PROJECT DESCRIPTION

This document discusses the specific details of the proposed expansion project of Coral Bay Nickel Corporation (CBNC), including the project size and location, projected impact area, rationale, components and facilities, activities at different project phases, manpower requirements, and project investment cost. This proposed project shall focus on the construction of Tailings Storage Facility (TSF) No. 4, the utilization of Alternative Feed Materials like Mixed Hydroxide Precipitate (MHP) for the optimization of nickel and cobalt recovery for the CBNC Hydrometallurgical Processing Plant (HPP), the improvement of Greenhouse Gas (GHG) emission management by the addition/mixing of alternative fuels, and the utilization of ore from outside sources.

1.1 PROJECT BACKGROUND

1.1.1 Background of the Project

Project Name:	**CBNC Expansion Project (TSF4, Utilization of MHP to optimize Ni-Co recovery for the HPP, GHG emission management, and ore utilization from outside sources)**
Nature of Project:	**Resource Extractive Industry (Mineral Processing)**
Total Area of proposed facilities:	**1,077.18 hectares – Combined Existing and Proposed facilities**
Site Location:	**Rio Tuba Export Processing Zone (RTEPZ) Barangay Rio Tuba, Municipality of Bataraza Province of Palawan**

1.1.2 Profile of the Proponent

Name of Proponent:	**Coral Bay Nickel Corporation (CBNC)**
Office Address:	**Rio Tuba Export Processing Zone (RTEPZ) Barangay Rio Tuba, Municipality of Bataraza Province of Palawan**
Contact Person:	**Engr. Benjamin Armand A. Tansingco Vice President for Environmental Management**
Tel No./Fax No.:	**+632 85487110 / +632 88563930**

1.1.3. Historical Background of the Project

On July 10, 2002, Rio Tuba Nickel Mining Corporation (RTNMC) was granted an Environmental Compliance Certificate (ECC No. 0201-021-313, **Annex 1.1.1**) for the Hydrometallurgical Processing Plant (HPP) Project, which includes the 13.0-ha limestone quarry in Sitio Gotok, Barangay Iwahig, Municipality of Bataraza. With the establishment of Coral Bay Nickel Corporation (CBNC), the Environmental Management Bureau (EMB)

acknowledged the Deed of Assignment and Responsibilities by and between CBNC and RTNMC in relation to the facilities and conditions set forth in the ECC. The deed was duly received by the EMB Records Division on December 5, 2002. Eventually, in 2006, CBNC applied for an ECC for Line 2 of its HPP Project, which was approved on February 1, 2007 with reference code ECC-0701-002-3721 (**Annex 1.1.2**). This ECC supersedes ECC No. 0201-021-313 issued for HPP Line 1.

On December 20, 2018, the ECC (Ref. No. CO-1806-0014) was again amended, superseding ECC-0701-002-3721. The current ECC covers the Mixed Sulfide annual production capacity of 25,000 Dry Metric Tons (DMT) of nickel and 2,500 DMT (from 1,875 DMT) of cobalt per year and an additional tailings storage facility (TSF3) with a total area of 111 hectares (**Annex 1.1.3**).

A summary of the project timeline is provided in **Table 1.1.1**.

Table 1.1.1. Timeline of ECC issuances and their corresponding coverages

Date	ECC Coverage	Supporting Document
July 10, 2002	ECC (Ref no. 0201-021-313) for the HPP Project was granted to RTNMC	Copy of the ECC (**Annex 1.1.1**)
February 1, 2007	The ECC (Ref. Code 0701-002-3721) for the Line 2 HPP Project of CBNC was granted. This ECC supersedes ECC No. 0201-021-313.	Copy of the ECC (**Annex 1.1.2**)
December 20, 2018	The ECC (Ref. Code CO-1806-0014) for the increase in annual production capacity of mixed sulfide and construction of TSF 3. This ECC supersedes ECC No. 0701-002-3721.	Copy of the ECC (**Annex 1.1.3**)
February 14, 2022	The Certificate of Non-Coverage (CNC-OL-R4B-2022-02-00251) was granted for the Pilot Testing of Mixed Hydroxide Precipitate (MHP) of Prony as Possible Feed Material.	Copy of the CNC (**Annex 1.1.4**)
February 17, 2022	The Certificate of Non-Coverage (CNC-OL-R4B-2022-02-00284) was granted for the Pilot Testing on the Use of 1% biomass fuel as Alternative Fuel for CBNC's Coal Fired Boilers for the Improvement of CO_2 Emissions	Copy of the CNC (**Annex 1.1.5**)

CBNC also applied for other projects/demonstrations, and pilot projects in 2022. Specifically, a Certificate of Non-Coverage (CNC-OL-R4B-2022-02-00251) was granted for the Pilot Testing of Mixed Hydroxide Precipitate (MHP) of Prony as Possible Feed Material on April 14, 2022, and CNC-OL-R4B-2022-02-00284 on February 17, 2022 for the Pilot Testing on the Use of 1% biomass fuel as Alternative Fuel for CBNC's Coal-Fired Boilers for the Improvement of CO_2 Emissions.

For this application, CBNC is seeking the amendment of its ECC, hence the preparation of this Environmental Impact Assessment (EIA). CBNC's commitment to adhere to the continuous improvement of its environmental management plan is a platform to strategically implement advanced steps towards its constant realization. By 2028, it is expected that TSF3 will be completely filled. Thus, CBNC is proposing the construction of TSF4 in addition to the integration of alternative feed materials as a mechanism to further alleviate GHG emissions, the incorporation of Mixed Hydroxide Precipitate (MHP) into the HPP process to optimize the Ni-Co recovery, and the sourcing of nickel ore from other local sources in the country.

1.2 PROJECT LOCATION AND AREA

1.2.1 LOCATION AND AREA

The proposed expansion project will be located within the existing HPP complex inside the Rio Tuba Export Processing Zone (RTEPZ) in Barangay Rio Tuba, Municipality of Bataraza, Province of Palawan. Its location will fall within the boundaries of Barangays Rio Tuba and Ocayan. **Figures 1.2.1** and **1.2.2** depict the location and vicinity maps of the proposed project, respectively. The proposed expansion area is within the "multiple-use zone" and "controlled-use zone" based on the Environmentally Critical Areas Network (ECAN) Map of the Palawan Council for Sustainable Development (PCSD), as illustrated in **Figure 1.2.3**. The site development plan is also included in **Figure 1.2.4**, showing the major and auxiliary facilities of CBNC, while the geographic coordinates, including the proposed expansion area, are listed in **Table 1.2.1**.

Table 1.2.1. Geographic coordinates of the project components

Project Component	Perimeter/Boundary points (Based on OCT/TCT/etc.)	Latitude	Longitude
TSF-4 (proposed)	Corner 1	08°33'49.169"	117°23'55.454"
	Corner 2	08°34'04.360"	117°23'39.830"
	Corner 3	08°34'14.124"	117°23'39.802"
	Corner 4	08°34'14.173"	117°23'56.822"
	Corner 5	08°34'42.755"	117°23'56.740"
	Corner 6	08°34'48.546"	117°24'01.144"
	Corner 7	08°34'56.497"	117°24'01.121"
	Corner 8	08°34'56.581"	117°24'30.707"
	Corner 9	08°34'37.458"	117°24'30.761"
	Corner 10	08°34'24.650"	117°24'50.417"
	Corner 11	08°34'24.104"	117°24'55.800"
	Corner 12	08°34'14.352"	117°25'00.255"
	Corner 13	08°34'08.824"	117°25'00.271"
	Corner 14	08°33'49.353"	117°25'00.326"
TSF-3 (under construction)	Corner 1	8° 34' 11.41"	117° 25' 39.73"
	Corner 2	8° 34' 17.12"	117° 25' 39.79"
	Corner 3	8° 34' 19.27"	117° 25' 36.22"
	Corner 4	8° 34' 27.34"	117° 25' 37.33"
	Corner 5	8° 34' 36.62"	117° 25' 35.08"
	Corner 6	8° 34' 43.19"	117° 25' 28.14"
	Corner 7	8° 35' 0.94"	117° 25' 26.62"
	Corner 8	8° 35' 0.79"	117° 25' 45.61"
	Corner 9	8° 34' 41.76"	117° 25' 57.35"
	Corner 10	8° 34' 11.22"	117° 26' 3.18"
TSF- 2 (Existing)	Corner 11	8° 35' 26.78"	117° 24' 30.62"
	Corner 12	8° 35' 23.99"	117° 24' 37.12"
	Corner 13	8° 35' 23.05"	117° 24' 41.12"
	Corner 14	8° 35' 22.52"	117° 24' 48.52"
	Corner 15	8° 35' 16.51"	117° 25' 0.96"
	Corner 16	8° 35' 9.89"	117° 25' 6.76"
	Corner 17	8° 35' 2.02"	117° 25' 11.83"
	Corner 18	8° 34' 48.24"	117° 25' 15.87"
	Corner 19	8° 34' 46.07"	117° 25' 14.99"
	Corner 20	8° 34' 28.03"	117° 24' 51.34"
	Corner 21	8° 34' 33.24"	117° 24' 32.17"
	Corner 22	8° 34' 28.84"	117° 24' 28.09"
	Corner 23	8° 34' 37.39"	117° 24' 18.36"
	Corner 24	8° 34' 50.79"	117° 24' 19.44"
	Corner 25	8° 34' 55.02"	117° 24' 24.19"
	Corner 26	8° 35' 19.5"	117° 24' 26.74"

Project Component	Perimeter/Boundary points (Based on OCT/TCT/etc.)	Latitude	Longitude
TSF-1 (Fully rehabilitated)	Corner 27	8º 34' 26.83"	117º 25' 24.05"
	Corner 28	8º 34' 14.74"	117º 25' 37.40"
	Corner 29	8º 34' 1.35"	117º 25' 37.34"
	Corner 30	8º 33' 52.47"	117º 25' 21.67"
	Corner 31	8º 33' 52.64"	117º 25' 6.5"
	Corner 32	8º 33' 57.93"	117º 24' 59.44"
	Corner 33	8º 34' 10.89"	117º 24' 56.15"
	Corner 34	8º 34' 14.28"	117º 24' 58.55"
HPP Line 1 and 2 (Existing)	Corner 35	8º 33' 48.14"	117º 25' 3.9"
	Corner 36	8º 33' 48.11"	117º 25' 31.78"
	Corner 37	8º 33' 30.95"	117º 25' 31.76"
	Corner 38	8º 33' 30.98"	117º 25' 3.89"
Causeway, trestle and other associated facilities (Existing)	Corner 39	8º 30' 39.76"	117º 26' 36.38"
	Corner 40	8º 30' 43.04"	117º 26' 49.63"
	Corner 41	8º 30' 46.65"	117º 26' 49.07"
	Corner 42	8º 30' 47.96"	117º 26' 58.17"
	Corner 43	8º 30' 42.86"	117º 26' 58.96"
	Corner 44	8º 30' 42.17"	117º 26' 54.50"
	Corner 45	8º 30' 37.24"	117º 26' 56.09"
	Corner 46	8º 30' 30.20"	117º 26' 51.62"
	Corner 47	8º 30' 27.25"	117º 26' 51.62"
	Corner 48	8º 30' 14.88"	117º 27' 00.82"
	Corner 49	8º 30' 12.94"	117º 26' 58.19"
	Corner 50	8º 30' 28.68"	117º 26' 46.48"
	Corner 51	8º 30' 28.95"	117º 26' 39.94"

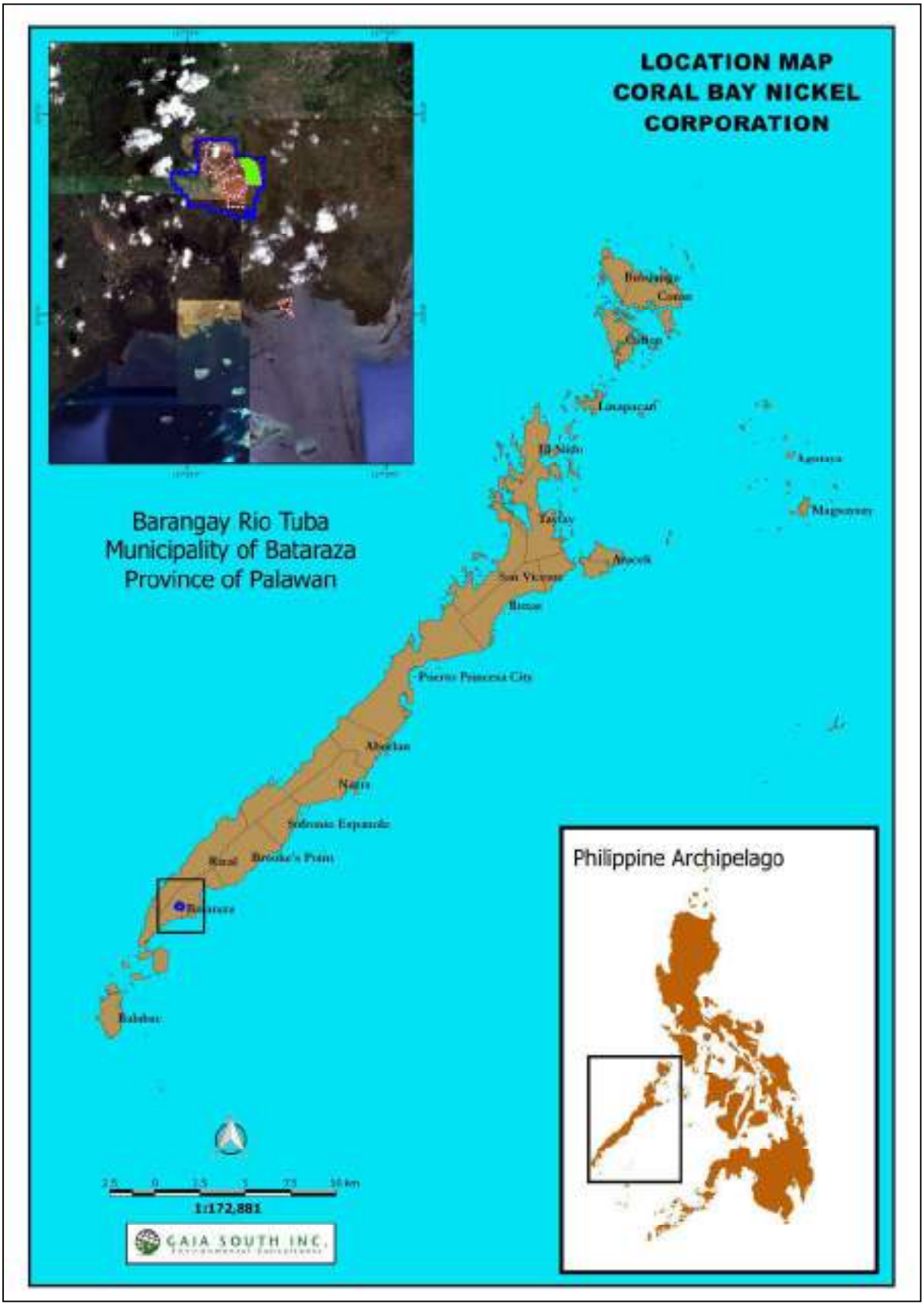

Figure 1.2.1. Location map of the proposed CBNC Expansion Project.

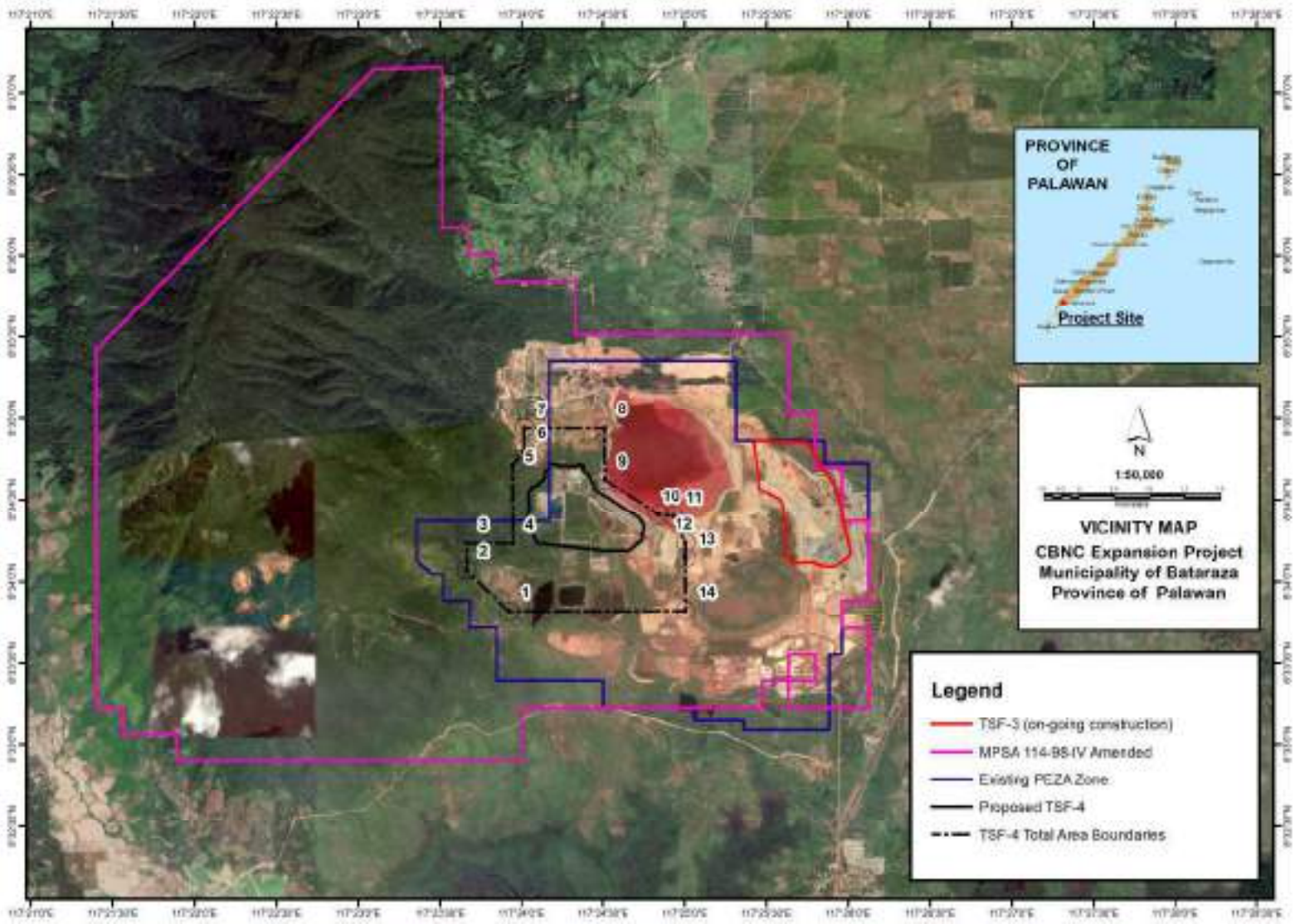

Figure 1.2.2. Vicinity map of the proposed CBNC Expansion Project.

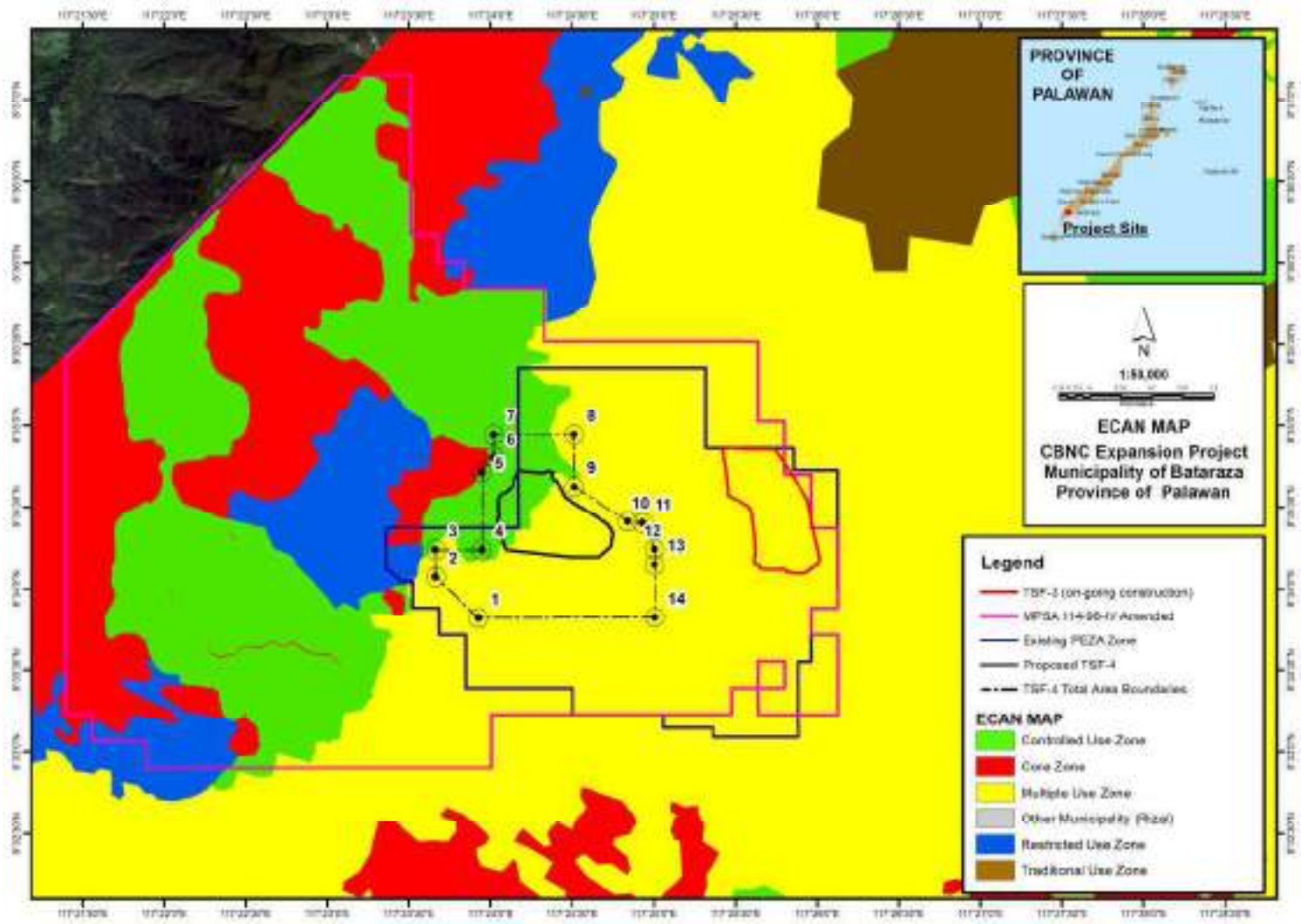

Figure 1.2.3. ECAN map of PCSD illustrating the location of TSF4 and CBNC HPP in the "Multiple-Use Zone" and "Controlled-Use Zone" (*Source: PCSD ECAN Map)*

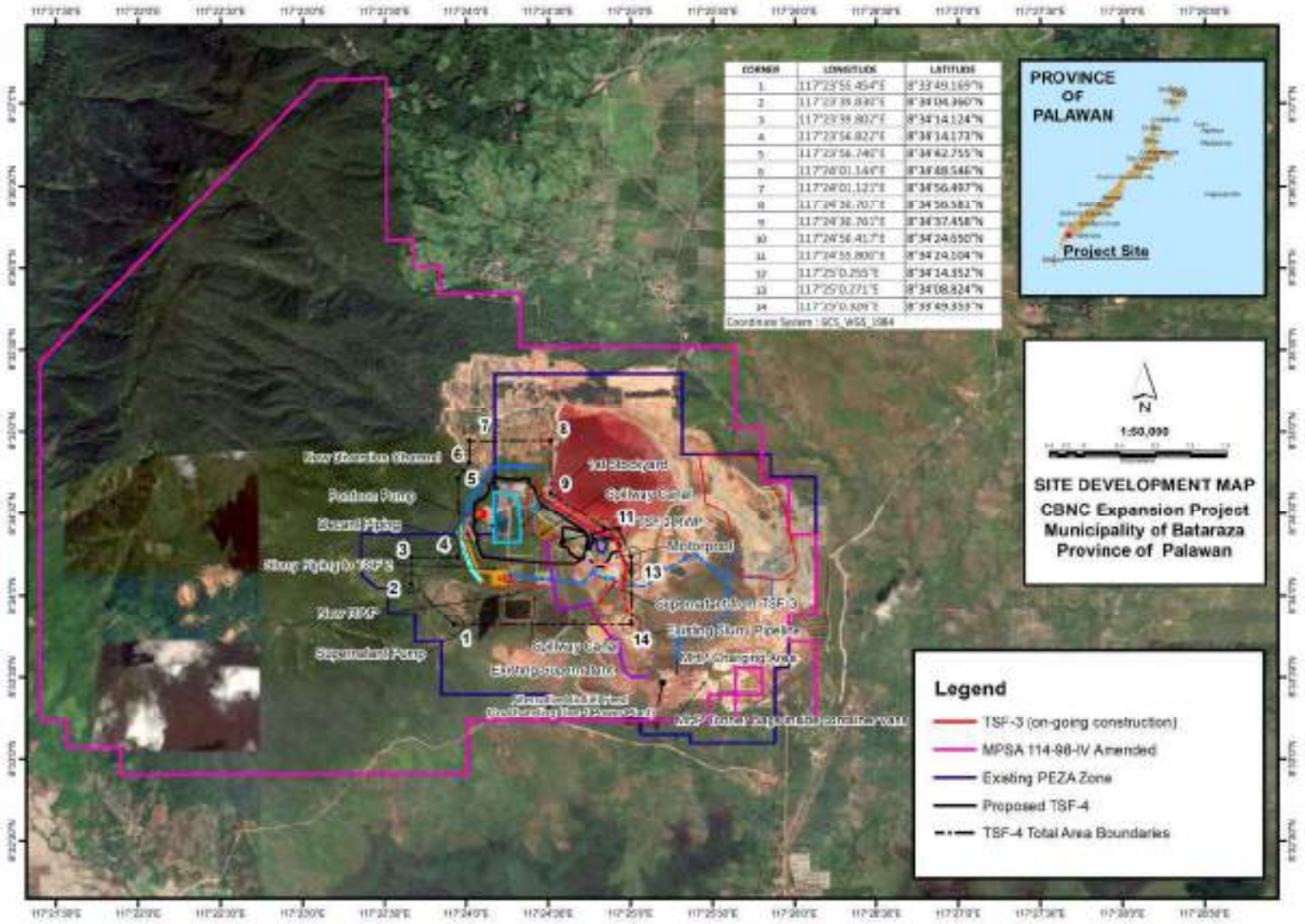

Figure 1.2.4. Site development plan of the proposed CBNC Expansion Project

1.2.2 Proof of Authority over the Project Site

CBNC has an existing Lease Agreement with Rio Tuba Nickel Mining Corporation for the use of the portion of the land within the Rio Tuba Export Processing Zone (RTEPZ), which is also within the Mineral Production Sharing Agreement (MPSA) 144-98-IV. Attached as **Annex 1.2.1** are the Lease Agreements by and between CBNC and RTNMC for the use of land for the entire HPP and pier stockyard, as well as the official Confirmation and Approval for the use of land for the proposed TSF4 area.

1.3 PROJECT RATIONALE

CBNC has been in full operation since 2003 and has a profound level of compliance with each ECC Condition. The company's mandate to exemplify its compliance not only to the environmental regulations but to the overall operational management has led the organization to be ISO-certified: ISO 14001, or the Environmental Management System, 2015 version, and ISO 9001:2015, or the Quality Management System. Continuing its core mission of strengthening environmental management, CBNC has kept dynamic strategies in place to plan ahead and address potential project impacts.

Tailings Management and Storage

The construction and operation of the Tailings Storage Facilities (TSF) is an important component of the Hydrometallurgical Processing Plant (HPP). During the course of regular operation, the generated tailings are directed to the TSF for proper storage/disposal to ward off deterioration of the nearby water bodies. Two TSFs have been constructed since the start of the HPP's operation. TSF1 was operated from 2005 to 2010, while TSF2 has been in operation since 2010 and will be completely filled by 2023. TSF3, which was approved in 2018, is currently being developed and will commence its operation once TSF2 has been decommissioned. TSF3 is expected to be utilized from 2023 to 2028. Subsequently, TSF4, as a continuous management measure to safely store tailings, will start its operation by 2028, or until TSF3 has been filled up.

Maximizing the recovery of Nickel (Ni) and Cobalt (Co) by Utilizing Alternative Feed Material for the HPP

Because of the low nickel content of the available low-grade nickel ore from RTNMC, CBNC has been limited to producing only 20,000 MT-Ni/year instead of its rated capacity of 25,000 MT-Ni/year. In order to fully utilize the production capacity of the HPP facilities and optimize the processing costs, CBNC plans to optimize production efficiency by incorporating alternative feed materials that could help improve the output. This is through the use of Mixed Hydroxide Precipitate (MHP) as a supplemental raw material to give CBNC more flexibility in its full operation. Further to such efficiency, there will be no modifications or additional equipment to be installed at the present production process and no perceived impacts to the environment, thus the existing environmental management measures still apply.

Greenhouse Gas (GHG) Emission Management

CBNC adheres to the EMB's program on the reduction of greenhouse gas (GHG) emissions to mitigate climate change. Thus, the company is planning to use biomass fuel as an alternative feed material for the HPP Line 1 Power Plant Coal-Fired Boiler. This is in support of Sumitomo Metal Mining Corporation's (SMM Co.) advocacy that requires all of its subsidiary companies, including CBNC, to implement environmental enhancement programs

to reduce CO_2 emissions by at least 1.5% every year. The plan further includes the eventual conversion of the current use of coal to 100% biomass fuel. Consumption of biomass fuel to trim down CO_2 emission from coal-fired power plants is also implemented in other countries like, Japan.

Although the fuel cost is estimated to increase by 66.1USD/ton of biomass fuel used, CBNC is still willing to mix/or utilize biomass fuel to reduce CO_2 emissions. Hence, fuel NO_x is expected to decrease since the nitrogen content in biomass fuel is lower than that of existing coal. A reduction in SO_x concentration is also expected since the sulfur content of biomass fuel is lower than that of existing coal.

Utilization of Ore from Outside Sources

Considering the projected decline in ore supply from RTNMC due to grade requirements, CBNC needs to strategize its options to compensate for the possible supply deficiency by sourcing ore from other operating mines of Nickel Asia Corporation (NAC), such as the Taganito Mining Corporation (TMC) and Hinatuan Mining Corporation (HMC) in Surigao del Norte or Cagdianao Mining Corporation (CMC) in Dinagat Islands, Dinapigue Mining Corporation (DMC) and other future operations of NAC within the Philippines. Although the cost of transporting the ore from these potential areas may add to the operational cost, meeting the production capacity has precedence while the overall business expenses shall cover the outlay.

1.4 PROJECT ALTERNATIVES

Table 1.4.1 summarizes the project alternatives considered in planning the proposed project.

Table 1.4.1. Project alternatives of the proposed CBNC Expansion Project

Aspect	Standard Criteria	Options Considered	Assessment
Siting of the facility	• Location • Availability • Land use • Susceptibility to natural occurrences	The dam is located within the MPSA of RTNMC. The design is made to prevent the washing away of tailings into adjacent areas and natural drainage.	On top of that CBNC's considerations in locating the facility are based on safety and practicability. Mined-out areas were preferred to areas outside the RTNMC mining area. For projects such as the TSF, the potential value of the land to be converted should be considered. Since the mined-out areas are considered disturbed and within the Multiple Use Zone based on ECAN classification, conversion of land in terms of use is not necessary. Based on records, the area is not susceptible to flooding, and storm surges, or earthquakes.
Project type, components, and size	• Applicability • Process integration	*Handling of plant tailings through the construction of TSF No .4* At present, two (2) TSFs exist within the MPSA and PEZA areas, and one (1) TSF is being developed: TSF1 (rehabilitated)– Located north of the HPP, it was constructed in 2004 and	As part of the continuous commitment of CBNC in implementing pollution control measures, the company's advance planning in proposing the construction of TSF4 will give comfort as to the readiness of the plant once TSF3 has been filled up by 2028.

Aspect	Standard Criteria	Options Considered	Assessment
		operated from 2005 to 2010. TSF2 (operating) – Located northeast of the HPP, it was constructed in 2008 and operated in 2010 (after TSF No. 1 was completely used up) up to the present. TSF2 is expected to be filled by 2023. TSF3 (being constructed) – Located northeast of the existing GP-4 Rehabilitation Area of RTNMC. TSF3 is nearing completion and is expected to be operated in 2023 upon the complete decommissioning of TSF2. TSF3 is expected to be filled by 2028. TSF4 (proposed) – To be located downstream of TSF2. TSF 4 will be operated starting in 2028 once TSF3 is filled to capacity.	TSF1, which was constructed up to 68 masl and its embankment were already rehabilitated. Although it can still be raised up to the maximum design level of 75 masl, this poses some risk to the HPP located downstream. TSF2 and TSF were constructed up to its maximum design levels already. The bulk of the capital investment shall be for the construction and operation of TSF4. This will include all equipment and accessories needed for the handling of tailings slurry and supernatant.
		Optimization of Nickel-Cobalt Recovery The incorporation of alternative feed materials, Mixed Hydroxide Precipitate (MHP), will only be done at the existing HPP Plant. Minor modifications or additional equipment are to be installed at the available spaces within the production process, but these are just tanks for storage and conveying systems like pumps and conveyor belts. No expansion of the existing CBNC area is needed. Design and exact layout/location of this equipment will still depend on the data gathered during testing.	Without addressing the need to maximize the recovery of Nickel and Cobalt, the efficiency of the production capacity will not be realized, which will eventually impact both the operation cost and the profitability. Therefore, with the availability of low-grade nickel ore, CBNC needs to optimize its operations by adopting new mechanisms, which, based on the study, the use of MHP is indeed beneficial.
		Management of GHG emissions The existing coal-fired power plant of CBNC will be configured. Mixing 1-10% Biomass Fuel (BMF) with the Sub-Bituminous Coal fuel for the use of two (2) boilers, which have a capacity of 141 kWh per year. If there are no abnormalities encountered during the initial phase, the addition of biomass fuel will be applied in future operations for both boilers (Lines 1 and 2), and the mixing ratio will be gradually increased to 5% and continuously increase up to 100% depend on test result for CY 2023 and 2024, respectively. In the future operation of CBNC, the use of other potential biomass fuels shall also be	The use of biomass fuel to reduce GHG emissions from Coal-Fired Power Plants is being practiced in other countries, like Japan. With the continuous implementation of strategies to reduce GHG generated by the power plant, the use of biomass fuel which is natural in its form, is expected to help alleviate the increase in the total amount of GHG being emitted by the power plant. Biomass fuel have no potential hazardous components that require special treatment as per the result of the Safety Data Sheet (SDS). CBNC's present programs to manage and monitor the environment that are currently being

Aspect	Standard Criteria	Options Considered	Assessment
		considered for testing. If found feasible, CBNC will convert the current use of coal to 100% biomass fuel. The process flow remains unchanged even when the mixing ratio is increased or when the fuel is completely converted to biomass fuel. This technique was already used in Japan and proven to be effective and safe for the equipment in a controlled ratio.	implemented are adequate for the storage and handling of the biomass fuel. The process will only require the addition of a small hopper to load the biomass fuel to mix with the coal going to the boiler. Dust collectors and Drag Chain Feeder/Coal Spreader (DCF/CS) capacity for the conveying facilities will also be installed. It was noted that there is no significant difference between the biomass fuel and the existing coal being used in the power plant. The ratio of biomass fuel is relatively small compared to the total volume of coal that CBNC is currently utilizing. At 1% calorie ratio, the total biomass consumption in a year is around 1,445 tons, compared to 115,495 ton of total consumption of each boiler. Therefore, the potential effect on flue gas emission quality is negligible.
Transport, Volume & Raw Materials	• Source/Area	*TSF4* The embankment materials to be used during the construction phase will be excavated materials from the proposed TSF4 site or nearby areas and will have an estimated volume of 6.83 Mm^3. The materials will be extracted by heavy equipment, drilling and blasting. The excavated materials will be transported by dump truck. The blasting material (i.e. Dynamite, ANFO, etc.) will be transported from the RTN Magazine to the TSF4 by pick-up truck. *Feed materials for the optimization of Ni-Co Recovery* CBNC's rated capacity is 25,000 MT-Ni/year. About 45 MT of Mixed Sulfide Precipitate will be sourced from New Caledonia through Prony Resources New Caledonia SAS and other similar industries in Asia. *Alternative Fuel for Coal-Fired Boilers* Around 10, 000 Tons (5%) of biomass fuel will be utilized starting in 2023. It will gradually increase to around 22,000 Tons in the future for a consumption mixture of 10% to coal ratio. Currently, the source of biomass fuel is from NISSIN SHOJI CO., Ltd in Japan. Options for	Practically, the excavated materials from the TSF4 site can be used as embankment materials. CBNC may not need to source from other areas as the volume will be enough based on the design. However, CBNC may source from other nearby areas if the actual quality of the materials excavated is not suitable for the TSF4 embankment. Currently, MHP is sourced from Prony New Caledonie SAS because they are the only known producer of this product. CBNC will continue seeking other sources and evaluate possible future engagement as another supplier of MHP. CBNC engaged the services of NISSIN Shoji Co., Ltd for the supply of biomass fuel because of the following factors: 1. Sustainable Energy - Sales and export of biomass fuel, sales of renewable energy products, power sales business; 2. Industrial Energy & Lubricants - Sales of industrial petroleum

Aspect	Standard Criteria	Options Considered	Assessment
		sourcing other type of biomass fuel will include local producers in Palawan and onsite plantations at the rehabilitation areas and/or barren lands as part of the livelihood program for indigenous peoples (IPs).	products; 3. Service Stations - Management of directly operated service stations and support for the operation of service stations; 4. Industrial Materials - Sales of petrochemical products and logistics materials; 5. Agricultural Materials - Sales of agricultural covering materials and greenhouses; 6. Liquefied Petroleum Gas - Sales of LPG for residential and industrial use, and gas equipment; and 7. Real Estate - Real estate leasing for office buildings, stores, and apartments.
		Additional ore sources Approximately 12 MMT/year (est. 30% of the annual ore consumption of 4 MMT) of additional nickel ore will be sourced from the mining subsidiaries of NAC in Southern Mindanao, including TMC, HMC, CMC, DMC, and from future operations of NAC in other areas in the Philippines. No other area/mining operation is eyed as a source of the nickel ore.	CBNC shall maintain its relationship with NAC as to the supply of additional ore materials that qualify for the feed grade requirement in the operation of the HPP. With the constant decline in the grade of nickel ore coming from RTNMC, CBNC has the option to import supply from other mining operations of NAC in the Philippines to ensure that production capacity is efficiently targeted.
Power generation	• Availability • Total power requirement • Source	CBNC shall continue to use the existing coal-fired power plant and back-up diesel generators for the operation of the HPP Lines 1 and 2, with the incorporation of alternative feed materials such as biomass fuel, which have the same efficiency as the currently used bituminous coal. The construction and operation of TSF4 will not significantly increase power requirements since TSF3 will eventually be decommissioned. Specific to the energy consumption required for the TSF4 (amount of energy for drainage, electric tools, etc.), about 46,759,200 kWh will be used. The total power requirement of the entire HPP plant during operation is about 141 million kw-hrs/year and is not expected to increase significantly even with the incorporation of alternative feed materials for the optimization of Ni-Co recovery.	The operation of CBNC is backed up by a Self-Generating Power Facility that provides the power requirements of the plant as well as the staff housing community. With the continued HPP plant operation and associated facilities (e.g., coal-fired power plants and other equipment), some GHG emissions will continue to be generated but will eventually be reduced with the proposed use of biomass fuels as alternative feed materials or as coal mixtures for co-firing at the power plants. As committed, CBNC will pursue its in-house reforestation activities as well as the enhancement of the National Greening Program (NGP), which will further support carbon sequestration.
Water	• Availability	The main source of water supply	Continuous monitoring of the volume

Aspect	Standard Criteria	Options Considered	Assessment
management system	• Total water requirement • Source	for the HPP operation is the East Ibelnan River. This river flows about 3 km west of the processing plant. During dry months, the alternative option for water supply is the water impounded at the Upper Togpon siltation pond and a 300,000 m^3 water reservoir. There will be no change in the water source and consumption of CBNC, even with the proposed expansion activities. This is because the additional TSF (or TSF4) is just a pollution control facility that will replace the TSF3 when it is already at full capacity. Water collected from the existing drainage/canals or ponds will be used for TSF4 construction. No new sources will be developed since water requirement for the construction phase is mostly for road watering to prevent dust formation. No significant change in the process of CBNC that may require additional water consumption even with the advent of utilizing Bio Fuels to improve CO_2 emission of its power plants and the use of MHP to increase Ni output.	of water in the Ibelnan River shows that it is way more than sufficient to supply the operational water requirements of CBNC. The construction of TSF4 requires a minimal amount of water. Once completed, tailings will be stored in TSF4 after TSF3 is fully used. Likewise, the same or minimal water requirement will be required for the use of alternative feed materials in optimizing Ni-Co recovery. The current water volume used in the power plant will remain the same even with the incorporation of alternative biomass fuel to further manage CO_2 emissions.
Erosion control	• Method of management	Control measures for soil erosion include the following: 1) erosion control or minimization of soil erosion events, especially during the construction of embankments; and 2) sediment control involving trapping suspended soil at the nearby waterways during TSF4 development.	Since the operation of CBNC, it has practiced erosion control measures, that have proven effective over long period. The latest successful practice is the operation of TSF2.
Manpower	• Method of hiring • Available positions	The construction of TSF4 will be handled by a contractor. Skilled and unskilled workers will be either directly hired by the Contractor through a manpower agency. During peak season, a total of 292 workers will be involved in the construction. These workers will consist of a project manager, safety manager, material engineer, lab engineer, electrical engineer, welder, electrician, operator, rigger/tagline, operators, service driver, mason, survey aide, warehouse aide, instrument man, steelman, safety crew, safety aide, painter,	One of the possible sources of income in the local community during any project's development is employment. CBNC will continue to hire qualified local dwellers at all project phases, especially during the construction phase, where a large number of workers will be needed. Even if CBNC and its contractor have the option to use a manpower agency, the Company must ensure that qualified local residents are prioritized with a proper screening process to ensure that they fit the job requirements. Potential workers from nearby areas or outside the host community will only be entertained if no qualified residents are eligible for the position being offered.

Aspect	Standard Criteria	Options Considered	Assessment
		maids, utility assistant, and security guards, among others.	

No Project Option

Without the proposed expansion project, CBNC will continue with its current operation but can only guarantee to address tailings management until TSF3 is filled up. CBNC will be challenged to adhere to its compliance with the ECC, specifically on environmental management and existing rules and regulations pertaining to environmental protection and social safety, if tailings are not properly contained. The tailings storage facilities of CBNC are built to manage the tailings that result from the processing of low-grade ores. Thus, the "no project" option shall result in the premature cessation of CBNC operations. As a consequence,

- Mineral resources, *e.g.* low-grade ores from RTNMC will not be utilized efficiently;
- TSF3 will not be sufficient to address the additional tailings that will be produced by the operation in the coming years, and
- Economic and social benefits stemming from the project, which include employment, SDMP, CSR projects, and government revenues, will cease.

Moreover, without this project's approval, the Company's chance to implement strategies to further lessen carbon dioxide emissions will not be fully realized and shall retain its existing operations. CBNC, on the other hand, will continue to exemplify its commitment by progressing in its rehabilitation efforts in the area.

1.5 PROJECT COMPONENTS

1.5.1. Existing Operation

1.5.1.1. Hydrometallurgical Processing Plant Facilities

a. Mixed Sulfide Process

The HPP process is designed to produce Nickel/Cobalt Mixed Sulfide (MS) at high recovery rates by the acid leaching method using low-grade ore and laterite as raw materials. The acid leach method utilizes sulfuric acid at high pressure in an autoclave. The pregnant solution is then transformed into nickel/cobalt sulfide by reacting with hydrogen sulfide (H_2S). The latter is generated on-site in the hydrogen sulfide facility.

The primary objective of the process is to leach nickel (Ni) and cobalt (Co) with sulfuric acid, minimize the leaching of iron (Fe), aluminum (Al), and silicon (Si), and recover Ni/Co sulfide by using hydrogen sulfide. **Figures 1.5.1a** to **1.5.1c** show the plant layout of Lines 1 and 2 and the piersite map.

