Haddington Resources Ltd.

Kaltwasser - Lavigne - Timmins Group Properties

Diamond Drill Logs

HL-1
HK-2
HL-3
HK-4
HK-5

Dates Drilled: October 1997
Core Size: NQ; 47mm

Temporay Core Storage:
NDS Drilling Ltd.
Lot 10, Con. I
Mountjoy Township
Timmins, Ontario

2.18116

Property	**Tp**	**Azimuth**	**Date started**	**Corrected**	**Dip**	**Tests**	**(°)**	**Location Sketch**	
Lavigne Patents	Timmins	grid 235°	1st Oct. 1997	Depth	Mag Az	True Az	Dip		
Project	**Lot & Conc.**	**Dip**	**Date Completed**	100m			43°		
Sheraton-Timmins		45° "layout"	3rd Oct.1997						
Claim #	**Co-ordinates**	**Length (metres)**	**Drilled by:**						
P-34453		163.5m	NDS						
Grid #	46m west of L20E	**Collar Elevation**	**Logged by:**						
1995 Picket Line	2.13.7S		A.W. Beecham						

Metres From	Metres To	DESCRIPTION	Sample Number	From	To	Length	est.% Py	est% Cp	est% Sph	ASSAYS Au ppb	ppm Ag	ppm Cu	pp Zn
		OBJECTIVES:- TEST I.P. ANOMALY AND MINERALIZATION AT SHAFT (N-S QUARTZ VEINS) (HL = HADDINGTON LAVIGNE)											
0	3.0m	CASING											
2.6	12.2	MASSIVE FELDSPAR PORPHYRY Med. - lt grey aphanitic matrix with 40% lt. grey - white 0.5 - 3mm square feldspars !% fine mafics (hornblende) Matrix + feldspars very hard. Structure:No penetrative deformation. weakly to moderately fractured - jointed at 45°,30°, 135° Alteration:Most is fresh + unaltered A little bleaching + red staining along fractures. Veins: 2.9 - 8 m sparse 4 - 8 mm lt. grey -white q.v. with tr Py here + there at 40° - 65° 8.4 - 12.0m 2mm - 1.5cm lt. grey -white qv with bleached or red altered selvages minor conc. c. g Py in wall rock.Veins 40° - 90°; 5-8% qv - overall. Min:See veins. Isolated grain Cp at 8.7m Scattered grains Py in red (pink) altered rock-selvages	3001	2.8	3.0	0.2	-			3			
			3002	4.6	5.6	1.0	tr			3			
			3003	5.6	6.5	0.9	tr			12			
			3004	7.8	8.4	0.6	-			nil			
			3005	8.4	9.3	0.9	tr			nil			
			3006	9.3	10.4	1.1	tr			3			
			3007	10.4	11.8	1.4	tr-½			3			
			3008	11.8	12.2	0.4	tr			5			

Metres From	Metres To	Description	Sample Number	From	To	Length	est % Py	est% Cp	est% Sph	Assays Au ppb	ppm Ag	ppm Cu	ppm Zn
12.2	14.8	FRACTURED ALTERED F.P. As above, pink to grey remnants. Structure: Mod.-strong fract'd. Badly broken below 13.5m - no gouge. Veins: 2-5 mm white qv at 50°,10° wide pink altered selvages 10-20 cm with scattered py; speckled with black chlorite; minor pale green mica. Alteration: Sections (selvages) pervasive pink-red alteration.	3009	12.2	13.0	0.8	1/2			29			
			3010	13.0	14.0	1.0	tr			31			
			3011	14.0	14.8	0.8	tr			36			
14.8	19.1	MAFIC - INTERMEDIATE VOLCANIC Dk. green, soft, chloritic, variably magnetic, fine grained Structure: fol'n -schistosity at 45° 17.7 - 18.5 thin streaky banded - could be fine tuffs, sections of broken core, especially at top. Alteration:Confned to small dykes - see remarks Mineralization: Irregular diss'n med - e.g. cubic Py, streaks up to 30% Py/ 5cm at 15.5';tr Cp at 18.1 - 18.8 Remarks:16.5-17.0 Lt grey feldspar -rich fg. felsic, weakly feldspar phyric dyke with ½% diss'd py. 17.4-17.6;18.4-18.9;red altered felsic dyke with qv up to 3mm with Py + dk chlorite.	3012	14.8	16.0	1.2	3%			16			
			3013	16.0	17.0	1.0	1-2			12			
			3014	17.0	18.0	1.0	1-2			12			
			3015	18.0	19.1	1.1	1/2			19			
19.1	20.7	FELDSPAR PORPHYRIC DYKE As above Structure: Cts at 60° and 45°											

Metres From	To	DESCRIPTION	Sample Number	From	To	Length	est % Py	est% Cp	est% Sph	Assays Au ppb	ppm Ag	ppm Cu	ppm Zn
		Alteration & Veins:White quartz veinlets from 2mm - 15mm at 45°	3016	19.1	20.0	0.9	tr			200			
		. witb minor Py + red alteration in selvage	3017	20.0	20.7	0.7	tr			15			
		Mineralization:tr Cp at 20.1											
20.7	21.5	BANDED MAFIC-INTERMEDIATE VOLCANIC											
		Dk. green, f.g., chloritic. Moderately - strongly magnetic.											
		Structure: Thin banding + schistosity at 45°											
		Mineralization:1-5% diss.n euhedra + streaks of Py											
			3018	20.7	21.5	0.8	2-3			10			
		Veins:21.0m - 4mm white qtz with 5% Py isolated grains of Cp + tr grey mineral(MoS2)											
21.5	23.9	ALTERED PORPHYRITIC FELSIC DYKE											
		lt. grey t o pink; f.g. matrix with 1-2% 0.5-3mm feldspar											
		Structure: Upper Ct 45°; Lower Ct irregular.											
		Alteration & Veins: 22.1 - 22.5 - 40 % white qv. up to10cm with	3019	21.5	22.0	0.5	tr			3			
		minor pale green mica;red altered selvages	3020	22.0	22.6	0.6	3			99			
		-Alittle Py in veins + wallrock - veins at 45°+15°23.2-23.4	3021	22.6	23.2	0.6	1			15			
		- 50% white qtz. red alt. selvages minor py.	3022	23.2	23.5	0.3	1/2-1			nil			
			3023	23.5	24.0	0.5	tr			3			
		Mineralization:See veins. Minor diss'd Py											
		Remarks:22.5 - 22.2 Chl. schist with 5% c.g. Py											
23.9	24.5	BANDED MAFIC-INTERMEDIATE VOLCANICS											
		As above 20.7 - 21.5											
		Structure: Thin banding foliation outlined by Py - contorted ~ 60°	3024	24.0	24.5	0.5	4-5%			5			

Metres From	To	Description	Sample Number	From	To	Length	est% Py	est% Cp	est% Sph	Assays Au ppb	ppm Ag	ppm Cu	ppm Zn
		Mineralization:4-5% streaks -diss'd Py											
24.5	32.4	FELDSPAR PORPHYRY DYKE											
		As above - grey to pink in places:											
			3025	24.5	25.0	0.5	tr			5			
		Structure: Cts at 60° + 40° Mod. fractured.	3026	25.0	25.4	0.4	tr			66			
			3027	25.4	26.2	0.8	tr			31			
		Alteration & Veins: 25.2 -5cm white qv at 20°	3028	26.2	27.2	1.0	tr			48			
		A little Py tr Cp + thin weak red altered selvage											
		26.4-26.5 15% stock work grey calc.+ weak red: alt	3029	29.9	31.4	1.5	tr			103			
		Minor red alt. here + there throughout:	3030	31.4	32.4	1.0	tr			45			
32.4	48.4	DEFORMED MAFIC - INTERMEDIATE VOLCANIC											
		Dark green, f.g. chloritic rich rock. Non magnetic to strongly magnetic due to fine magnetite.											
		Structure: Generally massive appearance to streaky banding but looks like flow.Foliation schistosity at 45° - 55°.	3031	32.4	33.0	0.6	1-2			10		19	136
			3032	33.0	34.3	1.3	5-6			264		248	137
			3033	34.3	35.5	1.1	1-2			7		49	85
		Alteration:No recognizable alteration.	3034	35.5	37.0	1.5	1-2			33		30	98
		47.1-47.5 -sparse cm. - thick bleached bands with white mica + pale green sericite.											
			3035	41.4	42.9	1.5	5-6			18		63	127
			3036	42.9	44.4	1.5	3			nil		72	125
		Mineralization:Lean - heavy diss'n m.g. euhedral Py; beaded	3037	44.4	45.5	1.1	1			9		9	107
		contorted streaks + up to 1cm M.S. Dull brownish Py	3038	45.5	46.6	1.1	tr			75		8	67
		min'd throughout with at least 1% - 2% Py; 46.2 tr MoS2	3039	46.6	47.1	0.5	1/2			12		31	83
		in 8mm q.v. at 25°	3040	47.1	48.4	1.3	3-4			50		21	92
		Remarks:45.5-46.6 - Altered porphic informed dyke - 'grid' bleaching + weak red alt'n											
		Banded red sediment-like 32.4-34.3; 41.4-42.6 + 47.1-48.4											
		Veins:Minor light grey qv + qtz calcite with tr Cp 33.5 - 33.8, 47.6 - 47.2 two 5mm lt grey qtz.											

Metres From	Metres To	Description	Sample Number	From	To	Length	est% Py	est% Cp	est% Sph	Assays Au ppb	ppm Ag	ppm Cu	ppm Zn
48.4	59.3	F.P. DYKE WITH ALTERED FP.											
		As above lt. grey - orange-red where altered; A few phenocrysts up to 1cm.	3041	48.4	49.3	0.9	tr			925			
			3042	49.3	49.8	0.5	2-3			369			
		Structure: Cts 45° - 160° No fabric, veined sections fractured at 45°	3043	49.8	50.6	0.8	tr			5			
			3044	50.6	51.6	1.0	-			7			
			3045	51.6	52.0	0.4	½			2			
		Alteration & Veins: White qtz ± chl. ± dolomitemake up to 3-4% of unit; veins from 5cm up to 15cm. Most of unit below 55.2 has red alt'n	3046	52.0	53.0	1.0	tr			7			
			3047	53.0	53.8	0.8	-			3			
			3048	53.8	54.1	0.3	2			127			
			3049	54.1	55.2	1.1	-			2			
		Isolated clusters tourmaline? in vein margins e.g. 50.5 'stylolite' like black metalic (could be MoS2 -here + there in qv. Vein detail 49.4 - 49.6 20% up to 1.5cm	3050	55.2	56.4	1.2	3			362			
			3051	56.4	57.6	1.2	tr-½			98			
			3052	57.6	58.5	0. 9	½			22			
		50.5 -3cm; 51.8 - 15cm; 53.9 - 5cm. 55.3 - 56.3 0.5 - 7cm veins. 25% qtz; 57.4 - 3 cm; 58.2 - 1.5cm	3053	58.5	59.3	0. 8	½			2			
59.3	64.25	DEFORMED MAFIC - INTERMEDIATE VOLCANICS											
		Fine grained to med. fine dk. green - grey relatively soft, mostly strongly magnetic; Composed mainly of chlorite + carb.-including some calcite.	3054	59.3	59.8	0.5	4			nil		18	44
			3055	59.8	61.1	1.3	2			5		27	91
		Structure: looks massive .uniform with thin streaky banding + foliation -schisosity at 50°- 60°	3056	61.1	61.7	0.6	1			5		55	98
			3057	61.7	63.1	1.4	tr			nil		38	70
		Bottom 20 cm is a fine bx or fragmental	3058	63.1	64.25	1.15	3			15		94	46
		Alteration: Minor lt. grey - short sections < 1 cm to 12 cm - alteration mainly bleaching + non-fizzy carb. with abundant fine Py. 59.6 - 12cm; 60.3 - 3cm; 61m - 5cm											
		Mineralization: Beaded streaks, bands diss'n up to 6mm S.M.Py; up to 5-8%/ 10cm											
64.25	66.5	ALTERED MAFIC - INTERMEDIATE VOLCANIC											
		As above except 30-40% light grey bleaching - carb. - Py											
		Structure: 1-2cm mud seam at top at 70° - probably marks a											

Metres From	To	Description	Sample Number	From	To	Length	est% Py	est% Cp	est% Sph	Assays Au ppb	ppm Ag	ppm Cu	ppm Zn
		small fault. Sections broken core- 0.4m lost core between 64.25 +65.55m. includes a small grind at 65.5 and loss from fault. Alteration veins at 20° - 0°											
			3059	64.25 (0.4m lost	65.55	1.30 core)	8-10			nil		34	30
		Alt:Strong bleaching - carb. fine Py - 30% - 40% grey alt'n											
		Mineralization:Heavy diss'n - vein - like streaks in lt. grey alt'n up to 20%/20cm.	3060	65.55	66.50	0.95	3-4			12		57	29
66.5	75.8	MASSIVE MAFIC-INTERMEDIATE VOLCANICS. WITH BLUE QTZ PHENOCRYSTS Dk grey green med. fine grained H=3-4; fine granular texture - sparse pale blue qtz phenocrysts ^1mm mainly carbonate chlorite ± a pale mica (?) + finely diss'd mt - strongly magnetic throughout.	3061	66.5	68.0	1.5	2			5		292	32
			3062	68.0	69.5	1.5	3			9		133	35
		Structure: No primary volc struct. recognized.Streaky thin banding here + there + schistosity at 50° - 65°	3063	73.3	74.3	1.0	½-1			3		53	39
			3064	74.3	75.7	1.4	5-6			22		90	43
		Alteration & Veins:Minor 0.5-10cm lt. grey beads with celcite bleaching fine Py + a little pale green mica - Lt. grey bands 30% of 30% 1m. Minor white qtz - calc at 66.9m Streaks up 2% Py overall;											
		Min:Py as diss'n + beaded streaks.conc'd in lt. grey bands; Heavy diss'n in a S.M.Py up tr Cp with lt. grey calc. at 66.8cm to 5cm. 2% Py overall;											
		Remarks:Could be massive. unbedded tuff or flow.											
75.8	77.2	PORPHYRITIC FELSIC - INTERMEDIATE DYKE As above; Fine granular texture Hard - 1% fsp. phenocrysts Structure: Cts 80° and 50° Massive											
		Alteration & Veins: 2-3% white qtz.+ qtz-chl. veins . up to 1cm with wide selvages of pale brown silification + a little	3065	75.7	77.2	1.5	tr-½			nil		15	42

Metres From	To	Description	Sample Number	From	To	Length	est°o Py	est°o Cp	est°o Sph	Assays Au ppb	ppm Ag	ppm Cu	ppm Zn
		diss'd fine Py											
77.2	82.6	MASSIVE MAFIC - INTERMEDIATE VOLCANIC											
		As above. strongly magnetic	3066	77.2	77.8	0.6	1-2			nil		18	57
			3067	77.8	78.7	0.9	1-2			7		20	55
		Structure: Weak schistosity at 50° Streaky banding at bottom.Indistinct banding in higher sulphide sections.	3080	78.7	80.1	1-4	1-2			9		-	-
			3068	80.1	80.7	0.6	1			14		11	31
		Alteration & Veins:Rare lt. grey bleacaed bands up to 1cm Sparse lt. grey calcite veinlets.	3069	80.7	81.3	0.6	4-5			12			
			3070	81.3	82.4	1.1	tr			7			
		Mineralization: Strong diss'n beaded streaks med grained Py Conc. up to 5% /30cm 2% overhall.											
		Remarks:Massive flow or tuff											
82.6	91.0	DEFORMED FELSIC FRAGMENTAL QTZ. PHYRIC											
		Light to med. grey. Indistinct fine lLapilli to coarse grain tuff bx. 1- 10 % bright blue qtz. phenocrysts . Non-magnetic	3071	82.4	83.3	0.9	3-4	-	-	15	0.1	25	31
			3072	83.3	84.0	0.7	5	tr	tr	12	0.1	300	23
		Structure: Strong schistosity at 45°-60° Phenocryst broken granulated.	3073	84.0	85.0	1.0	5	-	tr	9	0.1	19	29
			3074	85.0	86.0	1.0	2	-	-	9	0.1	28	46
		Alteration & Veins: A little light grey bleaching at top + minor sil'n (?) here + there (could be primary)	3075	86.0	86.9	0.9	1	-	-	nil	0.1	28	55
			3076	86.9	88.0	1.1	3	tr	tr	5	0.1	29	24
			3077	88.0	89.0	1.0	3	-	tr	2	0.1	11	24
		Mineralization:Heavy + lean diss'n streaks - up to 2cm S.M.Py .Mainly interstial (primry + minor vein like Py. Scattered grains lean diss'n very pale honey coloured sphalerite ?? here and there throughout tr Cp here and there	3078	89.0	90.0	1.0	4	-	tr	3	0.1	22	24
			3079	90.0	91.0	1.0	2	-	tr	5	0.1	77	30
		Remarks:90.7-90.9 Cherty exhalite . Interbedded with intermediate - mafic tuff at bottom + top:											
91.0	105.6	MASSIVE QUARTZ PHYRIC INTERMEDIATE VOLCANIC											
		As above 66.5-75.8m.Sections with fine diss'd mt: 'sugary'											

