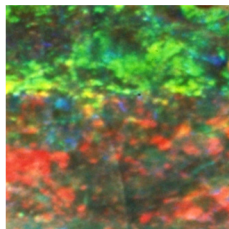




Opal Exploration Program — Andamooka Opal Fields



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**Geological Survey of South Australia,
Mineral and Energy Resources Group**

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Opal Exploration Program — Andamooka Opal Fields

Brian J. Morris

ABSTRACT

Opal at Andamooka is found in Bulldog Shale, shallow marine sediments, of Cretaceous age. Most opal is formed within a bleached profile at the contact of sandy claystone (*kopi*) and underlying grey-brown clay (*mud*) near the base of Bulldog Shale. The interface (*level*) is generally marked by a conglomerate layer which provided suitable open spaces or permeability barriers for opal formation.

Following a \$55 000 Government grant a subsidised opal exploration program, managed by Andamooka Progress and Opal Miners Association, operated between 2008 and 2011. During the period 30 Calweld holes, 104 auger holes and 68 trenches were completed. Traces of opal, mainly potch and dead matrix, were found in 12 holes at five separate locations and warrant further investigation, particularly an area east of White Dam.

INTRODUCTION

In 2006 the Opal Industry Alliance applied for a \$55 000 Government grant to run a subsidised drilling exploration program in the Andamooka Opal Fields. The Opal Industry Alliance comprises the Coober Pedy Miners Association Inc. (CPMAI), the Mintabie Miners and Progress Association (MMPA), the Andamooka Progress and Opal Miners Association Inc. (APOMA) and the South Australian Opal Miners Association Inc. (SAOMAI). The aim of the program was to encourage new operators to enter the opal industry in South Australia and improve the chances of opal discoveries through prospecting new areas in the Precious Stones Field (PSF) surrounding the township of Andamooka. The program was also hoped to boost declining production of opal at Andamooka, which had been a major world producer of precious opal since its first recorded production in 1933.

Participants in the program, which offered a 66% subsidy for the cost of a drill hole, were required to:

- Hold a current Precious Stones Prospecting Permit (PSPP).
- Be a member of APOMA.
- Record GPS coordinates for each hole, date of drilling, depth of hole and a brief descriptive drill log.
- Lodge recording sheets with APOMA to claim a subsidy.

As a general requirement drilling had to be within the PSF and at least 300 m from ground disturbed by opal mining operations and at least 200 m from any other tenement.

The program, overseen by APOMA, began in 2008 and at the request of the miners exploration trenching was added to the program in 2010. The scheme concluded in November 2011 with a total of 30 Calweld holes (AC1-AC30), 104 auger holes (AA1-AA104), and 68 trenches (AT1-AT68).

LOCATION AND ACCESS

Andamooka Opal Fields are near the western margin of Lake Torrens, 520 km north of Adelaide and 28 km east-northeast of Roxby Downs. Access is via sealed roads (Fig. 1).

The town and PSF are on Andamooka Pastoral Lease which lies within the Far North Planning Area.

Opal workings, all within 16 km of the town centre, are serviced by numerous interconnecting tracks (Plate 1).



Plate 1. View to the east of part of the Andamooka opal workings with Lake Torrens in the background. (Photo 414398)

GEOLOGICAL SETTING

Geology of the Andamooka PSF is detailed in Carr et al. (1979) and summarised below.

Opal host rock is deeply weathered, shallow-marine, Bulldog Shale (Marree Subgroup) of Cretaceous age which overlies Algebuckina Sandstone or laps directly on the pre-Mesozoic basement (Fig. 2).

Locally the Bulldog Shale has a well-developed weathering profile and comprises:

- An upper highly weathered, kaolinised and bleached zone of mainly white, slightly sandy clay that contains large sub-rounded boulders. This kaolinised zone is referred to as *kopi* and is generally less than 10 m thick but is thought to have had a pre-erosional thickness of at least 30 m.

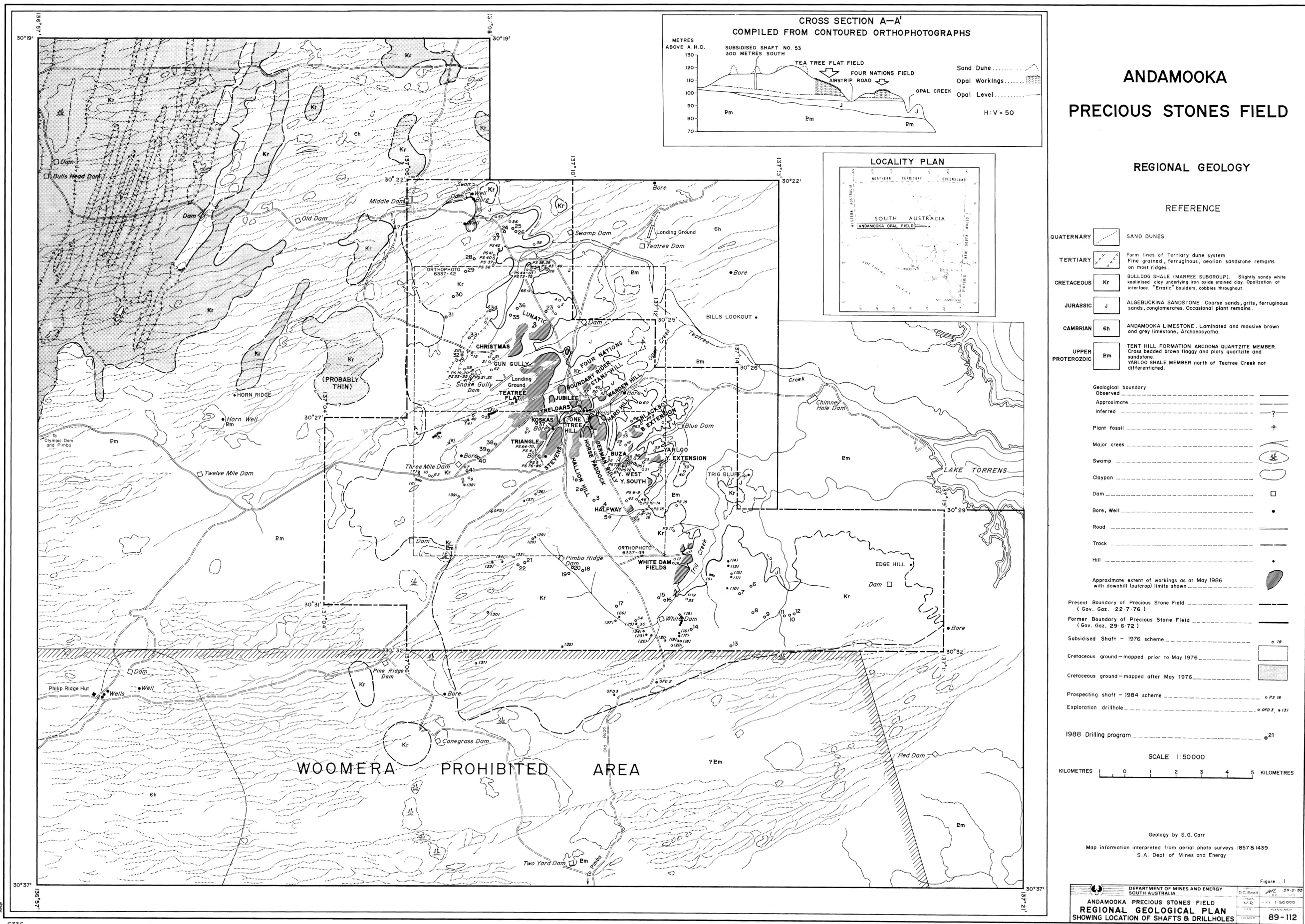


Figure 1. Regional Geological Plan showing location of 1976, 1984 and 1988 opal exploration programs. (Plan No. 89-112)

- Below the *kopi* is light brown, grey or yellow impermeable, moist claystone known as *mud*. This zone is up to 4 m thick and montmorillonite is the dominant clay mineral.
- The basal zone comprises up to 4 m of pale yellow to red and brown silt containing boulders of pre-Mesozoic quartzite and is referred to as *bulldust*.

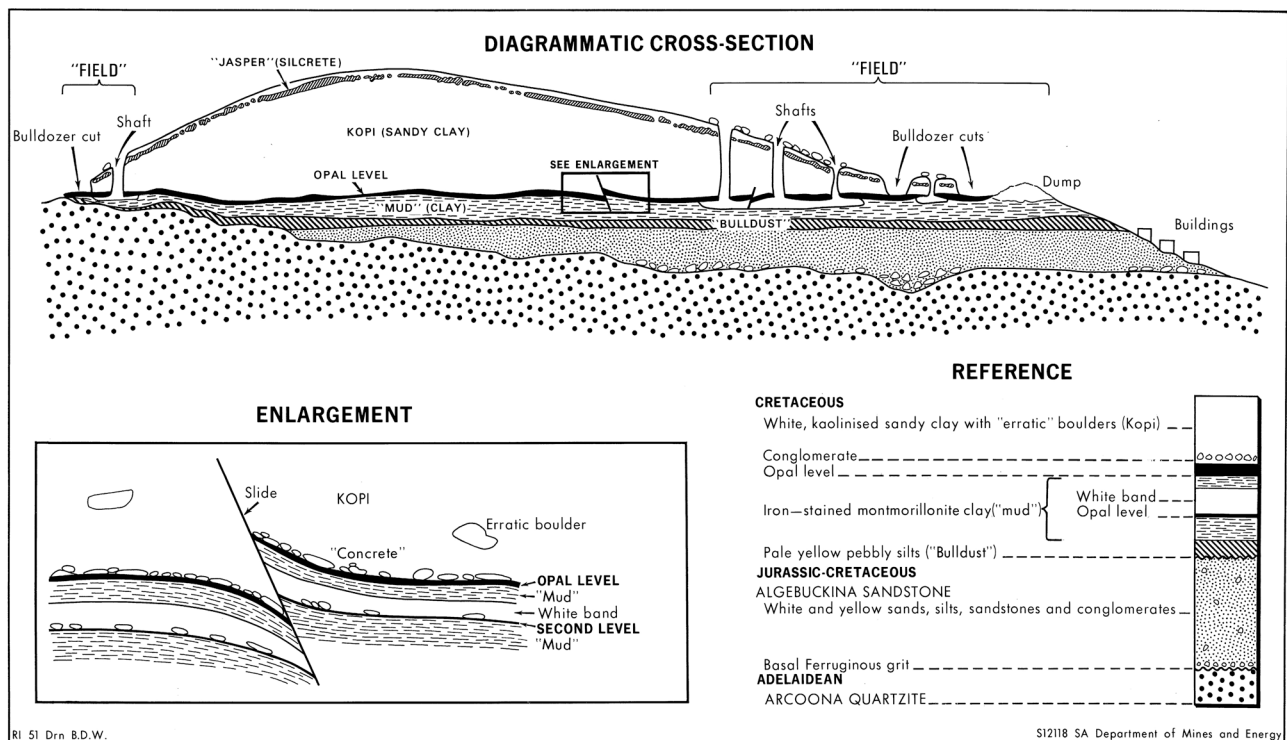


Figure 2. Diagrammatic cross-section of Andamooka Opal Field (after Carr et al. 1979). (Plan No. S12118)

A conglomerate band, the *level*, up to 0.2 m thick, generally marks the contact between *kopi* and underlying *mud* (Plate 2).

Opal is most commonly found at the *kopi*-*mud* interface randomly distributed within the *level* as void filling, cement or replacement in the conglomerate. In places a *white band* of *kopi*, 0.3 to 0.4 m thick, is below the *level*. A poorly developed conglomerate or second *level* marks the base of the *white band* and underlying *mud* where minor quantities of opal are sometimes found (Fig. 2). In addition thin horizontal to vertical opal seams occur in *mud* within 0.2 m of the interface.

Opal also replaces fossil shells and bones and coats cracks in quartzite boulders producing *painted ladies* (Plate 3).

The Cretaceous sediments were particularly affected by deep Tertiary weathering and the resultant highly kaolinised, bleached profiles are associated with development of extensive silcrete cappings. Silcrete has formed in situ, mainly on Bulldog Shale, only small areas of sheet silcrete remain and are generally less than 5 m thick. Elsewhere red sandy clay-silt with reworked *kopi* and silcrete boulders is present.

Quaternary brown soil with abundant quartzite gibber and gypsiferous/calcareous B-horizons, thinly mantle most surfaces. Aeolian sand dunes with associated interdunal clay-pans cover some areas adjacent to the opal fields.



Plate 2. Conglomerate *level* with white *kopi* above and moist, grey *mud* below. (Photo 414399)

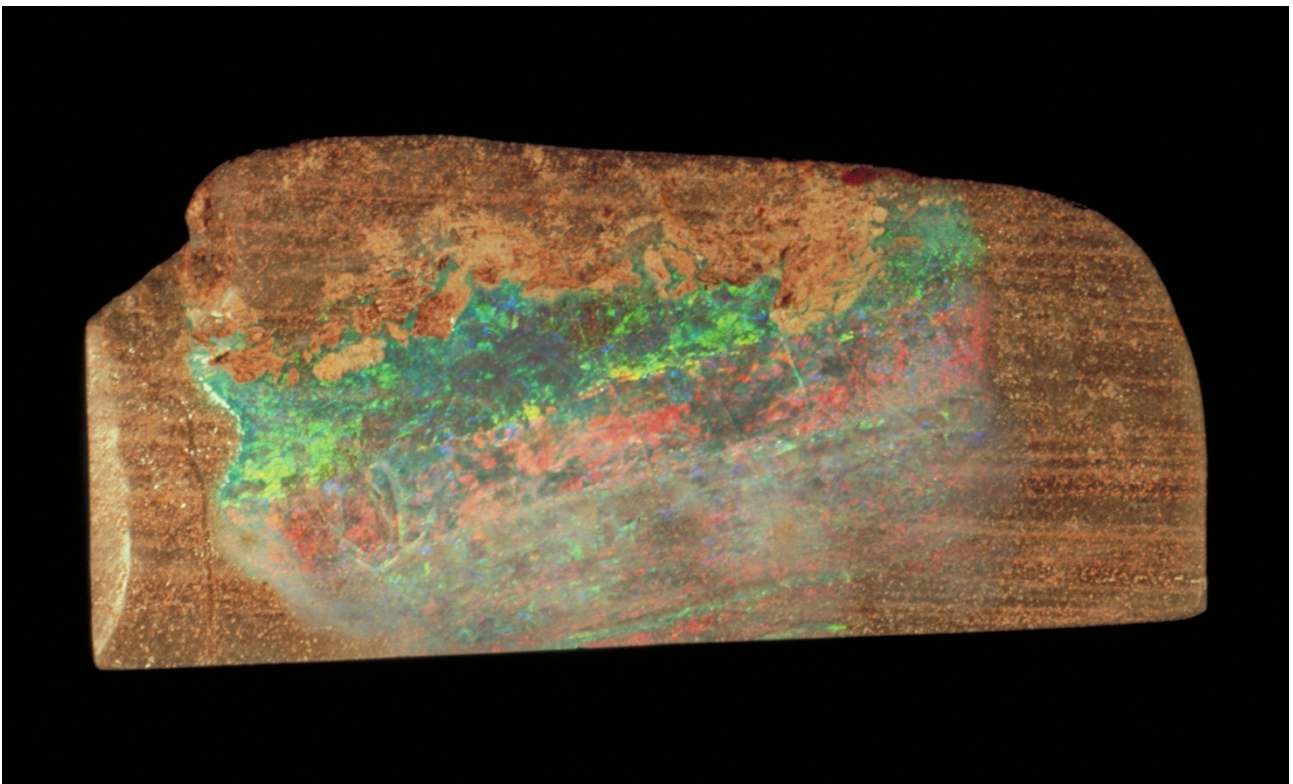


Plate 3. *Painted Lady* – polished opal coating fracture in a boulder of Arcoona Quartzite. (Photo 039417)

PREVIOUS INVESTIGATIONS

The first subsidised mining program began on 3rd May, 1976 and closed on 3rd September, 1976 with the aim of encouraging testing of ground away from the existing fields (Carr et al. 1979). The Government offered a subsidy of \$6 per metre for sinking a shaft and \$3 per metre for driving. The miner was free to sink a shaft with his own equipment or hire one of two Calweld drilling rigs that were available for hire at a rate of either \$9 per metre or \$7.50 per metre if the hirer assisted the drill operator. The subsidy was increased to \$10 per metre on 12th June, 1976 to encourage greater participation.

