



भारत सरकार  
खान मंत्रालय  
भारतीय खान ब्यूरो  
क्षेत्रीय खान नियंत्रक का कार्यालय

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फोन 0294-2583139, 2583215, email ro.udaipur@ibm.gov.in

सं 682(23)(एमएस-630)/2011-खानिखस(उ)उदय

उदयपुर (राज.) दिनांक

17 6 Nov 2016

प्रेषित :- मै. सौराष्ट्र केलसाइन बाक्ससाइट एंड एलाइड इंडस्ट्रीज,  
हर्षद रोड,  
पोस्ट भाटिया तालुका कल्याणपुर,  
जिला देवभूमि द्वारिका (गुज.) पिनकोड-361315

विषय :- खनिज (परमाणु और हाइड्रोकार्बन उर्जा खनिजों से भिन्न) रियायत नियम 2016 के नियम 17 (3) के अंतर्गत प्रस्तुत निकट ग्राम मेवासा तालुका कल्याणपुर जिला- देवभूमि द्वारिका (गुजरात) में स्थित मेवासा बाक्ससाइट खान (क्षेत्रफल -9.66 हेक्टर) की खनन योजना सह उत्तरोत्तर खान बन्द करने की योजना का अनुमोदन।

संदर्भ :- 1. आपका पत्र संख्या NIL दिनांक 08.08.2016।  
2. इस कार्यालय का समसंख्यक पत्र दिनांक 11.11.2016  
3. आपके क्यू.पी. का पत्र दिनांक 11.11.2016।

महोदय,

In exercise of the power conferred by the clause (b) of sub section (2) of Section 5 of the Mines and Minerals (Development & Regulation) Act, 1957 read with Government of India Order No. S.O. 1857 (E) dated 18.05.2016, I hereby approve the aforesaid Mining Plan (including Progressive Mine Closure Plan). This approval is subject to the following conditions.

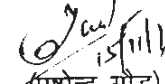
1. The Mining Plan (Including the Progressive Mine Closure Plan) is approved without prejudice to any other law applicable to the mine area from time to time whether made by the Central Government, State Government or any other authority and without prejudice to any order or direction from any court 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 the approval of aforesaid Mining Plan does not in any way imply the approval of the Government in terms of any other provision of Mines & Minerals (Development & Regulation) Act, 1957, or the Minerals (other than Atomic and Hydro Carbons Energy Minerals) Concession Rules 2016 and any other laws including Forest (Conservation) Act, 1980, Environment (Protection) Act, 1986 or the rules made there under, Mines Act, 1952 and Rule & Regulations made there under.
4. 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 precise area as furnished by the applicant / lessee.
5. 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.
6. The financial assurance shall be due for submission on 31-03-2021.
7. This approval is restricted in respect of the proposals contained therein and as applicable from the date of approval for the period from Dec.,2016-17 to 2020-21 With

P.T.O.

a validity upto 31.03.2021 subject to all other statutory compliances and clearances for the mining activities to be carried out within the mining leasehold. This approval is subject to extension of period of mining lease as per MMDR(Amendment) Act 2015, if applicable, by the competent authority.

संलग्न :- अनुमोदित खनन योजना सह उत्तरोत्तर  
खान बन्द करने की योजना की प्रति

भवदीय

  
(पुष्पेन्द्र गोड)

उप खान नियंत्रक एवं प्रभारी  
भारतीय खान ब्यूरो

प्रतिलिपि सूचनार्थ -

1. श्री कल्याण सिंह नागौरी, 70-इंद्रप्रस्थ कॉम्प्लेक्स, तृतीय तल, देहलीगेट - शास्त्री सर्किल लिंक रोड, उदयपुर राजस्थान ।
2. आयुक्त, भू-विज्ञान एवं खनन विभाग, गुजरात सरकार, उद्योग भवन, ब्लॉक 1 व 2 सप्तम तल, से-11, घ-सडक, गाँधीनगर, गुजरात (अनुमोदित खनन योजना सह उत्तरोत्तर खान बन्द करने की योजना की एक प्रति सहित- पंजीकृत डाक द्वारा)

उप खान नियंत्रक एवं प्रभारी  
भारतीय खान ब्यूरो

CATEGORY - B



# **MINING PLAN WITH PROGRESSIVE MINE CLOSURE PLAN**

*(Submitted Under Rule(s) 17 (3) of MINERALS (OTHER THAN ATOMIC AND HYDRO CARBONS  
ENERGY MINERALS) CONCESSION RULE, 2016)*

OF

## **MEWASA BAUXITE MINE (S No.138)**

FOR MINERAL- BAUXITE

Village- Mewasa, Taluka- Kalyanpur, District- Devbhumi Dwarka, State- Gujarat

LEASE AREA- 9.66, Hect. (NON-FOREST-Land)

LEASE PERIOD FROM- 03.09.2006 TO 02.09.2026

Production Period of Mining Scheme- December 2016- March 17 to 2020-21



Working Pit

LESSEE

**M/S Saurashtra Calcine Bauxite and Allied Industries**

Harshad Road, P.O. Bhatia, Taluka – Kalyanpur, District – Devbhumi Dwarka

Ph. No. 02891 – 233199, 233155

Registration no. IBM/248/2011

IBM Mine Code No- 07GUJ07070

PREPARED BY

**KALYAN SINGH NAGORI**

(SENIOR GEOLOGIST)

# MINING PLAN WITH PROGRESSIVE MINE CLOSURE PLAN

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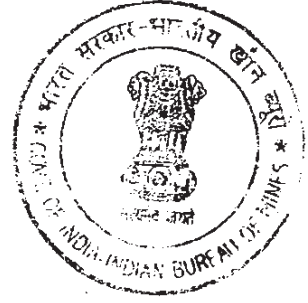
## Mewasa Bauxite Mine (S.No.- 138/P)



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**Mewasa Bauxite Mine (S.No.- 138/P)**



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अनुमोदित  
पत्र सं. 682 (23) (एम.एस. - 630)/2011  
खा.नि.ख.स. (उ) उदय  
दिनांक 16/11/15 के द्वारा

**CHAPTER - 1**  
**GENERAL**



**1.0 General:-**

a) Name of Applicant / Lessee / Rule 45 registration no. IBM/248/2011

Name of the applicant with complete address:

Registered Office:

"Shree Chambers", 3<sup>rd</sup> Floor, post Box No. 55,

Opp. M.E.M School, Porbandar (Gujarat), Pin code -360575

Correspondence Address: -

M/s Saurashtra Calcine Bauxite & Allied Industries

Harshad Road, P. O. Bhatia

Taluka - Kalyanpur, District - Devbhumi Dwarka (Guj.)

Pin code - 361315

Ph. 02891-233199, 233155

Fax no. 02891 - 233166

Email address: - [scabalindia@gmail.com](mailto:scabalindia@gmail.com)

अनुमोदित  
**Approved**

*(Signature)*  
15/11/16

उप खान निबंधक

Deputy Controller of Mines

भारतीय खान ब्यूरो उदयपुर

Indian Bureau of Mines, UDAIPUR

The modified mining plan has been prepared to change method of mining from semi mechanized open cast method to mannual open cast method.

**b) Status of Applicant/lessee**

Lessee is a Partnership firm with registered office at Porbandar (Guj.). There are seven partners of the firm. The name and address of the partners.

S. No.	Name	Address
1.	Shri Dwarkadas Keshavji Raichura	Post - Lamba, Tal. Kalyanpur, Distt. Jamnagar - 361315, Ph. No. (02891) 233155 & 233166
2.	Shri Padamshi Keshavji Raichura	Shree Chambers, 3 <sup>rd</sup> Floor, Opp. M.E.M. School, Porbandar - 360575, Ph. No. (0286) 2247223 & 2245784
3.	Shri Hemendrakumar Keshavji Raichura	Shree Chambers, 3 <sup>rd</sup> Floor, Opp. M.E.M. School, Porbandar- 360575, Ph. No. (0286) 2247223 & 2245784
4.	Shri Vinodkumar Jamnadas Pabari	K.D. Complex, 6 <sup>th</sup> Floor, Indira Marg, Gurudwara Char Rasta, Jamnagar - 361001, Ph. No. (0288) 2553131 & 2556365
5.	Shri Kishorkumar Prabhudas Pabari	Jam-Gadhka, Tal. Kalyanpur, Distt.- Jamnagar, Ph. No. (02891) 275666
6.	Shri Shaileshkumar Dwarkadas Raichura	Shree Chambers, 3 <sup>rd</sup> Floor, Opp. M.E.M. School, Porbandar - 360575, Ph. No. (0286) 2247223 & 2245784
7.	Shri Arvindkumar Jamnadas Pabari	K.D. Complex, 6 <sup>th</sup> Floor, Indira Marg, Gurudwara Char Rasta Jamnagar- 361001, Ph. No. (0288) 2553131 & 2556365

**WASA BAUXITE MINE (S. NO.138/P) AREA 9.66 HECT. OF M/S. SAURASHTRA CALCINE BAUXITE & ALLIED INDUSTRIES**

Sh. D.K. Raichura is managing partner and having the power of attorney copy enclosed as annexure IX. The copy of Address proof and ID proof copy enclosed as annexure IV.

The address of power of attorney is as under: -

Shri D. K. Raichura

Post - Mewasa, Taluka - Kalyanpur, District - Devbhumi Dwarka (Guj.)

Ph. No. (02891) 233155 & 233166

Email Address: - [scabal@scabalindia.com](mailto:scabal@scabalindia.com).



c) **Mineral(s) which is / are included in the prospecting license (For Fresh grant)**

Nil

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

Bauxite

e) **Mineral(s) which is the applicant / lessee intends to mine**

Bauxite

f) **Name of Qualified person under rule 15 of MCR, 2016 or a person employed under clause (c) of Sub rule (1) 42 of MCDR, 1988 (Applicable for Scheme of Mining only) Preparing Mining Plan:-**

**Shri Kalyan Singh Nagori**

(Senior Geologist)

59, Mahaveer Nagar Hiran Magri Sector -4 Udaipur

C/o The Mewar Geomin Consultants

70, Indraprasth Complex, IIIrd Floor,

Delhigate, Shastri Circle, Link Road, Udaipur (Rajasthan). 313001

Phone No: - 0294- 2561098, Fax No: - 0294-2561098,

Email address - [nagori.ks@gmail.com](mailto:nagori.ks@gmail.com)

Mobile- 94142-89507

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## CHAPTER – 2 LOCATION AND ACCESSIBILITY



### 2.0 Location and Accessibility:-

#### 2. a) Lease Details (Existing Mine)

Name of Mine:-

Mewasa Bauxite Mine (S. No.138) of M/s Saurashtra Calcine Bauxite and Allied Industries over an area 9.66 Hect. In Village - Mewasa, Taluka - Kalyanpur, District - Devbhumi Dwarka, State - Gujarat. Date of grant of lease: - Grant on 19.07.1986 agreement executed on 03.09.1986 for 20 years. Lessee has applied for lease renewal on 29-08-2005 copy enclosed as annexure IV. Renewal is pending at Govt. Level. As per, new introduce Rule MMRD 2015 by the Government of India. The lease period will be increased as per norms.

Name of lease holder: -

M/S. Saurashtra Calcine Bauxite and Allied Industries

The registered office of the company is at Porbandar. The address is as under:-

**Registered Office:**

"Shree Chambers", 3<sup>rd</sup> Floor, post Box No. 55,

Opp. M.E.M School, Porbandar (Gujarat), Pin code -360575

**Correspondence Address: -**

M/s Saurashtra Calcine Bauxite & Allied Industries

Harshad Road, P. O. Bhatia, Taluka – Kalyanpur, District – Devbhumi Dwarka

(Guj.), Pin code – 361315, Ph. 02891-233199, 233155, Fax no. 02891 – 233166

Email address: - [scabalindia@gmail.com](mailto:scabalindia@gmail.com)

- (1) The reason for the preparation of modified plan are lessee has obtained TOR from MOEF as per the proposed mining method is manual. (2) The production is very less and the proposed production many achieved by the manual method.

#### **Status of Applicant**

Lessee is a Partnership firm with registered office at Porbandar (Guj.). There are seven partners of the firm. The name and address of the partners.

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5.	Shri Kishorkumar Prabhudas Pabari	Jam-Gadhka, Tal. Kalyanpur, Distt.- Jamnagar, Ph. No. (02891) 275666

**WASA BAUXITE MINE (S. NO.138/P) AREA 9.66 HECT. OF M/S. SAURASHTRA CALCINE BAUXITE & ALLIED INDUSTRIES**

6.	Shri Shaileshkumar Dwarkadas Raichura	Shree Chambers, 3 <sup>rd</sup> Floor, Opp. M.E.M. School, Porbandar - 360575, Ph. No. (0286) 2247223 & 2245784
7.	Shri Arvindkumar Jamnadas Pabari	K.D. Complex, 6 <sup>th</sup> Floor, Indira Marg, Gurudwara Char Rasta Jamnagar- 361001, Ph. No. (0288) 2553131 & 2556365

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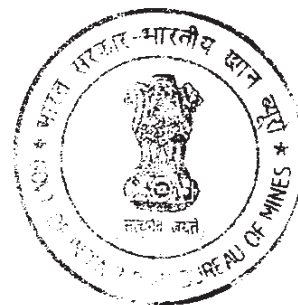
Shri D. K. Raichura

Post - Mewasa, Taluka - Kalyanpur

District - Devbhumi Dwarka (Guj.)

Ph. No. (02891) 233155 & 233166

Email Address: - [scabal@scabalindia.com](mailto:scabal@scabalindia.com).



**2.b) Details of applied /lease area with location map:-**

The Mewasa Bauxite mine is over an area of 9.66 Hect In survey No. 138 of village - Mewasa, Taluka - Kalyanpur, District - Devbhumi Dwarka.

The lease was executed on 03.09.1986 for 20 years. The lease period expired on 02.09.2006. Lessee has applied for renewal on 29.08.2005. Lessee has applied renewal on 29.08.2005 for 20 years up to 02-09-2026.

Lessee has erected pillars of the lease area. Lessee has applied to State Government to obtain DGPS survey of all pillars and superimposition map as per CCOM's circular 2/2010. The demarcation report and lat-long are enclosed as annexure. Lessee has applied for environment clearance.

Forest	Non Forest
Forest Area (ha)	Non Forest
Nil	Private land 9.66 Hect.

Total lease area - 9.66 Hect.

Village - Mewasa, Taluka - Kalyanpur

District - Devbhumi Dwarka, State - (Guj.).

The latitude & longitude of pillars are enclosed as annexure X.

Area falls under Coastal Regulation Zone (CRZ) if yes details there of Nil.

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.



The mining lease for bauxite under reference is about 2.0km from village Mewasa and approachable only by a cart track. Mewasa can be approached from village Ran. Ran is located about 1 km north of tar road connecting village Limbdi with Dwarka. Limbdi is located on the Jamnagar – Okha State Highway no. 25 and is about 35 km from Khambalia. Normally, the people around these parts avail autorickshaw and trucks (transporting ore) for reaching Limbdi and Bhatia. The nearest railway station is Bhatia (B.G.), which is about 25 km from Mewasa and located on Okha – Rajkot broad gauge section of Western Railway. The nearest seaport is Okha, which is about 75 kms from Mewasa. The nearest airport is located at Jamnagar, which is about 115 kms from Virpur. Porbandar, which is a seaport and also having an airport, is, located about 110 kms from Mewasa. The taluka headquarters is Kalyanpur, which is about 40 kms from Mewasa. Kalyanpur is comparatively a bigger place than Mewasa and facilities of hospital, post and telegraph office etc. are also available. The Latitude and longitude of pillars are show as under :-

Pillar	Latitude	Longitude
1	N 22°14' 05.80"	E 69°18' 56.80"
2	N 22°14' 00.80"	E 69°19' 01.30"
3	N 22°13' 59.90"	E 69°19' 02.70"
4	N 22°13' 58.90"	E 69°19' 02.80"
5	N 22°13' 56.40"	E 69°19' 02.70"
6	N 22°13' 55.10"	E 69°19' 02.40"
7	N 22°13' 55.10"	E 69°19' 01.80"
8	N 22°13' 52.50"	E 69°19' 01.80"
9	N 22°13' 53.10"	E 69°18' 54.00"
10	N 22°13' 59.70"	E 69°18' 52.20"
11	N 22°14' 01.30"	E 69°18' 51.40"
12	N 22°14' 02.80"	E 69°18' 51.40"
13	N 22°14' 04.60"	E 69°18' 52.90"
14	N 22°14' 05.60"	E 69°18' 54.40"

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## CHAPTER – 3

### DETAILS OF APPROVED MINING PLAN/SCHEME OF MINING

#### 3.0- Details of Approved Mining Plan/Mining Scheme of Mining (if any):-

##### 3.1 Date & reference of earlier approved MP / SOM:-

The mining plan was approved by Indian Bureau of Mines (IBM) Udaipur, vide their letter No. 682 (23) – MS 630/2011 MCCM (N) UDP dated 11.04.2007 for five years.

The mining scheme was approved by the IBM Udaipur Vide letter no. 682 (23) MS 630 / 2011 MCCM (N) UDP date 22.01.2016.

The mining scheme was approved by the IBM Udaipur vide letter No. 682(23) MS-630/2011 MCCM(V) UPD DT. 25.10.2011

##### 3.2 Details of last modification if any (fir the previous approved period) of approved MP/SOM:-

Nil.

##### 3.3 Give review of earlier approved proposal:-

###### a) Exploration: -

In approved mining scheme it was proposed to put two trial pits.

Compliance Position:-

Lessee has not put trial pits.

###### b) Mine Development & Excavation:-

According to the approved 'mining scheme' the lessee should have carried out mining in central part of the lease area adopting semi mechanized open cast method during the five years of mining scheme period there by producing 69315 tonnes of bauxite.

Compliance Position:-

In reality, during the five years of mining plan period. Lessee has carried out production is nil.

The year wise production achieved by the lessee against the actual production proposed to be achieved is given below: -

Year	Proposed as per approved plan			Achieved performance during plan		
	Proposed production in MT	Proposed site	Number of bench for bauxite	Production achieved	Actual site of work	Number of bench
December 2016-17	33840	Centre pit	One	Nil	-	-
2017-18	34050	Centre pit	One	Nil	-	-
2018-19	33750	Centre pit	One	Nil	-	-
2019-20	33675	Centre pit	One	Nil	-	-
2020-2021	34500	Centre pit	One	Nil	-	-

From the above table it is clear that no production is taken after approval of mining scheme.

**Waste Management: -**

In the approved mining plan the overburden likely to be generated is nil and 5% of ROM which has clayish material, is considered as waste.

The waste was generated during mining scheme period was proposed to be backfilled.

Soil was proposed to spread on backfilled area.

**Compliance Position:-**

no mine waste was carried out after approval of mining scheme.

**Afforestation**

It was proposed to plant 20 saplings every year during five year's plan period.

**Compliance Position:-**

Year	Proposed saplings to be planted	Saplings planted by the lease	Survival of plants
December 2016-17	20	Nil	-
2017-18	20	Nil	-
2018-19	20	Nil	-
2019-2020	20	Nil	-
2020-2021	20	Nil	-

No plantation was done.

**c) Mine Reclamation and any other significant features: -**

According to approved mining plan an additional area of 12155M<sup>2</sup> was proposed to worked and lessee has to backfilling 679M<sup>2</sup> area during five years.

**Compliance Position:-**

It was observed that the lessee has not backfilled the mined out area because the bauxite is present at pit floor.

S. No.	Area proposed to be back filled during plan period	Area backfilled during plan period
1	679 M <sup>2</sup>	Nil

**3.4 Give Status of Compliance of violations pointed out by IBM:-**

Nil.

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

Nil.

**3.6 In case the MP/SOM is submitted under rules 9 and 10 of the MCDR' 88 or under rule 22(6) of the MCR' 1960 for approval of modification, specify reason and justification for modification under these rules:-**

Nil.

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## 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.

**Topography:** - The lease area is extending in northwest – southeast direction. Topographically lease area may be considered as very gently sloping westerly. The area is not covered by any watercourses in the form of river, nallah etc.

The mining lease area is plain. Topography of the lease area is gently sloping. The topographic features of the area have been shown on all relevant plan and section. The topographic survey plan on scale of 1:1000 with contour interval of 1m along with all topographic features is prepared which can be referred on surface plan.

Major part of the lease area is converted into pits south part of the lease area is backfilled.

**Drainage Pattern:** - There is no river or nalla or well exist in the lease area. There is no fix drainage pattern Rain fall in the area is Scanty. During rains, water flows from higher elevation to lower elevation in all direction. Part of rain water is also collected in working pits, which are soon dried up as rains are not regular. There is natural drainage system within the lease area.

Rain water runoff along the slope of the world and gently sloping ground. Major part of the rain water from the lease area runoff along slope accumulates in the season nala. This land is acquired by the lessee for mining purpose. The water requirement of mines for dust suppression and green land development will be met from the rain water purpose. Quality of ground water of nearby villages is fair and utilized for domestic and agriculture purpose.

**Vegetation:** - The area is devoid of any vegetation. Except plantation carried out by lessee, no vegetation can be seen in the area.

**Climate:** - The area is arid in nature and being in the vicinity of sea, experiences typical coastal climate with high humidity. The wind direction is generally SW-NE. Being nearer to the seacoast, the area also experiences sea and land breeze. The difference in the temperature during summer and winter is very large. In winter, January is the coldest month, while in summer May and June are hottest months. The average temperature during winter is around 20° c, while in summer it is 38° c. the maximum temperature in winter is around 33° c while the minimum is 12° c. In summer, the temperature raises to a maximum of 40° c while is records and minimum of 27° c.

**Rainfall:** - The average rainfall is 220-250mm, which is mainly received during the months of July – September.

**(b) Regional Geology:-**

The area around Mewasa, Nandana, Mota Asota, Ran village has bauxite in segregated pockets within laterite or horizontal bedded bauxite deposit with in laterite or altered clay. The other rock type exposed in the region are trap rocks, limestone and lithomergic clays. The limestone belonging to Gaj beds series is overlying the laterites. The sequence of formation ranges from early Eocene to recent in age. The generalized stratigraphic sequence of the region is given below: -

Recent	Soil, blown sand, shell limestone, calcareous clays
Pleistocene	Miliolite limestone
L. Miocene (Gaj series)	Concretionary limestone, calcareous clays, greenish bentonitic clays, calcareous grit, conglomerate
<hr/> Unconformity <hr/>	
Palaeocene (Supra Trappeans)	Laterite with or without bauxite Ocherous and Bentonitic clays (Dominantly purple to brown in colour and spotted)
Deccan Trap	Altered derivatives of trap and other pyroclastics, such as brown clays, Basalts

The bauxite deposits of Kalyanpur Taluka, Devbhumi Dwarka District, Gujarat are associated with a narrow belt of laterite extending from Mota Asota village near Gulf of Kutch in north to Gandhvi village near Arabian sea coast on South.

The laterites belt is about 7 km wide between Mewasa and Habardi village and is less than 1 km wide near Ran, Hadmatiya and Mewasa village. On the west of this belt the laterites was overlaid by younger, Tertiary rocks and to the east they are underlain by the Deccan traps. The laterite-bauxite-clay sequence rests over Deccan traps.

The laterite is distributed almost as a continuous zone between Gajbeds and underlying Deccantraps. The Gajbeds which overlie the laterites bauxite succession in the belt are mostly sub- horizontal in the disposition. They comprise yellow colored afgillaceous fragmentary limestone.

**(c) Detail description of Geology of the area:-**

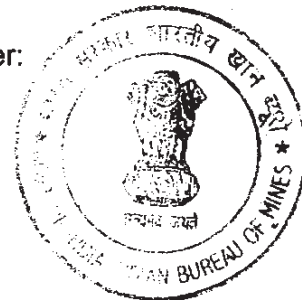
The geology of the mining lease area and its vicinity broadly confinds to the regional geology of the area. Major part of lease area has been mined out. Bauxite is present in pit

**ASA BAUXITE MINE (S. NO.138/P) AREA 9.66 HECT. OF M/S. SAURASHTRA CALCINE BAUXITE & ALLIED INDUSTRIES**

section and at pit floor. Bauxite is exposed in working pit of the area. In general thickness of bauxite is 7.5m. Recovery of high grade is 10% and low grade ( $Al_2O_3$  upto 35%) is 90% of production. Recovery percentages of bauxite are 90% of ROM based on the result of excavation done so far in the area.

Stratigraphic sequence found in the area can be summarized as under:

<u>Age</u>	<u>Formation</u>	<u>Average Thickness</u>
Recent	Topsoil	1.00 M
<hr/> UN CONFORMITY <hr/>		
Supra Trappers (Paleocene)	Bauxite	7.5 m
	Lithomargic Clay	-



The topographical/Surface/Geological plan of the lease area has been prepared on the scale 1: 1000 with contour interval of 1m.

**d) Name of prospecting agency:-**

Lessee has prospecting the area himself during mining lease (M.L) period by putting working pits and prospecting pits.

The registered office of the company is at Porbandar. The address is as under:-

Registered Office:

"Shree Chambers", 3<sup>rd</sup> Floor, post Box No. 55,

Opp. M.E.M School, Porbandar (Gujarat), Pin code -360575

**Correspondence Address: -**

M/s Saurashtra Calcine Bauxite & Allied Industries

Harshad Road

P. O. Bhatia

Taluka - Kalyanpur, District - Devbhumi Dwarka (Guj.)

Pin code - 361315

Ph. 02891-233199, 233155

Fax no. 02891 - 233166

Email address: - [scabalindia@gmail.com](mailto:scabalindia@gmail.com)

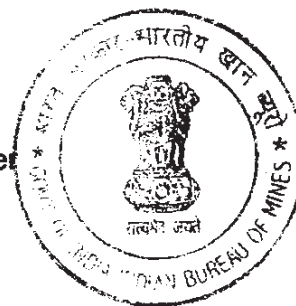
**e) Details of prospecting/ Exploration already carried out:-**

The area has been earlier prospected by State & Central Govt. Dept. on regional basis.

**1. Number of pits and trenches: -** Lessee has prospected the area himself by putting working pit during mining lease. At present two working pits has been developed in the area, Bauxite is available at section the lease area.

The general dimension of the working pits are as under:-

S. No.	Pit No.	General Dimension in meter
1	Pit -1	383m x 205m
2	Pit -2	97m x 36m



2. Number of boreholes: - Nil

3. Details of samples analysis: - Lessee has analysis the bauxite sample and analysis report is enclosed as annexure.

S. No.	Sample Type L. Surface /Sub Surface from pit / trenches as/ boreholes etc. Sample Type (Surface / Sub Surface / from pits/ Trenches/ Boreholes etc.	Details of Chemical Analysis Details of Chemical analysis	Whether in according to B/s and Yes/ No Whether in according to BIS Yes / No	Name of NABL accredited other Govt. Lab
1.	Pits	Al <sub>2</sub> O <sub>3</sub> - 47.06% CaO - 5.49% Fe <sub>2</sub> O <sub>3</sub> - 7.58% LOI - 29.73% SiO <sub>2</sub> - 6.94% TiO <sub>2</sub> - 2.49%	Yes	SGS Lab

4. The Expenditure incurred in various prospecting operations: - NIL.

f) The surface plan of the lease area has been prepared on scale 1:1000 with contour interval 1.00m plate no. 3.

g) The surface geological plan has on scale 1:1000 with contour interval 1.00m. showing is geological features as shown in plate 4.

h) The geological section has been prepared on scale 1:1000 and enclosed as plate no. 5.

i) Future Exploration Programmed:-

Lease area has been explored; hence no further exploration is required. However it is proposed to put two trial pits during mining scheme period location of prospecting pits has been marked over Surface geological plan plate No.- 4.

