

1.0 EXECUTIVE SUMMARY

1.1 *Overview*

Geovic Mining Corp. (Geovic), through its 60 percent-owned subsidiary Geovic Cameroon PLC (GeoCam), controls exclusive rights to a “world-class” cobalt-nickel laterite province located in southeastern Cameroon. Washington Group International (WGI) prepared a Final Feasibility Study (FFS) for the Nkamouna Project in a report dated November 2007. The Nkamouna project, one of seven regional laterite deposits, contains 54.7 million tonnes of proven and probable mineral reserves at average grades of 0.248 percent cobalt and 0.687 percent nickel. Pincock, Allen & Holt (PAH) subcontracted to WGI to prepare the geology, mining, and economic sections of the FFS and has prepared this Technical Report.

Distinctive features of the deposits in this laterite province allow inexpensive and efficient concentration and leach processing methods, unlike those at any other mining project in the world. The unusually coarse accretions of hard cobalt mineralization in these particular deposits can be concentrated in grade by a factor of three. This concentrate is readily leached at atmospheric pressure with low consumption of sulfuric acid in six hours of agitation at 60° C.

The operating plan for Nkamouna includes a shallow open pit mine followed by processing with conventional equipment and proven technology to recover 175 million pounds of cobalt and 133 million pounds of nickel over an initial 19-year project life. This production is equivalent to annual average rates of 4,200 tonnes of cobalt and 3,200 tonnes of nickel. Based on total annual worldwide cobalt production of 57,500 tonnes in 2006, annual production of 7 percent of the world’s total production would make the Nkamouna project a “world-class” producer. Significant additional mineral areas, including Mada, occur adjacent to the Nkamouna plant that may extend the project life for many years.

This Technical Report is based in part on information prepared by other parties. PAH has relied primarily on information provided from the FFS prepared by WGI.

1.2 *Location*

Geovic’s Cobalt-Nickel Project is located in the Haut Nyong district, East Province of Cameroon, Africa. The Project’s site is 640 kilometers by road from the seaport of Douala, and about 400 kilometers from the capital city of Yaounde. The closest town to the Project site is Lomie, at approximately 26 kilometers to the west – southwest. The closest railroad transport to the Project is at the town of Belabo, at a distance of approximately 250 kilometers. Transportation from Yaounde to the Project is by paved highway to Ayos, improved public road to Abong Mbang and private logging roads or public roads to the project site. International airports and modern telecommunication facilities exist at Yaounde and Douala. Suitable shipping and receiving facilities exist at the international seaport of Douala.

1.3 Project Ownership

The mining rights held by GeoCam, consist of a Mining Permit covering a total surface of 1,250 square kilometers, which includes approximately 337 square kilometers of cobalt-nickel mineralized lands. Most of the Mining Permit lands are zoned "mineral exclusive" lands.

The Mining Convention was signed on July 31, 2002 by the Ministry of Mines, Water, and Power of the Republic of Cameroon. On April 11, 2003, a Mining Permit Decree was issued to GeoCam, covering an area of 1,250 square kilometers. The Mining Permit Decree states the area as 1,250 square kilometers, although the area within the coordinate boundary measures 1,600 square kilometers.

Geovic's participation in the Mining Permit holder GeoCam is 60 percent direct corporate holding by the US-based Geovic Mining Corp. In addition, another 0.5 percent is held by Geovic's founder. The 39.5 percent balance is currently held by four Cameroonian individual shareholders with 19.5 percent, and 20 percent held by Societe Nationale d'Investissement du Cameroun (SNI), a Cameroon government investment corporation.

1.4 Geology

Southeastern Cameroon lies within a region of metamorphosed Proterozoic rocks ranging in age from 600 to 1,800 million years and extending across much of west-central Africa. In southeastern Cameroon, several assemblages of such metamorphic rocks occur, including cobalt, nickel and manganese enriched laterite profiles that resulted from the weathering of serpentinites. The Nkamouna deposit is one of seven named laterite plateaus on the property. The deposits are hosted in residual laterites that have formed by prolonged tropical weathering of serpentinites. Large areas of mineralized laterite, some of which are several tens of square kilometers in extent, have been preserved on low-relief mesas or plateaus underlain by ultramafic rocks that stand over the surrounding dissected lowlands. The lowlands are underlain by schists, phyllites, quartzites and meta-volcanics.

The Cameroon laterite profiles show a strong vertical zonation, which reflects the transition from un-weathered host rock at the base, to highly leached residues at the surface. The Cameroon laterites depart from the norm somewhat, in possessing two layers of iron-rich laterite, between which lies ferricrete breccia. The portion of the profile under the breccia includes limonitic ferralite and underlying saprolite units that are more typical of humid tropical laterite profiles.

1.5 Mineralization

The Nkamouna reserves are unusual in terms of mineralogy as all the cobalt, approximately half the nickel and nearly all the manganese is contained in the mineral asbolane. Asbolane is a relatively hard mineral that is uniquely coarse in these particular deposits. Nkamouna is atypical of nickel laterite deposits in their high Co:Ni ratio (~1:3), high cobalt grade (0.25%), abundant maghematite, thickness of ferricrete breccia and very low content of magnesium oxide.

