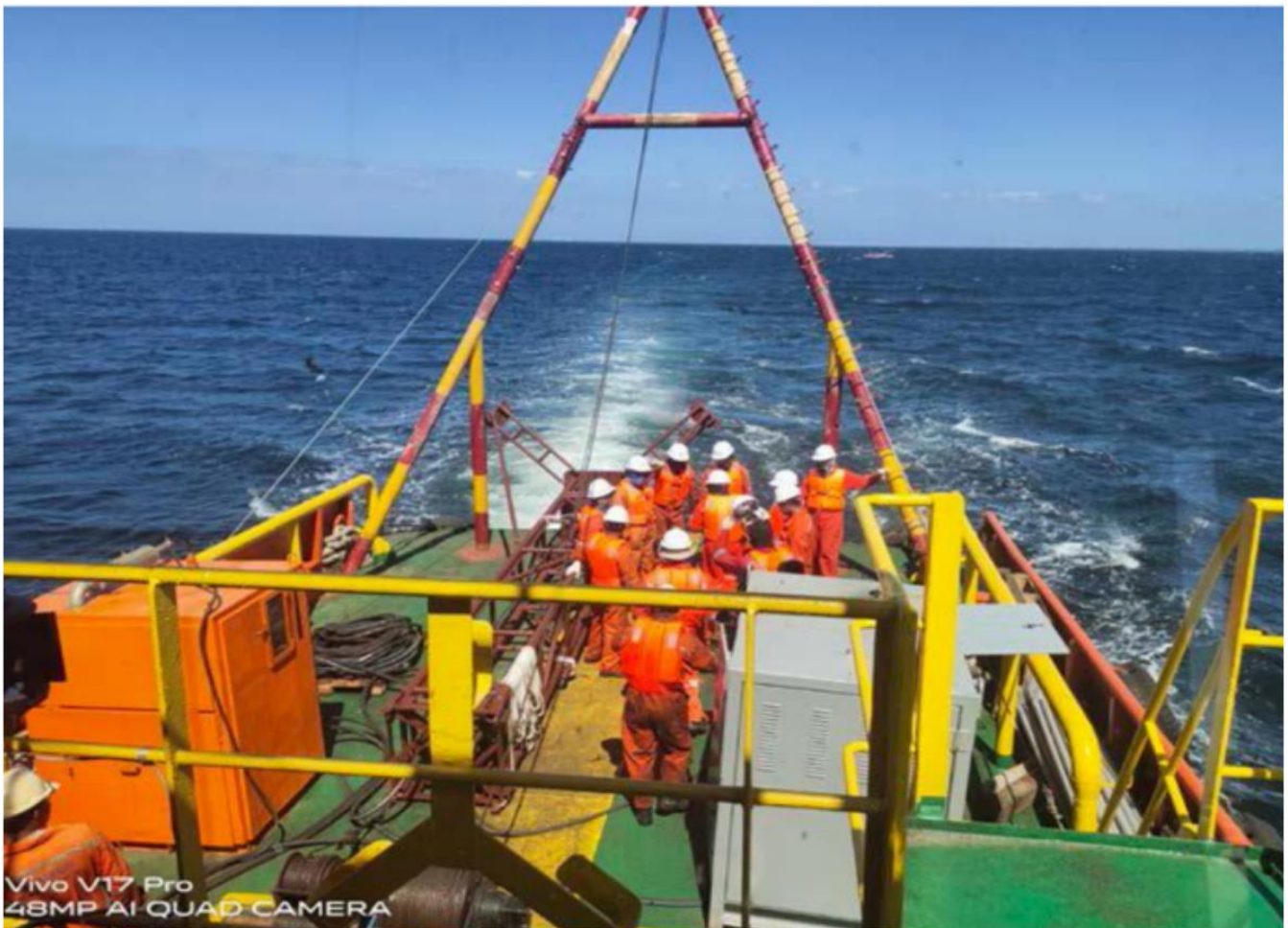


PROJECT DESCRIPTION

Expansion of the San Nicolas Shoal Seabed Quarry Project

Offshore of the Municipalities of Ternate, Naic, Tanza, Rosario, and Noveleta, Province of Cavite



VIL MINES, INC.

Prepared by:

Permata Resources, Inc. | Cornerstone Unit 8, Lakandula St., Brgy, Marikina Heights, Marikina City

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1.0 BASIC PROJECT INFORMATION

1.1 Project Information

Project Name	:	Expansion of San Nicolas Shoal Seabed Quarry Project
Nature of Project	:	Quarrying – Extraction of non-metallic minerals
Proposed Average Weekly Extraction Rate	:	1,600,000 m ³
Commodity	:	Marine sand
Location of Quarry and Facilities	:	Offshore of the Municipalities of Ternate, Naic, Tanza, Rosario, and Noveleta Province of Cavite
Permit	:	GSQP No. OMR002-2019-IV and EPA-IVA-127B
Total Project Area	:	8,530.22 hectares
Mining Method	:	Dredging

1.2 Proponent Profile

VIL MINES, INC.

Address	:	155 EDSA, Brgy. Wack-Wack, Mandaluyong City
Authorized Representative/Contact Person	:	Mr. Ricardo L. Yabut President
Contact Details	:	(025) 304-8307
Email Address	:	

1.3 Preparer



Address	:	Cornerstone Unit 8, Lakandula St., Brgy. Marikina Heights, Marikina City
Authorized Representative/Contact Person(s)	:	Mr. Edwin Ramirez Managing Director
Contact Number	:	(+63) 917-5259-192

1.4 Legal Description and Tenement History

The proposed Expansion of San Nicolas Shoal Seabed Quarry Project is encompassed by two permits; that of VIL Mines, Inc.'s Government Seabed Quarry Permit (GSQP) denominated as OMR002-2019-IV, and Robust Cement and Mining Corporation's (RCMC) EPA-IVA-127.

GSQP No. OMR002-2019-IV

On 11 August 2008, the Department of Environment and Natural Resources (DENR) issued a Government Seabed Quarry Permit (GSQP) to the Philippine Reclamation Authority (PRA), formerly referred as Public Estates Authority (PEA). This permitted the licensee to undertake development, extraction, and disposition of marine aggregates in the San Nicolas Shoal borrow area covering an area of 10,000 hectares in the Manila

Bay area. This issuance is in accordance with the provisions of Executive Order no. 153, Republic Act no. 7942 (The Philippine Mining Act of 1995), and the Department Administrative Order no. 2000-25 (IRR of EO 153).

On 15 December of the same year, DENR issued a Cease and Desist Order on the operations of seabed quarry projects due to LGU's and fisher folks' complaints regarding its adverse environmental effects. On the following year, PRA appealed for the lifting of this Cease and Desist Order and as a reply, DENR issued, on September 2009, another Order setting aside the former issued on December 2008.

On 2010, PRA requested the Mines and Geosciences Bureau (MGB) to resolve issues on the effective period of the GSQP No. OMR001-2008-IVA and the excluding of the unproductive areas and replacing the same with the adjacent areas further seaward but maintaining the 10,000-hectare area coverage of the said permit. Subsequently, the Environmental Management Bureau (EMB) informed the licensee that an Environmental Compliance Certificate (ECC) must be secured prior any activity implementation on the seabed quarry project.

By March 2018, VMI applied for an Exploration Permit covering approximately 30,938 hectares; encompassing the area of San Nicolas Shoal; including the PRA's GSQP area. This request to include the San Nicolas borrow area was rejected.

On 16 January 2019, EMB issued to PRA the ECC-CO-1307-0022 for Seabed Quarry Project covering 20,000 hectares in Ternate, Naic, Tanza, and Rosario, of Cavite Province. The said area coverage is comprised of the 10,000 hectares covered by the GSQP No. OMR001-2008-IVA and additional area referred as Area 1 and Area 2 with 4,393 hectares and 5,606 hectares, respectively. However, the Robust Cement and Mining Corporation (RCMC) and VMI opposed the ECC issuance to PRA for the quarry areas designated as Area 1 and 2. Moreover, VMI, through its letter, requested MGB for the cancellation of PRA's GSQP No. OMR001-2008-IVA.

Later on June 2019, PRA expressed its intension of reducing their GSQP coverage to 5,000 hectares from 20,000 hectares upon MGB's approach regarding PRA's violation of certain GSQP provisions. Upon evaluation, an amendment of the GSQP No. OMR001-2008-IVA reducing its coverage to 5,000 hectares was issued; provided that PRA submits the required plans, programs, and certifications, and pays the arrears upon resumption of operation. These include the new ECC application of the reduced coverage given that the issued ECC-CO-1307-0022, as confirmed by EMB, was already cancelled last 13 June 2019.

On 07 October 2019, VMI submitted the mandatory requirements for the application of GSQP covering the abovementioned area reduced to 5,000 hectares. The consequent GSQP was issued on 12 March 2020 denominated as OMR002-2009-IV.

The Environmental Compliance Certificate for the proposed 5,000-hectare dredging operations was issued on 27 May 2020; and is denominated as ECC-CO-2003-0002.

