ASSESSMENT REPORT
GEOLOGICAL AND SOIL GEOCHEMISTRY
WES 1, 2, 3, 8-14, WR 1-6 MINERAL CLAIMS

by

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WESTMIN RESOURCES LIMITED
(Claim Owner and Operator)

SIMILKAMEEN MINING DIVISION

WEST BLOCK: LATITUDE 49° 16' N, LONGITUDE 120° 37' W
NTS 92H/7

EAST BLOCK: LATITUDE 49° 18' N, LONGITUDE 120° 27' W
NTS 92H/8

NOVEMBER 27, 1991

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FIGURE 1: Geologic Cross-Section, North End, West Claims

FIGURE 2: Geologic Cross-Section, Line 5600N, West Claims

PRINCETON PROJECT

ASSESSMENT REPORT

1.0 INTRODUCTION

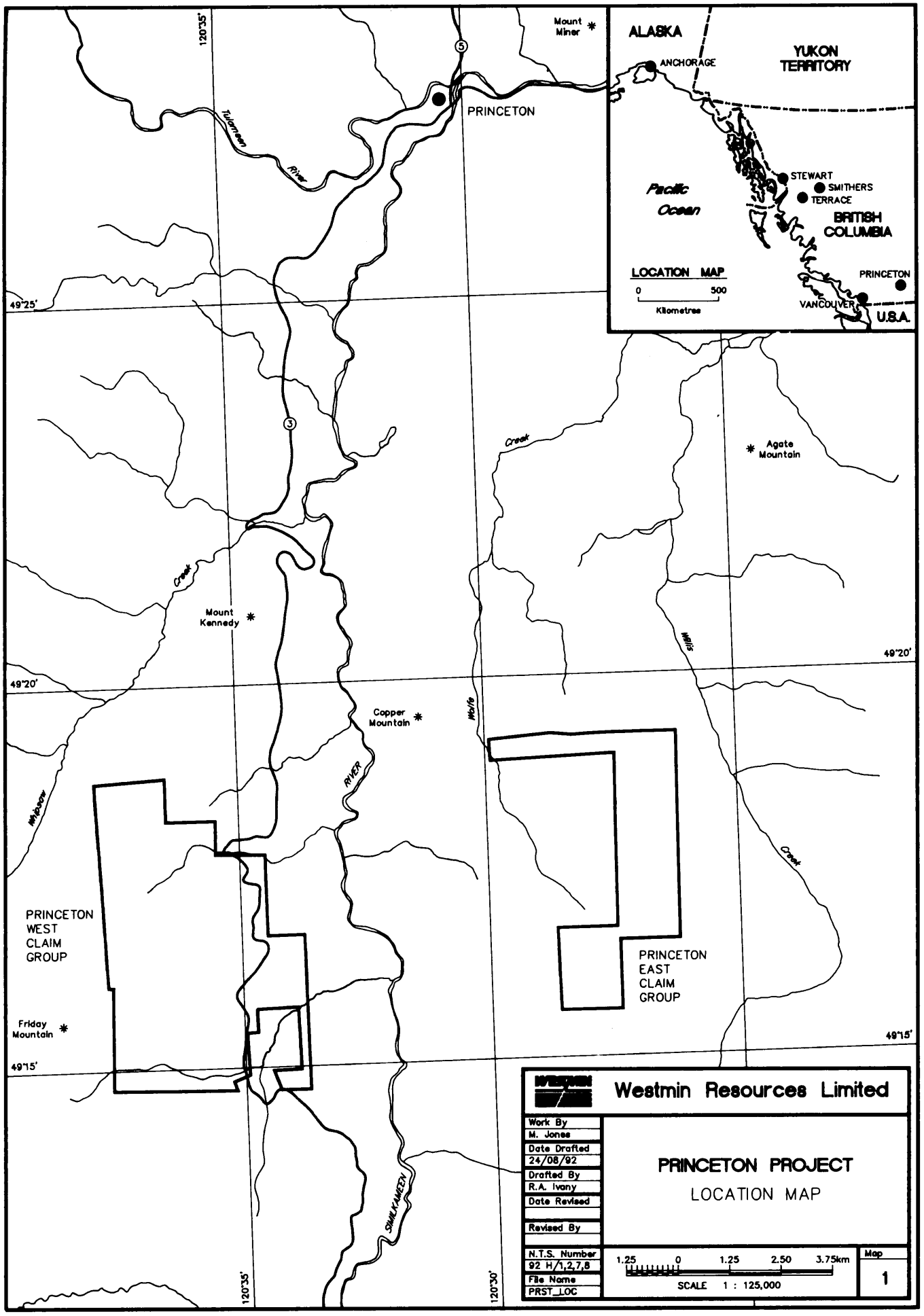
During the period of August 6 to 30, 1991, geological and rock, soil and stream sediment geochemical surveys were conducted on three claim groups in the Copper Mountain area south of Princeton, B.C. One group (Prince 1) is situated east of the Similkameen River and is referred to herein as the East claims. The other groups (Prince 2 and Prince 3) are contiguous and are located west of the Similkameen River and are referred to herein as the West claims. The purpose of the surveys was to test for Cu-Au mineralization similar to the nearby Copper Mountain and Ingerbelle deposits.

Geological mapping of both reconnaissance and grid style was done on all claim groups. This included minor rock (6 samples) and stream sediment (22 samples) sampling for chemical analysis. Soil sample grids were established in four areas in the claim groups. Sample density on these grids are dependent on preliminary geological interpretation and so varies from area to area. Preparation for these grids included flagged and blazed baselines in the bush (see Map 3). Soil lines were run perpendicular to these baselines using compass bearings and distances were measured using hip chains. A total of 336 soil samples have been submitted for analysis.

The field program was conducted by Murray Jones and supervised by Paul Wojdak. Jones wrote the bulk of this report, additions were made by Wojdak.

2.0 LOCATION, ACCESS AND TOPOGRAPHY

The Princeton Project is located in the Similkameen Mining District (Map 1). The northwest corner of the East claims is approximately 18.5 km south of Princeton, B.C. It stretches, in a backwards C shape, 7 km south and 4.5 km east from that point. The backwards C shape wraps around the TAS claim group, held by G. Crooker of Keremeos, B.C. Access to the west part of the East claims is south from Princeton along the Copper Mountain road and the Wolfe Creek FSR (Forest Service Road). The east side of the East claims is accessible from the Copper Mountain road by the Willis Creek FSR and subsequent subsidiary logging roads. The north boundary of the West claims is located 25 km south-southwest of Princeton, and the claims are easily accessible by Highway 3 which passes through the east portion of the group. The property covers an area about 7.5 km


Mount Miner
ALASKA
YUKON TERRITORY
ANCHORAGE
PRINCETON
Tulameen River
STEWART
SMITHERS
TERRACE
Pacific Ocean
BRITISH COLUMBIA
LOCATION MAP
0 500
Kilometres
PRINCETON
VANCOUVER
U.S.A.
120°35'
49°25'
Agate Mountain
Mount Kennedy
49°20'
Copper Mountain
Wolfe
RIVER
Willis
Creek
PRINCETON WEST CLAIM GROUP
PRINCETON EAST CLAIM GROUP
Friday Mountain
49°15'
SIMILKAMEEN
120°30'
Westmin Resources Limited
Work By
M. Jones
Date Drafted
24/08/92
Drafted By
R.A. Ivany
Date Revised
Revised By
N.T.S. Number
92 H/1,2,7,8
File Name
PRST_LOC
PRINCETON PROJECT
LOCATION MAP
1.25 0 1.25 2.50 3.75km
SCALE 1 : 125,000
Map
1

120°35'

120°25'

49°20'

49°20'

Copper Mountain

Whipsaw Creek

RIVER

Wolfe Creek

Willis Creek

WR 1–6
301376–301381

WES 1
301394

WES 2
301395

WES 3
301396

WES 8
301397

WES 9
301398

WES 10
301399

WES 11
301400

WES 14
301389

WES 12
301387

WES 13
301388

Friday Mountain

Sunday Creek

SIMILKAMEEN

49°15'

49°15'

120°35'

120°30'

Westmin Resources Limited

Work By	M. Jones
Date Drafted	24/08/92
Drafted By	R.A. Ivany
Date Revised	
Revised By	
N.T.S. Number	92 H/1,2,7,8
File Name	PRST_CLM

PRINCETON PROJECT

CLAIM MAP

500 0 500 1000 1500m

SCALE 1 : 50,000

Map 2

north-south and 5 km east-west. The extreme northwest corner of the property is accessible by following the Whipsaw Creek and then Kennedy (Rocky Road) FSR's. Short logging roads provide additional access to the property from both the east and west.

The topography on both claim blocks is generally subdued, rolling plateau in the largely drift covered higher areas with steeper slopes, and more outcrop, near the main creeks. Elevations range from about 1,000 to 1,500 m. Pine, spruce and fir forest covers the entire area.

3.0 PROPERTY

The Prince 1, Prince 2 and Prince 3 claim groups consist of the following claims:

Group Claim Name	Record Number	Units	Date Staked	Expiry Date
Prince 1WR 1	301376	1	June 28, 1991	June 28, 1992
WR 2	301377	1	June 28, 1991	June 28, 1992
WR 3	301378	1	June 28, 1991	June 28, 1992
WR 4	301379	1	June 28, 1991	June 28, 1992
WR 5	301380	1	June 28, 1991	June 28, 1992
WR 6	301381	1	June 28, 1991	June 28, 1992
WES 1	301394	15	June 29, 1991	June 29, 1992
WES 2	301395	15	June 29, 1991	June 29, 1992
WES 3	301396	12	June 30, 1991	June 30, 1992
	Total	48		
Prince2WES 8	301397	20	June 27, 1991	June 27, 1992
WES 9	301398	12	June 27, 1991	June 27, 1992
WES 10	301399	20	June 28, 1991	June 28, 1992
WES 11	301400	20	June 28, 1991	June 28, 1992
WES 14	302389	16	July 21, 1991	July 21, 1992
	Total	88		
Prince3WES12	302387	20	July 20, 1991	July 20, 1992
WES13	302388	20	July 20, 1991	July 20, 1992
	Total	40		
	Grand total	176		

Map 2 shows the distribution of the claim groups in the East and West claims areas.

4.0 EXPLORATION HISTORY

The exploration history in this area has been summarized quite well in the report by Preto (1972) for the British Columbia government. Portions of the Princeton Project claims have been examined by various companies, particularly in the late 1960's and early 1970's, mostly on the East claims. This work included geological, geochemical and geophysical surveys. Soil sample surveys identified several small Cu geochemical anomalies in the area of the headwaters of Wolfe Creek and one of its tributaries (ground now covered by the TAS claims). Copper values up to 697 ppm in rock samples associated with one of the soil anomalies were reported by Phelps Dodge in 1973 (Assessment Report 4380), but no specific location was given. IP surveys did define some weak anomalies, in some cases associated with soil geochemistry anomalies, but no further work has been done.

5.0 GEOLOGY

5.1 Regional Geology and Copper Deposits

The area of the Princeton Project is underlain mostly by Upper Triassic alkalic volcanic rocks of the Nicola Group (Preto, 1972). This is a northerly trending sequence including flow and pyroclastic units of basalt and basaltic andesite composition, and sediments, which are generally of marine affinity (turbidites, minor siltstone and limestone). East of the Similkameen River the Nicola Group rocks are named the Wolfe Creek Formation, which has been defined due to its proximity to the Copper Mountain deposit (Preto, 1972). West of the Similkameen the volcanic rocks have not been subdivided into separate formations, and overall the sequence is quite similar to the rocks of the Wolfe Creek Formation. Tops in the Nicola volcanic rocks are ill-defined.

In association with these volcanic rocks are cogenetic intrusions, the Copper Mountain intrusions which include the Copper Mountain, Smelter Lake and Voigt stocks and the Lost Horse intrusions. The intrusive rocks are dated at 193 $\pm$ 8 Ma. Copper deposits lie within a belt of strongly altered and fractured Nicola rocks that is bounded on the south by the Copper Mountain stock and on the north by the Lost Horse intrusions (Preto, 1972). Preto concludes that "mineralization is controlled by faulting and fracturing, suitable alteration, and, in most cases, by the proximity of rocks of the Lost Horse intrusions which appear to have been the immediate source of hydrothermal and mineralizing fluids".

The Copper Mountain stock consists dominantly of diorite, locally trachytic, with concentric zoning apparent towards the core of the body which is occupied by

monzonite and syenite. Marginal phases of the Copper Mountain Stock include gabbro and minor peridotite. The Lost Horse intrusions comprise "a confusing variety of compositions, textures, grain sizes, degrees of alteration and modes of occurrence" (Preto, 1972), although all are porphyritic. Field evidence suggests that the Lost Horse intrusions are the youngest of the Copper Mountain intrusions. Rafts of Nicola rocks are abundant. Composition of the Lost Horse ranges from diorite to syenite with the bulk composition being monzonite. Syenites in part are a product of pervasive metasomatism of monzonite by potash feldspar. Proximal to copper deposits, pervasive albitization has produced light coloured, "acid augite diorites" (Dolmage, 1934). Magnetite-epidote healed breccias occur within the Lost Horse and appear to be late stage.

More recent intrusions in the Copper Mountain area include the Lower Cretaceous Verde Creek Stock, part of the Otter Lake Intrusive suite as defined by Rice (1947), which lies to the east of the property in the Willis Creek valley. Also, quite common throughout the area east of the Similkameen River are so-called "mine dykes," post-Lower Cretaceous felsic intrusions which are spatially associated with, but much later than, the ore zones on Copper Mountain, thus creating considerable dilution problems at the mine. These dykes are generally northerly trending bodies.

Copper deposits in the Copper Mountain camp occur primarily as disseminations and stockworks of chalcopyrite and pyrite in altered Nicola volcanic and/or Lost Horse intrusive rocks (Preto, 1972). Mineralization has porphyry copper to skarn features and mineralogy. Typical rock alteration includes an early development of biotite followed by extensive albite-epidote replacement and later veining by potash feldspar and scapolite. Minor alteration minerals include actinolite, secondary garnet, sphene and apatite. Quartz is scarce. The Copper Mountain underground mine was operated by Granby Consolidated from 1925 to 1957 and produced 34,775,000 tons with a recovery grade of 0.881% Cu, 0.054 oz./ton Au and 0.126 oz./ton Ag. Following a dormant period of 15 years Newmont began open pit production in 1972. Production figures compiled from the Canadian Mines Handbook indicate:

	Tons	Cu Percentage	Au oz./ton (Recovered)
Ingerbelle Pit (1972 to 1980) •	54,741,800	0.43	0.005
Copper Mountain Pits (1981 to 1990) •	76,226,000	0.38	0.002
Reserves (January 1, 1991) of which	167,800,000 43,400,000	0.40 in current mine plan.	?

• Production from both Ingerbelle and Copper Mountain pits late 1980 until September 1981; above figures assign all 1980 production to Ingerbelle and all 1981 production to Copper Mountain.

Tertiary rocks are found unconformably overlying the Nicola Group and Copper Mountain intrusions. These are rocks of the Eocene aged Princeton Group and include subaerial volcanic and clastic sedimentary rocks. The volcanic rocks are intermediate in composition in the area of the Princeton Project properties. The Princeton Group is commonly in fault contact with Triassic rocks suggesting that fault activity has continued until very recently.

The regional structural geology is not particularly well defined, in part due to the homogeneous nature of the volcanic sequences which makes correlations, determinations of offsets, etc. difficult. (Preto, 1972) has a good description of the local structures, especially faults, as they relate to the Copper Mountain deposit. The Main Copper Mountain Fault is a northwest-southeast trending structure and there are several other major faults in the area which have similar orientations. The Boundary Fault (Preto, 1972) is a northerly trending structure on the west side of the Similkameen River. The west side of this fault appears to be downdropped relative to the east side. As a result, the west side is covered much more extensively by the Eocene Princeton Group rocks which have been mostly eroded on the east side of the fault, exposing the underlying Triassic rocks. In addition, the west side appears to have been tilted to the south and east, increasing the depth of Eocene cover in those directions.

Quaternary cover in the area of the Princeton Project properties is extensive, especially in the higher areas which are more subdued topographically. Depth to bedrock ranges from 0 to 15 m in the Ingerbelle-Copper Mountain areas (Preto, 1972).

5.2 Property Geology

East Claims (Maps 3a, 3b)

The East claims are underlain by a succession of mafic to intermediate volcanic rocks of the Wolfe Creek Formation. These rocks are dominantly lapilli to agglomerate pyroclastic rocks (Unit 2c) with local cherty tuff interlayers (Unit 2d). The clasts in these rocks are generally of similar composition to the groundmass, commonly porphyritic (augite and/or plagioclase) and trachytic, although they may also be multi-lithic including felsic clasts such as spherulitic rhyolite (i.e. on the WES 3 claims). There are minor sedimentary interlayers present as well.

Massive examples of the volcanic rocks are also found, although these are not as common and have generally been classified as undifferentiated (unit 2e) due to poor exposures. These rocks are commonly porphyritic with pyroxene, plagioclase or pyroxene and plagioclase phenocrysts.

All of these units, both massive and pyroclastic, are variably magnetic and non-magnetic. Metamorphic grade is not high in these rocks, usually less than lower greenschist grade except in close proximity to intrusions where hornfels are common.

In the southwest part of the WES 3 claims, there is a distinctive felsic pyroclastic unit (Unit 2f). This rock ranges from crystal to agglomerate tuff and is characterized in all examples by large, commonly euhedral, quartz eyes. The unit is locally sulphidic, with up to 3% disseminated pyrite, but no massive sulphide clasts were observed. However, sulphidic chert clasts were seen commonly. This felsic unit may not be strictly part of the Nicola Group volcanic suite since alkalic volcanic rocks are notably quartz-poor. The contact between the felsic tuff and mafic to intermediate tuff runs about northwest-southeast and may be structural.

Tops were not determined directly in the East claim area but the felsic rocks in the southwest may indicate a stratigraphic progression in that direction. Bedding attitude is also not readily discernable due to the massive nature of the pyroclastic units. There is little to no foliation observed in the rocks within the East claim area.

The volcanic rocks in the East claims are cut by a presumably cogenetic diorite intrusive (Unit 6), mostly in the north and east part of the area. Locally, the intrusive may be gabbro. This body appears to be a tongue extending east and then southeast from the Copper Mountain stock and is outlined by a spur-like magnetic anomaly on airborne geophysics maps (GSC geophysical series). The diorite is trachytic to porphyritic and has very similar mineralogy to the volcanic rocks. Thin

section examination by K. E. Northcote (1991) of a representative sample (1411, location on Map 3, Sheet 2) indicate the rock is a hornblende syenomonzonite. It consists of 34% plagioclase, 5% hornblende and 1% augite phenocrysts in a matrix of potassium feldspar (35%), plagioclase (20%) and minor secondary amphibole. Opaques, primarily magnetite, minor pyrite, comprise the remaining 5% and are associated with weakly altered mafic phenocrysts.

The volcanic rocks and diorite intrusive are cut by later dykes as well. The most common of these are the "mine dykes" (Unit 14). These felsic dykes occur in swarms on the property and are especially prevalent in the western areas of the East claims (although this may be due to the large proportion of outcrop occurring in the western area). They are commonly porphyritic, with plagioclase and quartz phenocrysts, and flow banding is noted in several localities. There is propylitic wall rock alteration spatially associated with these dykes in most areas. At this time it is not clear if the alteration is related to a previously existing structure which then provided a pathway for the intrusion of these dykes, or if it is directly related to the contact metamorphic effects of the dykes and any associated fluids.

A flaggy, aphanitic, grey, intermediate dyke was found in the south part of the East claims, crosscutting both the felsic and mafic tuffs in a north-south direction. This is probably Preto's (1972) Unit 15, which is related to the Eocene volcanic rocks of the Princeton Group, possibly a feeder dyke.

