

**INDIAN BUREAU OF MINES
MINERALS DEVELOPMENT AND REGULATION DIVISION**

**MCDR inspection REPORT
Hyderabad regional office**

Mine file No : AP/VZNR/MN-124/HYD

Mine code : 40APR20070

- (i) Name of the Inspecting : **PG01**) **P.GURUVAIAH**
Officer and ID No.
- (ii) Designation : Junior Mining Geologist
- (iii) Accompanying mine : Sri Ashok Konda, Nominated Owner and Sri M. Koteswa
Official with
Designation
- (iv) Date of Inspection : 26-OCT-21
- (v) Prev.inspection date :

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **KARLAM MANGANESE MINE**
- (b) **Registration NO.** : **IBM/732/2011**
- (c) Category : B Manual
- (d) Type of Working : Opencast
- (e) Postal address :
State : ANDHRA PRADESH
District : VIZIANAGARAM
Village : KARLAM
Taluka : CHIPURUPALLI
Post office : METTAPALLI
Pin Code : 535125
FAX No. :
E-mail : mines@sarawagi.com
Phone : 09704988444
- (f) Police Station : CHIPURAPALLI
- (g) First opening date : 01-FEB-85
- (h) Weekly day of rest : SUN
2. Address for : M/S S.K. SARAWAGI & CO (P) LTD,
correspondance PO:CHIPURAPALLI,
DIST: VIZIYANAGARAM.
3. (a) Lease Number : APR2380
- (b) Lease area : 17.63
- (c) Period of lease : 20
- (d) Date of Expiry : 13-AUG-27
4. Mineral worked : MANGANESE ORE Main

5. Name and Address of the

Lessee : SK SARAWAGI AND (P)CO LTD
 VIZIANAGARAM ANDHRA
 PRADESH
 Phone:08952 83225 &83374
 FAX :

Owner : M/S.S.K.SARAWAGI\$CO.(P)LTD.
 CHIPURUPALLI VIZIANAGARAM
 ANDHRA PRADESH
 Phone:
 FAX : 08952-280042

Agent : B.DASARADHA RAO
 SK SARAWAGI HOUSE KASPA
 STREET, CHEEPURPALLY
 VIZIANAGARAM DISTRICT
 VIZIANAGARAM ANDHRA PRADESH
 Phone: 9346546027
 FAX :

Manager

Name : N.SRIRAM
 Qualification : FOREMANS CERTIFICATE HOLDER
 Appointment/ :
 Termination date

6. Date of approval of Mining	:	Fresh under rule 22 MCR1960	28-APR-06
Plan/Scheme of Mining	:	MP modif under 17(3) MCR 2016	29-SEP-20

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	F.Y. 2020-21 06 nos of Core bore holes with cummulative depth of 180 mts. and 20 nos of DTH bore holes with cummulative depth of 1200 mts proposed.	Nil	Voilation pointed out and issued to the party.
1b	Exploration over lease area for geological axis 1 or 2	No proposal.	Nil	G1: 03926 ha G2: 5.463 ha
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No proposal.	Nil	-
1d	Balance area to be explored to bring Geological axis in 1 or 2	G2 : 5.17 Ha will be converted in to G1 level.	G2 : 5.17 Ha will be converted in to G1 level.	-
1e	Balance reserve as on 01/04/20	As on 1/04/2020 under 111 : 44645 .0113 Metric.Tonnes . 122 : 52889 Metric .Tonnes.	As on 1/04/2021 under 111 : 42015.0113 M.Tonnes. 122 : 52889 Metric .Tonnes.	Updated reserves and resources obtained from Average grade of Manganese ore Mn - 10 .00 to 20..00 % , Fe -8. 32 to 23. 10 %. the latest approved document dated 29/09/2020.

