Regd. Parcel

भारत सरकार
GOVERNMENT OF INDIA
खान मंत्रालय
MINISTRY OF MINES
भारतीय खान ब्यूरो
INDIAN BUREAU OF MINES
नागपुर क्षेत्रीय कार्यालय
NAGPUR REGIONAL OFFICE

छटवीं मंजील, बी एवं सी ब्लाक,
इंदिरा भवन, सिविल लाइन्स
नागपुर . 440 001
6TH Floor, 'B' & 'C' Block
Indira Bhavan, Civil Lines
Nagpur- 440 001
Tele/Fax:2562794,2565089

No. **GAD/FE/MPLN-1133/NGP-2016** **Date- 04.11.2016**

To

M/s Corporate Ispat Alloys Ltd
79/4, Prashant Nagar, Near CI Godown
Ajni, Dist- Nagpur
Pin- 440 015
(Maharashtra)

Sub : Approval of Mining Plan in respect of **Iron Ore deposit** of **M/s Corporate Ispat Alloys Ltd**, over an area of **72.60 Ha.** situated in Vill- Fuser, Teh- Chamorshi, District-Gadchiroli, Maharashtra State, submitted under Rule 16 of The Minerals (Other than Atomic & Hydro Carbons Energy Minerals) Concession Rules, 2016.

Ref : 1. Your Letter no. Nil Dated 09.09.2016,
2. This Office Letter of even No. Dated 10.10.2016 & email dated 10.10.2016.
3. Your Letter no. Nil Dated 24.10.2016
4. This Office Letter of even No. Dated 31.10.2016 & email dated 31.10.2016.

Sir,

In exercise of the power conferred by the clause (b) of Sub-section (2) of Section 5 of the Mines & Minerals (Development & Regulation) Act, 1957 read with Government of India Order No. S.O. 1857 (E) dated 18th May, 2016 I hereby **APPROVE** the above said Mining Plan.

This **approval** is subject to following conditions:-

1) This Mining Plan is approved without prejudice to any other law applicable to the area from time to time whether made by the Central Government, State Government or any other authority and without prejudice to any order or direction from any court of competent jurisdiction.

2) The proposals shown on the plates and/or given in the document is based on the lease map /sketch submitted by the applicant/ lessee and is applicable from the date of approval.

3) It is clarified that this approval of aforesaid Mining Plan does not, in any way, imply the approval of the Government in terms of any other provisions of the Mines & Minerals (Development & Regulation) Act, 1957 or the Mineral Concession Rules, 1960 and any other laws including Forest (Conservation) Act, 1980 Environment (Protection) Act, 1986, Mines Act 1952 and the rules made there under and the rules made there under.

4) This approval of aforesaid Mining Plan is subject to the provision of Forest (Conservation) Act, 1980, Forest Conservation Rules 1981, and other relevant statutes, orders and guidelines as may be applicable to the lease area from time to time.

Continued..2

5) The Indian Bureau of Mines has not undertaken verification of the Mining Lease boundary on the ground and does not undertake any responsibility regarding correctness of the boundaries of the lease/ applied area shown on the ground with reference to lease map & other plans furnished by the applicant / lessee, as it is the responsibility of the state government & lessee under rule 33 of Mineral Concession Rules, 1960.

6) At any stage, if it is observed that the information furnished, data incorporated in the document are incorrect or misrepresent facts, the approval of the document shall be revoked with immediate effect.

7) The provisions of the Mines Act, 1952 and Rules and Regulations made there under including submission of notice of opening, appointment of manager and other statutory officials as required by the Mines Act, 1952 shall be complied with.

8) The execution of the said Mining Plan shall be subjected to vacations of prohibitory orders/notices, if any.

9) This approval of proposed mining operations and associated activities is restricted to the mining lease area only. The mining lease area as shown on the statutory plans under rule 28 of Mineral Conservation and Development Rules, 1988, is by the lessee/ QP/ applicant and the Indian Bureau of Mines has not undertaken verification of the Mining Lease boundary on the ground.

10) Your attention is invited to the Supreme Court interim order in W. P.(C) No. 202 dated 12.12.1996 for compliance. The approval of above said Mining Plan is therefore, issued without prejudice to and is subject to the said directions of the Supreme Court as applicable.

11) The details of the grant of mining lease by the State Government, whenever such an order is passed, may be intimated to the Regional Controller of Mines, Nagpur Region, Indian Bureau of Mines, Nagpur.

12) If anything found to be concealed as required by the Mines Act in the contents of the above said Mining Plan and the proposal for rectification has not been made, the approval shall be deemed to have been withdrawn with immediate effect.

13) Yearly report as require under Rule 23E(2) of MCDR, 1988 setting forth the extent of protective and rehabilitative works carried out as envisaged in the approved Progressive Mine Closure Plan and, if there is any deviation, reasons thereof shall be submitted before 1st July of every year after opening of the mine.

14) The lessee should submit the financial assurance to The Regional Controller of Mines, Nagpur Region, Indian Bureau of Mines, Nagpur before execution of the mining lease deed as required under rule 23F(2) of Mineral Conservation and Development Rules, 1988.

15) The approval is subject to the compliance of CCOM's Circular No.2/2010 regarding submission of Geo-referenced cadastral map showing disposition of lease area certified by competent authority of State Govt. within six months from the date of execution of said Mining Lease.

16) This approval is given for the received prospective proposals given in the document subject to all other statutory clearances and the approval is applicable from this date onwards. The earlier instances of irregular mining, if any, shall not be regularized through the approval of this document.

17) The affidavit given for submission of GR/ report shall be complied with.

18) A copy of the lease deed after execution of ML shall be submitted to this office.

Continued..3

19) A copy of Environment Impact Assessment-Environment Management Plan (EIA-EMP) approved by MOEF (Ministry of Environment & Forests) shall be submitted to IBM immediately after approval by MOEF along with a copy of their approval letter.

20) The approval of the above said Mining Plan is subject to the compliance of Ministry of Mines letter number F.No. 10/75/2008-MV, dated 23.12.2010 regarding exploration to be carried out within prescribed time limit as mentioned in the said letter as per UNFC norms.

21) The applicant / lessee has to comply with the terms & conditions laid down in the LOI issued by the state government in this case.

22) This approval is subject to the comments of the State Government received, if any, which will be binding on you for implementation.

Yours faithfully,

Encl.: A copy of Approved Mining Plan

(Arun Prasad)

Regional Controller of Mines

Copy for kind information to:-

1. The Director of Geology & Mining, Govt. of Maharashtra, Khanij Bhavan, 27, Shiwaji Nagar, Cement Road, Nagpur - 440010 (M.S.) along with **one copy of Approved Mining Plan (Text & Plates) by REGISTERED PARCEL**. It is requested to advise the applicant / lessee to submit the financial assurance to the Regional Controller of Mines, Indian Bureau of Mines, Nagpur to comply with the provision of rule 23 F(3) of Mineral Conservation and Development Rules, 1988 before executing the mining lease deed. The lease deed shall be executed only after receiving confirmation letter of acceptance of Financial Assurance from the Regional Controller of Mines, Indian Bureau of Mines, Nagpur
2. Shri. Ashok Kumar John, Q.P. Qtr No. 02, Street No. 6, V.V. Vihar, Anupam Nagar, Near Railway Crossing, Mova, PO & Dist.- Raipur- 492 001 (CG).

(Kewal Krishan)
Senior Mining Geologist
For Regional Controller of Mines

CHAPTERS

A.K.John
Qualified Person

* * * * *

CONSENT LETTERS/CERTIFICATES/UNDERTAKINGS

NAME OF DOCUMENTS
CONSENT LETTER FROM APPLICANT
CERTIFICATE FROM QUALIFIED PERSON

* * * * *

A.K.John
Qualified Person

LIST OF DOCUMENTS ANNEXED

S.No.	PARTICULARS	ANNEXURE No.
1	LETTER OF GOVT. OF INDIA FOR GRANT OF MINING LEASE ORDER	I
2	PHOTOCOPY OF LETTER OF INTENT FROM MAHARASHTRA GOVT. FOR SUBMISSION OF MINING PLAN WITH	II
3	LETTER FOR LOI PERIOD EXTENSION TO STATE GOVT. BY APPLICANT	III
4	PHOTOCOPY CERTIFICATE OF QUALIFIED PERSON	IV
5	COPY MEMORUNDAM OF ARTICLE OF ASSOCIATION OF COMPANY	V
6	LIST OF DIRECTORS AND ADDRESS WITH PAN CARD ETC.	VI
7	COPY OF BOARD RESOLUTION FOR SIGNING MINING PLAN AND OTHER DOCUMENTS	VII
8	LETTER FOR GEO REFERENCED CADASTRAL MAP BY AUTHORISED AGENCY	VIII
9	UNDERTAKING OF APPLICANT FOR EXPLORATION WORK AS PER THE UNFC NORMS FOR DRILLING BOREHOLES	IX
10	UNDERTAKING OF APPLICANT FOR FOREST CLEARANCE AND ENVIRONMENTCLEARANCE	X
11	COPY COMPOSIT ANALYSIS REPORT DONE BY NABL ACCREDATED LABORATORY	XI
12	FEASIBILITY REPORT	XII
13	PROSPECTING REPORT OF GOVT. OF MAHARASHTRA	XIII
14	PHOTOGRAPHS OF MININING LEASE APPLIED AREA	XIV

* * * * *

A.K.John
Qualified Person

LIST OF PLANS & SECTIONS

S.NO.	NAME OF PLATES	SCALE	PLATE No.
1	KEY PLAN	1:50,000	01
2	LOCATION PLAN	Not to sclae	02
3	FOREST MAP	1:5,000	03
4	SURFACE PLAN	1:2,000	04
5	GEOLOGICAL PLAN	1:2,000	05
6	GEOLOGICAL SECTIONS	1:2,000 1:1,000	06
7	YEARWISE DEVELOPMENT & PRODUCTION PLAN	1:2,000	07
8	YEARWISE DEVELOPMENT & PRODUCTION SECTIONS	1:2,000 1:1,000	08
9	CONCEPTUAL PLAN	1:1,000	09
10	CONCEPTUAL SECTIONS	1:2,000 1:1,000	10
11	ENVIRONMENT PLAN	1:5,000	11
12	FINANCIAL AREA ASSURANCE PLAN	1:2,000	12
13	RECLAMATION PALN	1:2,000	13

* * * * *

A.K.John
Qualified Person

INTRODUCTION

Iron (Fe) next to aluminum, the most widely distributed and abundant metal constituting about 4.6 % of earth's crust. Iron and steel forms the foundation of modern industry. Iron ore are entirely used for the manufacturing of pig iron, from which all the various grades of iron and steel are obtained. Non metallurgical use is very few. Siderite used for the production of hydrogen. Micaceous iron ore which is a variety of Hematite is used as coating material in the preparation of welding electrode. Magnetite is used for the preparation of heavy media in coal washing plant. Iron fines are used in pipe coating and palate formation.