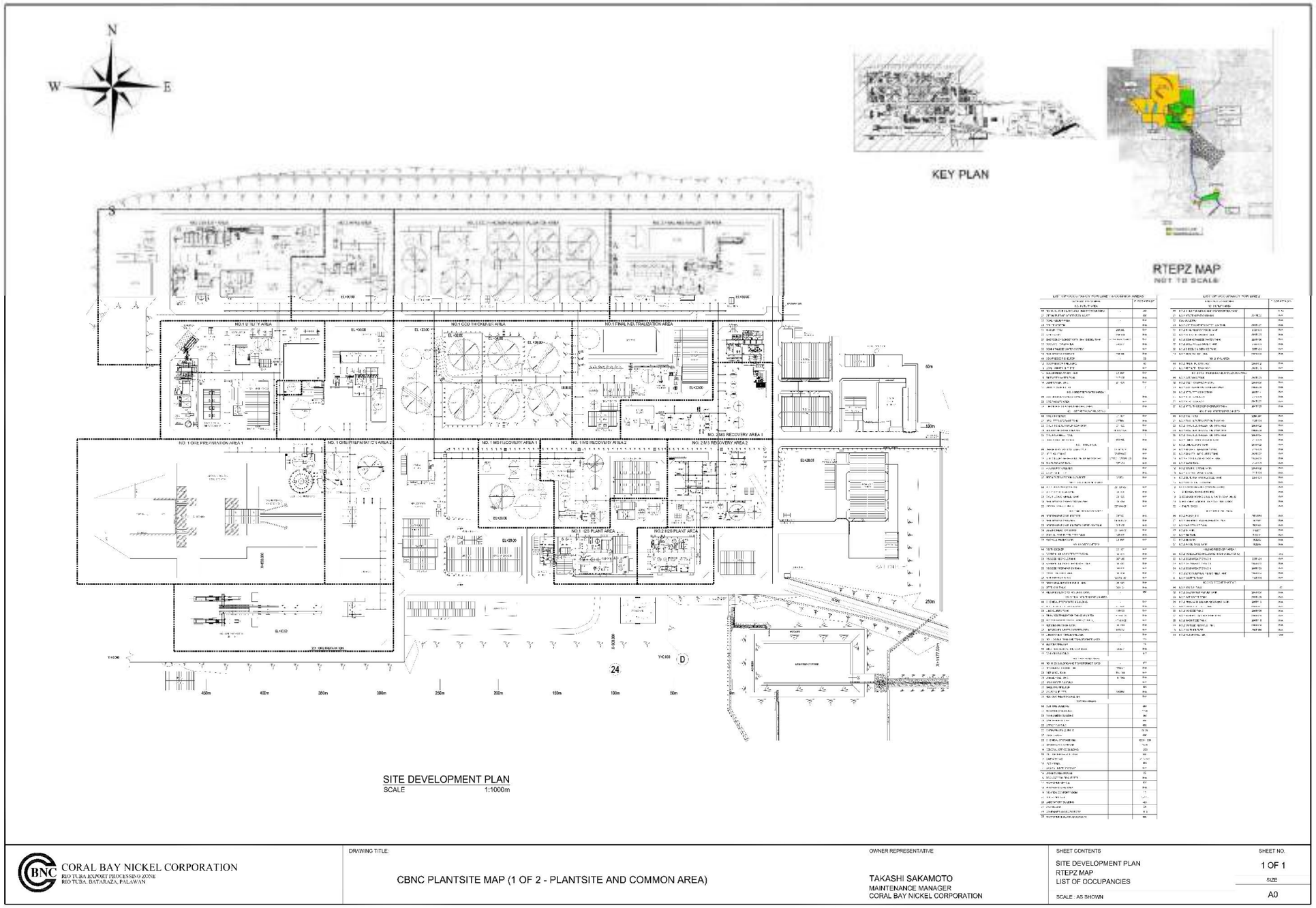

Figure 1.5.1a. CBNC Plantsite (Map 1 of 2)

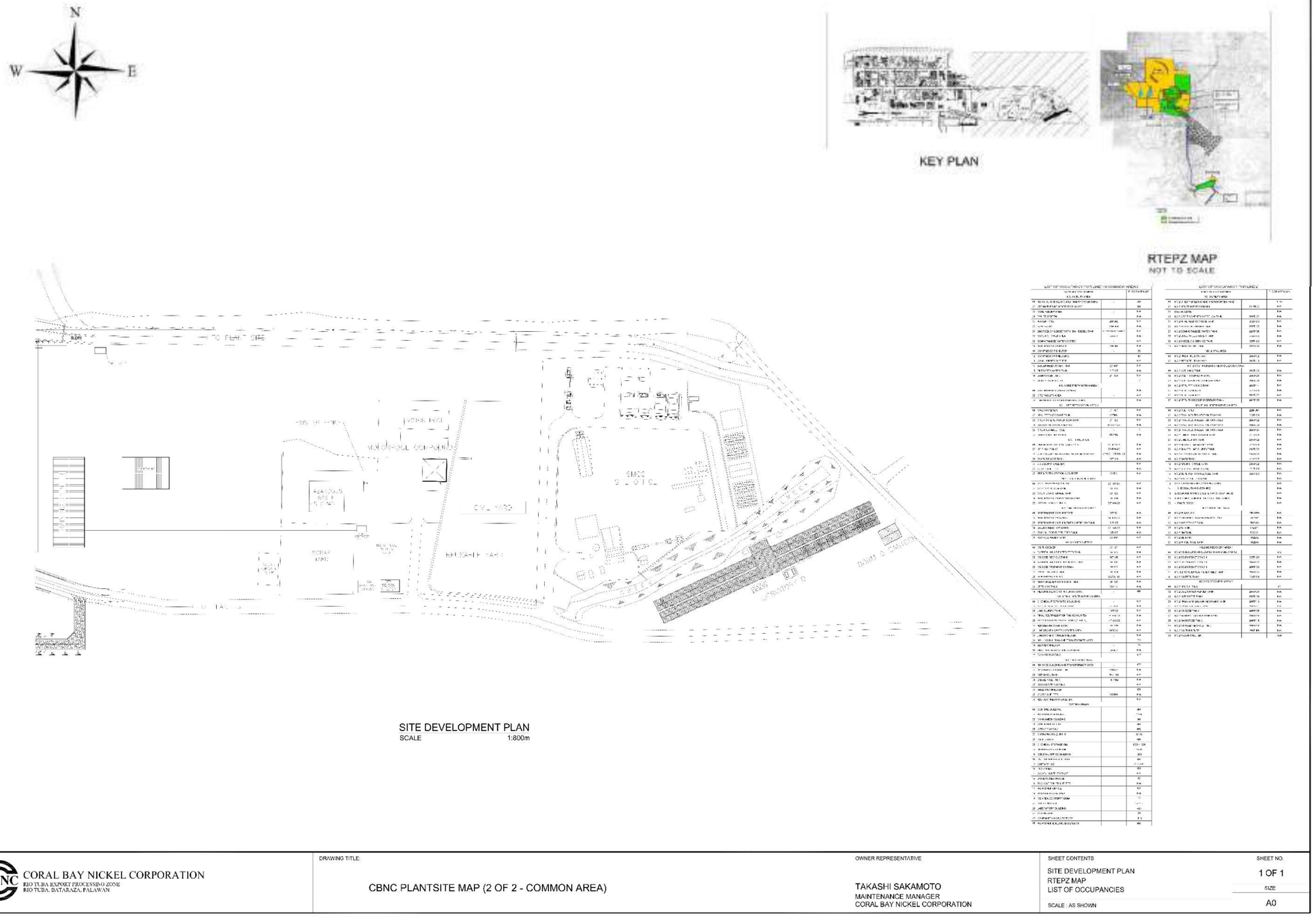

Figure 1.5.1b. CBCN Plantsite (Map 2 of 2)

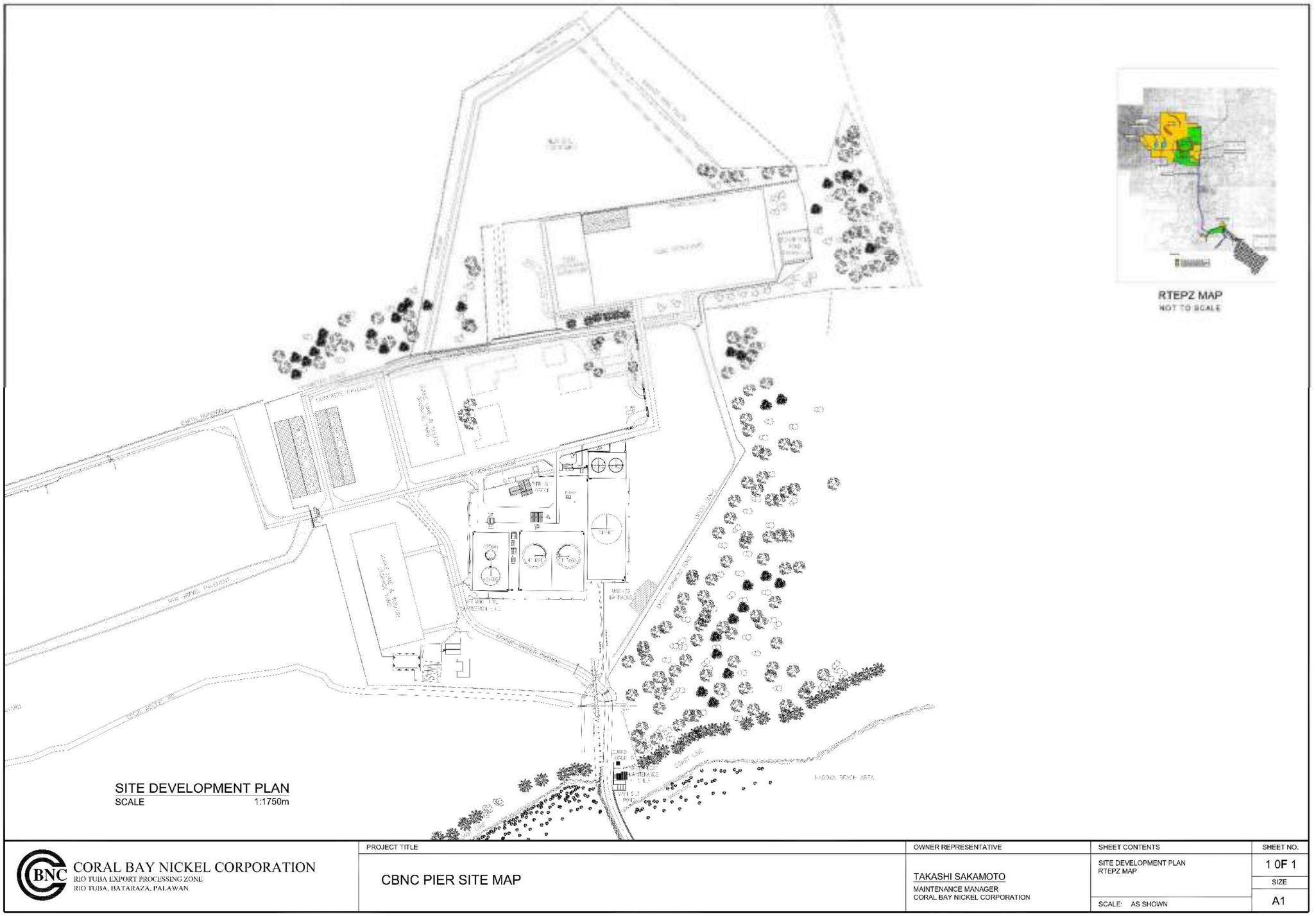

Figure 1.5.1c. CBNC Pier Site Map

b. Hydrogen Sulfide Facility

The Hydrogen Sulfide Facility (HSF) is designed to meet a daily consumption of 21.7 MT/day for each line and the fluctuation in plant capacity from 70-120%. CBNC has a license to use the technology of Sumitomo Seika Chemicals, which is the only hydrogen sulfide synthesizer in Japan, and its operations have continued and operated under the direct supervision of said company.

The safety features are built into the plant facilities, which features are all interlocking and redundant safety and emergency devices and systems.

As hydrogen sulfide is a poisonous, combustible and corrosive gas, special attention is needed for its safe treatment and production. The following are the inherent safety features built into the plant facilities and operations.

Plate 1.5.1. The Hydrogen Sulfide Facility

Facility Design

- All facilities are closed systems to prevent gas leakage;
- Hydrogen sulfide production can be easily terminated by stopping the supply of hydrogen;
- A Distribution Control System (DCS) is installed to eliminate human error except for the sulfur melting process;
- Gas detector is installed within the production area to detect gas leakage;
- Around the dangerous area of the HSF, a hydrant is installed for firefighting;
- Around the HSF, sufficient open spaces are provided for firefighting;
- The open structure of the HSF is adopted to disperse any leakage easily;
- In hazardous areas, electrical equipment and wiring method are installed based on API (Americas0w+vc an Petroleum Institute) standard; and
- The facility has other safety devices against other chemical contingencies.

Interlocking and Redundant Safety and Emergency Device and Systems

- **H_2S Reactor guard**

Step 1: At HPA (High Pressure Alarm) level, i.e. 0.3 atm, the operator reduces the hydrogen feed load.

Step 2: With increased pressure at HPZ (High Pressure Inter Locking), i.e. 0.4 atm, the hydrogen interlocking valves 1 and 2 are closed to protect the reactor.

- **H_2S Gasholder guard**

In normal operating conditions, the gas holder is controlled between LLA (Low Level Alarm) to HLA (High Level Alarm).

Step 1: At LLA level, i.e., setting point of 1,000 mm (40 Nm^3), the operator calls the HPP Plant to decrease consumption of H_2S. At HLA, i.e., the setting point of 3,500 mm (140 Nm^3), the hydrogen flow rate is decreased.

Step 2: At LLZ (Low Level Inter Lock), i.e. Setting point of 500 mm (20 Nm^3), the compressor automatically shuts down. At HLZ (High Level Inter Lock), i.e., a setting point of 4,000 mm (160 Nm^3), the valve supplying H_2 automatically shuts down.

In normal conditions, the gasholder is operated to have a capacity that is enough to hold released H_2S gas in emergency conditions.

Step 3: With further increases in pressure reaching HH, i.e., 15 Kpa, the H_2S reaction will automatically stop by high pressure interlock.

- **H_2S GW Scrubber**

  - A scrubber in the HSF is installed for emergency purposes.
  - During an emergency, the reaction of the scrubber with H_2S is as follows:

$$H_2S + NaOH \rightarrow Na_2S + H_2O$$

  - Since most H_2S gas is removed at the scrubber, exhaust gases are introduced directly to a large-scale scrubber at the HPP plant, where unreacted H_2S is finally treated.
  - The generated Na_2S is recovered as NaSH in the HPP plant.
    - Emergency exhaust gas from a H_2 – PSA (Pressure Swing Adsorption) equipment is released to the atmosphere at the vent stack. At the vent stack, a small amount of steam is constantly added to prevent electronic sparks. The purpose of the steam is to suppress the generation of flame, as H_2 gas may react with O_2 in the atmosphere.

- **Prevention of Disaster**

  - Enough fire hydrants to extinguish fire in the production area from two (2) directions have been installed. Fire extinguishers are also in place.
  - Large-volume tanks (>100 m^3) storing combustible liquid (methanol and diesel tanks) are equipped with nozzles that discharge N_2 into the tank. This system is called N_2 blanket. The purpose of discharging N_2 into the tank is to disperse or prevent the inflow of oxygen from the atmosphere. By eliminating the contact of O_2 with the stored liquids, combustion will be prevented.
  - An emergency broadcast system is installed for the utilization of operators working outside.

- **Protective Equipment and Devices**

  - Air respiratory devices such as Self-Contained Air Breathing Apparatus (SCABA) and airline masks, safety goggles, gloves, clothes, shoes, boots, and showers are also provided.

Power Supply and Distribution System

To supply the power requirement, the power system has a total capacity of about 30.272 MW that includes 2 x 11 MW coal-fired boiler and turbine generator (**Plate 1.5.2**) and back – up power consisting of two (2) units of 1.5 MW diesel generators for Line 1, three (3) units of 1.64 MW diesel generators for Line 2 and two (2) units of 0.176 MW diesel generators at the pier site. Note that the boiler has sufficient capacity to supply the steam requirements for the HPAL process (30% of the capacity) and power generation (70% of the capacity). **Figure 1.5.2** shows the existing process flow diagram using pure sub-bituminous coal. Note that CBNC's power plant is classified as a self-generating facility and that the company is not permitted for commercial generation.

c. Coal-Fired Power Plant

The 2x11 MW Coal-Fired Power Plant of CBNC utilizes pulverized coal-fired boiler technology. The components of the coal power plant are provided in **Table 1.5.1**.

Table 1.5.1. Major components and support facilities of the Coal-Fired Power Plant

Component	HPP Lines 1 and 2 11 MW each line
BOILER SYSTEM	
Description	Stocker type, travelling grates Bi-drum natural circulation
Boiler Efficiency	88.75%
Boiler Capacity	105 TPH/boiler
Low NOx Burner	
	N/A
Electrostatic Precipitator	
Quantity	1-unit for each boiler
Flue-gas flow Rate	65.5 m^3/sec
Efficiency Rate	94.8%
Smokestack	
Design/Description	40-m high steel stack integrated with CEMS & COMS
BOILER FUEL SYSTEM	
Fuel type and volume requirement	Coal (gravel like) 16.94 TPH (design)
Annual Fuel Consumption	Coal: 148,400 tons-each boiler (design)

Component	HPP Lines 1 and 2 11 MW each line
	Diesel: 200 l/year-each boiler (for start-up) Fire wood: 0.5 ton/year-each boiler
Coal Unloading Facility	
Type	Jetty – Coal hauled from barge to coal yard by dump trucks
Capacity	Hauling dump truck capacity = 13 tons
Coal Conveyor Quantity / Capacity	N/A
Mode of Coal Delivery	via ships/barges
Coal Storage (Stacking-Reclaiming)	
Height of Stacker	35 meters
Cross-sectional Base of stacked coal	Rectangular
Coal Stacker-Reclaimer type	N/A
Stacker-Reclaimer Quantity / Capacity	N/A
Coal Storage Area	
Description	Open space with concrete ground
Storage Capacity	60,000 tons
Total Area	24,000 m^2
Coal Crusher and Pulverizer	
Crusher Quantity / Capacity	N/A
Pulverizer Quantity & Capacity	N/A
Coal Silos	
Quantity / Capacity	500 m^3 (375 tons)
Ash Collection and Storage	
Vol. of Ash to be Generated	Fly Ash: 0.291 t/h for L1 boiler 0.242 t/h for L2 boiler
	Bottom Ash: 0.156 t/h for L1 boiler 0.410 t/h for L2 boiler
Ash-handling description	L1 boiler: Dry-type, pneumatic (positive) L2 boiler: Dry-type, pneumatic (vacuum)
Storage and disposal description	Ash silos / Dump to ash pit by dump truck
STEAM TURBINE AND AUXILIARIES	
Turbine type	Horizontal, impulse, multi-stage, multi-valve, axial flow condensing, extraction and geared (both line)
Turbine Efficiency	74% (both line)
Generator Efficiency	97.6% (at 11000 kW, PF: 0.8) – both line
Condensate and Feed-water System	
Description	Exhaust steam are being condensed and return to Boiler Feed Water (BFW) tank for re-use. BFW are pass through the deaerator for heating and removal of O_2, two (2) types of chemicals are being injected to deaerator storage tank to adjust pH and remove O_2 chemically. BFW is being injected into the steam drum through BFW pump, passing through the economizer to further heat it up (same system in both lines).
Boiler Feed Pump	2 units each line. Type: Multi-stage centrifugal pump, motor driven (370 kW, 460 V,60 HZ)
Condensate Pump	2 units each, type: Centrifugal pump, Motor: 11 kW, 460V, 60 Hz
Cooling Water System	
Condenser Type	Surface Cooling Condenser
Source of cooling water	Freshwater
Water requirement	2,100 m^3/hr
Cooling Water treatment	Sodium hypochlorite, Corrosion inhibitor, Calcium chloride
CW Pump Specification	3 units each line (2 working + 1 standby); 132 kW, 460V,60Hz; Head: 30 m
Other Auxiliary	pumps and coolers
GENERATOR SYSTEM	
Generator Type	STG: Synchronous generator, 1800 rpm (both line)
Generator Rated Power	STG: 11 MW (13,750 kVA), (both line)
Others	4,160 V 3 phase, 60 Hz, 4P, 1908 amps, Exciter: output 75 kW, voltage 120 V, star connection, F sorts insulation (both lines)
TRANSFORMERS, ELECTRICAL and I&C SYSTEMS	
Main Transformer	L1: 3 units – 2,000 KVA, 4,160/480 V, 1 unit 1,600 kVA,

Component	HPP Lines 1 and 2 11 MW each line
	4,160/4A, 4160/480 L2: 4 units – 2,000 kVA, 4,160/480 V, 1 unit 1,600 kVA, 4, 160/4A, 4,160/480
Start-up Stand by Transformer	N/A
Others	4 unit 1000kVA , 4,160/4A, 4,160/480 for both lines
Generator Circuit breaker	L1: STG: VCB, 3,000 amps, 25kAIC, DEG: VCB, 2 units 630 amps, 25kAIC L2: STG: VCB, 3,000 amps, 25kAIC, DEG: VCB, 3 unit 630 amps, 25kAIC
Switchyard and Switching Station	4,160 V, 3Φ, 3W, 60 Hz, 2,500 A, 25kA, SYM (RMS) 1 sec (for both lines)
I&C system	N/A
DC system/Station battery	600 AH (both lines)
SUPPORT FACILITIES	
Compressed Air System	
Description	Both lines 1 and 2 have its own compressors (5 units at L1 and 4 units at L2 – same specs) parallel connected and controlled by Group Control Panel (GCP). The GCP enable the system to operate efficiently.
Air compressors (Qty/Capacity)	9 x 9 m^3/min
Water Treatment Plant	
Components and Description	De-mineralized water treatment
Capacity	90 m^3/hr
Sludge Disposal	
Description	No sludge produced
Fire-Protection System	
Components	Outdoor water hydrants, fire extinguisher and fire alarm detection system
Weir and Pumping Station	
Source	River, rain water
Total Capacity	876,242 m^3 [Reservoirs 1 and 2]
Usage	350,500 m^3 [During summer]
Percent Utilization	60 – 70%
Noise Pollution Prevention System	
Components	Vent silencer, suitable enclosure

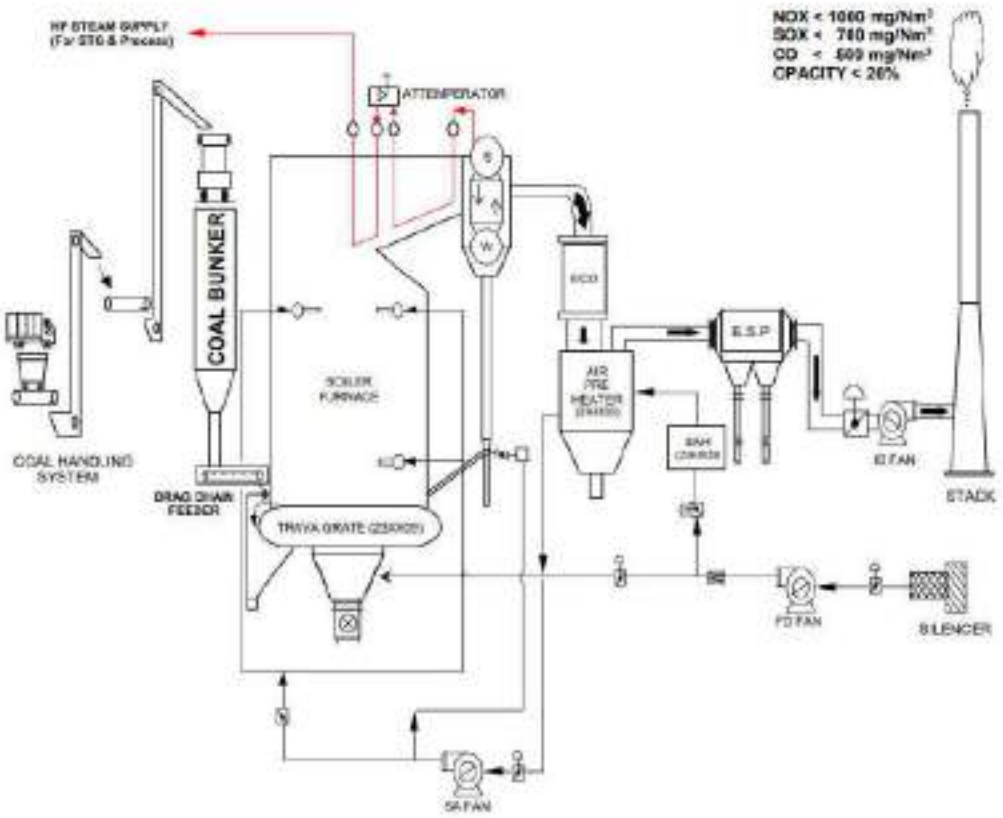

Figure 1.5.2. Existing process flow diagram using pure sub-bituminous coal

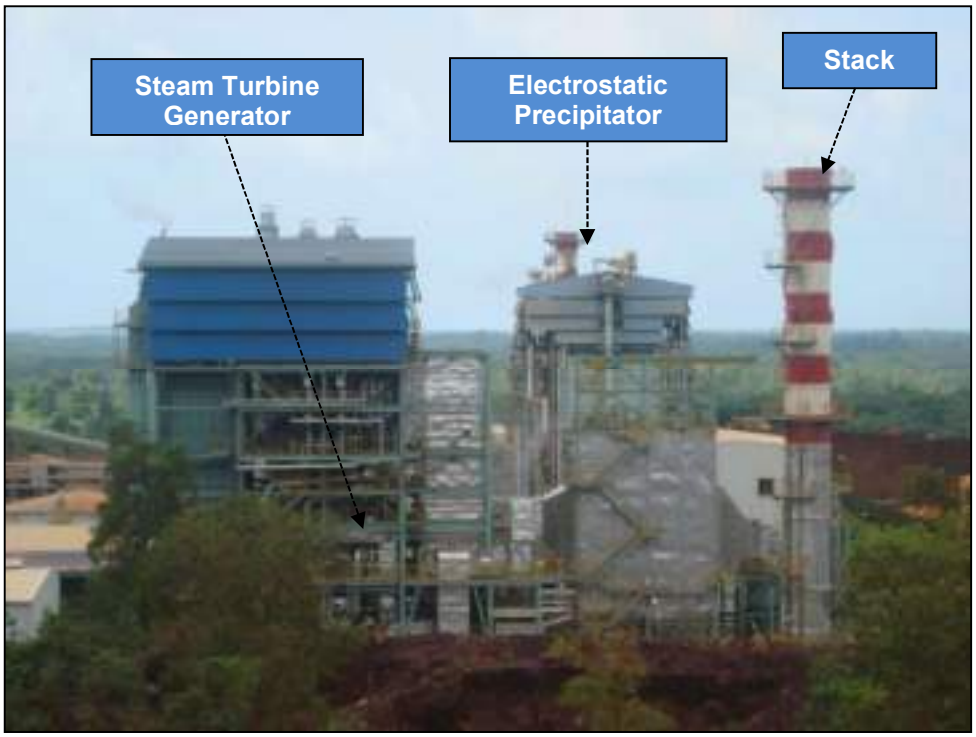

Plate 1.5.2. 14.4 MW Coal-fired power boiler that produces steam for turbine generators at the HPP complex.

d. Diesel Generators

As stated previously, in addition to the Coal-fired Power Plant, CBNC also utilizes diesel generators. **Table 1.5.2** provides the specifications of these generators.

Table 1.5.2. Specifications of the diesel generators

Facilities	Location	Manufacturer/ Maker	Model	Speed, RPM	No. of cylinders
Line 1					
Two (2) units of 1.5 MW Diesel Engine Generators	HPP 1, CBNC Plant Site, RTSEZ, Rio Tuba, Bataraza, Palawan	Caterpillar	3516B	1,800	16
	HPP 1, CBNC Plant Site, RTSEZ, Rio Tuba, Bataraza, Palawan	Caterpillar	3516B	1,800	16
Line 2					
Two units of 1.64 MW Diesel Engine Generators	HPP 2, CBNC Plant Site, RTSEZ, Rio Tuba, Bataraza, Palawan	Niigata	6L28HLX	720	6
	HPP 2, CBNC Plant Site, RTSEZ, Rio Tuba, Bataraza, Palawan	Niigata	6L28HLX	720	6
Pier Site					
Two units of 0.072 MW Diesel Engine Generators	CBNC Pier Site, RTSEZ, Rio Tuba, Bataraza, Palawan	Denyo	S6D125E-2-A	1,800	6
	CBNC Pier Site, RTSEZ, Rio Tuba, Bataraza, Palawan	Denyo	S6D125E-2-A	1,800	6
Townsite					
One unit of 1.5 MW Diesel Engine Generators	HPP 2, CBNC Plant Site, RTSEZ, Rio Tuba, Bataraza, Palawan	Niigata	6L28HLX	720	6

Water Supply and Distribution System

For a maximum mixed ore feed of 1,250 MT/hour, the water requirement is 13.0 MT/min for the wet season and 15.33 MT/min for the dry season. The water used in the plant is mainly sourced from the East Ibelnan River Intake Dam (**Plate 1.5.3**), located 3 km west of the HPP. Raw water is transported to the plant site through a 3.8-km long pipeline with the aid of booster pumps. The raw water is passed through sand filtration, and the treated water is then stored in two (2) intake water ponds, each with a capacity of 3,000 m^3.

As an alternative source of water during the dry months, CBNC also utilizes the water impounded at the Upper Togpon siltation pond and a 300,000 m^3 water reservoir (**Plate 1.5.4**) for the production process. In addition to this, the plant recycles about 20% of the cooling and wash water from the HPP.

Table 1.5.3. CBNC support facilities

Source	Water Requirement		Permits Issued by NWRB/Volume of water permitted (lps)
	Wet Season	Dry Season (Additional source)	
East Ibelnan River Intake dam	9.2 MT/Min	7.7 MT/Min	Water Permit No. 17998; 222 lps
Upper Togpon Siltation Pond (433,175m^3)	3.8	3.23 MT/min (good for 60 days)	-
Water Reservoir in Togpon (300,000m^3)	-	**4.4** MT/min (good for 60 days) Note: only 90% of the capacity can be consumed	Water Permit No. 17998; 222 lps
Total	13.0	**15.33**	

Plate 1.5.3. East Ibelnan River Intake Dam

Plate 1.5.4. A view of the 300,000 m^3 water reservoir

Port Facility (Causeway and Trestle)

The port facility is situated on a 36-hectare area and includes a 380m long x 14m wide causeway (**Plate 1.5.5**) built from boulders and gravel with concrete covering/paving, which is connected to a 1,080 m long southwest-trending trestle mounted on steel piles. The facility also includes a chemical warehouse (4,536 m^2), coal stockyard (24,000 m^2), slaked lime and sulfur storage yard (13,025 m^2), and tank farm for methane and sulfuric acid (11,557 m^2).
Mounted on steel piles, the trestle (**Plate 1.5.6**) supports the 250-mm diameter stainless steel sulfuric acid and 200-mm diameter carbon steel pipe for the methanol. The trestle is 5m above sea level and 2.5m wide. It has a structure that supports the pipelines of outgoing effluent and incoming sulfuric acid and methanol. It also has a walkway for inspection purposes. The 250-mm diameter effluent pipe can also be found here.

Plate 1.5.5. The 380m long causeway

Plate 1.5.6. The 1.080m long trestle

Shared Facilities

There are facilities within Barangay Rio Tuba that are being used by CBNC and two (2) other companies operating within the area. These include the access road within the RTEPZ shared with RTNMC and Graymont Philippines, Inc. (GPI) and the Macadam Road connecting the plantsite to the piersite shared with RTNMC only.

In terms of accommodation, CBNC houses most of its employees within the 40-hectare Townsite developed by the RTNMC. The townsite has a population of 2,167, mostly company employees and their families. This facility provides water and power supplies for the occupants. In the event that new workers are hired, the RTNMC Townsite will still be able to accommodate these new employees by expanding the area. A total of 5 hectares were constructed on the north side of the townsite for additional housing projects that can accommodate about 224 families.

Plate 1.5.7. RTNMC/CBNC Townsite *(Note: LRH – Laborer's Row House; FD – Foreman's Duplex)*

1.5.1.2. Raw Materials

Ore

The feed for the process is low-grade nickel ores that are already mined and stockpiled at the mine site. Almost 18.8 million DMT of ore are stockpiled at the RTNMC mine site. Based on the table below, 2.9 million DMT will be consumed annually.

Table 1.5.4. Annual consumption of ores

Ore Type	Raw Ore (DMT)	-2mm (DMT)
HFO	250,000	200,000
LGSO	750,000	600,000
Laterite	1,875,000	1,500,000
Total	2,875,000	2,300,000

Table 1.5.5. Specifications of feed for HPP, -2mm size of low-grade nickel ores

Ore Type	Ni (%)	Co (%)	Fe (%)	Mn (%)	Cr_2O_3 (%)	ZnO (%)	MgO (%)	SiO_2 (%)	Al_2O_3 (%)	CaO (%)
HFO	2.10	0.078	27.24	0.46	1.22	0.026	1.89	34.0	1.09	0.037
LGSO	1.73	0.102	34.48	0.64	1.91	0.036	6.70	26.8	2.17	0.017
Laterite	1.06	0.092	45.68	0.72	2.84	0.037	2.24	12.6	4.18	0.012
Mixed	1.26	0.094	42.25	0.70	2.55	0.036	3.67	16.84	3.58	0.014

Currently, CBNC is still using the remaining ores from the 20 million DMT-stockpiled ore of RTNMC mentioned in the 2001 EIS or the 18.8 million DMT remaining stockpiled ore mentioned in the 2007 EPRMP. Upon depletion of the stockpiled ores, other sources of feed ore may be sourced from other approved mining areas of NAC around the Philippines, including laterite stocks from Surigao mines (i.e. Taganito, Hinatuan, or Cagdianao).

Other Raw Materials

Aside from the raw ore, the process will consume other materials such as sulfuric acid, limestone, lime, methanol, sulfur, and the propriety flocculant. **Table 1.5.6** lists the annual requirements for these materials.

Table 1.5.6. Materials consumption

Materials	Requirement (DMT/y)
Sulfuric acid (98%)	570,000
Limestone	500,000
Lime	130,000
Methanol	7,000
Sulfur	16,500
Flocculant	1,500

Table 1.5.7. Historical (2005-2017) and projected (2018-2026) consumption of limestone

Years	Limestone Consumption (WMT)
2005	67,590.45
2006	120,592.64
2007	136,244.88
2008	204,748.01
2009	372,582.43
2010	413,189.55
2011	431,046.06
2012	514,100.20
2013	540,663.96
2014	486,108.15
2015	434,029.20
2016	358,878.45
2017	427,355.95
2018**	417,100.00
2019	417,100.00
2020	417,100.00
2021	417,100.00
2022	417,100.00
2023	417,100.00
2024	417,100.00

Years	Limestone Consumption (WMT)
2025	417,100.00
2026	417,100.00

*Note:*Combined supplies from Bohol and Gotok Limestone Quarry*
***2018-2026 data from CBNC Production dated 5/9/2018*

Table 1.5.8. Chemical element balance for the annual production of 24,000 DMT Nickel (mixed sulfide)

Content	Ore Feed	-2 mm ore	Autoclave residue	Gypsum from Pre-neutralization	ZnS	MS Products	Gypsum from Barren Neutralization	Gypsum from Final Neutralization
Ni	33,808	27,046	1,432	158	25	24,000	308	392
Co	2,657	2,126	97	16	5	1,875	20	28
Mg	43,367	34,694	6,235	327	-	23	608	9,913
Mn	19,864	15,891	1,937	-	20	20	-	13,778
Zn	896	717	251	-	623	8	5	5
Fe	1,324,269	1,059,415	1,025,514	25,715	20	3	9,690	420
Al	66,557	53,245	26,735	14,408	40	40	8,198	268
Cr	51,950	41,560	44,630	275	3	3	133	13
Si	152,957	122,366	104,737	419	-	-	1,045	18
Ca	557	446	1,112	289,007	-	38	55,953	33,740
Oxide, O	1,178,319	942,655	-	-	-	-	-	-
Sulfate, SO_4	-	-	24,130	314,350	-	-	126,233	66,244
Sulfide, S	-	-	-	-	-	15,993	-	-

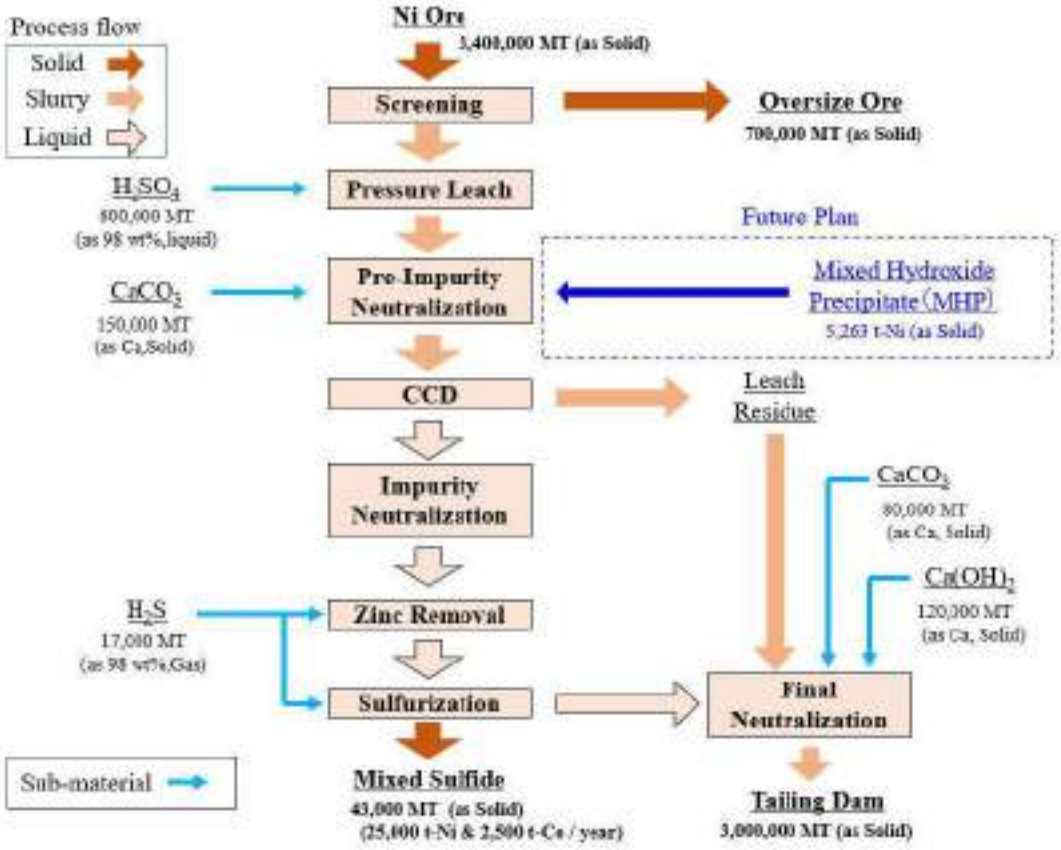

Figure 1.5.3. Material Balance of the CBNC HPP (25,000 DMT Nickel+2,500 DMT Cobalt/year)

1.5.1.3. Water Requirements

The annual water requirement for the HPP complex is approximately 9,900,000 m^3, which is sourced from the East Ibelnan River, Upper Togpon siltation pond, and a 300,000 m^3 reservoir as an alternative water source and recycled tailings supernatant. Refer to **Figure 1.5.4** for the water balance of the HPP complex.

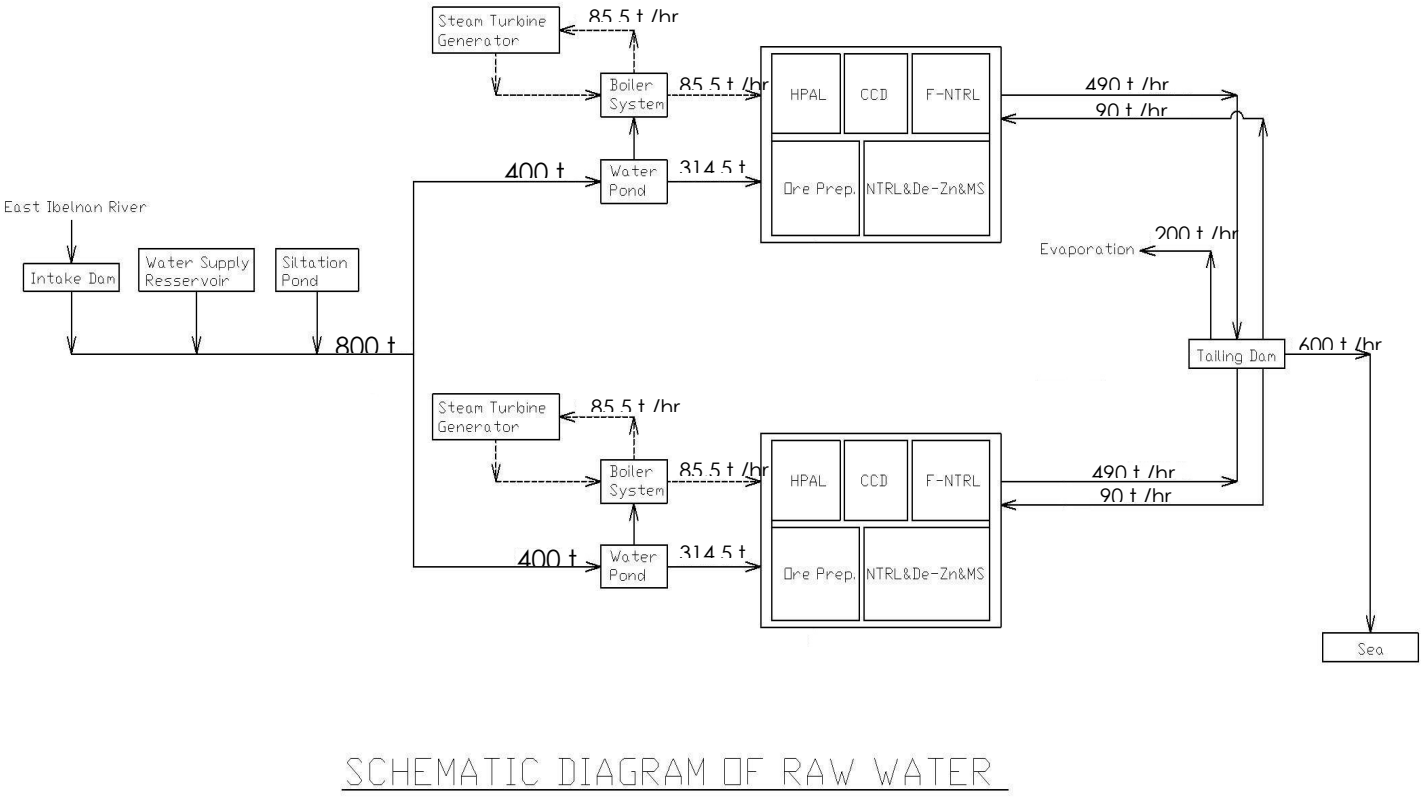

Figure 1.5.4. Water balance of CBNC HPP (25,000 DMT Nickel + 2,500 DMT Cobalt/ year)

1.5.1.4. Power Requirements

The total power demand for the HPP complex is approximately 18,000 kW: MS Plant (17,300 kW) and mining/townsite (300 kW). This is about 80% of the power plant's capacity. For a 330-day operation, the power consumption would be about 135,000 kW-hr.

1.5.1.5. Fuel Requirements

Fuel requirements include coal for the power plant and heavy oil and diesel for heavy equipment, emergency power, and for the operation of service vehicles. A total of 7,314,000 L per year of diesel and 213,00 MT per year of coal are being utilized by CBNC for its entire operations. **Table 1.5.9** shows the breakdown of fuel usage.

Table 1.5.9. Fuel consumption during operation

	Heavy oil	Diesel oil	Coal	Unit
Consumption	No Consumption	4,000,000	213,000	L/y, MT/yr
Procurement		14,000	-	barrels/tanker
Mobility		700,000	-	L/y
Ore transport		1,400,000	-	L/y

	Heavy oil	Diesel oil	Coal	Unit
Emergency power		800,000	-	L/y
Tailings dam		400,000	-	L/y

From this total, about 700,000L per year diesel fuel consumption are for the vehicles presented in **Table 1.5.10**.

Table 1.5.10. List of mobile equipment being utilized during the operation of the whole HPP complex and its associated facilities

Type of Vehicle	Model	Number
4x4 Pick up	Mitsubishi Strada	14
	Nissan Navara	1
4x2 Pick up	Isuzu D-Max	1
	Toyota Hi-Lux	1
	Nissan Frontier	1
4x4 Wagon	Suzuki Jimny	3
4x4 SUV	Mitsubishi Pajero	1
	Mitsubishi Montero	2
Van	Toyota Hi-Ace	4
	Nissan Urvan	1
	Toyota Grandia	5
	Toyota S Grandia	2
Mini-Van	Suzuki APV	1
Ambulance	Mitsubishi L300	1
	Toyota Noah	1
Multicab	Suzuki Multicab	1
Acid Lorry	Peerless & BPW	9
Methanol Lorry	Isuzu	2
Coal Truck (Side Tipper)	BPW	3
Liquid Coastic Soda	Isuzu	2
Prime movers (MS Product and other materials)	Volvo	16
Other equipment (Trailer trucks, forklifts, boomtrucks, water tankers, crane	Komastsu, Yale, Kato	37
	Total	**109**

1.5.1.6. Waste Generation

Based on records from 2018 to 1st quarter of 2022, the average residual waste generated by CBNC is about 3,400 MT/year. So far, the highest amount of residual waste generated within five (5) years was documented in 2018 with 6,105 MT. In 2021, residual waste generation (2,415 MT) declined by about 60%.

1.5.1.7. Pollution Control and Waste Management Facilities

Tailings Storage Facilities

The HPP operations, which produce an annual combined capacity of 44,000 MT of mixed sulfide product containing approximately 24,000 DMT of nickel and 2,000 DMT of cobalt, generate about 2.8 million DMT of tailings a year.

Tailings Solids

The tailings solids to be generated have the following composition:

- Neutralized Residue – The CCD7 thickener underflow tailings slurry containing about 1,240,000 dry MT/year (DMT/y) of the leach residue is neutralized to pH 8.5 with lime and slaked lime in four (4) final neutralization tanks. This neutralized slurry is then pumped to the tailings dam.
- Neutralized Gypsum - About 650,000 DMT/y of neutralized gypsum generated from the neutralization section is treated together with the leach residue filter in the CCD circuit. This is finally discharged to the tailings dam via the second neutralization of the Barren Liquor Treatment.
- Gypsum Sludge - About 330,000 DMT/y of gypsum sludge from the second neutralization of the Barren Liquor Treatment is discharged to the tailings dam via the second neutralization of the Barren Liquor Treatment.

Based on analysis, the tailings solids have the following composition:

Table 1.5.11. Composition of tailings solids

Element/Ion	% Composition
Nickel (Ni)	0.1
Cobalt (Co)	0.0 [a]
Magnesium (Mg)	0.7
Manganese (Mn)	0.5
Zinc (Zn)	0.0 [a]
Iron (Fe)	31.5
Al (Aluminum)	1.4
Chromium (Cr)	1.4
Silicon (Si)	5.1
Calcium (Ca)	7.9
Sulfate (SO_4)	18.2

[a]*Based on round-off*

Tailings Effluent

The tailings dam effluent, also called supernatant, is pure water. It is taken out of the tailings dam after the solid part of the tailings has settled. The tailings slurry that enters the dam has a pH of 8 to 8.5 and a temperature of 60ºC to 70ºC. Its stay at the dam allows the solids to settle and the effluent to cool down (**Plate 1.5.7**). Other characteristics of the final tailings effluent are shown in **Table 1.5.12**.

Table 1.5.12. Composition of tailings dam effluent

Parameters	Effluent
Nickel (Ni), g/L	< 0.001
Cobalt (Co) , g/L	< 0.001
Magnesium (Mg) , g/L	< 0.070
Manganese (Mn) , g/L	< 0.001
Zinc (Zn) , g/L	< 0.001
Iron (Fe) , g/L	< 0.001
Al (Aluminum) , g/L	< 0.001
Chromium (Cr) , g/L	< 0.0001
Calcium (Ca), g/L	0.550
pH	7.600
Temperature (°C)	30.800
Dissolved oxygen, mg/L	5.400
Total Suspended Solids, mg/L	11.600

Source: CBNC, 2006

Plate 1.5.7. Tailings discharge to the dam

The three (3) existing tailings dams were designed to collect and impound the materials generated from the processes of Lines 1 and 2. The materials used in the dam construction include sand, gravel, and laterite that were available at the RTNMC mine site area.

After settling of the tailings solids, the water part, or supernatant, is pumped towards the sea through two (2) 11-km-long 250 mm diameter steel pipes traversing along the Macadam Road, 380m long causeway and 1,080m long southwest trending trestle, and then discharged at the end portion of the trestle to the sea bottom about 10ft from the seawater surface. As mentioned in the previous section, prior to the discharge of the supernatant, the tailings undergo the following process:

a. Neutralization of its acidity and precipitation of its impurities; and
b. Sedimentation at the tailings dam.

Approximately 30-40% of the supernatant is recycled into the HPP.

TSF1 is located north of the HPP, while TSF2 is located about 2.5km northwest of the HPP, enclosing the previously constructed Magas-magas siltation pond. TSF1 has been filled up to about 6.7 M DMT of tailings. TSF2, on the other hand, has a capacity of around 40M m^3 which is good for 15 years of HPP Lines 1 and 2 operations. The TSF 2 has reached its capacity in 2023. But drying and settling of the tailings inside the TSF2 will allow additional space that can be filled with new tailings for possibly up to three (3) years. P**late 1.5.8** shows the aerial view of the TSF1.

Plate 1.5.8. Aerial View of the TSF 1 as of May 2023

TSF1 was constructed in two (2) stages, with an embankment elevation of EL60 masl during the 1st stage. The embankment elevation was increased to EL67.5 masl during the second stage. The materials used in the dam construction include sand, gravel, and laterite that are available within the mining area of RTNMC. TSF1 operated from 2005 to 2010 (6 years), impounding about 6,785,500 DMT (4 M m^3) of tailings.

TSF2 was constructed with two (2) embankments (North and South) raised to the ultimate level of 80 masl. The South Embankment was made in two stages with the 1st stage at 60 masl and the 2nd stage at 80 masl. Maximum embankment heights and lengths are at about 48 m and 15 m and 1.27 km and 1.92 km at the southern embankment and northern embankment, respectively. These embankments are located on either side of natural saddles, which run east-west through the site. The surface area, or catchment area, of the dam footprint would be about 207 hectares. Since the start of its operation in 2010, it has impounded about 34.11 Million-m^3 of tailings slurry as of September 2023, with an average tailings level of 78.90 masl or a Freeboard of 1.1m. (Note: The final design freeboard is 0.5m.)

TSF3 is being constructed within a 111-ha area with a dam capacity of about 18.6M m^3 and is expected to be fully completed by 2028.Tailings discharge has commenced in the southern portion of the TSF3 beginning January 25, 2023. TSF 3 is expected to have a life span of about five (5) years.

Annex 1.5.1 includes the complete list of Air Pollution Source Equipment (APSE) and corresponding Air Pollution Control Facilities (APCF) covered by Permit Application. **Figures 1.5.5** and **1.5.6** show the APSE and APCF at the HPP Plant and piersite, respectively.

Solid and Hazardous Wastes Management

Waste generation from the HPP complex mainly comes from the production process. These are composed of tailings solids and effluent from the MS production and the dry and wet ash from the power generation. Other wastes generated include free acids from the HPAL and H_2S production processes. These are, however, recirculated back into the production system.

Ash Pit

Wet and dry ash generated by the power generation facility is disposed of in the ash pit. Fine ash particles that go with the flue gas are recovered in the electrostatic precipitator (ESP) and disposed of in the ash pit. With 40 MT/day of ash generated, the 428,026 m^3 ash pond can be used for 30 years. The ash pit is a mined-out area, located northeast of the HPP complex with a top elevation of 33 m. Since both the ash pit and the TSF were constructed within the mined out area where soil is non-permeable, installation of the bottom lining was not considered. The soil within the area serves as a natural lining for the ash pit, preventing leachate from contaminating the groundwater.

As part of the periodic maintenance of the ash pit on a weekly basis, the disposed ash is covered with laterite to minimize exposure to wind. For monitoring, coal ash samples are also subjected to a regular Toxicity Characteristic Leaching Procedure (TCLP) test to determine the characteristics of the heavy metals and the leaching behavior.

Annex 1.5.2 shows the latest result of the coal ash analysis and the report on coal ash sampling and analysis prepared by CBNC attesting that the generated coal ash is non-hazardous.

Figure 1.5.5. APSE and APCF at the HPP complex

Figure 1.5.6. APSE and APCF at the piersite

Hazardous Waste Temporary Storage Facility

Hazardous wastes generated by the HPP complex (**Table 1.5.13**) are treated by a DENR-accredited hazardous waste treater. While waiting for transport, these are properly contained and stored in CBNC's temporary hazardous waste storage area, which has an emergency containment bund wall and an oil and water separator.

Table 1.5.13. Summary of hazardous waste generated by CBNC, 2021

Hazardous Waste				Amount, ton
HW No.	Class	Nature	Cataloguing	
I101	Waste oils	Liquid	*Used Oil	93.69
I104	Waste oils	Solid	Oil-Contaminated Rugs	8.20
I104	Waste oils	Solid	Used Oil Filters	0.45
D407	Mercury & Mercury Compounds	Solid	Busted Fluorescent Lamps	0.71
D407	Mercury & Mercury compounds	Solid	Busted CFL Bulbs	0.10
B299	Other acid waste	Solid	Used filter cloth	13.16
M506	Waste electrical and electronic equipment	Solid	Defective computers, monitor, printers	0.6
D406	Used Lead-Acid Batteries	Solid	Lead compounds	0.18

Source: CBNC, 2022
*Notes: *SMCC Generated Used Oil for TSF-3 construction 43.2 Tons*
**CBNC Generated Used Oil 50.49 Tons*

All movements of hazardous wastes are covered by a Permit To Transport (PTO) as well as Certificate of Treatment by the DENR-accredited TSD (Treatment, Storage & Disposal) Facility upon final treatment/disposal.