Year	No. of trial pits	No. of pits, dimensions and volume	Location
17 - 18	One	5m x 5m up to Lithomargic Clay	At pit floor
18 - 19	One	5m x 5m up to Lithomargic Clay	At pit floor

j) Reserves & Resources as per UNFC:-

The lease area has been mined since long and considerable portion have been exposed with much geological information in working pit and in trial pits. The geological data so far gathered from the pit working is adequate enough to delineate proved ore reserves. The feasibility report is enclosed with the text.



Considering the extent of lease area, pit geology adjacent working pits, trial pits and based on the nature of bauxite formation, entire lease area is considered as mineralized zone and placing under proved (Category 111) reserves.

Earlier the reserve was calculate by considering threshold value as 40%  $Al_2O_3$  but now as per CCOM circular no. 3/2010 dated 14.07.2010 the threshold value is considered as 35%  $Al_2O_3$ . Therefore, the reserve is re-estimated. Thus, by considering Bauxite with upto 35%  $Al_2O_3$  the average thickness of Bauxite is found to be 7.5m. The insitu bulk density has been considered as 2.5 and the recovery of Bauxite is considered as 90% ROM based on the proved experienced gained by the lessee and by adopting improvised Semi Mechanized Mining operation and efficient sizing and sorting process during the scheme period.

The reserve has been re-estimated considering four axis of UNFC classification i.e. economical axis, Feasibility axis and Geological axis.

Level of Exploration	Area considered	UNFC Classification	Category of Reserve / Resources estimation	Reserve/ Resources as per UNFC Classification
G1	Area considered 51490 M <sup>2</sup>	UNFC Code for Area Considered 111	Proved Category	412759 MT

## 2) Computation of Proved & Probable Geological reserves of Bauxite (Category 111)

While calculating the reserves the length, width, thickness and the specific gravity of Bauxite is taken into consideration. The length, width and thickness of Bauxite is considered in meters. The surface area is considered in square meters. The various terms expressed for computation of reserve are mentioned in short term as below:-

$$L \times W \text{ (or } A) \times Th \times Sp. Gr. = R$$

Where;

L = Length in m

W = Width in m

A = Area in m<sup>2</sup>

Th = Thickness in m

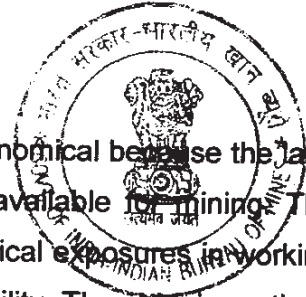
Sp. Gr. = Specific Gravity

R = Reserves in Tonnes

R.F. = Recovery Factor

The following parameters have been considered for proved reserve.





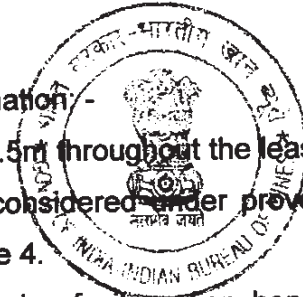
**For proved category reserve (category 111): -**

- i. **Economic axis:** - The reserves in the lease area are economical because the land of the lease area is a Private Land non-Forest Land and is available for mining. The detailed exploration has been carried out in the area and geological exposures in working pit as well as in trial pits exhibit sufficient data for reserve availability. The stripping ratio of ore to overburden is very low and hence the cost of production is less than sale value, therefore the reserves can be kept in 1 of Economic axis.
- ii. **Feasibility axis:** - The Bauxite mineral available from this area has good Market Demand, as the high grade material is used for captive consumption at lessee own value addition plant. The lease area has been fully explored. The land is available for mining therefore the reserves can be kept in 1 of Feasibility axis. The feasibility report is enclosed with text.
- iii. **Geology axis:** - The geological map has been prepared updating all geological features, extension of deposit and location of working pits. The lease area has been extensively mined and the area is fully explored. The exploration carried out in the area and the geological data inferred from the pit working is sufficient that Bauxite capping is available in the area. Therefore the reserves can be kept in 1 of Geological axis.

**The following parameters have been considered for reserve estimation: -**

**For proved category reserve (category 111): -**

1. **Economic axis:** - The reserves in the area are economical because the land of the lease area is Private land owned by lessee and available for mining. The land is non forest land. The detailed exploration has been carried out in the area by development working pits. The cost of production is less than sale value therefore the reserves can be kept under category 1 of economic axis.
2. **Feasibility axis:** - The bauxite mineral of the area has ready market. The lease area has been fully explored. The land is available for mining therefore the reserves can be kept in category 1 of feasibility axis.
3. **Geology axis:** - The geological map has been prepared including all geological features; extent of deposit and location of working pits. The lease area has been extensively mined. The area is fully explored. The exploration carried out in the area is sufficient and thick bauxite capping is available in the area. Therefore the reserves can be kept in category 1 of geological axis.



The following parameters have been considered for reserve estimation -

1. Bauxite is exposed in the working pits up to thickness of 7.5m throughout the lease area. Hence lease area considered as mineralized zone and considered under proved reserves (Category 111) as shown in surface geological plan plate 4.
2. In general thickness of bauxite zone is 7.5m on the basis of pit section hence thickness of bauxite zone is considered as 7.5m. Bauxite present at pit floor will be calculated separately.
3. The insitu bulk density has been considered as 2.5. MT/ cu.mt.
4. The already excavated area has been excluded from reserves calculation only.
5. The recovery of bauxite is considered as 95% ROM.
6. Based on experience gain from the work done so far the following recovery percentage for differed grade has been considered
  1. High grade (Abrasive & refractory grade)( $Al_2O_3 > 45\%$ ) 10% of Production
  2. Low grade ( $Al_2O_3$  upto 35%) 90% of Production  
(Cement and other grade)

**k). Computation of Proved Geological reserves of Bauxite (Category 111)**

While calculating the reserves the length, width, thickness of bauxite, the specific gravity (Sp. gr.) of bauxite is taken into consideration wherever. The surface area is taken into consideration the same is expressed in square meters. While calculating the reserves, the various terms expressed above are mentioned in short term as below:-

$$L \times W \text{ (or A)} \times Th \times Sp. Gr. = R$$

Where;

L	= Length in M
W	= Width in M
A	= Area in $M^2$
Th	= Thickness in M
Sp. Gr.	= Specific Gravity
R	= Reserves in Tonnes

**Reserve Estimation**

**Proved reserve (Category 111)**

The reserves present in the area are economical because the cost of production is less than sale value. From the discussion it is clear that the mining bauxite from the area is viable. Therefore the reserves can be kept in code 1 of economic axis. The bauxite of this area have ready market and can be early sold this the proved reserves can be kept in

code 1 of feasibility axis. The exploration carried out in the area is sufficient to put the reserves in code 1 of UNFC code of geological axis.

Based on above parameters the reserve calculation can be summarized as under: -

(a) Demarcated Surface area for proved reserves = 4294m<sup>2</sup>

Thickness of bauxite = 7.5 M

Reserves of bauxite = Area x Thickness x Sp. Gr. x Rec. = RT

For proved Category 111 = 4294 x 7.5 x 2.5 x 0.95

Proved reserves = 76,487 MT

(b) Calculation of Un excavated reserve left out in working pits.

S. No	Pit no.	Thickness bauxites bed left out (M) (a)	Pit area M <sup>2</sup> (b)	Volume M <sup>3</sup> C = (a x b)	Reserve in MT C x 2.5	Recoverable Reserves in MT
1	1	3.00	47196	141588	353970 MT	336272 MT
		3.00	47196	141588	353970 MT	336272 MT

Total Proved reserves (Category 111) = 76487 MT + 336272MT = 412759 MT

#### Feasibility Mineral Resources (211): -

As the mineral inferred in the statutory barrier zone of 7.5m, statutory zone along road, mineral blocked around the statutory zone and office barrier, these reserves are called mineral resources and calculated under category 211. A feasibility mineral resource is that part of the measured mineral resources that has been shown after a feasibility study. It cannot be economically mined out. The feasibility of mineral resources as per approved mining scheme can be summarized as under: -

Reserves blocked under statutory barrier = 1166 x 7.5 x 2.5 x 0.95 = 20769 MT

Reserves blocked under infra statutory building = 4200 x 7.5 x 2.5 x 0.95 = 74813 MT

Total feasibility reserves = 20769 + 74813 = 95582

#### 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)

Lease of Exploration	Resources in million tones	Grade
G1 – Detailed exploration	0.508 MT	Plant Grade 10% & Non Plant Grade 90% of production
G2 – General exploration	-	-
G3 – Prospecting	-	-
G4 – Reconnaissance	-	-

Resources and Reserves within the lease may be arrived after applying results feasibility/ prefeasibility 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, canal, reservoir, electric line and other statutory barriers etc, under forest sanctuaries etc. Where necessary permissions are not available.



**Geological, Mineable/ Recoverable Reserves & Resources as per UNFC Classification**

Classification	Code	Reserves estimation (Quantity in tonnes)
<b>TOTAL MINERAL RESERVES</b>		<b>Bauxite</b>
Mineral reserves		
Proved mineral reserves	111	412759 MT
Probable mineral reserves	122	
<b>Total</b>		<b>42759 MT</b>
Remaining resources		
Feasibility mineral resources	211	95582 MT
Pre-feasibility mineral resources	221	-
Measured mineral resources	331	-
Indicated mineral resources	332	-
Inferred mineral resources	333	-
Reconnaissance resources	334	-
<b>Total</b>		<b>95582 MT</b>

**Grade of the reserves: -**

On the basis of the mining experience gained during operation in the lease area the Bauxite available in the lease area consists of High Grade (Abrasive & Refractory Grade) & Low Grade. The recovery of Bauxite is 95% of ROM. The overall rate of High Grade (Abrasive & Refractory Grade) & Low Grades is 10:90 but the recovery of High Grade & Low Grade will be changing from face to face and layer to layer therefore the grade wise recovery of the Bauxite will be under variance. Grade wise reserve could be summarized as under: -

S. No.	Category of Reserves	Recovery
1	High grade (Abrasive grade & refractory grade) ( $Al_2O_3 > 50\%$ )	10% of ROM
2	Low grade (upto 35% $Al_2O_3$ ) (Cement and other grade)	90% of ROM

- d) As per estimated Mineable Reserves of 4,12,759 MT of Bauxite available with average annual production proposed of Bauxite is 36,000 MT, the balance Mine Life period is 12 years.

-----X-----X-----

## CHAPTER – 2

### MINING



#### **Open Cast Mining:-**

- (a) **Briefly describe the existing as well as proposed method for excavation with design parameters:-**

**Existing Method of Mining:** -The mining is carried out by manual open cast method. With the nature of deposit bauxite horizon is present below thin cover of soil. The bauxite zone having thickness of 7.50m. The bauxite is also present at pit floor having 3m thickness.

The mining work has been done in the lease area by manual open cast mining method by forming two benches for bauxite mineral at pit floor by engaging manual workers. The heights of benches are 1.5 to 2m and widths of benches are 2.00m. Soil is removed first. The orientation of face is east – west. Bauxite horizon is compact in nature and required drilling and blasting. Drilling is being done by jackhammer & blasting is being done by explosive. Blasted material after manual sorting is being loaded in trucks. The existing fair weathered road is being used as approach road.

During mining scheme period the lessee has worked in the lease area.

The mining lease area has been developed by developing one pit the dimension of pit is as under:-

Pit no.	Dimension in M
Pit-1	383m x 205m
Pit-2	97m x 36m

There is good demand of the low grade bauxite in the market & lessee has order of the low grade bauxite of the area hence achieve the proposed production.

#### **Proposed method of mining during modified mining plan period: -**

The modified mining plan is proposed for next five years period.

As the mining lease is having working pits. In the proposed mining plan, no development work is proposed, because bauxite will be excavated from pit floor. The mining will be carried out by manual open cast method using drilling and blasting. In the proposed mining, mining will be started from central part of the area at pit floor. The factor of recovery (RF) of bauxite from ROM is considered as 0.95 (95% of ROM). The total area each year to be mined at in next five years is as below:

**Geometry of Benches:** - The maximum height of bench will be 1.5m during modified mining plan period. The width of the bench will be 2m. The slope of bench will be 70° from vertical.



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

As the mining lease is having working pit, in the proposed mining plan mining will be carried out at pit floor in the proposed mining, bauxite will be excavated by developing two benches for the bauxite of 1.5 m each at pit floor. The factor of recovery (RF) of bauxite from ROM is considered as 0.95% (65% of ROM) on the basis of work done so far by the lessee:-

The Insitu Tentative Excavation is as under:-

Year	Total tentative Excavation (Cum)	Top Soil (Cum)	OB / SB / IB (Cum)	ROM (Cum)		Mineral waste in (M <sup>3</sup> )	ROM/ Waste Ratio
				Ore (Cum)	Mineral reject (Cum)		
December 16-17	6300	Nil	Nil	6300	Nil	315	Nil
17-18	13620	Nil	Nil	13620	Nil	681	Nil
18-19	14400	Nil	Nil	14400	Nil	720	Nil
19-20	13470	Nil	Nil	13470	Nil	674	Nil
20-21	14400	Nil	Nil	14400	Nil	720	Nil
<b>Total</b>	<b>62190</b>	<b>Nil</b>	<b>Nil</b>	<b>62190</b>	<b>Nil</b>	<b>3110</b>	<b>Nil</b>

Year wise production during four years mining plan period:

The year wise details of volume bauxite ore to be excavated & the production tonnage of considering the recovery percentage of all grade bauxite are as under: -

Year (a)	Volume M <sup>3</sup>			Recovery of Bauxite 95% ROM in MT d x 0.95 (e)	Waste 5% of ROM M.T. d x 0.05 (f)	Production of Bauxite	
	Soil (b)	ROM (c)	Tonnage of ROM (d)			High Grade 10% of Prod. In MT e x 0.10 (Al <sub>2</sub> O <sub>3</sub> > 50%) Abrasives & refractory grade (g)	Low grade 90% of production in MT e x 0.90 (Al <sub>2</sub> O <sub>3</sub> > 35%) (cement & other grade) (h)
December 16-17	Nil	6300	15750	14963	787	1496	13467
17-18	Nil	13620	34050	32348	1703	3235	29113
18-19	Nil	14400	36000	34200	1800	3420	30780
19-20	Nil	13470	33675	31991	1684	3199	28792
20-21	Nil	14400	36000	34200	1800	3420	30780
<b>Total</b>	<b>Nil</b>	<b>62190</b>	<b>155475</b>	<b>147702</b>	<b>7774</b>	<b>14770</b>	<b>132932</b>

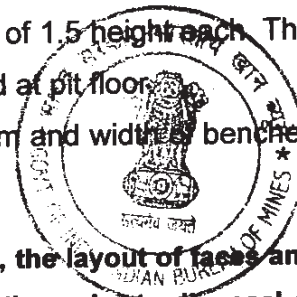
Dump rehandling: Nil.

c) The year wise development plan and section, showing pit layouts, dumps etc has been shown in plate no. 6.

d) Describe briefly giving salient features of the proposed method of working. In the proposed mining plan period

The mining operation will be manual open cast method. The method of mining proposed to be adopted in the next five years will be manual open cast with use drill and blasting.

the mine will be carried out at pit floor by developing two benches of 1.5 height each. The waste generated during modified mining plan period will be stacked at pit floor. Geometry of bench: - The maximum of height of bench will be 1.5m and width of benches will be 2m and slope of benches will be 70° from vertical.



e) Describe briefly the layout of mine workings, pit road layout, the layout of faces and sites for disposal of overburden/ waste along 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.

**Year wise production for the ensuing five years period: -**

In the proposed modified mining plan, the mining will be carried out in central part of the lease area at pit floor of pit no. 1. The bauxite will be excavated by forming two benches of 1.5m. No soil will be generated during plan period. The mining will be done by manual open cast method with use of drilling and blasting. During plan period mining will be done in central part of the lease area. The bauxite present at pit floor will be excavated during five years. The existing weathered road will be used as approach road to connect village road. Waste will be spread in the worked out pit.

Year	Area to be worked
December 2016- March 2017	2100 M <sup>2</sup> at Pit floor
2017-2018	4340 M <sup>2</sup> at Pit floor
2018-2019	4800 M <sup>2</sup> at Pit floor
2019-2020	4490 M <sup>2</sup> at Pit floor
2020-2021	4800 M <sup>2</sup> at Pit floor

**First Year (December 2016- March 2017): -**

During first year mining will be carried out in central part of the lease area at pit floor of pit no. 1 and controlled by section M- M<sup>1</sup>. The orientation of face will east – west advancing northerly.

The bauxite here has an average thickness of 3m at pit floor will be excavated by forming one benches of 1.5m each.

The strip is located in central part of lease area and controlled by the section M – M<sup>1</sup>. The bauxite present at pit floor will be excavated by forming one bench of 1.5m height.

**The block parameter of block is as under: -**

- |    |   |                     |
|----|---|---------------------|
| 1. | Area of strip                             | 2100 m <sup>2</sup> |
| 2. | Average thickness of bauxite at pit floor | 3.00 m.             |



### Mining of Bauxite –

Bench No.	Area in M <sup>2</sup>	x	Height M.	= Volume in M <sup>3</sup>
Bauxite at pit floor	2100	x	1.5	= 3150 M <sup>3</sup>
Bauxite at pit floor	2100	x	1.5	= 3150 M <sup>3</sup>

Total Bauxite ROM = 6300 M<sup>3</sup> / 15750 MT



### Second Year (2017-18): -

In the second year mining will have controlled by section M – M<sup>1</sup>. The face formed at the end of first year will be advanced northerly as shown in year wise plan & section. The bauxite present at pit floor of 3m thickness will be excavated by forming two benches of 1.5 height each. The orientation of face will be east-west.

The block parameter of block is as under: -

1. Area of strip 4540 m<sup>2</sup>
2. Average thickness of bauxite at pit floor 3.00 m.

### Mining of Bauxite –

Bench No.	Area in M <sup>2</sup>	x	Height M.	= Volume in M <sup>3</sup>
1 Bauxite	4540	x	1.5	= 6810 M <sup>3</sup>
1 Bauxite	4540	x	1.5	= 6810 M <sup>3</sup>

Total Bauxite ROM = 3620 M<sup>3</sup> / 34050 MT

### Third Year (2018-19): -

In the third year mining will have controlled by section M-M<sup>1</sup>. The face formed at the end of second year will be advanced northerly as shown in year wise plan & section plate no. VI. Bauxite will be excavated by forming two benches. Third year working will be controlled by the section M - M<sup>1</sup> and north of the second year. The bauxite mineral having 3m thickness will be excavated by forming two benches of 1.5m height each.

The block parameter of block is as under: -

1. Area of strip 4800 m<sup>2</sup>
2. Average thickness of bauxite at pit floor 3.00 m.

### Mining of Bauxite –

Bench No.	Area in M <sup>2</sup>	x	Height M.	= Volume in M <sup>3</sup>
1 Bauxite	4800	x	1.5	= 7200 M <sup>3</sup>
1 Bauxite	4800	x	1.5	= 7200 M <sup>3</sup>

Total Bauxite ROM = 14400 M<sup>3</sup> / 36000 MT

#### Fourth Year (2019-20): -

In the fourth year mining will be carried out at pit floor and controlled by section M-M'. The face formed at the end of third year will be advanced northerly. Bauxite will be excavated by forming two benches of 1.5 height each.

Fourth year working will be carried out north of strip III and controlled by the section M - M' during fourth year the bauxite will be excavated by forming two benches of 1.5m height each.

The block parameter of block is as under: -

1. Area of strip 4490 m<sup>2</sup>
2. Average thickness of bauxite at pit floor 3.00 m.



#### Mining of Bauxite -

Bench No.	Area in M <sup>2</sup>	x	Height M.	= Volume in M <sup>3</sup>
1. Bauxite	4490	x	1.5	= 6735M <sup>3</sup>
2. Bauxite	4490	x	1.5	= 6735M <sup>3</sup>
Total Bauxite ROM = 13470 M <sup>3</sup> / 33675 MT				

#### Fifth Year (2019-20): -

In the fifth year mining will be carried out at pit floor and controlled by section M-M'. The face formed at the end of third year will be advanced northerly. Bauxite will be excavated by forming two benches.

During the fifth year working will be carried out north of strip III and controlled by the section M - M' during fifth year the bauxite will be excavated by forming two benches.

The block parameter of block is as under: -

1. Area of strip 4800 m<sup>2</sup>
2. Average thickness of bauxite at pit floor 3.00 m.

#### Mining of Bauxite -

Bench No.	Area in M <sup>2</sup>	x	Height M.	= Volume in M <sup>3</sup>
1. Bauxite	4800	x	1.5	= 7200M <sup>3</sup>
2. Bauxite	4800	x	1.5	= 7200M <sup>3</sup>
Total Bauxite ROM = 14400 M <sup>3</sup> / 36000 MT				

**Describe briefly giving salient features of the proposed method of working.**

The method of mining will manual open cast method. The method of mining proposed to be adopted in the next three years will manual open cast method with use of drilling and blasting.



The area proposed for next five years of mining will be done by manual open cast mining method with drilling and blasting.

Bauxite ore will be excavated by forming two bench. The maximum height of bench will be 1.5m.

Geometry of benches: - The maximum of height of bench will be 1.5m and width of benches will be 2m and slope of benches will be 70° from vertical.

**e) Layout of Mines: -**

The proposed mining is planned by laying benches to maximum of 1.5m height following each other two meter a part. The slope of benches will be 70° from vertical. The layouts of the strips are described in detail in under:-

(1) **Mode of working:** - As described earlier, the mining will be done by manual open cast method.

(2) **Layout of the Mine:** - The proposed mining is planned by laying benches to maximum of 1.5m height following each other two meter a part. The layouts of the strips are described in the detail in Chapter 5.1. The benches are laid in east - west direction.

(3) **Disposal of waste:** - The Waste generated during scheme period will be spread on the pit floor.

**Drilling & Blasting:-**

Lessee has explosive license the magazine is situated at Mewasa bauxite mine (s. No 138). The bauxite horizon being of compact formation, require drilling & blasting in the 30% of bauxite zone for this purpose 1.5m deep holes will be drilled by jack hammer & will be blasted by 25mm dia & 250mm long explosive cartige available in the region. The spacing & burden will be kept as 1m at the time of jack hammer drilling.

The Broad parameters are as under: -

1.	Spacing	-	1.0m.
2.	Burden	-	1.0m.
3.	Depth (Maximum)	-	2.00m.
4.	Diameter of hole	-	32mm.
5.	Explosive per hole	-	0.72 kg.
6.	Power factor	-	7 MT/ kg.
7.	No. of holes blasted per round	-	10 holes per round
8.	Maximum hole blasted per day	-	32 holes in one round only



About 5-10 holes will be required daily. The blasted material from the bauxite horizon will be broken & sorted at the face manually. About 208Kg explosive, 200 detonators and 500m fuse will be required every month.

### Precautions to be observed during drilling & blasting

It is proposed that drilling & blasting work will be done by a qualified blaster/ Mining Mate under supervision of Mines Manager. All the rules/regulation as defined by D.G.M.S. or any other dept. will be observed at the time of blasting & drilling. Due care will be taken during above operation for safe & systematic work will be done to avoid any mis-happening. Blasting work will be undertaken in bauxite horizon only.

### 1. Haulage with in the mining lease hold: -

S. No.	Type	Nos.	Size capacity in tonnes	Make	Motive power	HP
1	Tipplers	Two	10 MT	TaTa	-	35

### 2. Miscellaneous Equipment: -

S. No.	Type	Nos.	Capacity	Motive Power
1	Water Tanker	One	4000 Liters	Diesel
2	Dewatering Pump	One	10 HP	Diesel

### 3. Drilling machine :-

S. No.	Type	Nos.	Capacity	Mack	Motive Power
1	Jack Hammer RH 658/42	Two	32mm	Atlas Copco	-
2	Compressor	One	450 cfm, 100 psv	Atlas Copco	110HP

### f) Conceptual Mine planning:-

#### 2. f.1 Present available reserves and resources describe the excavation: -

#### Reserves and Resources:-

The present reserves and resources in the area are as under:-

Classification	Code	Reserves estimation (Quantity in tonnes)
<b>TOTAL MINERAL RESERVES</b>		<b>Bauxite</b>
A. Mineral reserves		
1. Proved mineral reserves	111	412759 MT
2. Probable mineral reserves	122	
Total		412759MT
B. Remaining resources		
3. Feasibility mineral resources	211	95582 MT
4. Pre-feasibility mineral resources	221	-
5. Measured mineral resources	331	-
6. Indicated mineral resources	332	-
7. Inferred mineral resources	333	-
8. Reconnaissance resources	334	-
Total		95582 MT

The total reserves proved reserves at present in the area is 508341MT. The reserves will be enhanced after further exploration.

### **Excavation:-**

In the ML area the ore block limits are determined either by the ML boundary or by the limits of the ore body. These limits have been duly marked in the geological plan. The ultimate pit limit has also been marked in conceptual plan plate no. 9.

The life of the mine is 12 years. During coming 12 years the entire lease area leaving statutory barrier will be converted into one pit. The conceptual plan has been prepared up to life of the mine; and up to extended lease period. The lease area will be converted into one pit having dimension 383m in length and width varies from 120m to 280m and average depth will be about 8.5m and the depth as shown on conceptual plan plan no. 9.

### **2.f.2 Recovery of ROM:-**

The recovery of bauxite is considered as 95% of ROM. The recovery of low grade is 90 % and recovery of high grade and low grade will be 10:90. The recovery of high grade and low grade will be changes from face to face and layer to layer therefore the grade wise recovery of bauxite will be under variance.

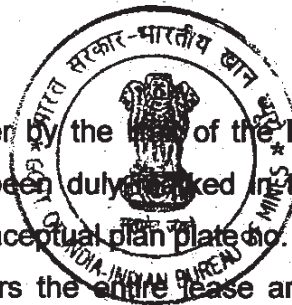
### **2.f.3 Disposal of waste:-**

The past experience of mining activity in the ML area as well as the details of maturity of voids after mining marked out in the present mining plan have shown that the voids created by mining will be much larger and the waste rocks and soil left out will be insufficient for backfilling purpose. Therefore backfilling of the mined out area upto original ground level will not be possible therefore mined out area will be used as water reservoir as shown in conceptual plan in the water reservoir. Soil will be spread on the already backfilled area.

