Assessment Report

on the

2006 Exploration Program Prospecting and Rock Sampling

UNION PROPERTY

FRANKLIN CAMP

NTS 82E/9

Lat: 49° 33' 33'' N Long: 118° 21' 30'' W (at approximate centre of property)

> Greenwood Mining Division British Columbia, Canada

Prepared for: Yankee Hat Minerals Ltd. 1601-700 West Pender St. Vancouver, B.C. V6C 1G8

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1.0 SUMMARY

The Union property is an exploration stage prospect located in the historic Franklin Mining Camp, approximately 55 kilometers north of Grand Forks, B.C. The property is in part wholly owned by Yankee Hat Minerals Ltd. and in part held under option by the company. It is a large property, covering an area of 2200 hectares, with numerous known mineral showings, including the past-producing Union Mine. A total of 122,555 tonnes, returning an average grade of 14.1 g/t Au and 353.4 g/t Ag, was historically mined from the Union Mine.

Yankee Hat Minerals completed a small program of prospecting and rock sampling on the property late in 2006. The mandate of the program was to locate and assess the Little and Dane showings, in the eastern part of the property, which were documented in the historic literature but have had little or no modern exploration. The program was successful in locating both of these showings.

Several small pits and an adit test a 0.5 meter wide quartz-calcite-siderite vein at the Little showing. The vein is hosted within silicified and locally hornfelsed Franklin Group sediments and volcaniclastics, near the contact with Nelson granodiorite. Sampling during the 2006 program did not return any significant values from this vein.

The Dane showing was located approximately 800 meters to the northeast of the Little showing. A series of old workings explore a near-vertical shear zone within dirty limestone, siliceous tuff and quartzite of the Franklin Group. Where seen, the shear zone is 0.7 meters in width and is locally mineralized with pyrite and chalcopyrite A select grab from the dump of an old shaft returned 2.16 g/t Au, 162.0 g/t Ag and 5.74% Cu. The Dane showing is untested by drilling or by any recent trenching.

A new occurrence of late-stage epithermal quartz veining was discovered in subcrop, northwest of the Little showing, which is visually similar to the BX and White Bear epithermal showings to the north. Samples from this new discovery returned up to 1.82 g/t Au. Low-sulfidation Eocene-aged epithermal veins are a regionally important source of gold mineralization, related to a widespread Eocene extensional event, and are under-explored for on the property.

A new occurrence of zinc mineralization in Franklin group limey conglomerate was also discovered in outcrop during 2006, between the Dane and Little showings. A sample from this new occurrence assayed 1.34% Zn. The mineralization has similarities to the Jack showing on the adjoining IXL property.

Further work is required to assess each of these areas. Prospecting is also recommended to explore the Granby River fault zone in the eastern part of the property. Numerous other showings on the property, including the Union Mine and Homestake-Deadwood area, also require further testing.

2.0 INTRODUCTION

This report summarizes the results of a small exploration program completed on the Union property late in 2006, by Yankee Hat Minerals Ltd. The report was prepared at the request of Yankee Hat Minerals. Much of the general background information contained in the report is taken verbatim from earlier reports by the author (Caron, 2004a, 2005a).

2.1 **Property Location and Description**

The Union property is located about 55 kilometers north of Grand Forks, B.C. in the historic Franklin Mining Camp. The property is situated on NTS map sheet 082E/09, as shown in Figure 1. It is centred at a latitude of 49° 33' 33'' N and a longitude of 118° 21' 30'' W, and covers an area of about 2200 hectares.

The property consists of 36 located, contiguous 2 and 4 post mineral claims (legacy claims), 5 Mineral Titles On-line (MTO) claims, and 7 crown granted mineral claims located on Mineral Tenure map sheet 082E.059 in the Greenwood Mining District. The claims and crown grants are shown in Figure 2 and summarized below in Table 1. Expiry dates listed in Table 1 are after filing the work referred to in this report.

The central portion of the property is held under option from John Carson, while claims in the eastern and western parts of the property are 100% owned by Yankee Hat Minerals (see Figure 2 and Table 1). The locations of known mineralized zones, discussed in detail later in this report, are shown relative to the property boundary on Figure 2.

As shown on Figure 2, several MTO cell claims have been staked by a third party, within the limits of the Union property. These MTO cell claims overly valid legacy (located) claims or valid crown grants held by the company. Because of the underlying valid mineral title, these MTO cell claims do not give their owners any rights with respect to minerals on this ground, and as such, they pose no threat to Yankee Hat's title to the property. One small valid legacy claim held by a third party is situated within the limits of the property. Title to this ground is not included in the Union property.

Most of the Union property is located on crown land. In the vicinity of the Union Mine, District Lot 3672 covers the Paper Dollar crown grant, the eastern portion of the Union crown grant, and a small part of the Buck #1 and Dodge 99 mineral claims. Surface rights to DL 3672 are held by Malcolm Muir of Calgary, Alberta, while the underlying mineral rights are held by Yankee Hat Minerals, under option from Mr. Carson.

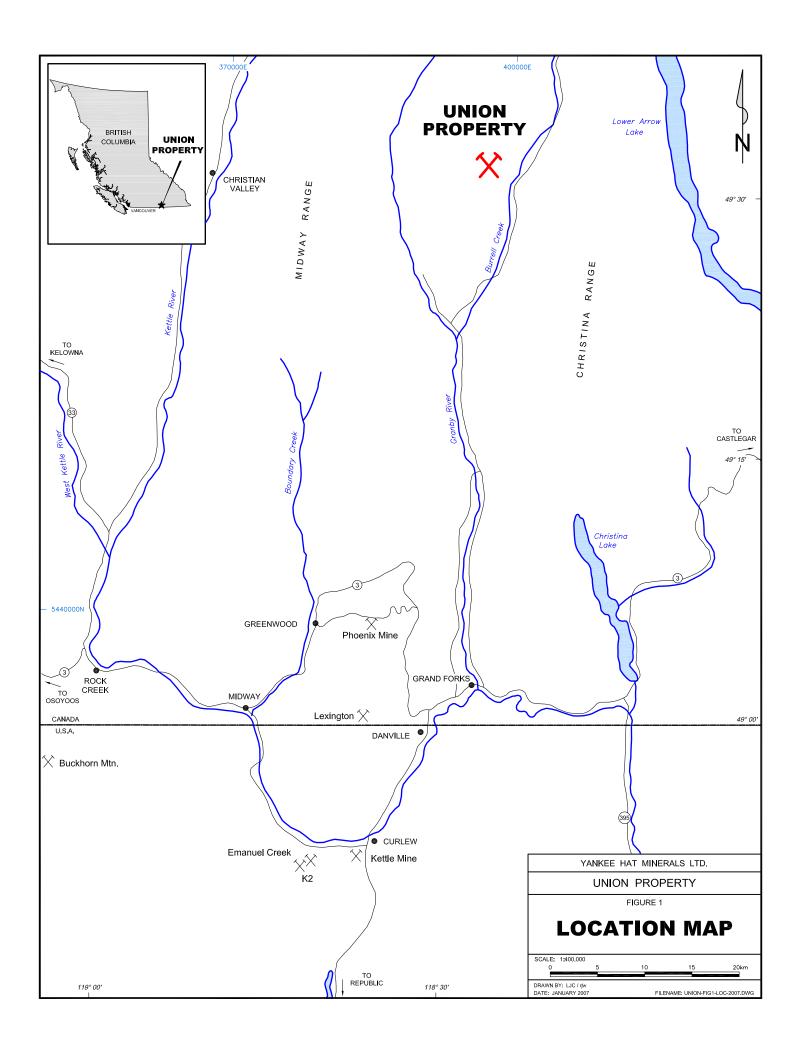
2.2 Access, Climate, Local Resources, Infrastructure and Physiography

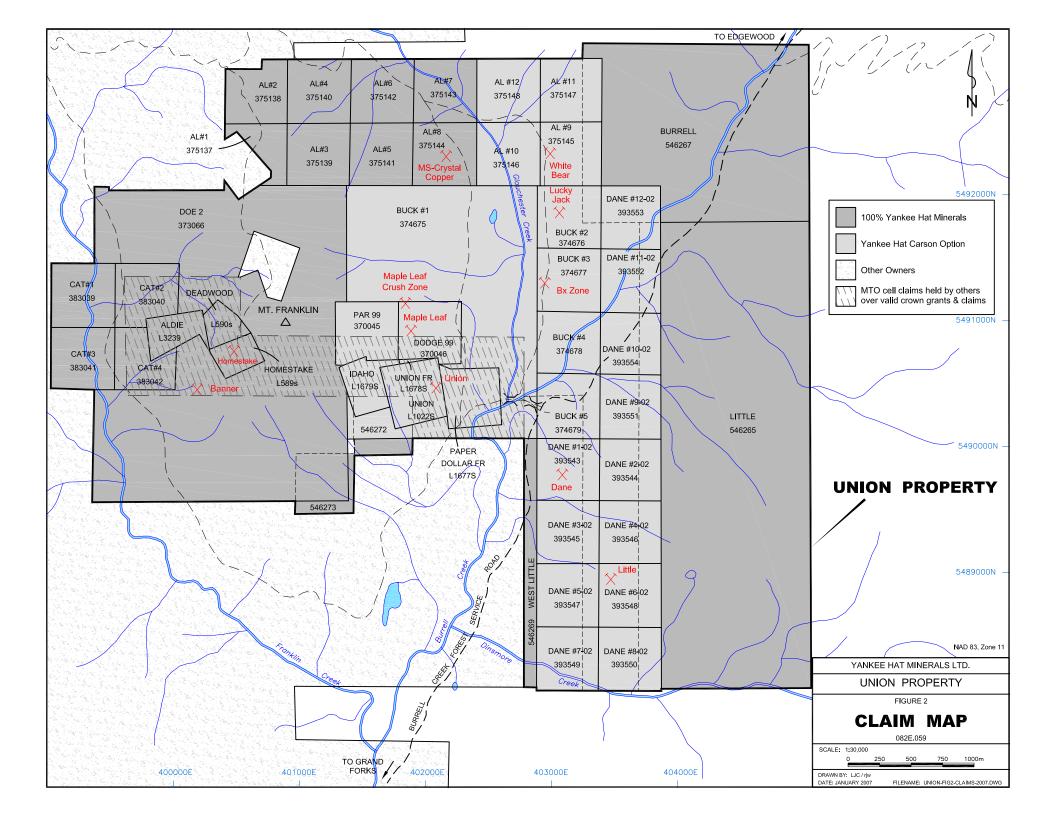
Road access to the Union property is good, with year round access maintained through the eastern portion of the property, along the Burrell Creek Forest Service Road. From Highway 3 at Grand Forks, the paved Granby road is taken north for 42 kilometers to the "28 mile" bridge. At the bridge, the Granby Forest Service road is followed for 1 kilometer before turning right (north) onto the Burrell Creek Forest Service road for an additional 25 kilometers to the property. The Gloucester and Union Forest Service roads, and the old Union Mine and Maple Leaf roads, provide further road access to areas of interest on the property.

Most services needed for exploration, including room, board, fuel, supplies and labour, are available in Grand Forks. The closest full-service airports are located in Kelowna, Penticton or Castlegar and the closest power to the property is some 35 kilometers to the south in the North Fork Valley. Active rail service is available in Grand Forks.

Tenure Number	Claim Name	Owner	Area	Good To Date
373066	Doe 2	100% Yankee Hat	500.0	2007/oct/30
375137	AL #1	100% Yankee Hat	25.0	2007/nov/30
375138	AL #2	100% Yankee Hat	25.0	2007/nov/30
375139	AL #3	100% Yankee Hat	25.0	2007/nov/30
375140	AL #4	100% Yankee Hat	25.0	2007/nov/30
375141	AL #5	100% Yankee Hat	25.0	2007/nov/30
375142	AL #6	100% Yankee Hat	25.0	2007/nov/30
375143	AL #7	100% Yankee Hat	25.0	2007/nov/30
375144	AL #8	100% Yankee Hat	25.0	2007/nov/30
383039	Cat #1	100% Yankee Hat	25.0	2007/nov/30
383040	Cat #2	100% Yankee Hat	25.0	2007/nov/30
383041	Cat #3	100% Yankee Hat	25.0	2007/nov/30
383042	Cat #4	100% Yankee Hat	25.0	2007/nov/30
546265	Little	100% Yankee Hat	503.0	2007/dec/01
546267	Burrell	100% Yankee Hat	251.4	2007/dec/01
546269	West Little	100% Yankee Hat	104.8	2007/dec/01
546272		100% Yankee Hat	21.0	2007/dec/01
546273		100% Yankee Hat	21.0	2007/dec/01
L 589s	Homestake cg	100% Yankee Hat	9.7	
L 590s	Deadwood cg	100% Yankee Hat	7.5	
L 3239	Aldie cg	100% Yankee Hat	11.9	
370045	Par 99	Carson option	25.0	2009/apr/20
370046	Dodge 99	Carson option	25.0	2009/apr/20
374675	Buck #1	Carson option	300.0	2009/apr/20
374676	Buck #2	Carson option	25.0	2009/apr/20 2008/apr/20
374677	Buck #3	Carson option	25.0	2008/apr/20 2008/apr/20
374678	Buck #4	Carson option	25.0	2008/apr/20 2008/apr/20
374679	Buck #5	Carson option	25.0	2000/apr/20 2009/apr/20
375145	AL #9	Carson option	25.0	2009/apr/20 2008/apr/20
375146	AL #10	Carson option	25.0	2008/apr/20 2008/apr/20
375147	AL #10 AL #11	Carson option	25.0	2008/apr/20 2008/apr/20
375148	AL #12	Carson option	25.0	2008/apr/20 2008/apr/20
393543	Dane #1-02	Carson option	25.0	-
393544	Dane #2-02	Carson option	25.0	2008/apr/20 2008/apr/20
393545	Dane #3-02	Carson option	25.0	2008/apr/20 2008/apr/20
393546	Dane #4-02	Carson option	25.0	2008/apr/20 2008/apr/20
393547	Dane #5-02	Carson option	25.0	2008/apr/20 2008/apr/20
393548	Dane #6-02	Carson option	25.0	2008/apr/20 2008/apr/20
393549	Dane #7-02	-	25.0	2008/apt/20 2008/apr/20
393550	Dane #8-02	Carson option Carson option	25.0	2008/apr/20 2008/apr/20
393551		1	25.0	-
393551	Dane #9-02	Carson option	25.0	2008/apr/20
	Dane #11-02	Carson option		2008/apr/20
393553	Dane #12-02	Carson option	25.0	2008/apr/20
393554	Dane #10-02	Carson option	25.0	2008/apr/20
L 16778	Paper Dollar Fr.	Carson option	20.1	
L 1678s	Union Fr.	Carson option	0.7	
L 1679s	Idaho Fr.	Carson option	13.6	
L 1022s	Union	Carson option	21.0	

 Table 1: Claim Information





The property covers portions of the Burrell, Gloucester and Franklin Creek drainages. Valley bottoms are typically broad and flat with little outcrop, although locally the creeks are steeply incised with good rock exposure. Mount Franklin, a prominent and locally steep mountain between the Burrell and Franklin Creek drainages, is centred in the western part of the property. The Union showing is located on the lower eastern slope of Mount Franklin, while the Homestake and Banner showings are situated on the upper west-southwest slope of the mountain. The eastern part of the property covers the steep west facing slopes above Burrell Creek. Elevations on the property range from about 820 meters along Burrell Creek in the southeastern part of the property, to 1447 meters at the summit of Mount Franklin.

