REPLY TO PRE BID QUERIES

OF

Dedrauli Iron-ore Block, Tehsil Hindaun& District Karauli

Tender No.: MSTC/JPR/Directorate of Mines and Geology Rajasthan, Udaipur/327/Udaipur/23-24/51118

Sl. No.	Bidders Queries	Reply
1	Tender Document (All 4 Blocks) 1. Dedrauli Iron Ore Block 2. Khora Iron Ore Block 3. Todupura Iron Ore Block 4. Liloti Iron Ore Block Land breakup of Project area are not available (i.e. Forest Land, Government Land and Pvt Land etc.) Request the Land Breakup Clarification for financial impact to bidder	There is no provision of providing land status for blocks proposed for auction under Composite License. Further, while bidding the bidder has to take into consideration all the facts and circumstances with his own assessment and wisdom after ground level verification of the block.
2	Part of the Tender Document (All 4 Blocks) 1. Dedrauli Iron Ore Block 2. Khora Iron Ore Block 3. Todupura Iron Ore Block 4. Liloti Iron Ore Block **Geological Study Report (G4)** As per Table of Contents, Table no. 11 "Details of the area under study" is not available in report. Request the Table Clarification for financial impact to bidder	The details of area under study are available in the Geological report which is annexed with the tender document.

3	General **Bid Security** Request the Beneficiary Bank Account Detail for Preparation of Bid Security For electronic confirmation(Structured Financial Messaging System) of the Bid Security Request for preparation of bid security	Bank: STATE BANK OF INDIA IFSC: SBIN0031823 MICR Code: 313002086 Branch Code: 031823 (Last Six Characters of IFSC Code) Branch: Treasury Branch, Udaipur City: Udaipur
4	General **Stamp duty &registration charges in Rajasthan State for Mining Lease execution** What is the methodology of calculatingstamp duty and registration charges for executingthe mining lease deed? Noted that different states have different stamp dutyrates as per the applicable stamp duty legislation in that particular state. Kindly provide the relevantact/law/rule governing the calculation ofStampdutyand registration charges in the state of Rajasthan. Clarification for financial impact to bidder	It will be as per Rajasthan Stamps Act.
5	General **Timeline** All blocks are in the "CL" category and which needs in depth study for assessment of reserves. Request an extension of bid submission date by two weeks. Request	The bid due date shall not be extended at this point of time.
6	**Geological Study Report** **5.4. Socio-demographic profile of the area and Nearby.** **The block is covered with trees, bush and settlements. The soil character is generally of loamy mixed with small rock. The surrounding agriculture land is fertile and supporting crops.**	Beyond the scope of tender document. The State Government shall support the preferred/successful bidder to the extent possible.

Reference of News from Patrika:

आबादी क्षेत्र में लौह अयस्क का सीमांकन, मुआवजे के लिए ग्रामीणों का प्रदर्शन

हिण्डोनसिटी. गांव देदरौली बस स्टैंड पर हनुमान मंदिर परिसर में बैठक के दौरान मांग पत्र लेकर प्रदर्शन करते ग्रामीण।

ग्राम विकास समिति बड़ोड़ा की बैठक में जताया रोष

हिण्डौनसिटी @ पत्रिका. समीप के गांव देदरौली बस स्टैंड पर हनुमान मंदिर परिसर में शनिवार को ग्राम विकास समिति बड़ोड़ा की बैठक हुई। समिति पदाधिकारियों ने लौह अयस्क के ब्लॉकों के सीमांकन में आ रहे गांवों के विस्थापित करने के कगारों पर सरकार से समुचित मुआवजा की मांग पर चर्चा की। ग्रामीणों ने सीमांकन से पहले सरकार की मुआवजा नीति का खुलासा नहीं होने पर रोष जताया। साथ ही मांग पूरी नहीं होने आंदोलन करने की चेतावनी दी।

बैठक में समिति पदाधिकारी एवं सेवा निवृत न्यायिक अधिकारी भरत राम मीना, खेमसिंह, देशराज आदि ने बताया की खोड़ा, सिंघान, बड़ोड़ा, टोडूपुरा आदि पहाड़ी क्षेत्र में लौह अयस्क अधिक मात्रा में निकलने की सरकार ने संभावना जताई है। खनिज एवं भू वैज्ञानिकों के सर्वे में यहां लौह अयस्क होना पाया गया है। इस संबंध में कलायद को आगे बढ़ाने के लिए खनिज विभाग ने तहसीलवार से सभी ब्लॉकों का सीमांकन कराया है। जिसमें सीमांकन क्षेत्र से सम्बंधित गांवों को विस्थापित किए जाने की संभावना भी जताई जा रही है। बैठक में ग्रामीणों ने पहाड़ियों के आसपास आबादी क्षेत्र में घरों को विस्थापित करने के लिए सरकार की मुआवजा नीति, कृषि भूमि की आबादी के लिए मुआवजा, प्रदूषण के लिए नीति पर चर्चा की गई। जिससे क्षेत्र के गांवों के लोगों की सेहत पर लौह अयस्क के खनन से प्रतिकूल प्रभाव नहीं पड़े। बैठक ने स्थानीय लोगों को रोजगार देने की मांग भी की गई।

बैठक में डॉ. केलाश, भगवान सिंह, नवल मीना, परसुराम, नरेश मीना, बबलू मीना आदि ने विरोध प्रदर्शन किया। इस दौरान मांगों से मुख्यमंत्री को अवगत कराने पर भी विचार विमर्श किया गया।

Village Dedrauli and Khohara-Ghuseti are located at foothill of Dedrauli iron ore block and may be required to be displaced before mining stage.

In light of various news reports, villagers have already started agitation for compensation of land and demanding jobs,

In light of above, please clarify as follows:

	How many people/Settlements are to be displaced in the block area? **How State Government will support preferred/successful bidder in dealing with such situation?** **What is the State's policy of Rehabilitation and Resettlement of persons displaced from Block area?** **Please provide tentative cost of displacement/R&R per hectare basis.** **This clarification will give bidders an idea about financial implications during obtaining surface right within mining lease area.**	
7	Geological Study Report Chemical Analysis Since the quantity of the samples were large in nos, it was decided that the surface Spot samples and Core samples shall be analysed by using portable Niton -3t gold-XRF machine ..... 1. The analysis was conducted using X-ray Fluorescence (XRF) technique. However, XRF cannot determine FeO, which is essential for deriving the magnetic component in magnetite-rich ore. Despite this limitation, how differentiation between magnetic ore, such as magnetite, and hematite ore was achieved? Additionally, if magnetic susceptibility measurements or other geophysical techniques may have been utilized to distinguish between the two ore types?please clarify. **2.** Regarding the accuracy comparison between XRF technique and chemical analysis, it's widely acknowledged that XRF may have limitations compared to chemical analysis in certain aspects. To address this concern, if any check sample exercise was done using chemical analysis as a reference method?Please clarify. This clarification is required for any bidder to understand the basis of categorization of ore and estimation of resources.	Please refer to geological report annexed with the tender document

8	Geological Study Report Drilling: A total of 1298 mt drilling spreads over 15 boreholes have been carried out in Dedrauli block. The depth of minimum and maximum borehole drilled was 25m and 216m respectively. The drilling was not undertaken on the grid pattern. The borehole locations were selected on basis of the availability of the free area. No fixed inter borehole spacing followed while undertaking drilling. Most of the boreholes drilled were vertical except bore DBH-14 and DBH-15 ..... the principal Iron ore bearing rock was Banded Magnetite Quartzite/Banded Magnetite Jasper. In remaining boreholes Banded Haematite Quartzite/ Banded Haematite Jasper was the principal Iron ore bearing rock. Upon site visit it was found that the BHJ (Banded Hematite Jasper) deposit exhibits a steep dip in the field, and most of the boreholes were drilled vertically to explore the mineralization. However, this drilling pattern may not provide a comprehensive representation of the variation in iron (Fe) content across the strike of the deposit. As a result, the determined width of the high-Fe zone may be misleading or inaccurate, potentially leading to misinterpretation of the ore body's characteristics.Please clarify. This clarification is required to understand the pattern of drilling with respect to mineralization and dip of the ore body.	The classification of the Mineral Resources is based on the G4 stage of investigations comprising work inputs like regional geological mapping on scale of 1: 10000 detailed geological mapping on 1:4000 scale, spot sampling followed by core drilling, and to assess the grade and resources of Fe ore. Hence Mineral resources presented in the current estimate have been assigned G4 level. Further exploration work needs to be done by Composite License Holder.
9	PART – IV A Reporting of Mineral Resources Executive Summary: The grab samples of iron ore collected from old working pits and analysed which gave 55.93%-63.78% Fe, 3.32%-6.94% SiO2, 0.08%-5.35% Al2O3 0.08% -1.36% Mn. 0,13% -0.24% P and Sulphur in traces .... Three abandoned pits of iron ore, which are almost exhausted,	These old working are historic.

	were observed near Karwar village. These are limited in occurrence and low in grade. Please clarify as follows: 1. Whether these abandoned pits were working earlier under any sanctioned Mining Lease or there was illegal mining? Since three pits are almost exhausted, whether quantity mined out earlier is considered while calculating resources now? This clarification will help bidders to know about resource and working condition of past.	
10	Block Summary Location of the block area; Upon site visit it is found that a temple named "Shri Vairaw Ji Pret Baba" on the hill slope near village Khohara-Khuseti. It seems that this temple is located in the mineralized are of the block. In this light please clarify as follows: 1. What is historical importance of this temple and whether it can be relocated in the course of optimization of mineral resource? If not, then how much resources will be lost due to this temple andwhether these considerations was taken in to account while estimating resource of the blocks area? Bidders need to know about any sensitive structure within the block area.	Beyond the scope of tender document.

<table>
<tr>
<td>11</td>
<td>Geological Study Report
Bulk Density:
17.1; The average density is considered for estimation is 3.8. This is considered as general from historic density data for magnetite and Hematite ores of all over the country. However, density determination for 4 samples was also undertaken by DMGR in their laboratory which also confirms average density as 3.8.

<table>
<tr><th>S.No.</th><th>Sample Number</th><th>Sample Mark</th><th>Specific Gravity</th></tr>
<tr><td>1</td><td>469</td><td>DH/01 (Haematite)</td><td>3.82</td></tr>
<tr><td>2</td><td>470</td><td>DH/02 (Magnetite)</td><td>3.86</td></tr>
</table>

There is mention about 4 samples of which bulk density test was conducted, but in report only two samples are shown. Please provide bulk density data of all the four samples.

This clarification will give more confident study about declared bulk density of 3.8.</td>
<td>Refer annexure 1</td>
</tr>
<tr>
<td>12</td>
<td>Geological Study Report
Executive Summary;
A total of 122 no of surface samples and 1290 nos core samples were analysed by Niton 3tGold XRF machine in Departmental laboratory Udaipur.
In the report of Geological Study, details of surface sample (122 in numbers) analysis is not found. Kindly provide these details along with location details.</td>
<td>Refer Annexure 2</td>
</tr>
</table>

13	Tender Document 9. Reserve Price 9.1 The Reserve Price is 22.5% (Twenty-Two dot Five Percent) of Value of Mineral Despatched. The "Value of Mineral Despatched" shall be an amount equal to the product of ..... Please clarify as follows: **1.** Since Dedrauli Iron Ore Block is for Composite License, why such a high reserve price is considered? **2.** Why such high reserve price is being kept where bidders has to conduct prospecting operation by drilling further boreholes at closer intervals? **3.** What is the basis of Keeping Reserve Price as high as 22.5%? Since base price of mineral for any block is important from Initial Price Point (IPO) of view, it should be clarified to bidders.	As per Rule 8 of Mineral Auction Rule, the onus of deciding reserve price is on State Government.
14	Geological Study Report Chemical Analysis: Petrographical Studies; The detailed Petrographic study for the Dedrauli and Liloti blocks samples at IIT Bombay. The report copy of the IIT Mumbai is placed in the annexure. (Refer Annexure A-11) The petrographical study of the samples was not the part of the scope of work. In order to enrich the present report, the part of the petrology studies carried out in IIT- Bombay by Prof GN Jadhav for the applicant is used in the report. Annexure A-11 is not found the report of GSR. Kindly provide Will help bidders to understand the composition, structure, and origins of rocks in the block area.	Please refer to section 8.2 of Geological Study Report.

15	Tender Document 8. Tender Process: This block has been prepared through RSMET fund. The Preferred Bidder shall pay the expenditure incurred from RSMET fund on preparation of this block i.e. Rs. 31,69,226/- (Indian Rupees Thirty-One Lakh Sixty-Nine Thousand Two Hundred Twenty-Six Only) excluding GST to RSMET within 60 days from issuance of LOI. Please clarify as follows: **1.** Why cost of preparation of document is being charged from preferred bidder when expenses in incurred from RSMET? No other State is charging such type of cost from bidders. Please clarify.	Tender document condition shall prevail.
16	Tender Document Clause 10; a) The Preferred Bidder shall within fifteen days after being declared the Preferred Bidder, submit an unconditional and irrevocable Performance Security for an amount equal to INR 80,32,47,989.00 (Indian Rupees Eighty Crore Thirty-Two Lakh Forty-Seven Thousand Nine Hundred Eighty-Nine Only) ..... Accordingly Estimated Value of the Resource (EVR) will be more than INR 32130 crores. Please clarify as follows: **1.** While calculating Estimated Value of Resource, what is the grade wise and State wise Average Sale Price (published by Indian	It is calculated as per communication received from IBM.

	Bureau of Mines) is taken? 2. Since ASP of less than 45% Fe for haematite is not being declared by IBM, what is the ASP taken for average grade of 39.92% Fe of haematite? What is the lumps: Fines ratio considered for calculation of EVR? These details are needed to bidders to know that how EVR is arrived?	
17	Block Summary Part C; Particulars of Land Upon sit visit it is found that agriculture private land is located within the block area. Please Clarify as follows: 1. Procedure for acquisition of private land at the time of mining lease. What are the charges payable for acquisition of these private land on hectare basis. These details needed for bidder to know about investment to be made and financial implication involved for this block	The onus of getting consent / purchase of the private land is on the bidder.
18	Block Summary Part C; Particulars of Land Upon sit visit it is found that some Government land is located within the block area. Please Clarify as follows: **1.** Procedure for transfer/acquisition of Government Land at the stage of Mining Lease. What are the charges payable for acquisition of Government land on Hectare basis. These details needed for bidder to know about investment to be made and financial implication involved for this block	It will be as per notification / circulars issued by Revenue Department of Govt. of Rajasthan.

19	Block Summary Part C; Particulars of Land In the situation where Charagah land is found within the block area. Please Clarify as follows: **1.** Whether Charagah land can be diverted for the purpose of mining activities? **2.** Procedure for transfer/acquisition of Charagah Land at the stage of Mining Lease. Tentative charges payable for acquisition of Government land on Hectare basis. These details needed for bidder to know about investment to be made and financial implication involved for this block	It will be as per notification / circulars issued by Revenue Department of Govt. of Rajasthan.
20	Geological Study Report 5.7. Flora and Fauna within and nearby; Vegetation is, in general, sparse with xerophytic thorny bushes and shrubs occupying the hill slopes. The trees in the order of abundance are Dhok (Anogeissus pendula), Kher (Acacia catechu), Babul (Acacia arabica), Ber (Ziziphusjujuba), Mango (Manganiferaindica), Pipal (Ficusreligiose), Banyan (Ficusbengalensis) and Jamun (SyzygiumJambolanum). A few Palmyrah trees are also seen in the valley portions. Considering hill portion as forest, please clarify as follows: 1. Please provide density and type of reserved/protected forest falling in the block area. **2.** Please provide charges payable for Compensatory Afforestation (per hectare basis).	Beyond the scope of tender document.