A total of 66 shafts were completed with 54 intersecting the *level* of which 39 were described as intersecting a well-developed *level*. Four shafts recorded opal with a play of colours while 11 shafts recorded opal in the form of *potch* or *dead matrix*. Two new fields, Stans Hill and Yarloo West, were established following the discovery of opal in the subsidised shafts (Fig. 1).

In May 1984 APOMA initiated a prospecting scheme, funded by donations from local business people and participants, to locate new opal fields and delineate areas with good opal potential within the PSF. The scheme was based on the 1976 subsidised mining scheme and no shaft could be drilled closer than 500 m from an existing field. The scheme was overseen by officers of the Department of Mines and Energy who plotted, logged and surveyed each shaft and published a report on the results (Scott et al. 1986). During June–October 1984, 81 Calweld shafts were sunk under the scheme (PS1-80; Fig. 1). Thirty five shafts intersected moderate to good *levels* while four of the holes recorded opal mainly in the form of *potch* or *dead matrix* with a trace of coloured *concrete*.

Scott et al. (1986) also reports on 71 holes drilled at 39 locations with an Ingersoll-Rand T-3 rig by one of the miners. There was difficulty in identifying the *level* from the cuttings of the small diameter drill hole (165 mm), no opal was encountered, although good to moderate *kopi* at 10 locations was considered to warrant further investigation.

In addition, logs and locations of three, 203 mm diameter holes drilled between July, 1982, and February, 1985, by Western Mining Corporation were included in the Scott et al. (1986) report (Fig. 1).

Each hole intersected Marree Subgroup sediments with one passing through moderate *kopi* and intersecting a *level*.

In September 1988, Olympic Dam Project management provided the services of a drill rig and crew to APOMA to find potential opal bearing areas within the PSF remote from existing workings. Forty one holes, using an Ingersoll-Rand T-4 percussion drill with a bit diameter of 203 mm, were drilled in a five-day program for an aggregate depth of 649.6 m (Fig. 1). The scheme was overseen by officers of the Department of Mines and Energy who plotted, logged and surveyed each shaft and published a report on the results (Scott 1989). Although no precious opal or *potch* was encountered, eight holes from five separate locations intersected good *levels* and further investigation was recommended, particularly an area southeast of White Dam Field.

Following successful field trials of a high resolution resistivity technique at Coober Pedy in 2005 (Zhe and Morris 2006) it was decided to test the method at the Andamooka opal field. In December, 2007, a meeting was held at the Andamooka Community Hall with the Andamooka Progress and Opal Miners Association Inc. (APOMA) and interested miners. The resistivity method and its possible application to opal exploration were presented and miners' queries answered. As a result of the meeting three test sites, where nearby excavations provided geological control, were selected by APOMA (Fig. 3). The trials were conducted in March, 2008, with the assistance of APOMA members (Morris and Zhe 2010).

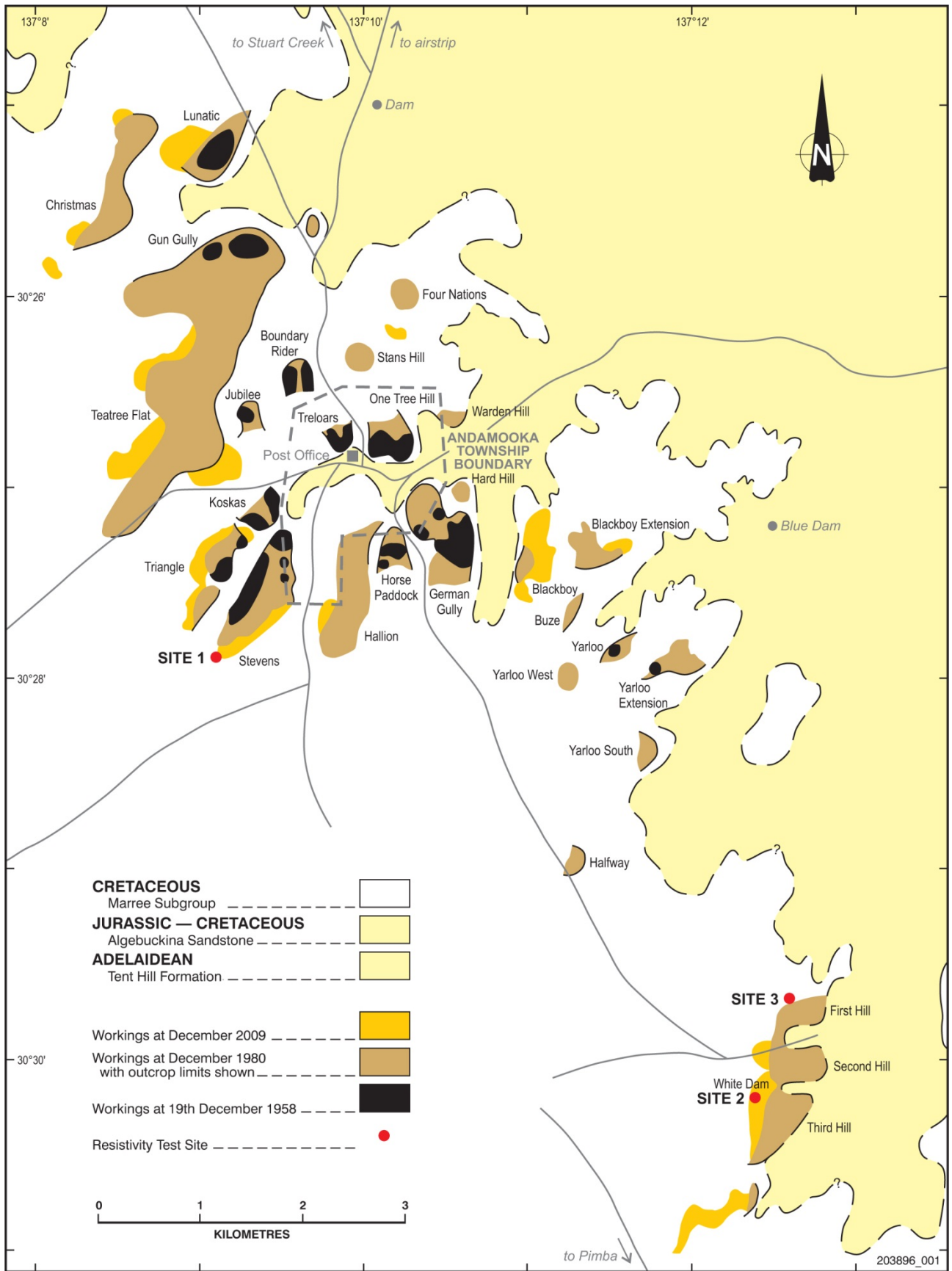


Figure 3. Andamooka Opal Fields with location of resistivity test sites. (Plan No. 203896_001)

The new technique recorded the electrical resistivity from the surface to a depth of investigation of around 25 m, and the results from three selected test sites showed that:

- There is a correlation between resistivity and lithology.
- Sub-surface fault structures can be delineated.
- The *kopi-mud* interface can be defined.

The technique may provide a quick, cost-effective method for assessing the potential of an opal claim.

RESULTS OF SUBSIDISED OPAL EXPLORATION PROGRAM

The exploration program which included Calweld drilling, auger drilling and trenching, ran from early 2008 to November, 2011. Results are summarised in Table 1 from data listed in Appendixes 1 and 2. Hole and trench locations are shown on Figure 4. GPS locations and assessment of holes and trenches are based on observations recorded by APOMA members.

Table 1. Summary of exploration program.

		Hole and trench number	Total
<i>Calweld drill</i>			
No level or abandoned above level	AC-22		1
Poor to moderate level	AC-1, 5, 8, 9, 11, 12, 15, 16, 20, 21		10
Good level	AC-3, 4, 10, 13, 14, 18, 24, 26, 28, 29, 30		11
Opal	AC-2, 6, 7, 17, 19, 23, 25, 27		8
			30
<i>Auger Drill</i>			
No level or abandoned above level	AA-8, 9, 10, 11, 12, 13, 38–45, 52, 53, 54, 73, 78, 95, 96, 99		22
Poor to moderate level	AA-1–7, 23–37, 48, 49, 50, 51, 55–72, 74, 75, 76, 77, 79, 80, 85, 86, 97, 98, 100–104		59
Good level	AA-14–22, 46, 81–84, 90–94		19
Opal	AA-47, 87, 88, 89		4
			104
<i>Trench</i>			
No level or abandoned above level	AT-1, 2, 3, 9, 10, 20, 37, 38, 42, 43, 45, 46, 48, 49, 54, 55, 59, 60, 61, 62, 64, 65		22
Poor to moderate level	AT-4, 5, 6, 7, 8, 11, 16, 17, 19, 21, 28, 29, 30, 33, 34, 35, 36, 39, 40, 41, 44, 47, 50, 51, 52, 56, 57, 58, 63, 68		30
Good level	AT-12, 13, 14, 15, 18, 22, 23, 23, 24, 25, 26, 27, 31, 32, 66, 67		16
			68

Holes and trenches that contained poor to moderate *levels* generally intersected significant thicknesses of clayey (less weathered), highly silicified or powdery *kopi*, and dry or sandy *mud*, whereas good *levels* were indicated by clean, porous *kopi* above slightly moist *mud* with minor sand content.

Depth measurements, particularly the auger holes, are considered approximate due to the delay in cuttings reaching the surface.

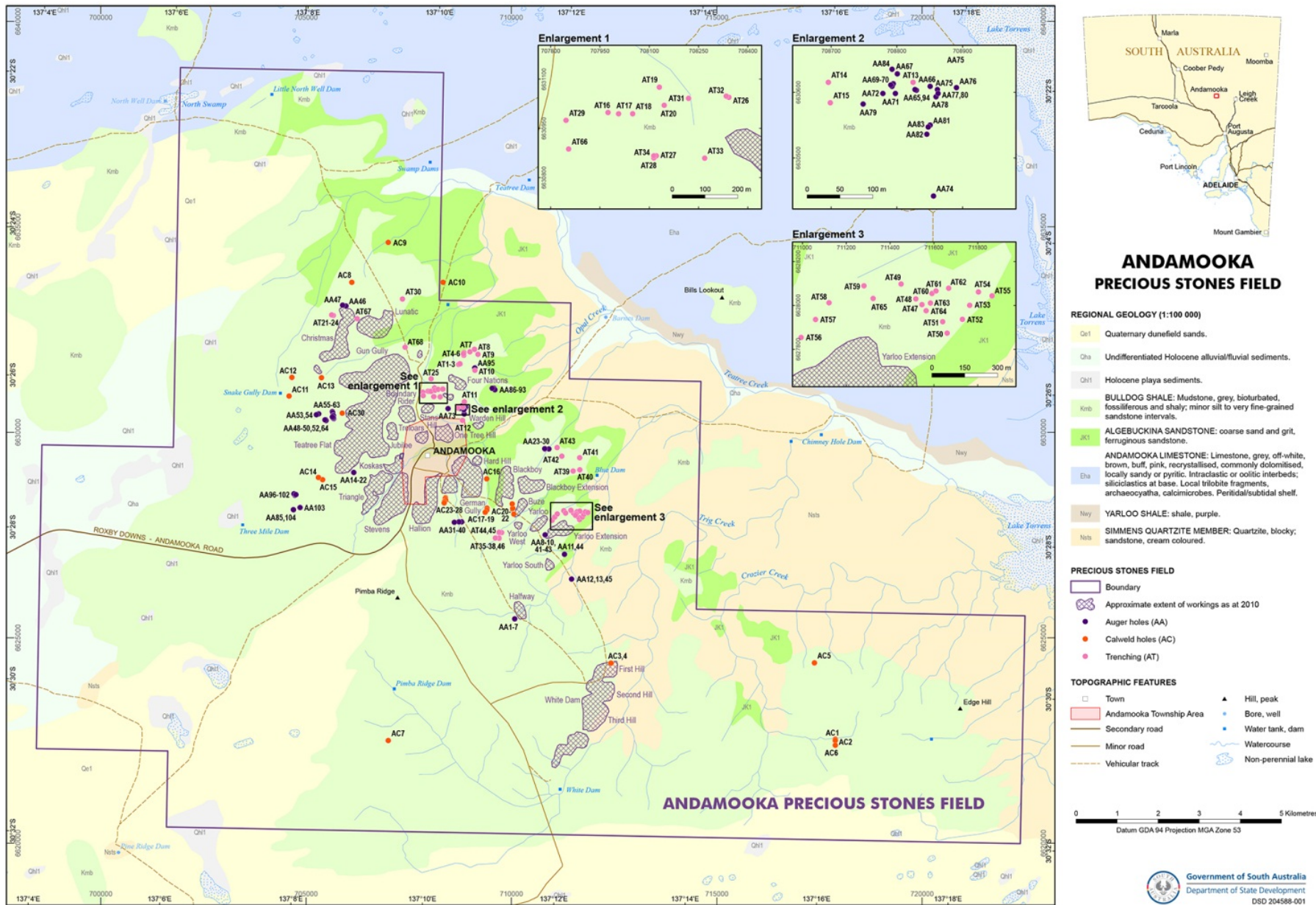


Figure 4. Andamooka Precious Stones Field with location of Calweld holes, auger holes and trenching. (Plan No. 204588-001)

Opal mainly in the form of potch or dead matrix was intersected in eight of the 30 Calweld holes at four locations:

- 5 km east of White Dam fields (AC2 and AC6).
- North of Lunatic field (AC7).
- German Gully/Blackboy fields (AC17 and AC19).
- Horse Paddock Extension field (AC23, AC25 and AC27).

Opal mainly in the form of potch or matrix was intersected in four of the 104 auger holes at two locations:

- Lunatic Extension field (AA47).
- East of Four Nations field (AA87 – AA89).

