

DOCUMENT No.  
W9002-054

- Instructions**
- Please type or print.
  - For each type of work performed, a separate Report of Work should be completed.
  - For Geo-technical work, use form no. 1362 "Report of Work (Geological, Geophysical, Geochemical)" and form no. 878 for Expenditures.
  - Refer to Sections 76 and 77, the Mining Act for assessment work requirements and the reverse side of this form for table of information.

**Mining Act Report of Work**

Name and Address of Recorded Holder <b>Andy Hagar</b> <b>P.O. Box 236, Red Lake, Ontario P0V2M0</b>	Prospector's Licence No. <b>P9204</b>
	Telephone No. <b>(807) 727-2754</b>

**Summary of Distribution of Credits and Work Performance**

Mining Division <b>Red Lake</b>	Mining Claim			Work Days Cr.	Mining Claim			Work Days Cr.	Mining Claim			Work Days Cr.
	Prefix	Number			Prefix	Number			Prefix	Number		
Township or Area <b>Shabumeni - G1881</b>	KRL	870280		40	KRL	870348		40				
Total Assessment Credits Claimed <b>560</b>	KRL	870281		40	KRL	870349		40				
Type of Work Performed (Check one only)	KRL	870282		40	KRL	870350		40				
<input type="checkbox"/> Manual Work	KRL	870283		40	KRL	870351		40				
<input type="checkbox"/> Shaft Sinking Drifting or other Lateral Work	KRL	870342		40								
<input type="checkbox"/> Mechanical equipment	KRL	870343		40								
<input type="checkbox"/> Power Stripping other than Manual (maximum credit allowed - 100 days per claim)	KRL	870344		40								
<input checked="" type="checkbox"/> Diamond or other Core drilling	KRL	870345		40								
<input checked="" type="checkbox"/> Specimens	KRL	870346		40								
	KRL	870347		40								

Dates when work was performed From: <b>Jan 11/90</b> To: <b>Feb 18/90</b>	Total No. of Days Performed <b>5380</b>	Total No. of Days Claimed <b>560</b>	Total No. of Days to be Claimed at a Future Date <b>4820</b>
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Mining Claim	No. of Days	Mining Claim	No. of Days	Mining Claim	No. of Days	Mining Claim	No. of Days
<b>KRL 870346</b>	<b>1580</b>	<b>KRL 870347</b>	<b>940</b>	<b>KRL 870344</b>	<b>1470</b>	<b>KRL 870349</b>	<b>1094</b>
<b>KRL 870350</b>	<b>296</b>						

Required Information eg. type of equipment, Names, Addresses, etc. (See Table on reverse side)

If space below is insufficient, attach schedules with required information and location sketches

Diamond Drilling by s.  
Wynae Drilling  
General Delivery  
Bissett, Manitoba  
ROE OJO

Ph - 204-277-5220

BQ Core recovered  
Between Jan 11/90 & Feb 18/90

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**Certification of Beneficial Interest \* (See Note No. 2 on reverse side)**

I hereby certify that, at the time the work was performed, the claims covered in this report of work were recorded in the current recorded holder's name or held under a beneficial interest by the current recorded holder.	Date <b>May 24, 1990</b>	Recorded Holder or Agent (Signature) <b>Andy Hagar</b>
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**Certification Verifying Report of Work**

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

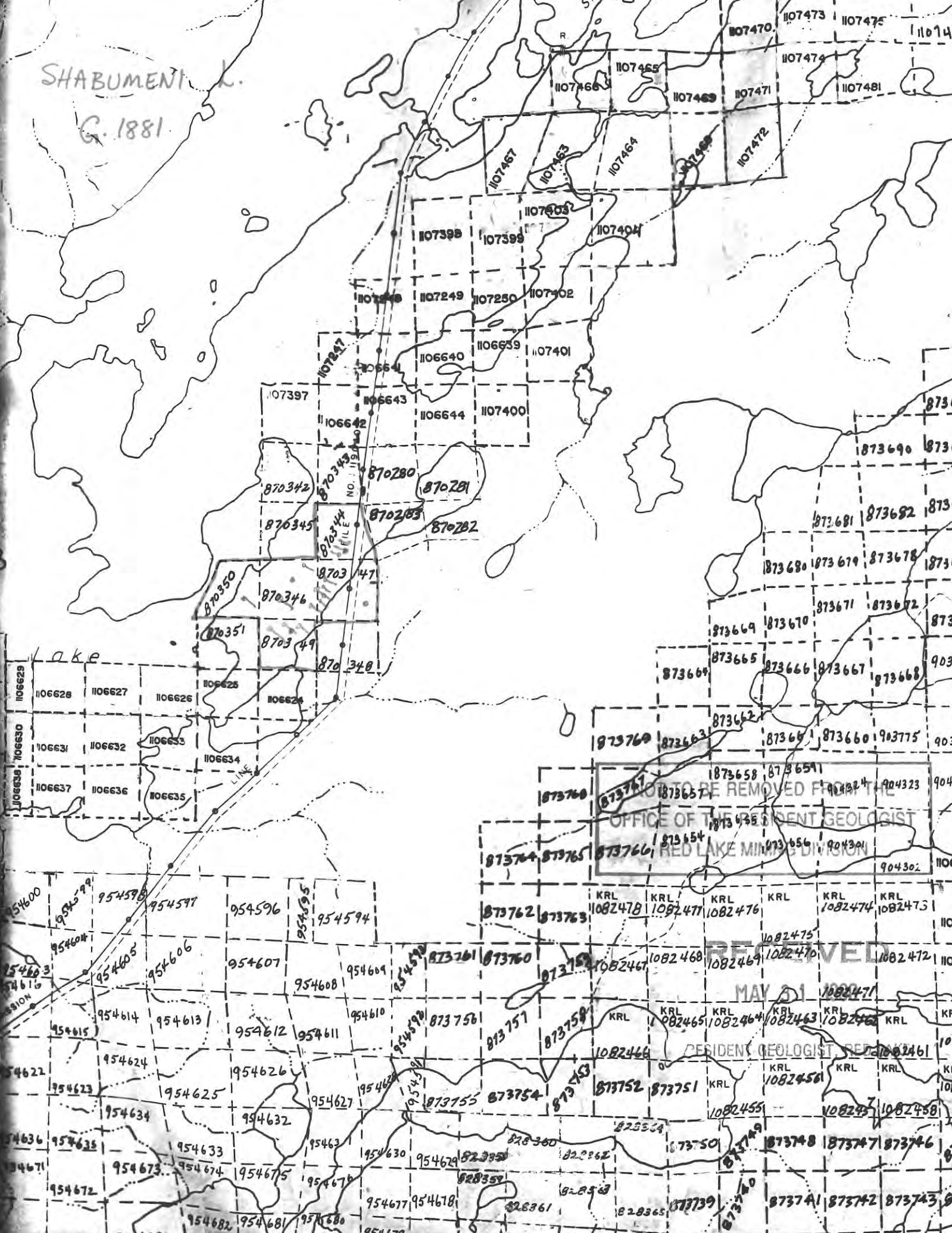
Name and Address of Person Certifying <b>John A Green - Box 248, Balmer town, Ont P0V1C0</b>	Telephone No. <b>735-2321</b>	Date <b>May 24, 1990</b>	Certified By (Signature) <b>[Signature]</b>
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**For Office Use Only**

Work Assignments	Received Stamp 
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SHABUMENT L.

G. 1881



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RESIDENT GEOLOGIST RED LAKE MINING DIVISION

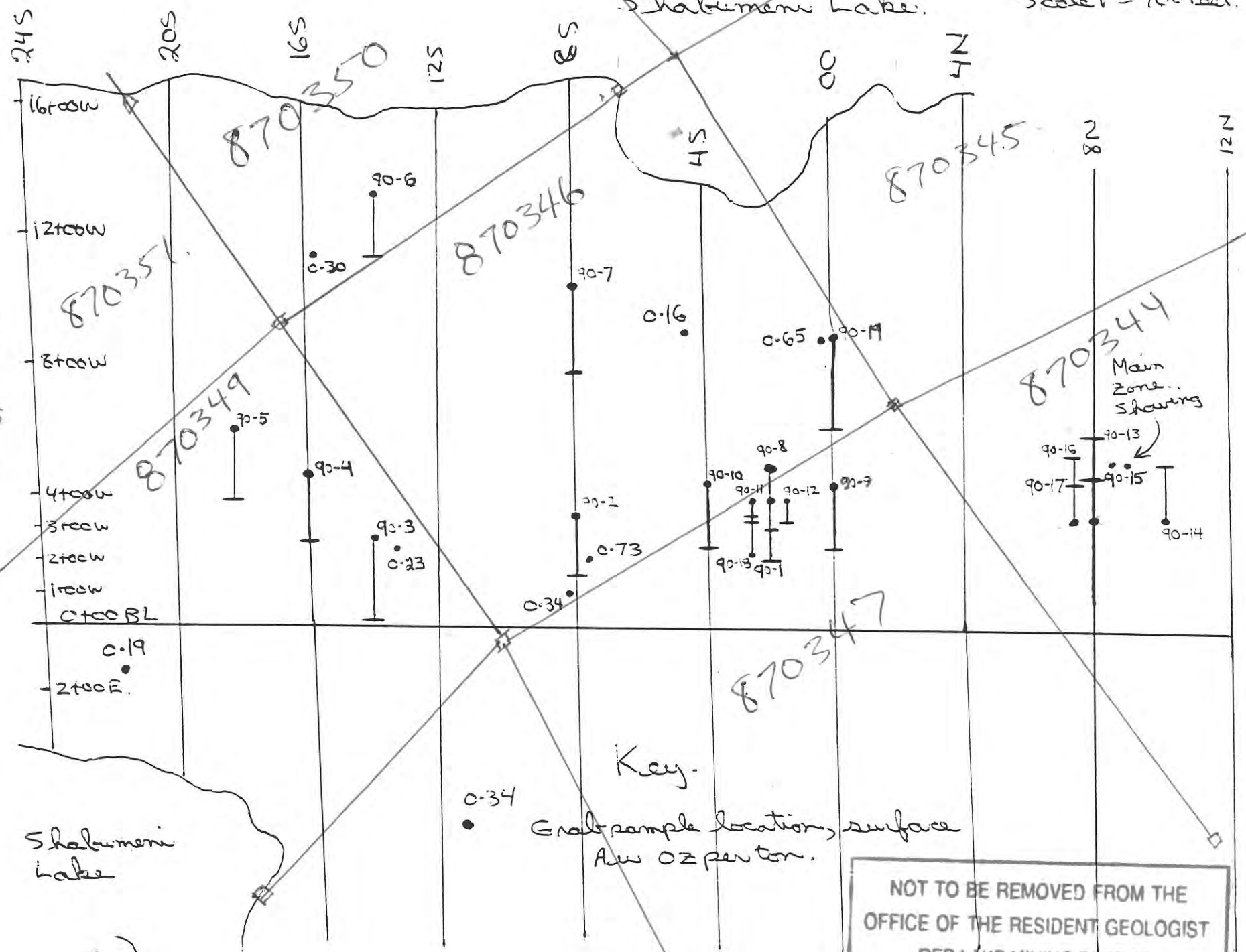
87340

(54-90)

Scale 1" = 400 Feet.



Shabumeni Lake.



52N5E0376

Key.

● Galt sample location, surface  
▲ Aas OZ per ton.

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# DIAMOND DRILL RECORD

(54-90)

NAME OF PROPERTY Shabumeni Lake - Green/Hagar Option  
 HOLE NO. SHB-90-1 LENGTH 296 feet  
 LOCATION \_\_\_\_\_  
 LATITUDE L 2+00 S DEPARTURE 4+00 W  
 ELEVATION \_\_\_\_\_ AZIMUTH 130° DIP -50°  
 STARTED Jan. 11/90 FINISHED Jan. 12/90

	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH

HOLE NO. 1 SHEET NO. 1  
 REMARKS I.P. target  
 LOGGED BY W. C. Hood

FROM	TO	DESCRIPTION	SAMPLE			Au ASSAYS						
			NO.	% SULPHIDES	FROM	TO	TOTAL	ppb Au	OZ/TON	OZ/TON	OZ/TON	
0	4.5	CASING: clay, sand										
4.5	51.5	ANDESITE TUFF: generally fine-grained, grey to green-grey, weakly foliated, locally schistose; probably ash tuff with 5% dark green-grey elongate mafic clots/crystals; mafic clots are less than 0.01' in length and are elongated along weak foliation; mafic clots are chlorite ± amphibole but may be in part after pyroxene; minor schistose and altered sections; 0.04' quartz stringer at 16.3; silicified altered zone at 33.5-36.2; sheared section at 35.1-35.4 with 20% disseminated pyrite at 35.2-35.3; trace pyrite otherwise; minor irregular calcite fracture fillings in lower part of section; minor calcite-quartz-chlorite-pyrite fracture fillings at 38.9-39.6; gradual increase in shearing down section; core L 59° at 8.5.	12729	tr.	30.0	32.5	2.5	tr.				
			12730	tr.	32.5	35.0	2.5	tr.				
			12731	2%	35.0	37.5	2.5	tr.				
			12732	tr.	37.5	40.0	2.5	tr.				
			12733	tr.	40.0	42.5	2.5	tr.				
51.5	62.6	SHEARED ANDESITE TUFF: same lithology as at 4.5-51.5: but sheared, schistose and chloritic; frequent white calcite seams, irregular veinlets, and breccia infillings with local pyrite; minor light grey quartz ± calcite veins, especially in interval from 51.6-56.1; light grey quartz vein with minor calcite and chlorite at 55.2-55.5; 5% pyrite at 51.6-56.1; less than 1% pyrite in rest of interval; core L 50° at 54.3.	12557	5	51.6	54.6	3.0	tr.				
			12558	5	54.6	56.1	1.5	tr.				
			12600	5	56.1	58.7	2.6	tr.				
			12601	1	58.7	60.4	1.7	tr.				
			12602	1	60.4	62.6	2.2	tr.				
									0.02			
									0.32	0.30	0.24	
									Tr			
									Tr			
									Tr			

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52N075E0376



## DIAMOND DRILL RECORD

DEPTH		DESCRIPTION	SAMPLE				ANALYSES				
FROM	TO		NO.	% SULPHIDES	DEPTH			ppb Au	Au oz/ton		
					FROM	TO	TOTAL				
62.6	251.9	<p><b>ANDESITE TUFF:</b></p> <p>62.6-119.9: generally as at 4.5-51.5 but slightly more foliated and schistose with minor sheared sections and quartz-calcite seams, veinlets and patches at 62.6-95.0; brecciated section at 91.3-92.5; narrow pink potassic seams at 92.7, 93.6 &amp; 94.6; massive to weakly foliated at 95.0-118.2; sheared section at 118.2-119.9 with quartz vein at 118.3-118.4 and 118.7-119.4; 3% pyrite at 118.2-119.9 concentrated at edge of vein and adjacent schists; vein contacts at 40° to core axis; core <math>\angle</math> 42° at 84.0.</p> <p>119.9-144.9: generally massive to weakly foliated as at 4.5-51.5; rare calcite-filled amygdules up to 0.01'.</p> <p>144.9-251.9: more brecciated, altered &amp; schistose than at 119.9-144.9; minor dacitic fragments; minor calcite-filled amygdules; frequent white calcite seams, fracture-fillings &amp; patches; minor silicification and disseminated pyrite in weakly sheared zones; brecciated and silicified patch with reddish iron staining and 5% pyrite at 238.2-239.2; silicified patch with 3% pyrite at 241.1-241.3; core <math>\angle</math> 46° at 179.0.</p>	12559	3	118.2	119.7	1.5		Tn		
			12560	5	238.2	239.2	1.0		Tn		
251.9	270.1	<p><b>BRECCIATED ANDESITE TUFF:</b> same lithology as above but heavily brecciated and cemented with white calcite and reddish-brown iron oxide - probably from groundwater movement through breccia zone; minor vugs up to 0.05' lined with calcite crystals in calcite-cemented</p>	12561	tr.	256.0	261.0	5.0		Tn		

**DIAMOND DRILL RECORD**

NAME OF PROPERTY \_\_\_\_\_

HOLE NO. 1 SHEET NO. 3 OF 3

DEPTH		DESCRIPTION	SAMPLE				ANALYSES		
FROM	TO		NO.	% SULPHIDES	DEPTH		ppb Au	Au oz/ton	
					FROM	TO			
		breccia zones; core L 41° at 252.2.							
270.1	296.0	<p><b>ANDESITE TUFF:</b></p> <p>270.1-288.5: generally as at 144.9-251.9 but with patchy light and dark grey to green-grey coloration due to local fragments &amp; bleaching; frequent calcite ± quartz seams, veinlets &amp; patches; trace pyrite in rare silicified and sheared patches.</p> <p>288.5-296.0: as above but more schistose; core L 50° at 296.0.</p>							
296.0		END OF HOLE							



# DIAMOND DRILL RECORD

NAME OF PROPERTY Shabumeni Lake - Green/Hagar Option  
 HOLE NO. SHB-90-2 LENGTH 296 feet  
 LOCATION \_\_\_\_\_  
 LATITUDE L 8+00 S DEPARTURE 3+50 W  
 ELEVATION \_\_\_\_\_ AZIMUTH 130° DIP -50°  
 STARTED Jan. 14/90 FINISHED Jan. 15/90

	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH

HOLE NO. 2 SHEET NO. 1  
 REMARKS I.P. target  
 LOGGED BY W.C. Hood

FROM	TO	DESCRIPTION	SAMPLE			ANALYSES						
			NO.	% SULPHIDES	FROM	TO	TOTAL	ppb Au	OZ/TON	OZ/TON	OZ/TON	
0	8.0	CASING: clay, sand.										
8.0	144.0	<p>ANDESITE FLOW: fine-grained, green-grey, generally foliated, locally schistose.</p> <p>8.0-32.4: altered brecciated section; frequent calcite ± quartz veinlets, seams &amp; patches; frequent bleached sections; frequent irregular patches &amp; veinlets of light green epidote and pink feldspathic alteration; trace pyrite.</p> <p>32.4-47.0: massive section, probably massive flow; minor calcite veinlets; schistose section with calcite at 38.5-39.2; core L 47° at 39.2.</p> <p>47.0-72.1: weakly altered brecciated section as at 8.0-32.4; minor calcite-quartz-chlorite veinlets; light grey silicified zone at 62.9-63.5; trace pyrite.</p> <p>72.1-87.8: weakly altered brecciated section as at 8.0-32.4 but with numerous (10%) calcite-filled amygdules up to 0.2"; 0.3" thick quartz-calcite-chlorite stringer extends along core axis at 81.0-81.9 and at 60° to core axis at 86.0-86.8; trace pyrite.</p> <p>87.8-104.7: altered brecciated section as at 8.0-32.4 with minor calcite-quartz-chlorite veinlets and rare reddish-brown iron oxide fracture fillings; trace pyrite.</p> <p>104.7-122.0: massive to weakly foliated section of grey andesite; weakly porphyritic with minor dark green-black chlorite-amphibole clots less</p>										
			12562	tr.	60.8	63.5	2.7					

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Tr.

52N07SE0376



## DIAMOND DRILL RECORD

DEPTH		DESCRIPTION	SAMPLE				ANALYSES		
FROM	TO		NO.	% SULPHIDES	DEPTH		ppb Au	Au oz/ton	
				FROM	TO	TOTAL			
		than 0.1"; rare white to light green silicified patches & seams; minor pink-red quartz-feldspar seams. 122.0-144.0: generally as at 8.0-32.4 but with intensity of alteration increasing down section							
144.0	168.9	ALTERED ANDESITE FLOW: heavily brecciated & altered; abundant bleaching, silicification and light green epidote alteration; frequent calcite & quartz seams, veinlets & patches; frequent pinkish-red potassic seams; frequent calcite-filled amygdules; trace tourmaline; trace pyrite.							
168.9	171.6	SHEARED ALTERED BASALT: sheared brecciated chloritic section with 20% calcite and about 5% irregular quartz stringers; minor talc-serpentine along schistosity; locally up to 2% pyrite associated with quartz stringers; core $\angle 42^\circ$ at 168.9.	12563	2	168.9	171.6	2.7		Tn
171.6	260.5	BASALT FLOW: fg, dark green-grey; intensity of alteration and brecciation decreases down section; irregular white to light grey quartz vein at 194.4-194.8 with irregular stringers of chlorite and 1% pyrite; quartz vein is cut by narrow quartz-calcite-chlorite seam that extends along core axis at 193.3-194.5; rare pyrite commonly associated with late calcite-quartz-chlorite veinlets & seams; core $\angle 35^\circ$ at 227.4.	12564	tr.	194.0	195.0	1.0		Tn
260.5	267.1	SHEARED ALTERED BASALT: 260.5-263.2: altered section with irregular patches &	12565	2	260.5	263.2	2.7		Tn.

**DIAMOND DRILL RECORD**

NAME OF PROPERTY \_\_\_\_\_

HOLE NO. 2 SHEET NO. 3 OF 3

DEPTH		DESCRIPTION	SAMPLE				ANALYSES				
FROM	TO		NO.	% SUL- PHIDES	DEPTH		TOTAL	ppb Au	Au oz/ ton		
					FROM	TO					
		stringers of light green epidote, siliceous & chloritic alteration; minor calcite-quartz-chlorite veinlets & seams; 2% pyrite.									
		263.2-265.8: fine-grained, crudely banded grey to green-grey; schistose & sheared; heavily chloritized & carbonatized; minor quartz lenses & seams; 3% fine-grained disseminated pyrite.	12566	3	263.2	265.8	2.6		TN		
		265.8-267.1: crudely banded sheared section with minor siliceous & carbonate seams; 1% disseminated pyrite; core $\angle$ 47° at 266.7.	12567	1	265.8	267.1	1.3		TN		
267.1	296.0	ANDESITE: massive to weakly foliated tuff or weakly porphyritic flow; fine-grained, grey to green-grey; 5% dark green-black elongate chlorite-amphibole "phenocrysts" less than 0.1"; minor light green altered/bleached patches & seams; minor calcite $\pm$ quartz $\pm$ chlorite veinlets; minor calcite-filled amygdaloids; rare pink-red potassic and/or green epidote alteration along fractures.									
296.0		END OF HOLE.									



