

Waukivory 14

Project	AGL	Easting	402906.1	Collar	99.7
Organization		Northing	6452384.08	Total Depth	1015
Site		Grid	GDA-94	Inclination	0
Hole Type	Open hole	Accuracy		Azimuth	0
		Datum	Australian Height Datum		

Commenced	21/10/12	Drilling Company	ENS
Completed	25/10/12	Drill Rig Type	

Plug Depth	0	Cased Depth	0
Logging Company		Casing Type	
Logged By		Size of Casing	0
Encoded By		Fluid	
Core Type		Upper Standing Water Level	0
Drill Bit Type		Lower	0
		Downhole Logging Company	
		Lease	PEL 258

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|--------------------------------------|--------------------------------------|---------------------------------------|---|---|--|----------------------------------|
| <input type="checkbox"/> Gamma Log | <input type="checkbox"/> Neutron Log | <input type="checkbox"/> Density Log | <input type="checkbox"/> Bed Resolution Log | <input type="checkbox"/> Self Potential Log | <input type="checkbox"/> Resistivity Log | <input type="checkbox"/> Dip Log |
| <input type="checkbox"/> Caliper Log | <input type="checkbox"/> Sonic Log | <input type="checkbox"/> Photographed | <input type="checkbox"/> X Rayed | <input type="checkbox"/> Geotechnical Log | | |

From	To	
14	17	SANDSTONE, fine grained, light grey, micaceous occasional silty; fresh, moderately strong, CRA
17	20	SANDSTONE 80%, fine grained, light grey white, lithic rare micaceous stringers of coal; intermixed with COAL 20%, dark grey black, interbanded dull & bright(>40%) occasional coal,banded silty; fresh, strong, carbonaceous fragments, CRA
20	23	SANDSTONE, fine grained, grey, lithic moderately sorted; fresh, strong, CRA
23	26	SANDSTONE 90%, fine-medium grained, grey, occasional silty occasional muddy; intermixed with STONY COAL 10%, black; fresh, strong, CRA
26	32	SANDSTONE, fine-medium grained, grey, lithic minor coaly high sphericity, well-rounded; fresh, strong, CRA
32	35	SILTSTONE, grey, minor sandy high sphericity, well-rounded; fresh, strong, CRA
35	38	SANDSTONE, fine-medium grained, grey, minor silty minor muddy; fresh, strong, CRA
38	44	SANDSTONE, fine-medium grained, grey, abundant silty high sphericity, well-rounded lithic; fresh, strong, CRA
44	47	SANDSTONE 60%, fine grained, grey, lithic; intermixed with SILTSTONE 40%, grey, high sphericity, well-rounded; fresh, strong, CRA
47	50	SANDSTONE, very fine grained, grey dark grey, lithic lithic-quartz; fresh, moderately strong, CRA
50	53	SANDSTONE, very fine grained, grey dark grey, coaly high sphericity, well-rounded minor silty; fresh, moderately strong, CRA
53	56	SILTSTONE, grey; fresh, moderately strong, CRA

From	To	Description
56	59	SANDSTONE, fine grained, grey, coaly high sphericity, well-rounded minor silty; fresh, moderately strong, CRA
59	62	SILTSTONE, grey, minor sandy high sphericity, well-rounded; fresh, moderately strong, CRA
62	65	SANDSTONE 65%, fine-medium grained, grey, lithic; intermixed with SILTSTONE 35%, grey, high sphericity, well-rounded; fresh, moderately strong, CRA
65	68	SILTSTONE 55%, grey, high sphericity, well-rounded; intermixed with SANDSTONE 45%, fine grained, grey, lithic; fresh, moderately strong, CRA
68	71	SANDSTONE, fine grained, grey, lithic minor silty high sphericity, well-rounded; fresh, moderately strong, CRA
71	74	TUFF 60%, cream, coaly high sphericity, well-rounded; intermixed with SANDSTONE 40%, fine grained, grey, coaly high sphericity, well-rounded; fresh, weak, CRA
74	77	SANDSTONE 90%, fine grained, grey, abundant tuffaceous; with STONY COAL 10%, black, dull, tends to stony; fresh, moderately strong, CRA
77	86	SANDSTONE, fine grained, grey, minor carbonaceous minor silty; fresh, moderately strong, CRA
86	89	SILTSTONE 50%, grey, high sphericity, well-rounded; intermixed with SANDSTONE 50%, fine grained, grey, lithic; fresh, moderately strong, CRA
89	92	SILTSTONE 60%, dark grey, abundant coaly high sphericity, well-rounded; intermixed with SANDSTONE 40%, fine grained, grey, abundant coaly high sphericity, well-rounded; fresh, moderately strong, CRA
92	95	SANDSTONE, fine-medium grained, grey, minor coaly high sphericity, well-rounded lithic; fresh, moderately strong, CRA
95	99	SANDSTONE 90%, fine-medium grained, grey, lithic minor silty high sphericity, well-rounded; intermixed with STONY COAL 10%, black, dull, tends to stony; fresh, moderately strong, CRA
99	107	SANDSTONE, fine-medium grained, grey, minor coaly minor silty; fresh, moderately strong, CRA
107	110	SANDSTONE, fine grained, grey, minor coaly; fresh, moderately strong, CRA
110	113	SANDSTONE 80%, fine grained, grey; intermixed with STONY COAL 20%, black; fresh, moderately strong, CRA
113	116	SANDSTONE, fine grained, grey, lithic; fresh, moderately strong, CRA
116	119	SANDSTONE 70%, fine grained, grey, lithic; intermixed with STONY COAL 30%, brownish black, dull, tends to stony; fresh, moderately strong, CRA
119	122	SANDSTONE 50%, fine grained, grey, lithic; intermixed with SILTSTONE 30%, DH, sandy in part; with STONY COAL 20%, black, dull, tends to stony stony throughout; fresh, moderately strong, CRA
122	124.57	SANDSTONE, fine grained, grey, minor coaly lithic; fresh, moderately strong, CRA
124.57	124.71	COAL UNDIFF., black, dull, tends to stony; fresh, weak, CRA
124.71	125.71	SANDSTONE, fine-medium grained, grey, minor coaly lithic; fresh, moderately strong, CRA
125.71	125.92	COAL UNDIFF., black, dull, tends to stony; fresh, weak, CRA
125.92	128.8	SANDSTONE, fine-medium grained, grey, minor coaly lithic; fresh, moderately strong, CRA
128.8	128.93	COAL UNDIFF., black, dull, tends to stony stony; fresh, moderately strong, CRA
128.93	129.46	SANDSTONE, grey, lithic; fresh, moderately strong, CRA
129.46	129.61	COAL UNDIFF., black, dull, tends to stony; fresh, moderately strong, CRA

From	To	Description
129.61	129.81	SANDSTONE, grey, lithic; fresh, moderately strong, CRA
129.81	129.86	COAL UNDIFF., black, dull, tends to stony; fresh, weak, CRA
129.86	130.26	SANDSTONE, grey, lithic; fresh, moderately strong, CRA
130.26	130.37	COAL UNDIFF., black, dull, tends to stony; fresh, weak, CRA
130.37	133	SILTSTONE, grey, sandy in part; fresh, moderately strong, CRA
133	136.01	SANDSTONE, fine grained, grey, lithic minor silty high sphericity, well-rounded; fresh, moderately strong, CRA
136.01	136.08	COAL UNDIFF., black; fresh, weak, CRA
136.08	139	SANDSTONE 80%, fine grained, grey, lithic minor silty; with COAL UNDIFF. 20%, black, dull, tends to stony; fresh, moderately strong, CRA
139	142.89	SANDSTONE, fine grained, grey, lithic minor coaly high sphericity, well-rounded; fresh, moderately strong, CRA
142.89	143.48	COAL, dull, tends to stony; fresh, weak, CRA
143.48	144.18	SANDSTONE, fine grained, grey, lithic; fresh, moderately strong, CRA
144.18	144.8	COAL, black, mainly dull, frequent bright bands(>10%); fresh, weak, CRA
144.8	148	SANDSTONE 90%, fine grained, grey, lithic; with COAL 10%, black; fresh, moderately strong, CRA
148	151	SANDSTONE, fine grained, grey, lithic minor coaly; fresh, moderately strong, CRA
151	155.81	SANDSTONE, fine grained, grey, lithic; fresh, moderately strong, CRA
155.81	155.93	COAL UNDIFF., black, dull(<1% bright); fresh, weak, CRA
155.93	158.83	SANDSTONE 65%, fine grained, grey, lithic minor coaly high sphericity, well-rounded; with SILTSTONE 35%, grey, minor coaly high sphericity, well-rounded; fresh, moderately strong, CRA
158.83	158.91	COAL UNDIFF., black, dull(<1% bright); fresh, weak, CRA
158.91	160	SANDSTONE 65%, fine grained, grey, lithic minor coaly high sphericity, well-rounded; with SILTSTONE 35%, grey, minor coaly high sphericity, well-rounded; fresh, moderately strong, CRA
160	163	SANDSTONE, fine grained, grey, lithic lithic-quartz; fresh, moderately strong, CRA
163	164.6	SANDSTONE 70%, fine-medium grained, grey, lithic coaly high sphericity, well-rounded; with SILTSTONE 30%, grey, coaly high sphericity, well-rounded; fresh, moderately strong, CRA
164.6	164.69	COAL UNDIFF., black; fresh, moderately strong, CRA
164.69	169	SANDSTONE, fine-medium grained, grey, lithic lithic-quartz; fresh, moderately strong, CRA
169	172	SANDSTONE, fine grained, grey, lithic rare coaly; fresh, moderately strong, CRA
172	180.03	TUFF, light grey, high sphericity, well-rounded rare coaly; fresh, strong, CRA
180.03	180.33	COAL, black, dull, minor bright bands(>1%); fresh, weak, CRA
180.33	180.83	SANDSTONE, fine grained, grey, lithic; fresh, moderately strong, CRA

From	To	Description
180.83	181.39	COAL, black, dull, minor bright bands(>1%) occasional; fresh, weak, CRA
181.39	184	SANDSTONE 80%, fine grained, grey, lithic; with COAL UNDIFF. 20%, black; fresh, moderately strong, CRA
184	187.19	SANDSTONE, fine grained, grey, lithic minor coaly; fresh, moderately strong, CRA
187.19	187.37	COAL UNDIFF., black; fresh, weak, CRA
187.37	187.56	SANDSTONE, fine grained, grey, lithic; fresh, moderately strong, CRA
187.56	187.71	COAL UNDIFF., black; fresh, weak, CRA
187.71	187.9	SANDSTONE, fine grained, grey, lithic; fresh, moderately strong, CRA
187.9	188.12	COAL UNDIFF., black; fresh, weak, CRA
188.12	195.4	SANDSTONE 90%, fine grained, grey, lithic; with COAL 10%, black; fresh, moderately strong, CRA
195.4	195.52	COAL UNDIFF., black; fresh, weak, CRA
195.52	196.77	SANDSTONE, fine grained, grey, lithic rare coaly; fresh, moderately strong, CRA
196.77	197.3	COAL, black, dull, minor bright bands(>1%) occasional; fresh, weak, CRA
197.3	198.68	SANDSTONE, grey; fresh, moderately strong, CRA
198.68	198.93	COAL UNDIFF., black; fresh, weak, CRA
198.93	202.5	SANDSTONE, fine grained, grey; fresh, moderately strong, CRA
202.5	202.8	COAL UNDIFF., black, dull(<1% bright); fresh, weak, CRA
202.8	208	SANDSTONE, fine grained, grey, lithic; fresh, moderately strong, CRA
208	210.99	SANDSTONE 80%, fine grained, grey, lithic; with SILTSTONE 20%, grey; fresh, moderately strong, CRA
210.99	211.32	COAL UNDIFF., black; fresh, weak, CRA
211.32	215.95	SANDSTONE, fine grained, grey, lithic coaly high sphericity, well-rounded; fresh, moderately strong, CRA
215.95	216.13	COAL UNDIFF., black; fresh, weak, CRA
216.13	218.37	SILTSTONE 60%, grey, coaly high sphericity, well-rounded; with SANDSTONE 40%, fine grained, grey, lithic coaly high sphericity, well-rounded; fresh, moderately strong, CRA
218.37	218.49	COAL UNDIFF., black; fresh, weak, CRA
218.49	220	SILTSTONE 60%, grey, coaly high sphericity, well-rounded; with SANDSTONE 40%, fine grained, grey, lithic coaly high sphericity, well-rounded; fresh, moderately strong, CRA
220	223	SANDSTONE 95%, fine grained, grey, lithic silty in part; with COAL 5%, black; fresh, moderately strong, CRA
223	226	SANDSTONE 65%, fine grained, grey, lithic coaly high sphericity, well-rounded; with SILTSTONE 35%, grey, coaly high sphericity, well-rounded; fresh, moderately strong, CRA
226	232	SANDSTONE, fine grained, grey, lithic minor silty high sphericity, well-rounded; fresh, moderately strong, CRA