In Gadchiroli district of Maharashtra, a good deposit of Iron Ore occurs in the area surrounding the village – Fuser(Puser) of Chamorshi Tahsil. It is one of the important raw material used in the iron and steel, Ferro-alloys, alloy steels industries etc.

The mining lease applied area for which Mining Plan is being submitted for approval is located in the jurisdiction of village – Fuser, Tahsil-Chamorshi, District – Gadchiroli in Maharashtra. This is a good bedded deposit of iron found near village – Fuser (Puser) .

The applicant company M/s Corporate Ispat Alloys Ltd. Submitted application for grant of mining lease over an extent of 72.60 hectare area on the basis of notification given by Maharashtra Govt. for Mining Lease . Copy enclosed in (**Annexure – I**). Later on Govt. of India accord approval for granting mining lease over an area of 72.60 hectares in village fuser of Gadchiroli district , Maharashtra State and issue letter for grant of mining lease vide letter no. 5/114/2009-M.IV, New Delhi Dated 19/7/2011 (**Annexure – II**) subsequently Govt. of Maharashtra Govt. also accorded its approval and issued letter of intent (**Annexure – III).** The applicant company M/s Corporate Ispat Alloys Ltd. is now submitting Mining plan and Progressive mine closure plan for approval to Indian Bureau of mines as per provisions of MCR, 1960 and MCDR 1980. Due to accute naxalite proble mining plan preparation delayed extemly.

The applicant company not having other mining lease in Maharashtra or any where in India.

The other details are as follows:

(a) The total Mining lease area is not exceeding the maximum area limit.
(b) It is a case of fresh grant of mining lease where , the detailed prospecting work has been carried out by Directorate of Geology & Mining, Maharashtra. The applicant agency also carried out estimation of Iron ore reserves through Remote sensing techniques the result of which also confirm the estimation done by DGM- Maharashtra.
(c) The nominated owner of the Fuser Iron Ore Deposit is Mr. Siddharth Jayasawal Copy of Board resolution is enclosed (**Annexure – VIII)**.

The applicant company approached qualified person A.K.John to prepare Mining Plan and now submitting under rule 16(1) of Mineral (other than atomic and hydro carbon energy minerals) Concession Rules 2016 for approval to competent authority Indian Bureau of Mines (Nagpur Regional Office) .

*** * * * ***

A.K.John
Qualified Person

1.0 GENERAL

a) Name of applicant/lessee : **M/s Corprate Ispat Alloys Limited**

Postal Address :

M/s Corporate Ispat Alloys Ltd.
ABHIJEET CENTRE
LEVEL 05 79/4,
Prashant Nagar, Ajni,
Nagpur, Maharashtra – 440012

(T) +91 712 2980291 / 712 3020300 (D) +91 712 3020554
(F) +91 712 2980292 (Extn) 44554 (M) +91 91 7507779786
Website : www.abhijeet.in

Contact moblie No. 7507779786

Status of applicant/lessee : Applicant is a Limited Company

c) Mineral(s) which is applied for Mining lease : Iron Ore (Hematite)

d) Mineral(s) which is/are included in the letter of Intent/ lease deed : Nil

e) Mineral(s) which is the applicant/ lessee intends to mine : Iron Ore

f) Name of Qualified Person under rule 15 (a) (b) of MCR 2016 or a qualified person preparing Mining Plan :

Ashok Kumar John, (M.Sc. Geology, LL.B.)
Address : Qtr. No. – 2, Street No. – 6
V.V.Vihar, Near Anupam Nagar Rly Crossing,
Mova, P.O. & Distt. – Raipur, C.G. – 492001
Email – hitech_ashok@yahoo.com

Mobile No. 07898343353, 08982043353
Qualification – M.Sc Geology , 5 Years experience as supervisory capacity in the field of mining after obtaining the Master bdegree in Geology .

* * * *

2.0 LOCATION AND ACCESSIBILITY

a) Lease Details : Area applied for Mining Lease
Name of mine : Fuser Iron Ore Deposit
Lat/long of any boundary pillars :

Longitude and Latitude Ranging Between
80^0 08/44// to 80^0 09/39// E
19^0 53/56// to 19^0 54/17// N

Date of grant of lease : Area grant of Mining Lease
Lease deed aggrement uet to be signed .

Period : 50 Years
Under Section 8A (3) Mines and Minerals (Development &Regulation) Amendments Act 2015

Expiry Date of Lease : Lease deed aggrement uet to be signed .
Name of lease holder- **M/s Corporate Ispat Alloys Ltd.**

Postal Address-

ABHIJEET CENTRE
LEVEL 05 79/4,
Prashant Nagar, Ajni,
Nagpur, Maharashtra – 440012

(T) +91 712 2980291 / 712 3020300 (D) +91 712 3020554
(F) +91 712 2980292 (Extn) 44554 (M) +91 91 7507779786
Website : www.abhijeet.in

Contact moblie No. 7507779786

b) Details of applied /lease area with location map (fresh area /mine)

Forest		**Non-Forest**	
Forest (Specify)Revenue Forest Survey No 12 , Compartment No. 21	Area 72.60 (ha)	(i) (ii) Govt waste land,	0.00
		(iii) grazing land,	0.00
		(iv) agriculture land,	0.00
		(v) others(specify	0.00
Revenue Forest Land	72.60	Private Land	0.00
		Total	0.00 (ha)

A.K.John
Qualified Person

Total M.L. Applied area : 72.62 Hect
District & State : Gadchiroli , Maharashtra
Taluka/Tahsil : Chamorshi , Village : Fuser
Whether the area falls under Coastal Regulation Zone(CRZ)?if yes, details Thereof : No
Existence of public road railway line, if any nearby and approximate distance

S.No.	Area	Distances in Km.
1	Public Road	Fuser - Etewahi 450 meter in SW .
2	Nearest Highway no 353	Saundad - Sironch 39 km Passing from Chamorshi
3	State Highway 9	Mul - Nagpur 60 km.
4	Rly Station	Nearest Rly. T. Mul 60 Km.
5	District Head Quarter	Gadchiroli 55 Km.
6	Tahsil Head Quarter	Chamorshi 39 km.
7	Grampanchayat	Mutnur 15 km. in West
8	Village Fuser	2.5 Km. in NW of the applied area

Topo sheet No. with latitude & longitude of all corner boundary point/pillar

Topa Sheet No - 65 A/1

Longitude and Latitude Ranging Between
80^0 08/44// to 80^0 09/39// E
19^0 53/56// to 19^0 54/17// N

Infrastructure :
(a) Power Supply – Domestic Electric power is available up-to the Village –Fuser through MSEB.

(b) Communication and Transport – The Fuser Iron Ore Deposit is located 2.5 km. meters due SE of village – Fuser, and connected by good road from the Chamorshi, Gadchiroli and Nagpur. The district head quarter Gadchiroli is a important commercial place at a distance of about 55 KM from the applied mining lease area , The nearest railway station is at Mul (50 Kms.) The nearest rest house belongs to public works department is located at Chamorshi at a distance of 39 kms. Buses and local taxi are continuously plying from Chamorshi and Gadchiroli area to Fuser Village.

(c) Land – The mining lease applied area is falls under revenue forest land of Maharashtra Govt. and recorded in Khasra Plan of village Fuser (Puser).

(d) Water supply – Water is available in the area from dug well and bore well located in villages. The water is potable and hygienic as no adverse effect found on health in this area.

(e) School Facilities – School facilities for primary level is at Fuser and middle school level are available in village Matnoor. College and higher study are available at Chamorshi. A residential Govt. school is at Pavi Muranda.

(f) Manpower – Managerial and technical and supervisory will be employed after grant of working permission required mine workers will be engaged from the nearby area. Thus there will be no constraint regarding manpower.

(g) Police Station & Rest House – The mining lease applied area fall under the jurisdiction of police station Murmuri , which is 15 kms. from the mining lease applied area . Forest rest house, PWD Guest house and Hotels area easily available at Gadchiroli (55 KM) Post office and primary health center are available at village – Murmuri (15 Kms.). Gram Panchayat is also Pavi Muranda 14 km. from Lease area .

c) Attach a general location map showing area and access routes. 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 may be shown on an administrative map.

Mine Location shown in **Location Plan on Plate No . - 2 .**

*** * * * ***

3.0 DETAILS OF APPROVED MINING PLAN / SCHEME OF MINING (if any)

3.1 Date and reference of earlier approved MP/SOM

S.No.	Reference	Date	Mining Plan/ SOM
1	**Not Aooroved earlier**		

The Fuser area first time applied for grant of mining lease.

3.2 Details of last modifications if any (for the previous approved period) of approved MP/SOM, indicating date of approval, reason for modification

Mining Plan / Scheme of Mining not modified earlier .

3.3 Give review of earlier approved proposal (if any) in respect of exploration. excavation, reclamation etc.

1. **Exploration** : The area of mining prospected by The Directorate of Geology and Mining Department of Maharashtra Govt. by experienced geologists. The Prospecting operation carried our during the 1960-61 field season. During the prospecting 35 sq. km area coverd by recconaissance survey to fix the drilling and pits sites and subsequently 72.60 Hects area covered by prospecting . On the basis trial pits and 4 boreholes and 9 trial pits the iron ore reserves established in the applied area . The details of prospecting work are as follows :

The exploration work carried out during prospecting are as follows :

	Items	Proposals	Actual work done	Reasons for deviations
	Explorations for Geological axis 1 or 2. Bore holes – Trail pits & Trenches-	Trial Pit – 9 Trench – 2 Borehole – 4	10,090 Cubic Feet Area covered by trail pits and trenches 84.25 meters	Nil

2. Mine Development : The mine development work will be carried out after the grant of working permission , which will be grated after the forest and environment clearance.