Finally, on the extreme eastern side of the East claims, the property is underlain by a magnetic, biotite-feldspar porphyritic granite (Unit 13) related to the Otter Lake Intrusive suites. Locally, there is evidence of weak contact metamorphic effects in the Nicola Group volcanic rocks. The granite itself has some sericitic alteration with weakly disseminated pyrite associated.

Alteration and mineralization in the East claims area is not well developed. One possible exception is the west end of the WR claims (WR 4-6, northwest corner of the East claims). Here, a possible structure from the Copper Mountain area crosses mixed volcanic and intrusive rocks of the Nicola Group. It is not clear if the intrusive rocks are apophyses of the Copper Mountain stock which lies immediately south, the Voigt stock to the north or possibly the Lost Horse intrusions. There is also a strong concentration of late "mine dykes" in this area. Moderate propylitic alteration (chlorite-epidote-pyrite), and possible albite-biotite alteration in the most altered sections, is associated with this zone. Small veinlets containing potassium feldspar were found by staining the most altered rocks. Up to 3% to 5% pyrite is present as disseminations and in fractures. No chalcopyrite was observed in the hand specimens examined. Grab samples from this area typically assayed 200 to 900 ppm Cu although there were no significant

concentrations of any other metals which were tested.

Thin sections of two intrusive rocks (487003, 487015) and one volcanic rock (487013) from the WR grid area were studied (Northcote, 1991). The volcanic rock is a trachyandesite tuff, the primary composition was (plagioclase) feldspathic but potassic alteration has impregnated the rock with K-feldspar as veinlets and diffuse pervasive replacement. What appeared to be biotite alteration in hand specimen is described in thin section as a conspicuous overprint of irregular clusters of acicular to felted secondary amphibole. Plagioclase and K-feldspar each comprise 40% of the tuff with secondary amphibole (<10%), carbonate (<5%), unknown semi-opaques (5%) and pyrite (<1%). The two intrusive rocks are dissimilar; 487003 is propylitized, equigranular hornblende micromonzonite (45% plagioclase, >30% hornblende) whereas 487015 is propylitized augite-plagioclase porphyritic microdiorite (15% augite, 30% plagioclase phenocrysts, 40% plagioclase groundmass). Alteration products in 487003 are amphibole, epidote, sericite, with veinlets of K-feldspar and epidote. Alteration in 487015 is somewhat stronger, alteration minerals are chlorite, epidote, sericite and albite.

The felsic tuffs in the southwest part of the WES 3 claims locally contain chlorite-epidote alteration with associated disseminated pyrite. Analyses of pyritic grab samples from the felsic tuff did not reveal any base or precious metal values. However, the presence of sulphidic chert clasts in the tuff and argillites nearby in the stratigraphic section may indicate a submarine environment is possible (at least proximally) which could potentially host base metal deposits.

West Claims (Maps 3c, 3d)

The geology of the West claims is dominated by recent volcanic cover, rocks of the Eocene Princeton Group. These are mostly variably coloured, commonly amygdaloidal, generally massive, porphyritic intermediate volcanic rocks (Unit 17a). They contain hornblende, plagioclase, or hornblende-plagioclase phenocrysts. Generally, brick-red to red coloured rocks are non-magnetic whereas tan to grey coloured rocks tend to be weakly to moderately magnetic. No pyroclastic rocks were identified but a possible flow breccia was found in the northwest corner of the claim block. A felsic unit occurs in a north-south band near the centre of the property (Unit 17b). This is an aphanitic, light grey to mottled dacite (?) which is very hard. The rock units of the Princeton Group appear to be relatively flat lying and do not have any structural fabric. There is a weak trachytic texture evident locally. Pyrite content is negligible.

The unconformable contact between the Princeton Group and the underlying Nicola Group is found on the West claims only in the extreme northwest corner of

the WES 8 claim group. Although not observed in outcrop, the extrapolation of the contact from outside the property (Preto, 1972) and the complete dominance of the float in this area by diorite to gabbro plus minor volcanic and sedimentary rocks of the Nicola Group suggests that the contact is close. The diorite and gabbro rocks are strongly epidotized and in general the Nicola rocks observed in this area are strongly foliated. On the east side of the West claim block, the Nicola Group is cut off just east of the property by the Boundary Fault.

The Princeton Group sits on top of the Nicola in an apparently very shallow trough which is dipping to the south and east (see Kennedy Lake area of Map Sheet B, Petro, 1972). Therefore the Nicola Group rocks are probably very close to surface in the north and northwest parts of the West claims (Figures 1 and 2). The strong magnetic feature in the north central part of the West claims could be due to a Triassic intrusive, possibly a faulted extension of the Copper Mountain Stock, sitting under a shallow cover of Eocene volcanics. This interpretation is supported by the preponderance of mafic intrusive rocks in the float at the edge of the magnetic feature in the northwest corner of the West claims and the relatively weak magnetic character of the Princeton Group volcanic rocks.

There is no significant alteration or sulphide mineralization in the Princeton Group rocks. There is, however, a small placer operation just east of the West claims on Saturday Creek which drains the central part of the property. This may warrant further investigation.

The strong propylitic alteration evident in the intrusive float found in the northwest part of the property may be significant although the rocks were not found in situ. An altered and mineralized, sub-angular boulder was found just east of the projected Princeton/Nicola Groups contact (Sample 487018). The rock is a plagioclase-pyroxene (?) porphyritic trachyandesite. Propylitic alteration consists of complete replacement of mafic phenocrysts by secondary sodic amphibole and epidote and partial sericitization of plagioclase (Northcote, 1991). Of particular interest is a crackle brecciation with infilling of garnet, epidote, quartz, sericite and minor carbonate. The veinlets have conspicuous bleached envelopes of albite/sericite that impregnate the wall rock. The Na content is high (5.76%), suggesting that albitization is intense. Pyrite, up to 3% to 5%, occurs as disseminations and in fractures. There is possibly a trace of chalcopyrite although its identification was not certain in hand specimen. The rock contains anomalous Pb (4,000 ppm), Ag (19.2), Cu (714 ppm), and Zn (360 ppm), but Au was not detected. This style of mineralization and skarn alteration is similar to the Ingerbelle and Copper Mountain deposit, especially with elevated Cu and Ag.

6.0 GEOCHEMISTRY

6.1 Soil Sampling

Four separate soil sample grids were completed on the Princeton Project claim groups. All samples were analyzed for Au, As, Ag, Co, Cu, Fe, Mn, Mo, Ni, Pb and Zn by ICP-AES at Chemex Labs in North Vancouver, B.C.

WR Grid, WR Block, East Claims (Map 4)

This grid was established to cover the projection of altered stratigraphy (structure from Copper Mountain (?)) through the western half of the WR claim group at the extreme northern end of the east claims. A baseline was extended 2,000 m east from the northwesternmost claim post in this area and soil lines were run 500 m south from this baseline every 100 m. A total of 124 samples, at 100 m spacing, were taken on the soil lines. The results of this survey were not significant. Only a few scattered anomalous Cu values, to a maximum of 159 ppm, were obtained and these anomalies have no pattern or apparent relation to geology. The local drift cover may have muted the geochemical signature of the bedrock but the cover is not apparently very thick in this area as some outcrop is found. One Au value of 55 ppb was found in a sample which was taken downslope from some weakly altered and mineralized rocks (on north TAS claims). A fairly coherent Zn anomaly was identified in the area from 1300E/500S to 1500E/400S with values ranging up to 310 ppm. There is no outcrop in this area (part of a recent clearcut) to explain this Zn anomaly. There is a small swarm of "mine dykes" just upslope but these rocks have not been shown to be zinc-rich.

W3 Grid, WES 3 Block, East Claims (Map 5)

A 2,000 m north-south baseline was established, starting at the WES 3 Identification Post, 2 West/0 South, and east-west soil lines were run every 400 m extending 1,000 m east and 500 m west of the baseline. A total of 96 samples were taken on these lines at 100 m sample intervals.

A weak Cu soil anomaly was found on the northernmost line on this grid, in the vicinity of the origin at 00N/S and 00E/W. The highest value obtained in this area was 262 ppm Cu. This anomaly is in the vicinity of an anomaly identified by previous workers (Assessment Report 4380) which contained similar values. The soil sampling did not turn up any base metal anomalies in the southwest corner of the grid, the area of the felsic tuffs.

West Claims Grid, West Claims (Map 6)

The grid, established over most of the West Claims, covered the Princeton Group rocks west of Highway 3. A 5.0 km north-south baseline was established running from 1000N to 6000N, with the point 00E/W and 2000N located 150 m east of the Legal Corner Post for the WES 12 and 13 claim blocks. Soil lines were run perpendicular to this baseline, west to the western boundary of the property and east to Highway 3. Samples were selected for analysis, at 200 m spacing, from Lines 1600N, 2800N, 4000N, 4800N and 5600N for a total of 68 samples.

No significant anomalies were detected for any of the metals analyzed.

W8 Grid, WES 8 Block, West Claims (Map 7)

A small grid was established in the extreme northwestern corner of the WES 8 claim block to cover the possible presence of mineralized Nicola Group rocks in this area. A 1.0 km, north-south baseline was put in, running south from the northwestern WES 8 Corner Post (4E/5N) to 1000S. Soil lines were surveyed east from this baseline at 200 m intervals starting at the origin. The length of the soil lines was varied depending on the projected location of the Princeton/Nicola contact. A total of 48 samples were taken on this grid. No significant anomalies were discovered on the sample grid. As well, there was no apparent change in the background values from area to area on the grid which could have indicated the location of the Princeton Group/Nicola Group contact.

6.2 Silt Sampling

A total of 22 silt samples were collected on the Princeton Project claims with an additional 17 from the areas immediately surrounding the Westmin properties. The samples were analyzed for Au (two splits of at least 30 g each) plus As, Ag, Co, Cu, Fe, Mn, Mo, Ni, Pb and Zn.

Samples from the area of the West claims were uniformly low, in particular with respect to Cu and Au concentrations. A total of 13 silt samples were collected on the West claims.

On the East claims, 8 silt samples were collected on the property as well as several others in the immediate area. Although there were no samples that contained detectable amounts of Au, there is a relatively coherent pattern of Cu anomalies centred around the TAS 1 and WES 1 claim blocks. All samples in this restricted area are anomalous with values ranging from 143 to 294 ppm Cu. The streams sampled in this area drain an anomalous area of Cu soil geochemistry

described in the assessment files (e.g. Assessment Report 3188). The anomalies seem to be spatially related to the tongue of diorite which extends into the area from the Copper Mountain Intrusive. However, mapping of rocks in the vicinity of the diorite tongue did not turn up any signs of alteration or mineralization. It may be that the evidence is buried under drift cover, or is completely contained in areas not mapped (TAS claims). Weak mineralization similar to the zone observed in the area of the western WR claims (i.e. weak to moderate propylitic alteration, Cu-only anomalous values) could be responsible for the anomaly in the stream sediments given the generally low values obtained.

7.0 CONCLUSIONS

7.1 East Claims

The geology of the East claim area does not reflect a potential economic deposit near the surface. The west part of the WR claims is the only location where there is any significant extent of alteration. This area is more or less on strike from the main structures on Copper Mountain and indications are that the alteration continues southeast onto the TAS claims. The alteration on the WR claims may represent a marginal part of the Copper Mountain mineralized system and this could explain the Cu-only nature of the mineralization. In this respect, there may be some potential at depth. The problem in this area is the possibility of covering a significant deposit given the restricted extent of Westmin's property, only one claim wide with some of that ground overlapping Crown grants which are part of the mine property. In addition, the apparent lack of differentiation of the diorite intrusion in this area would argue against the development of a strong mineralized system southeast of Copper Mountain.

The felsic rocks (calc-alkaline (?)) in the southwest part of the WES 3 claims may indicate some potential for massive sulphide mineralization. The past summer's work program seems to have eliminated that potential on Westmin's present property. However, the potential may exist in the immediate area.

7.2 West Claims

Although no significant mineralization or alteration was discovered on the West claims, there still exists the untested potential of the magnetic feature in the north central part of the claim block. This feature may be related to the epidotized intrusive rocks found in float in the northwest part of the claim group. The concentrically developed Copper Mountain Stock appears to be truncated in the west by the Boundary Fault. It is possible that the rest of this intrusive, assuming

it is symmetrical, lies on the west side of the fault. In that case, the outer diorite portion could be represented by the intrusive float in the northwest corner of the property. The inner, magnetic monzonite/syenite could be represented by the magnetic anomaly in the north part of the property, somewhat muted by the Princeton Group cover. However, the location of the Copper Mountain ore zones in Nicola country rocks must be kept in mind.

Figures 4 and 5 show two sketched geologic cross-sections in the north part of the West claims. Though the Princeton/Nicola Group contact is speculative at depth, the general morphology of the contact, especially in the Kennedy Lake area (Preto, 1972), suggests that it is relatively flat, paleotopography notwithstanding. Deep penetrating IP would need to reach 300 m depth to ensure a complete section reaching into the Nicola rocks on Line 5600N. There is potential to reach the main magnetic anomaly beneath the Princeton Group cover with minimal drilling (as little as 150 m vertically). Other targets may be tested with similar footage in the north part of the West claims.

8.0 RECOMMENDATIONS

No further work should be undertaken on the eastern claim block because evidence is weak of alteration/mineralization with sufficient size to host an economic deposit. The most interesting area is adjacent Crown-granted claims of the Copper Mountain property.

In the area of the magnetic anomaly on the West claims, detailed interpretation of airborne geophysics and air/satellite photos may pick out local structures, possibly reflected through the Eocene cover, which could have played an important role in localizing mineralization. The bulk of the mineralization at Copper Mountain is hosted in intruded volcanic rocks marginal to anomalies centred on the Copper Mountain Stock and Lost Horse Intrusions, generally forming areas of low magnetic response. Magnetic lows should be the target of any drilling to test the mineral potential beneath the Eocene cover. One such feature, probably a fault, cuts through the magnetic high in the north part of the West claims striking about 045° to 055°, following Friday Creek to the Similkameen River, which it offsets, and continuing through to one of the open pits on Copper Mountain.

With respect to the south half of the West claims, there is little encouragement directly on the present claim area. There are some small magnetic anomalies which may be worth investigating if the large anomaly in the north-central part of the West claims proves to be related to mineralization. However, the Eocene cover is probably quite deep in the south area. Given the present size of the property,

it may be necessary to relinquish some claims in the south part of the West claims group.

9.0 BIBLIOGRAPHY

Dolmage, V. (1934). Geology and Ore Deposits of Copper Mountain, British Columbia, Geol. Survey of Canada, Mem. 171.

Northcote, K. E. (1991). Vancouver Petrographics private report, 8 pages.

Preto, V. A. (1972). Geology of Copper Mountain: B.C. Dept. Mines Petroleum Res., Bulletin 59, 88 p.

Rice, H. M. A. (1947). Princeton Map Sheet, 92H East Half, Geology with notes: Geol. Survey Canada, Map 888a.

Geol. Survey Canada, Geophysical Series (Aeromagnetic): Maps 8526G (Hedley Street, 92H/8), 8525G (Ashnola Sheet, 92H/1), 8530G (Princeton Sheet, 92H/7), 8529G (Manning Park Sheet, 92H/2), all 1" to 1 mile.

10. COST STATEMENT

Prince 1 Group (WR 1-6, WES 1-3 claims)--58% of field costs, 33% of office costs.

Salaries	
Contract geologist; 14 days fieldwork, research, report preparation	$ 2,759.25
Student labour; 12 man-days grid preparation, sampling	1,404.00
Supervisory geologist; 1 day	300.00
Field supplies	504.60
Analyses; 5 rocks, 220 soils, 8 silts and petrography	4,594.73
Sample shipment	49.30
Food and lodging	1,597.32
Travel to/from Vancouver	292.50
Truck rental and gas	734.28
Computer and manual drafting	675.00
	$12,910.98

Prince 2 Group (WES 8-11, 14 claims)--30% of field costs, 33% of office costs.

Salaries	
Contract geologist; 6 days fieldwork, research, report preparation	$ 1,121.25
Student labour; 8 man-days grid preparation, sampling	936.00
Supervisory geologist; 1 day	300.00
Field supplies	261.00
Analyses; 1 rock, 99 soils, 8 silts and petrography	2,082.28
Sample shipment	25.50
Food and lodging	826.20
Travel to/from Vancouver	292.50
Truck rental and gas	379.80
Computer and manual drafting	675.00
	$ 6,899.53

Prince 3 Group (WES 12, 13 claims)--12% of field costs, 33% of office costs.

Salaries	
Contract geologist; 5 days fieldwork, research, report preparation	$ 916.50
Student labour; 2 man-days grid preparation, sampling	234.00
Field supplies	104.40
Analyses; 17 soils, 6 silts	453.00
Sample shipment	10.20
Food and lodging	330.48
Travel to/from Vancouver	292.50
Truck rental and gas	151.92
Computer and manual drafting	675.00
	$ 3,168.00

Prince 1 Group	$12,910.98
Prince 2 Group	6,899.53
Prince 3 Group	3,168.00
Total	$22,978.51

11.0 STATEMENT OF QUALIFICATIONS

I, Paul J. Wojdak, of the City of Vancouver, in the Province of British Columbia, hereby certify that:

1. I am a geologist residing at 7952 Limewood Place, Vancouver, British Columbia with a business address at Suite 904, 1055 Dunsmuir Street, P.O. Box 49066, The Bentall Centre, Vancouver, British Columbia, V7X 1C4.

2. I graduated with a B.Sc. (Honours) in Geology and Chemistry from McMaster University, Hamilton, Ontario in 1971 and with a M.Sc. in Geology from the University of British Columbia in 1974.

3. I am a member of the Geological Association of Canada.

4. I have practised geology with Cominco Limited and Westmin Resources Limited from 1974 to 1991.

DATED this 5 day of December 1991 at Vancouver, British Columbia.

P. Wojdak

Paul J. Wojdak, M.Sc.

APPENDIX A

CHEMEX ASSAY CERTIFICATES

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: WESTMIN MINES LTD.

P.O. Box 49066, The Bentall Centre
VANCOUVER, BC
V7X 1C4

RECEIVED
AUG 26 1991

A9120132

Comments: ATTN: PAUL WOJDAK

WESTMIN RESOURCES LIMITED
MINING DIVISION

CERTIFICATE A9120132

WESTMIN MINES LTD.

Project: PRINCETON
P.O. # :

Samples submitted to our lab in Vancouver, BC.
This report was printed on 23-AUG-91.