The higher benches of excavated mining pit shall be terraced and plantation will be done for stabilizing the slope. The slope of higher benches will be made gradual & gentle for easy accessibility by local people to pond water and fencing will be carried out around the water reservoir as required.

### **2. f.4 Backfilling of Voids: -**

It is not possible to backfill the mined out land upto original ground level. As volume of voids is much more than material available for backfilling. Therefore upto life of the mine the mined out area will be used as water reservoir as shown in conceptual plan plate no. 9.





#### 2. f.5 Reclamation & Rehabilitation: -

The mined out area will be used as water reservoir. The plantation will be on statutory barrier.

#### Afforestation: -

It is proposed to undertake plantation programme in the lease area. Plantation work will be carried out along statutory barrier and on already backfilled area so that a green belt can be developed. About 240 plants will be grown up to lease life of the mine.

#### Post Mining land use:-

The basic requirement of local community is storage of rain water therefore the part of the area will be used as water reservoir which will act to replenish the ground water with fresh rain water which over a period of time will reduce the salinity and farmer will utilize reservoir water for agriculture purposes.

In the water reservoir the higher benches of excavated mining pit shall be terraced and plantation will be done for stabilization of the pit slope. The slope of higher benches will be made gently for easy & safe accessibility of the local people to pond water and fencing will be carried out around the water reservoir as required.

#### 2. B - Underground Mining: -

Not Applicable.

-----X-----X-----



### CHAPTER - 3

#### MINE DRAINAGE



**a) Minimum and Maximum depth of water table:-**

The Minimum water level in the area is 12.00m below the general ground level during the monsoon period the maximum water level is 18.00m below the general ground level during summer period as seen in the well situated near lease area as shown in environment plan.

**b) Indicate maximum and minimum depth of workings:-**

The minimum and maximum depth of working is 7m & 8m depending upon thickness of bauxite bed & topsoil.

**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:-**

Surface water body is absent in the lease area. Ground water level is also not likely to be touched due to mining. But the accumulation of rain water in the mined out voids is not ruled out. Proposal for pumping water from quarry floor. The quarry floor gets logged with rain water. The accumulated rain water slowly percolates downward and part of it gets evaporated. Mining will resume only in the month of October. There is no proposal for pumping water from the quarry bottom. Natural regression has been considered enough to resume mining by the month of October.

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

The water table in the area is 12m below the general ground level during the monsoon as seen in well situated near the area. Ground water in the area is generally saline and salinity increases with passage of time after monsoon. The water table of the area will not be tapped by working so there is no problem of lowering of water table of the region. There is no permanent ground water body like spring band etc. in the lease area. There is no permanent surface water body. There is nothing like any pond, lakes and Dam etc. in the nearby area.

The area is not erosion prone part because the ground slope is very gentle. About 100m garland drain will be proposed in statutory barrier area around pit to prevent the water entering in the pit. Settling tank will be provided in the lease area.

**Annual Rainfall in the area**

The average annual rainfall in the region is 220mm to 250mm.

-----X-----X-----





## CHAPTER - 4

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

#### a) Nature and quantity of top soil, overburden / waste and Mineral reject:-

As the Mining Operation during the plan period will be the broken up area, for five years where the top soil have been removed during the earlier mining plan period, mining will be taken at pit floor during the five years, the no top soil will be generated. The waste that is likely to be generated will be in the form of associated clay with the Bauxite horizon as mineral waste, which is below the threshold grade, which has no sale value in present market but it may have future market and therefore, the waste will be stacked separately at statutory barrier. Soil generated during plan period will be nil.

The yearly rate of generation of the waste has been described in detail in the mining chapter and the data given there is presented in a tabular form below.

The tabular statement showing volume of soil, OB, Mineralized waste:-

Year	Top Soil (cum)		Mineral Rejects		Blending	Beneficiation
	Reuse/spreading	Storage	Backfilling	Storage		
December 16 - 17	Nil	Nil	Nil	315	Nil	Nil
17 - 18	Nil	Nil	Nil	681	Nil	Nil
18 - 19	Nil	Nil	Nil	720	Nil	Nil
19 - 20	Nil	Nil	Nil	694	Nil	Nil
20 - 21	Nil	Nil	Nil	720	Nil	Nil
Total	Nil	Nil	Nil	3130	Nil	Nil

#### b) Proposed dumping area:-

In the proposed mining plan, it is proposed that the waste generated during scheme period will be stacked on statutory barrier and in mined out pits as shown in plate no. 7. The mined out area will be used as water reservoir.

#### c) Disposal of waste, configuration & sequence of year wise build up of dumps & protective measures:-

No Backfilling will be done in the area after winning full thickness of Bauxite. The waste generated during five years modified Mining Plan period will be stacked in statutory barrier and soil will be spread on statutory barrier for plantation as shown in plate no. 7 of reclamation plate. The volume of voids (excavated area) is much more than material available for backfilling, area cannot backfilled up to original ground level. Therefore mined out area will be used as water reservoir.

—X—X—

## CHAPTER – 5

### USE OF MINERAL AND MINERAL REJECT



a) **End use industry (Physical & Chemical Composition):-**

#### End use of mineral

The Bauxite produced in the mining lease area is of two categorized into one high grade & Low grade Bauxite.

The high grade (Abrasives and refractories grade) will be used in the plant situated at Bhatia. The Low Grade Bauxite which is used in the manufactures of cement and is supplied to the local industries or exported to Middle East/Asian countries. The Analysis report of the Bauxite is enclosed as Annexure. Permission will be obtained from the competent authority for sell / export the low grade material.

#### Physical and chemical specification stipulated

In general, the specification for the plant grade and non-plant grade bauxite is as under:

#### The Chemical specification for Abrasive grade Bauxite is: -

Al <sub>2</sub> O <sub>3</sub>	45% (min.)
SiO <sub>2</sub>	1% (max.)
CaO	1.5% (max.)
Fe <sub>2</sub> O <sub>3</sub>	4.0% (max.)

#### The Chemical specification for Refractory grade Bauxite is: -

Al <sub>2</sub> O <sub>3</sub>	55% (min.)
SiO <sub>2</sub>	7.5% (max.)
CaO	1.5% (max.)
Fe <sub>2</sub> O <sub>3</sub>	4.5% (max.)
TiO <sub>2</sub>	3.5% (max.)

#### The Chemical specification of Low Grade Bauxite used in cement manufacture

Al <sub>2</sub> O <sub>3</sub>	30 % (min)
SiO <sub>2</sub>	10% (max.)
Fe <sub>2</sub> O <sub>3</sub>	8.0% (max.)

#### The Chemical specification for Metallurgical grade Bauxite is: -

##### a) • Metallurgical grade – I

Al <sub>2</sub> O <sub>3</sub>	(+) 40% (Predominantly Trihydrate)
Reactive SiO <sub>2</sub>	2.8% (max.)
Total SiO <sub>2</sub>	4% (max.)

Metallurgical grade – II

$\text{Al}_2\text{O}_3$

(+) 40% (Mixture of trihydrate and monohydrate)

Total  $\text{SiO}_2$

4% (max.)



**The Chemical specification for Chemical grade Bauxite is: -**

$\text{Al}_2\text{O}_3$

55% (min.)

$\text{Fe}_2\text{O}_3$

2.5% (max.)

**Physical specification for Abrasives grade Bauxite**

The Bauxite to be used in the manufacturing of Abrasive grains and in the manufacturing of High Alumina Refractory bricks, it should be in lump form and the size of volume the lumps should not be less than 10 cm.

**Physical specification for cement grade Bauxite**

In the case of Bauxite used in the manufacture of cement, the lumps can be less than 10 cm in size.

There is no industry involved in up gradation of mineral bauxite before its end use. Only manual hands sorting of lateritic clay & laterite which are very low is  $\text{Al}_2\text{O}_3$  & high in  $\text{Fe}_2\text{O}_3$  &  $\text{SiO}_2$  is being done.

b) **Details requirements for intermediate industries in up gradation mineral before its end use.**

No intermediate Industries.

c) **Detail requirement of other industries, captive consumption export etc:-**

10% of production of high grade & used for captive consumption of company plant located at Bhatia. Low grade bauxite is sold to other parties for cement industries. After getting proper permission.

d) **Physical & Chemical specification of buyers:-**

Physical & chemical specification of low grade bauxite used in cement manufacture and as per end use of mineral.

e) **Proposal for up gradation of ROM:-**

Except hand sorting (removal of lateritic clay & lateritic) no up gradation is required.

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## CHAPTER – 6

### PROCESSING OF ROM AND MINERAL REJECT

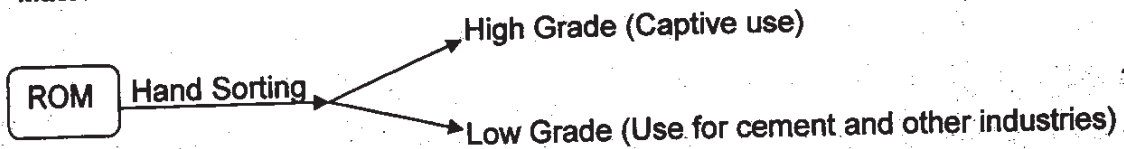


a) **Nature of processing beneficiation:-**

The insitu bauxite (ROM) mined is a mixture of ore and other waste materials such as lateritic clay and laterite which are very low in  $Al_2O_3$  and high in  $Fe_2O_3$  and  $SiO_2$ . Usually this insitu bauxite is hand sorted within the quarry grade-wise, such as abrasive grade, refractory grade, ceramic grade and cement grade (low-grade). The hand-sorted ore is transported from the mines and the waste is stacked in statutory barrier. Apart from this hand sorting, no other beneficiation methods are adopted.

The grade wise bauxite will be separated manually.

b) **Material balance chart with flow sheet:-**



c) **Disposal of tailings:-**

Not Applicable

d) **Quantity & Quality of tailings / reject:-**

Not Applicable

e) **Quantity & type of chemicals if any used in processing:-**

Nil

f) **Specific type & Quantity of chemicals to be stored on site / plant:-**

Nil

g) **Indicate Quantity (cum per day) of water requirement for mining and processing:-**

As this is a manual open cast mining, at which about 51 workers will be employed for production of mineral bauxite, hence water requirement will also be less. Drinking water will be brought from nearby villages during mining water will be not required.

—X—X—

## CHAPTER - 7

### OTHERS



#### a) Site Services:-

Mine Site office are established with relevant records of Mining Personal and for statutory purposes. Vehicle conveyance to the staff/employees is provided who travel from nearby by residing location. Mobile communication facility is provided from senior supervisory staff to Mine Manager level. A temporary rest shelter for labours & water tank (capacity of 500 litres) for storing drinking water is provided for usage of workers. Water sprinkling tankers are provided for Haul road dust suppression and time to time to maintain the road condition. A separate Jeep/ambulance is provided for sector mines, stationed at Mine site which will be used for emergency conveyance. Moreover, we have established a First-Aid station, Group canteen, Rest Shelter, Drinking water facility, etc at mine site.

#### b) Management & Supervision Personnel: -

##### ORGANISATION CHART

##### Highly Skilled Workers

Mining Engineer - 1 no.

(Under Rule 42 of MCDR 1988)

Geologist - 1 no.

(Under Rule 42 of MCDR 1988)

Mines Manager - 1 no

##### Semi-skilled Workers

Tippers Operators - 1 no.

##### Un-skilled Workers

Man power = 60

-----X-----X-----

## CHAPTER – 8

# PROGRESSIVE MINE CLOSURE PLAN UNDER RULE 23 OF MCDR '1988



### 1.1 Base line information:-

The open cast mining of a material deposit holds the possibility of degrading the environment. To lessen the degradation, it is necessary to conduct macro and micro level study of the environment during mining. The base line information in this direction consists of study of the area surrounding the mining lease. The average rainfall is 220mm to 250mm every year in the month of July to September.

### Macro level study:-

The mining lease is located in Mewasa village; Mewasa, Virpur Kenedy and Mota Asota village are adjoining to the lease area.

The people of these villages make their livelihood mainly by farming and animal husbandry. The area is generally drought prone and hence farming is not a guaranteed source of income to the people. The main agricultural crops are bajra, groundnut, chilly and maize. Most of the land is either barren or government waste land in village. There are no forests with dense vegetation.

Whenever the monsoons are good the yield of the crops is reported to be as under:-

- |    |           |   |                    |
|----|-----------|---|--------------------|
| 1) | Maize     | - | 400 Kgs per Bhiga  |
| 2) | Bajra     | - | 400 Kgs per Bhiga  |
| 3) | Chillies  | - | 1200 Kgs per Bhiga |
| 4) | Groundnut | - | 500 Kgs per Bhiga  |

### Base line information for micro level study

To understand the possible effects of mining on the environment, a detailed study in this direction has been carried out in the lease area prior to the initiation of mining. The same is discussed below.

### Topography

The lease area is extending in northwest – southeast direction. Topographically lease area may be considered as very gently sloping westerly. The area is not covered by any watercourses in the form of river, nallah etc. No permanent drainage course exists in the area. It is an active mining area, but crops like Bazara, groundnut etc. are cultivated during monsoon in near by agriculture land. Maximum yield per hectares of bazaar and groundnut is around 2500 kg. The nearest human settlement is in Mewasa village at a distance of 2 km. other important villages are Ran, Virpur etc. Major part of the lease area is converted in to pits south part of the lease area is backfilled.



### Existing Land use pattern

Agriculture lands and govt. wastelands cover the terrain surrounding ML area. Apart from this, quite a number of mining leases are also found all around the ML area.

The ML area itself is confined to a private land and at present a part of the area has been mined out and mining is continuing from the existing quarry faces.

The existing land use pattern of the lease area is as follows: -

S. No	Head	Area in Hect.
1	Area under mining	7.9361
2	Storage for topsoil	-
3	Overburden / dump	At pit floor
4	Mineral storage	At pit floor
5	Infrastructure (Workshop, administrative building etc.	0.0100
6	Roads	0.0100
7	Railways	-
8	Tailing pond	-
9	Effluent treatment plant	-
10	Mineral Separation Plant	-
11	Township area	-
12	Others to specify plantation	0.3520
	<b>Grand Total</b>	<b>8.3081 Hect.</b>

### **3. II Air Quality: -**

The air is normally clean and free from dust, smoke and other industrial emissions. The area is clear and free from industrial activity.

### **3. III Water Quality:-**

As pointed out earlier, due to poor rainfall there are no perennial streams or rivers from which people can meet their water requirement. Due to scanty and unpredictable rainfall there is acute shortage of ground water. The laterite, being associated with clay is not a good aquifer. Basalt underlying the laterite is also not a good aquifer. However, the wells dug in the area get a limited quantity of water, which is suitable for drinking. Further, due to the proximity to the coast, the problem of brackishness in the ground water is further aggravated by the salinity ingress of the seawater. The area falls under notified area under Water Act, 1974.

### **3. IV Noise Levels:-**

Occasionally the noise generated by blasting in the mines in the area is also heard.

The water, as pointed out earlier & suitable for drinking and irrigation.

#### V Water regime:-

The area falls under notified area under Water Act, 1974.

#### VI Flora & Fauna:-

In the area surrounding the ML, there are no forest worth the name. The plantation has been done by lessee on backfilled area and statutory barrier good numbers of plants are survived. The only vegetation seen in parts of the ML and the land surrounding it are covered with thorny shrubs bushes and cactus & plantation work carried out by lessee. The only type of wild life seen in the area is rabbits, fox, and varieties of lizards, mongoose and snakes.

#### VII Climatic Condition: -

The area is arid in nature and being in the vicinity of sea, experiences typical coastal climate with high humidity. The wind direction is generally SW-NE. Being nearer to the seacoast, the area also experiences sea and land breeze. The difference in the temperature during summer and winter is very large. In winter, January is the coldest month, while in summer May and June are hottest months. The average temperature during winter is around 20°C, while in summer it is 38°C. the maximum temperature in winter is around 33°C while the minimum is 12°C. In summer, the temperature raises to a maximum of 40°C while is records and minimum of 27°C. The average rainfall is 220mm - 250mm, which is mainly received during the months of July – September.

#### VIII Human Settlements:-

Within the radius of 5 kms of the area the total population of major villages works out to be very less. Most of the human settlements are clustered around the main village centers. Very rarely they are found in isolated places. However, there are no huts located near ML area. The number of households, existing in different villages has already been indicated.

The detail of village wise population is as under:-

S. No	Villages	Population
1	Mewasa	1997
2	Virpur	646
3	Kenedy	5262
4	Mota Asota	3050
5	Ran	7097

#### IX Public buildings, place of worship and monuments:-

Close to leased area there are no public buildings or monuments. There are no spots of tourist importance, present anywhere in the vicinity of leased area.

The ML area is not a wild life sanctuary nor there does any wild life sanctuary anywhere near it.



## 2 Impact Assessment:-

### 2 (I) Land Area:-

Mining will be carried out at pit floor No additional land will be degraded besides this about 0.0500 Hect additional area will be cover under plantation.

This break up of land use pattern at the end of modified mining plan period is given below:-

S. No	Head	Area in Hect. (A)	Additional area requirement during plan period (B)	Total area (in Hect.) C = A + B
1	Area under mining	7.9361	-	7.9361
2	Storage for topsoil	-	-	-
3	Overburden / dump	-	-	-
4	Mineral storage	-	-	-
5	Infrastructure (Workshop, administrative building etc.	0.0100	-	0.0100
6	Roads	0.0100	-	0.0100
7	Railways	-	-	-
8	Tailing pond	-	0.0500	0.1300
9	Effluent treatment plant	-	-	-
10	Mineral Separation Plant	-	-	-
11	Township area	-	-	-
12	Others to specify plantation	0.752	0.0500	0.4020
	Grand Total	8.3081	0.0500	8.3581

### 2 (II) Air Quality:-

There is not much suspended dust in the air of the area except in summer during the storms. The rocks of the lease area are soft and when blasted may affect the air quality but that has been always in tolerable limits. Thus subsequent quality of the air is hardly affected. Due to simple nature of mining no chemical or toxic effluents are discharged in the area hence question of air pollution does not arise.

The arrangement for sprinkling of water will be done regularly by a tanker.

### 2 (III) Water Quality:-

As pointed out earlier, the ground water available in the ML area and its surrounding is tolerably suitable for drinking or irrigation. As mining is going to be done much above the ground water level, the question of pumping water outside does not arise. As there is no beneficiation involved with the use of water, the question of discharge effluents also does not arise.

The mined out pit will be used as water reservoir therefore there will be positive impact of mining on water environment, due to use of pit for rain water harvesting.



### 3.2 (IV) Noise Levels:-

Noise impact is likely to remain low, as working will be spread only at few places. Drilling equipment will be properly maintained so that the noise level remains low. Drillers will be provided with earmuffs to protect against harmful effect due to noise.

### 3.2 (V) Vibration Level:-

The blasting is of very limited nature and the vibrations generated are negligible. Hence, the same does not have adverse effect on the environment.

There are no dwellings near quarries; villages are far away therefore there will not be appreciable amount of vibration, which might cause damage to buildings.

Thus no appreciable vibrations are anticipated.

### 3.2 (VI) Water regime:-

As pointed out earlier, due to scanty and unpredictable rainfall, there is acute scarcity of potable water in the area. The water available in the well nearer to the mining lease is suitable for drinking. So far as surface water is concerned, there are no perennial rivers or other water bodies therefore getting polluted of the same by the proposed mining activity does not arise.

Mining activity will be above the general ground water level. This mining activity will have no adverse impact on the water region of the area. The water available in the well nearer to the mining lease is suitable for drinking. The small quantity of water will be accumulated during rainy season. It will dry up during course of time hence no dewatering will be required.

### 3.2 (VII) Acid water subsidence:-

There is no generated of acid water during to mining hence question of acid water drainage not arises.

### 3.2 (VIII) Surface Subsidence:-

Not Applicable

### 3.2 (IX) Socio – economics:-

The villagers around the Mewasa, Virpur, Ran are basically a farming community. The crops, which they raise, are rain depended. This area is located in a drought prone region. When the rain fails their farming also fails. Even in those years when the rain is good they will raise one crop. So, in either case they will have to depend on some alternative job to earn their wages. There are no industries around these villages. It is only

ing which is providing jobs to make their livelihood. So, the proposed mining will help the local people in getting the employment.

## 2 (X) Historical Monument:-

There are no historical monuments of any sort in the vicinity of the ML area and hence the question of environmental impact does not arise.

## 3 Progressive Reclamation Plan:-

### 3.1. Mined-Out Land:-

The land affected by the proposed mining during the next five years will be Nil. Mining will be done at pit floor. During the proposed mining, No additional areas will be degraded. during five year modified mining plan period the mined out area will be used as water reservoir. In the water reservoir the higher benches of excavated mining pit shall be corrected and plantation will be done for stabilization of the slope. The slope of higher benches will be made gently easily accessible by people to pond water fencing will be carried out around the water reservoir.

The afforestation is proposed over the statutory barrier and on backfilled area. The afforestation is suggested from first year of mining as shown in Reclamation plan.

The proposed afforestation is given below in a tabular form. While calculating number of saplings to be planted, the spacing of plants is considered as 2 M<sup>2</sup> area. The survival rate of saplings is considered as 50%. It is proposed to plant Neem, Babool and other local species during plan period.

**Table showing number of saplings to be planted and their survival**

Strip No.	Year	Number of saplings to be planted.	Area in M <sup>2</sup>
I	December 2016-17	20	100
II	2017-18	20	100
III	2018-19	20	100
IV	2019-20	20	100
V	2020-21	20	100

### 3.3.2 Topsoil Management:-

Topsoil generated during mining scheme period will Nil.

### 3.3.3 Tailings Dam Management:-

The bauxite mining does not involve generation of any sort of tailing so no management is called for.



#### 4.4 Acid mine drainage:-

As generation of acid mine mater will be nil, hence no action is required under this head.

#### 4.5 Abandonment Cost:-

This is the proposal Progressive Mine Closure Plan so it is not applicable at this stage. However following work will be undertaken for reclamation of land. The fencing & plantation cost is given for scheme period as under: -



#### SUMMARY OF YEAR WISE PROPOSAL FOR ITEM NO. 8.3

For (December 2016- March 17): -

ITEMS	DETAILS	PROPOSED	ACTUAL	REMARKS
Dump Management	(i) Area afforested (ha)	Not Applicable		
	(ii) No. of Sapling planted			
	(iii) Cumulative no of plants			
	(iv) Cost including watch and care during the year			
Management of worked out benches	(i) Area available for rehabilitation (ha)	-	-	-
	(ii) Afforestation done (ha)	0.7520	680	-
	(iii) No of saplings planted in the year	20	-	-
	(iv) Cumulative no of plants	680	-	-
	(v) Any other method of rehabilitation (specify)	-	-	-
	(vi) Cost including watch and care during the year	2000	-	-
Reclamation and Rehabilitation by backfilling	(i) Void available for Backfilling (L x B x D) pit wise / stop wise	-	-	-
	(ii) Void filled by waste / tailings	-	-	-
	(iii) Afforestation on the backfilled area	-	-	-
	(iv) Rehabilitation by making water reservoir	2100 M <sup>2</sup>	-	-
	(v) Any other means (specify) Fencing	-	-	-
Rehabilitation of waste land within lease	(i) Area available (ha)	Not Applicable		
	(ii) Method of rehabilitation			
Others (specify)	Total			



**SUMMARY OF YEAR WISE PROPOSAL FROR ITEM NO. 8.3**

(2017-18): -

ITEMS	DETAILS	PROPOSE	ACTUAL	REMARKS
Dump Management	(i) Area afforested (ha)			Not Applicable
	(ii) No. of Sapling planted			
	(iii) Cumulative no of plants			
	(iv) Cost including watch and care during the year			
Management of worked out benches	(i) Area available for rehabilitation (ha)	-	-	-
	(ii) Afforestation done (ha)	0.0100	-	-
	(iii) No of saplings planted in the year	20	-	-
	(iv) Cumulative no of plants	700	-	-
	(v) Any other method of rehabilitation (specify)	-	-	-
	(vi) Cost including watch and care during the year	2000	-	-
Reclamation and Rehabilitation by backfilling	(i) Void available for Backfilling (L x B x D) pit wise / stop wise	-	-	-
	(ii) Void filled by waste / tailings	-	-	-
	(iii) Afforestation on the backfilled area	-	-	-
	(iv) Rehabilitation by making water reservoir	4540 M <sup>2</sup>	-	-
	(v) Any other means (specify) Fencing	100 M	-	-
Rehabilitation of waste land within lease	(i) Area available (ha)			Not Applicable
	(ii) Method of rehabilitation			
Others (specify)	Total			



**SUMMARY OF YEAR WISE PROPOSAL FROR ITEM NO. 8.3**

(2018-19): -

ITEMS	DETAILS	PROPOSED	ACTUAL	REMARKS
Dump Management	(i) Area afforested (ha)			Not Applicable
	(ii) No. of Sapling planted			
	(iii) Cumulative no of plants			
	(iv) Cost including watch and care during the year			
Management of worked out benches	(i) Area available for rehabilitation (ha)	-	-	-
	(ii) Afforestation done (ha)	0.0100	-	-
	(iii) No of saplings planted in the year	20	-	-
	(iv) Cumulative no of plants	700	-	-
	(v) Any other method of rehabilitation (specify)	-	-	-
	(vi) Cost including watch and care during the year	2000	-	-
Reclamation and Rehabilitation by backfilling	(i) Void available for Backfilling (L x B x D) pit wise / stop wise	-	-	-
	(ii) Void filled by waste / tailings	-	-	-
	(iii) Afforestation on the backfilled area	-	-	-
	(iv) Rehabilitation by making water reservoir	4800 M <sup>2</sup>	-	-
	(v) Any other means (specify) Fencing	100 M	-	-
Rehabilitation of waste land within lease	(i) Area available (ha)			Not Applicable
	(ii) Method of rehabilitation			
Others (specify)	Total			

BAUXITE MINE (S. NO.138/P) AREA 9.66 HECT. OF M/S. SAURASHTRA CALCINE BAUXITE & ALLIED INDUSTRIES

**SUMMARY OF YEAR WISE PROPOSAL FROR ITEM NO. 8.3**

Year (2019-20): -

ITEMS	DETAILS	PROPOSED	ACTUAL	REMARKS
Dump Management	(i) Area afforested (ha)	Not Applicable		
	(ii) No. of Sapling planted			
	(iii) Cumulative no of plants			
	(iv) Cost including watch and care during the year			
Management of worked out benches	(i) Area available for rehabilitation (ha)	-	-	-
	(ii) Afforestation done (ha)	0.0100	-	-
	(iii) No of saplings planted in the year	20	-	-
	(iv) Cumulative no of plants	790	-	-
	(v) Any other method of rehabilitation (specify)	-	-	-
	(vi) Cost including watch and care during the year	2000	-	-
Reclamation and Rehabilitation by backfilling	(i) Void available for Backfilling (L x B x D) pit wise / stop wise	-	-	-
	(ii) Void filled by waste / tailings	-	-	-
	(iii) Afforestation on the backfilled area	-	-	-
	(iv) Rehabilitation by making water reservoir	4490 M <sup>2</sup>	-	-
	(v) Any other means (specify) Fencing	100 M	-	-
Rehabilitation of waste land within lease	(i) Area available (ha)	Not Applicable		
	(ii) Method of rehabilitation			
Others (specify)	Total			

**SUMMARY OF YEAR WISE PROPOSAL FROR ITEM NO. 8.3**

Year (2020-21): -

ITEMS	DETAILS	PROPOSED	ACTUAL	REMARKS
Dump Management	(i) Area afforested (ha)	Not Applicable		
	(ii) No. of Sapling planted			
	(iii) Cumulative no of plants			
	(iv) Cost including watch and care during the year			
Management of worked out benches	(i) Area available for rehabilitation (ha)	-	-	-
	(ii) Afforestation done (ha)	0.0100	-	-
	(iii) No of saplings planted in the year	20	-	-
	(iv) Cumulative no of plants	760	-	-
	(v) Any other method of rehabilitation (specify)	-	-	-
	(vi) Cost including watch and care during the year	2000	-	-
Reclamation and Rehabilitation by backfilling	(i) Void available for Backfilling (L x B x D) pit wise / stop wise	-	-	-
	(ii) Void filled by waste / tailings	-	-	-
	(iii) Afforestation on the backfilled area	-	-	-
	(iv) Rehabilitation by making water reservoir	4800 M <sup>2</sup>	-	-
	(v) Any other means (specify) Fencing	100 M	-	-
Rehabilitation of waste land within lease	(i) Area available (ha)	Not Applicable		
	(ii) Method of rehabilitation			
Others (specify)	Total			

**Monitoring schedule for different environment components after the commencement of mining and other related activities**

**(1) Noise control: -**

Regular measurements of noise level near drilling equipment and only machinery will be taken and steps will be taken to improve maintenance of drilling equipments so that the noise level remains within permissible limit.

