EXECUTIVE SUMMARY

1.0 INTRODUCTION

Project Title:

"PROPOSED GOLD MINING (ALLUVIAL) AT ML 6/2022, ML 7/2022 AND ML 8/2023 WITH AN AREA OF 171.36 HECTARES ON LOT 53339, LOT 82054 AND LOT 53121, MUKIM HULU NERUS, DAERAH SETIU, TERENGGANU DARUL IMAN"

-SECOND SCHEDULE-

Project Operation:

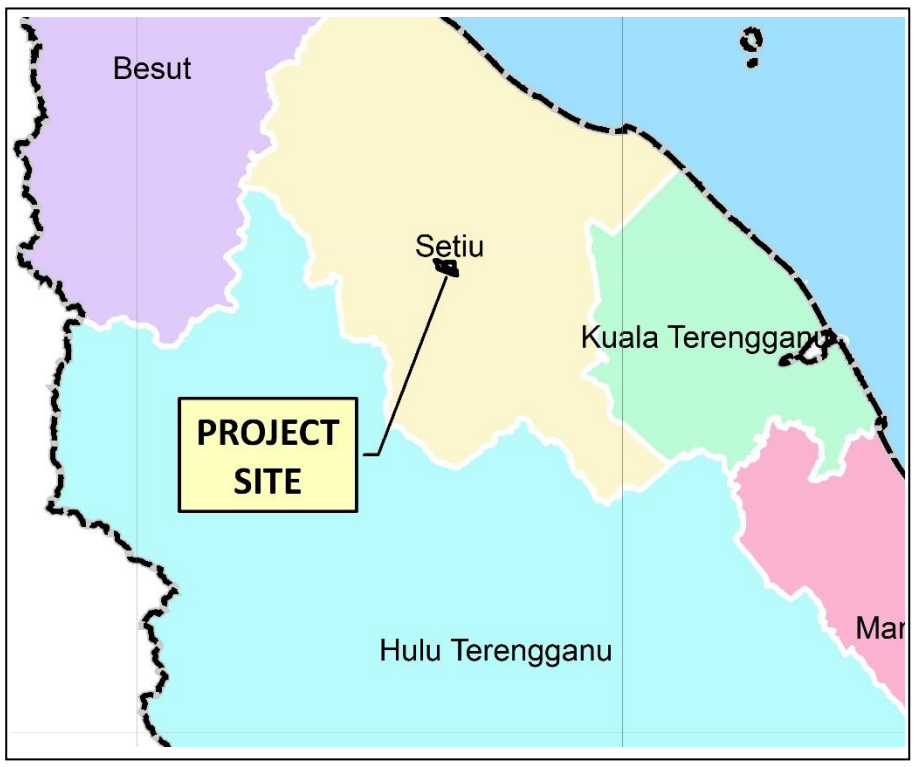
Gold (Alluvial) Mining Project

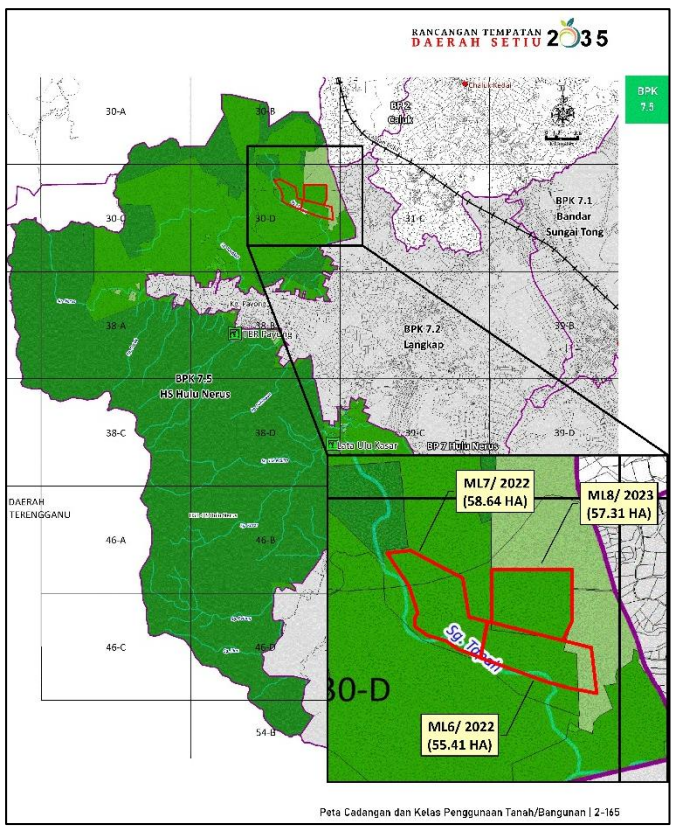
Location:

Lot 53339, Lot 82054 and Lot 53121, Mukim Hulu Nerus, Daerah Setiu, Terengganu

Project size:

171.36 hectares





Based on ***Rancangan Tempatan Daerah Setiu 2035 (Penggantian) (Tarikh Warta: 31 Ogos 2023, No Warta: 1465).*** The project located within ***Blok Perancangan Kecil 7.5: HS Hulu Nerus*** the zoning for the proposed project area is

FOREST

However, mining activity is permitted with the permission and approval from **state government and relevant authorities.**

2.0 PROJECT PROPONENT & ENVIRONMENTAL CONSULTANT

MINING LEASEHOLDER	MINING CONTRACTOR & OPERATOR	ENVIRONMENTAL CONSULTANT
PERMINT GRANITE SDN BHD Tingkat 3 & 4, Blok 11, Lot 60261, Dataran Alamanda, Jalan Sultan Sulaiman, 20000 Kuala Terengganu, Terengganu Darul Iman PIC: En Azizi	**MELATI ODESI SDN BHD** 30-2, Jalan PJU 5/16, Dataran Sunway, 47810 Kota Damansara, Petaling Jaya, Selangor Darul Ehsan PIC: Mr Wong Chee Tat	**NILAIMAS SERVICES (001953513-D)** No.17, Jalan Equine 10D, Taman Equine, 43300 Seri Kembangan, Selangor Contact Person: Dato' Seri Ts. Hj. Mohd Nawahidudin Bin Mahamad Isa Tel/Fax:03-89409959 / 03-89409958 E-mail: nilaimas@gmail.com

3.0 LEGISLATIVE REQUIREMENTS

Section 34A of the Environmental Quality Act 1974, Environmental Quality (Prescribed Activities) (Environmental Impact Assessment) Order 2015

