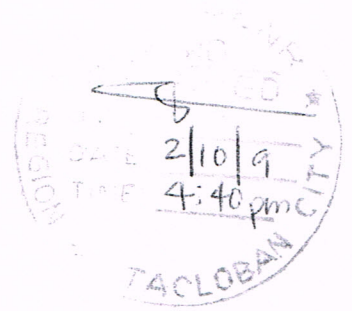


**ANNEX "A"**

**CORPORATE SECRETARY'S  
CERTIFICATION**

REPUBLIC OF THE PHILIPPINES)  
CITY OF MANILA ) SS.



**SECRETARY'S CERTIFICATE**

I, ROWENA R. MARTINEZ, of legal age, single and with address at Unit 507, Peninsula Court Bldg., Makati Avenue, Makati City, after sworn to in accordance with law, depose and state that:

1. I am the Corporate Secretary of Cambayas Mining Corporation, a duly organized corporation under the laws of the Philippines with principal office located at Unit 507, Peninsula Court Bldg., Makati Avenue, Makati City;


2. At a special meeting of the Board of Directors of Cambayas Mining Corporation held at its principal office on January 3, 2008, the following Board Resolution was passed and approved:

**Resolution 01-10**  
(Authorization)

“Resolve as it is hereby resolved to authorize one of the Board of Directors of Cambayas Mining Corporation, Mr. Yan Ming, and/or its Legal Officer, Atty. Amado S. Sandel, Jr., to apply for Mineral Production Sharing Agreement (MPSA) and Certificate of Environmental Management and Community Relations Record (CEMCRR) with the Mines and Geosciences Bureau particularly in the Regional Office No. VIII of the said Bureau located in Palo, Leyte.

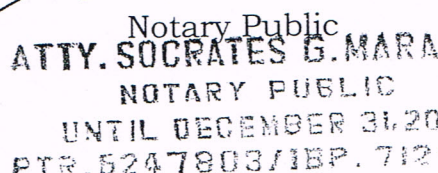
Resolved further to authorize Mr. Yan Ming and/or Atty. Amado S. Sandel, Jr. to sign and execute necessary papers/documents in connection with the powers hereinabove given.

In Witness Whereof, I have hereunto affixed my signature this February 1, 2008.

  
ROWENA R. MARTINEZ  
Corporate Secretary  
FEB 08 2008

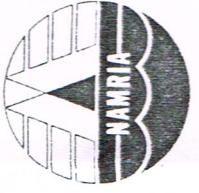
Subscribed and sworn to before me this 1st day of February, 2008 affiant showing to me her CTC No. 08895360 issued at Taguig City on September 3, 2007,

Doc. No. 32;  
Page No. 07;  
Book No. 21;  
Series of 2008.

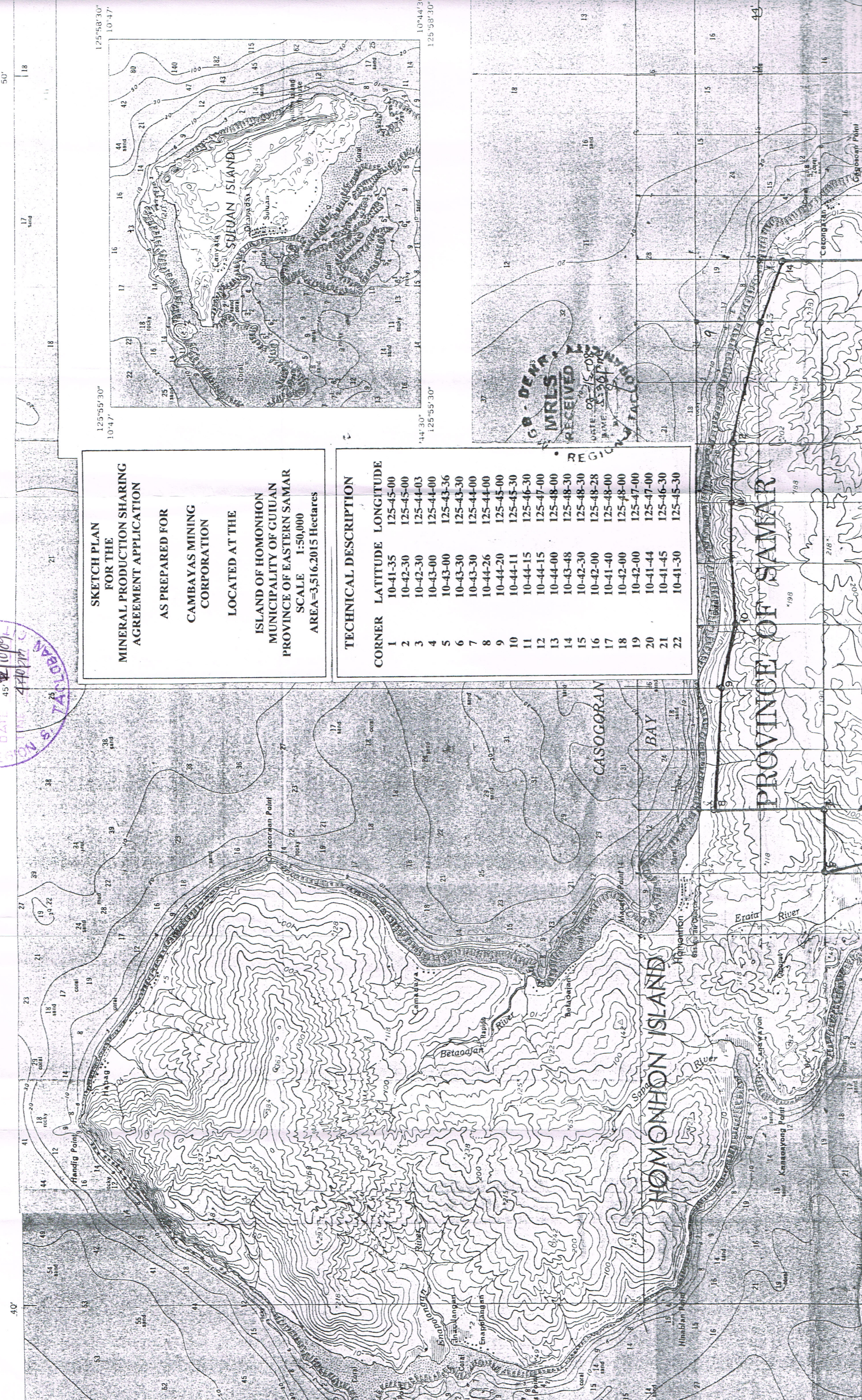
  
Notary Public  
ATTY. SOCRATES G. MARANAN  
NOTARY PUBLIC  
UNTIL DECEMBER 31, 2009  
PTR. 5247803/IBP. 712442

**ANNEX "B"**

**LOCATION MAP/SKETCH PLAN**



HOMONHON



**SKETCH PLAN  
FOR THE  
MINERAL PRODUCTION SHARING  
AGREEMENT APPLICATION**

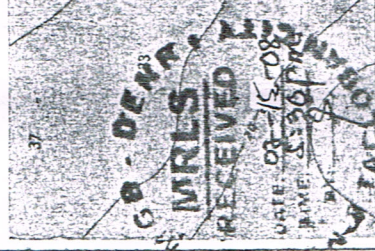
**AS PREPARED FOR  
CAMBAYAS MINING  
CORPORATION**

