MINE PLAN
AND PROGRESSIVE MINE CLOSURE PLAN
(Submitted under Rule 34 of U.P. MMCR-1963)

FOR
BUILDING STONE- SANDSTONE

AT
VILLAGE- SONBARSA, TEHSIL- LALGANJ,
DISTRICT- MIRZAPUR, U.P.

AT
GATA NO. 36/6/5
AREA 0.809 HA

LEASE PERIOD—10 YEARS
[FROM THE DATE OF LEASE EXECUTION]

APPLICANT/LESSEE
SHRI SARJEET SINGH,
S/O SHRI RAJENDRA SINGH
R/O GANESHGANJ, THANNA- KOTWALI KATRA,
TEHSIL- SADAR, MIRZAPUR, U.P.

PREPARED BY
UMESH PRATAP SINGH CHAUHAN
ROP/DDN/165/2005/A (VALID UPTO 15.03.2025)
ROP/UPDGM/No 010/2019 (Validity: 13.01.2024)

4/366, VIKASH NAGAR, LUCKNOW-226022 ::PHONE 9415195706
Email::upschauhan1953@gmail.com

PREPARED ON 20.12.2020
प्रेमकाल, निदेशक, नूतन एवं खनिजक निदेशालय, उपरोक्त खनिज भवन, लखनऊ।

सेया में जिलाधिकारी मीरजापुर।

संख्या: 15/18 मार्च प्लान/2017 दिनांक (१५.१.2०२१) २०२१

विषय: पट्टाधारक श्री सरजीत सिंह पुज से श्री राजेंद्र सिंह से तक तक संधि जनपद मीरजापुर में सभी संदर्भ का प्रश्न से संबंधित तक्ता संधि में सही संदर्भ संख्या अधिनियम ग्राम-शीर्षक लागू है।

महोदय,

उपरुपर्याय विषय के संदर्भ में सुनिश्चित करना है कि उद्योग संबंधित क्षेत्र के संबंध में पट्टाधारक श्री सरजीत सिंह पुज से श्री राजेंद्र सिंह से संबंधित खनन योजना का अनुमोदन उत्तर प्रदेश उप-खनिज (परिषद) निगमों विभाग, 1963 के नियम 34 के उपलब्धम (4) के अधीन प्रदत्त अनुमोदन का प्रयोग करते हुये दिनांक 14.01.2021 को कर दिया गया है।

1- "खनन योजना" का अनुमोदन निम्न संक्षिप्त कार्यों के अधीन किया गया है:-

(१) "खनन योजना" का अनुमोदन खनन पद्धति नियमादन के दिनांक से आगामी 05 वर्ष अवधि तक के लिए अनुमोदित किया जाता है। खनन क्षेत्र से 8090 घन मीटर प्रतिवर्ष खनिज का उत्पादन अनुमान किया गया है।

(२) अनुमोदित अवधि में किये गये खनन कार्य के निरीक्षण के उपरांत यदि खनन योजना में संशोधन हेतु आवश्यक दिये जाते हैं, तब संशोधित खनन योजना प्रस्तुत करने का पूर्व उत्तराधिकार पट्टाधारक का होगा।

(३) आवश्यक नियोजित श्रमिकों को सुरक्षा उपकरण प्रदान करने तथा सुरक्षित खनन कार्य करने हेतु सभी आवश्यक साक्ष्यांक वस्त्रों का दायित्त्व पट्टाधारक का होगा।

(४) अनुमोदित खनन योजना का एक-एक नियोजित प्रतिष्ठित जिलाधिकारी कार्यालय एवं निदेशालय के क्षेत्रीय कार्यालय में अभिलेखां यथासाध्य प्रस्तुत करने का दायित्त्व भी पट्टाधारक का होगा।

(५) अनुमोदित खनन योजना में विनियम प्रक्रिया के अनुसार पट्टाधारक द्वारा खनन कार्य न किये जाने के पाये जाने पर पट्टाधारक के विभिन्न पक्ष की शर्त का उल्लंघन माना जायेगा और तदनुसार कार्यवाही की जायेगी।

(६) खनन योजना का निम्नसंचय अस्तित्व कार्यों के साथ अनुमोदित किया जाता है:-

1. बेंच की ऊंचाई अधिकतम 06 मीटर एवं बेंच की चौड़ाई दो सीसे से कम से कम दो गुनी होनी चाहिए।
2. खनन कार्य उपर से नीचे की ओर बेंच बनाते हुये किया जायेगा।
3. खनन कार्य के दौरान निकाले गये मलबे विशेषक के ठिक से एक नियत कर रखा जायेगा।
4. फंस का उल्लंघन 60 डिग्री से अधिक न हो, और कहीं पर भी अण्डर कटिंग न हो।

MP: Janur Pathar
5. प्रत्येक ब्लासिंग के बाद फेस ड्रेसिंग करना होगा ताकि लूज पतवार आदि से श्रमिक सुरक्षित रहे।
6. खनन कार्य के फलस्वरूप बने गड़बड़ को मलबार भरकर समतल कर बुराशरापन करना होगा।
7. खनन कार्य स्थल पर फर्स्ट एड बायोस व जर्म्स रखे जाये।
8. श्रमिकों के लिये श्रमिक विशाल गृह उनके पीने के पानी आदि की समुचित व्यक्ता की जायें।
9. खनन में सिसिलिया से उपयोग होने वाली बीमारी की समापना के तुरायात में प्रत्येक 4. माह में श्रमिकों की चिकित्सीय जांच का प्रगतिमान रखा जाना चाहिए तथा आध्यक्ताधीन पालास सुबिधा उपलब्ध कराया जाना चाहिए।
10. पर्वतवरण स्वभावता के संबंध में भारत सरकार/राज्य सरकार द्वारा समय-समय पर जारी दिशानिर्देशों एवं माननीय न्यायालय के आदेशों का अनुपलन पट्टाधारक द्वारा किया जायेगा।

2- अस्तु आपसे अनुरोध है कि अनुमोदित खनन योजना की संलग्न मूल प्रति सम्बन्धित पट्टेदार को अनुपलन हेतु उपलब्ध कराया कर उनसे प्रातिस्पर्धा प्राप्त कर निदेशालय को मिलाने का कद्द करै।

संलग्नक: यथापूर्वी।

भवदीय,

(अभिल कुमार शामी)
मुख्य खान अधिकारी
कृतेन निदेशक।

संख्या: (१)/माथू प्लान/2017 तदि दिनांक।

प्रतिलिपि:-निम्नलिखित को सूचनार्थ एवं आवश्यक कार्यवाही हेतु प्रेषित :-

1- खनन अधिकारी, भूतल्य एवं खानकर्म विभाग, लौटा, जनपद-मीरजापुर।
2- पट्टाधारक श्री सरलीत सिंह पुजक श्री राजेन्द्र सिंह निः 9 पेशेवर थाना कोतवाली कटरा, तहसील सदर जनपद मीरजापुर।
3- खनन अनुमाग, भूतल्य एवं खानकर्म निदेशालय, लौटा, लखनऊ।

(अभिल कुमार शामी)
मुख्य खान अधिकारी
कृतेन निदेशक।
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<th>PAGE NO.</th>
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LIST OF ANNEXURE

I  CONSENT LETTER FROM APPLICANT
II LEASE DEED/COPY OF EC/OTHER RELEVANT PAPERS
III COPY OF RQP CERTIFICATES

LIST OF PLATES

1. LOCATION PLAN
2. CADAstral MAP
3. BUFFER ZONE-GOOGLE IMAGE -05 KM RADIUS
4. TOPOGRAPHICAL MAP BUFFER ZONE-5KM RADIUS
5. SURFACE GEOLOGICAL PLAN
6. GEOLOGICAL SECTIONS
7. ULTIMATE/CONCEPTUAL PLAN
8. PIT LAYOUT PLAN & SECTION-1ST YEAR
9. PIT LAYOUT PLAN & SECTION-2ND YEAR
10. PIT LAYOUT PLAN & SECTION-3RD YEAR
11. PIT LAYOUT PLAN & SECTION-4TH YEAR
12. PIT LAYOUT PLAN & SECTION-5TH YEAR
13. COMPOSIT PLAN & SECTION
14. PROGRESSIVE MINE CLOSURE PLAN
INTRODUCTION

Mining is a major contributor (2'nd) to the national GDP (4%) occupying about 0.11% of total land area (329 m ha) and providing employment generation 1.1 million people (4 %) of the country (Saviour, M.N)

Mining is essentially a destructive development activity where ecology suffers at the altar of economy. Scientific mining operations accompanied by ecological restoration and regeneration of mined wastelands and judicious use of geological resources, with search for eco-friendly substitutes and alternatives must provide sensational revelation to the impact of mining on human ecosystem.

