Glass Earth Gold EXPLORATION SUMMARY 2007/08

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Glass Earth Gold

## **GLASS EARTH GOLD – VISION**

This Exploration Summary provides an overview of 2007 and the path for 2008. Recently announced executive changes to the company reflects Glass Earth's maturing management strategy, with Mr Simon Henderson being appointed President and CEO, and Mr John Dow as non-executive Chairman.

**Currently planned drilling operations** mark a turning point; demanding a full-time New Zealand based CEO and President to take the company to the next level.

Mr Dow, Chairman of Glass Earth said: "we are pleased Simon Henderson has agreed to combine his operational role with that of CEO and President. These changes, together with an excellent mix of skills within the Board of Directors, will assist Simon to shape the future of our business."

Mr Henderson, President and CEO said "Glass Earth is moving from a "green-fields" explorer to a more directed focus on drilling. Exciting potential in the Otago region has required the redirection of field operations with a smaller technically orientated team advancing seven mesothermal gold prospects. These, and others, will compete in prioritisation for drilling, with the epithermal gold targets in the Central North Island."

Management is confident these changes will assist Glass Earth in achieving its objectives of a significant explorer, developer and gold producer in New Zealand.

## **EXPLORATION** REGIONS



# **GLASS EARTH'S STRATEGY** FOR 2008 - 2009

#### Drill to discover a major gold discovery in the next twelve months.

Glass Earth's gold exploration strategy has combined sophisticated use of new technology, applied by a highly skilled international exploration team, over whole geological provinces permissive for large gold deposits.

This strategy has seen the application of airborne ultra-detailed magnetics and airborne gravity (Bell Geospace's Gravity<sup>™</sup>), followed by target specific E-SCAN<sup>®</sup> (ultra-detailed 3D resistivity) in the North Island epithermal provinces, and airborne electromagnetics (resistivity) and magnetics (Fugro's Resolve™) in the South Island mesothermal gold terrane.

Field work in the North Island commenced in 2006 and in the Otago region in late 2007; and has resulted in gold prospects advancing to drilling status across all four permitted gold regions in New Zealand.

Glass Earths Strategy for 2008 – 2009 is therefore simple; to carry out drilling on projects that could result in a major gold discovery in the next twelve months.

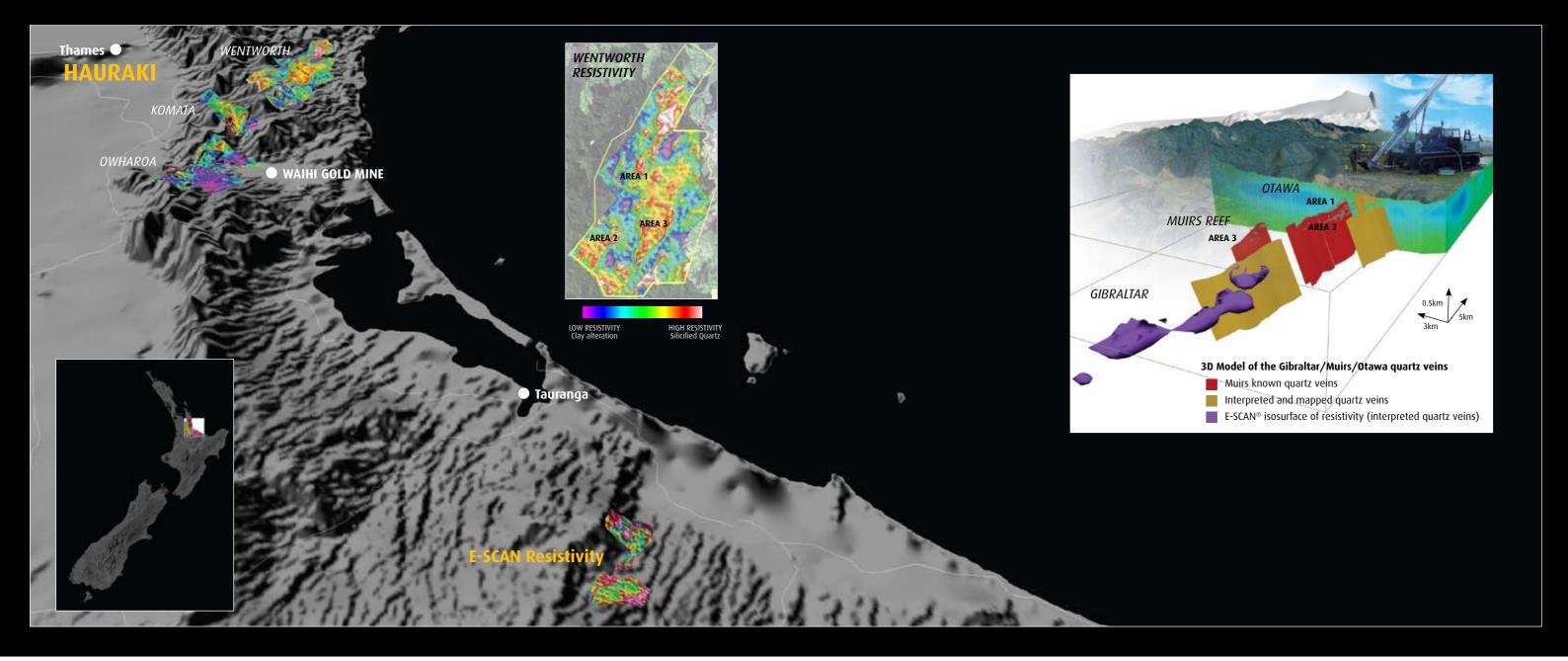
The following targets are in advanced exploration stages and anticipate drilling targets to be identified and drilled in the next twelve months:

