

Project: ROSE

Title:

Hole Name : RV002

Date Start: 24-FEB-11 End date : 04-MAR-11

Data Source : Australian Height datum

LOCATION

State : Tasmania
 County :
 Parish :
 Portion :
 Geological Province : Launceston Basin
 Lease : EL44/2007 - Rosevale
 Map Zone : Australian Map Grid 84 - Zone 55H
 Easting Northing Elevation
 Drill Hole Location : 493156.59 5413746.19 159.68

DRILLING

Contractor : Spaulding Drilling
 Drill Type : Rotary (Chip) Hole
 Drill Rig : Spaulding Drilling
 Drilled To Hole Size Core Size
 154 178MM

GEOPHYSICAL

Contractor : GDS
 Probe Depth Probe Type
 146.01 Gamma
 Caliper
 Dual Density

LITHOLOGICAL

Logger's Initials : Lindsay Smith
 Date logged : 24-FEB-11,25-FEB-11,01-MAR-11,02-MAR-11,03-MAR-11,04-MAR-11
 Interval logged : 0 to 154

SEAM DETAILS

Seam Name	From	To
BHWE	9.60	9.60
31	15.40	18.05
32	18.50	19.67
33	19.67	21.00
41	21.60	22.10
42	22.35	22.85
43	23.20	23.75
52	25.77	27.07
6	28.17	32.40
7	35.60	36.65
8	36.95	39.15
BHWL	42.00	42.00
H1	57.45	57.73

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H2	58.07	58.60
I	58.87	60.55
J1	60.89	62.81
J2	63.50	65.00
K	72.70	73.42
L	74.70	75.70
M	77.32	78.27
N	83.25	84.50

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*****
TOP          BASE          LITHOLOGY          SAMPLE
*****
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Hammer

```
0.000 - 1.000    SOIL light brown clayey sticky clay
(    1.000    )    soft extremely weathered
1.000 - 2.000    CLAY mottled brownish red sticky
(    1.000    )    clay soft extremely weathered
2.000 - 3.000    CLAY mottled whitish red sticky
(    1.000    )    clay soft extremely weathered
3.000 - 5.000    CLAY mottled brownish grey sticky
(    2.000    )    clay soft extremely weathered
5.000 - 6.000    CLAY variegated brownish grey
(    1.000    )    fragments throughout sticky clay
                    soft extremely weathered
                    ironstone fragments
```

Blade Bit

```
6.000 - 7.000    CLAY variegated brownish grey
(    1.000    )    sticky clay soft extremely
                    weathered
7.000 - 8.000    CLAY variegated brownish grey
(    1.000    )    sticky clay soft highly weathered
                    rare iron laminae throughout
                    possible weathered tuff possible
                    weathered ironstone or dolerite
8.000 - 9.000    CLAY variegated brownish grey
(    1.000    )    sticky clay soft highly weathered
                    rare iron laminae throughout
                    possible weathered tuff
9.000 - 9.600    TUFF dark reddish grey ferruginous
(    0.600    )    strong rock moderately weathered
```

9.600 *** BHWE

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9.600 - 10.700    TUFF light grey strong rock fresh
(    1.100    )
10.700 - 15.400    CLAY medium grey low plasticity
(    4.700    )    sticky fresh
```

15.400 *** TOP OF 31

```
15.400 - 18.050    LIGNITE dark brownish black friable
(    2.650    )    very weak rock fresh
```

18.050 *** BASE OF 31

*** GEOLOGICAL THICKNESS: 2.650 Metres ***