From	To	Description
232	238	SANDSTONE 70%, fine-medium grained, grey, lithic lithic-quartz rare coaly; with SILTSTONE 30%, grey; fresh, moderately strong, CRA
238	241	SANDSTONE, fine-medium grained, grey, silty in part; fresh, moderately strong, CRA
241	244	SANDSTONE 90%, fine grained, grey, lithic; with COAL 10%, black; fresh, moderately strong, CRA
244	256.76	SANDSTONE, fine-medium grained, grey, lithic minor silty high sphericity, well-rounded; fresh, moderately strong, CRA
256.76	257.04	COAL UNDIFF., black, dull(<1% bright); fresh, weak, CRA
257.04	265	SANDSTONE 65%, fine grained, grey, lithic coaly high sphericity, well-rounded; with SILTSTONE 35%, grey, coaly high sphericity, well-rounded; fresh, moderately strong, CRA
265	267.64	SILTSTONE, grey, abundant sandy high sphericity, well-rounded; fresh, moderately strong, CRA
267.64	267.85	COAL UNDIFF., black, dull, tends to stony; fresh, weak, CRA
267.85	268.01	SANDSTONE, fine grained, grey, lithic; fresh, moderately strong, CRA
268.01	268.26	COAL UNDIFF., black; fresh, weak, CRA
268.26	268.58	SANDSTONE, grey, lithic; fresh, moderately strong, CRA
268.58	268.91	COAL UNDIFF., black; fresh, weak, CRA
268.91	269.1	SANDSTONE, fine grained, grey, lithic; fresh, moderately strong, CRA
269.1	269.17	COAL UNDIFF., black; fresh, weak, CRA
269.17	269.37	SANDSTONE, fine grained, grey, lithic; fresh, moderately strong, CRA
269.37	269.45	COAL UNDIFF., black; fresh, weak, CRA
269.45	269.99	SANDSTONE, fine grained, grey, lithic; fresh, moderately strong, CRA
269.99	270.26	COAL UNDIFF., black, dull(<1% bright); fresh, weak, CRA
270.26	279.51	SANDSTONE 70%, light grey, moderately sorted quartz-lithic; intermixed with SILTSTONE 30%, grey brown, occasional coal,banded rare stringers of coal; fresh, strong, CRA
279.51	279.61	COAL UNDIFF., black; fresh, weak, CRA
279.61	281.5	SANDSTONE 70%, light grey, moderately sorted quartz-lithic; intermixed with SILTSTONE 30%, grey brown, occasional coal,banded rare stringers of coal; fresh, strong, CRA
281.5	281.65	COAL UNDIFF., black; fresh, weak, CRA
281.65	282.48	SANDSTONE, grey, lithic; fresh, moderately strong, CRA
282.48	282.78	COAL, black, dull, minor bright bands(>1%); fresh, weak, CRA
282.78	286.99	SANDSTONE 70%, light grey, moderately sorted quartz-lithic; intermixed with SILTSTONE 30%, grey brown, occasional coal,banded rare stringers of coal; fresh, strong, CRA
286.99	287.13	COAL UNDIFF., black; fresh, weak, CRA

From	To	Description
287.13	287.59	SANDSTONE, fine grained, grey, lithic; fresh, moderately strong, CRA
287.59	287.78	COAL UNDIFF., black; fresh, weak, CRA
287.78	292.41	SANDSTONE 90%, fine grained, light grey, moderately sorted lithic SV; intermixed with SILTSTONE 10%, dark grey, sandy rare coal,banded; fresh, strong, CRA
292.41	292.5	COAL UNDIFF., black; fresh, weak, CRA
292.5	298	SANDSTONE 80%, fine grained, grey, moderately sorted lithic occasional coal,banded; intermixed with SILTSTONE 20%, dark grey brown, coal,banded low sphericity, very angular; fresh, strong, CRA
298	301	SANDSTONE 90%, fine grained, grey, moderately to well sorted lithic coal,banded; intermixed with SILTSTONE 10%, dark grey brown, abundant coal,banded; fresh, strong, CRA
301	305.61	SANDSTONE, fine grained, light grey grey, moderately sorted rare coal,banded tuffaceous; fresh, strong, CRA
305.61	306.07	COAL, black, dull, minor bright bands(>1%); fresh, weak, CRA
306.07	306.27	SANDSTONE, grey; fresh, moderately strong, CRA
306.27	306.38	COAL UNDIFF., black; fresh, weak, CRA
306.38	307.97	SANDSTONE 90%, fine grained, grey, moderately sorted rare coal,banded; intermixed with TUFF 10%, cream, silty; fresh, moderately strong, CRA
307.97	308.12	COAL UNDIFF., black; fresh, weak, CRA
308.12	310	SANDSTONE 90%, fine grained, dark grey, moderately sorted coal,banded rare micaceous; intermixed with COAL 10%, dark grey black, abundant coal,banded silty; fresh, moderately strong, CRA
310	316	SANDSTONE, fine grained, dark grey, coal,banded rare tuffaceous silty; fresh, moderately strong, carbonaceous fragments, CRA
316	319	SANDSTONE 80%, fine grained, grey, possibly tuffaceous moderately sorted; intermixed with SILTSTONE 20%, dark grey, occasional coal,banded; fresh, moderately strong, CRA
319	321.76	SANDSTONE, fine grained, dark grey, rare silty occasional coal,banded; fresh, strong, carbonaceous fragments, CRA
321.76	322.13	COAL UNDIFF., black, dull, minor bright bands(>1%); fresh, weak, CRA
322.13	322.8	SANDSTONE, fine grained, grey, lithic; fresh, moderately strong, CRA
322.8	323.11	COAL UNDIFF., black; fresh, weak, CRA
323.11	324.39	SANDSTONE 70%, fine grained, dark grey, abundant coal,banded; intermixed with COAL 30%, dark grey black, occasional coal,banded stringers of coal; fresh, strong, CRA
324.39	324.59	COAL UNDIFF., black; fresh, weak, CRA
324.59	324.71	SANDSTONE, fine grained, grey; fresh, moderately strong, CRA
324.71	325.55	COAL, black, mainly dull, frequent bright bands(>10%); fresh, weak, CRA
325.55	325.84	SANDSTONE, grey; fresh, moderately strong, CRA
325.84	326.06	COAL UNDIFF., black; fresh, weak, CRA

From	To	Description
326.06	326.36	SANDSTONE, fine grained, grey, lithic; fresh, moderately strong, CRA
326.36	326.53	COAL UNDIFF., black; fresh, weak, CRA
326.53	331	SANDSTONE 90%, fine grained, grey light grey, possibly tuffaceous moderately sorted; intermixed with COAL UNDIFF. 10%, dark grey black, coal,banded silty in part; fresh, moderately strong, CRA
331	334	SILTSTONE 60%, dark grey brown, abundant coal,banded rare coaly; intermixed with SANDSTONE 40%, fine grained, grey, lithic moderately sorted possibly tuffaceous; fresh, strong, carbonaceous fragments, CRA
334.35	334.65	COAL UNDIFF., black; fresh, weak, CRA
334.65	336.38	SANDSTONE 90%, fine grained, dark grey, S sandy lithic occasional micaceous; intermixed with COAL UNDIFF. 10%, dark grey black, mainly dull, frequent bright bands(>10%) coal,banded in part; fresh, strong, carbonaceous fragments, CRA
336.38	336.68	COAL UNDIFF., black, dull, tends to stony; fresh, weak, CRA
336.68	340	SANDSTONE 80%, fine grained, dark grey, lithic; with COAL UNDIFF. 20%, fine grained, black, dull, tends to stony; fresh, strong, CRA
340	346	SANDSTONE 90%, fine grained, dark grey, lithic micaceous; intermixed with COAL UNDIFF. 10%, black, mainly dull, frequent bright bands(>10%); fresh, strong, carbonaceous fragments, CRA
346	349	SANDSTONE 80%, fine grained, dark grey, lithic micaceous; intermixed with COAL UNDIFF. 20%, black, W dull, minor bright bands(>1%); fresh, strong, carbonaceous fragments, CRA
349	353.14	SANDSTONE 60%, fine grained, dark grey, S lithic micaceous tuffaceous in part; intermixed with COAL 40%, black, dull, minor bright bands(>1%); fresh, H, carbonaceous fragments, CRA
353.14	353.37	COAL UNDIFF., black, dull, tends to stony; fresh, weak, CRA
353.37	353.52	SANDSTONE, fine grained, grey, lithic; fresh, moderately strong, CRA
353.52	353.77	COAL UNDIFF., black, dull, tends to stony; fresh, weak, CRA
353.77	357.81	SANDSTONE, grey; fresh, moderately strong, CRA
357.81	358.09	COAL UNDIFF., black, dull(<1% bright); fresh, weak, CRA
358.09	361	SANDSTONE 80%, fine grained, dark grey, lithic; intermixed with COAL 20%, black, mainly dull, frequent bright bands(>10%); fresh, strong, CRA
361	364	SANDSTONE 90%, fine grained, light grey, lithic micaceous; intermixed with COAL 10%, black, dull, minor bright bands(>1%); fresh, strong, secondary calcite, CRA
364	367	SANDSTONE 90%, fine grained, light grey, lithic; intermixed with COAL 10%, black, dull, minor bright bands(>1%); fresh, strong, carbonaceous fragments, secondary calcite, CRA
367	370	SANDSTONE, fine-medium grained, light grey, lithic coaly silty low sphericity, very angular; fresh, strong, secondary calcite, CRA
370	376	SANDSTONE 80%, fine-medium grained, light grey, lithic rare coal,banded; intermixed with SILTSTONE 20%, dark grey; fresh, strong, secondary calcite, CRA
376	379	SANDSTONE, fine-medium grained, light grey, lithic; fresh, strong, secondary calcite, CRA
379	382	SANDSTONE, fine-medium grained, light grey, lithic occasional coal,banded; fresh, very strong, secondary calcite, CRA

