

# DIRECTORATE OF GEOLOGY AND MINING

Indrawati Bhawan, 2<sup>nd</sup> Floor, Block-4, Nava Raipur (C.G.) 492 002

Phone- 0771 – 2221840, 2511093 Fax- 0771 - 2221841, PBX 0771- 2221845 Email: [dgm.cg@nic.in](mailto:dgm.cg@nic.in)

No. 2989 /Geo – I/F. No-15 /NPEA Maheshwari/2022 Atal Nagar Raipur, Dt. 15/01/23

To,

Director  
National Mineral Exploration Trust  
Room No. 114, F – Wing, First Floor  
Ministry of Mines, Shastri Bhawan,  
New Delhi - 110001

Subject- Exploration Proposal submitted by Maheshwari Mining Pvt. Ltd

Reference: DGM letter no. 2352/Geo – I/F. No. 15/NPEA Maheshwari/2022 Atal Nagar Pvt. Ltd.  
Dated 22/03/2023

With reference to the above subject, Maheshwari Mining Pvt. Ltd. had submitted proposal for G 4 exploration of graphite in Dindo area, District Balrampur. In principle approval was provided by DGM after confirming the area status for duplication of work / overlapping of area from GSI on 19.01.2023.

After recommendation of 52<sup>nd</sup> TCC NMET meeting, M/s. Maheshwari Mining has resubmitted revised proposal to DGM for onward forwarding to NMET for due discussion and in the upcoming NMET TCC meeting. The details of project as received are being sent to NMET is as under.

Sl. No.	Name of the Notified Private Exploration Agency (NPEA)	Details of proposal	Stage of Exploration
1	M/s. Maheshwari Mining Pvt. Ltd.	Proposal for G 4 stage exploration for Graphite (54.4 Sq. Km.) in Dindo Belkurta Basera Block, District Balrampur, Chhattisgarh	G-4

For your kind perusal and necessary action please.

Enclosure:

1. Revised Detailed Project Proposal
2. Observation Note by DGM Chhattisgarh

Director (M.C.)  
Geology & Mining  
Chhattisgarh

15/2

No. 3990 /Geo – I/F. No-15 /NPEA Maheshwari/2022 Atal Nagar Raipur, Dt.

Copy to

1. Maheswari Mining Pvt. Ltd. FR 07, Shilpangan Plot LB1 Sector 3 Saltlake, Kolkata West Bengal -700098 for information please.

Director  
Geology & Mining  
Chhattisgarh

15/12

# DIRECTORATE OF GEOLOGY AND MINING

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No. 2352 /Geo - I/F.No-15 /NPEA Maheswari /2022

Atal Nagar Raipur, Dt.

To,

22 MAR 2023

Director  
National Mineral Exploration Trust  
Room No. 114, F - Wing, First Floor  
Ministry of Mines, Shastri Bhawan,  
New Delhi - 110001

Subject- Exploration Proposal for **Dindo- Belkurta-Basera block (78 Sq. km.)**, for G- 4 exploration of Graphite, District Balrampur, Chhattisgarh submitted by **Maheswari Mining Pvt. Ltd.**

Reference:

1. Government of India, Ministry of Mines, NMET, New Delhi order dated 10<sup>th</sup> May 2022 regarding engagement of Notified Private Exploration Agencies.
2. Directorate of Geology and Mining, Chhattisgarh, letter no. 436/Geo - I/ F. No. 15/NPEA Maheswari/2022 Atal Nagar, Nava Raipur dated 19<sup>th</sup> January 2023.
3. Detailed Proposal Report (DPR) on Dindo - Belkurta- Basera Block, Balrampur District for G-4 Exploration of REE, submitted by M/s. Maheswari Mining dated 17<sup>th</sup> February 2023.

With reference to the above subject, and in compliance with the Ministry of Mines NMET order dated 10<sup>th</sup> May 2022 for engagement of Notified Private Exploration Agency, under Mode - A, M/s Maheswari Mining Pvt. Ltd. had submitted Exploration Proposal for Dindo- Belkurta- Basera (78 Sq. km.), for G- 4 exploration of Graphite, District Balrampur to DGM Chhattisgarh. After confirming the status of overlapping of area/ duplication of work in the proposed area from GSI, State Unit Chhattisgarh, DGM Chhattisgarh issued In principle approval for the cited proposed block by Maheswari Mining Pvt. Ltd on 19.01.2023 (Reference 2). Detailed project proposal (DPR) was received at DGM Chhattisgarh, after necessary scrutiny of the DPR in prescribed format of NMET for submission of proposal, few discrepancies were found in the project proposals (Details enclosed) which require corrections/updation.

The cited project proposal is hereby forwarded in original form for due discussion/ necessary action to NMET Technical cum Cost Committee.

The details of the proposed block are as follows.

Sl. No.	Name of the Notified Private Exploration Agency (NPEA)	Details of proposal	Stage of Exploration
1	M/s. Maheswari Mining Pvt. Ltd.	Proposal for Dindo – Belkurta-Basera Block, District Balrampur, Chhattisgarh for Reconnaissance Survey (G-4 stage) area 78 Sq. Km.	G-4

For your kind perusal and necessary action please.

Enclosure:

1. Comment Note received from GSI, State Unit Chhattisgarh
2. Detailed Project Proposal by NPEA (Maheswari Mining Pvt. Ltd.)
3. Observation Note by DGM Chhattisgarh



Director  
Geology & Mining  
Chhattisgarh

No. 2352(A)/Geo – I/F.No-15 /NPEA Maheswari /2022

Atal Nagar Raipur, Dt.

22 MAR 2023

Copy to

1. Maheswari Mining Pvt. Ltd. Paschim Bardhaman, West Bengal for information and necessary further action.



Director  
Geology & Mining  
Chhattisgarh

Proposal for Dindo-Belkurta-Basera Block, Balarampur District,  
Chhattisgarh State for Reconnaissance Survey (G4 Stage) under NMET.