**BAUXITE MINE (S. NO.138/P) AREA 9.66 HECT. OF M/S. SAURASHTRA CALCINE BAUXITE & ALLIED INDUSTRIES**



#### **Air quality monitoring: -**

Quarterly (season wise) monitoring of air quality of the quarries under operations on wind side will be done in all monitoring station will be fixed are one near office building, one near village & one near working pit as shown in environment plan plate No. At these station 2 eight hourly measurements will be done for two days as per IBM circular. Locations of monitoring station are shown over the Environment plan.

#### **Water quality monitoring: -**

Quality of water of well nearby villages will be tested once a year, as these are nearby to lease area.

Parameters as per IBM circular will be followed.

One environmental monitoring cell will be created which will be headed by mines manager. It is also proposed to undertake noise & air Quality monitoring on Quarterly basis.

The Air - noise water Monitoring report is enclosed as annexure XII.

#### **Disaster Management and Risk Assessment:-**

Mining is an activity involving land degradation by excavation and dumping the waste. The structure and strength of the rock type involved in mining plays very important role to plan disaster management due to failure resulting from various activities involved in mining.

The mine will be developed by manual opencast method of mining. Mineral transportation will be carried out by manual means. There is least involvement of any machinery. Maximum depth of working is concentrated as 6.5m and benches are proposed in the plan. Looking into these, no cause of disaster management has been comprehended during mining activity. To avert any adverse situation, all the statutory precautions shall be undertaken into account as per Mines Act, 1952, and other mining

#### **Care and maintenance during temporary discontinuance:-**

This is the case of Progressive Mine Closure Plan being submitted. However, during temporary discontinuance of the mining operation due to any reason information will be sent to IBM and mines safety as per the existing rules. The fencing will be done around mining pits and one guard will be appointed.

### Financial Assurance:-

able indicate break up of area in mining lease for calculation of financial assurance (in Hect.)

Head	Area put on use at start of plan. (In Hect.) (A)	Additional area requirement during plan period. (In Hect.) (B)	Total area (In Hect.) C = A + B	Area considered as fully reclaimed or rehabilitated (In Hect.) (D)	Net area considered for calculation (In Hect.) (E)
Area under mining	7.9361	-	7.9361	-	7.9361
Storage for topsoil	-	-	-	-	-
Overburden/dump	At pit floor	-	-	-	-
Mineral storage	At pit floor	-	-	-	-
Infrastructure (Workshop, administrative building etc.)	0.0100	-	0.0100	-	0.0100
Roads	0.0100	-	0.0100	-	0.0100
Railways	-	-	-	-	-
Tailing pond	-	-	-	-	-
Effluent treatment plant	-	-	-	-	-
Mineral Separation Plant	-	-	-	-	-
Township area	-	-	-	-	-
Others to specify plantation	0.3520	0.0500	0.4020	-	0.4020
<b>Grand Total</b>	<b>8.3081</b>	<b>0.0500</b>	<b>8.3581</b>	<b>-</b>	<b>8.3581</b>

The financial assurance is submitted in favour of The Regional Controller, Indian Bureau of Mines, Udaipur. The area put in use will be 8.7581 Hect. The calculated for financial is calculated with the rate of Rs 15000/- per Hect. The details are as below  $8.7581 \times 15000 =$  Rs 1,31,372/- A total sum of Rs. 2, 25,000 Lac is submitted for the financial assurance as a bank guarantee. (Copy Enclosed).

Date: 11.11.16

Place: Udaipur

Kalyan Singh Nagori  
(Senior Geologist)

अनुमोदित  
Approved

*Yun*  
15/11/16  
उप निदेशक  
Deputy Controller of Mines  
भारतीय खान भू. उदमपुर  
Indian Bureau of Mines, UDAIPUR

**FEASIBILITY REPORT OF MEWASA BAUXITE MINE (S. NO. 138) OVER AN AREA OF 9.66 HECT. NEAR VILLAGE MEWASA, DISTRICT DEVBHUM DWARKA (GUJ.) IN M/s SAURASHTRA CALCINE BAUXITE AND ALLIED INDUSTRIES**



**PRODUCTION**

The lease area of Mewasa Bauxite mine over an area of 9.66 hect. (approx) in Survey No. 138 (S-138) – 123 of village Mewasa, Taluka – Kalyanpur, District – Devbhumi-Dwarka, state – Gujarat has been granted to M/s Saurashtra Calcine bauxite and allied Industries vide Government of Gujarat order No MCR-1585 CHH – 80550 dated 06.06.1986 and lease was executed on 03.09.1986 for a period of 20 years from 03.09.1986 to 02.09.2006. The lessee has applied first renewal application. The renewal application is still pending with the state govt.

**Regional Geology:-**

The area around Mewasa, Nandana, Mota Asota, Ran village has bauxite in segregated pockets within laterite or horizontal bedded bauxite deposit with in laterite or red clay. The other rock type exposed in the region are trap rocks, limestone and emergic clays. The limestone belonging to Gaj beds series is overlying the laterites. The sequence of formation ranges from early Eocene to recent in age. The generalized stratigraphic sequence of the region is given below: -

Recent	Soil, blown sand, shell limestone, calcareous clays
Neogene	Miliolite limestone
Oligocene (Gaj series)	Concretionary limestone, calcareous clays, greenish bentonitic clays, calcareous grit, conglomerate
<hr/>	
	Unconformity
	Laterite with or without bauxite
Palaeocene	Ocherous and Bentonitic clays (Dominantly purple to brown in colour and spotted)
Pre Trappeans	Altered derivatives of trap and other pyroclastics, such as brown clays, Basalts





The bauxite deposits of Kalyanpur Taluka, Devbhumi Dwarka District are associated with a narrow belt of laterite extending from Mota Asota village near Gulf of Kutch in north to Gandhvi village near Arabian sea coast on South.

The laterites belt is about 7 km wide between Mewasa and Habardi village and is less than 1 km wide near Ran, Hadmatiya and Mewasa village. On the west of this belt the laterites was overlaid by younger, Tertiary rocks and to the east they are underlain by the Deccan traps. The laterite-bauxite-clay sequence rests over Deccan traps.

The laterite is distributed almost as a continuous zone between Gajbeds and underlying Deccantraps. The Gajbeds which overlie the laterites bauxite succession in the belt are mostly sub- horizontal in the disposition. They comprise yellow colored argillaceous fragmentary limestone.

#### **Detail description of Geology of the area:-**

The geology of the mining lease area and its vicinity broadly confinds to the regional geology of the area. Major part of lease area has been mined out. Bauxite is present in pit section and at pit floor. Bauxite is exposed in working pit of the area. General thickness of bauxite is 7.5m. Recovery of high grade is 10% and low grade ( $\text{Al}_2\text{O}_3$  upto 35%) is 90% of production. Recovery percentages of bauxite are 90% of ROM based on the result of excavation done so far in the area.

Stratigraphic sequence found in the area can be summarized as under:

	<u>Formation</u>	<u>Average Thickness</u>
Recent	Topsoil	1.50 M
-----UN CONFORMITY-----		
Quaternary (Quaternary)	Bauxite	7.5 m
Paleocene)	Lithomargic Clay	-

The topographical/Surface/Geological plan of the lease area has been prepared on the scale 1: 1000 with contour interval of 1m.



category wise mineral reserves and resources as per UNFC code 111 & 211 are as under

Classification	Code	Reserves estimation (Quantity in tonnes)
<b>TOTAL MINERAL RESERVES</b>		<b>Bauxite</b>
Mineral reserves		
Proved mineral reserves	111	412759 MT
Probable mineral reserves	122	
Total		42759 MT
Remaining resources		
Feasibility mineral resources	211	95582 MT
Pre-feasibility mineral resources	221	-
Measured mineral resources	331	-
Indicated mineral resources	332	-
Inferred mineral resources	333	-
Reconnaissance resources	334	-
Total		95582 MT



#### Mining

##### Method of mining: -

The bauxite occurs below a thin cover of soil. The nature of deposit is bedded. Bauxite occurs in the form of bed, manual opencast mining method with of drilling and blasting is the only suitable method for such type of deposit.

The maximum height of benches will be maximum 1.5m. No Drilling & Blasting will be required.

#### ENVIRONMENT MANAGEMENT PLAN

##### i) Temporary storage and utilization of topsoil: -

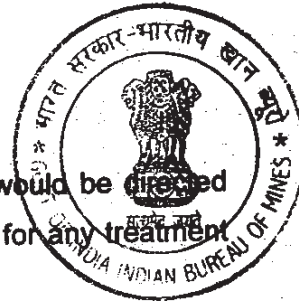
The topsoil generated during mining plan period will be nil.

##### ii) Proposal for reclamation of land affected by mining activates during and at the end of mining lease period: -

In the proposed scheme of mining the degraded land will be used as to water reservoir.

##### iii) Programme of afforestation: -

The proposed mining will no affect the existing vegetation. However it is proposed plant 20 saplings every year. Plantation will be carried out on statutory barrier. One person will be deputed for plantation care.



**v) Treatment and disposal of water from mining: -**

There is no beneficiation plant in the mines the water would be directed along channels to the natural watercourses. There is no need for any treatment of water as the water will not be contaminated.

**v) Socio-Economic: -**

Lessee is doing manual opencast mining method, activity involved excavation with drilling & blasting.

Lessee is producing lot of employment for the local people from near village, also water reservoir they can use for irrigation purpose.

**Processing: -**

Manual sorting carried out at stack yard within mining lease to separate high abrasive, refractory and low grade from the ROM, any kind of processing unit is installed at mine site or near the mine site. Hand sorted abrasive and refractory material transport to the plant situated at Bhatia at the same day, and other material dumped separately.

**Infrastructure & Construction: -**

The rest shelter office and first and room is already constructed a water tank (capacity of 500 liter) for storing drinking water is used by workers. Haul road is well maintained and water sprinkling carried out time to time to maintain the road condition.

Temporary rest shelter is proposed to be changed and a permanent building will be constructed in near future, presently available infrastructure is well maintained to meet the current need related to transport, shelter for workers, magazine etc.



# Costing

Capital cost estimation:	
Elements:	Rs. 12,00,000/-
Cost of compliance in MOEF:	Rs. 1,00,000/-
Cost of land and mineral lease	Private land Owned by lessee
Cost of infrastructure	
Cost of equipment	
One water pump	Rs. 20000
One jackhammer	Rs. 30000
Hand tools	Rs. 12000
Safety equipments:	
Safety shoes	Rs. 15000
Safety belts,	Rs. 1500
Helmets	Rs. 750
Safety mask	Rs. 400
First aid equipments	Rs. 600
Portable blasting shelter	Rs. 7000 (used combined for four mines)
Other:	Rs. 10000
Cost of mine development	Mines have already developed, and no need of new face for future. About Rs. 50000 will be required to removed old OB and waste filled in the pit during rainy season.
Location between local & foreign	NA
Currency	
Inflation/escalation	About 10% every year
Operation cost	
Analysis of cost	Comparative estimation
Direct material	Nil
Direct labor	Nil
Contract labor	Rs. 300/t
Advances for training	Actual expenditure
Equipment running cost assumption	Rs. 2000/year

1. The first part of the document is a list of the names of the persons who have been appointed to the various offices of the city.

2. The second part of the document is a list of the names of the persons who have been appointed to the various offices of the city.

3. The third part of the document is a list of the names of the persons who have been appointed to the various offices of the city.

4. The fourth part of the document is a list of the names of the persons who have been appointed to the various offices of the city.

5. The fifth part of the document is a list of the names of the persons who have been appointed to the various offices of the city.



#### Marketing:

Company has got lease for its captive consumption, so High Grade Material, Active & Factory Grade is completely used for companies own plant situated at Bhatia. The grade which lessee get is dumped separately & lessee sale it when get permission from state govt.

#### Market assessment:

Spot:	Material will sale from the ex-mines itself												
Channels:	Cement companies, export through third party												
Maintenance of competitive pricing:	Price of material decided as per market condition.												
Negotiation option:	Material will sale only if getting profit, price is negotiable according to market & relation with buyer.												
Cost of material	<p>The cost of production of bauxite is 165/t for low grade and 315/t for high grade. The details of cost of production are</p> <table><thead><tr><th></th><th>Low grade</th><th>High grade</th></tr></thead><tbody><tr><td>Exploration cost</td><td>= Nil</td><td>-</td></tr><tr><td>Mining cost</td><td>= Rs. 150/t</td><td>Rs. 150/-</td></tr><tr><td>Sorting</td><td>= Rs. 15/t</td><td>Rs. 165/-</td></tr></tbody></table>		Low grade	High grade	Exploration cost	= Nil	-	Mining cost	= Rs. 150/t	Rs. 150/-	Sorting	= Rs. 15/t	Rs. 165/-
	Low grade	High grade											
Exploration cost	= Nil	-											
Mining cost	= Rs. 150/t	Rs. 150/-											
Sorting	= Rs. 15/t	Rs. 165/-											
Inventory	Closing stock of material												

#### Economic Viability:

Flow forecast information:	
Construction and development work	Rs. 25000 (expenditure will be carried out after five year)
Government fund contribution	NA
Government fund draw down	Nil
Revenue from sales	High grade is used for only captive consumption. Details of low grade which has sold is given on costing para.
Production cost expenses	Rs. 404.89/t for low grade only.
Capital addition/replacement	Nil
Investment in working capital	Nil







ation & royalty payment	Royalty: As per Rule Taxation: As per Govt. rule
chedule debt services	NA
vestment appraisals through internal rate	NA
return	NA
idend payment	NA
erall cash surplus and deficit position	
oney of the day term	NA
onstant current money terms	NA

**Other Factors:**

Nil

**Statutory provisions relating to labors:**

For every workers working under contractor as per rule is provided to them. All workers facilitate with safety equipment. The cost of above is given in chart.


**Conclusion:**

The discussion under the geological and feasibility assessment along with economic viability has clear indication of mine success. The available reserves appears to indicate potential for highly profitable large and long term operation of Mewasa Bauxite Mine. Hence the project is economically viable.

Date:

11.11.16

Place: Udaipur

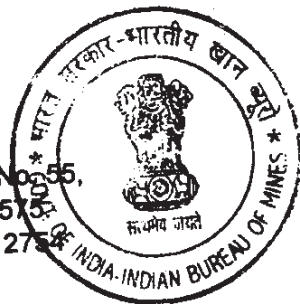
  
Kalyan Singh Nagori  
(Senior Geologist)



AB

**Registered Office:**

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saileshraichura@scabalindia.com  
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**BAUXITE MINES OWNERS  
MFGS. OF CALCINED BAUXITE**  
CIN : L14100GJ1995PLC025199

**CONSENT LETTER / UNDERTAKING / CERTIFICATE FROM THE APPLICANT:-**

(1) The Mining Plan with Progressive Mine Closure Plan of Mining in respect of Mewasa Bauxite Mine (S.No. 138) over an area of 9.66 Hect. in Village - Mewasa, Taluka - Kalyanpur, District - Devbhumi Dwarka & State - Gujarat, Under Rule 17 of MCR 2016 & 23 (B) of MCDR 1988 has been prepared by Kalyan Singh Nagori.

This is to request the Regional Controller of Mines, Indian Bureau of Mines, Udaipur to make further correspondence regarding any correction of the Mining Plan with Progressive Mine Closure Plan with the said recognized person at his address below:-

Name : Kalyan Singh Nagori

Senior Geologist

59, Mahaveer Nagar, Hiran Magri Sector - 4

Udaipur (Raj.) - 313002

C/o The Mewar Geomin Consultants

70, Indraprasth Complex, IIIrd Floor

Delhigate, Shastri Circle, Link Road,

Udaipur (Rajasthan).

Mobile No. 9414289507

Email address - [nagori.ks@gmail.com](mailto:nagori.ks@gmail.com)

We hereby undertake that all modification / updating as made in the said

Mining Plan with Progressive Mine Closure Plan of Mining by the said Qualified person be deemed to have been made with our knowledge and consent and shall be acceptable on us and binding in all respects.

**INATION PLANT :**

119, G.I.D.C. Estate, Porbandar-360 575. (INDIA) Tel. (0286)2221856 / 2220923  
K. M. Bhatia - Harshad Road, Bhatia-361 315 (Dist.: Jamnagar-Gujarat) Tel.: (02891) 233155-233166 FAX.: 233155-233166-233199

SCA

**Registered Office:**

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saileshraichura@scabalindia.com

www.scabalindia.com



**BAUXITE MINES OWNERS  
MFGS. OF CALCINED BAUXITE**  
CIN : L14100GJ1995PLC025199

(2) It is certified that the **CCOM Circular No-2/2010** will be implemented and complied with when an authorized agency is approved by the State Government.

(3) It is certified that the Progressive Mine Closure Plan of Mewasa Bauxite Mine of Saurashtra Calcine Bauxite & Allied Industries over an area 9.66 Hect. complies with all statutory rules, Regulations, Orders Made by the Central or State Government, Statutory organization, Court etc which have been taken into consideration and wherever any specific permission is required the lessee will approach the concerned authorities.

The information furnished in the **Progressive Mine Closure Plan** is true and correct to the best of our knowledge and records.

(4) "The provision of **Mines Act, Rules and Regulations** made there under have been observed in the Modified Mining Plan with Progressive Mine Closure Plan of Mining over an area 9.66 Hect. in District – Devbhumi Dwarka & State – Gujarat belonging to Mewasa Bauxite Mine, and where specific permission are required, the applicant will approach the **D.G.M.S.** Further, standards prescribed by **D.G.M.S.** in respect of miners' **health** will be strictly implemented".

Place: Bhatia

**Saurashtra Calcine Bauxite & Allied Industries**

Date: 08/08/2016

*(Signature)*

**(D.K.Raichura)**

**PATNER**

**LOCATION PLANT :**

REG.I.D.C. Estate, Porbander-360 575.(INDIA) Tel. (0286)2221856 / 2220923

Bhatia-Harshad Road, Bhatia-361 315 (Dist.: Jamnagar-Gujarat) Tel.:(02891) 233155-233166 FAX.:233155-233166-233199

# MEWAR GEOLOGICAL & MINING CONSULTANTS

70, Indraprasth Complex, 3<sup>rd</sup> Floor, Delhigate-Shastri Circle link Road

**KALYAN SINGH NAGORI**

Geologist & R.Q.P.

UDAIPUR-313001 (Raj.)

☎ : 0294-2561098 (O), 2460385 (R)

Mobile : 94141-289507

Fax : 0294-2561098



## CERTIFICATE

"The provisions of **Mineral Conservation and Development Rules, 1988** have been observed in the Preparation of the Mining Plan for Mewasa Bauxite Mine (S. 138/P) over an area of 9.660 Hect, of M/s Saurashtra Calcine Bauxite & Allied Industries in village - Mewasa, Taluka - Kalyanpur, District - Devbhumi Dwarka, State - Gujarat and wherever specific permission are required, the applicant will approach the concerned authorities of **Indian Bureau of Mines**.

The information furnished in the Mining Plan is true and correct to the best of our knowledge.

At: Udaipur

17.11.16

  
**Kalyan Singh Nagori**

(Senior Geologist)

### **CONSULTANCY SERVICES :**

- \* Preparation of Mining Plan & Scheme
- \* Survey & Liasioning work
- \* Preparation of Environment Plan for MOEF
- \* All work related to mining & Marble Mining

**O.O. : 2, Samradhi Complex, 2<sup>nd</sup> floor, Opp. Krishi Mandi Gate, Sect. 11, Hiran Magri, UDAIPUR**

**Residence : 59, Mahaveer Nagar, Hiran MAGri Sector - 4, Udaipur - 313002 (Raj.)**

**Mewasa Bauxite Mine (S.No.- 138/P)**

**LIST OF ANNEXURE**

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Industries, Mines and Energy Department,  
Sachivalaya, Gandhinagar,  
Dated the 18th May, 1986

19 JUN 1986

ORDER:-

No. MCR-1585(S-138)4237-GH:- In exercise of the powers, conferred by Section 10 of the Mines and Minerals (Regulation and Development) Act, 1957, Government of Gujarat is pleased to sanction the grant to M/s. Saurashtra Calcine Bauxite and Allied Industries, Kamal Vihar, Station Road, Porbandar of a Mining Lease for Bauxite for twenty years in respect of the area in the Jamnagar District detailed below:-

Taluka	Village	Survey Number.	Plot No.	Area A. G.
Kalyanpur	Mavasa	138/P	-	23.35

i.e. nearly 9-66-19 hectares.

2. The grant of the above lease is subject to the terms and conditions mentioned below:-

(a) Mining Lease shall be in respect of Bauxite only. If any other minerals are found in association with this mineral, they should be brought to the notice of Government and if the lessee desires to mine these minerals along with the mineral for which lease is granted, he should do so only, after the consent of the State Government is obtained in writing.

(b) Royalty at the rate specified for the mineral Bauxite in Schedule IInd of the Mines and Minerals (Regulation and Development) Act, 1957 as amended from time to time and dead rent at the rates mentioned in the IIIrd Schedule of the said Act, as amended from time to time whichever is greater shall be charged provided that the dead rent shall not be payable for the first year of the lease.

(c) Surface rent and water rate at such rate not exceeding land revenue, water rate and

**ATTESTED**

KALYAN SINGH NAGORI

BO/UDP/023/87-A

**ATTESTED**

(d) If beryl or any other substances prescribed under section 3 of the Atomic Energy Act, 1948, (XXIX of 1948) is found to occur in the property under the lease, the lessee shall make available such mineral to the Government.

(e) The lease shall be subject to the provisions of the Mines and Minerals (Regulation and Development) Act, 1957, (67 of 1957) the Mineral Concession Rules, 1960, and the Mineral Conservation and Development Rules, 1958, as amended from time to time.

(f) The lessee shall furnish to the Collector of Jamnagar an accurate map of the area sanctioned under the lease together with the description giving the situation and boundaries duly attested by the District Inspector of Land Records. The Collector is authorised to get the area demarcated before execution of the Mining Lease and recover the cost from the deposit of Rs. 500/- paid for preliminary expenses.

(g) The lessee shall pay to the Collector, necessary security deposit of Rs. 1000/- for the observance of the terms and conditions of the lease in accordance with rule 32 of the Mineral Concession Rules, 1960, before the lease is issued to him.

(h) The lessee shall submit confidentially from time to time or when required progress report to the Director of Geology and Mining, Gujarat State, Ahmedabad- 15 or to an officer authorised by him along with the samples of the ores collected during mining operations together with the analysis report.

(i) The lessee shall not use or sell the said Mineral or deal with it in whatsoever manner or knowingly allow any one to use or sell the said mineral or deal with it in whatsoever manner as a minor mineral.

(j) The lessee also undertakes that if the bauxite/iron from the leased area is not required for an industrial unit to be set up by himself, he shall deliver the bauxite for utilisation in any industrial plant set up by any other party within Gujarat to whom the State Government (on notice of not less than six months) may direct the lessee to deliver the bauxite and in such event the price and other terms of such supply arrangement on long term basis shall be mutually agreed upon, between the lessee and such other party, in the event of dispute arising between the lessee and such other party in regard to the said supply arrangements, the point at dispute shall be settled by the State Government and in case the lessee is still aggrieved by the decision of the State Government on such point, the lessee shall have the right to appeal to the Central Government.

(k) The lessee shall use all the bauxite excavated from the said area for captive use in his existing Calcine Bauxite and Amery Grain plan in Junagadh District in Gujarat State.

By order and in the name of the Governor of Gujarat,

*(Signature)*  
(D. S. D. D.)

Under Secretary to the Government of Gujarat,  
Industries, Mines and Energy Department.

To.

M/s. Saurashtra Calcine Bauxite and  
Allied Industries,  
Kamal Vihar  
Station Road, Porbandar,  
District Junagadh.

With a request to enjoin the Collector of Junagadh, Dist. Jamnagar for execution of mining lease deed. If mining lease is not executed within six months of the date of ordering it, the order sanctioned if the provision of rule 21, 1960.

Copy to:-

\*By Recd. A.D.

\*1. The Collector of Jamnagar District Jamnagar with reference to his letter No. ADG-ML-760-5551 dated 22-12-85 with a request to take further necessary action in the matter. The case papers are returned herewith.

He is requested to execute the lease deed only after the lessee takes effective steps to establish Plant within a period of two years.

2. The Director of Geology and Mining, Gujarat State, Ahmedabad- 66 with reference to his letter No. DGA-ML-5506-Jam-219 dated 28-2-86.
  3. The Assistant Director of Geology and Mining Jamnagar District Jamnagar.
  4. The Revenue Department.
  5. The District Inspector of Land Records Jamnagar District Jamnagar.
  6. The Accountant General Gujarat Ahmedabad.
  7. The Accountant General Gujarat, Rajkot.
  8. The Controller General Indian Bureau of Mines, New Secretariat Building, Nagpur - 1.
  9. The Director General of Mines, Safety, Dhanbad.
  10. The Director of Mines Safety, Udaipur Region 56, Shastri Marg, Udaipur- 31301 (Rajasthan)
- Copy for Select file.  
Copy for personal file.