Of great significance is the size of asbolane agglomerates that host all of the cobalt and almost all of the manganese. Some would describe the deposit as a cobalt-containing manganese wad in a lateritic profile rather than a cobalt laterite. A substantial portion of the cobalt in other laterite deposits is contained in asbolane, but is too fine or too low grade to allow physical upgrading.

1.6 *Exploration*

Nickeliferous laterite deposits in southeast Cameroon were first discovered and investigated by the United Nations Development Program (UNDP) during 1981-1986, in a cooperative project with the Cameroon Ministry of Mines, Water and Energy to evaluate mineral potential in southeastern Cameroon. Following a regional stream sediment geochemical survey that indicated the likely presence of laterite nickel mineralization, the UNDP project drilled eleven core holes in the Nkamouna area.

Several of the UNDP holes intersected laterite and saprolite with interesting nickel and cobalt values. The first hole traversed 56 meters of laterite and fresh serpentinite, with nickel values up to 1.00 percent and cobalt values up to 0.19 percent. Due to the remote location and the low nickel prices at the time, the discovery did not draw much attention.

A government-issued Prospecting Permit covering 19,600 square kilometers was granted to GeoCam in 1995. In 1999, an Exploration Permit, PDR 67, was granted on a reduced area of 4,876 square kilometers. A Mining Convention was entered into between GeoCam and the Republic of Cameroon in 2002. In 2003, Mine Permit No. 33 was issued by decree granting to GeoCam the exclusive rights to exploit the deposits within the permitted 1,250 square kilometer area.

GeoCam's exploration program initially was based on manually dug test pits, and later incorporated drilling and limited trenching. The program began at Nkamouna and was later extended to the other laterite plateaus, which were identified by satellite images and air photos. Geologists from the Cameroon Ministry of Mines, Water and Energy participated in the work to provide government oversight as well as training. By 2004, GeoCam had undertaken an intensive pitting and drilling program on the Nkamouna plateau, due to the better access there utilizing recent logging roads. In 2006, a program was undertaken to add 5 new test pits and deepen 152 existing test pits to add an additional 731 meters of sampling. Approximately 1,277 out of 1,465 test pits and drill holes, on spacings that average 125 meters by 60 meters, support mineral resource and reserve estimates in the FFS for Nkamouna.

1.7 *Resource Modeling*

A mineral resource estimate was prepared for the Nkamouna area using a three-dimensional block model to estimate cobalt, nickel, and manganese grade. Each individual block had dimensions of 10 by 10 meters horizontal by 1-meter vertical and included lithology and resource classification codes. Block grades were estimated for cobalt, nickel, and manganese using inverse-distance-power (IDP) estimation with grade-zoning controls. Because the mineralized interval is less than 15 meters thick, including ore and overburden compared to 4,000 meters in horizontal extent, the model was flattened relative to

topography. In addition to the grade-range selection parameters, capping grades were established for each grade zone based on the composite grade distribution.

Variograms were run on 1-meter composite assays using the log-transformed grades in the index model to evaluate the continuity of cobalt, nickel, and manganese mineralization. The log-transformed variograms were then converted to relative variograms using the standard covariance transformation method. Directional variograms were computed parallel to the top of mineralization at azimuths of 0E, 30E, 60E, 90E, 120E, and 150E to evaluate directional anisotropies.

1.8 Resource Statement

Resources by definition are in-situ mineral occurrences that are quantified based on geological data, but may not necessarily be economic. Resource classification was established for each block based on the sample grid spacing model. Determination of the appropriate grid size for each resource class was based on the continuity of cobalt above a cutoff grade of 0.10 percent.

The mineral resource for Nkamouna is summarized by class in Table 1-1. The cutoff grades vary based on processing characteristics of each of the three main lithologic units.

TABLE 1-1
Geovic Mining Corp.
Nkamouna Project, Cameroon
Mineral Resource Statement

Lithology	Resource Category	Cutoff (%Co)	Tonnes (1000's)	Average %Co	Average %Ni	Average %Mn
Upper Laterite	Measured	0.12	42	0.301	0.318	1.569
Upper Breccia	Measured	0.23	229	0.468	0.490	2.190
Ferricrete Breccia	Measured	0.23	1,447	0.527	0.550	2.689
Lower Breccia	Measured	0.23	2,905	0.448	0.545	2.228
Ferralite	Measured	0.12	26,839	0.226	0.689	1.178
Total	Measured		31,462	0.263	0.667	1.352
Upper Laterite	Indicated	0.12	44	0.272	0.291	1.371
Upper Breccia	Indicated	0.23	157	0.326	0.401	1.812
Ferricrete Breccia	Indicated	0.23	604	0.461	0.474	2.242
Lower Breccia	Indicated	0.23	1,588	0.426	0.480	2.059
Ferralite	Indicated	0.12	27,475	0.207	0.673	1.087
Total	Indicated		29,869	0.224	0.657	1.166
Total	M+I		61,331	0.244	0.662	1.262
Upper Laterite	Inferred	0.12	67	0.158	0.207	1.091
Upper Breccia	Inferred	0.23	4	0.286	0.426	1.817
Ferricrete Breccia	Inferred	0.23	10	0.459	0.497	2.486
Lower Breccia	Inferred	0.23	215	0.393	0.445	1.423
Ferralite	Inferred	0.12	17,117	0.177	0.556	1.057
Total	Inferred		17,412	0.180	0.553	1.063

At the selected cutoff grades the measured and indicated mineral resource is 61.3 million tonnes at a cobalt grade of 0.244 percent and a nickel grade of 0.662 percent. In addition, the inferred resource at Nkamouna is estimated as 17.4 million tonnes at 0.180 percent cobalt grade and 0.553 percent nickel grade.