### (Newmont farm-in, Owharoa Komata Karangahake SE Hikutaia Wentworth Glamorgan Wharekiriponga Mamaku – North I **Muirs Reefs** Gibraltar Otawa Central Volcanic Pukemoremore Horohoro Tahunaatara Ohakuri - South Is Serpentine

Sparrow hawk Gold and Pine Pigburn Game Hen Sheep wash

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## **HAURAKI REGION**

#### (JV partner and operator Newmont Waihi Gold ("Newmont")

Joint Venture Partner Newmont has been engaged in a broad ground-based exploration campaign over targeted areas in the Hauraki region following its HoistEM airborne electromagnetics surveying.

At **Owharoa**, drilling of four drillholes (764m diamond drilling) nears completion.

Drillhole OWN003 was designed to test eastward continuation of the Owharoa vein mineralisation concealed beneath post mineral cover. A drilling result of 12.1m averaging 0.46 g/t Au was intersected in the upper portion of OWN003. This is being further tested in OWN004.

Further to the south, soil gold anomalies coincident with resistors or veining in the vicinity have led to sampling of shallow workings with rock chip assays results as high as 93 g/t Au.

At **Komata** exploration is aimed at untested potential of mineralisation in the converging southerly strike extents of the Komata vein system. Drilling is about to commence here following the completion of Owharoa drilling.

The Komata deposit is the largest rhyolite hosted gold silver producer in the Hauraki goldfield, with historic recovery of 107,535oz gold.

At Wentworth exploration has focussed on following up geophysical anomalies (HoistEM and gravity) with geological mapping and sampling. Three main target areas are being systematically mapped and sampled to delineate potential drill holes.

A sample of rock chip results from this mapping are as follows: (illustrated in chart above)

Area 1	(2.45, 5.43, 25.6) gm/t Au
Area 2	5.28 gm/t Au
Area 3	(3.36, 26.6, 2.64, 14.80) gm/t Au

## **CENTRAL VOLCANIC** REGION

#### (CVR) North Island, New Zealand.

Glass Earth has completed its major E-SCAN<sup>®</sup> campaign over the top six epithermal gold targets in the CVR This technology has been applied as an essential precursor to drilling in this young geological terrane where volcanic ash obscures the surface mapping of shallow gold mineralisation. The 3D electrical resistivity scanning

gives critical detailed, structural and alteration information down to an approximate 750m depth, to allow drill targeting of features indicative of gold mineralisation.

A series of drill campaigns is planned to commence with the Gibraltar/Muirs/ Otawa prospects (access permitting - see further below), followed by Horohoro, Ohakuri, Tahunaatara and Pukemoremore in order of current prioritisation.

## **MAMAKU REGION**

#### **Gibraltar-Muirs-Otawa Prospects**

Surrounding the historic Muirs Reef Gold Deposit, (production 43,642 0z gold circa. 1930's) the Gibraltar and Otawa prospects have demonstrated that this exciting epithermal gold prospect represents one large continuous alteration and quartz-veined system.