# RED LAKE DRILL RECORD

NAME OF PROPERTY Shabumeni Lake - Green/Hagar Option  
 HOLE NO. SHB-90-3 LENGTH 406 feet  
 LOCATION \_\_\_\_\_  
 LATITUDE L 14+00 S DEPARTURE 2+75 W  
 ELEVATION \_\_\_\_\_ AZIMUTH 130° DIP -50°  
 STARTED Jan. 17/90 FINISHED Jan. 20/90

	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH

HOLE NO. 3 SHEET NO. 1  
 REMARKS I.P. target; Clap Zone  
 LOGGED BY W. C. Hood

52N075E0376

FROM	TO	DESCRIPTION	SAMPLE			ANALYSES						
			NO.	% SULPHIDES	FROM	TO	TOTAL	ppb Au	OZ/TON	OZ/TON	OZ/TON	
0	5.0	CASING: clay, sand.										
5.0	22.7	ANDESITE TUFF: generally fine-grained, grey to green-grey, weakly schistose; mostly ash tuff but locally stretched fragments up to 1" across are apparent - e.g. at 10.6-13.0 and 15.5-16.0; fragments are slightly more felsic than matrix; frequent irregular veinlets & patches of bleaching and epidote alteration; minor calcite & quartz veinlets; minor calcite-filled amygdules; rare reddish potassic veinlets; trace pyrite; core L 47° at 11.3.										
22.7	44.3	BASALT FLOW: fine-grained, grey, massive to weakly foliated; massive flow; slightly sheared section at 28.9-29.5 with grey quartz vein at 29.25-29.3 with core L 61°; early quartz seam at 42.0 is cut by late quartz-calcite veinlet that extends along core at 41.5-42.3; minor calcite & quartz veinlets & seams.										
44.3	54.8	SHEARED ALTERED BASALT: 44.3-47.8: schistose, weakly sheared section; frequent light green bleaching & epidote alteration and calcite-quartz veinlets; minor pink potassic seams; low pyrite; core L 60° at 44.8. 47.8-49.6: generally massive light grey bleached section; low pyrite. 49.6-52.0: sheared schistose section with calcite-quartz	12568	1	44.3	47.8	3.5					
			12569	1	47.8	49.6	1.8					
			12570	tr.	49.6	52.0	2.4					

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**DIAMOND DRILL RECORD**

DEPTH		DESCRIPTION	SAMPLE				ANALYSES			
FROM	TO		NO.	% SULPHIDES	DEPTH		ppb Au	Au oz/ton		
					FROM	TO				TOTAL
131.1	284.7	<p>weakly magnetic; core <math>\angle</math> 48° at 126.2.</p> <p><b>GRANODIORITE:</b>                      131.1-212.9: medium-grained, pink to grey, weakly foliated; top contact 60° to core axis; frequent quartz-calcite-chlorite veinlets; 1% disseminated pyrite and fairly pervasive pink potassic alteration flanking veinlets in section at 131.1-136.0; inclusion of sheared gabbro at 131.8-132.1; slightly bleached zone at 169.5-171.5 centered on several fractures and a 0.3" thick quartz-calcite vein at 170.4 with core <math>\angle</math> at 25°; several calcite <math>\pm</math> quartz <math>\pm</math> tourmaline <math>\pm</math> pyrite veinlets at 173.6-174.5 flanked by bleached potassic alteration envelopes; pink potassic zone with core <math>\angle</math> about 20° at 175.3-175.7; fine-grained pyrite is concentrated in masses up to 0.4" by 0.3" at 174.6-175.7 with 5% pyrite overall; blotchy segregation of mafic and felsic minerals at 193.1-196.5 with minor quartz-calcite veinlets and 2% pyrite overall (locally in "clots"); gabbro inclusion at 207.6-207.9 with top contact at 43° and lower contact at 50° to core axis; minor disseminated pyrite throughout - locally in coarse-grained cubes associated with veinlets &amp; fractures; locally weakly magnetic.                      212.9-250.3: increasing concentration quartz <math>\pm</math> white feldspar <math>\pm</math> calcite <math>\pm</math> tourmaline <math>\pm</math> pyrite veinlets &amp; patches in this interval; pink</p>								
			12575	1	131.1	133.4	2.3			
			12576	1	133.4	136.0	2.6			
			12577	tr.	168.3	170.5	2.2			
			12578	tr.	173.6	176.0	2.4			












**DIAMOND DRILL RECORD**

NAME OF PROPERTY \_\_\_\_\_

HOLE NO. 3 SHEET NO. 8 OF 8

DEPTH		DESCRIPTION	SAMPLE			ANALYSES				
FROM	TO		NO.	% SUL- PHIDES	DEPTH		ppb Au	Au oz/ ton	Ag oz/ ton	
					FROM	TO				TOTAL
		403.3; moderately magnetic; minor very fine-grained sulphide.								
406.0		END OF HOLE.								
										
					Sludge Samples:					
					5.0	16.0	11.0			
					16.0	26.0	10.0			5.1
					26.0	36.0	10.0			5.1
					36.0	46.0	10.0			5.1
					46.0	56.0	10.0			5.1
					56.0	66.0	10.0	0.04		5.1
					66.0	76.0	10.0			5.1
					76.0	86.0	10.0			5.1
					86.0	96.0	10.0			5.1
					96.0	106.0	10.0			5.1
					106.0	116.0	10.0			5.1
					116.0	126.0	10.0			5.1
					126.0	136.0	10.0			5.1
					136.0	146.0	10.0			5.1
					146.0	156.0	10.0			5.1
					156.0	166.0	10.0			5.1
					166.0	176.0	10.0			5.1
					176.0	186.0	10.0			5.1
					186.0	196.0	10.0			5.1
					196.0	206.0	10.0			5.1
					206.0	216.0	10.0			5.1
					216.0	226.0	10.0			5.1
					226.0	236.0	10.0			5.1
					236.0	246.0	10.0	0.01		5.1
					246.0	256.0	10.0			5.1

NAME OF PROPERTY Shabumeni Lake - Green/Hagar Option  
 HOLE NO. SHB-90-4A LENGTH 26 feet  
 LOCATION \_\_\_\_\_  
 LATITUDE L 16+00 S DEPARTURE 4+60 W  
 ELEVATION \_\_\_\_\_ AZIMUTH 130° DIP -50°  
 STARTED Jan. 21/90 FINISHED Jan. 21/90

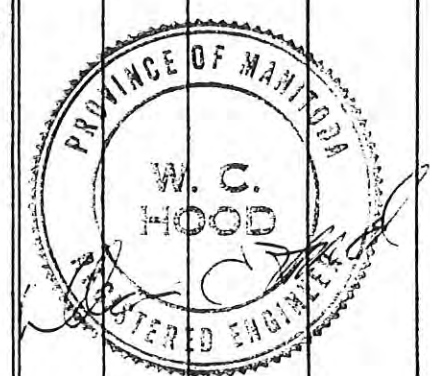
	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH

HOLE NO. 4A SHEET NO. 1  
 REMARKS I.P. target  
 LOGGED BY W.C. Hood

52N075E0376

		DESCRIPTION	SAMPLE			ANALYSES				
FROM	TO		NO.	% SULPHIDES	TOTAL	ppb Au	Au ASSAYS			
							FROM	TO	oz/ton	oz/ton
0	5.0	CASING: clay, sand.								
5.0	7.2	ANDESITE: fine-grained, grey, foliated to schistose; blocky drilling; rusty weathering and ground water movement along fractures.								
7.2	16.0	SHEARED DACITE TUFF: fine-grained, light grey, schistose; blocky drilling; rusty weathering and ground water movement along fractures; mostly ash tuff; minor mafic crystals smeared in chloritic clots along schistosity; minor calcite-quartz veinlets & seams.								
16.0	26.0	DACITE TUFF: fine-grained, blotchy light grey, generally foliated, locally schistose; generally ash tuff but with 5% mafic crystals (now largely altered to chlorite-amphibole) up to 0.1"; minor calcite-quartz veinlets & seams; rare epidote and pink potassic seams; trace pyrite.								
26.0		END OF HOLE: casing twisted in breccia zone and then lifted when rods stuck at 26'; hole caved and was lost.								

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NAME OF PROPERTY Shabumeni Lake - Green/Hagar Option  
 HOLE NO. SHB-90-4B LENGTH 306 feet  
 LOCATION \_\_\_\_\_  
 LATITUDE L 16+00 S DEPARTURE 4+60 W  
 ELEVATION \_\_\_\_\_ AZIMUTH 130° DIP -45°  
 STARTED Jan. 21/90 FINISHED Jan. 22/90

	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH

HOLE NO. 4B SHEET NO. 1  
 REMARKS I.P. target  
 LOGGED BY W.C. Hood

52N075E0376

FROM		DESCRIPTION	SAMPLE			ANALYSES					
			NO.	% SULPHIDES	FROM	TO	TOTAL	ppb Au	OZ/TON Ag	OZ/TON	OZ/TON
0	7.0	CASING: clay, sand.									
7.0	7.4	ANDESITE: fine-grained, grey, foliated.									
7.4	14.8	SHEARED DACITE TUFF: fine-grained, light grey to locally green-grey, locally banded, schistose, & chloritic; ash tuff; minor mafic crystals; blocky drilling; rusty weathering and groundwater movement along fractures; minor calcite-quartz ± chlorite ± tourmaline veinlets.									
14.8	27.3	DACITE TUFF: fine-grained except for altered mafic crystals up to 0.1"; light grey to green-grey, generally weakly schistose; rare calcite-quartz ± tourmaline veinlets; blocky drilling to about 21.8 with rusty weathering along fractures; core L 45° at 16.0.									
27.3	29.1	INTERMEDIATE DIKE: fine-grained, grey, foliated; andesitic composition; top contact is slightly discordant to schistosity with core L 31°; late calcite-quartz-chlorite veinlet crosses contact at 27.3; minor pink potassic alteration with calcite veinlets at 27.5-27.9; lower contact at 44° to core axis.	12586	tr.	27.2	29.2	2.0		Tr.	Tr.	
29.1	55.0	DACITE TUFF: fine-grained, light grey to green-grey, foliated to weakly schistose; generally									

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## DIAMOND DRILL RECORD

DEPTH		DESCRIPTION	SAMPLE					ANALYSES		
FROM	TO		NO.	% SULPHIDES	DEPTH			ppb Au	Au oz/ton	Ag oz/ton
					FROM	TO	TOTAL			
		ash tuff, minor mafic crystals/chlorite-amphibole "clots", minor lapilli fragments; minor calcite-quartz veinlets throughout; frequent green to pink epidote-potassic veinlets & patches at 43.0-55.0 with minor calcite-quartz veinlets and locally up to 3% disseminated pyrite; alteration at 43.0-55.0 gives core locally banded appearance; mud seam at 36.0; core $\angle 60^\circ$ at 49.4	12587	2	46.0	49.4	3.4		Tn	Tn
55.0	56.2	MAFIC DIKE: fine-grained, grey, foliated; locally porphyritic with minor medium-grained mafic phenocrysts; pink potassic alteration & minor epidote at 55.0-55.1 & 55.9-56.1; top contact obscured in alteration, lower contact at 70°; 1% fine-grained disseminated pyrite.	12588	1	54.6	56.9	2.3		Tn	Tn
56.2	95.9	DACITE TUFF: fine-grained, light grey to green-grey, generally foliated; locally weakly schistose; ash to crystal tuff, minor lapilli fragments; minor bedding; locally 5 to 10% mafic crystals / chlorite-amphibole clots; minor feldspar crystals; minor calcite $\pm$ quartz $\pm$ pyrite veinlets; rare pink potassic alteration along seams; minor disseminated pyrite; core $\angle 53^\circ$ at 79.0.								
95.9	97.1	MAFIC DIKE: dark grey, fine-grained, massive; andesite to basalt in composition; top contact at 38°, lower contact irregular but trends 20° to core axis; rare coarse-grained plagioclase; weakly magnetic; 1% fine-grained pyrite & pyrrhotite.	12589	1	95.7	97.5	1.8		Tn	Tn



**DIAMOND DRILL RECORD**

DEPTH		DESCRIPTION	SAMPLE				ANALYSES					
FROM	TO		NO.	% SULPHIDES	DEPTH			ppb Au	Au oz/ton	Ag oz/ton		
					FROM	TO	TOTAL					
		171.7-172.1: mafic dike; fine-grained, dark grey, foliated; andesite to basalt composition; top contact at 45°, lower contact at 52° to core axis. 172.1-174.7: generally as at 137.2-171.7 174.7-180.4: ash to crystal tuff with increasing quantity of mafic crystals down section; minor feldspar crystals. 180.4-190.7 generally ash to crystal tuff as at 174.7-180.4 with minor lapilli fragments; common calcite-quartz and green to pink epidote-potassic alteration veinlets & seams; trace pyrite. 190.7-194.4 generally as at 137.2-171.7 with only minor calcite-quartz and epidote-potassic alteration veinlets.										
194.4	199.6	ANDESITE TUFF: fine-grained, grey, foliated to schistose; probably ash tuff; frequent calcite-quartz veinlets, minor bleached, silicified, epidotized, and/or potassic altered fractures and patches; trace pyrite; core $\angle 65^\circ$ at 195.6.										
199.6	213.1	SHEARED ALTERED ANDESITE: 199.6-203.0: fine-grained, grey to green-grey, schistose; sheared andesite; becomes more chloritic down section; frequent early bleached, silicified, epidotized, & potassic altered veinlets, seams & patches cut by late calcite-quartz veinlets; no pyrite; core $\angle 71^\circ$ at 202.3. 203.0-208.0 fine-grained, mottled grey to green-black, schistose; heavily sheared carbonatized chloritic	12590	1	199.6	202.9	3.3		TN	TN		
			12591	1	202.9	205.7	2.8		TN	TN		
			12592	1	205.7	208.5	2.8		TN	TN		



**DIAMOND DRILL RECORD**

DEPTH		DESCRIPTION	SAMPLE				ANALYSES				
FROM	TO		NO.	% SULPHIDES	DEPTH			ppb Au	Au oz/ton	Ag oz/ton	
					FROM	TO	TOTAL				
		section; frequent calcite veinlets, seams & irregular patches; minor grey quartz lenses; 1% pyrite; core $\angle 70^\circ$ at 206.5. 208.0 - 213.1: fine-grained, dark grey, schistose; weakly sheared; slightly more mafic than above - approaching basalt; chloritic; frequent irregular bleached, epidotized & potassic altered veinlets & seams; minor calcite-quartz $\pm$ chlorite veinlets; minor pyrite; core $\angle 65^\circ$ at 213.1.									
213.1	232.9	<b>BASALT FLOW:</b> generally fine-grained but locally near medium-grained, dark grey, generally foliated, locally schistose; probably massive flow; minor pink potassic & green epidote veinlets & patches; minor calcite-quartz $\pm$ chlorite $\pm$ pyrite veinlets; weakly sheared at 227.5 - 230.5 with very fine-grained black mafic dike at 229.9 - 230.4 with top contact at $55^\circ$ & lower contact at $46^\circ$ to core axis; 1% pyrite at 227.5 - 230.5 - otherwise minor pyrite.	12593	1	227.5	230.5	3.0		Tn	Tn	
232.9	236.2	<b>SHEARED BASALT:</b> generally fine-grained, grey to dark green-grey, schistose & sheared; frequent calcite-quartz veinlets & seams; locally chloritic; locally 1% pyrite; core $\angle 50^\circ$ at 234.5.									
236.2	237.0	<b>MAFIC DIKE:</b> very fine-grained, dark brown-grey, massive to foliated; top contact at $33^\circ$ , lower contact at $40^\circ$ to core axis; minor calcite veinlets near lower contact; 3% pyrite - often in fine- to medium-grained euhedral cubes.	12594	3	236.0	237.4	1.4		Tn	Tn	



**DIAMOND DRILL RECORD**

DEPTH		DESCRIPTION	NO.	% SULPHIDES	SAMPLE			ANALYSES						
FROM	TO				FROM	TO	TOTAL	ppb Au	Au oz/ton	Ag oz/ton				
													DEPTH	DEPTH
		± chlorite ± pyrite veinlets; minor pyrite.												
264.9	265.9	INTERMEDIATE DIKE: fine-grained, brown-grey, foliated; weakly porphyritic with local tiny feldspar phenocrysts; top contact at 25°, lower contact at 30° to core axis; 1% pyrite.	12599	1	264.7	266.0	1.3							
265.9	306.0	BASALT FLOW: generally as at 258.5-264.9; 0.3" thick calcite-quartz veinlets extends at 10° to core axis from 285.4-286.6 and 290.4-291.2; minor pyrite overall - usually associated with veinlets and fractures; core L 45° at 277.6.												
	306.0	END OF HOLE.												





# DIAMOND DRILL RECORD

NAME OF PROPERTY Shabumeni Lake - Green/Hagar Option  
 HOLE NO. SHB-90-5 LENGTH 356 feet  
 LOCATION \_\_\_\_\_  
 LATITUDE L 18+00 S DEPARTURE 6+00 W  
 ELEVATION \_\_\_\_\_ AZIMUTH 130° DIP -50°  
 STARTED Jan. 23/90 FINISHED Jan. 24/90

	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH

HOLE NO. 5 SHEET NO. 1  
 REMARKS I.P. target  
 LOGGED BY W.C. Hood

52N07SE0376

FROM		TO	DESCRIPTION	SAMPLE			ANALYSES						
				NO.	% SULPHIDES	FROM	TO	TOTAL	ppb Au	oz/ton	oz/ton	oz/ton	
0	7.0		CASING:										
7.0	16.9		DACITE TUFF: fine-grained, grey to green-grey, foliated to weakly schistose; ash to crystal tuff, local lapilli tuff; generally fine-grained ash tuff but with local concentrations of rounded white plagioclase crystals defining bedding; grades into lapilli tuff at 16.5-16.9 with light grey stretched fragments up to 0.7" thick; possible andesitic dike or mafic bed at 11.6-11.9; minor fine-grained chlorite "wisps"; trace pyrite; core L 49° at 13.8.										
16.9	18.7		INTERMEDIATE DIKE: fine-grained, brownish-grey, weakly foliated near contacts; top contact at 45°, lower contact at 49° to core axis; 1% pyrite at 16.9-17.1.										
18.7	29.0		DACITE TUFF: generally as at 7.0-16.9; varies from ash to crystal to lapilli tuff with stretched fragments; brownish-grey altered section at 26.0-27.1 with 2% disseminated pyrite closely associated with light brown potassic altered seams & patches; core L 47° at 25.5.										
29.0	30.2		MAFIC DIKE: fine-grained, dark grey; heavily brecciated with 20% calcite-quartz veining & rusty vugs; top contact trends 52°, lower contact indistinct; 1% pyrite.	12603	1	28.7	31.3	2.6					

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**DIAMOND DRILL RECORD**

DEPTH		DESCRIPTION	SAMPLE				ANALYSES			
FROM	TO		NO.	% SUL-PHIDES	DEPTH		TOTAL	ppb Au	Au oz/ton	
					FROM	TO				
		to glassy, mottled to banded grey to green-grey; schistose & sheared; same lithology as at 59.2-65.3; locally chloritic; frequent seams & irregular fracture-fillings of reddish-brown iron staining; 0.3" thick quartz-calcite vein at 65.7 with core $\angle 30^\circ$ ; brecciated section with numerous irregular calcite-quartz veinlets at 66.4-67.7 with frequent rusty vugs along veinlets; 1% pyrite at 65.3-69.0; uniformly sheared section at 69.0-76.5 with 1% disseminated pyrite; brecciated sections with quartz-calcite veining and rusty reddish-brown fracture fillings at 76.5-77.4 with 3% pyrite and at 77.8-78.5 with 1% pyrite; uniformly sheared with 1% pyrite at 78.5-80.5; 3% pyrite at 80.5-83.9 concentrated in dark colored matrix between fragments and along bleached fractures; core $\angle 51^\circ$ at 82.5.	12606	tr.	65.3	69.0	3.7		TN	
			12607	2	76.3	78.5	2.2		TN	
			12608	1	78.5	80.5	2.0		TN	
			12609	3	80.5	83.9	3.4		TN	
83.9	100.2	RHYOLITE / DACITE: fine-grained to glassy, mottled to banded grey to light green-grey, foliated to schistose; probably flow dome or coarse fragmental; minor pyrite disseminated throughout; 5% pyrite at 85.6-86.3 centered on brecciated dark grey irregular mafic dike at 85.8-86.1; minor epidote alteration 86.5-86.6; 5% disseminated pyrite in dark grey mafic dike at 89.7-90.2 with top contact at $55^\circ$ & lower contact at $60^\circ$ to core axis; possible mafic dike at 93.6-93.9 with 1% pyrite; minor pink potassic alteration with 2% pyrite at 94.6-94.8.	12610	5	85.5	86.7	1.2		TN	
			12611	tr	86.7	89.5	2.8		TN	
			12612	4	89.5	90.5	1.0		TN	





**DIAMOND DRILL RECORD**

NAME OF PROPERTY \_\_\_\_\_

HOLE NO. 5 SHEET NO. 5 OF 7

DEPTH		DESCRIPTION	SAMPLE				ANALYSES		
FROM	TO		NO.	% SULPHIDES	DEPTH		ppb Au	Au oz/ton	
					FROM	TO			
		local crystal tuff with rounded white feldspar crystals; minor lapilli fragments; rare calcite - quartz ± pyrite ± rare tourmaline seams & veinlets; rare bleached, epidotized, or potassic altered patches with minor pyrite; core L 45° at 150.7. 155.5 - 170.0: fine-grained to glassy, mottled to banded grey to light green-grey, foliated to locally schistose; mostly lapilli tuff to coarse fragmental in ash matrix; fragments generally lighter in color than matrix; frequent vugs where altered patches (probably calcite) has been dissolved out - especially at 167.5 - 168.8. 170.0 - 208.5: fine-grained, crudely banded grey to light green-grey, foliated to locally schistose; ash to crystal tuff; frequent sections of crystal tuff with white rounded to euhedral feldspar crystals up to 0.05" at 170.0 - 182.5; weakly sheared chloritic potassic-altered section with 2% pyrite at 172.2 - 173.6; rare calcite - quartz ± pyrite ± tourmaline veinlets; core L 52° at 187.2, core L 50° at 207.0.							
			12620	2	172.2	173.6	1.4		TN
208.5	212.3	SHEARED DACITE: fine-grained, grey to light green-grey, schistose; sheared & slightly chloritic section; minor calcite-quartz veining at 210.1 - 211.1; minor pyrite; core L 52° at 211.0.	12621	tr	208.5	212.3	3.8		TN
212.3	245.2	GABBRO: fine- to medium-grained, dark grey, massive to foliated, locally schistose; sheared near contact at 212.3 - 212.5; pink-brown porphyry							



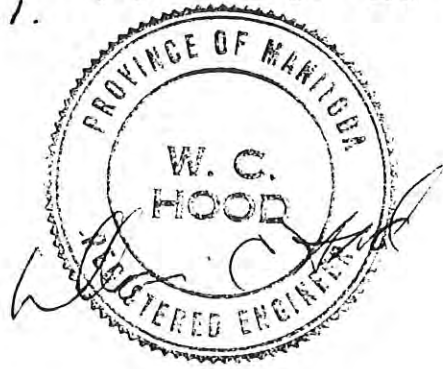


**DIAMOND DRILL RECORD**

NAME OF PROPERTY \_\_\_\_\_

HOLE NO. 5 SHEET NO. 7 OF 7

DEPTH		DESCRIPTION	NO.	% SULPHIDES	SAMPLE			ANALYSES			
FROM	TO				DEPTH		TOTAL	ppb Au	Au oz/ton		
					FROM	TO					
		with slightly more abundant mafic crystals (chlorite-altered); 1% pyrite at 289.7-291.8 with 3% pyrite at 291.1-291.3 centered on 0.4" thick quartz vein at 291.2 with core $\angle$ 70°; seam of disseminated pyrite at 311.1 with core $\angle$ 65°; minor pyrite in rest of section; becomes increasingly sheared at 317.5-318.5; core $\angle$ 50° at 296.2.	12625	1	289.8	291.8	2.0		TN		
318.5	319.9	MAFIC DIKE: fine-grained, dark grey, foliated to weakly schistose near contacts; 1% disseminated pyrite; both contacts at 55° to core axis	12626	1	318.3	319.7	1.4		TN		
319.9	356.0	ANDESITE FRAGMENTAL: fine-grained, mottled to banded light grey to grey to green-grey; foliated to weakly schistose; unit is mostly coarse fragmental with lighter colored fragments in ash matrix; stretched fragments up to 3" thick; heavily sheared section at 319.9-320.5 with 5% pyrite associated with quartz-calcite; 1% pyrite at 336.3-338.1 concentrated along small quartz veins at 336.4-336.5, 336.6, 336.7, 336.9 and 338.0; core $\angle$ 61° at 329.1; core $\angle$ 60° at 352.1.	12627	5	319.7	320.9	1.2		TN		
			12628	1	336.3	338.1	1.8		TN		
356.0		END OF HOLE.									



