

Independent Qualified Person Report

For

Resource Body D

in the

Nama Retention Licence

Northern Zambia

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By

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This report has been prepared for:

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3 Summary

Caledonia Nama Limited (Caledonia (Nama)), a subsidiary of Caledonia Mining Corporation is the sole owner of a Retention Licence over 80650ha of ground in the Solwezi District of the Northwestern Province of Zambia in sub-Saharan Africa. The licence has been granted for a period of three years from February 2007 after which it must be converted to mining titles. It lies on the northwestern flank of the Zambian Copperbelt and has potential for high tonnage, low-grade cobalt-copper-nickel mineralisation referred to as the Nama Project.

The area is underlain by strata of the Katanga Supergroup but paucity of outcrop and structural complexity has prevented accurate correlation of the stratigraphy intersected in the boreholes except that distinct mixtite units can be correlated with the lower Kundelungu Group. The mineralisation occurs in a deep weathered profile and is probably caused by the oxidation of primary disseminated cobalt-copper-nickel sulphides combined with supergene redistribution and precipitation, especially in the near surface environment. This has produced both flat lying and inclined resource bodies of mineralisation.

Caledonia started operations in the area in 1994 and in the ensuing years acquired five Prospecting Licences and undertook an exploration program commencing with soil sampling supported by airborne geophysical surveys and concluded with a drilling campaign. The drilling amounted to 323 reverse circulation holes totalling 38,119 metres followed by five diamond drill holes totalling 1445m. This drilling is in addition to 25 diamond drill holes drilled by Roan Selection Trust, Zamanglo and JCI in the Nama area and on the flank of the Konkola dome and 23 auger holes drilled by Roan Selection Trust.

In 2007, Caledonia embarked on a drilling program in the Nama Retention Licence area and some of this drilling was undertaken over the D Anomaly. This report presents an estimation of indicated and inferred resources based on the results of 38 boreholes drilled into the D anomaly in the northeast to east-central parts of the Retention Licence. This resource amounts to a combined indicated and inferred resource amounting to 63.91Mt with an average grade of 0.08%Co, 0.035%Cu and 0.028%Ni. This includes an indicated resource of 9.2Mt with a grade of 0.165%Co, 0.067%Cu and 0.05%Ni and an inferred resource of 14.3Mt with a grade of 0.138%Co, 0.054%Cu and 0.051%Ni contained within the shallow dipping hematite-magnetite body.

Follow-up drilling is required over the D Anomaly to upgrade the known resources and delineate their extensions.

Further work is required on the correlation of the stratigraphy in the Nama area to establish the extent that the mixtite units correlated with the lower Kundelungu Group owe their presence in the A Anomaly area to structural disturbance.

4 Introduction

Caledonia Mining Corporation (Caledonia (Mining)), through its local subsidiary Caledonia Nama Limited (Caledonia (Nama)), holds a Retention Licence for cobalt, copper, manganese and nickel mineralisation in the Solwezi District of the Northwestern Province, Zambia. The regional locality of the licence is shown in Figure 1 and its detailed extent shown in Figure 2. The property represents a consolidated block of ground approximately 80 625 hectares in extent in which a number of loci of mineralisation have been identified. Some of these localities were explored by other companies prior to the ground being acquired by Kintyre Mining (Zambia) Ltd, a subsidiary Caledonia in October 1994, while other loci have been identified solely from the activities of Caledonia and its subsidiaries. The licence has the potential to yield economic, low-grade but high tonnage oxide cobalt-copper resources.

Figure 1 Locality map for the Nama Retention Licence Area



The licence is situated on the northwestern flank of the Zambian Copperbelt, adjacent to the border with Zambia and the Democratic Republic of Congo (DRC). The Zambian Copperbelt is a copper-cobalt metallogenic province that covers an area of approximately 2500km² and shares borders with the Democratic Republic of Congo (DRC) to the north and the Zambian Provinces of North-Western and Central on its western and southern flanks respectively. The total mined ore plus reserves and resources has been estimated at 3000 Mt at 2.9% Cu.

The Nama Retention Licence area has been explored utilizing a variety of techniques, including geological mapping, geochemical soil sampling, drilling

(reverse circulation, diamond and augers), photo interpretation, an aeromagnetic survey and a radiometric survey. The drilling programs produced in excess of 38 000 metres of reverse circulation chips and core, from which lithological logs and analytical data has been generated. Several anomalies have been identified across the Nama project and a high tonnage cobalt oxide resource has been identified.

During the period 1996 to 2000, the exploration program by Caledonia Nama Ltd included engineering studies into the feasibility of constructing a full scale hydro-metallurgical processing plant involving crushing, leaching, solvent extraction and electro-winning of the copper and cobalt. However the resultant economic study showed that the project was not, at the prevailing metal prices, robust enough to support the large capital investment required for such a plant. Recently with the increases in the commodity price and demand for cobalt and based on additional metallurgical test work conducted by the company during 2004 and 2005 there has been increased interest in the Nama project.

Applied Geology and Mining (Pty) Ltd has been commissioned by Caledonia (Nama) to provide an independent assessment of the work completed and the Resources estimated to date in Resource Body D and to compile a report compliant with the specifications and requirements of the Canadian National Instrument 43-101.

Information upon which this report is based was provided to the author by Caledonia (Mining) staff on behalf of Caledonia (Nama) in the form of an electronic database, reports, maps, plans, general discussions and diagrams generated during and after the main exploration program, as well as original documentation such as assay sheets when requested.

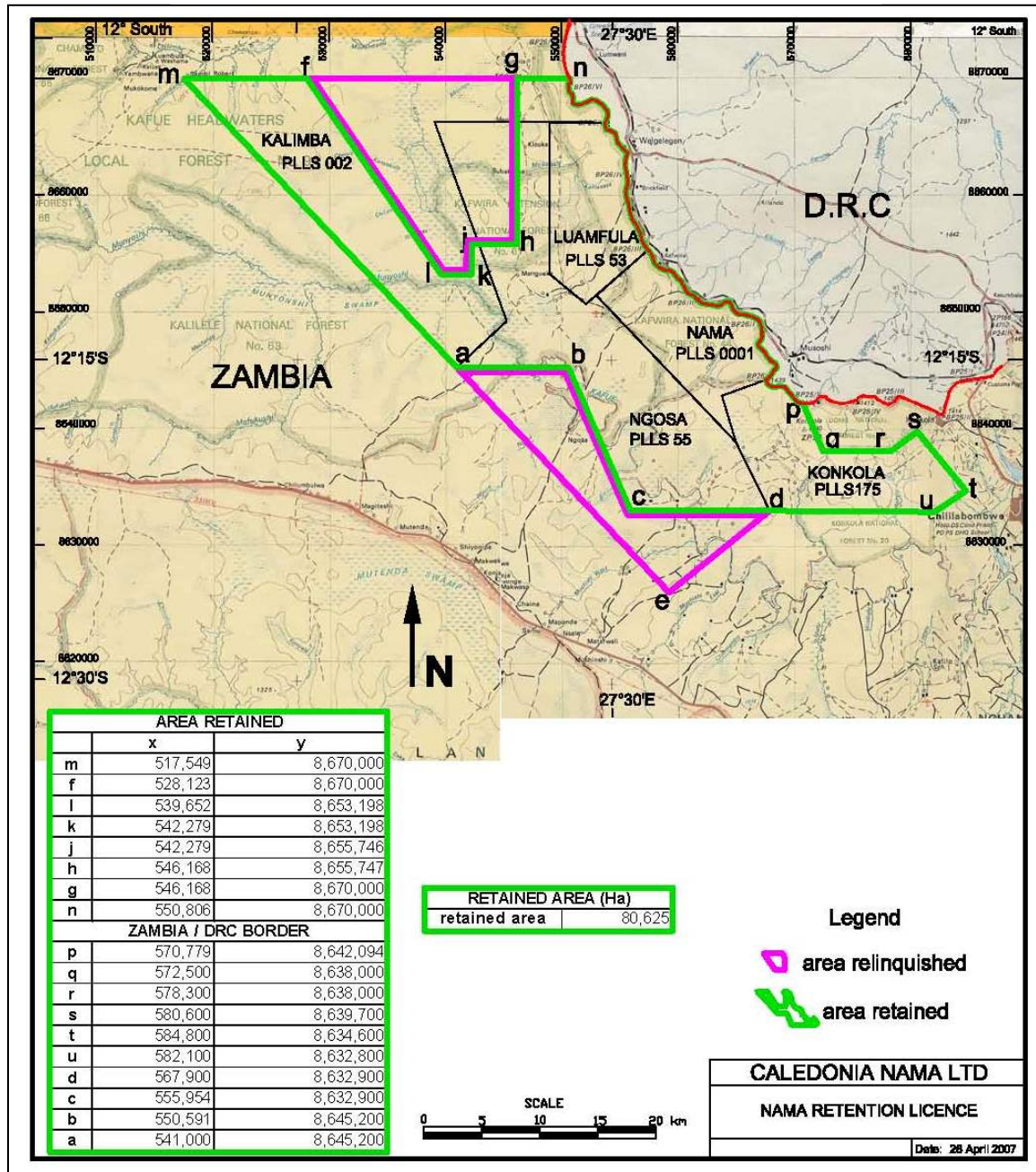
The author visited the Nama Retention Licence Area in the company of a Caledonia Geologist and assistant in mid-February 2007. The visit was made in mid-summer and the bush was thick as a result of the rains and summer growth. The visit included the area over the A or Discovery Anomaly and examination of the bulk sample trench, that was open and accessible, as well as some borehole collars over it and the nearby B anomaly. The field camp and core yard with core and duplicate RC samples was also visited. The core of both NDDH001 and NDDH004 was briefly examined. No site visit was made during or subsequent to the current drilling program on the Mineral Body D.

5 Reliance on other experts

Compilation of this report has relied on information in the form of maps, plans, reports and an electronic database provided by Caledonia and which were prepared by Caledonia staff or acquired by Caledonia from previous operators in the area. In the case of most historic information from RST, Zamanglo, JCI and BHP it was not possible to verify the information but the author of this report has no reason to doubt the integrity of the data originating from these sources.

Caledonia staff, especially Dr Trevor Pearton and Ann Pearton provided details of the analytical quality control that was applied to the RC borehole samples, as well as details and interpretations of the geological setting of the various types of mineralisation associated with the Anomaly D.

Figure 2 Map showing details of the Nama Retention Licence



6 Property description and location

Caledonia (Nama) is the sole owner of prospecting rights in the Nama area as a Retention Licence issued on 23 February 2007. The detailed extent of the licence is shown in Figure 2 with reference to geographical and UTM zone 35S

coordinates. The area covered by the licence includes the areas originally covered by five Prospecting Licences subsequently reduced to the current area in accordance with statutory requirements. The rights and obligations of the holders of the licences are outlined in the summary below.

The Mineral body D lies in the northeastern to central-eastern part of the Retention Licence area.

6.1 Overview of Zambia's Mines and Minerals Law

Zambia is endowed with substantial mineral resources and has been exploiting its copper resource for nearly a century. Copper has been and still remains the single largest contributor to the Zambian economy. Prior to 1995, depressed copper prices on the international market, plus the under-capitalisation of the copper mines, resulted in severe constraints on the country's economy. To address this problem and in order to ensure that the mining industry continues to play a crucial role in national development, the Zambian government changed their mineral and mining policy in 1995.

Mineral policy

The objective of the new minerals and mining policy is to develop a self-sustaining mineral-based industry with less reliance on copper through diversification and increased exports with a high value-added content. The policy is aimed at encouraging private investment in exploration and development of new large, medium and small scale mines to exploit metallic, gemstones, energy and industrial minerals. Privatisation of many state owned companies and especially the copper mining industry, formerly managed under the parastatal umbrella, Zambia Consolidated Copper Mines Ltd. (ZCCM), is a clear demonstration of this intent. The Ministry of Mines and Minerals Development are promoting enactment of this policy through the technical support available from its three constituent departments – Geological Survey, Mines Development and Mines Safety. Downstream processing is being encouraged.

The overall objectives of the government's new mining policy are as follows:

- To make the private sector the principle producer and exporter of mineral products by establishing a private sector initiative to develop new mines;
- To increase and diversify mineral and mineral based products and exports. This will maximize long-term economic benefits to the country;
- To promote and develop a small-scale mining industry which has the potential to significantly contribute to the economy;
- To promote and develop a gemstone mining industry;
- To promote exploration for, and exploitation of industrial minerals and to encourage the establishment of a ferrous industry.
- To reduce the danger of ecological damage arising from mining operations as well as damage to the health of workers and inhabitants of the neighbourhood through water, air and land.

- To promote the local processing of mineral raw materials into finished products for added value;
- To encourage foreign investment in exploration and new large-scale developments; and
- To encourage private investment in medium and small-scale mining.

In order to achieve the above, the Government of Zambia promulgated the Mines and Minerals Act in 1995. The new Act enshrines in the legislation the following basic assurances required for foreign investment:

- Secure title to mineral and mining rights;
- Stability of the fiscal regime;
- Foreign exchange retention;
- Right to market mine products;
- Right to assign (right to trade the mining right);
- Stability in environmental management;
- International arbitration; and
- Freedom of commercial operation.

The Government policy is not to participate in exploration or other mining activities or any shareholding other than regulatory and promotional role. The mining sector is dominated by copper and cobalt production and the country is a leading producer of cobalt, copper, and gem-quality emerald.

6.2 *Mines and Minerals Development Law*

Minerals in the ground are vested in the President on behalf of the state. Current Government policy is not to participate in exploration or other mining activities or any shareholding other than its regulatory and promotional role.

Mining operations in Zambia are regulated by the Mines and Minerals Act (No. 31), 1995. However the latter is currently being updated (2006). Issuance of licences was suspended from August 2005 to August 2006, to allow full conversion of the old licence registration system to the new digital cadastre.

In line with Government's stated Mining Policy, the 1995 Act greatly simplified licensing procedures, placing minimum and reasonable constraints on prospecting and mining activities, creating a very favourable investment environment, whilst allowing for international arbitration to be written into development agreements should it be deemed necessary.

The Government encourages private development and diversification of the mining sector and promotes small-scale mining. The Environmental Protection and Pollution Control Act (No. 12) of 1990, the Mines and Minerals (Environmental) Regulations of 1997 and the Environmental Protection and Pollution Control (Environmental Impact Assessment) Regulations, 1997, provide a framework for environmentally responsible development of mines.