Drilling and surface channelling in the 1990's on the Muirs section returned gold intercepts comprising of: Area 1 22m @ 1.76 Area 2 1m @ 358g/i

Area 3 20m @ 4.9g/

Recently completed E-SCAN<sup>®</sup> 3D resistivity surveys and surface mapping over the Gibraltar and Otawa targets, respectively south and north of the historic Muirs Reef gold deposit, trace the vein/breccia system for over 5000m. Rock chip sampling of outcrop has returned individual rock chips in the 0.5-3q/t Au range. Drilling is planned upon finalisation of access arrangements.

E-SCAN<sup>®</sup> is a new generation multidirectional direct-current resistivity method that highlights resistive/ conductive contrasts (quartz versus altered rock) in three dimensions down to approximately 750m depth (owner/ operator – Premier Geophysics Inc.)

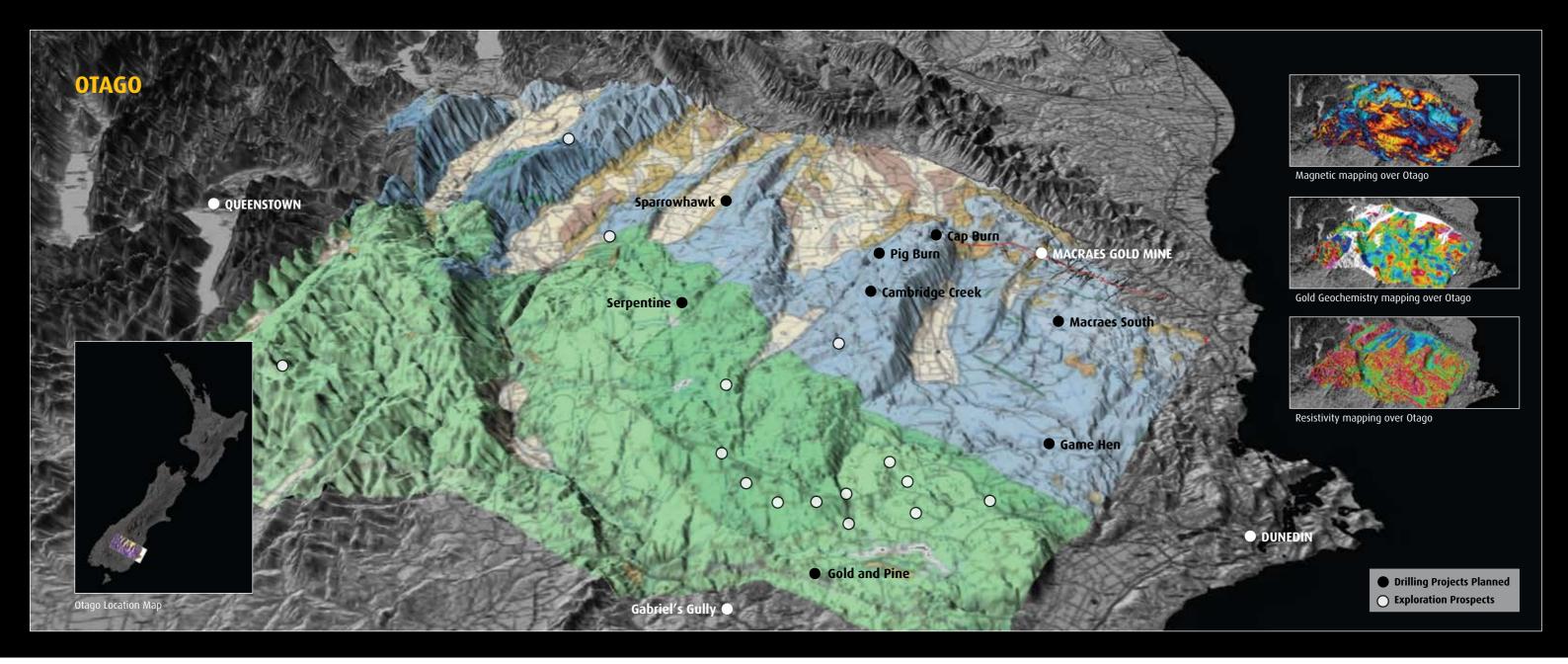


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## **OHAKURI**

Drilling of the first E-SCAN<sup>®</sup> target on Ohakuri (Nov-Dec 2007) intersected broad zones of a large epithermal system (quartz-adularia-illite-pyrite mineral assemblages) but sub-economic gold-silver. A second E-SCAN<sup>®</sup> target in south Ohakuri, with surface in situ rock chips 1-3q/t Au over an area of 3.25 sq kms previously drilled by Amoco/BP Minerals .... intersected 125m @ 0.5g/t Au. This area holds significant promise.





