In February 2010 Geo-Solutions Pty Ltd, on behalf of Western Desert Resources Ltd. flew a heli-borne Electromagnetic Survey (AEM) using the RepTEM system over their Limbla Project Exploration License (figure 1). The survey consisted of 120 flight line traverses flown in a north south direction for a total of 789 line kilometres (figure 2).

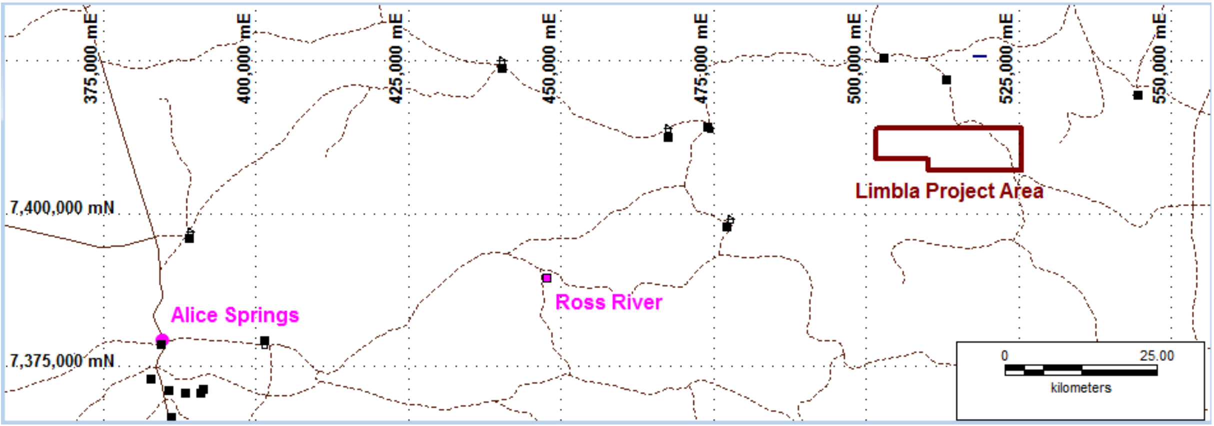

Figure 1: location of RepTEM survey over the Harts Range project area.

