

Report Part 1

7:30 PM

14.1. No. of ambient Air Quality (AAQ) Monitoring Locations : 1

S. No.	Criteria Pollutants	Other Criteria Pollutants	Unit	Maximum Value	Minimum Value	98 Percentile Value	Prescribed Standard
(1.)	PM10		Micro Gram per Meter Cube	45	0	45	100
(2.)	PM2.5		Micro Gram per Meter Cube	22	0	22	60
(3.)	NOx		Micro Gram per Meter Cube	12	0	12	80
(4.)	SO2		Micro Gram per Meter Cube	8	0	8	80

14.2. No. of Ground Water Monitoring Locations : 1

S. No.	Criteria Pollutants	Other Criteria Pollutants	Heavy Metal	Unit	Other Unit	Maximum Value	Minimum Value	Desirable Limit	Maximum Permissible Limit
(1.)	TSS			mg/l		0	0	0	0
(2.)	Total Hardness			mg/l		214	0	200	600
(3.)	Heavy Metals		Fe	mg/l		0	0	0	0
(4.)	pH			NA		7.6	0	6.5	8.5
(5.)	TDS			mg/l		214	0	500	2000
(6.)	Fluoride			mg/l		0	0	0	0
(7.)	Chlorides			mg/l		62	0	250	1000

14.3. No. of Surface Water Monitoring Locations : 0

S. No.	Criteria Pollutants	Other Criteria Pollutants	Unit	Other Unit	Maximum Value	Minimum Value	Classification of inland water body
(1.)	BOD		mg/l		0	0	A
(2.)	DO		mg/l		0	0	A
(3.)	COD		mg/l		0	0	A
(4.)	pH		NA		0	0	A

14.4. No. of Ambient Noise Monitoring Locations : 5

S. No.	Parameter	Unit	Maximum Value	Minimum Value	Prescribed Standard
(1.)	Leq(Day)	A-weighted decibels(dB(A))	39.2	32.3	75
(2.)	Leq(Night)	A-weighted decibels(dB(A))	0	0	70

14.5. No. of Soil Sample Monitored Locations : 1

S. No.	Parameter	Unit	Other Unit	Maximum Value	Minimum Value
(1.)	pH			8.12	0
(2.)	K(Potassium)	Percent		0	0
(3.)	N(Nitrogen)	Percent		0	0
(4.)	P(Phosphorus)	Percent		180	0
(5.)	Electric Conductivity	Millisiemens per Centimetre			

14.6. Details of Ground Water Table:

(a) Range of Water Table Pre-Monsoon Season (Meters Below Ground Level (m bgl))	From 5 To 6
(b) Range of Water Table Post-Monsoon Season (Meters Below Ground Level (m bgl))	From 4 To 5
(c) Whether Ground Water Intersection will be there ?	No

15. Details of Water Requirement (During Operation)

S. No.	Source	Source Other	Required Quantity	Distance from Source	Copy of Permission from Competent Authority	Mode of Transport	Other Mode of Transport	Method of Water Withdrawal	Other Method of Water Withdrawal	Letter No.	Date of Issue	Permitted Quantity
(1.)	Ground Water		4.5	1	Copy of Permission Letter	modeOthers	Tank	Tube Well		NA	02 May 2022	4.5

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(2.) Others	Packaged drinking water	0.5	3	Copy of Permission Letter	modeOthers	Packaged water	Others	Water vendor	NA	02 May 2022	0.5
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15.1. (a) Whether Desalination is proposed | No

16. Waste Water Management (During Operation)

S. No.	Type/Source	Quantity of Waste Water Generated (Kilolitre per Day)	Treatment Capacity (Kilolitre per Day)	Treatment Method	Mode of Disposal	Other Mode of Disposal	Quantity of Treated Water Used in Recycling/Reuse (Kilolitre per Day)	Quantity of Discharged Water (Kilolitre per Day)
(1.)	Domestic	5	5	Septic tank	Others	Settling	0	5

16.1. (a) Total Waste Water Generation | 5
 (b) Total Discharged Water | 5
 (c) Total Reused Water | 0

17. Solid Waste Generation/Management

S. No.	Name of Waste	Item	Other Item	Quantity per Annum	Unit	Distance from Site (KM)	Mode of Transport	Other Mode of Transport	Mode of Disposal	Other Mode of Disposal
(1.)	Over burden	Others	Silt	32084	Tons	0.5	Road		Others	Dump

18.1. Air Quality Impact Prediction

S. No.	Criteria Pollutants	Other Criteria Pollutants	Unit	Baseline Concentration	Distance GLC	Incremental Concentration	Total GLC	Prescribed Standard
(1.)	PM10		Microgram per Meter Cube	45	0	0	45	100

18.2. Stack Details

S. No.	Source	Fuel	Stack Height (m)	Stack Diameter (m)	Pollutants	Other Pollutants	Emission (GLS)
(1.)	HSD	HSD	0	0	PM10		0

19. **Power Requirement:**
 (a) Quantity (Kilo Volt Amps (kVA)) | 0
 (b) Source | 0
 (c) Uploaded Copy of Agreement | Not Applicable
 (d) Standby Arrangement (Details of DG Sets) | 0
 (e) Stack Height (In m) | 0

20. **Land Ownership Pattern:**
 (a) Forest Land | 0
 (b) Private Land | 0
 (c) Government Land | 4.955
 (d) Revenue Land | 0
 (e) Other Land | 0
Total Land | 4.955

21. **Present Land Use Breakup of the Study Area in Ha:**
 (a) Agriculture Area | 0
 (b) Waste/Barren Land | 0
 (c) Grazing/ Community Land | 0
 (d) Surface Water Bodies | 4.955
 (e) Settlements | 0
 (f) Industrial | 0
 (g) Forest | 0
 (h) Mangroves | 0
 (i) Marine Area | 0
 (j) Others : Nil | 0
Total | 4.955

22. Land Requirement for Various Activities

S. No.	Description of Activity / Facility / Plant / Others	Others	Land Requirement	Remarks
(1.)	Others	River	4.955	
	Total		4.955	

23. **Ecological and Environmental Sensitivity (Within 10 Km):- WLS-Wild Life Species; NPA-Notified Protected Area; ESAs-Eco**

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Sensitive Areas; ESZs-Eco Sensitive Zones :

21.1 Details of Ecological Sensitivity :

S. No.	Details of Ecological Sensitivity	Name	Distance from the Project (Km)	Remarks
(1.)	Critically Polluted Area	Nil	0	None in 10km radius
(2.)	NPA	Nil	0	None in 10km radius
(3.)	ESZs	Nil	0	None in 10km radius
(4.)	Wildlife Corridors	Nil	0	None in 10km radius
(5.)	ESAs	Nil	0	None in 10km radius
(6.)	Corridors	Nil	0	None in 10km radius
(7.)	WLS	Nil	0	None in 10km radius

23.2. Details of Environmental Sensitivity :

S. No.	Details of Environmental Sensitivity	Other Details of Environmental Sensitivity	Name	Distance from the Project (Km)	Remarks
(1.)	Defence Installations		nil	0	None in 10km Radius
(2.)	Forest		Nil	0	None in 10km Radius
(3.)	Archaeological Sites		Nil	0	None in 500m radius

23.3.	(a)Whether Noc / Permission from the competent authority is required?	No
	(b)Whether NBWL recommendation is required?	No

24.	Forest Land: Whether any Forest Land involved?	No
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25.	Tree Cutting: (a)No. of Trees Cut for the Project (If Forest Land not Involved) (b)Details of Tree Cutting and Planting of Trees	Not Applicable Not Applicable
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26.	Land Acquisition Status: (a)Acquired Land(Ha) (b)Land yet to be acquired(Ha) (c)Status of Land acquisition if not acquired	4.955 0 Co
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27.	Rehabilitation and Resettlement (R&R): (a)No. of Villages (b)No. of Households (c)No. of PDFs (Project Displaced Families) (d)No. of PAFs (Project Affected Families) (e)Funds Allocated for R&R(in Rs) (f)Status of R&R	0 0 0 0 0 Completed
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28.	Details of Presence of Schedule-I Species: (a)Whether there is Presence of Schedule-I Species ? (b)Whether conservation plan for Schedule-I Species has been prepared ? (c)Whether conservation plan for Schedule-I Species has been approved by competent authority ?	No No No
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29.	Details of Presence of Water Bodies In Core Area: (a)Whether there is Presence of Water Bodies in Core Area ? (i)Details of Water Bodies in Core Area (b)Whether there is Diversion Required ? (c)Whether permission has been obtained from competent authority ?	Yes Vaipparu No No
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30.	Details of Presence of Water Bodies In Buffer Area: (a)Whether there is Presence of Water Bodies in Buffer Area ? (i)Details of Water Bodies in Buffer Area (ii)Direction of Water Bodies in Buffer Area (iii)Distance of Water Bodies in Buffer Area	Yes Lake West 1.6
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31.	Manpower Requirement: (a)Permanent Employment-During Construction (b)Permanent Employment-During Operation (c)Temporary Employment- During Construction (d)Temporary Employment- During Operation (e)No. of working days (f)Total Manpower	0 0 0 30 75 30
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32.