## **OTAGO REGION**

In Otago, alluvial mining followed the discovery of gold in Gabriel's Gully (1861), sparking gold rushes that contributed significantly to the economic development of New Zealand.

Alluvial gold workings dot the landscape of Central Otago where miners followed enriched alluvial gold leads in conglomerates on the Otago Peneplain, which traverses 40-50% of the region. Past geochemical prospecting through this alluvial gold mineralised conglomerate has been unrewarding. Glass Earth has challenged conventional geochemical exploration by providing a geophysical vector locating primary shears in the underlying metamorphic bedrock via airborne electromagnetic and magnetic surveying.

Glass Earth is discovering that gold is located in these laterally extensive shear zones, localised by stratigraphy, and favoured by greenschist facies, and pelitic or graphitic units.

Glass Earth's Resolve<sup>™</sup> airborne geophysical survey has demonstrated the ability to locate primary shears, and has combined this targeting tool with a major new regional gold geochemical database (combination of an undisclosed Newmont survey (1990's) and detailed infill from Glass Earth's field team) to discriminate areas of primary hard-rock gold potential.

The Macraes gold mine at Macraes (owner operator Oceana Gold) is the largest gold producer in NZ, with production at approximately 200,000 oz per annum and resources in excess of 5m ounces. The mine produces from a series

of pits and newly developed underground workings along the gently dipping, 26km long Hyde-Macraes Shear Zone.

Glass Earth has secured title, via its own permits and joint ventures, to the bulk of the Otago greenschist metamorphic belt. Spanning a 180km x 150km area, this is a formidable geographic and technical challenge to access in a relatively short period. To assist in prioritising the areas, programmes have been initiated in six differing geological/mineralogical districts to allow a rapid reconnaissance and better understanding of the prospectivity of key geological units.

A team of up to twenty geotechnical staff have been on the ground since November 2007, commencing initial reconnaissance on these six districts, rapidly following up initial surface

indications of gold, with rigorous detailed geochemical sampling, geological mapping, petrology and on ground interpretation of the airborne geophysical data.