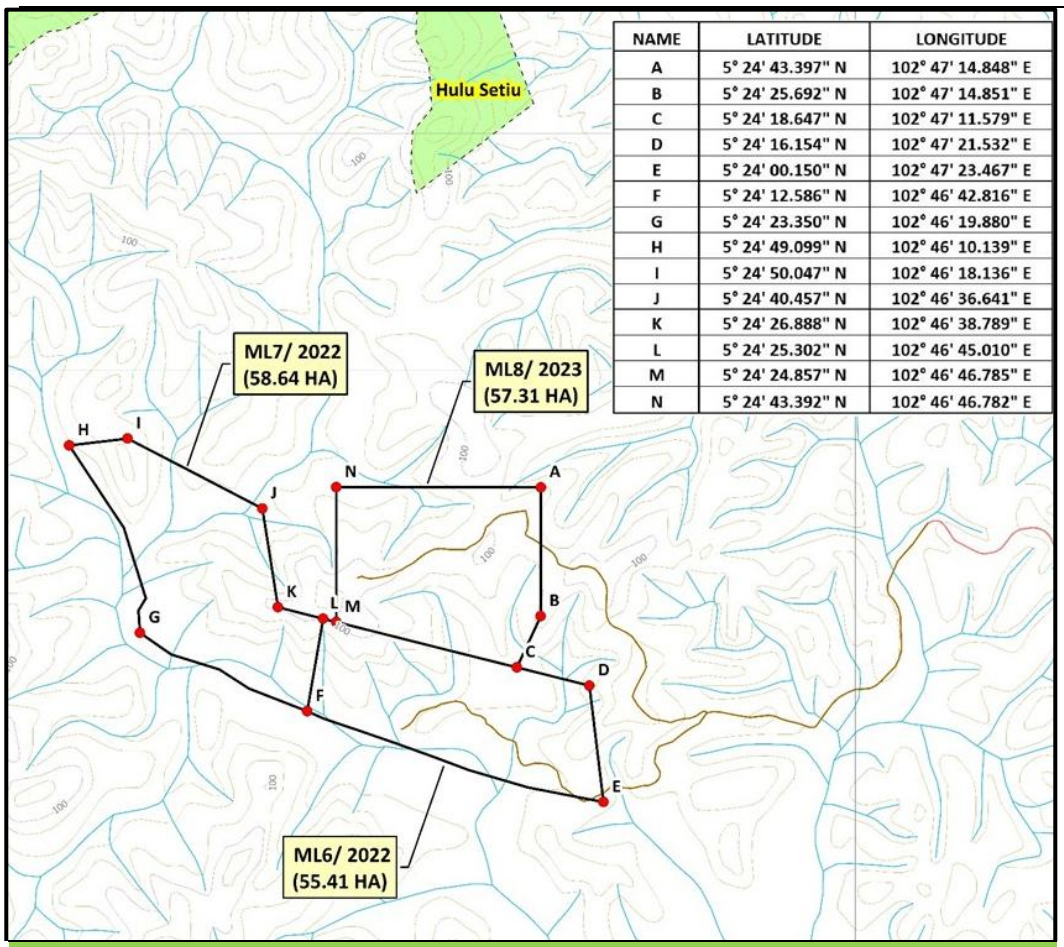
- **Schedule 2: Activity 8 (b);**

Mining of Minerals within or adjacent or near to environmentally sensitive area

- **Schedule 1: Activity 5 (b);**

Logging, or cutting or taking of timber for the purpose of conversion from forest to other land use covering an area of 100 hectares or more but less than 500 hectares.

4.0 PROJECT OVERVIEW



NAME	LATITUDE	LONGITUDE
A	5° 24' 43.397" N	102° 47' 14.848" E
B	5° 24' 25.692" N	102° 47' 14.851" E
C	5° 24' 18.647" N	102° 47' 11.579" E
D	5° 24' 16.154" N	102° 47' 21.532" E
E	5° 24' 00.150" N	102° 47' 23.467" E
F	5° 24' 12.586" N	102° 46' 42.816" E
G	5° 24' 23.350" N	102° 46' 19.880" E
H	5° 24' 49.099" N	102° 46' 10.139" E
I	5° 24' 50.047" N	102° 46' 18.136" E
J	5° 24' 40.457" N	102° 46' 36.641" E
K	5° 24' 26.888" N	102° 46' 38.789" E
L	5° 24' 25.302" N	102° 46' 45.010" E
M	5° 24' 24.857" N	102° 46' 46.785" E
N	5° 24' 43.392" N	102° 46' 46.782" E

POINT	LATITUDE	LONGITUDE
A	50 10’ 44.902” N	1010 48’ 19.095” E
B	50 10’ 16.094” N	1010 48’ 19.117” E
C	50 10’ 16.036” N	1010 47’ 05.573” E
D	50 10’ 40.837” N	1010 47’ 05.554” E
E	50 10’ 48.487” N	1010 47’ 12.439” E
F	50 10’ 48.546” N	1010 47’ 36.822” E
G	50 10’ 38.159” N	1010 47’ 33.161” E
H	50 10’ 35.355” N	1010 47’ 38.660” E
I	50 10’ 43.529” N	1010 47’ 45.613” E
J	50 10’ 47.674” N	1010 47’ 54.074” E
K	50 10’ 45.691” N	1010 47’ 58.525” E
L	50 10’ 42.081” N	1010 47’ 56.322” E

Mining Lisence (ML):

ML 6/2022, ML 7/2022 and ML 8/2023

Total area: 171.36 Ha

Mining Life Operational Life:

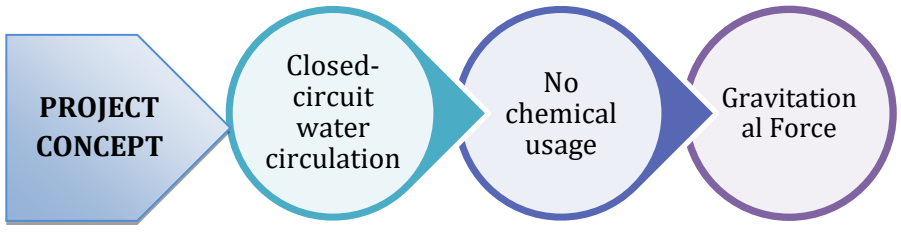
3.7 Years

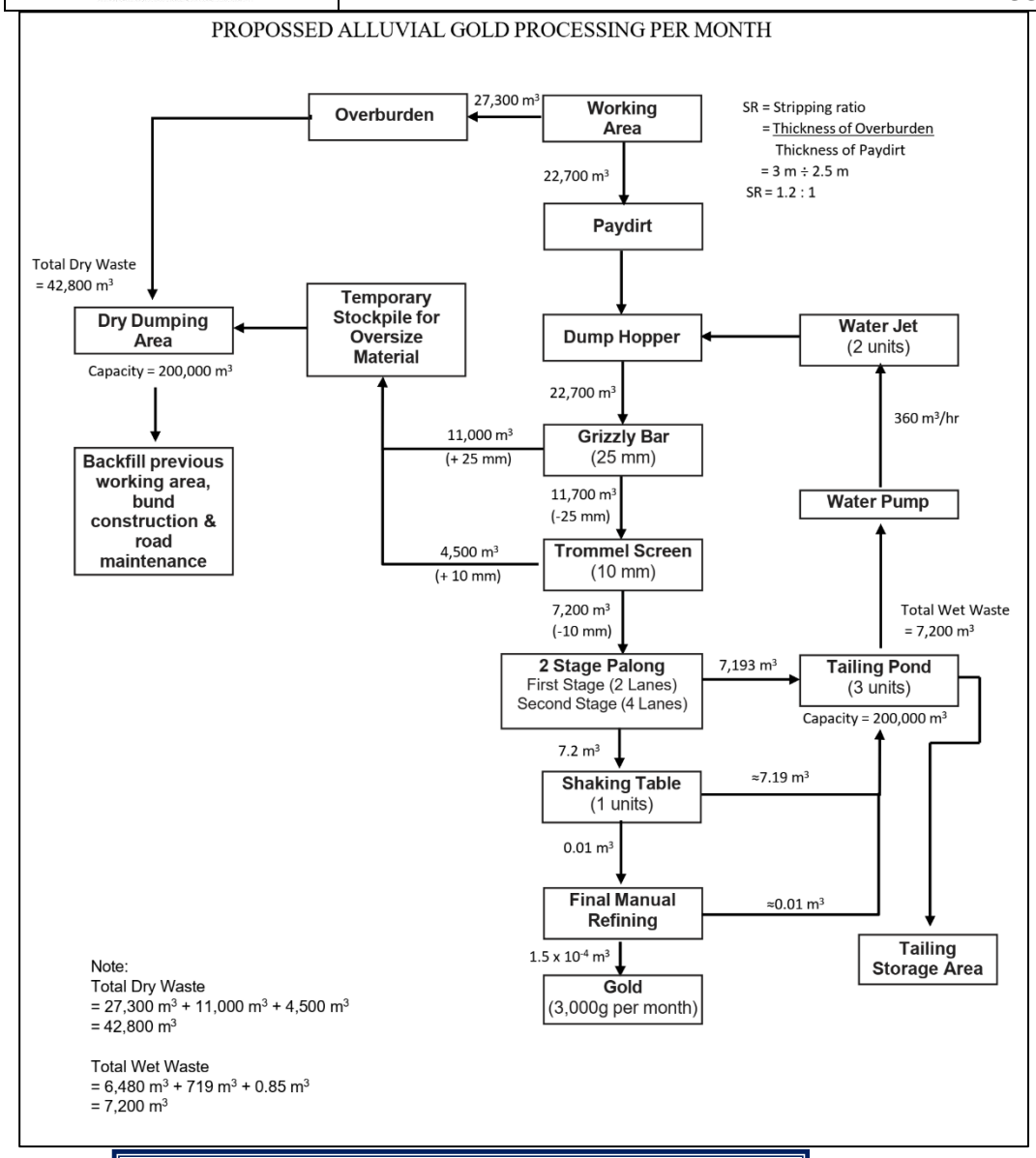
Current Land Use

FORESTRY

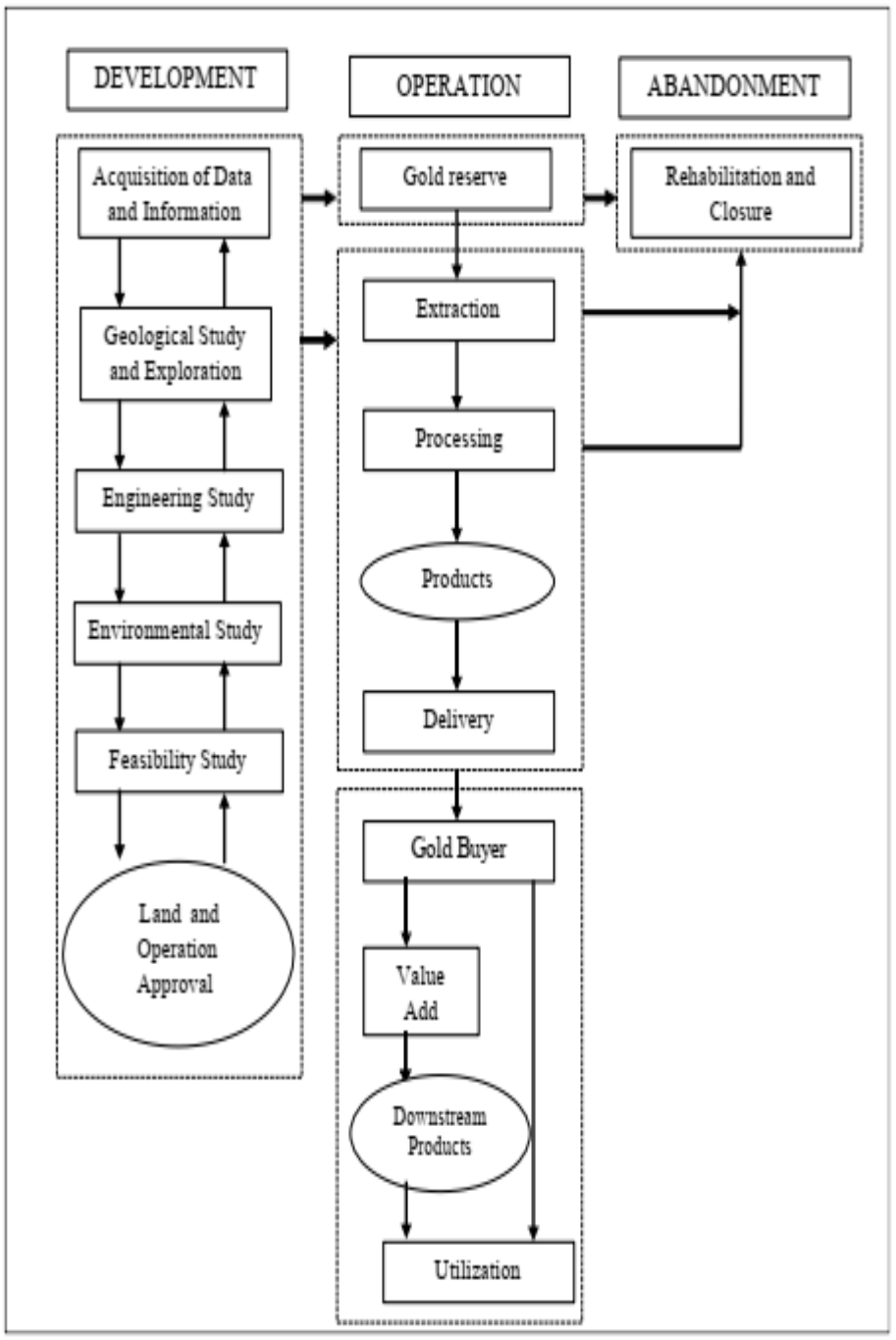
Gold Reserves and Mine Operational Life

Estimated Workable Deposit Area	Estimated Mine Reserve	Mine Operational Life
35.10 Ha	118.5 kg	3.7 Years