Good *levels*, considered prospective for opal, were intersected in the vicinity of the following fields; White Dam, Stans Hill, Teatree Flat/Triangle, German Gully, Yarloo, Lunatic, Four Nations, Christmas and Horse Paddock.

CONCLUSIONS AND RECOMMENDATIONS

During the four year program 30 Calweld holes, to an average depth of 13.4 m, 104 auger holes, to an average depth of 10.8 m and 68 trenches, to an average depth of 3.2 m, were completed.

Locations and descriptive logs were compiled from APOMA members' observations.

Twelve holes intersected traces of opal at five separate locations:

- East of White Dam fields.
- North of Lunatic field.
- German Gully/Blackboy fields.
- South of Horse Paddock field.
- East of Four Nations field.

Each of these locations is considered prospective and warrants further investigation.

Good *levels*, considered prospective for opal, were intersected at 46 widely distributed target sites indicating that the Andamooka opal fields still have the potential for significant opal discoveries.

REFERENCES

- Carr SG, Olliver JG, Connor CHH and Scott DC 1979. *Andamooka Opal Fields. The Geology of the Precious Stones Field and the Results of the Subsidised Mining Program*. Report of Investigations 51. Geological Survey of South Australia.
- Morris BJ and Zhe J 2010. *High Resolution Resistivity Test Survey: Andamooka*. Report Book 2010/00003. Department of Primary Industries and Resources South Australia, Adelaide.
- Scott DC, Flint DJ, Keeling JL and Townsend IJ 1986. *Andamooka Opal Fields Results of the 1984 Prospecting Scheme*. Report Book 86/70. Department of Mines and Energy. South Australia, Adelaide.
- Scott DC 1989. *Andamooka Opal Fields results of the 1988 Drilling Program*. Report Book 89/17. Department of Mines and Energy. South Australia, Adelaide.
- Zhe J and Morris BJ 2006. High resolution resistivity: a new exploration tool. *MESA Journal* 41:34–37. Department of Primary Industries and Resources South Australia, Adelaide.

APPENDIXES

APPENDIX 1. SUMMARY OF ANDAMOOKA SUBSIDISED OPAL EXPLORATION PROGRAM

Number	Date	Depth (m)	Easting	Northing	Zone	Accuracy (m)	Datum	Operator	Field	Tenement type	Tenement name
<i>Auger drilling</i>											
AA1	8/05/2010	12.5	710085	6625457	53	4	WGS84	Pawlaczyk	Halfway	PSPP	Andamooka Precious Stones Field
AA2	8/05/2010	6.1	710085	6625457	53	4	WGS84	Pawlaczyk	Halfway	PSPP	Andamooka Precious Stones Field
AA3	8/05/2010	6.1	710085	6625457	53	4	WGS84	Pawlaczyk	Halfway	PSPP	Andamooka Precious Stones Field
AA4	8/05/2010	6.1	710085	6625457	53	4	WGS84	Pawlaczyk	Halfway	PSPP	Andamooka Precious Stones Field
AA5	8/05/2010	6.1	710085	6625457	53	4	WGS84	Pawlaczyk	Halfway	PSPP	Andamooka Precious Stones Field
AA6	8/05/2010	6.1	710085	6625457	53	4	WGS84	Pawlaczyk	Halfway	PSPP	Andamooka Precious Stones Field
AA7	8/05/2010	6.1	710085	6625457	53	4	WGS84	Pawlaczyk	Halfway	PSPP	Andamooka Precious Stones Field
AA8	5/05/2010	6.1	710826	6627503	53	4	WGS84	Pawlaczyk	Yarloo	PSPP	Andamooka Precious Stones Field
AA9	5/05/2010	6.1	710826	6627503	53	4	WGS84	Pawlaczyk	Yarloo	PSPP	Andamooka Precious Stones Field
AA10	5/05/2010	6.1	710826	6627503	53	4	WGS84	Pawlaczyk	Yarloo	PSPP	Andamooka Precious Stones Field
AA11	5/05/2010	6.1	711298	6627028	53	4	WGS84	Pawlaczyk	Yarloo South	PSPP	Andamooka Precious Stones Field
AA12	5/05/2010	6.1	711468	6626424	53	4	WGS84	Pawlaczyk	Yarloo South	PSPP	Andamooka Precious Stones Field
AA13	5/05/2010	6.1	711468	6626424	53	4	WGS84	Pawlaczyk	Yarloo South	PSPP	Andamooka Precious Stones Field
AA14	4/05/2010	13.7	706166	6629020	53	4	WGS84	Pawlaczyk	Teatree Flat-Triangle	PSPP	Andamooka Precious Stones Field
AA15	4/05/2010	13.7	706166	6629020	53	4	WGS84	Pawlaczyk	Teatree Flat-Triangle	PSPP	Andamooka Precious Stones Field
AA16	4/05/2010	13.7	706166	6629020	53	4	WGS84	Pawlaczyk	Teatree Flat-Triangle	PSPP	Andamooka Precious Stones Field
AA17	4/05/2010	13.7	706166	6629020	53	4	WGS84	Pawlaczyk	Teatree Flat-Triangle	PSPP	Andamooka Precious Stones Field
AA18	4/05/2010	13.7	706166	6629020	53	4	WGS84	Pawlaczyk	Teatree Flat-Triangle	PSPP	Andamooka Precious Stones Field
AA19	4/05/2010	13.7	706166	6629020	53	4	WGS84	Pawlaczyk	Teatree Flat-Triangle	PSPP	Andamooka Precious Stones Field
AA20	4/05/2010	13.7	706166	6629020	53	4	WGS84	Pawlaczyk	Teatree Flat-Triangle	PSPP	Andamooka Precious Stones Field
AA21	4/05/2010	13.7	706166	6629020	53	4	WGS84	Pawlaczyk	Teatree Flat-Triangle	PSPP	Andamooka Precious Stones Field
AA22	4/05/2010	13.7	706166	6629020	53	4	WGS84	Pawlaczyk	Teatree Flat-Triangle	PSPP	Andamooka Precious Stones Field
AA23	13/06/2010	13.7	710825	6629582	53	4	WGS84	J. Skorpos	North of Blackboy Extension	PSPP	Andamooka Precious Stones Field
AA24	13/06/2010	13.7	710828	6629588	53	4	WGS84	J. Skorpos	North of Blackboy Extension	PSPP	Andamooka Precious Stones Field
AA25	13/06/2010	13.7	710828	6629593	53	4	WGS84	J. Skorpos	North of Blackboy Extension	PSPP	Andamooka Precious Stones Field

Number	Date	Depth (m)	Easting	Northing	Zone	Accuracy (m)	Datum	Operator	Field	Tenement type	Tenement name
AA26	12/05/2010	13.7	710822	6629595	53	4	WGS84	J. Skorpos	North of Blackboy Extension	PSPP	Andamooka Precious Stones Field
AA27	12/05/2010	13.7	710820	6629592	53	4	WGS84	J. Skorpos	North of Blackboy Extension	PSPP	Andamooka Precious Stones Field
AA28	12/05/2010	13.7	710919	6629592	53	4	WGS84	J. Skorpos	North of Blackboy Extension	PSPP	Andamooka Precious Stones Field
AA29	12/05/2010	13.7	710817	6629596	53	4	WGS84	J. Skorpos	North of Blackboy Extension	PSPP	Andamooka Precious Stones Field
AA30	12/05/2010	13.7	710817	6629597	53	4	WGS84	J. Skorpos	North of Blackboy Extension	PSPP	Andamooka Precious Stones Field
AA31	12/05/2010	13.7	708794	6627816	53	4	WGS84	J. Skorpos	South of German Gully	PSPP	Andamooka Precious Stones Field
AA32	12/05/2010	13.7	708794	6627816	53	4	WGS84	J. Skorpos	South of German Gully	PSPP	Andamooka Precious Stones Field
AA33	12/05/2010	13.7	708794	6627816	53	4	WGS84	J. Skorpos	South of German Gully	PSPP	Andamooka Precious Stones Field
AA34	12/05/2010	13.7	708794	6627816	53	4	WGS84	J. Skorpos	South of German Gully	PSPP	Andamooka Precious Stones Field
AA35	12/05/2010	13.7	708794	6627816	53	4	WGS84	J. Skorpos	South of German Gully	PSPP	Andamooka Precious Stones Field
AA36	12/05/2010	13.7	708794	6627816	53	4	WGS84	J. Skorpos	South of German Gully	PSPP	Andamooka Precious Stones Field
AA37	12/05/2010	13.7	708794	6627816	53	4	WGS84	J. Skorpos	South of German Gully	PSPP	Andamooka Precious Stones Field
AA38	9/06/2010	13.7	708725	6627817	53	4	WGS84	J. Skorpos	South of German Gully	PSPP	Andamooka Precious Stones Field
AA39	9/06/2010	13.7	708725	6627817	53	4	WGS84	J. Skorpos	South of German Gully	PSPP	Andamooka Precious Stones Field
AA40	9/06/2010	18.3	708614	6627808	53	4	WGS84	J. Skorpos	South of German Gully	PSPP	Andamooka Precious Stones Field
AA41	10/05/2010	6.1	710826	6627503	53	4	WGS84	J. Skorpos	Yarloo	PSPP	Andamooka Precious Stones Field
AA42	10/05/2010	6.1	710826	6627503	53	4	WGS84	J. Skorpos	Yarloo	PSPP	Andamooka Precious Stones Field
AA43	10/05/2010	6.1	710826	6627503	53	4	WGS84	J. Skorpos	Yarloo	PSPP	Andamooka Precious Stones Field
AA44	11/05/2010	6.1	711298	6627028	53	4	WGS84	J. Skorpos	Yarloo South	PSPP	Andamooka Precious Stones Field
AA45	11/05/2010	6.1	711468	6626424	53	4	WGS84	J. Skorpos	Yarloo South	PSPP	Andamooka Precious Stones Field
AA46	9/10/2010	5.8	705978	6633071	53	4	WGS84	J. Skorpos	Lunatic Extension	PSPP	Andamooka Precious Stones Field
AA47	15/10/2010	6.4	705895	6633091	53	4	WGS84	J. Skorpos	Lunatic Extension	PSPP	Andamooka Precious Stones Field
AA48	25/10/2010	9.8	705474	6630301	53	4	WGS84	J. Skorpos	West of Teatree Flat	PSPP	Andamooka Precious Stones Field
AA49	25/10/2010	13.7	705482	6630303	53	4	WGS84	J. Skorpos	West of Teatree Flat	PSPP	Andamooka Precious Stones Field
AA50	25/10/2010	13.7	705483	6630302	53	4	WGS84	J. Skorpos	West of Teatree Flat	PSPP	Andamooka Precious Stones Field
AA51	25/10/2010	14.3	7054877	6630288	53	4	WGS84	J. Skorpos	West of Teatree Flat	PSPP	Andamooka Precious Stones Field
AA52	25/10/2010	12.2	705493	6630282	53	4	WGS84	J. Skorpos	West of Teatree Flat	PSPP	Andamooka Precious Stones Field
AA53	25/10/2010	14.3	705314	6630445	53	4	WGS84	J. Skorpos	West of Teatree Flat	PSPP	Andamooka Precious Stones Field
AA54	25/10/2010	14.3	705255	6630425	53	4	WGS84	J. Skorpos	West of Teatree Flat	PSPP	Andamooka Precious Stones Field
AA55	24/10/2010	14.3	705644	6630498	53	4	WGS84	J. Skorpos	West of Teatree Flat	PSPP	Andamooka Precious Stones Field
AA56	24/10/2010	11.3	705654	6630473	53	4	WGS84	J. Skorpos	West of Teatree Flat	PSPP	Andamooka Precious Stones Field

Number	Date	Depth (m)	Easting	Northing	Zone	Accuracy (m)	Datum	Operator	Field	Tenement type	Tenement name
AA57	24/10/2010	13.7	705666	6630411	53	4	WGS84	J. Skorpos	West of Teatree Flat	PSPP	Andamooka Precious Stones Field
AA58	24/10/2010	13.7	705671	6630405	53	4	WGS84	J. Skorpos	West of Teatree Flat	PSPP	Andamooka Precious Stones Field
AA59	24/10/2010	13.7	705678	6630327	53	4	WGS84	J. Skorpos	West of Teatree Flat	PSPP	Andamooka Precious Stones Field
AA60	25/10/2010	13.7	705670	6630334	53	4	WGS84	J. Skorpos	West of Teatree Flat	PSPP	Andamooka Precious Stones Field
AA61	25/10/2010	13.7	705664	6630343	53	4	WGS84	J. Skorpos	West of Teatree Flat	PSPP	Andamooka Precious Stones Field
AA62	25/10/2010	13.7	705667	6630358	53	4	WGS84	J. Skorpos	West of Teatree Flat	PSPP	Andamooka Precious Stones Field
AA63	25/10/2010	13.7	705644	6630371	53	4	WGS84	J. Skorpos	West of Teatree Flat	PSPP	Andamooka Precious Stones Field
AA64	25/10/2010	13.7	705466	6630298	53	4	WGS84	J. Skorpos	West of Teatree Flat	PSPP	Andamooka Precious Stones Field
AA65	22/10/2010	11.6	708830	6630603	53	4	WGS84	J. Skorpos	East of Stans Hill	PSPP	Andamooka Precious Stones Field
AA66	22/10/2010	11.6	708851	6630609	53	4	WGS84	J. Skorpos	East of Stans Hill	PSPP	Andamooka Precious Stones Field
AA67	24/10/2010	9.8	708801	6630628	53	4	WGS84	J. Skorpos	East of Stans Hill	PSPP	Andamooka Precious Stones Field
AA68	24/10/2010	9.8	708795	6630613	53	4	WGS84	J. Skorpos	East of Stans Hill	PSPP	Andamooka Precious Stones Field
AA69	24/10/2010	9.8	708793	6630609	53	4	WGS84	J. Skorpos	East of Stans Hill	PSPP	Andamooka Precious Stones Field
AA70	24/10/2010	9.8	708791	6630611	53	4	WGS84	J. Skorpos	East of Stans Hill	PSPP	Andamooka Precious Stones Field
AA71	24/10/2010	9.8	708798	6630598	53	4	WGS84	J. Skorpos	East of Stans Hill	PSPP	Andamooka Precious Stones Field
AA72	24/10/2010	9.8	708779	6630598	53	4	WGS84	J. Skorpos	East of Stans Hill	PSPP	Andamooka Precious Stones Field
AA73	24/10/2010	14.3	708463	6630573	53	4	WGS84	J. Skorpos	East of Stans Hill	PSPP	Andamooka Precious Stones Field
AA74	24/10/2010	14.3	708856	6630442	53	4	WGS84	J. Skorpos	East of Stans Hill	PSPP	Andamooka Precious Stones Field
AA75	23/10/2010	9.8	708862	6630604	53	4	WGS84	J. Skorpos	East of Stans Hill	PSPP	Andamooka Precious Stones Field
AA76	23/10/2010	9.8	708891	6630607	53	4	WGS84	J. Skorpos	East of Stans Hill	PSPP	Andamooka Precious Stones Field
AA77	23/10/2010	9.8	708863	6630598	53	4	WGS84	J. Skorpos	East of Stans Hill	PSPP	Andamooka Precious Stones Field
AA78	23/10/2010	6.1	708860	6630593	53	4	WGS84	J. Skorpos	East of Stans Hill	PSPP	Andamooka Precious Stones Field
AA79	23/10/2010	8.2	708749	6630582	53	4	WGS84	J. Skorpos	East of Stans Hill	PSPP	Andamooka Precious Stones Field
AA80	23/10/2010	9.8	708863	6630598	53	4	WGS84	J. Skorpos	East of Stans Hill	PSPP	Andamooka Precious Stones Field
AA81	23/10/2010	9.8	708851	6630550	53	4	WGS84	J. Skorpos	East of Stans Hill	PSPP	Andamooka Precious Stones Field
AA82	23/10/2010	9.8	708846	6630536	53	4	WGS84	J. Skorpos	East of Stans Hill	PSPP	Andamooka Precious Stones Field
AA83	23/10/2010	9.8	708848	6630547	53	4	WGS84	J. Skorpos	East of Stans Hill	PSPP	Andamooka Precious Stones Field
AA84	24/10/2010	9.8	708793	6630635	53	4	WGS84	J. Skorpos	East of Stans Hill	PSPP	Andamooka Precious Stones Field
AA85	22/10/2010	13.7	704700	6628110	53	4	WGS84	J. Skorpos	West of Triangle	PSPP	Andamooka Precious Stones Field
AA86	22/10/2010	11	709574	6631065	53	4	WGS84	J. Skorpos	East of Four Nations	PSPP	Andamooka Precious Stones Field
AA87	22/10/2010	11	709577	6631063	53	4	WGS84	J. Skorpos	East of Four Nations	PSPP	Andamooka Precious Stones Field

