Perth Basin Regional Mapping

Sale Offer

by

Saitta Petroleum Consultants Pty Ltd

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SPCPL

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C O N T E N T S

1. INTRODUCTION **1**

2. SEISMIC AND WELL DATA BASE **1**

3. SEISMIC INTERPRETATION **1**

3.1. Top Basement (Figure02) 2
3.2. Top High Cliff (Figure 03) 2
3.3. Base Kockatea (Figure 04) 2
3.4. Top Woodada (Figure 05) 2
3.5. Top Eneabba (Figure 06) 2
3.6. Intra CCM and Top CCM (Figures07&08) 2
3.7. Base Cretaceous Unconformity (Figure 09) 3

4. MONETARY REWARD EXPECTATIONS **3**

FIGURES

Figure 01 Seismic & Wells Location Map
Figure 02 Top Basement Ribbon Map
Figure 03 Top High Cliff Ribbon Map
Figure 04 Base Kockatea Ribbon Map
Figure 05 Top Woodada Ribbon Map
Figure 06 Top Eneabba Ribbon Map
Figure 07 Intra Cattamarra Ribbon Map
Figure 08 Top Cattamarra Ribbon Map
Figure 09 Base Cretaceous Unconformity Ribbon Map
Figure 10 Onshore Seismic Line Irwin 3D I 7711
Figure 11 Offshore Seismic Line E92AU09-09

TABLES

Table 1 Example of Well Location Data (Total 391 Wells)
Table 2 Example of Well Tops Data (Total 391 Wells)

1. INTRODUCTION

Saitta Petroleum Consultants Pty Ltd (SPCPL) has conducted a spec regional seismic interpretation over the most prospective part of the Onshore and Offshore Perth Basin as indicated on Figure 01.

Eight horizons were interpreted and are shown as Ribbon Maps in Figures 02 to 09. The project so far has taken about two years of part time work. The next step is to produce Time Structure Maps and possibly Depth Structure Maps for the various horizons. It is envisaged that the final products for this sale will be Time Structure Maps for the eight horizons supported by well picks and well time/depth functions. As part of the sale, Companies would receive asci files of line name, shotpoint, two-way time and fault flags. Generation of Depth maps would be left to individual customers or produced by SPCPL on request in a separate project. The interpretation/mapping status of each map is discussed in Section 3 of this sale information document.

The aim of this work is to provide companies who are actively exploring the basin or companies who are intending to get involved in the basin with a regional perspective of the basin to help them better understand the complexity and prospectivity of the Basin.

The author of this report, Tony Saitta has over 50 years' experience in the Petroleum industry with over 25 years direct involvement in the Perth Basin. The discovery of the Cliff Head Oil Field in late 2001 has been attributed as a success to the author and his team and was classified as an important discovery in the Irwin River Coal Measures (IRCM) and High Cliff which has subsequently led to a number of discoveries in pursuit of these older reservoirs, the latest being the gas discovery of the Lockyer Deep 1 in the IRCM Kingia Sandstone by the Norwest Energy and Mineral Resources Joint Venture.

Access to these maps is considered to be invaluable information for any company wishing to successfully explore the Perth Basin.

2. SEISMIC AND WELL DATA BASE

The SPCPL Seismic Data Base consists of over 96,000 line kilometres with lines shown in Figure 01. The compilation of the extensive seismic lines was done in collaboration with GeoCom Services Australia Pty. Ltd who have loaded the seismic data into SPCPL's Landmark SeisWorks interpretation software.

The Ribbon Maps shown were produced using the Petrosys Mapping software which also will be used to construct Time and Depth maps.

The Well Data Base consisting of 391 wells has been compiled using existing wells in SPCPL owned Data Base and added to from the online publicly available Wapims and Nopims Government database.

Tables 1 & 2 are examples of the key well information used in the seismic interpretation. Table 1 shows an example page of the well location information and Table 2 shows an example page from the well TVD information.

3. SEISMIC INTERPRETATION

The seismic interpretation was carried out by Tony Saitta of SPCPL using the Landmark SeisWorks interpretation software.

Eight horizons were interpreted as shown in Figures 02 to 09 and horizon identification is shown on Figures 10 & 11.

The status of the interpretation varies across the eight interpreted horizons. Below is a brief summary for the status of interpretation.

3.1. Top Basement (Figure02)

- Horizon interpreted on about 20,500kms.
- Interpretation concentrated in onshore & offshore areas where the horizon has been penetrated in wells.
- Fault polygons need to be completed before final mapping is done.

3.2. Top High Cliff (Figure 03)

- Horizon interpreted on about 9,900kms.
- Interpretation concentrated in onshore & offshore areas where the horizon has been penetrated in wells. In the offshore there is limited number of penetration of this horizon.
- Fault polygons need to be completed before final mapping is done.

3.3. Base Kockatea (Figure 04)

- This horizon has the largest areal coverage with interpretation about 41,500kms.
- Interpretation concentrated in onshore & offshore areas where the horizon has been penetrated in wells.
- Fault polygons are complete and this horizon is ready for mapping.

3.4. Top Woodada (Figure 05)

- Horizon interpreted on about 32,150kms.
- Interpretation concentrated in onshore & offshore areas where the horizon has been penetrated in wells.
- Fault polygons need to be completed before final mapping is done.

3.5. Top Eneabba (Figure 06)

- Extensive interpretation of this horizon on about 26,500kms.
- Interpretation concentrated in onshore areas where the horizon has been penetrated in wells and offshore mainly based on character and thicknesses.
- Fault polygons need to be completed before final mapping is done.

3.6. Intra CCM and Top CCM (Figures07&08)

- Extensive interpretation of these horizons on about 29,200kms on the Intra CCM and 23,000 the Top CCM. The Top CCM Ribbon Map shows extensive interpretation in the offshore, however it must be pointed out that the Top CCM and the Intra CCM horizon pick in the offshore cannot be identified as separate events as the section in the offshore is considerably different to the onshore seismic markers. Therefore the Top CCM Ribbon map shown in Figure 08 is a combination of Top CCM interpretation from the onshore area combined with the Intra CCM horizon of the offshore.
- So the actual length of the lines interpreted for these horizons are 29,200kms for the Intra CCM and 10,000kms for the Top CCM.
- Fault polygons need to be completed before final mapping is done.

3.7. Base Cretaceous Unconformity (Figure 09)

- Extensive interpretation of this horizon on about 19,300kms in the offshore area only.

