

# **D.G.P.S. SURVEY REPORT**

**OF COMPENSATORY AFFORESTATION AREA FOR FOREST LAND  
DIVERSION PROPOSAL OF EXPLOSIVE STORAGE  
AT PRIVATE REVENUE LAND  
VILLAGE –USLAPUR  
TEHSIL – BEMETARA  
DISTRICT – BEMETARA  
SURVEYED AREA – 4.00 HECTARE**

**(SUBMITTED UNDER FOREST CONSERVATION ACT 1980)**



## **APPLICANT**

### **Gulf Oil Corporation Ltd.**

Flate No. D-202, 2nd Floor, Shri Sai Parisar,  
Behind Shri Sai Mangalam, Shrikant Verma  
Marg, Vyapar Vihar, Bilapur 495001  
(CHHATTISGARH)

## **SURVEYED BY**

### **SIDDHARTH GEO CONSULTANTS**

621/3, 1<sup>st</sup> FLOOR, RAMKUND SAMTA COLONY,  
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ISO 9001:2008

# 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 compensatory afforestation for land diversion proposal of explosive storage at revenue land of Village Uslapur, tehsil/district Bemetara. DGPS surveyed area 4.00 Hect. done by us as per the guidelines of forest conservation Act 1980 for **Gulf Oil Corporation Limited**, and the Co-ordinates of Boundary points are correct in our knowledge.*

*The work done is as follows:*

1. Create One Base point with Fixation of two ground control points on static mode.
2. Survey of 32 boundary Pillars by using DGPS and fixed up its Ground position and preparation of Geo-referenced cadastral map.
3. The Geo-referenced cadastral 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 : 24/05/2017*

**For, Siddharth Geo Consultants**

*Place : Raipur*

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

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## **LIST OF MAPS**

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| <b>1.</b>     | GEO-REFRENCEDCADASTRALMAP OF THE SURVEYED AREA WITH FIXED BOUNDARY POINTS | <b>1</b>       |
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# 1.

## **INTRODUCTION**

**Gulf Oil Corporation Ltd.** have been submitted proposal to Forest department Govt. of Chhattisgarh for forest land diversion proposal of Explosive storege, under forest conservation Act 1980. We have provided the area proposed to be compensatory afforestation over an area of 4.00hect. of, Revenue land Uslapur, under Tehsil Bemetara, district Bemetara. Against the diversion proposal.

**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 compensatory afforestation purpose, have been done by **Siddharth Geo Consultants**, Raipur, as par the guidelines of forest conservation Act 1980. DGPS survey have been completed successfully on dated on 18/05/17in the presence of Revenue department officials.

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## 2.

### **LOCATION OF THE AREA**

The DGPS surveyed area proposed to be compensatory afforestation purpose is situated near village Uslapur, and 15.40 Km. SW Direction from District Headquarter Bemetara (C.G.). It falls in Survey of India Toposheet no. – 64 G/9. The surveyed area is bounded by Longitudes **81° 40' 30.14563"E** to **81° 40' 40.13652"E** & Latitudes **21° 45' 41.36420"N** to **21° 45' 50.67401"N**.

The surveyed area comes under Private Revenue land, Uslapur under Tehsil Bemetara, district Bemetara. The total DGPS surveyed area proposed to be compensatory afforestation purpose is 4.00 hect.

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### 3.

## **LAND SCHEDULE OF THE SURVEYED AREA**

### **DGPS SURVEYED LAND SCHEDULE DETAILS FOR PROPOSED C.A. LAND AT VILLAGE USLAPUR**

| District | Tehsil/Village       | Type of Land         | Khasra No. | Surveyed Area in Hect. |
|----------|----------------------|----------------------|------------|------------------------|
| Bemetara | Bemetara/<br>Uslapur | Private Revenue Land | 117        | 0.3                    |
|          |                      |                      | 90/1       | 0.8                    |
|          |                      |                      | 90/2       | 0.5                    |
|          |                      |                      | 90/3       | 0.27                   |
|          |                      |                      | 137/1      | 1.23                   |
|          |                      |                      | 137/2      | 0.7                    |
|          |                      |                      | 136        | 0.2                    |
| Total    |                      |                      |            | 4.00                   |

\*\*\*\*\*

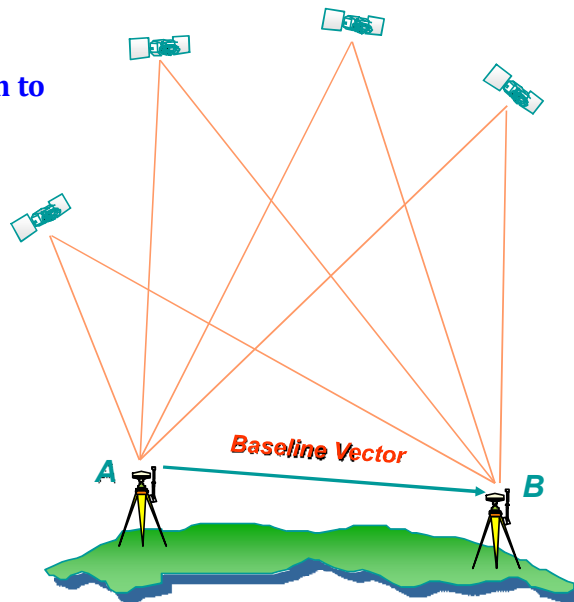
## 4.

### **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.

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 32 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 VectorizedCadastral map/Forest Compartment maps, SOI Toposheets.