Number	Date	Depth (m)	Easting	Northing	Zone	Accuracy (m)	Datum	Operator	Field	Tenement type	Tenement name
AA88	22/10/2010	11	709577	6631063	53	4	WGS84	J. Skorpos	East of Four Nations	PSPP	Andamooka Precious Stones Field
AA89	22/10/2010	11	709586	6631059	53	4	WGS84	J. Skorpos	East of Four Nations	PSPP	Andamooka Precious Stones Field
AA90	22/10/2010	9.8	709579	6631070	53	4	WGS84	J. Skorpos	East of Four Nations	PSPP	Andamooka Precious Stones Field
AA91	22/10/2010	9.8	709577	6631058	53	4	WGS84	J. Skorpos	East of Four Nations	PSPP	Andamooka Precious Stones Field
AA92	22/10/2010	7.3	709603	6631031	53	4	WGS84	J. Skorpos	East of Four Nations	PSPP	Andamooka Precious Stones Field
AA93	22/10/2010	7.3	709535	6631068	53	4	WGS84	J. Skorpos	East of Four Nations	PSPP	Andamooka Precious Stones Field
AA94	22/10/2010	7.3	708828	6630604	53	4	WGS84	J. Skorpos	East of Stans Hill	PSPP	Andamooka Precious Stones Field
AA95	21/10/2010	4.6	709112	6631564	53	4	WGS84	J. Skorpos	East of Four Nations	PSPP	Andamooka Precious Stones Field
AA96	21/10/2010	4	704751	6628486	53	4	WGS84	J. Skorpos	West of Triangle	PSPP	Andamooka Precious Stones Field
AA97	21/10/2010	13.7	704733	6628464	53	4	WGS84	J. Skorpos	West of Triangle	PSPP	Andamooka Precious Stones Field
AA98	21/10/2010	13.7	704717	6628493	53	4	WGS84	J. Skorpos	West of Triangle	PSPP	Andamooka Precious Stones Field
AA99	21/10/2010	3.1	704710	6628506	53	4	WGS84	J. Skorpos	West of Triangle	PSPP	Andamooka Precious Stones Field
AA100	21/10/2010	13.7	704711	6628500	53	4	WGS84	J. Skorpos	West of Triangle	PSPP	Andamooka Precious Stones Field
AA101	21/10/2010	13.7	704757	6628477	53	4	WGS84	J. Skorpos	West of Triangle	PSPP	Andamooka Precious Stones Field
AA102	21/10/2010	13.7	704759	6628481	53	4	WGS84	J. Skorpos	West of Triangle	PSPP	Andamooka Precious Stones Field
AA103	21/10/2010	13.7	704860	6628165	53	4	WGS84	J. Skorpos	West of Triangle	PSPP	Andamooka Precious Stones Field
AA104	21/10/2010	13.7	704697	6628114	53	4	WGS84	J. Skorpos	West of Triangle	PSPP	Andamooka Precious Stones Field
<i>Calweld drilling</i>											
AC1	2008	15	717891	6622527	53	4	WGS84	P. Hansen	Hansen Ridge	PSPP	Andamooka Precious Stones Field
AC2	2008	12	717890	6622496	53	4	WGS84	P. Hansen	Hansen Ridge	PSPP	Andamooka Precious Stones Field
AC3	2008	7.5	712439	6624381	53	4	WGS84	P. Hansen	White Dam, First Hill	PSPP	Andamooka Precious Stones Field
AC4	2008	7.5	712429	6624381	53	4	WGS84	P. Hansen	White Dam, First Hill	PSPP	Andamooka Precious Stones Field
AC5	2008	17	717381	6624386	53	4	WGS84	P. Hansen	Hansen Ridge	PSPP	Andamooka Precious Stones Field
AC6	2008	7	717890	6622383	53	4	WGS84	P. Hansen	Hansen Ridge	PSPP	Andamooka Precious Stones Field
AC7	2008	10	707007	6622496	53	4	WGS84	P. Hansen	North of Lunatic	PSPP	Andamooka Precious Stones Field
AC8	2008	7	706118	6633645	53	4	WGS84	P. Hansen	North of Lunatic	PSPP	Andamooka Precious Stones Field
AC9	2008	12	707007	6634617	53	4	WGS84	P. Hansen	North of Lunatic	PSPP	Andamooka Precious Stones Field
AC10	2008	17	708342	6633645	53	4	WGS84	P. Hansen	Stans Hill	PSPP	Andamooka Precious Stones Field
AC11	2008	10	704592	6630878	53	4	WGS84	P. Hansen	Snake Gully	PSPP	Andamooka Precious Stones Field
AC12	May-09	13	704659	6631331	53	4	WGS84	P. Hansen	Snake Gully	PSPP	Andamooka Precious Stones Field
AC13	May-09	19	705381	6631324	53	4	WGS84	P. Hansen	Teatree Flat Extension	PSPP	Andamooka Precious Stones Field

Number	Date	Depth (m)	Easting	Northing	Zone	Accuracy (m)	Datum	Operator	Field	Tenement type	Tenement name
AC14	May-09	19	705406	6628843	53	4	WGS84	P. Hansen	Teatree Flat Extension	PSPP	Andamooka Precious Stones Field
AC15	May-09	20	705306	6628898	53	4	WGS84	P. Hansen	Teatree Flat Extension	PSPP	Andamooka Precious Stones Field
AC16	May-09	9	709405	6628863	53	4	WGS84	P. Hansen	German Gully/Blackboy	PSPP	Andamooka Precious Stones Field
AC17	May-09	10	709410	6628153	53	4	WGS84	P. Hansen	German Gully/Blackboy	PSPP	Andamooka Precious Stones Field
AC18	May-09	12	709406	6628104	53	4	WGS84	P. Hansen	German Gully/Blackboy	PSPP	Andamooka Precious Stones Field
AC19	May-09	14	709365	6628051	53	4	WGS84	P. Hansen	German Gully/Blackboy	PSPP	Andamooka Precious Stones Field
AC20	18/02/2011	13.1	710063	6628006	53	4	WGS84	P. Hansen	Buza Hill	PSPP	Andamooka Precious Stones Field
AC21	18/02/2011	13.1	710036	6628146	53	4	WGS84	P. Hansen	Buza Hill	PSPP	Andamooka Precious Stones Field
AC22	18/02/2011	6.7	710025	6628254	53	4	WGS84	P. Hansen	Buza Hill	PSPP	Andamooka Precious Stones Field
AC23	18/02/2011	16.8	708400	6628409	53	4	WGS84	P. Hansen	Horse Paddock Extension	PSPP	Andamooka Precious Stones Field
AC24	18/02/2011	13.4	708403	6628396	53	4	WGS84	P. Hansen	Horse Paddock Extension	PSPP	Andamooka Precious Stones Field
AC25	18/02/2011	16.5	708395	6628390	53	4	WGS84	P. Hansen	Horse Paddock Extension	PSPP	Andamooka Precious Stones Field
AC26	25/02/2011	17.7	708405	6628347	53	4	WGS84	P. Hansen	Horse Paddock Extension	PSPP	Andamooka Precious Stones Field
AC27	25/02/2011	19.8	708375	6628308	53	4	WGS84	P. Hansen	Horse Paddock Extension	PSPP	Andamooka Precious Stones Field
AC28	25/02/2011	18.6	708366	6628277	53	4	WGS84	P. Hansen	Horse Paddock Extension	PSPP	Andamooka Precious Stones Field
AC29	16/11/2011	10.1	71063	6627660	53	4	WGS84	P. Hansen	Yarloo	PSPP	Andamooka Precious Stones Field
AC30	16/11/2011	17	705886	6630462	53	4	WGS84	P. Hansen	West of Teatree Flat	PSPP	Andamooka Precious Stones Field
<i>Trenching</i>											
AT1	8/08/2010	4	708757	6631657	53	4	WGS84	P. Sheppard	Northwest of Four Nations	PSPP	Andamooka Precious Stones Field
AT2	8/08/2010	3	708720	6631647	53	4	WGS84	P. Sheppard	Northwest of Four Nations	PSPP	Andamooka Precious Stones Field
AT3	9/08/2010	3.5	708749	6631663	53	4	WGS84	P. Sheppard	Northwest of Four Nations	PSPP	Andamooka Precious Stones Field
AT4	9/08/2010	4	708846	6631870	53	4	WGS84	P. Sheppard	Northwest of Four Nations	PSPP	Andamooka Precious Stones Field
AT5	9/08/2010	4	708850	6631935	53	4	WGS84	P. Sheppard	Northwest of Four Nations	PSPP	Andamooka Precious Stones Field
AT6	9/08/2010	4	708839	6631909	53	4	WGS84	P. Sheppard	Northwest of Four Nations	PSPP	Andamooka Precious Stones Field
AT7	9/08/2010	3.6	708993	6631954	53	4	WGS84	P. Sheppard	Northwest of Four Nations	PSPP	Andamooka Precious Stones Field
AT8	10/08/2010	3	709105	6632015	53	4	WGS84	P. Sheppard	North of Four Nations	PSPP	Andamooka Precious Stones Field
AT9	10/08/2010	3.2	709189	6631895	53	4	WGS84	P. Sheppard	Northeast of Four Nations	PSPP	Andamooka Precious Stones Field
AT10	10/08/2010	4	709115	6631506	53	4	WGS84	P. Sheppard	Northeast of Four Nations	PSPP	Andamooka Precious Stones Field
AT11	10/08/2010	3	708859	6630741	53	4	WGS84	P. Sheppard	East of Stans Hill	PSPP	Andamooka Precious Stones Field
AT12	10/08/2010	2.6	708813	6630286	53	4	WGS84	P. Sheppard	East of Stans Hill	PSPP	Andamooka Precious Stones Field
AT13	11/08/2010	2	708825	6630615	53	4	WGS84	P. Sheppard	East of Stans Hill	PSPP	Andamooka Precious Stones Field

Number	Date	Depth (m)	Easting	Northing	Zone	Accuracy (m)	Datum	Operator	Field	Tenement type	Tenement name
AT14	11/08/2010	4.5	708696	6630615	53	4	WGS84	P. Sheppard	Southeast of Stans Hill	PSPP	Andamooka Precious Stones Field
AT15	11/08/2010	3.6	708699	6630584	53	4	WGS84	P. Sheppard	Southeast of Stans Hill	PSPP	Andamooka Precious Stones Field
AT16	11/08/2010	2	707975	6630998	53	4	WGS84	P. Sheppard	Northwest of Stans Hill	PSPP	Andamooka Precious Stones Field
AT17	11/08/2010	2	708007	6630994	53	4	WGS84	P. Sheppard	Northwest of Stans Hill	PSPP	Andamooka Precious Stones Field
AT18	12/08/2010	3.7	708050	6630994	53	4	WGS84	P. Sheppard	Northwest of Stans Hill	PSPP	Andamooka Precious Stones Field
AT19	12/08/2010	2.5	708131	6631075	53	4	WGS84	P. Sheppard	Northwest of Stans Hill	PSPP	Andamooka Precious Stones Field
AT20	12/08/2010	2.6	708146	6631020	53	4	WGS84	P. Sheppard	Northwest of Stans Hill	PSPP	Andamooka Precious Stones Field
AT21	19/08/2010	2.5	705675	6632840	53	4	WGS84	P. Uhlik	Northwest of Christmas	PSPP	Andamooka Precious Stones Field
AT22	20/08/2010	3	705664	6632840	53	4	WGS84	P. Uhlik	Northwest of Christmas	PSPP	Andamooka Precious Stones Field
AT23	21/08/2010	3.5	705628	6632854	53	4	WGS84	P. Uhlik	Northwest of Christmas	PSPP	Andamooka Precious Stones Field
AT24	24/08/2010	3.5	705628	6632854	53	4	WGS84	P. Uhlik	Northwest of Christmas	PSPP	Andamooka Precious Stones Field
AT25	5/11/2010	4	708048	6631299	53	4	WGS84	P. Sheppard	North of Stans Hill	PSPP	Andamooka Precious Stones Field
AT26	6/11/2010	4	708343	6631044	53	4	WGS84	P. Sheppard	Northeast of Stans Hill	PSPP	Andamooka Precious Stones Field
AT27	6/11/2010	4	708122	6630866	53	4	WGS84	P. Sheppard	Northeast of Stans Hill	PSPP	Andamooka Precious Stones Field
AT28	7/11/2010	3	708114	6630860	53	4	WGS84	P. Sheppard	Northeast of Stans Hill	PSPP	Andamooka Precious Stones Field
AT29	2/11/2010	3	707847	6630974	53	4	WGS84	P. Uhlik	North of Stans Hill	PSPP	Andamooka Precious Stones Field
AT30	3/11/2010	2.5	707350	6633240	53	4	WGS84	P. Uhlik	Northeast of Willis Ridge	PSPP	Andamooka Precious Stones Field
AT31	4/11/2010	3.5	708220	6631041	53	4	WGS84	P. Uhlik	North-northeast of Stans Hill	PSPP	Andamooka Precious Stones Field
AT32	5/11/2010	4	708335	6631048	53	4	WGS84	P. Uhlik	Northeast of Stans Hill	PSPP	Andamooka Precious Stones Field
AT33	6/11/2010	4	708269	6630859	53	4	WGS84	P. Uhlik	Northeast of Stans Hill	PSPP	Andamooka Precious Stones Field
AT34	7/11/2010	2.5	708114	6630866	53	4	WGS84	P. Uhlik	North-northeast of Stans Hill	PSPP	Andamooka Precious Stones Field
AT35	12/11/2010	5	709710	6627414	53	4	WGS84	A. Groeshel	West of Yarloo West	PSPP	Andamooka Precious Stones Field
AT36	12/11/2010	5	709704	6627432	53	4	WGS84	A. Groeshel	West of Yarloo West	PSPP	Andamooka Precious Stones Field
AT37	14/11/2010	3	709703	6627421	53	4	WGS84	A. Groeshel	West of Yarloo West	PSPP	Andamooka Precious Stones Field
AT38	14/11/2010	3	709615	6627423	53	4	WGS84	A. Groeshel	West of Yarloo West	PSPP	Andamooka Precious Stones Field
AT39	17/11/2010	4	711508	6629053	53	4	WGS84	A. Groeshel	Northeast of Blackboy Extension	PSPP	Andamooka Precious Stones Field
AT40	17/11/2010	2.5	711670	6629084	53	4	WGS84	A. Groeshel	Northeast of Blackboy Extension	PSPP	Andamooka Precious Stones Field
AT41	18/11/2010	3	711666	6629378	53	4	WGS84	A. Groeshel	Northeast of Blackboy Extension	PSPP	Andamooka Precious Stones Field
AT42	18/11/2010	2	711234	6629417	53	4	WGS84	A. Groeshel	Northeast of Blackboy Extension	PSPP	Andamooka Precious Stones Field
AT43	18/11/2010	1.8	711117	6629624	53	4	WGS84	A. Groeshel	Northeast of Blackboy Extension	PSPP	Andamooka Precious Stones Field
AT44	20/11/2010	5	709765	6627557	53	4	WGS84	A. Groeshel	West of Yarloo West	PSPP	Andamooka Precious Stones Field