	3. Please provide charges payable for implementation of Regional Wild Life Management Plan (if any). 4. Please provide details of any other charges payable in Rajasthan while diversion of forest land under Section 2 of the Forest Act. These details needed for bidder to know about investment to be made and financial implication involved for this block	
21	Block Summary Location of the Block Village hutment are seen in North-Eastern (village Khohara-Ghuseti) and South-Eastern part (named as Dedrauli village), Please clarify: 1. Can these village hutments be relocated (if required) for optimizing mineral resources at the stage of mining lease? 2. What is the procedure for rehabilitation and displacement of these hutments? 3. What is the policy or prevailing Rules for Rehabilitation and Resettlement in the State of Rajasthan and what is the tentative cost involved in relocating these hutments? These details needed for bidder to know about investment to be made and financial implication involved for this block These details also needed for bidder to know about investment of time for such rehabilitation.	The bidder may proceed as deemed fit as per prevailing rules.
22	Part IV- A Reporting of Mineral Resources (Clause 5) 5 (vi); There are no National Parks, sanctuaries, Biosphere Reserves, Wildlife Corridors, Tiger /Elephant Reserves within 10 km radius of the block.	There are no National Parks, sanctuaries, Biosphere Reserves, Wildlife Corridors, Tiger /Elephant Reserves within 10 km radius of the block.

	Please let us know the nearest wildlife Sanctuary or National Park from this block and Arial distance from this block. This information needed for a bidder to know about safe distance to be worked from the block area.	
23	Tender Document Clause 15.3 "Save and except as provided in this Tender Document, the Bid Security of unsuccessful Bidders will be returned by the State Government, without any interest, as promptly as possible." There should be some time schedule for return of Bid Security as many States stipulated in their tender document that Bid Security shall be returned within four weeks' time from the date of final auction (date of Financial bid) or annulment of auction. This clarity is required as Bank Guarantees of the unsuccessful bidders cannot be hold for indefinite time.	Tender document condition shall prevail.
24	Mine Development and Production Agreement Clause No. 19.4.2; The stamp duty payable for this Agreement shall be borne by the Successful Bidder **1.** Kindly provide the percentage of Stamp duty and Registration charges applicable for execution of mining lease deed for 50 years. **2.** Whether stamp duty is charged on the basis of on market value of the resources or on the basis of annual rent? **3.** If it is charges on the basis of market value, whether market value is considered on the basis of dead rent prescribed under MMDR Act? **4.** Also elaborate the methodology for arriving such charges.	The stamp duty payable shall be as per Rajasthan Stamps Act.

	These details needed for bidder to know about investment to be made and financial implication involved for this block. These details also helpful in financial modelling for the block.	
25	Mine Development and Production Agreement Clause No. 19.4.2; The stamp duty payable for this Agreement shall be borne by the Successful Bidder Repeatedly, this question in earlier response by DMG is answered 'As per Govt of Rajasthan Notification dated 21.11.2019.' Kindly elaborate about the said notification and provide methodology for calculation. These details needed for bidder to know about investment to be made and financial implication involved for this block. These details also helpful in financial modelling for the block.	The stamp duty payable shall be as per Rajasthan Stamps Act.
26	Tender Document Clause 14.1.1 (e) "(e) In case of Bidder being a company, duly certified copy of the corporate authorization (notarized), such as board resolution to participate in the tender process and submit a bid." Generally Corporate Authorization in the form of Board Resolution is submitted in original. In that case also notarization of Board Resolution is required? This Clarification needed to prepare technical bid.	Tender document condition shall prevail.

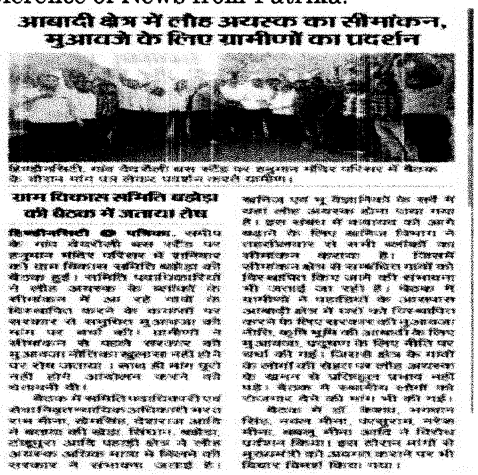
27	Tender Document 2.10 "Composite licence" means the prospecting licence-cum-mining lease which is a two-stage concession granted under Rule 18 of the Auction Rules for the purpose of undertaking prospecting operations followed by mining operations in a seamless manner. Please clarify as follows: **1.** Is there any consent or approval required from villagers/private land owners to the successful bidder of composite License for conducting prospecting work in block area? **2.** What is the procedure for conducting prospecting / exploration / drilling work in densely populated place in the block area? Is there any plan from Government to relocate these populated areas for smooth conduct of exploration work? This clarification needed as bidders should know the various implications involved while taking up prospecting /exploration / drilling work in block areas.	The preferred bidder has to obtain all statutory licenses, permits, permissions, concessions, approvals and consents related to prospecting & mining operation. The exploration in the block is to be carried out as per MEMC Rules. The Government shall support to the extent possible.

REPLY TO PRE BID QUERIES

OF

Khora Iron-Ore Block, Tehsil Hindaun& District Karauli

Tender No.: MSTC/JPR/Directorate of Mines and Geology Rajasthan, Udaipur/328/Udaipur/23-24/51119

Sl. No.	Bidders Queries	Reply
1	Geological Study Report 5.3. Host population (local tribes), Human settlements within nearby areas. The population in Khora village, based on Census, 2020 is 1196. 5.4. Socio-demographic profile of the area and Nearby ..... The surrounding agriculture land is fertile and supporting crops. Reference of News from Patrika:  आबादी क्षेत्र में लौह अयस्क का सीमांकन, मुआवजे के लिए ग्रामीणों का प्रदर्शन ग्राम विकास समिति बहोड़ा की बैठक में उठाया मुद्दा **A.** Village Khora is located at northern side of foothhill of Khora iron ore block and may be required to be displaced before	Beyond the scope of tender document. The State Government shall support the preferred/successful bidder to the extent possible

	mining stage. **B.** In light of various news reports, villagers have already started agitation for compensation of land and demanding jobs, In light of above, please clarify as follows: **1.** How many people/Settlements are to be displaced in the block area? **2.** How State Government will support preferred/successful bidder in dealing with such situation? **3.** What is the State's policy of Rehabilitation and Resettlement of persons displaced from Block area? **4.** Please provide tentative cost of displacement/R&R per hectare basis. This clarification will give bidders an idea about financial implications during obtaining surface right within mining lease area.	
2	Geological Study Report Chemical Analysis Since the quantity of the samples were large in no's, it was decided that the surface Spot samples & Core samples shall be analysed by using portable Niton -3t gold-XRF machine. ..... **1.** The analysis was conducted using X-ray Fluorescence (XRF) technique. However, XRF cannot determine FeO, which is essential for deriving the magnetic component in magnetite-rich ore. Despite this limitation, how differentiation between magnetic ore, such as magnetite, and hematite ore was achieved? Additionally, if magnetic susceptibility measurements or other geophysical techniques may have been utilized to distinguish between the two ore types?please clarify. **2.** Regarding the accuracy comparison between XRF technique and	Please refer to Geological report annexed with tender document.

	chemical analysis, it's widely acknowledged that XRF may have limitations compared to chemical analysis in certain aspects. To address this concern, if any check sample exercise was done using chemical analysis as a reference method?Please clarify. This clarification is required for any bidder to understand the basis of categorization of ore and estimation of resources.	
3	Geological Study Report Drilling: A total of 1161mt drilling spread over 10 boreholes had been carried out in Khora block (Refer Table T-2). The depth of minimum and maximum borehole drilled was the drilling was not undertaken on the grid pattern. The borehole locations were selected on basis of the availability of the free area. No fixed inter borehole spacing followed while undertaking drilling. Most of the boreholes drilled were vertical except bore KBH-10 ..... the principal Iron ore bearing rock was Banded Magnetite Quartzite/Banded Magnetite Jasper. In remaining boreholes Banded Haematite Quartzite/ Banded Haematite Jasper was the principal Iron ore bearing rock Upon site visit it was found that the BHJ (Banded Hematite Jasper) deposit exhibits a steep dip in the field, and most of the boreholes were drilled vertically to explore the mineralization. However, this drilling pattern may not provide a comprehensive representation of the variation in iron (Fe) content across the strike of the deposit. As a result, the determined width of the high-Fe zone may be misleading or inaccurate, potentially leading to misinterpretation of the ore body's characteristics.**Please clarify** . This clarification is required to understand the patter of drilling with respect to mineralization and dip of the ore body.	The classification of the Mineral Resources is based on the G4 stage of investigations comprising work inputs like regional geological mapping on scale of 1: 10000 detailed geological mapping on 1:4000 scale, spot sampling followed by core drilling, and to assess the grade and resources of Fe ore. Hence Mineral resources presented in the current estimate have been assigned G4 level. Further exploration work needs to be done by Composite License Holder. Due to level of exploration, block is decided for composite license.

4	Tender Document Clause 5 Eligibility; (e) The bidder must comply with section 6 of MMDR Act, 1957. The bidder shall not acquire area more than the prescribed area under prospecting license in MMDR Act including the area of this block. The bidder must ensure that the company or its directors cumulatively does not hold area greater than prescribed area including the area of this block. **Reference:** A. All the four iron ore blocks Notified for auction in Karauli District vide NIT dated 29th Fen 2024 constitute 18.89 Sq. Km area under Composite License. B. Section 6 (a) of MMDR Act says that no person shall acquire in respect of any mineral or prescribed group of associated minerals in a State for one or more prospecting licences covering a total area of more than twenty-five square kilometres. C. Section 6 (b) of MMDR Act says that no person shall acquire in respect of any mineral or prescribed group of associated minerals in a State for one or more mining leases covering a total area of more than **ten square kilometres.** Please clarify as follows: **1.** How much area limit is exempted under Section 6 of MMDR Act in case of Iron Ore in the State of Rajasthan for Composite License and Mining Lease? **2.** If there is no extra area is exemption than prescribed limit for iron ore in the State of Rajasthan for CL and ML under Section 6 of MMDR Act, then, area of all the four blocks constituting 18.89 Sq. Km under Composite License will be with in prescribed limit for a successful bidder if he acquires all the four blocks in auction. But, while stage of mining lease area of all the four blocks will certainly constitute more than prescribed limit of ten	Area limit for iron ore is as per MMDR Act, proposals for increasing area limit have already been sent to Central Government.

	square kilometres area of mining lease. **3.** In light of situation mentioned in point no. 2 as above, whether Mining Lease will be granted or not? **4.** In light of situation mentioned in point no. 2 as above, whether State of Rajasthan will seek necessary approval from Ministry of Mines, Government of India while granting Mining Lease? This information will be beneficial for bidders to decide about extent of area with respect to Iron Ore.	
5	PART – IV A Reporting of Mineral Resources **Executive Summary:** The grab samples of iron ore collected from old working pits and analysed which gave 55.93%-63.78% Fe, 3.32%-6.94% SiO2, 0.08%-5.35% Al2O3 0.08% -1.36% Mn. 0,13% -0.24% P and Sulphur in traces .... **Three abandoned pits**of iron ore, which are almost exhausted, were observed near Karwar village. These are limited in occurrence and low in grade. Please clarify as follows: **1.** Whether these abandoned pits were working earlier under any sanctioned Mining Lease or there was illegal mining? Since three pits are almost exhausted, whether quantity mined out earlier is considered while calculating resources now? This clarification will help bidders to know about resource and working condition of past.	These old working are historic.

6	Block Summary **Location of the block area;** Upon site visit it is found that a temple named "**Dhore Wala Baba**" is located on the North-Western part of the blocksKhora. It seems that this temple is located in the mineralized are of the block. In this light please clarify as follows: 1. What is historical importance of this temple and whether it can be relocated in the course of optimization of mineral resource? If not, then how much resources will be lost due to this temple and whether these considerations ware taken into account while estimating resource of the blocks area? Bidders need to know about any sensitive structure within the block area.	Beyond the scope of tender document.
7	Geological Study Report **Executive Summary;** A total of **90 no of surface samples** and 1154 no's core samples were analysed by Niton 3t Gold XRF machine in Departmental laboratory Udaipur In the report of Geological Study, details of surface sample (90 in numbers) analysis is not found. Kindly provide these details along with location details. Kindly provide the details.	Refer Annexure 3

8	Tender Document **9. Reserve Price** 9.1 The Reserve Price is 22.5% (Twenty-Two dot Five Percent) of Value of Mineral Despatched. The "Value of Mineral Despatched" shall be an amount equal to the product of ..... **Please clarify as follows:** **1.** Since Khora Iron Ore Block is for Composite License, why such a high reserve price is considered? **2.** Why such high reserve price is being kept where bidders has to conduct prospecting operation by drilling further boreholes at closer intervals? What is the basis of Keeping Reserve Price as high as 22.5%? Since base price of mineral for any block is important from Initial Price Point (IPO) of view, it should be clarified to bidders. High Reserve price might for a CL block may keep some prospective bidders away from participation in auction.	As per Rule 8 of Mineral Auction Rule, the onus of deciding reserve price is on State Government.
9	Geological Study Report **Chemical Analysis:** **Petrographical Studies;** The detailed Petrographic study for the Khora and Lilot blocks samples at IIT Bombay. The report copy of the IIT Mumbai is placed in the annexure. The detailed Petrographic study for the Khora Block is not there with GSR. Kindly provide. Will help bidders to understand the composition, structure, and origins of rocks in the block area.	Please refer to section 8.2 of Geological Study Report.

10	Tender Document **8. Tender Process:** This block has been prepared through RSMET fund. The Preferred Bidder shall pay the expenditure incurred from RSMET fund on preparation of this block i.e.Rs. 19,42,169/- (Indian Rupees Nineteen Lakh Forty-Two Thousand One Hundred Sixty-Nine only) excluding GST to RSMET within 60 days from issuance of LOI. Please clarify as follows: 1. Why cost of preparation of document is being charged from preferred bidder when expenses in incurred from RSMET? No other State is charging such type of cost from bidders. Please Clarify.	Tender document condition shall prevail.
11	Tender Document **Clause 10;** a) The Preferred Bidder shall within fifteen days after being declared the Preferred Bidder, submit an unconditional and irrevocable Performance Security for an amount equal to INR 72,95,63,611.00 (Indian Rupees Seventy-Two Crore Ninety-Five Lakh Sixty-Three Thousand Six Hundred Eleven Only) ..... Accordingly Estimated Value of the Resource (EVR) will be more than INR 29,183 crores. **Please clarify as follows:** 1. While calculating Estimated Value of Resource, what is the grade wise and State wise Average Sale Price (published by Indian Bureau of Mines) is taken?	It is calculated as per communication received from IBM.