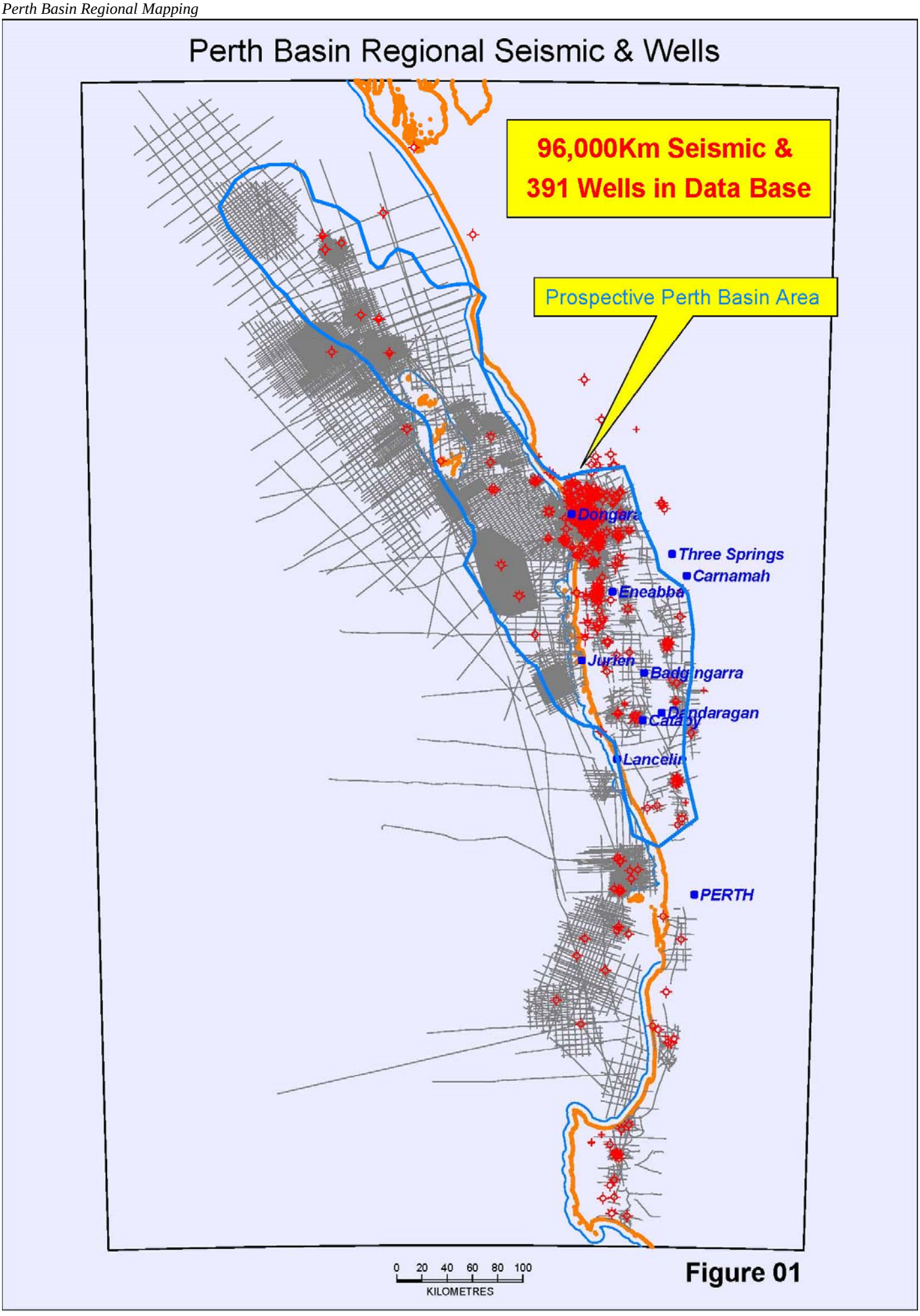
4. MONETARY REWARD EXPECTATIONS

As discussed above interpretation of seismic data is extensive with about 201,000 horizon kilometres. Allowing for duplicate Offshore Intra CCM interpretation of 13,000kms used in compiling the Top CCM values the total kilometres interpreted reduces to 188,000.

Using an average for an experienced geophysicist to interpret about 500kms seismic per day the 188,000 kms represents 376 days of work and this represents a monetary value of $752,000. Assuming that we achieve 10 sales than this would equate to $75,200 for each sale if all maps were sold as a package.

If customers were not interested in purchasing all maps a split up of values could be achieved as follows

- Basement (Figure 02) 20,500/500=41days=$82,000/10=$8,200
- High Cliff (Figure 03) 9,900/500=19.8days=$39,600/10=$3,960
- Base Kockatea (Figure 04) 41,500/500=83days=$166,000/10=$16,600
- Top Woodada (Figure 05) 32,150/500=64.3days=$128,600/10=$12,860
- Top Eneabba (Figure 06) 26,500/500=53days=$106,000/10=$10,600
- Intra CCM (Figure 07) 29,200/500=58.4days=$116,800/10=$11,680
- Top CCM (Figure 08) 23,000-13,000=10,000/500=20days=$40,000/10=$4,000
- Base Cretaceous (Figure 09) 18,300/500=36.6days=$73,200/10=$7300


Perth Basin Regional Seismic & Wells
96,000Km Seismic &
391 Wells in Data Base
Prospective Perth Basin Area
Dongara
Three Springs
Carnamah
Eneabba
Jurien
Badgingarra
Dandaragan
Cataby
Lancelin
PERTH
0 20 40 60 80 100
KILOMETRES
Figure 01