CHH 80250 15/12/66 J. Dm: CCp. Dm: 1.



PART-I

The Area of this lease

All that tract of lands situated at MEVASS  
 in (Pargana) in Kalyanpur the  
 Sub-District  
 Cadastral Survey Nos. 138/1  
 thereabouts delineated on the plan hereto annexed and thereon coloured and bounded as follows:

Description of area or areas )  
 Registration District of )  
 and Thana Mevas bearing )  
 containing an area of or )  
 and bounded as )

Location and area of the lease. At 61  
23 35

On the North by : }  
 On the South by : }  
 On the West by : }  
 and }  
 On the East by : } Upper map attached

hereinafter referred to as "the said Lands".

PART-II

Liberties, Powers and Privileges to be exercised and enjoyed by the lessee/lessees subject to the restrictions and conditions in Part-III

1. Liberty and power at all times during the term hereby demised to enter upon the said lands and to search for, mine, bore, dig, drill for, win, work, dress, process, convert, carry away and dispose of the said mineral/minerals.  
 To enter upon land and search for win work etc.
2. Liberty and power for or in connection with any of the purposes mentioned in this part to sink, drive, make, maintain and use in the said lands and pits, shafts, inclines, drifts, levels, water-ways, air-ways and other works ( and to use, maintain deepen or extend any existing work of the like nature in the said lands ).  
 To sink drive and make pits shafts and inclines etc.
3. Liberty and power for or in connection with any of the purposes mentioned in this part of erect, construct, maintain and use in the said lands any engines, machinery, plant, dressing floors, furnaces, coke, oven brickkilns, workshops, store-houses, bungalows, godowns, sheds and other building and other works and conveniences of the like nature on or under the said lands.  
 To bring and use machinery equipment etc.
4. Liberty and power or in connection with any of the purpose, mentioned in this part to make any tramways, railways, roads, aircraft landing grounds and other ways in or over the said lands and to use, maintain and go and repass with or without horses, cattle, wagon, aircrafts, locomotives or other vehicles over the same (or any existing tramways, railways, roads and other ways in or over the said lands ) on such conditions as may be agreed to.  
 To make roads and ways etc. and use existing roads and ways.
5. Liberty and power for or in connection with any of the purposes mentioned in this part to quarry and get stone, gravel and other buildings and road materials, and clay and to use and employ the same and to manufacture such clay in to bricks or tiles and to use such bricks or tiles but not to sell any such material, bricks or tiles.  
 To get building and road materials etc.
6. Liberty and power for or in connection with any of the purposes mentioned in this part but subject to the rights of any existing or future lessees and with the written permission of Collector to appropriate and use water from any streams, water-courses, springs or other sources in or upon the said lands and to divert, step up or dam any such streams or water course and collect or impound any such water and to make construct and maintain any water-course, culverts, drains or reservoirs but not as so to deprive any cultivated lands, villages, buildings, or watering place for livestock of a reasonable supply of water as before accustomed nor in any way to foul or pollute any streams or springs. Provided that the lessee/lessees shall not interfere with the navigation in any navigable stream nor shall divert such stream without the previous written permission of the State Government.  
 To use water from stream etc.
7. Liberty and power to enter upon and use a sufficient part of the surface of the said lands for the purpose of stacking, heaping, storing or depositing there in any produce of the mines or works carried on and any tools, equipment, earth and materials and substances dug or raised under the liberties and powers mentioned in this part.  
 To use land for stacking heaping depositing purposes.
8. (a) Liberty and power to enter upon and use a sufficient part of the said lands to beneficiate any or produced from the said lands and to carry away such beneficiated or.  
 Beneficiation and conveying away of production.
- (b) Liberty and power upon the said lands to convert into coke any coal or coal dust produced from the said lands and to carry away such coke.  
 To make coke (To be used in case of coal only).



Surface rent paid yearly on ...  
of execution in Jamnagar Treasury.

No of Minerals.	Dead rent fixed per hectares.	Area of demarcated in hectare.	Dead rent payable Rs.	Total dead rent payable in year.
1st year.	N11	9-66-19	N11	N11
2nd to 5th years.	12-50	"	125-00	125-00
6th to 10th years.	25-00	"	250-00	250-00
11th to 20th years.	37-50	"	375-00	375-00

3. The lessee/lessees shall not without the express sanction of the Collector cut down or injure any timber or trees on the said lands but may without such sanction clear away any brushwood or undergrowth which interferes with any operations authorised by these provisions. The Collector or the State Government may require the lessee/lessees to pay for any trees or timber felled and utilised by him/them at the rates specified by the Collector of the District.

4. Notwithstanding anything in this schedule contained the lessee/lessees shall not enter upon any reserved forest included in the said lands without previous sanction in writing of the District Forest Officer nor fell cut and use any timber or trees without obtaining the sanction in writing of that Officer not otherwise than in accordance with such conditions as the State Government may prescribe.

4-A. The lessee/lessees shall pay such compensation as may be assessed by the Chief Conservator of Forest for damage caused to the land in any area of the reserved forest on account of the mining operation carried out in such area. The compensation for such damage shall be based on the value of the standing trees in the said area and twenty times the sum of annual revenue derived by the Government from such land immediately before the grant of lease.

5. The lessee/lessees shall not work or carry on or allow to be worked or carried on any mining operations at or to any point within a distance of 50 meters from any railway line except with the previous written permission of the Railway Administration "concerned or under or beneath any ropeway or any ropeway trestle or station, except, under and in accordance with the written permission of the authority owing the ropeway" or from any reservoir, canal or other public works such as public roads and buildings or inhabited site except with the previous written permission of the Collector or any other officer authorised by the State Government in this behalf and otherwise than in accordance with such instructions, restrictions and conditions either general or special which may be attached to such permission. The said distance of 50 meters shall be measured in the case of railway, reservoir or canal horizontally from the outer toe of the bank or the outer edge of the cutting as the case may be and in case of a building horizontally from the plinth thereof. In the case of village roads no working shall be carried out within a distance of 10 meters of the outer edge of the cutting except with the previous permission of the Collector or any other officer duly authorised by the State Government in this behalf and otherwise than in accordance with such directions, restrictions and additions, either general or special, which may be attached to such permission (No. 1 (51)/65-M-II, dated 26th February 1969).

Explanation.—For the purpose of this clause the expression "Railway Administration" shall have the same meaning as it is defined to have in the Indian Railway Act, 1980, by clause (6) of section 3 of that Act. "Public Road" shall mean a road which has been constructed by artificially surfaced as district from a track resulting from repeated use. Village road will include any track shown in the revenue record as village road.

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PROVIDED THAT no substantial hindrance or interference shall be caused by such holders of licenses or leases to the operations of the lessee/lessees under these presents and fair compensation (as may be mutually agreed upon or in the event of disagreement as may be decided by the State Government) shall be made to the lessee/lessees for all loss or damage sustained by the lessee/lessees by reason of the exercise of this liberty.

PART-IV

*Liberties, powers and privileges reserved to the State Government*

1. Liberty and power for the State Government or to any lessee or persons authorised by it in that behalf to enter into and upon the said lands and to search for win, work, dig, get, raise, dress process, convert and carry away minerals other than the said minerals and any other substances and for these purpose to sink, drive, make, erect, construct, maintain and use such pits, shafts, inclines, drifts, levels and other lines waterways, airways, water courses, drains reservoirs, engines, machinery, plant, buildings, canals, tramways, railways, roadways, and other works and conveniences as may be deemed necessary or convenient :

To work other Minerals.

PROVIDED THAT in the exercise of such liberty and power no substantial hindrance or interference shall be caused to or with the liberties, powers and privileges of the lessee/lessees under these presents and that fair compensation (as may be mutually agreed upon or in the event of disagreement as may be decided by the State Government) shall be made to the lessee/lessees for all loss or damage sustained by the lessee/lessees by reason or in consequence of the exercise of such liberty and power.

2. Liberty and power for the State Government or any lessee or person authorised by it in that behalf to enter into and upon the said lands and to make upon over or through the same any railways, tramways, roadways, or pipelines for any purpose other than those mentioned in Part-II of these presents and to get from the said lands stones gravel earth and other materials for making, maintaining and repairing such railways, tramways and roads or any existing railways and roads and to go and repass at all times with or without horses, cattle or other animals, carts, wagons, carriages, locomotives or other vehicles over or along any such railways, tramways roads, lines and other ways for all purposes and as occasion may require, provided that in the exercise of such liberty and power by such other lessee or person no substantial hindrance or interference shall be caused to or with the liberties, powers and privileges of the lessee/lessees under these presents and that fair compensation as may be mutually agreed upon or in the event of disagreement as may be decided by the State Government shall be made to the lessee/lessees for all loss or damage sustained by the lessee/lessees by reason or in consequence of the exercise by such lessee or person of such liberty and powers.

To make railways, ways and roads.

3. The lessee/lessees shall maintain a passbook in triplicate. He/they or his/their agent/s shall before the said mineral is removed from the mining site fill in blanks in all the three parts of the pass and detach two parts from the pass book and hand over to the truck driver or the person in charge of the vehicle. The truck driver or the person in charge of the vehicle shall on arrival at the Naka hand over one of the two parts of the pass to the Naka clerk. Mines Supervisor or any officer of Government in charge of the supervision of the mine who shall verify whether the mineral of the same description weight etc., as stated in the pass is loaded in the truck of the vehicles. The third part of the pass shall be handed over to the consignee alongwith the consignment.

To maintain Pass book for removal of mineral.

PART-V

*Rents and Royalties reserved by this Lease*

1. The lessee/lessees shall pay, for every year, except the first year of the lease; dead rent specified in clause 2 of this part :

To pay dead rent or royalty which ever is greater.

Provided that where the holder of such mining lease becomes liable under section 9 of the Act, to pay royalty for any mineral/minerals removed or consumed by him or by his agent, manager, employee, contractor or sub-lessee from the leased area, he shall be liable to pay either such royalty or the dead rent in respect of that area whichever is higher.

2. Subject to the provisions of clause 1 of this Part during the subsistence of the lease, the lessee/lessees shall pay to the State Government annual dead rent for the lands demised and described in Part I of this Schedule, at the rate for the time being specified in the third schedule to the Act, in such manners as may be specified in this behalf by the State Government.

Rate and mode of payment of dead rent.

The lessee shall pay royalty and dead rent in four quarterly instalment payable on First day of January, First day of April, First day of July, and First day of October every year in Sub-Treasury Treasury...../..... ( name of the treasury ).

3. Subject to the provision of clause 1 of this part, the lessee/lessees shall during the subsistence of this lease pay to the State Government at such times and in such manner as the

Rate and mode of payment of royalty.

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State Government may prescribe, royalty in respect of any mineral/minerals removed by him/ them from the leased area at the rate for the time being specified in the Second Schedule to the Mines and Minerals ( Regulation and Development ) Act, 1957.

Payment of surface rent and water rate.

4. The lessee/lessees shall pay rent and water rate to the State Government in respect of all parts of the surface of the said lands which shall from time to time be occupied or used by the lessee/lessees under the authority of this presents at the rate that may be specified by the State Government, per annum per hectare of the area so occupied or used and so in proportion for any area less than a hectare during the period from the commencement of such occupation or use until areas shall cease to be so occupied or used and shall as far as possible restore and the surface so used to its original conditions. The surface rent in respect of the area actually under mining operation and area utilised for machinery labour quarters and office, shall be equal to non-agriculture assessment i. e. at the rate of Rs. ... as per Sq. Meter per annum and in respect of the areas occupied but unused i. e. for the remaining areas shall be equal to the agriculture assessment should be paid at the rate of Rs. ... per hectre or part thereof per annum from time to time :

PROVIDED THAT NO such rent/water rate shall be payable in respect of the occupation and use of the area comprised in any roads or ways to which the public have full right to access.

#### PART—VI

##### Provisions relating to the Rent and Royalties

Rent and Royalties to be free from deduction etc.,

1. The rent, water rate and royalties mentioned in part V of this Schedule shall be paid free from any deductions to the State Government at ... *Sumner* ... and in such matter as the State Government may prescribe.

PROVIDED ALWAYS (and it is hereby agreed that Rs. ... *S. O. 4/1* ... the balance standing to the credit of the lessee/lessees on account of the deposit made by him/ them as a licensee/ licensees over an area which included the said lands shall be retained and accepted by the State Government in satisfaction of the rents and royalties mentioned in Part-V until they reach that amount.

Mode of Computation or royalties.

2. For the purposes of computing the said royalties the lessee/lessees shall keep a correct account of the mineral/minerals produced and despatched. The accounts as well as the weights of the mineral/minerals in stock or in the process of export may be checked by an officer authorised by the Central or State Government. The computation of royalties shall be decided by the Director of Geology and Mining of the State.

Courses of action if rents and royalties are not paid in time.

3. Should any rent, royalty or other sums due to the State Government together with simple interest due thereon at the rate of *10* percent per annum under the terms and conditions of these presents be not paid by the lessee/lessees within the prescribed time, the same may be recovered on a certificate of such officer as may be specified by the State Government by general or special order, in the same manner as an arrear of land revenues.

#### PART—VII

##### The covenants of the Lessee/Lessees

Lessee to Pay rents and royalties taxes, etc.

1. The lessee/lessees shall pay the rent, water rate and royalties reserved by this lease at such times and in the manner provided in PARTS V and VI of these presents and shall also pay and discharge all taxes, rates, assessments and impositions whatsoever being in the nature of public demands which shall from time to time be charged, assessed or imposed by the authority of the Central and State Government upon or in respect of the premises and works of the lessee/leasges in common with other premises and works of a like nature except demands for land revenue.

To maintain and keep boundary marks in and good order.

2. The lessee/lessees shall at his/their own expense erect and at all times maintain and keep in repair boundary marks and pillars according to the demarcation to be shown in a plan annexed to this lease. Such marks and pillars shall be sufficiently clear of the shrubs and other obstructions as to allow easy identification.

To Commence operation within a year and work in a workman like

3. Unless the State Government for good cause permits otherwise, the lessee/lessees shall commence operation within one year from the date of execution of the lease and shall as there after at all times during the continuance of this lease search for and



4. The lessee/lessees shall make and pay such reasonable satisfaction and compensation as may be assessed by lawful authority as in accordance with the law in force on the subject for all damage, injury or disturbance which may be done by him/them in exercise of the powers granted by this lease and shall indemnify and keep indemnified fully and completely the State Government against all claims which may be made by any person or persons in respect of any such damage, injury or disturbance and all costs and expenses in connection therewith.

To indemnify Government against all claims.

5. The lessee/lessees shall during the subsistence of this lease well and sufficiently secure and keep open with timber or other durable means all pits, shafts and workings that may be made or used in the said lands and make and maintain sufficient fences to the satisfaction of the State Government round every such pit, shafts or working whether the same is abandoned or not and shall during the same period keep all working in the said lands and make and maintain sufficient fences to the satisfaction of the State Government round every such pit, shafts or working whether the same is abandoned or not and shall during the same period keep all working in the said lands except such as may be abandoned accessible free from water and foul air as far as possible.

To secure and keep in good condition pits, shafts, etc.

6. The lessee/lessees shall strengthen and support to the satisfaction of the Railway Administration concerned or the State Government, as the case may be any part of the mine which in its opinion required such strengthening or support for the safety of any railway, reservoir canal, road and any other public works or structures.

To strengthen and support the mine to necessary extent.

7. The lessee/lessees shall allow any officer authorised by the Central Government or the State Government in that behalf to enter upon the premises including any in building, excavation or land comprised in the lease for the purpose of inspecting, examining, surveying, prospecting and making plans thereof sampling and collecting a data and the lessee/lessees shall with proper person employed by the lessee/lessees and acquainted with the mines and work effectually assist the officer, agents, servants, and workmen in conducting every such section and shall afford them all facilities, information, connected with the working of the mines which they may reasonably require and also shall and will conform to and observe all orders and regulations which the Central and State Governments as the result of such inspection or otherwise may from time to time see fit to impose. (No. M-II(69)/44/61, dated 7th, September 1961).

To allow a person to work on the mine.

8. The lessee/lessees shall without delays send to the Collector a report of any accident causing death or serious bodily injury or serious injury to property or seriously affecting or endangering life or property which may occur in the course of the operations under this lease.

To report accident.

9. The lessee/lessees shall report to the State Government the discovery in the leased area of any mineral not specified in the lease within sixty days of such discovery along with full particulars of the nature and position of each such find. If any mineral not specified in the lease is discovered in the leased area, the lessee/lessees shall not win and dispose of such mineral unless such mineral is included in the lease or a separate lease is obtained therefore.

To report discovery of other minerals.

10. The lessee/lessees shall at time during the said term keep or cause to be kept at an office to be situated upon or near the said lands correct and intelligible books of accounts which shall contain accurate entries showing from time to time :-

- (1) Quantity and quality of the said mineral/minerals realised from the said lands.
- (2) Quantity of the various qualities of or beneficiated or converted (for example coal converted into coke).
- (3) Quantities of the various qualities of the said mineral/minerals sold and exported separately.
- (4) Quantities of the various qualities of the said mineral/minerals otherwise disposed of and the manner and purpose of such disposal.
- (5) The prices and all other particulars of all sales of said mineral/minerals.
- (6) The number of persons employed in the mines or work or upon the said lands specifying nationality, qualifications and pay of the technical personnel.
- (7) Such other facts, particulars and circumstances as the Central or the State Government may from time to time require and shall also furnish free of charge to such officers and at such times as the Central and State Government may appoint true and correct abstract of all or any such books of accounts and such information and returns to all or any of the matters, aforesaid as the Central Government may prescribe and shall at all reasonable time allow such officers as the Central Government or State Government shall in that behalf appoint to enter into and have free access to the said officers for the purpose of examining and inspecting the said books of accounts, plans and records and to make copies thereof and make extracts therefrom.

To maintain  
Plans etc.

7

11. The lessee/lessees shall at all times during the said term maintain at the mine office correct intelligible upto date and complete plans and sections of the mines in the said lands. They shall show all the operations, and working and all the trenches pits and drillings made by him/them in the course of operations carried on by him/them under the lease, faults and other disturbances encountered and geological data and all such plans and sections shall be amended and filled up by and from actual surveys to be made for that purpose at the end of twelve months or any period specified from time to time and the lessee/lessees shall furnish free of charge to the Central and State Government true and correct copies of such plans and sections whenever required. Accurate records of all trenches, pits and drillings shall show:—

- (a) The sub-soil and strata through which they pass.
- (b) Any mineral encountered,
- (c) Any other matter of interest and all data required by the Central and State Government from time to time.

The lessee/lessees shall allow any officer of the Central or the State Government, authorised in this behalf by the Central Government, to inspect the same at all reasonable times. He/she shall also supply when asked for by the State Government/the Coal Controller/the Director, Geological Survey of India/the Director, Indian Bureau Mines, a composite plan of the area showing thickness, dip, inclination etc., of all the seams as also the quantity of reserves quality-wise.

Act 67 of 1957.

12. The lessee/lessees shall be bound by such rules as may be issued from time to time by the Government of India under section 18 of the Mines and Minerals (Regulation and Development) Act, 1957 (Act 67 of 1957), and shall not carry on mining or other operations under the said lease in any way other than as prescribed under these rules.

To provide  
weighing  
machine.

13. Unless specifically exempted by the State Government the lessee/lessees shall provide and at all times keep at or near the pit head or each of the pit heads at which the said minerals shall be brought to bank a properly constructed and efficient weighing machine and shall weigh or cause to be weighed thereon all the said minerals from time to time brought to bank sold exported and converted and also the converted products and shall at the close of each day cause the total weights, ascertained by such means of the said minerals, ores products raise sold, exported and converted during the previous twenty-four hours to be present at the weighing of the said minerals as aforesaid and to keep accounts thereof and to check the accounts kept by the lessee/lessees. The lessee/lessees shall give seven days previous notice in writing to the Collector of every such measuring or weighing in order that he or some officer on his behalf may be present there at.

To allow test  
of weighing  
machine.

14. The lessee/lessees shall allow any person or persons appointed in that behalf by the State Government at any time or times during the said term to examine and test every weighing machine to be provided and kept as aforesaid and the weights used there with in order to ascertain whether the same respectively are correct and in good repair and order and if upon any such examination or testing any such weighing machine or weights shall be found incorrect or out of repair or order the State Government may require that the same be adjusted, repaired and put in order by and at the expenses of the lessee/lessees and if such requisition be not complied with within fourteen days after the same shall have been made, the State Government may cause such weighing machine or weights to be adjusted, repaired and put in order by and the expense of so doing shall be paid by the lessee/lessees to the State Government on demand and if upon any such examination or testing as aforesaid any error shall be discovered in any weighing machine or weights to the prejudice of the State Government such error shall be regarded as having existed for three calendar months previous to the discovery thereof or from the last occasion of so examining and testing the same weighing machine and weight in case such occasion shall be within such period of three months and the said rent and royalty shall be paid and accounted for accordingly.

To pay com-  
pensation for  
injury of third  
parties.

15. The lessee/lessees shall make and pay reasonable satisfaction and compensation for all damage, injury or disturbance of person or property which may be done by or on the part of lessee/lessees in exercise of the liberties and power granted by these presents and shall at all times save harmless and keep indemnified the State Government from and against all suits, claims and demands which may be brought or made by any person or persons in respect of any such damage, injury or disturbance.

Not to ob-  
struct working  
of other mine-  
rals.

16. The lessee/lessees will exercise the liberties and powers hereby granted in such a manner as to offer no unnecessary or reasonably avoidable obstruction or interruption to the development and working within the said lands of any minerals not included in the lease and shall at all times afford to the Central and State Government and to the holder of prospecting licence or mining lease in respect of the same.





17. (1) The lessee/lessees shall not, without the previous consent in writing of the State Government :

(a) assign, sublet, mortgage, or in any other manner transfer the mining lease, or any right title or interest therein, or

(b) enter into or make any arrangement, contract or understanding whereby the lessee/lessees will or may be directly or indirectly financed to a substantial extent, by or under which the lessee's operations or undertakings will or may be substantially controlled by, any person or body of persons other than the lessee/lessees :

"Provided that the State Government shall not give its written consent unless :

(a) the lessee has furnished an affidavit along with his application for transfer of the mining lease specifying therein the amount that he has already taken or proposes to take as consideration from the transferee :

(b) the transfer of the mining lease is to be made to a person or body directly undertaking mining operations [No. 1 (33) 67-M-11 dated 30th March 1968].

(2) Without prejudice to the above provisions, the lessee/lessees may, subject to the conditions specified in the proviso to rule 35, of the said rules transfer this lease or any right, title or interest therein, to a person holding a certificate of approval an income-tax clearance certificate from the Income-Tax Officer concerned, and the said valid clearance certificate on payment of a fee of rupees one hundred to the State Government. [No. 1 (25) 73 MVI dated 28th November 1974].

Provided that the lessee/lessee shall make available to the transferee the original or certified copies of all plans off a bounded working in the area and in a belt 65 meters wide surrounding it :

Provided further that where the mortgage is an institution or a Bank or a corporation specified in Schedule V, it shall not be necessary for any such institution or Bank or Corporation to hold the said certificate of approval the said Income-Tax clearance certificate and said valid clearance certificate.

(3) The State Government may, by order in writing, determine the lease at any time if the lessee/lessees has/have in the opinion of the State Government, committed a breach of any of the above provisions or has/have transferred the lease of any right, title or interest therein otherwise than in accordance with clause (2) :

Provided that no such order shall be made without giving the lessee/lessees a reasonable opportunity of stating his/their case.

18. The lease shall not be controlled and the lessee/lessees shall not allow themselves to be controlled by any Trust, Syndicate Corporation, Firm or person except with the written consent of the Central Government. The lessee/lessees shall not enter into or make any arrangement compact or understanding whereby the lessee/lessees' operations or undertaking will or may be carried on directly or indirectly by or for the benefit of or subject to the control of any Trust, Syndicate, Corporation Firm or person unless with the written sanction given prior to such arrangement compact or understanding being entered into or made of the Central Government and any or every such arrangement compact or understanding as aforesaid (Entered into or made with such sanction as aforesaid) shall only be entered into or made and shall always be subject to an express condition binding upon the other party or parties thereto that on the occasion of a state of emergency of which the President of India in his discretion shall be the sole judge it shall be terminable if so required in writing by the State Government and shall in the event of any such requisition being made be forthwith thereafter determined by the lessee/lessees accordingly.

Not to be financed or controlled by Trust Corporation firm or person.

19. Whenever the security deposit of Rs. 1,000 or any part thereof or any further sum hereafter deposited with the State Government in replenishment thereof shall be forfeited or applied by the Central or State Government pursuant to the power in hereinafter declared in that behalf the lessee/lessees shall deposit with the State Government such further sum as may be sufficient with the unappropriated part thereof to bring the amount in deposit with the State Government up to the sum of Rs. 1,000.

Lessee shall deposit any additional amount necessary.

20. The lessee/lessees shall at the expiration or sooner determination of the said term or any renewal thereof deliver up to the State Government all mines, pits, shafts inclines, drifts, levels, waterways, airways and other works now existing or hereafter to be sunk or made on or under the said lands except such as have been abandoned with the sanction of the State Government and in any ordinary and fair course of working all engines, machinery, plant, buildings, structures, other works and conveniences which at the commencement of the said term were upon or under the said lands and all such machinery set up by the lessee/lessees below ground which cannot be removed without

Delivery of workings in good order to State Government after determination of lease.

causing injury to the mines or works under the said lands (except such of the same as may with the sanction of the State Government have become disused) and all buildings and structures of bricks or stone erected by the lessee/lessees above ground level in good repair, order and condition and fit in all respects for further working of the said mines and the said minerals.

21. (a) The State Government shall from time to time and all times during the said term have the right (to be exercised by notice in writing to the lessee/lessees) of pre-emption of the said minerals (and all products thereof) lying in or upon the said lands hereby demised or elsewhere under the control of the lessee/lessees and the lessee/lessee shall with all possible expedition deliver all minerals or products or minerals purchased by the State Government under the power conferred by this provision in the quantities as the times in the manner and at the place specified in the notice exercising the said right.

(b) Should the right of pre-emption conferred by this present provision be exercised and a vessel chartered to carry the minerals or products thereof procured on behalf of the State Government or the Central Government be detained or demurrage at the port of loading the lessee/lessees shall pay the amount due for demurrage according to the terms of the charter party of such vessel unless the State Government shall be satisfied that the delay is due to causes beyond the control of the lessee/lessees.

(c) The price to be paid for all minerals or products of minerals taken in pre-emption by the State Government in exercise of the right hereby conferred shall be the fair market price prevailing at the time of pre-emption PROVIDED THAT in order to assist in arriving at the said fair market price the lessee/lessees shall if so required furnish to the State Government for the confidential information of the Government particulars of the quantities descriptions and prices of the said minerals or products thereof sold to other customers and of charters entered into for freight for carriage of the same and shall produce to such officer or officers as may be directed by the State Government original or authenticated copies of contract and charter parties entered into for the sale or freightage of such minerals or products.