# DIAMOND DRILL RECORD

NAME OF PROPERTY Shabumeni Lake - Green/Hagar Option  
 HOLE NO. SHB-90-6 LENGTH 296 feet  
 LOCATION \_\_\_\_\_  
 LATITUDE L 14+00 S DEPARTURE 13+25 W  
 ELEVATION \_\_\_\_\_ AZIMUTH 130° DIP -50°  
 STARTED Jan. 27/90 FINISHED Jan. 28/90

	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH

HOLE NO. 6 SHEET NO. 1  
 REMARKS I.P. target  
 LOGGED BY W. C. Hood

FROM	TO	DESCRIPTION	SAMPLE			ANALYSES						
			NO.	% SULPHIDES	FROM	TO	TOTAL	ppb Au	OZ/TON	OZ/TON	OZ/TON	
0	9.0	CASING: clay, sand										
9.0	22.0	MAFIC DIKE: fine-grained, dark grey, massive to foliated; andesite inclusion at 14.8-15.3; minor calcite & quartz veinlets; blocky drilling, broken core with rust along fractures; weakly magnetic; trace pyrite.										
22.0	25.4	ANDESITE TUFF: blocky drilling, broken core with rust along fractures; fine-grained, light green-grey, foliated; ash to crystal tuff with 10% chloritic "wisps" & "clots" (may be after amphibole & pyroxene); minor calcite & quartz veinlets; top contact at 49°; weakly magnetic.										
25.4	27.5	MAFIC DIKE: fine-grained, dark grey, massive to foliated; probably altered andesite inclusion at 26.8-27.2; lower cont at 45°; weakly magnetic.										
27.5	37.7	ANDESITE TUFF: generally as at 22.0-25.4; 1" thick mafic dike trends 30° to core axis at 35.3-35.7 with central 0.2" thick quartz vein and 5% pyrite in dike with minor epidote; similar mafic dike with central quartz vein, 5% disseminated pyrite, & lots of epidote at 36.8-37.3 with core L 15°; other minor calcite & quartz veinlets, patches of mafic dike, epidote alteration & dark discoloration of andesite in interval at 35.3-37.7; weakly magnetic.	12629	2	35.1	37.4	2.3					

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52N075E0376

## DIAMOND DRILL RECORD

DEPTH		DESCRIPTION	NO.	% SUL- PHIDES	SAMPLE			ANALYSES			
FROM	TO				DEPTH		TOTAL	ppb Au	Au oz/ ton		
					FROM	TO					
37.7	44.0	INTERMEDIATE DIKE: fine-grained, brown-grey, massive to foliated; andesite inclusion at 39.1-39.9 with top contact irregular and lower contact at 33°; rare early potassic veinlets cut by later calcite ± quartz veinlets; trace pyrite; weakly magnetic.									
44.0	46.1	ANDESITE TUFF: generally as at 22.0-25.4; top of section is schistose to 44.6 with core $\angle$ 38° to core axis; lower contact irregular; weakly magnetic.									
46.1	83.7	GABBRO: fine-grained, dark grey, massive to foliated; 2% disseminated pyrite at 46.1-46.3; quartz-calcite-chlorite vein at 57.0-57.1 with core $\angle$ 59°; texture varies (or possible mafic dike) at 73.0-77.0 becoming weakly porphyritic with fine- to medium-grained chloritic "clots" in very fine-grained matrix; minor potassic alteration at 77.6-78.2; generally minor calcite ± quartz veinlets but becoming more frequent at 77.6-84.7; minor vugs associated with veinlets at 82.2; generally minor pyrite, possible pyrrhotite; weakly magnetic throughout.									
83.7	87.0	SHEARED ALTERED GABBRO: fine- to medium-grained, dark grey, becomes increasingly schistose down interval; heavily veined with white calcite; very chloritic near bottom of section; minor quartz lenses & veinlets; minor pyrite; core $\angle$ 35° at 84.9; weakly magnetic.	12630	tr.	85.2	87.0	1.8		TN		





**DIAMOND DRILL RECORD**

DEPTH		DESCRIPTION	SAMPLE				ANALYSES			
FROM	TO		NO.	% SUL- PHIDES	DEPTH		ppb Au	Au oz/ ton		
					FROM	TO				
		foliated, locally schistose; sheared chloritic carbonatized section at 113.0-114.0 with core $\angle$ 43°; frequent calcite ± quartz veinlets, seams & patches; top contact gradational, lower contact sheared at 48°; weakly magnetic.								
116.9	122.7	GABBRO: generally as at 94.2-100.2 but schistose and weakly sheared near top & bottom of section; minor disseminated pyrite & possible pyrrhotite; weakly magnetic.								
122.7	127.2	SHEARED GABBRO: fine-grained, dark grey, schistose & sheared; heavily sheared at 123.6-125.0; frequent calcite ± quartz veinlets, seams & patches; few pyrite and possible pyrrhotite; core $\angle$ 53° at 124.5; weakly magnetic.	12634	1	123.2	125.2	2.0		Tr	
127.2	138.9	GABBRO: generally as at 94.2-100.2; weakly sheared at 132.3-133.7 with 1" light grey quartz vein at 132.4-132.5 with core $\angle$ 37°; stringers of mafic dike as at 138.9-141.0 extent along core at 138.3-138.9; minor pyrite & possible pyrrhotite; weakly magnetic.	12635	tr.	131.9	133.9	2.0		Tr	
138.9	141.0	INTERMEDIATE DIKE: very fine-grained, grey to brown-grey, massive to weakly foliated near contacts; top contact irregular, lower contact at 0.5" thick quartz-calcite-chlorite-pyrite vein trending 30° to core axis; weakly magnetic.								
141.0	158.4	GABBRO: fine- to locally medium-grained, dark grey, foliated to locally weakly schistose; frequent	12636	tr.	140.5	141.5	1.0		Tr	

**DIAMOND DRILL RECORD**

NAME OF PROPERTY \_\_\_\_\_

HOLE NO. 6 SHEET NO. 5 OF 7

DEPTH		DESCRIPTION	SAMPLE				ANALYSES			
FROM	TO		NO.	% SULPHIDES	DEPTH		ppb Au	Au oz/ton		
					FROM	TO				TOTAL
158.4	168.0	<p>calcite ± quartz veinlets, seams &amp; patches; trace pyrite &amp; possible pyrrhotite; core <math>\angle 44^\circ</math> at 145.2; weakly magnetic.</p> <p><b>SHEARED ALTERED GABBRO:</b></p> <p>158.4-161.4: fine- to medium-grained, speckled grey, foliated to schistose; increasingly pervasive pink potassic alteration down section; 0.5" thick very fine-grained black diabase dike at 159.3 oriented <math>27^\circ</math> to core axis; trace pyrite or possible pyrrhotite; weakly magnetic.</p> <p>161.4-162.1: granite aplite dike; fine-grained, pink-brown, foliated; top contact at <math>33^\circ</math>, lower contact at <math>40^\circ</math>; 1% disseminated pyrite; weakly magnetic.</p> <p>162.1-168.0: fine- to medium-grained, speckled to mottled light grey to pink-grey, foliated to schistose; heavily potassic altered section of about granodiorite to diorite in composition; frequent quartz-calcite veinlets, seams &amp; patches; tourmaline seam at 162.8 trends <math>14^\circ</math> to core axis; minor pyrite associated with veinlets; core <math>\angle 45^\circ</math> at 166.8; weakly magnetic.</p>								
			12637	1	161.2	162.3	1.1		TN	
			12638	tr.	162.3	165.1	2.8		TN	
			12639	tr.	165.1	167.9	2.8		TN	
168.0	176.6	<p><b>BRECCIATED GRANITE DIKE:</b> fine- to medium-grained, pink; originally massive but brecciated and laced with numerous irregular quartz veinlets &amp; patches up to 2"; quartz is white to light grey with 1% pyrite; trace bright green fuchsite; cluster of tiny elongate grey metallic crystals in quartz-calcite vein at 174.7; 1% pyrite overall - disseminated &amp; along seams &amp; fractures; top contact at <math>53^\circ</math>, lower contact at <math>31^\circ</math>.</p>	12640	1	167.9	169.5	1.6		.01	
			12641	1	169.5	173.0	3.5		.02	
			12642	1	173.0	176.5	3.5		.04	



## DIAMOND DRILL RECORD

DEPTH		DESCRIPTION	SAMPLE				ANALYSES					
FROM	TO		NO.	% SUL- PHIDES	DEPTH		TOTAL	ppb Au	Au oz/ ton			
					FROM	TO						
176.6	216.0	SHEARED ALTERED GABBRO: fine- to locally medium-grained, dark grey, foliated to schistose; probably sheared altered gabbro intrusive but may be in part extrusive basalt; frequent calcite ± quartz veinlets, seams & patches; chloritic in sheared & schistose sections; quartz lense with minor calcite, chlorite & pyrite along edges at 176.6-176.7 near contact with granite; section at 176.6-177.7 has 1% disseminated pyrite in cubes up to 0.1"; irregular quartz-calcite-chlorite patches/veins extend along core at 197.9-198.4 & 199.0-199.3; quartz-chlorite-calcite vein at 209.7-209.8 with core $\angle 45^\circ$ ; minor pyrite at 177.7-216.0; gradational contact with unit below; core $\angle 43^\circ$ at 185.0; weakly magnetic.	12643	1	176.5	177.7	1.2		0.04			
			12644	tr.	197.4	199.6	2.2		Tr			
216.0	227.0	BASALT: very fine-grained, dark grey, massive to weakly foliated; rare schistose chloritic sections; minor calcite-quartz veinlets, seams & patches; trace pyrite; core $\angle 40^\circ$ at 218.2; weakly magnetic.										
227.0	296.0	ALTERED BASALT: 227.0-288.0: fine-grained, grey to green-grey to green; brecciated & heavily altered; may be hyaloclastite breccia with frequent devitrified epidotized fragments; about 5% epidote overall in veinlets, seams & irregular alteration patches or replacing fragments; heavily brecciated and cemented with quartz-calcite veinlets; minor potassic alteration; locally chloritic; frequent vuggy sections where calcite has been dissolved out of	12645	1	239.0	241.4	2.4		Tr			
			12646	1	263.9	268.1	4.2		Tr			

**DIAMOND DRILL RECORD**

NAME OF PROPERTY \_\_\_\_\_

HOLE NO. 6 SHEET NO. 7 OF 7

DEPTH		DESCRIPTION	NO.	% SULPHIDES	SAMPLE			ANALYSES			
FROM	TO				DEPTH		TOTAL	ppb Au	Au oz/ton		
					FROM	TO					
		veinlets; generally minor disseminated pyrite but locally up to 1% ; core $\angle 40^\circ$ at 235.4.									
		288.0-296.0: same lithology and epidote alteration as at 227.0-288.0 but with superimposed pink potassic alteration; heavily altered at 291.4-294.9 with green epidote and pink potassic alteration of primary breccia; 1% disseminated pyrite throughout section; core $\angle 38^\circ$ at 294.8.	12647	1	288.0	291.3	3.3				
			12648	1	291.3	293.3	2.0				
			12649	1	293.3	295.0	1.7				
		296.0 END OF HOLE.									



# DIAMOND DRILL RECORD

NAME OF PROPERTY Shabumeni Lake - Green / Hagar Option  
 HOLE NO. SHB-90-7 LENGTH 386 feet  
 LOCATION \_\_\_\_\_  
 LATITUDE L 8+00 S DEPARTURE 10+50 W  
 ELEVATION \_\_\_\_\_ AZIMUTH 130° DIP -50°  
 STARTED Jan. 29 / 90 FINISHED Jan. 30 / 90

	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH

HOLE NO. 7 SHEET NO. 1  
 REMARKS I.P. target  
 LOGGED BY W.C. Hood

52N07SE0376

FROM	TO	DESCRIPTION	SAMPLE			ANALYSES						
			NO.	% SULPHIDES	FROM	TO	TOTAL	ppb Au	OZ/TON	OZ/TON	OZ/TON	
0	16.0	CASING: clay, sand.										
16.0	26.7	BASALT FLOW: fine-grained, dark grey, foliated, locally schistose; frequent silicified & potassic altered patches - especially at 19.2-21.0 with 1% pyrite & possible pyrrhotite; minor calcite-quartz veinlets; weakly magnetic.	12650	1	19.1	21.1	2.0					
26.7	38.2	SHEARED ALTERED BASALT: 26.7-32.0: fine-grained, dark grey, schistose & sheared; frequent calcite-quartz veinlets & seams; minor pyrite; core L 43° at 31.0; weakly magnetic. 32.0-34.1: sheared basalt as at 26.7-32.0 but chloritic and becomes increasingly potassic altered down section; interval at 33.6-34.1 consists of a mix of lenses & seams of red-brown potassic alteration and chlorite schist; 1% pyrite. 34.1-34.3: brecciated mixture of potassic altered basalt, chlorite schist partings & calcite; 1% pyrite. 34.3-34.7: grey quartz vein with abundant chlorite schist inclusions & partings; abundant calcite; vein contacts at 44° to core axis; 1% pyrite. 34.7-38.2: sheared altered section of basalt; mostly chlorite schist; abundant pink-brown potassic alteration - especially at 34.7-36.5; quartz-chlorite-calcite vein at 35.9-36.0; 1% pyrite.	12651	1	32.0	33.6	1.6					
			12652	1	33.6	35.1	1.5					
			12653	1	35.1	38.0	2.9					

NOT TO BE REMOVED FROM THE  
OFFICE OF THE RESIDENT GEOLOGIST  
RED LAKE MINING DIVISION



**DIAMOND DRILL RECORD**

NAME OF PROPERTY \_\_\_\_\_

HOLE NO. 7 SHEET NO. 2 OF 9

DEPTH		DESCRIPTION	SAMPLE				ANALYSES				
FROM	TO		NO.	% SUL- PHIDES	DEPTH		ppb Au	Au oz/ ton			
					FROM	TO					TOTAL
38.2	39.2	QUARTZ VEIN: mixed vein & chlorite schist with 3% pyrite overall. 38.2-38.4: grey quartz-calcite vein with core $\angle$ 43°. 38.4-38.6: chlorite schist (sheared basalt). 38.6-38.7: grey quartz-chlorite-calcite vein. 38.7-38.8: chlorite schist. 38.8-39.0: grey quartz-calcite-chlorite vein with 0.3" thick lense of fine-grained pyrite that extends half way around core. 39.0-39.1: irregular inclusion of chlorite schist. 39.1-39.2: grey quartz-chlorite vein with lower contact at 53° to core axis.	12654	3	38.0	39.4	1.4		TN		
39.2	61.8	SHEARED ALTERED BASALT: 39.2-45.7: fine-grained, dark grey, foliated, locally schistose; weakly sheared section of basalt with frequent calcite & quartz irregular veinlets, seams & patches giving interval a brecciated appearance; minor pink-brown potassic seams & patches; 1% pyrite; weakly magnetic. 45.7-45.8: pink aplitic granite dike at 50° to core axis; 1% disseminated pyrite. 45.8-46.6: fine-grained, dark grey, foliated; weakly sheared section of basalt with pink potassic alteration; 2% disseminated pyrite. 46.6-46.7: irregular pink aplite dike. 46.7-49.5: generally as at 39.2-45.7 with heavily sheared carbonatized section at 48.7-49.1; 1% disseminated pyrite; core $\angle$ 49° at 49.0. 49.5-49.8: irregular pink aplite dike with 1% pyrite. 49.8-61.8: generally as at 39.2-45.7; irregular epidote alteration patch at 57.3; 1% pyrite,	12655	1	39.4	41.7	2.3		TN		
			12656	1	41.7	44.9	3.2		TN		
			12657	1	44.9	46.8	1.9		TN		
			12658	1	46.8	48.6	1.8		TN		
			12659	1	48.6	50.3	1.7		TN		
			12660	1	50.3	53.2	2.9		TN		

**DIAMOND DRILL RECORD**

NAME OF PROPERTY \_\_\_\_\_

HOLE NO. 7 SHEET NO. 3 OF 9

DEPTH		DESCRIPTION	NO.	% SULPHIDES	SAMPLE			ANALYSES						
FROM	TO				DEPTH			ppb Au	Am oz/ton					
					FROM	TO	TOTAL							
		minor chalcopryite; weakly magnetic.												
61.8	81.0	BASALT FLOW: fine-grained, dark grey, massive to foliated, locally schistose; "salt n pepper" texture; minor calcite-quartz veinlets, seams & patches; minor light grey to pink-grey silicified and potassic altered patches; lower contact is gradational to next unit; trace pyrite.												
81.0	160.6	ANDESITE TUFF: 81.0-103.5: ash to lapilli tuff; fragments up to 3" are same lithology as matrix; matrix is ash tuff with frequent white elongate feldspar crystals and equant black pyroxene/amphibole crystals; locally silicified, epidotized or potassic altered; generally minor pyrite but 1% at 84.0-89.2 in brownish-grey to pink-grey altered zone; minor calcite-quartz veinlets & seams. 103.5-124.0: ash tuff with minor crystals and lapilli fragments; fine- to medium-grained, massive to foliated, dark grey; minor silicification, potassic alteration and epidotization; minor quartz-calcite veinlets & seams; minor pyrite; core L 41° at 105.8. 124.0-143.3: lapilli tuff: dacite to andesite fragments up to 1" scattered in a matrix of ash tuff with frequent pyroxene/amphibole crystals; fragments are typically light grey to green-grey or rarely pink-grey while matrix is uniformly grey; minor potassic alteration; minor calcite-quartz veinlets; minor pyrite.	12661	1	84.0	87.1	3.1							TN
			12662	1	87.1	89.2	2.1							TN

## DIAMOND DRILL RECORD

DEPTH		DESCRIPTION	NO.	% SULPHIDES	SAMPLE			ANALYSES			
FROM	TO				DEPTH		TOTAL	ppb Au	Au oz/ton		
					FROM	TO					
		143.3-153.0: ash tuff; fine-grained, grey, massive to foliated; minor feldspar crystals up to 0.1"; minor calcite-quartz veinlets; minor pyrite. 153.0-160.6: lapilli tuff as at 124.0-143.3; minor pyrite; core $\angle$ 41° at 160.1.									
160.6	162.4	INTERMEDIATE DIKE: fine-grained, brown-grey, massive to foliated near contacts; reddish-brown potassic altered zone at 161.4-161.5 flanking central seam of pyrite; minor calcite-quartz veinlets; top contact at 43°, lower contact at 49° to core axis; 1% disseminated pyrite overall.	12663	1	160.4	162.6	2.2		Tn		
162.4	166.9	ANDESITE TUFF: lapilli tuff as at 124.0-143.3; minor pyrite; core $\angle$ 49° at 163.5.	12664	tr.	162.6	165.0	2.4		Tn		
			12665	tr.	165.0	167.0	2.0		Tn		
166.9	171.6	INTERMEDIATE DIKE: very fine- to fine-grained, brown-grey, weakly foliated; top contact at 55°, lower contact at 51°; 1% pyrite.	12666	1	167.0	171.4	4.4		Tn		
171.6	173.2	ANDESITE TUFF: fine-grained, grey to green-grey, foliated; 1% pyrite	12667	1	171.4	173.4	2.0		Tn		
173.2	190.0	INTERMEDIATE DIKE: fine-grained, brown-grey, massive to weakly foliated near contacts; locally weakly porphyritic with tiny light grey feldspar crystals; minor early pink-brown potassic alteration and light green epidote alteration in veinlets & patches is cut by late calcite-quartz veinlets; generally minor pyrite but locally up to 1% associated with fractures & veinlets; top contact at 52°, lower	12668	1	173.4	176.0	2.6		Tn		
			12669	1	187.7	190.2	2.5		Tn		



**DIAMOND DRILL RECORD**

DEPTH		DESCRIPTION	SAMPLE				ANALYSES			
FROM	TO		NO.	% SULPHIDES	DEPTH		TOTAL	ppb Au	Au oz/ton	
					FROM	TO				
190.0	210.0	<p>contact irregular but trends 18° to core axis.</p> <p><b>ANDESITE TUFF:</b>                      190.0-194.4: lapilli tuff as at 124.0-143.3; minor calcite-quartz veinlets; minor pyrite.                      194.4-210.0: ash/crystal/lapilli tuff; fine- to medium-grained, grey to green-grey, weakly foliated; frequent feldspar crystals up to 0.1"; minor mafic crystals; minor lapilli fragments; ash matrix; increasing frequency of epidote alteration, brecciation &amp; quartz-calcite veinlets down interval; light green silicified epidotized zone at 203.0-203.2 trends 60° to core axis; generally trace pyrite but increases to 1% at bottom of interval.</p>								
210.0	216.8	<p><b>SHEARED ALTERED ANDESITE:</b>                      210.0-215.7: fine-grained, dark grey to green-grey, foliated to schistose; becomes increasingly sheared down section; frequent patches of epidote with minor potassic alteration &amp; minor pyrite at 210.0-213.3; frequent late calcite ± quartz veins throughout; heavily sheared &amp; chloritic with frequent quartz stringers, minor potassic alteration and 2% pyrite at 213.3-214.9; interval at 214.9-215.7 is generally as at 213.3-214.9 but with more abundant quartz stringers and 3% pyrite both disseminated and along margins of quartz veins; core L. 48° at 214.6.                      215.7-216.0: grey quartz-chlorite-calcite-pyrite vein with 20% pyrite concentrated in seams</p>	12670 12671	1 2	210.0 213.3	213.3 214.9	3.3 1.6		Tn Tn	
			12672	6	214.9	216.8	1.9		Tn	

**DIAMOND DRILL RECORD**

NAME OF PROPERTY \_\_\_\_\_

HOLE NO. 7 SHEET NO. 6 OF 9

DEPTH		DESCRIPTION	SAMPLE				ANALYSES			
FROM	TO		NO.	% SULPHIDES	DEPTH		ppb Au	Au oz/ton		
					FROM	TO				
		up to 0.5" thick along edge of vein. 216.0-216.1: mixture of pink potassic alteration, minor chlorite schist & 5% disseminated pyrite. 216.1-216.8: heavily sheared chlorite schist with frequent calcite-quartz veinlets & seams; 1% pyrite.								
216.8	275.7	ANDESITE TUFF: fine-grained, grey to green-grey, generally foliated; lapilli tuff as at 124.0-143.3 with minor large fragments up to 8" along core; some fragments near dacitic in composition; local schistose patches; minor epidote alteration; minor pink potassic alteration; minor calcite-quartz veinlets; trace pyrite; core $\angle$ 35° at 230.2; core $\angle$ 43° at 275.4.	12673	tr.	216.8	218.5	1.7		TN	
			12674	tr.	269.5	271.5	2.0		TN	
275.7	308.0	BASALT FLOW: 275.7-291.3: massive flow; fine-grained, dark grey, foliated to schistose; weakly sheared but very chloritic; minor epidote alteration in veinlets & patches; minor pink-brown potassic alteration; minor reddish-brown iron oxide along fracture surfaces; minor calcite-quartz veinlets & seams; 2% pyrite at 275.7-282.7 concentrated along fractures but 1% in rest of interval. 291.3-308.0: massive flow; fine-grained, grey to light green-grey in epidote alteration; massive to foliated in altered sections; heavily brecciated & altered with epidote in irregular veinlets & patches - about 10% epidote overall; frequent vugs associated with epidote altered patches; minor potassic alteration; minor calcite-quartz veinlets; trace pyrite.	12675	Z	275.7	278.9	3.2		TN	
			12676	Z	278.9	282.7	3.8		TN	
			12677	Z	282.7	287.0	4.3		TN	
			12678	Z	287.0	291.3	4.3		TN	
			12679	tr.	301.4	305.2	3.8		TN	





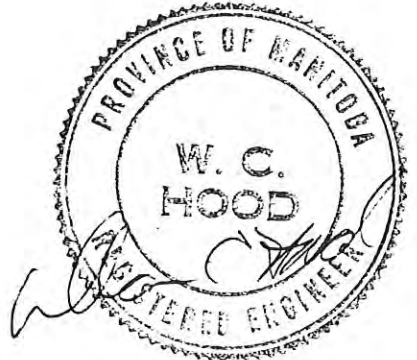


**DIAMOND DRILL RECORD**

NAME OF PROPERTY \_\_\_\_\_

HOLE NO. 7 SHEET NO. 9 OF 9

DEPTH		DESCRIPTION	SAMPLE				ANALYSES		
FROM	TO		NO.	% SUL-PHIDES	DEPTH		ppb Au	Au oz/ton	
					FROM	TO			
		380.5-386.0: fine- to medium-grained, dark grey, massive to weakly foliated gabbro; minor calcite-quartz veinlets; 0.5" quartz-calcite vein at 380.6 with core $\angle 51^\circ$ ; weakly magnetic.							
386.0		END OF HOLE.							



