D.G.P.S. SURVEY REPORT

OF FOREST AREA DEMARCATION AND BOUNDARY POINT FIXATION FOR FOREST LAND DIVERSION PROPOSAL OF TOURISM DEVELOPMENT PROJECT AT RAJMERGARH

AT FOREST COMPARTMENT NO.	–	P2283, P2288
UNDER FOREST DIVISION	–	MARWAHI
FOREST RANGE	–	MARWAHI
VILLAGE	–	RAJMERGARH
TEHSIL	–	GAURELA
DISTRICT	–	GAURELA-PENDRA-MARWAHI
DGPS SURVEYED AREA	–	1.658 HECTARE

(SUBMITTED UNDER FOREST CONSERVATION ACT 1980)

APPLICANT

MANAGING DIRECTOR,
CHHATTISGARH TOURISM BOARD,
2nd FLOOR, UDYOG BHAWAN, RAIPUR
CHHATTISHGARH

Chhattisgarh
full of surprises
Chhattisgarh Tourism Board

SURVEYED BY

SIDDHARTH GEO CONSULTANTS
621/3, 1st FLOOR, RAMKUND SAMTA COLONY,
BEHIND LIFEWORTH HOSPITAL,RAIPUR (C.G.)
PIN 492001 PH NO. – 0771- 4070731
Email – sgc_rai@yahoo.in

SGC
ISO 9001:2015

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TABLE OF CONTENTS

ANNEXURE

SIDDHARTH GEO CONSULTANTS RAIPUR (C.G.)

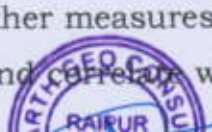
1. INTRODUCTION& OBJECTIVE

1.1 INTRODUCTION

Managing Director, Chhattisgarh Tourism Board, Udyog Bhawan, Raipur District Raipur, Chhattishgarh have been submitted proposal of **Tourism Development Project At Rajmergarh** to Forest department Govt. of Chhattisgarh for diversion of forest land for non – forestry purpose, under forest conservation Act 1980. The forest area proposed to be diverted for non – forestry purpose is 1.658 ha. Situated under compartment no. P2283 & P2288 of Rajmergarh village, Forest Division- Marwahi, Forest Range- Marwahi, Tehsil-Gaurela, District– Gaurela-Pendra-Marwahi, Chhattisgarh.

1.2 OBJECTIVE

Ministry of Environment and Forests, Govt. of India vide their circular No.F.No.-11-9/98-FC, dated 08-07-2011 have stipulated that to ensure accurate delineation of forest area proposed to be diverted for non forestry purposes under Section-2 and CA area of Forest Conservation Act, 1980 the diversion proposal under Forest Conservation Act shall be accompanied by DGPS/ETS surveyed reports of the forest land proposed for diversion as per guidelines laid down in the circular issued by ministry of forest and environment, Government of India from time to time. While submitting proposal for diversion of forest land for non forest purpose, the user agency has to submit the Geo referenced boundary, using DGPS in shape & KML file containing maps along with hard copy authenticated by Divisional Forest Officer (DFO) concerned. The conventional methods of survey to delineate and demarcate the forest land are time consuming. Further, the conventional surveys are "Un projected" Surveys, hence linking them to geospatial domain is a challenging task. The modern survey technique using Differential Global positioning system (DGPS) bring efficacy in survey in shorter time span compared to old method of survey and record preparation. The combination of GIS and GPS activities play a crucial role in developing the survey of the forest boundary points and making forest Cadastral/Forest Compartment maps. Area, length & other measures in the GIS numerical database are considerably easy to compute and correlate with already



DGPS Survey of Tourism Development Project At Rajmergarh on behalf of Office of the Managing Director, Chhattisgarh Tourism Board, Udyog Bhawan, Raipur District Raipur Chhattisgarh conducted by Survey Team of **M/s Siddharth Geo Consultants** in the presence of Forest department and Chhattisgarh Tourism Board officials.

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2.LOCATION

The DGPS surveyed forest area proposed to be diverted is situated near village Rajmergarh of Tehsil- Gaurela, District- Gaurela-Pendra-Marwahi, Chhattisgarh and 163.78 Km (Aerial Distance) in South Direction from District Headquarter Raipur (C.G.). It falls in Survey of India Toposheet no. 64 F/14. The surveyed area is bounded by Longitudes **81° 46' 57.78011"E** to **81° 47' 03.54443"E** & Latitudes **22° 42' 22.03832"N** to **22° 42' 28.31069"N.**

The surveyed area comes under Govt. Forest Land at Compartment no. – P2283 & P2288 under Forest Division – Marwahi, Forest Range – Marwahi, village- Rajmergarh of Tehsil – Gaurela, District – Gaurela-Pendra-Marwahi. The total DGPS surveyed area is 1.658 ha.

