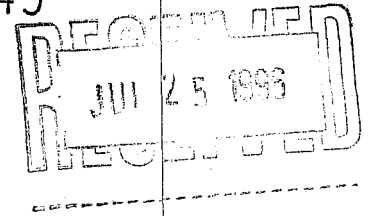


MEMORANDUM.

003545



To : Those listed
From : Fritz F. Prugger

Re: Grizzly Deposit - Phase I, Contract Information.

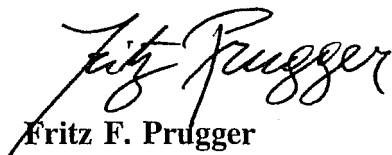
July 23, 1996

Seven mining contractors have shown an interest in carrying out the work defined as Phase I of the Grizzly project.

Ground conditions are the major factor of influence on the total cost. Core from test holes allows an interpretation of conditions to be expected. In addition, the experience gained from the underground exploration programme at Grum and from Faro underground production, as well as the knowledge of ground behaviour gained from open pit mining in the Anvil area are an indication of ground conditions that can be expected when driving the decline from the Blind Creek valley to the orebody.

However, there is not enough information to warrant a fixed price arrangement with a contractor since he will include high risk factors for unknown ground conditions and unexpected water inflows. A flexible contract (**The Target Price System**) is deemed to be appropriate for the contract to be negotiated with one of the contractors.

It is the purpose of this memo to inform you of this possibility. For your information I include an example of "contract options" received from one of the contractors.


Fritz F. Prugger

Enclosures : Advantages of the Target Price System
Options for Contract Negotiations (Redpath)

Distribution : Dick Arndt
Jeff Boudreau
Derek Condie
Kurt Forgaard
Sherman Hanowski
Don Hindy
Terry MacLean

Advantages of the Target Price System

1. This system provides a complete estimate of all costs within its scope.
2. This system provides complete flexibility. In addition to increasing the units within the scope, completely unrelated items may be added or deleted. This is done by agreeing on an accurate estimate of the cost and adding it to the target. When additions or subtractions are being made the Owner is able to ascertain that he is not being charged twice for the same item as he has complete backup to the proposal. Each item added in this manner includes the same incentives as the basic proposal.
3. This system means that the Contractor and the Owner both have an incentive to reduce the overall cost of the total project. This avoids the situation where the Contractor only worries about contract work and has a complete lack of incentive on cost plus work.
4. This system provides the Owner with the incentive to help the Contractor both with money saving ideas and in other ways. Under normal conditions the only return the Owner gets for this is a time saving, but under this system he shares also in the cost saving.
5. This system provides the Owner with an estimate of total costs to the end of the project as the Contractor prepares a monthly cost estimate which includes an estimate of the cost to complete.
6. This system allows the Owner to choose the Contractor based on reasons other than prices and still be sure that the Contractor will not make an abnormally high profit.
7. This system allows the Contractor to work at a lower profit margin on risky type work.
8. This system supplies the Owner with complete cost records for all work done which should be an advantage in planning future work.
9. This system promotes cooperation between the Owner and the Contractor.
10. The Contractor's cost records will be made available for inspection by the Owner's auditors.
11. The risk factor is shared jointly by the Owner and the Contractor giving a lower target estimate.

*PRESENTATION OF OPTIONS
FOR CONTRACT NEGOTIATIONS
to
ANVIL RANGE MINING CORPORATION*

25 June 1996



Visit us on the "World Wide Web"

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1	Negotiated Contract Options
2	Approach to Detailed Negotiations
3	Review of Cost Reimbursable Contract
4	Summary of Reimbursable Cost Items
5	Target Price System
6	Target Price Format and Summary
7	References

NEGOTIATED CONTRACT OPTIONS

Contemporary methods of contract negotiations have developed to include an element of risk sharing on the project between the Owner or Operator and the Contractor. The evolution of risk sharing agreements has led to the development of the conventional **Target Price System** and, more recently, the **Reimbursable Cost System**.

These two contract systems have been used successfully by Redpath on a wide variety of projects. A general explanation of each system has been prepared followed by a comparison of the advantages provided by each system.

The Target Price System

The target price system is ideally suited to projects where a definitive scope of work can be predetermined but the risk elements of the project (such as manpower, weather conditions, water inflows and poor ground) cannot, for various reasons, be accurately predicted.