**Commodity: Graphite**

**By**

**Maheshwari Mining Private Ltd.**

Place: Kolkata  
Date: 17/05/2023



**Summary of the Block for Reconnaissance Survey (G4 Stage)**  
**GENERAL INFORMATION ABOUT THE BLOCK**

Features		Details
Block ID		Dindo-Belkurta-Basera Block
Exploration Agency		Maheshwari Mining Pvt Ltd.
Commodity		Graphite
Mineral Belt		Chhotanagpur Granite Gneiss Complex
Completion Period with entire Time schedule to complete the project		12 months
Objectives		1. To map graphite bearing zones along with other lithologies and study of its nature of mineralization. 2. Assessment of tentative resource in G4 stage of investigation and the grade of graphite. 3. Attempt to delineate a block or more than one block to upgrade the investigation in G3 stage.
Whether the work will be carried out by the proposed agency or through outsourcing and details thereof. Components to be outsourced. and name of the outsource agency		Work will be carried out by Maheshwari Mining Private Ltd.
Name/ Number of Geoscientists		In field: Three Geoscientists (Two Geologists and one Geophysicist) and one Surveyor. At Headquarters: 2 Geoscientists.
Expected Field days (Geology) Geological Party Days		Expected field days: 5 months (150days). In field: 300 party days for a party of 2 Geologists; 30 days for 1 Geophysicist; 30 days for 1 Surveyor. At Headquarters: 2 Geologists (210 days each)
1. Location		
Block Corner points Cardinal Points		Latitude
		Longitude
A		23°56'47.56"N
B		23°56'52.84"N
C		23°53'00.65"N
D		23°53'01.01"N
E		23°55'08.28"N
F		23°55'08.73"N
		83°19'46.26"E
		83°24'53.48"E
		83°24'53.17"E
		83°20'49.14"E
		83°20'49.95"E
		83°19'46.65"E
Villages		Dindo-Belkurta-Basera
Tehsil/ Taluk		Ramchandrapur Tehsil
District		Balarampur district
State		Chhattisgarh
2. Area (hectares/ square kilometers)		
Block Area		54.4 sq km
Forest Area		22 sq km
Government Land Area		32.4 sq km
Private Land Area		
3. Accessibility		
Nearest Rail Head		Renukoot Railway Station of U.P./Garhwa Road Railway station of Jharkhand
Road		
Airport		Varanasi 247kms/Raipur 442kms
4. Hydrography		

	Local Surface Drainage Pattern (Channels)	All the nalas of the block are finally joining northeasterly flowing Kursa Nadi and Bhatiyahi Nadi and one westerly flowing major nala.
	Rivers/ Streams	The area is a part of Rihand sub-basin of Son major basin. The main drainage in the northern part is formed by Kanhar River and its tributaries Kursa Nadi and Bhatiyahi Nadi flowing along the present block towards northeast.
5.	<b>Climate</b>	
	Mean Annual Rainfall	The mean annual rainfall is around 150cm
	Temperatures (December)(Minimum) Temperatures (June) (Maximum)	The area exhibits tropical wet and dry climate and is characterised by long dry period spreads over winter and early summer.
6.	<b>Topography</b>	
	Toposheet Number	64M/5
	Morphology of the Area	The eastern part of the block is gently undulating, whereas the western part is populated plain land.
7	<b>Availability of baseline geoscience data</b>	
	Geological Map (1:50K/ 25K)	1:50K map is available.
	Geochemical Map	1:50K Geochemical Map is available.
	Geophysical Map (Aeromagnetic, ground geophysical, Regional as well as local scale GP maps)	Not Available
8	<b>Justification for taking up Reconnaissance Survey / Regional Exploration</b>	<p>Mishra, B.K. and Kumar, M.(1991-92), GSI, mapped the area in 1:50K and they have reported discontinuous bands of graphite schist from within the Oranga shear zone to the northeastern part of the area interbanded with marble, calc-silicate and amphibolite. Thin band of graphite bearing schist is also exposed to the south of Baharchura within the east west trending banded garnetiferous quartzite and within gneiss around Dhulangi (shear zone) (63P/08) area. Very thin bands of graphite schist are also observed around Semarwa within the migmatites. Mishra and Kumar recommended for preliminary investigation of graphite, marble and sillimanite in this area.</p> <p>Saha, B. (1995-96), GSI, while carrying out exploration for base metal, manganese and graphite in Oranga metamorphic belt mentioned that the phyllites to the south of Revatipur and northwest of Revatipur grade into graphite schist. The analyses of graphite bearing samples</p>

		<p>of that area show following variations:  F.C.:1.91% to 10.60%, Moisture content: 0.12% to 0.16%, Ash content: 86.49% to 96.26% and Volatile matters content: 1.67% to 2.77%.</p> <p>In the recent past GSI has reported a number of deposits of graphite from within Chhotanagpur Gneissic Complex of adjoining states Jharkhand and Bihar.</p> <p>Keeping in view these observations the area around Dindo-Belkurta-Basera is proposed for graphite investigation in different lithounits of CGG complex.</p> <p>Present area is mostly covered by gneiss and migmatite of CGG to the north and south and all along the central part an east west trending thick band of garnet sillimanite bearing quartz mica schist is mapped by earlier workers. This central lithopackage seems to be the probable host for discrete graphite schist bands in this area.</p> <p>During very recent reconnaissance traverse for seven days by the workers of MMPL a graphite rich zone is recorded from the south of Belkurta for a strike length of 1km and maximum width of 300m. Analytical results of three grab samples from that zone are given as below:  Fixed Carbon contents : 3.37%, 2.32% &amp; 1.59% &amp;  Two grab samples analysed for Fixed Carbon 0.83% &amp; 0.38%.</p>
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## Detailed description on the following titles to be made in the proposal.