**LOCATED AT THE  
ISLAND OF HOMONHON  
MUNICIPALITY OF GUIUAN  
PROVINCE OF EASTERN SAMAR**

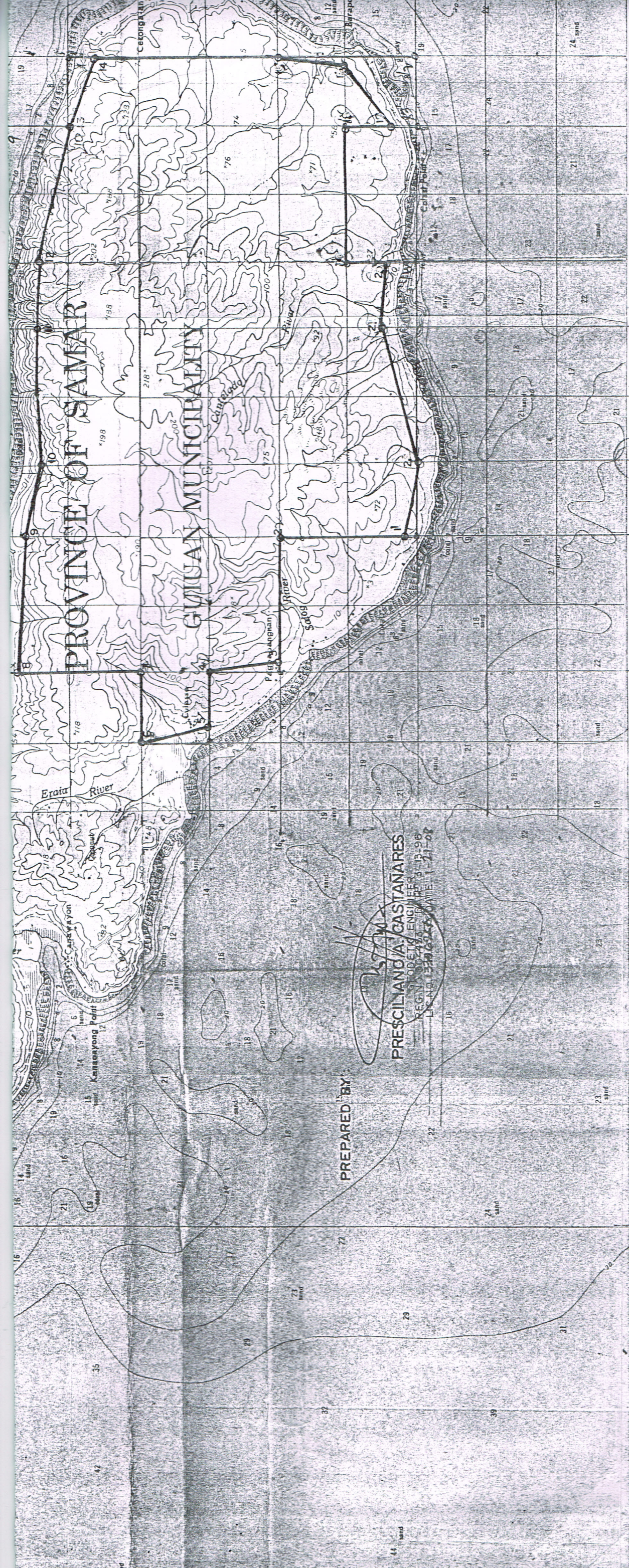
**SCALE 1:50,000  
AREA=3,516.2015 Hectares**

**TECHNICAL DESCRIPTION**

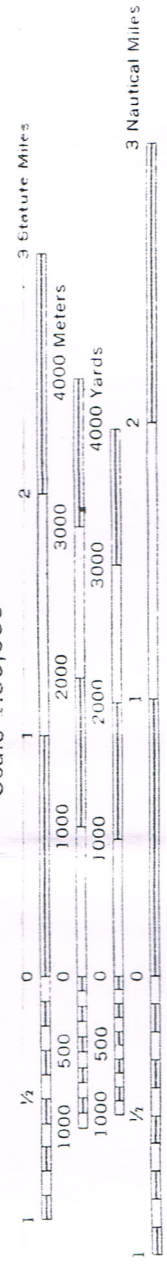
CORNER	LATITUDE	LONGITUDE
1	10-41-35	125-45-00
2	10-42-30	125-45-00
3	10-42-30	125-44-03
4	10-43-00	125-44-00
5	10-43-00	125-43-36
6	10-43-30	125-43-30
7	10-43-30	125-44-00
8	10-44-26	125-44-00
9	10-44-20	125-45-00
10	10-44-11	125-45-30
11	10-44-15	125-46-30
12	10-44-15	125-47-00
13	10-44-00	125-48-00
14	10-43-48	125-48-30
15	10-42-30	125-48-30
16	10-42-00	125-48-28
17	10-41-40	125-48-00
18	10-42-00	125-48-00
19	10-42-00	125-47-00
20	10-41-44	125-47-00
21	10-41-45	125-46-30
22	10-41-30	125-45-30



PROVINCE OF SAMAR



Scale 1:50,000



CONTOUR INTERVAL 20 METERS  
WITH SUPPLEMENTARY CONTOURS AT 5 AND 10 METER INTERVALS

VERTICAL DATUM: MEAN SEA LEVEL  
TRANSVERSE MERCATOR PROJECTION  
HORIZONTAL DATUM: LUZON DATUM  
HYDROGRAPHIC DATUM: MEAN LOWER LOW WATER

LEGEND  
DATA 1952  
Scale 1:50,000  
Minimum of 2.5 meters (8 feet) in width.

- Built-up area
- Church, Chapel, Shrine or wayside cross
- School; Windmill; Water mill
- Lighthouse; Anchorage
- Levee; Wall
- Earthen dam, Masonry dam
- Power transmission line
- Depth curves and soundings in fathoms
- Sunken rocks, Foreshoreshore flat
- Rocks awash; Reef
- Limit of danger; Submerged reef
- Wreck; Sunken; Exposed
- Wharf or pier; Sea wall
- Salt evaporator
- Woods; brushwood; Scrub
- Tropical grass; Orchard

Republic of the Philippines  
Department of Environment and Natural Resources  
Published by  
NATIONAL MAPPING & RESOURCE INFORMATION AUTHORITY  
Fort Bonifacio, Makati  
Metro Manila  
JOSE G. SOLIS  
Administrator

**ANNEX "C"**

**EXPLORATION WORK  
PROGRAM**

**TWO (2)-YEAR EXPLORATION WORK PROGRAM  
(APSA-000132-VIII)**

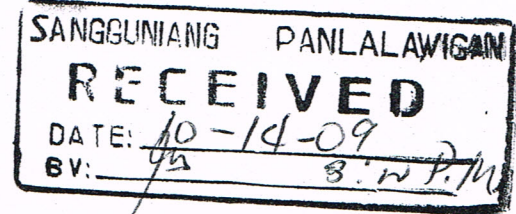
**1.0 Name and Address of Proponent/Contact Person**

**CAMBAYAS MINING CORPORATION**

Mr. Yan Ming  
Chief Executive Officer (CEO)

Unit 507 Peninsula Court, Makati Avenue  
Makati City

Tel No.: (02) 751-9948 / 751-9951



**2.0 Location of the Project**

The Mineral Production Sharing Agreement of Cambayas Mining Corporation is situated within the Island of Homonhon, Municipality of Guiuan, Province of Eastern Samar. The mining claim is technically described and is bounded by the following geographical coordinates (please see attached location map):

Technical Description		
Corner	Latitude	Longitude
1	10 41' 35"	125 45' 00"
2	10 42' 30"	125 45' 00"
3	10 42' 30"	125 44' 03"
4	10 43' 00"	125 44' 00"
5	10 43' 00"	125 43' 36"
6	10 43' 30"	125 43' 30"
7	10 43' 30"	125 44' 00"
8	10 44' 26"	125 44' 00"
9	10 44' 20"	125 45' 00"

10	10° 44' 11"	125° 45' 30"
11	10° 44' 15"	125° 46' 30"
12	10° 44' 15"	125° 47' 00"
13	10° 44' 00"	125° 48' 00"
14	10° 43' 48"	125° 48' 30"
15	10° 42' 30"	125° 48' 30"
16	10° 42' 00"	125° 48' 28"
17	10° 41' 40"	125° 48' 00"
18	10° 42' 00"	125° 48' 00"
19	10° 42' 00"	125° 47' 00"
20	10° 41' 44"	125° 47' 00"
21	10° 41' 45"	125° 46' 30"
22	10° 41' 30"	125° 45' 30"

### **3.0 Area or Size Coverage**

The MPSA applied area covers approximately Three Thousand Five Hundred Sixteen Point Two Thousand Fifteen (3,516.2015).

### **4.0 Project Area Description**

#### **4.1 Terrain/Physiography**

The MPSA applied area is characterized by undulating to moderately sloping in a generally rolling terrain. Undulating land form is concentrated at the valley floor while sloping form describe the slope of hills. Ground elevation ranges from 10 meters to 200 meters above mean sea level (amsl).