From	To	Description
382	384.48	SANDSTONE 80%, fine-medium grained, light grey, lithic rare coal,banded; intermixed with SILTSTONE 20%, dark grey; fresh, very strong, secondary calcite, CRA
384.48	384.67	COAL UNDIFF., black; fresh, weak, CRA
384.67	384.77	SANDSTONE, grey; fresh, moderately strong, CRA
384.77	385.01	COAL UNDIFF., black; fresh, weak, CRA
385.01	385.25	SANDSTONE, light grey, lithic; fresh, moderately strong, CRA
385.25	385.53	COAL UNDIFF., black; fresh, weak, CRA
385.53	386.62	SANDSTONE 80%, fine-medium grained, light grey, lithic rare silty low sphericity, very angular; intermixed with COAL UNDIFF. 20%, black, dull, minor bright bands(>1%); fresh, very strong, CRA
386.62	388.18	COAL, black, mainly dull, frequent bright bands(>10%); fresh, weak, CRA
388.18	392.52	SANDSTONE 80%, fine-medium grained, dark grey, lithic; with COAL UNDIFF. 20%, black, dull, minor bright bands(>1%); fresh, strong, CRA
392.52	392.81	COAL UNDIFF., black, dull, minor bright bands(>1%); fresh, weak, CRA
392.81	393.12	SANDSTONE, fine-medium grained, grey, lithic; fresh, moderately strong, CRA
393.12	393.82	COAL, black, dull, minor bright bands(>1%); fresh, weak, CRA
393.82	397	SANDSTONE 70%, fine-medium grained, light grey, lithic; intermixed with COAL 30%, black, dull, minor bright bands(>1%); fresh, strong, carbonaceous fragments, CRA
397	400	SANDSTONE 90%, fine-medium grained, light grey, lithic rare silty low sphericity, very angular; intermixed with COAL 10%, black, dull(<1% bright); fresh, strong, carbonaceous fragments, secondary calcite, CRA
400	403	SANDSTONE 90%, fine-medium grained, light grey, lithic tuffaceous in part; intermixed with COAL 10%, black, dull(<1% bright); fresh, strong, CRA
403	409	SANDSTONE 60%, fine-medium grained, light grey, lithic occasional coal,banded; intermixed with SILTSTONE 40%, dark grey; fresh, strong, carbonaceous fragments, secondary calcite, CRA
409	412	SANDSTONE 90%, fine-medium grained, light grey, lithic; intermixed with COAL 10%, black, dull(<1% bright); fresh, strong, carbonaceous wisps, CRA
412	415	SANDSTONE 60%, fine-medium grained, light grey, lithic rare coal,banded; intermixed with SILTSTONE 40%, dark grey; fresh, strong, carbonaceous wisps, secondary calcite, CRA
415	419.24	SANDSTONE 70%, fine-medium grained, dark grey, coal,banded dull(<1% bright) lithic; intermixed with SILTSTONE 30%, dark grey; fresh, strong, secondary calcite, CRA
419.24	420.26	COAL, black, mainly dull, frequent bright bands(>10%); fresh, weak, CRA
420.26	420.45	SANDSTONE, light grey; fresh, moderately strong, CRA
420.45	420.75	COAL UNDIFF., black; fresh, weak, CRA
420.75	421.02	SILTSTONE 40%, dark grey; fresh, moderately strong, CRA
421.02	421.45	COAL UNDIFF., black, dull, minor bright bands(>1%); fresh, weak, CRA

From	To	Description
421.45	427.74	SANDSTONE 80%, fine-medium grained, light grey, lithic silty low sphericity, very angular throughout; intermixed with COAL 20%, black, dull(<1% bright) tuffaceous in part; fresh, strong, CRA
427.74	428.01	COAL UNDIFF., black, dull(<1% bright); fresh, weak, CRA
428.01	431.82	SANDSTONE 80%, fine-medium grained, light grey, lithic tuffaceous in part; intermixed with COAL 20%, black, dull(<1% bright); fresh, WM, CRA
431.82	431.86	COAL UNDIFF., black; fresh, CRA
431.86	433	SILTSTONE 90%, dark grey; with COAL 10%, black, minor high sphericity, well-rounded; fresh, moderately strong, CRA
433	439	SANDSTONE, fine-medium grained, grey, lithic silty coaly high sphericity, well-rounded; fresh, moderately strong, CRA
439	448	SANDSTONE, fine grained, grey, lithic lithic-quartz rare coaly; fresh, moderately strong, CRA
448	453.34	SANDSTONE, fine-medium grained, grey, lithic lithic-quartz coaly high sphericity, well-rounded; fresh, moderately strong, CRA
453.34	453.55	COAL UNDIFF., black; fresh, weak, CRA
453.55	453.9	SANDSTONE, fine-medium grained, grey, lithic; fresh, moderately strong, CRA
453.9	454.02	COAL UNDIFF., GBL; fresh, weak, CRA
454.02	454.35	SANDSTONE, fine-medium grained, grey, lithic; fresh, moderately strong, CRA
454.35	454.81	COAL UNDIFF., black; fresh, weak, CRA
454.81	456.26	SILTSTONE 90%, grey, sandy high sphericity, well-rounded throughout; with COAL 10%, black, high sphericity, well-rounded; fresh, moderately strong, CRA
456.26	456.9	COAL, black, mainly dull, frequent bright bands(>10%); fresh, weak, CRA
456.9	457.03	SANDSTONE, grey; fresh, moderately strong, CRA
457.03	457.27	COAL UNDIFF., black; fresh, weak, CRA
457.27	458.93	SANDSTONE 55%, fine grained, grey, lithic coaly high sphericity, well-rounded throughout; with SILTSTONE 45%, grey, coaly high sphericity, well-rounded throughout; fresh, moderately strong, CRA
458.93	459.14	COAL UNDIFF., black, dull, tends to stony; fresh, weak, CRA
459.14	459.31	SANDSTONE, grey, lithic; fresh, moderately strong, CRA
459.31	459.76	COAL, black, dull, minor bright bands(>1%); fresh, weak, CRA
459.76	463	CARBONACEOUS SILTSTONE, dark grey, sandy in part coaly in part; fresh, moderately strong, CRA
463	466	SANDSTONE, fine grained, grey, lithic minor silty minor coaly; fresh, moderately strong, CRA
466	473.88	SANDSTONE, fine-medium grained, grey, lithic coaly high sphericity, well-rounded; fresh, moderately strong, CRA
473.88	473.98	COAL UNDIFF., black; fresh, weak, CRA
473.98	474.2	SILTSTONE, dark grey; fresh, moderately strong, CRA
474.2	474.32	COAL UNDIFF., black, dull(<1% bright); fresh, weak, CRA

From	To	Description
474.32	474.6	SILTSTONE, dark grey; fresh, moderately strong, CRA
474.6	475.02	COAL, black, dull, minor bright bands(>1%); fresh, weak, CRA
475.02	477.26	SILTSTONE 60%, dark grey, sandy throughout; intermixed with SANDSTONE 40%, fine-medium grained, grey, silty high sphericity, well-rounded throughout; fresh, moderately strong, CRA
477.26	477.92	COAL, black, mainly dull, frequent bright bands(>10%); fresh, weak, CRA
477.92	478.17	SANDSTONE, dark grey; fresh, strong, CRA
478.17	478.31	COAL UNDIFF., black; fresh, weak, CRA
478.31	478.68	SANDSTONE, dark grey; fresh, strong, CRA
478.68	478.74	COAL UNDIFF., black; fresh, weak, CRA
478.74	479.17	SANDSTONE, light grey; fresh, moderately strong, CRA
479.17	479.23	COAL UNDIFF., black; fresh, weak, CRA
479.23	480.03	SILTSTONE 70%, dark grey, sandy throughout; with COAL 30%, black, sandy throughout; fresh, moderately strong, CRA
480.03	480.68	COAL, black, mainly dull, frequent bright bands(>10%); fresh, weak, CRA
480.68	481.73	SILTSTONE 70%, dark grey, sandy throughout; with COAL 30%, black, sandy throughout; fresh, moderately strong, CRA
481.73	481.89	COAL UNDIFF., black; fresh, weak, CRA
481.89	489.11	SILTSTONE, dark grey, sandy; fresh, moderately strong, CRA
489.11	489.78	COAL, black, dull, minor bright bands(>1%) occasional; fresh, weak, CRA
489.78	490.15	SANDSTONE, dark grey; fresh, moderately strong, CRA
490.15	490.79	COAL, black, dull, minor bright bands(>1%) occasional; fresh, weak, CRA
490.79	491.34	CARBONACEOUS SILTSTONE 50%, black, silty high sphericity, well-rounded throughout; with SANDSTONE 50%, fine grained, grey, minor coaly lithic; fresh, moderately strong, CRA
491.34	491.47	COAL UNDIFF., black; fresh, weak, CRA
491.47	493.05	CARBONACEOUS SILTSTONE 60%, black, silty high sphericity, well-rounded throughout; with SANDSTONE 40%, fine grained, grey, minor coaly lithic; fresh, moderately strong, CRA
493.05	493.16	COAL UNDIFF., black; fresh, weak, CRA
493.16	496	CARBONACEOUS SILTSTONE 50%, black, silty high sphericity, well-rounded throughout; with SANDSTONE 50%, fine grained, grey, minor coaly lithic; fresh, moderately strong, CRA
496	499	SANDSTONE, fine grained, grey, coaly high sphericity, well-rounded silty high sphericity, well-rounded; fresh, moderately strong, CRA
499	505	SANDSTONE, fine grained, grey, lithic minor silty; fresh, moderately strong, CRA
505	508	SANDSTONE, fine grained, grey, lithic coaly high sphericity, well-rounded minor silty; fresh, moderately strong, CRA

From	To	Description
508	523	SANDSTONE, fine grained, grey, lithic lithic-quartz silty in part; fresh, moderately strong, CRA
523	526	SANDSTONE, fine grained, grey, lithic minor silty minor coaly; fresh, moderately strong, CRA
526	531.85	SANDSTONE, fine grained, grey, lithic; fresh, moderately strong, CRA
531.85	532.12	COAL UNDIFF., black, dull(<1% bright); fresh, weak, CRA
532.12	532.36	SANDSTONE, fine grained, grey; fresh, moderately strong, CRA
532.36	533.42	COAL, black, mainly dull, frequent bright bands(>10%); fresh, weak, CRA
533.42	533.53	SANDSTONE, fine grained, grey; fresh, moderately strong, CRA
533.53	534.13	COAL, black, dull, minor bright bands(>1%) in part; fresh, weak, CRA
534.13	535.1	SANDSTONE, fine grained, grey, lithic; fresh, moderately strong, CRA
535.1	535.7	COAL, black in part dull, minor bright bands(>1%); fresh, weak, CRA
535.7	536.42	SANDSTONE, fine grained, grey, lithic minor coaly coaly high sphericity, well-rounded; fresh, moderately strong, CRA
536.42	536.65	COAL UNDIFF., black, dull(<1% bright); fresh, weak, CRA
536.65	537.15	SANDSTONE 70%, fine grained, grey, lithic minor coaly coaly high sphericity, well-rounded; with COAL UNDIFF. 30%, black; fresh, moderately strong, CRA
537.15	537.44	COAL UNDIFF., black; fresh, weak, CRA
537.44	539.55	SANDSTONE 70%, fine grained, grey, lithic; with COAL UNDIFF. 30%, black; fresh, moderately strong, CRA
539.55	539.9	COAL UNDIFF., black, dull, tends to stony; fresh, weak, CRA
539.9	541.22	SANDSTONE 70%, fine grained, grey, lithic; with COAL 30%, black; fresh, moderately strong, CRA
541.22	542.04	COAL, black, occasional dull, minor bright bands(>1%); fresh, weak, CRA
542.04	544	SANDSTONE 70%, fine grained, grey, lithic minor coaly high sphericity, well-rounded; with SILTSTONE 30%, dark grey, sandy in part; fresh, moderately strong, CRA
544	547	SANDSTONE 70%, grey, lithic minor coaly laminations; with CARBONACEOUS SILTSTONE 30%, brownish black, sandy in part; fresh, moderately strong, CRA
547	550	SANDSTONE, fine grained, grey, lithic minor coaly high sphericity, well-rounded; fresh, moderately strong, CRA
550	557.7	SANDSTONE, fine grained, grey, rare coaly high sphericity, well-rounded minor silty; fresh, moderately strong, CRA
557.7	557.86	COAL UNDIFF., black, dull(<1% bright); fresh, weak, CRA
557.86	564.24	SANDSTONE, fine grained, grey, silty high sphericity, well-rounded coaly high sphericity, well-rounded; fresh, moderately strong, CRA
564.24	564.4	COAL UNDIFF., black, dull, tends to stony; fresh, weak, CRA
564.4	571	SANDSTONE, fine grained, grey, silty in part rare coaly; fresh, moderately strong, CRA
571	574	SANDSTONE, fine grained, light grey, occasional coal,banded; fresh, moderately strong, carbonaceous fragments, CRA