The *target cost* for the project is defined as the total cost to do all the work included in the scope and these costs include equipment rentals, project related insurance, as well as head office overhead costs. Head office overhead is established as a fixed percentage of all other costs. Every item within the scope of work is carefully estimated in order to determine the target cost for each. The sum of all lump sum items plus the extension by quantity of all unit costs determines the total target cost for the project. Once the total target cost has been agreed on, the Contractor's fixed fee is established as a fixed percentage of this cost. This percentage is added on the bottom of each semi-monthly invoice.

Adjustments can be made at any time during the contract to take care of changes in scope by eliminating or adding additional items at their estimated cost. If the costs over run, the Contractor agrees to share in the over run on a fifty-fifty basis up to a maximum of fifty percent (50%) of the fixed total fee. Any additional over runs are to the Owner's account. If, on the other hand, the Contractor is successful in completing the job at less than the target cost, then the Contractor shares in any savings on a fifty-fifty basis up to a maximum of fifty percent (50%) of the fixed fee. Any additional savings then accrue to the Owner. This means that the maximum profit the Contractor can make is one and one half times his estimated fee and the minimum profit is one half his estimated fee.

The Reimbursable Cost System

The Reimbursable Cost System is perfect for projects which demand flexibility in planning, development and construction because of the uncertainty in scope, access, exact project requirements and other factors relating to the work. Good Owner/Contractor cooperation, as well as the Contractor's ability to efficiently manage the project are the keys to a successful contract under this system.

The Reimbursable Cost System is based on the development of a detailed schedule of known work, from which are derived equipment and manpower schedules. Once the basic schedules have been established, budget estimates for the known work can be prepared, depending on the Owner's requirements. In general, all costs incurred by the Contractor in relation to the project will be reimbursed to the Contractor. In addition, a fixed percentage of the reimbursable cost will be paid as the Contractor's overhead and fee for the work performed.

A basic principle of this type of arrangement is the Contractor's skill in managing the project. Therefore, a bonus/penalty system to match the particular needs of the individual program is usually put in place. This bonus/penalty can be based on achieving scheduled key dates or milestones, performing the required work within budget, or a combination of both requirements.

Target Price/Reimbursable Cost Systems Comparison

DESCRIPTION	TARGET PRICE SYSTEM	REIMBURSABLE COST SYSTEM
Scope of Work	must be defined in detail prior to commencement of work, engineering should be complete	work need only be generally defined so that major schedule, manpower, and equipment requirements can be defined and a General Project budget forecast
Changes in Scope	require estimate prior to commencement followed by adjustment to overall	complete flexibility to use crews and equipment as project conditions dictate or as directed by Owner
Invoice Cost versus Budget	based on estimated costs	based on actual costs (labour, material, equipment rentals, etc.)
Information	available every three (3) months	available with each invoice - Owner always knows precisely where real costs stand
Contractor/Owner Cooperation	essential	essential
Incentive System	built in and fixed	variable depending on project requirements and objectives
Contractor's Profit	ceiling on maximum profit which can be made by Contractor	fixed percentage of costs, known by Owner
Project Risk	shared by Owner and Contractor	shared by Owner and Contractor depending on the type of incentive system chosen
Administration of Project	simple day to day coordination, with detailed cost reviews done on a three month basis	simple procedures which are done day to day as purchases are made and work carried out. Monthly invoicing provides detailed review of actual costs
<u>Standard Mark up and Incentives</u>		
Contractor's Overhead	10% of all other costs	included in fee
Contractor's Fee (example only)	10% of Estimated Target Cost	18% of Costs
Incentive System	based on costs only	based on schedule or costs
<ul style="list-style-type: none"> • maximum bonus • maximum penalty 	<ul style="list-style-type: none"> • 50% of fee • 50% of fee 	<ul style="list-style-type: none"> • 3% of costs • 3% of costs
The maximum/minimum fee (including bonus/penalty)	maximum 10% overhead plus 15% fee maximum 10% overhead plus 5% fee	maximum 21% of costs minimum 15% of costs

A Comparison of Fixed Price, Target and Cost Reimbursable Contracts

	FIXED PRICE CONTRACT	TARGET CONTRACT	COST REIMBURSABLE CONTRACT
1. "Code of Accounts" developed and approved by Contracting.	YES	YES	YES
2. "Unit Prices" in Schedule of Prices has to be broken out in detail.	YES	YES	YES
3. Do "Progress Reports" have to be approved by Job and Client?	YES	YES	YES
4. Do Clients have to approve Time Sheets?	YES	YES	YES
5. Do Clients have to approve Purchase Order Requisitions?	NO	NO	YES
6. Is it necessary to track any changes in Scope with Change Order?	YES	YES	YES
7. Is Invoice to Client prepared from approved "Progress Reports"?	YES	YES	NO
8. Invoice to Client prepared from actual cost backup.	NO	NO	YES
9. Are "Cost Reports" supplied to the Client?	NO	YES	YES
10. Is backup for Job Cost available for Client audit?	NO	YES	YES
11. How often does Client see backup to Costs?	NEVER	AVAILABLE MONTHLY Audited Every 3 Months	SUPPLIED WITH EVERY INVOICE
12. Does Client see detailed calculations and how the Estimate was generated?	NO	YES	YES