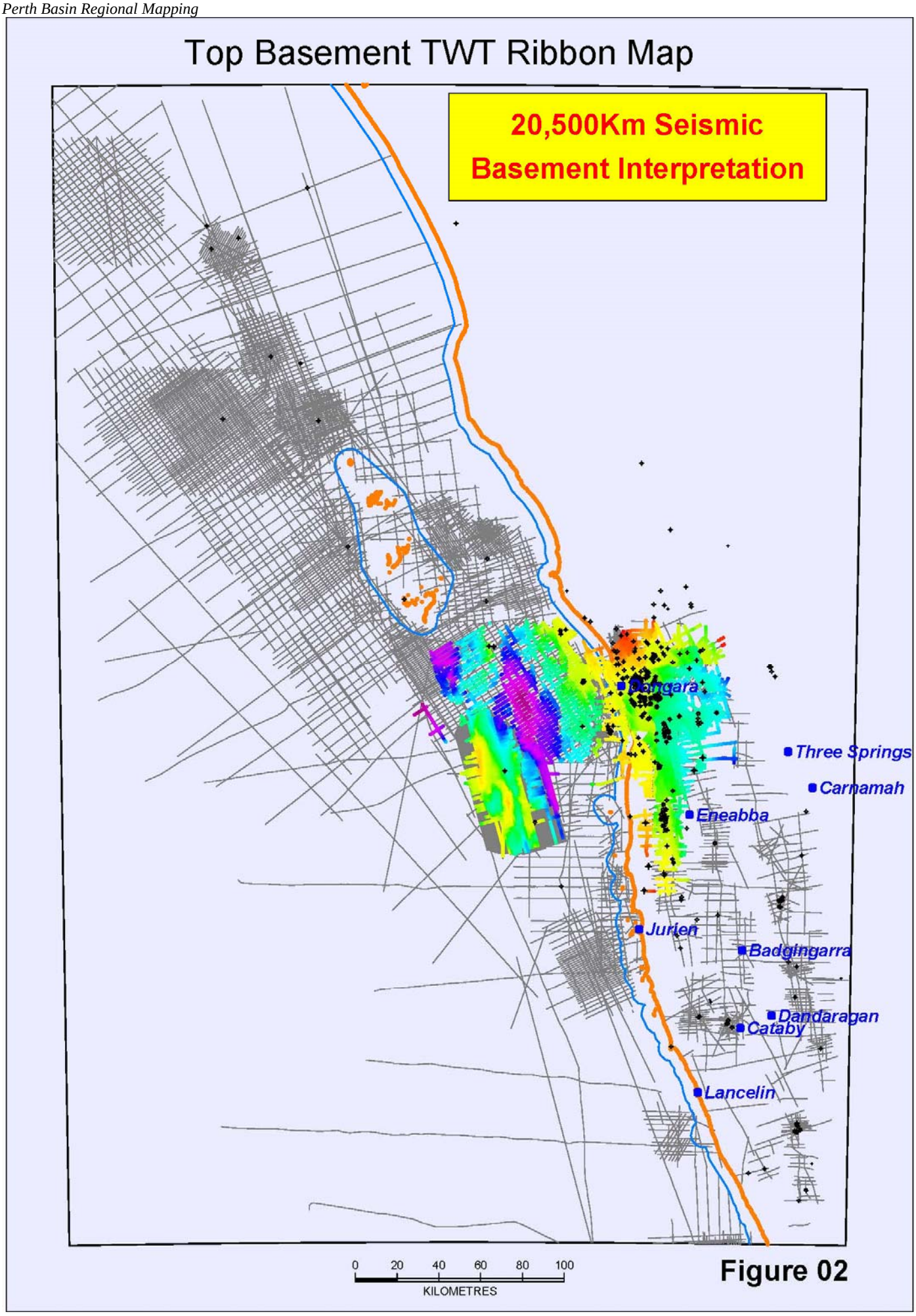
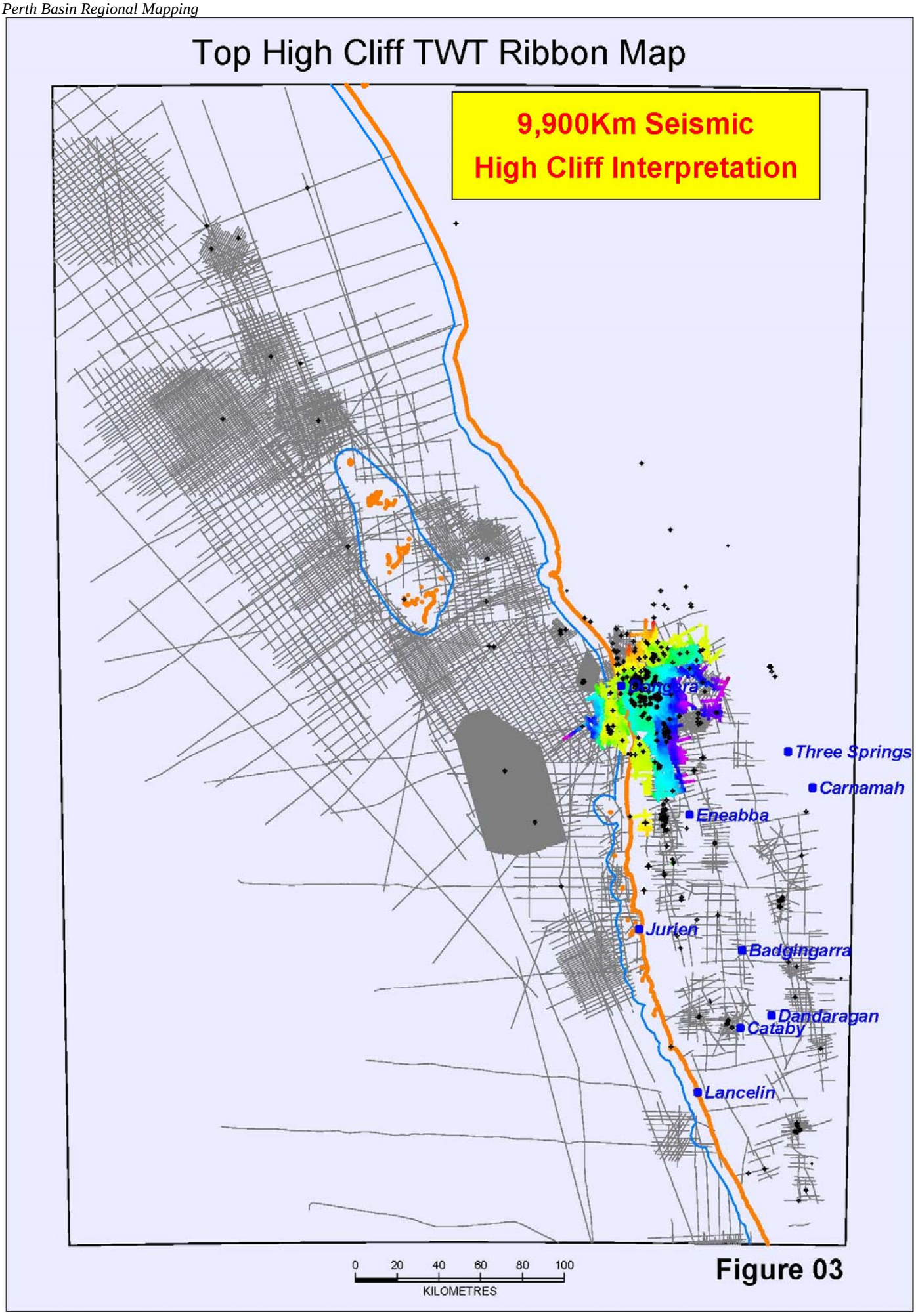

Top Basement TWT Ribbon Map
20,500Km Seismic
Basement Interpretation
Dongara
Three Springs
Carnamah
Eneabba
Jurien
Badgingarra
Dandaragan
Cataby
Lancelin
0 20 40 60 80 100
KILOMETRES

Figure 02


Top High Cliff TWT Ribbon Map
9,900Km Seismic
High Cliff Interpretation
Three Springs
Carnamah
Eneabba
Jurien
Badgingarra
Dandaragan
Cataby
Lancelin
0 20 40 60 80 100
KILOMETRES
Figure 03

