

Coffey Geotechnics Pty Ltd ABN 93 056 929 483  
47 Doggett Street Newstead QLD 4006 Australia  
PO Box 2301 Fortitude Valley BC QLD 4006 Australia  
T (+61) (7) 3608 2500 F (+61) (7) 3852 2805  
www.coffey.com.au

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## Fax Transmission

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To	<b>Shain Bartel</b>	From	<b>Coffey Geotechnics Pty Ltd</b>
Fax No	<b>shane.bartel@zeehanzinc.com</b>	Date	<b>7 September 2007</b>
Company	<b>Zeehan Zinc Ltd</b>	Reference	<b>GEOTNEWS20167AA-AA</b>
cc		Pages	<b>1 of 6</b>
Subject	<b>Waste Rock Capping Infiltration Modelling, Comstock Mine Central Waste Rock Dump</b>		

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Dear Shane

Thank you for your inquiry, inviting Coffey Geotechnics Pty Ltd to submit a proposal for an infiltration model of a waste rock capping at the above site.

Reliable simulating the near-surface water balance in waste rock covers engineered to reduce percolation is important not only in making final cover implementation decisions but also to dependably predict the long-term performance of waste rock covers.

Your brief indicates that the infiltration model is required to provide a management tool for performance assessment of the waste rock cap construction specifically to assess whether the overall dump shaping and capping material will perform in an acceptable manner and to define indicators for performance monitoring.

We understand that the infiltration model is part of a continual geotechnical assessment of the waste rock cap construction at the Comstock Mine Central Waste Rock Dump. Results of the most recent geotechnical assessment are reported in Coffey (2004)<sup>1</sup>.

Because of its acceptance by regulators and of the shaping of the dump surface into batter slopes and berms we propose to carry out two-dimensional infiltration modelling employing VADOSEW, a Geo-Slope International product.

We propose to develop a finite element model along one typical cross section of the waste rock dump soil cover taking into account the shape of the dump surface, various layers of soils and rocks and site specific climatic data.

Sensitivity analysis would be carried out to account for the observed variability of soil parameters.

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<sup>1</sup> Coffey (2004): COMSTOCK MINE CENTRAL WASTE DUMP: SUMMARY OF GEOTECHNICAL ASSESSMENT OF CAPPING, prepared for Oceana Tasmania, Z13095/2-AE BMcD, June 2004.

Findings of the modelling will be summarised and recommendations on performance indicators will be provided.

Below find a tentative list of soil parameters and climatic data that we need to carry out the infiltration model. I placed a comment in brackets behind each parameter stating if values of the parameter are available in the Coffey (2004) report, if testing needs to be done or if the parameter value can otherwise be acquired. The parameters are as follows:

- Air temperature records 1 m above cover soil and soil temperature (testing required, a couple of days should do)
- Typical wet season hourly total precipitation, air temperature, relative humidity and pan evaporation (may be acquired from the nearest weather station if on-site data are not available)
- Saturated hydraulic conductivity of soil cover (two values reported in Coffey (2004), need to be confirmed by additional test results)
- Cap thickness (reported in Coffey June 2004)
- Capping design, capping surface slopes etc. (by ZZ)
- Moisture content (reported in Coffey June 2004)
- Soil moisture retention (need to be tested at undisturbed samples)
- Dry density (reported in Coffey June 2004)
- Degree of saturation (reported in Coffey June 2004)

We understand and have assumed that all data required for the modelling task will be provided by Zeehan Zinc Ltd at no costs to Coffey.

We will provide three copies of a modelling report that would include data employed for the model, model set-up, modelling results, sensitivity analysis and would include a discussion of the modelling results and of their significance to the proposed capping design.

The work would be carried out under our standard Terms of Agreement for Professional Service, Issue 1, Revision 2 July 2006, a copy of which is attached.

We have estimated our fees to be as shown in Attachment A. This estimate is based on 7 days of modelling work which we consider to be feasible for the proposed investigation assuming there are no delays due to software malfunctions or computer system breakdowns. Our final invoice will be based on the actual work carried out, using on the unit rates presented in our estimate. We will contact you if circumstances are such that it is necessary to exceed the estimate. Our estimate does not include post-report consultations or meetings that you may subsequently require.

We anticipate being able to commence modelling work within 3 days of receipt of your written instructions to proceed and after receiving all the data required to carry out the modelling work. We anticipate our report will be submitted within about two weeks after commencement of the modelling work.

This proposal will remain valid for a period of 30 days following which time we reserve the right to amend the cost and program estimates contained herein. If you have any questions regarding this matter please contact the undersigned.