APPROACH TO DETAILED NEGOTIATIONS

When the nature of the work, the site accessibility, and the circumstances under which most of the work will be taking place are uncertain, or the project design and specifications are incomplete, the project is ideally suited to a form of negotiated contract.

Schedule is usually of extreme importance in the early part of the work and a fast start up is normally required. Therefore, once the Contractor is selected, engineering, procurement, and mobilization of major items can commence simultaneously with contract negotiations.

The following is a step by step procedure which would be followed in order to produce a signed Negotiated Contract Agreement.

1. *Review Scope*

In conjunction with the Owner's representatives, the Estimating Team will carry out a detailed review of the known work requirements, the responsibilities of each party, and site circumstances in order to establish a preliminary scope of work.

2. *Schedule of Work*

Based on this preliminary scope the team will produce a project schedule which will define the overall timing required for the work. This schedule will be developed in conjunction with the Owner's representative and agreed to prior to proceeding.

3. *Schedules of Manpower and Equipment*

These are to be developed from the project schedule. Manpower loadings and equipment selection will also be developed with the Owner's representatives prior to budget costing.

4. *Budget Costing*

This item can be carried out by the Contractor and/or Owner, depending on project administration requirements and specific project responsibilities. Costs can be presented in such a manner as to match the needs of the Owner's financial control requirements and so that simple comparisons with actual costs can be made in order to monitor costs as work progresses.

5. *Incentive System*

Specific details will be established depending on the project priorities.

6. *Contract Document*

This can be formally prepared by the Contractor for review and agreement by the Owner.

Another important aspect of contract negotiation is the follow up received after and agreement is reached. A project review committee, made up of representatives of the Owner and Contractor, will meet on a regular basis to review project status, schedule and costs. This allows the opportunity to mutually solve major problems which may arise, schedule new priorities, and assess ongoing project costs. In this manner all matters relating to the contract will be dealt with jointly, in a timely manner, and in the spirit of cooperation.

REVIEW OF COST REIMBURSABLE CONTRACT

- | | |
|------------------------------|---|
| Scope of Work | <ul style="list-style-type: none">• Work need only be generally defined so that major schedule, manpower and equipment requirements can be defined and a General Project budget forecast. |
| Changes in Scope | <ul style="list-style-type: none">• Complete flexibility to use crews and equipment as project conditions dictate or as directed by the Owner. |
| Invoice Costs vs Budget | <ul style="list-style-type: none">• Based on actual costs (labour, material, equipment rentals, etc.) |
| Information | <ul style="list-style-type: none">• Available with each invoice, the Owner always knows precisely where real costs stand. |
| Contractor/Owner Cooperation | <ul style="list-style-type: none">• Essential. |
| Incentive System | <ul style="list-style-type: none">• Variable depending on project requirements and objectives. |
| Contractor's Profit | <ul style="list-style-type: none">• Fixed percentage of costs, known by Owner. |
| Project Risk | <ul style="list-style-type: none">• Shared by Owner and Contractor depending on the type of incentive system chosen. |
| Administration of Project | <ul style="list-style-type: none">• Simple procedures which are done day to day as purchases are made and work carried out. Monthly invoicing provides detailed review of actual costs. |

SUMMARY OF REIMBURSABLE COST ITEMS

To further illustrate the Reimbursable Cost system, we have prepared the following list which summarizes the costs (Reimbursable Costs) which would be refunded to the Contractor provided prior authorization for any expenditure has been obtained from the Engineer. The Contractor's basic fee, plus applicable bonus or penalty, will be additional and based on these costs.

