

MAP NO.: 116B/03      ASSESSMENT REPORT X      DOCUMENT NO: 092973  
 PROSPECTUS      MINING DISTRICT: Dawson  
 CONFIDENTIAL X      TYPE OF WORK: Geological Mapping,  
 OPEN FILE      Rotary Drilling

REPORT FILED UNDER: Arbor Resources Inc.

DATE PERFORMED: October 1990

DATE FILED: May 24, 1991

LOCATION: LAT.: 64°01'N

AREA: Bonanza Creek

LONG.: 139°21'W

VALUE \$: 40,583.97

CLAIM NAME & NO.: HAWK 155, 156, 157

YA88021, YA88022, YA8803

WORK DONE BY: Scott Tomlinson, B.Sc. and Ralph Gonzalez, M.Sc.

WORK DONE FOR: Arbor Resources Inc.

DATE TO GOOD STANDING:

REMARKS: # 116 B -

Exploration in 1990 consisted of detailed mapping of outcrops exposed by placer activities and 5 reverse circulation rotary drill holes totalling 384 m. Geochem samples recovered from rotary drill holes located over alteration zone were barren of gold but anomalous in arsenic, tungsten and thallium. Potential exists for a large tonnage epithermal gold deposit.

YUKON ASSESSMENT REPORT



PROPERTY: TRAIL HILL

NTS MAP SHEET: 116B/3

LATITUDE: 64°01' N

LONGITUDE: 139°21' W

CLAIMS AND GRANT NUMBERS WORKED:

HAWK 155, 156, 157

YA 88021, YA 88022, YA 88023

OWNERS OF PROPERTY: Arbor Resources Inc.

ADDRESS: #1000 - 675 West Hastings Street  
Vancouver, B.C.  
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TELEPHONE: (604) 685-2222

OPERATORS: Arbor Resources Inc.

TYPE OF WORK: Geological mapping, rotary drilling.

DATES WORK WAS DONE: OCTOBER 9 - NOVEMBER 16, 1990.

AUTHOR OF REPORT: Scott Tomlinson, B.Sc.  
Ralph Gonzalez, M.Sc.

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092973

GEOLOGICAL AND GEOCHEMICAL  
REPORT ON THE  
TRAIL HILL PROPERTY

DAWSON MINING DISTRICT, YUKON

SUMMARY

The Trail Hill property is owned 100 % by Arbor Resources Inc. and is located in the Klondike Mining District of northwestern Yukon Territory, approximately five km southeast of Dawson City. The claims are situated along the valley of Bonanza Creek, and overlie a large White Channel gravel deposit. These claims are adjacent to and overlie some of the most productive placer deposits in the Klondike.

The claims are underlain by the Klondike Series, a unit of quartzofeldspathic mica schists. Graphitic schists, possibly related to thrust faulting, also occur on the property. Both of these lithologies are cross-cut by Tertiary dykes.

Mineral exploration in the Klondike has occurred since the late 1800's, but has concentrated on placer deposits. Lode gold exploration has consisted mostly of individual efforts to find high grade vein structures, although a few larger programs involving trenching and drilling have also been carried out. The most successful venture was the Lone Star Mine, which produced 7,650 tonnes grading 0.148 oz/ton between 1912 and 1914. Since then, studies done on the White Channel gravels indicate that it very probably has undergone hydrothermal alteration.

In 1983, several companies of the Hughes Lang Group began to acquire and explore ground in the Klondike for hard rock gold potential. Work included multiple geological, geochemical, and ground geophysical surveys, two airborne geophysical surveys, trenching, and diamond and rotary drilling.

The 1990 program was designed to test for hydrothermal - possibly epithermal - alteration. To this end, detailed geologic mapping followed by 5 reverse circulation rotary drill holes totalling 384 m.

Work to date suggests that the rich White Channel gravels have been hydrothermally altered. Whether the gold within the gravels was introduced with these solutions is undetermined, but if so this implies the presence of a lode source. The hydrothermal solutions may have originated from either a steeply dipping fault which parallels Bonanza Creek or from a presumed thrust fault represented by the graphite horizons.

Further work should concentrate on determining the area of greatest alteration, and then drilling to depth to search for mineralization. Specifically, a shallow pattern drill program using whole rock analysis would detect the areas of greatest alteration, which would then be drilled with deep holes.

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GEOLOGICAL AND GEOCHEMICAL  
REPORT ON THE  
TRAIL HILL PROPERTY

DAWSON MINING DISTRICT, YUKON

1. INTRODUCTION

This report covers the field program completed between October 9 and November 16, 1990 under the supervision of Project Geologist Scott Tomlinson of Hastings Management Corp.

1.1 LOCATION AND ACCESS

Dawson City is the principal population and supply centre of northwestern Yukon. It can be reached via the two-lane, all-weather, Klondike Highway from Whitehorse on the Alaska Highway, a distance of 535 km. Dawson City is presently served by scheduled flights from Whitehorse where connections to Vancouver or Edmonton are available.

The mineral claims are located 5 km southeast of Dawson City in the Klondike Mining District as shown in Figure 1. The claims are adjacent to the valley of Bonanza Creek and are plotted on Figure 2.

Relief is on the order of 650 m (2100 ft) with elevations ranging from 500 m (1600 ft) to 1173 m (3851 ft). Terrestrial coordinates for the centre of the claim block are: 64° 01' North Latitude, 139° 21' West Longitude.

Access to the property is provided by the Bonanza Creek Road which connects with the Klondike Highway approximately 3 km east of Dawson City. Several unimproved roads provide good access for 4x4 trucks within much of the claim group.

ARBOR RESOURCES INC.

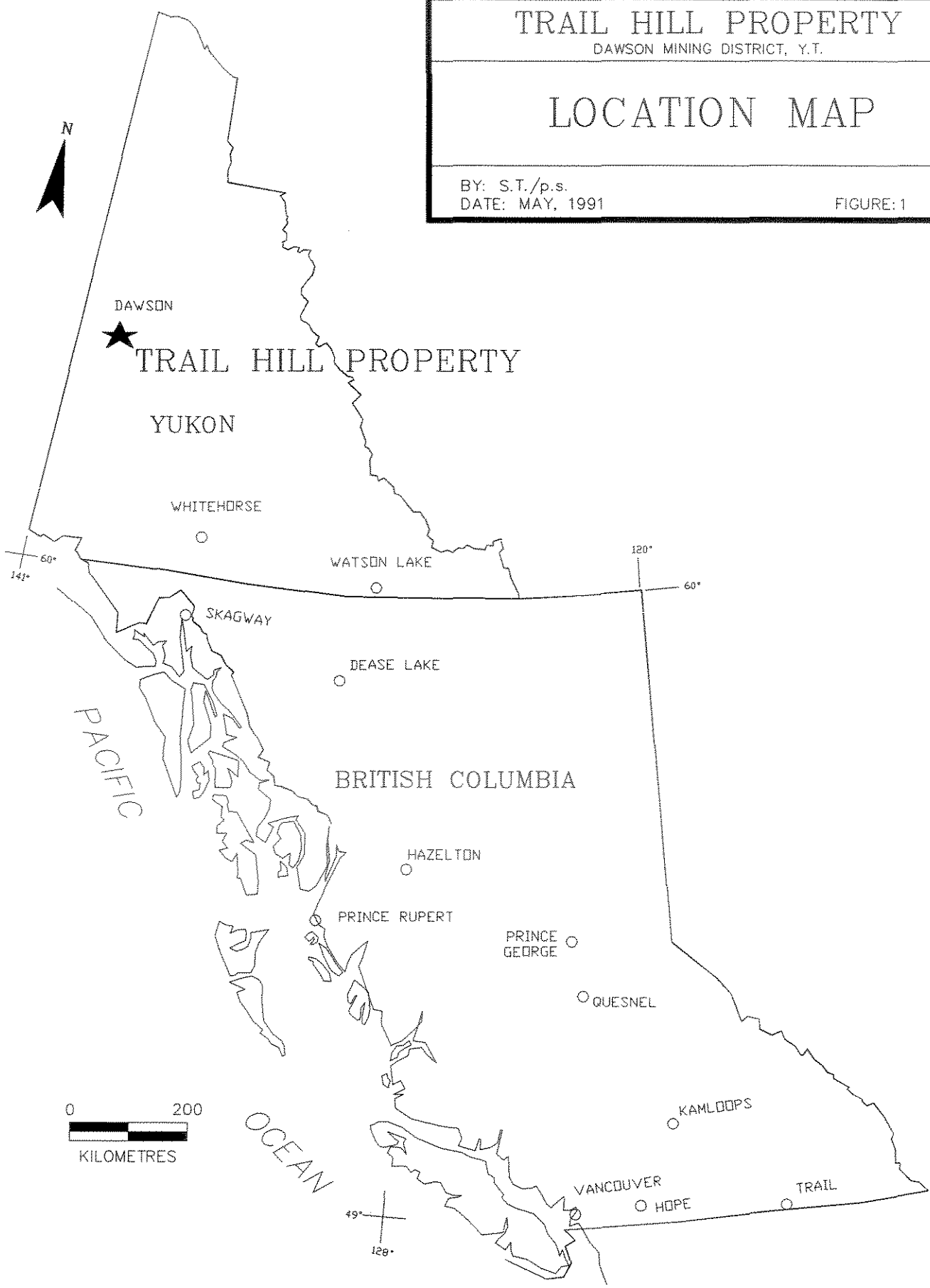
TRAIL HILL PROPERTY

DAWSON MINING DISTRICT, Y.T.

LOCATION MAP

BY: S.T./p.s.  
DATE: MAY, 1991

FIGURE: 1



## 1.2 PHYSIOGRAPHY AND CLIMATE

The Klondike region forms a part of the Yukon Plateau or upland surface which, locally, occupies an area between the Pacific and Alaskan Mountain Ranges to the west and northwest, the Ogilvie Mountains to the northeast and east, and the Dawson Range to the southwest and south.

The region is a thoroughly dissected upland which was elevated at one period into a high plateau. This plateau was subsequently deeply eroded by a multitude of small streams tributary to the main water courses. A secondary uplift resulted in further deepening of the valleys from 150 m to 200 m. Portions of the old valley-bottoms, still covered with thick accumulations of gravel forming terraces of varying width, border the newer valleys (McConnell, 1905; also, G.S.C. Mem.84, 1957). Today, the valleys are flat and wide in their lower reaches, but gradually narrow toward their head waters into steep-sided gulches ending in broad, amphitheater-shaped bowls.

The Klondike proper occupies an area of approximately 30 by 60 km. The drainage is dominated by the northerly flowing Yukon River and its westerly flowing tributaries, the Klondike River on the north and the Indian River on the south. Elevations within the Klondike range from 320 m (1050 ft) at Dawson City to 1295 m (4048 ft) at the top of King Solomon Dome, a span of approximately 915 m (3000 ft). The principal gold-producing streams of the Klondike originate near, and radiate in a general way from, King Solomon Dome, flowing eventually into the Klondike River on the north and the Indian River on the south and thence into the Yukon River.

The Klondike region was not glaciated and, as a result, the deeply weathered, pre-glacial, gently rolling upland surface has been preserved. A thick covering of decomposed schist, usually intermingled with slide rock, mantles the side hills nearly everywhere. On the ridges the covering is less; the schists occasionally project above surface or crop out along the sides of the steeper hills.

The region has a northern continental climate, characterized by low precipitation and a wide temperature range. The winters are intensely cold and long, while the summers, although short, are pleasant with cool nights and warm days. Because of the land form there is a tendency for local micro-climates to develop at the bottom of steep valleys which involves higher summer maxima and lower winter minima than are recorded in Dawson City. Precipitation is only about 30 cm (12 inches) per year with more rain in summer than snow in winter. Most of the mountain ridges are free of snow by mid-July, but frost may occur at any time during the summer. As a rule, precipitation is so low that shortages of water for placer mining are sometimes experienced.

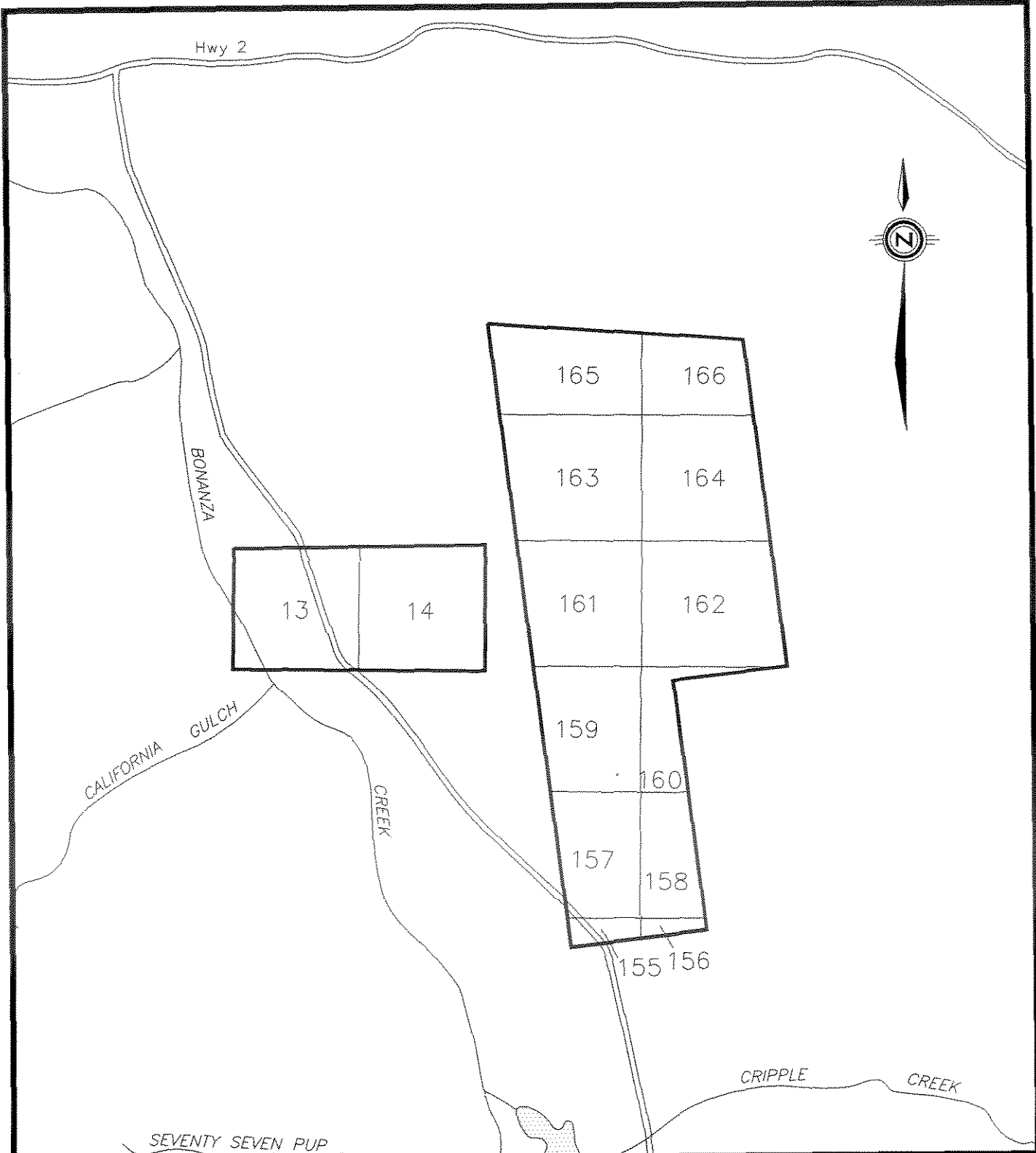
Vegetation is mixed boreal forest and tundra. Immature and stunted stands of aspen, balsam, poplar, and birch are present in the valley bottoms and are beginning to reclaim the older mining areas. Softwood timber consisting mainly of white and black spruce are limited to slopes and ridge tops.

### 1.3 CLAIM INFORMATION

The property is located in the Dawson Mining District of northwestern Yukon Territory and consists of 14 located quartz claims covering an area of approximately 2 km<sup>2</sup>, as shown on Figure 2. The claims are 100% owned by Arbor Resources Inc. Disposition of the claims is as follows in Table I:

TABLE I  
CLAIM STATUS

CLAIMS	GRANT NUMBERS	ANNIVERSARY
HAWK 13 & 14	YA88155 & YA88156	AUGUST 14
HAWK 155-156	YA88021-YA88032	JUNE 5



ARBOR RESOURCES INC.  
 TRAIL HILL PROPERTY  
 DAWSON MINING DISTRICT, Y.T.  
 CLAIM MAP  
 HAWK 13-14 & 155-166  
 BY: S.T./p.s.  
 DATE: MAY, 1991  
 FIGURE: 2

#### 1.4 HISTORY AND PREVIOUS PRODUCTION

The Klondike region is well known for the 11 million ounces of placer gold recovered since 1896, over half of which has come from Bonanza and Eldorado Creeks.

The mining of the placer deposits has been accomplished by a succession of methods. Originally, hand miners would shaft down through frozen gravels to "pay zones" near bedrock in the winter and sluice the gravel in the summer; using these techniques over five million ounces of gold was recovered. Subsequently, from 1903 to 1966, dredges reworked the streams and recovered an additional five million ounces. Since the dredging ended, bulldozers have been used to push gravel through sluice boxes and have recovered approximately one million ounces of gold.