#### **4.2 Accessibility**

The applied area can be reached from Tacloban City by a three (3)-hour ride via the well-paved coastal highway passing thru Lawaan town to Guiuan. Thence, a two (2)-hour pump boat ride to the island.



### **4.3 Drainage System**

The applied area is principally drained by the tributaries of the Cantelado and Salog Rivers. These tributaries empty their load to the Philippine Sea.

### **4.4 Vegetation**

The vegetation covering the MPSA applied area generally consists of shrubs and cogon grasses, and second growth trees.

Most of the agricultural lands are dominantly planted with coconut trees. Other major crops include vegetables, rootcrops, palay, corn, bariana and other fruit trees, coffee and pineapple.

### **4.5 Land Use**

The Municipality of Guiuan has a total land area of 175.49 square kilometers. It is composed of sixty (60) barangays and the only town in the Province of Eastern Samar with biggest number of island barangays. Existing land use indicates a predominance of agriculture use which covers 38.2% of the total land area. Most of the agricultural lands are dominantly planted with coconut trees.

The MPSA applied area is basically a mineral land, being previously covered by the various Mining Lease Contracts of Cambayas Mining Corporation, and mining operations of Heritage Resources and Mining Corporation.

## **5.0 Description of Exploration Works**

Base on the data from previous operations by Heritage Resources and Mining Corporation, the chromite resource in the applied area is conservatively estimated at around 40 million metric tons. Further study shall be carried out to possibly delineate economic resource of chromite

deposit. Exploration activities to be conducted are outlined and discussed below.

## **5.1 Research Work**

Pertinent and necessary research works will be carried out by the project proponent. This work includes collation of geological data, previous reports and geological maps that may be available in the Mines and Geosciences Bureau and other private and/or government agencies concerned, which may have conducted studies in the subject MPSA applied area, particularly those that focus in chromite and other associated minerals.

### **5.1.1 Survey of Previous Works on the Area**

#### **5.1.1.1 Nature or Type of Study or Undertaking**

Gathering of information pertinent to the previous works undertaken in the MPSA applied area will focus on the geology and mineralization. The Mines and Geosciences Bureau published and unpublished reports regarding mineral occurrences and other potential economic mineral deposit in the MPSA applied area shall be reviewed.

#### **5.1.1.2 Duration**

The research work/data gathering activity is expected to be undertaken for about two (2) months. The budget for this activity is estimated at One Hundred Thousand Pesos (PhP100,000.00), which includes the salary of the technical personnel and miscellaneous expenses (e.g. transportation/communication/food allowances, reproduction of pertinent data, etc.). This activity will commence once the MPSA

#### **5.1.1.3 Coverage**

The whole MPSA applied area will be covered by the research work/survey.

#### **5.1.1.4 Proponent**

The proponent is the MPSA applicant itself thru its technical personnel that shall conduct the research work.

#### **5.1.1.5 Results or Conclusion Arrived at**

The result of the said research work, should it be successful, will be very vital in the implementation of the exploration work program, which is expected to lessen the works involve and thus reduce total exploration costs.

### **5.1.2 Data Compilation/Collation**

#### **5.1.2.1 Geochemical/Geophysical Data**

Available Geochemical and Geophysical data from previous studies conducted in the area will be considered to primarily locate potential chromite prospect.

#### **5.1.2.2 Lithological Data**

Lithological data shall be compiled and collated based on the findings on previous reports on the area. Using the data, confirmatory study shall be undertaken during the actual field study.

### **5.1.2.3 Mineralization/Alteration Studies**

The target mineral deposits in the area is chromite, but other mineral deposits will also be given emphasis. Interview with expert Geologists who have already conducted various studies in the MPSA applied area, and if possible, request copies of their reports to predetermine, among others, the mineralization in the area, including their observations on the geological alteration.

### **5.1.2.4 Various Thematic Maps Covering the Target Area**

The undersigned is not aware if there is available thematic map covering the area. If in case during the course of the research work, it was learned that such maps are available, the same shall be compiled and reproduced to serve as base map during the exploration period.

### **5.1.2.5 Estimated Cost**

Data compilation/collation will be undertaken for a period of one (1) month by the company's technical personnel. It has an estimated budget of One hundred Fifty Thousand Pesos (Php50,000.00). It includes the salary of the technical personnel and miscellaneous expenses (e.g., transportation/communication/food allowances, reproduction of pertinent data, etc.).

## **5.2 Reconnaissance/Regional Survey/Study**

### **5.2.1 Regional Geological Survey**

Based on the information gathered from the previous activity,

sampling, and when necessary, hand auger drilling shall be conducted covering the applied area. Different rock types and structures and mineralization/alteration will be mapped out and characterized accordingly. Also, rocks that are related or associated with chromite deposition will also be given attention, since they can be utilized in further understanding of the chromite characterization in the area. Road/trail mapping and traverses along stream channels and on areas where noticeable rock exposures will be carried-out. A 1:50,000 topographic map will be used as base map. A sampling density of around two (2) samples per square kilometer will be implemented. Samples will be sent to the laboratory for chemical and/or petrographic analyses.

- Coverage - 3,516.2015 hectares
- Duration - Three (3) months
- Rock/soil samples - 30 samples
- Samples from hand  
auger drilling - 30 samples
- Target elements - Cr, Ni, Fe
- Manpower complement- One Geologist/Mining Engineer  
One Geologic Aid  
Five Auger Crew
- Estimated Cost (PhP) - 455,000.00

#### Cost Detail/Breakdown

- a. Salary (@ 25,000/geologist or mining engineer/month and @ 6,000/aid or crew) - 291,000
- b. Mining Tools and Supplies
  - 2 pcs. Brunton Compass - 30,000
  - 2 pcs. Mining Pick - 2,000
  - 1 pc. Measuring Tape - 2,000
  - 2 sets Hand Auger - 40,000
  - 2 sets Pipe Wrench - 10,000
- c. Sample Analysis/

d. Miscellaneous - 30,000

- Expected Output - 1:50,000 Geological/Base Map

### 5.3 Semi-detailed Survey or Follow-up Studies

A semi-detailed geological survey shall be conducted on areas delineated from the previous activities. Approximately 1,000 hectares is expected to be covered with this activity. Further plotting of relevant structures/mineralization/ alteration shall be carried out.

A hand auger drilling shall also be conducted on 300-m grid for semi-detailed subsurface investigation. A total of 100 hand auger drill holes are expected to be established. This activity will delineate potential areas within the applied area. Hand auger drilling shall have an average depth of 8 m per hole. Sample will be taken per meter. A total of 900 samples are expected to be logged and collected. Samples will be sent to the laboratory for chemical/petrographic analyses to qualitatively determine Ni, Cr and Fe content.

- Coverage - 1,000 hectares
- Duration - Six (6) months
- No. of hand auger drill holes - 100
- Average depth - 8 m
- No. of samples - 900 samples
- Target elements - Ni, Cr and Fe
- Manpower complement - One (1) Geologist/Mining Engineer  
One (1) Geologic Aid  
Six (6) Auger Crew
- Estimated Cost (PhP) - 1,266,000.00

#### Cost Detail/Breakdown

- a. Salary (@ 25,000/geologist or mining engineer/month

- b. Sample Analysis/Preparation - 800,000
- c. Miscellaneous - 40,000
- Expected Output - 1:25,000 Geological Map  
Cross-section Maps showing  
Chromite/Laterite Profile

#### 5.4 Topographic Surveying

A licensed Geodetic Engineer, deputized by the Mines and Geosciences Bureau shall conduct the topographic and boundary survey. The topographic survey will be needed in planning, construction and development works and ore reserve calculations. The boundary survey would result in the ground delineation of the mining area with prominent marks and exclusions of these portions of the unmineralized areas that would be relinquished in favor of the Government.

This activity would include 1) establishment of grid lines or pattern for geological mapping survey and subsurface investigation, 2) establishment of vertical and horizontal control baselines at various strategic areas of the proposed exploration site based from the cadastral and land survey control stations 3) Determination of the true geographic position, horizontal and vertical control and true elevation of mineralized areas and drill holes 4) generation of topographic map for detailed surveys in scale of 1:20,000 with contour interval of 10 m and 5) establishment of legal boundaries of the applied area.

