK Quartz muscovite sericite and minor chlorite schist, gneiss, cataclasite
Geological contact
Anomalous zone boundary
Soil sample location and point value
Silt sample location and point value
Excavator pit
90N 10E Grid coordinates
Bulldozer trail
NOTE: Chrysotile content of samples measured with Fine Particle Separator at GEOTOR SERVICES INCORPORATED, Kamloops, B.C.
Fig. 3
ARCHER, CATHRO & ASSOCIATES (1981) LTD.
GEOLOGY AND FIBRE DISPERSION SURVEY
TATER CLAIMS
TESLIN JOINT VENTURE
091050
SCALE- 1:5000
Metres
Yards


NOTE: FOR PLACER SEE 116-C-7PL
40'
35'
1500
2500
2000
TURK
YA65024
YA65026
YA65028
YA65025
YA65027
YA65029
YA65036
YA65038
YA65040
YA65037
YA65039
TATER
YA64204
YA64205
YA64202
YA64203
YA64206
YA64207
YA55750
YA64201
YA64208
YA64209
YA55748
YA55749
YA64210
YA64211
YA55745
YA55747
YA64212
YA64213
YA55743
YA55744
YA64214
YA64215
YA55741
YA55742
YA65042
YA65044
YA65046
YA65048
YA65050
YA65043
YA65045
YA65047
YA65049
YA65051
YA65053
YA55739
YA55740
YA55746
YA64738
EAGLE
STUDIBAKER 2
STUDIBAKER 1
FORD 1
FORD 2
L90
L89
L91
L92
DODGE 2
DODGE 1
L87
BET 2
BET 1
L10
L9
JOY 4
JOY 2
JOY 3
JOY 1
L8
L6
L7
L5
DOT 2
DOT 4
L4
EVA 4
EVA 2
EVA 3
EVA 1
L34
L32
L33
L31
DOT 1
DOT 3
L1
L3
L13
L14
NANCY 4
NANCY 3
NANCY 2
NANCY 5
NANCY 9
NANCY 8
NANCY 7
L37
L38
L39
L40
L41
L42
L43
L44
L47
L48
L49
L50
SYL 3
RG
Y37311
Y377312
Y37310
TOADSTEAK
YA55301
YA56300
YA64415
YA64416
YA55311
YA55310
YA55303
YA55302
YA64417
YA64418
YA55313
YA55312
YA55305
YA55304
YA64419
YA64420
YA55320
YA55315
YA55314
YA55309
YA56306
YA64421
YA64422
YA64405
YA64406
YA64399
YA64400
YA55317
YA64407
YA64408