The earliest known staking for lode deposits was in 1899 on an auriferous quartz vein known as the Corthay Vein (Maclean, 1914). This vein was later mined by the Lone Star Company, and represents the only significant lode gold production from the Klondike. Between 1912 and 1914, 7,650 tonnes grading 0.148 oz/ton Au was mined using open cut and underground methods. A 4-stamp mill on Victoria Gulch processed the ore and amalgamation recovered the gold. In 1914, grades dropped substantially after a fault was encountered and subsequent caving and rising labour costs caused the mine to close.

#### 1.5 PREVIOUS WORK

There is no indication that this area was ever staked for its lode potential prior to 1979. This area, however, has been extensively mined for its placer gold by hydraulic methods probably during the post World War II era. There are no government records of production from the area covered by the claims, however, considering the large area of disturbed ground, mining activity within the Hawk claim boundaries must have spanned many years. In 1979 the area was staked as the G.C. claims and bulldozer trenched in 1980 in conjunction with nearby placer work. In 1986, the area was restaked as the Hawk mineral claims and bulldozer trenched in 1988. Little productive exploration, other than that required to satisfy government assessment requirements, have been done; therefore the area is to be considered a raw prospect.

In 1984, Arbor and related companies initiated a regional airborne geophysical survey over the northern portion of the Klondike. This survey outlined a distinct area of anomalously low magnetic and resistivity readings suggesting the claims cover an extensive, deeply penetrating zone of alteration. In 1984-85, the area was mapped as part of a regional mapping survey by both Arbor geologists and, in a separate mapping program, by the Dept. of Indian and Northern Affairs. This mapping confirmed the occurrence of a hydrothermally altered zone extending from near the confluence of Bonanza Creek and Klondike River and trending southward along the east side of Bonanza Creek.

#### 1.6 WORK COMPLETED IN 1990

Field work completed by Hastings Management Corp. for Arbor Resources Inc. was carried out from October 9 to November 16, 1990. This work included:

- (1) detailed mapping of outcrops exposed by placer mining activities.
- (2) 5 reverse circulation rotary drill holes totalling 384 m (1,260 feet), with 252 samples analyzed.

## 2. GEOLOGY

### 2.1 REGIONAL GEOLOGY

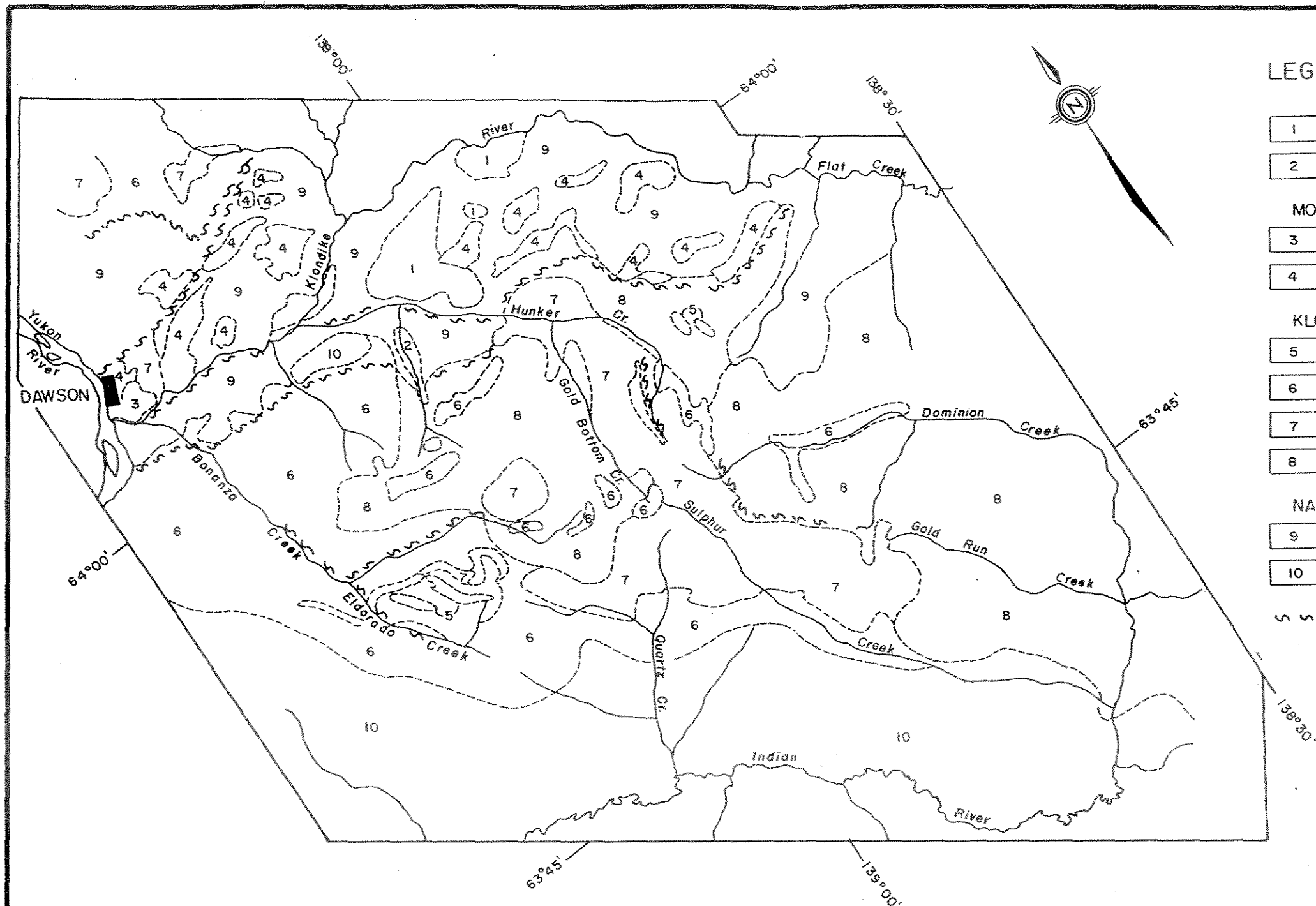
Bedrock exposures amount to less than one percent of the area and are generally confined to gulches, recent landslide areas, and road cuts. The Klondike district was first mapped by Bostock (1942), followed by Green and Roddick (1961), Metcalfe (1981), and Debicki (1984 and 1985), and most recently by Mortensen (1990). Bedrock in the Klondike area is generally grouped into five major units which are, from oldest to youngest, the Nasina Series, the Klondike Series, the Moosehide Assemblage, early Tertiary volcanics/volcanoclastics and Tertiary intrusives. An overview of the geology is shown in Figure 3.

Rocks of the Nasina Series consist of graphitic schists, graphitic quartzites and siliceous marbles with minor chlorite schists and muscovite schists. These rocks have been metamorphosed to grades ranging from upper greenschist to middle amphibolite facies, and appear to have been derived from marine offshore sedimentation similar to that found along continental shelves. Field studies indicate that the Nasina Series pre-dates the Klondike Series; thus, an age of formation in the late Carboniferous to mid-Permian is likely.

Most lithologies exposed in the Klondike district belong to the Klondike Series. These are quartzofeldspathic schists containing varying amounts of chlorite, muscovite and sericite. They have undergone upper greenschist to middle amphibolite grade metamorphism and at least four separate deformational events. This series appears to represent water lain arkosic sediments and rhyolitic to andesitic tuffs derived from a succession of stratovolcaniclastic venting. The minimum estimated age of formation of the Klondike Series lies within the middle Permian. Metcalfe claims that the Klondike formation has a conformable basal contact with the structurally underlying rocks of the Nasina Series, although field studies indicate a low angle thrust contact.

To the west the Klondike Schists are in contact with a blocky weathering, granitic textured, biotite-quartz-feldspar orthogneiss. Thin section studies of these rocks indicate that they were originally medium to coarse grained plutonic rocks of granodiorite to quartz diorite composition, and may represent the magmatic source for those tuffs now comprising the Klondike Series. Zircon dating of these rocks indicates an age of emplacement between Late Devonian and early Carboniferous (Mortensen).

The age of metamorphism of the Klondike and Nasina Series formations has been placed in the Late Triassic (Metcalfe).



LEGEND

- 1 QUARTZ FELDSPAR PORPHYRY
- 2 CLASTIC SEDIMENTS AND VOLCANICS
- MOOSEHIDE ASSEMBLAGE
- 3 MASSIVE GREENSTONE AND DIABASE
- 4 SERPENTINITE AND ALTERED ULTRAMAFIC ROCKS
- KLONDIKE SERIES
- 5 MUSCOVITIC QUARTZITE
- 6 MUSCOVITE AND QUARTZ MUSCOVITE SCHIST
- 7 CHLORITIC SCHIST
- 8 MUSCOVITIC AND CHLORITIC QUARTZITE AND FELDSPATIC QUARTZITE
- NASINA SERIES
- 9 CARBONACEOUS PHYLLITE AND SCHIST
- 10 METAGRANODIORITE
- ~ ~ FAULT (NATURE UNCERTAIN)



NOTE: MODIFIED FROM MORTENSEN, 1985

ARBOR RESOURCES INC.  
 TRAIL HILL PROPERTY  
 DAWSON MINING DISTRICT, Y.T.  
 REGIONAL GEOLOGY  
 OF THE KLONDIKE  
 BY: S.T./p.s.  
 DATE: MAY, 1991  
 FIGURE: 3

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Structurally overlying the rocks of the Klondike and Nasina Series are occurrences of greenstone and altered ultramafics belonging to the Moosehide Assemblage. Included in the ultramafic unit are a variety of rock types including massive, partially serpentinitized peridotite (harzburgite), massive to sheared serpentinite, silica-carbonate altered serpentinite, and talc-carbonate schist. Massive greenstone and strongly altered, fine to medium grained diabase are exposed in several steep bluffs in the vicinity of Dawson. These rocks are unfoliated and form part of a slab of greenstone and serpentinite that underlies the southwestern slope of the Midnight Dome east of Dawson. Occurrences of greenstone and ultramafic rocks are commonly found along the sheared contact between the Klondike and Nasina Series rocks. They are thought to represent exotic slices of uncertain origin (ophiolite?), structurally emplaced during thrust faulting.

Gently folded andesitic volcanics and clastic sediments belonging to the Carmacks suite are present in the Last Chance Creek area. These rocks were considered to be early Tertiary in age; however, recent work on similar rocks in the Indian River area suggests that these rocks are middle Cretaceous in age (Mortensen, 1986).

Intrusive rocks are present as numerous dykes and sills ranging in nature from diabase to rhyolite. These have been dated as Tertiary to early Quaternary in age. Larger Tertiary intrusive bodies are rare in the Klondike except for a rhyolite porphyry stock that outcrops along Hunker Creek. Isotopic dating (Debicki) indicates that the porphyry is approximately 50 to 60 million years old.

The regional structure is dominated by the Tintina Thrust Fault, which is only 15 kms away. Much of the faulting, deformation, and lithology trends to the northwest, parallel the Tintina.

## 2.2 PROPERTY GEOLOGY

The geology of the property was chiefly determined from the examination of trenches, road cuts and areas exposed by hydraulic mining. The property is underlain almost entirely by facies of the Klondike Schist. Lithological and structural continuity has been disrupted by folding and faulting. Age relationships of the various lithologies are largely unknown since tops cannot be determined and contacts are either gradational, interlayered, or faulted.

There are four main lithologies on the property: quartzofeldspathic mica schists, carbonaceous schists, ultramafics, and intrusives.

The dominant rock type are well-foliated, rust-yellow weathering, light grayish-green, undifferentiated chloritic schists, muscovite schists, and quartz-sericite schists. The primary bedding of these schists is believed to correspond with schistosity, which generally strikes northerly and dips near vertically.

The carbonaceous schists form graphitic horizons, and are enigmatic as to their genesis. They were originally thought to be stratigraphic, as there are gradational contacts between the graphite and the mica schists. However, the graphite does not appear to be conformable with the surrounding schists, and may represent a thrust plane. If the graphite does represent a thrust fault, the carbon may have been deposited by hydrothermal solutions moving along the thrust plane. Alternatively, the carbon may represent slices of the underlying Nasina Series caught up in the thrust.

The ultramafics are usually serpentinite, though actinolite forms locally. These rocks occur as small pods or lensoidal bodies near the graphitic horizons. Because of this, it is thought that the ultramafics are a product of thrust faulting, though they may be intrusive plugs of the Moosehide assemblage.

Intruding the three lithologies mentioned above are a series of Cretaceous north to north-west trending quartz-feldspar porphyry and diabase dykes. The porphyry is anomalous in arsenic, and is rhyolitic in areas. The diabase contains magnetite, showing up as a magnetic low in geophysical surveys, and may be basaltic. These dykes are penecontemporaneous, as they cross-cut each other, and appear to have been emplaced either along or adjacent to major faults.

Two structural features are present. A one to three metre wide, north-trending shear system and a northeast trending thrust fault. The shear structure is marked by a complex dyke system composed of both quartz-feldspar porphyry and diabase material. The thrust fault appears to have a shallow dip to the northwest.

Alteration is the principal feature in the area, affecting all of the rock units, and is characterized by a white to grey bleached colour and the presence of secondary, massive kaolinite and minor illite. Secondary minerals include well crystallized kaolinite, illite, interstratified illite/smectite (or chlorite/smectite), Fe-hydroxides and adularia. Major oxides are generally decreased with increasing degree of alteration. All of the rotary holes bottomed in alteration (see Appendix I).

Three types of veins appear to have been emplaced during the alteration period: 1) veins dominantly containing quartz and (or) chalcedony with vugs, banding, cockade, cockscomb and crustiform textures; 2) veins composed of siderite and quartz, with botryoidal and concretionary growth structures; and 3) veins consisting of microfractures filled with either smectite group minerals and goethite, or amorphous silicates and goethite.

### 2.3 ECONOMIC GEOLOGY

With few exceptions, exploration of the area has always focused on the placer deposits. Since production began in 1896, the Klondike district southeast of Dawson City has produced over 11 million ounces of placer gold.

The little previous hard rock exploration has concentrated on exploring quartz deposits. Quartz occurs in two forms: foliaform and discordant. The foliaform quartz forms pods and lenses ranging in thickness from 1 cm to over 1 m within the schists, and are probably the result of metamorphic segregation of the protolithologies. The discordant or vein quartz varies from less than 1 cm to over 2 m in thickness, has a general attitude of 140°/40NE, and throughout most of the Klondike is mesothermal in origin (as determined by fluid inclusion work). Veins near King Solomon Dome have been age dated at 138 m.y.a. (Mortensen, 1990). Carbonate is a common constituent, galena may be present, and a pyrite selvage often forms. Pyrite may also form stringers and veinlets by itself. Although there has been exploration on both types of quartz, only the discordant veins carry gold; the gold is almost always associated with galena and/or pyrite. The pyrite stringers and veinlets also may have gold.

The veining observed on the property is atypical of Klondike veins in that it appears to be epithermal. Furthermore, as the epithermal alteration halo is quite extensive, there must have been a much larger conduit for the solutions than the small veins can account for. Therefore, it is probable that the economic target is either the thrust fault or steeply dipping faults in the vicinity of intense alteration.

### 3. ROTARY DRILLING

A total of 384 m (1,260 ft) was drilled in 5 reverse circulation rotary drill holes between November 11 and 16, 1990, as shown in Figure 4. A Schramm T450H air rotary rig mounted on a TF 360 Nodwell carrier was used to drill 11.4 cm diameter holes. Drilling was carried out by Midnight Sun Drilling Co. Ltd. of Whitehorse, Y.T.

