A. INTRODUCTION

Geotech Airborne Pty Ltd is pleased to submit this proposal for a helicopter-borne geophysical survey for approximately line-kms over the Tasmania Area in Australia.

ZINIFEX have requested a proposal for an airborne electromagnetic and magnetic survey for the purposes of investigating the mineral potential within the Tasmania project area. The survey location is detailed in the figures presented in section B1.

We propose the Geotech Versatile Time-Domain Electromagnetic (VTEM) geophysical system to survey your area, comprising the following main instrumentation:

- The VTEM Time Domain EM system for locating conductive anomalies and mapping earth resistivities
- A high-sensitivity proton precession magnetometer for mapping geologic structure and lithology.
- A proton precession magnetometer base station for diurnal correction.
- A Radar altimeter with an accuracy of approximately 1 meter
- A GPS Navigation System providing an in-flight accuracy up to 3 meters

The following are some of the features of our proposal, which will be of particular benefit to ZINIFEX:

- The latest technology Time Domain System, exhibiting significant advantages over other commercially available systems such as:
  - *The industries highest signal/noise ratio and spatial resolution of conductors*
  - *Unparalleled depth of penetration AND highest resolution*
    - ✓ *25 or 30 Hz base frequency*
    - ✓ *26m Transmitter coil is the largest diameter loop size available on any airborne geophysical platform*
    - ✓ *Small footprint to discriminate smaller targets (e.g. kimberlites)*
  - *Superior "Repair or Replace" Time*
    - ✓ *The VTEM system is field repairable within a few hours using the on-site available spares kit, even after damage due to hard landings, etc.*
    - ✓ *Multiple systems available. – In the event of a serious system or aircraft failure for whatever reason, the ready availability of identical systems will ensure that their will be no delays.*
  - *Concentric Transmitter – Receiver geometry ensures positive anomaly location*
    - ✓ *No need for ground follow-up resulting in huge time savings and cost savings.*
  - *Advanced trapezoid wave-form with a longer 'on-time' pulse width of 7 ms for more effective conductor saturation.*
  - *Helicopter Platform to provide the highest resolution survey.*

- Mobilization to the survey site after signature of contract and is anticipated to be in mid March 2008.
- Complete set of spares on site for this system
- High-resolution proton precession magnetometer, resolution 0.02 nT, sampling 10

times per second

- GPS satellite navigation utilizing latest NovAtel's OEM4-G2 GPS receiver.
- Satellite Internet equipment (depending upon signal and local authority approvals) in the field to send the data from the field to the office daily. Data QC and data processing are done by experienced data processors; preliminary data may be made available on FTP site daily upon request.
- Data processing and mapping, by experienced geophysicists, using the latest computer technology and state-of-the-art software.

B. FLIGHT DETAILS

AREA 3	
420139.69	5425180.82
428107.81	5425189.76
428092.87	5419160.33
417084.20	5419216.27
417113.25	5423211.47
420104.63	5423269.87
420139.69	5425180.82
AREA 4	
426093.23	5431205.66
432095.68	5431205.32
432116.02	5430218.42
433127.58	5430198.35
433136.94	5429181.88
434103.51	5429205.45
434123.71	5428203.81
435134.85	5428198.19
435121.58	5427196.25
436110.23	5427205.03
436150.22	5425187.01
437127.48	5425195.56
437122.78	5423177.15
430105.49	5423186.51
430063.82	5425204.52
426099.18	5425165.19
426093.23	5431205.66
AREA 5	
434099.85	5416240.13
451099.15	5416201.47
451126.20	5412207.13
434099.17	5412220.63
434099.85	5416240.13

B2. Flight line Specifications

	Line spacing	Line Direction	TieLine Spacing	TieLine Direction	Line-kms
A371_Area 3	200	045 - 225	N/A	N/A	278.3
A371_Area 4	200	090 - 270	N/A	N/A	326.3
A371_Area 5	200	0 - 180	N/A	N/A	340.6
				Total	**945.5**

C .DATA ACQUISITION

System Specifications

Helicopter type	**AS350-B3**
Helicopter registration #	**VH-IPW**
VTEM #	**12**
Tx[i] coil diameter, m	**26**
Tx number of turns	**4**
Tx current, A	**200**
Tx dipole moment, NIA	**424,528**
Tx base frequency, Hz	**25**
Tx duty cycle, %	**37.4**
Rx[ii] coil diameter, m	**1.2**
Rx number of turns	**100**
Rx Effective Area, m^2	**113.1**
Distance: EM loop – helicopter, m	**42**
Distance: mag bird - helicopter, m	**12**
Loop Flying Height, m	**30**
Pulse Width, ms	**7.47**
Waveform	**Trapezoid**

C1. Helicopter

Geotech will fly the survey with a locally registered AS350B3 helicopter (or equivalent) with the necessary cargo hook. This helicopter has the necessary range and flight duration to fly this type of survey.