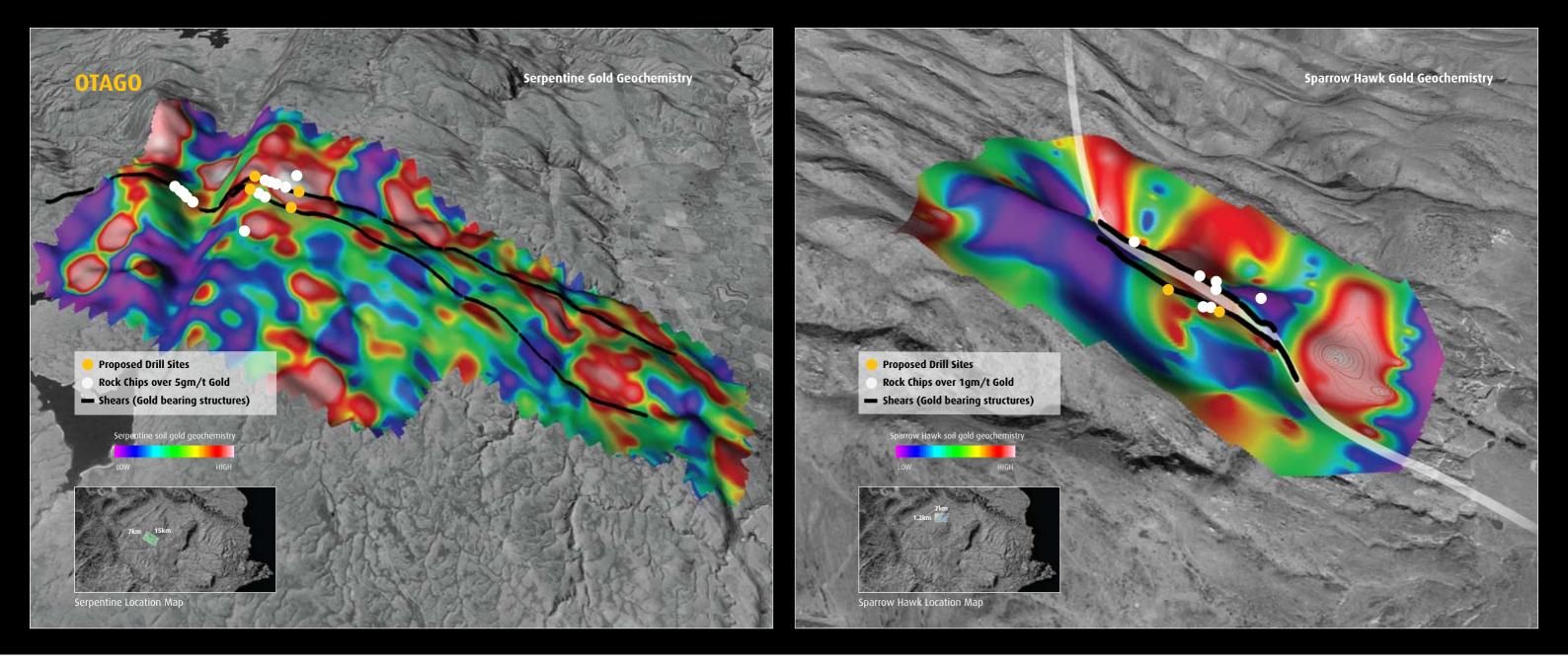
This annual Exploration Summary highlights two advanced prospects, to illustrate the detail and rigour of the exploration process which will culminate in drilling exploration commencing as this report goes to print.

These programmes comprise just two of eight programmes that are in the advanced drill planning stages in the Otago region, with 15 more prospects in the pipeline. Results from all will assist in an iterative process that will lead to a comprehensive prospectivity analysis, ensuring retention of important unexplored territory into the future.

Based on its exploration results, Glass Earth believes that the Otago Mesothermal gold belt may be considered a new Orogenic Gold Province. Academic studies of other major gold bearing provinces where alluvial gold has dominated gold production and where classic granitic intrusive units are absent, have demonstrated the potential to host giant, hard rock gold, orebodies (Otago's Macraes Gold Mine approaches Giant status with global resources >7 Moz gold). It has been demonstrated that the gold is sourced from the precursor sediments themselves and effectively concentrated in economic quantities via metamorphic processes. (Major shears are shown to be the fluid conduits for mineral transport and deposition).

A recent study by CODES (University of Tasmania, Australia) of the giant Sukhoi Log gold deposit in Siberia fits this model. A similar study, initiated by Professor David Craw, University of Otago, NZ, in collaboration with CODES and Glass Earth will complement the field exploration in Otago and assist in robust scientific prospectivity analysis.





#### SERPENTINE

#### (Rough Ridge – Lake Onslow, Central Otago)

At **Serpentine**, coincident gold, magnetic and resistivity anomalies were primarily identified by the airborne geophysical survey. Four areas of highly anomalous gold, arsenic, tungsten, key ingredients of "Macraes"-style mineralisation strike out over 15kms. Hard rock legacy sampling of shears indicated numerous rock chip values in the 1-15 gm/tAu range. Glass Earth sampling has repeated these gold values (12.6, 6.8, 0.6, 3.9, 1.8) gm/t Au. Pan concentrates (fine gold grains in pan examined under microscope) indicate gold very close to source(s) (10's of metres). Shears mapped are narrow, steep and numerous, and mapped over hundreds of metres (length and width). The area has been subject to pre-20 Century alluvial and some hard rock mining.

Planning to drill test the coincident high soil gold geochemistry (max 1240ppb Au), mapped mineralised shears, and magnetic/resistivity anomalies is complete; access is being permitted with Department of Conservation and New Zealand Historic Places Trust. Weather remains the only impediment to drilling as winter approaches.

#### **SPARROW HAWK**

At Sparrow Hawk, (North Rough Ridge, Central Otago) high quality airborne electromagnetic and magnetic data have identified a zone of greenstone coincident with strong regional gold stream geochemistry leading to the highlighting of this particular prospect.

