

**Appendix 1 - DDH OJ 001**

Drill hole details:

Collar Co ordinates	E 55 524 868
	N 5 315 211
RL	364m
Dip	-90 <sup>0</sup>
Drill type	HQ Diamond
Depth	102.25m

Graphic log	2
Detailed seam log	8
Photographs of core	16
Drill log	25

DRILL HOLE No 0J001

SHEET 1 OF 6

Survey Depth	Azimuth	Dip	Hole Coordinates (AMG)	400 13-3
SURFACE	-	-90°	Easting_ 55 524 868	
			Northing_ 5 215 211	
			Elevation (m) 364 ...	
			Azimuth_Mag N/A	
			Dip -90°	

PROJECT SOUTHERN MIDLANDS COAL  
 PROSPECT EL 26/2008 ANGLE RD  
 DATE: 15-3-12 → 23-3-2012  
 LOGGED BY: KAREN ADAMS

[DRILLED: 14-3-2012 → 20-3-2012]

HOLE DEPTH	CORE RECOVERY	RDB	SAMPLE NOS	SULPHIDES	PICTORIAL LOG		GRAPHIC LOG	GEOLOGY NOTES	SUMMARY CODE
					STRUCT	ALT			
1	-	-	-						
2	-	-	-						
3	-	-	-						
4	-	-	-						
TRI-CONE BIT → NO CORE 0-4m									
5	100	25						4.00-5.10: MODERATELY WEATHERED DARK GREY/BLACK MUDSTONE WITH INCREASING SANDSTONE & FLUOR BANDING DOWN HOLE	HQ MS (SS)
6	100	11						5.11-5.40: MODERATELY WEATHERED DARK GREY MUDSTONE & CARBONACEOUS MUDSTONE 5.40-5.70: MODERATELY WEATHERED DARK GREY TO BLACK DULL COAL MUDSTONE 5.70-5.75: DARK ORANGE CLAYSEAM - FAULT 5.75-5.80: DULL COAL WITH MINOR VITRIC BANDING 5.80-6.20: DARK MUDSTONE WITH MINOR CARBONACEOUS MUDSTONE 6.20-6.80: COAL WITH SOME BRIGHT VITRIC BANDS & MINOR CARBONATE VEINING	MS MS
7	70	15						6.81-7.00: CORE LOSS (SLOWLY GRIND) 7.01-7.10: BROWNISH-GREY MODERATELY WEATHERED COAL WITH VITRIC BANDS 7.10-7.21: DARK GREY CARBONACEOUS MUDSTONE / MUDSTONE WITH VERY FINE COAL SAND 20-15µm 7.21-7.77: CORE LOSS (SLOWLY GRIND)	CL MS CL
8	90	51						7.71-11: CORE TO DARK GREY MUDSTONE + METASTONE WITH SOME CARBONACEOUS MUDSTONE & FLUOR SANDS SEQUENCE APPEARS TO BE FINING UPDIP	
9	100	78							
10	100	100							MS SS
11	100	80							
12	100	20							
13	100	77						12.15-12.2: FINE CLAY FINE FAULT 12.20-12.48: DARK GREY MUDSTONE & CARBONACEOUS MUDSTONE WITH MINOR SANDSTONE FLUOR BANDING 12.60-12.80: DULL COAL CONTACT - 10"	MS MS
14	100	70						12.80-13.00: DARK MODERATELY WEATHERED BRIGHT COAL WITH VITRIC BANDING	MS
15	100	100						13.01-13.70: DARK GREY CARBONACEOUS MUDSTONE WITH SANDSTONE CONTACT (SANDSTONE) - 3.65 13.70-16.80: GREY TO DARK GREY MUDSTONE / CARBONACEOUS MUDSTONE WITH ZONAL MEDIUM GRAINED SANDSTONE FLUOR BANDING THROUGH MUDSTONE IN DOWN-DIP DOWN HOLE INDICATING FINING UPWARDS SEQUENCE WARD FALLING CLAYSEAM - BOUNDING AND FLUOR SANDSTONE MUDSTONE 2.5' CONTACT CASE PRESENT BOTH PLANE THROUGH WITH LITTLE TO NO JOINT FURTHER (30-40" & 10") DOWNWARD CONTACT / FAULT THIN - 10" (MEDIUM GRAINED SANDSTONE)	MS SS
16	100	90							MS SS
17	100	100							
18	100	67							
19	100	73						16.81-16.71: GREY MUDSTONE / SANDSTONE 16.71-16.87: GREY SANDSTONE / SANDSTONE 16.87-19.32: GREY-DARK GREY MUDSTONE + CARBONACEOUS MUDSTONE INTERBEDDED WITH GREAT SANDSTONE	MS MS SS
20	100	62						19.32-20: 16:1000: GREY-GREY, FINE-MEDIUM GRAINED SANDSTONE + CARBONACEOUS MUDSTONE SEQUENCE	MS
REMARKS									

DRILL HOLE No 0J001

SHEET 2 OF 6

Survey Depth	Azimuth	Dip	Hole Co-ordinates	AMG (GPS 13m)
			Easting	55 524 868
			Northing	5 315 211
			Elevation (m)	~ 364m
			Azimuth_Mag	N/A
			Dip	-90°