- Coverage - 500 hectares
- Duration - Three (3) months
- Scale - 1:20,000
- Contour interval - 10 m
- Manpower complement- One (1) Geodetic Engineer  
Five (5) Stadia Men/Helper
- Estimated Cost (PhP) - 300,000.00
- Expected Output - 1:20,000 Topographic Map with  
10 m Contour Interval

## **5.5 Detailed Survey or Studies**

A detailed survey or studies shall be conducted on areas delineated from semi-detailed survey. Relatively smaller area is expected to be covered with the activities in this phase of the Work Program. Hence, smaller map scale shall be used.

### **5.5.1. Detailed Geological Mapping**

Detailed geological mapping shall be conducted on areas delineated from semi-detailed survey or study. Approximately 500 hectares is expected to be covered with this activity. Further plotting of relevant structures/mineralization/alteration shall be carried out.

### **5.5.2 Sub-surface Investigation**

Sub-surface investigation in the form of YBM drilling, test pitting and trenching shall also be carried out on the promising areas delineated from the activities conducted during the semi-detailed survey. This is in conjunction with detailed geological mapping.

#### **YBM Drilling**

YBM drill holes shall be established on a 100 m x 100 m grid, based from the results of analyses of hand auger samples collected during the semi-detailed survey and based from the information gathered from geological mapping. Approximately 500-hectare area is expected to be covered with this activity. A total of about 500 drill holes are expected to be programmed with an average depth of 10 m. Sample will be collected per meter of drilling. About 5,000 samples are expected to be logged and collected. Samples will be sent to the laboratory for chemical/petrographic analyses to qualitatively determine Ni, Cr and Fe content.



- Duration - Seven (7) months
- No. of drill holes - 500
- Average depth - 10 m
- No. of samples - 5,000 samples
- Target elements - Ni, Fe and Cr
- Manpower complement- One (1) Geologist/ Mining Engineer  
One Geologic Aid  
Six (6) Auger Crew
- Estimated Cost (PhP) - 3,511,000.00

#### Cost Detail/Breakdown

- a. Salary (@ 25,000/geologist or mining engineer/month and @ 6,000/aid or crew) - 391,000
- b. Sample Analysis/Preparation - 3,100,000
- c. Miscellaneous - 20,000

- Expected Output - 1:20,000 Geological Map  
Cross-section Maps  
showing Laterite/Chromite  
Profile

#### Test Pitting/Trenching

Test pitting and trenching shall also be conducted in support with YBM drilling. One (1) test pit per 2 hectares is expected to be excavated with a total length of about 1,250 meters. About ten (10) trenches, 20 m long, will be dug. Sample will be taken per meter. About 1,450 samples are expected to be collected. Samples will be sent to the laboratory for chemical analyses to qualitatively determine Ni, Cr and Fe content.

- Coverage - 500 hectares
- Duration - Seven (7) months
- No. test pits - 250
- Average depth - 10 m

- No. of trenches - 10
- Average length - 20 m
- Total length - 200 m
- No. of samples - 2,000
- Target elements - Ni, Fe and Cr
- Manpower complement - One (1) Geologist/  
Mining Engineer  
Six (6) Test Pitting Crew
- Estimated Cost (PhP) - 2,036,000.00

Cost Detail/Breakdown

- a. Salary (@ 6,000/crew) - 216,000
- b. Sample Analysis/Preparation - 1,800,000
- c. Miscellaneous - 20,000
- Expected Output - Cross-section Maps

### 5.6 Report Writing

After all the exploration activities are completed, report writing will be undertaken. Necessary accomplishment reports will also be prepared and submitted to the Mines and Geosciences Bureau, in compliance with the MPSA that may be issued. PhP100,000.00 will be allotted for this activity. This is expected to be completed in two (2) months.

### 6.0 Total Estimated Exploration Cost (PhP) = 7,818,000.00

Year 1	=	<b>1,871,000.00</b>
• Research Work	=	100,000.00
• Data Compilation/Collation	=	50,000.00
• Regional Geological Survey	=	455,000.00
• Semi-Detailed Geo. Survey	=	1,266,000.00

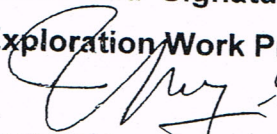
	<u>Year 2</u>	=	<u>5,947,000.00</u>
•	Topographic Survey	=	300,000.00
•	Detailed Geological Survey (Mapping, Test Pitting/Trenching, YBM Drilling)	=	5,547,000.00
•	Report Writing	=	100,000.00

**7.0 Schedule of Activities**

**Gantt Chart**

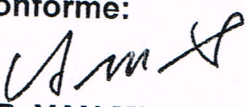
Exploration Activities	Estimated Cost (Php)	Year 1				Year 2			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Search Work	100,000	■							
Data Compilation	50,000		■						
Regional Geo. Survey	455,000		■	■					
Semi-Detailed Geo. Survey	1,266,000			■	■	■			
Topographic Survey	300,000					■	■		
Detailed Geo. Survey	5,547,000						■	■	■
Report Writing	100,000								■

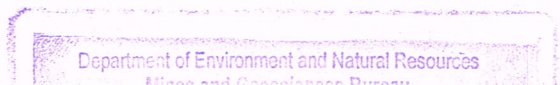
**6.0 Name and Signature of Person Who Prepared the Two Year Exploration Work Program:**

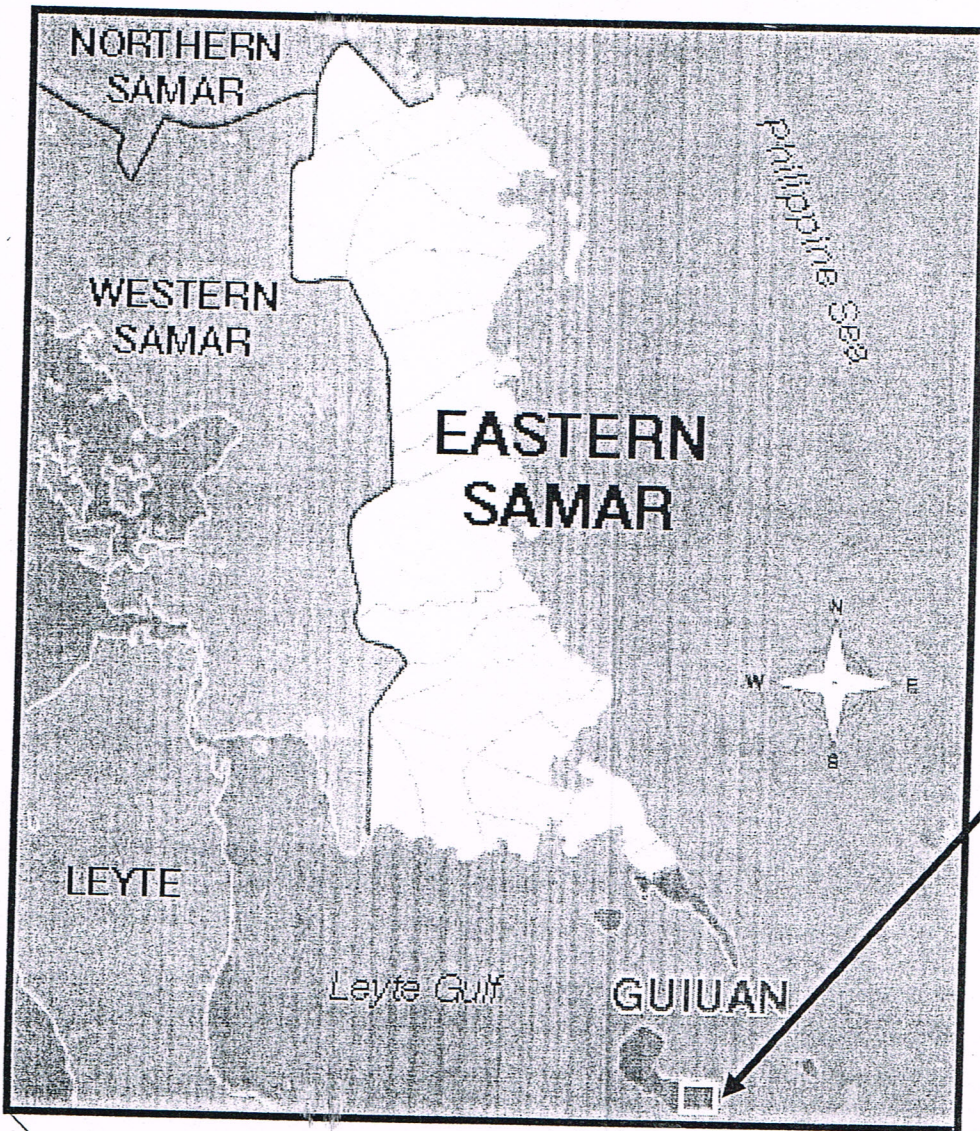
  
**ULDARICO PITERO**

Mining Engineer  
 PRC License No.: 2135  
 PTR No.: 0331767  
 Issued on: January 29, 2009  
 Issued at: Muntinlupa City