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Green Belt in Ha:	
(a) Total Area of Green Belt (in hectare)	0
(b) Percentage of Total Project Area	0.00
(c) No. of Plants to be Planted	150
(d) Funds Allocated for Plantation	100000
(e) Uploaded Green Belt plan	Copy of Green Belt Plan

33. **Project Benefits**

S. No.	Type of Project Benefits	Details of Project Benefits
(1.)	Environmental	Flood water discharge

34. **CRZ Specific Details : Not Applicable**35. **Sector Specific Details For Non-Coal Mining**

S. No.	Item	Details
1.	No. of Mineral(s) to be Mined :	
S. No.	Mineral(s) to be Mined	Major or Minor Mineral
(1.)	Sand	Minor
2.	Mine Capacity in ROM (Run of Mine)	
3.	Uploaded 500 meters Cluster Certificate from State Mines and Geology in case of minor minerals	Copy of 500 meters Cluster Certificate from State Mines and Geology
4.	Mining Plan: (a) Approval Letter No. (b) Date of Approval (c) Approved Letter (d) Approved By State Mining and Geology Department (e) Approved Mining Lease Area (f) Approved Capacity	Copy of Approved Letter
5.	Technical Details: (a) Total Geological Reserves (Million Ton) (b) Mineable Reserves (Million Ton) (c) Extractable Reserves (Million Ton) (d) Percent (%) of Extraction (e) Grade of Coal /Ore /Mineral (f) Stripping Ratio (g) Category of Gaseousness (Only for Coal Mining, Others may Write NA) (h) Average Gradient (Degree) (i) Mining Method (j) Life of Mine (Years)	
6.	Details of Beneficiations: (a) Whether It is proposed to install beneficiation plant/Coal washery within the mining lease area (b) Whether it is proposed to install crusher within the mining lease area	
7.	Details of Seams: (a) Whether details of seam applicable	
8.	Details of Mining Lease: (a) Mining Lease Area (in Hectare) (b) Whether obtained Letter of Intent (LOI) from the state government ? (i) Copy of Letter of Intent (ii) Date of Issue of LOI (iii) Validity of LOI (iv) Reference No. of LOI (c) Whether Lease Deed Executed ? (i) Reason thereof (d) Whether Lease Deed Renewed ? (i) Reason thereof	4.955 Yes Copy of Letter of Intent 23 Mar 2022 0.25 KV1/347/2022 No Fresh quarry No Fresh quarry
9.	OB (Over Burden) Management:	Details Not Applicable

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Details of Topsoil Management:

(a) Quantity of Topsoil excavated during the entire life of the mine (in Million Cubic metre)	0
(b) Quantity of Topsoil proposed for utilization for reclamation during the entire life of the mine (in Million Cubic metre)	0
(c) Quantity of Topsoil proposed for utilization for other activities during the entire life of the mine (in Million Cubic metre)	0

Details of Final Mine Void:

(a) Area (in Hectare)	4.955
(b) Depth (in meter)	1
(c) Volume (in Million Cubic meter)	0.049550

Details of Quarry:

(a) Final Void of 4.955 (hectare) at a Depth of 1 meter which is Proposed to be Converted into a Water Body.	4.955
(b) Total Quarry Area (ha)	

Details of Transportation:

(a) In Pit/Underground to Surface	Hydraulic excavator
(b) Surface to Siding/Loading	Hydraulic excavator
(c) Transportation / Conveyor Details	Tipper

14. Details of Land Usage (Pre-Mining)

S. No.	LAND USE	Other LAND USE	WITHIN ML AREA (Hectare)	OUTSIDE ML AREA (Hectare)	TOTAL (Hectare)
(1.)	AGRICULTURE LAND		0	0	0
(2.)	FOREST LAND		0	0	0
(3.)	SETTLEMENTS		0	0	0
(4.)	WASTE LAND		0	0	0
(5.)	GRAZING LAND		4.955	0	4.955
(6.)	SURFACE WATER BODIES			0	4.955
TOTAL			4.955	0	4.955

15. Details of Land Usage (Post-Mining)

S. No.	LAND USE	Other LAND USE	Plantation (ha)	Water Body (ha)	Public Use (ha)	Undisturbed (ha)	Total
(1.)	TOP SOIL STORAGE		0	0	0		0
(2.)	VIRGIN AREA		0	0	0		0
(3.)	ROADS		0	0	0		4.955
(4.)	EXCAVATION/QUARRY		0	4.955	0		0
(5.)	BUILT UP AREA (COLONY/OFFICE)		0	0	0		0
(6.)	EXTERNAL OB DUMPS		0	0	0		0
(7.)	INTERNAL OB DUMPS		0	0	0		0
(8.)	GREEN BELT		0	0	0	0	4.955
TOTAL			0	4.955	0	0	4.955

Details of Reclamation:

Total Afforestation Plan shall be Implemented Covering of Mining.

This will Include:

(a) External OB Dump (in hectare)	0
(b) Internal Dump (in hectare)	0
(c) Quarry (in hectare)	4.955
(d) Safety Zone (in hectare)	0
(e) Final Void of 4.955 (hectare) at a Depth of 1 meter which is Proposed to be Converted into a Water Body.	
(f) Density of Tree Plantation per ha (In no.)	0
(g) Others in ha (such as Excavation Area along ML Boundary, along Roads and Infrastructure, Embankment Area and in Township Located Outside the Lease etc)	0
(h) Total afforestation plant (in hectare)	0

17. Status of progressive Mining Closure Plan:

Details Not Applicable

18. Details of Actual Coal/ ORE Production vis-a-vis Sanctioned Capacity since the Inception:

S. No.	Financial Year	Sanctioned Capacity as per EC	Sanctioned Capacity as per	Sanctioned Capacity as per	Actual Production	Excess Production Beyond the EC / CTO / Mining Plan

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(MTPA)	CTO	approved mining plan	Sanctioned Capacity (MTPA)
0	0	0	0

Item	Details
Details of Court Cases: (a) Whether there is any Court Cases pending against the project and/or land in which the project is proposed to be set up?	No

Details of Direction Issued under Environment (Protection) Act / Air (Prevention & Control of Pollution) Act / Water (Prevention & Control of Pollution) Act: (a) Whether any Direction issued under EPA Act/Air Act/Water Act?	No
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Details of EIA Consultant: (a) Have you hired Consultant for preparing document? (i) Accreditation No. (ii) Name of the EIA Consultant (iii) Address (iv) Mobile No. (v) Landline No. (vi) Email Id (vii) Category of Accreditation (viii) Sector of Accreditation (ix) Validity of Accreditation (x) Uploaded Certificate of Accreditation certified by QCI/NABET	Yes NABET/EIA/2124/RA 0228 AADHI BOOMI MINING AND ENVIRO TECH (P) LTD. 3/216, K.S.V. Nagar, Narasothipatti, Alagapuram Post, Salem - 636 004 9842729655 0427244044 suriyakumarsemban@gmail.com A Non-Coal Mining 22 Oct 2024 Copy of Certificate of Accreditation
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Documents to be Attached: (a.I) Upload Copy of EIA/EMP(Text) (a.II) Upload Copy of EIA/EMP(Annexures) Report (a.III) Upload Copy of EIA/EMP(Maps/Plans/Figures only) (b) Uploaded Copy of Risk Assessment Report (c) Uploaded Copy of Feasibility Report/ Detailed Project Report(DPR) /Detailed Engineering Report /Detailed Conceptual Plan /Approved Mining Plan (d) Uploaded Copy of Final Layout Plan (e) Uploaded Cover Letter (f) Uploaded Copy of documents in support of the competence/authority of the person making this application to make application on behalf of the User Agency (g) Uploaded Copy of District Survey Report (h) Uploaded Copy of Replenishment Study Report & Baseline Survey Data (i) Uploaded Additional File (j) Uploaded Proposal Presentation (To be given in EAC meeting) (k) Uploaded Updated Form1	<u>Copy of EIA/EMP(Text)</u> <u>Copy of EIA/EMP(Annexures)</u> <u>Copy of EIA/EMP(Maps/Plans/Figures only)</u> <u>Copy of Risk Assessment</u> <u>Copy of Feasibility Report/ Detailed Project Report(DPR) /Detailed Engineering Report /Detailed Conceptual Plan /Approved Mining Plan</u> <u>Copy of Final Layout Plan</u> <u>Copy of Cover Letter</u> <u>Copy of documents in support of the competence/authority of the person making this application to make application on behalf of the User Agency</u> NA NA <u>Copy of Additional File</u> <u>Copy of Uploaded Proposal Presentation</u> NA
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Essential Details Sought	EDS Sought	Letter
S. No.	EDS Sought Date	NO Record
Additional Details Sought	ADS Sought	Letter
S. No.	ADS Sought Date	NO Record

Undertaking

I hereby give undertaking that the data and information given in the application and enclosures are true to be best of my knowledge and belief. And I am aware that if any part of the data and information found to be false or misleading at any stage, the project will be rejected and clearance given, if any to the project will be revoked at our risk and cost. In addition to above, I hereby give undertaking that no activity/ construction/ expansion has since been taken up.

Name of Applicant Designation Name of Company (Applicant Name should not be given here) Address	Executive Engineer Executive Engineer THE EXECUTIVE ENGINEER, MADURAI PWD,WRD, MMD, Thallakulam, Madurai
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BRIEF SUMMARY OF THE PROJECT

The applicant, The Executive Engineer, Water Resources Department, Mining and Monitoring Division, Madurai has been applied for sand Quarrying in Vaipparu River at over an extent of 4.95.5 Hectares in S.F. No. 1095 (P), in Nenmeni Village of Sattur Taluk, Virudhunagar district, Tamil Nadu.

The District Collector, Virudhunagar has directed the applicant vide his precise area communication letter **Rc.No.KV1/347 /2022, dated 23.03.2022** to get approved Mining plan and Environmental Clearance from the state Environmental Impact Assessment Authority (SEIAA) for grant of Sand Quarry in Vaipparu river, S.F. No.1095(P), Nenmeni Village, Sattur Taluk, Virudhunagar District, Tamil Nadu for a period of **Six Months**.

The mining plan is prepared as per the District Collector's proceedings letter. No. Roc. KV1/347/2022 dated 23.03.2022 under Rule 41& 42 of Tamil Nadu Minor Minerals Concession Rules, 1959 for quarrying Sand with due consideration of environmental parameters so as to obtain Environmental clearance (EC) from EIA Authority (SEIAA/DEIAA), as per the EIA Notification, 2006 and Sand Mining guidelines, 2020 using Drone Technology. The project cost is about Rs 25.0lakhs and EMP cost is Rs 4.0 lakhs.

Open cast Semi mechanized mining will be adopted to extract Sands, several aspects should be considered like construction of semi-permanent structures, planning for the development / production works, lying of approach for movement of bullock, recruitment of man power, etc.

Geological reserves are estimated at 1, 80,734 m³ up to 3m depth below theoretical bed level including shoal. Mineable reserve is estimated as 49,550m³ up to 1m depth below theoretical bed level and 32084m³ of silt (average depth of 0.647m). The mineable resources of sand is estimated as 49,550m³. The proposed production of sand is 49,550m³ for free flowing of flood water.