	2. Since ASP of less than 45% Fe for haematite is not being declared by IBM, what is the ASP taken for average grade of 39.92% Fe of haematite? What is the lumps:Fines ratio considered for calculation of estimated Value of Resources? These details are needed to bidders to know that how EVR is arrived?	
12	Block Summary Part C; Particulars of Land **Upon site visit it is found that agriculture private land is located within the block area.** Please Clarify as follows: 1. Procedure for acquisition of private land at the time of mining lease. What are the charges payable for acquisition of these private land on hectare basis. These details needed for bidder to know about investment to be made and financial implication involved for this block	The onus of getting consent / purchase of the private land is on the investor.
13	Block Summary Part C; Particulars of Land **Upon site visit it is found that some Government land is located within the block area.** Please Clarify as follows: 1. Procedure for transfer/acquisition of Government Land at the stage of Mining Lease. What are the charges payable for acquisition of Government land on Hectare basis. These details needed for bidder to know about investment to be made and financial implication involved for this block	It will be as per notification / circulars issued by Revenue Department of Govt. of Rajasthan.

14	Block Summary Part C; Particulars of Land **In the situation where Charagah land is found within the block area.** Please Clarify as follows: **1.** Whether Charagah land can be diverted for the purpose of mining activities? **2.** Procedure for transfer/acquisition of Charagah Land at the stage of Mining Lease. Tentative charges payable for acquisition of Government land on Hectare basis. These details needed for bidder to know about investment to be made and financial implication involved for this block	It will be as per notification / circulars issued by Revenue Department of Govt. of Rajasthan.
15	Geological Study Report **5.7. Flora and Fauna within and nearby;** Vegetation is, in general, sparse with xerophytic**thorny bushes and shrubs**occupying the hill slopes. The trees in the order of abundance are Dhok (Anogeissus pendula), Kher (Acacia catechu), Babul (Acacia arabica), Ber (Ziziphusjujuba), Mango (Manganiferaindica), Pipal (Ficusreligiose), Banyan (Ficusbengalensis) and Jamun (SyzygiumJambolanum). A few Palmyrah trees are also seen in the valley portions. Considering hill portion as forest, please clarify as follows: **1.** Please provide density and type of reserved/protected forest falling in the block area. **2.** Please provide charges payable for Compensatory Afforestation (per hectare basis).	Beyond the scope of tender document.

	3. Please provide charges payable for implementation of Regional Wild Life Management Plan (if any). 4. Please provide details of any other charges payable in Rajasthan while diversion of forest land under Section 2 of the Forest Act. These details needed for bidder to know about investment to be made and financial implication involved for this block	
16	Block Summary Location of the Block. Village hutment are seen in Northern and Southern. Please clarify: 1. Can these village hutments be relocated (if required) for optimizing mineral resources at the stage of mining lease? 2. What is the procedure for rehabilitation and displacement of these hutments? 3. What is the policy or prevailing Rules for Rehabilitation and Resettlement in the State of Rajasthan and what is the tentative cost involved in relocating these hutments? These details needed for bidder to know about investment to be made and financial implication involved for this block These details also needed for bidder to know about investment of time for such rehabilitation.	The bidder may proceed as deemed fit as per prevailing rules.
17	Part IV- A Reporting of Mineral Resources (Clause 5) **5 (vi);** There are no National Parks, sanctuaries, Biosphere Reserves, Wildlife Corridors, Tiger /Elephant Reserves within 10 km radius of the block. Please let us know the nearest wildlife Sanctuary or National Park from this block and Arial distance from this block. This information needed for a bidder to know about safe distance to be worked from the block area.	There are no National Parks, sanctuaries, Biosphere Reserves, Wildlife Corridors, Tiger /Elephant Reserves within 10 km radius of the block.

18	Tender Document **Clause 15.3** "Save and except as provided in this Tender Document, the Bid Security of unsuccessful Bidders will be returned by the State Government, without any interest, **as promptly as possible."** There should be some time schedule for return of Bid Security as many States stipulated in their tender document that Bid Security shall be returned within four weeks' time from the date of final auction (date of Financial bid) or annulment of auction. This clarity is required as Bank Guarantees of the unsuccessful bidders cannot be hold for indefinite time.	Tender document condition shall prevail.
19	Mine Development and Production Agreement **Clause No. 19.4.2;**The stamp duty payable for this Agreement shall be borne by the Successful Bidder 1. **Stamp duty** and **Registration charges**applicable for execution of mining lease deed for 50 years. 2. Whether stamp duty is charged on the basis of on market value of the resources or on the basis of annual rent? 3. If it is charges on the basis of market value, whether market value is considered on the basis of dead rent prescribed under MMDR Act? 4. Also elaborate the methodology for arriving such charges. These details needed for bidder to know about investment to be made and financial implication involved for this block. These details also helpful in financial modelling for the block.	The stamp duty payable shall be as per Rajasthan Stamps Act.

20	Mine Development and Production Agreement Clause No. 19.4.2; The stamp duty payable for this Agreement shall be borne by the Successful Bidder Repeatedly, this question in earlier response by DMG is answered '**As per Govt of Rajasthan Notification dated 21.11.2019**.' Kindly elaborate about the said notification and provide methodology for calculation. These details needed for bidder to know about investment to be made and financial implication involved for this block. These details also helpful in financial modelling for the block.	The stamp duty payable shall be as per Rajasthan Stamps Act.
21	Tender Document **Clause 14.1.1 (e)** *"(e) In case of Bidder being a company, duly certified copy of the corporate authorization **(notarized)**, such as board resolution to participate in the tender process and submit a bid."* Generally Corporate Authorization in the form of Board Resolution is submitted in original. In that case also notarization of Board Resolution is required? This Clarification needed to prepare technical bid.	Tender document condition shall prevail.
22	Tender Document 2.10 **"Composite licence"** means the prospecting licence-cum-mining lease which is a two-stage concession granted under Rule 18 of the Auction Rules for the purpose of **undertaking prospecting operations** followed by mining operations in a seamless manner. Please clarify as follows: 1. Is there any consent or approval required from villagers/private land owners to the successful bidder of composite License for conducting prospecting work in block area?	The preferred bidder has to obtain all statutory licenses, permits, permissions, concessions, approvals and consents related to prospecting & mining operation. The exploration in the block is to be carried out as per MEMC Rules. The Government shall support to the extent possible.

	2. What is the procedure for conducting prospecting / exploration / drilling work in densely populated place in the block area? Is there any plan from Government to relocate these populated areas for smooth conduct of exploration work? This clarification needed as bidders should know the various implications involved while taking up prospecting /exploration / drilling work in block areas.	
23	Geological Report Analysis result of borehole data Analysis result of borehole data in excel format is required This data is required to assess grade and resources of iron ore in mineral potential area.	May be provided to preferred bidder, if he requires.
24	Part-IV A of Geological Report Clause 4(iii) of Part-IV A of Geological Report: Cadastral details of the area with land use, area under forest with type of forest. In case of cadastral details are not available an indicative data of breakup of government, private and forest land. Cadastral details of the area with land use, area under forest with type of forest is required. Cadastral details of the area with land use is required to assess the requirement of forest clearance over forest land, capital cost for prospecting operations.	There is no provision of providing land status for blocks proposed for auction under Composite License. Further, while bidding the bidder has to take into consideration all the facts and circumstances with his own assessment and wisdom after ground level verification of the block.
25	Geological Report Maps Cadastral Map, Autocad file and shape file of the mineral block is required. Cadastral map, auctocad file and shape file of mineral block are required to plan borehole position and likely cost involved for the prospecting work.	There is no provision of providing land status for blocks proposed for auction under Composite License. Further, while bidding the bidder has to take into consideration all the facts and circumstances with his own assessment and wisdom after ground level verification of the block.

26	Geological Report Chemical Analysis Results of Core Samples Analysis for %FeO content of the core samples is required The result of the % FeO content of the core samples will help in a detailed study of the block, to acknowledge the presence of ore body.	Please refer to geological report annexed with Tender document
27	Tender document Mining lease Methodology for computation of stamp duty and registration charges in the State of Rajasthan is required. The stamp duty and registration charges computation methodology is required to assess the financial cost involved for mineral block.	The stamp duty payable shall be as per Rajasthan Stamps Act.
28	Blank Tender Document – CL **Cls-10.4.b.i** : If the holder of the Composite Licence fails to complete prospecting operations in accordance with sub-section (9) of section 11 or fails to establish the existence of mineral contents in accordance with the Minerals (Evidence of Mineral Contents) Rules, 2015, such holder shall not be eligible to receive a mining lease and the Composite Licence shall be terminated; **Cls-10.4.b.ii** : Provided further that after submission of the geological report prepared in accordance with the Mineral (Evidence of Mineral Contents) Rules, 2015, the holder of composite licence may relinquish the entire area and in such case the State Government shall, after being satisfied that the geological report has been prepared conforming to the Mineral (Evidence of Mineral Contents) Rules, 2015, return the performance Security. 1. In case the exploration conducted by the bidder fails to establish	There is no provision for reimbursement of expenses made by the CL holder in Mineral Auction Rules. It will be dealt as per mineral Auction Rules.

	adequacy of resource and grade making mining unviable, either technically or economically leading to cancellation of the CL, will the documented expenses made by the CL holder also be reimbursed as per the Reimbursement of Mineral Exploration Expenses Rules 2022. 2. Under these circumstances, timeline for return of the performance security needs be clarified. Clause needs be inserted to clarify the effect of a negative/ failed exploration. In case of G-4 level blocks where both resource or grade are not known definitively, it will be a risk to the bidder that after the exploration, the deposit comes out as unviable technically and economically. A safeguard against sunk capital will encourage investors. To have a definitive timeline for bidder to assess.	
29	Blank Tender Document – CL **<u>Cls-10.1.1</u>** : The Preferred Bidder shall, within 15 (fifteen) days after being declared the Preferred Bidder, submit an unconditional and irrevocable Performance Security for an amount equal to INR [amount in figures] (Rupees [amount in words]) to the State Government from an Acceptable Bank and payable at [Insert Name of State Capital, State], pursuant to Rule 18(1) or Rule 18(1A) of the Auction Rules and valid for an initial period of 5 (five) years. In respect of blocks where both the grade and resource are not given, amount of performance security is well understood as per the Mineral Auction Rules. However, where only a tentative resource is indicated along with a tentative range of grade, how the VER and hence Performance Security amount will be arrived at.	It is calculated as per communication received from IBM.

	A suitable addendum should be appended in the referred clause to give more clarity. Necessary to submit correct performance security.	
30	Blank Tender Document – CL **Cls-10.4.b.i** : If the holder of the Composite Licence fails to complete prospecting operations in accordance with sub-section (9) of section 11 or fails to establish the existence of mineral contents in accordance with the Minerals (Evidence of Mineral Contents) Rules, 2015, such holder shall not be eligible to receive a mining lease and the Composite Licence shall be terminated; Timelines as per the Scn-11.9 and 7.2 are well specified for completion of the exploration. However, in some exceptional circumstances where the landowners (in case of a tenanted/ private land) do not consent for exploration, permissions from Forest or Revenue depts. are delayed or any such reasons which are beyond the reasonable control of the Successful Bidder. Will additional time be granted to complete the exploration in such circumstances needs be clarified. A clarification on any delays in completion of the exploration for reasons beyond any control of the Successful Bidder may kindly be provided. To facilitate for estimating the exploration timelines by the bidder.	Please refer to MMDR Act
31	Blank Tender Document – CL **Cls-2.28.ii** : Provided further that if for any mineral or mineral grade, the average sale price in respect of the relevant State is not published for the entire period of the preceding 12 (twelve) months, then all India average sale price	It is calculated as per communication received from IBM.

	published for such mineral or mineral grade for the said 12 (twelve) months shall be used. ASP for the same grade of mineral varies widely from state to state and hence, it can affect the VER on an upward side. It is suggested that for the mineral, average sale price for the months in a particular state published by IBM be escalated as per WPI. Only in case the mineral were never produced in a particular state, all India average should be taken for calculating the VER. Rationalising the bid-security, performance security and the upfront amount.	
32	Blank Tender Document – CL **Cls-5** : (a) is an Indian national, or company as defined in clause(20) of section 2 of the Companies Act, 2013; It is not clear whether Joint Venture (JV) companies or Special Purpose Vehicle (SPV) companies can also participate in the bidding. (a) in case of a firm or other association of individuals, Or association /JointVenture of Firms/Companies, only if all the members of the firm/ Companies or members of the association are citizens of India; and.... • To encourage more participation in the bidding. To have a clear understanding before bidding to avoid disqualification at a later stage.	Please refer to MMDR Act.
33	Blank Tender Document – CL **Cls-10.2** : Declaration of successful bidder and Grant of Composite License Provided that on expiry of a period of 1 (one) year from the date of the letter of intent for Composite Licence, no prospective licence	Tender document condition shall prevail.

	deed of Composite Licence shall be executed and the letter of intent for composite licence shall be invalidated leading to annulment of the entire process of auction: Provided further that the State Government may allow a further period of 6 (six) months for execution of the prospective licence deed, if the reasons for delay were beyond the control of the preferred bidder. The successful bidder will invariably put all his efforts in obtaining the required clearances. However, there could be delays totally beyond his control prolonging the period even beyond the period of 1 year + the 6 months' additional period as provided in Cls-10.2. The bidder, under these circumstances should not get penalised for no fault of his. Provision may kindly be made to invoke happening of Force Majure and additional period may be provided equivalent to the duration of the Force Majure event. To facilitate exploration operations by the successful bidder.	
34	General General query on duration of lease and estimation of stamp duty. While estimating stamp duty for execution of the mining lease, a factor of 8 for 50 years of mining lease is applied with the sum of Maximum Annual Royalty. In case, the mine life is less than the 50 years (say 10 or 20 years), whether stamp duty would be calculated for the shorter period instead of 50 years. For clarification	The stamp duty payable shall be as per Rajasthan Stamp Act.