For and on behalf of Coffey Geotechnics Pty Ltd



**Dr Detlef Bringemeier**

Principal Hydrogeologist

Attachment A: Terms of Agreement for Professional Services – Issue 1, Revision 2 July 2006

Attachment B: Estimate of Fees and Costs

Attachment C: Authorisation to Proceed

## Terms of Agreement for Professional Services

### 1.0 INTRODUCTION

These Terms of Agreement and Scale of Fees apply to work carried out by the Company and are deemed to incorporate the Guideline Terms of Agreement for Professional Services (Oct 1983 and later amendments) prepared and published by the Association of Consulting Engineers, Australia. In the event of any inconsistency between these Terms of Agreement and the Guideline Terms of Agreement published by the ACEA, these Terms shall prevail. The "Company" shall mean Coffey Geotechnics Pty Ltd and any other related body corporate as defined in the Corporations Act, and the servants and agents thereof, which is providing the services. The "Client" shall mean and include the body or person with whom the Company contracts for or in relation to the performance of functions or the provision of goods or services and, in the event that the Client is an incorporated body, shall include related corporations as defined in the Corporations Act. "Subcontractor" shall mean and include:

- a. any person, firm or company with whom the Company may arrange for any work to be performed for the Client, and
- b. any person who is now or hereafter a servant, agent or subcontractor of any of the persons referred to in (a) above.

### 2.0 SCOPE OF RESPONSIBILITY

2.1 All goods or services provided by the Company are subject only to these Terms. Except where necessarily incorporated by statute, no other term, condition or warranty shall be incorporated herein unless specifically agreed in writing by the Company.

2.2 The Company undertakes to exercise reasonable care in accordance with standards ordinarily exercised by members of the profession generally who practice in the same locality and under similar conditions. There shall be no liability whatsoever in respect of any failure to exercise a degree or level of care beyond such reasonable care.

2.3 The Client will indemnify and hold the Company harmless against all claims, costs and demands (including in respect of negligence) by third parties in respect of the service concerned.

2.4 The Client acknowledges that in the event of the Company having failed to exercise reasonable care, the Company's liability, if any, shall be absolutely extinguished after the expiration of twelve months from the date of the Company's invoice in respect of the service.

2.5 In the event that the Company is liable to the Client for failure to exercise reasonable care, such liability shall be limited to the greater of:

- the amount of the fee actually paid by the Client to the Company for the service concerned (to a maximum of \$25,000) or,
- any other amount agreed in writing between the Client and the Company.

2.6 Despite any other Clause, where section 74 of the Trade Practices Act applies in respect of the service concerned, the Company's liability, if any, is limited to:

- the supplying of the service again; or
- the payment of the cost of having the service supplied again.

2.7 If the Company is liable to the Client for any loss or damage arising in connection with any goods or services provided by the Company pursuant to this Agreement or otherwise, the Client's entitlement to recover damages from the Company shall be reduced by such amount as fairly reflects the extent to which any act, omission or negligence of the Client or any third party caused or contributed to such loss or damage.

2.8 Under no circumstances, whether as a result of any act, neglect or default or otherwise howsoever, shall the Company have any liability for or in relation to any work, reports, information, plans, designs, or specifications supplied or performed by any third party, including a third party engaged by or at the suggestion of the Company.

2.9 The Client acknowledges that:

- the Company does not supervise the work of others in the case of work undertaken by others pursuant to directions from the Company, the Company is responsible for exercising reasonable care in giving the directions, but is not responsible for the manner in which the directions are carried out;
- Documents (including reports) required by the Company's servants are signed by them, for and on behalf of the Company and not in any personal capacity
- the copyright in all documents prepared by or at the request or direction of the Company shall be and remain the property of the Company;
- It will not supply or permit any report of the Company to be seen by or given to any third party unless that report has incorporated in or attached to it these Terms;
- samples will be retained by the Company for at least 3 months after which they will be disposed of unless the Client has requested in writing that the Company retain samples for a longer period; and
- contaminated soil collected by the Company during the conduct of the services shall remain the property of the Client until properly disposed of according to the Client's instructions.

2.10 For the purposes of this Clause and without limiting Clause 2.9 the Client acknowledges that the Company is contracting as principal for and on behalf of its servants, agents and Subcontractors. The servants, agents and Subcontractors of the Company shall not be liable in respect of any loss or damage suffered by the Client as a result of goods or services provided by the Company, nor for any consequential loss or damage suffered by any third party. The loss or damage referred to shall mean and include loss or damage caused by the negligence or willful act or default of the Company, its servants, agents and Subcontractors or others whether or not such loss or damage is foreseeable or contemplated by the Company.

2.11 Unless advised otherwise by the Client in writing, the Company can use information regarding the project which is the subject of this Agreement in any promotional material it may prepare to use.