EPA-IVA-127

On 04 July 2019, the Mines and Geosciences Bureau (MGB) granted the Authority to Verify Minerals for a duration of one (1) year to Robust Cement and Mining Corporation (RCMC) pending the approval of its Exploration Permit denominated as EPA-IVA-127 located in the offshore areas of Noveleta, Rosario, Tanza, Naic, and Cavite City, Province of Cavite. This is pursuant to the pertinent provision of the Executive Order No. 79, series of 2012, Department of Environment and Natural Resources (DENR) Administrative Order (DAO) No. 2012-07 and DAO No. 2016-07.

On 27 August 2021, a Deed of Partial Assignment was executed by VIL Mines, Inc. and Robust Cement and Mining Corporation. Said Assignment was approved by the Mines and Geosciences Bureau IVA (MGB-IVA) on 02 September 2021. In consonance with such, MGB-IVA redenominated the exploration permit of VMI that covers the assigned area as EPA-IVA-127B.

2.0 PROJECT DESCRIPTION

2.1 Project Location and Area

The 3,530.22-hectare expansion area encompasses the Municipalities of Naic, Tanza, Rosario, and Noveleta. This, together with the existing project area of VIL, would make the total project area to be at 8,530.22 hectares located offshore of the Municipalities of Ternate, Naic, Tanza, Rosario, and Noveleta, Province of Cavite. Said area is bounded by the following coordinates:

Table 1. Technical Description of the San Nicolas Shoal Seabed Quarry Project Expanded Area

Corner	Latitude	Longitude
GSQP No. OMR002-2019-IV		
1	14°21'02.833"	120°41'38.831"
2	14°26'59.624"	120°46'42.891"
3	14°26'59.576"	120°48'37.398"
4	14°26'13.763"	120°49'17.940"
5	14°21'02.965"	120°43'29.259"
EPA-IVA-127B		
1	14°21'02.912"	120°43'29.200"
2	14°26'13.763"	120°49'17.940"
3	14°26'59.576"	120°48'37.284"
4	14°28'07.180"	120°51'21.470"
5	14°27'10.731"	120°51'19.778"
6	14°26'52.889"	120°51'01.435"
7	14°25'52.804"	120°49'51.094"
8	14°25'13.763"	120°49'37.326"
9	14°21'03.028"	120°45'14.798"

2.2 Site Accessibility

The project site is accessible from Manila by land travel using private cars, UV Express vans, and/or public utility buses. Using a private vehicle, travel time is estimated to be at two and a half (2 ½) hours. The coastal municipalities are easily accessible from Metro Manila via the South Luzon Expressway (SLEX) or Cavite. Travel within the municipalities is by public utility buses, UV Express vans, jeepneys, and tricycles. It could also be reached by motorized boat (banca) or pump boats from the various coastal municipalities of the Province of Cavite. Travel to the project area by motorized boat usually takes about 30 minutes.

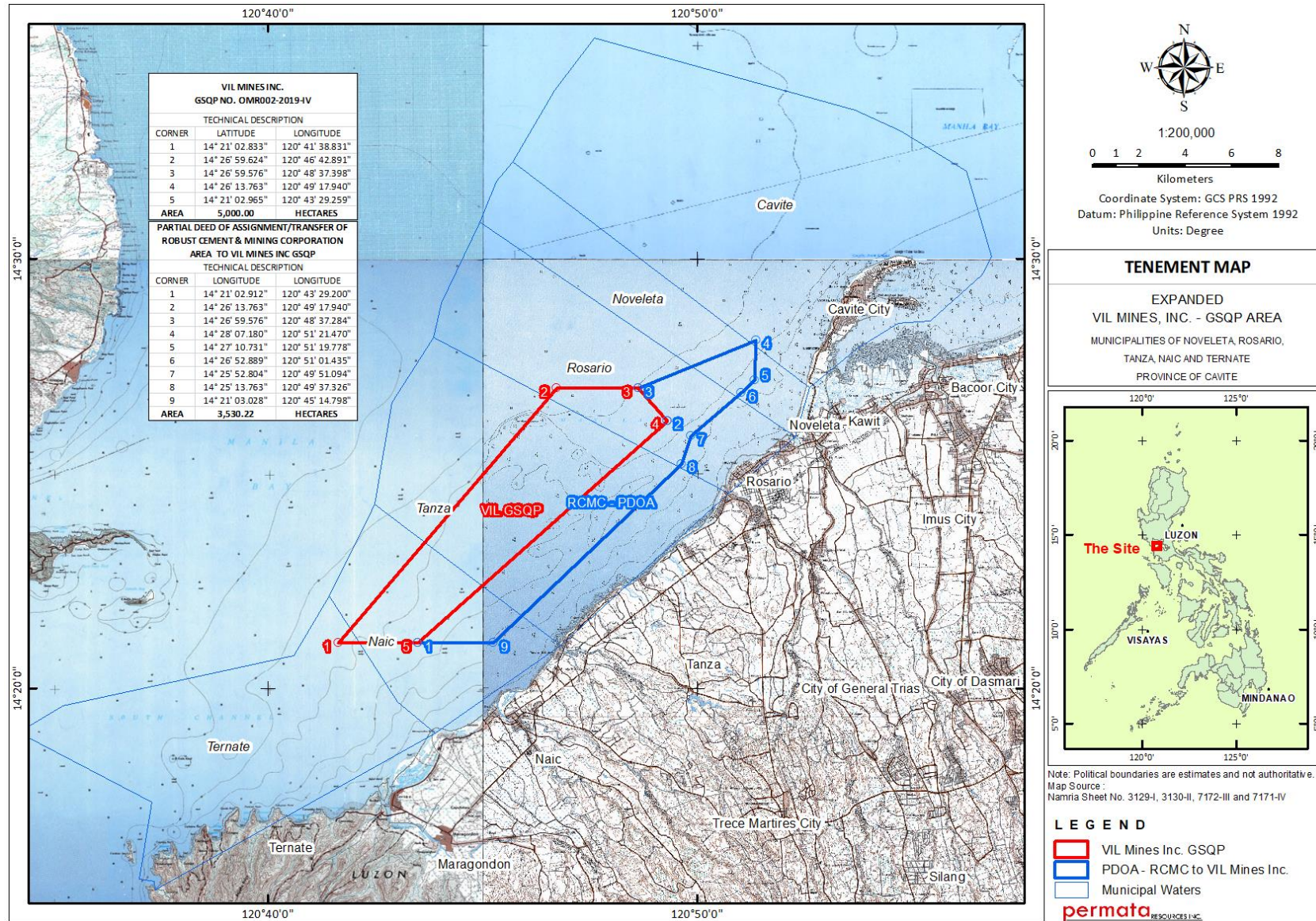


Figure 1. Project Location

2.3 Direct and Indirect Impact Areas

The direct impact area is the 8,530.22-hectare seabed quarry area where all project activities are proposed to be undertaken. Indirect impact areas are those outside the project boundaries that may be affected by the project. In terms of the physical and biological environment, indirect impact areas include the coastal barangays near the municipal waters where the seabed quarry area is located. In terms of indirect socio-economic impacts, areas include those of the adjacent barangays and the whole municipalities of Ternate, Naic, Tanza, Rosario, and Noveleta; all within the Province of Cavite.

2.4 Project Rationale

With the increasing material requirements of government land development and reclamation activities, particularly that of the Manila International Airport (MIA) located in Barangay Talipitip, Municipality of Bulakan, Province of Bulacan, VIL Mines, Inc. plans to support the government's development activities by aiding in the provision of said requirements through the extraction of the substantial marine sand resources within the 7,962-hectare area situated within the San Nicolas Shoal. The company is committed to carry out said activity pursuant to governing laws, and utilize technologies and practices that will minimize environmental impacts.

Aside from such, the proposed operation is projected to provide a boost in the income of the national and local government units, as well as contribute in the sustainable development of the communities through the programs, employment opportunities, and emergence of income generating activities relative to the economic activity brought about by the project.

2.5 Project Alternatives

2.5.1 No Project Option

Should the project not proceed, the current environmental and socioeconomic conditions in the area will continue. Not developing/extracting the available marine sand deposits in the project area would also translate to non-utilization of resources that could possibly aid in the augmentation of the materials needed to implement various government projects.

2.5.2 Site Selection

The project area was selected based on the following:

- Substantial marine sand resources based on conducted exploration; and
- Proximity to the various government development projects within Manila Bay;

2.5.3 Technology Selection

Since the seabed is made of loose material, dredging is the most suitable method to extract the marine sand material. Trailer Suction Hopper Dredgers (TSHDs) shall be utilized as these self-propelled and independent work units make a complete Load-Transport-Dump cycle from the dredging area to the reclamation or land development project. Its cost-effective implementation will also ensure the viability and sustainability of the project.

