

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED  
Box 4127, Whitehorse, Yukon Y1A 3S9

Telephone: (867) 667-4415

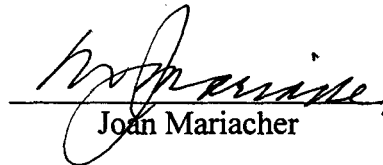
Fax: (867) 667-4622

AFFIDAVIT

I, Joan Mariacher, of VANCOUVER, B.C. make oath and say:

That to the best of my knowledge the attached Statement of Expenditures for exploration work on the FOOT 2 mineral claims on Claim Sheet 1056/8 is accurate.



  
Joan Mariacher

Sworn before me at VANCOUVER, B.C.

this 8TH day of

MARCH, 2001

094239



Notary, Yukon Territory

**Statement of Expenditures  
Foot 2 Mineral Claim  
March 8, 2001**

Contract Diamond Drilling

D.J. Drilling Company - DDH 115, including pro-rated costs..... \$36,535.69

Expenses

Field room and board - 55 days @ \$115/day..... 6,767.75

TOTAL \$43,303.44



# DRILLING COMPANY LTD.

HEAD OFFICE: 2115-129TH ST. SURREY, B.C., V4A-8H6

TEL: (804) 538-4542

FAX: (804) 538-7798

BRANCH OFFICE: BOX 332, WATSON LAKE, Y.T., Y0A-1C0

TEL: (403) 536-2611

FAX: (403) 536-2617

Expatriate Resources Ltd.  
Suite 701 – 475 Howe St.  
Vancouver BC. V6C 2B3

*Tisk*  
*Wiskey / @ netcom.ca*

RECEIVED  
JUN - 7 2000

June 5<sup>th</sup> 2000

**Wolverine Project**  
**May 12<sup>th</sup> to May 29<sup>th</sup> 2000**

**IT28 Loader**

12 hours @ \$90.00 =

\$ 1 080.00 ✕

**Misc. Man Hours – May 15<sup>th</sup> to May 20<sup>th</sup>.**

74 Hours @ \$35.00 =

\$ 2 590.00 ✕

**Man Hours – Standby, Airstrip, Labour, Ect.**

May	12th	2men	16man hrs	Standby
	13th	4 "	32 "	Standby
	14th	4 "	32 "	Standby
	15th	1 "	12 "	Labour, Plane
	15th	1 "	13 "	Load plane
	15th	3 "	36 "	Unload, assemble drill rig
	16th	1 "	12 "	Load plane
	16th	5 "	56 "	Unload, assemble rig, run waterlines
	17th	5 "	48 "	Finish waterlines move drill & pump shack

257 man hours @ \$35.00 =

\$ 8 995.00 ✕

*F ✕*

<b>WV00-113</b>	<b>HQ</b>			
<b>Casing</b>	0 - 6.10m @ \$70.00 =		427.00	
<b>Core</b>	6.10m - 142.96m = 136.86m @ \$59.50 =	8	143.17	
<b>Anchor</b>	3 hours @ \$95.00 =		285.00	
	2 HQ Rods @ \$140.00 =		280.00	
<b>Cementing</b>	2 hours @ \$95.00 =		190.00	
<b>Tests</b>	2 hours @ \$95.00 =		190.00	
<b>Man Hours</b>	19 hours @ \$35.00 =		<u>665.00</u>	\$10 180.17 ✓

<b>WV00-114</b>	<b>HQ</b>			
<b>Casing</b>	0 - 10.67m @ \$70.00 =		746.90	
<b>Core</b>	10.67m - 136.86m = 126.19m @ \$59.50 =	<del>7580.31</del>	7508.31	<i>typo only</i>
<b>Anchor</b>	1 hour @ \$95.00 =		95.00	
	2 NQ Rods @ \$100.00 =		200.00	
<b>Tests</b>	2 hours @ \$95.00 =		190.00	
<b>Man Hours</b>	22 hours @ \$35.00 =		<u>770.00</u>	\$ 9 510.21 ✓

<b>WV00-115</b>	<b>HQ-NQ incomplete</b>			
<b>Casing</b>	0 - 2.14m @ \$70.00 =		149.80	
<b>Core</b>	2.14m - 150 = 147.86 @ \$59.50 =	<del>8925.00</del>	8797.67	
	150m - 213.36m = 63.36m @ \$65.50 =	4	150.08	
<b>NQ</b>	213.36m - 262.44 = 49.08m @ \$55.50 =	2	723.94	
<b>Anchor</b>	2 hours @ \$95.00 =		190.00	
	2 NQ Rods @ \$100.00 =		200.00	
<b>Tests</b>	2 hours @ \$95.00 =		190.00	
<b>Man Hours</b>	11 @ \$35.00 =		385.00	
<b>Hourly Rate</b>	4 hours - Stuck Rods 4 hours - Stabilizing Hole			
	8 hours @ \$95.00 =		<u>760.00</u>	<del>\$17 673.82</del> 17546.49

**Consumables To Site**

Alcomer	6 @	\$150.00 =	\$ 900.00	Quickseal	4 @	\$ 65.00	\$ 260.00
Triple E	12 @	\$180.00 =	\$2 160.00	Linseed	1 @	\$120.00	\$ 120.00
Drilling soda	3 @	\$ 65.00 =	\$ 195.00	Clayseam	18 @	\$180.00	\$3 240.00
G-Stop	3 @	\$275.00 =	\$ 825.00	Cement	70 @	\$ 18.00	\$1 260.00
Extreme#1	3 @	\$175.00 =	\$ 525.00				

**Consumables**

**\$9 485.00** ✕

<b>Sub-Total</b>	<del>59 514.20</del>	59 386.87
<b>GST 7%</b>	<del>4 165.99</del>	4 157.08
<b>Total</b>	<del>63 680.19</del>	63 543.95

WTV

by

Orlando June 14, 2000  
# 1577



# DRILLING COMPANY LTD.

HEAD OFFICE: 2115-129TH ST. SURREY, B.C., V4A-8H6

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TEL: (403) 536-2611

FAX: (403) 536-2617

Expatriate Resources Ltd.  
Box 4127  
Whitehorse, Yukon  
Y1A 3S9

June 21, 2000

## Wolverine Drilling Project May 30<sup>th</sup> to June 6<sup>th</sup> 2000

<b>WV00-115</b>	NQ Cont.		
<b>Core</b>	262.44m – 300m = 37.56m @ \$55.50 =	2 084.58	
	300m – 344.13m = 44.13m @ \$59.00 =	2 603.67	
<b>Reaming</b>	2 hours @ \$95.00 =	190.00	
<b>Tests</b>	1 hour @	95.00	
<b>Man Hours</b>	42 hours @ \$35.00 =	1 470.00	
<b>Lost</b>	NQ Bit @	835.00	
	NQ Shell	560.00	
	30 NQ Rods @ \$150.00	4 500.00	
	Complete Core Barrel	<u>1 837.50</u>	
		7 732.50	
	Plus 10%	773.25	
		<u>8 505.75</u>	<b>\$14 949.00</b>
<b>WV00-116</b>	HQ		
<b>Casing</b>	0 – 3.36m @ \$70.00 =	235.20	
<b>Core</b>	3.36m – 150m = 146.64m @ \$59.50 =	8 725.08	
	150m – 156.97m = 6.97m @ \$65.50 =	456.54	
<b>Tapping</b>	6 hrs @ \$95.00 =	570.00	
<b>Anchor</b>	1 hour	95.00	
<b>Tests</b>	hour	95.00	
<b>Man Hours</b>	14 hours @ \$35.00 =	<u>490.00</u>	<b>\$10 666.82</b>

Sub-Total 25 615.82  
7% GST 1 793.11

**Total \$ 27 408.93**

*paid July 4, 2000  
#163*

*FH*



# Claim Status Report

06 September 2001

Claim Name and Nbr.	Grant No.	Expiry Date	Registered Owner	% Owned	NTS #'s
R FOOT 95 - 126	YB58651 - YB58682	2009/03/31	EXPATRIATE RESOURCES LTD.	100.00	105-G-08
R FOOT 171 - 174	YB58727 - YB58730	2009/03/31	EXPATRIATE RESOURCES LTD.	100.00	105-G-08
R FOOT 233 - 266	YB61006 - YB61039	2009/03/07	EXPATRIATE RESOURCES LTD.	100.00	105-G-08
R FOOT 275 - 288	YB61048 - YB61061	2009/03/07	EXPATRIATE RESOURCES LTD.	100.00	105-G-08
R FOOT 333 - 338	YB61106 - YB61111	2009/03/07	EXPATRIATE RESOURCES LTD.	100.00	105-G-08
R FOOT 549 - 550	YB61314 - YB61315	2009/03/07	EXPATRIATE RESOURCES LTD.	100.00	105-G-08
R FOOT 575	YB61756	2009/03/07	EXPATRIATE RESOURCES LTD.	100.00	105-G-08
R FOOT 579 - 581	YB61760 - YB61762	2009/03/07	EXPATRIATE RESOURCES LTD.	100.00	105-G-08
R FOOT 582 - 584	YB61763 - YB61765	2009/03/20	EXPATRIATE RESOURCES LTD.	100.00	105-G-08
R FOOT 585 - 586	YB61766 - YB61767	2009/03/07	EXPATRIATE RESOURCES LTD.	100.00	105-G-08

Criteria(s) used for search:

DOCUMENT NUMBER: QL25502 REGULATION TYPE: QUARTZ

Left column indicator legend:

R - Indicates the claim is on one or more pending renewal(s).  
P - Indicates the claim is pending.