Areas of high topographic relief have good rock exposure and are typically covered by mixed, open second growth forest. The east-facing slope of Mount Franklin has little tree cover, but scrub brush is locally very thick. Valley bottoms tend to be covered with mixed forest with moderate undergrowth. These areas generally have little rock exposure.

The climate is typical of the area, with moderately dry, hot summers (although mountain storms are common) and with cold winters with significant snowfall. Snow accumulation is typically in the order of 2-3 meters. The property is generally snow free from mid May to early November. Water is available for drilling from Burrell, Franklin, Gloucester or Dinsmore Creeks, and seasonally from several intermittent creeks or sloughs on the property.

3.0 HISTORY

3.1 Regional Exploration History

The Union property is located within the historic Franklin Mining Camp, an area with numerous known mineral occurrences and one significant past producer, the Union Mine. The Union Mine, part of Yankee Hat's Union property, produced 122,555 tonnes grading 14.1 g/t Au and 353.4 g/t Ag, primarily during the early 1930's. Highlights of the exploration and development history within the Franklin Camp are summarized below. Additional details are available in various Annual Reports of the BC Minister of Mines, in numerous other references listed below, and in Caron (2004a). Details regarding the exploration history of the Union property are contained in Section 3.2 of this report.

Exploration in the camp dates back to 1896, when the Banner and McKinley claims were located. A very large number of other claims were staked within the next decade, covering most, if not all, the currently known areas of mineralization. Numerous prospect pits, shallow shafts and short adits were completed in the latter part of the 19th century and early part of the 20th century. This work was directed at a number of different styles of mineralization, including quartz veins and silicified zones with gold and silver (Union vein type), massive chalcopyrite in shear zones associated with pyroxenite ("Black lead type"), and replacement type lead-zinc mineralization associated with limestone. The extent of the early exploration activity on the area is reflected in both the number old workings and in the number of Minfile occurrences in the camp. Some 23 such Minfile occurrences are documented in the Franklin Camp.

Early work was hampered by the lack of infrastructure, and it was not until 1900 that a government trail was cut from Grand Forks to the Franklin Camp. In 1906, considerable work was done in the area, including surveying the Gloucester City townsite near the junction of Burrell and Gloucester Creeks. By 1908 the trail from Grand Forks had been upgraded to a wagon road and work continued on a number of properties, including the Maple Leaf, Banner, Gloucester and McKinley.

C.W. Drysdale spent the summer of 1911 in the Franklin Camp, visiting many of the mineral properties and completing regional geological mapping for the Geological Survey of Canada. His report, published as GSC Memoir 56, remains one of the few comprehensive reports of the Franklin Camp and describes the early exploration and development history of the camp (Drysdale, 1915).

In 1914, Larsen and Verrill visited the camp on behalf of the BC Bureau of Mines and published a thorough review of work to this point. The main properties active at the time were the Union, McKinley and the Banner. Their report gives a good account of the camp at this time, and is available in the 1914 BC Minister of Mines Annual Report. Larsen and Verrill concluded that, "the high cost of transportation is practically prohibitive to the development and working of the large mineral resources indicated in this district." Despite this, the Union Mine was producing at a rate of 30 to 40 tons per day, but the ore had to be hauled by wagon to the end of the rail at Lynch Creek, and from there by rail to the Granby Smelter in Grand Forks, at high cost.

By 1918, the Imperial Munitions Board in London indicated a shortage in the supply of platinum needed for the war, and initiated an examination and evaluation of a number of properties in Canada, including the Franklin Camp (Thomlinson, 1920). One sample collected by Tomlinson from the Maple Leaf area returned 0.17 oz/t Pt.

The Union Mine was bonded to Hecla Mining Company in 1927. During the next few years, Hecla did considerable exploration and development work on the property, including construction of a 145 tonne per day flotation mill. The mill was later upgraded to include Wifley tables to recover free-milling gold. Production began in 1930 and continued through to 1933 when a cyanide plant was constructed to treat the tailings from the earlier milling operation. From 1934-36 the tailings were reprocessed and a small amount

of additional mining was done (Pike, 1935; Minfile 082ENE003).

After the Hecla era, there was little work done in the camp until the 1960's when Spud Huestis assembled a large land position for Franklin Mines Ltd., much of which is within the current Union property. Considerable exploration was done over the next few years, including cat trenching, geophysics, geochemistry and diamond drilling. This work was directed primarily at the bulk tonnage PGE potential of the property, as detailed by Chilcott (1965) and by Chilcott and Lisle (1964).

Newmont Mines Ltd. recognized the similarity between the rocks in the Franklin Camp and the Triassic Brooklyn Formation (host rocks to the Phoenix deposit near Greenwood), and in 1968, acquired a large land package in the camp. Newmont carried out a program of silt sampling, line cutting, geological mapping and rock chip sampling, as well as small scale soil, magnetometer and IP surveys in the McKinley and Banner areas. An airborne helicopter magnetometer survey was also completed. High copper values in silt samples from creeks in the vicinity of the current IXL property led to a major trenching program during 1969 to test for porphyry copper mineralization. Trenching was followed by a 3 hole diamond drill program (Norman, 1968, 1969).

Pearl Resources acquired the Union Mine in 1979 and over the next few years completed a thorough compilation of previous work at the mine, as well as considerable exploration. Underground workings were rehabilitated, surface mapping, and rock and soil geochemistry was done and 5 surface diamond drill holes were drilled in the western portion of the Union vein (Lisle, 1979, 1980a, 1980b; Lisle and Seraphim, 1980). Further work was done in 1984, including 19 underground diamond drill holes (1076 meters) and 34 underground percussion holes, totalling 397 meters (Drown, 1985).

In 1985, 24K Mining Inc. optioned the Union Mine property from Pearl Resources. The following year, 24K Mining Inc. merged with Summit Ventures Inc. to form Sumac Ventures Inc. Sumac constructed a cyanide heap leach facility to reprocess the Union Mine tailings, however the operation was suspended after a breach in the liner pad occurred.

At the same time that Pearl Resources/Sumac Ventures were actively working the Union Mine, Longreach Resources had assembled a large land package over the northern part of the Franklin Camp (covering much of Yankee Hat's current Union property) and were exploring their claims for PGE's. Longreach did considerable work during 1986, including drilling 32 diamond drill holes (Clark, 1987a,b). Placer Dome Inc. optioned the property from Longreach in 1987 and continued exploration, including a wide spread soil geochemical survey, rock sampling, geological mapping, and diamond drilling (10 holes) (Pinsent and Cannon, 1988). Placer's interest in the property was originally for the PGE potential of the area (the project was known as the Platinum Blonde project) but by late in 1987, the focus of work had shifted to "Union Mine" type targets. Financial disputes with Longreach, combined with Placer's inability to obtain title to what they considered the key claims, caused Placer to abandon the property in 1989.

Concurrent with Placer's work in the camp, Myra Keep completed a study of the geology and petrology of the Averill plutonic rocks as the basis for a M.Sc. thesis at the University of British Columbia (Keep, 1989; Keep and Russell, 1987, 1989, 1992). An important outcome of Keep's work was a potassium-argon date that establishes a Jurassic age for the Averill suite. All previous workers had assumed these rocks to be a part of the Eocene Coryell suite (as originally suggested by Drysdale, 1915).

Canamax flew an airborne geophysical survey over the IXL property in 1991 and did minor groundwork on the property (Johnson, 1991; Harris, 1991). During 1993 and 1994, Sway Resources carried out a significant amount of drilling in the Deadwood-Homestake-Banner areas, including some 29(?) diamond drill holes and 14(?) percussion holes. During 1994, Sway also drilled 8 holes at the IXL showing.

No further significant work was done in the Franklin Camp until 2001, when Tuxedo Resources Ltd. assembled a very large land package, by way of 7 separate option agreements. Tuxedo's Franklin property included the majority of the current Union property, as well as additional ground to the southeast (the IXL property) and northeast. Tuxedo flew an airborne geophysical survey over essentially the entire Franklin Camp during 2001 (Smith, 2001; Peatfield, 2001). Following this, Peatfield (2002) prepared a Technical Report on the property and a compilation of previous work was undertaken (Caron, 2002). Numerous exploration targets were identified as a result of the compilation program.

During 2003, Tuxedo carried out regional prospecting and rock sampling, as well as a detailed exploration program in the Homestake-Deadwood area. This program included soil and rock sampling, geological mapping, trenching and diamond drilling (8 holes totalling 360 meters). At the IXL, prospecting and rock sampling was also done, followed by drilling a single diamond drill hole (Caron, 2004a).

By the end of the 2003 work program, Tuxedo Resources had earned 100% ownership in some of the claims in the camp. Early in 2004 Tuxedo Resources terminated the option agreements on all the remaining claims in the camp. Cougar Minerals Corp. subsequently optioned the IXL property from Mr. Carson, by way of an underlying agreement with New Cantech Ventures. A sizeable exploration program was completed on the IXL property in 2004 and 2005, which included excavator trenching, IP, and diamond drilling (Caron, 2004b, 2005b,c).

Also during 2004, Solitaire Minerals Corp. optioned a number of claims from Mr. Carson, covering the Union Mine, Maple Leaf and White Bear areas. Solitaire's property was called the Union property, but comprised only a portion of the ground that forms the current Union property held by Yankee Hat Minerals. A program of excavator trenching and diamond drilling (7 holes) was carried out by Solitaire in 2004 on their property (Caron, 2005a).

3.2 History of Exploration, Union Property

Exploration on the Union property dates back to the first part of the 20th century. There are 10 zones of known mineralization on the property, as shown on Figures 2 and 3. Most of the previous exploration has been focussed in the Union Mine, Maple Leaf or Homestake-Banner areas. A lesser amount of work has tested the White Bear-Lucky Jack areas. These areas have been under separate ownership for much of their history. The exploration history of each of these areas is discussed below, following which exploration elsewhere on the property is presented. Where no specific reference is listed, information has been taken from the British Columbia Minister of Mines Annual reports or from the BC Geological Survey Branch Mineral Inventory File (Minfile).

Union Mine

The history of exploration and development at the Union Mine has been in three main periods, the discovery and early development of the property (pre 1927), the Hecla era (1928-33), and the Pearl Resources-Sumac Resources era (1980's), as summarized below.

Pre-1927

The Union claim was one of the first claims located in the Franklin Camp, but it was recorded under a different name and was subsequently allowed to lapse. In 1906, L. Johnson and P. McGinnis restaked the Union claim, as well as the adjacent Paper Dollar and Idaho claims. The Union claim was crown granted in 1914. Over the next few years, crown grants were issued for the adjoining Paper Dollar Fr., Idaho Fr. and Union Fr. Claims.

A large open-cut was dug on surface and from 1913 - 1920, several thousand tonnes of silver-gold ore was shipped from the open cut and upper workings on the Union vein. The mineralized zone trended east-west, averaged about 2.4 meters in width, and was described as:

"not ... a true quartz vein, but is rather a very complete replacement of limestone, probably along a fissured zone ... The vein matter is about ³/₄ quartz, the balance being calcite and iron-pyrites with a little hematite and garnet. The gold values are probably associated with the iron-pyrites while the silver would seem to occur as silver-sulfide, and possibly in part as ruby silver. The ore is very deceptive in appearance, as it shows very little mineralization and would hardly be taken at first glance to be high grade ore. The ore as shipped to the smelter in car-load lots assays about \$60 a ton."

Ore had to be hauled by wagon to the end of the rail at Lynch Creek, and from there by rail to the Granby Smelter in Grand Forks. When the Granby Smelter closed temporarily during 1914 and 1915, ore was shipped to the smelter in Trail. Only high-grade ore that would stand the high costs of transportation and direct shipping to the smelter was mined during these early years. Pike (1935) reported that, by the end of 1916:

" ore to the value of approximately \$100,000 had been shipped. This consisted of practically all of the easily obtainable ore such as occurred near the surface and in the glory hole. It was now seen that a large outlay of capital would be required to further develop the property since it was thought that the ore remaining was of milling grade only."

1927-1936 The Hecla era

In 1927, an agreement was reached with the Hecla Mining Company to purchase the property. A considerable amount of exploration, development and mining was carried out over the next few years, including most of the historic production from the property. The Union vein was developed on the second, third and fourth levels and upraises were driven to connect the different levels. In the upper levels it is reported that the ore body:

"... varies in width from 5 to 12 feet and is mineralized chiefly with pyrite, containing gold and silver in a gangue of quartz and greenstone. Numerous block faults displace the vein a few feet. There are no commercial walls to the fissure and the size of the vein can be determined only by close sampling and assaying. The country rock, a greenstone, adjacent to the vein is to all appearances similar to the ore.

In the fourth or lowest level, only disintegrated pieces of ore have been found up to the present. The country rock and ore has the appearance of recemented fragments."