Base Kockatea TWT Ribbon Map

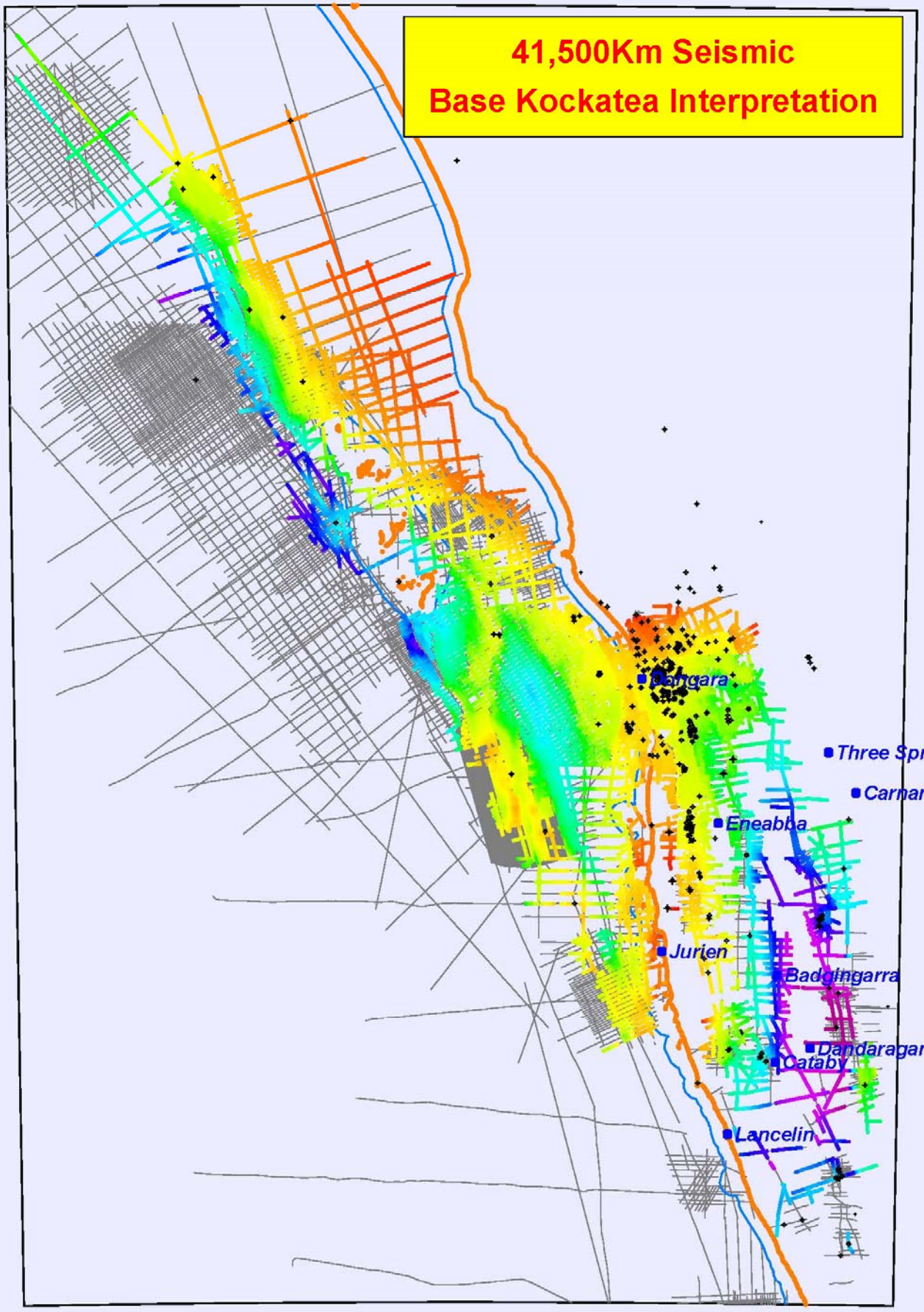


Figure 04

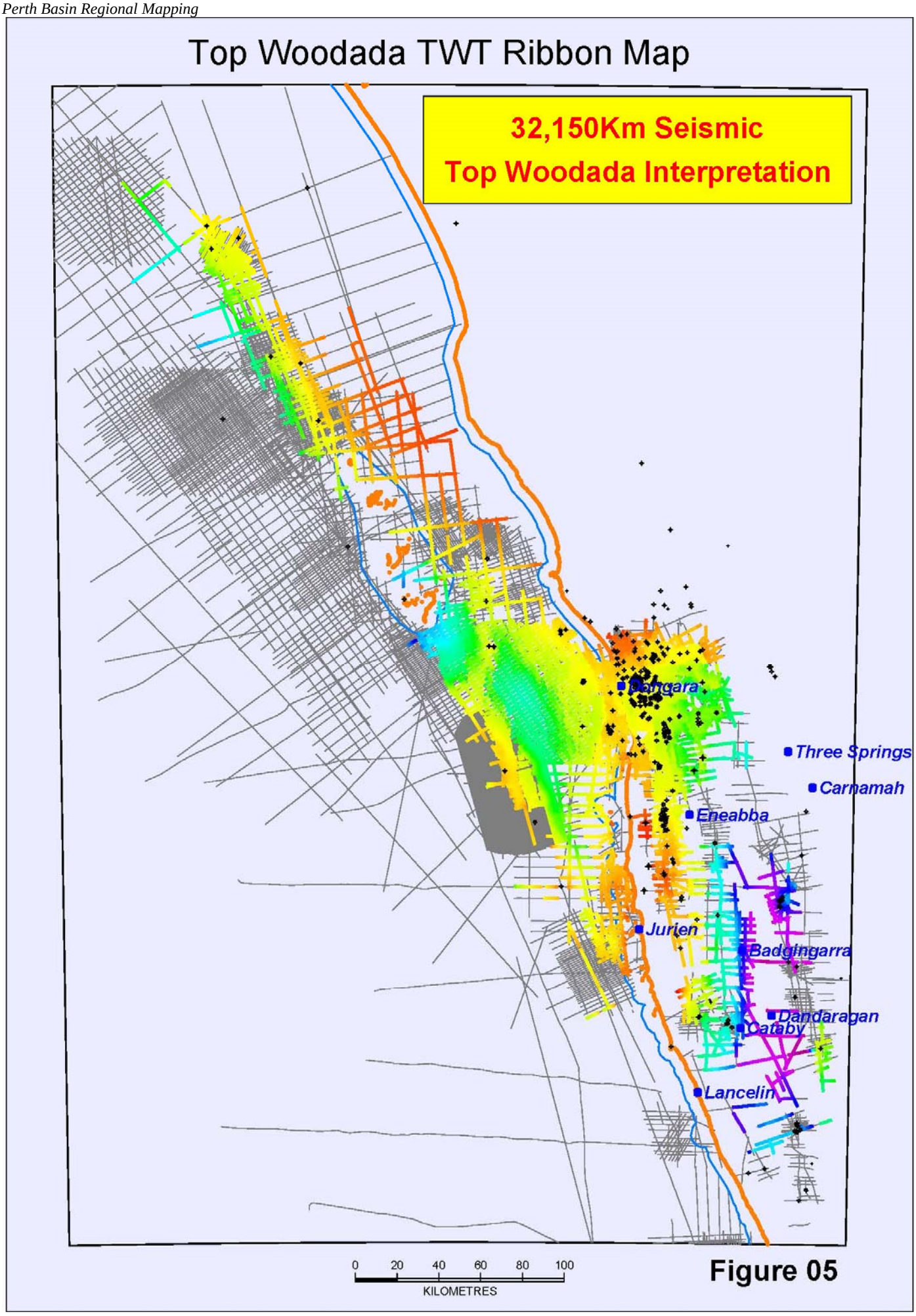