Right column indicator legend:

L- Indicates the Quartz Lease.

Total claims selected : 101

094239

**2000 SUMMARY REPORT ON THE  
FOOT 2-4, 95-126, 171-174, 237-266, 275-288,  
333-338, 549-550, 575, 579-586,  
JACK 10, 21, 25-26, PUCK 3-6, 8, 10, 12, 14, 18,  
WOL 210-211, 213-214, 230, 232-234, 240, 242-243**

**Located in the Pelly Mountains  
Watson Lake Mining District  
NTS 105G/8  
61° 26' North Latitude  
130° 07' West Longitude**

**Prepared by**

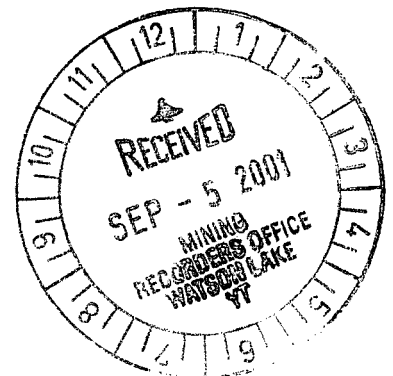
**Robert A. Duncan, M.Sc.  
Geoffrey D. Bradshaw, B.Sc.  
and  
Terry L. Tucker, P.Geo.**

**EXPATRIATE RESOURCES LIMITED  
Suite 701 - 405 Howe Street  
Vancouver, BC, Canada  
V6C 2B3**

**August 2001**

**DATES OF WORK PERFORMED**

**24 MAY TO 2 JUNE 2000**



002400

094239

This report has been examined by  
the Geological Evaluation Unit  
under Section 53 (4) Yukon Quartz  
Mining Act and is allowed as  
representation work in the amount  
of \$ 40,400.00.

*for* *M. B. Baker*  
Regional Manager, Exploration and  
Geological Services for Commissioner  
of Yukon Territory.

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## **LIST OF FIGURES**

FIGURE 1. LOCATION MAP	4
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FIGURE 3. DRILL HOLE LOCATION MAP	8

### **DRILL HOLE CROSS SECTIONS**

FIGURE 4. SECTION 18550 E	
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## **LIST OF TABLES**

TABLE 1. WOLVERINE PROJECT ROCK CODES	appendix
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## 1.0 2000 WORK PROGRAM

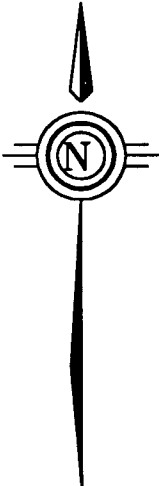
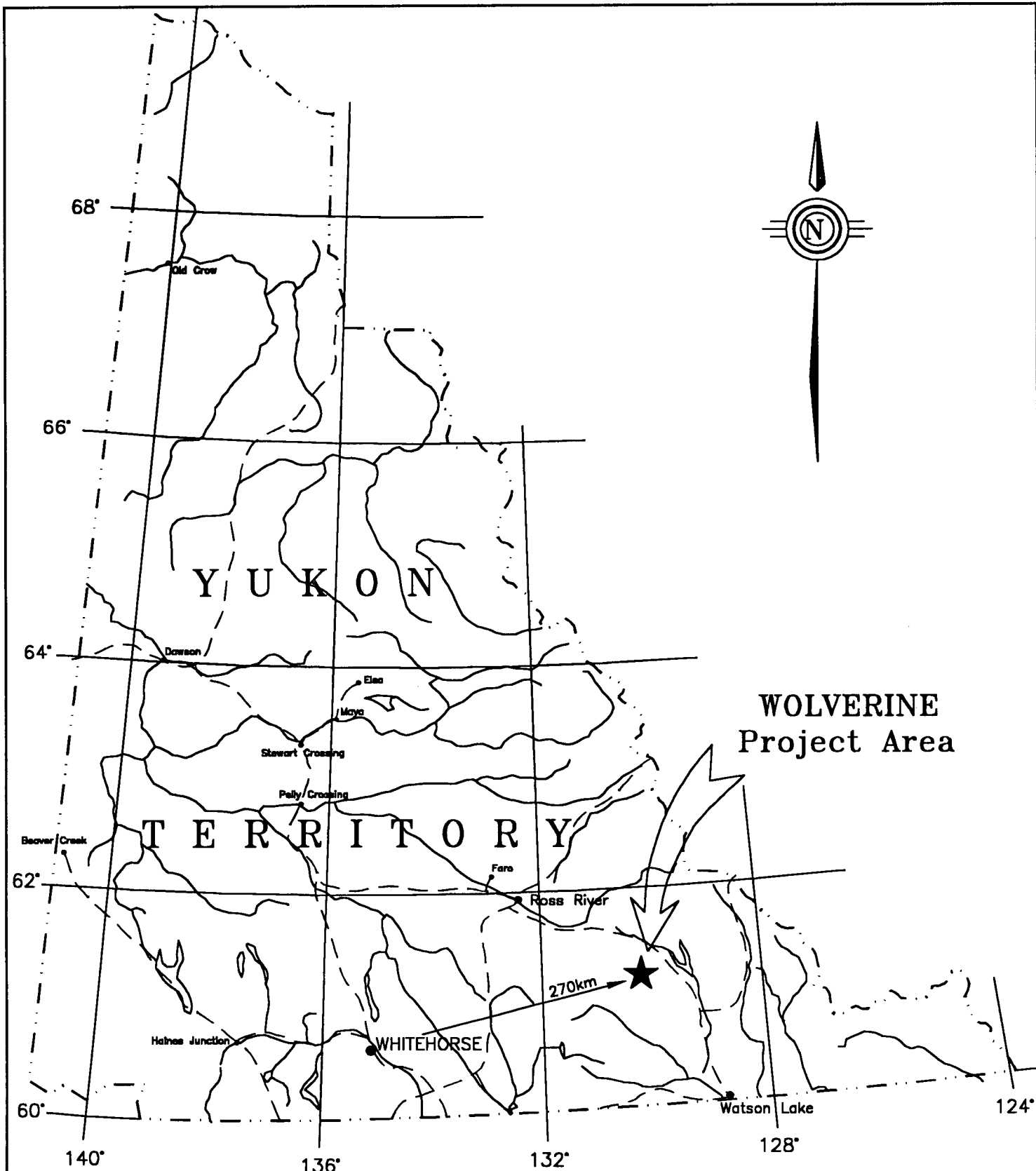
The FOOT property consists of 502 Yukon mineral claims located in the Watson Lake Mining District (figure 1) and cover the main portions of the Wolverine massive sulphide deposit. Figure 2 illustrates the detailed location of the claims.

Expatriate Resources Limited carried out a diamond drill program during the 2000 exploration season that consisted of one drill hole on the foot 2 claim. This claim covers the Sable zone, where previous holes drilled in 1997 were successful in intersecting thin, high-grade massive sulphide mineralization. This hole attempted to intersect the down-dip extension of these previous intersections. The data and costs from this program are presented herein.


Mobilization commenced on April 29, 2000, while drilling commenced on May 24, 2000. Drilling continued until June 2, 2000. During this period, one drill hole was completed on the Foot 2 claim for a total depth of 344.12 meters.

