RENISON LIMITED - DRILL CORE RECORD

090

HOLE NUMBER	MH1
PURPOSE	To intersect the mineralization which is encountered in the three adits and to elucidate the stratigraphy of the area.
LOCATION	MERTON HILL
COLLAR R.L.	2198.514M
CO-ORDINATES	5379628.492N 367687.432E (line 1300E ; 330N)
LENGTH	173.4m
HOLE SIZE	0 - 3m H.W. 3 - 87m H.Q. 87m - 173.5m N.Q.
DATE DRILLED	23.10.80- 13.11.80
SIGNIFICANT CORE LOSS ZONES	53.25 - 55.1m
ORE ZONE GROUND CONDITIONS	Mineralized zone: 48.9-56.5m moderate with some zones of faulted, brecciated and oxidized rock
LOGGED BY	LINDA MARTIN
COMMENTS	ALL MAGNETIC SUSCEPTIBILITY READINGS WERE BELOW THE LIMIT OF DETECTION.

SURVEY			From - To	Distance D	VERTICAL		HORIZONTAL	
Depth	Bearing	Dip			D.Sin.Dip	R.L.	D.Cos.Dip	Prog. Total
(set up on) 0m	(215° grid) 207° mag	- 41°	0 - 1.0	1.0	0.66	197.85	0.75	0.75
2m	(inside casing)	- 41°	-17.0	16.0	10.5	187.35	12.08	12.83
32m	(inside casing)	- 42°	-51.0	34.0	22.75	164.60	25.27	38.10
70m	206° mag	- 43°	-90.5	39.50	26.94	137.66	28.89	66.99
111m	208° mag	- 42½°	-133.5	43.0	29.05	108.61	31.70	98.69
156m	208.5° mag	- 41°	-161.5	28.0	18.37	90.24	21.13	119.82
167m	209° mag	- 41°	-173.5	12.0	7.87	82.37	9.06	128.88

SUMMARY - ASSAY DATA

LODE NAME	FROM	TO	LENGTH (m)	AVERAGE WEIGHTED ASSAYS													B.C.A.
				Sn. %	Acid Sol. Sn. %	Cu. %	As. %	S. %	Pb. %	Zn. %	Bi. ppm	WO_3 %	Ag g/t				
FAULT ZONE	48.9	56.5	7.6 M	0.08	0.02	0.19%	0.15	23.9	0.76	2.00	80	<0.002	36				
FAULT BRECCIA AND GOSSANOUS ZONE	52.9	55.9	3.0 M	0.19	0.03	0.17%	0.18	24.4	1.27	3.68	80	0.002	53				