2.6 Project Component List

2.6.1 Trailer Suction Hopper Dredger

A Trailing Suction Hopper Dredger (TSHD) is a seagoing self-propelled, free-floating vessel that loads dredged material into its hopper well. Dredging takes place through the suction pipes installed alongside the vessel. The dredged material is loosened and collected through the dragheads, which are located at the lower end of the suction pipes. Dredge pumps in the vessel or integrated in the suction pipe, lift the mixture of sand and water into the hopper well. A typical large TSHD is shown in the figure below.

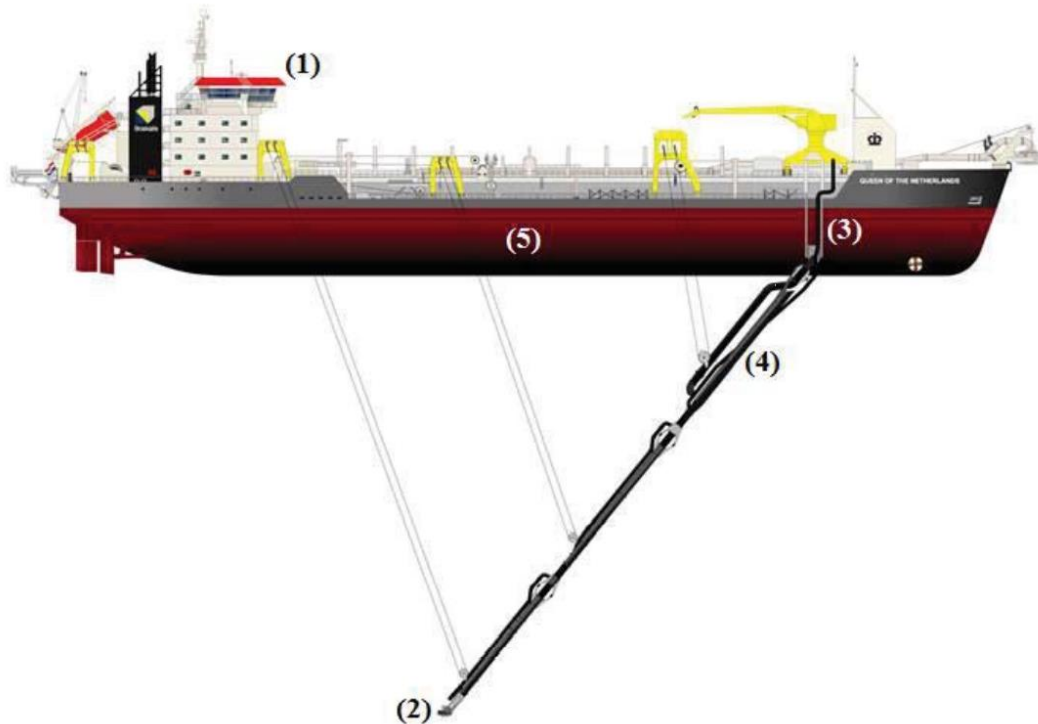


Figure 2. Trailer Suction Hopper Dredger

The following are the main elements of the TSHD, as depicted in the figure above:

- Standard ship's installation (1) for example the engines, the crew' quarters and the bridge with navigational controls;
- The draghead (2), connected at the lower end of the suction pipe. This draghead loosens and collects the sand using teeth and/or water jets. Different types of dragheads can be fitted, depending on the soil conditions;
- The dredging pumps (3) that pump the mixture from the seabed into the hopper well;
- The suction pipe (4) through which the mixture is transported;
- The hopper well (5) is the ship's cargo hold. A mixture of dredged material and water is pumped into the hopper well. The dredged material remains in the hopper well during transport until discharge.

The proposed expansion shall continue to utilize the contractor's TSHDs, namely, "Queen of the Netherlands", "Fairway", "Vasco Da Gama" and "Cristobal Colon" are among its vessels planned for the execution of the sand extraction works. Details of these vessels can be found Annex D.

2.6.2 Grab Dredger and Bottom Dump Barge

Grab Dredgers and Bottom Dump Barge combination will be used as the need arises.

The grab dredger can operate with higher efficiency at deeper portions of the marine borrow area up to 50 m depth; with a grab capacity of up to 200 cubic meter using two (2) clam shell buckets. The buckets will load the material onto the dredger's hold which is connected to one (1) Bottom Dump Barge via a floating pipeline. When full, the Bottom Dump Barge will transport the material directly to the project site through bottom dumping; while the Grab Dredger continually extracts and loads onto its hold. The shortest navigational route of the Bottom Dump Barge will be predetermined to minimize potential impacts within the route. The Grab Dredger will be equipped with anti-turbidity mechanisms for sediment control. There will also be an oil spill boom trap around the whole area to contain small leaks and discharges that naturally occur in the operation of heavy equipment.

2.6.3 Containment Boom and Silt Curtain

The proposed project will implement a controlled overflow of fines from the dredge that is monitored by an onboard controlled overflow mechanism and by large monitoring buoys that will be installed within the applied area of extraction.

Nevertheless, two layered (inner and outer layer separated at 30 meters) containment boom and silt curtain with fine mesh sized material to filter fine and very fine sands shall be utilized by VMI to prevent sediment transport across the dredging area.

2.6.4 Satellite Office/Support Facilities

On-shore employees will be provided with staff houses that are either leased on the surrounding community or integrated in the satellite office to be established. Most of the employees will be assigned on the vessel where accommodations will be provided. In case, construction of support facilities is necessary on land, separate permits and clearances will be acquired to cover such facilities.

2.6.5 Utilities

2.6.5.1 Power Supply

The vessels are self-propelled and equipped with generator sets to provide for the electrical power requirement of the operation.

2.6.5.2 Water Supply

Like all sea-/ocean-going vessels, water supply is usually sourced at the docking pier and provided by water concessionaires within the area.

Potable and drinking water are sourced from available and licensed water purifying and refilling stations within the nearby on-shore community.

Table 2. Existing and Proposed Project Components

Project Components		Existing	Planned
Dredging Activities	Permit	<ul style="list-style-type: none"> - Covered by GSQP No. OMR002-2019-IV - ECC-CO-2003-0002 - Total of 5,000 hectares 	<ul style="list-style-type: none"> - Covered by GSQP No. OMR002-2019-IV and EPA-IVA-127B - Total of 8,530.22 hectares
	Location	Offshore of the Municipalities of Tanza, Rosario, Naic and Ternate, Province of Cavite	Expansion covers the Municipalities of Naic, Tanza, Rosario, and Noveleta
	Technology/components	<ul style="list-style-type: none"> - Trailer Suction Hopper Dredger - Grab Dredger - Bottom Dump Barge 	
	Extraction Method	Dredging	
	Average Weekly Extraction Rate	1,600,000 cubic meters	
	Commodity	Marine sand	
	Pollution Control	<ul style="list-style-type: none"> - Containment boom - Silt curtains 	
Waste Management			

2.7 Project Phases

The entire 8,530.22 hectares will be the target of the dredging operation. Most of the facilities are on board the vessel. Except for a staging area on-shore which could be leased on the nearest community and the satellite office, there will be no other facilities to be established on-shore.

Activities for the proposed project are as follows:

- Development Phase;
- Production Phase; and,
- Rehabilitation and/or Abandonment Phase

There will be an interphase between the development and production phases, where some areas could immediately be on the production phase without undergoing the development; particularly in areas with tolerable silt/muddy materials, which is the subject of development.

2.7.1 Development Phase

The proposed project will implement a controlled overflow of fines that would come with the dredged material.

Nevertheless, should it be necessary, removal of these silt/mud on the upper portion will be the subject of the development. These materials will be transferred to the deepest portion of the borrow area and will be repositied in areas that are fully dredged.

2.7.2 Production Phase

The sand will be extracted from the sand source area using a variety of jumbo and large Trailer Suction Hopper Dredgers (TSHDs). In precis, the sand extraction process involves the following steps:

1. The TSHD will sail empty to designated sand source area.
2. Once in the sand source area, the suction pipes are lowered onto the seabed, the pumps are started, and dredging commences. While dredging, the sand-water mixture is brought up through the suction pipes and pumped into the hopper.
3. The dredged material settles in the hopper and excess process water with (part of) the fines component of the dredged material is evacuated through the overflow system. The latter can be adjusted to optimize productions and align the sand quality with the requirements.
4. When the draught of the TSHD reaches the dredging load mark or when circumstances do not allow further loading, sand mining will be suspended and the suction pipes will be hoisted on deck.
5. The vessel then sails, loaded, from the sand source area, via the access channel, to the land development site. During sailing loaded, a sediment sample inside the hopper will be taken to determine the sediment properties of the dredged material.
6. When the loaded TSHD arrives at the land development site, the vessel connects to a floating pipeline. Subsequently, the dredged material is pumped by means of hydraulic transport via a system of pipelines to the land development area.