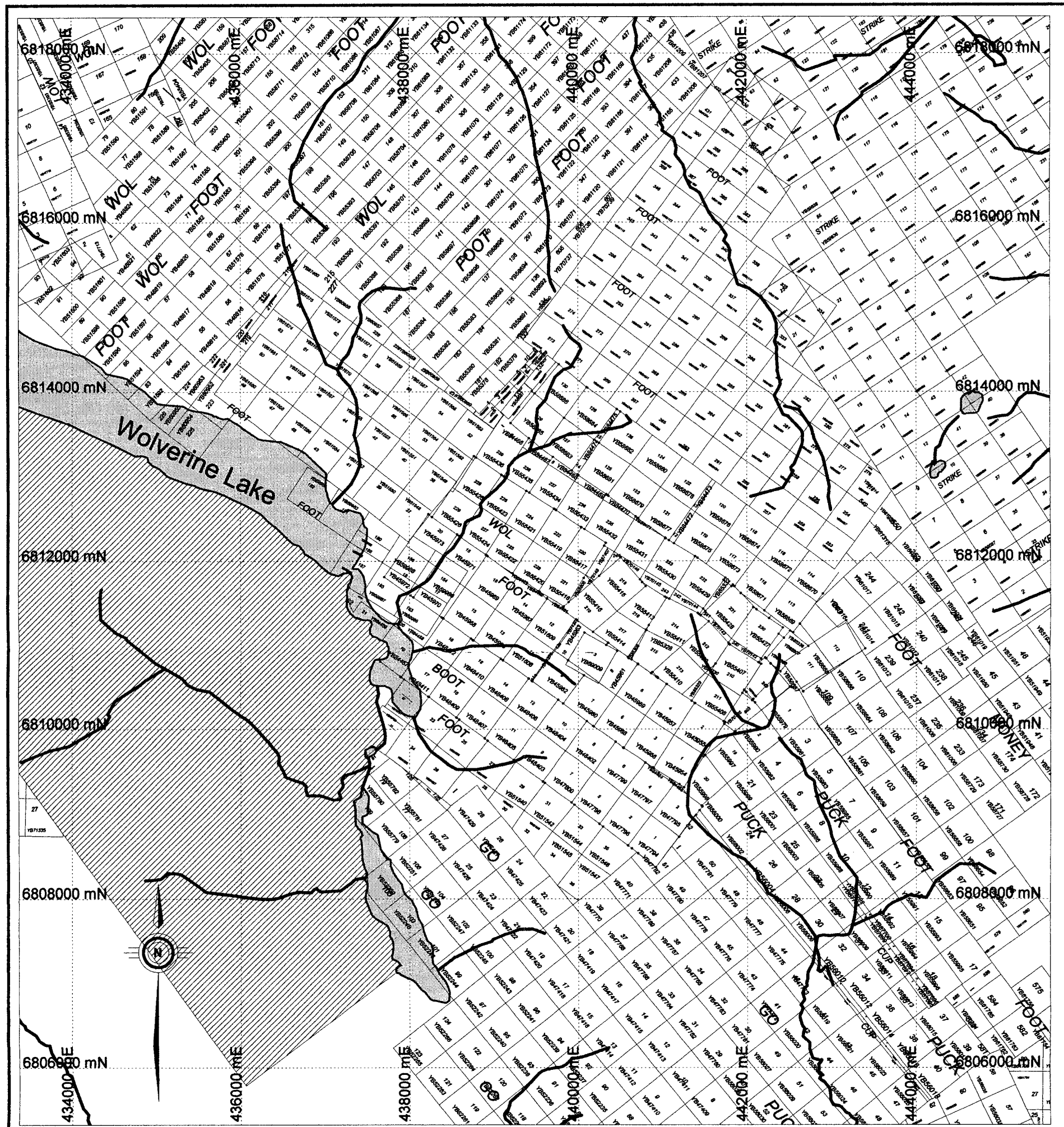
The program was supported from a base camp on Wolverine Lake that in turn was supported by an airstrip located approximately 5km to the southeast. The camp, the area of the deposit, and the airstrip are all connected by a dirt road (see figure 3). All drill cores are stored at the Wolverine Lake campsite, which is located on the FOOT 39 and 181 claims.

The 2000 work program is summarized in sections 3.0 and 4.0. Drill sections are found in the appendix. Figure 4 is the drill section for this drill hole. Figure 3 illustrates the drill hole collar location.

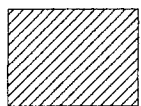


**WOLVERINE  
Project Area**

		<b>EXPATRIATE RESOURCES LIMITED</b>	
Work By Expatriate		<b>WOLVERINE JOINT VENTURE</b>	
Date Drafted Aug. 23, 2001		<b>Project Location Sketch</b>	
Drafted By R. Duncan			
N.T.S. Number	50 0 50 100 150km	Figure	
File Name Wolv_Joe_Fig1.dwg	Scale 1 : 2 500 000		<b>1.0</b>



**LEGEND**



R-Block



Lakes



Streams, Rivers



Mineral Claims



Expatriate Resources Ltd.

Fig. 2

**Wolverine Joint Venture  
Claim Map**

Date: 23/08/2001

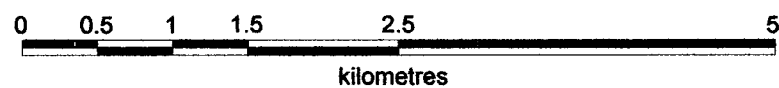
Author: R. Duncan

Office: Vancouver

Scale: 1:50,000

Projection: UTM Zone 9 (NAD 27 for Canada)

Scale: 1:50,000



## 2.0 LIST OF CLAIMS

CLAIM	No.	GRANT No.	CLAIM	No.	GRANT No.	CLAIM	No.	GRANT No.
Foot	2	YB45955	Foot	240	YB61013	Foot	334	YB61107
Foot	3	YB45956	Foot	241	YB61014	Foot	335	YB61108
Foot	4	YB45957	Foot	242	YB61015	Foot	336	YB61109
Foot	95	YB58651	Foot	243	YB61016	Foot	337	YB61110
Foot	96	YB58652	Foot	244	YB61017	Foot	338	YB61111
Foot	97	YB58653	Foot	245	YB61018	Foot	549	YB61314
Foot	98	YB58654	Foot	246	YB61019	Foot	550	YB61315
Foot	99	YB58655	Foot	247	YB61020	Foot	575	YB61756
Foot	100	YB58656	Foot	248	YB61021	Foot	579	YB61760
Foot	101	YB58657	Foot	249	YB61022	Foot	580	YB61761
Foot	102	YB58658	Foot	250	YB61023	Foot	581	YB61762
Foot	103	YB58659	Foot	251	YB61024	Foot	582	YB61763
Foot	104	YB58660	Foot	252	YB61025	Foot	583	YB61764
Foot	105	YB58661	Foot	253	YB61026	Foot	584	YB61765
Foot	106	YB58662	Foot	254	YB61027	Foot	585	YB61766
Foot	107	YB58663	Foot	255	YB61028	Foot	586	YB61767
Foot	108	YB58664	Foot	256	YB61029	Jack	10	YB84470
Foot	109	YB58665	Foot	257	YB61030	Jack	21	YB85329
Foot	110	YB58666	Foot	258	YB61031	Jack	25	YB85333
Foot	111	YB58667	Foot	259	YB61032	Jack	26	YB85334
Foot	112	YB58668	Foot	260	YB61033	Puck	3	YB55981
Foot	113	YB58669	Foot	261	YB61034	Puck	4	YB55982
Foot	114	YB58670	Foot	262	YB61035	Puck	5	YB55983
Foot	115	YB58671	Foot	263	YB61036	Puck	6	YB55984
Foot	116	YB58672	Foot	264	YB61037	Puck	8	YB45955
Foot	117	YB58673	Foot	265	YB61038	Puck	10	YB55988
Foot	118	YB58674	Foot	266	YB61039	Puck	12	YB55990
Foot	119	YB58675	Foot	275	YB61048	Puck	14	YB55992
Foot	120	YB58676	Foot	276	YB61049	Puck	18	YB55996
Foot	121	YB58677	Foot	277	YB61050	Wol	210	YB55407
Foot	122	YB58678	Foot	278	YB61051	Wol	211	YB55408
Foot	123	YB58679	Foot	279	YB61052	Wol	213	YB55410
Foot	124	YB58680	Foot	280	YB61053	Wol	214	YB55411
Foot	125	YB58681	Foot	281	YB61054	Wol	230	YB55427
Foot	126	YB58682	Foot	282	YB61055	Wol	232	YB55429
Foot	171	YB58727	Foot	283	YB61056	Wol	233	YB55430
Foot	172	YB58728	Foot	284	YB61057	Wol	234	YB55431
Foot	173	YB58729	Foot	285	YB61058	Wol	240	YB70142
Foot	174	YB58730	Foot	286	YB61059	Wol	242	YB70144
Foot	237	YB61010	Foot	287	YB61060	Wol	243	YB70145
Foot	238	YB61011	Foot	288	YB61061			
Foot	239	YB61012	Foot	333	YB61106			

### 3.0 DRILL HOLE SUMMARY

Hole	Location	Grid East	Grid North	UTM East	UTM North	Elev.	T.D. (m)	Azm	Dip	Claim	Cost
WV-00-115	Wolverine	18550	16800	441526.9	6809894	1377	344.12	180	-80	FOOT 2	\$43,303

This hole was collared on the 24 May and completed on the 2 June 2000.

### 4.0 DRILL CORE STORAGE

All Wolverine Deposit drill cores are stored at the Wolverine Lake campsite, which is located on the FOOT 39 and 181 claims.