```
18.050 - 18.500    CLAY medium grey low plasticity
(    0.450    )    sticky fresh
```

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 TOP BASE LITHOLOGY SAMPLE

18.500 *** TOP OF 32	
18.500 - 19.670 (1.170)	LIGNITE, inferior medium brownish grey friable very weak rock fresh
19.670 *** BASE OF 32	
*** GEOLOGICAL THICKNESS: 1.170 Metres ***	
19.670 *** TOP OF 33	
19.670 - 21.000 (1.330)	LIGNITE dark brownish black friable very weak rock fresh
21.000 *** BASE OF 33	
*** GEOLOGICAL THICKNESS: 1.330 Metres ***	
21.000 - 21.600 (0.600)	CARBONACEOUS SILTSTONE medium brownish grey low plasticity sticky fresh
21.600 *** TOP OF 41	
21.600 - 22.100 (0.500)	LIGNITE dark brownish black friable very weak rock fresh
22.100 *** BASE OF 41	
*** GEOLOGICAL THICKNESS: .500 Metres ***	
22.100 - 22.350 (0.250)	CARBONACEOUS SILTSTONE medium brownish grey low plasticity sticky fresh
22.350 *** TOP OF 42	
22.350 - 22.850 (0.500)	LIGNITE dark brownish black friable very weak rock fresh
22.850 *** BASE OF 42	
*** GEOLOGICAL THICKNESS: .500 Metres ***	
22.850 - 23.200 (0.350)	CARBONACEOUS SILTSTONE medium brownish grey low plasticity sticky fresh
23.200 *** TOP OF 43	
23.200 - 23.750 (0.550)	LIGNITE dark brownish black friable very weak rock fresh
23.750 *** BASE OF 43	
*** GEOLOGICAL THICKNESS: .550 Metres ***	
23.750 - 25.770 (2.020)	CARBONACEOUS SILTSTONE medium brownish grey low plasticity sticky fresh

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 TOP BASE LITHOLOGY SAMPLE

25.770 *** TOP OF 52	
25.770 - 27.070 (1.300)	LIGNITE dark brownish black friable very weak rock fresh
27.070 *** BASE OF 52	
*** GEOLOGICAL THICKNESS: 1.300 Metres ***	
27.070 - 28.170 (1.100)	CARBONACEOUS SHALE dark brownish grey friable very weak rock fresh
28.170 *** TOP OF 6	
28.170 - 30.970 (2.800)	LIGNITE dark brownish black friable very weak rock fresh
30.970 - 32.400 (1.430)	LIGNITE, inferior medium brown fretted friable fresh larger chip size, aquifer 1000gal/hr, .62 salinity
32.400 *** BASE OF 6	
*** GEOLOGICAL THICKNESS: 4.230 Metres ***	
32.400 - 34.500 (2.100)	SILTSTONE light brownish grey sandy near middle of unit friable friable fresh
34.500 - 35.600 (1.100)	CARBONACEOUS SHALE light brownish grey clayey bands throughout friable friable fresh
35.600 *** TOP OF 7	
35.600 - 36.650 (1.050)	LIGNITE, inferior dark brownish black friable friable fresh abundant coaly fragments woody texture
36.650 *** BASE OF 7	
*** GEOLOGICAL THICKNESS: 1.050 Metres ***	
36.650 - 36.950 (0.300)	CLAY medium brownish grey low plasticity sticky fresh
36.950 *** TOP OF 8	
36.950 - 39.150 (2.200)	LIGNITE, inferior dark brownish black friable friable fresh
39.150 *** BASE OF 8	
*** GEOLOGICAL THICKNESS: 2.200 Metres ***	
39.150 - 42.000 (2.850)	CARBONACEOUS SILTSTONE light brownish grey coaly fragments throughout low plasticity sticky

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*****
TOP          BASE          LITHOLOGY          SAMPLE
*****
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fresh

42.000		*** BHWEL
42.000 - 46.650		CLAY medium brownish grey coaly
(4.650)		fragments throughout low plasticity
		sticky fresh
46.650 - 46.950		LIGNEOUS CLAY dark brownish black
(0.300)		friable very weak rock fresh
46.950 - 47.400		CARBONACEOUS CLAYSTONE medium
(0.450)		brownish grey low plasticity sticky
		fresh
47.400 - 48.100		LIGNEOUS CLAY dark brownish black
(0.700)		friable very weak rock fresh
48.100 - 48.720		CARBONACEOUS CLAYSTONE medium
(0.620)		brownish grey low plasticity sticky
		fresh
48.720 - 48.950		LIGNEOUS CLAY dark brownish black
(0.230)		friable very weak rock fresh woody
		texture
48.950 - 49.170		CARBONACEOUS CLAYSTONE medium
(0.220)		brownish grey low plasticity sticky
		fresh
49.170 - 49.400		LIGNEOUS CLAY dark brownish black
(0.230)		friable very weak rock fresh woody
		texture
49.400 - 49.770		CARBONACEOUS CLAYSTONE medium
(0.370)		brownish grey low plasticity sticky
		fresh
49.770 - 49.950		LIGNEOUS CLAY dark brownish black
(0.180)		friable very weak rock fresh woody
		texture
49.950 - 51.070		CLAY medium brownish grey low
(1.120)		plasticity sticky fresh
51.070 - 51.500		LIGNEOUS CLAY dark brownish black
(0.430)		friable very weak rock fresh woody
		texture
51.500 - 52.800		CLAY medium brownish grey low
(1.300)		plasticity sticky fresh
52.800 - 53.100		LIGNEOUS CLAY dark brownish black
(0.300)		friable very weak rock fresh woody
		texture
53.100 - 53.470		CLAY medium brownish grey low
(0.370)		plasticity sticky fresh
53.470 - 54.150		LIGNEOUS CLAY dark brownish black
(0.680)		friable very weak rock fresh woody
		texture

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*****
TOP          BASE          LITHOLOGY          SAMPLE
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54.150 - 54.850  CLAY medium brownish grey low
(    0.700    )  plasticity sticky fresh
54.850 - 55.370  LIGNEOUS CLAY dark brownish black
(    0.520    )  friable very weak rock fresh woody
                  texture
55.370 - 57.450  CLAY dark brownish grey low
(    2.080    )  plasticity sticky fresh
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```
57.450          *** TOP OF H1
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57.450 - 57.730  LIGNITE dark brownish black friable
(    0.280    )  very weak rock fresh woody texture
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```
57.730          *** BASE OF H1
```