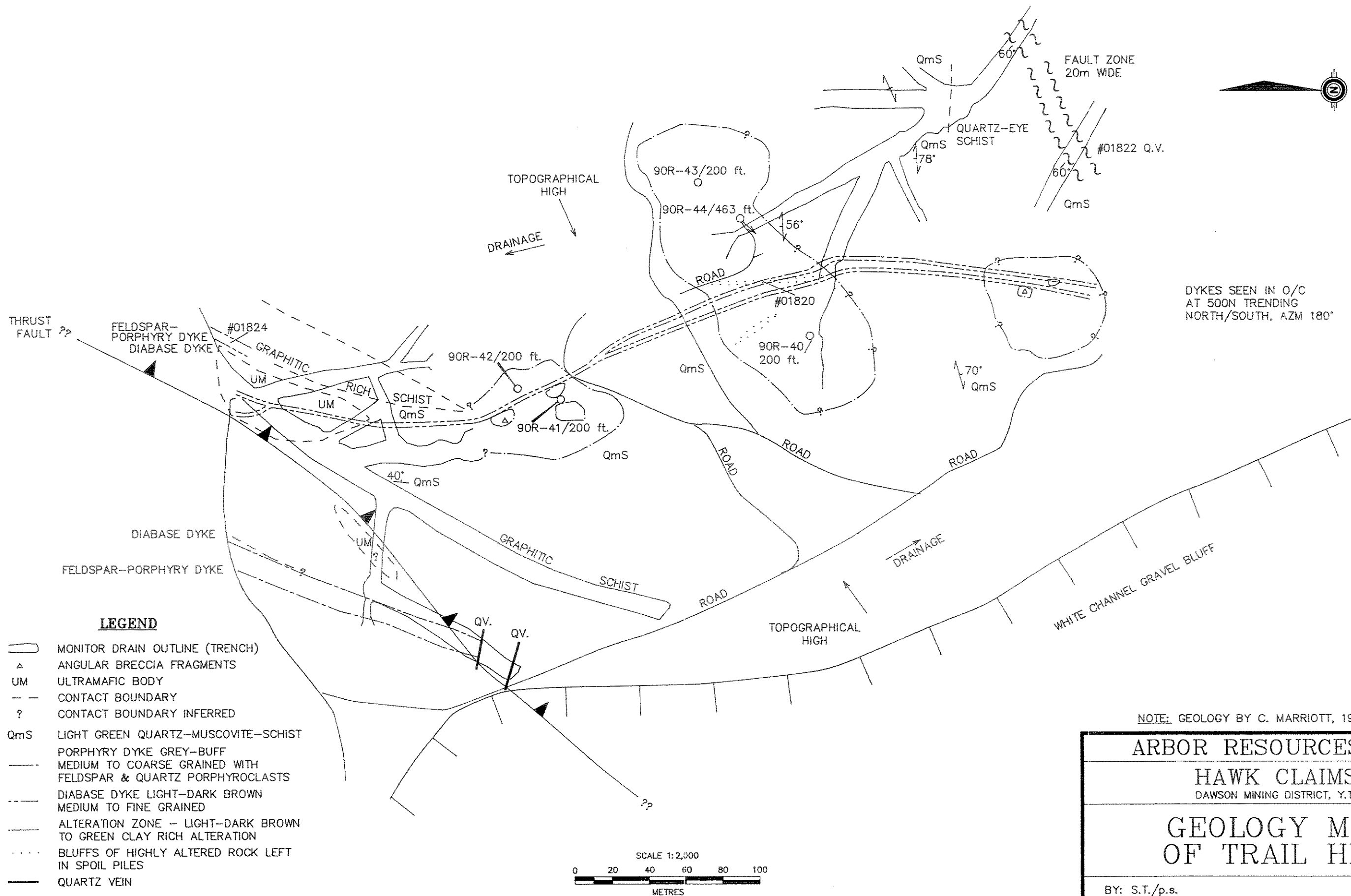
The drilling centered on two alteration zones, and tested the areas where the alteration was most intense. The southern zone had two 200 foot vertical holes drilled; the northern zone had two 200 foot vertical holes and one 460 foot angle hole drilled. Listed below in Table II is a description of the rotary drill holes (lengths are given in feet).

TABLE II  
ROTARY DRILLING DATA

HOLE NO.	AZIMUTH	DIP	LENGTH	DATE	LOCATION
90R40	-	90	200	11/11-15	northern alteration zone
90R41	-	90	200	11/15	southern alteration zone
90R42	-	90	200	11/15-16	southern alteration zone
90R43	-	90	200	11/16	northern alteration zone
90R44	067	65	460	11/16	northern alteration zone

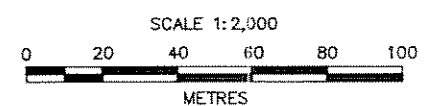
Upon recovery, the samples passed through a cyclone desander, and thence through a three tier Jones Splitter. All samples were taken on five foot intervals. Half of the sample was bagged and stored on site, while 12.5 % of the sample was separately bagged and labeled for analysis. A small portion of the drill cuttings was also chip logged, and the drill logs appear in Appendix I.

The samples were sent to Northern Analytical Labs Ltd. in Whitehorse, Y.T. There the sample was split into a 250 gm subsample, pulverized, and gold was assayed using the Fire Assay - Atomic Absorption method. A portion of all of the samples was then sent to Acme Analytical Labs Ltd. in Vancouver for 29 additional elements using the Inductively Coupled Plasma - Atomic Emission Spectrometry technique. The analysis results are listed in Appendix II.



**LEGEND**

- MONITOR DRAIN OUTLINE (TRENCH)
- ANGULAR BRECCIA FRAGMENTS
- ULTRAMAFIC BODY
- CONTACT BOUNDARY
- CONTACT BOUNDARY INFERRED
- LIGHT GREEN QUARTZ-MUSCOVITE-SCHIST
- PORPHYRY DYKE GREY-BUFF MEDIUM TO COARSE GRAINED WITH FELDSPAR & QUARTZ PORPHYROCLASTS
- DIABASE DYKE LIGHT-DARK BROWN MEDIUM TO FINE GRAINED
- ALTERATION ZONE - LIGHT-DARK BROWN TO GREEN CLAY RICH ALTERATION
- BLUFFS OF HIGHLY ALTERED ROCK LEFT IN SPOIL PILES
- QUARTZ VEIN



NOTE: GEOLOGY BY C. MARRIOTT, 1990

ARBOR RESOURCES INC.

HAWK CLAIMS  
DAWSON MINING DISTRICT, Y.T.

GEOLOGY MAP  
OF TRAIL HILL

BY: S.T./p.s.  
DATE: MAY, 1991

FIGURE: 4

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Since the area drilled is an alteration zone or leach cap and considered barren, no gold values were expected, and, in fact, no gold was present in the samples assayed in Whitehorse. The ICP analysis identified several elements normally expected in a barren cap where they are concentrated as sublimates as the underlying hydrothermal system de-gasses. Arsenic (up to 1358 ppm), scattered values of tungsten (up to 27 ppm), and consistently anomalous values in thallium (averaging approximately 15 ppm) were identified and are normal elements associated with sinter sublimates overlying epithermal systems.

#### 4. CONCLUSIONS

The Hawk mineral claims owned by Arbor Resources Inc. are situated along one of the most productive placer creeks in the Klondike, Bonanza Creek. The White Channel Gravels overlying the Hawk claims were particularly rich, suggesting a local lode source for the placer gold.

The geological mapping shows that the bedrock is typical of the Klondike, with a large graphitic unit occurring which is possibly thrust fault related. This inferred fault may be responsible for the intense hydrothermal, possibly epithermal, alteration which is present. This alteration is very recent, even affecting the Cretaceous dykes, and may be recent enough to have emplaced some gold in the gravels in situ. The quartz veining is atypical of the region, and also suggests a hydrothermal event.

The rotary drilling confirmed the extensiveness of the surface alteration by intersecting hydrothermally associated minerals and clayey rock. Although no anomalous gold values were returned, this may be due to being too high in the epithermal system.

The Trail Hill property has the potential of a large bulk tonnage epithermal gold deposit. An extensive kaolinitic alteration zone covering a large surface area and continuing to depth is reported to contain topaz, fluorite, tourmaline, and gold. The alteration is situated over a regional, north trending shear zone containing a quartz-feldspar porphyry and diabase dyke complex and adjacent to a northeast trending thrust fault.

Work in 1991 should concentrate on exploring the hydrothermal alteration zone. Both the inferred thrust fault and assumed steeply dipping faults should be tested at depth. Specifically, pattern drilling centering around the pre-existing holes, but extending deeper, should be carried out.

Respectfully submitted;



Scott Tomlinson

## 5. REFERENCES

- Bostock, H.S., 1957; Yukon Territory-Selected Field Reports of the Geological Survey of Canada, 1893 to 1937: Geol. Surv. of Canada, Memoir 284.
- Boyle, R.W., 1979; The Geochemistry of Gold and its Deposits: Geol. Surv. of Canada, Bulletin 280, p. 350-357.
- Cairnes, D.D., 1912; Quartz Mining in the Klondike District: Geol. Surv. of Canada, Sum. Rept. for 1911, pp. 4, 17-40: Also Geol. Surv. of Canada, Memoir 284, P. 343-351.
- DeCarle, R.J., 1984; Airborne Electromagnetic Survey, Mark Management Limited, Dawson Area, Yukon Territory: File No. 26023, Commissioned Report.
- Desborough, George A., 1970; Silver Depletion Indicated by Microanalysis of Gold from Placer Occurrences, Western United States: Econ. Geol., v.65, no.3, p.304-311.
- Dufresne, M.B., 1986; Origin of Gold in the White Channel Sediments of the Klondike Region, Yukon Territory. Master of Science Thesis, University of Alberta, 166 pp.
- Gleeson, C.F., 1970; Heavy Mineral Studies in the Klondike Area, Yukon Territory: Geol. Surv. of Canada, Bull. 173, 63 pp.
- Gonzalez, R., 1991; Geological Report on the Hawk 13-14 and Hawk 155-166 Mineral Claims: Unpub. Rept., 18pp.
- Grunenberg, P. and Troup, A., 1985; Geological, Geochemical and Geophysical Report on the Dawson Property: Unpub. Rept., 42pp.
- Grunenberg, P. and Troup, A., 1986; Geological, Geochemical and Geophysical Report for Work Performed by Mark Management Ltd.: Unpub. Rept., 42 pp.
- Grunenberg, P., 1987; Geological, Geochemical, and Diamond Drill Report for Work Performed by Mark Management Ltd. on the Dawson Property: Unpub. Rept., 51 pp.
- Grunenberg, P., 1987; Geological, Geochemical, and Diamond and Rotary Drilling Report on the Lone Star Property: Unpub. Rept., 49 pp.
- Grunenberg, P., 1988; Geological, Geochemical, Geophysical, and Diamond and Rotary Drilling Report on the Lone Star Property; Unpub. Rept., 49 pp.

Grunenberg, P., 1989; Geological, Geochemical, Geophysical and Trenching Report for Work Performed by Mark Management Ltd.: Unpub. Rept., 63 pp.

MacLean, T.A., 1914; Lode Mining in Yukon; An Investigation of Quartz Deposits in the Klondike Division: Can. Dept. of Mines, Mines Br. Pub. 222, Ottawa.

McConnell, R.G., 1905; Report on the Klondike Gold Fields: Geol. Surv. of Canada, Annu. Rep., pt. B, v.14, p. 1-71.

Metcalf, P., 1981; Petrogenesis of the Klondike Formation, Yukon Territory, a Thesis Presented to the University of Manitoba in Partial Fulfillment for the Requirements for the Degree of Master of Science in Department of Earth Sciences, University of Manitoba.

Milner, M.W., 1977; Geomorphology of the Klondike Placer Gold Fields, Yukon Territory. Indian and Northern Affairs Canada (Whitehorse), Final Report, 157 p.

Mortensen, J.K., 1986; Bedrock Geology and U-Pb Geochronology of the Klondike District, West-Central Yukon Territory, Geological Survey of Canada.

Mortensen, J.K., 1990; Geology and U-Pb Geochronology of the Klondike District, West-Central Yukon Territory; Canadian Journal of Earth Sciences, Vol. 27, p. 903-914.

Roche, W.J., 1916; The Yukon Territory; Its History and Resources: an Issue by the Ministry of the Interior, Ottawa.

Tomlinson, S., 1990; Geological, Geochemical, and Trenching Report on the Dawson Property; Unpub. Rept., 35 pp.

Tuck, R., 1968; Origin of the Bedrock Values of Placer Deposits: Econ. Geol., v. 63, no. 2, p. 191-193.

VanAngeren, P.D., 1986; Compilation Report on the Lone Star Property, Dawson Mining District, Y.T.: Unpub. Rpt. for Dawson Eldorado Mines Ltd.

Walcott, P.E. and Associates Ltd., 1987; A Report on Magnetic and Electromagnetic Surveys, RON 17-22. (Unpublished Report for Arbor Resources Inc.)

Walcott, P.E. and Associates Ltd., 1987; A Report on Magnetic and Induced Polarization Surveys, RON, SYNDICATE, RJ, DN, ND, DE claims and LOTS. (Unpublished Report for Arbor Resources Inc. and Kangel Resources Ltd.)

## 6. STATEMENT OF PROFESSIONAL QUALIFICATIONS

SCOTT TOMLINSON, B.Sc.

## ACADEMIC

1983  
UNIVERSITY OF BRITISH COLUMBIA  
B.Sc. IN GEOLOGY

## PROFESSIONAL

AUGUST 1990 - FEBRUARY 1991  
HASTINGS MANAGEMENT  
PROJECT GEOLOGIST  
Responsible for regional and detailed exploration programs,  
including rotary drilling, in Dawson, Yukon.

JUNE 1990 - AUGUST 1990  
GEWARGIS GEOLOGICAL CONSULTING LTD.  
GEOLOGIST  
Assisted in a mapping and diamond drilling program near Stewart,  
B.C.

JUNE 1986 - JUNE 1990  
HUGHES LANG EXPLORATIONS LTD.  
PROJECT GEOLOGIST  
Responsible for regional and detailed exploration programs in  
Dawson, Yukon, and central and western British Columbia. Also, was  
involved in monitoring placer mining operations.

JUNE 1985 - MAY 1986  
GEWARGIS GEOLOGICAL CONSULTING LTD.  
PROJECT GEOLOGIST  
Responsible for detailed exploration programs in central and  
south-western British Columbia and southern California.

JUNE 1984 - NOVEMBER 1984, JUNE 1983 - NOVEMBER 1983  
MARK MANAGEMENT  
GEOLOGIST  
Worked on regional and detailed exploration programs near Atlin,  
British Columbia.

9. COST STATEMENT

LIST OF YUKON RESIDENT EMPLOYEES

JERRY BRYDE  
P.O. BOX 469  
DAWSON, Y.T.

**Arbor Resources Inc.**  
**HAWK II CLAIMS**  
**COST STATEMENT**  
 9 October - 16 November 1990

**GENERAL COST**

FOOD & ACCOMMODATION 699 mdays @ \$67.37	\$ 47,790.88
SUPPLIES	5,795.27
FUEL	430.30
SHIPMENTS	1,881.47
MAINTENANCE	755.60
RENTALS:	
Arbor Field Equipment 699 days @ \$10	\$6,990.00
Norcan 4wd Crewcab 14 days	836.72
Norcan 4wd Bronco 2.5 mos @ \$1,450	3,625.00
Arbor 4wd Blazer 129 days @ \$55	7,095.00
Faith 4wd Suburban 129 days @ \$60	7,740.00
Faith 4wd PU 129 days @ \$55	7,095.00
Arbor 4wd Bronco 27 days @ \$55	<u>1,485.00</u>
	34,866.72
FIXED WING (CAI, Air North, Alkan Air)	9,731.29
CONSULTANT FEES:	
Adder Exploration & Development Ltd.	1,936.03
Archean Engineering Ltd.	20,475.00
REPORT PREPARATION	<u>11,714.94</u>
TOTAL GENERAL COST	<u>\$135,377.50</u>

**GEOLOGY & FIELD SUPERVISION**

9 - 12 October 1990

SALARIES & WAGES:	
S.Tomlinson 2 days @ \$160.42	\$ 320.84
C.Mariott 5 days @ \$186.67	933.35
J.McFaul 2 days @ \$140	<u>280.00</u>
	\$ 1,534.19
BENEFITS @ 20%	306.84
GENERAL COST APPORTIONED (9/699 X \$135,377.50)	<u>1,743.06</u>
TOTAL GEOLOGY & FIELD SUPERVISION COST	\$ <u>3,584.09</u>

**ROTARY DRILLING**

11 - 16 November 1990

SALARIES & WAGES:	
S.Tomlinson 5 days @ \$160.42	\$ 802.10
J.McFaul 4 days @ \$140	560.00
R.Gonzalez 3 days @ \$275	<u>825.00</u>
	\$ 2,187.10
BENEFITS @ 12.5%	272.42
ROTARY DRILLING Midnight Sun 1,263' @ \$21.06	26,598.78
ROADS & PADS:	
Hawk Mining D8K 6 hrs @ \$170	1,020.00
Klondike Transport	385.00
Henry Gulch Placers D9 2 hrs @ \$200	400.00

ASSAYS & ANALYSES:

Northern 250 Cores for Au & 32-E1 ICP @ \$15.25	3,812.50
GENERAL COST APPORTIONED (12/699 X \$135,377.50)	<u>2,324.08</u>
TOTAL ROTARY DRILLING COST	\$ <u>36,999.88</u>

COST SUMMARY

GEOLOGY & FIELD SUPERVISION	\$ 3,584.09
ROTARY DRILLING	<u>36,999.88</u>
TOTAL COST	\$ <u>40,583.97</u>

APPENDIX I  
ROTARY DRILL LOGS

PERCUSSION DRILL LOG

TRAIL HILL

NOV. 11, 15, 1990

90R40

Location

Northing

Easting

Elevation

Date Drilled

Hole Number

90°

200 ft

Dip

Bearing

Casing Depth

Hole Depth

Overburden Depth

Alteration zone

Purpose

Footage		Description	Sample Number	Assays					
From	To			Au ppb	Ag	As	Cu	Pb	Zn
0	5	BUFF CLAY (WEATHERED?) QUARTZ GRAIN MUCOSITE SHEETS	190. MnO <sub>2</sub>						
5	10	BUFF " " " " " " " " " " " "	190. MnO <sub>2</sub>						
10	15	" / BROWN (OXIDIZED) CLAY " " " " " "	190. MnO <sub>2</sub>						
15	20	BUFF CLAY w/ WHITE & SHINY QUARTZ PERLESTIC SP. PY	190. MnO <sub>2</sub>						
20	25	WHITISH/BROWN (OXIDIZED) CLAY w/ QUARTZ PERLESTIC	" "						
25	30	" " " " " " " " " " " "	" "						
30	35	" " " " " " " " " " " "	" "						
35	40	" " " " " " " " " " " "	" "						
40	45	PALE BROWN " " " " " " " " " " " "	" "						
45	50	" " " " " " " " " " " "	" "						
50	55	" " " " " " " " " " " "	" "						
55	60	" " " " " " " " " " " "	" "						
60	65	" " " " " " " " " " " "	" "						
65	70	LIGHT ORANGE/BROWN (OXIDIZED) " " " " " "	" "						
70	75	" " " " " " " " " " " "	" "						
75	80	" " " " " " " " " " " "	" "						
80	85	WHITE QUARTZ PERLESTIC WHITE, GRAY, RUSTY	TRAC						
85	90	" " " " " " " " " " " "	" "						
90	95	BUFF (OXIDIZED) QUARTZ PEBBLES	" "						
95	100	" " " " " " " " " " " "	TRAC						
100	105	" " " " " " " " " " " "	TRAC						
105	110	LIGHT ORANGE/BROWN " " " " " " " " " " " "	" "						
110	115	PALE GRAY/BROWN " " " " " " " " " " " "	" "						
115	120	" " " " " " " " " " " "	" "						
120	125	" " " " " " " " " " " "	" "						
125	130	" " " " " " " " " " " "	" "						
130	135	" " " " " " " " " " " "	" "						
135	140	" " " " " " " " " " " "	" "						
140	145	LIGHT ORANGE/BROWN " " " " " " " " " " " "	" "						
145	150	ORANGE/BROWN " " " " " " " " " " " "	" "						

PERCUSSION DRILL LOG

Page 2 of 2.