A.K.John
Qualified Person

3. Reclamation & Rehabilitation : The reclamation and rehabilitation work will be carried out after the grant of working permission. No villages or humen settlement found in mining lease area . As per the rule applicant will go for forest and encironment clearance. As per the forest clearance rules applicant will reclaim the area by substitude afforestation.

4. Control of Dust ,Noise and Ground Vibration : The lessee will control the dust , noise and graound vibration within the permisible limits. The proposed mining operation will be small and fully manual there fore the limits will not cross at any cost . The effects of dust , noise and vibration will be not very significant. The method of mining operation is fully manual and very small scale , no blasting is being carried out , so no question arise of noise pollution or ground vibration. The blasting operation will be substitute by silent rock crackers very popular in recent period. Three to four times water will be sprayed in dusty area with the help of manual labour during dry season. A sump will be dug by the applicant to full-fill the requirement of water at mine site. Dense afforestation will be done atblease boundary. So no question aeries blowing of dust due to mining operation .

3.4 Give status of compliance of violations pointed out by IBM

No violtation letter given by IBM authority at this stage.

3.5 Indicate and give details of any suspension /closure/ prohibitory order issued by any Government agency under any rule or Court of law

The mining lease agrement yet to be granted , hence no question areise of suspession of mining lease.

3.6 in case the MP/SOM is submitted under rules 9 and l0 of the MCDR'88 or under rule 17(3) of the MCR2016 for approval of modification, specify reason and justification for modification under these rules.

Not submitted under above rule.

* * * * *

PART - A

1.0 GEOLOGY AND EXPLORATION:

(a) Briefly describe the topography, drainage pattern, vegetation, climate, and rainfall data of the area applied/mining lease area.

The Fuser Iron Ore Deposit area belongs to the rocks of iron Series. The mining lease area is falling on the Survey of India Topo-sheet No. **65 A/1** and bounded between latitude **19⁰53'56"** to **19⁰54'17" N** and longitude **80⁰ 08'44"** to **80⁰ 09'39" E** of Greenwich . Iron ore outcrops extensively seen in form of out crops and small mounds, near the south-east of Fuser village and also in surroundings . The area of mining lease is falling under the jurisdiction of village Fuser and situated 2.5 km south-east of Village Fuser. The mining lease area is in two small hillocks having maximum MRL 346 meter and minimum MRL 281 meters above MSL.

Topography

Topographically the applied area is on hilly terrain sloping toward south and north – west of the applied area. The Iron Ore deposit of the area falling on Fuser Reserve forest stretches 25 kms from Mutnu to Nawegaon in the south- east. The Iron Ore outcrops at many places along North –East - South-West trending over BHQ in the hill range, which is about 35 to 40 km. Kms in length.

The area exhibits an undulated rugged topography over the hilly terrain. The lowest level of lease area is 281 m.RL. near E 88 to E 900 point of the applied area. The highest altitude is 346mRL. The general ground level of the area is 251 m.RL. The difference of elevation from the ground level is 95 meter.

Drainage Pattern

The drainage is controlled by a small gullies formed due to running rain water along the slopes. These gullies area joining the two mail rivers of the area named Mandoli and Malsowahi rivers flowing in the direction of north-west at a distance of 7 kms. Vainganga is the main river of the area and flowing in south west direction at a distance of 40 KM General height of the area is 281

meters above MSL. The thickness of top soil or overburden is almost zero. Soil found only in intercalated pockets.

The main sources of drinking water are dug wells and bore wells. The ground water table is about 20 meters below the general ground level. The mining lease area is a forest land of Maharashtra. Surrounding area also occupied by forest land and agricultural land belongs to the private individuals of the Fuser and surrounding villages. The agricultural land of the surrounding grows paddy, gram, pulses, local crops and seasonal vegetable etc. depending on the rain water only. Mango, Neem and Babool are common trees extensively visible in the surrounding area.

Climate and Rain Fall

The climatic condition of the mining lease applied area is extreme in nature. Summer season is intensively hot, where the mercury touches 40^0 C. The winter season is quite pleasant and during the month of December and January the minimum temperature 5^0 C. The monsoon lasts for 4 months from June to September with an average annual rain fall of 1000 to 1250 mm. Predominant wind direction is NW – SE .

Flora & Fauna

The is no flora or fauna of national importance found near by the lease area . It has already been mentioned that this area is generally considered sub-tropical and high moisture in the atmosphere but due to lake of soil cover no dense vegetation seen in surrounding area . Apart from the above agricultural lands there where one time crop is being cultivated depending on rain water only. Except the above vast tracts of the area does not have any fauna and flora of great importance.

(b) Brief descriptions of Regional Geology with reference to location of lease/applied area.

REGIONAL GEOLOGY :

The area applied under mining lease had been visited as early as 1920 by Shri. P.K.Dutta of Geological Survey of India in the course of his field traverses and he had reported the presence of Iron Ore reef having length 220 meters and width about 6 meters. Shri B.S.Karkare of the department of Geology & Mining had also visited the area in 1958 and suggested further prospecting of this area. The area was also examined by Shri Y.S. Sahastrabuddhe of Geological Survey of India in year 1960 and estimated the iron ore reserves to be of order of 2.50 lakh tones.

The main geological formation found in this area are the older metamorphic, which are essentially gneisses and schist of Dharwarian period. Younger granitic gneiss having pegmatite intrusion. The Dharwarian formation of this area is equivalent to the iron ore series of Singhbhum district of Jharkhand. The regional geological succession of the area is as follows:

Regional Geological Succession

Period	Formation	Litho Units
Recent to Sub Recent	-	Alluvium
Pre Cambrian	Post Dharwarian	Intrusive Pegmatite , Basic Dyke and Quartz vein
	Dharwarian	Iron Ore , Banded hematite Quartzite , Chlorite Schist
	Older Metamorphic	Gneisses and Schist's

---------- Archaean ----------

A.K.John
Qualified Person

(c) Detailed description of geology of the lease area such as shape and size of the mineral/ore deposit, disposition various litho-units indicating structural features if any etc. (Applicable for Mining Plan for grant & renewal and not for Scheme of Mining/Modifications in the approved mining plan/scheme of Mining).

LOCAL GEOLOGY :

The local gology of the mining lease area is as follows :

Age	Series	Litho Units
Recent to Sub-Recent	-	Soil / Laterite (thickness 0 to 1 meters _
Pre Chambrian	Dharwarians	Iron Ore ,Banded Hematite Quartzite, Chlorite Schist
	Older Metamorphics	Gneisses & Schist

Description of Individual rock type is given below :

Soil – Brownish yellow soil, formed due to weathering of surrounding rocks of the area occupying the gentle sloping flat ground. There is no top soil or overburden found over the iron ore deposit Small quantity of soil can be observed from intercalated pockets.

Iron Ore – The strike and dip of the iron ore formation of the area of this area is NE-SW and having 55 to 57^0 dip towards South. Iron found in simple inclined bedded form without appreciable structural feature and more or less uniform grade distribution. It is steel gray in colour, fine grained hard, massive.

Chemical Constituents of the Iron ore The average constituent of the iron ore of the applied area are as follows :

Fe - 63 to 69.81 %
SiO_2 - 1.03 to 12.22 %
P - 0.004 to 0.012 %
LOI - 0.097 to 15.67 %
(AS per Prospecting report)

A.K.John
Qualified Person

(d) (i) Name of prospecting exploration agency : Prospecting operation carried out by Directorate of Geology and Mining , Nagpur Regional Office Govt. of Maharashtra .

(ii) Address :

DIRECTORATE OF GEOLOGY AND MINING,
(Nagpur office)
GOVERNMENT OF MAHARASHTRA,
"KHANIJ BHAWAN", PLOT NO.27,
SHIVAJINAGAR, CEMENT ROAD
NAGPUR : – 440 010

PA to Director (EPBX). : 91-0712 – 2228788

Joint Director : 91-712-2220755
FAX NO. : 0712 – 2225694
:

(iii) E mail address : diregeomin @ sancharnet.in
dirgeomin.mah@rediffmail.com
dirgeomin06@dataone.in

(e) <u>Details of prospecting/exploration already carried out :</u>

i) Number of pits and trenches indicating dimensions, spacing etc along and across the strike/foliation with reference to geological plan.

During the prospecting operation DGM (Maharashtra) made 9 trial pits 2 trenches and 4 Boreholes of 84.250 meters drilled .

ii) Number of boreholes indicating type (Core/RC/DTH), diameter, spacing,

4 core boreholes drilled by DGM during the prospecting operation upto maximum depth 27.331 meters in BH-1.

iii) inclination, Collar level, depth etc. with standard borehole logs duly marking on geological plan/sections.

For details See Prospecting Report with analysis Enclosed in **Annexure – XIV** .

Details of exploration :

Already carried out in the Area By DGM :-

During the field season 1960 DGM Nagpur carried out prospecting operation over the 72.60 hects area in village Fuser. The DGM Nagpur complete the detailed exploration work by drilling , pitting and trenching and estimated 5,71,780 tones of iron ore reserves in prospected area. The prospecting work commenced after the reconnaissance survey, geological mapping of the iron ore body and adjoining rock types. On the basis of this work pitting, trenching and drilling sites were selected by DGM. Total 84.25 meters) of drilling was completed. The Detail prospecting report enclosed in **Annexure – XIV.** The details of work done during prospecting by DGM are as follows:

Borehole No.	Type	Location	Total Depth
Bore hole No 1	Coré Bore (Anguler)	Western Part	27.331 mts.
Bore hole No 2	Core Bore	Central Part	18.745 mts.
Bore hole No 3	Core Bore	Eastern Part	17.221 mts.
Bore hole No 4	Coré Bore	Southern Part	20.953 mts.
			Total 84.250 mts.

In addition, excavation for pitting and trenching of 10,090 cft. (285.718 cubic meters) was also completed during the field season.