Construction of a 136 tonne (150 ton) per day flotation mill was started in 1929. The mill was later upgraded to include Wifley tables to recover free-milling gold. Steady production started in 1930 and continued through to 1933, with just over 110,000 tonnes mined and milled during this period. The recovered average grade from the milling operation was 13.4 g/t Au and 305 g/t Ag.

In 1933, a cyanide plant was constructed to treat flotation tailings and from 1934-36, Hecla reprocessed almost 50,000 tonnes of tailings, recovering an additional average 1.4 g/t Au and 47.5 g/t Ag. A small quantity of ore, remnants left during the earlier mining operation, was also mined.

1937-1979

From 1937 through to 1942, W.E. McArthur leased the Union Mine from Hecla and completed a small amount of drifting, raising and surface trenching, as well as some 840 meters of diamond drilling. Just over 7,500 tonnes of ore was mined during this period. In 1947, C. and J. Small leased the property and shipped an additional small quantity of ore. No further work was done until 1971, when Mustang Resources Ltd. optioned the property from Hecla and constructed a closed-circuit cyanide plant to reprocess tailings on the property. The operation was not economic and the plant was closed after only a few months.

1979 – present

During 1979 and 1980, Pearl Resources optioned the crown grants covering the Union Mine from Hecla and staked much of the ground surrounding the Union Mine. Detailed geological mapping was completed. This work was followed up by a 5 hole (675 meter) surface diamond drill program. Drilling tested the western known portion of the Union vein for areas of additional mineralization, without success (Lisle, 1979, 1980a,b; Lisle and Seraphim, 1980).

In 1984, Pearl Resources carried out a major work program on the property, including rehabilitation of underground workings and 192 meters of new drifting on the No. 4 level. Thirty-four percussion holes were drilled underground to test the walls of the new drift and 19 underground diamond drill holes (1,076 meters) were drilled to test for extensions to known zones of mineralization. While drilling confirmed the presence of a strong quartz vein in several places, for the most part, gold and silver grade were minimal. East of the Union fault and between the No. 2 level and surface (and immediately south of the Open Stope) a narrow portion of the mineralized vein does remain unmined (the Union South Zone). Sampling and drilling in 1984 indicated a "tonnage potential of 8-10,000 tons grading 0.255 oz/t Au and 8.59 oz/t Ag over a 5 foot mining width" (Drown, 1985). Note: This estimate does not conform to 43-101 standards.

The 1984 underground drill program also returned several attractive intercepts on the Union vein below the Open Stope and between the No. 3 and No. 4 levels. These included:

ddh PU-5: 8.4 meters @ 8.9 g/t Au, 357.5 g/t Ag (as well as several other narrower, lower grade zones in the same hole), and,

ddh PU-8: 1.6 meters @ 37.2 g/t Au, 2148 g/t Ag

Drown (1985) estimated a "possible reserve" of about 7000 tonnes grading 32.5 g/t Au and 1858 g/t Ag for this zone. Note that, again, this estimate does not conform to 43-101 standards.

A limited soil survey was also completed during 1984 and geological mapping was done, both on surface and in all accessible underground workings. Historic dumps and tailings were sampled and a "potentially significant" heap-leach resource was recognized (Drown, 1985).

24K Mining optioned the property from Pearl Resources in 1985 and then in 1986, 24K Mining merged with Summit Ventures to form Sumac Ventures Inc. Work on the property during 1986 and 1987 included rehabilitating the No. 3 and No. 4 levels, sublevel drifting and raising, and diamond drilling (16 surface holes). Results from the 1986 surface drilling are unavailable.

In 1987, Placer Dome entered into an agreement with Longreach Resources on the Platinum Blonde property, covering much of the Franklin Camp to the north, east and west of the Union Mine. At the same time, Placer had an agreement with Sumac Ventures "whereby the Company has been granted the right to explore for a faulted off-set to the Union vein on ground which is currently held by Sumac" (Pinsent and Cannon, 1988). One diamond drill hole (87-41) was drilled to test for the Union vein west of the Maple Leaf fault, without success.

Late in 1987, Sumac began a cyanide heap leach operation to treat tailings from Hecla's 1930's milling operation. The heap leach operation continued seasonally through to 1989, with about 42,500 tonnes treated and 13 kg Au and 393 kg Ag recovered. A breach in the pond liner occurred in the spring of 1989 and, although actual environmental damage was negligible, in June of 1989 the Minister of Environment declared an "environmental emergency". The operation was forced into closure and the Ministry of Environment stepped in to take control of the clean-up operation (Sumac Ventures news releases).

In 2004, Solitaire Minerals drilled four diamond drill holes in an attempt to locate the western

faulted offset of the Union Vein, west of the Maple Leaf fault and beneath post-mineral sedimentary cover. Drilling was successful in intersecting a zone of silicification with elevated gold and silver values (to 135 ppb Au and 3.7 g/t Ag). Drilling was poorly oriented with respect to the silicified zone.

To date, 122,555 tonnes of ore has been mined from the Union Mine. Note that this quantity excludes the tailings reprocessed by Hecla during the 1930's and by Sumac Ventures in the 1980's (whereas totals listed in Minfile include the tailings and are not a good indication of the size of the Union ore body). A total of 1727 kg gold and 43,306 kg Ag was recovered (from the direct smelting ore, milled ore and reprocessed tailings). Dividing the total metals recovered (by all methods) by the quantity mined gives an average grade of 14.1 g/t Au and 353.4 g/t Ag for the 122,555 tonnes mined from the Union vein.

Maple Leaf

As with the Union Mine, exploration on the Maple Leaf showing can be divided into three main periods, a period of early exploration and development (pre 1927), the Hecla era (1927 - 1936) and a period of activity in the 1980's. This work, as well as minor work outside of these main periods of activity (including limited trenching and diamond drilling in 2004) is summarized below. Two main areas of mineralization are present, the Maple Leaf zone and the Maple Leaf Crush zone, some 250 meters to the north. Apart from a small amount of hand cobbed ore shipped from the Maple Leaf zone in 1915-16, there has not been any production from this area.

Pre 1927

Work was first reported on the Maple Leaf claim in 1906. Much stripping and open cut work was said to have been done on the claim (at the Maple Leaf zone), uncovering, it was reported "some fine bodies of ore ... The ore is chalcopyrite and the surface showings are rich".

No further work is documented until 1913, when work was done on the "Upper Workings". A shaft 6 meters deep was dug and a crosscut tunnel driven for 45 meters. The material at the face of the tunnel was reported to be "mainly silica and somewhat similar in appearance to the high grade ore of the Union property. A sample taken, however, only returned traces of gold and silver."

Two car loads of hand cobbed high grade copper ore were made from the large open cut at the Maple Leaf zone in 1915-16, which were said to have averaged 5.6% Cu and 9.6% Cu respectively and, according to the owner, "each ton shipped contained nearly one-quarter of an ounce of platinum" (Thomlinson, 1920). The total production is given as 36 tonnes averaging 7.6% Cu, 1.7 g/t Au and 172 g/t Ag (Minfile 082ENE009).

By 1918, the Imperial Munitions Board in London indicated a shortage in the supply of platinum needed for the war, and initiated an examination and evaluation of a number of properties in Canada, including the Franklin Camp. Two samples collected from the Maple Leaf contained 5.1 and 5.8 g/t Pt (0.15 and 0.17 oz/t Pt) respectively. A sample of almost pure chalcopyrite, occurring as a small lens in the pyroxenite, assayed 13 g/t Pt (0.38 oz/t Pt) (Thomlinson, 1920).

A program of drifting and cross cutting was undertaken in 1919, which appears to have been largely promotional in nature. The 1921 Minister of Mines Report states that:

"... a careful sampling of the lower workings was carried out. During the past few years remarkable results had been obtained by the former management ... resulting in a good deal of speculation. The results of the 1921 sampling were practically nil for Co, Pb and Pt, and only a very small percentage of CuIf the money spent in driving the lower tunnel about 340' and on the partial installation of a 50 ton smelter and ore bins had been used

for legitimate development in and near the upper workings, the stockholders would have the satisfaction at least of knowing that their money had been spent in the right place."

The following year several new cuts were excavated in an attempt to trace the mineral zone. A shaft was also sunk about 12 meters and a crosscut driven for about 4.5 meters into a north striking, west dipping siliceous vein located south of the old upper workings, near the cabins. Samples from the vein were reported to carry values in gold and silver, but not high enough for shipping purposes.

1927 - 1936 The Hecla era

In 1927, the Maple Leaf claim was bonded, along with the Union Mine, to Hecla. While most of Hecla's work was focused on the Union vein as detailed earlier in the report, some work was done at the Maple Leaf during this period. In 1932 it was reported that:

"Two crosscuts were driven, one from No. 1 level westerly and another from the intermediate level 100' below the No. 1, to prospect copper-platinum outcrops found many years ago. ... a good deal of pyritic mineralization was found in the crosscuts, but no payable ore."

Diamond drilling was also reported, but neither the drilling nor the cross cutting was successful in discovering any ore.

1936 - 1986

Following Hecla's work on the property there was a long period of inactivity at the Maple Leaf. No further work is reported in this area until the mid-1960's, when Franklin Mines Ltd. assembled a large land package in the camp to test for the bulk tonnage PGE potential of the area. In 1964, mapping and detailed sampling of the Maple Leaf zone was completed with some good results (to 1.36% Cu and 8.9 g/t Pt over 4.3 meters in one old pit). Two diamond drill holes were drilled in 1965, in close proximity to the historic open cut. A 0.3 meter (1 foot) zone of massive chalcopyrite and pyrite was intersected near the top of hole 65-1 that returned 15.24% Cu, 6.8 g/t Pt and 4.8 g/t Pd (Chilcott and Lisle, 1964).

In 1966, a small IP survey was completed and a very strong, northwest trending chargeability anomaly was identified in the vicinity of the Maple Leaf Crush Zone (Mouritsen, 1966).

Apart from a minor soil geochemistry in 1972 (Friesen, 1972), no further work was done in the Maple Leaf area until in was acquired by Longreach Resources in 1986.

1986 - 1988 The Longreach - Placer Dome era

In 1986, Longreach Resources assembled a large land package in the Franklin Camp (the Platinum Blonde property) to explore for Cu-PGE mineralization. Sixteen diamond drill holes were drilled in the Maple Leaf area as part of a larger (32 hole) drill program. A number of narrow intervals of elevated copper were intersected in the drilling, but platinum and palladium values were low, to a maximum of 1620 ppb Pd and 700 ppb Pt with 1.9% Cu over a 1.5 meter interval in hole 86-12 (at the Maple Leaf zone and near the ddh 65-1 intercept).

Drilling did identify a prominent west-northwest trending shear zone, the Maple Leaf Crush zone, about 250 meters north of the main Maple Leaf showing. Hole 86-7 returned 0.5 meters grading 25.9 g/t Au from the Maple Leaf Crush zone, while hole 86-16 returned 3 meters grading 6.8 g/t Au (Clark, 1987a,b).

In 1987, Placer Dome Inc. optioned the Platinum Blonde property from Longreach and drilled 3 holes in the Maple Leaf area, as part of a 10 hole diamond drill program on the property. Two of Placer's drill holes (87-38, 39) tested the Maple Leaf Crush zone. Both holes returned elevated gold values from the zone. The best interval was 2.7 meters grading 3.25 g/t Au near the top of

hole 87-38. The third Placer drill hole (87-40) tested the Maple Leaf zone near the ddh 86-12 and 65-1 intercepts, without significant results (Pinsent and Cannon, 1988).

1988 - present

In 2001 a program of detailed geological mapping and rock sampling was done to further explore the known Cu-PGE mineralization (Wilkinson, 2001) and in 2003, Tuxedo Resources prospected the area (Caron, 2004a).

During 2004, Solitaire Minerals completed excavator trenching (5 trenches) and drilled 1 diamond drill hole to test the Maple Leaf Crush Zone. Gold values were elevated, but sub-economic, across the zone (Caron, 2005a).

Homestake – Banner area

Numerous old pits, shafts and adits in the Homestake-Banner area date to exploration in the late 1890's and early 1900's. In the early 1930's, Hecla completed exploration at the Homestake Mine in conjunction with their work in the Maple Leaf area and at the Union Mine. Hecla mapped and sampled underground workings at the Homestake and drilled 11 diamond drill holes (Pike, 1935; Minfile 082ENE003). In 1940-41, a total of 453 tonnes was mined from the Homestake, at an average grade of 15.3 g/t Au and 30.0 g/t Ag.

In 1968 Newmont Mines Ltd. completed geological mapping, rock chip sampling and limited soil sampling in the Banner-Homestake area, then in 1969, Boundary Exploration stripped the Banner vein and drilled 3 holes to test the vein near the shaft (Norman, 1968; Kermeen, 1969).

As described previously, Placer Done Inc. optioned a large land package from Longreach in 1987, covering much of the current Union property. Three diamond drill holes were drilled to test an area of silicification and anomalous As and Ag in soils at the Laura showing, east of the Homestake, without success. Two holes were also drilled at the Jimmy showing. The Homestake and Deadwood crown grants were not part of Placer Dome's property.

Sway Resources carried out a significant amount of drilling in the Homestake-Banner area during 1993 and 1994, including some 29(?) diamond drill holes and 14(?) percussion holes. This work is very poorly documented, but covered in part by Miller (1993, 1995), by several page sized sketches and notes, and by various company news releases from this era. Much of the drilling was done to test the North Banner zone, where previous grab samples had returned in excess of 10 oz/t Au. Results from drilling were erratic. The best result was hole 93-12 which returned 3.4 meters grading 7.9 g/t Au, at a vertical depth of 10.5 meters below surface.

During 2003, Tuxedo Resources completed soil and rock sampling, geological mapping and limited trenching and diamond drilling in the Homestake-Banner area. A total of 364 lineal meters of trenching was done in 15 trenches to test targets at the North Banner, Aldie, Banner and North Homestake showings. Trenching to the east of the North Banner pit was successful in exposing the vein, which averages 1 to 2.5 meters in width, but is off-set along strike by numerous post-mineral faults. Trench samples returned a weighted average grade of 6.6 g/t Au and 7.2 g/t Ag over an average true width of 2.3 meters, with one sample assaying 25.3 g/t Au over 1.6 meters (Caron, 2004a).