PAH believes that the resource estimate included in this report conforms to international standards such as the Canadian Institute of Mining (CIM) definitions as adopted by Canadian National Instrument NI 43-101.

1.9 Reserve Estimate

Reserves are that part of the mineral resource that can be extracted and processed at a profit. The Nkamouna ore reserves presented in Table 1-2 are classified as a proven and probable mineral reserve based on a cutoff of \$12.00/tonne net revenue. The mineral reserve is 54.7 million tonnes at a cobalt grade of 0.248 percent and a nickel grade of 0.687 percent.

TABLE 1-2
Geovic Mining Corp.
Nkamouna Project, Cameroon
Mineral Reserve Statement

CLASSIFICATION	MINERALIZED ZONE				INTERBURDEN	OVERBURDEN	TOTAL
	kTonnes	Co	Ni	Mn	kTonnes	kTonnes	kTonnes
Proven	28,868	0.264	0.690	1.406			
Probable	25,874	0.230	0.683	1.250			
TOTAL	54,742	0.248	0.687	1.331	4,327	98,231	157,299

PAH believes that the reserve estimate shown in Table 1-2 is reasonable and meets the definitions as stated by Standards for Disclosure for Mineral Projects, Form 43-101F1 and Companion Policy 43-101CP dated December 23, 2005. The qualified persons involved in the property evaluation and resource and reserve estimates were Alan Noble, P.E. of Ore Reserves, Inc. an associate of PAH, and Richard Lambert, P.E. of PAH.

The economic analysis, which can be found in Section 23 of this report, is positive at the metal prices of \$15.55/lb cobalt and \$3.75/lb nickel that were used to develop the mine plan and estimate the tonnages reported in Table 1-2. Therefore, the economic criteria are met and the estimates for Nkamouna's FFS can be classified as reserves.

1.10 Mining

The Nkamouna project will be mined as an open-pit utilizing hydraulic shovels and excavators and 54-tonne trucks as the primary mining equipment. The Nkamouna FFS considers an average annual mining rate of 8.5 million tonnes over the 19-year mine life. This includes 5.6 million tonnes of waste per year and 2.9 million tonnes of ore per year for an average stripping ratio of 1.87 to 1. The mine plan was

developed from the resource model by creating zones around the resource that are approximately 500m wide and 500m long. The 500m wide zones were developed on logical breaks in the resource model and are not uniform in dimension. The average grade and value of each block was then determined.

1.11 *Mine Design*

Design of the ultimate pit for Nkamouna was based on mining the higher valued blocks first with a natural development of the block sequence to allow backfilling of the blocks. The blocks are developed in a direction progressing downhill. This minimizes the haul distance in the early years by first developing the blocks closest to the plant.

Mine design started with the completion of the resource model. The seam model was then diluted to represent the thickness expected to be mined using reasonably selective equipment and methods. The dilution is based on a minimum of one meter of ore so that less than one meter is considered waste and if the inter-burden between ore layers is less than 2 meters it is taken with the ore. There were many areas where the inter-burden was 1 to 2 meters in thickness with some low grade values and it was determined that it would be easier to mine this with the ore than try to segregate the waste, thereby simplifying the mining method. The ore zones become much more uniform by allowing 2 meters of low grade interburden to be mined as ore.

All major access and haul roads will be crowned with sufficient thickness of screened ferricrete breccia mine waste and compacted to create road surfaces that will minimize interruptions to project operations during rainy seasons.

1.12 *Mine Operations*

Mine equipment requirements for Nkamouna were developed from the annual mine production schedule, based on the mine operation schedule, equipment availability, and equipment productivities. Mine production was based on an equipment fleet which includes 6.5-m³ hydraulic excavators and shovels, 6.9-m³ wheel loaders, 54-tonne haul trucks, and 152-mm diameter rotary drills. The location of the Physical Upgrading (PUG) plant and waste dumps or backfill repositories were used to calculate truck cycle times and estimate production capacity. The mining fleet is sized for a nominal 9-10 million tonnes per year mining rate. Production planning was based on matching truck fleets to the loader/shovel fleet based on respective cycle times.

Mine personnel includes all the exempt and non-exempt employees in operations, maintenance, engineering, and geology departments. The salaried mine staff comprises a maximum of 16 people during mine production which will include a maximum of 8 expatriates. Expatriates are replaced over time with a reduction to six by Year 2, four by Year 3, two by Year 4, and down to the Mine Manager from Year 5 through Year 19.

