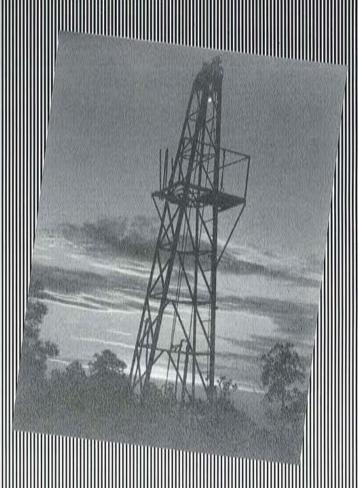


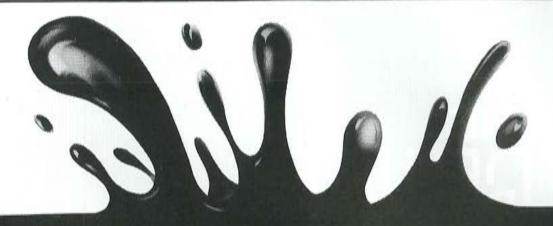
Official Publication of The New Zealand Drillers Federation Inc.

JULY 1992



Incorporating The Driller Trade Directory

ON'T BUY ANOTHER PUMP...



...UNTIL YOU'VE SEEN THE GOULDS SPECIALISTS



- Submersible bore hole pumps
- Turbine pumps

- Multi-stage vertical pumps
 Self priming pumps
 Close coupled centrifugal pumps
- Domestic pressure pumps
- Sewage and drainage pumps
- Industrial pumping

SOLE NZ DISTRIBUTOR



CHRISTCHURCH

Cnr Durham & Walker Streets 81 Sydney Street P.O. Box 548 Ph 650 279 Fax 666 616

PETONE

P.O. Box 38-067 Ph 568-8235 Fax 568 7237

HAMILTON

97b Norton Road P.O. Box 5377 Ph 847 5280 Fax 847 1580

AUCKLAND

477 Great South Road P.O. Box 12-807 Penrose Ph 579 9093 Fax 571 0433

CLAUDE 15480

THE DRILLER is the official publication of the New Zealand Driller's Federation.

Publisher: Emdess Corp. Ltd., P.O. Box 101, Foxton. Phone 06 364-5103.

Advertising and editorial inquiries to the publisher.

Opinions expressed in The Driller are not necessarily the opinions of the NZ Drillers' Federation.

PRESIDENT'S REPORT

DURING the year, there has been little appreciable improvement in the downturn in demand for drilling services.

There are some geographical variations, with some drillers finding work consistently, but overall the pattern during the year has not been too good.

It is to be hoped that the much publicised turn-around in the economy will start to take hold in the coming year and the demand for our work will increase.

This is the first issue of the "new look" drillers' magazine, which incorporates a directory listing of all services offered is association with the industry.

I would like to thank all who have taken the time and spent the money to participate in the new venture. Without your co-operation it would not have been possible. There is still plenty of room for listings in the directory and it is hoped the next issue will be even more detailed.

The Driller magazine now goes to all local bodies in New Zealand along with selected agricultural and horticultural organisations, civil engineers and drilling

It is a way of getting the New Zealand drillers' message across to a much wider audience than in the past and I am sure that all drillers will support the venture.

It is of course conference time again and I am looking forward to seeing all Drillers' Federation members again and the many new faces that I am told will be attending this year's gathering.

I am sure we have a big year ahead of us.

Best of luck to you all.

C.B. "Woody" Woodford President

THANKS

Brown Brothers Engineers Ltd, Institute of Geological and Nuclear Sciences Ltd, Mintech NZ Ltd, Barham United Well Drillers Ltd, Drill Tool Engineering Ltd, Baroid Aust Pty Ltd, Works Geothermal, Grundfos Pumps Pty Ltd, Waimea Drilling Ltd, Brown Brothers NZ Ltd, Deeco Services Ltd. WATER quality and the protection of precious Ground Water resources have, unitl recently, been the "forgotten" issues of the environmental debate in New Zealand.

Increasingly, media and government attention is focussed on the need to safeguard sources of clean surface and ground water. Regular monitoring of water sources, water supplies and potential environmental hazards is an essential element in the battle against water pollution.

GRUNDFOS is about to make ground water monitoring easier and more affordable with the release of a new pumping system for ground water sampling which offers for the first time fast, high volume bore purging and slow, stable sampling in one

2" diameter pump unit.

The major challenges of ground water sampling for environmental testing are time and sample integrity. Proper ground water testing requires that the bore is purged or flushed prior to the sample being taken. With the types of pumps currently used this is a time consuming, and therefore costly process. At the same time, the sample itself must be taken very slowly and carefully to ensure stability and consistency. In fact, the US Environmental Protection Agency recommends a sampling rate of only 100 millilitres per minute!

The GRUNDFOS MP1 monitoring pump successfully

The GRUNDFOS MP1 monitoring pump successfully combines these seemingly contradictory characteristics by allowing the user to select high flow rates for purging and a very low rate for sampling. This is far superior to the other sampling methods where flow rate adjustments may cause air bubbles and changes in pressure which can result in "degassing" the sample,

compromising it's integrity.

Sample integrity is further ensured by the use of inert materials in the construction of the pump: 316 grade stainless steel and teflon.

The stepless adjustment of the pump's flow rate is achieved through the use of a purpose-built static frequency converter which drives the pump's high speed AC motor at rates of up to 23,000 RPM. The MP1 has a nominal performance of 1 m³/h at 65 M, and is capable of heads up to 90 M or flows of almost 2 M³/h.

The unit runs on single phase mains voltage but a generator can be used on sites where mains power is unavailable.