Sandstone reserves in India are spread over the states of Andhra Pradesh, Assam, Bihar, Gujarat, Haryana, Madhya Pradesh, Meghalaya, Manipur, Karnataka, Orissa, Punjab, Rajasthan, Uttar Pradesh, Tamil Nadu, and Bengal. In Uttar Pradesh, sandstones suitable for making slabs and the same are located in Agra, Mirzapur, Lalitpur, Allahabad and Sonbhadra districts. Due to increasing demand of sandstones in development of parks, memorials and busts has led to increase in business for mine owners. However, present project pertains to aggregate mining.

In Uttar Pradesh, revenue generated from mining of Minor Minerals contributes 60% of total income generated from mining implying that mining of minor minerals is equally important to the state.

This proposal is being prepared for an area of about 0.809 ha in village Sonbarasa, Tehsil Lalganj, District Mirzapur, Uttrakhand. Applicant Shri Sarjeet Singh intends to mine out the mineral from this area. The applicant approaches us to develop a scientific, environment friendly mine plan for this area for the remaining period. His consent is attached as Annexure—I.
## CHAPTER 1

### 1.0 GENERAL

<table>
<thead>
<tr>
<th>a) Name of the applicant</th>
<th>Shri Sarjeet Singh</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address</td>
<td>S/o Shri Rajendra Singh, Ganeshganj, Thana-Kotwali Katra, Tehsil Sadar, Mirzapur</td>
</tr>
<tr>
<td>b) Status of the applicant</td>
<td>Private Individual</td>
</tr>
<tr>
<td>Private individual</td>
<td>Yes</td>
</tr>
<tr>
<td>Cooperative</td>
<td>No</td>
</tr>
<tr>
<td>Private Company</td>
<td>No</td>
</tr>
<tr>
<td>Public Company</td>
<td>No</td>
</tr>
<tr>
<td>Public Sector Undertaking</td>
<td>No</td>
</tr>
<tr>
<td>Joint Sector Undertaking</td>
<td>No</td>
</tr>
<tr>
<td>Other</td>
<td>No</td>
</tr>
<tr>
<td>c) Mineral(s) which the applicant intends to mine</td>
<td>Building Stone (Sandstone)</td>
</tr>
<tr>
<td>d) Period for which the mining lease is required or granted / renewed</td>
<td>10 Years (From the date of execution of lease deed) LOI have been awarded vide letter no. 172/खवनिज/सैंड स्टोन/ई— निवेदा सह ई—निलामी 2020 dated 11.06.2020 annexed as Annexure II.</td>
</tr>
<tr>
<td>e) Name of the RQP preparing the mining plan</td>
<td>Umesh Pratap Singh Chauhan Copy of RQP certificate is attached as Annexure III.</td>
</tr>
<tr>
<td>Address</td>
<td>4/366, Vikash Nagar, Lucknow-226022</td>
</tr>
<tr>
<td>Phone</td>
<td>9415195706</td>
</tr>
<tr>
<td>E-mail address</td>
<td><a href="mailto:Upschauhan1953@gmail.com">Upschauhan1953@gmail.com</a></td>
</tr>
<tr>
<td>Registration No.</td>
<td>RQP/DDN/165/2005/A</td>
</tr>
<tr>
<td></td>
<td>RQP/UPDGM/No 010/2019</td>
</tr>
<tr>
<td>Valid upto</td>
<td>15.03.2025</td>
</tr>
<tr>
<td></td>
<td>13.01.2024</td>
</tr>
<tr>
<td>f) Prospecting and Preparation of Mining Plan</td>
<td>Area is very small about 1.21 Ha. Building stone-Sandstone is available in the entire lease area. There is no possibility of other mineral in the lease area. Hence no prospecting required.</td>
</tr>
</tbody>
</table>
## CHAPTER 2

### 2.0 LOCATION

<table>
<thead>
<tr>
<th>Details of area (with location map)</th>
<th>Attached as <strong>Plate No. 1</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>District and State</td>
<td>Mirzapur, Uttar Pradesh</td>
</tr>
<tr>
<td>Taluka</td>
<td>Lalganj</td>
</tr>
<tr>
<td>Village</td>
<td>Sonbarasa</td>
</tr>
<tr>
<td>Khasra No./ Plot No./ Block Range / Felling Series etc.</td>
<td>Gata No. 36/6/5</td>
</tr>
<tr>
<td>Area (hectares)</td>
<td>0.809ha</td>
</tr>
<tr>
<td>Whether the area is in forest (please specify whether protected, reserved etc.) area (hectares)</td>
<td>No</td>
</tr>
<tr>
<td>Ownership / Occupancy</td>
<td>Govt. Land</td>
</tr>
<tr>
<td>Toposheet No. with latitude and longitude</td>
<td>63K/08 Pillar wise Latitude and longitude is given ahead;</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PILLER NO.</th>
<th>LATITUDE</th>
<th>LONGITUDE</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>25°05'20.60&quot;N</td>
<td>82°24'27.70&quot;E</td>
</tr>
<tr>
<td>B</td>
<td>25°05'19.60&quot;N</td>
<td>82°24'31.20&quot;E</td>
</tr>
<tr>
<td>C</td>
<td>25°05'16.50&quot;N</td>
<td>82°24'29.60&quot;E</td>
</tr>
<tr>
<td>D</td>
<td>25°05'17.40&quot;N</td>
<td>82°24'26.00&quot;E</td>
</tr>
<tr>
<td>Land Use Pattern</td>
<td>Pasture land - rocky barren land</td>
<td></td>
</tr>
<tr>
<td>------------------</td>
<td>---------------------------------</td>
<td></td>
</tr>
<tr>
<td>SL No</td>
<td>Land use</td>
<td>Agricultural Land (Ha)</td>
</tr>
<tr>
<td>1</td>
<td>Mining Pits &amp; Mine Road</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td>Undisturbed land</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

b) Attach a location map showing boundaries of the mining lease, adjoining area, roadways, railways, natural drainage system and other surface features, if any. It is preferred that the area be marked on a Survey of India topographical map or a cadastral map or forest map as the case may be. However if none of these are available, the area should be marked on a plan prepared especially for the purpose on a scale of 1: 50000 linking it with any important reference point available in and around the area.

Lease area on cadastral map is shown in **Plate No. 2.** Key Plan Buffer Zone showing 5 Km radius area along the periphery of lease in google image is shown in **Plate No. 3.** Key Plan Buffer Zone showing 5 Km radius area along the periphery of lease in Survey of India Toposheet/OSM sheet is shown in Plate No. **4.**
CHAPTER 3

3. GEOLOGY AND EXPLORATION

a) Describe briefly the general topography explaining whether it is a plain land or a hilly area and local geology of the mineral deposit within the leasehold. Attach a geological plan on 1:1000 / 1:2000 scale with 3-10 m. contour interval.

Topography

This is a small mining area comprising only 0.809 Ha land. The area shows natural topography. Mining activity during past years exposed the hillock in near by areas. The hillock is small having slope in all the directions. Mining is being carried out by pits in other areas near the applied area. The depth of pit is 10 to 12m. Applied area has a gentle slope towards South East. The highest point is about RL 113.1m is in the north west of applied area. The lowest point is about RL 111m is towards South SE side Near pillar C. Lease area comprises rocky barren land. There is no agricultural land within area. Topography is shown in Plate no. 1.

Geology

Regional Geology-

The sandstone of this area is of upper part of Kaimur plateau. The geology of the area belongs to Vindhyan Super Group. Geologically the area comprises of upper vindhyan formations consisting of sandstone, quartzite and shale. Vindhyan formation is overlain by quaternary alluvium, which was deposited on the eroded basement. Upper vindhyayan formation represented by kaimur series are divided into two groups the upper and lower. The lower kaimur consists of quartzite and silicified shales at the base followed by susnai conglomerates. The top of lower Kaimur is characterized by thick shales belonging to Vijaigarh shales. The upper kaimur are represented by brown to red, fine grained sandstone followed by white chandraul quartzite.