SENT Aug 14, 1991
IN

SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
205	7	Geochem ring to approx 150 mesh
294	7	Crush and split (0-10 pounds)
285	7	ICP - HF digestion charge

ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
983	7	Au ppb: Fuse 30 g sample	FA-AAS	5	10000
578	7	Ag ppm: 24 element, rock & core	AAS	0.5	200
573	7	Al %: 24 element, rock & core	ICP-AES	0.01	25.0
565	7	Ba ppm: 24 element, rock & core	ICP-AES	10	10000
575	7	Be ppm: 24 element, rock & core	ICP-AES	0.5	10000
561	7	Bi ppm: 24 element, rock & core	ICP-AES	2	10000
576	7	Ca %: 24 element, rock & core	ICP-AES	0.01	25.0
562	7	Cd ppm: 24 element, rock & core	ICP-AES	0.5	10000
563	7	Co ppm: 24 element, rock & core	ICP-AES	1	10000
569	7	Cr ppm: 24 element, rock & core	ICP-AES	1	10000
577	7	Cu ppm: 24 element, rock & core	ICP-AES	1	10000
566	7	Fe %: 24 element, rock & core	ICP-AES	0.01	25.0
584	7	K %: 24 element, rock & core	ICP-AES	0.01	20.0
570	7	Mg %: 24 element, rock & core	ICP-AES	0.01	20.0
568	7	Mn ppm: 24 element, rock & core	ICP-AES	5	10000
554	7	Mo ppm: 24 element, rock & core	ICP-AES	1	10000
583	7	Na %: 24 element, rock & core	ICP-AES	0.01	5.00
564	7	Ni ppm: 24 element, rock & core	ICP-AES	1	10000
559	7	P ppm: 24 element, rock & core	ICP-AES	10	10000
560	7	Pb ppm: 24 element, rock & core	AAS	2	10000
582	7	Sr ppm: 24 element, rock & core	ICP-AES	1	10000
579	7	Ti %: 24 element, rock & core	ICP-AES	0.01	10.00
572	7	V ppm: 24 element, rock & core	ICP-AES	1	10000
556	7	W ppm: 24 element, rock & core	ICP-AES	10	10000
558	7	Zn ppm: 24 element, rock & core	ICP-AES	2	10000

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
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P.O. Box 49066, The Bentall Centre
VANCOUVER, BC
V7X 1C4

Project : PRINCETON
Comments: ATTN: PAUL WOJDAK

Page Number :1-A
Total Pages :1
Certificate Date: 23-AUG-91
Invoice No. :I9120132
P.O. Number :

CERTIFICATE OF ANALYSIS A9120132

SAMPLE DESCRIPTION	PREP CODE	Au ppb FA+AA	Ag ppm AAS	Al % (ICP)	Ba ppm (ICP)	Be ppm (ICP)	Bi ppm (ICP)	Ca % (ICP)	Cd ppm (ICP)	Co ppm (ICP)	Cr ppm (ICP)	Cu ppm (ICP)	Fe % (ICP)	K % (ICP)	Mg % (ICP)
487001	205 294	< 5	< 0.2	9.74	1740	< 0.5	< 2	2.47	< 0.5	12	59	518	3.37	3.84	0.80
487002	205 294	< 5	0.8	8.87	240	< 0.5	< 2	5.32	< 0.5	34	61	531	6.56	0.84	2.53
487003	205 294	< 5	< 0.2	9.50	870	< 0.5	< 2	5.11	< 0.5	18	54	299	6.70	1.96	2.46
487004	205 294	< 5	< 0.2	7.47	970	< 0.5	< 2	1.50	< 0.5	9	104	92	1.35	2.59	0.62
487005	205 294	< 5	< 0.2	9.55	1780	< 0.5	< 2	3.95	< 0.5	14	54	253	4.40	2.69	2.04
487006	205 294	< 5	< 0.2	10.05	1340	< 0.5	< 2	5.53	< 0.5	12	58	148	5.29	2.02	1.90
487007	205 294	< 5	0.6	8.74	150	< 0.5	< 2	6.19	< 0.5	18	35	966	4.38	1.07	1.83

CERTIFICATION: B. Caughlin

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers

212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: WESTMIN MINES LTD.

P.O. Box 49066, The Bentall Centre
VANCOUVER, BC
V7X 1C4

Project : PRINCETON
Comments: ATTN: PAUL WOJDAK

Page Number :1-B
Total Pages :1
Certificate Date: 23-AUG-91
Invoice No. :I9120132
P.O. Number :

CERTIFICATE OF ANALYSIS A9120132

SAMPLE DESCRIPTION	PREP CODE		Mn ppm (ICP)	Mo ppm (ICP)	Na % (ICP)	Ni ppm (ICP)	P ppm (ICP)	Pb ppm AAS	Sr ppm (ICP)	Ti % (ICP)	V ppm (ICP)	W ppm (ICP)	Zn ppm (ICP)			
487001	205	294	315	24	3.10	48	950	< 2	548	0.51	375	< 10	48			
487002	205	294	830	1	2.85	13	2050	< 2	761	0.67	319	< 10	66			
487003	205	294	840	2	2.71	5	1940	< 2	758	0.62	371	< 10	42			
487004	205	294	145	28	3.17	17	570	< 2	408	0.30	161	< 10	24			
487005	205	294	750	58	3.27	9	2400	< 2	1130	0.36	277	< 10	36			
487006	205	294	1090	1	3.41	6	1240	4	856	0.33	273	< 10	82			
487007	205	294	740	5	3.64	9	1370	< 2	371	0.31	186	< 10	66			

CERTIFICATION: B. Caughlin

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
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PHONE: 604-984-0221

To: WESTMIN MINES LTD.

P.O. Box 49066, The Bentall Centre
VANCOUVER, BC
V7X 1C4

Comments: ATTN: PAUL WOJDAK

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AUG 28 1991
WESTMIN RESOURCES LIMITED
MINING DIVISION

SILTS
A9120133

CERTIFICATE A9120133

WESTMIN MINES LTD.

Project: PRINCETON
P.O. # :

Samples submitted to our lab in Vancouver, BC.
This report was printed on 26-AUG-91.
SENT IN Aug. 13, 1991.

SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
201	20	Dry, sieve to -80 mesh
202	20	save reject
238	20	NITRIC-AQUA REGIA DIGESTION

* NOTE 1:

Code 1000 is used for repeat gold analyses
It shows typical sample variability due to coarse gold effects. Each value is correct for its particular subsample.

ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
1000	20	Au check analysis		1	10000
13	20	As ppm: HNO3-aqua regia digest	AAS-HYDRIDE/EDL	1	10000
1005	20	Ag ppm: 9 element, soil and rock	ICP-AES	0.5	200
1929	20	Co ppm: 9 element, soil & rock	ICP-AES	1	10000
1931	20	Cu ppm: 9 element, soil & rock	ICP-AES	1	10000
1932	20	Fe %: 9 element, soil & rock	ICP-AES	0.01	15.00
1937	20	Mn ppm: 9 element, soil & rock	ICP-AES	5	10000
1938	20	Mo ppm: 9 element, soil & rock	ICP-AES	1	10000
1940	20	Ni ppm: 9 element, soil & rock	ICP-AES	1	10000
1004	20	Pb ppm: 9 element, soil and rock	ICP-AES	5	10000
1950	20	Zn ppm: 9 element, soil & rock	ICP-AES	2	10000
983	20	Au ppb: Fuse 30 g sample	FA-AAS	5	10000
983	20	Au ppb: Fuse 30 g sample	FA-AAS	5	10000
866	20	Fusion weight in grams	BALANCE	0.01	30.00

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
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PHONE: 604-984-0221

To: WESTMIN MINES LTD.

P.O. Box 49066, The Bentall Centre
VANCOUVER, BC
V7X 1C4

Project : PRINCETON
Comments: ATTN: PAUL WOJDAK

Certificate Date: 26-AUG-91
Invoice No. :19120133
P.O. Number :

CERTIFICATE OF ANALYSIS A9120133

SAMPLE DESCRIPTION	PREP CODE		Au check	As ppm	Ag ppm	Co ppm	Cu ppm	Fe %	Mn ppm	Mo ppm	Ni ppm	Pb ppm	Zn ppm	Au ppb FA+AA	Au ppb FA+AA	fusion wt. gm
487351	201	202	< 5	1	< 0.5	8	23	2.32	235	< 1	19	10	56	< 5	< 5	10.00
487352	201	202	< 5	< 1	< 0.5	7	18	2.10	335	< 1	16	8	44	< 5	< 5	30.00
487353	201	202	< 5	< 1	< 0.5	9	25	2.38	440	< 1	12	8	48	< 5	< 5	30.00
487354	201	202	< 5	< 1	< 0.5	9	19	2.55	360	< 1	13	10	52	< 5	< 5	30.00
487355	201	202	< 5	< 1	< 0.5	9	44	2.49	335	< 1	11	14	54	< 5	< 5	30.00
487356	201	202	< 5	< 1	< 0.5	10	26	3.05	425	< 1	16	14	64	< 5	< 5	30.00
487357	201	202	< 5	1	< 0.5	10	52	3.16	680	< 1	27	10	70	< 5	< 5	30.00
487358	201	202	< 5	1	0.5	10	92	3.20	535	< 1	36	16	92	< 5	< 5	30.00
487359	201	202	< 5	1	< 0.5	10	31	2.58	510	< 1	29	10	72	< 5	< 5	30.00
487360	201	202	< 5	1	< 0.5	9	22	2.17	415	< 1	24	8	50	< 5	< 5	30.00
487361	201	202	< 5	1	< 0.5	9	36	2.47	410	< 1	27	8	52	< 5	< 5	30.00
487362	201	202	< 5	1	< 0.5	7	22	2.08	370	< 1	19	8	44	< 5	< 5	30.00
487363	201	202	< 5	1	< 0.5	9	85	2.88	1060	1	12	16	80	< 5	< 5	30.00
487364	201	202	< 5	1	< 0.5	7	48	2.72	680	1	7	20	76	< 5	< 5	30.00
487365	201	202	< 5	1	< 0.5	8	41	2.52	780	1	7	16	76	< 5	< 5	30.00
487366	201	202	< 5	1	< 0.5	5	14	1.65	900	2	5	14	52	< 5	< 5	30.00
487367	201	202	< 5	1	< 0.5	6	21	1.62	305	< 1	4	8	36	< 5	< 5	30.00
487368	201	202	< 5	3	< 0.5	13	224	4.05	650	1	18	20	112	< 5	< 5	30.00
487369	201	202	< 5	2	< 0.5	8	68	2.88	400	1	8	10	60	< 5	< 5	30.00
487370	201	202	< 5	2	< 0.5	11	143	3.60	875	< 1	11	6	62	< 5	< 5	30.00

CERTIFICATION: B. Caplin

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
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.o: WESTMIN MINES LTD.

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VANCOUVER, BC
V7X 1C4

A9120376

Comments: ATTN: PAUL WODJAK

CERTIFICATE A9120376

WESTMIN MINES LTD.

Project: 6106
P.O. # :

Samples submitted to our lab in Vancouver, BC.
This report was printed on 30-AUG-91.

SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
201	124	Dry, sieve to -80 mesh
238	124	NITRIC-AQUA REGIA DIGESTION

ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
983	124	Au ppb: Fuse 30 g sample	FA-AAS	5	10000
13	124	As ppm: HNO3-aqua regia digest	AAS-HYDRIDE/EDL	1	10000
1005	124	Ag ppm: 9 element,soil and rock	ICP-AES	0.5	200
1929	124	Co ppm: 9 element, soil & rock	ICP-AES	1	10000
1931	124	Cu ppm: 9 element, soil & rock	ICP-AES	1	10000
1932	124	Fe %: 9 element, soil & rock	ICP-AES	0.01	15.00
1937	124	Mn ppm: 9 element, soil & rock	ICP-AES	5	10000
1938	124	Mo ppm: 9 element, soil & rock	ICP-AES	1	10000
1940	124	Ni ppm: 9 element, soil & rock	ICP-AES	1	10000
1004	124	Pb ppm: 9 element,soil and rock	ICP-AES	5	10000
1950	124	Zn ppm: 9 element, soil & rock	ICP-AES	2	10000

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
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PHONE: 604-984-0221

To: WESTMIN MINES LTD.

P.O. Box 49066, The Bentall Centre
VANCOUVER, BC
V7X 1C4

Project : 6106
Comments: ATTN: PAUL WODJAK

Page Number :1
Total Pages :4
Certificate Date: 30-AUG-91
Invoice No. :I9120376
P.O. Number :

CERTIFICATE OF ANALYSIS A9120376

SAMPLE DESCRIPTION	PREP CODE		Au ppb FA+AA	As ppm	Ag ppm	Co ppm	Cu ppm	Fe %	Mn ppm	Mo ppm	Ni ppm	Pb ppm	Zn ppm			
L000EW 000S	201	238	< 5	1	< 0.5	5	19	1.88	320	1	10	6	90			
L000EW 100S	201	238	< 5	4	< 0.5	10	74	2.97	455	1	10	8	56			
L000EW 200S	201	238	< 5	1	< 0.5	7	19	2.15	455	< 1	6	6	42			
L000EW 300S	201	238	< 5	2	< 0.5	8	43	2.17	305	< 1	8	6	96			
L000EW 400S	201	238	< 5	2	< 0.5	11	102	3.20	440	4	17	14	60			
L000EW 500S	201	238	< 5	2	< 0.5	8	39	2.47	200	< 1	15	6	74			
L100E 000NS	201	238	10	1	< 0.5	6	23	2.07	205	< 1	11	6	78			
L100E 100S	201	238	< 5	2	< 0.5	7	41	2.58	145	1	8	8	46			
L100E 200S	201	238	< 5	1	< 0.5	6	26	1.93	350	< 1	9	6	58			
L100E 300S	201	238	< 5	1	< 0.5	7	28	2.30	430	1	8	8	42			
L100E 400S	201	238	< 5	1	< 0.5	6	32	2.63	140	< 1	5	4	36			
L100E 500S	201	238	< 5	1	< 0.5	8	88	2.32	285	< 1	7	6	114			
L200E 000NS	201	238	< 5	1	< 0.5	7	33	2.56	135	1	8	6	42			
L200E 100S	201	238	< 5	1	< 0.5	6	17	1.92	280	< 1	9	4	60			
L200E 200S	201	238	< 5	1	< 0.5	6	20	1.98	160	< 1	7	6	42			
L200E 300S	201	238	< 5	2	< 0.5	7	41	2.67	145	< 1	8	6	40			
L200E 400S	201	238	< 5	1	< 0.5	6	30	2.40	155	< 1	6	6	32			
L200E 500S	201	238	< 5	1	< 0.5	7	34	2.97	145	< 1	5	10	30			
L300E 000NS	201	238	< 5	1	< 0.5	6	20	2.17	200	< 1	7	6	50			
L300E 100S	201	238	< 5	1	< 0.5	6	19	1.99	470	< 1	8	6	84			
L300E 200S	201	238	< 5	1	< 0.5	5	12	2.08	315	< 1	5	4	52			
L300E 300S	201	238	< 5	1	< 0.5	6	24	2.34	335	< 1	6	6	52			
L300E 400S	201	238	< 5	1	< 0.5	5	21	2.23	255	< 1	6	4	40			
L300E 500S	201	238	< 5	1	< 0.5	7	19	2.17	200	< 1	7	6	106			
L400E 000NS	201	238	< 5	1	< 0.5	7	25	3.39	380	2	10	6	64			
L400E 100S	201	238	< 5	1	< 0.5	6	29	2.51	410	< 1	5	2	38			
L400E 200S	201	238	< 5	1	< 0.5	7	32	2.58	280	< 1	8	4	56			
L400E 300S	201	238	< 5	< 1	< 0.5	5	15	1.93	200	< 1	7	4	60			
L400E 400S	201	238	< 5	< 1	< 0.5	5	19	2.12	180	< 1	6	6	50			
L400E 500S	201	238	< 5	1	< 0.5	6	21	2.01	455	< 1	6	6	108			
L500E 000NS	201	238	< 5	1	< 0.5	9	30	2.57	515	1	10	10	76			
L500E 100S	201	238	< 5	4	< 0.5	11	159	3.87	475	2	19	8	102			
L500E 200S	201	238	< 5	1	< 0.5	6	30	2.54	230	< 1	7	4	48			
L500E 300S	201	238	< 5	1	< 0.5	7	36	2.55	315	1	7	8	56			
L500E 400S	201	238	< 5	1	< 0.5	6	37	2.07	420	1	8	4	66			
L500E 500S	201	238	< 5	1	< 0.5	7	31	2.20	420	< 1	10	6	70			
L600E 000NS	201	238	< 5	1	< 0.5	7	24	2.27	275	< 1	9	6	46			
L600E 100S	201	238	< 5	1	< 0.5	6	17	2.03	295	< 1	8	4	52			
L600E 200S	201	238	< 5	1	< 0.5	9	51	2.73	670	1	8	6	60			
L600E 300S	201	238	< 5	1	< 0.5	6	18	2.15	490	< 1	7	6	66			

CERTIFICATION: B. Caglioni

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers

212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: WESTMIN MINES LTD.

P.O. Box 49066, The Bentall Centre
VANCOUVER, BC
V7X 1C4

Project : 6106
Comments: ATTN: PAUL WODJAK

Certificate Date: 30-AUG-91
Invoice No. :I9120376
P.O. Number :

CERTIFICATE OF ANALYSIS A9120376

SAMPLE DESCRIPTION	PREP CODE		Au ppb FA+AA	As ppm	Ag ppm	Co ppm	Cu ppm	Fe %	Mn ppm	Mo ppm	Ni ppm	Pb ppm	Zn ppm			
L600E 400S	201	238	< 5	1	< 0.5	9	50	3.06	260	< 1	9	4	66			
L600E 500S	201	238	< 5	1	< 0.5	7	42	2.16	180	< 1	12	8	54			
L700E 000NS	201	238	< 5	1	< 0.5	5	13	1.84	215	< 1	7	2	40			
L700E 100S	201	238	< 5	1	< 0.5	8	35	2.46	300	< 1	10	6	108			
L700E 200S	201	238	< 5	1	< 0.5	9	33	2.94	455	< 1	8	6	76			
L700E 300S	201	238	15	2	< 0.5	11	82	3.26	535	1	14	6	78			
L700E 400S	201	238	< 5	1	< 0.5	9	66	2.61	975	< 1	10	6	102			
L700E 500S	201	238	< 5	1	< 0.5	7	151	2.34	290	< 1	18	10	86			
L800E 000NS	201	238	< 5	1	< 0.5	7	55	2.48	895	< 1	7	6	66			
L800E 100S	201	238	< 5	1	< 0.5	5	24	1.89	495	< 1	7	8	88			
L800E 200S	201	238	< 5	1	< 0.5	9	49	2.86	310	< 1	8	6	64			
L800E 300S	201	238	< 5	2	< 0.5	8	30	2.97	400	< 1	9	8	62			
L800E 400S	201	238	< 5	2	< 0.5	13	76	4.79	400	1	9	14	76			
L800E 500S	201	238	55	2	< 0.5	12	61	4.33	420	< 1	9	12	74			
L900E 100S	201	238	< 5	1	< 0.5	5	16	1.53	210	< 1	6	4	76			
L900E 200S	201	238	< 5	1	< 0.5	7	22	3.01	200	< 1	5	4	56			
L900E 300S	201	238	< 5	2	< 0.5	8	45	3.13	165	< 1	8	6	46			
L900E 400S	201	238	< 5	4	< 0.5	11	80	3.35	330	1	8	8	38			
L900E 500S	201	238	< 5	2	< 0.5	8	43	2.90	400	1	8	10	100			
L1000E 000NS	201	238	< 5	2	< 0.5	6	21	2.54	230	< 1	3	4	56			
L1000E 100S	201	238	< 5	1	< 0.5	4	3	1.98	450	< 1	4	6	124			
L1000E 200S	201	238	< 5	1	< 0.5	5	10	2.09	160	< 1	7	6	84			
L1000E 300S	201	238	< 5	3	< 0.5	9	107	3.69	100	1	32	8	62			
L1000E 400S	201	238	< 5	1	< 0.5	11	17	2.54	595	< 1	16	6	100			
L1100E 000NS	201	238	< 5	1	< 0.5	8	44	2.47	340	< 1	7	8	90			
L1100E 100S	201	238	< 5	1	< 0.5	11	41	2.80	1275	< 1	5	12	104			
L1100E 200S	201	238	< 5	1	< 0.5	12	96	3.48	545	< 1	9	12	90			
L1100E 300S	201	238	20	1	< 0.5	7	23	2.37	270	< 1	8	6	68			
L1100E 400S	201	238	< 5	1	< 0.5	9	52	3.45	215	< 1	9	8	42			
L1100E 500S	201	238	< 5	1	< 0.5	10	61	2.83	500	< 1	11	14	128			
L1200E 000NS	201	238	10	1	< 0.5	6	19	1.85	650	< 1	7	8	150			
L1200E 100S	201	238	< 5	< 1	< 0.5	8	37	2.98	380	< 1	6	10	78			
L1200E 200S	201	238	< 5	1	< 0.5	11	66	3.62	425	1	10	12	104			
L1200E 300S	201	238	< 5	1	< 0.5	9	43	3.04	550	1	13	8	146			
L1200E 400S	201	238	< 5	1	< 0.5	8	30	2.51	230	1	13	6	78			
L1200E 500S	201	238	< 5	1	< 0.5	8	40	2.28	325	1	14	8	100			
L1300E 000NS	201	238	< 5	1	< 0.5	7	41	2.00	205	< 1	8	4	80			
L1300E 100S	201	238	20	3	< 0.5	6	26	2.45	210	< 1	4	4	26			
L1300E 200S	201	238	< 5	1	< 0.5	8	53	2.54	375	1	12	12	122			
L1300E 300S	201	238	< 5	< 1	< 0.5	6	65	2.01	225	< 1	7	8	74			

CERTIFICATION: B. Caplin

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
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To: WESTMIN MINES LTD.

