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82E/I

**REPORT**

**on the**

**GRAND-FORTUNE PROPERTY**

**(CASTLE MOUNTAIN NICKEL)**

**GREENWOOD MINING DIVISION  
BRITISH COLUMBIA  
NTS. 82E/IE**

**For**

**VULCAN VENTURES CORPORATION LTD.  
Suite 210-905 West Pender Street  
Vancouver, BC V7Y 1K4**

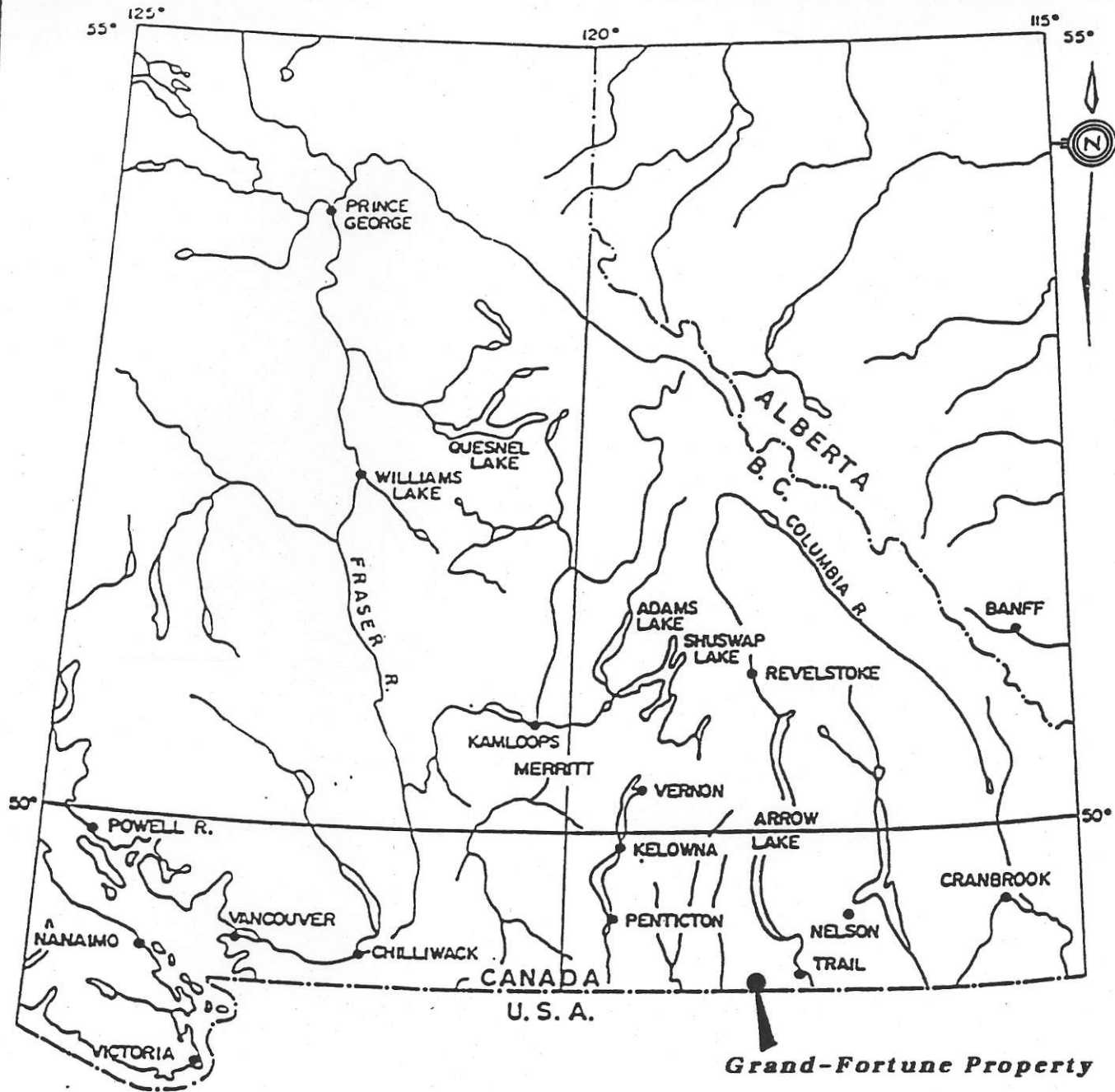
**By**

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**March 3, 2000**

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<b>VULCAN VENTURES CORP.</b>		
<b>GRAND-FORTUNE PROPERTY</b>		
<b>LOCATION MAP</b>		
NTS. 82E/1E	Date : 25/02/2000	<b>FIGURE No.</b>
Kamloops Geological Services Ltd.		<b>1</b>

## SUMMARY

Vulcan Ventures Corp. Ltd. recently entered into an option agreement to earn a 100% interest in the Grand-Fortune mineral property subject to a 3% NSR. This easily accessible 25 unit property covers approximately 600 hectares on Castle Mountain above Cristina Lake, 18 kilometres east of Grand Forks, BC.

Geologically, the property covers a large part of the Castle Mountain 'alpine type' ultramafic body, a serpentinized dunite-peridotite-gabbro complex that has been tectonically emplaced against Rossland Group volcanic and sedimentary rocks.

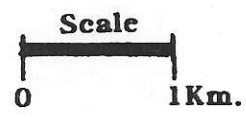
The property lies in a well mineralized area midway between the historic Rossland and Boundary Mining Camps. The old Mastadon high-grade chromite workings lie on crown grants less than 200 metres south of the property. Platinum values up to 0.68 g/t have been returned from high grade chromite samples from two areas on the present Grand Fortune property (Tomlinson, 1920). Exploration in the Mastadon area between 1966 and 1977 outlined a large, low-grade nickel reserve which extends north onto the property. This mineralization underwent some metallurgical testing with inconclusive results.

Exploration in the area since 1977 has outlined several target areas on the property with potential for nickel, chromium, gold and platinum group elements. These lie within and at the borders of the ultramafic body. None of the previous exploration for these commodities has been exhaustive. A preliminary exploration program has been recommended involving orientation type surveys to assess the geological environment and target types. This program has an estimated cost of \$40,000. The results will determine the size and scope of following programs.