90R40  
Hole Number

Footage		Description	Sample Number	Assays					
From	To			Au ppb	Ag	As	Cu	Pb	Zn
150	155	DARK GREY SILICIFIED ULTRAMAFIC	TRACE PYRITE TRACE ARAGONITE						
155	160	" " SILICIFIED ULTRAMAFIC - Disseminated Banded Chalcopyrite Veins	" "						
160	165	DARK BROWN (OXIDIZED) SILICIFIED ULTRAMAFIC	" "						
165	170	LIGHT GREY SILICIFIED ULTRAMAFIC - EPITHEMAL VEINING	19% PYRITE TRACE MnO						
170	175	" " " "	" "						
175	180	MEDIUM GREY " "	" "						
180	185	" " " " PYRITE VEINING	5% PYRITE TRACE MnO						
185	190	DARK GREY " " " " COBALTITE SCHAERITE	5% PYRITE TRACE MnO						
190	195	" " " " " "	" "						
195	200	BLACK (WET) " " " " " "	7% PYRITE						
		END OF HOLE							
		Note: This entire hole is probably a silicified clay altered ultramafic.							

PERCUSSION DRILL LOG

TRAIL HILL

NOV 15, 1990

90 R 41

Location	Northing	Easting	Elevation	Date Drilled	Hole Number
-90°			200 ft		
Dip	Bearing	Casing Depth	Hole Depth	Overburden Depth	
Alteration	zone				
Purpose					

Footage		Description	Sample Number	Assays					
From	To			Au ppb	Ag	As	Cu	Pb	Zn
0	5	PALE GREY/BROWN (Oxidized?) Rhyolite Quartz Sericite Schist	1						
5	10	" " " " " " " " " " " "	TRACE PYRITE						
10	15	MEDIUM BROWN (OXIDIZED) CLAY ALTERED (?) " " " " " "	" "						
15	20	ORANGE BROWN " " " " " "	Ø						
20	25	" " " " " " " " " " " "	Ø						
25	30	" " " " " " " " " " " "	Ø						
30	35	" " " " " " " " " " " "	"						
35	40	" " " " " " " " " " " "	"						
40	45	" " " " " " " " " " " "	"						
45	50	" " " " " " " " " " " "	"						
50	55	" " " " " " " " " " " "	"						
55	60	" " " " " " " " " " " "	"						
60	65	" " " " " " " " " " " "	"						
65	70	" " " " " " " " " " " "	"						
70	75	" " " " " " " " " " " "	"						
75	80	" " " " " " " " " " " "	"						
80	85	" " " " " " " " " " " "	"						
85	90	BLACK w/ BROWN GRAPHITE SCHIST + QUARTZ SERICITE SCHIST	"						
90	95	PALE BROWN " " " " " " " " " " " "	"						
95	100	" " " " " " " " " " " "	"						
100	105	" " " " " " " " " " " "	"						
105	110	" " " " " " " " " " " "	"						
110	115	PALE GREY/BROWN " " " " " " " " " " " "	"						
115	120	" " " " " " " " " " " "	"						
120	125	" " " " " " " " " " " "	"						
125	130	BLACK & BROWN GRAPHITE SCHIST + QUARTZ SERICITE SCHIST	"						
130	135	PALE BROWN QUARTZ SERICITE SCHIST	"						
135	140	PALE GREY/BROWN " " " " " " " " " " " "	"						
140	145	BLACK & BROWN QUARTZ GRAPHITE SCHIST	TRACE PYRITE						
145	150	BLACK " " " " " " " " " " " "	"						

PERCUSSION DRILL LOG

Page 2 of 2

90 R41  
Hole Number

Footage		Description	Sample Number	Assays				
From	To			Au ppb	Ag	As	Cu	Pb
150	155	PALE GREY/WHITE QUARTZ SERICITE SCHIST	Ø					
155	160	PALE BROWN " " GRAPHITE SCHIST	Ø					
160	165	" " " " " "	TRACE PYRITE					
165	170	WHITE " " " "	190 PYRITE					
170	175	" " " " " "	" "					
175	180	" " " " " "	TRACE "					
180	185	" " " " " "	120 PYRITE					
185	190	" " " " " "	" "					
190	195	" " " " " " W/PYRITE VEINLETS	" "					
195	200	BLACK GRAPHITE SCHIST W/PYRITE VEINLETS END OF HOLE	550 PYRITE					

PERCUSSION DRILL LOG

TRAIL HILL

NOV 15-16, 1990

90 R42

Location

Northing

Easting

Elevation

Date Drilled

Hole Number

-90°

200 ft

Dip

Bearing

Casing Depth

Hole Depth

Overburden Depth

Alteration zone

Purpose

Footage		Description	Sample Number	Assays				
From	To			Au ppb	Ag	As	Cu	Pb
0	5	PALE ORANGE/BROWN (int. m. brown) QUARTZ MUSCOVITE SCHIST	TRACE PYRITE					
5	10	" " " " " " " " " " " "	" "					
10	15	" " " " " " " " " " " "	φ					
15	20	WHITISH BROWN " " " " " " " " " " " "	1 PIECE PYRITE					
20	25	" " " " " " " " " " " "	φ					
25	30	" " " " " " " " " " " "	φ					
30	35	" " " " " " " " " " " "	φ					
35	40	DARK GREY/BROWN " " " " " " " " " " " "	φ					
40	45	BLACK w/ RED SPOTS " " " " " " " " " " " "	φ					
45	50	" " " " " " " " " " " "	φ					
50	55	" " " " " " " " " " " "	φ					
55	60	WHITISH BROWN " " " " " " " " " " " "	TRACE LIMONITE 1 PIECE PYRITE					
60	65	" " " " " " " " " " " "	φ					
65	70	DARK GREY " " " " " " " " " " " "	φ					
70	75	" " " " " " " " " " " "	φ					
75	80	" " " " " " " " " " " "	φ					
80	85	PALE ORANGE/BROWN " " " " " " " " " " " "	TRACE PYRITE					
85	90	" " " " " " " " " " " "	" "					
90	95	" " " " " " " " " " " "	φ					
95	100	DARK GREY " " " " " " " " " " " "	φ					
100	105	PALE ORANGE/BROWN " " " " " " " " " " " "	φ					
105	110	" " " " " " " " " " " "	φ					
110	115	" " " " " " " " " " " "	1 PIECE MUSCOVITE					
115	120	" " " " " " " " " " " "	φ					
120	125	" " " " " " " " " " " "	φ					
125	130	" " " " " " " " " " " "	φ					
130	135	" " " " " " " " " " " "	φ					
135	140	" " " " " " " " " " " "	φ					
140	145	DARK GREY " " " " " " " " " " " "	φ					
145	150	PALE ORANGE/BROWN " " " " " " " " " " " "	φ					



PERCUSSION DRILL LOG

TRAIL HILL

Nov 16, 1990

90R#3

Location	Northing	Easting	Elevation	Date Drilled	Hole Number
-90°			200' ft		
Dip	Bearing	Casing Depth	Hole Depth	Overburden Depth	
Alteration zone					

Purpose

Footage		Description	Sample Number	Assays					
From	To			Au ppb	Ag	As	Cu	Pb	Zn
0	5	PALE GREENISH/BROWN (oxidized) QUARTZ MUSKELITE SOILS	TRACE ARSENIC						
5	10	" " " " " " " " " " " "	" PYRITE						
10	15	PALE ORANGE/BROWN GORPITE "							
15	20	" " " " " " " " " " " "							
20	25	" " " " " " " " " " " "							
25	30	" " " " " " " " " " " "							
30	35	" " " " " " " " " " " "							
35	40	" " " " " " " " " " " "							
40	45	" " " " " " " " " " " "							
45	50	" " " " " " " " " " " "							
50	55	" " " " " " " " " " " "							
55	60	" " " " " " " " " " " "							
60	65	" " " " " " " " " " " "	TRACE PYRITE						
65	70	" " " " " " " " " " " "	" "						
70	75	PALE GREEN/GREEN " " " " " "	" "						
75	80	" " " " " " " " " " " "							
80	85	PALE ORANGE/BROWN (oxidized) " " " " " "							
85	90	" " " " " " " " " " " "							
90	95	" " " " " " " " " " " "							
95	100	" " " " " " " " " " " "							
100	105	PALE BROWNISH/WHITE " " " " " "							
105	110	" " " " " " " " " " " "							
110	115	" " " " " " " " " " " "	TRACE PYRITE						
115	120	PALE GREY/WHITE " " " " " "							
120	125	" " " " " " " " " " " "	TRACE PYRITE						
125	130	" " " " " " " " " " " "	" "						
130	135	" " " " " " " " " " " "	" "						
135	140	" " " " " " " " " " " "							
140	145	PALE BROWNISH/WHITE " " " " " "							
145	150	" " " " " " " " " " " "	ROCK PYRITE						

PERCUSSION DRILL LOG

90 R 43  
Hole Number

Footage		Description	Sample Number	Assays				
From	To			Au ppb	Ag	As	Cu	Pb
150	155	PALE GREENISH/GREY QUARTZ CHARLITE MICROLITE SCHIST	TRACE PYRITE					
155	160	" " " " " " " "	" "					
160	165	" " " " " " " "	" "					
165	170	PALE BROWN " " " " " "	" "					
170	175	PALE GREENISH/GREY " " " " " "	Φ					
175	180	" " " " " " " "	TRACE PYRITE					
180	185	PALE BROWN " " " " " "	" "					
185	190	PALE PINKISH/GREY " " " " " "	Φ					
190	195	" PINKISH " " " " " "	Φ					
195	200	" PINKISH " " " " " "	TRACE PYRITE					
END OF HOLE								
NOTE - PYRITE THROUGHOUT IS VERY, VERY SMALL PARTICLES AND MOSTLY FINE GRAINED MASSES - TYPICAL OF EPITHERMAL PYRITE								
NOTE - ENTIRE HOLE PROBABLY ALTERED - MOST OF PANVILK CONCENTRATE IS FOLIATED QUARTZ GELIC - REST OF ROCK IS CLAY ALTERED & WASHES AWAY DURING PANNING								

PERCUSSION DRILL LOG

Page 1 of 3  
90 R 44  
Hole Number

TRAIL HILL

NOV. 16, 1990  
Date Drilled

Location

Northing

Easting

Elevation

Date Drilled

Hole Number

-65°

067°

460 ft

Dip

Bearing

Casing Depth

Hole Depth

Overburden Depth

I.P. anomaly  
Purpose

Footage		Description	Sample Number	Assays					
From	To			Au ppb	Ag	As	Cu	Pb	Zn
0	5	PALE BROWN (OXIDIZED) QUARTZ MUSCOVITE SEMI	TRACE PYRITE						
5	10	" " " " " "	φ						
10	15	" " " " " "	φ						
15	20	" " " " " "	φ						
20	25	" " " " " " MINOCLINITE QFP DYKE	φ						
25	30	" " " " " " QUARTZ CHLORITE	TRACE PYRITE						
30	35	" " " " " "	φ						
35	40	PALE GREY/WHITE	φ						
40	45	" " " " " "	φ						
45	50	PALE BUFF	φ						
50	55	" " " " " "	φ						
55	60	PALE GREY/WHITE	φ						
60	65	" " " " " "	φ						
65	70	" " " " " "	φ						
70	75	" " " " " "	φ						
75	80	" " " " " "	φ						
80	85	" " " " " "	φ						
85	90	" " " " " "	φ						
90	95	" " " " " "	φ						
95	100	" " " " " "	φ						
100	105	" " " " " "	φ						
105	110	PALE BUFF	φ						
110	115	PALE GREY/WHITE	φ						
115	120	" " " " " "	φ						
120	125	" " " " " "	φ						
125	130	" " " " " "	φ						
130	135	" " " " " "	φ						
135	140	PALE BUFF	φ						
140	145	" " " " " "	φ						
145	150	PALE GREY/WHITE + MINOR QFP DYKE	φ						

PERCUSSION DRILL LOG

Page 2 of 3

90 R 44  
Hole Number

Footage		Description	Sample Number	Assays					
From	To			Au ppb	Ag	As	Cu	Pb	Zn
150	155	PALE GREENISH/WHITE MINOR DIABASE DYKE + QUARTZ (HARD MISC. SCHIST)	9						
155	160	DAK. GREY (GREEN) EPITHERMAL QUARTZ VEIN STOCKWORK	2% PYRITE 2% MUSCOVITE VERY FINE GRAINES						
160	165	" " " REPLACING DIABASE DYKE (?) = SAME							
165	170	" " " BLENDED/HAIRY CHALCEDONY VEINS							
170	175	PALE GREENISH/WHITE TRIOLE VEIN/DYKE + QUARTZ MUSCOVITE SCHIST	10						
175	180	PALE BROWN (OXIDIZED)	11						
180	185	PALE GREENISH/GREY	12						
185	190	PALE " / WHITE	13						
190	195	" " " MINOR TP DIABASE DYKE	14						TRACE PYRITE
195	200	" " "	15						
200	205	" " " QUARTZ CHALCITE MUSCOVITE SCHIST	16						
205	210	" " "	17						
210	215	" " "	18						
215	220	BLACK/TAN (WET) GRAPHITE SCHIST	19						5% CUBIC PYRITE
220	225	BLACK/TAN " " "	20						
225	230	BLACK/TAN " QUARTZ CHALCITE/MUSCOVITE + GRAPHITE SCHIST	21						4% "
230	235	BLACK (WET) " " "	22						2% "
235	240	" " " " " " "	23						1% "
240	245	" " " (TRACE ANATITE) " " "	24						1% "
245	250	PALE GREY/WHITE " " " (MINOR " " ) " "	25						TRACE "
250	255	GREY (WET) " " " " " " "	26						1% "
255	260	BLACK (WET) (MINOR " " " ) + GRAPHITE SCHIST	27						2% "
260	265	BLACK GRAPHITE SCHIST	28						3% "
265	270	" (WET) MINOR QUARTZ SCHIST " " "	29						" "
270	275	" " " " " " "	30						" "
275	280	" " " " " " "	31						" "
280	285	" " " " " " "	32						5% "
285	290	" " " SWARTZ GRAPHITE SCHIST	33						" "
290	295	" " (MINOR QMS) " " "	34						" "
295	300	" " " " " " "	35						" "
300	305	" " " " " " "	36						" "
305	310	" " " " " " "	37						" "
310	315	" " " " " " "	38						" "
315	320	" " " " " " "	39						" "
320	325	" " " " " " "	40						" "
325	330	" " " " " " "	41						" "

PERCUSSION DRILL LOG

90 R 44  
Hole Number

Footage		Description	Sample Number	Assays				
From	To			Au ppb	Ag	As	Cu	Pb
330	335	BLACK & TAN (WET) QUARTZ GRAPHITE SCHIST	530 PYRITE					
335	340	BLACK (WET) " " "	" "					
340	345	" " " " "	" "					
345	350	" " " " "	" "					
350	355	" " " " "	" "					
355	360	" " " " "	" "					
360	365	" " " " "	" "					
365	370	" " " " "	" "					
370	375	" " " " "	" "					
375	380	" " " " MINOR G.N.S.T. "	" "					
380	385	BLACK/PALE GREY/GREEN (WET) QUARTZ MUSCOVITE SCHIST	TRACE "					
385	390	PALE GREY/GREEN (WET) QUARTZ MUSCOVITE SCHIST	" "					
390	395	" " " " "	" "					
395	400	LIGHT GREY (WET) MINOR GRAPHITE "	TRACE PYRITE					
400	405	PALE GREY/GREEN (WET) " " " "	" "					
405	410	PALE CREAMY WHITE (WET) SERICITE SCHIST	" "					
410	415	" " " " QUARTZ " "	TRACE PYRITE					
415	420	" " " " " " " "	" "					
420	425	" " " " " " " "	1?0 "					
425	430	" " " " " " " "	" "					
430	435	" " " " " " " "	TRACE "					
435	440	PALE GREY/GREEN (WET) QUARTZ SERICITE SCHIST	" "					
440	445	GREY/GREEN " " QUARTZ CLORITE SCHIST	" "					
445	450	GREY/GREEN " " QUARTZ CLORITE MUSCOVITE SCHIST	TRACE					
450	455	SCHIST + CRYSTALS QUARTZ TROPYOLY PYRE + DIABASE	PYRITE					
455	460	DYKE CUT BY EPITHEMAL STOCKWORK VEINLETS						
460		END OF HOLE						