Geology of the area:

The Vindhya mountains range rises in Mirzapur district and extends to the south west. The soil is generally red and the terrain generally rocky in the District Geology. The geological formations met with in the area are the quartzites of Vindhyan System and Quaternary alluvium. The quartzites are found in the central and the southern parts of the area, forming hills.
and highlands. They strike NE-SW to ENE-WSW dipping at high angles towards north-west. Two main sets of joints present in the quartzites are bedding joints and vertical dip joints. Alluvium in the area is found in the extreme northern part and on either side of the river Ganga. It is also found locally in scattered patches throughout the area. Alluvium of the area comprises clay, silt, sand and occasionally, kankar.

Local Geology:

The top soil is present all over the lease area which was derived from the weathering of the surrounding rock type and the sandstone of the area. Beneath this top soil cover mineral sandstone is found. The colour of sandstone is light yellow, light pink & brown. The sandstone of the area is medium to fine grained. The thickness of soil has been considered about 0.10m.

(B) Structure of the Deposit:

The terrain in Mirzapur District is hard rocky and the soils are residuum, well-drained entisols and alfisols, derived from recent alluvium and Kaimur sandstones (Dhandraul orthoquartzites), sandy to sandy loam to reddish to reddish brown in colour. The entisols are formed in recent alluvium, in the northern part of district along gangetic alluvium.

A surface plan showing geology of the area is given as Plate No. 5.

b) Describe briefly prospecting / exploration work done to date viz.
geological mapping with the evidence already existing about the mineral deposit in the area or in the vicinity.
Minor mineral leases are adjacent to each other. Mining activities in other adjacent areas are in progress hence prospecting work does not require. It is also proved through past mining that there is no possibility of any other mineral to be found in the area.

c) Describe briefly, exploration proposed to be carried out year-wise, for the next five years indicating same on the geological plan.
It is apt to reiterate here that mining is being carried out within lease and surrounding nearby areas hence; year wise prospecting proposal is not given.
4. RESERVES

a) Give estimates of geological reserves along-with grade under Proved, Probable and Possible categories by standard method of estimation supported by analytical reports.

i) Geological Reserves Revised as on date:

Summary of geological reserves is as below:

<table>
<thead>
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<th>Particulars</th>
<th>UNFC classification</th>
<th>Reserves in cum</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Proved Category Reserves</td>
<td>111</td>
<td>70272</td>
</tr>
<tr>
<td>2 Probable Category Reserves</td>
<td>122</td>
<td>35625</td>
</tr>
<tr>
<td><strong>Sub Total</strong></td>
<td></td>
<td><strong>105897</strong></td>
</tr>
<tr>
<td>3 Feasibility Mineral Resources</td>
<td>211</td>
<td>31429</td>
</tr>
<tr>
<td>4 Prefeasibility Mineral Resources</td>
<td>222</td>
<td>45676</td>
</tr>
<tr>
<td>5 Inferred Mineral Resources/Possible Category</td>
<td>333</td>
<td>40720</td>
</tr>
<tr>
<td>of Resources</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Sub Total</strong></td>
<td></td>
<td><strong>117825</strong></td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td></td>
<td><strong>223722</strong></td>
</tr>
</tbody>
</table>

Method of estimation of Geological Reserves:

- Geological reserves have been estimated by the cross section area method.
- Geological Cross sections at a interval of 50m has been prepared to estimate the geological reserves. Strike influence of 46m for section 1-1' and 45m for section 2-2' has been considered.
- The area of mineral in each section is calculated.
- The area has been multiplied by the strike influence in between two sections to get the volume.
- Recovery factor of 95% has been considered to get the recoverable reserves.
- No OB waste considered.
- Soil is minimal and used to maintain the mining roads
Categorization of Geological Reserves

On the surrounding nearby areas, mining activities have gone more than 10m-12 deep from the topography of the area. Considering this in account following criteria has been adopted:

**Proved Category Reserves (111):**

All the quantity occurring upto General Ground Level/lowest exposed level i.e. up to 111mRL and 11m vertically below the surface layer i.e. up to 100mRL has been considered as “Proved Category”.

**Probable Category of Reserves (121/122):**

All the quantity occurring 10m below from the proved category i.e upto RL 90m vertically below the proved reserves has been considered as “Probable Reserves”.

**Feasibility Mineral Resources (211)**

All the quantity occurring upto 100mRL vertically below the surface layer and blocked by 7.5m wide strip and bench slope has been considered as feasibility Mineral Resources.

**Prefeasibility Mineral Resources (221/222)**

All the quantity occurring upto RL 90m vertically below the proved reserves and blocked by 7.5m wide strip & bench slopes has been considered as Prefeasibility Mineral Resources.

**Inferred Mineral Resources/Possible Category of Resources (333):**

All the quantity beyond the Probable Category of Reserves and upto the lease limits, occurring 5m vertically below the probable reserves has been considered as “Possible Reserves”.

Geological Cross Sections showing the category is given as **Plate No. 6.**

The detail of geological reserves area given in table is ahead:
# GEOLOGICAL RESERVES

<table>
<thead>
<tr>
<th>SECTION ALONG</th>
<th>CROSS SECTIONAL AREA IN SQM</th>
<th>STRIKE INFLUENCE IN M</th>
<th>GEOLOGICAL RESERVES IN CUM</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROVED CATEGORY OF RESERVES (111)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-1'</td>
<td>747</td>
<td>46</td>
<td>34362</td>
</tr>
<tr>
<td>2-2'</td>
<td>798</td>
<td>45</td>
<td>35910</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td><strong>70272</strong></td>
</tr>
<tr>
<td>PROBABLE CATEGORY OF RESERVES (121/122)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-1'</td>
<td>390</td>
<td>46</td>
<td>17940</td>
</tr>
<tr>
<td>2-2'</td>
<td>393</td>
<td>45</td>
<td>17685</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td><strong>35625</strong></td>
</tr>
<tr>
<td>FEASIBILITY MINERAL RESOURCES (211)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-1'</td>
<td>334</td>
<td>46</td>
<td>15364</td>
</tr>
<tr>
<td>2-2'</td>
<td>357</td>
<td>45</td>
<td>16065</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td><strong>31429</strong></td>
</tr>
<tr>
<td>PREFEASIBILITY MINERAL RESOURCES (221/222)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-1'</td>
<td>496</td>
<td>46</td>
<td>22816</td>
</tr>
<tr>
<td>2-2'</td>
<td>508</td>
<td>45</td>
<td>22860</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td><strong>45676</strong></td>
</tr>
<tr>
<td>INFERRED MINERAL RESOURCES/POSSIBLE CATEGORY OF RESOURCES (333)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-1'</td>
<td>445</td>
<td>46</td>
<td>20470</td>
</tr>
<tr>
<td>2-2'</td>
<td>450</td>
<td>45</td>
<td>20250</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td><strong>40720</strong></td>
</tr>
</tbody>
</table>
b) Indicate mineable reserves by slice plan/level plan method as applicable as per the proposed mining parameters

The mineable reserves have been computed by slice plans. The applied lease area is too small measuring only 0.809 ha. About 330m long (0.2475 Ha) 7.5m wide barrier zone along the lease boundary has been left. Benches have been made after reaching the near ground level. As stated earlier that several other mines are also situated in the same hilly area sharing their common lease boundary. It is expected almost all the hilly above general ground label will be excavated. Benches/slices from RL 111m up to RL 93m have been drawn on Conceptual Plan/Ultimate Pit plan. The thickness of slice (the height of bench) has been taken 6m to estimate the mineable reserves. Average Face length and Average advancement of bench/slice has been considered to calculate the volume of slice. Recovery factor of 95% has been assumed to calculate the mineable reserves.