6.3 *Mines and Minerals Act*

The regulatory documents governing the Mines and Minerals Act are available on file and are taken from the Laws of Zambia: Mines and Minerals Act, Consolidated version of Act No. 31 of 1995 as at 31 March 1997 and amended last by Act No. 8 of 1995. Part III provides for application for, rights in relation to, grant and renewal of prospecting licences, retention licences and large scale mining licences. A retention licence confers on the holder exclusive rights to apply for a large-scale mining licence within the area for which the retention licence has been granted. In deciding on any mining right, the Minister shall take into account the need to conserve and protect the air, water and soil, flora, fauna, fish, fisheries and the features of cultural, architectural, archaeological, historical or geological interests (sect. 75). The Minister may attach conditions regarding protection of environment to the granting of a licence. There shall be an Environmental Protection Fund, which shall be managed in such manner as the Minister may prescribe by Statutory Instrument (sect. 82).

6.4 *Licensing System*

Three types of licence are available to the large-scale operator:

- Prospecting Licence Large Scale (PLLS): this confers the right to prospect for any mineral over any size of area for a period of two years, and is renewable for two successive periods of two years each;
- Retention Licence: the right to retain an area, subject to the Minister's agreement, over which feasibility studies have been completed, but market conditions are unfavourable for the development of a deposit at that time. Size of the area may be that covered by a Prospecting Licence or smaller area as redefined by the licence holder. Duration is for three years, and it is renewable for another single period of three years;
- Large Scale Mining Licence: this confers exclusive rights to carry out mining operations and other acts reasonably required to carry out the proposed mining operations. Applications need to be accompanied by environmental protection plans and by proposals for the employment and training of Zambian citizens;
- Similar rights are available to smaller operators, but on a reduced scale;
- Prospecting Permits: relate to areas of 10km² and have a duration of two years non-renewable;
- Small Scale Mining Licences: relate to areas not exceeding 400 hectares and have a duration of ten years and are renewable;

6.5 *The Nama Retention Licence*

The Nama Retention Licence was granted to Caledonia (Nama) on 23rd February 2007 and has an area of 80 625ha. It lies within Zambia but along the Zambia/DRC border between 12° 01' 5.92"S and 12° 22' 06.24"S and between 27° 09' 40.32"E and 27° 46' 54.48"E. The licence has been granted for a period of three years without the option to renew for a once-off payment of approximately US\$54000.00

The licence is the consolidation of five separate prospecting licences, viz. Nama PLLS0001, Luamfula PLLS53, Kalimba PLLS0002, Ngosa PLLS55 and the more recently acquired Konkola West PLLS175 out of which Caledonia was required to relinquish 30% of the combined area held under the original prospecting licences. The area and extent of the previous prospecting licences, as well as the retention licence and UTM coordinates for the boundary pegs, are depicted in Figure 2 and the accompanying table.

The corner points of the Retention Licence have been defined in terms of the UTM35S Zone and these have been registered with the Zambian authorities subject to resurvey and checking of the corner beacons by surveyors on behalf of the authorities. The authors of this report have been provided with a copy of the letter from the Mines Development Department dated 23rd February 2007 confirming the issue of a Retention Licence to Caledonia Nama Limited.

There is a statutory royalty of 0.6% net smelter return on Zambian mines although the Government advised mining companies in mid 2006 and confirmed early in 2007 that it was going to increase this to 3% subject to negotiation with the companies. The authors are unaware of any other back-in rights, payments, or other agreements or encumbrances to which the property is subject.

The Retention Licence permits the holder to carry out prospecting operations in the licence area, but additional permits supported by environmental impact assessments would be required for operations that would impact on the environment such as bulk sampling and road construction.

7 Accessibility, Climate Local Resources, Infrastructure and Physiography

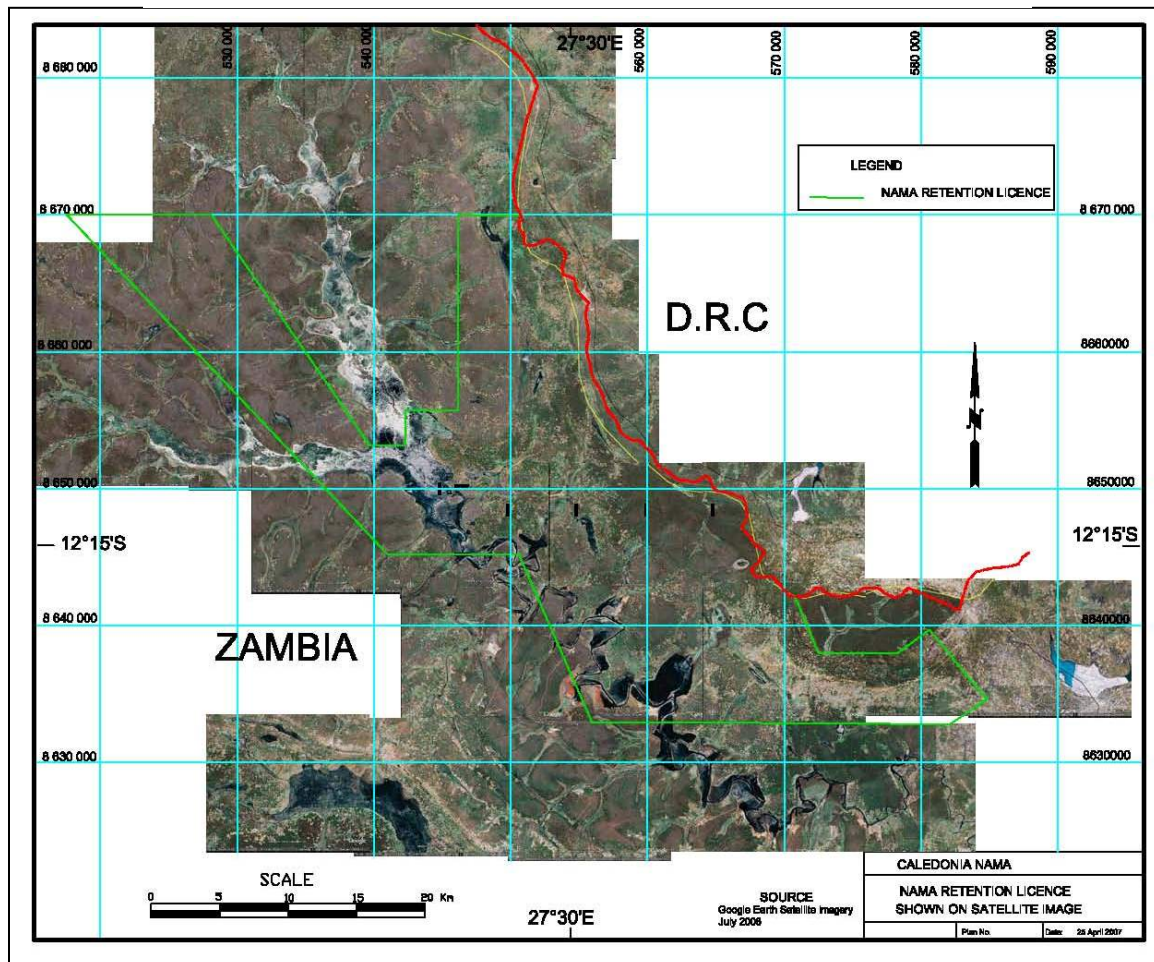
7.1 *Topography, Climate and Vegetation*

The topography of the region, especially along the project's western boundary is flat with wet lands that become water saturated during the rainy season. Eastwards, it becomes gently undulating and rises to elevations ranging between 1280 and 1450 metres above mean sea level (amsl) on isolated hills and low ridges along the eastern flank of the prospecting licences. The hills, ridges and elsewhere an almost imperceptible watershed demarcate the border between Zambia and the DRC. A satellite image of the Nama Retention Licence area is shown in Figure 3.

The project area lies at a latitude of about 12° south but owing to its altitude it has a relatively mild climate. The average temperature during July is about 17°C and during January the average temperature of about 22°C. The region has distinct dry (May to October) and wet (November to April) seasons. Rainfall occurs in summer and is mainly dependent upon the Intertropical Convergence Zone in which heavy afternoon thunderstorms can yield precipitation events of 20 to 40

mm. The annual rainfall varies from 700 to 1400mm. The winter months are mild and dry. There is no limit to the operating season except that flooding associated with heavy rains during the peak of the rainy season may cause delays of a few days.

Figure 3 Composite satellite image of the Nama retention licence area



A large portion of the project area lies within Kafwira National Forest No 44, Kafwira Extension National Forest No 61, Kalilele National Forest No 63, Konkola National Forest, and the Kafue Headwaters National Forest No 9. Only a small area in the south of the Retention Licence lies outside designated National Forest areas. National Forest areas are gazetted and activities within them are governed by the Forest Act No 7 of 1999. Forest reserves are either local or national forests that are protected from open access because of their national value such as protection of water catchment areas for river systems. Forests are administered by either the traditional chiefs or the Director of Forestry on behalf of the president. Licensed forest activities are allowed.

Vegetation in the forest areas in the Nama Retention Licence area, although locally disturbed by subsistence agriculture in the central and southern parts, as

well as by mineral prospecting activities, is still very typical of Miombo type woodland. The most common tree in the miombo woodlands are *Brachystegia*, *Julbernadia*, *Isobertinia*, *Marquesia* and *Uapaca*. Tall deciduous trees interspersed with minor grass plains in low-lying wetland areas or swamps are also found in the area.

Figure 4 Vegetation and access roads in the Nama area



7.2 Accessibility

The project area is reached via bush tracks from the Konkola Mine Township near the No.2 Shaft in Chililabombwe or on a gravel road and bush tracks from the Solwezi-Chingola road. During the summer months, access to the project is

difficult due to grass and bush encroachment of the bush tracks, low-lying, waterlogged areas and flooded streams. The project area is not visible from the nearest villages. Pictures illustrating typical access and Miombo woodland vegetation in the Nama area are shown in Figure 4.

7.3 Proximity to population centres

The Nama Retention Licence lies in an undeveloped area at the northwest end of the Zambian Copperbelt Province which covers an area of about 31000km². The Copperbelt is the centre of the Zambian economy and through the production of copper accounts for about 80% of the Zambian GDP. Its principle towns and cities are Kitwe (439,000), Ndola (376,000), Mufulira (177,000), and Chingola (186,000). The main urban concentrations at or close to the main Copperbelt mining centres. The closest of these towns to the Nama Retention Licence is Chingola that lies about 60km to the southeast.

The Zambian Copperbelt is supported by numerous light and medium industries dependant on the copper mining as well as a number of smelters over and above the infrastructure associated with the operating open pit and underground mines. Most of these industries are based in and around the main Copperbelt towns that are connected by tarred roads, railways and telecommunications with an established transport network. The region is well populated with a large percentage of the population residing in urban areas. The main economic activity of the area is mining, and the region makes a significant contribution to the Zambian economy. Towns, cities, mines, farmland, exotic timber plantations, woodland and forest reserves dominate the Copperbelt landscape with degraded (indigenous) Miombo woodland covering approximately 30% of the region.

The Nama Retention Licence area is undeveloped and should provide sufficient space for surface rights for mining infrastructure and waste storage subject to approval of environmental impact studies and granting of licences for the operations by the Zambian authorities.

Electrical power to the Copperbelt is provided by the Copperbelt Energy Corporation PLC (CEC) which is a privately owned company. CEC's transmission and distribution network consists of 808 km of overhead lines and 36 high voltage substations. The current carrying capacity of the network is in excess 700MW. CEC also serves the region by operating an interconnector with the Democratic Republic of Congo (DRC), through which power is wheeled to Zambia and other Southern African countries. A second 220kV line is planned between Chingola and the DRC that will pass close to the Nama Retention Licence area.

7.4 Soil and Land Use

Much of the Copperbelt is covered by deep, red, lateritic residual soils with sandy topsoil overlying more clay-rich subsoils or alluvial, dark grey to light grey clays or silts. These soils are generally strongly leached with low reserves of plant

available nutrients and low base saturation. The land immediately around the Nama project area is covered with Miombo woodland. The soils are rather poor and the trees have thus developed collaboration with mycorrhizal fungi. Subsistence agriculture and some rural residential areas are located about 7.5km from the exploration campsite. The nearest village is Kafwena.

7.5 *Animal Life*

Although the project area is well forested with minimal habitat disturbance in the forest reserve, a recent survey exhibited a conspicuous absence of wildlife except birds that are quite plentiful. According to the locals interviewed in a recent survey, reedbuck, bushbuck, duiker and buffalo were present in the area over 30 years ago but these populations have been decimated by poaching.

7.6 *Surface Water and Groundwater*

The project area lies in the generally south draining Kafue River catchment that is a tributary of the Zambezi River. The course of the Kafue meanders along the southwest boundary of the Ngosa PLLS including the common boundary between it and the Kalimba PLLS. Drainage in the project area is dependent upon water courses and small streams that follow south and southwest directions in most of the licence areas with a dominant eastwards direction in the Kalimba PLLS. In the flatter topography, poor surface drainage produces wetlands or dambos that become waterlogged during the rainy season.

Little information about the ground water regime within the project and surrounding areas is available. Observations made during the exploration drilling programs showed that the water table appears to be between 3 and 15 metres below the surface over and in the vicinity of the deposits. Some of the old diamond drill holes in the project area are artesian especially those drilled close to the watercourses. There are no perennial natural springs although surface water seepage frequently occurs during the summer months.

7.7 *Air Quality*

The Nama Retention Licence lies in the northern part of Zambia on the border with the DRC where the prevailing wind is from the southeast throughout most of the year. The air quality in the area is good and the air is clean because of its remoteness and the absence of industry and infrastructure, but there is no supporting data available. There is a seasonal variation as well as localized and temporary deterioration in air quality, especially in the dry winter months, from smoke and dust due to grassland and forest fires, charcoal burning, village domestic fires and traditional Chitemene slash and burn agriculture. This air pollution hangs over the area and forms a distinctive haze. The haze layer is mainly visible from the air and is worst during the coolest months (June to July) when atmospheric temperature inversions tend to trap the smoke near ground level. The haze lasts until the arrival of the rains in November.

7.8 Noise

There is no historical data for the Nama Project area. Due to its remoteness and the absence of active industry in the area, current noise levels are associated with social activities and natural elements i.e. wind, rain and thunderstorms. Daytime noise levels are basically very low compared to other areas. Due to social activities in the evening at Kafwena village, noise levels are occasionally slightly elevated.

