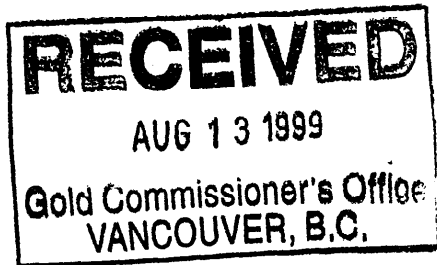


**GEOLOGICAL AND PROSPECTING ASSESSMENT REPORT
ON THE HORN CLAIMS**



HORN PROPERTY

Horn 1-15, 17-22, 25, 29-36

NTS 82F/9

Latitude 49° 34' N Longitude 116° 12'W

Owner – Black Bull Resources Inc.
548 Beatty Street,
Vancouver, B.C.
V6B 2L3

Operator – Same as above

Consultant – Anderson Minsearch Consultants Ltd.
3205 6th. St. South
Cranbrook, B.C.
VIC 6K1

Authors – Douglas Anderson, Geologist
- Craig Kennedy, Prospector

Submitted – August 10, 1999

**GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT**

25,976

TABLE OF CONTENTS

	Page
1.00 Introduction	1
1.10 Property Definition, History, Background Information	1
1.20 Summary of Work Done	2
2.00 Prospecting Report	3
3.00 Geological Mapping	4
4.00 Interpretations and Conclusions	7
5.00 Itemized Cost Statement	8
6.00 Author's Qualifications	8

List of Illustrations

Figure 1	Horn Location Map	in text
Figure 2	Horn Claim Map	in text
Figure 3	Prospecting Map of the Horn Claims	in pocket
Figure 4	Geological Map of the Horn Claims	in pocket