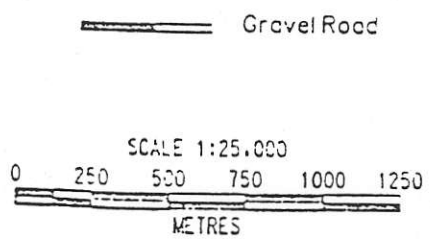
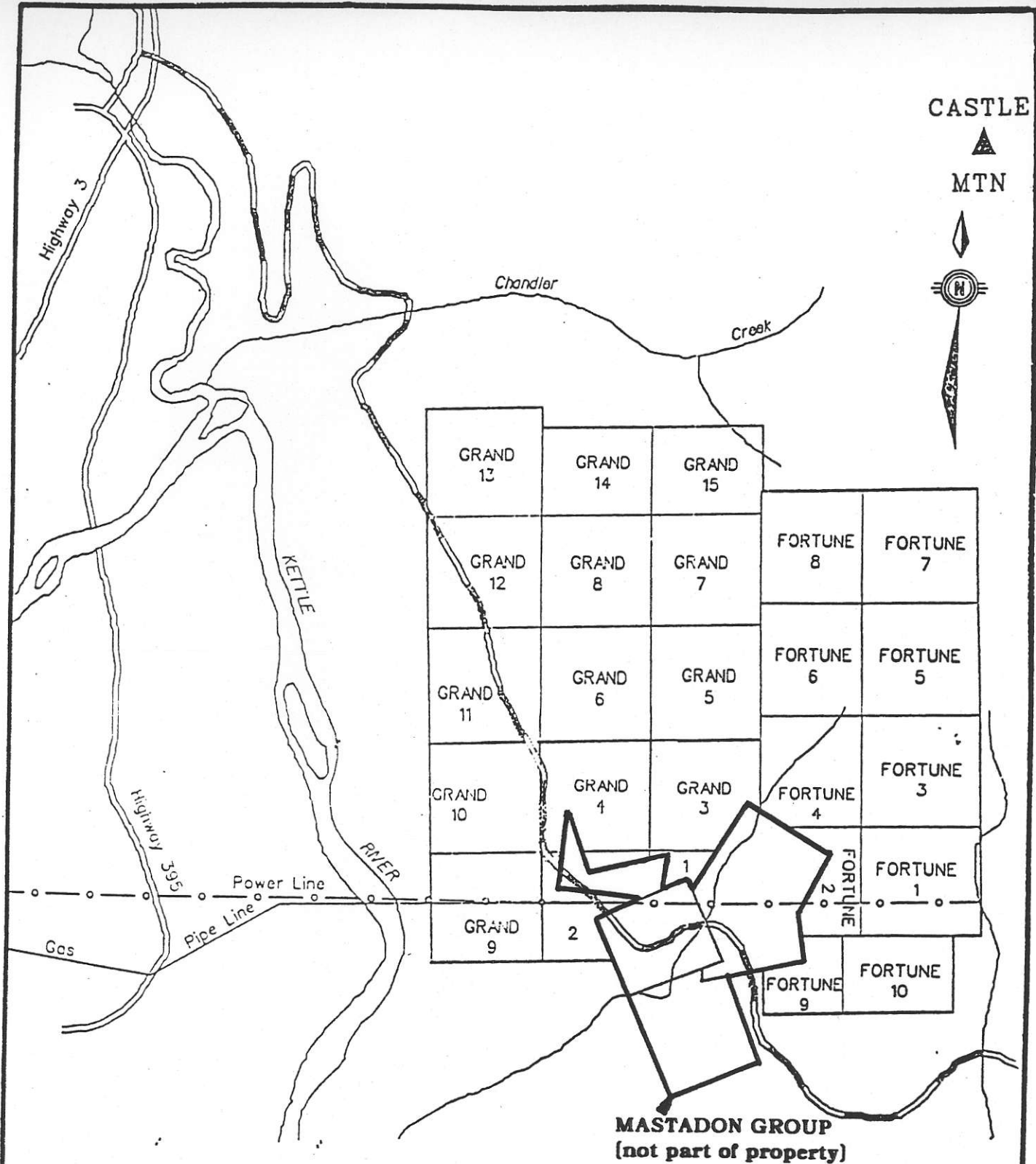