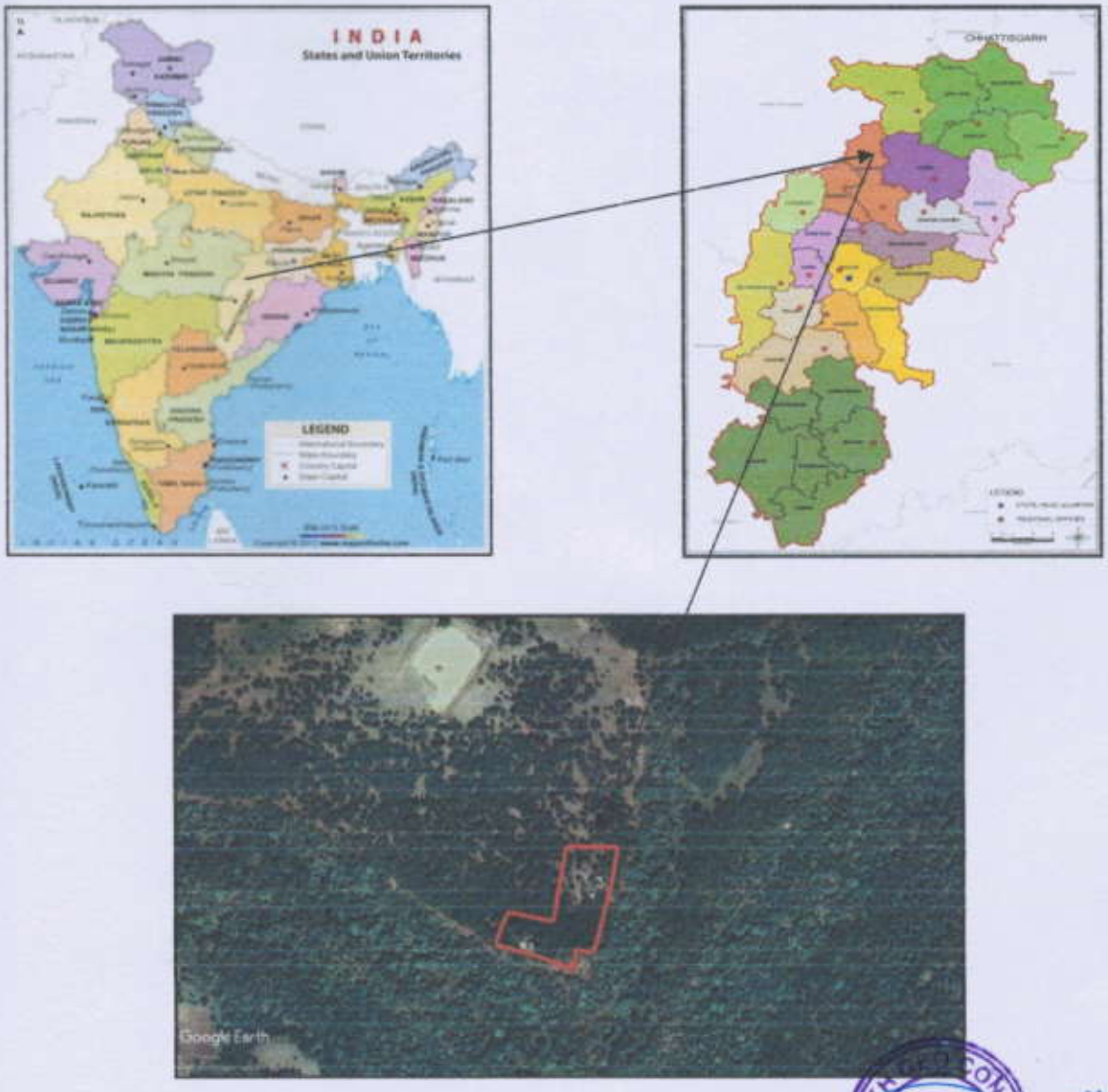


Fig. 2.1 - Location of the Surveyed Area

3. SCOPE OF WORK

1. **Establishment of base station (Primary Control Point)** near the surveyed area.

2. **Demarcation of Tourism Development Project At Rajmergarh boundary area** by DGPS Survey :
   - Carrying out of survey work using DGPS Rover unit in Real Time Kinematic (RTK) mode to collect UTM Co-ordinates (WGS 84 Datum) for demarcation of precise area boundary and fixing up its ground position to demarcate the exact area boundary as per the norms specified for the purpose.
   - Rover unit move by the survey team by walking along the Area boundary and collect a survey point on each and every turn or bend of the boundary Area.

3. **Digitization of Forest map**:
   - Geo-referencing of Forest map with DGPS Survey Points.
   - Boundary Point, Line and Polygon topology to be created and attached to the stock map of each patch.
   - Digitization of Forest map.
   - Output file Submitted as a 07 sets of Hard Copy of Plans (Forest map 1:15000 scale & Toposheet map 1:50000 Scale) & Survey Report of the DGPS surveyed area with showing the point numbers & its DGPS Coordinates (UTM & WGS-84 Datum) and its soft copy contain Report Pdf, Plans Pdf, KML & shape file format in CD.

4. **Preparations of land classification**
   - As per requirement of forest department Preparation of land classification of the surveyed area showing the plot & type of land, like Tenancy land, forest land, Govt. Land, etc.

4. FEATURES & METHODOLOGY OF DGPS SURVEY

4.1 DGPS INTRODUCTION

The advanced version or the enhancement to Global positioning System or the GPS is DGPS i.e. Differential Global positioning System or DGPS. DGPS was developed to meet the needs of positioning and distance measuring. It provides better and improved location accuracy than GPS. The underlying premise of differential GPS (DGPS) requires that a two DGPS receiver unit operated sequentially, one is stationary called as Base unit and other is moving called as Rover unit.

Fig. 4.1 A DGPS Base and Rover station Equipment

A GPS receiver must acquire signals from at least four satellites to reliably calculate a three-dimensional position. Ideally, these satellites should be distributed across the sky. The receiver performs mathematical calculations to establish the distance from a satellite, which in turn is used to determine its position. The GPS receiver knows where each satellite is the instant its distance is measured. This position is displayed on the data logger and saved along with any other descriptive information entered in the field software.