PROJECT: SOUTHERN MIDLANDS COAL  
 PROSPECT, E.L. 24/2008 ANSELY RD  
 DATE:  
 LOGGED BY: KAREN ADAMS

HOLE DEPTH	CORR. RECOVERY	RQD	SAMPLE NO. PREFIX	SULPHIDES	PICTORIAL LOG		GRAPHIC LOG	GEOLOGY NOTES	SUMMARY LOG
					STRUCT	ALT			
21	100	78						19.72-24.15 DARK TO GREY, FINE TO MEDIUM GRAINED SANDSTONE INTERBEDDED WITH DARK GREY TO BLACK CARBONACEOUS MUDSTONE AND MINOR VITRIC COAL BANDS. CONTOUR CLASTIC, CARBONACEOUS MUDSTONE RIP-UP CLASTS @ 20.45 - 20.75m. CLAY/NO FILLED FAULT @ 20.05m @ ~50°	
22	100	75						21.50: CLAY ALTERED, UNCONFORMABLE - 30° FAULT WITH PERPENDICULAR UNBARRER/ROUGH FRACTURE/Joint	CHS SS
23	100	88							
24	100	58						23.8-24.00: 2-3 Pkg. FILLED, SOMEWHAT CLASTIC FACIES	
25	100	45						24.15-21.50: DARK GREY MUDSTONE/CARBONACEOUS MUDSTONE (BEDDING AT UPHOLE CONTACT 20°) INCREASING AMOUNTS OF FINE GRAINED SANDSTONE PROXIMAL TO DOWNHOLE CONTACT.	
26	100	17						25.00-25.29 FRACTURING (FAULTING?) 80-10°	CHS CHS
27	100	61						25.40: 2mm IRREGULAR COAL BAND	
28	100	76							(SS)
29	90	26						27.00-28.75: INTERBEDDED CARBONACEOUS MUDSTONE, MUDSTONE & SLTSTONE	CHS MS
30	100	70						28.75-29.80: FAULT ZONE WITH SOME CLAY ALTERATION 28.80-28.95: COAL LOSS (GROUND AWAY) 28.95-29.25: FAULT ZONE WITH SOME CLAY ALTERATION	CHS MS CHS MS
31	100	38						29.15-29.45: GREY MUDSTONE & CARBONACEOUS MUDSTONE - MINOR FINE TO MEDIUM GRAINED SANDSTONE	CHS MS
32	100	62						29.45-30.65: DARK GREY CARBONACEOUS MUDSTONE + MUDSTONE 29.75-30.65: CLAY ALTERED FAULT & ASSOCIATED FRACTURES.	CHS MS
33	100	43						30.65-32.28: GREY FINE TO MEDIUM GRAINED SANDSTONE WITH SOME CARBONACEOUS MUDSTONE SANDS AND MINOR FAULTING PRESENT	SS
34	100	29						32.28-33.15: DARK GREY CARBONACEOUS MUDSTONE + MINOR SLTSTONE BEDDING @ 32.75	CHS
35	100	82						33.17-34.1: DARK GREY - BLACK CARBONACEOUS MUDSTONE WITH MINOR SANDSTONE BEDDING	CHS (SS)
36	100	83						34.10-37.00: DARK GREY CARBONACEOUS MUDSTONE WITH INCREASING DARK GRAY SANDSTONE DOWNHOLE	
37	100	92						35.13-37.15: GREY MUDSTONE & CARBONACEOUS MUDSTONE - MINOR FINE TO MEDIUM GRAINED SANDSTONE	CHS MS
38	100	0						35.15-30.65: CLAY ALTERED FAULT & ASSOCIATED FRACTURES.	CHS MS
39	100	21						30.65-32.28: 2mm VITRIC COAL BAND	CHS SS
40	100	42						36.60: VITRIC COAL BAND	SS
41	100	0						36.60: VITRIC COAL BAND	
42	100	21						37.10-37.10: FAULTING	
43	100	21						37.14-38.25: 2mm VITRIC COAL BAND WITH FREQUENT CARBONACEOUS MUDSTONE/MUDSTONE BEDDING, SOMEWHAT GRABEN-LIKE DOWNHOLE CONTACT	C CHS
44	100	42						38.25-39.28: BLACK CARBONACEOUS MUDSTONE INTERBEDDED WITH FINE-MEDIUM GRAINED COARSE SANDSTONE, MINOR VITRIC COAL BEDDING @ 38.70	CHS SS
45	100	42						39.28-41.65: GREY TO PALE GREY SANDSTONE WITH SOME CARBONACEOUS MUDSTONE MUDSTONE INTERBEDS	SS
46	100	42						39.45: PUB. FINED FAULT	

REMARKS

DRILL HOLE No 0J001

SHEET 3 OF 6

Survey Depth	Azimuth	Dip	Hole Co-ordinates	ΔMG (GPS)
			Easting_	53 524 868
			Northing_	5 315 211
			Elevation (m)	364 m
			Azimuth_Mag	-
			Dip	- 70°

PROJECT SOUTHERN MIDLANDS COAL  
 PROSPECT EL 26/2009 ANSTEY RD  
 DATE:  
 LOGGED BY: KAREN ADAMS

HOLE DEPTH	CORE RECOVERY	HOLE	SAMPLE NO	SULPHIDES	PICTORIAL LOG		GRAPHIC LOG	GEOLOGY NOTES	SUMMARY CODE
					STRUCT	ALT			
41	100	15						39.28-41.65: GREY TO PALE GREY SANDSTONE WITH CARBONACEOUS MUDSTONE / MUDSTONE BANDING	CS (MS)
42	100	17						41.65-42.60: DARK GREY MUDSTONE / CARBONACEOUS MUDSTONE WITH MINOR SANDSTONE	MS
43	100	40						42.60-44.02: PALE GREY TO CREAM MEDIUM TO COARSE GRAINED QUARTZ SANDSTONE WITH DARK GREY CARBONACEOUS MUDSTONE FLAKER BANDING	MS (MS)
44	100	70						44.02-46.25: PALE GREY TO CREAM, MEDIUM TO COARSE GRAINED QUARTZ SANDSTONE WITH MINOR DARK GREY CARBONACEOUS MUDSTONE BANDING	MS (MS)
45	100	55						46.25-46.95: DARK GREY MUDSTONE TO MEDIUM GRAINED SANDSTONE	MS (MS)
46	98	44						46.95-50.87: PALE GREY TO CREAM, MEDIUM GRAINED QUARTZ SANDSTONE WITH CARBONACEOUS MUDSTONE FLAKER BANDING	MS (MS)
47	94	0						50.87-51.27: DARK GREY CARBONACEOUS MUDSTONE WITH MINOR COAL & VERY MINOR VITRIC BANDS	MS (MS)
48	100	36						51.27-51.35: DARK GREY CARBONACEOUS MUDSTONE	MS (MS)
49	100	60						51.35-55.20: MEDIUM TO DARK GREY MUDSTONE & CARBONACEOUS MUDSTONE WITH VERY MINOR COAL VITRIC BANDS	MS (MS)
50	100	61						55.20-55.60: BRIGHT VITRIC COAL WITH SOME CARBONACEOUS MUDSTONE BANDS	MS (MS)
51	100	12						55.60-56.40: MEDIUM TO DARK GREY MUDSTONE WITH MINOR CARBONACEOUS MUDSTONE & MINOR MEDIUM GRAINED SANDSTONE	MS (MS)
52	100	15						56.40-59.10: MEDIUM TO DARK GREY MUDSTONE + CARBONACEOUS MUDSTONE WITH MINOR SANDSTONE INCREASING DOWN HOLE	MS (MS)
53	100	0						59.10-67.15: MEDIUM TO DARK GREY MUDSTONE + CARBONACEOUS MUDSTONE WITH MINOR SANDSTONE INCREASING DOWN HOLE	MS (MS)
54	100	57						67.15-68.10: MEDIUM TO DARK GREY MUDSTONE + CARBONACEOUS MUDSTONE WITH MINOR SANDSTONE INCREASING DOWN HOLE	MS (MS)
55	100	47						68.10-69.10: MEDIUM TO DARK GREY MUDSTONE + CARBONACEOUS MUDSTONE WITH MINOR SANDSTONE INCREASING DOWN HOLE	MS (MS)
56	100	60						69.10-70.10: MEDIUM TO DARK GREY MUDSTONE + CARBONACEOUS MUDSTONE WITH MINOR SANDSTONE INCREASING DOWN HOLE	MS (MS)
57	100	48						70.10-71.10: MEDIUM TO DARK GREY MUDSTONE + CARBONACEOUS MUDSTONE WITH MINOR SANDSTONE INCREASING DOWN HOLE	MS (MS)
58	100	45						71.10-72.10: MEDIUM TO DARK GREY MUDSTONE + CARBONACEOUS MUDSTONE WITH MINOR SANDSTONE INCREASING DOWN HOLE	MS (MS)
59	100	15						72.10-73.10: MEDIUM TO DARK GREY MUDSTONE + CARBONACEOUS MUDSTONE WITH MINOR SANDSTONE INCREASING DOWN HOLE	MS (MS)
60	100	13						73.10-74.10: MEDIUM TO DARK GREY MUDSTONE + CARBONACEOUS MUDSTONE WITH MINOR SANDSTONE INCREASING DOWN HOLE	MS (MS)
REMARKS									