LANDFILLS





THE refuse industry, particularly the area of landfills, has undergone large changes in the last five years. Local government reform, the entry of private landfill operators into the landfill business, the advent of the Resource Management Act and an increasing public awareness of environmental issues have contributed to a rapidly changing landfill scene.

Until recently the Auckland Regional Council Refuse Department had the responsibility for the disposal of refuse in the Region. The ARC had two large landfills, Greenmount and Rosedale, both of which are now nearing the end of their life. The ARC also acquired the operation of the Devonport Landfill (formerly run by the Devonport Borough Council) after local body amalgamation. Four local authorities in the Region dispose of their own refuse under a landfill licence from the ARC. Waitakere City collects refuse at a transfer station where the refuse is compacted and bailed, before being placed in the Kay Road landfill in Swanson. Papakura District Council have a single landfill where as Rodney District have four small landfills

MEETING THE CHALLENGE WITH TECHNOLOGY AND SERVICE

DESIGN MANUFACTURE REPAIR

* DRILL RODS* REVERSE CIRC DRILL PIPE

* MILLING TOOLS, DRILL BITS

* ADAPTORS CROSS OVER

* STABILIZERS

TOOLS



DRILL TOOL ENGINEERING LTD

DAKOTA PLACE BELL BLOCK P.O. BOX 7162 NEW PLYMOUTH TELEPHONE 06 755-0394 FAX 06 755-1804

1992 STYLE

servicing the smaller communities in the area. Manukau City operate the Whitford landfill.

In the past refuse has been disposed of by the public sector. Recently of course there has been a move to market driven economies and hence a move by the private sector into the landfilling area. Changes have also occurred within the ARC, with reorganisation leading to privatisation of the Refuse Department, which is now called Northern Disposal Systems Ltd. The landfill licensing function is now the responsibility of the ARC's Environment and Planning Division. Northern Disposal Systems operate the three former Refuse Department landfills.

A major development in the landfill industry is the entry into the market of large international waste companies, namely Waste Management and Waste Care. Waste Management has been successful in obtaining consents for a new landfill at Redvale, Dairy Flat. This landfill with approx 25 years life may start operating as early as late 1993 or early 1994. Waste Care is in the process of obtaining permits for a proposed site at Whitford. Competition between private companies and commercial arms of some Local Authorities as well as

ARC reorganisation has done away with the need for single large Regional landfills, such as the proposed Mt Wellington landfill. The ARC has residual responsibility for refuse disposal, but can only carry out the function if those in the business fail or appear likely to do so.

The Resource Management Act is also having a large impact. At present only one existing operational landfill in Auckland has all of the necessary resource consents required under the Act. Extensive investigations are presently being carried out at most of the other eight operational landfills to provide supporting information for consent applications.

In the Auckland Region there are in excess of sixty closed landfills that are known. These sites vary considerably in size, the material placed in the landfill, the level of protection from liners, the presence of leachate control systems and in the effect on the environment. A larger number of these sites require resource consents and some will require remedial action. The task of investigating these sites has only just begun and will take a number of years and at a considerable cost to the community. The ARC's function is to consider consent Written by: Alastair Small Geologist Environmental Management Dept. Auckland Regional Council

applications and to monitor effects on the environment.

The level of investigation required at present for proposed, existing and closed landfills has increased several orders of magnitude in the last five years. This has mainly been caused by an increased awareness for environmental concerns and more recently the Resource Management Act. These investigations involve assessments of impacts on both surface and groundwater, geotechnical investigations on aspects such as land stability and liner performance, and the impact of discharges to the air. As an example, the recent investigations for a new landfill site near Whitford involved in excess of forty bores, seven large diameter inspection shafts and numerous test pits.

In summary, we are moving into an increasingly competitive market driven era in refuse disposal. environmental standards required for landfill design and construction are increasing by orders of magnitude, and are reaching levels comparable with standards in the United States and Europe. We are only just getting to grips with the problem of identifying and fixing old closed landfills.

BARHAM UNITED **WELLDRILLERS LTD**

Specialising in. . .

- Drilling and construction of new Water Suppy Bores for Domestic and Commercial
- Maintenance and rehabilitation of existing Water Supply Bores
- Submersible Pump: Maintenance, testing and servicing
- Investigation drilling

MANUFACTURERS OF "WATERFLOW" PVC WELLSCREENS

Can be individually wrapped

- From 12mm dia. to 150 mm dia.
- All slots angle cut .30mm to 2.5mm slot size
- Cut to your special requirements
- Can be treated and individually wrapped to meet environmentally sensitive applications

CONTACT MIKE ORMSBY

Phone (07) 871 5897 - (07) 849 2592 Mobile 025 925 036 - 025 956 091

PRODUCT NEWS

FOUNDED in 1938 as an importer and distributor of mining and drilling equipment The Dominion Construction Co. Ltd today continues to service the mining and drilling industries with an even wider range of product than its founders envisaged 54 years ago. Now, as then, the proprietors and management of the Company are aware that success is achieved not only by presenting the market with high quality, branded equipment but by backing this with competent service.

As further steps to ensure we continue to meet this objective, when our Wellington lease expired recently we sought new premises, which enabled us to more effectively meet clients needs not only in supply and servicing but customer training. At the same time it seemed appropriate to us that a long thought of change of company name be initiated so that "Construction" no longer be a misnomer for our activities. So DEECO SERVICES LTD now trades in place of Dominion Construction, the shareholding and staff remaining exactly the same as before, determined to continue working to effectively meet the needs of our clients.