4.2 CONCEPT OF DGPS

A typical DGPS architecture is shown in figure below

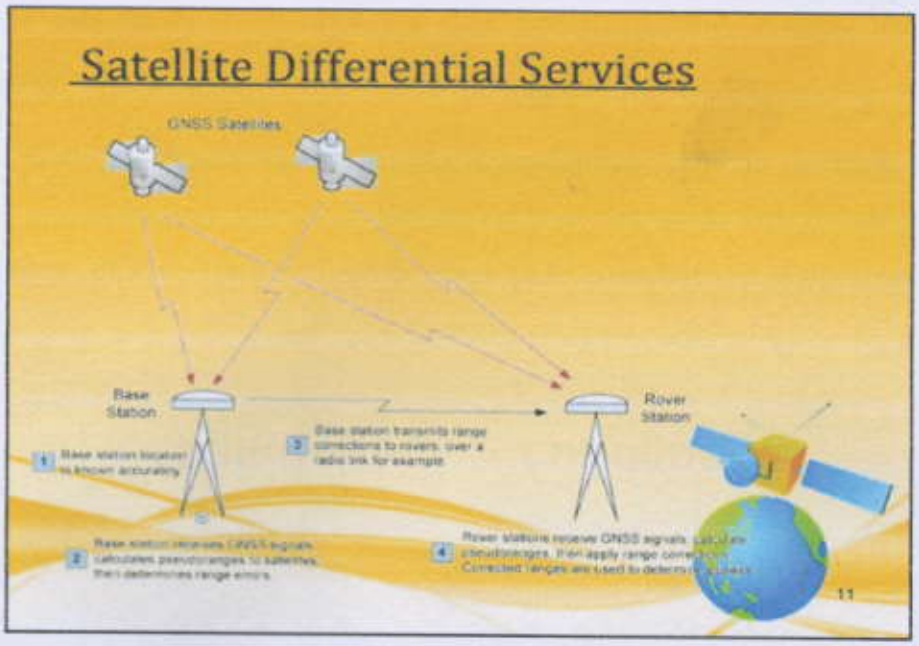


Fig. 4.2 A DGPS Base station and Rover station setup

The DGPS equipment work on GPS/GNSS satellite signal to find out exact position where they are on the global scale. The GPS Operational Constellation consists of 24 satellites that orbit the Earth in very precise orbits twice a day. GPS satellites emit continuous navigation signals. Each GPS satellite transmits data that indicates its location and the current time. All GPS satellites synchronize operations so that these repeating signals are transmitted at the same instant.

Fig. 4.3 A GPS Satellite orbit the Earth Location

Measurement of Travel time of the signals from a constellation of GPS Satellites orbiting, the earth for enabling the position in the earth. The GPS satellites are in orbits such that one can be able to receive signals from at least four satellites to enable for the determination of latitude, longitude, altitude and time.

Latitude and Longitude are spherical coordinates on the surface of the earth. Latitude is measured North or South of the Equator. Longitude is measured East or West of Greenwich. DGPS uses Latitudes and Longitudes to reference locations.

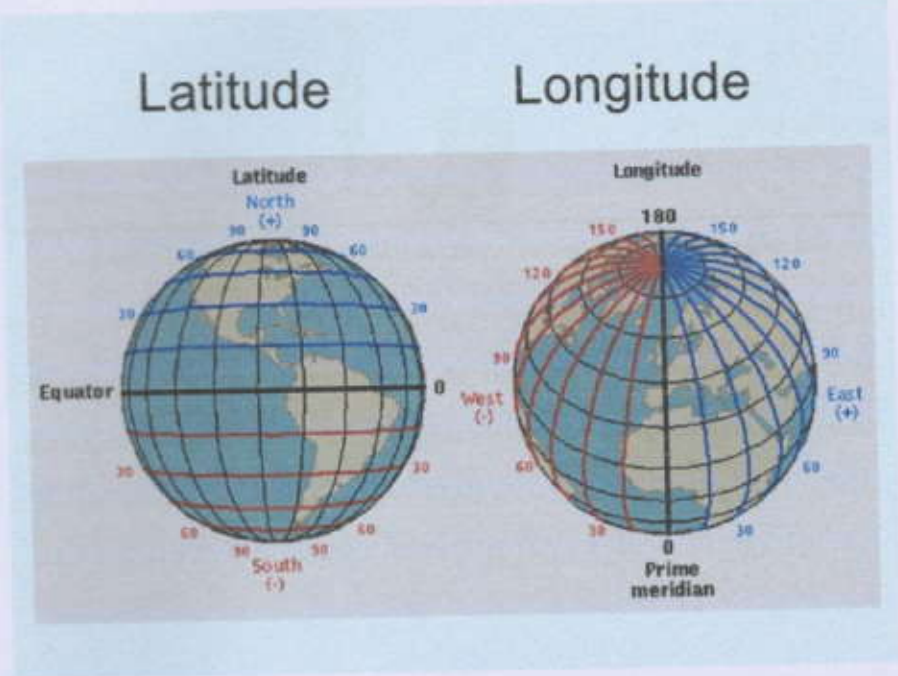


Fig. 4.4 Latitude & Longitude

Differential GPS (DGPS) is a system in which differences between observed and computed co-ordinates ranges(known as differential corrections) at a particular known point are transmitted to users (GPS receivers at other points) to upgrade the accuracy of the users receivers position.

Differential positioning user finds the point position derived from the satellite signals and applies correction to that position. These corrections, difference of the determined position and the known position are generated by a Reference Receiver, whose position is known and is fed to the instrument and are used by the second Receiver to correct its internally generated position. This is known as Differential GPS positioning.