DRILL HOLE No 0J001

SHEET 4 OF 6

Survey Depth	Azimuth	Dip	Hole Co-ordinates
			<u>AN161 (GMS)</u>
			Easting <u>55 524 868</u>
			Northing <u>5 315 211</u>
			Elevation (m) <u>- 364 m</u>
			Azimuth_Mag <u>-</u>
			Dip <u>-90°</u>

PROJECT SOUTHERN MIDLANDS COAL  
 PROSPECT EL 26/2006 ANSTIEY RD  
 DATE: \_\_\_\_\_  
 LOGGED BY: KAREN ADAMS

HOLE DEPTH	CORE RECOVERY	R.O.U.	SAMPLE NO	SULPHIDES	PICTORIAL LOG		GRAPHIC LOG	GEOLOGY NOTES	REMARKS
					STRUCT	ALT			
61	100	40						61.10 - 62.18: MEDIUM TO DARK GREY MUDSTONE + CARBONACEOUS MUDSTONE WITH MINOR SINTERIONS INCREASING DOWNHOLE	MS GMS
62	100	71							
63	100	95						62.18 - 64.13: GREY, MEDIUM GRAINED LENTIC SANDSTONE WITH DARK GREY TO BLACK FLACIL BANDING IN A SERIES OF SMALL FINING UPWARDS CYCLES	SS
64	100	70							
65	100	76						64.12 - 64.40: DARK GREY TO BLACK CARBONACEOUS MUDSTONE 64.40 - 64.50: INTERBEDDED DARK GREY TO BLACK CARBONACEOUS MUDSTONE + MEDIUM GRAINED SANDSTONE 64.50 - 64.70: BROWN BLOCKY COAL 64.70 - 64.81: DARK CARBONACEOUS MUDSTONE + COAL 64.81 - 64.92: INTERBEDDED FINE TO MEDIUM GRAINED SANDSTONE WITH CARBONACEOUS MUDSTONE FLACIL BANDING PRESENT COGS - BANDING	MS GMS GMS
66	100	50							
67	100	100							SS GMS
68	100	100							
69	100	100							
70	100	100						69.52 - 70.13: LIGHT GREY FINE TO MEDIUM GRAINED SANDSTONE INTERBEDDED WITH MUDSTONE + CARBONACEOUS MUDSTONE INCLUDING SANDSTONE ABUNDANCE DOWN HOLE	
71	100	100							
72	100	87							SS MS GMS
73	100	100							
74	100	79							
75	100	100						74.50: CARBONACEOUS MUDSTONE CONEGLAUCIC RIP-UP CLASTS	
76	100	43						75.13 - 76.45: INTERBEDDED DARK GREY TO BLACK CARBONACEOUS MUDSTONE, MUDSTONE AND MEDIUM GRAINED FINE SANDSTONE	MS GMS GMS
77	100	54						76.45 - 79.50: DARK GREY, MEDIUM GRAINED QUARTZ SANDSTONE WITH MINOR CARBONACEOUS MUDSTONE FLACIL BANDING	
78	100	54							GMS
79	100	80							
80	100	51						79.50 - 81.18: MEDIUM GRAINED, PALE GREY QUARTZ SANDSTONE WITH DARK GREY TO BLACK CARBONACEOUS MUDSTONE FLACIL BANDING	MS GMS
REMARKS									

DRILL HOLE No 0J001

SHEET 5 OF 6

Survey Depth	Azimuth	Dip	Hole Co-ordinates
			AP 16 (672)
			Easting <u>55 524 868</u>
			Northing <u>5 815 211</u>
			Elevation (m) <u>~364m</u>
			Azimuth_Mag <u>-</u>
			Dip <u>-90°</u>

PROJECT SOUTHERN MIDLANDS COAL  
 PROSPECT EL 26/2000 ANSLEY RD  
 DATE: \_\_\_\_\_  
 LOGGED BY: KAREN ADAMS

HOLE DEPTH	CORRECTION	HUB	SAMPLE NO	SULPHIDES	PICTORIAL LOG		GRAPHIC LOG	RECORD NOTES	SUMMARY CODE
					STRUCT	ALT			
81	100	80						81.00-81.15 MEDIUM GRAINED, PALE GREY, QUARTZ SANDSTONE WITH DARK GREY TO BLACK CARBONACEOUS MUDSTONE FLAKE BANDING	MS CHS
82	100	90						81.16-94.75 GREY LITTLE SANDSTONE WITH MINOR VERY MINOR CARBONACEOUS MUDSTONE BANDING UP HOLE. INTERBEDDED CARBONACEOUS MUDSTONE GLASS AND/OR DICHERIDIUM FOSSILS THROUGHOUT. CARBONACEOUS MUDSTONE BANDING ALSO PRESENT @ 90.2, 91, 93.5m AND BASE OF UNIT.	
83	100	100							
84	100	100						85.70-84.00: CARBONACEOUS MUDSTONE BIL-UP GLASS	
85	100	100							
86	100	100							
87	100	100							
88	100	100							SS (L)
89	100	100							
90	100	100							
91	100	100							
92	100	100							
93	100	100							
94	100	100							
95	100	73						94.75-96.00: PALE GREY, MEDIUM GRAINED QUARTZ SANDSTONE WITH MINOR CARBONACEOUS MUDSTONE BANDING	
96	100	80							MS CHS
97	100	100						96.00-97.15 LIGHT MUDSTONE + CARBONACEOUS MUDSTONE INTERBEDDED WITH MINOR SANDSTONE	MS CHS
98	100	60						97.15-100.15: DARK GREY TO GREY MUDSTONE + CARBONACEOUS MUDSTONE WITH INCREASING SANDSTONE DOWNHOLE	MS CHS
99	100	75							MS CHS
100	100	85							
REMARKS									

DRILL HOLE No 0J001  
 SHEET 6 OF 6

Survey Depth	Azimuth	Dip	Hole Co-ordinates
			4M6 (GPS)
			Easting_ 55 524 868
			Northing_ 5 315 211
			Elevation (m) ~ 364 m
			Azimuth_Mag -
			Dip -90°

