UNECE

EXPERT GROUP ON RESOURCE CLASSIFICATIONS - EGRC

THIRD SESSION, GENEVE, 2-4 MAY, 2012

BRAZILIAN CLASSIFICATION SYSTEM OF MINERAL RESOURCES & RESERVES

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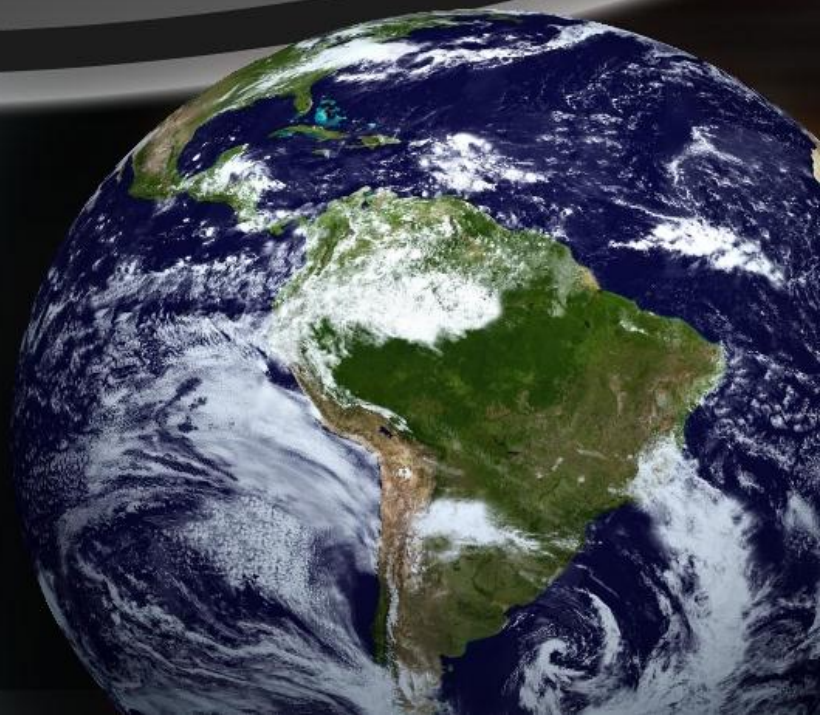


BRAZILIAN SIMILARITIES WITH POINTS OF CRIRSCO PROGRESS REPORT, GENEVA, OCTOBER, 2006

- **COMPETENT PERSON** – GEOLOGISTS AND MINE ENGINEERS LEGALLY AUTHORIZED BY THE BRAZILIAN SYSTEM CONFEA-CREA (FEDERAL AND REGIONAL COUNCILS TO AUDIT PROFESSIONAL PRACTICE)

- **EXPLORATION RESULTS** - BRAZIL NOT DISTINGUISHES "MINERAL RESOURCES" OF THE "MINERAL RESERVES". THE BRAZILIAN SYSTEM CONSIDERS ONLY "MINERAL RESERVES".

- **TRADITIONAL UNFC CODES** – THE BRAZILIAN "MINERAL RESERVES" ARE NOT EQUIVALENT TO THE UNFC CLASSIFICATION "MINERAL RESOURCES" IN SPITE OF THE SAME TERMS "INFERRED", "INDICATED" AND "MEASURED"

- **USING THE UNFC CODES IN THE BRAZILIAN SYSTEM** – BRAZILIAN'S "RESERVE INFERRED" PLUS "RESERVE INDICATED" ARE EQUAL TO UNFC'S "MINERAL RESERVE PROBABLE" (121 + 122). BRAZILIAN "RESERVE MEASURED" IS EQUAL TO UNFC'S "MINERAL RESERVE PROVED" (111)