Sanitary Landfill

To separate biodegradable and non-biodegradable wastes, color-coded trash bins are distributed in strategic locations within the HPP Complex. Company-hired trucks collect garbage on a daily basis and dispose of it at the 3.8-ha sanitary landfill (GP-28), which is covered by a separate ECC.

Wastewater Treatment Plant

The wastewater treatment plant is an essential component of the HPP complex (**Plate 1.5.9**). The pressure-leached slurry from the CCD after removal of the pregnant solution is neutralized in the water treatment plant to reduce acidity and precipitate other dissolved metals such as Cr, Al, Fe, Mn, Mg, and others before disposal to the tailings dam.

Spillage Handling System

In the event of a spill or loss of containment, alarms will be activated, and the affected area will be isolated immediately. Necessary shut-off procedures will be conducted to control and prevent further spills. A designated spill response team will carry out the clean-up and decontamination of the affected area.

Table 1.5.14. Different types of spillage with the corresponding emergency response plan

Type of Spillage	Procedures are in Place	Particular activity to handle the spillages	Treatment of contamination
Oil and Fuel Spillage	Existing Procedures and Spillage Control Facilities are in place	Use of secondary containment pans and if ever there is accidental spillage on the ground; Cleaning and recovery of contaminated soil	Contaminated soil will be treated as HazWaste under RA 6969
Tailings Spillage	TSF2 Emergency Response Plan	Clean-up of spilled tailings	Spilled tailings will be brought to TSF2 for storage

Plate 1.5.9. The wastewater treatment plant

Air Pollution Control Facility

The power plant was designed to meet the emission standards in accordance with RA 8749, otherwise known as the Philippine Clean Air Act, by adopting the most stringent standard established for the combustion of coal and by installing of technological advancements to minimize emissions among power plants. The air emission control measures primarily use ESP (**Plate 1.6.10**) and a Continuous Emission Monitoring System (CEMS), which are installed in each smoke stack for monitoring purposes.

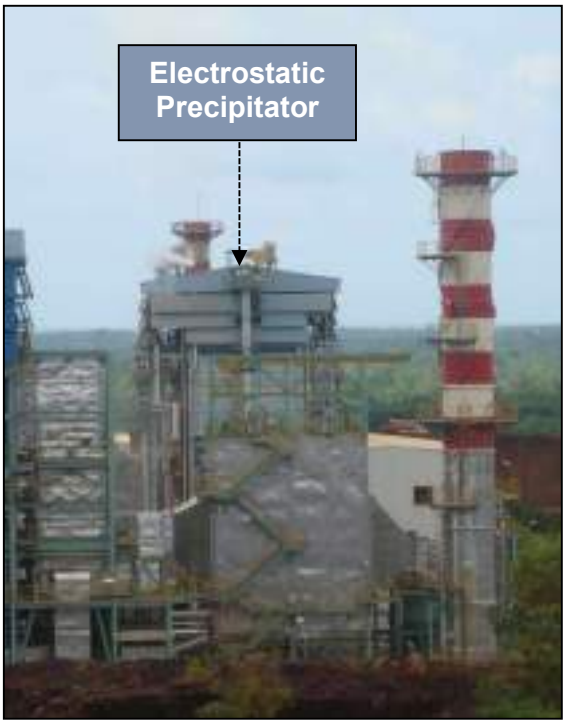

Plate 1.5.10. Electrostatic Precipitator (ESP) installed in the Plantsite

The ESP removes almost all suspended solids carried by the flue gas by creating an electrical field around it. Through this, the dust particles are charged to saturation, causing them to migrate towards the ESP collecting plates and be gathered as dry ash.

Scrubbers to remove pollutants from emitted gases are installed in applicable processes all throughout the plant. Four H_2S scrubbers are in operation at the Mixed Sulfide plant. The released used steam coming from the two (2) autoclaves passes through scrubbers to remove acid mist before the same is emitted into the atmosphere.

Fire Protection System

The following equipment are installed at strategic locations within the HPP Plant complex:

- Fire hydrant
- Fire extinguishers;
- Gas detectors;
- Smoke detectors;
- Fire alarm system; and
- Fire emergency generators.

Noise Control

The safety office conducts monthly noise monitoring at strategic locations within the HPP complex using EXTECH 5-in-1 Environmental Meter. The monitoring areas include the following:

- HPAL Lines 1 and 2 Drum washer vibrating screen
- New Shakeout machine at Ore Prep. Line 1
- Ore Prep. Lines 1 and 2, d) 01 Washer pump area

- Heater pumps 1 and 2, f) HPAL 1 and 2 Scrubber (Level 2-5th)
- O2 Generator
- LEWA Lines 1 and 2
- STG Lines 1 and 2
- ID Fan Line 1
- Cooling Tower 1 and 2
- Air Compressor 1 and 2
- MS1 Feed Line from 2nd-4th level
- Top Level MS2 Feed Line
- FNRTL Blower 1
- Nitrogen Compressor Lines 1 and 2
- Filter cloth Jet washing Ms1 and 2
- Ball Mill
- FNTRL Scrubber MS
- FNTRL Blower Line 2
- Limestone Crusher MS2
- Compressor Vacuum area MS2
- Return Water pond and Decant Tower (TSF2)

Plate 1.5.11. EXTECH 5-in-1 Environmental Noise Meter

H_2S Facility

The H_2S facility is a closed system to prevent gas leakage. The system is equipped with a DCS to eliminate human error except for the sulfur melting process. A gas detector is installed within the production area to detect gas leakage. The detection limits for H_2S at different locations around the plant are listed in **Table 1.5.15**. A scrubber in the HSF is installed for emergency situations.

Table 1.5.15. H_2S detection limits

Location	Specific Area	H_2S Gas Concentration
Plant Site 1st Stage	Process Area	5 – 29 ppm
	Outside Process Area	1 – 9 pm

Location	Specific Area	H_2S Gas Concentration
Plant Site 2nd Stage	Process Area	>30 ppm
	Outside Process Area	>10 ppm
RTNMC Warehouses/ Assay Laboratory/ Upper Kinurong Area		>1 ppm

Port facility waste management and treatment

CBNC operates a port facility to accommodate the inflow of materials (sub-mats and ore) from sources outside Bataraza. The port facility has a causeway that can allow two-way traffic flow (14-meter-wide wide concrete road). The causeway also has an extended facility that supports pipelines to the mooring dolphin for sulfuric acid, methanol, and liquid caustic soda. The port facilities also have the capacity to store around 40,000 MT of sulfuric acid, 2,800 MT of methanol, and 1,500 DMT of liquid caustic soda.

CBNC implements a waste management program. Acidic industrial waste, or tailings, is treated through the neutralization facility and stored in a tailings storage facility. All generated hazardous wastes are transported and treated by a DENR-registered transporter and treater in accordance with RA 6969. All facilities of CBNC, including the piersite have silted water/runoff and chemical spillage controls like diversion ditches and secondary/emergency spill containment facilities. The CBNC plantsite and other ancillary facilities at the minesite utilize the siltation ponds provided by RTNMC to mitigate silted runoff.

1.5.1.8. Transport of Raw Materials, Frequency and Volume of Shipment

Annually, CBNC takes around 3,400,000 MT of Ni ore from RTNMC and from other mining subsidiaries of NAC in the Philippines, including TMC, HMC, CMC, and DMC. Other areas/mining operations are currently being evaluated as future sources of nickel ores. In the future, around 5,623 tonnes-Ni from Mixed Hydroxide Precipitate (MHP) are also projected to be utilized to augment the company's production. Approximately 600,000 MT of sulfuric acid and around 150,000 MT of caustic soda are also used for HPAL operation and air pollution control is respectively utilized each year. To precipitate nickel and cobalt sulfides as its product, CBNC produces around 17,000 MT of hydrogen sulfide annually by utilizing around 390,000 Li of diesel, 6,000 MT of methanol, and 12,000T of sulfur flakes. For wastewater treatment of acid tailings, around 80,000MT of limestone and 120,000 MT of milk of lime are annually utilized. These are the major raw materials and sub-materials used by CBNC to produce around 40,000 MT of mixed sulfide each year (25,000 Ni-MT and 2.5 Co-MT). To produce steam for the HPAL operation and to provide electricity for the HPP process, CBNC consumes around 210,000 MT of coal each year to fuel its two (2) boilers with a rated 11 MW capacity for each unit.

These materials and products are being transported to and from CBNC through the use of heavy earthmoving equipment, ships, vessels, lorries, etc. The following are the modes of transport per material:

• Nickel Ore	• From RTNMC through dump trucks • From other sources through ship and barge from other sources and trucks from piersite to plantsite
• Mixed Hydroxide Precipitate	Through ship, barge and trucks
• Sulfuric acid	Ship from source to CBNC piersite and acid lorries from piersite to the plantsite
• Caustic soda (liquid)	Ship from source to CBNC piersite and acid lorries from piersite to the plantsite

• Hydrogen sulfide	• For sulfur flakes, ship from supplier to piersite • For diesel, lorries from RTNMC tank to plantsite
• Limestone	• From RTNMC Gotok Limestone Quarry via trucks • From outside source via ship and barge from source to piersite and trucks from piersite to the plantsite
• Milk of Lime	From Graymont Philippines, Inc. (GPI) thru pipeline from GPI plant to the plantsite
• Coal	Ship and barge from source to piersite and coal truck from piersite to the plantsite
• MS Product	Trucks from plantsite to piersite and barges and ships from piersite to Japan

On a daily basis, CBNC hauls ore from the RTNMC minesite. This operation utilizes not less than 10 units of dump trucks daily and is being handled by CDTN Nickel Services, Inc. The outsourced ore is intended to be shipped and received once a week. Acid shipments are received around three (3) times a month on average. Methanol is once every two (2) months, and liquid caustic soda is once every quarter. Coal and mixed sulfide are being shipped once a month.

1.5.2. Proposed Expansion Project

Table 1.5.16 summarizes the TSF facilities of CBNC. With the addition of the proposed TSF 4, the total area to be utilized for TSFs would be 578 ha. Note that the TSF1 area has been completely rehabilitated. The total tailings dam capacity will be approximately 100.6Mm^3.

Table 1.5.16. Details of the TSF of CBNC

Tailing Storage Facility	Area	Tailings Dam Capacity	Volume of Tailings Impounded	Life Span (years)
TSF1	85 ha	7 M m^3	4 M m^3 (6,785,500 DMT)	6
TSF2	189 ha	33 M m^3	104,972,311 m^3 as of Jan 2023	15
TSF3	111 ha	19 M m^3	-	5
TSF4	170 ha	42 M m^3	-	14
Total	**555 ha**	**101 M m^3**	**-**	**40**

a. Tailings Storage Facility 4

The proposed TSF4 will be situated downstream of TSF2. It will have an approximate total area of 170 hectares (60 has for the embankment and 110 has for the impoundment). The facility will have a storage volume of up to 42Mm^3. Assuming no changes in the current production capacity of the plant, TSF3 is estimated to last up to five (5) years.

A Return Water Pond (RWP) with a total area of 2 hectares will also be constructed for TSF4.

Table 1.5.17. Proposed area based on the ECAN Zoning Certification and map Issued by PCSDS

Components	Area (ha)	Remarks
TSF4	170	Impoundment and embankment area
RWP of TSF4	2	Pond and pumping facilities
Reservoir 3	7	Additional water reservoir
Rock Source for TSF4	32	Source for TSF4 embankment fill materials
TSF4 Ancillary Facilities	135.18	Remaining areas where the monitoring roads, pipelines, spillway and spillway channels, etc. are to be located
TOTAL	**346.18**	

The RWP is a pond lined with High Density-polyethylene (HDPE) sheet to retain supernatant water. Since the existing Water Reservoir No. 1's (WR1) capacity will be affected by the construction of TSF4, another reservoir will be constructed to the south of WR1 with an area of 7 hectares.

Stockyards will also be utilized for the rock material's temporary and permanent storage. The stockyards are located in the existing mine or sun-drying areas of RTNMC.

The core material for TSF4 will be collected from the valley bottom terrace of the Ocayan River located on the east side of TSF3, similar to the TSF3 core borrow currently under excavation. The construction materials to be used differ for each zone, which shall be sourced from an area to the north of the proposed TSF4 location and/or within the TSF4 footprint. The construction materials will be excavated by means of heavy equipment, drilling, and blasting. Blasting procedures shall comply with the existing and relevant government regulations. Tailings discharge from the HPP to TSF3 will be approximately 26,000 m^3/day, with around 30-40% solids by weight. The supernatant portion is about 19,500 m^3/day, and this is distributed at approximately 75% (14,625 m^3/day) to be discharged to the sea and around 25% (4,875 m^3/day) to be recycled to the HPP during rainy days when raw water supply is sufficient.

In addition to the components presented in **Table 1.5.17**, CBNC will also utilize stockpile areas currently being used in the on-going construction of the TSF3. These are stockpile nos. 1 to 6 and portion of stockpile nos. 7 to 10. The stockpile areas are located inside the MPSA of RTNMC which are mostly mined-out areas as seen in **Figure 1.5.7**. **Table 1.5.18** provides the description of these facilities.

CBNC also plans to construct a 2-ha RWP for the future operation of the TSF3 to be located in a mined-out area south of TSF3.

Table 1.5.18. Other Proposed facilities

Other proposed activities within the mine area of RTNMC	Area (ha)	Remarks
RWP of TSF3	2	Currently a mined-out area south of TSF3
Stockpile 3	13	Part of TSF2 north embankment
Stockpile 4	30	Currently a mined-out area
Stockpile 5	13	Currently a mined-out area
Stockpile 6	4	Currently a mined-out area
Stockpile 7	67	Existing TSF3 unsuitable materials stockpile & for RTNMC's ore sun-drying area.
Stockpile 9	8	Part of TSF3 embankment
Stockpile 10	1	Currently a mined-out area
Stockpile 11	8	Currently a sun-drying area of RTNMC
TOTAL	**146**	Note that stockpile 1,2 and 8 are located within the 346.18 ha -proposed TSF4 area

The Geological and Soil Investigation Report in 2020 at the TSF4 site indicated that topographically, the valley off the proposed dam site forms a gentle slope. The valley was formed by the old Rio Tuba River, and at present, mining is also being operated at the bottom of the valley. The report also revealed that the basement rocks are composed of sedimentary rocks (sandstone and mudstone). Riverbed sediment and weathered residual

soil are distributed over these rocks, and artificial soil such as embankment and buried soil is distributed in part.

The detailed design of TSF4 is presented in **Figure 1.5.8**. The core material for TSF4 will be collected from the valley bottom terrace of the Ocayan River located on the east side of TSF3, similar to the TSF3 core borrow currently under excavation.

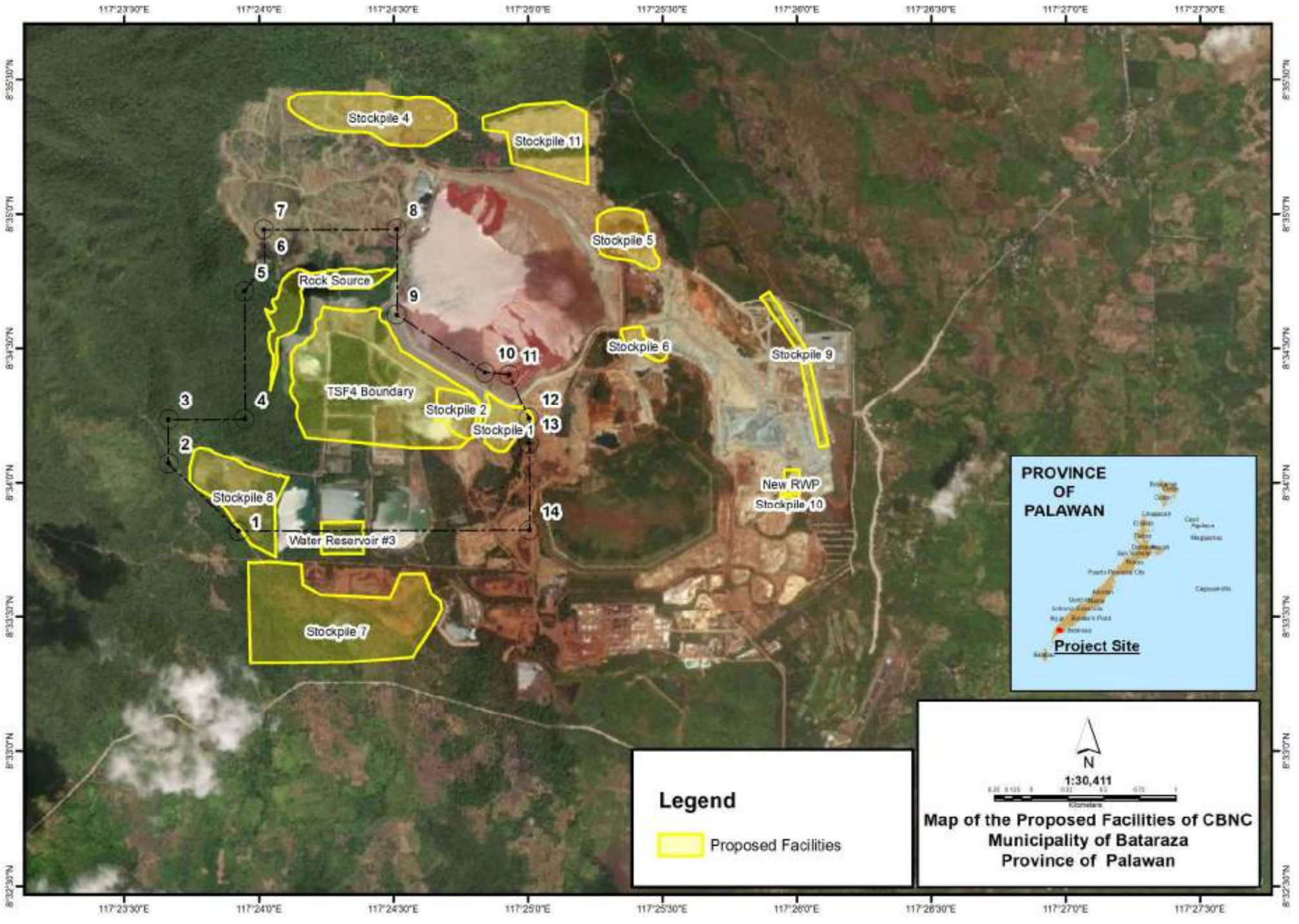

Figure 1.5.7. Map of the Proposed Facilities of CBNC

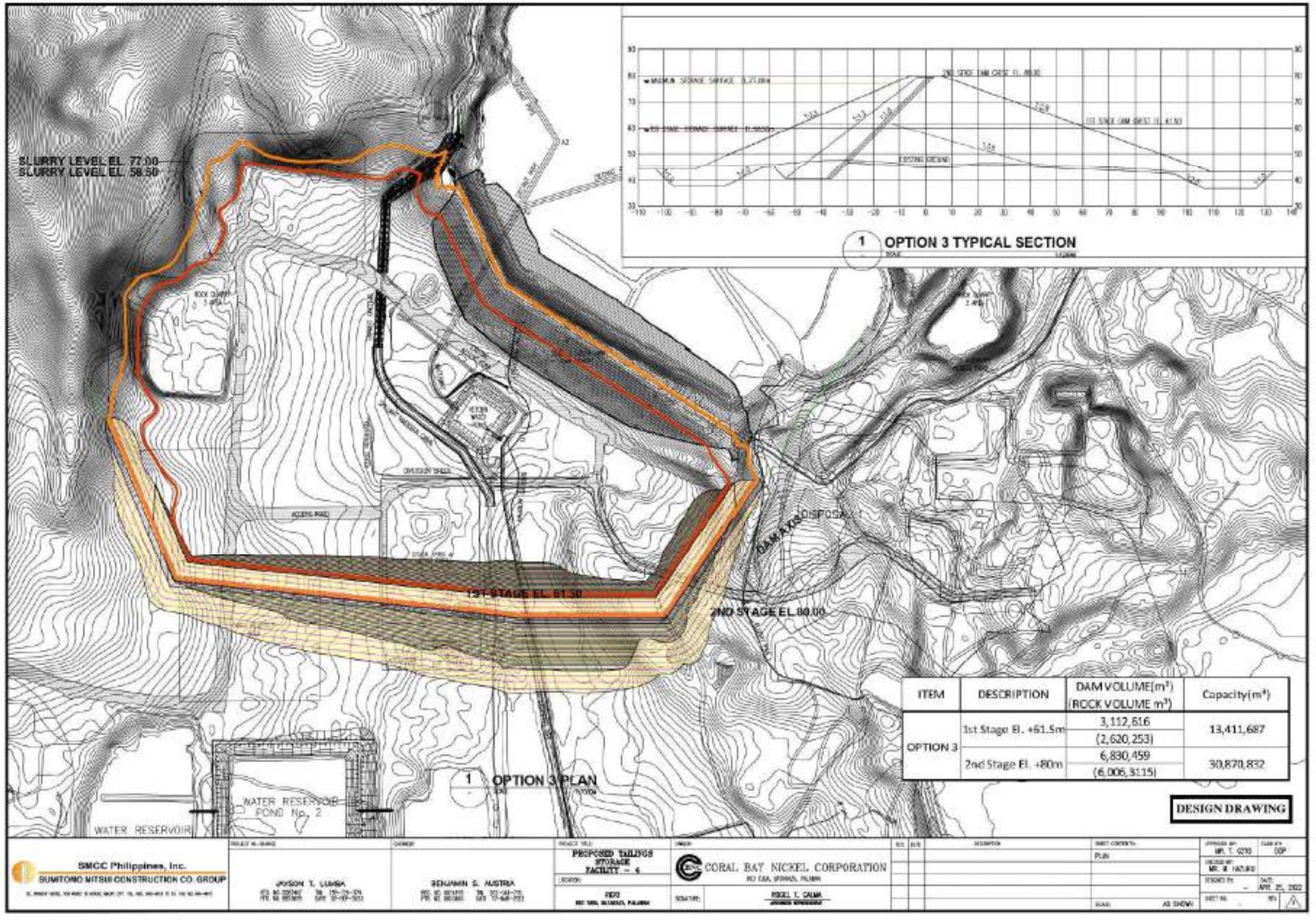

Figure 1.5.8. Crest and core trench detail of TSF4

The construction materials to be used differ for each zone, which shall be sourced from an area to the north of the proposed TSF4 location and/or within the TSF4 footprint. The construction materials will be excavated by means of heavy equipment, drilling, and blasting. Blasting procedures shall comply with the existing and relevant government regulations.

The core zone shall be filled with impervious earth material, which provides water tightness. The rock zone, on the other hand, will be filled with rock of all sizes, which will support the less stable core material and at the same time provide stability and durability for the dam body. The filter zone, which is further classified into the fine filter zone and the coarse filter zone, shall be filled with the following materials:

- Fine filter zone – well-graded sand that will form a fine filter on the downstream face of the clay core to prevent the piping of fines within the core zone; and
- Coarse filter zone – well-graded gravel that is grading compatible with fine filter material.

The materials from the source to the location where they will be utilized to construct the dam will be transported using hauling trucks.

Tailings discharge from the HPP to TSF3 will be approximately 26,000 m³/day, with around 30-40% solids by weight. The supernatant portion is about 19,500 m³/day, and this is distributed at approximately 75% (14,625 m³/day) to be discharged to the sea and around 25% (4,875 m³/day) to be recycled to the HPP during rainy days when raw water supply is sufficient. During the dry season, all of the supernatant water is recycled back to the plant. Effluent from TSF4 will also be transported the same way as TSF1, 2, and 3.

Table 1.5.19. Specification of the Proposed TSF4

TSF4	Value
Storage Capacity	41,640,000 m^3
Life-span	14 years
Tailings discharge from HPP to TSF 4	26,000 m^3/day
% solid	Approx.30-40%
% liquid	Approx. 60-70%
Evaporation Rate	4 mm/day
Rainfall Rate	8 mm/day
Dam Type	Rockfill
Crest Elevation	80 m
Foundation Elevation	45 m
Height	45 m
Embankment Volume	6,830,000 m^3
Crest Length	1,800m
Maximum Slurry Level	77.5m

Table 1.5.20. TSF4 equipment list

Description	Model	Specification	No. of Unit/s
Bulldozer	CAT-D11R	103t	1
	CAT-D10T	68t	5
	CAT-D9T	51t	5
	CAT-D8T	39t	4
	KOMATSU-D85PX	27t	4
	CAT-D6NLGP	17t	4
	Subtotal		*23*
Excavator	HITACHI-EX1200	5.0m^3	4
	HITACHI-ZX870LCR	3.4m^3	4
	HITACHI-ZX470H	1.9m^3	4

Description	Model	Specification	No. of Unit/s
	HITACHI-ZX330LC	1.4m^3	7
	CAT-320DRR	0.8m^3	6
	Subtotal		*25*
Wheel Loader	CAT-966H	4.1m^3	2
	Subtotal		*2*
Motor grader	CAT-16H	4.88m	2
	Subtotal		*2*
Vibration Roller	SAKAI-SV512D	10t	7
	Subtotal		*7*
Crusher	KOMATSU-BR380JG	33t	2
	Subtotal		*2*
Heavy Dump Truck	CAT-773E	55t	12
	KOMATSU-HD465	55t	10
	CAT-740	37t	14
	Subtotal		*36*
Crawler Dump	HITACHI-EG110R	11t	2
	Subtotal		*2*
Crawler Drill	JUNJIN-SD-700	10t	1
	FURUKAWA-PCR200	5t	2
	Subtotal		*3*
Water Tanker	MITSUBUSHI-WATER 12kl	12kl	3
	Subtotal		*3*
Vacuum Truck	MITSUBISHI	10t	1
	Subtotal		*1*
Fuel Tanker	FELL 14kl	14kl	4
	Subtotal		*4*
Cargo Truck with Crane	4tUNIC	4t	5
	Subtotal		*5*
Truck	Worker (10t)	10t	2
	Worker (4t)	4t	2
	Worker (2t)	2t	1
	Subtotal		*5*
TOTAL			**120**

b. Optimization of Ni-Co Recovery using Mixed Hydroxide

CBNC plans to maximize the recovery of Ni-Co through the use of Mixed Hydroxide Precipitate (MHP) as a supplemental raw material, giving more flexibility and efficiency to the CBNC operation, which has a rated capacity of 25,000 MT-Ni/year.

At the initial stage of the project, CBNC imported about 45 MT of MHP from Prony Resources New Caledonia SAS, which is a nickel mining and refining company in New Caledonia. The imported MHP was transported in 20 flexible bags contained in two (2) cargo containers.

Figure 1.5.9 depicts the additional point of MHP in the existing process of HPP, while **Figure 1.5.10** shows the process flow diagram before and after MHP processing.

The current pilot testing of the use of MHP requires a designated area for charging (**Plate 1.5.12**) and storage of MHP. The location of the current charging area or feeding area is shown in **Figure 1.5.11**. For storage of MHP, a 10-square-meter area located inside the Receiving and Chemical Warehouse is being used initially, as seen in **Plate 1.5.13**.

With the continuous use of MHP, after testing and evaluation, a new facility estimated to be around 200 m^2 and equipped with a tank and hopper will be constructed. Its proposed location is on the south side of the Ore Preparation Line 2 area. This will be one (1) train for both Line 1 and Line 2 operations. The estimated tank size, capacity, and other details will be provided after the testing. In addition, a platform shall also be placed within the 11 m x 1.8 m area beside the charging area to be used as a holding area for MHP bags, as seen in **Plate 1.5.14**. For storage of MHP, a 150 sq.m. open area within HPAL Line 2 will be utilized. This area has no fixed structure, as seen in **Plate 1.5.15.**

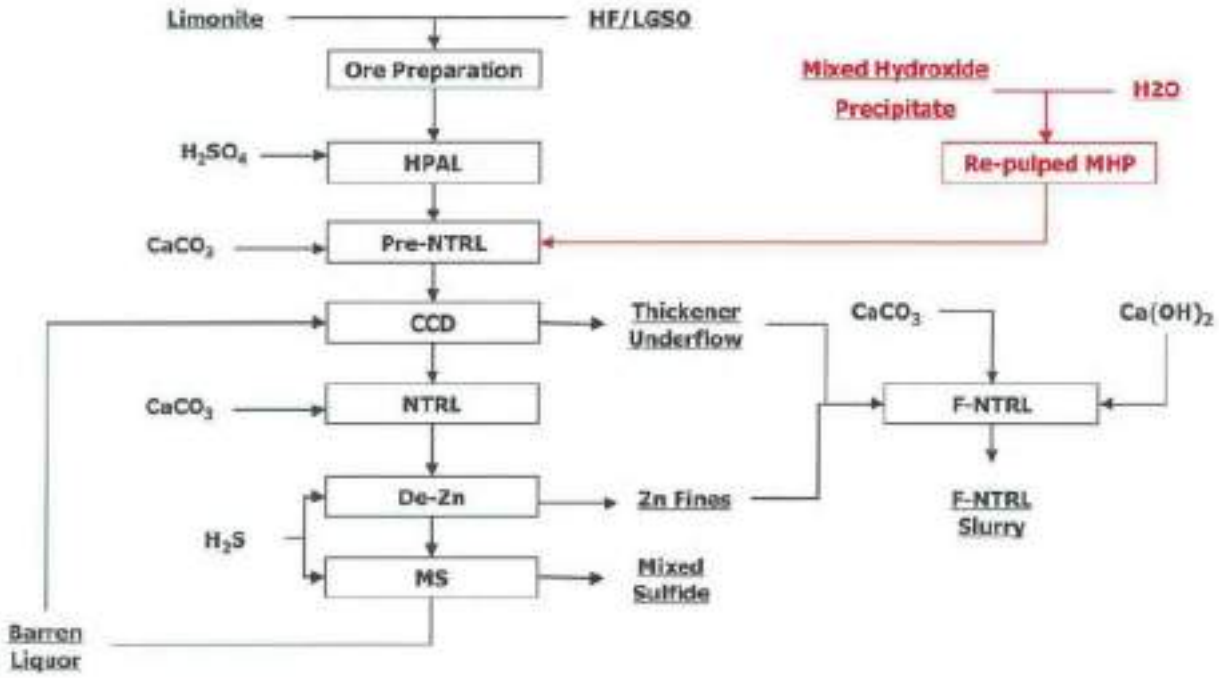

Figure 1.5.9. Process flow diagram (additional point of MHP)

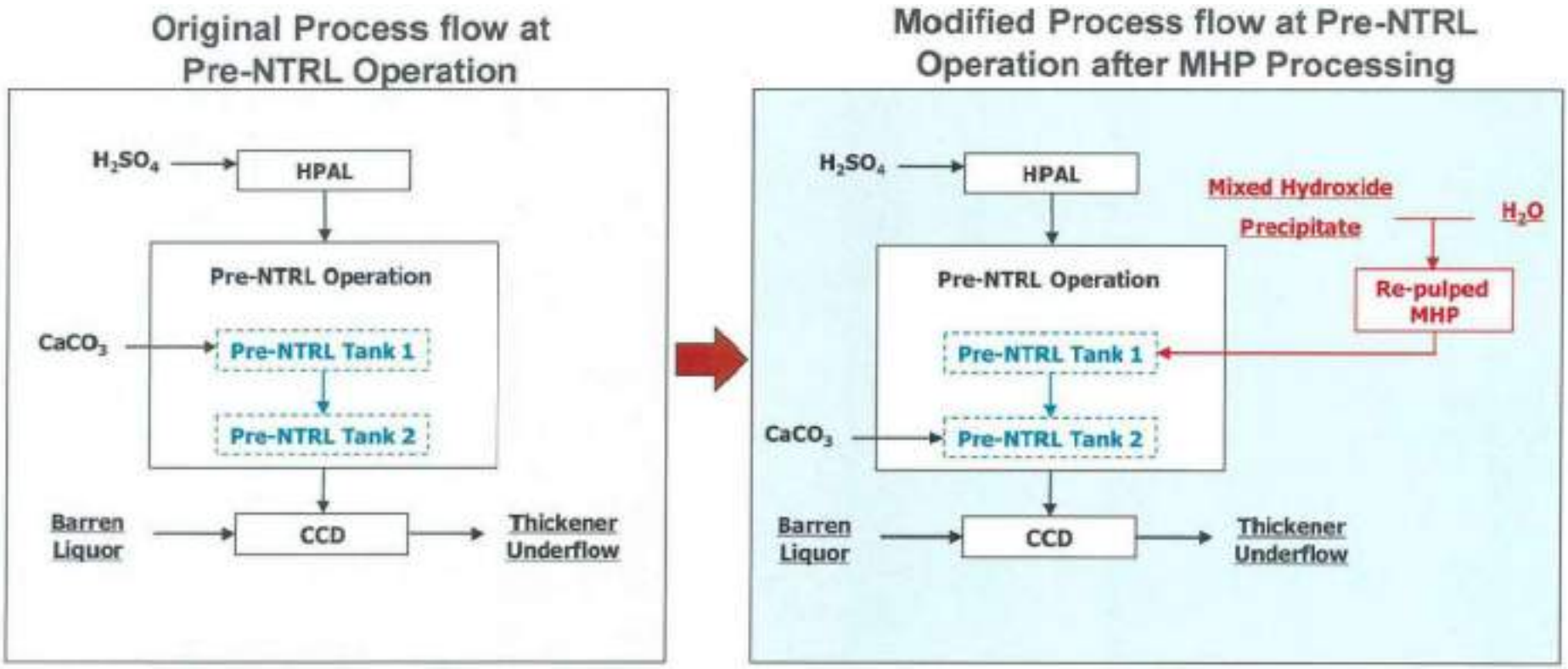

Figure 1.5.10. Process flow diagram (before and after MHP Processing)

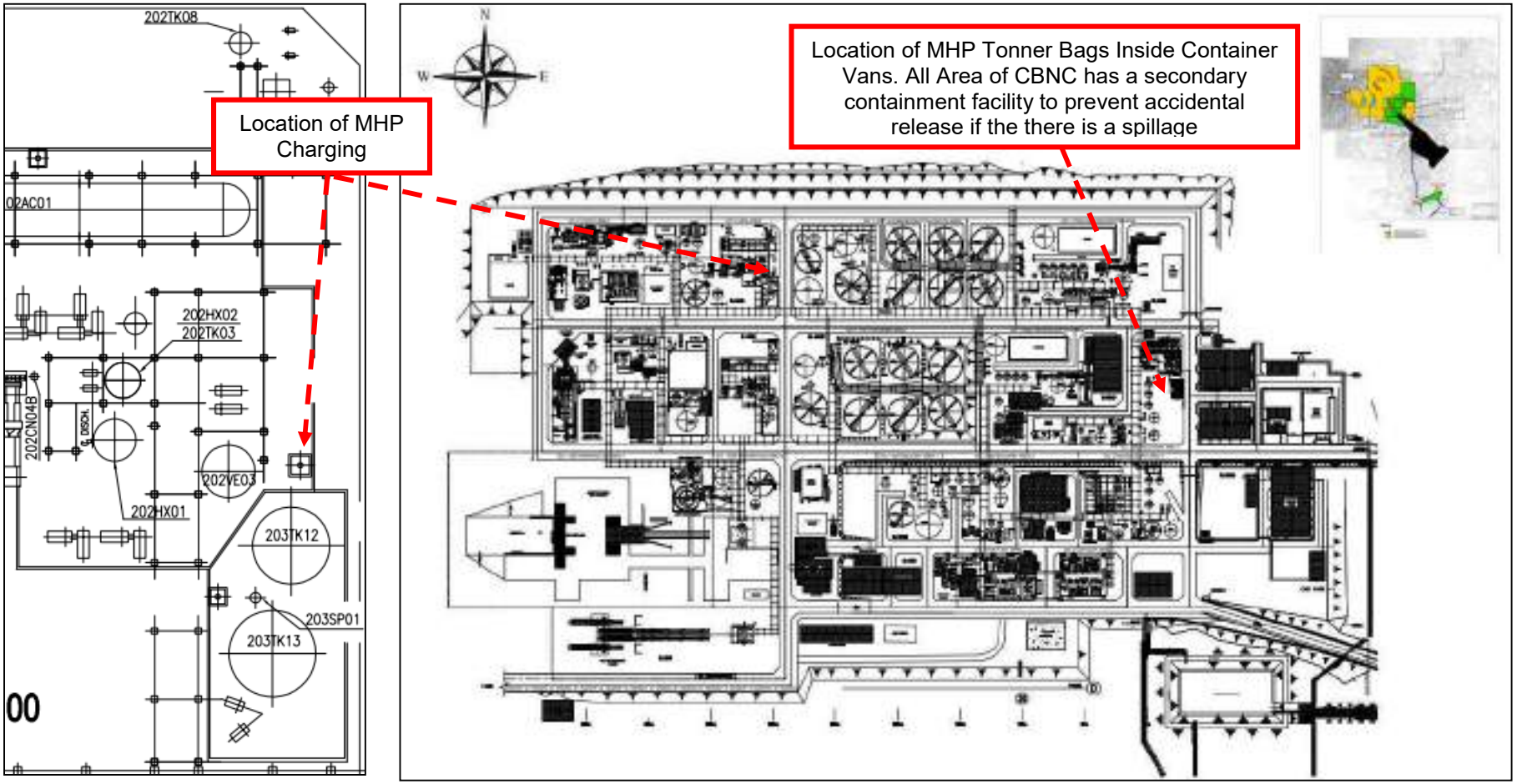

Figure 1.5.11. MHP charging area: Line 2 Flash Vessel Area – Pre-neutralization Area

Plate 1.5.12. Photo of the MHP Charging area

Plate 1.5.13. Initial storage area of the MHP at Chemical Warehouse

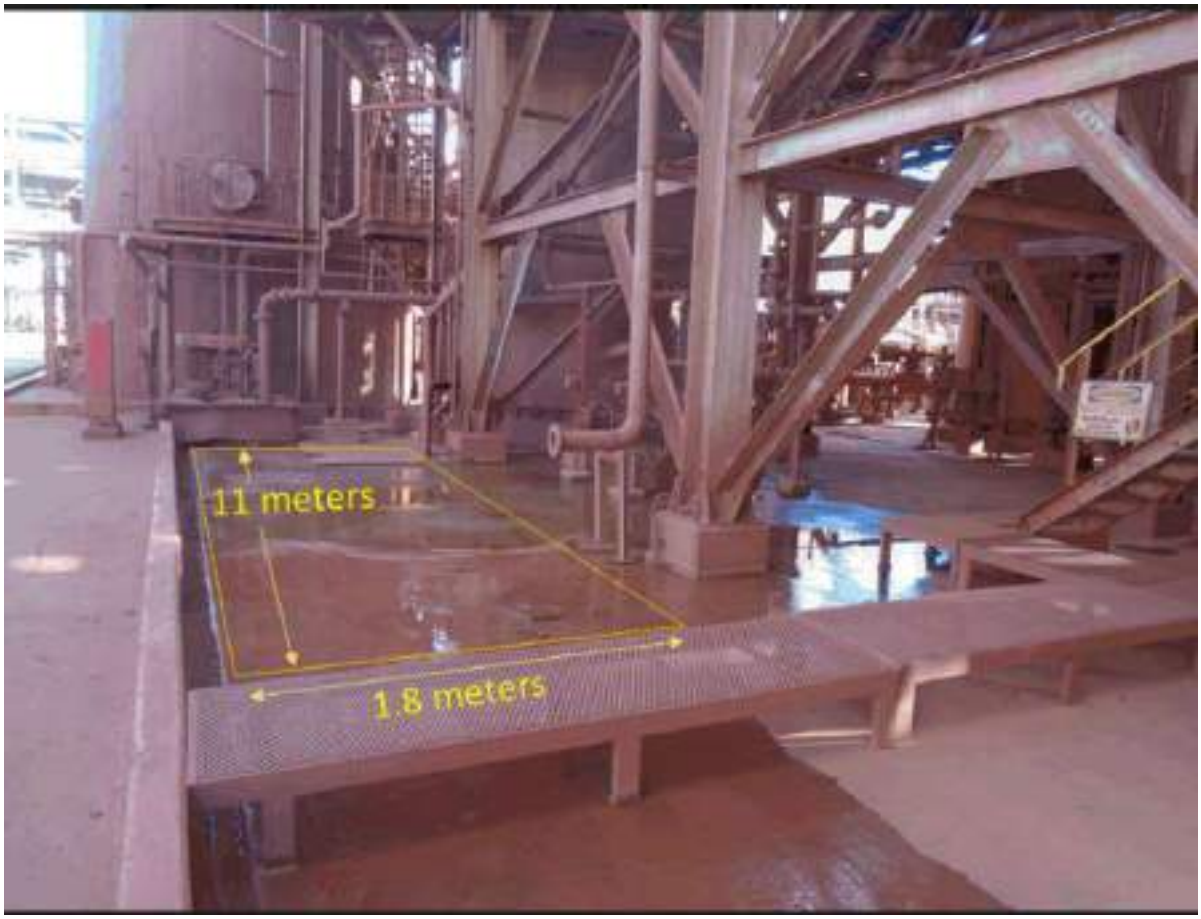

Plate 1.5.14. Proposed location of the MHP bags platform

Plate 1.5.15. On-site photo of the proposed location of the new MHP Storage Area

Table 1.5.21 summarizes the analysis for MHP. **Annex 1.5.3** includes the complete SDS for the intermediate product of nickel metallurgy.

Table 1.5.21. Typical MHP analysis

Moisture	Average	Range (95% results)
	51.0	48.5-53.4
Element	Wt%	Wt%
Ni	38.5	35.9-41.2
Co	3.1	2.47-3.74
Al	0.05	0.02-0.08
Ca	0.20	0.16-0.24
Cr	<0.005	<0.005
Cu	0.02	0-0.04
Fe	0.08	0.02-0.14
Mg	2.50	1.70-3.30
Mn	4.97	3.91-6.03
S	5.27	4.71-5.83
Si	0.46	0.39-0.54
Zn	0.58	0.52-0.65
Co/Zn	5.17	3.8-6.5

c. Use of Alternative Fuel for CBNC Coal-Fired Boilers

As presented in the preceding section, CBNC owns and operates two (2) units of coal-fired power boilers (105 TPH combined evaporating capacity) to provide power through the Steam Turbine Generator (STG) and heating medium needed by the operation. About 205,797 tons of sub-bituminous coal were consumed by CBNC in 2021, which generated approximately 412,000 tons of CO_2.

In support of the SMM Co.'s advocacy that requires all of its subsidiary companies including CBNC, to implement environmental enhancement programs to reduce CO_2 emissions to about 1.5% every year, the addition of biomass fuel will be applied in future operations for both boilers (Lines 1 and 2), and the mixing ratio will be gradually increased to 10% and continuously increase up to 100% depending on test result for CY 2023 and 2024, respectively.

Around 10, 000 Tons (5%) of biomass fuel will be utilized starting in 2023. It will gradually increase to around 22,000 Tons in the future for a consumption mixture of 10% to coal ratio. Currently, the source of biomass fuel is from NISSIN SHOJI CO., Ltd in Japan. Future options for sourcing other type of biomass fuel will include local producers in Palawan and onsite plantations at the rehabilitation areas and/or barren lands as part of the livelihood program for indigenous peoples (IPs). Biomass fuel have no potential hazardous components that require special treatment, as per the SDS Report. CBNC's present programs to manage and monitor the environment that are currently being implemented are adequate for the storage and handling of the biomass fuel are currently being implemented and adequate for the storage and handling of the biomass fuel.

The process will only require the addition of a small hopper to load the biomass fuel or other biomass fuel to mix with the coal going to the boiler. Dust collectors (ESP with 65 m^3/s max. inlet flow capacity) and 17.4 tons/hr DCF/CS capacity for the conveying facilities will also be installed.

Table 1.5.22. Estimated CO_2 reduction per biomass fuel ratio

Ratio	%	1	2	3	4	5	6	7	8	9	10
Biomass Fuel	t	2,231	4,456	6,674	8,885	11,091	13,289	15,482	17,667	19,847	22,019
Est.CO_2 Reduction	t	4,871	9,730	14,576	19,410	24,232	29,041	33,838	38,622	43,395	48,154

Figure 1.5.12 projects the proposed process flow diagram using biomass fuel mixed with coal. The biomass fuel charging point will be set up along line 1 of the existing boiler facility (**Figure 1.5.13**). **Plate 1.5.16** shows the actual photo of the proposed biomass fuel charging area.

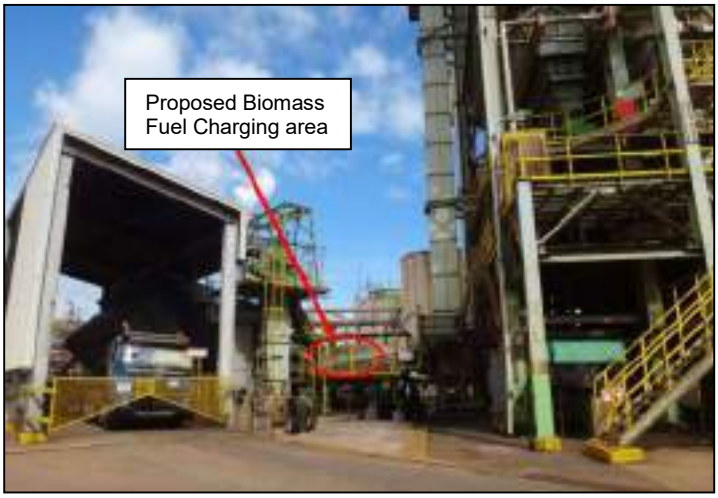

Plate 1.5.16. Proposed biomass fuel charging area

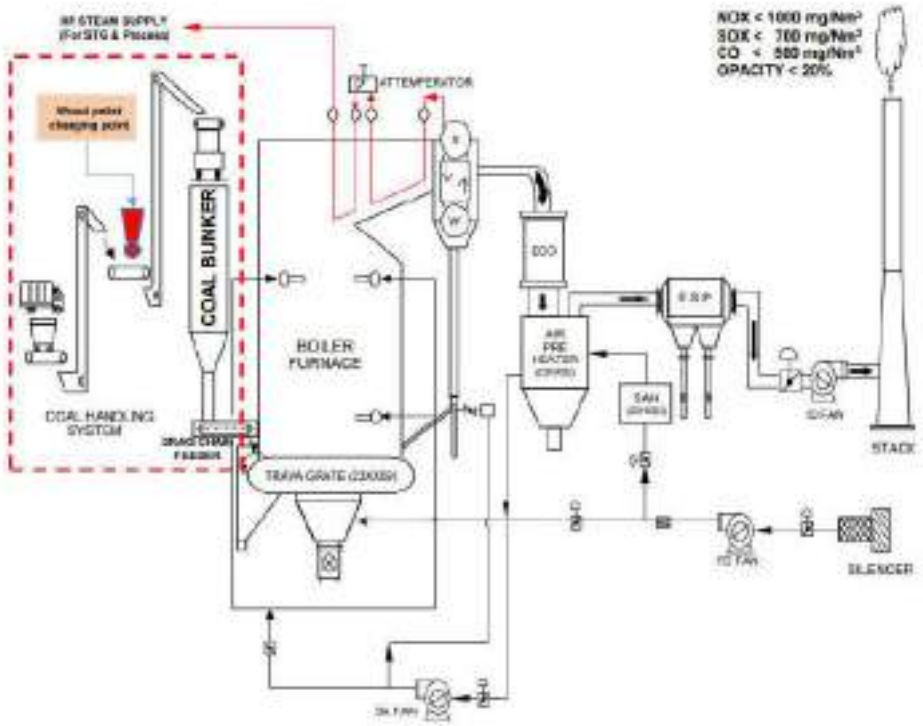

Figure 1.5.12. Process flow diagram using biomass fuel mixed with coal

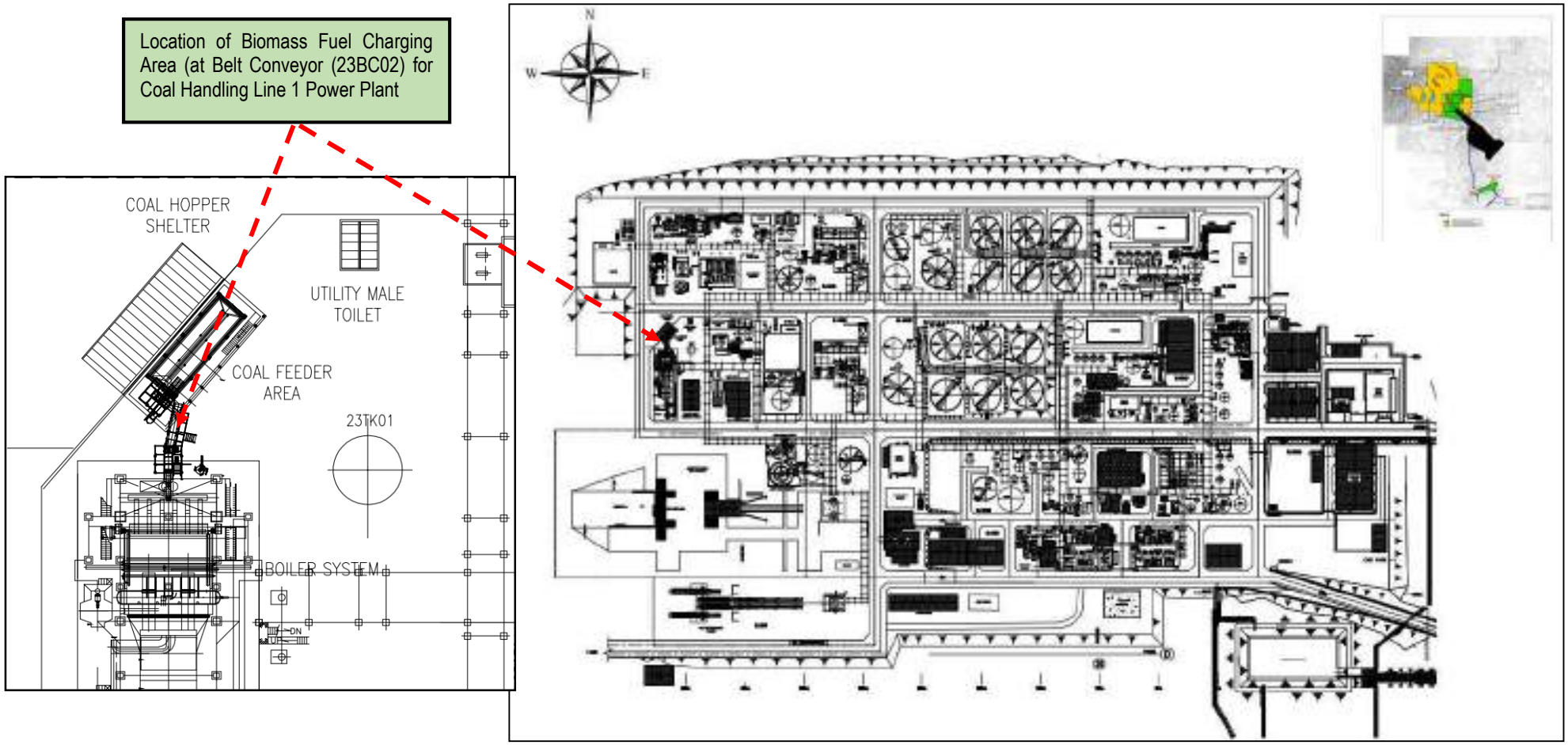

Figure 1.5.13. Proposed location of biomass fuel charging area

Table 1.5.23 below are the general characteristics of the biomass fuel versus the existing bituminous coal being utilized by CBNC for its power plant.