Great importance continues to be placed on staff training to keep us abreast of technical and commercial developments introduced by our suppliers. In this area we enjoy tremendous support from all concerned, particularly as most of our agency arrangements have been in place for a long time.

Those of you drilling waterwells will be very much aware of our long association with Surescreen Mfg Co Pty Ltd and our stocking of their wedge wire wellscreens. The 1991 takeover of Surescreen's factory by Johnson Filtration Systems has changed little from the markets perception of product quality, price or availability. The major changes have taken place "in house" in Brisbane.

You will also be aware of our long standing representation of English Drilling Equipment Co. Ltd, Huddersfield and the supply of their diamond drilling rigs into a variety of New Zealand locations over the years.

Not so widely appreciated however is the broader scope of product available from us in water management and control systems or personal safety and hazmat control equipment.

By far the larger proportion of our activity these days relates to water management and control, be it for the orchard, factory or township. Bermad Control Valves, Wilkins Backflow Preventors, Arkal Filters, Meinecke and Socam Water Meters are widely distributed throughout New Zealand either directly by us or through local outlets. Coupled with our wedge wire supply service we get involved in a great range of water projects be it product supply or design assistance.

The industrial side of our activities finds us increasingly involved in all aspects of safety in the work place from personal protection (by way of hardhats to boots) and environmental assessment (gas detection to hazmat storage and control). The MSA range of equipment we market is one of the most comprehensive available in the world today and our association with MSA and its affiliates goes back to the mid 1940's. Once again we supply equipment and advice directly or through a network of distributors.

DEECO SERVICES LTD now looks forward to continuing to meet the challenges of today's New Zealand market and in particular to servicing our drilling clients needs towards the year 2000.

For further information contact: Alan or Nick Farmer Deeco Services Limited P.O. Box 33-226, Petone Wellington Phone: (04) 568-5293 Fax: (04) 568-5273 THE WARMAN 650 MkII is said to be the "very first" of the new MkII high capacity version developed specifically for Brown Bros and New Zealand conditions, on jack up base, which will be transported by All Terrain Carriers for New Zealand topographical conditions or transported by trucks on better site locations.

With it's jack up base feature, this enables the Rig to be set up on site, thus leaving the All Terrain Carrier free to transport other supplies to and from drill sites. The rig is powered by a Detroit 453T, Silver Series engine.

On board the Rig can be mounted high pressure drilling air compressors or mud pumps for whatever drilling system may be required by the customer at the time.

The Rig has an angle hole dum mast feature, for angle or vertical bore holes, and an infinitely variable triplex high pressure core pump, infinitely variable in-line oiler for down hole hammer operations and many other "Driller" features for productivity and economics of drilling cost-effective bore holes such as precise bit weight control, rotary torque adjustment for different or difficult drilling conditions.

The mast and table opening accommodates running up to 12 inch diameter casing. The hydraulic Top Head retraction speed is faster than withdrawing or running drill pipe with

conventional winches.

Accordingly the winch is fitted with a 17,000lb main winch, whereby the speed is automatically adjusted by the weight of the drill rod string. This important facet takes out the possibility of operator error of judgement when tripping in or out on deep holes. The Wireline winch has a speed of 242m/min and spooling capacity of 1,000 metres of wireline.

With top mast mounted hydraulic swizelling boom and a rod tub mounted down the side of the drill frame, containing 200 metres x 3½" dia. drill pipe makes for easy cartage and handling of drill pipe.

For further information contact: Brown Bros (NZ) Limited Phone: (07) 849-2919

Fax: (07) 849-1729



"The BIGGEST name in drilling fluids with a BIGGER commitment than ever."

SUPPLIERS OF ENVIRONMENTALLY ACCEPTABLE DRILLING FLUIDS

For all your drilling mud requirements contact:

JOHN REEVES or CHRIS LOWE Barold Aust. P/L New Zealand Branch 37 Portview Crescent New Plymouth Phone: (060 751-1700 Fax (06) 751-1761

Water Pollution Worries

POLITICALLY, industrially and domestically, attention is being focussed on the environment. The size of New Zealand has, in the past, caused us to overlook the harmful effect that rapid development in technology and industrialisation has had on the environment.

Only recently have we begun to realise the damage done to water forcing us to take preventative measures.

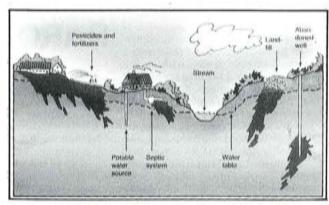
Water pollution covers several aspects. Pollution of rivers and seas generally receives more publicity but pollution of our resources of drinking water is causing us to introduce measures and controls. In many overseas countries the extent of the pollution damage is being examined. This alone has uncovered many causes of pollution.

Researchers all over the world are working hard to find the answers as to how pollution of water resources can be monitored, restricted and eventually prevented. There is evidence that the development of new and efficient hardware will play an important part in the battle.

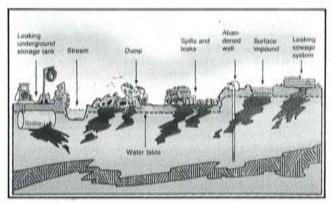
This hardware will have to be resistant to influence from polluted ground water and, more importantly, does not itself influence the quality of the polluted or cleansed drinking water of the sample being monitored.

GRUNDFOS has been involved for a long time in the development of pumps specially designed for handling the polluted water without destroying themselves in the process.

On another page we present one of these new pump products for the environment — MP1. Its ingenious use of modern materials and its small size make this product unique. In addition to this GRUNDFOS has recently redesigned the well reputed 4" stainless steel submersible to meet the tough demands of the environmentalists.