Metres From	To	Description	Sample Number	From	To	Length	est% Py	est% Cp	est% Sph	Assays Au ppb	ppm Ag	ppm Cu	ppm Zn
		textured vitreous lustre; Structure: Indistinct thin banding (structural or bedding) + weak schistosity at 55° - 45°	3081	91.0	91.9	0.9	1-2	-	tr	5			
			3082	91.9	92.4	0.5	2	-	-	nil			
		Alteration & Veins:Minor bleached lt. grrey bands + streaks up to 3cm with Py concentration:Minor bright blue qtz veinlets(with blue phenocrysts) e.g. at 94.7m 101.7 - 1cm white qtz. at 45°	3083	98.2	99.0	0.8	2	-	-	5			
			3084	101.1	101.6	0.5	1-2	-	-	3			
			3085	104.3	105.6	1.3	2	-	-	10			
		Min:Discontinous diss'n, beaded streaks:1% overall											
		Remarks:93.4-93.8 felsic volcanic. 93.8-94.4 F.P. dyke;											
105.6	115	DEFORMED QTZ PHYRIC FELSIC TUFF -light to med. grey H=3-4 -composed of altered felspar, white mica, variable amounts pale blue qtz.'phenocrysts'. Upper 1m composed of fragments up to 5cm, remainder is fine lapilli to ash. Non-mag.	3086	105.6	106.6	1.0	4-5		tr	8	0.1	23	13
			3087	106.6	107.8	1.2	3		-	3	0.1	12	10
			3088	107.8	109.0	1.2	1		-	7	0.1	28	16
			3089	109.0	110.0	1.0	4-5		-	10	0.1	28	6
			3090	110.0	111.5	1.5	1-2		-	2	0.1	24	24
			3091	111.5	113.0	1.5	2-3		-	7	0.1	26	15
			3092	113.0	114.0	1.0	3		-	7	0.1	20	18
		Structure: Strong deformed with fine wispy, lenticular schostosity at 45°	3093	114.0	115.0	1.0	2		-	7	0.1	21	21
		Alteration & Veins:fine white mica throughout(alteration?) Wispy pale green mica (sericite) here + there in bleached sections. 105.9-106.6 strong silification.Upper part lighter coloured due to sericite etc. + lower part darker,less altered.											
		Mineralization:1-5% Py as diss'n, beaded streaks, massive bands up to 1cm. + intersticial in fragmental section near top;											
115.0	129.0	MASSIVE F.P. DYKE As above											

Metres From	To	Description	Sample Number	From	To	Length	% Py	Assays ppb Au
		Structure: No penetration deformation . Upper Ct at 40°with wallrock inclusions. Lower Ct at 40° with large wallrock inclusions.						
		Alteration & Veins: A little weak feldspar alteration near bottom	3094	119.8	120.1	0.3	tr	nil
			3095	120.1	120.4	0.3	½	nil
		120.2 4cm white qtz with weak Py selvage -40°	3096	120.4	120.7	0.3	tr	3
			3097	126.0	126.7	0.7	tr	nil
		126.2-126.6 Rusty fracture with a little fault(?) bx:						
		Mineralization:tr - diss'd Py here + there						
129.0	130.4	DEFORMED QTZ. PHYRIC FELSIC TUFF As above 105.6-115m:						
		Structure: fine streaky banding - schistosity at 40°- 60°						
		Alteration & Veins:A few white to blue white qv. + lenses up to 1cm along schistosity; Minor pale green sericite;	3098	128.6	129.5	0.9	-	10
		Mineralization: Diss'n streaks; layer of Py up to 5mm;	3099	129.5	130.5	1.0	-	150
130.4	134.6	DEFORMED QTZ PHYRIC FELSIC TUFF As above						
		Structure:Upper Ct 50°; Lower Ct 35°						
		Alteration & Veins:a little bleaching, minor red (hem) -131.4 - white c.g. qv. with tr Py + minor red alt'n of wallrock veins at 30°	3100	131.3	131.6	0.3	tr	53
		Mineralization: tr Py here + there	3101	135.8	136.2	0.4	-	24
134.6	138.1	DEFORMED QTZ PHYRIC FELSIC TUFF As above	3102	137.2	138.0	0.8	-	5

Metres From	To	Description	Sample Number	From	To	Length	est% Py	est% Cp	est% Sph	Assays Au ppb
		Structure: foliation - schistosity 45° - 60°								
		Alteration & Veins: 135.9-136.1 -Two 1cm blue qtz + c.g. dark Py veinlets at 50° with tr pale sph?								
		137.2-137.4 - two 1m-3m white qtz veins tr Py 137.8 - 0.5cm grey qv.								
		Mineralization: See veins								
138.1	152.1	COARSE GRAINED MAFIC VOLCANIC OR GABBRO Med. dark grey med. coarse grained in fine grained sections; Texture with coarse grained in fine grained sections chl'd mafics in finer feldspars.								
		Structure: Mod. to strong foliated at about 45° intercalculated with massive sections.								
		Alteration: A little calc in lower part.								
		Veins: 147.3-148.3 - chl'd shear - 45° with 20% white qtz. calc + mod. pyritic selvage	3103	147.3	148.3	1.0	1			2
		150.8-151.2 25% white qtz.± calc. + minor. py	3104	150.8	151.3	0.5	1			10
			3105	151.3	152.3	1.0	tr			3
		Mineralization: Minor streaks + diss'd Py with 5% Py/10cm at 141m								
		Remarks: { 146.6-147 and {148.8 -150. Gabbro sections with varied texture and scattered blue qtz. phenocrysts.								
152.1	153.4	SHEARED GABBRO OR MAFIC VOLCANIC Dark green med-grained chloritic;								
		Structure: Strong schistosiity - contorted -20°								
		Alt; & Veins: Strong ,pervasive calc. + calcite partings	3106	152.3	153.4	1.1	1			55

Metres From	To	Description	Sample Number	From	To	Length	est% Py	est% Cp	est% Sph	Assays Au ppb
		Mineralization: Scattered Py cubes.	3107	153.4	154.3	0.9	3			746
			3108	154.3	155.1	0.8	1-2			31
153.4	155.9	QUARTZ VEIN Coarse grained white quartz with a little calcite + 15°-20° angular chloritic inclusions. 2-3% coarse Py in inclusions	3109	155.1	155.9	0.8	1-2			128
		Structure: Cts + banding at 40° to 30°								
155.9	156.6	SHEARED MAFIC VOLC.-GABBRO WITH QTZ. VEINS As above. Banding schistisity 20°-45°	3110	155.9	156.6	0.7	tr			106
			3120	156.6	157.0	0.4	tr			2
		Veins:20% contorted white qtz;minor Py + tr Cp.								
		Alteration : Strong calc alteration.								
156.6	160.3	COARSE GRAINED MAFIC VOLCANIC OR GABBRO As above;								
		Mineralization:1% Py as scattered grains.								
160.3	162.4	COARSE VARIED TEXTURE GABBRO-DIORITE Distinct texture 1-3mm long mafic crystals in c.g. feldspar Mafics randomly oriented to weakly aligned.Sparse blue qtz. 'eyes': Feldspar saussurite								
		Structure: nearly massive: upper Ct gradational								
		Mineralization:Scattered Py grains								
162.4	163.5	INTERMEDIATE FELDSPAR PORPHYRY DYKE As above;relatively unaltered								
	163.5	END OF HOLE Note: Last block is 164m. A.W.Beecham.								

A. W. Beecham

Metres From	To	Description	Sample Number	From	To	Length	est% Py	est% Cp	est% Sph	Assays Au ppb	ppm Ag	ppm Cu	ppm Zn
		General Comments:											

Property	**Tp**	**Azimuth**	**Date started**	**Corrected**	**Dip**	**Tests**	**(°)**	**Location Sketch**
Lavigne Patents	Timmins	grid 202°	3rd Oct. 1997	Depth	Mag. Az	True Az	Dip	
Project	**Lot & Conc.**	**Dip**	**Date Completed**					
Sheraton-Timmins		46.5° "layout"	5th Oct.1997	101	46°			
Claim #	**Co-ordinates**	**Length (metres)**	**Drilled by:**					
P115841.P34453		119m	NDS Timmins					
Grid #	46m west of L18E	**Collar Elevation**	**Logged by:**					
1995 -115°Base Line	2+00.75		A.W. Beecham					

Metres From	Metres To	DESCRIPTION	Sample Number	From	To	Length	est.% Py	est% Cp	est% Sph	ASSAYS Au ppb	ppm Ag	ppm Cu	pp Zn
		Objectives:- Test I.P. Anomaly On L18E. Sheraton-Timmins Township Line											
0	31.4	CASING Boulders of diabase, F.P. mafic volcanics and "granite" cored -3.5m recovered.											
31.45	32.9	DEFORMED MAFIC VOLCANIC(?) OR SEDIMENT Fine grained, dull dark green-grey chloritic but with slightly vitreous luster: mod. strongly magnetic. Structure: Controlled thin bands at top ; strong schistosity - cleavage at 60° Mineralization: Discontinuous - heavy diss'n of py 2% overall.	3111	31.45	32.9	1.45	2			14			
32.9	46.4	MASSIVE FELDSPAR PORPHYRY DYKE Dk. grey matrix with 35% lt. grey-white feldspar phenocrysts.Most feldspar 0.5-2mm with scattered 8-10mm ones: Fresh + unaltered Structure: Cts at 50° - conformable to schistosity of country rocks. Very weak fabric at about 45° Mineralization: tr diss'd Py.											
46.4	69.6	MAFIC - INTERMEDIATE VOLCANIC (MASSIVE TUFF?) Med. - dulll grey; H=3-4 Mod. strongly mag.Chlorite rich;rare blue qtz. phenocrysts;Vitreous lustre on broken surface.Fine sand-like texture core surface; fine diss'd mt; Structure: Thin streaky banding;Strong schistosity at 45°- 50°, Some thin colour banding could be bedding?? 46.7 - 0.5cm gouge seam at 45°; 64m - deformed - tuff bx?											

Metres From	To	Description	Sample Number	From	To	Length	est % Py	est% Cp	est% Sph	Assays Au ppb	ppm Ag	ppm Cu	ppm Zn
		Alteration & Veins:Minor white qtz - calc veinlets	3112	50.6	51.3	0.7	1-2			7			
		at 51.4 m - 8cm qtz epiidote Py 75°	3113	51.3	52.0	0.7	1			10			
		at 59-64.3m - 15% lt. grey sections - coarse fragmental or alteration feature?											
		Mineralization:Good concentration of Py as diss'n + beaded streaks; massive layers + cross cutting vein like streaks up to 1cm.	3114	57.9-	59.4	1.5	½-1			22		22	67
			3115	59.4	60.9	1.5	4			67		38	47
			3116	60.9	62.3	1.4	2			82		46	44
		Py con'c as follows	3117	62.3	63.7	1.4	1-2			41		109	68
		46.4 - 50 1% Py	3118	63.7	64.6	0.9	3-4			38		320	39
		50 - 57.3 1% Py	3119	64.6	66.0	1.4	1			2		43	38
		57.3 - 59.8 2% Py											
		59.8 - 60.8 3-4%											
		60.8 - 63. 1-2%											
		63. - 64.6 3%											
		64.6 - 69.6 ½ - 1%											
		Remarks:Unit is probably a fine tuff-ash fall; dacitic composition; Lower Contact arbritary - could be interbedded											
69.6	90.3	MASSIVE QTZ PHYRIC INTERMED. VOLCANIC											
		Dk grey green, mostly f.g. H=4; Strongly magnetic; variable composition;Most has vitreous lustre + in places with fine actinolite, possible biotite(?)											
		1-5%, 1-2mm bright blue quartz crystal.											
		A few thin layers (1cm) of up to 15% blue qtz. Fine mt diss'd throughout - usually up to 4% (70.8m)											
		Structure: Streaky banded + foliated at top Ct at 50° - most of unit massive											
		Alteration & Veins: 75.1 -1cm qtz. calc Py chl 20°											
		775-78 - 1 cm vuggy, rusty vein 0°.Minor epidote streaks in lower part;											
		Minor 1-2mm blue qtz. veinlets in lower part.											

Metres From	To	DESCRIPTION	Sample Number	From	To	Length	est % Py	est% Cp	est% Sph	Assays Au ppb	ppm Ag	ppm Cu	ppm Zn
		Remarks: upper contact t/c - gradational 77.0-77.3 f.g. diabase; Probably massive tuff as gradational into above unit but could be dacite flow.Short sections varied textured c.g. diorite with blue qtz. phenocrysts at 87.6 + from 89.1-89.8m - (dykes?) Unit maybe a hornfels.	3121	74.6	75.3	0.7	3			77			
			3122	77.4	78.1	0.7	2			154			
			3123	83.1	83.4	0.3	3			26			
		Mineralization:Sparsely min'd with Py as diss'n, blebs, streaks; 74.8 - 4cm S.M Py; with minor pale brown min (sph?)											
90.3	93.5	PORPHRITIC DIABASE Dk. grey ,f.g. fresh ophitic texture, magnetic, a few % 1-3cm epidotized feldspar phenocrysts;											
		Structure: Cts 40°- 15°											
93.5	95.0	MAFIC-INTERMEDIATE QTZ PHYRIC INTERMED-VOLCANIC As above 69.6 - 90.3; Diss'n + streaks of mt.											
		Structure: banding foliation at 45°											
		Mineralization:tr diss'd Py; 94.9 - tr Cp with Py lt. grey calc. veinlet.											
95.0	108.4	BLUE QTZ DIORITE (CONTACT HYBRID ZONE) Coarse med. grained variable textured rock;Alternating med. + c.g. sections; 5-20% blue qtz. feldspar;chloritized mafics. Abundant mt + veinlets - 3 -5%											
		Structure: Some streaky banding + foli'n at 45°; mostly massive.											
		Alteration:Abundant epidote as wisps + veinlets + altering feldspars											
		Mineralization:Min.Py as scattered grains, + veinlets with mt.											