Differential correction is a technique that greatly increases the accuracy of the collected DGPS data. It involves using a receiver at a known location - the "base station"- and comparing that data with DGPS positions collected from unknown locations with "roving receivers.

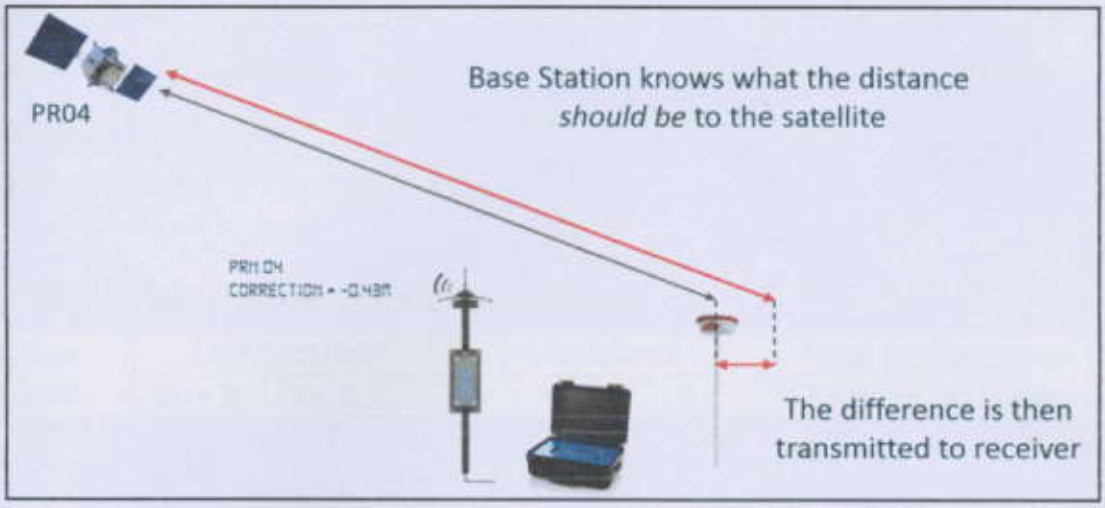


Fig. 4.5 Differential correction of error by DGPS

Differential correction can be applied in real-time directly in the field or when post processing data in the office. Although both methods are based on the same underlying principles, each accesses different data sources and achieves different levels of accuracy. Combining both methods provides flexibility during data collection and improves data integrity.

****

5.PROCEDURE FOR SURVEY

5.1 Establishment of Primary Control Point:

Based on the input data and information provided by the Forest & Chhattisgarh Tourism Board department, DGPS base station (primary Control Point) near the survey area is planned. So One base station was established near the Rajmergarh Area, Village – Rajmergarh of Tehsil- Gaurela, District – Gaurela-Pendra-Marwahi, Chhattisgarh.

Co-ordinate of the Primary Control Point

POINT NAME	LONGITUDE			LATIDUTE			UTM Co-ordinates (WGS84)	
	D	M	S	D	M	S	Easting (X)	Northing (Y)
BASE 1	81	47	01.73106	22	42	26.03441	2511324.487	580501.749

5.2 DGPS Survey of Chhattisgarh Tourism Board Area Boundary:

DGPS survey was carried out using a pair of DGPS instrument. One DGPS Instrument was used as Base Station and the other DGPS instrument was working as Rover. Base station fix at a stationary position while the Rover move by the survey team by walking along Area boundary to be survey and collect a survey point on each and every turn or bend of forest patch boundary. The distance between the Base Station and rover was always less than 3 km. The survey was conducted in Real Time Kinematic (RTK) mode.

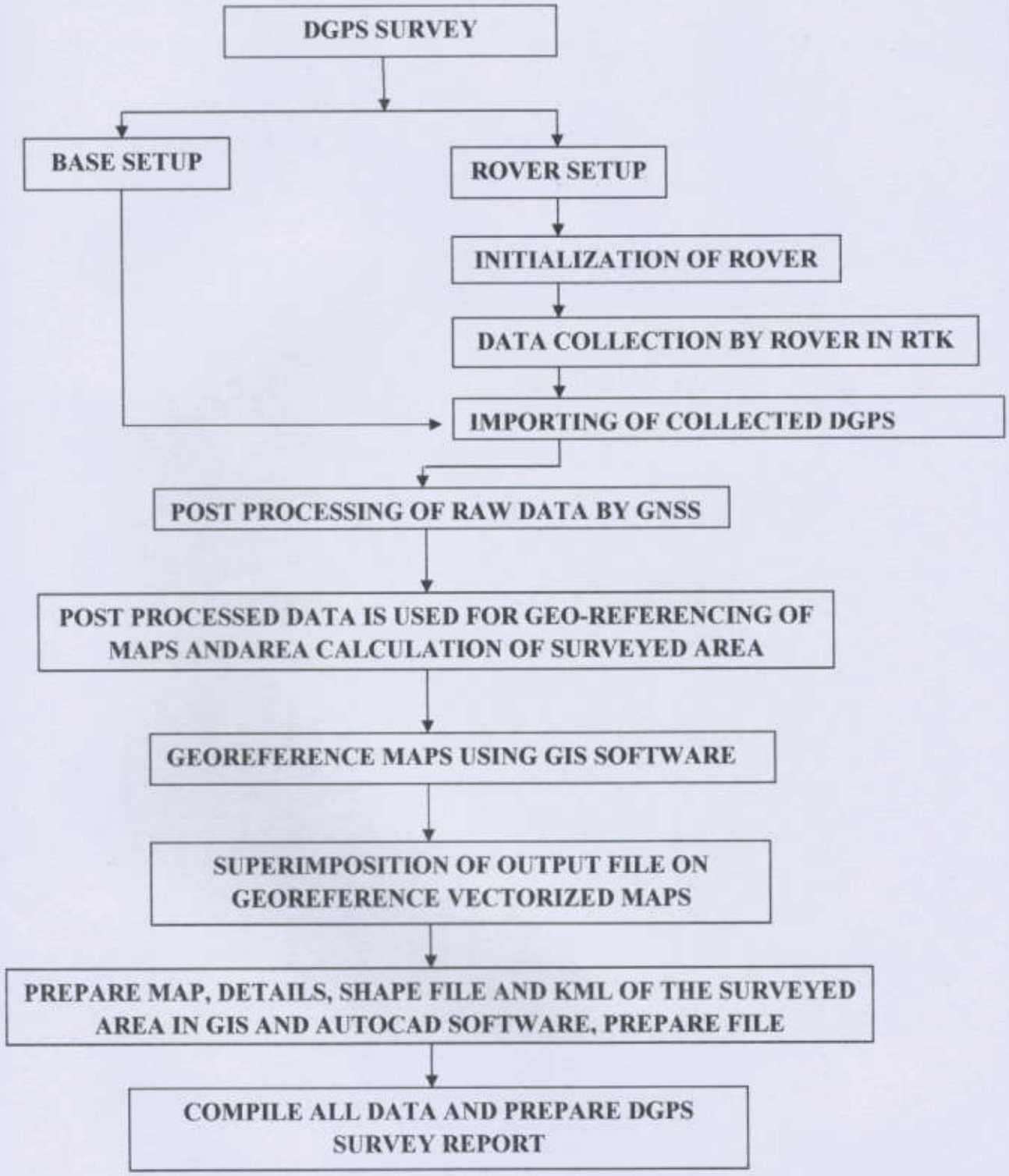
5.3 Geo-referencing of maps:

Maps like Forest map, Toposheet Maps etc. in which Surveyed area boundary falls are Geo referencing by collected minimum four or more DGPS referenced point on survey field area for geo referencing of map it is necessary that this referenced point location is also show in maps. In GIS software on the bases of this collected survey point, map is registered by input the four or more different coordinate value (WGS 84 Datum) of the survey point on definite location mark on map and after the minimize of whole error creating during geo referencing the map, finally the map is geo referenced and Dam area boundary vector in the form of shape file has been prepared.

5.4 GIS Analysis:

The Tourism Development Project At Rajmergarh area boundary demarked by the Forest & Chhattisgarh Tourism Board department was verified and the Tourism Development Project At Rajmergarh area boundary is surveyed by DGPS instrument and collects a boundary point on each and every turn of the forest boundary. The surveyed points captured through DGPS were plotted in the GIS Software and the boundary line was created by joining the points. The boundary polygon was created by using the boundary lines. After Geo-referencing the forest map the total surveyed area is digitized and new vector layers are prepared. The Boundary polygon vector layer are superimposed on Geo-referenced forest map (1:15000), Survey of India Toposheet map (1:50000) etc. and create a map layout of the surveyed area. After this Land Schedule for the surveyed area is prepared and final area statement is computed from the digitized layers.

5.5 FLOW CHART OF DGPS SURVEY PROCEDURE



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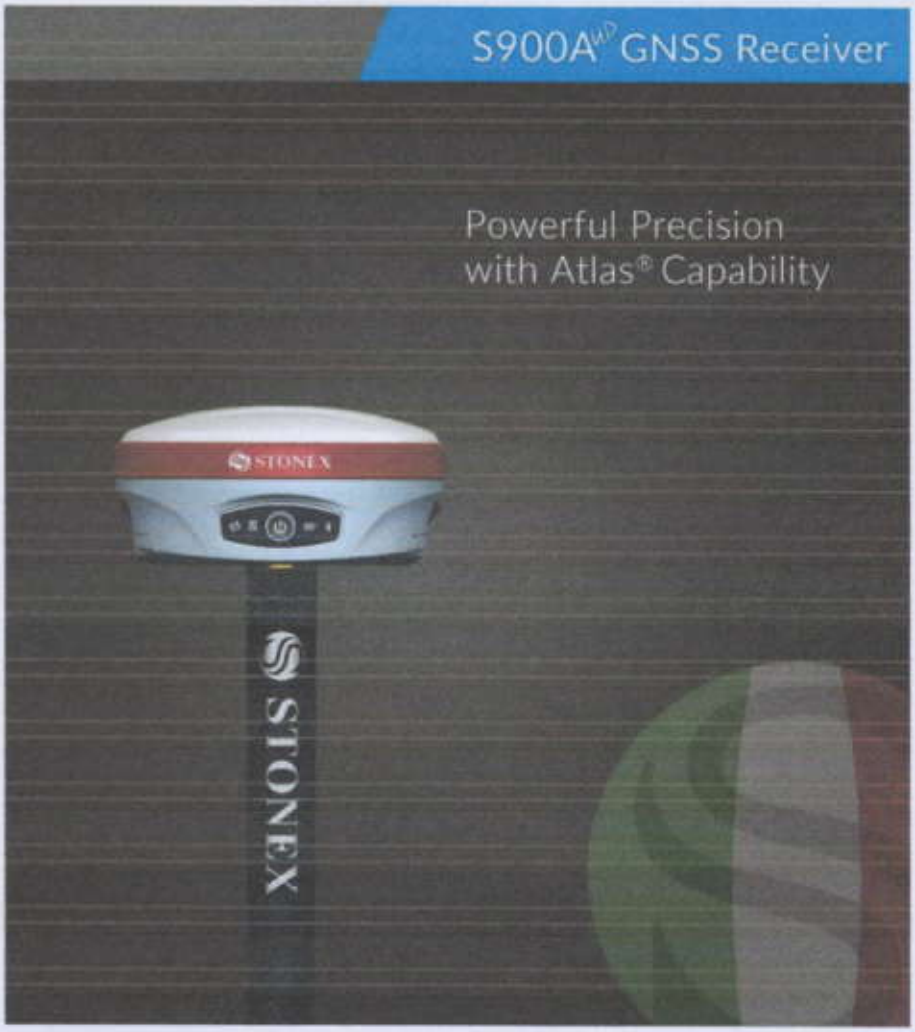
SIDDHARTH GEO CONSULTANCY RAIPUR (C.G.)