PROPOSED MINING OPERATION



OVERALL MINING OPERATION WITH POSSIBLE IMPACTS

TYPICAL MINING PROIECT ACTIVITIES

Investigation

- Exploration
- Environmental Impact Assessment

Site Preparation and construction

- Site Clearing
- Overburden Removal
- Infrastructure Construction and BMPs
- Mine Development
- TSF Maintenance

Production

- ROM Excavation
- Hauling
- Stockpiling
- Screening
- Processing
- Transportation
- Tailing Management
- BMPs

Abandonment

- Reclamation
- Rehabilitation

5.0 EXISTING ENVIRONMENT

LANDUSE

- The project site is zoned as **forest (Hutan Tanah Kerajaan)** area and located within **Lot 53339,Lot 82054** and **Lot 53121**.
- Landuse activity within 5 km radius shows there are no Orang Asli settlements located nearby of project site. Nearest is Felda Chalok Barat.
- Mining activities are permissible subject to approval from the state government and relevant authorities.

TOPOGRAPHY

- Undulating terrain with contour lines from **28 m** to **144 m** with major slope of **Class I (0° – 15°) 139.56 ha (81.45%).**
- Surrounded mainly by forest area.
- The project site is mainly drained towards **Sungai Tapah, to Sungai Nerus to Sungai Terengganu**.

CLIMATE

- Meteorology station selected is Felda Belera and Kuala Terengganu station.
- Mean monthly relative humidity ranges from **65.8%** to **94.0%.**
- Monthly mean temperature range from **19.3°C** to **28.5°C**.
- The wind is calm with mean speed of **1.9m/s**.
- The highest monthly rainfall was recorded in Nov 2024 with value **1434.3mm/month.**

WATER INTAKE

- **WTP Sungai Tong (10.50 km) downstream** from project site**.**

WATER QUALITY

- **Twenty (20)** sampling points to be compared to NWQS Class IIB.
- A total of **fourty-six (46)** parameters were analysed for each sample, consisting of physical, organics, inorganics, metals and major cations, and microbiological compounds.

GEOLOGY AND HYDROGEOLOGY

- Comprised mainly shale, slate, phyllite, schist, with minor sandstone, quartzite and meta conglomerate
- Geology investigation was conducted by thoroughly study a total of eleven rock exposures (MG1-MG10).
- The measured groundwater levels were generally between **0.3 m to 10.76 m** below ground surface, denoting the levels of between **29.7 m** to **43.2 meters** above mean sea level (a.m.s.l).
- The groundwater quality of all monitoring wells has the index score ranging from **81.32 – 95.62** and was categorised according to NGWQI as **Good** to **Excellent**.

GEOCHEMISTRY

- The samples were classified as non-acid generating.
- Results of ABA method with regard to sulphide as S concentration only, indicate that all samples are non-forming (NAF) materials except only for four samples as PAF, i.e. MGW2C, MGW3B, MGW4A and MGW4B..

AMBIENT AIR, GAS AND NOISE

- Two (2) Ambient air and noise samples taken at the sensitive receptors surrounding the project area.
- Two (2) Sample of gases at the project site were analysed which include SO_2, NO_2 and CO.
- $PM_{2.5}$ and PM_{10}, and all gas parameters were compared with MAAQS.
- Noise results were compared with Recommended Permissible Sound Level (Laeq) By Receiving Land Use for New Development Areas under category Low Density Residential, Noise Sensitive Receptors, Institutional (School, Hospital, Worship).