Table No: 1. Salient features of the proposed project

FEATURE	DETAILS
Project and Proponent details	
Name of the Proponent and address	THE EXECUTIVE ENGINEER, Water Resources Organization, Mining and Monitoring Division, Madurai.
Existing/New Quarry	New
Classification of the area (Ryotwari/Poramboke/Others)	The proposed site is located in River basin of a Poramboke land.
Ownership /occupancy of the Applied area (Surface Rights)	This land is maintained by PWD
Category	B ₂

Type of Project	Sand Quarry
Site Location	S.F. No. 1095 (P), in Nenmeni Village of Sattur Taluk, Virudhunagar district, Tamil Nadu
Period of Lease	Six months
Mining Details	
Method of Mining	Open cast semi mechanized,
Mining lease area	4.95.5 Ha
Geological Resources	1, 80,734 m ³ including 32084m ³ of silt
Mineable Reserves	49,550m ³ sand and 32084m ³ of silt
Production	The proposed production of sand is 49550m ³ and 32084m ³ of Silt for Six months or about 661m ³ of sand per day or 117 load @5.66 tipper per day.
Depth of Mining	1m below the theoretical bed level
Water Table	Water table in this area is 5m from BGL.
Existing Pit Dimension	Nil
Proposed bench height & Width	Nil
Machineries	
Types of Machineries used in the quarry	Open cast semi mechanised method, Hydraulic excavator and tipper
Blasting Pattern and Explosive	
Blasting Pattern	No blast is proposed
Types of Explosive	
Measures proposed to minimize ground vibration due to blasting	
Storage of explosive	
Approvals	
Mining plan approval	The Assistant Director, Geology and Mining, Virudhunagar vide Rc No: KV1/347 /2022, dated 02.05.2022
AD Letter for 500m radius cluster certificate.	AD Letter for 500m radius cluster certificate is enclosed.
Precise area Communication Letter	The District Collector, Virudhunagar, Roc No.KV1/347 /2022, dated 23.03.2022
General conditions	
Does it attract any general conditions specified in the EIA notification, 2006?	1. Forest (Conservation) Act 1980: i) Kothankulam reserve forest is located at 95km on Northwestern direction; Kurumalai Reserve forest is located at 55km on S direction .No reserve forest.

	<p>The area does not attract the Forest (Conservation) Act 1980</p> <p>2. Wild Life (Protection) Act, 1972: There is no wild animal sanctuary within 10 km radius from the project site under the Wildlife (Protection) Act, 1972.</p> <p>3. Coastal Zone: iv) The proposed quarry is located 90km away from Bay of Bengal on Eastern side Hence, the project doesn't attract the C.R.Z. Notification, 2011.</p>
Defence installations	Nil within 10 km
Archaeological features	Nil within 10 km
Ecological sensitive zones	Nil within 10 km
Interstate Boundary	Interstate boundary is located at 155km from site to Tamil Nadu – kerala border line on the western directions
Nearest streams/ rivers/ water bodies	The project site located at Vaipparu river.
Seismic zone	Zone-II, Low damage risk zone as per BMTPC, Vulnerability atlas Seismic zone of India IS: 1893-2002.
Requirement (Water and Man power)	
Man Power	30 Persons
Water requirement	Whole some drinking water shall be provided as per the Mines Rules, 1955. Quantity for Drinking and utilities is 2 KLD. Dust suppression and Green belt of water is 3KLD. Total 5 KLD water required per Day. The drinking water is obtained from Mineral water suppliers in the nearby areas. Source: Mineral water supply and water tank
Project Cost	Rs. 25.0 Lakhs
EMP Cost	Rs.4.0 Lakhs
Infrastructure facilities	
Nearest habitation	Nenmeni – 1.0km- NW
PMHC	Sattur - 8.5km- NW
Nearest Town	Sattur - 8.0km- NW
Nearest Railway station	Sattur - 8.5km- NW
Nearest Airport	Madurai Airport- 58km- NE

Climatic Conditions				
Climatic condition	1. Generally tropical climatic condition. 2. This district receives rain both in south west and north east monsoon. 3. The average rainfall is about 827 mm. 4. Temperature Mean Max: 30.6°C , Mean Mini: 25.7°C			
Survey details				
Survey number	1095 (P)			
Geographical features	The area is represented by Geological Survey of India Toposheet No.58G/15 and falls between Latitude of N9°19'08.1037" to N9°19'16.9688" and Longitude of E77°59'30.6180" to E77°59'42.8811"			
Land use pattern	S.No	Description	Present area (Ha)	Proposed land use (Ha)
	1	Area under mining	0.00.0	4.95.5
	2	Roads	0.00.0	0.00.0
	3	Green belt & Dump	0.00.0	0.00.0
	4	Infrastructure	0.00.0	0.00.0
	5	Unutilized Area	4.95.5	0.00.0
	Total			4.95.5

**APPLICATION FOR ENVIRONMENTAL CLEARANCE TO MINE MINOR MINERALS IN
EXTENTS LESS THAN 5 HECTARES.**

FORM - I

(I) Basic Information

S.No	Item	Details
1	Name of the project	Nenmeni sand quarry
2	S.No in the Schedule	1 (a)
3	Proposed capacity/area to be handled/command area/number of wells to be drilled	The proposed production of sand is 49550m ³ and 32084m ³ of Silt for Six months or about 661m ³ of sand per day or 117 load @5.66 tipper per day
4	New/Expansion/Modernization	New
5	Existing capacity/ Area etc.,	4.95.5 hectares.
6	Category of project i.e.'A' or 'B'	B
7	Does it attract the general condition? If yes, please specify.	No. Doesn't attract any items mentioned in the general conditions.
8	Does it attract the specific condition? If yes, please specify.	No. Doesn't attract the specific conditions
9	Location	Latitude of N9°19'08.1037" to N9°19'16.9688" and Longitude of E77°59'30.6180" to E77°59'42.8811"
	Plot/Survey/Khasra No.	1095 (P)
	Village	Nenmeni
	Tehsil	Sattur
	District	Virudhunagar
	State	Tamilnadu
10	Nearest railway station/airport along with distance in Km.	Sattur - 8.5km- NW Madurai Airport- 58km- NE
11	Nearest Town ,City, District Headquarters along with distance in Km.	Town - Sattur - 8.5km- NW City - Virudhunagar - 29.3km- NW District - Virudhunagar - 29.3km- NW
12	Village Panchayats, Zilla Parishad, Municipal	Village - Nenmeni, Panchayat Union - Nenmeni, Zilla - Virudhunagar Municipal - Virudhunagar
13	Name of the applicant	The Executive Engineer, WRO, MMD

14	Registered Address	The executive engineer, Water Resources Organization, Mining and Monitoring Division, Madurai District.
15	Address for correspondence:	Executive Engineer PWD/WRO Quarry Lessee The executive engineer, Water Resources Organization, Mining and Monitoring Division, Madurai District.
	Name	
	Designation(Owner/Partner/CEO)	
	Address	
	Pincode	
	E-Mail	
	Telephone No.	
	Fax No.	
16	Details of Alternative Sites examined, if any.	This is a mining project, which is site specific due to availability of Sand only
17	Interlinked Projects	Does not Arise
18	Whether separate application of Interlinked project has been submitted?	Does not Arise
19	If Yes , Date of submission	Does not Arise
20	If no, Reason	Since the project involves sand mining operation only, there is no interlinked project.
21	Whether the proposal involves approval/ clearance under: if yes, details of the same and their status to be given. The Forest(Conservation)Act, 1980? TheWildlife(Protection)Act 1972? The C.R.Z. Notification, 1991?	NA
22	Whether there is any Government order/ Policy relevant/relating to the site?	There is no G.O or Policy made to this site with respect to Environmental or eco sensitiveness.
23	Forest land involved(hectares)	No. The proposed site is located in River basin of a Poramboke land
24	Whether there is any litigation pending against the project and/or land in which the project is propose to be set up? (a) Name of the Court	There is no litigation pending against this project.

(b) Case No.
(c) Orders/directions of the court, if any and its relevance with the proposed project

(II) Activity

1. Construction, operation or decommissioning of the Project involving actions which will cause physical changes in the locality (topography, land use changes in water bodies, etc.)

S.No	Information/Check list	Yes /No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data
1.1	Permanent or temporary change in land use, land cover or topography including increase in intensity of land use (with respect to local land use plan)	No	The proposed project is made for excavation of Sand to remove any obstacles on the flow direction of the river and recharging on neighboring open wells. No major excavation or quarry or any land damage involved in this project except removal of a thin layer of 1.0m from below theoretical bed level. The land is river basin now uneven & irregular shape of the poramboke land. There is no permanent or temporary change in land use.
1.2	Clearance of existing land, vegetation and buildings?	No	There is no necessity for clearance of existing lands like pumping schemes, bridges, buildings and vegetation etc.,
1.3	Creation of new land uses?	No	The site itself of part river basin, Recharge of open wells and nearest kanmoi.
1.4	Pre-construction investigations e.g. bore houses, soil testing?	No	Not applicable, being a no Pre-construction investigations.
1.5	Construction works?	No	No, the scope of any construction work does not arise in this project.
1.6	Demolition works?	No	No, the scope of demolition work does not arise in this project.
1.7	Temporary sites used for construction works or housing of construction workers?	No	No housing facility will be provided for the labourers as people in the nearby villages will be employed.

1.8	Above ground buildings, structures or earthworks including linear structures, cut and fill or excavations	No	The project does not involve any construction process.
1.9	Underground works including mining or tunneling?	No	Quarrying is proposed in open cast. There is no involved any tunnel and underground Mining
1.10	Reclamation works?	No	No reclamation work involved. It is a river channel transported and covered by during the rainy season.
1.11	Dredging?	No	No Dredging.
1.12	Offshore structures?	No	No Offshore structures.
1.13	Production and manufacturing processes?	Yes	<ol style="list-style-type: none"> 1) Temporary approach roads will be formed connecting the existing road. 2) The Sand containing rounded grains of fine and coarse sand will be transported to the private \ public uses. The production of sand is 49550m³ and 32,084m³ of Silt is permitted by the Dept. of. Geology and Mining, Virudhunagar for a period of Six Months from the date of execution. 3) Mining would be carried out by opencast method by semi mechanized means using Excavator and tippers. 4) The excavated area shall be leveled for free flowing of river water.
1.14	Facilities for storage of goods or materials?	No	The material will be loaded directly to the shunting point. No storage of goods or materials shall be stored with in this mining area.
1.15	Facilities for treatment or disposal of solid waste or liquid effluents?	No	There is no waste material or no liquid effluents and no process waste water will be generated from the quarrying process.
1.16	Facilities for long term housing of operational workers?	No	No housing facility will be provided, as labourers from the nearby villages will be employed for the mining operation