BLACK BULL RESOURCES INC.
ASSESSMENT REPORT
GEOLOGICAL MAPPING and PROSPECTING

HORN PROPERTY

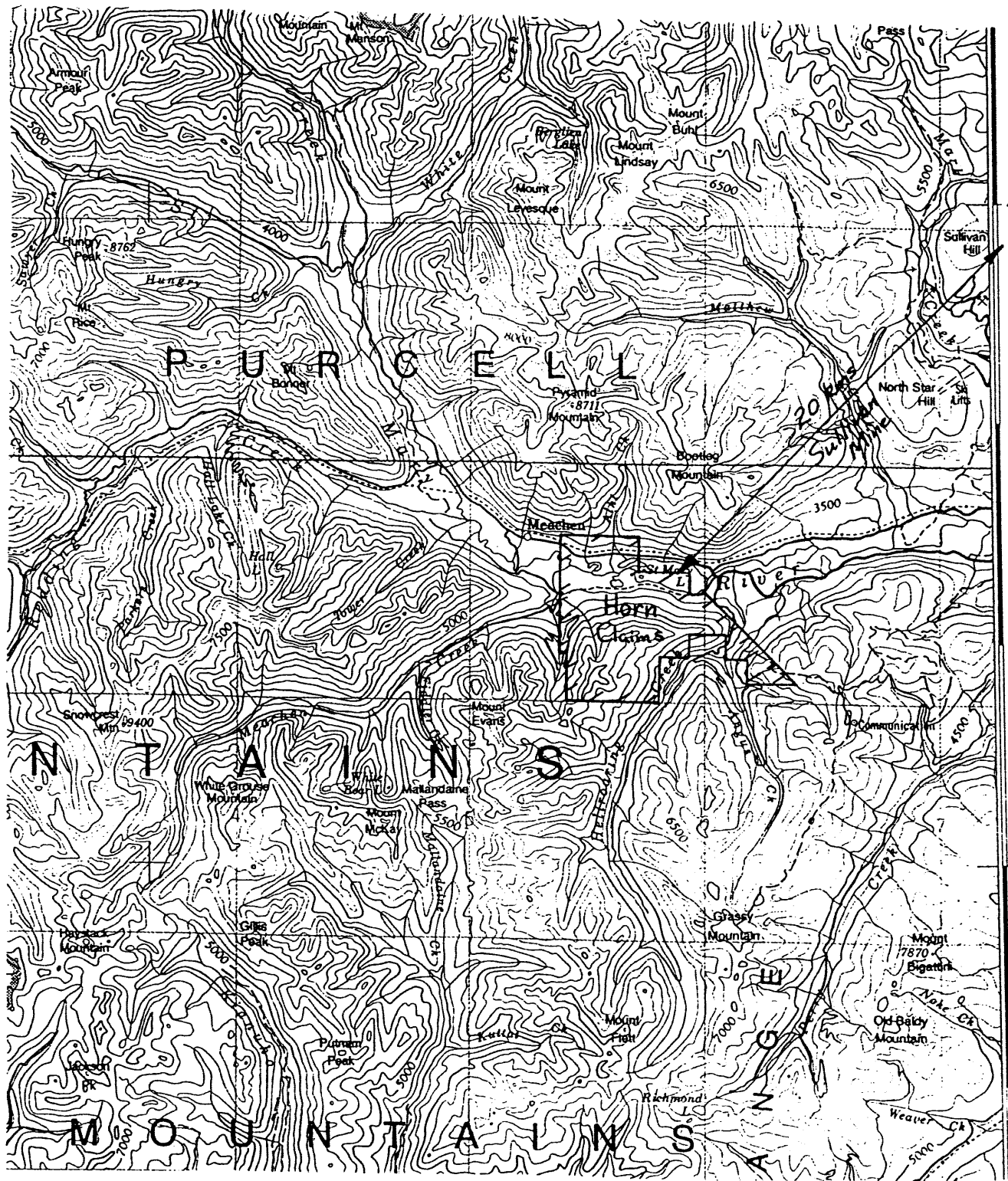
1.00 Introduction

The Horn property which is the subject of this report consists of a large block of contiguous claims situated in the St. Mary valley, centered about 20 kilometers southwest of Kimberley in the East Kootenay region of British Columbia. The claim block occurs mostly on the south side of the St. Mary river, forming an east-west block between Meachen creek and Pitt creek. Relief is modest on the east to rugged on the west, ranging from 900 metres ASL to over 2100 metres. The region has thick forest cover with a modest percentage of outcrop. Access is via two major roads from Highway 95A, the St. Mary Lake road or the River road which is a logging access road. These roads occur on the north and south sides of the St. Mary river respectively. The Angus and Hellroaring creek logging roads provide the secondary access onto tertiary logging roads to various points on the property. (See enclosed Index Map.)

1.10 Property Definition, History, Background Information

The part of the property of concern to this report includes:

Claim	#Units	TN#	Expiry
Horn 1	1	212445	May 21/99
Horn 2	1	212446	May 21/99
Horn 3	1	212447	May 22/99
Horn 4	1	212448	May 22/99
Horn 5	1	212449	May 22/99
Horn 6	1	212450	May 22/99
Horn 7	1	212451	May 20/99
Horn 8	1	212452	May 20/99
Horn 9	1	212453	May 20/99
Horn 10	1	212454	May 20/99
Horn 11	1	212455	May 20/99
Horn 12	1	212456	May 20/99
Horn 13	1	212457	May 21/99
Horn 14	1	212458	May 21/99
Horn 15	1	212459	May 21/99
Horn 17	20	212461	May 24/99
Horn 18	1	212462	May 22/99
Horn 19	1	212463	May 22/99
Horn 20	1	212464	May 22/99



BLACK BULL RESOURCES	
HORN LOCATION MAP	
NTS: 82F/09	FIGURE: 1
SCALE: 1:250,000	

Horn 21	5	212465	May 22/99
Horn 22	20	300326	June 3/99
Horn 25	20	300325	June 5/99
Horn 29	1	300182	June 6/99
Horn 30	1	300183	June 6/99
Horn 31	1	300185	June 6/99
Horn 32	1	300196	June 6/99
Horn 33	1	300197	June 6/99
Horn 34	1	300206	June 6/99
Horn 35	1	300208	June 6/99
Horn 36	1	300277	June 6/99

