

D.G.P.S. SURVEY REPORT

FOREST AREA DEMARCATION AND BOUNDARY POINT FIXATION
FOR FOREST LAND DIVERSION PROPOSAL OF
132 KV ELECTRIC LINE FROM CHIKNI TO PRATAPPUR VILLAGE
PROJECT OF
VENIKA HYDRO PROJECTS PRIVATE LIMITED
AT FOREST COMPARTMENT NO.-P219, P226, P102
UNDER FOREST DIVISION- SURAJPUR
FOREST RANGE – ODIGI AND PRATAPPUR
DISTRICT – SURAJPUR
SURVEYED AREA – 9.584 HECTARE

(SUBMITTED UNDER FOREST CONSERVATION ACT 1980)



APPLICANT

**VENIKA HYDRO PROJECTS
PVT. LTD.**
113/2, 60 FT ROAD, 4TH STAGE, RAJAJINAGAR
INDUSTRIAL TOWN, BANGALORE-560 044

SURVEYED BY

SIDDHARTH GEO CONSULTANTS
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CERTIFICATE

SIDDHARTH GEO CONSULTANT RAIPUR, (C.G.)

*This is to certify that the D.G.P.S Surveyed area proposed to be diverted for non forestry purpose, land diversion proposal of Chikni to Pratappur 132 KV Electric line Project at Compartment no. – P219, P226, P102 under forest division/range – Surajpur /Odigi, Pratappur district- Surajpur, surveyed area 9.584 Ha. done by us as par the guidelines of forest conservation Act 1980 for **Venika Hydro Projects Pvt. Ltd.** and the Co-ordinates of Boundary points are correct in our knowledge.*

The work done is as follow:

1. Create One Base point with Fixation of two ground control points on static mode.
2. Survey of 51 boundary Pillars by using DGPS and fixed up its Ground position and preparation of Geo-referenced forest map.
3. The Geo-referenced forest map prepared using DGPS and superimposed vectorised SOI Toposheet map.
4. Prepared DGPS survey report and soft copy of all above maps in standard Format and digitized maps in shape file and KML for imported in any GIS database.

Date : 04 /05 /2018

Place : Raipur

For, Siddharth Geo Consultants

**Alok Verma
Sr. Manager (Geology)**

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1.

INTRODUCTION

Venika Hydro projects Pvt. Ltd., have been submitted proposal to Forest department Govt. of Chhattisgarh for diversion of Protected forest land for non-forestry purpose for Chikni – Pratappur 132 KV Electric Line Project under forest conservation Act 1980. The forest area proposed to be diverted for non – forestry purpose is 9.584 ha. Chikni – Pratappur 132 KV Electric Line project is about 27.88 Km long and 27 meter in width. It crossed three forest compartment, compartment no. P219, P226 and P102 with a length of about 2.23 km and 0.506 km and 0.809 km, starting from village Chikni Substation and end at village Pratappur of Odigi-, under forest division Surajpur, district Surajpur.

Ministry of Environment and Forest, Govt. of India vide their circular 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 purposed under Section -2 of forest conservation Act 1980 the diversion proposal under forest conservation act shall be accompanied by DGPS surveyed maps of the forest land proposed for diversion.

The **DGPS Survey** work of the area proposed to be diverted for non – forestry purpose, have been done by **Siddharth Geo Consultants**, Raipur, as par the guidelines of forest conservation Act 1980. DGPS survey has been completed successfully dated on 01/05/18 in the presence of forest department officials.

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2.

LOCATION OF THE SURVEYED AREA

The DGPS surveyed area proposed to be diverted for non – forestry purpose is situated at village Chikni, and Pratappur, Aerial distance of about 34.6 Km. in NE Direction from District Headquarter Surajpur (C.G.). It falls in Survey of India Toposheet no. – 64 I/14, 64M/2 and 64M/3. The surveyed area is bounded by **Longitudes 82° 58' 01.46282"E to 83° 05' 08.41920"E & Latitudes 23° 30' 35.29442"N to 23° 31' 44.58360"N.**

The surveyed area comes under Govt. forest land, under forest division/range– Surajpur /Odigi, Pratappur, district Surajpur. The total DGPS surveyed area proposed to be diverted for non – forestry purpose is 9.584ha.

