

Appendix 4d

NCT010

Lithology Logs – (Scanned Paper Logs)

(See Digital File EL9_2005_200705_10_Appendix4d.pdf)

Survey Depth	(GRID) Azimuth	Dip	Hole Co-ordinates	
0	90	-70	Easting_AMG	382020
15	82.9	-69.4	Northing_AMG	5363770
40	84.4	-68.6	Elevation (m)	639
			Azimuth_Mag	77
			Dip	-70

SHEET 1 OF 15

PROJECT:	TASMANIA
PROSPECT:	RED HILLS
DATE:	16/02/07
LOGGED BY:	JK.

HOLE DEPTH	CORE RECOVERY	ROD	SAMPLE NO	SULPHIDES					PICTORIAL LOG		GRAPHIC LOG	GEOLOGY NOTES	SUMMARY LOG	
				%					STRUCT	ALT				
				.1	.3	1	3	5						
2														
4									cb± ch-mt			2.9m-12.2m Medium green/grey mottled, med fragmental juvenile, pumiceous + lithic rich volcaniclastic sandstone to conglomerate. clasts predominately sub-rounded (upto 0.5mm) lithic rich, minor rounded gte fragments flattened se-altered wispy pumice clasts define foliation.		
6	91	45							cb-ch diffuse cb±ch -mt			Alteration: cb-ch-mt alteration of gmass. cb-strong, mod ch, wk mt, selective se-alteration of pumiceous clasts.		
8														
10	100	70												
12	92	42										12.2-17.4m light-med yellow brown oxidised zone. Brecciated siltstone clasts within clay (oxidised) matrix. (suspect tectonic brecciation) + fault gouge		
14	80	25							F ₂ lim? clg.					
16														
18	83	50												
20	100	69							cb-he			19.0 - 24.0m coarsely fragmental med green med ch-se altered, gte-physis normally graded, pumiceous rich - poorly sorted volcaniclastic conglomerate, clasts generally granule to pebble size. Lithology coarser downhole, containing feldspar porphyroide he-altered lava clasts upto cobble size 5-7cm.		
22									he-cb -se± ch					
24	100	93							he-se ±cb cb-se					
26	97	80							cb-se					
28									cb-se					
30	97	92							cb(st) ±se cb±se he			minor Devonian cb-ch, gte-cb-ch veins upto 1cm ±py		
32	100	90							cb-he -ch ±se -ch					
34									cb±se ch-he					
36	97	79							cb-se ±ch-he			minor siltstone clasts contain rare dis.py. coarsening fragmental component, he-altered lithic clasts. 4cm siltstone clast contain 0.1% dis.py. 36-55.0m		
38	97	57							erosional contact cb±se			light cream/grey - to whitish green wk se-cb ± si altered fine grain siltstone minor dendritic ma staining. increasing gte-cb-ch veining.		
40									cb±se					

REMARKS

Survey Depth	(GRID) Azimuth	Dip	Hole Co-ordinates	
70	82.4	-68.1	Easting_AMG	382020
			Northing_AMG	5363770
			Elevation (m)	639
			Azimuth_Mag	77
			Dip	-70