35	Blank Tender Document – CL MDPA Schedule-E : As per stated table in schedule D, the given % of production as stated in approved Mining Plan. The %ages of production plan are For the particular FY or Peak Production capacity as per the approved Mining Plan? Production volumes should be of the particular FY as per the Mining Plan. Clarification for assessing the financial impact.	The minimum production requirement will be % of yearly production as per approved mining plan.
36	Blank Tender Document – CL MDPA Cls-4.3.1 pt-6 "In case of surrender of the entire area of the mining lease by the lessee." It should be clarified that the Performance Security shall be appropriated if the Mining Lease is being surrendered on account of lessee's default for reasons solely attributable to the lessee. The clause may be modified as follows: "In case ofsurrender of the entire area of the mining lease by the lessee on account of lessee's defaultfor reasons solely attributable to the lessee.". To clarify that the Performance Security shall be appropriated only if the mining lease is being surrendered on account of lessee's default.	Tender document condition shall prevail.
37	Blank Tender Document – CL, MDPA Clause 3.1 and 3.2: Provided that, no Mining Lease shall beexecuted on the expiry of the period of 3years from the date of letter of intent and the letter of intent shall be invalidated leading to annulment of the entire process	Tender document condition shall prevail.

	of auction. Provided further that the State Government may, allow a further period of two years for execution of the Mining Lease Deed if the reasons for delay were beyond the control of the Successful Bidder. The Successful Bidder shall execute the Mining Lease within the period referred to in Clause 3.4 and Sub-rule 6 of Rule 10 of the Auction Rules, failing which: (a) the Letter of Intent shall be revoked; (b) this Agreement shall be terminated; and (c) the Performance Security and any instalment of Upfront Payment paid shall be forfeited and appropriated in full by the State Government. In the event the Mining Lease is not executed within the stipulated timeline on account of reasons not attributableto the Successful Bidder the State Governmentshould refund the Performance Security and Upfront Payment to the Successful Bidder within a fixed time period. In order to provide clarity on timelines for execution of Mining Lease where execution is delayed due to reasons attributable to the State Government or for other reasons beyond the control of the Preferred Bidder.	
38	Blank Tender Document – CL, MDPA Cls-8 : Minimum Production and Despatch Requirements. "The conduct of mining operations at the Lease Area shall be subject to the annual milestones listed in SCHEDULE D with respect to production (the "Minimum Production and Despatch Requirement" and the minimum annual production to be achieved every year. The Mineral (Auction) Rules, 2015, do not mandate any minimum production and dispatch requirement for greenfield mines. Therefore, all references pertaining to minimum production and dispatch requirement and compliance in respect of the same may be deleted. For clarifications on the greenfield projects.	Tender document condition shall prevail.

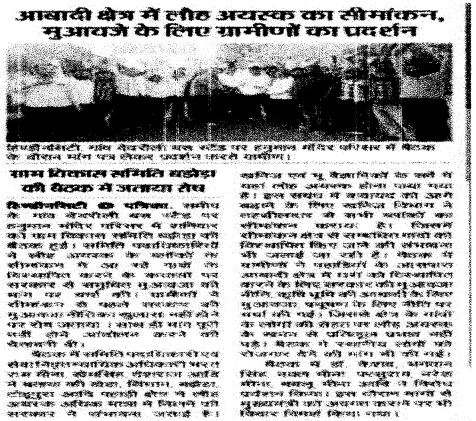
39	Blank Tender Document - CL, MDPA Suitable provision may kindly be incorporated granting the successful Bidder a right to terminate the MDPA and the Mining Lease and surrender the block, without liability to make any payments or without the State Government *h*aving the right to forfeit Performance Securityin case of exhaustion of minerals prior to completion of term of the Mining Lease and/or where it becomes commercially unviable to the Successful Bidder to continue mining operations on account of change in law. Further, it should also be provided that in case of continuance of a Force Majeure for a prolonged period of time, the Successful Bidder shall have the right to terminate the MDPA/Mining Leasewithout any forfeiture of performance security or upfront amount paid by him. Suitable clause may kindly be incorporated. To encourage bidders to participate by assuaging fears of any uneconomical encumbrances.	Tender document condition shall prevail.
40	Blank Tender Document – CL Cls 8.2.ii : Where subsequent to the grant of Mining Lease, the presence of a minor mineral(s) is established or discovered, the treatment of such minor mineral(s) will be as per the provisions of the Applicable Law governing such minor mineral(s) (as amended or replaced from time to time) prevailing at the time the minor mineral when is discovered in the concession area. Clarification is needed whether the Revenue Share %age quoted by the bidder for the principal mineral (viz the designated mineral for which the block is being auctioned) will also be applicable for the minor mineral discovered after exploration or start of mining operations or the payables to the concerned state government will	It will be dealt as per section 15 of the Act.

	be as per the Minor Minerals Rules of the concerned state government. To assess thefinancial impact during operations on account of any low value minor minerals in the block.	
41.1	**Mining block summary–Khora** **Para-2** : Area of the block – Total area of the block is mentioned as 462.30 Ha. Kindly specify the mineralised and non mineralised areas. Necessary for evaluation for bidding.	The geological report is annexed with tender document.
41.2	Mining block summary –Khora Iron Ore Block Part-C : Particulars of Land – Total Concession area 462.30 Ha Only total area is mentioned without mentioning the break-up/ Land Use Pattern into Govt Land, Forest Land, Private Land, Restricted area, if any. Similarly, classification of various types of land has also not been mentioned. Break-up of the total concession area may kindly be provided. Necessary for techno-economic evaluation of the block.	There is no provision of providing land status for blocks proposed for auction under Composite License. Further, while bidding the bidder has to take into consideration all the facts and circumstances with his own assessment and wisdom after ground level verification of the block.
41.3	Mining block summary –Khora Iron Ore Block Block Part-A.1.ii : Only 1 village (Khora) mentioned. It is not clear whether other villages too are located near or within the block boundary. Clarifications and the demographic information may kindly be provided.	Name of nearest village is mentioned.
41.4	Mining block summary -Khora Iron Ore Block Block Annexure-I : Coordinates of the corner points. The DGPS coordinates have been mentioned. Will the corner points be laid out on the ground for the successful bidder jointly by the State DGM. Clarification may kindly be provided about any joint survey for laying out the corner points.	The corner points will be marked jointly

41.5	Mining block summary -Khora Iron Ore Block Block Part-A.7 : No rivers or water bodies near the block. Both Haematite and Magnetite are low grade and have to be processed using wet processes which will require large quantities of water. Will the Government give clearance for supply of required quantities of water from the nearby dams (Panchna and Jagger) to facilitate the successful bidder to process the ROM ore. This is essential since if availability of adequate water is not there, then it will be infructuous to bid for the block since sale/ utilisation of such low grade ores at such grades is not at all possible.	The Government will support to the extent possible.
41.6	Mining block summary -Khora Iron Ore Block Block General - Surface constraints, Eco-sensitive zone and Wild-Life sanctuaries - presence thereof. The mine block summary does not mention anything about any surface constraints present within the block or presence of any eco sensitive zones or wildlife sanctuaries in the vicinity of the block. Clarification is being sought in regards the presence of eco-zones within or in the vicinity of the block. It can be mentioned that such information is invariably being provided in the mine block summaries of the coal blocks being auctioned for commercial mining and info in similar way is expected here as well. The information is necessary to evaluate workability of the block vis-à-vis any regulatory issues which could arise in future.	There are no National Parks, sanctuaries, Biosphere Reserves, Wildlife Corridors, Tiger /Elephant Reserves within 10 km radius of the block.
41.7	Mining block summary -Khora Iron Ore Block Block General - Part-B : Statutory approvals. A detailed (but not exhaustive) list is provided mentioning the various statutory/ regulatory permissions to be obtained by the successful bidders. Process for obtaining these permissions will be long drawn one involving numerous government departments. In respect of Uttar Pradesh, will there be a nodal agency to coordinate between the successful bidder and the various departments to facilitate and speed up the whole permission process? Intervention from such a nodal agency will be of great help is a smooth and early start of exploration as well as subsequent mine operations.	Please refer to Mineral Block Summary of the Block. Post auction facilitation cell at Jaipur is there for this purpose in State of Rajasthan.

41.8	Mining block summary -Khora Iron Ore Block Block A-2 Land area As per the satellite imagery, some part of the area is cultivated fields and small parts are occupied by dwelling structures/ settlement. During site visit, it was learnt from tehsil admin authorities and the distt mining officials that there is a dispute between Forest department and the Revenue department about nature of the land. This will be tricky situation for land acquisition and may lead to delays. Clarification is essential which may kindly be provided. Necessary for bid evaluation.	There is no provision of providing land status for blocks proposed for auction under Composite License. Further, while bidding the bidder has to take into consideration all the facts and circumstances with his own assessment and wisdom after ground level verification of the block.
41.9	Mining block summary -Khora Iron Ore Block Block General - Power supply Power requirement will be significant for the process plants. Kindly clarify whether adequate power could be sourced from any substation near the block, say Hindaun city. Clarification may kindly be provided. For bid evaluation.	The Government shall support to the extent possible.

REPLY TO PRE BID QUERIES
OF
Todupura Iron-Ore Block, Tehsil Hindaun& District Karauli
Tender No.: MSTC/JPR/Directorate of Mines and Geology Rajasthan, Udaipur/330/Udaipur/23-24/51121

Sl. No.	Bidders Queries	Reply
1	Geological Study Report **Host population (local tribes), Human settlements within nearby areas.** The population in Todupura village, based on Census, 2020 is 1283. **5.4. Socio-demographic profile of the area and Nearby** ..... The surrounding agriculture land is fertile and supporting crops. Reference of News from Patrika:  आबादी क्षेत्र में लौह अयस्क का सीमांकन, मुआवजे के लिए ग्रामीणों का प्रदर्शन ग्राम विकास समिति सांडोड़ा की बैठक में उठाया गया **A.** Village Todupura is located at foothill of Todupura iron ore block in the South-Western part and may be required to be displaced	Beyond the scope of tender document. The State Government shall support the preferred/successful bidder to the extent possible.

	before mining stage. **B.** In light of various news reports, villagers have already started agitation for compensation of land and demanding jobs, In light of above, please clarify as follows: **1.** How many people/Settlements are to be displaced in the block area? **2.** How State Government will support preferred/successful bidder in dealing with such situation? **3.** What is the State's policy of Rehabilitation and Resettlement of persons displaced from Block area? 4. Please provide tentative cost of displacement/R&R per hectare basis. This clarification will give bidders an idea about financial implications during obtaining surface right within mining lease area.	
2	Geological Study Report **Chemical Analysis** Since the quantity of the samples were large in nos, it was decided that the surface Spot samples and Core samples shall be analysed by using portable Niton -3t gold-XRF machine ..... **1.** The analysis was conducted using X-ray Fluorescence (XRF) technique. However, XRF cannot determine FeO, which is essential for deriving the magnetic component in magnetite-rich ore. Despite this limitation, how differentiation between magnetic ore, such as magnetite, and hematite ore was achieved? Additionally, if magnetic susceptibility measurements or other geophysical techniques may have been utilized to distinguish between the two ore types?**please clarify**. **2.** Regarding the accuracy comparison between XRF technique and	Please refer to geological report annexed with the tender document.

	chemical analysis, it's widely acknowledged that XRF may have limitations compared to chemical analysis in certain aspects. To address this concern, if any check sample exercise was done using chemical analysis as a reference method?**Please clarify**. This clarification is required for any bidder to understand the basis of categorization of ore and estimation of resources.	
3	Tender Document **Clause 5 Eligibility;** (e) The bidder must comply with section 6 of MMDR Act, 1957. The bidder shall not acquire area more than the prescribed area under prospecting license in MMDR Act including the area of this block. The bidder must ensure that the company or its directors cumulatively does not hold area greater than prescribed area including the area of this block. **Reference:** A. All the four iron ore blocks Notified for auction in Karauli District vide NIT dated 29th Fen 2024 constitute **18.89 Sq**. Km area under Composite License. **B.** Section 6 (a) of MMDR Act says that no person shall acquire in respect of any mineral or prescribed group of associated minerals in a State for one or more prospecting licences covering a total area of more than **twenty-five square kilometres.** C. Section 6 (b) of MMDR Act says that no person shall acquire in respect of any mineral or prescribed group of associated minerals in a State for one or more mining leases covering a total area of more than **ten square kilometres.** Please clarify as follows: **1.** How much area limit is exempted under Section 6 of MMDR Act	Area limit for iron ore is as per MMDR Act, proposals for increasing area limit have already been sent to Central Government.

	in case of Iron Ore in the State of Rajasthan for Composite License and Mining Lease? **2.** If there is no extra area is exemption than prescribed limit for iron ore in the State of Rajasthan for CL and ML under Section 6 of MMDR Act, then, area of all the four blocks constituting 18.89 Sq. Km under Composite License will be with in prescribed limit for a successful bidder if he acquires all the four blocks in auction. **But**, while stage of mining lease area of all the four blocks will certainly constitute more than prescribed limit of ten square kilometres area of mining lease. **3.** In light of situation mentioned in point no. 2 as above, whether Mining Lease will be granted or not? **4.** In light of situation mentioned in point no. 2 as above, whether State of Rajasthan will seek necessary approval from Ministry of Mines, Government of India while granting Mining Lease? This information will be beneficial for bidders to decide about extent of area with respect to Iron Ore.	
4	PART – IV A Reporting of Mineral Resources **Executive Summary:** The grab samples of iron ore collected from **old working pits** and analysed which gave 55.93%-63.78% Fe, 3.32%-6.94% SiO2, 0.08%-5.35% Al2O3 0.08% -1.36% Mn. 0,13% -0.24% P and Sulphur in traces .... **Three abandoned pits** of iron ore, which are almost exhausted, were observed near Karwar village. These are limited in occurrence and low in grade. Please clarify as follows: **1.** Whether these abandoned pits were working earlier under any sanctioned Mining Lease or there was illegal mining? Since three pits are almost exhausted, whether quantity mined out earlier is considered while calculating resources now? This clarification will help bidders to know about resource and working condition of past.	These old working are historic.

5.	Block Summary **Location of the block area;** Upon site visit it is found that a temple named "**Hanuman Temple**" on the Northern part of the block Todupura It seems that this temple is located in the mineralized are of the block. In this light please clarify as follows: 1. What is historical importance of this temple and whther it can be relocated in the course of optimization of mineral resource? If not, then how much resources will be lost dus to this temple and whether these considerations was taken in to account while estimating resource of the blocks area? Bidders need to know about any sensitive structure within the block area.	Beyond the scope of tender document.
6.	Geological Study Report **Executive Summary;** A total of 172 no of surface samples and 526 nos core samples were analysed by Niton 3t Gold XRF machine in Departmental laboratory Udaipur. In the report of Geological Study, details of surface sample (172 in numbers) analysis is not found. Kindly provide these details along with location details. This information will be helpful from Geology and Resource point of view	Refer annexure 4

7.	Tender Document **9. Reserve Price** 9.1 The Reserve Price is **22.5%** (Twenty-Two dot Five Percent) of Value of Mineral Despatched. The "Value of Mineral Despatched" shall be an amount equal to the product of ..... **Please clarify as follows:** **1.** Since Todupura Iron Ore Block is for Composite License, why such a high reserve price is considered? **2.** Why such high reserve price is being kept where bidders has to conduct prospecting operation by drilling further boreholes at closer intervals? **3.** What is the basis of Keeping Reserve Price as high as 22.5%? Since base price of mineral for any block is important from Initial Price Point (IPO) of view, it should be clarified to bidders.	As per Rule 8 of Mineral Auction Rule, the onus of deciding reserve price is on State Government.
8.	Geological Study Report **Chemical Analysis:** **Petrographical Studies;** The detailed Petrographic study for the Todupura blocks samples at IIT Bombay. The report copy of the IIT Mumbai is placed in the annexure. (Refer Annexure A-11) Annexure A-11 is not found the report of GSR. Kindly provide Will help bidders to understand the composition, structure, and origins of rocks in the block area.	Please refer to section 8.2 of Geological Study Report.

