

DataSet	Prospect	Hole ID	mFrom	mTo	Formation	Rock1	Rock2	Rock1 Qual	Rock2 Qual	Colour	Regolith	Reg Qual	Shear	Sulph+Ore %	Sulph+Ore Type	Vn Type	Vn %	Vn Qual	Int Alt	Alt Type	Alt Qual	Description	
KUTH_2008	SEL 26/2005	K26DD017	0	28.8	Pu	MSS	MST	S/BD		R/B	SOIL						B	2		5	SR	U	Largely unconsolidated, often sandy due to weathering. Bedding btwn sandstone and siltstone visible. Includes dropstones of varying size, from mm to >3cm diameter. Completely weathered, with minor clay present. Few pieces of core >20cm long. Dominantly lithic/feldspathic polymictic sandstones. Muscovite common.
KUTH_2008	SEL 26/2005	K26DD017	28.8	65.5	Pu	MSU	MST	BD		A/A2	FRESH												Dark grey to black at times silty mudstone. Unfoliated, horizontally bedded. Includes several small beds of polymictic gravel conglomerate. Poor competence, with several breaks/meter. Dropstones usually lighter in colour; siliceous. No alteration/veining. Uniform dk grey mudstone with polymictic angular to rounded dropstones.
KUTH_2008	SEL 26/2005	K26DD017	65.5	75.7	Pu	MSU	MSS	BD		A/A2	FRESH												Unit becoming coarser, at times to med.grained fossiliferous sandstone, with calcareous brachiopod fossils up to 4cm wide.
KUTH_2008	SEL 26/2005	K26DD017	75.7	85	Pu	MR				A/A2	FRESH												Sandy dark grey unit very rich in calcareous brachiopods. Horizontally bedded, also shows bioturbation. Bryozan evident on fracture surfaces. Clasts of rounded calcareous
KUTH_2008	SEL 26/2005	K26DD017	85	89.1	Pu	MR				B/Q	FRESH						C/Q	2	M				Orange-brown limestone (sericite present), less fossils than previous interval, but matrix has a strong reaction with HCL. Includes a 1cm wide multistage vein. 800mm of core loss recorded due to cavity within the limestone. Bioclastic limestone composed of shell fragments, oncolites and oolites.
KUTH_2008	SEL 26/2005	K26DD017	89.1	104.8	Pu	MR	MSU	BD		A/A2	FRESH												Bioclastic limestone as previous interval, minus the orange siderite component. Rich in concentric oolites, and many fragments of the brachiopods. Horizontally bedded
KUTH_2008	SEL 26/2005	K26DD017	104.8	110.9	Pu	MSS	MR	BD		O/A	FRESH												Orange interval, with greater discolouration on core surface than freshly broken core, could suggest the presence of ankerite (?). First half of interval rich in weathered bryozan. Very porous interval, with largely sand sized particles. Now bioclastic sandstone rather than limestone, and becoming coarser with depth. End of the interval is marked by a distinct change in colour from orange to grey (horizontal contact). Also co-incident with dark red fe-banding and a poorly sorted rounded to angular polymictic conglomerate of dropstones (approx.10cm from end of the interval).
KUTH_2008	SEL 26/2005	K26DD017	110.9	123.5	Pu	MSU				A2/D	FRESH												Calcareous black/dk grey mudstone, with few horizontally laid brachiopod shells. Includes minor angular dropstones, composed of quartz and other lithics. Moderately competent, with average 4 breaks/meter.
KUTH_2008	SEL 26/2005	K26DD017	123.5	136.96	Pu	MSU		BD/FR		A2	FRESH						C	1	V		CY	U	Swollen dark grey smectitic mudstone, generally fracturing horizontally. Much more clay rich at beginning of interval to approx. 129.7m. Includes minor amounts of calcareous sediments at times. Includes one anastomosing, wuggy calcite vein.
KUTH_2008	SEL 26/2005	K26DD017	136.96	140.54	Pu	MSU	MSS			A2/A	FRESH												Dominantly mudstone with blotchy layers of very fine grained pellety sandstone. Minor small dropstones present.
KUTH_2008	SEL 26/2005	K26DD017	140.54	146.8	Pu	MSS	MSU	BD		A/A2	FRESH												Bioclastic sandstone, with many dropstones (siliceous), and large calcareous shell fragments. Lighter sandy sediments interbedded with darker mud sediments. Groundmass very milky calcareous, with shells and bryozan calcified. Includes many 1cm diameter oolites, found in 10cm band (horizontal), band also includes angular dropstones. Competent interval, average
KUTH_2008	SEL 26/2005	K26DD017	146.8	148.9	Pu	MSS/MSU	MSC	BD		A/A2	FRESH												Beginning of finely interbedded dark mudstones and light grey silty sandstones displaying distinct flaser bedding, with layers of poorly sorted conglomerate clasts up to 4-5cm wide.