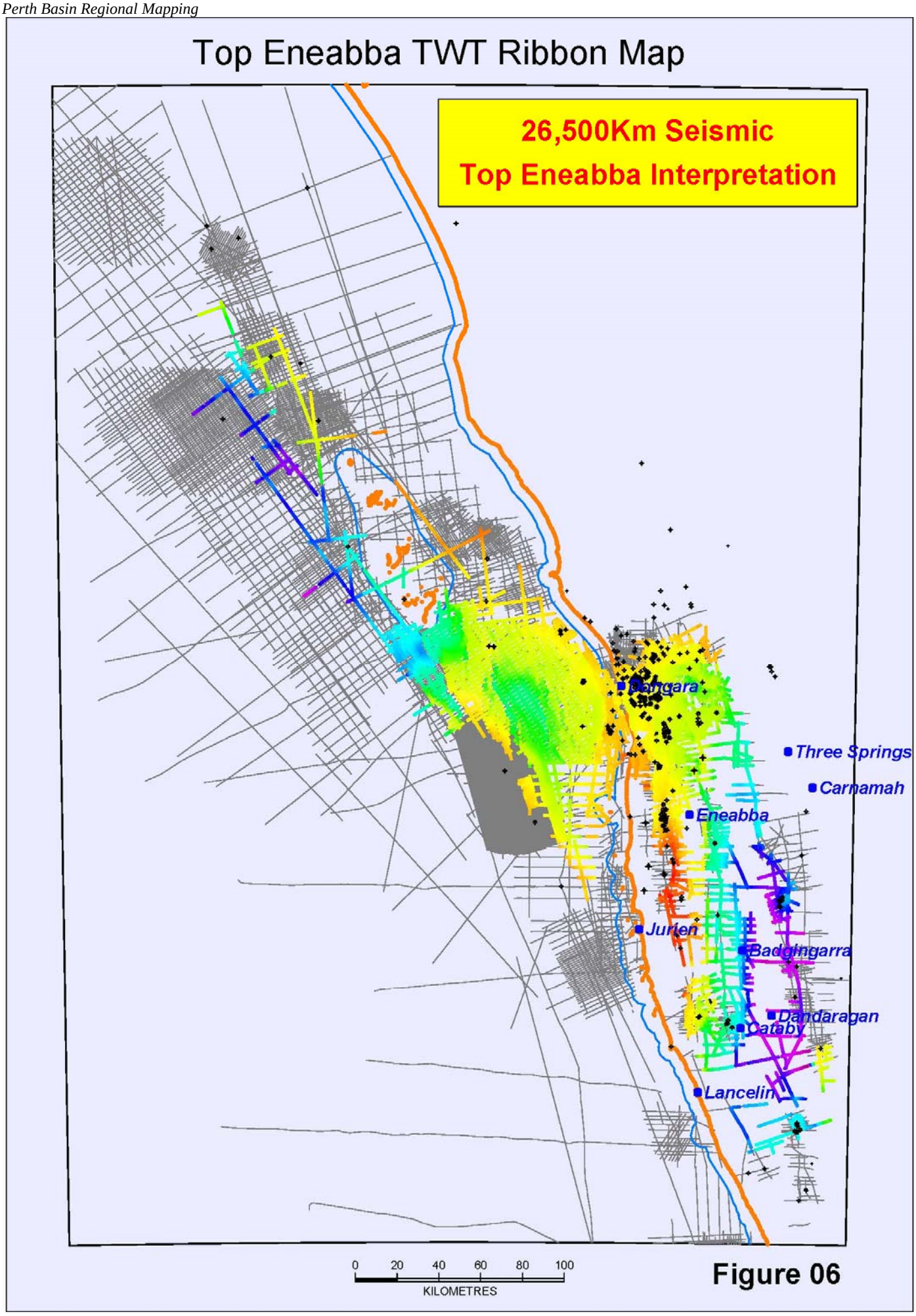
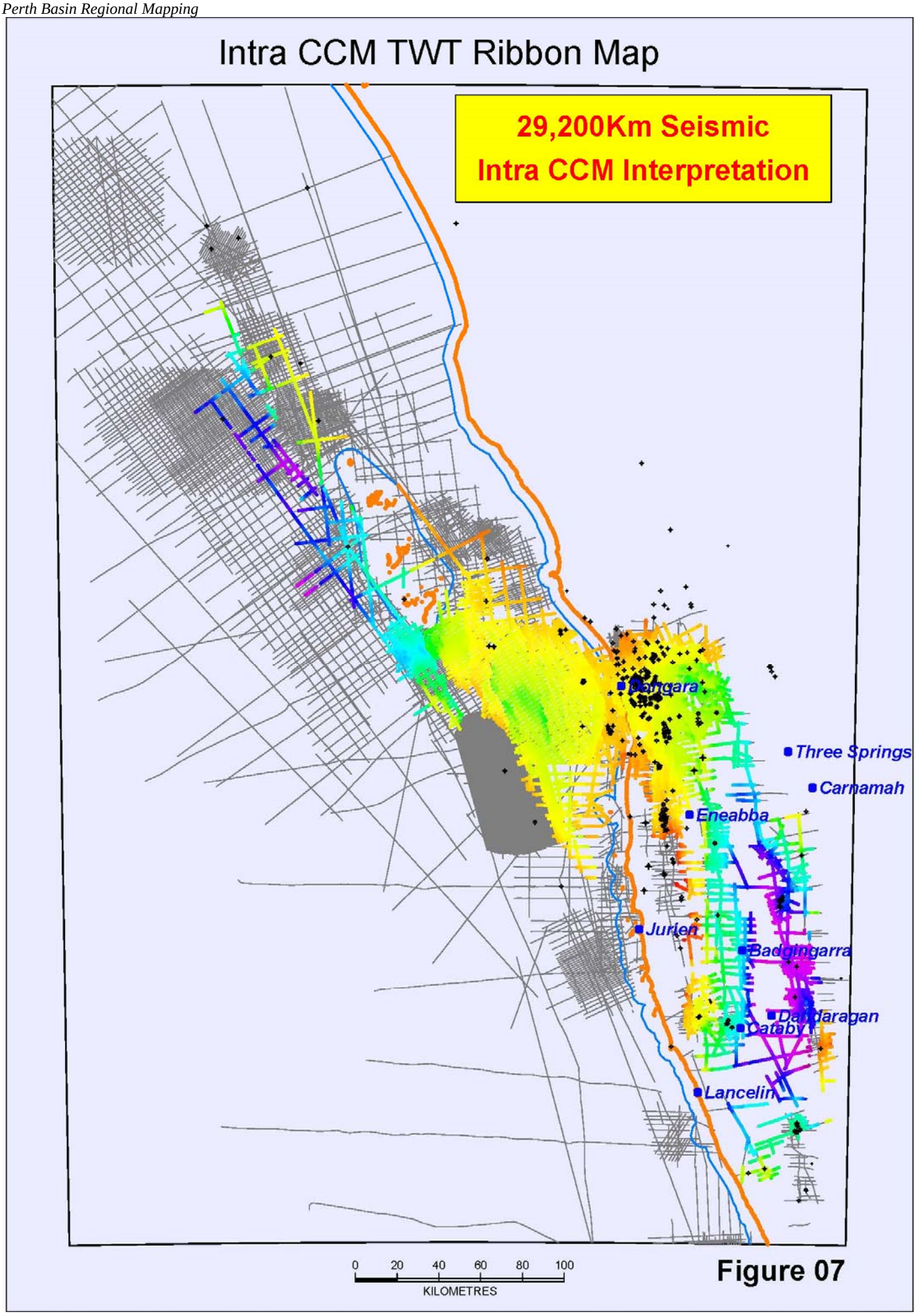
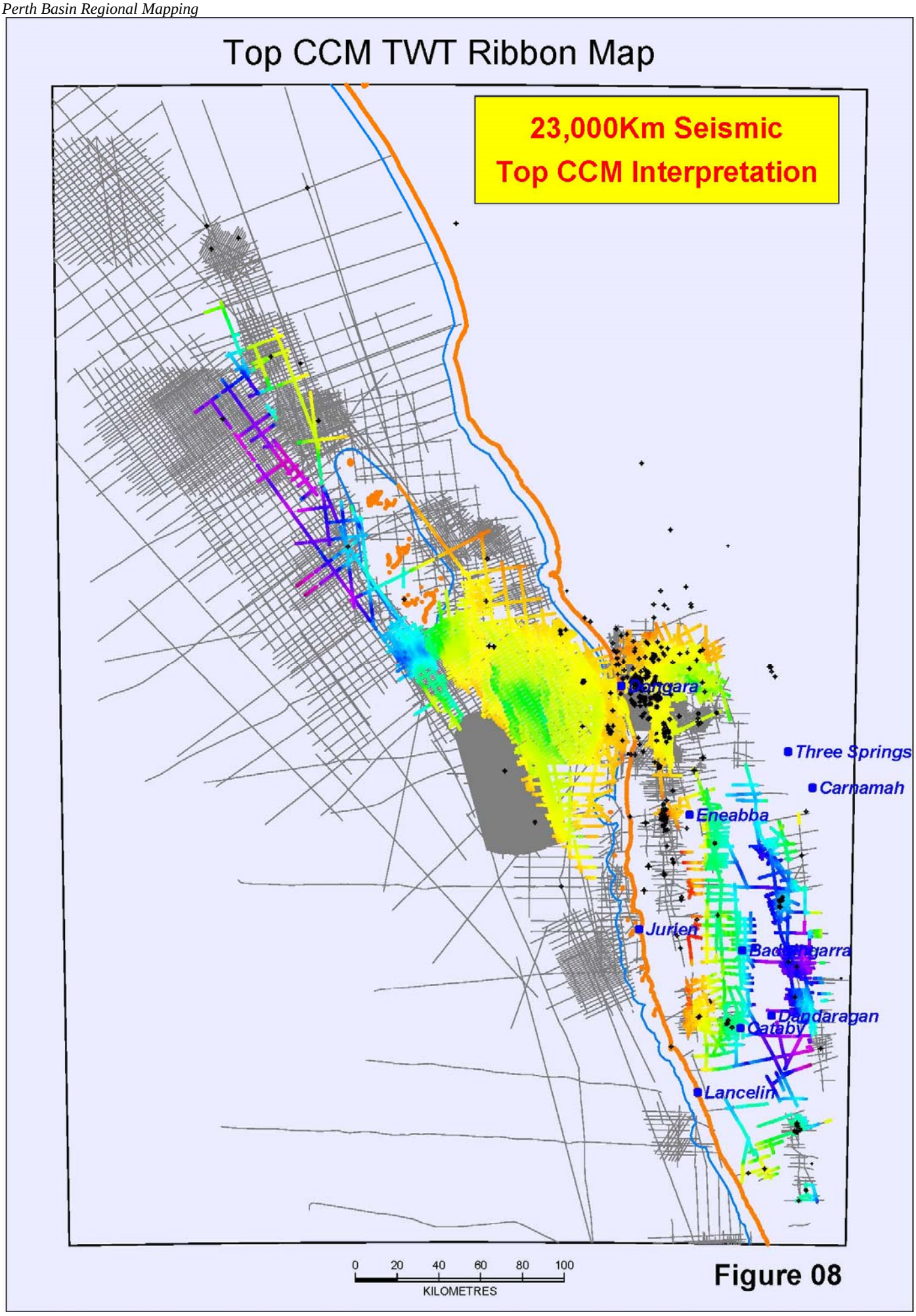