1.17	New road, rail or sea traffic during construction or operation?	Yes	Temporary approach roads will be formed connecting the existing road and quarry site by using bio degradable materials like sugarcane leaves etc.
1.18	New road, rail, air waterborne or other transport infrastructure including new or altered routes and stations, ports, airports etc?	No	The existing transport facilities in the project area will be utilized. There is no interlinked rail, air waterborne or any other transport facilities are will be utilized.
1.19	Closure or diversion of existing transport routes or infrastructure leading to changes in traffic movements?	No	The project will not cause any changes in the existing traffic movements.
1.20	New or diverted transmission lines or pipelines?	No	The project does not involve diversion of transmission / pipe lines.
1.21	Impoundment, damming, culverting, realignment or other changes to the hydrology of watercourses or aquifers?	No	There is no Impoundment, damming, culverting, realignment needed and there are no changes in hydrology of watercourses or aquifers.
1.22	Storm water crossings?	Yes	The Site itself a River.
1.23	Abstraction or transfers of water from ground or surface waters?	No	It is a shallow quarrying or removal of 1.0m depth of Sand from below theoretical bed level. No change in ground water/ surface water flow direction.
1.24	Changes in water bodies or the land surface affecting drainage or run-off?	No	There won't be any changes in the water bodies or the land surface.
1.25	Transport of personnel or materials for construction, operation or decommissioning?	Yes	The workers will be using their own conveyance for commuting to the quarry during operation. Since there is no construction or decommissioning involved in this project, there is no need of transport of personnel or materials.
1.26	Long-term dismantling or decommissioning or restoration works?	No	No Long-term dismantling or decommissioning is involved in this project.
1.27	Ongoing activity during decommissioning which could have an impact on the environment?	Yes	The open pit will be used as rain and flood water free flowing without any obstacles direction to augment ground water level which gives positive impact on the

			environment.
1.28	Influx of people to an area in either temporarily or permanently?	No	Only the labourers working in the site and the drivers of the consumer vehicles will be entering the site on temporary basis during the quarry operating time.(7.00 am to 5.00 pm)
1.29	Introduction of alien species?	No	There is no introduction of alien species.
1.30	Loss of native species or genetic diversity?	No	No loss of native species or genetic diversity will occur.
1.31	Any other actions?	Yes	<p>Environmental measures to be adopted shall be,</p> <ul style="list-style-type: none"> i) Dust control at source while loading and haul roads. ii) Avoid over loading and deepening the tank beyond the permitted depth. iii) Land degradation by undulation should be avoided. As practically as possible, the red soil (Sand) should be removed in a uniform layer. iv) Emission test of vehicles should be in tack to maintain minimum emission level of flue gases, v) Noise level should not exceed 75 dB and the vehicles should use only permitted Air Horn while on road near residential areas, vi) Tarpaulin should be covered over the loose soil, while transporting so as to avoid fly of dust. vii) No unauthorized person shall drive the vehicles except the person permitted by the vehicle owner who has valid license, first aid certificates etc. viii) And such other conditions as stipulated by the concerned authorities.

2. Use of Natural resources for Construction or operation of the Project (such as land, water, materials or energy, especially any resources which are non-renewable or in short supply):

S.No	Information/checklist confirmation	Yes/No	Details there of (with approximate quantities /rates, wherever possible) with source of information data
2.1	Land especially undeveloped or agricultural land (ha)	Yes	The mining area of 4.95.5Hectares is a Part of The Vaipparu river. It is dry, barren, uneven and unfit for any other use. It becomes fit for free flowing of river water after removal of sand only.
2.2	Water (expected source & competing users) unit: KLD	Yes	Whole some drinking water shall be provided as per the Mines Rules, 1955. Quantity for Drinking and utilities is 2 KLD. Dust suppression and Green belt of water is 3KLD. Total 5 KLD water required per Day. The drinking water is obtained from Mineral water suppliers in the nearby areas. Source: Mineral water supply and water tank
2.3	Minerals (MT)	No	No minerals is used for construction or operation.
2.4	Construction material – stone, aggregates, / and/soil (expected source – MT)	No	The proposed project is a removal of Sand from a The Vaipparuu river basin; it does not involve any usage of construction materials.
2.5	Forests and timber (source – MT)	No	There is no forest and timber is used.
2.6	Energy including electricity and fuels (source, competing users) Unit: fuel (MT), energy (MW)	Yes	About 200 liters of HSD per day is used to the sand excavation.
2.7	Any other natural resources (use appropriate standard units)	No	Nil

3. Use, storage, transport, handling or production of substances or materials, which could be harmful to human health or the environment or raise concerns about actual or perceived risks to human health.

S.No	Information/Checklist confirmation	Yes /No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
3.1	Use of substances or materials, which are hazardous (as per MSIHC rules) to human health or the environment (flora, fauna, and water supplies)	No	No hazardous materials used in this project.
3.2	Changes in occurrence of disease or affect disease vectors (e.g. insect or water borne diseases)	No	There is no change in occurrence of disease or affect disease vectors due to Sand removal only.
3.3	Affect the welfare of people e.g. by changing living conditions?	Yes	<p>The project will provide direct and indirect employment and thereby improve the economic standard of people in the surrounding village. Besides that nearly 10% of the revenue from quarrying operation is given to local panchayat for its development.</p> <p>The proposed activity provides boom to local inhabitant for employment in such unfertile land leading to ultimate Socio Economic Development in Non Agricultural lands. Likewise it also provides gainful employment to unskilled agricultural workers in lean season of Agriculture in rural area, thereby improving rural economy. It provides employment where it is most needed with minimum investment. It also helps in preventing migration of rural labour to nearby Urban centres avoiding socio-economic problems.</p>

3.4	Vulnerable groups of people who could be affected by the project e.g. hospital patients, children, the elderly etc.,	No	There is no hutment in the lease area. No human being will be displaced from the project area so no person will be affected contrary local people will get job opportunities and better facilities. There is no rehabilitation & resettlement of people is required. The excavated boulder is properly covered by using tarpaulins; leading roads to the quarries are wetted frequently to avoid dust.
3.5	Any other causes	No	NIL

4. Production of solid wastes during operation or decommissioning (MT/month)

S.No	Information/Checklist confirmation	Yes /No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
4.1	Spoil, overburden or mine wastes	Yes	32,084m ³ of silt is excavated and dumped along river bank.
4.2	Municipal waste (domestic and or commercial wastes)	No	There is no municipal or domestic waste material.
4.3	Hazardous wastes (as per Hazardous Waste Management Rules)	No	The proposed removal of Sand will not produce any hazardous any waste Materials.
4.4	Other industrial process wastes	No	Other industrial process wastes not generated.
4.5	Surplus product	No	There is no surplus product.
4.6	Sewage sludge or other sludge from effluent treatment	No	Either effluent generated or treated in this quarry.
4.7	Construction or demolition wastes	No	There is no Construction or demolition waste.
4.8	Redundant machinery or equipment	No	There is no redundant machinery or equipment storage in the project site.
4.9	Contaminated soils or other materials	No	No Contaminated soils or other

			materials.
4.10	Agricultural wastes	No	There is no agricultural wastes
4.11	Other solid wastes	No	No solid waste disposal except some top soil sludge while scraping the area before excavating the earth. Any such solid waste shall be dumped along bank of the pond for plantation purposes for developing greeneries.

5. Release of pollutants or any hazardous, toxic or noxious substances to air (Kg/hr)

S.No	Information/Checklist confirmation	Yes /No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
5.1	Emissions from combustion of fossil fuels from stationary or mobile sources	Yes	Mining would be carried out by opencast method by semi mechanized means using Excavator and tippers.
5.2	Emissions from production processes	No	No emission of gases
5.3	Emissions from materials handling including storage or transport	No	Not Applicable
5.4	Emissions from Construction activities including plant and equipment.	No	Not Applicable
5.5	Dust or odours from handling of materials including mining materials, sewage and waste	No	The project will not have any odours, since it is removal of Sand only. There will be no dust emission with in permissible limit during handling of overburden and transport of sand.
5.6	Emissions from incineration of waste.	No	There is no incineration of waste.
5.7	Emissions from burning of waste in open air (e.g. slash materials, construction debris)	No	No incineration of solid waste or materials
5.8	Emissions from any other sources	No	Nil

6. Generation of Noise and Vibration, and Emissions of Light and Heat:

S. No	Information/Checklist confirmation	Yes /No	Details of (with approximate quantities /rates, wherever possible) with source of information data with source of information data
6.1	From operation of equipment e.g. engines, ventilation plant, crushers	Yes	Mining would be carried out by opencast method by semi mechanized means using Excavator and tippers.
6.2	From industrial or similar processes	No	No Noise or vibration.
6.3	From construction or demolition	No	There is no construction and demolition activity
6.4	From blasting or piling	No	No drilling and Blasting. No compressor or any other equipments creating noise or vibration.
6.5	From construction or operational traffic	No	No much traffic issues.
6.6	From lighting or cooling systems	No	There is no lighting or cooling systems.
6.7	From any other sources	No	No other sources

7. Risks of contamination of land or water from releases of pollutants into the ground or into sewers, surface waters, groundwater, coastal waters or the sea:

S. No	Information/Checklist confirmation	Yes /No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
7.1	From handling, storage, use or spillage of hazardous materials	No	Not Applicable. No pollution expected.
7.2	From discharge of sewage or other effluents to water or the land (expected mode and place of discharge)	No	No sewage or disposal of effluents or waste by dispersion trench.
7.3	By deposition of pollutants emitted to air or into the land or into water	No	No emission except flue gases from the moving vehicles.

7.4	From any other sources	No	No other sources
7.5	Is there a risk of long term build up of pollutants in the environment from these sources?	No	There is no risk of long term build up of pollutants in the environment, since it is only open pit mine.

8. Risk of accidents during construction or operation of the Project, which could affect human health or the environment

S. No	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
8.1	From explosions, spillages, fires etc from storage, handling, use or production of hazardous substances	No	No blasting. No inflammable material used for quarrying.
8.2	From any other causes	No	No other risk.
8.3	Could the project be affected by natural disasters causing environmental damage (e.g. floods, earthquakes, landslides, cloudburst etc)?	Yes	Quarry operation\ removal of Sand will be stopped during the flood season, if any.

9. Factors which should be considered (such as consequential development) which could lead to environmental effects or the potential for cumulative impacts with other existing or planned activities in the locality

S. No	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
9.1	Lead to development of supporting. Utilities, ancillary development or development stimulated by the project which could have impact on the environment e.g. Supporting infrastructure (roads, power supply, waste or waste water treatment, etc.) <ul style="list-style-type: none"> • housing development • extractive industries • supply industries 	No	Removal Sand in a The Vaipparuu river for proper rain and flood water free flowing without any obstacles. There will not have any impact on Environment. No housing development or extractive industries or supply industries involved in this project.

	• other		
9.2	Lead to after-use of the site, which could have an impact on the environment	No	The Sand is removed to not deepen the Tank, Proper rain and flood water free flowing without any obstacles. In fact this removal of sand is beneficial to the society for supply of water and the sand is used for Building Construction.
9.3	Set a precedent for later development	No	Not arise.
9.4	Have cumulative effects due to proximity to other existing or planned projects with similar effects	No	Only sand quarry operation is going to take place. No other negative impact.