P.O. Box 49066, The Bentall Centre
VANCOUVER, BC
V7X 1C4

Project : 6106
Comments: ATTN: PAUL WODJAK

Certificate Date: 30-AUG-91
Invoice No. :I9120376
P.O. Number :

CERTIFICATE OF ANALYSIS A9120376

SAMPLE DESCRIPTION	PREP CODE		Au ppb FA+AA	As ppm	Ag ppm	Co ppm	Cu ppm	Fe %	Mn ppm	Mo ppm	Ni ppm	Pb ppm	Zn ppm			
L1300E 400S	201	238	< 5	1	< 0.5	6	26	2.18	340	1	13	8	84			
L1300E 500S	201	238	< 5	1	< 0.5	6	22	2.21	520	1	13	8	212			
L1400E 000NS	201	238	< 5	< 1	< 0.5	6	21	2.27	215	< 1	5	4	40			
L1400E 100S	201	238	< 5	< 1	< 0.5	7	19	2.42	505	< 1	5	6	48			
L1400E 200S	201	238	< 5	1	< 0.5	7	29	2.39	180	< 1	8	6	50			
L1400E 300S	201	238	< 5	1	< 0.5	9	38	3.08	260	1	8	6	48			
L1400E 400S	201	238	15	1	< 0.5	6	29	2.66	170	< 1	7	6	44			
L1400E 500S	201	238	5	< 1	< 0.5	6	33	2.29	320	< 1	18	8	310			
L1500E 000NS	201	238	< 5	1	< 0.5	7	28	2.78	165	< 1	6	4	44			
L1500E 100S	201	238	< 5	1	< 0.5	6	24	2.28	200	< 1	7	2	44			
L1500E 200S	201	238	< 5	1	< 0.5	7	28	2.08	215	< 1	6	6	40			
L1500E 300S	201	238	< 5	1	< 0.5	5	30	1.65	160	< 1	5	6	44			
L1500E 400S	201	238	< 5	< 1	< 0.5	6	24	2.16	340	1	8	8	166			
L1500E 500S	201	238	< 5	< 1	< 0.5	6	14	1.95	330	< 1	8	8	176			
L1600E 000NS	201	238	< 5	< 1	< 0.5	7	24	2.52	190	< 1	4	4	42			
L1600E 100S	201	238	< 5	1	< 0.5	5	26	2.55	140	< 1	4	6	30			
L1600E 200S	201	238	< 5	1	< 0.5	6	26	2.23	245	< 1	8	6	40			
L1600E 300S	201	238	< 5	1	< 0.5	4	38	1.85	165	< 1	8	8	52			
L1600E 400S	201	238	< 5	3	< 0.5	5	19	1.92	190	< 1	9	6	64			
L1600E 500S	201	238	< 5	< 1	< 0.5	6	45	2.27	325	< 1	8	10	92			
L1700E 000NS	201	238	< 5	1	< 0.5	6	18	2.35	235	< 1	7	10	54			
L1700E 100S	201	238	< 5	< 1	< 0.5	6	19	2.00	285	< 1	8	4	62			
L1700E 200S	201	238	< 5	< 1	< 0.5	5	18	2.20	130	< 1	5	4	32			
L1700E 300S	201	238	< 5	1	< 0.5	6	24	2.06	220	< 1	8	4	60			
L1700E 400S	201	238	< 5	3	< 0.5	8	37	2.50	200	< 1	10	8	66			
L1700E 500S	201	238	< 5	1	< 0.5	7	33	2.08	155	< 1	12	8	76			
L1800E 000NS	201	238	< 5	< 1	< 0.5	6	11	2.03	205	< 1	6	4	52			
L1800E 100S	201	238	< 5	< 1	< 0.5	5	14	2.25	140	< 1	6	6	52			
L1800E 200S	201	238	< 5	1	< 0.5	6	28	2.54	235	< 1	5	4	40			
L1800E 300S	201	238	< 5	1	< 0.5	6	34	2.17	190	< 1	6	4	38			
L1800E 400S	201	238	< 5	1	< 0.5	7	37	2.49	185	< 1	5	4	32			
L1800E 500S	201	238	< 5	1	< 0.5	6	26	2.10	205	< 1	7	2	50			
L1900E 000NS	201	238	< 5	1	< 0.5	8	25	2.44	785	< 1	15	6	106			
L1900E 100S	201	238	< 5	< 1	< 0.5	6	22	2.39	165	< 1	6	6	44			
L1900E 200S	201	238	< 5	< 1	< 0.5	5	18	2.16	165	< 1	5	4	34			
L1900E 300S	201	238	< 5	2	< 0.5	8	64	2.70	305	< 1	5	6	32			
L1900E 400S	201	238	< 5	2	< 0.5	6	57	3.14	155	< 1	5	36	70			
L1900E 500S	201	238	< 5	1	< 0.5	7	42	2.40	175	< 1	7	6	66			
L2000E 000NS	201	238	< 5	1	< 0.5	8	41	2.38	385	< 1	9	8	88			
L2000E 100S	201	238	< 5	1	< 0.5	5	12	1.62	305	< 1	7	4	86			

CERTIFICATION: B. Caughlin

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
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PHONE: 604-984-0221

To: WESTMIN MINES LTD.

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V7X 1C4

Project : 6106
Comments: ATTN: PAUL WODJAK

Page Number :4
Total Pages :4
Certificate Date: 30-AUG-91
Invoice No. : I9120376
P.O. Number :

CERTIFICATE OF ANALYSIS A9120376

SAMPLE DESCRIPTION	PREP CODE		Au ppb FA+AA	As ppm	Ag ppm	Co ppm	Cu ppm	Fe %	Mn ppm	Mo ppm	Ni ppm	Pb ppm	Zn ppm			
L2000E 200S	201	238	< 5	1	< 0.5	9	46	2.44	530	< 1	6	6	42			
L2000E 300S	201	238	< 5	1	< 0.5	6	50	2.11	210	< 1	7	6	50			
L2000E 400S	201	238	< 5	< 1	< 0.5	5	10	1.89	310	< 1	5	4	84			
L2000E 500S	201	238	< 5	< 1	< 0.5	7	42	2.32	515	< 1	6	8	56			

CERTIFICATION: B. Caughlin

Chemex Labs Ltd.

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PHONE: 604-984-0221

To: WESTMIN MINES LTD.

P.O. Box 49066, The Bentall Centre
VANCOUVER, BC
V7X 1C4

A9120508

Comments: ATTN: PAUL WOJDAK

CERTIFICATE A9120508

WESTMIN MINES LTD.

Project: PRINCETON 6106
P.O. # :

Samples submitted to our lab in Vancouver, BC.
This report was printed on 2-SEP-91.

SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
205	9	Geochem ring to approx 150 mesh
294	9	Crush and split (0-10 pounds)
285	9	ICP - HF digestion charge

ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
983	9	Au ppb: Fuse 30 g sample	FA-AAS	5	10000
578	9	Ag ppm: 24 element, rock & core	AAS	0.5	200
573	9	Al %: 24 element, rock & core	ICP-AES	0.01	25.0
565	9	Ba ppm: 24 element, rock & core	ICP-AES	10	10000
575	9	Be ppm: 24 element, rock & core	ICP-AES	0.5	10000
561	9	Bi ppm: 24 element, rock & core	ICP-AES	2	10000
576	9	Ca %: 24 element, rock & core	ICP-AES	0.01	25.0
562	9	Cd ppm: 24 element, rock & core	ICP-AES	0.5	10000
563	9	Co ppm: 24 element, rock & core	ICP-AES	1	10000
569	9	Cr ppm: 24 element, rock & core	ICP-AES	1	10000
577	9	Cu ppm: 24 element, rock & core	ICP-AES	1	10000
566	9	Fe %: 24 element, rock & core	ICP-AES	0.01	25.0
584	9	K %: 24 element, rock & core	ICP-AES	0.01	20.0
570	9	Mg %: 24 element, rock & core	ICP-AES	0.01	20.0
568	9	Mn ppm: 24 element, rock & core	ICP-AES	5	10000
554	9	Mo ppm: 24 element, rock & core	ICP-AES	1	10000
583	9	Na %: 24 element, rock & core	ICP-AES	0.01	5.00
564	9	Ni ppm: 24 element, rock & core	ICP-AES	1	10000
559	9	P ppm: 24 element, rock & core	ICP-AES	10	10000
560	9	Pb ppm: 24 element, rock & core	AAS	2	10000
582	9	Sr ppm: 24 element, rock & core	ICP-AES	1	10000
579	9	Ti %: 24 element, rock & core	ICP-AES	0.01	10.00
572	9	V ppm: 24 element, rock & core	ICP-AES	1	10000
556	9	W ppm: 24 element, rock & core	ICP-AES	10	10000
558	9	Zn ppm: 24 element, rock & core	ICP-AES	2	10000

Chemex Labs Ltd.

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To: WESTMIN MINES LTD.

P.O. Box 49066, The Bentall Centre
VANCOUVER, BC
V7X 1C4

Project : PRINCETON 6106
Comments: ATTN: PAUL WOJDAK

Certificate Date: 02-SEP-91
Invoice No. :19120508
P.O. Number :

CERTIFICATE OF ANALYSIS A9120508

SAMPLE DESCRIPTION	PREP CODE		Au ppb FA+AA	Ag ppm AAS	Al % (ICP)	Ba ppm (ICP)	Be ppm (ICP)	Bi ppm (ICP)	Ca % (ICP)	Cd ppm (ICP)	Co ppm (ICP)	Cr ppm (ICP)	Cu ppm (ICP)	Fe % (ICP)	K % (ICP)	Mg % (ICP)
487008	205	294	< 5	< 0.2	7.15	970	1.0	< 2	1.17	< 0.5	7	146	41	1.89	3.66	0.52
487009	205	294	< 5	< 0.2	9.67	1150	3.5	< 2	2.49	0.5	19	30	133	5.24	2.35	1.60
487010	205	294	< 5	< 0.2	7.06	970	< 0.5	< 2	0.21	< 0.5	2	71	2	0.78	3.26	0.02
487011	205	294	< 5	< 0.2	8.19	1070	1.0	< 2	1.80	< 0.5	6	96	15	2.39	2.55	0.73
487012	205	294	< 5	< 0.2	7.64	960	0.5	< 2	1.29	0.5	5	105	13	2.19	2.47	0.56
487013	205	294	< 5	< 0.2	6.38	550	4.0	< 2	2.15	0.5	24	143	304	5.65	1.91	1.27
487014	205	294	< 5	< 0.2	8.46	170	4.5	< 2	7.51	< 0.5	32	109	209	5.41	0.81	3.08
487015	205	294	< 5	< 0.2	9.62	330	2.0	< 2	6.68	< 0.5	21	47	117	3.34	1.28	2.15
487016	205	294	< 5	< 0.2	9.39	280	< 0.5	< 2	6.03	< 0.5	54	78	79	4.34	1.05	2.24

CERTIFICATION: B. Caughlin

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Project : PRINCETON 6106
Comments: ATTN: PAUL WOJDAK

Certificate Date: 02-SEP-91
Invoice No. :I9120508
P.O. Number :

CERTIFICATE OF ANALYSIS A9120508

SAMPLE DESCRIPTION	PREP CODE		Mn ppm (ICP)	Mo ppm (ICP)	Na % (ICP)	Ni ppm (ICP)	P ppm (ICP)	Pb ppm AAS	Sr ppm (ICP)	Ti % (ICP)	V ppm (ICP)	W ppm (ICP)	Zn ppm (ICP)			
487008	205	294	775	< 1	2.37	9	540	12	425	0.15	21	< 10	48			
487009	205	294	840	< 1	3.11	6	1770	4	608	0.32	220	< 10	60			
487010	205	294	45	4	3.12	3	120	6	41	0.06	< 1	< 10	18			
487011	205	294	735	3	2.72	4	580	32	287	0.22	47	< 10	82			
487012	205	294	705	3	2.76	3	480	32	260	0.19	34	< 10	108			
487013	205	294	290	4	3.19	55	1040	< 2	110	0.33	213	< 10	24			
487014	205	294	1140	3	2.87	16	1640	< 2	747	0.43	328	< 10	50			
487015	205	294	730	5	3.99	17	2350	6	1150	0.36	243	< 10	34			
487016	205	294	765	4	4.01	17	1750	2	883	0.40	216	< 10	32			

CERTIFICATION: B. Caughlin

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Comments: ATTN: PAUL WOJDAK

A9120509

CERTIFICATE A9120509

WESTMIN MINES LTD.

Project: PRINCETON 6106
P.O. # :

Samples submitted to our lab in Vancouver, BC.
This report was printed on 5-SEP-91.

SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
201	13	Dry, sieve to -80 mesh
202	13	save reject
238	13	NITRIC-AQUA REGIA DIGESTION
* NOTE	1:	

Code 1000 is used for repeat gold analyses
It shows typical sample variability due to coarse gold effects. Each value is correct for its particular subsample.

ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
1000	13	Au check analysis		1	10000
13	13	As ppm: HNO3-aqua regia digest	AAS-HYDRIDE/EDL	1	10000
1005	13	Ag ppm: 9 element,soil and rock	ICP-AES	0.5	200
1929	13	Co ppm: 9 element, soil & rock	ICP-AES	1	10000
1931	13	Cu ppm: 9 element, soil & rock	ICP-AES	1	10000
1932	13	Fe %: 9 element, soil & rock	ICP-AES	0.01	15.00
1937	13	Mn ppm: 9 element, soil & rock	ICP-AES	5	10000
1938	13	Mo ppm: 9 element, soil & rock	ICP-AES	1	10000
1940	13	Ni ppm: 9 element, soil & rock	ICP-AES	1	10000
1004	13	Pb ppm: 9 element,soil and rock	ICP-AES	5	10000
1950	13	Zn ppm: 9 element, soil & rock	ICP-AES	2	10000
983	13	Au ppb: Fuse 30 g sample	FA-AAS	5	10000
983	13	Au ppb: Fuse 30 g sample	FA-AAS	5	10000
866	13	Fusion weight in grams	BALANCE	0.01	30.00

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Project : PRINCETON 6106
Comments: ATTN: PAUL WOJDAK

Certificate Date: 05-SEP-91
Invoice No. : I9120509
P.O. Number :

CERTIFICATE OF ANALYSIS A9120509

SAMPLE DESCRIPTION	PREP CODE		Au check	As ppm	Ag ppm	Co ppm	Cu ppm	Fe %	Mn ppm	Mo ppm	Ni ppm	Pb ppm	Zn ppm	Au ppb FA+AA	Au ppb FA+AA	fusion wt. gm
487371	201	202	< 5	3	0.5	10	170	2.75	830	< 1	12	5	98	< 5	< 5	30.00
487372	201	202	< 5	2	0.5	8	151	2.90	945	1	11	15	120	< 5	< 5	30.00
487373	201	202	< 5	1	< 0.5	6	61	2.26	445	1	5	10	48	< 5	< 5	30.00
487374	201	202	< 5	1	< 0.5	5	68	2.13	475	< 1	8	5	80	< 5	< 5	30.00
487375	201	202	< 5	1	< 0.5	5	30	1.89	340	< 1	10	< 5	56	< 5	< 5	30.00
487376	201	202	< 5	< 1	< 0.5	5	37	1.11	275	1	7	10	42	< 5	< 5	30.00
487377	201	202	< 5	2	< 0.5	8	93	2.09	445	< 1	4	< 5	88	< 5	< 5	30.00
487378	201	202	< 5	4	< 0.5	8	87	2.26	520	< 1	4	5	116	< 5	< 5	30.00
487379	201	202	< 5	3	< 0.5	8	99	2.38	370	1	8	10	58	< 5	< 5	30.00
487380	201	202	< 5	2	< 0.5	6	78	2.15	395	< 1	4	< 5	74	< 5	< 5	30.00
487381	201	202	< 5	2	< 0.5	8	36	1.96	320	< 1	35	< 5	38	< 5	< 5	30.00
487382	201	202	< 5	1	< 0.5	7	25	1.90	335	< 1	21	< 5	36	< 5	< 5	30.00
487383	201	202	< 5	5	< 0.5	13	33	2.23	540	< 1	52	5	42	< 5	< 5	30.00

CERTIFICATION: B. Caughlin

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212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: WESTMIN MINES LTD.

P.O. Box 49066, The Bentall Centre
VANCOUVER, BC
V7X 1C4

A9120646

Comments: ATTN: PAUL WOJDAK

CERTIFICATE A9120646

WESTMIN MINES LTD.

Project: PRINCETON E. 6106
P.O. # :

Samples submitted to our lab in Vancouver, BC.
This report was printed on 6-SEP-91.

SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
201	95	Dry, sieve to -80 mesh
203	1	Dry, sieve to -35 mesh
205	1	Geochem ring to approx 150 mesh
217	1	Geochem ring entire sample
238	95	NITRIC-AQUA REGIA DIGESTION

ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
983	95	Au ppb: Fuse 30 g sample	FA-AAS	5	10000
13	95	As ppm: HNO3-aqua regia digest	AAS-HYDRIDE/EDL	1	10000
1005	95	Ag ppm: 9 element,soil and rock	ICP-AES	0.5	200
1929	95	Co ppm: 9 element, soil & rock	ICP-AES	1	10000
1931	95	Cu ppm: 9 element, soil & rock	ICP-AES	1	10000
1932	95	Fe %: 9 element, soil & rock	ICP-AES	0.01	15.00
1937	95	Mn ppm: 9 element, soil & rock	ICP-AES	5	10000
1938	95	Mo ppm: 9 element, soil & rock	ICP-AES	1	10000
1940	95	Ni ppm: 9 element, soil & rock	ICP-AES	1	10000
1004	95	Pb ppm: 9 element,soil and rock	ICP-AES	5	10000
1950	95	Zn ppm: 9 element, soil & rock	ICP-AES	2	10000

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
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P.O. Box 49066, The Bentall Centre
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Project : PRINCETON E. 6106
Comments: ATTN: PAUL WOJDAK

Certificate Date: 06-SEP-91
Invoice No. :I9120646
P.O. Number :

CERTIFICATE OF ANALYSIS A9120646

SAMPLE DESCRIPTION	PREP CODE		Au ppb FA+AA	As ppm	Ag ppm	Co ppm	Cu ppm	Fe %	Mn ppm	Mo ppm	Ni ppm	Pb ppm	Zn ppm			
00N/S 0100E	201	238	< 5	2	< 0.5	8	35	2.50	300	< 1	10	< 5	188			
00N/S 0200E	201	238	< 5	3	< 0.5	9	162	3.31	270	< 1	12	10	116			
00N/S 0300E	201	238	< 5	3	0.5	7	82	2.59	195	1	8	5	86			
00N/S 0400E	201	238	< 5	1	< 0.5	4	6	2.23	250	< 1	1	< 5	48			
00N/S 0500E	201	238	< 5	1	< 0.5	3	8	1.97	170	1	2	5	72			
00N/S 0600E	201	238	< 5	1	< 0.5	6	29	1.89	100	1	6	5	72			
00N/S 0700E	201	238	< 5	1	< 0.5	4	49	2.32	665	2	7	5	70			
00N/S 0800E	201	238	< 5	1	< 0.5	7	29	2.23	205	7	6	< 5	60			
00N/S 0900E	201	238	< 5	1	< 0.5	3	14	1.95	135	1	4	< 5	56			
00N/S 1000E	201	238	< 5	1	< 0.5	2	5	1.39	165	< 1	2	< 5	42			
00N/S 0000E/W	201	238	< 5	2	< 0.5	7	34	2.24	305	< 1	9	15	116			
00N/S 0100W	201	238	< 5	2	< 0.5	5	16	1.74	270	< 1	4	10	66			
00N/S 0200W	201	238	< 5	7	< 0.5	7	33	2.23	215	1	7	5	136			
00N/S 0300W	201	238	< 5	2	< 0.5	5	14	2.05	350	< 1	3	< 5	68			
00N/S 0400W	201	238	< 5	2	< 0.5	5	18	2.00	430	< 1	6	5	118			
00N/S 0500W	201	238	< 5	2	< 0.5	5	16	1.94	565	1	8	10	120			
400S 0100E	201	238	< 5	1	< 0.5	6	39	2.09	315	< 1	5	5	52			
400S 0200E	201	238	< 5	2	< 0.5	7	30	2.10	265	< 1	4	< 5	52			
400S 0300E	201	238	< 5	1	< 0.5	5	41	1.79	390	< 1	5	5	54			
400S 0400E	201	238	< 5	2	< 0.5	6	29	2.12	210	< 1	3	10	58			
400S 0500E	201	238	< 5	2	< 0.5	5	20	1.85	530	< 1	4	5	86			
400S 0600E	201	238	< 5	1	< 0.5	2	13	1.50	90	< 1	2	< 5	50			
400S 0700E	201	238	< 5	2	< 0.5	4	10	2.26	305	1	6	10	80			
400S 0800E	201	238	< 5	1	< 0.5	6	32	2.44	215	< 1	5	5	72			
400S 0900E	201	238	< 5	1	< 0.5	6	19	1.91	330	1	3	< 5	76			
400S 1000E	201	238	< 5	1	< 0.5	6	22	2.17	310	1	4	< 5	116			
400S 0000E/W	201	238	< 5	2	< 0.5	6	27	2.03	240	< 1	5	5	66			
400S 0100W	201	238	< 5	2	< 0.5	7	33	2.03	230	< 1	5	5	62			
400S 0200W	201	238	< 5	2	< 0.5	6	18	1.97	475	< 1	5	5	104			
400S 0300W	201	238	< 5	2	< 0.5	6	25	2.03	520	1	6	10	106			
400S 0400W	201	238	< 5	2	< 0.5	5	27	1.81	240	< 1	6	5	52			
400S 0500W	201	238	< 5	3	< 0.5	6	35	2.09	155	< 1	7	5	70			
800S 0100E	201	238	< 5	2	< 0.5	4	9	1.86	300	< 1	4	5	66			
800S 0200E	201	238	< 5	2	< 0.5	6	16	2.16	660	< 1	5	5	86			
800S 0300E	201	238	< 5	2	< 0.5	5	22	2.30	205	< 1	4	5	68			
800S 0400E	201	238	< 5	2	< 0.5	3	6	1.54	160	1	1	5	44			
800S 0500E	201	238	< 5	2	< 0.5	6	17	2.34	285	1	6	10	208			
800S 0600E	201	238	< 5	1	< 0.5	5	14	1.97	435	< 1	4	5	78			
800S 0700E	201	238	< 5	< 1	< 0.5	2	14	0.79	95	1	2	5	36			
800S 0800E	201	238	< 5	< 1	< 0.5	5	16	1.93	175	1	3	5	66			

CERTIFICATION: B. Caughlin

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers

212 Brooksbank Ave., North Vancouver
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PHONE: 604-984-0221

To: WESTMIN MINES LTD.

P.O. Box 49066, The Bentall Centre
VANCOUVER, BC
V7X 1C4

Project : PRINCETON E. 6106
Comments: ATTN: PAUL WOJDAK

Certificate Date: 06-SEP-91
Invoice No. : I9120646
P.O. Number :

CERTIFICATE OF ANALYSIS A9120646

SAMPLE DESCRIPTION	PREP CODE		Au ppb FA+AA	As ppm	Ag ppm	Co ppm	Cu ppm	Fe %	Mn ppm	Mo ppm	Ni ppm	Pb ppm	Zn ppm			
800S 0900E	201	238	< 5	1	< 0.5	6	32	2.09	290	3	7	5	110			
800S 1000E	201	238	< 5	3	< 0.5	5	16	2.06	275	1	3	5	70			
800S 0000E/W	201	238	< 5	1	< 0.5	5	7	1.82	510	< 1	5	5	136			
800S 0100W	201	238	< 5	1	< 0.5	6	19	2.01	550	< 1	5	5	74			
800S 0200W	201	238	< 5	3	< 0.5	5	15	1.88	365	1	5	10	100			
800S 0300W	201	238	< 5	2	< 0.5	5	21	2.35	360	< 1	7	5	92			
800S 0400W	201	238	< 5	2	< 0.5	5	28	1.91	210	1	7	< 5	74			
800S 0500W	201	238	< 5	1	< 0.5	5	7	1.66	130	< 1	4	5	50			
1200S 0100E	201	238	< 5	1	< 0.5	6	12	1.79	240	< 1	4	5	46			
1200S 0200E	201	238	< 5	1	< 0.5	5	13	1.83	180	< 1	4	5	56			
1200S 0300E	201	238	< 5	1	< 0.5	2	7	1.65	95	< 1	3	5	38			
1200S 0400E	201	238	< 5	3	< 0.5	5	25	2.31	405	< 1	8	5	68			
1200S 0500E	201	238	< 5	3	< 0.5	8	14	4.63	310	4	14	5	74			
1200S 0600E	201	238	< 5	1	< 0.5	7	28	2.27	270	1	9	< 5	88			
1200S 0700E	201	238	< 5	1	< 0.5	6	21	2.05	210	1	6	5	62			
1200S 0800E	201	238	< 5	1	< 0.5	7	26	2.14	345	< 1	7	10	90			
1200S 0900E	201	238	< 5	1	< 0.5	6	13	2.04	450	1	4	< 5	62			
1200S 1000E	201	238	< 5	1	< 0.5	1	7	1.16	60	< 1	1	5	24			
1200S 0000E/W	201	238	< 5	1	< 0.5	5	9	1.72	525	< 1	3	15	68			
1200S 0100W	201	238	< 5	1	< 0.5	7	21	2.11	1310	2	7	10	88			
1200S 0200W	201	238	< 5	2	< 0.5	6	14	2.01	335	< 1	5	< 5	90			
1200S 0300W	201	238	< 5	2	< 0.5	5	17	1.71	210	< 1	5	< 5	48			
1200S 0400W	201	238	< 5	2	< 0.5	5	24	1.79	190	< 1	5	10	48			
1200S 0500W	201	238	< 5	2	< 0.5	6	24	1.99	245	< 1	5	5	54			
1600S 0100E	201	238	< 5	1	< 0.5	5	18	1.87	240	< 1	7	10	172			
1600S 0200E	201	238	< 5	1	< 0.5	5	12	1.80	455	< 1	6	5	58			
1600S 0300E	201	238	< 5	1	< 0.5	5	12	1.94	265	< 1	6	5	54			
1600S 0400E	201	238	< 5	1	< 0.5	6	13	2.14	130	< 1	8	5	104			
1600S 0500E	201	238	< 5	1	< 0.5	4	22	1.59	225	< 1	5	10	42			
1600S 0600E	201	238	< 5	1	< 0.5	4	22	1.61	190	< 1	5	5	40			
1600S 0700E	201	238	< 5	1	< 0.5	5	19	2.00	135	< 1	6	5	50			
1600S 0800E	201	238	< 5	1	< 0.5	4	18	1.92	130	< 1	5	5	52			
1600S 0900E	201	238	< 5	1	< 0.5	6	13	2.14	375	< 1	6	5	64			
1600S 1000E	201	238	< 5	1	< 0.5	5	12	2.03	380	< 1	5	5	58			
1600S 0000E/W	201	238	< 5	1	< 0.5	4	8	1.62	280	< 1	4	10	130			
1600S 0100W	201	238	< 5	1	< 0.5	5	15	1.66	220	< 1	5	10	66			
1600S 0200W	201	238	< 5	1	< 0.5	4	12	1.93	305	< 1	6	10	104			
1600S 0300W	201	238	< 5	1	< 0.5	6	8	1.78	485	< 1	5	< 5	100			
1600S 0400W	201	238	< 5	1	< 0.5	7	30	2.44	350	< 1	9	10	116			
1600S 0500W	201	238	< 5	1	< 0.5	6	17	1.88	525	< 1	8	5	134			

CERTIFICATION: B. Caughlin

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers

212 Brooksbank Ave., North Vancouver
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To: WESTMIN MINES LTD.

P.O. Box 49066, The Bentall Centre
VANCOUVER, BC
V7X 1C4

Project : PRINCETON E. 6106
Comments: ATTN: PAUL WOJDAK

Certificate Date: 06-SEP-91
Invoice No. : I9120646
P.O. Number :

CERTIFICATE OF ANALYSIS A9120646

SAMPLE DESCRIPTION	PREP CODE		Au ppb FA+AA	As ppm	Ag ppm	Co ppm	Cu ppm	Fe %	Mn ppm	Mo ppm	Ni ppm	Pb ppm	Zn ppm			
2000S 0100E	201	238	< 5	1	< 0.5	6	16	1.88	155	< 1	10	5	40			
2000S 0200E	201	238	< 5	1	< 0.5	7	19	2.13	155	< 1	12	5	40			
2000S 0300E	201	238	< 5	1	< 0.5	8	20	2.30	145	< 1	21	10	64			
2000S 0400E	201	238	< 5	1	< 0.5	6	17	2.15	195	< 1	13	5	80			
2000S 0500E	201	238	< 5	1	< 0.5	5	12	2.00	465	< 1	7	15	68			
2000S 0600E	201	238	< 5	2	< 0.5	6	21	1.94	170	1	8	10	52			
2000S 0700E	201	238	< 5	1	< 0.5	5	6	1.57	195	< 1	6	10	104			
2000S 0800E	201	238	< 5	< 1	< 0.5	4	7	1.82	325	< 1	2	5	34			
2000S 0900E	201	238	< 5	< 1	< 0.5	4	5	1.80	210	< 1	3	10	34			
2000S 1000E	201	203	< 5	1	< 0.5	8	24	2.21	145	< 1	12	10	50			
2000S 0100W	201	238	< 5	1	< 0.5	6	15	1.88	300	< 1	9	10	66			
2000S 0200W	201	238	< 5	< 1	< 0.5	3	13	1.07	130	< 1	8	5	24			
2000S 0300W	201	238	< 5	< 1	< 0.5	3	13	1.06	140	< 1	5	5	20			
2000S 0400W	201	238	< 5	1	< 0.5	6	15	1.77	230	< 1	7	5	76			
2000S 0500W	201	238	< 5	1	< 0.5	6	14	1.81	330	< 1	8	5	76			

CERTIFICATION: B. Caplin

Chemex Labs Ltd.

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V7X 1C4

A9120723

Comments: ATTN: PAUL WOJDAK

CERTIFICATE A9120723

WESTMIN MINES LTD.

Project: 6106
P.O. # :

Samples submitted to our lab in Vancouver, BC.
This report was printed on 9-SEP-91.

SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
201	68	Dry, sieve to -80 mesh
203	1	Dry, sieve to -35 mesh
205	1	Geochem ring to approx 150 mesh
217	1	Geochem ring entire sample
238	68	NITRIC-AQUA REGIA DIGESTION

ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
983	68	Au ppb: Fuse 30 g sample	FA-AAS	5	10000
13	68	As ppm: HNO3-aqua regia digest	AAS-HYDRIDE/EDL	1	10000
1005	68	Ag ppm: 9 element,soil and rock	ICP-AES	0.5	200
1929	68	Co ppm: 9 element, soil & rock	ICP-AES	1	10000
1931	68	Cu ppm: 9 element, soil & rock	ICP-AES	1	10000
1932	68	Fe %: 9 element, soil & rock	ICP-AES	0.01	15.00
1937	68	Mn ppm: 9 element, soil & rock	ICP-AES	5	10000
1938	68	Mo ppm: 9 element, soil & rock	ICP-AES	1	10000
1940	68	Ni ppm: 9 element, soil & rock	ICP-AES	1	10000
1004	68	Pb ppm: 9 element,soil and rock	ICP-AES	5	10000
1950	68	Zn ppm: 9 element, soil & rock	ICP-AES	2	10000

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Project : 6106
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Page Number :1
Total Pages :2
Certificate Date: 09-SEP-91
Invoice No. :I9120723
P.O. Number :

CERTIFICATE OF ANALYSIS A9120723

SAMPLE DESCRIPTION	PREP CODE		Au ppb FA+AA	As ppm	Ag ppm	Co ppm	Cu ppm	Fe %	Mn ppm	Mo ppm	Ni ppm	Pb ppm	Zn ppm			
1600N 0000E/W	201	238	< 5	1	< 0.5	6	17	2.17	135	< 1	11	10	52			
1600N 0200E	201	238	< 5	< 1	< 0.5	5	13	2.17	150	< 1	11	5	68			
1600N 0400E	201	238	< 5	< 1	< 0.5	5	19	1.46	170	< 1	9	10	48			
1600N 0600E	201	238	< 5	< 1	< 0.5	4	15	1.94	860	< 1	9	5	110			
1600N 0800E	201	238	< 5	< 1	< 0.5	6	14	2.00	140	< 1	8	5	40			
1600N 1000E	201	238	< 5	< 1	< 0.5	5	16	1.74	400	< 1	10	< 5	50			
1600N 1200E	201	238	< 5	< 1	< 0.5	1	13	1.35	90	< 1	7	5	46			
1600N 1400E	201	238	< 5	< 1	< 0.5	5	13	1.89	200	< 1	9	5	52			
1600N 0200W	201	238	< 5	< 1	< 0.5	6	13	2.05	165	< 1	10	10	54			
1600N 0400W	201	238	< 5	1	< 0.5	4	16	1.71	220	< 1	7	5	38			
1600N 0600W	201	238	< 5	< 1	< 0.5	5	13	1.84	95	< 1	12	< 5	30			
1600N 0800W	201	238	< 5	< 1	< 0.5	6	16	2.29	290	< 1	14	< 5	52			
1600N 1000W	201	238	< 5	< 1	< 0.5	7	24	2.69	255	< 1	19	< 5	44			
1600N 1200W	201	238	< 5	< 1	< 0.5	7	14	2.25	330	< 1	17	5	46			
1600N 1400W	201	238	< 5	< 1	< 0.5	7	23	2.60	215	< 1	18	< 5	58			
1600N 1600W	201	238	< 5	1	< 0.5	6	20	2.39	225	< 1	12	5	58			
2800N 0000E/W	201	238	< 5	1	< 0.5	6	15	1.97	580	< 1	15	< 5	72			
2800N 0200E	201	238	< 5	< 1	< 0.5	4	13	1.87	130	< 1	11	< 5	48			
2800N 0400E	201	238	< 5	< 1	< 0.5	6	16	2.08	165	< 1	18	< 5	54			
2800N 0600E	201	238	< 5	< 1	< 0.5	5	16	1.83	315	< 1	10	5	82			
2800N 0800E/W	201	238	< 5	< 1	< 0.5	4	10	1.92	225	< 1	12	< 5	64			
2800N 1000E	201	238	< 5	< 1	< 0.5	5	17	2.21	160	< 1	13	5	54			
2800N 1200E	201	238	< 5	< 1	< 0.5	5	11	1.77	340	< 1	12	5	92			
2800N 1400E	201	238	< 5	< 1	< 0.5	6	14	1.93	275	< 1	14	< 5	68			
2800N 1600E	201	238	< 5	< 1	< 0.5	3	18	1.67	210	< 1	7	5	70			
2800N 1800E	201	238	< 5	< 1	< 0.5	5	13	2.46	170	< 1	4	5	50			
2800N 2000E	201	238	< 5	< 1	< 0.5	4	11	2.04	245	< 1	8	< 5	56			
2800N 0200W	201	238	< 5	1	< 0.5	5	11	2.08	210	< 1	13	10	60			
2800N 0400W	201	238	< 5	1	< 0.5	8	18	2.48	185	< 1	23	5	66			
2800N 0600W	201	238	< 5	1	< 0.5	8	19	2.55	190	< 1	31	10	80			
2800N 0800W	201	238	< 5	1	< 0.5	5	11	1.95	220	< 1	18	< 5	76			
2800N 1000W	201	238	< 5	1	< 0.5	5	15	2.23	300	< 1	17	< 5	70			
2800N 1200W	201	238	< 5	1	< 0.5	8	20	2.57	545	< 1	15	5	78			
4000N 0000E/W	201	238	< 5	1	< 0.5	5	18	2.07	375	< 1	7	5	52			
4000N 0200E	201	238	< 5	< 1	< 0.5	7	17	2.26	265	< 1	29	5	78			
4000N 0400E	201	238	< 5	< 1	< 0.5	8	22	2.52	245	< 1	25	10	82			
4000N 0600E	201	238	< 5	< 1	< 0.5	5	12	2.24	185	< 1	12	< 5	72			
4000N 0800E	201	238	< 5	< 1	< 0.5	7	20	2.46	195	< 1	18	< 5	52			
4000N 1000E	201	238	< 5	< 1	< 0.5	4	12	1.61	260	< 1	12	5	66			
4000N 1400E	201	238	< 5	< 1	< 0.5	4	11	1.83	605	< 1	9	5	98			

CERTIFICATION: B. Caufield

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers

212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: WESTMIN MINES LTD.

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VANCOUVER, BC
V7X 1C4

Project : 6106
Comments: ATTN: PAUL WOJDAK

Certificate Date: 09-SEP-91
Invoice No. : I9120723
P.O. Number :

CERTIFICATE OF ANALYSIS A9120723

SAMPLE DESCRIPTION	PREP CODE		Au ppb FA+AA	As ppm	Ag ppm	Co ppm	Cu ppm	Fe %	Mn ppm	Mo ppm	Ni ppm	Pb ppm	Zn ppm
4000N 1600E	201	238	< 5	1	< 0.5	5	18	1.97	365	< 1	13	5	128
4000N 1800E	201	238	< 5	3	< 0.5	7	63	2.82	605	< 1	17	< 5	86
4000N 0200W	201	238	< 5	1	< 0.5	7	23	2.86	150	< 1	14	5	54
4000N 0400W	201	238	< 5	< 1	< 0.5	14	34	3.22	245	< 1	69	10	66
4000N 0600W	201	238	< 5	1	< 0.5	7	20	2.61	210	< 1	15	5	64
4000N 0800W	201	238	< 5	1	< 0.5	8	23	2.93	325	< 1	17	5	70
4000N 1000W	201	238	< 5	< 1	< 0.5	8	25	2.80	465	< 1	18	10	76
4000N 1200W	201	238	< 5	< 1	< 0.5	6	16	2.25	140	< 1	15	< 5	52
4000N 1400W	201	238	< 5	< 1	< 0.5	7	18	2.53	270	< 1	20	5	90
4000N 1600W	201	238	< 5	< 1	< 0.5	7	19	2.40	215	< 1	24	10	74
4000N 1800W	201	203	< 5	< 1	< 0.5	8	22	2.43	305	< 1	24	10	80
4400N 0000E/W	201	238	< 5	1	< 0.5	6	14	2.14	180	< 1	19	< 5	56
4400N 0200W	201	238	< 5	< 1	< 0.5	3	8	1.11	85	< 1	8	< 5	20
5600N 0000E/W	201	238	< 5	1	< 0.5	5	13	1.89	415	< 1	11	5	74
5600N 0200E	201	238	< 5	1	< 0.5	5	22	2.23	215	< 1	18	5	82
5600N 0400E	201	238	< 5	1	< 0.5	9	31	3.01	185	< 1	37	5	68
5600N 0600E	201	238	< 5	1	< 0.5	20	50	3.60	340	< 1	68	10	80
5600N 0800E	201	238	< 5	< 1	< 0.5	3	11	1.75	200	< 1	3	< 5	64
5600N 1000E	201	238	< 5	< 1	< 0.5	4	12	1.73	410	< 1	7	< 5	114
5600N 0200W	201	238	< 5	< 1	< 0.5	4	13	1.76	290	< 1	8	< 5	92
5600N 0400W	201	238	< 5	1	< 0.5	6	19	2.41	160	< 1	10	< 5	50
5600N 0600W	201	238	< 5	1	< 0.5	5	14	2.03	325	< 1	9	5	60
5600N 0800W	201	238	< 5	1	< 0.5	6	21	2.28	270	< 1	12	< 5	82
5600N 1000W	201	238	< 5	< 1	< 0.5	3	14	1.52	160	< 1	7	< 5	40
5600N 1200W	201	238	< 5	1	< 0.5	4	16	1.79	400	< 1	15	< 5	84
5600N 1400W	201	238	< 5	1	< 0.5	5	15	1.87	510	< 1	13	5	66
5600N 1600W	201	238	< 5	1	< 0.5	7	30	2.42	760	< 1	21	5	54
5600N 1800W	201	238	< 5	< 1	< 0.5	4	13	1.71	115	< 1	10	< 5	38

CERTIFICATION: B. Caughlin

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
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PHONE: 604-984-0221

TO: WESTMIN MINES LTD.

