### GEOLOGICAL ASSESSMENT REPORT FOR THE VENT CLAIMS

#### **DAVENT PROPERTY**

Vent 1 to 13, 15, 16, and Smoker 23

NTS 082G/05

Latitude 49° 26' N Longitude 115° 55' W

Owner – Super Group Holdings Ltd. 1805 13<sup>th</sup>. Avenue South Cranbrook, B.C. V1C 5Y1

**Operator - Same as above** 

Consultant – Anderson Minsearch Consultants Ltd. 3205 6<sup>th</sup>. Street South Cranbrook, B.C. V1C 6K1

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Submitted – December 14, 2001 GEOLOGICAL SURVEY BRANCH

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Figure 1	Davent Property Location Map	Scale 1:125,000 in text
Figure 2	Vent Claim Map	Scale 1:20,000 in pocket
Figure 3	Geology Map of the Property	Scale 1:20,000 in pocket

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## GEOLOGICAL REPORT ON THE DAVENT PROPERTY - <u>VENT CLAIMS</u>

#### **1.0 Introduction**

The Davent property which is the subject of this report is a north-south oriented block of claims located over flat to moderate relief about 15 kilometres southwest of Cranbrook, B.C. The Palmer Bar and Moyie river drainages are located on or about the property. Elevations range from 1100 metres to 1800 metres, covering heavily logged timbered areas on the north, to part of the Moyie canyon, to logged, burned areas to the south. Access is excellent to all points on the property via the Moyie (Lumberton) river logging road and tributary logging roads to it including the Semlin Creek road. See location map (Figure 1) and the geology map (Figure 3).

# 1.10 Property Definition, History, and Background Information

The l	Davent	Property	consists	of the	following	claims

<u>Units</u>	<u>Record #</u>	<u>Anniv. Date</u>
<u>1u</u>	361978	2002/10/2
lu	361979	66
1u	361980	٤٢
1u	361981	٢.
lu	361982	÷.
1u	361983	٤٢
lu	361984	66
1u	361985	66
lu	361986	56
lu	361987	<u>41</u>
lu	361988	<b>66</b>
lu	361989	64
20u	376106	2002/10/2
10u	376105	66
20u	376107	66
	Units   1u   20u   10u   20u   10u   20u	UnitsRecord #1u3619781u3619791u3619801u3619801u3619811u3619821u3619831u3619831u3619841u3619851u3619861u3619871u3619881u3619881u3619881u36198920u37610610u37610520u376107

The current owner of the claims listed above is Super Group Holdings Ltd. of Cranbrook, B.C. The claims are illustrated on Figure 2 included.

The exploration history of the Vent claims and area is quite lengthy and involved, particularly over the last 25 years. This can only be a brief summary of a lot of work. On the claims as they currently exist, evidence of

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minor work on the Davent fragmental was done in the 1930's pursuing a minor lead-zinc occurrence. Serious, modern exploration started in earnest with the discovery of sulphidic float boulders and uncovering of the Vine vein to the southeast by Cominco. This led to detailed work in the region including mapping, soil geochem and UTEM geophysics surveys. The vein and Sullivan Time were drilled with interesting results but no evidence of a deposit of Sullivan type. Stratabound mineralization was noted at Sullivan Time within an argillaceous sub-zone. Later Cominco pursued the horizon to depth (to the north) drilling three deep holes to Sullivan Time to the east of the Davent property. About the same time, Noranda and Goldpac Investments drilled a deep hole north of the Davent hitting a very interesting thick Sullivan Time interval and pyrrhotiferous fragmental in the footwall. This led to two more holes progressing east, over the next five years. Cominco also drilled a deep hole, just northwest of the Davent hitting a thin, uninteresting Sullivan Time.

To the south, the small Fors occurrence of stratabound lead-zinc sulfides was first explored by Cominco then some junior companies (Consolidated Ramrod and then Citation Resources Inc.) drilled quite a number of holes around this small, focussed vent system with all the Sullivan Indicators. No highly significant mineralization was located. Late in the nineties, Ascot Resources attempted to drill a deep hole on the Smoker property (between Fors and Davent) but ended the hole unsuccessfully in a thick, somewhat cross-cutting gabbro sill.