6.SPECIFICATION OF DGPS EQUIPMENT

We deployed a high performance GNSS board 600 channels and capable of supporting multiple satellite constellations devices to carry out the DGPS survey. The technical specification is given below:

STONEX



cube suite

BHARTH GEO CONSULT
RAIPUR (C.G.)

S900A^{uP} Powerful Precision with Atlas® Capability

Stonex S900A is equipped with an high performance GNSS board 600 channels and capable of supporting multiple satellite constellations: GPS, GLONASS, BEIDOU and GALILEO, including L-Band correction.

Through the 4G GSM modem a fast internet connection is guaranteed for the reception of correction data and the management of the maps in the background. In the amazingly compact structure the Bluetooth and Wi-Fi modules allow always reliable data flow to the controller, and the integrated TX/RX UHF radiomodem with selectable frequencies, make S900A the perfect system for a GNSS Base + Rover.

Stonex S900A integrates E-Bubble sensor that allows the measurement of difficult points with the pole not levelled. It is possible to measure points with an inclination of the pole up to 30° even in harsh environments and in the presence of magnetic fields.

Thanks to measurement routine integrated into the field software, the management of tilt function is simple and intuitive.

MULTI CONSTELLATION

Stonex S900A with its 600 channels, provides an excellent on board real time navigation solution with high accuracy. All GNSS signals (GPS, GLONASS, BEIDOU and GALILEO) are included, no additional cost.

WEB UI CONTROL

To initialize, manage, monitor the settings of the receiver and to download data using portable or PC, smartphone or tablet with Wi-Fi capability.

ELECTRONIC BUBBLE

On S900A through E-Bubble it can be displayed directly on software if the pole is vertical and the point will be recorded automatically when the pole is in bubble. This makes the acquisition of points extremely fast.

INTELLIGENT BATTERIES

The dual slot for two Smart hot swappable batteries gives you up to 12 hours using the integrated UHF radiomodem. The power level can be checked and seen on the controller or directly on a led bar on the battery.

RUGGED RTK

With IP67 Certification Stonex S900A will ensure operations in various kinds of extremely tough environments.

S900A^{HP} TECHNICAL FEATURES

RECEIVER

Satellite Tracked	GPS: L1 C/A, L1C, L1P, L2C, L2P, L5
	GLONASS: L1 C/A, L1P, L2C, L2P, L3
	BEIDOU: B1, B2, B3
	GALILEO: E1, E5a, E5b, Alt-BOC, E6
	QZSS: L1 C/A, L1C, L2C, L5
	SBAS: L1, L5
L-Band	Atlas H10 / H30 / Basic
Channels	600
Position Rate	5 Hz, optional 20Hz
Signal Reacquisition	< 1 sec
RTK Signal Initialization	Typically < 10 sec
Hot Start	Typically < 15 sec
Initialization Reliability	> 99.9 %
Internal Memory	8 GB
Micro SD Card	Expansion slot up to 32 GB

POSITIONING[1]

HIGH PRECISION STATIC SURVEYING	
Horizontal	2.5 mm + 0.1 ppm RMS
Vertical	3.5 mm + 0.4 ppm RMS
CODE DIFFERENTIAL POSITIONING	
Horizontal	0.25 m RMS
Vertical	0.45 m RMS
SBAS POSITIONING[2]	
Horizontal	0.30 m RMS
Vertical	0.60 m RMS
REAL TIME KINEMATIC (< 30 Km) – NETWORK SURVEYING[3]	
Fixed RTK Horizontal	8 mm + 1 ppm RMS
Fixed RTK Vertical	15 mm + 1 ppm RMS

INTEGRATED GNSS ANTENNA

High accuracy four constellation micro-strip antenna, zero phase center, with internal multipath suppressive board

INTERNAL RADIO

Type	Tx - Rx
Frequency Range	410 - 470 MHz
Channel Spacing	12.5 KHz / 25 KHz
Range	3-4 Km in urban environment Up to 10 Km with optimal conditions[4]

INTERNAL MODEM

Band	GSM/GPRS/EDGE LTE/UMTS/WCDMA

COMMUNICATION

I/O Connectors	7-pins Lemo and 5-pins Lemo interfaces. Multifunction cable with USB interface for PC connection
Bluetooth	2.1 + EDR, V4.0
Wi-Fi	802.11 b/g/n
Web UI	To upgrade the software, manage the status and settings, data download, etc. via smart phone, tablet or other internet enabled electronic device
Reference outputs	RTCM 2.3, 3.2 CMR, CMR+, ROX
Navigation outputs	GGA, ZDA, GSA, GSV, GST, VTG, RMC, GLL

POWER SUPPLY

Battery	2 rechargeable and replaceable 7.2 V - 3400 mAh Intelligent lithium batteries
Voltage	9 to 28 V DC external power input with over-voltage protection (5 pins Lemo)
Working Time	Up to 12 hours (2 batteries hot swap)
Charge Time	Typically 4 hours

PHYSICAL SPECIFICATION

Dimensions	φ 157 mm x 76 mm
Weight	1.19 Kg (with one battery) 1.30 Kg (with two batteries)
Operating Temperature	-30°C to 65°C (-22°F to 149°F)
Storage Temperature	-40°C to 80°C (-40°F to 176°F)
Waterproof/Dustproof	IP67 / IP68[5]
MIL- STD	MIL-STD-810F
Shock Resistance	Designed to endure to a 2 m pole drop on concrete floor with no damage
Vibration	Vibration resistant

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7.OUTPUT

After DGPS survey of Tourism Development Project At Rajmergarh area boundary the total land area demarcated as **1.658** Ha.