PROJECT: <u>TASMANIA</u>
PROSPECT: <u>RED HILLS</u>
DATE: <u>FEBRUARY '07</u>
LOGGED BY: <u>JK</u>

HOLE DEPTH	CORE RECOVERY	RQD	SAMPLE NO	PREFIX	SULPHIDES					PICTORIAL LOG		GRAPHIC LOG					GEOLOGY NOTES	SUMMARY LOG
					%	1	3	1	3	5	STRUCT	ALT	0.06	0.5	2	8		
42	100	80			co. py dis vn						cb-py	mod si-ab						as above.
					co. py sph dis						cb-ch	mod si-se						Dis sphaerite (honey brown) <0.1% within gte-phyrific pumiceous tuff.
44	100	91			co. sph dis						cb-ch	mod si-se						variably si-se-cb altered fine grained light grey/yellow siltstone? Bedding rarely visible. weak cleavage evident
46	86	98			co. py						cb-ch	wk si-se						Thin intervals of mod green/green se-alt strong gte-phyrific (rounded) volcanoclastic conglomerate. Interstitial se-alt wispy relic pumice within matrix (xtal rich-pumiceous tuff)
48	91	73			co. py						cb-ch	mod si-se						
	100	86			0.1 sph + co. py						cb-ch	mod si-se						
50	97	91			0.1 py vrad						cb-ch	mod si-se						
52					co. sph							mod si-se						
					co. py dis						Bedding	si-se						Bedding + sedimentary textures evident, fine grained siltstone
54	100	87			co. py						cb-ch	si-se						
56					co. sph + py dis						cb-ch	wk cb-se						
56	100	89			0.1 py co. sph						gte-cb-py	si-se						55.0m-69.4 Light green/cream, wk cb-se altered, fine grained, massive coherent fspar >> gte, aphanitic rhyolitic lava. minor gte-cb-py-ch-sph (suspect Devonian) veins <1% 0.5cm-1cm wide.
58					0.1 py vn						gte-cb-py	wk cb-se						
60	98	71			co. py dis							wk cb-se						
					0.1 py dis vn						gte-cb-py	si-se						py-cb-gte-ch veins + minor disseminated pyrite
62	100	92			co. py sph. dis						cb-py-ch	wk ab-se						
64					co. py dis						cb-ch	si-se						
66	94	93			co. sph dis						cb-ch	wk ab-se						
68	100	76			co. py sph dis													
70	97	67			co. py dis													
70					0.3 py vein clasts													
72	100	81			co. py dis						py-clast							69.4-71.4m - light cream/yellow - cb-se altered coarse grained poorly sorted polymictic (limestone, lithic, lava clasts) gte-phyrific volc. clastic conglomerate. Subrounded to subang clasts upto 5cm, groundmass gte-phyrific xtal rich, 4-5cm, weakly foliated. + pumice vein clast - cb-py-gte
74	98	82			0.5 py													73.6 - Dark black/grey carbonate altered? carbonaceous interbedded fine grained black shale/siltstone, minor thin 1-4cm well sorted non-graded sandstone beds. Carbonate-pyrite-sericite veins 75%, minor pyrite clasts upto 1cm appear to be replacement of carbonate veins. Minor disseminated sph 0.1% cb-py veins + thin upto 0.5cm thin laminated pyrite beds - dis (replacement) py
76	100	84			0.5 py													
78					0.1 py													
80	100	63			0.1 py													

REMARKS

Survey Depth	(GRID) Azimuth	Dip	Hole Co-ordinates	
100	83.2	-67.7	Easting_AMG	38 20 20
			Northing_AMG	5 36 3 770
			Elevation (m)	639
			Azimuth_Mag	77
			Dip	-70

SHEET 3 OF 15

PROJECT:	TASMANIA
PROSPECT:	RED HILLS
DATE:	FEBRUARY '07
LOGGED BY:	JK

HOLE DEPTH	CORE RECOVERY	RQD	SAMPLE NO	SULPHIDES					PICTORIAL LOG		GRAPHIC LOG	GEOLOGY NOTES	SUMMARY LOG
				%	1	3	3	5	STRUCT	ALT			
82												minor disphalerite, replacement pyrite banding ± arsenopyrite. Multiple generations (at least 3+) ch-py veins.	
84	100	57		0.2 py	0.1 sph	0.1 sph		minor sphalerite, galena, arsenopyrite ± epy. Lithology same as above. - dark black-grey fine grained black siltstone, beds 1-2mm upto 0.3cm, coarser light grey sandstone (minor) interbedded. gte-ch-py veins ~10%. Massive white/cream bucky gte-ch-ch vein. 84.3-89m.					
86	94	69		0.5 py	0.1 sph	0.1 sph							
88	100	59		0.2 py									
90	100	53		0.5 py	0.1 sph	0.1 sph		~0.5-1% sphalerite					
92	92	60		0.2 py	0.1 sph	0.1 sph		<0.1% galena.					
94	98	83		0.1 py								93.8-108.2 - light cream/grey silt to sand sized limestone	
96	98	83		0.1 py									
98	98	83		0.1 py								minor brecciation.	
100	93	77		0.2 py									
102	100	65		0.1 py								thin sericite altered volcanoclastic sandstone and congl. interbeds upto 0.5m thick, well sorted, non-graded.	
104	95	84		0.1 py									
106	100	73		0.2 py	0.1 sph	0.1 sph		108.2-115.4, med red/white he-altered fine grained fossiliferous limestone, range from silt to sand sized grains. Minor volcanoclastic pumiceous sandstone beds interbedded upto 3cm from 113.4m. Minor crinoid spicules + shell fragments.					
108	100	73		0.2 py	0.1 sph	0.1 sph		110.2m-115.4m. med red/white he altered conglomerate composed of rounded limestone clasts. upto 10cm. (clast supported)					
110	98	72		0.2 py	0.1 sph	0.1 sph							
112	100	0		0.2 py	0.1 sph	0.1 sph		115.4-120.4m. light green med to strong se-ch altered moderately foliated pumiceous rich volcanoclastic sandstone.					
114	100	13		0.2 py	0.1 sph	0.1 sph		minor disseminated sphalerite + pyrite upto 0.2%. cleavage parallel to bedding foliation.					
116	71	30		0.1 py	0.1 sph	0.1 sph		massive devonian gte-ch-ch veins upto 15cm.					
118	77	86		0.1 py	0.1 sph	0.1 sph							
120				0.1 py									