Numerous rock chips from individual vein/silicified units of 1-2 metre width form a swarm of veins over a width of 10's of metres, and strike length of over 500 metres (open ended in

both directions) assaying 9.5, 1.65, 2.82, 4.3, 0.93 (gm/t Au), have been received. Lithologically and structurally constrained shear-associated hypogene gold mineralisation has been observed in hand specimen and under microscope. Pan concentrate gold examination demonstrates the gold to be very fine grained, and very locally derived.

Detailed surface mapping and infill rock chip sampling nears completion. Drill planning is well advanced.

#### **OTHER OTAGO PROSPECTS**

Game Hen (historic Hindon and Zealandia Goldfield) Hindon, Central Otago).

At Game Hen very strong magnetic/ resistivity anomaly strikes out over several 10's of kilometres, coincident with a strong regional geochemical gold tungsten anomaly. 14kms grid soil sampling at 1km fence spacing

returned highest soil results of 993 ppb gold. Legacy hard rock samples from workings range in the 1- 7gm/t gold range, with insitu rock chips from Glass Earth mapping up to 44gm/t Au. These workings are currently being examined (Game Hen veins are shallow dipping Macraes style veining whilst Zealandia veins are steeply dipping late stage extensional veins) to build a picture of styles of veining and their potential economic significance. Infill soil sampling will assist in drill targeting as a priority.

At **Gold and Pine** (adjacent to historic Gabriel's Gully, Lawrence, Central Otago) soil sampling over a major shear (electromagnetic and magnetic anomaly) has returned coherent gold soil geochemistry (maximum 475 ppb Au) indicating several zones of gold, tungsten, antimony mineralisation striking out over 1000 metres.

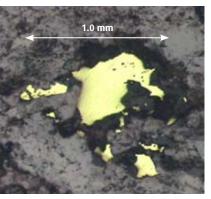
Thick loess inhibits in-situ rock sampling, infill soil geochemistry has been completed to compliment pan-concentrate gold grain examination showing a mixture of near source and transported gold with a surprising number of gold grains per pan(over 10 grains and up to 100 grains in places). The airborne structural interpretation allows drilling on the coincidence of the gold geochemistry and hardrock features indicated.

## At **Pig Burn** and **Cambridge Creek**

(Rock and Pillar Range, Central Otago) grid soils sampling has been completed over two of three zones of coincident shears (electromagnetic/magnetic interpretation confirmed by field mapping), regional stream sediment geochemistry, and intermittent greenstone lithologies. Encouraging rock chip values (3.2, 1.1, 0.9, 3.2 gm/t Au) on mapped shear zones will be better defined by the soil geochemistry.

This area lies along the westerly strike of the 7 M oz Macraes Gold Mine and within a similar metamorphic rock package.

Micrograph of Sparrow Hawk rock chip: gold grains in interstitual guartz





## **NEW ZEALAND DIRECTORS** AND MANAGEMENT

#### PRESIDENT AND CEO **Mr Simon Henderson**

Mr Henderson has occupied the roles of COO and VP Exploration since the listing of the Company as a New Zealand based gold explorer in March 2005. Mr Henderson is a founding shareholder of Glass Earth (New Zealand) Limited and holds an MSc from the University of Tasmania, a BSc (Hons) from Victoria University and is a member of the AusIMM. He is a geologist with over 30 years experience in the gold mining and exploration industry.

#### CFO AND COMPANY SECRETARY Mr Peter Liddle

Mr. Liddle has over 30 years experience in the financial services industry, particularly

#### CHAIRMAN(NON-EXECUTIVE) Mr John Dow

NON-EXECUTIVE DIRECTOR

Mr Richard Billingsley

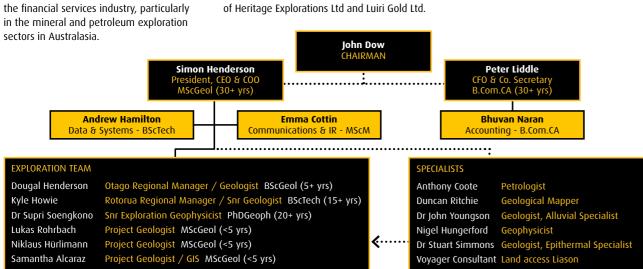
Mr Dow has been a Non-Executive Director of the Company since March 2006. Mr Dow is a geologist with 40 years international experience. After joining Newmont Australia in 1978 he held senior executive positions in Newmont culminating in him being appointed as Chairman and Managing Director of Newmont Australia (previously Normandy Mining Limited) in April 2002. Subsequent to his retirement in 2005, he has accepted several independent directorships.