Number	Date	Depth (m)	Easting	Northing	Zone	Accuracy (m)	Datum	Operator	Field	Tenement type	Tenement name
AT45	21/11/2010	4	709705	6627562	53	4	WGS84	A. Groeshel	West of Yarloo West	PSPP	Andamooka Precious Stones Field
AT46	22/11/2010	9	709615	6627423	53	4	WGS84	A. Groeshel	Southwest of Yarloo West	PSPP	Andamooka Precious Stones Field
AT47	31/08/2010	2.4	711546	6628003	53	4	WGS84	B. Frederick	East of Yarloo Extension	PSPP	Andamooka Precious Stones Field
AT48	31/08/2010	2.4	711518	6628029	53	4	WGS84	B. Frederick	East of Yarloo Extension	PSPP	Andamooka Precious Stones Field
AT49	31/08/2010	2.4	711451	6628097	53	4	WGS84	B. Frederick	East of Yarloo Extension	PSPP	Andamooka Precious Stones Field
AT50	31/08/2010	1.8	711661	6627873	53	4	WGS84	B. Frederick	East of Yarloo Extension	PSPP	Andamooka Precious Stones Field
AT51	31/08/2010	4	711641	6627925	53	4	WGS84	B. Frederick	East of Yarloo Extension	PSPP	Andamooka Precious Stones Field
AT52	31/08/2010	3	711731	6627936	53	4	WGS84	B. Frederick	East of Yarloo Extension	PSPP	Andamooka Precious Stones Field
AT53	31/08/2010	3.4	711764	6628000	53	4	WGS84	B. Frederick	East of Yarloo Extension	PSPP	Andamooka Precious Stones Field
AT54	31/08/2010	2.4	711804	6628061	53	4	WGS84	B. Frederick	East of Yarloo Extension	PSPP	Andamooka Precious Stones Field
AT55	31/08/2010	1.2	711866	6628043	53	4	WGS84	B. Frederick	East of Yarloo Extension	PSPP	Andamooka Precious Stones Field
AT56	30/08/2010	4.9	710994	6627853	53	4	WGS84	B. Frederick	East of Yarloo Extension	PSPP	Andamooka Precious Stones Field
AT57	30/08/2010	4.3	711060	6627935	53	4	WGS84	B. Frederick	North of Yarloo Extension	PSPP	Andamooka Precious Stones Field
AT58	30/08/2010	3.7	711122	6628011	53	4	WGS84	B. Frederick	North of Yarloo Extension	PSPP	Andamooka Precious Stones Field
AT59	30/08/2010	2.4	711281	6628089	53	4	WGS84	B. Frederick	North of Yarloo Extension	PSPP	Andamooka Precious Stones Field
AT60	30/08/2010	2.4	711592	6628054	53	4	WGS84	B. Frederick	North of Yarloo Extension	PSPP	Andamooka Precious Stones Field
AT61	30/08/2010	2.7	711610	6628065	53	4	WGS84	B. Frederick	North of Yarloo Extension	PSPP	Andamooka Precious Stones Field
AT62	30/08/2010	2.7	711668	6628078	53	4	WGS84	B. Frederick	North of Yarloo Extension	PSPP	Andamooka Precious Stones Field
AT63	30/08/2010	2.4	711585	6628010	53	4	WGS84	B. Frederick	North of Yarloo Extension	PSPP	Andamooka Precious Stones Field
AT64	30/08/2010	3	711565	6627975	53	4	WGS84	B. Frederick	North of Yarloo Extension	PSPP	Andamooka Precious Stones Field
AT65	31/08/2010	3.7	711323	6628031	53	4	WGS84	B. Frederick	North of Yarloo Extension	PSPP	Andamooka Precious Stones Field
AT66	21/11/2011	2	707855	6630887	53	4	WGS84	P. Uhlik	North of Stans Hill	PSPP	Andamooka Precious Stones Field
AT67	25/11/2011	2.5	706246	6632763	53	4	WGS84	P. Uhlik	Lunatic-Christmas	PSPP	Andamooka Precious Stones Field
AT68	18/11/2011	2	707416	6632066	53	4	WGS84	W. Groeschel	Lunatic-Christmas	PSPP	Andamooka Precious Stones Field

APPENDIX 2. SUMMARY OF APOMA MEMBERS' DRILL HOLE AND TRENCH LOGS

Calweld drilling

AC-1: Hansen Ridge, 5 km east of White Dam; P Hansen; 2008

Easting: 717891 **Northing:** 6622527

Elevation (m):

0–2 m Red-brown silt soil.

2–15 m Kopi, weak pebble level at 6 m.

AC-2: Hansen Ridge, 5 km east of White Dam; P Hansen; 2008

Easting: 717890 **Northing:** 6622496

Elevation (m):

0–2 m Red-brown silt soil.

2–12 m Kopi, with good pebble level at 6.5 m with abundant beer bottle potch opal.

AC-3: White Dam, First Hill; P Hansen; 2008

Easting: 712439 **Northing:** 6624381

Elevation (m):

0–6 m Red-brown clay silt with quartzite gibber to 2 m then with kopi fragments.

6–7.5 m White kopi, good pebble level at 7.5 over mud.

AC-4: White Dam, First Hill; P Hansen; 2008

Easting: 712429 **Northing:** 6624386

Elevation (m):

0–2 m Red-brown clay silt with quartzite gibber and kopi fragments.

2–7.5 m White kopi, good pebble level at 7.5 m over mud.

AC-5: Hansen Ridge, 5 km east of White Dam; P Hansen; 2008

Easting: 717381 **Northing:** 6622383

Elevation (m):

0–2 m Red-brown silt soil.

2–16 m Kopi.

16–17 m Brown pebble level over mud.

AC-6: Hansen Ridge, 5 km east of White Dam; P Hansen; 2008

Easting: 717890 **Northing:** 6622496

Elevation (m):

0–1 m Red-brown silt soil.

1–7 m Kopi, no distinct level or mud, beer bottle potch opal around 6 m.

AC-7: North of Lunatic; P Hansen; 2008

Easting: 707007 **Northing:** 6633645

Elevation (m):

0–6 m Red-brown clay silt with gypsum, kopi and quartzite cobbles.

6–7 m Kopi with pebble level and black and blue potch opal.

7–10 m Kopi with pebble level over moist mud at 9.5 m.

AC-8: North of Lunatic; P Hansen; 2008

Easting: 706118 **Northing:** 6634617

Elevation (m):

0–1 m Red-brown silt soil.

0–7 m Kopi with poor dry level from 6.5 m.

AC-9: North of Lunatic; P Hansen; 2008

Easting: 707007 **Northing:** 6633645

Elevation (m):

0–3 m Red-brown clay silt with silcrete and kopi fragments.

3–12 m Kopi with weak levels at 6.5 m, 9.5 m and 11.5 m over mud.

AC-10: Stans Hill; P Hansen; 2008

Easting: 708342 **Northing:** 6630878

Elevation (m):

0–7.5 m Red-brown clay silt with quartzite cobbles and silcrete, hard silcrete from 6–7.5 m.

7.5–17 m Kopi with good level over mud at 16.5 m.

AC-11: Snake Gully; P Hansen; 2008

Easting: 704592 **Northing:** 6631331

Elevation (m):

0–4 m Red-brown clay silt with silcrete and kopi fragments.

4–10 m Kopi, false level at 6 m, poor moist level at 9 m.

AC-12: Snake Gully; P Hansen; May, 2009

Easting: 704659 **Northing:** 6631324

Elevation (m):

0–5 m Sandy soil to 2 m then red-brown clay silt with rock and kopi fragments.

5–13 m Soft white kopi with poor level at 12 m.

AC-13: Teatree Flat Extension; P Hansen; May, 2009

Easting: 705381 **Northing:** 6628843

Elevation (m):

0–7 m Sand to 2 m then red-brown clay silt with cobbles and kopi fragments.

7–15 m Brown and white kopi, good false level at 15 m.

15–19 m Good level, yellow-brown, to 18 m then white kopi.

AC-14: Teatree Flat Extension; P Hansen; May, 2009

Easting: 705406 **Northing:** 6628898

Elevation (m):

0–5 m Sand to 2 m then red-brown clay silt over cobbles and kopi fragments.

5–18 m Hard white kopi, good moist level at 18 m with 5 cm gypsum band.

18–19 m Mud-moist grey claystone.

AC-15: Teatree Flat Extension; P Hansen; May, 2009

Easting: 705306 **Northing:** 6628863

Elevation (m):

0–7 m Sand to 2 m then red-brown clay silt with cobbles.

7–15 m Yellow-brown iron stained kopi with dry false level at 15 m.

15–19 m Kopi with main level, yellow-brown.

19–20 m Mud-moist grey claystone.

AC-16: German Gully/Blackboy; P Hansen; May, 2009

Easting: 709405 **Northing:** 6628153

Elevation (m):

0–1 m Pebbles and cobbles in top soil.

1–9 m Kopi with poor level at 9 m.

AC-17: German Gully/Blackboy; P Hansen; May, 2009

Easting: 709410 **Northing:** 6628104

Elevation (m):

0–6 m Red-brown clay silt with cobbles and kopi fragments.

6–10 m Kopi with level at 10 m, dead matrix opal in fracture.

AC-18: German Gully/Blackboy; P Hansen; May, 2009

Easting: 709406 **Northing:** 6628051

Elevation (m):

0–2 m Red-brown clay and cobbles.

2–8 m Soft kopi, false level at 8 m.

8–12 m Kopi with good level at 12 m with grey claystone (mud) and gypsum below.

AC-19: German Gully/Blackboy; P.Hansen; May, 2009

Easting: 709365 **Northing:** 6628006

Elevation (m):

0–2 m Red-brown clay silt with cobbles.

2–5 m Soft kopi with large quartzite boulder from 4 m.

5–13 m Kopi with main pebble level plus dead matrix opal.

13–14 m Mud – grey claystone.

AC-20: Buza Hill; P Hansen; 18 February, 2011

Easting: 710063 **Northing:** 6628146

Elevation (m):

0–4.6 m Red-brown clay, loose rock, kopi and gypsum.

4.6–7.3 m Hard kopi with quartzite cobbles.

7.3–13.1 m Kopi, false level at 10 m. Level at 13 m with dry brown mud.

AC-21: Buza Hill; P Hansen; 18 February, 2011

Easting: 710036 **Northing:** 6628128

Elevation (m):

0–6.7 m Red-brown clay, loose rock, kopi and gypsum.

6.7–7.3 m Hard kopi with quartzite cobbles.

7.3–13.1 m Kopi, level at 13 m with dry brown mud no pebbles.

AC-22: Buza Hill; P Hansen; 18 February, 2011

Easting: 710025 **Northing:** 6628254

Elevation (m):

0–6.7 m Red-brown clay-silt with loose rock. No kopi.

AC-23: Horse Paddock Extension; P Hansen; 18 February, 2011

Easting: 708400 **Northing:** 6628409

Elevation (m):

0–7.3 m Red-brown clay, loose rock, kopi and gypsum.

7.3–16.8 m Kopi to 13.1 m then level with mud at 16.8 m. Dead honey matrix opal at 13.7 m.

AC-24: Horse Paddock Extension; P Hansen; 18 February, 2011

Easting: 708403 **Northing:** 6628396

Elevation (m):

0–6.7 m Red-brown clay, loose rock, kopi and gypsum.

6.7–13.4 m Kopi with good sandy level with mud at 13.0 m.

AC-25: Horse Paddock Extension; P Hansen; 18 February, 2011

Easting: 708395 **Northing:** 6628390

Elevation (m):

0–7.6 m Red-brown clay, loose rock, kopi and gypsum.

7.6–16.5 m Good kopi with good sandy level with mud at 14.6 m.
Dead honey matrix opal at 7.6 m.

AC-26: Horse Paddock Extension; P Hansen; 25 February, 2011

Easting: 708405 **Northing:** 6628347

Elevation (m):

0–6.7 m Red-brown clay, loose rock, kopi and gypsum.

6.7–17.7 m Brown stained kopi with good sandy level at 15.8 m.

AC-27: Horse Paddock Extension; P Hansen; 25 February, 2011

Easting: 708375 **Northing:** 6628308

Elevation (m):

0–5.5 m Red-brown clay, loose rock, kopi and gypsum.

5.5–19.8 m Good kopi with good sandy level with pebbles at 18.0 m.
Small fault, some dead matrix opal.

AC-28: Horse Paddock Extension; P Hansen; 25 February, 2011

Easting: 708366 **Northing:** 6628277

Elevation (m):

0–5.5 m Red-brown clay, loose rock, kopi and gypsum.

5.5–18.6 m Good kopi with sandy level at 18.0 m with mud below.

AC-29: Yarloo; P Hansen; 16 November, 2011

Easting: 710630 **Northing:** 6627660

Elevation (m):

0–10.1 m Red-brown clay-silt soil to 1 m on kopi. Good level at 10 m.

AC-30: West of Teatree Flat; P Hansen; 16 November, 2011

Easting: 705886 **Northing:** 6630462

Elevation (m):

0–17.0 m Hard red-brown, rocky clay-silt soil to 1 m on kopi.

Good level concrete (conglomerate) at 17 m.

Auger drilling

AA-1: Halfway; Pawlaczyk; 08/05/2010

Easting: 710085 **Northing:** 6625457

Elevation (m):

0–0.6 m Top soil.