Grab Dredgers will be used as the need arises. Should it be needed, from the Grab Dredgers, the Bottom Dump Barges will serve as the carrier of the dredged materials and deliver them to the land development area. Equipped with clamshells, the dredgers unload the material to the Bottom Dump Barges. One (1) Grab Dredger with two clamshell buckets can extract material up to a depth of 50m. The clamshell buckets will load the material directly onto one (1) Bottom Dump Barge; which when full, will transport it directly to the

land development/restoration site through bottom dumping. In some case, deck barges will be used when the project area could not be accessed by the bottom dump barges.

Should it be needed, the entire extraction area will be enclosed by silt curtains made of geotextiles; covering the length from water level down to the sea floor and supported by poles driven 4m into the sea bed. This is meant to prevent dispersal of material outward. An oil spill boom trap will also be established around the whole area to contain small leaks and discharges that naturally occur in the operation of heavy equipment.

In the event of large amounts of unusable material lay on top of dredge fill, the unusable material will be removed first and deposited in the pit left by the previously dredged sections. Dredging shall continue until the required filling elevation has been achieved.

All vessel, like any other maritime vessel operating in the area, will abide by and conform to the rules and regulations of the Philippines Coast Guard (PCG) and the Philippine Ports Authority (PPA) with respect to maritime worthiness, permits and clearance requirements and marine environmental protection. This includes, among others, the proper segregation of all domestic waste in the vessel. Disposal of which will be through the PPA and PCG accredited facilities and parties. To avoid any accidental spills, all maintenance activities of the ships and auxiliary equipment will be conducted on-shore at the appropriate shipping docks. The vessel will also comply with the contingency or mitigating measures for accidental oil spills as required by the PCG. Said contingency plan shall also include the rescue plan for the workers, nearest hospitals, and organizations or local or national government agencies to contact in case of emergency. Appropriate number of lifesaving equipment (jackets and life rafts) based on the number of workers on the vessel shall also be provided.

Aside from the dewatering of the dredge material from the carrier, there will be no further processing of the marine sand nor introduction of chemicals.

2.7.3 Abandonment Phase

All equipment and employees at the borrow sites will be mobile and onboard the vessel. Removal or demobilization of the equipment at site will be undertaken upon completion of the dredging operation. Appropriate environmental measures and enhancement of the borrow sites will be undertaken and monitored prior to full abandonment.

Except for the reconfigured seabed topography, there will be no traces of dredging operation within the area.

As part of the rehabilitation, the immediate community/ies will be consulted and coastal enhancement would be part of the rehabilitation projects.

2.8 Key Environmental Aspects, Wastes, Issues, Built-In Measures

Relative to the operationalization of the planned Project, the following are the possible impacts of the activities and the proposed mitigating measures:

Table 3. Possible Impacts and Management Measures

Activity	Impact(s)	Management/Mitigating Measures
<i>Environment</i>		
Dredging operations	<ul style="list-style-type: none"> - Change in bathymetry, circulation pattern and potential for coastal erosion 	<ul style="list-style-type: none"> - Ensure that dredging activities are implemented within the project site and in accordance with the dredging plans - Provide dredging vessels with positioning and depth sounding systems - Deploy marker buoys at strategic locations along project boundaries during dredging works - Deposit unusable dredge materials to pit left by previously dredge sections - Limit dredging during inclement weather - Continuous monitoring bathymetry during and after operation
	<ul style="list-style-type: none"> - Generation of sediments 	<ul style="list-style-type: none"> - Install and maintain silt curtains around the dredging area - Regular maintenance and inspection of dredging vessels to ensure that there are no structural defects or potential sources of leakages

Activity	Impact(s)	Management/Mitigating Measures
	<ul style="list-style-type: none"> - Disturbance and potential loss of fish habitat and spawning areas; - Reduction in fish and crab population due to the operations and/or migration of the same out of disturbed areas - Alteration of shoal seabed and habitats of crab and macroinvertebrates due to dredging and related construction activities 	<ul style="list-style-type: none"> - Provision of silt curtains and sediment filters around dredging areas - Enhancement planting of mangroves in foreshore areas and tidal flats - Re-stocking of crab population and other suitable species of fish - Support establishment of artificial reefs - Establishment of buffer zones in the coastline and nearshore seabed - Formulation of a Fisheries Improvement Plan
Safety		
Dredging activities	<ul style="list-style-type: none"> - Noise generation 	<ul style="list-style-type: none"> - Provision of appropriate Personal Protective Equipment (PPE) - Implementation of SHP
Social		
All activities relative to the dredging activity	<ul style="list-style-type: none"> - Dislocation of gill nets, crab pots - Loss of income from fishing 	<ul style="list-style-type: none"> - All fishing gears that are dislocated will be replaced with new materials - Support fisheries management programs through the formulation of a Fisheries Improvement Plan - Support adoption of income generating livelihood projects involving women in fisheries and strengthening organized fisher groups - Support advocacy and IEC for responsible fishing practices - Support to coastal management initiatives of the municipalities involved

Activity	Impact(s)	Management/Mitigating Measures
		<ul style="list-style-type: none"> - Support conduct of training on fisheries law enforcement and monitoring, control and surveillance - Alternative livelihoods for fishers - Extensive and effective IEC implementation to local fishers to avoid any displacement of fishing activities. Any substantiated loss of income from fishing due to project activities will be compensated - Loss of permanent gears such as fish pots and baklads will be replaced

2.9 Project Cost and Duration

The estimated life of the project is 15 years. Total project cost to carry out the expansion is approximately Php 500,000,000.00.

Table 4. Project Activities

Project Phases	Year																			
	1	2	3-16														16	17	18	19
Pre-Development																				
Development																				
Production																				
Project Closure and Final Rehabilitation																				

Table 5. Projected Yearly Activities

Activity		Month											
		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th
1	Procurement												
	Contractor												
	Equipment Mobilization												
2	Borrow Pit												
	Development												
	Production												
3	Environmental												
	Silt Curtain Placement												
	Oil Spill Arrester Placement												
	Coastal Enhancement Project Implementation												

3.0 PERMATA RESOURCES, INC. EIA TEAM

NAME	POSITION	EXPERTISE
Edwin D. Ramirez, MSci	Managing Director	Mining Engineering, Environmental Impact Assessment & Management
Ana Raissa Odoño-Jamilla	Operations Manager	Biology, Environmental Impact Assessment & Management
Rommel V. Roxas	Project Manager	Hydrology/Civil
Wilfredo B. Sanidad, PhD	Specialist	Water quality and pedology
Silverio Magallon Jr., PhD & Diosdado Parreño Jr.	Specialist	Sociology
Ronald Pahunang	Specialist	Meteorology, oceanography
Benjamin S. Francisco	Specialist	Marine ecology
David de Asis/Marivic Del Castillo	Specialist	GIS, Drone/UAV tech

Annex A

GSQP No. OMR002-2019-IV



Republic of the Philippines
Department of Environment and Natural Resources
Visayas Avenue, Diliman, Quezon City
Tel. Nos. (632) 929-66-26 to 29 • (632) 929-62-52
929-66-20 • 929-66-33 to 35
929-70-41 to 43

**GOVERNMENT SEABED QUARRY PERMIT
No. OMR002-2019-IV**

MAR 12 2020

Date Issued : _____
Permit Holder : **V.I.L. MINES, INCORPORATED**
Address : 155 EDSA, Wack-Wack, 1555 Mandaluyong City

The **Department of Environment and Natural Resources (DENR)**, through the Mines and Geosciences Bureau (MGB), hereby grants to **V.I.L. Mines, Incorporated**, a corporation duly organized and existing under the laws of the Republic of the Philippines, this **Government Seabed Quarry Permit** to allow the company to conduct mining operations for its Reclamation Project utilizing marine aggregates found within its 5,000-hectare Permit area located in the offshores of Rosario, Tanza, Naic and Ternate, Cavite bounded by the following Technical Description:

Corner	Latitude	Longitude
1	14°21'02.776" N	120°41'38.619" E
2	14°26'59.411" N	120°46'43.040" E
3	14°26'59.531" N	120°48'37.175" E
4	14°26'13.719" N	120°49'17.718" E
5	14°21'02.910" N	120°43'29.200" E

This GSQP is granted in accordance with the pertinent provisions of Joint Department of Environment and Natural Resources-Philippine Reclamation Authority Administrative Order (DPAO) No. 2000-25¹ and DENR Administrative Order (DAO) No. 2010-21, the Implementing Rules and Regulations of Republic Act (RA) No. 7942, the Philippine Mining Act of 1995, subject to the following terms and conditions:

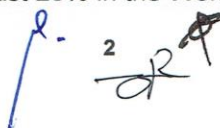
1. The Permit shall have a term coterminous with the Government Reclamation Project/s;
2. The Permit shall be for the exclusive use and benefit of the Permit Holder and shall not be transferred or assigned without prior written approval of the DENR Secretary;
3. The Permit Holder shall not, by virtue of the Permit, acquire any title over the Permit/Mining Area without prejudice to the acquisition by the Permit Holder of the land/surface rights through any mode of acquisition provided for by law;

¹ Implementing Rules and Regulations of Executive Order No. 153 - Authorizing the Utilization of Offshore Areas Not Covered by Approved Mining Permits and Contracts as Sources of Dredgefill Materials for Government Reclamation Projects and for Other Purposes.