REMARKS

Survey Depth	(GRID) Azimuth	Dip	Hole Co-ordinates	
130	81.2	-67	Easting_AMG	382020
160	81.3	-66.1	Northing_AMG	5363770
			Elevation (m)	639
			Azimuth_Mag	77
			Dip	-70

SHEET 4 OF 15

PROJECT: <u>TASMANIA</u>
PROSPECT: <u>RED HILLS</u>
DATE: <u>25-02-2007</u>
LOGGED BY: <u>JK</u>

HOLE DEPTH	CORE RECOVERY	RQD	SAMPLE NO	PREFIX	SULPHIDES					PICTORIAL LOG		GRAPHIC LOG					GEOLOGY NOTES	SUMMARY LOG	
					%	1	3	1	3	5	STRUCT	ALT	mm						
122	97	86			0.1 py						mod Se		0.06	0.15	2	8	32	64	0.1% sph in Devonian cb-qtz-ch vein.
124					0.1 ap + vn						mod Se								120.4 - 156.2m. light green mod to wk sericite altered juvenile (angular to subangular) volcanoclastic conglomerate. Poorly sorted pumiceous rich matrix. matrix supported.
126	97	88			0.1 py + sph dis						wk se-fsp (Ab?)								Composed of lithic, rhyolitic, pumice siltstone + minor limestone clasts. Minor vein clasts - qtz-sulfide.
128	100	55			0.1 py dis + vn						wk se-fsp (Ab?)								Unit is massive 35.8m, but crudely normally graded packages upto 20m thick of coarser conglomerate.
130					0.2 py dis + vn						py-cb								minor py-cb + qtz-ch veins no. 1% + disseminated py-sph + gal-rare cpy.
132	97	79			0.1 py vn						py-cb								
134	100	80			0.1 py vn						py-cb								
136	100	87			0.1 py vn						py-cb-ch.								
138	95	74			0.1 py dis						py-cb								
140	100	83			0.1 py dis + vn						py-cb								
142					0.1 py vn						py-cb								
144	100	92			0.1 py dis + vn						py-cb								
146	97	84			0.1 py vn						py-cb								py-cb veins no. 1% within felsic lava clasts 1-2mm. minor disseminated felsic lava clasts. increase clast size upto 10cm
148					0.1 py vn						py-cb								
150	100	76			0.1 py vn						py-cb								
152	100	92			0.1 py dis + vn						py-cb								
154					0.1 py vn						py-cb								
156	93	61			0.1 py dis						py-cb								
158	86	26			0.3 py vn						mod Se								fault than laminated pyrite beds x3 upto 3mm. disseminated sphalerite 0.1%.
160	96	50			0.1 py dis + vn						strong Si-se-py alteration - intense flooding + destruction of primary clastic textures. v. fine disseminated pyrite 3-5%.								

REMARKS

Survey Depth	(GRID) Azimuth	Dip	Hole Co-ordinates	
190	81.8	-65.2	Easting_AMG	382020
			Northing_AMG	5363770
			Elevation (m)	639
			Azimuth_Mag	77
			Dip	-70

