

THE SHELL COMPANY OF AUSTRALIA LTD.

BOREHOLE LITHOLOGICAL DESCRIPTION

GRAY

GY 175AL
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HOLE TYPE	CORE
EASTING	590,400 M AM GRID
NORTHING	5,398,693 M AM GRID
ELEVATION	466.70 M
TOTAL DEPTH DRILLED	123.30 M
DRILLING STARTED	18/10/82
DRILLING TIME	7 DAYS
CORE SIZE	100.0 MM
HOLE SIZE	190.0 MM
LENGTH CASED	6.00 M
INITIAL WATER LEVEL	
WATER LEVEL AT GEOPHYSICAL LOGGING	
DRILLING FLUID	
DRILLING CONTRACTOR	ASSOCIATED DIAMOND DRILLERS
GEOPHYSICAL LOGGING CONTRACTOR	
LITHOLOGICAL DESCRIPTION BY	P. SANSOM
INFORMATION AVAILABLE :	SAMPLES TAKEN ANALYTICAL DATA LITHOLOGICAL DESCRIPTION
PETROPHYSICAL WIRELINE LOGS RUN :	NIL

DEPTH TO BASE M	THICKNESS M	REC X	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION
3.00	3.00			100% DOLERITE	SCREE.
113.20	110.20			100% SEDIMENTARY ROCK	
*** CORE DESCRIPTION ***					
114.65	1.45	80		100% SANDSTONE, MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK.
114.86	0.21	100		75% MUDSTONE 25% CARBONACEOUS MUDSTONE	CARBONACEOUS, DARK GREY. BLACK. UNWEATHERED, MODERATELY WEAK ROCK.
115.23	0.37	100		60% SANDSTONE, FINE GRAINED 40% CARBONACEOUS MUDSTONE	LIGHT GREY. LAMINAE, BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
115.51	0.28	100		100% MUDSTONE	CARBONACEOUS, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK.
116.00	0.49	100		85% SANDSTONE, FINE GRAINED 15% CARBONACEOUS MUDSTONE	LIGHT GREY. BANDS, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK.
116.18	0.18	100		70% SANDSTONE, FINE GRAINED 30% MUDSTONE	CARBONACEOUS, DARK GREY. BANDS, CARBONACEOUS, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK.
116.76	0.58	100		90% SANDSTONE, FINE GRAINED 10% COAL	LIGHT GREY. BANDS, COARSE GRAINED, BLACK. UNWEATHERED, MODERATELY WEAK ROCK.
117.02	0.26	100	T1	90% SANDSTONE, FINE GRAINED 10% COAL	LIGHT GREY. BANDS, COARSE GRAINED, BLACK. UNWEATHERED, MODERATELY WEAK ROCK.
TOP OF MT. NICHOLAS LOWER 1 : 349.68 M R.L.					
117.12	0.10	0	A1	CORE LOSS	
117.20	0.08	100	A1	100% COAL, DULL	BADLY BROKEN, BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
117.22	0.02	100	A1	100% MUDSTONE	CARBONACEOUS, GREY, UNWEATHERED, MODERATELY WEAK ROCK.
117.25	0.03	100	A1	100% COAL, HEAVY DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
117.29	0.04	100	A1	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
117.32	0.03	100	A1	100% COAL, BRIGHT WITH NUMEROUS DULL BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
117.35	0.03	100	A1	100% COAL, DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
117.37	0.02	100	A1	100% MUDSTONE	BANDS, GREY, UNWEATHERED, MODERATELY WEAK ROCK.
117.38	0.01	100	A1	100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC X	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION
*** CORE DESCRIPTION ***					
117.39	0.01	100	A1	100% MUDSTONE	BANDS, GREY, UNWEATHERED, MODERATELY WEAK ROCK.
117.51	0.12	100	A1	100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
117.52	0.01	100	A1	100% COAL, BRIGHT	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
117.73	0.21	100	A1	100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
117.74	0.01	100	A1	60% COAL, DULL 40% COAL, BRIGHT	BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK.
118.00	0.26	100	A1	100% COAL, DULL WITH FEW BRIGHT BANDS	BADLY BROKEN, BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
118.03	0.03	100	A1	100% COAL, BRIGHT	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
118.08	0.05	100	A1	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
118.21	0.13	100	A1	100% COAL, DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
118.22	0.01	100	A1	60% COAL, BRIGHT 40% COAL, DULL WITH FEW BRIGHT BANDS	BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK.
118.28	0.06	100	A1	100% CARBONACEOUS MUDSTONE	DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK.
118.32	0.04	100	A1	100% COAL, DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
118.39	0.07	100	A1	100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
118.47	0.08	100	A1	100% COAL, HEAVY DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
118.55	0.08	100	A1	100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
118.59	0.04	100	A1	100% CARBONACEOUS MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK.
118.60	0.01	100	A1	100% COAL, HEAVY DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
118.61	0.01	100	A1	55% COAL, HEAVY DULL 45% TONSTEIN	BLACK. WHITE. UNWEATHERED, MODERATELY WEAK ROCK.
118.64	0.03	100	A1	100% TONSTEIN	WHITE, UNWEATHERED, MODERATELY WEAK ROCK.
118.68	0.04	100	A1	100% COAL, DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
118.70	0.02	100	A1	55% COAL, HEAVY DULL 45% MUDSTONE	BLACK. BANDS, GREY. UNWEATHERED, MODERATELY WEAK ROCK.
118.77	0.07	100	A1	100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
118.78	0.01	100	A1	100% COAL, BRIGHT	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
118.81	0.03	100	A1	100% MUDSTONE	BRIGHT COAL, STREAKS, GREY, UNWEATHERED, MODERATELY WEAK ROCK.
118.87	0.06	100	A1	100% COAL, DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
118.89	0.02	100	A1	100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC X	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION
*** CORE DESCRIPTION ***					
118.91	0.02	100	A1	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
118.92	0.01	100	A1	100% COAL, BRIGHT	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
118.95	0.03	100	A1	100% COAL, MID LUSTROUS - BRIGHT	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
118.96	0.01	100	A1	100% MUDSTONE	BANDS, BROWN, UNWEATHERED, MODERATELY WEAK ROCK.
119.00	0.04	100	A1	100% COAL, DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
119.05	0.05	100	A1	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	BADLY BROKEN, BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
119.10	0.05	100	A1	75% COAL, DULL WITH FEW BRIGHT BANDS 25% COAL, DULL	BADLY BROKEN, BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK.
119.15	0.05	100	A1	100% COAL, DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
119.17	0.02	100	A1	100% MUDSTONE	BANDS, BADLY BROKEN, BROWN, UNWEATHERED, MODERATELY WEAK ROCK.
119.30	0.13	100	A1	70% COAL, DULL WITH FEW BRIGHT BANDS 20% COAL, DULL 10% COAL, BRIGHT	BADLY BROKEN, BLACK. BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK.
BASE OF MT. NICHOLAS LOWER 1 : THICKNESS= 2.28 M; SAMPLED THICKNESS= 2.28 M					
119.32	0.02	100	T2	100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
119.69	0.37	100	T2	100% MUDSTONE	MASSIVE, GREY, UNWEATHERED, MODERATELY WEAK ROCK.
119.70	0.01	100	T2	100% CARBONACEOUS MUDSTONE	BANDS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
119.75	0.05	100	T2	100% MUDSTONE	MASSIVE, GREY, UNWEATHERED, MODERATELY WEAK ROCK.
120.15	0.40	100		100% MUDSTONE	MASSIVE, GREY, UNWEATHERED, MODERATELY WEAK ROCK.
120.22	0.07	100		100% MUDSTONE	COALY, STREAKS, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK.
120.33	0.11	0		CORE LOSS	
120.35	0.02	100	T3	100% MUDSTONE	MASSIVE, GREY, UNWEATHERED, MODERATELY WEAK ROCK.
120.57	0.22	100	T3	100% SILTSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK.
120.74	0.17	100	T3	100% MUDSTONE	MASSIVE, GREY, UNWEATHERED, MODERATELY WEAK ROCK.
120.76	0.02	100	T3	100% CARBONACEOUS MUDSTONE	COALY, BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
TOP OF MT. NICHOLAS LOWER 2 : 345.94 M R.L.					
120.97	0.21	100	A2	100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
120.98	0.01	0	A2	CORE LOSS	