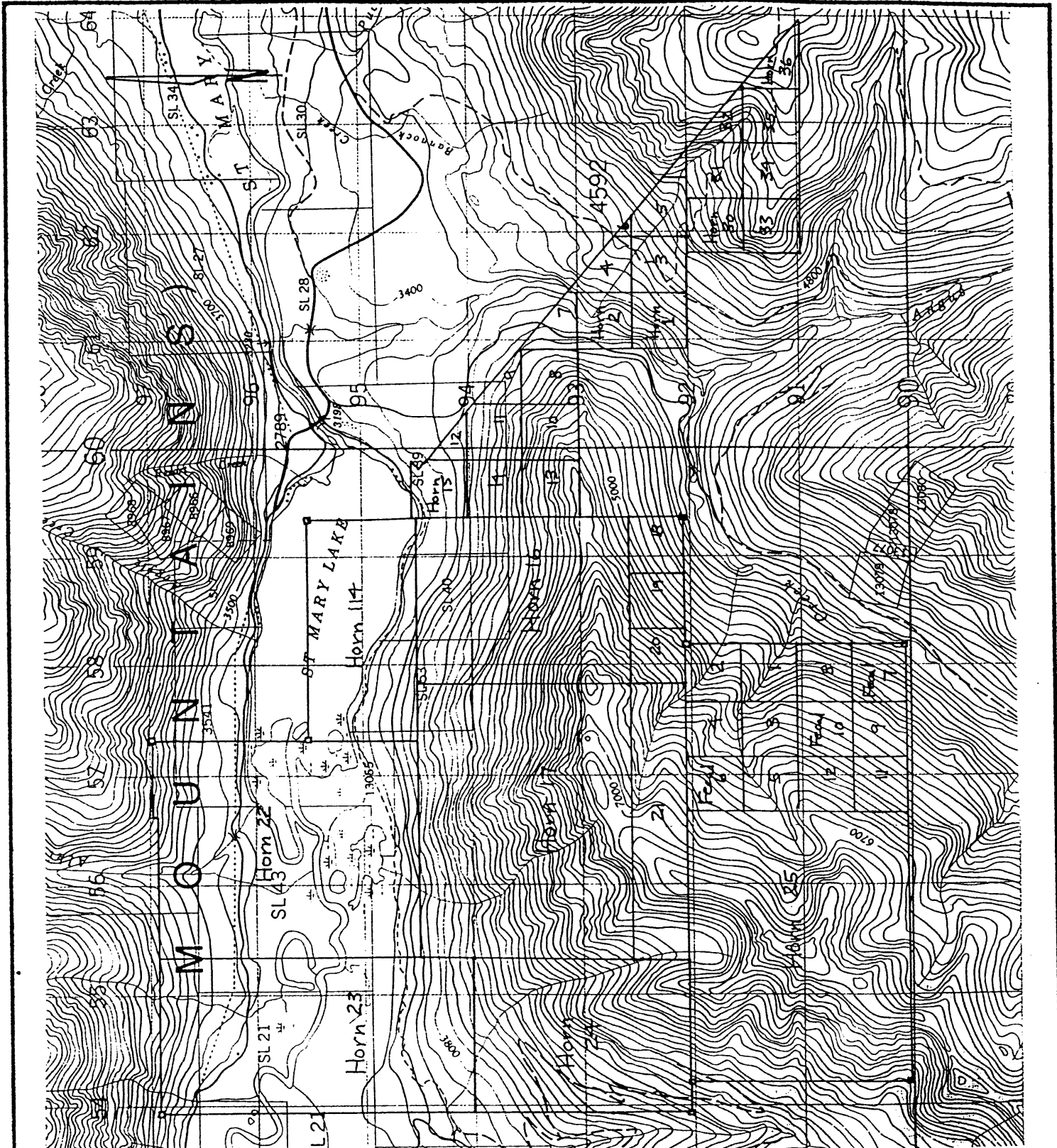
The current owner is Black Bull Resources Inc. of Vancouver, who also own the adjoining Burn claims. The claims involved are shown on Figure 2.

The earlier history of the general area is not well known. It involved the pursuit of several properties in the area as follows. The Dan Howe is a prospect on the north-facing slope above St. Mary Lake. A drift and crosscut (1930's) tested a lenticular quartz vein in sheared sediments immediately beneath the contact with a gabbro sill. Present are pyrrhotite, galena, sphalerite and arsenopyrite. The Warhorse (Boyscout- 1920/30's) is a northwest-striking, southwest-dipping vein system in sheared sediments on the south side of Hellroaring Creek. It is tested on three levels with vein exposures ranging from 3 to 12 feet containing galena, sphalerite, pyrite, and arsenopyrite with some siderite in the quartz gangue. Minor gold values are indicated. One underground sample across 12 inches: 0.01 oz/t gold; 4.1 oz/t Ag; 15.8%Pb; and 8.5%Zn. This structural zone transects Aldridge sediments and pegmatites associated with the Hellroaring Creek stock.

Recent exploration work jumps to Cominco work (late 70's and 1980's) on the Clair claims in the main St. Mary river valley. Here UTEM surveys were done along the valley floor and two holes were drilled (one on each side of the valley) testing a thick series of fragmentals occurring at the Lower/Middle Aldridge contact. In 1986, Esso Minerals staked the above area plus ground to the south. They completed mapping, rock and stream geochem work, and a recce EM survey. In 1991, Kokanee Exploration Ltd. staked the same area plus a larger area to the south/southeast completing some prospecting and geological work and soil geochem sampling. The property was optioned to Metall Mining Corp. who undertook drilling of two holes southwest of the Cominco hole. Fragmentals and minor Pb-Zn mineralization were intersected in a structurally complex area. Exploration efforts moved temporarily to the east across Angus creek onto adjoining claims held by Quest International Resources. In 1997, a final drill test in the proximity of the previous two holes tested a downhole geophysics response with negative results. In 1998, a soil geochem grid was done on the south-facing slope into Hellroaring Creek.