(II) Environmental Sensitivity

S. No	Areas	Name/ Identity	Aerial distance (within 15 km.) Proposed project location boundary
1	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value	No	There is no Ecological landscape, cultural or other related value areas within 15km radius.
2	Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests	No	It self part of River Basin. There are no biospheres, national parks, sanctuaries, reserve forest in 15 km radius from proposed project site. Coastal zone is located about 8.5km away from Bay of Bengal on Eastern side , as per Google image measurements
3	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, over wintering, migration	No	This area is not used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, over wintering and migration. There is no Endangered Species.
4	Inland, coastal, marine or underground waters	No	proposed quarry is located 8.5Km away from sea coast Bay of Bengal on towards Eastern side,
5	State, National boundaries	No	Interstate boundary is located at 206km from site to Kerala State border line on the western side.

6	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas	No	There are no routes or facilities used by the public for access to recreation or other tourist in the proposed project site			
8	Densely populated or built-up area	Yes	Direction	Name of Village	Distance (Approx)	Population
			SE	Sattur	2.2	14801
			E	Nenmeni	1.5	870
			SW	M.Karisa lkulam	1.9	1944
			NE	Appanur	3.6	3329
9	Areas occupied by sensitive man-made land uses (<i>hospitals, schools, places of worship, community facilities</i>)	No	There is no hospital or Primary school, village temples and primary health centers within 300m radius of the quarry. Sattur is located about 2.2km on the southeastern side. This Sand removal will not affect any persons or structure or communities or place of worships.			
10	Areas containing important, high quality or scarce resources (<i>ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals</i>)	No	There is no high quality or scarce resources such as ground water resources, surface resources, forestry, agriculture, fisheries, tourism, rare minerals near the site.			
11	Areas already subjected to pollution or environmental damage. (<i>those where existing legal environmental standards are exceeded</i>)	No	This area is not already subjected to any pollution or environmental damages.			
12	Areas susceptible to natural hazard which could cause the project to present environmental problems (<i>earthquakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions</i>)	No	It is not an earth quake prone area or any other natural disasters. Adequate measures will be adopted to prevent flooding in the project site during rainy seasons.			

" I hereby given undertaking that the data and information given in the application and enclosures are true to the best of my knowledge and belief and I am aware that if any part of the data and information submitted is found to be false or misleading at any stage , the project will be rejected and clearance give, if any to the project will be revoked at our risk and cost."

(Signature)
Assistant Engineer, PWD/WRD
Section - II

Mining and Monitoring Sub Division

Signature of the applicant

Along with Full Address

(Signature)
Executive Engineer PWD/WRD
Mining and Monitoring Division

(Signature)
18/5/22
Madurai - 625 002.

The Executive Engineer

Project Proponent

Public Works Department,

Water Resources Organization,

Mining and Monitoring Division,

Madurai District.

(Signature)
Assistant Executive Engineer, PWD/WRD
Mining and Monitoring Subdivision,
Virudhunagar
Signature of EIA Coordinator

For Aadhil Boomi Mining & Envirotech (P) Ltd.,

(Signature)
Director

(S.Suriyakumar)

M.Sc., M.Phil, F.C.C. (Min)

PGDBA, DIPC

EIA Co-ordinator (Mining)

Date: 09.05.2022

Place : Salem

Form 1MApplication for mining of minor minerals under category 'B₂' for less than and equal to 5 Ha**Basic Information**

1	Name of the mining lease site	Nenmeni sand quarry
2	Location / site	Nenmeni Village of Sattur Taluk, Viruthunagar District, Tamil Nadu.
3	Land Use classification of the site	River bed
4	GPS Co-ordinates	Latitude of N9°19'08.1037" to N9°19'16.9688" and Longitude of E77°59'30.6180" to E77°59'42.8811"
5	Size of the Mining Lease (Hectare)	4.95.5 ha
6	Capacity of Mining Lease (m ³ /annum)	The proposed production of sand is 49550m ³ and 32084m ³ of Silt for Six months or about 661m ³ of sand per day or 117 load @5.66 tipper per day
7	Period of Mining Lease	Six months
8	New or existing quarry	It is Fresh Lease quarry
9	If in case of existing Rough Stone/ Blue Metal/ Granite Quarry, etc the length, width and depth to which quarrying has already been done (below the ground level)	It is Fresh Lease quarry
10	If quarrying had been below the ground level/above the ground level, the height of quarrying already done	NA
11	Ground water table in meter	5m bgl
12	Depth of mining	1m below theoretical bed level
13	Name of the owner who had earlier undertaken the quarrying & a copy of mining lease issued with date, if he is different from the present applicant	NA
14	Proof of ownership: a) If owned patta copy b) If not own patta land agreement/ lease copy entered with the owner (to be enclosed details)	The quarry area is located in the River bed maintained by PWD

15	Expected cost of the Project	25.0 Lakhs
16	Environment Management Plan cost:	Rs. 4.0 Lakhs
17	Contact Information	The Executive Engineer, Water Resources Organization, Mining and Monitoring Division, Madurai District
18	Approved Mining Plan/Scheme approval detail	Mining Plan approved by the Assistant Director, Dept of Geology and Mining, Viruthunagar vide Rc. No. KV1/347 /2022 dated 02.05.2022
19	District Survey Report (DSR) is provided (applicable in case of minor minerals only)	Viruthunagar District Survey report enclosed.
20	CER plan with proposed expenditure	2% of total project cost Rs. 50,000
21	Precise area communication approved by the Competent Authority	Roc No. KV1/347 /2022 dated 23.03.2022 District Collector, Viruthunagar.
22	Mining plan approved by the Competent Authority	Mining Plan approved by the Assistant Director, Dept of Geology and Mining, Viruthunagar vide Rc. No. KV1/347 /2022 dated 02.05.2022
23	Green Belt area	Along the River bund and Road side
24	VAO Certificate 300m Habitation	VAO certificate enclosed
25	AD/DD Letter to 500m Radius List of quarry Details (Existing/ Abounded/Proposed)	No quarries found around 500m radius. AD Mines, Viruthunagar letter is enclosed.
Method of working		
26	Category type: (a) Mechanized (b) Semi – Mechanized (c) Manual	Open Semi – Mechanized Open cast, semi-mechanized mining will be adopted to extract Sand from the area for which lease applied
27	Construction and design of haul roads: a) Dimension as per the statutory requirements which were followed or otherwise	a) To approach the lease area from the river bank, which is normally 5 to 6m height from the river bed, it is necessary to lay a ramp. Frim this ramp, for the movement of tucks on the river bed, big-degradable pathway with sand and bio- degradable materials (Sugar cane leaves etc.,) in grid pattern is necessary ot maintain a uniform level from the river bed to approach lease area. Internal road is

	<p>b) Number of vehicles plying on the main haul roads inside the mine and the approach road to the pit located outside the mine, if any.</p> <p>c) Are any measures taken to minimize fugitive dust generated from mine haul roads? Does it comply with the CPCB/PCB Guidelines?</p> <p>d) Is there a possibility that air pollutants emitted from the project area that do not comply with air quality standards as per CPCB/PCB?</p>	<p>formed in 1: 10 gradient.</p> <p>b) Road gradient is designed as 1: 10 for short ramp and 1:16 for haul roads. Loading of Sand shall be done by Excavator into 5.66m³ capacity tippers from the working place periodically. The applicant is engaging Excavator (hire) and 2 tippers(hire) of 5.66m³ capacity for transport.</p> <p>c) The loading and clearing works done by Excavator very slowly and therefore raising of dust is negligible in quarry and tipper movement also very slow due to carrying load from quarry and therefore raising of dust from haul road also extremely low or nil. However, Dust expected to be generated from hauling roads will be suppressed by periodical wetting of land by water sprinkling.</p> <p>d) The air pollutants emitted from the project area will comply with air quality standards as per CPCB/PCB.</p>						
<p>28</p>	<p>Mechanized / Semi - Mechanized Method of Mining:</p> <p>i) Number of loading / excavating equipments as per approved mining plan and capacity.</p> <p>ii) Number of loading / excavating equipments actually being deployed and capacity.</p> <p>iii) Type and number of transporting equipments.</p> <p>iv) Capacity and Number of trucks used as per approved mining plan</p> <p>v) Capacity and Number of trucks used actually in the mine.</p>	<p>i) 3 nos -Loading shall be done by Excavator</p> <p>ii) 3 nos- Excavator of 0.9 m³ capacity</p> <p>iii)Tipper – 20No.s</p> <p>iv)5.66m³ capacity of Tipper used for transport. Tipper – 20No's</p> <p>v) Same as approved mining plan</p> <table border="1" data-bbox="815 1973 1347 2051"> <thead> <tr> <th></th> <th>Capacity (m³)</th> <th>Numbers</th> </tr> </thead> <tbody> <tr> <td>Excava</td> <td>0.9</td> <td>3</td> </tr> </tbody> </table>		Capacity (m ³)	Numbers	Excava	0.9	3
	Capacity (m ³)	Numbers						
Excava	0.9	3						

	<p>vi) Does the deployment of loading equipments (excavators) and trucks fulfill the statutory requirements as per MMR 1961, with respect to the site conditions?</p> <p>vii) Number and capacity of loading equipments and trucks used not in line with approved mining plan.</p> <p>viii) Impact of excess deployment of loading equipments (excavators) and transporting equipments on environment. (a) Air pollutants (b) Water Quality (c) Land Quality (d) Noise level</p> <p>ix) Type of transporting system used - (a) trucks (b) Any other mode</p>	<table border="1" data-bbox="805 235 1332 324"> <tr> <td>tor</td> <td></td> <td></td> </tr> <tr> <td>Trucks</td> <td>5.66</td> <td>20</td> </tr> </table> <p>vi) No excess deployment of loading and transporting equipments other than Approved Mining Plan. However the quarry is non-working at present and it will be operated with aid of above equipments. The environmental load derived by using above equipments is calculated as under w.r.t meteorological conditions.</p> <p>vii) Excavator will be used to load the Sand into the tippers/ tractor.</p> <p>vii) There is no excess deployment of equipments.</p> <p>ix) a) Trucks – 15 Tonners b) Nil</p>	tor			Trucks	5.66	20
tor								
Trucks	5.66	20						
<p>29</p>	<p>Method of Rock Breaking/Material preparation for the excavation:</p>							
	<p>a) Methodology adopted :</p> <p>i. Drilling and blasting</p> <p>ii. Rock breakers</p> <p>iii. Rippers</p> <p>iv. Surface miners</p> <p>v. Direct mucking by excavators</p> <p>vi. Manual means</p> <p>vii. Any other methods or</p>	<p>i) As the site being loose and soft soil, No drilling and blasting shall be practiced</p> <p>ii) No Rock breaker</p> <p>iii) No Rippers</p> <p>iv) surface Miners</p> <p>v)Excavation, loading of sand into tippers</p> <p>vi)cleaning debris and removing shurbs</p>						

	combination of above.	vii) Conventional methods only
	<p>b) In case of drilling and blasting Method:</p> <p>i. Type of blasting: short hole or deep hole</p> <p>ii. Whether controlled blasting technique adopted? If yes, specify the technique with details of study, year of study</p> <p>iii. Impacts due to blasting defined as per the studies, if any carried out previously as indicated</p> <p>iv. Dust pollution</p> <p>v. Noise level (dB(A))</p> <p>vi. Ground vibration studies and Fly rock projection</p>	No drilling and blasting is proposed
	<p>c) Impact of preparation of Ore and waste environMent:</p> <p>a) Air Pollution</p> <p>b) Noise Pollution</p> <p>c) Water Pollution</p> <p>d) Safety standards</p> <p>e) Traffic density</p> <p>f) Road Condition (vulnerability)</p>	NA
30	<p>Construction and Design of Reject Dumps.</p> <p>i. Place location</p> <p>ii. Approach to Dump from the mine-distance and safety standards.</p> <p>iii. Area of extent occupied</p> <p>iv. Dimension of Dump and No. of terrace with heights (benches)</p> <p>v. Vegetation covered : If yes, specify the details of plants</p>	No Rejection
31	<p>Construction and Design of Waste Dumps.</p> <p>(i) Numbers and Location of Dumps as per approved Mining Plan</p> <p>(ii) Specify whether reject dumps are located within or outside</p>	NA