The applied mining lease area is in small hillock. Total applied area is 72.60 hects. Out of total area, the iron ore deposit covered only small part which is 3.881 hects., remaining area is covered by chlorite schist, granites and gneiss . Therefore only 3.881 hects area considered for calculation of iron ore reserves. The DGM has divided the prospected area into 3 blocks. Block wise the details are given in page no 18 & 19 of prospecting report enclosed in **Annexure – XIV** of this plan.

Block No	Length of Iron Reef		Width of Iron Reef		Depth persistence	
	Feet	Meter	Feet	Meter	Feet	Meter
Block -1	1000	304.8	100	30.48	25	7.62
Block- 2	1000	304.8	100	30.48	30	9.144

A.K.John
Qualified Person

Block -3 Float Ore	2,17,800 Sq. Feet	20,234.28 Sq. Meters	0	0	1. 5 meters

Block - I

Total length of iron ore reef in feet.	Width of iron ore reef in feet	Thickness of iron ore reef as seen in borehole (Depth persistence) in Feets	Volume of iron ore reef Cft.	1 tons iron ore is equal to 10 Cft.	**Geological Reserves of all category in Tons (122)**
1,000	100	25	25,00,000	2,50,000	2,50,000

Block – II

Total length of iron ore reef in feets.	Width of iron ore reef in feets	Thickness of iron ore reef as seen in borehole (Depth persistence) in Feets	Volume of iron ore reef Cft.	1 ton iron ore is equal to 10 Cft.	**Geological Reserves of all category in Tons (122)**
1,000	100	30	30,00,000	3,00,000	3,00,000

Block – III Float Ore

Total Area of Float Ore in Sq. Ft.	Depth (persistence) in Feets	Volume of iron ore reef in Cft.	1 ton is equal to 10 Cft.	**20 % Recovery of Iron ore from float**
2,17,800	5	10,89,000	1,08,900	21,780 tons (UNFC code 122)

The total estimated reserve of iron ore in subjected area is **5, 71,780** Tons or **0.571** Million Tons.

Average Chemical Composition of the iron ore of the proposed lease area:

Fe - 63 to 69.81 %
SiO_2 - 1.03 to 12.22 %
P - 0.004 to 0.012 %
LOI - 0.097 to 15.67 %

A.K.John
Qualified Person

Details of samples analysis indicating type of sample (surface/sub-surface from pits/trenches/borehole etc.*) complete chemical analysis for entire strata for all radicals may be undertaken for selected samples from a NABL accredited Laboratory or Government laboratory or equivalent. Entire mineralized area may be analysed meter wise with 10% of check samples. (At least for I0% of total samples may be analysed in accordance to BIS and reports from NABL accredited/other government laboratory).*

Expenditure incurred in various prospecting operations .

The expenditure incurred in prospecting operations by DGM Maharashtrab are not available , The Govt. of Maharshtra already granted area under mining lease in favour of M/s Corporate Alloys Ispat Limited , so not need to purchase P.L. report , it is a part of M.L. grant . Copy of Notification enclosed in Annexure I ,and copy of Govt. of India order for approval of grant of M.L. enclosed in Annexure II. Copy of M.L. grant order of Govt. of Maharashtra in favour of applicant also enclosed in Annexure – III.. So no need for details P.L. report expenses etc.

(f) The surface plan of the lease area may be prepared on a scale of 1: 1,000 or l: 2,000 with contour interval of maximum of l0 m depending upon the topography and size of the area duly marked by grid lines showing all features indicated under Rule 28(1) (a) of MCDR 1988.

Surface Plan on 1:2,000 scale enclosed with this Mining Plan bearing Plate No. 4.

(g) For preparation of geological plan, surface plan prepared on a scale of l: 1,000 or l: 2,000 scale specified under para 1.0 (of Part A of the format may be taken as the base plan. The details of exploration already carried out along with supporting data for existence of mineral, locations proposed exploration, various litho units along with structural features, mineralized/ore zone with grade variation if any may be marked on the geological plan along with other features indicated under Rule 28 (1)(b) of MCDR 1988.

Geological Plan on 1:2,000 scale enclosed with mining plan bearing Plate No. 5 .

(h) Geological sections may be prepared on natural scale of geological plan at suitable interval across the lease area from boundary to boundary.

Geological Sections on 1:2,000 Horizontal and Vertical scale enclosed with mining plan bearing Plate No. 6.

i) Broadly indicate the future programme of exploration with due justification (duly marking on Geological Plan year wise location in different colours) taking into consideration the future tentative excavation programme planned in next five years as in table below: -

It is proposed to drill three boreholes as per the UNFC norms and proved reserves upto 30 meters depth in the year 2016-17 .

Location of proposed Boreholes shown on Geological Plan Plate No. 5.

Proposed year for borehole	No. of Core Borehole To be drilled	Meter-age	Location	Proposed Estimated cast in Rs.
1st Year of Mining Plan	3 Vertical	150 meters	Shown in Geologica Plan	7,25,000
2nd Year of Mining Plan	3 Vertical	150 meters	Shown in Geologica Plan	7,25,000

(i) Reserves and Resources as per UNFC with respect to the threshold value notified by IBM may be furnished in a tabular form as given below: (Area explored under different level of exploration may be marked on the geological plan and UNFC code for area considered for different categories of reserve/resources estimation may also be marked on geological cross sections).

The reserves estimated by the DGM are not calculated as per the UNFC norms. No boreholes drilled in II and III. The boreholes were drilled in only in Block I (BH 1 , BH2 & BH 3) , So only Block I considered for the re-estimation of reserves as per UNFC norms

Method of Estimation of Reserves:

Proved Reserve: The area notified for mining lease is 72.60 hectares The area c. On the basis of 3 borehole block I considered for the re estimation of reserves. The reserves re-estimated by the cross sectional area method. The details are as follows

Cross Scction	Cross Sectional Area in Sq. Meters	Average Influence Thickness in Meters	Bulk Density of Iron Ore	Reserves in Tonnes
C – C/	1,800	8.250	3.0	44,500
D – D/	1,200	8.250	3.0	29,700
E – E/	2,000	8.250	3.0	49,500
Total	5000	8.250 Av.	3.0	1,23,700

Reserve & Grade :

The reserve estimated on the basis of boreholes 3 drilled by DGM. As per the prospecting report , the reserves estimation are as follows:

Mine-able Reserve & Anticipated Life of the Mine :-

For calculation of mine-able reserve and anticipated life of the mine the following points are to be considered:

(1) **Mining Limits**: The area of mining lease is 72.60 Hects. , however iron ore deposit found only in small area. 7.5 meters mining limit will be left all around the proposed lease boundary as barrier for statutory reason. No iron ore reserves locked in 7.5 meters statutory mining limit.

(2) **Mining Benches:** The 2 bench of 2.5 meter height has to be developed for production up-to ultimate pit depth 280.90 meters AMSL for, safety and transportation and left 2 meters wide at the end of mining . About 0 square meters area will be locked in the mining benches. As the area is in centre of the applied area.

(3) **Reserve Considered:** Reserve considered for calculation of mineable reserve is proved and possible.

(4) **Recovery %** : 95 %

So there will be no iron ore will be locked under the Mining limit & mining benches**.**

Mine-able Reserves:

Mine-able reserve will be estimated after deduction the quantity of iron ore locked in mining limit, mining benches and deducting the mining losses etc. The calculation is as follows:

Estimated Reserve in Tons -	
Total Iron ore Reserve	1, 23,700 Tons.
Locked Iron ore Reserve	Nil
(Under mining limit and benches)	
Balance Reserve of Iron Ore -	1, 23,700 Tons

Recovery of Iron Ore – 95 % of recovery. The recovery will be as follows:

1, 17,515 Tons or 0.117 Million Tons

Anticipated life of the proposed mine:

Anticipated life of the mine will be obtained by considering the proposed rate of production . Proposed rate of production at the end of fifth year will be 25,000 tons. Considering the above production the Anticipated life of the mine will be 4.70 or say 5 years for **1, 17,515** tons of mine-able reserves. After the detail exploration work mine life will be increase more than 20 year. The additional exploration work will be done during the 1st year of the mining operation and the mining plan will be modified accordingly.

(j) Submit a feasibility/pre-feasibility study report along with financial analysis for economic viability of the deposit as specified under the UNFC field guidelines may be incorporated.

Detail Feasibility report will be prepared after the completion of drilling operation as per the UNFC norms . A Feasibility reprot enclosed on **Annexure – XIII** on the basis of re-estimated reserves .

(k) Furnish detailed calculation of reserves/resources section wise (When the mine is fully mechanized and deposit is of complex nature with variation of size , shape of mineralized zones, grade due to intrusion within ore zone etc, an attempt may be made to estimate reserves/resources by slice plan method). In case of deposits where underground mining is proposed, reserve/resources may be estimated by level plan method, as applicable, as per the proposed mining parameters.

(l) Mineral Reserves/Resources :

Mineral Resources: (Mineral resources may be estimated purely based on level of exploration' with reference to the threshold value of minerals declared by IBM)

Level of Exploration	Resources in tons	Grade
G1 – Detailed exploration		
G2 – General Exploration	**1, 17,515 Tons**	Fe - 64.81 to % as per composit Analysis Report
G3 – Prospecting		
G4 - Reconnaissance		

Reserves and Resources within the lease may be arrived after applying results feasibility/ pre feasibility study and economic evaluation of deposit based on various factors such as:

a) Mining method, Recovery factor, mining losses, processing loss etc.
b) Cut off grade, Ultimate pit depth proposed.
c) Mineral/ore blocked dues to benches barriers, pillars, road, railway, river, nala. reservoir. Electric line and other statutory barriers etc., under forest, sanctuaries etc. where necessary permissions are not available.

Geological Reserves as per the UNFC classification

In order to bring uniformity in reporting the reserves there is an emphasis on following United Nations Frame Work Classifications that is universally accepted . TheTin ore is found in Pegmatite vein and alos in palcer form . In UNFC system the grading of reserves is done in a tri axial model of " Geological Axis" , " Feasibility Axis" and "Economic Axis" . The status of confidence level going by

exploration , mining feasibility and marketability studies of the deposit are considered in detail.

The UNFC of mineral resources consists of three dimensional system.
Economic viability
Feasibility assessment of reserves
Geological assessment of reserves

UNFC is a three digit code based system. The Economic viability axis represents the first digit , The Feasibility axis represent the second digit and Geological axis represents the third digit .