MUNICIPAL AND RURAL POLLUTION



INDUSTRIAL AND COMMERCIAL POLLUTION



Deeco Services Limited

WELCOME NZ DRILLERS AND VISITORS TO OUR DISPLAY AT THE NZDF 1992 TAUPO CONFERENCE





Our new contact addresses are:-P.O. Box 33-226 Petone Phone: 04 568-5293 Fax 04 568-5273



For information and supply of:-

SURESCREEN Wedge and profile screens
SUREMUD well development chemicals
EDECO drill rigs and tooling
BERMAD control valves
ARKAL filter systems
MEINECKE water meters
MSA safety and hazmat control equipment
THORDON elastomeric bearings

Contact: Alan A. Farmer





WORKS Geothermal, part of the SOE WORKS Civil Construction Ltd, is proud to announce the commissioning of a new hydraulic top drive Schramm T685W drill rig.

The drilling unit was purchased new from Baltimore, USA and fitted onto a truck sourced from within the Company. The rig has been specified to run downhole hammers, foam and air and WORKS intend to purchase a range of drilling tools as opportunities permit. The new unit will complement the wide range of drilling tubulars, pumps and accessories which WORKS already has.

Geothermal development opportunities have been limited since commissioning of the Ohaaki power station. This has also meant limited drilling has been undertaken. WORKS have been associated with Taupo Electricity Ltd in evaluating a 10 MW power station in the Tauhara Field. Variations in resource consents are currently being sought from the Waikato Regional Council.

WORKS are also evaluating possibilities to supply steam to the timber industry in particular for kiln drying in order to provide more opportunities for our drilling and geothermal development expertise.

WORKS are also progressing accreditation to ISO 9001, a daunting task for those who are familiar with our drill store. This management assurance system, once fully implemented, will provide our customers with a more reliable service.

DRILLING IN RAROTONGA

FOR 2½ months starting late August last year, drillers from DSIR Geology and Geophysics undertook a project in Rarotonga for the United States of America's Incorporated Research Institutions for Seismological (IRIS) Consovtium.

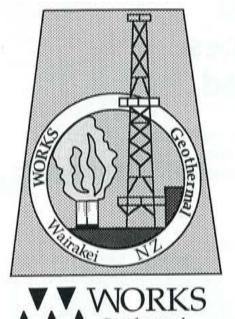
It consisted of drilling a 120 metre deep hole for the installation of a broadband borehole seismometer in the Takuvaine Valley. Because of the delicacy of the instrument, the 23cm diameter hole had to be drilled with great accuracy. The seismometer was one of many that the IRIS consortium and the US Geological Survey hope to install around the world as part of a global network.

Using the Division's Failing CF-15 drillrig, which was shipped over for the duration of the contract, as well as all the water needed during the exercise, drillers had to work under stringent conditions. As well as the hole not allowed to be more than 4° off vertical from top to bottom it also had to be watertight. Testing of which included filling the hole with water to 100 psi left for 24 hours and tested with the pressure not allowed to have dropped more than 10%.



Dealing with difficult drilling conditions due to the volcanic nature of the geology, ranging from basalt to scoria to constantly running sand, the drillers accomplished 122m with a total top to bottom deviation of 2.0° and a drop of only 4 psi after 24 hours. The seismometer is in place and sending back the relevant information, a success which future work will be modelled on.

(DSIR Geology and Geophysics became part of Institute of Geological and Nuclear Sciences Ltd on 1 July, 1992.)





DRILLING and ASSOCIATED SERVICES

- Geothermal Drilling to 3000m
- Oil and Gas Drilling
- Artesian and Deep Water Well Drilling
- · Drilling and Fishing Tool Hire
- Water Supply Pump and Pipeline Hire
- Drilling Tubular Manufacture & Repair
- Geothermal Well Design & Planning
- · Pipeline & Pressure Vessel Design
- Pipeline & Pressure Vessel Fabrication

See further listings in the Directory

1992 NEW ZEALAND WELLDRILLERS' CONFERENCE

PROGRAMME

22 JULY 1992		BUS TRIP TO OHIKI NEW POWER STATIO	N 1.30 p.m.
REGISTRATION	3.00 p.m. Onwards	and visit to WORKS GEOTHERMAL	
		Afternoon tea and buses sponsored by Works Geothermal	
COCKTAILS	6.00 p.m.		
Sponsored by Wallace Pumps		STILSON THROWING WILL BE	
		HELD ON THE WAY HOME!	
		Stilsons sponsored by Always Manning	
23 JULY 1992			
OFFICIAL OPENING	9.00 a.m.	NEW METHODS NIGHT	7.30 p.m.
Minister of Energy (John Luxton)	3.00 u.m.	Sponsored by Baroid Aust. & Wallace Pumps	
Minister of Energy (John Edition)		ANALYSIS AND ANALYSIS ANALYSIS AND ANALYSIS ANALYSIS AND	
WAIKATO REGIONAL COUNCIL	9.30 a.m.	725 (ACOUNT 1986)	
Mr John Hadfield	9.30 u.m.	24 JULY 1992	
Mr John Hadjiela		ANNUAL GENERAL MEETING	9.00 a.m.
MORNING TEA	10.00 a.m.		
MORNING TEA	10.00 a.m.	MORNING TEA	10.15 a.m.
POWER UP	10.30 a.m.		
1 (A.) (A.) (A.) (A.) (A.) (A.) (A.) (A.)	10.30 a.m.	BOARD BUS FOR BOAT TRIP	11.15 a.m.
Dave Kelly		and the second and the second	
ULICUE BOCK BITC VIDEO	*** ***	RETURN TO LAKELAND MOTOR INN	5.00 p.m.
HUGHS ROCK BITS - VIDEO	11.00 a.m.	KETOKA TO ENKEENIED MOTOK IIII	Dioo pini
WORKS GEOTHERMAL	11.30 a.m.	DINE AND DANCE, PRIZE GIVING AND	
	11.30 a.m.		p.m. till late!
Brendon Berry		Wine kindly sponsored by	p.m. em mee
LUNCH	12,00 a.m.	Brown Brothers Engineers Limited (Gould Pumps).	
LUNCH	12,00 a.m.	Brown Brothers Engineers Limited (Gould Fum)	187