	<p>mining lease</p> <p>(iii) Area occupied in excess of the approval mining plan.</p> <p>iv) Dimension of Terracing, Light, Shapes etc., Dump as per approved Mining Plan</p> <p>v) Fresh/Existing Dimension Height, shape, width, etc., of Dumps in the mine.</p> <p>vi) Volume /Quantity added to Waste/Dump during the violated period.</p> <p>vii) Approach to the Dump- Dimensions, distance.</p> <p>Viii) Number of and type of equipments deployed in Dump</p> <p>ix) Provision of Garland drains around the Dumps.</p> <p>x) Any vegetation made on the slopes.</p> <p>xi) Provision of safety standards.</p> <p>xii) Impact of waste/Dumps on environment Air Pollution Water Pollution Dust Pollution Noise Pollution</p>	
32	<p>Construction and design of Ore and sub grade ore/Mineral stacks:-</p> <p>i) Number and location of Ore stacks.</p> <p>ii) Dimension of Ore/sub grade stacks as per the Approved Mining Plan</p> <p>iii) Volume/Quantity added during the violation period.</p> <p>iv) Any screening plant or any other loading equipment engaged during the violated period.</p>	NA

	<p>v) Approach to Ore/sub grade stack-Distance, hazards.</p> <p>vi) Safety standards adopted while operation.</p> <p>vii) Impact of Ore/sub grade on environment</p> <p>a) Air pollution</p> <p>b) Water Pollution</p> <p>C) Dust Pollution</p> <p>d) Noise Pollution</p>	
33	<p>Mine Pit Water</p> <p>i) Intersection of Ground water table, specify the measures taken.</p> <p>ii) Ground water table as per hydro geological studies (pumping test).</p> <p>iii) Provision of Garland drains around pit and dumps</p> <p>iv) Water pollution</p> <p>v) Management of mine water.</p> <p>vi) Ultimate pit limit, w.r.t ground water intersection and management of drainage of ground water.</p>	<p>i) The depth of quarrying will 1m from the surface where as water table is observed at a depth of 4-5m bgl hence, there will not be any intersection with ground water table. The water table is identified by adjacent open wells and bore wells water level.</p> <p>ii) Water table is observed at a depth of 4-5m bgl.</p> <p>iii) No need of garland drainage since the mining will be carried out in river basin.</p> <p>iv) Only Excavator and Tippers will be used in the mining site. The repair and service works of the machinery are done locally. So there is no possibilities of oil spillage and water pollution.</p> <p>v) As the depth of proposed mining is 1.0m, there would not be any seepage of ground water in the pits. Any rain water shall follow the water course as usual.</p> <p>vi) Mining of sand is about 1m below the river bed and the water table in this area is said to be 4-5m depth. So it will not intersect with ground water table.</p>
34	<p>Diversion of general drainage/ River/Nallah course for mining</p>	<p>The natural water flow will not be disturb during quarrying time.</p>
35	<p>Clearing of vegetation before the commencement of mining</p>	<p>Only bushes and weeds will be cleared during mining operations.</p>

	operation-Number of trees species wise)																					
36	Man Power a) Statutory management b) Regular (Non-Statutory) manpower	2 No 28 Nos																				
37	Population (Nearby Habitation) i) Population/Significant population/dense population within the buffer zone of 10kms ii) People displacements due to mining activities iii) Location/Existence of habitation near the river or any other historical/ sensitive forest distance. iv) Impact of mining on surrounding and habitation- Air, Water, Noise, Pollution.	<p>i)</p> <table border="1"> <thead> <tr> <th>Direction</th> <th>Name of Village</th> <th>Distance km (Approx)</th> <th>Population</th> </tr> </thead> <tbody> <tr> <td>NW</td> <td>Nenmeni</td> <td>1</td> <td>10425</td> </tr> <tr> <td>N</td> <td>Sattur</td> <td>1.5</td> <td>1825</td> </tr> <tr> <td>NE</td> <td>N. Mettuppatti</td> <td>2</td> <td>7184</td> </tr> <tr> <td>E</td> <td>M.Nagalapuram</td> <td>2</td> <td>911</td> </tr> </tbody> </table> <p>ii) The quarrying operation will be concentrated in the quarry lease area and there is no displacement of people due to quarrying activity.</p> <p>iii) There is no reserve forest or other historical areas within the 10km radius.</p> <p>iv) The parameters PM10, PM2.5, SO2 and NOx are found within limits. The concentrations of SO2 and NOx generated from mining area expected to be low due to absence of any major source. Dust will be suppressed at source by periodical wetting of land. Water sprinklers along the sides of haul road shall be fixed to control fly of dust while transporting minerals and waste.</p> <p>The water sample does not meet the requirement with respect to TDS, Total Hardness and microbiological examination. Pretreatment methods like Chlorination, UV radiation will be adopted to make it fit for drinking purposes. Water requirement for drinking will be sourced from water vendors. The proponent will collect and judiciously utilize</p>	Direction	Name of Village	Distance km (Approx)	Population	NW	Nenmeni	1	10425	N	Sattur	1.5	1825	NE	N. Mettuppatti	2	7184	E	M.Nagalapuram	2	911
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NE	N. Mettuppatti	2	7184																			
E	M.Nagalapuram	2	911																			

	<p>v) Socio Economic aspects of mining.</p>	<p>the rainwater as part of rain water harvesting being a semi critical area under PWD Classification.</p> <p>Major noise generating sources may be considered as excavation, loading and transportation of minerals. The reported noise levels meet the requirements of TNPCB Standards of Residential – 55 dB (A) and Industrial – 75 dB (A). The resultant noise level due to monitored values and calculated values at the receptors are based on the mathematical formula and it can be seen that the ambient noise levels meet the prescribed limit and will remain within permissible limits even when the project will be in operation phase after getting EC. As the sand is loose granular material it does not require any drilling and blasting. Therefore, no Ground vibration will take place in the mining area</p> <p>Greenbelt will be developed along the bund. Safety devices will be provided to workers, where noise is more than 80dB (A). Limiting time exposure of workers to excessive noise. Proper and regular maintenance of vehicles, machinery and other equipments. Periodic inspection of all equipments and risk prone areas. Regular lubrication & replacement of worn out parts etc.,</p> <p>v) The local people will get preference. About 30 persons are employed in the quarry. The proponent is proposed to spend CSR @ 2.5% of profit as per the Companies Act, 2013 and CSR Rules, 2014 through local Panchayat and CER @ 2% of the project cost for maintenance of road, street light, school sanitation etc.,</p>												
<p>38</p>	<p>Conceptual post mining land use/ restoration</p>	<table border="1"> <thead> <tr> <th>S. No</th> <th>Description</th> <th>Present area (Ha)</th> <th>Proposed land use (Ha)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Mining area</td> <td>0.0</td> <td>4.95.5</td> </tr> <tr> <td>2</td> <td>Waste Dump</td> <td>0.0</td> <td>0.00.0</td> </tr> </tbody> </table>	S. No	Description	Present area (Ha)	Proposed land use (Ha)	1	Mining area	0.0	4.95.5	2	Waste Dump	0.0	0.00.0
S. No	Description	Present area (Ha)	Proposed land use (Ha)											
1	Mining area	0.0	4.95.5											
2	Waste Dump	0.0	0.00.0											

		3	Infrastructure	0.0	0.00.0
		4	Safety and Area under plantation	Nil	Nil
		5	Mine Roads	0.00	0.00
		6	Undisturbed area	4.95.5	0.00
		Total		4.95.5	4.95.5Ha
		The mining is proposed to an average height of 1m within the permitted area for quarrying. The excavated area shall be replenished during the next rainy season.			
39	Disaster management plan for the mine	To overcome such risks, help/aid would be sought from emergency services providers like Police station, fire station, Hospital, Ambulance services from the authorities in the vicinity of the mine site. Their contact telephone numbers and communication facilities are provided and displayed on the board at the mine office as well as mine site. Responsibility of coordinating rescue activities is entrusted to quarry-in-charge at the quarry site under Mines Act, 1952. For medical emergencies Govt. Primary Health centres is accessible at Sattur about 8.5 km from the quarry on northwestern side.			
40	Mine closure plan to be furnished in Mining Plan.	Chapter 10 in Mining plan			

Environmental Sensitivity

Sl.No	Areas	Distance in kilometer /details
1.	Distance of project site from nearest rail or road bridge over the concerned River, Rivulet, Nallah etc.	River Bridge- 3km- NW Tharai palam- 750m - SE
2.	Distance from Infrastructure facilities	
	a) Railway line	The nearest Railway line is Madurai - Thirunelveli railway line which is about 7.1 km on the W side of the area.
	b) National Highway	NH 44 - Madurai - Tirunelveli -16 km- W
	c) State Highway	SH 28- Aruppukkottai - Tuticorin - 17km - E
	d) Major District Road	MDR - Nenmeni to nathathu patti road-