P.O. Box 49066, The Bentall Centre
VANCOUVER, BC
V7X 1C4

A9120728

Comments: ATTN: PAUL WOJDAK

CERTIFICATE A9120728

WESTMIN MINES LTD.

Project: 6106
P.O. # :

Samples submitted to our lab in Vancouver, BC.
This report was printed on 6-SEP-91.

SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
201	6	Dry, sieve to -80 mesh
238	6	NITRIC-AQUA REGIA DIGESTION

* NOTE 1:

Code 1000 is used for repeat gold analyses
It shows typical sample variability due to coarse gold effects. Each value is correct for its particular subsample.

ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
1000	6	Au check analysis		1	10000
983	6	Au ppb: Fuse 30 g sample	FA-AAS	5	10000
983	6	Au ppb: Fuse 30 g sample	FA-AAS	5	10000
13	6	As ppm: HNO3-aqua regia digest	AAS-HYDRIDE/EDL	1	10000
1005	6	Ag ppm: 9 element,soil and rock	ICP-AES	0.5	200
1929	6	Co ppm: 9 element, soil & rock	ICP-AES	1	10000
1931	6	Cu ppm: 9 element, soil & rock	ICP-AES	1	10000
1932	6	Fe %: 9 element, soil & rock	ICP-AES	0.01	15.00
1937	6	Mn ppm: 9 element, soil & rock	ICP-AES	5	10000
1938	6	Mo ppm: 9 element, soil & rock	ICP-AES	1	10000
1940	6	Ni ppm: 9 element, soil & rock	ICP-AES	1	10000
1004	6	Pb ppm: 9 element,soil and rock	ICP-AES	5	10000
1950	6	Zn ppm: 9 element, soil & rock	ICP-AES	2	10000
866	6	Fusion weight in grams	BALANCE	0.01	30.00

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Project : 6106
Comments: ATTN: PAUL WOJDAK

Page Number :1
Total Pages :1
Certificate Date: 06-SEP-91
Invoice No. : I9120728
P.O. Number :

CERTIFICATE OF ANALYSIS A9120728

SAMPLE DESCRIPTION	PREP CODE		Au check	Au ppb FA+AA	Au ppb FA+AA	As ppm	Ag ppm	Co ppm	Cu ppm	Fe %	Mn ppm	Mo ppm	Ni ppm	Pb ppm	Zn ppm	fusion wt. gm
487384	201	238	< 5	< 5	< 5	3	< 0.5	8	261	3.02	540	< 1	12	5	222	30.00
487385	201	238	< 5	< 5	< 5	2	< 0.5	10	25	1.47	795	3	5	15	106	30.00
487386	201	238	5	10	< 5	2	< 0.5	7	294	2.95	420	< 1	10	5	128	30.00
487387	201	238	< 5	< 5	< 5	1	< 0.5	5	36	1.71	475	< 1	7	5	44	30.00
487388	201	238	< 5	< 5	< 5	2	< 0.5	9	39	2.16	545	< 1	25	10	44	30.00
487389	201	238	< 5	< 5	< 5	4	< 0.5	7	33	2.03	820	< 1	20	5	74	30.00

CERTIFICATION: B. Caughlin

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A9120815

Comments: ATTN: PAUL WOJDAK

CERTIFICATE A9120815

WESTMIN MINES LTD.

Project: 6106
P.O. # :

Samples submitted to our lab in Vancouver, BC.
This report was printed on 9-SEP-91.

SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
201	58	Dry, sieve to -80 mesh
238	58	NITRIC-AQUA REGIA DIGESTION

ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
983	58	Au ppb: Fuse 30 g sample	FA-AAS	5	10000
13	58	As ppm: HNO3-aqua regia digest	AAS-HYDRIDE/EDL	1	10000
1005	58	Ag ppm: 9 element,soil and rock	ICP-AES	0.5	200
1929	58	Co ppm: 9 element, soil & rock	ICP-AES	1	10000
1931	58	Cu ppm: 9 element, soil & rock	ICP-AES	1	10000
1932	58	Fe %: 9 element, soil & rock	ICP-AES	0.01	15.00
1937	58	Mn ppm: 9 element, soil & rock	ICP-AES	5	10000
1938	58	Mo ppm: 9 element, soil & rock	ICP-AES	1	10000
1940	58	Ni ppm: 9 element, soil & rock	ICP-AES	1	10000
1004	58	Pb ppm: 9 element,soil and rock	ICP-AES	5	10000
1950	58	Zn ppm: 9 element, soil & rock	ICP-AES	2	10000

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Project : 6106
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Page Number :2
Total Pages :2
Certificate Date: 09-SEP-91
Invoice No. :I9120815
P.O. Number :

CERTIFICATE OF ANALYSIS A9120815

SAMPLE DESCRIPTION	PREP CODE		Au ppb FA+AA	As ppm	Ag ppm	Co ppm	Cu ppm	Fe %	Mn ppm	Mo ppm	Ni ppm	Pb ppm	Zn ppm			
W8 600S 0500E	201	238	< 5	1	< 0.5	5	10	1.79	120	< 1	9	4	56			
W8 600S 0600E	201	238	< 5	1	< 0.5	7	21	2.22	230	< 1	15	8	82			
W8 600S 0700E	201	238	< 5	1	< 0.5	6	14	2.09	350	< 1	11	6	88			
W8 600S 0800E	201	238	< 5	1	< 0.5	8	18	2.22	825	< 1	15	8	114			
W8 800S 0000E/W	201	238	< 5	< 1	< 0.5	4	6	1.71	325	< 1	7	4	66			
W8 800S 0100E	201	238	< 5	< 1	< 0.5	4	7	1.95	365	< 1	8	6	76			
W8 800S 0200E	201	238	< 5	< 1	< 0.5	4	13	1.71	330	< 1	10	6	82			
W8 800S 0300E	201	238	< 5	< 1	< 0.5	5	9	1.91	215	< 1	11	4	80			
W8 800S 0400E	201	238	< 5	< 1	< 0.5	5	9	1.70	235	< 1	7	4	50			
W8 800S 0500E	201	238	< 5	1	< 0.5	5	19	1.89	370	< 1	12	6	82			
W8 800S 0600E	201	238	< 5	1	< 0.5	6	24	2.04	275	< 1	15	6	78			
W8 800S 0700E	201	238	< 5	1	< 0.5	5	21	1.93	435	< 1	13	6	92			
W8 1000S 0000E/W	201	238	< 5	1	< 0.5	4	9	1.61	250	< 1	6	4	60			
W8 1000S 0100E	201	238	< 5	1	< 0.5	4	5	1.63	370	< 1	8	4	88			
W8 1000S 0200E	201	238	< 5	< 1	< 0.5	4	7	1.56	175	< 1	15	4	84			
W8 1000S 0300E	201	238	< 5	1	< 0.5	8	17	2.23	345	< 1	22	8	74			
W8 1000S 0400E	201	238	< 5	1	< 0.5	5	9	1.89	275	< 1	9	8	68			
W8 1000S 0500E	201	238	< 5	1	< 0.5	5	10	2.07	205	< 1	16	4	78			

CERTIFICATION: B. Caufield

Chemex Labs Ltd.

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Project : 6106
Comments: ATTN: PAUL WOJDAK

Page Number : 1
Total Pages : 2
Certificate Date: 09-SEP-91
Invoice No. : I9120815
P.O. Number :

CERTIFICATE OF ANALYSIS A9120815

SAMPLE DESCRIPTION	PREP CODE		Au ppb FA+AA	As ppm	Ag ppm	Co ppm	Cu ppm	Fe %	Mn ppm	Mo ppm	Ni ppm	Pb ppm	Zn ppm			
W8 00N/S 0000E/W	201	238	< 5	1	< 0.5	6	15	1.69	350	< 1	8	8	70			
W8 00N/S 0100E	201	238	< 5	9	< 0.5	12	47	3.96	690	< 1	32	12	90			
W8 00N/S 0200E	201	238	< 5	1	< 0.5	6	11	1.83	305	< 1	8	4	60			
W8 00N/S 0300E	201	238	25	1	< 0.5	6	11	2.17	220	< 1	10	4	78			
W8 00N/S 0400E	201	238	< 5	1	< 0.5	8	23	2.52	185	< 1	22	8	66			
W8 00N/S 0500E	201	238	< 5	2	< 0.5	8	13	2.28	540	< 1	19	6	110			
W8 00N/S 0600E	201	238	< 5	1	< 0.5	7	15	2.11	320	< 1	13	6	102			
W8 00N/S 0700E	201	238	< 5	3	< 0.5	7	23	2.49	260	< 1	12	8	54			
W8 00N/S 0800E	201	238	< 5	1	< 0.5	8	17	2.32	345	1	14	8	98			
W8 00N/S 0900E	201	238	< 5	1	< 0.5	7	13	2.26	165	1	11	8	78			
W8 00N/S 1000E	201	238	< 5	2	< 0.5	6	8	1.86	770	2	7	6	100			
W8 00N/S 1100E	201	238	< 5	2	< 0.5	6	9	1.86	725	1	8	4	98			
W8 00N/S 1200E	201	238	< 5	1	< 0.5	6	8	1.79	435	1	8	6	98			
W8 200S 0000E/W	201	238	< 5	1	< 0.5	7	18	2.30	300	< 1	10	6	68			
W8 200S 0100E	201	238	< 5	2	< 0.5	9	26	2.78	240	< 1	15	6	62			
W8 200S 0200E	201	238	< 5	1	< 0.5	4	10	1.91	215	< 1	7	4	74			
W8 200S 0300E	201	238	< 5	2	< 0.5	8	22	2.47	300	< 1	15	6	56			
W8 200S 0400E	201	238	< 5	2	< 0.5	7	20	2.39	215	< 1	16	6	60			
W8 200S 0500E	201	238	< 5	2	< 0.5	7	21	2.41	240	< 1	16	6	82			
W8 200S 0600E	201	238	< 5	1	< 0.5	6	16	1.68	215	< 1	7	6	96			
W8 200S 0700E	201	238	< 5	1	< 0.5	5	15	1.65	470	< 1	8	8	92			
W8 200S 0800E	201	238	< 5	2	< 0.5	7	18	2.39	210	< 1	11	6	54			
W8 200S 0900E	201	238	< 5	2	< 0.5	6	14	2.01	155	< 1	10	4	60			
W8 200S 1000E	201	238	< 5	2	< 0.5	6	14	2.08	275	1	11	8	84			
W8 400S 0000E/W	201	238	< 5	1	< 0.5	6	13	2.03	230	< 1	11	4	88			
W8 400S 0100E	201	238	< 5	1	< 0.5	7	52	2.19	440	< 1	20	6	112			
W8 400S 0200E	201	238	< 5	4	< 0.5	10	40	2.62	640	< 1	22	6	98			
W8 400S 0300E	201	238	< 5	1	< 0.5	5	11	1.83	405	< 1	9	6	70			
W8 400S 0400E	201	238	< 5	1	< 0.5	4	7	1.56	610	< 1	6	2	84			
W8 400S 0500E	201	238	< 5	1	< 0.5	4	7	1.53	660	< 1	6	4	86			
W8 400S 0600E	201	238	< 5	2	< 0.5	8	15	2.11	350	< 1	15	6	74			
W8 400S 0700E	201	238	< 5	1	< 0.5	5	13	1.74	225	< 1	9	6	72			
W8 400S 0800E	201	238	< 5	1	< 0.5	5	22	1.98	280	< 1	19	4	62			
W8 400S 0900E	201	238	< 5	1	< 0.5	6	12	2.00	240	< 1	8	4	58			
W8 400S 1000E	201	238	< 5	1	< 0.5	5	14	1.89	230	< 1	11	6	82			
W8 600S 0000E/W	201	238	< 5	1	< 0.5	5	11	1.89	205	< 1	12	4	68			
W8 600S 0100E	201	238	< 5	1	< 0.5	6	13	2.01	235	< 1	13	6	104			
W8 600S 0200E	201	238	< 5	1	< 0.5	6	13	1.99	250	< 1	13	6	70			
W8 600S 0300E	201	238	< 5	2	< 0.5	5	15	1.91	220	< 1	10	8	56			
W8 600S 0400E	201	238	< 5	2	< 0.5	5	18	2.04	185	< 1	14	4	72			

CERTIFICATION: B. Caufield

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.o: WESTMIN MINES LTD.

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VANCOUVER, BC
V7X 1C4

A9121003

Comments: ATTN: PAUL WOJDAK

CERTIFICATE A9121003

WESTMIN MINES LTD.

Project: PRINCETON 6106
P.O. # :

Samples submitted to our lab in Vancouver, BC.
This report was printed on 10-SEP-91.

SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
205	3	Geochem ring to approx 150 mesh
294	3	Crush and split (0-10 pounds)
285	3	ICP - HF digestion charge

ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
983	3	Au ppb: Fuse 30 g sample	FA-AAS	5	10000
578	3	Ag ppm: 24 element, rock & core	AAS	0.5	200
573	3	Al %: 24 element, rock & core	ICP-AES	0.01	25.0
565	3	Ba ppm: 24 element, rock & core	ICP-AES	10	10000
575	3	Be ppm: 24 element, rock & core	ICP-AES	0.5	10000
561	3	Bi ppm: 24 element, rock & core	ICP-AES	2	10000
576	3	Ca %: 24 element, rock & core	ICP-AES	0.01	25.0
562	3	Cd ppm: 24 element, rock & core	ICP-AES	0.5	10000
563	3	Co ppm: 24 element, rock & core	ICP-AES	1	10000
569	3	Cr ppm: 24 element, rock & core	ICP-AES	1	10000
577	3	Cu ppm: 24 element, rock & core	ICP-AES	1	10000
566	3	Fe %: 24 element, rock & core	ICP-AES	0.01	25.0
584	3	K %: 24 element, rock & core	ICP-AES	0.01	20.0
570	3	Mg %: 24 element, rock & core	ICP-AES	0.01	20.0
568	3	Mn ppm: 24 element, rock & core	ICP-AES	5	10000
554	3	Mo ppm: 24 element, rock & core	ICP-AES	1	10000
583	3	Na %: 24 element, rock & core	ICP-AES	0.01	5.00
564	3	Ni ppm: 24 element, rock & core	ICP-AES	1	10000
559	3	P ppm: 24 element, rock & core	ICP-AES	10	10000
560	3	Pb ppm: 24 element, rock & core	AAS	2	10000
582	3	Sr ppm: 24 element, rock & core	ICP-AES	1	10000
579	3	Ti %: 24 element, rock & core	ICP-AES	0.01	10.00
572	3	V ppm: 24 element, rock & core	ICP-AES	1	10000
556	3	W ppm: 24 element, rock & core	ICP-AES	10	10000
558	3	Zn ppm: 24 element, rock & core	ICP-AES	2	10000

Chemex Labs Ltd.

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V7X 1C4

Project : PRINCETON 6106
Comments: ATTN: PAUL WOJDAK

Certificate Date: 10-SEP-91
Invoice No. : I9121003
P.O. Number :

CERTIFICATE OF ANALYSIS A9121003

SAMPLE DESCRIPTION	PREP CODE		Au ppb FA+AA	Ag ppm AAS	Al % (ICP)	Ba ppm (ICP)	Be ppm (ICP)	Bi ppm (ICP)	Ca % (ICP)	Cd ppm (ICP)	Co ppm (ICP)	Cr ppm (ICP)	Cu ppm (ICP)	Fe % (ICP)	K % (ICP)	Mg % (ICP)
487017	205	294	< 5	19.2	5.51	590	< 0.5	20	3.35	< 0.5	11	61	714	11.80	1.15	1.31
487018	205	294	< 5	< 0.2	9.94	590	0.5	< 2	4.33	< 0.5	16	37	64	4.22	1.84	0.61
487019	205	294	< 5	< 0.2	9.16	540	0.5	< 2	3.18	< 0.5	17	76	119	3.49	1.45	2.03

CERTIFICATION: B. Caughlin

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Project : PRINCETON 6106
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Page Number :1-B
Total Pages :1
Certificate Date: 10-SEP-91
Invoice No. :I9121003
P.O. Number :

CERTIFICATE OF ANALYSIS A9121003

SAMPLE DESCRIPTION	PREP CODE		Mn ppm (ICP)	Mo ppm (ICP)	Na % (ICP)	Ni ppm (ICP)	P ppm (ICP)	Pb ppm AAS	Sr ppm (ICP)	Ti % (ICP)	V ppm (ICP)	W ppm (ICP)	Zn ppm (ICP)			
487017	205	294	1120	3	1.79	28	870	4000	271	0.24	182	< 10	360			
487018	205	294	680	< 1	4.27	11	1290	30	451	0.61	131	< 10	86			
487019	205	294	555	8	4.02	32	1280	4	371	0.50	180	< 10	92			

CERTIFICATION: B. Caughlin

APPENDIX B

VANCOUVER PETROGRAPHICS REPORT BY K. E. NORTHCOTE

Vancouver Petrographics Ltd.

JAMES VINNELL, Manager
JOHN G. PAYNE, Ph.D. Geologist
CRAIG LEITCH, Ph.D. Geologist
JEFF HARRIS, Ph.D. Geologist
KEN E. NORTHCOTE, Ph.D. Geologist

P.O. BOX 39
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64.5

Murray Jones
Paul Wojdak
Westmin Resources Ltd.
#904-1055 Dunsmuir St.
Vancouver, B.C.
V7X 1C4
Tel. 681-2253, FAX 681-0357

Sept. 24, 1991
JOB # 238

Dear Mr. Jones,

Re: Samples 14-1, 487003, 487013, 487015, 487018

Petrographic description have been completed for the above 5 samples and the report is attached.

Please be advised the thin sections and rock samples will be returned via bus collect.

Yours truly,

Ken Northcote

K.E. Northcote, Ph.D., P.Eng. (604) 796-2068

14-1
Plagioclase, hornblende syenomonzonite

General description
Composed of medium grained plagioclase, fine-grained altered hornblende phenocrysts, minor unaltered augite. In a very fine grained feldspathic (K-feldspar > plagioclase) groundmass.

Hornblende varied intensity of alteration to secondary amphibole, chlorite, minor epidote and associated opaques. Plagioclase phenocrysts show crushed/shear fabric. Varied but generally weak intensity alteration dusting.

Weakly crushed fabric evident in most plagioclase phenocrysts.

Opaques; >5%, magnetite > pyrite.

Microscopic description
Phenocrysts: 40%

Plagioclase; >30%, subhedral/euhedral, (>0.2 to >3.0 mm). Varied intensity alteration dusting, shear/crush fabric controlled. Twinning indicates composition in andesine range.

Hornblende; >5%, subhedral/anhedral, (<0.1 to >1.5 mm). Disseminated grains, clusters of grains. Varied intensity of alteration to secondary amphibole, very minor epidote, chlorite.

Augite; >1%, anhedral, (.05 to 0.4 mm) Unaltered!!

