OPEN PIT POTENTIAL

SUKUNKA COAL DEPOSIT

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INTRODUCTION

This brief report assesses the likelihood of finding significant open pit coal reserves in close proximity to the proposed plant site. All the areas which appear to have some potential are discussed and the proposed exploration plan of Brascan Resources Ltd. is analysed. Some alternate suggestions are made.

I. GEOLOGY

This report assumes a familiarity with the basic stratigraphic sequence in the Sukunka area. No consideration is given to the coals of the Gates member of the Commotion formation which may well have substantial open pit reserves as the immediate policy of Brascan is to restrict exploration to the coals of the Gething formation which are closer to the proposed plant site.

Previous work by the staff of Clifford McElroy & Associates Pty. Ltd. of Sydney, N.S.W. has resulted in a detailed evaluation of the geology of the coals of the Upper Gething formation, i.e. the Bird, Skeeter and Chamberlain seams. Very little information has been compiled on the coals of the Lower Gething - the so-called "Middle Coals". In order that their prospectiveness can be assessed all the available data has been studied and is summarized.

The "Middle Coals" are known from only five boreholes: S-2, S-4, S-7, S-8 and C-35 and limited outcrops. All are south of Skeeter Creek. Only two of these boreholes - S-2 and S-7 - penetrate what is tentatively referred to as the total Gething formation. The conglomerates in both holes have been assigned to the Cadomin formation by previous workers.

If these two boreholes are taken as representing the total Gething formation then the Middle Coals are present as two zones -

one about 400 feet below the Chamberlain seam and another approximately 75 feet lower in the section.

The lower zone of Middle Coals has been recognized in only S-2 and S-7 - both on the western side of the property south of the current minesite. In S-2 no actual coal was reported on the core log although a 15 foot zone of "coaly shale" was recognized. In S-7 the lower zone was represented by what is described as a "coal seam" from 609.8 to 630.0. It should be noted however that the core recovery for this 20.2 foot interval was only 6.8 feet of which only 5.3 feet was coal. Approximately 40 feet below this coal zone a further 12 foot coal seam is reported but once again the core recovery was only 5.0 feet. As S-7 is further north than S-2 there is some indication that this lower zone of coals is improving to the north. As far as can be ascertained, the zone has not been exposed by by trenching on the conveyor decline.

The upper zone of Middle Coals is known from boreholes S-2, S-4, S-7, S-8 and C-35. Furthermore it has been extensively exposed on the conveyor decline. It is apparently poorly developed to non-existent in S-2 and S-4 and averages about 9 feet in thickness in the remaining boreholes. Where undisturbed on the conveyor decline it is 9 feet 8 inches thick. There is thus once again some indication of the improvement of the coal zone from south to north.

Wherever this coal is known both in boreholes and at surface, it is overlain by a 30 foot sandstone unit which forms a conspicuous ledge at outcrop. This sandstone has not been recognized with certainty north of Skeeter Creek. There is a possibility that the massive sandstone ledge below Master "A" survey station may represent this sandstone. A distinctive thin pebble band recognized south of Skeeter Creek only 5 to 10 feet above the sandstone could not be located north of the creek although G. Jordan of McElroy and Associates did report "pebbles" in the area. Abundant worm casts, together with the thickness of the sandstone unit, suggest that the ledge former could be the sandstone underlying the Chamberlain seam. If this is the case, it is very difficult to relate the coals at Master "A", which appear to be Chamberlain/Skeeter equivalents to the sandstone ledge which outcrops some 300 feet below.

II. POTENTIAL OPEN PIT AREAS

These areas can be divided into two broad classes - those having potential for reserves in the Upper Gething and those for which the potential is in the Lower Gething. They are dealt with in turn.

II.(a) Upper Gething

(i) Plate III (east of Skeeter Fault)

Two drillholes - C-46 and C-47 - together with outcrop stripping suggest that up to 700,000 tons of coal might be in place at ratios of less than 10:1. A similar reserve might exist in the next most easterly block but neither outcrop stripping nor drilling has been carried out.