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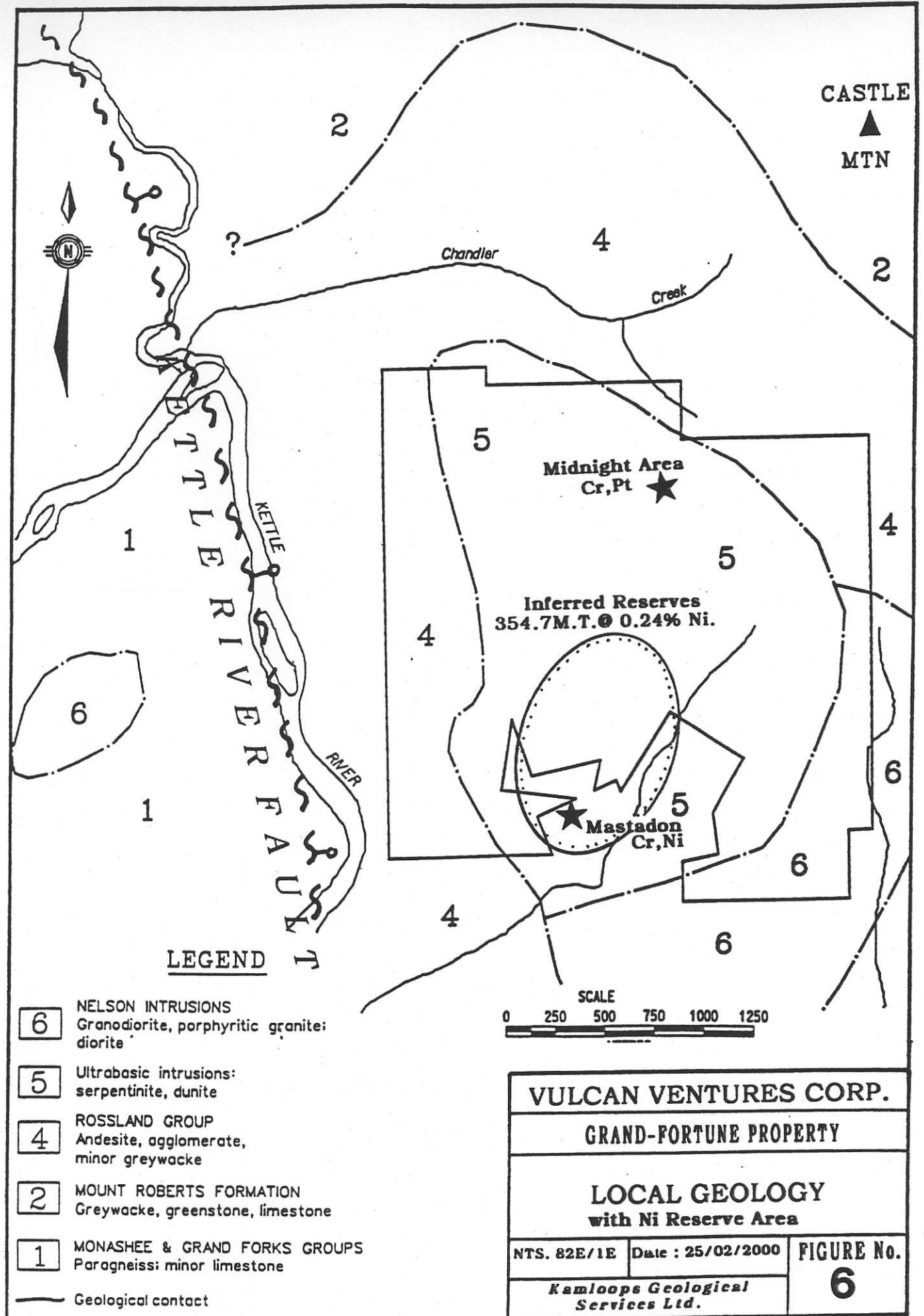