Well - logging

Stratigraphic & Strata Age Determination

Downhole Geophysical Logging

Sediment Analysis



Institute of

GEOLOGICAL & NUCLEAR SCIENCES

Limitard

Paleoenvironment Analysis

Geotechnical Testing

Paleontological Testing

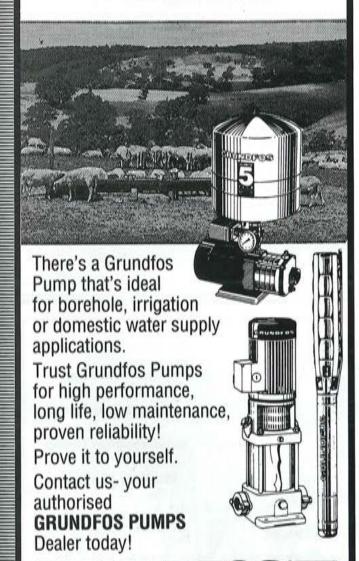
Petrology of Minerals

Derek Woodward P O Box 1320 Wellington Ph. (04) 473 - 8208

(Formerly DSIR Geology and Geophysics)

Len Brown P O Box 30-368 Lower Hutt Ph.(04) 569 - 9059

Need Water? Tap into Grundfos



SIMPLY SUPERIOR

GRUNDFOS PUMPS PTY LTD P.O. BOX 21-578 **HENDERSON** AUCKLAND PH: 09 837-4990

FAX: 09 837-4270

DRILLING COMPANIES

Faulkner Drillwell (NZ) Ltd

Phone: 09 299-7798 Fax: 09 298-8880 Contact:

Jim Faulkner

EOUÌPMÉNT AVAILABLE: Full range of general purpose top drive rigs specialising in underground drillng, including hammer, tubex and wireline directional and target drilling through 360° with latest state of the art electric rig. Over water drilling with own easily transportable barge and rig unit.

Drillwell Exploration NZ Limited Phone: 09 299-7798 Water well drilling: Town st

Fax: 09 298-8880 Contact:

> Martyn Brown or Len Brown

Water well drilling: Town supply Domestic and commercial, farm irrigation.

SITE INVESTIGATION: All types of Geotechnical drilling. Coring all sizes, permeability packer testing, piesometer net-

CONSTRUCTION: Large diameter soak holes, rotary percussion hammer drilling, 100 mm, 150 mm, 200 mm, 250 mm. Ground and rock anchors, horizontal and angle drilling.

SEISMIC SURVEY DRILLING Truck and Heli-portable.

EXPLORATION:

Gold, coal and minerals including wire line coring and tubex drilling.

SPECIAL PROJECT

DRILLING: Directional and target drilling, underground drilling through 360° with electric drilling rigs. EQUIPMENT AVAILABLE: 20 Drill rigs, New Zealand's

most comprehensive range of drilling rigs, covering all facets of the drilling industry.

Carryer & Associates Ltd

Consulting Geologists Phone: 09 827-1999

Fax: 09 827-2463 Contact:

Ian Thompson

SERVICES OFFERED:

Downhole Geophysical log interpretation, production well design, testing, groundwater monitoring, quality assessment.

BROWN BROS (NZ) LIMITED

Phone: 07 849-2919 Fax: 07 849-1729

Contact:

The complete drilling service with a proven track record. EQUIPMENT AVAILABLE: Graeme A. Brown Refer our advertisement this

> EQUIPMENT FOR SALE: Three x "Failing" mud rotary rigs. One x Atlas Copco XRH Hi-pressure air compressor.

Barham United Welldrillers Ltd.

Phone: 07 871-5897 Contact:

Mike Ormsby

SERVICES OFFERED: Water well drilling specialists. EQUIPMENT AVAILABLE: 3 water well rigs.

Radial Drillng (NZ) Limited

Phone: 07 863-7529 Fax: 07 863-7906 Contact:

Colin Burr or Jan Blackmore

SERVICES OFFERED: Exploration diamond drilling. RC surface and underground site investigation, Geo Tech. EQUIPMENT AVAILABLE: 15 surface and underground

Geo Hutchinson & Co. (1984) Ltd.

Phone: 07 889-5202 Fax: 07 889-3535 Contact:

John Shuttleworth EQUIPMENT AVAILABLE:

SERVICES OFFERED: Welldrilling, water pump service and installation.

Well and hole drillers. EQUIPMENT FOR SALE: Well and hole drillers, slotted PVC screens.

Works Geothermal-Wairakei

Phone: 07 374-8221 Fax: 07 374-8508 Contact:

Brendan Berry or Tom King

SERVICES OFFERED: Deep Geothermal drilling to 3000m. Shallow Geothermal drilling, Artesian and deep water well drilling, pressure cementing services, oil and gas drilling, perforating services, equipment hire, drilling and fishing tool hire, pump and pipeline hire. EQUIPMENT AVAILABLE: Failing 1500 rigs, Schramm T685W rig, National T12 rigs, Continental Emsco GC350 rig, drilling and ancillary equipment in support of the above rigs (tanking, mud pumps, BOP's, solids handling equipment, etc.). The most comprehensive stock of drilling tools in New Zealand. EQUIPMENT FOR SALE: API casings, Rockbits, some equipment spares.