Plans are for the Nkamouna mine to operate two 12-hour shifts per day, 7 days per week for a total of 14 shifts per week. The mine operation schedule allows for 26 shifts per year being lost due to weather

delays in the mine. It is envisioned that mining of ore would occur on both shifts in order to minimize stockpiling and re-handling.

1.13 Metallurgy

The final ore concentration and nickel and cobalt recovery processes used as the basis for the Nkamouna FFS were developed by way of multiple metallurgical testing programs. The more significant programs were conducted by Mountain States Research and Development Inc. (MSRDI) (bench-scale testing including: attritioning, scrubbing, physical separation, settling tests, heavy media separation, pilot scrubbing tests, and bulk sample preparation) from 2003-2005, and Hazen Research Inc. (bench-scale testing including: grindability, leaching, solution purification, solvent extraction, and manganese recovery) from 2004-2005.

In 2002, Pittsburgh Mineral & Environmental Technology identified asbolane as the host of all the cobalt in the Cameroon deposits. It also established cobalt and nickel levels in the asbolane (7 to 19.5 percent CoO, 2 to 15 percent NiO). Subsequent test work confirmed that cobalt existed in a discrete, coarse form that was soluble in H₂SO₃ at atmospheric pressure.

Testwork for Physical Upgrading (PUG)

Several investigators determined that a simple physical sizing process could produce an asbolane concentrate. The concept of dis-aggregation and separation of the uniquely coarse asbolane in this ore from the fine, soft waste and low-grade material was firmly established. The finer grained, softer ferralite ore type responded more favorably than the harder breccia ore types.

Encouraged by these results, a comprehensive upgrading program was initiated at MSRDI. The program included scrubbing/attritioning of a variety of lithologic samples with and without wetting agents and pH modifiers. MSRDI evaluated particle separations at sizes ranging from 8 to 200-mesh. The objective was to optimize project economic performance not metal recoveries.

MSRDI subsequently conducted a pilot upgrading test on a 15.5-tonne representative bulk sample of Nkamouna ore. The primary objective of this program was to obtain about five tonnes of upgraded concentrates for subsequent pilot leach and solvent extraction tests. A simple truck-mounted cement mixer was used for attritioning/scrubbing along with two-stage screens for sizing the attritioned pulp to a plus 48-mesh concentrate and a minus 48-mesh fine tailing.

Based on a +48 mesh separation size, testwork indicates that 21.5 percent of the run-of-mine ore reports to the PUG concentrate, 11.5 percent to a low-grade concentrate or middling and 67 percent to the fine tailings. Analysis of final testwork confirmed upgrade factors of 3.2 for the ferralite and 1.7 for breccia, or an overall factor of three for an ore composition of 90 percent ferralite and 10 percent breccia.

Testwork for Metal Recovery Plant (MRP)

Hazen Research, Inc prepared a composite sample from the test concentrates produced by MSRDI. Hazen completed a comprehensive series of bench-scale tests investigating the dissolution of the asbolane concentrate, purification of the resulting leach solution, solvent extraction and production of cobalt, nickel and manganese products. Hazen also completed a prefeasibility study of the Metals Recovery Plant (MRP).

In addition to completing the laboratory investigations, Hazen completed a prefeasibility study of the Metals Recovery Plant (MRP). This study concentrated solely on the leaching and metals recovery operations. It included a conceptual design, preliminary equipment selection and capital and operating costs of several alternative scenarios. Hazen also completed an extensive literature search and prepared a comparison of the Nkamouna flowsheet with several other cobalt laterite operations. In addition, Hazen defined emission points and quantities for permitting.

1.14 Processing

Processing this unique material starts with crushing, attritioning and particle sizing to produce a high-grade, coarse concentrate. The PUG plant will be fed from stockpiles using a wheeled loader and direct dumping from ore haulage trucks. The run-of-mine ore is transported by haul trucks to a hopper with a 300 mm stationary grizzly. From here, material is advanced by an apron feeder to a wobbler feeder functioning simultaneously as a coarse screen. The +100 mm oversize ore is directed to a primary impact crusher while the -100 mm undersize, combined with primary crusher discharge, proceeds to a primary crushing screen. The +13 mm screen oversize is advanced to the secondary crushing. The secondary crushing circuit consists of two parallel impact crushers, two secondary screens and the appropriate conveying equipment. The combined secondary and primary screen undersize ore is conveyed to a fine ore stockpile with capacity of 125,000 tonne, or 10-day storage for the down-stream PUG Plant.

Fine crushed ore is reclaimed from the stockpile by front-end loaders discharging to a reclaim hopper. From here, the ore is advanced by a weigh-belt feeder and conveyors to a PUG mill, where ore is repulped with water to 55 percent solids. From here, the slurry is pumped to three parallel attrition scrubbers, each consisting of four agitated cells. The attritioning machines disaggregate the ore liberating the coarse hard asbolane from the fine soft lateritic oxides.