- a) To the extent either employed on site or authorized off site support by the Owner, salaries, wages, sick pay, holiday pay allowances and expenses of management, engineering, technical and clerical staff, foremen, supervisors, workmen, storekeepers, timekeepers, watchmen, etc., including the Contractor's contribution to insurance and fringe benefits, travelling time and payments, guaranteed time, workmen's performance and completion bonus, piece work payments, overtime, shift work allowance, and such sick pay and holiday pay for staff employees which has been accrued while working on the Project as are normally paid by the Contractor and/or approved in writing by the Owner's representative from time to time.
- b) Cost of all insurance and fidelity guarantees provided by the Contractor in agreement with the Owner.
- c) The fees of any consultants.
- d) The cost of approved Subcontractor accounts.
- e) The cost of all construction permanent materials required for the project which may be purchased by the Contractor.
- f) The cost of all temporary and other expendable services, materials and supplies, including fuels, oil and grease, lumber, and materials used for false work and other temporary structures, scaffolds, concrete forms, temporary piping, lighting and temporary wiring for electrical power required for the work which may be procured or purchased by the Contractor.
- g) The cost of mobilizing all additional equipment and buildings for the start of the related work. Mobilization specifically includes, without limitation, all preparation and packing, loading and off loading all transportation, relocation (including personnel) and erection costs, including labour costs of all types necessary to ready the construction plant at the site for development. Costs charged to the Owner will be invoice cost. If services carried out by the Contractor at his yard, or transportation is provided by the Contractor, those services or transportation costs shall be at agreed to rates.

- h) The cost of demobilizing the work including clean up of the site. This shall also include the removal of any materials and equipment owned by the Contractor and transporting the same to its original point of origin or the Contractor's yard. Transportation charges will be as invoiced or based on agreed rates if shipped via the Contractor's vehicles.
- i) The cost and expenses of the Contractor's site office.
- j) Stationary and supplies, postage, and actual cost of all telephones, telegraph and other types of communication expense.
- k) The cost of reasonable and customary miscellaneous service having regard to the nature of the work, such as testing and laboratory expenses.
- l) Rental costs of construction plant or equipment furnished by the Contractor to do the work as based on preset rental rates agreed to by the Owner. If additional or replacement rental equipment is needed in the opinion of the Owner's representative to do the work, the Contractor shall provide the same with an equitable adjustment in the rental rate to replace the increase or decrease in the replacement value of the equipment substituted or added.
- m) Purchase cost of construction plant and equipment which due to the nature of the work cannot be equitably rented. On completion or termination of the project, this equipment will be sold by the Contractor in consultation with the Engineer and proceeds from the disposal shall be to the Owner's benefit and credited against reimbursable costs or paid directly to the Owner.
- n) The costs of any of the work or services carried out away from the site any of the Contractor's own workshops or depots.
- o) All reasonable travelling and living expenses incurred in connection with mobilization of personnel to/from site and in connection with visits to the site by the Contractor's general supervision and key personnel.
- p) All reasonable travelling and living expenses of the Contractor's project manager and other key personnel assigned to the work while away from the general area on business related to the work.
- q) Salaries and expenses for any specialists required by the Contractor who are normally employed away from the site.
- r) The cost of maintenance and repair of construction materials and equipment.
- s) The cost of consumable tools such as, but not limited to, hammers, pliers, picks, shovels, hand wrenches, plumb bobs, hacksaw frames, measuring tapes, chain

saws, impact wrenches, Hilti drills, jacks, come-a-longs, grinders, and other small tools used in the work or in maintaining and operating the equipment used.

- t) The cost of transportation such as freight, express, parcel post, demurrage, and all other transportation charges, for small tools and consumable supplies, including that relating to mobilization and demobilization.
- u) All applicable sales taxes, Goods and Service tax, import tax, and duty.

THE TARGET PRICE SYSTEM

The Target Price System represents a deviation from the usual method of tender, but we feel that it has mutual advantages. This basis of tender has been used by our company for a number of years with excellent results.

Explanation of the System

We refer to this system as a *cost* plus a *fixed fee* contract with a bonus/penalty incentive added. Cost is defined as the total cost to do all the work included in the scope of the contract. It includes the cost of head office overhead and equipment rentals. It also includes the cost of interest and job related insurance. Head office overhead is fixed as a percentage of all other costs.

Basically we carefully estimate every item required to do the job and we refer to this cost as the *target cost*. Each item within this target cost is made up of quantities and unit cost or lump sum costs and is supported by our estimate.

When the Contractor and the Owner have agreed on the scope and the estimated cost, then the target cost can be adjusted to take care of changes in scope at any time during the contract by eliminating or adding additional items at their estimated cost. Semi monthly invoicing is based on the agreed estimated unit cost or lump sum costs.

Once the total target cost has been agreed on then the Contractor's fixed fee is established at a fixed percentage of this cost. This percentage is added on the bottom of each invoice.