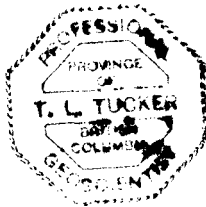
### 5.0 STATEMENT OF EXPENDITURES

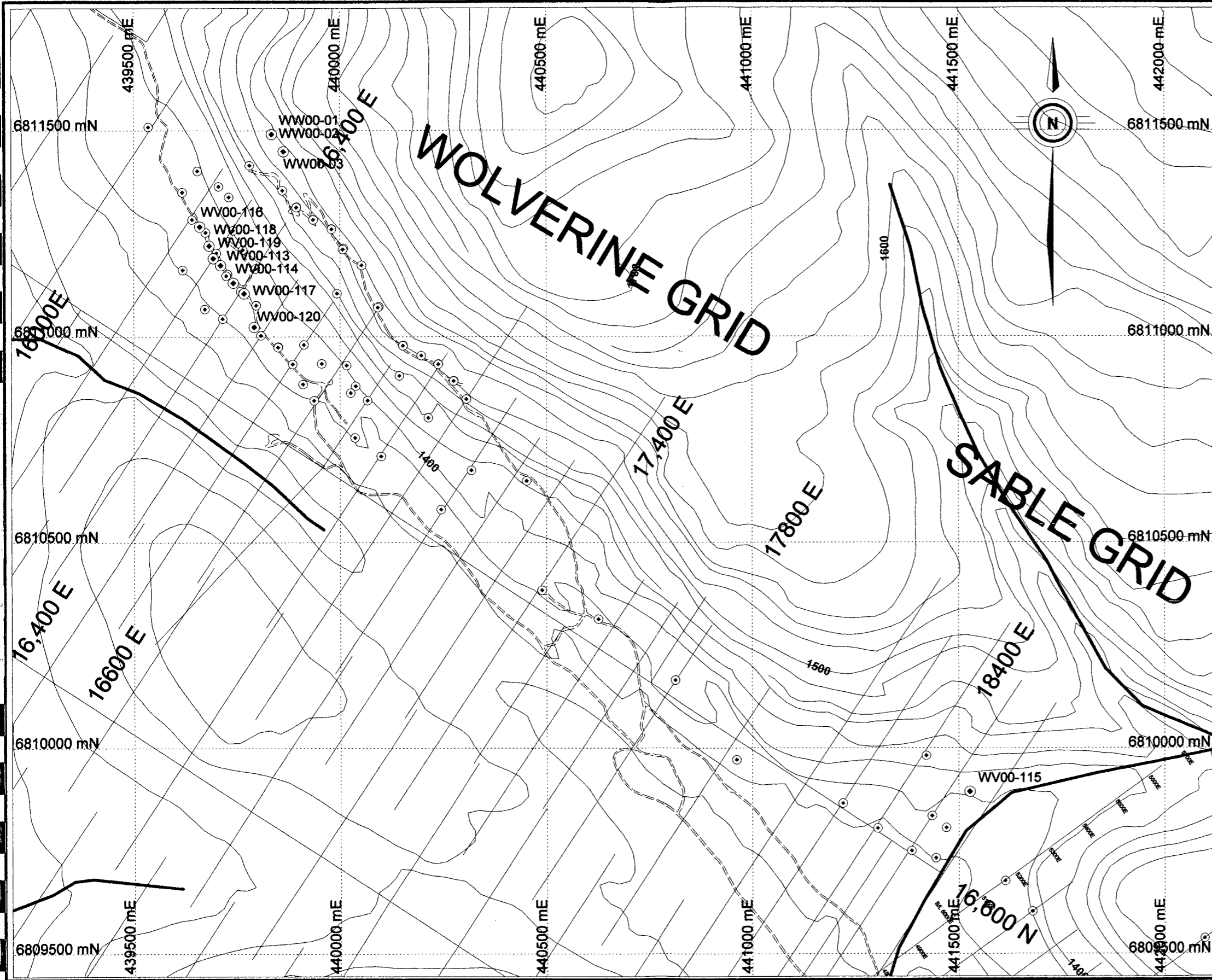
I, Terry L. Tucker as agent for Expatriate Resources Limited, #701-475 Howe Street, Vancouver, B.C. do solemnly declare that diamond drilling was carried out on the FOOT 2 claim between 24 May, 2000 and 2 June, 2000.

Diamond Drilling on the Foot 2 claim - \$43,303.44

I make this solemn declaration conscientiously believing it to be true and knowing that it is of the same force and effect as if made under oath and by virtue of the Canada Evidence Act.

Declared before me at Vancouver in the Province of British Columbia this 31 day of August, 2001.





**LEGEND**

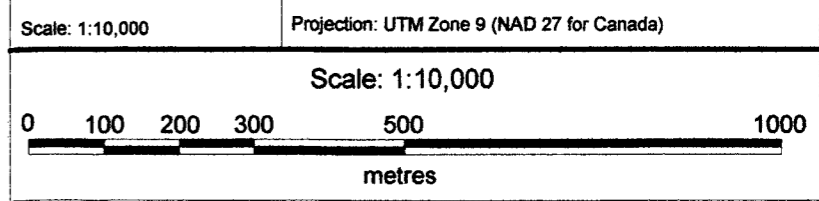
- 2000 Drill Hole Collars
- 1995-1997 Drill Hole Collars
- Streams, Rivers
- Drill Roads
- Geophysical/Drill Grids



**Fig. 3**

**Drill Hole Location Map**

Date: 23/08/2001  
 Author: R. Duncan  
 Office: Vancouver

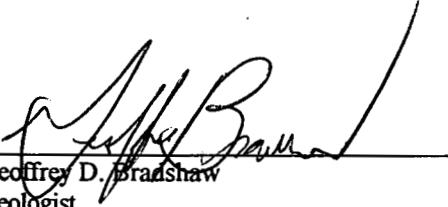


## 7.0 STATEMENT OF QUALIFICATIONS

I, Geoffrey D. Bradshaw of #201, 2390 West 1st Avenue, Vancouver, in the Province of British Columbia, DO HEREBY CERTIFY:

1. THAT I am a Geologist in the employ of Expatriate Resources Limited with offices at #701-475 Howe Street, Vancouver, British Columbia.
2. THAT I have practiced my profession with various mining companies in British Columbia, Yukon Territory and Chile for six years.
3. THAT I am a graduate of the University of British Columbia (1996) and hold a Honours Bachelor of Science Degree in Geology.
4. THAT I am registered as a Professional Geoscientist in Training with the Association of Professional Engineers and Geoscientists of British Columbia (APEGBC) since 1996.
5. THAT this report is based upon work on the property that I have either personally conducted or supervised between May 23 and August 10, 2000.
6. THAT I have no direct interest in the property described herein, nor do I expect to receive any interest.


DATED at Vancouver, British Columbia this 31 day of August, 2001.

  
\_\_\_\_\_  
Geoffrey D. Bradshaw  
Geologist

I, Robert A. Duncan of 3399 Quesnel Drive, Vancouver in the Province of British Columbia, DO HEREBY CERTIFY:

1. THAT I am a Geologist in the employ of Expatriate Resources Limited with offices at #701-475 Howe Street, Vancouver, British Columbia.
2. THAT I have practiced my profession with various mining companies in North West Territories, Nunavut, Manitoba, Saskatchewan, British Columbia, Yukon Territory, and the United States of America, for ten years.
3. THAT I am a graduate of the University of British Columbia and hold a Honours Bachelor of Science in Geology (1996) and a Master of Science in Geology (1999).
4. THAT this report is based upon work on the property that I have either personally conducted or supervised between May 23 and August 10, 2000 and October 17<sup>th</sup> and November 3<sup>rd</sup> 2000.
5. THAT I have no direct interest in the property described herein, nor do I expect to receive any interest.

DATED at Vancouver, British Columbia this 31 day of August, 2001.

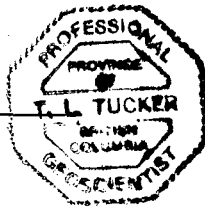
  
\_\_\_\_\_  
Robert A. Duncan, M.Sc.

I, Terry L. Tucker of 1541 Mahon Avenue, North Vancouver in the Province of British Columbia, DO  
HEREBY CERTIFY:

1. THAT I am a Geologist in the employ of Expatriate Resources Limited with offices at #701-475 Howe Street, Vancouver, British Columbia.
2. I am a graduate of the University of Alberta (B.Sc. Specialization Geology, 1989)
3. I am a member of the Association of Professional Engineers and Geoscientists of British Columbia, an Associate of the Geological Association of Canada, a member of the Canadian Institute of Mining and Metallurgy, a member of the Society of Economic Geologists, a member of the BC and Yukon Chamber of Mines, and a member of the Prospectors and Developers Association of Canada.
4. I have practiced my geological profession since 1986 in many parts of Canada, Europe, United States, Mexico, Africa, Australia and Papua New Guinea.
5. THAT this report is based upon work on the property that I have either personally conducted or supervised between May 23 and August 10, 2000 and October 17<sup>th</sup> and November 3<sup>rd</sup> 2000.
6. THAT I have no direct interest in the property described herein, nor do I expect to receive any interest.

DATED at Vancouver, British Columbia this 31 day of Aug, 2001.



  
Terry L. Tucker, P. Geo.



**2000 SUMMARY REPORT ON THE  
FOOT 2-4, 95-126, 171-174, 237-266, 275-288,  
333-338, 549-550, 575, 579-586,  
JACK 10, 21, 25-26, PUCK 3-6, 8, 10, 12, 14, 18,  
WOL 210-211, 213-214, 230, 232-234, 240, 242-243**

**8.0 DRILL LOGS**

### DRILL LOG

<b>PROJECT</b> Wolverne	<b>GROUND ELEV.</b>
<b>HOLE NO.</b> WV-00-115	<b>BEARING</b> Grid South
<b>LOCATION</b> Sable zone 18550E, 16800N	<b>DIP</b> -80
	<b>TOTAL LENGTH</b> 344.12 m
<b>LOGGED BY</b> GB	<b>HORIZONTAL PROJECT</b>
<b>DATE</b> May 26 / 2000	<b>VERTICAL PROJECT</b>
<b>CONTRACTOR</b> DJ Drilling	<b>ALTERATION SCALE</b>  <ul style="list-style-type: none"> <li>absent</li> <li>slight</li> <li>moderate</li> <li>intense</li> </ul>
<b>CORE SIZE</b> HQ	
<b>DATE STARTED</b> May 24 / 2000	<b>TOTAL SULPHIDE SCALE</b>  <ul style="list-style-type: none"> <li>traces only</li> <li>&lt; 1%</li> <li>1% - 3%</li> <li>3% - 10%</li> <li>&gt; 10%</li> </ul>
<b>DATE COMPLETED</b> June 2 / 2000	
<b>DIP TESTS</b>	
<b>COMMENTS</b>  Hole abandoned after rods became stuck and then snapped off.  No significant mineralization intersected.  Very similar hole geologically to WV-97-98 which had a weakly mineralized interval at the base of a second exhalative zone.  This hole was abandoned at the beginning of the second exhalative zone.	<b>LEGEND</b>