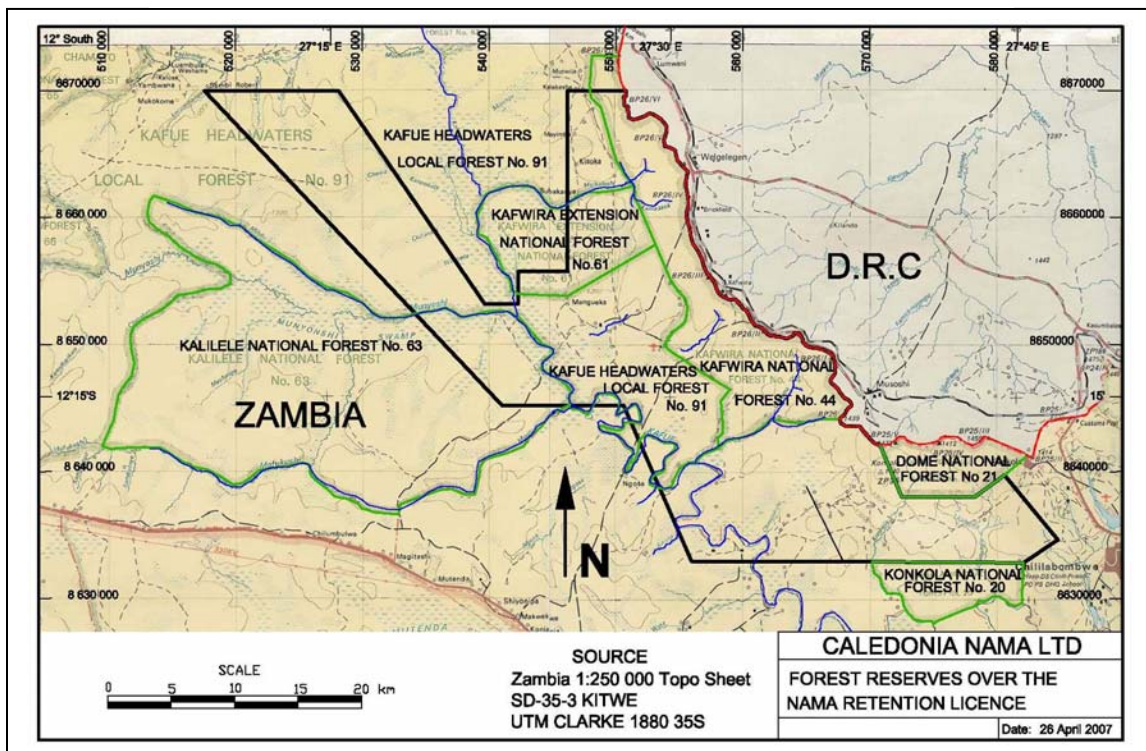
7.9 Sites of Archaeological and Cultural Interest

There are no recorded sites of archaeological or cultural importance in the project area.

7.10 Sensitive Landscapes

Most of the project area lies within National Forest Reserves which are gazetted and shown in Figure 5. Vegetation in these areas, although disturbed in several places by agriculture, logging and mineral prospecting activities, is still very typical of Miombo type woodland. Some parts of the forest have been heavily exploited for timber and are now in a regenerative stage. The forests are also heavily exploited by the indigenous population for the manufacture of charcoal.

Figure 5 Distribution of National Forest Reserves in the Nama area



The forestry sector in Zambia is regarded as very important to national development and human welfare. Forests provide a variety of benefits to the population including food, fuel wood, charcoal, building materials and medicines.

Environmental degradation is a problem throughout Zambia with the most pressing problems in the forestry sector being deforestation, forest degradation, soil erosion and fertility loss, watershed degradation, and loss of biodiversity.

Temporal and spatial changes in land use, vegetation cover, deforestation and reforestation in the Zambian Copperbelt were studied using a combination of aerial photograph analysis, literature review and inquiries among relevant government institutions. The study showed that between 1937 and 1984 loss of natural woodlands in the Copperbelt amounted to 41 per cent of the total woodland area estimated to be 8,419 km². Loss of natural woodlands in the area can be attributed to illegal and uncontrolled charcoal production, overexploitation, uncontrolled bush fires, land clearing for agriculture, and illegal settlements. Many people are turning to forest resource exploitation as a means of livelihood, which provides an alternative source of income and employment. Before 1962 the copper mining industry used large quantities of firewood to generate electricity and this resulted in the loss of 150,413 ha of woodland between 1937 and 1961. When the mining industry switched to hydroelectricity, urban households became the major users of wood fuel.

However, nearly all forests in Zambia lack proper management plans and the country as a whole lacks an up-to-date forest inventory data. The only management tool in the Forest Reserves under the Forestry Department has been licensing. A licence simply states the maximum amount of timber that may be removed annually. This system has not worked due to a number of problems, which, among others, include inadequate capacity of the Forestry Department to police forestry exploitation.

According to the Zambian Forestry Act (1999), part IX, a licence can be obtained from the Zambian Forestry Commission to operate within a forestry area for exploration purposes and in turn mining operations. Application for a licence to prospect within a forestry area does however require an Environmental Impact Assessment with clear plans for rehabilitation of the forest area after mining. Also the Forestry Act (Section 9 (2)) provides that in the case of National Forestry areas, a mining company may apply to the President for the forest area to be de-gazetted as a National Forest or that the boundaries of a National Forest can be altered or extended.

7.11 Socio-economic Structure

Subsistence farming is the dominant economic activity in and around the project area and is concentrated around the villages. The main non-farming economic activity is associated with Caledonia's exploration activities, which although erratic, contribute to local employment. Peripheral economic activity includes, fishing and small-scale business enterprises. The local population residing near the project area is mostly domiciled at Kafwena village, which is some 7.5 km northwest of the site. People in Kafwena go to Luamfula in order to access the

medical facilities and school. Luamfula is located some 9 km from Kafwena village.

The main languages spoken in the project area are Lamba, Kalunda and Bemba. From a general survey of the area, it is estimated that over 80% of people embrace the Christian faith as a result of missionary activity in the area. Denominations found include the New Apostolic, Evangelical, Seventh Day Adventist, United Church of Zambia, the Catholic Church and others. Religion is a significant aspect of people's lives and the Church is an important institution in these communities. Christian religion and traditional beliefs including witchcraft co-exist in the area.

7.12 *Interested and Affected Parties*

Parties interested in and affected by the Nama project and the activities of Caledonia in the area are:

- Local communities in the surrounding villages,
- Local traditional leaders who would include Headmen and Chiefs,
- Local Authorities such as the Solwezi and Chililabombwe District Councils,
- Government Departments including the Zambia Police, Forestry Department, and the Ministry of Mines and Minerals Department, and
- Environmental Council of Zambia.

8 History

The earliest report of copper and cobalt mineralisation in the area was made by Rhodesia Congo Border Concession in 1928 and referred to a location just south of the Nama Licence area within the Konkola Dome Basement Complex. In 1930, geological mapping and pitting led to the discovery of copper-cobalt mineralisation within mostly unexposed carbonaceous shale on the eastern flank of the Konkola Dome. Since this time the area west of the Konkola Dome and extending northwest through the current Nama project area has attracted a number of exploration programs undertaken by different companies.

8.1 *Union Miniere du Haut Katanga*

In 1935, Union Miniere du Haut Katanga discovered the Musoshi ore-body in the Lower Roan Ore Shale on the northern flank of the Konkola Dome in the DRC. The discovery was the incentive for Rhokana Corporation to trace the sub-cropping Lower Roan Ore Shale by drilling from the DRC border westwards along the south-east flank of the dome. This led to the discovery of the Konkola north orebody which lies along strike and is continuous with the Musoshi orebodies.

Surface geological mapping across the Nama area has been hampered by the poor rock exposure estimated at 1% of the total licence areas. Consequently, regional geological interpretation has been based largely on airborne geophysics, soil geochemistry, trenching and drilling.

8.2 *Roan Selection Trust*

The first exploration in the Nama area for which records are available was undertaken by RST in the 1950's and 1960's. This work consisted of gravity, IP, soil geochemistry, trenching and diamond drilling. Trenching and drilling confirmed mineralization at Yembela Clearing (now part of Anomaly 'E') and Nama (now part of Anomaly 'A' deposit).

Roan Selection Trust carried out a regional soil geochemical survey in 1965 over the Konkola Dome area with a view to locating north-western extensions of the mineralization then recently known to occur at Konkola and Musoshi. The sample traverse lines were put in by sighting from a surveyed base line. No survey record exists for these data and while the exercise was successful in locating the Nama (A Anomaly) and Yembela (K Anomaly) prospects, no other anomalies were identified or followed up. No records remain as to the specifics of the sampling procedure and the work has been superseded by Caledonia's own soil sampling program. The data has been used to corroborate the results of the later survey.

A series of 5 diamond drill holes and a number of shallow auger holes were drilled by RST to investigate the source of the geochemical anomaly at the Nama A Discovery site. The holes were coded CY 104 to CY 108, and totalled 1030 m. Both vertical and angled holes were drilled to intersect a generally north dipping mineralized zone. The positions of these boreholes have been located relative to the later drilling program by the CY104 collar beacon that is clearly marked in the field.

This exploration program was aimed at locating copper sulphide mineralization and the core was only sampled and assayed for Cu and Co where visible sulphide mineralisation was noted. The core was sampled by splitting with a diamond saw. The copper grades encountered were generally low with the best intersection being 1.03% Cu and 1.28% Co over 1.22 m. This was too low to warrant further exploration at the time. The analyses were later corroborated by the results from the Caledonia boreholes. On conclusion of the RST exploration program, the core was transferred to ZCCM, Operation Centre Geological Department in Kalulushi for safe keeping.

A series of 9 diamond drill holes were drilled into the Yembela prospect or E anomaly as it is referred to by Caledonia staff.

8.3 *Anglo American and Zamanglo*

In 1956 Anglo American Corporation conducted a ground magnetic survey over the Konkola area and defined a magnetic field anomaly on the southern side of the Konkola Dome. In 1957, Chartered Exploration carried out orientation soil sampling on the orebody north of Konkola and defined a copper-cobalt anomaly. The low copper values were ascribed to leaching of the sub-cropping Lower Roan Ore Shale.

Reconnaissance stream sediment sampling was undertaken with follow-up sampling of the stream sediment anomalies by Zamanglo in 1966 and 1968. This defined polymetallic anomalies in the Konkola area roughly coincident with the geomagnetic trend. In the late 1960s while RST was exploring the Nama area, Zamanglo continued with extensive pitting, diamond drilling and surface mapping across the Konkola area. Further work was curtailed by nationalisation of the copper industry in Zambia.

Zamanglo, a then subsidiary of Anglo American PLC, initiated a program to explore for the western continuation of the Ore Shale known to occur at Konkola North mine. The program included soil sampling of the Konkola West area, a zone of southerly dipping strata that has been uplifted by the Konkola granite dome immediately to the north. The grid spacing was 1000 feet between lines with samples at 100 feet intervals. No detail is available on the sampling procedure. This survey has been geo-referenced using property boundaries so that it can be used in conjunction with the later soil survey conducted by Caledonia. The soil sampling indicated a very clear zone of copper enrichment following the western continuation of the Ore Shale at Konkola Mine.

Follow-up by Zamanglo involved a limited drilling program of eight diamond drill holes (KO1 to KO8). Five boreholes intersected mineralization, the deepest being 240 metres below surface. A resource of 5.3 million tonnes at 0.76% Cu (average thickness 5.5m) was estimated by Zamanglo from these results but the intersections were not assayed for Co. The results obtained by Zamanglo did not meet the desired criteria when compared to their other projects in the area, and the property was allowed to lapse.

8.4 *Johannesburg Consolidated Investments Ltd*

JCI's principle involvement in the area began in 1995 with acquisition of a Prospecting Licence over the southeastern, central and western flanks of the Konkola Dome. JCI drilled two diamond holes in the northwest of the Konkola West Licence but these were not fully logged and sampled.

8.5 *Konkola West Licence*

The Konkola West licence area is known to contain Ore Shale at its eastern extent due to on and off exploration work since 1927 and more recently exploration work by Zamanglo and JCI. The western limit of the Ore Shale in this area is still unclear but there appears to be some significant downthrow faulting or basic intrusive that has dropped the Ore Shale to an unspecified depth but there is excellent potential for westward continuation.

8.6 *Caledonia*

Following the liberalisation of the Zambian economy and changes in mining laws that started after the 1991 multi-party elections, Caledonia Mining Corporation moved into Zambia to search for mineral deposits. The company took out its first

licence in 1994 and increased the number of licences in the area to four by 1996 and the fifth licence in the Nama group by late 1998. During the period 1994 to 1996 the company focused on cobalt-copper oxide deposits located close to the surface.

Intensive drilling was conducted over oxide showings, which were selected from the initial soil sampling covering the Nama and Luamfula licences. The drilling encountered Katangan sediments consisting of conglomerates (mixtite), sandstones, siltstones and shales with carbonates in places. The exact stratigraphy of the area has not been properly understood largely due to the fact that the basement had not been encountered and no clear marker horizons identified. Dolerite or gabbroic intrusives, which are more widespread in the Upper Roan units, were also encountered. An advanced exploration stage was reached for the Nama 'A' deposit but at the time no further work was done due to a fall in cobalt prices.

In 1997 the company widened its scope of exploration targets to include sediment hosted and vein sulphide deposits due to the favourable lithology, structures and good geochemical anomalies in the area. Deposit types considered by Caledonia to have potential include:

- Sediment hosted stratiform copper deposits with or without cobalt, similar to other Zambian – Congolese Copperbelt deposits.
- Zn-Pb-Cu-Ni deposits in calcareous rocks such as at Kipushi in the DRC.
- Vein and structural deposits, which may contain gold.

Areas covered by the Nama Retention Licence have been covered completely by aeromagnetic surveys as shown in Figure 8 as well as airborne radiometrics shown in Figure 9. The results are available in digital form and prints of processed and contoured data. These images show folded and faulted sedimentary strata largely of Katanga age with numerous sites favourable for metal deposition. They also show possible sub-outcrops of the pre-Katanga Basement and numerous basic intrusive bodies.

To date there has been extensive soil sampling over most of the Nama Retention Licence with about 25000 samples collected. This work includes full coverage of over the central and central-north parts of the licence area including anomalies A to E. Samples from the western parts of the licence area were routinely analysed for 32 elements by ICP, but samples from the eastern parts were only analysed for Cu, Co, and Ni and about half the samples for Au. The early anomalies (A to F) were tested for oxides close to the surface though they have a potential for sulphides at deeper levels and laterally. The soil geochemistry has indicated the potential for metallic sulphides in sediments away from basic intrusive bodies.