### 3.0 GENERAL

3.1 Disputes. In the event that a dispute should arise relating to the performance of the services to be provided under this Agreement and should that dispute result in litigation it is agreed where the Company prevails that it shall be entitled to recover all reasonable costs incurred in the defence of the claim, including staff time, court costs, legal fees assessed on a solicitor and client basis and other claim related expenses.

3.2 Termination. This Agreement may be terminated by either party upon seven (7) days written notice in the event of substantial failure by the other party to perform in accordance with the terms hereof. Such termination shall not be effective if that failure has been remedied before expiration of the period specified in the written notice. In the event of termination the Company shall be paid for services performed to the termination notice date plus reasonable termination expenses. In the event of termination, or suspension for more than three (3) months prior to completion of all reports contemplated by this Agreement, the Company may complete such analyses and records as are necessary to complete their files and may also complete a report on the services performed to the date of notice of termination or suspension. The expenses of termination or suspension shall include all fees and costs of the Company in completing such analyses, records and reports. If the Company is prevented by circumstances beyond its direct control from performing the services the Agreement shall end without prejudice to the accrued rights of either party. The Agreement shall either survive the death or insolvency of the Client and his rights and obligations shall pass to his successors, receiver, administrator or liquidator or the Company may elect to immediately terminate the services and all fees and costs to the date of termination shall be due and payable as a secured creditor against the tangible assets of the Client.

## Scale of Fees for Professional Services

### 1.0 INTRODUCTION TO SCALE OF FEES

Our fees scale is based on ACEA recommendations for time based charges. Being directly related to salaries, they are subject to increases in CPI and to movements in wage levels. Our services for a particular project are on a schedule of rates, unless otherwise stated, so that invoices are for actual hours and expenses which reflect the quantity of work carried out. Where an estimate of cost is provided, it is based on available subsurface data in relation to the agreed scope of work. While endeavours are made to complete the work as proposed to the estimate, unexpected conditions may cause the scope of work to change. Where practical, the Company will advise you if it appears likely that the scope of work will be significantly changed.

### 2.0 CURRENCY OF FEE SCALES

The fees and charges set out herein apply to all work carried out from the date of revision shown above except as increased from time to time in accordance with increases in the Consumer Price Index from the date of the CPI increase for all projects regardless of their status at that time. The Company reserves the right to vary these fees and charges without notice.

### 3.0 PROFESSIONAL & TECHNICAL STAFF

All time spent on an assignment, including consultations, planning, inspections, preparing samples or equipment, travelling, delays or interruptions caused by inclement weather, industrial unrest, bogging of equipment, site trafficability problems or other conditions beyond the direct control of the Company, field testing, analysis, calculation, assessment, drafting, word processing, presentation of results, interpretation and reporting will be charged at the following rates per hour, except for the time spent on standard laboratory tests.

Senior Principal	\$300 to \$500
Principal	\$205 to \$320
Associate	\$180 to \$250
Senior Engineer, Hydrologist, Geologist Scientist	\$160 to \$200
Project Engineer, Hydrologist, Geologist Scientist	\$110 to \$170
Engineer, Hydrologist, Geologist Scientist	\$100 to \$130
Principal Geotechnician	\$160 to \$220
Associate Geotechnician	\$110 to \$150
Senior Geotechnician	\$80 to \$120
Geotechnician	\$60 to \$100
Assistant Geotechnician	\$45 to \$75
Draftsperson	\$70 to \$120
Report Production Staff	\$45 to \$100

Time spent as an expert witness on legal matters, mediations, arbitrations, litigations and Commissions of Enquiry will be charged at not less than 50% in excess of the standard rates. This increased rate will apply to all aspects of work including investigation, analysis, reporting, briefing of legal advisors, appearance to give evidence, participation in mediation and other services as required.

### 4.0 LABORATORY TESTING

Laboratory tests are charged in accordance with the Schedule of Rates for Standard Tests (available on request from the laboratory performing the work). Special tests not covered by the Schedule or tests to procedures other than those shown will be charged at the hourly rate appropriate to the personnel involved. Where tests are carried out by others, charges will be in accordance with 6.0 "Reimbursable Expenses".

### 5.0 SPECIALISED EQUIPMENT

Specialised equipment will be charged in accordance with the Schedule of Rates for Specialised Equipment (available on request). Equipment not covered by this Schedule will be charged in accordance with 6.0 "Reimbursable Expenses".

### 6.0 REIMBURSABLE EXPENSES

Expenses incurred by the Company or its employees in the course of, or attributable to, a particular assignment will be charged for as set out below.