1f	General remarks of inspecting officers on geology, exploration etc	The topography is more or less a flat terrain altitudes ranges from 98 to 104 m above MSL.and interspersed with isolated hummocks at a distance in the weast of srikakulam twon,these few rugged hills ridges mark the beginning of the Eastern ghat hiilly teraaain.	The manganese ore deposits are of alteration of original rocks like kodurites /khodalites .The orezone is admixed with clay,iron oxide ,altred rocks patches and are aften cut across by quartz veins. The area is associated with meta sedimentary rocks of Khondalite series of precambrian Eastern ghat Group of rocks.	-
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Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	F.Y 2020-21 in between UTM co- ordinates N 2024813 to N 2024998 and E 778954 To E 779155 North west of the lease area.	F.Y 2020-21 in between UTM co- ordinates N 2024813 to N 2024998 and E 778954 To E 779155 North west of the lease area.	-
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	It was proposed to have seperate benches in the ore and overburden. Overburden/waste : 3nos Mineral/ore :2 nos.	It was proposed to have seperate benches in the ore and overburden. Overburden/waste : 63nos Mineral/ore :2 nos.	-

2c	Stripping ratio or ore to OB ratio	1 : 2.31	1 : 0.711	less production during F.Y 2020-21 due to Covid pandemic and lack of market demand.
2d	Quantity of topsoil generation in m3	No proposal.	110 Cum	-
2e	Quantity of overburden generation in m3	F.Y 2020-21 11877.591cum	F.Y 2020-1870 cum.	Due to lack of demand less production and its effects on waste generation.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	-	-	The development production is being done through other than fully mechanised means.

Exploitation:

Sl.No.	Item	Proposals	Actual work	Remarks
3a	Number of pit proposed for production	01 no.	01 no.	-
3b	Quantity of ROM mineral production proposed	F.Y .2020-21 : 12216.734 Metric Tonnes.	F.Y .2020-21 : 2630 Metric Tonnes.	-
3c	Recovery of sailable/usable mineral from ROM production	Not mentioned in the approved document.	could not be ascertained.	-
3d	Quantity of mineral reject generation	No proposal of mineral reject generation during F.Y.2020-21.	210 Metric tonnes mineral reject generated during F.Y. 2020-21.	With out any proposal.mineral reject has been generated during F.Y. 2020-21.
3e	Grade of mineral rejects generation and threshold value declared.	Less than Mn % 10.	Less than Mn % 10.	-
3f	Quantity of sub grade mineral generation.	181.73 Tonnes.	No sub grade mineral has been generated during F.Y.2020-21.	-

3g	Grade of sub grade mineral generation	Less than 20 % Mn	Less than 20 % Mn	-
3h	Manual / Mechanised method adopted for segregating from ROM	Manual Segregation of Manganese ore from the ROM has been proposed.	Manual Segregation is being done.	The ROM is screened manually and sorted for removal of waste material.
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No beneficiation study has been proposed during plan period.	Not applicable.	-
3j	Provision of drilling and blasting in mineral benches	Drilling and blasting was proposed. Dia-110 mm Spacing-1.2m burden- 1 m Explosive- Slurry depth 1.6 m	Drilling and blasting was proposed. Dia-110 mm Spacing-1.2m burden- 1 m Explosive- Slurry depth 1.6 m	There was no proposal for Secondary blasting where as Secondary blasting is being done.
3k	Provision of mining machineries in mineral benches	1. DrillingCrawler Mounted 1 no, 2. 2. Wheel Loader 01 no 3. Water tanker 01 no., 4. Tippers 02 nos with 16 cum capacity.	1. DrillingCrawler Mounted 1 no, 2. 2. Wheel Loader 01 no 3. Water tanker 01 no., 4. Tippers 02 nos with 16 cum capacity.	-
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	It was proposed to maintain a bench height for Mineral/ore - 3.0 Overburden/waste-1.5m.	Maintained bench height for Mineral/ore - 3.0 Overburden/waste-1.5m.	-
3m	Total area covered under excavation/pits	2.15 ha during F.Y. 2020-21	2.08 ha during F.Y. 2020-21	-