KUTH_2008	SEL 26/2005	K26DD017	148.9	149.1	Pu	MSC	MSU/MSS			A/D	FRESH												Polymictic conglomerate, most clasts siliceous, dominantly gravel sized particles. Anastomosing layers of black mudstone interbedded with sandstone make up the matrix
KUTH_2008	SEL 26/2005	K26DD017	149.1	151.3	Pu	MSS	MSU	BD		B1/D	FRESH												Interval dominated by brown quartz sandstone, regularly including fine beds (up to 0.5cm wide) of black, soft mudstone. Very few minor rounded dropstones present. Fossils absent. Horizontally bedded with sharp contacts between the beds.
KUTH_2008	SEL 26/2005	K26DD017	151.3	152.53	Pu	MSS	MSU			A/A2	FRESH												Interbedded sandstones & mudstones in equal proportions. Beds generally <1cm wide. Minor bioturbation present.
KUTH_2008	SEL 26/2005	K26DD017	152.53	155.7	Pu	MSS	MSU	BD		A/B/D	FRESH												Bioturbated, interbedded light grey to brown sandstones and black mudstones. From 153.5 to 153.7 change in deposition environment, with angular conglomerate, poorly sorted polymictic and increase in sand sized particles occurring as flaser bedding with the mudstone. Muscovite common. Competent interval (avg. 2 breaks/meter).
KUTH_2008	SEL 26/2005	K26DD017	155.7	164.3	Pu	MSS	MSU	BD		A/D	FRESH												Interbedded horizontal mudstones and sandstones. Finely bedded, usually <1cm before composition/texture changes. Often displaying cross bedding and flaser bedding, varying ratios of sandstone and mudstone. End of interval dominantly black mudstone.
KUTH_2008	SEL 26/2005	K26DD017	164.3	166	Pu	MSS	MSC	BD		A/B	FRESH			1	PY								Coarse grained sandstone, to polymictic conglomerate. Few pyritic clasts. Includes minor horizontal black beds. Qz is the dominant clast in the conglomerate and the sandstone.
KUTH_2008	SEL 26/2005	K26DD017	166	166.36	Pu	MSP				A/B/W	FRESH												Coarse grained polymictic, poorly sorted conglomerate. Clasts from several origins, many white quartz(ite), and soft grey sandstone clasts from the mathinna group. Minor sub-cm sulphide clasts; oxidising with distinct orange rim. Matrix composed of coarse sand-sized particles of quartz. Final 5cm of interval looks to be imbricated, with angular/tabular clasts of the conglomerate orientated in a uniform manner. Lower Parmeener Supergroup Sediments unconformably overlying the steeply dipping Mathinna Group Sediments.
KUTH_2008	SEL 26/2005	K26DD017	166.36	167.8	SDs	SSS		FR		A/G	FRESH								70	SR	U		Fractured/shattered sericitic, waxy strongly cleaved lt green and grey Mathinna seds. Original mineralogy and texture largely altered to a waxy green, striated on fracture surface. Bedding not identified.
KUTH_2008	SEL 26/2005	K26DD017	167.8	169.6	SDs	SSS		FR		A1	FRESH						Q		40	SR	U		Reducing sericite alteration, some mineralogy/texture retained. Fine grained sandstone, light grey moderately fractured. 3% wuggy anastomosing <1cm qz veins. Includes intervals of the shattered green sericitic mathinna.
KUTH_2008	SEL 26/2005	K26DD017	169.6	171.7	SDs	SSU	SSS	JN		A/A2	FRESH								30	SR	F		Interval dominated by darker, finer grained sediments; mudstone. Includes many dozens of small fractures that are plumbing pervasive sericitic alteration, giving the fractures a green alteration halo, and the interval a distinct texture. Upper end of interval defined by change in grainsize from sandstone to mudstone. Contact is steeply dipping (approx.80deg).
KUTH_2008	SEL 26/2005	K26DD017	171.7	179.2	SDs	SSU	SST	FR/BD		A/A2	FRESH								10	SR	F		Strongly fractured/shear zone. Interbedded mudstones and siltstones, and minor sandstone. Generally the finer the grainsize, the darker the colour. Less sericite than previous intervals; always found with fracture as plumbing. Sharp beds between the sandstone and mudstone. Beds steeply dipping (75-80deg). No sign of soft sed deformation.
KUTH_2008	SEL 26/2005	K26DD017	179.2	181.48	SDs	SSS				A	FRESH						Q	2					Fine-grained grey sandstone. Largely unaltered. Minor fracturing (4/meter). Distinct evidence of faulting, with sharp discontinuation of quartz veins, displaying horizontal movement.
