

INSPECTION CUM SCRUTINY COMMENTS IN RESPECT OF D.GADABAVALASA MANGANESE AREA OVER AN EXTENT OF 4.747 HA IN SY.NOS. 19/3 4P,16P, 17TO 27, 20/1 TO 11, 21/1&2, 22/15&16, 17/P, AND 23/3P OF D.GADABAVALASA VILLAGE, THERLAM MANDAL,VIZIANAGARAM DISTRICT APPLIED BY M/s BLUE OCEAN MINERALS PVT LTD.

GENERAL

1. Copy of professional experience of five years of working in a supervisory capacity in the field of mining of the Qualified person be enclosed.
2. Each page of the document be signed by the Qualified person
3. Copies of PL and ML applications along with their enclosures have not been furnished.
4. Para nos be given as per the format given in the guide lines
5. Address furnished in the document should be in confirmation with that of the address furnished in PL/ML application and proof of address. Only one address need to be furnished. The address furnished vide para 1.0 differs with that of Form 1 vide Annexure-XI
6. In the cover page, the extent and Sy.nos be furnished as per the LOI(Memo no.6362/M-III(2)/2014 dated 2.5.2017.
7. The copies of LOI and Convey of the prior approval letter of Central Government are not legible.
8. The certified copy of the Prospecting Report submitted to the various organizations has not been appended to the document.
9. In the content page 'PMCP under Rule 23 of MCDR' 1988' be corrected. The Rule and the year are no more relevant. Further some irrelevant heads have been mentioned which need to be deleted. The list of Annexure be properly furnished.
10. The Text be properly referred to the relevant Annexure and Plates wherever required.
11. Geological Survey of India organization be properly addressed. It is prefixed with 'M/s'
Under the column of status of approval of Mining Plan /Scheme of Mining of existing lease the date of approval and its validity be given.

Text:

Para 2.1 Lease details: The irrelevant details be deleted inspite of leaving blank.

Para 2.3 Existence of public Road-----: The Geo co-ordinates furnished be in conformation with that of Certified lease sketch by the State authority and ground conditions.

Para 3.3 Review of Exploration: The exploration carried out during prospecting of the area be furnished briefly.

Part-A

Para 1.1.1 Topograhly: The highest and RLs of the area have not been furnished. The dimension of the old pit be checked..

Para 1.3.2.4 Manganese ore: The trend of the formation be said ESE-WNW and dip direction be referred SWS.Manganese Ore is made exposed in the pit which is over a length of about 225m and it is not 330m, Similarly the exposed width of the body does not exceed 15 m.

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Para 1.4(ii) : Address of RNG Exploration services has not been furnished.

Para 1.5.1 Number of Pits and trenches-----: The location of trenches be properly marked and their lithologs be furnished. The lithologs of the seven Trial pits have not been furnished

Para 1.5.2 No. of Boreholes indicating type-----: The location of the Boreholes drilled marked properly (BH-13).The Core size in mm has not been mentioned. The section lines mentioned in the Text does not confirm to the relevant Plans and Cross Sections. The results have not been furnished in the erstwhile Standard Form-K as per the MCDR'1988.

Para 1.5.4.1 Surface plan of the lease area-----: Except Temporary bench mark(TBM) nothing has been depicted in the relevant plan as referred(survey work) in the para.

Para 1.5.5.1 Geological mapping-----: In the text it is said that certain features like Ptygmatic folds, joints etc have been marked in Geological plan. But such features have not been observed in the Geological plan. The total extent of mineralisation is given to be 2.155 ha but where as the total extent of two manganese veins does not confirm to the figure furnished. The outcrop samples locations have not been marked in the Geological Plan. It is stated that boreholes were drilled along the cross section lines between CS-1 and CS-XVI. But no such section lines could be seen in Geological Plan (Plate-IV).

Para 1.5.6 Geological Sections-----: It is said that Vein-II has been encountered in Sections D-D' to G-G' but this vein is encountered in C-C' to G-G'.

Para 1.5.6 i) Broadly indicate the future programme-----: The information on proposed Boreholes may be furnished in Tabular form giving details of location, azimuth, depth, purpose of such holes etc.

Para 1.5.6 j) Reserves and Resources as per UNFC-----: After identifying the category of the subject deposit based on the occurrence and its behavior along the strike and dip as per the Minerals (Evidence of Mineral Contents) Rules, 2015, the three axes Viz. Economical (E), Feasibility (F) and Geological Axis (G) need to be established and justified with the available data in accordance of the UNFC system. This aspect has not been dealt and the codes need to be assigned the E, F and G axis.

Under para'Extent of Manganese Ore' it is said incidence sub grade ore of Silico Manganese ore between section line C1 to C16. There are no such section lines exists. This need to be established with the facts and figures. Under the parameters, the facts and figures have not been furnished. The non mineable reserve has been assigned with 122 symbol (Probable category) which is not correct. It may be assigned with symbol 221.