As seen in practice that breaking of big boulders into saleable mineral such as Khanda, Gitti etc increases its volume. Considering this, saleable quantity of mineral has been calculated assuming a swell factor of 1.5 as per our past practice. Details of mineable reserves are as below:

<table>
<thead>
<tr>
<th>Slice/ Bench RL (m)</th>
<th>Av Face length (m)</th>
<th>Av. Advance- ment (m)</th>
<th>Bench/ slice height (m)</th>
<th>Volume (Cum)</th>
<th>Mineable Reserves (95%) in cum</th>
<th>Saleable Quantity (SF-1.5) in cum</th>
</tr>
</thead>
<tbody>
<tr>
<td>111</td>
<td>76</td>
<td>73</td>
<td>2</td>
<td>11096</td>
<td>10541</td>
<td>15812</td>
</tr>
<tr>
<td>105</td>
<td>51</td>
<td>17</td>
<td>6</td>
<td>5202</td>
<td>18850</td>
<td>28275</td>
</tr>
<tr>
<td>99</td>
<td>61</td>
<td>40</td>
<td>6</td>
<td>14640</td>
<td>8436</td>
<td>12654</td>
</tr>
<tr>
<td>93</td>
<td>40</td>
<td>37</td>
<td>6</td>
<td>8880</td>
<td>1630</td>
<td>2445</td>
</tr>
<tr>
<td>Total</td>
<td>22</td>
<td>13</td>
<td>6</td>
<td>41534</td>
<td>39457</td>
<td>59186</td>
</tr>
</tbody>
</table>

The ultimate Pit Plan/Conceptual Plan is given in Plate No.7
CHAPTER 5

5.a) DEVELOPMENT AND PRODUCTION PROGRAMME

a) Outline briefly, year-wise, development and production programme for the first five years including precautions to be observed to prevent haphazard excavation of pits, scattering of waste and sub-grade mineral and avoidable loss of mineral in ground.

Existing Method

This is a small mining area comprising only 0.809 Ha land. The area not shows natural topography. There are no old mining pits. Mining activity during past years exposed the nearby areas in the hillock. The hillock is small having slope in all the directions. Mining is being carried out by pits in other areas near the applied area. The depth of pit is 10 to 12m. Applied area has a gentle slope towards South SE. The highest point is about RL 113.1m is in the North Western side of applied area. The lowest point is about RL 111m is towards South, SE side Near pillar C. Lease area comprises rocky barren land. There is no agricultural land within area. Topography is shown in Plate no. 5.

Planning in brief & Proposed Production

- Mining will be done in a scientific manner.
- Mining will be done within the mining limits.
- The size of lease area is too small measuring only about 0.809 ha.
- Bench height will be kept 6m.
- Mechanized/semi-mechanized mining will be undertaken with help of Excavators and dumpers.
- Width of working bench will be kept not less than 15m. At any place width of bench should not be less than height.
- Deep hole drilling with light charge will be adopted.
- Loading will be done by excavators.
- The run-off mine will be dispatched to crusher and then job site.
- Development includes only removal of top weathered layer and soil patches if any.
- Approach road to each bench will be developed at 1:16.
- Overall slope of pit shall be maintained 45 degree
This will be an open cast semi mechanized mine. Blasting will be done as & when required. Jack hammer, Compressor, Pokland, Dumper Tractor etc. will be deployed to fascinate the mining. After scraping the top surface blast hole will be drilled with the jack hammer & Compressor. Blasted material will be loaded into dumper, tractor trolleys and dispatched. Big boulder will be further broken into khanda, dhoka, soling gitti etc. manually with the help Crow bar & hammers. Material will be stacked near the working face. The required material will finally be dispatched to parties. Size of Patia, Bouldrs and soling gitti is as below:

- Boulder 16 inch to 18 inch
  5 inch to 12 inch

- Soling gitti 1 inch to 1.5 inch

**Machinery & Mining Equipment**
Following equipment will be used in the mining
- Jack Hammer
- Compressor
- Pokland
- Dumper
- Tractor
- Crowbars
- Hammers etc.

**Year-wise Planning**
About 8,090 cum/annum (as estimated in LOI) mineral is proposed to excavate during planning period. The quantity may increase or decrease depending upon the job conditions/market requirement. Development is mainly construction of roads to approach working benches. Mining is proposed in 2 benches during proposal period. About 96m long temporary mine road will be developed to approach the benches RL 111m to RL 105m. Overall slope of road is kept 1:16. Overall pit slope will be kept at 45 degree. Working plan is shown as **Plate No 8.** Year-wise working in Pit Section is shown as **Plate No.9.**
Production 1st Year

Mining will be started from the top of the applied lease area. About 8,090 cum mineral is proposed to be excavated in this year. Mineral from Bench RL 111m will be excavated up to the mining limits. Temporary approach road for bench RL 111m will be constructed & maintained. Following benches will be excavated in this year:

<table>
<thead>
<tr>
<th>Bench RL in M</th>
<th>Available Quantity in cum</th>
<th>Production</th>
<th></th>
<th></th>
<th></th>
<th>Balance in the Bench/ Slice (cum)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Face Length in m</td>
<td>Face advancement in m</td>
<td>Height of Bench in m</td>
<td>Volume in cum</td>
<td>Mineable/ Saleable Quantity in cum</td>
</tr>
<tr>
<td>111</td>
<td>15812</td>
<td>73</td>
<td>39</td>
<td>2</td>
<td>5694</td>
<td>8114</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>5694</strong></td>
<td><strong>8114</strong></td>
</tr>
</tbody>
</table>

Pit Layout Plan and section showing the advancement of benches is shown in Plate No.8.

Production 2nd Year

Existing bench RL 111m will be further extended up to mining limits. Road from RL 111m to RL 105m will be developed and an new bench RL 105 will be worked to achieve the production 8,090 cum. Approach roads will be maintained. Following benches will be excavated in this year:

<table>
<thead>
<tr>
<th>Bench RL in M</th>
<th>Available Quantity in cum</th>
<th>Production</th>
<th></th>
<th></th>
<th></th>
<th>Balance in the Bench/ Slice (cum)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Face Length in m</td>
<td>Face advancement in m</td>
<td>Height of Bench in m</td>
<td>Volume in cum</td>
<td>Mineable/ Saleable Quantity in cum</td>
</tr>
<tr>
<td>111</td>
<td>7698</td>
<td>73</td>
<td>28.9</td>
<td>2</td>
<td>4219.4</td>
<td>6013</td>
</tr>
<tr>
<td>105</td>
<td>28275</td>
<td>17</td>
<td>14.4</td>
<td>6</td>
<td>1468.8</td>
<td>2093</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>5688.2</strong></td>
<td><strong>8106</strong></td>
</tr>
</tbody>
</table>

Pit Layout Plan and section showing the advancement of benches is shown in Plate No.9.
Production 3rd Year

Bench RL 111m & RL 105m will be worked to achieve the production. 8,090 cum mineral is proposed to be excavated in this year. Approach road will be maintained. Following benches will be excavated in this year:

<table>
<thead>
<tr>
<th>Bench RL in M</th>
<th>Available Quantity in cum</th>
<th>Production</th>
<th>Balance in the Bench/ Slice (cum)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Face Length in m</td>
<td>Face advancement in m</td>
</tr>
<tr>
<td>111</td>
<td>1685</td>
<td>73</td>
<td>8.1</td>
</tr>
<tr>
<td>105</td>
<td>26182</td>
<td>34</td>
<td>17</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>5658.6</td>
<td>8063</td>
</tr>
</tbody>
</table>

Pit Layout Plan and section showing the advancement of benches is shown in Plate No.10.

Production 4th Year

Existing bench RL 105m will be further extended to achieve the production. 8,090 cum mineral is proposed to be excavated in this year. Approach road will be maintained. Following benches will be excavated in this year:

<table>
<thead>
<tr>
<th>Bench RL in M</th>
<th>Available Quantity in cum</th>
<th>Production</th>
<th>Balance in the Bench/ Slice (cum)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Face Length in m</td>
<td>Face advancement in m</td>
</tr>
<tr>
<td>105</td>
<td>19804</td>
<td>61</td>
<td>15.6</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>5709.6</td>
<td>8136</td>
</tr>
</tbody>
</table>

Pit Layout Plan and section showing the advancement of benches is shown in Plate No.11.
Production 5th Year

Existing bench RL 105m will be further extended to achieve the production. 8,090 cum mineral is proposed to be excavated in this year. Approach road will be maintained. Following benches will be excavated in this year:

<table>
<thead>
<tr>
<th>Bench RL in M</th>
<th>Available Quantity in cum</th>
<th>Production</th>
<th>Balance in the Bench/Slice (cum)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Face Length in m</td>
<td>Face advancement in m</td>
</tr>
<tr>
<td>105</td>
<td>11668</td>
<td>61</td>
<td>15.6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Pit Layout Plan and section showing the advancement of benches is shown in **Plate No.12.**

No soil/waste mineral will be generated during the planned period. Year wise development of the benches has been shown in Composit Plan. Year wise working shown in Composit Section and given in Composit Plan Section as **Plate No.13.**

**Ultimate Pit & Life of Mine**

Lease area is small. About 330m long 7.5m wide strip all along the lease boundary has been left. The mineable area will be 0.5615 Ha. Benches RL 111 up to RL 93m will be worked during the entire life of mine. All the ROM is saleable. Soil if found in patches will be used in maintaining the roads and to create a green barrier along the lease boundary. The total mineable quantity of mineral is **59,186** cum. Considering a production of about **8,090** cum per annum the life of mine will be **7.3 Say 7.0** years.
5.b) MANPOWER DEPLOYMENT:
State average daily employment and statutory personnel under MCDR, 1988.