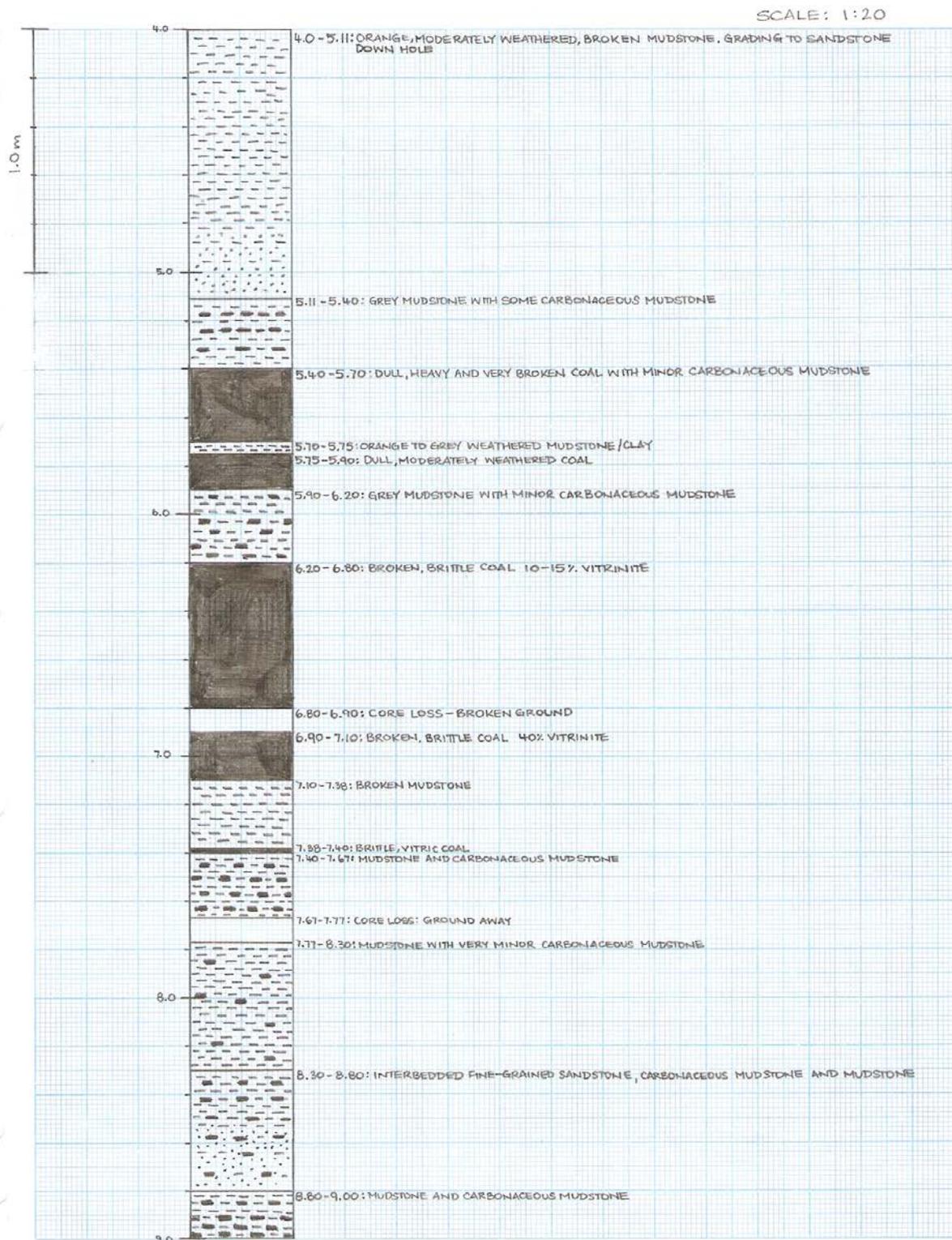
PROJECT SOUTHERN MIDLANDS COAL  
 PROSPECT EL 26/2008 ANSTEY RD  
 DATE:  
 LOGGED BY: KAREN ADAMS

HOLE DEPTH	CORE RECOVERY	RUB	SAMPLE NET	SULPHIDES	PICTORIAL LOG		GRAPHIC LOG	GEOLOGY NOTES	SUMMARY LOG
					STRUCT	ALT			
101	100	75						101-102 15' DARK GREY TO GREY, MUDSTONE + CARBONACEOUS MUDSTONE GRADING TO FINE TO MEDIUM SANDSTONE	H5 CHS
102	100	80							80'
102.5	100	100						102 00' CARBONACEOUS MUDSTONE CLUSTS.	EOH
EO4									
REMARKS									