Top Woodada TWT Ribbon Map
32,150Km Seismic
Top Woodada Interpretation
Dongara
Three Springs
Carnamah
Eneabba
Jurien
Badgingarra
Dandaragan
Cataby
Lancelin
0 20 40 60 80 100
KILOMETRES

Figure 05


Top Eneabba TWT Ribbon Map
26,500Km Seismic
Top Eneabba Interpretation
Dongara
Three Springs
Carnamah
Eneabba
Jurien
Badgingarra
Dandaragan
Cataby
Lancelin
0 20 40 60 80 100
KILOMETRES
Figure 06


Intra CCM TWT Ribbon Map
29,200Km Seismic
Intra CCM Interpretation
Dongara
Three Springs
Carnamah
Eneabba
Jurien
Badgingarra
Cataby
Lancelin
0 20 40 60 80 100
KILOMETRES
Figure 07


Top CCM TWT Ribbon Map
23,000Km Seismic
Top CCM Interpretation
Dongara
Three Springs
Carnamah
Eneabba
Jurien
Badgingarra
Dandaragan
Cataby
Lancelin
0 20 40 60 80 100
KILOMETRES
Figure 08

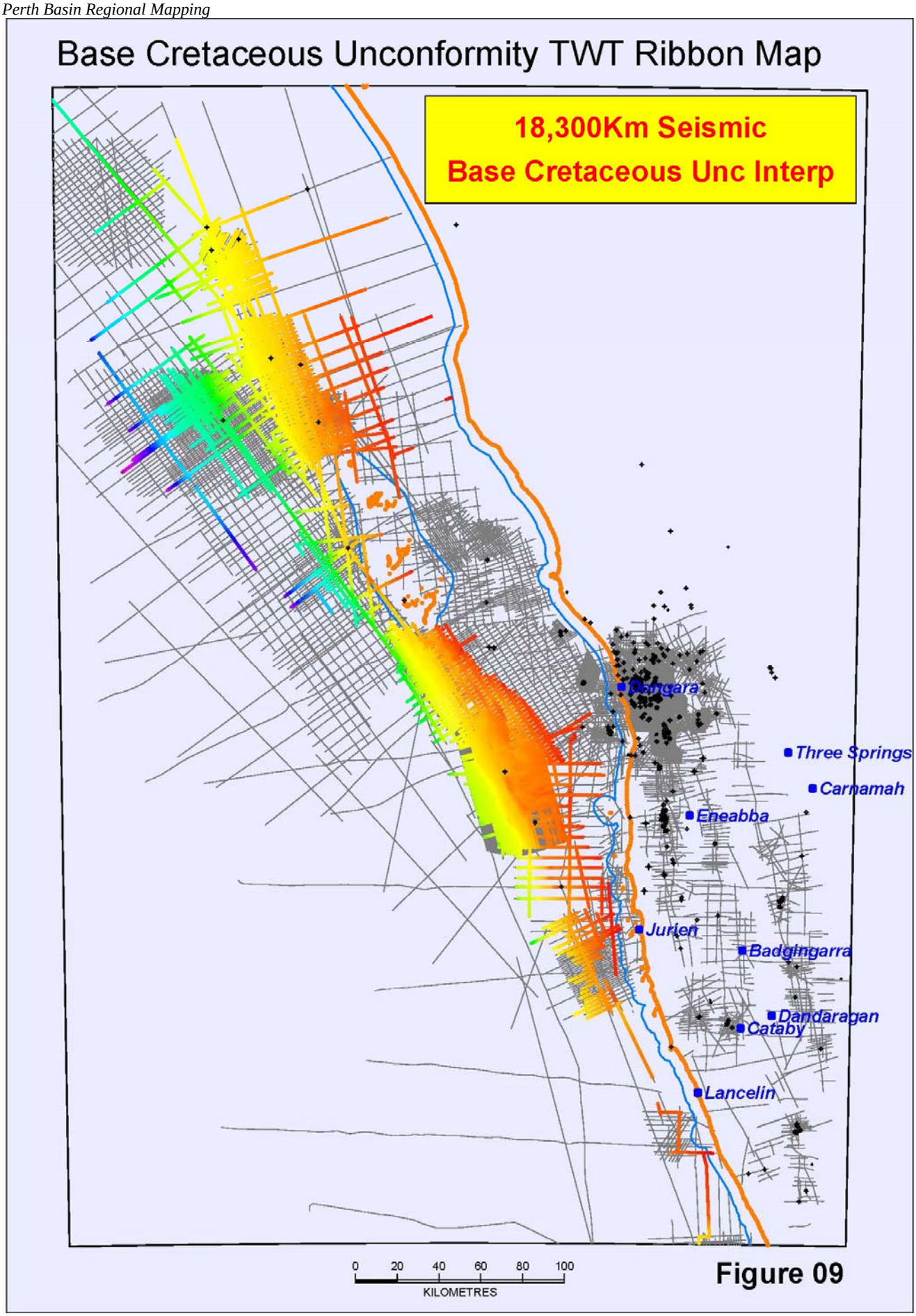
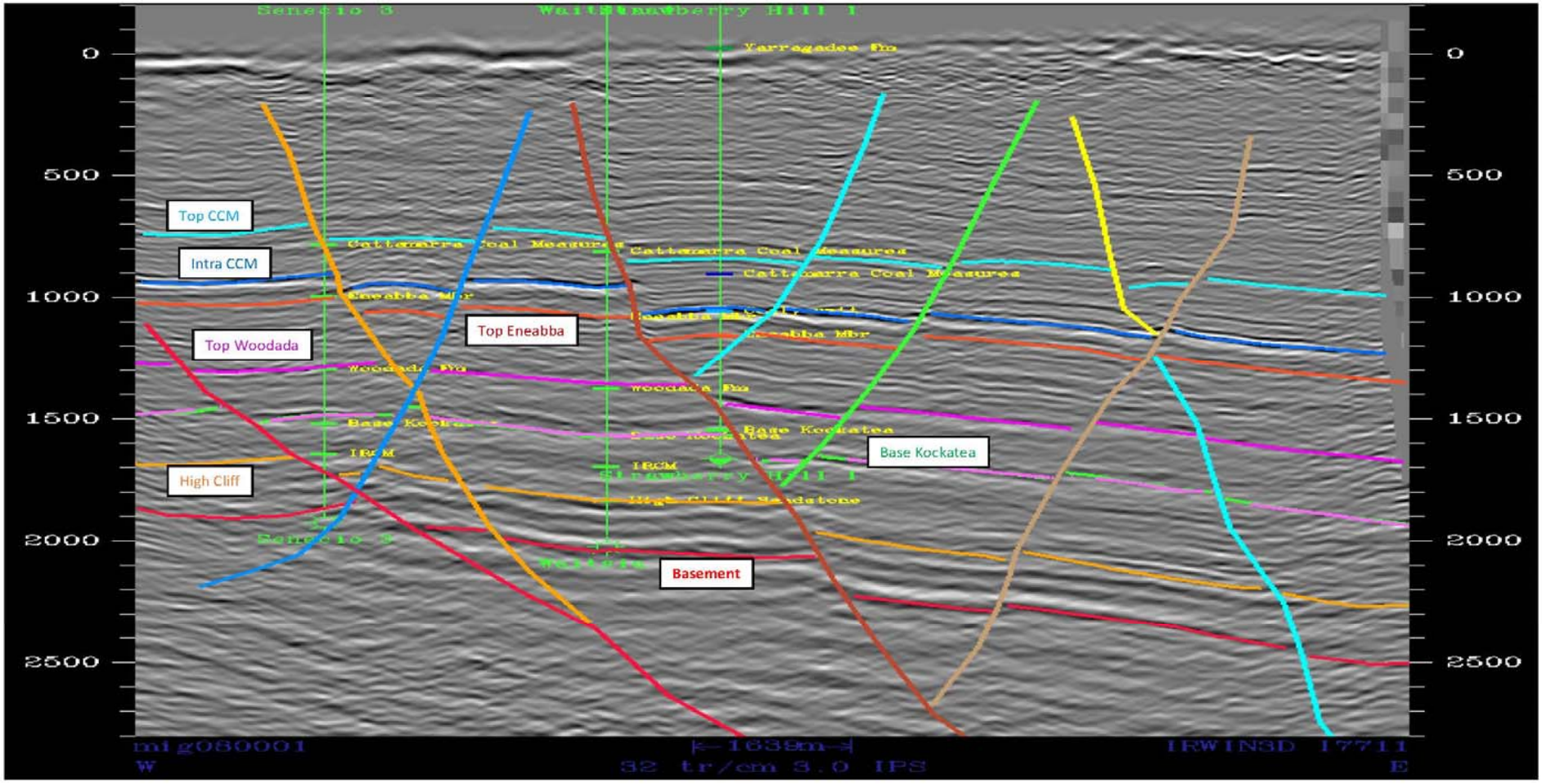

