Assessment Report

on the

Woodland 1 and Woodland 2 Mineral Claims

Clinton Mining Division, British Columbia

NTS 092O/01E

Douglas H. Wood, M.S., P.Geo.
May 30, 1999

Abstract

Field work, rock geological and geochemical studies, and GIS analysis, combined with previous work on and in the area of the Woodland 1 and Woodland 2 mineral claims reveal a potential for Carlin-type Au-Sb-As mineralization.

Fieldwork in June and August of 1998 allowed for a closer investigation of the sources of Au and As soil geochemical anomalies reported west of Stirrup creek (Wood, 1995 & 1997; Lammle, 1988).

Sharp contrasts in rock-type, roughly following topographic contours, rock trace metal values, and trends of soil geochemical anomalies in the central portion of the Woodland 1 claim, suggest that mineralization is localized along the footwall of a thrust fault.

Strong Au, Sb, As, and Hg signatures of altered rocks and soils from claims have similarities to known Au-Sb-As mineralization on the Mad and Second Creek properties, located nine and thirteen kilometers respectively to the southeast of the Woodland claims. A lack of base metal association in rocks is also noted.

GIS analysis of BCMEM RGS stream geochemical and BCMELP watershed data reveal that the Woodland claims are situated within a watershed with moderate to high background As, Sb, and Hg, while not exhibiting a strong association with base metals.

Observations on the similarity of geochemistry, mineralization, and structural controls on the Woodland claims with that found in some of the Carlin-trend deposits lead to a conclusion that the Watson Bar – Stirrup Creek occurrences may represent a sub-class of the Carlin-type sediment-hosted Au deposit, rather than Epithermal Au as previously reported.

There remains some uncertainty at this time as to whether the mineralization so far encountered is related to Carlin-type or to Hot-spring type deposition.

Table of Contents

Figures (Follow Text)

Introduction

Location and Access

The Woodland 1 and Woodland 2 mineral claims (Figure 1) are located approximately 100 km north of Lillooet, BC and some 10 km southwest of the community of Big Bar on the Fraser River.

Access to the claims from Lillooet is via the all-weather West Pavilion Forest Road to the 90 km post and then 15 km west along the Stirrup Creek access road. The Stirrup Creek road is not currently maintained, but is accessible by four-wheel drive vehicle from late April until early November in most years. Two-wheel drive access to the property is generally possible from mid June until mid October.

Claims Information

The Woodland Claims have the following BC Ministry of Mines (BCMEM) mineral tenure attributes as of May 22, 1999:

Table I: Claim Status

Tenure Number	Claim Name	Owner FMC	Titles Map	Claim Status	Mining Div.	Metric Units	ClaimTag Number
363357	WOODLAND 1	129379	092O/01E	Good Standing to 1999/06/17	Clinton	9	236449
363358	WOODLAND 2	129379	092O/01E	Good Standing to 1999/06/17	Clinton	9	236450

Previous Work

The Woodland 1 and Woodland 2 claims were previously staked as the North Fork 1 (326485) and North Fork 2 (326487) claims until they were allowed to expire in June 1998. Tenure for the North Fork claims was held by L.A. Atha of Vancouver, BC. Assessment work on the North Fork claims was performed in 1996 by this author and filed as the 'Assessment Report on the Gold Cougar Claim Group' in 1997 with BCMEM. This author also performed work in 1994 and wrote the "Assessment Report on the North Form mineral claims' filed with BCMEM in 1995.

The immediate claims area was investigated for epithermal Au potential in the 1980's and 1990's by Lammie (1987), Chapman and Boyde (1988), and Sadlier-Brown (1993). These writers and Wood (1995, 1997) agreed that Au, Hg, As, and Sb soil and rock geochemical data suggested a potential for localized high-grade, and wider-spread low-grade epithermal-type Au potential.

Geological Setting

The Woodland 1 and 2 mineral claims are located in an area underlain by sandstone, argillite, siltstone, and shale of the Jackass Mountain Group (EK_Jmseds of Figure 2; lKJMy2 of Figure 3).

Table II: Figure 2 Legend Explanation

Qal:	Quaternary alluvium	LK_volc:	Late Cretaceous volcanics	Mz_seds:	Mesozoic sedimentary rocks
Ql:	Quaternary lake sediments	LK_intr:	Late Cretaceous intrusives	Mz_volc:	Mesozoic volcanics
LT_seds:	Late Tertiary sedimentary rocks	EKSbseds:	Early Cretaceous Spences Br. Grp.	Mz_intr:	Mesozoic intrusives
LT_volc:	Late Tertiary volcanics	EKJmseds:	Early Cretaceous Jackass Mtn. Grp.	Pz_CC:	Paleozoic Cache Creek Grp.
MT_volc:	Mid Tertiary volcanics	Ekseds:	Early Cretaceous sedimentary rocks	Pz_seds:	Paleozoic sedimentary rocks
ET_intr:	Early Tertiary intrusives	EK_volc:	Early Cretaceous volcanics	Pz_UM:	Paleozoic utramafic rocks
ET_seds:	Early Tertiary sedimentary rocks	EK_intr:	Early Cretaceous intrusives	Pz_intr:	Paleozoic intrusives
ET_volc:	Early Tertiary volcanics	Mz_BRG:	Mesozoic Bridge River Grp.	Pz_volc:	Paleozoic volcanics
KT_volc:	Cretaceous to Tertiary volcanics	Mz_Cdseds:	Mesozoic Cadwallder Grp.	Basement:	Undifferentiated basement rocks
KT_intr:	Cretaceous to Tertiary intrusives	Mz_Rmseds:	Mesozoic Relay Mtn. Grp.		
LK_seds:	Late Createaceous sedimentary rocks	Mz_Tyseds:	Mesozoic Tyaughton Grp.		

Table III: Figure 3 Legend Explanation

Qal:	Unconsolidated glacial, fluvial and alluvial deposits; talus; volcanic ash	KTgd:	Granodiorite, tonalite, quartz diorite	lmJys:	Lithic-arkosic sandstone intercalated with lesser amounts of granule to small pebble conglomerate, siltstone and shale; thin-bedded siltstone and laminated shale
MPCv:	Olivine basalt; minor andesite, tuff, breccia, conglomerate, sandstone, siltstone, shale and diatomite	KTqp:	Quartz eye felsite; quartz-feldspar porphyry	PSH:	Shulaps Ultrmafic Complex Harzburgite unit
EOv:	Picritic and pyroxene-phyric basalt; andesite, andesitic to basaltic tuff and breccia; quartz-phyric rhyolite flows and welded tuff	UKys:	Arkose, greywacke, shale and minor conglomerate	PSM:	Shulaps Ultrmafic Complex Serpentinite Melange unit
Ecg:	Volcanic pebble to cobble conglomerate; minor sandstone	lKJMc2:	Jackass Mtn. Grp. - Polymict pebble to boulder conglomerate containing mainly granitoid and volcanic clasts; lesser amounts of sandstone, conglomeratic sandstone, siltstone and shale	PTrCC:	Undivided Cache Creek Complex - phyllite, siliceous phyllite, ribbon and massive chert, argillite, tuff, mafic volcanic rocks, serpentinite, limestone, sandstone, conglomerate
Ev:	Andesitic, dacitic and rhyolitic breccias, tuffs and flows; lesser conglomerate, sandstone, siltstone and shale; minor basalt	lKJMy1:	Jackass Mtn. Grp. - Lithic sandstone, granule conglomerate and conglomeratic sandstone; lesser amounts of siltstone and shale; very minor amounts of laminated silty limestone	gd:	Granodiorite – Age unknown
Ep:	Hornblende-biotite-quartz-feldspar porphyry, hornblende-feldspar porphyry, quartz-feldspar porphyry	lKJMy2:	Jackass Mtn. Grp. - Arkosic sandstone, conglomeratic sandstone, siltstone, shale and conglomerate		
KTf:	Feldspar porphyry, biotite-feldspar porphyry	lKSB:	Spences Bridge Grp.- Andesite and dacite flows and breccias; minor basalt and rhyolite		

The Jackass Mountain Group rocks were deposited as turbidites in a Lower Cretaceous aged inter-arc basin. Similar aged inter-arc sediments are preserved along the north-south trend of the Fraser-Straight Creek Fault System, extending from north-central Washington State to central British Columbia. These fault-bounded remnants are collectively included within the Methow- terrane of the tectono-stratigraphic framework of Wheeler (1995).

The Woodland Claims sit astride several northwest to north trending high angle faults (Figure 4). Sedimentary rocks dip from nearly horizontal to 35 degrees east and west, with dips largely controlled by adjacent faults rather than folding. Au, As, and Cu soil anomalies in the central portion of the Woodland 1 claim (Wood, 1996), are distributed roughly along contours in an area where sedimentary rocks are dipping only slightly. This relationship suggests the presence of a thrust fault.

Within the property area are at least three areas underlain by feldspar and quartz-feldspar porphyry (Figure 4). Most notable are exposures of feldspar porphyry along Stirrup Creek and adjacent to and underlying soil geochemical anomalies in the central portion of the Woodland 1 claim.

Fieldwork

The author and his assistant, K.D. Wood, visited the Woodland Claims and the immediate property area from June 13 to 16, 1998 and returned for further field investigation during the period from August 9 to August 13, 1998. A total of four field days were spent examining the Woodland 1 and 2 mineral claims during the two visits.

Fieldwork consisted of rock sampling and geological evaluation of sites of geological interest identified by previous property investigations.

Methods

Rock Geochemistry

Eleven rock samples were collected from various locations of the Woodland 1 and Woodland 2 claims during the August 1998 property visit (Figure 5). Ten of these samples were sent to Acme Analytical Laboratories Ltd. of Vancouver BC for 30 element ICP plus Au by AA-FA (Appendix B). Four of these samples were further analyzed at Acme

Laboratories for Hg by flameless AA and for Au by cyanide leach (Appendix B). One rock sample (98-5) was also analyzed for Au by Fire Assay.

There were insufficient samples to allow statistical analysis of the results. Table IV lists the background values for selected elements as per Rose et al. (1979). These values provide reasonable levels above which, in the absence of statistical analysis, lab values can be considered enriched. Analytical results greatly in excess of these background values should be considered anomalous.

Table IV: Trace Element Background Concentrations*

Element	Sed. Rocks	Felsic Volc. Rocks	Soils
Au (ppb)	4-5	0-2.3	2
Hg (ppb)	30-400	40	56
Sb (ppm)	1-2	0.2	2
As (ppm)	1-12	2.1	7.5
Mn (ppm)	0-850	390	320
Cu (ppm)	10-42	12	15
Zn (ppm)	40-100	51	36

* Rose et al., 1979

GIS Analysis

Coverages used in GIS analysis of the Woodland Claims and surrounding area include Regional Geochemical Survey (RGS) data, geology, 1998 rock sample locations, MinFile, protected areas, watersheds, streams, claims locations, and roads.

Arc/Info (ver. 7.2.1 for NT) was used to perform data conversion from Arc export and point data formats, put all coverages in UTM zone 10 projection, and to clip coverages to the boundaries of the Cariboo 1:250,000 NTS Sheet (92/O), the Watson Bar 1:50,000 NTS Sheet (92O/1), and to the immediate property area.

RGS and geology coverages were obtained from the BCMEM Geology Branch. Watershed, streams, and protected areas status coverages were downloaded from the BC Ministry of Environment and Land Planning (BCMELP) website. Claims locations and roads data were clipped from the BCMEM map place website as vector clipboard files for conversion to coverages.

RGS stream geochemistry data for NTS 92O were used to create an Arc/Info point coverage, which was then clipped to the Watson Bar Map Sheet area (NTS 92O/1).

BCMELP Watershed Atlas watershed coverages for Region 3 (Big Bar Creek and Seton Lake Watershed Groups) and Region 5 (Big Bar, Chilco River, Dog Creek, Lower Chilcotin River, Middle Fraser, and Taseko River Watershed Groups) were joined using Arc/Info Mapjjoin command. The joined coverage was then clipped to the Watson Bar Map Sheet area (NTS 92O/1) and finally combined with RGS stream geochemical point data to create a watershed stream geochemical coverage. This treatment of RGS data allows watersheds to be statistically ranked by element concentration. For the purposes of this study, ranking was performed in ArcView 3.1 based on the percentile distribution of individual concentrations, with population divided at approximately the 25^{th}, 50^{th}, and 75^{th} percentile giving four ranks. Those drainages with dark gray (50^{th} to 75^{th} percentile) and black (75^{th} to 100^{th} percentile) can be considered above background and enriched, respectively.

Roads and mineral claim boundaries for the Watson Bar 1:50,000 NTS map sheet were clipped from the BCMEM Map Place web site and pasted in CorelDraw (Ver. 8). The Corel vector files were then saved as DXF format vector interchange files, and finally imported to Arc/Info as line (roads) and polygon (claims) coverages.

Rock sample geochemical and location data for eleven samples collected in 1998 as well as for selected 1996 rock samples were used to create an Arc/Info point coverage.

Maps presented within this report were prepared using ArcView (ver. 3.1).

Metadata for the coverages used in this analysis is presented as Appendix C.

Results

RGS-Watershed Ranking

RGS watershed ranking for Au, As, Sb, Hg, Mn, Cu and Zn (Figures 6 to 12 respectively), with the Woodland Claims covering portions of two watersheds, reveal that the claims are located within an area of favorable As, Hg, and Cu geochemistry (highest rank) and within an area of interest for Sb and Mn geochemistry (second highest ranking).

The French Bar Creek drainage area (the large enriched Au area in north portion of Figure 6) is a known Au placer area, so this area, which lacks Sb, As, and Hg enrichment, may be enriched in Au as a result of stream processes rather than local mineralization.

The Madson Creek drainage (enriched Au, As, Sb, Hg, Mn, and Cu located in the Southeast portion of Figures 6 to 11), and the Second Creek drainage (east and adjacent to Madson Creek with enriched As, Hg, Mn, and Cu and above background Sb) drain areas with established Au-Sb-As-Hg mineralization (Cathro et al., 1997). These two drainages can therefore serve as models for mineralization.