1. Geological assessment of reserves: The mining lease area forms a well known iron ore formation of Dharwarian period. The area has been studied by in detail, carrying out detail geological mapping, studied surroundings and exploration by digging Boreholes and analyzing the samples of iron ore. On the observation of the above it has been evident that the iron ore reefs continue along the depth and the quality suitable to meet with present technology.

2. Feasibility assessment of reserves: The present demand of iron ore will be feasible at this stage and the M.L. granted for captive use. Also the production start right from the surface and therefore it will be feasible to do production. Applicant will also conduct the detail feasibility study after the detail exploration work; however this iron ore is for captive use. Based on these observations the reserves codified have been given along with the conventional classification in table.

3. Economic viability: The mining lease area falls in the Tahsil Chamorshi of district Gadchiroli and is well connected by good tar road and approachable through out the year. The nearest rail head is at Mul 50s KM from the lease area. All the required infrastructure facilities like electricity, water, road, laborers health centers etc. Available around the lease area.

   Under the present market scenario the quality of iron ore proposed to be extracted will definitely justify the return of investment. Based on these observations the reserves codified have been given along with the conventional classification in the table.

4. Code 122 denoted to 1, 17,515 tons of mine-able reserves.

Based on these observations the reserves codified have been given along with the conventional classification given in the following table.

Geological Reserves as per the UNFC classification

At the time of approval of Mining Plan :

United Nations Frame-work of Classification	**UNFC Code**	**Quantity in Tonnes**	**Grade**
(1)	(2)	(3)	(4)
Total Mineral Resources (A + B) **A** Mineral Reserve		5,43,191	
(1) Proved Mineral Reserve	121		
(2) Probable Mineral Reserve	122	1, 17,191	Fe - 64.81 to % as per composit Analysis Report
B Remaining Resources			
(1) Feasibility Mineral Resource	211		
(2) Pre-Feasibility Mineral Resource	222	4,25,676	Fe - 63 to 69.81 % as per DGM Report
(3) Measured Mineral Resource	331		
(4) Indicated Mineral Resource	332		
(5) Inferred Mineral Resource	333		
(6) Reconnaissance Mineral Resource	334		

No royalty or other matter pending with state govt. No public interest litigation or court cases are pending in this regard. Undertaking enclosed in **Part B.**

* * * * *

A.K.John
Qualified Person

2.0 MINING

A. OPEN CAST MINING:

a) Briefly describe the existing as well as proposed method for excavation with all design parameters indication on plans/sections.

The Iron ore deposit of Fuser area is 55^0 to 57^0 inclined, hard, massive strata occurring below general ground level and proved up-to 8.250 meters thickness and saleable to various Industry. Mining will be carried out by opencast manual mining method looking to the meager quantity of handling. During the period of mining plan 2 benches will be developed . The over face slope will maintained at 45^0. Height and width of benches to be kept at 2.5m/5m. There is no overburden, so no proposal of overburden bench is given in mining plan. The heavy hammer and cheisel will be used to loosened the ore after word the iron ore will be collected , sized and sorted manually by the adequate laborers. The loading of sorted Iron ore in the Trucks will be done with the help of pay loaders then it will be transported to desired location by these trucks.

The quality of iron ore is throughout the mining lease area is homogenous having no remarkable variation in grade. For safety and smooth mining operation total 2 benches of 2.5 meter height will be developed with double spacing. During the mining operation all the precaution will be observed to prevent haphazard excavation of pit as per the DGMS and IBM Rule & Regulation.

Mining operation will be done on single shift basis. Timing 8 hours from 7 am to 12 noon and 2 pm to 5 pm. Lunch time is provided between 12 noon to 2 pm. One day will be declared as the holiday as per the local market day of the area.

5 meters wide Haul road will be made as shown in production plan. The gradient of the road will be maintained as per statutory norms under 1:16 . The year-wise development and production for the first five years as proposed are as follows

b) Indicate year-wise tentative Excavation in Cubic Meters indicating development, ROM, pit wise as in table below :

I. In-situ Tentative Excavation Programme

Development & Production of iron ore will be carried out simultaneously. There is no soil or overburden found above the iron ore, so no proposal of O.B. bench. Occasionally soil will be generating from intercalated pockets in very small quantity say 0.07 % of excavated volume. Weathered iron ore and intercalated quartzite boulders can be called as waste it is very small in quantity and 0.05 % of ROM. The soil, overburden and mineral reject, so generated during the course of mining operation will be stacked near the northern lease boundary in flat ground having no mineral, as shown in Plan for reclamation purpose at the end of mine life after tacking proper approval from competent authorities. The generated soil, waste and overburden will be stacked separately and not mix with each other, so that it can be used for reclamation purpose in future. The area of year-wise stacking of overburden shown in the Development & Production Plan bearing Plate No. – **7** and Environment Plan. So there will be no need of separate development plan prior to the mining operation. The estimated quantity of top soil/overburden, waste and mineral rejects which generated during development and production are as follows:

Year	Soil in Tons	Mineral Reject In Tons
1st Year	40	357
2nd Year	40	357
3rd Year	100	863
4th Year	100	863
5th Year	150	1,332
Total	430	3,772

The year-wise production is being projected by considering the present requirement of iron and steel. Incase if there is any change in the requirement pattern of demand in the market, then it is also likely to be change .The recovery % iron ore from of ROM is 95% (5% deduction due to mining losses during the various mining operations such as drilling, sizing, loading and unloading etc.) Year-wise proposed production proposed for the mining plan period is given below:

Proposed Annual Production (1st & 2nd Year):-

During the first and Second year , mining will be done in between 291 to 286 m R.L. in single bench. The height of the 1st and 2nd bench will be 2.5m ; bench-wise details of production for the first year are as follows:

Bench No. and with R.L. in meters	Bench height (mts.)	Required Av. Pit area in M²	Bulk density	ROM in Tonnes	Saleable Iron ore in T. @ 95 % recovery	Waste in Tonnes	Mineral Reject	Sub - grade
1st Bench (291 -288.5 RL)	2.5	500	3.0	3,750	3,562	20	188	Nil
1st Bench (288.5 – 286 RL)	2.5	450	3.3	3,375	3,206	20	169	Nil
TOTAL		950	3.0	7,125	6,768	40	357	Nil

Ore to O.B. Ratio in average 1: 05

Proposed Annual Production (3rd & 4th Year):-

During the first and Second year , mining will be done in between 291 to 286 m R.L. in single bench. The height of the 1st and 2nd bench will be 2.5m ; bench-wise details of production for the first year are as follows:

Bench No. and with R.L. in meters	Bench height (mts.)	Required Av. Pit area in M²	Bulk density	ROM in Tonnes	Saleable Iron ore in T. @ 95 % recovery	Waste in Tonnes	Mineral Reject	Sub - grade
1st Bench (291 -288.5 RL)	2.5	1200	3.0	9,000	8,550	50	450	Nil
1st Bench (288.5 – 286 RL)	2.5	1100	3.3	8,250	7,837	50	413	Nil
TOTAL		2,500	3.0	17,250	16,387	100	863	Nil

Ore to O.B. Ratio in average 1: 05

A.K.John
Qualified Person

Proposed Annual Production (5th Year):-

During the first and Second year , mining will be done in between 291 to 286 m R.L. in single bench. The height of the 1st and 2nd bench will be 2.5m ; bench-wise details of production for the first year are as follows:

Bench No. and with R.L. in meters	Bench height (mts.)	Required Av. Pit area in M^2	Bulk density	ROM in Tonnes	Saleable Iron ore in T. @ 95 % recovery	Waste in Tonnes	Mineral Reject	Sub - grade
1st Bench (285.9 -283.4 RL)	2.5	1850	3.0	13,875	13,181	75	694	Nil
1st Bench (283.4 – 280.9 RL)	2.5	1700	3.3	12,750	12,112	75	638	Nil
TOTAL		3,500	3.0	26,625	25,293	150	1332	Nil

Ore to O.B. Ratio in average 1: 05

* Tentative tonnage of the ore may be arrived by computing approximate bulk density and recovery factor as these data are variable and may be established on time series.

Blasting – No Blasting Proposed for the first five year of mining operation due to naxalite problem. Blasting replaced by the silent rock cracker very popular in recent days Bastar district sufering from naxalite problems.

Any Changes in Proposed Method of Mining and Deployment of Machinery :

No changes proposed in method of mining . No proposal deployment of machinery . It is a purely manual mining operation.

List of Mining Machinery : The whole mining opertion will be manual so no need of mining machinery . Two tractors will be used for dump handling and preparation of soil bed for afforestation . One tractor mounted compressure and jack hammer will be used for hole to pour the silent rock cracker chemical.

A.K.John
Qualified Person

Employment Potential

Following will be the manpower requirement:

Mines Manager	:	1 Qualification as per rule full time
Full time Mining Engineer / Geologist	:	1 Qualification as per rule
Mining Mate	:	1 Qualification as per rule
Skilled Labours	:	2
Un-skilled labors	:	50 for hand sizing sorting , loading and road repairing work .

(As per the rule = Rule 42 of MCDR 1988 and DGMS Rule)

The above manpower is considered assuming 300 working days in a year and no other manpower required for development and other associated job.

Health & Safety of Mine Worker

- Periodic monitoring will be carried out to monitor the levels of air borne Suspended Particulate Matter (SPM) and Resiprable Particulate Matter (RPM).
- Wet drilling & water sprinkling will be carried out to suppress the air borne dust.
- Use of safety gadgets will be made mandatory.
- Periodic medical check up of workers and surrounding villagers will be arranged to track the record of medical history.

NOTE:

Mineral rejects include all the excavated materials that do not constitute useful material. Such material may be either grade or size reject. The mineral reject may be (i) chemically subgrade which is below the acceptable limits of specifications, that is Below the cut off grade and above the threshold value within or outside. ore zone. (ii)Material so if physical characteristics not acceptable to the market.(iii) material having deleterious constituents,

ROM constitutes the material excavated from mineralized zone and includes mineral reject and useable mineral component.
OB : means overburden capping waste
SB : means side burden waste on both hang wall and foot wall sides of the ore body
IB : means intermediate burden waste between two or more ore body

II. Dump re-handling (for the purpose of recovery of mineral):

No Dump re-handling required and proposed for future.