NWPS 27344

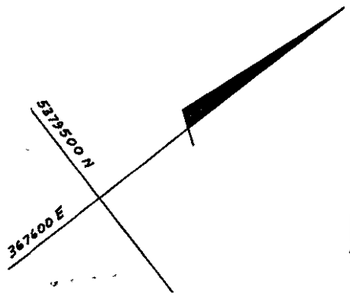
HOLE No M.H. 1

SCALE 0 10 20 metres

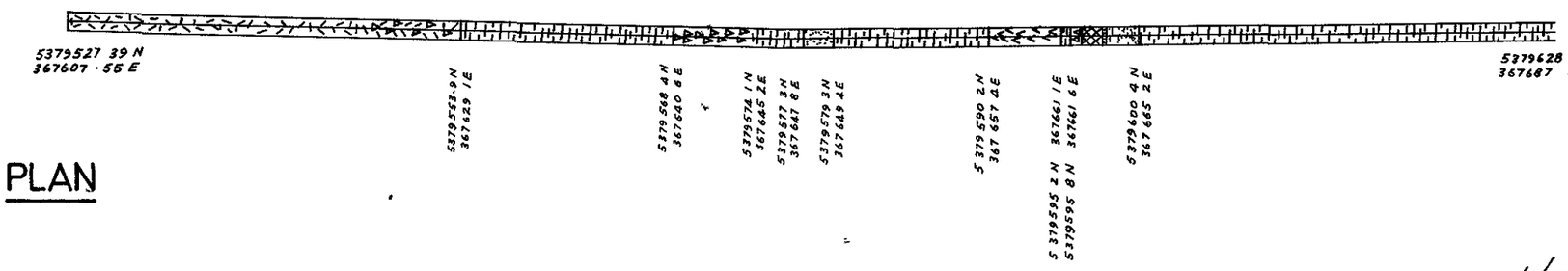
RENISON LIMITED

DIAMOND DRILL HOLE PLOT

959097

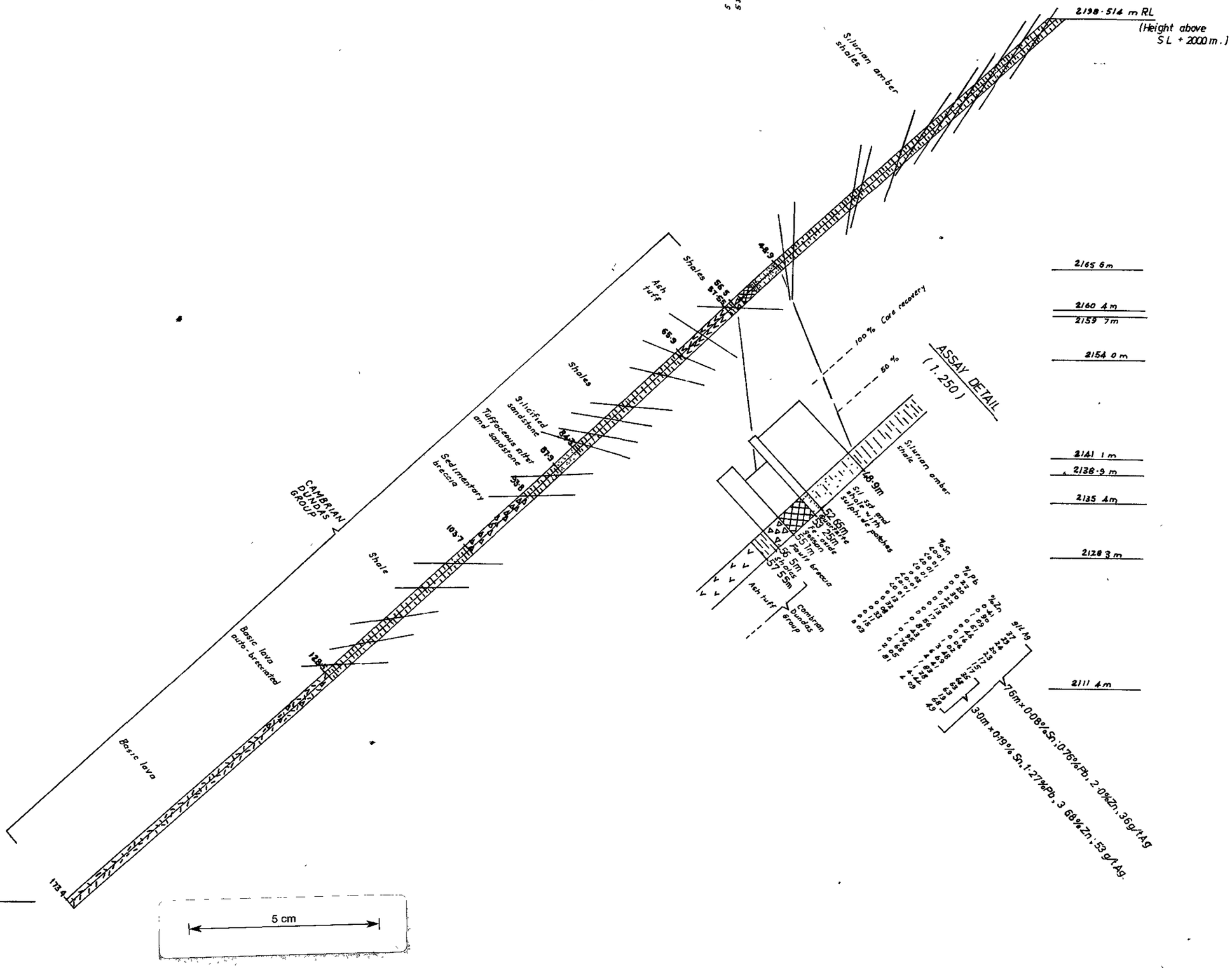


PLAN



DIP PROFILE

(LOOKING NORTH)



81-1598
(101 of 63)