1) Employment Potential
The mine manager cum mining engineer should be a graduate mining engineer holding at least first class manager’s certificate. The mate-cum-blaster should hold mining mate certificate of competency. Following personnel will get employment in this mine.

Mines Manager/Mining Engineer 1
Mines Mate/Blaster 1

Skilled
- Drivers 2
- Drillers 2
- Supervisor 2
- Office Assistant 2

Semiskilled
- Guards 2
- Compressor Operator 2
- Drill Operator 2

Unskilled
- Price rated Labors 8

Total 24

2) Site Services
Site service will be provided at site. These are in temporary in nature. For the better yield in day today work following site services will be provided at mine site:

i) Office, Store, First Aid Centre etc.
ii) Drinking water shed
iii) Rest shelter

5.c) USE OF MINERAL:
Describe the utilization of mineral and the type of industry (please specify) to whom it will be sold or is being sold.
The mined out material is building stone (Sandstone). Material is used housing & building industry. The material is also used in construction industry. Big sized boulders are crushed into sized small stone which is used in laying railway track and road making. Material is sold to crushers for this purpose.
6.0 WASTE DISPOSAL ARRANGEMENTS
Describe briefly the arrangements made for top soil, mineral rejects and waste disposal including precautions taken in selection of disposal site(s) along with their respective quantity likely to be generated for the five years (Indicate locations of the same on surface plan).

There is no top soil. As such, there is no plan for back filling and concurrent rehabilitation in view of no waste material available to be back filled. In the circumstances, it is proposed that the soil (if found in patches)/weathered mineral will be kept temporary, along the lease/mine boundary and used maintaining the road and to create a green barrier.
CHAPTER 7

7. RECLAMATION PLAN

Describe briefly the year-wise reclamation plan, giving the proposed plantation programme, scope of backfilling worked out pits.

Lease area is small consisting 0.809 Ha land. All the excavated material has a ready market. Generation of solid waste will be minimum. Only top soil if any will be generated during mining activity which will be scraped safely and used in maintaining the road and green barrier.

As such, there is no plan is being proposed for back filling and concurrent rehabilitation. It is also proposed that the soil if any will be used in maintaining the road.

The mining area is stony to develop a green barrier on 7.5m wide strip. It is difficult to developed, hence 50 tree saplings per annum are proposed to plant in the nearby village area. Before the onset of monsoon, during March to May pits for planting will be prepared in advance. Pits will be dug out at a suitable distance. The size of pit will be 0.5m x 0.5m. These pits will be kept open for 10-15 days. Pesticides will be spread on the pits to avoid white ants. Cow dung and soil will be added to these pits. Plantation activity on these pits will be stared during the monsoon period. Local species will prefer in plantation. The strip plantation is shown in working plan.
CHAPTER 8

8. STRATEGY FOR PROTECTION OF RIVER COURSES, NALAS, WATER TANKS, VILLAGES, IMPORTANT MONUMENTS, IF ANY

Briefly outline the proposed strategies (if any) for protection of the following:

a) River courses
b) Nalas
c) Water tanks
d) Villages / Houses / Hutments / Agricultural land
e) Important Monuments

Mining activity is confined in small area. There is no perennial drainage within the lease area. There are no important monuments within close vicinity of activity zone. As stated earlier, activity is confined in a small zone. All the material excavated has a ready market.

No solid waste will generated. Top soil if any will be used to maintain the roads and plantation.
CHAPTER 9

9. ANY OTHER RELEVANT INFORMATION

9A. Blasting

Blasting will be done with the permission of Controller, Explosive Agra. No objection certificate will be obtained from the District Magistrate office. Blasting will be done in the supervision of competent blaster.

4" diameter hole having depth 6.0m to 6.5m with a spacing of 3.5m and 2.5m burden in a single row or double row with the help of Wagon drill will be drilled in such a manner that—

- Bench height will be kept 6m.
- Velocity of broken pieces shall maintain less than 25mm/sec.
- Noise shall be less than 90 dbA
- Air pollution shall be minimal.
- Blast out material should not go far.
- Chances of secondary blasting shall be minimal.

Precaution during blasting:

Following precautions will be undertaken and follow strictly.

1. Stemming should be strong and of adequate length and not less than 1/3rd length of the hole. This will check blow outs.
2. Blasting should be avoided in early morning and late evening hours to avoid temperature inversion conditions.
3. Blasting may be avoided at the time when strong surface winds are blowing towards inhabited area.
4. The burden at any point in the charge length should not be less than optimal.
5. The wind direction at the time of blasting should not be towards the structure to be protected, especially if wind speed is high.
6. Blasting may be done at a time when there is heavy background noise. In some mines abroad, they are creating it artificially so as many blasting nuisances become less apparent.
7. Blasting should be done in once round. Blasting of larger round, infrequently can't be better supervised, causing nuisances. Further the
villagers are exposed less frequently, will itself lead to a reduction in the number of complaints.

8. Pre shooting of the boulders, instead of plaster shooting, should be continued.

9. Before electric firing, the circuit will be tested by an approved tester.

10. Flags erection and siren signaling systems will also provided during time of blasting. For further safety, the blasting time will also fixed during the end of the shift so that all the workers will removed outside the danger zone.

11. To prevent risk of injury to anybody by flying pieces of stones after blast, muffle blasting will be adopted. In this practice the mouth of the shot hole and some distance around it will be covered by steel sheets, weighted by sand bags, old sleepers etc. This will prevent the broken rock from flying out.

12. All the precautions suggested in MMR 1961 specially as specified from Regulation 162 to Regulation 168 must be adhered.

13. HEMM’s will be deployed with prior permission of DGMS and concerned authorities.

9B. Mine Drainage

The mining lease shows rough undulating topography. Mining area has a mild slope towards East. Rainy water flows through surface topography. Accumulated pit water will be pumped before mining. There is no perennial drainage within the lease area. Ground water table is to be expected about 35m-45m Below Ground Level. In this project ground level is about 75 mRL. The Mine working is proposed upto 93mRL. Thus Ground water table is not expected to disturbed due to mining. There will be a pit due to mining activity. Water will be filled into mining pits during rainy season. This water will be pumped back before start of production. The pumped out water will flow on the basis of topography.
CHAPTER 10

10.0 ENVIRONMENT MANAGEMENT PLAN

10.1 BASE LINE INFORMATION

Land use/Land Cover

Existing land use of the area is barren land.

Water Regime

   Surface Water: Lease area has a mild slope towards North, northwest. There is no perennial drainage in the mining lease area. Hand Pump will be the source of drinking water in the area.

   Ground Water: Water level in wells varies 35-45m BGL. However, it varies 0-5 m during monsoon season.

Flora & Fauna:

Top soil layer is not present hence the area devoid off any kind of vegetation. Infact, this is a river bank of river Sone where mineral (river sand/Morrum) is spread over the area. Tree species like Pipal, Mango, Neem, Ber, Babool etc are common in nearby areas. Shurbs like Kaner, Madar, Dhatura, Makoi, Munj are a few common species. Amphibians and reptiles are common in such type of habitat. Pigeon, Parrot, Owl, Nilkanth and Sparrow are a few common species of birds found surroundings of the area.
Climate

**Temperature:** Maximum temperature approx 47-49°C during the summer season in the month of May-June and minimum temperature 7-8°C during the December-January.

**Rain Fall:** Maximum rain fall in the month of July August is around 200-225mm.

Social Environment:

Peoples, mainly in this area belong to Hindu community. As of the 2011 census, Mirzapur-cum-Vindhyachal municipality had a population of 233,691 and the urban agglomeration had a population of 245,817. The municipality had a sex ratio of 869 females per 1,000 males and 11.9% of the population is under six years old. Effective literacy was 78.25%; male literacy was 83.85% and female literacy was 71.80%.