DIAMOND DRILL RECORD

NAME OF PROPERTY Shabumeni Lake - Green/Hagar Option

HOLE NO. SHB-90-8 LENGTH 186 feet

LOCATION \_\_\_\_\_

LATITUDE L 2+00 S DEPARTURE 4+50 W

ELEVATION \_\_\_\_\_ AZIMUTH 130° DIP -50°

STARTED Feb. 1/90 FINISHED Feb. 1/90

	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH

HOLE NO. 8 SHEET NO. 1

REMARKS I.P. target.

LOGGED BY W. C. Hood

FROM	TO	DESCRIPTION	SAMPLE			Au ASSAYS						
			NO.	% SULPHIDES	FROM	TO	TOTAL	ppb Au	OZ/TON	OZ/TON	OZ/TON	
0	7.0	CASING: clay, sand, boulders.										
7.0	48.0	ANDESITE TUFF: fine-grained, grey to green-grey, weakly foliated; ash to crystal tuff with 10% mafic crystals (chlorite-amphibole - possibly after pyroxene) up to 0.1"; locally minor feldspar crystals; minor bleached & silicified patches; minor pink potassic alteration along fractures & veinlets; generally minor pyrite but locally up to 1% associated with alteration & fractures; 1% pyrite at 26.0-28.2 associated with minor chloritization, irregular silicification patches & several late calcite-quartz veinlets; minor potassic alteration with 1% pyrite along fractures at 46.0-48.0.	12682	1	26.0	28.2	2.2		TN			
			12683	1	46.0	48.0	2.0		TN			
48.0	49.4	SHEARED ANDESITE: fine-grained, grey to green-grey, schistose & sheared; shearing is most intense & chloritic at edges of quartz vein at 48.7-48.8 but decreases to ends of interval; vein at 48.7-48.8 contains white to grey quartz, calcite, chlorite & 2% pyrite; 2% pyrite overall; quartz vein & shearing at 34° to core axis.	12684	2	48.0	49.4	1.4		TN			
49.4	85.6	ANDESITE TUFF: generally as at 7.0-48.0 but with minor lapilli fragments; interval at 49.4-51.0 has 1% pyrite overall with decreasing alteration down section; 0.4" quartz-calcite-chlorite vein at 65.4 at 90° to core axis; bleached irregular silicified altered zone with 1% pyrite at 72.8-	12685	tr.	49.4	51.0	1.6		TN			
			12686	1	72.8	74.4	1.6		TN			

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52N07SE0376



**DIAMOND DRILL RECORD**

NAME OF PROPERTY \_\_\_\_\_

HOLE NO. 8 SHEET NO. 2 OF 3

DEPTH		DESCRIPTION	SAMPLE				ANALYSES					
FROM	TO		NO.	% SULPHIDES	DEPTH		TOTAL	ppb Au	Au oz/ton			
					FROM	TO						
		74.4; minor pyrite overall; core $\angle 45^\circ$ at 73.8.										
85.6	87.2	SHEARED ALTERED ANDESITE: fine-grained, patchy grey to light green-grey, foliated to weakly schistose; weakly sheared but heavily altered section; irregularly silicified & bleached with minor quartz-calcite veinlets & seams; low pyrite; core $\angle 51^\circ$ at 85.9.	12687	1	85.6	87.2	1.6		Tn			
87.2	144.1	ANDESITE TUFF: 87.2-119.0: generally as at 7.0-48.0 but somewhat more foliated with increasing bleaching, silicification & quartz-calcite veinlets down section. 119.0-144.1: fine-grained, slightly mottled grey to green-grey, foliated to weakly schistose; weakly sheared and slightly altered section but otherwise same lithology as above; minor bleached silicified patches; minor quartz-calcite $\pm$ pyrite veinlets & seams; generally minor pyrite but close to low overall at 130.4-144.1 commonly associated with fractures & alteration patches; core $\angle 46^\circ$ at 126.4	12688	1	130.4	134.3	3.9		Tn			
			12689	1	134.3	138.2	3.9		Tn			
			12690	1	138.2	142.0	3.8		Tn			
			12691	1	142.0	144.1	2.1		Tn			
144.1	146.0	SHEARED ANDESITE: fine-grained, grey to green-grey, schistose & sheared; slightly chloritic; mixed quartz-calcite-chlorite vein with low pyrite trends $30^\circ$ to core axis at 144.3-144.5; low pyrite overall.	12692	1	144.1	146.0	1.9		Tn			
146.0	160.3	ANDESITE TUFF: fine-grained, grey to green-grey, generally foliated, locally weakly schistose; generally same lithology, weak shearing & alteration as at	12693	1	146.0	148.2	2.2		Tn			
			12694	1	148.2	152.2	4.0		Tn			
			12695	1	152.2	156.5	4.3		Tn			

**DIAMOND DRILL RECORD**

NAME OF PROPERTY \_\_\_\_\_

HOLE NO. 8 SHEET NO. 3 OF 3

DEPTH		DESCRIPTION	SAMPLE					ANALYSES			
FROM	TO		NO.	% SULPHIDES	DEPTH			ppb Au	Au oz/ton		
					FROM	TO	TOTAL				
		119.0-144.1; minor to 1% pyrite throughout associated with fractures, veinlets & alteration; core $\angle$ 55° at 155.6.	12696	1	156.5	160.3	3.8		Tn		
160.3	163.9	MAFIC DIKE: fine-grained, brown, weakly foliated; frequent quartz-calcite veinlets; frequent pink-brown potassic alteration patches; 4% disseminated pyrite; top contact at 55°, lower contact at 50° to core axis.	12697	4	160.3	163.9	3.6		Tn		
163.9	176.0	SHEARED ANDESITE: fine-grained, slightly banded grey to light green-grey, foliated to schistose; same ash to crystal tuff lithology as above but weakly sheared; slightly chloritic; minor quartz-calcite veinlets & seams; minor potassic alteration; minor to 1% pyrite overall - generally associated with veinlets, alteration patches & schistose chloritic zones; core $\angle$ 51° at 170.7.	12698	1	163.9	167.9	4.0		Tn		
			12699	1	167.9	172.0	4.1		Tn		
			12700	1	172.0	176.0	4.0		Tn		
176.0	186.0	ANDESITE TUFF: generally as at 119.0-144.1; minor pyrite.									
	186.0	END OF HOLE.									



NAME OF PROPERTY Shabumeni Lake - Green/Hagar Option  
 HOLE NO. SHB-90-9 LENGTH 206 feet  
 LOCATION \_\_\_\_\_  
 LATITUDE L 0+00 DEPARTURE 4+50 W  
 ELEVATION \_\_\_\_\_ AZIMUTH 130° DIP -45°  
 STARTED Feb. 1/90 FINISHED Feb. 2/90

	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH

HOLE NO. 9 SHEET NO. 1  
 REMARKS I.P. target  
 LOGGED BY W.C. Hood

FROM	TO	DESCRIPTION	SAMPLE			Au ASSAYS						
			NO.	% SULPHIDES	FROM	TO	TOTAL	ppb Au	oz/ton	oz/ton	oz/ton	
0	32.0	CASING: clay, sand, boulders.										
32.0	48.5	SHEARED ANDESITE: fine-grained, banded to mottled grey to green-grey, foliated to weakly schistose; weakly sheared & altered section of ash to crystal tuff with minor lapilli fragments; 10% elongate chlorite "clots" that may be after amphibole/pyroxene; minor bleached & silicified patches; minor chloritic sections; quartz ± calcite veins & lenses at 36.5, 37.5-37.7, & 47.3-47.5; minor to 1% pyrite overall commonly associated with fractures, veinlets or alteration; core L 46° at 46.4.	12701	1	36.4	38.7	2.3		TN			
			12702	1	38.7	42.7	4.0		TN			
			12703	1	42.7	46.0	3.3		TN			
			12704	1	46.0	48.5	2.5		TN			
48.5	140.7	ANDESITE TUFF: 48.5-85.2: ash to crystal tuff; fine-grained, grey to green-grey, massive to foliated; 10% chlorite-amphibole "clots" & "wisps" (commonly elongated to 0.1") that may be in part after pyroxene; minor lapilli fragments; minor quartz-calcite veinlets; rare pink potassic veinlets at 70.1 & 71.0; trace pyrite; core L 57° at 75.9. 85.2-87.8: generally as at 48.5-85.2 but with minor calcite amygdules up to 0.1". 87.8-110.4: generally as at 48.5-85.2 but with only minor chlorite-amphibole mafic crystals; rare bleached patches; rare quartz-calcite veinlets; 0.1 to 0.3" thick calcite ± quartz veinlet extends along core axis at 103.3-110.4; trace pyrite.										

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 FED LAKE MINING DIVISION



## DIAMOND DRILL RECORD

DEPTH		DESCRIPTION	SAMPLE				ANALYSES			
FROM	TO		NO.	% SUL- PHIDES	DEPTH		ppb Au	Au oz/ ton		
					FROM	TO				
		110.4-119.5: generally as at 48.5-85.2 with gradual increase in quantity of altered mafic crystals down section. 119.5-140.7: fine-grained, mottled grey to light green-grey, weakly foliated; may be fragmental rock with fragments slightly lighter colored than matrix or irregular bleaching giving fragmental appearance; trace pyrite; core $\angle 53^\circ$ at 127.1.								
140.7	148.9	ALTERED ANDESITE: very fine- to fine-grained, mottled grey to light green-grey to dark green-grey, weakly foliated; weak irregular carbonatization, chloritization & silicification with 1% pyrite overall, but more intense at 141.0-141.7 and 146.0-147.3 with 5% pyrite.	12705 12706	2 3	140.7 144.8	144.8 148.9	4.1 4.1			Tr Tr
148.9	166.0	ANDESITE TUFF: generally as at 48.5-85.2; minor quartz-calcite veinlets; trace pyrite.								
166.0	171.6	ALTERED ANDESITE: fine-grained, mottled grey to light green-grey to dark green-grey, foliated; lapilli tuff (?) with superimposed mottled alteration as at 140.7-148.9; 3% pyrite at 167.0-168.8 - otherwise about 1%.	12707 12708	3 1	167.2 168.8	168.8 171.6	1.6 2.8			Tr Tr
171.6	179.2	ANDESITE TUFF: generally as at 48.5-85.2; minor local fragmental or alteration at 177.0-178.8; minor pyrite.								
179.2	180.3	SHEARED ANDESITE: fine-grained, grey to green-grey, schistose; sheared & slightly chloritic section with quartz-calcite-chlorite vein at	12709	1	179.1	180.4	1.3			Tr

**DIAMOND DRILL RECORD**

DEPTH		DESCRIPTION	SAMPLE				ANALYSES				
FROM	TO		NO.	% SUL-PHIDES	DEPTH			ppb Au	Au oz/ton		
					FROM	TO	TOTAL				
		179.8-179.9 with core $\angle 41^\circ$ ; 1 <sup>st</sup> pyrite.									
180.3	190.0	ANDESITE TUFF / FLOW: generally as at 48.5-85.2 but with minor calcite amygdules; minor pyrite.									
190.0	193.6	SHEARED ALTERED ANDESITE: fine-grained, blotchy grey to light green-grey, foliated to weakly schistose; irregular but weak bleaching, chloritization, silicification & carbonatization at 190.0-192.9; bleached section at 192.9-193.6 flanks three irregular pink potassic veinlets that trend $55^\circ$ to core axis; 1 <sup>st</sup> pyrite overall.	12710	1	190.0	193.6	3.6		Tr		
193.6	206.0	ANDESITE TUFF: generally as at 48.5-85.2. minor calcite-quartz veinlets; rare silicified patches; narrow silicified shear with 2 <sup>nd</sup> pyrite at 198.9-199.8; core $\angle 54^\circ$ at 199.4.	12711	2	198.8	199.9	1.1		Tr		
206.0		END OF HOLE.									



NAME OF PROPERTY Shabumeni Lake - Green/Hagar Option  
 HOLE NO. SHB-90-10 LENGTH 306 feet  
 LOCATION \_\_\_\_\_  
 LATITUDE L 4+00 S DEPARTURE 4+50 W  
 ELEVATION \_\_\_\_\_ AZIMUTH 130° DIP -45°  
 STARTED Feb. 2/90 FINISHED Feb. 3/90

	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH

HOLE NO. 10 SHEET NO. 1  
 REMARKS I.P. target

LOGGED BY W. C. Hood

FROM	TO	DESCRIPTION	SAMPLE			ASSAYS							
			NO.	% SULPHIDES	FROM	TO	TOTAL	ppb Au	oz/ton	oz/ton	oz/ton		
0	10.0	CASING: clay, sand.											
10.0	107.5	ANDESITE TUFF/FLOW: 10.0-41.8: fine-grained, grey to green-grey, weakly foliated; probably ash tuff with minor lapilli fragments and 5% elongate chlorite-amphibole "clots" & "wisps" (may be in part after pyroxene); frequent calcite amygdules up to 0.1" at 10.0-22.4 and 37.7-39.4 may mark boundaries of flow or tuff unit; minor rust along fracture surfaces at 10.0-39.0; minor calcite-quartz veinlets, seams & patches; minor pyrite; core L 53° at 32.8. 41.8-69.0: fine-grained, grey to green-grey, foliated; slightly more foliated than at 10.0-41.8 with more frequent veinlets & alteration; locally up to 1% pyrite associated with fractures, veinlets & alteration; core L 57° at 57.0. 69.0-107.5: generally as at 10.0-41.8 with minor calcite-quartz veinlets, seams & patches; minor chloritic patches associated with quartz lenses; rare bleached, silicified or white potassic altered seams & patches; lost core in mud seam at 97.0-98.0 oriented 28° to core axis; core L 60° at 83.2.	12712	1	41.8	46.0	4.2						
			12713	1	46.0	50.0	4.0						
			12714	1	56.5	59.5	3.0						
107.5	126.9	ALTERED BRECCIATED ANDESITE: same lithology as above but with substantial increase in brecciation, alteration & veining; fine-grained, grey to light green-grey, foliated to brecciated; frequent	12715	1	107.5	111.2	3.7						

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52N075E0376





## DIAMOND DRILL RECORD

DEPTH		DESCRIPTION	SAMPLE				ANALYSES			
FROM	TO		NO.	% SULPHIDES	DEPTH		TOTAL	ppb Au	Au oz/ton	
					FROM	TO				
		epidote alteration seams; rare rust along fractures; minor silicification with associated disseminated pyrite; rare brecciation; 1% pyrite at 191.0-193.5 and 196.9-200.0 associated with scattered grey silicified patches; irregular patch of creamy white to light green potassic alteration at 205.7-206.0; narrow shear at 36° to core axis at 209.3-209.5 with minor silicification & quartz-calcite seams; similar shear at 216.6-217.0; core $\angle$ 49° at 216.9.	12720	1	191.0	193.5	2.5		Tr	
			12721	1	196.9	200.0	3.1		Tr	
			12722	1	219.1	221.1	2.0		Tr	
		224.0-286.0: slightly more felsic than at 166.0-224.0 with frequent tiny light grey feldspar crystals and fewer mafic clots; otherwise the scattered silicification, potassic alteration and brecciation persist; rare calcite amygdules; potassic altered seams at 244.1-244.5 trend 55° to core axis; scattered silicified patches with 1% disseminated pyrite at 245.4-246.7; creamy white potassic altered zone trends 59° to core axis at 266.8-266.9.	12723	1	244.0	246.7	2.7		Tr	
286.0	296.7	<b>ALTERED ANDESITE:</b>								
		286.0-289.0: fine-grained, grey to green-grey, foliated; weakly bleached, chloritized & locally silicified; minor pyrite.	12724	tr.	286.0	288.9	2.9		Tr	
		289.0-289.8: heavily silicified, chloritized & weakly schistose section with 3% pyrite; 0.5" white quartz vein at 289.6 trends 58° to core axis.	12725	3	288.9	290.1	1.2		Tr	
		289.8-290.2: relatively unaltered andesite with 2% disseminated pyrite.								
		290.2-291.0: banded light green; heavily silicified, epidotized & carbonatized section; minor pyrite;	12726	tr.	290.1	291.2	1.1		Tr	

**DIAMOND DRILL RECORD**

DEPTH		DESCRIPTION	NO.	% SUL- PHIDES	SAMPLE			ANALYSES						
FROM	TO				DEPTH			ppb Au	Au oz/ ton					
					FROM	TO	TOTAL							
		core $\angle 63^\circ$ at 290.8.												
		291.0-293.9: slightly chloritic, moderately silicified section with low pyrite.	12727	1	291.2	293.9	2.7							
		293.9-296.7: much weaker alteration than at 291.0-293.9 with only minor pyrite.	12728	fr.	293.9	296.8	2.9							
296.7	306.0	ANDESITE TUFF: relatively unaltered, weakly foliated section of ash tuff as at 166.0-224.0.												
	306.0	END OF HOLE.												





# DIAMOND DRILL RECORD

(54-90)

NAME OF PROPERTY Shabumeni Lake - Green/Hagar Option  
 HOLE NO. SHB-90-11 LENGTH 106 feet  
 LOCATION \_\_\_\_\_  
 LATITUDE 2+50 S DEPARTURE 4+00 W  
 ELEVATION \_\_\_\_\_ AZIMUTH 130° DIP -45°  
 STARTED Feb. 12/90 FINISHED Feb. 13/90

	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH

HOLE NO. 11 SHEET NO. 1  
 REMARKS I.P. target  
 LOGGED BY W.C. Hood

52N075E0376

FROM	TO	DESCRIPTION	SAMPLE			ANALYSES						
			NO.	% SULPHIDES	FROM	TO	TOTAL	ppb Au	OZ/TON	OZ/TON	OZ/TON	
0	13.0	CASING: clay, sand.										
13.0	29.8	ANDESITE TUFF: ash to crystal tuff; fine-grained, grey to green-grey, generally foliated, locally weakly schistose; 10% mafic crystals and derived chlorite-amphibole "clots" & "wisps" up to 0.1"; bleached, carbonatized & weakly silicified zone at 20.5-23.1 with 2% disseminated pyrite; silicified & chloritized sections with 10% disseminated pyrite at 25.5-25.9 and 5% pyrite at 27.0-27.2; 1% pyrite at 27.5-29.8; core $\angle 45^\circ$ at 25.8.	701	2	20.5	23.1	2.6	tr.				
			702	1	23.1	25.3	2.2	tr.				
			703	4	25.3	27.5	2.2	tr.				
			704	1	27.5	29.8	2.3	tr.				
29.8	86.0	SHEARED ALTERED ANDESITE: 29.8-31.1: fine-grained, grey, becomes increasingly schistose down section; highly carbonatized section; minor calcite veinlets; minor silicified patches; 2% disseminated pyrite. 31.1-35.9: fine-grained, grey to green-grey, schistose & heavily sheared; same lithology as above but sheared & chloritic; frequent calcite-quartz seams, veinlets & patches; frequent grey quartz lenses up to 0.4" thick; quartz-chlorite-pyrite vein at 35.6-35.7 with core $\angle$ at $36^\circ$ ; 4% pyrite overall; core $\angle 43^\circ$ at 33.0. 35.9-36.2: light grey quartz vein with chlorite schist partings and 4% pyrite; contacts at $39^\circ$ . 36.2-39.5: fine-grained, grey to green-grey, foliated to schistose; minor chloritic seams & patches; minor	705	2	29.8	31.1	1.3	tr.				
			706	4	31.1	33.2	2.1	tr.				
			707	4	33.2	35.3	2.1	tr.				
			708	4	35.3	36.3	1.0	0.06	0.06			
			709	2	36.3	38.3	2.0	tr.				

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## DIAMOND DRILL RECORD

DEPTH		DESCRIPTION	SAMPLE				ANALYSES					
FROM	TO		NO.	% SUL- PHIDES	DEPTH		TOTAL	ppb Au	Au oz/ ton			
					FROM	TO						
		calci $\dot{z}$ e veinlets, seams & patches; minor pink potassic seams; 2% pyrite - locally in near euhedral crystals up to 0.1"; core $\angle$ 42° at 37.7.	710	3	38.3	41.9	3.6		tr.			
		39.5-39.8: granodiorite dike; fine- to medium-grained; pink-grey; chloritic; 5% disseminated pyrite; irregular contacts.										
		39.8-43.6: fine-grained, grey to green-grey, foliated to weakly schistose; same as to crystal buff lithology as above; minor calci $\dot{z}$ e-quartz veinlets & seams; minor chloritic seams & patches; minor pink potassic altered patches; minor silicified patches; 2% disseminated pyrite overall - locally in crystals up to 0.2"; core $\angle$ 45° at 42.0.	711	3	41.9	45.5	3.6		tr.			
		43.6-43.8: granodiorite dike as at 39.5-39.8; frequent chlorite & calci $\dot{z}$ e fracture fillings; 4% pyrite; top contact irregular, lower contact at 51°.										
		43.8-46.5: as at 39.8-43.6 with 2% disseminated pyrite.										
		46.5-47.0: series of three irregular granodiorite dikes or irregular pods as at 39.5-39.8 with 4% pyrite.										
		47.0-61.5: as at 39.8-43.6; series of silicified & potassic altered sections or altered granodiorite dikes at 51.1-51.2, 51.5-51.7, & 52.2-52.3; local rounded to lensoid quartz blobs up to 0.2"; 2% disseminated pyrite - locally in coarse crystals up to 0.2"; core $\angle$ 47° at 53.3.	712	3	45.5	48.4	2.9		tr.			
			713	2	48.4	50.8	2.4		tr.			
			714	2	50.8	53.9	3.1		tr.			
			715	2	53.9	57.1	3.2		tr.			
			716	2	57.1	61.3	4.2		tr.			
		61.5-67.8: as at 39.8-43.6 but slightly less schistose; frequent pink-grey, fine-grained granodiorite dikes & irregular pods at 61.5-61.6, 61.8-62.0, 63.3-63.4, 64.7-64.8, 65.0-65.2, 65.6-65.8 & 67.4-67.5; overall alteration decreases down section but potassic alteration is slightly more prominent	717	2	61.3	64.3	3.0		tr.			
			718	2	64.3	67.8	3.5		tr.			