3n	Ore to OB ratio for the pit/mine during the year.	1 : 0.6	1 : 2.72	-
3o	Total area put in use under different heads at the end of year	pit- 2.4371 Ha OB/waste - 0.478Ha others- 1.267 Ha. up to end of F.Y 2021-22.	pit -2.020 Ha OB/waste - 0.700 Ha others- 1.444 Ha. up to end of F.Y 2020-21.	-
3p	Production of ROM mineral during the last five year period as applicable	2016-17-Nil 2017-18-Nil 2018-19-Nil 2019-20-Nil 2020-21-26136 T	2016-17-Nil 2017-18-Nil 2018-19-Nil 2019-20-Nil 2020-21-2630 T	Lapsed period F.Y.2012-13 to F.Y.2019-20 Lessee does not have valid approved document.during 2012-13 to 2019-20 no production has been reported during above mentioned period.
3q	General remarks of inspecting officers on method of mining etc.			Mining is being done through the opencast method with other than fully mechanized means.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Separate dumping of OB/Waste has been proposed in the earmarked locations.	Separate dumping of OB/Waste has been proposed in the earmarked locations.	-
4b	Location of topsoil, OB and mineral reject dumps	OB dump was proposed north east side of the M.L area. OB/waste -In between UTM co-ordinates N2025048 to N2025145,E779128 to E779206	OB dumped as north east side of the M.L area. OB/waste -In between UTM co-ordinates N2025145,E779128 to E779206	-

4c	Number of dumps within lease area and outside of lease area	Within lease area: Waste/Overburden: 01 no. Outside lease area: NIL	Within lease area: Waste/Overburden: 01 no. Outside lease area: NIL	-
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	proposed beyond Ultimate pit Limit.	Existing O.B/Waste dump found beyond Ultimate pit Limit.	-
4e	Number of active and alive dumps.	01 no.	01 no.	-
4f	Number of dead dumps.	No proposal.	Nil	-
4g	Number of dumps established.	No proposal.	Nil	-
4h	Whether Retaining wall or garland drain all along dumps are there.	F.Y. 2021-22 Garland drain -300m x5.0m x1.0m, Retaining wall-294 m x 5.0m x1.0m, Settling pond-5m x 3m x 2m.	Nil	-
4i	Length of Retaining wall or garland drain all along dumps	No proposal.	Nil	-
4j	Number of settling ponds	No proposal.	Nil	-

Solid Waste Management - Backfilling:

Sl.No.	Item	Propasals	Actual work	Remarks
5a	Status of part or full extraction of mineral from mined out area before starting backfilling.	No Proposal during F.Y. 2020-21.	NIL, Area not matured for the reclamation and the rehabilitation.	-
5b	Area under backfilling of mined out area	No proposal.	Nil	-

5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No topsoil will be generated during plan period.	Not applicable.	-
5d	Total area fully reclaimed and rehabilitated	No Proposal during F.Y. 2020-21.	Nil -Area is not matured for reclamation and rehabilitation.	-
5e	General remarks of inspecting officers on backfilling and reclamation etc.			Nil

Progressive Mine Clousre Plan:

Sl.No.	Item	Propasals	Actual work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2).	Submitted before due date.	Information has been cross verified during inspection.	No major deviation has been found.
6b	Area available for rehabilitation (ha) .	No proposal.	Nil	-
6c	afforestation done (ha).	No proposal.	Nil	-
6d	No. of saplings planted during the year	No proposal.	Nil	-
6e	Cumulative no .of plants	No proposal.	Nil	-
6f	Any other method of rehabilitation	No proposal.	Nil	-
6g	Cost incurred on watch and care during the year	No proposal.	Nil	-

6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	No proposal.	Nil	-
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No proposal.	Nil	-
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	No proposal.	Nil	-
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No proposal.	Nil	-
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	No proposal.	Nil	-
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	Within the lease area. 50nos	Within the lease area. 50nos Out side lease area 50 nos.	-
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	0.050 ha	0.40 ha	-