The Woodland claims cover portions of two watersheds (white boundaries on Figures 6 to 12). The southern of these two watersheds (Stirrup Creek) has enriched values in As, Hg, and Cu and has above background Mn. The northerly of the two watershed has above background As, Sb, and Cu.

Zinc in RGS samples is below 50^{th} percentile for the watersheds draining the Woodland claims, as well as those draining the Second Creek and Madson Creek occurrences. This phenomenon is consistent with the lack of base metal geochemical signatures common among Carlin-type deposits.

The strong signatures for Au, As, Sb, Hg, Mn, Cu, and Zn within the Big Bar Creek and tributary draininges (located in the northeast corner of Figures 6 to 12) suggest this area might be of interest, albeit for poly-metallic vein or epithermal type rather than for Carlin-type mineralization.

Rock Sampling

Analytical results for ten samples collected in 1998 as well as for two samples from the 1996 assessment for the same area are presented as Figures 5 to 1 for Au, As, Sb, Hg, Cu, Zn, and Mn respectively.

Au in rocks shows two areas where Au concentrations exceeds 10 ppb. Sample 98-5, with 627 ppb (Table V; Appendix B), collected from the south central portion of the Woodland 1 claim, is the most significant of Au analyses. The location of this sample coincides with Au soil geochemical anomalies reported by Wood (1997). The second cluster of samples with Au in excess of 10 ppb, includes samples 98-8 and RE 98-8a with 14 and 12 ppb Au respectively. All three are argillicly altered feldspar porphyry sampled in close proximity to faulted contacts with argillite.

Table V: Rock Sample Results Summary

Sample No.	Rock Type	Alteration	Veins	Breccia	Sulfide	Au* (ppb)	Au** (ppb)	Hg (ppb)	As (ppm)	Sb (ppm)	Cu (ppm)	Zn (ppm)	Mn (ppm)
98-1	Argillite	Propyllitic	Carbonate	Yes	Yes	5	8.5	7690	1739	74	77	78	366
98-2	Argillite	Propyllitic	Carbonate	Yes	No	3			67	4	22	41	811
98-4	Fs-Ppy	Argillic	Qtz/Silica	No	Yes	6			82	9	131	37	502
98-5	Fs-Ppy	Argillic	Qtz/Silica	No	Yes	627	244.2	810	175	10	48	30	819
98-6	Sandstone	Propyllitic	No	Yes	No	7	3.0	470	521	7	19	35	797
98-7	Sandstone	Propyllitic	Carbonate	No	Yes	8			46	4	97	46	597
98-8	Fs-Ppy	Argillic	Carbonate	Yes	No	14			45	4	74	33	613
98-8A	Fs-Ppy	Argillic	Qtz/Silica	Yes	Yes	8			30	3	99	22	369
RE 98-8A	Fs-Ppy	Argillic	Qtz/Silica	Yes	Yes	12			31	3	100	23	378
98-9	Sandstone	Argillic	No	Yes	Yes	9			28	5	128	46	844
98-10	Argillite	Propyllitic	Carbonate	Yes	Yes	2	1.7	465	169	16	42	35	614

* Au by AA+FA
** Au by Cyanide Leach

Four samples are enriched in As. These are samples 98-1 (7690 ppm), 98-5 (175 ppm), 98-6 (521 ppm), and 98-10 (169 ppm). High As concentration occurs in a variety of rock types with propyllitic and argillic alteration. Pyrite occurs in three of the four samples with high As and carbonate or quartz/silica veins are present in three samples.

Sb concentrations are relatively low in all but one sample (98-1; 74 ppm). Four samples (98-1, 98-4, 98-5, and 98-10) have Sb concentrations greater than four times the background (Table IV), but remain significantly lower than 98-1.

The four samples with significantly elevated As were analyzed for Hg. All four (98-1 with 7690 ppb, 98-5 with 810 ppb, 98-6 with 470 ppb, and 98-10 with 465 ppb) have Hg concentrations in excess of the background values for their rock types (Table IV). Samples 98-5 and 98-6 are of particular interest as they contain greater twenty times the background level.

Mn concentrations for rock samples show little correlation with alteration or mineralization. All are within background range or slightly elevated in Mn (Table IV). Although there is evidence of a correlation between Mn and Ba and between Ba and As (Table VII), there is no direct correlation between Mn and As for the ten samples.

Cu and Zn show little or no association with Au, As, Sb, or Hg values, alteration, or rock type.

Discussion

Table VI: Deposit Type Characteristics

Deposit Type	Principal Metal(s)	Associated Metals	Host Rocks	Geochemical Signature
Carlin	Au	Ag, As, Sb, Hg	Lst, Sltst, Arg	Au, As, Hg, Sb, W, Mo
Hot-Spring	Au	Ag, Hg	Volc, Volc/Clastic	Au, As, Hg, Sb
Epithermal	Au (Ag)	Pb, Zn, Cu	Volc, Volc/Clastic	Au, Ag, As, Sb, Mn, base-metals

The results of 1998 rock sampling, watershed-RGS analysis, and previous soil surveys on and surrounding the Woodland 1 and 2 mineral claims show similarities in chemistry and geological setting to Epithermal Au, Hot-spring Au, and Sediment-hosted Disseminated Au deposit types (Panteleyev, 1996a; Panteleyev, 1996b; Schroeter and Poulsen, 1996; Teal and Jackson, 1998).

All three deposit types are characterized by Au, Sb, As, and Hg geochemical signatures (Table VI). Host rock lithologies are largely dependent on the geological/structural setting for epithermal and hot-springs type mineralization but proximity to, and overlap into, porphyritic felsic high-level intrusive rocks is common for both types. Sediment-hosted Au deposits, while originally thought to be limited to de-carbonized dolomite and limestone within the Carlin district of Nevada, are now known to also occur within structurally prepared clastic sedimentary rocks (Teal and Jackson, 1998). Several deposits within the Carlin District in fact have higher Au grades associated with fractured and brecciated Ordovician and Devono-Mississippian silici-clastic rocks (Wood, 1996).

Deposit models are often applied in an arbitrary fashion when attempting to classify mineralization in the field. With current models of Carlin-type Au mineralization largely dependent on the presence of carbonate, rather than on geochemical and structural mineralogical controls, which appear to be of greater importance, the mineralization in the Watson Bar – Stirrup area remains difficult to categorize.

Table VII, showing correlation of values for the 10 rock samples analyzed by ICP and AA, shows a relatively good fit (> 0.5) for As:Sb, As:Mo, Sb:Mo, Au:Sr, Sb:Ba, and Mn:Ba. The small number of samples is not well suited to proper analysis, but general trends may be inferred as long as no statistical significance is assumed.

From Table VI it can be seen that only one type of mineralization is associated with a Mo signature, namely Carlin-type. The additional association of Mn, however would suggest Epithermal, except that there does not appear to be a base metal signature.

Table VII: Rock Geochemistry Correlation Matrix

	Au	*As*	*Sb*	*Cu*	*Pb*	*Zn*	*Mo*	*Mn*	*Sr*	*Ba*
Au	1									
As	-0.05	1								
Sb	-0.05	**0.95**	1							
Cu	-0.23	-0.02	0.179	1						
Pb	0.032	0.099	0.005	-0.3	1					
Zn	-0.11	-0	-0.05	0.04	0.87	1				
Mo	-0.28	**0.564**	**0.663**	0.344	-0.08	-0.01	1			
Mn	0.063	-0.01	0.033	-0.01	0.337	0.469	-0.21	1		
Sr	**0.724**	-0.25	-0.18	-0.09	-0.22	-0.34	-0.22	0.051	1	
Ba	-0.09	**0.512**	**0.536**	0.068	0.25	0.234	0.051	**0.708**	-0.15	1

Given the lack of statistical significance and the host-rock association, the above noted geochemical trends suggest that mineralization on the Woodland Claims might be categorized as either Hot-spring or Carlin-type. The two deposit types would result in greatly differing estimates of the total tonnage potential, but in either case, the Woodland Claims represent a good target for continued mineral exploration at the grassroots level.

Recommendations

Th results of this and previous studies warrant further investigation into the mineral potential of the Woodland Claims. Of particular importance is a better understanding of the nature of mineralization on the property. A determination of whether mineralization is related to Hot-spring or Carlin-type deposit processes would greatly influence the overall economic potential of the property.

Structural and lithological controls of Au, Sb, As, Hg mineralization need to be better defined by detailed scale geological mapping and sampling. The best location to begin this work is surrounding the 627 ppb Au rock anomaly, and coincident soil anomalies, located in the central part of the Woodland 1 claim. Grid work employed over this are in 1996 will require re-posting to properly integrate geology, soil sampling, and rock sampling.

Follow-up stream sediment geochemical sampling throughout the area covered by the Woodland claims would allow for local definition of the regional trends as described herein.

A minimum of 5 days is estimated to accomplish the above preliminary surveys. The cost of this work is estimated at $ 5,000, including report costs.

Present indications suggest that preliminary survey work will allow for the identification of one or more targets for drilling. The costs for drilling are dependent on the method employed, but assuming targets can be identified, the cost for drilling each target will be on the order of $20,000.

Efforts should be made to re-stake the current property to cover excluded areas resulting from lapsed claims in the west-central portion of the property.

There is documentary evidence that mineralization encountered by this and previous studies is of similar character to that found on adjoining claims to the north and west of the current claim boundaries. Joint exploration of the Woodland claims and adjacent claims held by other parties is therefore deemed to be prudent.

References

BCMEM (1992): Regional Geochemical Survey for NTS 92O Taseko Lakes. GSB Open File Report RGS-35. Data Diskette plus maps.

BCMEM (1999): The Map Place – Source for Claim Location and Roads Data. <http://webmap.ei.gov.bc.ca/>.

BCMELP (1999): BC Watershed Atlas – Source for Streams and Watershed Data. <ftp://ftp.env.gov.bc.ca/ dist/arcwhse/>.

Panteleyev, A. (1996a): Epithermal Au-Ag: Low Sulphidation; in Selected British Columbia Mineral Deposit Profiles, Volume 2, D.V. Lefebure and T. Höy, Editors, British Columbia Ministry of Energy, Mines and Petroleum Resources, pages 41-43.

Panteleyev, A. (1996b): Hot Spring Au-Ag; *in* Selected British Columbia Mineral Deposit Profiles, Volume 2, D.V. Lefebure and T. Höy, Editors, British Columbia Ministry of Energy, Mines and Petroleum Resources, pages 33-35.

Schiarizza, P., Panteleyev, A., Gaba R., and Glover, K. (1994): Geological compilation of the Cariboo - Chilcotin area, south-central British Columbia. GSB Open File Report 1994-7. <http://www.em.gov.bc.ca/Download/arcview1/cariboo/index.htm>. Last updated April 6, 1999.

Schroeter, T., and Poulsen, H. (1996): Carbonate-hosted disseminated Au-Ag; in Selected British Columbia Mineral Deposit Profiles, Volume 2, D.V. Lefebure and T. Höy, Editors, BCMEM, pages 9-12.

Teal, L., and Jackson, M. (1998): Geologic Overview of the Carlin Trend Gold Deposits and Descriptions of Recent Discoveries; in SEG Newsletter, No. 31, A.R. Campbell and W.X. Chavez, Jr. Editors, Society of Economic Geologists, pages 1-25.

Wood, D.H. (1996): Field notes and observations from tours of the Meikle, Betze-Post, Gold Quarry, and Rain Deposits; Washington State University Geology Department Economic Geology Field Trip, Oct. 4 to 6, 1996.

Wood, D.H. (1995): Assessment Report on the North Fork mineral claims, Clinton M.D., British Columbia, NTS 92O/1E, 8 pages plus appendices.

Wood, D.H. (1997): Assessment Report on the Gold Cougar Claim Group, Clinton M.D., British Columbia, NTS 92O/1E & NTS 92O/1W, 14 pages plus appendices.

Statement of Qualifications: Douglas H. Wood

I, Douglas Harold Wood, with permanent residence in Surrey, British Columbia, affirm that I participated in and supervised mineral exploration work on the Woodland 1 and Woodland 2 mineral claims on June 16, and from August 9 to August 13, 1999 for a total of three (3) days of exploration fieldwork. I further affirm that I have the following qualifications, which establish my expertise and ability to author this report.

1. I am a Professional Geoscientist registered with the Association of Professional Engineers and Geoscientists of the Province of British Columbia (#19529).

2. I completed a Bachelor of Science Degree in Geology in May 1981 at the University of British Columbia.

3. I have been active in mineral exploration and economic geological research since 1983.

4. I hold a Master of Science Degree in Economic Geology granted by Washington State University in December 1996.

5. Since December 1996 I have been pursuing a Ph.D. in Geology at Washington State University and in Geography (GIS) at the University of Idaho.

Douglas H. Wood, M.Sc., P.Geo.

Date: May 25/99

PROFESSIONAL
PROVINCE OF
D. H. WOOD
BRITISH COLUMBIA
GEOSCIENTIST

Appendix A – Statement of Costs

The total costs of fieldwork, laboratory analyses, geological interpretation, GIS analysis, and report preparation are as follows:

Item	Amount
Fieldwork (June 16, August 9 to 13, 1998)	
Douglas H. Wood– 3 days @ $400/day	1,200.00
Kimberly D. Wood– 3 days @ $200/day	600.00
Transportation – 4x4 Nissan PU 3 @ $50/day	150.00
Transportation – Gas and Repairs	157.08
Tools and Supplies	148.75
Food and Accommodation	352.02
Mobilization/Demobilization	
Douglas H. Wood – 2 days @ $200/day	400.00
Kimberly D. Wood – 2 days @ $100/day	200.00
Transportation – 4x4 Nissan PU 2 @ $50/day	100.00
Transportation – Gas and Repairs	104.72
Food and Accommodation	234.68
Assays	
30 element ICP + Au AA for 10 samples (ACME #9805544)	188.97
Hg AA for 4 samples + Au FA for 1 sample (ACME #9805544R)	41.10
Au Cyanide Leach for 4 samples (ACME # 9805544R2)	53.38
Report Preparation	
GIS Analysis	
Douglas H. Wood – 3 days @ $400/day	1,200.00
Geological Interpretation	
Douglas H. Wood – 2 days @ $400/day	800.00
Computer Supplies	35.00
Total Costs	**$ 5,965.70**

PROFESSIONAL
PROVINCE OF
H. WOOD
BRITISH COLUMBIA
GEOSCIENTIST

Appendix B – Assay Certificates

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716
(ISO 9002 Accredited Co.)