Occupation

The main business in Mirzapur is carpet manufacturing. Manufacturers range from very small (with less than $100,000 in assets) to medium sized (with around $10M in assets). Most of the carpets are sold internationally as India has a limited market for carpets. The second main business is of metal pots (brass). The other occupation in the area is agricultural. Teaching, small business, mining is the other main occupations in nearby villagers.

Drinking Water:

Hand pumps, wells & bore wells are the main water source for drinking water in nearby areas.

Social Building & Historical Monuments:

No such building/monument is located within 2 km periphery of this mine. Panchayat Ghar is common in the surrounding villages
10.2 Impacts & Mitigation

The possible impacts and their mitigation are described ahead:

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Impacts</th>
<th>Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Land use / Land cover</td>
<td>Change in topography due to mining is always a negative impact leaving ugly pits. Mining is being carried out in a small area. There will be a water filled pit at the end of mining.</td>
</tr>
</tbody>
</table>
| 2      | Flora and Fauna          | Mining activity area is barren land. Any kind of vegetation is not seen on the activity area. Therefore no effect on floral community is anticipated.  
50 tree saplings is being proposed to plant in the nearby village area. |
| 3      | Air Pollution            | During the mining dust particle will be generated. Air pollution will also increase due increased vehicular activity. Water sprinkling will be done at dust generating places. Masks will be provided to workers at work place. |
| 4      | Noise Pollution          | Drilling Blasting & increased vehicular traffic is the main source of Noise Pollution. Blasting will be done under the supervision of competent blaster. Mining activity will be done only during night hours. Earmuffs will be provided to workers at loading points. |
| 5      | Rehabilitation and Resettlement | The activity zone is very small. No migration will takes place. Therefore, there is no R & R Plan. |

Environment Management

Solid Waste management

Top soil/ weathered mineral is minimum. All the material collected from the proposed mine is saleable.

Municipal Waste:

All the labors engaged in activity are in nearby villages. Thus the municipal waste generated is minimal. Mobile toilet will be provided if required.
Hazards Waste Management:

The mining activity is limited to drilling, blasting sorting and collection of material and dispatch to buyers. Domestic hand tools & machinery will be implied to perform the activity. Trucks used in transportation will be hired from outside. Required Diesel will be filled from the public outlets. No washing activity will be done within the lease area. Therefore, no such waste will be generated.

Corporate Social Responsibility

Lessee with the consent of local villagers will contribute his part as per their requirement in the field of child education, medical health and others.

Lessee will also encourage developing greenery in nearby area by planting trees. Pits of about 0.5m x 0.5m will be dug before the onset of monsoon. The distance between two pits will be kept about 3.0m. Adding a 3- to 4-inch layer of organic mulch on the soil surface around the plant will ensure a healthy growth of plant. Tree species like pipal, mango, Neem, Ber, Babool, shrubs like Kaner, Madar, Dhatura, Makoi, Munj etc will be preferred to plant.

CONCLUSION

It can be concluded from the above facts that the mining activity in this area will not have any adverse impacts but would help in improving the socioeconomic condition of the surrounding villages. Hence this mining plan may kindly be approved at earliest.
PROGRESSIVE MINE CLOSURE PLAN

1. Introduction:
(a) Name of Applicant: Shri Sarjeet Singh
S/o Shri Rajendra Singh
Ganeshganj, Thana-Kotwali Katra,
Tehsil Sadar, Mirzapur

(b) Status of Lessee: Private Individual

(c) Location: The area is situated at Khasara No.
36/6/5 at village Sonbarasa, Tehsil Lalganj, District Mirzapur, U.P. The site
is shown in Plate No. 1.

d) Extent of Lease area: 0.809 Ha

e) Type of lease area: The land granted for mining lease is
mainly rocky barren land.

f). Present land use pattern: The lease area is in a small hillock
situated in the village Sonbarasa. Mining
area shows natural profile

The existing land-use within Leasehold and Mining Area is shown in the table
given ahead —

<table>
<thead>
<tr>
<th>Land-use</th>
<th>Area (Hectares)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seasonal Pond</td>
<td>0</td>
</tr>
<tr>
<td>Public Road</td>
<td>0</td>
</tr>
<tr>
<td>Mining Pits &amp; road (already broken)</td>
<td>0</td>
</tr>
<tr>
<td>Built-up area</td>
<td>0</td>
</tr>
<tr>
<td>Plantation</td>
<td>0</td>
</tr>
<tr>
<td>Agricultural</td>
<td>0</td>
</tr>
<tr>
<td>Rocky Barren &amp; Grazing</td>
<td>0.809</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>0.809</strong></td>
</tr>
</tbody>
</table>

i) Present Method of mining and mineral processing:
No mining is being done presently.

U.P.S. CHAUHAN
Mining & Environment Consultant
RO/P/DC/136/2000/A
& RO/P/UP/GMR/010/2019
1.1 **Reasons for Closure:**
The progressive mine closure plan is being submitted, under amended Rule 23 (B) MCDR 1988.

1.2 **Statutory Obligations:**
As per rule 23 B of MCDR 1988 for every fresh grant of mining lease a progressive mine closure plan is required to be submitted in compliance of the aforesaid rule of MCDR 1988, the progressive mine closure plan is being in accordance with the guidelines issued by CCOM vide circular no. 14/2003 & 19/2003.

1.3 **Closure plan preparation:**
   a). **Name and address of the Applicant:**
   Shri Sarjeet Singh,
   S/o Shri Rajendra Singh
   Ganesghanj, Thana-Kotwali Katra,
   Tehsil Sadar, Mirzapur.

   b). **Name, address & Registration No of R.Q.P.:**
   Sri Umesh Pratap Singh Chauhan
   4/366 Vikash Nagar, Lucknow-226022
   E-mail ID: upschauhan1953@gmail.com
   Registration No. RQP/DDN/165/2005/A (Valid upto 16.03.2025)
   RQP/UPDGM/No 010/2019 (Valid upto 13.01.2024)

   c). **Name of the executing agency:**
The lessee himself shall execute the provisions of mine closure plan.

2.0 **Mine Description:**
2.1 **Geology**
   : Given at Chapter 3a
2.2 **Reserves**
   : Given at Chapter 4a
2.3 **Proposed Mining Method**
   : Given at Chapter 5a
3.0 Review of implementation of mining plan/scheme of mining including next five years progressive closure plan up to the final closure of mine:

Entire mining area is under mining and allied activities.

The activity proposed during the five year plan period is summarized as below:

<table>
<thead>
<tr>
<th>SI No.</th>
<th>Activity</th>
<th>Particulars</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Exploration &amp; Mine Development</td>
<td>At present lease area does not comprises any mining activity. About 0.809 Ha will be exploited to get the required production during planning period.</td>
</tr>
<tr>
<td>2</td>
<td>Disposal of Solid Waste</td>
<td>All the quantity of mineral will be used in their own jobs/sites. Top soil if any will be scraped out carefully and used in mine road making. No OB/Waste will be generated during the mining.</td>
</tr>
<tr>
<td>3</td>
<td>Reclamation &amp; rehabilitation</td>
<td>No plan for reclamation and rehabilitation of mining area. Mining pit will be used as water reservoir.</td>
</tr>
<tr>
<td>4</td>
<td>Control of Dust</td>
<td>Sprinkling is proposed to reduce the dust generated during mining and allied activity.</td>
</tr>
<tr>
<td>5</td>
<td>Noise &amp; Ground Vibration</td>
<td>Noise will be kept within limits. Ear plug will be given to workers.</td>
</tr>
<tr>
<td>6</td>
<td>Afforestation</td>
<td>About 50 tree saplings per annum will be planted in nearby village area.</td>
</tr>
</tbody>
</table>

4.0 Closure Plan:

4.1. Mined out land:

Expecting top soil all the excavated material from mine is used in their own job/sites; therefore, no proposal can be given for concurrent back-filling.

4.2. Water Quality Management:

There is no perennial water body within the leasehold or immediate vicinity (up to 2km). However, measures have been provided for arresting the suspended material during heavy showers.
4.3 **Air Quality Management:**
Activity is limited only in 0.809 ha area. However, sprinkling is proposed to reduce the dust generated during mining and allied activity.