4. The Permit Holder shall conduct a preliminary ecological profiling to establish pre-quarrying conditions and submit a preliminary environmental examination of the area;
5. The Permit Holder shall submit the following to the MGB prior to the development/utilization of the Permit Area:
 - a. Environmental Compliance Certificate;
 - b. Approved Development and/or Utilization Work Program (D/UWP);
 - c. Proof of consultation and/or project presentation with all the *Sangguniang Panlalawigan/ Bayan/ Panglungsod/ Barangay* concerned;
 - d. Approved Integrated Environmental Protection and Enhancement Program and Final Mine Rehabilitation and/or Decommissioning Plan;
 - e. Approved Social Development and Management Program; and
 - f. Approved Safety and Health Program.
6. The extraction, removal and/or disposition of materials shall not be allowed in offshore areas within one thousand five hundred (1,500) meters distance from the coast, and within two hundred (200) meters landward from the mean low tide level along the beach;
7. The extraction, removal and/or disposition of materials under the Permit shall be confined within the area specified therein, the boundaries of which, according to the Permit are established on the ground with prominent marks during the duration of the Permit;
8. The extraction shall be carried out in accordance with the United Nations Convention on the Law of the Sea (UNCLOS) and in a manner that will not adversely affect the safety of navigation at sea and will ensure accommodation of other marine activities, such as, fishing, aquaculture, transportation, etc;
9. The Permit Holder shall assume full responsibility and be liable for damages to private and/or public property(ies) that may be occasioned by its operations under the Permit;
10. The Permit Holder shall manage its operations in a technically and environmentally responsible manner to achieve a safe, non-polluting and self-sustaining post disturbance landform;
11. The Permit Holder shall implement and/or strictly conduct its operations in accordance with the Work Programs and the provisions of Republic Act No. 7942 and its implementing rules and regulations: *Provided, That a negative variance of at least 20% in the Work Programs and corresponding*

2



expenditures shall be subject to approval of the Director; *Provided, further,* That in case of positive variance in the expenditures, the corresponding budget of the approved annual EPEP and SDMP shall be proportionally increased and simultaneously expended on ground with approved D/UWP;

12. The Permit Holder shall not discriminate on the basis of the gender and that the Permit Holder shall respect the right of women workers to participate in policy and decision-making processes affecting their rights and benefits;
13. The Permit Holder shall conform to laws, rules and regulations regarding, among others, labor, safety and health standards;
14. The Permit Holder shall not interfere with the rights of other Permit Holders/ Operators/Contractors/Awardees.
15. The Permit Holder shall recognize and respect the rights, customs and traditions of local communities, particularly Indigenous Cultural Communities;
16. The Permit Holder shall immediately stop digging and extracting materials the moment man-made articles or artifacts are found. It shall notify the Director of the National Museum of such findings, in which case, the digging shall be under the supervision of the National Museum until such artifacts are recovered;
17. The Permit holder shall submit to the MGB RO concerned the following report:
 - i. Quarterly Report on Production and Employment and Energy Consumption as prescribed in MGB Form Nos. 29-11 and 29-18, within 15 days after the end of each calendar year;
 - ii. Integrated Annual Report as prescribed in MGB Form No. 29-16 within two months from the end of each calendar year; and
 - iii. Annual Status Report within two months from the end of each calendar year, indicating detailed data on:
 - The total tonnage of dredge material reserves, tonnage mined tonnages transported from the mine site and their corresponding destination, tonnages stockpiled in the mine and elsewhere in the Philippines, tonnages sold or committed for export (whether actually shipped from the Philippines or not), tonnages actually shipped from the Philippines (with full details as to purchaser, destination and terms of sale), and if known to the Contractor, tonnages refined, processed or manufactured in the Philippines with full specifications as to the intermediate products, by-products or final products and of the terms which they were disposed;

  
3



- Work accomplished and work in progress at the end of the year under consideration in relation to the Work Program, including the investment actually made or committed; and
- Profile of work force, including management and staff, stating particularly their nationalities, and for Filipinos, their place of origin (i.e., barangay, town, province, region):

Provided, That the following fines shall be imposed:

- i. Late submission of any of the above reports:




	Basic Fine	Daily Fine
1 st Violation	1,000.00	10.00
2 nd Violation	2,000.00	20.00
3 rd Violation	3,000.00	30.00

- ii. Non-submission of any of the above reports after one (1) month from the prescribed reporting period.

	Basic Fine	Daily Fine
1 st Violation	2,000.00	20.00
2 nd Violation	3,000.00	30.00
3 rd Violation	5,000.00	50.00

Provided, further, That a late report classified under non-submission category shall not be fined for late submission but instead fined for non-submission: *Provided, further*, that the total fine for non-submission of any of the required reports at any one time shall not exceed PhP10,000.00: *Provided, furthermore*, That the fines are not substitute for the required submission of reports as provided under the terms and condition of the Permit and provisions of the laws, rules and regulations: *Provided, finally*, That failure of the Permit Holder to submit any of the required reports or pay the imposed fines despite the notices shall be sufficient ground for cancellation of the Permit.

18. The Permit Holder shall post a Financial Performance Surety of One Million Pesos to cover any accidental damages to property, the loss of lives, or the destruction of the seabed during the conduct of the dredging operations;
19. The Permit Holder shall pay the following fees, taxes and royalty due the Government:
- i. Annual Occupation Fee to the MGB in the amount of PhP100.00 per hectare prior to the registration of the Permit and on the same date every year thereafter: *Provided*, That if the fee is not paid on the date specified, the Permit Holder shall pay a surcharge of 25% of the occupation fee for every year late: *Provided, further*, That the Secretary is authorized to increase the occupation fees provided herein when the national interest and public welfare so require;

  
4



- ii. Management/Service/Environmental User's Fee to the DENR/NRDC for every cubic meter of seabed dredgefill material extracted at an amount determined by the IACC;
- iii. Royalty due to the Government paid to MGB in the amount of 5% of the gross output at the time of removal of the dredgefill materials; and
- iv. Other taxes, duties and fees levied by existing laws, rules and regulations:

Provided, that the Permit Holder shall strictly comply with the auditing and accounting requirements prescribed under existing laws, rules and regulations.

- 18. The Permit Holder shall submit the name, port of registry, tonnage, type and class of survey vessel(s)/platform(s): *Provided*, That if a foreign vessel is to be used, the expected date of first entry or appearance and final departure of the survey vessel shall be provided and all the necessary clearances obtained;
- 19. The Permit Holder shall submit to the MGB RO concerned proof/s that the D/UWP and list of safety measures to be regularly undertaken to ensure the safety of navigation at sea and prevent accidents were provided to the Coast and Geodetic Survey Department of the NAMRIA, Maritime Industry Authority and Philippine Coast Guard;
- 20. The Permit Holder shall properly identify all installations, vessels and other crafts involved in seabed quarrying operations recognizable to all vessels within reasonable distance;
- 21. The Permit Holder shall notify the MGB 30 calendar days prior to the intention to remove all scientific installations or equipment and apparatus;
- 22. The Government shall exercise its right on visitorial powers over the Permit area, including the right to station representative(s) thereat and at the Permit Holders' survey platform, i.e., the Permit Holder shall allow the MGB's authorized personnel, Philippine Coast Guard and other authorized persons during reasonable hours to board vessel(s) while within the Exclusive Economic Zone;
- 23. The Permit holder shall comply with pertinent provisions of R.A. No. 7942 and its implementing rules and regulations and other applicable laws, rules and regulations;
- 24. The Permit may be suspended at any time by the DENR Secretary/MGB Director when, in his opinion, public interest and welfare or peace and order conditions so require or demand, without any obligation on the part of the Government; and


5



25. The Permit shall be subject to cancellation, revocation and termination as provided for in Section 20 of DPAO No. 2000-25.

For the Republic of the Philippines:
(Grantor)

By:



ROY A. CIMATU
Secretary
Department of Environment and Natural Resources


REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF ENVIRONMENT
AND NATURAL RESOURCES
SENRO58284


I hereby accept the terms and conditions of this Government Seabed Quarry Permit as above stated:

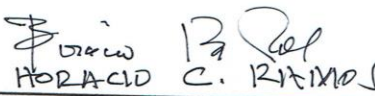
V.I.L. Mines, Incorporated
(Permit Holder)
TIN: 005-262-128-000

By:


RICARDO L. YABUT
President
V.I.L. Mines, Incorporated

Signed in the Presence of:


WILFREDO G. MONCAYO
(Signature over Printed Name)



HORACIO C. RIVAS
(Signature over Printed Name)

ACKNOWLEDGEMENT

Republic of the Philippines)
Province of _____) s.s.
City/Municipality MANDALUYONG CITY)

BEFORE ME personally appeared **ROY A. CIMATU** with Passport No. D00082134 issued on 13 AUGUST 2018 at DFA MANILA, in his capacity as Secretary of the Department of Environment and Natural Resources, and **RICARDO L. YABUT** with Passport No. P2434351A issued on 23 MAR 2017 in DFA MANILA, in his capacity as President of V.I.L. Mines, Incorporated, known to me and to me known to be the same persons who executed the foregoing instrument consisting of five pages, including this acknowledgment page, and acknowledged that the same is their voluntary act and deed.