## Detailed seam logs

OJ001 - DETAILED LOG : SEAM ONE

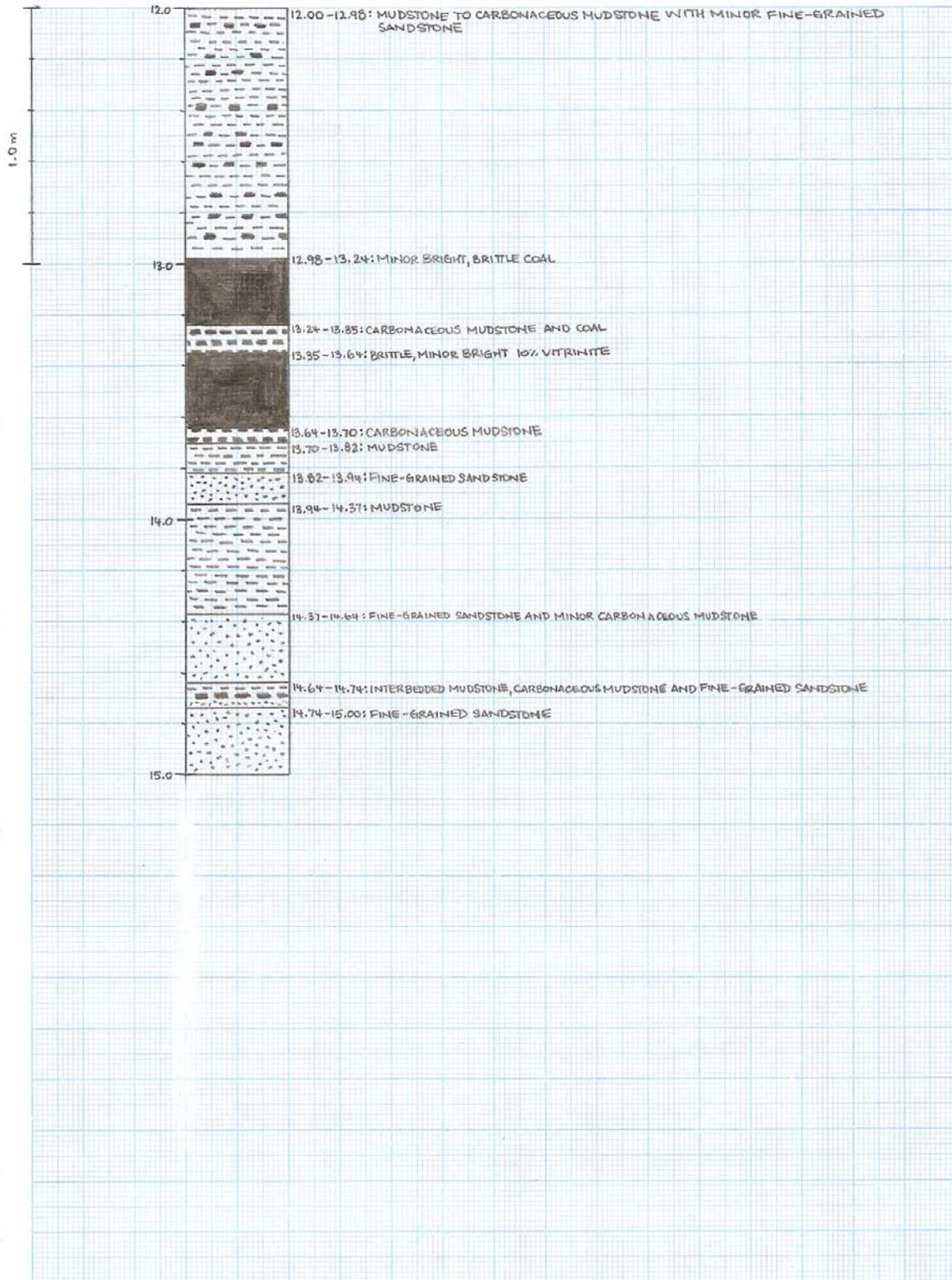
1mm Squares



# OJ001 - DETAILED LOG : SEAM TWO

1mm Squares

SCALE 1:20



OJ001 - DETAILED LOG : SEAM 3

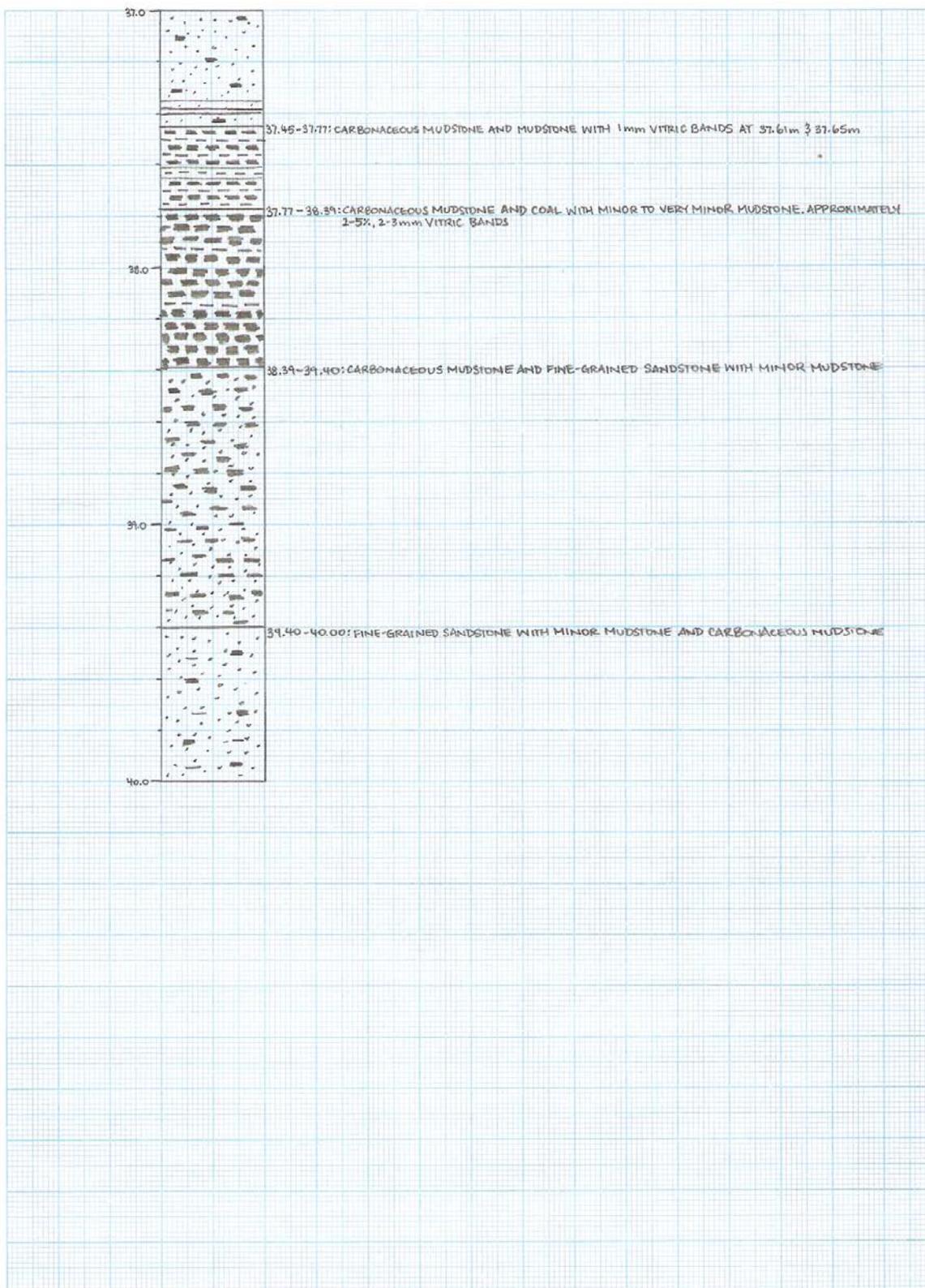
1mm Squares

SCALE 1:20



OJ001 - DETAILED LOG : SEAM 3 CONTINUED

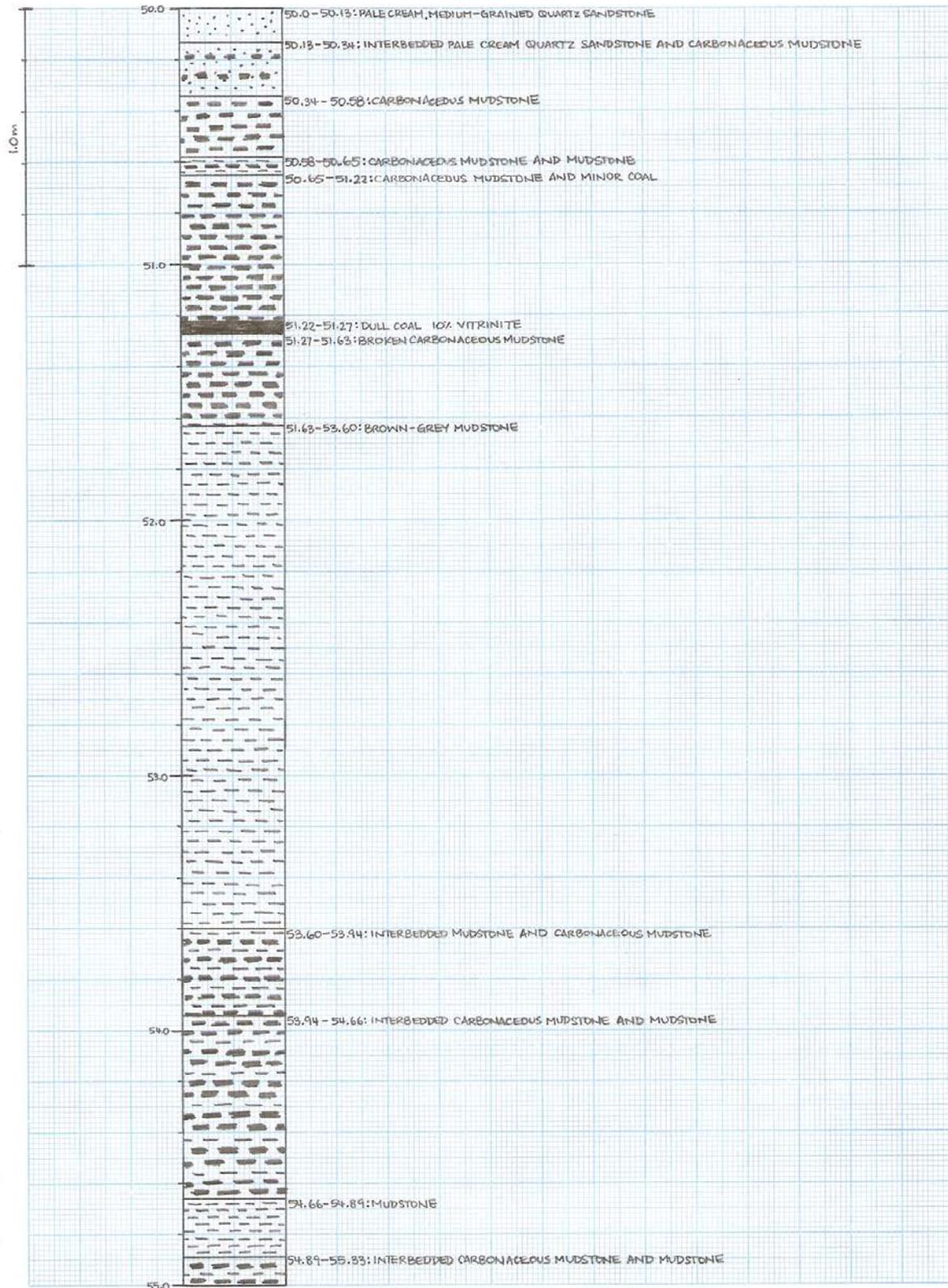
1mm Squares



OJ001 - DETAILED LOG : SEAM FOUR

1mm Squares

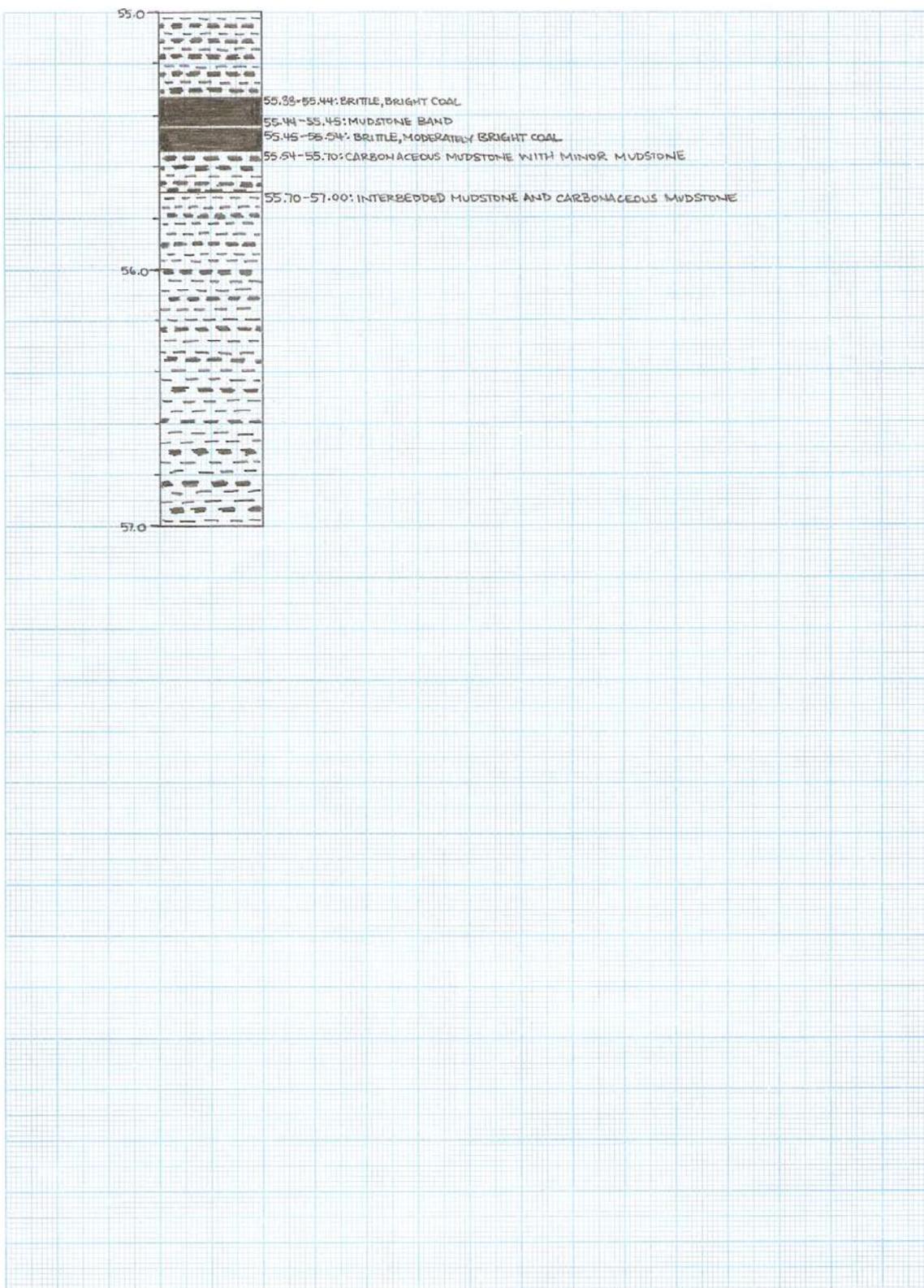
SCALE 1:20



OJ001 - DETAILED LOG: SEAM FOUR CONTINUED