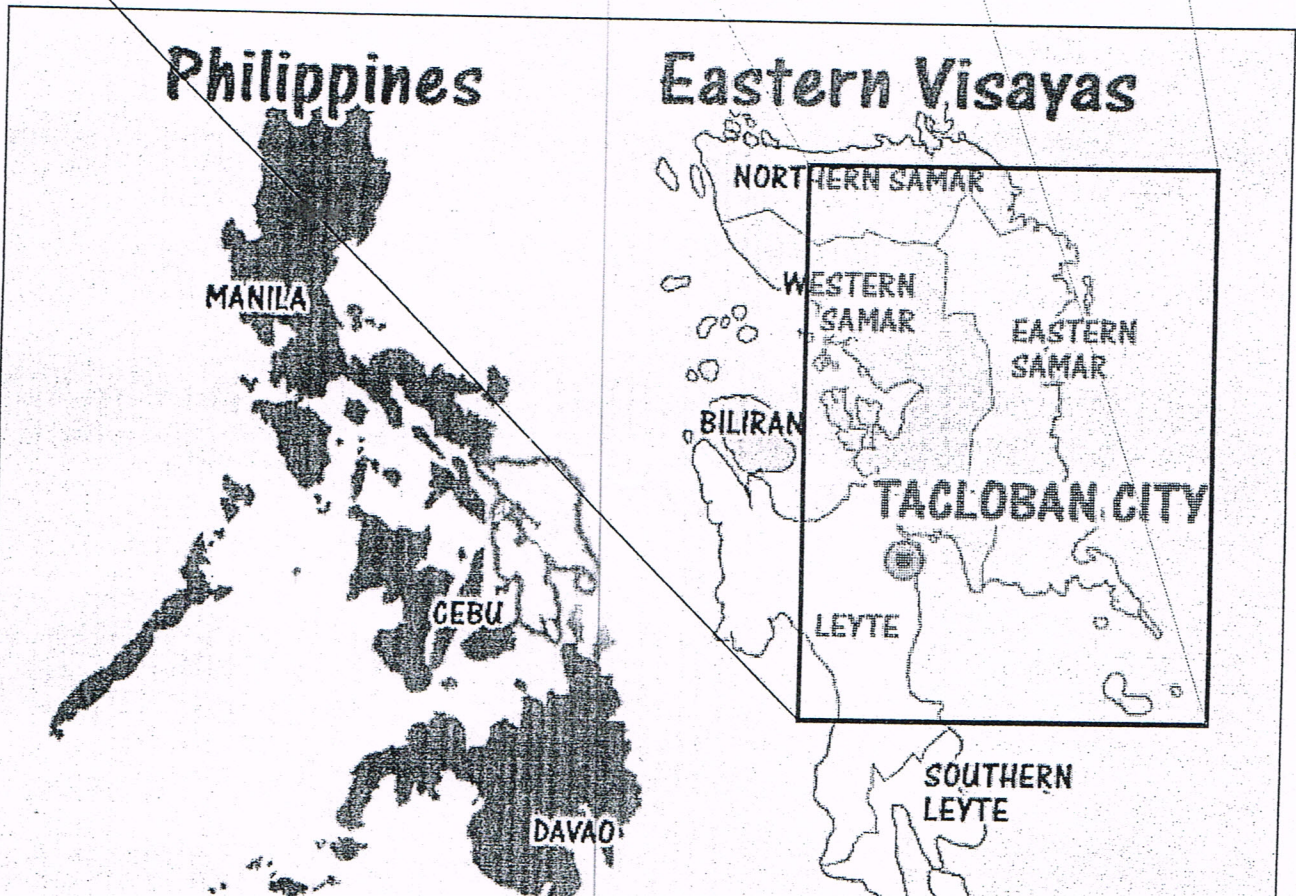
**7.0 Conforme:**

  
**MR. YAN MING**  
 Chief Executive Officer (CEO)  
 Cambayas Mining Corporation



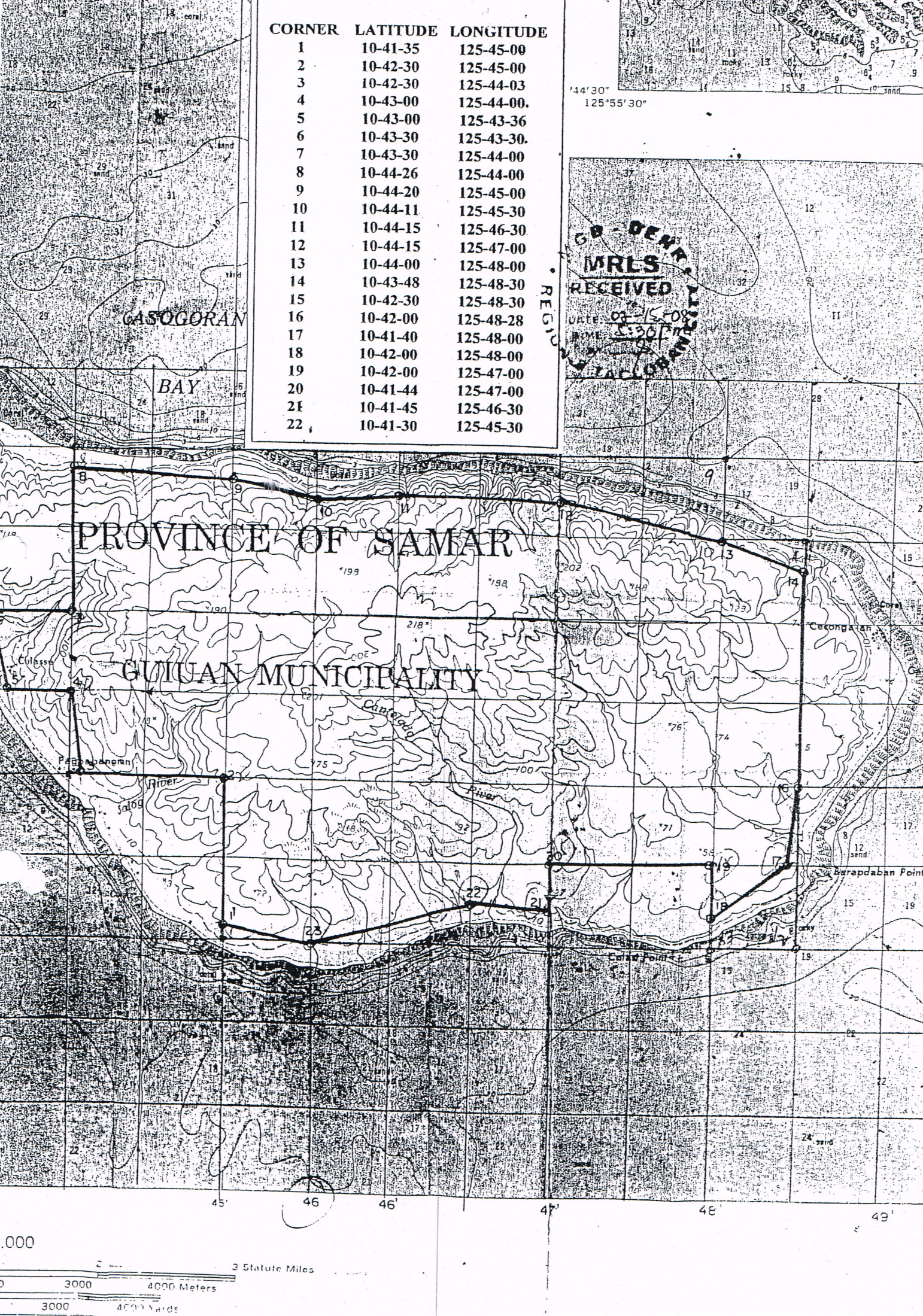


MPSA APPLIED  
AREA  
OF CAMBAYAS  
MINING  
CORPORATION  
(APSA-000132-VIII)