**DIAMOND DRILL RECORD**

NAME OF PROPERTY \_\_\_\_\_

HOLE NO. 11 SHEET NO. 3 OF 4


DEPTH		DESCRIPTION	SAMPLE				ANALYSES			
FROM	TO		NO.	% SULPHIDES	DEPTH			ppb Au	Au oz/ton	
					FROM	TO	TOTAL			
		than at 39.8-43.6; 2% pyrite; core $\angle 52^\circ$ at 66.7.								
		67.8-75.4: as at 39.8-43.6 but with steady increase in schistosity down section; generally chloritic; granodiorite dike at 75.2-75.3 with core $\angle 43^\circ$ ; 2% pyrite overall.	719	2	67.8	72.3	4.5		tr.	
			720	2	72.3	75.4	2.1		tr.	
		75.4-77.3: same lithology as above but moderately sheared & chloritic; frequent calcite-quartz veinlets, seams & patches; mixture of light grey quartz lenses and chlorite schist at 76.3-76.5; 2% pyrite; core $\angle 40^\circ$ at 76.3.	721	2	75.4	77.3	1.9		tr.	
		77.3-86.0: generally as at 39.8-43.6; shearing & alteration decrease down section; frequent calcite-quartz veinlets, seams & patches; minor bleaching & silicification; minor quartz lenses & blobs; rare late calcite seams; quartz $\pm$ calcite $\pm$ chlorite veins at 81.7-81.8, 82.3, & 85.8-86.0 (core $\angle 51^\circ$ ); 1% pyrite overall; core $\angle 40^\circ$ at 79.3.	722	1	77.3	80.1	2.8		tr.	
			723	1	80.1	82.9	2.8		tr.	
			724	1	82.9	86.0	3.1		tr.	
86.0	106.0	ANDESITE TUFF: fine-grained, grey to green-grey, weakly foliated; ash tuff, minor mafic crystals; minor quartz-calcite veinlets, seams & patches; rare pink potassic seams; rare chlorite $\pm$ pyrite fracture fillings; rare bleaching & silicification; trace epidote; minor pyrite; core $\angle 50^\circ$ at 101.7.								
	106.0	END OF HOLE.								
					Sludge Samples:					
						13.0	16.0	3.0	tr.	
						16.0	26.0	10.0	tr.	
						26.0	36.0	10.0	0.01	
						36.0	46.0	10.0	tr.	



**DIAMOND DRILL RECORD**

NAME OF PROPERTY \_\_\_\_\_

HOLE NO. 11 SHEET NO. 4 OF 4

DEPTH		DESCRIPTION	NO.	% SULPHIDES	SAMPLE			ppb Au	Au oz/ton	ANALYSES		
FROM	TO				FROM	TO	TOTAL					
					46.0	56.0	10.0		tr.			
					56.0	66.0	10.0		0.02			
					66.0	76.0	10.0		tr.			
					76.0	86.0	10.0		tr.			
					86.0	96.0	10.0		tr.			
					96.0	106.0	10.0		tr.			

NAME OF PROPERTY Shabumeni Lake - Green/Hagar Option  
 HOLE NO. SHB-90-12 LENGTH 116 feet  
 LOCATION \_\_\_\_\_  
 LATITUDE 1+50 S DEPARTURE 4+00 W  
 ELEVATION \_\_\_\_\_ AZIMUTH 130° DIP -45°  
 STARTED Feb. 13/90 FINISHED Feb. 13/90

	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH

HOLE NO. 12 SHEET NO. 1  
 REMARKS I.P. target  
 LOGGED BY W. C. Hood

52N07SE0376

FROM	TO	DESCRIPTION	SAMPLE			ANALYSES						
			NO.	% SULPHIDES	FROM	TO	TOTAL	ppb Au	OZ/TON	OZ/TON	OZ/TON	
0	9.0	CASING: clay, sand.										
9.0	17.0	SHEARED ALTERED ANDESITE: ash tuff; fine-grained, grey to green-grey, foliated to weakly schistose; frequent elongate chlorite-amphibole "clots" & "wisps" - may be in part derived from pyroxene; frequent irregular patches of grey silicification with 1% disseminated pyrite at 10.7-12.8 and 14.4-16.1; frequent quartz-calcite veinlets, seams & patches - especially at 11.5-12.5; rusty weathered fracture zone at 12.0-12.5; 0.5" thick quartz vein at 16.0 trends 20° to core axis almost perpendicular to foliation; core $\angle$ 37° at 10.3.	725	1	10.5	12.5	2.0		tr.			
			726	1	14.1	16.3	2.2		tr.			
17.0	98.9	ANDESITE TUFF: ash tuff; fine-grained, grey to green-grey, weakly foliated, locally schistose; variably 5 to 10% elongate "clots" & "wisps" (may be in part after pyroxene); rare lapilli fragments; minor grey silicified patches; minor calcite-quartz veinlets, seams & patches; minor bleached sections; rare calcite $\pm$ quartz amygdules; rare pink-red potassic alteration along fractures; rusty weathered fracture zone at 21.5-22.9; weakly sheared altered sections at 38.0-38.7 & 53.2-54.1; weakly sheared silicified section at 67.4-68.2 has 2% pyrite in coarse euhedral crystals up to 0.1"; core $\angle$ 48° at 67.9. 85.5-88.5: weakly sheared section with minor pyrite	727	2	67.3	68.3	1.0		tr.			

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**DIAMOND DRILL RECORD**

NAME OF PROPERTY \_\_\_\_\_

HOLE NO. 12 SHEET NO. 2 OF 2

DEPTH		DESCRIPTION	SAMPLE					ANALYSES			
FROM	TO		NO.	% SULPHIDES	DEPTH		TOTAL	ppb Au	Au oz/ton		
					FROM	TO					
		but same lithology as at 17.0-85.5. 88.5-95.3: generally as at 17.0-85.5. 95.3-98.9: weakly sheared section with minor pyrite but same lithology as at 17.0-85.5.									
98.9	104.3	MAFIC DIKE: fine-grained, brown-grey, massive to weakly foliated; inclusion of andesite at 99.3-99.6; minor calcite-quartz veinlets; minor orange-red potassic alteration along fractures; 1% disseminated pyrite; top contact at 50°, lower contact at 59°.	728	1	98.9	101.6	2.7		tr.		
			729	1	101.6	104.4	2.8		tr.		
104.3	116.0	ANDESITE TUFF: 104.3-107.9: weakly sheared section with minor pyrite but same lithology as at 17.0-85.5; core L 46° at 107.5. 107.9-116.0: generally as at 17.0-85.5.	730	tr.	104.4	107.9	3.5		tr.		
116.0		END OF HOLE.									
					Sludge Samples:						
					9.0	16.0	7.0		tr.		
					16.0	26.0	10.0		tr.		
					26.0	36.0	10.0		tr.		
					36.0	46.0	10.0		tr.		
					46.0	56.0	10.0		tr.		
					56.0	66.0	10.0		tr.		
					66.0	76.0	10.0		tr.		
					76.0	86.0	10.0		tr.		
					86.0	96.0	10.0		tr.		
					96.0	106.0	10.0		tr.		
					106.0	116.0	10.0		tr.		





# DIAMOND DRILL RECORD

(54-90)

NAME OF PROPERTY Shabumeni Lake - Green / Hagar Option  
 HOLE NO. SHB-90-13 LENGTH 306 feet  
 LOCATION \_\_\_\_\_  
 LATITUDE L 8+00 N DEPARTURE 3+50 W  
 ELEVATION \_\_\_\_\_ AZIMUTH 310° DIP -45°  
 STARTED Feb. 13/90 FINISHED Feb. 14/90

DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH

HOLE NO. 13 SHEET NO. 1  
 REMARKS Main Zone  
 LOGGED BY W.C. Hood

FROM		TO	DESCRIPTION	SAMPLE			Au ASSAYS						
				NO.	% SULPHIDES	FROM	TO	TOTAL	ppb Au	OZ/TON	OZ/TON	OZ/TON	
0	10.0		CASING: clay, sand, boulders.										
10.0	13.7		ANDESITE FLOW: blocky drilling; rusty weathering along fractures; fine-grained, grey to green-grey, generally foliated; weakly porphyritic with minor chloritized mafic phenocrysts; minor breccia fragments; calcite amygdules, veinlets & patches have been largely dissolved out by weathering.										
13.7	19.4		SHEARED ALTERED ANDESITE: blocky drilling; rusty weathering along fractures; same lithology as above but weakly sheared & chloritic; irregular coloration may be due to bleaching & alteration or possible interflow breccia fragments; frequent calcite-quartz veinlets, seams & patches - in many cases with calcite partly dissolved out by weathering; minor pink potassic alteration along fractures; minor pyrite; core L 47° at 18.7.										
19.4	24.8		INTERMEDIATE PORPHYRY DIKE: fine-grained, brown-grey, massive to foliated; crowded with numerous tiny (up to 0.05") light grey feldspar phenocrysts; brecciated mixture of dike, calcite veining, pink potassic alteration & chlorite at 24.5-24.8; 1% disseminated pyrite; top contact in broken core, lower contact sheared at 37° to core axis.	731	1	19.4	22.3	2.9		tr			
				732	1	22.3	24.9	2.6		tr			

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## DIAMOND DRILL RECORD

DEPTH		DESCRIPTION	NO.	% SULPHIDES	SAMPLE			ANALYSES			
FROM	TO				FROM	TO	TOTAL	ppb Au	Au oz/ton		
		84.0-98.2 is heavily altered with frequent patches & veinlets of red-pink potassic alteration; frequent calcite-quartz veinlets & lenses that cut earlier potassic alteration; minor pyrite at 77.3-84.0; 1% pyrite at 84.0-98.2; top contact at 15°, lower contact at 43° to core axis.	741	1	83.9	88.6	4.7				
			742	1	88.6	93.4	4.8				
			743	1	93.4	98.2	4.8				
98.2	101.9	SHEARED ALTERED ANDESITE: fine-grained, grey to green-grey, schistose & chloritic; same weakly porphyritic flow lithology as above but moderately sheared; heavily carbonatized with calcite ± quartz amygdules, veinlets, seams, patches & replacement zones; minor quartz-calcite-chlorite veins & lenses; 1% disseminated pyrite - locally in cubes to 0.1".	744	1	98.2	101.9	3.7				
101.9	103.0	MAFIC DIKE: very fine-grained, dark grey, massive to foliated near contacts; top contact at 47°, lower contact at 48° to core axis.	745	tr.	101.9	103.0	1.1				
103.0	104.0	SHEARED ALTERED ANDESITE: generally as at 98.2-101.9 with shearing decreasing down interval.									
104.0	126.0	ALTERED ANDESITE: generally carbonatized andesite as at 46.0-77.3 but with minor bleached, potassic altered and rare epidotized fractures & patches; generally minor pyrite; 5% pyrite at 122.9-123.5 associated with quartz-calcite veining & pink potassic alteration; core $\angle$ 41° at 111.5.	746	5	122.7	123.7	1.0				
126.0	127.7	SHEARED ALTERED ANDESITE: fine-grained, dark	747	2	126.0	127.7	1.7				



**DIAMOND DRILL RECORD**

NAME OF PROPERTY \_\_\_\_\_

HOLE NO. 13 SHEET NO. 4 OF 9

DEPTH		DESCRIPTION	SAMPLE				ANALYSES			
FROM	TO		NO.	% SUL- PHIDES	DEPTH			ppb Au	Au oz/ ton	
					FROM	TO	TOTAL			
		grey to green-grey, schistose; sheared chloritic section; frequent calcite veinlets & lenses; quartz ± calcite ± chlorite ± pink potassic alteration at 126.8-126.9 (core $\angle$ 51°), 127.1 (core $\angle$ 55°), and 127.4 (core $\angle$ 53°); 2% pyrite overall in cubes up to 0.1" closely associated with quartz veins.								
127.7	166.0	ALTERED ANDESITE FLOW: fine-grained, mottled grey to green-grey, generally foliated, locally schistose; same weakly porphyritic flow with minor breccia fragments as at 46.0-77.3; generally carbonatized with frequent calcite ± quartz amygdules, veinlets, seams, patches & replacements; frequent bleached sections; minor chloritic patches and irregular fracture fillings; minor pink to red-brown potassic alteration along fractures; minor epidote alteration - often associated with potassic alteration; white quartz veins at 133.6-133.7 (62° to core axis) with 5% pyrite in chlorite schist for 1" on each side of vein and 136.9-137.0 (63° to core axis).	748	3	133.2	134.4	1.2		tr.	
			749	3	136.4	137.4	1.0		tr.	
166.0	173.1	SHEARED ALTERED ANDESITE: fine-grained, slightly banded grey to green-grey, same lithology as above but becomes more schistose, sheared & chloritic down section; frequent calcite ± quartz veinlets, seams & patches; white to grey quartz veins at 171.2, 171.3, 171.4, 171.8-172.1 and 172.8; 1% disseminated pyrite at 166.0-170.9; 3% pyrite at 170.9-173.1	750	1	166.0	168.5	2.5		tr.	
			751	1	168.5	170.9	2.4		tr.	
			752	3	170.9	173.1	2.2		0.01	

## DIAMOND DRILL RECORD

NAME OF PROPERTY \_\_\_\_\_

HOLE NO. 13 SHEET NO. 5 OF 9

DEPTH		DESCRIPTION	SAMPLE				ANALYSES		
FROM	TO		NO.	% SUL- PHIDES	DEPTH		ppb Au	Au oz/ ton	Au.
					FROM	TO			
173.1	180.5	<p>in cubes up to 0.1" concentrated in chlorite schist along edge of quartz veins.</p> <p><b>QUARTZ VEIN:</b>            173.1-173.8: barren white glassy quartz vein; top contact trends 64° to core axis.            173.8-174.7: mixture of white to grey quartz, irregular chlorite schist remnants, &amp; 6% pyrite in cubes up to 0.1".            174.7-178.4: white to light grey glassy quartz with minor chlorite schist partings; minor pink potassic alteration; 2% pyrite mostly concentrated along chlorite schist remnants; chlorite schists partings at 176.4 trend 75° to core axis.            178.4-179.0: mixture of white to light grey quartz, irregular chlorite schist remnants &amp; 10% pyrite in cubes up to 0.1".            179.0-179.7: inclusion of schistose chloritic andesite; minor narrow quartz stringers; 5% pyrite in cubes up to 0.1"; core <math>\angle</math> 60° at 179.4.            179.7-180.5: mottled, glassy white to light grey quartz with bands of pyrite at ends of interval; 5% pyrite overall; lower contact at 62°.</p>	753	3	173.1	175.4	2.3	0.08	0.06
			754	2	175.4	178.4	3.0	0.01	
			755	6	178.4	180.7	2.3	0.02	
180.5	184.6	<p><b>SHEARED ALTERED ANDESITE:</b> generally as at 166.0-173.1; quartz-calcite-chlorite-pyrite vein at 183.2-183.3 with core <math>\angle</math> 65°; 1% pyrite.</p>	756	1	180.7	182.6	1.9	tr.	
			757	1	182.6	184.5	1.9	tr.	
184.6	217.9	<p><b>MAFIC DIKE / GABIBRO SILL:</b>            184.6-194.5: fine-grained, grey to brown-grey, foliated; frequent calcite-quartz veinlets, seams &amp; patches;</p>	758	tr.	184.5	187.5	3.0	tr.	
			759	3	187.5	188.5	1.0	0.04	0.04

## DIAMOND DRILL RECORD

DEPTH		DESCRIPTION	SAMPLE				ANALYSES			
FROM	TO		NO.	% SULPHIDES	DEPTH		ppb Au	Au oz/ton		
					FROM	TO				
		frequent irregular patches & fracture controlled zones of bleaching, potassic alteration & chloritization; quartz $\pm$ calcite $\pm$ chlorite veins at 187.9-188.1 (irregular contacts; 5% pyrite), 191.1-191.6 (1% pyrite), & 193.5-193.6; low pyrite overall; top contact at 39° to core axis; weakly magnetic.	760	1	188.5	191.8	3.3			
			761	1	191.8	194.5	2.7		tr.	
		194.5-196.3: fine- to medium-grained, grey, foliated to schistose; approaching sheared diorite in texture & appearance; frequent calcite-quartz veinlets; trace pyrite; core $\angle$ 57° at 195.1.								
		196.3-208.5: fine-grained, grey to brown-grey, massive to foliated; weakly porphyritic with scattered pyroxene phenocrysts up to 0.1"; minor calcite-quartz veinlets & seams; minor epidote alteration along fractures; rare potassic alteration; weakly magnetic.								
		208.5-216.2: fine- to locally medium-grained, grey, massive to foliated; looks more "gabbroic" in this section; minor calcite $\pm$ quartz veinlets & seams; minor potassic altered patches; trace pyrite; weakly magnetic.								
		216.2-217.9: sheared, pink potassic altered section of gabbro or possible sheared granodiorite dike; minor pyrite; sharp contact at 216.2 at 56° to core axis; shearing has 75° core $\angle$ at 217.1.	762	tr.	216.0	217.9	1.9		tr.	
217.9	220.4	SHEARED ALTERED ANDESITE: fine-grained, dark grey to green-grey, foliated to schistose; locally sheared & chloritic; frequent calcite $\pm$ quartz veinlets, seams, amygdules & replacements; minor silicified patches; minor epidote alteration;	763	1	217.9	220.4	2.5		tr.	



## DIAMOND DRILL RECORD

DEPTH		DESCRIPTION	SAMPLE				ANALYSES			
FROM	TO		NO.	% SULPHIDES	DEPTH			ppb Au	Au oz/ton	
					FROM	TO	TOTAL			
220.4	222.5	moderately magnetic; 1% pyrite. GABBRO DIKE: medium-grained, dark grey, massive to weakly foliated; top contact at 41°, lower contact at 46°.	764	—	220.4	222.5	2.1		tr.	
222.5	233.9	SHEARED ALTERED ANDESITE: fine-grained, grey, weakly schistose; weakly sheared & chloritic; frequent calcite ± quartz veinlets, seams, patches & amygdalae; minor epidote & potassic alteration; possible sheared diorite dike at 226.6-227.0; irregular 0.3" thick quartz-calcite-chlorite vein with minor pyrite along contacts extends along core at 228.5-231.4; quartz-calcite-chlorite vein at 227.8-228.0; 1% py overall; core $\angle$ 38° at 228.3.	765 766 767	1 1 1	222.5 227.7 231.4	227.7 231.4 233.9	5.2 3.7 2.5		tr. tr. tr.	
233.9	268.6	ANDESITE FLOW: fine-grained, massive to weakly foliated, grey to green-grey to brown-grey; weakly porphyritic with 5% equant to elongate chloritized amphibole/pyroxene phenocrysts in fine-grained crystalline mass of grey feldspar & black mafics; frequent green epidote veinlets, seams & patches; minor quartz-calcite veinlets, seams & patches; veinlets & alteration patches are locally flanked by 1" to 8" zones of disseminated pyrite - e.g. at 243.6-244.2, 248.0-248.2, 253.0-253.2, 254.7-255.3, 258.0-258.1, 261.0-261.2 and 263.0-263.8; generally minor pyrite but locally up to 1%; trace pyrrhotite.	768 769 770	1 1 1	243.2 247.4 252.7	244.4 248.8 255.5	1.2 1.4 2.8		tr. tr. tr.	
268.6	273.0	SHEARED ANDESITE: same lithology as at 233.9-268.6	771	2	268.6	273.0	4.4		tr	


DIAMOND DRILL RECORD

DEPTH		DESCRIPTION	SAMPLE				ANALYSES			
FROM	TO		NO.	% SULPHIDES	DEPTH		TOTAL	ppb Au	Au oz/ton	
					FROM	TO				
		but weakly to moderately sheared & chloritic; frequent calcite ± quartz veinlets; quartz-calcite-chlorite vein at 270.1-270.7 with top contact at 32° and lower contact at 46°; irregular mixture of grey quartz, white calcite, andesite inclusions & chlorite schist at 272.2-273.8; 2% pyrite overall - concentrated in chloritic zones adjacent to veins.								
273.0	289.5	ANDESITE FLOW: weakly porphyritic flow as at 233.9-268.6; minor alteration patches with chlorite, epidote, & silicification; minor calcite ± quartz veinlets; generally minor pyrite and trace pyrrhotite but locally up to 1% pyrite in alteration zones (e.g. at 278.2-279.5); core $\angle$ 51° at 285.6.	772	1	278.0	279.5	1.5		tr.	
289.5	306.0	INTERMEDIATE PORPHYRY DIKE: 289.5-302.7: fine-grained, grey to brown-grey, massive to weakly foliated; moderately porphyritic with 5 to 10% grey feldspar and black mafic phenocrysts up to 0.1" in a fine-grained groundmass; minor epidote veinlets, seams & patches; minor calcite ± quartz veinlets cut earlier epidote alteration; minor pyrite; top contact at 46° to core axis; weakly magnetic. 302.7-303.1: granodiorite dike; fine- to medium-grained, pink to grey, foliated; weakly sheared & chloritic; 1% pyrite; weakly magnetic. 303.1-303.5: quartz-calcite-chlorite vein; mottled white to grey; irregular coarse patches of chlorite; minor feldspar; top contact at 50°.	773	1	302.6	303.7	1.1		tr.	

**DIAMOND DRILL RECORD**

NAME OF PROPERTY \_\_\_\_\_

HOLE NO. 13 SHEET NO. 9 OF 9

DEPTH		DESCRIPTION	NO.	% SUL- PHIDES	SAMPLE			ANALYSES				
FROM	TO				DEPTH		TOTAL	ppb Au	Au oz/ ton			
					FROM	TO						
		lower contact at 42°.										
		303.5-306.0: generally as at 289.5-302.7; irregular dike of medium-grained epidotized pink granite with minor pyrrhotite at 304.7-304.9.										
306.0		END OF HOLE.										
												
				Sludge		Samples:						
					10.0	16.0	6.0		tr.			
					16.0	26.0	10.0		tr.			
					26.0	36.0	10.0		tr.			
					36.0	46.0	10.0		tr.			
					46.0	56.0	10.0		tr.			
					56.0	66.0	10.0		tr.			
					66.0	76.0	10.0		tr.			
					76.0	86.0	10.0		tr.			
					86.0	96.0	10.0		tr.			
					96.0	106.0	10.0		tr.			
					106.0	116.0	10.0		tr.			
					116.0	126.0	10.0		tr.			
					126.0	136.0	10.0		tr.			
					136.0	146.0	10.0		tr.			
					146.0	156.0	10.0		tr.			
					156.0	166.0	10.0		tr.			
					166.0	176.0	10.0		0.01			
					176.0	186.0	10.0		0.02			
					186.0	196.0	10.0		tr.			
					196.0	206.0	10.0		tr.			
					206.0	216.0	10.0		tr.			
					216.0	226.0	10.0		tr.			
					226.0	236.0	10.0		tr.			
					236.0	246.0	10.0		tr.			
					Lost	return	water.					