Estimated available material (Cum)

Dump identification/no	Year wise handling (Cum)	Estimated recovery of saleable material (Cum) *	Reject (Cum)
Nil	Nil	Nil	Nil

* Tentative tonnage of the saleable material may be arrived by computing approximate bulk density and recovery factor as these data are variable and may be established on time series.

c) Enclose individual year wise development plans and sections showing pit layouts , dumps, stacks of mineral reject, if any, etc. in case of 'A' category mines' Composite development plans showing pit layouts, dumps, stacks of mineral reject, if any, etc. and year wise sections in case of 'B' category mines.

Year-wise Development and Production plan bearing Plate no. 7 and Section bearing no Plate 8 attached with this mining plan .

d) Describe briefly giving salient features of the proposed method of working indicating Category of mine.

Mainly the mining will be done with the help of local manual labours only to provide employment to the local poor peoples . No blasting will be carried out as the lease area is sesetive . Hand sorting and sizing of iron ore will be done at mine site by manual local labour to provide employment . It is a “B” Category manual mine. All the mining operation will be done by local labours.

e) Describe briefly the layout of mine workings, pit road layout, the layout of faces and sites for disposal of overburden/waste long with ground preparation prior to disposal of waste, reject etc. A reference to the plans and sections may be given. UPL or ultimate size of the pit is to be shown for identification of the suitable dumping site.

The whole mining operation will be carried out in between 291 to 280.9 m.RL. The ultimate pit depth is for 1st five years will be 280.9 m.RL. and the ultimate pit limit is 7.5 meters from the lease boundary.

Face slope will maintained at 45^0. Height and width of benches to be kept at 2.5m/5m means double spacing. There is no overburden above the iron ore depsit. During the mining operation all the precaution will be observed to prevent haphazard excavation of pit as per the DGMS and IBM Rule & Regulation.

5 meters wide Haul road will be made as shown in production plan. The gradient of the road will be maintained as per statutory norms 1:16 meters .

The total estimated mineable reserve is 1,17,515 tonnes proved by prospecting . The anticipated life of the mine will be 4.70 or say 5 years on the basis of 25000 TPA production.

f) Conceptual mine planning upto the end of lease period taking into consideration the present available reserves and resources describing the excavation, recovery of ROM, Disposal of waste, backfilling of voids, reclamation and rehabilitation showing on a plan with few relevant sections.

Conceptual Plan : In mining plan a map of conceptual plan submitted showing final position of the mine at the completely developed stage was submitted . This plan needs modification in view of depletion of reserve and changed production schedule hence change in life of the mine. Other aspects regarding mine design, method of working, mineral utilization and environment management remain un-changed .

Anticipated life of the mine :

Anticipated life of the mine will be obtained by considering the proposed rate of production . Proposed rate of production at the end of fifth year will be 25,000 tons. Considering the above production the Anticipated life of the mine will be 4.70 or say 5 years for **1, 17,515** tons of mine-able reserves.

Long Term Mine Design : Working of entire deposit of iron ore of proposed applied area has been conceptualized keeping in view the following points :

1. Development of 2 bench of 2.5 meters height for the 1st five years
2. Adequate sump capacity, proper floor level ensuring good mine drainage.

Accordingly, the optimum pit limit, position of working benches presently and at the abandoned stage , position of sump , location of overburden , and soil dump , afforestation scheme are shown in the present conceptual plan and conceptual sections . 5 meters wide haul road will proposed for smooth mining operation with the road gradient 1:16.

Optimum Exploitation and Utilization of Mineral : The proposed mining operation will be worked to produced saleable iron ore for own iron and steel plant . Therefore the iron ore mining workings will be extended in depth as well as lateral direction. The optimum pit limit based on the exploratory assay data are marked on plan upto UPD 280.9 m.RL during 1st five Years.

Waste and Sub-grade Mineral Management : The estimated quantity of soil and mineral rejects are too small and the generation of sub-grade will be zero . During the mining generated material suitably mixed with each other to reduce the rejection . All the waste removed staked separately for future use near the north of the lease area . The working pit will be extended in depth as well as lateral direction. Thus the ultimate pit limit and depth based on the exploration done earlier direction up to the ultimate pit depth and ultimate pit limit (7.5 meters) as shown in Conceptual Sections . The ultimate pit depth will be 280.9 m.R.L. Thus the optimum pit limit based on the exploratory assay data are marked on plan . After the detail exploration during 1st year of mining operation the reserve will be increased because here the iron ore seen in Block II and II which not considered due to lack of borehole . The details of generation of soil , waste and mineral for the conceptual period projected for the conceptual period are as follows :

Conceptual period	**Soil in T.**	**Waste in Tonnes**	**Iron Ore Production (ROM) for conceptual period in Tonnes**
2022 on wards	200 per year	8000 Tonnes per year	1,00,000 T. per year
Total	200 per year	8000 Tonnes per year	1,00,000 T. per year

A.K.John
Qualified Person

Environment Aspects : Awareness regarding environment impact has assumed a greater dimension particularly in developed countries . This is evident from the stringent law in this countries open-cast mining operation comprises various mining activities related to drilling , blasting and material handling are also potential sources environmental pollution . In this proposed iron ore ore mine all the process are very small in scale . No blasting proposed as the area is sensitive . There is no other activity in surrounding the lease applied area excepting proposed mining operation and the rest other area is mostly barren . In the surrounding area mostly agriculture land situated and owned by private individuals of local villagers .

No blasting proposed in this area, so that chances of ground vibration and noise pollution will be far below the permissible limits. During the mining operation all the precautions will be observed and adopted by the owner to prevent the environment of the area.

Post mining land use : At the end of mine life the abandoned working pit will be levelled and after extensive affrestation handowered to govt.

B. UNDERGROUD MINING

i) Mode of entry (adit. incline. shaft, ramp /decline). Briefly describe the reason for choosing the mode of entry and its location with justification. Describe development and stoping method.

Not Applicable , it is a Open Cast Manual Mining Operation.

* * * * *

3.0 MINE DRAINAGE

a) Minimum and maximum depth of water table based on observations from nearby wells and water bodies.

The minimum depth of water table as observed in surrounding area in water well is 20 meters and maximum depth is 25 meters below general ground level. The general ground level is at 250m.RL.

b) Indicate maximum and minimum depth of Workings.

The minimum depth of working pit is 291 m.RL. and the proposed maximum depth will be 280.9 m.RL. at the end 5th year of mining plan . After 5 years it will go as low as 250m.RL. The general water table is far bellow , as the area is in hill.

c) Quantity and quality of water likely to be encountered, the pumping arrangements and places where the mine water is finally proposed to be discharged.

The total estimated quantity of water which comes in working pit is 2 cubic meters per 24 hours during rainy season only. The water will be used for afforestation and sprinkiling on road.

d) Describe regional and local drainage pattern. Also indicate annual rain fall. catchments area, and likely quantity o rain water to flow through the lease area, arrangement for arresting solid wash off etc.

The drainage is controlled by a small gullies formed due to running rain water along the slopes. These gullies area joining the two mail rivers of the area named Mandoli and Malsowahi rivers flowing in the direction of north-west at a distance of 7 kms. Vainganga is the main river of the area and flowing in south west direction at a distance of 40 KM General height of the area is 281 meters above MSL. The thickness of top soil or overburden is almost zero. Soil found only in intercalated pockets.

* * * * *

4.0 STACKING OF MINERAL REJECT /SUB GRADE MATERIAL AND DISPOSAL OF WASTE

a) Indicate briefly the nature and quantity of top soil, overburden/ waste and Mineral Reject to be disposed off.

The soil come from intercalated pockets and waste/ rejects. Generated during mining and sizing of iron ore . No top soil found in applied area .The proposed working will be done in single pit . The yearly generation of soil , waste / rejects from this mine is estimated as follows :

Year	Top Soil (T.)		Waste/ Rejects (T.)		Over Burden in (T.)	
	Reuse/ Spreading	Storage	Backfilling	Storage	Backfilling	Storage
1st	40	0.00	0	357	0.00	0.00
2nd	40	0.00	0	357	0.00	0.00
3rd	100	0.00	0	863	0.00	0.00
4th	100	0.00	0	863	0.00	0.00
5ht	150	0.00	0	1332	0.00	0.00
Total	430	0.00	0	3,772	0.00	0.00

b) The proposed dumping ground within the lease area be proved for presence or absence of mineral and be outside the UPL unless simultaneous backfilling is proposed or purely temporary dumping for a short period is proposed in mineralized area with technical constraints & justification.

The generated waste will be dump in southern side of the applied area within the lease boundary near N 100 to N 200. No old dump found in the area . The maximum height will be 10 meters in two stage . The present height is 0 meters. Total 430 t. of soil and 3,772 t. mining waste will be accommodate in proposed dumping area . Garland drain and de-silting tank will be prepared around the dump to prevent wash off during rainy season.

c) Attach a note indicating the manner of disposal of waste, configuration and sequence of year wise build up of dumps along with the proposals for protective measures .

Garland drain will be prepared around the dumping side to prevent the dump by rain water wash off.

* * * * *

A.K.John
Qualified Person

5.0 USE OF MINERAL AND MINERAL REJECT

a) Describe briefly the requirement of end-use industry specifically in terms of physical and chemical composition.

It will be a captive mining operation of M/s Corporate Ispat Alloys Ltd. The iron whatsoever will be mined out will be mainly used in own steel plant , ssponge iron and Pellet plants . The average grade of iron found in the deposit is as follows:

Fe - 63 to 69.81 %
SiO_2 - 1.03 to 12.22 %
P - 0.004 to 0.012 %
LOI - 0.097 to 15.67 %

b) Give brief requirements of intermediate industries involved in up-gradation of mineral before its end-use.

Whenever required, the material of lower grade will be beneficiated at Lessee's beneficiation plant and after beneficiation the same will be used in pellet manufacturing.

c) Give detail requirements for other industries, captive consumption, export, associated industrial use etc.

The Iron ore that will be produced from this mines will be used as a captive requirement in applicant's own steel plant.

Blast Furnace & Sponge Iron -

Fe - 62 % and above
SiO_2 & Al_2O_3 - 7.0 % max.
P - 0.08 % max.