092

DIAMOND DRILL RECORD

HOLE NUMBER : MH1

LOGGED BY : L. MARTIN

NWFS

INTERVAL (m) FROM	TO	RECOVERY m	%	DESCRIPTION	FORM.	% Sn. FROM	TO	TOTAL	ACID SOL.	% Cu.	% As.	% S.	% Pb.	% Zn.	ppm Bi.	g/t Ag	% WO_3
0	0.5	0.15	30	RUBBLE Assorted light grey and orange-brown shale fragments.													
0.5	48.9	38.72	80	SHALE 0.5m - 12.4m: Light grey shale to clay finely laminated with light brown iron oxide patches and as staining along joints, bedding planes and fractures. Areas of leisegang banding. Bedding at 15° T.C.A. with casts of fossils in the bedding plane, partially replaced or lined with iron-oxide. Fossils mostly of brachiopods (→ 1cm diam.) and thin serrated spine-like shells, with minor sponges and crinoid ossicles (fossil assemblage is similar to that found on the H.E.C. road as an Amber slate correlate.) The core is very weathered and broken up but becomes more competent further down the hole. 12.4m - 48.9m: Fresher medium to dark grey shale with thin bands of fine sandstone to siltstone, up to 3cm wide. Very minor to no iron-oxide staining. Minor pyrite crystals, but from 31.5m onwards, some pryite on joints. Moulds and casts of fossils as above, and in sandstone bands. Abundant crinoid ossicle moulds (to 2mm diam.) from 29.9 - 35.3m; less fossils from 36.2m onwards. Bedding at 13.0m and 25.4m is 15°; at 27.4m - 30°; at 34.3m - 35°; at 35.2m - 40°; at 45.95m - 47°; at 47.3m - 56°. Core is very broken up and crumbly particularly from 46.2m to 48.7m where it is also sheared and slickensided. Contact with unit below is slickensided at 70°.	AMBER SLATE				N.B.	SSn ± 100ppm						
48.9	56.5	6.62	87	MINERALISED ZONE :													
48.9	52.65	3.56	95	SILICIFIED SANDSTONE/QUARTZITE AND SHALE Fine grained light grey hard silicified sandstone/quartzite and lesser amouts of medium grey finely laminated shale, with patches of sulphide replacing bedding in places (to 3cm wide bands) and infilling fractures and joints in others. The sulphides are mostly cavernous pyrite (after pyrrhotite?) with minor small patches of chalcopyrite, galena and sphalerite. The core is very fractured and is crumbly in places. Minor fractures at 10° - 20° have oxidized sulphide along their surfaces. At 49.3m, bedding - 35° T.C.A.		48.9	49.4	<0.01	0.01	0.31	<0.1	37.9	0.22	0.41	160	37	0.002
						49.4	49.9	<0.01	0.01	0.18	<0.1	24.7	0.20	0.90	140	29	0.002
						49.9	50.4	<0.01	0.01	0.14	<0.1	18.1	0.30	1.09	90	24	<0.002
						50.4	50.9	<0.01	0.01	0.22	<0.1	32.4	0.22	0.51	50	20	<0.002
						50.9	51.4	0.02	0.02	0.50	0.4	32.4	0.15	0.46	70	23	0.002
						51.4	51.9	<0.01	0.01	0.22	0.7	30.8	0.13	0.16	70	17	<0.002
						51.9	52.4	<0.01	0.01	0.14	0.1	19.1	0.17	0.06	60	15	<0.002