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# ***Land Survey Overview***

## **GNSS Solutions**

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## **Project Name : GULF OIL 1**

Spatial Reference System : WGS 84~2

Time Zone : (UTC+05:30) Chennai, Kolkata, Mumbai, New Delhi

Linear Units : Meters

## **Coordinate System Summary**

### **Coordinate system**

|                           |            |
|---------------------------|------------|
| <b>Name :</b>             | WGS 84~2   |
| <b>Type :</b>             | Geographic |
| <b>Unit name :</b>        | Radians    |
| <b>Radians per unit :</b> | 1          |
| <b>Vertical datum :</b>   | ICD_200    |
| <b>Vertical unit :</b>    | Meters     |
| <b>Meters per unit :</b>  | 1          |

### **Datum**

|                             |                |
|-----------------------------|----------------|
| <b>Name :</b>               | WGS 84         |
| <b>Ellipsoid Name :</b>     | WGS 84         |
| <b>Semi-major Axis :</b>    | 6378137.000 m  |
| <b>Inverse Flattening :</b> | 298.257223563  |
| <b>DX to WGS84 :</b>        | 0.0000 m       |
| <b>DY to WGS84 :</b>        | 0.0000 m       |
| <b>DZ to WGS84 :</b>        | 0.0000 m       |
| <b>RX to WGS84 :</b>        | -0.000000 "    |
| <b>RY to WGS84 :</b>        | -0.000000 "    |
| <b>RZ to WGS84 :</b>        | -0.000000 "    |
| <b>ppm to WGS84 :</b>       | 0.000000000000 |

|                     |   |   |
|---------------------|---|---|
| Control Points      | : | 1 |
| Reference Points    | : | 0 |
| Logged Points       | : | 4 |
| Target Points       | : | 0 |
| Intermediate Points | : | 0 |

## Control Points

| Name | Components   |         |            | 95%<br>Error | Status | Control Error |
|------|--------------|---------|------------|--------------|--------|---------------|
| 8348 | Long         | 81° 40' | 17.64305"E | 0.000        | FIXED  |               |
|      | Lat          | 21° 46' | 02.07009"N | 0.000        | FIXED  |               |
|      | Ortho height |         | 276.584    | 0.000        | FIXED  |               |

## Logged Points

| Name | Components   |         |            | 95%<br>Error | Status             |
|------|--------------|---------|------------|--------------|--------------------|
| US2  | Long         | 81° 40' | 35.57509"E | 0.002        | Processed (static) |
|      | Lat          | 21° 45' | 41.83695"N | 0.001        | Processed (static) |
|      | Ortho height |         | 274.376    | 0.002        | Processed (static) |
| US4  | Long         | 81° 40' | 33.84257"E | 0.001        | Processed (static) |
|      | Lat          | 21° 45' | 43.64085"N | 0.001        | Processed (static) |
|      | Ortho height |         | 271.769    | 0.002        | Processed (static) |
| US6  | Long         | 81° 40' | 34.82883"E | 0.001        | Processed (static) |
|      | Lat          | 21° 45' | 46.30377"N | 0.001        | Processed (static) |
|      | Ortho height |         | 269.753    | 0.002        | Processed (static) |
| US8  | Long         | 81° 40' | 32.26810"E | 0.001        | Processed (static) |
|      | Lat          | 21° 45' | 48.64927"N | 0.001        | Processed (static) |
|      | Ortho height |         | 268.287    | 0.002        | Processed (static) |

## Files

| Name         | Start Time        | Sampling | Epochs | Size (Kb) | Type              |
|--------------|-------------------|----------|--------|-----------|-------------------|
| 83481380.17o | 17/05/18 11:04:57 | 1        | 12759  | 13011     | L1/L2 GPS/GLONASS |
| 19271380.17o | 17/05/18 11:53:36 | 1        | 567    | 725L1/L2  | GPS/GLONASS/WAAS  |
| 19271381.17o | 17/05/18 12:09:53 | 1        | 474    | 581L1/L2  | GPS/GLONASS/WAAS  |
| 19271382.17o | 17/05/18 12:21:48 | 1        | 376    | 487L1/L2  | GPS/GLONASS/WAAS  |
| 19271383.17o | 17/05/18 12:37:30 | 1        | 333    | 390L1/L2  | GPS/GLONASS/WAAS  |

## Occupations

| Site | Start Time              | Time span   | Type   | File         |
|------|-------------------------|-------------|--------|--------------|
| 8348 | May 18 2017 11:04:57.00 | 03:32:38.00 | Static | 83481380.17o |
| US2  | May 18 2017 11:53:36.00 | 00:09:26.00 | Static | 19271380.17o |
| US4  | May 18 2017 12:09:53.00 | 00:07:53.00 | Static | 19271381.17o |
| US6  | May 18 2017 12:21:48.00 | 00:06:15.00 | Static | 19271382.17o |
| US8  | May 18 2017 12:37:30.00 | 00:05:32.00 | Static | 19271383.17o |

## Processes

| Reference | Reference File | Rover | Rover File   | Mode   | Num |
|-----------|----------------|-------|--------------|--------|-----|
| 8348      | 83481380.17o   | US4   | 19271381.17o | Static | 3   |

|      |              |     |              |        |    |
|------|--------------|-----|--------------|--------|----|
| 8348 | 83481380.17o | US8 | 19271383.17o | Static | 4  |
| 8348 | 83481380.17o | US2 | 19271380.17o | Static | 5  |
| 8348 | 83481380.17o | US6 | 19271382.17o | Static | 12 |

## Processed vectors

| <u>Vector Identifier</u> | <u>Vector Length</u> | <u>95% Error</u> |   | <u>Vector Components</u> | <u>95% Error</u> | <u>SV</u> | <u>PDOP</u> | <u>QA</u> | <u>Solution</u> |
|--------------------------|----------------------|------------------|---|--------------------------|------------------|-----------|-------------|-----------|-----------------|
| 8348 - US6               | 692.128              | 0.004            | X | -463.456                 | 0.002            | 16        | 1.4         |           | Fixed           |
| 17/05/18 12:21:48.00     |                      |                  | Y | 243.141                  | 0.002            |           |             |           |                 |
| +00:06:15.00             |                      |                  | Z | -452.914                 | 0.002            |           |             |           |                 |
| 8348 - US2               | 807.939              | 0.004            | X | -476.673                 | 0.002            | 17        | 1.4         |           | Fixed           |
| 17/05/18 11:53:36.00     |                      |                  | Y | 300.892                  | 0.002            |           |             |           |                 |
| +00:09:26.00             |                      |                  | Z | -578.803                 | 0.002            |           |             |           |                 |
| 8348 - US8               | 589.068              | 0.004            | X | -394.839                 | 0.001            | 13        | 1.7         |           | Fixed           |
| 17/05/18 12:37:30.00     |                      |                  | Y | 204.631                  | 0.002            |           |             |           |                 |
| +00:05:32.00             |                      |                  | Z | -386.303                 | 0.001            |           |             |           |                 |
| 8348 - US4               | 733.476              | 0.004            | X | -430.751                 | 0.002            | 16        | 1.6         |           | Fixed           |
| 17/05/18 12:09:53.00     |                      |                  | Y | 270.937                  | 0.002            |           |             |           |                 |
| +00:07:53.00             |                      |                  | Z | -528.237                 | 0.001            |           |             |           |                 |