From	To	Description
574	577	SANDSTONE 90%, fine-medium grained, light grey, lithic; intermixed with COAL 10%, black, dull(<1% bright); fresh, strong, carbonaceous fragments, CRA
577	584.64	SANDSTONE 70%, fine-medium grained, light grey, lithic; intermixed with SILTSTONE 30%, dark grey, occasional coal,banded; fresh, strong, secondary calcite, CRA
584.64	584.75	COAL UNDIFF., black, dull(<1% bright); fresh, weak, CRA
584.75	588.82	SANDSTONE 60%, fine-medium grained, light grey, lithic carbonaceous in part; intermixed with SILTSTONE 40%, dark grey; fresh, strong, CRA
588.82	589.73	COAL, black in part dull, minor bright bands(>1%); fresh, weak, CRA
589.73	592	SANDSTONE 70%, fine-medium grained, light grey, lithic; intermixed with SILTSTONE 30%, dark grey, rare coal,banded; fresh, strong, CRA
592	595	SANDSTONE, fine grained, light grey, lithic occasional coal,banded silty; fresh, moderately strong, secondary calcite, CRA
595	598	SANDSTONE 90%, fine-medium grained, light grey, lithic; intermixed with COAL 10%, black, dull, minor bright bands(>1%); fresh, moderately strong, carbonaceous fragments, CRA
598	601.14	SANDSTONE, fine-medium grained, light grey, lithic rare coal,banded silty; fresh, strong, carbonaceous wisps, CRA
601.14	601.26	COAL UNDIFF., black, dull, tends to stony; fresh, weak, CRA
601.26	601.93	SANDSTONE, fine-medium grained, grey, lithic; fresh, moderately strong, CRA
601.93	602.11	COAL UNDIFF., black, dull, tends to stony; fresh, weak, CRA
602.11	611.54	SANDSTONE 80%, fine-medium grained, light grey, lithic rare coal,banded; intermixed with SILTSTONE 20%, dark grey; fresh, strong, CRA
611.54	612.39	COAL, black, occasional; fresh, weak, CRA
612.39	612.92	SANDSTONE, fine-medium grained, grey, lithic; fresh, moderately strong, CRA
612.92	613.21	COAL UNDIFF., black, dull, tends to stony; fresh, weak, CRA
613.21	613.33	SANDSTONE, fine grained, light grey, lithic; fresh, moderately strong, CRA
613.33	617.84	COAL, black, mainly dull, frequent bright bands(>10%); fresh, weak, CRA
617.84	617.95	SANDSTONE, fine grained, light grey, lithic; fresh, moderately strong, CRA
617.95	618.36	COAL, black, dull, minor bright bands(>1%); fresh, weak, CRA
618.36	618.49	SANDSTONE, light grey; fresh, moderately strong, CRA
618.49	618.74	COAL UNDIFF., black, dull, tends to stony; fresh, weak, CRA
618.74	618.76	CARBONACEOUS SILTSTONE, brown; fresh, CRA
618.76	620.49	COAL, black, occasional dull, minor bright bands(>1%); fresh, weak, CRA
620.49	620.99	SANDSTONE, fine grained, light grey, lithic; fresh, moderately strong, CRA
620.99	621.17	COAL UNDIFF., black, dull(<1% bright); fresh, weak, CRA
621.17	621.26	SANDSTONE, light grey; fresh, CRA

From	To	Description
621.26	621.42	COAL UNDIFF., black, dull(<1% bright); fresh, weak, CRA
621.42	621.56	SANDSTONE, CRA
621.56	625.68	COAL, black, mainly dull, frequent bright bands(>10%); fresh, weak, CRA
625.68	628	SANDSTONE 80%, fine-medium grained, light grey; intermixed with COAL 20%, black, dull, minor bright bands(>1%); fresh, strong, CRA
628	631	SANDSTONE 70%, fine-medium grained, light grey, lithic; intermixed with COAL 30%, black, dull, minor bright bands(>1%); fresh, strong, CRA
631	634	SANDSTONE, fine-medium grained, light grey, lithic occasional coal,banded; fresh, strong, carbonaceous fragments, secondary calcite, CRA
634	640	SANDSTONE 90%, fine-medium grained, light grey, lithic; intermixed with COAL 10%, black, dull, minor bright bands(>1%); fresh, strong, carbonaceous fragments, CRA
640	643	SANDSTONE, fine-medium grained, light grey, lithic rare coal,banded; fresh, strong, carbonaceous fragments, secondary calcite, CRA
643	645.11	SANDSTONE 70%, fine-medium grained, light grey, lithic; intermixed with COAL 30%, black, dull, minor bright bands(>1%); fresh, strong, carbonaceous wisps, CRA
645.11	645.37	COAL UNDIFF., black, dull(<1% bright); fresh, weak, CRA
645.37	645.98	SANDSTONE, fine-medium grained, light grey, lithic occasional coal,banded; fresh, strong, carbonaceous wisps, CRA
645.98	652	COAL 90%, black, dull, minor bright bands(>1%); intermixed with SANDSTONE 10%, fine-medium grained, light grey; fresh, weak, CRA
652	655	COAL 70%, black, mainly dull, frequent bright bands(>10%); intermixed with SANDSTONE 30%, fine-medium grained, light grey; fresh, weak, CRA
655	658	COAL 60%, black, dull, minor bright bands(>1%); intermixed with SANDSTONE 40%, fine grained, light grey; fresh, weak, Secondary Pyrite, CRA
658	661	SANDSTONE, fine-medium grained, light grey, lithic rare coal,banded; fresh, strong, CRA
661	664	SANDSTONE 70%, fine-medium grained, light grey, lithic; intermixed with COAL 30%, black, dull, minor bright bands(>1%); fresh, strong, carbonaceous fragments, CRA
664	667	SANDSTONE, light grey, lithic micaceous; fresh, strong, carbonaceous fragments, CRA
667	670	SANDSTONE 70%, fine-medium grained, light grey, lithic; intermixed with COAL 30%, black, dull(<1% bright); fresh, strong, CRA
670	673	SANDSTONE, fine-medium grained, light grey, lithic occasional coal,banded; fresh, strong, secondary calcite, CRA
673	676	COAL 60%, black, mainly dull, frequent bright bands(>10%); intermixed with SANDSTONE 40%, fine-medium grained, dark grey; fresh, weak, CRA
676	682	SANDSTONE, fine-medium grained, light grey, lithic A coal,banded; fresh, strong, CRA
682	685	SANDSTONE 90%, fine-medium grained, light grey, lithic; intermixed with COAL 10%, black, mainly dull, frequent bright bands(>10%); fresh, strong, CRA
685	688	SANDSTONE 70%, fine-medium grained, light grey, lithic; intermixed with COAL 30%, black, dull, minor bright bands(>1%); fresh, strong, carbonaceous fragments, CRA
688	691	SANDSTONE, fine-medium grained, light grey, lithic rare coal,banded mainly dull, frequent bright bands(>10%); fresh, strong, Secondary Pyrite, CRA

From	To	Description
691	694	SANDSTONE 80%, fine-medium grained, light grey, lithic; intermixed with COAL 20%, black, dull, minor bright bands(>1%); fresh, strong, carbonaceous fragments, CRA
694	700	SANDSTONE, fine-medium grained, light grey, rare coal,banded dull(<1% bright); fresh, strong, CRA
700	703	SANDSTONE 70%, fine-medium grained, light grey, lithic; intermixed with COAL 30%, black, dull, minor bright bands(>1%); fresh, strong, carbonaceous fragments, CRA
703	712	SANDSTONE 80%, fine-medium grained, light grey, lithic; intermixed with COAL 20%, black, mainly dull, frequent bright bands(>10%); fresh, strong, CRA
712	718	SANDSTONE, fine-medium grained, light grey, lithic occasional coal,banded; fresh, strong, carbonaceous fragments, CRA
718	721	SANDSTONE, fine-medium grained, light grey, lithic silty low sphericity, very angular in part; fresh, strong, carbonaceous fragments, CRA
721	727	SANDSTONE 70%, fine-medium grained, light grey, lithic; intermixed with COAL 30%, black, dull, minor bright bands(>1%); fresh, strong, carbonaceous fragments, CRA
727	730	SANDSTONE 90%, fine-medium grained, dark grey, shaly in part; intermixed with COAL 10%, black, dull, minor bright bands(>1%); fresh, strong, AVO
730	736	SANDSTONE 70%, fine-medium grained, dark grey, shaly in part; intermixed with COAL 30%, black, mainly dull, frequent bright bands(>10%); fresh, strong, AVO
736	739	SANDSTONE, fine-medium grained, light grey, lithic coal,banded; fresh, strong, AVO
739	742	SANDSTONE 70%, fine-medium grained, light grey, lithic; intermixed with COAL 30%, black, mainly dull, frequent bright bands(>10%); fresh, strong, AVO
742	745	SANDSTONE, fine-medium grained, light grey, lithic rare coal,banded; fresh, strong, carbonaceous fragments, AVO
745	748	SANDSTONE, fine grained, light grey, rare coal,banded; fresh, moderately strong, AVO
748	751	SANDSTONE, fine-medium grained, light grey, lithic rare coal,banded; fresh, moderately strong, AVO
751	757	SANDSTONE, fine-medium grained, light grey, occasional coal,banded; fresh, moderately strong, AVO
757	766	SANDSTONE, fine-medium grained, light grey, lithic rare coal,banded; fresh, moderately strong, AVO
766	769	SANDSTONE 60%, fine-medium grained, light grey; with COAL 40%, black; fresh, LI, AVO
769	772	SANDSTONE 80%, fine-medium grained, light grey, lithic; with COAL 20%, black, dull, minor bright bands(>1%); fresh, strong, AVO
772	775	SANDSTONE, fine-medium grained, light grey, lithic occasional coal,banded; fresh, moderately strong, AVO
775	778	SANDSTONE, fine grained, grey, lithic silty coaly high sphericity, well-rounded; fresh, moderately strong, AVO
778	781	SANDSTONE 75%, fine-medium grained, light grey, lithic lithic-quartz; with COAL 25%, black, high sphericity, well-rounded; fresh, moderately strong, AVO
781	784	SANDSTONE 55%, fine-medium grained, grey, lithic lithic-quartz; with COAL 45%, black; fresh, moderately strong, AVO
784	787	COAL 55%, black; with SANDSTONE 45%, fine-medium grained, grey, lithic; fresh, weak, AVO
787	793	COALY SHALE 50%, black, shaly high sphericity, well-rounded; with SANDSTONE 50%, fine-medium grained, grey, lithic; fresh, weak, AVO