9.	Tender Document **8. Tender Process:** This block has been prepared through RSMET fund. The Preferred Bidder shall pay the expenditure incurred from RSMET fund on preparation of this block i.e.Rs. **17,26,400/-** (Indian Rupees Seventeen Lakh Twenty-Six Thousand Four Hundred only) excluding GST to RSMET within 60 days from issuance of LOI. Please clarify as follows: 1. Why cost of preparation of document is being charged from preferred bidder when expenses is incurred from RSMET? No other State is charging such type of cost from bidders. Please clarify.	Tender document condition shall prevail.
10.	Tender Document **Clause 10;** a) The Preferred Bidder shall within fifteen days after being declared the Preferred Bidder, submit an unconditional and irrevocable Performance Security for an amount equal to INR 17,90,38,070.00 (Indian Rupees Seventeen Crore Ninety Lakh Thirty-Eight Thousand Seventy Only) ..... Accordingly Estimated Value of the Resource (EVR) will be more than INR **7162** crores. **Please clarify as follows:** 1. While calculating Estimated Value of Resource, what is the grade wise and State wise Average Sale Price (published by Indian	It is calculated as per communication received from IBM.

	Bureau of Mines) is taken? 2. Since ASP of less than 45% Fe for haematite is not being declared by IBM, what is the ASP taken for average grade of 39.92% Fe of haematite? What is the lumps: Fines ratio considered for calculation of EVR? These details are needed to bidders to know that how EVR is arrived?	
11.	Block Summary Part C; Particulars of Land **Upon sit visit it is found that agriculture private land is located within the block area.** Please Clarify as follows: 1. Procedure for acquisition of private land at the time of mining lease. What are the charges payable for acquisition of these private land on hectare basis. These details needed for bidder to know about investment to be made and financial implication involved for this block	The onus of getting consent / purchase of the private land is on the investor.
12.	Block Summary Part C; Particulars of Land **Upon sit visit it is found that some Government land is located within the block area.** Please Clarify as follows: **1.** Procedure for transfer/acquisition of Government Land at the stage of Mining Lease. What are the charges payable for acquisition of Government land on	It will be as per notification / circulars issued by Revenue Department of Govt. of Rajasthan.

	Hectare basis. These details needed for bidder to know about investment to be made and financial implication involved for this block	
13.	Block Summary Part C; Particulars of Land **In the situation where Charagah land is found within the block area.** Please Clarify as follows: **1.** Whether Charagah land can be diverted for the purpose of mining activities? **2.** Procedure for transfer/acquisition of Charagah Land at the stage of Mining Lease. Tentative charges payable for acquisition of Government land on Hectare basis. These details needed for bidder to know about investment to be made and financial implication involved for this block	It will be as per notification / circulars issued by Revenue Department of Govt. of Rajasthan.
14.	Geological Study Report **5.7. Flora and Fauna within and nearby;** Vegetation is, in general, sparse with xerophytic thorny bushes and shrubs occupying the hill slopes. The trees in the order of abundance are Dhok (Anogeissus pendula), Kher (Acacia catechu), Babul (Acacia arabica), Ber (Ziziphusjujuba), Mango (Manganiferaindica), Pipal (Ficusreligiose), Banyan (Ficusbengalensis) and Jamun (SyzygiumJambolanum). A few Palmyrah trees are also seen in the valley portions. Considering hill portion as forest, please clarify as follows: **1.** Please provide density and type of reserved/protected forest falling in the block area. **2.** Please provide charges payable for Compensatory Afforestation (per hectare basis). **3.** Please provide charges payable for implementation of Regional	Beyond the scope of tender document.

	Wild Life Management Plan (if any). **4.** Please provide details of any other charges payable in Rajasthan while diversion of forest land under Section 2 of the Forest Act. These details needed for bidder to know about investment to be made and financial implication involved for this block	
15.	Block Summary Location of the Block Village hutment are seen in South-Eastern (village Todupura) and South-Eastern part, Please clarify: **1.** Can these village hutments be relocated (if required) for optimizing mineral resources at the stage of mining lease? **2.** What is the procedure for rehabilitation and displacement of these hutments? **3.** What is the policy or prevailing Rules for Rehabilitation and Resettlement in the State of Rajasthan and what is the tentative cost involved in relocating these hutments? These details needed for bidder to know about investment to be made and financial implication involved for this block These details also needed for bidder to know about investment of time for such rehabilitation.	The bidder may proceed as deemed fit as per prevailing rules.
16.	Part IV- A Reporting of Mineral Resources (Clause 5) **5 (vi);** There are no National Parks, sanctuaries, Biosphere Reserves, Wildlife Corridors, Tiger /Elephant Reserves within 10 km radius of the block. Please let us know the nearest wildlife Sanctuary or National Park from this block and Arial distance from this block. This information needed for a bidder to know about safe distance to be worked from the block area.	There are no National Parks, sanctuaries, Biosphere Reserves, Wildlife Corridors, Tiger /Elephant Reserves within 10 km radius of the block.

17.	Tender Document **Clause 15.3** "Save and except as provided in this Tender Document, the Bid Security of unsuccessful Bidders will be returned by the State Government, without any interest, **as promptly as possible."** There should be some time schedule for return of Bid Security as many States stipulated in their tender document that Bid Security shall be returned within four weeks' time from the date of final auction (date of Financial bid) or annulment of auction. This clarity is required as Bank Guarantees of the unsuccessful bidders cannot be hold for indefinite time.	Tender document condition shall prevail.
18.	Mine Development and Production Agreement **Clause No. 19.4.2;** The stamp duty payable for this Agreement shall be borne by the Successful Bidder **1.** Kindly provide the percentage of **Stamp duty** and **Registration charges** applicable for execution of mining lease deed for 50 years. **2.** Whether stamp duty is charged on the basis of on market value of the resources or on the basis of annual rent? **3.** If it is charges on the basis of market value, whether market value is considered on the basis of dead rent prescribed under MMDR Act? **4.** Also elaborate the methodology for arriving such charges. These details needed for bidder to know about investment to be made and financial implication involved for this block. These details also helpful in financial modelling for the block.	The stamp duty payable shall be as per Rajasthan Stamp Act.

19.	Mine Development and Production Agreement Clause No. 19.4.2; The stamp duty payable for this Agreement shall be borne by the Successful Bidder Repeatedly, this question in earlier response by DMG is answered '**As per Govt of Rajasthan Notification dated 21.11.2019**.' Kindly elaborate about the said notification and provide methodology for calculation. These details needed for bidder to know about investment to be made and financial implication involved for this block. These details also helpful in financial modelling for the block.	The stamp duty payable shall be as per Rajasthan Stamp Act.
20.	Tender Document **Clause 14.1.1 (e)** *"(e) In case of Bidder being a company, duly certified copy of the corporate authorization **(notarized)**, such as board resolution to participate in the tender process and submit a bid."* Generally Corporate Authorization in the form of Board Resolution is submitted in original. In that case also notarization of Board Resolution is required? This Clarification needed to prepare technical bid.	Tender document condition shall prevail.
21.	Tender Document 2.10 **"Composite licence"** means the prospecting licence-cum-mining lease which is a two-stage concession granted under Rule 18 of the Auction Rules for the purpose of **undertaking prospecting operations** followed by mining operations in a seamless manner. Please clarify as follows:	The preferred bidder has to obtain all statutory licenses, permits, permissions, concessions, approvals and consents related to mining operation. The exploration in the block is to be carried out as per MEMC Rules. The Government shall support to the extent possible.

	1. Is there any consent or approval required from villagers/private land owners to the successful bidder of composite License for conducting prospecting work in block area? 2. What is the procedure for conducting prospecting / exploration / drilling work in densely populated place in the block area? 3. Is there any plan from Government to relocate these populated areas for smooth conduct of exploration work? This clarification needed as bidders should know the various implications involved while taking up prospecting /exploration / drilling work in block areas.	
22	Geological Report Analysis result of borehole data Analysis result of borehole data in excel format is required This data is required to assess grade and resources of iron ore in mineral potential area.	It will be provided to preferred bidder, if he requires.
23	Part-IV A of Geological Report Clause 4(iii) of Part-IV A of Geological Report: Cadastral details of the area with land use, area under forest with type of forest. In case of cadastral details are not available an indicative data of breakup of government, private and forest land. Cadastral details of the area with land use, area under forest with type of forest is required. Cadastral details of the area with land use is required to assess the requirement of forest clearance over forest land, capital cost for prospecting operations.	There is no provision of providing land status for blocks proposed for auction under Composite License. Further, while bidding the bidder has to take into consideration all the facts and circumstances with his own assessment and wisdom after ground level verification of the block.
24	Geological Report Maps Cadastral Map, Autocad file and shape file of the mineral block is required. Cadastral map, auctocad file and shape file of mineral block are required to plan borehole position and likely cost involved for the prospecting work.	There is no provision of providing land status for blocks proposed for auction under Composite License. Further, while bidding the bidder has to take into consideration all the facts and circumstances with his own assessment and wisdom after ground level verification of the block.

25	Geological Report Chemical Analysis Results of Core Samples Analysis for %FeO content of the core samples is required The result of the % FeO content of the core samples will help in a detailed study of the block, to acknowledge the presence of ore body.	please refer to geological report annexed with the tender document
26	Tenderdocument Mining lease Methodology for computation of stamp duty and registration charges in the State of Rajasthan is required. The stamp duty and registration charges computation methodology is required to assess the financial cost involved for mineral block.	The stamp duty payable shall be as per Rajasthan Stamp Act.

3.2.2 Physical Testing

The physical test conducted for Haematite and Magnetite samples of Dedrauli block and Khora block samples. The details of obtained result are given below.

1. The measurement of specific gravity of the iron ore samples are as follows:-

S.No.	Sample Number	Sample Mark	Specific Gravity
1	457	KH/01 (Haematite)	3.44
2	468	KH/02 (Magnetite)	3.81
3	469	DH/01 (Haematite)	3.82
4	470	DH/02 (Magnetite)	3.86

2. The measurement of hardness of the iron ore samples are as follows:-

S.No.	Sample Number	Sample Mark	Hardness
1	457	KH/01 (Haematite)	**5.5 to 6.6**
2	468	KH/02 (Magnetite)	
3	469	DH/01 (Haematite)	
4	470	DH/02 (Magnetite)	

Chemical Analysis Result of Surface Spot Samples of Dedrauli block.(T – 3)

SURFACE IRON ORE SAMPLES ANALYSIS BY XRF : KARAULI DIST. RAJASTHAN

DEDRAULI BLOCK: ML NO. 47/10, Cal-Factor = TBH Fe2O3

				Elements in %						
No.	No.	SAMPLE	LOCATION	MgO	Al2O3	SiO2	CaO	TiO2	Fe	Fe2O3
1	3475	ML-47-10-D-1/229	DEDRAULI	0.188	4.226	60.618	0.473	0.251	27.927	39.935
2	3476	ML-47-10-D-3/232	DEDRAULI	0.585	5.535	58.936	3.44	0.23	28.596	40.892
3	3477	ML-47-10-D-4/233	DEDRAULI	0.411	4.044	62.816	0.636	0.221	19.473	27.847
4	3478	ML-47-10-D-5/234	DEDRAULI	0.379	4.546	59.796	0.686	0.235	32.871	47.005
5	3479	ML-47-10-D-6/236	DEDRAULI	0.146	4.232	59.949	0.763	0.22	25.738	36.805
6	3480	ML-47-10-D-7/237	DEDRAULI	0.366	4.677	60.248	0.759	0.239	25.624	36.642
7	3481	ML-47-10-D-8/238	DEDRAULI	1.733	7.772	54.946	1.517	0.677	19.037	27.223
8	3482	ML-47-10-D-9/245	DEDRAULI	0.258	4.263	59.421	1.327	0.227	32.453	46.407
9	3483	ML-47-10-D-10/246	DEDRAULI	0.421	4.498	58.485	1.096	0.24	35.21	50.351
10	3484	ML-47-10-D-11/100-150m	DEDRAULI	0.267	4.158	57.748	1.398	0.196	36.135	51.673
11	3485	ML-47-10-D-12/247	DEDRAULI	2.372	9.132	53.084	1.194	0.935	21.157	30.255
12	3486	ML-47-10-D-13/248	DEDRAULI	0.307	4.511	57.934	0.782	0.248	32.209	46.059
13	3487	ML-47-10-D-14/249	DEDRAULI	0.215	9.728	49.029	1.66	0.443	48.895	69.92
14	3488	ML-47-10-D-16/251	DEDRAULI	0.236	15.484	53.714	8.487	1.962	9.953	14.232
15	3489	ML-47-10-D-17/252	DEDRAULI	0.653	5.201	56.888	1.435	0.27	38.51	55.069
16	3490	ML-47-10-D-18/253	DEDRAULI	0.445	4.677	59.415	1.327	0.217	30.132	43.089
17	3491	ML-47-10-D-19/254	DEDRAULI	0.37	5.035	58.089	1.074	0.235	35.077	50.16
18	3492	ML-47-10-D-20	DEDRAULI	0.292	4.429	59.115	0.79	0.216	32.063	45.85
19	3493	ML-47-10-D-21	DEDRAULI	0.187	4.548	59.534	1.213	0.235	29.55	42.256
20	3494	ML-47-10-D-22/255	DEDRAULI	0.435	4.756	59.521	0.677	0.264	29.311	41.915
21	3495	ML-47-10-D-23/256	DEDRAULI	0.301	3.751	61.479	0.726	0.206	22.087	31.584
22	3496	ML-47-10-D-24/257	DEDRAULI	0.297	4.691	60.058	1.3	0.227	29.109	41.626
23	3497	ML-47-10-D-25	DEDRAULI	0.511	4.862	60.337	1.28	0.247	29.429	42.084
24	3498	ML-47-10-D-26	DEDRAULI	0.433	4.113	61.047	0.847	0.229	23.839	34.09
25	3499	ML-47-10-D-27/258	DEDRAULI	0.518	5.524	59.736	1.427	0.368	21.969	31.416
26	3500	ML-47-10-D-28	DEDRAULI	0.366	4.411	60.113	0.846	0.219	29.398	42.038
27	3501	ML-47-10-D-29	DEDRAULI	0.256	4.226	59.685	1.219	0.232	30.377	43.439
28	3502	ML-47-10-D-30	DEDRAULI	0.269	4.517	59.827	0.99	0.249	26.583	38.014
29	3507	ML-47-10-D-31	DEDRAULI	0.279	3.932	61.01	1.387	0.213	22.174	31.709
30	3508	ML-47-10-D-32	DEDRAULI	0.204	3.71	61.788	0.791	0.196	19.03	27.212
31	3509	ML-47-10-D-33/259	DEDRAULI	0.272	4.356	58.303	0.632	0.242	35.088	50.176
32	3511	ML-47-10-D-34/260	DEDRAULI	0.17	8.124	51.464	3.943	0.83	7.035	10.06
33	3513	ML-47-10-D-35/261	DEDRAULI	0	4.863	47.51	1.433	0.252	52.718	75.386
34	3514	ML-47-10-D-36/262	DEDRAULI	0.559	5.317	58.713	0.836	0.291	27.028	38.65
35	3515	ML-47-10-D-37	DEDRAULI	0	6.584	47.591	3.619	0.322	50.358	72.012
36	3516	ML-47-10-D-38/264	DEDRAULI	0.382	3.587	62.455	0.793	0.208	19.059	27.254
37	3517	ML-47-10-D-39	DEDRAULI	0.322	3.587	60.651	0.655	0.196	25.493	36.455
38	3518	ML-47-10-D-40/265	DEDRAULI	0	8.131	49.346	19.635	0.257	34.791	49.752
39	3519	ML-47-10-D-41	DEDRAULI	0	7.578	47.79	28.692	0.259	33.849	48.404
40	3520	ML-47-10-D-43/267	DEDRAULI	0	9.429	47.889	0.836	0.284	56.173	80.327
41	3521	ML-47-10-D-44/269	DEDRAULI	0.351	5.196	57.87	2.905	0.213	36.75	52.552