1.20 Summary of Work Done

The 1998/99 exploration program on the Horn property now owned by Black Bull Resources, included prospecting and geological mapping at a scale of 1:10,000. Coverage included Horn 1 through 22, 25, and 29 to 36.



BLACK BULL RESOURCES

HORN CLAIM MAP

NTS: 82F/09

SCALE: 1:50,000

FIGURE: 2

2.00 Prospecting Report (refer to Figure 3)

Prospecting was conducted on the Horn Property within an area of sedimentary fragmental deposits, this complex is controlled by a major northwest-trending structural zone (Boy Scout fault). The focus of the prospecting program was to provide evidence that a positive environment for the discovery of a Sullivan style sedimentary-hosted deposit exists within the area. The following significant features exist within the area of interest:

- 1.) the fragmental complex
- 2.) tourmaline needle beds
- 3.) gabbro-granofels unit
- 4.) pegmatite dykes
- 5.) mineralization

1.) Fragmental Complex

On traverse #1 a large fragmental complex can be seen, the complex has two major fragmental components. The base fragmental has small to medium-sized clasts which are associated with abundant pyrrhotite, pyrite, and obvious amounts of arsenopyrite. This fragmental package which is in excess of 10 meters thick is recognized as an unbedded mass of mottled iron rich rock. Clast distribution in much of the outcrop is completely masked by sericite and other mica alteration.

The other distinctive fragmental unit lies slightly west and above the base zone. It exists within a massive albite, sericite, chlorite outcrop. This outcrop is in contact with a gabbro intrusive body. The feature of interest in this unit is that some of the fragments are fine grained black tourmaline. These clasts maybe rip-ups derived from a tourmaline body at depth.

2.) Tourmaline needle beds

On traverse #2 a zone of bedding parallel tourmaline needle beds can be found. The tourmaline alteration exists within a thin-bedded mica-iron rich siltstone unit, a schist. The tourmaline alteration area has two main characteristics. One is felted masses of repetitive narrow beds of small tourmaline needles. Individual needle beds as wide as 3 centimetres were observed. The other feature is bedding parallel coarse quartz veins, these veins reach widths similar to the tourmaline needle beds. The veins contain tourmaline clusters and have masses of small needles on the top and bottoms of the veins. The only sulphide noted in the quartz veins or tourmaline needle beds were rare blebs of arsenopyrite. The tourmaline alteration exists across 3 metres of stratigraphy and can be traced along strike in excess of 100 metres.

3.) Gabbro-Granofels unit

On traverse #3 a very rusty chlorite, actinolite-rich unit can be seen, it is in contact with a gabbro. The sulphide-rich outcrop contains in excess of 10% by volume pyrrhotite and pyrite. The outcrop is 4 metres wide and can be traced for 20 metres before it becomes covered by overburden. A major feature of interest within this outcrop is the existence of galena and sphalerite mineralization within zones of richer sulphide development. Another occurrence of similar material can be seen as float on traverse #4. This material is coming out of a roadcut, and again seems to be in contact with a gabbro. The float boulders contain a large volume of sulphide – pyrite and pyrrhotite with only rare chalcopyrite. Of interest with this float is the fact that all pieces checked had a population of pink garnets, some individual garnets reach quarter size.

4.) Pegmatite bodies

Narrow pegmatite dykes and sills are quite common in the area of this report. They are very coarse grained with abundant large clear micas. They can be found both in sedimentary and gabbro outcrops. The pegmatites of most interest seem to be ones which cut close to sediment/gabbro contacts. Two such pegmatites can be seen on traverse #3 and #5. These pegmatite bodies reaching close to 2 metres in width contain abundant masses of garnet with a large volume of scheelite crystals. Broken chunks of the material are moderate to very heavy.