Metres From	Metres To	Description	Sample Number	From	To	Length	est% Py	est% Cp	est% Sph	Assays Au ppb	ppm Ag	ppm Cu	ppm Zn
		Remarks:Appears to be zone of mixed intrusive and partly digested fragments of wallrock- (possibly vent location) Very unusual intrusive.											
108.4	113.9	VARIED TEXTURED DIORITE-GABBRO Med. grey very coarse grained with laths of feldspars - similar to varied textures in Nipising Diabase: 60% feldspars; sparse, blue qtz eyes + veinlets Numerous partly digested wisps inclusions od dacite wallrock. Magnetite veinlets + streaks - up to 2 -3% mt.											
		Structure: wallrock sections fol'd at about 45°	3124	112.9	114.1	1.2	1			3			
			3125	114.1	114.8	0.7	½			nil			
		Alteration & Veins:Epidote - chloritic Py veinlets.	3126	114.8	115.2	0.4	½			2			
			3127	115.2	115.6	0.4	tr			nil			
		Mineralization:Streaks + diss'n Py with wallrock phase- up to 15%/2cm 1; minor diss'n ^ ½% overeall: 113-113.9 - diss'n + scattered blebs of Py in weakly alt. zone.											
113.9	119.0	FOLIATED INTERMEDIATE VOLCANIC OR INTRUSIVE Med. grey H=3; med.grained; non-mag. Structure: Strong foliation + schistosity at 45°.See veins Veins:Minor light grey calcite 114.3 -1cm grey qtz vein. 114.8 - 115.1 white-grey qtz. with alt'd wallrock; a little pale red alt below vein.Vein in calcite shear zone.Minor Py in wall rock. END OF HOLE. A.W.Beecham 7th October 1997 A.W.Beecham 13 Jan. 1998											

DIAMOND DRILL HOLE LOG HOLE No.2

Metres From	To	Description	Sample Number	From	To	Length	est% Py	est% Cp	est% Sph	Assays Au ppb	ppm Ag	ppm Cu	ppm Zn
		DRILLING NOTES -casing left in place. -Good water supply - used to drill HL#3. HK#4 GENERAL REMARKS -blue qtzs phyric diorite probably is feeder for some of qtz. phyrite tuff. Abundant magnitite in diorite (subvolcanic intrusions) and adjacent tuff suggests could be vent zone for hydra thermal system.											

Property	**Tp**	**Azimuth**	**Date started**	**Corrected**	**Dip**	**Tests**	(°)	**Location Sketch**
Lavigne Patents	Timmins	025°(grid N.)	5th Oct.1997	Depth	Mag. Az	True Az	Dip	
Project	**Lot & Conc.**	**Dip**	**Date Completed**	00	46°			
Sheraton-Timmins		46°	7th Oct.1997	100	46°			
Claim #	**Co-ordinates**	**Length (metres)**	**Drilled by:**					
P-34452		133.m	NDS Timmins					
Grid #	L22m East/4+39.9S	**Collar Elevation**	**Logged by:**					
1995 115°BL			A.W. Beecham					

Metres From	Metres To	DESCRIPTION	Sample Number	From	To	Length	est.% Py	est% Cp	est% Sph	ASSAYS Au ppb	ppm Ag	ppm Cu	pp Zn
		OBJECTIVES:- TEST I.P. ANOMALY L22E/4+00S											
0	4.0	CASING											
3.5	13.6	MASSIVE FELSIC VOLCANICS (OR ALTERED INTERMEDIATES) Med. - lt. grey f.g.;H=5 Sub conchoidal fracture. >90° feldspar ± qtz. with chl. + minor diss'd mt.Weakly mod. mag. Sparse1mm blue qtz.grains. Structure: Massive or with streaky fine beading; lowest 2m fol'd at 40° Minor broken core. Alteration & Veins: Mod. blotchy + fracture controlled sil'n mainly in middle of unit A little pale mica along schistosity.Sparse lt. grey qtz + calc with Py + chlorite up to 1cm. Mineralization:Py as mineral diss'n conc. in vein 5.6m Cp as blebs in 1mm calcite veinlets Remarks:No diagnostic features - probably altered dacite tuff.	3128	3.5	4.7	1.2	1			2			
			3129	4.7	6.2	1.5	1			7			
			3130	6.2	7.7	1.5	1-2			5			
			3131	7.7	9.2	1.5	½			3			
			3132	9.2	10.1	0.9	2			3			
			3133	10.1	11.0	0.9	tr			nil			
			3134	11.0	11.9	0.9	tr			7			
			3135	11.9	12.6	0.7	10			7			
			3136	12.6	13.6	0.1				nil			
13.6	77.7	FELDSPAR PORPHYRY DYKE Med. grey f.g. (not aphanitic) matrix with 50% 1-2mm feldspar + about 1% large, zoned euhedral feldspar up to 1cm x 2cm laths.Non-mag. Structure: Upper Ct 45°;Lower Ct at 30°. Massive + uniform 43.2 -46.5 Fracture Zone .Fractures at 45°;20° and 5° with a little red staining of feldspars. Alteration :Most of unit unaltered; 26.3-29.0. a few hairline to 1cm qtz.-calcite											

Metres From	To	Description	Sample Number	From	To	Length	est % Py	est% Cp	est% Sph	Assays Au ppb	ppm Ag	ppm Cu	ppm Zn
		veinlets with pale red brown salvages up to 15cm thick: tr Py in	3137	26.2	27.7	1.5	tr			10			
		selvages - Altered selvages make up 1/3 of section:	3138	27.7	28.7	1.0	tr			2			
			3139	28.7	29.6	0.9	tr			5			
		Veins: White qtz.-calcite up to 1cm here + there.											
		43.4 -4cm white qtz.-chl tr Py at 20°	3140	43.2	43.5	0.5	tr			nil			
		50.5-3cm band qv tr Py 35°											
		60.5-two- 3cm lt. grey qtz. + 3% large cubes of Py 20°	3141	50.4	50.6	0.2	tr			2			
		61.5-61.6 - minor calcite - chl + qtz. veinlets + pale red alt'n a litle c.g. Py	3142	60.3	60.8	0.5	1			5			
		64.1 Two - 2 cm lt. grey qtz. + c.g. Py + chl.											
		75.2-76.1 1-2cm qtz. chl. minor Py veins parallel to core.	3143	61.4	61.8	0.4	1			3			
			3144	64.0	64.3	0.3	1			nil			
			3145	75.2	76.2	1.0	tr			22			
77.7	94.7	INTERMEDIATE FINE TUFF											
		med.streaky grey f.g. h=5 weakly mod. magnetic; vitrous lustre.											
		Composed of altered feldspar ± whole white mica + 15-5%											
		'chlorite; Rare quartz -(some blue) phenocrysts.											
		Structure: Uniform distinctive thin streaky banding + schistosity at											
		35°. 'Hackley fractures;'											
		Streaky banding may be very elongated lapilli;	3146	81.2	82.1	0.9	2-3			3		18	17
		89.8-93 -Py outlines flattened clasts 1-2cm x 10-15cm likely whole	3147	82.1	82.9	0.8	2			nil		15	15
		unit is highly deformed tuff bx.	3148	82.9	83.8	0.9	4-5			5		28	16
		93.3 -Two 0.5-1cm shear, mud seams conformable to schistosity	3149	83.8	85.0	1.2	1			nil		10	24
		at 30°	3150	85.0	86.2	1.2	1-2			14		11	12
		83.2 - 1cm gouge + bx at 20° -conformable.	3151	86.2	87.3	1.1	4-5			nil		28	11
			3152	87.3	88.3	1.0	2-3			nil		17	26
		Alteration & Veins: 5-10% of unit thin bleached sections - slightly	3153	88.3	89.8	1.5	2			nil		9	10
		harder probably due to silification + fine white mica.	3154	89.8	90.8	1.0	3			nil		15	11
		Bleached zone contain fine pale Py diss'n ;	3155	90.8	91.8	1.0	3-4			9		20	11
		90.9-92.6 bleached, silicified;	3156	91.8	92.6	0.8	3-4			9		16	14
		Very minor grey calcite + calcite qtz. veinlets	3157	92.6	93.9	1.3	2-3			35		15	18
		94 - 94.2 -3cm + 1cm grey qtz. Py 20° cutting schistosity	3158	93.9	94.7	0.8	3-4			3		30	26

Metres From	To	DESCRIPTION	Sample Number	From	To	Length	est % Py	est % Cp	est % Sph	Assays Au ppb	ppm Ag	ppm Cu	ppm Zn
		Mineralization:Py as 0.5 to 2cm conformable massive bands + streaky irregulardiss'n.Some streaks are 'w' shaped + appear intersticial to flattened clasts. Concentratiopn up to 10%/20cm Average 2-3% throughout -2 types of Py coarse brown broken Py in massive streaks + pale fine diss'd Py in bleached sections.											
94.7	102.3	ALTERED INTERMEDIATE FELSIC TUFF & TUFF BX Pale grey med. grey in places streaky. f.g. even grained -Feldspar - qtz + white mica; non-magnetic Structure: Primary volcanic bx (tuff bx) Very elongated clasts outline by bands + diss'n of Py; Strong cleavage- schistosity average 30° (measured) Interstitial Py granulated, fractured. Alteration & Veins:Most of the unit partly alt. to fine white mica - locally very pale green;variable weak to strong pervasive sil'n -strongest with heavy Py 96.9m - 1cm grey qtz. 3% Py 40° cross cuts foliation. Mineralization: Massive bands, streaks (intersticial to clasts) deformed brown Py from beaded streaks up to 10cm -15cm solid Py; fine diss'n pale Py more prevalent in strongly altered sections; 94.3 -60-70% Py /20cm. Intersticial Py very bright but tarnish brown quickly; Remarks:Typical altered felsic pyroclastics.Similar pyritic envelope rocks of Mobrun deposit Dufresney Twp. neat Quebec;	3159	94.7	95.4	0.7	12			15	0.6	38	4
			3160	95.4	96.0	0.6	35			17	0.2	54	4
			3161	96.0	97.5	1.5	4			3	0.1	28	4
			3162	97.5	99.0	1.5	3-4			5	0.2	22	1
			6163	99.0	99.6	0.6	8			14	0.1	18	1
			3164	99.6	101.0	1.4	3			5	0.2	20	12
			3165	101.0	102.5	1.5	3			nil	0.1	14	18
			3166	102.5	103.4	0.9	5			nil	0..2	40	10
103.4	108.3	INTERMEDIATE FINE TUFF as above 77.7-94.7; non-mag. No qtz phenocrysts.											

Metres From	To	Description	Sample Number	From	To	Length	est% Py	est% Cp	est% Sph	Assays Au ppb	ppm Ag	ppm Cu	ppm Zn
		Structure: Strong cleavage - schistosity at 30°											
		Alteration : 15% of unit bleached fine white mica + weak silification.	3167	103.4	104.9	1.5	2			nil		9	17
			3168	104.9	106.0	1.1	2-3			nil		21	16
		Veins:5mm blue -white qv. at 103.8	3169	106.0	107.0	1.0	4			7		104	23
			3170	107.0	108.2	1.2	1			nil		25	23
		Mineralization:Py as diss'n- streaks + layers up to 1cm thick; 3% Py overall;											
108.3	110.0	INTERMEDIATE - MAFIC DYKE (SILL)											
		Med.grey, med. fine grained. composed of altered feldspar + chlorite.											
		Structure: Cts conformable with schistosity in tuffs;											
		Veins:Minor blue grey qtz. - calcite veinlets;											
		Mineralization:tr -½% diss'd Py	3171	109.4	109.9	0.5	1			nil			
110.0	113.2	FRACTURED INTERMEDIATE TUFF											
		As above											
		Structure: Strong schistosity at 30°-0°											
		Minor sections of broken core.											
		Mineralization:tr diss'd Py											
113.2	113.5	FAULT ZONE - QUARTZ VEINS											
		Strongly bleached + seritized tuff with 1/3 lt. grey qtz partings.	3172	112.6	113.2	0.6	1			nil			
		2(?)x 1cm gouge seams at 30° along schistosity;	3173	113.2	113.5	0.3	5			17			
113.5	116.2	ALTERED IMMEDIATE FINE TUFF											
		light. streaky grey, f.g. H=5-6											
		Mainly feldspar. quartz. white mica;											
		Structure: strong schistosity at 30°											

Metres From	To	Description	Sample Number	From	To	Length	est% Py	est% Cp	est% Sph	Assays Au ppb	ppm Ag	ppm Cu	ppm Zn
		Alteration :Mod. fine sericite + sil'n;	3174	113.5	114.6	1.1	3			nil		65	5
			3175	114.6	115.6	1.0	3			nil		58	6
		Mineralization:Streaks diss'n + brobands broken Py up to 1cm thick	3176	115.6	116.2	0.6	3			nil		23	20
116.2	121.2	INTERMEDIATE FINE TUFF As above; non mag.											
		Structure: streaky banding + schistosity at 25°-30° Flattened clasts >10cm outlined by Py in bottom 1m and at 116m											
		Alteration:A little bleaching -white mica;	3177	116.2	117.5	1.3	1			5			
			3178	117.5	118.7	1.2	1			5			
		Mineralization:Py streaks up to 1cm + diss'n;	3179	118.7	120.2	1.5	1			2			
			3180	120.2	121.2	1.0	2-3			15			
		Remarks:Probably highly deformed tuff bx;											
121.2	129.1	INTERMEDIATE DYKE(?) Dull grey mostly f.g. with some med.-fine grained vitreous lustre; non-mag.Composed of altered f.s.p. palelmicas + some chlorite											
		Structure: Massive to weakly fol'd in short sections (deforms differently than surounding tuff.) Cts at70°+25°											
		Alteration:1-2% lt.grey calcite (in contrast to tuff which has almost no calcite veining - suggests dyke more basic)											
		Mineralization:tr diss'd Py See Remarks.											
		Remarks:127.9-123.6 Septum intermediate tuff with 2-3% Py											
129.1	133.0	INTERMEDIATE FINE TUFF As above											

Metres From	To	Description	Sample Number	From	To	Length	est% Py	est% Cp	est% Sph	Assays Au ppb	ppm Ag	ppm Cu	ppm Zn
		Structure: very thin streaky banding + schistosity - cleavage at 50° - 30°. Coarse tuff bx at top. Alteration: 129.1-129.6 bleached dull to white mica + sil'n. Veins: Minor qtz.-feldspar at 129.4m Mineralization: Diss'n + streaks Py especially at top. 8cm pod of Py at 129.5. Overall 2-3% of Py	3181	129.0	129.7	0.7	4			35			
	133.0	END OF HOLE GENERAL REMARKS 1. Concentrations of Py in intermediate to felsic tuff breccia similar to Pyrite envelope around V.M.S. deposite hosted by felsic pyroclastics. Sericitized, silicified sections from 94.7-103.4 + 113.5-116.2 may carry low gold values. 2. Small core angles, typically 30° indicate that dips generally grid north at about 75° 3. Narrow fault zone with ribbon-like qv-Py from 113.2 - 113.5 may carry gold values. A.W. Beecham 10th October 1997 13/1/98										

Property	Tp	Azimuth	Date started	Corrected	Dip	Tests	(°)	Location Sketch
Kaltwasser-Demarchi	Sheraton-Timmins	grid 205°	8th Oct. 1997	Depth	Mag. Az	True Az	Dip	
Project	**Lot & Conc.**	**Dip**	**Date Completed**					
Sheraton-Timmins		45° "layout"	9th Oct.1997	100	42°			
Claim #	**Co-ordinates**	**Length (metres)**	**Drilled by:**					
			NDS.Timmins					
Grid #	L15E/3+75S±	**Collar Elevation**	**Logged by:**					
1995 115°			A.W. Beecham					

Metres From	Metres To	DESCRIPTION	Sample Number	From	To	Length	est.% Py	est% Cp	est% Sph	ASSAYS Au ppb	ppm Ag	ppm Cu	pp Zn
		OBJECTIVES:- TEST I.P. ANOMALY ON LINE 15+00E AND TOWNSHIP LINE .											
0	11m	CASING											
11m	29.4m	DIORITE -GRANODIORITE Med.grey, e.g. Random feldspars 2mm-8mm with chloritized interstitial mafics - spotted appearance in placeS. Mod. to strong mag. H=6 to 5 About 80% feldspar ; sparse blue qtz. grains. Structure: Mostly massive with short foliated, schistose sections. - at about 45° Lower Ct at 70° Weakly fractured with a little broken core. Veins:Minor white qtz. + qtz-calcite veins with no min'n or alteration Minor qtz.-calc chl Py veinlets e.g. at 17cm Alteration 25.0-26cm bx'd sil'd + a little red alteration + Py Mineralization:Minor diss'n of Py here + there + with minor qtz. or qtz -calc veinlets Remarks:26.0-26.7 - Altered mafic - intermediate dyke	3182	16.7	17.3	0.6	3			10			
			3183	24.7	25.2	0.5	3			2641 2571 Avg 2624	2nd		)
29.4	30.9	FELDSPAR PHYRIC INTERMEDIATE DYKE med dull red; med. f.g. with 1-2% white feldspar phenocrysts Vitreous lustre - 80% + felsic min. Structure: Intrudes shear zone in diorite. Cts - 70°											