The Siliceous Manganese Mn ore (sub grade) reserve estimation has been done without any basis. There is neither demarcation of such ore zone in the Surface Geological Plan and in any corresponding Geological Section nor any subsurface projection of Borehole data.

In view of the above and comment vide para 1.3.2.4, Reserve/Resource estimation be reviewed considering the Ore body width of 15m and accordingly production proposals should be suitably made.

The Sub Para nos. be properly assigned.

Para 2.0 (a) Parameters considered for Mining: It is said that the subject area was once under active mining in two pit, which were separated by a barrier of virgin area which is true on the ground, but the Surface Plan does not reflect any such feature. The already existing dumps be

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discussed. The proposed bench height and width cannot be the same. The semi mechanized method of mining be defined by activities that are carried out by manual means and machinery. The ingress and outgress from the pit also need to be discussed.

Para 2.0 (b) Year wise tentative Excavation: The column with regards to Siliceous Manganeses furnished under Table- XVII is neither shown in lay out plan nor working sections. The year wise rate of proposed production should commensurate with the established reserves/ resource to sustain the longitivity of the deposit and accordingly the excavation/production levels be reviewed. The ROM to waste ratio be checked once.

Para 2.0 (c) Enclose the year wise development-----: The earmarked yearwise development cum production area be defined by the coordinates.

Para 2.0 (f) Conceptual Mine Planning: The para be reviewed asper the comment at 1.3.2.4 and 2.(b).The reference made with regards to location of five years and conceptual period be properly referred. A reference of plate V A to VE is made. The life of the mine has not been mentioned. The proposed borehole details are missing. The year wise and conceptual period handling of subgrade and waste material quantities be furnished in tabular form. Similarly for degradation, reclamation and afforestation be furnished.

Para 4.0 Man Power: The OMS 1.5 T/day appears to be on higher side.

Para 8.1 Environment Base line Information: The source of base line information be furnished.

Para 8.1.4 Public Buildings, Places of Worship-----: A mention of Church that exists nearby the applied area is missing.

Para 8.3.5 Surface subsidence mitigation-----: The Year wise protective measures for the Plan period be furnished.

Para 8.6 Financial Assurance: A provision of minimum amount of Rs 10,00,000/- towards financial Assurance be made as the Proposed mining operations falls under the category of 'A'. The figure furnished Mineral storage be checked once(Area put to use at the beginning).

Annexures:

Annexure nos. be properly given and these be addressed at relevant places in text.. Blank Annexures which are not relevant be omitted. Duration of Mineralogical Study carried out has been kept blank.

Plates

The survey numbers and extent be properly indicated in all the Plates

Plate-I (Key Plan): Approach road to ML area be shown., name of the places connected by railway line and roads going out of the places should be shown. The existing mines with in 5km radius be shown. The habitants and their population, distance and direction from the subject ML area be given.

Plate-II (Lease sketch): A legible lease sketch be furnished.

Plate-III (Surface Plan); The name and signature of the surveyor who has carried out the survey work should be furnished. All the Geo Coordinates be furnished in WGS-84 as certified by the State authority. The mine working be replaced with old mine working. The existing pit also be replaced with old pit. The pits excavated for the mineralogical studies be distinctly.

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indexed. The existing old dumps be properly and numbered accordingly. Similarly the Borehole locations and Trenches also be shown properly. The contour lines(101) on the north eastern part be checked once and properly drawn.

Plate-IV(Geological Plan): The ore body exposed width be corrected as per the comment vide para 1.3.2.4. The financial year for the proposed boreholes be indicated. Silica Manganese area to an huge extent has been depicted on the southern side of the old pit and the same could not be observed during the site inspection.

Plate-IV A(Geological Sections): The sections be modified as per the comment vide Plate-IV. The symbol '111' be changed to 'G1' The non mineable part be changed to 'G2'. The UPL drawn for B-B' be checked. Siliceous Manganese ore zone has not been marked.

Plate-VA to VF (Development and Production plans and sections): The proposed development and production plans be reviewed as per the comment at Plate-IV. The location of proposed stack yard be changed to suitable location since it is on Vein-2. The Bench RLs be given.

Plate-VI (Financial Assurance Plan): The Financial Assurance Table be given.

Plate-VII & VIIA (Conceptual Plan & Sections): The Plan be reviewed as per the comment vide Plate IV. The pit layout for the Plan period and Conceptual period be properly drawn and indexed accordingly. Reclamation and rehabilitation measures for entire degraded land during the conceptual stage if any be given.

Plate-VIII (Reclamation and Rehabilitation Plan):No garland drain is shown around the proposed pit.

Plate-IX (Environment Plan): The contour lines be extended upto 60m line of the buffer zone. Approach road upto the mine has not been shown. Tank has not been properly indexed.