DIAMOND DRILL RECORD

HOLE NUMBER : MH1

LOGGED BY : L. MARTIN

093

NWPS

INTERVAL (m) FROM	INTERVAL (m) TO	RECOVERY m	RECOVERY %	DESCRIPTION	FORM.	% Sn. FROM	% Sn. TO	% Sn. TOTAL	% Sn. ACID SOL.	% Cu.	% As.	% S.	% Pb.	% Zn.	PPM Bi.	g/t Ag	% WO_3
52.65	53.25	0.6	100	QUARTZITE		52.4	52.9	<0.01	0.02	0.09	<0.1	10.3	0.56	1.02	50	17	<0.002
				Fine grained, greenish grey hard quartzite, with darker grey		52.9	53.4	0.13	0.07	0.12	0.2	16.1	0.81	3.48	60	35	0.002
				irregular small patches, and with irregular veins of fine grained													
				sphalerite and spots of galena. Minor fractures. Sheared and													
				slickensided upper boundary in dark shaley rock, at 40° T.C.A.													
53.25	55.1	1.2	64.86	GOSSANOUS ROCK WITH MASSIVE PYRITE		53.4	53.9	0.32	0.04	0.20	0.3	28.3	1.43	6.69	70	68	<0.002
				Dark brown iron oxide stained, very crumbly core with significant		53.9	54.4	0.08	0.03	0.24	0.2	37.5	0.95	4.41	100	63	<0.002
				core loss. Fine grained, with patches of fine sphalerite and minor		54.4	54.9	0.33	0.03	0.25	<0.1	43.3	1.76	1.83	100	63	0.004
				remnant pyrite. The rest of the sulphides have been altered to													
				dark brown and black oxides. The oxidized zone grades to a zone													
				of massive *marcasite with minor 'caverns'/holes at 54.1m approx.													
				From 54.40m - 54.65m: There is a zone of mixed fine grained													
				sphalerite and galena with areas of oxidized or gossenous material.													
				The core is very crumbly and there has been significant core loss.													
				At base of unit, there is a band of very fractured, dark grey													
				quartzite. Boundaries are not observed due to core loss.													
				* High S to Fe ratio than in pyrite.													
55.1	56.5	1.26	90	QUARTZITE, SHALE AND SULPHIDE BRECCIA	FAULT	54.9	55.4	0.11	0.01	0.09	0.2	7.4	0.65	1.28	40	19	0.002
				Angular to sub-rounded clasts in a soft dark grey clay matrix.	ZONE	55.4	55.9	0.15	0.03	0.11	0.2	13.9	2.05	4.44	80	68	0.004
				The clasts range from sand sized grit to clasts up to 10cm diameter,		55.9	56.5	0.03	0.03	0.09	<0.1	7.0	1.81	4.09	40	49	0.004
				and are composed mostly of grey and cream quartzite/sandstone, with													
				minor light and dark grey shales, cream quartzite and various													
				sulphides. The sulphides are: pyrite as large clasts <10cm diam.;													
				sphalerite as clast <4cm diam., but mostly as grains approx. 1mm													
				diam., and galena as clasts <1cm diam. and mostly as grains <1mm													
				diam.													
				Minor clasts of quartz and quartzite with sulphide vein through them.													
				55.8 - 56.5m: Softer, more puggy core than above, with a greater													
				proportion of dark grey clay matrix.													
56.5	57.55	1.05	100	SHALE WITH SILT BANDS	DUNDAS												
				Fine grained, finely laminated dark grey shale, with lighter grey	GROUP												
				bands of siltstone/fine sandstone to 2cm width. Bedding at 45°.													
				Fine fracturing faulting bedding by m.m., some with appearance of													
				soft sediment deformation. Fractures mostly filled with white													
				silica and minor green chlorite (similar to unit at 74.9 - 77.5m													
				in MH2).													