GEOCHEMICAL ANALYSIS CERTIFICATE

D.H. Wood Geological File # 9805544

640 - 600 SE Jamar St., Pullman WA U.S.A. 99163 Submitted by: Douglas H. Wood

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm
WOODLAND #1 98-1	7	77	12	78	<.3	30	11	366	3.29	1739	<8	<2	2	31	.3	74	<3
WOODLAND #1 98-2	1	22	9	41	<.3	76	12	811	2.99	67	<8	<2	<2	122	.3	4	<3
WOODLAND #1 98-4	1	131	5	37	<.3	4	9	502	2.62	82	<8	<2	2	80	.2	9	<3
WOODLAND #1 98-5	1	48	8	30	<.3	3	6	819	2.62	175	<8	<2	<2	344	<.2	10	<3
WOODLAND #1 98-6	1	19	6	35	<.3	31	7	797	2.74	521	<8	<2	<2	41	.2	7	<3
WOODLAND #1 98-7	2	97	7	46	<.3	27	14	597	3.68	46	<8	<2	2	86	<.2	4	<3
WOODLAND #1 98-8	5	74	7	33	<.3	33	12	613	2.97	45	<8	<2	<2	181	<.2	4	<3
WOODLAND #1 98-8A	3	99	6	22	<.3	13	10	369	1.84	30	<8	<2	<2	53	<.2	3	<3
RE WOODLAND #1 98-8A	3	100	7	23	<.3	14	10	378	1.90	31	<8	<2	<2	54	.2	3	<3
WOODLAND #1 98-9	3	128	5	46	<.3	23	14	844	4.44	28	<8	<2	<2	243	.2	5	<3
WOODLAND #1 98-10	5	42	7	35	.3	55	16	614	3.89	169	<8	<2	<2	105	<.2	16	<3
STANDARD C3/AU-R	25	62	36	154	5.4	34	12	784	3.24	62	26	4	20	27	22.4	17	15
STANDARD G-2	2	<1	3	37	<.3	7	5	543	1.94	<2	<8	<2	4	67	.2	<3	<3

SAMPLE#	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
WOODLAND #1 98-1	66	.19	.060	10	31	.02	98	<.01	7	.81	.01	.04	<2	5
WOODLAND #1 98-2	54	7.43	.046	14	53	.97	55	.01	4	.72	.02	.04	2	3
WOODLAND #1 98-4	30	4.11	.050	10	5	.51	52	<.01	5	.57	.02	.07	<2	6
WOODLAND #1 98-5	22	8.07	.031	8	2	1.97	48	<.01	<3	.44	.01	.04	2	627
WOODLAND #1 98-6	32	7.28	.031	8	23	.13	54	<.01	3	.56	.01	.05	<2	7
WOODLAND #1 98-7	79	2.49	.055	14	28	.71	66	<.01	7	.88	.03	.07	<2	8
WOODLAND #1 98-8	59	5.92	.028	6	39	.70	34	<.01	5	.48	.01	.02	2	14
WOODLAND #1 98-8A	32	1.93	.029	4	33	.32	33	<.01	5	.32	.01	.02	2	8
RE WOODLAND #1 98-8A	33	1.98	.029	4	34	.33	34	<.01	3	.32	.01	.03	3	12
WOODLAND #1 98-9	74	6.87	.057	9	40	2.10	60	<.01	6	.54	.02	.05	<2	9
WOODLAND #1 98-10	55	5.10	.052	8	31	1.77	19	<.01	9	.58	.01	.07	2	2
STANDARD C3/AU-R	76	.56	.082	18	167	.56	121	.08	19	1.81	.04	.16	15	529
STANDARD G-2	37	.61	.087	8	78	.54	178	.12	4	.90	.07	.45	2	4

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND MASSIVE SULFIDE AND LIMITED FOR NA K AND AL.
ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB
- SAMPLE TYPE: ROCK AU* - IGNITED, AQUA-REGIA/MIBK EXTRACT, GF/AA FINISHED.(10 GM)
Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: DEC 23 1998 **DATE REPORT MAILED:** Jan 25/99 **SIGNED BY** C. Leong ... D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

 Data ✓ FA ____

ACME ANALYTICAL LABORATORIES LTD. E. TIN ST. COU BC 1R I E(6 53- FA 04) 171
(ISO 9002 Accredited Co.)

GEOCHEMICAL ANALYSIS CERTIFICATE

D.H. Wood Geological File # 9805544R
640 - 600 SE Jamar St., Pullman WA U.S.A. 99163 Submitted by: Douglas H. Wood

SAMPLE#	Hg ppb	Au** oz/t
WOODLAND #1 98-1	7690	-
WOODLAND #1 98-5	810	.004
WOODLAND #1 98-6	470	-
WOODLAND #1 98-10	465	-
RE WOODLAND #1 98-10	460	-
STANDARD C3	875	-

ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB
- SAMPLE TYPE: ROCK PULP HG ANALYSIS BY FLAMELESS AA. AU** BY FIRE ASSAY FROM 1 A.T. SAMPLE.
Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: JAN 29 1999 **DATE REPORT MAILED:** Feb 9/99 **SIGNED BY** .... D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Data FA ___

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716
(ISO 9002 Accredited Co.)

GEOCHEMICAL ANALYSIS CERTIFICATE

D.H. Wood Geological File # 9805544R2
640 - 600 SE Jamar St., Pullman WA U.S.A. 99163 Submitted by: Douglas H. Wood

SAMPLE#	Au# ppb	Sample gm
WOODLAND #1 98-1	8.5	202
WOODLAND #1 98-5	244.2	193
WOODLAND #1 98-6	3.0	212
WOODLAND #1 98-10	1.7	213
STANDARD AU-R	483.0	50

AU# - TOTAL SAMPLES LEACH IN 0.5% CYANIDE, SHAKE 5 MINUTES EVERY HOUR FOR 24 HOURS, EXTRACT INTO ALIQOUT 336/MIBK AND ANALYSIS BY GRAPHITE AA
-
ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB
- SAMPLE TYPE: ROCK PULP

DATE RECEIVED: FEB 12 1999 **DATE REPORT MAILED:** Feb 26/99 **SIGNED BY**.......... D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Data ✓ FA ____

Appendix C – GIS Metadata

Common Coverage Parameters

Projection: UTM
Zone: 10
Units: Meters
Datum: NAD83

Regional Scale (NTS 1:250,000 Sheet 92O)

Coverages: Figure 2.
Bounds (Meters from Zone 10 origin):

X min:	429831
X max:	570169
Y min:	5649826
Y max:	5761510

Local Scale (NTS 1:50,000 Sheet 92O/01)

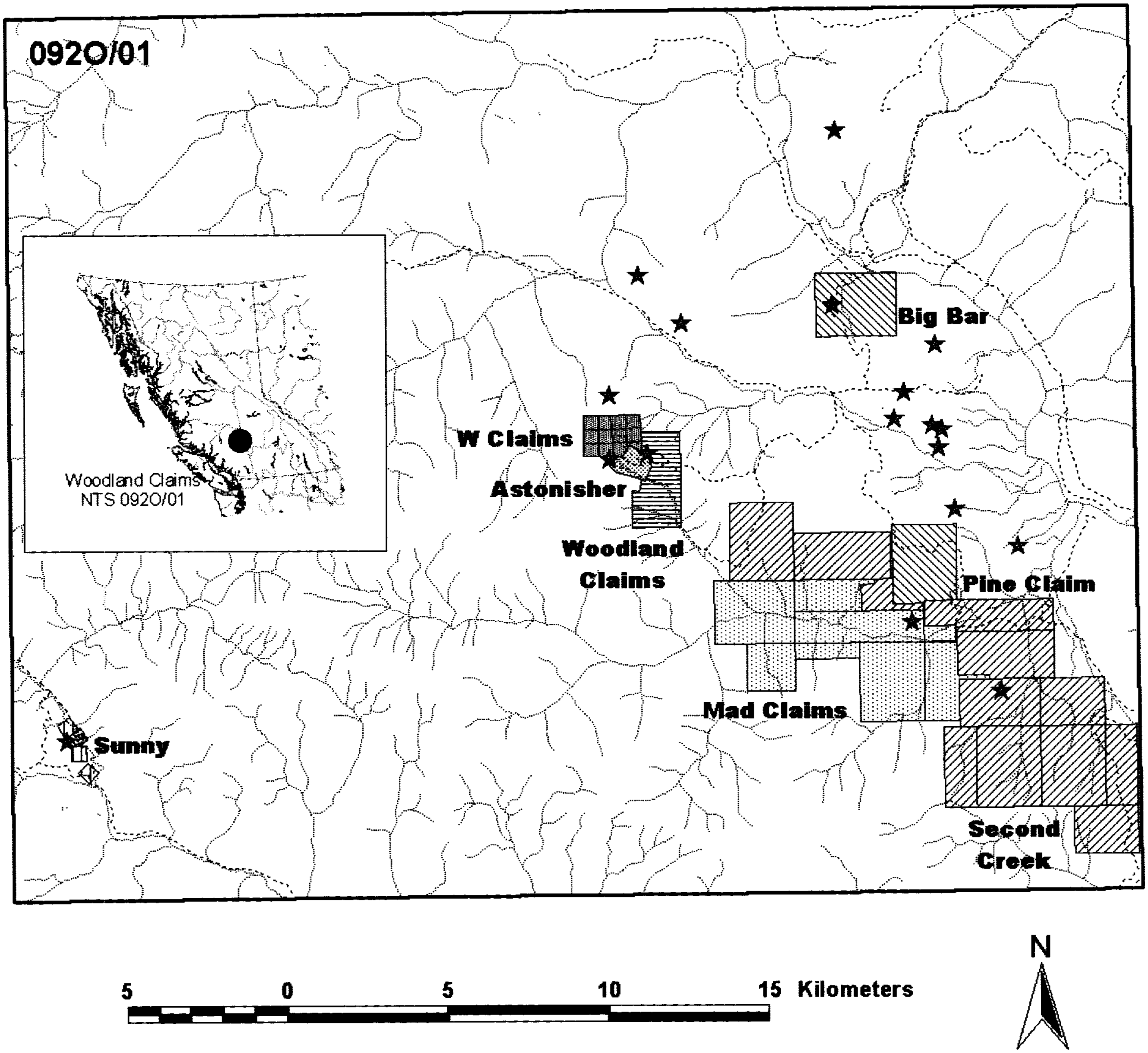
Coverages: Figure 1, Figure 3, and Figures 6-12.
Bounds (Meters from Zone 10 origin):

X min:	534896
X max:	570169
Y min:	5649944
Y max:	5678102

Property Scale (Portions of NTS 092O/01)

Coverages: Figure 4, Figure 5, and Figures 13-19.
Bounds (Meters from Zone 10 origin):

X min:	553513
X max:	556086
Y min:	5661499
Y max:	5664880



Legend

Tenure Holders

- Douglas Wood
- BHP Diamonds Ltd.
- Astonisher Gp.
- R.E. Gordon Davis
- Ron Gassman
- Rudolf Durfeld
- Stephen Lehman
- Wesley Peters

- Roads
- Streams
- ★ MinFile Entries

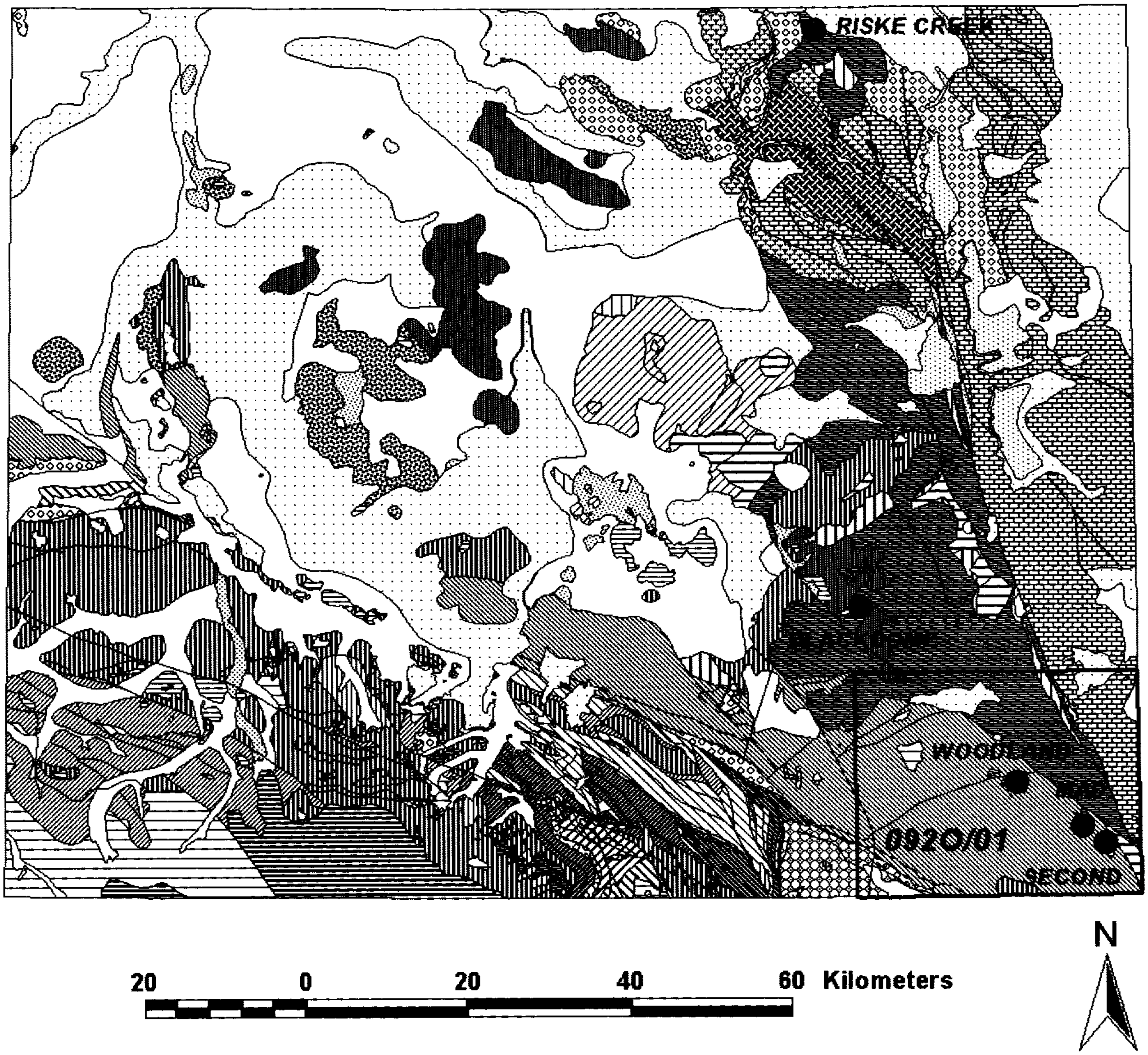
Assessment Report for Woodland 1 & 2 Claims Clinton M.D., British Columbia

