PRE-FEASIBILITY REPORT

1. EXECUTIVE SUMMARY:

Proposed project is Brick Earth (Minor Mineral) mining of M/s Pawan Brick Field, located Village: Kooknagar Grant, Tehsil: Mankapur, District: Gonda (U.P.) over an area of 4.2149 Ha bearing Gata No. 609त, 1142, 654, 657, 719, 734, 704, 724, 725, 726, 707, 721व, 722, 729ग, 729घ, 740, 714, 729ड. The land provided for excavation of Brick Earth to M/s Pawan Brick Field. as per the EIA Notification, 2006 and its subsequent amendment. Applicant is seeking prior environmental clearance for mining of minor minerals under category 'B2' for less than and equal to five. The estimated cost of the project is 14.03 lakhs.

(I) Salient Features of the Project

Project Name	Brick Earth Mining	
Name of Proponent	Siyaram Verma S/o Chhotkun	
Mining Lease Area	4.2149 Ha	
Location of Mine	Village: Kooknagar Grant Tehsil: Mankapur, District: Gonda (U.P.)	
Gata No.	609त, 1142, 654, 657, 719, 734, 704, 724, 725, 726, 707, 721व, 722, 729ग, 729घ, 740, 714, 729ड	
Land Use	Proposed land is agricultural field where top soil will be excavated and preserved for back filling of the land and the rest volume of soil is used for making brick.	
Proposed production	8,766.6 cum/annum	
Lease Period	5 Years (As per the lease agreement dated)	
Method of mining	Manual/ Semi-mechanized using excavators, if permitted	
Drilling/Blasting	No drilling and blasting is proposed	
Water demand	**Dust Suppression**	7.2 KLD
	Drinking/Domestic Use	0.2 KLD
	Reclamation/Plantation	0.4 KLD
	Total	**7.8 KLD**
Sources of water	Dug wells/bore wells (Nearby village)	
Ultimate depth of Mining	1.5 m (maximum)	
Man power	15	
Project Cost	Rs. 14.03 lakhs	
Solid Waste	No waste is expected as all the mineral collected is used for making brick.	
Nearest railway station	Babhnan Railway Station, 12.8 km, SW Karanpur Railway Station 13 km, SW	
Nearest state highway/national highway	Not Available	
Nearest Airport	Not Available	

2.0 INTRODUCTION OF THE PROJECT/BACKGROUND INFORMATION

M/s Pawan Brick Field is proposed for Brick Earth mining at Gata No. 609त, 1142, 654, 657, 719, 734, 704, 724, 725, 726, 707, 721व, 722, 729ग, 729घ, 740, 714, 729ड, Village: Kooknagar Grant, Tehsil: Mankapur, District: Gonda (U.P.). The total mine lease area of the proposed Brick Earth mining project is over an area of 4.2149 Ha. As per EIA Notification 14th September, 2006 & O.M No-L- 11011/ 47/ 2011-IA.II (M) dated 24th June 2013 the proposed project falls under schedule 1(a) & category "B"-2. As per MoEF Office Memorandum no. L- 11011/ 47/ 2011- IA.II (M) dated 24th June 2013 following conditions shall be followed during the mining activity:

- The proposed brick clay mining project is an open cast, semi mechanized process which will be carried out with the help of JCB.
- No drilling and blasting is proposed for brick clay mining activity.
- The borrowing/ excavation activity will be restricted upto a maximum depth of 2.0 meter below general ground water level or upto 2 meter above the ground water table whichever comes first.
- No mining activity will be carried out within 15 meter periphery of any civil structure.
- The breakup of proposed brick clay mine lease area is given as Table No. 1

Location (Project)			**Gata No.**	**Total Area (Ha.)**
Village	Kooknagar Grant		609त, 1142, 654, 657, 719, 734, 704, 724, 725, 726, 707, 721व, 722, 729ग, 729घ, 740, 714, 729ड	4.2149
Tehsil	Mankapur			
District	Gonda (U.P.)			
Location	**GPS Co-ordinates**		**Gata No.**	**Area (Ha.)**
	Latitude	**Longitude**		
Kooknagar Grant	27° 2.507'N	82° 33.541'E	609त	0.4050
	27° 2.328'N	82° 33.410'E	1142	0.7610
	27° 2.472'N	82° 33.507'E	654	0.0080
	27° 2.456'N	82° 33.499'E	657	0.4860
	27° 2.437'N	82° 33.447'E	719	0.0530
	27° 2.516'N	82° 33.341'E	734	0.8100
	27° 2.426'N	82° 33.472'E	704	0.0450
	27° 2.447'N	82° 33.423'E	724	
	27° 2.442'N	82° 33.431'E	725	0.0120
	27° 2.439'N	82° 33.440'E	726	0.0320
	27° 2.416'N	82° 33.470'E	707	0.0810
	27° 2.435'N	82° 33.427'E	721व	0.0200
	27° 2.439'N	82° 33.422'E	722	0.6100
	27° 2.493'N	82° 33.446'E	729ग	0.1210
	27° 2.493'N	82° 33.446'E	729घ	0.0850
	27° 2.451'N	82° 33.368'E	740	0.0109

	27° 2.433'N	82° 33.454'E	714	0.1050
	27° 2.493'N	82° 33.446'E	729इ	0.5700
Brick kiln	27° 2.471'N	82° 33.440'E		
Toposheet No. : 63I/12				

(I) IDENTIFICATION OF PROJECT

Project Proponent: M/s Pawan Brick Field, Prop- Siyaram Verma S/o Chhotkun is a private individual ownership project. A copy of Certificate of registration and allotment of TIN (09921709008C) is enclosed.

Address of Project Proponent:-

M/s Pawan Brick Field, Village: Barahiya Kooknagar Grant, Tehsil: Mankapur, District: Gonda (U.P.).