7.1 DGPS SURVEYED BOUNDARY CO-ORDINATES OF TOURISM DEVELOPMENT PROJECT AT RAJMERGARH , AREA 1.658 HECTARE

POINT ID	GEOGRAPHICAL COORDINATES (WGS 84 DATUM)		UTM COORDINATES (WGS 84 DATUM)	
	LONGITUDE	LATITUDE	EASTING	NORTHING
RB01 (BASE)	81° 47' 01.73106"E	22° 42' 26.03441"N	2511324.487	580501.749
RG01	81° 47' 00.19904"E	22° 42' 22.41644"N	2511212.081	580457.318
RG02	81° 46' 57.78011"E	22° 42' 22.73555"N	2511221.530	580388.253
RG03	81° 46' 58.21460"E	22° 42' 24.31612"N	2511270.199	580400.393
RG04	81° 47' 00.64298"E	22° 42' 24.15382"N	2511265.574	580469.701
RG05	81° 47' 00.80049"E	22° 42' 27.91481"N	2511381.251	580473.584
RG06	81° 47' 03.54443"E	22° 42' 28.31069"N	2511393.838	580551.804
RG07	81° 47' 03.45348"E	22° 42' 26.56014"N	2511339.993	580549.494
RG08	81° 47' 03.01956"E	22° 42' 23.43493"N	2511243.825	580537.622
RG09	81° 47' 02.79254"E	22° 42' 22.93300"N	2511228.356	580531.227
RG10	81° 47' 01.98392"E	22° 42' 23.02630"N	2511231.103	580508.141
RG11	81° 47' 02.00352"E	22° 42' 22.03832"N	2511200.725	580508.861

7.2 LAND CLASSIFICATION OF TOURISM DEVELOPMENT PROJECT AT RAJMERGARH AREA

Office of the Managing Director, Chhattisgarh Tourism Board, Udyog Bhawan, Raipur, District – Raipur, Chhattisgarh					
Total DGPS Surveyed Area 1.658 Hectare					
FOREST DIVISION	FOREST RANGE	VILLAGE	COMPARTMENT NO.	TYPE OF LAND	TOTAL AREA (In Ha.)
MARWAHI	MARWAHI	RAJMERGARH	P2283	PROTECTED FOREST LAND	0.879
			P2288	PROTECTED FOREST LAND	0.779
Total					1.658

वनपरिक्षेत्राधिकारी
गौरेला (सा.)

उप वन मण्डलाधिकारी
उप वन मण्डल,गौरेला (पेण्ड्रारोड)

Divisional Forest Officer
Marwahi Division Pendra Road

****

BHARTH GEO CONSULTANTS RAIPUR (C.G.)

8. PHOTOGRAPHS OF DGPS SURVEY WORK

FIXATION OF BASE POINT

FIXATION OF BOUNDARY POINT

FIXATION OF BOUNDARY POINT

FIXATION OF BOUNDARY POINT

FIXATION OF BOUNDARY POINT

FIXATION OF BOUNDARY POINT

FIXATION OF BOUNDARY POINT

9. EMPANELMENT LETTER OF STATE GOVERNMENT

By Speed post

छत्तीसगढ़ शासन
खनिज साधन विभाग
मंत्रालय
महानदी भवन, नया रायपुर–492002
//अधिसूचना//

रायपुर, दिनांक अप्रैल, 2018

क्रमांक एफ 7–14/2013/12 :: इस विभाग की समसंख्यक अधिसूचना दिनांक 10.11.2014 द्वारा कुल 10 संस्थानों को 03 वर्ष की अवधि के लिये सशर्त अधिमान्यता प्रदान की गई है, जिसकी अवधि दिनांक 09.11.2017 को समाप्त हो गई है।

2/ राज्य शासन, एतद्द्वारा निम्नलिखित 07 संस्थानों की अधिमान्यता का नवीनीकरण, आवेदन प्रस्तुत करने में हुए विलम्ब की अवधि में छूट प्रदान करते हुए उनकी अधिमान्यता दिनांक 10.11.2017 से आगामी 03 वर्ष की अवधि के लिये प्रदान की जाती है :–