Warmington Welldrilling Ltd.

Phone: 07 378-6275 Contact:

Ian Warmington

SERVICES OFFERED: Welldrilling and pumping engineers, Site investigations.

J.P. Garnett & Co. Ltd.

Phone: 07 883-7869 Fax: 07 883-7068 Contact:

> Peter Garnett Ken Garnett

SERVICES OFFERED: Drilling Engineers, Auger Drilling 75mm x 20 mtr, 300mm x 8mtr, 600mm x 8mtr, 1mtr x 8mtr. Bore rehabilitation farm, domestic, municiple, irrigation. Water well drilling -75mm to 500mm x 500 mtrs. Irrigation, farm domestic, municiple. Site investigation, monitoring wells, foundations, cores. Pumps - underground and surface, full Sales and Service of most brands. Pump testing. Pumps for hire. Pipe threading, 1/4" up to 6".

EQUIPMENT AVAILABLE: Damco 1250 drilling rig, wire line HQ drilling, Small Failing (250 replica), Sullivan rig 300mtr, Highway Auger rig, Tractor rig 4 WD, Auger investigation drilling, Water carts, 5cub, 3cub, 2 x 2.5cub, Davis 20 plus 4 trencher.

Hill Welldrillers (1981) Ltd.

Phone: 06 879-7777 Fax: 06 879-7340 Contact:

John Hill Murray Gillies Jim Le Grys

SÈRVICÉS OFFERED: Consultants, Engineers. All drilling and associated services. EQUIPMENT AVAILABLE: Gardner Denver rotary rig, Bucyrus 27 cable tool rig, combination direct circulation/ cable tool rig, service vehicles, comprehensive workshop facilities.

Nevill Webb & Son Ltd.

Phone: 06 368-5829 Fax: 06 368-8267 Contact: Philip Webb

SERVICES OFFERED: Water well and test drilling. EQUIPMENT AVAILABLE: 3 Cable tool rigs with associated compressors, generators and test pumps.

Institute of Geological and Nuclear Sciences Ltd

Phone: 04 569-9059

Fax: 04 569-5016 Contact:

> Dale Preston Len Brown Derek Woodward Hugh Thorpe

SERVICES OFFERED: Groundwater and engineering test drilling evaluation supported by complete earth science services.

EQUIPMENT AVAILABLE: Failing CF15 rig - 1000 metres, Balyis 100 - 300 metres, Shothole Junior - 75 metres.

Griffiths Drilling Co. Ltd.

Phone: 04 526-9943 Fax: 04 528-9514 Contact:

Melvyn Griffiths **Gordon Griffiths** SERVICES OFFERED: Geotechnical, ground anchoring, diamond drilling, CPT testing and well drilling. EQUIPMENT AVAILABLE:

4 x 4 rigs, Heli portable rigs, Dutch cone penetrometer.

Pendleton Corporation Ltd.

Contracting Division Phone: 04 568-8002 Fax: 04 569-9388 Contact:

> Bill Johns or Jason Lemmon

SERVICES OFFERED: Micro piling, retention anchors, investigation drilling. EQUIPMENT AVAILABLE: Hands England, TB36 digger with drill mast, diamond drilling rig, anchor drilling equipment.

Simpson Bros. (Blen.) Ltd.

Phone: 03 578-5345 Contact:

Colin Simpson

SERVICES OFFERED: 100mm - 500mm water wells, 100mm foundation test bores. EQUIPMENT AVAILABLE: Cable tool rig - combination

Rotary cable tool rig.

Waimea Drilling Co. Ltd.

Phone: 03 544-8442 03 544-8381

Fax: 02 544-4364 Contact:

> Sam Woodford Mark McCully Brian Mercer Simon Beck Ces (Woody) Woodford

EQUIPMENT AVAILABLE:

Drilling Rigs:

Gardner Denver 15W 150mm diam 600m depth, Sullivan Combination 150mm dia 300m depth, Mole Pioneer Invertigator HMLC diamond coring etc. Star 71 Cable Tool 300mm dia. 200m depth, Edeco Combination 150mm dia 100m depth, Highway Earth Borer 600mm dia 7m depth, International Hiab Truck 2 tonne capacity.

Testing Equipment: GM 671-96 KVA Generator set, GM 271-31.5 KVA Generator Set, Kabota-Miller 7 KVA 1 PH Generator Set, Diamond Core Barrels, Tube samplers, Standard penetration test equipment, Oriface flow masters, Flow recorder metres. Submersible Pumps: From 1HP 100mm dia to 40HP 200mm dia.

Machine Shop:

20 HP Dean Smith and Grace Lathe, Taper turning 5m between centres 115mm spindle bore, Colchester Triumph 2000 lathe milling machine.

FOR SALE:

Duplex mud pump shaft seals.

Coming Soon:

Duplex mud pump oversize piston cups - 5 1/16', 8" Gravel pump Allen Gwynnes 4000 g/m (powered by Detroit 471 GM motor).

Washingtons Drilling Ltd.

Phone: 03 688-2638 Fax: 03 68-2637

Contact:

Bill Washington

SERVICES OFFERED:

Domestic wells, irrigation wells monitor wells, test drilling.

PILING: Large diameter drilled piles, driven piles.

PUMP SALES AND SERVICE Agents for all leading pump manufacturers. Full service department.

IRRIGATION: Full design and installation service.

SOLAR HOT WATER SYSTEMS: South Island Distributors for Envirocycle

Domestic wastewater systems.