DIAMOND DRILL HOLE LOG HOLE No.4

Metres From	Metres To	Description	Sample Number	From	To	Length	est % Py	est% Cp	est% Sph	Assays Au ppb	ppm Ag	ppm Cu	ppm Zn
30.9	38.6	BLUE QUARTZ DIORITE - GRANODIORITE Med to lt. grey + blue med. c.g.; spotted with altered mafics;H=5; strongly magnetic except for altered min. sections: ~ 80 % feldspar with up to 10% 1-3mm blue qtz. grains. Blue qtz. increases downwards. Several % magnetite + chloritized mafics. Structure: Mostly massive. Some shattered + recemented sections (where altered and Pyritized) Alteration & Veins:white qtz veins with Py up to 2cm thick;Fractured sections with irregular Py veinlets 32.7-32.4 shattered, sit'd cut by Py veinlets + white Qtz Py with red altered selvages veins at 60° - 30° - 0° -Alteration relatively weak as mt preserved within altered zones Mineralization:2-3%Py throughout with concentrations in veinlets Py in veins as Py veinlets + possibly in shattered sections Remarks:Same as intrusives in DH#2	3184	30.8	31.7	0.9	1			57			
			3185	31.7	32.7	1.0	½-1			3			
			3186	32.7	33.4	0.7	5			516			
			3187	33.4	34.3	0.9	1			15			
			3188	34.3	35.1	0.8	3			55			
			3189	35.1	36.2	1.1	1			23			
38.6	48.1	CHLORITE - SERICITE SCHIST - (MAFIC TUFF SEDIMENT) Dk. green fine to med. fine grained soft H= 3-4 Upper part most mag Structure: Strong schistosity upper part at at 45° - 30° Lower part crumpled - from 20° to 0° to 135° folded 44 - 48 m sections of broken core + a little gouge Alteration & Veins:Crumpled section 44 - 48 bottom abundant calcite partings 46.3-48.1 - 10% lens grey qtz with streaks red altered rock Mineralization:Minor diss'd Py near top.	3190	46.3	47.2	0.9	-	nil					
			3191	47.2	48.1	0.9*		nil					

Metres From	To	DESCRIPTION	Sample Number	From	To	Length	est % Py	est% Cp	est% Sph	Assays Au ppb	ppm Ag	ppm Cu	ppm Zn
48.1	49.3	BLUE QTZ. GABBRO Coarse randomly oriented feldspars with 30% -40% chl'd mafics + a few % magnititic + 2-4mm blue qtz. crystals. (60° + 70° -cross cutting											
49.3	51.8	CHLORITE - SERICITE SCHIST (MAFIC TUFF-SEDIMENT) As above 38.6 - 48.1											
51.8	59.6	VARIED TEXTURED GABBRO Med. green-grey coarse to very coarse grained -alternating coarse diabase to pegmatitic 65% Feldspar remainder chl'd mafics + several % mt. Scattered bright blue qtz. grains. Structure: Numerous mafic inclusions. Generally massive + structureless. Alteration: Feldspars weakly saussenized - streaks veinlets epidote Mineralization tr diss'd Py											
59.6	63.6	INTERMEDIATE DYKE Med. dull grey, f.g. H=4 granular textured. Vitreous luster mod. mag. Structure: chilled, bleached contacts at 65°, 45° Veins: a few white calc-veinlets up to 2cm with diss'd Py in selvages.											
63.6	76.5	MED. GRAINED FOLIATED GABBRO OR MAFIC FLOW Dk. green, even grained H=3-4. Non mag. looks vitreous on broken surfaces (carbonate?) Original mafic content 40-50% Sparse 1-2mm blue qtz 'eyes'											

Metres From	To	Description	Sample Number	From	To	Length	est% Py	est% Cp	est% Sph	Assays Au ppb	ppm Ag	ppm Cu	ppm Zn
		Structure: Uniform dyke-like foliation -schistosity at 50° - 25°											
		Alteration:Minor light grey calcite + calcite qtz veinlets: A little pervasive calcite. Probably pervasive non-fizzy carb?											
		Veins:72.3 - 3cm grey qtz. calc. weak Py selvage. at 0°	3192	72.2	72.6	0.4	tr			nil			
76.5	84.3	FOLIATED MAFIC VOLCANIC (TUFF?) Dk. grey fine med. grained: H=4 non-magnetic. altered feldspar. chlorite + carbonate;											
		Structure: Weak foliatiopn + schistosity at 60°;short sections of broken core with a little fault gouge. Streaky fine banding.											
		Alteration & Veins:a little pervasive calcite. + a few % calcite veinlets. Blebs + lenses grey qtz. 25%/30cm at 77.7 and 15% from 82.9 -83.6 in tr cp at 77.8	3193	77.6	78.0	0.4	tr			2			
			3194	82.8	83.7	0.9	tr			nil			
		Mineralization: tr diss'd Py here + there.											
		Remarks:79 - 79.9 grey med. fine grained intermediate dyke at 20°.Upper contact graditional with m.g. gabbro:											
84.3	87.2	INTERMEDIATE - FELSIC DYKE (FELDSPAR PHYRIC) Med. dull grey, f.g. granular texture - H=6: mod. magnetic. weakly feldspar phyric											
		Structure: Upper ct obscured with broken core.Lower Ct. chilled at small angle.											
		Alteration & Veins:A few % of rock is pale brown 'grid' sil'n with 1% Py + tr Cp.	3195	84.2	85.7	1.5	tr-½			564			
			3196	85.7	87.0	1.3	tr-½			208			
87.2	89.3	QTZ. PHYRIC INTERMED. DYKE Dk. green med.f.g. vitreous luster;granular with 1% 1-7 mm blue qtz. phenocrysts, mod. magnetic.											
		Structure: Massive to weakly foliated.											

Metres From	To	Description	Sample Number	From	To	Length	est% Py	est% Cp	est% Sph	Assays Au ppb	ppm Ag	ppm Cu	ppm Zn
89.3	90.7	FOLIATED MAFIC VOLCANIC (TUFF) As above 76.5-84.3											
90.7	94.1	DIORITE - GABBRO Med.-dk grey green. coarse grained - 80% feldspar with chl'd mafic. sparse blue qtz. eyes. Mod. - strong mag. - coarse diabasic texture. Structure: Intrusive bx with 10% mafic f.g. inclusions. A little broken core. Alteration: A few % streaks - veinlets of epidote. Mineralization: ½ - 1% diss'd Py											
94.1	96.2	INTERMEDIATE DYKE. As above. Structure: Cts 20°-30° Strongly fractured broken core.											
96.2	99.6	MED. GRAINED FOLIATED GABBRO (OR MAFIC VOLCANIC) As above. 93.6-76.5											
99.6	104.3	FRACTURED FELDSPAR PHYRIC INTERMEDIATE DYKE (FAULT ZONE) As above. Structure: Strong fract. parallel to core.Broken throughout.											
104.3	106.4	FRACTURED DIORITE-GABBRO-FAULT ZONE As following unit. Structure: Finely broken throughout with a little gouge + fault bx. -Fault nearly // to drill hole.- prominent slickensided + gouge filled fractures parallel to core.											

Metres From	Metres To	Description	Sample Number	From	To	Length	est% Py	est% Cp	est% Sph	Assays Au ppb	ppm Ag	ppm Cu	ppm Zn
106.4	112.1	QTZ - DIORITE - GABBRO Dk. green with white to buff feldspars. c.g. 5-10mm acicular-blade mafics with 'interstitial' feldspar + 1-2% bright blue 1-3mm qtz. crystal Structure: Fractured with sections of broken core prominent fract // to core. Alteration:Sections with feldspar altered to epidote. Mineralization:tr Py veinlets. diss'n.											
112.1	116.2	ALTERED INTERMEDIATE DYKE. As above. Structure: contacts obscured by broken core. Alteration:Has vesicular appearance (vuggy) due to weathered out calcite. Abundant calcite as small 'spots' + veinlets. Sparse red alteration (silica-hem etc.) along fractures Mineralization: 1-1% Py in red alteration. Minor Cp as scattered grains associated with calcite at 114.2	31[illegible]	[illegible]	[illegible]	1.4	tr-			[illegible]	[illegible]	[illegible]	[illegible]
			31[illegible]	[illegible]	[illegible]	1.5	tr-			[illegible]	[illegible]	[illegible]	[illegible]
			31[illegible]	[illegible]	[illegible]	1.3	tr			[illegible]	[illegible]	[illegible]	[illegible]
116.2	128.0	GABBRO As above 106.4-112.1 but with >50% mafics + no blue qtz crystals. Very strongly magnetic. Structure: Massive + uniform.A little broken core. 127-128 Strong fracturing parallel to core Alteration:Patches of diffuse epidote. Mineralization:Scattered grains + diss'n of Py.											

Metres From	To	Description	Sample Number	From	To	Length	est% Py	est% Cp	est% Sph	Assays Au ppb	ppm Ag	ppm Cu	ppm Zn
		Remarks: 126.1-127 Intermediate f.g. dyke: 124.6-125.4 blue qtz. diorite:											
		END OF HOLE											
		GENERAL COMMENTS (1).I.P. Anomally not explained .However fault intersected at 104 is nearly parallel to hole and source of anomaly may be close to hole on other side of fault:											
		(2).No significant mineralization - No gold values expexted. A.W.Beecham 11th October 1997											

Property	**Tp**	**Azimuth**	**Date started**	**Corrected**	**Dip**	**Tests**	**(°)**	**Location Sketch**
Kaltwasser-Demarchi	**Sherton**	grid 205°	13th Oct. 1997	Depth	Mag. Az	True Az	Dip	
Project	**Lot & Conc.**	**Dip**	**Date Completed**	100			44°	
Sheraton-Timmins		45° "lavout"	14th Oct.1997					
Claim #	**Co-ordinates**	**Length (metres)**	**Drilled by:**					
P-1158839		101m	NDS,Timmins					
Grid #		**Collar Elevation**	**Logged by:**					
1995 - 115° Baseline	L12+00E/2+50.5S		A.W. Beecham					

Metres From	To	DESCRIPTION	Sample Number	From	To	Length	est.% Py	est% Cp	est% Sph	ASSAYS Au ppb	ppm Ag	ppm Cu	pp Zn
		OBJECTIVES:- TO TEST SOUTH PART OF I.P. ANOMALY LINE 12+00E/2+50.5S											
0	10m	CASING Boulders, Mafic volcanics, feldspar porphyry.											
8.8m	18.1m	DEFORMED MAFIC - ULTRA MAFIC VOLCANIC Dk. green or blue green, soft chloritic, talcose in places. Non-mag.; Composed of carbonate(?) chlorite + a little talc. Structure: Uniform appearance.Strong schistosity at 40° - 50° Crumbly + sections of broken core. 10.7 - thin gouge seam along schistosity 14.8 1-2cm gouge + broken core at 45° marks small fault: Alteration:A little pervasive calc.Probably pervasive dolomite. Mineralization:tr Py here + there											
18.1	31.0	MASSIVE, INTERMEDIATE TUFF (QTZ PHYRIC) -Dk. grey-green fine to fine 'sand' size H=5 Very strongly magnetic; 'Granular texture' Composed of feldspar chlorite fine magnetite diss'n (2-4%) - 1-3%, 1-2mm blue qtz. 'eyes' Structure: Massive + uniform to thin streaky banding; Foliation + schistosity at 45°	3200	18.8	19.5	0.7	3-4			265	0.2	24	63
		Alteration & Veins:21.7 - 1cm grey qtz. calc. 25°	3201	21.3	21.8	0.5	1-2			19	0.1	27	69
		23.8 minor lt. grey qtz. + calcite.	3202	21.8	22.5	0.7	½			3	0.1	7	50
		27.6 - 1cm white qtz. at 30°	3203	22.5	23.5	1.0	1			nil	0.1	6	42
		Minor lt. grey bleaching (sericite?)	3204	23.5	24.5	1.0	1-2			55	0.1	8	70

Metres From	To	Description	Sample Number	From	To	Length	est % Py	est% Cp	est% Sph	Assays Au ppb	ppm Ag	ppm Cu	ppm Zn
		Mineralization: beaded streaks, diss'n of Py Minor diss'd Py with bleaching 1%Py overall with conc. Upto 8%/10cm.											
		tr Cp with Py at 18.9m	3205	27.5	27.8	0.3	2			48			
		Remarks:Looks like mafic volcanic but dk. colour possibly due to only low % chl.+fine mag. Possily dacitic tuff											
31.0	36.6	FRACTURED INTERMEDIATE FINE TUFF (QTZ. PHYRIC) As above less magnetic , 1-3% blue qtz crystals											
		Structure: Thin, streaky banding.Schistosity at 45°;Sections of broken core probably due to fractures // to core. Fine, wispy lapilli in bleached layers at 31.2 and 34.7m.											
		Alteration:10% of unit lt. grey due to fine white mica (sericite) in sections 5-20cm.Minor white qtz. veinlets.	3206	30.5	31.0	0.5	l		-	24	0.1	93	29
			3207	31.0	32.0	1.0	tr		tr	45	0.1	113	25
			3208	32.0	33.0	1.0	tr		½	nil	0.1	17	41
		Mineralization:Minor conc. of Py as thin beaded streaks + diss'n	3209	33.0	34.0	1.0	tr		-	3	0.1	14	76
		32.6 - 2% - 3% lt red brown sphalerite(?) over 10cm.	3210	34.0	34.8	0.8	tr			5	0.1	59	54
		31.3 - 20cm - part of pale rusty wisps may include sphalerite??	3211	34.8	35.2	0.5	tr		tr	3	0.1	12	61
		34.5 - 34.7 3% pale sph(?)/10cm.											
36.6	47.3	MASSIVE DUNITE - PERIDOTITE DYKE Dk. green H=4 Strong magnetic 40% 2-5mm pyroxene ± olivines in f.g., dk. green - black matrix.About 1% fine grey metalic (magnetite)											
		Structure: Massive, uniform, undeformed. Upper Ct at 45° gradual chill over 1.5m;Lower Ct - faulted.											
		Mineralization:tr -nil Py											
		Remarks:undeformed ultramafic dyke - possibly Kimberlite??											