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*** GEOLOGICAL THICKNESS:    .280 Metres    ***
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```
57.730 - 58.070  CLAY dark brownish grey low
(    0.340    )  plasticity sticky fresh
```

```
58.070          *** TOP OF H2
```

```
58.070 - 58.600  LIGNITE dark brownish black friable
(    0.530    )  very weak rock fresh woody texture
```

```
58.600          *** BASE OF H2
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```
*** GEOLOGICAL THICKNESS:    .530 Metres    ***
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```
58.600 - 58.870  CLAY dark brownish grey low
(    0.270    )  plasticity sticky fresh
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```
58.870          *** TOP OF I
```

```
58.870 - 59.100  LIGNITE dark brownish grey low
(    0.230    )  plasticity sticky fresh
59.100 - 60.550  LIGNITE light brownish grey medium
(    1.450    )  grained weakly consolidated very
                  weak rock fresh
                  large aquifer to around 67m,
                  +3000gal/hr, salinity .2
```

WASHOUT

```
60.550          *** BASE OF I
```

```
*** GEOLOGICAL THICKNESS:    1.680 Metres    ***
```

```
60.550 - 60.890  SANDSTONE light brownish grey
(    0.340    )  medium grained weakly consolidated
                  very weak rock fresh
                  large aquifer to around 67m,
                  +3000gal/
```

WASHOUT

```
60.890          *** TOP OF J1
```

```
60.890 - 61.270  LIGNITE dark brownish black friable
(    0.380    )  very weak rock fresh woody texture
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 TOP BASE LITHOLOGY SAMPLE

61.270 - 61.470 | CLAY dark brownish black friable
 (0.200) | very weak rock fresh woody texture
 61.470 - 62.810 | LIGNITE dark brownish black friable
 (1.340) | very weak rock fresh woody texture

62.810 *** BASE OF J1

*** GEOLOGICAL THICKNESS: 1.920 Metres ***

62.810 - 63.500 | SANDSTONE light brownish grey WASHOUT
 (0.690) | medium grained weakly consolidated
 very weak rock fresh

63.500 *** TOP OF J2

63.500 - 65.000 | LIGNITE dark brownish black friable
 (1.500) | very weak rock fresh

65.000 *** BASE OF J2

*** GEOLOGICAL THICKNESS: 1.500 Metres ***

65.000 - 68.700 | SANDSTONE light brownish grey WASHOUT
 (3.700) | medium grained weakly consolidated
 very weak rock fresh
 68.700 - 69.420 | LIGNEOUS CLAY dark brownish black
 (0.720) | friable very weak rock fresh
 69.420 - 69.750 | CARBONACEOUS CLAYSTONE dark
 (0.330) | brownish grey low plasticity sticky
 fresh
 69.750 - 71.700 | LIGNEOUS CLAY dark brownish black
 (1.950) | friable very weak rock fresh

Hammer

71.700 - 72.700 | LIGNEOUS CLAY dark brownish grey
 (1.000) | friable very weak rock fresh

72.700 *** TOP OF K

72.700 - 73.420 | LIGNITE dark brownish black friable
 (0.720) | very weak rock fresh

73.420 *** BASE OF K

*** GEOLOGICAL THICKNESS: .720 Metres ***

73.420 - 74.700 | CLAY medium brownish grey low
 (1.280) | plasticity sticky fresh

74.700 *** TOP OF L

74.700 - 75.020 | LIGNITE dark brownish black friable
 (0.320) | very weak rock fresh