**6.1 Motor Vehicle Use.** Use of private, hired or Company motor vehicles in the course of an assignment will be charged at the following rates. These rates do not cover the travelling time of personnel.

a Motor car \$0.95/km c 4WD \$1.20/km

b One tonne utility \$1.00/km d Hired vehicles direct cost + 15%

**6.2 Airfares.** Airflights undertaken as part of a project will be charged at standard economy rates plus 15%.

**6.3 Other Expenses.** All other project related expenses are the responsibility of the Client. Where such expenses are processed and paid by the Company they will be charged at cost plus a service fee of 15%. Such expenses include:

- Services of other consultants, contractors, laboratories, computer bureaux, printing services and the like.
- Hire of plant and equipment such as drilling equipment, earthmoving equipment or other plant as required, including cost of travel, delays associated with access, inclement weather, bogging of vehicles and equipment, or any other delays not readily avoided.
- Transportation of personnel, equipment and samples. Living expenses of personnel involved in assignments away from the city in which the staff normally reside.
- Expendable items installed in the ground or works, for example piezometers, settlement plates, inclinometers, etc.
- Unusual equipment, miscellaneous items, and services specifically required for the assignment, e.g. maps, charts or aerial photographs, special stationery, printing, photography, permit fees.
- Restoration of any damage to property or services not readily avoided.
- Special insurance required for particular projects.

Communications telephone, facsimile, data transmission costs are recovered by a standard additional charge calculated as 2% of fees. Additional copies of reports to the 3 normally provided will be charged at commercial copying rates. Further storage or transfer of samples will be at the Client's expense.

### 7.0 TERMS OF PAYMENT

Progress invoices are normally issued at monthly intervals and payment in full of each invoice is due within 14 days of issue. At the option of the Company, interest may be charged on the daily balance of overdue accounts at the same rate as the maximum overdraft rate fixed by the Westpac Bank, plus 2.5% without relieving the Client of his obligation to pay the account. The Company shall also be entitled to recover as a debt all costs, legal fees, and expenses on solicitor and client basis, court costs and fees, collection agency charges paid or due for payment by the Company and such further sums as will fully recompense the Company for all its costs, expenses and losses incurred in respect of failure, refusal or default of the Client to pay in full as aforesaid.

### 8.0 PROPOSALS

Where the Company has submitted a proposal for an assignment, circumstances may require departure from the method or personnel proposed. The Company shall be entitled to vary the method or personnel as required and shall have no liability in respect thereof.

### 9.0 GOODS & SERVICES TAX

The charges due and payable to Coffey will be increased, or a separate charge will be imposed, on account of the GST payable in connection with the sale or supply of our services or any other thing.

## ATTACHMENT B

### Estimate Of Fees And Costs

1.	Project Management		2,160.00
2.	Data Compilation		
	Hydrogeologist	10 HOURS @ 130 AUD	1,300.00
2.	Modelling		
	Modeller	52.5 HOURS @ 170 AUD	8,925.00
3.	Reporting		
	Modeller	12 HOURS @ 170 AUD	2,040.00
	Principal Hydrogeologist	3 HOURS @ 230 AUD	690.00
5.	CPU Time VADOSEW	40 HOURS @ 54 AUD	2,160.00
	<b>Estimate Total (Excluding GST)</b>		<b>17,275.00</b>

Please fax or post to:

Coffey Geotechnics Pty Ltd

47 Doggett Street

Newstead QLD 4006

Attention: Dr. Detlef Bringemeier

Fax No. 07 3852 2805

**RE AUTHORISATION TO PROCEED**

**Waste Rock Capping Infiltration Modelling, Comstock Mine Central Waste  
Rock Dump**

It is hereby agreed that I/we accept the scope of work, programme, cost, terms and conditions as described in the Coffey Geotechnics Pty Ltd. proposal Ref: GEOTNEWS20167AA-AA, dated 7 September 2007 and Coffey Geotechnics Pty Ltd is authorised to proceed.

*Please note that the organisation who authorises the work is responsible for payment. Payment is to be made within 14 days regardless of any contracts that maybe held with third parties. Commissioning of work by third party organisations that are not responsible for the payment will not be accepted.*

Name: Shane Bartel Position: Environmental Manager

Signature:  Date: 10/09/2007

Company to Invoice: Oceania Tasmania Pty Ltd

ACN: \_\_\_\_\_ ABN: 72 009 524 047

Accounts Mailing Address: Level 1, 199 Macquarie Street

Hobart TAS Postcode: 7000

Accounts Phone: (03) 6216 2736 Accounts Fax: (03) 6224 0722

PLEASE SIGN THIS ACCEPTANCE AND FORWARD TO COFFEY GEOTECHNICS BY MAIL OR FACSIMILE.  
UPON RECEIPT OF THIS ACCEPTANCE, COFFEY GEOSCIENCES WILL COMMENCE WORK ON THE  
PROJECT