क्र.	एजेंसी का नाम एवं पता
1	**M/S SHREERAM GEMICON (PVT.) LIMITED,** GEOLOGICAL AND MINING CONSULTANTS, L-09, Songanga Colony Seepat Road, Bilaspur (Chhattisgarh)
2	**M/S SINHA MINING CONSULTANCY,** Office No. 9, D.Costa Commercial Apartment, Near Old Railway Station Gate, Malbhat, Margo, Goa - 403601
3	**M/S SPATIAL PLANNING AND ANALYSIS RESEARCH CENTRE PVT. LTD.** E/11, Infocity, Chandaka Industrial Estate, Bhubaneswar, Orissa, 751024
4	**M/S SIDDHARTH GEO CONSULTANTS,** 621/3, First Floor Ramkund, Samta Colony, Behind Lifeworth Hospital, Raipur (Chhattisgarh) 492001
5	**M/S SOHAM FERO MANGANESE PVT. LTD.]** Block No. 16,17 Ground Floor N.K.Y. Tower, Anjani Sq. Wardha Road, Nagpur (Maharashtra)
6	**M/S SAN SURVEY ENGINEERING,** Regd. Off. - 465, Jiban Pal Bagan, Karbala (West), P.O. & Dist. - Hooghly, West Bengal, 712103 Contact Office - Anjali Complex, Bankim Kanan, Chinsurah Station Road, Chinsurah, Hoogly, West Bengal -712102
7	**M/S BHARAT ALUMINIUM COMPANY LIMITED,** P.O. Balco Nagar Korba(C.G.),

3/ उपर्युक्त तालिका के सरल क्रमांक–01 से 06 में उल्लिखित कंपनियों/एजेंसियों की अधिमान्यता राज्य में खनिज कोयला को छोड़कर शेष खनिजों की खनिज रियायत संबंधित डीजीपीएस सर्वे कार्य के लिये तथा सरल कमांक 7 में उल्लिखित मेसर्स भारत एल्युमिनियम कंपनी लिमिटेड की अधिमान्यता राज्य में स्थित स्वयं की खनिज रियायत संबंधित डीजीपीएस सर्वे कार्य के लिये होगी।

उपर्युक्त प्रदत्त अधिमान्यता की शर्तें निम्नानुसार होगी :–

1. Each corner of the lease area shall have a boundary pillar(corner pillar).
2. There shall be erected intermediate boundary pillars between the corner pillars in such a way that each pillar is visible from the adjacent pillar located on either side of it;
3. The distance between two adjacent pillars shall not be more than fifty meters;
4. The pillar shall be of square pyramid frustum shaped above the surface and cuboids shaped below the surface;
5. Each pillars shall be of reinforced cement concrete;
6. The corner pillar shall have a base of 0.3m X 0.3m and height of 1.30m of which 0.70m shall be above ground level and 0.60m below the ground;
7. The intermediate pillars shall have a base of 0.25m x 0.25m and height of 1.0m of which 0.70m shall be above ground level and 0.30 m below the ground;

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8. All pillars shall be painted in yellow color and the top ten centimeters in red color by enamel paint and shall be grouted with cement concrete.
9. On all corner pillars, distance and being to the forward and backward pillars and latitude and longitude shall be marked;
10. Each pillar shall have serial number in a clockwise direction and the number shall be engraved on the pillars;
11. The number of pillars shall be the numbers of the individual pillar upon the total number of pillars in the lease;
12. The tip of all the corner boundary pillars shall be a square of 15 centimeter on which a permanent circle of 10 centimeter diameter shall be drawn by paint or engraved and the actual boundary point shall be intersection of two diameters drawn at 90 degrees.
13. The lease boundary survey shall be accurate within such limits of error as the Control General, Indian Bureau of Mines may specify in this behalf;
14. The location and number of the pillars shall also be shown in the surface and other plans maintained by the lessee: and
15. In case of forest area within the lease, the size and construction and color of the boundary pillars shall be as per the norms specified by the Forest Department in this behalf.
16. The Survey Agency shall be responsible for the accuracy of the data collected during Survey.
17. Coordinates of boundary pillars shall be established in the World Geodetic System 1984 (WGS-84) Datum.
18. डीजीपीएस सर्वे कार्य हेतु पारिश्रमिक का निर्धारण अधिमान्यता प्राप्त संस्थान एवं खनिज रियायतधारी के मध्य आपसी समन्वय से किया जायेगा। किसी भी प्रकार का आपसी विवाद होने पर राज्य शासन उत्तरदायी नही होगा।
19. डीजीपीएस सर्वे कार्य के गुणवत्ता में कमी पाये जाने पर या किसी भी प्रकार की कार्य संबंधी शिकायत पाये जाने पर जांच उपरांत राज्य शासन को यह अधिकार होगा कि उक्त अधिकृत एंजेसी की मान्यता किसी भी समय समाप्त की जा सकती है।
20. डीजीपीएस सर्वे के संबंध में भारतीय खान ब्यूरो/राज्य शासन द्वारा समय-समय पर जारी निर्देशों का पालन अधिमान्यता प्राप्त संस्थान को करना होगा।
21. राज्य शासन द्वारा जारी यह अधिमान्यता 03 वर्ष के लिए होगी। समयावधि समाप्ति से 03 माह पूर्व अधिकृत एंजेसी नवीनीकरण हेतु आवेदन कर सकेगा।

4/ यह अधिमान्यता दिनांक 10.11.2017 से 03 वर्ष के लिए ही मान्य होगी।

छत्तीसगढ़ के राज्यपाल के नाम से
तथा आदेशानुसार,

(इफ्फत आरा)
उप सचिव
छत्तीसगढ़ शासन
खनिज साधन विभाग

पृ0क्रमांक एफ 7-14/2013/12 रायपुर, दिनांक - 9 APR 2018 अप्रैल, 2018

प्रतिलिपि:-

1. सचिव, भारत सरकार, खान मंत्रालय, शास्त्री भवन, नई दिल्ली,
2. कंट्रोलर जनरल, भारतीय खान ब्यूरो, सेकेण्ड फ्लोर, ए-ब्लॉक, इन्दिरा भवन, सिविल लाईन्स, नागपुर(महाराष्ट्र)

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EARTH GEO CONSULTANTS RAIPUR (C.G.)