75.020 - 75.300 | SANDSTONE light brownish grey WASHOUT

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*****
TOP      BASE      LITHOLOGY      SAMPLE
*****
(    0.800    )    throughout friable very weak rock
                    fresh
89.000 - 89.700    SANDSTONE light brownish grey fine          WASHOUT
(    0.700    )    to medium grained coaly fragments
                    throughout weakly consolidated
                    weakly cemented fresh
89.700 - 90.100    CLAY medium grey low plasticity
(    0.400    )    sticky fresh
90.100 - 90.800    LIGNITE, inferior dark brownish
(    0.700    )    black coaly wisps throughout
                    fretted very weak rock fresh
90.800 - 95.300    LIGNEOUS CLAY dark brownish grey
(    4.500    )    non plastic non sticky fresh
95.300 - 95.750    LIGNITE dark brownish black friable
(    0.450    )    very weak rock fresh
95.750 - 96.200    LIGNEOUS CLAY dark brownish grey
(    0.450    )    non plastic non sticky fresh
96.200 - 98.200    CLAY medium grey high plasticity
(    2.000    )    sticky fresh
98.200 - 98.450    CARBONACEOUS SILTSTONE medium
(    0.250    )    brownish grey low plasticity non
                    sticky fresh
98.450 - 98.700    LIGNITE dark brownish black friable
(    0.250    )    very weak rock fresh
98.700 - 100.420    CARBONACEOUS SILTSTONE medium
(    1.720    )    brownish grey low plasticity non
                    sticky fresh
100.420 - 101.250    LIGNEOUS CLAY dark brownish black
(    0.830    )    sandy fragments throughout fretted
                    fresh
101.250 - 101.400    CARBONACEOUS SILTSTONE medium
(    0.150    )    brownish grey friable very weak
                    rock fresh
101.400 - 101.900    LIGNEOUS CLAY dark brownish black
(    0.500    )    friable very weak rock fresh
101.900 - 102.150    CARBONACEOUS SILTSTONE medium
(    0.250    )    brownish grey friable very weak
                    rock fresh
102.150 - 102.620    LIGNEOUS CLAY dark brownish black
(    0.470    )    friable very weak rock fresh
102.620 - 103.070    CARBONACEOUS SILTSTONE medium
(    0.450    )    brownish grey friable very weak
                    rock fresh
103.070 - 104.050    LIGNITE dark brownish black friable
(    0.980    )    very weak rock fresh
104.050 - 105.320    CLAY medium grey plastic sticky

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*****
TOP      BASE      LITHOLOGY      SAMPLE
*****
( 1.270 ) fresh
105.320 - 105.520 LIGNITE dark brownish black friable
( 0.200 ) very weak rock fresh
105.520 - 106.050 LIGNEOUS CLAY dark greyish brown
( 0.530 ) friable very weak rock fresh
106.050 - 107.000 LIGNITE dark brownish black tough
( 0.950 ) weak rock fresh
5.5m LG removed from log - no
evidence in geophys - 109-114.5m.
107.000 - 108.500 CARBONACEOUS SILTSTONE medium
( 1.500 ) brownish grey friable very weak
rock fresh
108.500 - 115.100 CARBONACEOUS SILTSTONE medium
( 6.600 ) brownish grey non plastic very weak
rock fresh
115.100 - 118.300 CLAY medium grey coaly fragments
( 3.200 ) throughout plastic sticky fresh
common calcite fragments towards
base and middle of unit
118.300 - 119.500 CARBONACEOUS SILTSTONE medium
( 1.200 ) brownish grey non plastic very weak
rock fresh
119.500 - 119.900 CARBONACEOUS SILTSTONE dark black
( 0.400 ) low plasticity non sticky fresh
119.900 - 120.100 SILTSTONE medium grey non plastic
( 0.200 ) very weak rock fresh abundant
calcite infilling vesicles
120.100 - 123.800 CLAY medium grey low plasticity non
( 3.700 ) sticky fresh rare calcite fragments
throughout
123.800 - 124.500 CARBONACEOUS SILTSTONE medium
( 0.700 ) brownish grey friable very weak
rock fresh
124.500 - 125.000 CARBONACEOUS SILTSTONE medium
( 0.500 ) brownish grey coaly fragments
throughout friable very weak rock
fresh
125.000 - 125.500 TUFF light brown solid core strong
( 0.500 ) rock fresh
125.500 - 126.000 CARBONACEOUS SILTSTONE medium
( 0.500 ) brownish grey coaly fragments
throughout friable very weak rock
fresh
126.000 - 126.300 SILTSTONE medium grey non plastic
( 0.300 ) very weak rock fresh abundant
calcite infilling vesicles
throughout
126.300 - 128.400 CARBONACEOUS SILTSTONE medium