PROJECT: <u>TASMANIA</u>
PROSPECT: <u>RED HILLS</u>
DATE: <u>FEBRUARY '07</u>
LOGGED BY: <u>JK.</u>

HOLE DEPTH	CORE RECOVERY	RQD	SAMPLE NO	PREFIX	SULPHIDES					PICTORIAL LOG		GRAPHIC LOG					GEOLOGY NOTES	SUMMARY LOG
					%	1	3	3	5	STRUCT	ALT	0.06	0.5	2	8	32		
162	98	95								py dis	Strong Si±Ab-Py±Se						Mod-strong Si-Se-Py alteration to 167m. Analogous to 'Heavy Si-Se-Py' outer alteration panel.	
164	100	72								py dis	Mod Si-Se-Py						increase fine disseminated sphalerite? upto 1% increasing down hole to 3%	
166										py dis	Mod Si-Se-Py						increasing sericitic alteration (pervasive)	
168	100	65								py dis	Mod Si-Se-Py						fault gouge.	
170										py dis	Strong Se-Py ± Si						167.3 - 185.0m light green/grey mod to strong Se-py-Si±Ab altered moderately sorted pumice-rich, flame bearing, silicified chert clasts, fspax tal rich. volcaniclastic conglomerate. Generally matrix supported	
172										py dis	Mod Se-Py ± Ab						Texturally destructive se-ab alt b/w 174.2 - 176.5m.	
174	100	70								py dis	Mod Se-Py ± Ab							
176										py dis	Mod Se-Py ± Ab							
178	97	45								py dis	Mod Se-Py ± Ab							
180	98	58								py dis	Mod Se-Py ± Ab							
182	100	57								py dis	Strong Se ± Py-cb						finely laminated pyrite beds within fine grained black shale.	
184										py dis	Mod Se-Py ± Ab							
186	94	73								py dis	Mod Se-Py ± Ab						185 - 193.4 med grey/black fine grained interbedded siltstone + minor shale siltstone beds, average 2-3cm, while minor shale beds 1-3mm. minor thin py-cb vas. 1-2mm. + massive pyrite beds upto 1cm. Minor dis sph.	
188	100	81								py dis	Mod Se-Py ± Ab							
190	97	72								py dis	Mod Se-Py ± Ab							
192	-	51								py dis	Mod Se-Py ± Ab							
194	98	75								py dis	Mod Se-Py ± Ab						193.45 - Dark black, wk cb altered fine grained finely laminated, thinly bedded black	
196	93	75								py dis	Mod Se-Py ± Ab						finely laminated pyrite along black shale bedding plane. calcareous? shale.	
198	100	75								py dis	Mod Se-Py ± Ab							
200										py dis	Mod Se-Py ± Ab							

REMARKS

Survey Depth	Azimuth	Dip	Hole Co-ordinates	
			Easting_AMG	382020
			Northing_AMG	5363770
			Elevation (m)	639
			Azimuth_Mag	77
			Dip	-70

PROJECT: <u>TASMANIA</u>
PROSPECT: <u>REID HILLS</u>
DATE: <u>FEB 07</u>
LOGGED BY: <u>JK</u>

HOLE DEPTH	CORE RECOVERY	ROD	SAMPLE NO	PREFIX	SULPHIDES					PICTORIAL LOG		GRAPHIC LOG					GEOLOGY NOTES	SUMMARY LOG
					1	3	1	3	5	STRUCT	ALT	mm						
202	100	100	35	59		0.6 py	0.2 sp	0.2 sp	0.2 sp	0.2 sp	cb-py	wk cb					As Above.	
204						ore loss					cb-py						ore loss.	
206	85	43				0.6 py	0.1 sp	0.7 py	0.1 sp	0.1 sp	qtz-cb						193.45-217.0. Dark black, fine grained + wk cb altered. black shale. Thinly bedded 1mm-0.5cm. (laminated)	
208	84	59				1 py	0.4 sp	0.6 py	0.3 sp	0.3 sp	cb-py						Qtz-cb-py-ch ± sph veins parallel to bedding. minor py clasts	
210	71	63				0.7 py	0.2 sp	1 py	0.2 sp	0.2 sp	cb-py						cb or large clasts appear to replace morphology.	
212						0.3 py	0.1 sp	0.5 py	0.1 sp	0.1 sp	ch-py						minor veined cpy	
214	100	54				0.3 py	0.5 sp	1.4 py	0.1 sp	0.1 sp	cb-py							
216						py	0.3 sp	py	0.1 sp	0.1 sp	cb-py							
218	96	40				1.2 py	0.2 sp	0.5 py	0.2 sp	0.2 sp	cb-py	wk se					wk se alteration of coarser sandw beds. thinly bedded 1mm-0.5cm.	
220	100	65				0.5 py	0.2 sp	0.5 py	0.1 sp	0.1 sp	cb ± sph	wk se					217.0-225.5.	
222	100	25				0.6 py	0.1 sp	2.0 py	0.7 sp	0.2 sp	ch ± py	wk se					Dark grey/black, thinly bedded wk se ± cb altered interbedded shale + qtz-rich sandstone.	
224	96	44				py	0.1 sp	py	0.1 sp	0.1 sp	cb ± py	cb						
226	90	37				py	0.1 sp	py	0.1 sp	0.1 sp	cb-py	cb					225.5-230	
228	100	0				py	0.1 sp	py	0.1 sp	0.1 sp	cb-py	cb					fspar rich volcanoclastic s.s. mylonitic fabric, internally brecciated	
230	100	35				py	0.1 sp	py	0.1 sp	0.1 sp	cb							
232	100	14				py	0.1 sp	py	0.1 sp	0.1 sp	cb-py							
234	100	50				2.5 py	0.5 sp	2.5 py	0.5 sp	0.5 sp	cb							
236	100	59				5% py	0.1 sp	5% py	0.1 sp	0.1 sp	cb						234.9-237.6m, med grey/black, wk cb all interbedded siltstone + fine grained s.s. bedding 2mm-10mm	
238	100	65				py	0.1 sp	py	0.1 sp	0.1 sp	cb-py	wk						
240	92	41				1% py	0.1 sp	1% py	0.1 sp	0.1 sp	cb-py	cb						