Each attrition scrubber discharges to a separate spiral classifier. The -297 micron fraction collected from three classifiers is advanced to the tailings cyclones for further classification by size. The +297 micron sands are the PUG concentrate and are conveyed to a PUG concentrate stockpile, with capacity of 20,000 tonne, or 10-days of production. The PUG concentrate constitutes feed to the metal recovery plant (MRP).

The MRP consists of equipment necessary to accomplish grinding, leaching, counter current decantaion, solution purification, solvent extraction, pyrohydrolysis, manganese hydroxide precipitation, and tailings disposal.

The plant is designed to treat 2,000 tpd of PUG concentrate, but some of the large components, namely the thickeners, were designed for a throughput of 4,000 tpd of PUG concentrate. The PUG concentrate is reclaimed from the stockpile by front-end-loader and transferred to a PUG concentrate hopper. From here it is advanced by means of belt feeder and conveyors to a 3.2 m dia. x 5.15 m ball mill, operating in closed circuit with hydrocyclones, reducing the concentrate to 80 percent -149 micron.

The metal values in the PUG concentrate are dissolved in a reducing leach utilizing SO₂. In the first stage, the "sulfite kill" step, the fresh concentrate is reacted with pregnant solution from the second stage leach. Iron is dissolved in the second stage leach. Contact with the MnO₂ contained in the PUG concentrate oxidizes the ferrous ion to ferric that precipitates as a hydroxide. Thus the sulfite kill step reduces sulfur consumption and purifies the pregnant solution.

The first stage leach consists of three leach tanks in series. The tanks are heated by steam injection to maintain the required 60° C temperature for 6 hours of retention time. The slurry from the stage one leach is pumped to a 27 m diameter primary thickener. The second stage leach consists of four mechanically agitated tanks heated with live steam to 60° C. The tanks are similar to the stage one leach with the addition of SO₂ injection pipes. Reformed SO₂ (about 70 percent SO₂) is introduced into each tank. Leaching takes place at atmospheric pressure for the six hours retention time. The leach slurry is pumped to a six-stage CCD circuit to recover solubilized values before discarding the tailings.

The leach solution is pumped to a purification circuit. Copper, zinc, and aluminum are the major impurities to be removed from the solution. Once purified, the solution is advanced to solvent extraction (SX). SX is a process consisting of extraction of cobalt and nickel values. The SX raffinate contains approximately 35 g/l manganese, which is removed by neutralization using a slaked lime Ca(OH)₂ slurry. The raffinate is then advanced to pyrohydrolysis.

The pyrohydrolysis circuit converts the nickel and cobalt chlorides from the SX circuit to their respective oxides. Metal chloride pyrohydrolysis, is a reaction of metal chlorides with water vapor usually carried out at 600-900° C. Products of this reaction are high-purity metal oxides and gaseous hydrogen chloride. The pyrohydrolysis is performed in a spray roaster.

The cobalt and nickel oxide product qualities estimated by Hazen Research, Inc. produced by the process discussed above are 78.5 percent CoO and 78.4 percent NiO, respectively.

1.15 *Tailings Disposal and Management*

The PUG plant feed is a nominal 9,300 tpd with 2,000 tpd of product to the MRP, 6,100 tpd of fine tailings, and 1,200 tpd of middling concentrates. The PUG tailings will be disposed of in the Napene

Creek Tailings Storage Facility (NCTSF). The middling concentrates will be stored in a segregated area of the mine backfill.

The two main waste streams from the MRP are manganese precipitate and CCD leach tails. The manganese precipitate will be stored in a segregated area of the mine (557 tpd) and the CCD leach tails (1,824 tpd) will be co-disposed with the PUG tails in the NCTSF.

1.16 Site Water Management

Knight Piésold concluded that the water balance for the NCTSF will operate in a water deficit condition. The 2007 design minimizes the water pumping requirements from the Edje River, as the Edje River was viewed as a more abundant water source during the 2006 design. Diversion ditches around the tailing basin have not been included in the 2007 design as the facility may be in a water deficit condition. Diversion ditches could be incorporated to divert water around the facility or into the facility depending on the water needs at the time. Additional requirements regarding water quality and potential uses or discharges will be finalized based on the results of additional waste characterization during the detail engineering phase of the project.

Approximately 839 m³/h of return water is needed for process plant operations and will be obtained from the Edje River floodplain about 2 km west of the plant site, water reclaimed from the NCTSF, or diversion of water around the NCTSF.

1.17 Ancillary Facilities

To support the mining and milling operations at Nkamouna, a number of ancillary facilities will be required. These include energy generation, a mobile equipment maintenance shop, warehouse, reagent storage building, laboratory, and administration offices.

Combined Heat and Power (CHP) units fueled by locally harvested wood will produce total project requirements of 12.5 MW of electrical energy. A temporary construction camp will be installed and used until permanent housing can be obtained to meet project operating requirements. On-site accommodations will be provided for expatriate staff, most of who will be scheduled for about 6 weeks on site and two to three weeks to their destination of choosing. Housing and other community assistance will be provided to local employees, who will be drawn from nearby villages.

Abundant water is available from shallow wells to be completed in the Edje River floodplain; however, much of the process water will be recycled from the NCTSF. Mining, processing and housing facilities will each be provided with sewage collection and treatment systems.