1mm Squares

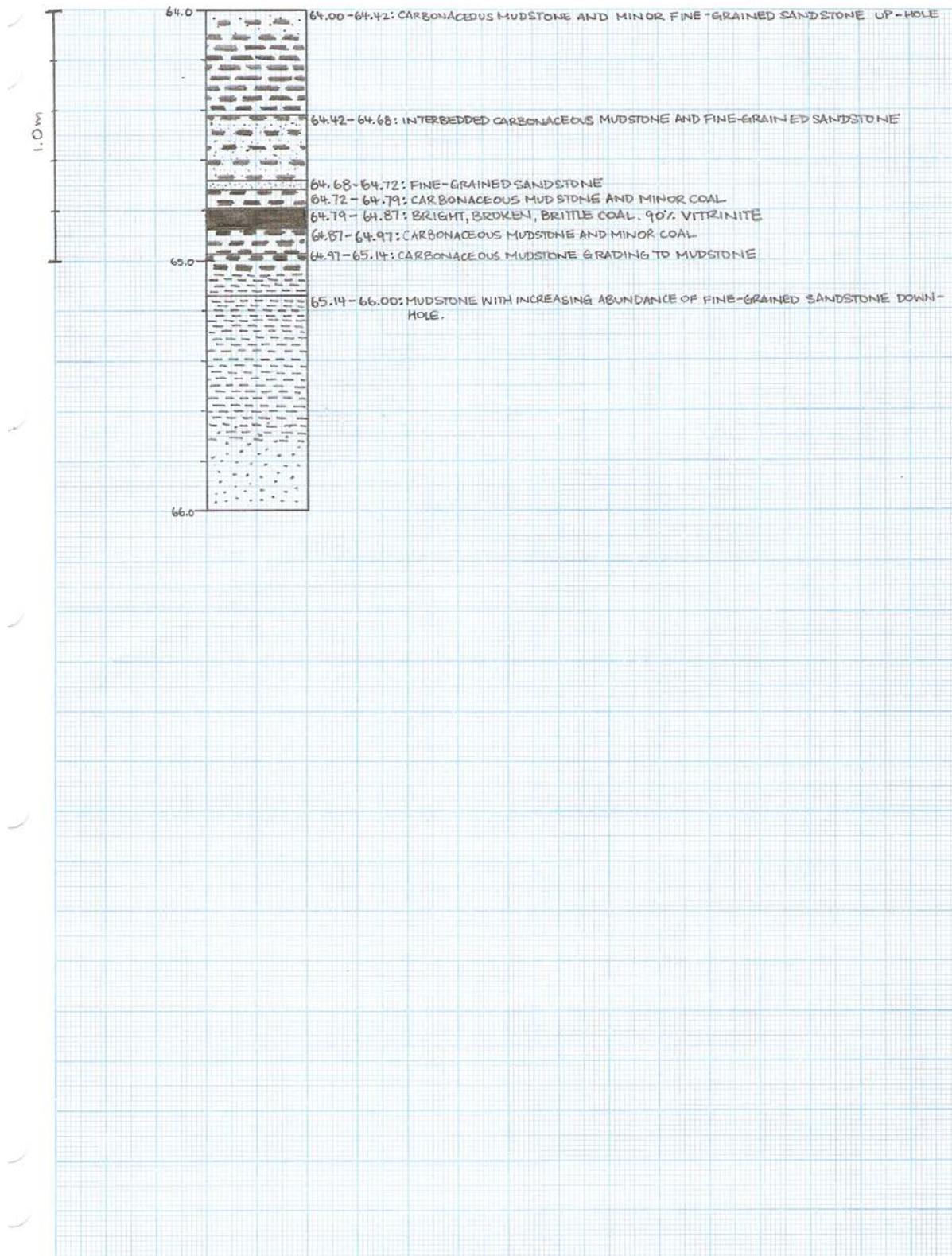
SCALE 1:20



# OJ001 - DETAILED LOG : SEAM FIVE

1mm Squares

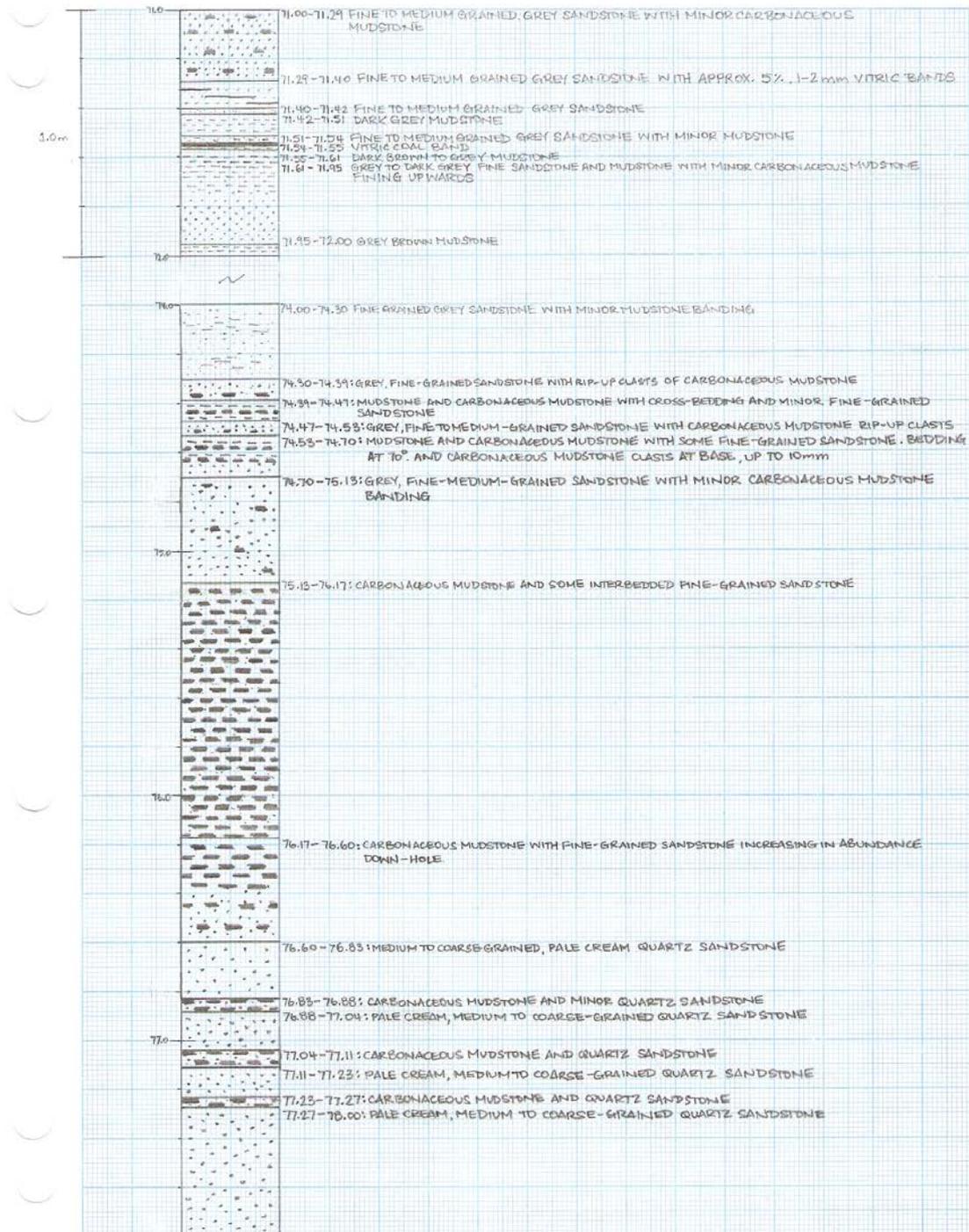
SCALE 1:20



OJ001 - DETAILED LOG : SEAM SIX

1:20

1mm Squares



### Core Photographs



Trays 1 & 2 - 4.00 to 9.90



Trays 3 & 4 - 9.90 to 15.25



Trays 5 & 6 – 15.25 to 20.82



Trays 7 & 8 – 20.82 to 26.29



Trays 9 & 10 – 26.29 to 31.75



Trays 11 & 12 – 31.75 to 37.28



Trays 13 & 14 – 37.28 to 42.25



Trays 15 & 16 – 42.25 to 48.03



Trays 17 & 18 – 48.03 to 53.56



Trays 19 & 20 – 53.56 to 59.03



Trays 21 & 22 – 59.03 to 64.51



Trays 23 & 24 – 64.51 to 70.13



Trays 25 & 26 – 70.13 to 75.65



Trays 27 & 28 – 75.65 to 81.31



Trays 29 & 30 – 81.31 to 86.87



Trays 31 & 32 – 86.87 to 92.49



Trays 33 & 34 – 92.49 to 98.10



Trays 35 & 36 – 98.10 to 102.2 EOH

## Drill Hole ID: OJ001

Project: Southern Midlands Coal  
 License: EL 26/2008 (Anstey Road)  
 Date Drilled: 14/3/12 - 20/3/12