(ii) Brief Description of Nature of Project

M/s Pawan Brick Field, Village: Kooknagar Grant, Tehsil: Mankapur, District: Gonda (U.P.).applied for mining of Brick earth for making bricks. Mining will be done by open-cast /semi-mechanized method. Proposed production of Brick Earth is 8,766.6 cum per annum. Workings will be systematic by forming proper benches. A haul road of gradient maintained 1 in 16 as per MMR 1961. Approach roads are provided up to the workings pit for movements of laborers and vehicles. The mining is proposed as per present situation of the deposit. Proposed mining is with simple hand tools. No drilling and blasting will be done. The haul roads will be provided up to the proposed workings.

(iii) Need for the project and its importance to the Country and or Region

India is the second largest producer of clay fired bricks accounting for more than 10 percent of global production. India is estimated to have more than 1, 00,000 brick kilns, producing about 250 Billion of Brick annually. Employing about 15 million workers and consuming about 35 million Tons of coal. Due to the globalization and new ventures, the requirement for Bricks has been on the rise over the last few years. Bricks are used mainly in construction and infrastructure projects. Its strength and long life makes it suitable for a number of purposes. Mining industry plays an important role in economic sector in India. The region, where the project is situated, mostly dependent on agriculture. The important benefit occurring from the project to the state in the form of royalty to boost the local and regional economy. The development of mining in the area provides direct and indirect employment opportunities, better infrastructural facilities, communication and socio-economic infrastructure.

(iv) Demand and Supply Gap

Bricks are used as a basic building raw material in construction of buildings and Infrastructure projects; the demands of Bricks are increasing day by day. Building construction in India is estimated to grow at a rate of 6.6% per annum. In past, demand was not too much but now a days due to rapid industrialization and urbanization its demand increasing with pace of time.

(v) Imports v/s Indigenous Production

Demand of Bricks in the domestic market is high. In the allotted area, Brick Earth is available in abundant quantity and can be excavated indigenously. Mining of brick earth in allotted area is feasible. It had become a major source of economy in the area/region.

(vi) Export Possibility

There is no possibility of mineral export. Mineral Brick Earth caters the indigenous demand and major consumers are located in nearby areas.

(vii) Domestic/Exports Markets

There is always an increasing demand of Bricks in domestic market.

(viii) Employment generation (Direct & Indirect) due to the project

Due to proposed project of Brick Earth mining in the area, people get employment. The project directly generates the employment for the local people and indirectly for the others. The total manpower requirement for the proposed mining operation will be around 15 persons directly and indirectly.

The requirement of various technical and non-technical personnel is determined while adopting the following norms:

1. The mine will be worked in a single shift in day light hours.
2. In estimating the requirement of competent person, mates, etc. due consideration has been given to the statutory provisions.

Man power requirement and its distribution.

The total manpower requirement in this project is 15 Persons. The mine manager cum mining engineer should a graduate mining engineer holding at least second class manager's certificate.

The manpower is proposed is as under:-

S.No.	Designation	Number
1.	Supervisor (Skilled)	1
2.	Piece rated workers (Un-Skilled)	14
		15

3.0 PROJECT DESCRIPTION

(i) Type of Project including interlinked and interdependent projects, if any.

The Brick Earth mining project is an interdependent project in which mineral will be supplied to brick kiln for making bricks. For transportation of Brick Earth from proposed site to brick kiln will be by tractor trolley.

(ii) Location (map showing general location, specific location, and Project boundary & project site layout) with coordinates.

The lease area has been marked on the map falls in Village: Kooknagar Grant, Tehsil: Mankapur, District: Gonda (U.P.).