(d) In the event of the existence of a state of war or emergency (of which existence the President of India shall be the sole judge and a notification in this effect in the Gazette of India shall be conclusive proof), the State Government with the consent of the Central Government shall from time to time and all times during the said term have the right (to be exercised by a notice in writing to the lessee/lessees) forthwith take possession and control of the works, plant machinery and premises of the lessee/lessees on or in connection with the said lands or operations under this lease and during such possession or control the lessee/lessees shall conform to and obey all directions given by or on behalf of Central Government or State Government regarding the use or employment of such works, plants, premises and mineral PROVIDED THAT fair compensation which shall be determined in default of agreements by the State Government shall be paid to the lessee/lessees for all loss or damage sustained by him/them by reason or in consequence of the powers conferred by this clause and PROVIDED ALSO that the exercise of the such power shall not determine the said term hereby granted or affect the terms and provisions of these presents further than may be necessary to give effect to the provisions of this clause.

22. The lessee/lessees shall not employ, in connection with the mining operations any person who is not an Indian national except with the previous approval of the Central Government.

23. If any of the works or matters which in accordance with the covenants in this behalf herein before contained are to be carried out or performed by the lessee/lessee he or not so carried out or performed within the time specified in that behalf the State Government may cause the same to be carried out or performed and the lessee/lessee shall pay the State Government on demand all expenses which shall be incurred in such carrying out or performance of the same and the decision of the State Government as to such expenses shall be final.

24. The lessee/lessees shall furnish

(a) all geophysical data relating to mining fields or engineering and ground water surveys, such as anomaly maps, section plans structures, contour maps logging, collected by him/them during the course of mining operations the Director Geological Survey of India, Calcutta.

(b) All information pertaining to investigations of radioactive minerals.

Employment  
foreign nationals.

Recovery of  
expenses in-  
curred by the  
State  
Government.

Furnishing of  
geophysical data.

Data or information referred to above shall be furnished every year reckoned from the date of commencement of the period of the mining lease.

25. The lessee/lessees shall not use sell the said mineral or deal with it in whatsoever manner or knowingly allow any one to use or sell the said mineral or deal with it in whatsoever manner as minor mineral ;

Provided that on an application made to it in this behalf by the lessee/lessees the State Government is satisfied that having any regard to the inferior quality or such mineral, it cannot be used for any of the purposes by reasons of which it cannot be called a major mineral or that there is no market for such mineral as a major mineral, the State Government by order permit the lessee/lessees to dispose of the mineral in such quantity and on such terms and in such manner as may be specified therein as a minor mineral.

#### PART—VIII

##### The covenants of the State Government

1. The lessee/lessees paying the rents, water rate and royalties hereby served and observing and performing all the covenants and agreements here in contained and on the part of the lessee/lessees to be observed and performed shall and may quietly hold and enjoy the rights and premises hereby demised for and during the term hereby granted without any unlawful interruption from or by the State Government, or any person rightfully claiming under.

lessee/lessee may hold and enjoy rights quietly.

2. If in accordance with provisions of Clause 4 of Part VII of this Schedule the lessee/lessees shall offer to pay to an occupier of the surface of any part of the said lands compensation for any damage or injury which may arise for the proposed operations of the lessee/lessees and the said occupier shall refuse his consent to the exercise of the right and powers reserved to the State Government and demised to the lessee/lessees by these presents and the lessee/lessees shall report the matter to the State Government and shall deposit with it the amount offered as compensation and if the Central/State Government are satisfied that the amount of compensation offered is fair and reasonable or if it is not so satisfied and the lessee/lessees shall have deposited with it such further amount as the State and Central Governments shall consider fair and reasonable the State Government shall order the occupier to allow the lessee/lessees to enter the land and to carry out such operations as may be necessary for the purpose of this lease. In assessing the amount of such compensation the State Government shall be guided by the principles of the Land Acquisition Act.

Acquisition of land and of the parties and compensation thereof.

3. Where the mining lease relates to any mineral not specified in the First Schedule to the Act it shall be renewable for one period not exceeding the period specified in sub-section (2) of section 8, at the option of the lessee/lessees.

Provided that the State Government may for reasons to be recorded in writing reduce the area applied for.

If the lease is in respect of minerals specified in the First Schedule to the Act, renewal will be subject to the prior approval of the Central Government.

If the lessee/lessees be desirous of taking a renewed lease of the premises hereby demised or any part or parts of them for a further terms from the expiration of the term hereby granted and is otherwise eligible, he/they shall prior to the expiration of the last mentioned term give to the State Government Twelve calendar months previous notice in writing and shall pay the rents, rates and royalties hereby reserved and shall observe and perform the several covenants and agreements herein contained and on the part of the lessee/lessees to be observed and performed upto the expiration of the term hereby granted. The State Government on receipt of application for renewal, shall consider it in accordance with rule 28 of the said rules and shall pass orders as it deems fit. In renewal is granted, the State Government will at the expense of the lessee/lessees and upon his executing and delivering to the State Government if required a counterpart thereof execute and deliver to the lessee/lessees a renewed lease of the said premises or terms and subject to such rents, rates and royalties and on such terms and subject to such covenants and agreements, including this present covenant to renew as shall be in accordance with the Mineral Concession Rules, 1960, applicable to Iron Ore (Name of minerals) on the day next following the expiration of the terms hereby granted. (No.1 (19) 71 MVI, dated 9th September 1971)

Liberty to determine the lease.

4. The lessee/lessees may at any time determine this lease by giving not less than 12 calendar months notice in writing to the State Government or to such officer, or authority as the State Government may specify in this behalf and upon the expiration of such notice



provided that the lessee/lessees shall upon such expiration tender and pay all rents, rates, royalties, compensation for damages and other moneys which may then be due payable under these presents to the lessor or any other person or persons and shall do these presents to the State Government then this lease and the said term and the like powers and privileges hereby granted shall absolutely cease and determine but without prejudice to any right or remedy of the lessor in respect of any breach of any of the covenants or agreements contained in these presents.

4.A. The State Government may on an application made by the lessee/lessees permit him them to surrender one or more minerals from his/their lease which is for a given minerals on the ground that deposits of that mineral have since exhausted or depleted to such an extent that it is no longer possible to work the mineral economically, subject to condition that the lessee.

(a) makes an application for such surrender of mineral at least six months before the intended date of surrender; and

(b) gives an undertaking that he will not cause any hindrance in the working of a mineral so surrendered by any other person who is subsequently granted a mining lease for that mineral. (No. M-II-152(18), 61, dated 4th December, 1962).

5. On such date as the State Government may elect within 12 calendar months after the determination of this lease or of any renewal thereof, the amount of the security deposit paid in respect of this lease and then remaining in deposit with the State Government shall be required to be applied to any of the purposes mentioned in this lease shall be refund to the lessee/lessees. No interest shall run on the security deposit.

#### PART-IX

#### General Provisions

In case the lessee/lessees or his/their transferee or assignee does not allow entry of inspection by the officers authority by the Central or State Government under clause (j) of sub-rule (j) of rule 27 of said rule the State Government shall give notice in writing to the lessee/lessees requiring him/them to show cause within such times as may be specified in the notice why the lease should not be determined and his/their security deposit forfeited and if the lessee/lessees fails/fail to show cause within the aforesaid time to the satisfaction of the State Government, the State Government may determine the lease and forfeit the whole or part of the security deposit.

2. If the lessee/lessees or his/their transferee or assignee makes any default in payment of rent or water rate or royalty as required by section 9 of the Act or commits breach of any of the conditions and covenants other than those referred to in covenant above the State Government shall give notice to the lessee/lessees requiring him/them to pay the rent, water rate royalty or remedy the breach, as the case may be, within sixty days from the date of receipt of the notice and if the rent, water rate and royalty are not paid or the breach is not remedied within such period, the State Government may without prejudice to any proceedings that may be taken against him/them, determine the lease and forfeit the whole or part of the security deposit.

3. In case of repeated breaches of covenants and agreements by the lessee/lessees for which notice has been given by the State Government in accordance with clause (j) and (2) aforementioned on earlier occasion, the State Government without giving any further notice may impose such penalty not exceeding twice the amount of a annual dead rent specified in clause 2 Part V.

4. Failure on the part of the lessee/lessees to fulfil any of the terms and conditions of this lease shall not give the Central or State Government any claim against the lessee/lessees or be deemed a breach of this lease, in so far as such failure is considered by the said Government to arise from force majeure, and if through force majeure the fulfilment of such delay shall be added to the period fixed by this lease. In this clause the expression "Force Majeure" means Act of God, war, insurrection, riot, civil commotion, strike, earthquake, tide, storm, tidal, wave, flood, lightning explosion, fire earthquake and any other happening which the lessee/lessees could not reasonably prevent or avert.

5. The lessee/lessees having first paid and

Refund of security deposit.

Obstructions to inspection.

Penalty in case of default royalty and breaches of covenants.

Penalty for repeated breaches of covenants.

Failure to fulfil the terms of leases due to "Force Majeure".

Lessee/lessees to remove his

12  
 Lessees/lessees in or upon the said lands and which the lessee/lessees is/are not bound to deliver to the State Government under clause 20 of part VII of this Schedule and which the State Government shall not desire to purchase.

6. If at the end of six calendar months after the expiration or sooner determination of the said term under the provision contained in clause 4 of Part VII of this Schedule become effective there shall remain in or upon the said land any engines, machinery, plant buildings, structures, tramways, railways and other works, erection and conveniences or other property which are not required by the lessee/lessees in connection with operations in any other lands held by him/them under prospecting Licence or mining lease the same shall, if not removed by the lessee/lessees within one calendar months after notice in writing requiring their removal has been given to the Lessee/lessees by the State Government be deemed to become the property of the State Government and may be sold or disposed of in such manner as the State Government shall deem fit without liability to pay any compensation or to account to the lessee/lessees in respect thereof.

Property 1.  
 more than 3  
 months all  
 determination  
 of lease.

7. Every notice by these presents required to be given to the lessee/lessees shall be given in writing to such person resident on the said lands as the lessee/lessees may appoint for the purpose of receiving such notice and if there shall have been no such appointment then every such notice shall be sent to the lessee/lessees by registered post addressed to the lessee/lessees at the address recorded in this lease or at such other address in India as the lessee/lessees may from time to time in writing to the State Government designate for their receipt of notices and every such service shall be deemed to be proper and valid service upon the lessee/lessees and shall not be questioned or challenged by him.

Notice.

8. If any event the order of the State Government are revised reviewed, or cancelled by the Central Government in pursuance of proceedings under chapter VII of the Mineral Concession Rules, 1960, the lessee/lessees shall not be entitled to compensation for any loss sustained by the lessee/lessees in exercise of the powers and privileges conferred upon him/

Immunity of  
 State from  
 Government  
 liability to pay  
 compensation.

9. For the purpose of stamp duty the anticipation royalty from the demised land in Rs. 8000/- per year.

IN WITNESS WHEREOF these presents have been executed in the manner hereon written appearing the day and year first above written.

Signed by

S.D. S. Narayan  
 for and on behalf of the Government of Gujarat.

L. D. Dhan  
 Collector, 35/2  
 AMNAGAR

In the presence of

G. Kumar Yada  
 Assistant Director  
 Geology & Mines  
 Junagadh

G. Kumar Yada  
 Assistant Director  
 Geology & Mines  
 Junagadh

1.

2.

H. J. Chaudhary  
 Senior Clerk

Shri

for and on behalf of the Gujarat Mining & Allied Industries Corporation Ltd.  
 Holder of

S. J. Chaudhary  
 Senior Clerk  
 for and on behalf of the Gujarat Mining & Allied Industries Corporation Ltd.  
 Holder of

Power of Attorney

A. J. Patel  
 B. D. Yyash

Power of Attorney

(1) Dhan

(2) B. D. Yyash



FORM K. PART IX

(8A) The lease is executed at JAMNAGAR the capital town of the State of Gujarat (name of the State) and subject to the provision of Article 226 of the constitution of India, it is hereby agreed upon by the lessee and the lessor that in the event of any dispute in relation to the area under lease, condition of lease, the duties payable under the lease and in respect of all matters touching the relationship of the lessee and the lessor, the suits (or appeals) shall be filled in the Civil Court at JAMNAGAR (name of the City) and it is hereby expressly agreed that neither party shall be competent to file a suit or bring any action or file any petition at any place other than the courts named above."

/s/ [Signature]



MEWASA BAUXITE MINE (S No.138)



PLANTATION



MINERAL STACK

ANNEXURE NO IV

ANNEXURE NO 12

स्थायी लेखा संख्या /PERMANENT ACCOUNT NUMBER

AALPR4650G



नाम /NAME

DWARKADAS KESHAVJI RAICHURA

पिता की नाम /FATHER'S NAME

KESHAVJI GOKALDAS RAICHURA

जन्म तिथि /DATE OF BIRTH

09-05-1939

FRONT SIGNATURE

*K. Raichura*

आयकर अधिकारी, राजकोट

COMMISSIONER OF INCOME-TAX, RAJKOT

इस कार्ड के खो / गिर जाने पर कृपया जारी करने वाले अधिकारी को सूचित / वापस कर दें

आयकर अधिकारी,

'अमरुत एस्टेट', वास्की रोड,

एच.जी. रोड,

राजकोट - 360 001.

In case this card is lost/found, kindly inform/return to the issuing authority :

Commissioner of Income-tax,

'Amruta Estate', 1st Floor,

H.C. Road,

Rajkot - 360 001.

ATTESTED

KALYAN SINGH NAGORI  
RQP/UDP/023/87-A

ATTESTED

ANNEXURE No

ANNEXURE No

**FORM-J**  
MODEL FROM  
APPLICATION FOR RENEWAL OF MINING LEASE  
[See Rule-24A]

Received  
At  
On

(Place)  
(Date)

"To be submitted in Quadruplicate"  
GOVERNMENT OF GUJARAT.

17 August 2005

To,  
The Under Secretary,  
The Govt. of Gujarat  
Industries, Mines & Power Department,  
Gandhinagar

Through  
The Collector Sahab,  
Jamnagar District (Mines Department)

Sir,

I/We request for renewal of my/our mining lease under the Mineral Concession Rules,  
1960.

1. [(A sum of 4 {Rs. 2500} being the application fees Rs. 2500/- vide challan No. 947  
Date 17-8-05 Payable under sub-rule (3) (i) (a) of rule 22 of the said rules had  
been deposited.)]

2. The required particulars are given below:-

(i) Name of the applicant with complete address:-  
Company/Public Company/firm of association?

- M/s. Saurashtra Calcine Bauxite & Allied Industries.  
Shree Chambers, 3<sup>rd</sup> Floor  
Opp, M.E.M. School  
Porbandar. 360-575

(ii) Is the applicant a private individual /private company/public company/firm  
or association?  
- Firm, Proposed Transfer :-

M/s. Saurashtra Calcine Bauxite & Allied Industries Limited.

(iii) In case applicant is :

(a) An individual, his nationality,  
Indian.

(b) A private company, the nationality of all members of the company  
along with place of Registration.  
Not Applicable.

ATTESTED

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RQP/UDP/023/87-A  
ATTESTED

- (c) A public company the nationality of directors, the percentage of Share capital held by Indian Nationals along with place of incorporation.
  - Not Applicable.
- (d) A firm of association, the nationality of all the partner of the firm or members of the association.
  - Nationalities of all partners are Indian.
- (iv) Profession or nature of business of applicant.
  - Calcine Bauxite Industries & Mining.
- 1 [ (v) (Omitted)
- (vi) (Omitted)
- 2 [ (via) No. and date of valid Clearance Certificate of Payment or mining dues (copy enclosed )
  - Affidavit is enclosed.
- 3 [ (vii) An affidavit, that up-to-date Income Tax returns, As prescribed under the Income Tax Act. 1961, have been filed, and the tax due including the taxon account of self- assessment had been paid.
  - Yes, GAZZATE Copy is enclosed
- (viii) (a) Particulars of the mining lease of which renewal is desired.
  - Village : Mevasa. S.No.138
  - Taluka : Kalyanpur, Dist. Jamnagar (Gujarat).
  - Area : 9.6619 Hectares. Mineral : Bauxite
- (b) Detail of previous renewal granted, if any.
  - 1<sup>st</sup> Renewal Application
- (ix) Period for which renewal of mining lease is required.
  - 20 Years.
- (x) Whether renewal is applied for the whole part of the leasehold.
  - Whole
- 4 [ (xa) (a) Does the applicant continue to have surface rights over the area of the land for which he requires renewal of the mining lease.
  - Yes, Area 9.6619 Hectares.



- (b) If not, has he obtained the consent of the owner an occupier  
— for undertaking mining operations. If so, the land obtained in writing, be filed.  
Not Applicable.

(xb) Particulars of the areas mineral-wise in each state duly supported by affidavit for which the applicant or any person joint in interest with him.

— Not Applicable.

(a) Already holds under mining lease;  
— Not Applicable.

(b) Has already applied for but not granted,  
— Not Applicable.

(c) Being applied for simultaneously.  
— Not Applicable.

(xc) A mining plan which shall include  
or

(a) The plan of the area showing the nature and extent of the mineral body, spot or spots where excavation is to be done in the first year and its extent, a detailed prosecution and detailed plan of spot(s) of excavation based on prospecting data gathered by the applicant, a tentative scheme of mining 1 [ for the five years of the lease.];

— Mining scheme is Approved date: 14/05/2003.

(b) The details of geology and litho of the area the extent of manual mining and through machines;

— The details of geology and litho logy of the area already shown in approved mining plan; mining through machineries.

(c) Annual programme and plan for excavation 1 [for five years]; and  
— As per mining plan.

1. The first part of the document is a list of the names of the persons who have been appointed to the various offices of the Board of Directors.

2. The second part of the document is a list of the names of the persons who have been appointed to the various offices of the Board of Directors.

3. The third part of the document is a list of the names of the persons who have been appointed to the various offices of the Board of Directors.

4. The fourth part of the document is a list of the names of the persons who have been appointed to the various offices of the Board of Directors.

5. The fifth part of the document is a list of the names of the persons who have been appointed to the various offices of the Board of Directors.

- (d) The plan of the area showing natural water courses; limit of reserved and other forest areas and insity of trees, assessment of impact of mining activity of forest, Land surface and Environment including air and water pollution and details of the scheme for a forestation, land reclamation, use of pollution control device.
- No natural water source, govt. waste land and non-forest area, no pollution of water environment and air plantation area sown in the map. (Affidavit is enclosed)

2 [xd] Is the mineral going to be used in his own industry? If so, give full details; (for "own industry" see Explanation under Rule 24 B).

— Yes, for calcinations at our plant at Porbandar and Bhatia.

[xi] In case the renewal applied for is only for part of the leasehold.

(a) The area applied for renewal,  
— Not Applicable

(b) Description of the area applied for renewal description  
Should be adequate for the purpose of demarcating the Plot.  
— Not Applicable

(c) Particulars of map of the leasehold with area applied for renewal clearly marked on it (attached),  
— Not Applicable.

1 [(d) Particulars of existing or created dumps ore, if any,  
— Not Applicable.

(xii) Means by which the minerals is to be raised, i.e. by hand labour or mechanical or electric power.  
— By hand labour

(xiii) Manner in which the mineral raised is to be utilized :

(a) For manufacture in India.  
— For manufacture in India in own Plant.

(b) For export to foreign countries.  
 — We are continues to be involved in export business since at last so many years and so, this connection company has good repule in foreign markets. So, that we have a lot of markets, Central Govt. Kisme Policies are also increase to do this active because not only company nation is also getting foreign exchange. So, that our future program will also maintain export business. So, it is necessary to renew this lease.

(c) In the former case the industries in connection with which it is required should be specified in the latter case, the countries to which the mineral is to be exported after processing or in raw form should be started.  
 — Calcination plants which are situated at Bhatta & Porbandar.

(xiv) Details of output during the last three years and phased programme for production during next three years along with a layout plan for development, if any.

OUTPUT		PRODUCTION	
2002-2003	9,455.000 M.T.	2005-2006	20,000.000 M.T.
2003-2004	5,718.000 M.T.	2006-2007	25,000.000 M.T.
2004-2005	10,208.000 M.T.	2007-2008	30,000.000 M.T.

(xv) in case of coal details of existing railway transport facility. If any required.  
 — Not Applicable.

(xvi) Any other particulars which the applicant wishes to furnish.  
 — We have applied transfer of Mining Lease in the name of "Saurashtra Calcine Bauxite & Allied Ind. Ltd." In place of "Saurashtra Calcine Bauxite & Allied Ind." There are no change either in the number of person or in the name of person except the position as Board of Director in place of Partners of the firm. We are accepted all the conditions and liabilities which the transferor was having respect of such Mining Lease.

I/we do hereby declare that the particulars furnished above are correct and am/are ready to furnish any other details including accurate plans as required by you before the grant of the lease.

— Date of Lease executed on date 11/09/1986. So, please renew the lease in time. So, we can utilize the materials in our own plant regularly.

Yours Faithfully,  
Signature and designation of the applicant.

Madhya Pradesh Calcine Bauxite & Allied Ind.

*[Signature]*

Director.

Dr. Bhatia

:- Form - D :-

RECEIPT APPLICATION FOR PROSPECTING LICENCE / LEASE FOR RENEWALS

(SEE RULES 10 (4) AND 23 (4))

GOVT. OF GUJARAT

SR. NO.: M2/renew/1326

NO. G. J. MLAPL / renew/1326/4599

OFFICE OF THE COLLECTOR

(MINING BRANCH)

JAMNAGAR.

Recd: 16.09.05

Received the application with the following enclosures for a Mining Lease/Renewal ~~Lease~~ Prospecting

~~Lease~~ From Shri/Ms. Saurashtra Calcare Bauxite & Allied Ind.

on 29/8/05 of about 9-6613 Hectors of land

located in Village: Mevasa Survey No.: 138 Taluka: Kalyanpur

Dist.: JAMNAGAR for mining Lease / prospecting Licence / Renewal ~~Lease~~

Mineral: Limestone / Bauxite

Enclosures :-

- 1) Mining Lease / <sup>renewal</sup> ~~Prospecting Licence~~ application in Form "A" / From "J" / Form "B" in triplicate.
- 2) Copy of Income Tax Clearance Certificate in triplicate.
- 3) Copy of Mining Dues Clearance Certificate / an Affidavit Regarding 'No Mining Dues' in triplicate.
- 4) Copy of Map showing the area in triplicate.
- 5) Original challan.
- 6) 7/12 Pania in triplicate.

To: Shri/Ms. Saurashtra Calcare Bauxite & Allied Industries

Shree Chambers, 3rd Floor.

Oppo: M.E.M. School

Dist.: Porbandar

Place: Jamnagar.

  
For Collector, Jamnagar

C. C. To:

1) The under Secretary,  
Industries and Mines Department,  
New Schivalaya, Gandhinagar.

2) The Commissioner of Geology & Mining -  
Old Sachivalaya, Gandhinagar.



**SGS****Test Report**

Sample No : PM16-001097.001

Print Date : 16/07/2016

JOE No : PM16-001097

Report Control No: PMR0000015890

**Sample Not Drawn by Laboratory**

Sample Described by Customer as : Raw Bauxite  
 Customer Name : Saurashtra Caloïne Bauxite & Allied Ind. Ltd.,  
 Customer Address : 2 km, Bhatia-Harshad Road, Bhatia,  
 City : Jamnagar  
 Sample Mark : Mevasa 138  
 Sample Qty. : 100 Gm  
 Sample condition : Crushed & Unsealed  
 Sample Description : Raw Bauxite  
 Sample Received Date : 13/07/2016  
 Test Start Date : 14/07/2016

Registration Date : 13/07/2016

Test End Date : 16/07/2016

Test Name	Test Protocol	Test Results
Alumina as Al <sub>2</sub> O <sub>3</sub> %	IS:1760 (Part 3) - 1992 (Reaff.2011)	47.06
Calcium as CaO %	IS:5949:1990 (Reaff.2010)	5.49
Iron as Fe <sub>2</sub> O <sub>3</sub> %	IS 2000 : 1985 (Part 4) Reaff.2011	7.58
Loss on Ignition %	IS : 2000-1985 (Part-1) (Reaff. 2011)	29.73
Silica as SiO <sub>2</sub> %	IS: 2000 (Part 2)-1985 (Reaff.2011)	6.94
Titanium as TiO <sub>2</sub> %	IS 2000:1985 (Part-5) Reaff.2011	2.49

\*End of Report\*

Per Pro SGS India Private Ltd.

  
 Vipul Jadeja  
 Lab Incharge  
 Authorised Signatory

**ATTESTED**
**KALYAN SINGH NAGORI**  
**RQP/UDP/023/87-A**

\*WARNING: The sample(s) to which the findings recorded herein (the "Findings") relate, was/were drawn and /-or provided by the Client or by a third party acting at the Client's direction. The Findings constitute no warranty of the sample's representativeness of any goods and strictly relate to the sample(s). The Company accepts no liability with regard to the origin or source from which the sample(s) is/are said to be extracted.

\*This document is issued by the Company under its General Conditions of Service printed overleaf or available on request and accessible at [http://www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm). Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 7 days (in case of perishable items) and 30 days for all other samples. The samples from regulatory bodies are to be retained as specified. This document cannot be reproduced except in full, without prior written approval of the Company.

General Phone: +91 784 64 501 to 54 54 518 Fax: +91 295 2220177



१. १०/१०/१०  
 २. १०/१०/१०  
 ३. १०/१०/१०  
 ४. १०/१०/१०  
 ५. १०/१०/१०  
 ६. १०/१०/१०  
 ७. १०/१०/१०  
 ८. १०/१०/१०  
 ९. १०/१०/१०  
 १०. १०/१०/१०

માપણે નીચે સહી કરનારાઓ :-

મેસજ ' ' સૌરાષ્ટ્ર ડેલિવ્રાઈન બોક્સાઉટ ને-૭ મેલાઉડ ઈ-ડસ્ટ્રીઝ' ને નામ ની પોસ્ટલ ની માગીદારી ની પેટીનાં માગીદારો :-

૧. શ્રી દ્વારકાદાસ કેશવજી રાયચુરા.
૨. શ્રી પદમથી કેશવજી રાયચુરા.
૩. શ્રી હેમેન્દ્રકુમાર કેશવજી રાયચુરા.
૪. શ્રી વિનૌદકુમાર જમનાદાસ પાપારી
૫. શ્રી કિશોરકુમાર પ્રભુદાસપાપારી
૬. શ્રી શૈલેષકુમાર દ્વારકાદાસ રાયચુરા.

ਪਛੇਲੀ ਜਨਤਕ ਪੱਤਰਿਕਾ  
ਜਮਾਮ ਪ੍ਰਭੂ ਉਮਰਨਾ.

**ATTESTED**

KALYAN SINGH NAGORI  
ROP/UDP/023/87-A

શ્રીમદ્વિદ્યુમાર જમનાદાસ પાપારી ... ... બોમ્બે ન રક્ષા પદાધિકારી  
પુખ્ત હિમરના.