In view of a downturn in the cobalt market, in the late 1990's further exploration was postponed until the findings of the initial work provided sufficient

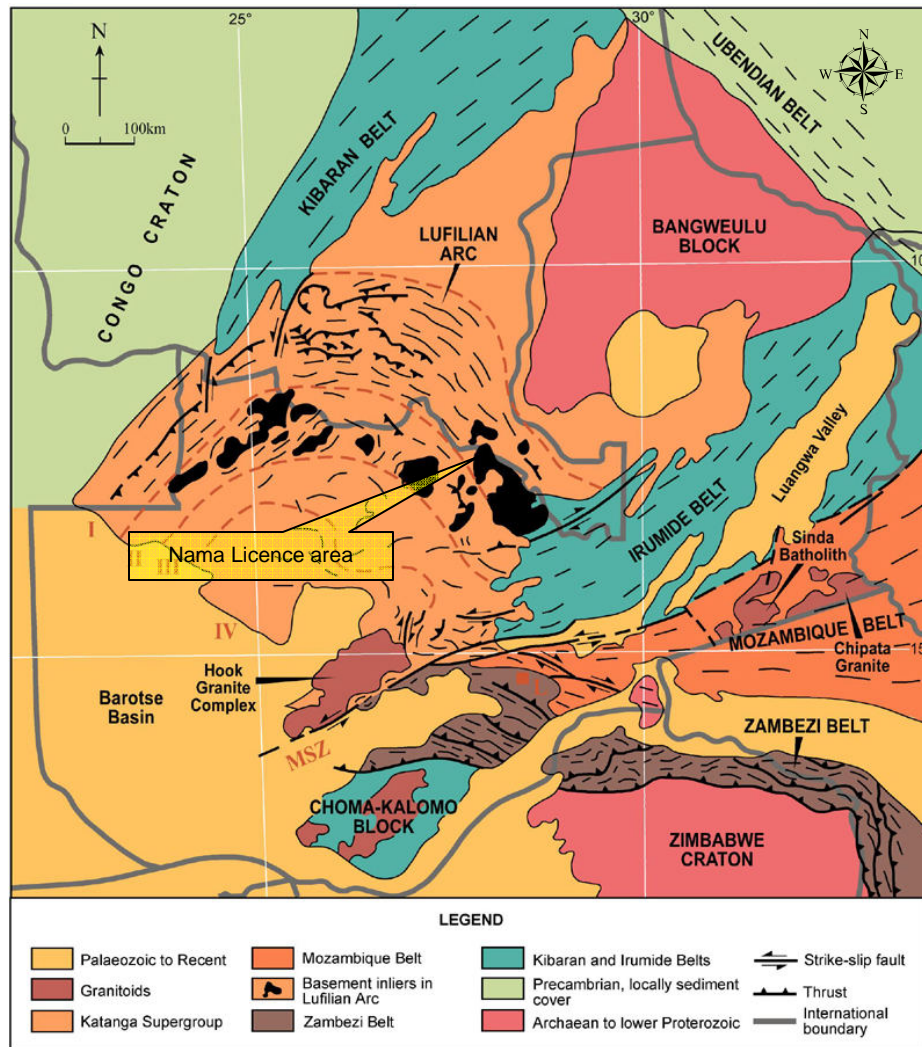
encouragement to proceed with drilling and opening up of the remaining anomalous areas.

8.7 BHP Joint Venture

In August 2000, Caledonia entered in to a joint venture agreement with BHP. This agreement allowed BHP to spend money on exploration for sulphides in the area to gain some interest in the mining rights of the Kalimba Project area. This agreement did not include cobalt-copper oxide resources that had been evaluated by Caledonia. Major field work during the JV period was done in September to December 2000 and largely consisted of soil sampling along 1000m spaced east-west cut lines. The fieldwork was preceded by a literature study aimed at refining geologic and exploration models.

BHP-Billiton concluded their joint venture agreement with Caledonia (Nama) and in terms of the agreement relinquished any further interest in the project.

Figure 6 Regional geology of Zambia and the Copperbelt



9 Regional Geology

The Zambian Copperbelt and the Cupriferous Arc of the neighbouring Democratic Republic of Congo (DRC) closely follows the Lufilian Arc as illustrated in Figure 6. The Arc is a complex structural zone that lies at the northeastern extremity of, and perpendicular to, the Damaran-Katangan belt of meso- to neo-Proterozoic sediments. This belt extends southwestward across the southern Africa subcontinent for over 2000km to the Atlantic seaboard.

The Zambian Copper Belt comprises two NW-SE trending parallel lines of Cu mineralization in neo-Proterozoic sediments some 20km apart, separated by the Palaeo-Proterozoic basement gneisses, granitoids and schists, and meso-Proterozoic conglomerates, quartzites and granitoids. The two lines follow the limbs of, and the basement makes up the core of the Kafue Anticline. Each of these belts is 5 to 20km wide and up to 150 km long. The economic mineralization however tends to occupy a linear, often more structurally complex band up to 2km wide on the SW limb, interrupted by narrow barren gaps and cross folded anticlinal basement cores. Within the two belts there are some 7 major and 25 minor stratabound deposits although the majority of these lie within the southwest belt. Since the 1930s the total mined ore plus reserves and resources has been estimated at 3000Mt @ 2.9% Cu.

Table 1 Stratigraphy of the Zambian Copperbelt

Stratigraphic Column		
Lithology	Group	
Gabbro		Post Katanga Intrusives
Limestone, shale tillite	Kundelungu	Katanga Supergroup
Shale	Mwashia	
Dolomite, Dolomitic sandstone and laminated shale	Upper Roan	
Shale with grit Hangingwall Aquifer Hangingwall Quartzite Ore Shale Footwall Quartzite/Arkose Footwall Conglomerate	Lower Roan	
Granite Gneiss, grey		
		unconformity
		Basement Complex

9.1 Stratigraphy

The neo-Proterozoic strata hosting the copper mineralisation belongs to the Katanga Supergroup sediments and is preserved in a series of structural basins separated by domes. A stratigraphic column is shown in Table 1. The present axes and locations of the domes as can be seen in Figure 6 are the product of interaction between Irumide (NE) and Lufilian (NW) orogenic trends. Within these structural basins three main types of fold style can be recognised:

- parallel en echelon anticlines and synclines on basin flanks with E-W to WNW-ESE strikes;
- drape folds over basement topographic highs; and
- asymmetric synclines the axial planes of which strike between westerly to northwesterly and dip steeply north to northeast.

Basement Complex

The Basement Complex exposed in the Konkola Dome comprises biotite gneisses and schists intruded by granitic rocks. Orthogenesis and large granite masses outcrop in relatively equal proportions and form the cores of the Luina and Mokabo domes in the adjacent DRC.

Katanga Supergroup

The stratigraphic column in Table 1 shows the general relations of the Katanga Supergroup in Zambia and the DRC. Age determinations combined with geological relationships indicate that the Katanga Supergroup was deposited between 900 and 620 My ago.

Lower Roan Group

The Lower Roan sediments are dominantly silici-clastic rocks, and were deposited unconformably on the basement complex, which had an irregular topography, with differences of elevation of several hundred metres. A basal conglomerate with cobble to boulder-sized clasts is progressively overlain by pebbly arkosic arenites, fine to medium grained argillaceous and carbonate rich arenites and an upward fining cycle, with arkosic conglomerate giving way to evaporitic dolomite at the top. The ore-shale overlies the lower clastic units and is a dark grey, siliceous, siltstone grading westward into carbonaceous shale.

Upper Roan Group

The Upper Roan is approximately 600m thick and comprises interbedded dolomite, dolomitic sandstone and dolomitic shale with considerable anhydrite. Locally the carbonate formation may be leached to depths of 300m and the shales weathered to red clays. Basic intrusives of gabbroic composition have intruded the Upper Roan as sills and dykes. These intrusives have been regionally metamorphosed with abundant amphibole, chlorite and scapolite.

Mwashia Group

This is approximately 600m thick and overlies the Upper Roan Formation. It consists of conglomerate, dolomite and shale with the latter generally pyritic and in parts carbonaceous.

Kundelungu Group

This overlies the Mwashia Group and is in excess of 6000m thick. The base of the Kundelungu Group is represented by a mixtite of granite, quartz, quartzite, dolomite and shale fragments in a massive argillaceous matrix up to 150m thick. It rests unconformably on basement granites and gneiss. The mixtite is interpreted to be a tillite or fluvio-glacial conglomerate and is in turn overlain by the Kakontwe limestone and dolomite.

Surface Cover

Alluvial and laterite deposits cover approximately 95% of the licence areas. Alluvial deposits have been deposited along the Kafue River flood plain, tributary rivers and dambos and account for 15% of the cover. They comprise sands, silts, grey clays and black soils. Laterite and lateritic or pisolitic soils account for the remaining 80% of the cover and is generally between 6 – 12m in thickness.

Structure

Regional mapping in the Nama Licence area have identified two distinct thrust systems. An earlier WSW trending thrust belt correlated with the Damaran-Katanga orogenesis is cut and displaced by a later NNE trending thrust belt which lies parallel to the limbs of major NW trending folds formed during the Lufilian orogenesis. In some Nama drill holes cobalt mineralization occurs along faults and thrusts but at this stage the geological information is insufficient for a detailed analysis of their patterns.

Regional metamorphism

Regional metamorphism accompanied deformation of the Katanga Supergroup sediments, with grade increasing from the lower greenschist facies in the east, to high greenschist facies over most of the mine areas, and to lower epidote-amphibolite facies in the southwest.

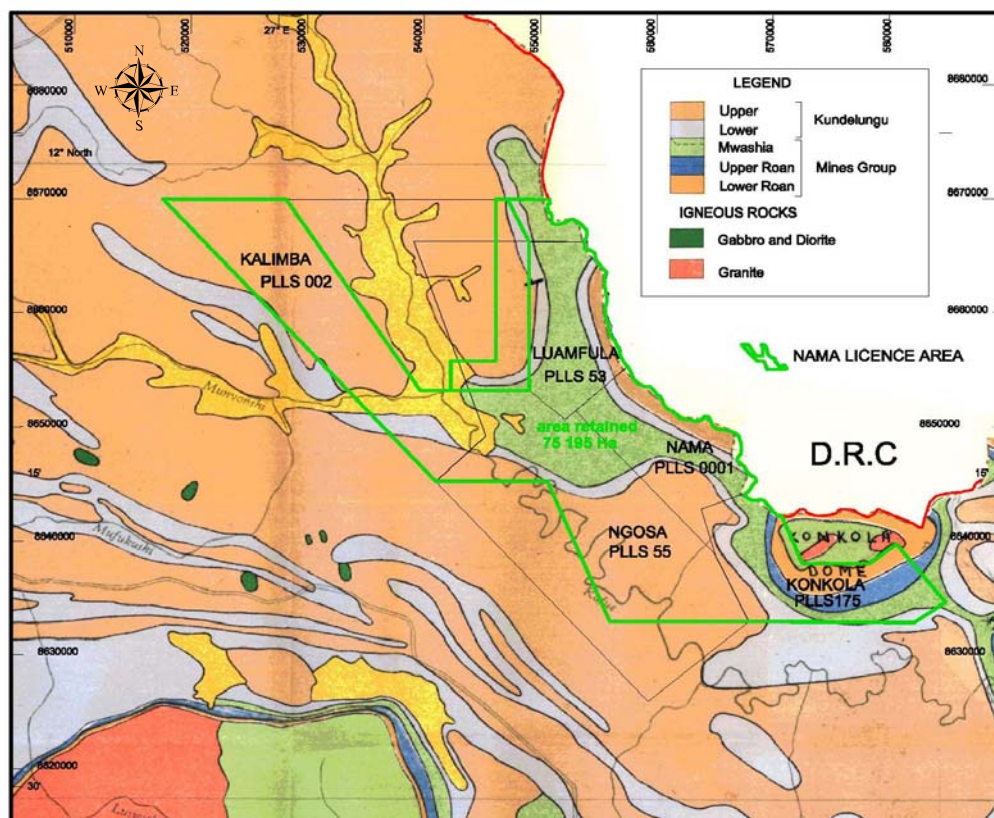
Traditionally the ore deposits of the Zambian Copper Belt have been interpreted to lie within the Lower Roan Group (up to 1000m thick) composed principally of coarse silici-clastics (conglomerate to arkose and siltstone, with lesser carbonates). Some 65% of the mineralization lies within a unit of generally carbonaceous argillites, carbonate-bearing argillites and interbedded arenites (the Ore Formation) within coarser clastic succession up to 100m thick. A further 25% of the mineralisation lies within coarser footwall clastic units and the remaining 10% within the coarse hangingwall clastic units. Lithologically 60% of the ore is hosted by argillites and 40% in arkose, quartzites and conglomerates.

Copper mineralisation of the Cupriferos Arc in the neighbouring DRC occurs in the Upper Roan Group.

9.2 Local Geology

Existing geological maps as illustrated in Figure 7 have been compiled from literature surveys, previous mapping, pitting, drilling data, inference from soil colour, texture and in many cases vegetation, especially tree species. Caledonia has supplemented this mapping with increased drilling, aeromagnetic and radiometric data. The airborne magnetic survey shown in Figure 8 has enabled the broad structural trends to be traced through the Nama Licence area which otherwise would not be evident from the very limited outcrop in the area. The radiometric map shown in Figure 9 shows high intensity radiation related to potassium associated with granite domes and accumulations of clay minerals that could be from alteration or the soil profile or both. Low radiation intensity occurs over standing water. Neither survey has data that can be directly linked to the Nama oxide mineralisation, but does provide information relevant to the regional geology of the area. A structural interpretation based on the geophysical data is presented in Figure 10.