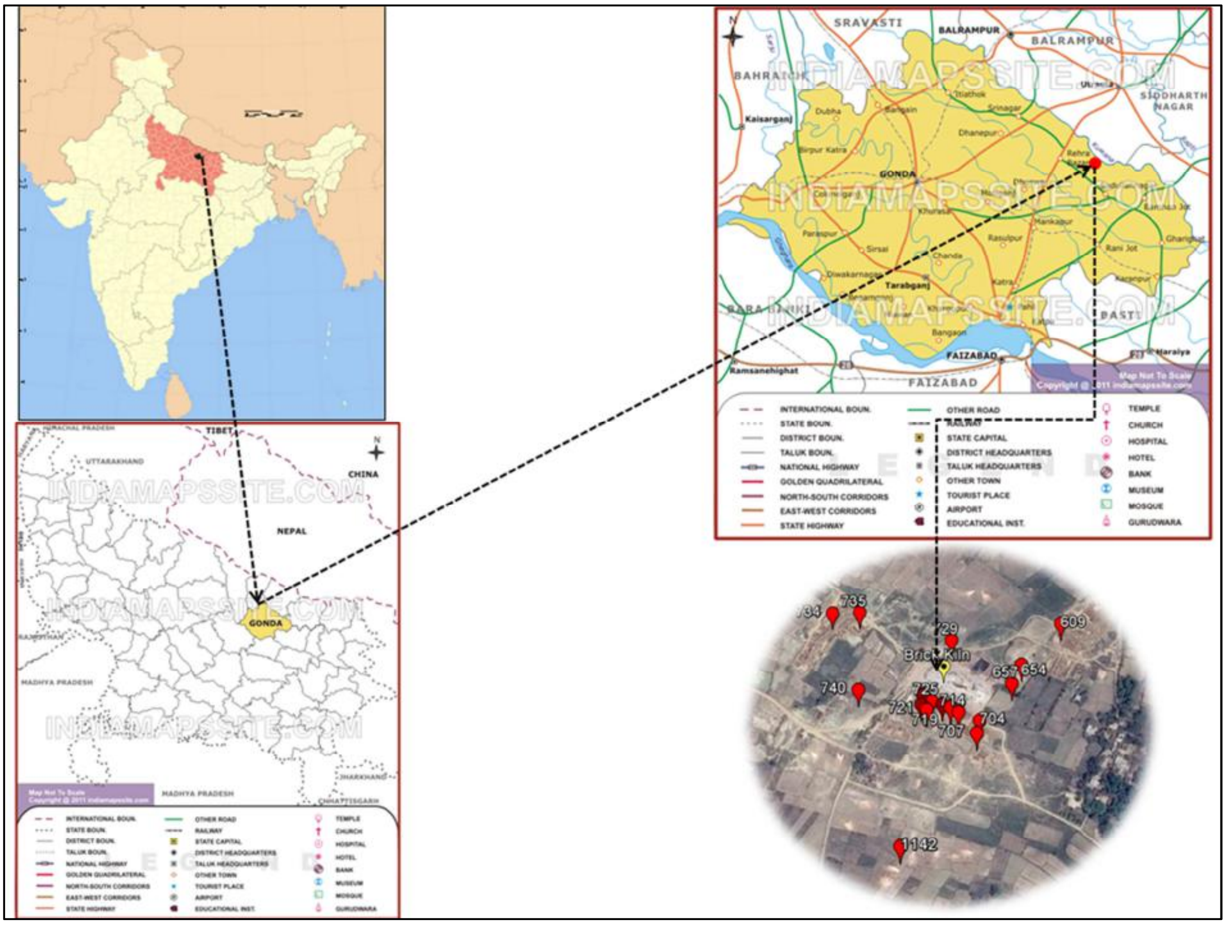

Fig 1: Location Map of the Project Site

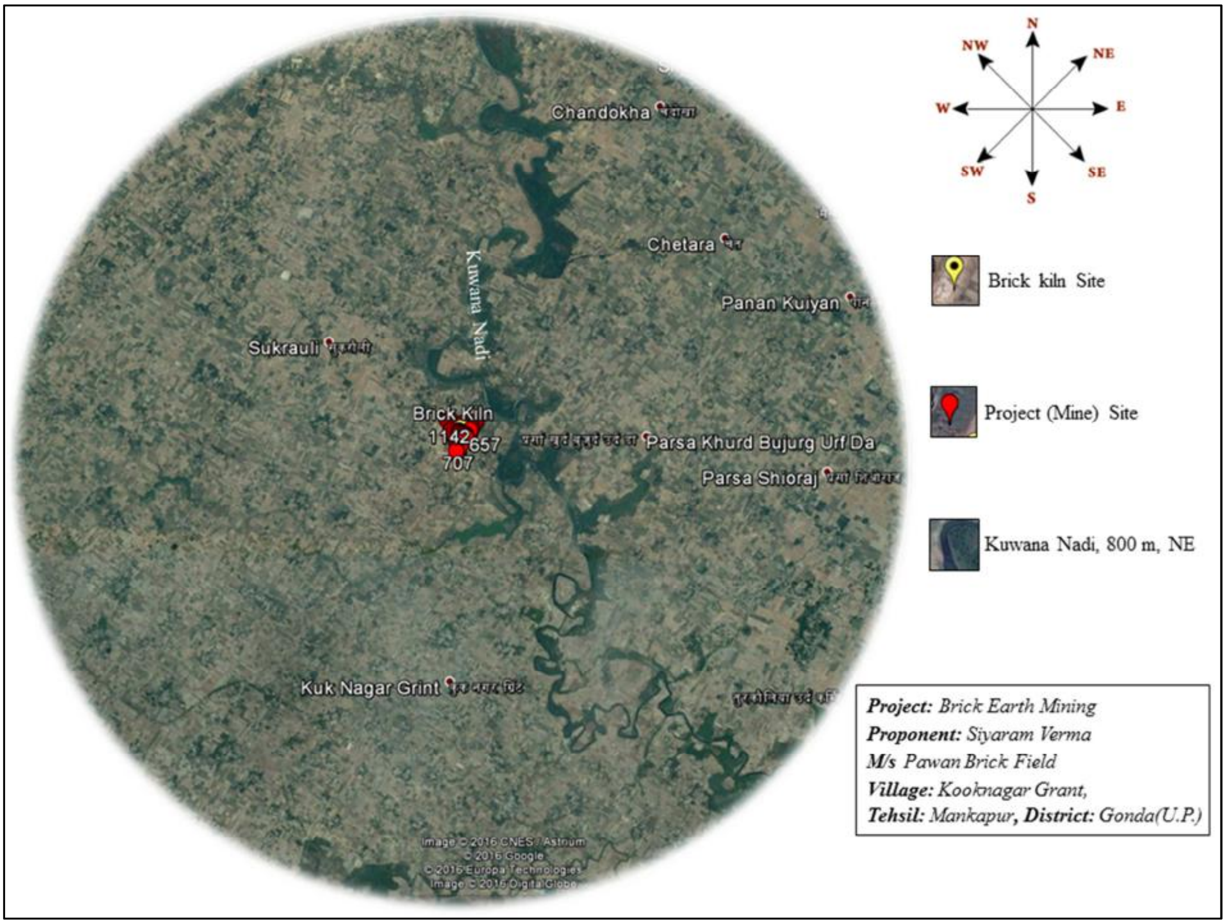

Figure 2: Google Map Showing 5 km Radius of the Project Site

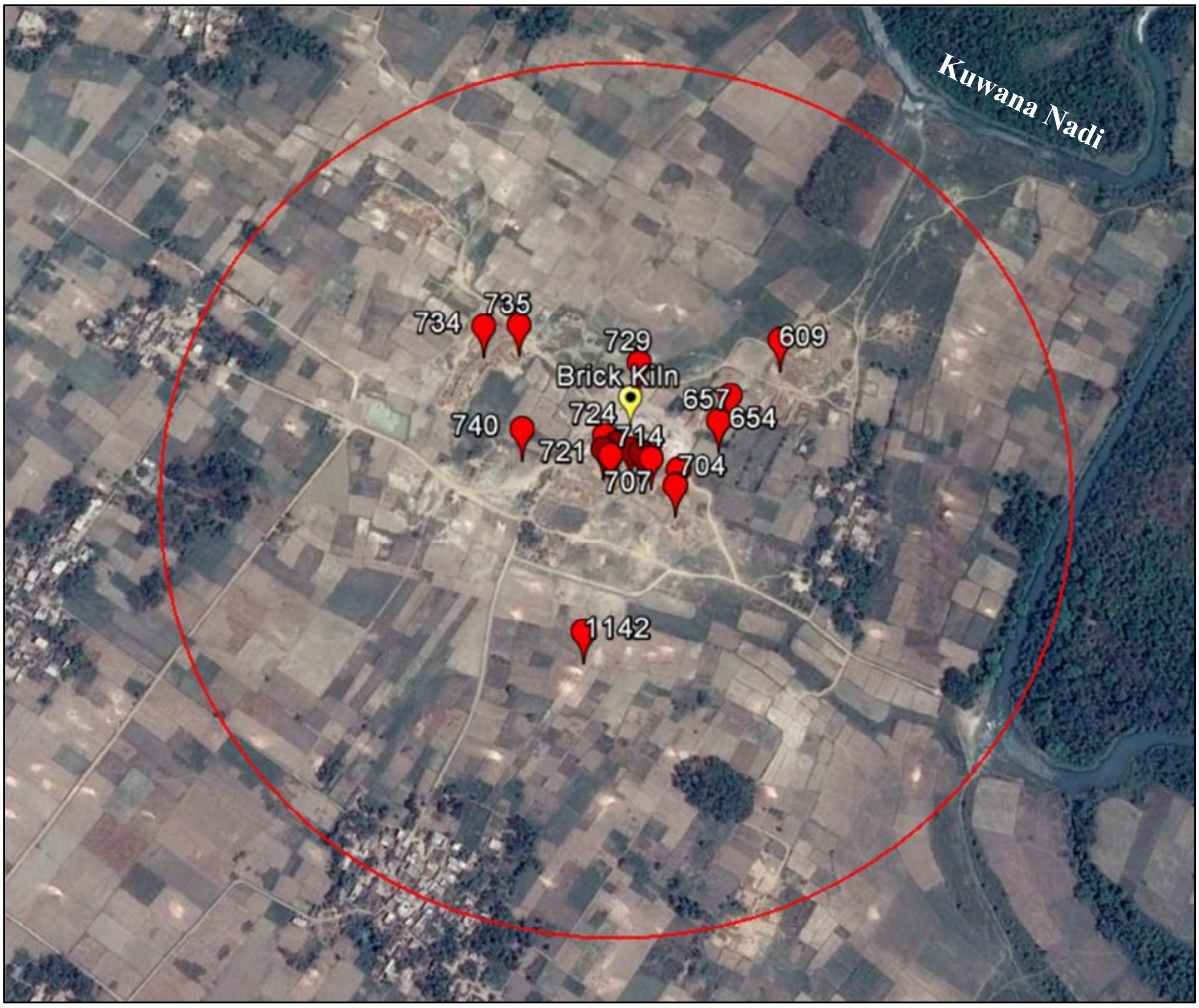

Figure 3: Google Map Showing 500 m Radius of the Project Site

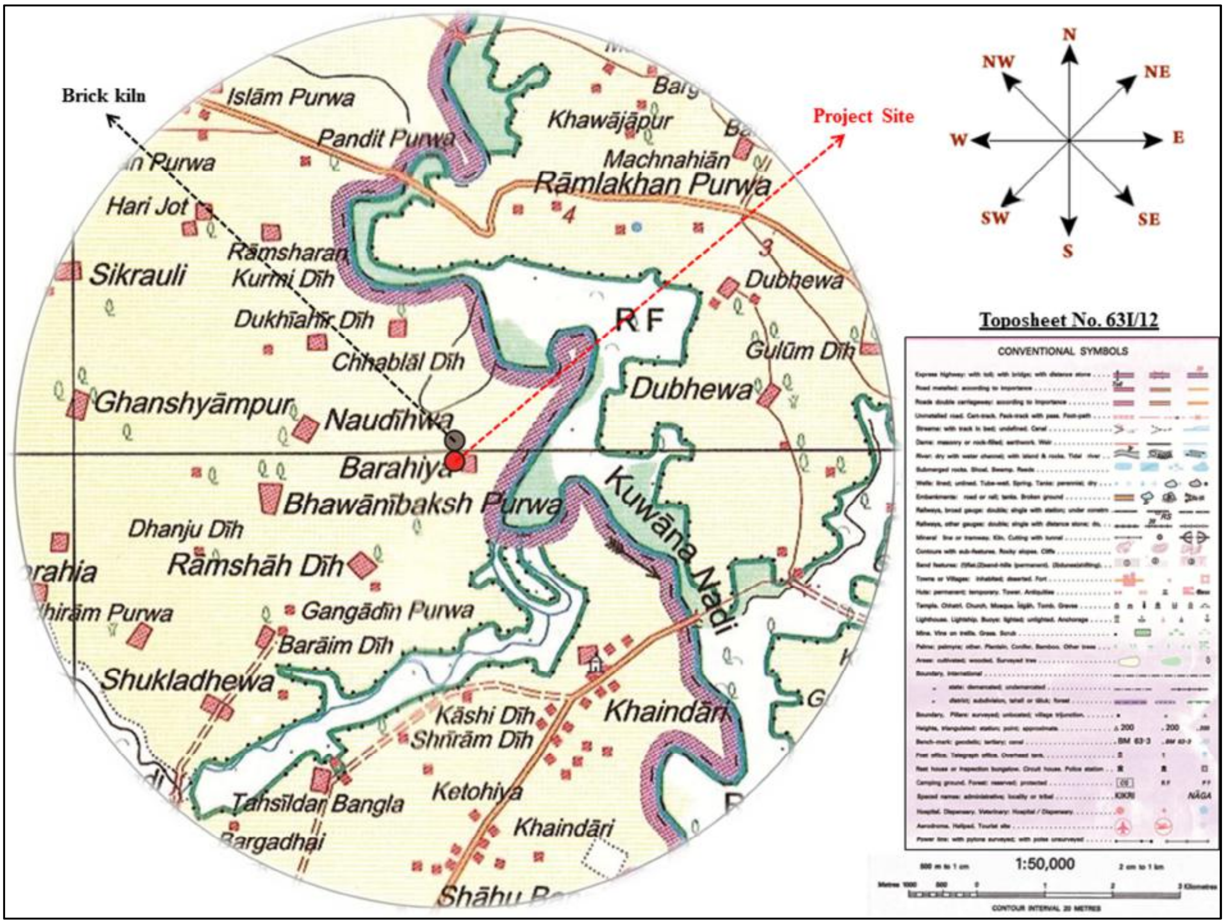

Figure: 4 Topographical map showing nearest View of the Project Site

(iii) Details of alternate sites considered and the basis of selecting the proposed site, particularly the environmental considerations should be highlighted.

Mining of mineral is site specific in the allotted area hence no alternate site is examined for mining.

(iv) Size and Magnitude of Operation

Total area of mine lease is 4.2149 Ha. The estimated production of Brick Earth is around 8,766.6 cum per annum. The brick production involves

- Clay preparation
- Moulding
- Raw bricks drying
- Loading of bricks in chamber
- Firing

METHOD OF ESTIMATION OF RESERVE:

The reserves are calculated by the following formula

- Volume of Soil Brick (Brick making by chimney Bhatta) = excavable area * depth of Mine
- Soil Brick (Brick making by chimney Bhatta) in tones = Volume of Soil Brick * bulk density.

The bulk density of the Soil Brick (Brick making by chimney Bhatta) is 1.2 tonnes per cum.