Size - + 40 mm 2 %
-40mm to 25mm 10 % max
-5mm 2 % max.

A.K.John
Qualified Person

d) Give details of processes adopted to upgrade the ROM to suit the user requirements. The useable mineral recovered from ROM may not be directly used in any industry and may need intermediate process to suit the user industry in terms of physical and chemical compositions.

No screening and crushing will be done at mine site for sizing and gradation of iron ore . It will be a purely manual mine due to local issue .

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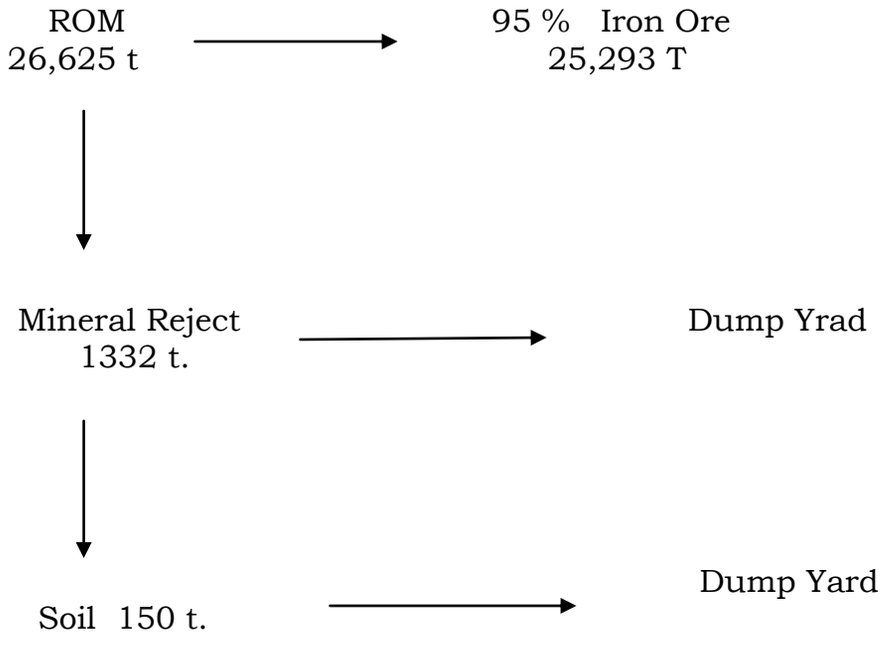
6.0 PROCESSING OF ROM AND MINERAL REJECT

a) If processing /beneficiation of the ROM or Mineral Reject is planned to be conducted, briefly describe nature of processing/beneficiation. This may indicate size and grade of feed material and concentrate (finished marketable product), recovery etc.

No processing of ROM at mine site . Only manual hand sizing and sorting of iron ore proposed .

b) Give a material balance chart with a flow sheet or schematic diagram of the processing procedure indicating feed, product, recovery, and its grade at each stage of processing.

Material balance chart enclosed above .



c) Explain the disposal method for tailings or reject from the processing plant.

No proposal of processing plant at mine , so not applicable .

d) Quantity and quality of tailings/ reject proposed to be disposed, size and capacity of tailing pond, toxic effect of such tailings, if any, with process adopted to neutralize any such effect before their disposal and dealing of excess water from the tailings dam.

No proposal of processing plant , so not applicable .

e) Specify quantity and type of chemicals if any to be used in the processing plant.

No chemical used at mine site for processing of mineral iron ore .

f) Specify quantity and type of chemicals to be stored on site/plant .

No chemical used at mine site for processing of mineral iron ore . So no proposal for storage of chemical at mine site .

g) Indicate quantity (cum per day) of water required for mining and processing and sources of supply of water, disposal of water and extent of recycling. Water balance chart may be given.

2 M^3 for water required for domestic purpose of mine workers . 2 M^3 for Sprinkling in Mine road and dusty area. 1M^3 for afforestation. The demand of water will be fullfilled from bore well .

* * * * *

7.0 OTHER

a) Site services :

Site services can be classified in following categories:

1. Statutory obligation
2. Maintenance requirement
3. Administrative requirement
4.

1. Statutory Requirement: These facilities will include first aid station, rest shelter, drinking water facility etc. in the mining lease area. Mine office and rest shelter .

2. Maintenance Requirement: As the method of mining will be of opencast manual mining . Local back smithy will be run by local people for sharpening their tools such as digging rood crow bar , spade etc.

3. Administrative Requirement: For this a site office is required for mining staff and will constructed in the proposed place for day to day working as shown in all the Plates. Location of proposed site services shown in all the plans.

b) Employment potential :

Manpower required for the purpose of statutory requirement will be a part of total manpower, which includes Mines Manager, Part time Mining Engineer, and Mining Mate etc.

Apart from the above 50 un-skilled labours will be required for hand sizing , sorting , loading and maintenance of mine road , haul road etc. Following will be the main manpower requirement:

S.No.	Particulars	Qualification	Nos.
1.	Mines Manager	2nd Class Mines Manager Certificate of Competency of DGMS	1 Full Time
2.	Mining Engineer	BE Mining	1 Full Time
3.	Mining Mate	Mining Mate Certificate of Competency of DGMS	1 Full Time
4.	Geologist	M.Sc. Geology	1 Full Time
5.	Semi-Skilled		2
6.	Un-Skilled		50

As per the rule 42 of MCDR 1988 and DGMS Rules .

* * * * *

A.K.John
Qualified Person

8.0 PROGRESSIVE MINE CLOSURE PLAN UNDER RULE 23 (2) OF MCDR'1988

8.1 Environment Base line information: Attach a note on the status of baseline information with regard to the following.

Existing land use pattern indicating the area already degraded due to mining, roads, processing plant, workshop, township etc in a tabular form.

(a) Baseline Information:

(i) Existing Land use pattern:

The mining lease applied area is having undulating topography surrounded by private agricultural land and stony land. Practically there is no top soil or overburden over the mining lease area. There is no other activity in the area accept proposed mining operation. The surrounding area is agricultural land of single crop pattern depending on proper and sufficient rainfall. The surrounding land is mostly private land, occupied by individual of Fuser village. In mining lease area, as well as in surrounding, there is no sufficient cover of alluvial soil so that agricultural activities are being not carried out properly. The existing land use pattern of the Fuser iron Ore Deposit area is as follows:

Area Under	Existing Land Use Pattern in hects
1. Pits	0.000
2. Dump	0.000
3. Approach road	0.000
	0.000
4. Plantation	0.000
5. Infrastructure	0.000
6. Available Land	72.60
Total area in hects.	72.60

(ii) Water Regime:

There is no water regime of any importance which is passing through the lease applied area. There are two main river of the area named Mandoli and Malsowahi passing near the 8 kms away from applied area. Some small nala are also seen near the sangam village, they active only in the rainy season and remain dry in the other season. Vainganga River is the main river of this region, which is 40 kms. South of the lease area. The water table is available within 20 to 25 meters from the surface level in rainy season and during summer the water table goes below 25 meters. This is evident from nearby wells and also informed by village official.

(iii) Flora & Fauna:

The is no flora or fauna of national importance. It has already been mentioned that this area is generally considered tropical and high moisture in the atmosphere but due to lake of soil cover no dense vegetation seen in this area surrounding the mine. Apart from the above agricultural lands there where one time crop is being cultivated. Except the above vast tracts of the area does not have any flora of great importance.

Natural fauna in the area is field mice, rabbit, foxes etc. No wild animal seen in the area. Domesticated cattle are ox, buffalo, cow and gout are found in plenty numbers.

(iv) Quality of Air, Water and Noise:

The mining lease area is presently free from any kind of air pollution and in future there will not be change as the mining will be of manual opencast method.
The water is potable in the well and bore well. There is no beneficiation process envisaged for the beneficiation of iron ore, hence the chances of contamination of water due to organic discharge or other effluent does not arise.

(v) Climatic Condition:

The mining lease area is located in a small village of Gadchiroli district and the information is not readily available with the village official. However, the climate of the area is of moderate to extreme nature with maximum temperature of 46^0 to 48 ^{0} C and mean minimum temperature of 4 ^{0} to 8 ^{0} C. This is a semi-arid area. The average rain fall of the region is between 1100 to 1250 mm.

(vi) Human Settlement:

The area is thinly populated and average density per sq. km. is also low. The area is mostly inhabited by agriculture based people as agriculture is the major source of income. The people are mostly in very low income group and they are engaged either in some government sponsored civil work or relief work where normally local people are engaged. The mining activity will provide employment to the local people. Their source of entertainment is mostly local festival, folk songs and dances. A list of village with their direction, distances from the proposed lease area and population is given below:

S. N.	**Name of village**	**Direction**	**Distance in Kms.**	**Population**
1	Fuser	N-W	2.50	150
2	Mutnur	N-W	4.50	250
3	Kadsi	East	3.00	200
4	Gurhut	South	3.50	100
5	Bawancha	N-W	5.00	300

(vii) Public Building, Places, Monuments:

There is no public building, places or monumental construction found in the vicinity of the mining lease applied area of great importance.

(viii) Sanctuary in the vicinity of leasehold : No within the radius of 50 km.

8.2 Impact Assessment: Attach an Environmental Impact Assessment Statement describing the impact of mining and beneficiation on environment on the following :

Due to the mining operation there will be insignificant change in the environment. The surrounding of lease area is having no good flora and fauna. The socio-economic status of the surrounding villages is rural with dominant agricultural economy and thinly populated. There will be no adverse impact due to mining on socio-economic environment .The Possible impact on environment are may be as follows :-

(i) Land area indicating the area likely to be degraded due to quarrying, dumping, roads, workshop, processing plant, tailing pond/dam, township etc.

Landscape: The mining lease area is a hillock surrounded by barren and forest land. Due to mining operation there will be removal of soil/ overburden and iron ore, which will be dumped properly and it will be leveled, so that the dump height is uniform in all sides. Though there will be some change in the land use pattern but it will give better view.

Aesthetic Environment : In mining lease applied area it is proposed to dump the overburden in systematic manner near the northern lease boundary outside the lease area in own land of mine owner. Reclamation will be started after attaining the maximum thickness of iron ores, which is economically viable .Any unsystematic dumping as well as opening of pit will be avoided, so that mining activity does not violate the aesthetic sense of environment.