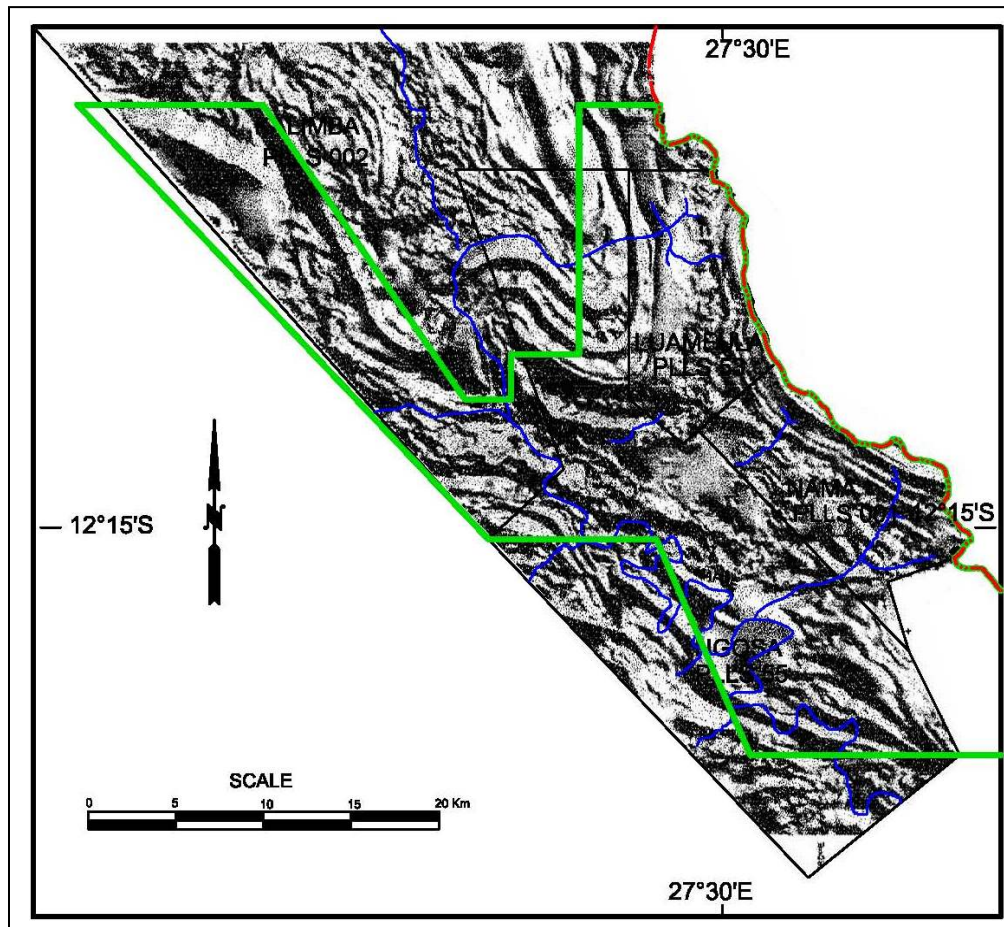
Figure 7 Geological map of the Nama Retention Licence



Caledonia's northern licences occupy the south-central part of the Lufilian Arc that extends for 800km into the DRC and Angola. The major copper-cobalt orebodies of the Zambian Copperbelt lie to the southeast and are hosted by

sediments of the Katanga Supergroup, which are believed to have been deposited in a northwesterly trending intra-cratonic basin.

Figure 8 Image of aeromagnetic data over the Nama Retention Licence Area



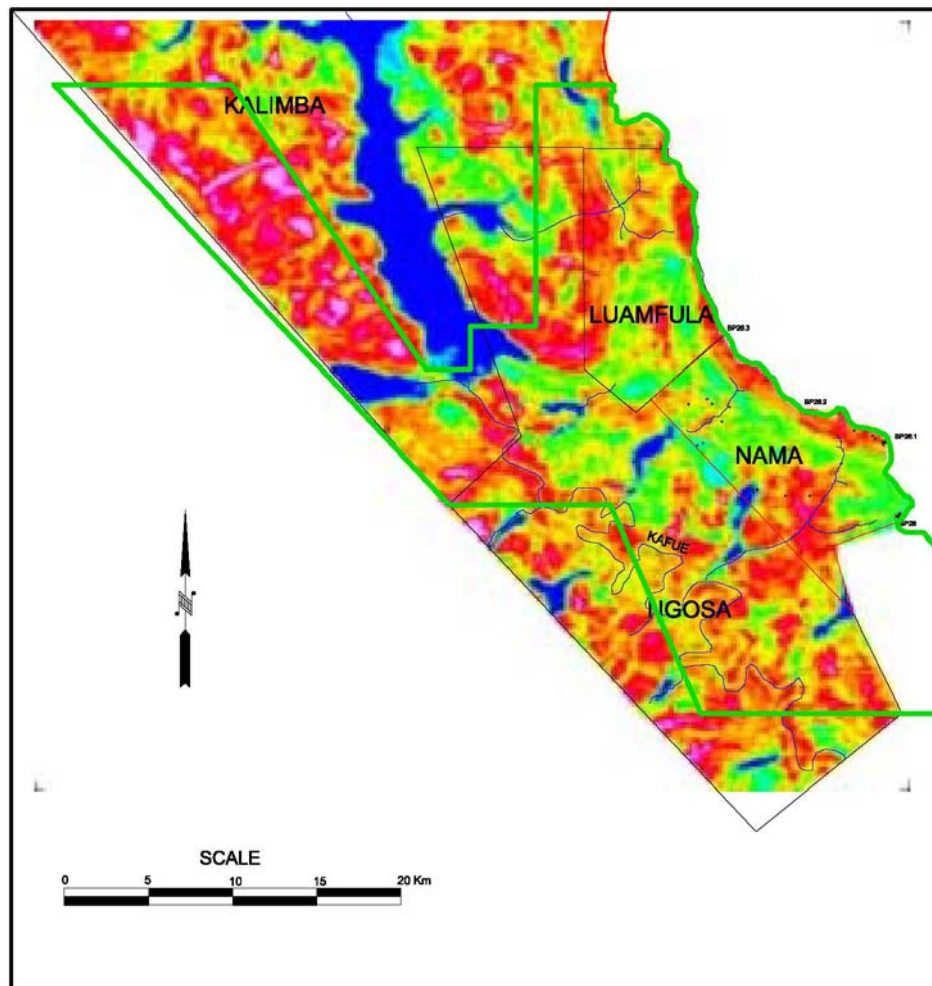
Geology of the Nama Retention Licence area

The lithologies present in the Nama licence area consist of sandstones, siltstones and argillites that could belong to either the Lower Roan or Upper Roan Groups, including a locally developed mixtite unit belonging to the Lower Kundelungu Formation. Detailed information on lithologies hosting the mineralisation in the various anomalies is largely dependent on drill logs due to the paucity of outcrops.

The sandstones and siltstones at Anomaly A are finely interbedded with argillites. The sandstones are pale grey to dark brown in colour and vary from arenites to sub-litharenites in composition, historically referred to as quartzites. In Anomalies B and C, sandstones are the dominant rock type and consist of white, fine to medium grained arenites, feldspathic arenites, lithic arenites and occasional wackes with fine bedding.

In Anomaly A, the arenites are occasionally finely interlaminated and interbedded with siltstones and argillites. Individual beds vary from millimetres to tens of centimetres. Siltstones are very siliceous, and generally melanocratic, due to finely disseminated specularite and magnetite. They are finely bedded or laminated and frequently fractured and broken.

Figure 9 Image of radiometric data over the Nama Retention Licence Area

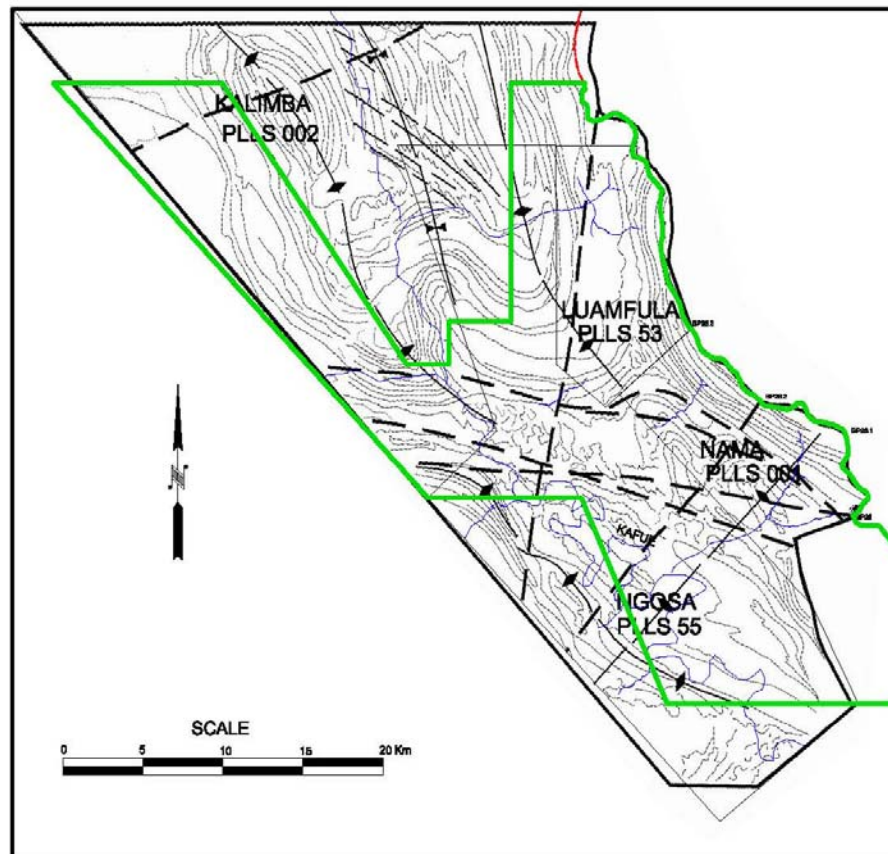


The mixtite is a competent rock that comprises granite, quartzite, dolomite and shale fragments in a massive argillaceous matrix. Mixtite commonly occurs at Anomaly A but not in Anomalies B, C., D and E. The siltstones are light to dark grey in colour, finely bedded or laminated. Argillites are finely interbedded throughout the sequence and, at the shallow depths drilled, contain large quantities of clay.

Basic intrusives occur at Anomaly B and have been interpreted as thick sills with gabbroic and metagabbroic compositions. They are fractured, sheared and brecciated with a lack of continuity. Fresh gabbro forms isolated cores while the metagabbro has developed within and along the deformed margins of fractures

and shears. They are generally dark in colour to black, with brown mottling where iron minerals have been weathered. The texture is dominantly coarse-grained but may be locally fine-grained, depending upon composition and alteration, if any. Epidote, chlorite and scapolite are widespread, especially in the metagabbros, and amphibole, scapolite and chlorite are ubiquitous especially at wall rock contacts and along fractures, shears and faults.

Figure 10 Structural map prepared by interpretation of the airborne geophysical data



Clay alteration is present along the numerous fractures, shears and faults. Epidote alteration and scapolite have been noted along with abundant calcite around veins and fractures as well as close to the contacts with the basic intrusives. Clay zones, which in part are due to weathering and alteration, occur along narrow faults and shears, but also as broad zones around quartz veins, faults and shears. The clay zones contain abundant sericite and talc.

The structure at Anomaly A has still not been completely resolved, as a result of the poor outcrop, limited quantity of diamond core and the shallow depth of drilling. It would appear that the sequence has been overturned by recumbent folding, imbricated by thrusting or both, resulting in strata correlated with the Lower and possibly Upper Roan overlying units of the Lower Kundelungu Formation. A series of thrust splays and imbrications have been interpreted by

Caledonia staff in Anomaly A as well as a large normal fault, with some strike slip movement, trending SW-NE.

Veins commonly occur in the area and are filled with abundant quartz, calcite and specularite. Psilomelane is common.

10 Deposit Types

10.1 *Main Copperbelt mineralisation*

The main Copperbelt mineralization occurs at the interface between the Lower Roan and Upper Roan Groups. The Upper Roan in turn is overlain by the Mwashia Group which comprises dolomitic siltstones, carbonaceous shale, intercalated limestones and dolomite units. The Kundelungu Group, a massive tillite (locally termed mixtite) and dolomite unit unconformably overlies the Mwashia Formation.

The mines on the Zambian Copperbelt are generally hosted within and immediately adjacent to the OS 1 Member (Ore Shale). Copper mineralization hosted in the OS 1 Member occurs at the Konkola West property as well as at several nearby mines in Zambia and the DRC. Resources amounting to well in excess of a 100 million tonnes are known to exist within or adjacent to this stratigraphic unit in this region of the Copperbelt.

The mineralised portion of the OS 1 Member is typically between 15 and 20 metres thick and, at individual mines, may have a strike length of over 10 kilometres. A complex paragenesis of native copper, copper oxides and sulphides is present. The OS 1 Member is the lowest well defined and continuous shale-siltstone-schist unit of the Katanga Sequence and has been interpreted as a reducing impervious trap and depositional site for mineralizing fluids.

At Konkola West a previous exploration company drilled 8 holes into the south limb of the Konkola structure and estimated a small resource. These holes intersected partly oxidized mineralization down to 270 m depth that was made up of both sulphide (chalcopyrite) and acid soluble copper minerals.

10.2 *Nama Cobalt-Copper Mineralization*

The Konkola West property appears to mark a broad scale change in the nature of the Copperbelt mineralization. East of this area the primary economic metal is copper (as in the major Copperbelt producers), while west of this area cobalt appears to be as important (if not more so) than copper. Based on the exposures and data available to Caledonia, a style of mineralization that is quite different from that of the main Copperbelt is evident.

The main Copperbelt mineralization occurs at the interface between the Lower Roan and Upper Roan Formations. The Upper Roan in turn is overlain by the

Mwashia Formation which comprises dolomitic siltstones, carbonaceous shale, intercalated limestones and dolomite units. The Kundulungu Formation, a massive tillite (locally termed mixtite) and dolomite unit unconformably overlies the Mwashia Formation.

Nama A style Mineralisation

The Nama Co-Cu mineralization occurs at the interface of the Kundulungu mixtite and overlying talcose and carbonate-bearing sediments. Since the mixtite is the footwall, an entirely new explanation is required for this style of mineralization. The overlying talcose sediments are highly sheared while the footwall mixtite is generally massive and competent. This contact has been interpreted to be a major fault trending E-W and dipping to the north. Sedimentary units on the northern side of the fault appear to have been drawn out against the fault in a left lateral movement. Co and Cu mineralization is interpreted to have formed as a result of hydrothermal fluids rising up the fault/shear system and impregnating the sidewalls but focusing the majority of the mineralization along the mixtite contact zone.

Both Co and Cu mineralization is characterized by rapid fluctuations in grade with values rarely exceeding 3% of either metal. The highest grades are associated with a dark brown manganiferous horizon in which the Co and Cu are intimately associated with the manganese and iron oxides and hydroxides. Lower grade mineralization occurs disseminated in the talcose clay-sandstones overlying the above brown zone. Weathering of the deposit has resulted in a high grade dispersion anomaly spreading down the slight gradient to the NW and containing some of the higher Co grades.

The Nama deposit lies in the headwaters of the Kafue River, an area which is deeply weathered and lateritized. Extreme weathering has resulted in virtually all the ore minerals in the intersected zones being oxidized. While RC drilling is relatively easy in these soft materials, extreme care must be taken to ensure that the very fine oxide grains are captured with the drill chips and not washed away. Diamond drilling on the other hand has been unsuccessful in coring these oxidised materials. The oxide nature of the ores has a fundamental impact on the proposed metallurgical approach to the body. The only sulphide minerals encountered are pyrite and chalcopyrite relicts from the deeper zones of the body (100 m to 150 m depth).

In addition to the above style of mineralization, another zone distinct from the above has been defined by RC drilling. This zone is some 40 m thick and lies at a high angle to the main shear zone. Drag on the shear where this zone meets the shear zone has resulted in drawn out convergence zone. Away from the main shear, this zone has values of approximately 0.04% Co while in the convergence zone the values are elevated considerable but erratically.