A 28 meter long by 10 meter wide area was stripped near the Banner shaft, exposing the Banner vein over a true width of 11 meters. The weighted average grade for the Banner vein in this trench is 1.4 g/t Au, 35.3 g/t Ag, 0.3% Cu, 1.3% Pb and 1.5% Zn over an 11 meter true width. Eight diamond drill holes, totalling 360 meters, were then drilled on the Banner vein. Drilling showed that the vein pinches out rapidly at depth. The best results from drilling was 4 meters grading 2.35 g/t Au, 19.25 g/t Ag, 0.23% Cu, 0.65% Pb and 3.16% Zn in drill hole FR03-5 (Caron, 2004a).

White Bear - Lucky Jack

The earliest documented work in the White Bear-Lucky Jack area is in 1906. The Minister of Mines Annual Report for this year states that a large body of "*white iron*" (siderite?) carrying gold and copper occurs on the property and runs from "\$1 to \$10". Several chutes of high grade chalcopyrite were reported running "*through the lead*".

The Imperial Munitions Board collected several samples from the Lucky Jack area during their investigations into the platinum potential of the Franklin Camp in 1918. A maximum of 2.7 g/t Pt (0.08 oz/t Pt) was returned from a sample of pyroxenite with disseminated chalcopyrite in this area (Thomlinson, 1920).

J.C. Stephen Explorations Ltd./Newmont Exploration completed a very small program of soil and rock sampling in the White Bear area in 1979. An epithermal quartz breccia zone in Eocene sediments was discovered a short distance from the White Bear shaft. Float from the silicified zone was traced over a strike length of 120 meters. Three rock samples collected from the silicified zone had weakly elevated gold values (Shearer, 1980).

In 1984, BC Gold Syndicate and J. Walls carried out a very small soil survey (21 samples) over the White Bear silicified/breccia zone, as well as minor hand trenching and rock sampling (3 samples) to test the zone. One rock sample returned 900 ppb Au from the breccia zone, and one soil sample returned 420 ppb Au (Walls, 1984).

A small VLF/magnetometer survey was run in the Lucky Jack area in 1986 (McDougall and Presunka, 1986). This was followed up with 3 diamond drill holes to test for PGE mineralization (Clark, 1987a,b). There were no significant results from the drilling.

During 2004, Solitaire Minerals carried out excavator trenching at the White Bear epithermal zone, followed by drilling 1 diamond drill hole. The hole intersected a series of narrow quartz veins and zones of argillic alteration, intermittently over a total zone width of about 50 meters, however samples failed to return any elevated values of gold or silver (Caron, 2005a).

A strong north-trending EM conductor was delineated by Tuxedo's 2001 airborne survey, along Gloucester Creek, west of the White Bear showing (Smith, 2001). In 2004, a single drill hole was drilled to test the conductor. No significant mineralization was encountered in the hole and the conductor was attributed to black graphitic shale within the Eocene sedimentary sequence (Caron, 2005a).

Exploration on the balance of the Union Property

The majority of previous exploration on Yankee Hat's Union Property has been in the four areas described above. Only minor work as been done elsewhere on the property, as follows.

Several shallow shafts and short adits, plus numerous pits on the property, at the Gloucester, Dane and Little showings and in the area north of the Union No. 4 portal, date back to the very early part of the 20th century. Diamond drilling was done at the Gloucester showing in 1920, by the provincial government, under the Mineral Survey and Development Act.

Falconbridge Nickel Mines drilled 2 short EX packsack diamond drill holes in 1978, to test for uranium and for gold in Eocene sediments approximately 1 kilometer north of the Maple Leaf zone. There were no significant results (Wilson and McDougall, 1979).

Zelon Enterprises optioned the Axe and DAJG claims, in the eastern part of the current Union property, in 1981. A small rock sampling program was completed at the Dane showing, returning a number of samples of elevated copper and silver from an east-west trending shear zone cutting Franklin Group rocks (Cunningham and Hajek, 1981).

Tuxedo Resources Ltd. assembled a very large land package in the Franklin Camp in 2001. A DIGHEM helicopter-borne geophysical survey was flown over their property. Most of the airborne conductors remain untested. Significant ground work was completed in the Homestake-Banner area, but only limited prospecting and rock sampling program was completed outside of the areas described above.

3.3 Summary of 2006 Work Program

The 2006 work program Union property was completed from November 6-8, 2006, with data analysis and report preparation completed subsequent to this.

Exploration consisted of rock sampling and prospecting to locate the Little and Dane showings. Forty-two rock samples were collected and shipped to Eco Tech Labs in Kamloops for preparation and analysis for Au plus a multi-element ICP suite. Over-limit samples were assayed for Au, Cu or Zn.

Prospecting and rock sampling was completed by John Boutwell and Alfi Elden of Greenwood, B.C. and by Terry Pidwerbeski of Grand Forks, B.C. The program was supervised by Linda Caron of Grand Forks, B.C. A total of 11 man days were spent on the property.

4.0 GEOLOGY & MINERALIZATION

4.1 Regional Geology and Deposit Types

The Union property is situated within the Franklin Mining Camp, in the northern portion of the Boundary District. The Franklin Camp covers an inlier of Paleozoic to Mesozoic volcanic and sedimentary rocks, surrounded by Mesozoic and Tertiary plutonic rocks. Locally the older rocks are overlain by Tertiary sediments and volcanics and intruded by small intrusive bodies of various ages (Drysdale,1915; Pinsent and Cannon, 1988; Caron, 2004a, 2005a). The geology of the Union property is described in more detail in the following section of the report.

High-grade metamorphic rocks, part of the Grand Forks metamorphic complex, occur to the east and slightly south of the camp. A major north trending normal fault, the Granby Fault, separates the gneisses from the younger rocks to the west. This fault forms the eastern boundary to the Republic graben in Washington State and can be traced for over 100 kilometers northwards to the Union property.

The oldest rocks exposed in the Franklin Camp are a sequence of sediments, volcanics and related intrusives known locally as the Franklin Group. No fossil or istopic dating has been done to explicitly define the age of these rocks, however there is a remarkable lithological and stratigraphic similarity between the Franklin Group and type sections of the Triassic Brooklyn Formation in the Greenwood-Grand Forks area (and in the Belcher District of Washington State). Both the Franklin Group and the Brooklyn Formation contain similar lithological and stratigraphic sequences, including argillite, conglomerate, chert, tuffaceous siltstone, limestone and greenstone. Furthermore, both the Franklin Group and the Brooklyn Formation contain a very distinctive chert pebble conglomerate (referred to as "sharpstone conglomerate" in the Greenwood area) and both contain an unusual looking limestone cobble conglomerate (known in the Grand Forks area as "puddingstone"). Given these similarities, it seems very likely that the Franklin Group is correlative with the Brooklyn Formation. This correlation is significant because of the presence of stratabound volcanogenic mineralization within the Brooklyn Formation, which may also occur within the Franklin Group. Further details of the lithologies within the Franklin Group are given by Caron (2004a; 2005c) and Pinsent and Cannon (1988).

Rocks of the Franklin Group are intruded by several types of plutonic rocks, including granodiorite and diorite of the Jurassic-Cretaceous Nelson Plutonic complex, probable Jurassic aged quartz-feldspar porphyry (lithologically similar to the Lexington porphyry of the Greenwood Camp), alkalic intrusives of the Jurassic Averill complex, and syenite and lamprophyre dykes and stocks of the Eocene Coryell suite. The alkalic intrusives of the Averill suite, described below, are significant because of their association with PGE mineralization.

The Averill plutonic complex ... comprises pyroxenite, monzogabbro, monzonite and syenite phases and two compositionally distinct sets of late dikes. The intrusion is concentrically zoned, with pyroxenite at the centre, grading outwards through monzogabbro and monzodiorite, to monzonite at the perimeter. Trachytic syenite occurs along the axis of the pluton as a coarse-grained core and a fine-grained marginal phase. It is mineralogically distinct and is characterized by a prominent alignment of K-feldspar megacrysts ... The syenite intrudes the pyroxenite and monzogabbro, and the mafic phases are brecciated along the margin of the syenite. (Keep and Russell, 1992)

Drysdale (1915) first suggested an Eocene age to the Averill rocks and this notion persisted through to Keep's work in the late 1980's (despite the fact that clasts of various phases of the Averill suite occur within the basal conglomerate of the Eocene strata). A K-Ar age date on the Averill suite of 150 +/- 5 Ma now explicitly identifies these rocks as Jurassic (Keep and Russell, 1992).

Clastic sediments of the Eocene Kettle River Formation unconformably overlie the older rocks. These rocks include arkosic sediments, conglomerates, and water-lain tuffs. Rhyolite flows are also present. An

extensive area of rhyolite, the McKinley rhyolite, covers part of Mount McKinley to the south of the Union property. The Eocene sediments are overlain by andesite and trachyte flows of the Eocene Marron Formation. These volcanics form the highest points in the area, on Mount Franklin and Mount McKinley.

Mineralization in the Franklin Camp can broadly be classified into 4 (or 5?) main styles, as summarized below.

Union Mine type veins/silicified zones

The Union Mine is the only significant past-producing mine in the camp. A total of 122,555 tonnes at an average grade of 14.1 g/t Au and 353.4 g/t Ag was produced from the Union Mine. Rather than being a planar vein with sharp contacts, the Union vein is a broad silicified zone with assay walls. The mineralized zone, which trends at $080^{\circ}/90^{\circ}$, is hosted within greenstone and silicified calcareous sediments of the Franklin Group. The sulfide content within the quartz/silicified zone is generally less than 5%, with sulfides consisting of pyrite, galena, sphalerite and minor chalcopyrite. Higher gold values are typically associated with higher sulfide content, although free gold (with spectacular gold values) occurs locally. At the Union Mine, the vein is cut off on the west by a fault that places unmineralized Eocene sediments and overlying volcanics in contact with the vein. Drilling during 2004 was successful in intersecting a zone of silicification which may represent the off-faulted extension of the vein.

The Union vein has a geochemical signature of Au:Ag:Cu:Pb:Zn:Hg:Se:Te. Mineralization in the Homestake - Banner area, on the west side of Mount Franklin, also belongs to this style of mineralization. Lead isotope analysis on galena done on a sample of the Homestake vein during 2003 and suggests a Jurassic age to the mineralization (Caron, 2004a).

The nature of Union-type mineralization remains unresolved. The veins may be epithermal veins, as suggested by some previous workers (Peatfield, 2002; Pinsent and Cannon, 1988), but evidence suggests that they do not belong to the Eocene epithermal event that is economically significant elsewhere in the Boundary District. Several examples of Eocene aged epithermal style veining are known elsewhere in the Franklin Camp (i.e. White Bear, BX zones).

Black Lead type Cu-PGE zones

Much of the previous exploration in the Franklin Camp has been directed at "Black Lead" type mineralization. These zones are poddy, shear hosted zones of massive chalcopyrite (+ lesser pyrite, pyrrhotite and other sulfides) with erratic platinum and palladium values. They are associated most commonly with the pyroxenite phase of the Averill plutonic complex, but also occur in the syenite and along contacts with various other phases. Examples include the Maple Leaf, part of the Union property, as well as the Buffalo, Averill, Alpha, Ottawa-Evening Star showings to the north-northeast. Results of previous exploration suggest that these "Black lead" zones of mineralization are a lower priority for exploration that the other styles of mineralization in the area, because of their poddy, discontinuous nature (Caron, 2002).

Contact Metamorphic (Skarn) zones

The McKinley property, situated southwest of the Union property, is an example of skarn type mineralization in the Franklin Camp. Massive pyrite-chalcopyrite, pods and disseminations of galena-sphalerite-chalcopyrite and zones of massive magnetite-pyrite are associated with garnet-epidote (+ pyroxene) skarn along Franklin Group limestone contacts with various intrusions. Similar base metal skarn mineralization is associated with limestone contacts in the IXL area (Caron, 2005b). In both areas, mineralization is quite restricted. A small tonnage was produced from the McKinley in 1949, however surface and underground exploration, including diamond drilling, failed to find any additional areas of mineralization. As described below, skarn mineralization may be a result of remobilization of earlier volcanogenic massive sulfide/oxide mineralization.

IXL type

The IXL showing, situated in the western part of the IXL property is an area of disseminated and fracture controlled pyrite and chalcopyrite in epidote-chlorite-magnetite "skarn" altered mafic to intermediate tuff of the Franklin Group. The showing is discussed in detail in Caron (2005b,c).

Two zones of mineralization occur, and "Upper" and a "Lower" zone, with values to 18.4 meters grading 0.42% Cu and 1.88 g/t Au and 30 meters averaging 0.65% Cu and 0.86 g/t Au (including 21 meters at 0.83% Cu and 1.16 g/t Au). Attempts to drill the mineralization have been largely unsuccessful and show a limited depth extent due to the abundance of feldspar porphyry, and later syenite, dykes and sills. Low-grade (but sub-economic) copper-gold porphyry style mineralization is common within the feldspar porphyry. Values to 41.5 meters grading 0.17% Cu and 0.23 g/t Au have been returned from this style of mineralization, although typical grades are lower.

Volcanogenic Massive Sulfide

Auriferous volcanogenic sulfide/oxide mineralization occurs in the Triassic Brooklyn in the Belcher District of Washington State and in the Greenwood area, some 55 kilometers southwest of the Franklin Camp. A number of deposits of this type have been discovered in the Belcher District, the largest being the Lamefoot deposit (2 million tonnes at an average grade of 7 g/t Au - now mined out). The known massive sulfide-oxide deposits all occur at the same horizon within the Triassic Brooklyn Formation, with a stratigraphic footwall of felsic volcaniclastics (the top of the "sharpstone" unit) and with a massive limestone hangingwall. At Lamefoot, massive mineralization consists of magnetite, magnetite-jaspersiderite and pyrite-chalcopyrite. Auriferous quartz-sulfide and sulfide veinlets occur in the footwall of the deposit, and at least part of the gold mineralization is attributed to a late stage epigenetic event. A later skarn event may cause remobilization of earlier syngenetic mineralization along the Lamefoot horizon.