Soil and Land Use Pattern: There is 430 t. soil going to generate from the proposed mining operation during 1st 5 years . There will be change in the land use pattern after the mining activity in lease applied area. Following will be the land use pattern after 5 years as envisaged presently:

	Land use after 5 years of mining plan in Hects. including present land use
1.Area under pits	
Existing	0.000
Proposed	0.617
2.Area for Dumping	
Soil	0.000
Waste	1.119
3.Area for approach road	0.220
4.Plantation	0.112
5. Infrastructure	0.015
6. Garland Drain	0.250
Total area in hects.	2.333

Air quality : The mining operation will be of manual mining operation , The proposed mining operation will be of very small scale , the only adverse impact will be of increase in SPM which will be generated during the time of storm only. This will be reduced by water sprinkling . In order to ascertain the quality of air in and around the lease area ambient air quality will be monitored at different stations periodically as per norms. The samples will be collected and analysed for SPM, RPM, SO_2 and NO_x. In order to maintain the quality of air below permissible limit sprinkling of water will be done regularly at all the points of operation and mine road where air will be likely to be affected. The nearest village is located at a distance of 2.50 km. From the mine and proper water sprinkling will reduce the air pollution.

Water quality : The ground water available in the well, bore-well and tank etc. is of potable in nature and no adverse effect has been noticed in the past due to

human consumption and in future also there will not be any change in quality due to proposed mining activity.

Surface Water: At present there is no water source which is passing through the mining lease applied . There are no chances of contamination of surface water. During the rainy season accumulated water will be collected in de siltation tank before its disposal.

Ground Water: Ground water will encounter below 20 to 25 meters depth from the general ground level. As the proposed working will be much above general ground water table and not going to encounter with ground water table, so there will be no effect on the ground water of the area.

Noise levels : The method of mining is manual open cast mining operation. No blasting proposed for production . The noise will be created in the area due to running tractor only, drill machine , jack hammer, blasting, running of pay loader and trucks are not required. Due to smaller mining operation the noise level will not exceed the level of 75 dB. The machine operator will be provided earplugs. In addition to all the precautionary measures will be taken to maintain noise level below the permissible limits. So there will not be any remarkable impact due to this mining operation on noise pollution.

Vibration levels (due to blasting) : No blasting proposed for mining operation.

Water regime : There is no surface water bodies available in the lease area . There is some local nallah which is 2000 meters away from the mining lease area and only active in the rainy season and remain dry in other season . The Sheonath river is passing 30 kms. away from the lease area in the direction of north-east . The water table is available 30 meters below from the general ground level . Seasonal nalas and streamlets are commencing from higher parts of the area and join these perennial rivers . The drainage patter is dendritic to sub-dendritic.

Acid mine drainage : No reported in this area from last 25 years .

Surface subsidence : No reported in this area from last 25 years .

Socio-economics : The local inhabitants are predominantly dependent on agriculture for their live hood. Paddy, Grams, Pulses are the main crops of this area. At present there is no much activities accepting agricultural activity in this village. The proposed mining operation will provide employment for the local people. It will improve the living condition of the local very poor people. There will

be more employment in the area. The socio-economic impact due to mining activity in the region will be positive.

Historical monuments etc. : No historical monuments or temples etc. found nearby area .

8.3 Progressive reclamation Plan :

To mitigate the impacts and ameliorate the condition. describe year wise steps proposed for phased restoration, reclamation of lands already to be degraded in respect of following items separately for 5 years period.

8.3.1. Mined-Out Land:

The waste dump which stacked inside the mine area will be backfill In abandoned pit and after proper afforestation Han dowered to the govt of Maharashtra.

8.3.2 Topsoil Management: The 430 t. topsoil will begenerate during the plan period . If some quantity will be generated from intercalated pockets , will be used for afforestation purpose only. The dumping site is shown in the Development & Production Plan (**Plate No. – 7**) . For stabilization of the dump it is proposed to grow grass over the dump .

8.3.3 Tailings Dam Management: There is no beneficiation process involved , so no effluent will be discharged from the mine . Therefore no need of tailing dam .

8.3.4 Acid mine drainage, if any and its imitative measures

No reported in this area from last 25 years . So not applicable .

8.3.5 Surface subsidence mitigation measures through backfilling of mine voids or by any other means and its monitoring mechanism. The information on protective measures for reclamation and rehabilitation works year-wise may be provided as per the following table.

SUMMARY OF YEARWISE PROPOSAL FOR ITEMNO. 8.3

Items	Details	Proposed	Actual	Remarks
Dump management	Area afforested (ha)	0.112	0.000	
	No of saplings planted	500	0	
	Cumulative no of plants	50	0	
	Cost including watch and care during the year	50,000	0	
Management of worked out benches	Area available for rehabilitation (ha)	0.000	0.000	
	Afforestation done (ha)	0.000	0.000	
	No of saplings planted in the year	0.000	0.000	
	Cumulative number of plants	0.000	0.000	
	Any other method of rehabilitation (specify)	No	No	
	Cost including watch and care during the year	Nil	Nil	
Reclamation and Rehabilitation by backfilling	Void available for back filling (L x B x D) pit wise / stope wise	0.000	0.000	
	Void filled by waste / tailings	0.000	0.000	
	Afforestation on the backfilled area	0.000	0.000	
	Rehabilitation by making water reservoir	No	No	
	Any other means (specify)	Nil	Nil	
Rehabilitation of waste land within lease	Area available (ha)	0.000	0.000	
	Area rehabilitated	0.000	0.000	
	Method of rehabilitation	Nil	Nil	
Others (specify)		No Nil	No Nil	

8.4 Disaster Management and Risk Assessment :

The proposed Mining operation is small in nature . No any river is flowing direct vicinity to the lease applied area . No seismic activities, flood or land slide etc. recorded in this area during the last 5 decade , as informed by the village officials. The mining operation will go up-to 310 m.RL. the proposed dump height is only 10 meters , so chances of land slide , subsidence etc. are completely nill in this mining operation. During the emergency mine owner will approach to local Tehsildar.

Name of the Responsible person during disaster – All the Directors and Mine Manager .

Postal Address -

M/s Corporate Ispat Alloys Ltd.
ABHIJEET CENTRE
LEVEL 05 79/4,
Prashant Nagar, Ajni,
Nagpur, Maharashtra – 440012

(T) +91 712 2980291 / 712 3020300 (D) +91 712 3020554
(F) +91 712 2980292 (Extn) 44554 (M) +91 91 7507779786
Website : www.abhijeet.in

Contact moblie No. 7507779786

DISASTER MANAGEMENT PLAN

FALLS OF SIDES

- Flatter slope angles will be adopted where intrusion of loose earth is encountered.
- Unmanageable heights will not be created.
- Loose rocks will be properly dressed.
- Nature and structure of the rocks will be properly studied for their slips.

WASTE DUMP SLOPES

- Proper slope will be maintained to avoid rundown of edges and sides of the dump.
- Dumpers will not be taken too close to edges.
- Due care will be taken to plan the slope stabilization by plantation.

STORAGE AND USE OF EXPLOSIVES

- Proper and safe storage of explosives.
- Proper, safe and careful handling of explosives.
- Proper security system and use of explosive to prevent theft / pilferage.
  STORAGE OF OIL & FUEL
- Due care will be taken to avoid oil spillage.
- Storage will not be allowed beyond necessity.

WATER

- Unnecessary run off of water will be avoided.
- Due care will be taken to provide retaining wall & garland drain around the dumps.

8.5 Care and maintenance during temporary discontinuance:

Mainly the mine temporarily discontinue during the rainy season only . The lessee made protective barbed wire (1.5 meters high) around the lease boundary and waste dump area and 2 watchmen are will be appointed for twenty four hours. During the emergency mine owner company and Mine Manager will be the responsible person.

8.6 Financial Assurance :

As per the rule applicaant company submit financial assurance to the competent authority I.B.M. for Rs. One Lakh as a bank guarantee for “B” Category Manual Mining Operation. The financial assurance will be submitted before the execution of lease deed . The amount will be calculated for the purpose of Financial Assurance is based on the CCOM's Circular no.4 dated 2006.

A.K.John
Qualified Person

Table

TABLE INDICATING THE BREAK OF AREA IN THE MINING LEASE FOR CALCULATION OF FINANCIAL ASSURANCE

Sl. No.	Head	Area put on use at start of mining plan	Additional requirement during the period	Total	Area considered as fully reclaimed as on	Net area considered for calculation
1	Area under Mining	0.00	0.617	0.617	0.000	0.617
2	Storage for Top Soil	0.000	0.000	0.000	0.000	0.000
3	Overburden /Dumps	0.000	1.119	1.119	0.000	1.119
4	Mining Storage /Crusher	0.000	0.000	0.000	0.000	0.000
5	Infrastructure(Workshop , Administrative Building etc.	0.000	0.015	0.015	0.000	0.015
6	Road	0.000	0.220	0.220	0.000	0.220
7	Railway	-	-	-	-	-
8	Green Belt	0.000	0.112	0.112	0.000	0.112
9	Tailing Pond	-	-	-	-	-
10	Effluent Treatment Plant	-	-	-	-	-
11	Mineral Separation Plant	-	-	-	-	-
12	Township Area	-	-	-	-	-
13	Other (garland drain)	0.000	0.250	0.250	-	0.250
	Grand Total	0.000	2.333	2.333	0.000	2.333

(Rate Rs. 15000 per hect. or 1,00,000 with will be higher for manual mining operation)

Calculation – 2.333 x 15,000 = 45,000 in this case Rs. 1.00 lakh is higher

A.K.John
Qualified Person

8.7 Certificate : -

Certified that the Progressive Mine Closure Plan of Fuser Iron Ore Deposit (applied area 72.60 Hects) will complies all statutory rule, regulations, orders made by Central or State Government, statutory organizations , court etc. have been taken into consideration and wherever any specific permission is required the applicant will approach the concern authorities .

I also giving an undertaking to the effect, that all the measures proposed in this closure plan will be implemented in a time bound manner as proposed.

Place - Nagpur
Date - 20/10/2016

Signature of Applicant

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Name : **Siddharth Jaisawal**
Designation : Director
M/s Corporate Ispat Alloys Ltd.