0.6–3.7 m Kopi, possible pebble layers 3.1–3.7 m.

3.7–12.8 m Soft kopi.

AA-2: Halfway; Pawlaczyk; 08/05/2010

Easting: 710085 **Northing:** 6625457

Elevation (m):

0–4.6 m Kopi to 4.3 m, pebble level 4.3–4.6 m.

4.6–6.1 m Light brown moist mud.

AA-3: Halfway; Pawlaczyk; 08/05/2010

Easting: 710085 **Northing:** 6625457

Elevation (m):

0–4.6 m Kopi to 4.3 m, pebble level 4.3–4.6 m.

4.6–6.1 m Light brown moist mud.

AA-4: Halfway; Pawlaczyk; 08/05/2010

Easting: 710085 **Northing:** 6625457

Elevation (m):

0–4.6 m Kopi to 4.3 m, pebble level 4.3–4.6 m.

4.6–6.1 m Light brown moist mud.

AA-5: Halfway; Pawlaczyk; 08/05/2010

Easting: 710085 **Northing:** 6625457

Elevation (m):

0–4.6 m Kopi to 4.3 m, pebble level 4.3–4.6 m.

4.6–6.1 m Light brown moist mud.

AA-6: Halfway; Pawlaczyk; 08/05/2010
Easting: 710085 **Northing:** 6625457
Elevation (m):
0–4.6 m Kopi to 4.3 m, pebble level 4.3–4.6 m.
4.6–6.1 m Light brown moist mud.

AA-7: Halfway; Pawlaczyk; 08/05/2010
Easting: 710085 **Northing:** 6625457
Elevation(m):
0–4.6 m Kopi to 4.3 m, pebble level 4.3–4.6 m.
4.6–6.1 m Light brown moist mud.

AA-8: Yarloo; Pawlaczyk; 05/05/2010
Easting: 710826 **Northing:** 6627503
Elevation (m):
0–6.1 m Kopi and stones, very dry, hard, no level or mud.

AA-9: Yarloo; Pawlaczyk; 05/05/2010
Easting: 710826 **Northing:** 6627503
Elevation (m):
0–6.1 m Kopi and stones, very dry, hard, no level or mud.

AA-10: Yarloo; Pawlaczyk; 05/05/2010
Easting: 710826 **Northing:** 6627503
Elevation (m):
0–6.1 m Kopi and stones, very dry, hard, no level or mud.

AA-11: Yarloo South; Pawlaczyk; 05/05/2010
Easting: 711298 **Northing:** 6627028
Elevation (m):
0–6.1 m Kopi to 5.5 m, rubble to 6.1 m, no level or mud.

AA-12: Yarloo South; Pawlaczyk; 05/05/2010
Easting: 711468 **Northing:** 6626424
Elevation (m):
0–6.1 m All stone, no level or mud.

AA-13: Yarloo South; Pawlaczyk; 05/05/2010
Easting: 711468 **Northing:** 6626424
Elevation (m):
0–6.1 m All stone, no level or mud.

AA-14: Teatree Flat – Triangle; Pawlaczyk; 04/05/2010
Easting: ~706166 **Northing:** ~6629020
Elevation (m):
0–1.2 m Top soil.
1.2–3.7 m White kopi.
3.7–7.3 m Purple kopi with gypsum, wet from 6.1 m.
7.3–7.6 m Good level, rounded pebbles and water.
7.6–9.1 m Mud.
9.1–10.7 m Wet kopi with gypsum.
10.7–12.2 m Brown-cream mud.
12.2–13.7 m Wet kopi and mud.

AA-15: Teatree Flat – Triangle; Pawlaczyk; 04/05/2010

Easting: ~706166 **Northing:** ~6629020

Elevation (m):

0–1.2 m Top soil.
1.2–3.7 m White kopi.
3.7–7.3 m Purple kopi with gypsum, wet from 6.1 m.
7.3–7.6 m Good level, rounded pebbles and water.
7.6–9.1 m Mud.
9.1–10.7 m Wet kopi with gypsum.
10.7–12.2 m Brown-cream mud.
12.2–13.7 m Wet kopi and mud.

AA-16: Teatree Flat – Triangle; Pawlaczyk; 04/05/2010

Easting: ~706166 **Northing:** ~6629020

Elevation (m):

0–1.2 m Top soil.
1.2–3.7 m White kopi.
3.7–7.3 m Purple kopi with gypsum, wet from 6.1 m.
7.3–7.6 m Good level, rounded pebbles and water.
7.6–9.1 m Mud.
9.1–10.7 m Wet kopi with gypsum.
10.7–12.2 m Brown-cream mud.
12.2–13.7 m Wet kopi and mud.

AA-17: Teatree Flat – Triangle; Pawlaczyk; 04/05/2010

Easting: ~706166 **Northing:** ~6629020

Elevation (m):

0–1.2 m Top soil.
1.2–3.7 m White kopi.
3.7–7.3m Purple kopi with gypsum, wet from 6.1 m.
7.3–7.6 m Good level, rounded pebbles and water.
7.6–9.1 m Mud.
9.1–10.7 m Wet kopi with gypsum.
10.7–12.2 m Brown-cream mud.
12.2–13.7 m Wet kopi and mud.

AA-18: Teatree Flat – Triangle; Pawlaczyk; 04/05/2010

Easting: ~706166 **Northing:** ~6629020

Elevation (m):

0–1.2 m Top soil.
1.2–3.7 m White kopi.
3.7–7.3 m Purple kopi with gypsum, wet from 6.1 m.
7.3–7.6 m Good level, rounded pebbles and water.
7.6–9.1 m Mud.
9.1–10.7 m Wet kopi with gypsum.
10.7–12.2 m Brown-cream mud.
12.2–13.7 m Wet kopi and mud.

AA-19: Teatree Flat – Triangle; Pawlaczyk; 04/05/2010

Easting: ~706166 **Northing:** ~6629020

Elevation (m):

0–1.2 m Top soil.
1.2–3.7 m White kopi.
3.7–7.3 m Purple kopi with gypsum, wet from 6.1 m.
7.3–7.6 m Good level, rounded pebbles and water.
7.6–9.1 m Mud.
9.1–10.7 m Wet kopi with gypsum.
10.7–12.2 m Brown-cream mud.
12.2–13.7 m Wet kopi and mud.

AA-20: Teatree Flat – Triangle; Pawlaczyk; 04/05/2010

Easting: ~706166 **Northing:** ~6629020

Elevation (m):

0–1.2 m Top soil.
1.2–3.7 m White kopi.
3.7–7.3 m Purple kopi with gypsum, wet from 6.1 m.
7.3–7.6 m Good level, rounded pebbles and water.
7.6–9.1 m Mud.
9.1–10.7 m Wet kopi with gypsum.
10.7–12.2 m Brown-cream mud.
12.2–13.7 m Wet kopi and mud.

AA-21: Teatree Flat – Triangle; Pawlaczyk; 04/05/2010

Easting: ~706166 **Northing:** ~6629020

Elevation (m):

0–1.2 m Top soil.
1.2–3.7 m White kopi.
3.7–7.3 m Purple kopi with gypsum, wet from 6.1 m.
7.3–7.6 m Good level, rounded pebbles and water.
7.6–9.1 m Mud.
9.1–10.7 m Wet kopi with gypsum.
10.7–12.2 m Brown-cream mud.
12.2–13.7 m Wet kopi and mud.

AA-22: Teatree Flat – Triangle; Pawlaczyk; 04/05/2010

Easting: ~706166 **Northing:** ~6629020

Elevation (m):

0–1.2 m Top soil.
1.2–3.7 m White kopi.
3.7–7.3 m Purple kopi with gypsum, wet from 6.1 m.
7.3–7.6 m Good level, rounded pebbles and water.
7.6–9.1 m Mud.
9.1–10.7 m Wet kopi with gypsum.
10.7–12.2 m Brown-cream mud.
12.2–13.7 m Wet kopi and mud.

AA-23: North of Blackboy Extension; J. Skorpos; 13/06/2010

Easting: 710825 **Northing:** 6629582

Elevation (m):

0–8.5 m Very hard ground.
8.5–13.7 m Kopi, pebbles and mud in level at 11.9 m.

AA-24: North of Blackboy Extension J. Skorpos 13/06/2010
Easting: 710828 **Northing:** 6629588
Elevation (m):
0–8.5 m Very hard ground.
8.5–13.7 m Kopi, pebbles and mud in level at 11.9 m.

AA-25: North of Blackboy Extension; J. Skorpos; 13/06/2010
Easting: 710828 **Northing:** 6629583
Elevation (m):
0–8.5 m Very hard ground.
8.5–13.7 m Kopi, pebbles and mud in level at 11.9 m.

AA-26: North of Blackboy Extension; J. Skorpos; 12/06/2010
Easting: 710822 **Northing:** 6629595
Elevation (m):
0–8.2 m Very hard ground.
8.2–13.7 m Kopi, pebbles and mud in level at 11.6 m.

AA-27: North of Blackboy Extension; J. Skorpos; 12/06/2010
Easting: 710820 **Northing:** 6629592
Elevation (m):
0–8.2 m Very hard ground.
8.2–13.7 m Kopi, pebbles and mud in level at 11.6 m.

AA-28: North of Blackboy Extension; J. Skorpos; 12/06/2010
Easting: 710919 **Northing:** 6629592
Elevation (m):
0–8.2 m Very hard ground.
8.2–13.7 m Kopi, pebbles and mud in level at 11.6 m.

AA-29: North of Blackboy Extension; J. Skorpos; 12/06/2010
Easting: 710817 **Northing:** 6629596
Elevation (m):
0–8.8 m Very hard ground.
8.8–13.7 m Kopi, pebbles and mud in level at 12.2 m.

AA-30: North of Blackboy Extension; J. Skorpos; 12/06/2010
Easting: 710817 **Northing:** 6629597
Elevation (m):
0–8.8 m Very hard ground.
8.8–13.7 m Kopi, pebbles and mud in level at 12.2 m.

AA-31: South of German Gully; J. Skorpos; 12/05/2010
Easting: ~708794 **Northing:** ~6627816
Elevation (m):
0–0.6 m Silcrete rocks and top soil.
0.6–10.4 m White soft kopi, false level at 10.4 m.
10.4–13.7 m Main level at 12.8 m, dry mud under level.

AA-32: South of German Gully; J. Skorpos; 12/05/2010
Easting: ~708794 **Northing:** ~6627816
Elevation (m):
0–0.6 m Silcrete rocks and top soil.
0.6–10.4 m White soft kopi, false level at 10.4 m.
10.4–13.7 m Main level at 12.8 m, dry mud under level.

AA-33: South of German Gully; J. Skorpos; 12/05/2010

Easting: ~708794 **Northing:** ~6627816

Elevation (m):

0–0.6 m Silcrete rocks and top soil.
0.6–10.4 m White soft kopi, false level at 10.4 m.
10.4–13.7 m Main level at 12.8 m, dry mud under level.

AA-34: South of German Gully; J. Skorpos; 12/05/2010

Easting: ~708794 **Northing:** ~6627816

Elevation (m):

0–0.6 m Silcrete rocks and top soil.
0.6–10.4 m White soft kopi, false level at 10.4 m.
10.4–13.7 m Main level at 12.8 m, dry mud under level.

AA-35: South of German Gully; J. Skorpos; 12/05/2010

Easting: ~708794 **Northing:** ~6627816

Elevation (m):

0–0.6 m Silcrete rocks and top soil.
0.6–10.4 m White soft kopi, false level at 10.4 m.
10.4–13.7 m Main level at 12.8 m, dry mud under level.

AA-36: South of German Gully; J. Skorpos; 12/05/2010

Easting: ~708794 **Northing:** ~6627816

Elevation (m):

0–0.6 m Silcrete rocks and top soil.
0.6–10.4 m White soft kopi, false level at 10.4 m.
10.4–13.7 m Main level at 12.8 m, dry mud under level.

AA-37: South of German Gully; J. Skorpos; 12/05/2010

Easting: ~708794 **Northing:** ~6627816

Elevation (m):

0–0.6 m Silcrete rocks and top soil.
0.6–10.4 m White soft kopi, false level at 10.4 m.
10.4–13.7 m Main level at 12.8 m, dry mud under level.

AA-38: South of German Gully; J. Skorpos; 09/06/2010

Easting: ~708725 **Northing:** ~6627817

Elevation (m):

0–0.9 m Hard silcrete.
0.9–9.1 m Yellow kopi.
9.1–13.7 m Brown kopi, no level.

AA-39: South of German Gully; J. Skorpos; 09/06/2010

Easting: ~708725 **Northing:** ~6627817

Elevation (m):

0–0.9 m Hard silcrete.
0.9–9.1 m Yellow kopi.
9.1–13.7 m Brown kopi, no level.

AA-40: South of German Gully; J. Skorpos; 09/06/2010

Easting: 708614 **Northing:** 6627808

Elevation (m):

0–0.9 m Hard silcrete.
0.9–9.1 m Yellow kopi.
9.1–18.3 m Brown kopi no level but pebbles at 11 m and 14 m.

AA-41: Yarloo; J. Skorpos; 10/05/2010

Easting: ~710826 **Northing:** ~6627503

Elevation (m):

0–0.6 m Silcrete and top soil.

0.6–6.1 m Kopi and pebbles, hard at bottom.

AA-42: Yarloo; J. Skorpos; 10/05/2010

Easting: ~710826 **Northing:** ~6627503

Elevation (m):

0–0.6 m Silcrete and top soil.

0.6–6.1 m Kopi and pebbles, hard at bottom.

AA-43: Yarloo; J. Skorpos; 10/05/2010

Easting: ~710826 **Northing:** ~6627503

Elevation (m):

0–0.6 m Silcrete and top soil.

0.6–6.1 m Kopi and pebbles, hard at bottom.

AA-44: Yarloo South; J. Skorpos; 11/05/2010

Easting: 711298 **Northing:** 6627028

Elevation (m):

0–0.6 m Silcrete and top soil.

0.6–6.1 m Kopi and pebbles, hard at bottom.

AA-45: Yarloo South; J. Skorpos; 11/05/2010

Easting: 711468 **Northing:** 6626424

Elevation (m):

0–0.6 m Silcrete and top soil.

0.6–6.1 m Kopi and pebbles, hard at bottom.

AA-46: Lunatic Extension; J. Skorpos; 09/10/2010

Easting: 705978 **Northing:** 6633071

Elevation (m):

0–0.9 m Silcrete and top soil.

0.9–5.8 m Pebbles and mud level at 2.7 m; second level with pebbles and mud at 4 m; third level with concrete and mud at 5.2 m.

AA-47: Lunatic Extension; J. Skorpos; 15/10/2010

Easting: 705896 **Northing:** 6633091

Elevation (m):

0–0.9 m Hard silcrete and top soil.

0.9–6.4 m Hard silcrete to 3.7 m. First level at 4.3 m of pebbles and mud and matrix opal. Second level at 5.8 m with trace of potch opal.

AA-48: West of Teatree Flat; J. Skorpos; 25/10/2010

Easting: 705474 **Northing:** 6630301

Elevation (m):

0–0.9 m Silcrete and top soil.