		740m -NE
	e) Any other Road	Village Road – village road is available on Southeastern side
	f) Electric transmission line pole or tower	There is No HT or LT line around 50m radius from the site
	g) Canal or check dam or reservoirs or lake or pond	1. Check dam – 1.9km - NW 2. Lake – 1.6km - W
	h) In-take for drinking water pump house	None in 600m radius
	i) Intake for irrigation canal pumps	NA
3.	Areas protected under international conventions, national or local legislation for their ecological landscape, cultural or other related value.	Not available within 10km Radius
4.	Area which are important or sensitive for ecological reasons- wetlands, water courses or other water bodies, coastal zone, biospheres, mountains, forests	None Wild life/bird sanctuary found within 10km radius under the Forest (Conservation) Act,1980 and Wild Life (Protection) Act, 1972 respectively.
5.	Area used by protected, important or sensitive species of flora and fauna for breeding, nesting, foraging resting, over wintering, migration	None
6.	Inland, coastal, marine or underground waters	The proposed quarry is located 46km away from sea coast on towards southeastern side., the project doesn't attract the C.R.Z. Notification, 2011.
7.	State, National boundaries	Interstate boundary is located at 155km from the site to Kerala border line on the W directions
8.	Whether the project site attracts the HACA clearance? If so, also furnish the HACA clearance for the mining from the competent authority.	NA
9.	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas	NA
10.	Defense installations	NA
11.	Densely populated or built-up area, distance from nearest human habitation	Nenmeni- 1km- NW- 10425
12.	Areas occupied by sensitive man-	Nenmeni- 1km- NW- 10425

	made land uses (hospitals, schools, places of worship, community facilities)	
13.	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	The mining activities will take place in the river basin. Thereby , it will increase the water carrying capacity of the rivers
14.	Areas already subjected to pollution or environmental damage. (those where existing legal environmental standards are exceeded)	No
15.	Areas susceptible to natural hazard which could cause the project to present environmental problems (earthquakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions)	No
16.	Is proposed mining site located over or near fissure/fracture for ground water recharge	No
17.	Whether the proposal involves approval or clearance under the following Regulations or Acts, namely:- a. The Forest (Conservation) Act, 1980; b. The Wildlife (Protection) Act, 1972: C. The Costal Regulation Zone Notification, 2011. if yes, details of the same and their status to be given.	NA
18.	Forest land involved (hectares)	NA
19.	Whether there is any litigation pending against the project and / or land in which the project is propose to be set up? a. Name of the court b. Case No. c. Orders or directions of the court, if any, and its relevance with the proposed project.	NA

propose to be set up?
 a. Name of the court
 b. Case No.
 c. Orders or directions of the court, if any, and its relevance with the proposed project.

" I hereby given undertaking that the data and information given in the application and enclosures are true to the best of my knowledge and belief and I am aware that if any part of the data and information submitted is found to be false or misleading at any stage , the project will be rejected and clearance give, if any to the project will be revoked at our risk and cost."

(Signature)
 Assistant Engineer, PWD/WRD
 Section - II

Mining and Monitoring Sub Division
Signature of Applicant

Along with address

(Signature)
 Executive Engineer PWD/WRD
 Mining and Monitoring Division
 Madurai - 625 002.
(Signature)
 18/5/22

The Executive Engineer

Project Proponent

Public Works Department,
 Water Resources Organization,
 Mining and Monitoring Division,
 Madurai District.

Date: 09.05.2022

Place : Salem

(Signature)
 Assistant Executive Engineer, PWD/WRD
 Mining and Monitoring Subdivision,
Signature of EIA Coordinator

For Aadhi Boomi Mining & Envrotech (P) Ltd.,
(Signature)
 Director

(Mr.S.Suriyakumar)

M.Sc., M.Phil, F.C.C. (Min)

PGDBA, DIPC

EIA Co-ordinator (Mining)

ENVIRONMENTMANAGEMENT PLAN

FOR SAND QUARRY

AREA DETAILS

Extent of 4.95.5 Hectares,

In S.F.Nos. 1095 (P)

Nenmeni village,

Sattur Taluk,

Viruthunagar District,

Tamil Nadu.

PROJECT PROPONENT

THE EXECUTIVE ENGINEER,

Public Works Department,

Mining and Monitoring Division,

Madurai.

CONSULTANT



AADHI BOOMI MINING AND ENVIRO TECH (P) LTD.,

(NABET Accredited EIA Consultant "A" Category)

Accreditation No. NABET/EIA/2124/RA-0228

No. 3/216, K.S.V. Nagar, Narasothipatti,
Alagapuram post, Salem – 636 004. Tamil Nadu.

Email: admin@abmenvirotec.com

Mobile: 98427 29655

Website: www.abmenvirotec.com

ENVIRONMENT MANAGEMENT PLAN

1. INTRODUCTION

The Environmental Management Plan (EMP) has been formulated and integrated with the mine planning to mitigate the adverse impacts which are likely to be caused due to the quarrying operation.

2. QUARRYING PROCESS

Open cast, manual mining will be adopted to extract sand. Before opening a mine, several aspects should be considered like construction of semi-permanent structures, planning for the development / production works, recruitment of man power, stacking yards etc.

2.1 PRODUCTION DETAILS

The proposed production of sand is 49550m^3 and 32084m^3 of Silt for Six months or about 661m^3 of sand per day or 117 load @5.66 tipper per day.

3. MANPOWER REQUIREMENT

The manpower requirement for the proposed project will be around 30. This includes manpower for excavation as well as loading of minerals.

4. BASELINE ENVIRONMENT

The EMP has been developed considering its implementation and monitoring of environmental protection measures during quarrying operations. Baseline study was carried out during 29.03.2022.

4.1. Land environment

The quarrying activity will result in disturbance of the land use pattern of the quarry lease area. The land degradation is unavoidable during mining activities like excavation, overburden dumping, etc. 4.95.5 Ha will be utilized for quarrying activities at the end of 5th year. However, in the proposed quarrying activity there will not be much impact on the land environment due to the following reasons.

- There is no removal of vegetation such as plants, bushes in the quarry area
- No effluent generation as any further processing of mineral is proposed. Hence no ground water contamination due to the proposed quarrying activity.

Mitigation measures

Land requirement for the project has been assessed considering functional needs. For this Green belt development is proposed all around quarry lease area. The mined out area is small, the pit will be developed for free flowing of flood water discharge purpose.

4.2 Water quality

Quarrying does not have any significant impact on the water quality, as the neither quarrying nor intercept with the ground water level neither there is any surface water body near the site.

Table 1: Physical and Chemical properties

S.No	Parameters	Units	Methods	Results
1.	pH Value @ 25°C	-	IS 3025:P.11:1983:R.2019	7.76
2.	Electrical Conductivity @ 25°C	µs/cm	IS 3025:P.14:1984:R.2019	380
3.	Turbidity	NTU	IS 3025:P.10:1984:R.2017	BDL(DL:0.1)
4.	Temperature	°C	IS 3025:P.09:1984:R.2017	25.1
5.	Total Suspended Solids (TSS)	mg/l	IS 3025:P.17:1984:R.2017	BDL(DL:0.01)
6.	Total Dissolved Solids (TDS)	mg/l	IS 3025:P.16:1984:R.2012	214
7.	Total Hardness as CaCO ₃	mg/l	IS 3025:P.21:2009:R.2019	143
8.	Calcium as Ca	mg/l	IS 3025:P.40:1991:R.2019	27
9.	Magnesium as Mg	mg/l	IS 3025:P.46:1994:R.2019	18
10.	Chloride as Cl-	mg/l	IS 3025:P.32:1988:R.2019	62
11.	Total Alkalinity as CaCO ₃	mg/l	IS 3025:P.23:1986:R.2019	125
12.	Carbonate	mg/l	IS 3025:P.51:1986:R.2017	BDL(DL:0.1)
13.	Bicarbonate	mg/l	IS 3025:P.51:1986:R.2017	125
14.	Sulfate	mg/l	IS 3025:P.24:1986:R.2019	5
15.	Iron	mg/l	IS 3025:P.53:1984:R.2017	BDL(DL:0.01)

I. Mitigation measures

- The quality of ground water is fairly good. There is no liquid waste discharge from quarrying activity, which is likely to pollute water.

- Drinking water will be utilized from the Mineral water Industries.
- Total water requirement will be 5.0 KLD.

4.3 Noise and vibration

In order to assess the impact baseline ambient noise level, noise monitoring has been carried out at different points using Sound level meter.

Table 2: Ambient Noise levels

S. No	Location	Latitude	Longitude	Noise levels dB (A)	TNPCB Standards
1	Core zone	9°19'13.30"N	77°59'36.60"E	32.3	Day Time Industrial - 75 dB (A) Residential - 55 dB (A)
2	Lease boundary (Pillar No.1)	9°19'14.10"N	77°59'30.62"E	34.7	
3	Lease boundary (Pillar No.2)	9°19'16.97"N	77°59'33.80"E	32.6	
4	Lease boundary (Pillar No.3)	9°19'13.17"N	77°59'42.88"E	38.1	
5	Lease boundary (Pillar No.4)	9°19'08.10"	77°59'40.80"E	39.2	

The noise level found to be within the limits as per TNPCB Standards.

i. Mitigation Measures

- The anticipated noise level is minimal and negligible.

4.4 Air Quality

Drilling and blasting operations are source of fugitive dust emission but its effect is more or less localized. Ambient Air monitoring has been carried out in the core zone.

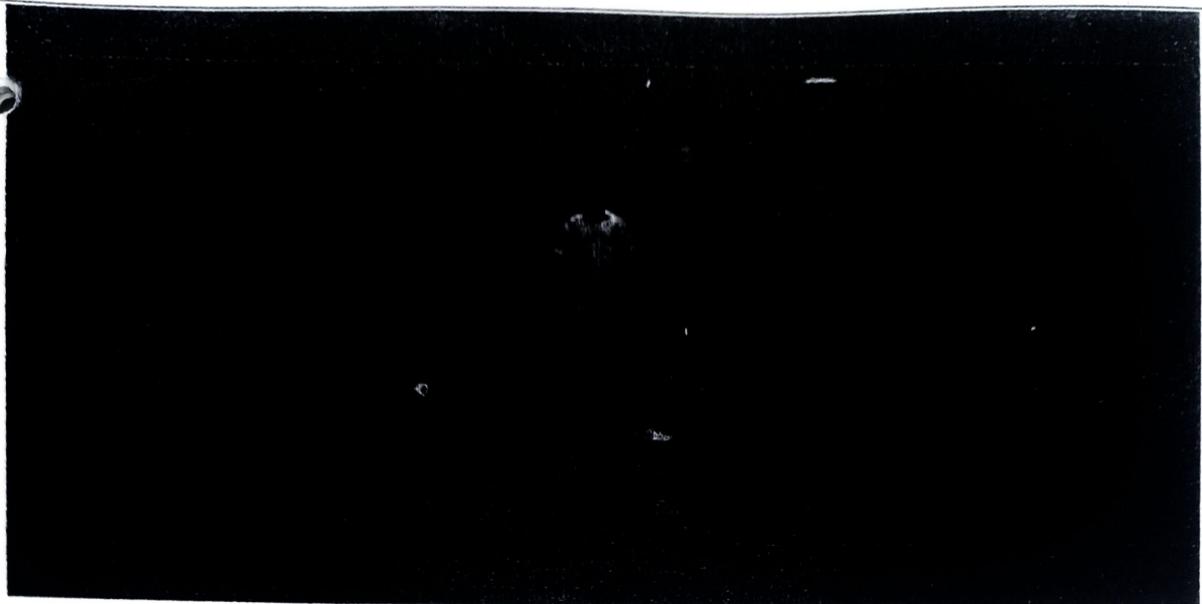


Fig No: 3. Ambient Air monitoring Location- 9^o19'14.41"N 77^o59'34.46"E

The major part of the dust generated during such operations usually gets settle down and thus the effect of such operation will be localized phenomenon.