Probable category reserves = Total around 3.37192 hectares area

1.5m barrier all along boundary has been considered as barrier zone (Berm). The mineable reserves have been calculated inside the barrier zone. It is as Soil Brick (Brick making by chimney Bhatta) mining Project. The 20% of total area (including all Gatas) has been considered as a barrier zone and remaining 80% of total Gata has been considered as a mineable zone. The Mineable area is 3.37192 ha & barrier zone is 0.84298 ha. Thus total lease area 4.2149 ha.

Table 2: Mineable Reserves

Sl No.	Gata No.	Total Area (ha)	Area Left for berm	Area Consider during Mining (h)	Depth as per Agreement (m)	Top Soil (0.20mt)	Mineable depth as per (m)	Extractable Quantity of Soil (cum)	Agreement Period
1	609त	0.405	0.081	0.324	1.5	648	1.3	4212	5 Year
2	1142	0.761	0.1522	0.6088	1.5	1218	1.3	7914	5 Year
3	654	0.008	0.0016	0.0064	1.5	13	1.3	83	5 Year
4	657	0.486	0.0972	0.3888	1.5	778	1.3	5054	5 Year
5	719	0.053	0.0106	0.0424	1.5	85	1.3	551	5 Year
6	734	0.81	0.162	0.648	1.5	1296	1.3	8424	5 Year
7	704,724	0.045	0.009	0.036	1.5	72	1.3	468	5 Year
8	725	0.012	0.0024	0.0096	1.5	19	1.3	125	5 Year
9	726	0.032	0.0064	0.0256	1.5	51	1.3	333	5 Year
10	707	0.081	0.0162	0.0648	1.5	130	1.3	842	5 Year
11	721व	0.02	0.004	0.016	1.5	32	1.3	208	5 Year