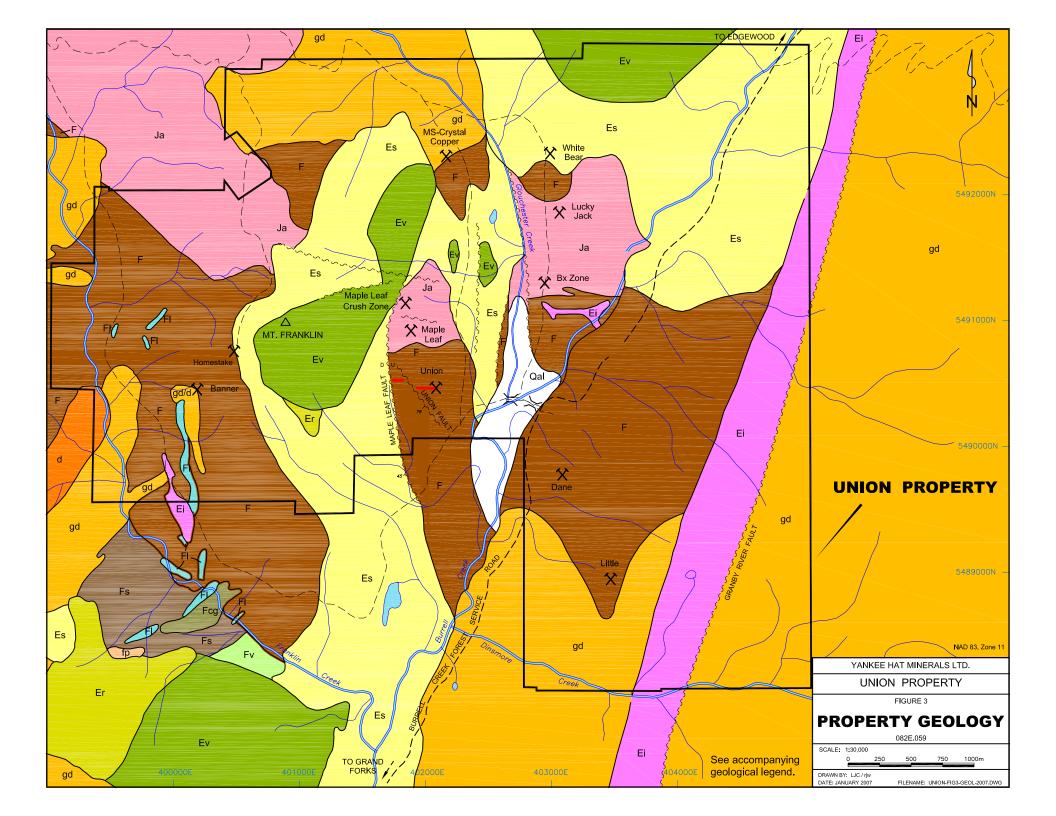
A strong argument can be made that the Franklin Group is correlative to the Brooklyn Formation, and thus has potential to host Lamefoot-type mineralization. Disseminated and poddy stratabound sphalerite mineralization at the Jack showing on the IXL property occurs at an analogous stratigraphic position to the Belcher and Greenwood area deposits and supports a volcanogenic massive sulfide/oxide model. The presence of massive magnetite and jasper-magnetite at the nearby McKinley showing further supports the Lamefoot model.

4.2 **Property Geology and Mineralization**

The geological setting of the Union property is shown in Figure 3. A large area of north to northeast trending, steeply east dipping Triassic (?) Franklin Group sediments and volcanics occurs in the central part of the property. These rocks host much of the known mineralization on the claims.

The Franklin Group volcanics are predominantly green fine-grained andesitic volcanics, breccias and tuffs while the sedimentary package is a complex sequence of tuffaceous sandstone and siltstone, chert, argillite, conglomerate and minor limestone. The conglomerate may be a chert pebble conglomerate or it may be a polymictic conglomerate, locally with prominent limestone clasts. Gradational contacts between the various units within the Franklin Group are common. Rocks of the Franklin Group typically become strongly hornfelsed near contacts with younger intrusives.

The Franklin Group volcanics and sediments are intruded by the east-west trending, concentrically zoned Jurassic Averill alkalic intrusive complex. The intrusive complex is comprised of syenite, monzonite and pyroxenite phases (Keep, 1989; Keep and Russell, 1992). Copper-PGE mineralization in the Maple Leaf and Lucky Jack areas is hosted within and genetically related to the Averill complex. Three discrete areas of Averill intrusives occur on the property, one in the Maple Leaf area, a second area to the east, east of



