Diamond Drill Hole MS2
Lithology Logs

HoleId	Project	From_m	To_m	Litho1	Rock Qualifier	Litho 1 texture	Litho1_pct	grainsize	Litho2	Litho 2 texture	Litho2_pct	Litho3	litho 3 texture	Litho3_pct	Colour1	Colour2	Shade	Weatherin	Comments
MS002	High Point	0	16.9	BR	bv	cg	100	9							Ybr			MW	WEATHERED MASS FLOW VOLCANICLASTIC BRECCIA - polymict, minor feldspar phyric volcaniclastic matrix (phenocrysts <2mm across, rare qtz phenocrysts) hosting angular fragments of: light olive green completely sericitised ?volcanic, black shale, cream to light grey aphyric to fine feldspar phyric volcanic, vfg sandstone, minor black perlitic ?obsidian, minor tubular pumice. Fragments generally 1 to 4cm across but some up to 10cm across. Locally weakly bedded.
MS002	High Point	16.9	57.4	BR	bv	cg	100	9							Lgr	Ybr		Fr	VOLCANICLASTIC MASS FLOW BRECCIA - fresh to locally limonite stained down to 40.4m (base of oxidation 45.7m) polymict, minor feldspar phyric volcaniclastic matrix (phenocrysts <2mm across, rare qtz phenocrysts) hosting angular fragments of: light olive green completely sericitised ?volcanic, black shale, cream to light grey aphyric to fine feldspar phyric volcanic, vfg sandstone, minor black perlitic ?obsidian, minor tubular pumice. Fragments generally 1 to 4cm across but some up to 10cm across. Occasional boulder size rafts of black shale (at 42m). Locally weakly bedded. Basal contact sharp.
MS002	High Point	57.4	58.6	BS		fg	100								Ggr			Fr	BASALT - green-grey, f.g, black chlorite filled amygdales <2mm across. Unchilled top margin. Basal contact broken.
MS002	High Point	58.6	65.8	BR	bv	cg	40	9	VSi	m	60				Lgr	Crm		Fr	VUGGY SILICA (PYRITIC) VOLCANICLASTIC MASS FLOW BRECCIA - massive vuggy silica (70% of clasts) angular to rounded pebbles, cobbles, boulders 25cm - 50cm across (some with bleached ?weathered margins), pale grey to minor cream. Ubiquitous leached vugs 1 - 2mm across after phenocrysts. 2% - 3% (locally 5%) vfg disseminated PYRITE/minor CHALCOPYRITE in vugs and massive silica groundmass. Also fresher feldspar phyric volcanic pebbles and cobbles (30% of clasts). Core very broken from 62.1m - 65.8m. Basal contact broken.
MS002	High Point	65.8	145.3	SL		fg	99	2	SS	mg	1				Blk	Lgr		Fr	BLACK SHALE - finely laminated, very finely PYRITIC. M.g to f.g normally graded laminated to thin bedded feldspathic sandstone intervals 30 cm - 50cm wide in top 6m and at 97m and 133m. These intervals are often finely PYRITIC. Bottom contact sharp but irregular (erosional).
MS002	High Point	145.3	210.3	BS		fg	100								Ggr			Fr	BASALT - green-grey, ubiquitous black chlorite filled amygdales 1mm - 2mm across with larger calcite filled ones <5mm across decreasing in abunance to nil down to 174m. Coarse doleritic texture from 157.8m to 161.5m with sporadic diffuse dark-green chlorite clots <1cm across ?after pyroxene. Basal contact sharp with top 15cm of underlying black shale hornfelsed, then calcite-qtz veined for 15cm more, with one PYRITE vein.
MS002	High Point	210.3	406	SL		fg	100	2							Blk			Fr	BLACK SHALE - finely laminated, very finely PYRITIC. Occasional calcite veins and stringers <5mm wide. Bottom contact sharp but irregular (erosional).
MS002	High Point	406	463	HY			60		BS	fg	40				Ggr	Wht		Fr	HYALOCLASTIC BASALT LAVA (PYRITIC) - green-grey jig saw fit conchoidal fracture hyaloclastic breccia amygdaloidal basalt fragments 5mm to 5cm across supported/cemented by white to pale grey calcite-minor qtz matrix in top half of interval. Bottom half is essentially massive basalt with ubiquitous calcite filled amygdales. Ubiquitous 1% - 3% disseminated PYRITE. Rip-up clasts (<2cm across) of PYRITIC black shale in basal 15cm. Basal contact sharp/irregular.
MS002	High Point	463	480.8	SL		fg	100	2							Blk			Fr	BLACK SHALE - finely laminated to massive, very finely PYRITIC. Abundant syngenetic PYRITE laminations in top 2m and occasionally down to base. Occasional calcite veins and stringers <5mm wide. Bottom contact sharp but irregular (erosional).