### 1. Block Summary

#### **Physiography:**

The area is a part of Rihand sub-basin of Son major basin. The main drainage in the northern part is formed by Kanhar River and its tributaries Kursi nadi and Bhatiyahi nadi flowing along the present block towards northeast.

#### **Background Geology (Regional Geology, Geology of the Block):**

The area to the north of Chhattisgarh is mainly occupied by the rocks of western extension of Chhotanagpur Gneissic Complex. This CGC is playing the role of basement for the Proterozoic sediments of Chhattisgarh Basin in Raigarh-Bilaspur-Raipur area and to the northern parts of Chhattisgarh the CGC is overlain by Gondwanas in parts of Raigarh-Jashpur districts and in parts of Surguja- Balarampur Districts. The rock types of Chhotanagpur Gneissic Complex are Granite gneiss, alkali granite, granodiorite, tonalite and migmatites. The supracrustal enclaves within the granitic mass are represented by low to high grade metamorphic packages. Precambrian metamorphics and the Gondwanas of Surguja District was mapped by Greisbach (1880). M.V.N.Murthy (1951-52) carried out detailed petrological work on the rocks of toposheet no. 64M/01 and D.K.Modak (1959-60) has mapped in Toposheet no. 64M/09. Mishra and Kumar (1991-92) have mapped parts of toposheet nos. 63P/08 and 64M/05 in 1:50,000 scale. These workers broadly subdivided the rocks of this area into three groups as follows:

Group A: (a) Massive and current bedded quartzite with occasional meta conglomerate. (b) Quartz mica schist, Quartz-biotite-garnet-andalusite schist and (c) Marble and calc silicate rocks.

Group B: Grey Granite Gneiss and migmatites with enclaves of metasedimentaries and metabasics.

Group C: Younger granitoids and alkali granites with veins of pegmatite, syenite and quartz.

#### **Mineral potentiality based on geology, geophysics, ground geochemistry etc.:**

Mishra and Kumar(1991-92) reported discontinuous bands of graphite schists within Oranga Shear zone interbanded with marble, calc silicates and amphibolite. These workers recorded one graphite schist body (100mx30m) to the southeast of Revatipur. Thin bands of graphite bearing schist were also reported from the south of Baharchua from sillimanite and graphite bearing mica schist. In a follow up programme of GSI in 1995-96 an exploration for basemetal, manganese and graphite in Oranga metamorphic belt was taken up by B.Saha. He mentioned that basemetals are sporadic in nature and do not form any continuous mineralised zone. The manganiferous quartzites show the range of values for manganese (Mn) as 6.19% to 15.00%. He mentioned that the phyllites to the south of Revatipur and northwest of Revatipur grade into graphite schist. The analyses of graphite bearing samples of that area show following variations: F.C.:1.91% to 10.60%, Moisture content: 0.12% to 0.16%, Ash content: 86.49% to 96.26% and Volatile matters content: 1.67% to 2.77%.

#### **Scope for proposed exploration:**

In Dindo-Belkurta-Basera area an east-west trending metamorphosed lithopackage has been mapped by Mishra and Kumar(1991-92) which is flanked by granite gneiss and migmatites to the north and south. Exploration programme in the present block is being taken up for the first time with graphite and associated minerals, if any. Recently a team of geologists from MMPL visited the area and identified a consistent zone with graphite mineralization. 3 samples analyzed from the zone give values for Fixed Carbon as 3.37%, 2.32% & 1.59% & two samples with 0.83% & 0.38%.

## 2. Previous Work

(Previous Exploration in adjoining area (Regional area); All the sample (bed rock/trench/groove/soil), borehole location should be plotted on the geological map and analytical data should be discussed briefly.

Previous Exploration in the proposed block area: All the sample (bed rock/trench/groove/soil), borehole location should be plotted on the geological map and analytical data should be discussed briefly).

Available information on the work carried out in adjoining area has already been discussed under previous point and present area is proposed for the first time to cover under G4 stage of exploration.

## 3. Block description

Block Corner points Cardinal Points	Latitude	Longitude
A	23°56'47.56"N	83°19'46.26"E
B	23°56'52.84"N	83°24'53.48"E
C	23°53'00.65"N	83°24'53.17"E
D	23°53'01.01"N	83°20'49.14"E
E	23°55'08.28"N	83°20'49.95"E
F	23°55'08.73"N	83°19'46.65"E

## 4. Planned Methodology: G4 stage guideline of MEMC Rule will be followed.

## 5. Nature Quantum and Target

Nature and Quantum of work proposed.

Components	G4 Stage
Aerial reconnaissance	Nil
Geological Survey	i) 1: 12,500 scale for 54.4 sq km area. ii) Identification of lithology, structure, surface mineralization, borehole core studies and old history of mining, if any.
Geochemical Survey	Regional Grab / chip Sampling: 200nos.
Geophysical Survey	Regional ground geophysical survey: Gravity, Magnetic and SP (200m to 400m traverse interval and 10 to 20m station interval): 3 L km, 300 stns.
Pitting/ Trenching	Ten trenches or 100 cu m trenching. Sample length from each trench is 1m. Trench samples: 100 nos.
Scout drilling / Systematic drilling	Five boreholes if required with a total of 500m. Sample length from graphite bearing zone: 1m.
Grab and Chip sampling	(10 PS+10 PCS) representative samples from all bed rocks to carry out petrographic studies(PS) and petro-chemistry(PCS).