#### 1.20 Summary of Work Done

A mapping program designed to complete coverage for the property was undertaken. Previous assessment had focussed on a few smaller areas, so this work cemented the pieces together but a larger area would still have to be mapped to define certain features.

#### 2.00 Geological Report – Mapping

Mapping was done at 1:10,000 and 1:20,000 scales with the final map at 1:20,00 scale to keep the map at a reasonable size and because detail is not available everwhere.

The Vent claims are entirely underlain by sedimentary rocks of the Aldridge Formation and included Moyie intrusions, predominantly as sills. In fact the lithologies, style of sedimentation represented, and the identification of parallel-laminated markers indicate the stratigraphic position as middle of the Middle Aldridge.

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 Movie 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.

The Middle Aldridge stratigraphy exposed on the Davent property are mostly shallow-dipping to the north and northeast. The dominantly + Sundown marker sediments are grey weathering, thin to thick bedded with a predominance of quartzitic wacke to quartz wacke in the section. These more proximal turbiditic sediments contain sole marks including flutes and grooves. Within certain packages of sediments current features are common, particularly channeling of underlying sediments and lenticular bedding. The internal sedimentary features of beds include: weak grading at the tops of beds; Bouma intervals are limited to A and E generally, with occassional B, C, and D divisions; cross-bedding is rare but present in C; and more quartzitic beds can contain concretions. Interbedded with the turbidites are argillaceous intervals <0.5m to several metres thick of rusty weathering, thin bedded to laminated subwaces to wackes. Sometime these intervals contain marker beds.

On the Davent, the primary focus has been a pyrrhotiferous fragmental central to the property. It is both cross-cutting and locally stratabound, massive to pebbly, and contains minor lead-zinc in a fault (filed as an

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assessment report). It occurs just below Sundown marker time which is the same stratigraphic position as the Smoker fragmental located some six kilometres to the south (also filed as assessment). On the property there are massive, quartzitic packages to 30 metres thick that may represent channel facies or aprons around fragmentals, as noted elsewhere in the basin. Several pebble fragmental dykes have also been located. They are north to northwest-trending zones.

The structural setting is not easily documented. Faults present are subtle north and northeast-trending of "recent" and possibly Proterozoic age. The Belleville showing is localized in a northwest striking fault. If paleo-faults exist, they are difficult to document due to the lack of stratigraphy exposed and the apparent regularity of sediments in the area. We can recognize from the deep hole drilling done to date that significant changes in stratigraphy at about Sullivan Time do occur from west to east across the claims. (Assessment Report #'s 11131, 14724, 14782) The controls for these changes were likely re-activated faults active through Middle Aldridge time but identification of these faults is tentative. Folding is not common in outcrop scale but some small-scale folds with north-trending fold axes were noted.

#### 3.00 Summary and Conclusions

The property is entirely underlain by Middle Aldridge stratigraphy with two gabbro sills exposed to the north in the slightly higher stratigraphy. The lowest stratigraphy occurs in the Moyie river canyon.

Fragmentals were located as dykes and a larger roughly concordant body. Massive intervals to 30 metres thick are amalgamated sands, some of which may be peripheral to cross-cutting fragmental sources. A few subtle faults are documented but movements are not large. Ages of the faults is debatable but some are obviously, unconsolidated recent structures.

No sulfide occurrences of significance occur in surface outcrops on the property but the region is known for several occurrences which have generated considerable exploration in the last few decades including the Vine, Fors and St.Joe properties.

#### 4.00 Itemized Cost Statement

Geologist Time - mapping 8 days	@\$330/d	= \$2640
Prospector time – mapping/markers	@\$220/d	=\$ 440
Transportation – trucks 10 days	@\$45/d	=\$450
800 km @ 0.45/km	@\$0.45/ka	n=\$360
Office – matching markers – 3 days	@\$330/d	=\$ 990
- matching markers - 2 days	@\$220/d	= \$ 440
Map and report preparation - 4 days	@\$330/d	<u>= \$1320</u>
Total cost		= <b>\$66</b> 40

#### 5.00 Author's Qualifications

I, Douglas Anderson, Consulting Geological Engineer, have my office at 3205 6<sup>th</sup>. 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 10<sup>th</sup> day April, 2001

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