12	722	0.61	0.122	0.488	1.5	976	1.3	6344	5 Year
13	729ग	0.121	0.0242	0.0968	1.5	194	1.3	1258	5 Year
14	729घ	0.085	0.017	0.068	1.5	136	1.3	884	5 Year
15	740	0.0109	0.00218	0.00872	1.5	17	1.3	113	5 Year
16	714	0.105	0.021	0.084	1.5	168	1.3	1092	5 Year
17	729ङ	0.57	0.114	0.456	1.5	912	1.3	5928	5 Year
		4.2149	**0.84298**	**3.37192**		**6745**		**43833**	

Soil Brick (Brick making by chimney Bhatta) in tonnes = volume * bulk density

Brick Soil in Tonnes = **43833 × 1.2**

= 52599.6 Tonnes

Table 3: Yearly Production

Year	ROM Soil Brick (Brick making by chimney Bhatta) (cum)
1st	8766.6
2nd	8766.6
3rd	8766.6
4th	8766.6
5th	8766.6
Total	**43833**

(V) Project Description with Process Details:

This is a Brick Earth mining project. Mining activity will be carried by opencast/semi-mechanized, open cast method. The mining will be done with the help of hand tools etc. Considering the national, state and local holidays there will be around 120 working days in a year. The main development work will be the systematic benching. Approach roads will be provided up to the workings for movements of laborers and vehicles. The approach road from surface to bottom will be provided with 1 in16 gradients. For transportation of Brick Earth from excavation site to brick kiln will be by wooden carts and tractor trolley.