DEPTH (m)	% CORE REC	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACTURE INTENSITY	% VEIN QTZ.
					Xr A	Ch B	Co C	Si D	mt E		
1				0.0-2.13 CASING BHCS							
2											
3		v		2.13-13.00 GREEN MASSIVE FINE-MED. GRAINED ANDESITE							
4		v		ADMS - good core recovery.							
5		v		- generally fine grained, massive and textureless.							
6		v	45°	- frequent lenses of calcite + epidote + biotite (greenschist assemblage) ~ 2-3 cm wide							
7		v									
8		v									
9		v									
10		v	45°								
11		v									
12		v		13.00-20.28 GREEN-BLACK BANDED ANDESITIC TUFF							
13		v		ADBT - similar to abv. but has a distinct banded appearance.							
14		v	55°	- ~60% f.g. green andesite, w/ 40% sub-mm dark brown bt. bands parallel to foln. (causing banded appearance)							
15		v	50°	- clusters of coarse ep. usually ass/ w/ bt. calcite is minor.							
16		v									
17		v									
18		v	50°								
19		v									
20		v		20.23-24.69 GREEN MASSIVE FINE-MED GRAINED ANDESITE							
21		v	45°	ADMS - same as 2.13-13.00 above, w/ minor short zones of more tuffaceous rock occurring infrequently.							
22		v	45°	- varies from fine to medium grained.							
23		v									







DEPTH (m)	% CORE REC	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACTURE INTENSITY	% VEIN QTZ.	
					Ser A	Ch B	Co C	Si D	Fe Mt. E			
48				ADMS (cont.)								
				47.84 } 3-5 cm qtz-CO <sub>2</sub> veins								
				48.87 }								
49			55°									
50												
51												
52												
53												
54												
55			50°									
56												
57	ADMS											
58												
59												
60				55.63 - fault - 55° upper ct.								
				56.8 - fault 20cm.								
61			50°	57.32 - 57.71 - fault gouge								
62												
63				63.0 - 65.3 - Fe oxide on fractures.								
64												
65			55°	64.69 - 72.24 GREY-BLACK INTERBEDDED ARGILLITE / GREYWACKE								
66				ARWK - sharp upper contact								
67				- near upper contact → grey fine-med grained greywacke								
68	ARWK			- in general ~70% gw, 30% black thinly laminated argillite								
69			70°	65.7 - 66.5 - orange Fe oxide staining on fractures								
70												



DEPTH (m)	% CORE REC	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACTURE INTENSITY	% VEIN QTZ.		
					Sr	Cl	Co	Si	Mt				
		A	B	C	D	E							
71	ARWK			ARWK (cont.)									
72													
72.24			16'	72.24 - 80.16	GREY - BLACK GRAPHITIC FAULT GOUGE ZONE								
73				STGG	mixture of graphitic gouge argillite + grey gouge								
74					72.24 - 72.64 → grey-blk flt. gouge								
75					72.64 - 75.29 → arg + gw (flt at 73-70)								
76					75.29 - 77.53 → grey flt gouge								
77					77.53 - 79.25 → blk grph. flt. gouge								
78					79.25 - 80.00 → carb. arg. w/ calcite bands.								
79					foln at 45° to c.g.								
80					80.00 - 80.16 = blk grph. flt. gouge.								
80.16			25'	80.16 - 96.53	GREY - BLACK FINE-MED. GRAINED INTER-BEDDED ARGILLITE AND GREYWACKE								
81				ARWK	- frequent calcite veining to 1cm.								
82					- 1% py - clotted on fractures								
83					- dominantly a dull grey med. grained greywacke w/ ~20% 2-3 cm black carbonaceous argillite beds.								
84													
85													
86													
87	ARWK												
88			65'										
89													
90													
91													
92													
93													







DEPTH (m)	% CORE REC	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACTURE INTENSITY	% VEIN QTZ.
					SO <sub>4</sub> A	CH B	CO <sub>3</sub> C	SI D	ME E		
117				ARWK (cont.)							
118											
119											
120											
120.76-121.46				BLACK GRAPHITIC FAULT GOUGE							
121				STGG							
122											
121.46-126.82				BLACK-GREY INTERBEDDED ARGILLITE + GREYWAKE							
123				ARWK - 60% blk arg. w/ 40% gw. interbeds from 1mm - 10cm. Typically ~ 1-2cm.							
124				- minor calcite blebs/bands							
124				- 1-2% pyrite on fractures.							
125											
126											
126.82-133.81				GREY FINE GRAINED RHYOLITE TUFF.							
127				RHTT - argillite interbeds near upper contact.							
128				- dark grey, siliceous, with sub-mm laminations.							
128				- weakly saccitic partings.							
129				- broken core / pebbles w/ very poor recovery toward base of unit.							
130											
131											
132											
133											
133.81-154.09				BLACK-GREY FAULT GOUGE / BRECCIA ZONE							
134				STGG - mainly in argillite. carbonaceous.							
134				- minor calcite - qtz veining							
135											
136				135.33 - 136.86 → lost core							
137				137.00 - 138.71 → grey fault breccia							
138											
139											



DEPTH (m)	% CORE REC	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACTURE INTENSITY	% VEIN QTZ.
					ser A	chl B	cos C	si D	mt. E		
140				STGG (cont.)							
141				139.56 - 143.74 + breccia zone grey gouge - but core is intact. poor recovery.							
142											
143											
144											
145											
146				146.5 - broken qtz vein 40° to ca.							
147											
148											
149				149.70 - grey-black clay (bx zone) ends at 151.2 m.							
150											
151											
152				152.43 - 154.09 - broken graphitic arg. w/ minor fault gouge.							
153											
154				154.09-158.00							
155				ARWK							
156				BLACK-GREY INTERBEDDED ARGILLITE - GREYWACKE similar to above, but very broken about 75% argewacke - mainly cm scale alternating beds.							
157											
158				158.00-162.00							
159				STFL							
160				158.0 - 159.72 - grey sericitic flt. gouge + broken qtz veins. 159.72 - 160.93 - lost core 160.93 - 162.00 - pebbles of grey siliceous rock + min. fault gouge.							
161											
162											







DEPTH (m)	% CORE REC	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACTURE INTENSITY	% VEIN QTZ.
					Sr A	Cl B	CO <sub>2</sub> C	Si D	MT E		
186				ARWK (cont.)							
187											
188											
189				188.10 - 188.32 - fault gouge zone.							
190											
191											
192											
193				192.88 - 194.42 ARGT INTERBEDDED BLACK ARGILLITE AND GREEN TUFF.							
194				90% black argillite - thinly laminated, carbonaceous.							
195				10% green fine grained andesitic tuff typically in beds 1-2 cm thick.							
196				194.42 - 197.74 ARTF BLACK-GREY TUFFACEOUS ARGILLITE							
197				blk thinly laminated arg w/ ab. grey ovoid siliceous domains from 1x2mm to 1x5 cm. minor calcite.							
198											
199				197.74 - 201.06 ARGT INTERBEDDED BLACK TUFFACEOUS ARGILLITE AND GREEN ANDESITIC TUFF							
200				same arg as abv, but w/ 1-10 cm interbeds of a f.g. green andesitic tuff.							
201				minor flt. gouge (2x veins) at both contacts.							
202				201.06 - 208.60 ARTF BLACK-GREY TUFFACEOUS ARGILLITE							
203				- same as 194.42 - 197.74 abv.							
204				- calcite more common as discontinuous bands - 2-5 mm wide.							
205				202.0 - traces of disseminated mt. noted (also pb?) (rock weakly magnetic)							
206				- frequent interbeds of green-brown andste tuff up to 18 cm.							
207											
208											



DEPTH (m)	% CORE REC	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION						
					SP A	CH B	CO <sub>3</sub> C	SI D	MT E	FRAC INTEN SITY	% VEIN QTZ.
209				208.60-213.82 ADTT GREEN FINE GRAINED ANDESITE TUFF - interbeds of finely laminated blk arg. up to 55 cm (typically 3-6 cm).							
210				- mostly E.g. and. tuff w/ ab. bt. - dissem. and in wsply bards.							
211				- calcite bands common.							
212											
213				213.36 - reduced to NQ							
214				213.82-220.47 ARGT INTERBEDDED BLK. TUFFACEOUS ARGILLITE AND GREEN ANDESITIC TUFF.							
215				- interbeds OF ADTT and ARTF above.							
216				- typically 1-2 cm but some much longer. (up to 73 cm)							
217				216.33 - 217.50 - broken core w/ minor E.t. gouge.							
218				218.50 - 218.60 - Fault gouge.							
219				218.60 - 219.33 - green andesitic tuff w/ calcite stringers.							
220				(start of wolv stratigraphy?)							
221				220.47-230.58 RHFS DARK-LIGHT GREY APHANITIC FELSITE/ FELSIC FRAGMENTAL							
222				- grey aphanitic siliceous unit w/ abundant sub-mm light brown anastomosing micaceous bands sub-parallel to foliation.							
223				- these bands give this unit a banded to sometimes fragmental appearance.							
224				- locally contains a significant argillaceous component - as sub mm bands - resulting in a dark grey colour.							
225				- weakly calcareous locally							
226				- weak sericite on fractures							
227											
228				May be beginning of Wolverine sequence and end of upper ARWK/ADTT sequence.							
229											
230											
231											