Table 1.5.23. Biomass fuel versus CBNC sub-bituminous coal

	Parameters Description	Unit	Biomass Fuel	Adaro	Kayan
A	**Proximate Analysis (dry basis)**				
1	Moisture (a.r.b.)	%	8.4	28	18.0
2	Inherent Moisture (a.d.b.)	%	2.6	14.5	14
3	Ash (a.d.b.)	%	1.9	2.8	3.0
4	Volatile Matter (a.d.b.)	%	N.D	42.7	41
5	Fixed Carbon (a.d.b.)	%	N.D	40.1	44
6	Calorific Value (a.d.b.)	Kcal/kg	N.D	5,819	6,400
7	Calorific Value (g.a.r.)	Kcal/kg	4,340	4,900	5,900
8	Calorific Value (n.a.r.)	Kcal/kg	3,990	4,554	5,480
9	Total sulphur	%	0.02	0.1	0.15
10	H.G.I		17.4	46	42
B	**Typical Sizing**				
	+50.00 mm	%	Dia-6-12±1 mm	5	N.D
	0~50 mm	%	3.15 <L≤40 mm	95.0	0-50
	<2 mm	%	N.D	N.D	N.D
C	**Ultimate Analysis**				
	Carbon (dry ash free basis)	%	50.8	74	74.5
	Hydrogen (dry ash free basis)	%	6.16	5.13	5.35
	Nitrogen (dry ash free basis)	%	0.18	1.02	1.2
	Oxygen (dry ash free basis)	%	40.84	19.7	17.25
	Sulphur (dry ash free basis)	%	0.02	0.15	N.D
D	**Ash Fusion Temperature (Reducing Atmosphere)**				
	Initial deformation	°C	1,180	1,150	1,200
	Hemisphere	°C	190	1,170	1,275
	Flow	°C	1,210	1,180	N.D
	IDT	°C	N.D	N.D	N.D
E	**Ash Composition (Dry Basis)**				
	Silica SiO_2	%	46.27	35.80	26.5
	Aluminum Al_2O_2	%	12.39	15.00	16
	Iron Fe_2O_3	%	6.69	14.50	30.00
	Calcium CaO	%	16.04	15.00	15.50
	Magnesium MgO	%	2.8	6.75	5.15
	Sodium Na2O	%	0.94	0.40	0.70
	Potassium K2O	%	9.83	1.00	0.20
	Phosphorus P_2O_5	%	1.45	0.27	0.30
	Titanium TiO_2	%	0.78	0.80	1.20
	Sulphur SO_3	%	2.03	7.78	3.60
	Others	%	N.D	N.D	N.D
	NiO	%	<0.01	N.D	N.D
	MnO	%	0.4	N.D	N.D
	Manganese as Mn_3O_4	%	N.D	N.D	0.15

Legend:
a.r.b – As received Basis; g.a.r – Gross As Received; a.d.b – Air Dried Basis; n.a.r – Net As Received; H.G.I – Hard Grove Grind Ability Index; N.D. No Data Provided

d. Additional Supply of Nickel Ore from other Sources within the Philippines

With the projected decrease and low nickel content of ore coming from RTNMC, CBNC plans to source additional supply from other existing and future mining operations of NAC in the Philippines. With this plan, CBNC will source about 1.2M DMT of nickel per year. The ores will be transported by barge and stockpiled at the Piersite Material Stockyard of CBNC, RTNMC Piersite Stockyard B and Stockpile Areas to the west of the CBNC Ore Preparation Area with a total area of 6 hectares. **Plate 1.5.17** is the actual photo of the Material Stockyard facility.

Plate 1.5.17. Material Stockyard facility.

Power Requirements

During construction of the TSF4, generator sets will be used. About 46,759,200 kWh of power are estimated to be consumed during the entire construction phase.

Once TSF4 is in operation, the estimated power consumption of TSF4 maintenance is approximately 2,848,752 kWh/year, to be sourced from generator sets. Currently, CBNC's existing power consumption is about 135M kw-hrs/year.

Similarly, the use of MHP will not require additional power requirements because the material will just be charged/mixed in the Pre-Neutralization Area of the process. While the use of biomass fuel will just replace 3-10% of the of the coal fuel requirement of the power plants.

Water Requirements

The construction of TSF4 will require about 1,210,000 kL, or 368 m^3/day (9 years construction), which will be used for water sprinkling, moisture content adjustment of embankment materials, and equipment cleaning.

There will be no significant change in water consumption once TSF4 is in full operation. The same amount of water as described in **Figure 1.5.4** will be utilized for the entire CBNC operation. Currently, the company is using about 30,000 m^3/day of water for the operation of HPP Line 1 and Line 2, even with the use of biomass fuel mixed and MHP to augment the production output.

Fuel Requirements

During the entire construction phase of the proposed TSF4, the total fuel consumption will be approximately 28,755,600 liters. During the operation phase, the estimated fuel requirement is 900,878 L/year that will be used to run two (2) 220 KVA diesel generator sets.

Wastewater Generation

No industrial wastewater during the construction period is expected. Only runoff from rain was caught by its surface area during TSF4 development. The silted water will flow to RTNMC siltation ponds (Upper and Lower Togpon).

During the operation of TSF4, TSF3 will be slowed down until it is completely filled up. Approximately 3.3M m^3 of wastewater is expected to be discharged annually.

CBNC's existing waste management measures will be adopted throughout the project operation, as previously discussed in this chapter.

1.6 PROCESS/TECHNOLOGY

1.6.1 The Manufacturing Process

1.6.1.1 Mixed Sulfide Process

The production of mixed sulfide involves seven (7) stages. **Figure 1.6.1** shows the simplified process flow diagram. The stages of the process are discussed below:

Ore preparation

The process involves screening out from the feed ore particles with a size fraction greater than 2 mm. This is to remove the coarser grain size of low-grade Ni ore, which contains more magnesium oxide (MgO) than the finer-grained ore. MgO requires higher acid consumption at the autoclave. The -2 mm fraction is slurrified, thickened, and stored at the HPAL feed storage tank.

High Pressure Acid Leach (HPAL)

The ore slurry is subjected to three (3) stages of pre-heating before being fed to the autoclave together with sulfuric acid and steam to selectively leach Ni and Co. After passing through three (3) stages of flashing or depressurization, the pressure-leached slurry from this process is sent to the Counter-Current Decanter.

Counter-Current Decantation

The depressurized pressure leach slurry is fed to the seven-stage Counter Current Decantation (CCD) circuit to recover the nickel-and cobalt-rich solutions from the barren leached solids. The underflow from the last thickener is discharged to the tailings treatment area at maximum solid density and minimum nickel and cobalt liquor concentration. The pregnant solution, or nickel and cobalt-liquor, from the first CCD thickener overflow is sent to the neutralization circuit. The washed tailings from CCD 7 are then neutralized by limestone and sent to the final neutralization stage.

Neutralization

The pregnant solution from the CCD area is sent to the neutralization tanks, where limestone is added to regulate pH at 3.0 to 4.0 to precipitate Fe and Al. The neutralized solution containing the reaction product gypsum is sent to the neutralization thickener together with the flocculants to improve settling rates and is separated into neutralized solution and neutralized gypsum slurry. The neutralized gypsum slurry is sent to CCD 3, while the neutralized solution is sent to the Zinc Removal area.

Zinc Removal

The neutralization thickener overflow is pumped to the zinc removal tanks and contacted with hydrogen sulfide gas to precipitate Zn and Cu. The entire discharge stream from the zinc precipitation tanks is directed to the zinc-free liquor polishing filters. The zinc sulfide

fines sluiced from the polishing filters are re-pulped and then pumped to the final neutralization stage.

Sulfurization

The neutralization solution stripped of its Zn impurities is reacted with hydrogen sulfide (H_2S) in the range of pH 2.5 and 3.0 to recover more than 99% of Ni and Co as Ni/Co mixed sulfide (MS). Impurities such as manganese (Mn) and magnesium (Mg) remain in the solution. The sulfurized slurry is sent to the sulfide thickener and is separated into sulfurized solution and sulfide slurry. The sulfide slurry is washed and dehydrated by a pressure filter and is separated as mixed sulfide (MS), while the sulfurized solution is sent to the Barren Liquor Treatment (Area 7). MS products are packed in flexible plastic containers.

Barren Liquor Treatment

The barren sulfurized solution from the sulfurization area is sent to the polishing filters, where any fines recovered are re-pulped and returned to the MS reactors. The filtrate goes through an H_2S stripping column and then to the CCD water surge tanks to be used as wash water for the CCDs. A small excess portion is directed to the final neutralization stage together with the zinc sulfides and the bulk of the leached residue from CCD No. 7.

Limestone slurry is added to raise the pH to 6, then slaked lime is added, then further increase the pH to alkaline levels of 8.0 to 8.5. Here, most of the remaining dissolved manganese and magnesium precipitate. The neutralized tailing is then pumped to the tailings dam.

1.6.1.2 H_2S Production Process

Methanol and demineralized water are mixed and vaporized by heating, and then the mixed gas is reacted on the catalyst to generate crude hydrogen (H_2) gas. This crude H_2 gas is fed to a PSA (Pressure Swing Adsorption) unit and purified to more than 99.9% by volume. The high-purity H_2 gas is fed to the H_2S reactor.

On the other hand, flake sulfur is melted by low-pressure (LP) steam and fed to the H_2S reactor, from where crude H_2 is generated. This is eventually purified to 98% by volume of H_2S gas.

The process flow diagram for hydrogen sulfide production is presented in **Figure 1.6.2.**

1.6.1.3 Power Generation Process

The process involves the production of steam from a coal-fired boiler to run the steam turbine. Demineralized water is circulated to the boiler to heat the water to 400°C. The superheated steam drives the turbine and generates electrical power.

After water is expanded at the turbine, the saturated steam is transformed to its saturated phase (partly water, partly steam) and condensed into liquid form at the condenser. The water is again made to pass through the feed water pump before being utilized at the boiler. A simplified diagram of the power generation process is presented in **Figure 1.6.3**.

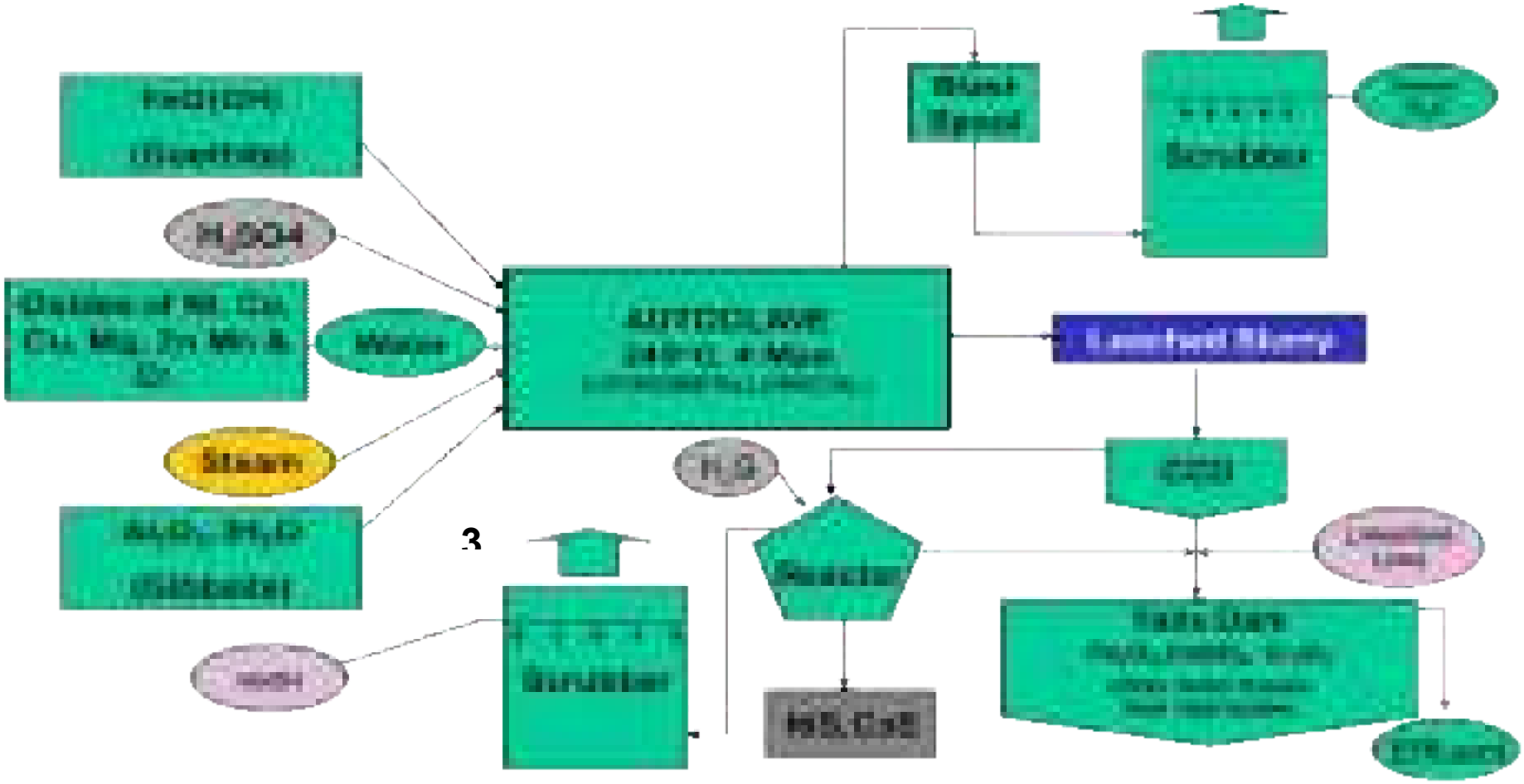

Figure 1.6.1. Simplified Process Flow Diagram

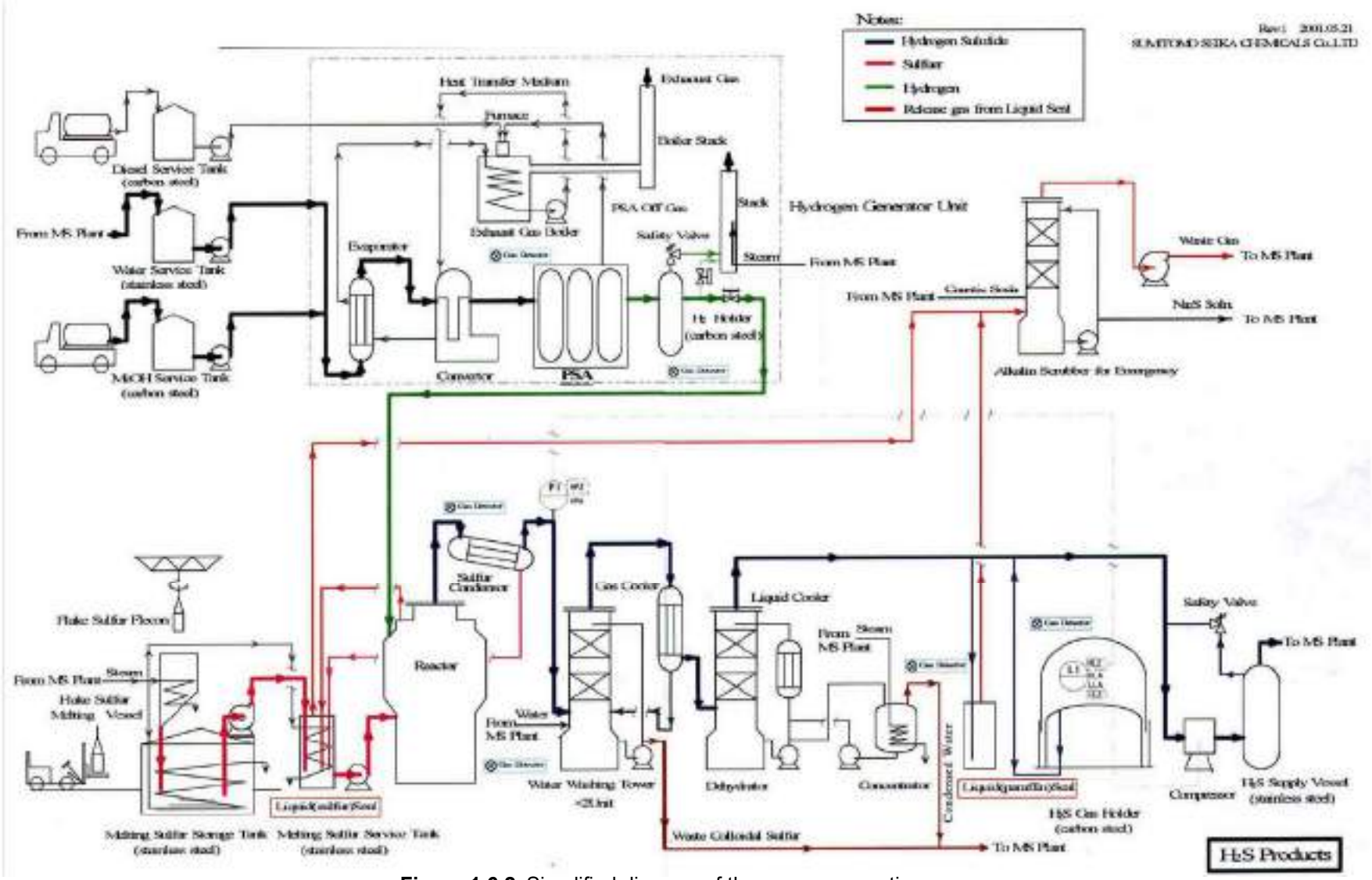

Figure 1.6.2. Simplified diagram of the power generation process

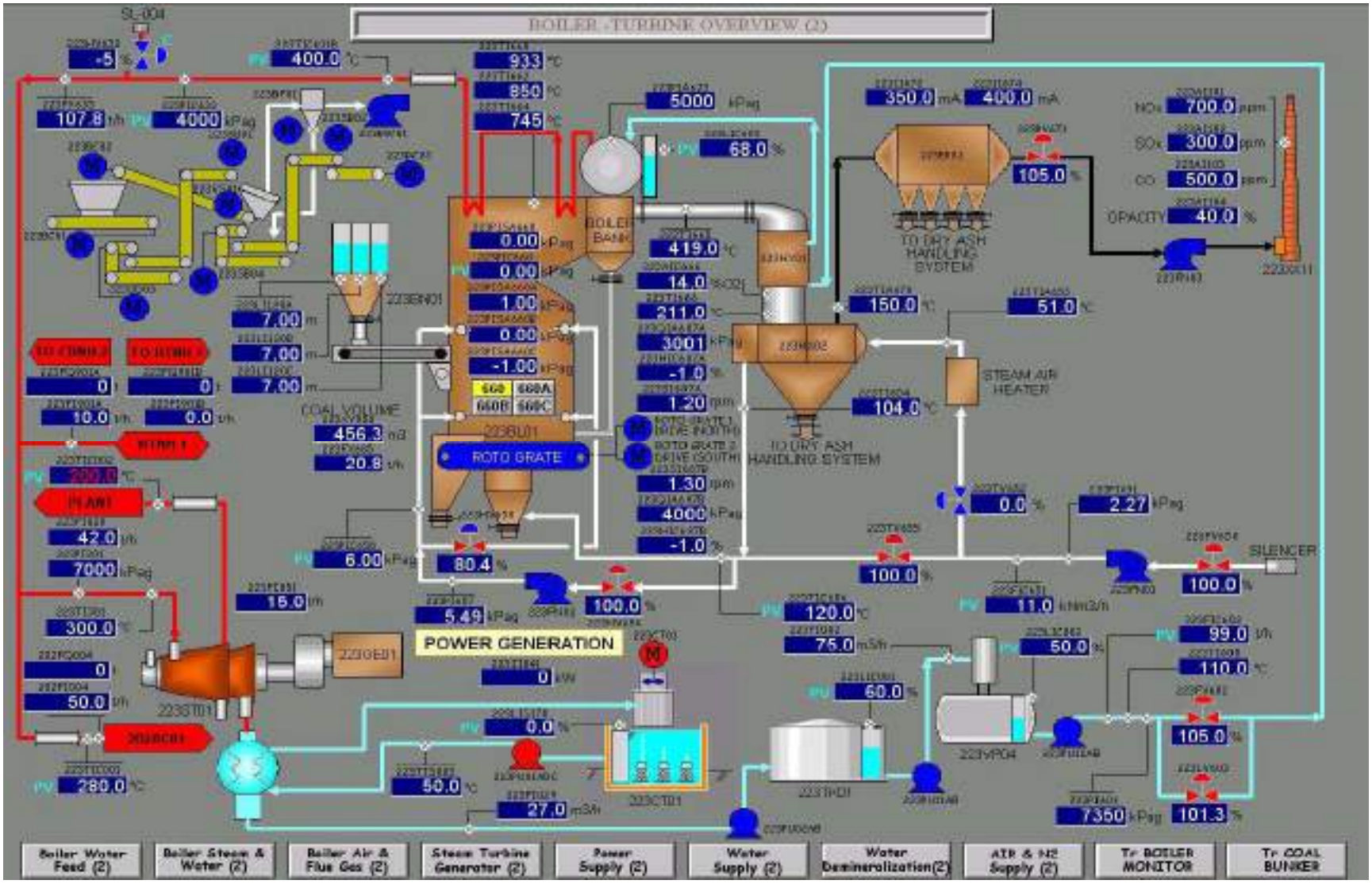

Figure 1.6.2. Simplified diagram of the power generation process

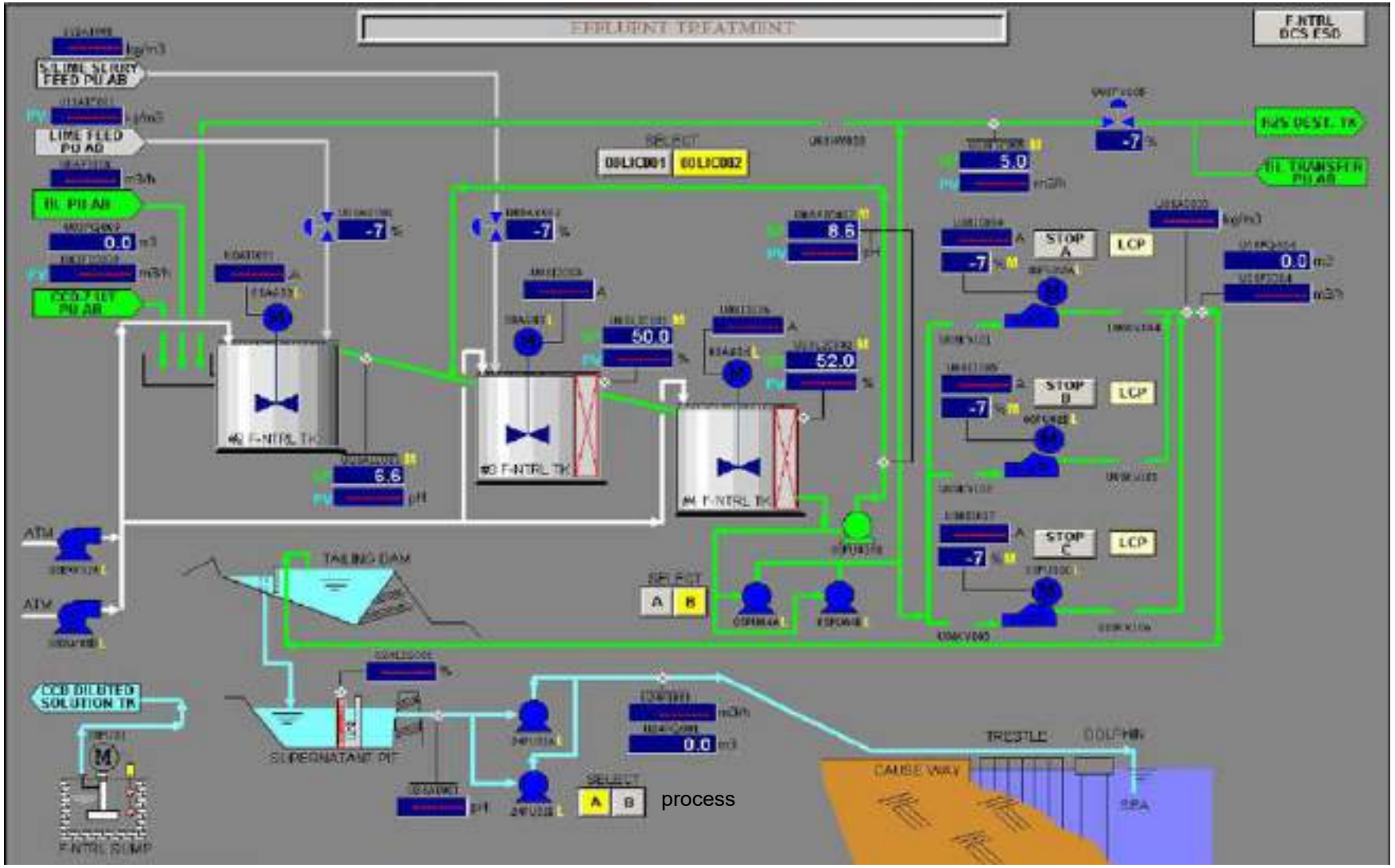

Figure 1.6.3. Simplified diagram of the wastewater treatment plant

1.6.1.4 Wastewater Treatment Process

During the MS production process, neutralization of tailings and pregnant solutions is done to recover nickel and cobalt from the ores. After Ni and Co are recovered, all wastewater and tailings are sent to the final neutralization tanks for final treatment. Lime slurry and limestone are added to increase pH from 6 to 8.0 to 8.5. The simplified process of wastewater treatment is presented in **Figure 1.6.4.**

1.6.1.5 Coal Ash Handling and Management

Table 1.6.1 shows the amount of ash generated from 2017 to 2021. As part of the management procedures, the generated coal ash from the process will be neutralized in the final neutralization basin with Central Composite Design (CCD) residual slurry that is also located within the CBNC complex. The TSF will receive the ash slurry after neutralization with the tailings slurry, wherein the solid is settled and the supernatant is discharged to the existing drainage system.

Table 1.6.1. Ash Generation

Year	Based on Ash Content, Ton				Based on visual estimation, Ton			
	Dry	Wet	Total	Tons/Day	Dry	Wet	Total	Tons/Day
CY 2017	3318	1422	4741	13.9	2988	1281	1281	4269
CY 2018	3343	1433	4775	14.0	3025	1297	1297	4322
CY 2019	3539	1517	5055	14.8	3213	1377	1377	4589
CY 2020	3850	1650	5499	16.1	3602	1544	1544	5145
CY 2021	3485	1493	4978	14.6	3574	1532	1532	5105

Figure 1.6.5. shows the process flow of the ash from the Utilities Plant to the Final Neutralization Plant (Production). The diagram (left side) shows positive conveyance using compressed air from the Utilities side. Another way to transfer the ash from the Utilities side to Production is by using of a vacuum pump to be installed at the production side, as shown in the diagram (right side).

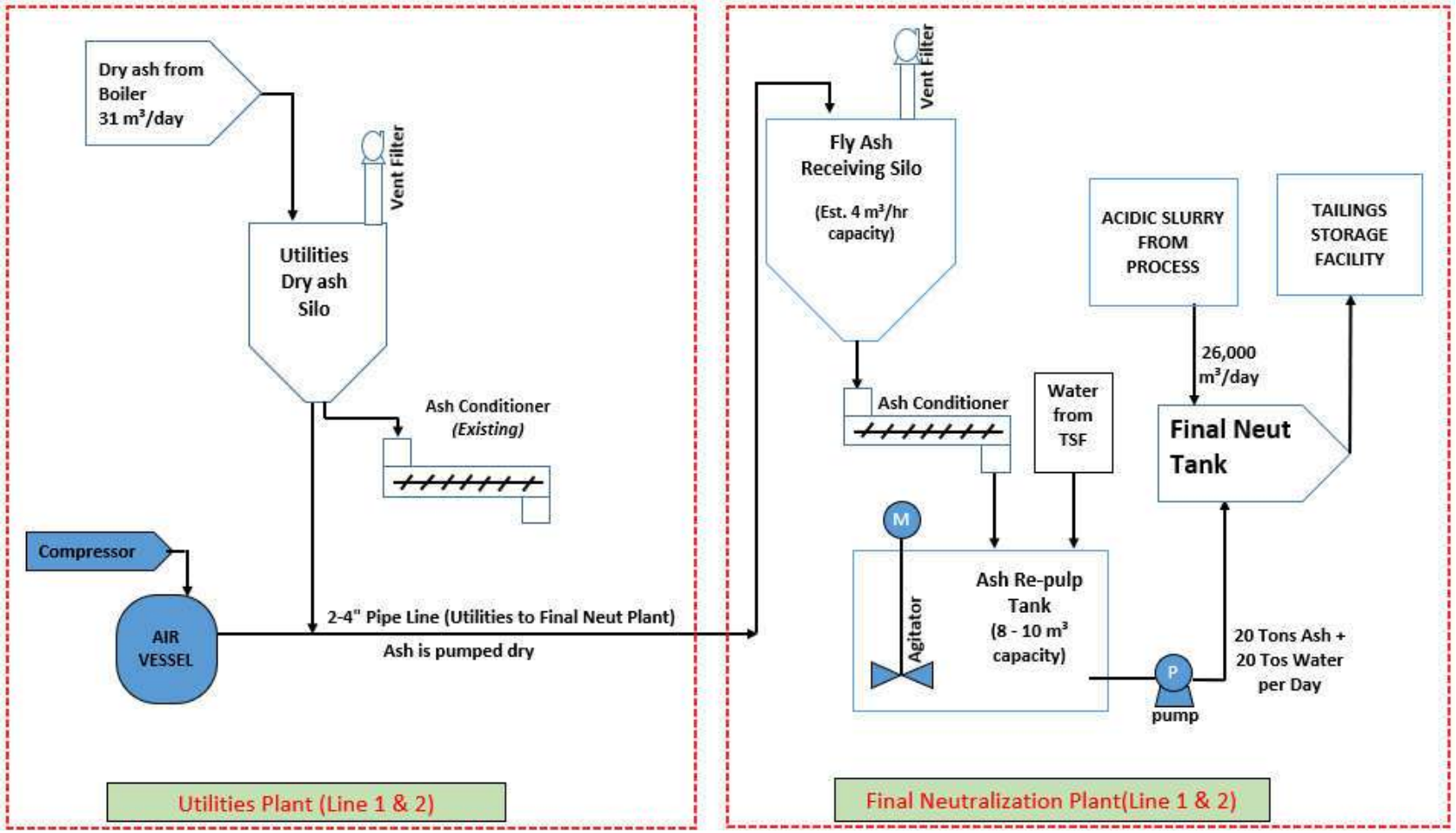

Figure 1.6.4. Proposed Dry Ash Conveying Process Flow Diagram

Note: The above indicated specification may change once the detailed design is available

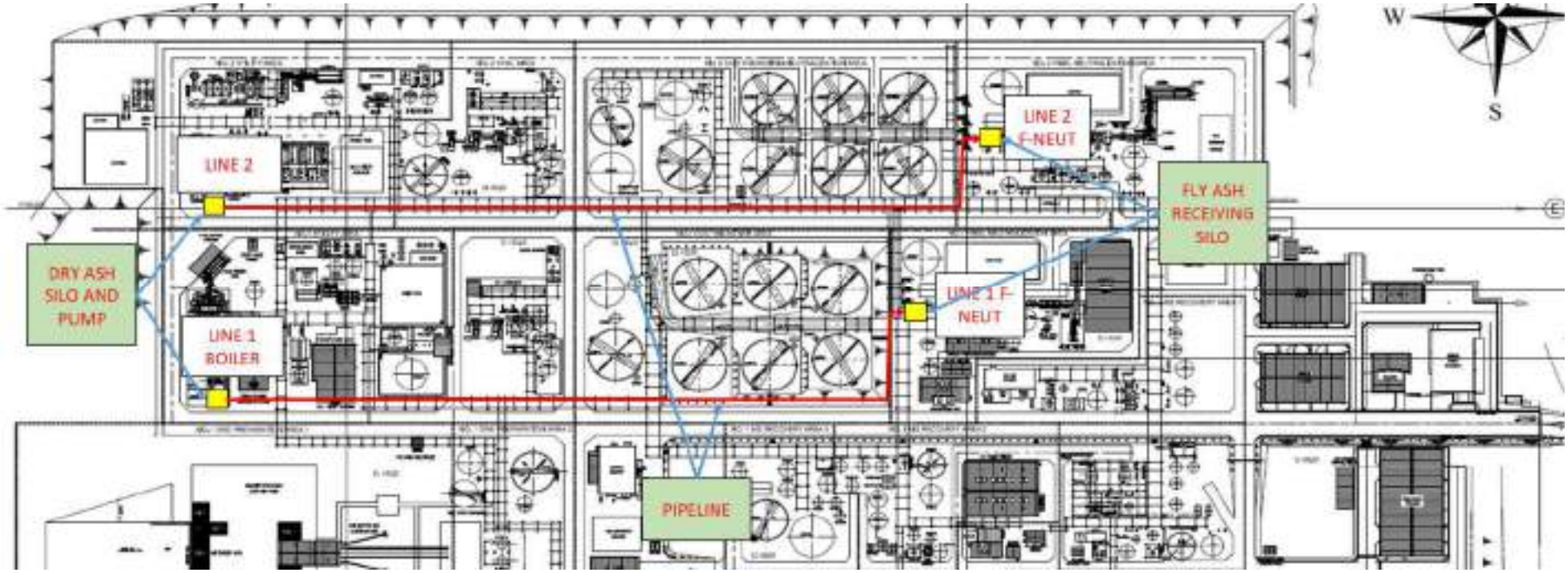

Figure 1.6.5. Plant Layout of the Ash Disposal System to Final Neutralization Plant

1.7 PROJECT SIZE

1.7.1 Summary of Area based on the current ECC

The total area of CBNC based on the current ECC is 471 hectares, which includes the facilities and structures presented in **Table 1.7.1**.

Table 1.7.1. Summary of project facilities based on the current ECC of CBNC

Project Component	Area (ha)
1. Plant site	**44**
• Ore preparation	0.5
• High pressure acid leach	0.8
• Neutralization, CCD/Thickening and Final Neutralization (includes limestone storage)	4.8
• Zinc removal and sulfurization	2.0
• H_2S Plant	0.7
• Power plant	2.1
• Office and canteen	0.1
• Laboratory and workshop	0.2
• Chemical/sulfur yard and warehouse	0.5
• Spare parts storage and MS warehouse	0.1
• Sanitary Landfill	3.8
• East Ibelnan River Intake dam	0.14
• Upper Togpon Siltation Pond	9.2
• Water Reservoir in Togpon (300,000m^3-capacity)	8.1
• Treated Water Facility	0.7
• Coal Ash Pit	9.0
• Open areas/Access Roads	1.26
2. Port facilities	**19**
• Chemical warehouse	0.5
• Coal stockyard	2.8
• CH_3OH and H_2SO_4 tank farm	1.7
• Slaked lime and sulfur storage yard	2.0
• Stockyard	0.5
• Siltation pond	0.3
• Causeway	0.57
• Trestle	0.57
• Open areas/Access Roads	10.06
3. TSF 1	**90**
4. TSF 2	**207**
5. TSF 3	**111**
Total Footprint	**471**

1.7.2 Production Capacity

The annual production capacity of CBNC is 25,000 DMT of nickel and 2,500 DMT of cobalt due to the high cobalt content of ore.

To enhance the continuing operation of CBNC, an additional TSF will be established with a total capacity of 42M m^3.

1.7.3 Comparison of the Existing and Proposed Project

Table 1.7.2 provides the comparison of the existing/actual and the proposed project.

Table 1.7.2. Comparison of the existing and proposed project

Project Features	Existing/actual Operations (Lines 1 and 2)	Proposed Expansion	Combined Features
Area for operation	Area of HPP Complex: 44 hectares Water storage: 28 hectares Port area and causeway: 28 hectares TSF1 (Rehabilitated): 85 hectares TSF2 and ancillary facilities: 241 hectares TSF3 and ancillary facilities: 144 hectares Coal Ash Pit: 9 hectares Sanitary Landfill: 4 hectares TOTAL: 583 hectares *(Please refer to **Table 1.7.3** for the specific area tabulation of facilities based on the approved EPEP of CBNC)*	TSF 4: 170 hectares RWP of TSF4: 2 hectares Reservoir#3: 7 hectares Rock Source for TSF4: 32 hectares TSF4 Ancillary Facilities: 135.18 Sub-total: 346.18 ha Other facilities to be utilized during construction of TSF4 and operation of TSF3 RWP of TSF3: 2 hectares 8 Stockpiles: 146 hectares TOTAL: 148 hectares Note that 3 stockpiles (#1 #2 and #3) are located within the 346.18 ha TOTAL: 494.18 hectares (*Please refer to **Table 1.7.3** for the specific area tabulation of proposed facilities*)	1077.18 hectares
Capacity	25,000 DMT Ni per year	same	same
	2,500 DMT Co per year	same	same
No. of Tailings Storage Facility	3	1	4
Tailings dam capacity	TSF1 : 7 M m^3 TSF2 : 33 M m^3 TSF3 : 19 M m^3 **Total = 59 M m^3**	42M m^3	101 M m^3
Area of Tailings Storage Facility	Tailings dam 1: 85 hectares (rehabilitated) Tailings dam 2 : 189 hectares Tailings dam 3: 111 hectares	Tailings dam 4: 170 hectares	555 hectares
Total Ore Requirement	2-3.4 Million DMT	same	same
Manpower	During Operation: Permanent: 600 Contractual: 1,500	During Construction: 292 (peak) During Operation: 50	During Operation: Permanent: 600 Contractual: 1,550
Water Source	Intake dam at the East Ibelnan River for Lines 1 and 2 water supply Upper Togpon siltation pond and a 300,000 m^3 reservoir as alternative sources of water	*Same as existing*	*Same as existing*
Water Requirement	30,000 cubic meters/day	During Construction: 1,210,000 (kL) During Operation: *Same as existing*	*Same as existing*
Power Source	Maximum of 14.5 MW Coal-fired boiler and turbine power plant per Line	*Same as existing*	*Same as existing*

Project Features	Existing/actual Operations (Lines 1 and 2)	Proposed Expansion	Combined Features
	• Breakdown for Line 1: a. 11 MW Coal-fired boiler and turbine power plant b. Back-up: two (2) units 1.5 MW each diesel generators, or 3 MW total • Breakdown for Line 2: c. 11 MW Coal-fired boiler and turbine power plant d. Back-up: Two (2) units of 1.64 MW each diesel generator, or 4.92 MW total Additional: two (2) units of 0.072 MW each diesel generators, or 0.144 MW total installed at the pier site and 1.5 MW Diesel Generator installed at HPP Line 2 used as back-up power supply for the townsite		
Power Requirement	*About 135 Million kw-hrs/year	During Construction: 46,759,200kWh During Operation: *Same as existing*	Same as existing
Causeway	380 m long, 3.5 m high, 14 m wide road and 17 m base width, concreted surface	*Same as existing*	*Same as existing*
Trestle	1,080 m long, 5 m high from sea level and 2.5 m wide.	*Same as existing*	*Same as existing*
Other facilities	Effluent discharge facilities Pier site (land-based operations) Coal, ore and other raw materials, and finished products stockpiles	*Same as existing*	*Same as existing*
Shared Facilities with RTNMC and Graymont Philippines, Inc. (GPI)	Access Roads (RTEPZ) Macadam Road	*Same as existing*	*Same as existing*
Investment cost (PhP)	22.9 B	7.3 B	30.2 B

Table 1.7.3. Summary footprint of CBNC's existing and proposed facilities

PROJECT COMPONENTS	Area (ha)
EXISTING / ACTUAL FACILITIES	**583**
Land	**555**
Hydrometallurgical Processing Plant (HPP) Complex	44.0
Utilities Line 1	1.0
Utilities Line 2	1.1
HPAL Line 1	2.2
HPAL Line 2	2.1
Final Neutralization Line 1	1.1
Final Neutralization Line 2	1.5
Ore Preparation Line 1	4.3
Ore Preparation Line 2	4.6
MS Line 1 (H2S Plant and MS Warehouse)	1
MS Line 2	1.7
Receiving and Chemical Warehouse	1.54
Offices, Buildings, Workshop, Canteen	2.0
Return Water Pond	0.4
Fabrication and Motorpool	4.0
SMCC Area	2.0

PROJECT COMPONENTS	Area (ha)
Dorm D	0.8
Vegetation and buffer zone inside plant site	7.5
Limestone Yard	1.8
Access Roads	3.36
Water Storage	28
Reservoir No. 1	7
Reservoir No. 2	8
Upper Togpon Pond	13
TSF1 (Rehabilitated)	85
TSF2 (Operational)	189
TSF2 Borrow Area (Progressive Rehabilitation)	32
TSF2 Unsuitable Stockpile (Progressive Rehabilitation)	20
TSF3 (Under Construction)	122
TSF3 Unsuitable Stockpile (On-going Utilization)	22
Coal Ash Pit (Operational)	9
Sanitary landfill	4
Offshore	28
Port area and Causeway	28
PROPOSED FACILITIES	**494.18**
Land	**494.18**
TSF4	170
RWP of TSF4	2
Reservoir 3	7
Rock Source for TSF4	32
TSF4 Ancillary Facilities	135.18
8 Stockpiles	146
RWP of TSF3: 2 hectares	2.0
TOTAL Area (Land and offshore)	**1077.18**

1.8 DEVELOPMENT PLAN, DESCRIPTION OF PROJECT PHASES AND CORRESPONDING TIMEFRAME

The project implementation of TSF4 is divided into four (4) major phases: the pre-construction phase, the construction phase, the operational phase, and abandonment phase. The construction phase is estimated to last up to 2033 (**Figure 1.8.1**). The construction phase will commence after the issuance of all necessary permits and certifications including the amended ECC.

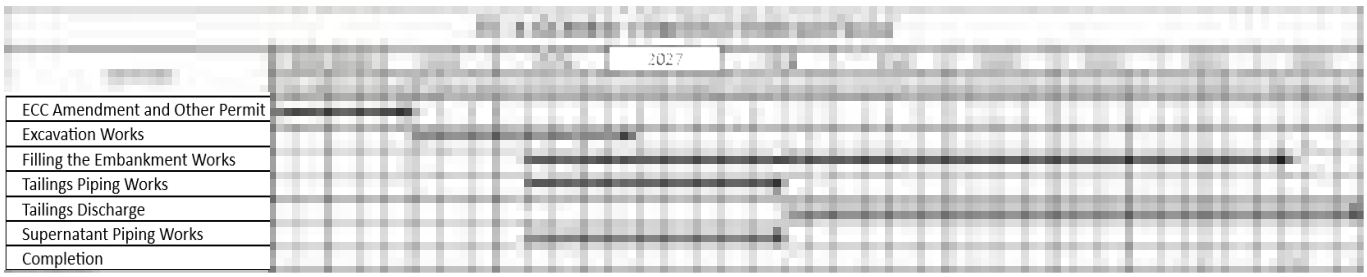

Figure 1.8.1. TSF4 Construction schedule

As mentioned in the previous sections, CBNC is planning to mix or convert biomass into fuel for their existing coal-fired boilers. To achieve this, CBNC will implement the steps provided in **Figure 1.8.2**.

ITEM NO	ACTIVITY DESCRIPTION	2022											CY 2023	CY 2024	AFTER CY 2025
		Jan	Feb	Mar	Apr	May	Jun	Aug	Sep	Oct	Nov	Dec			
1	Purchasing of wood pellet														
2	Permitting for Authorities														
3	Actual burning test at 1% ratio & evaluation.														
4	Confirmation boiler internal														
5	Continue use wood pellet / or Green Energy pellet mixed coal [99%: 1% calorific ratio]														
6	Continue use of wood pellet / or Green Energy Pellet mixed with 3% - 10% calorific ratio														
7	Increase mixing ratio in stages														

Figure 1.8.2. Schedule for Biomass Fuel Mixing with Coal Project

1.8.1 Pre-Construction Phase

The proposed TSF4 will be constructed on a 170-ha aggregate lot within the RTEPZ. Generally, the construction phase will involve conventional earthworks, including site clearing, installation of temporary facilities, construction of access roads, mobilization of heavy equipment, foundation investigation (drilling), etc.:

a. Soil Investigation
b. Survey Work and Layouting
   Sumitomo Mitsui Construction Corp. (SMCC) survey will lay-out and provide temporary benchmarks (BM) for the following:
   - Layout for excavation.
   - Marking and layout of the survey control point.
   - Layout for the unsuitable material prior to cutting.
   - Marking and lay-out for the decant system.
   - Layout for decant system pipe.

c. Mobilization
   - Provision of parking area and motorpool for trucks and heavy equipment.
   - Provision of laboratory and stockyard area.
   - Mobilization and arrangement of materials, including guardhouse.
   - Provision of disposal area for unsuitable materials.
   - Provision of stockpile area.

d. Site Clearing and Grubbing
   - Equipment to be used are backhoe, dump truck and bulldozer.
   - Provide watchmen, traffic aides and spotters to guide the equipment.
   - Secure Tree Cutting Permit.
   - Existing ore stockpiles are to be removed by other prior to the commencement of embankment construction work.
   - Stripped surface following the removal of stockpiles to be surveyed. Minor alignment and level adjustments may be necessary.
   - Manual cutting will be used only on small trees.
   - Keep a safe distance between workers and heavy equipment.
   - Cut trees will be placed at a designated tree stockpile location.

e. Access Road Construction
   - Heavy equipment to be used are backhoe, dump truck, bulldozer, road grader, and vibro-roller for road widening.
   - The surveyor will layout 20-meter-wide access road, which will serve as access for heavy equipment and service vehicles.

- Use of excavated materials for backfilling.
- Fill the access road with rock materials when necessary.
- Vibro-roller will be used to compact the backfilled soil.
- Provide watchman, spotter and traffic enforcers to guide the equipment.
- Equipment should be in good condition and approved by the mechanic prior to operation.
- Sufficient lightning should be provided for overtime work exceeding 6:00 p.m.
- Provide minimum PPE requirements for all personnel.
- Provide road signage such as intersections, speed limits, crossings, and other signage that can help eliminate possible traffic accidents.
- All drivers should be aware of the traffic rules and regulation of RTN and CBNC Safety.
- Keeping a safe distance between workers and heavy equipment is required. Provision of reflectorized vests for all watchmen, spotters, and traffic enforcers will also be mandated.

1.8.2 Construction Phase

Figure 1.8.1 depicts the Gantt chart of activities for the construction of TSF4 and its associated facilities. Specific works are likewise discussed in the proceeding sections.

General construction works for TSF4 and ancillary facilities

The projected general mobilization at the site will take about nine (9) months. This will involve the following activities:

- Excavation works;
  - Using heavy equipment like an excavator, jackhammers, etc.
  - Drilling and Blasting
- Filling the embankment works;
- Tailings piping works;
- Tailings discharge works; and
- Supernatant piping works

The main civil construction works will be facilitated by SMCC group.

Materials Needed for the Construction of TSF4

Rockfill Dam with a sloping upstream core consists of three (3) major zones within the proposed embankment, namely, the core zone, filter zone and rock zone, depending on the range of variation in the character and gradation of the available material. The permeability of each zone is designed to increase toward the outer slopes.