- Mining of brick earth will be limited to the plots as mentioned lease agreement only.
- The proposed brick clay mining project is an open cast, semi mechanized process which will be carried out with the help of Excavator.
- No drilling and blasting is proposed for brick clay mining activity.
- The borrowing/ excavation activity will be restricted upto a maximum depth of 2.0 meter below general ground water level or upto 2 meter above the ground water table whichever comes first.
- No mining activity will be carried out within 15 meters periphery of any civil structure.
- No mining activity will be conducted during the monsoon season.
- In order to void environmental pollution or any accidental hazards, the mining activity will be restricted to day time only.
- The operation will remain manual, using tools like spade, shovel sieve etc.
- The approach road will be smooth and wide.
- Plantation will be done in near the area/ around the area during monsoon.
- Tree guards and separate watering arrangements will be provided.
- The mining is proposed in a safe, systematic and scientific way.

- Maximum quantity of borrowed/excavated brick earth will be used to making bricks in brick kiln. No waste will be generated during the course of mining.
- The small broken pieces are uses for spreading over the kachha roads.
- A temporary site is proposed within the applied area in safety zone/berm along lease boundary (about 1.0m width).
- Proper benching will be formed and maintained. Roads will be properly made and regular water sprinkling arrangement for dust suppression.
- Final slope angle or say ultimate pit slope is proposed 45°.
- The time period of will be for 5 years.

(vi) Raw material required along with estimated quantity, likely source, marketing area of final products/s, Mode of transport of raw Material and Finished Product.

No raw material is required during the mining process. The operation involved burrowing/excavation of Brick Earth which is directly transported by tractor trolleys to nearby brick kiln for making Bricks. Proposed production of Brick earth is 8,766.6 cum per annum.

(vii) Resource optimization/recycling and reuse envisaged in the project, if any, should be briefly outlined.

In nature, mineral is in finite quantity and once the mineral depleted cannot be replenished. Working will be done systematically to optimum utilizes of mineral. In view point of natural resource conservation, scientific mining practices will be adopted.

(viii) Availability of water its source, energy/power requirement and source should be given.

Total water requirement at mine will be about 8.1 KLD for drinking & domestic use, dust suppression and plantation. Water will be sourced from bore wells located in nearby villages through tankers.

Water requirement

The total water required, diesel and explosive is approximately 8.1 KLD the break up with its uses is given below:

Source	Purpose	Detail	Avg. Demand/Day
Portable Tanker	Drinking & Domestic use	@15Ltr/workers (15 workers x 15)	0.25 KLD
	Dust suppression (Twice a day)	@1 Ltr./Sq.m Haul Road Area =(600 m Length x 6m Width=3600 m^2) = 3600 Lit/day	7.2 KLD
	Land reclamation/plantation	@5Lit/Tree (25 x 5Year) = 125 Tree x 5Lit	0.65 KLD
Total			**8.1 KLD**

(ix) Quantity of wastes to be generated (liquid and solid) and scheme for their management/disposal.

No waste will be generated during the course of mining. So there is no proposal of waste management/disposal. All the material will be used to making bricks.

4.0 SITE ANALYSIS

(i) Connectivity

Project Site is 200 m away from village link road which is coming from Ramshah Dih village. The main Metalled road (Babhnan- Khodare- Gaura- Chawki Road) is 7.0 km, away from the project site. The Mining site is located at Kooknagar Grant. The network of link Roads available for village to village connectivity. The Nearest Railway Station is Babhnan Railway Station is 12.8 km, SW from the project site. Project site is about 60.5 km away from Gonda. Link road is available for local area. Mine site is well connected with rail and road transport.

(ii) Land Form, Land use and Land ownership

Total area of lease is 4.2149 ha is leased to Siyaram Verma, M/s Pawan Brick Field, No forest land is involved in leased out area.

(iii) Topography

Gonda district lies between 26º 47' and 27º- 20' north latitude and 81º 30' and 82º 46' east longitude It is head quarter of Devi Patan division which was constituted by praline of Faizabad division District Balrampur makes its boundaries in north. To its west it is bounded by district Bahraich and some part of Srawasti on the east by the district Basti . In the south it is separated from district's Bara Banki and Faizabad by the river Ghaghara . In shape it is very irregular and seems as Cup widest in North narrowest in south . It has got physical boundaries on two sides Kuon river in the North and as Ghaghar a river in the South. Its length from Jarwal road in the West to Katra (Shivadayal Ganj) is 106 kms and width from kuaon in the north to Paska in the south is 77 kms.

Source: http://gonda.nic.in/geo.htm

(iv) Existing land use pattern (agriculture, non-agriculture, forest, water bodies (including area under CRZ), shortest distances from the periphery of the project to periphery of the forests, national park, wild life sanctuary, eco sensitive areas, water bodies (distance from the HFL of the river), CRZ. In case of notified industrial area, a copy of the Gazette notification should be industrial area, a copy of the Gazette notification should be given.

There are no eco sensitive areas such as forest, national park, wildlife sanctuary, biosphere reserves and wildlife corridors etc. exist in core zone. Mining will be done in allotted area only. No other land will be disturbed.

Table: Environmental Settings:

S.N.	Particulars	Details
1.	Nearest Densely Populated Villages	Ramshah Dih: 800 m, South Kooknagar Grant: 1.0 m, South Khorare: 7.0 km, SE
2.	Nearest city/ town	Nearest Town: Mankapur, 34.2 km, NW Nearest City & District: Gonda, 60.5 km, NW
3.	Nearest Road	Babhnan-Khodare-Gaura-Chawki Road, 7.0 km, West
4.	Nearest Railway Station	Babhnan Railway Station, 12.8 km, SW Karanpur Railway Station, 13.0 km, SW
5.	Nearest Airport	Not Available
6.	Nearest National Highway/ State Highway	Not Available
7.	Archaeological Important Place	None, within 10 km radius area of Project site.
8.	Ecological Sensitive Areas (National Park, Wildlife Sanctuary, Biosphere Reserve etc.)	There is no National Park, Wild Life Sanctuaries, Biosphere Reserves, Tiger Reserves, Wildlife Corridors, etc. within 10 km radius.
9.	Nearest River / water body	Kuwana Nadi: 800 m, NE
10.	Nearest Reserve/Protected Forest Forest	Kuwana R.F.: 1.0 km, NE
11.	Seismic Zone	Zone-III (Moderate Intensity Zone)

(v) Existing Infrastructure

The site has no existing infrastructure, except for connecting road for transportation.