5.) Mineralization

Weak disseminations of galena and sphalerite can be found in a number of outcrops. Most mineralization was noted in silicified chlorite/sericite rich siltstones or chloritic, fine to medium grained quartzite. The mineralization was either in the form of disseminations with pyrrhotite and pyrite or along sericite-rich fractures. The highest concentration of mineralization noted was with the before-mentioned granofels outcrop, here some very obvious galena and sphalerite can be found. As a general comment, a very interesting amount of anomalous base metal stratigraphy can be found northeast and east of the fragmental complex. The mineralization in the altered sediments may in fact occupy the same horizon in which the fragmental complex is developed. This scenario provides for a very strong down-dip exploration target.

Conclusions

As mentioned previously, there are a number of very positive geological features within the area prospected. The most positive aspect is the anomalous base metal stratigraphies associated with the arsenopyrite/tourmaline hosting fragmental complex. Evidence that economic potential is present on the Horn property is obvious, for this reason a more detailed and extensive exploration program should be instituted.

3.00 Geological Mapping

A modest program of mapping was undertaken to help evaluate the property. Mapping at 1:10,000 meant picking up all exposures in roadcuts and then traversing the area to provide a broad coverage of natural exposures. The mapping does not cover the entire Horn property as it exists, due to time constraints and the rugged nature of some of the ground.

The Horn property covers a broad stretch of lower stratigraphy in the Aldridge Formation together with extensive Moyie intrusions, juxtaposed against the major St. Mary reverse fault. The Aldridge is the oldest formation of the Proterozoic Belt-Purcell Supergroup. The Supergroup is a thick sequence of terrigenous clastic, carbonate, and minor volcanic rocks of Middle Proterozoic age. The basal Aldridge Formation, as exposed in Canada, is siliciclastic turbidites about 4000 meters thick. It is informally divided into the Lower, Middle, and Upper members. To the north and east in the basin, the Lower Aldridge, the base of which is not exposed, is about 1500 meters of rusty weathering (due to pyrrhotite), thin to medium bedded argillite, wacke and quartzitic wacke generally interpreted as distal turbidites. The Sullivan orebody occurs at the top of this division. To the south and west in the basin in Canada, the upper part of the Lower Aldridge is dominated by grey weathering, medium to thick bedded quartz wackes considered to be proximal turbidites. The Lower Aldridge is commonly host to a

proliferation of Moyie intrusions, principally as sills. The Middle Aldridge is about 2500 meters of grey to rusty weathering, dominantly medium bedded quartzitic wacke turbidites with periodic inter-turbidite intervals of thin bedded, rusty weathering argillites some of which form finely laminated marker beds (time stratigraphic units correlated over great distances within the Aldridge/Prichard basin). The Upper Aldridge is about 300 meters of thin bedded to laminated, rusty weathering, dark argillite and grey siltite often in couplet-style beds.

It should be noted that the 1998/99 mapping is incomplete, thereby limiting the coverage of available outcrops and imposing greater uncertainty on the geological interpretation. Also lending confusion to the possible stratigraphic setting is the likelihood that the grey weathering, thick bedded turbiditic quartzites of the Ramparts facies occur high in the Lower Aldridge as documented to the west in Sinclair Creek. For these reasons, the indicated stratigraphic setting for the various tectonic blocks is preliminary.

The St. Mary region is on the crest of the major Purcell Anticlinorium. The Horn property is underlain predominantly by fault segmented Lower Aldridge stratigraphy with its usual high percentage of Moyie intrusions. The major reverse fault forming the geological boundary to the south of the claims is the St. Mary fault which transects the area on a west-southwest trend. Overall the rocks form a northwest to west facing panel of rocks with northeast strikes and shallow to modest dips. Map-scale folding is generally restricted to smaller-scale to minor dragfolds. Most have north to northwest trending fold axes and shallow (<25°) plunges.

Crudely orthogonal to the St. Mary structure are north to northwest trending faults, some of which have established net movements as represented on the accompanying map (Figure 4). The westernmost of these faults is a steep-dipping reverse fault placing Lower Aldridge rocks on the west against Middle Aldridge, including the Lower/Middle Aldridge contact (LMC). Established LMC occurs in the St. Mary valley where a large stratabound fragmental complex has been mapped and drilled.