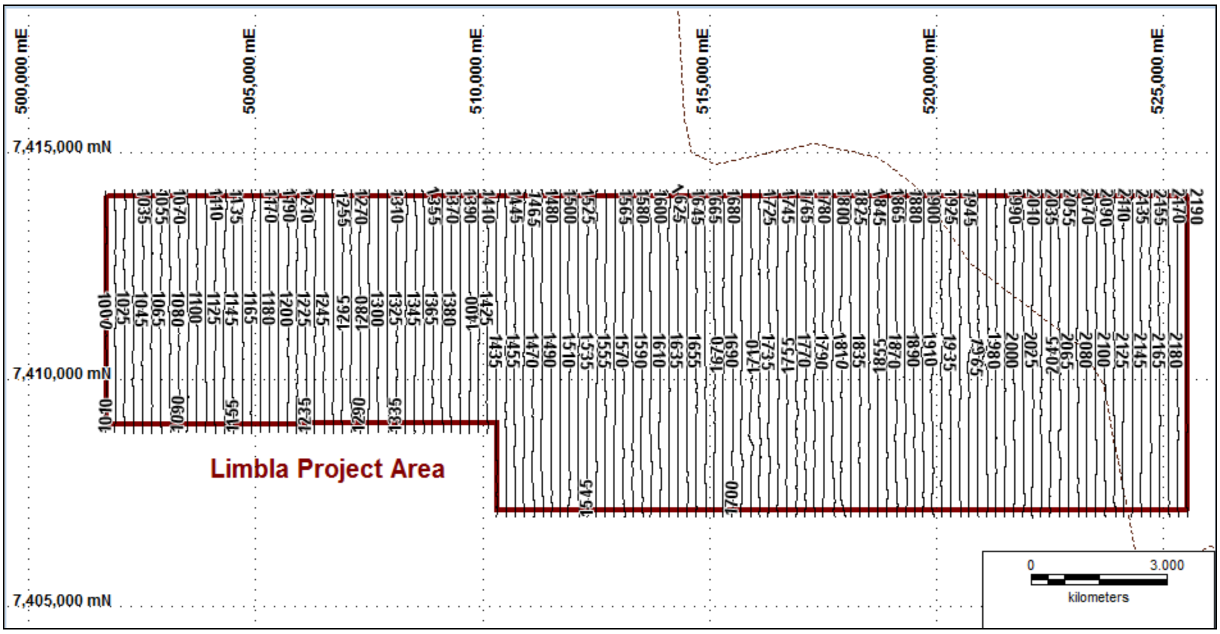

Figure 2: RepTEM survey flight lines

The Electro-Magnetic technique is sensitive to the changes in conductivity and thickness of the underlying geology. By alternating an electric current through a transmitter loop the magnetic field associated with that current varies (right hand rule). This varying magnetic field induces currents within the earth. These currents flow down through the earth's geological units directly dependent on the conductivity and thickness of the geological units. When the signal is passing through resistive material it passes through unimpeded. But as it encounters conductive material (i.e. massive sulphides) the induced electrical field slows up. This results in the recording of an increased signal from the time the electric field encounters the conductive material until it has passed through.

The **REPTEM** system is a heli-borne, time domain electromagnetic system incorporating a high speed EM receiver in an inloop configuration (figure 3). The primary electromagnetic pulses are created by a series of discontinuous current pulses fed into a single turn transmitting loop hanging approximately 40m below the helicopter. The pulse repetition rate is 25 Hz (50 bipolar pulses per second), with a 5msec on time and 15msec off time. The receiver orientation is such that the "Z" component of the induced secondary electromagnetic field is recorded.

Figure 3: photo of the RepTEM system.

Thor Mining's Harts Range RepTEM survey comprised the collection of 314 line kilometres of data along 49 north south orientate flight lines. The data collection details are:

Survey Equipment

Helicopter	:	Eurocopter Squirrel BA. VH-HHO.
Transmitter	:	Geosolutions proprietary REPTEM transmitter.
Receiver	:	Geosolutions proprietary REPTEM receiver. 24 bit A-D sampling at 1.25 microseconds.
Transmitter area	:	Single turn of 412 square metres.
Receiver area	:	Single turn of 138 square metres.
Power system	:	24 HP Honda V-twin alternator system (315 Amp peak amplitude).

Survey Specifications

Tx Flying Height	:	120 feet (35 metres) depending upon terrain.
Line Direction	:	North / South
Line Spacing	:	200 metres.
Survey Speed	:	55 Knots - Indicated Air Speed.
Sample Interval	:	50 per Second.
Map Datum	:	GDA 94.

Survey Resolutions

ATDEM data	:	Windowed to 23 channels and resampled to 10m across ground.
Laser Altimeter	:	10 centimetre resolution sampled 80 times per second.

The observed data is transformed from the 138 square metre receiver area to that of 10,000 square metres. Figures 4a, 4b and 4c (attached) is a stacked observed dB/dt data display for all the flight lines. The "Z" component data has then been transformed into Conductivity Depth Image Sections (CDIs) using EMaxAir (figures 5a to 5c - attached). The Conductivity Depth data has been 3 dimensionally gridded to enable the construction of resistivity depth slices (figure 6 - attached).

The data profiles along with the Conductivity Depth Sections and resistivity depth slices were simultaneously interpreted to identify and rank any potential bedrock conductors (figure 7).