KUTH_2008	SEL 26/2005	K26DD017	181.48	186	SDs	SSU	SST	BD/FR		A/A2	FRESH								10	SR/CY	F/U		Strongly fractured zone, dominantly dark grey mudstones interbedded with dark grey siltstones. Shearing within. Minor clay/mud present. Sericite alteration along fractures (green-to grey, striated, slightly waxy). Minor sandstone is present, and generally coherent, where mudstone present is generally shattered.
KUTH_2008	SEL 26/2005	K26DD017	186	191.5	SDs	SSS				A	FRESH						Q/B/TC	3					Largely fine grained grey sandstone. Includes several quartz + minor Carbonate + talc veins. Coherent sandstone easily displays movement; evident in the truncated veins. Areas with minor fractured/incoherent mudstone. Minor sericite on fracture surfaces, with micas easily distinguished.

KUTH_2008	SEL 26/2005	K26DD017	191.5	193.7	SDs	SSU		FR		A2	FRESH								20	SR	U	Strongly fractured sheer zone, dark grey mudstone with abundant sericite. V
KUTH_2008	SEL 26/2005	K26DD017	193.7	208	SDs	SSS	SSU	BD/FR		A/A2	FRESH					Q/B/TC	9		10	SR	U	Dominantly fine grained sandstone, with minor sub cm beds of dk grey mudstone. Bedding is steep, and displays rigid movement/disjointing due to brittle deformation. Moderately intense veining; including ankerite. Sometimes occurring as stockwork veining. Includes several quartz filled extension fractures up to 1cm wide.
KUTH_2008	SEL 26/2005	K26DD017	208	212	SDs	SSU	SST	BD		A/A2	FRESH					Q/B	5		10	SR	U/V	At least 2 generations of veining. Several extension fractures filled with qz, and minor brecciation within. Many large anastomosing milky quartz veins (with approx. 10% carbonate) up to 4cm wide, mildly stockworked.
KUTH_2008	SEL 26/2005	K26DD017	212	217	SDs	SSU	SSS	BD		A/A2	FRESH					Q	1					Bedded mudstone & sandstones. Generally coherent. Minor Quartz veining. Boundaries between lithologies interesting; like dessication cracks in the sandstone infilled with the mudstone, but more likely to be a result of the brittle deformation common throughout the core.
KUTH_2008	SEL 26/2005	K26DD017	217	218	SDs	SSU		FR		A2	FRESH					Q/B	5		20	SR	U	Moderately fractured and veined interval, with extension fractures displaying minor brecciation, and infilled with carbonate/ankerite, and abundant unconsolidated talc.
KUTH_2008	SEL 26/2005	K26DD017	218	219	SDs	SSS	SSU			A	FRESH			3 PY		Q/TC						Fine Grained sandstone. First half of interval includes many small lenses of porous ankerite/talc. Very angular, non-uniform shapes and sizes. 2nd half of interval includes abundant, perfectly cubic pyrite xls up to 3mm long, not coincident with particular beds, occurring pervasively.
KUTH_2008	SEL 26/2005	K26DD017	219	223	SDs	SSS				A	FRESH											Massive fine grained sandstone. Few ankerite veinlets; displays micro-faulting. At 221.7m small brecciation zone, infilled with light brown carbonates. Consolidated.
KUTH_2008	SEL 26/2005	K26DD017	223	225.5	SDs	SSS	SSU	BD		A/A2	FRESH					Q/B	5		20	SR	U	Interbedded sericitic sandstones and mudstones. Largely undeformed. 5% Qz + Carbonate veining.
KUTH_2008	SEL 26/2005	K26DD017	225.5	226.5	SDs	SSS	SSU	BX/FR/BD		A/A2	FRESH			1 PY		Q/B			20	SR	U	Brecciated, fractured and faulted interval. Qz and Carbonate veins segmented and cut-off by brittle/ductile deformation. Bedded sandstone and mudstone, sericitic. Minor pyrite present, particularly within the veins.
KUTH_2008	SEL 26/2005	K26DD017	226.5	248.7	SDs	SSS	SSU	BX/FR/BD		A/A2	FRESH			1 PY		Q/B/C	10		30	SR	U	Highly fractured zone zone, including >1m of sheer zone leading up to 241.5m. Muddy and unconsolidated within. Very obvious foliation on fractured surfaces. Includes many anastomosing, and truncated (due to deformation) quartz + carbonate veins. Veins also include euhedral rhombohedral calcite crystals.
KUTH_2008	SEL 26/2005	K26DD017	248.7	249.7	SDs	SSU	SST/SSS	FR/BD		A/A2	FRESH					Q/B	5		20	SR	U	Interbedded siltstone, mudstone and sandstones; beds generally <2cm thick. Moderately fractured, with fracturing usually occurring same orientation as bedding. Cleavage > angle than bedding. First half of interval includes many small anastomosing Qz + carbonate veins. Often vuggy, with micro faulting/displacement. Minor breccia zone @ 249.7m within quartz vein.