C2. Services provided by Geotech

1. Supervision of the helicopter and its crew.
2. Provision of the necessary qualified personnel required to complete the survey.
3. Supply of the technical equipment with spares necessary to fly the survey in an expeditious manner.
4. Quality Control of the geophysical data.
5. Preparation and delivery to ZINIFEX of all the final products specified in Schedule E.
6. Provide Zinifex's nominated representative access to the data each night/next day via the secure internet site.

C3. Survey Scheduling

1. Survey preparations and mobilization to the survey area are expected to commence in mid March 2008 and the survey operations will take an estimated Two Weeks.
2. Field preliminary maps will be prepared progressively throughout the actual survey flying and delivered in the field, if required.
3. Standard preliminary products will normally be delivered 2 weeks after receipt of the field data at Geotech's processing centre and after the second payment, due upon completion of flying, is received
4. Final maps and report will normally be delivered eight weeks after delivery of the preliminary products.

All phases of the survey scheduling will be coordinated with the requirements of the Client.

C4. Flight Specifications

1. Flight Lines

Line directions and spacing are as specified in Schedule B. The pilot will make every effort not to deviate from the flight plan more than 50m over a distance of 2km, but due to the terrain it could be more.

Optimum terrain clearances for the helicopter and instrumentation during normal survey flying are:

Helicopter – 75 to 85 meters (tow cable dependant)
EM sensor - 30 meters
Magnetic sensor – 60 to 70 meters (tow cable dependant)

Terrain clearance may vary, based on the pilot's judgement of safe flying conditions around man-made structures or in rugged terrain.

2. Airspeed

Normal helicopter airspeed will be approximately 80 km/hr, but this may vary in areas of rugged terrain. With a data-recording rate of 0.1 point per second, geophysical measurements are acquired approximately every 2 meters along the survey line.

3. Electromagnetic Data

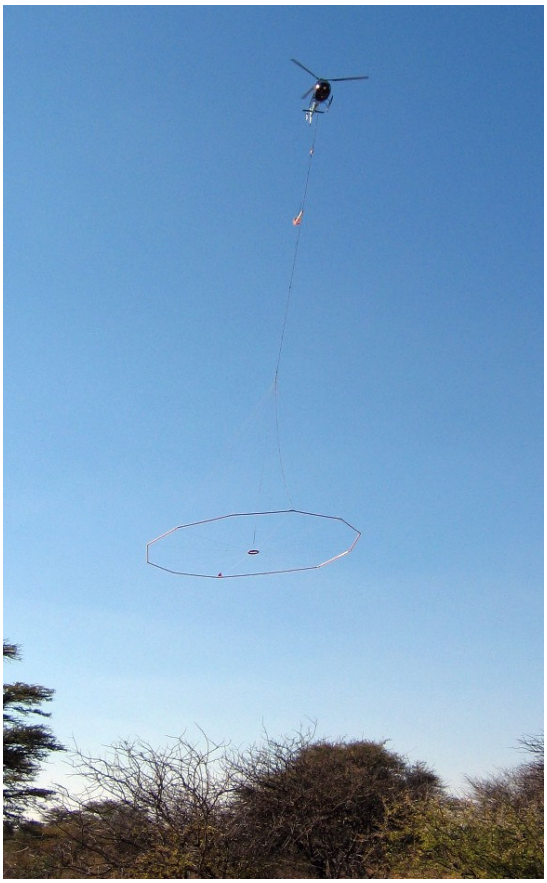
Data will be re-flown at the Contractor's expense when the standard deviation of the normally processed 6340 μs time gate EM channel exceeds 0.01 pico volts per Amp-m^4 continuously over a horizontal distance of 2 km under normal survey conditions, or when Geotech's on-site representative deems the data to be un-interpretable.

Data Channels

B-field VTEM Decay Sampling scheme				
Array Index	Microseconds			
	Middle	Start	End	Width
0	0			
1	10	10	21	11
2	21	16	26	11
3	31	26	37	11
4	42	37	47	11
5	52	47	57	10
6	62	57	68	11
7	73	68	78	11
8	83	78	91	13
9	99	91	110	19
10	120	110	131	21
11	141	131	154	24
12	167	154	183	29
13	198	183	216	34
14	234	216	258	42
15	281	258	310	53
16	339	310	373	63
17	406	373	445	73
18	484	445	529	84
19	573	529	628	99
20	682	628	750	123
21	818	750	896	146
22	974	896	1063	167
23	1151	1063	1261	198
24	1370	1261	1506	245
25	1641	1506	1797	292
26	1953	1797	2130	333
27	2307	2130	2526	396
28	2745	2526	3016	490
29	3286	3016	3599	583
30	3911	3599	4266	667
31	4620	4266	5058	792
32	5495	5058	6037	979
33	6578	6037	7203	1167
34	7828	7203	8537	1334
35	9245	8537	10120	1584
36	10995	10120	12078	1958
37	13161	12078	14411	2333
38	15661	14411	17078	2667
39	18495			

C5. Survey Instruments

1. VTEM System



The VTEM or Versatile Time Domain Electro Magnetic system is the most innovative and successful airborne electromagnetic system to be introduced in more than 30 years. The proprietary receiver design using the advantages of modern digital electronics and signal processing delivers exceptionally low-noise levels. Coupled with a high dipole moment transmitter, the result is unparalleled resolution and depth of investigation in precision electromagnetic measurements.