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*****
TOP      BASE      LITHOLOGY      SAMPLE
*****
(    2.100    )    brownish grey coaly fragments
                  throughout non plastic very weak
                  rock fresh
128.400 - 129.600  SILTSTONE medium grey non plastic
(    1.200    )    very weak rock fresh abundant
                  calcite infilling vesicles
                  throughout
129.600 - 131.500  CARBONACEOUS SILTSTONE medium
(    1.900    )    brownish grey coaly fragments
                  throughout non plastic very weak
                  rock fresh minor calcite fragments
                  throughout
131.500 - 131.900  CLAY medium grey low plasticity non
(    0.400    )    sticky fresh
131.900 - 132.300  TUFF light greyish brown solid core
(    0.400    )    strong rock fresh
132.300 - 132.600  SILTSTONE medium grey non plastic
(    0.300    )    very weak rock fresh
132.600 - 133.100  CARBONACEOUS SILTSTONE medium
(    0.500    )    brownish grey coaly fragments
                  throughout non plastic very weak
                  rock fresh
133.100 - 133.400  TUFF light greyish brown solid core
(    0.300    )    strong rock fresh
133.400 - 134.400  SILTSTONE medium grey sandy coaly
(    1.000    )    in part tough very weak rock fresh
134.400 - 134.700  TUFF light greyish brown solid core
(    0.300    )    strong rock fresh
134.700 - 135.400  CARBONACEOUS SILTSTONE medium
(    0.700    )    brownish grey coaly fragments
                  throughout tough very weak rock
                  fresh
135.400 - 135.700  TUFF light greyish brown solid core
(    0.300    )    strong rock fresh
135.700 - 136.900  CARBONACEOUS SILTSTONE medium
(    1.200    )    brownish grey coaly fragments
                  throughout tough very weak rock
                  fresh
136.900 - 137.900  TUFF light greyish brown solid core
(    1.000    )    very weak rock fresh
137.900 - 139.000  CARBONACEOUS SILTSTONE medium
(    1.100    )    brownish grey coaly fragments
                  throughout tough very weak rock
                  fresh
139.000 - 139.100  TUFF light greyish brown solid core
(    0.100    )    strong rock fresh
139.100 - 139.600  CARBONACEOUS SILTSTONE medium

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*****
TOP      BASE      LITHOLOGY      SAMPLE
*****
(    0.500    )    brownish grey tough very weak rock
                    fresh
139.600 - 139.850    LIGNITE dark brownish black friable
                    very weak rock fresh
(    0.250    )
139.850 - 140.050    CARBONACEOUS SILTSTONE medium
                    brownish grey tough very weak rock
                    fresh
140.050 - 140.350    LIGNITE medium brownish grey
                    friable very weak rock fresh
(    0.300    )
140.350 - 141.900    CARBONACEOUS SILTSTONE medium
                    brownish grey tough very weak rock
                    fresh
141.900 - 142.150    LIGNITE dark brownish black friable
                    very weak rock fresh
(    0.250    )
142.150 - 142.400    CARBONACEOUS SILTSTONE medium
                    brownish grey tough very weak rock
                    fresh
142.400 - 143.570    LIGNITE dark brownish black friable
                    very weak rock fresh
(    1.170    )
143.570 - 145.990    CARBONACEOUS SILTSTONE medium      END RUN
                    brownish grey tough very weak rock
                    fresh
                    end of geophysics run. Predict true
                    coal thickness around 0.7-1m in SS.
145.990 - 146.000    LIGNITE dark brownish black
                    siltstone bands throughout fresh
(    0.010    )
146.000 - 148.100    LIGNITE dark brownish black sandy
                    bands throughout fresh
(    2.100    )
148.100 - 148.900    SANDSTONE dark greyish brown fine      WASHOUT
                    to medium grained coaly fragments
                    throughout unconsolidated
                    unconsolidated fresh
                    4th major aquifer. drilling
                    problems again
148.900 - 150.000    CARBONACEOUS SILTSTONE medium
                    brownish grey coaly fragments
                    throughout friable very weak rock
                    fresh
(    1.100    )
150.000 - 150.100    TUFF light greyish brown solid core
                    strong rock fresh
(    0.100    )
150.100 - 152.200    SLATE medium grey non plastic very
                    weak rock fresh
(    2.100    )
152.200 - 153.500    CARBONACEOUS SILTSTONE medium
                    brownish grey coaly fragments
                    throughout friable very weak rock
                    fresh
(    1.300    )
153.500 - 154.000    SLATE medium grey coaly fragments

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*****
TOP      BASE      LITHOLOGY      SAMPLE
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(    0.500    )      throughout non plastic very weak
                  rock fresh
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154.000      ***** TOTAL DEPTH *****
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