<b>Core sample</b>	200 borehole core samples from graphite bearing zones. Sample length 1 m.
<b>Petrographic and mineralographic studies</b>	10 nos. Principal rock types, mineral assemblage, identification of minerals of interest
<b>Synthesis of all available data</b>	i) Integration of regional geophysical, geological, and geochemical data. ii) Synthesis of all available data and Report writing

**5 & 6. Manpower deployment and break up of expenditure for Dindo-Belkurta-Basera area (G4 stage)**

**Estimated cost of different work components of Graphite investigation of Dindo-Belkurta-Basera area (G4 Stage)**

**Total area: 54.5 sq km, Period of Completion: 12months**

Sl. Nos.	Item of work	Unit	Rates as per NMET SoC 2020-21		Estimated Cost of the Proposal	
			SoC-Item-SI No	Quantity	Rates as per SoC	Total
1	Geological Mapping (on 1:12,500) (54.4 sq km)					
	(a) Charges for 2 Geologists in field (without labourer)	per day per Geologist	1.2. b	300	11,000	3300000
	(b) Charges for 2 Geologists at Headquarters	per day per Geologist	1.2. a	420	9,000	3780000
	(c) Wages for 4 labourers for geologist	per day	5.7	600	477	286200
2	Geochemical sampling (Bedrock sampling)			200 nos		
3	Geophysical survey (Gravity survey, Magnetic survey and SP survey) (3 L.km)			3 L.km		
	(a) Charges for 1 Geophysicist in field (without labourer)	per day	3.18b	45	11000	495000
	(b) Charges for 1 Geophysicist at	per day	3.18a	30	9000	270000



	Headquarters					
	(c ) Charges for surveyor	per day	1.6.1a	45	8300	373500
	(b) Wages for 2 labourers in field with geophysicist	per day	5.7	90	477	42930
	(c) Charge for Gravity survey	per station	3.1a.i	300	3800	1140000
	(d) Charge for Magnetic survey	per station	3.2a.i	300	1800	540000
	(e) Charge for SP survey	per L.km	3.3a	3	29600	88800
4	(a) Surveyor Charges (without labourer)	per day	1.6.1a	45	8300	373500
	(b) Labour(4nos) charges for survey work	per day	5.7	180	500	90000
5	Technological Survey					
	(a) Trenching	per cu m	2.1.1	100	3330	333000
	(b) Drilling	per m in soft rock	2.2.1.4a	500	11500	5750000
	(c) Borehole pillaring (construction of concrete pillar) 12 inches x12 inches x 30 inches	per borehole	2.2.7a	5	2000	10000
	(d) Transportation of Drill Rig and truck(to and from Headquarter s or Previous drill site)	per km	2.2.8	480	36	17280
	(e) Drilling camp setting cost	per drill	2.2.9a	1	250000	250000
	(f) Drilling camp winding cost	per drill	2.2.9a	1	250000	250000
	(g) Monthly accommodatio n charges for drilling camp	per month	2.2.9	2	50000	100000
	(h) Approach road making to drill site	per km	2.2.10	5	22020	110100

6	Laboratory Studies					
	(a) Proximate analysis for graphite	per sample	4.1.16	500	3000	1500000
	(b) Analysis for associated trace element (Vanadium)	per sample	4.1.15b	500	421	210500
	(c) Analysis for associated REE	per sample	4.1.13	10	5380	53800
	(d) Petrochemical studies (PCS)	per sample	4.1.15a	20	4200	84000
7	Petrographic studies					
	(a) Preparation of thin sections	per sample	4.3.1	10	2353	23530
	(b) Study of thin sections	per sample	4.3.4	10	4232	42320
8	Bulk Density/specific gravity Determination	per sample	4.8.1	3	1605	4815
9.	Drill core preservation	per m	5.3	250	1590	397500
10.	Geological Report preparation (5 hard copies with a soft copy)	cost per 5 hard copies along with soft copy	5.2		As the exploration cost is exceeding 50 lakhs but less than 150 lakhs.	750000
11.	Peer Review	lumpsum	as per EC decision	1	10000	10000
12.	Preparation of exploration proposal (5 hard copies with a soft copy)	one number (5 hard copies) along with soft copies	5.1	1	2% of approved project cost or 3.8 lakh, whichever is lower	380000
	Grand Total of estimated cost:					21056775
	18%GST					3790220
Grand Total= Two Crore Forty-Eight Lakhs Forty-Six Thousand Nine Hundred Ninety-Five only						₹ 2,48,46,995.00



## **7. References:**

- (h) Geology of Dindo Ramchandrapur area, Wardrufnagar Tahsils, Surguja District, M.P.(parts of Toposheet nos. 63P/08 and 64M/05), by B.K.Mishra and Monoj Kumar (F.S.1991-92), Unpublished Progress report of GSI.
- (i) Preliminary exploration for basemetal, Manganese and graphite in Oranga Metamorphic Belt, Surguja District, Chhattisgarh, by B.Saha (F.S.1995-96), Unpublished Progress report of GSI.