<b>VULCAN VENTURES CORP.</b>	
<b>GRAND-FORTUNE PROPERTY</b>	
<b>PROPERTY LOCATION AND ACCESS</b>	
NTS. 82E/1E	Date : 25/02/2000
Kamloops Geological Services Ltd.	
<b>FIGURE No.</b>	
<b>2</b>	



<b>VULCAN VENTURES CORP.</b>	
<b>GRAND-FORTUNE PROPERTY</b>	
<b>CLAIM MAP</b>	
NTS. 82E/1E	Date : 25/02/2000
Kamloops Geological Services Ltd.	
<b>FIGURE No.</b>	
<b>3</b>	



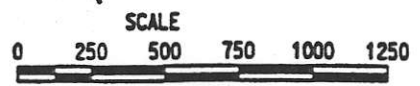


CASTLE  
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**LEGEND**

- 6 NELSON INTRUSIONS  
Granodiorite, porphyritic granite;  
diorite
- 5 Ultrabasic intrusions:  
serpentinite, dunite
- 4 ROSSLAND GROUP  
Andesite, agglomerate,  
minor greywacke
- 2 MOUNT ROBERTS FORMATION  
Greywacke, greenstone, limestone
- 1 MONASHEE & GRAND FORKS GROUPS  
Paragneiss; minor limestone
- Geological contact