Trace amount of Au detected on 530, 410, 420, 430, 440, 450, 460

APPENDIX II

ROTARY DRILL SAMPLES CERTIFICATES OF ANALYSES

December 21, 1990

Work Order # 13037

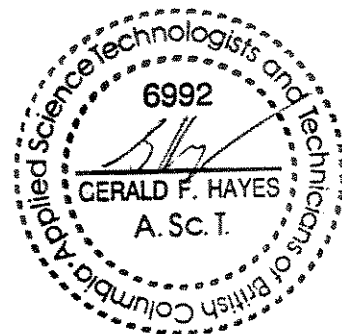
Arbor Resources  
 1000 - 675 W. Hastings St.  
 Vancouver, B.C.  
 V6E 2K3

File # 13037a  
 Sample : Perc. Cuttings

Assay Certificate for Samples Provided

Sample	oz/t Au
90-R40-0-5	<0.0002
90-R40-5-10	0.0002
90-R40-10-15	<0.0002
90-R40-15-20	<0.0002
90-R40-20-25	<0.0002
90-R40-25-30	0.0003
90-R40-30-35	<0.0002
90-R40-35-40	0.0002
90-R40-40-45	<0.0002
90-R40-45-50	<0.0002
90-R40-50-55	<0.0002
90-R40-55-60	<0.0002
90-R40-60-65	0.0002
90-R40-65-70	<0.0002
90-R40-70-75	<0.0002
90-R40-75-80	0.0002
90-R40-80-85	<0.0002
90-R40-85-90	<0.0002
90-R40-90-95	<0.0002
90-R40-95-100	<0.0002
90-R40-100-105	<0.0002
90-R40-105-110	<0.0002
90-R40-110-115	<0.0002
90-R40-115-120	<0.0002
90-R40-120-125	<0.0002
90-R40-125-130	<0.0002
90-R40-130-135	<0.0002
90-R40-135-140	<0.0002
90-R40-140-145	<0.0002
90-R40-145-150	<0.0002

Au -- 1AT Fire Assay/AAS



December 21, 1990

Work Order # 13037

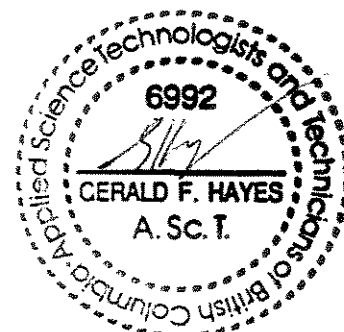
Arbor Resources  
1000 - 675 W. Hastings St.  
Vancouver, B.C.  
V6E 2K3

File # 13037b  
Sample : Perc. Cuttings

Assay Certificate for Samples Provided

Sample	oz/t Au
90-R40-150-155	<0.0002
90-R40-155-160	<0.0002
90-R40-160-165	<0.0002
90-R40-165-170	0.0003
90-R40-170-175	<0.0002
90-R40-175-180	<0.0002
90-R40-180-185	<0.0002
90-R40-185-190	<0.0002
90-R40-190-195	0.0002
90-R40-195-200	0.0002

Au -- 1AT Fire Assay/AAS



December 21, 1990

Work Order # 13037

Arbor Resources  
1000 - 675 W. Hastings St.  
Vancouver, B.C.  
V6E 2K3

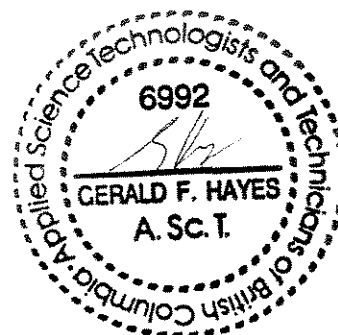
File # 13037c

Sample : Perc. Cuttings

Assay Certificate for Samples Provided

Sample	oz/t Au
90-R41-0-5	<0.0002
90-R41-5-10	<0.0002
90-R41-10-15	<0.0002
90-R41-15-20	<0.0002
90-R41-20-25	<0.0002
90-R41-25-30	0.0002
90-R41-30-35	0.0002
90-R41-35-40	<0.0002
90-R41-40-45	<0.0002
90-R41-45-50	<0.0002
90-R41-50-55	<0.0002
90-R41-55-60	<0.0002
90-R41-60-65	<0.0002
90-R41-65-70	<0.0002
90-R41-70-75	<0.0002
90-R41-75-80	<0.0002
90-R41-80-85	<0.0002
90-R41-85-90	<0.0002
90-R41-90-95	0.0002
90-R41-95-100	<0.0002
90-R41-100-105	<0.0002
90-R41-105-110	0.0002
90-R41-110-115	0.0003
90-R41-115-120	0.0002
90-R41-120-125	0.0004
90-R41-125-130	<0.0002
90-R41-130-135	<0.0002
90-R41-135-140	<0.0002
90-R41-140-145	0.0004
90-R41-145-150	0.0005

Au -- 1AT Fire Assay/AAS



December 21, 1990

Work Order # 13037

Arbor Resources  
1000 - 675 W. Hastings St.  
Vancouver, B.C.  
V6E 2K3

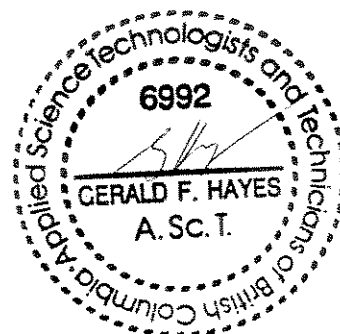
File # 13037d

Sample : Perc. Cuttings

Assay Certificate for Samples Provided

Sample	oz/t Au
90-R41-150-155	<0.0002
90-R41-155-160	<0.0002
90-R41-160-165	0.0002
90-R41-165-170	<0.0002
90-R41-170-175	<0.0002
90-R41-175-180	<0.0002
90-R41-180-185	0.0003
90-R41-185-190	<0.0002
90-R41-190-195	<0.0002
90-R41-195-200	<0.0002

Au -- 1AT Fire Assay/AAS



December 21, 1990

Work Order # 13037

Arbor Resources  
1000 - 675 W. Hastings St.  
Vancouver, B.C.  
V6E 2K3

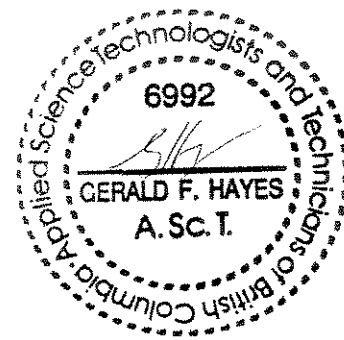
File # 13037e

Sample : Perc. Cuttings

Assay Certificate for Samples Provided

Sample	oz/t Au
90-R42-0-5	<0.0002
90-R42-5-10	<0.0002
90-R42-10-15	<0.0002
90-R42-15-20	<0.0002
90-R42-20-25	<0.0002
90-R42-25-30	<0.0002
90-R42-30-35	<0.0002
90-R42-35-40	<0.0002
90-R42-40-45	<0.0002
90-R42-45-50	<0.0002
90-R42-50-55	<0.0002
90-R42-55-60	<0.0002
90-R42-60-65	<0.0002
90-R42-65-70	<0.0002
90-R42-70-75	0.0002
90-R42-75-80	0.0004
90-R42-80-85	<0.0002
90-R42-85-90	<0.0002
90-R42-90-95	<0.0002
90-R42-95-100	0.0002
90-R42-100-105	0.0003
90-R42-105-110	<0.0002
90-R42-110-115	<0.0002
90-R42-115-120	0.0002
90-R42-120-125	0.0003
90-R42-125-130	<0.0002
90-R42-130-135	<0.0002
90-R42-135-140	<0.0002
90-R42-140-145	<0.0002
90-R42-145-150	<0.0002

Au -- 1AT Fire Assay/AAS



December 21, 1990

Work Order # 13037

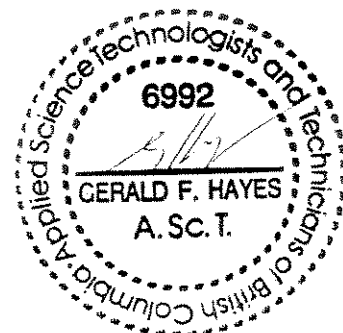
Arbor Resources  
1000 - 675 W. Hastings St.  
Vancouver, B.C.  
V6E 2K3

File # 13037f  
Sample : Perc. Cuttings

Assay Certificate for Samples Provided

Sample	oz/t Au
90-R42-150-155	<0.0002
90-R42-155-160	0.0004
90-R42-160-165	0.0002
90-R42-165-170	0.0002
90-R42-170-175	0.0009
90-R42-175-180	0.0005
90-R42-180-185	0.0004
90-R42-185-190	0.0009
90-R42-190-195	0.0003
90-R42-195-200	0.0006

Au -- 1AT Fire Assay/AAS



December 21, 1990

Work Order # 13037

Arbor Resources  
1000 - 675 W. Hastings St.  
Vancouver, B.C.  
V6E 2K3

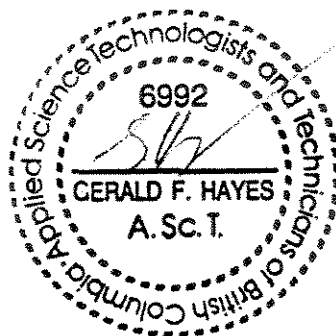
File # 13037g

Sample : Perc. Cuttings

Assay Certificate for Samples Provided

Sample	oz/t Au
90-R43-0-5	<0.0002
90-R43-5-10	<0.0002
90-R43-10-15	<0.0002
90-R43-15-20	<0.0002
90-R43-20-25	<0.0002
90-R43-25-30	<0.0002
90-R43-30-35	<0.0002
90-R43-35-40	<0.0002
90-R43-40-45	<0.0002
90-R43-45-50	<0.0002
90-R43-50-55	<0.0002
90-R43-55-60	<0.0002
90-R43-60-65	<0.0002
90-R43-65-70	0.0002
90-R43-70-75	<0.0002
90-R43-75-80	<0.0002
90-R43-80-85	<0.0002
90-R43-85-90	<0.0002
90-R43-90-95	<0.0002
90-R43-95-100	0.0002
90-R43-100-105	<0.0002
90-R43-105-110	0.0003
90-R43-110-115	<0.0002
90-R43-115-120	<0.0002
90-R43-120-125	<0.0002
90-R43-125-130	<0.0002
90-R43-130-135	<0.0002
90-R43-135-140	<0.0002
90-R43-140-145	<0.0002
90-R43-145-150	<0.0002

Au -- 1AT Fire Assay/AAS



December 21, 1990

Work Order # 13037

Arbor Resources  
1000 - 675 W. Hastings St.  
Vancouver, B.C.  
V6E 2K3

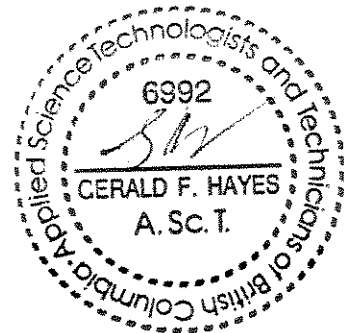
File # 13037h

Sample : Perc. Cuttings

Assay Certificate for Samples Provided

Sample	oz/t Au
90-R43-150-155	<0.0002
90-R43-155-160	0.0002
90-R43-160-165	<0.0002
90-R43-165-170	0.0003
90-R43-170-175	<0.0002
90-R43-175-180	0.0003
90-R43-180-185	<0.0002
90-R43-185-190	0.0002
90-R43-190-195	0.0008
90-R43-195-200	<0.0002

Au -- 1AT Fire Assay/AAS



December 21, 1990

Work Order # 13037

Arbor Resources  
1000 - 675 W. Hastings St.  
Vancouver, B.C.  
V6E 2K3

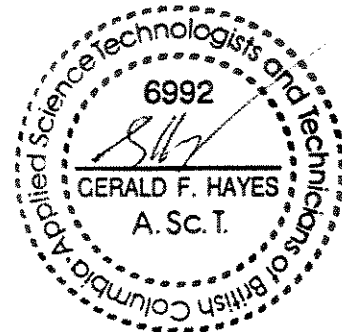
File # 13037i

Sample : Perc. Cuttings

Assay Certificate for Samples Provided

Sample	oz/t Au
90-R44-0-5	<0.0002
90-R44-5-10	<0.0002
90-R44-10-15	<0.0002
90-R44-15-20	<0.0002
90-R44-20-25	<0.0002
90-R44-25-30	<0.0002
90-R44-30-35	<0.0002
90-R44-35-40	<0.0002
90-R44-40-45	<0.0002
90-R44-45-50	<0.0002
90-R44-50-55	<0.0002
90-R44-55-60	<0.0002
90-R44-60-65	<0.0002
90-R44-65-70	<0.0002
90-R44-70-75	<0.0002
90-R44-75-80	<0.0002
90-R44-80-85	0.0002
90-R44-85-90	<0.0002
90-R44-90-95	<0.0002
90-R44-95-100	<0.0002
90-R44-100-105	<0.0002
90-R44-105-110	<0.0002
90-R44-110-115	<0.0002
90-R44-115-120	<0.0002
90-R44-120-125	<0.0002
90-R44-125-130	<0.0002
90-R44-130-135	<0.0002
90-R44-135-140	<0.0002
90-R44-140-145	<0.0002
90-R44-145-150	<0.0002

Au -- 1AT Fire Assay/AAS



December 21, 1990

Work Order # 13037

Arbor Resources  
 1000 - 675 W. Hastings St.  
 Vancouver, B.C.  
 V6E 2K3

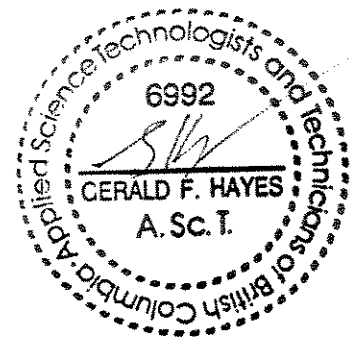
File # 13037j

Sample : Perc. Cuttings

Assay Certificate for Samples Provided

Sample	oz/t Au
90-R44-150-155	<0.0002
90-R44-155-160	0.0003
90-R44-160-165	0.0003
90-R44-165-170	0.0002
90-R44-170-175	<0.0002
90-R44-175-180	0.0004
90-R44-180-185	<0.0002
90-R44-185-190	0.0003
90-R44-190-195	0.0009
90-R44-195-200	<0.0002
90-R44-200-205	0.0002
90-R44-205-210	<0.0002
90-R44-210-215	<0.0002
90-R44-215-220	<0.0002
90-R44-220-225	<0.0002
90-R44-225-230	<0.0002
90-R44-230-235	<0.0002
90-R44-235-240	0.0013
90-R44-240-245	<0.0002
90-R44-245-250	<0.0002
90-R44-250-255	<0.0002
90-R44-255-260	<0.0002
90-R44-260-265	<0.0002
90-R44-265-270	<0.0002
90-R44-270-275	<0.0002
90-R44-275-280	<0.0002
90-R44-280-285	<0.0002
90-R44-285-290	<0.0002
90-R44-290-295	<0.0002
90-R44-295-300	<0.0002

Au -- 1AT Fire Assay/AAS



December 21, 1990

Work Order # 13037

Arbor Resources  
1000 - 675 W. Hastings St.  
Vancouver, B.C.  
V6E 2K3

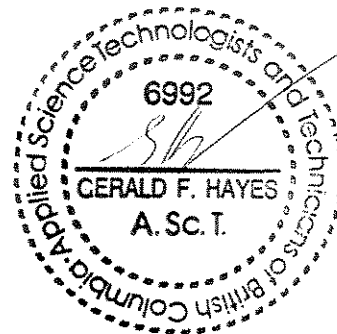
File # 13037k

Sample : Perc. Cuttings

Assay Certificate for Samples Provided

Sample	oz/t Au
90-R44-300-305	<0.0002
90-R44-305-310	<0.0002
90-R44-310-315	<0.0002
90-R44-315-320	0.0002
90-R44-320-325	0.0002
90-R44-325-330	0.0003
90-R44-330-335	<0.0002
90-R44-335-340	<0.0002
90-R44-340-345	<0.0002
90-R44-345-350	<0.0002
90-R44-350-355	<0.0002
90-R44-355-360	<0.0002
90-R44-360-365	0.0003
90-R44-365-370	0.0003
90-R44-370-375	<0.0002
90-R44-375-380	0.0002
90-R44-380-385	<0.0002
90-R44-385-390	<0.0002
90-R44-390-395	<0.0002
90-R44-395-400	<0.0002
90-R44-400-405	<0.0002
90-R44-405-410	<0.0002
90-R44-410-415	<0.0002
90-R44-415-420	<0.0002
90-R44-420-425	<0.0002
90-R44-425-430	<0.0002
90-R44-430-435	<0.0002
90-R44-435-440	<0.0002
90-R44-440-445	<0.0002
90-R44-445-450	<0.0002