Anomaly D Style of Mineralization

Mineralization in the Anomaly D area occupies a different stratigraphic position to that at Anomaly A. According to the available geological maps for this area, the Anomaly D is situated in a broadly anticlinal structure of Mwashia Group rocks at the top of the Mines Group stratigraphy. Outcrop in the area is sparse except for a ridge of gossanous outcrop approximately 400 m long. Chip logging of the RC holes which intersected this zone of mineralization has been used to determine the main rock types in the mineralized zone as well as the surrounding unmineralized country rocks. While the surrounding country rocks consist of an assortment of siltstones and feldspathic sandstones with interbanded dolomitic rocks, the Co-bearing rocks display the attributes an alteration assemblage.

In essence, the mineralization underlying Anomaly D is a symmetrically zoned alteration sequence which varies from a core of massive hematite and magnetite (the hematite zone) through a broad envelope of magnetite-rich material (the magnetite zone) to an outer clay alteration zone (the clay zone). This zonation was intersected in whole or in part by all boreholes which contained Co mineralization.

The “hematite zone” is extremely dense and consists of black to cherry red fine grained material with silvery crystalline magnetite while the “magnetite zone” varies in character between a magnetite-hematite rock and an ochreous magnetite-clay sandstone. The “clay zone” is characterized by abundant talc development with minor chlorite and appears to be the product of a hydrous alteration event. This alteration sequence has been positively identified in all intersections which adds confidence to the interpretation of the shape of the ‘solid’ for volume estimation purposes.

The iron oxide hosted mineralization at Anomaly D forms a flat lying to open, downward concave, arcuate body the axis of which dips at approximately 15 degrees to the north, with shallow dip components to the west and east. The deepest intersection of this body was at approximately 115 metres. One hole NAM-D-RC 047 intersected a minimum thickness of 28m for the “hematite zone” but was stopped at a depth of 54m owing to drilling difficulties. Mineralisation has been intersected over a N-S distance of approximately 1000 metres but the core “hematite zone” extends for about 400m.

Extensive near surface Co enrichment has been intersected by the RC drilling as well. For the most part, this style of mineralization represents elluvial dispersion zones resulting from the erosion of the main D anomaly and other minor similar bodies in the area. A significant portion of the Inferred Resources at Anomaly D is of this type.

11 Mineralization events

Two distinct mineralization events can be recognised in the Nama Licence Group area. The eastern third of the Lufilian Arc (Figure 6) is characterised by thrusts

mineralised with copper, cobalt, lead and zinc during an event dated at about 750 Ma. The western part of the Lufilian Arc is characterised by later thrusts with copper-cobalt mineralisation in the DRC which post dates 690 Ma. The group of Nama Licences is located in a region where these two thrust systems cross one another at the NW end of the Kafue Anticline.

Primary cobalt-copper-nickel mineralization in the Nama area is commonly in the form of arsenides or sulphides and was precipitated slightly earlier than the copper as chalcopyrite and bornite. There are arsenic concentrations in the soil thought to be associated with both the early and the late thrust systems in the Nama area, and in some Nama drill holes, cobalt mineralization occurs along faults and thrusts. This implies that cobalt and accompanying metals were introduced into the formations by hydrothermal solutions following conduits generated by both the early and the late thrust fault systems.

The predominant mineralization type found in the Nama area is a cobalt-copper oxide ore occurring close to surface and formed most likely from the weathering and surface enrichment of pre-existing primary sulphide deposits. Very little is known at this stage about the mineral phases in which the cobalt, copper and nickel occur.

The mineralization on the Nama 'A' deposit occurs in two zones. The upper zone follows the subsurface contact between the overburden and bedrock. The lower zone comprises three bodies that appear to follow the Lower Kundelungu mixtite and Lower or Upper Roan Group sandstone, siltstone and argillite contacts. The mineralization is also thought to follow faults, shears and thrusts.

Oxide mineralization was encountered across the D Anomaly, where the sediments show intense alteration of chlorite, talc, epidote and silica often focussed along the sediment-intrusive contacts. Away from this alteration zone, and close to the centre of the Co enrichment, haematite and magnetite alteration occurs within the sediments and gives rise to ridges of gossanous outcrops. The gossanous material or oxidised zones coincide with elevated cobalt values. Unlike the other styles of Co mineralization, Co enrichment is relatively uniform throughout the entire alteration assemblage from the core to the "clay zone". Co values are generally between 0.1% and 0.2% while Cu values tend to be about half of that of Co. Cu experiences an enrichment in the "clay zone" while Ni is uniformly enriched in the Fe-rich zones (0.05%). All the above metals are present as oxide species since sulphur levels are very low (less than 0.1%).

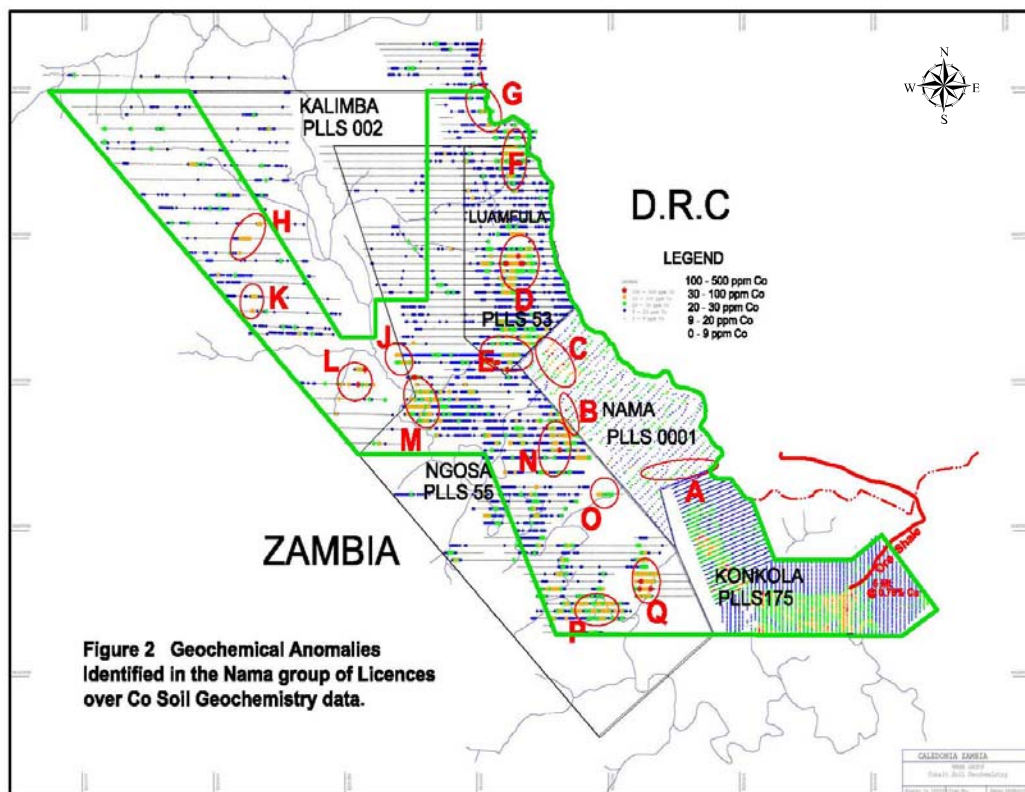
In the Konkola licence area the earlier exploration over the Konkola Dome located two copper-cobalt occurrences within the Basement Granite. Subsequent exploration work outlined the presence of the Ore Shale, which led to the discovery of the Musoshi and Konkola orebodies. The Ore Shale extends from the eastern boundary some 3.5 km across the Konkola West licence area. The mineralization within the Ore Shale is mainly chalcopyrite and pyrite, which

occurs both as fine disseminations and concentrations along bedding planes. Mineralization is usually best developed towards the top of the unit. Deep weathering and leaching of the Ore Shale has resulted in a discontinuous low order copper and cobalt anomaly detectable in the C-horizon of the soil profile. In the eastern part of the Konkola licence area Zamanglo identified the presence of Cu-Co showings with peak values of 4.25% total Cu and 0.37% total Co.

12 Exploration

Caledonia has explored the Nama Retention Licence area with soil geochemistry programs described in detail in the CPR for the Nama Retention Licence dated 1 May 2007. Statistical analysis of the geochemical data found that 13 of the 32 elements analysed have been found at sufficiently high levels above detection and at sufficient accuracy and precision for the data to be of use geochemically. The survey revealed a total of 17 sites of mineralisation defined by cobalt with co-incident copper and nickel geochemical anomalies widely spread over all of the licences and regarded as targets for further investigation (Figure 11). These

Figure 11 Location of anomalies within the Nama Retention Licence



have been identified with the letters A to Q with the letters not assigned in any order of priority except that the original discovery site was assigned the letter A.

12.1 Geophysics

During the later phase of the exploration program, Geodass (now Fugro Airborne Surveys) flew a 6235 line kilometre survey for Caledonia that covers the Nama Retention Licence area. These data included magnetic and radiometric measurements which have been used to assist in defining targets in the area (Figure 8 and Figure 9). Based on the total magnetic signature, a structural map of the general Nama area has been prepared (Figure 10) with the assistance of a Fugro and SL Earthscience. This structural analysis shows that the area is crossed by a number of shear zones and suggests that the rocks hosting the cobalt mineralization in the east are likely to continue into the western licence areas as well.

13 Drilling

Seven targets were drilled in the course of the initial Caledonia exploration program. This involved 323 reverse circulation holes amounting to some 38,000 metres of drilling. They intersected cobalt-copper oxide mineralisation in all of the main targets investigated. Reverse circulation drilling commenced soon after the first geochemical anomalies were delineated and before the soil sampling was complete. Drilling commenced on Nama A or Discovery anomaly and 29 holes were drilled in the first campaign. Later in the program, (after a further 106 RC holes had been drilled at Anomaly A) a further 1445 m of cored holes were drilled for stratigraphic purposes in Anomaly A in the central eastern and northern parts of the Retention Licence area.

13.1 RC drilling

Caledonia drilled 323 RC holes into the A, B, C, D, E, and F anomalies. An initial 29 Reverse Circulation (RC) holes, totalling 850 m, were drilled in late 1995 to test the RST geochemical anomaly originally identified in the 1960's and referred to as Anomaly A or Discovery site. The results indicated open ended low-grade cobalt mineralization on all sides and prompted a second comprehensive RC drilling program. The second phase of drilling at Nama A in April to December 1996 involved 106 RC holes drilled to a depth of 150 m and amounted to a total length of 15,208 m.

Technical difficulties associated with this drilling involved the intersection of two water tables, a perched water table between 12 and 18 metres depth yielding 1,000 to 2,000 litres per hour, and the main water table at 75 metres which yields about 5,000 litres per hour. High-volume compressors were required to drill to depths in excess of 50 m.

Geochemical anomalies located elsewhere in the Nama Retention Licence (Anomalies B, C, D, E, and F) were also followed up with RC drilling, generally to depths of 100 or 150 metres. A total of 21,980 metres was drilled into these anomalies and a similar number of samples submitted for analysis.

13.2 2007 drilling program

The 2007 drilling season commenced in May and was completed in December during which 77 RC drill holes were drilled primarily into the D and C anomaly targets. The objective of this drilling was to reduce the spacing between previously drilled holes so as to increase the confidence level of the resources in the respective areas. The following table lists the drilling statistics for the 2007 drilling campaign:

Table 2 Drilling statistics for the 2007 drilling campaign.

Anomaly	RC Drill Holes	Meters Drilled
C	23	1,309
D	52	4,131
A	2	160
Total	77	5,600

The holes were sampled over 1m intervals amounting to about 5600 samples which were submitted for assay for Co, Cu, Ni and Zn.

52 holes were drilled into the D anomaly of which 17 intersected significant mineralisation. These holes, in conjunction with previous drilling results have been used to estimate the resources in the Anomaly D resource bodies.

Drilling procedures

All new drill sites were inspected and prepared for rig access and safe drilling operations, and the borehole collar estimated with a hand-held GPS and recorded in the collar file. A consecutive numbering system is used which incorporating the hole type code and a prefix (NAM for Nama) to the hole number followed by the anomaly area code as illustrated in the following example:

NAM-D-RC 001 where:

- NAM = Nama
- D = Anomaly D area
- RC = Reverse Circulation
- 001 = Sequential number of drill hole

A new hole numbering ledger was created to enable the Field Geologist to keep a record of the numbers that have been used in the drilling program and what the next available number would be.

Logging and sampling procedures

The samples were logged on site if weather conditions allowed and involved washing small amounts of drill chips taken at regular 1m intervals down the hole. During drilling, a sample of cuttings was collected every metre and sieved by the Geologist in a 2 mm mesh sieve. The resulting clean chip sample was then

examined under a binocular microscope. Washed chips were stored in percussion chip trays as a summary record of the hole. The remainder of the sieved material was placed on a plastic sheet, subdivided with metre marks, in order to give an overview of the rock types encountered.

In the weathered zone, or if no chips were recovered, a portion of the un-sieved material was placed in the tray first with any sieved chips placed on top. The remainder of the bulk drill cuttings along with the labelled aluminium tag was placed back into the bag and stacked in neat rows of 20 samples in a safe and dust-free location away from the drill rig.

Once the hole was logged, the samples were homogenised and then quartered or reduced in size using a riffle to the point that they are of a size suitable for submission to the laboratory.

Bulk drill chip samples from completed holes were collected daily and removed to the core yard and sample storage area located adjacent to the Prospect Camp at Nama. Within the appropriate area, the drill hole samples were arranged in linear groups, with each drill hole identified by a name plate hammered into the ground at the beginning of the hole. Holes were placed in order of drilling from the southern edge of the shed to the north.

14 Sampling method and approach

14.1 Assay Sampling Procedures

General

Each bulk sample bag was labelled with the drill hole number and the from/to depth prior to it being used to collect the chips and dust from the RC cyclone. A similarly labelled aluminium tag was inserted into the bulk sample bag.

The first few meters of the Reverse Circulation (RC) Drilling involved Open Hole Percussion (OHP) style drilling, using either the hammer or tricone bit or air core depending on the ground conditions. This method is used to allow 6"x 6m, PVC-casing to be emplaced as casing, sealed by expanding polymer and then the stuffing box secured over the end of the casing for air return. This top section of a hole was sampled using about three sample trays placed around the open hole to collect loose dirt and chips. Samples were collected over 1m intervals, placed in bulk bags and stored temporarily on site.

The drill chips from the percussion drill rigs were collected direct from the cyclone over one (1) meter intervals and stored in plastic bags, or if significant water flow is encountered, in poly-weave bags.

Splitting and Assay Sampling Procedures

In order to generate a conventional 1 m assay sample, each 1 m sample interval was double split in a 25:75 splitter that effectively reduced a 30 kg sample to 2 kg to 3 kg. The remainder of the split (about 27 kg) was returned to the bulk sample bag. Each sample was packed into a 150µ thick plastic bag that was double folded and stapled across the top with the sample label stapled to the open end of the bag.