<b>VULCAN VENTURES CORP.</b>		
<b>GRAND-FORTUNE PROPERTY</b>		
<b>LOCAL GEOLOGY</b> with Ni Reserve Area		
NTS. 82E/1E	Date : 25/02/2000	<b>FIGURE No.</b>
<i>Kamloops Geological Services Ltd.</i>		<b>6</b>

### 3.4 1966-1977 NICKEL (CHROMITE) EXPLORATION

No recorded exploration took place on the ultramafic body between 1920 and 1966. Hunter Point Exploration Ltd. renewed exploration in the crown grant-property area in 1966 and tested the former chromite deposit area with 1300 metres of diamond drilling in 11 holes. This work indicated fairly continuous low-grade nickel mineralization in the ultramafic rocks below the workings to depths of 140 metres. With these favourable results nickel became the focus of exploration. Exploration by Hunter Point, followed by Chromex Nickel Mines Ltd. was largely under the direction of geologist R. Steiner. In total 6068 metres were drilled in 57 holes between 1966 and 1977 in the northern part of the crown grant group and adjacent property area (southern Grand-Fortune). Following this drilling, inferred reserves at (shallow depth) were calculated by Steiner (1977) at 354,670,000 tonnes averaging 0.24% (total?) nickel. The approximate location of this resource is shown on the local geology map, Figure 6.

The results from this drilling indicated that the ultramafic is layered with dunite and gabbro intruded by felsic porphyritic dykes. With depth, the ultramafic became increasingly gabbroic and carried up to 0.32% nickel as sulfides (Steiner 1977). Steiner also noted that chromite and magnetite decreased while nickel sulfide, in particular millerite and minor pentlandite increased with depth, suggesting magmatic segregation. Overall the nickel occurs in nickeliferous magnetite, nickel sulfide minerals-pentlandite, millerite and heazlewoodite. The quoted average nickel content at 0.24% was not defined as either total contained nickel or recoverable Ni from sulfides. Preliminary tests were made on nickel recovery, including ammonia leaching. Further metallurgical testing was recommended by Grove and Johnson (1975). Work ceased on the project because of the low grade and suspected metallurgical problems.

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### 3.5 1986-1987 INTEGRATED EXPLORATION (Total Expenditures \$120,000.00)

During this period the Castle-Candy claims were staked around the old crown grants and were explored for nickel, chromium, platinum group elements and gold by Nitro Resources Inc. Initial exploration involved a helicopter airborne VLF-EM and magnetometer survey over the entire property (2500 hectares). The magnetic survey outlined a strong anomaly coincident with the ultramafic body (Figure 7). No significant conductive zones were indicated by the VLF-EM data (Dispirito et.al.1987).

The airborne survey was followed by ground grid coverage over the ultramafic body and area to the northeast (108 line km). The entire grid area received geological mapping, however soil geochemical (Ni, Cr, Pt, Au), magnetic and self-potential surveys were more restricted. Approximately 50% of the ultramafic area was covered by soils (25m x 50m spacing) as shown in Figure 7. The headwater areas to Mastadon Creek on the Castle 3 and 4 (present Fortune 1-4) mineral claims were not covered?