6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	By plantation	By plantation	-
6p	Compliance of environmental monitoring (core zone and buffer zone)	It has been given in the approved document for regular monitoring of the environmental parameters in the core and buffer zone.	Being done as per proposal.	All the parameters are within the permissible limit.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			Nil

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Manual sorting of Mn ore from ROM has been proposed to produce 26,136 tonnes during the year 2020-21.	The actual production reported during the year 2020-21 was 2630 T	Manual sorting of Mn ore is being done.
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Manual sorting.	Being done as per proposal.	-
7c	Different grade of mineral sorted out at mines.	1. Above 20% Mn. 2.Below 20% Mn up to above 10% Mn.	1. Above 20%Mn 2.Below 20 % Mn up to above 10% Mn.	-

7d	Any beneficiation process at mines .	No beneficiation study has been proposed in the approved document.	Not applicable.	-
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			Nil

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No topsoil will be generated during Review period.	Not applicable.	-
8b	Concurrent use or storage of topsoil	No proposal.	Nil	-
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate dumping of OB/Waste has been proposed in the earmarked locations. Within lease area in between UTM co-ordinates N 2025048 to N 2025145 and E779128 to E779206.	Separate dumping of OB/Waste has been proposed in the earmarked locations. Within lease area in between UTM co-ordinates N 2025048 to N 2025145 and E779128 to E779206.	-

8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No proposal.	Nil	-
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No proposal.	Nil	-
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	50 nos. of saplings will be planted over 0.50 Ha. area within the lease area.	50 nos. of saplings will be planted over 0.50 Ha. area within the lease area.	-
8g	Survival rate	No mentioned in the approved document.	Approx .75%	-
8h	Water sprinkling on roads to control airborne dust	Proposal has been given in the approved document for water sprinkling on roads to control airborne dust through the water tanker.	Being done as per proposal.	-
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			Nil

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
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9a	Status of submission of Monthly and Annual returns	M.R. Submitted up to September 2021 A.R. Submitted up to F.Y. 2020-21	M.R. Submitted up to September 2021 A.R. Submitted up to F.Y. 2020-21	-
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer & Manager - Sri K.Siva kumar Reddy. Geologist - Sri M.Koteswar Rao.	Mining Engineer & Manager - Sri K.Siva kumar Reddy. Geologist - Sri M.Koteswar Rao.	-
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	pit- 2.4371 Ha OB/waste - 0.478Ha others- 1.267 Ha. up to end of F.Y 2021-22.	pit -2.020 Ha OB/waste - 0.700 Ha others- 1.444 Ha. up to end of F.Y 2020-21.	-
9d	Scrutiny of Annual return on afforestation	Within the lease 50 nos and out side lease. 50 nos survival rate 70%	Within the lease 50 nos and out side lease. 50 nos survival rate 70%	-
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Mineral Reject: NIL Grade: NIL	Mineral Reject: NIL Grade: NIL	-
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Closing Stock: ROM: 0 Tonnes Graded ore : Below 25% Grade Mn : 162.770 Tonnes	Graded ore : Below 25% Grade Mn : 162.770 Tonnes	-

9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Sale Value: Rs. Not given Ex-Mine Price: Rs. 2495 Per Metric Tonne Cost of Production: Rs. 2078 Per Metric Tonne	Sale Value: Rs. Not given Ex-Mine Price: Rs. 2495 Per Metric Tonne Cost of Production: Rs. 2078 Per Metric Tonne	-
9h	Scrutiny of Annual return on fixed assets	Rs-3983446.00	Rs-3983446.00	-
9k	Scrutiny of Annual return on mining machineries	Given in the annual returns.	Cross verified from the field logbooks.	-

Details of violations observed during current inspection and compliance position of violation pointed out

Violation observed		Show cause position	
Rule NO.	Issued on Compliance on	Rule NO.	Issued on Compliance on

Date :

(P.GURUVAIAH)

Indian Bureau of Mines