	LEGEND TO ACCOMPANY FIGURE 3
Qal	Quaternary Alluvium
EOCENE	
Ei	Coryell syenite and pulaskite dykes, sills and stocks.
Ev	Marron Formation andesitic and trachytic flows.
Er	McKinley quartz-eye rhyolite
Es	Kettle River Formation arkosic sandstone, pebble to cobble conglomerate, tuff.
JURASSIC	TO CRETACEOUS
gd d	Nelson granodiorite to diorite.
fp	IXL monzonite to diorite, feldspar \pm quartz porphyry. Typically leucocratic, very strongly altered (silic, argillic) and very pyritic.
JURASSIC	
Ja	Undifferentiated Averill Plutonic Complex. Includes:
[sy syenite, includes a coarse trachytic syenite phase
[monz monzonite
[px pyroxenite
TRIASSIC	(?)
Fv	Franklin Group intermediate volcanics (greenstone), crystal ± lapilli tuff, and volcanic breccias.
FI	Franklin Group limestone and limestone breccia.
Fs	Franklin Group sediments (argillite, siltstone, tuffaceous siltstone, chert).
Fcg	Franklin Group conglomerate. Fine to medium grained. May be dominantly chert pebble conglomerate ("sharpstone") or may be polymictic. Calcareous groundmass.
F	Undifferentiated Franklin Group.
30	Strike / Dip of Bedding
\sim	Zone of Known Mineralization
~~~	Fault
	Quartz Vein / Silicified Zone

Gloucester Creek in the Lucky Jack area, and a third area to the west, on the northwestern slope of Mount Franklin. These areas are separated by younger Eocene sedimentary or volcanic cover.

A large body of Nelson granodiorite intrudes the Franklin Group in both the southeastern and northern parts of the property. In the north and central parts of the property, the older rocks are unconformably overlain by Eocene sediments and volcanics.

High-grade metamorphic rocks, part of the Grand Forks metamorphic complex, occur to the east and slightly south of the property. A major north trending normal fault, the Eocene age Granby Fault, separates the gneisses from the younger rocks to the west. This fault forms the eastern boundary to the Republic graben in Washington State and can be traced for over 100 kilometers northwards to the Union property. On the Union property, an north-northeast trending elongate body of Eocene syenite has been intruded along the Granby Fault.

Several other north trending, Eocene age faults are present on the property. The Gloucester Fault, along Gloucester Creek, places Eocene sediments against the Lucky Jack Averill intrusive and likely offsets the intrusive in a left-lateral sense. The Maple Leaf Fault, in the central part of the property, separates the older rocks to the east from Eocene sediments and volcanics to the west and truncates (and displaces?) the Union vein.

Ten main areas of mineralization are known on the Union property, as shown on Figure 3. These areas are discussed briefly below. Further details regarding many of these zones of mineralization are included in earlier reports by the author (Caron, 2004a, 2005a). A further zone of known mineralization, the Gloucester, is situated in the extreme northwestern portion of the property, on the Al #1 or Al #2 claim, which is not shown on Figure 3 but is described below.

#### Union Mine Minfile 082ENE003

The Union Mine, the only significant past-producing mine in the Franklin Camp, is located in the central part of the Union property. A total of 122,555 tonnes was mined from the Union Mine, primarily during the 1930's, returning an average grade of 14.1 g/t Au and 353.4 g/t Ag.

The Union vein is variably a massive white to grey to grey-green coloured, intensely silicified fissure zone with "assay walls" (and without well defined contacts) and a well developed, strongly brecciated, quartz fissure vein. It is hosted within Franklin Group volcanics and sediments. Changes in vein character have been attributed to wall rock conditions. The sulfide content within the quartz/silicified zone is generally less than 5%, with sulfides consisting of pyrite, galena, sphalerite and minor chalcopyrite. Higher gold values are typically associated with higher sulfide content; free gold (and spectacular gold values) occurs locally and is commonly associated with coarse crystalline galena. A general metal zonation is noted, with the Au:Ag ratio (and gold grade) higher in the western portion of the system, with a higher silver grade and lower Au:Ag ratio in the eastern part of the vein, and with both gold and silver grades dropping off abruptly at depth.

The vein exhibits some characteristics consistent with epithermal style mineralization, including the broad silicified zones, the quartz-carbonate association, low sulfide content, strong vertical control to gold mineralization and a geochemical signature of Au:Ag:Cu:Pb:Zn:Hg:Se:Te. Mineralization appears to predate the deposition of Eocene sediments and volcanics. This may be a Jurassic system, related to the intrusion of the Averill Intrusive Complex (as suggested by lead isotope analysis of galena from similar style mineralization at the Homestake mine (Caron, 2004a)).

Numerous post-vein faults complexly offset and displace the Union vein into several discrete vein segments, with each segment trending approximately 270-290°/75-90°N. It appears that some late stage

(Eocene?) enrichment of the vein has occurred along the offsetting faults, as the better grades are typically situated adjacent to post-vein faults. The vein has been explored and developed underground by 4 levels (and by an intermediate level). Historically it was mined, in three discrete faulted segments, over a width of 1.5 - 7.5 meters, over a cumulate strike length of about 410 meters and over a vertical range of about 160 meters. From east to west, the three known vein segments are: the Union vein/Open Stope segment, the Iron Stope-Gold Stope segment and the Schulz Stope segment.

The Schulz vein segment is truncated on the west by the Maple Leaf fault, a north trending, moderate west dipping normal fault that places (on surface and down to a level near the No. 1 Level in the Union Mine) Eocene Kettle River sediments to the west against the older Franklin Group rocks to the east. The Maple Leaf fault varies in thickness from less than 1 meter, to greater than 15 meters, and is youngest of the faults which displace the vein.

A significant amount of drilling has been done to test the 3 known segments of Union vein, in an attempt to extend mineralization beyond the stoped areas, with only limited success. The main exploration potential of the Union vein is in locating the western faulted offset segment of the vein, west of the Maple Leaf fault and under the Eocene sediments. This is an attractive target in light of the metal zonation in the vein that suggests higher gold grades in the western part of the vein system. Four drill holes were drilled during 2004 explore for the western faulted offset of the vein. Drilling was successful in intersecting a zone of intense silicification/veining, sparsely mineralized with pyrite, which is visually similar to portions of the Union vein exposed in old workings east of the Maple Leaf fault. Gold and silver values were only slightly elevated within the zone, however, to 135 ppb Au and 3.7 ppm Ag (Caron, 2005a). Further drilling is needed to test this target.

### Maple Leaf Minfile 082ENE009

Two separate and geologically distinct zones of mineralization (the Maple Leaf zone and the Maple Leaf Crush zone) occur in the Maple Leaf area. The Maple Leaf showing, situated near the southern contact of a large body of Averill intrusive rocks with strongly hornfelsed sediments and volcanics of the Franklin Group, refers to the known Cu-PGE showings. Disseminated and massive poddy chalcopyrite, with associated (erratic) platinum and palladium mineralization, occurs in the coarse grained trachytic Averill syenite, along a northwest trending, steep west dipping shear zone. This area has been explored by an open cut and an adit, plus 10 diamond drill holes. A total of 36 tonnes averaging 7.6% Cu, 1.7 g/t Au and 172 g/t Ag was produced from the Maple Leaf zone in 1915-16. Elevated copper values (1000 - 5000 ppm) are common in rock chip samples and drill core from the Maple Leaf showing, however mineralized zones tend to be narrow (1-2 meters) and discontinuous. Anomalous platinum and palladium values are extremely erratic and associated only with very narrow zones of high grade copper mineralization. Drilling returned a maximum of 6.8 g/t Pt and 4.8 g/t Pd with 15.24% Cu, over 0.3 meters, very near surface in ddh 65-1.

The second area of mineralization, the Maple Leaf Crush zone, is located approximately 250 meters to the north of the Maple Leaf showing, is a strong west-northwest trending, steeply north dipping fault zone. A strong gold soil anomaly was detected in the vicinity of the Maple Leaf Crush zone, by a wide spaced geochemical survey by Placer Dome in 1987 (Pinsent and Cannon, 1988). Excavator trenching during 2004 uncovered a zone, approximately 15 meters wide, with bleached, brecciated, chlorite-clay (+/-hematite) altered intermediate dykes cutting hematitic Averill syenite. Gold values are elevated within the altered dykes, to 510 ppb Au, with local higher values associated with narrow structures or veins. Copper and silver are also locally elevated, to 919 ppm Cu and to 8.7 g/t Ag. Previous drill intercepts include 0.5 m grading 25.9 g/t Au (ddh 86-7) and 3.0 m grading 6.8 g/t Au (ddh 86-16) from local zones of silicification/quartz veining. A single drill hole was drilled in 2004 to test the zone at depth, but returned no significant values (Caron, 2005a).

#### Homestake area Minfile 082ENE050, 051, 063, 066

Numerous old workings are located on and in the immediate vicinity of the Homestake and Deadwood crown grants. The most significant of these, in terms of past development, is the Homestake Mine. During the period 1940-41, approximately 453 tonnes was produced from the Homestake at an average grade of 15.3 g/t Au and 30 g/t Ag. Since this time, a number of very high gold values (to as much as 17.5 oz/t Au) have been reported from grab samples from the dump. The old workings are flooded and little can be seen as to the nature of mineralization, apart from scattered (well picked through) samples of ore left on the shaft dump. The ore is intensely silicified calcareous Franklin sediments, very similar to that from the Union Mine (and from the Banner and North Banner showings), with small pods and disseminations of fine grained pyrite, galena and sphalerite. Underground mapping and sampling by Hecla in the 1930's showed that the mineralized zone trended about  $320^{\circ}/50^{\circ}$ N. Mineralization is reported to have been strongly disrupted by faulting, with none of the ore shoots exceeding 4.5 meters in length. Drilling by Hecla (in 1933) and by Sway Resources (in 1993) failed to locate the Homestake zone at depth.

Numerous old pits and trenches test zones of silicification, veining, brecciation and sulfide mineralization within Franklin sediments in the vicinity of the Homestake shaft. These include the North Homestake, North Banner, Aldie, Laura, Deadwood, and North Deadwood showings. Select samples from these areas have similarly returned very high gold values (to in excess of 10 oz/t Au) but work to date has failed to trace mineralization for any significant distance on strike or to depth. Details of each of these showings are contained in Caron (2004a).

#### Banner area Minfile 082ENE 002, 013, 042

Prior to the 2003, the surface exposure of the Banner vein consisted of a water filled shaft (the Banner shaft), one short blasted trench across the shaft dump, and an outcrop on an old road just below the shaft dump. No vein contacts were exposed, and the orientation of the vein was unclear. An adit with a caved portal had been dug to test the vein below the shaft, and 3 drill holes were drilled on the vein in 1969.

During 2003, a very large and impressive looking trench was dug adjacent to the Banner shaft. The Banner zone is best described as an intensely silicified zone, rather than a true vein. It is conformable with bedding, trending  $280-300^{\circ}/30-35^{\circ}N$  and is hosted within Franklin Group conglomerate and fine grained siltstone. Contacts are gradational, where not disrupted by later faulting. The Banner vein is similar in appearance to the Homestake and Union veins, consisting of intensely silicified calcareous Franklin sediments, locally resembling a massive quartz-carbonate vein. It is weakly mineralized with poddy sphalerite, galena and chalcopyrite and, on surface, has weak malachite and manganese staining. Locally the sulfide content ranges up to 5 or 10%, but is typically much less than this. Narrow massive galena veins occur within the silicified zone. Better gold grades correlate with higher sulfide concentrations.

The Banner vein has a true thickness ranging up to 11 meters near surface, but pinches out rapidly at depth. Drilling and trenching failed to trace vein on strike to the east. Intermittent outcrops, float and old workings on similar silicified material continue for approximately 250 meters on strike to the northwest.

A weighted average grade for the Banner vein, on surface in Trench 03-12, is 1.4 g/t Au, 35.3 g/t Ag, 0.3% Cu, 1.3% Pb and 1.5% Zn over an 11 meter true width. Eight drill holes were drilled during 2003 to test the vein at depth. The best results from drilling was 4 meters grading 2.35 g/t Au, 19.25 g/t Ag, 0.23% Cu, 0.65% Pb and 3.16% Zn in drill hole FR03-5 (Caron, 2004a).

Numerous other pits and short adits occur nearby, including the Bullion showing to the east of the Banner shaft, and the Jimmy zone several hundred meters to the northwest. A narrow vuggy quartz vein with poddy fine pyrite and with minor sphalerite and galena occurs at the Bullion showing. Previous workers have reported values to 0.65 oz/t Au from select grabs of the vein material from the Bullion pits. Mineralization at the Jimmy zone consists of poddy galena and sphalerite within quartz veins. Gold values

are low. Two drill holes tested the zone in 1987 without significant results (Pinsent and Cannon, 1988; Caron, 2004a).

### White Bear Minfile 082ENE057

A shaft and several pits have been dug about 200 meters east of the Gloucester road in the northeastern part of the Union property. The workings test pyritic Franklin Group greenstone, with local malachite staining, near the contact of the Franklin Group rocks with Averill syenite. Grab samples from the White Bear pits have returned elevated copper and silver values, to 0.58% Cu and 8.9 g/t Au (Caron, 2004a).

A north trending zone of silicification and vuggy quartz breccia occurs about 50 meters uphill and to the east of the White Bear shaft. The zone of silicification is hosted within arkosic sediments of the Eocene Kettle River Formation and is located about 1 kilometer on-strike to the north of the BX zone (described below). Three trenches were dug during the 2004 program to better expose the White Bear epithermal system for sampling. Trenching uncovered a 2.5 meter wide silicified/quartz breccia zone, and a series of north trending, steeply dipping faults, with associated widespread, pervasive strong argillic alteration, within the Eocene sediments. Narrow vuggy quartz veinlets occur locally within the argillic altered zones. Gold is elevated within the silicified zone, to a maximum of 320 ppb Au from samples collected from the 2004 trenches. A single diamond drill hole was drilled in 2004 to test the zone at depth. The hole intersected a series of narrow quartz veins and zones of argillic alteration, intermittently over a total zone width of about 50 meters, however there were no elevated values in gold or silver across the zone (Caron, 2005a).