#### NON-EXECUTIVE DIRECTOR Mr. Paul C. Jones

Mr. Jones has 45 years experience in the mining industry: he is an Executive VP of St Andrew Goldfields (2003-present) and President of Sovereign Management Group Ltd.

#### NON-EXECUTIVE DIRECTOR Mr. Steven Burns

Mr. Burns had over 30 years experience as a financial advisor to entrepreneurial businesses; he now is a director and Chairman of the Audit Committee of St Andrew Goldfields (2001-present) and Publisher for Vantage Magazine.



Mr. Billingsley is an explorationist and director

#### FORWARD PROGRAMME AND ESTIMATED BUDGET

		Canadian Dollars (NZ\$=C\$0.8)			
		Budget Calendar 2007	Actual Calendar 2007	Budget Calendar 2008	
Hauraki Region (joint ventured to Newmont)	Monitoring/review only	35,000	43,000	40,000	
Mamaku Region	Geology/Resistivity/Drilling	325,000	503,000	600,000	
Central Volcanic Region	Geology/Resistivity/Drilling	2,250,000	1,707,000	660,000	
Otago Region	Geology/Infill Airborne Geophysics/ Geochemistry/Drilling	2,200,000	2,284,000	2,050,000	
Permit rentals		370,000	406,000	460,000	
Total Exploration		5,180,000	4,943,000	3,810,000	
Infrastructure Costs – Corporate, infrastructure and administration		800,000	1,120,000	850,000	
TOTAL BUDGET (Canadian dollars*)		5,980,000	6,063,000	4,660,000	

Glass Earth will progressively review the significance of results coming to hand, to optimise the allocation of funds to subsequent programmes and the relative rates of advancement of the various projects. Where appropriate, joint venture partners may be sought to contribute to exploration efforts.

#### **Qualified Persons**

Glass Earth's exploration programmes are carried out under the supervision of Glass Earth's Chief Operating Officer, Mr Simon Henderson, M.Sc, M.AusIMM. Mr Henderson meets the qualified person requirements (as defined by National Instrument 43-101) with more than 30 years of experience in the gold mining and exploration industry.

## **SCHEDULE OF PERMIT INTERESTS AND APPLICATION**

#### SCHEDULE OF PERMIT INTERESTS AND APPLICATIONS AS AT 23 MAY 2008

agreed.