# DIAMOND DRILL RECORD

NAME OF PROPERTY Shabumeni Lake - Green/Hagar Option  
 HOLE NO. SHB-90-14 LENGTH 276 feet  
 LOCATION \_\_\_\_\_  
 LATITUDE L 10+00 N DEPARTURE 3+50 W  
 ELEVATION \_\_\_\_\_ AZIMUTH 310° DIP -45°  
 STARTED Feb. 15/90 FINISHED Feb. 16/90

	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH

HOLE NO. 14 SHEET NO. 1  
 REMARKS Main Zone  
 LOGGED BY W. C. Hood

FROM	TO	DESCRIPTION	SAMPLE			ANALYSES						
			NO.	% SULPHIDES	FROM	TO	TOTAL	ppb Au	oz/ton	oz/TON	oz/TON	
0	14.2	CASING: clay, sand.										
14.2	15.3	SHEARED CARBONATIZED ANDESITE: 14.2-14.4: quartz vein; white to light grey quartz with minor chlorite. 14.4-15.3: fine-grained, green-grey, schistose; sheared chloritic andesite; rusty weathering along fractures; trace pyrite; core L 53° at 14.7.	774	tr.	14.2	15.3	1.1					
15.3	88.3	ALTERED ANDESITE FLOW: fine-grained, grey to green-grey, generally foliated, locally schistose & chloritic; porphyritic flows with 5 to 10% rounded, equant or elongate chloritized amphibole/pyroxene phenocrysts up to 0.1"; possible fine-grained feldspar crystals; groundmass is very fine-grained with frequent "wisps" of chlorite; separate flows probably marked by variations in color, alteration & amygdule content; calcite amygdules are prominent throughout and locally approach 10%; extensive carbonate alteration and replacement with frequent calcite ± quartz amygdules, veinlets, seams, patches & brecciated replacement zones; 5 to 10% calcite overall; minor pink potassic alteration locally in seams & irregular patches; weakly sheared zone with minor pyrite at 43.5-44.0 (core L 57° at 43.9) and 58.2-59.0 (core L 56° at 58.7); prominent irregular zones of pink potassic ± grey silicic ± green										

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S2N07SE0376



DIAMOND DRILL RECORD

DEPTH		DESCRIPTION	SAMPLE				ANALYSES			
FROM	TO		NO.	% SULPHIDES	DEPTH		TOTAL	ppb Au	Au oz/ton	
					FROM	TO				
		composition; porphyritic with 10% chloritized amphibole/pyroxene phenocrysts up to 0.1" in a fine-grained but distinctly crystalline matrix; minor calcite-quartz veinlets; core $\angle$ 43° at 127.9; weakly magnetic.								
129.0	143.0	SHEARED ALTERED MAFIC DIKE: fine-grained, blotchy to crudely banded grey to green-grey, foliated to schistose; becomes increasingly sheared & chloritic down section; probably same lithology as at 120.1-129.0 but heavily altered & sheared; frequent calcite veinlets, seams, patches & partial replacements; frequent potassic alteration & silicification; 2% disseminated pyrite at 129.0-139.9; white quartz veins at 140.1-140.3, 140.4-140.5, 140.6 (core $\angle$ 59°), 140.7, 140.9, 141.9-142.1; 4% pyrite overall at 139.9-143.0 - closely associated with quartz veins; core $\angle$ 58° at 141.7.	778	2	129.0	133.0	4.0		tr.	
			779	2	133.0	137.0	4.0		tr.	
			780	2	137.0	139.9	2.9		tr.	
			781	4	139.9	141.4	1.5		0.01	
			782	4	141.4	142.9	1.5		0.02	
143.0	144.7	QUARTZ VEIN: white to light grey, glassy; barren except for 0.1 to 0.2" thick band of pyrite at 143.1; top contact at 75°, lower contact obscured in broken core.	783	1	142.9	144.9	2.0		0.10	
144.7	149.7	SHEARED ALTERED MAFIC DIKE: fine-grained, blotchy to banded grey to green-grey, foliated to schistose; sheared & chloritic; heavily altered as at 129.0-143.0; probably same mafic dike as at 120.1-143.0; 2% pyrite, core $\angle$ 48° at 147.7; weakly magnetic.	784	2	144.9	147.1	2.2		tr.	
			785	2	147.1	149.7	2.6		tr.	



**DIAMOND DRILL RECORD**

DEPTH		DESCRIPTION	SAMPLE					ANALYSES			
FROM	TO		NO.	% SULPHIDES	DEPTH			ppb Au	Au oz/ton		
					FROM	TO	TOTAL				
149.7	153.6	SHEARED ALTERED ANDESITE: fine-grained, blotchy to banded grey to green-grey, foliated to schistose; sheared & chloritic; heavily altered with frequent calcite veinlets, seams, patches & amygdules; minor bleaching, potassic alteration & silicification; 2% pyrite; core L 57° at 152.3; weakly magnetic.	786	2	149.7	153.6	3.9		tr.		
153.6	154.6	ALTERED ANDESITE: fine-grained, grey to green-grey, foliated; numerous calcite & quartz amygdules; minor pyrite; weakly magnetic.	787	1	153.6	156.0	2.4		tr.		
154.6	156.0	INTERMEDIATE PORPHYRITIC DIKE: fine-grained, grey, massive to foliated; weakly porphyritic with scattered black mafic crystals and light grey feldspar laths up to 0.1" in a fine-grained crystalline groundmass; minor quartz-calcite veinlets; 1% pyrite; contacts irregular.									
156.0	158.6	ALTERED ANDESITE: generally carbonatized amygdaloidal flow as at 104.9-116.2; 1% pyrite	788	1	156.0	158.6	2.6		tr.		
158.6	159.8	SHEARED ALTERED ANDESITE: fine-grained, crudely banded grey to green-grey, schistose; sheared & chloritic; frequent calcite & quartz veinlets & seams; vuggy quartz vein at 159.1-159.3 with 5% pyrite in patches & bands; contacts of vein at 60° to core axis; 3% pyrite at 158.6-159.8.	789	3	158.6	159.8	1.2		0.12		
159.8	190.8	ALTERED ANDESITE FLOW 159.8-178.6: fine-grained, mottled to blotchy to crudely banded grey to light green-grey; generally	838	1	159.8	163.2	3.4		tr.		

**DIAMOND DRILL RECORD**

DEPTH		DESCRIPTION	SAMPLE				ANALYSES			
FROM	TO		NO.	% SUL-PHIDES	DEPTH		TOTAL	ppb Au	Au oz/ton	
					FROM	TO				
		foliated, locally schistose & chloritic; varies from weakly porphyritic flow to amygdaloidal flow to flow breccia; breccia fragments are typically bleached or epidolized to a light green-grey color; heavily altered section; frequent calcite ± quartz veinlets, seams, patches & amygdules; frequent light green bleached, silicified & epidolized patches & fragments; minor pink potassic seams; locally vuggy where calcite has been dissolved; 1% disseminated & fracture controlled pyrite.								
		178.6-179.2: intermediate porphyritic dike; fine-grained, brown-grey, massive; weakly porphyritic with scattered feldspar and chloritized amphibole/pyroxene phenocrysts up to 0.05"; top contact at 47°, lower contact at 42° to core axis.	790	1	178.1	180.0	1.9		tr.	
		179.2-190.8: similar to 159.8-178.6 but consists entirely of altered breccia fragments - both amygdaloidal and non-amygdaloidal; fragments vary up to several inches along core; heavily carbonatized, bleached, epidolized & chloritized as at 159.8-178.6; generally 1% disseminated & fracture controlled pyrite but locally up to 2%.	791	1	187.8	190.8	3.0		tr.	
190.8	200.3	MIXED SHEARED ALTERED ANDESITE AND INTERMEDIATE DIKES:								
		190.8-192.9: fine-grained; crudely banded grey to green-grey to brown-grey; schistose, sheared & chloritic; mixture of sheared chloritic andesite, brown-grey lenses & stringers of intermediate composition dikes, and frequent veinlets, seams & lenses of quartz, quartz-calcite and calcite; 2% pyrite; core ⊥ 63° at 192.4; weakly magnetic.	792	2	190.8	192.8	2.0		tr.	

## DIAMOND DRILL RECORD

DEPTH		DESCRIPTION	SAMPLE				ANALYSES		
FROM	TO		NO.	% SULPHIDES	DEPTH		ppb Au	Au oz/ton	
					FROM	TO			
		192.9-193.4: intermediate dike; fine-grained, brown, massive but locally brecciated with calcite veinlets; 3% pyrite in cubes up to 0.1"; irregular contacts; weakly magnetic.	793	3	192.8	193.8	1.0	0.01	
		193.4-193.8: quartz vein; white, glassy; irregular potassic altered inclusion of intermediate dike at 193.5; 3% pyrite closely associated with dike inclusion; top contact irregular, lower contact at 57°	794	3	193.8	195.3	1.5	tr.	
		193.8-195.3: generally as at 190.8-192.9 but with approximately 20% quartz ± calcite veins & lenses; 3% pyrite overall in cubes up to 0.1"; core L 63° at 195.3.							
		195.3-200.3: fine-grained, blotchy to crudely banded dark grey to light grey-green; sheared chloritic carbonatized epidotized andesite flow breccia; minor intermediate dike stringers; 1% pyrite; core L 50° at 196.1; weakly magnetic.	795	1	195.3	197.8	2.5	tr.	
			796	1	197.8	200.3	2.5	tr.	
200.3	203.9	PORPHYRITIC MAFIC DIKE: looks the same as 120.1-129.0; fine-grained, foliated; minor quartz-calcite veinlets; 1% pyrite & pyrrhotite; top contact at 56°, lower contact at 60°.	797	1	200.3	203.7	3.4	tr.	
203.9	219.5	ALTERED ANDESITE: fine-grained, grey to light green-grey, foliated to locally schistose; generally as at 14.2-88.3; variously amygdaloidal to porphyritic andesite flows with minor breccia fragments; frequent calcite ± quartz veinlets, seams, patches & amygdules; locally chloritic; minor bleaching, potassic alteration, silicification and epidote alteration; generally 1% pyrite; core L 45° at 210.5.							




## DIAMOND DRILL RECORD

DEPTH		DESCRIPTION	NO.	% SUL- PHIDES	SAMPLE			ANALYSES			
FROM	TO				FROM	TO	TOTAL	ppb Au	Au oz/ ton		
219.5	242.6	ANDESITE FLOW: fine-grained, grey to green-grey, massive to foliated, rarely schistose; same porphyritic to amygdaloidal andesite massive flow lithology as at 203.9-219.5 but much less altered; local color variations due to bleaching & possible rare breccia fragments; minor calcite & quartz amygdules, veinlets, seams & patches; minor pink potassic alteration along veinlets & in amygdules; minor pyrite.									
242.6	244.1	SHEARED ALTERED ANDESITE: fine-grained, crudely banded dark grey to green-grey; schistose, sheared & chloritic; quartz-chlorite-calcite veins at 242.7-242.8, 242.9-243.0 & 243.6-243.7; frequent patches of pink-brown potassic alteration; low pyrite; core $\angle 60^\circ$ at 243.1.	798	1	242.5	244.1	1.6		tr.		
244.1	276.0	ANDESITE FLOW: fine-grained, grey to green-grey, massive to weakly foliated, rarely schistose; generally as at 219.5-242.6 but with slightly less phenocrysts & amygdules overall; weakly sheared at 247.6-248.5 and 249.7-250.5; massive section with only scattered phenocrysts & minor calcite amygdules at 265.5-272.1; minor breccia fragments at 273.0-276.0; minor pyrite.									
	276.0	END OF HOLE.			Sludge	Samples:					
					16.0	26.0	10.0		tr.		
					26.0	36.0	10.0		tr.		
					36.0	46.0	10.0		tr.		

**DIAMOND DRILL RECORD**

NAME OF PROPERTY \_\_\_\_\_

HOLE NO. 14 SHEET NO. 8 OF 8

DEPTH		DESCRIPTION	NO.	% SULPHIDES	SAMPLE DEPTH			ppb Au	Au oz/ton	ANALYSES		
FROM	TO				FROM	TO	TOTAL					
					46.0	56.0	10.0		tr.			
						56.0	66.0	10.0		tr.		
						66.0	76.0	10.0		tr.		
						76.0	86.0	10.0		tr.		
						86.0	96.0	10.0		tr.		
						96.0	106.0	10.0		tr.		
						106.0	116.0	10.0		tr.		
						116.0	126.0	10.0		tr.		
						126.0	136.0	10.0		tr.		
						136.0	146.0	10.0		tr.		
						146.0	156.0	10.0		tr.		
						156.0	166.0	10.0		tr.		
						166.0	176.0	10.0		tr.		
						176.0	186.0	10.0		tr.		
						186.0	196.0	10.0		tr.		
					196.0	206.0	10.0		tr.			
					206.0	216.0	10.0		tr.			
					Lost	return	water.					

# DIAMOND DRILL RECORD

NAME OF PROPERTY Shabumenc Lake - Green/Hagar Option  
 HOLE NO. SHB-90-15 LENGTH 306 feet  
 LOCATION \_\_\_\_\_  
 LATITUDE L 8+00 N DEPARTURE 3+50 W  
 ELEVATION \_\_\_\_\_ AZIMUTH 310° DIP 63°  
 STARTED Feb. 17/90 FINISHED Feb. 18/90

	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH

HOLE NO. 15 SHEET NO. 1  
 REMARKS Main zone  
 LOGGED BY W. C. Hood

FROM	TO	DESCRIPTION	SAMPLE			Au ASSAYS						
			NO.	% SULPHIDES	FROM	TO	TOTAL	ppb Au	OZ/TON	OZ/TON	OZ/TON	
0	9.0	CASING: clay, sand, boulders.										
9.0	25.5	ANDESITE FLOW: fine-grained, grey to green-grey, weakly foliated; minor rusty weathering along fractures; weakly porphyritic, locally amygdaloidal andesite massive flow; scattered equant to elongate chloritized amphibole/pyroxene phenocrysts up to 0.1"; calcite ± quartz amygdules locally abundant; sheared zone at 19.3-20.0; minor calcite ± quartz veinlets; trace pyrite; core L 45° at 19.9.										
25.5	52.1	ALTERED ANDESITE: fine-grained, grey to light green-grey, generally foliated, locally schistose; probably same weakly porphyritic locally amygdaloidal flow as at 9.0-25.5; local color variations may be due to bleaching or possible breccia fragments; moderately carbonatized with frequent light grey calcite ± quartz amygdules, veinlets, seams & patches; minor chlorite; minor pink potassic alteration in irregular patches at 39.0-40.0; minor pyrite; core L 19° at 42.0.										
52.1	63.3	INTERMEDIATE PORPHYRY DIKE: fine-grained, brown-grey, massive to weakly foliated; numerous tiny grey feldspar phenocrysts up to 0.05"; minor calcite-quartz veinlets; 1% pyrite overall - but more abundant near contact; top										

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## DIAMOND DRILL RECORD

DEPTH		DESCRIPTION	SAMPLE				ANALYSES			
FROM	TO		NO.	% SULPHIDES	DEPTH		TOTAL	ppb Au	Au. oz/ton	
					FROM	TO				
		contact extends along core from 51.3-52.9 at 5° to core axis; 0.5" thick vein of quartz, calcite & red-pink potassic alteration extend along lower contact which extends from 62.5-63.6 at 6° to core axis.	805	tr.	62.1	64.4	2.3		tr.	
63.3	66.0	SHEARED ALTERED ANDESITE: fine-grained, grey to green-grey, schistosity decreases down interval; crudely banded, sheared & chloritic - especially at top of interval; minor calcite ± quartz veinlets, seams & patches; minor pink potassic alteration; 1% pyrite; core $\angle$ 22° at 64.9.								
66.0	97.2	ALTERED ANDESITE FLOW: fine-grained, grey to green-grey, generally foliated, locally schistose in weakly sheared chloritic sections; probably same lithology as at 25.5-52.1; local color variations may be due to both bleaching & breccia fragments; generally porphyritic with 5% mafic phenocrysts up to 0.1"; locally amygdaloidal with numerous calcite ± quartz amygdules up to 0.2"; frequent calcite veinlets, seams & patches; minor potassic alteration; weakly sheared sections at 74.1-74.9 and 83.1-84.0; generally minor pyrite - locally up to 1% in sheared sections; core $\angle$ 40° at 74.1.								
97.2	110.2	INTERMEDIATE PORPHYRITIC DIKE: fine-grained, brown-grey, massive to weakly foliated; weakly porphyritic with frequent light grey corroded feldspar phenocrysts up to 0.2"; however some	806	1	96.8	100.1	3.3		tr	

## DIAMOND DRILL RECORD

DEPTH		DESCRIPTION	SAMPLE				ANALYSES				
FROM	TO		NO.	% SUL- PHIDES	DEPTH		ppb Au	Au oz/ ton			
					FROM	TO				TOTAL	
110.2	143.1	<p>"phenocrysts" may be bleached altered patches; minor quartz-calcite veinlets, chloritic seams &amp; reddish potassic stained patches; andesite inclusion at 109.4-109.6; 1% pyrite - concentrated near contacts; top contact at 12°, lower contact at 20°.</p> <p>ALTERED ANDESITE FLOW: generally as at 66.0-97.2; minor chloritization, quartz-calcite stringers &amp; 1% pyrite at 110.2-111.3; sheared dark green chloritic zone at 116.9-117.5 with core <math>\angle 18^\circ</math> to core axis; local dark green chloritic patches throughout; generally 5 to 10% quartz &amp; calcite amygdules up to 0.2"; minor breccia fragments; minor calcite &amp; quartz veinlets, patches &amp; phenocryst replacements; minor reddish-brown potassic alteration; minor pyrite.</p>	807	1	107.0	111.4	4.4	tr.			
143.1	147.4	<p>SHEARED ALTERED ANDESITE:</p> <p>143.1-143.8: fine-grained, crudely banded medium to dark grey-green; becomes increasingly schistose, sheared &amp; chloritic down interval; frequent calcite veinlets, seams &amp; disseminations; 2% pyrite - increasing down section; core <math>\angle 43^\circ</math> at 143.5.</p> <p>143.8-144.2: quartz vein: light grey, glassy; 1% pyrite concentrated along irregular dark chloritic fracture at 144.1; contacts irregular.</p> <p>144.2-145.5: fine-grained, crudely banded medium to dark green-grey; schistosity, shearing &amp; chloritization decreases down interval; frequent calcite veinlets, seams, patches &amp; disseminations; 2% pyrite - decreasing down section; core <math>\angle 49^\circ</math> at 144.8.</p>	808	2	143.0	144.8	1.8	tr.			

**DIAMOND DRILL RECORD**

DEPTH		DESCRIPTION	SAMPLE				ANALYSES					
FROM	TO		NO.	% SULPHIDES	DEPTH		TOTAL	ppb Au	Au. oz/ton			
					FROM	TO						
		145.5-147.4: weakly sheared altered amygdaloidal andesite; locally chloritic; frequent calcite veinlets & patches; quartz-calcite-pyrite vein at 147.2 with core $\angle 31^\circ$ ; 1% pyrite.	809	1	144.8	147.5	2.7		tr.			
147.4	163.5	ALTERED ANDESITE FLOW: amygdaloidal weakly porphyritic carbonatized andesite as at 66.0-97.2; frequent calcite & quartz veinlets, seams, patches, amygdules & disseminations; minor chloritic patches; minor reddish-brown potassic veinlets; minor pyrite.										
163.5	164.7	SHEARED ALTERED ANDESITE: fine-grained, crudely banded light to dark green-grey, schistose; weakly sheared but highly altered chloritic section; frequent calcite & quartz veinlets, seams, patches & disseminations; frequent light brown potassic altered patches; light green to pink bleached, epidotized & potassic altered patch or fragment at 164.5-164.7; 2% pyrite; core $\angle 54^\circ$ at 164.1.	810	2	163.4	164.8	1.4		tr.			
164.7	169.8	ALTERED ANDESITE: fine-grained, mottled green-grey, varies from massive to weakly foliated to schistose at bottom of interval; becomes sheared & chloritic at 169.3-169.8; frequent calcite & quartz veinlets, seams, patches, amygdules & disseminations; frequent dark red potassic veinlets; 0.5" thick quartz-chlorite-calcite-feldspar vein at 167.7 flanked by 0.5" thick light pink-brown potassic altered zone; minor pyrite.	811	tr.	167.2	168.3	1.1		tr.			



**DIAMOND DRILL RECORD**

NAME OF PROPERTY \_\_\_\_\_

HOLE NO. 15 SHEET NO. 5 OF 10

DEPTH		DESCRIPTION	SAMPLE					ANALYSES			
FROM	TO		NO.	% SULPHIDES	DEPTH			ppb Au	Au oz/ton		
					FROM	TO	TOTAL				
169.8	172.0	MAFIC DIKE: fine-grained, dark grey, massive; basaltic composition; minor quartz-calcite-potassic altered veinlets; minor pyrite; top contact at 26°, lower contact at 24° to core axis.	812	tr	169.6	172.1	2.5		tr.		
172.0	174.1	ALTERED ANDESITE: generally as at 66.0-97.2; carbonatized amygdaloidal weakly porphyritic andesite with minor reddish potassic alteration along veinlets; weakly sheared & chloritic at 172.0-172.7; minor pyrite.									
174.1	175.8	SHEARED ALTERED ANDESITE: fine-grained, crudely banded grey-green; sheared chloritic interval centered on quartz-calcite-chlorite vein at 175.1-175.2 with core $\angle$ 34°; frequent calcite ± quartz veinlets, seams, patches & disseminations; minor light pink-brown to reddish potassic alteration; low pyrite.	813	1	173.9	176.0	2.1		tr.		
175.8	214.3	ALTERED ANDESITE FLOW: fine-grained, grey to green-grey, generally weakly foliated, locally schistose & chloritic; some carbonatized, amygdaloidal, weakly porphyritic, altered andesite as at 66.0-97.2; frequent calcite ± quartz veinlets, seams, patches, amygdules, disseminations & replacements; bleaching and pink potassic alteration ± minor green epidote are locally abundant - e.g. at 176.1-177.0, 182.7-183.3, 185.6-186.5 & 209.7-212.5; local chloritization; generally minor pyrite but locally up to low associated with veinlets & alteration; weakly sheared & chloritic with	814	1	182.8	188.1	5.3		tr.		
			815	1	209.6	212.5	2.9		tr.		
			816	1	212.5	214.1	1.6		tr.		

**DIAMOND DRILL RECORD**

NAME OF PROPERTY \_\_\_\_\_

HOLE NO. 15 SHEET NO. 6 OF 10

DEPTH		DESCRIPTION	NO.	% SULPHIDES	SAMPLE			ANALYSES			
FROM	TO				DEPTH		TOTAL	ppb Au	Au oz/ton		
					FROM	TO					
		1% pyrite at 212.5-214.3.									
214.3	215.0	QUARTZ VEIN: white, glassy, no sulphides; 5% dark red potassic alteration patches & fracture fillings; minor calcite; pyrite in chloritic schist at margins of vein.	817	tr.	214.1	215.2	1.1		tr.		
215.0	245.6	ALTERED ANDESITE FLOW: fine-grained, grey to green-grey, generally weakly foliated, locally massive, locally schistose & chloritic; some carbonatized, amygdaloidal, weakly porphyritic, altered andesite as at 66.0-97.2; frequent calcite ± quartz veinlets, seams, patches amygdnales, disseminations & replacements; bleaching & pink potassic alteration are locally abundant - e.g. at 217.3-217.8 and 229.4-229.5; less altered section with only minor calcite & chloritization at 227.0-240.4; generally minor pyrite but locally up to 1% associated with veinlets & chloritization; core L 26° at 243.0; weakly magnetic.	818	1	215.2	217.8	2.6		tr.		
			819	1	243.6	245.6	2.0		tr.		
245.6	250.6	QUARTZ VEIN: 245.6-246.2: mixture of 40% irregular quartz veinlets in pyritized brecciated andesite/chlorite schist; 5% pyrite. 246.2-247.1: mixture of white to light grey glassy quartz with 30% irregular inclusions & partings of pyritized chlorite schist & andesite fragments; 5% pyrite - often in euhedral cubes up to 0.1". 247.1-248.2: white glassy quartz with irregular chlorite schist partings and 2% pyrite associated with	820	5	245.6	247.1	1.5		0.08		
			821	2	247.1	249.0	1.9		tr.		