A major north trending fault zone roughly follows Gloucester Creek in the central part of the Union property and is marked by a zone of low apparent resistivity. A strong, north-trending EM conductor was defined in the northern portion of the resistivity low, just east of Gloucester Creek and about 250 hundred meters west of the White Bear showing. The conductor was tested by drilling during the 2004 program and was attributed to graphitic Eocene sediments.

#### Lucky Jack Minfile 082ENE056

The Lucky Jack showing is a "Black Lead" type Cu-PGE occurrence. Historic workings consist of a short drift and a small shaft, located 60 meters to the east of the drift which test chalcopyrite-pyrite mineralization in Averill pyroxenite. Three samples collected from the Luck Jack claim in 1918 returned anomalous platinum, to 2.74 g/t Pt (Thomlinson, 1920). Rock samples from this area have returned values to 3158 ppm Cu (Cunningham and Hajek, 1981) but 3 holes drilled in 1986 returned no significant results (Clark, 1987a,b).

Several old pits and trenches are also reported within Averill intrusive rocks, about 500 meters to the northeast of the main Lucky Jack workings. Rock samples from this area are elevated in copper, to 2420 ppb Cu, but without associated elevated platinum or palladium values (Pinsent and Cannon, 1988). A single station 430 ppb Au soil anomaly was identified by Placer's 1987 soil survey (40 meter sample spacing on 100 meter spaced north-south lines) a short distance east of these pits.

### **BX Zone**

Epithermal style vuggy quartz breccia veining occurs along the Gloucester road, approximately 0.8 kilometers north of the bridge. The zone of veining trends north-south and is hosted in a carbonate altered intrusive. The BX zone is situated approximately 1 kilometer on-strike to the south of the quartz breccia zone at the White Bear and may be the on-strike continuation of the same zone. Rock samples from the BX zone collected during 2003 did not return any significant results (Caron, 2004a). Several single station gold soil anomalies (to 250 ppb Au) were detected in this area by a 1987 Placer Dome geochemical survey, however soil samples were collected at a 40 meter sample spacing on north-south oriented lines spaced 100 meters apart, and are not a good test for relatively narrow north-south trending mineralized zones.

### Dane

The Dane showing is situated approximately 300 meters east of the Burrell Creek road and 1.1 kilometers southeast of the Union Mine, as shown on Figure 3. A series of pits, shallow shafts and a short adit test an irregular east-west trending, near vertical shear zone that cuts dirty limestone, siliceous tuff and quartzite of the Franklin Group (Cunningham and Hajek, 1981). The shear zone is mineralized with minor pyrite and chalcopyrite A sample of semi-massive chalcopyrite from the dump of an old shaft, collected during the 2006 program, returned 2.16 g/t Au, 162.0 g/t Ag and 5.74% Cu.

### Little Minfile 082ENE004

The Little showing is located 700 meters east of the Burrell Creek road and at an elevation of about 1100 meters, in the southeastern portion of the Union property. Drysdale (1915) describes the showing as a Union-style crustiform quartz-calcite-siderite fissure vein with a very low sulfide content. Several small pits and an adit test the vein, which is hosted in silicified and locally hornfelsed Franklin Group sediments and volcaniclastics, near the contact with Nelson granodiorite and is up to 0.5 meters in width. Sampling during the 2006 program did not return any significant values. Narrow drusy epithermal quartz veins were discovered in subcrop nearby (similar to the BX and White Bear showings), which returned up to 1.82 g/t Au.

### **Crystal Copper and MS**

The Crystal Copper and MS showings are contact metasomatic (skarn) zones near the contact of Nelson granodiorite with epidote-chlorite altered volcanics of the older Franklin Group. An short adit and old pit are situated just west of the old Union mine road, on the Al #8 claim. The workings test magnetite-pyrrhotite-pyrite mineralization within Franklin Group volcanics. Rock samples from this area returned values to 2872 ppm Cu, and to 27.9 g/t Ag and 1.9 g/t Au (Caron, 2004a). A short distance southwest of these workings, the hillside is riddled with old pits testing an area of propylitic Franklin Group volcanics, but no significant results are reported. The host rocks and style of mineralization have some similarity to mineralization in the IXL area.

### Gloucester Minfile 082ENE005

The sheared contact between large granodiorite intrusive in the northern part of the Union property, with Franklin Group sediments and volcanics to the south, is locally mineralized. On the current Al #1 or #2 claim, it has been tested by a shaft and by several short adits and trenches at the Gloucester and nearby GH showings. The shear zone is reported to trend southeast, and is steeply dipping. It varies in width from several centimeters to several meters and is locally mineralized with magnetite, pyrite, chalcopyrite and lesser sphalerite and molybdenite (Malott, 1987). In 1920, the provincial government reportedly drilled 8 diamond drill holes at the showing, the results of which are unknown. Apart from minor more recent rock sampling (with results to 9.5% Cu, 2.9 g/t Au and 64 g/t Ag from select grabs), there has not been any modern work at this showing.

### 5.0 **PROSPECTING & ROCK SAMPLING**

A small prospecting and rock sampling program was completed on the Union property during early November 2006. The mandate of the program was to locate and assess the Little and Dane showings, in the eastern part of the property, which are documented in the historic literature but have had little or no modern exploration.

Prospecting and rock sampling was carried out by John Boutwell, Alfi Elden and Terry Pidwerbeski. A total of 42 rock samples were collected. Sample descriptions are contained in Appendix 1 and sample locations are shown on Figure 4.

Samples were shipped to Eco Tech Labs in Kamloops for analysis for Au plus a multi-element ICP suite. Assays were done for samples returning over-limit values of Au, Cu, or Zn. Complete analytical results are included in Appendix 2, and results for select elements are shown on Figure 4. Details of the analytical procedures are contained in Appendix 3.

Sample	Au	Ag	As	Cu	Pb	Zn
-	ppb or g/t	ppm	ppm	ppm or %	ppm	ppm or %
1072	80	2.7	285	12	10	30
1074	10	1.4	25	367	18	1.34 %
1493	2.16 g/t	162.0	<5	5.74 %	<2	317
1494	270	2.2	10	1390	4	32
1500	1.82 g/t	1.9	5	8	18	7

Significant results from the 2006 rock sampling program are listed below in Table 2.

## Table 2 - Rock Sample Results

Sample 1072 was a float sample from the T-bone area, north of the Dane showing, with vuggy quartz veining in limonitic pyritic Franklin sediments. It was weakly elevated in gold and arsenic.

Sample 1074 was a sample of Franklin limey conglomerate, from outcrop, which assayed 1.34% Zn. This new area of mineralization in outcrop occurs mid-way between the Little and Dane showings and is similar to the Jack showing on the adjoining IXL property. It requires follow-up to assess its significance.

Samples 1493 and 1494 were from the Dane showing, where a series of old workings test an irregular, near vertical shear zone, up to 0.7 meters wide, that cuts dirty limestone, siliceous tuff and quartzite of the Franklin Group. The shear zone is locally mineralized with minor pyrite and chalcopyrite Sample 1493 was a select grab of semi-massive chalcopyrite from the dump of an old shaft, and returned 2.16 g/t Au, 162.0 g/t Ag and 5.74% Cu. Sample 1494 was a sample of weakly pyritic, siliceous, limey sediment from the dump of another old digging and returned 270 ppb Au and 1390 ppm Cu. The Dane showing is untested by any recent trenching or drilling and requires further work.

Finally, sample 1500 was a grab sample of a narrow drusy quartz breccia vein in calcareous Franklin sediments, collected from subcrop approximately 200 meters northwest of the Little showing. The veining is typical of the late stage epithermal veins seen further north, at the BX and White Bear showings. It returned 1.82 g/t Au, was a new discovery in 2006, and similarly requires further work.

### 6.0 CONCLUSIONS & RECOMMENDATIONS

The 2006 exploration program was successful in locating the Dane and Little showings, which were documented in the historic literature but were untested by any recent work. The program was also successful at discovering a new occurrence of epithermal quartz veining with elevated gold in subcrop and an occurrence of zinc mineralization in Franklin group limey conglomerate. Further work is required to assess these areas. Prospecting is also recommended to explore the Granby River fault zone, particularly where it passes through Franklin Group rocks. Numerous other showings on the property that are known from previous work, also require further testing.

### 7.0 STATEMENT OF QUALIFICATIONS

I, Linda J. Caron, certify that:

- 1. I am an independent consulting geologist residing at 717 75th Ave (Box 2493), Grand Forks, B.C., V0H 1H0
- 2. I obtained a B.A.Sc. in Geological Engineering (Honours) in the Mineral Exploration Option, from the University of British Columbia (1985) and graduated with an M.Sc. in Geology and Geophysics from the University of Calgary (1988).
- 3. I have practised my profession since 1987 and have worked in the mineral exploration industry since 1980. Since 1989, I have done extensive geological work in Southern B.C. and particularly in the Greenwood Grand Forks area, both for exploration companies and as an independent consultant.
- 4. I am a member in good standing with the Association of Professional Engineers and Geoscientists of B.C. with professional engineer status.
- 5. I have worked on the Union property on numerous occasions since 2002, for previous operators. I supervised the 2006 exploration program described in this report.
- 6. I have no direct or indirect interest in the property described herein, or in the securities of Yankee Hat Minerals Ltd., nor do I expect to receive any.

J. CARON

Linda Caron

Linda Caron, M.Sc., P. Eng.

600 CCCCC

January 15, 2007

Date

#### 8.0 COSTSTATEMENT

Labour
--------

\$ \$	954.00 1,050.00
\$	
	1,050.00
	1,050.00
<i>•</i>	
<i>•</i>	
\$	875.00
\$	750.00
\$	3,629.00
\$	1,051.21
\$ \$ \$ \$ \$ \$ \$	123.01 450.00 54.50 96.30 <u>36.00</u> 759.81
	\$ \$ \$ \$ \$

Total: \$ 5,440.02

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# **APPENDIX 1**

Rock Sample Descriptions

# Union Property - 2006 Rock Samples

Sample	Date	Easting	Northing	Туре	Sampler	Area	Description	Au	Ag	As	Cu	Pb	Zn
		UTM Nad	83, Zone 11					ppb or g/t	ppm	ppm	ppm or %	ppm	ppm or %
1066	6-Nov-06	402887	5489627	grab	TP	Dane	Silicified alteration, calcite veining with diss py. Shallow adit at 45 degrees, part of ridgetop O/C, old showing.	10	0.3	15	26	6	7
1067	6-Nov-06	403017	5489753	grab	TP	Dane	Vertical adit 1.5 m deep, silicified greenstone volcanics with py & calcite veining.	5	<0.2	<5	80	10	49
1068	6-Nov-06	403187	5489505	grab	TP	Dane	Large O/C 15m x 10m high. Limonitic, silicified volcanic alt, with py.	5	<0.2	<5	207	10	110
1069	7-Nov-06	402799	5489047	grab	TP	Little	Small qtz vein 10 cm cutting a 20 m granodiorite O/C. Chloritic alteration with cpy, py & trace amounts of spec hematite S-10 D-20	5	0.5	<5	134	4	16
1070	7-Nov-06	403268	5489171	float	TP	Little	Silicified limestone alteration with py.	10	< 0.2	45	124	18	80
1071	8-Nov-06	403035	5490215	grab	TP	T-Bone	Franklin sediments, calcified. Limonitic with py veins, minor po. O/C mound 6 m long.	35	< 0.2	10		10	32
1072	8-Nov-06	403070	5490090	grab	TP	T-Bone	Boulder float, limonitic, vuggy, alteration with qtz, x-veining, containing grey sulfides & py crystals. Dogtooth qtz, crystal infilling.	80	2.7	285	12	10	30
1073	8-Nov-06	403350	5489639	grab	TP	T-Bone	Franklin sediments, vuggy, limonitic, chloritic alteration with py. Calcite veins. Boulder float near top of clearcut. Similar float in area.	20	0.3	15	239	6	21
1074	8-Nov-06	403120	5489385	grab	TP	Little	Limonitic, vuggy alteration with qtz & calcite veins & grey sulfides. Possible site of old diggings. Franklin Group limey conglomerate.	10	1.4	25	367	18	1.34 %
1075	8-Nov-06	402815	5489918	grab	TP	Dane	Chloritic alteration with mag & py (diss) & calcite. 5 m O/C, 15 m from the road.	<5	<0.2	<5	93	10	70
1215	6-Nov-06	402816	5489744	grab	AE	Dane	O/C - rusty angular siliceous with minor py.	<5	< 0.2	40	57	8	51
1216	6-Nov-06	402815	5489697	grab	AE	Dane	Flt - strongly magnetic in parts of rock, slightly calcareous, green portions not magnetic.	60	0.2	<5	138	2	39
1217	6-Nov-06	403328	5488955	grab	AE	Little	From very soft veinlet of py & silica aprox 2-5 cm cutting through rusty angular sediments. Witness from silicified rock adjacent to veinlet.	10	0.6	5	96	8	20
1218	6-Nov-06	403277	5488900	float	AE	Little	Flt - can't locate in Franklin O/C it was sitting on. Drusy silica veinlet through Franklin sediment. No calcite.	<5	<0.2	10	26	14	51
1219	6-Nov-06	403234	5489005	grab	AE	Little	Qtz vein in place, strike 108 degrees, dip aprox 80 degrees NNE, 1/2 m wide. Vein sample.	<5	0.9	5	36	14	10
1220	6-Nov-06	403093	5489114	grab	AE	Little	Flt with well-developed crystals on some surfaces. Drusy silica in Franklin rocks. Silicified, limonite blisters. Lots of qtz flt downslope with qtz crystals. Some hematite.	5	0.4	<5	24	18	56
1221	7-Nov-06	402739	5489030	grab	AE	Little	O/C - granodiorite with silica veining & chlorite alteration. Very small random blebs of mag.	<5	<0.2	<5	4	10	61
1222	7-Nov-06	402740	5489026	grab	AE	Little	Subcrop - granodiorite texture not so visible. Hematite & limonite blebs and coatings. Abundant introduced silica.	<5	< 0.2	<5	6	12	26
1223	7-Nov-06	403272	5488637	grab	AE	Little	Qtz sample from dump of open-cut digging on qtz vein. Qtz very fractured and infilled with chlorite, some hematite, rarely mag. Strike of adjacent O/C aprox 120 degrees. Qtz vein not visible.	<5	<0.2	<5	3	10	98
1224	7-Nov-06	403272	5488637	grab	AE	Little	Same location as #1223. Sample from dump of O/C adjacent to qtz vein. Chloritic, some reaction to acid.	<5	<0.2	<5	6	14	73

# Union Property - 2006 Rock Samples

Sample	Date	Easting	Northing	Туре	Sampler	Area	Description	Au	Ag	As	Cu	Pb	Zn
		UTM Nad	83, Zone 11	L				ppb or g/t	ppm	ppm	ppm or %	ppm	ppm or %
1225	8-Nov-06	403275	5489937	grab	AE	T-Bone	O/C - Syenite with very fine drusy silica veinlets with powdered hematite or goethite amongst the crystals. Some of the syenite is magnetic throughout. Other syenite in O/C is not magnetic.	<5	<0.2	<5	9	16	38