REMARKS

Survey Depth	(GRID) Azimuth	Dip	Hole Co-ordinates	
250	83.7	-64.4	Easting_AMG	382020
			Northing_AMG	5363770
			Elevation (m)	639
			Azimuth_Mag	77
			Dip	-70

SHEET 7 OF 15

PROJECT:	TASMANIA
PROSPECT:	RED HILLS
DATE:	MARCH 07
LOGGED BY:	JK

HOLE DEPTH	CORE RECOVERY	ROD	SAMPLE NO	PREFIX	SULPHIDES					PICTORIAL LOG		GRAPHIC LOG	GEOLOGY NOTES	SUMMARY LOG
					%	1	3	3	5	STRUCT	ALT			
242	92	41									wk. cb.		240-241.3 - Light grey, med grained, fossiliferous calcareous sandstone, beds upto 10cm, with minor interbedded dark black carbonaceous siltstone upto 1/2 cm.	(well sorted) ungraded
244	100	77									cb.		241.3-242.1 - Dark black, fine grained, carbonaceous shale. Thinly bedded upto 1/2 cm., with minor calcareous sandstone beds 10cm.	
246	100	50									cb.		242.1-243.8 - As above, but calcareous sandstone >> carbonaceous siltstone.	
248	100	83									cb.		243.8-246.5 - Dark black, finely laminated carbonaceous siltstone, minor calcareous sandstone interbeds. py-sphalerite (replacement) of cb? along bedding planes thru veins 1.2mm.	
250	92	54											minor dark black Fg. (fault gouge) - 2cm.	
252	100	38									cb.		251.1-252.2m - Light green wk se - altered, med grained, gte-phyrific volcanoclastic sandstone - pumice breccia, rounded gte grains 3mm, wispy pumice fragmental groundmass.	
254	100	42									cb.			
256	94	27									cb.		minor discontinuous cb-py veins	
258	100	13									cb.		Dark black puggy fault gouge (2cm)	
260	100	0									cb.			
262	100	0									cb.		thinly laminated pyrite beds 3-4mm.	
264	94	27									cb.			
266	100	13									cb.		264.2 - 267m - light green, wk se - altered, med. coarse grained, gte-lithic & pumice rich volcanoclastic conglomerate or breccia, elongate, angular wispy, weakly mylonitic clast fragments + rounded gte grains.	
268	100	0									cb.		267-272.4m - Dark black-grey, laminated to v. thinly bedded, interbedded, fine grained carbonaceous shale & fine grained calcareous sandstone, shale > sandstone. Sandstone beds upto 1cm, typically 2.3mm siltstone 1-2mm, but upto 0.5cm.	
270	100	35									cb.			
272	100	50									cb.			
274	100	69									cb.		272.4-278.8m - Light grey to dark grey, interbedded, alternating calcareous, fossiliferous to siltstone, med grained sandstone & interbedded carbonaceous siltstone. Sandstone beds upto 5cm., interbedded siltstone beds to 4mm.	
276	96	70									cb.		Anastomosing - discontinuous cb veins ± py. 2-3mm.	
278	97	45									cb.			
280	97	45									cb.			

REMARKS

Survey Depth	Azimuth	Dip	Hole Co-ordinates	
			Easting_AMG	382020
			Northing_AMG	5363770
			Elevation (m)	639
			Azimuth_Mag	77
			Dip	-70