CORNER	LATITUDE	LONGITUDE
1	10-41-35	125-45-00
2	10-42-30	125-45-00
3	10-42-30	125-44-03
4	10-43-00	125-44-00.
5	10-43-00	125-43-36
6	10-43-30	125-43-30.
7	10-43-30	125-44-00
8	10-44-26	125-44-00
9	10-44-20	125-45-00
10	10-44-11	125-45-30
11	10-44-15	125-46-30
12	10-44-15	125-47-00
13	10-44-00	125-48-00
14	10-43-48	125-48-30
15	10-42-30	125-48-30
16	10-42-00	125-48-28
17	10-41-40	125-48-00
18	10-42-00	125-48-00
19	10-42-00	125-47-00
20	10-41-44	125-47-00
21	10-41-45	125-46-30
22	10-41-30	125-45-30

GOVERNMENT  
MRLS  
RECEIVED  
DATE 03-15-08  
BY 5301  
ZACLOREN

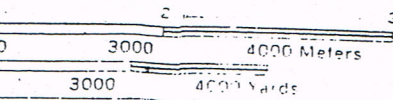


14° 30"  
125° 55' 30"

PROVINCE OF SAMAR

GUISAN MUNICIPALITY

000



**ANNEX "D"**

**ENVIRONMENTAL WORK  
PROGRAM**

BANGGUNA BAYAN  
RECEIVED  
DATE: 10-14-07  
BUREAU OF SANITATION

**ENVIRONMENTAL WORK PROGRAM  
(APSA-000132-VIII)**

**1.0 Name and Address of Proponent**

**CAMBAYAS MINING CORPORATION**

Mr. Yan Ming  
Chief Executive Officer (CEO)

Unit 507 Peninsula Court, Makati Avenue  
Makati City

Tel. No.: (02) 751-9948 / 751-9951

**2.0 Type and Nature of Project**

The proposed project covering approximately Three Thousand Five Hundred Sixteen Point Two Thousand Fifteen (3,516.2015) hectares is primarily an exploration project geared toward the characterization and assessment of chromite and other minerals within the area applied for the Mineral Production Sharing Agreement. The proponent has an estimated budget of PhP1,871,000.00 for the first year and PhP5,947,000.00 for the second year implementation of the Exploration Work Program and 10% of the exploration cost to be allotted to the Environmental Work Program is Php782,000.00.

The main objective of the project is to pursue a sound and systematic exploration program to characterize and qualify the resource available in the area, to maintain a cost effective operation, to make certain the viability and sustainability of the project and to ensure that and environmentally friendly mining operation could put in place and will set a model for similar operations in the area.

### 3.0 Location of the Project

The Mineral Production Sharing Agreement of Cambayas Mining Corporation is situated within the Island of Homonhon, Municipality of Guiuan, Province of Eastern Samar. The mining claim is technically described and is bounded by the following geographical coordinates (please see attached location map):

#### Technical Description

Corner	Latitude	Longitude
1	10° 41' 35"	125° 45' 00"
2	10° 42' 30"	125° 45' 00"
3	10° 42' 30"	125° 44' 03"
4	10° 43' 00"	125° 44' 00"
5	10° 43' 00"	125° 43' 36"
6	10° 43' 30"	125° 43' 30"
7	10° 43' 30"	125° 44' 00"
8	10° 44' 26"	125° 44' 00"
9	10° 44' 20"	125° 45' 00"
10	10° 44' 11"	125° 45' 30"
11	10° 44' 15"	125° 46' 30"
12	10° 44' 15"	125° 47' 00"
13	10° 44' 00"	125° 48' 00"
14	10° 43' 48"	125° 48' 30"
15	10° 42' 30"	125° 48' 30"
16	10° 42' 00"	125° 48' 28"
17	10° 41' 40"	125° 48' 00"
18	10° 42' 00"	125° 48' 00"
19	10° 42' 00"	125° 47' 00"
20	10° 41' 44"	125° 47' 00"
21	10° 41' 45"	125° 46' 30"
22	10° 41' 30"	125° 45' 30"



## **4.0 Description of Existing Environment**

### **4.1 Land Environment**

#### **4.1.1 Topography/Physiography**

The MPSA applied area is characterized by undulating to moderately sloping in a generally rolling terrain. Undulating land form is concentrated at the valley floor while sloping form describe the slope of hills. Ground elevation ranges from 10 meters to 200 meters above mean sea level (amsl).

#### **4.1.2 Land Use**

The MPSA applied area is basically a mineral land, being previously covered by the various Mining Lease Contracts of Cambayas Mining Corporation, and mining operations of Heritage Resources and Mining Corporation.

#### **4.1.3 Pedology**

The data pertaining to this study can be gathered as part of the Exploration Work Program particularly in the excavation of test pits and/or trenches. Although the analyses and description of excavation and excavated materials focus on the economic minerals that may be present, most of the data recorded/gathered contain vital environmental information.

### **4.2 Water Environment**

The principal drainage system that could affect the area are the tributaries of the Cantelado and Salog Rivers. Surface run-off of the two (2) river systems drained towards the Philippine Sea.

#### **4.2.1 Water Quality**

Values of the other elements including the other parameters such as total dissolve solids, total suspended soils, biological oxygen demand and dissolve oxygen will be determined immediately as soon as the exploration activities commence. Water samples from the affected water bodies will be collected quarterly, and will be sent to reputable and Department of Environment and Natural Resources-accredited laboratory, for analyses. The results shall serve as the baseline data for the proposed project.

#### **4.2.2 Hydrology**

The existing hydrological profile in the area can best be interpreted once the geological work is completed. This will be complemented by other hydrological works, such as, measurements of recharge rate, water level in the existing well, and other related work/activities.

#### **4.3 Climatology/Rainfall**

The MPSA applied area and the vicinity belong to Type II of the Climate Classifications in the Philippines. Hence, no dry season with a very pronounced maximum rainfall from November to April and wet for the rest of the year.

#### **4.4 Geological/Geomorphological Environment**

With the exception of the Recent Reefal limestone skirting the shorelines of the whole island, the MPSA applied area is generally underlain by ultramafic rock complex made up of variable proportions of harzburgite, wherlite and dunite that are usually serpentized.

The ultramafic rocks are presumably part of the ophiolite mass

trusted over into the southeastern and middle portion of Samar Island. The ophiolite mass belongs to the Eastern Bicol-Eastern Mindanao ophiolite belt and are interconnected beneath the intervening seas.

The wherlite peridotite is grayish black when fresh and becoming yellowish brown to rusty brown when weathered. It is medium to coarse grained and is slightly serpentinized. Informal mineralogical analysis conducted identified the constituent minerals as enstatite, antigorite, magnetite, clinopyroxene and olivine. The harzburgite is yellowish green when fresh and turns to brown when weathered. The harzburgite generally have a xenoblastic granular texture and consist of relict olivine, orthopyroxenes, chrysotile, magnetite and chromite. The outcrop is intensely serpentinized. The dunite which is the host rock of the chromite mineralization is generally greenish black, fine grained and consisting dominantly of olivine. Serpentinization is slight to pervasive.

#### **4.5 Biological Environment**

In general, the MPSA applied area is covered by natural vegetation consisting of grass/shrub formations. Most of the agricultural lands are dominantly planted with coconut trees. Other major crops include vegetables, rootcrops, palay, corn, banana and other fruit trees, coffee and pineapple.

#### **4.6 Socio-Economic Environment**

Fishing is the main source of livelihood for the residents living in the area and vicinity, the area being almost surrounded by bodies of water. Agriculture/farming is the alternative source of livelihood. Lifestyle is simple, typical of the rural area. Generally, unemployment/lack of employment opportunities tops the list of the major problems in the area. One of the primary factors is inadequate educational attainment. Other factor is the scarcity of

jobs due to the low investment climate prevailing in the area and in the country as whole.