1226	8-Nov-06	403492	5489955	float	AE	T-Bone	Limonite-weathered bldr. Very fractured. Part of sample is very oxidized drusy veinlet that cuts through bldr. Other portion is part silicified weakly calcareous with very fine silica veinlets bearing sulfide, probably py.	<5	<0.2	10	25	6	44
1227	8-Nov-06	403596	5489905	float	AE	T-Bone	Flt - drusy silica with sulfide, probably py. Goethite & hematite coatings. Original vein 5 cm+.	5	0.2	<5	14	4	14
1228	8-Nov-06	403636	5489858	grab	AE	T-Bone	O/C - Sample in syenites which are altered to clays. Very crumbly. On upper T-Bone Main FSR at contact between syenite and Franklin volcanics.	5	<0.2	<5	10	16	30
1229	8-Nov-06	403672	5489788	grab	AE	T-Bone	O/C - Intrusive syenite altered to clay. No witness. No visible silica or sulfide.	10	1.3	5	115	10	10
1230	8-Nov-06	403593	5489875	grab	AE	T-Bone	O/C - Drusy qtz vein in volcanics at curve in T-Bone Main FSR. A sulfide visible in drusy & plain qtz, probably py.	10	<0.2	<5	9	4	14
1231	8-Nov-06	403273	5490290	grab	AE	T-Bone	In ditch beside shortcut from Burrell FSR to T-Bone Main, alteration clay with limonite. Original rock bleached and pale.	10	< 0.2	<5	15	6	20
1232	8-Nov-06	403692	5490294	float	AE	T-Bone	Bldr flt at intersection of T-Bone shortcut with T-Bone Main FSR. Mostly silicified, disseminated irregular py, very minor fizz. Limonite weathering.		<0.2	15	17	16	81
1492	6-Nov-06	402783	5489710	grab	JB	Dane	Qtz-calcite epithermal vein, flt/subcrop. Group of three bldrs just 20 m off main road. Minor py.	<5	<0.2	<5	8	14	35
1493	6-Nov-06	402955	5489736	grab	JB	Dane	Old shaft. Qtz-calcite, py, cpy to 40% & malachite. Dump material.	2.16 g/t	162.0	<5	5.74 %	<2	317
1494	6-Nov-06	402972	5489736	grab	JB	Dane	Old digging. Partially silicified limey Franklin rocks or calcareous qtz vein. Slight resemblance to Union vein. Weak disseminated py. From dump. Appears to be ENE striking SE dipping, 0.7 m wide band silicification/veining. Minor cpy.	270	2.2	10	1390	4	32
1495	6-Nov-06	403294	5488866	grab	JB	Little	Chips from "gopher hole". Minor py in limonitic Franklin sediments. Hornfelsed in places.	10	0.3	25	116	28	60
1496	7-Nov-06	403132	5488846	grab	JB	Little	Epithermal-looking vein may be in place. It occurs on a gentle slope, but continued digging just brings up more vein. Drusy crystalline qtz, slightly chalcedonic, colliform bands. Estimate vein up to 40 cm wide. Minor coarse py. Limonitic host shows minor "bleaching".	5	0.3	<5	17	12	14
1497	7-Nov-06	403333	5488997	grab	JB	Little	Subcrop - Py in Franklin sediments on fractures, disseminated and in 1 mm stringers.	5	0.2	<5	17	12	14
1498	7-Nov-06	403324	5489024	grab	JB	Little	Caved-in adit just north of #1497 sample location. Py on fractures and in small stringers. Franklin sediments. Somewhat hornfelsed.	10	0.4	20	126	24	40
1499	7-Nov-06	403260	5489055	grab	JB	Little`	Crumbly Franklin sediments 1 mm "crumbly" qtz veinlets. Limonitic. Minor py. From old "gopher hole".	20	0.7	40	117	18	34
1500	7-Nov-08	403084	5489110	grab	JB	Little	7 cm drusy qtz very crystalline vein in calcareous Franklin sediments. Subcrop.	1.82 g/t	1.9	5	8	18	7

# Union Property - 2006 Rock Samples

Sample	Date	Easting	Northing	Туре	Sampler	Area	Description	Au	Ag	As	Cu	Pb	Zn
		UTM Nad	83, Zone 11					ppb or g/t	ppm	ppm	ppm or %	ppm	ppm or %
1501	8-Nov-06	403038	5489737	grab	JB	Dane	Franklin sediment O/C is infused with qtz veinlets & "blobs" of	30	0.3	10	41	2	25
							white qtz over a 1.5 to 2 m width. Minor limonite & coarse py.						
							Very minor alteration associated with qtz.						
1502	8-Nov-06	403068	5489741	grab	JB	Dane	From "gopher hole". Minor qtz-py blebs/stringers in greenish	5	< 0.2	<5	38	8	35
							Franklin sediments. Minor limonite.						
1503	8-Nov-06	403068	5489700	grab	JB	Dane	5 cm band of qtz-calcite in Franklin sediments. Crumbly. Possibly	5	< 0.2	10	11	6	17
							"albitized" band. No sulfides. Hard, but reacts to acid. Creamy-						
							coloured.						
1504	8-Nov-06	403075	5439702	grab	JB	Dane	Similar to O/C of #1503. Qtz-calcite-albite?	5	< 0.2	<5	28	6	11
1505	8_nov-06	403133	5489655	grab	JB	Dane	Flt/subcrop. Very angular. Host same as local O/C. 2 mm drusy qtz	5	< 0.2	5	20	16	26
							stringers in crumbly friable Franklin sediments. No alteration.						

# **APPENDIX 2**

Analytical Results - Rock Samples

21-Nov-06

#### ECO TECH LABORATORY LTD.

10041 Dallas Drive KAMLOOPS, B.C.

V2C 6T4

Phone: 250-573-5700 Fax : 250-573-4557

ICP CERTIFICATE OF ANALYSIS AK 2006-1943

#### YANKEE HAT MINERALS LIMITED

Suite 1601-700 West Pender Street Vancouver, BC V6C 1G8

#### **ATTENTION: Donald Gee**

No. of samples received: 42 Sample Type: Rock Project: Union Submitted by: L. Caron

Values in ppm unless otherwise reported

Et #.	Tag #	Au(ppb)	Ag Al%	As	Ва	Bi	Ca %	Cd	Co	Cr	Cu	Fe %	La	Mg %	Mn	Mo Na %	6 Ni	Р	Pb	Sb	Sn	Sr	Ti %	U	v	w	Y	Zn
1	1066	10	0.3 0.11	15	130	<5	0.42	<1	5	68	26	0.76	<10	0.03	80	17 <0.0	11	150	6	<5	<20	18	<0.01	<10	5	<10	3	7
2	1067	5	<0.2 1.53	<5	80	<5	3.82	<1	16	39	80	2.73	<10	1.45	825	4 0.0	5 17	790	10	5	<20	101	0.08	<10	103	<10	11	49
3	1068	5	<0.2 1.27	<5	40	<5	0.69	2	23	36	207	4.21	<10	0.90	414	<1 0.1	3 13	940	10	<5	<20	30	0.11	<10	128	<10	7	110
4	1069	5	0.5 0.28	<5	25	<5	0.03	<1	7	103	134	1.13	<10	0.16	214	5 0.0	2 4	50	4	<5	<20	<1	<0.01	<10	12	<10	<1	16
5	1070	10	<0.2 2.55	45	55	<5	2.13	<1	18	74	124	4.54	<10	2.12	992	4 0.1	4 36	1020	18	<5	<20	74	0.02	<10	189	<10	8	80
6	1071	35	<0.2 1.17	10	110	<5	1.23	<1	13	65	131	2.79	<10	0.88	630	<1 0.1	2 31	1060	10	<5	<20	31	0.10	<10	132	<10	18	32
7	1072	80	2.7 0.11	285	80	5	0.06	<1	3	94	12	3.18	<10	<0.01	152	42 <0.0	I 5	190	10	<5	<20	5	<0.01	<10	10	<10	<1	30
8	1073	20	0.3 0.79	15	120	<5	0.09	<1	10	36	239	5.79	<10	0.30	87	6 0.0	2 1	610	6	<5	<20	17	<0.01	<10	33	<10	<1	21
9	1074	10	1.4 0.49	25	40	<5	6.75	74	8	63	367	1.74	<10	0.31	1343	<1 0.0	3 17	500	18	<5	<20	53	0.05	<10	27	<10	4 >	>10000
10	1075	<5	<0.2 1.28	<5	95	<5	2.19	<1	20	74	93	4.04	<10	1.62	815	<1 0.0	9 20	1560	10	<5	<20	98	0.11	<10	201	<10	10	70
11	1215	<5	<0.2 1.22	40			0.24		8	75		3.12		1.09	303	7 0.0		580	8	<5	<20		0.08					51
12	1216	60	0.2 0.85	<5	40	<5	>10	<1	13	25	138	9.41	<10	0.31	4119	14 0.0	26	770	2	<5	<20	464	0.03	<10	302	<10	<1	39
13	1217	10	0.6 0.88	5	65		0.69		12	75	96	4.32	<10	0.49	439	<1 0.0	-	470	8	<5	<20	21	0.09	<10	75	<10	5	20
14	1218	<5	<0.2 1.37	10	230	5	0.29	<1	17	49	26	3.39	<10	0.64	399	4 <0.0	8 1	1120	14	<5	<20	11	<0.01	<10	84	<10	<1	51
15	1219	<5	0.9 0.17	5	60	<5	0.04	<1	6	88	36	1.49	<10	0.06	148	5 <0.0	I 5	140	14	<5	<20	3	<0.01	<10	12	<10	<1	10
16	1220	5	0.4 0.16	<5	-	-	0.07		-	103		2.14			147	22 <0.0	-		-	-	<20	-	<0.01	-	-	<10	<1	56
17	1221	<5	<0.2 0.73	<5	60	-				79		1.68	-	0.52		<1 0.0	-		10	-	<20	-	0.06	-		<10	9	61
18	1222	<5	<0.2 0.22	<5	25		0.02			60		0.49		0.09	268	1 0.0		30	12	-	<20		<0.01			<10	4	26
19	1223	<5	<0.2 0.24	<5	60	-	0.30		-	124	-	0.79	-	0.15		3 < 0.0		20	10	-	<20	-	<0.01	-	-	<10	2	98
20	1224	<5	<0.2 1.39	<5	95	<5	4.28	<1	6	66	6	2.35	<10	0.97	7535	<1 0.0	19	700	14	<5	<20	144	0.02	<10	43	<10	6	73
21	1225	<5	<0.2 0.60	~5	465	~5	0.18	-1	4	62	٩	2.24	40	0.36	678	9 0.0	46	780	16	-5	~20	22	<0.01	~10	24	<10	5	38
22	1226	<5	<0.2 0.00	-		-	2.40		19	-	-	6.76	-			6 < 0.0			-	-	-		< 0.01	-		<10	6	44
23	1227	5	0.2 0.06		175		0.02		3			3.21	<10	< 0.01	633	11 < 0.0		<10			<20		<0.01		-	<10	-	14
24	1228	5	<0.2 0.31	-	-		0.23		3	-		1.38	60	0.02	74	5 < 0.0		-		-	<20		<0.01			<10		30
25	1229	10	1.3 0.19		80		0.17		-	23		1.76			29	33 < 0.0	-	240			<20		<0.01		-	<10		10
20	1220	10	1.0 0.10	Ŭ	00	-0	0.17		-	20	110	1.10	10		20	00 00.0		2.10	10	-0	~20	20	\$0.01	10	10	10	-	10
26	1230	10	<0.2 0.02	<5	35	<5	0.01	<1	2	76	9	1.69	<10	<0.01	220	15 <0.0	I 4	<10	4	<5	<20	<1	<0.01	<10	4	<10	<1	14
27	1231	10	<0.2 0.30	<5	155	<5	0.34	<1	12	51	15	3.39	<10	0.02	706	13 0.0	13	920	6	<5	<20	16	<0.01	<10	20	<10	10	20
28	1232	10	<0.2 0.34	15	180	15	1.23	<1	11	15	17	4.35	<10	0.23	1163	49 0.0	32	910	16	<5	<20	35	<0.01	<10	37	<10	8	81
29	1492	<5	<0.2 0.22	<5	150	<5	1.86	<1	4	89	8	1.61	<10	0.15	804	23 <0.0	I 9	190	14	<5	<20	100	<0.01	<10	11	<10	6	35
30	1493	>1000	>30 0.65	<5	40	<5	0.61	3	10	30 >	10000	8.15	<10	0.47	317	7 0.0	2 14	>10000	<2	<5	<20	9	<0.01	<10	29	<10	<1	317

ECO TECH LABORATORY LTD.

ICP CERTIFICATE OF ANALYSIS AK 2006-1943

YANKEE HAT MINERALS LIMITED

Et #.	Tag #	Au(ppb)	Ag Al%	As	Ва	Bi	Ca %	Cd	Co	Cr	Cu	Fe %	La	Mg %	Mn	Мо	Na %	Ni	Р	Pb	Sb	Sn	Sr	Ti %	U	v	w	Y	Zn
31	1494	270	2.2 0.59	10	15	<5	3.58	<1	20	34	1390	3.13	<10	0.50	632	16	0.06	7	230	4	<5	<20	80	<0.01	<10	47	<10	5	32
32	1495	10	0.3 2.52	25	70	<5	0.36	<1	26	24	116	6.51	<10	1.78	1135	14	0.05	12	1200	28	<5	<20	19	<0.01	<10	127	<10	2	60
33	1496	5	0.3 0.06	<5	550	<5	1.07	<1	<1	52	17	1.34	<10	0.08	1497	11	<0.01	3	60	12	<5	<20	19	<0.01	<10	7	<10	8	14
34	1497	5	0.2 0.04	<5	520	<5	1.21	<1	<1	63	17	1.33	<10	0.10	1316	13	<0.01	3	30	12	<5	<20	20	<0.01	<10	6	<10	7	14
35	1498	10	0.4 2.42	20	70	<5	0.56	<1	23	26	126	6.44	<10	2.07	722	<1	0.09	9	1500	24	<5	<20	25	0.13	<10	234	<10	10	40
36	1499	20	0.7 1.33	40	85	<5	0.09	<1	26	47	117	6.61	<10	1.00	598	7	0.02	11	610	18	<5	<20	4	<0.01	<10	135	<10	<1	34
37	1500	>1000	1.9 0.08	5	50	<5	0.04	<1	3	113	8	1.10	<10	0.03	133	39	<0.01	6	50	18	<5	<20	2	<0.01	<10	7	<10	<1	7
38	1501	30	0.3 0.72	10	160	<5	1.90	<1	10	87	41	2.70	<10	0.65	591	4	0.03	11	390	2	<5	<20	48	<0.01	<10	50	<10	3	25
39	1502	5	<0.2 1.19	<5	90	10	0.41	<1	21	90	38		<10	1.10	531	6	0.03	24	800	8	<5	<20	14	<0.01	<10	51	<10	<1	35
40	1503	5	<0.2 0.41	10	40	<5	2.33	<1	3	48	11	0.79	30	0.29	411	<1	0.04	3	160	6	<5	<20	61	0.03	<10	28	<10	12	17
41	1504	5	<0.2 0.30	<5	15	<5	1.22	<1	2	30	28	0.63	10	0.16	402	4	0.05	6	60	6	<5	<20	19	<0.01	<10	10	<10	7	11
42	1505	5	<0.2 0.72	5	40	<5	0.31	<1	7	31	20	2.77	<10	0.30	1164	67	<0.01	14	550	16	<5	<20	6	<0.01	<10	21	<10	7	26
<u>QC DAT</u>																													
Repeat:	1066	10	0.3 0.11	15	145	<5	0.43	<1	5	70	26	0.78	~10	0.03	82	17	<0.01	11	150	6	<5	<20	20	<0.01	~10	5	<10	4	10
10	1000	<5	<0.2 1.30	<5	95	<5	2.24	<1	20	76		4.16		1.65	833	<1	0.09	21	1570	8		<20	102	0.12	<10	-	-		70
10	1223	<5 <5	<0.2 1.30	<5	65	<5	0.29	<1	-	128		0.82		0.15	1218		<0.03	4	20	8	-	<20	-	< 0.12	-		<10	-	97
36	1499	20	0.5 1.39	35	80	<5	0.09	<1	27	48	124	6.73		1.05	613		0.02	13	620	17		<20		<0.01			<10		33
Resplit:																													
1	1066	5	0.3 0.13	15		<5	0.47	<1	4	93	25			0.03	69		<0.01	11	150	8		<20		<0.01			<10		7
36	1499	20	0.7 1.28	35	85	<5	0.09	<1	23	47	111	6.57	<10	0.91	590	8	0.03	13	590	18	<5	<20	4	<0.01	<10	134	<10	<1	31
Standar	d:					_										~~		_			~ ~								
Pb106			>30 0.53		70	<5	1.69	32	4	43	6155			0.16	551	29	0.02	7	260 5			<20				13	10	<1	8301
Pb106			>30 0.51	275	75	<5	1.69	32	4	43	6275	1.66	<10	0.16	556	28	0.02	7	270 5	328	20	<20	138	<0.01	<10	13	10	<1	8397
OxE42 OxE42		600 615																											

ECO TECH LABORATORY LTD. Jutta Jealouse B.C. Certified Assayer

JJ/bp/kc ^{df/1942} XLS/06

# CERTIFICATE OF ASSAY AK 2006-1943

## YANKEE HAT MINERALS LIMITED

Suite 1601-700 West Pender Street Vancouver, BC V6C 1G8 22-Nov-06

## **ATTENTION: Donald Gee**

No. of samples received: 42 Sample Type: Rock **Project: Union** Submitted by: L. Caron

		Ag		Cu	Zn	
ET #.	Tag #	(g/t)	(oz/t)	(%)	(%)	
9	1074				1.34	
30	1493	162	4.724	5.74		
QC DATA	<u>:</u>					
Repeat:						
9	1074				1.33	
30	1493	163	4.754	5.77		
Standard	:					
Pb106		58.5	1.706	0.62	0.84	

**ECO TECH LABORATORY LTD.** Jutta Jealouse B.C. Certified Assayer

# CERTIFICATE OF ASSAY AK 2006- 1943

#### YANKEE HAT MINERALS LIMITED

4460 Atlee Avenue Burnaby, BC V5G 3R6

#### 21-Nov-06

### **ATTENTION: Donald Gee**

No. of samples received: 42 Sample Type: Rock **Project: Union** Submitted by: L. Caron

		Metallic	Assay	
		Au	Au	
ET #.	Tag #	(g/t)	(oz/t)	
30	1493	2.16	0.063	
37	1500	1.82	0.053	

### QC DATA:

Standard: OxH37

1.30 0.038

JJ/kc XLS/06 **ECO TECH LABORATORY LTD.** Jutta Jealouse B.C. Certified Assayer

# **APPENDIX 3**

Analytical Procedures

#### **Eco-Tech Labs Analytical Procedure**

#### SAMPLE PREPARATION

Samples are catalogued and dried. Soils are prepared by sieving through an 80 mesh screen to obtain a minus 80 mesh fraction. Samples unable to produce adequate minus 80 mesh material are screened at a coarser fraction. These samples are flagged with the relevant mesh. Rock samples are 2 stage crushed to minus 10 mesh and a 250 gram subsample is pulverized on a ring mill pulverizer to -140 mesh. The subsample is rolled, homogenized and bagged in a prenumbered bag.

#### QUALITY CONTROL STANDARDS AND CERTIFIED STANDARDS

Approximately 50 CanMet Certified reference material, WCM Minerals reference ores and Inhouse Standards are currently in use in our laboratory. Each batch of samples analysed will contain one standard of similar composition to monitor the analysis. If the result of the reference material falls within the accepted limits the results of the samples will be accepted. In case the results of the reference material falls outside the accepted limits the results of the samples are suspect and the analysis will be repeated.

#### GEO CHEMICAL GO LD ANALYSIS

The sample is weighed to 30 grams and fused along with proper fluxing materials. The resultant dore bead is parted and then digested in aqua regia and analyzed on a Perkin Elmer atomic absorption instrument. Over-range values for rocks are re-analyzed using gold assay methods.

Appropriate reference materials accompany the samples through the process allowing for quality control assessment. Results are entered and printed along with quality control data (repeats and standards). The data is faxed and/or mailed to the client.

#### BASE METAL ASSAYS (Ag,Cu,Pb,Zn)

Samples are catalogued and dried. Rock samples are 2 stage crushed followed by pulverizing a 250 gram subsample. The subsample is rolled and homogenized and bagged in a pre-numbered bag.

A suitable sample weight is digested with aqua regia. The sample is allowed to cool, bulked up to a suitable volume and analysed by an atomic absorption instrument, to .01 % detection limit.

Appropriate certified reference materials accompany the samples through the process providing accurate quality control. Result data is entered along with standards and repeat values and are faxed and/or mailed to the client.

#### MULTI ELEMENT ICP ANALYSIS

A 0.5 gram sample is digested with 3ml of a 3:1:2 (HCl:HN03:H20) which contains beryllium which acts as an internal standard for 90 minutes in a water bath at 95°C. The sample is then diluted to 10ml with water. The sample is analyzed on a Jarrell Ash ICP unit.

Results are collated by computer and are printed along with accompanying quality control data (repeats and standards). Results are printed on a laser printer and are faxed and/or mailed to the client.

	Detection Lim	nit		Detect	ion Lim	it
	Low	Upper	Low		Upper	
Ag	0.2ppm	30.0ppm		Fe	0.01%	10.00%
Al	0.01%	10.0%	La	10ppm	l	10,000ppm
As	5ppm	10,000ppm	Mg	0.01%		10.00%
Ва	5ppm	10,000ppm	Mn	1ppm		10,000ppm
Bi	5ppm	10,000ppm	Mo	1ppm		10,000ppm
Ca	0.01%	10,00%		Na	0.01%	10.00%
Cd	1ppm	10,000ppm	Ni	1ppm		10,000ppm
Co	1ppm	10,000ppm	Р	10ppm	l	10,000ppm
Cr	1ppm	10,000ppm	Pb	2ppm		10,000ppm
Cu	1ppm	10,000ppm	Sb	5ppm		10,000ppm
Sn	20ppm	10,000ppm				
Sr	1ppm	10,000ppm				
Ti	0.01%	10.00%				
U	10ppm	10,000ppm				
V	1ppm	10,000ppm				
Y	1ppm	10,000ppm				
Zn	1ppm	10,000ppm				