# ***Land Survey Overview***

## **GNSS Solutions**

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## **Project Name : GULF OIL 2**

Spatial Reference System : WGS 84~2

Time Zone : (UTC+05:30) Chennai, Kolkata, Mumbai, New Delhi

Linear Units : Meters

## **Coordinate System Summary**

### **Coordinate system**

|                           |            |
|---------------------------|------------|
| <b>Name :</b>             | WGS 84~2   |
| <b>Type :</b>             | Geographic |
| <b>Unit name :</b>        | Radians    |
| <b>Radians per unit :</b> | 1          |
| <b>Vertical datum :</b>   | ICD_200    |
| <b>Vertical unit :</b>    | Meters     |
| <b>Meters per unit :</b>  | 1          |

### **Datum**

|                             |                |
|-----------------------------|----------------|
| <b>Name :</b>               | WGS 84         |
| <b>Ellipsoid Name :</b>     | WGS 84         |
| <b>Semi-major Axis :</b>    | 6378137.000 m  |
| <b>Inverse Flattening :</b> | 298.257223563  |
| <b>DX to WGS84 :</b>        | 0.0000 m       |
| <b>DY to WGS84 :</b>        | 0.0000 m       |
| <b>DZ to WGS84 :</b>        | 0.0000 m       |
| <b>RX to WGS84 :</b>        | -0.000000 "    |
| <b>RY to WGS84 :</b>        | -0.000000 "    |
| <b>RZ to WGS84 :</b>        | -0.000000 "    |
| <b>ppm to WGS84 :</b>       | 0.000000000000 |

|                     |   |   |
|---------------------|---|---|
| Control Points      | : | 1 |
| Reference Points    | : | 0 |
| Logged Points       | : | 4 |
| Target Points       | : | 0 |
| Intermediate Points | : | 0 |

## Control Points

| Name | Components   |         |            | 95%   | Status | Control Error |
|------|--------------|---------|------------|-------|--------|---------------|
|      |              |         |            | Error |        |               |
| 8348 | Long         | 81° 40' | 17.64305"E | 0.000 | FIXED  |               |
|      | Lat          | 21° 46' | 02.07009"N | 0.000 | FIXED  |               |
|      | Ortho height |         | 276.584    | 0.000 | FIXED  |               |

## Logged Points

| Name | Components   |         |            | 95%   | Status    |          |
|------|--------------|---------|------------|-------|-----------|----------|
|      |              |         |            | Error |           |          |
| US10 | Long         | 81° 40' | 31.77541"E | 0.001 | Processed | (static) |
|      | Lat          | 21° 45' | 50.67401"N | 0.001 | Processed | (static) |
|      | Ortho height |         | 268.940    | 0.001 | Processed | (static) |
| US11 | Long         | 81° 40' | 33.60513"E | 0.001 | Processed | (static) |
|      | Lat          | 21° 45' | 50.67395"N | 0.001 | Processed | (static) |
|      | Ortho height |         | 268.583    | 0.002 | Processed | (static) |
| US14 | Long         | 81° 40' | 34.11726"E | 0.001 | Processed | (static) |
|      | Lat          | 21° 45' | 48.95673"N | 0.001 | Processed | (static) |
|      | Ortho height |         | 267.987    | 0.002 | Processed | (static) |
| US16 | Long         | 81° 40' | 34.85283"E | 0.001 | Processed | (static) |
|      | Lat          | 21° 45' | 50.03645"N | 0.001 | Processed | (static) |
|      | Ortho height |         | 267.761    | 0.002 | Processed | (static) |

## Files

| Name         | Start Time        | Sampling | Epochs | Size (Kb) | Type              |
|--------------|-------------------|----------|--------|-----------|-------------------|
| 83481380.17o | 17/05/18 11:04:57 | 1        | 12759  | 13011     | L1/L2 GPS/GLONASS |
| 19271380.17o | 17/05/18 11:53:36 | 1        | 567    | 725L1/L2  | GPS/GLONASS/WAAS  |
| 19271381.17o | 17/05/18 12:09:53 | 1        | 474    | 581L1/L2  | GPS/GLONASS/WAAS  |
| 19271382.17o | 17/05/18 12:21:48 | 1        | 376    | 487L1/L2  | GPS/GLONASS/WAAS  |
| 19271383.17o | 17/05/18 12:37:30 | 1        | 333    | 390L1/L2  | GPS/GLONASS/WAAS  |

## Occupations

| Site | Start Time              | Time span   | Type   | File         |
|------|-------------------------|-------------|--------|--------------|
| 8348 | May 18 2017 11:04:57.00 | 03:32:38.00 | Static | 83481380.17o |
| US10 | May 18 2017 12:47:33.00 | 00:07:28.00 | Static | 19271384.17o |
| US11 | May 18 2017 12:57:42.00 | 00:06:20.00 | Static | 19271385.17o |
| US14 | May 18 2017 13:10:06.00 | 00:05:21.00 | Static | 19271386.17o |
| US16 | May 18 2017 13:17:40.00 | 00:05:39.00 | Static | 19271387.17o |

## Processes

| Reference | Reference File | Rover | Rover File   | Mode   | Num |
|-----------|----------------|-------|--------------|--------|-----|
| 8348      | 83481380.17o   | US10  | 19271384.17o | Static | 1   |
| 8348      | 83481380.17o   | US11  | 19271385.17o | Static | 6   |
| 8348      | 83481380.17o   | US14  | 19271386.17o | Static | 7   |
| 8348      | 83481380.17o   | US16  | 19271387.17o | Static | 8   |