(ii) Plate II (present underground area)

This area has the best potential for open pit reserves with numerous boreholes (CM-1, CM-2, CM-3, CM-6, CM-7, CM-8, S-8 S-19 and C-51) indicating favorable overburden to coal ratios. In excess of 3,000,000 tons are probably available at ratios of less than 10:1.

It should be noted that open pit reserves between the Skeeter and Rim faults are probably negligible (C-39 borehole).

(iii) Plate I

Open pit reserves in Plate I are probably limited to that area north of the S-14 borehole. Reserves at less than 10:1 overburden to coal ratio are probably present in the amount of 1,250,000 tons as indicated from boreholes C-30, C-31 and S-49.

Possibilities south of Chamberlain Creek area unknown.

(iv) North of Skeeter Creek

The Upper Gething coals may be preserved immediately north of Master "A" and further to the east.

The property is however bounded by the 60,000 Grid line which passes less than 2000 feet north of Master "A". The potential for significant Upper Gething coal reserves is very limited.

II.(b) Lower Gething

(i) South of Skeeter Creek

The main potential area lies beneath the conveyor decline. As much as 2,000,000 tons of coal could be present but the prospect is not rated highly. The thick coals recognized in the lower trenches on the decline are both highly faulted and very dirty. It is not believed that significant good quality coals will be present.

(ii) North of Skeeter Creek

The Middle Coals may be present parallel with the main road from Chetwynd to camp as the structure from the lower part of the conveyor decline to the north appears continuous.

If the sandstone ledge referred to earlier is the sandstone overlying the Middle Coals then an area of possible open pit potential exists near "444" and in the lower area immediately west of "444".

III. DRILLING PROGRAM

A drilling program has been proposed by Brascan which in essence will test all the undrilled prospective areas. A few comments can be made with respect to the different areas.

III.(a) Upper Gething

No further exploration is warranted at this time south of Skeeter Creek until detailed mining feasibilities on the open pit reserves are required.

North of Skeeter Creek, the presence of Upper Gething coals at Master "A" should be confirmed by drilling up-dip from the exposed coal. Additional Upper Gething coal may be present further to the east and relatively shallow test holes would soon establish the presence of the coals.

III.(b) Lower Gething

The coals of the Lower Gething should be tested by drilling along the upper portions of the conveyor decline and on the access road. At least one initial hole should be drilled to the conglomerate (?Cadomin) to establish the presence or absence of the lower zone of Middle Coals.

The remainder of the holes would be sited to test all the possible economic coal seams. An extensive drilling program could be attempted to prove the extent of the localized thick coaly zone outcropping at the base of the conveyor decline.

The presence of Middle Coals north of Skeeter Creek near the main road could be tested by an angle hole from the road to the conglomerate. Additional drilling would be dependent on the results of this hole.

The presence of Middle Coals below the sandstone ledge below Master "A" should be tested by drilling through the sandstone at at least one location. If possible one hole should be extended to the conglomerate (?Cadomin).

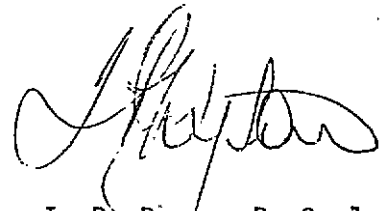
If indeed Middle Coals are present beneath this sandstone ridge they may also be present to the northwest of "444". This area should then be drilled.

In general, it would be preferable to conduct the drill program using a diamond drill recovering continuous core. In this way, excellent rock corelation can be maintained and structural data assembled. Economic considerations may however preclude the use of this type of equipment.

IV. CONCLUSIONS

Very limited potential for open pit coal exists adjacent to the proposed plant site in the Middle Coals of the Lower Gething. However, in excess of 5,000,000 tons of Upper Gething coal may be available at less than 10:1 overburden to coal ratio.

Initial holes drilled both south and north of Skeeter Creek should be drilled to the conglomerate (?Cadomin) to establish the basic stratigraphic section. All additional drilling can then be corelated to these type sections. If this is not done, additional confusion rather than knowledge may result with respect to the Middle Coals.



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