DIAMOND DRILL RECORD

HOLE NUMBER : MH1

LOGGED BY : L. MARTIN

094

RWPS

INTERVAL (m) FROM	INTERVAL (m) TO	RECOVERY m	RECOVERY %	DESCRIPTION	FORM.	% Sn. FROM	% Sn. TO	% Sn. TOTAL	% Sn. ACID SOL.	% Fe	PPM Cr	PPM Ni	PPM Mo	PPM Sb
57.55	65.90	8.35	100	ASH TUFF	DUNDAS GROUP?	48.9	49.4			35.4	100	50	<10	80
				57.55 - 57.75m: Light grey-green, fine grained shaley tuff, finely		49.4	49.9			27.0	100	60	<10	70
				laminated. Very fractured core with poor recovery.		49.9	50.4			19.4	200	50	<10	60
				57.75 - 63.9m: Light olive green pumiceous tuff with medium green		50.4	50.9			27.7	100	30	<10	70
				chloritic flattened pumice fragments. Has minor crystal fragments		50.9	51.4			27.0	100	50	<10	90
				of mostly altered yellow feldspar , with some lithic fragments of		51.4	51.9			27.7	<100	30	<10	90
				grey siliceous material, in places up to 1cm x 4cm; fragments are		51.9	52.4			16.9	500	30	<10	60
				<15% of total volume. Grades into more crystal rich units with		52.4	52.9			10.3	700	40	<10	50
				fragments <50% of volume. Pumic fragments are flattened, probably		52.9	53.4			12.3	600	80	<10	100
				in plane of bedding at 75° T.C.A.		53.4	53.9			21.9	200	100	<10	140
				Thin irregular quartz veins with minor chlorite, occur throughout		53.9	54.4			31.6	100	70	<10	120
				the unit, with an irregular thick zone of quartz veining occurring		54.4	54.9			35.7	<100	50	<10	190
				at 61.05 - 61.45m. Minor coarse crystals of pyrite occur in the		54.9	55.4			7.6	1000	90	<10	100
				tuff surrounding the thick quartz zone and in a zone from 60.36 -		55.4	55.9			11.0	1900	110	<10	180
				60.65m; crystal diameter to 0.7cm.		55.9	56.5			8.0	21000	230	<10	160
				63.90 - 65.90m: Medium grained crystal rich zone with abundant										
				yellow altered feldspars, minor quartz grains and some grey lithic										
				fragments. Fragments are <60% approx. of volume. Sheared upper										
				boundary at 70° in opposite direction to plane of flattening of										
				pumice fragments. Lower boundary obscured by core loss.										
65.90	84.3	14.72	80	SHALE	DUNDAS GROUP?									
				Dark grey fine grained, finely laminated shale with minor layers of										
				lighter coloured siltstone. Bedding: at 65.9m - 65°; at 69.7m -										
				55°; at 75.7m - 47°; at 77.2m - 50°; at 78.4m - 40°; at 81.3m -										
				52°; at 83.0m - 58°. Minor cross laminations. In places the										
				laminations are finely faulted and folded, probably deformed before										
				sediments were completely consolidated. Some pyrite and minor										
				spots of galena occur along joints, fractures and bedding planes.										
				Minor pyrite nodules. From 71.3m, slickensided shears coated with										
				green chlorite and serpentine(?) and at 10° - 30°, break up the core										
				into crumbly slivers resulting in some core loss. Sharp erosional										
				lower boundary.										
84.3	87.9	3.6	100	SANDSTONE/QUARTZITE WITH SILTSTONE ZONES	DUNDAS GROUP?									
				Fine grained fairly hard and silicified medium greyish-green, fairly										
				massive fine sandstone to siltstone with vague bedding; 50° T.C.A.										
				at 84.8m. Siltstone grades into medium grained siliceous sandstone										
				units, which increase in frequency towards base of unit. Sandstone										
				is slightly tuffaceous. Gradational lower boundary. Irregular										
				squiggly veins of pyrite in places are often associated with coarse										

959100

095

DIAMOND DRILL RECORD

HOLE NUMBER : MH1

LOGGED BY : L. MARTIN

NWPS

INTERVAL (m) FROM	INTERVAL (m) TO	RECOVERY m	RECOVERY %	DESCRIPTION	FORM.	% Sn. FROM	% Sn. TO	% Sn. TOTAL	% Sn. ACID SOL.	% Cu.	% As.	% S.	% Pb.	% Zn.	% Bi.	g/t Ag	% WO_3
				grained white zeolite which cleaves into oblong blocks.													
				At 85.45m: An open fracture with sphalerite crystals growing on the surface.	DUNDAS GROUP?												
87.9	103.7	15.8	100	SILSTONE TO TUFFACEOUS SANDSTONE GRADING TO SEDIMENTARY BRECCIA 87.9 - 93.8m: Dark grey siltstone grading to coarse grained tuffaceous sandstone, poorly sorted, with angular crystal and lithic fragments. Crystal fragments: mostly altered yellow feldspar, some quartz and minor mafics (hornblende). Lithic fragments: light and dark grey fine shale as sand size particles, and minor porphyritic andesitic tuff fragments to 3cm length, which are deformed as if not consolidated when deposited. Grades into minor siliceous tuff bands in places. Vaguely bedded at approx. 40° T.C.A. Gradational upper and lower boundary. Minor sparkles of pyrite throughout. Numerous quartz veins cut the core at 40° - 50°, (not parallel to bedding), are 1 - 2mm wide and are often open cavities with quartz crystals growing from the walls. At 92.0 - 93.6m several thick quartz veins (to 4cm wide) and numerous fine stringers intersect. 93.8 - 103.7m: Grades into a soft sediment breccia of dark and medium grey 'clasts' of the above material: - fine grained siltstone with minor crystal fragments; medium grained light grey siliceous tuff; coarse tuffaceous sandstone. Towards lower boundary of unit the 'clasts' become more tuffaceous. 'Clasts' appear to be squashed into each other and the boundaries are irregular and wispy in parts, as if the 'clasts' were not consolidated when deposited. The 'clasts' range from 2 - 10cm in length. Lower boundary is sharp at 65°.												
103.7	128.47	24.77	100	SHALE: Black to dark grey brown laminated to thickly bedded shale with zones of soft sediment deformation as slumping, brecciation and disrupted bedding, and minor very folded and contorted siltstone layers to 8cm thickness. Bedding is 70° at 103.9m, 43° at 105.7m and 20° at 106.2m, 32° at 121.4m, 35° at 116.5m, and 40° at 125.6m. In some zones there are minor sub-angular clasts of quartzite and siltstone to 3cm length. Minor carbonate veins and stringers. Minor pyrite in veins, as fine syngenetic grains in zones and as nodules. Boundaries are sheared and slickensided - upper at 65°, lower at 40°.	DUNDAS GROUP											