42	3522	ML-47-10-D-46/271	DEDRAULI	0.364	4.167	61.189	4.568	0.225	17.008	24.322
43	3523	ML-47-10-D-47/272	DEDRAULI	0.172	3.754	60.529	1.482	0.212	20.444	29.235
44	3524	ML-47-10-D-48	DEDRAULI	0.383	3.779	63.577	0.547	0.216	14.845	21.228
45	3525	ML-47-10-D-49	DEDRAULI	0.301	3.911	61.141	0.887	0.208	26.397	37.747
46	3526	ML-47-10-D-50	DEDRAULI	0.272	3.813	61.821	0.703	0.207	21.701	31.033
47	3527	ML-47-10-D-51	DEDRAULI	0.366	3.967	59.659	1.133	0.215	26.078	37.291
48	3528	ML-47-10-D-52	DEDRAULI	0.214	3.718	63.098	0.828	0.224	14.478	20.703
49	3529	ML-47-10-D-53/275	DEDRAULI	0	5.627	48.647	17.066	0.251	37.152	53.128
50	3530	ML-47-10-D-55	DEDRAULI	0.264	4.071	58.621	0.71	0.21	35.646	50.974
51	3531	ML-47-10-D-56/277	DEDRAULI	0	7.317	47.697	3.224	0.248	55.289	79.064
52	3532	ML-47-10-D-57	DEDRAULI	0	3.916	54.219	0.822	0.196	43.481	62.177
53	3533	ML-47-10-D-58	DEDRAULI	0.312	4.78	56.886	8.651	0.231	28.547	40.822
54	3534	ML-47-10-D-59	DEDRAULI	0.151	4.002	57.772	7.865	0.227	24.292	34.738
55	3535	ML-47-10-D-60	DEDRAULI	0.413	3.891	61.492	0.839	0.21	26.699	38.18
56	3536	ML-47-10-D-61	DEDRAULI	2.087	8.471	54.098	1.211	0.998	19.154	27.391
57	3537	ML-47-10-D-62/280	DEDRAULI	0.541	3.792	63.127	1.216	0.213	20.452	29.247
58	3538	ML-47-10-D-63	DEDRAULI	0.102	4.166	59.575	0.748	0.209	28.718	41.067
59	3539	ML-47-10-D-64	DEDRAULI	0.322	4.281	58.333	0.989	0.213	35.165	50.286
60	3540	ML-47-10-D-65	DEDRAULI	0.162	3.96	58.444	0.799	0.227	32.121	45.933
61	3541	ML-47-10-D-66	DEDRAULI	0.303	3.909	59.22	0.95	0.196	33.041	47.248
62	3542	ML-47-10-D-67/281	DEDRAULI	0.235	3.895	60.365	1.715	0.196	25.335	36.229
63	3543	ML-47-10-D-68	DEDRAULI	0.21	3.944	59.376	0.939	0.196	27.371	39.14
64	3545	ML-47-10-D-69/282	DEDRAULI	0.384	7.431	47.942	28.639	0.37	23.673	33.852
65	3546	ML-47-10-D-70/283	DEDRAULI	0.275	4.146	57.965	0.779	0.237	30.267	43.282
66	3547	ML-47-10-D-71	DEDRAULI	0.332	3.587	64.154	0.656	0.196	11.368	16.256
67	3548	ML-47-10-D-72	DEDRAULI	0.311	4.998	59.055	0.797	0.247	29.055	41.548
68	3549	ML-47-10-D-73	DEDRAULI	0.217	5.743	57.84	0.888	0.566	29.42	42.071
69	3550	ML-47-10-D-74	DEDRAULI	0.302	4.249	59.912	0.707	0.226	29.661	42.415
70	3551	ML-47-10-D-75	DEDRAULI	0.357	4.139	60.934	0.817	0.228	24.833	35.511
71	3552	ML-47-10-D-76	DEDRAULI	0.426	5.378	57.713	0.74	0.256	30.612	43.776
72	3553	ML-47-10-D-77/284	DEDRAULI	0.351	4.901	60.084	0.844	0.216	29.28	41.871
73	3554	ML-47-10-D-78	DEDRAULI	0.36	4.547	59.802	0.762	0.207	33.436	47.813
74	3555	ML-47-10-D-79	DEDRAULI	0.282	4.962	51.52	1.86	0.23	44.337	63.403
75	3556	ML-47-10-D-80/286	DEDRAULI	0	11.947	51.121	1.393	2.784	31.589	45.172
76	3557	ML-47-10-D-82/288	DEDRAULI	0.214	4.366	61.357	0.879	0.212	19.395	27.734
77	3558	ML-47-10-D-83/289	DEDRAULI	0.279	4.498	57.561	1.976	0.229	31.345	44.823
78	3559	ML-47-10-D-84/290	DEDRAULI	0.45	4.635	60.442	0.774	0.286	23.387	33.443
79	3560	ML-47-10-D-85	DEDRAULI	0.364	4.273	60.211	1.175	0.271	24.308	34.76
80	3561	ML-47-10-D-86	DEDRAULI	0.255	4.582	58.502	0.925	0.23	30.084	43.019
81	3562	ML-47-10-D-87/292	DEDRAULI	0.54	4.231	58.731	1.727	0.222	34.193	48.896
82	3563	ML-47-10-D-88	DEDRAULI	0.325	4.345	59.089	1.812	0.226	30.372	43.432
83	3564	ML-47-10-D-89	DEDRAULI	0.4	8.457	49.964	3.12	0.272	50.888	72.77
84	3565	ML-47-10-D-90/293	DEDRAULI	0.35	4.427	61.038	0.807	0.214	26.694	38.173
85	3570	ML-47-10-D-91-294	DEDRAULI	0	4.084	53.948	0.788	0.215	40.151	57.416
86	3571	ML-47-10-D-92	DEDRAULI	0	3.899	55.453	0.92	0.196	36.558	52.278
87	3572	ML-47-10-D-93	DEDRAULI	0.449	3.961	56.162	1.339	0.22	35.681	51.024
88	3573	ML-47-10-D-94	DEDRAULI	0.279	3.756	59.184	1.117	0.196	27.882	39.871
89	3574	ML-47-10-D-95-295	DEDRAULI	0.315	3.701	61.987	0.751	0.212	23.776	34
90	3575	ML-47-10-D-96	DEDRAULI	0.129	4.214	58.693	1.017	0.214	33.441	47.821

91	3576	ML-47-10-D-97	DEDRAULI	0.151	4.134	60.478	0.656	0.211	27.194	38.888
92	3577	ML-47-10-D-98	DEDRAULI	0.213	3.637	64.166	1.362	0.205	14.448	20.661
93	3578	ML-47-10-D-99	DEDRAULI	0.34	4.089	57.086	1.575	0.209	34.903	49.911
94	3579	ML-47-10-D-100	DEDRAULI	0.282	3.719	60.949	2.15	0.196	23.125	33.069
95	3580	ML-47-10-SL-1-S1	DEDRAULI	0.39	3.768	61.519	0.768	0.196	24.506	35.044
96	3581	ML-47-10-SL-1-S2	DEDRAULI	0	3.953	59.006	0.948	0.225	28.513	40.773
97	3582	ML-47-10-SL-1-S3	DEDRAULI	0.69	4.967	59.689	0.907	0.312	25.81	36.908
98	3583	ML-47-10-SL-1-S4	DEDRAULI	0.286	3.587	59.264	0.827	0.196	25.656	36.688
99	3584	ML-47-10-SL-1-S5	DEDRAULI	0.166	3.719	58.64	0.756	0.196	28.077	40.15
100	3585	ML-47-10-SL-1-S6	DEDRAULI	0.208	3.987	55.081	4.186	0.196	36.781	52.596
101	3586	ML-47-10-SL-2-S1	DEDRAULI	0.234	3.942	61.233	0.922	0.213	22.244	31.809
102	3587	ML-47-10-SL-2-S3	DEDRAULI	0.2	4.792	47.565	15.185	0.196	41.07	58.729
103	3588	ML-47-10-SL-2-S4	DEDRAULI	0	4.503	54.835	7.332	0.234	35.411	50.638
104	3589	ML-47-10-SL-2-S5	DEDRAULI	0.351	3.915	60.424	2.211	0.213	28.336	40.521
105	3590	ML-47-10-SL-2-S6	DEDRAULI	0.129	3.861	59.799	0.873	0.196	30.523	43.648
106	3591	ML-47-10-SL-2-S7	DEDRAULI	0.415	4.247	59.012	1.464	0.219	32.68	46.732
107	3593	ML-47-10-SL-3-S1	DEDRAULI	1.635	7.979	54.418	4.401	0.923	16.686	23.862
108	3594	ML-47-10-SL-3-S2	DEDRAULI	1.643	4.443	59.557	1.302	0.219	31.604	45.193
109	3595	ML-47-10-SL-3-S3	DEDRAULI	1.166	4.703	58.542	2.71	0.242	33.457	47.844
110	3596	ML-47-10-SL-3-S4	DEDRAULI	1.078	4.311	59.139	1.525	0.22	32.522	46.507
111	3597	ML-47-10-SL-3-S5	DEDRAULI	0.362	3.978	60.636	1.346	0.217	27.138	38.807
112	3598	ML-47-10-SL-3-S6	DEDRAULI	0.603	4.107	60.152	2.087	0.214	27.765	39.704
113	3599	ML-47-10-SL-4-S1	DEDRAULI	0.941	4.03	55.594	16.822	0.247	15.1	21.593
114	3600	ML-47-10-SL-4-S2	DEDRAULI	1.481	4.8	53.98	16.056	0.411	15.19	21.721
115	3601	ML-47-10-SL-4-S3	DEDRAULI	1.641	7.212	56.828	1.731	0.686	25.867	36.99
116	3602	ML-47-10-SL-4-S4	DEDRAULI	0.508	4.098	59.134	0.806	0.196	30.128	43.083
117	1063	ML-47-10-D2-230	DEDRAULI	0	0	11.944	0.172	0.161	35.142	50.253
118	1082	ML-47-10-D15-250	DEDRAULI	0	15.307	10.424	2.696	0.419	54.139	77.419
119	1111	ML-47-10-D42-266	DEDRAULI	0	16.538	12.09	1.558	0.529	64.731	92.566
120	1125	ML-47-10-D54-276	DEDRAULI	0	16.071	15.745	4.699	0.512	56.325	80.545
121	1172	ML-47-10-D-81-287	DEDRAULI	0	8.529	27.52	0.998	1.831	49.18	70.327
122	1192	ML-47-10-SL2-S2	DEDRAULI	0.699	3.233	48.532	0.976	0.25	35.226	50.373

Chemical Analysis Result of Surface Spot samples of Khora block.(T – 3)

SURFACE IRON ORE SAMPLES ANALYSIS BY XRF : KARAULI DIST. RAJASTHAN

KHORA BLOCK: ML NO. 50/10, Cal-Factor = TBH Fe2O3

				Elements in %						
Sr. No.	Reading No	SAMPLE	LOCATION	MgO	Al2O3	SiO2	CaO	TiO2	Fe	Fe2O3
1	3603	ML-50-10-SL-1-S1	KHORA	0.98	4.245	59.443	2.56	0.22	30.001	42.902
2	3604	ML-50-10-SL-1-S3	KHORA	0.233	3.831	61.035	0.83	0.213	23.744	33.954
3	3605	ML-50-10-SL-1-S4	KHORA	0.175	3.661	63.748	0.774	0.205	14.554	20.813
4	3606	ML-50-10-SL-1-S5	KHORA	0.282	4.114	64.111	0.793	0.222	8.899	12.725
5	3607	ML-50-10-SL-1-S6	KHORA	0.253	3.919	61.795	0.95	0.196	19.099	27.312
6	3608	MI -50-10-SL-1-S7-134	KHORA	0.3	3.741	64.247	0.86	0.205	10.351	14.801
7	3609	ML-50-10-SL-1-S8	KHORA	0.208	3.989	64.79	0.689	0.208	5.015	7.171
8	3610	ML-50-10-SL-2-S1	KHORA	0.52	4.073	59.233	1.72	0.227	32.629	46.659
9	3611	ML-50-10-SL-2-S2	KHORA	0.944	4.152	58.957	1.055	0.224	33.975	48.584
10	3612	ML-50-10-SL-2-S3	KHORA	0.957	4.352	59.403	1.372	0.225	29.744	42.533
11	3613	ML-50-10-SL-2-S4	KHORA	1.392	4.403	57.437	1.739	0.234	35.815	51.215
12	3614	ML-50-10-SL-2-S5	KHORA	1.306	4.155	59.142	1.405	0.224	32.225	46.082
13	3615	ML-50-10-SL-2-S6	KHORA	0.149	3.968	54.969	0.87	0.196	38.245	54.69
14	3616	ML-50-10-SL-2-S7	KHORA	0.423	4.063	58.809	0.949	0.223	30.204	43.192
15	3617	ML-50-10-SL-2-S8	KHORA	0.306	3.977	62.021	2.411	0.231	15.394	22.014
16	3618	ML-50-10-SL-3-S1	KHORA	0.279	3.944	58.675	0.939	0.222	30.262	43.275
17	3619	ML-50-10-SL-3-S2	KHORA	0.234	4.314	59.058	0.877	0.224	30.859	44.129
18	3620	ML-50-10-SL-3-S3	KHORA	0.484	3.587	64.223	0.985	0.196	15.667	22.404
19	3621	ML-50-10-SL-3-S4	KHORA	0.33	3.878	57.579	0.791	0.196	36.765	52.573
20	3622	ML-50-10-SL-3-S5	KHORA	0.321	4.083	59.144	0.868	0.218	30.791	44.031
21	3623	ML-50-10-SL-3-S6	KHORA	0.408	3.781	59.831	0.8	0.196	28.483	40.73
22	3624	ML-50-10-SL-3-S7	KHORA	0.555	5.989	59.386	0.923	0.438	20.922	29.918
23	3625	ML-50-10-SL-3-S8	KHORA	0.244	3.788	64.172	0.731	0.206	8.117	11.607
24	3626	ML-50-10-SL-3-S10	KHORA	0.275	6.458	59.912	0.993	0.445	14.816	21.187
25	3627	ML-50-10-SL-3-S11	KHORA	0.241	3.587	65.518	0.698	0.202	5.701	8.152
26	3628	ML-50-10-SL-3-S12	KHORA	0.255	3.587	65.44	0.723	0.199	5.709	8.164
27	3629	ML-50-10-SL-4-S1	KHORA	0	4.079	55.604	0.953	0.196	40.527	57.953
28	3630	ML-50-10-SL-4-S3	KHORA	0.279	4.389	55.548	0.969	0.196	39.277	56.166
29	3631	ML-50-10-SL-4-S4	KHORA	0.464	3.752	62.435	0.951	0.196	22.666	32.412
30	3632	ML-50-10-SL-4-S6	KHORA	0.54	4.295	61.186	0.883	0.232	27.732	39.657
31	3545	ML-50-10-SL-4-S5	KHORA	0.328	3.683	61.717	0.725	0.196	23.907	34.187
32	3635	ML-50-10-SL-4-S7	KHORA	0.174	3.587	65.756	0.473	0.196	4.262	6.094
33	3636	ML-50-10-SL-4-S8	KHORA	0.191	3.587	65.54	0.544	0.201	6.626	9.475
34	3637	ML-50-10-SL-4-S9	KHORA	0.264	3.587	65.982	0.532	0.2	4.92	7.036
35	3638	ML-50-10-SL-4-S10	KHORA	0.356	3.587	65.267	0.756	0.202	6.132	8.768
36	3639	ML-50-10-SL-5-S1	KHORA	0.356	3.982	60.351	0.989	0.208	29.968	42.855
37	3640	ML-50-10-SL-5-S2	KHORA	0.21	3.918	60.914	1.282	0.196	27.986	40.02
38	3641	ML-50-10-SL-5-S3	KHORA	0.234	3.836	57.931	0.726	0.208	32.747	46.828
39	3642	ML-50-10-SL-5-S4	KHORA	0.365	4.085	55.817	0.823	0.212	38.548	55.124
40	3643	ML-50-10-SL-5-S6	KHORA	0.246	3.587	65.421	0.616	0.203	5.181	7.409
41	3644	ML-50-10-SL-5-S7	KHORA	0.34	3.587	65.312	0.623	0.196	7.013	10.028
42	3646	ML-50-10-SL-6-S1	KHORA	0.195	4.009	60.505	0.77	0.229	25.771	36.852
43	3647	ML-50-10-SL-6-S2	KHORA	0.2	3.897	60.448	0.85	0.214	32.805	46.911
44	3648	ML-50-10-SL-6-S3	KHORA	0.432	3.712	62.502	0.822	0.207	21.857	31.256
45	3649	ML-50-10-SL-6-S4	KHORA	0.416	3.863	61.629	0.908	0.213	25.413	36.341
46	3650	ML-50-10-SL-6-S5	KHORA	0.23	4.494	59.396	0.884	0.233	32.134	45.951
47	3651	ML-50-10-SL-6-S6	KHORA	0.186	4.041	58.854	1.199	0.213	34.18	48.878
48	3652	ML-50-10-SL-6-S7	KHORA	0.255	4.135	59.645	1.132	0.211	30.589	43.742
49	3653	ML-50-10-SL-6-S8	KHORA	0.134	3.711	60.486	0.871	0.209	24.499	35.033
50	3654	ML-50-10-SL-7-S1	KHORA	0.131	3.857	60.087	1.125	0.221	28.389	40.596
51	3655	ML-50-10-SL-7-S2	KHORA	0.151	3.883	60.492	1.686	0.208	27.124	38.787