ECOLOGY

- The site is located inside of the Greater Taman Negara Forest Complex but outside of CFS Linkages.
- Camera traps were installed at **ten locations (10)** the project area for 2 months (60 days).
- **17 species** of mammals from **13 families** including wildlife; Asian Elephant, Malayan Tapir, Leopard, and Malayan Sun Bear.
- A total of 46 **species** from **24 families** of birds were recorded at the survey sites with 32 **bird species** were listed as totally protected and 9 **species** are protected under the Wildlife Conservation Act 2010 [Act 716], while another 5 **bird species** were not listed under the act.

SOCIO-ECONOMY

- **172 respondents** were involved within 5 km radius ZOI.
- Includes questionnaire survey, Focus Group Discussion (FGD) and informal conversations.
- Large majority of **83.7% respondents agree** with the proposed Project

6.0 ENVIRONMENTAL ASSESSMENT MATRIX

Note:

(S) – Short term *(+) – Beneficial*
(L) – Long-term *(-) – Negative*

(1) – Little Significance *(N) – No impact*

(2) – Significant *(X) – No mitigation measure needed*

(3) – Very significant *(/) – Mitigation measure required*

Environmental Component	Project Activity																							
	Investigation				Site Preparation and Development									Operation and Production								Closure/ Exit	
	Field Reconnaissance	Exploration, Site Surveying and Mapping	Soil Investigations (Drilling and Sampling)	Environmental Assessment	Establish Access Road	Boundary Demarcation and Positioning	Provision of Buffer Areas Within Site	Mobilization of Workforce	Transport of Equipment and Supplies	Site Clearing and Biomass Removal	Infrastructure Construction (Haulage Road and Working Platform)	Improvement to drainage system	Installation of Crushers or Processing Plant	Waste Disposal	Clearing of Quarries/Mines Site Involving Vegetation Clearing	Overburden Stripping and Waste Disposal	Digging and Hauling	Excavation and Extraction which may involve Crushing	Loading and Transportation of Excavated Materials	Processing and Stockpiling	Tailing Management and Waste Disposal	Site-Restoration (Back-filling, Compaction and Topsoiling of the excavated area)	Rehabilitation Works
Land																							
Landforms	N	N	/	N	/	/	/	1	X	/	/	1	/	/	/	/	/	/	1	1	/	/	/
Soil Profiles	N	N	N	N	/	2	/	X	X	/	2	1	1	1	/	/	/	/	1	1	1	/	/
Soil Composition	N	N	/	N	/	1	/	X	X	3	2	1	1	/	/	/	/	/	1	1	/	/	/
Slope Stability	N	N	/	N	/	/	/	X	X	/	/	/	/	/	/	/	/	/	2	3	/	/	/
Subsidence and Compaction	N	N	/	N	/	1	/	X	X	/	/	1	2	/	/	/	/	/	1	1	1	/	/
Seismicity	N	N	N	N	1	1	X	X	X	1	2	1	1	X	1	1	/	/	1	1	1	/	/
Flood Plains/Swamp	N	N	/	N	/	1	/	X	X	/	/	/	/	/	/	/	/	/	1	2	/	/	/
Landuse	N	N	N	N	/	1	/	X	X	3	2	1	/	/	/	/	/	/	1	1	/	/	/
Engineering and Mineral Resources	N	N	/	N	/	1	/	X	X	2	3	/	/	/	/	/	/	/	1	1	/	/	/
Buffer Zones	N	N	/	N	/	/	/	/	/	/	/	/	/	/	/	/	/	/	1	1	/	/	/
Surface Water																							
Shoreline	N	N	/	1	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
Bottom Interface	N	N	/	N	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
Flow Variation	N	N	/	N	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
Water Quality	N	N	/	N	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
Drainage Pattern	N	N	/	N	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
Water Balance	N	N	/	N	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
Flooding	N	N	/	N	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
Existing Use	N	N	/	N	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
Groundwater																							
Water Table	N	N	/	N	1	1	1	1	1	/	/	/	/	/	/	/	/	/	1	/	/	/	/
Flow Regime	N	N	/	N	1	1	1	1	1	/	/	/	/	/	/	/	/	/	1	/	/	/	/
Water Quality	N	N	/	N	1	1	1	1	1	/	/	/	/	/	/	/	/	/	1	/	/	/	/
Recharge	N	N	/	N	1	1	1	1	1	/	/	/	/	/	/	/	/	/	1	/	/	/	/
Aquifer Characteristics	N	N	/	N	1	1	1	1	1	/	/	/	/	/	/	/	/	/	1	/	/	/	/
Existing Use	N	N	/	N	1	1	1	1	1	/	/	/	/	/	/	/	/	/	1	/	/	/	/
Atmosphere																							
Air Quality	N	N	/	N	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
Air Flow	N	N	/	N	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