MS002	High Point	480.8	515.7	BS		fg	90		HY		10				Ggr			Fr	BASALT - green-grey, ubiquitous abundant black chlorite filled amygdales 1mm - 2mm across and abundant larger calcite filled ones <8mm across. Calcite veins 5mm - 1cm wide common. Hyaloclastic in top 2m and peperitic in basal 40cm. Basal contact sharp.
MS002	High Point	515.7	528	SL		fg	100	2							Blk			Fr	BLACK SHALE - finely laminated to massive, very finely PYRITIC. Basal contact broken and masked by tectonic brecciation and qtz veining.
MS002	High Point	528	529.1	BR											Wht	Gry		Fr	TECTONIC BRECCIA of black shale and grey qtz sandstone fragments healed by white qtz/minor calcite prominant matrix.
MS002	High Point	529.1	535	GT		cg	100	6							Wht	Gry		Fr	LITHIC QUARTZ GRIT/SANDSTONE with minor black shale lithic fragments. Normally graded from grit base to m.g. sandstones at top. Basal contact sharp/irregular.
MS002	High Point	535	537.3	HY			100								Ggr	Wht		Fr	HYALOCLASTIC AMYGDALOIDAL BASALT - green-grey. Basal contact masked by tectonic brecciation
MS002	High Point	537.3	539.2	BR			100								Blk	Wht		Fr	TECTONIC BRECCIA of black shale fragments healed by strong sericite/calcite prominant matrix. Basal contact irregular/diffuse.
MS002	High Point	539.2	544.7	SL		fg	100	2							Blk			Fr	BLACK SHALE with fine sandy laminations. Finely PYRITIC. Thin ?volcaniclastic sandy layers common towards base and moderately sericite altered. Basal contact sharp.
MS002	High Point	544.7	550.8	BR			100								Gry	Ygn		Fr	TECTONIC BRECCIA of moderately brecciated hyaloclastite basalt healed by qtz-calcite. Heavily calcite-quartz veined. Crush breccia zone 549.35m - 549.6m with angular fragments supported by prominent white calcite matrix. Strong to intense sericite alteration in basal 1m. Basal contact gradational. Trace clots of PYRITE, rare SPHALERITE/CHALCOPYRITE, increasing to 5% SPHALERITE clots in basal 1m of sericite alteration.
MS002	High Point	550.8	584.5	HY			100								Gry			Fr	HYALOCLASTIC BASALT - dark grey jig saw fit conchoidal fracture hyaloclastic breccia amygdaloidal basalt fragments 5mm to 5cm across supported/cemented by white to pale grey silica/vfg glassy basalt matrix. Amygdales are calcite filled. Trace disseminated PYRRHOTITE. Basal contact irregular.
MS002	High Point	584.5	611.1	HY			90		PE		10				Ggr			Fr	HYALOCLASTIC/PEPERITIC BASALT - green-grey jig saw fit conchoidal fracture hyaloclastic breccia amygdaloidal basalt fragments 5mm to 5cm across supported/cemented by white to pale grey silica/vfg glassy basalt matrix. Amygdales are calcite filled. Occasional peperitic intervals of wispy fluidal dark grey mudstone (often PYRRHOTITIC) suspended in basalt. Sharp flame structure basal contact.
MS002	High Point	611.1	628.9	SL		fg	100	2							Blk			Fr	BLACK SHALE - massive, with f.g sandy intercalations and laminae. Local soft sediment slumping. Very finely PYRITIC. Sharp quasi flame structure (upward facing) basal contact.
MS002	High Point	628.9	666.65	BS		fg	100								Ggr			Fr	BASALT - green-grey, minor black chlorite or calcite filled amygdales 1mm - 5mm across. Minor hyaloclastic and peperite horizons. Green chlorite/?fuchsite alteration zones 20cm wide at 643.1m, 646.7m, 647.4m, 651.2m, 652.4m. Basal contact sharp with rip-up clasts fron black shale beneath.
MS002	High Point	666.65	685.8	SL		fg	100	2							Blk			Fr	BLACK SHALE - massive to locally laminated, with f.g sandy intercalations and laminae becoming common in basal 3.5m. Very finely PYRITIC. Sharp basal contact.
MS002	High Point	685.8	716.7	BS		fg	95		SL		5				Ggr			Fr	BASALT - massive, grey-green. Ubiquitous 1mm - 2mm dark green chlorite flecks ?after mafics. Rare black chlorite filled amygdales. Black shale from 711.9m - 712.7m. Basal contact broken.