IN WITNESS WHEREOF, I hereunto set my hand and affix my notarial seal this 12th day of March 2020.


ATTY. JOHN VOLTAIRE A. ALMEDA
NOTARY PUBLIC
UNTIL DECEMBER 31, 2021
COMMISSION NO. 0486-20
PTR NO. 2972546, 1-12-20; MANDALUYONG
PTR NO. 109023, 1-10-20
ISSUED IN SUPREME COURT ROLL NO. 55242
at MCLE COMPLIANCE NO. VI-0003696

Doc. No. 07
Page No. 02
Book No. 01
Series of 2020



  3P
7

Annex B

Deed of Partial Assignment



Republic of the Philippines
Department of Environment and Natural Resources
MINES AND GEOSCIENCES BUREAU
Regional Office No. IV (CALABARZON)
8TH Floor, DENR by the Bay Bldg, Roxas Boulevard
Ermita, Manila, Philippines
Telefax. No. (+632) 310-88-97 E-mail: mgbcalabarzon@gmail.com
Website: region4a.mgb.gov.ph



Certificate No. 66832
EAC Code: 36

IN RE: DEED OF PARTIAL ASSIGNMENT
EXECUTED ON AUGUST 27, 2021
BY AND BETWEEN ROBUST
CEMENT AND MINING
CORPORATION AND V.I.L. MINES,
INC. INVOLVING 4,678.1369-
HECTARE AREA OF THE
APPLICATION FOR EXPLORATION
PERMIT DENOMINATED AS
EPA--IVA-127

SEP 02 2021

X-----X

NOTICE OF ISSUANCE OF AN ORDER

MR. BENJAMIN O. FALLARIA
President
Robust Cement and Mining Corporation
153 EDSA, Brgy. Wack Wack
1555 Mandaluyong City

Reg. Mail

MR. RICARDO L. YABUT
President
V.I.L. Mines, Inc.
155 EDSA, Barangay Wack-Wack
1555 Mandaluyong City

Reg. Mail

ATTY. WILFREDO G. MONCANO
Mines and Geosciences Bureau
North Avenue, Diliman
1101 Quezon City

Reg. Mail

Please be notified that an Order was issued by this Office on even date on the subject, a copy of which is attached.

DONDI M. SARMIENTO
OIC, Regional Director

Encl.: as stated

Department of Environment and Natural Resources
Mines and Geosciences Bureau
Region IV CALABARZON
Office of the Regional Director

090221-R04A-8486



4:42 PM LETTER 09/02/21

MINING SHALL BE PRO-PEOPLE AND PRO-ENVIRONMENT
IN SUSTAINING WEALTH CREATION AND IMPROVED QUALITY OF LIFE



Republic of the Philippines
Department of Environment and Natural Resources
MINES AND GEOSCIENCES BUREAU
Regional Office No. IV (CALABARZON)
8TH Floor, DENR by the Bay Bldg, Roxas Boulevard
Ermita, Manila, Philippines
Telefax. No. (+632) 310-88-97 E-mail: mgbcalabarzon@gmail.com
Website: region4a.mgb.gov.ph



**IN RE: DEED OF PARTIAL ASSIGNMENT
EXECUTED ON AUGUST 27, 2021
BY AND BETWEEN ROBUST
CEMENT AND MINING
CORPORATION AND V.I.L. MINES,
INC. INVOLVING 4,678.1369-
HECTARE AREA OF THE
APPLICATION FOR EXPLORATION
PERMIT DENOMINATED AS
EPA-IVA-127**

X-----X

ORDER

WHEREAS, on June 21, 2010, Robust Cement and Mining Corporation (RCMC) filed an application for Exploration Permit denominated as EPA-IVA-127 covering an area of 6,846.00 hectares located in the Municipalities of Noveleta, Rosario, Tanza and Naic, Province of Cavite;

WHEREAS, on August 27, 2021, a Deed of Partial Assignment (hereto referred as the DPA) was executed by and between RCMC, *Assignor*, and V.I.L., Mines, Inc., *Assignee*, assigning and conveying certain portion of the applied area of EPA-IVA-127 covering 4,678.1369 hectares;

WHEREAS, Section 19-A of Department of Environment and Natural Resources (DENR) Administrative Order No. 2010-21, the revised Implementing Rules and Regulations of Republic Act No. 7942, otherwise known as the "*Philippine Mining Act of 1995*," states that:

Section 19-A. Transfer or Assignment of Exploration Permit Application

Transfer or assignment of Exploration Permit application shall be allowed subject to the approval of the Regional Director concerned taking into account the national interest and public welfare: Provided, That such transfer or assignment shall be subject to eligibility requirements and shall not be allowed in cases involving speculation;

MINING SHALL BE PRO-PEOPLE AND PRO-ENVIRONMENT
IN SUSTAINING WEALTH CREATION AND IMPROVED QUALITY OF LIFE



Republic of the Philippines
Department of Environment and Natural Resources
MINES AND GEOSCIENCES BUREAU
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Telefax. No. (+632) 310-88-97 E-mail: mgbcalabarzon@gmail.com
Website: region4a.mgb.gov.ph



**IN RE: DEED OF PARTIAL ASSIGNMENT
EXECUTED ON AUGUST 27, 2021
BY AND BETWEEN ROBUST
CEMENT AND MINING
CORPORATION AND V.I.L. MINES,
INC. INVOLVING 4,678.1369-
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X-----X

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MINING SHALL BE PRO-PEOPLE AND PRO-ENVIRONMENT
IN SUSTAINING WEALTH CREATION AND IMPROVED QUALITY OF LIFE

Annex C

ECC-CO-2003-0002



Republic of the Philippines
Department of Environment and Natural Resources
ENVIRONMENTAL MANAGEMENT BUREAU
DENR Compound, Visayas Avenue, Diliman, Quezon City 1116
Telephone Nos.: 927-15-17, 928-20-96
Email : emb@emb.gov.ph
Visit us at <http://www.emb.gov.ph>

MAY 27 2020
ECC-CO-2003-0002

Mr. Ricardo L. Yabut
President
V.I.L. MINES, INC.
155 EDSA, Barangay Wack-wack
Mandaluyong City

Subject: **ENVIRONMENTAL COMPLIANCE CERTIFICATE**

Dear **Sir**:

This refers to the application for Environmental Compliance Certificate (ECC) of **V.I.L. Mines, Inc.** for its proposed **San Nicolas Shoal Seabed Quarry Project** to be located along the offshore areas of the *Municipalities of Ternate, Naic, Tanza and Rosario, Province of Cavite.*

After satisfying the requirements of Presidential Decree No. 1586 and its Implementing Rules and Regulation, the Department, through this Office has decided to grant an ECC for the above-mentioned project.

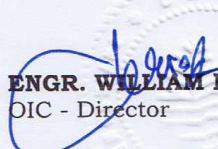
With this issuance, the proponent is expected to fully implement the measures presented in the Environmental Impact Statement (EIS) intended to protect and mitigate the project's predicted adverse impacts on community health, welfare and the environment. Environmental considerations shall be incorporated in all phases and aspects of the project.

This Certificate does not create any right nor be used as an authorization to implement the project. This Office shall be monitoring the project periodically to ensure strict compliance with the stipulations cited in the attached ECC.

Please be guided accordingly.

Very truly yours,

By the Authority of the Secretary:


ENGR. WILLIAM P. CUÑADO
OIC - Director

cc: EMB CALABARZON
MGB Central Office
MGB CALABARZON
LGU - Province of Cavite
DA - BFAR
DOLE - Bureau of Working Conditions



LGU - Municipality of Naic
LGU - Municipality of Rosario
LGU - Municipality of Tanza
LGU - Municipality of Ternate
MARINA
Philippine Coast Guard

Protect the environment... Protect life...



Republic of the Philippines
Department of Environment and Natural Resources
ENVIRONMENTAL MANAGEMENT BUREAU
DENR Compound, Visayas Avenue, Diliman, Quezon City 1116
Telephone Nos.: 927-15-17, 928-20-96
Email : emb@emb.gov.ph
Visit us at <http://www.emb.gov.ph>

MAY 27 2020
ECC-CO-2003-0002

Mr. Ricardo L. Yabut
President
V.I.L. MINES, INC.
155 EDSA, Barangay Wack-wack
Mandaluyong City

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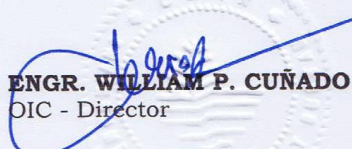
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Very truly yours,

By the Authority of the Secretary:


ENGR. WILLIAM P. CUÑADO
OIC - Director

cc: EMB CALABARZON
MGB Central Office
MGB CALABARZON
LGU - Province of Cavite
DA - BFAR
DOLE - Bureau of Working Conditions



LGU - Municipality of Naic
LGU - Municipality of Rosario
LGU - Municipality of Tanza
LGU - Municipality of Ternate
MARINA
Philippine Coast Guard

Protect the environment... Protect life...