Base Cretaceous Unconformity TWT Ribbon Map
18,300Km Seismic
Base Cretaceous Unc Interp
Dongara
Three Springs
Carnamah
Eneabba
Jurien
Badgingarra
Dandaragan
Cataby
Lancelin
0 20 40 60 80 100
KILOMETRES

Figure 09

Onshore Line IRWIN 3D I7711

Figure 10



Offshore Line E92AU09-09

Figure 11

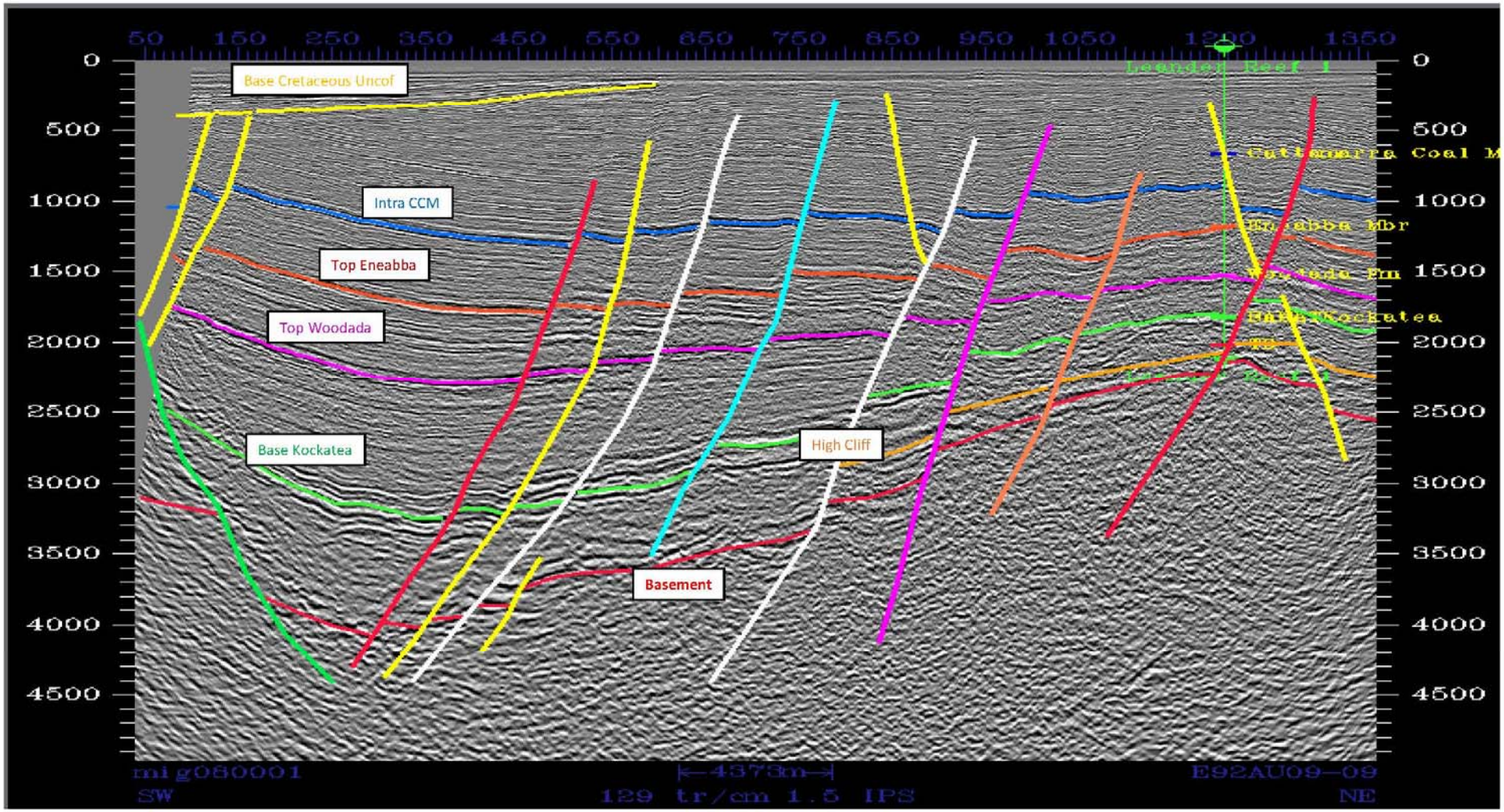


Table 1

Example of Well Location Data (Total 391 Wells)