1.18 Regional Infrastructure

The Project is located in the East Province of Cameroon, about 640 kilometers by road from the seaport of Douala, and 400 kilometers from the capital city of Yaounde. International airports and modern

telecommunication facilities exist at Yaounde and Douala. Douala also has adequate seaport facilities to meet all foreseeable needs of the Project. Railroad transport is not planned for use since service is limited and the closest siding is 250 kilometers northeast of the Project.

Access to the Project site is from the seaport of Douala by a well-maintained provincial highway via Yaounde and Ayos. After Ayos and across the Nyong River, the highway to the Central African Republic deteriorates rapidly to a well-traveled two-lane gravel road to Abong Mbang, however, this road segment has been widened and is being surfaced with asphalt with completion scheduled by early 2009. Turning south from Abong Mbang towards Lomie, the road narrows and is frequented by log and lumber trucks over the next 127 kilometer distance to Lomie. Lomie is the only town of any size in proximity to the Project, which is 26 kilometers to the east. Driving from Yaounde to the Project takes about eight hours.

Geovic will expand and improve the road access to facilitate transport of equipment, supplies and personnel to and from the Project on a year-round basis, except during the most severe periods of rain. A small private airstrip will also be constructed near the Project to expedite the transport of personnel, small parts and supplies, and for emergencies. Scheduled bus and van service between the project and main towns and villages around the project site will provide a reliable means of transport for many employees.

1.19 *Implementation Plan*

As recommended by the Nkamouna FFS, several activities will be undertaken to advance the development and construction of the Nkamouna project. These include completion of detailed design, obtaining regulatory permits and securing financing for the Project.

A comprehensive Environmental and Social Assessment (ESA) will meet the laws of Cameroon, and IFC and World Bank standards for financing international projects. Baseline data for the ESA was collected in 2004 and included a consolidation of data from previous environmental studies. Mining, processing and reclamation operations are fully integrated in a manner that minimizes environmental impacts and risks. All permits necessary to construct and operate the project are scheduled for approval by early 2007.

1.20 *Reclamation and Closure*

The objectives, criteria and conceptual plans proposed in the Reclamation and Closure Plan will be the subject of future mine management, planning and continuing refinement. The initial Plan, as prepared by Knight Piesold (KP), is designed to provide practical onsite guidance for the implementation of the principles outlined and will undergo regular review as appropriate and necessary to update the Plan. A Project closure cost of \$24 million was developed by KP and is included in this evaluation.

1.21 *Cobalt and Nickel Sales*

The Nkamouna project will produce approximately 4,200 tpy of cobalt contained in approximately 5,700 tpy of high-grade cobalt oxide over the first 19 years of operations. This amounts to approximately 7

percent of world cobalt consumption in 2005. Demand forecasts by Geovic and independent analysts suggest that the global cobalt market will accommodate this production along with by-product cobalt from a number of other proposed copper and nickel projects. As current world cobalt production may need to triple to 160,000 tonnes per year by 2030 to meet the rapidly growing demand for hybrid electric vehicle batteries and other uses, markets for products may justify production expansions beyond 8,000 tonnes of cobalt per year.

Nkamouna nickel production is expected to average 3,200 tpy of nickel contained in approximately 4,000 tpy of high-grade nickel oxide, or less than 0.2 percent of the worldwide production.

1.22 *Project Economic Model*

The total initial capital is approximately \$397 million, with an additional \$51 million of sustaining capital required over the 19-year mine life. The 24-month construction period also includes \$18 million of costs that are treated as expenses for tax purposes. The cash operating cost per pound of cobalt produced is \$3.12 after by-product credits, including direct and indirect costs and production taxes.

Several economic models were prepared, including a Reserve Case, a Base Case, a Leveraged Case (60% debt), and a High Price Case. For comparison purposes, the results of the four cases are shown in Table 1-3. The Reserve Case used prices per pound of \$15.55 cobalt and \$3.75 nickel to establish reserves in the mine plan, whereas the Base Case and Leveraged Case used the three-year average metal prices, and the High Price Case uses \$35.00 per pound of cobalt and \$12.00 per pound of nickel.

TABLE 1-3
Geovic Mining Corp
Nkamouna Project, Cameroon
Economic Evaluations

Case:	Reserve	Base	Leveraged	High Price
Cobalt Price (\$/pound)	\$15.55	\$20.08	\$20.08	\$35.00
Nickel Price (\$/pound)	\$3.75	\$11.16	\$11.16	\$11.16
Project Economics – Pre-Tax (\$ millions)				
Cash Flow	794	2,529	2,405	5,185
NPV @ 8%	210	988	965	2,199
NPV @ 10%	139	796	788	1,822
IRR	12.7%	39.5%	63.4%	74.3%
Project Economics – After Tax (\$ millions)				
Cash Flow	559	1,792	1,721	3,668
NPV @ 8%	129	695	704	1,565
NPV @ 10%	75	555	577	1,295
IRR	10.5%	33.0%	56.1%	61.4%
Cash Operating Cost (\$ per pound Cobalt) ¹	\$8.50	\$3.12	\$3.12	\$2.87
Payback (years)	5.5	2.9	2.0	1.7

(1) Net of nickel by-product credit, and including production taxes.