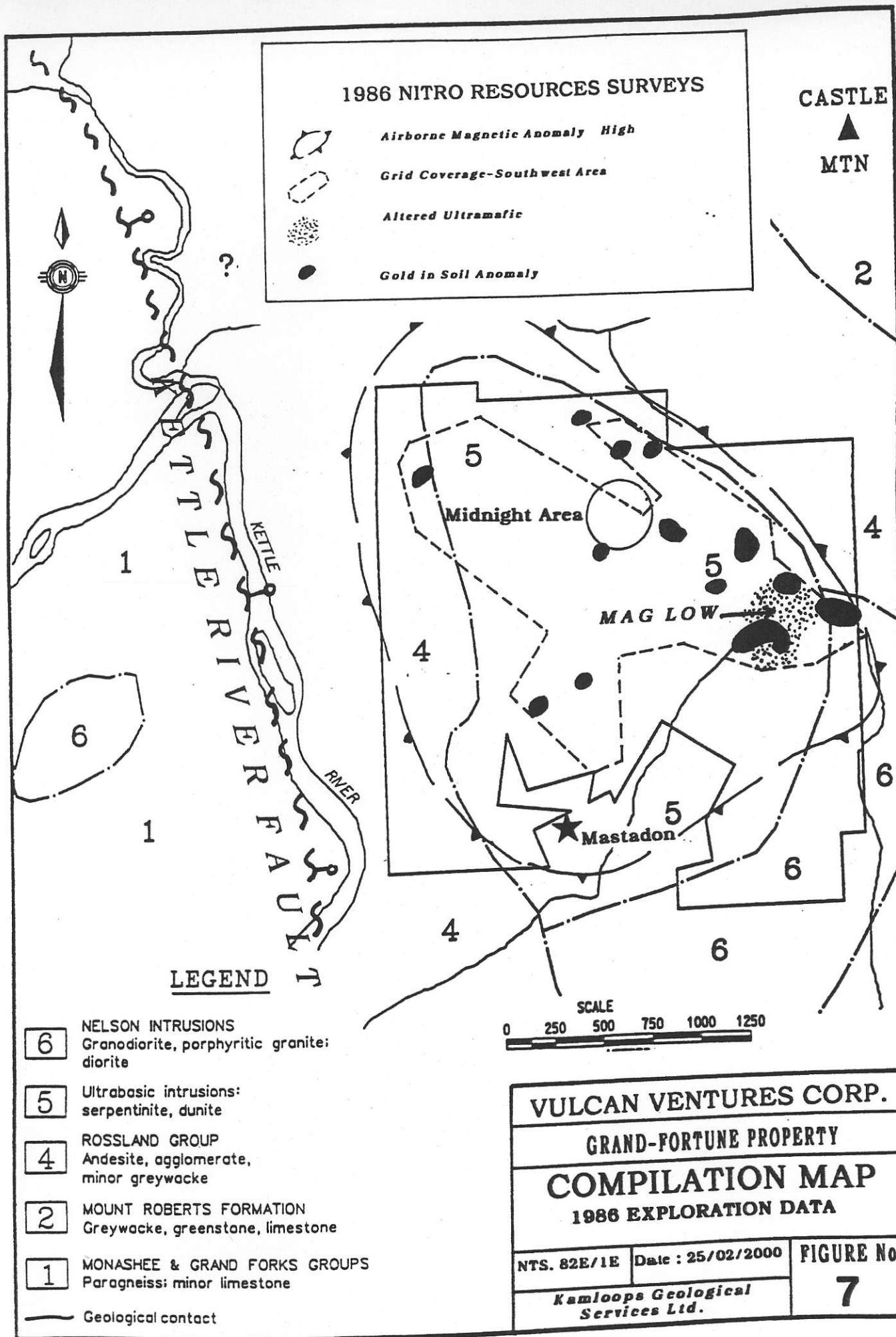
The geological mapping did not distinguish between serpentinized dunites and gabbros but did outline an area of altered serpentinized durite above Mastadon Creek (Figure 7). A grab sample from old workings on the Midnight area returned 5.9 % Cr (Dispirito et. al. 1987) with 6 ppb platinum and 303 ppb gold. Limited grab sampling from the ultramafic area generally returned background platinum values (detection limit). Nickel values were typically high, up to 2508 ppm. A series of samples taken from drill core from seven of Chromex drill holes (No.'s 29, 30, 31, 32, 33, 34, and 37) returned generally high nickel and chromium with many values in the 0.15% to 0.25% range.