મા ઉપર થી અરજ પરજ સમજતા અને સંમતિ થી મા દરમિયાને નીચે મુજબ

૧: ઉપર જણાવેલ માપણે પહેલી તરફના પક્ષાકારો છ માગીદારો શહેર પોરબંદર માં મેસર્સ સૌરાષ્ટ્ર કેલસાઈન બોક્સાઈટ એન્ડ મેલાઈડ ઈન્ડસ્ટ્રીઝ, એ નામ ની માગીદારી ની પેટી ચલાવતા હતા. તે બાબત નું પહેલું માગીદારી ડીડ ૧૯૭૩ માં તા. ૯-૮-૭૩ રૂ. ૪૦૦/- ના સ્ટેમ્પ ઉપર માગીદારી નું દસ્તાવેજ કરવામાં આવેલ છે.

૨: જેમાં તા. ૧૦-૭-૧૯૮૨ ના રોજ રૂ. ૪૦૦/- ના સ્ટેમ્પ હેપર નાં. ૨૩૩૩ થી સુધારા વધારા કરવામાં આવેલ છે.

૩: જેમાં તા. ૭-૧-૧૯૮૬ નાં રોજ રૂ. ૫૦૦/- ના તથા રૂ. ૨૦૦/- ના સ્ટેમ્પ પેપર નં. ૮૯૬૯ અને ૮૯૬૧/૧ થી સુધારા વધારા કરવામાં આવેલ છે.

૪: જેમાં તા. ૧-૪-૧૯૯૨ ના રોજ જે તે વખત ના ઈન્ડમટેક્સ કાયદાઓ મુજબ બંધારણ માં સુધારા સ્ટેમ્પ પેપર રૂ. ૬૦/- તથા રૂ. ૪૦/- ના મનુક્રમે નં. ૪૦૦૦ તથા ~~XXXXXXX~~ ૪૦૦૦/૧ તા. ૩૧-૬-૯૨ થી કરવામાં આવેલ છે.

૫: ઉપરોક્ત માગીદારી પેટી નો વહીવટ તા. ૩૧-૧૨-૯૪ સુધી ચાલેલ છે. માપણ પેકી દરેક માગીદાર તેમાં સક્રિય રીતે સંકળાયેલ હોય.

૬: ધંધા નો વધતો જતો વિસ્તાર, તેમજ ઘટ રહેલા ધંધા ક્રિયસંજોગો ના પરિવર્તનોને લક્ષ્ય માં લઈને આ કા. મા વધુ સક્રિય માગીદાર ની જરૂરત જણાવાથી સર્વે ઉપરોક્ત છ એક તરફી માગીદારોની સર્વ સંમતિ થી નવા માગીદાર શ્રી અરવિંદકુમાર જમનાદાસ પાંચારી - મેટલે કે બીજી તરફના પક્ષાકાર ને આ ચાલુ માગીદારી પેટી માં તા. ૧-૧-૯૫ થી લેવાનું નક્કી કર્યું છે. જેના આ દસ્તાવેજ બનાવવામાં આવેલ છે.

૭: જુની માગીદારી ના તા. ૩૧-૧૨-૯૪ સુધીના તમામ હિસાબો માપણે પહેલી તરફના પક્ષાકારોએ રજૂ કરી હોવા તે રીતે તમામ રીતે

તા. ૧-૧-૬૫ થી બાકી ના છ ભાગીદારો (એક તરફના પક્ષકારો) અને નવા ભાગીદાર શ્રી અરવિંદકુમાર જમનાદાસ પાબારી (બીજી તરફના પક્ષકાર) એમ સંયુક્ત રીતે આવેલ ભાગીદારોએ આ પેટી નો વહીવટ સંભાળેલ છે અને તે રીતે હવે પછી છ ને બદલે સાત ભાગીદારો ના હકક હિસ્સા થી આ ભાગીદારી પેટી નો વહીવટ થશે.

માજરોજ તા. ૧-૧-૬૫ ની અસર થી શ્રી અરવિંદકુમાર જમનાદાસ પાબારી ને બીજી તરફના પક્ષકારોએ નવા ભાગીદાર તરીકે પ્રવેશ આપતા આ દસ્તાવેજ કરવામાં આવેલ છે.

૪:

આ નવા ભાગીદાર ના દાખલ થવાને કારણે ભાગીદારો ની નફા નુકસાન ની ટકાવારી માં પણ નીચે મુજબ ફેરફારો કરવામાં આવે છે ને પણ સાથે ભાગીદારો એ કબુલ મંજૂર રાખેલ છે. ને ફેરફારો નીચે મુજબ રહેશે.

ભાગીદાર નું નામ :

નફા-નુકસાન માં હિસ્સો

૧. શ્રી ધ્વારકાદાસ કેશવજી રાયચુરા	૨૦%
૨. શ્રી પદમણી કેશવજી રાયચુરા	૩૦%
૩. શ્રી હેમેન્દ્રકુમાર કેશવજી રાયચુરા	૦૫% (૫%)
૪. શ્રી શેલોકુમાર ધ્વારકાદાસ રાયચુરા	૧૦%
૫. શ્રી વિનોદકુમાર જમનાદાસ પાબારી	૧૫%
૬. શ્રી અરવિંદકુમાર જમનાદાસ પાબારી	૧૫%
૭. શ્રી કિશોરકુમાર પ્રભુદાસ પાબારી	૫%
	<hr/> ૧૦૦%

૫ :

ઉપર ના ફેરફારો સિવાય આજ્ઞા નું ભાગીદારી નું દસ્તાવેજ કાયમ રહે છે. અને તેની લાગુ પડતી તમામ કલમો ચલાવ રહે છે. સદરહુ દસ્તાવેજ તા. ૧-૧-૬૫ થી અમલી બને છે.

ક : આ દસ્તાવેજ બંને પક્ષકારોએ રાત્રી પૂરી થી હાથ ની  
આ બામીય રી પેટી ની તમામ જવાબદારીઓ, હકક હિસ્સામ  
મિલકતો ને ઉપર પ્રમાણે નકકી કર્યા મુજબ ટકાવારી માં નકા  
નુકસાન માં ગણવાના છે જે સૌ એ કબુલ મંજૂર રાખેલ છે. એ ને  
મુજબ આ સ્ટેમ્પ પેપર રા. ૧૦૦/- નો મનુ. નંબર ૪૧૩૭/-  
રા. ૧૦૦/- ના તા. ૨૫-૧-૯૫ ઉપર દસ્તાવેજ કરેલ છે.

સહી

સામ

પહેલી તરફના પક્ષકારો

- ૧ - M. S. Chaur
- ૨ - M. S. Chaur
- ૩ - M. S. Chaur
- ૪ - M. S. Chaur
- ૫ - M. S. Chaur
- ૬ - M. S. Chaur

૧૧૬ માર્ચ ૨૦૨૦

સંતોષકારક છે

મનીષ રજાર

બીજી તરફના પક્ષકારો

૭ - M. S. Chaur

ATTESTED

S D RANAVAYA  
NOTARY  
Gandhinagar Dist





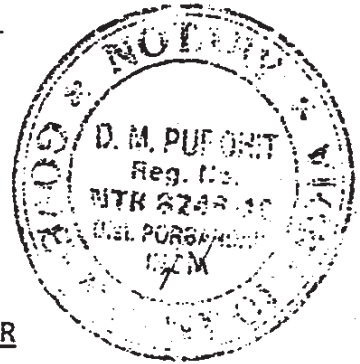


गुजरात गुजरात GUJARAT

रजिस्ट्रर नं. १८८५  
 रजिस्ट्रर किंमत रु. १००/-  
 वे. त. १८/११/८७  
 र. १८/११/८७  
 प्रमाणित सही  
 ता. १७ - ८ - २०१२

AS 721!

र. जे. म. (मह)  
 नाम-कल्याणपुर, रजिस्ट्रर वेस्ट, ला. नं. ३/८७



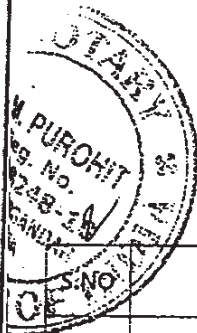
AUTHORISATION LETTER

We all the Partners Of M/S. Saurashtra Calcine Bauxite & Allied Industries, hereby authorize Shri Dwarkadas Keshavji Raichura (Partner) to undertake, Geology Mining department, Indian Bureau of Mines (IBM), State & Central Government and all other related work of our All bauxite Mines of Kalyanpur Tehsil, Dist. Devbhumi Dwarka (Gujarat).

Page-2 cont.....

ATTESTED

KALYAN SINGH NAGORI



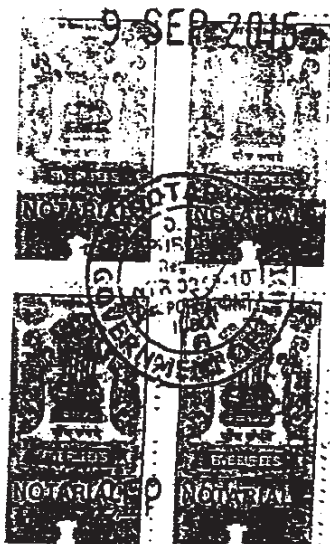
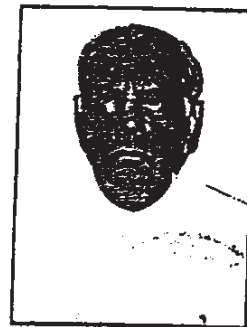
(2)

	NAME	SIGNATURE
1	Shri Padamshi Keshavji Raichura	<i>U. K. Raichura</i>
2	Shri Hemendrakumar Keshavji Raichura	<i>Hemendra K. Raichura</i>
3	Shri Shaileshkumar Dwarkadas Raichura	<i>Shailesh K. Raichura</i>
4	Shri-Vinodkumar Jamnadas Pabari	<i>Vinod K. Pabari</i>
5	Shri Arvindkumar Jamnadas Pabari	<i>Arvind K. Pabari</i>
6	Shri Kishorkumar Prabhudas pabari	<i>Kishor K. Pabari</i>

Confirmed by :

*L. K. Raichura*

( Dwarkadas Keshavji Raichura )



Solemnly affirm signed before  
me at Porbandar on dt. 9/9/2015  
By D. K. Raichura who is  
Verified by P. M. Purohit

D. M. Purohit  
Notary  
Government of India

- 9 SEP 2015



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**SCABAL**

**Registered Office:**

"Shree Chambers", 3rd Floor, P.O. Box No. 55,  
Opp. M. E. M. School, Porbandar - 360 575.

Phone : (0286) 2247223 / 2245784/ 2212754

FAX : +91-286-2241370 / 2241802

Email : scabal@scabalindia.com

saileshraichura@scabalindia.com

URL : www.scabalindia.com

**SAURASHTRA  
CALCINE BAUXITE  
& Allied Ind.**

**BAUXITE MINES OWNERS  
MFGS. OF CALCINED BAUXITE**

**LIST OF PARTNERS.**

S.NO.	NAME	ADDRESS	CONTACT NO.
1	Shri Dwarkadas Keshavji Raichura	Lamba Bandar, Tal- Kalyanpur, Dist Devbhumi Dwarka	(02891)285223
2	Shri Padamshi Keshavji Raichura	Shree Cheambers, 3 <sup>rd</sup> Floor, Opp. M.E.M.School, Porabandar-360575	(0286)2247223
3	Shri Hemendrakumar Keshavji Raichura	Shree Cheambers, 3 <sup>rd</sup> Floor, Opp. M.E.M.School, Porabandar-360575	(0286)2247223
4	Shri Shaileshkumar Dwarkadas Raichura	Shree Cheambers, 3 <sup>rd</sup> Floor, Opp. M.E.M.School, Porabandar-360575	(0286)2247223
5	Shri Vinodkumar Jamnadas Raichura	K.D.Complex, 6 <sup>th</sup> Floor, Indira Marg, Gurudwara Charrasta - Jamanagar	(0288)2553131
6	Shri Arvindkumar Jamnadas Pabari	K.D.Complex, 6 <sup>th</sup> Floor, Indira Marg, Gurudwara Charrasta - Jamanagar	(0286)2247223
7	Shri KishorkumarPrabhudas Pabari	Jam-Gadhka, Tal Kalyanpur Dist- Devbhumi Dwarka	(02891)275666

**ATTESTED**

**KALYAN SINGH NAGORI**  
RQP/UDP/023/87-A

**CALCINATION PLANT :**

(0) 117-119, G.I.D.C. Estate, Porbandar-360 575. (INDIA) Tel. (0286)2221856 / 2220923

(0) 2247223 / 2245784 (Dist: Jamnagar-Gujarat) Tel.: (02891) 233155-233166 FAX.: 233155-233166-233199

# **LIST OF ALL LEASES OF SAURASHTRA CALCINE BAUXITE & ALLIED IND.**

S.NO.	MINES	MINING CODE	HECT
1	Mevasa-330	248/07GUJ07100	33.18.54
2	Mevasa-138	248/07GUJ07070	9.66.19
3	Mevasa-227/228	248/07GUJ07034	3.12.62
4	Mevasa-214	248/07GUJ07032	3.58.14
5	Mevasa-412	248/07GUJ07071	1.24.44
6	Mevasa-154	248/07GUJ07120	1.35.57
7	Mevasa-148	248/07GUJ07105	1.69.97
8	Mevasa-208/407	248/07GUJ07103	2.99.47
9	Mevasa Nala-A	248/07GUJ07153	0.80.94
10	Mevasa Nala-B	248/07GUJ07154	0.80.94
11	Lamba-2 415	248/07GUJ07104	5.49.35
12	Lamba-1 415	248/07GUJ07021	10.19.81
13	Hadmatiya-121	248/07GUJ07009	12.95.00
14	Kenedi-352	248/07GUJ07119	17.90.73
15	Kenedi-505	248/07GUJ07012	3.44.00
16	Kenedi-506	248/07GUJ07144	1.23.62
17	Kenedi-508	248/07GUJ07014	1.47.71
18	Nandana-199	248/07GUJ07046	2.44.00
19	Ashota-238	248/07GUJ07041	32.37.48
20	Ran Nala-2	248/07GUJ07106	0.80.94
21	Ran - 403	248/07GUJ07054	5.27.00

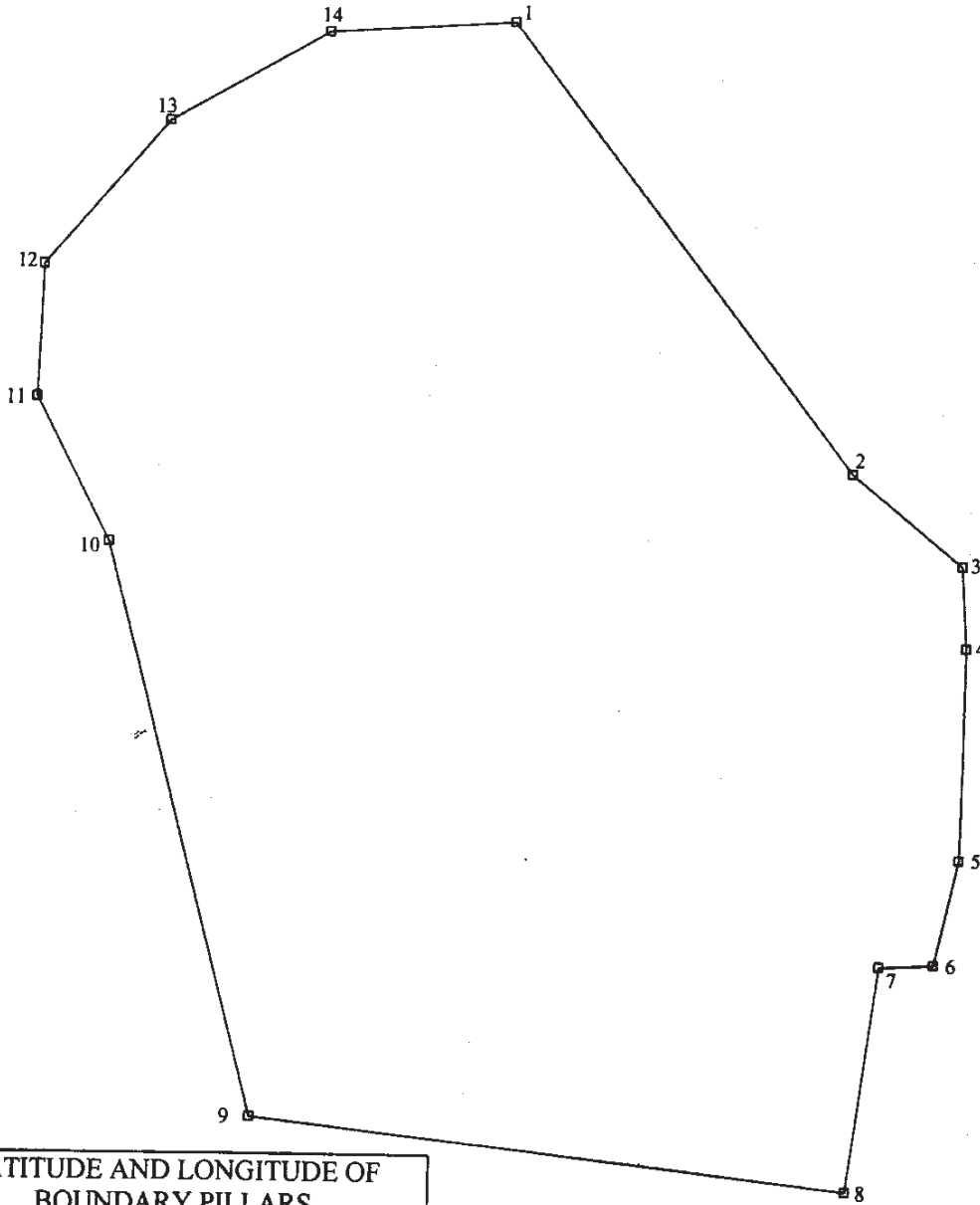
**ATTESTED**

KALYAN SINGH NAJARI  
ROP/UDP/023/97-8

# LATITUDE & LONGITUDE DETAILS

MINE - MEWASA BAUXITE MINE (S.No. 138)

AREA - 9.6600 HECT.

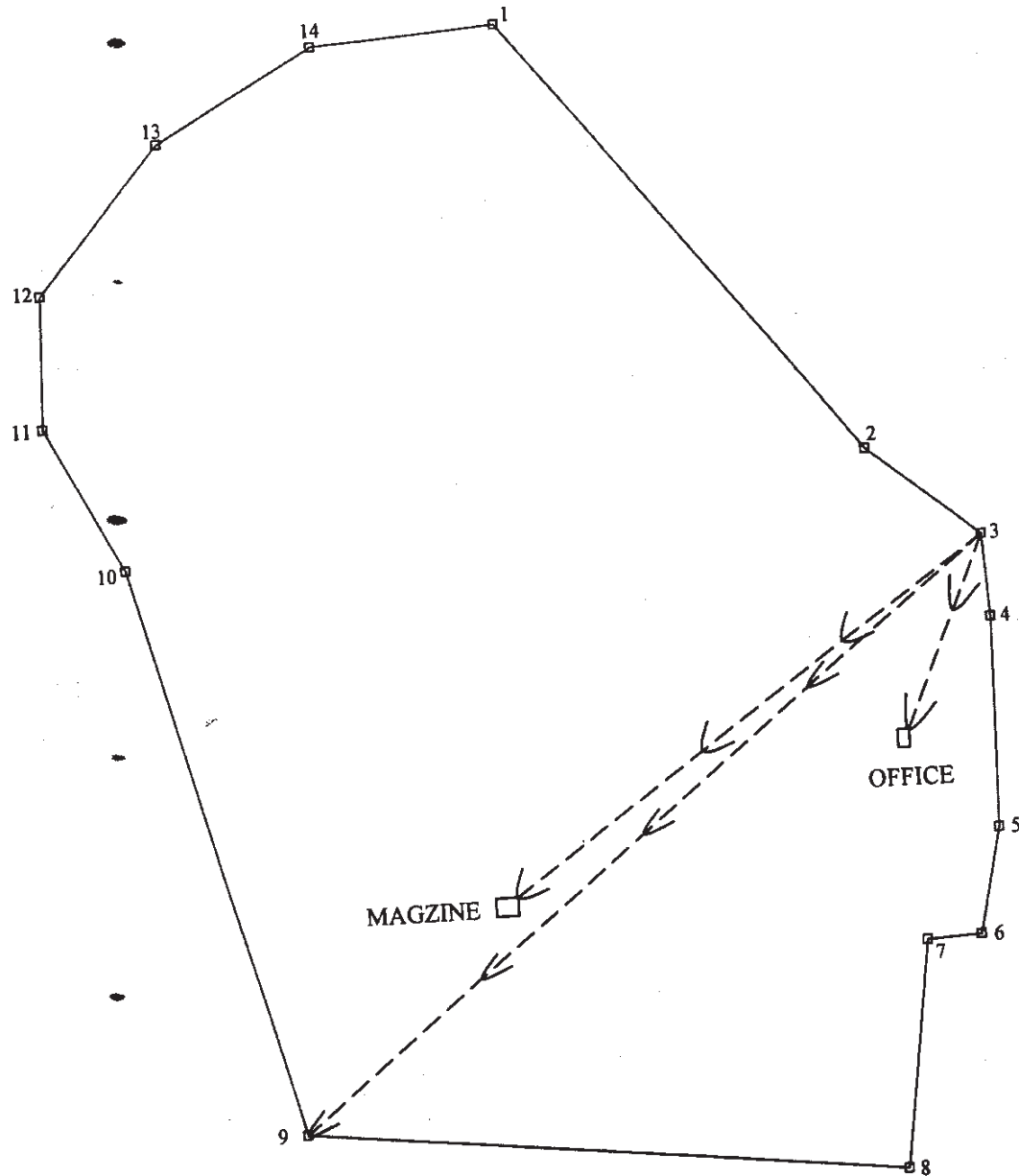


LATITUDE AND LONGITUDE OF  
BOUNDARY PILLARS

PILLARS No.	LATITUDE	LONGITUDE
1	22°14' 05.80"	69°18' 56.80"
2	22°14' 00.80"	69°19' 01.30"
3	22°13' 59.90"	69°19' 02.70"
4	22°13' 58.90"	69°19' 02.80"
5	22°13' 56.40"	69°19' 02.70"
6	22°13' 55.10"	69°19' 02.40"
7	22°13' 55.10"	69°19' 01.80"
8	22°13' 52.50"	69°19' 01.80"
9	22°13' 53.10"	69°18' 54.00"
10	22°13' 59.70"	69°18' 52.20"
11	22°14' 01.30"	69°18' 51.40"
12	22°14' 02.80"	69°18' 51.40"
13	22°14' 04.60"	69°18' 52.90"
14	22°14' 05.60"	69°18' 54.40"



# PILLAR TO FIX THREE REFERENCE POINTS MINE - MEWASA BAUXITE MINE (S.No. 138) AREA - 9.6600 HECT.



## A BOUNDARY PILLAR CONNECTED THREE PERMANENT GROUND POINTS

FROM	TO	BEARING	DISTANCE
PILLAR 3	OFFICE	203°	73 M.
PILLAR 3	MAGZINE	235°	208 M.
PILLAR 3	PILLAR 9	271°	319 M.



भारत सरकार  
खान मंत्रालय  
भारतीय खान ब्यूरो  
क्षेत्रीय खान नियंत्रक का कार्यालय

पंजीकृत/साधारण

सं 682(23)/(एमएस-630)/2007-खानिखस(उ)उदय

हिरणमगरी, सेक्टर 11,  
उदयपुर (राज.)  
दिनांक 22.10.2016

प्रेषित :- मै. सौराष्ट्र केलसाइन बाक्सा. एंड एलाइड इंड.,  
2 K.M. भाटिया, हर्षद रोड,  
पोस्ट भाटिया  
जिला- जामनगर ( गुज.)