## Processed vectors

| Vector Identifier    | Vector Length | 95% Error |   | Vector Components | 95% Error | SV | PDOP | QA | Solution |
|----------------------|---------------|-----------|---|-------------------|-----------|----|------|----|----------|
| 8348 - US16          | 618.894       | 0.003     | X | -469.860          | 0.001     | 15 | 1.4  |    | Fixed    |
| 17/05/18 13:17:40.00 |               |           | Y | 200.204           | 0.002     |    |      |    |          |
| +00:05:39.00         |               |           | Z | -349.542          | 0.001     |    |      |    |          |
| 8348 - US14          | 621.939       | 0.004     | X | -447.846          | 0.001     | 14 | 1.5  |    | Fixed    |
| 17/05/18 13:10:06.00 |               |           | Y | 208.623           | 0.002     |    |      |    |          |
| +00:05:21.00         |               |           | Z | -377.782          | 0.001     |    |      |    |          |
| 8348 - US11          | 577.291       | 0.004     | X | -436.039          | 0.001     | 14 | 1.4  |    | Fixed    |
| 17/05/18 12:57:42.00 |               |           | Y | 187.663           | 0.002     |    |      |    |          |
| +00:06:20.00         |               |           | Z | -328.508          | 0.002     |    |      |    |          |
| 8348 - US10          | 536.472       | 0.003     | X | -383.974          | 0.001     | 14 | 1.4  |    | Fixed    |
| 17/05/18 12:47:33.00 |               |           | Y | 180.380           | 0.001     |    |      |    |          |
| +00:07:28.00         |               |           | Z | -328.374          | 0.001     |    |      |    |          |

# ***Land Survey Overview***

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## **Project Name : GULF OIL 3**

Spatial Reference System : WGS 84~2

Time Zone : (UTC+05:30) Chennai, Kolkata, Mumbai, New Delhi

Linear Units : Meters

## **Coordinate System Summary**

### **Coordinate system**

**Name :** WGS 84~2  
**Type :** Geographic  
**Unit name :** Radians  
**Radians per unit :** 1  
**Vertical datum :** ICD\_200  
**Vertical unit :** Meters  
**Meters per unit :** 1

### **Datum**

**Name :** WGS 84  
**Ellipsoid Name :** WGS 84  
**Semi-major Axis :** 6378137.000 m  
**Inverse Flattening :** 298.257223563  
**DX to WGS84 :** 0.0000 m  
**DY to WGS84 :** 0.0000 m  
**DZ to WGS84 :** 0.0000 m  
**RX to WGS84 :** -0.000000 "  
**RY to WGS84 :** -0.000000 "  
**RZ to WGS84 :** -0.000000 "  
**ppm to WGS84 :** 0.000000000000

Control Points : 1  
Reference Points : 0  
Logged Points : 4  
Target Points : 0  
Intermediate Points : 0

## Control Points

| Name | Components   |         |            | 95%<br>Error | Status | Control Error |
|------|--------------|---------|------------|--------------|--------|---------------|
| 8348 | Long         | 81° 40' | 17.64305"E | 0.000        | FIXED  |               |
|      | Lat          | 21° 46' | 02.07009"N | 0.000        | FIXED  |               |
|      | Ortho height |         | 276.584    | 0.000        | FIXED  |               |

## Logged Points

| Name | Components   |         |            | 95%<br>Error | Status             |
|------|--------------|---------|------------|--------------|--------------------|
| US18 | Long         | 81° 40' | 35.67723"E | 0.001        | Processed (static) |
|      | Lat          | 21° 45' | 50.46121"N | 0.001        | Processed (static) |
|      | Ortho height |         | 267.704    | 0.002        | Processed (static) |
| US20 | Long         | 81° 40' | 36.86948"E | 0.001        | Processed (static) |
|      | Lat          | 21° 45' | 48.84257"N | 0.001        | Processed (static) |
|      | Ortho height |         | 269.975    | 0.002        | Processed (static) |
| US22 | Long         | 81° 40' | 36.38592"E | 0.002        | Processed (static) |
|      | Lat          | 21° 45' | 46.26996"N | 0.001        | Processed (static) |
|      | Ortho height |         | 272.213    | 0.002        | Processed (static) |
| US24 | Long         | 81° 40' | 38.82772"E | 0.002        | Processed (static) |
|      | Lat          | 21° 45' | 44.60841"N | 0.001        | Processed (static) |
|      | Ortho height |         | 271.806    | 0.002        | Processed (static) |

## Files

| Name         | Start Time        | Sampling | Epochs | Size (Kb) | Type              |
|--------------|-------------------|----------|--------|-----------|-------------------|
| 83481380.17o | 17/05/18 11:04:57 | 1        | 12759  | 13011     | L1/L2 GPS/GLONASS |
| 19271388.17o | 17/05/18 13:25:10 | 1        | 331    | 381L1/L2  | GPS/GLONASS/WAAS  |
| 19271389.17o | 17/05/18 13:34:07 | 1        | 450    | 523L1/L2  | GPS/GLONASS/WAAS  |
| ssssddd0.yyo | 17/05/18 13:45:00 | 1        | 444    | 493L1/L2  | GPS/GLONASS/WAAS  |
| ssssddd0.yyo | 17/05/18 13:56:49 | 1        | 322    | 369L1/L2  | GPS/GLONASS/WAAS  |

## Occupations

| Site | Start Time              | Time span   | Type   | File         |
|------|-------------------------|-------------|--------|--------------|
| 8348 | May 18 2017 11:04:57.00 | 03:32:38.00 | Static | 83481380.17o |
| US18 | May 18 2017 13:25:10.00 | 00:05:30.00 | Static | 19271388.17o |
| US20 | May 18 2017 13:34:07.00 | 00:07:29.00 | Static | 19271389.17o |
| US22 | May 18 2017 13:45:00.00 | 00:07:23.00 | Static | ssssddd0.yyo |
| US24 | May 18 2017 13:56:49.00 | 00:05:21.00 | Static | ssssddd0.yyo |

# Processes

| Reference | Reference File | Rover | Rover File   | Mode   | Num |
|-----------|----------------|-------|--------------|--------|-----|
| 8348      | 83481380.17o   | US24  | ssssddd0.yyo | Static | 2   |
| 8348      | 83481380.17o   | US18  | 19271388.17o | Static | 9   |
| 8348      | 83481380.17o   | US20  | 19271389.17o | Static | 10  |
| 8348      | 83481380.17o   | US22  | ssssddd0.yyo | Static | 11  |