The purpose of each zone is as follows:

- Core zone filled with impervious earth material provides water tightness;
- Rock zone filled with rocks of all sizes, which support the less stable core material and provide the stability and durability of the dam body. Selected rock zones shall be filled with hard and durable rock, which is slightly weathered to fresh rock and provides the stability and especially durability of the dam body; and
- Filter zone is further classified into two (2) zones, namely the fine filter zone and the coarse filter zone. The fine filter zone shall be filled with well-graded sand, which will form a fine filter on the downstream face of the clay core to prevent the piping of fines

within the core zone. The coarse filter zone shall be filled with well-graded gravel that is grade compatible with fine filter material.

1.8.3 Operation Phase

The HPP plant operates on a three-shift basis per day for the whole year. It is foreseen to be in good operation for another 25 years. It is expected that the operation of TSF4 will immediately start once TSF3 has been filled up by 2028.

The start of full utilization of the MHP will start immediately since the process has undergone sample evaluation, handling and processing test, evaluation and analysis, long term storage test, process evaluation and analysis, and design and planning for further testing which were conducted in 2022.

As mentioned in the earlier sections, CBNC plans to maximize the recovery of Ni-Co through the use of MHP as a supplemental raw material, giving more flexibility and efficiency to its operation, which has a rated capacity of 25,000 MT-Ni/year. **Figure 1.5.8** depicts the addition point of the MHP in the current process flow.

For the wood pellet feeding, the actual burning test at a 1% ratio and evaluation have been completed as of April 2023. The pilot testing was conducted in operation at a 1% calorific ratio since December 2022. The use of a 3% calorific ratio followed last January 2023. The use of wood pellet or Green Energy Pellet with mixed coal at 3-10% calorific ratio will proceed by the last quarter of 2023-2024.

Biomass fuel will be mixed with the coal at an increasing ratio (from 5% to 100%) but depending on the result of the test conducted. The biomass fuel will be charged to the conveyor belt around 3 to 5 meters downstream of the coal hopper charging area.

Figure 1.8.3 below is the simplified traffic flow of the delivery of coal and biomass from the ship to the coal hopper.

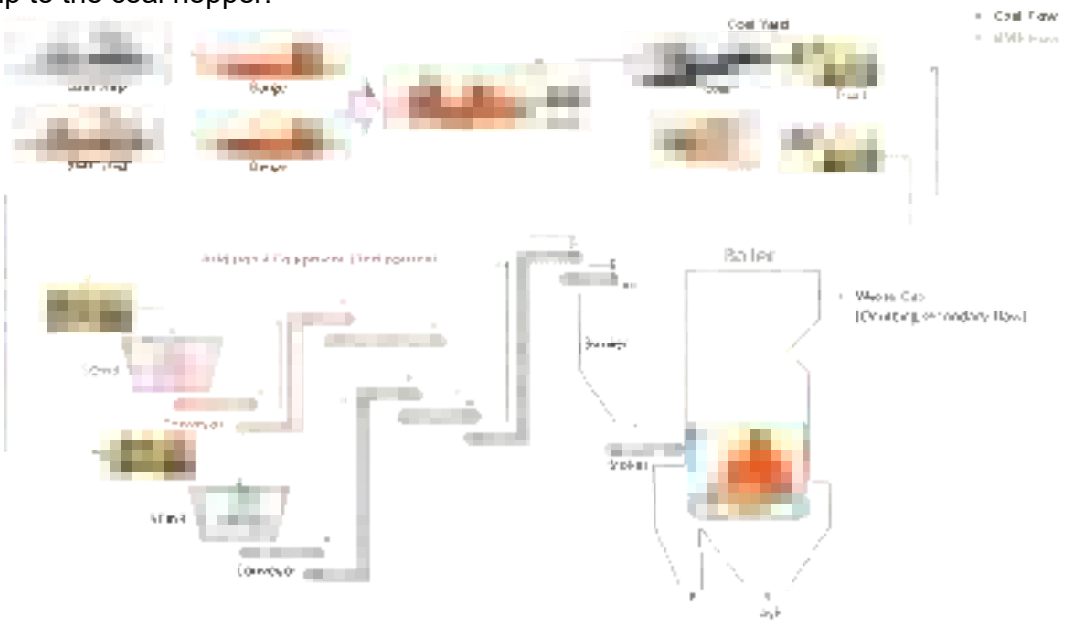

Figure 1.8.3. Transport flow of coal and biomass fuel from ship to coal hopper

1.8.4 Abandonment Phase

The HPP will run for about 25 years, or until the plant can still process low-grade nickel ore from mining operations. The TSF4 is estimated to have an economic life of fourteen (14) years. After which, the programmed closure activities as indicated in CBNC's Final Decommissioning Plan shall be implemented, which may be similar to the rehabilitation program for TSF1. As for TSF4, drainage works, drying of tailings, treatment of residual supernatant, and revegetation are the programmed closure activities upon reaching its maximum capacity.

1.9 MANPOWER REQUIREMENT

About 600 permanent workers and 1,500 contractual employees are involved in the current operation of HPP Lines 1 and 2. For the proposed expansion project, the manpower requirement during the construction phase of TSF4 is expected to peak at 292 workers. The average number of workers per day will be 192. The majority of these will be unskilled workers during the initial phase of construction, which involves site preparation, earthworks, and civil construction. No additional employees will be employed during the operational phase because the current manpower to operate the existing TSF3 will be utilized during the operation of TSF4, since the latter will be filled to capacity and will eventually be decommissioned. It is important to note that no additional employment will be needed in the alternative use of biomass fuel in the power generation facility of the HPP, as it will be an integral part of the ongoing operation of the power plant as well as the process of optimizing the Ni-Co recovery. CBNC shall therefore utilize the existing workforce in its plant operations. **Table 1.9.1** shows the estimated manpower for the construction of TSF4, while **Table 1.9.2** depicts the manpower of the whole plant, including the proposed expansion.

Table 1.9.1. Estimated manpower during the construction of TSF4 and its ancillary facilities

Workforce	Requirement
Project Manager/Technical including Safety Manager, Material Engineer, Lab Engineer, Electrical Engineer	49
Skilled Labor (Welder, Electrician, Operator, Rigger/Tagline, Operators, Service Driver, Mason, Survey Aide, Warehouse Aide, Instrument Man, Steelman, Safety Crew, Safety Aide, Painter)	138
Unskilled Labor (maids and utility assistants	90
Others (Security Guard)	15
Total	**292**

Source: CBNC, 2016

Table 1.9.2. Estimated manpower during the operations of the whole plant

Workforce	Current Operation	Current Operation + TSF4
Permanent	600	600
Contractual	1,500	1,500
Total	**2,100**	**2,100**

1.10 PROJECT INVESTMENT COST

The estimated cost for the proposed CBNC expansion project is approximately PhP10 billion and or 181,818,181 USD.

Republic of the Philippines
Department of Environment and Natural Resources
Visayas Avenue, Diliman, Quezon City, 1100
Tel. Nos. (632) 929-66-26 to 29 · (632) 929-62-52
929-66-25 · 929-66-33 to 35
929-70-41 to 43

OCT 10 2002

ENVIRONMENTAL COMPLIANCE CERTIFICATE
0201-021-313

The Department of Environment and Natural Resources (DENR), through the Environmental Management Bureau (EMB), hereby grants this Environmental Compliance Certificate (ECC) to the PROPOSED HYDROMETALLURGICAL PROCESSING PLANT (HPP) COMPLEX of RIO TUBA NICKEL MINING CORPORATION to be located in the Barangay Rio Tuba, Municipality of Bataraza, Province of Palawan after complying with the Environmental Impact Assessment (EIA) requirement as prescribed in the promulgated guidelines implementing Section 3(b) of P.D. No. 1121 and P.D. No. 1586.

This Certificate is being issued subject to the following conditions:

A. GENERAL CONDITIONS

1 This Certificate covers the proposed establishment of a Hydrometallurgical Plant Complex that includes the following: Hydrogen Sulfide Plant, Limestone Quarry, Water Supply and Drainage System, Two (2) Tailings Dams, Nine Point Five (9.5) MW Coal-fired Power Plant, Port Facilities, and Other Support Facilities;

1.1. The plant complex shall have the capacity to produce 10,000 dry metric tonnes (DMT) of nickel and a maximum of 750 DMT of cobalt per year as mixed sulfide at the first stage, expanding to 20,000 DMT of nickel in the final stage, through high pressure acid leaching using low-grade ore and laterite as raw materials;

1.2. The hydrogen sulfide plant shall be initially designed to meet daily consumption of 21.7 metric tonnes per dry (MTPD), expandable as the plant increases in production;

1.3. The limestone quarry shall employ open cast mining method using conventional drilling and blasting technique. It shall be limited to 13 hectares in Sitio Golok, Barangay Rwabp, Municipality of Bataraza, Palawan, within the geographic coordinates 8°35'50" to 8°36'20" North Latitude and 117°27'45" to 117°28'15" East Longitude.

The proponent shall conduct a thorough study of the limestone quarry area underground system, including the flora and fauna and groundwater resource potential and shall provide a complete mitigation plan for submission to EMB within ninety (90) days upon approval of this Certificate, to serve as basis for the development of the quarry area and/or commencement of limestone quarry activities;

1.4 The main source of water supply shall be from a 300 cu.m. capacity dam that will be constructed at the intake point of the East Iwahig River. Other sources shall be from the Tagpon, Magas-Mages and Taguisn siltation ponds;

5 Two (2) tailings dams shall be constructed north and northeast of the HPP to collect and impound materials generated from the process. The first shall be similar to the second where it is limited to a height of 33 m. Design of the dams shall be in accordance with DENR Memorandum Order No. 99-32 on Policy Guidelines and Standards for Mine Wastes and Mine Tailings Management dated November 24, 1999 and that, in case of deviations, justification shall be provided.

7.6. Power distribution shall be from a coal fired boiler and turbine not exceeding 9.9 MW;

1.7 A 380 m long causeway shall be constructed using boulders and gravel and connected to a 1,080 m. long southwest trending trestle that is mounted on steel piles. The trestle shall be 5 m. high from sea level and no more than 3.0 m wide.

The design of the causeway shall take into serious consideration the results of the modeling done for this component.

The modeling shall further seriously consider the sediment discharge from the nearby Ocayan River, the results of which shall be submitted to EMB within ninety (90) upon approval of this Certificate.

1.8. The borrow areas for sand and gravel shall be that part of Malangao River located in Sitio Pasipasi, Barangay Sancoval, Municipality of Bataraza, Province of Palawan, it shall be limited to a total of 1.98 hectares with dimensions of 226 m long and 72 m wide.

2. The proponent shall provide a quality assurance program for the construction materials to be used for the causeway and tailings dams.

3 Details of air and water pollution sources (power plant, sulfide processing and other facilities) shall be submitted for review by EMB within ninety (90) days upon approval of this Certificate as basis for endorsement for the issuance of the Authority to Construct for the air and water pollution control facilities based on the guaranteed operating emissions/effluents and ambient limits of these facilities;

4 Forty (40) meters wide buffer zones measured landward along the riverstream banks' high water line and along the entire periphery of the project site shall be established. Fast growing vegetation, indigenous where possible, shall be planted and maintained in these zones;

5. The proponent shall ensure that its contractors and subcontractors properly comply with the relevant conditions of this Certificate.

6 Noise levels, emissions and effluents generated from project activities shall conform with prescribed DENR standards;

7 The proponent shall provide adequate safety gadgets to protect its employees/workers from health and occupational hazards posed by project implementation;

8 Qualified local residents including women and the Muslim community immediately outside the RTNMC compound shall be given priority in employment. Adequate public information shall be provided for jobs available to local residents in the affected areas and, as part of its livelihood support

program, the proponent shall undertake appropriate skills training and job preparation projects. A report on these activities shall be submitted to the Department of Labor and Employment (DOLE) Regional Unit;

9 The proponent shall undertake an effective and continuing Information, Education and Communication (IEC) Program to explain publicly to all stakeholders the mitigative measures embodied in its Environmental Impact Statement (EIS), as well as the conditions of this Certificate for greater awareness, understanding and sustained acceptance of the project, especially among the local residents. It shall provide opportunities to educate/enlighten workers, contractors, subcontractors and affected communities/sectors through sectoral and small group orientations and consultations on environmental and safety measures in mining. The IEC activities shall be funded by the proponent and shall be implemented in coordination with the MGB Region IVB and EMB Region IVB;

10 The proponent shall coordinate with the DENR Coastal Environment Program (CEPI and the Bureau of Fisheries and Aquatic Resources (BFAR) in the rehabilitation of mangroves and sea grasses found affected by project operations in and around the HPS.

The proponent shall also conduct a study on the impact of the project on the seaweed farm located in Araceli Island;

11. A list of areas/sections to be monitored for barren liquid discharges from the mine tailings ponds shall likewise be submitted to EMB and the EMB Region IVB prior to project implementation;

12 All other permits and requirements of concerned government agencies shall be secured prior to operation.

13 This Certificate shall be considered automatically revoked if the project has not commenced, i.e., horizontal development, within five (5) years from the date of its issuance, if suspension or stoppage of its operation extends up to two (2) years, and if significant changes in land and resource uses have occurred in the project area and its vicinities.

14. Any expansion and/or modification of the currently approved mining and processing operations shall be subject to new EIA requirements;

15. Transfer of ownership of the project carries the same conditions in this Certificate for which written notification shall be made by herein grantee to the EMB and MGB within fifteen (15) days from such transfer.

B. PRECONSTRUCTION PHASE

16. The proponent shall submit to EMB a revised vegetation analysis of the limestone area for quantitative and qualitative analysis of endemic/indigenous plants.

17 The proponent shall establish a clonal laboratory and nursery for the multiplication and maintenance of endemic/indigenous plants that will be used for the rehabilitation and restoration of damaged areas and those that shall be subjected to mining.

All seedlings of the endemic/indigenous plants shall be uprooted/earthballed.

accordingly, for transfer to other areas.

A [illegible] Agreement shall be established among the PENRO/CENRO, community or NGO and the proponent for the proper monitoring of these activities;

18. A Storm Water/Runoff Management Plan shall be submitted to the EMB for approval prior to project implementation. It shall include the provision for effective drainage system through construction of silt traps/sedimentation ponds, and establishment of vegetative buffers to filter sediments and sediment-bound pollutants; and monitoring of possible pollutant concentrations in soil, ground and surface waters;

19. A Community Assistance Program for livelihood and skills training that shall be submitted to the EMB Region IVB, copy furnished the EMB, prior to project implementation. The program shall include the provision of potable drinking water and other domestic uses, establishment of credit facilities/cooperatives, and improvement of the fishing system in around the municipality of Barcaca;

20. The proponent shall implement its Social Development Program and assist the Local Government Units in the provision of health (medical and dental), education and social welfare services (e.g., Day Care Center and youth and elderly services) to the residents of the mining areas and vicinities in coordination with the DOH, DECS, and the DSWD.

The proponent shall take special consideration of the growing Muslim community dependent on trade and commerce indirectly resulting from activities of the project.

21. All environmental hazards and risks (i.e., reagents as well as radioactive contamination, if any, slope failures, explosive hazards) identified in the ERA shall be managed and immediately addressed including its emergency/contingency response plan. Flood routing studies shall be conducted in order to assess and mitigate the possibility and risk of storm surges;

22. The proponent must implement environmental management and protection requirements of the pertinent provisions of the Philippine Mining Act of 1995 (RA 7942) and its implementing rules and regulations (DAO No. 40, Series of 1996) as well as the Memorandum of Agreement (MOA) between the Environmental Management Bureau (EMB) and Mines and Geosciences Bureau (MGB) executed on April 16, 1998. It must establish a Contingent Liability and Rehabilitation Fund (CLRF) necessary to ensure just and timely compensation for damages and progressive and sustainable rehabilitation for any adverse effect on its mining operations and should include an Environmental Trust Fund (ETF) to cover payment for damages and other liabilities arising from other project components as stated in I(4) of the MOA.

23. A Solid Waste Management Program acceptable to LGU leadership to include specific disposal of waste must be developed and submitted to EMB prior to project implementation.

C. CONSTRUCTION/OPERATION PHASE

24. Slope stabilization and erosion control of the tailings dams, as well as the affected side slopes of the nearby gullies/creeks/river within the project site,

shall be strictly effected throughout project implementation.

25 An Environmental Audit must be submitted to EMB after one year of operation and every three (3) years thereafter.

26 The proponent shall design and construct roads with minimal land and ecological disturbance and with adequate drainage. It shall likewise maintain access roads and other public/private roads within the project site.

27 Detailed safety management plans and programs focusing on high risk [illegible] shall be submitted to MGB and DOLE thirty (30) days upon the issuance of this Certificate.

28. Any infrastructure development relative to the port facilities shall be conducted with minimal disturbance to the mangrove ecosystem;

29 The proponent shall conduct quarterly monitoring of seawater quality and emission/effluent generated from the operations as well as bio-assay of fish in terms of heavy metals, the results of which shall be submitted to EMB Region VIII and the ENRO. Should the monitoring results indicate that there is exceedance of DENR standards, the proponent shall immediately cease its operation and institute remedial measures until such time that the monitoring results conform to DENR standards.

30 The proponent shall observe good vegetative practices, proper land use, and sound soil management. All used/open areas in the site shall be planted with appropriate species. Direct use of the recovered topsoil for re-soiling or as soil cover on waste dumps, and for camp beautification in general shall be undertaken. Stockpiling on designated suitable areas shall be done and maintained at not more than one (1) meter height and temporarily vegetated to protect the soil from erosion;

31 The proponent shall undertake the following:

31.1 Periodic inspection of the stability of all earthworks such as silt dams, waste dumps, stockpiles, tailings pond embankments, road cuts, airport, pier, and open pits.

31.2 Periodic inspection of the capacities and stability of the drainage canals, culverts, stormwater ponds, and sedimentation ponds;

31.3. Continuous desilting of drainage canals and sedimentation ponds;

31.4 Clearing of rocks and boulders along the slopes, especially in quarries;

31.5 Periodic testing of the chemical and physical characteristics of decant water from tailings pond being discharged to the sea;

31.6 Annual monitoring of faunal diversity.

D ABANDONMENT PHASE

32 An Abandonment Plan shall be submitted to the EMB, copy furnished EME Region IVB and MGB after a year of the project's operation. Alternatives shall be presented and the same shall be consistent with the long-term zoning and land use development plan of the local and provincial government, and,

3.5 Relevant provisions of the Revised EPEP on abandonment shall be strictly implemented.

Non-compliance with any of the above stipulations will be sufficient cause for the suspension or cancellation of this Certificate and/or imposition of fine in the amount of Fifty Thousand Pesos (P50,000.00) for every violation thereof, at the discretion of the EMB (Section 9 of P.D. No. 1586).

Granted this JUL 10 2002

HENERSON T. ALVAREZ
Secretary

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Hydrometallurgical Processing Plant (HPP) Complex
in Sta. Cruz, Zambales, Philippines
RIO TUBA NICKEL MINING CORPORATION

Republic of the Philippines
Department of Environment and Natural Resources
Visayas Avenue, Diliman, Quezon City 1110
Tel. Nos.: (632) 929-66-26 to 29 • (632) 929-65-52
929-66-20 • 929-66-33 to 35
929-70-41 to 43

FEB 0 1 2007

ECC Ref. Code: 0701-002-3721

CORAL BAY NICKEL CORPORATION
24F Pacific Star Building
Makati Avenue cor. Sen. Gil Puyat Avenue
Salcedo Village, Makati City

ATTENTION: ***Takanori Fujimura***
President

SUBJECT: **ENVIRONMENTAL COMPLIANCE CERTIFICATE**

Dear Sir:

This refers to your submitted Environmental Performance Report and Management Plan (EPRMP) in connection with your Environmental Compliance Certificate (ECC) application for your proposed **LINE 2 HYDROMETALLURGICAL PROCESSING PLANT PROJECT** to be located at Barangay Rio Tuba, Bataraza, Palawan, and consequently superseding the ECC (No. 0201-021-313) issued to your Line 1 Hydrometallurgical Processing Plant located in the same area.

After satisfying the requirements in the said application and upon recommendation of the Environmental Management Bureau (EMB), this Department has decided to grant an ECC to the above-mentioned project.

With the issuance of this ECC, you are expected to implement the measures presented in the Environmental Impact Statement (EIS) of Line 1 and the EPRMP intended to protect and mitigate the project's adverse impacts on community health, welfare and the environment. Environmental considerations shall be incorporated in all phases and aspects of the project. You may proceed with project implementation after securing all the necessary permits from other pertinent government agencies. This Office will be monitoring the project periodically to ensure your compliance with stipulations cited in the attached ECC.

Please be guided accordingly.

Very truly yours,

ANGELO T. REYES
Secretary

SEN-707-000183

cc: EMB Regional Office No. IVB
MGB Central Office
MGB Regional Office No. IVB

Republic of the Philippines
Department of Environment and Natural Resources
Visayas Avenue, Diliman, Quezon City 1110
Tel. Nos.: (632) 929-66-26 to 29 • (632) 929-65-52
929-66-20 • 929-66-33 to 35
929-70-41 to 43

FEB 0 1 2007

ECC Ref. Code: 0701-002-3721

CORAL BAY NICKEL CORPORATION
24F Pacific Star Building
Makati Avenue cor. Sen. Gil Puyat Avenue
Salcedo Village, Makati City

ATTENTION: ***Takanori Fujimura***
President

SUBJECT: **ENVIRONMENTAL COMPLIANCE CERTIFICATE**

Dear Sir:

This refers to your submitted Environmental Performance Report and Management Plan (EPRMP) in connection with your Environmental Compliance Certificate (ECC) application for your proposed **LINE 2 HYDROMETALLURGICAL PROCESSING PLANT PROJECT** to be located at Barangay Rio Tuba, Bataraza, Palawan, and consequently superseding the ECC (No. 0201-021-313) issued to your Line 1 Hydrometallurgical Processing Plant located in the same area.

After satisfying the requirements in the said application and upon recommendation of the Environmental Management Bureau (EMB), this Department has decided to grant an ECC to the above-mentioned project.

With the issuance of this ECC, you are expected to implement the measures presented in the Environmental Impact Statement (EIS) of Line 1 and the EPRMP intended to protect and mitigate the project's adverse impacts on community health, welfare and the environment. Environmental considerations shall be incorporated in all phases and aspects of the project. You may proceed with project implementation after securing all the necessary permits from other pertinent government agencies. This Office will be monitoring the project periodically to ensure your compliance with stipulations cited in the attached ECC.

Please be guided accordingly.

Very truly yours,

ANGELO T. REYES
Secretary

GENR07-006183

cc: EMB Regional Office No. IVB
MGB Central Office
MGB Regional Office No. IVB

Republic of the Philippines
Department of Environment and Natural Resources
Visayas Avenue, Diliman, Quezon City 1110
Tel. Nos.: (632) 929-66-26 to 29 • (632) 929-65-52
929-66-20 • 929-66-33 to 35
929-70-41 to 43

ENVIRONMENTAL COMPLIANCE CERTIFICATE
(Issued under Presidential Decree No. 1586)
0701-002-3721

THIS IS TO CERTIFY THAT THE PROPONENT, **CORAL BAY NICKEL CORPORATION (CBNC)**, as represented by **TAKANORI FUJIMURA**, is granted this Environmental Compliance Certificate (ECC) for the **LINES 1** and **2** of its **HYDROMETALLURGICAL PROCESSING PLANT PROJECT** located at **BARANGAY RIO TUBA, BATARAZA, PALAWAN** by the Department of Environment and Natural Resources (DENR) through the Environmental Management Bureau (EMB).

SUBJECT to the conditions and restrictions set out herein, this Certificate supersedes pertinent provisions of ECC No. 0201-021-313, dated 10 July 2002, and its amendments, in so far as the operations and management of the Hydrometallurgical Processing Plant by CBNC is concerned.

PROJECT DESCRIPTION

This Certificate covers the existing Line 1 and the proposed Line 2 of the Hydrometallurgical Processing Plant (HPP) Complex. Each line includes the following:

a. Mixed Sulfide Processing Plant with a capacity to produce 10,000 dry metric tons (DMT) of nickel and a maximum of 750 DMT of cobalt per year as mixed sulfide through high pressure acid leaching using low-grade ore and laterite as raw materials;
b. Hydrogen Sulfide Production Plant initially designed to meet daily consumption of 21.7 metric tons per day (MTPD), expandable as the plant increases in production;
c. Coal-Fired Boiler and Turbine Power Plant not exceeding 14.5 MW. In addition, two (2) units of 1.5 MW each Diesel Generators, or 3-MW total as back-up to the coal-fired boiler facility for Line 1 and two (2) units of 1.64 MW each Diesel Generators, or 3.28-MW total as back-up to the coal-fired boiler facility for Line 2;
d. Water supply and distribution system which include the following:

    1. Intake dam and construction at the East Ibelnan River for Line 1 water supply;
    2. Intake dam to be constructed at the Togpon River for Line 2 water supply; and,
    3. Upper Togpon siltation pond and a 300,000-m^3 reservoir as alternative sources of water;

e. Effluent discharge facilities;
f. Pier site (land-based operations); and,
g. Coal, ore and other raw materials, and finished products stockpiles.

In addition to the above-mentioned facilities, this Certificate covers the following:

a. Two (2) tailings dams with combined impounding capacity of 40 million m^3 of tailings generated from the process;
b. Limestone quarry by open cast method using conventional drilling and blasting technique and/or manual method within the 13 hectares area bounded by the geographic coordinates 8°35'50" to 8°36'20" North Latitude and 117°27'45" to 117°28'15" East Longitude at Sitio Gotok, Barangay Iwahig, Municipality of Bataraza, Palawan;
c. Surface concreting and expansion of the 380 m long causeway from 9 m wide to 14 m wide and whose surface is to be concreted;
d. Two (2) units of 0.072 MW each Diesel Generators, or 0.144-MW total installed at the Pier Site and one (1) unit 1.5 MW Diesel Generator to be installed exclusively for the additional supply of the townsite; and,
e. Product shipment operation.

This Certification is issued in compliance to the requirements of Presidential Decree No. 1586, in accordance to DENR Administrative Order (D.A.O.) No. 2003-30. The EMB, however, is not precluded from reevaluating, adding, removing, and correcting any deficiencies or errors that may be found after issuance of this Certificate.

Issued at DENR, Quezon City, Philippines, this ____ day of FEB 0 1 2007 2007.

Approved by:

ANGELO T. REYES
Secretary

Recommending Approval:

ELY ANTHONY R. OUANO
Director, EMB

SENR07-008184

SWORN STATEMENT OF OWNER

Under the provisions of Presidential Decree No. 1586, I HEREBY CERTIFY that the information provided to the Department of Environment and Natural Resources pertaining to this project are true and correct to the best of my personal knowledge and based on the records in my possession.

FOR: CORAL BAY NICKEL CORPORATION

ARTURO T. MANTO
VICE PRES. - ENVIRONMENTAL AFFAIRS

Signature

TIN 121-483-304

Subscribed and sworn to before me in this FEB 02 2007 of _____ 2007, the above-named affiant taking oath presenting his/her Community Tax Certificate (CTC) No. 16594185 issued on 22-January 2007 at Makati City.

GIRLIE ISABEL D. JIMALI
NOTARY PUBLIC FOR AND IN PASIG CITY
Signature of Administering Officer
COMMISSION EXPIRES ON DECEMBER 31, 2007
2303 A EAST TOWER, PSE CENTRE, EXCHANGE ROAD
ORTIGAS CENTER, PASIG CITY, METRO MANILA
PTR NO. 3666110/1.10.06/RIZAL
IBP NO. 668802/1.06.06/RSM
ROLL NO. 45374

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BOOK NO. IV
SERIES OF 2007

I. CONDITIONS

ENVIRONMENTAL MANAGEMENT

The proponent shall strictly implement the mitigating measures contained in the Environmental Management Program (EMP) of its EPRMP and EIS for the Line 1, including the following:

1. Management of all external, chemical and process, and health hazards identified in the Environmental Risk Assessment (ERA) of its EPRMP and, in case of emergency, addressed immediately for the protection of the workers, nearby residents, and sensitive ecosystems;

2. Undertake an effective and continuing Information, Education and Communication (IEC) Program to inform and educate all stakeholders, especially its local residents, on the project's mitigating measures embodied in its EPRMP, as well as the conditions stipulated in this Certificate, for greater awareness, understanding and continued acceptance of the project;

3. Observe good vegetative practices, proper land use, and sound soil management. All used/open areas in the site shall be planted with appropriate species. Direct use of the recovered topsoil for re-soiling or as soil cover on waste dumps, and for camp beautification in general shall be undertaken. Stockpiling on designated suitable areas shall be done and temporarily vegetated to protect the soil from erosion;

GENERAL CONDITIONS

4. The plant operations shall conform with the provisions of RA 6969 (Toxic Substances and Hazardous and Nuclear Wastes Control Act of 1990), RA 9003 (Act Providing for an Ecological Solid Waste Management Program), RA 9275 (Philippine Clean Water Act of 2004), and RA 8749 (Philippine Clean Air Act of 1999);

5. The proponent shall strictly comply with the environmental management and protection provisions of the Philippine Mining Act of 1995 (R.A. No. 7942) and its revised implementing rules and regulations (D.A.O. No. 96-40, as amended), as well as the pertinent provisions of the Memorandum of Agreement (MOA) between the EMB and MGB executed on 16 April 1998, such as, but not limited to, the following:

   a. Submission of a revised Environmental Protection and Enhancement Program (EPEP), including Final Mine Rehabilitation/Decommissioning Plan (FMR/DP), to reflect the inclusion of Line 2 of the HPP within thirty (30) calendar days from receipt of this Certificate to the MGB/ EMB Offices, for approval;

b. Submission of a revised Social Development and Management Program (SDMP) within thirty (30) calendar days prior to the expiration of the existing SDMP to the MGB Regional Office No. IVB, which shall include appropriate skills training and job preparation projects as part of its livelihood support program, for approval; and,

c. The Mine Environmental Protection and Enhancement Office (MEPEO) shall submit to EMB and the EMB Region IVB monitoring reports on environmental compliance of the proponent as well as with the EMMoPs. The MEPEO shall also monitor the actual project impacts vis-à-vis the predicted impacts and management measures in the EIS and EPRMP, including monitoring of flora and fauna diversity; and,

6. The proponent shall provide a high resolution imagery of the project and impact areas within one year after approval of this Certificate, and every five years thereafter, to show the impacts of the project on the physical, social and economic environment.

II. RESTRICTIONS

7. In case of transfer of ownership of this project, these same conditions and restrictions shall apply and the transferee shall be required to notify the EMB within fifteen (15) days as regards the transfer of ownership.

Non-compliance with any of the provisions of this Certificate shall be a sufficient cause for the cancellation of this Certificate and/or imposition of a fine in an amount not to exceed Fifty Thousand Pesos (₱50,000.00) for every violation thereof.

O.R. No. : 6830171D Date: January 5, 2007
Processing Fee: ₱4,000.00

PROJECT ASSESSMENT PLANNING TOOL

For the assistance of the Proponents and Government agencies concerned in the management of the project and for better coordination in mitigation on the impact of the project on its surrounding areas and to the environment.

By way of recommendation, the following have been taken notice of by the EIA Review Committee and are forwarding these recommendations to the parties and authorities concerned for proper appreciation and action.

	REGULATORY CONDITIONS	
1.	Institutional linkages and collaborative agreements be initiated and formalized with appropriate entities as regards radiation protection program and, in case of acute toxic emergencies, arrangement be made with the poison center or other hospitals	Proponent
2.	The Emergency Response Plan (ERP) be updated to include an off-site emergency plan based on APELL (Awareness and Preparedness for Emergency at the Local Level)	Proponent
3.	A representative from the DOH be included as member of the MMT	MRFC
4.	Sanitation Code of the Philippines; Labor Code of the Philippines, including occupational health and safety standards; and Building Code of the Philippines to be complied with.	DOH DOLE-Bureau of Working Condition Municipal Planning & Dev't. Office/LGU Concerned
5.	Periodic inspection of the capacities and stability of the pipelines, as well as the drainage canals, culverts, stormwater ponds, and siltation ponds need to be done as well as continuous desilting of drainage canals and siltation ponds to prevent their clogging	MGB
	ENVIRONMENTAL PLANNING RECOMMENDATIONS FOR THE PROPONENT	
1.	Prior to the construction stage of Line 2, a comprehensive water resource study including feasible recommendation for achieving adequate water supply be conducted.	
2.	Detailed design study for Tailings Dam No. 2 be conducted and a copy of the report therefor be submitted to the EMB	
3.	In support of the lately-acquired local meteorological station, the necessary peripheral equipment be acquired	

4.	In the revision of the SDMP, the present SDMP performance be reviewed and experts on sociology, mining economics, and skills training and livelihood be employed in order to come up with a more socially-oriented SDMP and with expected long-term benefits	
5.	Need to provide a quality assurance program for the construction materials to be used for the causeway and additional tailings dam	
6.	Baseline health data/information on biomarkers of exposure among the host communities, secondary and indirect impact communities be conducted, including monitoring (e.g., sulfhemoglobin and methemoglobin) among potentially-exposed workers in the Plant and health surveillance study(ies), results of which shall be disseminated to the concerned rural health units	DOH
7.	Epidemiological study and health surveillance activities in the host communities, secondary and indirect impact communities be conducted	DOH
8.	Need to coordinate with the DENR-Coastal and Marine Management Office (CMMO) and the Bureau of Fisheries and Aquatic Resources (BFAR) in the rehabilitation of mangroves and sea grasses found affected by any infrastructure development relative to the port facilities	CMMO BFAR
9.	The proponent shall strictly comply with the conditions cited in the SEP Clearance (No. HPP-111706-015	
10.	The proponent needs to give priority in employment to qualified local residents, including women and the Muslim community immediately outside the CBNC compound. Adequate public information for jobs available to local residents in the affected areas need to be provided	
11.	The proponent needs ensure that its contractors and subcontractors properly comply with the relevant conditions of this Certificate	
12.	The proponent needs to prepare a professionally-crafted development plan for Bataraza in consultation with the LGUs and other pertinent agencies within two (2) years after receipt of this Certificate	
13.	Host a website that will provide information on the physical, social, and economic	

	impacts of the project, including compliance to its various commitments stipulated in the EIS and EPRMP and implementation of IEC Program;	
14.	Allocate 0.1 of one percent (1%) of the value of the generated electricity for the development of the host and neighboring communities, provided that, if any other agency of government is currently imposing, or shall, in the future impose, this allocation, such shall be deemed compliance with this provision. Value of electricity production shall be based on the actual cost of generation;	

TEODORO M. SANTOS
EIARC Chairman

ESPERANZA A. SAJUL
Acting Chief, EIAM Division

ENGR. ELY ANTHONY R. OUANO
OIC, Director

elv2k7-01: dms [ecl]: e03c015c029ba29

Republic of the Philippines
Department of Environment and Natural Resources
ENVIRONMENTAL MANAGEMENT BUREAU
DENR Compound, Visayas Avenue, Diliman Quezon City 1116
Telephone Nos.: (632) 927-1517, 928-3725; Fax No.: (632) 920-2258
Website: http://www.emb.gov.ph

20 DEC 2018

ECC CO-1806-0014

MR. ARTURO T. MANTO
Vice President, Environmental Management
CORAL BAY NICKEL CORPORATION (CBNC)
Rio Tuba Export Processing Zone (RTEPZ)
Brgy. Rio Tuba
Bataraza,Palawan

Subject: **ENVIRONMENTAL COMPLIANCE CERTIFICATE**

Dear **Mr. Manto**:

This refers to the Environmental Compliance Certificate (ECC) application of **CORAL BAY NICKEL CORPORATION (CBNC)** for its CBNC Expansion Project located at Rio Tuba Export Processing Zone, Brgy. Rio Tuba, Bataraza, Palawan.

After satisfying the requirements in the said application and upon recommendation of the Environmental Impact Assessment Review Committee, the Department through the Environmental Management Bureau (EMB), has decided to issue the ECC for the above-mentioned Project thereby superseding the previously issued ECC (ECC-CO-0701-002-3721) on 01 February 2007 including its amendment on 15 February 2008.

With the issuance of this ECC, CBNC is expected to implement the measures presented in the Environmental Performance Report and Management Plan (EPRMP) and Environmental Management Plan (EMP), which are intended to protect and mitigate the Project's adverse impacts on community health, welfare and the environment. Environmental considerations shall be incorporated in all phases and aspects of the Project.

This Certificate does not create any right nor shall it be used as an authorization to implement the project. You may proceed with the project implementation only after securing all the necessary and relevant permits from other pertinent Government Agencies. This Office shall be monitoring the project periodically to ensure strict compliance with the stipulations cited in the attached ECC.

Please be guided accordingly.

Approved by the Authority of the Secretary:

ENGR. METODIO U. TURBELLA
Director

REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
SENR055205

cc: EMB MIMAROPA
MGB Central Office
MGB MIMAROPA
DENR MIMAROPA
PCSD
DOH MIMAROPA
LGU-Municipality of Bataraza
LGU – Province of Palawan
NCIP
BMB

Republic of the Philippines
Department of Environment and Natural Resources
ENVIRONMENTAL MANAGEMENT BUREAU
DENR Compound, Visayas Avenue, Diliman Quezon City 1116
Telephone Nos.: (632) 927-1517, 928-3725; Fax No.: (632) 920-2258
Website: http://www.emb.gov.ph

ENVIRONMENTAL COMPLIANCE CERTIFICATE

(Issued pursuant to Presidential Decree No. 1586 and its IRR)

ECC CO-1806-0014

THIS IS TO CERTIFY THAT THE PROPONENT, **CORAL BAY NICKEL CORPORATION**, as represented by its Vice President, **Mr. Arturo T. Manto**, is granted this Environmental Compliance Certificate (ECC), for its proposed CBNC Expansion Project within Rio Tuba Export Processing Zone, Brgy. Rio Tuba, Bataraza, Palawan.

SUBJECT to the conditions and restrictions set out herein labeled as Annexes A and B, this Certificate supersedes ECC-CO-0701-002-3721 issued on February 1, 2007 including its amendment issued on 15 February 2008.

PROJECT DESCRIPTION

This Certificate covers the existing Line 1 and Line 2 of the Hydrometallurgical Processing Plant (HPP) Complex within a total area of 471 hectares with the following components:

A. Existing Components/Facilities (with its ECC-CO-0701-002-3721 issued on 01 February 2007 and its amendment on 15 February 2008):

1. Line 1 and Line 2 of the Hydrometallurgical Processing Plant (HPP) Complex and all associated facilities
2. Two (2) tailings dam/Tailings Storage Facility
   - TSF No. 1: 90 hectares
   - TSF No. 2: 207 hectares
3. Maximum of 14.5 Coal-fired boiler and turbine power plant per Line:
   Breakdown for Line 1:
   - 11 MW Coal-fired boiler and turbine power plant
   - Back-up: two (2) units 1.5 MW each diesel generators, or 3MW total

   Breakdown for Line 2:
   - 11 MW Coal-fired boiler and turbine power plant
   - Back-up: Two (2) units of 1.64 MW each diesel generator, or 4.92 MW total

   Additional: two (2) units of 0.072 MW each diesel generators, or 0.144 MW total installed at the pier site and 1.5 MW Diesel Generator installed at HPP Line 2 used as back-up power supply for the townsite
4. Causeway, Trestle and other facilities (water supply and distribution system, piersite (land-based operations) and stockpiles of coal, ore and other raw materials, and finished products)

B. Proposed Amendment and Additional Facilities:

1. Mixed Sulfide Annual production capacity of 25,000 Dry Metric Tons (DMT) of nickel and 2,500 Dry Metric Tons (DMT) (from *1875 DMT)* of cobalt per year.
2. Additional Tailings Storage Facility
   - Tailings Dam No. 3: 111 hectares

This Certificate is issued in compliance with the requirements of Presidential Decree No. 1586, in accordance with DENR Administrative Order (D.A.O.) No. 2003-30. Non-compliance with any of the provisions of this Certificate shall be a sufficient cause for its cancellation and/or imposition of a fine in an amount not to exceed Fifty Thousand Pesos (₱50,000.00) for every violation thereof, which shall be without prejudice to imposition of fines and penalties under other environmental laws. The EMB, however, is not precluded from reevaluating and correcting any deficiencies or errors that may be found after issuance of this Certificate.

Issued at DENR, Quezon City, Philippines, this 20 DEC 2018.

Recommending Approval:

ENGR. ESPERANZA A. SAJUL
Chief, EIAM Division

Approved by the Authority of the Secretary:

ENGR. METODIO U. TURRELLA
Director

STATEMENT OF ACCOUNTABILITY

I, **Arturo T. Manto**, Vice President, representing Coral Bay Nickel Corporation,with office address located at Rio Tuba Export Processing Zone, Brgys. Rio Tuba and Ocayan, Municipality of Bataraza, Province of Palawan take full responsibility in complying with all conditions contained in this Environmental Compliance Certificate (ECC).

Signature

TIN 121-483-304

Subscribed and sworn to before me this DEC 26 2018, the above-named affiant taking oath presenting PP# EC 1781973 issued on Aug. 1, 2014 at DFA NCR EAST.

ATTY. THEEZA DANIELLE P. BEJOSA
NOTARY PUBLIC
ROLL NO. 59165
TAGUIG CITY, PHILIPPINES

Signature of Administering Officer
ATTY. THEEZA DANIELLE P. BEJOSA
Notary Public for and in Taguig City
until December 31, 2018
Appointment No. 16 (2017-2018)
25th Floor NAC Tower, 32nd Street
Bonifacio Global City, Taguig City
Roll of Attorneys No. 59165
PTR No. A-3810806 / 1-30-2018 / Taguig City
IBP No. 032386 / 2-5-2018 / Cavite Chapter
MCLE compliance No. V-0014273/ 2-16-2016

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Book No. 5
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I. CONDITIONS

ENVIRONMENTAL MANAGEMENT

All commitments, appropriate mitigating/enhancement measures and monitoring requirements contained in the EPRMP, particularly in the Environmental Management Plan (EMP) and Environmental Monitoring Plan (EMoP), as approved by the EMB, shall be instituted by the Proponent to minimize any adverse impact of the Project to the environment throughout its implementation, which shall include the following:

1. Continue implementation of an intensive and effective Information, Education and Communication (IEC) Program to inform and educate all stakeholders, about the mitigating measures embodied in its EPRMP and the conditions stipulated in this Certificate for greater awareness and understanding of the Project. The proponent shall implement an annual detailed IEC program in coordination with the Regional Offices of MGB and EMB MIMAROPA. Said program shall be submitted to EMB Central Office at least thirty (30) days after MGB approval;

2. Continue management of all external, chemical and process, and health hazards identified in the Environmental Risk Assessment (ERA) of its EPRMP and, in case of emergency, addressed immediately for the protection of the workers, nearby residents, and sensitive ecosystems;

3. Formulate a reforestation and carbon sink program using endemic/indigenous species to mitigate greenhouse gas (GHG) emissions of the project in line with the DENR's thrust for GHG emissions reduction program and the National Greening Program to consider the impact of the expansion project in coordination with PENRO and the CENRO and submit to EMB (Central and MIMAROPA) semi-annually. Implementation of the said program shall be reported to EMB (Central Office and MIMAROPA) on a semi-annual basis;

4. Continue to observe good vegetative practices, proper land use, and sound soil management. All used/open areas in the site shall be planted with appropriate species. Direct use of the recovered topsoil for re-soiling or as soil cover on waste dumps, and for camp beautification in general shall be undertaken. Stockpiling on designated suitable areas shall be done and temporarily vegetated to protect the soil from erosion;

5. The proponent shall protect and shall in no case adversely affect the headwaters, tributaries and natural springs/wells within the project site that are being utilized as sources of domestic water by the community.

6. Establishment of buffer zones with a width of twenty (20) meters along the entire periphery of the project site and planted with appropriate species/dense vegetation cover to mitigate the adverse effect of its operation to the existing condition of the ecosystems in the area and to serve as noise, vibration and dust buffers;

GENERAL CONDITIONS

7. Continue compliance with the environmental management and protection requirements of the pertinent provisions of the Philippine Mining Act of 1995 (R.A. No. 7942) and its Revised Implementing Rules and Regulations (DAO No. 2010-21), as well as the pertinent provisions of the Memorandum of Agreement (MOA) between the EMB and MGB executed on 16 April 1998 such as the submission of the following:

    a. Environmental Protection and Enhancement Program (EPEP) integrating the Final Mine Rehabilitation and/or Decommissioning Plan FMR/DP);

    b. Social Development and Management Program (SDMP);

    c. Contingent Liability and Rehabilitation Fund (CLRF) and Environmental Trust Fund (ETF); and

    d. Mine Rehabilitation Fund Committee (MRFC) and Multipartite Monitoring Team (MMT);

8. Installation of a continuous hydrogen sulfide (H_2S) monitoring and results shall be included in the CMR;

9. A coastal resource management program (CRMP) shall be submitted to EMB Central Office copy furnished the EMB MIMAROPA within six (6) months upon receipt of this Certificate;

10. Updated Emergency Response Plan (ERP) to include an off-site emergency plan based on APELL (Awareness and Preparedness for Emergency at the Local Level);

11. That its contractors and subcontractors properly comply with the relevant conditions of this Certificate;

12. Submission of a Compliance Monitoring Report thru EMB Central Office Online (CMR Online) System and copy furnished EMB MIMAROPA on a semi-annual basis together with report on Social Development and Management;

II. RESTRICTIONS

13. No other activities shall be undertaken other than what were stipulated in the EPRMP document. Any expansion or modification of the Project beyond the project description or any change in the activity shall be subject to a new EIA study; and

14. In case of transfer of ownership, the same conditions and restrictions shall apply to the transferee or grantee who shall notify the EMB Central Office in writing within fifteen (15) working days from such transfer.

Annex B

PROJECT ASSESSMENT PLANNING TOOL

For the assistance of the Proponent and the Government agencies concerned in the management of the Project and for better coordination in mitigation of the impacts of the Project on its surrounding areas and the environment, the following have been recommended by the EIA Review Committee to the parties and authorities concerned for appropriate action.

RECOMMENDATIONS TO CONCERNED GOVERNMENT AGENCIES	***RESPONSIBLE AGENCY***
1. Proponent shall to comply with the following: a. Sanitation Code of the Philippines; b. Labor Code of the Philippines including occupational health and safety standards for all mining activities and provide personal protective equipment for the workers; and c. Building Code of the Philippines.	DOH DOLE-BWC/ DENR-MGB LGU
2. Proper storm drainage canal, concrete culverts, and other flood control measures shall be provided to adequately receive and channel the silt-laden runoff from the nearby bodies of water.	Provincial/Municipal Engineering Office
3. Proponent shall implement Solid Waste Management System.	LGU
4. Proponent shall ensure that the noise from the operation shall not disturb the community especially at night.	LGU
5. Secure tree cutting permit, (if necessary).	DENR
6. Secure clearances/permits relevant to mine processing activities: i.e. compliance with DENR Memorandum Order 99-32 (Policy Guidelines and Standards for Mine Wastes and Mill Tailings Management) as amended;	DENR, MGB
7. Epidemiological study and health surveillance activities in the host communities, secondary and indirect impact communities to be conducted; and Baseline health data/information on biomarkers of exposure among the host communities, secondary and indirect impact communities be conducted, including monitoring (e.g. sulfhemoglobin and methemoglobin) among potentially-exposed workers in the plant and health surveillance study (ies), results of which shall be disseminated to the concerned rural health units.	DOH
8. In the revision of the SDMP, the present SDMP performance be reviewed and experts on sociology, mining economics and skills training and livelihood be employed in order to come up with a more socially oriented SDMP with expected long-term benefits.	MGB

ENVIRONMENTAL PLANNING RECOMMENDATIONS FOR THE PROPONENT
9. Institutional linkages and collaborative agreements to be initiated and formalized with appropriate entities as regards radiation protection program and, in case of acute toxic emergencies, arrangement be made with the poison center or other hospitals.
10. Proponent shall give priority employment to qualified local residents. Adequate public information for jobs available to local residents in the affected areas shall be provided.
11. Host a website that will provide information on the physical, social and economic impacts of the project, including compliance to its various commitments stipulated in the EPRMP and implementation of IEC Program.
12. Allocate 0.1 of one percent (1%) of the value of the generated electricity for the development of the host and neighboring communities, provided that, if any other agency of government is currently imposing, or shall, in the future impose, this allocation, such shall be deemed compliance with this provision. Value of electricity production shall be based on the actual cost of generation.
13. Proponent shall commission an independent third party auditor to undertake an environmental audit. The result of the third party environmental audit, including the auditing of risks and hazards of the project and geotechnical review of TSF shall be submitted to EMB and the MGB.
14. Coordinate with the DENR, Coastal and Marine Management Office (CMMO) and the DA, Bureau of Fisheries and Aquatic Resources (BFAR) in the rehabilitation of mangroves and sea grasses found affected by any infrastructure development relative to the port facilities.