Additional sensitivity models were prepared that varied the capital and operating costs, metal prices and metal recovery. Economics are discussed in more detail in Section 23.

1.22.1 Base Case Evaluation

The Base Case economic analysis generates an after-tax NPV of \$695 million (at an 8% discount rate), and an IRR of 33.0 percent. Project payback is 2.9 years. Total before-tax cash flow is \$2.53 billion. The following criteria, in addition to that presented previously, were used to develop the analysis.

1. The evaluation assumes 100 percent equity with no debt financing for a 100 percent interest in the project.
2. The analysis was done in constant fourth quarter 2007, US dollars with no escalation of operating costs, capital costs, or revenue.
3. Exploration and development costs from inception of the project in 1994 through September 2007, or prior to the 24-month construction period, are not included in the economic model. A tax loss carry-forward of \$15 million for expenditures since inception has been included in the income tax calculation.
4. Pre-production expenses during the 24-month construction period are included in the model and are estimated at \$18 million. These costs are treated as expenses for tax purposes and cover initial mining, local assistance programs, and G&A for the Project and GeoCam. Pre-production capital is depreciated at accelerated rates as allowed by the Mining Convention.
5. Working capital for the project consists of initial inventory, spare parts, and accounts receivable less accounts payable. Accounts receivable and payable are calculated for monthly revenue and payments based on 30-day collection and payments cycles. A lag of 30 days of revenue for the project is equivalent to four months of operating costs.
6. Income from salvage at the end of the project life is assumed to equal the un-depreciated book value. There is a write-down for any remaining book value for the equipment to offset income.
7. Transportation, marketing, insurance and sales expenses per pound of cobalt were estimated based on typical transportation rates and other information provided by Geovic.
8. Shipping companies will provide seaport handling and storage facilities, mainly for receiving sulfur, lime, and soda ash and shipping nickel and cobalt oxides. The costs for such services and facilities have been included in the costs of the incoming freight and products shipped.
9. Depletion is currently not applicable under Cameroonian tax law and has not been included in the economic model.

1.23 **Study Conclusions**

Key findings of the Nkamouna FFS are summarized below:

- Pincock Allen & Holt (PAH) estimates that the Nkamouna deposit contains a mineable reserve of 54.7 million tonnes of ore grading 0.248 percent cobalt and 0.687 percent nickel. Total metal contained in the ore is 299 million pounds of cobalt and 829 million pounds of nickel. The ore-body is predictable and open for further expansion. Reserves are based on definitions in Canadian National Instrument 43-101 and meet other international standards.
- The ore-body averages less than 15 meters in depth and is relatively simple to mine. Most ore is contained in one interval averaging 5.8 meters thick, thereby minimizing dilution while allowing higher productivity and lower costs than multiple thin zones. Average strip ratio is 1.87 tonnes waste: 1 tonne ore.
- Metallurgy is straight forward using attritioning and size separation to produce a high-grade concentrate while rejecting nearly 80 percent of the run-of-mine ore as waste and low grade. Concentrate leaching is at low temperature and atmospheric pressure, followed by solvent extraction and pyrohydrolysis to produce high-purity cobalt and nickel oxides. The Nkamouna ore is substantially lower in acid consuming constituents than most other laterite deposits.
- Washington Group International has prepared a detailed cost estimate for process capital and operating costs. The capital estimate is based on vendor quotes for major process equipment and is classified as an AACE Class 3 ($\pm 15\%$) estimate.
- The project has the potential to profitably produce 20,000 tonnes per year of manganese carbonate; however, the Nkamouna FFS is based on disposing manganese until markets can be better defined.
- GeoCam's mining rights were secured from The Republic of Cameroon via a Mining Convention issued in 2002 and a 25-year Mining Permit decreed in 2003 that covers 1,600 square kilometers and is renewable for the life of the resource. Business incentives were granted in 2002 when the project was designated a Strategic Enterprise Regime.
- Production statistics:

Process Throughputs	9,000 tonnes ore/day to physical upgrade plant 2,000 tonnes concentrate/day to metal recovery plant (MRP)
Physical Upgrade Plant Recoveries	cobalt 63.6% nickel 30.9%
Product Weights	21.5% in high-grade concentrates to MRP 11.5% in low-grade concentrates to stockpile

	67.0% in fine tailings to permanent disposal
Metal Recovery Plant Recoveries	cobalt 92.0% nickel 52.0%
Net Payable Metals	cobalt 58.5% nickel 16.1%
Life of Mine Production (payable metals)	cobalt 175 million pounds nickel 133 million pounds
Average Annual Cobalt Production	9.2 million pounds (4,200 tonnes)
Average Annual Nickel Production	7.0 million pounds (3,200 tonnes)

■ Economic statistics:

Initial Capital	\$397 million
Working Capital	\$ 36 million
Ongoing Capital	\$ 51 million
Expense During Construction	\$ 18 million, includes mining, G&A and training
Cash Operating Cost *	\$2.41 per pound of cobalt
Production Taxes	\$0.71 per pound of cobalt
Total Cash Costs *	\$3.12 per pound of cobalt
Capital Cost Amortization	\$2.56 per pound of cobalt
Total Cost	\$5.68 per pound of cobalt
After Tax Internal Rate of Return	33.0%
Project Net Present Value @ 8%	\$695 million
@ 10%	\$555 million
Project Payback	2.9 years

* Net of nickel by-product credit

1.23.1 Adequacy of Procedures

PAH and various other firms and independent consultants have reviewed the methods and procedures utilized by Geovic at the Nkamouna and Mada Projects to gather geological and assaying information and found them reasonable and meeting generally accepted industry standards.