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3.

LAND CLASSIFICATION

S. NO.	VILLAGE	FOREST DIVISION/ RANGE	TYPE OF LAND	FOREST COMPARTMENT NO. / KHASRA NO.	Length X Width (in metre)	SURVEYED AREA (IN HA.)
1	Chikni	Surajpur/ Odigi	Protected Forest land	P219	2234.1 X 27	6.032
2	Pakni	Surajpur /Pratappur	Protected Forest land	P226	344.1 X 27	0.929
3	Pakni	Surajpur /Pratappur	Protected Forest land	P226	162.3 X 27	0.438
4	Pakni	Surajpur /Pratappur	Protected Forest land	P102	809.3 X 27	2.185
Total						9.584

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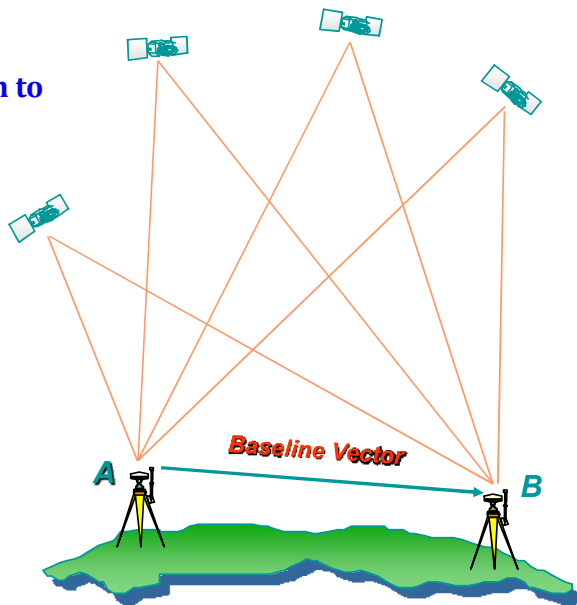
4.

FEATURES & METHODOLOGY OF DGPS SURVEY

Differential Global Positioning System (DGPS) is an enhancement to Global Positioning System that uses a network of fixed, ground-based reference stations to broadcast the difference between the positions indicated by the satellite systems and the known fixed positions. These stations broadcast the difference between the measured satellite pseudoranges and actual (internally computed) pseudoranges, and receiver stations may correct their pseudoranges by the same amount.

Differential Positioning

- It is possible to determine the position of Rover 'B' in relation to Reference 'A' provided
 - The coordinates of the Reference Station (A) are known
 - Satellites are tracked simultaneously
- Differential Positioning
 - eliminates errors in the sat. and receiver clocks
 - minimizes atmospheric delays
 - Accuracy 0.5 cm - 5 m



The survey work has done with the help of **Differential Global Positioning System survey**. Starting DGPS Survey by making Two permanent reference point (Base Stations) by setting up, initialization of all the parameters of BASE Unit. One BASE point has been established. VENIKA HYDRO PROJECTS PVT. LTD.


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Than Initialization of the ROVER Unit in the same manner and each boundary pillars was established and fixed after 15 Minutes of reading on static mode and that's how 51 boundary points and two ground control points has been fixed.

After the successful completion of the survey, All the RAW data collected from the field will be post process in the GNSS software, than Validation of the collected data by several methods & Geo-referencing of Cadastral map/Forest Compartment maps using software. Superimposition of output files on Geo-referenced Vectorized Cadastral map/Forest Compartment maps, SOI Toposheets.