विषय :- खनिज संरक्षण एवं विकास नियमावली, 1988 के नियम 12(3) एवं नियम 23 बी के अंतर्गत प्रस्तुत निकट  
ग्राम मेवासा तालुका कल्याणपुर जिला- देवभूमि द्वारका (गुजरात) में स्थित मेवासा बाक्साइट खान  
(क्षेत्रफल- 9.66 हेक्टर, सर्वे सं. 138) की खनन स्कीम सह उत्तरोत्तर खान बन्द करने की योजना का  
अनुमोदन ।

संदर्भ :- 1. आपका पत्र संख्या NIL दिनांक 16.10.2015 ।  
2. आपके आर.क्यू.पी. का पत्र दिनांक 04.01.2016 ।  
3. इस कार्यालय का समसंख्यक पत्र दिनांक 01.12.2015

महोदय,

खनिज संरक्षण एवं विकास नियमावली, 1988 के नियम 12 के उपनियम 4 सपठित नियम 23 बी के उप  
नियम 4 के अंतर्गत प्रदत्त अधिकारों का प्रयोग करते हुए उपरोक्त उल्लेखित खान की खनन स्कीम सह उत्तरोत्तर खान  
बन्द करने की योजना का अनुमोदन निम्नलिखित शर्तों के अधीन किया जाता है :-

1. इस खनन स्कीम सह उत्तरोत्तर खान बन्द करने की योजना का अनुमोदन केन्द्र सरकार, राज्य सरकार अथवा  
अन्य किसी प्राधिकारी द्वारा खान पर समय- समय पर लागू किए गए कानूनों पर प्रतिकूल प्रभाव डाले बिना  
तथा किसी भी न्यायालय के सक्षम क्षेत्राधिकार के किसी आदेश या निर्देश पर प्रतिकूल प्रभाव डाले बिना किया  
गया है ।
2. नक्शों में दर्शित और/अथवा दस्तावेज में दिये गये प्रस्ताव आवेदक/पट्टाधारक द्वारा प्रस्तुत किये गये लीज  
मेप/स्केच पर आधारित हैं एवं अनुमोदन की तिथि से लागू होंगे ।
3. यह भी स्पष्ट किया जाता है कि इस खनन स्कीम सह उत्तरोत्तर खान बन्द करने की योजना के अनुमोदन में  
खान एवं खनिज (विकास और विनियमन) अधिनियम, 1957 या खनिज रियायत नियमावली, 1960 एवं किसी अन्य  
कानून जिनमें वन (संरक्षण) अधिनियम 1980, पर्यावरण (संरक्षण) अधिनियम, 1986 या इनके अधीन निर्मित नियमों,  
खान अधिनियम 1952 तथा इनके अन्तर्गत निर्मित नियम व नियमावली के विपरीत किसी भी प्रकार से सरकार  
का अनुमोदन समाविष्ट नहीं हुआ है ।
4. भारतीय खान ब्यूरो द्वारा खान की सीमा रेखा का धरातलीय सत्यापन नहीं किया गया है तथा  
आवेदक/पट्टाधारक द्वारा प्रस्तुत किये गये लीज मेप व अन्य नक्शों के संदर्भ में दर्शित खनन पट्टे की सीमा  
की धरातल पर सत्यता की जिम्मेदारी नहीं है ।
5. यदि किसी भी स्तर पर दस्तावेज में प्रदत्त सूचना, समावेशित आंकड़ों का असत्य होना या तथ्यों का गलत ढंग  
से प्रस्तुतीकरण पाया जाता है तो खनन स्कीम का अनुमोदन तत्काल प्रभाव से निरस्त कर दिया जायेगा ।
6. यह अनुमोदन प्राप्त प्रस्ताव के लागू होने यानि वर्ष अगस्त 2016-17 से 2020-21 में क्रमशः 33840 टन,  
34050 टन, 33750 टन, 33675 टन एवं 34500 टन प्रतिवर्ष (ROM) उत्पादन के लिये दिया जाता है ।
7. आगामी वित्तीय आश्वासन की प्रस्तुती दिनांक 31.03.2021 को देय होगी ।

भवदीय

संलग्न :- अनुमोदित खनन स्कीम सह  
उत्तरोत्तर खान बन्द करने की योजना की प्रति


ATTESTED

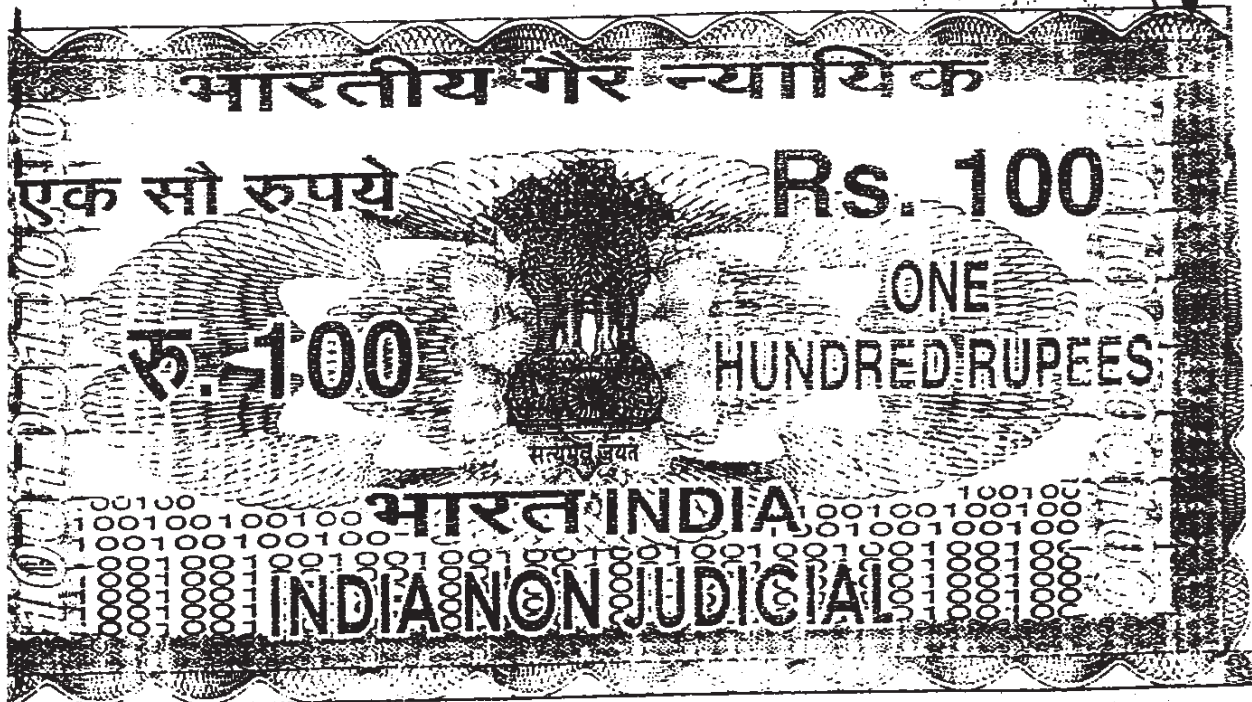
KALYAN SINGH NAGORI (जे.आर.चौधरी)  
RQP/UDP/023/87-A क्षेत्रीय खान नियंत्रक  
भारतीय खान ब्यूरो

कृ.पू.उ.

प्रतिलिपि सूचनार्थ -

1. श्री के.एस.नागौरी, 70-इंद्रप्रस्थ कॉम्प्लेक्स, तीसरा तल, देहलीगेट- शास्त्री सर्किल लिंक रोड, उदयपुर।
2. आयुक्त, भू-विज्ञान एवं खनन विभाग, गुजरात सरकार, उद्योग भवन, ब्लॉक 1 व 2 सप्तम तल, से-11, घ-सडक, गॉंधीनगर, गुजरात (अनुमोदित खनन स्कीम सह उत्तरोत्तर खान बन्द करने की योजना की एक प्रति सहित- पंजीकृत डाक द्वारा)

  
क्षेत्रीय खान नियंत्रक  
भारतीय खान ब्यूरो



गुजरात GUJARAT

AS 908506

नं. १२१४७

मरीनारु नाम श्रीमती. उमेश्वरी देवदास अत्रा. २०. ६७५-७७

होवासी २०२८२५

२०२५

दाहा १८/१२/२०१५

२०२५ वेवरी

२०२५ वेवरी

०.२०.२०१५

मरीनारु स. ६.

To,  
The Regional Controller of Mines,  
Indian Bureau of Mines,  
Udaipur

F/P B.G. No. 0866/GPE 2005415  
Date of Issue 21-12-2015  
Date of Expiry 21-03-2021  
Margin Money: 086603

Dear Sir,

Guarantee No.: 0866/GPE 2005415

Amount of Guarantee: Rs. 2,25,000/-

Guarantee Period from 21/12/2015 to 31/03/2021

Last date of lodgment of claim 31-03-2021

This Deed of Guarantee executed on 12-12-2015 by Bank of Baroda Constituted under, the Banking Regulation Act having its central office at Mumbai and amongst other places, a branch at Porbandar (herein after referred to as the bank) in favor of Regional Controller of Mines, Indian Bureau of Mines, Udaipur ( herein after referred to as the beneficiary ) for an amount not exceeding Rs.2,25,000/- (Rupees Two Lakh Twenty Five Thousand Only) at the request of M/s Saurashtra Calcine Bauxite & Allied Industries (herein after referred to as the Contractor/s).

This guarantee is issued subject to the Condition that the liability of the bank under this guarantee is limited to maximum of Rs. 2,25,000/- (Rupees Two Lakh Twenty Five Thousand Only) and the guarantee shall remain in full force up to 31/03/2021 and cannot be revoked on or before 30/03/2021 by the Bank or applicant.

SUBJECT TO AS AFORESAID.



(BANK GUARANTEE AND CO-ACCEPTANCE BOND).

1. Agreement of production of a guarantee for Rs. 2,25,000/- (Rupees Two Lack Twenty Five Thousand Only) under rule 23F of MMDR,1988.
2. We Bank of Baroda, at the request of M/s. Saurashtra Calcine Bauxite & Allied Industries (Lessee) do hereby undertake to pay to the Regional Controller of Mines, Indian Bureau of Mines Udaipur, or any other officer authority nominated by Controller General, Indian Bureau of Mines a amount not exceeding Rs. 2,25,000/- (Rupees Two Lack Twenty Five Thousand Only) against any loss or damage caused to or suffered or would b caused to or suffered by the Government or Towards noncompliance of provisions or Rule 23A, B & 23E of MMDR,1988, i.e. Mine Closure Plan/progressive Mine Closure plan approved in respect of the MEVASA-138 mining lease for (ore/ores) over an area of 9.66 Hects. Granted by state Government to M/s. Saurashtra Calcine Bauxite & Allied Industries (Lessee) situated in Mevasa village, Kalyanpur Taluka, Jamnagar District, Gujarat State, by reason of any breach of the said lessee of any of the terms or conditions contained in the mine closure plan/progressive mine closure plan.
3. We, Bank of Baroda do hereby undertake to pay and payable under this guarantee without any demur, to the authority merely on a demand from the regional Controller of Mines, Indian Bureau of Mines or any other authorized by the Controller General, Indian Bureau of Mines stating that the amount claimed is due by way of loss or loss of damage caused to or would be caused to or suffered by the Government by reason of breach by the said lessee or any of the terms or conditions Contained in the mining plan/mine closure plan. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs.2,25,000/- (Rupees Two Lack Twenty Five Thousand Only).
4. We undertake to pay to the authority on a demand from Guarantee Indian Bureau of Mine, Udaipur or any other officer authorized by the Controller General, Indian Bureau of Mines or Govt. of India any money so demanded notwithstanding any dispute raised by the lessee in any suit or proceeding pending before any court or tribunal relating thereto our liability under this present being absolute and unequivocal.
5. We Bank of Baroda, further agree that the guarantee herein contained shall remain in full force and effect during the period up to the end of the Mining plan/scheme of Mining period of five years that would be taken for performance of the said Agreement and that shall continue to be enforceable till all the dues of the Government under or by virtue of the said agreement have been full paid and its clams satisfied or discharged till Regional Controller of Mines, Udaipur, any other authorized by the Controller General, Indian Bureau of Mines certifies that the terms and conditions of the said lessee and accordingly discharge this guarantee thereafter.
6. We further agree that Regional Controller of Mines, Indian Bureau of Mines , Udaipur or any officer authorized by the controller General, Indian Bureau of Mines shall fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said agreement or to extend time of performance any of the terms and conditions relating to the said or extension being granted to the said lessee or for any forbearance by Regional Controller of Mines, Udaipur,



0866/GPER/00545  
21-12-2015

against the said lessee and to forbear or enforce any of the terms and conditions relating to the said or extension being granted to the said lessee or for any forbearance, act or omission on the indulgence by Regional Controller of Mines, Udaipur, or any indulgence by Regional Controller of the mines, Indian Bureau of Mines, Udaipur, to the said lessee or any manner or thing whatsoever which under the law relating to sureties would but this provision have effect of so relieving us.

7. This guarantee will not be discharged due to change in condition of the bank or lessee.
8. We, Bank of Baroda, lastly undertake not to revoke this guarantee during its currency except with the previous consent of the Regional Controller of Mines, Indian Bureau of Mines, Udaipur, in writing.
9. Notwithstanding anything contained herein:
  - a) Our liability under this Bank Guarantee shall not exceed Rs Rs. 2,25,000/- (Rupees Two Lack Twenty Five Thousand Only)
  - b) The Bank guarantee shall be valid up to 31/03/2021
  - c) The periods of Bank guarantee submitted is valid for the period of the proposals given in the mining plan/scheme of mining/PMCP etc. We are liable to pay the guarantee amount or any part thereof under this Bank guarantee and only if served upon us a written claim or demand on or before, 31/03/2021
10. If the Bank guarantee is to be en-cashed through the court, in that case the (city where Regional Office, IBM is Located ) court will have Jurisdiction.
11. In witness whereof, the Bank through its authorized office set its hand and stamp on this 21/12/2015 at Porbandar.

मुख्य वैक ऑफ बड़ौदा For Bank of Baroda  
13-1065  
मुख्य प्रबंधक / CHIEF MANAGER  
जो रोड (मुख्य) पोर्बंदर / M. G. ROAD (M) PORBANDAR

F/P B.G. No.	0866/GPER 00545
Date of Iss.	21-12-2015
Date of Expiry	31-03-2021
Margin Money of	100%





Annexure XII

**By Speed Post**

**No. J-11015/115/2013-IA.II (M)**  
Government of India  
Ministry of Environment, Forest & Climate Change  
Impact Assessment Division  
\*\*\*

Indira Paryavaran Bhavan,  
Vayu Wing, 3<sup>rd</sup> Floor, Aliganj,  
Jor Bagh Road, New Delhi-110 003

Dated: 31<sup>st</sup> August, 2015

To

**M/s Saurashtra Calcine Bauxite and Allied Industries Ltd.**  
Harshad Road, Post Bhatia-361315,  
Kalyanpur Distt. Jamnagar (Gujarat)

**Sub:- Mewasa Bauxite Mine of M/s Saurashtra Calcine Bauxite and Allied Industries Ltd. located at Village Mewasa, Tehsil-Kalyanpur, Distt-Jamnagar, Gujarat (9.66 ha)- Prescribed TOR regarding.**

**Ref:- Online proposal no. IA/RJ/MIN/27659/2015.**

Sir,

This has reference to above mentioned proposal for determining the Terms of Reference (TOR) for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA Notification, 2006. For this purpose, the Proponent had submitted information in the prescribed format (Form-1) along with a Pre-feasibility Report. The proposal was considered by the Reconstituted Expert Appraisal Committee in its 35<sup>th</sup> meeting held during June 26<sup>th</sup>-28<sup>th</sup>, 2013. This is a violation case and the actions on violation have been submitted.

2. The proposal is for Mewasa Bauxite Mine with proposed production capacity of 36,000 TPA (ROM) of Bauxite in the mine lease area of 9.66ha. The mine lease area is located at Village Mewasa, Tehsil-Kalyanpur, Distt- Jamnagar, Gujarat. It is 'A' category project as the site is located within 10 Km radius i.e. 4.5 km of Marine National Park (Gulf of Kutch).

3. The Mine Lease area is at 22°14'5.8"N Latitude and 69°19'1.3"E Longitude. The Project is located in seismic zone- IV. The proposed mining operation will be carried out manually by opencast method. Mineral will be excavated by forming two benches. The maximum height of each bench will be 1.5 m, while the width of bench will be kept at 2.0 m. The mining lease was originally granted in favour of M/s Saurashtra Calcined Bauxite and Allied Industries vide Govt. of Gujarat order no. MCR-1585 CHH-80550 dated 19.07.1986. The Scheme of Mining with Progressive Mine Closure Plan has been approved by IBM, Udaipur vide letter no. 682 (23) MS 630/ 2011 dated 25.10.2011. Daily water demand will be 6.5 KLD. About 3.5 KLD will be used for domestic, 3.0 KLD for dust suppression and plantation, which will be met by tanker supply from nearby village. During the first five years 6,706 m<sup>3</sup> waste will be generated. Generated Waste will be utilized for backfilling simultaneously. No dumping is proposed.

4. The actions on violation has been completed. Project Proponent has informed that Criminal Case No. 130/2014 has been instituted against M/s Saurashtra Calcine Bauxite and Allied Industries Ltd. in the Hon'ble Judicial Magistrate at Kalyanpur to take cognizance of offence by the said court under Environment (Protection) Act, 1986 which has been committed by the offending project.

5. Based on the information content in the documents submitted and the presentation made before the Committee for mining projects, the following TOR are prescribed for undertaking detailed EIA study:-

- 1) Year-wise production details since 1994 should be given, clearly stating the highest production achieved in any one year prior to 1994. It may also be categorically informed whether there had been any increase in production after the EIA Notification 1994 came into force, w.r.t. the highest production achieved prior to 1994.
- 2) A copy of the document in support of the fact that the Proponent is the rightful lessee of the mine should be given.
- 3) All documents including approved mine plan, EIA and Public Hearing should be compatible with one another in terms of the mine lease area, production levels, waste generation and its management, mining technology etc. and should be in the name of the lessee.
- 4) All corner coordinates of the mine lease area, superimposed on a High Resolution Imagery/toposheet, topographic sheet, geomorphology and geology of the area should be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone).
- 5) Information should be provided in Survey of India Toposheet in 1:50,000 scale indicating geological map of the area, geomorphology of land forms of the area, existing minerals and mining history of the area, important water bodies, streams and rivers and soil characteristics.
- 6) Details about the land proposed for mining activities should be given with information as to whether mining conforms to the land use policy of the State; land diversion for mining should have approval from State land use board or the concerned authority.
- 7) It should be clearly stated whether the proponent Company has a well laid down Environment Policy approved by its Board of Directors? If so, it may be spelt out in the EIA Report with description of the prescribed operating process/procedures to bring into focus any infringement/deviation/violation of the environmental or forest norms/ conditions? The hierarchical system or administrative order of the Company to deal with the environmental issues and for ensuring compliance with the EC conditions may also be given. The system of reporting of non-compliances / violations of environmental norms to the Board of Directors of the Company and/or shareholders or stakeholders at large, may also be detailed in the EIA Report.

- 8) Issues relating to Mine Safety, including subsidence study in case of underground mining and slope study in case of open cast mining, blasting study etc. should be detailed. The proposed safeguard measures in each case should also be provided.
- 9) The study area will comprise of 10 km zone around the mine lease from lease periphery and the data contained in the EIA such as waste generation etc. should be for the life of the mine / lease period.
- 10) Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.
- 11) Details of the land for any Over Burden Dumps outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be given.
- 12) A Certificate from the Competent Authority in the State Forest Department should be provided, confirming the involvement of forest land, if any, in the project area. In the event of any contrary claim by the Project Proponent regarding the status of forests, the site may be inspected by the State Forest Department along with the Regional Office of the Ministry to ascertain the status of forests, based on which, the Certificate in this regard as mentioned above be issued. In all such cases, it would be desirable for representative of the State Forest Department to assist the Expert Appraisal Committees.
- 13) Status of forestry clearance for the broken up area and virgin forestland involved in the Project including deposition of net present value (NPV) and compensatory afforestation (CA) should be indicated. A copy of the forestry clearance should also be furnished.
- 14) Implementation status of recognition of forest rights under the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 should be indicated.
- 15) The vegetation in the RF / PF areas in the study area, with necessary details, should be given.
- 16) A study shall be got done to ascertain the impact of the Mining Project on wildlife of the study area and details furnished. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly, detailed mitigative measures required, should be worked out with cost implications and submitted.
- 17) Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Ramsar site Tiger/Elephant Reserves/(existing as well as proposed), if any, within 10 km of the mine lease should be clearly indicated, supported by a location map duly authenticated by Chief Wildlife Warden. Necessary clearance, as may be applicable to such projects due to proximity of the ecologically

sensitive areas as mentioned above, should be obtained from the Standing Committee of National Board of Wildlife and copy furnished.

- 18) A detailed biological study of the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] shall be carried out. Details of flora and fauna, endangered, endemic and RET Species duly authenticated, separately for core and buffer zone should be furnished based on such primary field survey, clearly indicating the Schedule of the fauna present. In case of any scheduled-I fauna found in the study area, the necessary plan alongwith budgetary provisions for their conservation should be prepared in consultation with State Forest and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost.
- 19) Proximity to Areas declared as 'Critically Polluted' or the Project areas likely to come under the 'Aravali Range', (attracting court restrictions for mining operations), should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the SPCB or State Mining Dept. Should be secured and furnished to the effect that the proposed mining activities could be considered.
- 20) Similarly, for coastal Projects, A CRZ map duly authenticated by one of the authorized agencies demarcating LTL, HTL, CRZ area, location of the mine lease w.r.t CRZ, coastal features such as mangroves, if any, should be furnished. (Note: The Mining Projects falling under CRZ would also need to obtain approval of the concerned Coastal Zone Management Authority).
- 21) R&R Plan/compensation details for the Project Affected People (PAP) should be furnished. While preparing the R&R Plan, the relevant State/National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs /STs and other weaker sections of the society in the study area, a need based sample survey, family-wise, should be undertaken to assess their requirements, and action programmes prepared and submitted accordingly, Integrating the sectoral programmes of line departments of the State Government. It may be clearly brought out whether the village(s) located in the mine lease area will be shifted or not. The issues relating to shifting of village(s) including their R&R and socio-economic aspects should be discussed in the Report.
- 22) One season (non-monsoon) [i.e. March - May (Summer Season); October - December (post monsoon season) ; December - February (winter season)] primary baseline data on ambient air quality as per CPCB Notification of 2009, water quality, noise level, soil and flora and fauna shall be collected and the AAQ and other data so compiled presented date-wise in the EIA and EMP Report. Site-specific meteorological data should also be collected. The location of the monitoring stations should be such as to represent whole of the study area and justified keeping in view the pre-dominant downwind direction and location of sensitive receptors. There should be at least one monitoring station within 500 m of the mine lease in the pre-dominant downwind direction. The mineralogical composition of PM<sub>10</sub>, particularly for free silica, should be given.



- 23) Air quality modeling should be carried out for prediction of impact of the project on the air quality of the area. It should also take into account the impact of movement of vehicles for transportation of mineral. The details of the model used and input parameters used for modeling should be provided. The air quality contours may be shown on a location map clearly indicating the location of the site, location of sensitive receptors, if any, and the habitation. The wind roses showing pre-dominant wind direction may also be indicated on the map.
- 24) The water requirement for the Project, its availability and source should be furnished. A detailed water balance should also be provided. Fresh water requirement for the Project should be indicated.
- 25) Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be provided.
- 26) Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.
- 27) Impact of the Project on the water quality, both surface and groundwater, should be assessed and necessary safeguard measures, if any required, should be provided.
- 28) Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided. In case the working will intersect groundwater table, a detailed Hydro Geological Study should be undertaken and Report furnished. The Report inter-alia, shall include details of the aquifers present and impact of mining activities on these aquifers. Necessary permission from Central Ground Water Authority for working below ground water and for pumping of ground water should also be obtained and copy furnished.
- 29) Details of any stream, seasonal or otherwise, passing through the lease area and modification / diversion proposed, if any, and the impact of the same on the hydrology should be brought out.
- 30) Information on site elevation, working depth, groundwater table etc. Should be provided both in AMSL and bgl. A schematic diagram may also be provided for the same.
- 31) A time bound Progressive Greenbelt Development Plan shall be prepared in a tabular form (indicating the linear and quantitative coverage, plant species and time frame) and submitted, keeping in mind, the same will have to be executed up front on commencement of the Project. Phase-wise plan of plantation and compensatory afforestation should be charted clearly indicating the area to be covered under plantation and the species to be planted. The details of plantation already done should be given. The plant species selected for green belt should have greater ecological value and should be of good utility value to the local population with emphasis on local and native species and the species which are tolerant to pollution.

- 32) Impact on local transport infrastructure due to the Project should be indicated. Projected increase in truck traffic as a result of the Project in the present road network (including those outside the Project area) should be worked out, indicating whether it is capable of handling the incremental load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as State Government) should be covered. Project Proponent shall conduct Impact of Transportation study as per Indian Road Congress Guidelines.
- 33) Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA Report.
- 34) Conceptual post mining land use and Reclamation and Restoration of mined out areas (with plans and with adequate number of sections) should be given in the EIA report.
- 35) Occupational Health Impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.
- 36) Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.
- 37) Measures of socio economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.
- 38) Detailed environmental management plan (EMP) to mitigate the environmental impacts which, should inter-alia include the impacts of change of land use, loss of agricultural and grazing land, if any, occupational health impacts besides other impacts specific to the proposed Project.
- 39) Public Hearing points raised and commitment of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project.
- 40) Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.
- 41) The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.
- 42) A Disaster management Plan shall be prepared and included in the EIA/EMP Report.
- 43) Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.



44) Action Plan for protection of mangroves and mud flat/swamps with budgetary allocation.

45) Precautionary Measures in the Disaster management Plan in view of being in Seismic Zone-IV.

6. Besides the above, the below mentioned general points are also to be followed:-

- a) All documents to be properly referenced with index and continuous page numbering.
- b) Where data are presented in the Report especially in Tables, the period in which the data were collected and the sources should be indicated.
- c) Project Proponent shall enclose all the analysis/testing reports of water, air, soil, noise etc. using the MoEF&CC/NABL accredited laboratories. All the original analysis/testing reports should be available during appraisal of the Project.
- d) Where the documents provided are in a language other than English, an English translation should be provided.
- e) The Questionnaire for environmental appraisal of mining projects as devised earlier by the Ministry shall also be filled and submitted.
- f) While preparing the EIA report, the Instructions for the Proponents and instructions for the Consultants issued by MoEF vide O.M. No. J-11013/41/2006-IA.II(I) dated 4<sup>th</sup> August, 2009, which are available on the website of this Ministry, should be followed.
- g) -Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the PFR for securing the TOR) should be brought to the attention of MoEF&CC with reasons for such changes and permission should be sought, as the TOR may also have to be altered. Post Public Hearing changes in structure and content of the draft EIA/EMP (other than modifications arising out of the P.H. process) will entail conducting the PH again with the revised documentation.
- h) As per the circular no. J-11011/618/2010-IA.II(I) dated 30.5.2012, certified report of the status of compliance of the conditions stipulated in the environment clearance for the existing operations of the project, should be obtained from the Regional Office of Ministry of Environment, Forest and Climate Change, as may be applicable.
- i) The EIA report should also include (i) surface plan of the area indicating contours of main topographic features, drainage and mining area, (ii) geological maps and sections and (iii) sections of the mine pit and external dumps, if any, clearly showing the land features of the adjoining area.

7. The EIA report should also include (i) surface plan of the area indicating contours of main topographic features, drainage and mining area, (ii) geological maps and sections and (iii) sections of the mine pit and external dumps, if any, clearly showing the land features of the adjoining area.

8. The prescribed TORs would be valid for a period of three years for submission of the EIA/EMP reports, as per the O.M. No. J-11013/41/2006-IA.II(I) dated 22.3.2010, 22.08.2014, 08.10.2014 and 07.11.2014.

9. After preparing the draft EIA (as per the generic structure prescribed in Appendix- III of the EIA Notification, 2006) covering the above mentioned issues, the proponent will get the public hearing conducted and take further necessary action for obtaining environmental clearance in accordance with the procedure prescribed under the EIA Notification, 2006.

Yours faithfully,

  
(Dr. U. Sridharan)  
Director (S)

**Copy to:**

1. **The Secretary**, Ministry of Mines, Government of India, Shastri Bhawan, New Delhi-110 001.
2. **The Secretary**, Department of Mines & Geology, Government of Gujarat, Secretariat, Gandhinagar.
3. **The Secretary**, Department of Environment, Government of Gujarat, Secretariat, Gandhinagar.
4. **The Secretary**, Department of Forests, Government of Gujarat, Secretariat, Gandhinagar.
5. **The Chief Wildlife Warden**, Government of Gujarat, Dr. Jivaji Mehta Bhavan, Block No. 14, 1<sup>st</sup> Floor, Old Sachivalaya, Gandhinagar-382 010.
6. **The Additional Principal Chief Conservator of Forests**, Regional Office (WZ), Kendriya Paryavaran Bhawan, Link Road No.3, Ravi Shankar Nagar, Bhopal - 462 016.
7. **The Member Secretary**, Central Ground Water Authority, A-2, W3, Curzon Road Barracks, K.G. Marg, New Delhi-110001.
8. **The Chairman**, Gujarat State Pollution Control Board, Sector 10-A, Gandhi Nagar - 382043, Gujarat.
9. **The Controller General**, Indian Bureau of Mines, Indira Bhavan, Civil Lines, Nagpur-440 001.
10. **The District Collector**, Jamnagar District, Government of Gujarat.
11. **Guard File.**
12. **MoEF Website.**

(Dr. U. Sridharan)  
Director (S)