**DIAMOND DRILL RECORD**

NAME OF PROPERTY \_\_\_\_\_

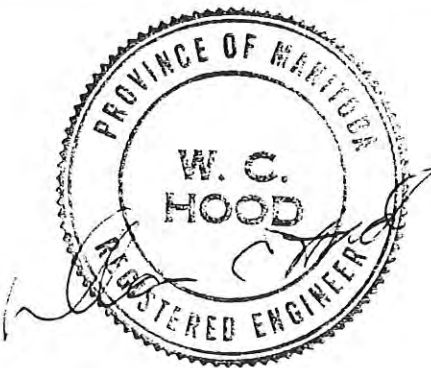
HOLE NO. 15 SHEET NO. 9 OF 10

DEPTH		DESCRIPTION	NO.	% SULPHIDES	SAMPLE			ANALYSES			
FROM	TO				DEPTH		TOTAL	ppb Au	Au oz/ton		
					FROM	TO					
		lower contact at 53°. 275.5-276.8: shearing & chloritization decreases down section; frequent calcite ± quartz veinlets, seams & patches; 1% pyrite; core < 42° at 276.0; weakly magnetic. 276.8-278.5: unsheared but carbonatized andesite as at 66.0-97.2; frequent calcite ± quartz veinlets, seams, patches & amygdules; minor pyrite; weakly magnetic. 278.5-280.5: weakly sheared section with frequent chloritic zones; frequent calcite veinlets, seams & patches; 1% pyrite; weakly magnetic. 280.5-281.5: unsheared amygdaloidal andesite. 281.5-282.2: weakly sheared chloritic section; weakly magnetic. 282.2-283.7: unsheared amygdaloidal andesite. 283.7-285.8: sheared locally chloritic section with 1% pyrite; core < 37° at 285.0; weakly magnetic.									
			830	1	278.4	280.5	2.1		tr.		
			831	1	283.7	285.8	2.1		tr.		
285.8	306.0	ALTERED ANDESITE FLOW: fine-grained, grey to green-grey, massive to foliated, locally schistose; same weakly porphyritic, amygdaloidal altered andesite as at 66.0-97.2; up to 10% calcite ± quartz amygdules; frequent calcite veinlets, seams, patches, replacements & disseminations; locally weakly sheared & chloritic; minor bleaching & pink potassic alteration; minor pyrite; core < 52° at 296.0; weakly magnetic.									
	306.0	END OF HOLE.									
			Sludge		Samples:						
					9.0	16.0	7.0		tr		

**DIAMOND DRILL RECORD**

NAME OF PROPERTY \_\_\_\_\_

HOLE NO. 15 SHEET NO. 10 OF 10

DEPTH		DESCRIPTION	NO.	% SUL- PHIDES	SAMPLE			ANALYSES			
FROM	TO				DEPTH		TOTAL	ppb Au	Au oz/ ton		
					FROM	TO					
					16.0	26.0	10.0		tr.		
			26.0	36.0	10.0		tr.				
			36.0	46.0	10.0		tr.				
			46.0	56.0	10.0		tr.				
			56.0	66.0	10.0		tr.				
			66.0	76.0	10.0		tr.				
			76.0	86.0	10.0		tr.				
			86.0	96.0	10.0		tr.				
			96.0	106.0	10.0		tr.				
			106.0	116.0	10.0		tr.				
			116.0	126.0	10.0		tr.				
			126.0	136.0	10.0		tr.				
			136.0	146.0	10.0		tr.				
			146.0	156.0	10.0		tr.				
			156.0	166.0	10.0		tr.				
			166.0	176.0	10.0		tr.				
			176.0	186.0	10.0		tr.				
			186.0	196.0	10.0		tr.				
			196.0	206.0	10.0		tr.				
			206.0	216.0	10.0		tr.				
		216.0	226.0	10.0		tr.					
		226.0	236.0	10.0		tr.					
		236.0	246.0	10.0		tr.					
		246.0	256.0	10.0		tr.					
		256.0	266.0	10.0		tr.					
		266.0	276.0	10.0		tr.					
		276.0	286.0	10.0		tr.					
		286.0	296.0	10.0		tr.					
		296.0	306.0	10.0		tr.					



NAME OF PROPERTY Shabumenci Lake - Green/Hagar Option  
 HOLE NO. SH13-90-16 LENGTH 296 feet  
 LOCATION \_\_\_\_\_  
 LATITUDE 7+50 N DEPARTURE 3+50 W  
 ELEVATION \_\_\_\_\_ AZIMUTH 310° DIP -45°  
 STARTED Feb. 19/90 FINISHED Feb. 20/90

	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH

HOLE NO. 16 SHEET NO. 1  
 REMARKS Main Zone  
 LOGGED BY W. C. Hood

FROM	TO	DESCRIPTION	SAMPLE			Au ASSAYS						
			NO.	% SULPHIDES	FROM	TO	TOTAL	ppb Au	OZ/TON	OZ/TON	OZ/TON	
0	12.0	CASING: clay, sand, boulders.										
12.0	89.8	ALTERED ANDESITE FLOW: fine-grained, mottled grey to green-grey, massive to foliated; locally schistose; probably andesite flow; abundant calcite ± quartz amygdules up to 0.2"; amygdule content varies from 0 to 20% in roughly 5' intervals; weakly porphyritic with 1 to 10% chlorite-amphibole phenocrysts; phenocrysts range from elongate "wisps" of chlorite to equant or rounded mafic crystals that may be altered pyroxene; heavily carbonatized with frequent white to light grey calcite ± quartz veinlets, seams, patches, dissemination & replacements; minor pink to reddish patches & seams of potassic alteration often associated with zones of bleaching, silicification & occasionally epidotization; minor pyrite; weathered out vugs & rusty fractures at 12.0-12.5 & 14.7-15.4; core $\angle 50^\circ$ at 17.1; weakly sheared at 66.4-68.5 with 1% pyrite; weakly sheared at 86.0-86.4 with calcite, chlorite & minor red potassic patches.	832	1	66.4	68.5	2.1		tr.			
			833	tr.	85.8	86.9	1.1		tr.			
89.8	93.9	SHEARED ALTERED ANDESITE: fine-grained, crudely banded grey to green-grey, foliated to schistose; becomes increasingly sheared down interval; same weakly porphyritic, amygdaloidal carbonatized andesite lithology as at 12.0-89.8 but sheared										

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 RED LAKE MINING DIVISION

52N075E0376

## DIAMOND DRILL RECORD

DEPTH		DESCRIPTION	SAMPLE					ANALYSES			
FROM	TO		NO.	% SULPHIDES	DEPTH			ppb Au	Au oz/ton		
					FROM	TO	TOTAL				
		up to contact with dike; frequent calcite ± quartz amygdules, veinlets, seams, patches, disseminations & replacements; chlorite increases down section; heavily sheared, chloritic & carbonatized at 93.6-93.9; minor pyrite; core $\angle 49^\circ$ at 81.6.	834	tr.	92.1	94.1	2.0		tr.		
93.9	97.2	INTERMEDIATE DIKE: fine-grained, light brown, massive to weakly foliated near contacts; minor calcite-chlorite veinlets with orange potassic alteration; 1% pyrite concentrated near contacts; top contact at $48^\circ$ , lower contact at $55^\circ$ .	835	1	94.1	97.1	3.0		tr.		
97.2	107.0	SHEARED ALTERED ANDESITE: fine-grained, crudely banded grey to green-grey, foliated to schistose; becomes less sheared down section; same weakly porphyritic, amygdaloidal, carbonatized andesite as at 12.0-89.8 but sheared up to contact with dike; frequent calcite ± quartz veinlets, seams, patches, amygdules, disseminations, & replacements; locally chloritic patches; minor pink potassic alteration seams & amygdule fillings; generally minor pyrite but 2% overall at 104.2-105.7; core $\angle 48^\circ$ at 99.3.	836	tr.	97.1	98.9	1.8		tr.		
			837	2	104.2	105.7	1.5		0.01		
107.0	135.2	ALTERED ANDESITE FLOW: generally as at 12.0-89.8; weakly porphyritic, amygdaloidal, carbonatized andesite massive flow. 107.0-122.0: predominately calcite alteration but also bleaching, local silicification, potassic alteration, chloritization & trace epidote alteration; abundant pink-brown to deep red potassic alteration &	839	tr.	119.3	120.4	1.1		tr.		

## DIAMOND DRILL RECORD

DEPTH		DESCRIPTION	SAMPLE				ANALYSES			
FROM	TO		NO.	% SULPHIDES	DEPTH		ppb Au	Au oz/ton		
					FROM	TO				
		minor pyrite at 119.5-120.2 flanking several quartz-calcite veinlets & seams. 122.0-135.2: prominent calcite amygdules in this section but significant reduction in amount of other types of alteration as well as a reduction in mafic phenocryst content; sheared sections at 127.4-128.3 and 134.2-134.3; minor pyrite; core $\angle 55^\circ$ at 127.9.								
135.2	143.6	ANDESITE FLOW: fine-grained, grey, massive to weakly foliated; rare mafic phenocrysts; rare calcite amygdules; unaltered section with minor quartz-calcite veinlets.								
143.6	180.0	ALTERED ANDESITE FLOW: same weakly porphyritic, amygdaloidal, carbonatized andesite as at 12.0-89.8; frequent calcite $\pm$ quartz amygdules, veinlets, seams, patches, replacements & disseminations; minor silicification & bleaching; minor pink potassic seams; minor chlorite; rare epidote; possible breccia fragments; flow contacts at 146.6-148.3 and 169.8-172.7; relatively unaltered section at 157.5-162.6; weakly sheared at 176.8-177.7 with 1% pyrite; generally minor pyrite otherwise.	840	1	176.6	177.8	1.2	tr.		
			841	tr.	177.8	179.5	1.7	tr.		
180.0	183.8	SHEARED ALTERED ANDESITE: 180.0-180.6: fine-grained, grey to green-grey; becomes increasingly sheared, schistose & chloritic down section; moderately carbonatized with calcite $\pm$ quartz veinlets & seams; 0.4" thick light grey quartz lense at 180.4; 2% pyrite -	799	2	179.5	180.5	1.0	tr.		



## DIAMOND DRILL RECORD

DEPTH		DESCRIPTION	SAMPLE				ANALYSES			
FROM	TO		NO.	% SULPHIDES	DEPTH		TOTAL	ppb Au	Au oz/ton	
					FROM	TO				
		concentrated in seam at 180.3; core $\angle 44^\circ$ at 180.5.								
		180.6-180.8: heavily sheared, chloritic, carbonatized andesite with 20% pyrite - both disseminated & in bands along schistosity; minor potassic alteration.								
		180.8-181.3: quartz vein: white to light grey glassy vein with 10% calcite & minor chlorite stringers; 1% pyrite & 2% chalcopyrite concentrated along fractures & chloritic stringers at 180.8-181.0; about 5% red potassic feldspar patches up to 0.02" at 180.1-180.3; gold visible in one red potassic patch at 180.25 - three "lea" of gold up to 0.1" long and other miscellaneous specks are visible; top contact at $47^\circ$ , lower contact at $42^\circ$ .	800	5	180.5	181.5	1.0		6.16	
		181.3-183.8: fine-grained, grey to green-grey, schistose, sheared & slightly chloritic; white to light grey quartz veins at 181.6-181.7 (core $\angle 49^\circ$ ), 181.9, 182.2, 183.0 and 183.5-183.6 (core $\angle 52^\circ$ ); frequent calcite & quartz veinlets, seams, patches & amygdules; 1% pyrite overall - closely associated with schistose margins of veins.	801	1	181.5	182.6	1.1		tr.	
			802	1	182.6	183.8	1.2		tr.	
183.8	206.8	ALTERED ANDESITE TUFF:								
		183.8-186.2: variably bleached, silicified, chloritized & carbonatized section with 3% pyrite overall; irregular 2" "blob" of fine-grained pyrite at 185.7-185.9.	803	3	183.8	185.2	1.4		tr.	
			804	3	185.2	186.2	1.0		tr.	
		186.2-206.8: fine-grained, grey to green-grey, generally foliated; generally ash tuff with 5% elongate chloritized amphibole/pyroxene crystals; frequent	842	1	186.2	190.0	3.8		tr.	
			843	1	190.0	194.0	4.0		tr.	
			844	1	194.0	198.3	4.3		tr.	

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## DIAMOND DRILL RECORD

DEPTH		DESCRIPTION	SAMPLE				ANALYSES				
FROM	TO		NO.	% SUL- PHIDES	DEPTH		TOTAL	ppb Au	Au oz/ ton		
					FROM	TO					
		225.9-230.9: fine-grained, crudely banded dark green-grey, schistose; heavily sheared chloritic section; frequent quartz-calcite veinlets, lenses & seams; rusty weathered vuggy quartz-calcite-pyrite vein at 226.7-226.8; 1% pyrite; core $\angle$ 61° at 226.1.	846	1	225.8	228.4	2.6		tr.		
			847	1	228.4	230.9	2.5		tr.		
230.9	238.9	MAFIC DIKE: fine-grained, grey-brown, massive; frequent veinlets/veins up to 0.2' thick of coarse-grained calcite, quartz & chlorite with minor pink potassic alteration; 1% disseminated pyrite; top contact at 45°, lower contact at 28° to core axis; weakly magnetic.	871	1	230.9	234.9	4.0		tr.		
			872	1	234.9	238.9	4.0		tr.		
238.9	258.3	ANDESITE TUFF: fine-grained, grey to green-grey, generally foliated, locally weakly schistose; ash to crystal tuff lithology with 10% elongate chloritized amphibole/pyroxene crystals; mafic crystals are often flattened to wavy chlorite "wisps" in a mottled fine-grained, granular matrix; possible rare lapilli fragments; minor calcite $\pm$ quartz veinlets; rare calcite $\pm$ quartz $\pm$ potassic alteration amygdules; minor pyrite locally associated with veinlets or chloritic zones.									
258.3	275.9	INTERMEDIATE PORPHYRITIC DIKE: fine-grained, brown, massive to foliated near contacts; minor light grey feldspar & black chlorite-amphibole phenocrysts up to 0.1" in a fine-grained but distinctly crystalline groundmass; frequent calcite $\pm$ quartz $\pm$ chlorite veinlets, seams & patches; frequent pink to reddish-brown potassic altered	848	1	258.1	262.5	4.4		tr.		
			849	1	262.5	267.0	4.5		tr.		
			850	1	267.0	271.5	4.5		tr.		
			851	1	271.5	276.0	4.5		tr.		



**DIAMOND DRILL RECORD**

DEPTH		DESCRIPTION	SAMPLE				ANALYSES			
FROM	TO		NO.	% SULPHIDES	DEPTH		TOTAL	ppb Au	Au oz/ton	
					FROM	TO				
		patches; frequent green-black chlorite fracture-fillings & patches; trace epidote; 1% disseminated pyrite, trace chalcopyrite; top contact at 41°, lower contact at 60°.								
275.9	296.0	<p><b>ANDESITE TUFF:</b></p> <p>275.9-278.0: same andesite tuff lithology as at 238.9-258.3 but weakly sheared &amp; slightly chloritic below dike; trace pyrite.</p> <p>278.0-296.0: same ash tuff as at 238.9-258.3; minor silicified patches; locally chloritic; trace pyrite; core L 53° at 287.8.</p>								
	296.0	END OF HOLE.								
					Sludge	Samples:				
						12.0	16.0	4.0	tr.	
						16.0	26.0	10.0	tr.	
						26.0	36.0	10.0	tr.	
						36.0	46.0	10.0	tr.	
						46.0	56.0	10.0	tr.	
						56.0	66.0	10.0	tr.	
						66.0	76.0	10.0	tr.	
						76.0	86.0	10.0	tr.	
						86.0	96.0	10.0	tr.	
						96.0	106.0	10.0	tr.	
						106.0	116.0	10.0	tr.	
						116.0	126.0	10.0	tr.	
						126.0	136.0	10.0	tr.	
						136.0	146.0	10.0	tr.	
						146.0	156.0	10.0	tr.	
						156.0	166.0	10.0	tr.	
						166.0	176.0	10.0	tr.	

**DIAMOND DRILL RECORD**

NAME OF PROPERTY \_\_\_\_\_

HOLE NO. 16 SHEET NO. 8 OF 8

DEPTH		DESCRIPTION	NO.	% SUL- PHIDES	SAMPLE			ANALYSES				
FROM	TO				DEPTH		TOTAL	ppb Au	Au oz/ ton			
					FROM	TO						
					176.0	186.0	10.0		4.52			
					186.0	196.0	10.0		0.34			
					196.0	206.0	10.0		0.22			
					206.0	216.0	10.0		0.16			
					216.0	226.0	10.0		0.20			
					226.0	236.0	10.0		0.16			
					236.0	246.0	10.0		0.10			
					246.0	256.0	10.0		0.08			
					256.0	266.0	10.0		tr.			
					266.0	276.0	10.0		0.02			
					276.0	286.0	10.0		tr.			
					286.0	296.0	10.0		0.01			



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NAME OF PROPERTY Shabumeni Lake - Green/Hagar Option  
 HOLE NO. SHB-90-17 LENGTH 286 feet  
 LOCATION \_\_\_\_\_  
 LATITUDE 7+50 N DEPARTURE 3+50 W  
 ELEVATION \_\_\_\_\_ AZIMUTH 310° DIP -65°  
 STARTED Feb. 20/90 FINISHED Feb. 21/90

	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH

HOLE NO. 17 SHEET NO. 1  
 REMARKS Main Zone  
 LOGGED BY W. C. Hood

52N075E0376

FROM	TO	DESCRIPTION	SAMPLE			ANALYSES						
			NO.	% SULPHIDES	FROM	TO	TOTAL	ppb Au	OZ/TON	OZ/TON	OZ/TON	
0	10.0	CASING: clay, sand, boulders.										
10.0	136.5	ALTERED ANDESITE FLOW: fine-grained, mottled grey to green-grey, massive to foliated, locally schistose; probably andesite massive flow; 0 to 20% calcite ± quartz amygdules up to 0.2" varying in roughly 1 to 5 foot intervals; weakly porphyritic with 1 to 10% chloritized amphibole/pyroxene phenocrysts; phenocrysts range from elongate "wisps" of chlorite to equant or rounded crystals that may be after pyroxene; heavily carbonatized with frequent white to light grey calcite ± quartz veinlets, seams, patches, disseminations & replacements; minor pink to reddish seams, patches & amygdule-fillings of potassic alteration; minor bleaching & silicification; locally chloritic; weathered vuggy fracture zone at 13.6-13.7; sheared chloritic section with 1% pyrite at 24.0-24.8; irregular pink potassic altered patch at 41.9-42.2; weakly carbonatized shears at 60.6-61.1, 75.3-76.1, 88.3-88.9 & 94.7-95.5; several pink potassic patches at 131.9-132.5; generally trace to minor pyrite; core L 43° at 24.1; core L 48° at 94.8.										
136.5	137.5	SHEARED ALTERED ANDESITE: same weakly porphyritic, amygdaloidal andesite flow lithology but weakly sheared & chloritic; irregular quartz-calcite-	852	tr	136.4	137.6	1.2		tr.			

NOT TO BE REMOVED FROM THE  
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 RED LAKE MINING DIVISION



**DIAMOND DRILL RECORD**

NAME OF PROPERTY \_\_\_\_\_

HOLE NO. 17 SHEET NO. 2 OF 6

DEPTH		DESCRIPTION	SAMPLE				ANALYSES			
FROM	TO		NO.	% SUL- PHIDES	DEPTH		TOTAL	ppb Au	Au oz/ ton	
					FROM	TO				
		-epidote - pink potassic vein trends 35° to core axis at 137.2-137.3; minor pyrite.								
137.5	140.0	ALTERED ANDESITE: generally as at 10.0-136.5; minor pyrite.								
140.0	153.2	SHEARED ALTERED ANDESITE: fine-grained, crudely banded light grey to green-grey, schistose; sheared & weakly chloritic throughout; same weakly porphyritic, amygdaloidal, carbonatized andesite as at 10.0-136.5 but moderately sheared; frequent calcite ± quartz veinlets, seams, patches, elongated amygdules & disseminations; barren quartz-calcite vein at 142.0-142.2 with pyrite concentrated in flanking chlorite schist; 1% pyrite overall; core L 34° at 140.4.	853	1	141.0	142.8	1.8		tr.	
			854	1	142.8	147.5	4.7		tr.	
			855	1	147.5	152.0	4.5		tr.	
			856	1	152.0	153.5	1.5		tr.	
153.2	160.2	INTERMEDIATE PORPHYRITIC DIKE: fine-grained, brown, massive to foliated near contacts; weakly porphyritic with scattered tiny grey feldspar phenocrysts; minor calcite ± quartz ± chlorite veinlets; minor red potassic alteration along fractures; 0.5" vein of quartz with central seam of pyrite; top contact at 18°, lower contact at 27°; 1% pyrite overall - concentrated near contacts.	857	1	153.5	158.2	4.7		tr.	
			858	1	158.2	160.3	2.1		tr.	
160.2	197.5	ALTERED ANDESITE: generally as at 10.0-136.5; weakly porphyritic, amygdaloidal carbonatized massive flow; frequent calcite ± quartz amygdules, veinlets, seams, patches, disseminations & replacements; heavily bleached, silicified,	859	tr.	173.9	175.5	1.6		tr.	

**DIAMOND DRILL RECORD**

DEPTH		DESCRIPTION	SAMPLE				ANALYSES			
FROM	TO		NO.	% SULPHIDES	DEPTH		TOTAL	ppb Au	Au oz/ton	
					FROM	TO				
		<p>± potassic altered sections with quartz-calcite patches at 173.9-175.5, 191.0-192.9 &amp; 194.3-194.5; minor pyrite.</p>								
197.5	216.0	<p>ANDESITE FLOW: fine-grained, grey, massive to foliated; massive flow; minor calcite amygdules &amp; mafic phenocrysts; minor calcite ± quartz veinlets &amp; seams; rare epidote veinlets; trace pyrite; core <math>\angle</math> 57° at 201.9.</p>								
216.0	229.1	<p>ALTERED ANDESITE FLOW: generally as at 10.0-136.5; weakly porphyritic, amygdaloidal, carbonatized massive flow; frequent calcite ± quartz amygdules, veinlets, seams, patches, disseminations &amp; replacements; minor pink potassic amygdules &amp; patches; minor chloritic zones - e.g. flanking quartz-calcite vein at 225.1-225.2; generally minor pyrite; locally up to 1% pyrite associated with alteration or veinlets; core <math>\angle</math> 49° at 225.2.</p>								
229.1	237.4	<p>SHEARED ALTERED ANDESITE:</p>								
		<p>229.1-235.8: fine-grained, crudely banded grey to green-grey, schistose; sheared &amp; chloritic section; probably the same lithology as above but moderately sheared; frequent calcite ± quartz stretched amygdules, veinlets, seams, patches &amp; disseminations; 1% pyrite; core <math>\angle</math> 43° at 230.4.</p>	860	1	229.1	232.5	3.4		tr.	
			861	1	232.5	235.8	3.3		tr.	
		<p>235.8-237.4: generally as at 229.1-235.8 but more heavily silicified with minor potassic alteration &amp; 2% pyrite overall; quartz-calcite-chlorite-pyrite vein at 237.1-237.2 with core <math>\angle</math> 48°.</p>	862	2	235.8	237.0	1.2		tr	

## DIAMOND DRILL RECORD

DEPTH		DESCRIPTION	SAMPLE				ANALYSES					
FROM	TO		NO.	% SULPHIDES	DEPTH		TOTAL	ppb Au	Au oz/ton			
					FROM	TO						
237.4	238.2	QUARTZ VEIN: white to light grey, glassy; 10% chlorite schist inclusions & partings; frequent pale pink to deep red potassic alteration patches; irregular inclusion of chloritized andesite at 238.0-238.1; 3% pyrite - mostly in coarse cubes up to 0.2" at 237.9-238.0; top contact at 47°, lower contact irregular.	863	3	237.0	238.6	1.6		0.01			
238.2	257.2	SHEARED ALTERED ANDESITE: 238.2-239.0: fine-grained, crudely banded grey to dark green-grey, schistose; sheared & chloritic; locally silicified & potassic altered; quartz-calcite-chlorite-pyrite vein at 238.4-238.5 with core $\angle$ 40°; 2% pyrite. 239.0-240.3: fine-grained, crudely banded grey to green-grey, schistose; moderately sheared & chloritic; frequent calcite $\pm$ quartz elongate amygdules, veinlets, seams & patches; 1% pyrite; weakly magnetic. 240.3-240.6: barren quartz-calcite-chlorite vein; top contact at 31°; lower contact irregular. 240.6-257.2: moderately sheared as at 239.0-240.3; frequent calcite $\pm$ quartz veinlets, seams, patches, elongate amygdules, disseminations & replacements; local silicification & potassic alteration; shearing decreases down section; quartz-calcite-chlorite-pink potassic-pyrite vein at 245.8-245.9 with core $\angle$ 37°; silicified zone at 254.3-255.1; pink-brown potassic altered zone at 255.7-256.0; generally minor pyrite; locally up to 1% pyrite associated with veinlets or alteration; core $\angle$ 29° at 248.0; weakly magnetic.	864	2	238.6	239.8	1.2		tr.			
			865	1	239.8	241.3	1.5		tr.			
			866	1	241.3	245.2	3.9		tr.			
			867	1	245.2	249.2	4.0		tr.			
			868	1	249.2	253.2	4.0		tr.			
			869	1	253.2	257.2	4.0		tr.			