95101

DIAMOND DRILL RECORD

HOLE NUMBER : MH1

LOGGED BY : L. MARTIN

096

NWPS

INTERVAL (m) FROM	INTERVAL (m) TO	RECOVERY m	RECOVERY %	DESCRIPTION	FORM.	% Sn. FROM	% Sn. TO	% Sn. TOTAL	% Sn. ACID SOL.	% Cu.	% As.	% S.	% Pb.	% Zn.	% Bi.	g/t Ag	% WO_3
128.47	173.4	44.93	100	BASIC LAVA													
				128.47 - 142.05m: Brecciated dark and medium green serpentinised basic lava with a matrix commonly of finely ground lava and often of white crystalline carbonate. Some zones of soft dark green soapy serpentine. Minor blotches and stringers of pyrite. Sharp lower boundary of sheared serpentine at 25°.													
				142.05 - 148.30m: Fine grained granular medium greenish lava, fairly homogeneous with carbonate stringers. Grades into:													
				148.30 - 173.40m: Very fine grained medium greenish rock with light green epidote/chlorite, carbonate and some zeolites (IN PATCHES). Very minor veins and stringers of carbonate. Some dark green serpentine-filled veins and shears. MINOR VESICLE-LIKE STRUCTURES FILLED WITH CHLORITE, CARBONATE AND SOME ZEOLITES.													
				E.O.H.													
				THIN SECTION DESCRIPTION (3702): EERS, COMM. A.V. BROWN GOVERNMENT GEOLOGIST:													
				" BASALTIC LAVA WITH HIGHLY ALTERED FELDSPAR CRYSTALS, ALTERED TO SERICITE, FERROMAGNEIUM MINERALS ALTERED TO CHLORITE WITH MINOR RESIDUAL PHENOCRYSTS OF ORTHOPYROXENE. VERY LOW MAGNETITE CONTENT WITH ZEOLITE-FILLED AMYGDALES. ROCK IS PERVADED BY CARBONATE. " (MH1 — 154.2M.)													

959102

RENISON LIMITED

DIAMOND DRILL HOLE PLOT

SCALE :