0.9–9.8 m Hard silcrete to 5.2 m. Pebbles and mud level at 7.6 m.

AA-49: West of Teatree Flat; J. Skorpos; 25/10/2010

Easting: 705482 **Northing:** 6630303

Elevation (m):

0–0.9 m Silcrete and top soil.

0.9–13.7 m Hard silcrete to 5.2 m. Weak level at 10.7 m, no mud.

AA-50: West of Teatree Flat; J. Skorpos; 25/10/2010

Easting: 705483 **Northing:** 6630302

Elevation (m):

0–0.9 m Silcrete and top soil.

0.9–13.7 m Hard silcrete to 5.2 m. Weak level at 10.7 m, no mud.

AA-51: West of Teatree Flat; J. Skorpos; 25/10/2010

Easting: 705487 **Northing:** 6630288

Elevation (m):

0–0.9 m Silcrete and top soil.

0.9–5.2 m Hard silcrete to 5.2 m.

5.2–14.3 m Kopi to 11.9 m, pebble and mud level at 12.2 m

AA-52: West of Teatree Flat; J. Skorpos; 25/10/2010

Easting: 705493 **Northing:** 6630282

Elevation (m):

0–0.9 m Silcrete and top soil.

0.9–5.2 m Hard silcrete to 5.2 m.

5.2–12.2 m Kopi to 11.9 m, then hard rock.

AA-53: West of Teatree Flat; J. Skorpos; 25/10/2010

Easting: 705314 **Northing:** 6630445

Elevation (m):

0–0.9 m Silcrete and top soil.

0.9–5.2 m Hard silcrete to 5.2 m.

5.2–14.3 m Kopi to 12.2 m, then mud but no level.

AA-54: West of Teatree Flat; J. Skorpos; 25/10/2010

Easting: 705255 **Northing:** 6630425

Elevation (m):

0–0.9 m Silcrete and top soil.

0.9–5.2 m Hard silcrete to 5.2 m.

5.2–14.3 m Kopi to 12.2 m, then mud but no level.

AA-55: West of Teatree Flat; J. Skorpos; 24/10/2010

Easting: 705644 **Northing:** 6630498

Elevation (m):

0–0.9 m Silcrete and top soil.

0.9–5.2 m Hard silcrete to 5.2 m.

5.2–14.3 m Kopi to 12.2 m, weak level with pebbles at 10.7 m. Level at 12.2 m with mud below.

AA-56: West of Teatree Flat; J. Skorpos; 24/10/2010

Easting: 705654 **Northing:** 6630473

Elevation (m):

0–0.9 m Silcrete and top soil.

0.9–5.2 m Hard silcrete to 5.2 m.

5.2–11.3 m Kopi to 10.7 m, weak levels at 8.5 m and 10.7 m. Hard rock at 11.3 m.

AA-57: West of Teatree Flat; J. Skorpos; 24/10/2010

Easting: 705666 **Northing:** 6630411

Elevation (m):

0–0.9 m Silcrete and top soil.

0.9–5.2 m Hard silcrete to 5.2 m.

5.2–13.7 m Kopi to 10.7 m, weak levels at 8.5 m and 10.7 m.

AA-58: West of Teatree Flat; J. Skorpos; 24/10/2010

Easting: 705671 **Northing:** 6630405

Elevation (m):

0–0.9 m Silcrete and top soil.

0.9–5.2 m Hard silcrete to 5.2 m.

5.2–13.7 m Kopi to 10.4 m, pebbles in levels at 6.1 m and 10.4 m, mud below.

AA-59: West of Teatree Flat; J. Skorpos; 24/10/2010

Easting: 705678 **Northing:** 6630327

Elevation (m):

0–0.9 m Silcrete and top soil.

0.9–5.2 m Hard silcrete to 5.2 m.

5.2–13.7 m Kopi to 11.6 m, pebbles in levels at 6.1 m, 10.4 m and 11.6 m, no mud.

AA-60: West of Teatree Flat; J. Skorpos; 25/10/2010

Easting: 705670 **Northing:** 6630334

Elevation (m):

0–1.2 m Sandy top soil.

1.2–3.0 m Silcrete to 3.0 m.

3.0–13.7 m Kopi to 11.6 m, pebbles and mud in levels at 10.4 m and 11.6 m.

AA-61: West of Teatree Flat; J. Skorpos; 25/10/2010

Easting: 705664 **Northing:** 6630343

Elevation (m):

0–1.2 m Sandy top soil.

1.2–5.2 m Silcrete to 5.2 m.

5.2–13.7 m Kopi to 10.4 m, pebbles and mud in levels at 8.2 m and 10.4 m.
Wet mud below 12.2 m.

AA-62: West of Teatree Flat; J. Skorpos; 25/10/2010

Easting: 705667 **Northing:** 6630358

Elevation (m):

0–1.2 m Sandy top soil.

1.2–5.2 m Silcrete to 5.2 m.

5.2–13.7 m Kopi to 11.6 m, pebbles and mud in level at 11.9 m. Wet mud below 12.2 m.

AA-63: West of Teatree Flat; J. Skorpos; 25/10/2010

Easting: 705644 **Northing:** 6630371

Elevation (m):

0–1.2 m Sandy top soil.

1.2–5.2 m Silcrete to 5.2 m.

5.2–13.7 m Kopi to 11.6 m, pebbles and mud in levels at 6.1 m and 11.6 m.
Wet mud below 12.2 m.

AA-64: West of Teatree Flat; J. Skorpos; 25/10/2010

Easting: 705466 **Northing:** 6630298

Elevation (m):

0–1.2 m Sandy top soil.

1.2–5.2 m Silcrete to 5.2 m.

5.2–13.7 m Kopi to 11.6 m, pebbles and mud in levels at 7.3 m and 9.8 m.
Wet mud below 11.9 m.

AA-65: East of Stans Hill; J. Skorpos; 22/10/2010

Easting: 708830 **Northing:** 6630603

Elevation (m):

0–11.6 m Top soil on kopi, pebbles and mud on false level at 5.5 m.
No main level, wet mud at 11.6 m.

AA-66: East of Stans Hill; J. Skorpos; 22/10/2010

Easting: 708851 **Northing:** 6630609

Elevation (m):

0–11.6 m Top soil on kopi, pebbles and mud on false level at 3.4 m and main level at 7.9 m, mud at 11.6 m.

AA-67: East of Stans Hill; J. Skorpos; 24/10/2010

Easting: 708801 **Northing:** 6630628

Elevation (m):

0–9.8 m Top soil on kopi, pebbles and mud on levels at 5.2 m, 6.7 m and 7.9 m.
All levels very dry.

AA-68: East of Stans Hill; J. Skorpos; 24/10/2010

Easting: 708795 **Northing:** 6630613

Elevation (m):

0–9.8 m Top soil on kopi, pebbles and mud on levels at 5.2 m, 6.7 m and 7.9 m.
All levels very dry.

AA-69: East of Stans Hill; J. Skorpos; 24/10/2010

Easting: 708793 **Northing:** 6630609

Elevation (m):

0–9.8 m Top soil on kopi, pebbles and mud on levels at 5.2 m, 6.7 m and 7.9 m.
All levels very dry.

AA-70: East of Stans Hill; J. Skorpos; 24/10/2010

Easting: 708791 **Northing:** 6630611

Elevation (m):

0–9.8 m Top soil on kopi, pebbles and mud in level at 5.5 m. Yellow kopi from 7.9 m.

AA-71: East of Stans Hill; J. Skorpos; 24/10/2010

Easting: 708798 **Northing:** 6630598

Elevation (m):

0–9.8 m Top soil on kopi, pebbles and mud in level at 6.1 m. Yellow kopi from 7.9 m.

AA-72: East of Stans Hill; J. Skorpos; 24/10/2010

Easting: 708779 **Northing:** 6630598

Elevation (m):

0–9.8 m Top soil on kopi, pebbles and mud in level at 5.5 m. Yellow kopi from 7.9 m.

AA-73: East of Stans Hill; J. Skorpos; 24/10/2010

Easting: 708463 **Northing:** 6630573

Elevation (m):

0–2.0 m Top soil.

2.0–5.2 m Silcrete.

5.2–14.3 m Kopi to 13.7 m, pebbles at 8.5 m. Wet from 13.7 m. No main level.

AA-74: East of Stans Hill; J. Skorpos; 24/10/2010

Easting: 708463 **Northing:** 6630573

Elevation (m):

0–1.5 m Top soil.

1.5–5.2 m Silcrete.

5.2–14.3 m Kopi to 13.7 m, weak level between 10.7 m and 12.2 m.

AA-75: East of Stans Hill; J. Skorpos; 23/10/2010

Easting: 708862 **Northing:** 6630604

Elevation (m):

0–9.8 m Top soil on kopi, levels at 6.7 m and 7.9 m with cobbles and mud. Wet mud at 9.1 m.

AA-76: East of Stans Hill; J. Skorpos; 23/10/2010

Easting: 708891 **Northing:** 6630607

Elevation (m):

0–9.8 m Top soil on kopi, levels at 6.7 m and 7.9 m with cobbles and mud.

AA-77: East of Stans Hill; J. Skorpos; 23/10/2010

Easting: 708863 **Northing:** 6630598

Elevation (m):

0–9.8 m Top soil on kopi, levels at 6.7 m and 7.9 m with cobbles and mud. Wet at 9.1 m.

AA-78: East of Stans Hill; J. Skorpos; 23/10/2010

Easting: 708860 **Northing:** 6630593

Elevation (m):

0–6.1 m Top soil on kopi, stopped on wet mud at 6.1 m.

AA-79: East of Stans Hill; J. Skorpos; 23/10/2010

Easting: 708749 **Northing:** 6630582

Elevation (m):

0–8.2 m Top soil on kopi, levels at 6.1 m and 7.3 m with cobbles and mud.
Stopped on wet mud at 8.2 m.

AA-80: East of Stans Hill; J. Skorpos; 23/10/2010

Easting: 708863 **Northing:** 6630598

Elevation (m):

0–9.8 m Top soil on kopi, levels at 7.3 m and 8.5 m with cobbles and mud.
Wet ground from 9.1 m to bottom.

AA-81: East of Stans Hill; J. Skorpos; 23/10/2010

Easting: 708851 **Northing:** 6630550

Elevation (m):

0–9.8 m Top soil on kopi, levels at 4.9 m and 6.7 m. Very wet from 7.3 m with strong level at 7.9 m. Levels with cobbles and mud.

AA-82: East of Stans Hill; J. Skorpos; 23/10/2010

Easting: 708846 **Northing:** 6630536

Elevation (m):

0–9.8 m Top soil on kopi, levels at 6.1 m and 7.9 m, levels wet with cobbles and mud.

AA-83: East of Stans Hill; J. Skorpos; 23/10/2010

Easting: 708848 **Northing:** 6630547

Elevation (m):

0–9.8 m Top soil on kopi, levels at 4.9 m and 6.7 m. Very strong level at 7.9 m.
Levels with cobbles and mud.

AA-84: East of Stans Hill; J. Skorpos; 24/10/2010

Easting: 708793 **Northing:** 6630547

Elevation (m):

0–9.8 m Top soil on kopi, levels at 4.9 m and 6.7 m. Very strong level at 7.9 m.
Levels with cobbles and mud.

AA-85: West of Triangle; J. Skorpos; 22/10/2010

Easting: 704700 **Northing:** 6628110

Elevation (m):

0–5.2 m Red-brown soil to 0.9 m then silcrete.

5.2–11.0 m Kopi with level at 9.8 m.

11.0–13.7 m Mud.

AA-86: East of Four Nations; J. Skorpos; 22/10/2010

Easting: 709574 **Northing:** 6631065

Elevation (m):

0–11.0 m Red soil on good kopi; false level at 5.2 m, main level at 7.6 m and a bottom level at 9.1 m. Pebbles in all levels, no mud.

AA-87: East of Four Nations; J. Skorpos; 22/10/2010

Easting: 709577 **Northing:** 6631063

Elevation (m):

0–11.0 m Red soil on good kopi; false level at 4.9 m, main level at 7.3 m with matrix opal. Levels also at 8.5 m and 10.1 m. Pebbles and cobbles in all levels, no mud.

AA-88: East of Four Nations; J. Skorpos; 22/10/2010

Easting: 709577 **Northing:** 6631063

Elevation (m):

0–11.0 m Red soil on good kopi; false level at 4.9 m, main level at 7.3 m with matrix opal. Levels also at 8.5 m and 10.1 m. Pebbles and cobbles in all levels, no mud.

AA-89: East of Four Nations; J. Skorpos; 22/10/2010

Easting: 709586 **Northing:** 6631059

Elevation (m):

0–11.0 m Red soil on good kopi; false level at 4.9 m, main level at 7.3 m with matrix opal. Levels also at 8.5 m and 10.1 m. Pebbles and cobbles in all levels, no mud.

AA-90: East of Four Nations; J. Skorpos; 22/10/2010

Easting: 709579 **Northing:** 6631070

Elevation (m):

0–9.8 m Red soil on good kopi; levels at 5.2 m and 7.9 m. Pebbles and cobbles in all levels, no mud. Stopped on large rock.

AA-91: East of Four Nations; J. Skorpos; 22/10/2010

Easting: 709577 **Northing:** 6631058

Elevation (m):

0–9.8 m Red soil on good kopi; levels at 5.2 m and 7.9 m. Pebbles and cobbles in all levels, no mud. Stopped on large rock.

AA-92: East of Four Nations; J. Skorpos; 22/10/2010

Easting: 709603 **Northing:** 6631031

Elevation (m):

0–7.3 m Red soil on good kopi; false level at 5.2 m. Pebbles and cobbles in level, no mud. Stopped on large rock.

AA-93: East of Four Nations; J. Skorpos; 22/10/2010

Easting: 709535 **Northing:** 6631068

Elevation (m):

0–7.3 m Red soil on good kopi; false level at 5.2 m. Pebbles and cobbles in level, no mud. Stopped on large rock.

AA-94: East of Stans Hill; J. Skorpos; 22/10/2010

Easting: 708828 **Northing:** 6630604

Elevation (m):

0–7.3 m Red-brown soil to 1 m then kopi; Levels at 5.2 m, 8.5 m and 11 m. Good mud and pebbles on levels.

AA-95: East of Four Nations; J. Skorpos; 21/10/2010

Easting: 709112 **Northing:** 6631564

Elevation (m):

0–4.6 m Red soil on silicified kopi and silcrete — too hard.

AA-96: West of Triangle; J. Skorpos; 21/10/2010
Easting: 704751 **Northing:** 6628486
Elevation (m):
0–4.0 m Red soil on silicified kopi and silcrete — too hard.

AA-97: West of Triangle; J. Skorpos; 21/10/2010
Easting: 704733 **Northing:** 6628464
Elevation (m):
0–4.0 m Red soil on silicified kopi and silcrete.
4.0–13.7 m Kopi with pebble level at 11.9 m.

AA-98: West of Triangle; J. Skorpos; 21/10/2010
Easting: 704717 **Northing:** 6628493
Elevation (m):
0–5.2 m Red soil on silicified kopi and silcrete.
5.2–12.2 m Kopi with false level at 6.7 m. Main levels at 10.4 m and 11.0 m.
12.2–13.7 m Wet kopi.