## **List of plates**

**Plate 1: Location Map**

**Plate 2: Topographic map of the area in 1:50000 scale**

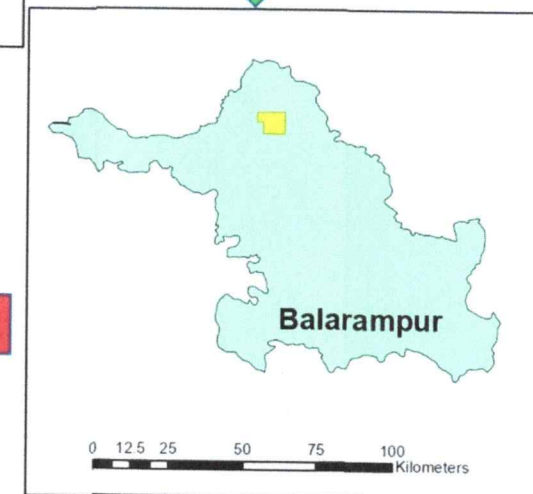
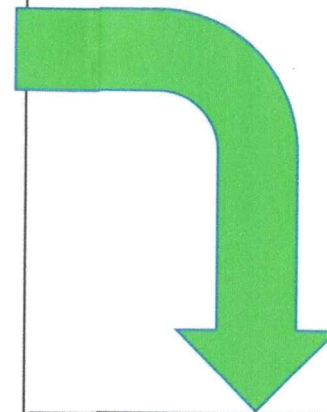
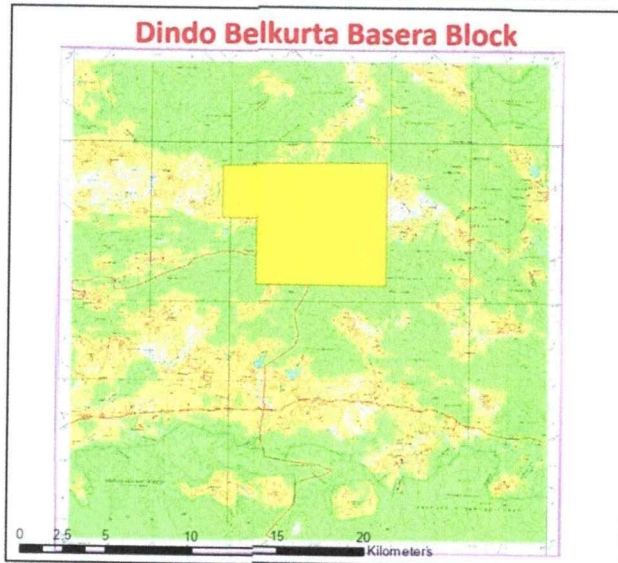
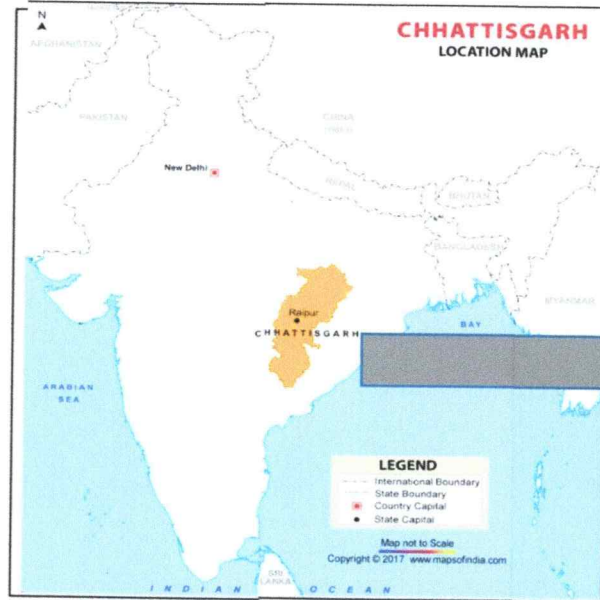
**Plate 3: Geological Map of the area in 1:50000 scale**

**Plate 4: Geological map with sample locations**

Proposed Timeline for different work components of Graphite investigation in Dindo-Belkurta-Basera area (G4), Chhattishgarh													
	Months												
Item of work	1	2	3	4	5	6	R E V I E W	7	8	9	10	11	12
Large Scale Mapping (1:12,500)													
Bed rock sampling													
Geophysical survey by Geophysicist													
Laying of Geophysical survey lines & location of Boreholes by surveyors													
Trenching & Sampling													
Drilling													
Core Sampling & its preparation													
Chemical analysis of samples													
Processing of Analytical data													
Preparation of Geological report													