Metres From	Metres To	DESCRIPTION	Sample Number	From	To	Length	est % Py	est% Cp	est% Sph	Assays Au ppb	ppm Ag	ppm Cu	ppm Zn
47.3	49.1	FAULT ZONE - DUNITE - PERIDOTITE As above Broken and crumbled core throughout; 15cm - at top of bx + gouge. 15cm bx + gouge at bottom at 45°											
49.1	54.8	INTERMEDIATE FINE -TUFF WITH SILTSTONE (QTZ.PHYRIC) As above; scattered, blue qtz. grains in upper part only; Grades downward into greywacke or siltstone. Very strongly magnetic. Structure: Massive to thinly, banded (bedded) at 45° Alteration & Veins:A little bleaching - silification with sulphite concentrations; 50.5-51.8 1-2cm white qtz. vein along core axis with tr Py. Minor lt. grey calcite veinlets; Mineralization:49.1 - 49.4 Py as 'heavy' diss'n + rimming 1-2cm clots of black chlorite. -0.5 to 1cm, diffuse bands of Py at 49.6, 50.1, 50.7 and 51.8 53.9 - 6cm 15% Py. Elsewhere minor diss'd Py. 52.4 Po or dk. Py	3212	48.6	49.1	0.5	-			nil	0.1	183	59
			3213	49.1	49.5	0.4	15			21	0.2	87	49
			3214	49.5	51.0	1.5	½-1			nil	0.1	10	47
			3215	51.0	52.5	1.5	1-2			nil	0.1	37	42
			3216	52.5	53.8	1.3	tr-½			2	0.1	16	44
			3217	53.8	54.7	0.9	2			nil	0.1	8	42
54.8	59.4	INTERMEDIATE TUFF WITH SULPHIDE ZONES (QTZ. PHYRIC) Dk green mostly f.g. Unaltered sections (dk. green) strongly magnetic; 1-2% blue qtz. grains. Structure: Banding + schistosity 55m - 40°; 58m - 40°; 59m -30°- 45° 58. -58.3 lapilli tuff +tuff bx. Alteration:Lt. grey alt. with sulphide zones - mainly silification, a little jasperite + some sercite. Minor lt. qv. with Py selvage at 57.2 and 58.2											

Metres From	To	Description	Sample Number	From	To	Length	est% Py	est% Cp	est% Sph	Assays Au ppb	ppm Ag	ppm Cu	ppm Zn
		Mineralization:Heavy Py diss'n to S.M. Py Zones with 10-30% as follows:	3218	54.7	55.9	1.2	30-40			31	0.1	16	24
			3219	55.9	56.6	0.7	10-12			51	0.1	12	37
		54.8 -5.8 with 1-2% pale sph? a little med. red brown sph.?	3220	56.6	57.4	0.8	2			3	0.1	17	39
		56.3 - 56.6	3221	57.4	58.3	0.9	10			22	0.1	16	34
		57.45 - 57.7 with 3% pale sph??	3222	58.3	59.0	0.7	1			nil	0.1	33	59
		59.0 -59.3	3223	59.0	59.4	0.4	15-20			45	0.2	40	27
		Remarks: Min'n + alt. appears to be overprint formation of magnetite;Some of Py may form from mag.-sulphides may be relatively late rather than synvolcanic??											
59.4	61.5	MASSIVE CHLORITIC ROCK(ALTERED MAFIC DYKE)??											
		Dk. green, med. f.g. H=3-4											
		Chlorite rich with non-fizzy carb.											
		Non-magnetic.											
		Structure: Crenulated schistosity	3224	59.4	60.5	1.1	-			2	0.1	30	38
		Schistosity - folination at 45°	3225	60.5	61.5	1.0	-			3	0.1	28	42
		Remarks:61 - 61.5 f.g. chl. schist.											
61.5	68.4	ALTERED INTERMED. TUFF WITH SULPHIDE ZONES (QTZ. PHYRIC)											
		As above 54.8 - 59.4; Variable am't blue qtz. phenocrysts up to 3-4%											
		Dk. sections mod.- strongly mag. Altered lt. grey sections non-mag.											
		Structure: Thin streaky banding + schistosity at about 40° avg. contorted in places.											
		Alteration & Veins:about 50% of unit altered and bleached light grey in sections from 2cm up tomore than 1m thick; bleaching due to fine white mica + weak silification											
		65.8m 20% lt. grey qv.											
		67.6-67.8 - 10% lt. grey qv more or less conformable with schistosity;											
		68.3 - minor lt. grey qv.											

Metres From	To	Description	Sample Number	From	To	Length	est% Py	est% Cp	est% Sph	Assays Au ppb	ppm Ag	ppm Cu	ppm Zn
		Mineralization:Minor diss'd Py here + there throughout:	3226	61.5	62.2	0.7	10			19	0.7	19	21
		Light grey altered sections well mineralized with 5-10% fine	3227	62.2	63.0	0.8	tr			3	0.1	7	30
		to med. grained Py as follows:	3228	63.0	64.0	1.0	½			7	0.1	10	35
			3229	64.0	65.1	1.1	5			14	0.3	9	7
		61.6- 62.2 also flecked with pale red min. possibly sph??	3230	65.1	65.9	0.8	3			19	0.3	13	34
		64.0 - 65.1 1-2% Sph??	3231	65.9	66.5	0.6	5			53	0.5	17	64
		65.3 - 65.9	3232	66.5	67.1	0.6	2			9	0.1	13	82
		66.3 - 66.5	3233	67.1	67.8	0.7	5			nil	0.1	19	49
		67.2 - 67.5	3234	67 8	68.5	0.7	2			12	0.1	70	114
		67.9 - 68.0											
		68.4 - 68.5											
		tr MoS_2(?) in altered zone at 64.4m.											
		Possibly (?) pale red sphalerite as noted above and at 65.6m											
68.4	70.4	FINE GRAINED DIABASE DYKE											
		Med. dk. grey, fresh ophitic texture moderately magnetic.											
		Structure: Cts chilled at 30°; Mod. fractured.											
		A little rusty gouge at Lower Ct.											
		Mineralization:Scattered grains py.											
70.4	78.1	MASSIVE INTERMED. - FELSIC DYKE											
		Med. dull grey fine grained: granular. even texture: non-magnetic. H=6											
		Structure: Massive uniform.Strongly fractured with grey calcite+ calcite qtz. cement.											
		Upper contact marked by 30cm septum of sediment-fine tuff + 1cm rusty gouge at 30°.											
		Lower Ct at 20°.											
		76.4 - 0.5cm gouge with qtz.-calcite vein.											
		Veins:See Structure.											
		76.2-77 - three - 1 - 3cm vuggy qtz. - calcite at 40°- 50°		76.1	77.1	1.0			not	sampled			

Metres From	To	Description	Sample Number	From	To	Length	est% Py	est% Cp	est% Sph	Assays Au ppb	ppm Ag	ppm Cu	ppm Zn
78.1	84.5	INTERMEDIATE FINE FUFF Dk. green - grey, f.g. even, granular texture;strongly magnetic; composed mainly of feldspar with minor qtz grains (no blue qtz.) fairly abundant chl. + a litttle magnetite. Structure: 1-2cm long streaky 'felsic' lenses probably are deformed lapilli; strong schistosity at 45° Veins:Minor light grey qtz. Mineralization:tr diss'd Py											
84.5	100.9	DEFORMED INTERMEDIATE FINE TUFF (QTZ PHYRIC) As above 1-2% blue qtz. phenocrysts. Darker sections moderately magnetic. Structure: Fine streaky lenses - probably lapilli Streaky banding + schistosity at 35° - 40° Broken rusty wth'd core at 99.7m Alteration : Minor lt. grey bleaching -mainly white mica associated with Py streaks. Veins:99 - 6mm grey qtz.in altered pyrite zones. Minor lt. grey calcite. Mineralization:Sections of fine-medium grained diss'd Py with bleaching. Conc. up to 5%-8%/10cm.	3235	85.8	86.1	0.3	3			10	0.1	70	114
			3236	88.0	89.1	1.1	2			36	0.1	21	175
			3237	90.3	91.3	1.0	2-3			9	0.1	34	277
			3238	91.3	92.2	0.9	3-4			nil	0.4	35	202
			3239	94.0	94.6	0.6	1-2			7	0.1	9	232
			3240	95.2	96.5	1.3	2			9	0.1	11	227
			3241	98.9	100.0	1.1	3			17	0.2	141	515
	101.0	END OF HOLE	3242	100.0	100.6	0.6	2			10	0.2	86	311

Metres From	Metres To	Description	Sample Number	Sample From	Sample To	Sample Length	est% Py	est% Cp	est% Sph	Assays Au ppb	ppm Ag	ppm Cu	ppm Zn
		GENERAL COMMENTS (1)Concentrations of Py from 49.1-59.4 up to 30% over 1m and weak jasperite alteration (54.8 -59.4) silification + sericite alteration may carry low gold values. (2)Py concentrations up to 10%/0.7m from 61.5-68.5 accompanied by fine white mica (sericite) alteration + weak silification, - may carry low gold values?? (3)Unidentified pale red brown mineral up to 1-2% occurs with Py concentration as follows: 31.0 - 35.2 54.7 - 57.7 61.6 - 65.6 may be sphalerite or carbonate. DRILLING NOTES Core Size: NQ Casing Pulled: Location marked with stake and metal tag; A.W.Beecham. 15th October 1997										

ASSAY CERTIFICATES

Haddington Resources Ltd.

Kaltwasser - Lavigne - Timmins Group Properties

October 1997

Swastika Laboratories

A Division of TSL/Assayers Inc.

Assaying - Consulting - Representation

Established 1928

Geochemical Analysis Certificate

7W-4073-RG1

Date: OCT-22-97

Company: **HADDINGTON RESOURCES LTD**
Project: Sherat Timm
Attn: A. Beecham/P. Tallman

We hereby certify the following Geochemical Analysis of 19 Core samples submitted OCT-15-97 by .

Sample Number	Au PPB	Au check PPB	Ag PIM	Cu PIM	Zn PIM
3224	2	-	0.1	30	38
3225	3	-	0.1	28	42
3226	19	-	0.7	19	21
3227	3	-	0.1	7	30
3228	5	9	0.1	10	35
3229	14	-	0.3	9	7
3230	19	-	0.3	13	34
3231	53	-	0.5	17	64
3232	9	-	0.1	13	82
3233	Nil	-	0.1	19	49
3234	12	-	0.1	70	114
3235	10	-	0.1	19	30
3236	36	-	0.1	21	175
3237	9	9	0.1	34	277
3238	Nil	-	0.4	35	202
3239	7	-	0.1	9	232
3240	9	-	0.1	11	227
3241	17	-	0.2	141	515
3242	10	-	0.2	86	311

One assay ton portion used.

Certified by G. Leboy

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Swastika Laboratories

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Assaying - Consulting - Representation

Established 1928

Geochemical Analysis Certificate

7W-4072-RG1

Company: **HADDINGTON RESOURCES LTD**

Date: OCT-22-97

Project: Sherat Timm

Attn: A. Beecham/P. Tallman

We hereby certify the following Geochemical Analysis of 24 Core samples submitted OCT-15-97 by .

Sample Number	Au PPB	Au Check PPB	Ag PPM	Cu PPM	Zn PPM
3200	267	262	0.2	24	63
3201	19	-	0.1	27	69
3202	3	-	0.1	7	50
3203	Nil	-	0.1	6	42
3204	55	-	0.1	8	70
3205	48	-	-	10	47
3206	24	-	0.1	93	29
3207	45	-	0.1	113	25
3208	Nil	-	0.1	17	41
3209	3	-	0.1	14	76
3210	5	-	0.1	59	54
3211	3	-	0.1	12	61
3212	Nil	-	0.1	183	59
3213	17	24	0.2	87	49
3214	Nil	-	0.1	10	47
3215	Nil	-	0.1	37	42
3216	2	-	0.1	16	44
3217	Nil	-	0.1	8	42
3218	31	-	0.1	16	24
3219	48	53	0.1	12	37
3220	3	-	0.1	17	39
3221	22	-	0.1	16	34
3222	Nil	-	0.1	33	59
3223	45	-	0.2	40	27

One assay ton portion used.

Certified by _____

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Assaying - Consulting - Representation

Geochemical Analysis Certificate

7W-4058-RG1

Company: **HADDINGTON RESOURCES LTD**

Date: OCT-22-97

Project: Sherat-Timm

Attn: A. Beecham/P. Tallman

We hereby certify the following Geochemical Analysis of 42 Core samples submitted OCT-14-97 by .

Sample Number	Au PPB	Au Check PPB	Au 2nd PPB	Ag PPM	Cu PPM	Zn PPM
3158	3	-	-	-	38	26
3159	15	-	-	0.6	38	4
3160	17	-	-	0.2	54	4
3161	3	-	-	0.1	28	4
3162	5	-	-	0.2	22	1
3163	14	-	-	0.1	18	1
3164	5	-	-	0.2	20	12
3165	Nil	-	-	0.1	14	18
3166	Nil	-	-	0.2	40	10
3167	Nil	-	-	-	9	17
3168	Nil	-	-	-	21	16
3169	7	7	-	-	104	23
3170	Nil	-	-	-	25	23
3171	Nil	-	-	-	-	-
3172	Nil	-	-	-	-	-
3173	17	-	-	-	-	-
3174	Nil	-	-	-	65	5
3175	Nil	-	-	-	58	6
3176	Nil	-	-	-	23	20
3177	5	-	-	-	-	-
3178	5	-	-	-	-	-
3179	2	-	-	-	-	-
3180	15	-	-	-	-	-
3181	39	31	-	-	-	-
3182	10	-	-	-	-	-
3183	2678	2674	2571	-	-	-
3184	57	-	-	-	-	-
3185	3	-	-	-	-	-
3186	516	-	-	-	-	-
3187	15	-	-	-	-	-

One assay ton portion used.

Certified by G. Leboss

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7W-4058-RG1

Company: **HADDINGTON RESOURCES LTD**

Date: OCT-22-97

Project: Sherat-Timm

Attn: A. Beecham/P. Tallman

We hereby certify the following Geochemical Analysis of 42 Core samples submitted OCT-14-97 by .

Sample Number	Au PPB	Au Check PPB	Au 2nd PPB	Ag PPM	Cu PPM	Zn PPM
3188	55	-	-	-	-	-
3189	26	19	-	-	-	-
3190	Nil	-	-	-	-	-
3191	Nil	-	-	-	-	-
3192	Nil	-	-	-	-	-
3193	2	-	-	-	-	-
3194	Nil	-	-	-	-	-
3195	480	648	-	-	-	-
3196	245	171	-	-	-	-
3197	96	-	-	-	-	-
3198	57	-	-	-	-	-
3199	77	-	-	-	-	-

One assay ton portion used.

Certified by _____

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Geochemical Analysis Certificate

7W-4020-RG1

Company: **HADDINGTON RESOURCES LTD**
Project: Sherat-Timm
Attn: P. Tallman / A. Beecham

Date: OCT-22-97

We hereby certify the following Geochemical Analysis of 61 Core samples submitted OCT-10-97 by .

Sample Number	Au PPB	Au Check PPB	Cu PPM	Zn PPM
3097	Nil	-	-	-
3098	10	-	-	-
3099	134	165	-	-
3100	53	-	-	-
3101	24	-	-	-
3102	5	-	-	-
3103	2	-	-	-
3104	10	-	-	-
3105	3	-	-	-
3106	55	-	-	-
3107	765	727	-	-
3108	31	-	-	-
3109	128	-	-	-
3110	106	-	-	-
3111	14	-	-	-
3112	7	-	-	-
3113	10	-	-	-
3114	22	-	22	67
3115	67	-	38	47
3116	82	-	46	44
3117	41	-	109	68
3118	38	-	320	39
3119	2	-	43	38
3120	2	-	-	-
3121	77	-	-	-
3122	154	-	-	-
3123	33	19	-	-
3124	3	-	-	-
3125	Nil	-	-	-
3126	2	-	-	-

One assay ton portion used.

Certified by G. Leborgne

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Geochemical Analysis Certificate

7W-4020-RG1

Company: **HADDINGTON RESOURCES LTD**

Date: OCT-22-97

Project: Sherat-Timm

Attn: P. Tallman / A. Beecham

We hereby certify the following Geochemical Analysis of 61 Core samples submitted OCT-10-97 by .

Sample Number	Au PPB	Au Check PPB	Cu PPM	Zn PPM
3127	Nil	-	-	-
3128	2	-	-	-
3129	7	-	-	-
3130	5	-	-	-
3131	3	-	-	-
3132	3	-	-	-
3133	Nil	-	-	-
3134	7	-	-	-
3135	Nil	14		
3136	Nil	-	-	-
3137	10	-	-	-
3138	2	-	-	-
3139	5	-	-	-
3140	Nil	-	-	-
3141	2	-	-	-
3142	5	-	-	-
3143	3	-	-	-
3144	Nil	-	-	-
3145	22	-	-	-
3146	3	-	18	17
3147	Nil	-	15	15
3148	9	Nil	28	16
3149	Nil	-	10	24
3150	14	-	11	12
3151	Nil	-	28	11
3152	Nil	-	17	26
3153	Nil	-	9	10
3154	Nil	-	15	11
3155	9	-	20	11
3156	9	-	16	14
3157	27	43	15	18

One assay ton portion used.

Certified by G. Leb

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Geochemical Analysis Certificate

7W-4020-RG1

Company: **HADDINGTON RESOURCES LTD**
Project: Sherat-Timm
Attn: P. Tallman / A. Beecham

Date: OCT-17-97

We hereby certify the following Geochemical Analysis of 61 Core samples submitted OCT-10-97 by .

Sample Number	Au PPB	Au Check PPB
3097	Nil	-
3098	10	-
3099	134	165
3100	53	-
3101	24	-
3102	5	-
3103	2	-
3104	10	-
3105	3	-
3106	55	-
3107	765	727
3108	31	-
3109	128	-
3110	106	-
3111	14	-
3112	7	-
3113	10	-
3114	22	-
3115	67	-
3116	82	-
3117	41	-
3118	38	-
3119	2	-
3120	2	-
3121	77	-
3122	154	-
3123	33	19
3124	3	-
3125	Nil	-
3126	2	-

One assay ton portion used.