# Processed vectors

| Vector Identifier    | Vector Length | 95% Error | Vector Components | 95% Error | SV | PDOP | QA | Solution |
|----------------------|---------------|-----------|-------------------|-----------|----|------|----|----------|
| 8348 - US22          | 725.397       | 0.004     | X -507.333        | 0.002     | 15 | 1.4  |    | Fixed    |
| 17/05/18 13:45:00.00 |               |           | Y 252.258         | 0.002     |    |      |    |          |
| +00:07:23.00         |               |           | Z -452.967        | 0.001     |    |      |    |          |
| 8348 - US20          | 686.100       | 0.004     | X -525.630        | 0.001     | 15 | 1.3  |    | Fixed    |
| 17/05/18 13:34:07.00 |               |           | Y 223.186         | 0.002     |    |      |    |          |
| +00:07:29.00         |               |           | Z -380.308        | 0.002     |    |      |    |          |
| 8348 - US18          | 627.624       | 0.004     | X -491.157        | 0.001     | 15 | 1.3  |    | Fixed    |
| 17/05/18 13:25:10.00 |               |           | Y 198.113         | 0.002     |    |      |    |          |
| +00:05:30.00         |               |           | Z -336.790        | 0.001     |    |      |    |          |
| 8348 - US24          | 811.773       | 0.005     | X -574.062        | 0.002     | 15 | 1.4  |    | Fixed    |
| 17/05/18 13:56:49.00 |               |           | Y 280.789         | 0.002     |    |      |    |          |
| +00:05:21.00         |               |           | Z -500.585        | 0.002     |    |      |    |          |

# ***Land Survey Overview***

## **GNSS Solutions**

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## **Project Name : GULF OIL 2**

Spatial Reference System : WGS 84~2

Time Zone : (UTC+05:30) Chennai, Kolkata, Mumbai, New Delhi

Linear Units : Meters

## **Coordinate System Summary**

### **Coordinate system**

|                           |                   |
|---------------------------|-------------------|
| <b>Name :</b>             | <b>WGS 84~2</b>   |
| <b>Type :</b>             | <b>Geographic</b> |
| <b>Unit name :</b>        | <b>Radians</b>    |
| <b>Radians per unit :</b> | <b>1</b>          |
| <b>Vertical datum :</b>   | <b>ICD 200</b>    |
| <b>Vertical unit :</b>    | <b>Meters</b>     |
| <b>Meters per unit :</b>  | <b>1</b>          |

### **Datum**

|                             |                       |
|-----------------------------|-----------------------|
| <b>Name :</b>               | <b>WGS 84</b>         |
| <b>Ellipsoid Name :</b>     | <b>WGS 84</b>         |
| <b>Semi-major Axis :</b>    | <b>6378137.000 m</b>  |
| <b>Inverse Flattening :</b> | <b>298.257223563</b>  |
| <b>DX to WGS84 :</b>        | <b>0.0000 m</b>       |
| <b>DY to WGS84 :</b>        | <b>0.0000 m</b>       |
| <b>DZ to WGS84 :</b>        | <b>0.0000 m</b>       |
| <b>RX to WGS84 :</b>        | <b>-0.000000 "</b>    |
| <b>RY to WGS84 :</b>        | <b>-0.000000 "</b>    |
| <b>RZ to WGS84 :</b>        | <b>-0.000000 "</b>    |
| <b>ppm to WGS84 :</b>       | <b>0.000000000000</b> |

|                            |          |          |
|----------------------------|----------|----------|
| <b>Control Points</b>      | <b>:</b> | <b>1</b> |
| <b>Reference Points</b>    | <b>:</b> | <b>0</b> |
| <b>Logged Points</b>       | <b>:</b> | <b>4</b> |
| <b>Target Points</b>       | <b>:</b> | <b>0</b> |
| <b>Intermediate Points</b> | <b>:</b> | <b>0</b> |

## Control Points

| Name | Components   |         |            | 95%<br>Error | Status | Control Error |
|------|--------------|---------|------------|--------------|--------|---------------|
| 8348 | Long         | 81° 40' | 17.64305"E | 0.000        | FIXED  |               |
|      | Lat          | 21° 46' | 02.07009"N | 0.000        | FIXED  |               |
|      | Ortho height |         | 276.584    | 0.000        | FIXED  |               |

## Logged Points

| Name | Components   |         |            | 95%<br>Error | Status             |
|------|--------------|---------|------------|--------------|--------------------|
| US1  | Long         | 81° 40' | 40.13652"E | 0.002        | Processed (static) |
|      | Lat          | 21° 45' | 42.67524"N | 0.001        | Processed (static) |
|      | Ortho height |         | 273.298    | 0.002        | Processed (static) |
| US3  | Long         | 81° 40' | 33.69289"E | 0.001        | Processed (static) |
|      | Lat          | 21° 45' | 41.36420"N | 0.001        | Processed (static) |
|      | Ortho height |         | 273.430    | 0.002        | Processed (static) |
| US5  | Long         | 81° 40' | 34.14714"E | 0.001        | Processed (static) |
|      | Lat          | 21° 45' | 45.06260"N | 0.001        | Processed (static) |
|      | Ortho height |         | 270.472    | 0.002        | Processed (static) |
| US7  | Long         | 81° 40' | 30.14563"E | 0.001        | Processed (static) |
|      | Lat          | 21° 45' | 46.24913"N | 0.001        | Processed (static) |
|      | Ortho height |         | 268.711    | 0.002        | Processed (static) |

## Files

| Name         | Start Time        | Sampling | Epochs | Size (Kb) | Type              |
|--------------|-------------------|----------|--------|-----------|-------------------|
| 83481380.17o | 17/05/18 11:04:57 | 1        | 12759  | 13011     | L1/L2 GPS/GLONASS |
| 39671380.17o | 17/05/18 11:49:08 | 1        | 414    | 543L1/L2  | GPS/GLONASS/WAAS  |
| 39671381.17o | 17/05/18 12:00:50 | 1        | 761    | 948L1/L2  | GPS/GLONASS/WAAS  |
| 39671383.17o | 17/05/18 12:19:56 | 1        | 363    | 462L1/L2  | GPS/GLONASS/WAAS  |
| 39671384.17o | 17/05/18 12:30:13 | 1        | 420    | 482L1/L2  | GPS/GLONASS/WAAS  |

## Occupations

| Site | Start Time              | Time span   | Type   | File         |
|------|-------------------------|-------------|--------|--------------|
| 8348 | May 18 2017 11:04:57.00 | 03:32:38.00 | Static | 83481380.17o |
| US1  | May 18 2017 11:49:08.00 | 00:06:53.00 | Static | 39671380.17o |
| US3  | May 18 2017 12:00:50.00 | 00:12:40.00 | Static | 39671381.17o |
| US5  | May 18 2017 12:19:56.00 | 00:06:02.00 | Static | 39671383.17o |
| US7  | May 18 2017 12:30:13.00 | 00:06:59.00 | Static | 39671384.17o |