ENGR. ESPERANZA A. SAJUL
Chief EFAM Division

ENGR. METODIO U. TURRELLA
Director

Republic of the Philippines
Department of Environment and Natural Resources
ENVIRONMENTAL MANAGEMENT BUREAU
DENR Compound, Visayas Avenue, Diliman, Quezon City 1115
Telephone Nos: (632)927-15-17,928-37-25; Fax No. (632) 920-22-58
Website http://www.emb.gov.ph / Email: mail@emb.gov.ph

IN ACCORDANCE WITH THE REVISED PROCEDURAL MANUAL FOR DENR ADMINISTRATIVE ORDER NO. 30, SERIES OF 2003 OF PRESIDENTIAL DECREE NO. 1586, THIS

CERTIFICATE OF NON-COVERAGE
(CNC-OL-R4B-2022-02-00251)

Issued to

CORAL BAY NICKEL CORPORATION

On

February 14, 2022

For its

PILOT TESTING OF MIXED HYDROXIDE PRECIPITATE (MHP) OF PRONY AS POSSIBLE FEED MATERIAL FOR CBNC'S HPP

Rio Tuba Export Processing Zone, Rio Tuba, Bataraza, Palawan, R4B

Classified as

ITEM 5.1.7 OTHER PROJECTS/DEMONSTRATION AND PILOT PROJECTS
(Declared Project Size: 1 Hectare Project Area)

THE ISSUANCE OF THIS CERTIFICATE SHALL NOT EXEMPT THE GRANTEE FROM COMPLIANCE WITH APPLICABLE ENVIRONMENTAL LAWS, RULES AND REGULATIONS INCLUDING THE PERMITTING REQUIREMENTS OF OTHER GOVERNMENT AGENCIES NEITHER CREATE ANY RIGHT NOR BE USED AS AN AUTHORIZATION TO IMPLEMENT THE PROJECT, YOU MAY PROCEED WITH THE IMPLEMENTATION ONLY AFTER SECURING ALL THE NECESSARY AND RELEVANT PERMITS FROM OTHER PERTINENT GOVERNMENT AGENCIES.

MOREOVER, ANY EXPANSION AND/OR MODIFICATION OTHER THAN SPECIFIED ABOVE SHALL BE CONSIDERED AS A VIOLATION OF P.D. 1586 (EIA SYSTEM) AND SHALL BE SUBJECTED TO IMPOSITION OF FINES/PENALTIES AMOUNTING TO PHP 50,000.00.

ENGR. WILLIAM P. CUÑADO
Director

Receipt No.2314172/ Php 1240.00/ February 10, 2022
ARN. 8e5ca24f-d4ab-4947-89fb-f029570a66b8

Republic of the Philippines
Department of Environment and Natural Resources
ENVIRONMENTAL MANAGEMENT BUREAU
DENR Compound, Visayas Avenue, Diliman, Quezon City 1115
Telephone Nos: (632)927-15-17,928-37-25; Fax No. (632) 920-22-58
Website http://www.emb.gov.ph / Email: mail@emb.gov.ph

IN ACCORDANCE WITH THE REVISED PROCEDURAL MANUAL FOR DENR ADMINISTRATIVE ORDER NO. 30, SERIES OF 2003 OF PRESIDENTIAL DECREE NO. 1586, THIS

CERTIFICATE OF NON-COVERAGE
(CNC-OL-R4B-2022-02-00284)

Issued to

CORAL BAY NICKEL CORPORATION

On

February 17, 2022

For its

PILOT TESTING ON THE USE OF 1% WOOD PELLET AS ALTERNATIVE FUEL FOR CBNC'S COAL FIRED BOILERS FOR THE IMPROVEMENT OF CO2 EMISSIONS
Rio Tuba Export Processing Zone, Rio Tuba Bataraza, Palawan, R4B

Classified as

ITEM 5.1.7 OTHER PROJECTS/DEMONSTRATION AND PILOT PROJECTS
(Declared Project Size: 0.5 Hectare Project Area)

THE ISSUANCE OF THIS CERTIFICATE SHALL NOT EXEMPT THE GRANTEE FROM COMPLIANCE WITH APPLICABLE ENVIRONMENTAL LAWS, RULES AND REGULATIONS INCLUDING THE PERMITTING REQUIREMENTS OF OTHER GOVERNMENT AGENCIES NEITHER CREATE ANY RIGHT NOR BE USED AS AN AUTHORIZATION TO IMPLEMENT THE PROJECT, YOU MAY PROCEED WITH THE IMPLEMENTATION ONLY AFTER SECURING ALL THE NECESSARY AND RELEVANT PERMITS FROM OTHER PERTINENT GOVERNMENT AGENCIES.

MOREOVER, ANY EXPANSION AND/OR MODIFICATION OTHER THAN SPECIFIED ABOVE SHALL BE CONSIDERED AS A VIOLATION OF P.D. 1586 (EIA SYSTEM) AND SHALL BE SUBJECTED TO IMPOSITION OF FINES/PENALTIES AMOUNTING TO PHP 50,000.00.

ENGR. WILLIAM P. CUÑADO
Director

Receipt No.2314253/ Php 1240.00/ February 17, 2022
ARN. d670cb46-96a3-4b5e-83ec-ad78e11ac7a0

Coral Bay Nickel Corporation

Form 01 QC-2007 Rev.05

April 25, 2022

FOR: **ENGR. RONELBERT A. SUGUITAN**
Resident Mine Manager
Rio Tuba Nickel Mining Corporation (RTNMC)

SUBJECT: **Confirmation and Approval of RTNMC Areas within MPSA114-98-IV (Amended 1) to be Used for the Proposed CBNC TSF-4 and Other Facilities**

Dear Engr. Suguitan:

Good day.

This is to request your confirmation and approval of the attached map showing the proposed location of CBNC's Tailings Storage Facility No. 4 (TSF-4) and its related project components that will be constructed within the RTNMC areas covered by Mineral Production Sharing Agreement (MPSA) No. 114-98-IV (Amended 1) with the Philippine Government and the Rio Tuba Special Economic Zone (RTSEZ). This map will be the basis for the application of CBNC for the SEP Clearance and ECC Amendment and other related government permits in connection to the construction of the TSF-4 and the other ancillary project components needed to continue the operations of CBNC.

This map shall also be the basis for the drafting of the Supplemental Agreement to the Infrastructure Agreement between CBNC and RTNMC related to the lease of the areas needed for the TSF-4 project.

RTNMC's management has previously conformed the proposed PEZA Zone Expansion for the future TSF-4 last March 31, 2022.

For your kind consideration and approval.

Sincerely yours,

ANTONIO O. SANONE
MEPEO Manager

BENJAMIN ARMAND A. TANSINGCO
VP for Environmental Management

Noted by:

TAKAO OISHI
EVP & Plant Manager

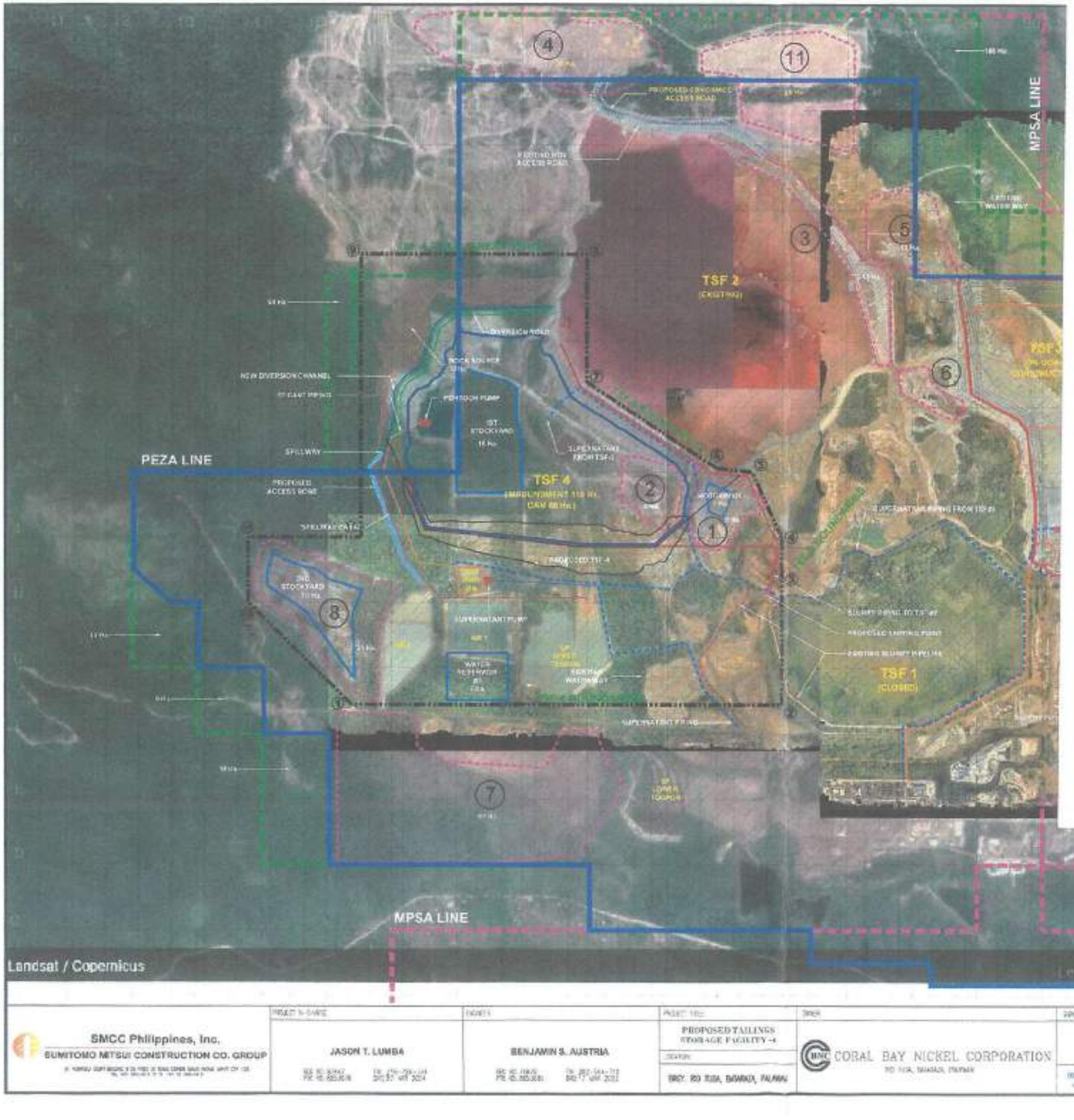
Conforme:

RONELBERT A. SUGUITAN
Resident Mine Manager - RTNMC

4/24/2022

Principal Office: Rio Tuba Export Processing Zone (RTEPZ)
Bgy. Rio Tuba, Bataraza, Palawan, Philippines 5306
Tel: (02) 8548-7130 and (02) 8548-7131

Manila Mailing Address: c/o Sumitomo Metal Mining Philippine Holdings Corporation, 25th-25th Floor, NAC Tower, 32nd Street Bonifacio Global City, Taguig City, Philippines 1634



Jeb,

I am ok with the map to serve as the basis for the application of CBNC for the SEP clearance & ECC amendment. Provided that further discussions on the areas that will be affected by TSF-4 construction especially areas already rehabilitated by RTN and current stockpile & SDA. Furthermore that the final use of stockpile no. 7 will be a Solar Drying Area (SDA) for the upper Guintaluron ore materials.

This concerns and others that may arise should be part of the discussions in the supplemental agreement between RTN & CBNC for the infrastructure agreement in relation to the lease of the areas needed for TSF-4

For your guidance

Ronald Bert A. Suguitan

REFERENCE DRAWING

SMCC Philippines, Inc. SUMITOMO MITSUI CONSTRUCTION CO. GROUP	PROJECT MANAGER: JASON T. LUMBA	ENGINEER: BENJAMIN S. AUSTRIA	PROJECT TITLE: PROPOSED TAILINGS STORAGE FACILITY -4	OWNER: CORAL BAY NICKEL CORPORATION	DRAWN BY: ROGEL T. CALMA	NO.	DATE	DESCRIPTION	SHEET CONTENTS	APPROVED BY: MR. T. GOTO / DRAWN BY: MR. M. HAYUKI / DESIGNED BY: - / SHEET NO. -	CHKD BY: UDP / DATE: APR. 3, 2025 / REV.
			LOCATION: BRGY. RIO TUBA, BAGUIO, PALAWAN		CHECKED BY: -				SCALE: AS SHOWN		

LAND LEASE AGREEMENT

This Land Lease Agreement (this "Agreement"), dated February 27, 2007, is made by and between:

Rio Tuba Nickel Mining Corporation, a corporation duly organized and existing under the laws of the Republic of the Philippines, with its principal office at the 2nd Floor Solid Mills Building, Dela Rosa St., Legaspi Village, Makati City, represented herein by its duly authorized representative, in his capacity as Vice President, Mr. Jose S. Saret (hereinafter called the LESSOR);

- and -

Coral Bay Nickel Corporation, a corporation duly organized and existing under the laws of the Republic of the Philippines, with principal office at Barangay Rio Tuba, Municipality of Bataraza, Palawan, represented herein by its duly authorized representative, in his capacity as President, Mr. Takanori Fujimura (hereinafter called the LESSEE).

WITNESSETH THAT:

WHEREAS, the LESSOR is the registered owner of a certain land (hereinafter called the PREMISES) situated at Rio Tuba, Bataraza, Palawan, whose technical descriptions are attached as Annex "A" and "B", by the Deed of Sale dated May 25, 1991 and November 15,2005, and hereto attached as Annex "C" and "D", respectively. (Transfer Certificate of Title is under process);

WHEREAS, the LESSEE wishes to construct, install, erect, and place on the PREMISES certain facilities which are to be utilized in connection with the LESSEE's mineral processing operations within the Rio Tuba Special Economic Zone;

NOW, THEREFORE, in view of the foregoing premises and mutual covenants and undertakings hereinafter provided, the parties hereto have agreed as follows:

1. LEASE

   The LESSOR has the sole and exclusive right to lease the PREMISES and hereby leases unto the LESSEE the PREMISES for its exclusive use.

2. USE OF THE PREMISES

   The PREMISES shall be used exclusively for the LESSEE's PEZA-registered/ authorized activities. Conformably thereto, the PREMISES may not be used for any other purpose without written consent of the LESSOR.

3. RENT

   For the use and occupancy of the PREMISES, the LESSEE shall pay a rental to the LESSOR in the amount of FORTY-FOUR THOUSAND NINE HUNDRED

FORTY-TWO ONLY (P 44,942.00), Philippine Currency, for every half year subject to any change in rent as determined in good faith discussion by the parties hereto be conducted every anniversary of this Agreement, as may be required by either party hereto, based on material changes in relevant duty, tax and/or land price in the surrounding area of the PREMISES. Amount of rent is based on the computation hereto attached as Annex "E".

4. RENTAL PAYMENT

The rentals shall be paid within thirty (30) days after beginning of each half year after the date hereof.

5. TERM OF LEASE

The term of the lease shall be for a period of twenty-five (25) years commencing on the date hereof, unless sooner terminated by the LESSEE at its option with its written notice to the LESSOR sixty (60) days prior to such termination. The term of the lease shall be exercised in writing by the LESSEE not later than sixty (60) days prior to the expiration of the original or extended term.

6. REHABILITATION

Upon termination or expiration of this Agreement, the LESSEE shall rehabilitate the PREMISES in accordance with applicable law, rules and regulations.

7. ANNOTATION OF AGREEMENT

The LESSOR shall cause this Agreement to be annotated on the transfer certificated of title covering the PREMISES promptly after signing of this Agreement. The cost of such annotation shall be borne by the LESSEE.

8. SALE OF LAND

In the event the PREMISES is sold, assigned or mortgaged, it shall be the obligation of the LESSOR to impose as a condition of such transaction that the buyer, assignee, or mortgagee should take the affected PREMISES subject to the LESSEE's rights pursuant to this Agreement.

9. REAL PROPERTY TAX

The LESSOR shall pay the real property tax and other government assessments on the PREMISES, if any.

10. VAT

The LESSEE, being a PEZA Ecozone Export Enterprise, shall be exempted from payment to the LESSOR of the value-added tax (VAT) accruing on the rental payments.

11. DST

The Documentary Stamp Tax (DST) or any other government tax or imposition accruing by reason of the execution of this Agreement shall be for the account of the LESSEE.

12. DEFAULT

In the event either party hereto breaches any material obligation or covenants hereunder and does not cure such breach within ninety (90) days from the date of receipt of written notice of the breach by the other, the other party may immediately rescind this Agreement and the defaulting party shall be liable to the offended party for any and all actual damages incurred as a result of such default.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by their respective duly authorized signatories.

RIO TUBA NICKEL MINING CORPORATION

By:
JOSE S. SARET
Senior Vice President
Date:_____

CORAL BAY NICKEL CORPORATION

By:
TAKANORI FUJIMURA
President
Date:_____

Annex "E"

ANNUAL RENTAL COMPUTATION
FOR PIER STOCKYARD "B" AREA
WITHIN THE RIO TUBA EXPORT PROCESSING ZONE

Given:

1. Total Area

1.1 Existing Area	=	16.79 hectares
1.2 Additional Areas		
a. Expansion Area of chemical warehouse	=	0.25
b. New Coal Stockyard	=	1.00
Total		18.04 hectares

2. Present Value @ P300/sq.m. = P 541,200
3. Annual Interest Rate =11% per year
4. Real Property Tax = P 3,250/ha./year
5. VAT = 0
6. Duration = 20 years

Calculation:

$$\text{Annual rental} = \left\{\left[\frac{\left(\frac{\text{Present Value}}{20\text{ years}} + \text{Present Value}\right)}{2}\right] \times 0.11\right\} + (\text{P3,250} \times 18.04\text{ has})$$

$$= \left\{\left[\frac{\left(\frac{\text{P 541,200}}{20} + \text{P 541,200}\right)}{2}\right] \times 0.11\right\} + (\text{P3,250} \times 18.04\text{ has})$$

= P 31,254 + P 58,630

= P 89,884 per year

or P 44,942 per 6 months

INFRASTRUCTURE AGREEMENT

KNOW ALL MEN BY THESE PRESENTS:

This **AGREEMENT** made and entered into by and between:

RIO TUBA NICKEL MINING CORPORATION, a corporation duly organized and existing under the laws of the Republic of the Philippines, with principal place of business at 2/F Solid Mills Bldg., Dela Rosa St., Legaspi Village, Makati City, represented in this act by its Senior Vice President, Jose S. Saret, hereinafter referred to as the LESSOR;

-and-

CORAL BAY NICKEL CORPORATION, a corporation duly organized and existing under the laws of the Republic of the Philippines with principal place of business at Rio Tuba, Bataraza, Palawan, represented in this act by its President, Takanori Fujimura, hereinafter referred to as LESSEE;

WITNESSETH

WHEREAS, LESSOR is one of the Stockholders of herein LESSEE company;

WHEREAS, LESSOR is a party to a Stockholders Agreement entered into on 01 July 2002 by and between all the stockholders of LESSEE Company including herein LESSOR under which LESSEE shall construct a plant to produce nickel-cobalt mixed sulfide using high-pressure acid leaching process (Plant);

WHEREAS, under the said Stockholders Agreement, LESSOR shall lease or sub-lease or otherwise enter into such agreements in respect of the land as will grant or transfer the right to use the land to LESSEE and make the infrastructure and utility available to LESSEE in accordance with an agreement to be entered into by and between LESSOR and LESSEE based on the main terms and conditions specified in Schedule 4 of Appendix 3 of the Stockholders Agreement.

WHEREAS LESSOR has entered into Mineral Production Sharing Agreement No. 114-96-IV (MPSA) with the Republic of the Philippines under which LESSOR is entitled to a surface right for the purpose of MPSA on certain

government land (MPSA Area) which consists of a part of land LESSEE uses hereunder.

WHEREAS LESSEE has been granted Mineral Processing Permit No. 0006-2004-IVB (MPP) by the Department of Environment and Natural Resources under which LESSEE was granted the permit to construct and operate a Hydrometallurgical Processing Plant on certain government land which is a part of the MPSA area granted to LESSOR.

WHEREAS LESSOR and LESSEE have entered into a Consent Agreement entered into on March 3, 2003 as attached Exhibit A hereto in which LESSOR gave its consent to LESSEE to construct and operate the Plant within the MPSA Area and LESSEE, in turn, has acknowledged that LESSOR has given such consent.

NOW, THEREFORE, for and in consideration of the foregoing premises, LESSOR and LESSEE hereby agree on the following terms and conditions:

1. **Definitions**

1.1 **LESSOR** — **RIO TUBA NICKEL MINING CORPORATION**, the rightful owner of the properties or the surface right of the land listed under Schedule 1, Schedule 2 and Schedule 3 attached hereto.

1.2 **LESSEE** — **CORAL BAY NICKEL CORPORATION**, the party seeking to rent and share in the use of the properties listed under Schedule 1, Schedule 2 and Schedule 3.

1.3 **Lease Price** — The amount to be paid by LESSEE in consideration of lease of LESSOR's private land and LESSOR's consent on public land as MPSA holder and/or Ecozone Developer for LESSEE to utilize such land.

1.4 **Usage Fee** — the amount to be paid by LESSEE for their share in the use of the properties listed on Schedule 2.

1.5 **Maintenance/Operating Cost**

cost for keeping the properties under Schedule 3 in clean, safe, suitable condition.

1.6 **Leased Properties/Premises**

land, infrastructure, buildings and facilities listed under Schedule 1.

1.7 **Commonly-used Properties/Premises**

Those infrastructure and facilities listed under Schedule 2.

2. **Lease of land, buildings, infrastructures and facilities**

LESSOR by this **AGREEMENT** shall lease to LESSEE the following:

2.1 **Land** all land to be occupied exclusively by the LESSEE for the operation of LESSEE's Plant such as sites for the Water Reservoir, HPP Plant, Tailings Pond, Water discharge Pond, Water Intake Dam, Road, Pier Site and others. Details and specifications are found under Schedule 1.

The land to be leased or subject of consent to use shall include the following;

a) those which LESSOR has sole ownership;

b) those which are located in the Special Economic Zone created under Presidential Proclamation No. 304, under which herein LESSOR was registered as Developer and Operator, hence authorized to develop and operate said Ecozone including sub-leasing the same to herein LESSEE;

a) those which are within the mineral claims of LESSOR and are covered under a Mineral Production Sharing Agreement (MPSA) and/or lease contracts;

2.2 **Buildings** Apartment buildings to be exclusively used as residence for the employees of LESSEE. Details and specifications are found on Schedule 1.

3. **Grant the Right of Shared Use**

3.1 LESSOR shall grant LESSEE the right of access to and shared usage of main road plant to pier and other points, pier facility, channel mark, airport, church, gymnasium, guestlodge, clubhouse, tennis court and other sports grounds and facilities, shopping center, power transmission lines, cable TV lines,

Puerto Princesa Liaison Office and warehouse, etc. as listed in Schedule 2 hereto.

4. **Lease Price and Usage Fees/Payment Terms**

4.1 The Lease Price and Usage Fees for the land, building, infrastructures and facilities described in Section 2 and 3 hereof with details and specifications found in Schedule 1 and Schedule 2 hereto attached shall be as follows:

SCHEDULE 1 – U.S. DOLLARS [SIXTEEN THOUSAND EIGHT HUNDRED NINETY EIGHT (US$16,898) plus TWO HUNDRED SIXTY-FIVE THOUSAND ONE HUNDRED THIRTY-THREE PESOS (P265,133)]

SCHEDULE 2 – U.S. DOLLARS [EIGHTY-TWO THOUSAND TWO HUNDRED FORTY-NINE (U.S.$82,249) plus ONE HUNDRED FIFTY FIVE THOUSAND FOUR HUNDRED EIGHTY-EIGHT PESOS (155,488)].

PAYMENT:

Fifty percent (50%) payable on or before the end of February and the remaining balance of fifty percent (50%) payable on or before the end of August every year beginning year 2007.

Any adjustment based on actual expenses shall be determined at the end of each year and shall be paid or refunded as the case may be within thirty (30) days after mutual agreement of both parties.

4.2 The herein Lease Price and Usage for the second year and every year thereafter shall be reviewed annually and shall be subject to adjustments by mutual agreement as the parties may find necessary referring to land prices, taxes and fees and relevant consumer price index.

4.3 In case an adjustment is made for the Lease Price and Usage Fees subject to Section 4.2, the dollar exchange rate to be applied shall be the rate as published by Bangko Sentral Pilipinas (Central Bank of the Philippines) as shown of the time when the price and fees are due.

5. **Maintenance/Operation Cost of Buildings and Infrastructures / Facilities**

5.1 LESSOR shall maintain and operate the buildings, infrastructures and facilities mentioned in Section 2 hereof and specifically described and listed under Schedule 3 hereto attached and shall keep the same in good, clean, safe and suitable condition.

5.2 LESSEE shall share fifty per cent (50%) of the total cost representing the maintenance and operation cost including cost of materials and direct labor charges or the equivalent amount of ELEVEN MILLION ONE HUNDRED EIGHTY ONE THOUSAND FIVE HUNDRED PESOS (P11,181,500.00), the computation of which is shown in schedule 3. The maintenance and operation cost shall be payable in Philippine Currency.

PAYMENT

Fifty per cent (50%), payable on or before the end of February and the remaining balance of fifty per cent (50%) payable on or before the end of August every year beginning year 2005.

Any adjustment based on actual expenses shall be determined at the end of each year and shall be paid or refunded as the case may be within thirty (30) days after mutual agreement of both parties.

Provided, however, that the maintenance and operation of infrastructures and buildings/facilities constructed by LESSEE on lands of LESSOR for their exclusive use shall be for the sole expense of LESSEE.

5.3 The herein maintenance and operation cost shall be reviewed annually and shall be subject to adjustments by mutual agreement as the parties may find necessary.

6. **Taxes, Fees and Charges**

The lease price, usage fees and maintenance/operations cost under Section 3 and Section 4 of this Agreement shall be inclusive of all forms of government taxes, fees and other charges that are currently being imposed or may be imposed in the future; provided that taxes,

fees, and other charges imposed on the buildings/facilities constructed by LESSEE on LESSOR's land as shown on Schedule 1, Schedule 2 and Schedule 3 for LESSEE's exclusive use and the documentary stamp tax accruing by reason of the execution of this Agreement shall be for the sole account of LESSEE.

7. **Rules and Regulations**

7.1 LESSEE hereby acknowledges that the leased premises are in good and tenantable condition except for latent defects and agrees to cooperate and help maintain the same as such, and to comply to all rules, regulations and policies of LESSOR regarding the use, occupation, and sanitation of the leased premises;

7.2 LESSEE shall not make any repairs, alterations, improvements on the leased premises without prior clearance and approval of LESSOR; All repairs; alterations; and improvements allowed by LESSOR on the leased premises shall belong to LESSOR at the termination of this Agreement. LESSOR shall not make any alteration or improvements on the leased premises without prior written consent of LESSEE.

7.3 LESSEE shall insure that no inflammable or explosive items, or any prohibited goods, items, or materials or contraband in general are stored in the leased premises except all the materials for the operation of the Plant and other items specifically noticed to LESSOR in advance;

7.4 LESSEE shall not directly or indirectly sublease, assign, or transfer its rights over the leased premises or any portion thereof under any circumstance whatsoever, and any such contract made in violation of this provision shall be null and void;

7.5 LESSEE shall be responsible for the behavior of its employees and/or occupants of the leased and commonly-used premises and shall ensure that the existing town site rules, regulations and policies, as well as the rules on safety, health, and security established by LESSOR and which will hereby be enforced by LESSOR are observed and complied with. For this purpose, LESSEE binds to adopt and incorporate the same into its own company rules, regulations, and policies, subject to any modifications or amendments deemed necessary and beneficial to effect the smooth operation of the leased premises and a better relationship between the parties. Upon a request by the other, both parties shall discuss amendment of aforesaid rules, regulations and policies in good faith.

7.6 Each party shall indemnify the other for any damages suffered by the other arising from negligence of its employees and/or occupants and those resulting from violation of this Section 7;

8. Inspection of Premises

LESSOR through its authorized representative shall have the right to inspect the leased and commonly-used premises/properties with reasonable prior notice to LESSEE;

9. Duration of Agreement

This Agreement shall become effective from the date of the signing of this Agreement and shall remain in full force and effect until such date LESSEE's business operation on the leased and commonly-used properties/premises shall cease, unless earlier terminated by either party due to default of the other in which case a 3 month cure period shall be given by the party seeking to terminate this Agreement; provided that LESSEE may be allowed to terminate any part of the lease by a 6-month prior notice without penalty other than any direct cost or expense resulting from said early termination.

10. Return of Properties upon Termination of Agreement

At the expiration of the term of this Agreement, or a partial termination thereof as provided in Section 9, LESSEE shall promptly surrender to LESSOR in as good, clean and tenantable condition as when taken, ordinary wear and tear excepted, free from all occupants, all the properties listed in Schedule 1 and Schedule 2.

11. Registration

LESSEE shall have the right to make registration of its

a) leasehold under this Agreement, and

b) title to the Plant and other ancillary facilities constructed by LESSEE

to the maximum extent permitted under law and LESSOR shall render LESSEE every possible assistance necessary for such registration by LESSEE.

12. Warranty/Liabilities

12.1 LESSOR warrants that it has complied and continues to comply with all government licensing requirements and other laws pertaining to mining, environmental protection, labor, hospital and school administration, and other areas of operation;

12.2 In the event, however, that any problems, conflicts, claims, etc. will arise involving acts or activities committed in the past, present, or future, LESSOR shall hold LESSEE harmless and free form any and all liability; unless, however, if LESSEE shall be found to have contributed or given cause to the problem, conflict, claims, etc., principally or partially, in which case, LESSEE shall be made to shoulder the losses and damages correspondingly.

12.3 LESSOR shall not be liable for any damage to property, employees ot third parties suffered as a result of any accident or any activity related to the operation of LESSEE pursuant to this Agreement occurring in and within the leased properties from LESSOR except such damage caused by negligence of LESSOR.

13. Non-Waiver

Failure on the part of either party to insist upon a strict performance of any terms, conditions, and covenants hereof shall not constitute a waiver to any part of this Agreement.

IN WITNESS WHEREOF, the parties have hereunto affixed their signatures this 23rd day of February 2007, at Makati City, Metro Manila, Philippines.

RIO TUBA NICKEL MINING CORP.
(LESSOR)

By:

JOSE S. SARET
Senior Vice President

CORAL BAY NICKEL CORP.
(LESSEE)

By:

TAKANORI FUJIMURA
President

SCHEDULE "1"

AREA FOR LEASE TO CBNC

				A	B	C	D	E	F	G
	Area		Acquisition Cost		Replacement	Present	Annual	Occupation	Property	Annual
	(sq.m)	Year	Peso	US$	Cost	Value	Lease US$	Fee	Tax	Lease Peso
					(A*1.43)	(B/1.43)	(C@4%)			(E+F)
A. Existing Areas exclusively occupied by CBNC										
1.1 CBNC Plant Site	130,000							650	117,000	117,650
1.2 Ash Pit	81,000		92,941					405	154	559
1.3 Niggre Beach/Wharf, Foreshore Lease	132,350								4,645	4,645
1.4 Pipeline area from CBNC HPP to Tailings Dam	2,400							12	2,760	2,772
1.5 Tailings Pond No. 1 (Exclude provisionally designated for Tailings Dam No. 2)	1,056,000							5,280	2,119	7,402
1.6 Waterway	12,000							60	36	91
1.7 Sites of CBNC dorm/employee housing units	11,339									0
1.8 Sites of JGC and Sumicon dorms	7,826									0
1.9 Access Road (Magsaysay to HPP)	12,000							60	720	780
1.10 Road from CBNC HPP to RTN Plantsite	2,250							12	144	156
1.11 P-Road to Water Intake	4,600							24	277	301
1.12 Pipeline area from HPP to East Bolinao Water dam	7,900							40	7,119	7,159
1.13 Intake Dam	21,900							110	44	154
1.14 CBNC New Housing Site	16,000								2,190	2,190
1.15 Housing Facilities										
a. JRH Unit -1		1978	96,237	67,000	16,078	6,224	671		483	483
b. JYA Dorm-1		1984	504,581	61,531	87,894	29,331	3,160		1,440	1,440
c. SSH Unit-1		1978	65,695	8,918	12,748	4,247	458		328	328
d. JBH Units-3		1978	143,102	49,414	27,767	9,255	997		918	918
e. FD Units - 3		1978	73,187	9,932	14,202	4,734	510		432	432
f. LRH Units - 37	7,992	1978	1,398,936	175,000	250,287	83,429	8,999		2,413	2,413
g. EA Lisquno Unit	1,170	1978	70,591	9,578	13,697	4,566	492		306	306
h. ES Vicente Unit	240	1978	44,244	6,005	8,593	2,862	308		144	144
I. Allen Donaloo Unit	270	1978	29,918	3,838	4,058	1,353	145		65	65
j. Romy Bayoca Unit	168	1978	29,918	3,838	4,058	1,353	145		85	85
k. Villa Dolores	240	1978	44,244	6,005	8,585	2,862	308		144	144
Sub-Total							16,185	Php5,485	Php143,409	Php154,894
B. New Areas Exclusively Occupied by CBNC										
2.15 Preparation Areas of HPP (north, east and south portion of HPP)	94,856							475	85,408	85,181
2.16 New Access Road (Malatlao to HPP)	12,000							60	720	780
2.17 New Proposed Tailings Dam (Magsaysay)	1,450,000							7,900	2,848	9,948
2.18 New CBNC Townsite (north of Guesthouse)	30,000	2006	817,600	12,352		12,352	719		3,740	3,740
2.19 New Housing Units (near nursery area)	35,477	1972	722						3,497	3,497
2.20 Temporary Facilities area near Pawikan Gate	35,400							180	2,160	2,340
2.21 Bohol Limestone Stockyard	6,000							30	360	390
2.22 Semi-occupied area located south of RTN plantsite/admin bldg	22,000							113	1,320	1,433
2.23 Water Reservoir area (east of Baligan)	108,400							540	6,488	7,028
Sub-Total							719	Php2,058	Php106,587	Php115,865
C. GRAND TOTAL							16,904	15,143	Php249,970	Php270,759

SCHEDULE "2"
COMMON USAGE WCSNC

	Area (sq.m)	Year	Acquisition Cost: Peso	A Cost: US$	B Replacement Cost (A*1.49)	C Present Value (B/3)	D Annual Lease US$ (C/20+C*)	Annual Share US$ (50%)	E Occupation Fee	F Property Tax	G Total Real Tax Peso	Annual Lease Peso (50%)
I. PEZA												
PLANSITE												
a. Upper Kinurong Silt. Pond	124,300	1998	3,393,000	66,588	123,985	41,322	4,452	2,226	622	111,870	112,492	56,246
b. Road to upper Kinurong Silt Pond	7,000								35	14	49	25
PIERSITE												
a. Foreshore/Piersite Land	46,216								13,631	27,731	41,362	20,681
Sub-Total	177,516		3,393,000	66,588	123,985	41,322	4,452	52,226	14,288	139,615	153,903	76,952
II. MPSA												
PLANSITE												
A. Road to new garbage dumpsite	38,200								191	77	268	134
Sub-Total	38,200		0	0	0	0	0	50	191	77	268	134
III - RTN												
LAND												
a. Comm'l land (market/shop center)	5,520									4,968	4,968	2,484
b. Comm'l land (Oil Depot/Tennis/Pool)	3,133									2,046	2,046.00	1,023
c. Industrial Land (Road network)	15,556									2,267	2,267.00	1,134
d. Church and surrounding areas, playground	37,456											0
e. Comm'l land (Gymnasium)	840									252	252	131
f. Forest Resort	5,000									600	600	300
g. Other land (g lodge, ons.offi. n/mark. offices)	15,855									1,915	1,915	958
h. Golf Course Area	199,814								970	11,638	12,606	6,303
MAIN ROADS												
a. F-Road (Bounong to Ibaltan)	66,000	1983	404,704	28,907	41,330	13,779	1,486	742	330	3,960	4,290	2,145
b. Macadam Road (Boundary to Pier)	750,000	1977	5,919,997	809,238	1,148,631	382,877	41,265	20,677		4,680	4,680	2,340
ACCESS ROADS												
a. Main Road to RTN Plantsite	4,800	1980	23,600	3,105	4,441	1,480	159	80		288	288	144
b. Main Road to Airport	3,600	1980	17,700	2,329	3,330	1,110	120	60		216	216	108
c. Main Road to CSNC Plantsite	12,000	1980	59,000	7,763	11,101	3,700	399	199			0	0
PIERSITE												
A. Concrete Pier Jetty	600	1977	2,661,764	350,307	500,939	166,980	17,992	8,996		14,814	14,814	7,407
b. Bcuyo and Fixed Markets/Lhouse		1977	1,416,977	192,263	274,936	91,645	9,875	4,937			0	0
c. Pier and Sgamifi Maint. Office	17,500	1999	274,105	1,226	17,483	5,828	628	314		2,330	2,330	1,165
c. Marine Barracks near Power Plant		1986	29,033	1,417	2,026	675	73	36			0	0
AIRPORT												
a. Airstrip	120,380	1980	1,320,717	25,414	37,773	12,591	1,357	678		49,066	49,066	24,533
b. Hangar	450	1980	41,169	2,040	4,304	1,401	151	75		6,394	6,394	3,197
WATER RESERVOIR / POND												
a. Upper Togpon Pond	153,375	2005	4,500,000	90,000		90,000	5,198	2,599	744	8,832	9,576	4,838

SCHEDULE "2"
COMMON USAGE WVCENIC
2004

	Area (sq.m)	Year	A Acquisition Cost Peso	A Acquisition Cost US$	B Replment Cost (A*1.43)	C Present Value (B/3)	D Annual Value US$ (C/20+C*)	Annual Share US$ (50%)	E Occupation Fee	F Property Tax	G Total Fee/ Tax Peso	Annual/ Lease Peso (50%)
TOWNSITE FACILITIES												
a. Church	1,260	1978	414,414	96,230	80,409	26,803	2,868	1,444				
b. Market and Shipping Center	820	1978	684,808	92,918	132,873	44,291	4,772	2,386		5,811	5,811	2,906
c. Rice and Palay Warehouse	120	1985	75,122	3,949	5,645	1,882	203	101		449	449	224
d. Gymnasium	1,018	1978	580,593	76,778	112,652	37,551	4,048	2,023		11,308	11,308	5,654
e. Clubhouse, Tennis Court/Pool	2,703	1978	918,925	124,413	177,911	59,304	6,390	3,195		664	664	332
f. Guestlodge	600	1978	335,026	45,459	65,005	21,668	2,335	$1,167		870	870	435
g. Construction Office Bldg.	200	1980	223,000	7,964	11,389	3,796	409	205		1,163	1,163	582
h. Nickel Nook	810	1998	65,965	2,510	3,589	1,196	129	64		326	326	163
i. Children's Playground	8,000	1978	100,000	13,569	19,403	6,468	697	348				
j. Oval	13,706	1980	298,496	10,861	15,245	5,082	548	274				
k. Cable TV		1994	1,263,299	52,830	75,547	25,182	2,713	1,357				
l. Offices of common services	1,134	1978	148,412	19,866	28,408	9,469	1,020	510		466	466	228
m. Housing units of:							0	0				
PSSI employees row houses	6,426	1978	711,150	96,493	137,964	46,995	4,966	2,478		2,217	2,217	1,109.00
PSSI barracks	1,580	1978	114,532	15,554	22,242	7,414	799	399		454	454	227
SCAA Cadres safehouses	700	1978	47,793	6,473	9,256	3,085	332	166		306	306	153
Safehouse for Intelligence units	270	1978	125,497	17,028	24,350	8,117	875	437		65	65	33
Convent	152	1989					0	0				
Middlesex (UFH)	564	1978	104,581	14,190	20,292	6,764	729	364		326	326	163
k. Sewage Effluent Treatment Facilities		1997					0	0				
o. Safety and Security Facilities	3,219						0	0				
Fire Hoses and water hydrants		1998	87,536	3,331	4,763	1,588	171	86				
Perimter Fence		1978	880,000	11,943	170,748	56,915	6,133	3,066				
Guard Post and bald search lights		2001	141,969	3,155	4,512	1,504	162	81				
p. Morgue		1991	136,474	5,196	7,430	2,477	267	133				
OTHERS												
a. Power Transmission Facilities												
b. PPC Office/Warehouse		1981	261,966	31,940	45,674	15,225	1,640	820		15,952	15,952	7,976
c. Other recreation Facilities -golf course	97,200	1996	2,231,419	67,004	81,516	27,172	1,464	1,464				
d. Transportation Facilities							0	0				
Garbage Truck		1984	990,356	50,145	71,707	23,902	1,288	1,288				
Firetruck (2 units)		1976	1,218,191	234,773	234,773	78,258	4,216	4,216				
Water trucks		1988	11,003,103	701,804	233,935	233,935	12,603	12,603				
Sub-Total	564,944		35,268,936	3,014,914	4,311,327	1,437,109	61,785	$60,023.00	2,044	154,751	156,805	78,403
GRAND TOTAL	800,562	1,996	36,661,936	3,101,803	4,439,292	1,478,431	159,301	$82,249	16,523	294,453	310,976	Php155,488

SCHEDULE 3"
RTN
MAINTENANCE AND OPERATING COSTS
2004

	AMOUNT
1 ***Mecadam Rd***	3,468,000
2 ***Airport***	487,000
3 ***Piersite***	463,000
4 ***Townsite***	
Facilities- Repairs	2,351,000
Power Consumption	7,961,000
Gen Affairs Maint. Exp.	1,031,000
Water system	1,576,000
Pest control	394,000
5 ***Others***	
Power transmission	1,237,000
PAF Radar	620,000
Solid waste disposal	1,335,000
Upper Kinurong siltation pond	
PPC Operation	818,000
Special Projects	622,000
TOTAL	22,363,000
CBNC SHARE - 50%	11,181,500

INFRASTRUCTURE AGREEMENT

KNOW ALL MEN BY THESE PRESENTS:

This **AGREEMENT** made and entered into by and between:

RIO TUBA NICKEL MINING CORPORATION, a corporation duly organized and existing under the laws of the Republic of the Philippines, with principal place of business at 2/F Solid Mills Bldg., Dela Rosa St., Legaspi Village, Makati City, represented in this act by its Senior Vice President, Jose S. Saret, hereinafter referred to as the LESSOR;

-and-

CORAL BAY NICKEL CORPORATION, a corporation duly organized and existing under the laws of the Republic of the Philippines with principal place of business at Rio Tuba, Bataraza, Palawan, represented in this act by its President, Takanori Fujimura, hereinafter referred to as LESSEE;

WITNESSETH

WHEREAS, LESSOR is one of the Stockholders of herein LESSEE company;

WHEREAS, LESSOR is a party to a Stockholders Agreement entered into on 01 July 2002 by and between all the stockholders of LESSEE Company including herein LESSOR under which LESSEE shall construct a plant to produce nickel-cobalt mixed sulfide using high-pressure acid leaching process (Plant);

WHEREAS, under the said Stockholders Agreement, LESSOR shall lease or sub-lease or otherwise enter into such agreements in respect of the land as will grant or transfer the right to use the land to LESSEE and make the infrastructure and utility available to LESSEE in accordance with an agreement to be entered into by and between LESSOR and LESSEE based on the main terms and conditions specified in Schedule 4 of Appendix 3 of the Stockholders Agreement.

WHEREAS LESSOR has entered into Mineral Production Sharing Agreement No. 114-98-IV (MPSA) with the Republic of the Philippines under which LESSOR is entitled to a surface right for the purpose of MPSA on certain

government land (MPSA Area) which consists of a part of land LESSEE uses hereunder.

WHEREAS LESSEE has been granted Mineral Processing Permit No. 0006-2004-IVB (MPP) by the Department of Environment and Natural Resources under which LESSEE was granted the permit to construct and operate a Hydrometallurgical Processing Plant on certain government land which is a part of the MPSA area granted to LESSOR.

WHEREAS LESSOR and LESSEE have entered into a Consent Agreement entered into on March 3, 2003 as attached Exhibit A hereto in which LESSOR gave its consent to LESSEE to construct and operate the Plant within the MPSA Area and LESSEE, in turn, has acknowledged that LESSOR has given such consent.

NOW, THEREFORE, for and in consideration of the foregoing premises, LESSOR and LESSEE hereby agree on the following terms and conditions:

1. **Definitions**

1.1 **LESSOR** — **RIO TUBA NICKEL MINING CORPORATION**, the rightful owner of the properties or the surface right of the land listed under Schedule 1, Schedule 2 and Schedule 3 attached hereto.

1.2 **LESSEE** — **CORAL BAY NICKEL CORPORATION**, the party seeking to rent and share in the use of the properties listed under Schedule 1, Schedule 2 and Schedule 3.

1.3 **Lease Price** — The amount to be paid by LESSEE in consideration of lease of LESSOR's private land and LESSOR's consent on public land as MPSA holder and/or Ecozone Developer for LESSEE to utilize such land.

1.4 **Usage Fee** — the amount to be paid by LESSEE for their share in the use of the properties listed on Schedule 2.

1.5 **Maintenance/Operating Cost**

cost for keeping the properties under Schedule 3 in clean, safe, suitable condition.

1.6 **Leased Properties/Premises**

land, infrastructure, buildings and facilities listed under Schedule 1.

1.7 Commonly-used Properties/Premises

Those infrastructure and facilities listed under Schedule 2.

2. Lease of land, buildings, infrastructures and facilities

LESSOR by this **AGREEMENT** shall lease to LESSEE the following:

2.1 Land all land to be occupied exclusively by the LESSEE for the operation of LESSEE's Plant such as sites for the Water Reservoir, HPP Plant, Tailings Pond, Water discharge Pond, Water Intake Dam, Road, Pier Site and others. Details and specifications are found under Schedule 1.

The land to be leased or subject of consent to use shall include the following;

a) those which LESSOR has sole ownership;

b) those which are located in the Special Economic Zone created under Presidential Proclamation No. 304, under which herein LESSOR was registered as Developer and Operator, hence authorized to develop and operate said Ecozone including sub-leasing the same to herein LESSEE;

a) those which are within the mineral claims of LESSOR and are covered under a Mineral Production Sharing Agreement (MPSA) and/or lease contracts;

2.2 Buildings Apartment buildings to be exclusively used as residence for the employees of LESSEE. Details and specifications are found on Schedule 1.

3. Grant the Right of Shared Use

3.1 LESSOR shall grant LESSEE the right of access to and shared usage of main road plant to pier and other points, pier facility, channel mark, airport, church, gymnasium, guestlodge, clubhouse, tennis court and other sports grounds and facilities, shopping center, power transmission lines, cable TV lines,

Puerto Princesa Liaison Office and warehouse, etc. as listed in Schedule 2 hereto.

4. **Lease Price and Usage Fees/Payment Terms**

4.1 The Lease Price and Usage Fees for the land, building, infrastructures and facilities described in Section 2 and 3 hereof with details and specifications found in Schedule 1 and Schedule 2 hereto attached shall be as follows:

SCHEDULE 1 – U.S. DOLLARS [SIXTEEN THOUSAND ONE HUNDRED EIGHTY SIX (U.S. $16,186) plus ONE HUNDRED FIFTY THOUSAND EIGHT HUNDRED FOURTEEN PESOS (P150,814)]

SCHEDULE 2 – U.S. DOLLARS [SEVENTY NINE THOUSAND SIX HUNDRED FIFTY (U.S. $79,650) plus ONE HUNDRED FORTY SEVEN THOUSAND THREE HUNDRED THIRTY FIVE PESOS (P147,335)]

PAYMENT:

Fifty per cent (50%) payable on or before the end of February and the remaining balance of fifty percent (50) payable on or before the end of August every year beginning year 2005.

Any adjustment based on actual expenses shall be determined at the end of each year and shall be paid or refunded as the case may be within thirty (30) days after mutual agreement of both parties.

4.2 The herein Lease Price and Usage Fees for the second year and every year thereafter shall be reviewed annually and shall be subject to adjustments by mutual agreement as the parties may find necessary referring to land prices, taxes and fees and relevant consumer price index,.

4.3 In case an adjustment is made for the Lease Price and Usage Fees subject to Section 4.2, the dollar exchange rate to be applied shall be the rate as published by Bangko Sentral Pilipinas (Central Bank of the Philippines) as of the time when the price and fees are due.

5. **Maintenance/Operation Cost of Buildings and infrastructures / Facilities**

5.1 LESSOR shall maintain and operate the buildings, infrastructures and facilities mentioned in Section 2 hereof and specifically described and listed under Schedule 3 hereto attached and shall keep the same in good, clean, safe and suitable condition.

5.2 LESSEE shall share fifty per cent (50%) of the total cost representing the maintenance and operation cost including cost of materials and direct labor charges or the equivalent amount of ELEVEN MILLION ONE HUNDRED EIGHTY ONE THOUSAND FIVE HUNDRED PESOS (P11,181,500.00), the computation of which is shown in schedule 3. The maintenance and operation cost shall be payable in Philippine Currency.

PAYMENT

Fifty per cent (50%) payable on or before the end of February and the remaining balance of fifty per cent (50%) payable on or before the end of August every year beginning year 2005.

Any adjustment based on actual expenses shall be determined at the end of each year and shall be paid or refunded as the case may be within thirty (30) days after mutual agreement of both parties.

Provided, however, that the maintenance and operation of infrastructures and buildings/facilities constructed by LESSEE on lands of LESSOR for their exclusive use shall be for the sole expense of LESSEE.

5.3 The herein maintenance and operation cost shall be reviewed annually and shall be subject to adjustments by mutual agreement as the parties may find necessary.

6. **Taxes, Fees and Charges**

The lease price, usage fees and maintenance/operations cost under Section 3 and Section 4 of this Agreement shall be inclusive of all forms of government taxes, fees and other charges that are currently being imposed or may be imposed in the future; provided that taxes,

fees, and other charges imposed on the buildings/facilities constructed by LESSEE on LESSOR's land as shown on Schedule 1, Schedule 2 and Schedule 3 for LESSEE's exclusive use and the documentary stamp tax accruing by reason of the execution of this Agreement shall be for the sole account of LESSEE.