Certified by G. Tilbrook

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7W-4020-RG1

Company: **HADDINGTON RESOURCES LTD**

Date: OCT-17-97

Project: Sherat-Timm

Attn: P. Tallman / A. Beecham

We hereby certify the following Geochemical Analysis of 61 Core samples submitted OCT-10-97 by .

Sample Number	Au PPB	Au Check PPB
3127	Nil	-
3128	2	-
3129	7	-
3130	5	-
3131	3	-
3132	3	-
3133	Nil	-
3134	7	-
3135	Nil	14
3136	Nil	-
3137	10	-
3138	2	-
3139	5	-
3140	Nil	-
3141	2	-
3142	5	-
3143	3	-
3144	Nil	-
3145	22	-
3146	3	-
3147	Nil	-
3148	9	Nil
3149	Nil	-
3150	14	-
3151	Nil	-
3152	Nil	-
3153	Nil	-
3154	Nil	-
3155	9	-
3156	9	-
3157	27	43

One assay ton portion used.

Certified by _____

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Geochemical Analysis Certificate

7W-3985-RG1

Company: **HADDINGTON RESOURCES LTD**

Date: OCT-22-97

Project: Sherat-Timm

Attn: A.Beecham/P. Tallman

We hereby certify the following Geochemical Analysis of 29 Split Core samples submitted OCT-08-97 by .

Sample Number	Au PPB	Au Check PPB	Ag PPM	Cu PPM	Zn PPM
3067	7	-	-	20	55
3068	14	-	-	11	31
3069	12	-	-	-	-
3070	7	-	-	-	-
3071	15	-	0.1	25	31
3072	14	9	0.1	300	23
3073	9	-	0.1	19	29
3074	9	-	0.1	28	46
3075	Nil	-	0.1	28	55
3076	5	-	0.1	29	24
3077	2	-	0.1	11	24
3078	3	-	0.1	22	24
3079	5	-	0.1	77	30
3081	5	-	-	-	-
3082	Nil	-	-	-	-
3083	5	-	-	-	-
3084	3	-	-	-	-
3085	10	-	-	-	-
3086	5	10	0.1	23	13
3087	3	-	0.1	12	10
3088	7	-	0.1	28	16
3089	14	5	0.1	28	6
3090	2	-	0.1	24	24
3091	7	-	0.1	26	15
3092	7	-	0.1	20	18
3093	10	7	0.1	21	21
3094	Nil	-	-	-	-
3095	Nil	-	-	-	-
3096	3	-	-	-	-

One assay ton portion used.

Certified by G. Leh

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Geochemical Analysis Certificate

7W-3985-RG1

Company: **HADDINGTON RESOURCES LTD** Date: OCT-10-97
Project: Sherat-Timm
Attn: A.Beecham/P. Tallman

We hereby certify the following Geochemical Analysis of 29 Split Core samples submitted OCT-08-97 by .

Sample Number	Au PPB	Au Check PPB	Ag PPM	Cu PPM	Zn PPM
3067	7	-	-	-	-
3068	14	-	-	-	-
3069	12	-	-	-	-
3070	7	-	-	-	-
3071	15	-	0.1	25	31
3072	14	9	0.1	300	23
3073	9	-	0.1	19	29
3074	9	-	0.1	28	46
3075	Nil	-	0.1	28	55
3076	5	-	0.1	29	24
3077	2	-	0.1	11	24
3078	3	-	0.1	22	24
3079	5	-	0.1	77	30
3081	5	-	-	-	-
3082	Nil	-	-	-	-
3083	5	-	-	-	-
3084	3	-	-	-	-
3085	10	-	-	-	-
3086	5	10	0.1	23	13
3087	3	-	0.1	12	10
3088	7	-	0.1	28	16
3089	14	5	0.1	28	6
3090	2	-	0.1	24	24
3091	7	-	0.1	26	15
3092	7	-	0.1	20	18
3093	10	7	0.1	21	21
3094	Nil	-	-	-	-
3095	Nil	-	-	-	-
3096	3	-	-	-	-

One assay ton portion used.

Certified by G. Leboss

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Assaying - Consulting - Representation

Geochemical Analysis Certificate

7W-3969-RG1

Company: **HADDINGTON RESOURCES LTD**

Date: OCT-22-97

Project: Sherat-Timm

Attn: P. Tallman/A. Beecham

We hereby certify the following Geochemical Analysis of 67 Core samples submitted OCT-07-97 by .

Sample Number	Au PPB	Au Check PPB	Au 2nd PPB	Au 3rd PPB	Cu PPM	Zn PPM
3001	3	-	-	-	-	-
3002	3	-	-	-	-	-
3003	12	-	-	-	-	-
3004	Nil	-	-	-	-	-
3005	Nil	-	-	-	-	-
3006	3	-	-	-	-	-
3007	3	-	-	-	-	-
3008	5	-	-	-	-	-
3009	29	-	-	-	-	-
3010	31	-	-	-	-	-
3011	36	-	-	-	-	-
3012	15	17	-	-	-	-
3013	12	-	-	-	-	-
3014	12	-	-	-	-	-
3015	19	-	-	-	-	-
3016	225	175	-	-	-	-
3017	15	-	-	-	-	-
3018	10	-	-	-	-	-
3019	3	-	-	-	-	-
3020	99	-	-	-	-	-
3021	15	-	-	-	-	-
3022	Nil	-	-	-	-	-
3023	3	-	-	-	-	-
3024	7	3	-	-	-	-
3025	5	-	-	-	-	-
3026	57	75	-	-	-	-
3027	31	-	-	-	-	-
3028	48	-	-	-	-	-
3029	103	-	-	-	-	-
3030	45	-	-	-	37	24

One assay ton portion used.

Certified by G. Leh

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Geochemical Analysis Certificate

7W-3969-RG1

Company: **HADDINGTON RESOURCES LTD**

Date: OCT-22-97

Project: Sherat-Timm

Attn: P. Tallman/A. Beecham

We hereby certify the following Geochemical Analysis of 67 Core samples submitted OCT-07-97 by .

Sample Number	Au PPB	Au Check PPB	Au 2nd PPB	Au 3rd PPB	Cu PPM	Zn PPM
3031	10	-	-	-	19	136
3032	283	245	-	-	248	137
3033	7	-	-	-	49	85
3034	33	-	-	-	30	98
3035	19	17	-	-	63	127
3036	Nil	-	-	-	72	125
3037	9	-	-	-	9	107
3038	75	-	-	-	8	67
3039	12	-	-	-	31	83
3040	50	-	-	-	21	92
3041	1027	1200	857	617	-	-
3042	369	-	-	-	-	-
3043	5	-	-	-	-	-
3044	7	-	-	-	-	-
3045	2	-	-	-	-	-
3046	7	-	-	-	-	-
3047	3	-	-	-	-	-
3048	127	-	-	-	-	-
3049	2	-	-	-	-	-
3050	286	437	-	-	-	-
3051	98	-	-	-	-	-
3052	22	-	-	-	-	-
3053	2	-	-	-	-	-
3054	Nil	-	-	-	18	44
3055	5	-	-	-	27	91
3056	5	-	-	-	55	98
3057	Nil	-	-	-	38	70
3058	15	-	-	-	94	46
3059	Nil	-	-	-	34	30
3060	12	-	-	-	57	29

One assay ton portion used.

Certified by G. Leb

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Geochemical Analysis Certificate

7W-3969-RG1

Company: **HADDINGTON RESOURCES LTD**

Date: OCT-22-97

Project: Sherat-Timm

Attn: P. Tallman/A. Beecham

We hereby certify the following Geochemical Analysis of 67 Core samples submitted OCT-07-97 by .

Sample Number	Au PPB	Au Check PPB	Au 2nd PPB	Au 3rd PPB	Cu PPM	Zn PPM
3061	5	-	-	-	292	32
3062	9	-	-	-	133	35
3063	2	3	-	-	53	39
3064	22	-	-	-	90	43
3065	Nil	-	-	-	15	42
3066	Nil	-	-	-	18	57
3080	9	-	-	-	-	-

One assay ton portion used.

Certified by _____

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Company: **HADDINGTON RESOURCES LTD**

Date: OCT-10-97

Project: Sherat-Timm

Attn: P. Tallman/A. Beecham

We hereby certify the following Geochemical Analysis of 67 Core samples submitted OCT-07-97 by .

Sample Number	Au PPB	Au Check PPB	Au 2nd PPB	Au 3rd PPB
3001	3	-	-	-
3002	3	-	-	-
3003	12	-	-	-
3004	Nil	-	-	-
3005	Nil	-	-	-
3006	3	-	-	-
3007	3	-	-	-
3008	5	-	-	-
3009	29	-	-	-
3010	31	-	-	-
3011	36	-	-	-
3012	15	17	-	-
3013	12	-	-	-
3014	12	-	-	-
3015	19	-	-	-
3016	225	175	-	-
3017	15	-	-	-
3018	10	-	-	-
3019	3	-	-	-
3020	99	-	-	-
3021	15	-	-	-
3022	Nil	-	-	-
3023	3	-	-	-
3024	7	3	-	-
3025	5	-	-	-
3026	57	75	-	-
3027	31	-	-	-
3028	48	-	-	-
3029	103	-	-	-
3030	45	-	-	-

One assay ton portion used.

Certified by _____

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7W-3969-RG1

Company: **HADDINGTON RESOURCES LTD**
Project: Sherat-Timm
Attn: P. Tallman/A. Beecham

Date: OCT-10-97

We hereby certify the following Geochemical Analysis of 67 Core samples submitted OCT-07-97 by .

Sample Number	Au PPB	Au Check PPB	Au 2nd PPB	Au 3rd PPB
3031	10	-	-	-
3032	283	245	-	-
3033	7	-	-	-
3034	33	-	-	-
3035	19	17	-	-
3036	Nil	-	-	-
3037	9	-	-	-
3038	75	-	-	-
3039	12	-	-	-
3040	50	-	-	-
3041	1027	1200	857	617
3042	369	-	-	-
3043	5	-	-	-
3044	7	-	-	-
3045	2	-	-	-
3046	7	-	-	-
3047	3	-	-	-
3048	127	-	-	-
3049	2	-	-	-
3050	286	437	-	-
3051	98	-	-	-
3052	22	-	-	-
3053	2	-	-	-
3054	Nil	-	-	-
3055	5	-	-	-
3056	5	-	-	-
3057	Nil	-	-	-
3058	15	-	-	-
3059	Nil	-	-	-
3060	12	-	-	-

One assay ton portion used.

Certified by G. Leboy

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7W-3969-RG1

Geochemical Analysis Certificate

Company: **HADDINGTON RESOURCES LTD**

Date: OCT-10-97

Project: Sherat-Timm

Attn: P. Tallman/A. Beecham

We hereby certify the following Geochemical Analysis of 67 Core samples submitted OCT-07-97 by .

Sample Number	Au PPB	Au Check PPB	Au 2nd PPB	Au 3rd PPB
3061	5	-	-	-
3062	9	-	-	-
3063	2	3	-	-
3064	22	-	-	-
3065	Nil	-	-	-
3066	Nil	-	-	-
3080	9	-	-	-

One assay ton portion used.

Certified by G. Leboe

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705)642-3244 Fax (705)642-3300

DRILL HOLE LOCATION PLAN

Drill Hole Sections

HL - 1
HL - 2
HL - 3
HK - 4
HK - 5

October 1997

Ontario Ministry of Northern Development and Mines

Declaration of Assessment Work Performed on Mining Land

Mining Act, Subsection 65(2) and 66(3), R.S.O. 1990

Transaction Number (W/A/C) W9880.00048
Assessment Files Research Imaging

Personal information c
Mining Act, the informe
Questions about this
933 Ramsey Lake Roa

42A07SE0014 2.18116 SHERATON

900

66(3) of the Mining Act. Under section 8 of the
ork and correspond with the mining land holder.
Northern Development and Mines, 6th Floor,

Instructions: - For work performed on Crown Lands before recording a claim, use form 0240.
- Please type or print in ink.

2.18116

1. Recorded holder(s) (Attach a list if necessary)

Name	Client Number
J.C.L. CORPORATION	303255
Address	**Telephone Number**
BOX 630, 1110 LAVIGNE BLVD.	705-264-4750
TIMMINS, ONT. P4N 7G2	**Fax Number**
Name	**Client Number**
RICHARD KALTWASSER	150541
Address	**Telephone Number**
BOX 34, 448 - 8TH AVE.	705-273-2733
MATHESON, ONT. P0K 1N0	**Fax Number**

(See attached list)

2. Type of work performed: Check (✓) and report on only ONE of the following groups for this declaration.

☐ Geotechnical: prospecting, surveys, assays and work under section 18 (regs)
☑ Physical: drilling, stripping, trenching and associated assays
☐ Rehabilitation

Work Type	Office Use
DIAMOND DRILLING	Commodity
	Total $ Value of Work Claimed $ 50,071
Dates Work Performed From 26 (Day) 09 (Month) 97 (Year) To 15 (Day) 10 (Month) 97 (Year)	NTS Reference
Global Positioning System Data (if available) Township/Area: TIMMINS/SHERATON/ [redacted]	Mining Division: Porcupine / Larder Lake
M or G-Plan Number: M-314/M-346/G-3971	Resident Geologist District: Timmins / Kirkland

Please remember to: - obtain a work permit from the Ministry of Natural Resources as required;
- provide proper notice to surface rights holders before starting work;
- complete and attach a Statement of Costs, form 0212;
- provide a map showing contiguous mining lands that are linked for assigning work;
- include two copies of your technical report.

3. Person or companies who prepared the technical report (Attach a list if necessary)

Name	Telephone Number
A.W. BEECHAM	705-672-5023
Address	**Fax Number**
P.O. BOX 867, HAILEYBURY, ONT. P0J 1K0	705-672-3980
Name	**Telephone Number**
Address	**Fax Number**
Name	**Telephone Number**
Address	**Fax Number**

RECEIVED
JAN 27 1998 9:30
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RECEIVED
JAN 28 1998
3:45pm
PORCUPINE MINING DIVISION

4. Certification by Recorded Holder or Agent

I, NEIL MAC ISAAC (Print Name), do hereby certify that I have personal knowledge of the facts set forth in this Declaration of Assessment Work having caused the work to be performed or witnessed the same during or after its completion and, to the best of my knowledge, the annexed report is true.

Signature of Recorded Holder or Agent		Date
Neil mac Isaac		January 23/98
Agent's Address	**Telephone Number**	**Fax Number**
BOX 602 SCHUMACHER ONT. P0N 1G0	705-264-3531	705-264-3531

Deemed April 23/98

0241 (02/96)

W9860.00041 +
W9860.00045

Recorded Holders (Supplementary List)

JACQUES ROBERT — CLIENT # 188148
321 HAILEYBURY CRES.
PORCUPINE ONT. — TEL/FAX 705-235-8029
GEN. DEL. PON 1CO

F. 18116

DAVID E. DEMARCHI — CLIENT # 12515
BOX 36
11 BRUCE ST. — TEL 705-235-3888
SOUTH PORCUPINE ONT
P0N 1H0

HADDINGTON RESOURCES LTD (OPTIONEE)
11th FLOOR - 808 WEST HASTINGS ST
VANCOUVER B.C. — CLIENT # 300638
V6C 2X4 — Tel.# 604-687-7463
FAX 604-681-2578

5. Work to be recorded and distributed. Work can only be assigned to claims that are contiguous (adjoining) to the mining land where work was performed, at the time work was performed. A map showing the contiguous link must accompany this form.