Au -- 1AT Fire Assay/AAS



GEOCHEMICAL ANALYSIS CERTIFICATE

Northern Analytical Labs. Ltd. PROJECT WO#13037 File # 90-6410 Page 1

105 Copper Road, Whitehorse YT Y1A 2Z7

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm
90R40 0-5	9	11	42	85	.1	7	1	51	.59	4	5	ND	5	10	.2	2	2	10	.09	.018	17	118	.12	203	.02	3	.57	.01	.10	1
90R40 5-10	3	22	30	111	.2	19	6	65	1.22	3	5	ND	5	20	.3	2	2	33	.27	.064	22	85	.23	188	.05	2	1.29	.02	.05	1
90R40 10-15	3	18	13	88	.3	19	6	57	1.05	2	5	ND	7	18	.2	2	2	30	.21	.051	24	84	.21	274	.05	8	1.32	.02	.06	1
90R40 15-20	1	24	71	190	.1	22	8	78	1.18	2	5	ND	7	23	.6	2	6	42	.40	.132	31	78	.22	247	.08	4	1.91	.02	.05	1
90R40 20-25	3	16	16	62	.1	13	5	62	.89	2	5	ND	7	36	.3	2	2	32	.30	.101	31	70	.15	187	.07	5	1.42	.03	.05	1
90R40 25-30	3	10	20	38	.1	11	3	70	1.04	10	5	ND	7	36	.2	2	2	26	.24	.098	32	67	.15	317	.08	4	1.34	.04	.08	1
90R40 30-35	3	14	17	35	.1	11	4	64	1.01	11	5	ND	6	33	.2	2	2	26	.24	.109	29	63	.16	362	.07	7	1.19	.05	.07	1
90R40 35-40	3	17	15	40	.2	10	4	85	1.05	43	5	ND	7	35	.3	2	2	29	.26	.114	27	66	.25	437	.08	3	1.39	.05	.08	1
90R40 40-45	4	21	7	42	.2	7	4	81	1.70	133	5	ND	8	51	.2	2	2	33	.21	.115	29	77	.48	450	.05	2	1.40	.05	.09	1
90R40 45-50	3	18	20	38	.1	9	5	72	1.10	44	5	ND	6	44	.2	2	3	29	.26	.115	29	59	.24	237	.06	4	1.26	.04	.06	1
90R40 50-55	3	24	11	53	.1	10	5	86	1.28	30	5	ND	5	39	.2	2	2	32	.33	.136	28	71	.34	286	.07	4	1.53	.04	.06	1
90R40 55-60	3	24	10	80	.1	19	9	116	1.57	24	5	ND	5	47	.6	2	2	36	.42	.139	28	83	.26	382	.09	5	1.59	.08	.06	1
90R40 60-65	2	28	9	92	.1	23	10	116	2.11	72	5	ND	5	49	.6	2	2	40	.40	.142	27	77	.45	249	.07	3	1.79	.07	.06	1
90R40 65-70	2	41	6	135	.1	57	26	205	2.94	31	5	ND	4	43	.6	3	2	42	.44	.152	24	88	.49	216	.07	2	1.99	.08	.06	1
90R40 70-75	2	28	5	197	.1	94	43	375	3.81	26	5	ND	3	50	.3	2	2	45	.48	.139	25	86	.48	277	.09	6	1.87	.07	.06	1
90R40 75-80	3	25	14	96	.1	33	15	205	2.14	26	5	ND	3	47	.4	2	2	55	.44	.158	31	90	.52	329	.06	3	1.79	.05	.06	1
90R40 80-85	2	11	12	80	.1	25	10	157	1.45	64	5	ND	7	20	.5	2	2	17	.15	.037	29	39	.71	170	.02	4	1.21	.04	.09	1
90R40 85-90	2	10	15	65	.1	20	7	156	1.28	72	5	ND	9	13	.4	2	3	11	.11	.025	29	27	.61	134	.01	3	1.01	.04	.08	1
90R40 90-95	2	15	14	55	.1	14	5	164	1.39	111	5	ND	10	31	.6	2	4	16	.15	.045	28	35	.65	239	.02	2	1.23	.05	.10	1
90R40 95-100	1	31	8	129	.3	110	32	735	3.57	22	5	ND	5	72	.4	2	2	52	.94	.213	35	49	.38	298	.08	4	1.76	.15	.08	1
90R40 100-105	4	37	3	126	.2	112	39	1195	4.58	5	5	ND	2	74	.2	2	2	57	1.29	.244	32	53	.50	255	.10	2	2.09	.22	.07	1
90R40 105-110	2	37	7	126	.1	79	36	1308	6.57	3	5	ND	2	85	.2	2	2	69	1.35	.243	30	61	.36	516	.10	2	2.14	.22	.05	1
90R40 110-115	2	33	9	135	.1	99	40	1226	6.33	3	5	ND	1	87	.2	2	2	68	1.49	.248	30	67	.85	298	.12	2	2.17	.24	.07	1
90R40 115-120	1	40	9	137	.1	104	39	795	5.04	15	5	ND	1	91	.4	2	3	69	1.53	.253	29	75	.98	428	.12	2	2.33	.26	.11	1
90R40 120-125	2	40	7	139	.1	93	34	914	4.77	18	5	ND	1	106	.8	4	2	75	1.78	.258	30	78	.69	409	.15	3	2.48	.31	.12	1
90R40 125-130	1	37	2	129	.3	74	29	1236	6.03	5	5	ND	3	91	.7	2	2	76	1.53	.260	31	67	.52	354	.11	2	2.21	.24	.09	1
90R40 130-135	1	47	3	136	.1	94	34	1304	6.65	7	5	ND	1	76	.5	2	3	72	1.29	.240	29	60	.54	240	.11	4	1.83	.20	.08	1
90R40 135-140	1	42	7	115	.1	89	33	654	4.11	4	5	ND	1	89	.2	2	2	60	1.43	.237	28	61	.96	251	.13	3	1.93	.25	.11	1
90R40 140-145	3	38	3	141	.1	104	39	827	4.97	17	5	ND	1	97	.6	2	2	74	1.54	.279	32	75	.57	271	.13	5	2.18	.25	.09	1
90R40 145-150	2	41	4	132	.1	68	30	735	4.93	25	5	ND	2	96	.3	2	2	75	1.34	.310	33	66	.41	239	.10	4	2.05	.19	.07	1
90R40 150-155	3	44	2	161	.1	105	45	479	3.12	37	5	ND	2	110	.6	2	2	83	1.69	.295	31	90	.42	164	.16	4	2.60	.31	.07	1
90R40 155-160	1	39	7	139	.1	81	35	1155	5.96	12	5	ND	1	93	.5	2	2	80	1.46	.278	29	69	.45	224	.12	3	2.06	.21	.08	1
90R40 160-165	1	35	6	125	.1	80	31	917	6.47	14	5	ND	1	97	.7	2	2	49	1.31	.202	24	47	1.26	144	.13	2	2.10	.23	.08	1
90R40 165-170	1	34	5	129	.1	78	32	995	5.93	11	5	ND	1	102	.5	2	2	54	1.54	.212	24	51	1.11	117	.14	3	2.10	.25	.06	1
90R40 170-175	2	35	5	107	.2	66	30	629	5.84	11	5	ND	1	105	.4	3	3	58	1.71	.222	24	56	1.51	123	.16	6	2.20	.27	.08	1
90R40 175-180	1	42	4	138	.1	99	41	603	3.81	5	5	ND	2	94	.8	2	2	66	1.49	.257	29	61	.61	160	.19	2	2.10	.24	.10	1
STANDARD C	20	60	40	134	7.2	74	33	1061	3.97	42	16	7	39	52	18.6	15	21	57	.48	.091	39	56	.88	187	.09	36	1.88	.06	.13	11

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.  
 THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.  
 - SAMPLE TYPE: PULP

DATE RECEIVED: DEC 20 1990

DATE REPORT MAILED:

*Dec 24/90*

SIGNED BY: *C. Leong* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm
90R40 180-185	2	39	4	113	.1	69	32	667	5.03	18	5	ND	1	73	.2	2	2	68	1.23	.201	24	61	1.08	67	.22	2	1.87	.18	.08	1
90R40 185-190	12	42	12	154	2.3	192	26	801	4.09	132	5	ND	2	35	.9	5	2	82	.51	.110	17	167	2.06	125	.06	2	1.86	.05	.11	1
90R40 190-195	3	69	2	134	.4	177	40	405	3.07	152	5	ND	1	26	.2	5	2	93	.27	.048	6	240	2.90	148	.06	4	2.73	.03	.11	1
90R40 195-200	7	54	8	141	.5	108	25	855	4.70	77	5	ND	1	31	.8	2	2	61	.43	.079	14	96	1.33	43	.05	2	1.43	.05	.12	1

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm
90R41 0-5	10	10	34	48	.2	7	3	69	1.05	8	5	ND	13	15	.2	2	2	3	.08	.018	37	76	.49	132	.01	2	.78	.02	.09	1
90R41 5-10	9	10	40	47	.2	9	2	78	1.14	10	5	ND	13	18	.2	2	2	5	.10	.024	38	102	.44	148	.01	2	.78	.03	.10	1
90R41 10-15	6	21	112	57	.2	8	2	55	1.18	12	5	ND	13	15	.2	2	2	5	.08	.023	37	60	.46	129	.01	3	.76	.02	.06	1
90R41 15-20	7	34	69	58	.2	7	2	52	1.15	19	5	ND	15	13	.2	2	2	4	.06	.022	45	63	.45	155	.01	2	.81	.02	.09	1
90R41 20-25	5	32	83	61	.2	7	2	35	1.09	15	5	ND	15	10	.2	2	2	3	.06	.020	40	53	.59	156	.01	2	.94	.02	.10	1
90R41 25-30	3	33	105	82	.2	7	2	43	1.32	24	5	ND	15	18	.2	2	2	4	.06	.023	47	32	.87	182	.01	3	1.24	.01	.13	1
90R41 30-35	4	15	72	75	.3	8	1	43	1.22	13	5	ND	14	15	.2	2	2	3	.05	.019	37	48	.90	186	.01	2	1.20	.02	.14	1
90R41 35-40	5	14	59	76	.2	8	1	43	1.26	23	5	ND	16	18	.2	2	2	3	.06	.023	50	54	.84	236	.01	2	1.22	.02	.18	1
90R41 40-45	4	10	46	65	.2	9	1	39	1.01	29	5	ND	14	13	.2	2	2	2	.05	.018	42	50	.68	159	.01	5	.94	.02	.13	1
90R41 45-50	2	9	48	91	.3	9	2	50	1.35	13	5	ND	15	11	.3	2	2	2	.06	.021	36	26	1.02	228	.01	2	1.45	.02	.22	1
90R41 50-55	3	7	72	87	.4	8	2	62	1.40	11	5	ND	14	12	.2	2	2	3	.06	.021	38	29	1.10	255	.01	2	1.51	.02	.21	1
90R41 55-60	4	9	46	74	.4	7	2	96	1.33	47	5	ND	14	15	.8	2	2	5	.07	.020	39	40	.77	264	.01	3	1.15	.02	.18	1
90R41 60-65	3	6	19	44	.1	4	1	49	1.01	85	5	ND	12	10	.2	2	2	3	.04	.016	38	30	.34	154	.01	3	.66	.03	.10	1
90R41 65-70	7	6	23	26	.2	2	1	40	1.00	73	5	ND	11	13	.2	2	2	3	.03	.013	45	75	.18	117	.01	2	.42	.07	.08	1
90R41 70-75	4	6	21	32	.2	2	1	38	.96	66	5	ND	12	8	.2	2	3	2	.03	.012	33	43	.20	142	.01	2	.53	.04	.10	1
90R41 75-80	3	8	33	48	.3	4	1	40	1.10	86	5	ND	13	10	.2	2	2	3	.05	.015	40	37	.51	183	.01	3	.88	.03	.15	1
90R41 80-85	2	9	21	60	.2	7	2	67	1.21	63	5	ND	15	13	.2	2	2	4	.09	.020	47	22	.95	312	.01	2	1.50	.02	.24	1
90R41 85-90	3	27	29	55	.5	9	2	63	1.42	276	5	ND	13	28	.2	2	2	29	.14	.050	44	41	.94	299	.01	4	1.37	.05	.18	1
90R41 90-95	5	27	26	55	.4	9	2	73	1.40	496	5	ND	13	21	.2	2	2	16	.11	.032	37	27	.95	439	.01	2	1.40	.03	.20	1
90R41 95-100	2	11	22	65	.2	9	2	104	1.44	105	5	ND	15	11	.2	2	2	4	.09	.020	32	12	1.21	520	.01	3	1.69	.02	.23	1
90R41 100-105	2	11	28	76	.2	9	2	92	1.40	201	5	ND	15	14	.3	2	2	7	.09	.019	35	18	1.21	389	.01	3	1.69	.03	.23	1
90R41 105-110	2	9	27	54	.4	7	2	82	1.23	264	5	ND	15	17	.2	2	2	4	.07	.017	45	16	.78	264	.01	2	1.16	.04	.15	1
90R41 110-115	2	11	27	81	.2	10	3	90	1.26	74	5	ND	14	13	.4	2	2	4	.07	.017	34	20	1.26	380	.01	3	1.57	.03	.18	1
90R41 115-120	1	8	19	145	.1	18	4	122	1.34	14	5	ND	16	10	.7	2	2	4	.09	.021	54	6	1.56	586	.01	2	1.89	.02	.33	1
90R41 120-125	4	18	50	175	.3	29	8	133	1.22	143	5	ND	16	18	.8	2	2	7	.11	.029	57	25	.92	310	.01	4	1.36	.03	.15	1
90R41 125-130	5	30	33	148	.3	29	16	247	1.27	205	5	ND	15	19	1.3	2	2	9	.13	.045	52	45	.63	315	.01	4	1.22	.03	.15	1
90R41 130-135	3	7	16	151	.2	30	6	443	1.74	37	5	ND	13	12	.7	2	2	6	.11	.021	40	22	1.01	632	.01	2	1.51	.02	.25	1
90R41 135-140	6	10	20	160	.2	33	7	752	2.00	39	5	ND	12	10	.5	2	2	5	.08	.017	34	66	.89	411	.01	4	1.15	.02	.16	1
90R41 140-145	15	32	76	312	.8	185	22	915	2.05	765	5	ND	8	23	1.0	4	2	41	.27	.064	35	208	1.71	349	.01	2	1.65	.02	.07	1
90R41 145-150	10	18	28	90	.5	36	6	225	1.26	195	5	ND	13	18	.3	2	3	11	.17	.050	49	60	.67	309	.01	3	.89	.02	.16	1
90R41 150-155	4	7	15	58	.2	11	2	98	1.13	95	5	ND	12	6	.2	2	2	3	.06	.018	33	42	.66	230	.01	4	.85	.02	.10	1
90R41 155-160	6	9	18	77	.2	24	4	148	1.27	152	5	ND	12	7	.2	2	2	6	.08	.019	25	65	.65	228	.01	2	.86	.03	.10	1
90R41 160-165	4	5	9	76	.1	9	2	90	1.27	80	5	ND	13	5	.3	2	2	2	.06	.014	33	49	.57	240	.01	3	.83	.03	.09	1
90R41 165-170	4	7	24	98	.2	12	3	229	1.30	88	5	ND	13	6	.3	2	2	2	.07	.014	40	35	.64	485	.01	4	.89	.02	.11	1
90R41 170-175	4	6	28	103	.2	13	4	316	1.41	20	5	ND	13	6	.3	2	3	3	.07	.014	37	49	.60	185	.01	4	.80	.03	.08	1
90R41 175-180	3	7	22	96	.1	14	3	222	1.33	44	5	ND	13	5	.2	2	2	2	.06	.013	38	41	.74	224	.01	3	.95	.03	.09	1
STANDARD C	20	60	38	132	6.9	73	32	1063	3.98	42	20	7	36	52	18.5	14	21	56	.49	.092	38	58	.89	183	.09	34	1.88	.06	.13	12

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm
90R41 180-185	5	8	22	81	.1	16	5	346	1.49	174	5	ND	12	7	.2	2	2	2	.07	.014	36	54	.74	259	.01	4	.96	.03	.13	1
90R41 185-190	4	7	17	98	.1	15	5	358	1.44	30	5	ND	14	8	.4	2	2	3	.08	.016	38	47	.62	223	.01	2	.86	.02	.13	1
90R41 190-195	2	4	30	109	.2	19	7	92	.82	22	5	ND	16	15	2.3	2	2	1	.08	.019	44	23	.48	411	.01	3	.84	.02	.20	1
90R41 195-200	12	32	24	118	.4	61	9	134	1.49	56	5	ND	10	18	2.1	3	2	27	.19	.059	30	65	.90	88	.01	4	1.07	.02	.16	1