Figure 1: Claims Location Map NTS 92O/1

PROFESSIONAL PROVINCE OF D. H. WOOD BRITISH COLUMBIA GEOSCIENTIST

Proj.: UTM, Zone 10

D.H.Wood - May 1999



Legend

Geology

- Qal
- Ql
- LT_seds
- LT_volc
- MT_volc
- ET_intr
- ET_seds
- ET_volc
- KT_volc
- KT_intr
- LK_seds
- LK_volc
- LK_intr
- EK_Sbseds
- EK_Jmseds
- EK_seds
- EK_volc
- EK_intr
- Mz_BRG
- Mz_CDseds
- Mz_RMseds
- Mz_TYseds
- Mz_seds
- Mz_volc
- Mz_intr
- Pz_CC
- Pz_Seds
- Pz_UM
- Pz_intr
- Pz_volc
- Basement

Assessment Report for Woodland 1 & 2 Claims Clinton M.D., British Columbia

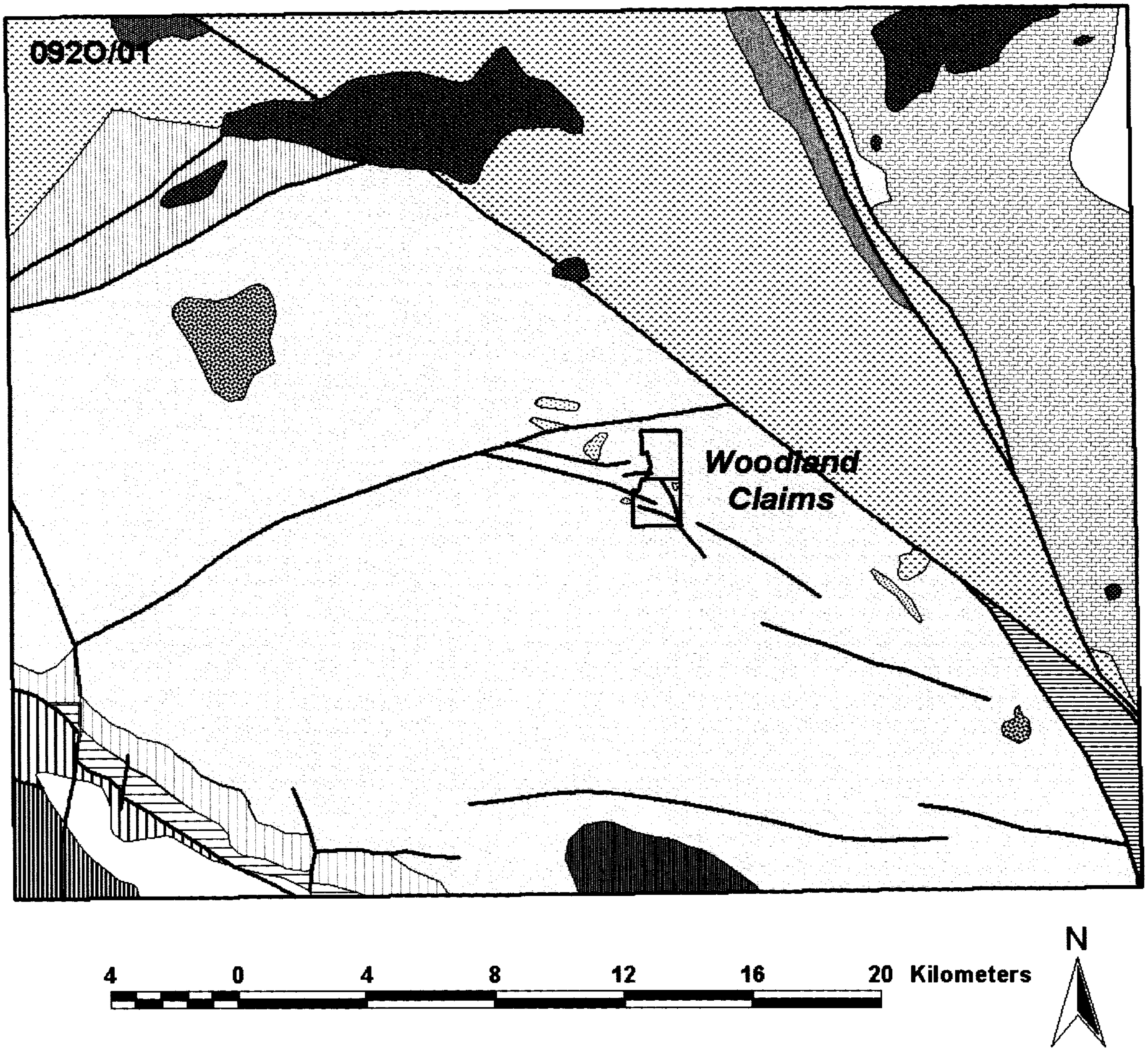
Figure 2: Simplified Geology of the Cariboo Map Sheet - 92O

(after Schiarizza et al., 1994)

PROFESSIONAL D. H. WOOD BRITISH COLUMBIA GEOSCIENTIST

Proj.: UTM, Zone 10

D.H.Wood - May 1999



Legend

Qal	lKJMc2	Contact
MPCv	lKJMy1	Fault
EOv	lKJMy2	Fault Contact
Ecg	lKSB	Thrust Fault
Ev	lmJys	
Ep	PSH	
KTf	PSM	
KTgd	PTrCC	
KTqp	gd	
uKys		

Assessment Report for Woodland 1 & 2 Claims Clinton M.D., British Columbia

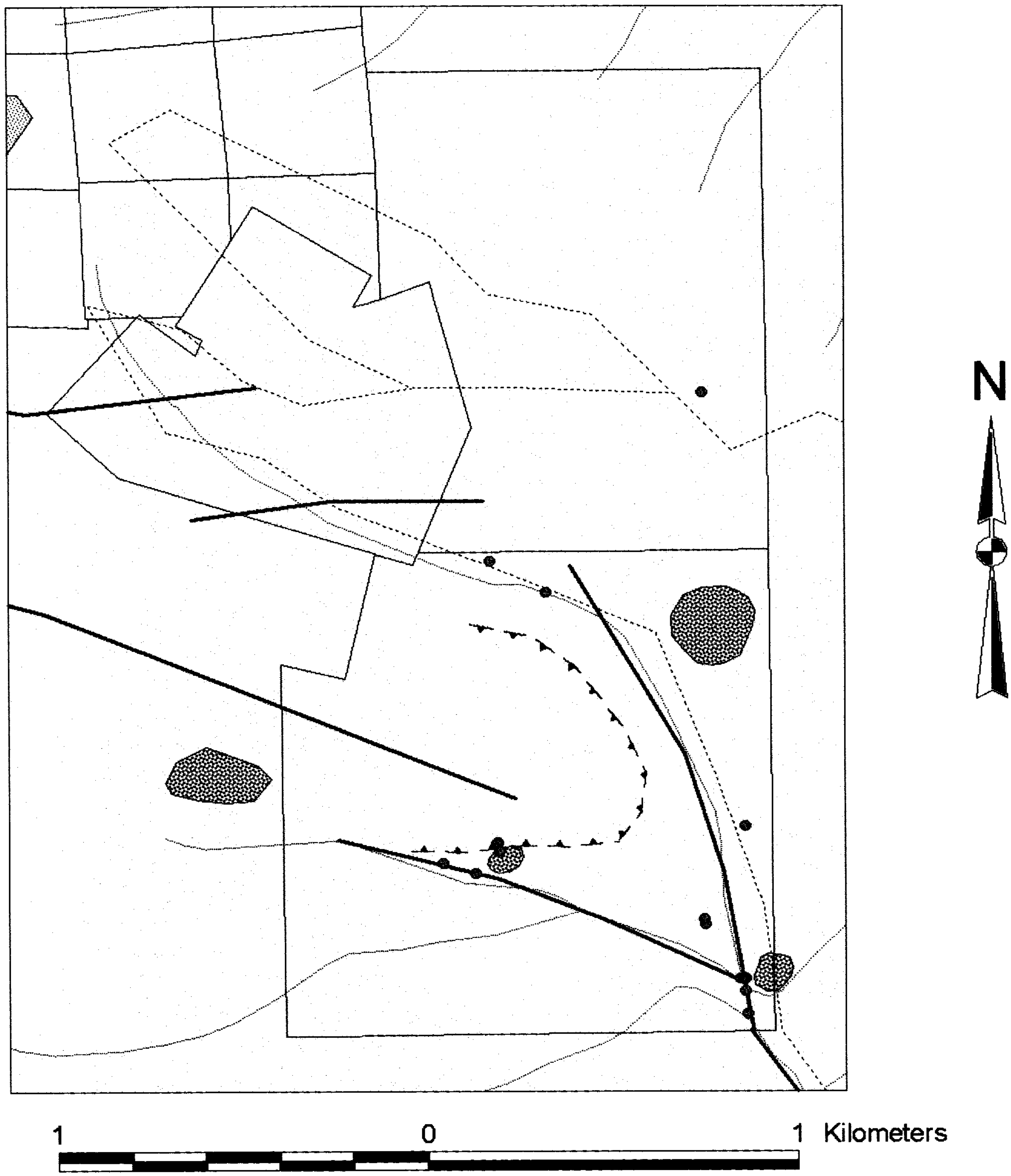
Figure 3: Geology of the Waston Bar Creek Sheet NTS 92O/01

(after Schiarizza et al., 1994)

PROFESSIONAL GEOSCIENTIST
PROVINCE OF BRITISH COLUMBIA
D.H. WOOD

Proj.: UTM, Zone 10

D.H.Wood - May 1999



Legend

- Fs-Ppy
- Qtz-Fs-Ppy
- Sst/Arg
- Thrust Fault
- Normal Fault
- Rock Samples
- Claim Boundaries

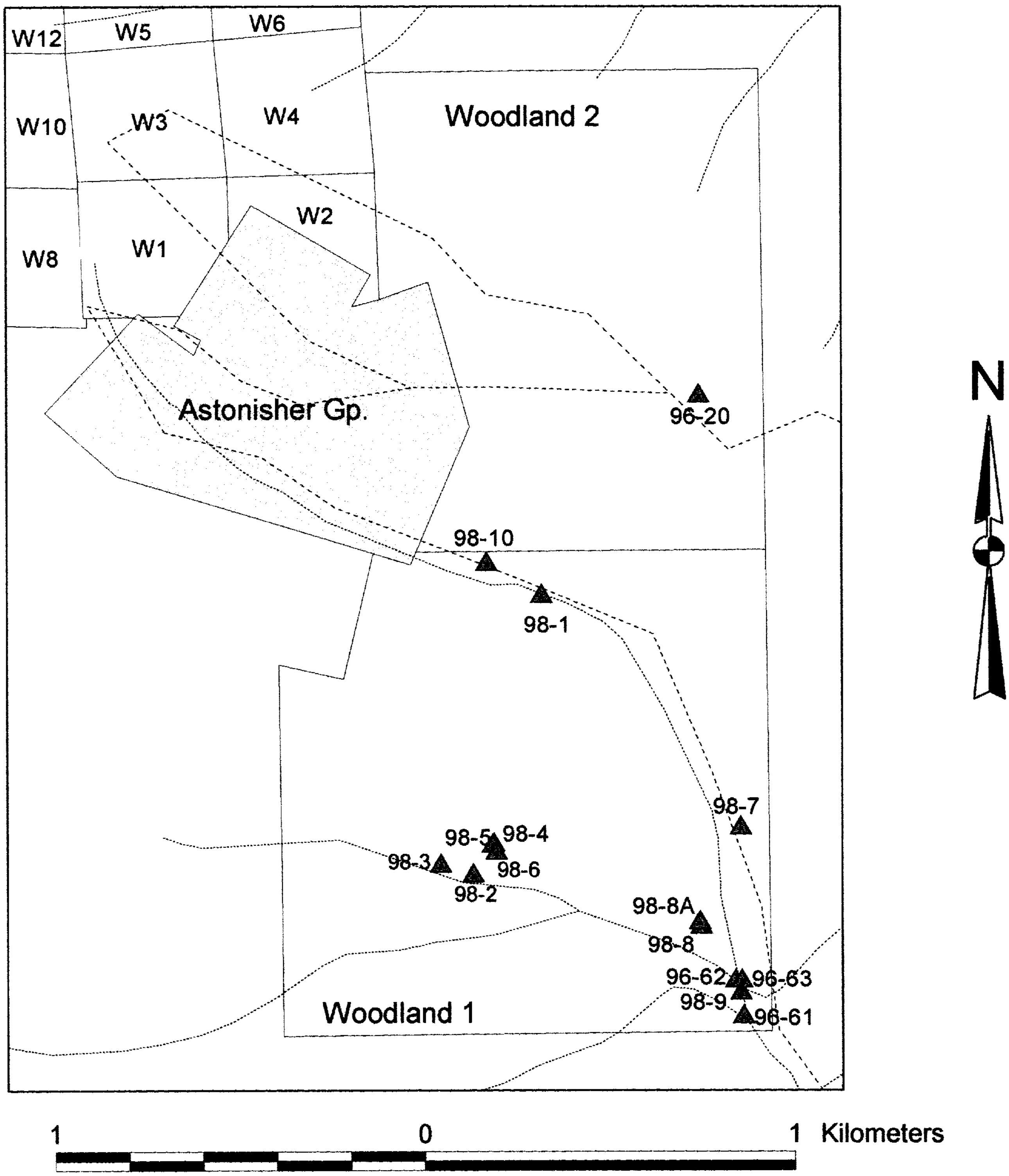
Assessment Report
for
Woodland 1 & 2 Claims
Clinton M.D., British Columbia