WORKS Civil Construction Ltd.

Phone: 03 488-4155 Fax: 03 488-2367

Contact:

Peter Mathewson Rodney Ward

SERVICES OFFERED: Investigation drilling, core recovery, sampling, testing. percussion

Gallery drilling, percussion drilling, grouting. EQUIPMENT AVAILABLE: Toyo percussion and DHH Airtrak drills, Mindrill rotary gallery drills. Investigation drills - Longyear 24, HC150, 38, 44, Mobile B53, Mindrill F62B, Schramm T685W.

Contact:

Graeme Wakeling

Australian Drilling Industry Assoc.
Phone: 03 793-1735 SERVICES OFFERED:
Fax: 03 793-1741 Australian Drilling Industry Association, 47 Robinson St, Dandenong, Victoria, Australia

MANUFACTURERS/ SUPPLIERS/ DISTRIBUTORS

Sandvik NZ Limited

Phone: 09 274-6200 PRODUCT AVAILABLE:

Fax: 09 274-4442

Contact: Peter Rexson

Mintech (NZ) Ltd.

Drilling consumables.

Suppliers of Bentonite to the Drilling Industry

Other drilling products include:

- **Bentonite Pellets**
- Filter Sands
- Weighting agents: **Barytes and Calcium** Carbonate

Contact Evan Thornton.

Free Phone:

0800-804-461

Phone:

(09) 276-1380

Fax:

(09) 276-1391

New Zealand Steel Ltd.

Phone: 09 375-8999 Fax: 09 375-8904 Contact:

PRODUCT AVAILABLE: Steel pipes 15mm NB to 100mm NB.

David Gifford

Grundfos Pumps Pty Ltd.
Phone: 09 837-4990 PUMP MANUFACTURER

Fax: 09 837-4270

Contact: Kevin Jamie

Longyear New Zealand Ltd.

Phone: 09 275-4049 Fax: 09 275-3182

Contact: Bill Dyet SERVICES OFFERED:

Project method consultation, Equipment and product design facilities, drilling and mining equipment and product

manufacturing.

EQUIPMENT AVAILABLE: Drilling and mining equipment, products and accessories.

Longyear New Zealand Ltd.

Phone: 09 275-4049 Fax: 09 275-3182

Contact: Bill Dyet PRODUCT AVAILABLE: Drilling and mining equipment,

products and accessories.

Compair (NZ) Ltd

Mining & Construction Division

Phone: 09 276-0979 Fax: 09 270-2066

PRODUCT AVAILABLE: Tamrock, Holman, Mission, Sandvik, Hammer.

Chris Benny

Mintech NZ Limited

Phone: 09 276-1380 Fax: 09 276-1391

PRODUCT AVAILABLE: Drilling fluids, e.g. Bentonite

Contact:

Contact:

Evan Thornton

Luganda Pacific NZ Ltd.

Phone: 07 863-7529 Fax: 07 863-7906 Contact:

Ian Batchelor

PRODUCT AVAILABLE: SPT Hammers, fishing tools, Casing, Subs, downhole equip-

ment. Mining Engineers and Manufacturing Engineers.

Barham United Welldrillers Ltd.

Phone: 07 871-5897 Contact:

PRODUCT AVAILABLE: "Waterflow" PVC Wellscreens

Mike Ormsby

Bisleys Pump Industries Ltd.

Phone: 07 855-6179 Fax: 07 855-6170

PRODUCT AVAILABLE: Pumping Equipment, wellscreens.

Contact: Brian Alcock

WORKS Geothermal

Fax: 07 374-8508

Contact:

John Barrat or Paul Taylor or Tom King

Phone: 07 374-8221 SERVICES AVAILABLE:

Drillpipe reconditioning, casing threading, certified Hydril repair facility, Hardbanding, stress relieving, specialist heavy duty welding,

pump/generator hire, industrial sandblasting and painting, pipework design and fabrication, heavy transport/cranage.

EQUIPMENT AVAILABLE: Dainichi Oil Country lathe, Dean Smith & Grace Oil Country lathe TOS horizontal boring machine, Colchester 3000L CNC lathe, Stress relieving furnace, 30 tonne Kato crane.

SERVICES OFFERED:

Geothermal well design and planning, feasibility studies, pipeline and pressure vessel design, project management, drilling engineering, Mud/grout engineering services.

Russell Pool Ltd.

Phone: 07 348-7516 Phone: 09 479-6375 Fax: 07 347-1609 Fax: 09 579-2515

Contact: Russell Pool (Rot) Craig Williams (Auckland)

PRODUCT AVAILABLE: NZ Distributor of Grundfos Pumps, Hi-Flo drainage pumps, Forrers sewerage pumps, pressure guages, switches, float switches, Blake rams, Autotrol chlorinators. Specialists in water supply, irrigation and drainage design and installation.

Baroid (Aust.) Pty Ltd.

New Zealand Branch

Phone: 06 751-1700 Fax: 06 751-1761

Contact: John Reeves PRODUCT AVAILABLE: Drilling fluids, testing equipment and technical services.

Drilltool Engineering Ltd.

Phone: 06 755-0394 Fax: 06 755-1804 Contact:

Denis Fernandes

PRODUCT AVAILABLE: Drilling equipment.

Manufacture, service, repairs.

Deeco Services Ltd

Auckland Phone: 09 818-1646 Fax: 09 818-1646 Wellington Phone: 04 568-5293 Fax: 04 568-5273

Contact: Alan Farmer or Nick Farmer

NEW ZEALAND AGENT for Bermad Irrigation and Control valves, Arkal filters and spin kilns, MSA/Auer safety equipment, Surescreen Wedgewire products, Socam and Meinecke water meters, Galcon/Oasis controllers, Thordon bearing material, Justrite safety storage containers and comprehensive range of mining and drilling equipment.