Groundmass: >55%

K-feldspar; 35%, anhedral, (<.01 to >0.1 mm). Interstitial aggregates of grains.

Plagioclase; 20%, subhedral/anhedral (<.01 to >0.2 mm) Stubby interlocking felted grains.

Secondary amphibole; <5%, anhedral (<.01 to 0.1 mm). Radiating/felted clusters of acicular grains.

Accessories
Apatite; traces, subhedral, (to 0.2 mm).

Alteration assemblage
Secondary amphibole
Epidote
Chlorite
Opaques

Opaques; >5%, magnetite > pyrite, anhedral/euhedral. (<.01 to >0.4 mm) disseminated and associated with altered mafics.

Propylitic (epidote-sericite-amphibole)

487003
Altered hornblende micromonzodiorite

General description
Fine, equigranular, mesocratic. Composed of interlocking altered plagioclase and altered ragged hornblende.

Plagioclase altered by weak sericite, moderate semiopaque dusting leaving ghost-like twinning remnants. Hornblende shows varied stages of weak to total alteration to secondary amphibole, very minor epidote. Weak poikilitic texture.

Veined by K-feldspar with minor plagioclase; epidote.

Opaques; <10%, pyrite > magnetite. Disseminated. Pyrite also fracture controlled.

Microscopic description

Plagioclase; 45%, anhedral (<.05 to >0.5 mm). Stubby interlocking crystals. Masked by weak sericitic, stronger semiopaque alteration dusting.

Hornblende; >30%, anhedral (<.05 to >1.0 mm). Very irregular grains/clusters of grains interlocking with plagioclase. Weak poikilitic texture. Varied intensity alteration to secondary amphibole. Very minor epidote. Opaques.

Alteration assemblage
Secondary amphibole; anhedral (<.05 to 0.5 mm) Clusters of "shredded" bladed/fibrous grains associated with hornblende and complete alteration of hornblende.

Epidote; <<5%, anhedral (<.05 to 0.1 mm) associated with altered mafic.

Semiopaque alteration dusting.

Opaques; <10%, pyrite > magnetite. Disseminated. Pyrite also fracture controlled.

Veins: <10%
K-feldspar > plagioclase.

Epidote.

strong potassic alteration and

487013
Bedded trachyandesite tuff(?) (weak hornfels)

General description
Bedded feldspathic (plagioclase; introduced(?) K-feldspar) sedimentary tuffaceous(?). Layering/bedding conspicuous by differences in grain size. Abundantly disseminated slightly coarser elongate/prismatic grains aligned with bedding. Abundantly disseminated irregular very fine semiopaque grains, clusters of grains.

Conspicuous overprint of very irregular small clusters of acicular/fibrous secondary amphibole.

K-feldspar abundantly but irregularly intermixed with plagioclase groundmass. Also as conspicuous diffuse veinlets cutting through darker "layers" of groundmass with diffuse impregnation of wall rock. Proportion of original (if any) to introduced K-feldspar is not known.

Veinlets of K-feldspar as described above. Also secondary amphibole with associated plagioclase.

Opaques; <1%, minute grains euhedral pyrite.

Microscopic description
Tuffaceous(?) groundmass

Plagioclase; 40(?)%, anhedral (microgranular/0.1 mm). Generally microgranular intermixed with K-feldspar. Abundantly disseminated slightly coarser grains.

K-feldspar; (?)%, see Impregnation, below. Percentage original K-feldspar, if any, is not known.

Impregnation
K-feldspar; 40%, anhedral (microgranular to 0.1 mm). Generally microgranular intermixed with plagioclase. Conspicuous pale reddish-brown alteration dusting. Strong but patchy diffuse distribution but also conspicuous fracture control veinlets. Introduced.

Alteration/hornfels overprint

Secondary amphibole; <10%, anhedral (<.01 to 0.1 mm). Small felted clusters of grains. Red-brown colour similar to biotite but has inclined extinction. Obscured by red-brown iron stain.

Biotite; suspected, not confirmed.

487013 Continued

Carbonate; <5%, anhedral, (microgranular to <.05 mm). Widely disseminated very irregular grains/clusters of grains.

Undetermined "A"; <1%, microgranular translucent clouding associated with secondary amphibole clusters.

Semiopaque; <5%, microgranular), fairly uniformly disseminated irregular clusters of grains.

Veinlets; bleached envelopes.

Amphibole (hydrothermal); anhedral (<.05 to 0.2 mm). Felted interlocking. Coarser than similar disseminated amphibole clusters. Associated with plagioclase.

or Biotite ?

K-feldspar; anhedral, (microgranular to 0.1 mm) as for Impregnation, above.

Plagioclase, anhedral (<.05 to 0.1 mm) Irregular interlocking grains. Associated with amphibole.

Opaques; <1%, euhedral pyrite, (<.01 to <.05 mm), disseminated.

~~48705~~ 487015 Weak - moderate sericite + propylitic (epidote - chlorite - albite)

Altered (bleached) augite plagioclase porphyritic "diorite" dacite

General description
Abundant phenocrysts fine/medium grained aligned plagioclase and fine grained altered mafic (augite) remnants in a very fine grained plagioclase-rich groundmass. Very minor disseminated accessory apatite.

Plagioclase phenocrysts are altered to varied intensity by felted sericite with more intensely altered cores of coarser sericite and minor clusters of epidote. Augite remnants show vague crystal outlines and are altered to epidote, minor chlorite and appear to be partially replaced by plagioclase.

Matrix is composed of very fine interlocking grains generally less sericitic than phenocrysts. Albitic(?), may account for bleached appearance.

Alteration assemblage includes sericite, epidote, chlorite, albite.

Opaques; >1%, pyrite, associated with epidote.

Microscopic description
Phenocrysts

Plagioclase; 30%, subhedral (<0.1 to 3.0 mm, generally 1.0 to 2.0 mm). Preferred orientation. Cores of many crystals intense coarser sericite, lesser epidote. Most grains varied intensity very fine/microgranular felted sericite.

Altered mafic (augite); 15%, anhedral (<.05 to 2.0 mm). Remnants of crystals show varied intensity of alteration to epidote, lesser chlorite. Partial replacement by plagioclase.

K-feldspar; traces, visible in stained slab. albite?

Groundmass

Plagioclase; 40%, anhedral (<.05 to 0.1 mm). Interlocking irregular grains. Less sericitic than coarser phenocrysts. Albitic?

Accessories

Apatite; <<<1%, anhedral/subhedral (<0.1 to >2.0 mm). Widely separated crystals, clusters of two or more crystals. Scattered coarser grains (to >2.0 mm).

48705 Continued

Alteration

Epidote; >5%, anhedral (<.05 to 1.0 mm). Irregular grains clusters of grains with very minor chlorite and opaques replacing augite. Minor epidote clusters alteration of plagioclase.

Sericite; >5%, alteration of plagioclase

Chlorite; <<5%, anhedral, (<.05 to 0.1 mm). Felted/foliated clusters of grains associated with epidote.

Opaques; pyrite, >1%, anhedral (<.05 to 0.5 mm) associated with altered mafic, epidote. Very irregular grains, clusters of grains.

Albitized (sodic) + sericitic

487018
Porphyritic altered trachyandesite crackle breccia

General description
Altered plagioclase and altered mafic (hornblende?) phenocrysts in a very fine felted feldspathic (plagioclase > K-feldspar) groundmass.

Plagioclase phenocrysts and groundmass shows varied intensity of microgranular sericitic alteration and clouded red-brown alteration dusting. Mafic (hornblende) altered to bright bluish-green and medium green pleochroic amphibole. Ragged bladed/fibrous grains. Associated epidote. Sodic

Groundmass composed of intermixed very fine felted plagioclase and K-feldspar. K-feldspar in stained slab appears as regularly outlined grains/lithic fragments and as diffuse clots in wall rock fragments.

Alteration assemblage includes albite/sericite impregnation, (see below) secondary amphibole and epidote alteration of mafic, weak sericitic and light red-brown alteration dusting of plagioclase phenocrysts and groundmass.

Composition ?
The rock is crackle brecciated with fracture infilling network of garnet, epidote, quartz, sericite, minor carbonate. There are conspicuous diffuse plagioclase (albite?)/sericite envelopes impregnating wall rock (conspicuous etching of stained slab). Some intermixing of infilling minerals but generally composite with segregations of minerals.

Microscopic description
Phenocrysts

Plagioclase; 20%, subhedral (<.05 to >2.0 mm). Single grains, clusters of grains. Varied intensity of felted sericitic alteration. Semiopaque alteration dusting.

Altered mafic (hornblende); <10%, anhedral (<.05 to 0.2 mm). Clusters of felted acicular crystals of secondary amphibole, associated epidote.

Groundmass

Plagioclase; 20%, anhedral (<.05 to 0.1 mm). Felted elongate grains. Obscured by microgranular semiopaque dusting.

K-feldspar; <20%(?), anhedral (<.05 to 0.1 mm). Conspicuous in stained slab but not confirmed in thin section. K-feldspar in stained slab appears as regular outlined grains/lithic fragments and as diffuse clots in wall rock fragments.

? ?

487018 Continued

Alteration assemblage

Albite; 15%, anhedral, (<.05 to 0.1 mm), with sericite forms bleached envelopes at margins of crackle breccia infillings. Associated sericite.

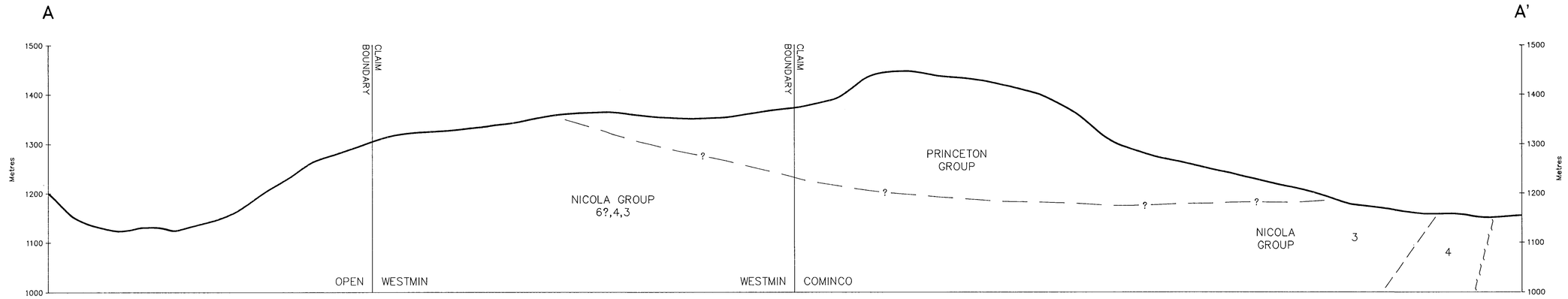
Secondary amphibole; anhedral (<.05 to 0.1 mm), clusters of felted acicular/fibrous grains. Alteration of hornblende(?).

Epidote; 10%, anhedral, (microgranular to 0.1 mm) Scattered clusters of grains, diffuse clouds.

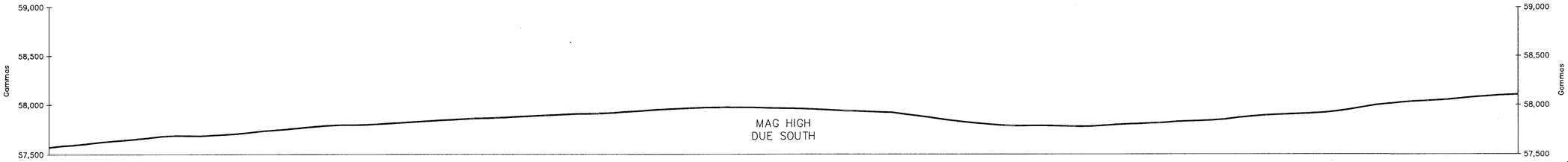
Sericite; felted masses associated with fracture-related plagioclase.

Semiopaque dusting.

Crackle breccia infilling; in approximate order of abundance:
Garnet
Epidote
Quartz
Carbonate
Plagioclase (albite?); included with Alteration assemblage.



GEOLOGICAL CROSS-SECTION



MAGNETIC CROSS-SECTION

GEOLOGICAL AND MAGNETIC CROSS-SECTION AT NORTH BOUNDARY OF WES 8 CLAIM BLOCK, WEST CLAIMS, PRINCETON PROJECT. SECTION ILLUSTRATES THE RELATIONSHIP BETWEEN THE PRINCETON GROUP COVER AND THE DEPTH TO THE TARGET NICOLA GROUP VOLCANICS AND INTRUSIVES. CONTACT BETWEEN PRINCETON AND NICOLA GROUPS IS SPECULATIVE AT DEPTH. SECTION IS LOOKING NORTH, AZIMUTH IS ~090°.

NOTE:
Vertical scale is 1:5000

Westmin Resources Limited

Work By	P.W. & M.J.
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Drafted By	R.A. Ivany
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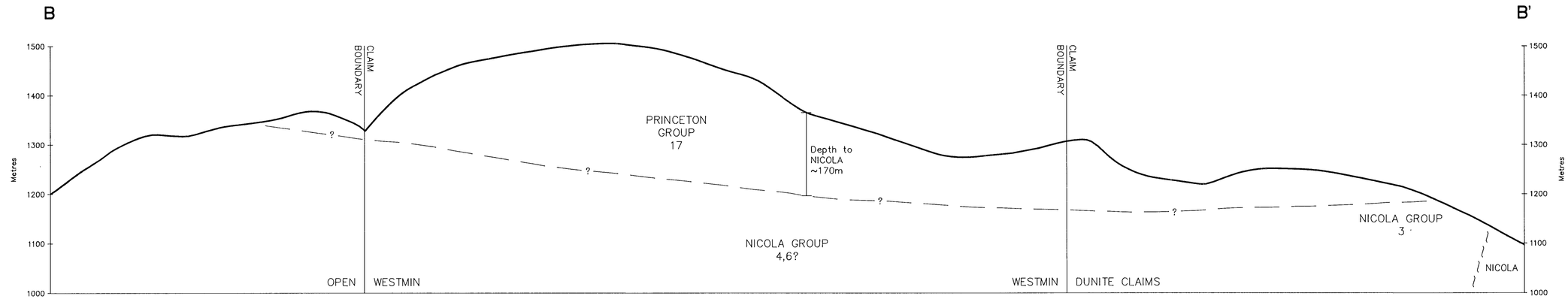
PRINCETON PROJECT

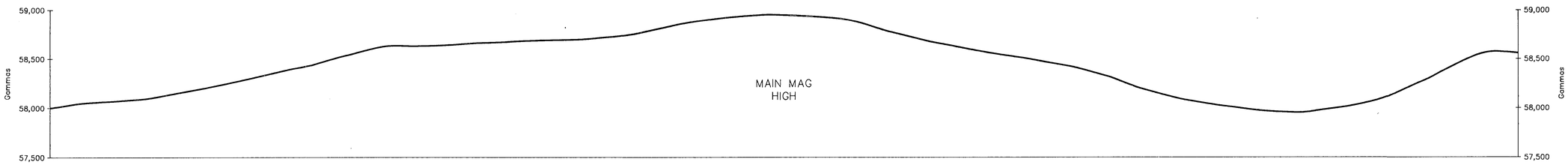
GEOLOGIC CROSS-SECTION
NORTH END, WEST CLAIMS

200 0 200 400 600m
HORIZONTAL SCALE 1 : 10,000

Figure 1



GEOLOGICAL CROSS-SECTION



MAGNETIC CROSS-SECTION

GEOLOGICAL BRANCH
ASSESSMENT REPORT

22,534

NOTE:
Vertical scale is 1:5000

GEOLOGICAL AND MAGNETIC CROSS-SECTIONS AT LINE 5600N, WEST CLAIMS, PRINCETON PROJECT. SECTION CROSSES THE MAIN MAGNETIC HIGH IN NORTH CENTRAL PORTION OF THE CLAIM BLOCK. PRINCETON / NICOLA CONTACT IS SPECULATIVE AS IT WAS NOT OBSERVED IN THE FIELD. IF CONTACT IS FAULT-RELATED, DEPTH TO NICOLA GROUP ROCKS MAY BE CONSIDERABLY GREATER. SECTION IS LOOKING NORTH, AZIMUTH IS ~090°.

WESTMIN	Westmin Resources Limited
Work By	P.W. & M.J.
Date Drafted	23/09/92
Drafted By	R.A. Ivany
Date Revised	
Revised By	
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PRINCETON PROJECT

GEOLOGIC CROSS-SECTION
LINE 5600N, WEST CLAIMS

200 0 200 400 600m
HORIZONTAL SCALE 1 : 10,000

Figure 2

GEOLOGICAL BRANCH
ASSESSMENT REPORT

22,534

671,000 E | 672,000 E | 673,000 E | 674,000 E | 675,000 E | 676,000 E | 677,000 E | 678,000 E | 679,000 E

5,467,000 N | 5,466,000 N | 5,465,000 N | 5,464,000 N | 5,463,000 N | 5,462,000 N | 5,461,000 N

Fourteen Mile Creek
Whipsaw Creek FSR
Fifteen Mile Creek
Kennedy FSR (Rocky Road)
WHIPSAW CREEK
3 sediments
NICOLA GROUP PRINCETON GROUP
Ingerbelle Open Pit
SIMILKAMEEN RIVER
Copper Mountain Open Pit
Open Pit
Copper Mountain (caved workings)
Deep Creek
Gulch
BOUNDARY FAULT (Preto, 1972)
Friday Creek Peridotite
Combination Ck.
Friday Creek
Saturday Creek
Princeton Flood
Nicola Flood

A — A'
B — B'

CP WES 8 5N,4W
WB Grid
500 E | 1000 E | 1200 E | 00 N/S
200 S | 400 S | 600 S | 800 S | 1000 S
2100 E
WES 8 5N,2W
WES 8 3N,4W
WES 8 2N,4W
IP Phantom 2N,2W
Baseline 0 E/W
PHANTOM 1 (Caminco)
WES 8 (Westmin)
6000 N | 5600 N | 5200 N | 4800 N | 4400 N | 4000 N | 3600 N | 3200 N | 2800 N | 2400 N
LCP WES 8,9,10 & 11
IP Post WES 11 1S
LCP WES 14
WES 11 3S, 4E
WES 14 1S, 0E
WES 8 / WES 10
WES 9 / WES 11
WES 14
West Claims Grid
Clear Cut

487389 33 | 487018 64 | 487388 39 | 487360 22 | 487362 22 | 487359 31 | 487361 36 | 487358 92 | 487357 52 | 487383 33

17a | 17b felsic | 4 | 6 | 7b | 8 | 9 | 11 | 16 | 2

MAP KEY

UTM GRID

Sheet 2 | Sheet 3 | Sheet 4

GEOLOGICAL LEGEND (after PRETO, 1972)

TERTIARY – MIDDLE EOCENE

PRINCETON GROUP

- 17 LOWER VOLCANIC FORMATION
  - 17a Varicoloured andesite and basalt flows, breccia and tuff
  - 17b Massive grey and buff felsic flow?
- 16 Conglomerate, minor sandstone

POST LOWER CRETACEOUS

- 15 DYKES – grey andesite feldspar porphyry
- 14 MINE DYKES – light grey and buff felsite, quartz, quartz–feldspar, feldspar porphyry, flow banded locally

UPPER LOWER CRETACEOUS

- 13 VERDE CREEK QUARTZ MONZONITE porphyritic biotite–hornblende quartz monzonite and/or granite

UPPER TRIASSIC

LOST HORSE INTRUSIONS

- 12 Latite, microdiorite and microsyenite porphyry
- 11 Porphyritic augite and biotite–augite microdiorite, micromonzonite and microsyenite

COPPER MOUNTAIN, VOIGT & SMELTER LAKE STOCKS

- 9 Pegmatite, syenite, perthosite
- 8 Monzonite
- 7 7a Pyroxenite ; 7b Gabbro
- 6 Diorite