(vi) Soil Classification

Gonda features sandy, loamy, and clay soils. Water percolates downward in sandy soils, so those are not very fertile. Nevertheless, zayad crops are produced near the banks of rivers in this soil. Loamy soil, light yellow in colour, is fertile and contains fossils and minerals. It is found in the upper part of Gonda around Khorahsa, Dumariya Deeh, Gonda, Itia thok, Mankapur, etc. Clay soil can retain water, so it is suitable for crops that require more irrigation, such as rice grown in paddy fields, though it becomes hard when it dries. Clay soil is found around Colonel Ganj, Itiathok, and Mankapur.

Source: https://en.wikipedia.org/wiki/Gonda_district

Gonda district is divided into two units, the upland plains underlain by older alluvium and the low land plains underlain by newer alluvium. The 7 older alluvium occupies the north & eastern part of the district and the newer alluvium covers the central, western and southern part with low lying slightly undulating tract deposited in comparatively recent times by the river Kuwano, Tirhi and Ghaghra. The different geomorphic units observed in the district like sand bar (River Sand) observed at river bed of Ghaghra consists of sand deposits of varying sizes produced due to the fluvial action. Flood plain (alluvium) areas are extensive, low lying flat areas adjacent Ghaghra river. The deposit is thickest near the river margins and thinning outward the valley slopes and composed of unconsolidated alluvial materials of varying lithology. Ravines, younger alluvial plain and older alluvial plain are also observed in the district.

Source:http://www.cgwb.gov.in/District_Profile/UP/Gonda.pdf

(vii) Climate & Rainfall

Gonda has a tropical monsoon climate, typical of India's plains districts. There are three seasons: summer, rainy, and winter. Summer is from March to June. The average temperature of the summer is nearly 30 °C (86 °F). A hot wind known as the *Loo* blows in May and in early June. The rainy season is from July to October. Winter is from November to February, with the second half of December and first half of January the coldest.

Source: https://en.wikipedia.org/wiki/Gonda_district

January is generally the coldest month with mean daily maximum temperature at 22.9° C and mean daily minimum temperature at 8.3° C. After February there is steady increase in temperature. May is generally the hottest month with the mean daily temperature is 39.9° C and mean daily minimum temperature is 25.6° C, with the advance of the monsoon there is appreciable drop in temperature. The mean monthly maximum temperature is 31.7° C and the mean monthly minimum temperature is 18.5°C.

The average annual rainfall is 1151.80 mm. The climate is sub-humid and it is characterised by good rainfall mainly during southwest monsoon season and a dry hot summer. About 90% of rainfall takes place from June to September. During monsoon surplus water is available for deep percolation to ground water.

Source: http://www.cgwb.gov.in/District_Profile/UP/Gonda.pdf

(viii) Social Infrastructure Available

- Health & educational facilities (in the form of primary and secondary schools) are available in the nearest villages.
- Medical facilities, Primary Health Centre are there in the area.
- Village people are availing drinking water facilities generally from the hand pump, open well and tube well. The water supply is also supplied through tanker in few villages.
- Communication services like post office and telephones are available in the nearby village. Some of the villagers are having mobile phones.

5.0 PLANNING BRIEF

(i) Planning Concept (type of industries, facilities, transportation etc.)Town and country Planning/Development authority Classification

This is a Brick Earth mining project. Facilities includes such as temporary rest shelter, first aid center are proposed in the area. Mining will be done by open-cast/ semi mechanized method. Transportation of mineral shall be done through road by tractor trolleys. Other facilities such as power, transportation and communication, social infrastructure facilities are locally available near project site.

(ii) Population Projection

The project provides employment for most of the workers from nearby areas. Local people from nearby villages will be give preference. Thus there will no chance to increase population due to proposed project of Brick Earth mining in the area.

(iii) Land Use planning (breakup along with green belt etc.). Approximate land use is as following for life of mine.

The soil mining will be carried out on an area of 3.372 Hectare. Green belt will be developed in an area identified by the local gram Panchayat.

(iv) Assessment of Infrastructure Demand (Physical & Social)

The road facility is available which shall be used and properly maintained. Mine have its own approach roads which exist and well connected to state and national highway. The labour will be employed from nearby villages.

(v) Amenities/Facilities

Basic amenities/facilities available in nearby villages and towns such as road, power supply, communication, water supply, medical and health etc. Site is well connected with road and other infrastructure facilities. Communication facilities such as post office and telecommunication are available in nearby village.

Apart from the above, during operational phases of mining, following facilities shall be provided as:

(i) All the safety norms will be strictly followed.

(ii) Provision of clean drinking water.

(iii) Group insurance scheme for engaged workers.

(iv) First aid facilities.

(v) Periodical medical campaigns for mine workers and nearby villagers.

6.0 PROPOSED INFRASTRUCTURE

(i) Industrial Area (Processing Area)

No industrial or processing area is proposed.

(ii) Resident Area (Non Processing Area)

No residential area is proposed.

(iii) Green Belt

It is proposed to have plantation along the haul roads to provide cover against dust dissemination. Plantation will also be carried out as social forestry programmed in villages schools and the areas allocated by the Panchayat/State Authorities. During plantation, local plant species will give preference or in consultation with local forest officials.