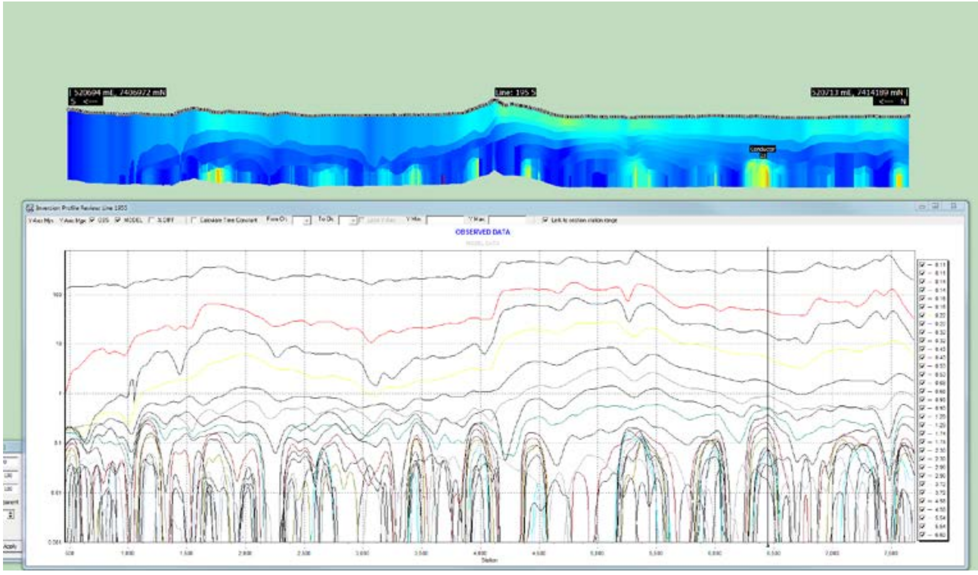

Figure 7: A snap shot of the interpretation software used to identify and rank the potential basement anomalies/conductors.

The data and resultant Conductivity Depth Images suggest that in general the area is quite resistive with a significant amount of the signal reverting to noise within the first 0.32msec. This meant that the effect depth of penetration of the system for the survey area is 400 to 500m (based on the skin depth formula $Depth_{max}$ = 28x(Resistivity x t_{msec})^(1/2), Ward and Hohmann 1988).

A total of 37 potential bedrock anomalies have been identified; however none of these rate as priority one anomalies (figure 8). Table 1 lists these potential bedrock conductor anomalies; of the 37 anomalies identified, nine were interpreted to be priority 2 anomalies (fair to good decays with moderate wavelengths), seventeen were interpreted as priority 3 anomalies (narrow wavelengths with fair to poor decays) and the rest were thought to principally be sourced by noise in the data collection (poor decays).

