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ASX/Media Announcement

## **Mayoko Iron Ore Project – Infrastructure Update**

### **HIGHLIGHTS**

- **Initial infrastructure review completed**
- **DMC is encouraged by the review and is seeking to commence a more extensive scoping study on the Mayoko Iron Ore Project**
- **Resource calculation currently underway**

The directors of DMC Mining Limited (“**DMC**”) are pleased to announce a summary of a recent on-site infrastructure and services review of the Mayoko Iron Ore Project (DMC 80%) in The Republic of The Congo.

The review was conducted by independent senior project engineer, Mr Bruce Hawley of West Coast Projects Pty Ltd. The objective of the review was to carry out a basic assessment of infrastructure and services surrounding the Mayoko Iron Ore Project.

The project review covered railway, roads & access, power, water, port and communications.

### **Summary of the Infrastructure Review**

#### **RAILWAY**

The existing railway has the potential to transport iron ore at the previous design capacity of 3.0 mtpa from Mayoko to Pointe Noire. A detailed engineering study will be required to define the scope of a capital works programme which will be required to achieve an annual capacity of 3.0 mtpa or as otherwise determined by concurrent project studies. We envisage that a new siding will be required to connect any proposed mine site to the existing railway approximately 5 to 10kms south of Mayoko. The existing railway lies approximately 3 - 3.5kms north east of historical drill holes and current exploration target zones. Additional sidings and loops will be required to ensure expedient transport of ore to the coast.

A standard gauge railway operates from Pointe Noire to Mbinda. The railway service is currently used for passenger and freight trains however it was originally constructed to service a manganese mine at Mbinda, north of Mayoko. The railway was constructed around 45 years ago primarily for the transport of manganese ore to Point Noire. Discussions with government personnel and villagers indicate the ore was transported in 17 wagons, each of 45t capacity being pulled by two locomotives at a rate of 250,000 tonnes per month.



*Figure 1 – Pointe Noire to Mbinda rail line*

The railway shall also form the supply route for mining supplies to the mine site at Mayoko. Spare parts, diesel, petroleum products, equipment and consumables can be back hauled to site on the returning train.

The railway line was observed to comprise of a 1200mm wide track, medium weight rails fixed by clips to pressed steel sleepers at approximately 750mm centres.

Steel framed bridges were observed over river crossings where observed from the access road. The bridges appeared to be of robust section and design. They were in need of painting but appeared to be functional and complete.



*Figure 2 – Steel framed bridges on Pointe Noire to Mbinda line*

At the port approximately 30 rail wagons were observed against a warehouse. Lettering on the side indicated a tare weight of 45t per wagon. A visual inspection of the wagons showed severe corrosion on the base of the wagon some sections of the side wall were corroded out giving no lower section support. Port authorities advised that when manganese was being shipped to Point Noire the trains were unloaded by a wagon unloading machine, this was decommissioned and removed many years ago. The unloading area is now used for shipping containers.



*Figure 3 – unused manganese wagons (not property of DMC)*

## **ROADS & ACCESS**

### Regional Roads:

The main road from Mossendjo to the south and Mbinda to the north of Mayoko is a dirt road constructed by the stripping of trees and vegetation and rough contouring of the remaining lateritic soils.

Some sections of the road indicated imported gravel had been placed to strengthen the existing pavement. Most of the road appeared to be in situ material which often contained clay making the surface very slippery when wet and also boggy in low lying areas. Generally the road grade was acceptable following the rolling hills, however there were some steep slopes that would prove difficult for heavy haulage vehicles.



*Figure 4 – Regional road*

Water crossings were frequent and comprised large trees being placed over the river crossing and then covered by road fill. These crossings often had holes in the road surface where the gaps were too great to hold the road fill leaving large holes where you could see the river. These would be very dangerous at night for both vehicle and pedestrian traffic. Logging vehicles were observed approximately every hour. Each vehicle was an articulated prime mover with a trailer loaded with six, 6m long tree sections around 800-1200mm in diameter.

#### Project Roads

Mine haul roads for product ore transport to stockpile areas, waste haul roads, access roads to mine facilities, access roads to water supply sites and power station will be constructed to a level determined by the roads loading and use of service. There appears to be sufficient gravel and laterite to construct these mine and access roads. Road design should consider local conditions and maximize local contours to minimize road drainage works and costs.

#### Airstrip

The Mayoko airstrip was overgrown with vegetation limiting any visible observation as to alignment and access for future operation. Another disused airstrip was observed adjacent to the Mayoko to Mbinda road approximately 10kms out of Mayoko. Although this was only observed from the road due to heavy vegetation it appeared to have good potential for clearing and use as a light aircraft airstrip.



*Figure 5 – Mayoko airstrip*

## **POWER**

The mine will have to maintain an independent power supply. The Mayoko power station is a small power station of limited capacity ( possibly 250 kVA) and only reticulating to limited buildings approximately 5kms from the proposed mine site. At this stage the mine power demand is unknown however it is expected to be in the range of 5-20Mw depending on the degree of processing required for ore comminution and beneficiation.

There are no other overhead transmission lines in the vicinity of the project area.

Power may be available at Franceville in Gabon which would be around 120kms from the project area. This possibility was not investigated under this study.

As it would be in the DMC's interest to start mining and export as soon as possible the only viable option is to build and operate its power station. Small power stations of this capacity can be easily fabricated and installed in prefabricated buildings.

Fuel could be diesel transported from Pointe Noire which would back hauled on the empty trains returning to the mine site. Gas is available at Point Noire however no time was available to consider what was available on land and in what capacity and proximity to the project area. Unless there are other larger users in the vicinity of the mine site, this alternative appears unlikely.

It may be possible to reticulate power to the Mayoko village area, this should be considered at the design stage of the project.

## **COMMUNICATIONS**

Mobile phones were operable at Mayoko, the project area and Mbinda. There was no evidence of fixed land line communications.

## **WATER**

The project area is surrounded by numerous creeks and rivulets. Approximately 5kms to the west of Mayoko is the Lagesse River which is a substantial water course. No time was available to further study this aspect of the project. Water is locally available and is directly suitable for road watering or water treatment to produce a potable water supply. The design capacity for the water treatment plant shall include sufficient capacity and storage to supply the villagers at Mayoko. There may be an opportunity to collect mine runoff and storm water for use as dust suppression water.

## **PORT**

Point Noire is a significant port servicing the Congo, Gabon, Central Africa, Cameroon, Chad and Angola. Total tonnage moved in 2006 was at 15 mtpa with an annual growth rate of 5% per annum. Most of the tonnage moved through the port is petroleum products for export and containers with goods imported from overseas.



*Figure 6 – Pointe Noire port*

The most seaward wharf had a low water draft of 12-13m and handled containers and large equipment. There was no area available for the incorporation of a train receiving station and iron ore storage area with ship loader.

An adjacent wharf appeared to handle similar capacity ships which were observed to be around the 60,000t capacity. Verbal advice from the Port Authority indicated that the manganese ore ships would hold 250,000t of ore. The manganese ore shipments operated for around 15 years and stopped around 5 years ago. There is no area available in the current wharf areas for either a train unloading facility, a train receive area, a warehouse, a ship loader and the associated conveyors.

The Pointe Noire Port Authority advised that a new wharf for industrial minerals was under review back towards the shore line. At present this area is a sandy beach with no buildings erected on the site. The port authority stated that the wharf area would be dredged to 12-13m to allow large ships to berth and load. The Port Authority would expect any potential users to fund, build and operate the facilities for the duration of the project then hand over to the Port Authority.



*Figure 7 – Pointe Noire port*

**For further information please contact:**

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