## Processes

| Reference | Reference File | Rover | Rover File   | Mode   | Num |
|-----------|----------------|-------|--------------|--------|-----|
| 8348      | 83481380.17o   | US3   | 39671381.17o | Static | 3   |
| 8348      | 83481380.17o   | US5   | 39671383.17o | Static | 4   |

|      |              |     |              |        |    |
|------|--------------|-----|--------------|--------|----|
| 8348 | 83481380.17o | US1 | 39671380.17o | Static | 6  |
| 8348 | 83481380.17o | US7 | 39671384.17o | Static | 13 |

## Processed vectors

| <u>Vector Identifier</u> | <u>Vector Length</u> | <u>95% Error</u> |   | <u>Vector Components</u> | <u>95% Error</u> | <u>SV</u> | <u>PDOP</u> | <u>QA</u> | <u>Solution</u> |
|--------------------------|----------------------|------------------|---|--------------------------|------------------|-----------|-------------|-----------|-----------------|
| 8348 - US7               | 604.906              | 0.003            | X | -330.365                 | 0.001            | 14        | 1.6         |           | Fixed           |
| 17/05/18 12:30:13.00     |                      |                  | Y | 223.318                  | 0.002            |           |             |           |                 |
| +00:06:59.00             |                      |                  | Z | -454.862                 | 0.001            |           |             |           |                 |
| 8348 - US1               | 879.527              | 0.005            | X | -607.882                 | 0.002            | 17        | 1.4         |           | Fixed           |
| 17/05/18 11:49:08.00     |                      |                  | Y | 309.415                  | 0.002            |           |             |           |                 |
| +00:06:53.00             |                      |                  | Z | -555.256                 | 0.002            |           |             |           |                 |
| 8348 - US5               | 706.086              | 0.004            | X | -441.931                 | 0.002            | 16        | 1.4         |           | Fixed           |
| 17/05/18 12:19:56.00     |                      |                  | Y | 254.970                  | 0.002            |           |             |           |                 |
| +00:06:02.00             |                      |                  | Z | -488.104                 | 0.002            |           |             |           |                 |
| 8348 - US3               | 786.311              | 0.004            | X | -422.513                 | 0.002            | 17        | 1.4         |           | Fixed           |
| 17/05/18 12:00:50.00     |                      |                  | Y | 297.528                  | 0.002            |           |             |           |                 |
| +00:12:40.00             |                      |                  | Z | -592.659                 | 0.002            |           |             |           |                 |

# ***Land Survey Overview***

## **GNSS Solutions**

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## **Project Name : GULF OIL 5**

**Spatial Reference System : WGS 84~2**

**Time Zone : (UTC+05:30) Chennai, Kolkata, Mumbai, New Delhi**

**Linear Units : Meters**

## **Coordinate System Summary**

### **Coordinate system**

|                           |                   |
|---------------------------|-------------------|
| <b>Name :</b>             | <b>WGS 84~2</b>   |
| <b>Type :</b>             | <b>Geographic</b> |
| <b>Unit name :</b>        | <b>Radians</b>    |
| <b>Radians per unit :</b> | <b>1</b>          |
| <b>Vertical datum :</b>   | <b>ICD 200</b>    |
| <b>Vertical unit :</b>    | <b>Meters</b>     |
| <b>Meters per unit :</b>  | <b>1</b>          |

### **Datum**

|                             |                       |
|-----------------------------|-----------------------|
| <b>Name :</b>               | <b>WGS 84</b>         |
| <b>Ellipsoid Name :</b>     | <b>WGS 84</b>         |
| <b>Semi-major Axis :</b>    | <b>6378137.000 m</b>  |
| <b>Inverse Flattening :</b> | <b>298.257223563</b>  |
| <b>DX to WGS84 :</b>        | <b>0.0000 m</b>       |
| <b>DY to WGS84 :</b>        | <b>0.0000 m</b>       |
| <b>DZ to WGS84 :</b>        | <b>0.0000 m</b>       |
| <b>RX to WGS84 :</b>        | <b>-0.000000 "</b>    |
| <b>RY to WGS84 :</b>        | <b>-0.000000 "</b>    |
| <b>RZ to WGS84 :</b>        | <b>-0.000000 "</b>    |
| <b>ppm to WGS84 :</b>       | <b>0.000000000000</b> |

|                            |          |          |
|----------------------------|----------|----------|
| <b>Control Points</b>      | <b>:</b> | <b>1</b> |
| <b>Reference Points</b>    | <b>:</b> | <b>0</b> |
| <b>Logged Points</b>       | <b>:</b> | <b>4</b> |
| <b>Target Points</b>       | <b>:</b> | <b>0</b> |
| <b>Intermediate Points</b> | <b>:</b> | <b>0</b> |

## Control Points

| Name | Components   |         |            | 95%<br>Error | Status | Control Error |
|------|--------------|---------|------------|--------------|--------|---------------|
| 8348 | Long         | 81° 40' | 17.64305"E | 0.000        | FIXED  |               |
|      | Lat          | 21° 46' | 02.07009"N | 0.000        | FIXED  |               |
|      | Ortho height |         | 276.584    | 0.000        | FIXED  |               |

## Logged Points

| Name | Components   |         |            | 95%<br>Error | Status             |
|------|--------------|---------|------------|--------------|--------------------|
| US12 | Long         | 81° 40' | 34.43969"E | 0.001        | Processed (static) |
|      | Lat          | 21° 45' | 50.48463"N | 0.001        | Processed (static) |
|      | Ortho height |         | 267.937    | 0.002        | Processed (static) |
| US13 | Long         | 81° 40' | 33.90601"E | 0.001        | Processed (static) |
|      | Lat          | 21° 45' | 49.35243"N | 0.001        | Processed (static) |
|      | Ortho height |         | 267.790    | 0.002        | Processed (static) |
| US15 | Long         | 81° 40' | 34.69776"E | 0.001        | Processed (static) |
|      | Lat          | 21° 45' | 49.40303"N | 0.001        | Processed (static) |
|      | Ortho height |         | 267.803    | 0.002        | Processed (static) |
| US9  | Long         | 81° 40' | 31.81052"E | 0.001        | Processed (static) |
|      | Lat          | 21° 45' | 48.84107"N | 0.001        | Processed (static) |
|      | Ortho height |         | 267.921    | 0.001        | Processed (static) |