HOLE No. : MH 1

PETROLOGICAL DESCRIPTION

REPORT CMS 81/3/48

097

SAMPLE NO.	CLASSIFICATION - COMPOSITION	FABRIC	ACCESSORIES	COMMENTS
49.0m (T.S. 37013)	Marcasite-Pyrite-Quartz Rock. Spongy to semi-massive marcasite, pyrite interspersed with clay-stained aggregates of quartz.	Random, breccia-like. Quartz is fine-grained sub- to euhedral, vein-type.	Traces ultrafine cloudy rutile, rare zircon. Rare marginally oxidised chalcopyrite.	Brecciation, pyritisation of fine-grained, ?banded pyrrhotite-quartz rock similar to Renison pyrrhotitic ores. Clays in part represent degraded phlogopite.
51.9m	Pyritic Quartzite. Medium-grained, mildly stressed quartzite with disseminated phlogopitised pelite clasts, sporadic zones, films of fine-grained pyrite, marcasite (after pyrrhotite).	Faint relict fine sandy clastic fabric. Irregular discordant sulphide-quartz veins.	Minor chalcopyrite, rare sphalerite. Disseminated relict clastic leucoxenic semi-opaques, zircon.	Metaquartzite, stressed, with pyritised pyrrhotite-quartz (-chalcopyrite) vein material of similar paragenesis to 49.0m.
53.3m (T.S. 37015)	Quartzite. Fine to medium-grained stressed quartzite with disseminated phlogopitised pelite clasts. Sporadic granulated films quartz, with pyritised pyrrhotite, minor galena. Sparsely disseminated cassiterite.	Similar, closely related to 51.9m, but weakly banded. Sporadic thin zones granulation.	Relict detrital zircon, leucoxenic semi-opaques.	Close affinities with 51.9m. Cassiterite as near-opaque, dark red brown < 50 u particles in silicified matrix, appears to predate the sulphide-quartz veinlets.
54.2m (T.S. 37016)	Pyrite Rock. Porous, semi-massive aggregates of fine-grained, secondary pyrite, marcasite. Sporadic films sphalerite, galena; clots of chlorite, ultrafine-grained clays.	Crudely banded/directed. Cavities represent leached rock-flour-like chlorite-clay aggregates.	Traces chalcopyrite, sparse "mylonitised" ultrafine green schorl.	Sheared, pyritised semi-massive pyrrhotite rock with relics of chlorite, clay (?altered phlogopite)-tourmaline gangue.
54.6m	Sphalerite-Pyrite Rock. Dark red sphalerite with subordinate pyritised pyrrhotite, conspicuous galena, minor chalcopyrite. Frequent clots, films of chlorite, phlogopite, minor quartz.	Semi-schistose to mylonitic, crudely banded. Thoroughly stressed quartz.	Minor traces carbonaceous matter, ultrafine schorl. No detectable cassiterite.	Relatively sphalerite-rich, but essentially identical paragenesis to 54.2m. Secondary pyrite locally recrystallized. Locally leached, cavernous.
55.6m	Breccia. Angular to subangular clasts quartzite, sericite pelite/carbonaceous pelite, quartz/sphalerite, pyritised pyrrhotite grains with sparse sericite-quartz-chlorite matrix, sericite quartzite.	Randomly sorted, semi-brittle breccia, semi-mylonitic matrix.	Traces chalcopyrite, galena, arsenopyrite, Minor trace cassiterite.	Fault breccia with composite sulphides, mainly granulated 54.2, 54.6m type, traces "syngenetic" pyrite in pelite clasts. Cassiterite random, cloudy, sized 20 u.
96.9m	Acid Tuff. Extensively sericitised alkali feldspar, subordinate quartz grains, minor carbonaceous pelite, poorly defined sericitic rhyolite clast with sericitic devitrified shardy matrix.	Poorly sorted, crudely bedded with displacements on carbonaceous micro-faults, quartz veinlets.	Leucozenised clastic opaques. Patchy ankeritic carbonate, minor traces ultrafine pyrite.	Strong affinities with M.H.R.C. 1/1, but with more distinctly pyroclastic matrix, only weakly xenolithic. Probably ignimbritic.
140.3m	Mylonite. Ovoid to flattened lenticular clasts thoroughly dolomitised/chloritised basalt, pumice, basic to intermediate tuff, minor quartz grains, quartzite clasts in similarly altered mylonitic matrix.	Lenticularly banded (flattened clasts), poorly sorted. Phyllitic semi-isotropic matrix.	Minor sericite. Minor traces pyrite, pyrrhotite. Sporadic clasts impure (chloritic)dolomite.	Altered rock-flour matrix. Mild regional metamorphic overprint. Main clast component is basic-intermediate volcanic, but includes some dolomite.
154.2m	Tremolitised Basalt. Felted, albitised plagioclase, acicular microlaths with pervasively tremolitised mesostasis. Sparse amygdales, frequent veinlets of calcite, chlorite ± quartz.	Incipiently feldspar-microporphyritic. Distinctly slaggy microtextured.	Minor traces chalcopyrite rare cloudy sphalerite in calcite-chlorite veinlets.	Chilled basaltic characteristics ("spinifex-textured"). Pervasive tremolitic alteration, apparently contemporaneous with chloritic veinlets.

959103