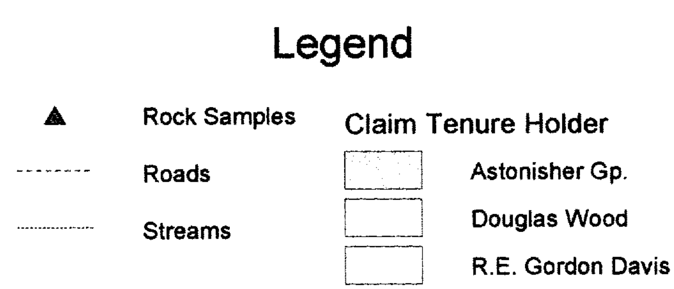
Figure 4: Property Geology

GIS: Arc/Info - ArcView

D.H.Wood - May 1999

D. H. WOOD
GEOSCIENTIST



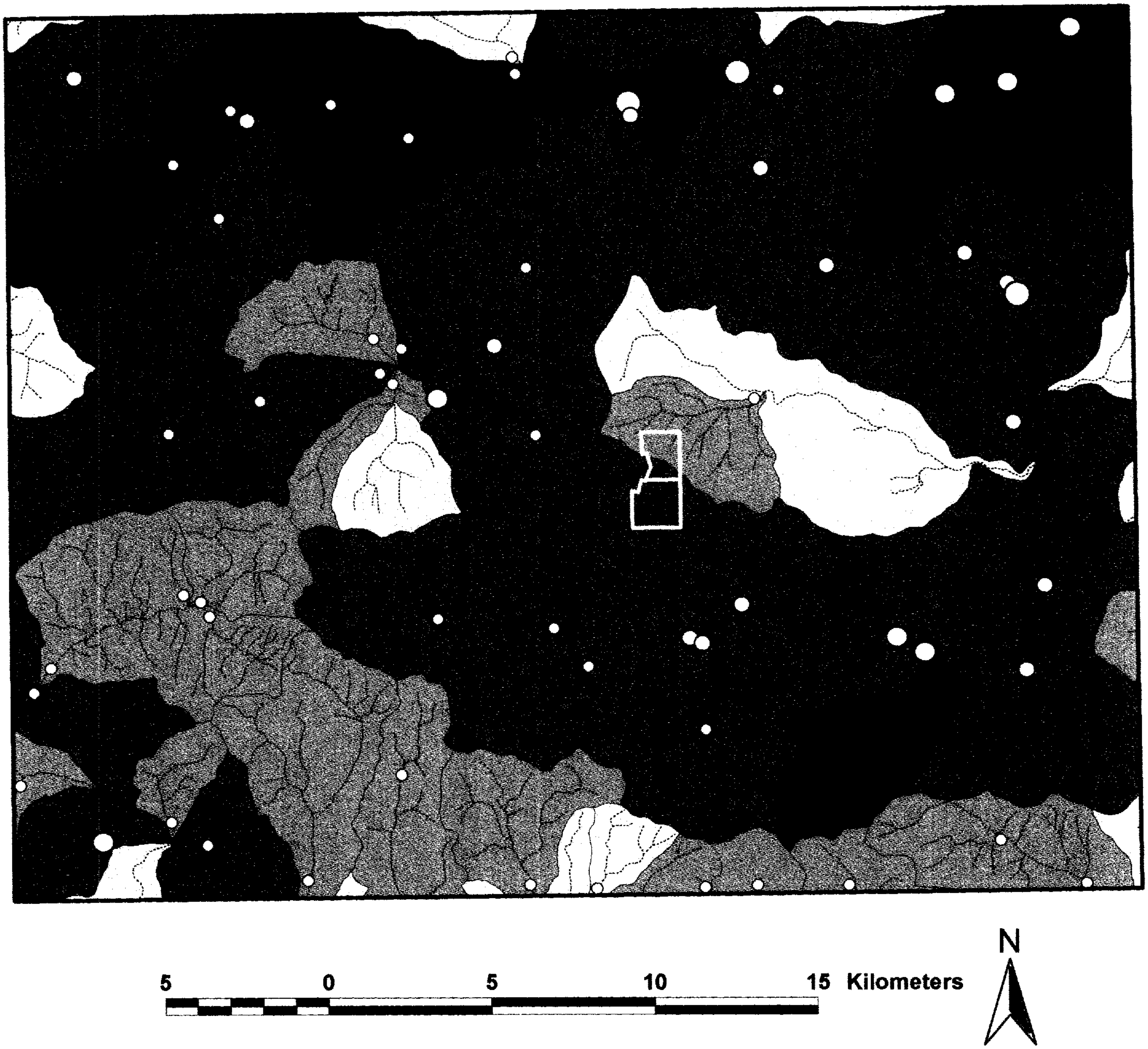


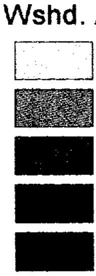
Assessment Report
for
Woodland 1 & 2 Claims
Clinton M.D., British Columbia

Figure 5: Sample Locations

Proj.: UTM, Zone 10

D.H.Wood - May 1999





Legend

Stream Au (ppb)

○	2
○	2 - 10
○	10 - 30
○	30 - 243

Wshd. Avg. Au (ppb)

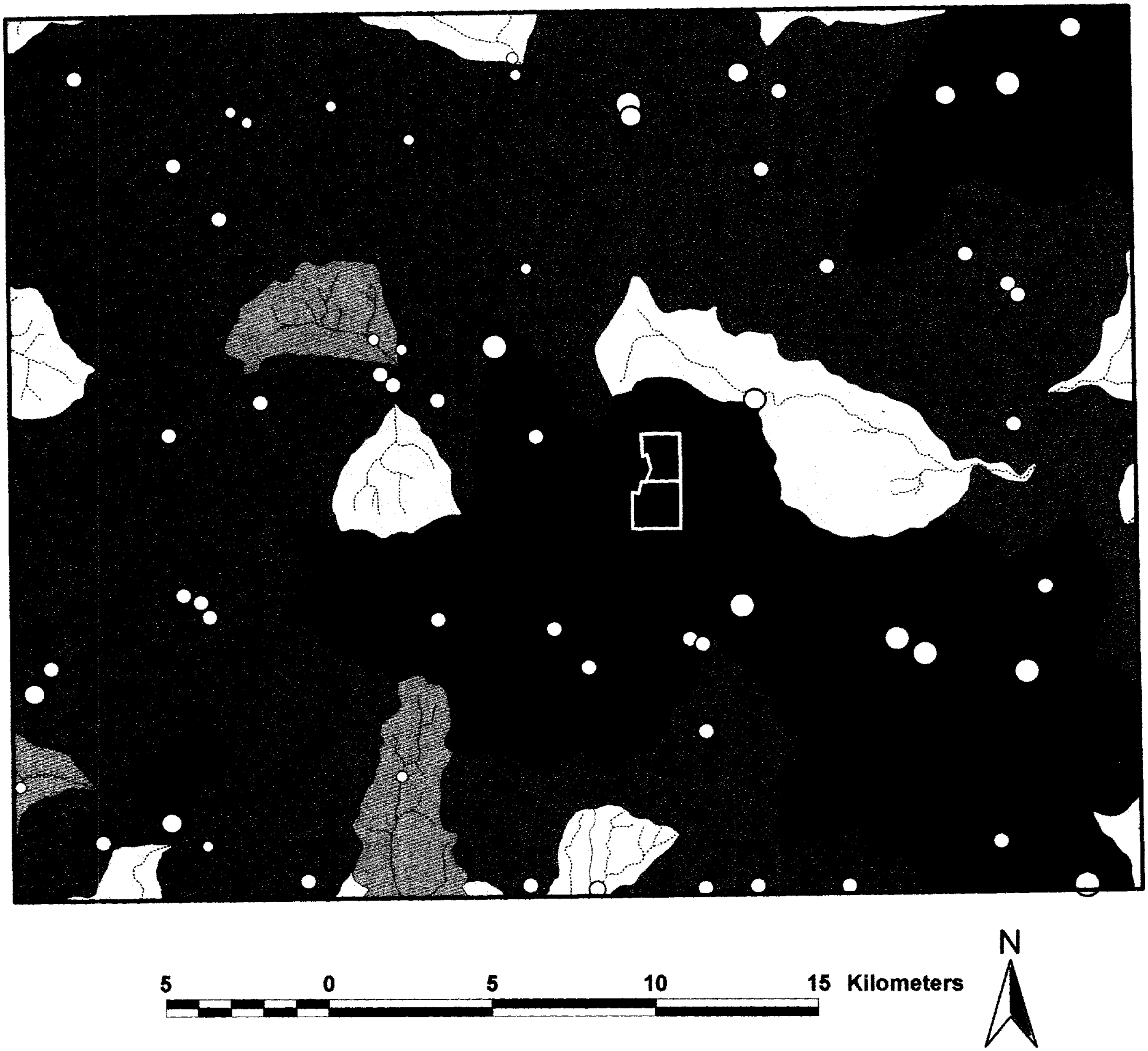
	No Sample
	< 2
	2 - 10
	10 - 30
	> 30

Assessment Report
for
Woodland 1 & 2 Claims
Clinton M.D., British Columbia

Figure 6:
Watershed RGS Ranking - Au

Proj.: UTM, Zone 10

D.H.Wood - May 1999



Legend

Stream As (ppm)	Wshd. Avg. As (ppm)	
0 - 5		No Sample
5 - 10		0 - 5
10 - 20		5 - 10
20 - 345		10 - 20
		20 - 345

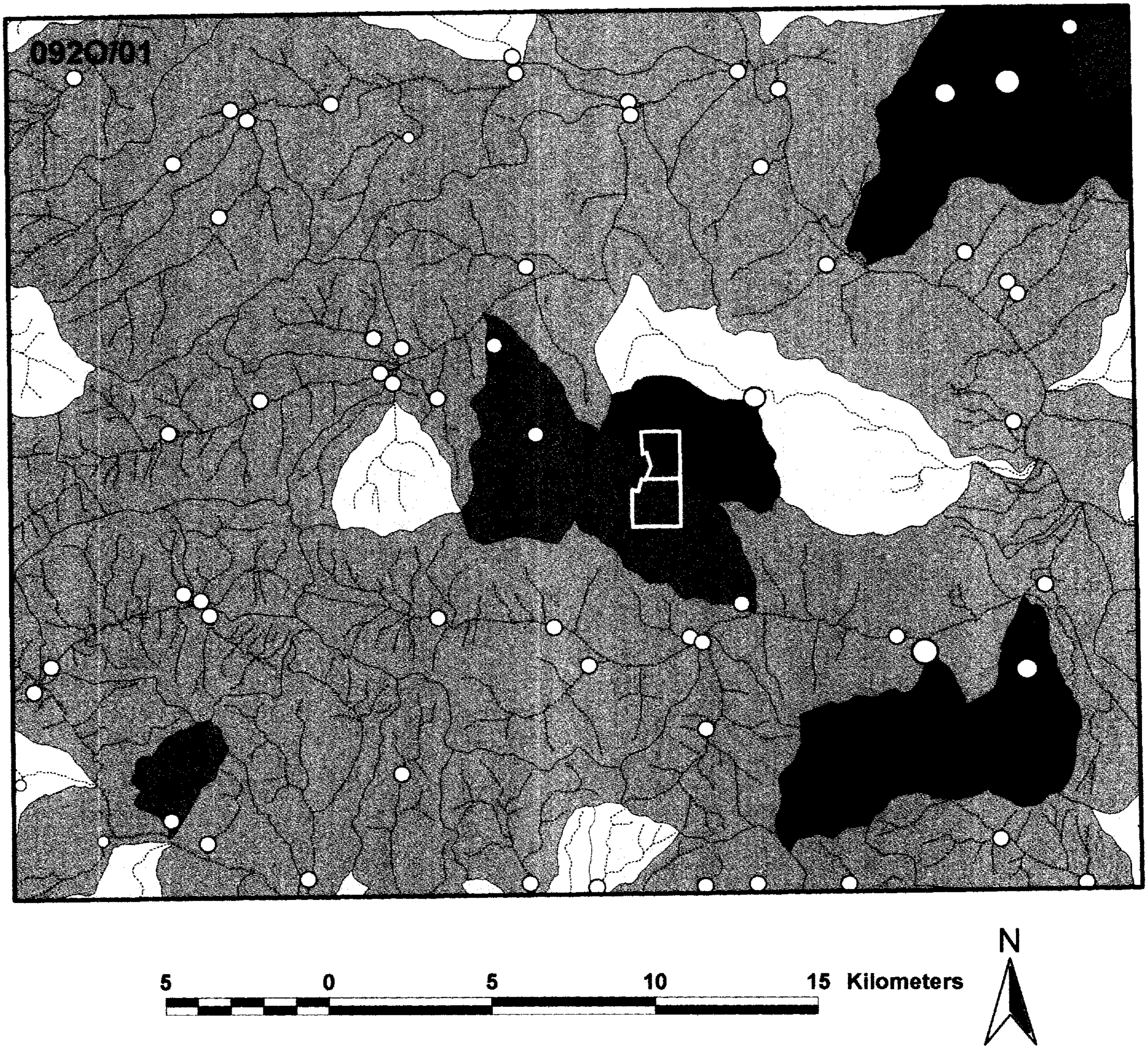
Assessment Report
for
Woodland 1 & 2 Claims
Clinton M.D., British Columbia