SHEET 11 OF 15

PROJECT: <u>TASMANIA</u>
PROSPECT: <u>RED HILLS</u>
DATE: <u>MARCH 07</u>
LOGGED BY: <u>JK</u>

HOLE DEPTH	CORE RECOVERY	RQD	SAMPLE NO	PREFIX	SULPHIDES					PICTORIAL LOG		GRAPHIC LOG					GEOLOGY NOTES	SUMMARY LOG	
					%	1	3	1	3	5	STRUCT	ALT	mm	0.06	0.5	2			8
						0.1 py					mod	se-si						398.4-402.4m	
402	100	90				0.1 sph					mod	se-si						402.4m-403.4m - mid green se±si altered, poorly sorted, weakly foliated, massive, non-graded lithic-rich volcanoclastic breccia.	
404						0.5 sph					mod	se-si						403.4m-406 - light to med green mod se-si altered, massive, non-graded non-bedded pumice-bearing volcanoclastic med grained sandstone.	
406	98	61				0.3 py					mod	se-si						406-407.2m - med green, mod se±si altered massive, v. poorly sorted, non-graded, non-bedded volcanoclastic breccia (polyminic) clasts up to 3cm, angular-subangular.	
408	100	90				0.1 py					mod	se-si						407.2-423.4m - light green, mod to strong se±si-py altered, well sorted, non-graded non-bedded, massive volcanoclastic sandstone.	
410						0.8 py					mod	se-si							
412	97	62				0.3 sph					mod	se-si							
414	97	62				0.2 sph					str. se±si-py	wk se-si-py							
416						0.1 sph					wk se-si-py								
418	100	87				0.1 sph					mod	se±si-py							
420						0.1 sph					mod	se±si-py							
422	100	87				0.1 sph					mod	se±si-py						minor se-py-cb milled fault breccia. 419.95-420.05m.	
424						0.1 sph					mod	se±si-py						423.4-427.3m - med to dark green, wk to mod ch-se±si-py altered. Massive, well sorted non-graded pervasively altered med grained volcanoclastic sandstone. minor disseminated spherulite	
426	100	87				0.1 sph					mod	ch-se±si-py						427.3-438.55m - light green, weak to moderate se-si±py-cb altered, massive, non-graded-bedded, well sorted med grained volcanoclastic sandstone.	
428						0.1 sph					mod	se-si-py							
430	97	69				0.1 sph					mod	se-si-py						qtz-cb-py veins 2-4mm cut by qtz-cb-sph veins to 4mm. anastomosing, rare - straight sided qtz-cb-py±se-sph veins. up to 1cm, ~5%.	
432	100	80				0.1 sph					wk se±si-py								
434						0.1 sph					wk se±si-py								
436	100	83				0.1 sph					wk se±si-py								
438	97	93				0.1 sph					mod	se±si-py						438.55m-442.6m - dark green se±ch±py altered, massive, non-bedded/non-graded, well sorted, xtal rich, volcanic? monomict? med grained sandstone.	
440						0.1 sph					mod	se±si-py						qtz-py-cb±sph-epz veins cut cb±py veins.	

REMARKS

Survey Depth	Azimuth	Dip	Hole Co-ordinates	
450	82.2	-61.4	Easting_AMG	382020
			Northing_AMG	5363770
			Elevation (m)	639
			Azimuth_Mag	77
			Dip	-70

PROJECT: <u>TASMANIA</u>
PROSPECT: <u>RED HILLS</u>
DATE: <u>MARCH '07</u>
LOGGED BY: <u>JK</u>

HOLE DEPTH	CORE RECOVERY	RQD	SAMPLE NO	SULPHIDES					PICTORIAL LOG		GRAPHIC LOG					GEOLOGY NOTES	SUMMARY LOG	
				%					STRUCT	ALT	mm							
				1	3	1	3	5			0.06	0.05	0.2	0.8	3.2			6.4
442	100	77						1spk 0.6py, 0.1po 0.6py, 0.1po 0.4spk, 0.1po 0.4py, 0.2spk 0.1po	cb-py-sph ch-sph-py py-cb-sph py-cb-sph mod Se-Si + Cl vn	St. Dk Green Se-ch: py							438.55-442.6m - Dark green se-ch? (White streak) probably dark green sericite? -py altered massive, non-bedded, non-graded, well sorted (3-6 rounded grains) med grained volcaniclastic sandstone. ch-qtz-sph-py veins + diffuse cb-sph-py veinlets (discontinuous) 3-4%.	
444		97						0.5py	py-cb mod Se-Si -py-cb								97-cb-py-sph veins cut by cb-py veins.	
446								0.2py	py-cb mod Se-Si -py-cb								442.6m - 453.5m - Lithology same as above, but grain size coarsening downhole, average 4-5mm. Alteration: light green moderate to strong se-si-py-cb altered.	
448		100						0.3py	py-cb St. se: -py-cb								strong to intense, anastomosing ch-qtz-py stringer veins + sheeted veins (4-5mm) cross cutting 97-cb-py veins. (1-2mm).	
450		98						0.4py	py-cb mod Se+py Si-cb								453.5 - 454.7m - med-dark green se-py-si-cb altered fine grained volcaniclastic sandstone, weakly foliated.	
452								0.2py	py-cb mod se Si-py -cb								454.7 - 459.1m - light green mod to strong se-si-py-cb altered volcaniclastic sandstone, strong pervasive cb-py-si alteration b/w	
454								0.8py, 0.1po 0.1po, 0.1spk 0.1spk	py-cb mod dk se-py -cb								454.7m - 458.2m.	
456		100						0.1py	py-cb St. se-si -py-cb									
458								0.1py	py-cb mod se Si-py -cb									
460		100						0.1py	py-cb mod se Si-py -cb									
462								0.1py	py-cb mod se Si-py -cb									
464								0.1py	py-cb mod se Si-py -cb									
466		98						0.1py	py-cb mod se Si-py -cb									
468								0.1py	py-cb mod se Si-py -cb									
470								0.1py	py-cb mod se Si-py -cb									
472		98						0.1py	py-cb mod se Si-py -cb									
474								0.1py	py-cb mod se Si-py -cb									
476								0.1py	py-cb mod se Si-py -cb									
478		98						0.1py	py-cb mod se Si-py -cb									
480								0.1py	py-cb mod se Si-py -cb									