Collar: Easting: 55 524 982  
 Northing: 5 315 385  
 Elevation: 371m

(GDA - GPS)

Azimuth: n/a

Dip: -90 degrees

mFrom	mTo	Description
0	4	Cutting Bit - No Core
4	5.11	Moderately weathered, dark cream to grey mudstone with increasing amounts of sandstone and flacer banding downhole
5.11	5.4	Moderately weathered dark grey mudstone and carbonaceous mudstone
5.4	5.7	Moderately weathered, dark grey to black dull coal and carbonaceous mudstone
5.7	5.75	Dark orange clay seam - fault (?)
5.75	5.9	Dull coal with minor vitric banding
5.9	6.2	Grey mudstone and minor carbonaceous mudstone
6.2	6.8	Coal - some bright vitric banding and minor carbonate veining
6.8	6.9	Core Loss - broken ground
6.9	7.1	Broken, brittle, moderately bright coal with vitric bands
7.1	7.67	Dark grey carbonaceous mudstone and mudstone with very minor coal band at 7.4m
7.67	7.77	Core Loss - ground away
7.77	12.15	Grey to dark grey mudstone and sandstone with some carbonaceous mudstone and flacer banding. Sequence appears to be fining up hole.
12.15	12.2	Pug and clay-filled fault
12.2	12.98	Grey to dark grey mudstone and carbonaceous mudstone with minor sandstone containing flacer banding. Irregular down hole contact approximately 70 degrees to core axis
12.98	13.64	Moderately heavy, zonally bright coal with vitric banding
13.64	13.7	Dark grey carbonaceous mudstone with downhole conformable bedded contact at 30-40 degrees
13.7	18.63	Grey to dark grey mudstone and carbonaceous mudstone with zonal medium-grained sandstone (featuring flacer banding) increasing in abundance down hole, tending to indicate an upwardly fining sequence. 'Micro' faulting, cross-bedding and flame structures present. 2.5 joint sets present, both planar rough with little to no alteration: At 30-40 & 70 degrees. Downhole contact, conformable (bedding) at approximately 80 degrees to core axis
18.63	18.79	Grey mudstone

18.79	18.87	Grey medium-grained sandstone
18.87	19.72	Grey to dark grey mudstone and carbonaceous mudstone
19.72	24.15	Dark grey to grey, fine to medium-grained sandstone interbedded with dark grey to black carbonaceous mudstone and minor vitric coal bands. Conglomeratic, carbonaceous mudstone rip-up clasts at 20.65-20.75m.
24.15	27.9	Dark grey mudstone and carbonaceous mudstone. Increasing amounts of fine-grained sandstone proximal to downhole contact. Up-hole: conformable bedded contact at 80 degrees
27.9	28.73	Interbedded carbonaceous mudstone, mudstone and siltstone
28.73	28.84	Fault zone with some clay alteration
28.84	28.93	Core Loss - ground away
28.93	29.23	Fault zone with some clay alteration
29.23	29.68	Grey mudstone and carbonaceous mudstone and minor fine to medium-grained sandstone
29.68	30.62	Dark grey carbonaceous mudstone interbedded with mudstone
30.62	32.28	Grey, fine to medium-grained sandstone with some carbonaceous mudstone banding. 'Micro'-faulting present.
32.28	33.17	Dark grey carbonaceous mudstone with minor sandstone. Bedding at 85-90 degrees to core axis
33.17	34.1	Dark grey to black carbonaceous mudstone with minor sandstone banding
34.1	37.44	Dark grey carbonaceous mudstone with increasing dark grey sandstone down hole. 2mm vitric coal banding at 35.83 & 36.6m
37.44	38.39	Heavy, dull coal with frequent carbonaceous mudstone and mudstone banding. Somewhat gradational down hole contact
38.39	39.28	Black carbonaceous mudstone interbedded with fine to medium-grained cream sandstone. Minor vitric coal banding at 38.7m
39.28	41.65	Grey to pale grey sandstone interbedded with some carbonaceous mudstone and mudstone
41.65	42.6	Dark grey mudstone and carbonaceous mudstone with minor sandstone
42.6	44.02	Pale grey to cream, medium to coarse grained quartz sandstone with dark grey carbonaceous mudstone banding
44.02	46.25	Pale grey to cream, medium to coarse-grained quartz sandstone with minor dark grey carbonaceous mudstone banding
46.25	46.95	Dark grey mudstone to medium grained sandstone (fining upwards)
46.95	50.37	Pale grey to cream, medium-grained quartz sandstone with carbonaceous mudstone flacer banding
50.37	51.27	Dark grey carbonaceous mudstone with minor coal and very minor vitric bands
51.27	51.75	Dark grey carbonaceous mudstone
51.75	55.35	Medium to dark grey mudstone and carbonaceous mudstone with very minor vitric coal bands
55.35	55.55	Bright vitric coal with some carbonaceous mudstone bands
55.55	58.4	Medium to dark grey mudstone with minor carbonaceous mudstone and minor medium-grained sandstone
58.4	59.1	Grey to dark grey, medium-grained sandstone with carbonaceous mudstone flacer banding
59.1	62.18	Medium to dark grey mudstone and carbonaceous mudstone with minor sandstone increasing down hole
62.18	64.12	Grey, medium-grained lithic sandstone with dark grey to black flacer banding in a series of small fining upward cycles

64.12	64.4	Dark grey to black carbonaceous mudstone
64.4	64.8	Interbedded dark grey to black carbonaceous mudstone and medium-grained sandstone
64.8	64.9	Bright broken coal
64.9	64.97	Black carbonaceous mudstone and coal
64.97	69.52	Interbedded fine to medium-grained sandstone with carbonaceous mudstone flacer banding. Frequent cross-bedding
69.52	75.13	Light grey, fine to medium-grained sandstone interbedded with mudstone and carbonaceous mudstone. Increasing sandstone abundance down hole. Carbonaceous, conglomeratic sized, mudstone rip-up clasts at 74.5m
75.13	76.45	Interbedded dark grey to black, carbonaceous mudstone, mudstone and medium-grained pale sandstone
76.45	79.8	Pale grey, medium-grained quartz sandstone with minor carbonaceous mudstone flacer banding
79.8	81.18	Medium-grained, pale grey quartz sandstone with dark grey to black carbonaceous mudstone flacer banding
81.18	94.73	Grey Lithic sandstone with minor to very minor carbonaceous mudstone banding up hole. Compressed carbonaceous mudstone clasts and <i>dichroidium</i> fossils throughout. Carbonaceous mudstone banding also present at 90.2, 91, 93.3m and base of unit. Carbonaceous mudstone rip-up clasts at 83.7-84m
94.73	96	Pale grey, medium-grained quartz sandstone with minor carbonaceous mudstone banding
96	97.15	Grey mudstone and carbonaceous mudstone interbedded with minor sandstone
97.15	102.25	Dark grey to grey mudstone and carbonaceous mudstone with increasing sandstone down hole. Carbonaceous mudstone clasts at 102m
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