Perth Basin Updated Wells						
UWI	**Well Name**	**Common Well Name**	**Easting**	**Northing**	**Symbol**	**Angle**
W000019	Abbarwardoo 1	Abbarwardoo 1	320168.00	6836626.00	104	0
W002769	Adina 1	Adina 1	329256.78	6262355.13	3	0
W002770	Adina 3	Adina 3	328897.88	6263196.14	3	0
W002764	Adina 4	Adina 4	329488.00	6263746.00	3	0
W002771	Adina 5	Adina 5	329239.18	6262961.20	3	0
W002692	Agonis 1 BH	Ag1BH	315866.00	6755664.00	129	0
W002692	Agonis 1	Agonis 1	315731.97	6756078.99		0
W000122	Alexandra Bridge 1	Alexandra Bridge 1	339669.33	6218898.60	104	0
W000099	Allanooka 1	Allanooka 1	306846.00	6774598.00	104	0
W000101	Allanooka 2	Allanooka 2	304857.37	6779411.03	104	0
W002677	Apium 1	Apium 1	312673.96	6755463.46		0
W002677	Apium 1 BH	Ap1BH	312683.00	6755509.00	137	0
W002956	Apium 2	Apium 2	312674.00	6755463.47		0
	Apium 2 BH	Ap2BH	312735.30	6755504.89	109	0
W003158	Apium North 1	Apium North 1	311804.00	6758679.00	105	0
W001839	Araucaria 1	Araucaria 1	345659.00	6434954.00		0
	Araucaria 1 BH	Araucaria 1 BH	345661.49	6434943.55	120	0
W002505	Arradale 1	Arradale 1	335909.00	6778947.00		0
	Arradale 1 BH	Arradale 1 BH	335932.96	6779008.38	104	0
W001600	Arramall 1	Arramall 1	315692.00	6725178.00	104	0
W001886	Arranoo 1	Arranoo 1	313035.00	6775120.00	120	0
W001950	Arranoo South 1	Arranoo South 1	313753.00	6773277.00	120	0
W000112	Arrowsmith 1	Arrowsmith 1	317827.00	6722855.00	169	0
W003295	Arrowsmith 2	Arrowsmith 2	318028.20	6722593.04	152	0
W000172	Badaminna 1	Badaminna 1	373354.00	6531878.00	104	0
W001678	Barberton 1	Barberton 1	398642.00	6590086.00	104	0
W000895	Barragoon 1	Barragoon 1	365645.00	6529653.00	104	0
W002795	Bartsia 1	Bartsia 1	303439.01	6758785.15		0
	Bartsia 1 BH	Ba1BH	303482.29	6758162.18	104	0
W000949	Batavia 1	Batavia 1	232948.00	6800175.00	104	0
W001099	Beekeeper 1	Beekeeper 1	324589.00	6711677.00	104	0
W000169	Beharra 1	Beharra 1	307448.00	6736650.00	104	0
W000171	Beharra 2	Beharra 2	308178.00	6733274.00	104	0
W001657	Beharra Springs 1	Beharra Springs 1	319748.00	6739153.00	170	0
W001727	Beharra Springs 2	BS2	320137.00	6737621.00	170	0
W001773	Beharra Springs 3	BS3	319669.00	6740693.00	170	0
W002920	Beharra Springs 4	BS4	320626.00	6741320.00	170	0
W006050	Beharra Springs Deep 1	Beharra Springs Deep 1	320047.00	6739487.00	170	0
W002473	Beharra Springs North 1	BSN1	320103.00	6742479.00	170	0
W002482	Beharra Springs South 1	BSS1	320952.32	6734797.94	121	0
W000732	Blackwood 1	Blackwood 1	348535.63	6220278.23	104	0
W001503	BMR 10 Dongara	BMR 10 Dongara	304473.00	6698779.00	104	0
W001504	BMR 10A Dongara	10A	304471.00	6698840.00	104	0
W001385	Bonnifield 1	Bonnifield 1	297182.00	6771363.00	120	0
W000114	Bookara 1	Bookara 1	283037.00	6791801.00	104	0
W000677	Bookara 2	Bookara 2	296877.00	6771789.00	104	0
W000678	Bookara 3	Bookara 3	294707.00	6778281.00	104	0
W001058	Bootine 1	Bootine 1	388224.00	6550240.00	104	0
W000906	Bouvard 1	Bouvard 1	336064.00	6400284.00	104	0
W000850	Bullsbrook 1	Bullsbrook 1	390056.00	6516971.00	104	0

Table 2

Example of Well Tops Data (Total 391 Wells)

TVD ALL SURFACES

					IC21	EN21	TW21	BK21	HC21	TB21
Well Name	Common Well Name	Easting	Northing	KB_Elev	SS DEPTH	SS DEPTH	SS DEPTH	SS DEPTH	SS DEPTH	SS DEPTH
Abbarwardoo 1	Abbarwardoo 1	320168.00	6836626.00	220.98				-175.48	-59.98	
Adina 1	Adina 1	329256.78	6262355.13	63.92						
Adina 3	Adina 3	328897.88	6263196.14	60.00						
Adina 4	Adina 4	329488.00	6263746.00	65.00						
Adina 5	Adina 5	329239.18	6262961.20	71.00						
Agonis 1 BH	Ag1BH	315866.00	6755664.00	50.03	1495.54	1659.82	2228.60	2634.05		
Agonis 1	Agonis 1	315731.97	6756078.99							
Alexandra Bridge 1	Alexandra Bridge 1	339669.33	6218898.60	37.00				371.13		
Allanooka 1	Allanooka 1	306846.00	6774598.00	51.21	584.92		654.98	832.79	872.79	1137.54
Allanooka 2	Allanooka 2	304857.37	6779411.03	70.41	499.47	557.15		706.60	781.02	913.59
Apium 1	Apium 1	312673.96	6755463.46							
Apium 1 BH	Ap1BH	312683.00	6755509.00	112.50		1512.23	2107.07	2647.26		
Apium 2	Apium 2	312674.00	6755463.47							
Apium 2 BH	Ap2BH	312735.30	6755504.89	112.90			2104.60	2639.50		
Apium North 1	Apium North 1	311804.00	6758679.00	110.80	1585.64	1751.64		2235.13		
Araucaria 1	Araucaria 1	345659.00	6434954.00							
Araucaria 1 BH	Araucaria 1 BH	345661.49	6434943.55	18.00						
Arradale 1	Arradale 1	335909.00	6778947.00							
Arradale 1 BH	Arradale 1 BH	335932.96	6779008.38	178.10	1250.67	1413.56	1531.47	1792.90		
Arramall 1	Arramall 1	315692.00	6725178.00	36.93	860.88	1095.97	1699.70	2183.57		2188.07
Arranoo 1	Arranoo 1	313035.00	6775120.00	161.00	997.55	1126.70	1196.20	1390.00	1614.24	
Arranoo South 1	Arranoo South 1	313753.00	6773277.00	150.00	1041.10	1182.81	1246.96	1473.50		
Arrowsmith 1	Arrowsmith 1	317827.00	6722855.00	55.98	907.07	1243.79	1931.11	2624.22	3192.22	3364.22
Arrowsmith 2	Arrowsmith 2	318028.20	6722593.04	55.20		1245.30	1993.80	2636.30	3225.80	
Badaminna 1	Badaminna 1	373354.00	6531878.00	41.45						
Barberton 1	Barberton 1	398642.00	6590086.00	222.00			2716.61			
Barragoon 1	Barragoon 1	365645.00	6529653.00	40.00						
Bartsia 1	Bartsia 1	303439.01	6758785.15							
Bartsia 1 BH	Ba1BH	303482.29	6758162.18	47.00		1277.92	1729.01	1986.07	2341.83	