The Contractor has total responsibility for completing the total job within the target cost. If the costs overrun, then the Contractor agrees to share in the overrun on a fifty-fifty basis with the Owner up to a maximum of fifty percent (50%) of the fixed total fee. Any additional overruns are to the Owner's account. If, on the other hand, the Contractor is successful in completing the job at less than the target cost, then the Contractor shares in any savings on a fifty-fifty basis up to a maximum of fifty percent (50%) of the fixed fee. Any additional savings then accrue to the Owner. This means that the maximum profit the Contractor can make is one and one half times his estimated fee and the minimum profit is one half his estimated fee.

Advantages of the Target Price System

1. This system provides a complete estimate of all costs within its scope.
2. This system provides complete flexibility. In addition to increasing the units within the scope, completely unrelated items may be added or deleted. This is done by agreeing on an accurate estimate of the cost and adding it to the target. When additions or subtractions are being made the Owner is able to ascertain that he is not being charged twice for the same item as he has complete backup to the proposal. Each item added in this manner includes the same incentives as the basic proposal.
3. This system means that the Contractor and the Owner both have an incentive to reduce the overall cost of the total project. This avoids the situation where the Contractor only worries about contract work and has a complete lack of incentive on cost plus work.
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5. This system provides the Owner with an estimate of total costs to the end of the project as the Contractor prepares a monthly cost estimate which includes an estimate of the cost to complete.
6. This system allows the Owner to choose the Contractor based on reasons other than prices and still be sure that the Contractor will not make an abnormally high profit.
7. This system allows the Contractor to work at a lower profit margin on risky type work.
8. This system supplies the Owner with complete cost records for all work done which should be an advantage in planning future work.
9. This system promotes cooperation between the Owner and the Contractor.
10. The Contractor's cost records will be made available for inspection by the Owner's auditors.
11. The risk factor is shared jointly by the Owner and the Contractor giving a lower target estimate.

Summary

We have found from experience that, from the Owner's point of view, this type of contract provides most of the advantages of a fixed price contract while retaining the flexibility of a cost plus contract. *Incentive* and *Owner/Contractor cooperation* are the keys to any successful project.

TARGET PRICE FORMAT and SUMMARY

Development of the Target Price Estimate

The "Target Price" Format has been used by Redpath for a number of years with excellent results. The system allows the Owner and Contractor to work together to determine a budget for the work (the "Target") and then rewards both parties for cooperating to complete the work at the lowest possible cost.

While it is essential that the mechanics of a Target Price Contract are fully understood, McWatters have already received some information describing the system. If the project progresses to the stage of formulating an agreement, the system will be defined in greater detail.

What is important to understand, at this stage, is the process typically followed in arriving at the Final Target Price for the work. The single most important aspect of successful Target price projects is the development of an accurate estimated cost for the work to which both parties are committed.

This estimate is developed in a multi-step process as described below:

1. The Contractor develops a "First-Pass" estimate and presents it to the Owner with a detailed explanation of estimating parameters.
2. The Owner reviews this estimate and provides feedback to the Contractor.

At this stage, items of concern may include:

- areas of overlap;
 - responsibilities that the Owner may wish to assume;
 - items not required in the scope or, conversely, items missed that should be included;
 - potential changes in approach.
3. The Owner/Contractor team develops a revised estimate. This Final Report represents the revised estimate.

4. The "Second Pass" is then reviewed, final adjustments made, and an "Agreement" formulated.

During the course of the above process, all aspects of the Target Price system will be discussed and a common understanding of the detailed working of the system developed.

The final estimate will be supported by detailed estimates and backup material, available to both parties, which will be used to control and administer the project.

Sample Target Price Calculation

Say Total Target Price for all the various units is made up as follows:

Target Cost	\$1,200,000
Target Fee (e.g. 10%)	<u>120,000</u>
Total Target Price	<u>\$1,320,000</u>

Assume Cost Over Run

Assume Actual Cost	\$1,300,000
Estimated Target Cost is:	<u>1,200,000</u>
∴ Over run	\$ 100,000
∴ Fee to Contractor would be \$120,000 less 50% of the \$100,000 over run	\$ 70,000
∴ Total cost to Company would be \$1,300,000 + \$70,000	\$1,370,000
∴ Extra cost to Company would be \$1,370,000 - \$1,320,000	\$ 50,000

Assume Cost Under Run

Assume Actual Cost	\$1,100,000
Estimated Target Cost is	<u>1,200,000</u>
∴ Saving	\$ 100,000
∴ Fee to Contractor would be \$120,000 plus 50% of \$100,000	\$ 170,000
∴ Total Cost to Company would be \$1,100,000 + \$170,000	\$1,270,000
∴ Saving to Company would be \$1,320,000 - \$1,270,000	\$ 50,000