DEPTH TO BASE M	THICKNESS M	REC X	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION
*** CORE DESCRIPTION ***					
121.15	0.17	100	A2	100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
121.16	0.01	0	A2	CORE LOSS	
121.31	0.15	100	A2	100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
121.34	0.03	100	A2	100% COAL, HEAVY DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
121.35	0.01	100	A2	100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK.
121.77	0.42	100	A2	100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
121.79	0.02	100	A2	100% COAL, BRIGHT	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
121.84	0.05	100	A2	100% TONSTEIN	WHITE, UNWEATHERED, MODERATELY WEAK ROCK.
121.95	0.11	100	A2	100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
121.99	0.04	100	A2	100% COAL, BRIGHT WITH NUMEROUS DULL BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
122.01	0.02	100	A2	100% TONSTEIN	WHITE, UNWEATHERED, MODERATELY WEAK ROCK.
122.03	0.02	100	A2	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
122.15	0.12	100	A2	60% COAL, DULL WITH FEW BRIGHT BANDS 30% COAL, DULL 10% COAL, INTERBANDED DULL AND BRIGHT	BADLY BROKEN, BLACK. BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK.
122.40	0.25	0	A2	CORE LOSS	
122.46	0.06	100	A2	100% COAL, INTERBANDED DULL AND BRIGHT	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
122.57	0.11	100	A2	100% COAL, BRIGHT WITH NUMEROUS DULL BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
BASE OF MT. NICHOLAS LOWER 2 : THICKNESS= 1.81 M; SAMPLED THICKNESS= 1.81 M					

122.60	0.03	100	T4	100% MUDSTONE	CARBONACEOUS, GREY, UNWEATHERED, MODERATELY WEAK ROCK.
122.95	0.35	100	T4	100% MUDSTONE	SILTSTONE, GREY, UNWEATHERED, MODERATELY WEAK ROCK.
123.13	0.18	100		100% MUDSTONE	SILTSTONE, GREY, UNWEATHERED, MODERATELY WEAK ROCK.
123.30	0.17	0		CORE LOSS	