## 5.0 Exploration Scale and Cycle

### 5.1 Description of Exploration Works

#### 5.1.1 Area and Basic Parameters

The applied area is approximately Three Thousand Five Hundred Sixteen Point Two Thousand Fifteen (3,516.2015) hectares. The bulk of the exploration works will be undertaken on selected areas after identifying the significant occurrence of mineralization. The result will be used to plan targets for sub-surface evaluation. Test pitting and diamond drilling will be carried out if necessary.

The main exploration program will involve principally the following phases and activities:

1. Research Work
2. Data Compilation/Collation
3. Regional Geological Survey
4. Semi-Detailed Geological Survey
5. Topographic Survey
6. Detailed Geological Survey  
(Mapping, Test Pitting/Trenching, YBM Drilling)
7. Report Writing

Total estimated exploration cost (PhP):

Year 1	:	1,871,000.00
Year 2	:	5,947,000.00
<hr/>		
Total		<b>7,818,000.00</b>

## **6.0 Identification of Potential Environmental Effects**

### **6.1 On Land**

#### **6.1.1 Surface Disturbance Off the Mineral Property**

There is no expected surface disturbance off the applied area considering access to and from the target site is readily available and that there is no potential natural or artificial obstruction that would hinder accessibility. Existing roads and access ways will be utilized and no activity will be undertaken outside the applied area.

#### **6.1.2 Surface Disturbance on the Mineral Property**

##### **6.1.2.1 Changes in landforms due to excavations**

Existing land forms may be affected through the excavation of test pits and trenches. Some of the present vegetative cover, which are mostly shrubs, bushes and grasses may be uprooted/removed from the surface.

##### **6.1.2.2 Change in Rate of Erosion**

Removal of existing vegetation as a consequence of test pits/trenches excavations and drilling may increase the rate of erosion.

### **6.2 On Hydrology and Water Quality**

#### **6.2.1 Potential Generation of Acid Mine Drainage**

There is a very low potential of generating an acid mine drainage as the exploration activities include basically mapping, trenching and test pitting.

#### **6.2.2 Siltation and Pollution of Surface Waters**

There is a potential generation of small amount of siltation from the excavated materials, during excavation of test pits and trenches.

#### **6.3 On the Ecology**

Mapping, test pitting, trenching and drilling activities will cause slight disturbance to the wild life and to the land use.

#### **6.4 On Socioeconomic Effects**

There will be no significant effect of the exploration on the socio-economic conditions of the area considering that it only involves minor exploration activities and in relatively short period. Moreover, Exploration works may contribute to direct employment in the local community as local workers will be hired as laborers/geologic aides/survey helpers. Indirect employment is also expected as the local business can cater to the needs of the exploration crew.

### **7.0 Environmental Management Measures and Total Costs**

#### **7.1 Progressive Rehabilitation/Restoration of Excavated Areas**

Areas affected by excavations during test pitting, trenching and drilling shall be progressively rehabilitated and/or restored through backfilling with top soil. Backfilled areas will be replanted with suitable grass or tree species to prevent erosion and to restore the vegetative cover in the area.

## **7.2 Management of Stockpile of Excavated and Removed Earth**

Excess excavated materials will be brought to a pre-designated stockpile area where it will be safely confined without causing siltation to the surrounding environment.

## **7.3 Maintenance of Roads**

Existing access roads will be utilized and maintained. Dusts accumulation will be properly controlled by periodic spraying with water. Proper drainage systems shall be maintained to prevent and/or minimize soil erosion due to water inundation.

## **7.4 Handling of Toxic and Hazardous Materials**

Solid and liquid wastes generated during the conduct of the exploration works shall be disposed of properly to prevent possible contamination of the surrounding.

## **7.5 Accommodation of other Economic Activities**

Other economic activities, such as farming, fishing and other agricultural activities will not be prevented during the course of the exploration.

## **7.6 Alternative plans if Special Habits of Flora and Fauna are Affected**

Although no special habits of flora and fauna are expected to be affected by the exploration activities, possible areas will be avoided as much as possible and preservation plans and measures will be formulated and implemented.

## **7.7 Socio-economic Mitigating Measures**

### **7.7.1 Plans for Information and Education Campaign and Dialogue between the Company and Population Regarding Projects Plans Including Compensation Measures, If Necessary**

Information and education campaign (IEC) with the affected residents will be conducted periodically, so that the localities will be informed of the project as to its benefits to the community. The IEC will be undertaken in coordination with the NGO's, LGUs and military/police concerned.

### **7.7.2 Working Environment and Protection Measures for Employees**

Safety of workers/laborers will be treated with utmost concern by providing workers with necessary safety paraphernalia such as steel toe shoes, gloves, goggles, dust masks, etc. Sanitation and hygiene will be maintained in the working areas. Trash and other refuse materials will be properly disposed in covered containers provided for the purpose. Medical aspect will also be given considerations.

## **7.8 Abandonment**

After the exploration activities have been completed and prior to abandonment of the area, campsites shall be dismantled and removed. All refuse/non-biodegradable wastes shall be burned, buried or disposed accordingly to prevent possible generation of acid mine drainage. Abandoned campsite areas shall be re-vegetated. Affected areas shall be re-contoured, rehabilitated and re-vegetated to possibly approximate the original conditions prior to exploration.



## ENVIRONMENTAL MANAGEMENT MATRIX AND ESTIMATED COSTS

Activity	Impact	Mitigating Measure	Cost (PhP)
<p>1. Pre-Exploration Phase</p>	<ul style="list-style-type: none"> <li>• Uncoordinated actions with the concerned local government units/police or military units</li> <li>• Negative reception of the project by the host and neighboring communities</li> </ul>	<ul style="list-style-type: none"> <li>• Information, education and communication campaign</li> <li>• Prior coordination with concerned local officials/military/police units</li> </ul>	<p>200,000.00</p>
<p>2. Survey and Sub-surface Investigation (geological mapping, sampling, test pitting/tenching)</p>	<ul style="list-style-type: none"> <li>• Surface disturbance (topsoil/some vegetative cover may be removed)</li> <li>• Siltation/Increase in rate of erosion</li> <li>• Generation of waste</li> </ul>	<ul style="list-style-type: none"> <li>• The use of existing roads and trails to minimized ground and vegetative disturbance</li> <li>• Restoration/rehabilitation of excavated areas through backfilling of topsoil/replanting</li> <li>• Provision of confined stockpile area for excess excavated</li> </ul>	<p>450,000.00</p>

		<p>materials</p> <ul style="list-style-type: none"> <li>• Construction and maintenance of proper drainage system</li> <li>• Periodic sprinkling of water on access roads</li> <li>• Proper disposal of liquid/solid waste</li> </ul>	
3. Abandonment	<ul style="list-style-type: none"> <li>• Surface disturbance from establishment of camp site/fly camp (topsoil/some vegetative cover may be removed)</li> <li>• Generation of Waste</li> </ul>	<ul style="list-style-type: none"> <li>• Dismantling and removal of camp site/fly camp</li> <li>• Restoration/ rehabilitation of excavated areas through backfilling of topsoil/replanting</li> <li>• Proper disposal of liquid/solid waste</li> </ul>	132,000.00
		<b>Total Cost</b>	<b>782,000.00</b>

8.0 Preparer:



**ULDARICO M. PITERO**

Mining Engineer

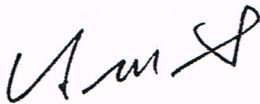
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Issued on: January 29, 2009

Issued at: Muntinlupa City

9.0 Conforme:



**MR. YAN MING**

Chief Executive Officer (CEO)