SWORN ACCOUNTABILITY STATEMENT

I, **Mr. Ricardo L. Yabut**, President of **V.I.L. Mines, Inc.** and proponent of this **San Nicolas Shoal Seabed Quarry Project**, to be located along the offshore areas of the *Municipalities of Ternate, Naic, Tanza and Rosario, Province of Cavite*, take full responsibility in complying with all conditions contained in this Environmental Compliance Certificate (ECC).


Signature

TIN 119 879 757

Subscribed and sworn to before me on JUN 05 2020, the above-named
affiant taking oath and presenting his TIN ID 119 879 757 issued on
24 June 2011.

FLOYD ERICSON M. REY

Appointment No. 134 (2019-2020)

Signature of Nature Resource Officer

Until 31 December 2020

Roll No. 64961

IBP O.R. No. 109189/1-10-2020/ Makati City

PTR No. 2970904/1-10-2020/ Mandaluyong City

MCLE Compliance No. VI-0007990/4-6-2018 4-14-2022

Unit 903 Manila Luxury Condominium, San Antonio, Pasig City 1605

Doc. No. 195
Page No. 40
Book No. 1
Series of 2020

ECC-CO-2003-0002
San Nicolas Shoal Seabed Quarry Project
V.I.L. Mines, Inc.

Page 3 of 7



ANNEX A

I. ENVIRONMENTAL MANAGEMENT

All commitments, mitigating measures and monitoring requirements, especially those contained in the Environmental Impact Statement (EIS), particularly in the Environmental Management and Monitoring Plans (EMMoPs), shall be instituted to minimize any adverse impact to the environment throughout the project implementation including among others the following, *to wit*:

Activity	Impacts	Mitigating Measures	Target Performance/ Efficiency
Dredging and Barging	Increase in turbidity	Installation of silt curtains around the dredging vessel and/or dredging area	100% No turbidity outside the silt curtain
	Generation of dredged materials	Provision of spoil site or hire a third party to handle the dredged material	100% dredged material is hauled/managed
	Potential spillage of dredge materials during barging	Provision of containment facility to prevent spillage	100% No turbidity outside the silt curtain

II. GENERAL CONDITIONS

- The proponent shall comply with all mandates of this Office, particularly the following provisions:
 - RA 6969 "Toxic Substances and Hazardous and Nuclear Wastes Control Act of 1990";
 - RA 8749 "Philippine Clean Air Act of 1999";
 - RA 9003 "Ecological Solid Waste Management Act of 2000";
 - RA 9275 "Philippine Clean Water Act of 2004"; and
 - Other relevant policies, rules, and regulations.
- The proponent shall enter into an agreement with the DENR CALABARZON regarding the National Greening Program and/or carbon sink management program in line with the DENR's thrust on GHG emission reduction within three (3) months prior to project implementation;
- The proponent shall implement Information, Education and Communication (IEC) Program to inform and educate all stakeholders, about the mitigating measures embodied in its EIS and the conditions stipulated in this Certificate for awareness and understanding of the Project.

The implementation shall be in coordination with the Mines and Geosciences Bureau (MGB) and EMB Regional Office No. IV-A. Proof of compliance shall be submitted to EMB Central Office as part of its Compliance Monitoring Report (CMR);

- 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 shall be submitted to EMB and the MGB, DENR.

ECC-CO-2003-0002
San Nicolas Shoal Seabed Quarry Project
V.I.L. Mines, Inc.



Page 4 of 7

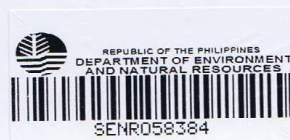
5. The proponent shall submit within three (3) months prior to project implementation the Oceanographic Study covering the project area and updated Environmental Management Plan (EMP) consistent with the result of the said study;

III. RESTRICTIONS

6. The dredged materials shall be for the sole use of approved government projects;
7. This Certificate shall be coterminous with the validity of the approved GSQP;
8. The proponent shall coordinate with other concerned Government Agencies in the management of the project and shall implement only after securing all the necessary and relevant permits from other pertinent Government Agencies;
9. The proponent shall comply with all mitigating measures regulated by other concerned government agencies;
10. No other activities shall be undertaken other than what were stipulated in the updated EIS 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
11. In case of transfer of ownership of this Project, these same conditions and restrictions for which written notification must be made by herein grantee to EMB within fifteen (15) working days from such transfer.

O.R. No. : 2396586
Processing Fee : PhP 10,100.00
Date : 09 March 2020

ECC-CO-2003-0002
San Nicolas Shoal Seabed Quarry Project
V.I.L. Mines, Inc.



Page 5 of 5

ANNEX B

PROJECT ASSESSMENT PLANNING TOOL

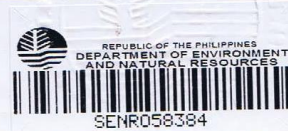
For the assistance and guidance of the Proponent and Government agencies concerned in the management of the Project and for better coordination in mitigation of the impacts of the Project on its surrounding areas and the environment, the following recommendations are forwarded to the parties and authorities concerned for appropriate action.

Environmental Planning Recommendations and Regulatory Requirements for the Proponent

A. DENR-Mines and Geosciences Bureau

1. The proponent shall comply with the environmental management and protection requirements of the Philippine Mining Act of 1995 (R.A. No. 7942) and its Implementing Rules and Regulations (DAO 2010-21), and Authorizing the Utilization of Offshore Areas not Covered by Approved Mining Permits and Contracts as Sources of Dredgefill Materials for Government Reclamation Project and for other Purposes (Executive Order 153) and its IRR (DAO No. 2000-25), such as, but not limited to, the following:
 - a. Submission of an Environmental Protection and Enhancement Program (EPEP) to the MGB for approval prior to project implementation. The EMB CO shall be furnished copy of the approved EPEP within thirty (30) working days from its approval;
 - b. Submission of a Social Development and Management Program (SDMP) to MGB Region IV-A for approval prior to project implementation. The EMB CO shall be furnished copy of the approved SDMP within thirty (30) working days from its approval;
 - c. Submission of Safety and Health Program to MGB Region IV-A for approval prior to project implementation. The EMB CO shall be furnished copy of the approved SDMP within thirty (30) working days from its approval;
 - d. Set up a Contingent Liability and Rehabilitation Fund (CLRF) and Environmental Trust Fund (ETF); and
 - e. Establishment of a Mine Environmental Protection and Enhancement Office (MEPEO) to competently handle the environment-related aspect of the Project. The MEPEO shall also monitor the actual Project impacts vis-à-vis the predicted impacts and management measures identified in the EIS. The proponent shall furnish EMB CO a copy of CMR on a semi-annual basis pursuant to the Revised Procedural Manual for DAO 2003-30;
2. The proponent shall conduct a Coastal Geohazard Assessment such as but not limited to coastal erosion study and sediment transport/replenishment assessment of the San Nicolas Shoal within the coverage of issued Government Seabed Quarry Permit (GSQP) from the commencement of quarrying activity and every two (2) years thereafter;

ECC-CO-2003-0002
San Nicolas Shoal Seabed Quarry Project
V.I.L. Mines, Inc.



B. Philippine Coast Guard and/or MARINA

1. The proponent shall coordinate with the Philippine Coast Guard and Maritime Industry Authority (MARINA) on for sea traffic/ navigation;
2. Proponent and its contractor/s shall apply for the approval of the following document (if necessary): Notice to Mariners for the operation areas including buffer areas and areas to be occupied by the silt curtains and support vessels, oil spill contingency plan, garbage management plan, approval of sewage management plan, smoke emission from the vessel/barge, and hazardous waste management;
3. The proponent shall install exhaust mufflers on all heavy equipment and machinery to minimize noise. Also, proponent shall maximize the operation of work during daytime, reduce the movement and operation of vessel during night time; and
4. The proponent shall ensure that its contractors and sub-contractors including all attending vessels strictly comply with the relevant conditions of this Certificate.

C. DA-Bureau of Fisheries and Aquatic Resources

1. The proponent shall implement measures in coordination with BFAR to minimize the disturbance to benthic communities.

D. DOLE- Bureau of Working Conditions

1. The proponent shall monitor project management's provision of rights and privileges for onshore and offshore workers for protection and social security.

E. Local Government Unit

1. The 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;
2. The proponent shall coordinate with the concerned LGU for the implementation of Solid Waste Management Plan; and
3. The proponent shall comply with the Sanitation Code of the Philippines.

For the dissemination and proper action of the agencies concerned.