The Site Geologist supervised the sampling. Sampling information such as Hole Number; Sample Number; Depth interval; Duplicate and Standard samples and type of sample was recorded into the Sample register file by the Site Geologist. A cross-reference was created by the Crew Leader who also recorded the sampling information onto A4 sample sheets that could be compared with the Geologist's sample Register and chip trays.

Wet Sampling

The Site Geologist ensured that all wet samples were stored in poly-weave bags. Where the samples were only moist and workable, they were split but where the moisture content was sufficient to make the material sticky to the extent that it inhibited the splitting process, they were retained in a poly-weave bag to dry.

Polyweave bags containing unsampled material were flagged with blue tape for later processing. Once dry, samples were weighed and split to retrieve an appropriate assay sample and re-packed into correctly labelled plastic bags with the aluminium tag recovered or re-written and included in the new sample bag.

Sample Numbers and Duplicates

Each RC-drill rig was allocated a block of 5,000 sample ticket numbers to be used by that rig alone. These numbers were used sequentially as holes were drilled and not re-allocated to a different rig.

Duplicate samples were selected by the logging Geologist and inserted with the drill samples during the sampling process. Normally the duplicate was prepared as a second split from the -2 mm crush material. Duplicates were prepared in the ratio of approximately 1:20 samples and varied in position in the number sequence. All duplicates were part of the sequential numbering system, so that a duplicate taken of sample 100492 would be assigned a sample number of 100493. Identification of the duplicates was recorded by the Geologist in the sample register file and by the Crew Leader. Duplicate numbers are placed below the original sample in sequence and the letters 'FD' (Field Duplicate) placed into the Sample Type Column.

Sample Dispatch

The split assay sample bags were placed into poly-weave bags labelled with the laboratory address, sample type and number range, with a poly-weave bag

number for the batch (e.g. bag 3 of 6). Each poly-weave bag contained 8 to 10 samples so the total weight of the bag should not exceed about 30 kg.

Each batch consisted of approximately 300 samples, equating to no more than 900 kg of samples per batch. Sample dispatch, batch and sample numbers were recorded on the Sample Dispatch Record Sheet. Sample submission sheets for each batch were completed and sent to the respective, receiving areas.

All the appropriate paper work was checked and signed off by the Supervising Geologist and the white copy is delivered in a sealed envelope by the dispatch driver to the SGS Laboratory when the samples are delivered. Sample batches were transported by road to the SGS Laboratory in Kalulushi, Zambia every three to four days.

14.2 Drill-sample database

The RC samples have been compiled into a database as well as historic borehole samples and amounts to 35 860 samples.

15 Sample preparation, analysis and security

15.1 Sample Preparation

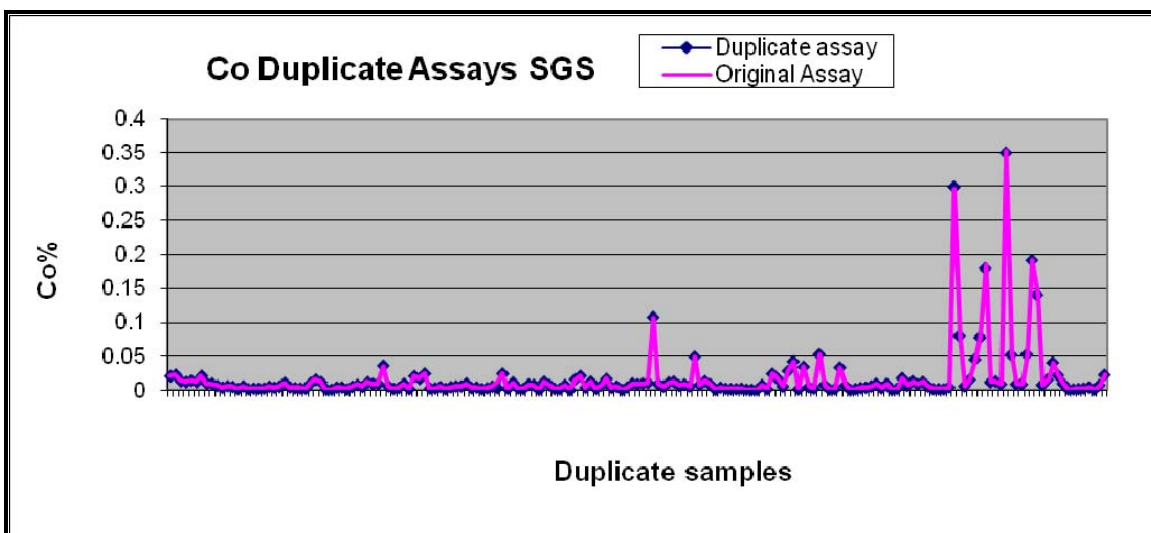
On receipt at the laboratory, samples were unpacked and arranged in numerical order to check for completeness. Samples were emptied into stainless steel dishes and put into a thermostatically controlled oven set at 110°C for 12 hours to achieve analytical dry weight. Dried samples were crushed to 90% passing 2 mm and riffle split to produce a 1000 g sub sample which was pulverized to 90% passing 95µm.

15.2 Analytical Procedure

The analytical procedure involved the weighing out of a 1.0 gram aliquot of homogenised sample powder. The aliquot was dissolved using a 4-acid digest technique. The acids include Hydrochloric Acid AR 32%, Perchloric Acid AR 70-72%, Hydrofluoric Acid AR 50% and Nitric Acid AR 69%. Acids were added sequentially to the volumetric flask and the flask left on a hot plate set at ~220°C for 1½ hours to ensure that all the aliquot was dissolved.

After cooling, the flasks were made up to volume with distilled water and the resulting liquors are read by AAS for Cu, Co, Ni and Zn for which a lower limit of detection of 1 ppm is quoted while the upper limit of accuracy quoted by the laboratory is 50% for each of the metals analysed. All data were captured electronically and computed automatically in the assay calculations.

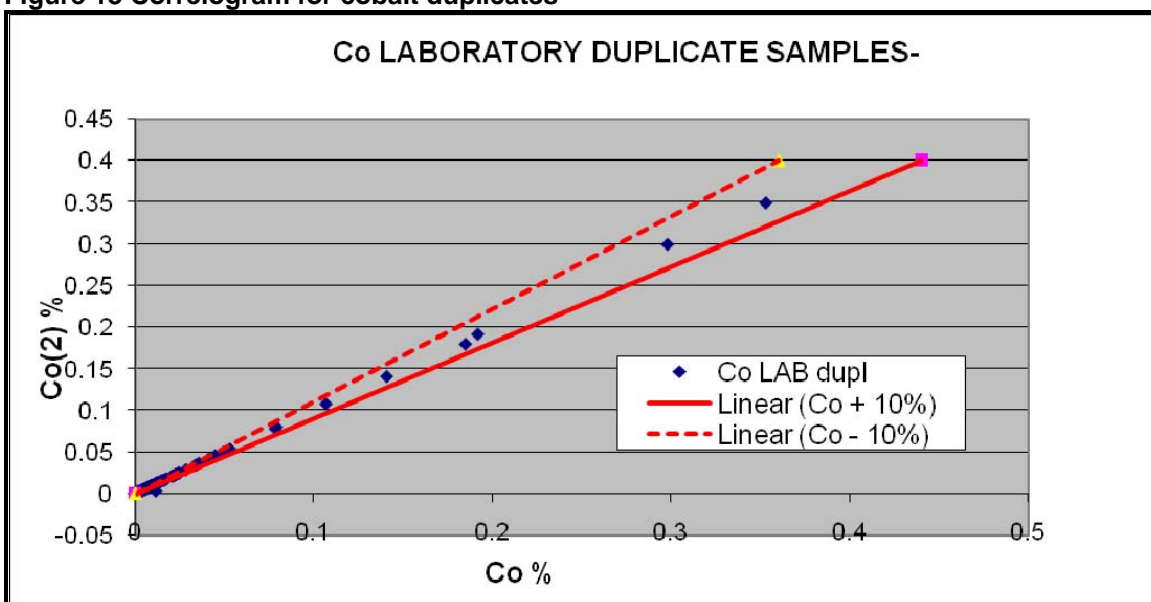
Figure 12 Graphical representation of duplicate analyses for cobalt



15.3 Analytical QA/QC

Samples were analysed in a batch size of 25. Each batch of 25 samples consisted of 21 live samples, two certified reference materials, one reagent blank and one random repeat. All QC results are reported in the final certificates to the clients. All blanks and standards were inserted by the laboratory and no QA/QC material other than duplicate samples was inserted into the batches by Caledonia staff. The comparative results of the duplicate samples for cobalt are shown in Figure 12 where they demonstrate acceptable reproducibility and in Figure 13 where they demonstrate sufficient correlation within the 10% error envelope.

Figure 13 Correlogram for cobalt duplicates



Similar plots were compiled for the duplicate analyses of Cu, Ni and Zn and all were found to show very similar agreement and correlation.

16 Data verification

Sample data was provided to Applied Geology in an electronic database compiled by staff of the Caledonia Mining Corporation and which contains borehole and sample assay data generated by the various exploration programs undertaken over the deposit including that from the 2007 drilling campaign. The architecture of the database is compliant to and accessible by Surpac Vision software.

Analytical data from the 2007 reverse circulation drilling program undertaken by Caledonia Mining was sent to the company in electronic format supported by printed copies of the analytical certificates. This data was cut and pasted into the database from the electronic versions of the assay certificates.

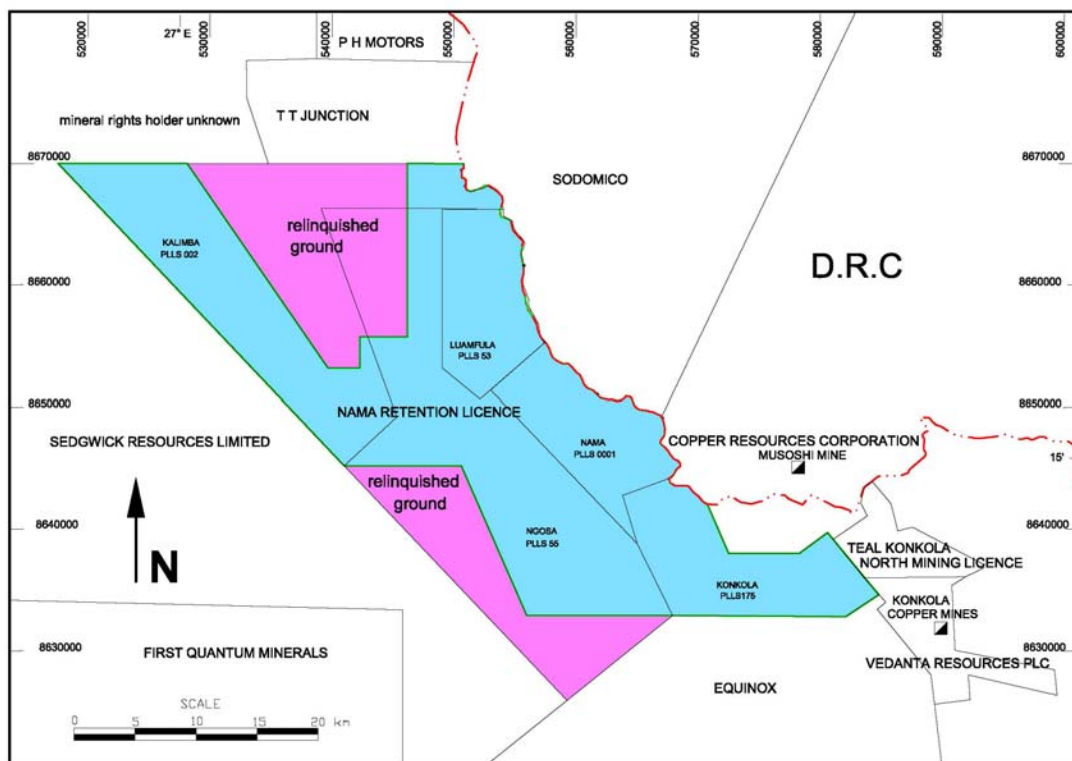
The lithology data was imported from the Summary log files that were in the Zambian database. All the collar coordinates were checked against those listed in the Global Surveys (Pty) Ltd Reports (1996). Limited data from the five diamond drill holes have also been included in the database.

17 Adjacent properties

Neighbouring properties to the Nama Retention Licence are shown in Figure 14. East of the Konkola West section of the Nama Retention Licence, a Mining Licence is held by Teal Exploration & Mining over the Konkola North property. Exploration in the area has resulted in the definition of an inferred resource of 79 million tonnes at a grade of 2.14% Cu in the North section and 170 million tonnes at 2.89% Cu in the South section. The mineralised copper-bearing “Ore Shale” is known to extend from the Konkola North property into the Konkola West section of the Caledonia property for a distance of approximately 3 km. However, mineralised Ore Shale has not been encountered in the vicinity of the common boundary between the two properties.

To the southeast of the Nama Retention Licence, with a 2 km common border, lies the Konkola Copper Mine. This is a subsidiary of Vedanta Resources PLC which controls the Nchanga Copper Mine to the southeast as well. Konkola mine has a reserve of 21 million tonnes at a grade of 3.3% Cu and a measured and indicated resource of 131 million tonnes at a grade of 4% Cu.

Figure 14 Adjacent properties to the Nama Retention Licence



The area immediately north of the Konkola West section is Dome National Forest No. 21 over which no mining or exploration companies have rights. To the south of Konkola West is the Konkola National Forest No. 20, an area held by Equinox Resources. These areas fall partly within the Kalilele National Forest No. 63, Kafue Headwaters Local Forest No. 91 and the Kafwira Extension National Forest No. 44.

On the DRC side of the border, east of the Nama Discovery site and north of the Konkola Dome, is the Musoshi Copper Mine which exploits an Ore Shale horizon that wraps around the northern flank of the Konkola granite dome (Figure 7). The mine (Miniere de Musoshi et Kinsenda) is held 75% by Copper Resources Corporation, 20% by Sodimico and 5% by the Forrest Group and is in the process of being re-commissioned. While no continuity has been established to date between the Musoshi mineralization and the Nama Discovery site mineralization, it is unlikely that the two mineralised zones could be continuous across the Zambia-DRC border on account of the fact that they occur in different horizons. North of the Musoshi property in the DRC, the mineral prospecting rights are held by Sodimico which to date has not defined economic mineralization within these rights.

North of and bordering the Nama Retention Licence, a company named T T Junction has applied for the prospecting rights over an east-west strip of land. The T T Junction property is in turn bordered to the north by an area over which P H Motors has prospecting rights. To the west of the Nama Retention Licence area, the terrain is considered to be less prospective and no mineralization is known to occur. Sedgwick Resources Limited has been awarded a prospecting licence over this area.