	Mining Claim Number. Or if work was done on other eligible mining land, show in this column the location number indicated on the claim map.	Number of Claim Units. For other mining land, list hectares.	Value of work performed on this claim or other mining land.	Value of work applied to this claim.	Value of work assigned to other mining claims.	Bank. Value of work to be distributed at a future date.
eg	TB 7827	16 ha	$26, 825	N/A	$24,000	$2,825
eg	1234567	12	0	$24,000	0	0
eg	1234568	2	$ 8, 892	$ 4,000	0	$4,892
1	L 600024? PAT. P-34452	1	10,325.1	–	10,325.	–
2	L 600023 PAT. P-34453	1	17,350.1	–	17,279.	71.
3	P-1128983	16	–	12,800.		
4	P-1128984	15	–	12,000		
5	P-1156114	1	–	800		
6	P-1156115	1	–	800.		
7	P-1158839	1	4828.	800	4028.	
8	P-1158840	1	7949.	800.	7149.	
9	P-1158841	1	4619.	400.	4219.	
10	P-1158842	1	–	800.		
11	L-1204220	8	–	6400		
12	P-1204296	12	–	4600		
13	P-1204297	1	–	1600		
14	L-1204298	4	–	3200		
15			–			
		Column Totals	50,071.	50,000.	48,000.	71.

I, NEIL MAC ISAAC (Print Full Name), do hereby certify that the above work credits are eligible under subsection 7 (1) of the Assessment Work Regulation 6/96 for assignment to contiguous claims or for application to the claim where the work was done.

Signature of Recorded Holder or Agent Authorized in Writing: Neil Mac Isaac — Date: January 23/98

6. Instructions for cutting back credits that are not approved.

Some of the credits claimed in this declaration may be cut back. Please check (✓) in the boxes below to show how you wish to prioritize the deletion of credits:

- ☑ 1. Credits are to be cut back from the Bank first, followed by option 2 or 3 or 4 as indicated.
- ☑ 2. Credits are to be cut back starting with the claims listed last, working backwards; or
- ☐ 3. Credits are to be cut back equally over all claims listed in this declaration; or
- ☐ 4. Credits are to be cut back as prioritized on the attached appendix or as follows (describe):

Note: If you have not indicated how your credits are to be deleted, credits will be cut back from the Bank first, followed by option number 2 if necessary.

For Office Use Only

Received Stamp: RECEIVED JAN 27 1998 GEOSCIENCE ASSESSMENT OFFICE

Deemed Approved Date	Date Notification Sent
Date Approved	Total Value of Credit Approved
Approved for Recording by Mining Recorder (Signature)	

0241 (02/96)

Ontario Ministry of Northern Development and Mines

Statement of Costs for Assessment Credit

Transaction Number (office use)
W9860.00041
W9880.00045

Personal information collected on this form is obtained under the authority of subsection 6(1) of the Assessment Work Regulation 6/96. Under section 8 of the Mining Act, the information is a public record. This information will be used to review the assessment work and correspond with the mining land holder. Questions about this collection should be directed to the Chief Mining Recorder, Ministry of Northern Development and Mines, 6th Floor, 933 Ramsey Lake Road, Sudbury, Ontario, P3E 6B5.

Work Type	Units of Work Depending on the type of work, list the number of hours/days worked, metres of drilling, kilometres of grid line, number of samples, etc.	Cost Per Unit	Total Cost
DIAMOND DRILLING	645 m	53.13/m	34,288.
DRILL Supervision,			
Core Logging, Expediting	21 · 125 dys	275.	5809.
Labor (Core Splitting)	10 dys	125.	1250.
CORE ASSAYS			3589.
Associated Costs (e.g. supplies, mobilization and demobilization).			
Mob. & demob.		1000. ea	2,000.
Services - Plotting, drafting/Proof Reading/			
typing Logs, etc.		36.4 hrs. x 20.-	728.
Misc. Supplies & Rentals			417.
Transportation Costs		0.35 ¢/Km	1070.
Food and Lodging Costs	14 days	65.70/dy.	920.
		Total Value of Assessment Work	50,071.

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JAN 27 1998
GEOSCIENCE ASSESSMENT OFFICE

JAN 28 1998
3:45PM
PORCUPINE MINING DIVISION

Calculations of Filing Discounts:

1. Work filed within two years of performance is claimed at 100% of the above Total Value of Assessment Work.
2. If work is filed after two years and up to five years after performance, it can only be claimed at 50% of the Total Value of Assessment Work. If this situation applies to your claims, use the calculation below:

TOTAL VALUE OF ASSESSMENT WORK × 0.50 = Total $ value of worked claimed.

Note:
- Work older than 5 years is not eligible for credit.
- A recorded holder may be required to verify expenditures claimed in this statement of costs within 45 days of a request for verification and/or correction/clarification. If verification and/or correction/clarification is not made, the Minister may reject all or part of the assessment work submitted.

Certification verifying costs:

I, NEIL MACISAAC (please print full name), do hereby certify, that the amounts shown are as accurate as may reasonably be determined and the costs were incurred while conducting assessment work on the lands indicated on the accompanying Declaration of Work form as Agent (recorded holder, agent, or state company position with signing authority) I am authorized to make this certification.

Signature	Date
	January 23/98

Ministry of
Northern Development
and Mines

Ministère du
Développement du Nord
et des Mines

Ontario

Geoscience Assessment Office
933 Ramsey Lake Road
6th Floor
Sudbury, Ontario
P3E 6B5

Telephone: (888) 415-9846
Fax: (705) 670-5881

March 27, 1998

JCL CORPORATION
1110 LAVIGNE BLVD., P.O. BOX 630
TIMMINS, ONTARIO
P4N-7G2

Dear Sir or Madam:

Submission Number: 2.18116

Subject: Transaction Number(s):		**Status**
	W9860.00041	Deemed Approval

We have reviewed your Assessment Work submission with the above noted Transaction Number(s). The attached summary page(s) indicate the results of the review. WE RECOMMEND YOU READ THIS SUMMARY FOR THE DETAILS PERTAINING TO YOUR ASSESSMENT WORK.

If the status for a transaction is a 45 Day Notice, the summary will outline the reasons for the notice, and any steps you can take to remedy deficiencies. The 90-day deemed approval provision, subsection 6(7) of the Assessment Work Regulation, will no longer be in effect for assessment work which has received a 45 Day Notice.

Please note any revisions must be submitted in DUPLICATE to the Geoscience Assessment Office, by the response date on the summary.

If you have any questions regarding this correspondence, please contact Lucille Jerome by e-mail at jeromel2@epo.gov.on.ca or by telephone at (705) 670-5858.

Yours sincerely,

ORIGINAL SIGNED BY
Blair Kite
Supervisor, Geoscience Assessment Office
Mining Lands Section

Correspondence ID: 12084

Copy for: Assessment Library

Work Report Assessment Results

Submission Number: 2.18116

Date Correspondence Sent: March 27, 1998 **Assessor:** Lucille Jerome

Transaction Number	First Claim Number	Township(s) / Area(s)	Status	Approval Date
W9860.00041	34452	TIMMINS, SHERATON	Deemed Approval	March 25, 1998

Section:
16 Drilling PDRILL

Correspondence to:

Resident Geologist
South Porcupine, ON

Assessment Files Library
Sudbury, ON

Recorded Holder(s) and/or Agent(s):

Neil MacIsaac
SCHUMACHER, ONTARIO, CANADA

JCL CORPORATION
TIMMINS, ONTARIO

RICHARD F. KALTWASSER
MATHESON, Ontario

JACQUES ROBERT
PORCUPINE, Ontario

DAVID ENIO DEMARCHI
SOUTH PORCUPINE, ON

HADDINGTON RESOURCES LTD.
VANCOUVER, B.C.

Correspondence ID: 12084

AREAS WITHDRAWN FROM DISPOSITION

M.R.O. – MINING RIGHTS ONLY
S.R.O. – SURFACE RIGHTS ONLY
M.+ S. – MINING AND SURFACE RIGHTS

Description	Order No.	Date	Disposition	File
R4	W.611/77	4/8/77	S.R.O.	177198
R5	NWR 187-2	19/11/82	SR & MR	
R5	NWR 41/83	22/06/83	SR & MR	

(R4) — MINING AND SURFACE RIGHTS RE-OPENED UNDER SECTION 35 OF THE MINING ACT, R.S.O. 1980, ORDER NO. O-P-13/97 NER DATED MAY 16/97, ORDER COMES INTO EFFECT AT 8AM STD TIME, JUNE 1, 1997.

(R5) — MINING AND SURFACE RIGHTS RE-OPENED UNDER SECTION 35 OF THE MINING ACT, R.S.O. 1990, ORDER NO. O-P 15/97 NER DATED MAY 26/97, ORDER COMES INTO EFFECT AT 8AM STD TIME, JUNE 10, 1997.

THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES, AND ACCURACY IS NOT GUARANTEED. THOSE WISHING TO STAKE MINING CLAIMS SHOULD CONSULT WITH THE MINING RECORDER, MINISTRY OF NORTHERN DEVELOPMENT AND MINES, FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON.

BOND TOWNSHIP

THOMAS TOWNSHIP

EGAN TOWNSHIP

TIMMINS TOWNSHIP

VI V IV III II I

12 11 10 9 8 7 6 5 4 3 2 1

LEGEND

HIGHWAY AND ROUTE No.
OTHER ROADS
TRAILS
SURVEYED LINES:
TOWNSHIPS, BASE LINES, ETC.
LOTS, MINING CLAIMS, PARCELS, ETC.
UNSURVEYED LINES
LOT LINES
PARCEL BOUNDARY
MINING CLAIMS ETC.
RAILWAY AND RIGHT OF WAY
UTILITY LINES
NON PERENNIAL STREAM
FLOODING OR FLOODING RIGHTS
SUBDIVISION OR COMPOSITE PLAN
RESERVATIONS
ORIGINAL SHORELINE
MARSH OR MUSKEG
MINES
TRAVERSE MONUMENT

DISPOSITION OF CROWN LANDS

TYPE OF DOCUMENT	NAME
PATENT, SURFACE & MINING RIGHTS	
" SURFACE RIGHTS ONLY	
" MINING RIGHTS	
LEASE, SURFACE & MINING RIGHTS	
" SURFACE RIGHTS ONLY	
" MINING RIGHTS ONLY	
LICENCE OF OCCUPATION	
ORDER-IN-COUNCIL	
RESERVATION	
CANCELLED	
SAND & GRAVEL	

NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO JULY 1, 1913, VESTED IN THE ORIGINAL PATENTEE UNLESS OTHERWISE NOTED IN THE PUBLIC LANDS ACT, R.S.O. 1990, CHAP. P. 43, SEC. 1.

50 0 100 Metres
10 0 10 20 30 0 3 6 Chains
500 0 1000 2000 3000 4000 Feet

SCALE 1:20 000

NOTES

F1 THIS TWP. IS SUBJECT TO FOREST ACTIVITY IN 1994/95 FURTHER INFORMATION ON FILE.

(F2) THIS TWP. IS SUBJECT TO FOREST ACTIVITY IN 1995/96. FURTHER INFORMATION AVAILABLE ON FILE.

2.18116

TOWNSHIP
SHERATON

M.N.R. ADMINISTRATIVE DISTRICT
TIMMINS
MINING DIVISION
PORCUPINE
LAND TITLES / REGISTRY DIVISION
COCHRANE

Ministry of Natural Resources — Ontario
Ministry of Northern Development and Mines

DATE: OCT 30/96 — OK BY AL OCT 30/96 B.B.
NUMBER: G-3971

DATE OF ISSUE
JAN 26 1998
PROVINCIAL RECORDING OFFICE - SUDBURY

2.18116
PORCU

2.18116

SHERATON TWP. M. 386

PANILEGAN TWP. M. 346

BLACKSTOCK TWP. M. 263

McEVAY TWP. M. 367

MICHIE TWP. M. 301

NOTES

400' surface rights reservation along the shores of all lakes and rivers.

Areas withdrawn from staking under Section 43 of the Mining Act, R.S.O. 1970.

	Order No.	File	Date	Disposition
(R1)	W.57/77	192164	28/6/77	S.R.O.
(R2)	W.86/77	188543	27/10/77	S.R.O.
(R3)	W. 19/78	188543	10/10/78	S.R.O.
(R4)	W 39/85	188543	10/10/85	S.R.&M.R.

SAND and GRAVEL

(S1) Quarry Permit

(1) THIS TWP. IS SUBJECT TO FOREST ACTIVITY IN 1995/96. FURTHER INFORMATION IS AVAILABLE ON FILE.

LEGEND

PATENTED LAND	(P) or
PATENTED FOR SURFACE RIGHTS ONLY	
LEASE	(L)
LICENSE OF OCCUPATION	L.O.
CROWN LAND SALE	C.S.
LOCATED LAND	Loc.
CANCELLED	C.
MINING RIGHTS ONLY	M.R.O.
SURFACE RIGHTS ONLY	S.R.O.
HIGHWAY & ROUTE NO.	(17)
ROADS	
TRAILS	
RAILWAYS	
POWER LINES	
MARSH OR MUSKEG	
MINES	

*used only with summer resort locations or when space is limited.

TOWNSHIP OF

TIMMINS

18116

DISTRICT OF

COCHRANE

PORCUPINE

MINING DIVISION

SCALE 1 INCH = 40 CHAINS (1/2 MILE)

DIP —

DATE MARCH 7

PLAN NO. M.314

ONTARIO

MINISTRY OF NATURAL RESOURCES

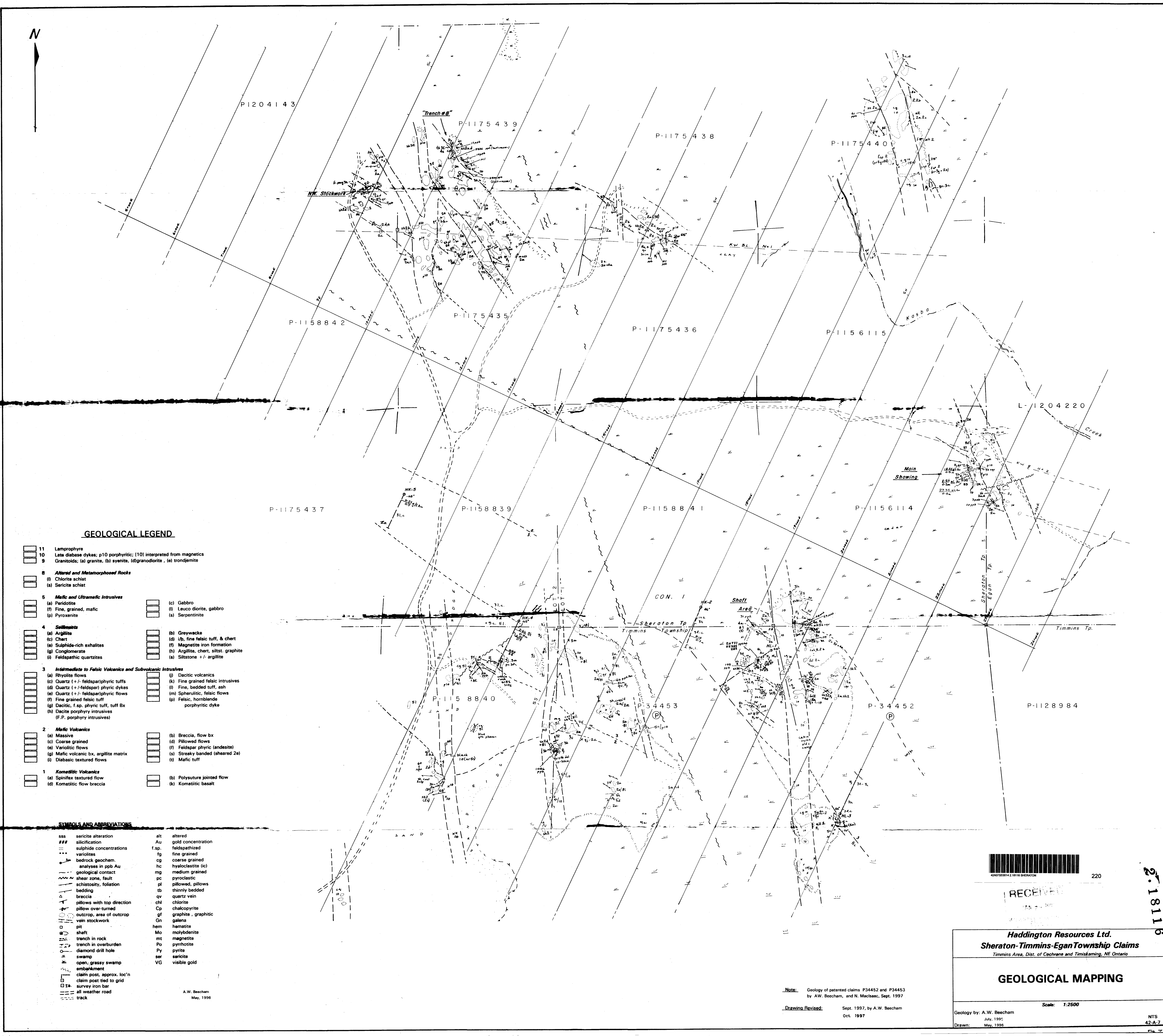
SURVEYS AND MAPPING BRANCH

DATE OF ISSUE

JAN 26 1998

PROVINCIAL RECORDING OFFICE - SUDBURY

THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES AND ACCURACY IS NOT GUARANTEED. THOSE WISHING TO STAKE MINING CLAIMS SHOULD CONSULT WITH THE MINING RECORDER, MINISTRY OF NORTHERN DEVELOPMENT AND MINES, FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON.