Table 3: Ambient Air Monitoring

S.N O	PARAMETERS	PROTOCOL	UNIT	RESULT	NAAQS
1	Particulate Matter(PM2.5)	IS 5182 (Part 24): 2019	µg/m ³	22	60
2	Respirable Particulate Matter (PM10)	IS 5182 (Part 23): 2006	µg/m ³	45	100
3	Sulphur Dioxide(SO ₂)	IS 5182 (Part 2): 2006	µg/m ³	8	80
4	Nitrogen Dioxide(NO ₂)	IS 5182(Part 6) : 2006	µg/m ³	12	80
5	Ozone(O ₃)	IS 5182(Part 9): 1974	µg/m ³	27	180
6	Ammonia(NH ₃)	IS 5182 (Part 25): 2018	µg/m ³	23	400
7	Nickel(Ni)	IS 5182 (Part 26) : 2020	µg/m ³	BDL(DL :0.1)	20
8	Lead(Pb)	IS 5180(Part22): 2004	µg/m ³	BDL(DL :0.1)	1
BDL = Below Detectable Limit ; DL = Detection Limit					

The above results comply with NAAQS. The generation of dust is controlled and suppressed at source by sprinkling of water on haul roads, loading points at regular intervals as shown below.

i. Mitigation Measures

- Labours engaged in such dust prone areas should be provided with safety devices like ear muff, mask, and goggles as per the MMR, 1961 amendments and circulars of DGMS.

4.5 Soil Environment

Soil sample has been collected in the quarry lease area for analysis its physical and chemical characteristics.



Fig No: 4. Collection of Soil Sample
Location- 9°19'14.20" N 77°58'34.11" E

Table 4 Soil Test Report

S.No	Parameters	Test Methods	Units	Results
1.	pH at 25°C	IS: 2720 (P-26):1987	-	8.12
2.	Electrical Conductivity at 25°C	IS :14767 : 2000	µs/cm	180
3.	Moisture	IS:2720 (P-2):1972	%	2.83
4.	Bulk density	ABMEAL/CH/SO/SOP/18	g/cc	1.17
5.	Texture	IS:10317:1982	%	93
				7
				SAND
6.	Organic Matter	IS:2720 (P-22):1972	%	0.58

7.	Calcium	ABMEAL/CH/SO/SOP/12	%	0.37
8.	Magnesium	ABMEAL/CH/SO/SOP/13	%	0.73
9.	Chloride	ABMEAL/CH/SO/SOP/14	%	0.7
10.	Water holding capacity	IS :14765 : 2000	%	64
BDL = Below Detectable Limit : DL: Detection Limit				

i. Observations & Mitigation measures

- The pH of the soil found to be 7.71 indicating neutral in nature.
- Bulk Density of the soil found to be 1.16 g/cc.
- The Water Holding Capacity of the soil is found to be 48%.

5. SOLID WASTE MANAGEMENT

No wastes are anticipated.

6. GREEN BELT

There would not be any adverse impact in the existing environment arising from the mining activities. To protect the environment, the Applicant Company would do adequate a forestation program with 150 trees per annum along the bank of the side..

7. COST OF EMP IMPLEMENTATION

a) EMP Cost

i. Environmental Monitoring	=	Rs100,000
ii. Sanitary arrangements	=	Rs 50,000
iii. Safety kits,	=	Rs 50,000
iv. Internal road & Maintenance	=	Rs 100,000
v. Afforestation etc.	=	Rs100,000
Total	=	Rs 4.0 lakhs

The quarrying activity shall be undertaken in accordance with the environmental conditions as prescribed in the EC.

8. PROJECT BENEFITS

The quarrying activities in this area will benefit to the local people both directly and indirectly. The direct beneficiaries will be those who get employed in the mines as skilled and un-skilled workers. 30 persons will be employed in this quarry. The extent of impact will however be confined to lease area only. This operation doesn't need relocation of any habitats.

The proponent is proposed to spend CSR @ 2.5% of profit as per the Companies Act, 2013 and CSR Rules, 2014 and 2% of the Project Cost will be spend as corporate Environmental Responsibility (CER) through local Panchayat for maintenance of road, street light, school sanitation etc.

Green belt will be developed around the quarry lease boundary. At the end of life of mine, excavation will be made to ensure the free flow of flood water discharge.

[Signature]
 Assistant Engineer, PWD/WRD
 Section - II
 Mining and Monitoring Division
Signature of the Project Proponent
 Along with name and address

[Signature]
 Assistant Executive Engineer, PWD/WRD
 Mining and Monitoring Subdivision,
Signature of EIA Co-ordinator

For **Aadhi Boomi Mining & Envrotech (P) Ltd.,**

[Signature]
Executive Engineer PWD/WRD
 Mining and Monitoring Division
 Madurai - 625 002.

[Signature]
Director

[Signature]
The Executive Engineer
Project Proponent
 Public Works Department,
 Water Resources Organization,
 Mining and Monitoring Division,
 Madurai District

(S.Suriyakumar)
 M.Sc., M.Phil, F.C.C. (Min)
 PGDBA, DIPIC
 EIA Co-ordinator (Mining)

Date: 09.05.2022

Place : Salem

PRE-FEASIBILITY REPORT

FOR NENMENI SAND QUARRY

Extent : 4.95.5 Hectares
S.F. No. : 1095 (P)
Village : Nenmeni
Taluk : Sattur
District : Viruthunagar
State : Tamil Nadu

PROJECT PROPONENT

Executive Engineer,
Water Resources Organization,
Mining and Monitoring Division,
Madurai.

CONSULTANT



AADHI BOOMI MINING AND ENVIRO TECH (P) LTD.

NABET Accredited EIA Consultant – “A” Category.

Certificate No: NABET/EIA/2124/RA 0228

No.3/216, K.S.V.Nagar, Narasothipatti, Salem-636004.

Phone (0427) 2440446, Cell : 9842729655

www.abmenvirotech.com, suriyakumarsemban@gmail.com

May, 2022

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PRE-FEASIBILITY REPORT

FOR QUARRYING SAND

in S.No 1095 (P) in Vaipparu river, Nenmeni village, Sattur Taluk, Viruthunagar District, Tamil Nadu

1. EXECUTIVE SUMMARY

This project is for quarrying Sand, Minor minerals, over an extent of 4.95.5 Hectares in SF. No. 1095 (P), a part of Vaipparu River in Nenmeni Village, Sattur Taluk, Viruthunagar District, Tamil Nadu. The quantity to be removed \ excavated shall be 49,550 m³ as permitted by the Dept. of Geology and Mining, Viruthunagar for a lease period of Six months vide precise area letter Rc No. 1415/G&M.1/2018 dated 03.07.2020, granted under Rule 12 of Tamil Nadu Minor Mineral Concession Rules, 1959 and amended up to date. Mining Plan is prepared under the provisions of Rule 41 of TNMMCR, 1959 and approved by Assistant Director of Dept of Geology and Mining, Viruthunagar vide letter No. Rc No. KV1/347/2022, Dated 23.03.2022. The Environment Clearance is required under Rule 42 of TNMMCR,1959 under category B2 for a fresh quarry lease for Sand from Vaipparu river.

2. INTRODUCTION OF THE PROJECT

As per the Environmental Impact Assessment (EIA) Notification dated 14th September, 2006 and its subsequent amendments and supreme court order of February 27, 2012 the proposed quarry project fall under category B2 which required Environmental Clearance from the State Environmental Impact Assessment Authority (SEIAA), Chennai region.

The lease land\river basin was owned and maintained by Executive Engineer, PWD/WRO Dept, MMD and they are removing such Sand, containing fine and coarse materials for clearing the obstacles of river flow. This project is more beneficial to the public for water supply around the flow direction of the river.

The Executive Engineer, WRO, MMD has applied to the District Collector, Viruthunagar to obtain permission for removal of sand and seeking Environmental clearance from SEIAA, Chennai for grant of fresh Quarry Lease with the District Collector, Viruthunagar.

2.1 Identification of project and project proponent. In case of Mining project, a copy of Mining lease/letter of intent should be given.

The Executive Engineer, PWD/WRO, Mining and monitoring Division is a Govt. project.

Owner name and address (address for correspondence):

The Executive Engineer,
PWD/ WRO, MMD,
Madurai.

A copy of Mining lease letter issued by the District Collector (R.C.No. KV1/347/2022, dated 23.03.2022 is enclosed in Approved Mining plan's Annexure.

2.2 Brief description of nature of project:

The area is represented by Geological Survey of India Toposheet No.58G/15 and falls between **Latitude of N9°19'08.1037" to N9°19'16.9688"** and **Longitude of E77°59'30.6180" to E77°59'42.8811"**.

Table No.1. Geo Coordinates of Applied area by DGPS Survey

P.No	Latitude	Longitude	Northing	Easting	Elevation
1	9°19'14.0982"	77°59'30.6180"	1031686.065	828692.765	45.657
2	9°19'16.9688"	77°59'33.7996"	1031775.16	828789.197	46.482
3	9°19'13.1709"	77°59'42.8811"	1031660.72	829067.573	46.489
4	9°19'08.1037"	77°59'40.8007"	1031504.361	829005.349	47.912

Table No.2.2. Location details

District & State	Taluk	Village	S.F.No	Area (Ha)
Viruthunagar, TamilNadu	Sattur	Nenmeni	1095 (P)	4.95.5Ha

The name of mineral intends to quarry is sand containing fine and coarse materials. No toxic elements or hazardous materials are reported from this river bed. The applicant has received necessary clearance from all concerned authorities for removal of such Sand from the Vaipparu river. The proposed area for quarry lease is river poramboke land, not a forest land.

Type of Mining: Mechanized opencast quarrying. The sand shall be excavated to a depth of 1.0m below theoretical bed level. All shall be loaded directly into the tipper by Excavator.

Period of Mining: Six months from the date of execution of quarry lease.