Key features include:

- Superior Exploration Depth – Over 400 metres
- Low Base Frequency (25 or 30 Hz) for Penetration through conductive cover
- High Spatial Resolution – 2 to 3 metres
- Improved Interpretability due to Receiver-Transmitter symmetry
- Spotting drill targets directly off of the airborne results
- Excellent resistivity discrimination and detection of weak anomalies
- Virtually impervious to spheric activity.

The system was designed to be field configurable to best suit a large variety of different geophysical requirements from deep penetration to optimizing the discrimination within a narrow range of resistivity values.

The system is easily transportable. It can be disassembled for packaging in relatively small units for shipping to surveys around the world.
In the event of damage to the EM bird in-flight or while being transported between survey sites, the unique design allows the easy replacement of any part of the system in the field. The transmitter loop can be assembled or disassembled in 3-4 hours.

The recent surveys flown with VTEM have produced superior results over the same test areas flown by competing airborne EM surveys. VTEM has flown the Reid-Mahaffy, Caber, Perseverance and Montcalm test ranges and the results have demonstrated that VTEM provides the Industries highest signal/noise ratio and conductor spatial resolution.

2. Magnetometer

A Geometrics/Scintrex split-beam total field magnetic sensor, with a sampling interval of 0.1 seconds and an in-flight sensitivity of 0.02 nT, will be utilized. The magnetometer will perform continuously in areas of high magnetic gradient with the ambient range of the sensor approximately 20k-100k nT. Aerodynamic magnetometer noise will not exceed 0.5 nT.

3. Electronic Navigation - GPS

A GPS system utilizing the Novatel OEM4-G2-3151W GPS receiver will provide in-flight navigation control. This system determines the absolute position of the helicopter in three dimensions. As many as 11 GPS satellites may be monitored at any one time. Autonomous GPS will be used for flight navigation.

4. Altimeter

An altimeter system will record the ground clearance to an accuracy of approximately 1 m. The altimeters will be interfaced to the data acquisition system with an output repetition rate of 0.5 second. Recording will be in digital form.

5. Data Acquisition/Recording System

A Geotech data acquisition system will be used. Data will be recorded on a PCMCIA flash card.

6. Field Computer Workstation

A dedicated PC-based field computer workstation will be used in the field for purposes of displaying geophysical data for quality control, calculating and displaying the navigation, producing preliminary EM anomaly information and diurnally corrected magnetic maps, and copying/verifying the digital data.

7. Safety

Installation of the survey equipment in the helicopter will be done by qualified personnel. An airworthiness approval certificate is maintained for all installations.

8. Spares

A normal compliment of spare parts and necessary test instrumentation will be available in the field.

9. Base station

A dedicated computer including high sensitivity base station proton precession magnetometer will be employed to record magnetic activity.

C6. Survey Crew

The survey crew will consist of at least the following personnel:

1. An experienced Geophysicist or Geophysical Technician/Project Manager to supervise the survey operations, perform quality control of the data and to assist in arranging the survey logistics and field operations.
2. A Geophysical Operator to maintain and operate the geophysical instruments.
3. An experienced Survey Pilot, who has demonstrated his ability to fly the geophysical instrumentation safely and within survey specifications.
4. An experienced Aircraft Mechanic will be on stand-by at the helicopter base and should be ready to be on the survey site with minimal delay.

Curriculum Vitae of the key personnel who may be utilized during the survey work are available upon request.

D. FIELD DATA PROCESSING / QUALITY CONTROL

The field data processing includes the following quality control measures:

1. All digital data will be inspected on a daily basis to ensure that bad data is not present and to identify missing data sections.
2. A preliminary flight path map will be plotted and checked against survey specifications.
3. All digitally acquired survey data will be merged into a Geosoft Montaj database. Profiles will be edited to ensure completeness of all data traces.
4. The recorded EM data will be digitally processed to remove sferic events and filtered to reduce any system noise. Following the filtering process, base level adjustments will be made to the EM profile data, as required.

E. PRODUCTS FOR DELIVERY

Please note that Preliminary and Final Data will be provided to SGC

E1. Preliminary maps

The digital preliminary maps will be produced as soon after the completion of flying as possible. The products will include:

- Colour magnetic map
- EM profiles map

The preliminary maps are provided in digital form.

E2. Final standard products

1. Final standard digital maps at a scale specified will be delivered in two copies on CD-ROM or DVD-ROM.

- Colour magnetic map
- EM profiles map at a logarithmic scale

2. The processed digital data will be delivered in two copies on CD-ROM or DVD-ROM. The line data will be delivered in the Geosoft Montaj GDB format. The maps will be delivered in the Geosoft Montaj MAP format. Full descriptions of the digital data formats will be included in the final report and as text files on each CD-ROM

3. Operational report will be delivered in two copies. The report will provide information pertaining to the acquisition, processing and presentation of the data.

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[i] Transmitter Coil (Tx)
[ii] Receiver Coil (Rx)