Figure 7:
Watershed RGS Ranking - As

PROFESSIONAL
PROVINCE OF
D. H. WOOD
BRITISH COLUMBIA
GEOSCIENTIST

Proj.: UTM, Zone 10

D.H.Wood - May 1999



Legend

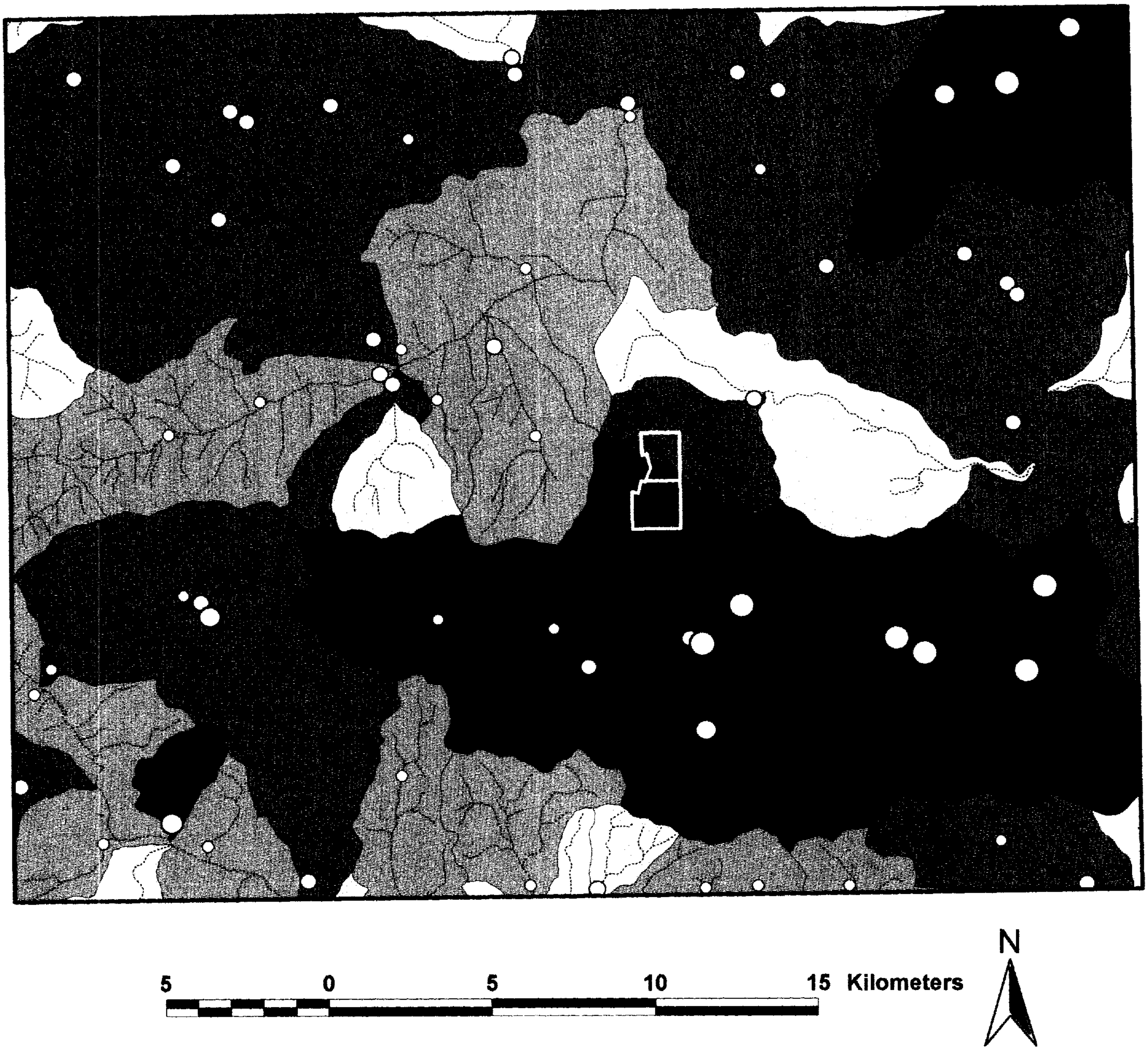
Stream Sb (ppm)		Wshd. Avg. Sb (ppm)	
○	< 1		No Sample
○	1 - 3		0 - 1
○	3 - 5		1 - 3
○	5 - 15		3 - 5
			5 - 15

Assessment Report for 1999
Woodland 1 & 2 Claims
Clinton M.D., British Columbia

Figure 8:
Watershed RGS Ranking - Sb

Proj.: UTM, Zone 10

D.H.Wood - May 1999



Legend

Stream Hg (ppb)

- 20 - 50
- 50 - 100
- 100 - 200
- 200 - 1150

Wshd. Avg. Hg (ppb)

- No Sample
- 0 - 50
- 50 - 100
- 100 - 200
- 200 - 1150

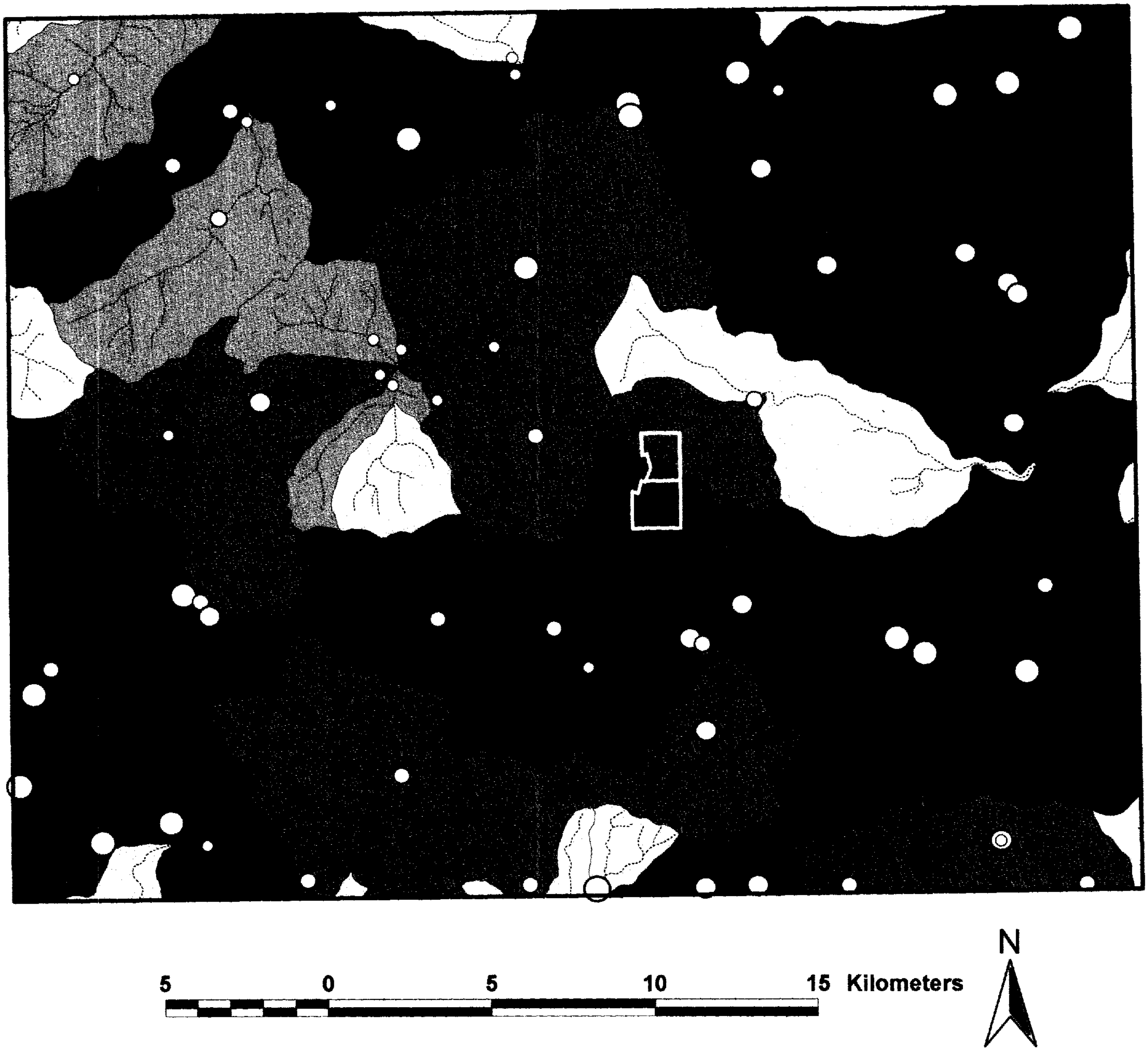
Assessment Report
for
Woodland 1 & 2 Claims
Clinton M.D., British Columbia

Figure 9:
Watershed RGS Ranking - Hg

Proj.: UTM, Zone 10

D.H.Wood - May 1999

PROFESSIONAL
PROVINCE OF
D. H. WOOD
BRITISH COLUMBIA
SCIENTIST



Legend

Stream Mn (ppm)
- 275 - 375
- 375 - 450
- 450 - 550
- 550 - 1500

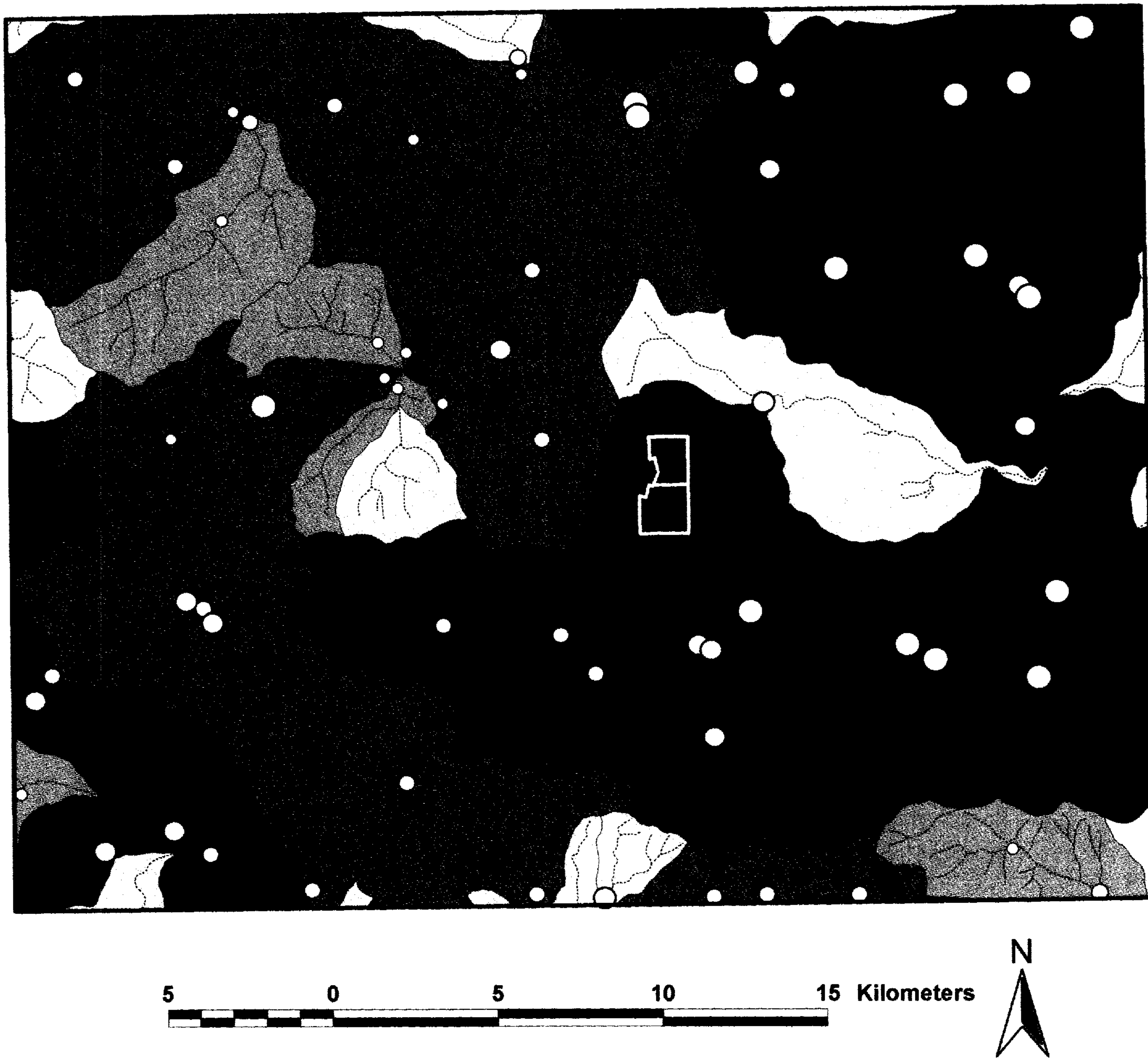
Wshd. Avg. Mn (ppm)
- No Sample
- < 375
- 375 - 450
- 450 - 550
- 550 - 1500

Assessment Report for Woodland 1 & 2 Claims Clinton M.D., British Columbia

Figure 10: Watershed RGS Ranking - Mn

Proj.: UTM, Zone 10

D.H.Wood - May 1999



Legend

Stream Cu (ppm)	Wshd. Avg. Cu (ppm)
< 15	0
16 - 25	< 15
26 - 35	16 - 25
36 - 210	26 - 35
	36 - 210