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm
90R42 0-5	3	22	56	99	.2	8	2	27	.93	10	20	ND	18	10	.2	2	2	10	.07	.012	57	34	.45	194	.01	2	1.16	.01	.17	1
90R42 5-10	8	16	38	54	.1	6	2	31	1.09	35	5	ND	18	19	.2	2	2	5	.08	.023	49	89	.45	301	.01	2	1.03	.02	.21	1
90R42 10-15	7	17	35	36	.1	9	2	26	.90	47	5	ND	18	21	.2	2	2	4	.06	.020	49	80	.33	241	.01	3	.83	.02	.18	1
90R42 15-20	6	7	39	19	.4	6	1	18	.88	51	5	ND	16	24	.2	2	2	3	.02	.013	56	62	.09	151	.01	2	.36	.07	.12	1
90R42 20-25	5	6	23	9	.3	2	1	13	.55	73	5	ND	14	16	.3	2	2	2	.03	.013	41	53	.07	235	.01	2	.30	.02	.15	1
90R42 25-30	8	8	33	10	.2	2	1	19	.61	67	5	ND	14	17	.2	2	2	3	.02	.013	43	81	.08	304	.01	2	.33	.02	.17	1
90R42 30-35	9	22	29	31	.4	7	2	50	1.31	119	10	ND	16	32	.2	4	2	14	.12	.059	45	56	.30	454	.01	2	.73	.03	.21	1
90R42 35-40	16	20	21	43	.2	16	2	70	1.59	107	5	ND	13	24	.2	2	2	15	.09	.046	34	118	.55	454	.01	2	.97	.03	.18	1
90R42 40-45	7	29	15	267	.4	255	28	276	2.45	647	12	ND	5	33	1.5	3	5	91	.27	.044	26	907	3.00	239	.01	7	3.67	.01	.05	1
90R42 45-50	19	37	20	171	.2	110	15	264	2.98	280	5	ND	6	36	1.0	2	2	59	.22	.058	20	565	2.18	369	.01	2	2.42	.02	.15	1
90R42 50-55	11	51	16	183	.4	184	16	197	2.22	418	10	ND	8	31	.9	6	2	75	.22	.063	21	641	1.87	249	.01	5	2.86	.01	.08	1
90R42 55-60	8	10	21	53	.4	22	2	143	2.62	47	5	ND	16	13	.3	2	2	9	.02	.023	35	108	.19	366	.01	2	.46	.04	.17	1
90R42 60-65	10	28	24	82	.3	23	2	129	2.53	38	5	ND	13	39	.2	2	2	23	.11	.054	38	94	.78	546	.01	2	1.24	.04	.27	1
90R42 65-70	19	45	25	83	.6	26	1	94	2.77	37	5	ND	11	47	.2	2	3	45	.18	.087	31	93	1.00	514	.01	2	1.44	.03	.26	1
90R42 70-75	33	69	22	205	.6	56	9	436	6.69	103	5	ND	10	40	.7	4	5	64	.17	.116	30	68	.98	487	.01	3	1.44	.02	.26	1
90R42 75-80	18	42	20	103	.5	40	4	193	2.70	53	11	ND	12	45	.2	2	2	60	.22	.085	33	88	1.33	521	.01	3	1.77	.03	.24	1
90R42 80-85	6	13	9	98	.3	20	2	83	2.00	18	5	ND	15	13	.9	2	2	9	.06	.026	37	63	.42	479	.01	2	.87	.02	.22	1
90R42 85-90	7	7	13	87	.6	17	2	142	2.44	41	5	ND	17	11	.5	2	2	6	.06	.024	39	83	.42	420	.01	5	.91	.02	.23	1
90R42 90-95	10	18	24	129	.2	36	4	342	4.53	32	14	ND	13	17	.5	2	2	25	.09	.048	38	50	.70	371	.01	2	1.12	.02	.20	1
90R42 95-100	16	44	22	120	.7	57	6	338	5.27	119	5	ND	13	45	.3	2	2	82	.19	.082	33	104	1.41	624	.01	4	1.93	.04	.28	1
90R42 100-105	7	20	20	94	.5	20	2	117	2.60	107	5	ND	18	21	.2	2	2	16	.10	.032	37	40	1.22	608	.01	2	1.80	.03	.34	1
90R42 105-110	5	9	23	73	.3	11	2	94	1.81	36	5	ND	17	17	.4	2	2	7	.10	.022	45	22	1.11	369	.01	2	1.64	.02	.28	1
90R42 110-115	6	6	17	43	.1	7	1	71	1.33	31	5	ND	15	15	.2	2	2	6	.06	.018	41	44	.64	237	.01	3	1.06	.03	.18	1
90R42 115-120	5	10	11	46	.1	7	1	85	1.63	25	5	ND	12	8	.5	2	2	6	.04	.016	25	51	.39	168	.01	2	.71	.04	.09	1
90R42 120-125	3	7	12	44	.2	8	1	76	1.48	47	8	ND	16	13	.3	2	2	6	.06	.019	45	34	.74	225	.01	2	1.06	.03	.14	1
90R42 125-130	2	9	42	67	.2	12	2	94	1.56	14	5	ND	17	10	.2	2	9	5	.09	.020	48	25	1.24	591	.01	2	1.65	.02	.25	1
90R42 130-135	4	4	15	52	.2	10	1	89	1.51	31	5	ND	16	10	.2	2	2	4	.08	.022	57	49	1.12	494	.01	4	1.61	.03	.36	1
90R42 135-140	4	7	27	54	.2	12	2	98	1.43	40	5	ND	16	11	.3	2	2	6	.08	.022	45	54	1.09	456	.01	2	1.42	.03	.27	1
90R42 140-145	4	8	46	73	.4	19	2	99	1.49	298	5	ND	16	18	.6	2	3	27	.14	.037	44	220	1.19	388	.01	4	1.86	.02	.24	1
90R42 145-150	4	7	6	44	.1	9	1	77	1.44	170	12	ND	17	12	.7	2	2	7	.08	.022	38	46	1.15	633	.01	2	1.60	.03	.43	1
90R42 150-155	4	18	50	53	.3	10	1	88	1.46	179	5	ND	17	14	1.3	2	2	10	.08	.021	40	37	1.14	436	.01	3	1.48	.03	.35	1
90R42 155-160	7	16	29	70	.2	13	2	99	1.42	157	6	ND	17	14	1.3	2	2	10	.08	.027	42	78	.88	438	.01	2	1.26	.03	.26	1
90R42 160-165	13	42	30	133	.4	45	7	108	1.73	255	5	ND	13	19	6.0	2	2	35	.20	.072	35	97	.96	415	.01	2	1.28	.02	.19	1
90R42 165-170	28	56	20	172	.5	80	13	126	2.32	306	5	ND	9	34	2.9	2	2	69	.30	.131	29	94	.97	526	.01	2	1.30	.02	.22	1
90R42 170-175	41	46	19	119	.4	63	8	100	2.07	143	5	ND	10	40	1.9	2	2	68	.29	.146	30	82	1.05	428	.01	3	1.44	.01	.23	1
90R42 175-180	40	42	25	69	.6	38	4	87	1.93	136	5	ND	11	33	1.5	2	2	51	.28	.136	25	102	.88	279	.01	2	1.25	.02	.17	1
STANDARD C	19	56	38	132	6.9	71	29	1062	4.04	37	23	6	40	52	18.3	14	19	56	.49	.090	39	56	.90	187	.09	33	1.91	.06	.13	11

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm
90R42 180-185	34	47	28	47	.4	51	6	55	1.56	239	5	ND	7	28	1.3	2	2	39	.23	.093	36	83	.55	41	.01	3	.82	.01	.17	3
90R42 185-190	48	78	38	40	.6	103	18	67	6.25	1358	5	ND	3	25	2.4	3	2	53	.28	.108	24	65	.42	8	.01	2	.81	.01	.18	2
90R42 190-195	34	59	23	101	.6	76	12	102	2.44	257	5	ND	6	26	2.0	4	2	66	.29	.107	32	83	.88	24	.01	5	1.12	.02	.26	1
90R42 195-200	39	62	21	106	.7	65	11	128	1.86	65	5	ND	7	28	1.9	3	2	74	.35	.123	32	96	1.10	31	.01	5	1.24	.01	.26	1

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm
90R43 0-5	7	16	19	61	.1	8	3	62	1.00	23	5	ND	9	21	.2	2	2	3	.14	.014	21	44	.66	159	.01	2	.95	.03	.09	1
90R43 5-10	5	14	18	67	.1	8	2	52	1.07	15	5	ND	9	24	.2	2	2	2	.14	.013	19	57	.70	145	.01	2	1.04	.04	.09	1
90R43 10-15	8	14	13	64	.1	5	2	48	1.04	15	5	ND	11	18	.2	2	2	2	.10	.012	29	82	.58	145	.01	2	.95	.04	.10	1
90R43 15-20	5	15	17	75	.1	6	2	48	1.07	6	5	ND	12	16	.3	2	2	2	.09	.011	25	59	.56	154	.01	2	.95	.04	.10	1
90R43 20-25	2	12	17	65	.1	4	2	28	.75	6	5	ND	13	10	.2	2	2	2	.06	.010	38	29	.34	138	.01	2	.75	.03	.09	1
90R43 25-30	2	9	11	80	.1	4	2	67	1.22	5	5	ND	11	18	.5	2	2	3	.11	.012	27	34	.60	161	.01	2	1.00	.03	.11	1
90R43 30-35	3	11	19	79	.1	4	3	46	1.02	5	5	ND	14	9	.2	2	2	2	.06	.011	51	38	.38	182	.01	3	.87	.03	.12	1
90R43 35-40	3	7	25	87	.1	5	2	35	1.00	4	5	ND	13	10	.4	2	2	2	.05	.009	52	42	.33	199	.01	2	.85	.03	.12	1
90R43 40-45	2	6	16	88	.1	5	3	47	1.03	4	5	ND	13	9	.2	2	2	2	.06	.010	34	21	.36	156	.01	2	.71	.02	.08	1
90R43 45-50	3	4	16	86	.1	4	3	56	1.15	2	5	ND	11	13	.2	2	2	2	.07	.011	38	39	.48	181	.01	2	.83	.02	.10	1
90R43 50-55	3	6	18	78	.1	5	3	62	1.22	4	5	ND	13	12	.2	2	2	2	.07	.010	35	28	.48	292	.01	2	.89	.03	.11	1
90R43 55-60	2	4	10	74	.1	2	2	63	1.21	3	5	ND	11	14	.2	2	2	2	.08	.011	26	26	.57	165	.01	2	.85	.03	.10	1
90R43 60-65	2	5	14	72	.1	3	2	69	1.18	5	5	ND	8	23	.2	2	2	2	.12	.011	21	28	.73	173	.01	2	.99	.02	.12	1
90R43 65-70	3	6	22	75	.4	6	4	80	1.08	6	5	ND	10	23	.6	2	2	4	.13	.014	30	30	.45	173	.01	3	.84	.03	.11	1
90R43 70-75	1	4	17	65	.1	4	2	56	.95	5	5	ND	6	25	.2	2	2	2	.14	.012	16	19	.66	133	.01	2	.87	.02	.09	1
90R43 75-80	2	4	13	64	.1	2	2	56	1.03	3	5	ND	9	22	.2	2	2	2	.11	.011	21	27	.75	169	.01	2	.99	.03	.10	1
90R43 80-85	1	5	12	69	.1	4	2	53	1.12	5	5	ND	12	14	.3	2	2	2	.07	.012	35	23	.72	163	.01	2	.99	.03	.09	1
90R43 85-90	4	3	11	65	.1	2	2	57	1.10	4	5	ND	12	13	.2	2	2	3	.07	.011	28	43	.77	167	.01	2	1.01	.03	.10	1
90R43 90-95	1	4	14	68	.1	4	2	57	1.09	4	5	ND	13	13	.2	2	2	3	.07	.011	31	20	.74	140	.01	2	.94	.02	.07	1
90R43 95-100	1	5	16	69	.1	3	2	67	1.10	5	5	ND	12	15	.2	2	2	2	.08	.012	28	17	.82	129	.01	2	.96	.03	.07	1
90R43 100-105	1	5	15	77	.1	2	2	68	1.14	5	5	ND	11	15	.2	2	2	3	.08	.012	32	21	.85	135	.01	2	.99	.03	.07	1
90R43 105-110	1	5	8	73	.1	2	2	81	1.28	6	5	ND	11	11	.2	2	2	3	.06	.011	33	17	1.07	108	.01	2	1.16	.03	.06	1
90R43 110-115	1	7	15	63	.1	2	1	62	1.10	6	5	ND	12	10	.2	2	2	2	.05	.012	38	17	.94	120	.01	2	1.02	.02	.07	1
90R43 115-120	1	4	14	63	.1	2	1	63	1.06	5	5	ND	8	19	.2	2	2	2	.10	.013	24	15	.97	126	.01	2	1.03	.02	.06	1
90R43 120-125	1	4	16	54	.1	1	2	63	1.04	3	5	ND	8	12	.2	2	2	2	.06	.010	25	20	1.01	132	.01	2	1.03	.03	.05	1
90R43 125-130	2	4	21	56	.2	2	2	68	.95	3	5	ND	8	14	.2	2	2	2	.08	.012	20	30	.99	141	.01	3	1.00	.03	.06	1
90R43 130-135	1	6	13	56	.1	2	1	58	.85	6	5	ND	8	16	.3	2	2	2	.08	.011	22	16	.93	223	.01	2	.95	.03	.06	1
90R43 135-140	1	4	12	69	.1	4	2	52	.80	4	5	ND	10	23	.2	2	2	2	.07	.013	30	1	1.00	948	.01	2	.96	.02	.06	1
90R43 140-145	1	3	12	76	.1	4	2	54	.72	6	5	ND	6	30	.2	2	2	2	.13	.013	19	14	.75	329	.01	3	.75	.02	.06	1
90R43 145-150	1	6	9	50	.1	2	1	61	.77	3	5	ND	10	15	.2	2	2	2	.08	.015	30	13	.81	271	.01	2	.80	.03	.05	1
90R43 150-155	2	9	15	55	.1	2	1	67	1.02	3	5	ND	12	9	.2	2	2	2	.05	.012	34	18	.90	289	.01	2	.93	.03	.05	1
90R43 155-160	1	9	16	62	.1	3	2	82	1.71	3	5	ND	13	9	.2	2	2	3	.05	.012	35	17	1.15	174	.01	2	1.33	.02	.04	1
90R43 160-165	1	5	14	59	.1	1	1	58	1.22	3	5	ND	13	9	.2	2	2	3	.05	.011	43	15	1.01	284	.01	2	1.10	.03	.06	1
90R43 165-170	1	8	10	56	.1	3	1	49	1.50	3	5	ND	12	12	.2	2	2	2	.06	.010	37	11	.76	325	.01	2	.98	.02	.06	1
90R43 170-175	1	6	9	59	.1	3	2	57	1.39	4	5	ND	12	9	.2	2	2	2	.06	.012	36	17	.82	195	.01	2	.99	.02	.06	1
90R43 175-180	1	3	13	54	.1	3	2	30	.82	2	5	ND	12	21	.4	2	2	1	.11	.014	35	12	.67	190	.01	2	.75	.02	.08	1
STANDARD C	20	60	39	134	7.0	71	32	1070	4.00	42	20	7	38	52	18.7	14	19	57	.49	.097	39	59	.89	183	.09	35	1.90	.06	.13	13

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm
90R43 180-185	1	3	14	46	.1	4	1	33	.62	2	5	ND	8	48	.2	3	2	1	.26	.014	25	11	.64	234	.01	2	.76	.03	.09	1
90R43 185-190	1	2	11	43	.1	2	1	37	.53	2	5	ND	8	78	.2	3	2	1	.56	.014	23	9	.64	230	.01	2	.74	.03	.10	2
90R43 190-195	1	1	20	48	.1	2	1	47	.72	3	5	ND	9	104	.2	3	2	2	.75	.013	28	12	.73	245	.01	3	.82	.03	.11	1
90R43 195-200	1	1	25	48	.1	4	1	64	.89	2	5	ND	13	152	.2	2	2	1	1.18	.014	38	9	.73	247	.01	3	.82	.02	.10	2

