## Memo: Notes on the Balfour Downs Property Site Visit June 28 - July 3, 2011

## **Introduction, Location and Access**

Approximately four days were spent on the Balfour Downs property completing a reconnaissance level investigation of the properties prospectivity for uranium, gold and base metal mineralization. The program was completed by APEX Geoscience geologists Ronnie Therriault and Mark Devitt. The primary focus was to see as much different geology as possible rather than walking over all known outcrops on the property. In the end, there does not appear to be any significant signs of any economic mineralization on the property.

The Balfour Downs property is located approximately 100 km northeast of Newman in Western Australia. It is accessed by driving north on Marble Bar road to 191900E/7455600N (AGD/AMG84 Zn51), then turning east and driving straight to 257490E/7440940N. From here one can either go north to reach the northern part of the property or further east to reach the southern part of the property.

Access on the property is via a NE trending road that bisects the entire property and is in reasonable condition. Aside from this road, a few old but still drivable roads occur in the southern part of the property while the rest of the property is accessed by walking or off-road driving when possible.

There are two historically settled areas just off the property in the northeast and southwest end. The northern settlement is an old boys and girls camp (Ngalkanginya - 302655N/7465200N) while the one in the south is a small village (Billinooka) with perhaps 15-20 buildings (283800E/7451000N).

## **Work Completed**

June 28: Fly to Newman. Purchase camping equipment.

June 29: Purchase food, drive to property, set up camp.

June 30: Investigated a large NW trending quartz vein at 291525E/7457860N. Sampled a goethitic (?) part of the vein (11RTP300). Looked at the granite-silica cap contact at 292141/7457178. Granite yielded 250-300cps, samples 11RTP301/302/303 taken. Left area and went to investigate radiometric anomaly - turned out to be syenogranite, so anomaly is caused largely by potassium. 11RTP304 from a syenogranite with 500-600cps. NW trending fault with quartz veins at 286307E/7456701N. Sandstones and conglomerates looked at around 286342E/7453533N (250/70 striking, younging to the south). Archean amygdaloidal basalt looked at around 287799E/7455323N.

July 1: Investigated the 890Ma sandstones towards the northern part of the property. Continued south and sampled a large (25m wide) NW trending barren quartz vein cutting syenogranite at 293049E/7459032N (fracture set in same direction; 11RTP305). Looked at some young silicious breccias with a goethitic matrix at 290221E/7456649N (11RTP306). Syenogranite with NW quartz veins and peg dykes at 286700E/7455976N. Investigated a sediment package around 285421E/7452935N which consisted of interbedded sandstones, cherts, dolomites and shales.

July 2: Broke camp and travelled to the south part of the property. Set up camp at 279750E/7456020N. Did a transect through the cherts, into sandstones (low angle, N-S trending) and into Archean amygdaloidal basalts and sandstones then syenogranite.

July 3: Hiked out from the top of Weathertop hill (281769E/7457244N) to the NE. Saw primarily cherts and sandstones along the way until syenogranite was encountered. The granite was cut by a few bull quartz veins trending NW. *11RTP307*. Walked north out of the granite and into a large area of strongly amygdaloidal dolerite sills cutting the intrusive. Walked back to the SW through dolerite and into cherts and sandstones. Low angle crossbedded sandstones and lesser iron formation was noted at 281924E/7457607N. Returned to camp and packed up. Drove to the northern most part of the property and looked at a few sandstone outcrops around 295996E/7471915N. Returned to Newman.

July 4: Fly back to Perth.

Sample ID	Easting (ANG84Zn51)	Northing (ANG84Zn51)	Notes
11RTP300	291525	7457860	QV breccia with goethite
11RTP301	292141	7457178	Chert breccia cap rock on syenogranite
11RTP302	292141	7457178	Syenogranite, 250cps
11RTP303	292148	7457180	Syenogranite, 300cps
11RTP304	287180	7455993	Syenogranite, 600cps
11RTP305	293049	7459032	NW trending QV
11RTP306	290221	7456649	Chert breccia with goethite matrix
11RTP307	283947	7458692	QV cutting granite
Table 1: Samples taken during the June-July, 2011 program.			

## **Conclusions & Recommendations**

As is fairly obvious from the above text, nothing of economic interest was found on the property. The large NW trending quartz veins are structurally (fracture) controlled and can be traced for kilometres along strike; however, they are barren of any sulphides and show no signs of deformation. They are probably related to the same fluids that injected the syenitic pegmatitic dykes that cut the main syenogranite plug on the property. No elevated radiation readings were encountered that could not be explained by the presence of high potassium. No signs of base metal mineralization were noted.

While nothing of significance was found, much of the property is covered in quaternary-aged detritus, so something of interest could easily have been missed. If any future work is planned for the property, it might include a reconnaissance-scale soil sampling/ground geophysics/alphacup survey.

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