4.4 **Waste Management:**
ROM is used in their job/sites. No waste will be generated.

4.5 **Top Soil Management:**
No Top soil present in the applied area. Soil if any, found in patches will be used in the maintaining the mine road and to create a green barrier.

4.6 **Tailing Dam Management:**
No processing of mineral is proposed in the plan. Hence, no tailing dam is proposed.

4.7. **Infrastructure:**
Activity is limited. No such structure is required. Temporary mine office and first aid centre, rest shelter etc will be provided.

4.8. **Disposal of Mining Machinery:**
No specific machinery is used in the mining. Blasting and transportation machinery will be hired.

4.9. **Safety and Security:**
Ultimate land-use of mined out area is water reservoir. At the time of final closure, the reservoir area will be properly secured with fencing and gate system.

4.10. **Disaster Management and Risk Assessment:**
Disaster Management plan is a comprehensive and structured system for ensuring the prevention of risks / disasters involved. The proposed mining is and will remain open cast, thus major risk and disasters associated with underground mining will not create problem. However, in an open cast mine a major emergency in a mine is one that may cause serious injury or loss of life to the workers engaged in the mining and allied operations. Therefore, the first action under the disaster management is the identification of risks involved and measures to counter them. From this risk assessment the identified hazards in proposed mine may be as below:

[Signature]

U.P.S. CHAUHAN
ROP/UP/35/2008/1 & ROP/UP/35/2009/1
i). Use of explosives and the blasting operation
ii). Slope Failures in open pit or fall of machinery.
iii). Road Accidents

Each parameter is discussed below:

i). Use of explosive and the blasting operation:

The lessee is going to undertake a trial of rip-ability in the mine to avoid blasting altogether. However, till such time all precaution during blasting will be undertaken. Regular capacity building of blasting staff will be under taken of safety aspects during blasting.

ii). Slope failures/ Fall of machinery:

The mining is proposed from top level and gradually advance towards lower levels. Height of benches will be kept 6.0 m. with appropriate width of working bench that is a minimum of 15 m, which will take care of both the aspects. Further, the operations will be mechanized, a higher width will prevent of fall of machineries.

iii). Road Accidents:

A code of traffic management will be developed within 6 months operations and will be strictly adhered. Further, Regular capacity building of drivers and spot boys will be under taken of safety aspects during transport.

It is stated earlier that ground water table is quite below the working levels. However, the rain water accumulated in the pits will be pumped out. Problem of inundation of pit is not foreseen.

4.11 Care and Maintenance during Temporary Discontinuance:

Lessee will comply all the necessary rules & regulations.
5.0 Economic Repercussions of Closure of mine and manpower retrenchments:

The land used for mining is rocky barren land. At present, it is not used for any purpose. However, the water reservoir as envisaged as ultimate land use in the mining area will felicitate community in getting better agricultural yields. The impact of unemployment will not be significant in view of mechanized operations. The skilled workers will always have option of getting alternate employment.

6.0 Time Scheduling for Reclamation & Rehabilitation:

The quantitative details of the various protective measures proposed in the mine during first Five years are given below:

<table>
<thead>
<tr>
<th>Activities</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plantation (No. of Tree Saplings)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I Year</td>
</tr>
<tr>
<td></td>
<td>50</td>
</tr>
</tbody>
</table>

7.0 Abandonment Cost:

The tentative cost for implementing the protective and rehabilitation measures propose in the mining plan for first five year period is as under:

<table>
<thead>
<tr>
<th>Activities</th>
<th>Rate (Rs. per unit)</th>
<th>Total Amount in Rupees during Plan Period of 3 Years</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Unit</td>
<td>Rs./Unit</td>
</tr>
<tr>
<td>Plantation (including Protection)</td>
<td>Number</td>
<td>1000</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
8.0 Any other information:
The lessee also intends to spend some amount towards community service. The figures are tentative and are subject to generation of profit. Around of 5% of the profit will be diverted towards this activity.

9.0 Financial Assurance:
The financial assurance has been calculated on the basis of following parameters:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Area used during as on date (Hec.)</th>
<th>Area used during Plan Period (Hec.)</th>
<th>Rate of Financial Assurance in Rs./Acre</th>
<th>Total Amount in Rs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mining</td>
<td>Nil</td>
<td>0.809 Ha</td>
<td>25000</td>
<td>50,000</td>
</tr>
<tr>
<td>Storage and reclamation of soil</td>
<td>Nil</td>
<td>Nil</td>
<td>25000</td>
<td>-</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>Nil</td>
<td>Nil</td>
<td>25000</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>Nil</strong></td>
<td><strong>0.809 Ha</strong></td>
<td></td>
<td><strong>50,000</strong></td>
</tr>
</tbody>
</table>

**Area considered for Financial Assurance:** 0.809 Ha or 1.99 Say 2.0 Acre

**The amount of Financial Assurance:** Rs. 50,000/- (Rupees Fifty Thousand only)

According to rule 34 of amended rules of UP MMCR 1963, the minimum amount as a financial assurance is **Rs. 2.0 Lakhs (Rupees two lakh only)**

Thus the applicant shall submit a financial assurance of Rs. 2.0 lakh as applicable to the district officer or the officer authorized by the State Government in his behalf.

10.0 Certificate:
Given separately & enclosed.

11.0 Plans and Sections:
All the plans and sections are enclosed with the Plan.

Date: 20-12-2020
Place: Lucknow
BUILDING STONE (SANDSTONE) MINE
AT SONBARASA, TEHSIL LALGANJ,
MIRZAPUR, U.P.
[APLIED AREA 0.809 Ha]
APPLICANT: SHRI SARJEET SINGH

SURFACE GEOLOGICAL PLAN

SCALE 1:1000
PLATE NO. 5
INDEX

<table>
<thead>
<tr>
<th>LB</th>
<th>LEASE BOUNDARY</th>
</tr>
</thead>
<tbody>
<tr>
<td>UPL</td>
<td>7.5M WIDE STRIP</td>
</tr>
<tr>
<td>P</td>
<td>MINE PIT</td>
</tr>
<tr>
<td>111</td>
<td>PROVED CATEGORY RESERVES-111</td>
</tr>
<tr>
<td>121/122</td>
<td>PROBABLE CATEGORY RESERVES-121/122</td>
</tr>
<tr>
<td>211</td>
<td>FEASIBILITY MINERAL RESOURCES -211</td>
</tr>
<tr>
<td>221/222</td>
<td>PREFEASIBILITY MINERAL RESOURCES -221/222</td>
</tr>
<tr>
<td>333</td>
<td>INFERRED MINERAL RESOURCES/POSSIBLE CATEGORY OF RESOURCES-333</td>
</tr>
<tr>
<td></td>
<td>BUILDING STONE (SANDSTONE)</td>
</tr>
</tbody>
</table>

BUILDING STONE (SANDSTONE) MINE AT SONBARASA, TEHSIL LALGANJ, MIRZAPUR, U.P. [APPLIED AREA 0.809 Ha] APPLICANT: SHRI SARJEET SINGH

GEOLOGICAL SECTIONS

SCALE 1:1000 PLATE NO.6

U.P.S. CHAUHAN
### FINANCIAL ASSURANCE

<table>
<thead>
<tr>
<th>Activity</th>
<th>Area used during as on date (Hec.)</th>
<th>Area used during Plan Period (Hec.)</th>
<th>Rate of Financial Assurance in Rs./Acre</th>
<th>Total Amount in Rs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mining</td>
<td>Nil</td>
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<td>Nil</td>
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<td>-</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>Nil</td>
<td>Nil</td>
<td>25000</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>Nil</strong></td>
<td><strong>0.809 Ha</strong></td>
<td><strong>25000</strong></td>
<td><strong>50,000</strong></td>
</tr>
</tbody>
</table>

Area considered for Financial Assurance: 0.809 Ha or 1.99 Say 2.0 Acre

---

**LEAVE BOUNDARY**

**7.5M Wide Strip**

**Contour**

**Mine Road**

**Completed Bench**

**Working Bench**

**Mineral during the Year**

**Section Arrow**

**Pillar Coordinates**

**Building Stone (Sandstone)**

---

**BUILDING STONE (SANDSTONE) MINE AT SONBARASA, TEHSIL LALGANJ, MIRZAPUR, U.P.**

**APPLIED AREA 0.809 HA**

**APPLICANT:** SHRI SARJEET SINGH

**PROGRESSIVE MINE CLOSURE PLAN**

**SCALE 1:1000**

**PLATE NO. 14**
CONSENT LETTER FROM APPLICANT

An area of about 0.809 ha has been granted for the excavation of building stone (Sandstone) in at Gata No. 36/6/5 in village Sonbarasa, Tehsil Lalganj in District Mirzapur, U.P. under U.P. minor mineral concession rule 1963. The mine plan in respect of above area has been prepared by Sri U.P.S. Chauhan, R.Q.P., Registration No. RQP/DDN/165/2005/A & RQP/UPDGM/No 010/2019.