1.23.2 Adequacy of Data

PAH believes that Geovic has conducted exploration and development sampling and analysis programs using standard practices, providing generally reasonable results. PAH believes the resulting data can

effectively be used in the subsequent estimation of resources and reserves for Nkamouna based on a final feasibility level of study.

1.23.3 Adequacy of Feasibility Study

This Technical Report is based on the Nkamouna Project Final Feasibility Study prepared by WGI, dated November 2007. This Final Feasibility Study was prepared using standard industry practices and provides reasonable results and conclusions.

1.23.4 Compliance with Canadian NI 43-101 Standards

PAH believes that the current pit and drill hole database for Nkamouna is sufficient for generating a feasibility level resource model for use in resource and reserve estimation. Recovery and cost estimates are based upon sufficient data and engineering to support a reserve statement. Economic analysis using these estimates generates a positive cash flow, which supports a reserve statement.

For Nkamouna, the measured and indicated resource is 61.3 million tonnes at a cobalt grade of 0.244 percent and a nickel grade of 0.662 percent. Included in this resource is a proven and probable reserve of 54.7 million tonnes of ore at a cobalt grade of 0.248 percent, a nickel grade of 0.688 percent, and a manganese grade of 1.331 percent.

PAH believes that the resource and reserve estimates have been calculated utilizing acceptable estimation methodologies. PAH is also of the opinion that the classification of measured and indicated resources for Nkamouna stated in Table 17-21, and proven and probable reserves for Nkamouna stated in Table 17-23, meet the definitions as stated by NI 43-101 and defined by CIM Standards on Mineral Resources and Reserves Definitions and Guidelines adopted by the CIM Council on December 21, 2005.

1.24 Study Recommendations

The Nkamouna Project Final Feasibility Study dated November 2007 provides reasonable results and conclusions and, in PAH's opinion, meets the requirements of a Feasibility Study. As the project moves from the feasibility stage into the design and construction phases there are areas of the project that should be given additional consideration beyond what is required for a feasibility level study. Below is a list of recommendations to consider as the Nkamouna project advances:

- 1) A procedure to determine PUG recovery factors for use in grade control should be evaluated. Laboratory methods for measuring the PUG grade should be developed. A simple series of bottle-roll tests may be sufficient. Costs for completing the analysis should be less than \$50,000.
- 2) An additional trench has been developed in the southeast part of the deposit, but the final data and report are not yet completed. This new trench information needs to be studied to confirm the correlation between holes, to evaluate the shape of the formation contacts, and to establish grade

control requirements. Remaining work to complete this report and evaluate the data is estimated at less than \$15,000.

- 3) Further evaluation and refinement of the index surface used to define the top of mineralization for the TOMI model discussed in Section 17 should be evaluated. This may also include testing of other indexing methods such as indexing to the top of the high grade zone that sits near the top of mineralization. Results should be obtained from items 1 and 2 to assist in determining the best indexing surface. Costs for completing the analysis should be less than \$50,000.
- 4) As many technical and capital and operating cost components of the Project, particularly with respect to infrastructure, PUG plant, Metal Recovery plant and CHP plant have seen a substantial increase from the Pre-Feasibility Study, an optimization study should be completed to fully define such potential improvements and establish cost savings with certainty. Costs for completing the optimization study are estimated at \$600,000.
- 5) The project will require detailed engineering and design (Detailed Design Study) completed in a manner that is approved for construction of the Metal Recovery Plant, PUG plant and CHP plant. Costs are estimated to be \$5 million.
- 6) Additional hydrological studies to determine mine dewatering requirements, pumping equipment, and discharge volumes should be undertaken. Evaluation of stormwater runoff volumes, diversion ditch locations, and mitigation measures should be included in the Detailed Design Study. Costs for hydrologic studies are estimated to be \$50,000.
- 7) It is assumed that breccias that don't meet the ore grade requirements can be used for road construction material. The Detailed Design Study should quantify the road construction requirements. This work would be completed under the Detailed Design Study costs under item 5.
- 8) The tailings design is at a prefeasibility level and as such a more detailed investigation could have an impact on construction costs. Detailed design for the tailings facility in a manner that is approved for construction is estimated at \$460,000.
- 9) Recent increases in manganese prices have made the option for producing a byproduct of manganese carbonate more attractive. This is a discretionary evaluation with upside potential for the project and should be included in the Detailed Design Study.