Year	Saplings to be Planted	Species	Pollution control features	Plantation Cost	Place of Plantation
I^{st} II^{nd} III^{rd} IV^{th} V^{th}	125 trees in I^{st} Year 25 X 5 = 125 trees	Ficus religosa (pipal), Boswellia serrata (Salai), Shorea robusta (sal) and tactone grandis (teak)	Tolerant to SO_2 and Dust Control	Plantation@200/sapling (125 sapling to be planted in 1^{st} year)= 25,000 Five Trees per Acre. Post Plantation Care @Rs. 500/day (For 125 Saplings Annually.i.e.365 days) = 2,07,500 Total Cost:	along the road side and near civic amenities, which will be allotted by Government Bodies as it is not feasible to plant trees near the mine lease area.
Total = 125					

(iv) Social Infrastructure

Proposed project of Brick Earth mining provides employment opportunities in the area/region and this helps to check migration of people of one place to other.

(v) Connectivity (Traffic and transportation Road/Rail/Metro/Waterways etc.)

Project Site is 200 m away from village link road which is coming from Ramshah Dih village. The main Metalled road (Babhnan- Khodare- Gaura- Chawki Road) is 7.0 km, away from the project site. The Mining site is located at Kooknagar Grant. The network of link Roads available for village to village connectivity. The Nearest Railway Station is Babhnan Railway Station is 12.8 km, SW from the project site. Project site is about 60.5 km away from Gonda. Link road is available for local area. Mine site is well connected with rail and road transport.

(vi) Drinking Water Management (Source & supply of water)

Water required for drinking purpose will be purchased from nearby borewells through tankers. Approx. 1.5 KLD water will be required for drinking and domestic purposes.

(vii) Sewerage System

No sewerage shall be generated from the project area. Domestic waste will be treated into septic tank *via* soak pit.

(viii) Industrial Waste Management

No Industrial waste will be generated from the project.

(ix) Solid Waste Management

No waste will be generated during the course of mining. So no management measures will be required.

(x) Power Requirement

Nearby village's area is well electrified.

7. 0 REHABILITATION & RESETTLEMENT (R&R PLAN) (Policy to adopted (Central/State) in respect of the project affected person including home oustees, land oustee and landless labour (A brief outline to be given).

Human settlement is away from the mine lease area thus no impact will be anticipated on human settlement by mining of Brick Earth. So there is no need of rehabilitation and resettlement plan so far.

8.0 PROJECT SCHEDULE AND COST ESTIMATES

(i) (Likely date of start of construction and likely date of completion (time schedule for the project to be given)

Proposed project will be started after getting Environment Clearance and progressive closure plan will be submitted in due course of time

(ii) Estimated project cost along with analysis in terms of economic viability of the project

The capital cost of project is Rs.14.03 Lakhs. The profit will depends upon as per actual production obtained from the mine. This may vary due to demand in market.

S. No.	Description	Unit	Total (Rs.)
1.	Laborers charge (Excavation &Loading)	Rs. 400 / day (Man power 15) Assuming 120 days)	**7,20,000**
2.	Personnel Protective Equipment (PPE)	Rs. 1500/workers x 15 = 22,500 Rs. Medicines (Assuming 500/worker): 500/ workers = 500 x 15 = 7500	**30,000**
3.	Equipments/Tools/Machineries	120 days Assuming Rs. 1000/day	**1,20,000**
	Break-up of Expenditure on Environment Protection & Environment Management		
4.	Haulage Road Repair & Maintenance	4 months (Rs. 50,000/month)	**60,000**
5.	Water Sprinkling on Haulage Road for Dust Suppression	Assuming Rs.2000/day for 120 days of working Tanker Cost: Rs. 1000/Tanker Tanker Capacity: 5000 liter, No. of Tankers required: 2	**2,40,000**
6.	Plantation along the road side	Plantation@200/sapling (125 sapling in first Year) Post plantation care @500/day (For 125 Saplings Annually.i.e.365 Days).	**2,07,500**
Others			
7.	Mine Closure Plan	5000/Ha.	**25,000**
	Total		**Rs. 14,02,500 (14.03Lakhs)**

Corporate Environment Responsibility

CER (Corporate Environment Responsibility) details for the Project

CER plan is given below:

- Total Cost of the Project = Rs. 14.03 Lakhs

Rs. 14.03 Lakhs x 0.05 = Rs. 0.71 Lakhs @ 5% of the total project cost (As Per The G.O.I Notification, File No. 22-65/2017-I A, III dated on 1st May, 2018)

Understanding the need to give back to the society, MoEF & CC has made it mandatory to invest 5% of total project benefit cost in CER activities. In the present case, the project proponent has decided to invest with various activities such as:

- Provision of private or community toilet in the primary school nearby village.
- Distribution of Mosquito nets to the poor peoples of nearby villages.
- Betterment of village Roads
- Medical facilities or checkups in the village.

These activities shall be in consultation with the local authority and shall be need based, so as to provide maximum benefit to the locals.

9.0 ANALYSIS OF PROPOSAL (FINAL RECOMMENDATIONS)

(i) Financial and social benefits with special emphasis on the benefit to the local people including tribal population, if any, in the area.

The Brick Earth mining project of M/s Pawan Brick Field, is proposed at Village: Kooknagar Grant, Tehsil: Mankapur, District- Gonda (U.P.) is of outmost importance to the area/. Mine will provide direct & indirect employment opportunities .The State Government will get revenue in the form of royalty from selling of mineral, land tax/surface rent; Sales tax/VAT, income tax etc. will be region for interest of mineral development and improves the socio-economic conditions of the local habitants addition. The Brick Earth mining project will stow various social and economic benefits to the local communities of the area. Thus the proposed project of Brick Earth mining will prove beneficial to the area. Environment protection and its preservation is today the major concern all over the world. The environment proves that all the human activities on this earth are interconnected, so much so that an environmental damage in the boundaries of one state has trans-border ramifications. Environmental destruction and pollution has seriously threatened the human life, health and livelihood.