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm
90R44 0-5	11	20	33	66	.1	8	2	40	.66	2	5	ND	13	14	.2	2	2	2	.09	.010	40	103	.24	192	.01	2	.76	.03	.14	1
90R44 5-10	6	17	178	233	.4	7	2	32	.79	3	5	ND	13	13	.3	2	2	2	.07	.010	54	63	.27	197	.01	2	.60	.02	.09	1
90R44 10-15	2	5	31	81	.1	5	2	27	.76	2	5	ND	13	12	.2	2	2	2	.08	.011	38	27	.27	117	.01	2	.56	.02	.07	1
90R44 15-20	8	11	64	105	.2	8	2	57	1.07	4	5	ND	12	15	.2	2	2	2	.09	.010	27	87	.56	162	.01	2	.85	.02	.11	1
90R44 20-25	3	6	27	108	.1	8	4	90	1.51	2	5	ND	11	17	.2	2	2	3	.10	.011	28	34	.45	149	.01	3	.82	.02	.09	1
90R44 25-30	3	5	26	84	.1	4	3	86	1.21	3	5	ND	10	18	.2	2	2	1	.10	.011	19	40	.78	160	.01	3	.96	.03	.10	1
90R44 30-35	5	6	33	83	.1	4	2	76	1.14	3	5	ND	11	19	.2	2	2	1	.10	.012	30	72	.78	190	.01	2	1.00	.04	.13	1
90R44 35-40	6	5	28	71	.2	4	2	70	.96	2	5	ND	9	21	.2	2	2	1	.11	.010	18	80	.77	175	.01	2	.92	.03	.12	1
90R44 40-45	2	3	14	55	.1	4	2	57	.77	4	5	ND	7	20	.2	2	2	1	.11	.011	16	36	.71	162	.01	2	.82	.03	.10	1
90R44 45-50	3	4	24	57	.1	2	2	56	.83	2	5	ND	9	17	.2	2	2	2	.10	.011	22	45	.72	119	.01	2	.78	.02	.07	1
90R44 50-55	3	3	16	56	.1	3	2	52	.86	3	5	ND	10	16	.2	2	2	2	.09	.012	29	33	.76	121	.01	2	.81	.02	.08	2
90R44 55-60	3	4	20	61	.1	4	2	59	.90	4	5	ND	11	17	.2	2	2	2	.10	.011	28	43	.88	122	.01	2	.92	.02	.08	1
90R44 60-65	2	4	19	57	.1	3	2	52	.89	2	5	ND	12	17	.2	2	2	2	.09	.012	33	30	.85	120	.01	3	.89	.03	.07	1
90R44 65-70	3	3	15	58	.1	3	2	58	1.02	2	5	ND	13	13	.2	2	2	2	.07	.012	41	44	1.06	147	.01	2	1.12	.03	.08	1
90R44 70-75	3	5	15	65	.1	3	2	56	1.13	2	5	ND	13	17	.2	2	2	2	.08	.011	37	45	1.03	214	.01	2	1.26	.04	.08	1
90R44 75-80	4	4	17	62	.1	3	2	59	1.09	2	5	ND	13	14	.2	3	2	2	.07	.010	39	46	1.06	178	.01	2	1.18	.04	.07	1
90R44 80-85	3	5	14	61	.1	3	2	63	1.16	2	5	ND	13	15	.2	2	2	3	.06	.012	35	35	1.09	156	.01	2	1.16	.05	.06	1
90R44 85-90	4	4	14	60	.1	3	2	66	1.12	2	5	ND	14	16	.2	2	2	3	.07	.012	42	49	1.05	279	.01	3	1.16	.05	.07	1
90R44 90-95	2	4	10	49	.1	3	2	53	.87	2	5	ND	12	13	.2	2	2	2	.06	.010	34	12	.82	540	.01	2	.84	.03	.05	3
90R44 95-100	2	3	15	56	.1	3	2	60	.96	3	5	ND	13	12	.2	2	2	2	.06	.010	33	27	.84	170	.01	2	.91	.02	.06	1
90R44 100-105	2	5	16	61	.1	3	2	77	.97	2	5	ND	12	8	.2	2	2	2	.05	.010	36	33	.91	127	.01	2	.92	.02	.07	1
90R44 105-110	3	9	25	69	.3	8	4	86	.89	14	5	ND	14	17	.8	2	2	4	.11	.016	35	48	.68	178	.01	2	.83	.02	.13	1
90R44 110-115	4	5	18	65	.1	4	2	63	.84	3	5	ND	11	19	.2	2	2	2	.10	.012	31	53	.75	192	.01	2	.84	.02	.12	1
90R44 115-120	4	6	22	59	.1	4	2	74	.86	2	5	ND	13	11	.2	2	2	1	.06	.011	38	43	.68	201	.01	3	.80	.03	.09	1
90R44 120-125	3	4	13	56	.2	3	2	84	.97	3	5	ND	14	10	.2	2	2	1	.05	.010	38	40	.65	287	.01	2	.81	.03	.10	1
90R44 125-130	5	8	16	57	.2	3	2	76	.87	2	5	ND	14	9	.2	2	2	1	.05	.009	38	55	.52	120	.01	3	.69	.03	.07	1
90R44 130-135	5	4	15	56	.1	4	2	86	.99	2	5	ND	13	12	.2	2	2	2	.06	.010	37	67	.66	140	.01	2	.81	.03	.10	1
90R44 135-140	3	6	15	51	.1	4	2	101	.85	2	5	ND	13	12	.2	2	2	1	.07	.010	35	34	.55	132	.01	2	.74	.02	.08	2
90R44 140-145	5	6	13	48	.2	5	2	114	.99	3	5	ND	12	17	.2	2	2	2	.08	.011	33	65	.73	184	.01	2	.85	.02	.11	2
90R44 145-150	4	5	15	62	.1	6	3	163	1.37	4	5	ND	11	12	.2	2	2	5	.09	.017	34	46	.83	137	.01	2	1.02	.03	.09	1
90R44 150-155	2	5	15	70	.1	11	7	295	2.36	8	5	ND	11	22	.2	2	2	10	.28	.053	35	33	.95	261	.04	2	1.41	.05	.15	1
90R44 155-160	2	16	6	111	.1	27	29	1040	6.27	5	5	ND	1	105	.2	3	3	33	1.88	.309	30	20	1.69	107	.18	3	1.44	.19	.05	1
90R44 160-165	1	17	4	131	.1	31	36	1489	7.38	4	5	ND	1	99	.2	2	2	38	1.77	.354	33	20	1.17	203	.15	2	1.54	.19	.04	1
90R44 165-170	1	18	10	159	.1	31	37	1547	8.01	6	5	ND	1	80	1.1	2	2	57	1.50	.379	39	16	.82	205	.11	2	2.06	.14	.04	1
90R44 170-175	2	7	17	72	.1	10	8	284	2.01	3	5	ND	11	17	.2	2	2	9	.24	.055	37	29	.81	196	.04	2	1.12	.04	.08	1
90R44 175-180	5	7	45	78	.1	9	4	117	1.30	3	5	ND	11	12	.2	2	2	4	.13	.023	38	54	.68	175	.02	4	.93	.04	.09	1
STANDARD C	20	59	41	133	7.1	74	32	1066	3.98	41	17	7	38	52	18.6	14	20	57	.48	.094	40	59	.88	183	.09	32	1.88	.07	.13	11

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm
90R44 180-185	3	1	25	67	.1	8	4	72	1.09	2	5	ND	10	11	.2	2	2	2	.09	.014	35	34	.92	216	.01	6	1.08	.03	.12	1
90R44 185-190	3	4	36	69	.1	8	3	61	1.18	2	5	ND	11	9	.3	2	2	2	.07	.011	38	24	.70	198	.01	6	.96	.02	.10	1
90R44 190-195	3	14	62	115	.1	16	9	93	2.08	25	8	ND	9	12	1.1	2	2	12	.18	.053	73	37	1.02	201	.01	4	1.32	.03	.08	1
90R44 195-200	7	6	20	50	.1	6	3	52	1.17	5	7	ND	10	6	.2	2	2	3	.05	.013	35	85	.70	116	.01	2	.86	.03	.07	1
90R44 200-205	7	7	88	144	.1	7	3	53	1.43	3	10	ND	13	6	.2	2	2	2	.05	.014	28	89	.82	191	.01	5	1.00	.02	.11	1
90R44 205-210	9	17	105	154	.2	7	4	102	1.79	3	7	ND	12	7	.4	3	2	2	.05	.014	43	112	1.27	248	.01	3	1.37	.02	.13	1
90R44 210-215	3	2	29	79	.1	5	2	68	1.47	2	5	ND	13	11	.4	2	3	2	.07	.016	40	33	1.15	180	.01	5	1.26	.02	.09	1
90R44 215-220	20	40	32	154	.5	71	12	317	2.53	31	5	ND	7	18	1.7	2	2	21	.23	.079	24	65	1.42	80	.01	4	1.22	.01	.08	1
90R44 220-225	21	60	24	169	.5	101	15	317	3.12	32	5	ND	6	16	1.6	2	2	35	.24	.084	21	165	2.13	89	.01	4	1.81	.01	.10	1
90R44 225-230	8	63	14	138	.3	148	29	560	4.26	31	5	ND	2	9	.6	2	3	39	.15	.044	9	228	2.89	98	.01	2	2.51	.01	.08	1
90R44 230-235	6	52	11	86	.2	150	39	647	3.61	96	5	ND	2	10	.5	2	3	63	.16	.047	12	314	2.84	88	.01	2	2.43	.01	.05	1
90R44 235-240	7	47	14	69	.2	64	16	484	2.45	22	5	ND	3	10	.2	2	2	25	.15	.048	11	114	1.45	117	.01	2	1.31	.01	.07	1
90R44 240-245	10	51	21	94	.3	76	16	410	2.58	27	8	ND	3	8	.9	2	2	24	.13	.044	12	142	1.47	109	.01	3	1.29	.01	.07	1
90R44 245-250	3	64	2	72	.1	132	29	429	4.13	34	5	ND	1	5	.2	3	2	81	.10	.033	5	294	3.40	62	.01	3	3.23	.01	.04	1
90R44 250-255	7	59	9	91	.2	120	26	631	4.11	28	5	ND	1	7	.3	2	3	72	.13	.036	7	339	2.95	87	.01	2	2.79	.01	.06	1
90R44 255-260	13	44	16	112	.4	66	16	359	3.09	23	5	ND	5	19	1.4	2	3	34	.31	.082	16	100	1.72	99	.02	2	1.53	.02	.07	27
90R44 260-265	18	71	34	136	.6	74	15	522	3.11	12	5	ND	6	16	2.5	2	7	24	.26	.079	17	66	1.32	84	.01	3	1.26	.01	.10	1
90R44 265-270	7	54	19	100	.3	109	27	460	4.10	28	5	ND	3	14	.5	2	2	79	.24	.062	12	263	3.11	104	.02	2	2.84	.02	.06	1
90R44 270-275	5	60	15	83	.6	110	29	420	4.25	33	5	ND	3	12	.7	2	2	89	.20	.053	8	259	3.21	65	.02	2	2.91	.02	.04	1
90R44 275-280	7	55	18	86	.1	102	26	278	3.83	25	5	ND	2	10	.5	2	2	66	.16	.048	10	214	2.81	98	.01	4	2.51	.01	.06	1
90R44 280-285	12	67	26	129	.6	106	25	241	3.82	34	5	ND	4	10	1.2	2	3	48	.17	.058	12	187	2.18	59	.01	4	1.90	.01	.08	1
90R44 285-290	16	50	54	152	.8	57	16	206	2.93	33	5	ND	6	14	1.9	2	3	26	.21	.071	17	84	1.29	50	.01	2	1.23	.01	.09	1
90R44 290-295	13	59	26	118	.4	91	23	281	3.39	36	5	ND	4	13	.9	2	2	41	.18	.061	11	120	2.15	90	.01	2	1.83	.01	.07	1
90R44 295-300	10	77	39	102	.7	81	20	222	3.41	20	5	ND	6	13	1.0	2	2	29	.17	.057	14	95	1.70	47	.01	5	1.50	.01	.08	1
90R44 300-305	25	59	23	193	.7	63	14	110	2.46	37	5	ND	6	20	2.8	2	2	22	.26	.093	17	59	.95	38	.01	5	.91	.01	.09	1
90R44 305-310	33	65	18	220	1.2	68	13	91	2.33	39	5	ND	5	29	3.6	3	2	21	.36	.142	15	48	.57	33	.01	4	.64	.01	.09	1
90R44 310-315	33	54	16	217	1.3	66	11	104	2.11	36	10	ND	5	28	3.4	4	3	21	.36	.142	13	52	.68	48	.01	4	.65	.01	.09	1
90R44 315-320	24	53	11	189	1.2	58	11	170	2.22	35	6	ND	6	26	2.5	3	2	17	.36	.086	13	43	.80	47	.01	3	.65	.01	.08	1
90R44 320-325	25	61	15	192	1.4	54	10	187	2.09	31	5	ND	5	54	2.6	4	2	16	.81	.088	12	49	.79	45	.01	5	.56	.01	.09	1
90R44 325-330	32	57	15	252	1.4	63	12	793	3.28	35	5	ND	5	50	3.9	2	2	25	.84	.151	13	34	.44	39	.01	2	.43	.01	.10	1
90R44 330-335	20	47	20	198	.9	53	11	635	2.80	34	5	ND	5	46	2.3	3	2	17	.74	.112	14	51	.46	50	.01	2	.45	.02	.08	1
90R44 335-340	32	54	73	227	1.1	66	10	257	2.04	32	5	ND	5	76	3.4	4	4	20	1.37	.119	13	66	.80	36	.01	4	.51	.01	.10	1
90R44 340-345	33	56	17	241	1.0	76	12	870	3.40	33	5	ND	5	66	3.1	2	2	29	1.12	.109	14	51	.61	42	.01	3	.46	.01	.10	1
90R44 345-350	31	58	18	247	1.2	75	14	536	3.10	45	7	ND	6	87	3.2	2	3	23	1.47	.162	13	36	.69	25	.01	4	.45	.01	.10	1
90R44 350-355	25	55	19	176	.8	70	12	182	2.30	30	5	ND	5	28	2.3	2	3	12	.40	.069	14	67	.23	24	.01	3	.30	.01	.10	1
90R44 355-360	17	63	11	111	.4	58	12	197	2.72	9	5	ND	3	9	.4	2	2	8	.12	.022	9	74	.19	17	.01	3	.29	.01	.07	1
STANDARD C	19	57	39	132	7.0	71	32	1047	3.96	42	22	7	37	52	18.4	14	22	56	.48	.090	38	55	.88	184	.09	35	1.87	.06	.13	11

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm
90R44 360-365	25	67	23	197	.9	66	15	191	2.62	21	5	ND	3	15	2.2	2	2	12	.19	.054	12	52	.37	38	.01	2	.45	.01	.07	1
90R44 365-370	13	86	24	170	.9	61	17	157	3.58	20	5	ND	4	15	2.2	2	2	12	.15	.034	11	66	.28	38	.01	2	.44	.02	.08	1
90R44 370-375	14	53	20	187	.7	72	13	501	2.93	16	5	ND	4	28	1.9	2	2	15	.38	.060	14	40	.46	70	.01	2	.46	.01	.08	1
90R44 375-380	8	28	23	96	.6	37	7	366	2.50	7	5	ND	6	11	.4	2	2	11	.14	.029	20	46	1.00	111	.01	2	.95	.02	.06	1
90R44 380-385	4	16	36	53	.3	11	3	326	1.63	5	5	ND	6	4	.2	2	2	4	.06	.011	20	41	.93	151	.01	2	.90	.01	.06	1
90R44 385-390	3	5	20	49	.2	6	1	115	.76	2	5	ND	8	4	.3	2	2	1	.05	.010	23	31	.75	148	.01	2	.67	.02	.06	1
90R44 390-395	5	4	12	37	.1	6	2	136	.88	3	5	ND	6	5	.3	2	2	2	.04	.009	23	56	.63	137	.01	2	.58	.03	.05	1
90R44 395-400	7	12	22	67	.3	34	5	1003	2.80	229	5	ND	5	8	.2	4	2	33	.14	.020	21	78	.91	133	.01	2	.78	.03	.05	1
90R44 400-405	3	5	24	49	.1	56	4	222	1.19	105	5	ND	7	10	.2	3	2	9	.10	.012	22	54	.90	133	.01	2	.77	.02	.06	1
90R44 405-410	2	3	15	44	.1	26	2	118	.84	40	5	ND	7	21	.2	3	2	4	.19	.010	25	45	.87	116	.01	2	.79	.03	.06	1
90R44 410-415	3	7	15	41	.2	37	3	109	.92	57	5	ND	8	9	.2	2	2	4	.04	.009	25	47	.86	152	.01	2	.87	.04	.08	3
90R44 415-420	2	8	18	30	.1	12	2	93	.67	17	5	ND	7	5	.2	2	2	1	.03	.009	25	24	.61	103	.01	2	.61	.02	.07	1
90R44 420-425	3	9	25	36	.6	10	4	129	.82	13	5	ND	10	10	1.0	2	2	3	.07	.012	24	23	.61	96	.01	2	.60	.02	.06	1
90R44 425-430	1	4	18	37	.3	11	3	204	.96	21	5	ND	7	177	.3	2	2	1	.78	.005	21	22	.56	92	.01	2	.24	.02	.08	1
90R44 430-435	5	3	16	34	.5	11	2	304	1.01	9	5	ND	8	26	.3	2	3	3	.15	.005	20	35	.24	146	.01	2	.32	.02	.15	1
90R44 435-440	4	5	26	23	.5	12	3	323	1.04	21	5	ND	8	10	.2	2	2	4	.08	.007	26	27	.13	134	.01	2	.24	.02	.14	1
90R44 440-445	2	13	14	19	.1	6	1	428	1.53	11	5	ND	7	8	.2	2	2	3	.09	.007	21	18	.10	150	.01	2	.20	.02	.20	1
90R44 445-450	2	16	18	44	.1	16	8	651	3.11	15	5	ND	4	20	.3	2	2	9	.36	.068	24	26	.45	138	.02	2	.30	.03	.14	1
STANDARD C	21	61	36	134	6.9	72	32	1075	4.03	42	20	7	37	52	18.7	15	20	56	.49	.096	39	59	.90	186	.09	35	1.91	.06	.13	13

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22 May 1991

Mining Recorder  
Box 249  
Dawson City, Y.T.  
Y0B 1G0

Attention: Ms. M. De jean


Dear Ms. De Jean:

Re: TRAIL HILL (HAWK) Rotary Drilling Report

Two copies of Arbor Resources Inc.'s Geological Mapping and Rotary Drilling Report for the period 9 October - 16 November 1991 are enclosed.

Thank you kindly for your patience in this matter.

Yours very truly,

  
Spurlin Edwards,  
Exploration Department