From	To	Description
793	796	SANDSTONE, fine grained, grey, high sphericity, well-rounded silty high sphericity, well-rounded throughout; fresh, SH, AVO
796	799	SANDSTONE 75%, fine-medium grained, grey, lithic; with COALY SHALE 25%, black; fresh, moderately strong, AVO
799	811	COALY SHALE 60%, black; with SANDSTONE 40%, fine grained, grey, lithic; fresh, weak, AVO
811	814	SANDSTONE 75%, fine grained, grey, lithic; with COALY SHALE 25%, black; fresh, moderately strong, AVO
814	817	SANDSTONE 55%, fine grained, grey, lithic; with COALY SHALE 45%, black; fresh, moderately strong, AVO
817	820	COALY SHALE 55%, black, high sphericity, well-rounded; with SANDSTONE 45%, fine grained, grey, lithic; fresh, weak, AVO
820	823	SANDSTONE 70%, fine grained, grey, lithic; with COALY SHALE 30%, black, high sphericity, well-rounded; fresh, moderately strong, AVO
823	826	SANDSTONE, fine grained, grey, lithic shaly high sphericity, well-rounded throughout; fresh, moderately strong, AVO
826	829	SANDSTONE 55%, fine grained, grey, lithic; with COALY SHALE 45%, black, high sphericity, well-rounded; fresh, moderately strong, AVO
829	832	SANDSTONE, fine grained, grey, shaly high sphericity, well-rounded in part; fresh, moderately strong, AVO
832	838	SILTSTONE 60%, dark grey, sandy throughout; with COALY SHALE 40%, black, sandy throughout; fresh, AB, AVO
838	841	SANDSTONE 75%, fine-medium grained, light grey, lithic lithic-quartz; with COALY SHALE 25%, black, high sphericity, well-rounded; fresh, moderately strong, AVO
841	844	SANDSTONE, very fine-fine grained, grey, lithic lithic-quartz shaly high sphericity, well-rounded; fresh, moderately strong, AVO
844	850	SANDSTONE 50%, fine grained, grey, lithic; with COALY SHALE 50%, black, high sphericity, well-rounded; fresh, moderately strong, AVO
850	853	SANDSTONE 80%, fine-medium grained, grey, MS high sphericity, well-rounded lithic; with COALY SHALE 20%, black; fresh, moderately strong, AVO
853	856	SANDSTONE 85%, very fine-fine grained, grey, lithic lithic-quartz; with COALY SHALE 15%, black, minor high sphericity, well-rounded; fresh, moderately strong, AVO
856	862	SANDSTONE, very fine-fine grained, grey, lithic shaly high sphericity, well-rounded MS high sphericity, well-rounded; fresh, moderately strong, AVO
862	868	SANDSTONE, very fine-fine grained, light grey, lithic lithic-quartz shaly high sphericity, well-rounded; fresh, moderately strong, AVO
868	871	SANDSTONE 55%, fine grained, grey, silty in part; with COALY SHALE 45%, black; fresh, moderately strong, AVO
871	874	COALY SHALE 60%, black; with SANDSTONE 40%, fine grained, grey; fresh, MW, AVO
874	877	COALY SHALE 70%, black, high sphericity, well-rounded; with SANDSTONE 30%, fine grained, grey, lithic; fresh, MW, AVO
877	880	SANDSTONE 85%, fine grained, grey, lithic; with COALY SHALE 15%, black, high sphericity, well-rounded; fresh, moderately strong, AVO
880	886	SANDSTONE 65%, fine grained, grey, lithic; with COALY SHALE 35%, black, high sphericity, well-rounded; fresh, moderately strong, AVO
886	892	SANDSTONE 75%, fine grained, grey, lithic; with COALY SHALE 25%, black, high sphericity, well-rounded; fresh, moderately strong, AVO
892	898	SANDSTONE, fine grained, grey, lithic shaly high sphericity, well-rounded muddy; fresh, moderately strong, AVO
898	904	SANDSTONE 85%, fine grained, grey, lithic MS high sphericity, well-rounded; with COALY SHALE 15%, black; fresh, moderately strong, AVO
904	910	SANDSTONE 80%, fine grained, grey, lithic; with COALY SHALE 20%, black, high sphericity, well-rounded; fresh, moderately strong, AVO

From	To	Description
910	913	SANDSTONE 90%, fine grained, light grey, MS in part; intermixed with COALY SHALE 10%, black, high sphericity, well-rounded; fresh, moderately strong, AVO
913	919	SANDSTONE 80%, fine grained, light grey, lithic MS in part; intermixed with COALY SHALE 20%, black, high sphericity, well-rounded; fresh, moderately strong, AVO
919	922	SANDSTONE 80%, fine grained, light grey, lithic occasional coal,banded; with COALY SHALE 20%, black; fresh, moderately strong, AVO
922	925	SANDSTONE 70%, fine grained, light grey, lithic coal,banded; with COALY SHALE 30%, dark grey, high sphericity, well-rounded; fresh, moderately strong, AVO
925	928	SANDSTONE 90%, fine grained, light grey, lithic; with COALY SHALE 10%, dark grey, high sphericity, well-rounded; fresh, moderately strong, AVO
928	931	SANDSTONE, fine grained, light grey, lithic rare shaly coal,banded; fresh, moderately strong, AVO
931	934	SANDSTONE 50%, fine grained, grey; intermixed with COALY SHALE 50%, dark grey; fresh, moderately strong, AVO
934	937	COAL 80%, black, mainly dull, frequent bright bands(>10%); intermixed with SANDSTONE 20%, fine grained, grey, shaly in part; fresh, weak, AVO
937	946	COALY SHALE 70%, dark grey, lithic; intermixed with SANDSTONE 30%, fine-medium grained, brownish grey, quartz veined in part lithic; fresh, WM, AVO
946	949	SANDSTONE, fine-medium grained, light grey, rare coal,banded lithic; fresh, strong, AVO
949	952	SANDSTONE, fine-medium grained, dark grey, lithic occasional coal,banded shaly; fresh, strong, AVO
952	958	SANDSTONE 60%, fine-medium grained, light grey; intermixed with CARBONACEOUS SILTSTONE 40%, dark grey; fresh, strong, AVO
958	961	CARBONACEOUS SILTSTONE 70%, dark grey, coal,banded dull, minor bright bands(>1%) throughout; intermixed with SANDSTONE 30%, fine-medium grained, light grey; fresh, M, AVO
961	964	CARBONACEOUS SILTSTONE 60%, dark grey, sandy throughout; intermixed with COAL 40%, black, mainly dull, frequent bright bands(>10%); fresh, moderately strong, AVO
964	967	CARBONACEOUS SILTSTONE 70%, dark grey, coal,banded mainly dull, frequent bright bands(>10%) throughout; intermixed with SANDSTONE 30%, fine-medium grained, light grey; fresh, M, AVO
967	970	SANDSTONE, fine grained, light grey, lithic occasional coal,banded mainly dull, frequent bright bands(>10%); fresh, moderately strong, AVO
970	973	SANDSTONE 90%, fine-medium grained, light grey, lithic; intermixed with COAL 10%, black, mainly dull, frequent bright bands(>10%); fresh, strong, AVO
973	976	SANDSTONE, fine grained, light grey; fresh, strong, AVO
976	979	SANDSTONE 90%, light grey, lithic; intermixed with COAL 10%, black, dull, minor bright bands(>1%); fresh, strong, AVO
979	985	SANDSTONE, fine grained, light grey, rare coal,banded; fresh, moderately strong, AVO
985	988	SANDSTONE, fine grained, light grey; fresh, moderately strong, AVO
988	991	SANDSTONE, fine grained, light grey, occasional coal,banded; fresh, moderately strong, AVO
991	997	SANDSTONE 80%, fine grained, light grey; intermixed with COAL 20%, black, dull, minor bright bands(>1%); fresh, moderately strong, AVO
997	1003	SANDSTONE 70%, fine grained, light grey; intermixed with COAL 30%, black, dull, minor bright bands(>1%); fresh, moderately strong, AVO

From	To	Description
1003	1009	SANDSTONE, fine grained, dark grey, carbonaceous in part occasional coal,banded; fresh, moderately strong, AVO
1009	1015	SANDSTONE, fine grained, grey, shaly high sphericity, well-rounded throughout lithic; fresh, moderately strong, AVO

End of Hole **Waukivory 14**

Drilling Method:

Logged by:

Date Drilled: 25/10/2012

Sheet: 1 of 51

Easting: 402906.1

Northing: 6452384.08

R.L.: 99.7

Dip: 0

Dir: 0

Formation	Seam	Sample Number	Depth below Collar(m)	Graphic Log	DESCRIPTION	Geophysical Traces		
						GAMMA api	Compensated	Limestone Neutron
CRA			14		SANDSTONE, fine grained, light grey, micaceous occasional silty; fresh	50	2	0.3
			15			100	2	0.6
			16			150	2	0.6
			17		SANDSTONE 80%, fine grained, light grey white, lithic rare micaceous stringers of coal; intermixed with COAL 20%, dark grey black, interbanded dull & bright (>40%) occasional coal banded silty; fresh	200	2	0.9
			18				2	0.3
			19				2	0.6
			20		SANDSTONE, fine grained, grey, lithic moderately sorted; fresh		2	0.6
			21				2	0.6
			22				2	0.6
			23		SANDSTONE 90%, fine-medium grained, grey, occasional silty occasional muddy; intermixed with STONY COAL 10%, black; fresh		2	0.9
			24				2	0.6
			25				2	0.6
			26		SANDSTONE, fine-medium grained, grey, lithic minor coaly high sphericity, well-rounded; fresh		2	0.6
			27				2	0.6
		28				2	0.6	
		29				2	0.6	
		30				2	0.6	
		31				2	0.6	
		32		SILTSTONE, grey, minor sandy high sphericity, well-rounded; fresh		2	0.6	
		33				2	0.6	
		34				2	0.6	

Formation		Seam		Sample Number		Depth below Collar(m)		Graphic Log		DESCRIPTION		Geophysical Traces				
CRA						34				SILTSTONE, grey, minor sandy high sphericity, well-rounded; fresh						
						35				SANDSTONE, fine-medium grained, grey, minor silty minor muddy; fresh						
						36				SANDSTONE, fine-medium grained, grey, abundant silty high sphericity, well-rounded lithic; fresh						
						37										
						38										
						39										
						40										
						41										
						42										
						43										
						44									SANDSTONE 60%, fine grained, grey, lithic; intermixed with SILTSTONE 40%, grey, high sphericity, well-rounded; fresh	
						45										
46		SANDSTONE, very fine grained, grey dark grey, lithic lithic-quartz; fresh														
47		SANDSTONE, very fine grained, grey dark grey, lithic lithic-quartz; fresh														
48		SANDSTONE, very fine grained, grey dark grey, coaly high sphericity, well-rounded minor silty; fresh														
49																
50																
51																
52																
53				SILTSTONE, grey, fresh												
54				SANDSTONE, fine grained, grey, coaly high sphericity, well-rounded minor silty; fresh												
55																
56																

Formation		Seam		Sample Number		Depth below Collar(m)		Graphic Log		DESCRIPTION		Geophysical Traces		
CRA						57				SANDSTONE, fine grained, grey, coaly high sphericity, well-rounded minor silty; fresh		50		
						58				SILTSTONE, grey, minor sandy high sphericity, well-rounded; fresh		100		
						59						200		
						60						2		
						61						3		
						62				SANDSTONE 65%, fine-medium grained, grey, lithic; intermixed with SILTSTONE 35%, grey, high sphericity, well-rounded; fresh		0.3		
						63						0.6		
						64						0.9		
						65				SILTSTONE 55%, grey, high sphericity, well-rounded; intermixed with SANDSTONE 45%, fine grained, grey, lithic; fresh				
						66								
67														
68		SANDSTONE, fine grained, grey, lithic minor silty high sphericity, well-rounded; fresh												
69														
70														
71		TUFF 60%, cream, coaly high sphericity, well-rounded; intermixed with SANDSTONE 40%, fine grained, grey, coaly high sphericity, well-rounded; fresh												
72														
73														
74		SANDSTONE 90%, fine grained, grey, abundant tuffaceous, with STONY COAL 10%, black, dull, tends to stony; fresh												
75														
76														
77														
78		SANDSTONE, fine grained, grey, minor carbonaceous minor silty; fresh												
79														