					COMPANY	NOTE
PERMIT NUMBER	PERMIT NAME	INTEREST HELD	AREA	EXPIRY DATE	COMPANY	NOTE
Hauraki Region	Maratata	1000/	5 407k-	21 Mar 00	CENIZI	
EP 40 598*	Maratoto	100%	5,497ha	21-May-08	GENZL	
EP 40 717*	Rahu	100%	10,800ha	2-Jul-11	GENZL	
EP 40 767*	Waihi West	100%	280ha	20-Dec-10	GENZL	
EP 40 813*	Glamorgan	100%	10,486ha	6-Sep-11	GENZL	
EP 40 814*	Hikutaia	100%	3,326ha	6-Sep-11	GENZL	
EP 40 818*	Coronation Hill	100%	104ha	6-Mar-12	GENZL	
EP 40 865*	Omahu	100%	1862ha	30-Jul-12	GENZL	
* Joint Venture Nev						
Mamaku-Muirs Re		1000	505	2.0.1.00	CENT.	
EP 40 667	Muirs	100%	595ha	3-0ct-09	GENZL	
EP 40 768	Muirs South	100%	1,563ha	15-Dec-10	GENZL	1
Central Volcanic R						
EP 40 656+	Ohakuri	70%	3,400ha	27-Jun-09	GCO Minerals	
EP 40 690+	Matahana	70%	3,404ha	21-Feb-10	GCO Minerals	
EP 40 691+	Forest Road	70%	1,699ha	17-Jan-10	GCO Minerals	
EP 40 765	Wawa	100%	4,344ha	20-Dec-10	GENZL	2
EP 40 766	Paeroa	100%	12,030ha	20-Dec-10	GENZL	3
EP 40 769	Horohoro	100%	6,826ha	15-Dec-10	GENZL	3
EP 40 770	Atiamuri	100%	10,990ha	20-Dec-10	GENZL	3
EP 40 830	Waipapa	100%	4,241ha	11-0ct-11	GENZL	
EP 40 831	Marora	100%	7,324ha	11-0ct-11	GENZL	
EPA 50403	Ohauiti	100%	5,143ha	Application	GENZL	4
EPA 50407	Old Kaimai	100%	9,088ha	Application	GENZL	4
EPA 50409	Comet	100%	854ha	Application	GENZL	4
EPA 50411	Tahorakuri	100%	1,047ha	Application	GENZL	4
EPA 50414	Tuhingamata	100%	6,483ha	Application	GENZL	4
* Joint Venture GCC	)					
Otago Region						_
PP 39 259	Garvie	100%	460km2	11-Mar-08	GENZL	5
PP 39 261	Onslow	100%	1,075km2	11-Mar-08	GENZL	5
PP 39 266+	Naseby	70%	275km2	31-May-08	Australasia Gold Ltd	_
PP 39 267+	Macraes West	70%	1,173km2	26-Feb-08	Aurora Minerals Ltd	5
PP 39 320+	Argyle Station	90%	1793km2	7-Nov-08	NZ Minerals Limited	
PP 39 322	Otago	100%	18,010km2	29-Nov-08	GENZL	6
PP 39 329+	St Bathans	90%	251km2	21-Sep-08	Australasia Gold Ltd	
EP 40 702	Manorburn	100%	8,448ha	13-0ct-09	GENZL	
EP 40 710	Nenthorn North	100%	3,219ha	3-Oct-09	GENZL	
EP 40 739	Hindon	100%	8,026ha	19-May-10	GENZL	
EP 40 747	Lots Wife	100%	11,029ha	14-Jul-10	GENZL	
EP 40 748	Bendigo	100%	2,146ha	14-Jul-10	GENZL	
EP 40 771	Bendigo Rise & Shine	100%	458ha	2-Jul-11	GENZL	
EP 40 838	Macraes	100%	1,065ha	15-Jan-13	GENZL	
EP 40 870	Ophir op subject to joterest redu	100% uction by 10% due	669ha	17-Mar-13	GENZL	
	on subject to interest redu	JCTION BY TO% DUE		INZ MILIERAIS LTO		
Marlborough Reg						
EP 40 863	Marlborough	100%	9,790ha	29 May 2012	GENZL	
PP 50103	Marlborough	100%	849km2	7 Nov 2009	GENZL	
Muirs Mamaku	CVR			Otago		
<ol> <li>Extension of land application made subsequent to PP 39 241 expiry, draft work programme</li> </ol>		3 Applications for extensions of land made 10 October 2007, draft work programme agreed.	4 Application for subsequent exploration made 10 0 2007, draft	s 5 Now ex jent but cov permits extensi ctober applica work 322	xpired 6 Extension of vered by application ion of land over expire tion to PP 39 259, 39 26 267, 39 28	n lodged ed PP 39 51, 39

# programme agreed.

## **CORPORATE INFORMATION**

#### DIRECTORS

Simon Henderson President and Chief Executive Officer Wellington New Zealand

Peter Liddle Chief Financial Officer and Secretary Auckland New Zealand

John Dow Non-executive Director Nelson New Zealand

Richard Billingsley Non-executive Director Vancouver British Columbia Canada

Stephen Burns Non-executive Director Toronto Ontario, Canada

Paul C. Jones Non-executive Director Golden Colorado USA

#### SHAREHOLDERS' INFORMATION

Stock Exchange Listings

TSX Venture Exchange

New Zealand Alternative Market

Symbol: GEL

#### **EXECUTIVE OFFICE**

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#### REGISTRARS AND TRANSFER AGENTS

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• Auckland, New Zealand

#### **AUDITORS**

KPMG Wellington New Zealand

#### **LEGAL COUNSEL**

Canada Salley Bowes Harwardt LLP Barristers and Solicitors Vancouver, British Columbia

New Zealand Morrison Daly Wellington, New Zealand