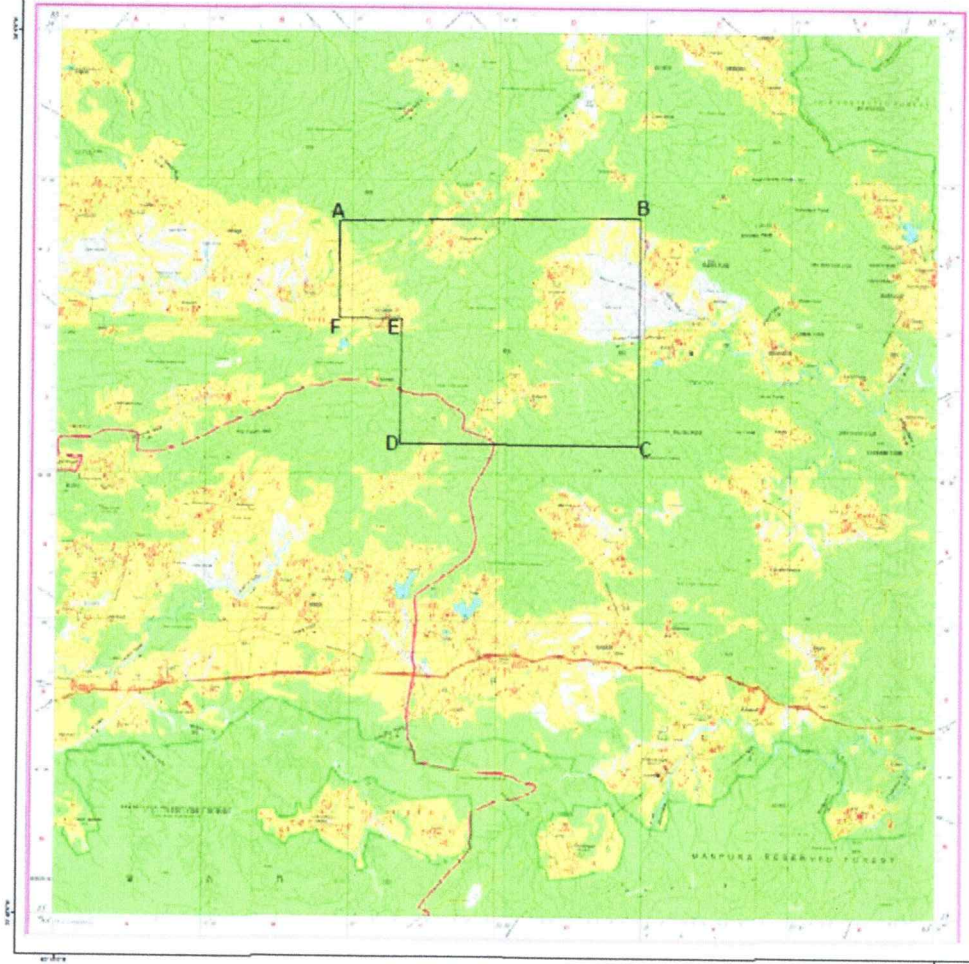
# PLATE-1

## Location Map of Dindo- Belkurta- Basera area



# PLATE-2

Dindo- Belkurta- Basera Block over Topographic Map on 1:50,000 scale



CARDINAL POINTS (In DMS)		
Pt. No.	Latitude	Longitude
A	23°56'47.56"N	83°19'46.26"E
B	23°56'52.84"N	83°24'53.48"E
C	23°53'00.65"N	83°24'53.17"E
D	23°53'01.01"N	83°20'49.14"E
E	23°55'08.28"N	83°20'49.95"E
F	23°55'08.73"N	83°19'46.65"E

CARDINAL POINTS (In Decimal Degrees)		
Pt. No.	Latitude	Longitude
A	23.946545°	83.329518°
B	23.948011°	83.414855°
C	23.883513°	83.414769°
D	23.883615°	83.346983°
E	23.918965°	83.347207°
F	23.919093°	83.329626°

0 1.25 2.5 5 7.5 10 Kilometers

Legend

DINDO- BELKURTA- BASERA BLOCK



# PLATE-3

Dindo- Belkurta- Basera Block over Geological Map on 1:50,000 scale



CARDINAL POINTS (In DMS)		
Pt. No.	Latitude	Longitude
A	23°56'47.56"N	83°19'46.26"E
B	23°56'52.84"N	83°24'53.48"E
C	23°53'00.65"N	83°24'53.17"E
D	23°53'01.01"N	83°20'49.14"E
E	23°55'08.28"N	83°20'49.95"E
F	23°55'08.73"N	83°19'46.65"E

0 1.25 2.5 5 7.5 10 Kilometers

## Legend

- DINDO- BELKURTA- BASERA BLOCK
- SANDSTONE, SHALE WITH COAL
- SANDSTONE
- GRANITE
- GRANITE GNEISS
- PHYLLITE
- GRAPHITE SCHIST
- QUARTZ MICA SCHIST
- AMPHIBOLITE
- QUARTZITE



# PLATE-4

Sampling Points of Dindo- Belkurta- Basera Block  
over Geological Map on 1:50,000 scale

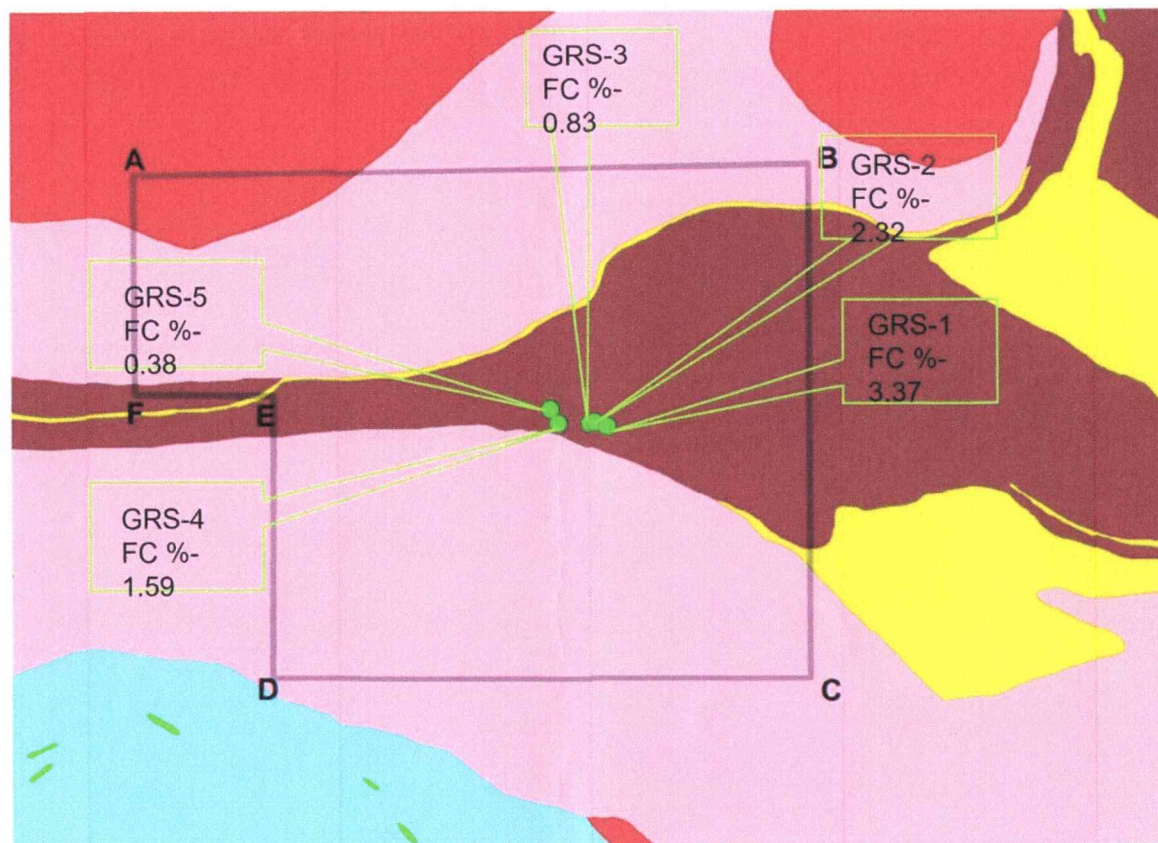


## Legend

- SAMPLING POINTS
- DINDO- BELKURTA- BASERA BLOCK
- SANDSTONE, SHALE WITH COAL
- SANDSTONE
- GRANITE
- GRANITE GNEISS
- PHYLLITE
- GRAPHITE SCHIST
- QUARTZ MICA SCHIST
- AMPHIBOLITE
- QUARTZITE