52	3656	ML-50-10-SL-7-S3	KHORA	0.197	3.657	63.262	1.045	0.196	15.179	21.706
53	3657	ML-50-10-SL-7-S4	KHORA	0.345	5.26	59.483	1.108	0.258	24.898	35.604
54	3658	ML-50-10-SL-7-S5	KHORA	0.375	6.611	53.214	1.023	0.369	42.85	61.276
55	3659	ML-50-10-SL-7-S6	KHORA	0	4.429	57.332	1.045	0.232	35.727	51.089
56	3660	ML-50-10-SL-7-S7	KHORA	0.344	4.155	57.032	1.073	0.23	35.806	51.203
57	3661	ML-50-10-SL-7-S8	KHORA	0.227	4.451	58.326	1.829	0.247	33.522	47.936
58	3662	ML-50-10-SL-8-S1	KHORA	0.151	3.841	58.153	0.971	0.214	32.892	47.035
59	3663	ML-50-10-SL-8-S2	KHORA	0.294	3.951	60.733	0.919	0.222	29.581	42.3
60	3664	ML-50-10-SL-8-S3	KHORA	0	4.002	56.717	0.984	0.219	37.883	54.173
61	3665	ML-50-10-SL-8-S4	KHORA	0.343	3.999	58.46	0.948	0.229	37.48	53.597
62	3666	ML-50-10-SL-8-S5	KHORA	0	3.925	58.246	1.108	0.219	32.573	46.58
63	3667	ML-50-10-SL-8-S6	KHORA	0	3.885	59.143	1.067	0.221	30.358	43.412
64	3668	ML-50-10-SL-8-S7	KHORA	0.402	4.037	55.748	0.999	0.196	39.389	56.326
65	3669	ML-50-10-SL-8-S8	KHORA	0.467	4.217	58.323	4.259	0.228	30.83	44.087
66	3670	ML-50-10-SL-9-S1	KHORA	0.341	3.934	59.791	1.104	0.221	29.791	42.602
67	3671	ML-50-10-SL-9-S2	KHORA	0.274	3.886	61.463	1.53	0.229	23.236	33.227
68	3672	ML-50-10-SL-9-S3	KHORA	0.283	3.587	63.718	1 688	0.204	16.081	22.995
69	3673	ML-50-10-SL-9-S4	KHORA	0.3	3.862	62.699	1 053	0.219	21.388	30.584
70	3674	ML-50-10-SL-9-S5	KHORA	0.394	3.725	62.069	1.444	0.196	21.746	31.097
71	3675	ML-50-10-SL-9-S6	KHORA	0.329	4.019	58.32	1.251	0.21	34.732	49.666
72	3676	ML-50-10-SL-9-S7	KHORA	0.212	8.27	57.781	1.012	0.29	22.271	31.847
73	3677	ML-50-10-SL-9-S8	KHORA	0.251	3.983	58.96	0.979	0.23	30.622	43.79
74	3678	ML-50-10-SL-9-S9	KHORA	0.421	4.002	57.804	1.013	0.208	35.22	50.365
75	3679	ML-50-10-SL-9-S10	KHORA	0.379	3.729	60.254	0.973	0.211	28.221	40.356
76	3680	ML-50-10-SL-9-S11	KHORA	0.236	3.752	65.153	0.827	0.206	5.013	7.168
77	3681	ML-50-10-SL-9-S12	KHORA	0.291	3.762	65.094	0.885	0.209	5.192	7.425
78	3682	ML-50-10-SL-10-S1	KHORA	0.348	4.954	58.087	1.048	0.271	33.247	47.543
79	3683	ML-50-10-SL-10-S2	KHORA	0.18	4.235	59.773	1.669	0.216	33.997	48.616
80	3684	ML-50-10-SL-10-S3	KHORA	0.324	4.331	64.056	0.937	0.235	5.311	7.595
81	3685	ML-50-10-SL-10-S4	KHORA	0.308	3.895	64.717	0.947	0.214	8.702	12.444
82	3686	ML-50-10-SL-12-S1	KHORA	0.5	4.133	58.408	1.245	0.233	36.44	52.11
83	3687	ML-50-10-SL-12-S2	KHORA	0.189	3.909	58.476	1.156	0.208	33.836	48.385
84	3688	ML-50-10-SL-12-S3	KHORA	0.263	3.932	65.159	0.823	0.209	6.503	9.299
85	3689	ML-50-10-SL-12-S5	KHORA	0.293	3.994	64.677	0.932	0.226	5.128	7.333
86	1230	ML-50-10-SL1-S2	KHORA	0.5	3.602	51.481	0.991	0.322	28.905	41.334
87	1258	ML-50-10-SL3-S9	KHORA	0.297	0	63.871	0.227	0.001	10.863	15.534
88	1266	ML-50-10-SL4-S2	KHORA	0	3.566	10.23	0.21	0.273	56.127	80.261
89	1279	ML-50-10-SL5-S5	KHORA	0	2.203	19.388	0.353	0.001	48.615	69.519
90	1336	ML-50-10-SL-12-S4	KHORA	0	0.873	39.792	0	0.27	2.307	3.3

Chemical Analysis Result of Surface Spot Samples of Todupura block.(T – 3)

SURFACE IRON ORE SAMPLES ANALYSIS BY XRF : KA RAULI DIST. RAJASTHAN

TODUPURA BLOCK: ML NO. 48/10, Cal-Factor = TBH Fe2O3

				Elements in %						
No.	Sno									
1	3080	ML-48-10-TC-324	TODUPURA	0.188	3.587	64.232	1.04	0.196	15.334	21.928
2	3081	ML-48-10-TC-325	TODUPURA	0.219	3.757	62.101	1.135	0.208	16.551	23.667
3	3082	ML-48-10-TC-328	TODUPURA	0.217	3.87	56.931	0.86	0.196	35.567	50.861
4	3083	ML-48-10-TC-329	TODUPURA	0.237	3.751	53.855	1.401	0.196	32.188	46.029
5	3084	ML-48-10-TC-330	TODUPURA	0.388	3.846	59.374	0.818	0.221	25.754	36.829
6	3085	ML-48-10-TC-331	TODUPURA	0.24	4.164	59.795	0.943	0.21	29.858	42.697
7	3086	ML-48-10-TC-332	TODUPURA	0.237	3.771	60.442	0.755	0.196	24.87	35.565
8	3087	ML-48-10-TC-333	TODUPURA	0.147	4.071	58.684	0.687	0.218	31.877	45.584
9	3088	ML-48-10-TC-334	TODUPURA	0	4.07	56.379	0.871	0.216	38.45	54.983
10	3089	ML-48-10-TC-335	TODUPURA	0.628	3.887	59.523	2.393	0.217	26.225	37.501
11	3090	ML-48-10-TC-336	TODUPURA	0	4.582	58.765	1.061	0.24	29.061	41.558
12	3091	ML-48-10-TC-337	TODUPURA	0.237	4.27	60.612	0.716	0.221	23.237	33.229
13	3092	ML-48-10-TC-339	TODUPURA	0.176	4.023	60.233	0.668	0.208	28.864	41.276
14	3093	ML-48-10-TC-340	TODUPURA	0.498	4.092	61.483	0.596	0.228	23.548	33.673
15	3094	ML-48-10-TC-341	TODUPURA	0.328	3.924	62.545	0.615	0.209	18.311	26.184
16	3095	ML-48-10-TC-342	TODUPURA	0.368	3.587	63.228	1.179	0.196	17.703	25.315
17	3096	ML-48-10-TC-343	TODUPURA	0.317	4.313	57.746	0.76	0.226	31.537	45.097
18	3097	ML-48-10-TC-344	TODUPURA	0.334	3.587	62.429	0.656	0.196	21.71	31.045
19	3098	ML-48-10-TC-345	TODUPURA	0	3.982	56.822	0.749	0.218	35.371	50.581
20	3099	ML-48-10-TC-346	TODUPURA	0.288	3.93	59.245	0.995	0.207	28.339	40.525
21	3100	ML-48-10-TC-347	TODUPURA	0.259	4.409	57.74	1.273	0.243	31.316	44.782
22	3101	ML-48-10-TC-348	TODUPURA	0.334	3.841	60.674	1.379	0.209	24.234	34.655
23	3102	ML-48-10-TC-349	TODUPURA	0.311	3.913	58.926	0.799	0.196	31.728	45.371
24	3103	ML-48-10-TC-350	TODUPURA	0	4.018	54.196	0.774	0.233	35.863	51.285
25	3104	ML-48-10-TC-381(2)	TODUPURA	0	3.735	53.119	0.721	0.219	43.673	62.452
26	3108	ML-48-10-TC-381(3)	TODUPURA	0	6.193	46.744	10.364	0.26	46.024	65.814
27	3111	ML-48-10-TC-381(4)	TODUPURA	0	4.62	45.906	24.509	0.305	29.118	41.639
28	3112	ML-48-10-TC-381(5)	TODUPURA	0	4.782	46.743	11.753	0.249	38.485	55.033
29	3114	ML-48-10-TC-382(1)	TODUPURA	0.312	5.368	46.521	33.558	0.253	27.007	38.62
30	3115	ML-48-10-TC-382(2)	TODUPURA	0	5.652	57.129	0.634	0.268	38.81	55.499
31	3116	ML-48-10-TC-382(3)	TODUPURA	0.286	4.33	59.459	2.366	0.196	26.012	37.198
32	3117	ML-48-10-TC-382(4)	TODUPURA	0	5.143	52.068	1.248	0.305	47.045	67.275
33	3118	ML-48-10-TC-386(1)	TODUPURA	0.352	4.165	55.906	1.666	0.196	36.068	51.578
34	3119	ML-48-10-TC-386(2)	TODUPURA	0	8.551	48.525	0.838	0.774	46.415	66.373
35	3120	ML-48-10-TC-386(3)	TODUPURA	0.176	8.562	48.106	1.276	0.801	47.991	68.627
36	3121	ML-48-10-TC-G1	TODUPURA	0.361	4.867	59.249	0.849	0.228	28.56	40.841
37	3122	ML-48-10-TC-G2	TODUPURA	0.328	4.461	61.135	0.847	0.212	21.758	31.114
38	3123	ML-48-10-TC-351	TODUPURA	0.28	4.4	61.212	0.654	0.206	23.157	33.114
39	3124	ML-48-10-TC-353	TODUPURA	0	4.423	61.442	0.651	0.26	19.847	28.382
40	3125	ML-48-10-TC-354	TODUPURA	0.277	4.14	61.251	0.989	0.216	18.966	27.122
41	3126	ML-48-10-TC-355	TODUPURA	0.255	3.922	62.204	0.955	0.226	19.676	28.137
42	3127	ML-48-10-TC-356	TODUPURA	0.232	3.724	62.305	0.572	0.22	20.577	29.425