GEOLOGICAL LEGEND

11 Lamprophyre
10 Late diabase dykes; p10 porphyritic; [10] interpreted from magnetics
9 Granitoids; (a) granite, (b) syenite, (d)granodiorite , (e) trondjemite

8 ***Altered and Metamorphosed Rocks***
(l) Chlorite schist
(s) Sericite schist

5 ***Mafic and Ultramafic Intrusives***
(a) Peridotite
(f) Fine, grained, mafic
(p) Pyroxenite
(c) Gabbro
(l) Leuco diorite, gabbro
(s) Serpentinite

4 ***Sediments***
(a) Argillite
(c) Chert
(e) Sulphide-rich exhalites
(g) Conglomerate
(i) Feldspathic quartzites
(b) Greywacke
(d) i/b, fine felsic tuff, & chert
(f) Magnetite iron formation
(h) Argillite, chert, siltst. graphite
(s) Siltstone +/- argillite

3 ***Intermediate to Felsic Volcanics and Subvolcanic Intrusives***
(a) Rhyolite flows
(c) Quartz (+/- feldspar)phyric tuffs
(d) Quartz (+/-feldspar) phyric dykes
(e) Quartz (+/- feldspar)phyric flows
(f) Fine grained felsic tuff
(g) Dacitic, f.sp. phyric tuff, tuff Bx
(h) Dacite porphyry intrusives (F.P. porphyry intrusives)
(j) Dacitic volcanics
(k) Fine grained felsic intrusives
(l) Fine, bedded tuff, ash
(m) Spherulitic, felsic flows
(p) Felsic, hornblende porphyritic dyke

2 ***Mafic Volcanics***
(a) Massive
(c) Coarse grained
(e) Variolitic flows
(g) Mafic volcanic bx, argillite matrix
(i) Diabasic textured flows
(b) Breccia, flow bx
(d) Pillowed flows
(f) Feldspar phyric (andesite)
(s) Streaky banded (sheared 2e)
(t) Mafic tuff

1 ***Komatiitic Volcanics***
(a) Spinifex textured flow
(d) Komatiitic flow breccia
(b) Polysuture jointed flow
(k) Komatiitic basalt

SYMBOLS AND ABBREVIATIONS

sss	sericite alteration	alt	altered
###	silicification	Au	gold concentration
:::	sulphide concentrations	f.sp.	feldspathized
***	variolites	fg	fine grained
	bedrock geochem. analyses in ppb Au	cg	coarse grained
	geological contact	hc	hyaloclastite (ic)
	shear zone, fault	mg	medium grained
	schistosity, foliation	pc	pyroclastic
	bedding	pl	pillowed, pillows
	breccia	tb	thinnly bedded
	pillows with top direction	qv	quartz vein
	pillow over-turned	chl	chlorite
	outcrop, area of outcrop	Cp	chalcopyrite
	vein stockwork	gf	graphite , graphitic
	pit	Gn	galena
	shaft	hem	hematite
	trench in rock	Mo	molybdenite
	trench in overburden	mt	magnetite
	diamond drill hole	Po	pyrrhotite
	swamp	Py	pyrite
	open, grassy swamp	ser	sericite
	embankment	VG	visible gold
	claim post, approx. loc'n		
	claim post tied to grid		
	survey iron bar		
	all weather road		
	track		

A.W. Beecham
May, 1996

Note: Geology of patented claims P34452 and P34453 by AW. Beecham, and N. MacIsaac, Sept. 1997

Drawing Revised: Sept. 1997, by A.W. Beecham
Oct. 1997

Haddington Resources Ltd.
Sheraton-Timmins-Egan Township Claims
Timmins Area, Dist. of Cochrane and Timiskaming, NE Ontario

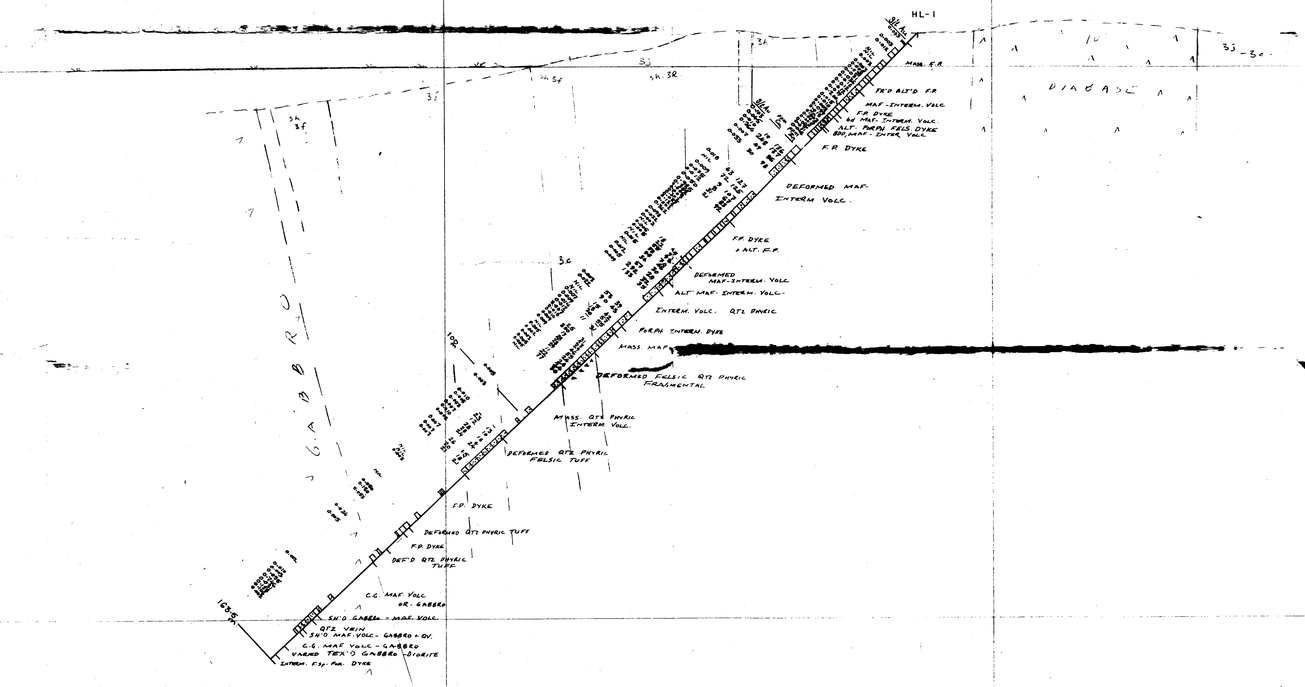
GEOLOGICAL MAPPING

Scale: 1:2500

Geology by: A.W. Beecham
July, 1995
Drawn: May, 1996

NTS
42-A-7

Fig. 7



230

2.18116

Haddington Resources Ltd.

Sheraton-Timmins-Egan Township Claims

Timmins Area, Prov. of Ontario and Tomakaming Co. Ontario

DIAMOND DRILL HOLE SECTION

Section Azimuth : **235°**

Scale: 1: 500

Logged by **A.W. Beechom**

Plotted by **A.W.B.**

Date : **Oct. 1997**

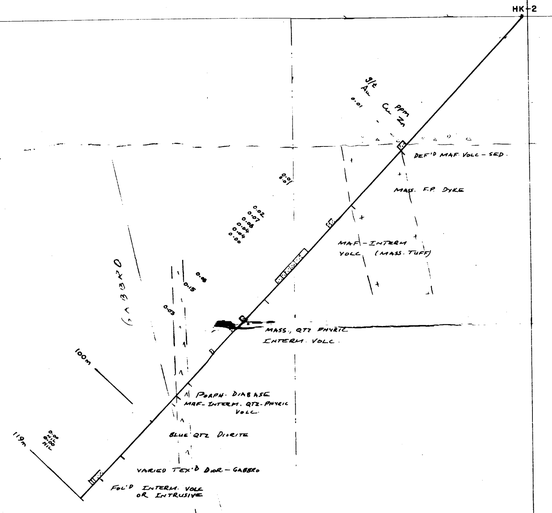
4+00S

3+00S

2+00S

1+00S

HK-2



240

Haddington Resources Ltd.

Sheraton-Timmins-Egan Township Claims

Timmins Area, Dist. of Cochrane and Timiskaming, NE Ontario

DIAMOND DRILL HOLE SECTION
18+00E

Section Azimuth : 205°

Scale: 1: 500

Logged by: A.W. Beecham
Plotted by: A.W.B.
Date : Oct. 1997

NTS
42-A-7

4+00 S

3+00 S

2+00 S

1+00 S

HL-3

MAFIC FELS. VOLC.

FELDSPAR PORPH DYKE

INTERM. FINE TUFF

ALT'D INTERM.- FELSIC TUFF & TUFF BX

INTERMED. FINE TUFF

FRAG'D INTERMED. TUFF

VAULT

ALTERED INTERM. FINE TUFF

INTERM. FINE TUFF

INTERMED. DYKE

INTERMED. FINE TUFF;

42A07SE0014 2.16116 SHERATON

250

2.16116

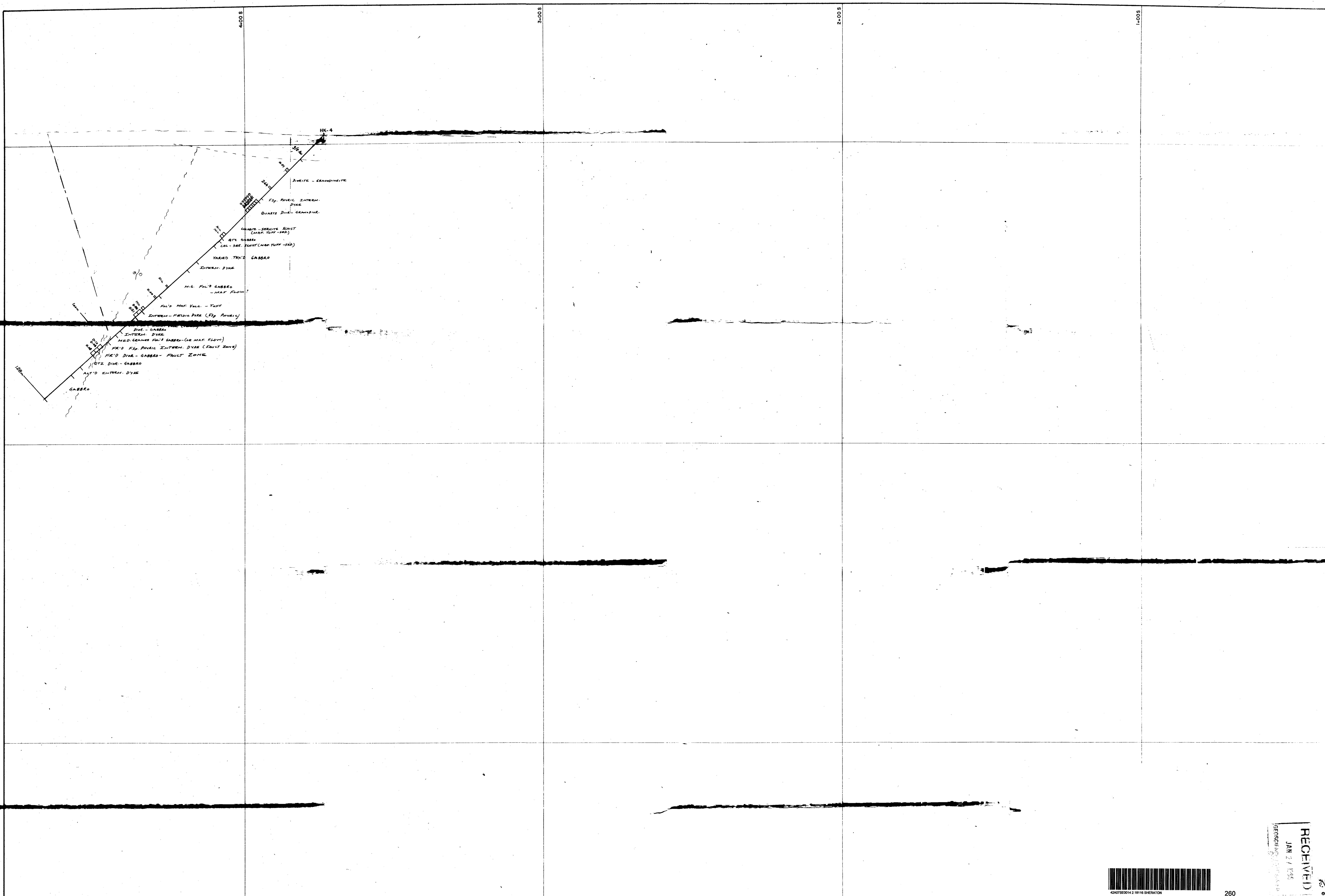
Haddington Resources Ltd.
Sheraton-Timmins-Egan Township Claims
Timmins Area, Dist. of Cochrane and Timiskaming, NE Ontario

DIAMOND DRILL HOLE SECTION
22+00E

Section Azimuth : 205°
Scale: 1: 500

Logged by: A.W. Beecham
Plotted by: A.W.B.
Date : Oct. 1997

NTS
42-A-7



42A07SE0014 2.18116 SHERATON 260

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JAN 27 1998
GEOSCIENCE ...

2.18116

Haddington Resources Ltd.
Sheraton-Timmins-Egan Township Claims
Timmins Area, Dist. of Cochrane and Timiskaming, NE Ontario

DIAMOND DRILL HOLE SECTION 15+00 E

Section Azimuth : 205°
Scale: 1: 500

Logged by: A.W. Beecham
Plotted by: A.W.B.
Date : Oct. 1997

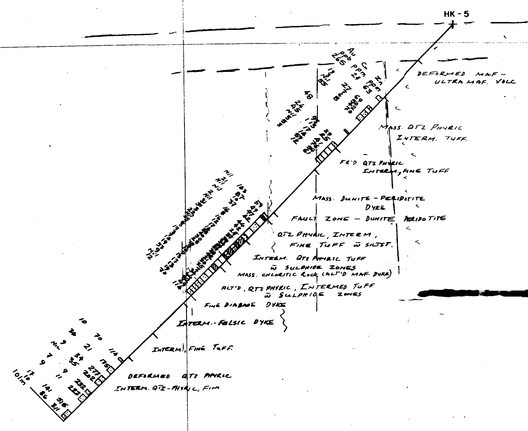
NTS 42 A/7

4+00 S

3+00 S

2+00 S

1+00 S



270

Haddington Resources Ltd.
Sheraton-Timmins-Egan Township Claims
Timmins Area, Dist. of Cochrane and Timiskaming, NE Ontario

DIAMOND DRILL HOLE SECTION
12+00 E

Section Azimuth : 205°
Scale: 1: 500

Logged by: A.W. Beechom
Plotted by: A.W.B.
Date : Oct. 1997

NTS
42 A-7