Climate Change	N	N	1	N	1	1	1	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Visibility	N	N	/	N	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
Noise																							
Intensity	N	N	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
Duration	N	N	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
Frequency	N	N	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
Biological Resources																							
Terrestrial Vegetation	N	N	/	N	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	+	+
Terrestrial Wildlife	N	N	/	N	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	+	+
Other Terrestrial Fauna	N	N	/	N	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	+	+
Fish	N	N	/	N	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	+	+
Other Aquatic/Marine Flora	N	N	/	N	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	+	+
Terrestrial Habitats	N	N	/	N	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	+	+
Terrestrial Communities	N	N	/	N	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	+	+
Aquatics Habitats	N	N	/	N	/	/	/	/	1	/	/	/	/	/	/	/	/	/	/	/	/	+	+
Aquatics Communities	N	N	/	N	/	/	/	/	1	/	/	/	/	/	/	/	/	/	1	/	/	+	+
Estuarine Habitats	N	N	1	N	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	+	+
Estuarine Communities	N	N	1	N	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	+	+
Marine Habitats	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Marine Communities	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Human Health and Safety																							
Physical Safety	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
Physiological Wellbeing	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
Parasitic Disease	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
Communicable Disease	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
Physiological Disease	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
Social Economic																							
Employment	N	N	N	N	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Housing	N	N	N	N	X	X	X	X	X	/	/	X	/	/	/	/	/	/	/	/	/	+	+
Utilities	N	N	N	N	X	X	X	X	X	/	/	1	/	/	/	/	/	/	/	/	/	+	+
Amenities	N	N	N	N	X	X	X	X	X	/	/	X	/	/	/	/	/	/	/	/	/	X	X
Property and Settlement	N	N	N	N	X	X	X	X	X	/	/	X	/	/	/	/	/	/	/	/	/	+	+
Aesthetic and Cultural																							
Landforms	N	N	N	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	+
Biota	N	N	N	N	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	+	+
Wilderness	N	N	N	N	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	+	+
Water Quality	N	N	N	N	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
Atmospheric Quality	N	N	N	N	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
Climate	N	N	N	N	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	+	+
Tranquillity	N	N	N	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	+
Sense of Community	N	N	N	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	+
Community Structure	N	N	N	N	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	N	N
Man-made Object	N	N	N	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	N	N
Historic Places or Structure	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N

7.0 ENVIRONMENTAL MANAGEMENT PLAN (EMP)

Typical EIA Approval Conditions	Report Frequency
To be submitted starting from land clearing stage until the cessation of the mining operation	
• **Compliance Form EIA 1-18 & 2-18**	Every 3 months
To be submitted starting from land clearing stage until the cessation of the mining operation	
• **Surface water quality**	Every Month
• **Total Suspended Solid (Discharge from silt traps/ sediment basins/Tailing Pond)**	Every Month
• **Ambient air quality**	Every 3 months
• **Ambient noise level**	Every 3 months
To be submitted before the commencement of earthwork	
• **EMP**	Before earthwork
To be submitted before the commencement of earthwork	
• **ESCP**	Before Earthwork

LD-P2M2		
	Sediment Basin/ Retention Pond	
	Waterway Crossing	
	Temporary Earth Drain	
	Check Dams	
	Geo Bags	
	Biomass Waste Area	
	Tailing Ponds	
	Buffer Area	
BMPs		
	Scheduled waste management	
	Fogging	
	Monitoring sampling	
	Storage Area	
	Water Browser	
	Desilting	