## Files

| Name         | Start Time        | Sampling | Epochs | Size (Kb) | Type              |
|--------------|-------------------|----------|--------|-----------|-------------------|
| 83481380.17o | 17/05/18 11:04:57 | 1        | 12759  | 13011     | L1/L2 GPS/GLONASS |
| 39671385.17o | 17/05/18 12:41:10 | 1        | 406    | 477L1/L2  | GPS/GLONASS/WAAS  |
| 39671386.17o | 17/05/18 12:50:44 | 1        | 382    | 452L1/L2  | GPS/GLONASS/WAAS  |
| 39671387.17o | 17/05/18 13:01:34 | 1        | 416    | 454L1/L2  | GPS/GLONASS/WAAS  |
| 39671388.17o | 17/05/18 13:11:33 | 1        | 535    | 587L1/L2  | GPS/GLONASS/WAAS  |

## Occupations

| Site | Start Time              | Time span   | Type   | File         |
|------|-------------------------|-------------|--------|--------------|
| 8348 | May 18 2017 11:04:57.00 | 03:32:38.00 | Static | 83481380.17o |
| US9  | May 18 2017 12:41:10.00 | 00:06:45.00 | Static | 39671385.17o |
| US12 | May 18 2017 12:50:44.00 | 00:06:21.00 | Static | 39671386.17o |
| US13 | May 18 2017 13:01:34.00 | 00:06:55.00 | Static | 39671387.17o |
| US15 | May 18 2017 13:11:33.00 | 00:08:54.00 | Static | 39671388.17o |

## Processes

| Reference | Reference File | Rover | Rover File   | Mode   | Num |
|-----------|----------------|-------|--------------|--------|-----|
| 8348      | 83481380.17o   | US15  | 39671388.17o | Static | 8   |
| 8348      | 83481380.17o   | US17  | 39671389.17o | Static | 9   |
| 8348      | 83481380.17o   | US23  | ssssddd0.yyo | Static | 12  |
| 8348      | 83481380.17o   | US7   | 39671384.17o | Static | 13  |

## Processed vectors

| Vector Identifier    | Vector Length | 95% Error |   | Vector Components | 95% Error | SV | PDOP | QA | Solution |
|----------------------|---------------|-----------|---|-------------------|-----------|----|------|----|----------|
| 8348 - US15          | 626.094       | 0.003     | X | -465.109          | 0.001     | 15 | 1.4  |    | Fixed    |
| 17/05/18 13:11:33.00 |               |           | Y | 205.833           | 0.001     |    |      |    |          |
| +00:08:54.00         |               |           | Z | -365.103          | 0.001     |    |      |    |          |
| 8348 - US13          | 613.746       | 0.003     | X | -448.398          | 0.001     | 14 | 1.4  |    | Fixed    |
| 17/05/18 13:01:34.00 |               |           | Y | 203.807           | 0.002     |    |      |    |          |
| +00:06:55.00         |               |           | Z | -366.177          | 0.001     |    |      |    |          |
| 8348 - US9           | 575.550       | 0.003     | X | -382.139          | 0.001     | 14 | 1.5  |    | Fixed    |
| 17/05/18 12:41:10.00 |               |           | Y | 200.222           | 0.002     |    |      |    |          |
| +00:06:45.00         |               |           | Z | -380.970          | 0.001     |    |      |    |          |
| 8348 - US12          | 599.964       | 0.004     | X | -459.538          | 0.001     | 15 | 1.3  |    | Fixed    |
| 17/05/18 12:50:44.00 |               |           | Y | 192.676           | 0.002     |    |      |    |          |
| +00:06:21.00         |               |           | Z | -334.152          | 0.001     |    |      |    |          |

# ***Land Survey Overview***

## **GNSS Solutions**

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## **Project Name : GULF OIL 6**

**Spatial Reference System : WGS 84~2**

**Time Zone : (UTC+05:30) Chennai, Kolkata, Mumbai, New Delhi**

**Linear Units : Meters**

## **Coordinate System Summary**

### **Coordinate system**

|                           |                   |
|---------------------------|-------------------|
| <b>Name :</b>             | <b>WGS 84~2</b>   |
| <b>Type :</b>             | <b>Geographic</b> |
| <b>Unit name :</b>        | <b>Radians</b>    |
| <b>Radians per unit :</b> | <b>1</b>          |
| <b>Vertical datum :</b>   | <b>ICD 200</b>    |
| <b>Vertical unit :</b>    | <b>Meters</b>     |
| <b>Meters per unit :</b>  | <b>1</b>          |

### **Datum**

|                             |                       |
|-----------------------------|-----------------------|
| <b>Name :</b>               | <b>WGS 84</b>         |
| <b>Ellipsoid Name :</b>     | <b>WGS 84</b>         |
| <b>Semi-major Axis :</b>    | <b>6378137.000 m</b>  |
| <b>Inverse Flattening :</b> | <b>298.257223563</b>  |
| <b>DX to WGS84 :</b>        | <b>0.0000 m</b>       |
| <b>DY to WGS84 :</b>        | <b>0.0000 m</b>       |
| <b>DZ to WGS84 :</b>        | <b>0.0000 m</b>       |
| <b>RX to WGS84 :</b>        | <b>-0.000000 "</b>    |
| <b>RY to WGS84 :</b>        | <b>-0.000000 "</b>    |
| <b>RZ to WGS84 :</b>        | <b>-0.000000 "</b>    |
| <b>ppm to WGS84 :</b>       | <b>0.000000000000</b> |

|                            |          |          |
|----------------------------|----------|----------|
| <b>Control Points</b>      | <b>:</b> | <b>1</b> |
| <b>Reference Points</b>    | <b>:</b> | <b>0</b> |
| <b>Logged Points</b>       | <b>:</b> | <b>5</b> |
| <b>Target Points</b>       | <b>:</b> | <b>0</b> |
| <b>Intermediate Points</b> | <b>:</b> | <b>0</b> |

## Control Points

| Name | Components   |         |            | 95%<br>Error | Status | Control Error |
|------|--------------|---------|------------|--------------|--------|---------------|
| 8348 | Long         | 81° 40' | 17.64305"E | 0.000        | FIXED  |               |
|      | Lat          | 21° 46' | 02.07009"N | 0.000        | FIXED  |               |
|      | Ortho height |         | 276.584    | 0.000        | FIXED  |               |