Formation		Seam		Sample Number		Depth below Collar(m)		Graphic Log		DESCRIPTION		Geophysical Traces		
CRA						125				COAL UNDIFF., black, dull, tends to stony; fresh		GAMMA api		
						126				COAL UNDIFF., black, dull, tends to stony; fresh		Compensated		
						127				COAL UNDIFF., black, dull, tends to stony; fresh		Limestone Neutron		
						128				SANDSTONE, fine-medium grained, grey, minor coaly lithic; fresh				
						129				COAL UNDIFF., black, dull, tends to stony; stony; fresh				
						130				SANDSTONE, grey, lithic; fresh				
						131				COAL UNDIFF., black, dull, tends to stony; fresh				
						132				SANDSTONE, grey, lithic; fresh				
						133				COAL UNDIFF., black, dull, tends to stony; fresh				
						134				SANDSTONE, grey, lithic; fresh				
						135				SANDSTONE, grey, sandy in part; fresh				
						136				SANDSTONE, fine grained, grey, lithic minor silty high sphericity, well-rounded; fresh				
						137				COAL UNDIFF., black; fresh				
						138				SANDSTONE 80%, fine grained, grey, lithic minor silty, with COAL UNDIFF. 20%, black, dull, tends to stony; fresh				
139				SANDSTONE, fine grained, grey, lithic minor coaly high sphericity, well-rounded; fresh										
140														
141														
142														
143														
144				COAL, dull, tends to stony; fresh										
145				SANDSTONE, fine grained, grey, lithic; fresh										
146				COAL, black, mainly dull, frequent bright bands(>10%); fresh										
147				SANDSTONE 90%, fine grained, grey, lithic; with COAL 10%, black; fresh										

Formation	Seam	Sample Number	Depth below Collar(m)	Graphic Log	DESCRIPTION	Geophysical Traces				
						GAMMA api	Compensated	Limestone Neutron		
CRA										
			216		SANDSTONE, fine grained, grey, lithic coaly high sphericity, well-rounded; fresh	50	2	0.3		
			217		COAL UNDIFF., black; fresh	100	2	0.3		
			218		SILTSTONE 60%, grey, coaly high sphericity, well-rounded; with SANDSTONE 40%, fine grained, grey, lithic coaly high sphericity, well-rounded; fresh	150	2	0.3		
			219		COAL UNDIFF., black; fresh	200	2	0.3		
			220		SILTSTONE 60%, grey, coaly high sphericity, well-rounded; with SANDSTONE 40%, fine grained, grey, lithic coaly high sphericity, well-rounded; fresh		2	0.3		
			221		SANDSTONE 95%, fine grained, grey, lithic silty in part; with COAL 5%, black; fresh		2	0.3		
			222				2	0.3		
			223		SANDSTONE 65%, fine grained, grey, lithic coaly high sphericity, well-rounded; with SILTSTONE 35%, grey, coaly high sphericity, well-rounded; fresh		2	0.3		
			224				2	0.3		
			225				2	0.3		
			226		SANDSTONE, fine grained, grey, lithic minor silty high sphericity, well-rounded; fresh		2	0.3		
			227				2	0.3		
			228				2	0.3		
			229				2	0.3		
			230				2	0.3		
			231				2	0.3		
			232		SANDSTONE 70%, fine-medium grained, grey, lithic lithic-quartz rare coaly; with SILTSTONE 30%, grey; fresh		2	0.3		
			233				2	0.3		
			234				2	0.3		
			235				2	0.3		
			236				2	0.3		
			237				2	0.3		
			238		SANDSTONE, fine-medium grained, grey, silty in part; fresh		2	0.3		

Formation		Seam		Sample Number		Depth below Collar(m)		Graphic Log		DESCRIPTION		Geophysical Traces								
CRA				004DA_DB		241 240 239				SANDSTONE, fine-medium grained, grey, silty in part; fresh		GAMMA api 50 100 150 200			Compensated 2 3			Limestone Neutron 0.3 0.6 0.9		
CRA						244 243 242				SANDSTONE, fine-medium grained, grey, lithic with COAL 10%; black; fresh										
CRA						245 246 247 248 249 250 251 252 253 254 255 256				SANDSTONE, fine-medium grained, grey, lithic minor silty high sphericity, well-rounded; fresh										
CRA						257 258 259 260				COAL UNDIFF., black, dull(<1% bright); fresh										
CRA										SANDSTONE 65%, fine grained, grey, lithic coaly high sphericity, well-rounded; with SILTSTONE 35%, grey, coaly high sphericity, well-rounded; fresh										

Formation	Seam	Sample Number	Depth below Collar(m)	Graphic Log	DESCRIPTION	Geophysical Traces		
						GAMMA api	Compensated	Limestone Neutron
CRA			261		<p>SANDSTONE 65%, fine grained, grey, lithic coaly high sphericity, well-rounded, with SILTSTONE 35%, grey, coaly high sphericity, well-rounded; fresh</p> <p>SILTSTONE, grey, abundant sandy high sphericity, well-rounded; fresh</p>	50	2	0.3
			262			100	2	0.3
			263			150	2	0.3
			264			200	2	0.3
			265				2	0.3
			266				2	0.3
			267				2	0.3
			267.04				2	0.3
			267.05				2	0.3
			268.26				2	0.3
			268.28				2	0.3
			268.29				2	0.3
			268.31				2	0.3
			268.32				2	0.3
			268.33				2	0.3
			268.34				2	0.3
			268.35				2	0.3
			268.36				2	0.3
			268.37				2	0.3
			268.38				2	0.3
		268.39			2	0.3		
		268.40			2	0.3		
		268.41			2	0.3		
		268.42			2	0.3		
		268.43			2	0.3		
		268.44			2	0.3		
		268.45			2	0.3		
		268.46			2	0.3		
		268.47			2	0.3		
		268.48			2	0.3		
		268.49			2	0.3		
		268.50			2	0.3		
		268.51			2	0.3		
		268.52			2	0.3		
		268.53			2	0.3		
		268.54			2	0.3		
		268.55			2	0.3		
		268.56			2	0.3		
		268.57			2	0.3		
		268.58			2	0.3		
		268.59			2	0.3		
		268.60			2	0.3		
		268.61			2	0.3		
		268.62			2	0.3		
		268.63			2	0.3		
		268.64			2	0.3		
		268.65			2	0.3		
		268.66			2	0.3		
		268.67			2	0.3		
		268.68			2	0.3		
		268.69			2	0.3		
		268.70			2	0.3		
		268.71			2	0.3		
		268.72			2	0.3		
		268.73			2	0.3		
		268.74			2	0.3		
		268.75			2	0.3		
		268.76			2	0.3		
		268.77			2	0.3		
		268.78			2	0.3		
		268.79			2	0.3		
		268.80			2	0.3		
		268.81			2	0.3		
		268.82			2	0.3		
		268.83			2	0.3		
		268.84			2	0.3		
		268.85			2	0.3		
		268.86			2	0.3		
		268.87			2	0.3		
		268.88			2	0.3		
		268.89			2	0.3		
		268.90			2	0.3		
		268.91			2	0.3		
		268.92			2	0.3		
		268.93			2	0.3		
		268.94			2	0.3		
		268.95			2	0.3		
		268.96			2	0.3		
		268.97			2	0.3		
		268.98			2	0.3		
		268.99			2	0.3		
		269.00			2	0.3		

SANDSTONE 70%, light grey, moderately sorted quartz-lithic, intermixed with SILTSTONE 30%, grey brown, occasional coal-banded rare stringers of coal; fresh

COAL, black, dull, minor bright bands(>1%); fresh

SANDSTONE, grey, lithic; fresh

COAL UNDIFF., black; fresh

COAL UNDIFF., black; fresh

SANDSTONE 70%, light grey, moderately sorted quartz-lithic, intermixed with SILTSTONE 30%, grey brown, occasional coal-banded rare stringers of coal; fresh

COAL UNDIFF., black; fresh

SANDSTONE, grey, lithic; fresh

COAL UNDIFF., black; fresh

COAL, black, dull, minor bright bands(>1%); fresh





























SANDSTONE 70%, light grey, moderately sorted quartz-lithic, intermixed with SILTSTONE 30%, grey brown, occasional coal-banded rare stringers of coal; fresh

Formation		Seam		Sample Number		Depth below Collar(m)		Graphic Log		DESCRIPTION		Geophysical Traces			
CRA								<p>SANDSTONE 70%, light grey, moderately sorted quartz-illitic; intermixed with SILTSTONE 30%, grey brown, occasional coal-banded rare stringers of coal; fresh</p> <p>COAL UNDIFF., black; fresh</p> <p>SANDSTONE, fine grained, grey, illitic; fresh</p> <p>COAL UNDIFF., black; fresh</p> <p>SANDSTONE 90%, fine grained, light grey, moderately sorted illitic S.V., intermixed with SILTSTONE 10%, dark grey, sandy rare coal-banded; fresh</p> <p>COAL UNDIFF., black; fresh</p> <p>SANDSTONE 80%, fine grained, grey, moderately sorted illitic occasional coal-banded; intermixed with SILTSTONE 20%, dark grey brown, coal-banded low sphericity, very angular; fresh</p> <p>COAL UNDIFF., black; fresh</p> <p>SANDSTONE 90%, fine grained, grey, moderately to well sorted illitic coal-banded; intermixed with SILTSTONE 10%, dark grey brown, abundant coal-banded; fresh</p> <p>SANDSTONE, fine grained, light grey, moderately sorted rare coal-banded tuffaceous; fresh</p> <p>COAL, black, dull, minor bright bands(<1%); fresh</p> <p>SANDSTONE, grey; fresh</p>							

Formation	Seam	Sample Number	Depth below Collar(m)	Graphic Log	DESCRIPTION	Geophysical Traces		
						GAMMA api	Compensated	Limestone Neutron
CRA			305.2		SANDSTONE, grey; fresh			
			307		COAL UNDIFF., black; fresh			
			307.308		SANDSTONE 90%, fine grained, grey, moderately sorted rare coalbanded; intermixed with TUFF 10%, cream, silty; fresh			
			309		COAL UNDIFF., black; fresh			
			310		SANDSTONE 90%, fine grained, dark grey, moderately sorted coalbanded rare micaceous; intermixed with COAL 10%, dark grey black, abundant coal banded silty; fresh			
			311		SANDSTONE, fine grained, dark grey; coalbanded rare tuffaceous silty; fresh			
			312					
			313					
			314					
			315					
			316		SANDSTONE 80%, fine grained, grey, possibly tuffaceous moderately sorted; intermixed with SILTSTONE 20%, dark grey, occasional coal banded; fresh			
			317					
			318					
			319		SANDSTONE, fine grained, dark grey; rare silty occasional coalbanded; fresh			
			320					
			321					
			321.78		COAL UNDIFF., black; dull, minor bright			
		322		SANDSTONE, fine grained, grey; lithic; fresh				
		322.8		COAL UNDIFF., black; fresh				
		324		SANDSTONE 70%, fine grained, dark grey, abundant coalbanded; intermixed with COAL 30%, dark grey black, occasional coalbanded stringers of coal; fresh				
		324.98		COAL UNDIFF., black; fresh				
		324.99		COAL UNDIFF., black; fresh				
		325		COAL UNDIFF., black; fresh				
		007DA_DB						
		326.05		SANDSTONE, fine grained, grey; fresh				
		326.04		SANDSTONE, fine grained, grey; fresh				
		326.03		COAL, black, mainly dull, frequent bright bands(>10%); fresh				
		327		SANDSTONE, grey; fresh				
		328		COAL UNDIFF., black; fresh				
					SANDSTONE 90%, fine grained, grey; lithic; fresh			
					COAL UNDIFF., black; fresh			
					SANDSTONE 90%, fine grained, grey; light			