ENGR. ESPERANZA A. SAJUL
Chief, EIA Management Division


ENGR. WILLIAM P. CUÑADO
OIC - Director



Annex D

Vessel Details



EQUIPMENT SHEET

QUEEN OF THE NETHERLANDS
TRAILING SUCTION HOPPER DREDGER



CONSTRUCTION/CLASSIFICATION

Built by	Verolme Shipyard Heusden B.V./ Keppel Shipyard Singapore
Year of construction	1998
Year of modification	2009
Classification	B.V. I * HULL * MACH * AUT-UMS Hopper dredger Dredging within 15 miles from shore, or within 20 miles from port, dredging over 15 miles from shore with H.S. ≤ 3.5m Unrestricted navigation Mon-shaft

FEATURES

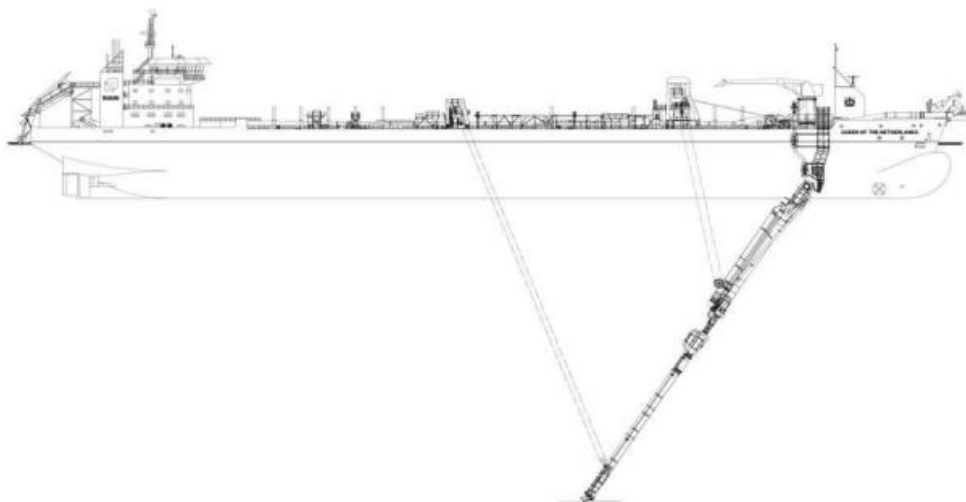
3,500 kW Submersible dredge pump unit in SB suction pipe.
Optional dredging depth 83 m at PS, with submersible dredge pump.
Optional dredging depth 115 m SB and PS.
Optional dredging depth 160 m SB.

MAIN DATA

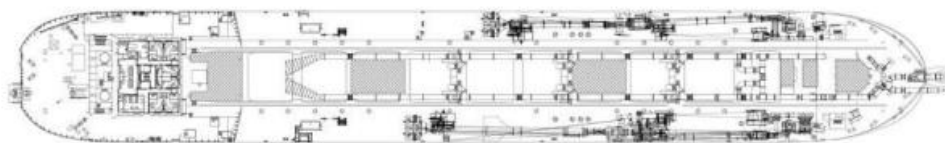
Gross tonnage	33,423
Length overall	230.71 m
Breadth	32.00 m
Moulded depth	15.90 m (Aft ship)/ 16.85 m (Mid ship)
Max. draught Int. load line	10.387 m
Max. draught dredging load line	13.674 m
Carrying capacity (D.W.)	59,168 t
Hopper capacity	35,500 m ³
Suction pipe diameter	2 x 1,200 mm
Max. dredging depth	PS: 67 m / SB: 67/83 m with submersible dredge pump.
Discharge systems	24 Bottom door sections/Pump ashore/Rainbow installation/Back dumping
Sailing speed loaded	16.0 kn
Total installed power	27,634 kW
Dredge pump output	SB: 7,000 kW (inboard and outboard dredge pump in series) PS: 6,000 kW (inboard dredge pump only)
Jet pump output	3 x 1,000 kW
Pump ashore output	2 x 6,000 kW
Propulsion power sailing	23,000 kW
Bow thruster	2,650 kW

Expansion of San Nicolas Shoal Seabed Quarry Project

Project Description



SIDE VIEW



TOP VIEW DECK LEVEL

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EQUIPMENT SHEET

FAIRWAY
TRAILING SUCTION HOPPER DREDGER



CONSTRUCTION/CLASSIFICATION

Built by	Verolme Shipyard Heusden B.V.
Year of construction	1997
Year of modification	2013
Classification	B.V. I * HULL * MACH * AUT-UMS Hopper dredger Dredging within 15 miles from shore, or within 20 miles from port, dredging over 15 miles from shore with H.S. ≤ 3.5m Unrestricted navigation Mon-shaft

FEATURES

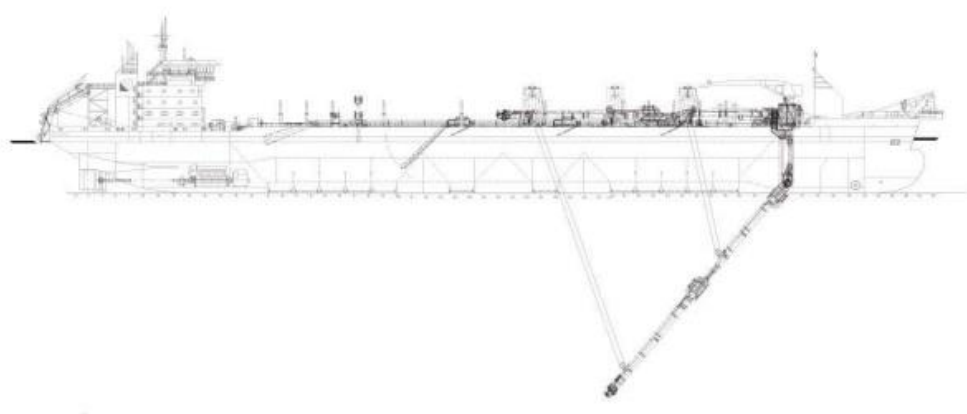
Optional dredging depth 83 m at PS, with submergible dredge pump.
2 independent flad-rudders
Extended in 2002 with 54 m
Equiped with DP/DT system
Equiped with TDM - measurementsystem

MAIN DATA

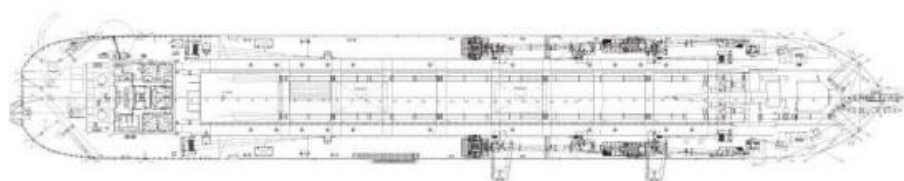
Gross tonnage	33,423
Length overall	230.71 m
Breadth	32.00 m

MAIN DATA (CONTINUED)

Moulded depth	15.90 m (Aft ship)/ 16.85 m (Mid ship)
Max. draught Int. load line	13.50 m
Max. draught dredging load line	13.50 m
Carrying capacity (D.W.)	58,298 t
Hopper capacity	35,500 m ³
Displacement D.L.L.	82,910 t
Suction pipe diameter	2 x 1,200 mm
Max. dredging depth	70 m
Discharge systems	24 Bottom door sections Pump ashore Rainbow installation Back filling
Sailing speed loaded	16.0 kn
Total installed power	27,550 kW
Dredge pump output	SB: 6,000 kW (inboard dredge pump only) PS: 6,000 kW (inboard dredge pump only)
Jet pump output	3 x 1,000 kW
Pump ashore output	2 x 6,000 kW
Propulsion power sailing	23,000 kW
Bow thruster	2,650 kW



SIDE VIEW



TOP VIEW DECK LEVEL

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Vasco da Gama.



Trailing Suction Hopper Dredger

Hopper capacity	33,000 m ³
Deadweight	59,000 t
Length o.a.	201.4 m
Breadth	36.2 m
Draught loaded	14.6 m
Maximum dredging depth	53.5 / 68 / 137.5 / 140 m
Suction pipe diameter	1,400 mm
Pump power (trailing)	2 x 4,500 kW
Pump power (discharging)	16,000 kW
Propulsion power	2 x 14,700 kW
Total installed diesel power	37,060 kW
Speed	16.3 kn
Accommodation	40
Built in	2000



Cristóbal Colón.



Trailing Suction Hopper Dredger

Hopper capacity	46,000 m ³
Deadweight	78,500 t
Length o.a.	223 m
Breadth	41 m
Draught loaded	15.15 m
Maximum dredging depth	155 m
Suction pipe diameter	1,300 mm
Pump power (trailing)	2 x 6,500 kW
Pump power (discharging)	16,000 kW
Propulsion power	2 x 19,200 kW
Total installed diesel power	41,650 kW
Speed	18 kn
Accommodation	46
Built in	2009