On the north side of the valley, the Horn claims cover from Middle Aldridge on the extreme northwest to successively lower in the Lower Aldridge to the east. The Clair fragmental which occurs at the Lower to Middle Aldridge contact is in the northwest corner of the claims and underlies the St. Mary valley along the western edge of the Horn claims, extending south where drilling has intersected the complex. Cominco drilled the Clair fragmental with DDH. C81-1 collared just off the western Horn claim boundary (A.R. 10,311). The Clair fragmental is a moderately to strongly rusty weathering, massive to vaguely bedded micaceous wacke and quartz wacke. Estimated as 60 meters thick, the fragmental contains a wide variety of textures, supporting a complex origin. It has an intact to disrupted fabric with mostly pebble-sized clasts of Aldridge lithologies. Some of the clasts are pyrrhotite enriched. Minor amounts of base metal sulfides have been observed in the fragmental zone, including galena, sphalerite, chalcopyrite, and arsenopyrite. The unit has several separate layers separated by bedded sediments and or gabbro intrusions. North-trending faults are in evidence with some gabbro dykes in them. At least three separate fault bounded blocks of the Clair fragmental are defined by mapping. The fragmental thickens to the west with the north trending faults which cut the fragmental separating fragmental blocks of different thickness, strongly suggesting these faults were active at the time of deposition. Evidently the Clair fragmental developed

within a fault-controlled second or third order basin. The westernmost exposed block of fragmental forms a synclinal feature which may be the lowest point in the depositional basin. A gabbro sill underlies the western, thickest block of fragmental and in detail appears to cut the fragmental. No gabbro immediately underlies the two eastern blocks of fragmental. West of the thickest block of fragmental, a gabbro dike occurs within the fault zone which forms the western boundary. This dike is associated with a massive sand dike which parallels the gabbro on its eastern edge within the Horn claims. Evidently the faulting occurred essentially coeval with sedimentation, and subsequent gabbroic dyking utilized these basin-controlling fault structures. The gabbro transgresses stratigraphy several times on the western edge, utilizing the fault. The fragmental thins to the northeast. To the east, a similar structural geometry of north trending faults with associated gabbro dikes and sills is seen along the northern strip of Horn claims. The footwall sediments are typical thin-bedded, rusty weathering Lower Aldridge distal turbidites then after crossing a north-striking fault the section is dominated by thick bedded, grey weathering quartzites of the footwall quartzites (Ramparts Facies). East of Alki creek, there is a mixed interval of west-dipping sediments and irregular intrusions. A northerly trend of small gabbro exposures are probably part of a north trending dike. These strike into an apparently larger gabbroic body which appears to be a synclinally-folded sill, with a NNE fault cutting and offsetting the hinge in a right lateral manner. The upper exposures of this sill were not mapped.

To the south across the St. Mary valley on the Horn claims are five tectonic blocks identified to date. The westernmost block is the Sinclair block which is dominantly a west-dipping sequence of Lower Aldridge/Ramparts facies up into the LMC and Middle Aldridge. It is separated from the most explored block (Clair) by a major, steep-dipping reverse fault. In the northern portion of the Clair block but south of the river is the extension of the Clair fragmental complex. It has been drill-tested by four different holes. Its southern limit has not been determined. As discussed above for the north side of the valley, the fragmental occurs at the Lower to Middle Aldridge contact (LMC). The LMC is projected to occur on the south flank of the main east-west ridge but this has not been documented in the field. A thick Moyie sill occurs on both sides of the ridge, within Middle Aldridge rocks. Its possible immediate source is a dyke along the thrust fault separating the Sinclair block from the Clair block. Stratigraphically below is a thick series of sills with thin vestiges of sediment between as one drops in elevation towards Hellroaring creek.

East of the Clair block is a narrow fault graben (Horn block) which south of the main east-west ridge contains a mixed assemblage going up section of: gabbro sill succeeded by a 75 meter thick fragmental/massive sequence; bedded argillites with soft sediment deformation; succeeded by light grey weathering, thick bedded quartzites and then more gabbro sills. The fragmental in more detail is quartz wacke cutting up through Lower Aldridge sediments into a coarse fragmental with quartzite clasts (possible slump), up into a fragmental with variable lithologies. On the north flank of the ridge this tectonic block is cut off, becoming Lower Aldridge along a basal thrust. The tectono/stratigraphic relationships are not resolved. To the south across Hellroaring creek, the bounding structures seem to have influenced the intrusion of the Hellroaring Creek stock. This Proterozoic-age pegmatitic granodioritic stock intrudes Lower Aldridge sediments. The stock has a pronounced northwest-southeast orientation and includes quartz-felspar-

muscovite-tourmaline pegmatite. There are numerous small dykes and sills of pegmatite throughout the map area but they are known to be more prolific to the northeast closer to higher grade metamorphic rocks.

The next structural panel to the east (St. Mary block) is a north to northwest-dipping succession of probable Middle Aldridge on the north down section into Lower Aldridge with its proliferation of Moyies sills to the south. A northeast-striking fault with associated folding separates this panel from more Lower Aldridge to the east of Hellroaring and Angus creeks. Probably a thrust, the movement on this structure is not known.