43	3128	ML-48-10-TC-357	TODUPURA	0.428	3.843	65.097	0.764	0.206	10.49	15
44	3129	ML-48-10-TC-358	TODUPURA	0.282	4.638	64.145	0.581	0.208	14.315	20.47
45	3130	ML-48-10-TC-359	TODUPURA	0.155	4.441	61.029	0.731	0.212	20.589	29.443
46	3131	ML-48-10-TC-360	TODUPURA	0.234	4.284	59.699	1.029	0.21	23.15	33.104
47	3132	ML-48-10-TC-361	TODUPURA	0.293	3.852	64.343	0.712	0.196	14.343	20.511
48	3133	ML-48-10-TC-363	TODUPURA	0.337	3.855	60.348	0.844	0.196	24.287	34.73
49	3134	ML-48-10-TC-364	TODUPURA	0.338	3.587	61.552	0.898	0.196	19.621	28.058
50	3135	ML-48-10-TC-365	TODUPURA	0.093	3.805	61.005	3.259	0.213	20.72	29.629
51	3136	ML-48-10-TC-366	TODUPURA	0.295	4.052	62.068	0.589	0.217	23.778	34.002
52	3137	ML-48-10-TC-367	TODUPURA	0.2	4.1	59.106	0.734	0.222	29.849	42.684
53	3138	ML-48-10-TC-368	TODUPURA	0.39	3.642	62.351	0.681	0.214	21.127	30.212
54	3139	ML-48-10-TC-369	TODUPURA	0.243	8.086	54.421	0.86	1.669	28.403	40.617
55	3141	ML-48-10-TC-370	TODUPURA	0.212	4.347	60.569	0.709	0.221	25.96	37.123
56	3142	ML-48-10-TC-371	TODUPURA	0.271	4.971	58.694	0.821	0.404	27.537	39.377
57	3143	ML-48-10-TC-372	TODUPURA	0.214	3.838	63.575	0.682	0.212	14.607	20.889
58	3144	ML-48-10-TC-373	TODUPURA	0.222	4.324	62.37	0.877	0.223	22.12	31.632
59	3145	ML-48-10-TC-374	TODUPURA	0	3.912	59.066	1.079	0.221	29.617	42.352
60	3146	ML-48-10-TC-375(1)	TODUPURA	0.39	4.041	61.677	0.745	0.196	25.054	35.827
61	3147	ML-48-10-TC-375	TODUPURA	0.301	4.103	58.451	1.426	0.218	27.179	38.866
62	3148	ML-48-10-TC-376	TODUPURA	0.319	3.958	60.045	1.043	0.211	26.306	37.618
63	3149	ML-48-10-TC-377	TODUPURA	0.429	5.11	56.766	0.912	0.328	34.003	48.624
64	3150	ML-48-10-TC-379	TODUPURA	0.306	4.108	57.856	1.04	0.219	34.502	49.338
65	3151	ML-48-10-TC-380	TODUPURA	0.373	5.628	55.105	0.861	0.25	41.585	59.466
66	3152	ML-48-10-TC-381	TODUPURA	0.261	3.997	62.1	1.243	0.224	17.183	24.572
67	3153	ML-48-10-TC-384	TODUPURA	0.348	5.544	47.038	20.691	0.249	38.024	54.375
68	3154	ML-48-10-TC-385	TODUPURA	0.21	4.279	59.79	1.782	0.23	26.917	38.491
69	3155	ML-48-10-TC-387	TODUPURA	0.324	4.785	59.52	1.116	0.229	25.034	35.799
70	3156	ML-48-10-TC-388	TODUPURA	0.319	6.247	47.515	13.277	0.23	43.089	61.617
71	3157	ML-48-10-TC-389	TODUPURA	0.209	4.221	59.594	1.283	0.224	28.624	40.932
72	3158	ML-48-10-TC-390	TODUPURA	0	4.382	50.316	1.015	0.226	52.881	75.62
73	3159	ML-48-10-TC-391	TODUPURA	0	4.717	47.829	0.855	0.213	56.664	81.029
74	3160	ML-48-10-TC-392	TODUPURA	0	5.595	47.631	6.664	0.224	51.152	73.147
75	3161	ML-48-10-TC-394	TODUPURA	0.243	3.682	61.424	0.878	0.209	22.454	32.109
76	3162	ML-48-10-TC-396	TODUPURA	0.23	4.33	59.61	1.244	0.278	27.452	39.256
77	3163	ML-48-10-TC-397	TODUPURA	0.247	4.267	57.695	4.627	0.231	27.151	38.826
78	3164	ML-48-10-TC-398	TODUPURA	0.263	3.999	59.716	0.773	0.223	27.453	39.257
79	3165	ML-48-10-TC-399	TODUPURA	0.19	4.258	59.07	1.574	0.228	27.25	38.968
80	3166	ML-48-10-TC-400	TODUPURA	0.302	4.037	58.357	0.925	0.212	28.77	41.141
81	3167	ML-48-10-TB-102	TODUPURA	0.306	4.163	62.333	0.827	0.229	24.626	35.216
82	3168	ML-48-10-TB-103	TODUPURA	0	4.269	60.333	0.828	0.218	26.81	38.338
83	3169	ML-48-10-TB-104	TODUPURA	0.247	3.807	61.3	0.744	0.212	24.142	34.523
84	3170	ML-48-10-TB-105	TODUPURA	0.294	3.982	59.226	0.777	0.211	26.153	37.398
85	3171	ML-48-10-TB-106	TODUPURA	0	3.808	61.269	0.973	0.213	25.183	36.012
86	3172	ML-48-10-TB-107	TODUPURA	0.293	3.996	60.883	0.696	0.208	26.692	38.17
87	3173	ML-48-10-TB-108	TODUPURA	0.312	3.737	63.671	0.7	0.203	15.136	21.644
88	3174	ML-48-10-TB-109	TODUPURA	0.275	3.587	64.725	0.654	0.196	13.526	19.343
89	3175	ML-48-10-TB-110	TODUPURA	0.411	3.849	64.401	0.627	0.196	16.94	24.224
90	3176	ML-48-10-TB-111	TODUPURA	0.29	3.9	61.34	1.026	0.22	24.18	34.578
91	3177	ML-48-10-TB-112	TODUPURA	0.315	3.587	66.058	0.604	0.202	5.232	7.482
92	3178	ML-48-10-TB-113	TODUPURA	0.307	3.587	66.148	0.625	0.2	6.061	8.667

93	3179	ML-48-10-TB-114	TODUPURA	0.332	3.587	65.944	0.626	0.203	7.749	11.081
94	3180	ML-48-10-TB-115	TODUPURA	0.339	3.794	62.201	3.665	0.225	19.263	27.546
95	3181	ML-48-10-TB-116	TODUPURA	0.188	3.698	64.136	0.703	0.196	14.754	21.098
96	3182	ML-48-10-TB-117	TODUPURA	0.182	3.834	62.108	1.721	0.196	22.537	32.228
97	3183	ML-48-10-TB-118	TODUPURA	0.291	3.587	64.417	0.707	0.209	17.235	24.645
98	3184	ML-48-10-TB-120	TODUPURA	0.399	4.019	63.599	0.809	0.212	17.808	25.465
99	3187	ML-48-10-TB-121	TODUPURA	0.161	3.722	62.166	0.884	0.196	22.297	31.884
100	3188	ML-48-10-TB-122	TODUPURA	0	3.587	52.197	0.561	0.196	15.84	22.651
101	3189	ML-48-10-TB-123	TODUPURA	0.222	3.692	61.975	0.999	0.207	21.994	31.451
102	3190	ML-48-10-TB-124	TODUPURA	0.211	3.914	60.823	0.763	0.209	26.139	37.379
103	3192	ML-48-10-TB-125	TODUPURA	0.214	3.715	62.617	0.766	0.196	22.618	32.344
104	3193	ML-48-10-TB-126	TODUPURA	0.149	3.825	62.105	0.706	0.206	18.693	26.731
105	3194	ML-48-10-TB-127	TODUPURA	0.25	3.761	61.557	0.66	0.205	23.171	33.134
106	3195	ML-48-10-TB-128	TODUPURA	0.158	3.587	63.423	0.594	0.196	14.027	20.059
107	3196	ML-48-10-TB-129	TODUPURA	0.116	3.587	60.815	0.638	0.196	22.373	31.993
108	3197	ML-48-10-TB-130	TODUPURA	0.421	3.668	59.312	0.75	0.196	23.576	33.713
109	3198	ML-48-10-TB-66	TODUPURA	0	3.722	59.162	1.732	0.196	26.951	38.54
110	3199	ML-48-10-TB-67	TODUPURA	0.135	3.802	58.911	1.35	0.196	26.906	38.476
111	3200	ML-48-10-TB-68	TODUPURA	0.357	3.776	58.649	0.695	0.209	25.714	36.771
112	3201	ML-48-10-TB-69	TODUPURA	0.312	4.091	59.73	1.399	0.227	23.115	33.055
113	3202	ML-48-10-TB-70	TODUPURA	0	3.855	58.437	1.049	0.208	31.541	45.104
114	3203	ML-48-10-TB-71	TODUPURA	0	3.778	60.803	0.565	0.196	20.036	28.652
115	3204	ML-48-10-TB-72	TODUPURA	0.248	4.163	59.33	1.544	0.209	27.012	38.627
116	3205	ML-48-10-TB-73	TODUPURA	0.127	3.75	61.766	1.248	0.213	19.949	28.527
117	3206	ML-48-10-TB-74	TODUPURA	0.186	3.891	59.709	0.928	0.196	27.675	39.576
118	3207	ML-48-10-TB-77	TODUPURA	0.213	3.823	60.5	0.714	0.213	26.826	38.362
119	3208	ML-48-10-TB-78	TODUPURA	0.174	3.855	61.526	1.14	0.206	23.34	33.377
120	3209	ML-48-10-TB-79	TODUPURA	0	4.004	58.994	1.06	0.217	31.322	44.791
121	3210	ML-48-10-TB-80	TODUPURA	0	3.784	59.682	0.886	0.196	26.563	37.985
122	3211	ML-48-10-TB-81	TODUPURA	0.149	4.207	58.105	1.284	0.223	29.182	41.731
123	3212	ML-48-10-TB-83	TODUPURA	0.284	3.803	61.181	0.629	0.214	24.443	34.953
124	3213	ML-48-10-TB-84	TODUPURA	0.174	3.838	58.585	0.696	0.209	29.519	42.212
125	3214	ML-48-10-TB-85	TODUPURA	0.147	4.126	58.924	0.688	0.215	32.026	45.797
126	3215	ML-48-10-TB-87	TODUPURA	0.256	3.768	62.292	1.071	0.215	18.423	26.345
127	3216	ML-48-10-TB-88	TODUPURA	0.346	4.037	60.642	0.674	0.207	24.572	35.138
128	3217	ML-48-10-TB-89	TODUPURA	0.357	3.651	62.293	0.712	0.196	20.475	29.28
129	3218	ML-48-10-TB-90	TODUPURA	0.152	3.739	58.466	1.034	0.211	29.782	42.588
130	3219	ML-48-10-TB-91	TODUPURA	0.555	3.716	60.253	0.961	0.213	24.381	34.865
131	3220	ML-48-10-TB-92	TODUPURA	0.259	4.073	59.699	0.812	0.213	26.542	37.955
132	3221	ML-48-10-TB-93	TODUPURA	0.169	3.698	59.033	0.705	0.206	22.235	31.796
133	3222	ML-48-10-TB-94	TODUPURA	0.198	3.817	60.216	0.654	0.206	23.577	33.715
134	3223	ML-48-10-TB-95	TODUPURA	0.416	4.425	58.841	0.749	0.222	32.239	46.102
135	3224	ML-48-10-TB-96	TODUPURA	0.275	4.098	60.644	0.743	0.223	27.142	38.813
136	3225	ML-48-10-TB-97	TODUPURA	0.343	4.132	59.276	0.652	0.226	29.408	42.054
137	3226	ML-48-10-TA-301	TODUPURA	0.155	3.912	59.531	0.784	0.221	27.416	39.205
138	3227	ML-48-10-TA-302	TODUPURA	0.235	3.741	59.666	0.808	0.196	25.767	36.847
139	3228	ML-48-10-TA-303	TODUPURA	0	4.354	58.769	1.198	0.22	30.497	43.611
140	3229	ML-48-10-TA-304	TODUPURA	0.325	3.916	59.253	0.926	0.218	29.793	42.605
141	3230	ML-48-10-TA-305	TODUPURA	0.214	3.587	62.751	0.662	0.211	17.94	25.654
142	3231	ML-48-10-TA-306	TODUPURA	0.242	4.673	59.126	0.766	0.236	29.411	42.058

143	3232	ML-48-10-TA-307	TODUPURA	0.363	3.934	59.188	0.955	0.226	28.834	41.233
144	3233	ML-48-10-TA-308	TODUPURA	0.17	4.473	59.049	0.716	0.222	31.648	45.256
145	3234	ML-48-10-TA-309	TODUPURA	0.205	4.279	57.325	1.665	0.219	32.388	46.315
146	3235	ML-48-10-TA-310	TODUPURA	0.642	3.976	59.077	2.142	0.212	32.437	46.386
147	3236	ML-48-10-TA-311	TODUPURA	0.13	4.214	57.848	1.12	0.225	35.185	50.315
148	3237	ML-48-10-TA-312	TODUPURA	0.464	4.218	60.379	0.963	0.212	28.438	40.666
149	3238	ML-48-10-TA-313	TODUPURA	0.359	4.478	58.37	0.672	0.23	34.14	48.82
150	3239	ML-48-10-TA-314(A)	TODUPURA	0	5.74	48.663	9.018	0.24	44.971	64.309
151	3242	ML-48-10-314(B)	TODUPURA	0.177	3.649	59.024	0.853	0.208	25.517	36.49
152	3243	ML-48-10-315	TODUPURA	0	3.92	56.076	0.698	0.211	33.754	48.269
153	3244	ML-48-10-316	TODUPURA	0.325	4.333	57.275	1.137	0.221	32.847	46.971
154	3245	ML-48-10-317	TODUPURA	0	4.269	59.679	0.637	0.219	28.732	41.087
155	3246	ML-48-10-318	TODUPURA	0.258	3.966	59.426	0.762	0.217	26.488	37.877
156	3247	ML-48-10-TA-319	TODUPURA	0	4.264	57.619	1.235	0.211	27.582	39.443
157	3248	ML-48-10-TA-320	TODUPURA	0	3.707	58.741	1.145	0.196	28.169	40.281
158	3249	ML-48-10-TA-321	TODUPURA	0.225	3.969	58.264	0.804	0.208	33.687	48.173
159	3250	ML-48-10-TA-322	TODUPURA	0	3.973	59.634	0.64	0.223	24.291	34.736
160	3251	ML-48-10-TA-323	TODUPURA	0.268	3.668	60.497	0.678	0.206	22.856	32.684
161	3252	ML-48-10-TA-293	TODUPURA	0.454	4.185	58.422	1.369	0.225	34.409	49.205
162	3253	ML-48-10-TA-294	TODUPURA	0	3.827	55.046	0.736	0.196	37.242	53.256
163	3254	ML-48-10-TA-295	TODUPURA	0.223	4.089	59.806	1.337	0.196	26.309	37.621
164	3255	ML-48-10-TA-296	TODUPURA	0.175	4.051	52.307	0.935	0.216	44.438	63.547
165	3256	ML-48-10-TA-297	TODUPURA	0	4.426	46.547	1.665	0.196	54.71	78.235
166	3257	ML-48-10-TA-299	TODUPURA	0	3.908	56.362	0.853	0.217	34.479	49.304
167	842	ML-48-10-TC-362	TODUOURA	0.437	2.851	54.56	0.338	0.148	25.157	35.975
168	867	ML-48-10-TC-378	TODUOURA	0	5.535	37.183	0.205	0.391	40.902	58.489
169	894	ML-48-10-TC-338	TODUOURA	0.753	3.945	49.461	0	0.118	34.008	48.631
170	928	ML-48-10-TC-393	TODUOURA	0	4.235	8.704	0.47	0.236	59.592	85.216
171	944	ML-48-10-TC-383	TODUOURA	0.992	7.843	10.552	18.468	0.825	45.339	64.835
172	975	ML-48-10-TA-314-C	TODUOURA	0.274	2.802	44.659	0.548	0.16	37.346	53.404
173	1041	ML-48-10-TB-119	TODUOURA	0.628	2.341	50.366	0.224	0.001	32.595	46.61