REMARKS

Survey Depth	Azimuth	Dip	Hole Co-ordinates	
			Easting_AMG	382020
			Northing_AMG	5363770
			Elevation (m)	639
			Azimuth_Mag	77
			Dip	-70

SHEET 13 OF 15

PROJECT: <u>TASMANIA</u>
PROSPECT: <u>RED HILLS</u>
DATE: <u>MARCH '07</u>
LOGGED BY: <u>JK</u>

HOLE DEPTH	CORE RECOVERY	ROD	SAMPLE NO	SULPHIDES					PICTORIAL LOG		GRAPHIC LOG					GEOLOGY NOTES	SUMMARY LOG
				1	3	1	3	5	STRUCT	ALT	0.05	0.05	0.05	0.05	0.05		
482	100	85		0.25 py dis	0.1 sph	0.1 py dis	0.1 sph	0.1 py dis	gr-ch	wk se	0.05	0.05	0.05	0.05	0.05	482-45-503-65 light green/grey wk se ± ab altered, massive, fine grained sarricitic felsic volcaniclastic, with spotty ch-alt. Decreasing frequency of disseminated sulfide away from upper contact, minor to trace amounts generally 20-1% py-sph-gal-epy. Decrease in vein frequency (rock more competent lfs fracturing). Dominant vein set gr-ch ± ch-se? trace sulfides.	(rounded) (skinned)
484	100	87		0.4 py dis	0.1 sph	0.1 py dis	0.1 sph	0.1 py dis	ch-py	wk se	0.05	0.05	0.05	0.05	0.05	Sharp, weak indurated contact.	
486	100	77		0.3 py dis	0.1 sph	0.1 py dis	0.1 sph	0.1 py dis	ch-ch	"	0.05	0.05	0.05	0.05	0.05		
488	100	65		0.2 py dis	0.1 sph	0.1 py dis	0.1 sph	0.1 py dis	gr-ch	"	0.05	0.05	0.05	0.05	0.05		
490	100	77		0.1 py dis	0.1 sph	0.1 py dis	0.1 sph	0.1 py dis	ch-py	"	0.05	0.05	0.05	0.05	0.05		
492	100	77		0.1 py dis	0.1 sph	0.1 py dis	0.1 sph	0.1 py dis	gr-ch	wk se	0.05	0.05	0.05	0.05	0.05		
494	100	73		0.1 py dis	0.1 sph	0.1 py dis	0.1 sph	0.1 py dis	gr-ch	"	0.05	0.05	0.05	0.05	0.05		
496	100	86		0.1 py dis	0.1 sph	0.1 py dis	0.1 sph	0.1 py dis	gr-ch	v. wk se	0.05	0.05	0.05	0.05	0.05		
498	100	59		0.1 py dis	0.1 sph	0.1 py dis	0.1 sph	0.1 py dis	gr-ch	"	0.05	0.05	0.05	0.05	0.05		
500	100	58		0.1 py dis	0.1 sph	0.1 py dis	0.1 sph	0.1 py dis	gr-ch	"	0.05	0.05	0.05	0.05	0.05		
502	100	41		0.1 py dis	0.1 sph	0.1 py dis	0.1 sph	0.1 py dis	gr-ch	"	0.05	0.05	0.05	0.05	0.05		
504	100	0		0.1 py dis	0.1 sph	0.1 py dis	0.1 sph	0.1 py dis	ch-sph	"	0.05	0.05	0.05	0.05	0.05	503-65-	
506	100	18		0.1 py dis	0.1 sph	0.1 py dis	0.1 sph	0.1 py dis	gr-ch	"	0.05	0.05	0.05	0.05	0.05	509.8-510.2m - Milled ch-Ksp-fault breccia, contain rhyolitic lava clasts in ch-alt matrix. Breccia.	
508	100	87		0.1 py dis	0.1 sph	0.1 py dis	0.1 sph	0.1 py dis	gr-ch	"	0.05	0.05	0.05	0.05	0.05		
510	100	81		0.1 py dis	0.1 sph	0.1 py dis	0.1 sph	0.1 py dis	gr-ch	mod ch-Ksp	0.05	0.05	0.05	0.05	0.05	512.5 - Med pink/green, mod ch-Ksp-Hem altered, massive coarse grained, polymictic, fspn xtal-rich (tabular fsp-xtals) upto 8-4mm → provide porphyritic texture, rhyolitic breccia clasts. volcaniclastic sandstone, or possible porphyritic derivative of rhyolitic lava? v. poor sulfide content 0-20% upper contact fault brecciated.	
512	100	95		0.1 py dis	0.1 sph	0.1 py dis	0.1 sph	0.1 py dis	gr-ch	"	0.05	0.05	0.05	0.05	0.05		
514	100	81		0.1 py dis	0.1 sph	0.1 py dis	0.1 sph	0.1 py dis	gr-ch	"	0.05	0.05	0.05	0.05	0.05		
516	100	81		0.1 py dis	0.1 sph	0.1 py dis	0.1 sph	0.1 py dis	gr-ch	"	0.05	0.05	0.05	0.05	0.05		
518	100	81		0.1 py dis	0.1 sph	0.1 py dis	0.1 sph	0.1 py dis	gr-ch	"	0.05	0.05	0.05	0.05	0.05		
520	100	81		0.1 py dis	0.1 sph	0.1 py dis	0.1 sph	0.1 py dis	gr-ch	"	0.05	0.05	0.05	0.05	0.05		