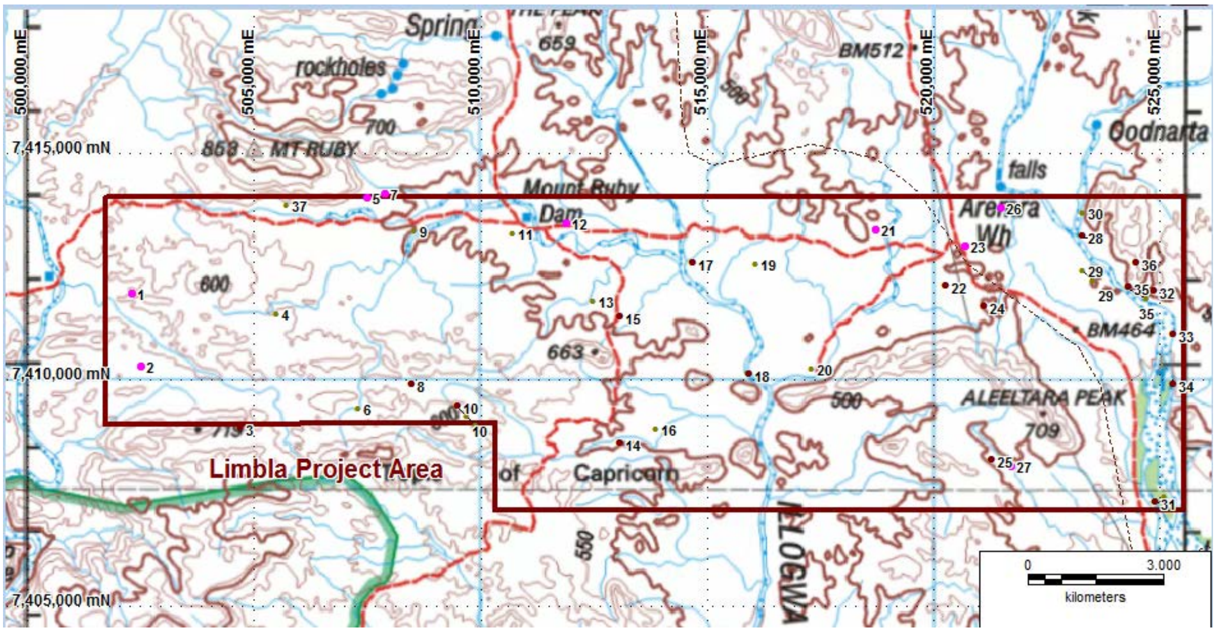

Figure 8: location of the 37 basement conductors over the 250K topographic image.

Table 1: list of the potential bedrock conductor anomalies

Anomaly Index	Priority	Line	East MGA53	North MGA53	RL	Comment	Stn Number
1	2	1035	502301	7411882	215	good wavelength - moderate decay	5382
2	2	1045	502493	7410279	189	good wavelength moderate time decay	3779
5	2	1290	507499	7413994	121	narrow wavelength - good time decay	7494
7	2	1310	507883	7414087	112	narrow wavelength- clean good decay	7587
12	2	1510	511900	7413429	184	broad interesting under some cover moderate time decay	6929
21	2	1855	518714	7413284	121	good wavelength - fair decay	6784
23	2	1955	520700	7412944	116	good wavelength - good decay	6444
26	2	1990	521500	7413773	95	moderate wavelength - moderate decay	7273
27	2	2000	521713	7408084	99	broad wavelength - fair decay	1584
3	3	1155	504701	7408897	232	narrow & Noisy	2397
8	3	1345	508492	7409864	218	broad - noisy	3364
10	3	1390	509494	7409375	193	narrow - moderate time decay	2875
14	3	1570	513095	7408568	74	thin - moderate decay	2068
15	3	1570	513077	7411338	112	moderate time decay	4838
17	3	1655	514697	7412545	133	broad - under cover - poor decay	6045
18	3	1710	515924	7410076	125	thin - poor decay	3576
22	3	1935	520286	7412035	104	poor decay	5535
24	3	1970	521111	7411581	172	thin - moderate decay	5081
25	3	1980	521297	7408199	104	broad - poor decay	1699
28	3	2080	523306	7413131	53	good wavelength - poor decay	6631
31	3	2165	524891	7407255	57	moderate wavelength - poor decay	755
32	3	2165	524876	7411928	181	poor decay	5428
33	3	2180	525296	7410968	78	thin - moderate decay	4468
34	3	2180	525309	7409868	138	thin - poor decay	3368

35	3	2135	524301	7412010	108	thin - poor decay	5510
36	3	2145	524492	7412536	240	moderate wavelength - poor decay	6036
4	4	1190	505501	7411427	147	Noise	4927
6	4	1280	507289	7409350	197	Noise	2850
9	4	1345	508536	7413280	155	noise	6780
10	4	1400	509703	7409184	163	noisy	2684
10	4	1410	509904	7408968	163	noisy	2468
11	4	1455	510725	7413225	91	noise	6725
13	4	1545	512491	7411708	82	noise	5208
16	4	1610	513878	7408908	65	noise	2408
19	4	1725	516085	7412528	146	noise	6028
20	4	1780	517310	7410234	121	noise	3734
28	4	2090	523510	7413157	61	noise	6657
29	4	2080	523297	7412396	95	noise	5896
29	4	2090	523508	7412180	138	noise	5680
30	4	2080	523299	7413676	130	noise	7176
31	4	2170	525112	7407404	87	noise	904
35	4	2145	524479	7411882	108	noise	5382
35	4	2155	524699	7411772	116	noise	5272
37	4	1200	505709	7413837	164	noise	7337