7. Rules and Regulations

7.1 LESSEE hereby acknowledges that the leased premises are in good and tenantable condition except for latent defects and agrees to cooperate and help maintain the same as such, and to comply to all rules, regulations and policies of LESSOR regarding the use, occupation, and sanitation of the leased premises;

7.2 LESSEE shall not make any repairs, alterations, improvements on the leased premises without prior clearance and approval of LESSOR; All repairs, alterations, and improvements allowed by LESSOR on the leased premises shall belong to LESSOR at the termination of this Agreement. LESSOR shall not make any alteration or improvements on the leased premises without prior written consent of LESSEE.

7.3 LESSEE shall insure that no inflammable or explosive items, or any prohibited goods, items, or materials or contraband in general are stored in the leased premises except all the materials for the operation of the Plant and other items specifically noticed to LESSOR in advance;

7.4 LESSEE shall not directly or indirectly sublease, assign, or transfer its rights over the leased premises or any portion thereof under any circumstance whatsoever, and any such contract made in violation of this provision shall be null and void;

7.5 LESSEE shall be responsible for the behavior of its employees and/or occupants of the leased and commonly-used premises and shall ensure that the existing town site rules, regulations and policies, as well as the rules on safety, health, and security established by LESSOR and which will hereby be enforced by LESSOR are observed and complied with. For this purpose, LESSEE binds to adopt and incorporate the same into its own company rules, regulations, and policies, subject to any modifications or amendments deemed necessary and beneficial to effect the smooth operation of the leased premises and a better relationship between the parties. Upon a request by the other, both parties shall discuss amendment of aforesaid rules, regulations and policies in good faith.

7.6 Each party shall indemnify the other for any damages suffered by the other arising from negligence of its employees and/or occupants and those resulting from violation of this Section 7;

8. Inspection of Premises

LESSOR through its authorized representative shall have the right to inspect the leased and commonly-used premises/properties with reasonable prior notice to LESSEE;

9. Duration of Agreement

This Agreement shall become effective from the date of the signing of this Agreement and shall remain in full force and effect until such date LESSEE's business operation on the leased and commonly-used properties/premises shall cease, unless earlier terminated by either party due to default of the other in which case a 3 month cure period shall be given by the party seeking to terminate this Agreement; provided that LESSEE may be allowed to terminate any part of the lease by a 6-month prior notice without penalty other than any direct cost or expense resulting from said early termination.

10. Return of Properties upon Termination of Agreement

At the expiration of the term of this Agreement, or a partial termination thereof as provided in Section 9, LESSEE shall promptly surrender to LESSOR in as good, clean and tenantable condition as when taken, ordinary wear and tear excepted, free from all occupants, all the properties listed in Schedule 1 and Schedule 2.

11. Registration

LESSEE shall have the right to make registration of its

a) leasehold under this Agreement, and

b) title to the Plant and other ancillary facilities constructed by LESSEE

to the maximum extent permitted under law and LESSOR shall render LESSEE every possible assistance necessary for such registration by LESSEE.

12. Warranty/Liabilities

12.1 LESSOR warrants that it has complied and continues to comply with all government licensing requirements and other laws pertaining to mining, environmental protection, labor, hospital and school administration, and other areas of operation;

12.2 In the event, however, that any problems, conflicts, claims, etc. will arise involving acts or activities committed in the past, present, or future, LESSOR shall hold LESSEE harmless and free from any and all liability; unless, however, if LESSEE shall be found to have contributed or given cause to the problem, conflict, claims, etc., principally or partially, in which case, LESSEE shall be made to shoulder the losses and damages correspondingly.

12.3 LESSOR shall not be liable for any damage to property, employees or third parties suffered as a result of any accident or any activity related to the operation of LESSEE pursuant to this Agreement occurring in and within the leased properties from LESSOR except such damage caused by negligence of LESSOR.

13. Non-Waiver

Failure on the part of either party to insist upon a strict performance of any terms, conditions, and covenants hereof shall not constitute a waiver to any part of this Agreement.

IN WITNESS WHEREOF, the parties have hereunto affixed their signatures this 3 day of January 2004, at Makati City, Metro Manila, Philippines.

RIO TUBA NICKEL MINING CORP.
(LESSOR)

By:

JOSE S. SARET
Senior Vice President

CORAL BAY NICKEL CORP.
(LESSEE)

By:

TAKANORI FUJIMURA
President

RTN
SUMMARY OF LEASE/USAGE AGREEMENT W/ CBNC
2004

	ANNUAL AMOUNT DUE	
	US$	**PESO**
LEASE/RENTAL (SCH 1)		
I- PEZA	$0	133,526
II- MPSA	$0	58
III- RTN	$16,186	17,230
Sub-total	$16,186	150,814
50% SHARE - COMMON USAGE (SCH 2)		
I- PEZA	$2,226	76,952
II- MPSA	$0	134
III- RTN	$77,424	70,250
Sub-total	$79,650	147,335
50% SHARE - MAINTENANCE COST (SCH 3)		
I- PEZA	$0	0
II- MPSA	$0	0
III- RTN	$0	11,181,500
Sub-total	$0	11,181,500
GRAND TOTAL	**$95,836**	**11,479,649**
RECAP		
I- PEZA	**$2,226**	**210,478**
II- MPSA	**$0**	**192**
III- RTN	**$93,610**	**11,268,980**
TOTAL	**$95,836**	**11,479,649**

"SCHEDULE 1"
RTN
FOR LEASE TO CBNC
2004

	Area in sq/m	Year	A Acquisition Cost Peso	US$	B Replment Cost (A*1.43)	C Present Value (B/3)	D Annual Lease US$ (C/20+C* .525*.11)	E Occupation Fee	F Property Tax	G Annual Lease Peso (E+F)
I - PEZA										
LAND										
a- CBNC Plantsite	130,000							660	117,000	117,660
b- Ash Pit (GP-3 and GP-20)	81,800		10,941					409	154	563
c- Nagoya beach	20,634								4,643	4,643
LAND FOR PIPELINE										
a- CBNC site to Tailings Pond	2,400							12	2,160	2,172
TAILINGS / OTHERS										
a- Tailing Pond (Phase I & II)	1,200,000							6,000	2,407	8,407
c- Waterway	12,900							65	26	91
Sub-total	1,447,734		10,941	0	0	0	0	7,136	126,390	133,526
II - MPSA										
a- Access road to Ash Pit	4,750		618					48	10	58
Sub-total	4,750	0	618	0	0	0	0	48	10	58
III - RTN										
LAND										
a- Sites of CBNC dorm/employees hses	13,276									0
b- Sites of JGC and Sumicon dorm	7,628									0
c- Parking lot CBNC veh (30m x 60m)	1,800		*(For discussion later)*							
ROAD										
a- Macadam Rd. to CBNC Plantsite	10,800							54	648	702
b- CBNC site to RTN site	2,400							12	144	156
c- F-Road to Water damsite	4,800							24	277	301
LAND FOR PIPELINE										
a- CBNC site to E Ibolnan (water res)	6,800							34	6,120	6,154
TAILINGS / OTHERS										
a- Water reservoir / intake dam	130,000							650	251	911
TOWNSITE										
a- CBNC new house (lot only)	18,000								2,160	2,160
FACILITIES										
a- ARM Unit - 1		1978	96,237	13,058	18,673	6,224	671		493	493
b- JTA Dorm - 1		1981	504,581	61,534	87,594	29,331	3,160		1,489	1,489
c- SSH Unit - 1		1978	66,665	8,910	12,741	4,247	458		326	326
d- JSH Units - 3		1978	143,105	19,418	27,767	9,256	997		919	919
e- FD Units - 3		1978	73,197	9,932	14,202	4,734	510		432	432
f- LRH Units - 37	7,992	1978	1,288,939	175,026	250,287	83,429	8,989		2,413	2,413
g- EA Lacuna unit	1,170	1978	70,591	9,578	13,697	4,566	492		336	336
h- ES Vicente unit	240	1978	44,244	6,003	8,585	2,862	308		144	144
i- Allan Doroteo unit	270	1978	20,916	2,838	4,058	1,353	146		65	65
j- Romy Bayco unit	108	1978	20,916	2,838	4,058	1,353	146		65	65
k- Vilma Dollmas	240	1978	44,244	6,003	8,585	2,862	308		144	144
Sub-total	206,522		2,373,638	315,138	460,647	150,216	16,188	774	16,456	17,230
Grand Total	**1,658,006**		**2,385,197**	**315,138**	**460,647**	**150,216**	**16,188**	**7,958**	**142,856**	**150,814**

* 10/2/8/20041:48 PMprop 4 lease share w cbnc peza mpsa area

"SCHEDULE 2"
RTN
COMMON USAGE W/ CBNC
2004

	Area in sqm	Year	A Acquisition Cost Peso	A Acquisition Cost US$	B Replment Cost (A*1.43)	C Present Value (B/3)	D Annual Value US$ (C/20+C*.525-.11)	Annual Share-US$ (50%)	E Occupation Fee	F Property Tax	G Total Fee/Tax Peso (E+F)	Annual Share-Peso (50%)
I- PEZA												
PLANTSITE												
a- Upper Kinurong Silt. Pond	124,300	1998	3,393,000	86,689	123,965	41,322	4,452	2,226	622	111,870	112,492	56,246
b- Road to upper Kinurong Silt Pond	7,000								35	14	49	25
PIERSITE												
c- Foreshore/Piersite Land	46,218								13,631	27,731	41,362	20,881
Sub-total	177,518	1,998	3,393,000	86,689	123,965	41,322	4,452	2,226	14,288	139,615	153,903	76,952
II- MPSA												
PLANTSITE												
a- Road to new garbage dumpsite	38,200								191	77	268	134
Sub-total	38,200	0	0	0	0	0	0	0	191	77	268	134
III - RTN												
LAND										4,968	4,968	2,484
a- Comm'l land (market/shpg center)	6,520									2,046	2,046	1,023
b- Comm'l land (C/house/Tennis/Pool)	3,183									2,267	2,267	1,134
c- Industrial land (Road Network)	75,558											0
d- Church and surrounding areas, playground	37,456									262	262	131
e- Comm'l land (gymnasium)	840									600	600	300
f- Forest resort	5,000									1,915	1,915	958
g- Other land (g/lodge,cons.off.n/nook,office	15,955											
MAIN ROADS										3,960	4,290	2,145
a- F-Road (Bounding to Ibelnan)	68,000	1983	404,704	28,907	41,338	13,779	1,486	742	330	4,680	4,680	2,340
b- Macadam Road (Boundary to Pier)	78,000	1977	5,919,867	803,238	1,148,631	382,877	41,255	20,627				
ACCESS ROADS										288	288	144
a- Main Road to RTN Plantsite	4,800	1980	23,600	3,105	4,441	1,480	159	80		218	218	109
b- Main Road to Airport	3,600	1980	17,700	2,329	3,330	1,110	120	60			0	0
c- Main Road to CBNC Plantsite	12,000	1980	59,000	7,763	11,101	3,700	399	199				
PIERSITE										14,814	14,814	7,407
a- Concrete Pier Jetty	500	1977	2,581,764	350,307	500,939	166,980	17,992	8,996			0	0
b- Buoys and Fixed Markers/Lhouse		1977	1,416,977	192,283	274,936	91,645	9,875	4,937		2,330	2,330	1,165
c- Pier and Seacraft Maint. Office	17,500	1989	274,105	12,226	17,483	5,828	628	314			0	0
d- Marine barracks near Power Plant		1985	29,063	1,417	2,026	675	73	36				
AIRPORT										49,066	49,066	24,533
a- Airstrip	120,380	1980	1,320,717	26,414	37,773	12,591	1,357	678		6,394	6,394	3,197
b- Hangar	450	1983	41,159	2,940	4,204	1,401	151	75				

"SCHEDULE 2"
RTN
COMMON USAGE W/ CBNC
2004

	Area in sqm	Year	Acquisition Cost Peso	A US$	B Repl'ment Cost (A*1.43)	C Present Value (B/3)	D Annual Value US$ (C/20+C*)	Annual Share-US$ (50%)	E Occupation Fee	F Property Tax	G Total Fee/Tax Peso	Annual Share-Peso (50%)
TOWNSITE FACILITIES												
a- Church	1,200	1978	414,414	56,230	80,409	26,803	2,888	1,444				
b- Market and Shpg Center	820	1978	684,808	92,918	132,873	44,291	4,772	2,386		5,811	5,811	2,906
c- Rice and Palay Warehouse	120	1985	75,122	3,948	5,645	1,882	203	101		448	448	224
d- Gymnasium	1,018	1979	580,593	78,778	112,662	37,551	4,046	2,023		11,308	11,308	5,654
e- Clubhouse, Tennis Court/Pool	2,703	1978	916,925	124,413	177,911	59,304	6,390	3,195		6,640	6,640	3,320
f- Guest Lodge	600	1978	335,025	45,456	65,005	21,668	2,335	1,167		870	870	435
g- Construction Office Bldg.	200	1990	223,000	7,964	11,389	3,796	409	205		1,183	1,183	592
h- Nickel Nook	810	1996	65,965	2,510	3,589	1,196	129	64		326	326	163
i- Children's Playground	3,000	1978	100,000	13,569	19,403	6,468	697	348				
j- Oval	13,706	1990	298,498	10,661	15,245	5,082	548	274				
k- Cable TV		1994	1,293,248	52,830	75,547	25,182	2,713	1,357				
l- Offices of common services	1,134	1978	146,412	19,866	28,408	9,469	1,020	510		455	455	228
m- Housing units of:							0	0				
PSSI employees row houses	6,428	1978	711,150	96,493	137,984	45,995	4,956	2,478		2,217	2,217	1,109
PSSI barracks	1,580	1978	114,632	15,554	22,242	7,414	799	399		454	454	227
SCAA Cadres safehouse	700	1978	47,703	6,473	9,256	3,085	332	166		306	306	153
Safehouses for intelligence units	270	1978	125,497	17,028	24,350	8,117	875	437		65	65	33
Convent	152	1989					0	0				
Maddessor (LRH)	864	1978	104,581	14,190	20,292	6,764	729	364		326	326	163
n- Sewage Effluent Treatment Facilities		1997					0	0				
o- Safety and Security facilities	3,219						0	0				
Fire hoses and water hydrants		1996	87,536	3,331	4,763	1,588	171	86				
Perimeter Fence		1978	880,000	119,403	170,746	56,915	6,133	3,066				
Guard Post and batt oper search lghts		2001	141,989	3,155	4,512	1,504	162	81				
p- Morgue		1991	138,474	5,196	7,430	2,477	267	133				
Others												
a - Power transmission facilities	*(For discussion later)*											
b- PPC Office / Wrae		1981	261,906	31,940	45,674	15,225	1,640	820		15,962	15,962	7,976
c- Other recreation facilities -golf course	97,000	1998	2,231,119	57,004	81,515	27,172	2,928	1,464				
d- Transportation facilities							0	0				
Garbage Truck		1984	990,358	50,145	71,707	23,902	2,576	1,288				
Firetruck (2 units)		1979	1,218,191	154,177	234,773	78,258	8,432	4,216				
Water trucks (5 units)		1989	11,003,103	490,772	701,804	233,935	25,206	12,603				
Sub-total	584,844		35,268,936	3,014,914	4,311,327	1,437,109	154,848	77,424	330	140,169	140,499	70,250
GRAND TOTAL	809,562	1,998	38,661,936	3,101,603	4,436,282	1,478,431	159,301	79,650	14,809	279,061	294,570	147,335

"SCHEDULE 3"
RTN
MAINTENANCE AND OPERATING COSTS
2004

	AMOUNT
1 ***Macadam Rd***	3,468,000
2 ***Airport***	487,000
3 ***Piersite***	463,000
4 ***Townsite***	
Facilities- Repairs	2,351,000
Power Consumption	7,961,000
Gen Affairs Maint. Exp.	1,031,000
Water system	1,576,000
Pest control	394,000
5 ***Others***	
Power transmission	1,237,000
PAF Radar	620,000
Solid waste disposal	1,335,000
Upper Kinurong siltation pond	
PPC Operation	818,000
Special Projects	622,000
TOTAL	22,363,000
CBNC SHARE - 50%	**11,181,500**

LAND LEASE AGREEMENT

This Land Lease Agreement (this "Agreement"), dated January 1, 2003, is made by and between:

Rio Tuba Nickel Mining Corporation, a corporation duly organized and existing under the laws of the Republic of the Philippines, with its principal office at the 2nd Floor Solid Mills Building, Dela Rosa St., Legaspi Village, Makati City, represented herein by its duly authorized representative, in his capacity as Vice-President, Mr. Jose S. Saret (hereinafter called the LESSOR);

- and -

Coral Bay Nickel Corporation, a corporation duly organized and existing under the laws of the Republic of the Philippines, with principal office at Barangay Rio Tuba, Municipality of Bataraza, Palawan, represented herein by its duly authorized representative, in his capacity as President, Mr. Takanori Fujimura (hereinafter called the LESSEE).

WITNESSETH THAT:

WHEREAS, the LESSOR is the registered owner of a certain land (hereinafter called the PREMISES) situated at Rio Tuba, Bataraza, Palawan, whose technical description is attached as Annex "A", and by the Deed of Sale dated May 25, 1991, hereto attached as Annex "B". (Transfer Certificate of Title is under process);

WHEREAS, the LESSEE wishes to construct, install, erect, and place on the PREMISES certain facilities which are to be utilized in connection with the LESSEE's mineral processing operations within the Rio Tuba Special Economic Zone;

NOW, THEREFORE, in view of the foregoing premises and mutual covenants and undertakings hereinafter provided, the parties hereto have agreed as follows:

1. LEASE

   The LESSOR has the sole and exclusive right to lease the PREMISES and hereby leases unto the LESSEE the PREMISES for its exclusive use.

2. USE OF THE PREMISES

   The PREMISES shall be used exclusively for the LESSEE's PEZA-registered/authorized activities. Conformably thereto, the PREMISES may not be used for any other purpose without the written consent of the LESSOR.

3. RENT

For the use and occupancy of the PREMISES, the LESSEE shall pay a rental to the LESSOR in the amount of FIFTY THREE THOUSAND SIX HUNDRED FOUR AND 03/100 ONLY (P53,604.03), Philippine Currency, for every half year subject to any change in rent as determined in good faith discussion by the parties hereto to be conducted every anniversary of this Agreement, as may be required by either party hereto, based on material changes in relevant duty, tax and/or land price in the surrounding area of the PREMISES. Amount of rent is based on the computation hereto attached as Annex "C".

4. RENTAL PAYMENT

The rentals shall be paid within thirty (30) days after beginning of each half year after the date hereof.

5. TERM OF LEASE

The term of the lease shall be for a period of twenty-five (25) years commencing on the date hereof, unless sooner terminated by the LESSEE at its option with its written notice to the LESSOR sixty (60) days prior to such termination. The term of the lease may be extended at the option of the LESSEE. The option to extend the lease shall be exercised in writing by the LESSEE not later than sixty (60) days prior to the expiration of the original or extended term.

6. REHABILITATION

Upon termination or expiration of this Agreement, the LESSEE shall rehabilitate the PREMISES in accordance with applicable law, rules and regulations.

7. ANNOTATION OF AGREEMENT

The LESSOR shall cause this Agreement to be annotated on the transfer certificate of title covering the PREMISES promptly after signing of this Agreement. The cost of such annotation shall be borne by the LESSEE.

8. SALE OF LAND

In the event the PREMISES is sold, assigned or mortgaged, it shall be the obligation of the LESSOR to impose as a condition of such transaction that the buyer, assignee, or mortgagee should take the affected PREMISES subject to the LESSEE's rights pursuant to this Agreement.

9. REAL PROPERTY TAX

The LESSOR shall pay the real property tax and other government assessments on the PREMISES, if any.

10. VAT

The LESSEE, being a PEZA Ecozone Export Enterprise, shall be exempted from payment to the LESSOR of the value-added tax (VAT) accruing on the rental payments.

11. DST

The Documentary Stamp Tax (DST) or any other government tax or imposition accruing by reason of the execution of this Agreement shall be for the account of the LESSEE.

12. DEFAULT

In the event either party hereto breaches any material obligation or covenants hereunder and does not cure such breach within ninety (90) days from the date of receipt of written notice of the breach by the other, the other party may immediately rescind this Agreement and the defaulting party shall be liable to the offended party for any and all actual damages incurred as a result of such default.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by their respective duly authorized signatories.

RIO TUBA NICKEL MINING CORPORATION

By:
JOSE S. SARET
Vice President
Date:_____

CORAL BAY NICKEL CORPORATION

By:
TAKANORI FUJIMURA
President
Date:_____

ANNEX "B"

DOCUMENTS : DEED OF SALE

REMARKS : STOCKYARD "B" (RTNMC)

WHEREAS, the Lessor is the registered owner of certain land, situated at Rio Tuba, Bataraza, Palawan, whose technical description is attached as Exhibit A hereto (or as evidenced by Transfer Certificates of Title No. [•] issued by the Registry of Deeds of [•]) (the "Premises");

Annex "C"

ANNUAL RENTAL COMPUTATION
FOR PIER STOCKYARD "B" AREA
WITHIN THE RIO TUBA EXPORT PROCESSING ZONE

Given:

1.	Total Area	=	16.621405 hectares or 166,214.05 m²
2.	Present Value @ P2/sq.m.	=	P332,428.10
3.	Annual Interest Rate	=	11%/year
4.	Real Property Tax	=	P3,250/ha. year
5.	VAT	=	0 (CBNC is a zero-rating VAT company being an Ecozone export enterprise)

Calculation:

Annual Rental = (present value x 1/20yrs) + present value x 11% + real property tax

= present value x 0.16 + real property tax

= P332,428.10 x 0.16 + P3,250 x 16.621405

= P53,188.50 + P54,019.57

= **P107,208.06 OR P53,604.03/6 MONTHS**

"SCHEDULE 1"
RTN
FOR LEASE TO CBNC
2004

	Area in sqm	Year	Acquisition Cost A Peso	A US$	B Replmnt Cost (A*1.42)	C Present Value (B/1)	D Annual Lease US$ (C/2yr+C*.12)/(1.11)	E Occupation Fee	F Property Tax	G Annual Lease Peso (E+F)
I - PEZA										
LAND										
a- CBNC Plantsite	130,000									
b- Ash Pit (BP-3 and BP-20)	67,800		10,941					650	117,000	117,650
c- Nagoya beach	20,634							489	164	653
LAND FOR PIPELINE									4,643	4,643
a- CBNC site to Tailings Pond	2,400									
TAILINGS / OTHERS								12	2,160	2,172
a- Tailing Pond (Phase I & II)	1,200,000									
c- Waterway	12,000							6,000	2,407	8,407
								65	26	91
Sub-total	1,447,734		10,941	0	0	0	0	7,136	126,360	133,496
II - MPSA										
a- Access road to Ash Pit	4,750		616					48	10	58
Sub-total	4,750	0	616	0	0	0	0	48	10	58
III - RTN										
LAND										
a- Sites of CBNC dorm/employees hses	13,276									0
b- Sites of JGC and Sumicon dorm	7,626									0
c- Parking lot CBNC wall (80m x 60m)	1,800		(Per computation later)							0
ROAD										
a- Macpalaw Rd. to CBNC Plantsite	10,000							54	648	702
b- CBNC site to RTN site	2,400							12	144	156
c- F-Road to Water dismsite	4,800							24	277	301
LAND FOR PIPELINE										
a- CBNC site to E Ibalman power mill	6,800							34	6,120	6,154
TAILINGS / OTHERS										
a- Water reservoir / intake dam	130,000									
TOWNSITE								550	261	811
a- CBNC new house (lot only)	18,000									
FACILITIES									2,160	2,160
a- ARM Unit - 1		1978	96,237	13,056	18,673	6,224	673			
b- JTA Dorm - 1		1981	504,581	61,534	87,804	29,331	3,170		493	493
c- SSH Unit - 1		1975	65,865	8,910	12,741	4,247	459		1,489	1,489
d- JSH Units - 3		1978	143,108	19,416	27,767	9,256	997		326	326
e- FD Units - 3		1978	73,197	9,932	14,202	4,734	510		919	919
f- LRH Units - 37	7,992	1978	1,289,939	175,026	250,287	83,429	9,009		432	432
g- BA Lacuna unit	1,170	1979	70,591	9,578	13,697	4,565	492		2,413	2,413
h- BS Vicanta unit	240	1978	44,244	6,003	8,585	2,862	308		320	320
i- Allan Dorotea unit	270	1978	20,916	2,838	4,058	1,353	146		144	144
j- Romy Belyob unit	106	1978	20,916	2,838	4,058	1,353	146		65	65
k- Vilma Dolimsa	240	1978	44,244	6003	8,585	2,862	308		65	65
									144	144
Sub-total	205,522		2,373,838	315,136	490,647	163,216	16,156	774	16,488	17,230
Grand Total	1,658,006		2,385,197	315,136	490,647	163,216	16,156	7,958	142,858	150,814

P:\2004\1-48 PM\dop 4 lease share w cbnc peza mpsa area

LIST OF PERMITs TO OPERATE (PTOs)

No.	Permit No.	Type	Tag No.	Capacity	Brand Name	Date Issued	Expiration Date
1)	*2006-POA-D-0453-175*	*Generator set*	*25GE01A*	*1500 kW*		*05-Aug-06*	*05-Aug-10*
		Generator set	*25GE01B*	*1500 kW*		*05-Aug-06*	*05-Aug-10*
		Coal Fired Boiler	*24VP01*	*11 MW*		*05-Aug-06*	*05-Aug-10*
		Steam Turbine Generator		*11,000 KW*		*05-Aug-06*	*05-Aug-10*
		Coal Handling Facility				*05-Aug-06*	*05-Aug-10*
		Ash Handling Facility				*05-Aug-06*	*05-Aug-10*
		Smoke Stack with Flue Gas Analyzer				*05-Aug-06*	*05-Aug-10*
		HPAL Autoclave				*05-Aug-06*	*05-Aug-10*
		Heater Vessels (LT, MT, HT)				*05-Aug-06*	*05-Aug-10*
		Flash Tanks (HP, MP, LP)				*05-Aug-06*	*05-Aug-10*
		Venturi type Gas Scrubber	*02SR01*	*1,300 m3*		*05-Aug-06*	*05-Aug-10*
		H2S Plant		*23 MT/day*		*05-Aug-06*	*05-Aug-10*
		MS Production Facility				*05-Aug-06*	*05-Aug-10*
		H2S Gas Scrubber	*06SR02*	*13.97 m3/min*		*05-Aug-06*	*05-Aug-10*
		H2S Gas Scrubber	*06SR03*	*500 m3/min*		*05-Aug-06*	*05-Aug-10*
	2010-POA-D-0453-175	*Generator set*	*25GE01A*	*1500 kW*		*06-Aug-10*	*01-Dec-14*
		Generator set	*25GE01B*	*1500 kW*		*06-Aug-10*	*01-Dec-14*
		Coal Fired Boiler	*24VP01*	*11 MW*		*06-Aug-10*	*01-Dec-14*
		Steam Turbine Generator		*11,000 KW*		*06-Aug-10*	*01-Dec-14*
		Coal Handling Facility				*06-Aug-10*	*01-Dec-14*
		Ash Handling Facility				*06-Aug-10*	*01-Dec-14*
		Smoke Stack with Flue Gas Analyzer				*06-Aug-10*	*01-Dec-14*
		HPAL Autoclave				*06-Aug-10*	*01-Dec-14*
		Heater Vessels (LT, MT, HT)				*06-Aug-10*	*01-Dec-14*
		Flash Tanks (HP, MP, LP)				*06-Aug-10*	*01-Dec-14*
		Venturi type Gas Scrubber	*02SR01*	*1,300 m3*		*06-Aug-10*	*01-Dec-14*
		H2S Plant		*23 MT/day*		*06-Aug-10*	*01-Dec-14*
		MS Production Facility				*06-Aug-10*	*01-Dec-14*
		H2S Gas Scrubber	*06SR02*	*13.97 m3/min*		*06-Aug-10*	*01-Dec-14*
		H2S Gas Scrubber	*06SR03*	*500 m3/min*		*06-Aug-10*	*01-Dec-14*
	2014-POA-D-0453-175	*Generator set*	*25GE01A*	*1500 kW*		*15-Dec-14*	*14-Dec-19*
		Generator set	*25GE01B*	*1500 kW*		*15-Dec-14*	*14-Dec-19*
		Coal Fired Boiler	*24VP01*	*11 MW*		*15-Dec-14*	*14-Dec-19*
		Steam Turbine Generator		*11,000 KW*		*15-Dec-14*	*14-Dec-19*
		Coal Handling Facility				*15-Dec-14*	*14-Dec-19*
		Ash Handling Facility				*15-Dec-14*	*14-Dec-19*
		Smoke Stack with Flue Gas Analyzer				*15-Dec-14*	*14-Dec-19*
		HPAL Autoclave				*15-Dec-14*	*14-Dec-19*
		Heater Vessels (LT, MT, HT)				*15-Dec-14*	*14-Dec-19*
		Flash Tanks (HP, MP, LP)				*15-Dec-14*	*14-Dec-19*
		Venturi type Gas Scrubber	*02SR01*	*1,300 m3*		*15-Dec-14*	*14-Dec-19*
		H2S Plant		*23 MT/day*		*15-Dec-14*	*14-Dec-19*
		MS Production Facility				*15-Dec-14*	*14-Dec-19*
		H2S Gas Scrubber	*06SR02*	*13.97 m3/min*		*15-Dec-14*	*14-Dec-19*
		H2S Gas Scrubber	*06SR03*	*500 m3/min*		*15-Dec-14*	*14-Dec-19*
	2019-POA-D-0453-168	*Generator set*	*25GE01A*	*1500 kW*		*09-Sep-19*	*21-Mar-23*
		Generator set	*25GE01B*	*1500 kW*		*09-Sep-19*	*21-Mar-23*
		Coal Fired Boiler	*24VP01*	*11 MW*		*09-Sep-19*	*21-Mar-23*
		Steam Turbine Generator		*11,000 KW*		*09-Sep-19*	*21-Mar-23*
		Coal Handling Facility				*09-Sep-19*	*21-Mar-23*
		Ash Handling Facility				*09-Sep-19*	*21-Mar-23*
		Smoke Stack with Flue Gas Analyzer				*09-Sep-19*	*21-Mar-23*
		HPAL Autoclave				*09-Sep-19*	*21-Mar-23*
		Heater Vessels (LT, MT, HT)				*09-Sep-19*	*21-Mar-23*
		Flash Tanks (HP, MP, LP)				*09-Sep-19*	*21-Mar-23*
		Venturi type Gas Scrubber	*02SR01*	*1,300 m3*		*09-Sep-19*	*21-Mar-23*
		H2S Plant		*23 MT/day*		*09-Sep-19*	*21-Mar-23*
		MS Production Facility				*09-Sep-19*	*21-Mar-23*
		H2S Gas Scrubber	*06SR02*	*13.97 m3/min*		*09-Sep-19*	*21-Mar-23*
		H2S Gas Scrubber	*06SR02*	*500 m3/min*		*09-Sep-19*	*21-Mar-23*
	PTO-OL-R4B-2023-07531-R	Generator set	25GE01A	1500 kW	Caterpillar	10-Aug-23	10-Aug-28
		Generator set	25GE01B	1500 kW	Caterpillar	10-Aug-23	10-Aug-28
		Coal Fired Boiler	23VP01	14,751.2 Horsepower	Thermax Babcock & Wilcox	10-Aug-23	10-Aug-28
		Steam Turbine Generator		11,000 KW	Shin Nippon Machinery Co., Ltd., JAPAN	10-Aug-23	10-Aug-28

LIST OF PERMITs TO OPERATE (PTOs)

No.	Permit No.	Type	Tag No.	Capacity	Brand Name	Date Issued	Expiration Date
		Coal Handling Facility	NA	240,000.0 sqm	NA	10-Aug-23	10-Aug-28
		Ash handling Facility consisting of 1 unit Wet Ash Silo and 1 unit Dry Ash Silo and support units	NA	0.291 ton/hr	NA	10-Aug-23	10-Aug-28
		Electrostatic Precipitator			NA	10-Aug-23	10-Aug-28
		Ore Conveyor No.1 Feeder	01BC01/AB	170.0 ton/hr	NA	10-Aug-23	10-Aug-28
		Ore Conveyor No.2 Feeder	01BC02/AB	170.0 ton/hr	NA	10-Aug-23	10-Aug-28
		Ore Conveyor No.3	01BC03AB	170.0 ton/hr	NA	10-Aug-23	10-Aug-28
		Oversize Conveyor No.3	01BC05AB	170.0 ton/hr	NA	10-Aug-23	10-Aug-28
		Oversize Conveyor No.3 Feeder	01BC09AB	218.0 ton/hr	NA	10-Aug-23	10-Aug-28
		Ore Hopper No.1	01HP01AB	15.0 m3	NA	10-Aug-23	10-Aug-28
		Ore Hopper No.2	01HP02AB	15.0 m3	NA	10-Aug-23	10-Aug-28
		Lime Belt Feeder	11BC01	40.0 ton/hr	NA	10-Aug-23	10-Aug-28
		Lime Belt Conveyor No.2	11BC02	40.0 ton/hr	NA	10-Aug-23	10-Aug-28
		Lime Belt Conveyor No.6	11BC06	50.0 ton/hr	NA	10-Aug-23	10-Aug-28
		Lime Belt Conveyor No. 7	11BC07	50.0 ton/hr	NA	10-Aug-23	10-Aug-28
		Lime Belt Conveyor No. 8	11BC08	50.0 ton/hr	NA	10-Aug-23	10-Aug-28
		Lime Hopper No. 1	11HP01	40.0 m3	NA	10-Aug-23	10-Aug-28
		HPAL Autoclave	02AC01	484.0 m3	NA	10-Aug-23	10-Aug-28
		Venturi-type Gas Scrubber	02SR01	1300 m3	NA	10-Aug-23	10-Aug-28
		Hydrogen Sulfide (H2S) Facility	NA	23 MT/day	NA	10-Aug-23	10-Aug-28
		MS Production Facility	NA	25000 DMT	NA	10-Aug-23	10-Aug-28
		H2S Gas Scrubber	06SR02	13.97 m3/min	NA	10-Aug-23	10-Aug-28
		H2S Gas Scrubber	06SR03	500 m3/min	NA	10-Aug-23	10-Aug-28
		Heater Vessels (LT, MT, HT)					
		Flash Tanks (HP, MP, LP)					
2)	*2009-POA-D-0453-175*	*Generator set*	*225GE01A*	*1640 kW*		*01-Dec-09*	*01-Dec-14*
		Generator set	*225GE01B*	*1640 kW*		*01-Dec-09*	*01-Dec-14*
		Generator set	*225GE02*	*1640 kW*		*01-Dec-09*	*01-Dec-14*
		Coal Fired Boiler	*223VP01*	*11 MW*		*01-Dec-09*	*01-Dec-14*
		Steam Turbine Generator		*11,000 KW*		*01-Dec-09*	*01-Dec-14*
		Coal Handling Facility				*01-Dec-09*	*01-Dec-14*
		Ash Handling Facility				*01-Dec-09*	*01-Dec-14*
		Smoke Stack with Flue Gas Analyzer				*01-Dec-09*	*01-Dec-14*
		HPAL Autoclave				*01-Dec-09*	*01-Dec-14*
		Heater Vessels (LT, MT, HT)				*01-Dec-09*	*01-Dec-14*
		Flash Tanks (HP, MP, LP)				*01-Dec-09*	*01-Dec-14*
		Venturi type Gas Scrubber	*202SR01*	*1,300 m3/min*		*01-Dec-09*	*01-Dec-14*
		H2S Plant		*23 MT/day*		*01-Dec-09*	*01-Dec-14*
		MS Production Facility				*01-Dec-09*	*01-Dec-14*
		Venturi type Gas Scrubber	*206SR02*	*29.47 m3/min*		*01-Dec-09*	*01-Dec-14*
		Venturi type Gas Scrubber	*206SR03*	*500 m3/min*		*01-Dec-09*	*01-Dec-14*
	2014-POA-D-0453-175	*Generator set*	*225GE01A*	*1640 kW*		*15-Dec-14*	*14-Dec-19*
		Generator set	*225GE01B*	*1640 kW*		*15-Dec-14*	*14-Dec-19*
		Generator set	*225GE02*	*1640 kW*		*15-Dec-14*	*14-Dec-19*
		Coal Fired Boiler	*223VP01*	*11 MW*		*15-Dec-14*	*14-Dec-19*
		Steam Turbine Generator		*11,000 KW*		*15-Dec-14*	*14-Dec-19*
		Coal Handling Facility				*15-Dec-14*	*14-Dec-19*
		Ash Handling Facility				*15-Dec-14*	*14-Dec-19*
		Smoke Stack with Flue Gas Analyzer				*15-Dec-14*	*14-Dec-19*
		HPAL Autoclave				*15-Dec-14*	*14-Dec-19*
		Heater Vessels (LT, MT, HT)				*15-Dec-14*	*14-Dec-19*
		Flash Tanks (HP, MP, LP)				*15-Dec-14*	*14-Dec-19*
		Venturi type Gas Scrubber	*202SR01*	*1,300 m3/min*		*15-Dec-14*	*14-Dec-19*
		H2S Plant		*23 MT/day*		*15-Dec-14*	*14-Dec-19*
		MS Production Facility				*15-Dec-14*	*14-Dec-19*
		Venturi type Gas Scrubber	*206SR02*	*29.47 m3/min*		*15-Dec-14*	*14-Dec-19*
		Venturi type Gas Scrubber	*206SR03*	*500 m3/min*		*15-Dec-14*	*14-Dec-19*
	2019-POA-D-0453-175	*Generator set*	*225GE01A*	*1640 kW*		*09-Sep-19*	*21-Mar-23*
		Generator set	*225GE01B*	*1640 kW*		*09-Sep-19*	*21-Mar-23*
		Generator set	*225GE02*	*1640 kW*		*09-Sep-19*	*21-Mar-23*
		Coal Fired Boiler	*223VP01*	*11 MW*		*09-Sep-19*	*21-Mar-23*
		Steam Turbine Generator		*11,000 KW*		*09-Sep-19*	*21-Mar-23*
		Coal Handling Facility				*09-Sep-19*	*21-Mar-23*
		Ash Handling Facility				*09-Sep-19*	*21-Mar-23*

LIST OF PERMITs TO OPERATE (PTOs)

No.	Permit No.	Type	Tag No.	Capacity	Brand Name	Date Issued	Expiration Date
		Smoke Stack with Flue Gas Analyzer				*09-Sep-19*	*21-Mar-23*
		HPAL Autoclave				*09-Sep-19*	*21-Mar-23*
		Heater Vessels (LT, MT, HT)				*09-Sep-19*	*21-Mar-23*
		Flash Tanks (HP, MP, LP)				*09-Sep-19*	*21-Mar-23*
		Venturi type Gas Scrubber	*202SR01*	*1,300 m3/min*		*09-Sep-19*	*21-Mar-23*
		H2S Plant		*23 MT/day*		*09-Sep-19*	*21-Mar-23*
		MS Production Facility				*09-Sep-19*	*21-Mar-23*
		Venturi type Gas Scrubber	*206SR02*	*29.47 m3/min*		*09-Sep-19*	*21-Mar-23*
		Venturi type Gas Scrubber	*206SR03*	*500 m3/min*		*09-Sep-19*	*21-Mar-23*
	PTO-OL-R4B-2023-08377-R	Generator set	225GE01A	1640 kW	Niigata	01-Sep-23	01-Sep-28
		Generator set	225GE01B	1640 kW	Niigata	01-Sep-23	01-Sep-28
		Generator set	225GE02	1640 kW	Niigata	01-Sep-23	01-Sep-28
		Coal Fired Boiler	223VP01	14571.2	Seentec	01-Sep-23	01-Sep-28
		Steam Turbine Generator	NA	11 MW	Shin Nippon Machinery Co., Ltd., JAPAN	01-Sep-23	01-Sep-28
		Coal Handling Facility	NA	24000 sq.m.	NA	01-Sep-23	01-Sep-28
		Ash handling Facility consisting of 1 unit Wet Ash Silo and 1 unit Dry Ash Silo and support units	NA	2.0 ton/hr	NA	01-Sep-23	01-Sep-28
		Smoke Stack with Flue Gas Analyzer					
		Ore Belt Feeder	201BC01AB	218.0 ton/hr	NA	01-Sep-23	01-Sep-28
		Ore Belt Conveyor No.1	201BC02AB	218.0 ton/hr	NA	01-Sep-23	01-Sep-28
		Ore Belt Conveyor No.2	201BC03AB	218.0 ton/hr	NA	01-Sep-23	01-Sep-28
		Ore Belt Conveyor No.3	201BC04AB	218.0 ton/hr	NA	01-Sep-23	01-Sep-28
		Over Size Conveyor No.1	201BC05AB	100.0 ton/hr	NA	01-Sep-23	01-Sep-28
		Over Size Conveyor No.2	201BC06AB	100.0 ton/hr	NA	01-Sep-23	01-Sep-28
		Over Size Conveyor No.3	201BC07AB	20.0 ton/hr	NA	01-Sep-23	01-Sep-28
		Lime Belt Feeder	211BC01	50.0 ton/hr	NA	01-Sep-23	01-Sep-28
		Lime Belt Conveyor No.1	211BC02	50.0 ton/hr	NA	01-Sep-23	01-Sep-28
		Lime Belt Conveyor No.2	211BC03	50.0 ton/hr	NA	01-Sep-23	01-Sep-28
		Electrostatic Precipitator	NA	NA	NA	01-Sep-23	01-Sep-28
		HPAL Autoclave	202AC01	484 m3	NA	01-Sep-23	01-Sep-28
		Heater Vessels (LT, MT, HT)					
		Flash Tanks (HP, MP, LP)					
		Venturi type Gas Scrubber	202SR01	1,300 m3/min	NA	01-Sep-23	01-Sep-28
		Hydrogen Sulfide (H2S) Facility with 2 Units H2S Scrubbers 206SR02 and 206SR03	NA	23 MT/day	NA	01-Sep-23	01-Sep-28
		Mixed Sulfide (MS) Production Facility	NA	25000 DMT	NA	01-Sep-23	01-Sep-28
		Venturi type Gas Scrubber	206SR02	24.97 m3/min	NA	01-Sep-23	01-Sep-28
		Venturi type Gas Scrubber	206SR03	500 m3/min	NA	01-Sep-23	01-Sep-28
3)	*2014-POA-D-0453-175*	*Generator set*	*25GE02A*	*220 kVA*	*DENYO*	*27-May-14*	*26-May-19*
		Generator set	*25GE02B*	*220 kVA*	*DENYO*	*27-May-14*	*26-May-19*
	2014-POA-D-0453-175	*Generator set*	*25GE10A*	*60 kVA*	*DENYO*	*27-May-14*	*26-May-19*
		Generator set	*25GE10B*	*60 kVA*	*DENYO*	*27-May-14*	*26-May-19*
		Generator set	*25GE10C*	*60 kVA*	*DENYO*	*27-May-14*	*26-May-19*
		Generator set	*25GE10D*	*60 kVA*	*DENYO*	*27-May-14*	*26-May-19*
		Generator set	*25GE10E*	*60 kVA*	*DENYO*	*27-May-14*	*26-May-19*
		Generator set	*25GE10F*	*60 kVA*	*DENYO*	*27-May-14*	*26-May-19*
		Generator set	*25GE10G*	*60 kVA*	*DENYO*	*27-May-14*	*26-May-19*
		Generator set	*25GE10H*	*60 kVA*	*DENYO*	*27-May-14*	*26-May-19*
	2014-POA-D-0453-168	*Generator set*	*25GE14A*	*150 kVA*	*Nippon Sharyo*	*05-Dec-14*	*04-Dec-19*
	2018-POA-D-0453-168	*Generator set*	*23GE10J*	*57 kVA*	*DENYO*	*22-Mar-18*	*21-Mar-23*
		Generator set	*23GE10K*	*57 kVA*	*DENYO*	*22-Mar-18*	*21-Mar-23*
		Generator set	*23GE10L*	*57 kVA*	*DENYO*	*22-Mar-18*	*21-Mar-23*
	2019-POA-D-0453-1065	*Generator set*	*23GE10J*	*57 kVA*	*DENYO*	*09-Sep-19*	*21-Mar-23*
		Generator set	*23GE10K*	*57 kVA*	*DENYO*	*09-Sep-19*	*21-Mar-23*
		Generator set	*23GE10L*	*57 kVA*	*DENYO*	*09-Sep-19*	*21-Mar-23*
		Generator set	*25GE02A*	*220 kVA*	*DENYO*	*09-Sep-19*	*21-Mar-23*
		Generator set	*25GE02B*	*220 kVA*	*DENYO*	*09-Sep-19*	*21-Mar-23*
		Generator set	*25GE10A*	*60 kVA*	*DENYO*	*09-Sep-19*	*21-Mar-23*
		Generator set	*25GE10B*	*60 kVA*	*DENYO*	*09-Sep-19*	*21-Mar-23*
		Generator set	*25GE10C*	*60 kVA*	*DENYO*	*09-Sep-19*	*21-Mar-23*
		Generator set	*25GE10D*	*60 kVA*	*DENYO*	*09-Sep-19*	*21-Mar-23*
		Generator set	*25GE10E*	*60 kVA*	*DENYO*	*09-Sep-19*	*21-Mar-23*
		Generator set	*25GE10F*	*60 kVA*	*DENYO*	*09-Sep-19*	*21-Mar-23*
		Generator set	*25GE10G*	*60 kVA*	*DENYO*	*09-Sep-19*	*21-Mar-23*

LIST OF PERMITs TO OPERATE (PTOs)

No.	Permit No.	Type	Tag No.	Capacity	Brand Name	Date Issued	Expiration Date
		Generator set	*25GE10H*	*60 kVA*	*DENYO*	*09-Sep-19*	*21-Mar-23*
		Generator set		*131 kW*	*John Deere Co.*	*09-Sep-19*	*21-Mar-23*
		Generator set	*25GE14A*	*150 kVA*	*Nippon Sharyo*	*09-Sep-19*	*21-Mar-23*
		Coal Stockyard	*NA*	*60,000 MT*	*NA*	*09-Sep-19*	*21-Mar-23*
		Fuel Storage Tank	*NA*	*15,000 L*	*NA*	*09-Sep-19*	*21-Mar-23*
		Fuel Storage Tank	*NA*	*2,400 L*	*NA*	*09-Sep-19*	*21-Mar-23*
		Fuel Storage Tank	*NA*	*5,000 L*	*NA*	*09-Sep-19*	*21-Mar-23*
		Fuel Storage Tank	*NA*	*40,000 L*	*NA*	*09-Sep-19*	*21-Mar-23*
		Fuel Storage Tank	*NA*	*90,000 L*	*NA*	*09-Sep-19*	*21-Mar-23*
		Fuel Storage Tank	*NA*	*3,300,000 L*	*NA*	*09-Sep-19*	*21-Mar-23*
		Ash Disposal Facility	*NA*	*428,026 m3*	*NA*	*09-Sep-19*	*21-Mar-23*
		Fuel Storage Tank	*NA*	*15,000 L*	*NA*	*09-Sep-19*	*21-Mar-23*
		Fuel Storage Tank	*NA*	*2,400 L*	*NA*	*09-Sep-19*	*21-Mar-23*
		Back up H2S Scrubber	*206SR04*	*NA*	*NA*	*09-Sep-19*	*21-Mar-23*
	2020-POA-D-0453-1065	*Fuel Storage Tank*		*15 kL*	*NA*	*14-Jan-20*	*21-May-23*
		Fuel Storage Tank		*15 kL*	*NA*	*14-Jan-20*	*21-May-23*
		Fuel Storage Tank		*2.4 kL*	*NA*	*14-Jan-20*	*21-May-23*
		Fuel Storage Tank		*2.4 kL*	*NA*	*14-Jan-20*	*21-May-23*
		Fuel Storage Tank	*25TK02*	*5 kL*	*NA*	*14-Jan-20*	*21-May-23*
		Methanol Storage Tank	*TK1101*	*40 kL*	*NA*	*14-Jan-20*	*21-May-23*
		Methanol Storage Tank	*42TK01*	*90 kL*	*NA*	*14-Jan-20*	*21-May-23*
		Methanol Storage Tank	*42TK02*	*3300 kL*	*NA*	*14-Jan-20*	*21-May-23*
	PTO-OL-R4B-2023-04639-R	Generator set	25GE02A	220 kVA	DENYO	15-May-23	15-May-28
		Generator set	25GE10J	57 KW	DENYO	15-May-23	15-May-28
		Generator set	25GE10A	60 kVA	DENYO	15-May-23	15-May-28
		Generator set	25GE14A	150 kVA	Nippon Sharyo	15-May-23	15-May-28
		Generator set		131 kW	John Deere Co.	15-May-23	15-May-28
		Generator set	25GE02B	220 kVA	DENYO	15-May-23	15-May-28
		Generator set	25GE10K	57 KW	DENYO	15-May-23	15-May-28
		Generator set	25GE10L	57 KW	DENYO	15-May-23	15-May-28
		Generator set	25GE10B	60 kVA	DENYO	15-May-23	15-May-28
		Generator set	25GE10C	60 kVA	DENYO	15-May-23	15-May-28
		Generator set	25GE10D	60 kVA	DENYO	15-May-23	15-May-28
		Generator set	25GE10E	60 kVA	DENYO	15-May-23	15-May-28
		Generator set	25GE10F	60 kVA	DENYO	15-May-23	15-May-28
		Generator set	25GE10G	60 kVA	DENYO	15-May-23	15-May-28
		Generator set	25GE10H	60 kVA	DENYO	15-May-23	15-May-28
		Coal Stockyard	NA	60,000 MT	NA	15-May-23	15-May-28
		Fuel Storage Tank	NA	15,000 L	NA	15-May-23	15-May-28
		Fuel Storage Tank	NA	2,400 L	NA	15-May-23	15-May-28
		Fuel Storage Tank	NA	5,000 L	NA	15-May-23	15-May-28
		Fuel Storage Tank	NA	40,000 L	NA	15-May-23	15-May-28
		Fuel Storage Tank	NA	90,000 L	NA	15-May-23	15-May-28
		Fuel Storage Tank	NA	3,300,000 L	NA	15-May-23	15-May-28
		Ash Disposal Facility	NA	428,026 m3	NA	15-May-23	15-May-28
		Fuel Storage Tank	NA	15,000 L	NA	15-May-23	15-May-28
		Fuel Storage Tank	NA	2,400 L	NA	15-May-23	15-May-28
		Back up H2S Scrubber	206SR04	NA	NA	15-May-23	15-May-28
4)	*PTO-OL-R4B-2021-02519-R*	*Generator set*	*225GE03*	*320 kW*	*DENYO*	*26-Apr-21*	*26-Mar-23*
	PTO-OL-R4B-2023-04638-R	Generator set	225GE03	320 kW	DENYO	15-May-23	15-May-28
5)	**PTO-OL-R4B-2023-00333**	Generator set	25GE10Q	60 kVA	DENYO	12-Jan-23	12-Jan-28
		Compressor	25CP05	103 kVA	ATLAS Copco	12-Jan-23	12-Jan-28
		Compressor	25CP06	103 kVA	ATLAS Copco	12-Jan-23	12-Jan-28
		Generator set	224GE01A	200 kVA	DENYO	12-Jan-23	12-Jan-28
		Generator set	224GE01B	200 kVA	DENYO	12-Jan-23	12-Jan-28
		Generator set	224GE01C	200 kVA	DENYO	12-Jan-23	12-Jan-28
		Generator set	224GE01D	200 kVA	DENYO	12-Jan-23	12-Jan-28
		Generator set	224GE02A	300 kVA	DENYO	12-Jan-23	12-Jan-28
		Generator set	224GE02B	300 kVA	DENYO	12-Jan-23	12-Jan-28
		Generator set	25GE10N	60 kVA	DENYO	12-Jan-23	12-Jan-28
		Generator set	25GE10O	60 kVA	DENYO	12-Jan-23	12-Jan-28
		Generator set	25GE10P	60 kVA	DENYO	12-Jan-23	12-Jan-28
6)	*2020-POA-D-0453-175*	*Fuel Storage Tank*	*225TK01*	*80,000 L*	*NA*	*14-Jan-20*	*21-Mar-23*
		Fuel Storage Tank	*225TK02*	*11,000 L*	*NA*	*14-Jan-20*	*21-Mar-23*
	PTO-OL-R4B-2023-04640-R	Fuel Storage Tank	225TK01	80,000 L	NA	15-May-23	15-May-28
		Fuel Storage Tank	225TK02	11,000 L	NA	15-May-23	15-May-28
7)	*2020-POA-D-0453-168*	*Fuel Storage Tank*	*25TK01*	*60,000 L*	*NA*	*14-Jan-20*	*21-Mar-23*
		Fuel Storage Tank	*TK1142*	*17,000 L*	*NA*	*14-Jan-20*	*21-Mar-23*
	PTO-OL-R4B-2023-05109-R	Fuel Storage Tank	25TK01	60,000 L	NA	25-May-23	25-May-28
		Fuel Storage Tank	TK1142	17,000 L	NA	25-May-23	25-May-28

OSTREA MINERAL LABORATORIES, INC.
Assaying and Environmental Testing Specialist
Barangay Road, Bo. Mamplasan, Biñan, Laguna, Philippines 4024
Telefax : (02) 889-9053; (049) 539-0102; (02) 848-6951
Email : customer.service@ostrealabo.com.ph

Original Issue ✓
Duplicate Issue by request
Revision Copy

CERTIFICATE OF ANALYSIS

Customer : CORAL BAY NICKEL CORPORATION

Address : Rio Tuba Export Processing Zone, Brgy. Rio Tuba, Bataraza, Palawan

Attention : MS. MAUREEN G. BELISARIO

Contact Information : m.g.belisario@smm.com.ph

Date of Issue : 4/27/2022
RAN : B-02208
Date Received: 4/11/2022
Date Sampled: -
Date Analyzed: 4/11-26/2022

RESULTS OF ANALYSIS

Sample Description	Parameters	Results	Units	Methods
Date Sampled: 3/31/2022				
Coal Ash Line 1	Arsenic (As)	21.80	mg/kg	Manual Hydride Generation AAS
	Barium (Ba)	1086.33	mg/kg	Direct Nitrous Oxide-Acetylene Flame
	Cadmium (Cd)	< 0.03	mg/kg	Direct Air-Acetylene Flame
	Chromium (Cr)	84.37	mg/kg	Direct Air-Acetylene Flame
	Fluoride	3.2	mg/Kg	Ion-Selective Electrode
	Lead (Pb)	10.85	mg/kg	Direct Air-Acetylene Flame
	Mercury (Hg)	0.38	mg/kg	Cold Vapor AAS
	Selenium (Se)	1.346	mg/kg	Manual Hydride Generation AAS
Coal Ash Line 2	Arsenic (As)	21.69	mg/kg	Manual Hydride Generation AAS
	Barium (Ba)	2138.67	mg/kg	Direct Nitrous Oxide-Acetylene Flame
	Cadmium (Cd)	< 0.03	mg/kg	Direct Air-Acetylene Flame
	Chromium (Cr)	129.69	mg/kg	Direct Air-Acetylene Flame
	Fluoride	10.3	mg/Kg	Ion-Selective Electrode
	Lead (Pb)	< 0.10	mg/kg	Direct Air-Acetylene Flame

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Sample Description	Parameters	Results	Units	Methods
	Mercury (Hg)	0.23	mg/kg	Cold Vapor AAS
	Selenium (Se)	1.799	mg/kg	Manual Hydride Generation AAS

Note : The customer is given 7 days upon receipt to raise questions or clarifications on any part or content of the certificate, otherwise the result(s) is /are deemed accepted.