DEPTH (m)	% CORE REC	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACTURE INTENSITY	% VEIN QTZ.	
					Sr A	B B	C C	D D	E E			
232	ADIT			230.58-232.25 ADIT GREEN BANDED ANDESITIC TUFF. fine grained similar to other ADIT units abv - bt on partings. ab. calcite binds + stars. - 2-3 mm arg. interbeds								
233												
234				232.25-249.63 RHAT DARK GREY ARGILLACEOUS RHYOLITE TUFF / FRAGMENTAL. - grey fine grained - aphanitic siliceous domains separated by thinly laminated. foln. parallel black arailite bands. - siliceous 'domains' have the appearance of bands (1-10 mm), ovoid shapes which pinch out along foln. (avg 3x20 mm) or fragments w/ jagged boundries. - arailite is ~40% of unit and is thinly laminated and weakly carbonaceous. - minor sericit on partings.								
235												
236												
237												
238												
239												
240												
241					233.40-231.14 - wht atz un. w/ tr. py. 237.52 - 237.75 - interbed of grn. and. tuff.							
242					<1% f.g. py on fractures / foln.							
243												
244												
245												
246												
247												
248												
249					249.63-252.8 STGG GREY FAULT GOUGE / FAULT BRECCIA. fault gouge - bx w/ minor pebbles. may be aphanitic siliceous unit.							
250												
251					252.80-255.75 RHFS GREY APHANITIC FELSITE. - broken up into small pebbles. - poor recovery. - siliceous unit w/ py on fractures.							
252												
253												
254												



DEPTH (m)	% CORE REC	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACTURE INTENSITY	% VEIN QTZ.
					Sr A	Chl B	CO <sub>3</sub> C	Sr D	Al. E		
255	RHES			255.75-261.31 STGG LIGHT GREY FAULT GOUGE + PEBBLES 255.75 - 258.17 → Fault gouge (poor recovery)							
256				258.17 - 258.78 → aphanitic siliceous pebbles 258.78 - 259.69 → grey fault gouge + bx + clay.							
257											
258											
259	STGG										
260											
261				260.57 - 260.91 → qtz vein w/ several % py. poor recovery. 260.91 - 261.31 → brown sand and clay.							
262											
263	ARSI			261.31 - 263.35 ARSI DARK GREY - BLACK SILICEOUS ARGILLITE - aphanitic and siliceous. Broken core. - weakly carbonaceous. minor qtz veining.							
264											
265				263.35 - 269.75 RHFS GREY SILICEOUS APHANITIC RHOMBLITE - mainly massive and aphanitic - locally tuffaceous w/ sericitic partings - often broken into chert-like pebbles.							
266											
267	RHFS										
269											
269				269.75 - 273.95 EXSP GREENISH-GREY SILICA EXHALITE / MAGNETITE POOR IRON FORMATION - highly siliceous unit. banded appearance - fine grained to aphanitic - green tinge tht unit due to chl, calcite rare - pyrite is abundant (see mineralization desc.) - looks similar to iron formation, but magnetite only occurs locally in small amounts. - sharp contacts.							
270											
271											
272	EXSP										
273											
274				273.95 - 280.10 ARSI BLACK SILICEOUS ARGILLITE - thinly laminated, highly siliceous. weakly carbonaceous - very broken. poor recovery. - minor py (see mineralization description →)							
275											
276	ARSI										
277											

MINERALIZATION DESCRIPTION	TOTAL SULPHIDES	SAMPLES			SAMPLE NUMBER	ASSAYS			
		FROM	TO	WIDTH					
1% py on fractures									
1-2% py on fractures - 265.18 - 266.00 - py ab. as clots on fracture surfaces.									
3-5% pyrite - mainly as X-cutting veins & stringers 1-2 mm wide. Also clotted on fractures <1% mt.		269.75	273.95	4.2	419046				
1% py, clotted to disseminated on fractures.		273.95	280.10	6.15	419047				

DEPTH (m)	% CORE REC	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACTURE INTENSITY	% VEIN QTZ.
					Ser A	Chl B	CO <sub>2</sub> C	SH D	Mt. E		
278				ARSI (cont.)							
279											
280				280.10 - 287.68 EXSP							
281			30°	DARK GREY - BLACK BANDED SILICA EXHALITE / MT. POOR IRON FORMATION.							
282				- similar to 269.75 - 273.95 above but more mt. and less chl.							
283				- interbedded carbonaceous argillite. (~30%)							
284				- fine grained, banded appearance.							
285				- ab pyrite (see across →)							
286				- mt is v.f.g. and occurs in 2-5mm bands.							
287											
288			30°	287.68 - 292.22 EXMT							
289				DARK GREY - BLACK BANDED MAGNETITE IRON FORMATION							
290				- banded to massive magnetite dominates unit - ~80% mt overall.							
291				- mt is v.f.g. and occurs in 1mm - 2cm black massive bands which are separated by indistinct grey sub-mm siliceous bands.							
292				- disseminated mt (salt pepper txt.) absent.							
293				- poor recovery + 288.65 - 289.26							
294				- sharp contacts.							
295											
296											
297				292.22 - 308.15 RHFS							
298				GREY MASSIVE APHANITIC FELSITE							
299				- highly siliceous unit w/ weak banding							
300				- aphanitic but has local microlites.							
				- broken core + pebbles for most of unit - very poor recovery.							
				295.76 - 299.01 - lost core.							
				- weak sericite on partings locally.							



DEPTH (m)	% CORE REC	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACTURE INTENSITY	% VEIN QTZ.
					SP A	CH B	CO C	SI D	MT E		
300		Y		RHFS							
301		Y		(cont.)							
302		Y									
303		Y									
304		Y									
305		Y									
306		Y									
307		Y									
308		V		308.15-309.79 ARTF ARGILLITE							
309				- moderately carbonaceous							
310				- local siliceous bands + fragments							
311				- minor calcite blebs + bands							
312				- thinly laminated texture interrupted locally by microfolding of siliceous and/or calcareous bands.							
313				- minor qtz veining (veins up to 7cm)							
314				broken core through most of unit.							
315											
316											
317											
318											
319											
320											
321											
322											
323											

RHFS

ARTF

8'

30'

30'



DEPTH (m)	% CORE REC	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACTURE INTENSITY	% VEIN QTZ.
					ser A	chl B	CO <sub>3</sub> C	Si D	mt. E		
324				ARTF (cont.)							
325											
326											
327											
328											
329											
330				329.79-336.40 RHFS GREY MASSIVE APHANITIC RHYOLITE							
331				- massive aphanitic siliceous rock w/ sparse microlites							
332				- infrequent sub-mm light brown micaceous partings. weak sennite on foln.							
333				- 1% py. coatings on fracture + foln.							
334				- local brown tuffaceous intertals up to 20cm. (336.20-336.40)							
335				336.40-337.36 EXMT GREY SILICEOUS BANDED MT IRON FORMATION							
336				- aph. siliceous unit as above but has dk. green chl on fractures.							
337				- frequent 1-3mm black mt bands - ~ 7% mt overall.							
338				- "salt + pepper" texture - mt bands are not f.g and msu, but are composed of pepper-like disseminations.							
339				- 1-2% py on fractures.							
340				337.36-344.12 RHAR MIXED LIGHT GREY MASSIVE APHANITIC RHYOLITE AND DARK GREY CARBONACEOUS ARGILLITE							
341				- 50% light grey siliceous massive aphanitic rhyolite w/ sparse microlites and sub-mm micaceous to argillaceous partings.							
342				- 50% dark grey carbonaceous siliceous argillite - usu. occurring as irregular bands within the rhyolite, forming a fragmental texture.							
343											
344											
345				344.12 - EOH							
346				(hole abandoned after rods stuck and broke off)							

MINERALIZATION DESCRIPTION	TOTAL SULPHIDES	SAMPLES			SAMPLE NUMBER	ASSAYS			
		FROM	TO	WIDTH					
		324.00	327.00	3.0	419060				
		327.00	328.03	1.03	419061				
		328.03	329.79	1.76	419062				
		329.79	332.88	3.09	419063				
		332.88	334.85	1.97	419064				
1-2% py on fractures.		334.85	336.46	1.61	419065				
		336.46	337.36	0.90	419066				
		337.36	339.28	1.92	419067				
- 1-2% py common on folm - fractures 371.65 → traces of sphalerite?		339.28	340.80	1.52	419068				
		340.80	342.11	1.31	419069				
		342.11	344.12	2.01	419070				

**2000 SUMMARY REPORT ON THE  
FOOT 2-4, 95-126, 171-174, 237-266, 275-288,  
333-338, 549-550, 575, 579-586,  
JACK 10, 21, 25-26, PUCK 3-6, 8, 10, 12, 14, 18,  
WOL 210-211, 213-214, 230, 232-234, 240, 242-243**

**9.0 CHEMEX ASSAY CERTIFICATES**



# ALS Chemex

Aurora Laboratory Services Ltd.  
 Analytical Chemists \* Geochemists \* Registered Assayers  
 212 Brooksbank Ave., North Vancouver  
 British Columbia, Canada V7J 2C1  
 PHONE: 604-984-0221 FAX: 604-984-0218

To: WOLVERINE JOINT VENTURE

701 - 475 HOWE ST.  
 VANCOUVER, BC  
 V6C 2B3

RECEIVED  
 JUN 26 2000

A0020443

Comments: ATTN: TERY TUCKER

CERTIFICATE

A0020443

(RDE) - WOLVERINE JOINT VENTURE

Project: WJV  
 P.O.#:

Samples submitted to our lab in Vancouver, BC.  
 This report was printed on 21-JUN-2000.

### SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
205	25	Geochem ring to approx 150 mesh
226	25	0-3 Kg crush and split
3202	25	Rock - save entire reject
285	25	ICP - HF digestion charge
287	25	Special dig'n with organic ext'n

### ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
983	25	Au ppb: Fuse 30 g sample	FA-AAS	5	10000
13	25	As ppm: HNO3-aqua regia digest	AAS-HYDRIDE/EDL	1	10000
22	25	Sb ppm: HCl-KClO3 digest, extrac	AAS-BKGD CORR	0.2	1000
20	25	Hg ppb: HNO3-HCl digestion	AAS-FLAMELESS	10	100000
578	25	Ag ppm: 24 element, rock & core	AAS	0.2	100.0
573	25	Al %: 24 element, rock & core	ICP-AES	0.01	25.0
565	25	Ba ppm: 24 element, rock & core	ICP-AES	10	10000
575	25	Be ppm: 24 element, rock & core	ICP-AES	0.5	1000
561	25	Bi ppm: 24 element, rock & core	ICP-AES	2	10000
576	25	Ca %: 24 element, rock & core	ICP-AES	0.01	25.0
562	25	Cd ppm: 24 element, rock & core	ICP-AES	0.5	500
563	25	Co ppm: 24 element, rock & core	ICP-AES	1	10000
569	25	Cr ppm: 24 element, rock & core	ICP-AES	1	10000
577	25	Cu ppm: 24 element, rock & core	ICP-AES	1	10000
566	25	Fe %: 24 element, rock & core	ICP-AES	0.01	25.0
584	25	K %: 24 element, rock & core	ICP-AES	0.01	10.00
570	25	Mg %: 24 element, rock & core	ICP-AES	0.01	15.00
568	25	Mn ppm: 24 element, rock & core	ICP-AES	5	10000
554	25	Mo ppm: 24 element, rock & core	ICP-AES	1	10000
583	25	Na %: 24 element, rock & core	ICP-AES	0.01	10.00
564	25	Ni ppm: 24 element, rock & core	ICP-AES	1	10000
559	25	P ppm: 24 element, rock & core	ICP-AES	10	10000
560	25	Pb ppm: 24 element, rock & core	AAS	2	10000
582	25	Sr ppm: 24 element, rock & core	ICP-AES	1	10000
579	25	Ti %: 24 element, rock & core	ICP-AES	0.01	10.00
572	25	V ppm: 24 element, rock & core	ICP-AES	1	10000
556	25	W ppm: 24 element, rock & core	ICP-AES	10	10000
558	25	Zn ppm: 24 element, rock & core	ICP-AES	2	10000



# ALS Chemex

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 Analytical Chemists \* Geochemists \* Registered Assayers  
 212 Brooksbank Ave., North Vancouver  
 British Columbia, Canada V7J 2C1  
 PHONE: 604-984-0221 FAX: 604-984-0218

To: WOLVERINE JOINT VENTURE

701 - 475 HOWE ST.  
 VANCOUVER, BC  
 V6C 2B3

Project: WJV  
 Comments: ATTN: TERY TUCKER

Page Number: 1-B  
 Total Pages: 1  
 Certificate Date: 21-JUN-2000  
 Invoice No.: I0020443  
 P.O. Number:  
 Account: RDE

## CERTIFICATE OF ANALYSIS

A0020443

SAMPLE	PREP CODE	Fe % (ICP)	K % (ICP)	Mg % (ICP)	Mn ppm (ICP)	Mo ppm (ICP)	Na % (ICP)	Ni ppm (ICP)	P ppm (ICP)	Pb ppm AAS	Sr ppm (ICP)	Ti % (ICP)	V ppm (ICP)	W ppm (ICP)	Zn ppm (ICP)
N419046	205 226	5.14	0.14	0.53	525	4	0.01	31	280	8	105	0.07	73	< 10	38
N419047	205 226	2.67	0.73	0.35	220	9	0.04	27	80	8	38	0.07	81	< 10	26
N419048	205 226	7.84	0.87	0.72	755	1	0.03	18	450	10	60	0.16	111	< 10	32
N419049	205 226	5.51	0.71	0.46	790	28	0.03	26	420	12	90	0.12	100	< 10	46
N419050	205 226	11.85	0.26	0.56	3290	14	0.01	15	650	10	114	0.08	135	< 10	62
N419051	205 226	15.10	0.25	0.49	2180	86	0.01	26	1290	6	175	0.06	168	< 10	46
N419052	205 226	1.12	0.50	0.34	310	2	0.01	40	140	26	60	0.08	50	< 10	76
N419053	205 226	1.29	0.56	0.37	275	3	0.02	43	110	10	42	0.09	59	10	56
N419054	205 226	1.85	0.73	0.64	545	1	0.03	47	240	42	173	0.10	90	< 10	58
N419055	205 226	2.47	1.19	0.98	725	1	0.04	79	490	40	193	0.22	121	< 10	134
N419056	205 226	2.90	1.79	1.13	1190	1	0.09	219	340	10	130	0.35	174	< 10	260
N419057	205 226	3.56	1.54	1.14	2430	< 1	0.09	141	350	14	109	0.32	152	< 10	186
N419058	205 226	2.96	1.65	1.08	520	2	0.09	150	440	24	135	0.20	162	< 10	284
N419059	205 226	2.44	1.22	0.79	225	< 1	0.09	70	270	14	71	0.18	111	< 10	144
N419060	205 226	2.53	0.93	0.73	310	1	0.03	54	320	10	55	0.13	85	< 10	102
N419061	205 226	2.16	0.85	1.13	460	< 1	0.03	49	710	18	178	0.13	111	< 10	130
N419062	205 226	2.50	0.98	1.00	460	2	0.04	81	400	22	107	0.15	122	< 10	292
N419063	205 226	1.18	0.48	0.56	525	3	0.01	68	110	8	70	0.08	59	< 10	114
N419064	205 226	1.49	0.74	0.59	455	1	0.02	35	100	8	59	0.12	71	< 10	48
N419065	205 226	1.63	0.80	0.47	205	3	0.04	64	130	2	79	0.13	84	< 10	84
N419066	205 226	3.16	0.42	0.51	660	< 1	0.02	35	150	< 2	253	0.09	57	< 10	42
N419067	205 226	1.02	0.35	0.18	195	4	0.01	30	60	4	62	0.05	56	10	70
N419068	205 226	1.05	0.60	0.23	90	1	0.03	41	50	2	66	0.06	67	< 10	42
N419069	205 226	1.36	0.63	0.22	75	8	0.04	130	250	10	100	0.06	76	< 10	114
N419070	205 226	1.42	0.65	0.26	95	5	0.04	101	140	6	77	0.07	91	< 10	100

CERTIFICATION:



# ALS Chemex

Aurora Laboratory Services Ltd.  
 Analytical Chemists \* Geochemists \* Registered Assayers  
 212 Brooksbank Ave., North Vancouver  
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 PHONE: 604-984-0221 FAX: 604-984-0218

To: WOLVERINE JOINT VENTURE

701 - 475 HOWE ST.  
 VANCOUVER, BC  
 V6C 2B3

Project : WJV  
 Comments: ATTN: TERY TUCKER

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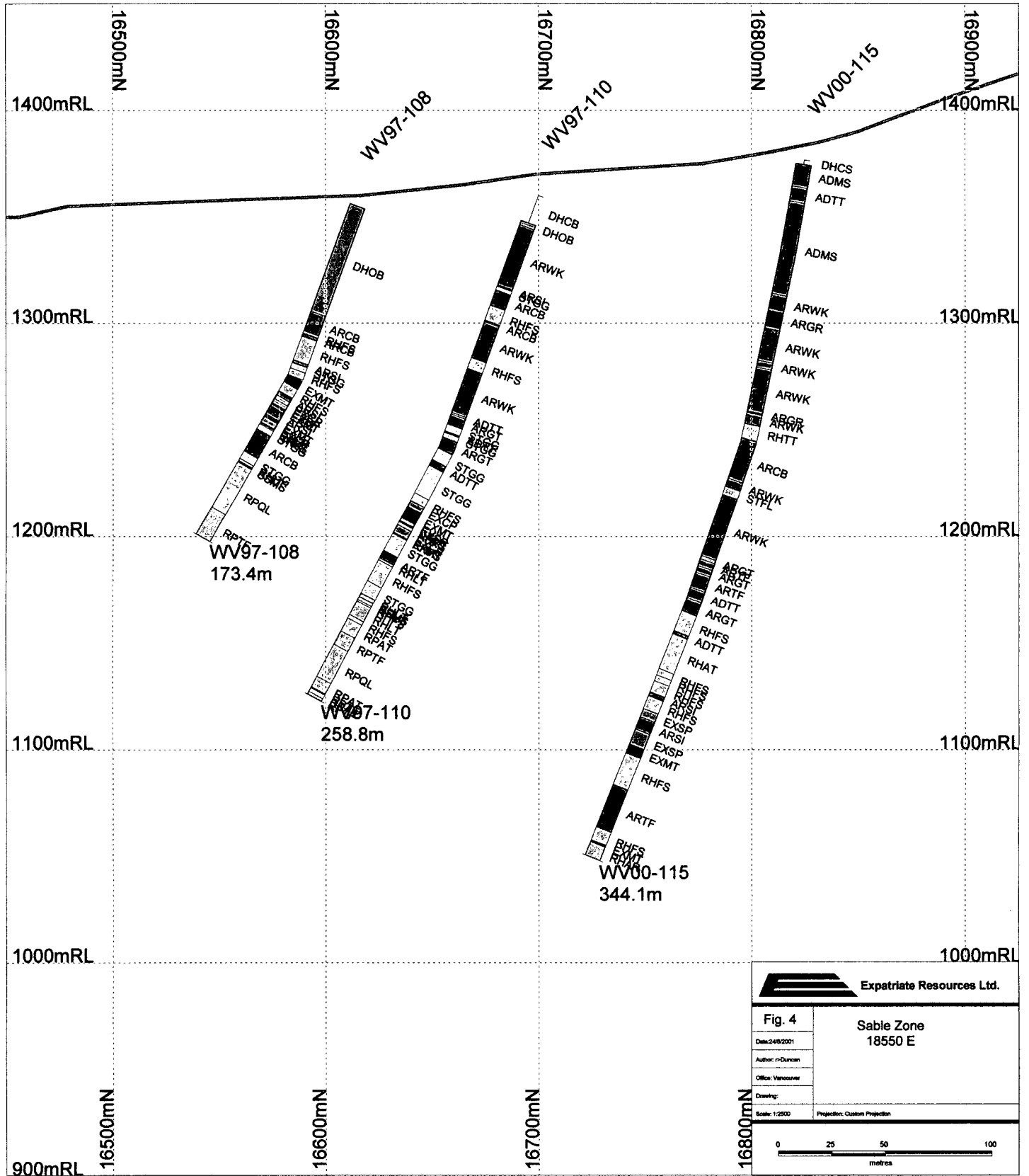
## CERTIFICATE OF ANALYSIS A0020443