REMARKS

Survey Depth	(R10) Azimuth	Dip	Hole Co-ordinates	
593.3	81.6	-57.2	Easting_AMG	382020
			Northing_AMG	5363770
			Elevation (m)	639
			Azimuth_Mag	77
			Dip	-70

SHEET 15 OF 15

PROJECT: <u>TASMANIA</u>
PROSPECT: <u>RED HILLS</u>
DATE: <u>MARCH '07</u>
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HOLE DEPTH	CORE RECOVERY	RQD	SAMPLE NO	SULPHIDES					PICTORIAL LOG		GRAPHIC LOG					GEOLOGY NOTES	SUMMARY LOG		
				PREFIX	.1	.3	1	3	5	STRUCT	ALT	0.05	0.5	2	8			32	64
562	97	83							gls-ksp	wk								559.5 - 593.3m (R0H) - light to med pinkish grey, massive to weakly internally brecciated, aphanitic/aphyric to weakly porphyritic wk-mod he-Ksp-ch±Se altered felsic (hyolitic) lava. Domainal, zoned patches upto 0.4m. Strong se-ch alteration (dark) pervasive locally, produce pseudo porphyritic texture?	
564	100	60							gls-ch	he-ch									
566	100	33		co-1 py dis					gls-ch	he-ch									
568	100	33		co-1 py andic					gls-ch	mod K-He ch-se									
570	100	68		co-1 py dis					gls-ch	wk He-K ch								20-1% dis+veined pyrite. very minor gls-ch suspect Devonian <1%. Little fracturing of coherent lava.	
572	100	59		co-1 py dis					gls-ch	he-ch									
574	100	82		co-1 py dis					gls-ch	wk he-K ch±se									
576	100	77		co-1 py dis					gls-ch	he-ch									
578	100	82		co-1 py dis					gls-ch	he-ch									
580	100	90		co-1 py dis					gls-ch	mod He-K ch±se									
582	100	93		co-1 py dis					gls-ch	he-ch									
584	98	68		co-1 py dis					gls-ch	he-ch									
586	100	85		co-1 py dis					gls-ch	he-ch									
588	95	83		co-1 py dis					gls-ch	he-ch									
590				co-1 py dis					gls-ch	he-ch									
592				co-1 py dis					gls-ch	he-ch									
594				co-1 py dis					gls-ch	he-ch									
596				co-1 py dis					gls-ch	he-ch									
598				co-1 py dis					gls-ch	he-ch									
600				co-1 py dis					gls-ch	he-ch									
REMARKS																			
K0H1 (593.3m)																			