Pendleton Corporation Limited

Phone: 04 569-2279 Fax: 04 569-9388 Contact:

Peter Lemmon

PRODUCT AVAILABLE: Core liner, Duckbill, Mantaray anchors, Tital anchors, Soiltec matting.

Cylmin Industrial Systems Ltd.

Phone: 04 568-6445 Fax: 04 569-7046 Contact:

Rod Sindall

PRODUCT AVAILABLE:

Pipe Casing and drill tubes -APE ASME and others available ex stock, New Zealand and offshore. Drilling collars.

TAM International circulating packers, inflatable 20WB isolation systems, blow out products. preventors. MC Hydril mechanical products. Valtex multipurpose hydrocarbon valve lube sealants for oil field and plant services, high pressure lubricating guns. Sigma Enterprises well head safety systems components, emergency shut down equipment, pressure indicators. Select Industries drillng fluid additives. Hydro Seal back pressure regulating valves. Best Industries Unions, Choice assemblies, flow control parts and swivel joints - all interchangeable with other original manufacturers.

Brown Brothers Engineers Ltd

Auckland

Phone: 09 579-9093 Fax: 09 571-0433

Hamilton

Phone: 07 847-5280 Fax: 07 847-1580

Petone

Phone: 04 568-8235 Fax: 04 568-7237

Christchurch Fax: 03 666-616

Phone: 03 650-729

SERVICES OFFERED: Goulds pumps, submersible bore hole pumps, turbine pumps, milti-stage vertical pumps, self priming pumps, close coupled centrifugal pumps, domestic pressure pumps, sewerage drainage pumps, industrial pumping.

CENTRAL GOVERNMENT/ LOCAL BODIES

Northland Regional Council

Phone: 09 438-4639 Fax: 09 438-0012

SPECIALIST FIELDS AND AREAS OF CONTROL:

Contact:

Helen Codlin

Natural resource management (including groundwater) Northland.

Manukau Works

Building & Mechanical Division

Phone: 09 262-5740 Fax: 09 262-5157

Contact: J. Johnston SPECIALIST FIELDS AND AREAS OF CONTROL: Pump Stations. Water supply. Plumbing and building main-

tainance.

Waikato Regional Council

Phone: 07 856-7184 Fax: 07 856-8089

Contact:

John Hadfield or Peter Cochrane

SPECIALIST FIELDS AND AREAS OF CONTROL:

Regional resource management including control of drilling permits for water well drilling.

Ministry of Commerce

Phone: 07 346-0797 Fax: 07 349-2024 Contact:

> John Molloy **Drilling Inspector** tests

SPECIALIST FIELDS AND AREAS OF CONTROL:

Safety and health recommendations calorimeter

Hutt City Council

Phone: 04 566-6959 Fax: 04 569-4290 Contact:

Ray McIndoe

SPECIALIST FIELDS AND AREAS OF CONTROL: Structural design/water

reticulation.

Wellington City Council

Phone: 04 801-3424 Fax: 04 801-3004 Contact:

R. Tapp Purchase Office SPECIALIST FIELDS AND AREAS OF CONTROL: Complete purchasing for the

Council, including quarries and roading maintenance.

Mining Assets Ltd

Suppliers of:

- **Drilling Fluids**
- **Liquid Polymers**
- **Drill Foam**
- Lubricants

Contact Peter Roberts

Phone:

(09) 534-1192

Fax:

(09) 537-1796

WATER WELLS WAIMEA DRILLING CO LIMITED

Registered Master Driller

ANISEED VALLEY ROAD, RICHMOND NELSON

Well diameters, 80-300 mm
 Drilling Rig. Types are:
 Cable Tool
 Rotary Combined with Cable Tool
 Earth Borer
 Test Drilling Equipment for Site Investigations
 Diamond Core Barrels
 Test Pumping Equipment available
 Also Agents for Submersible Pumps



PHONE RD 03 544-8442 AFTER HOURS 03 544-8381 FAX 03 544-4364

"Serving the top of the South."

Ask for Sam Woodford — Mark McCully Brian Mercer — Simon Beck — or Woody

Our prices have not increased for five years!

BROWN BROS

EST. SINCE 1937

TECHNICALLY SUPERIOR



COST EFFECTIVE

FROM - Environmental Drilling - to U.S. - E.P.A. Standards.

Our people are certified in Hazardous Waste Operations

FROM - City to Village Ground Water Supplies

FROM - Mine Scout Exploration Drilling to Large De-Watering Wells

FROM - Plain Geotechnical to Deep Off-Shore for Marine Installations

FROM - Reverse Circulation to Bulk Sampling

FROM - Quarries to Stabilisation

FROM - Camera Bore Hole Surveys to Directional and Controlled Drilling

FROM - Simple Seismic to Deep Stratagraphic

TOP HEAD DRIVE – MULTI PURPOSE – HYDROSTATIC – DRILLING RIGS – ALL TERRAIN

MOUNTED & HELIPORTABLE – ENVIRONMENTALLY SENSITIVE EQUIPMENT

TAKE ADVANTAGE OF OUR 54 CONTINUOUS YEARS

FROM – AUSTRALASIA, PACIFIC RIM – S.E. ASIA

Try us, we've probably done it, or are about to

DRILLING IS "OUR" BUSINESS

CONTRACTORS, ENGINEERS & CONSULTANTS

Telephone 07-849 2919 Facsimile 07-849 1729 After Hours 025-928 635