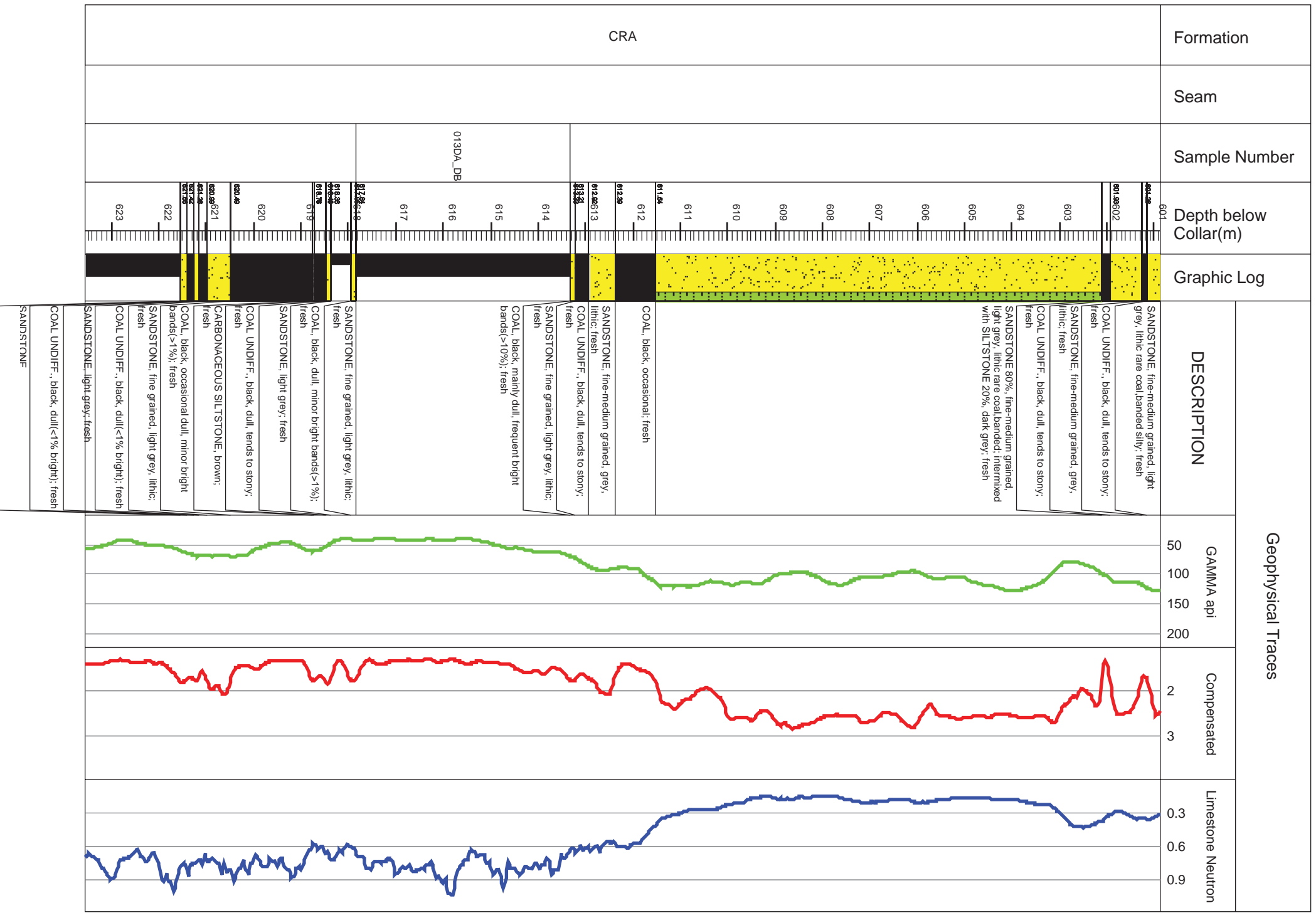
Formation		Seam		Sample Number		Depth below Collar(m)		Graphic Log		DESCRIPTION		Geophysical Traces					
												GAMMA api		Compensated		Limestone Neutron	
CRA						329				SANDSTONE 90%, fine grained, grey/light grey, possibly tuffaceous moderately sorted; intermixed with COAL UNDIFF. 10%, dark grey/black, coal banded silty in part; fresh		50					
						330						100		2		0.3	
						331				SILTSTONE 60%, dark grey brown, abundant coal banded late coaly; intermixed with SANDSTONE 40%, fine grained, grey; lithic moderately sorted possibly tuffaceous; fresh		150		3		0.6	
						332						200					
						333											
						334				COAL UNDIFF.; black; fresh							
						335				SANDSTONE 90%, fine grained, dark grey, S sandy lithic occasional micaceous; intermixed with COAL UNDIFF. 10%, dark grey/black mainly dull, frequent bright bands(<10%) coal banded in part; fresh							
						336											
						337				COAL UNDIFF.; black; dull; tends to stony; fresh							
						338				SANDSTONE 80%, fine grained, dark grey, lithic; with COAL UNDIFF. 20%, fine grained, black, dull, tends to stony; fresh							
						339											
						340				SANDSTONE 90%, fine grained, dark grey, lithic micaceous; intermixed with COAL UNDIFF. 10%, black, mainly dull, frequent bright bands(<10%); fresh							
						341											
						342											
						343											
				344													
				345													
				346				SANDSTONE 80%, fine grained, dark grey, lithic micaceous; intermixed with COAL UNDIFF. 20%, black, V dull, minor bright bands(<1%); fresh									
				347													
				348													
				349													
				350				SANDSTONE 60%, fine grained, dark grey, S lithic micaceous tuffaceous in part; intermixed with COAL 40%, black; dull, minor bright bands(<1%); fresh									
				351													






Formation		Seam		Sample Number		Depth below Collar(m)		Graphic Log		DESCRIPTION		Geophysical Traces		
CRA						420				COAL, black, mainly dull, frequent bright bands(>10%); fresh		GAMMA api		
						420.25				SANDSTONE, light grey; fresh		Compensated		
						420.5				COAL UNDIFF., black; fresh		Limestone Neutron		
						421				SILTSTONE 40%, dark grey; fresh				
						421.25				COAL UNDIFF., black; fresh				
						422				COAL UNDIFF., black; dull, minor bright bands(>1%); fresh				
						423				SANDSTONE 80%, fine-medium grained, light grey, lithic silty low sphericity, very angular throughout; intermixed with COAL 20%, black, dull (<1% bright) tuffaceous in part; fresh				
						424				SANDSTONE 80%, fine-medium grained, light grey, lithic silty low sphericity, very angular throughout; intermixed with COAL 20%, black, dull (<1% bright) tuffaceous in part; fresh				
						425				SANDSTONE 80%, fine-medium grained, light grey, lithic silty low sphericity, very angular throughout; intermixed with COAL 20%, black, dull (<1% bright) tuffaceous in part; fresh				
						426				SANDSTONE 80%, fine-medium grained, light grey, lithic silty low sphericity, very angular throughout; intermixed with COAL 20%, black, dull (<1% bright) tuffaceous in part; fresh				
						427				SANDSTONE 80%, fine-medium grained, light grey, lithic silty low sphericity, very angular throughout; intermixed with COAL 20%, black, dull (<1% bright) tuffaceous in part; fresh				
						427.75				COAL UNDIFF., black; dull (<1% bright); fresh				
						428				SANDSTONE 80%, fine-medium grained, light grey, lithic tuffaceous in part; intermixed with COAL 20%, black, dull (<1% bright); fresh				
429				SANDSTONE 80%, fine-medium grained, light grey, lithic tuffaceous in part; intermixed with COAL 20%, black, dull (<1% bright); fresh										
430				SANDSTONE 80%, fine-medium grained, light grey, lithic tuffaceous in part; intermixed with COAL 20%, black, dull (<1% bright); fresh										
431				SANDSTONE 80%, fine-medium grained, light grey, lithic tuffaceous in part; intermixed with COAL 20%, black, dull (<1% bright); fresh										
433				COAL UNDIFF., black; fresh										
434				SILTSTONE 90%, dark grey; with COAL 10%, black, minor high sphericity, well-rounded; fresh										
435				SANDSTONE, fine-medium grained, grey, lithic silty coaly high sphericity, well-rounded; fresh										
436				SANDSTONE, fine-medium grained, grey, lithic silty coaly high sphericity, well-rounded; fresh										
437				SANDSTONE, fine-medium grained, grey, lithic silty coaly high sphericity, well-rounded; fresh										
438				SANDSTONE, fine-medium grained, grey, lithic silty coaly high sphericity, well-rounded; fresh										
439				SANDSTONE, fine-medium grained, grey, lithic silty coaly high sphericity, well-rounded; fresh										
440				SANDSTONE, fine grained, grey, lithic lithic-quartz rare coaly; fresh										
441				SANDSTONE, fine grained, grey, lithic lithic-quartz rare coaly; fresh										
442				SANDSTONE, fine grained, grey, lithic lithic-quartz rare coaly; fresh										

Formation	Seam	Sample Number	Depth below Collar(m)	Graphic Log	DESCRIPTION	Geophysical Traces		
						GAMMA api	Compensated	Limestone Neutron
CRA			465					
			466		SANDSTONE, fine grained, grey, lithic minor silty minor coaly; fresh			
			467		SANDSTONE, fine-medium grained, grey, lithic coaly high sphericity, well-rounded; fresh			
			468					
			469					
			470					
			471					
			472					
			473					
			474					
			475					
			476					
			477					
			477.28					
			009DA_DB 477.28-478		COAL UNDIFF., black, fresh			
			478.51		SILTSTONE, dark grey; fresh			
			478.8		COAL UNDIFF., black, dull (<1% bright); fresh			
			479		SILTSTONE, dark grey; fresh			
			479.28		COAL, black, mainly dull, frequent bright bands(>10%); fresh			
			480		SANDSTONE, dark grey; fresh			
			010DA_DB 480.08		COAL UNDIFF., black, fresh			
			481		SANDSTONE, dark grey; fresh			
			481.75		COAL UNDIFF., black; fresh			
		482.132		SANDSTONE, light grey; fresh				
		483		COAL UNDIFF., black; fresh				
		484		SANDSTONE, light grey; fresh				
		485		COAL UNDIFF., black; fresh				
		486		SILTSTONE, dark grey, sandy throughout; with COAL 30%; black, sandy throughout; fresh				
		487		COAL UNDIFF., black; fresh				
				SILTSTONE, dark grey, sandy; fresh				