Significant base metal mineralization showings have not been located other than occurrences previously known. The Dan Howe prospect on the north flank of the main ridge is a shear zone immediately beneath and parallel to a sill. Lenticular quartz veins (1.5 to 6 feet thick) carry galena with some ancillary pyrrhotite, sphalerite, and arsenopyrite. The other notable occurrence is the Warhorse south of Hellroaring creek which is not on the claims under discussion. It is a series of quartz veins in a northwest-striking shear zone, tested on three levels, and carrying good grades of lead and zinc but overall the structurally hosted zone is erratic. Galena, sphalerite, pyrite, and arsenopyrite were noted with minor values in silver and gold recorded.

4.00 Interpretations and Conclusions

The Horn property geological setting is not defined to the degree necessary to effect a thorough exploration evaluation of its mineral potential. However, based on data available and that collected in 1998 and 1999, the property definitely has good potential for the sedex-style Pb-Zn deposit type and for structurally controlled base metal vein deposits.

The Lower/Middle Aldridge contact definitely occurs on the northwest portion of the claim block where a large fragmental system underlies Middle Aldridge rocks. The LMC is interpreted to occur in subcrop at three other locations within different fault blocks bordered by north to northwest-trending thrust or normal faults. This is the most prospective horizon (Sullivan Time) but some evidence in the region suggests stratiform mineralization may occur lower in the section within the Lower Aldridge.

The property needs more confirmatory mapping of the interpretations herein. The soil geochem coverage should be extended and some limited ground EM/Mag surveys completed.

5.00 Itemized Cost Statement

Geology – geological mapping costs include daily rates of \$330 per day plus a transportation cost for 4x4 trucks set at \$45/d and \$0.35 per kilometer.

Mapping by DA '98 - 14 days	\$5640
Mapping by DA '99 - 5 days	\$2010
Mapping by PK '99 - 5 days	\$2070
Report writing; map preparations by DA (PK)	\$1980

Prospecting – Kennedy prospecting team (3) plus transportation costs for a 4x4 truck, charges as above.

Prospecting time in '98	\$3500
Report writing/compilation	\$ 500

Support functions – Draughting	\$ 450
- secretarial – forms/filing/typing etc.	\$ 550
Total	\$16700

6.00 AUTHOR'S QUALIFICATIONS

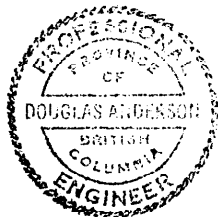
I, Douglas Anderson, Consulting Geological Engineer, have my office at 3205 6th. St. South in Cranbrook, B.C., V1C 6K1.

I graduated from the University of British Columbia in 1969 with a Bachelor of Applied Science in Geological Engineering.

I have practiced my profession since 1969, predominantly with one large mining company, in a number of capacities all over Western Canada.