CARDINAL POINTS (In DMS)		
Pt. No.	Latitude	Longitude
A	23°56'47.56"N	83°19'46.26"E
B	23°56'52.84"N	83°24'53.48"E
C	23°53'00.65"N	83°24'53.17"E
D	23°53'01.01"N	83°20'49.14"E
E	23°55'08.28"N	83°20'49.95"E
F	23°55'08.73"N	83°19'46.65"E

0 1.25 2.5 5 7.5 10 Kilometers





## TEST REPORT

Test Report No. :

IGI/BBSR/TR/2023/BH056844

ULR-TC676623000001941F

Page 1 of 2

DATE: 16.02.2023

Chemical Testing

Solid Fuels

Job No. :	BH056844
*NAME & ADDRESS OF CUSTOMER :	M/S. MAHESHWARI MINING PRIVATE LIMITED. CORPORATE OFFICE: 21, C.L.M LANE, P.O.-RANIGANJ-713347, - , W.B. BURDWAN, INDIA
*CUSTOMERS REFERENCE : (POST/COURIER/FAX/E-MAIL)	REF-MMPL/2023/WO-3 DATE: 07.02.2023
SAMPLE PARTICULARS : (MATERIAL TO BE TESTED)	Graphite
SAMPLE RECEIPT DATE :	14.02.2023
NO. OF SAMPLE(S) :	6
SAMPLE DESCRIPTION :	SAMPLE RECEIVED FROM CUST : M/S. MAHESHWARI MINING PRIVATE LIMITED
CONDITION OF SAMPLE :	RAW ( 06 X 1000 GMS )
*PARAMETERS TESTED :	Moisture, Volatile Matter, Ash, Fixed Carbon
TEST METHOD : (ASTM / IS / ISO / OTHERS)	Moisture - IS 11321:1985 Volatile Matter - IS 11321:1985 Ash - IS 11321:1985 Fixed Carbon - IS 11321:1985

### TEST RESULTS

Analysis Commencement Date: 15.02.2023		Analysis Completion Date: 16.02.2023							
SAMPLE REF/ID		TEST PARAMETERS							
(Customer)		SAMPLE CODE	Moisture %	Volatile Matter %	Ash %	Fixed Carbon %			
		(Laboratory)	(ar)	(db)	(db)	(db)			
SAMPLE ID- GRS- 1		3491735	0.834	5.95	90.66	3.37			
SAMPLE ID- GRS- 2		3491736	0.220	3.13	94.53	2.32			
SAMPLE ID- GRS- 3		3491737	0.115	0.65					
SAMPLE ID- GRS- 4		3491738	0.175	3.10		1.59			
SAMPLE ID- GRS- 5		3491739	0.085	0.98					
SAMPLE ID- RW- 1		3491740	0.165	1.41					

#### REMARKS:

Moisture tested on as received basis ( ar ) & (VM ,Ash, FC ) tested on dry basis ( db ). Submitted by the party

\*Indicates information supplied by the customer for which the laboratory has no control.  
Enclosures ( )

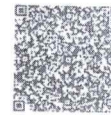


IGI/OR 5.10.1, Issue#01, Rev#05

SAMPLING NOT DONE BY THE LABORATORY. RESULTS RELATE TO THE SAMPLE TESTED ONLY  
THE CONTENTS OF THE REPORT SHALL NOT BE REPRODUCED EITHER IN FULL OR IN PART WITHOUT PRIOR WRITTEN CONSENT OF THE ISSUING AUTHORITY  
Regd. Office: Ecocentre, 16th Floor, Unit 1601, Block-PM04, Salt Lake, Sector-V, Kolkata 700 091, India, CIN : U74220WB1993PTC059664  
All services are rendered in accordance with General terms & Conditions - Inspectorate Griffith India  
available on request at www.bureauveritas.co.in/general-terms-and-conditions-service

SHYAMAL KUMAR MALLIK  
(TECHNICAL MANAGER)  
AUTHORISED SIGNATORY

DATE: 16.02.2023



## TEST REPORT CONTINUATION SHEET

Test Report No. :

IGI/BBSR/TR/2023/BH056844/1

Page 2 of 2

DATE: 16.02.2023

Chemical Testing

Solid Fuels

\*PARAMETERS TESTED :

Ash, Fixed Carbon

TEST METHOD :

(ASTM / IS / ISO / OTHERS)

Ash - IS 11321:1985

Fixed Carbon - IS 11321:1985

TEST RESULTS									
Analysis Commencement Date: 15.02.2023			Analysis Completion Date: 16.02.2023						
SAMPLE REF/ID		SAMPLE CODE  (Laboratory)	TEST PARAMETERS						
(Customer)			Ash %	Fixed Carbon %					
			(db)	(db)					
SAMPLE ID- GRS- 3		3491737	98.50	0.83					
SAMPLE ID- GRS- 4		3491738	95.28						
SAMPLE ID- GRS- 5		3491739	98.62	0.38					
SAMPLE ID- RW- 1		3491740	98.00	0.57					

### REMARKS:

Moisture tested on as received basis ( ar ) & ( VM , Ash, FC ) tested on dry basis ( db ). Submitted by the party

\*Indicates information supplied by the customer for which the laboratory has no control.  
Enclosures ( )

SHYAMAL KUMAR MALLIK  
(TECHNICAL MANAGER)

AUTHORISED SIGNATORY

SAMPLING NOT DONE BY THE LABORATORY, RESULTS RELATE TO THE SAMPLE TESTED ONLY  
THE CONTENTS OF THE REPORT SHALL NOT BE REPRODUCED EITHER IN FULL OR IN PART WITHOUT PRIOR WRITTEN CONSENT OF THE ISSUING AUTHORITY