Formation		Seam		Sample Number		Depth below Collar(m)		Graphic Log		DESCRIPTION		Geophysical Traces																																																																																																																																																																							
CRA										<p>SILTSTONE, dark grey, sandy, fresh</p> <p>COAL, black, dull, minor bright bands(<1%) occasional, fresh</p> <p>SANDSTONE, dark grey, fresh</p> <p>COAL, black, dull, minor bright bands(<1%) occasional, fresh</p> <p>CARBONACEOUS SILTSTONE 50%, black silty high sphericity, well-rounded throughout; with SANDSTONE 50%, fine grained, grey, minor coaly lithic, fresh</p> <p>COAL UNDIFF., black, fresh</p> <p>CARBONACEOUS SILTSTONE 60%, black, silty high sphericity, well-rounded throughout; with SANDSTONE 40%, fine grained, grey, minor coaly lithic, fresh</p> <p>COAL UNDIFF., black, fresh</p> <p>CARBONACEOUS SILTSTONE 50%, black, silty high sphericity, well-rounded throughout; with SANDSTONE 50%, fine grained, grey, minor coaly lithic, fresh</p> <p>SANDSTONE, fine grained, grey, coaly high sphericity, well-rounded silty high sphericity, well-rounded, fresh</p> <p>SANDSTONE, fine grained, grey, lithic minor silty, fresh</p> <p>SANDSTONE, fine grained, grey, lithic coaly high sphericity, well-rounded minor silty, fresh</p> <p>SANDSTONE, fine grained, grey, lithic lithic-quartz silty in part, fresh</p>		<p>GAMMA api</p>			<p>Compensated</p>			<p>Limestone Neutron</p>																																																																																																																																																																	
												488		489		488.75		489.0		489.75		490.0		490.75		491.0		491.25		491.5		491.75		492.0		492.25		492.5		492.75		493.0		493.25		493.5		493.75		494.0		494.25		494.5		494.75		495.0		495.25		495.5		495.75		496.0		496.25		496.5		496.75		497.0		497.25		497.5		497.75		498.0		498.25		498.5		498.75		499.0		499.25		499.5		499.75		500.0		500.25		500.5		500.75		501.0		501.25		501.5		501.75		502.0		502.25		502.5		502.75		503.0		503.25		503.5		503.75		504.0		504.25		504.5		504.75		505.0		505.25		505.5		505.75		506.0		506.25		506.5		506.75		507.0		507.25		507.5		507.75		508.0		508.25		508.5		508.75		509.0		509.25		509.5		509.75		510.0	

Formation	Seam	Sample Number	Depth below Collar(m)	Graphic Log	DESCRIPTION	Geophysical Traces		
						GAMMA api	Compensated	Limestone Neutron
CRA			533		COAL _L , black, mainly dull, frequent bright bands(>10%); fresh	50	2	0.3
			534		SANDSTONE, fine grained, grey; fresh	100	2.5	0.4
			535		COAL _L , black, dull, minor bright bands(<1%) in part; fresh	150	2.2	0.5
			011DA_DB 536		SANDSTONE, fine grained, grey, lithic; fresh	200	2.8	0.4
			537		COAL _L , black in part dull, minor bright bands (<1%); fresh	250	2.5	0.5
			538		SANDSTONE, fine grained, grey, lithic minor coaly high sphericity, well-rounded; fresh	300	2.2	0.4
			539		COAL UNDIFF., black, dull(<1% bright); fresh	350	2.8	0.5
			540		SANDSTONE 70%, fine grained, grey, lithic minor coaly high sphericity, well-rounded; with COAL UNDIFF. 30%; black; fresh	400	2.5	0.4
			541		COAL UNDIFF., black; dull, tends to stony; fresh	450	2.2	0.5
			542		SANDSTONE 70%, fine grained, grey, lithic; with COAL 30%; black; fresh	500	2.8	0.4
			543		COAL _L , black, occasional dull, minor bright bands(<1%); fresh	550	2.5	0.5
			544		SANDSTONE 70%, fine grained, grey, lithic minor coaly high sphericity, well-rounded; with SILTSTONE 30%; dark grey, sandy in part; fresh	600	2.2	0.4
			545		SANDSTONE 70%, grey, lithic minor coaly laminations; with CARBONACEOUS SILTSTONE 30%; brownish black, sandy in part; fresh	650	2.8	0.5
			546			700	2.5	0.4
			547		SANDSTONE, fine grained, grey, lithic minor coaly high sphericity, well-rounded; fresh	750	2.2	0.5
		548			800	2.8	0.4	
		549			850	2.5	0.5	
		550		SANDSTONE, fine grained, grey, rare coaly high sphericity, well-rounded minor silty; fresh	900	2.2	0.4	
		551			950	2.8	0.5	
		552			1000	2.5	0.4	
		553			1050	2.2	0.5	
		554			1100	2.8	0.4	
		555			1150	2.5	0.5	



Formation		Seam		Sample Number		Depth below Collar(m)		Graphic Log		DESCRIPTION		Geophysical Traces								
												GAMMA api		Compensated		Limestone Neutron				
												50	100	150	200	2	3	0.3	0.6	0.9
CRA						692		SANDSTONE 80%, fine-medium grained, light grey, lithic; intermixed with COAL 20%, black, dull, minor bright bands(>1%); fresh												
				693																
				694																
				695																
				696		SANDSTONE, fine-medium grained, light grey, rare coal;banded dull(<1% bright); fresh														
				697																
				698																
				699																
				700																
				701		SANDSTONE 70%, fine-medium grained, light grey, lithic; intermixed with COAL 30%, black, dull, minor bright bands(>1%); fresh														
				702																
				703																
				704																
				705		SANDSTONE 80%, fine-medium grained, light grey, lithic; intermixed with COAL 20%, black, mainly dull, frequent bright bands (>10%); fresh														
		706																		
		707																		
		708																		
		709																		
		710																		
		711																		
		712		SANDSTONE, fine-medium grained, light grey, lithic occasional coal;banded; fresh																
		713																		
		714																		

Formation		Seam		Sample Number		Depth below Collar(m)		Graphic Log		DESCRIPTION		Geophysical Traces								
												GAMMA api		Compensated		Limestone Neutron				
												50	100	150	200	2	3	0.3	0.6	0.9
AVO								SANDSTONE, fine-medium grained, light grey, lithic rare coal banded; fresh												
																	760	SANDSTONE 60%, fine-medium grained, light grey; with COAL 40%, black; fresh		
																	761			
																	762			
																	763			
																	764			
																	765			
																	766			
																	767			
																	768			
769	SANDSTONE 80%, fine-medium grained, light grey, lithic; with COAL 20%, black, dull, minor bright bands(>1%); fresh																			
				015DA_DB				SANDSTONE, fine-medium grained, light grey, lithic occasional coal banded; fresh												
																	770			
																	771			
																	772			
																	773			
								SANDSTONE, fine-medium grained, light grey, lithic occasional coal banded; fresh												
																	774			
																	775			
																	776			
																	777			
								SANDSTONE 75%, fine-medium grained, light grey, lithic lithic-quartz, with COAL 25%, black, high sphericity, well-rounded; fresh												
																	779			
																	780			
																	781			
																	782	SANDSTONE 55%, fine-medium grained, grey, lithic lithic-quartz, with COAL 45%, black; fresh		

Formation		Seam		Sample Number		Depth below Collar(m)		Graphic Log		DESCRIPTION		Geophysical Traces								
												GAMMA api		Compensated		Limestone Neutron				
												50		2		0.3				
												100		3		0.6				
												150				0.9				
												200								
AVO						851				SANDSTONE 80%, fine-medium grained, grey; MS high sphericity, well-rounded lithic; with COALY SHALE 20%, black; fresh										
						852														
						853				SANDSTONE 85%, very fine-fine grained, grey, lithic lithic-quartz, with COALY SHALE 15%, black, minor high sphericity, well-rounded; fresh										
						854														
						855														
						856				SANDSTONE, very fine-fine grained, grey, lithic shaly high sphericity, well-rounded MS high sphericity, well-rounded; fresh										
						857														
						858														
						859														
						860														
						861														
						862				SANDSTONE, very fine-fine grained, light grey, lithic lithic-quartz shaly high sphericity, well-rounded; fresh										
				863																
				864																
				865																
				866																
				867																
				868				SANDSTONE 55%, fine grained, grey, silty in part; with COALY SHALE 45%, black; fresh												
				869																
				870																
				871				COALY SHALE 60%, black, with SANDSTONE 40%, fine grained, grey; fresh												
				872																

Formation		Seam		Sample Number		Depth below Collar(m)		Graphic Log		DESCRIPTION		Geophysical Traces						
AVO				018DA_DB								GAMMA api		Compensated		Limestone Neutron		
						873		COALY SHALE 60%, black, with SANDSTONE 40%, fine grained, grey, fresh				50						
						874		COALY SHALE 70%, black, high sphericity, well-rounded; with SANDSTONE 30%, fine grained, grey, lithic, fresh				100						
						875						150						
						876						200						
						877		SANDSTONE 85%, fine grained, grey, lithic; with COALY SHALE 15%, black, high sphericity, well-rounded; fresh						2				
						878								3				
						879												
						880		SANDSTONE 65%, fine grained, grey, lithic; with COALY SHALE 35%, black, high sphericity, well-rounded; fresh										
						881												
						882												
						883												
						884												
						885												
						886		SANDSTONE 75%, fine grained, grey, lithic; with COALY SHALE 25%, black, high sphericity, well-rounded; fresh										
						887												
						888												
						889												
						890												
						891												
						892		SANDSTONE, fine grained, grey, lithic shaly high sphericity, well-rounded muddy, fresh										
						893												
						894												
						895												

Formation		Seam		Sample Number		Depth below Collar(m)		Graphic Log		DESCRIPTION		Geophysical Traces							
												GAMMA api		Compensated		Limestone Neutron			
												50		2		0.3			
												100		3		0.6			
												150				0.9			
												200							
AVO						896				SANDSTONE, fine grained, grey, lithic shaly high sphericity, well-rounded muddy; fresh									
						897													
						898													
						899				SANDSTONE 85%, fine grained, grey, lithic MS high sphericity, well-rounded; with COALY SHALE 15%, black; fresh									
						900													
						901													
						902													
						903													
						904													
						905				SANDSTONE 80%, fine grained, grey, lithic; with COALY SHALE 20%, black, high sphericity, well-rounded; fresh									
						906													
						907													
						908													
						909													
						910													
						911				SANDSTONE 90%, fine grained, light grey, MS in part; intermixed with COALY SHALE 10%, black, high sphericity, well-rounded; fresh									
						912													
						913													
				914				SANDSTONE 80%, fine grained, light grey, lithic MS in part; intermixed with COALY SHALE 20%, black, high sphericity, well-rounded; fresh											
				915															
				916															
				917															
				918															

Formation	Seam	Sample Number	Depth below Collar(m)	Graphic Log	DESCRIPTION	Geophysical Traces					
						GAMMA api	Compensated	Limestone Neutron			
AVO			941		COALY SHALE 70%, dark grey, lithic; intermixed with SANDSTONE 30%, fine-medium grained, brownish grey, quartz veined in part lithic; fresh						
			942								
			943								
			944								
			945								
			946				SANDSTONE, fine-medium grained, light grey, rare coal, banded lithic; fresh				
			947								
			948								
			949				SANDSTONE, fine-medium grained, dark grey, lithic occasional coal banded shaly; fresh				
			950								
			951								
			952				SANDSTONE 60%, fine-medium grained, light grey; intermixed with CARBONACEOUS SILTSTONE 40%, dark grey; fresh				
			953								
			954								
			955								
			956								
		957									
		958		CARBONACEOUS SILTSTONE 70%, dark grey, coal banded dull, minor bright bands (>1%) throughout; intermixed with SANDSTONE 30%, fine-medium grained, light grey; fresh							
		959									
		960									
		961		CARBONACEOUS SILTSTONE 60%, dark grey, sandy throughout; intermixed with COAL 40%, black, mainly dull, frequent bright bands(>10%); fresh							
		962									
		963									

		AVO		Formation
				Seam
				Sample Number
				Depth below Collar(m)
		<p>SANDSTONE, fine grained, grey, shaly high sphericity, well-rounded throughout lithic; fresh</p>		DESCRIPTION
		<p>GAMMA api</p> <p>50</p> <p>100</p> <p>150</p> <p>200</p>		Geophysical Traces
		<p>Compensated</p> <p>2</p> <p>3</p>		
		<p>Limestone Neutron</p> <p>0.3</p> <p>0.6</p> <p>0.9</p>		