As a result of the relinquishing of approximately 33,000 Ha of previously held ground, a number of immediately adjoining properties now exist which either have not been applied for or, if they have, it is not yet public knowledge who might have acquired such land. It is assumed that Caledonia has no bordering neighbours in these areas.

18 Resource and reserve estimation

The results from 38 vertical RC boreholes have been used to estimate the resources for Anomaly D. The resource estimates were made by the author of this report.

No economic analysis of the mineral resources presented here is being reported and mineral resources that are not mineral reserves do not have demonstrated economic viability. Whilst the resources are shallow and suitable for open pit mining methods it is not known at this stage as to how the resources will be affected by mining, metallurgical, infrastructure and other related factors.

18.1 Density

Drilling of the D mineral body has, to date been confined to RC methods which does not provide suitable for density estimations. Consequently, density factors used in the resource calculations are based on estimations that require confirmation and, if necessary, adjustment with experimental data.

A density of 3500kg/m³ was used for the resource estimation calculations performed on the ferruginous body. This value was used mainly on account on the high proportion of hematite and magnetite in the body but it has not yet been justified by actual measurement.

Both hematite and magnetite have a specific gravity of 5.15. The “hematite core zone” is solid iron oxide (hematite 80% and magnetite 20%) and hence an estimated density of 5000kg/m³ is considered appropriate for this zone. The “magnetite zone” is gradational in character from plus 90% magnetite near the core to about 10% magnetite at the contact with the “clay zone”. The other minerals in the “magnetite zone” are mainly quartz and talc. Based on an estimated 50% magnetite for this zone as an average, a density of 4000kg/m³ appears appropriate. The “clay zone” contains no heavy minerals and consists predominantly of quartz, talc and clay minerals. Unlike the core zones, this material is weathered and consequently the density will be significantly lower than the fresh rock specific gravity of 2.7, i.e. probably about 2460kg/m³ as was used for Anomaly A.

Based on the relative volume of the above rock types, an overall density for the mineralised zone can be estimated. Further, since the Co grade is relatively evenly distributed between the various zones, such an average density should not introduce a significant bias in the average grades. Based on the aggregated

length of drill intersection for each zone, the relative percentage of each rock type is as follows, hematite zone – 18%, magnetite zone – 52%, clay zone – 30%. Weighting the density accordingly, a weighted average density for the Anomaly D hematite body is 3600kg/m³ which closely matches the assumed value of 3500kg/m³ above.

The surface enrichment zones are largely elluvial dispersions form the main iron-oxide rich body and contain large quantities of iron oxide. Consequently the density of this material will be higher than the density of the resource zone in anomaly A that was estimated to be 2460 kg/m³. An estimated density of 2700kg/m³ was used for the calculation of the inferred resources.

Density of the various mineralized zones requires further investigation that should be undertaken with core drilling.

18.2 Continuity of mineralisation

Modelling has identified five blocks of mineralisation within the D anomaly. Two of these blocks comprise the hematite-magnetite body with the clay alteration rim. This body has been drilled with holes up to 200m apart between which continuity of the body can be reasonably assumed. Most of this body has been assigned to the inferred category until continuity can be demonstrated by additional drilling.

The remaining three blocks comprise sub-surface mineralisation attributed to elluvial dispersion of the hematite-magnetite body. Holes that have intersected this mineralisation lie up to 500m apart. Resources in all these blocks have been assigned to the inferred category until continuity of mineralisation can be demonstrated with additional drilling.

18.3 Cut-off grade

The resource estimations for Anomaly D are *in situ* and no cut-off grade has been applied.

18.4 Use of historic borehole data

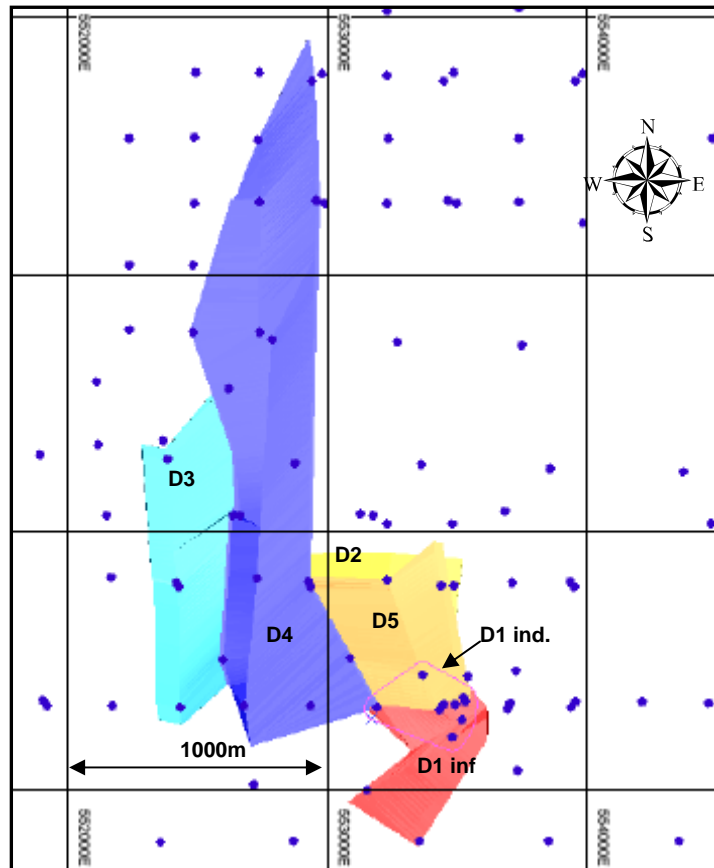
All boreholes drilled into the D anomaly were drilled by Caledonia since 1994 and their data has been incorporated into the Nama database. Caledonia drilled 67 RC holes spaced at 500m intervals along strike as well as some sections across the main part of the anomaly with holes spaced at distances of 250m or less. The holes intersected sporadic mineralisation of grades comparable to that in the A anomaly.

18.5 D Anomaly Resources

This comprises five resource blocks, D1 to D5 and these are shown in Figure 15. Block D1 has been assigned to the Indicated category and is shown in Figure 15

as an outline. The remaining portions of the D1 block and four remaining Blocks have been assigned to the inferred category.

Figure 15 Resource blocks D1 to D5 in the D Anomaly



The Indicated block lies within the hematite-magnetite body where it crops out or lies at shallow depths beneath the surface. It has been intersected by 9 boreholes spaced up to 240m apart. It is a flat to shallow north dipping, tabular body with flanks that dip gently to the west and east to create an open, convex upwards shape. Borehole intersections have demonstrated thicknesses in the order of 35m.

Wider spaced holes to the north and south suggest the continuation of the body, especially down dip to the north. Resource blocks in this part of the body have been assigned to the inferred category. The northern extension remains largely open ended.

Three near-surface blocks of mineralisation have been recognised above and northwards from the main hematite-magnetite body. Continuity of mineralisation and grade is considered likely but remains to be demonstrated with additional shallow drilling.

The resource blocks were created in 3D using Surpac Vision® software and a block model with blocks of 10m x 10m x 5m and sub-blocking to 5m x 5m x 2.5m. Block grades were estimated using an inverse squared algorithm with a maximum lateral search radius of 500m and vertical search radius of 50m. A minimum of 5 samples were used to estimate the value of any one block. Samples were constrained by the same envelope that was used to constrain the block model.

The resources contained within the blocks are summarised in Table 3.

Table 3 Summary of resources in Anomaly D

	Volume	Dens.	Tonnage	Co		Cu		Ni	
	m ³	kg/m ³	tonnes	%	TONS	%	TONS	%	TONS
INDICATED RESOURCES									
D1 (iron oxide)	2627688	3.5	9196906	0.165	15170	0.067	6160	0.050	4600
INFERRED RESOURCES									
D1 (iron oxide)	4092188	3.5	14322656	0.138	19770	0.054	7730	0.051	7300
D2 (peripheral)	2747875	3.5	9617563	0.041	3940	0.019	1830	0.017	1630
Surface									
D3 (elluvial)	2692375	2.7	7269413	0.055	4000	0.028	2040	0.013	950
D4 (elluvial)	6761563	2.7	18256219	0.035	6390	0.017	3100	0.013	2370
D5 (elluvial)	1943125	2.7	5246438	0.038	1990	0.031	1630	0.022	1150
Inferred Subtotal	18237126		54712289	0.066	36090	0.030	16330	0.024	13400
TOTAL	20865000		63909000	0.080	51260	0.035	22490	0.028	18000

19 Interpretation and conclusions

Caledonia hold 80 625 ha of prospecting rights in the Solwezi District of the Northwestern Province of Zambia. The rights are held in the form of a Retention Licence over an area prospective for low-grade cobalt-copper oxide mineralisation that lies on the northwest flank of the Zambian Copperbelt, adjacent to the common border between Zambia and the DRC. It lies on, and is contiguous with the western sides of current mining licences associated with the Konkola Mine that is under redevelopment.

The Retention Licence area has subdued relief that lies at elevations of 1280m to 1450m in a tropical climate with summer rains and dry winters. It has a subsistence population with minimal animal life. Large parts of the area are covered with Miombo type woodland parts of which have been declared as National Forest. However, prospecting is permitted in these areas so long as the work is supported with an environmental impact assessment with clear rehabilitation plans.

The Nama area has attracted exploration since the 1930's with companies such as Roan Selection Trust, Zamanglo and JCI having been active. Their work has included drilling a number of targets on the flanks of the Konkola Dome and westwards on geochemical anomalies.

The Nama area is underlain by strata of the Katanga Supergroup but detailed correlation is difficult owing to the structural complexity, paucity of outcrop and thick soil cover.

The area hosts cobalt-copper oxide mineralisation probably derived from primary cobalt and copper sulphides. These bodies lie within the weathered profile with subhorizontal and inclined attitudes. The inclined bodies appear to follow the trace of the primary sulphide mineralisation whereas the subhorizontal bodies suggest some redistribution of the cobalt and copper salts with possible scavenging by hydrated iron and manganese oxides.

Caledonia has explored for this mineralisation by soil geochemistry and airborne geophysical surveys. The soil geochemistry program was undertaken satisfactorily and proved to be effective in locating 18 anomalies as targets for follow-up exploration. Seven of these targets have been drilled by Caledonia and previous operators with a further two targets on the flanks of the Konkola dome drilled by JCI and Zamanglo.

During 2007 Caledonia undertook a RC drilling program in the Nama Retention Licence area that included further RC boreholes into the D anomaly. These boreholes have identified a combined indicated and inferred resource amounting to 63.91Mt with an average grade of 0.08%Co, 0.035%Cu and 0.028%Ni. This includes an indicated resource of 9.2Mt with a grade of 0.165%Co, 0.067%Cu and 0.05%Ni and an inferred resource of 14.3Mt with a grade of 0.138%Co, 0.054%Cu and 0.051%Ni contained within the shallow dipping hematite-magnetite body.

The exploration, drilling and sampling data has been added to an electronic database that has been partly verified by ourselves and was found to be satisfactory and adequate for an estimation of Indicated Resources.

20 Recommendations

Additional drilling of the D Resource Bodies is required to test and demonstrate continuity of mineralisation and grade. Optimum borehole spacing needs to be established by drilling perpendicular sections with holes spaced 20m apart across the different types of mineralisation underlying Anomaly D.

A study of the oxide mineralisation is required to identify the mineral phases that host the copper and cobalt salts. This study should include samples from various localities within the mineralised bodies and not just from mineralisation close to the surface. It is important to establish that the mineralogy and consequently the

metallurgical characteristics associated with the near surface mineralisation can be applied to the deeper levels. The study should be extended to include the magnetic properties of the mineral phases and their particle sizes.

Accurate determinations need to be made of rock density. This can be done on near surface material by an elaborate process of bulk extraction combined with measuring the volume of the void and weight of the material extracted. The density of deeper material can be determined from core wrapped with a light-weight impervious skin to prevent the voids from being filled with liquid.

Metallurgical test-work should continue on material from the D anomaly mineralisation with particular attention paid to using material with representative *in situ* concentrations of cobalt and copper.

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Wending Zeng (December 2006) Vice-Manager, responsible for the R&D and marketing Slon Magnetic Separator Ltd. Tests done on the bulk sample material sent to BGRIMM. 1pp.

22 Date and signature page



APPLIED GEOLOGY & MINING (PTY) LTD.

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Thursday, 01 May 2008

Ontario Securities Commission
and
British Columbia Securities Commission

Certificate and Consent

I, David E. C. S. Grant, residing at 58, Oak Avenue, River Club, Johannesburg, South Africa and member of Applied Geology Services CC CK 89/2829/23 do hereby certify that:

1. I am the author of the attached 43-101 Report on Mineral Body D in the Nama Retention Licence, Zambia, owned by Caledonia Nama Limited.
2. I am a Consulting Geologist and Member of Applied Geology Services CC with offices at 5 Coombe Place, Rivonia, Johannesburg;
3. I am a graduate of the University of Rhodesia with a BSc (Spec. Hons) in Geology and of Rhodes University, South Africa with a MSc in Mineral Exploration and have practised my profession continuously since 1977;
4. I am a registered Professional Natural Scientist with the South African Council for Natural Scientific Professions, a Fellow of The Geological Society, London, a Chartered Geologist verified by The Geological Society, a Fellow of the South African Institute of Mining and Metallurgy, and a Fellow of the Geological Society of South Africa;
5. I, as the qualified person, am independent of Caledonia Mining Limited and its subsidiaries;
6. I have been retained by Caledonia Mining Limited on a single fee basis, to prepare the "Independent Competent Persons Report of the Nama Retention Licence in Northern Zambia and held by Caledonia Mining Limited" the effective date for which is 1st May 2007. Payment of the above mentioned fee is not contingent upon the results expressed in this report;
7. I have not received, nor do I expect to receive, any interest in Caledonia Mining Limited or its subsidiaries;
8. I visited the Nama Retention Licence area from 12th to 14th February 2007;
9. I am not aware of any material fact or material change with respect to the subject matter of the technical report that is not reflected in the report, which by its omission could make the technical report misleading;
10. I have read National Instrument 43-101 and Form 43-101F1 and that the technical report has been prepared in compliance with this Instrument and Form 43-101F1;
11. I hereby consent to my Report being filed with you by Caledonia Mining Corporation.

David Grant
BSc (Spec Hons), MSc (Min. Ex.), Pr. Sci. Nat., FGS, CGeol., FSAIMM, FGSSA

Managing Director • David Grant - MSc, CGeol., Pr. Sci. Nat., FGS, FGSSA, FSAIMM
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23 Additional requirements for developing and producing properties

The Nama Retention licence is not a developing or producing property.