LEGAL TERMS OF THE BRAZILIAN MINING CODE, ADOPTED BY THE NATIONAL DEPARTMENT OF MINERAL PRODUCTION - DNPM

(111 + 121 + 122) – RESERVE MESUARED

(211 + 221 + 222) – RESERVE INDICATED

(321 + 322 + 332 + 333) – RESERVE INFERRED

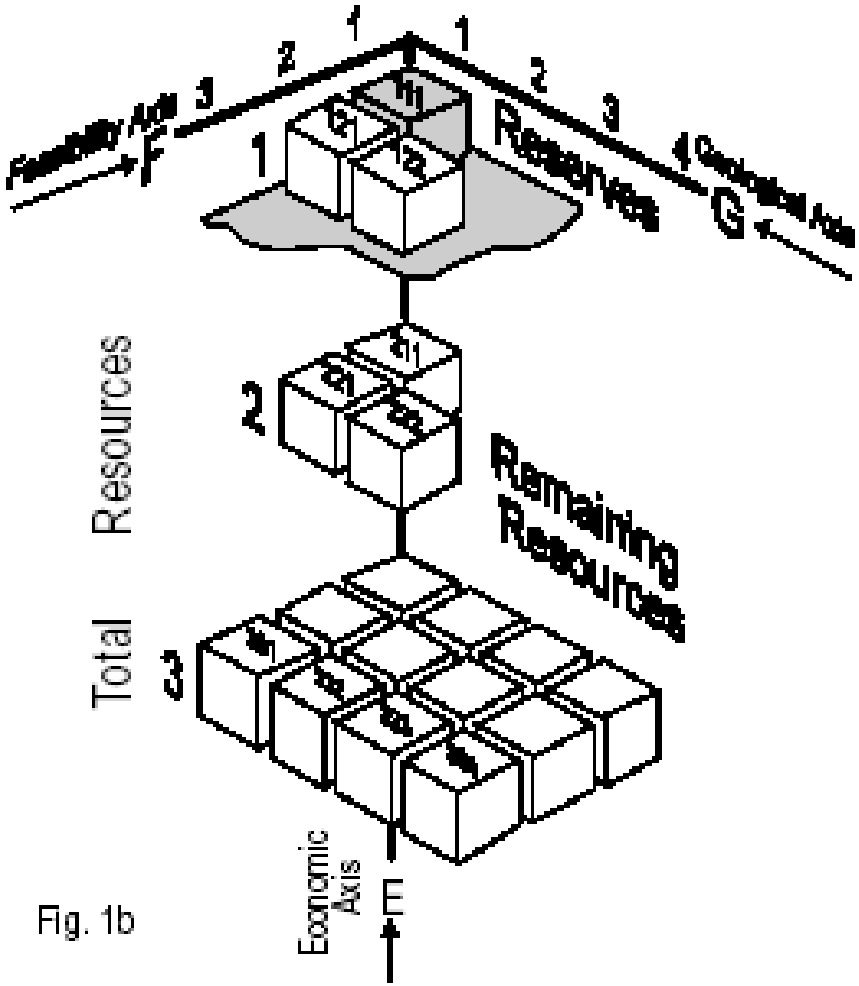


Fig. 1b

BRAZILIAN TERMS USED IN NON-GOVERNMENTAL AFFAIRS

(111) – MINEABLE RESERVE

(111 + 121 + 122) – CUBED RESERVE

(211 + 221 + 222) – ESTIMATED RESERVE

(321 + 322 + 323 + 333) – GEOLOGICAL RESERVE

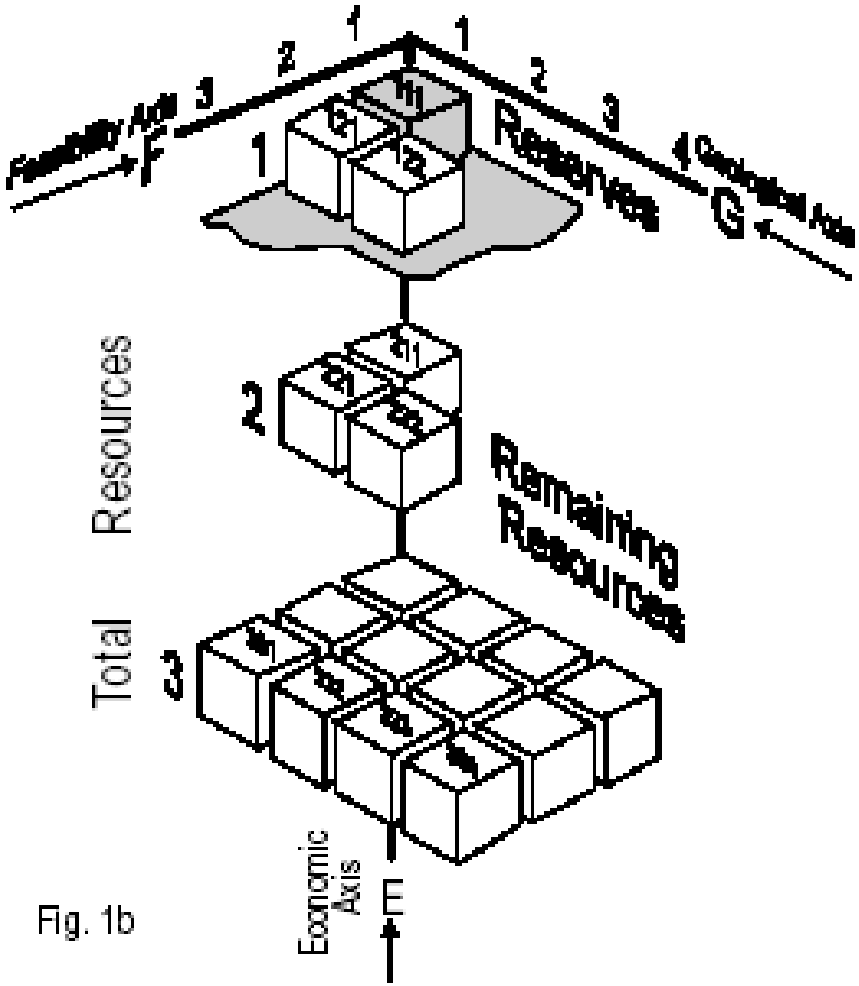


Fig. 1b

BRAZILIAN LEGAL MECHANISMS AND OFFICIAL DOCUMENTS TO MEASURE THE PRINCIPAL ELEMENTS OF THE UNFC

GEOLOGICAL AXIS

FINAL REPORT OF THE MINERAL RESEARCH

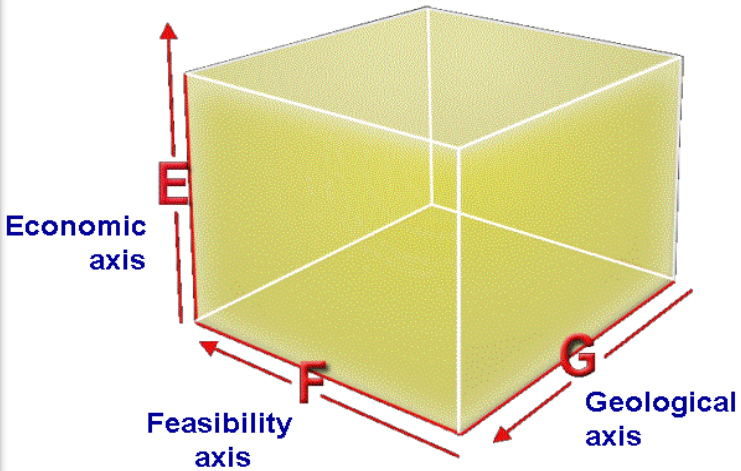
(Equivalent to Geological Study)

ECONOMIC AXIS

ECONOMIC DEVELOPMENT PLAN (Equivalent to Prefeasibility Study)

FEASIBILITY AXIS

ECONOMIC DEVELOPMENT PLAN AND ENVIRONMENTAL LICENSE (Equivalent to Feasibility Study and/or Mining Report)



ALL SUCH DOCUMENTS* SIGNED BY GEOLOGISTS AND MINE ENGINEERS LEGALLY AUTHORIZED *MUST BE SUBMITTED BY MINING COMPANIES AND APPROVED BY DNPM AND MINISTRY OF MINES AND ENERGY

PHASES OF A MINING PROJECT IN BRAZIL

•**Geological Reconnaissance** : Mining companies use data from basic geological surveys offered by the National Geological Service – CPRM

•**Mineral Prospecting or Mineral Research** : Mining companies have three years to submit to DNPM the Final Report of the Mineral Research; areas are usually granted until one thousand hectares, may be ten thousand hectares in the Amazon Region

•**Explotation and Ore Beneficiation** : After approval of the Final Report of the Mineral Research by DNPM, the mining company has a year deadline to submit to the DNPM and Ministry of Mines and Energy an Economic Development Plan with a Environmental License to obtain an Explotation Mineral Right

•**Governmental Monitoring** : After the start of explotation, the mining company shall submit a Mining Annual Report to DNPM detailing the operations of the mine and the remaining reserves

THANKS A LOT !

THIS PRESENTATION IS ALSO AVAILABLE ON THE SITE

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