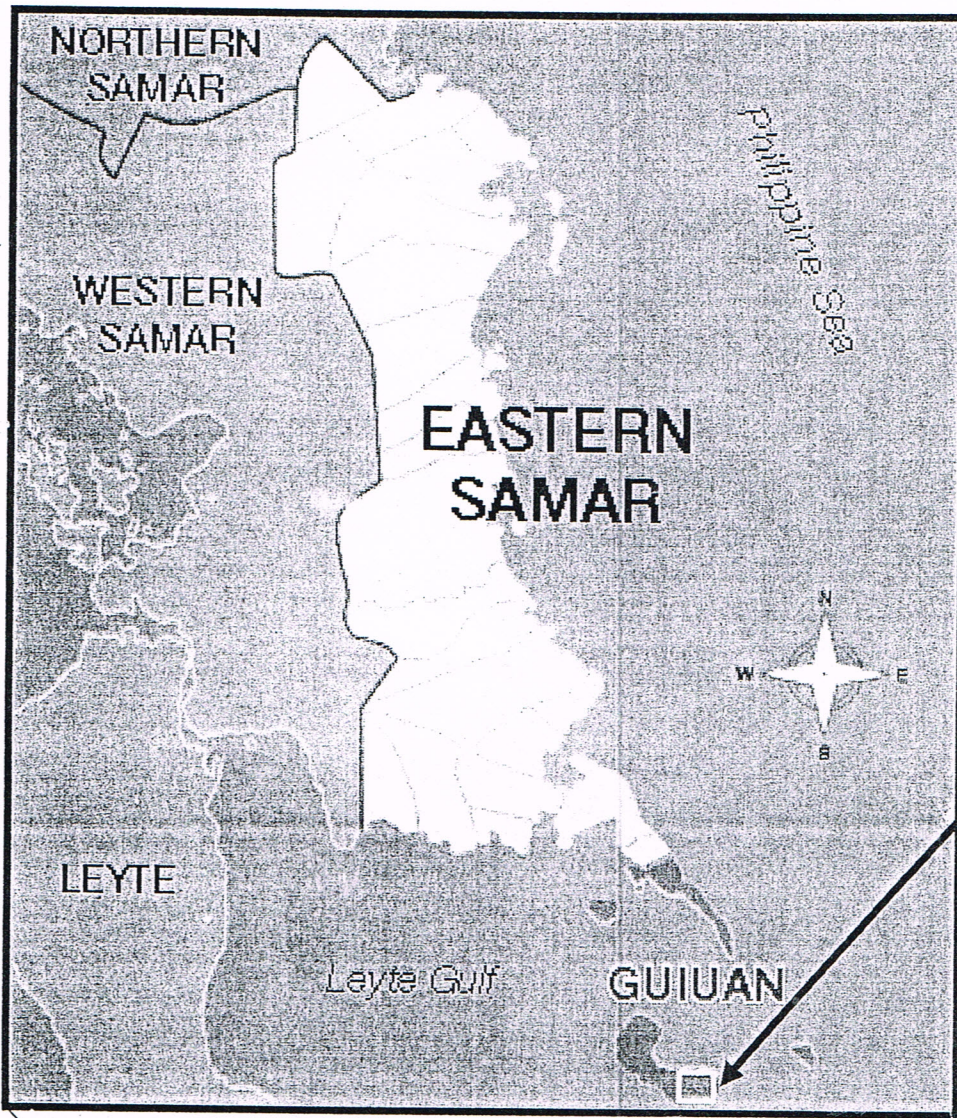
**Cambayas Mining Corporation**

Department of Environment and Natural Resources  
Mines and Geosciences Bureau

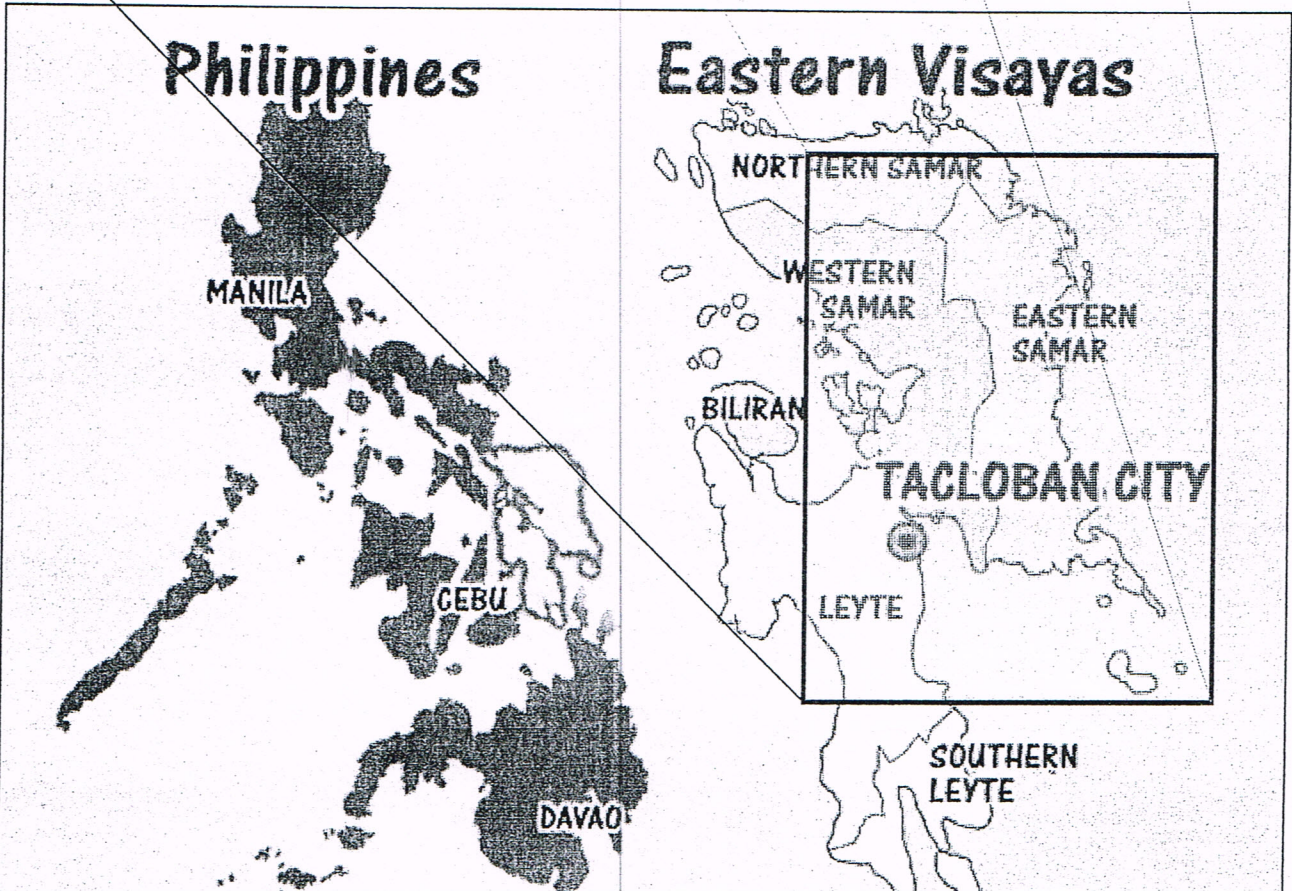
**APPROVED**

**GANTT CHART**  
 (APSA-000132-VIII)  
**CAMBAYAS MINING CORPORATION**

Activities	Duration (Months)																							
	1 <sup>st</sup> Year												2 <sup>nd</sup> Year											
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
IEC Campaign																								
Rehabilitation of Affected areas during Survey and Sub-surface Investigation: (Re-vegetation, Backfilling)																								
Campsite Preparation and Establishment of Proper Drainage																								
Abandonment (rehabilitation measures)																								
Environmental Monitoring																								
Camp, Tools and Vehicle Maintenance																								



**MPSA APPLIED  
AREA  
OF CAMBAYAS  
MINING  
CORPORATION  
(APSA-000132-VIII)**



CORNER LATITUDE LONGITUDE

CORNER	LATITUDE	LONGITUDE
1	10-41-35	125-45-00
2	10-42-30	125-45-00
3	10-42-30	125-44-03
4	10-43-00	125-44-00.
5	10-43-00	125-43-36
6	10-43-30	125-43-30.
7	10-43-30	125-44-00.
8	10-44-26	125-44-00
9	10-44-20	125-45-00
10	10-44-11	125-45-30
11	10-44-15	125-46-30
12	10-44-15	125-47-00
13	10-44-00	125-48-00
14	10-43-48	125-48-30
15	10-42-30	125-48-30
16	10-42-00	125-48-28
17	10-41-40	125-48-00
18	10-42-00	125-48-00
19	10-42-00	125-47-00
20	10-41-44	125-47-00
21	10-41-45	125-46-30
22	10-41-30	125-45-30

'14'30"  
125°55'30"