SAMPLE	PREP CODE	Au ppb FA+AA	As ppm	Sb ppm	Hg ppb	Ag ppm AAS	Al % (ICP)	Ba ppm (ICP)	Be ppm (ICP)	Bi ppm (ICP)	Ca % (ICP)	Cd ppm (ICP)	Co ppm (ICP)	Cr ppm (ICP)	Cu ppm (ICP)
N419046	205 226	15	9	0.8	< 10	0.2	1.62	100	< 0.5	< 2	0.24	< 0.5	4	248	60
N419047	205 226	5	34	1.6	< 10	0.4	2.06	80	0.5	< 2	0.29	< 0.5	5	260	75
N419048	205 226	5	27	1.6	< 10	0.2	3.26	70	0.5	< 2	0.61	< 0.5	6	174	63
N419049	205 226	< 5	4	0.2	< 10	0.2	2.40	320	0.5	< 2	0.50	< 0.5	7	179	53
N419050	205 226	15	11	0.6	< 10	0.4	1.66	800	< 0.5	< 2	0.74	< 0.5	6	143	79
N419051	205 226	5	< 1	0.8	< 10	0.2	1.42	1960	< 0.5	< 2	0.90	< 0.5	6	171	45
N419052	205 226	< 5	7	0.2	< 10	< 0.2	1.57	4430	0.5	< 2	0.61	< 0.5	4	261	47
N419053	205 226	< 5	4	< 0.2	10	< 0.2	1.83	4330	0.5	< 2	0.42	< 0.5	7	268	51
N419054	205 226	< 5	4	0.4	< 10	0.2	2.24	1140	0.5	< 2	0.94	< 0.5	7	274	39
N419055	205 226	15	8	0.6	< 10	0.4	3.66	370	1.0	< 2	1.05	< 0.5	10	228	61
N419056	205 226	15	32	0.8	10	0.2	5.23	370	1.5	< 2	0.51	< 0.5	18	259	127
N419057	205 226	10	13	0.6	< 10	0.2	4.77	220	1.5	< 2	0.43	< 0.5	16	234	96
N419058	205 226	10	6	0.8	30	0.4	4.71	100	1.5	< 2	0.50	< 0.5	18	213	102
N419059	205 226	10	13	1.0	10	0.2	3.69	850	1.0	< 2	0.30	< 0.5	11	260	78
N419060	205 226	< 5	7	1.2	< 10	0.6	2.99	120	0.5	< 2	1.16	< 0.5	8	211	51
N419061	205 226	< 5	< 1	0.6	10	0.4	3.22	870	0.5	< 2	2.62	0.5	7	213	36
N419062	205 226	10	7	1.0	40	0.8	3.12	160	1.0	< 2	1.25	0.5	9	233	62
N419063	205 226	< 5	9	0.2	10	< 0.2	1.65	3890	0.5	< 2	1.52	< 0.5	7	212	57
N419064	205 226	5	2	0.2	< 10	< 0.2	2.34	3860	0.5	< 2	1.61	< 0.5	6	273	78
N419065	205 226	5	5	< 0.2	< 10	< 0.2	2.52	2400	0.5	< 2	0.37	< 0.5	8	235	79
N419066	205 226	5	10	0.6	10	< 0.2	1.88	530	0.5	< 2	0.87	< 0.5	7	293	47
N419067	205 226	10	9	0.4	10	0.2	1.57	1910	0.5	< 2	0.43	< 0.5	4	264	60
N419068	205 226	10	6	0.8	10	< 0.2	1.92	570	1.0	< 2	0.22	< 0.5	6	217	66
N419069	205 226	20	11	1.0	30	0.6	2.11	280	1.0	< 2	0.20	< 0.5	13	230	72
N419070	205 226	10	10	1.0	30	< 0.2	2.24	410	1.0	< 2	0.23	< 0.5	11	241	69

CERTIFICATION: \_\_\_\_\_

**2000 SUMMARY REPORT ON THE  
FOOT 2-4, 95-126, 171-174, 237-266, 275-288,  
333-338, 549-550, 575, 579-586,  
JACK 10, 21, 25-26, PUCK 3-6, 8, 10, 12, 14, 18,  
WOL 210-211, 213-214, 230, 232-234, 240, 242-243**

**10.0 DRILL HOLE CROSS SECTIONS  
FIGURE 4**



**TABLE 1 - WOLVERINE PROJECT ROCK CODES**

DHOB Overburden  
 DHLC Lost Core  
 DHCS Casing  
 DHNL No Log

**STRUCTURE / VEINS**

STFL Fault  
 STGG Fault Gouge  
 STFB Fault Breccia

CAVN Calcite Vein  
 CRVN Carbonate Vein  
 QTVN Quartz Vein  
 QCVN Quartz-Carbonate Vein

**ANDESITIC VOLCANICS**

ADMS Andesite  
 ADTT Andesite Tuff  
 ADFF Andesite Fine Tuff  
 ADTF Andesite Lapilli Tuff

**RHYOLITIC VOLCANICS**

RHFS Aphanitic Rhyolite  
 RHMS Massive Rhyolite  
 RHFR Rhyolite Fragmental  
 RHTT Rhyolite Tuff  
 RHFF Rhyolite Fine Tuff  
 RHLT Rhyolite Lapilli Tuff  
 RHAL Banded Lapilli-Ash Tuff  
 RHAT Argillaceous Lapilli Tuff  
 RHST Sericitic Rhyolite Tuff  
 RHCT Chloritic Rhyolite Tuff  
 RHSR Sericitic Lapilli Tuff  
 RHCL Chloritic Lapilli Tuff  
 RPAT Argillaceous Quartz-Eye  
 Feldspar Crystal Tuff  
 RPQL Quartz-Eye Rhyolite Lapilli Tuff  
 RPTF Quartz-Eye Feldspar Crystal  
 Tuff  
 FDPH Feldspar Porphyry  
 QFPH Quartz-Feldspar Porphyry

**EXHALITES**

EXCP Calcite-Pyrite Exhalite  
 EXSP Silica-Pyrite Exhalite  
 EXMT Banded Magnetite Iron  
 Formation  
 EXMP Pyritic Banded Magnetite Iron  
 Formation

**SEDIMENTS & VOLCANICLASTICS**

ARMS Argillite  
 ARCB Carbonaceous Argillite  
 ARRT Carbonaceous Argillite with  
 Rhyolite Lapilli  
 ARGR Graphitic Argillite  
 ARSI Siliceous Argillite  
 ARTF Tuffaceous Argillite  
 ARQE Black Quartz-Eye Bearing  
 Argillite  
 RHAR Interbedded Rhyolite / Argillite  
 ARRH Interbedded Argillite / Rhyolite  
 ARGT Interbedded Black  
 Argillite/Green Tuff  
 ARWK Interbedded Black  
 Argillite/Greywacke  
 SLST Siltstone  
 LMST Limestone

**SULPHIDE ASSEMBLAGES**

SSMS Massive Sulphides  
 PYMS Massive Sulphide (py-rich)  
 SPMS Massive Sulphide (sph-rich)  
 CPMS Massive Sulphide (cpy-rich)  
 CSMS Massive Sulphide (cpy+sph)  
 PMMS Massive Sulphide (polymetallic)  
 PYSM Semi-Massive Sulphides (py)  
 SPSM Semi-Massive Sulphides (sph)  
 CPSM Semi-Massive Sulphides (cpy)  
 CSSM Semi-Massive Sulphides  
 (cpy+sph)  
 PMSM Semi-Massive Sulphides  
 (polymetallic)