**Maheshwari**  
Global Technologies. Ecological Mining.

## Maheshwari Mining Private Limited

Head Office: 21, C.L.M. Lane, P.O.-  
Raniganj-713347, Dist.-Paschim Bardhaman, W.B., India  
Phone: 0341-2445446/5210, Fax : 0341-2446477  
CIN No.: U14294WB1994PTC062325

To  
The Director & HoD  
National Mineral Exploration Trust (NMET)  
Ministry of Mines  
F-114, Shastri Bhavan  
New Delhi-110001

It is certified that:

Revised

1. Project titled "Proposal for Dinda-Belurta-Barera Block, Balarampur St.,  
Chhattisgarh State for Reconnaissance survey" along with (64 Stages) under  
estimated cost Rs. 2.48 Crores is submitted for consideration of NMET funding.
2. The project proposal is prepared following the guidelines prescribed in Minerals (Evidence of Mineral Contents) Rules, 2015 in case of mineral exploration project proposals.
3. The proposal has been duly examined and concurred by associate finance in accordance with canons of financial propriety.
4. The same project proposal or project proposal with similar objectives has not been submitted to any other funding agency by this organisation and the project proposal bears no duplication with existing work/ ongoing project undertaken by this agency.

Yours faithfully,



[Name & designation of Head of the Organisation]  
[DG/Principal Secretary/Secretary (Geology & Mining)/CMD/CEO/MD]

(Ambika Prasad Samantaray)  
CEO

Date: 17.05.2023  
Place: KOLKATA

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## Observations on Revised proposal submitted by Maheshwari Mining Private Limited on 17 May 2023

Name of Agency : Maheshwari Mining Private Limited

Block ID : Dindo – Belkurta- Basera Block (G4)

Commodity : Graphite

District : Balrampur

Revised Area : 54.40 sq. km.

Compilation of response from the agency on observations raised by DGM,CG earlier				
Sr. No.	Observations	Reference	Response by M/s Maheshwari Mining Pvt Ltd	Remark
1	As per earlier proposal and in-principal approval the area of the block was 66.3 sq. km. and in DPR the proposed area is 78 sq.km.	As mentioned,	Modified proposal submitted for 54.4 sq. km	After plotting the co-ordinates in Arc-GIS the effective area of block is coming around 54.36 sq.km.
2	District of the block mentioned is incorrect. The block is falling in Balrampur district while proponent has mentioned Surguja district.	Summary Table point 1 of proposal	Correction attended	Correction done in the report.
3	Tehsil mentioned by proponent in the report is incorrect. The correct tehsil is Ramchandrapur.	Summary Table point 1 of proposal	Correction attended	Correction done in the report.
4	The co ordinates (extent) mentioned in Summary Table is not matching with coordinates provided in block description	Summary Table point 1 and 3. Block Description of proposal	Correction attended	Okay



5	Details of Govt Land and Pvt Land is not mentioned in the proposal	Summary Table point 2 of proposal	Attended	Provided in the report
6	Plates : Block boundary point IDs and Coordinates are missing on the maps	All Maps	Attended	Provided.
7	Plate 1: Geological map on 1:50,000 with location index. - Not provided as per guideline/format	Plates	-	The Geological Map is submitted as Plate is of 1:2,50,000 scale instead of 1:50,000 scale.
8	Plate 2: Geological map/s on 1:50,000. - Not provided	Plates	Prepared and submitted	The Geological Map is submitted as Plate is of 1:2,50,000 scale instead of 1:50,000 scale.
9	Plate 3: Ground geophysical map/s (NGPM) on 1:50,000. - Not provided	Plates	In GSI Portal NGPM map is not available.	-
10	Plate 4: Aeromagnetic map/s. - Not Provided	Plates	This is not available in GSI portal and as per NMET guideline in G4 stage of investigation it is not required.	-
11	Plate 7: Proposed block boundary over topographic map on 1:50,000. - Not provided	Plates	It was submitted with original proposal and resubmitted now.	Topographic map provided as Plate 2, it is on 1:2,50,000 scale
12	Point 2 Previous Work: proponent has suggested to refer earlier point of the proposal.	Point 2	Area is new, no G4 work carried out earlier. Information on earlier work has already been given under previous point. Repetition of it is avoided.	Kept same. It should be corrected
13	NMET SoC clause are not mentioned in the (proposed cost) point	point 5 and 6 of proposal	Adhered to suggestion.	Provided.
14	Point 5 & 6 - subpoint 2 the qty and rate are not mentioned in the proposal for Geochemical sampling (Bedrock Sampling)	point 5 and 6 of proposal	There is no rate for BRS collection, still the figure has been mentioned otherwise the number of total samples, including trench samples and core samples to be analysed for	LSM including surface outcrop sampling (BRS/PS/PCS/Groove/Chip/Grab/Channel/S oil/SSS/Heavy) are covered in point no. 1.2 of Table no. 1 of SoC for NMET funded projects.

			different elements can not be shown for analytical charges as per SoC.	
15	Point 5 & 6 - Grand Total - GST @ 18% is not considered in the total estimate	point 5 and 6 of proposal	Complied	Complied
16	The sequence of numbering points is incorrect at point 5&6	point 5 and 6 of proposal	Attended	Attended

Observations on revised proposal submitted by agency (points other than mentioned in above table)			
Sr. No.	Observations	Reference	Remark
1	Supporting document required for the wages (rates) mentioned for laborers	Wages for laborers, skilled, semi-skilled workers	Rates may vary as per prevailing rate notified by District administration.
2	Agency has quoted Rs 11500/ m Drilling rate in soft rock, which is not matching with the NMET SoC rates. Also the size of the drill hole (HQ/NQ) is not mentioned.	NMET SoC – 2.2.1.1 b	