NICOLA GROUP

- 4 VOLCANIC ROCKS
  - 4a Massive andesite, minor basalt and dacite
  - 4b Pillow lava and/or pillowed andesite
  - 4c Volcanic breccia and agglomerate
  - 4d Tuff, cherty tuff
  - 4e Undifferentiated
- 3 SEDIMENTARY ROCKS – grey and dark grey, graded bedded, calcareous siltstone and sandstone; minor conglomerate and breccia
- 2 WOLF CREEK FORMATION
  - 2a Massive andesite, minor basalt and dacite
  - 2c Volcanic breccia and agglomerate, multilithic to monolithic
  - 2d Grey, green, buff and brownish, commoniy graded bedded, andesitic tuff; minor volcanic siltstone and sandstone, cherty tuff
  - 2e Undifferentiated
  - 2f Quartz eye felsic tuff, lapilli/agglomerate

ABBREVIATIONS

LCP	– legal corner post	ab	– albite
IP	– initial post	bx	– breccia
FP	– final post	chl	– chlorite
FSR	– forest service road	ep	– epidote
goss	– gossanous weathering	GF	– glacial float
agg	– agglomerate	mag	– magnetic
amyg	– amygdaloidal	pl	– plagioclase
hbld	– hornblende/amphibole	px	– pyroxene
wk	– weak, weakly	py	– pyrite

SYMBOLS

- Outcrop
- × RK 487001 / 45 – Rock Sample (Assay Cu ppm)
- ○ 487351 / 45 – Silt Sample (Assay Cu ppm)
- F–16 – Local Float (with rock type)
- Geology Traverse
- 82° / 035° – Foliation
- Located Claim Post
- Geological Contact
- Clear Cut Boundary
- Fault
- Gravel Road

Westmin Resources Limited

Work By	P.W. & M.J.
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File Name	PRST_SH1

PRINCETON PROJECT

GEOLOGICAL MAP
(Sheet 1)

200 0 200 400 600m
SCALE 1 : 10,000

Map 3a

UTM GRID

Sheet 1 | Sheet 3 | Sheet 4

MAP KEY

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porphyritic biotite–hornblende quartz monzonite and/or granite

UPPER TRIASSIC

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9 Pegmatite, syenite, perthosite

8 Monzonite

7 7a Pyroxenite ; 7b Gabbro

6 Diorite

NICOLA GROUP

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wk	– weak, weakly	py	– pyrite

SYMBOLS

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- 87° 030° – Foliation
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- Geological Contact
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- Fault
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Westmin Resources Limited

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PRINCETON PROJECT

GEOLOGICAL MAP
(Sheet 2)

200 0 200 400 600m
SCALE 1 : 10,000

Map 3b

GEOLOGICAL BRANCH
ASSESSMENT REPORT

22,534

WES 10 | WES 11 | WES 12 | WES 13 | WES 14

Sunday Creek | Sunday

Sawmill

RIVER | SIMILKAMEEN | COPPER CREEK

NICOLA GROUP
PRINCETON GROUP

Baseline 00E /W
West Claim Group

15m to 487381 36

600m to 487382 25

487351 23 | 487352 18 | 487353 25 | 487354 19 | 487355 44 | 487356 26

LCP WES 12 | LCP WES 13

1000 N | 1600 N | 2000 N

5750' | 4720'

3

671,000 E | 672,000 E | 673,000 E | 674,000 E | 675,000 E | 676,000 E | 677,000 E | 678,000 E | 679,000 E

5,459,000 N | 5,458,000 N | 5,457,000 N | 5,456,000 N | 5,455,000 N | 5,454,000 N | 5,453,000 N

UTM GRID

Sheet 1 | Sheet 2 | Sheet 4

MAP KEY

GEOLOGICAL LEGEND (after PRETO, 1972)

TERTIARY – MIDDLE EOCENE

PRINCETON GROUP

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9 Pegmatite, syenite, perthosite

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2f Quartz eye felsic tuff, lapilli/agglomerate

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- Clear Cut Boundary
- Fault
- Gravel Road

Westmin Resources Limited

Work By	P.W. & M.J.
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Drafted By	R.A. Ivany
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Revised By	
N.T.S. Number	92 H/1,2,7,8
File Name	PRST_SH3

PRINCETON PROJECT

GEOLOGICAL MAP
(Sheet 3)

200 0 200 400 600m
SCALE 1 : 10,000

Map 3c

GEOLOGICAL BRANCH
ASSESSMENT REPORT

22,534

WES 3

487376 37

487375 30

487387 36

CP WES 3 45,0W

681,000 E | 682,000 E | 683,000 E | 684,000 E | 685,000 E | 686,000 E | 687,000 E | 688,000 E | 689,000 E

5,459,000 N | 5,458,000 N | 5,457,000 N | 5,456,000 N | 5,455,000 N | 5,454,000 N | 5,453,000 N

5850' | 6685' | 6090'

Creek

UTM GRID

Sheet 1 | Sheet 2 | Sheet 3

MAP KEY

GEOLOGICAL LEGEND (after PRETO, 1972)

TERTIARY – MIDDLE EOCENE

PRINCETON GROUP

17 LOWER VOLCANIC FORMATION
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porphyritic biotite–hornblende quartz monzonite and/or granite

UPPER TRIASSIC

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9 Pegmatite, syenite, perthosite

8 Monzonite

7 7a Pyroxenite ; 7b Gabbro

6 Diorite

NICOLA GROUP

4 VOLCANIC ROCKS
4a Massive andesite, minor basalt and dacite
4b Pillow lava and/or pillowed andesite
4c Volcanic breccia and agglomerate
4d Tuff, cherty tuff
4e Undifferentiated

3 SEDIMENTARY ROCKS – grey and dark grey, graded bedded, calcareous siltstone and sandstone; minor conglomerate and breccia

2 WOLF CREEK FORMATION
2a Massive andesite, minor basalt and dacite
2c Volcanic breccia and agglomerate, multilithic to monolithic
2d Grey, green, buff and brownish, commoniy graded bedded, andesitic tuff; minor volcanic siltstone and sandstone, cherty tuff
2e Undifferentiated
2f Quartz eye felsic tuff, lapilli/agglomerate

ABBREVIATIONS

LCP	– legal corner post	ab	– albite
IP	– initial post	bx	– breccia
FP	– final post	chl	– chlorite
FSR	– forest service road	ep	– epidote
goss	– gossanous weathering	GF	– glacial float
agg	– agglomerate	mag	– magnetic
amyg	– amygdaloidal	pl	– plagioclase
hbld	– hornblende/amphibole	px	– pyroxene
wk	– weak, weakly	py	– pyrite

SYMBOLS

– Outcrop
– Rock Sample (Assay Cu ppm)
– Silt Sample (Assay Cu ppm)
– Local Float (with rock type)
– Geology Traverse
– Foliation
– Located Claim Post
– Geological Contact
– Clear Cut Boundary
– Fault
– Gravel Road

Westmin Resources Limited

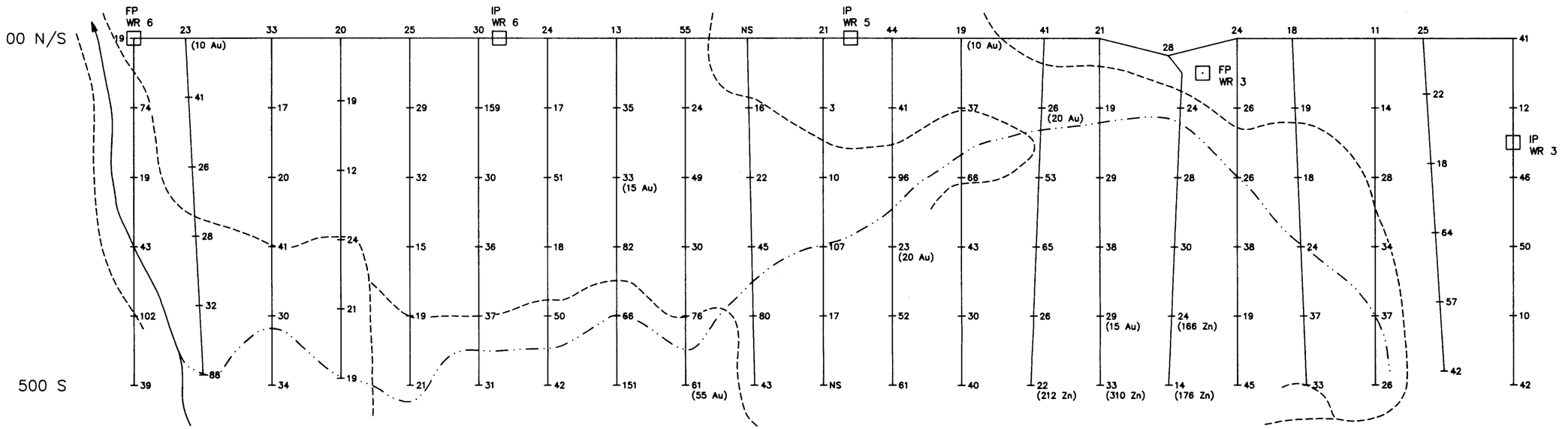
Work By	P.W. & M.J.
Date Drafted	22/09/92
Drafted By	R.A. Ivany
Date Revised	
Revised By	
N.T.S. Number	92 H/1,2,7,8
File Name	PRST_SH4

PRINCETON PROJECT

GEOLOGICAL MAP
(Sheet 4)

200 0 200 400 600m
SCALE 1 : 10,000

Map 3d



LEGEND

- ROAD
- CREEK
- 82 SOIL SAMPLE (Cu ppm)
- FP WR 3 CLAIM POST

NOTE
Au results in ppb & Zn results in ppm

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PRINCETON PROJECT

WR SOIL GRID
Cu GEOCHEMISTRY

100 0 100 200 300m
SCALE 1 : 5,000

Map 4

500 W | 00 E/W | 500 E | 1000 E

00 N/S: CP W3 0S,3W | 16 | 18 | 14 | 33 | 16 | ID W3 0S,2W | 34 | 35 | 162 | 82 | 6 | ID W3 0S,1W | 8 | 29 | 49 | 29 | 14 | LCP W3 4S,3W | 5 | ID W2 4S,0E

400 S: 35 | 27 | 25 | 18 | 33 | 27 | 39 | 30 | 41 | 29 | 20 | 13 | 10 | 32 | 19 | 22

800 S: 7 | 28 | 21 | 15 | 19 | 7 | 9 | 16 | 22 | 6 | 17 | 14 | 14 | 16 | 32 | 16

1200 S: 24 | 24 | 17 | 14 | 21 | 9 | 12 | 13 | 7 | 25 | 14 | 28 | 21 | 26 | 13 | 7

1600 S: 17 | 30 | 8 | 12 | 15 | 8 | 18 | 12 | 12 | 13 | 22 | 22 | 19 | 18 | 13 | 12

2000 S: 14 | 15 | 13 | 13 | 15 | NS | 16 | 19 | 20 | 17 | 12 | 21 | 6 | 7 | 5 | 24

LEGEND

- ROAD
- CREEK
- CLEAR CUT
- 82 — SOIL SAMPLE (Cu ppm)
- FP WR 3 — I.D. POST

Westmin Resources Limited

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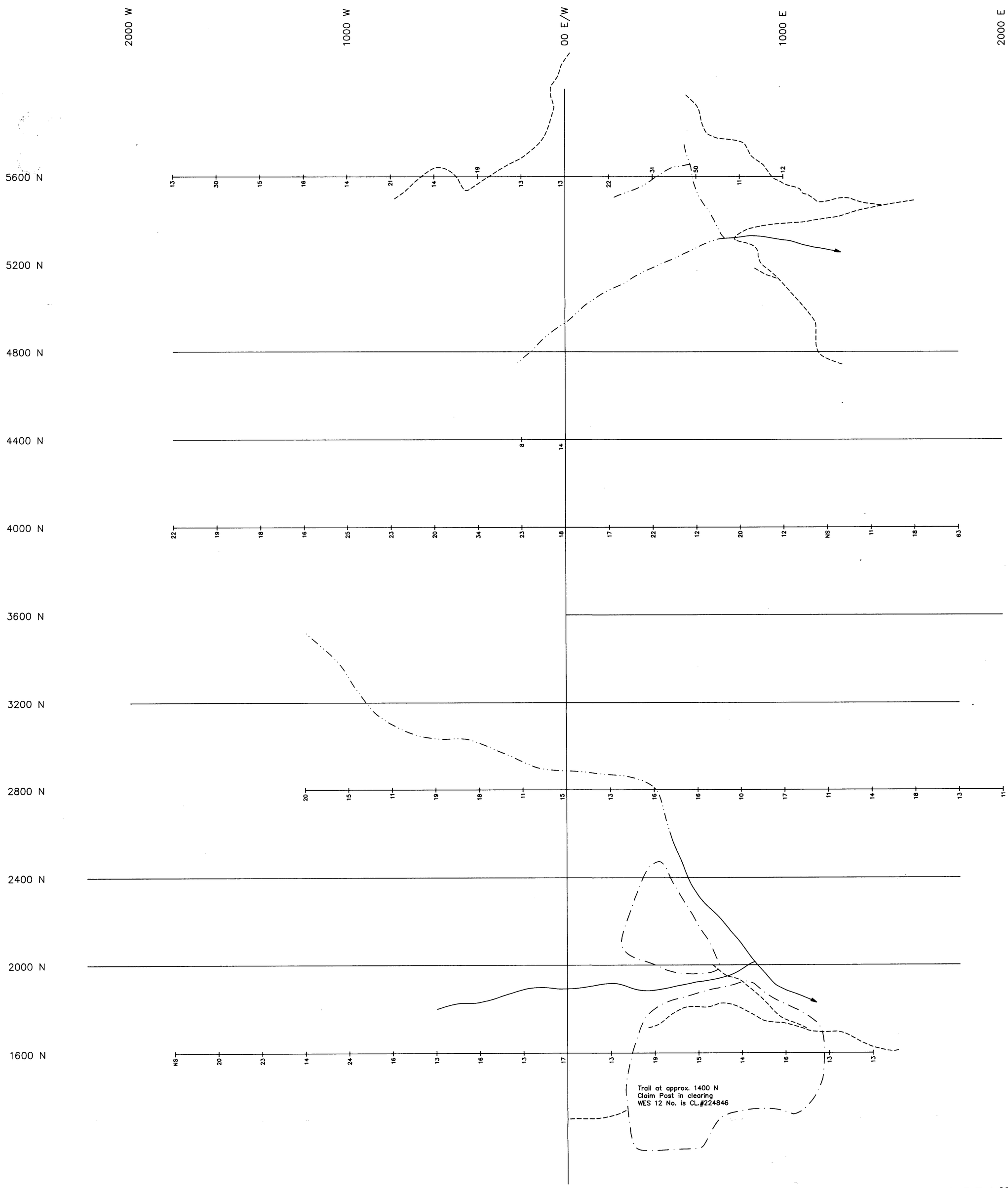
File Name	W3_GRID

PRINCETON PROJECT

W3 SOIL GRID
Cu GEOCHEMISTRY

100 0 100 200 300m
SCALE 1 : 5,000

Map 5



LEGEND

- ROAD
- CREEK
- CLEAR CUT
- 82 SOIL SAMPLE (Cu ppm)
- FP WR 3 I.D. POST

GEOLOGICAL BRANCH
ASSESSMENT REPORT

22,534

Westmin Resources Limited

Work By	P.W. & M.J.
Date Drafted	21/09/92
Drafted By	R.A. Ivany
Date Revised	
Revised By	
N.T.S. Number	92 H/1,2,7,8
File Name	WEST_GRD

PRINCETON PROJECT

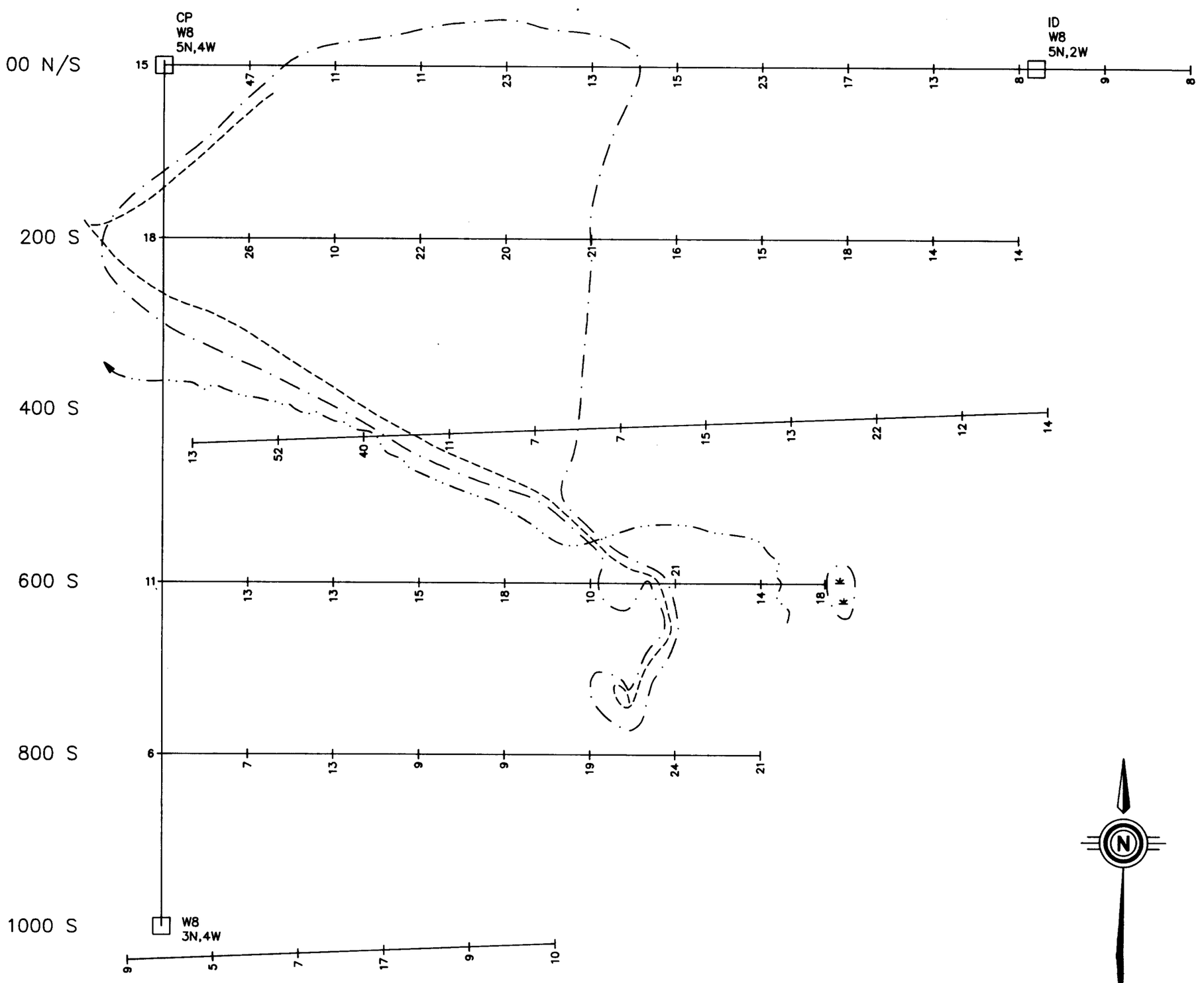
WEST CLAIM SOIL GRID
Cu GEOCHEMISTRY

200 0 200 400 600m
SCALE 1 : 10,000

Map 6

GEOLOGICAL BRANCH
ASSESSMENT REPORT

22,534



LEGEND

- ROAD
- CREEK
- CLEAR CUT
- SWAMP
- 82 — SOIL SAMPLE (Cu ppm)
- FP WR 3 — I.D. POST

Westmin Resources Limited

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Date Revised	
Revised By	
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File Name	W8_GRID

PRINCETON PROJECT

W8 SOIL GRID
Cu GEOCHEMISTRY

100 0 100 200 300m
SCALE 1 : 5,000

Map 7