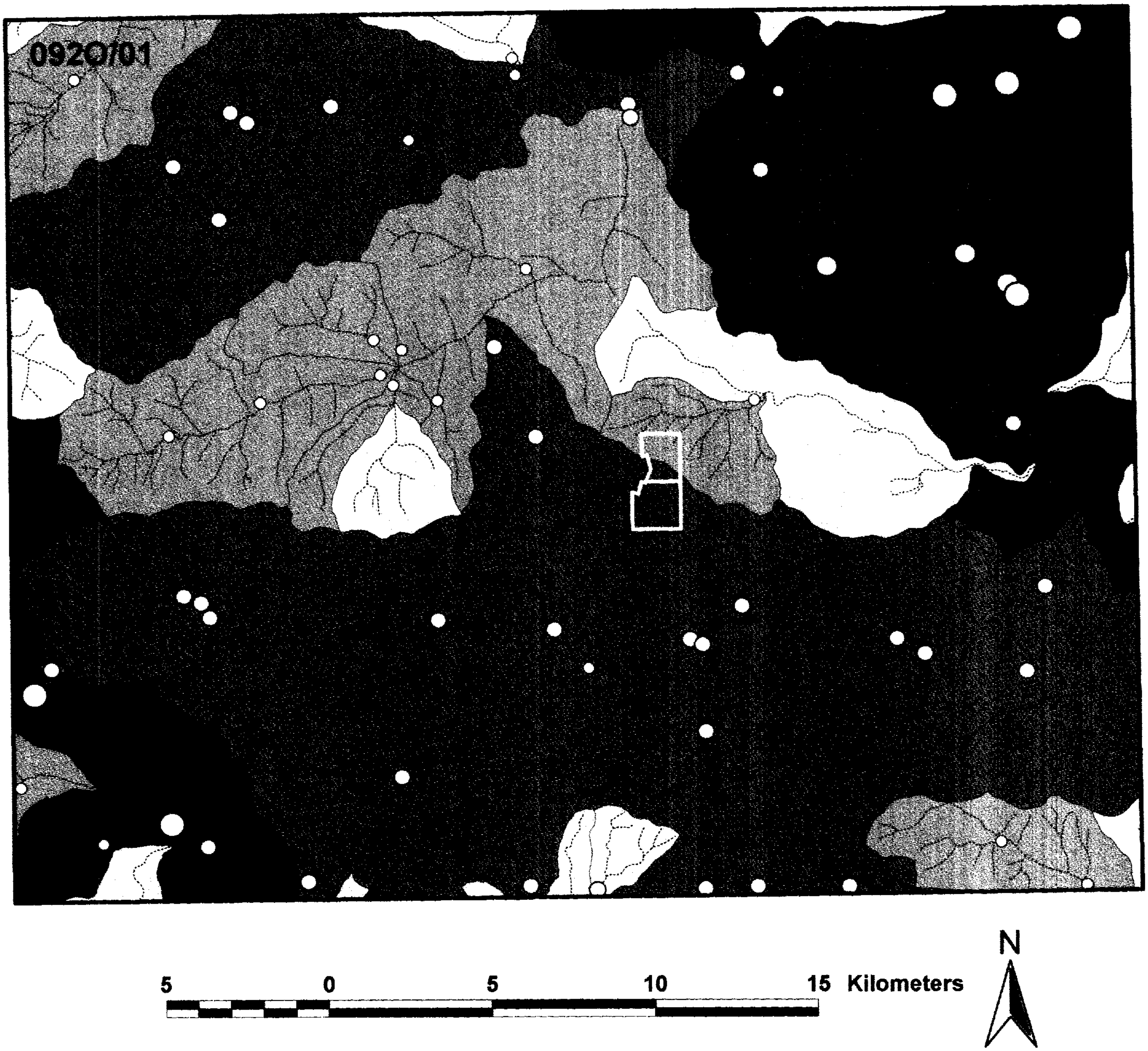
Assessment Report
for
Woodland 1 & 2 Claims
Clinton M.D., British Columbia

Figure 11:
Watershed RGS Ranking - Cu

PROFESSIONAL
PROVINCE OF
D. H. WOOD
BRITISH COLUMBIA
GEOSCIENTIST

Proj.: UTM, Zone 10

D.H.Wood - May 1998



Legend

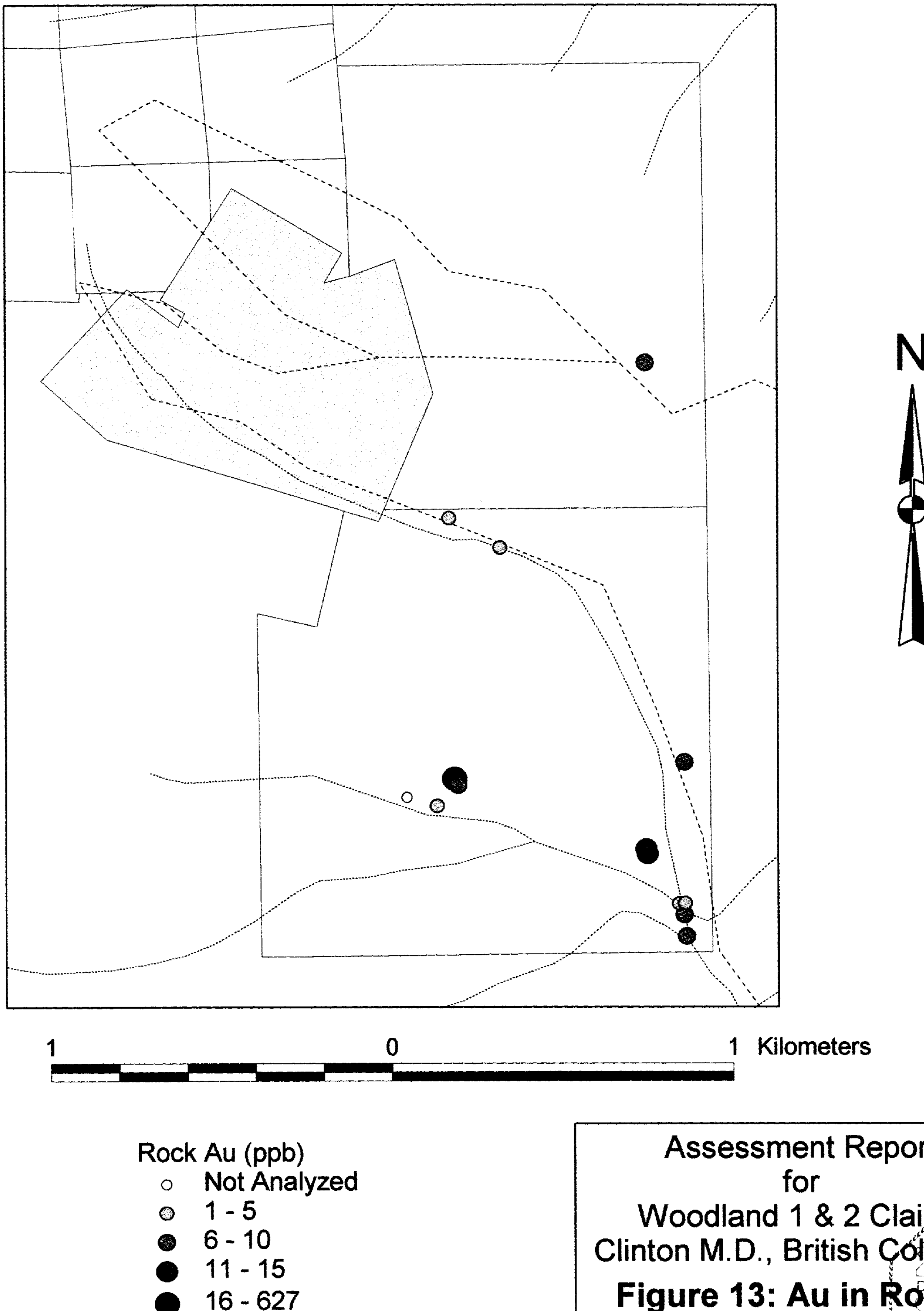
Stream Zn (ppm)	Wshd. Avg. Zn (ppm)
26 - 50	No Sample
51 - 75	0 - 50
76 - 100	51 - 75
101 - 210	76 - 100
	101 - 210

Assessment Report
for
Woodland 1 & 2 Claims
Clinton M.D., British Columbia

Figure 12:
Watershed RGS Ranking - Zn

Proj.: UTM, Zone 10

D.H.Wood - May 1999

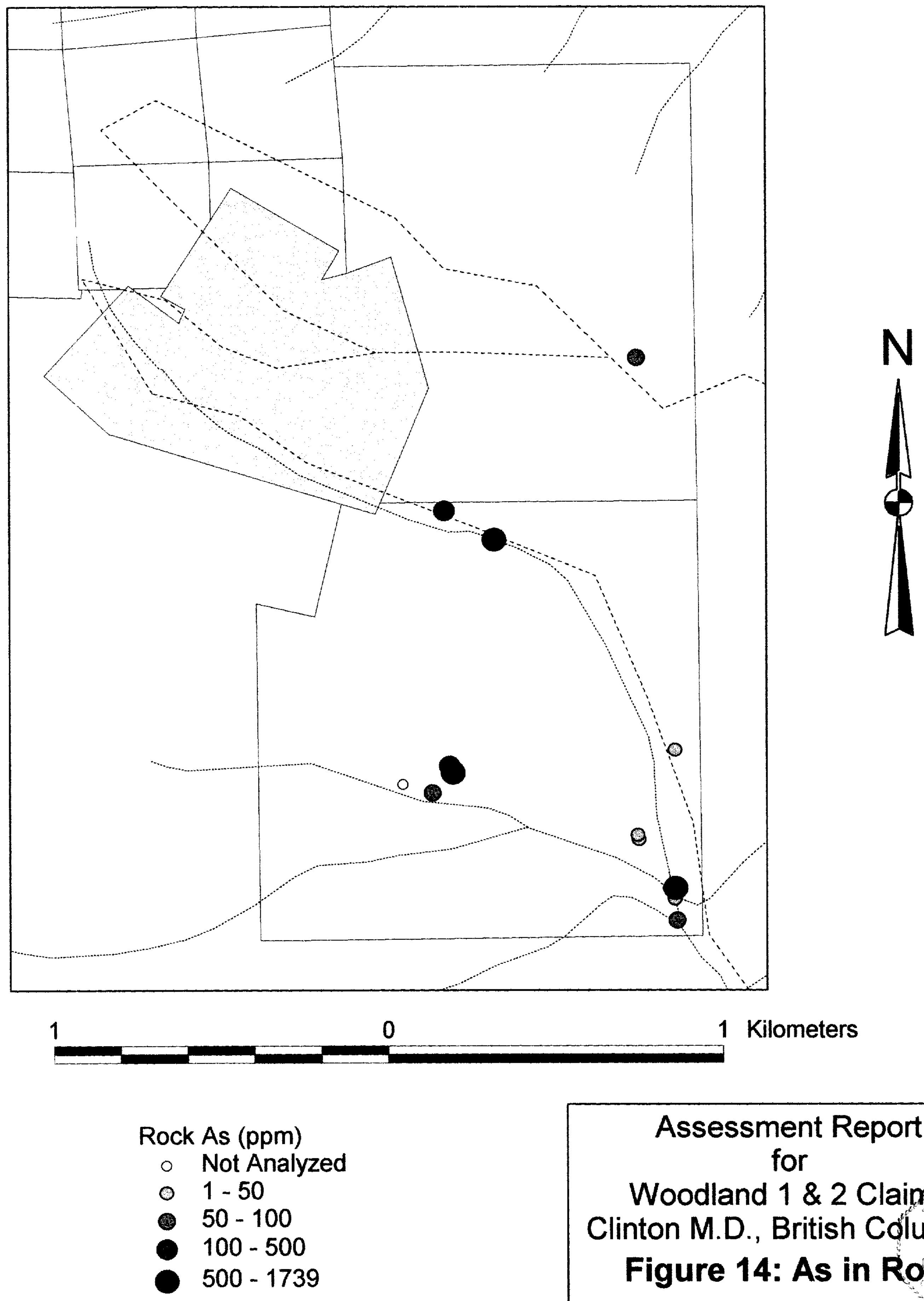


Assessment Report
for
Woodland 1 & 2 Claims
Clinton M.D., British Columbia

Figure 13: Au in Rocks

Proj.:UTM, Zone 10

D.H.Wood - May 1999



Assessment Report
for
Woodland 1 & 2 Claims
Clinton M.D., British Columbia

Figure 14: As in Rocks

Proj.:UTM, Zone 10

D.H.Wood - May 1999

Rock Sb (ppm)

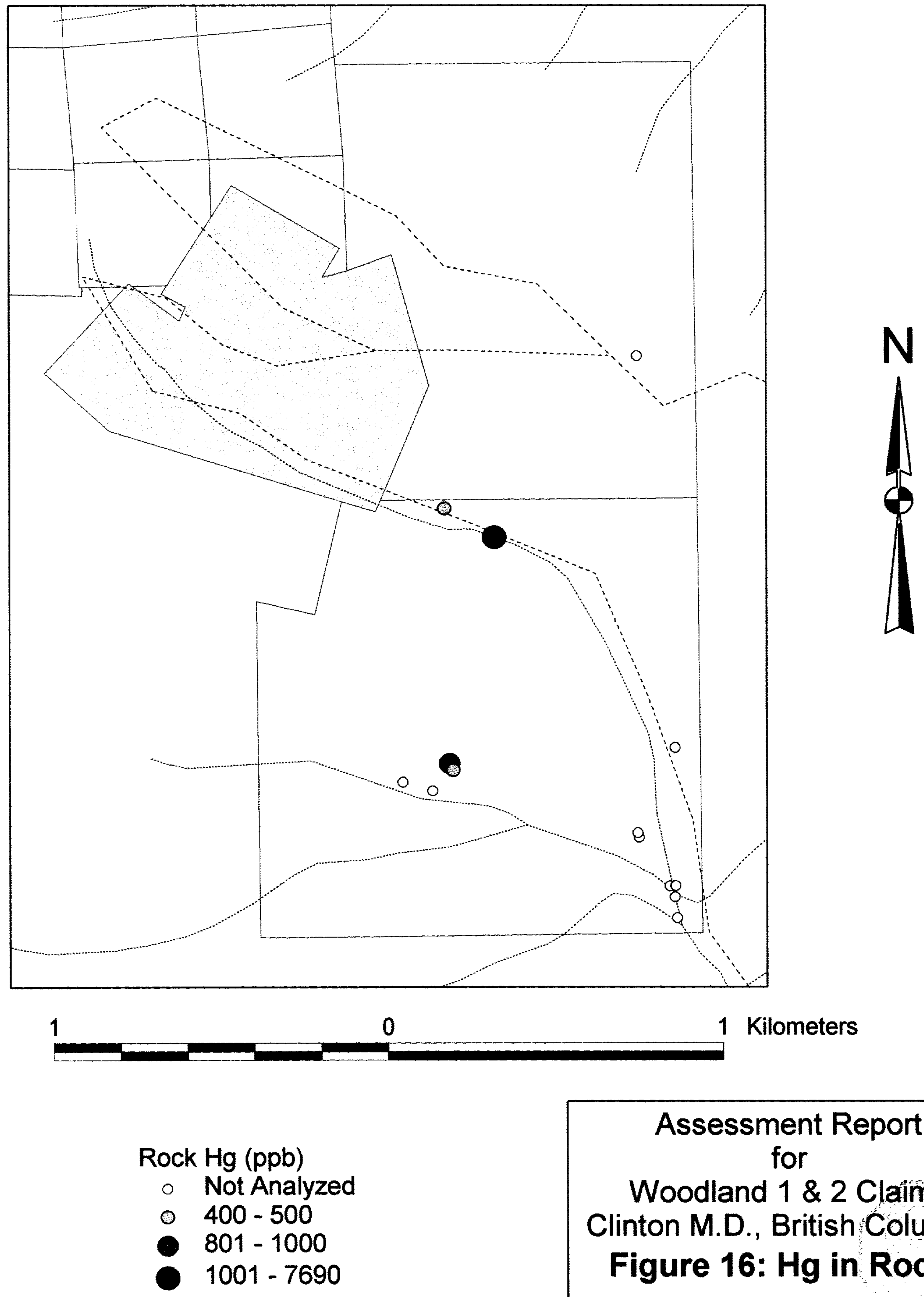
- ○ Not Analyzed
- 1 - 5
- 6 - 10
- 11 - 50
- 51 - 74