Total No. of Samples: 2 **Total Analysis :** 16

Sample Submission : Submitted by the Customer

Reference : Dry Ashing

Remarks : Results relate only to the items tested and received by the laboratory.

Certified Correct by:

MA. CRISTINA F. REFERENTE, RCh
PRC No. 0007398
Laboratory Head

Approved by:

ALVIN P. BASCO, RCh
PRC No. 0011786
Vice President-Operations

SDS
SAFETY DATA SHEET

Intermediate Product of Nickel Metallurgy

Section 1. Chemical Composition and Company Identification

Intermediate Product of Nickel Metallurgy
Synonyms: NHC, MHP, Nickel Hydroxide Concentrate, Nickel Hydroxide Cake

Uses: Raw Material. Requiring further processing for the recovery of metals

Manufactured by:

Prony Resources New Caledonie SAS
Immeuble Malawi - 52, avenue Maréchal Foch - BP 218 - 98845 NOUMEA CEDEX, Nouvelle-Calédonie –
Tel (+687) 23.50.00 - Fax (+687) 23.50.75
Capital de 1 203 259 108.55 € - Siège social 29-31 rue de Courcelles, 75008 Paris - Immatriculée sous le n° 313 954 570 R.C.S Paris - n° 82 B 085 696 R.C.S Nouméa

24 hour Emergency number (CHEMTREC): +1 703-527-3887

Section 2. Hazards Identification

Intermediate Product of Nickel Metallurgy is a Hazardous Substance & a Dangerous Good

Classification:

- Acute Toxicity (oral) – Category 4
- Acute Toxicity (inhalation) – Category 4
- Respiratory Sensitization – Category 1
- Skin Sensitizer – Category 1
- Skin Irritant – Category 2
- Carcinogenicity – Category 1A
- Reproductive toxicity – Category 1B
- Germ Cell Mutagenicity – Category 2
- Specific Target Organ Toxicity (STOT); repeated exposure – Category 1
- Aquatic Toxicity – Acute 1
- Aquatic Toxicity – Chronic 1

Symbols: Health Hazard (GHS08), Exclamation Mark (GHS07), Environmental (GHS09)

Signal Word: Danger

Hazard Statements:
H302 - Harmful if swallowed
H332 - Harmful if inhaled
H317 - May cause an allergic skin reaction
H315 - Causes skin irritation

H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
H350 -May cause Cancer
H360 - May damage fertility or the unborn child
H341 - Suspected of causing genetic effects
H372 - Causes damage to organs through prolonged or repeated exposure
H410 - Very Toxic to aquatic life with long lasting effects

Section 3. Composition

☐ **Substance** ☒ **Mixture**

Hazardous Ingredients	Typical Composition (%) wet basis	Typical Composition (%) dry basis	C.A.S. Number	EINECS/ EC Label No.
Nickel (II) Hydroxide ($Ni(OH)_2$)	25%	55%	12054-48-7	235-008-5
Manganese Hydroxide ($Mn(OH)_2$)	2%	5%	12626-88-9	
Sulfur	2%	4.5%	7704-34-9	231-722-6
Magnesium Hydroxide ($Mg(OH)_2$)	2%	5%	1309-42-8	
Cobalt (II) Hydroxide ($Co(OH)_2$)	2%	5%	21041-93-0	
Zinc hydroxide ($Zn(OH)_2$)	<1%	<1.5%	20427-58-1	243-814-3
Silicon Oxide (SiO_2)	<0.5%	<1%	1126-22-0	234-368-0
Water	55%		7732-18-5	231-791-2

As supplied, this product will meet the 'wet basis' composition.

Section 4. First Aid Measures

Ingestion: Do not induce vomiting. Seek immediate medical attention.

Inhalation: Remove to well ventilated area. Seek medical attention.

Skin Contact: Remove contaminated clothing and wash thoroughly with water. For rashes seek medical advice. Show label if possible. Launder clothing before re-use.

Eyes: Irrigate eyeball thoroughly with water for at least 10 minutes. If discomfort persists seek medical attention.

Section 5. Fire Fighting Measures

Flammability: Non flammable.

Fire and Explosion: Non flammable. Keep containers cool with water spray. Wear protective equipment if required for other materials within the immediate vicinity.

Extinguishing: Non flammable

Section 6. Accidental Release Measures

Person related precautionary measures: Wear suitable protective clothing including gloves. Wear appropriate nationally approved respirators if collection and disposal of spills is likely to cause the concentration limits of airborne contaminants to exceed the locally prescribed exposure limits.

Environmental Protection measures: Dispose of spills in accordance with local regulations.

Procedures for cleaning/absorption: Ventilate area of spill. Sweep up and containerize for reclamation or disposal. Vacuuming or wet sweeping may be used to avoid dust dispersal. Nickel-containing material is normally collected to recover cobalt values.

Section 7. Handling and Storage

Handling: Prevent the generation of inhalable dusts e.g. by the use of suitable ventilation. Avoid contact with skin and eyes. Wear suitable protective clothing including gloves, and respirator.

Storage: Keep in the container supplied, and keep container closed when not in use. Local regulations should be followed regarding the storage of this product.

Section 8. Exposure Controls / Personal Protection

Hazardous Ingredients	C.A.S. #	TLV (1) - mg/m³	WEL (2) - mg/m³
Nickel Hydroxide (Ni $(OH)_2$)	12054-48-7	0.2 as Ni *	0.5 as Ni*
Nickel Sulphate ($NiSO_4$)	7786-81-4	0.1 as Ni *	0.1*
Magnesium Oxide (MgO)	1309-48-4	10*	10 * / 4 **
Magnesium Sulfate Anhydrous($MgS0_4$)	7487-88-9	N. AV.	N. AV.

* - as inhalable fraction
** - as respirable fraction

Occupational exposure controls:

a. Respiratory protection: Do not inhale dust. A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. If

ventilation alone cannot control exposure, use respirators nationally approved for the purpose.

b. Eye protection: Avoid eye contact. Wear goggles or face shield

c. Hand & Skin Protection: Avoid skin contact. Wear suitable protective clothing and gloves. Wash skin thoroughly after handling and before eating, drinking or smoking. Launder clothing and gloves as needed.

Section 9. Physical and Chemical Properties

Odorless, green-brown – crystalline solid cake

Viscosity	Not Relevant
Melting point	1450°C To 1900°C (2642°F To 3452°F)
Boiling point	Not Available
Flash Point	Not Relevant
Autoflammability	Non Flammable
Explosive properties	Not Relevant
Vapour pressure	Not Available
Specific density	~1.2 t/m3
Bulk density	~0.8 t/m3
Particle size	>5 Microns
Solubility cold water	Very Little Soluble
Solubility hot water	Very Little Soluble
Partition coefficient	N/A
Magnetic properties	N/A

N/A = Not Applicable

Section 10. Stability and Reactivity

Stability: Stable under ordinary conditions of use and storage.

Hazardous Decomposition Products: May evolve toxic nickel, cobalt oxide fumes when heated to decomposition.

Hazardous Polymerization: Will not occur.

Incompatibilities: Dissolves in acidic solutions

Conditions to Avoid: Avoid heat, sparks, open flames and other ignition sources.

Section 11. Toxicological Information

As supplied, the toxicological properties of this mixture are unknown. The toxicology of the primary ingredients is given below:

Nickel Hydroxide

Acute Toxicity:

i. Oral: LD_{50} ORAL RAT 1500 mg/kg

ii. Ingestion: No information found

iii. Dermal: Poison by subcutaneous route.

Carcinogenicity:

The International Agency for Research on Cancer (IARC)(Vol 49) found there was sufficient evidence in experimental animals for the carcinogenicity of metallic nickel, nickel monoxides, nickel hydroxides, IARC concluded that nickel compounds are carcinogenic to humans (Group 1). The American Conference of Governmental Industrial Hygienists (ACGIH) has categorized nickel compounds as: A1 "Confirmed Human Carcinogen".

Magnesium Hydroxide

Acute Toxicity:

i. Oral LD50 ORAL RAT 8500 mg/kg

ii. Ingestion: No information found

iii. Dermal: No information found

Manganese Hydroxide

No Information found

Cobalt Hydroxide

Acute Toxicity:

i. Oral: No information found

ii. Ingestion: No information found

iii. Dermal: No information found

Carcinogenicity

The International Agency for Research on Cancer (IARC) found there was inadequate evidence that cobalt compounds are carcinogenic to humans but since there was sufficient evidence that it is carcinogenic to animals, IARC concluded that cobalt compounds are possibly carcinogenic to humans (Group 2B). The American Conference of Governmental Industrial Hygienists (ACGIH) has categorized cobalt compounds as: A3 "Confirmed Animal Carcinogen with Unknown Relevance to Humans".

Section 12. Ecological Information

Ecotoxicity: Intermediate Product of Nickel Metallurgy is classified as very toxic to aquatic organisms with long term effects.

Persistence / Degradability	Nickel may persist in natural waters for an indefinite period, however no data exists to suggest that nickel is involved in any transformation in the aquatic environment.

Section 13. Disposal Considerations

Material is normally collected to recover metals. Should disposal be deemed necessary, follow local regulations.

Section 14. Transport Information

International Maritime Dangerous Goods Code	UN 3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (nickel hydroxide) class 9 pg III, Marine Pollutant
International Civil Aviation Organization Technical Instructions for the Carriage of Dangerous Goods by Air	UN 3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (nickel hydroxide) class 9 pg III
U.S. Dept. of Transportation Regulations	Not Regulated
Canadian Transportation of Dangerous Goods Act	Not Regulated
European Agreement Concerning the International Carriage of Dangerous Goods by Road	UN 3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (nickel hydroxide) class 9 pg III (E)
Australian Dangerous Goods Code	UN 3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (nickel hydroxide) class 9 pg III

Section 15. Regulatory Information

Classification according to EC No. 1272/2008:

Symbols: Health Hazard (GHS08), Exclamation Mark (GHS07), Environmental (GHS09),
Signal Word: Danger
Hazard Statements:
H302 - Harmful if swallowed
H332 - Harmful if inhaled
H317 - May cause an allergic skin reaction
H315 - Causes skin irritation
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
H350 -May cause Cancer
H360 - May damage fertility or the unborn child
H341 - Suspected of causing genetic effects
H372 - Causes damage to organs through prolonged or repeated exposure
H401 - Very Toxic to aquatic life
H410 - Very Toxic to aquatic life with long lasting effects

Precautionary Statements:

Prevention:

P201 - Obtain special instruction before use.
P202 - Do not handle until all safety precautions have been read and understood
P260 – Do not breathe dust or fume
P261 - Avoid breathing dust or fume
P264 - Wash hands and face thoroughly after handling
P270 - Do not eat, drink, or smoke when using this product
P271 - Use only outdoors or in a well ventilated area
P272 - Contaminated work clothing should not be allowed out of the workplace.
P273 - Avoid release to the environment
P280 - Wear protective waterproof gloves and protective clothing
P281 - Wear personal protective equipment as required
P285 - In case of inadequate ventilation wear approved respiratory protection

Response:

P301+P312 - IF SWALLOWED: call a POISON CENTER or doctor/physician if you feel unwell.
P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
P304+P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
P304 + P341 – IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in position comfortable for breathing
P308+P313 - IF exposed or concerned: Get medical advice/ attention.
P312 - Call a POISON CENTER or doctor/physician if you feel unwell)
P314 - Get medical advice/attention if you feel unwell.
P321 - See the First Aid section for specific treatment.
P330 - Rinse mouth.
P332+P313 - If skin irritation occurs: Get medical advice/attention.
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P342+P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
P362 – Take off contaminate clothing and wash before reuse
P363 - Wash contaminated clothing before reuse.
P391 - Collect spillage.

Storage:

P405 - Store locked up.

Disposal: regulations

P501 - Dispose of contents/container in accordance to local, and regional

Section 16. Other Information

Note:
Prony Resources New Caledonia believes that the information in this Material Safety Data Sheet is accurate. However, Prony Resources New Caledonia makes no express or implied warranty as to the accuracy of such information and expressly disclaims any liability resulting from reliance on such information.

Safety Data Sheet prepared by:

Prony Resources New Caledonia
Usine du Grand Sud, route de Kwa Neïe
Prony – 98810 MONT-DORE
NEW-CALEDONIA
valenc-HS@vale.com

Footnotes:

1. Threshold Limit Values of the American Conference of Governmental Industrial Hygienists. 2008.
2. Maximum Exposure Limit of the Health and Safety Executive in the U.K. in EH40/05.

Republic of the Philippines
Province of Palawan
Municipality of Bataraza
BARANGAY RIO TUBA
oooOooo
OFFICE OF THE SANGGUNIANG BARANGAY

EXCERPTS FROM THE MINUTES OF THE SPECIAL SESSION OF THE SANGGUNIANG BARANGAY OF RIO TUBA, BATARAZA, PALAWAN HELD ON NOVEMBER 9, 2022 AT BARANGAY RIO TUBA SESSION HALL.

Present:

Hon. Nelson D. Acob	-	Punong Barangay / Presiding Officer
Hon. Simmy V. Didik	-	Barangay Kagawad
Hon. Daham B. Hadjerel	-	Barangay Kagawad
Hon. Farida N. Mlano	-	Barangay Kagawad
Hon. Aniceto Ignacio B. Dela Chica	-	Barangay Kagawad
Hon. Doreen Saiyo-Perez	-	Barangay Kagawad
Hon. Angelo S. Lagrada	-	I/P Mandatory Representative
Hon. Mhel L. Heramis	-	SK Chairman

Absent:

Hon. Jojo V. Camora	-	Barangay Kagawad
Hon. Arlelit S. Agot	-	Barangay Kagawad

xxx xxx xxx

BGY. RESOLUTION NO. 17
Series of 2022

A RESOLUTION FAVORABLY ENDORSING THE PROPOSED AMENDMENT OF THE ENVIRONMENTAL COMPLIANCE CERTIFICATE (ECC) ISSUED FOR THE HYDROMETALLURGICAL PROCESSING PLANT (HPP) PROJECT OF CORAL BAY NICKEL CORPORATION (CBNC) TO INCORPORATE THE ESTABLISHMENT OF ADDITIONAL TAILINGS STORAGE FACILITY (TSF-4) AND RELATED PROJECT IMPROVEMENTS.

Authored by:
All BT Council Members

WHEREAS, Coral Bay Nickel Corporation (CBNC) is committed to be the world's leading producer of nickel and cobalt sulfides utilizing the High-Pressure Acid Leach (HPAL) technology, and as such religiously implement and comply with all statutory and regulatory requirements related to its production activities and environmental protection aspects;

WHEREAS, the Company continuously improve the effectiveness of its quality and environmental management systems, particularly to minimize the environmental impact of its operation which they religiously adhere to since the start of its commercial operation in 2005 up to the present time.

WHEREAS, relative to this commitment, the Company has contemplated to introduce some environmental enhancement measures to sustain and further improve the efficiency of its operation, particularly the construction of additional Tailings Storage Facility (TSF-4) and related improvement projects;

WHEREAS, In order to pursue implementation of this project, the Company needs to secure and apply for appropriate amendment in its existing Environmental Compliance Certificate (ECC) as required by law thru the concerned government regulatory agency;

WHEREAS, the proponent has properly explained and discussed all the pertinent data/information relative to this project/s to the members of this Honorable Council during its Regular Session held on July 6, 2022 and actual ocular inspection of the project area had been conducted on July 22, 2022;

WHEREAS, a separate consultation/public hearing was likewise conducted on July 28, 2022 among the residents and different sector representatives of Barangay Rio Tuba at Hjl. Usman Memorial Gym to further explain and discuss the proposed project of the Company;

NOW THEREFORE, on motion of Hon. Kgd. Simmy V. Didik and duly seconded by the rest of the Sangguniang Barangay members present, be it;

RESOLVED AS IT IS HEREBY RESOLVED, to favorably endorse the proposed amendment of the Environmental Compliance Certificate (ECC) issued for the Hydrometallurgical Processing Plant (HPP) Project of Coral Bay Nickel Corporation (CBNC) to incorporate the establishment of additional Tailings Storage Facility (TSF-4) and related project improvements;

RESOLVED FURTHER, that copies of this Resolution be furnished the Sangguniang Bayan of **Bataraza**, Palawan thru the Hon. Vice Mayor/ Presiding Officer Johnmain A. Jaafar, the Hon. Mayor Abreham M. Ibba, the Sangguniang Panlalawigan of Palawan thru Hon. Vice Governor/Presiding Officer Leoncio N. Ola, the Hon. Gov. Dennis M. Socrates, the Plant Manager, Coral Bay Nickel Corporation, Mr. Takao Oishi and all concerned offices for their information consideration and appropriate action.

UNANIMOUSLY APPROVED.

xxx xxx xxx

ATTESTATION

I HEREBY CERTIFY to the correctness of the above-quoted resolution.

JOCYLINE M. PARAPINA
Barangay Secretary

Date signed: 11/11/2022

ATTESTED AND CERTIFY TO BE DULY APPROVED:

NELSON D. ACOB
Punong Barangay

CONCURRED:

SIMMY V. DIDIK
Barangay Kagawad

JOJO V. CAMORA
Barangay Kagawad

DAHAM B. HADJIREL
Barangay Kagawad

ARIELIT S. AGOT
Barangay Kagawad

FARIDA N. MIANO
Barangay Kagawad

ANICETO IGNACIO B. DELA CHICA
Barangay Kagawad

DONELYN B. SAYO
Barangay Kagawad

ANGELO S. LAGRADA
IP Mandatory Representative

MHEL L. HERAMIS
SK Chairman

SANGGUNIANG BAYAN OFFICE

TRANSMITTAL 06-26-23-01

To:	From:
HIDEAKE SATO Plant Manager Coral Bay Nickel Corporation Rio Tuba, Bataraza, Palawan	IMELDA CLORES Secretary to the Sangguniang Municipality of Bataraza, Palawan

6/27/2023 9:07 AM

Dear Sir:

Respectfully forwarding the following document, for your information and guidance.

MUNICIPAL ORDINANCE/RESOLUTION #	TITLE
a. **Resolution No. 032, Series of 2023**	A RESOLUTION ENDORSING AND SUPORTING THE BARANGAY RESOLUTION NO. 017 SERIES OF 2022 OF BARANGAY RIO TUBA, BATARAZA, PALAWAN ENTITLED "A RESOLUTION FAVORABLY ENDORSING THE PROPOSED AMENDMENT OF THE ENVIRONMENTAL COMPLIANCE CERTIFICATE (ECC) ISSUED FOR THE HYDROMETALLURGICAL PROCESSING PLANT (HPP) PROJECT OF CORAL BAY NICKEL CORPORATION (CBNC) TO INCORPORATE THE ESTABLISHMENT OF ADDITIONAL TAILINGS STORAGE FACILITY (TSF-4) AND RELATED PROJECT IMPROVEMENTS" SUBJECT TO ALL EXISTING LAWS, RULES AND REGULATIONS

Thank you.

By Authority of the Sangguniang Bayan:

IMELDA C. CLORES

Poblacion, Marangas
Bataraza, Palawan,5306
09954471025
sbsecbataraza@gmail.com

Republic of the Philippines
Province of Palawan
MUNICIPALITY OF BATARAZA
OFFICE OF THE SANGGUNIANG BAYAN

EXCERPT FROM THE MINUTES OF THE SPECIAL SESSION OF THE SANGGUNIANG BAYAN OF BATARAZA, PALAWAN HELD AT THE SESSION HALL, LEGISLATIVE BUILDING ON June 21, 2023.

PRESENT:

Hon. Johnmain A. Jaafar	Vice Mayor/Presiding Officer
Hon. Al-Shariff W. Ibba	SB Member
Hon. Laurence P. Amores	SB Member
Hon. McDonell R. Saiyo	SB Member
Hon. Gomer L. Miano	SB Member
Hon. John Emmer S. Gamo	SB Member
Hon. Yusa I. Musa	SB Member
Hon. Eddie N. Sagun	SB Member
Hon. Artolin C. Edlap	Ex-Officio SB Member/IP Representative
Hon. Mohd. Kaizar I. Jaafar	Ex-Officio SB Member/SK President
Hon. Eddie L. Catague	Ex-Officio SB Member/Pres. Liga ng mga Bgy

RESOLUTION NO. 032
Series of 2023
Sponsored by: ALL SB MEMBERS

A RESOLUTION ENDORSING AND SUPPORTING THE BARANGAY RESOLUTION NO. 017 SERIES OF 2022 OF BARANGAY RIO TUBA, BATARAZA PALAWAN ENTITLED: "A RESOLUTION FAVORABLY ENDORSING THE PROPOSED AMENDMENT OF THE ENVIRONMENTAL COMPLIANCE CERTIFICATE (ECC) ISSUED FOR THE HYDROMETALLURGICAL PROCESSING PLANT (HPP) PROJECT OF CORAL BAY NICKEL CORPORATION (CBNC) TO INCORPORATE THE ESTABLISHMENT OF ADDITIONAL TAILINGS STORAGE FACILITY (TSF-4) AND RELATED PROJECT IMPROVEMENTS" SUBJECT TO ALL EXISTING LAWS, RULES AND REGULATIONS

WHEREAS, submitted to this office is the endorsement letter from the Municipal Mayor and the copy of Resolution No. 017 series of 2022 of Barangay Rio Tuba, Bataraza, Palawan requesting for Sangguniang Bayan appropriate action apropos to the subject cited above;

WHEREAS, the Sangguniang Bayan upon thorough deliberation of the matter with its considered opinion in pursuance to the provisions of R. A. 7160 and all existing laws, rules and regulations, to wit:

A. The primary goals of tailings management must be to ensure that public and environmental safety are the determinative factors governing the operation of tailings disposal systems and to achieve zero tolerance for human harm or fatalities;

B. It is important to recognize the interconnected relationship between people and the natural environment; protecting ecological resources is an extension of human safety;

C. The mining company should operate based on the dictum "responsible mining", taking into consideration the environmental impact of the mining activities.

WHEREAS, this august body interposes no objection provided however adherence to all laws, rules and regulations shall be observed and compliance therewith shall be satisfactorily undertaken;

WHEREFORE, premises duly considered, and on motion unanimously seconded, this August body resolves as it is hereby resolved expressing uniquivocal support and pass the "RESOLUTION FAVORABLY ENDORSING THE PROPOSED AMENDMENT OF THE ENVIRONMENTAL COMPLIANCE CERTIFICATE (ECC) ISSUED FOR THE HYDROMETALLURGICAL PROCESSING PLANT (HPP) PROJECT OF CORAL BAY NICKEL CORPORATION (CBNC) TO INCORPORATE THE ESTABLISHMENT OF ADDITIONAL TAILINGS STORAGE FACILITY (TSF-4) AND RELATED PROJECT IMPROVEMENTS" SUBJECT TO ALL EXISTING LAWS, RULES AND REGULATIONS.

RESOLVED FURTHER, that copies of this resolution be furnished to the Coral Bay Nickel Corporation, Department of Environment and Natural Resources (DENR), Provincial Government of Palawan, and other concerned agencies for their information and/or action.

ADOPTED. June 21, 2023.

==========

I HEREBY CERTIFY to the correctness of the foregoing resolution.

IMELDA C. CLORES
Secretary to the Sanggunian

ATTESTED TO BE DULY ADOPTED:

JOHNMAIN A. JAAFAR
Vice Mayor/ Presiding Officer

APPROVED:

HJ. ABRAHAM M. IBBA
Municipal Mayor

Records Control No. 05403-23

September 13, 2023

MR. ERNESTO A. LLACUNA
Community Relations Manager
Coral Bay Nickel Corporation
Bgy. Rio Tuba, Bataraza, Palawan

Sir:

We are forwarding herewith a copy of Provincial Resolution No. 18636, series of 2023 of the Sangguniang Panlalawigan of Palawan, for information and appropriate action.

Very truly yours,

BY AUTHORITY OF THE SANGGUNIANG PANLALAWIGAN:

MARGIE G. ONDIONG
Board Secretary IV

Regulatory Fee:

OR. No.	:	7334020
Amount	:	25,000.00
Date Issued	:	September 13, 2023
Received by	:	

Republic of the Philippines
Provincial Government of Palawan
OFFICE OF THE SANGGUNIANG PANLALAWIGAN
City of Puerto Princesa

EXCERPT FROM THE MINUTES OF THE 58TH REGULAR SESSION OF THE 44TH SANGGUNIANG PANLALAWIGAN HELD ON AUGUST 22, 2023 AT THE SANGGUNIANG PANLALAWIGAN SESSION HALL, CITY OF PUERTO PRINCESA

PRESENT:

Hon. Leoncio N. Ola,	*Vice Governor and Presiding Officer*
Hon. Winston G. Arzaga,	*Sangguniang Panlalawigan Pro-Tempore*
Hon. Roseller S. Pineda,	*Floor Leader*
Hon. Marivic H. Roxas,	*Assistant Floor Leader- 2nd District*
Hon. Maria Angela V. Sabando,	*S.P. Member – 1st District*
Hon. Nieves C. Rosento,	*S.P. Member – 1st District*
Hon. Ryan D. Maminta,	*S.P. Member – 2nd District*
Hon. Al-Nashier M. Ibba,	*S.P. Member – 2nd District*
Hon. Ariston D. Arzaga,	*S.P. Member – 2nd District*
Hon. Al-Shariff W. Ibba	*S.P. Member – PCL Federation President*
Hon. Arnel P. Abrina,	*S.P. Member – IPM Representative*

ABSENT:

Hon. Rafael V. Ortega Jr.,	*Assistant Floor Leader – 3rd District*
Hon. Juan Antonio E. Alvarez,	*S.P. Member – 1st District*
Hon. Ferdinand P. Zaballa,	*S.P. Member – ABC Federation President*
Hon. Anyatika R. Rodriguez,	*S.P. Member – SK Federation President*

XXX XXX XXX

PROVINCIAL RESOLUTION NO. 18636
Series of 2023

INTERPOSING NO OBJECTION ON THE APPLICATION FOR THE PROJECT AND ACTIVITIES SUBMITTED TO THE SANGGUNIANG PANLALAWIGAN BY CORAL BAY NICKEL CORPORATION FOR THE PROPOSED AMENDMENT OF THE ENVIRONMENTAL COMPLIANCE CERTIFICATE (ECC) ISSUED TO ITS HYDROMETALLURGICAL PROCESSING PLANT (HPP) PROJECT TO ALOW THE CONSTRUCTION OF ADDITIONAL TAILINGS STORAGE FACILITY (TSF-4) AND RELATED PROJECT IMPROVEMENTS LOCATED AT BARANGAY RIO TUBA, MUNICIPALITY OF BATARAZA, PROVINCE OF PALAWAN

Authored by:

HON. RYAN D. MAMINTA, HON. AL-NASHIER M. IBBA, HON. MARIVIC H. ROXAS, HON. ARISTON D. ARZAGA, HON. MARIA ANGELA V. SABANDO, HON NIEVES C. ROSENTO, HON. FERDINAND P. ZABALLA, HON. ANYATIKA R. RODRIGUEZ, HON. ARNEL P. ABRINA, HON. WINSTON G. ARZAGA AND HON. ROSELLER S. PINEDA

WHEREAS, the august Body has enacted Provincial Ordinance No. 682, series of 2003 mandating that all projects and activities in the Province of Palawan with environmental impact, whether public or private should have the concurrence by the Sangguniang Panlalawigan pursuant to Section 27 of the Local Government Code;

WHEREAS, the project and activities of Coral Bay Nickel Corporation for the proposed amendment of the Environmental Compliance Certificate (ECC) issued to its Hydrometallurgical Processing Plant (HPP) Project to allow the construction of additional Tailings Storage Facility (TSF-4) and related project improvements located at Barangay Rio Tuba, Municipality of Bataraza, Province of Palawan, was submitted for concurrence by the august Body;

WHEREAS, after thorough deliberations thereon and having complied with the required documents, the Sangguniang Panlalawigan interposes no objection on the said project and activities;

NOW THEREFORE, on motion of Honorable Ryan D. Maminta duly seconded, be it

RESOLVED, as it is hereby resolved, to interpose no objection on the application for the project and activities submitted to the Sangguniang Panlalawigan by Coral Bay Nickel Corporation for the proposed amendment of the Environmental Compliance Certificate (ECC) issued to its Hydrometallurgical Processing Plant (HPP) Project to allow the construction of additional Tailings Storage Facility (TSF-4) and related project improvements located at Barangay Rio Tuba, Municipality of Bataraza, Province of Palawan;

RESOLVED FURTHER, that a copy of this resolution be furnished to Mr. Ernesto A. Llacuna, Community Relations Manager, Coral Bay Nickel Corporation, Barangay Rio tuba, Bataraza, Palawan, for his information and appropriate action.

CARRIED UNANIMOUSLY.

XXX XXX XXX

I CERTIFY to the correctness of the above-quoted Provincial Resolution.

ANGELA RODRIGUEZ-PEÑA
Secretary to the Sanggunian

ATTESTED:

LEONCIO N. OLA
Vice Governor and Presiding Officer

APPROVED:

V. DENNIS M. SOCRATES
Governor

SEPTEMBER 6, 2023
Date

This document is not valid without Sangguniang Panlalawigan Seal
VDMS/LNO/ARP/epp –8/29/23

Republic of the Philippines
Republic Act 7611
PALAWAN COUNCIL FOR SUSTAINABLE DEVELOPMENT

1671075482376

ECAN ZONING CERTIFICATION

Transaction ID: 1671075482376

December 15, 2022

Name of Proposed Project:	Storage Facility
Name of Proponent:	Coral Bay Nickel Corporation. Represented by Benjamin Armand A. Tansingco
Location of Proposed Project:	Rio Tuba Special Economic Zone (RTSEZ), Brgy Rio Tuba, Bataraza, Palawan
Description of Proposed Project:	The proposed project covers the construction of Tailing Storage Facilities (TSF)-4 located within the Rio Tuba Special Economic Zone covered by the Mineral Production Sharing Agreement (MPSA) of Rio Tuba Nickel Mining Corporation with a total a total land area of 346.18 Hectares. The project ancillary facilities are: one (1) Return Water Pond (RWP); one (1) Rock Source; one (1) Reservoir; one (1) RWP of TSF-3. *(see Annex "B")*

CERTIFICATION

This is to certify that based on the evaluation of the submitted requirements for ECAN Zoning Certification, the following are found:

1. The Location Map, as overlaid in the approved ECAN Map of Bataraza, Palawan, shows that the proposed project/activity is within the Controlled-use zone (89.98 hectares) and Terrestrial Multiple-use Zone (256.20 hectares), wherein the proposed project maybe allowed based with PCSD Resolution 05-250.;

2. A consent from Rio Tuba Nickel Mining Corporation authorizing CBNC to engage in the activity applied for within their approved Mineral Production Sharing Agreement (MPSA) duly signed by Engr. Ronelbert A. Suguitan, Resident Mine Manager; and

3. The Proposal/Description shows that the project is under Category “A” as listed in PCSD Resolution No. 17-579, s. 2017, amending PCSD Administrative Order No. 06.

This is to certify further that, based on the above findings, the proposed project/activity is a Category A project, which requires the proponent to secure the corresponding SEP Clearance.

This Certification is not conclusive as to the absolute right/claim of the proponent over the area applied for but is merely issued as to the categorization of the project and determination of allowable activities in the ECAN zones for purposes of applying the provisions of R.A. 7611 (SEP Law) and PCSD Administrative Order No. 06, as amended

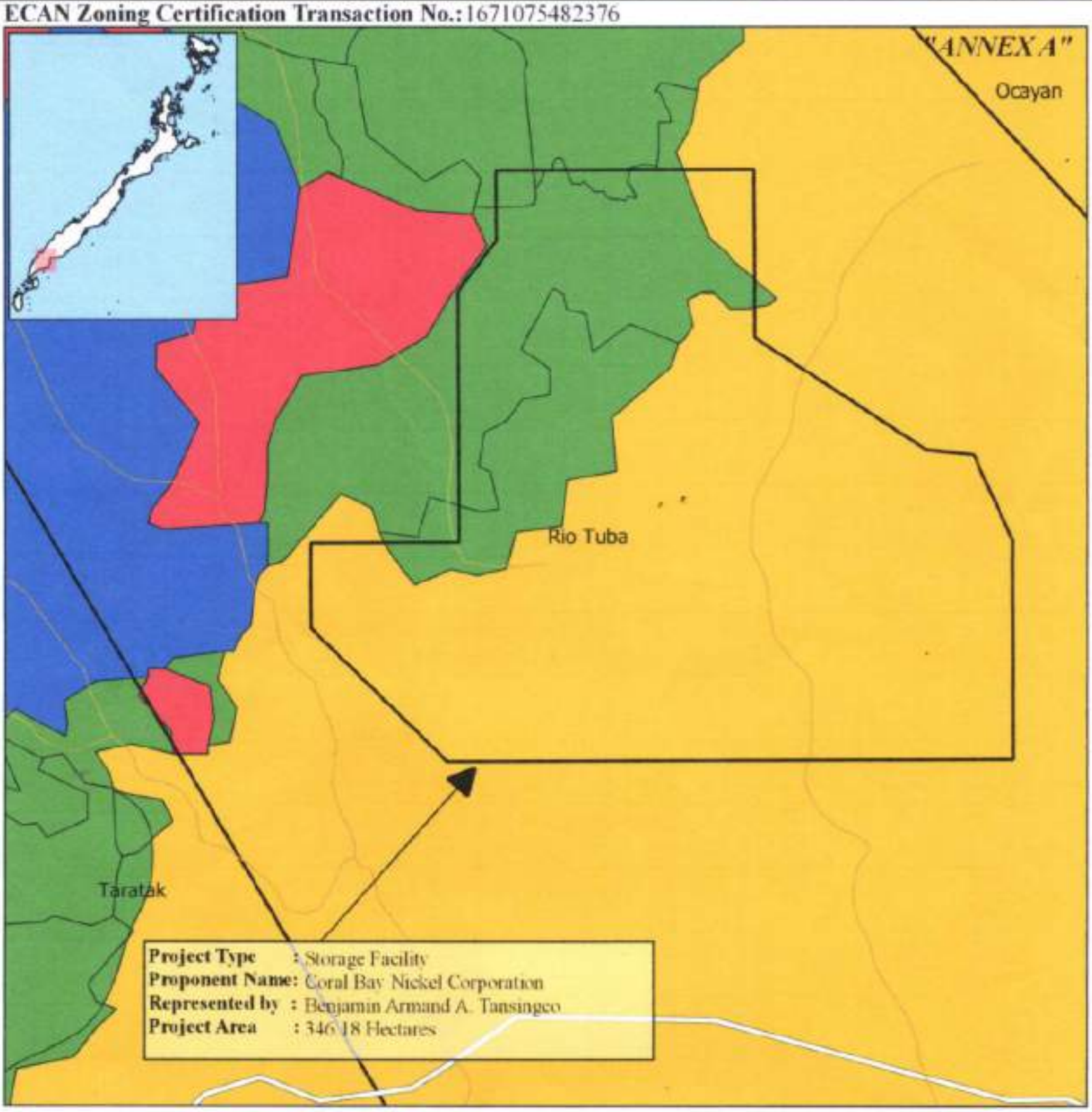
DATE ISSUED: **January 4, 2023**

PAID UNDER O.R. NO: **0574679**
AMOUNT PAID: **200**
DATE OF PAYMENT: **May 15, 2022**

Approved by: **LEVITA A. LAGRADA**
Director II, Office of the Executive Director, PCSDS

Print No.: 1673220639297 , Document Number: 1671075482376

ECAN Zoning Certification Transaction No.: 1671075482376



LEGEND

- TSF4
- Rivers
- Roads

Terrestrial ECAN Zones

- Core zone
- Restricted use
- Controlled use
- Traditional use
- Multiple use

ENVIRONMENTALLY CRITICAL AREAS NETWORK (ECAN) MAP

(PCSD Resolution No. 21-775)

N

Municipality of Bataraza
Province of Palawan

0 50 100 m

SCALE: 1:20,000

Transverse Mercator Projection
Clarke 1866 Spheroid
Luzon Datum
Zone 50 N

Sources of Information

ECAN	*PCSD*
Administrative Boundary	*PPDO*

Notes

Boundaries are not authoritative. Information on updated boundaries may be acquired from the respective source of information.

Users noting errors and omissions on this map are requested to inform the Palawan Council for Sustainable Development Staff.

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Map Preparer : Mary Ann Repio

Manager, DHD South : Glenda H. Cadigal

Date Printed : December 20, 2022

"ANNEX B"

PROJECT BRIEF DESCRIPTION

Type of Project:	Storage Facility
Project Location:	Rio Tuba Special Economic Zone (RTSEZ), Brgy Rio Tuba, Bataraza, Palawan
Project Owner/Proponent:	Benjamin Armand A. Tansingco
Project Brief Description:	The proposed project covers the construction of Tailing Storage Facilities (TSF)-4 located within the Rio Tuba Special Economic Zone covered by the Mineral Production Sharing Agreement (MPSA) of Rio Tuba Nickel Mining Corporation with a total a total land area of 346.18 Hectares. The project ancillary facilities are: one (1) Return Water Pond (RWP); one (1) Rock Source; one (1) Reservoir; one (1) RWP of TSF-3.

Breakdown of Project Cost:

Item	**Quantity**	**Cost(Php)**
TSF-4 and Ancillary Facilities	1	7,300,000,000
	Total:	7,300,000,000.00

Breakdown of Development/Facility:

Facility/Development/Activity	**Quantity**	**Area**	**Total Area**
TSF-4	1	170 Hectares	170 Hectares
RWP Of TSF-4	1	2 Hectares	2 Hectares
Rock Source For TSF-4	1	32 Hectares	32 Hectares
Reservoir No. 3	1	7 Hectares	7 Hectares
RWP Of TSF-3	1	2 Hectares	2 Hectares
		Total:	213.00

DATE ISSUED: **January 4, 2023**

PAID UNDER O.R. NO: **0574679**
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DATE OF PAYMENT: **May 15, 2022**

Approved by: **LEVITA A. LAGRADA** Director II, Office of the Executive Director, PCSDS

Coral Bay Nickel Corporation

Form 01 QC-2007 Rev.05

Reference No.: EMQCS-2023-49

September 28, 2023

FOR: ATTY. TEODORO JOSE S. MATTA, MNSA
Executive Director
Palawan Council for Sustainable Development (PCSD) Office,
Sports Complex Road, Sta. Monica Heights,
Puerto Princesa, 5300 Palawan

THRU: FOR. GLENDA I. MANALO-CADIGAL
District Manager for DMD South
Palawan Council for Sustainable Development (PCSD)

SUBJECT: Request Assistance in the CBNC SEP Clearance Process

Dear **Director Matta:**

Greetings!

We truly appreciate the continuous support of PCSD to CBNC so that we could achieve and maintain our environmental best practices. We always value your contribution and guidance to our environmental management system, and we consider your office an important partner in our aim for safety, environmental, and social development excellence. On behalf of CBNC, I would like to ask for the consideration of your office in connection with our SEP clearance application, which is now pending endorsement by the Local ECAN Board, Our request is due to the urgency of CBNC's current situation, wherein the SEP clearance is needed for our application for an ECC amendment.

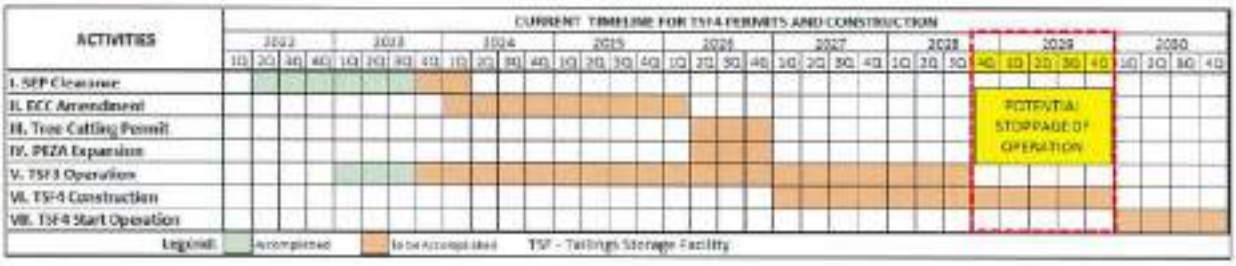
Based on our projections, CBNC's TSF3 will be filled to capacity by 2028, and therefore the construction of another TSF (TSF4) must begin by 2025 in order to have a pollution control facility for the safe storage of the tailings generated by our processing operations. In order for CBNC to start the TSF4 construction, the necessary permits, like a SEP clearance and an ECC amendment, should be secured by the company. We began the process of securing the endorsements from the respective LGUs in 2022; unfortunately these endorsements took a long time to acquire. This led to our present situation wherein CBNC only has 1.5 years to secure all the permits needed to start the construction of the TSF4 by 2025. With this, we need the help and consideration of your office to expedite the approval and issuance of the SEP clearance or at least allow CBNC to proceed with the application for an ECC amendment while the SEP clearance is still being processed.

Rest assured that CBNC will continue comply with the requirements needed for SEP clearance while applying for the ECC amendment. We are aligned and committed to the objectives of your good office: in keeping the community and our employees safe, protecting and enhancing the environment, and actively participating in the development of the economy and the community.

Status and timeline of CBNC's permits for the proposed TSF4 and other projects;

CBNC began the process of securing SEP clearance in May 2022. Despite the early preparation, the needed endorsements from the respective LGUs took a long time to secure. As of September 2023, CBNC is still in the process of securing the Local ECAN Board endorsement. Please see below timeline and Gantt chart for the permit applications, which show a potential stoppage of CBNC operation in case there is a delay in the start of the construction of the TSF4.

Date	Activity
May 25, 2022	Preparation of ECAN Zoning requirements, and payment of ECAN Zoning Certificate
November 11, 2022	Endorsement of Barangay Rio Tuba LGU
January 4, 2023	Approval of ECAN Zoning Certificate
June 27, 2023	Endorsement of Bataraza LGU
June 29, 2023	CBNC's Official Submission of SEP Clearance Documentary Requirements to Local ECAN Board
September 14, 2023	Endorsement of Palawan Provincial Board dated 06 September 2023
September 28, 2023	Submission of Lacking Requirements for SEP Clearance to the Local ECAN Board



To ensure the highest structural integrity of the TSF4, it will require 3–4 years to construct. Its construction must start in 2025 for it to be usable by 2028. This is so that CBNC will have a facility where our treated tailings will be stored after TSF3 is filled to its capacity in 2028. Prior to the start of the TSF4 construction, the SEP clearance must be issued, which is also a requirement to secure the ECC amendment. The ECC is also needed for the Tree Cutting Permits and PEZA Zone Expansion applications. We estimate that securing all these permits would require 2.5 years or more.

As an essential pollution control facility to safely store the tailings generated from our process, CBNC will be forced to stop if the TSF4 is not constructed on time. The management of CBNC is also concerned about the possible effects on the economy of the barangays in Bataraza if CBNC is forced to stop its operations by 2028.

The table below shows the proposed catch-up plan so that CBNC would be able to avoid the potential stoppage of our operations.

To facilitate a full understanding of our situation, CBNC is respectfully requesting an audience from your good office on **October 2, 2023**, in order to further discuss this matter.

We hope for your kind consideration and usual support.

Sincerely,

HIDEAKI SATO
EVP & Plant Manager