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CO-ORDINATES OF THE FIXED BOUNDARY POINTS BY DGPS SURVEY
FOR CHIKNI TO PRATAPPUR 132 KV ELECTRIC LINE PROJECT OF
VENIKA HYDRO PROJECT

S.NO.	POINT NAME	LONGITUDE	LATITUDE
1	BASE POINT	83° 05' 11.65891"E	23° 31' 40.01719"N
2	V1	83° 05' 08.41920"E	23° 31' 39.22320"N
3	V2	83° 05' 08.13841"E	23° 31' 40.08010"N
4	V3	83° 05' 05.42042"E	23° 31' 39.03601"N
5	V4	83° 05' 05.38801"E	23° 31' 39.91080"N
6	V5	83° 05' 02.59080"E	23° 31' 38.85961"N
7	V6	83° 05' 02.49362"E	23° 31' 39.72720"N
8	V7	83° 05' 01.65841"E	23° 31' 38.80201"N
9	V8	83° 05' 01.48560"E	23° 31' 39.66240"N
10	V9	83° 04' 57.24840"E	23° 31' 37.84081"N
11	V10	83° 04' 57.10441"E	23° 31' 38.70483"N
12	V11	83° 04' 52.69801"E	23° 31' 36.84722"N
13	V12	83° 04' 52.59721"E	23° 31' 36.84012"N
14	V13	83° 04' 52.48922"E	23° 31' 36.85080"N
15	V14	83° 04' 52.60080"E	23° 31' 37.72561"N
16	V15	83° 04' 33.61082"E	23° 31' 41.27160"N
17	V16	83° 04' 35.89321"E	23° 31' 41.63880"N
18	V17	83° 04' 22.58762"E	23° 31' 43.85641"N
19	V18	83° 04' 23.32201"E	23° 31' 44.58360"N
20	V19	82° 58' 39.83880"E	23° 31' 09.07681"N
21	V20	82° 58' 39.72361"E	23° 31' 09.94440"N
22	V21	82° 58' 37.20720"E	23° 31' 08.71681"N
23	V22	82° 58' 37.06321"E	23° 31' 09.57722"N
24	V23	82° 58' 25.15440"E	23° 31' 07.06801"N
25	V24	82° 58' 25.02840"E	23° 31' 07.93202"N
26	V25	82° 58' 19.37281"E	23° 31' 06.45961"N
27	V26	82° 58' 19.26482"E	23° 31' 07.32721"N
28	V27	82° 58' 14.06283"E	23° 31' 05.90160"N
29	V28	82° 58' 13.84680"E	23° 31' 06.75842"N
30	V29	82° 58' 13.65961"E	23° 31' 06.70081"N
31	V30	82° 58' 11.62920"E	23° 31' 04.44720"N
32	V31	82° 58' 11.12162"E	23° 31' 05.18522"N
33	V32	82° 58' 06.93120"E	23° 31' 01.63920"N
34	V33	82° 58' 06.31201"E	23° 31' 02.31241"N
35	V34	82° 58' 06.14281"E	23° 31' 02.15760"N
36	V35	82° 58' 05.14920"E	23° 30' 58.10401"N
37	V36	82° 58' 04.26012"E	23° 30' 58.42080"N

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38	V37	82° 58' 02.50681"E	23° 30' 52.86240"N
39	V38	82° 58' 01.51321"E	23° 30' 52.97041"N
40	V39	82° 58' 01.46282"E	23° 30' 52.77240"N
41	V40	82° 58' 01.52401"E	23° 30' 52.55283"N
42	V41	82° 58' 06.54240"E	23° 30' 49.06441"N
43	V42	82° 58' 05.94842"E	23° 30' 48.37320"N
44	V43	82° 58' 06.03841"E	23° 30' 48.31202"N
45	V44	82° 58' 23.08802"E	23° 30' 43.46280"N
46	V45	82° 58' 23.26440"E	23° 30' 43.30440"N
47	V46	82° 58' 22.50841"E	23° 30' 42.73561"N
48	V47	82° 58' 27.00843"E	23° 30' 36.38520"N
49	V48	82° 58' 26.20920"E	23° 30' 35.89560"N
50	V49	82° 58' 26.31720"E	23° 30' 35.78041"N
51	V50	82° 58' 27.50881"E	23° 30' 35.97121"N
52	V51	82° 58' 26.90401"E	23° 30' 35.29442"N
53	GCP1	83° 05' 15.30762"E	23° 31' 45.22513"N
54	GCP2	83° 05' 40.27720"E	23° 31' 46.61008"N

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FIXATION OF BASE POINT



FIXATION OF BOUNDARY POINT

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A handwritten signature in black ink, appearing to be 'S. S. S.', is written over a circular stamp.

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