MS002	High Point	716.7	726.65	SL		fg	100								Blk			Fr	BLACK SHALE - massive to locally laminated, with minor f.g sandy intercalations and laminae. Very finely PYRITIC with PYRITE/PYRRHOTITE stringers. Calcite-minor qtz veins 1cm - 2cm wide common, some with minor SMALL PYRITE/PYRRHOTITE/SPHALERITE blebs.Sharp basal contact.
MS002	High Point	726.65	759.7	BS		fg	100								Ggr			Fr	BASALT - green-grey, massive. Black chlorite and white calcite filled amygdales 1mm - 5mm across abundant. Rare red-brown SPHALERITE clots in some larger calcite amygdales. SPHALERITE with intergrown CHALCOPYRITE (and rarely GALENA) in amygdales increases to trace to 1% (locally 3%) of rock from 747.2m - 759.7m. Minor SPHALERITE stringers as well. Red-brown hematite silica flecking 732.2m - 733.7m. Basal contact peperitic.
MS002	High Point	759.7	767.8	SL		fg	100	2							Blk			Fr	BLACK SHALE - massive with minor f.g sandy intercalations and laminae. Very finely PYRITIC with rare PYRITEstringers. Red-brown SPHALERITE veinlets and stringers 765.4m - 765.8m (5% - 10% of rock). Calcite-minor qtz veining (1cm - 5cm wide) in basal 50cm. Basal contact marked by 10cm wide calcite-minor qtz breccia vein.
MS002	High Point	767.8	781.8	BS		fg	100								Ggr			Fr	BASALT - green-grey. Top 50cm hyaloclastic. Black chlorite and white calcite filled amygdales 1mm - 5mm across abundant. Local patches of 3% - 5% disseminated PYRITE. Blue-green moderate, pervasive chlorite/?fuchsite alteration zone 10cm wide at 773.4m with calcite vein core. Sericite-calcite alteration zone 777.8m - 777.95m with red-brown SPHALERITE (25% of rock) and PYRRHOTITE (2%) clots. Red-brown SPHALERITE filled amygdales and flecks (15%) 778.4m - 778.6m. Basal 60cm peperitic. Basal contact sharp.
MS002	High Point	781.8	783.8	SL		fg	100	2							Blk			Fr	BLACK SHALE - massive. Very finely PYRITIC. Red-brown SPHALERITE stringers (1% of rock) in top half and rare PYRITE stringers and laminae in bottom half. Basalt clast 2cm across just above basal contact with PYRITE halo. Some calcite-minor qtz veining. Basal contact sharp, wavy with PYRITE halo.
MS002	High Point	783.8	997.7	HY			80		BS	fg					Ggr			Fr	HYALOCLASTIC (minor PEPERITIC) BASALT LAVA FLOWS (26 flows) - hyaloclastic tops (20% - 80% of each flow) and massive amygdaloidal bases with sharp basal contacts often marked by narrow (<5cm wide) black ?chloritic alteration and scouring of small (<1cm) f
MS002	High Point	997.7	1070	AN		mg	100								Ggr		I	Fr	ANDESITE LAVA FLOWS (six flows, 5m to 15m wide) - light green-grey. Feldspar phyric with abundant white euhedral to anhedral plagioclase phenocrysts 1mm - 2mm across and ubiquitous black chlorite flecks 1mm - 2mm across (?after ferromagnesian minerals) in an amorphous groundmass. Flows in top half of interval are weakly autobrecciated with pronounced quasi hyalocalastic tops 1m to 3m wide, while flows in bottom half are massive with similar quasi hyalocalastic tops <1m wide. Local variolitic patches 10cm to 30cm wide (variolites 1mm - 2mm across) . Moderate calcite-sericite +- minor quartz stockwork veining 1030.9m - 1036.1m and 1047m - 1054.3m. Very minor translucent/white chalcedony filled vugs near base. No sulphide apart from very rare ARSENOPYRITE grains <1mm across. Basal contact sharp/black chlorite altered.
MS002	High Point	1070	1156	AN		cg	100								Grn	Rbr		Fr	SILICEOUS ALTERED ANDESITE - very hard, dark to patchy light green, silica-chlorite-sericite and red-brown mottled/banded silica-albite-hematite (1105.2m - 1129.6m) altered. Feldspar phyric with moderate density (less abundant than overlying andesite) white euhedral to anhedral plagioclase phenocrysts 1mm - 3mm across and ubiquitous black chlorite/sericite flecks 2mm - 5mm across (?after ferromagnesian minerals) in an amorphous groundmass. Hyaloclastite ?flow top with disseminated PYRITE (<10% of rock) in matrix from 1096.7m - 1099.9m and decreasing down to 1103.8m. Another hyaloclastite ?flow top (no sulphide) 1140.2m - 1143.7m and another from 1152.4m to 1156m (EOH).