AA-99: West of Triangle; J. Skorpos; 21/10/2010
Easting: 704710 **Northing:** 6628506
Elevation (m):
0–3.1 m Red soil on silicified kopi and silcrete — too hard.

AA-100: West of Triangle; J. Skorpos; 21/10/2010
Easting: 704711 **Northing:** 6628500
Elevation (m):
0–5.2 m Red soil on silicified kopi and silcrete.
5.2–13.7 m Kopi with false level at 7.6 m. Main level with some pebbles at 11.3 m.

AA-101: West of Triangle; J. Skorpos; 21/10/2010
Easting: 704757 **Northing:** 6628477
Elevation (m):
0–6.1 m Red soil on silicified kopi and silcrete.
6.1–13.7 m Kopi, main level at 11.6 m with some pebbles.

AA-102: West of Triangle; J. Skorpos; 21/10/2010
Easting: 704759 **Northing:** 6628481
Elevation (m):
0–6.1 m Red soil on silicified kopi and silcrete.
6.1–13.7 m Kopi, main level at 11.6 m with some pebbles.

AA-103: West of Triangle; J. Skorpos; 21/10/2010
Easting: 704860 **Northing:** 6628165
Elevation (m):
0–2.1 m Red soil on silcrete from 0.9 m.
2.1–13.7 m Kopi, minor level at 9.8 m, main level at 12.8 m with pebbles and mud.

AA-104: West of Triangle; J. Skorpos; 21/10/2010
Easting: 704697 **Northing:** 6628114
Elevation (m):
0–5.2 m Red soil on silcrete from 0.9 m.
5.2–13.7 m Kopi, main level at 9.8 m, mud from 10.7 m.

Trenching

AT-1: Northwest of Four Nations; P. Sheppard; 8/08/2010

Easting: 708757 **Northing:** 6631657

Elevation (m):

0–4 m No defined level.

AT-2: Northwest of Four Nations; P. Sheppard; 8/08/2010

Easting: 708720 **Northing:** 6631647

Elevation (m):

0–3 m No defined level.

AT-3: Northwest of Four Nations; P. Sheppard; 9/08/2010

Easting: 708749 **Northing:** 6631663

Elevation (m):

0–3.5 m No defined level.

AT-4: Northwest of Four Nations; P. Sheppard; 9/08/2010

Easting: 708846 **Northing:** 6631870

Elevation (m):

0–4 m Level at 3 m, some pebbles on level with mud.

AT-5: Northwest of Four Nations; P. Sheppard; 9/08/2010

Easting: 708850 **Northing:** 6631935

Elevation (m):

0–4 m Level at 3.8 m, some pebbles on level with mud.

AT-6: Northwest of Four Nations; P. Sheppard; 9/08/2010

Easting: 708839 **Northing:** 6631909

Elevation (m):

0–4 m Weak level at 3.8 m, some pebbles on level with mud.

AT-7: Northwest of Four Nations; P. Sheppard; 9/08/2010

Easting: 708993 **Northing:** 6631954

Elevation (m):

0–3.6 m Weak level at 3.2 m, some pebbles on level with mud.

AT-8: North of Four Nations; P. Sheppard; 10/08/2010

Easting: 709105 **Northing:** 6632015

Elevation (m):

0–3 m Weak level at 2.4 m with good mud.

AT-9: Northeast of Four Nations; P. Sheppard; 10/08/2010

Easting: 709189 **Northing:** 6631895

Elevation (m):

0–3.2 m No defined level.

AT-10: Northeast of Four Nations; P. Sheppard; 10/08/2010

Easting: 709115 **Northing:** 6631506

Elevation (m):

0–4 m No defined level.

AT-11: East of Stans Hill; P. Sheppard; 10/08/2010

Easting: 708859 **Northing:** 6630741

Elevation (m):

0–3 m Level at 2.5 m, mixed level, mud and ironstone.

AT-12: East of Stans Hill; P. Sheppard; 10/08/2010
Easting: 708813 **Northing:** 6630286
Elevation (m):
0–2.6 m Level at 2 m, alluvial, good mud.

AT-13: East of Stans Hill; P. Sheppard; 11/08/2010
Easting: 708825 **Northing:** 6630615
Elevation (m):
0–2.0 m Level at 1.5 m, alluvial, good mud.

AT-14: Southeast of Stans Hill; P. Sheppard; 11/08/2010
Easting: 708696 **Northing:** 6630615
Elevation (m):
0–4.5 m Distinct level at 4.5 m.

AT-15: Southeast of Stans Hill; P. Sheppard; 11/08/2010
Easting: 708699 **Northing:** 6630584
Elevation (m):
0–3.6 m Distinct level at 2.9 m.

AT-16: Northwest of Stans Hill; P. Sheppard; 11/08/2010
Easting: 707975 **Northing:** 6630998
Elevation (m):
0–2 m Alluvial level at 2 m.

AT-17: Northwest of Stans Hill; P. Sheppard; 11/08/2010
Easting: 708007 **Northing:** 6630994
Elevation (m):
0–2 m Alluvial level at 2 m.

AT-18: Northwest of Stans Hill; P. Sheppard; 12/08/2010
Easting: 708050 **Northing:** 6630994
Elevation (m):
0–3.7 m Good level at 3.6 m.

AT-19: Northwest of Stans Hill; P. Sheppard; 12/08/2010
Easting: 708131 **Northing:** 6631072
Elevation (m):
0–2.5 m Poor level at 2.5 m.

AT-20: Northwest of Stans Hill; P. Sheppard; 12/08/2010
Easting: 708146 **Northing:** 6631020
Elevation (m):
0–2.6 m Level at 2.5 m, washed away.

AT-21: Northwest of Christmas; P. Uhlik; 19/08/2010
Easting: 705675 **Northing:** 6632840
Elevation (m):
0–2.5 m Poor level at 1.5 m.

AT-22: Northwest of Christmas; P. Uhlik; 20/08/2010
Easting: 705664 **Northing:** 6632840
Elevation (m):
0–3 m Good level at 2.5 m with mud and pebbles.

AT-23: Northwest of Christmas; P. Uhlik; 21/08/2010
Easting: 705628 **Northing:** 6632854
Elevation (m):
0–3.5 m Good level at 2 m with mud and pebbles.

AT-24: Northwest of Christmas; P. Uhlik; 24/08/2010
Easting: 705628 **Northing:** 6632854
Elevation (m):
0–3.5 m Good level at 2.5 m with mud and pebbles.

AT-25: North of Stans Hill; P. Sheppard; 5/11/2010
Easting: 708048 **Northing:** 6631299
Elevation (m):
0–4 m Good level at 3 m with mud.

AT-26: Northeast of Stans Hill; P. Sheppard; 6/11/2010
Easting: 708343 **Northing:** 6631044
Elevation (m):
0–4 m Good level at 3.5 m with quartz stone and dry mud.

AT-27: Northeast of Stans Hill; P. Sheppard; 6/11/2010
Easting: 708122 **Northing:** 6630866
Elevation (m):
0–4 m Good level at 3.3 m.

AT-28: Northeast of Stans Hill; P. Sheppard; 7/11/2010
Easting: 708114 **Northing:** 6630860
Elevation (m):
0–3 m Poor level at 2 m.

AT-29: North of Stans Hill; P. Uhlik; 2/11/2010
Easting: 707847 **Northing:** 6630974
Elevation (m):
0–3 m Poor level at 2.5 m.

AT-30: Northeast of Willis Ridge; P. Uhlik; 3/11/2010
Easting: ~707350 **Northing:** ~6633240
Elevation (m):
0–2.5 m Poor level at 2 m with sandy mud.

AT-31: North-northeast of Stans Hill; P. Uhlik; 4/11/2010
Easting: 708220 **Northing:** 6631041
Elevation (m):
0–3.5 m Good level at 2.5 m with mud.

AT-32: Northeast of Stans Hill; P. Uhlik; 5/11/2010
Easting: 708335 **Northing:** 6631048
Elevation (m):
0–4 m Good level at 3.5 m with mud and pebbles.

AT-33: Northeast of Stans Hill; P. Uhlik; 6/11/2010
Easting: 708269 **Northing:** 6630859
Elevation (m):
0–4 m Poorly defined level.

AT-34: North-northeast of Stans Hill; P. Uhlik; 7/11/2010

Easting: 708114 **Northing:** 6630866

Elevation (m):

0–2.5 m Hard rocky level with mud at 1.5 m.

AT-35: West of Yarloo West; A. Groeshel; 12/11/2010

Easting: 709710 **Northing:** 6627414

Elevation (m):

0–5 m Level at 4.5 m. Dry sandy red kopi, dry thin yellow mud, sandstone bottom.

AT-36: West of Yarloo West; A. Groeshel; 12/11/2010

Easting: 709704 **Northing:** 6627432

Elevation (m):

0–5 m Weak level at 4.8 m, small pebbles, no mud, sandstone bottom.

AT-37: West of Yarloo West; A. Groeshel; 14/11/2010

Easting: 709703 **Northing:** 6627421

Elevation (m):

0–3 m Sandy red kopi, abandoned above level.

AT-38: West of Yarloo West; A. Groeshel; 14/11/2010

Easting: 709615 **Northing:** 6627423

Elevation (m):

0–3 m White kopi with iron stained patches, abandoned above level.

AT-39: Northeast of Blackboy Extension; A. Groeshel; 17/11/2010

Easting: 711508 **Northing:** 6629053

Elevation (m):

0–4 m Sandy kopi above weak pebble level at 3.8 m, no mud, sandy below.

AT-40: Northeast of Blackboy Extension; A. Groeshel; 17/11/2010

Easting: 711670 **Northing:** 6629084

Elevation (m):

0–2.5 m Sandy, scattered cobbles below level.

AT-41: Northeast of Blackboy Extension; A. Groeshel; 18/11/2010

Easting: 711666 **Northing:** 6629378

Elevation (m):

0–3 m Sandy, scattered cobbles below level.

AT-42: Northeast of Blackboy Extension; A. Groeshel; 18/11/2010

Easting: 711234 **Northing:** 6629417

Elevation (m):

0–2 m Did not get through silcrete.

AT-43: Northeast of Blackboy Extension; A. Groeshel; 18/11/2010

Easting: 711117 **Northing:** 6629324

Elevation (m):

0–1.8 m Did not get through silcrete.

AT-44: West of Yarloo West; A. Groeshel; 20/11/2010

Easting: 709765 **Northing:** 6627557

Elevation (m):

0–5 m Silcrete, level at 4.5 m with small pebbles and thin dry mud.

AT-45: West of Yarloo West; A. Groeshel; 21/11/2010
Easting: 709705 **Northing:** 6627562
Elevation (m):
0–4 m Dry sandy kopi, scattered rocks – trench abandoned.

AT-46: Southwest of Yarloo West; A. Groeshel; 22/11/2010
Easting: 709615 **Northing:** 6627423
Elevation (m):
0–9 m Dry sandy kopi a few scattered boulders – no level.

AT-47: East of Yarloo Extension; B. Frederick; 31/8/2010
Easting: 711546 **Northing:** 6628003
Elevation (m):
0–2.4 m Poor level at 1.8 m.

AT-48: East of Yarloo Extension; B. Frederick; 31/8/2010
Easting: 711518 **Northing:** 6628029
Elevation (m):
0–2.4 m No level.

AT-49: East of Yarloo Extension; B. Frederick; 31/8/2010
Easting: 711451 **Northing:** 6628097
Elevation (m):
0–2.4 m No level.

AT-50: East of Yarloo Extension; B. Frederick; 31/8/2010
Easting: 711661 **Northing:** 6627873
Elevation (m):
0–1.8 m Concrete level at 1.2 m below brown silt.

AT-51: East of Yarloo Extension; B. Frederick; 31/8/2010
Easting: 711641 **Northing:** 6627925
Elevation (m):
0–4 m Concrete level at 0.9 m below brown silt.

AT-52: East of Yarloo Extension; B. Frederick; 31/8/2010
Easting: 711731 **Northing:** 6627936
Elevation (m):
0–3 m Concrete level at 0.9 m below brown silt.

AT-53: East of Yarloo Extension; B. Frederick; 31/8/2010
Easting: 711764 **Northing:** 6628000
Elevation (m):
0–3.4 m Poor level at 1.8 m.

AT-54: East of Yarloo Extension; B. Frederick; 31/8/2010
Easting: 711804 **Northing:** 6628061
Elevation (m):
0–2.4 m No level.

AT-55: East of Yarloo Extension; B. Frederick; 31/8/2010
Easting: 711866 **Northing:** 6628043
Elevation (m):
0–1.2 m Ground too hard.

AT-56: North of Yarloo Extension; B. Frederick; 30/8/2010
Easting: 710994 **Northing:** 6627853
Elevation (m):
0–4.9 m Poor level at 3.0 m.

AT-57: North of Yarloo Extension; B. Frederick; 30/8/2010
Easting: 711060 **Northing:** 6627935
Elevation (m):
0–4.3 m Poor level at 1.8 m.

AT-58: North of Yarloo Extension; B. Frederick; 30/8/2010
Easting: 711122 **Northing:** 6628011
Elevation (m):
0–3.7 m Poor level at 1.8 m.

AT-59: North of Yarloo Extension; B. Frederick; 30/8/2010
Easting: 711281 **Northing:** 6628089
Elevation (m):
0–2.4 m No level.

AT-60: North of Yarloo Extension; B. Frederick; 30/8/2010
Easting: 711592 **Northing:** 6628054
Elevation (m):
0–2.4 m No level.

AT-61: North of Yarloo Extension; B. Frederick; 30/8/2010
Easting: 711610 **Northing:** 6628065
Elevation (m):
0–2.7 m No level.

AT-62: North of Yarloo Extension; B. Frederick; 30/8/2010
Easting: 711668 **Northing:** 6628078
Elevation (m):
0–2.7 m No level.

AT-63: North of Yarloo Extension; B. Frederick; 30/8/2010
Easting: 711585 **Northing:** 6628010
Elevation (m):
0–2.4 m Poor level at 1.5 m.

AT-64: North of Yarloo Extension; B. Frederick; 30/8/2010
Easting: 711565 **Northing:** 6627975
Elevation (m):
0–3.0 m No level.

AT-65: North of Yarloo Extension; B. Frederick; 31/8/2010
Easting: 711323 **Northing:** 6628031
Elevation (m):
0–3.7 m No level.

AT-66: North of Stans Hill; P. Uhlik; 21/11/2011
Easting: 707855 **Northing:** 6630887
Elevation (m):
0–2.0 m Good level at 1.8 m, dry mud.

AT-67: Between Lunatic and Christmas; P. Uhlik; 21/11/2011

Easting: 706246 **Northing:** 6632763

Elevation (m):

0–2.5 m Alluvium and mixed level pebbles at 2.0 m, good mud.

AT-68: Between Lunatic and Guns Gully; W. Groeschel; 18/11/2011

Easting: 707416 **Northing:** 6632066

Elevation (m):

0–2.0 m Weak level at 1.5 to 2.0 m, no mud, scattered pebbles on level, some gypsum.