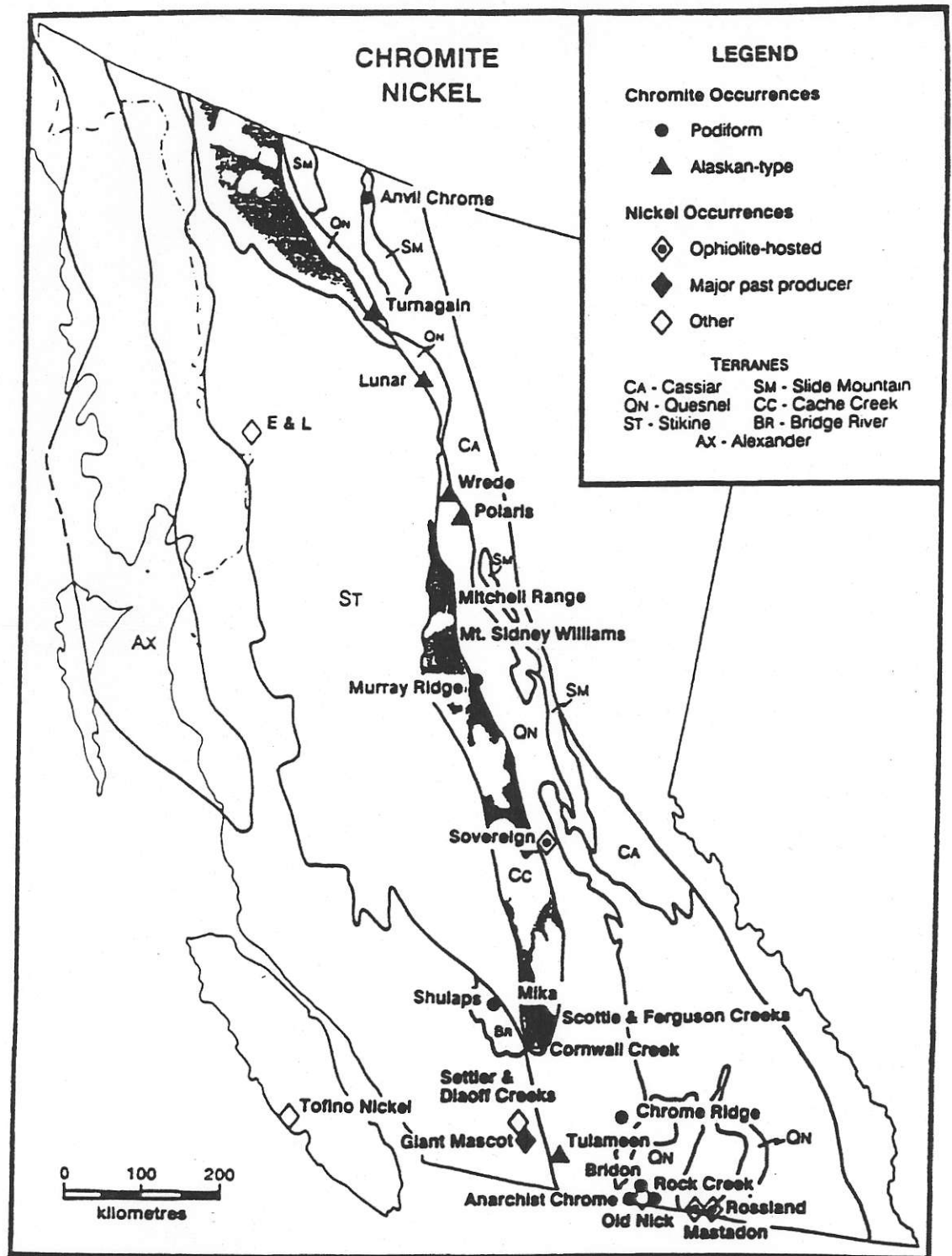
||  
any PGM assaying?