Assessment Report
for
Woodland 1 & 2 Claims
Clinton M.D., British Columbia

Figure 15: Sb in Rocks

Proj.:UTM, Zone 10

D.H.Wood - May 1999

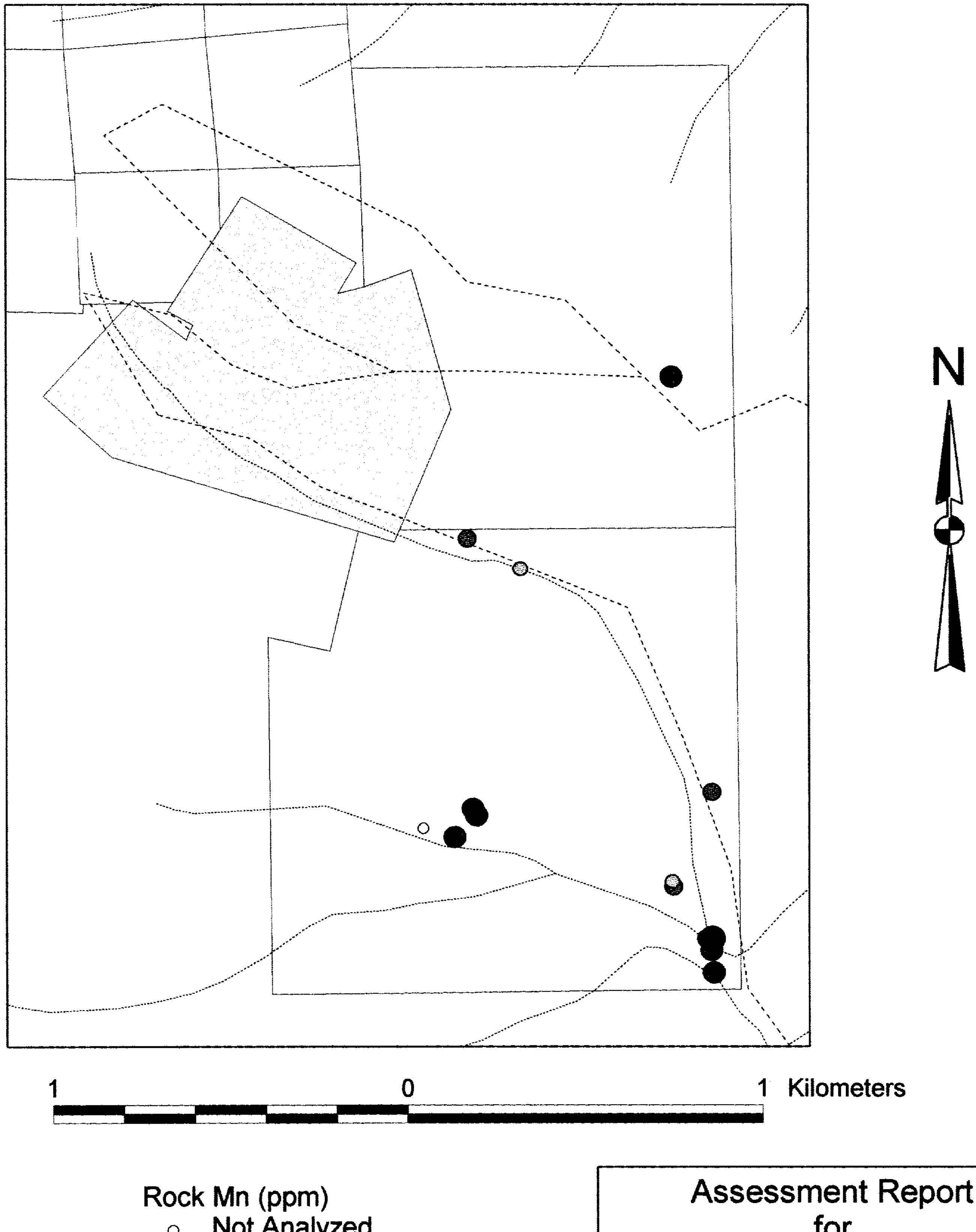


Assessment Report
for
Woodland 1 & 2 Claims
Clinton M.D., British Columbia

Figure 16: Hg in Rocks

Proj.:UTM, Zone 10

D.H.Wood - May 1999

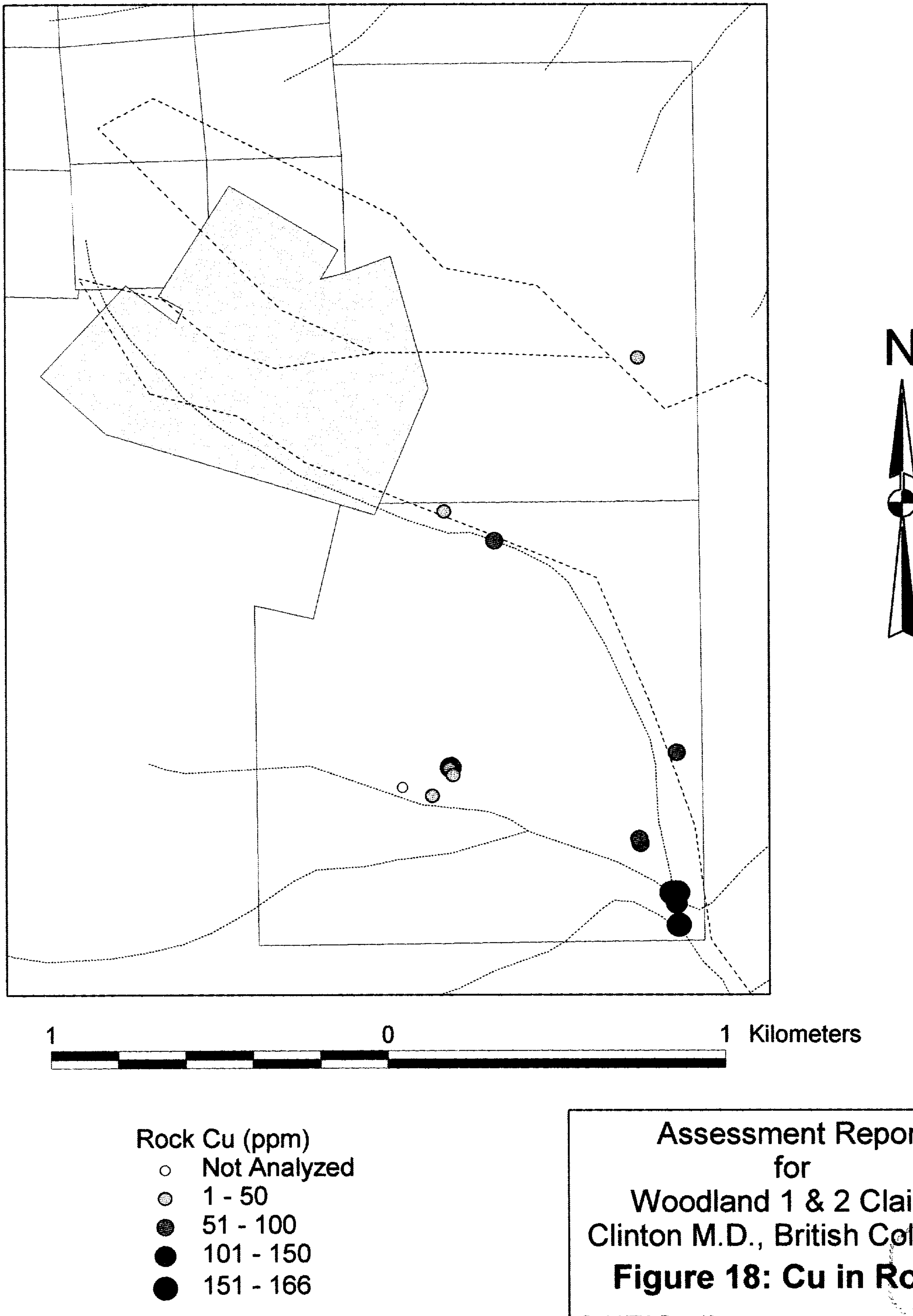


Assessment Report
for
Woodland 1 & 2 Claims
Clinton M.D., British Columbia

Figure 17: Mn in Rocks

Proj.:UTM, Zone 10

D.H.Wood - May 1999

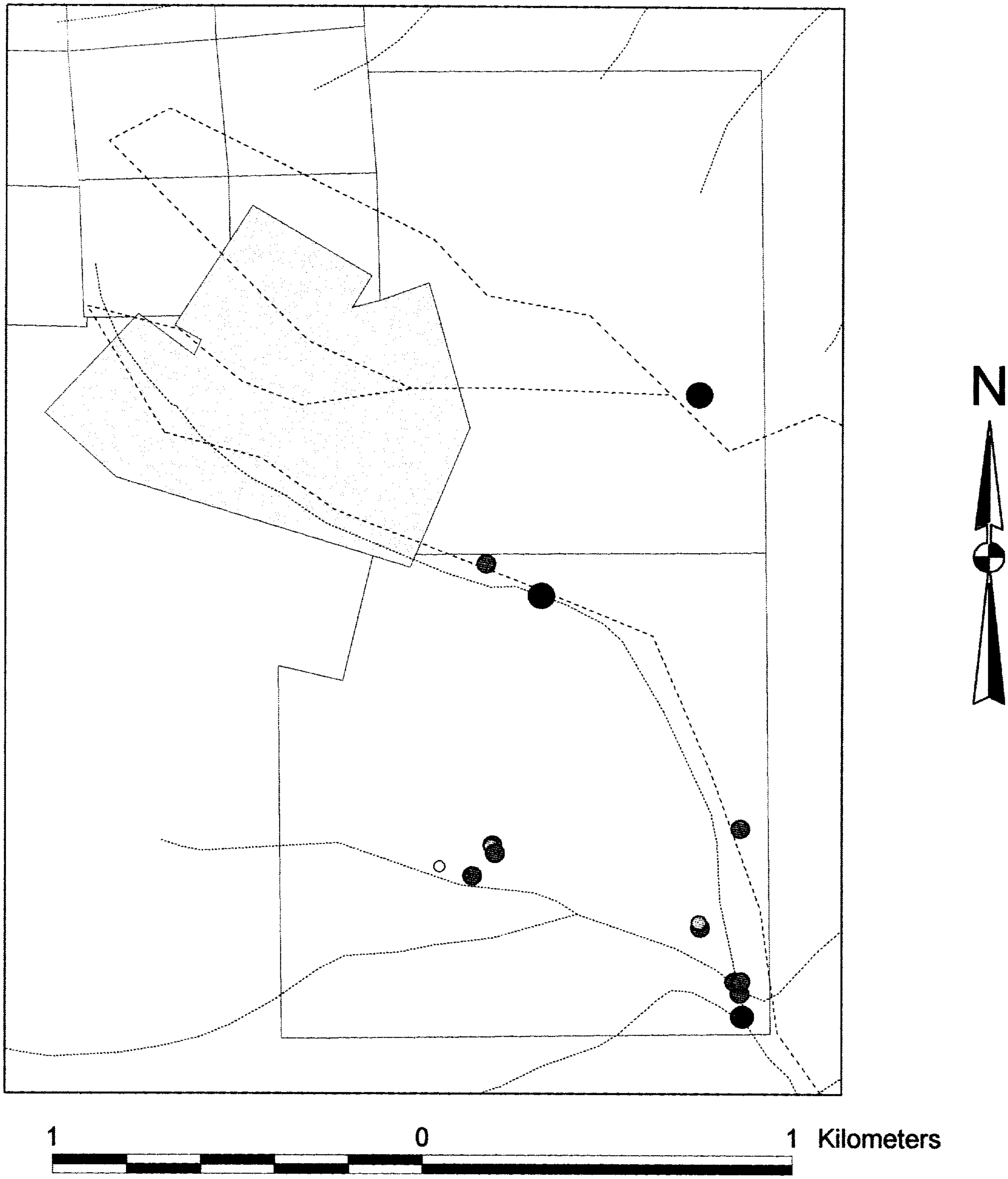


Assessment Report
for
Woodland 1 & 2 Claims
Clinton M.D., British Columbia

Figure 18: Cu in Rocks

Proj.:UTM, Zone 10

D.H.Wood - May 1999



Rock Zn (ppm)

- ○ Not Analyzed
- 1 - 30
- 31 - 50
- 51 - 75
- 76 - 106

Assessment Report
for
Woodland 1 & 2 Claims
Clinton M.D., British Columbia

Figure 19: Zn in Rocks

Proj.:UTM, Zone 10

D.H.Wood - May 1999