I request to make further correspondence regarding the modification in mining plan with the said recognized person on his following address:

Sri U.P.S. Chauhan,
RQP / DDN / 165 / 2005 / A (Validity: March 2025)
RQP/UPDGM/No 010/2019 (Validity: January 2024)

4/366, VIKASH NAGAR,
LUCKNOW-226022
PHONE(S) 9415195706
E-mail: upschauhan1953@gmail.com

I hereby undertake that all the modifications so made in mine plan by the recognized person may be deemed to have been made with my knowledge and consent and shall be acceptable to me and binding on me in all respect. I have understood the content of this mine plan and agree to implement the same.

Date:
Place:

SARJEET SINGH
ANNEXURE II
COPY OF L.O.I/LEASE DEED/COPY OF EC/ APPROVAL LETTER
AND OTHER RELEVANT PAPER
उत्तर प्रदेश उप कार्यिक (प्रिविडिया) (जिला सचिव की सहायता) 2019 के अनुसार उत्तर प्रदेश सरकार, मुख्य एवं जिला सचिवक के निर्देश सारणी संख्या-2160/06-2019-57(सर/2017 रीज.1) दिनांक 09/10/2019 का अनुसार करने का कार्य करें। इसलिए निचे दिये गए निर्देशांकुरक उत्तर प्रदेश-1963 के अंतर्गत-4 के प्राधान्य के अंतर्गत इं-प्रिविडिया सर-जिला सचिवक की सहायता से निर्देशन दोष के उपर निर्देश किए जाने के पार में कार्यालय पारस्क 2509/इं-प्रिविडिया सर-जिला सचिवक/2019/2020 दिनांक 20/01/2020 द्वारा दिनांक 24/02/2020 तक इं-प्रिविडिया अनुसार की गई। इं-प्रिविडिया की प्रक्रिया समाप्त होने के अनुसार मस्तिष्क से प्राप्त E-mail दिनांक 18/03/2020, जिनमें माफी 13 पर अंकित उत्तर प्रदेश के उपसर्ग सचिव के लाभ भाग संस्थान के अंतर्गत संख्या 36/6/5 रक्षा 0.809 हो, मात्रा 8090 पर थिरर लोग होंगे और सर्जित सिंह (पूरा नाम, सर्जित सिंह) निभायी गणरीण, भागा कार्यकारी कस्टड, तहसील सदर, जनपद मेरियापुर द्वारा सम्बन्धित भूमिका 163/1 पर भाग नीलर लोग होगी। सारणीक में उपरोक्त सचिव की सरकार के दिनांक 01/06/2020 के समान में निर्देश प्रहरी के अनुसार इं-प्रिविडिया संख्या 8090 निर्देश की जाता है—

(1) प्रारंभिक में दिये गए निर्देश निर्देश के पार में 8090 पर प्रतीत की जाता है।

(2) सारणी चौधरी/विभागवाद, उपर्युक्त के विनियोग एवं सचिव की प्रमुखता के पार जिला सचिवक के अनुसार संख्या 1318670 0 से 25 प्रतीत की जाता है 329668 एवं उपर्युक्त निर्देश की प्रमुखता के पार संख्या 25 प्रतीत की जाता है 329668 को कार्यकालीन अंतर्गत करें। यह निर्देश (आधुनिक) प्रतीत की जाती है।

(3) उपर्युक्त के प्रारंभिक में दिये गए निर्देश 329668 निर्देश प्रतीत की जाती है।

(4) उपर्युक्त के प्रारंभिक में दिये गए निर्देश 329668 का मामला अंतर्गत संख्या 35 का अनुसार संख्या 2 0 से 25 प्रतीत की जाता है 329668 के पार।

(5) उपर्युक्त के प्रारंभिक में दिये गए निर्देश 329668 का मामला अंतर्गत संख्या 25 का अनुसार संख्या 25 प्रतीत की जाता है 329668 के पार।

(6) उपर्युक्त के प्रारंभिक में दिये गए निर्देश 329668 का मामला अंतर्गत संख्या 25 का अनुसार संख्या 25 प्रतीत की जाता है 329668 के पार।

(7) उपर्युक्त के प्रारंभिक में दिये गए निर्देश 329668 का मामला अंतर्गत संख्या 25 का अनुसार संख्या 25 प्रतीत की जाता है 329668 के पार।

(8) उपर्युक्त के प्रारंभिक में दिये गए निर्देश 329668 का मामला अंतर्गत संख्या 25 का अनुसार संख्या 25 प्रतीत की जाता है 329668 के पार।

अंतः सर्जित सिंह पूरा नाम राजेन्द्र सिंह निभायी गणनांक, भागा कार्यकारी कस्टड, वाहसी सदर, जनपद मेरियापुर द्वारा सम्बन्धित भूमिका 163/1 पर भाग नीलर लोग होगी।
<table>
<thead>
<tr>
<th>A</th>
<th>82°24'27.7&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>82°24'31.2&quot;</td>
</tr>
<tr>
<td>C</td>
<td>82°24'29.6&quot;</td>
</tr>
<tr>
<td>D</td>
<td>82°24'26.0&quot;</td>
</tr>
</tbody>
</table>

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U.P.S. CHAUHAN
M.Sc, LL.B, M.E, B.A, Chief,
Mining & Environment Consultant
RQP/DE/1552/2004/RK
& RQP/UPDG/Mines/000/2019
CERTIFICATE OF RECOGNITION AS QUALIFIED PERSON TO PREPARE MINING PLANS
(Under Rule 22(C) of Mineral Concession Rules, 1960)

M/s/Shri... Umesh Pratap Singh Chauhan,

having registered office at R/o 4/366, Vikash Nagar Lucknow-226022...

and having given satisfactory evidence of the qualification and experience of
their key persons is hereby granted recognition under rule 22 (C) of the Mineral
Concession Rules, 1960 as a qualified person to prepare Mining Plans

The registration No. is RQP/DDN/165/2005/A

This Recognition is valid for a period of ten years ending 16.03.2015

This certificate is liable to be withdrawn/cancelled in the event of furnishing the wrong
information/document in the Mining plan submitted by him.

Renewed upto... 15/03/2025

Sd/- 17.3.05
(R. K. Sinha)
Regional Controller of Mines
Indian Bureau of Mines
Dehradun Region

U.P.S. CHAUHAN
Mining & Environment Consultant
RQP/UP/186/2005/A
& RQP/UP/DGM/010/2010
CERTIFICATE OF RECOGNITION AS QUALIFIED PERSON
(Under Rule 34 of U.P. Minor Minerals Concession Rules-1963)

SHRI UMESH PRATAP SINGH CHAUHAN S/o LATE SURYA PAL SINGH CHAUHAN.

whose photograph and signature is affixed herein below, having given satisfactory evidence of his qualification & experience as required in rule-34 is hereby RECOGNISED as a qualified person to prepare Mining Plan under Rule 34 of the U.P. Minor Mineral Concession Rules-1963.

1. His registration number is RQP/UPDGM/No. 020/Year 2019
2. This recognition is valid for a period of 05 years from 14-01-2019 to 13-01-2024.
4. His mail ID- UPS CHAUHAN 1953@gmail.com.
5. Contact No.-9415195706.
6. This certificate will liable to be withdrawn/cancelled in the event of furnishing the wrong information in the Mining Plan or producing the wrong documents.
7. This certificate shall be valid only for preparation of mining plan of the areas within the territory of Uttar Pradesh and not for any other purposes.

Place: Lucknow
Date: 14.01.2019

(Dr. Roshan Jacob)
Director

(U.P.S. CHAUHAN)
M.Sc., LL.B., F.I.E., B.I.A., Co-ord.,
Mining & Environment Consultant
RQP/UPDGM/No.040/2019 & RQP/UPDGM/No.010/2019