High background nickel in soil values occur in the (sampled) grid area over the ultramafic body with several more anomalous areas greater than 500 ppm. Chromium values in soils are also strongly elevated over the ultramafic but not as high as nickel. It is interesting to

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Chromite and Nickel occurrences in British Columbia in relation to major tectonostratigraphic terranes and oceanic assemblages (shaded).

Figure 9

## 4.2 PLATINUM POTENTIAL

Platinum group elements (PGE) are known to occur in podiform chromite in alpine type ultramafic settings in British Columbia (Nixon et. al. 1990). Platinum is a by-product of the chromite as it rarely exceeds 500 ppb. Recent exploration on the property has failed to accurately locate the chromite showings that historically produced platinum values namely Midnight and Blacktail (Tomlinson, 1920). Other ultramafic areas have been sampled but returned very low to detection limit Pt. It is important to note that Pt in chromite settings usually is associated with high grade (>10% Cr). The potential for platinum on the property, to a large extent rides with finding high-grade chromite lenses. Routine sampling for Pt and Pd is however advisable as the present understanding of PGE mineralization in BC alpine serpentinite settings is limited due to few detailed studies.

## 4.3 NICKEL POTENTIAL

The nickel potential of the ultramafic body in the property area was recognized long after the main phase of chromite exploration. Significant drilling by Hunter Point Exploration and Chromex Nickel Mines between 1966 and 1977 outlined a large inferred nickel reserve of 354.7 M.T. averaging 0.24% Ni. This reserve straddled the boundary area between the northern crown grants and Grand-Forks property. This (Steiner, 1977) and later work (Troup, 1996) suggested that a significant amount of the nickel is tied up with nickeliferous magnetite and fine sulfides-millerite, heazlewoodite, and pentlandite. Recent sampling (Alionis, 1996) over a large part of the ultramafic on the property indicated widespread total nickel values in the 0.15% to 0.25% range with suggested sulfide based nickel representing 40% to 70% of these values. No higher grade nickel zones were located to date other than at depth below the Mastadon workings (Steiner, 1977) with values to 0.32% Ni. The surface sampling for nickel on the property to date has been far from exhaustive.

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## 5.0 CONCLUSIONS

The Grand-Fortune property covers a large part of an 'Alpine-type' ultramafic-mafic body, probably part of the Anarchist Group of the Okanagan subterrane of Quesnellia. This sill-like body has received some previous exploration for chromite nickel, platinum and gold.

On the property and the adjacent Mastadon crown grant group to the south, podiform style chromite deposits in the form of small high grade pods and lenses are hosted by serpentinized dunite and peridotite, and received limited production early this century. Limited analyses on chromite ore from Mastadon suggest near metallurgical grades with high SiO<sub>2</sub>.

On the property the chromite workings at Midnight and Blacktail produced significant platinum values during 1918-1920 sampling. A platinum association (as by-product) with high grade, podiform chromite is common. PGE concentrations are generally very low in the ultramafic rocks outside of the high grade chromite, and Mastadon workings did not provide any significant platinum values.

There is potential for bulk tonnage-low grade (0.15 to 0.25%) nickel in the ultramafic setting. A key point however is the amount of nickel that is extractable, which is a metallurgical question. Limited metallurgical studies on the large low-grade nickel resource at the Mastadon property border area were far from conclusive, and used techniques that may not be economically or environmentally viable. Significant further (costly) studies are necessary on the metallurgical viability of such a project. There is however potential for local higher grade nickel concentrations in basal parts of the ultramafic complex.

The potential for structurally controlled (listwanitic) gold zones within and marginal to the ultramafic body has not been thoroughly investigated. Anomalous gold in soil values up to 1 g/t have been recorded from several areas on the property, especially the southeast contact area.

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## 7.0 REFERENCES

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