**DIAMOND DRILL RECORD**

NAME OF PROPERTY \_\_\_\_\_

HOLE NO. 17 SHEET NO. 5 OF 6

DEPTH		DESCRIPTION	NO.	% SULPHIDES	SAMPLE			ANALYSES				
FROM	TO				DEPTH		TOTAL	ppb Au	Au oz/ton			
					FROM	TO						
257.2	271.6	ALTERED ANDESITE FLOW: generally as at 10.0-136.5; weakly porphyritic, amygdaloidal, carbonatized massive flow; color is somewhat mottled due to irregular bleaching; frequent calcite ± quartz amygdules, veinlets, seams, patches, disseminations & replacements; local silicification; rare light pink potassic amygdule-fillings; minor pyrite.										
271.6	272.9	SHEARED ALTERED ANDESITE: same lithology as above but weakly sheared & chloritic; frequent calcite ± quartz veinlets & seams; quartz-calcite-chlorite vein at 272.1 with core ∠ 57°; 1% pyrite.	870	1	271.6	272.9	1.3		tr			
272.9	274.3	ALTERED ANDESITE: generally as at 10.0-136.5.										
274.3	284.5	ANDESITE TUFF: fine-grained, grey to green-grey, massive to weakly foliated; probably ash tuff with minor mafic crystals; minor calcite ± quartz amygdules; rare calcite ± quartz ± pink potassic seams.										
284.5	286.0	ALTERED ANDESITE: as at 10.0-136.5.										
	286.0	END OF HOLE.										
					Sludge	Samples:						
						10.0	16.0	6.0		tr.		
						16.0	26.0	10.0		tr.		
						26.0	36.0	10.0		tr.		
						36.0	46.0	10.0		tr.		
						46.0	56.0	10.0		tr.		

**DIAMOND DRILL RECORD**

NAME OF PROPERTY \_\_\_\_\_

HOLE NO. 17 SHEET NO. 6 OF 6

DEPTH		DESCRIPTION	NO.	% SUL- PHIDES	SAMPLE			ppb Au	Au oz/ ton	ANALYSES		
FROM	TO				DEPTH							
					FROM	TO	TOTAL					
						56.0	66.0	10.0		tr.		
						66.0	76.0	10.0		tr.		
						76.0	86.0	10.0		tr.		
						86.0	96.0	10.0		tr.		
						96.0	106.0	10.0		tr.		
						106.0	116.0	10.0		tr.		
						116.0	126.0	10.0		tr.		
						126.0	136.0	10.0		tr.		
						136.0	146.0	10.0		tr.		
						146.0	156.0	10.0		tr.		
						156.0	166.0	10.0		tr.		
						166.0	176.0	10.0		tr.		
						176.0	186.0	10.0		tr.		
						186.0	196.0	10.0		tr.		
						196.0	206.0	10.0		tr.		
						206.0	216.0	10.0		tr.		
						216.0	226.0	10.0		tr.		
						226.0	236.0	10.0		tr.		
						236.0	246.0	10.0		tr.		
						246.0	256.0	10.0		tr.		
						256.0	266.0	10.0		tr.		
						266.0	276.0	10.0		tr.		
						276.0	286.0	10.0		tr.		



DIAMOND DRILL RECORD

NAME OF PROPERTY Shabumeni Lake - Green / Hagar Option  
 HOLE NO. SHB-90-18 LENGTH 216 feet  
 LOCATION \_\_\_\_\_  
 LATITUDE 2+50 S DEPARTURE 2+45 W  
 ELEVATION \_\_\_\_\_ AZIMUTH 310° DIP -45°  
 STARTED Feb. 22 / 90 FINISHED Feb. 23 / 90

	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH

HOLE NO. 18 SHEET NO. 1  
 REMARKS I.P. Target  
 LOGGED BY W. C. HOOD

FROM	TO	DESCRIPTION	SAMPLE			Au ASSAYS						
			NO.	% SULPHIDES	FROM	TO	TOTAL	ppb Au	OZ/TON	OZ/TON	OZ/TON	
0	7.0	CASING: clay, sand, boulders.										
7.0	18.1	ANDESITE TUFF: fine-grained, grey to locally green-grey, generally foliated, locally schistose; probably ash tuff with 5% elongate chloritized amphibole/pyroxene crystals up to 0.1", minor feldspar crystals & rare quartz crystals in a mottled fine-grained matrix; frequent flat to wavy chlorite "wisps"; frequent irregular light to medium grey silicified patches; minor calcite ± quartz veinlets & amygdalae; minor pyrite.										
18.1	19.4	SHEARED ANDESITE: weathered along fractures; same lithology as above but moderately sheared & chloritic; frequent calcite ± quartz veinlets & seams; minor pyrite; core $\angle 58^\circ$ at 18.8.										
19.4	40.2	ANDESITE TUFF: ash tuff as at 7.0-18.1; minor irregular grey silicified patches; minor calcite ± quartz veinlets cut earlier silicification; minor pyrite.										
40.2	41.4	ALTERED ANDESITE: 40.2-40.9: same lithology as above but bleached light grey-green. 40.9-41.4: brecciated, silicified, chloritic section of andesite tuff with 2% pyrite.	873	1	40.1	41.5	1.4		tr.			
41.4	60.2	ANDESITE TUFF: generally ash tuff as at 7.0-18.1;										

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 RED LAKE MINING DIVISION

52N07SE0376



## DIAMOND DRILL RECORD

DEPTH		DESCRIPTION	SAMPLE				ANALYSES					
FROM	TO		NO.	% SUL- PHIDES	DEPTH			ppb Au	Au oz/ ton			
					FROM	TO	TOTAL					
60.2	62.5	frequent irregular light to medium grey silicified patches; minor calcite ± quartz veinlets, seams & patches; rare pink potassic seams; rare epidote veinlets; minor pyrite; core $\angle 50^\circ$ at 49.7. SHEARED ALTERED ANDESITE: fine-grained, grey to dark green-grey, schistose; sheared & chloritic section; locally silicified; frequent calcite ± quartz veinlets, seams, lenses & patches; minor pyrite.	874	tr.	60.2	62.5	2.3		tr			
62.5	77.2	ANDESITE TUFF: ash tuff as at 7.0-18.1; frequent irregular grey silicified patches; minor calcite ± quartz veinlets, seams & patches; minor pink-red potassic veinlets & seams; minor chloritic patches; minor pyrite; core $\angle 54^\circ$ at 66.3.										
77.2	78.8	ALTERED ANDESITE: fine-grained, grey, massive to foliated; same ash tuff as at 7.0-18.1 but heavily silicified; minor chlorite patches & pink-red potassic seams; minor pyrite.	875	tr	77.2	78.8	1.6		tr			
78.8	105.1	ANDESITE TUFF: fine-grained, medium-grey, generally foliated; ash tuff similar to 7.0-18.1 but with less than 3% chloritized amphibole/pyroxene crystals; this reduction in number of mafic crystals may be due in part to silicification - especially at 78.8-102.3; minor calcite amygdules, veinlets & seams; minor chloritic seams; rare pink-red potassic seams; late calcite-quartz vein at 79.3-79.4 with core $\angle 35^\circ$ has minor molybdenite in coarse	876 877	tr tr	78.8 80.4	80.4 81.6	1.6 1.2		tr tr			

**DIAMOND DRILL RECORD**

DEPTH		DESCRIPTION	SAMPLE				ANALYSES				
FROM	TO		NO.	% SUL- PHIDES	DEPTH			ppb Au	Au oz/ ton		
					FROM	TO	TOTAL				
		flakes up to 0.2"; grey silicified zone with minor pyrite at 80.8-81.5; weakly sheared sections at 98.8-99.1 and 101.1-101.5; minor pyrite.									
105.1	108.5	SHEARED ANDESITE: fine-grained, crudely banded light to medium grey, schistose; sheared but relatively unaltered section; same ash tuff lithology as at 78.8-105.1; minor calcite ± quartz veinlets & seams; minor pyrite; core $\angle 64^\circ$ at 108.0.	878	tr.	106.0	108.5	2.5		tr.		
108.5	125.6	ANDESITE TUFF: fine-grained, grey to green-grey, weakly foliated; same ash tuff as at 78.8-105.1; minor calcite ± quartz veinlets, seams & patches; minor chlorite ± epidote fracture fillings; trace pyrite.									
125.6	181.3	SHEARED ALTERED ANDESITE: 125.6-130.0: fine-grained, crudely banded grey to dark green-grey, schistose; heavily sheared & chloritic; probably same ash tuff as above; frequent calcite ± quartz veinlets, seams, lenses, patches & disseminations; minor quartz-calcite-pyrite veinlets & lenses; 2% pyrite; core $\angle 69^\circ$ at 128.3. 130.0-134.6: fine-grained, mottled grey to dark green-grey, foliated to schistose, locally brecciated, heavily altered; probably same ash tuff lithology as above; frequent dark green chloritic patches, grey silicified zones & pink-brown potassic patches; frequent calcite ± quartz veinlets & seams; 3% pyrite - locally in cubes up to 0.1". 134.6-144.1: fine-grained, mottled pink-brown to dark grey-green; massive to foliated; locally weakly	879	2	125.6	130.0	4.4		tr.		
			880	3	130.0	134.1	4.1		tr.		
			881	4	134.1	139.3	5.2		tr.		
			882	4	139.3	144.1	4.8		tr.		

**DIAMOND DRILL RECORD**

NAME OF PROPERTY \_\_\_\_\_

HOLE NO. 18 SHEET NO. 4 OF 5


DEPTH		DESCRIPTION	NO.	% SULPHIDES	SAMPLE			ANALYSES			
FROM	TO				DEPTH		TOTAL	ppb Au	Au oz/ton		
					FROM	TO					
		sheared but very heavily altered so original lithology is almost unrecognizable; heavily chloritized; frequent irregular zones, patches & veinlets of pink to pink-brown potassic alteration; frequent calcite ± quartz veinlets, seams, patches & disseminations; 4% pyrite, trace chalcopyrite.									
	144.1-147.4	144.1-147.4: fine-grained, dark grey, massive to foliated; heavily chloritized; minor calcite ± quartz veinlets; 4% disseminated pyrite.	883	4	144.1	147.4	3.3		tr.		
	147.4-164.3	147.4-164.3: fine-grained to locally medium-grained, crudely banded dark grey to green-grey, schistose; heavily sheared, chloritic & carbonatized; locally amphibolitized & looks like sheared diorite/gabbro; frequent calcite ± quartz veinlets, seams & disseminations; minor pink-brown potassic alteration; quartz-calcite-chlorite-pyrite veins at 148.0-148.1 and 159.5-159.6; recognizable remnant of sheared andesite at 157.0-159.2; 4% pyrite overall; core $\angle$ 49° at 159.1.	884	4	147.4	152.3	4.9		tr.		
			885	4	152.3	157.0	4.7		tr.		
			886	4	157.0	159.2	2.2		tr.		
			887	4	159.2	164.3	5.1		tr.		
	164.3-181.3	164.3-181.3: generally a heavily altered rock as at 147.4-164.3 but only weakly sheared; same chloritization, amphibolitization, carbonatization & potassic alteration as at 147.4-164.3; frequent calcite ± quartz veinlets & seams; 4% pyrite, trace chalcopyrite; core $\angle$ 56° at 172.5.	888	4	164.3	168.3	4.0		tr.		
			889	4	168.3	172.3	4.0		tr.		
			890	4	172.3	176.4	4.1		tr.		
			891	4	176.4	181.3	4.9		tr.		
181.3	216.0	ALTERED ANDESITE TUFF: fine-grained, grey to green-grey, foliated, locally schistose; moderately altered but relatively unshattered section of ash tuff as at 7.0-18.1; frequent chloritic patches & fracture fillings; frequent pink potassic patches & veinlets; locally bleached &	892	2	181.3	186.0	4.7		tr.		
			893	2	186.0	191.1	5.1		tr.		
			894	5	194.6	196.0	1.4		tr.		



**DIAMOND DRILL RECORD**

NAME OF PROPERTY \_\_\_\_\_

HOLE NO. 18 SHEET NO. 5 OF 5

DEPTH		DESCRIPTION	NO.	% SUL- PHIDES	SAMPLE			ANALYSES								
FROM	TO				DEPTH			ppb Au	Au oz/ ton							
					FROM	TO	TOTAL									
		silicified; minor calcite ± quartz veinlets, seams & patches; unaltered section at 191.1-194.6; intensity of alteration decreases down section; generally 2% pyrite; 5% pyrite at 194.8-195.7 in heavily altered zone; core L 59° at 208.4.														
216.0		END OF HOLE.														
																
					Sludge Samples:											
					7.0	16.0	9.0		tr.							
					16.0	26.0	10.0		tr.							
					26.0	36.0	10.0		tr.							
					36.0	46.0	10.0		tr.							
					46.0	56.0	10.0		tr.							
					56.0	66.0	10.0		tr.							
					66.0	76.0	10.0		tr.							
					76.0	86.0	10.0		tr.							
					86.0	96.0	10.0		tr.							
					96.0	106.0	10.0		tr.							
					106.0	116.0	10.0		tr.							
					116.0	126.0	10.0		tr.							
					126.0	136.0	10.0		tr.							
					136.0	146.0	10.0		tr.							
					146.0	156.0	10.0		tr.							
					156.0	166.0	10.0		tr.							
					166.0	176.0	10.0		tr.							
					176.0	186.0	10.0		tr.							
					186.0	196.0	10.0		tr.							
					196.0	206.0	10.0		tr.							
					206.0	216.0	10.0		tr.							

NAME OF PROPERTY Shabumeni Lake - Green/Hagar Option  
 HOLE NO. SHB-90-19 LENGTH 406 feet  
 LOCATION \_\_\_\_\_  
 LATITUDE L 0+00 DEPARTURE 9+00 W  
 ELEVATION \_\_\_\_\_ AZIMUTH 130° DIP -45°  
 STARTED Feb. 24/90 FINISHED Feb. 25/90

	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH

HOLE NO. 19 SHEET NO. 1  
 REMARKS Snake Zone; I.P. Target

LOGGED BY W. C. Hood

52N07SE0376

FROM	TO	DESCRIPTION	SAMPLE			Au ASSAYS						
			NO.	% SULPHIDES	FROM	TO	TOTAL	ppb Au	OZ/TON	OZ/TON	OZ/TON	
0	11.0	CASING: clay, sand.										
11.0	57.8	GABBRO SILL: fine- to medium-grained, dark grey, massive to weakly foliated; "salt 'n pepper" texture with black pyroxene (probably mostly altered to chlorite-amphibole) and light grey plagioclase; minor calcite ± quartz veinlets, seams & patches; trace pyrite; weakly magnetic.										
57.8	61.5	SHEARED ALTERED GABBRO: 57.8-58.3: dark grey chlorite schist with frequent calcite ± quartz veinlets, lenses & seams; trace pyrite; core L 75° at 57.9; weakly magnetic. 58.3-58.9: quartz vein; white, glassy; minor calcite & chlorite schist; top contact 58°, lower contact irregular. 58.9-59.7: as at 57.8-58.3; trace pyrite; weakly magnetic. 59.7-61.5: fine-grained, crudely banded dark to medium grey, schistose; moderately sheared & chloritic; minor calcite ± quartz veinlets, lenses, seams, patches & disseminations; low pyrite; core L 71° at 61.5; weakly magnetic.	895	tr.	57.8	59.7	1.9		tr.			
			896	1	59.7	61.5	1.8		tr			
61.5	75.3	GABBRO SILL: 61.5-69.4: fine- to medium-grained, dark grey, massive to foliated; weak shearing & chloritization decrease down section; frequent calcite ± quartz veinlets, seams, patches; minor bleaching along										

NOT TO BE REMOVED FROM THE OFFICE OF THE RESIDENT GEOLOGIST RED LAKE MINING DIVISION





**DIAMOND DRILL RECORD**

NAME OF PROPERTY \_\_\_\_\_

HOLE NO. 19 SHEET NO. 3 OF 9

DEPTH		DESCRIPTION	NO.	% SULPHIDES	SAMPLE			ANALYSES			
FROM	TO				FROM	TO	TOTAL	ppb Au	Au oz/ton		
125.5	127.9				<p>rare pink potassic seams; trace epidote; generally minor pyrite but locally up to 1% associated with alteration or veinlets; weakly magnetic.</p> <p>SHEARED ALTERED GABBRO: fine-grained, crudely banded medium to dark grey; schistose; sheared &amp; chloritic section; 1% pyrite overall concentrated near quartz-calcite-chlorite-pyrite vein at 126.5 with core <math>\angle 36^\circ</math> to core axis.</p>	897	1	125.5	127.9	2.4	
127.9	163.5	<p>PORPHYRITIC GABBRO SILL: generally as at 78.0-125.5.</p>									
163.5	170.1	<p>SHEARED GABBRO: fine-grained, crudely banded medium to dark grey, schistose; moderately sheared &amp; chloritic; minor calcite &amp; quartz veinlets, seams &amp; patches; quartz-calcite-chlorite-pyrite vein at 167.7-167.9 with core <math>\angle 31^\circ</math>; 1% pyrite at 166.5-168.7 concentrated near vein.</p>	898	1	166.5	168.7	2.2		tr.		
170.1	180.1	<p>GABBRO SILL: fine- to medium-grained, dark grey, massive to locally foliated; frequent calcite &amp; quartz veinlets &amp; seams; minor quartz-epidote-potassic veinlets; minor pyrite.</p>									
180.1	181.7	<p>SHEARED ALTERED ANDESITE: fine-grained, dark grey-green, schistose; sheared &amp; chloritic; minor calcite-quartz veinlets, lenses &amp; seams; 1% pyrite; core <math>\angle 47^\circ</math> at 181.5.</p>	916	1	180.0	181.8	1.8		tr.		
181.7	194.3	<p>ALTERED ANDESITE: fine-grained, grey to green-grey, weakly foliated; probably weakly porphyritic,</p>	899	1	181.8	184.3	2.5		tr.		

**DIAMOND DRILL RECORD**

NAME OF PROPERTY \_\_\_\_\_

HOLE NO. 19 SHEET NO. 4 OF 9

DEPTH		DESCRIPTION	NO.	% SULPHIDES	SAMPLE			ANALYSES			
FROM	TO				FROM	TO	TOTAL	ppb Au	Au oz/ton		
		amygdaloidal massive flow; about 3% altered mafic "clots" / phenocrysts; highly bleached & silicified; abundant light green siliceous veinlets, amygdules & irregular patches; minor late calcite ± quartz ± chlorite veinlets; minor pink potassic seams; 1% pyrite - closely associated with alteration & veinlets.									
194.3	194.9	FELDSPAR PORPHYRY DIKE: fine-grained, pink-red, massive to foliated near contacts; late dike; weakly porphyritic with 10% tiny white to light gray feldspar phenocrysts in a fine-grained reddish matrix; minor calcite veinlets; top contact at 67°, lower contact irregular.	900	tr	194.2	196.3	2.1		tr		
194.9	195.7	INTERMEDIATE DIKE: fine-grained, brown, massive to foliated near contacts; minor calcite veinlets; trace pyrite.									
195.7	196.2	FELDSPAR PORPHYRY DIKE: as at 194.3-194.9; irregular inclusion of intermediate dike at 195.8-195.9; top contact irregular, lower contact at 64°.									
196.2	200.9	ALTERED ANDESITE: same lithology & alteration as at 181.7-194.3; 2% pyrite concentrated in altered patches at 196.7-196.8 and 198.7; several irregular quartz patches at 200.2-200.6; heavily sheared at 200.6-200.8; quartz-calcite-chlorite-pyrite stringer at 200.8-200.9 with core $\angle$ 49°.	901	2	196.3	200.0	3.7		tr		
			902	1	200.0	201.4	1.4		tr		







**DIAMOND DRILL RECORD**

NAME OF PROPERTY \_\_\_\_\_

HOLE NO. 19 SHEET NO. 7 OF 9

DEPTH		DESCRIPTION	SAMPLE					ANALYSES			
FROM	TO		NO.	% SULPHIDES	DEPTH		TOTAL	ppb Au	Au oz/ton		
					FROM	TO					
		1 <sup>st</sup> pyrite; top contact at 69°, lower contact sheared at 69°.									
273.3	321.5	ALTERED ANDESITE FLOW: lithology & alteration generally as at 208.7-240.5; sheared & potassic altered with frequent calcite seams at 273.3-273.6; striped white calcite-pink calcite-grey quartz vein at 279.9-280.0 with core $\angle 38^\circ$ ; frequent dark pink-red potassic-chlorite veinlets & seams at 303.0-304.8 with 1 <sup>st</sup> associated pyrite.	908	1	303.0	304.8	1.8		tr		
321.5	322.7	MAFIC DIKE: fine-grained, dark grey-brown, massive to weakly foliated; frequent calcite $\pm$ quartz $\pm$ chlorite $\pm$ red potassic veinlets; minor pyrite; contacts irregular & indistinct.									
322.7	324.4	ALTERED ANDESITE: lithology & alteration generally as at 208.7-240.5; minor magnetite in alteration patches; 2 <sup>nd</sup> pyrite; core $\angle 50^\circ$ at 323.8.	909	2	322.6	324.5	1.9		tr		
324.4	325.5	INTERMEDIATE DIKE: fine-grained, grey-brown, massive; minor calcite $\pm$ quartz veinlets; minor pyrite; top contact irregular, lower contact at 43°.									
325.5	348.9	ALTERED ANDESITE FLOW: lithology & alteration generally as at 208.7-240.5; frequent light pink-brown silicified & potassic alteration patches with associated veinlets & disseminations of black magnetite; brown mafic dike at 337.5-338.0; pink-brown vein of calcite, quartz, potassic alteration at 341.3-343.3.	910	1	341.3	343.3	2.0		tr		






**DIAMOND DRILL RECORD**

NAME OF PROPERTY \_\_\_\_\_

HOLE NO. 19 SHEET NO. 9 OF 9

DEPTH		DESCRIPTION	NO.	% SULPHIDES	SAMPLE			ANALYSES						
FROM	TO				FROM	TO	TOTAL	ppb Au	Au oz/ton					
												DEPTH		
		foliated; slightly porphyritic flow with 2% dark grey elongate mafic phenocrysts up to 0.1" in a fine-grained crystalline matrix; rare calcite & quartz veinlets; rare bleaching & potassic seams.												
		380.8-386.6: flow breccia with 20% light green-grey corroded fragments in a matrix as at 372.0-380.8; minor chlorite.												
		386.6-406.0: generally as at 372.0-380.8.												
406.0		END OF HOLE.												
														
					Sludge Samples:									
						12.0	16.0	4.0						
						16.0	26.0	10.0						
						26.0	36.0	10.0						
						36.0	46.0	10.0						
						46.0	56.0	10.0						
						56.0	66.0	10.0						
						66.0	76.0	10.0						
						76.0	86.0	10.0						
						86.0	96.0	10.0						
						96.0	106.0	10.0						
						106.0	116.0	10.0						
						116.0	126.0	10.0						
						126.0	136.0	10.0						
						136.0	146.0	10.0						
						146.0	156.0	10.0						
						lost	return	water.						