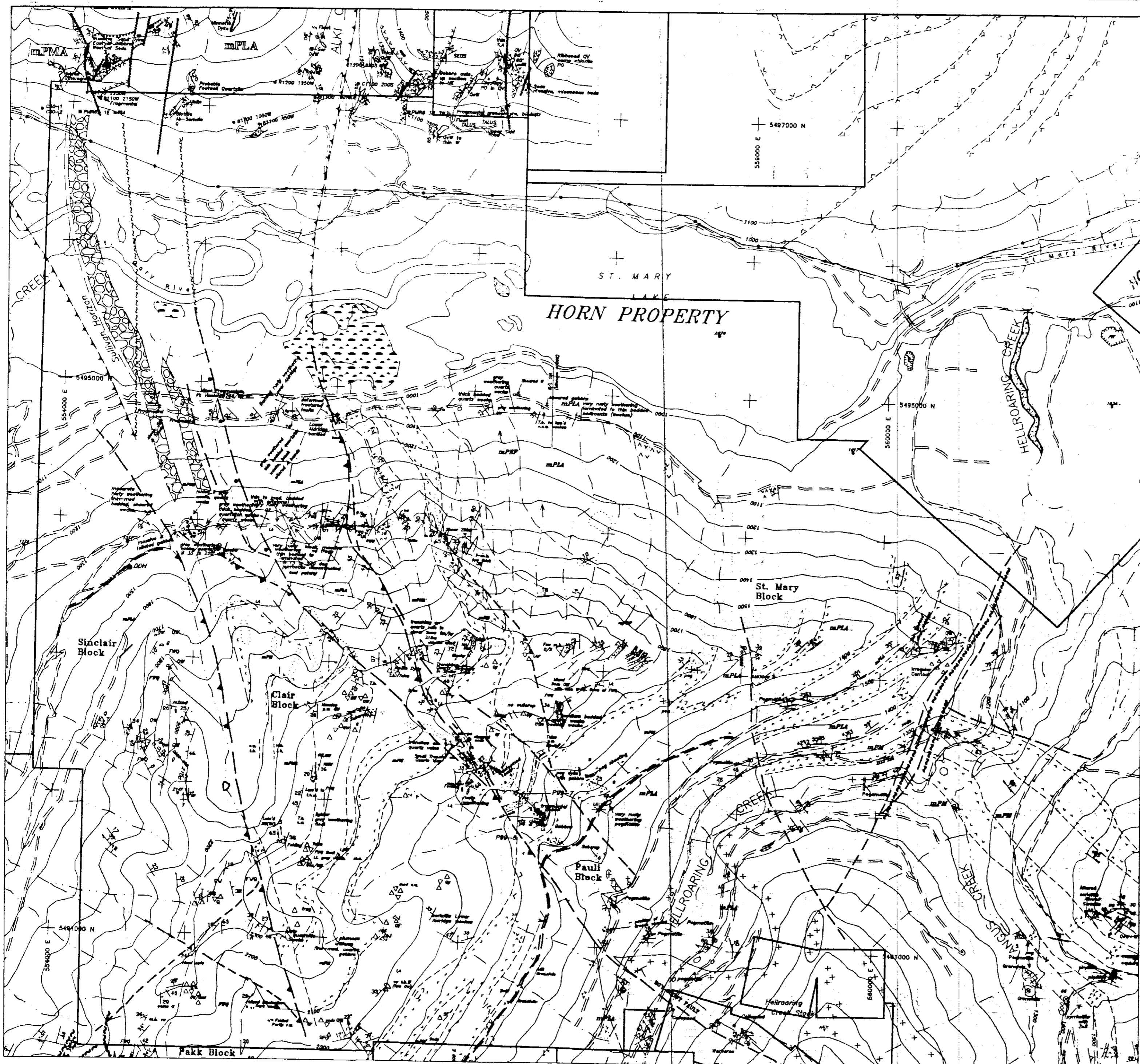
I am a Registered Professional Engineer and member of the Association of Professional Engineers and Geoscientists of B.C., and I am authorized to use their seal which has been affixed to this report.

I am also a Fellow of the Geological Association of Canada.



Dated this 13th day of January, 1999

Douglas Anderson, P.Eng., B.A.Sc., FGAC
Consulting Geological Engineer

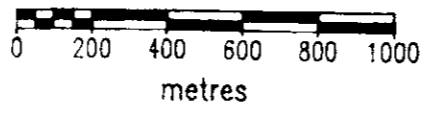
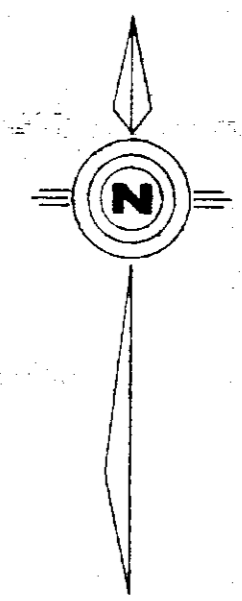


LEGEND

- Quaternary - Unconsolidated outwash, alluvium, Glacial deposits.
- Middle Proterozoic**
- Kitchener Fm.
- Creston Fm.
- Upper Aldridge division
- Middle Aldridge division
- Lower Aldridge division
- Romperts Facies
- Intrusive Rocks**
- Cretaceous Granitic Intrusions
- Mafic sills/or dykes, similar to Moyle Intrusions but in younger rocks than MA.
- Hornroaring Creek Stock & pegmatite
- Granofels
- Moyle Intrusions

Symbols:

- Geological boundaries (defined, approximate, measured)
- Faults - Thrust, Normal, Reverse or undefined
- Bedding S0 Dip (top known, overturned, vertical, horizontal)
- Cleavage S1, S2
- Lincation
- Foliation
- Shearing
- Anticline, Syncline - fold axes
- Overturned folds - anticline, syncline
- Adit, Trench
- Glacial Striae
- Laminated Argillite intervals



HORN/BURN PROPERTY
Geology Basemap
 This Plot: Mar.01/00 am Date: Feb. 2000 by D.A.
 Map Ref.: 82F059/060 Scale: 1:20,000

2000/01/01 am (REV)
 Last Update (R/MD)
 © Southern Property Services Ltd.