## Logged Points

| Name | Components   |         |            | 95%<br>Error | Status             |
|------|--------------|---------|------------|--------------|--------------------|
| US17 | Long         | 81° 40' | 34.91410"E | 0.001        | Processed (static) |
|      | Lat          | 21° 45' | 50.28483"N | 0.001        | Processed (static) |
|      | Ortho height |         | 267.591    | 0.002        | Processed (static) |
| US19 | Long         | 81° 40' | 36.51774"E | 0.001        | Processed (static) |
|      | Lat          | 21° 45' | 50.40418"N | 0.001        | Processed (static) |
|      | Ortho height |         | 267.681    | 0.002        | Processed (static) |
| US21 | Long         | 81° 40' | 36.68083"E | 0.002        | Processed (static) |
|      | Lat          | 21° 45' | 47.98269"N | 0.001        | Processed (static) |
|      | Ortho height |         | 271.090    | 0.002        | Processed (static) |
| US23 | Long         | 81° 40' | 39.05024"E | 0.002        | Processed (static) |
|      | Lat          | 21° 45' | 46.13630"N | 0.001        | Processed (static) |
|      | Ortho height |         | 270.791    | 0.002        | Processed (static) |
| US25 | Long         | 81° 40' | 40.08121"E | 0.002        | Processed (static) |
|      | Lat          | 21° 45' | 44.64233"N | 0.002        | Processed (static) |
|      | Ortho height |         | 273.174    | 0.003        | Processed (static) |

## Files

| Name         | Start Time        | Sampling | Epochs | Size (Kb) | Type             |
|--------------|-------------------|----------|--------|-----------|------------------|
| 39671389.17o | 17/05/18 13:22:23 | 1        | 330    | 378L1/L2  | GPS/GLONASS/WAAS |
| ssssddd0.yyo | 17/05/18 13:30:19 | 1        | 542    | 629L1/L2  | GPS/GLONASS/WAAS |
| ssssddd0.yyo | 17/05/18 13:42:02 | 1        | 344    | 394L1/L2  | GPS/GLONASS/WAAS |
| ssssddd0.yyo | 17/05/18 13:51:42 | 1        | 495    | 565L1/L2  | GPS/GLONASS/WAAS |
| ssssddd0.yyo | 17/05/18 14:03:10 | 1        | 329    | 377L1/L2  | GPS/GLONASS/WAAS |

## Occupations

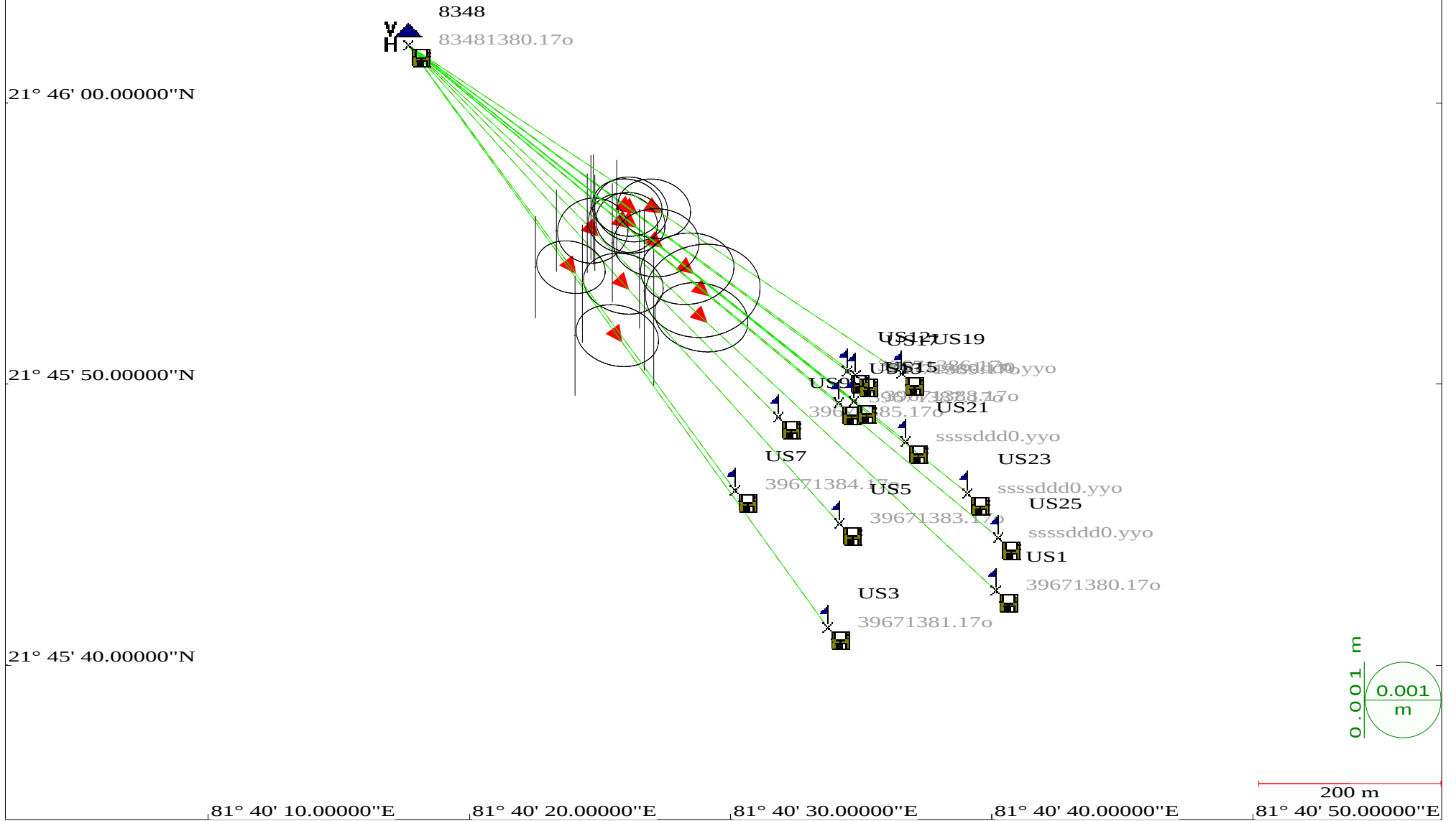
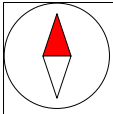
| Site | Start Time              | Time span   | Type   | File         |
|------|-------------------------|-------------|--------|--------------|
| 8348 | May 18 2017 11:04:57.00 | 03:32:38.00 | Static | 83481380.17o |
| US17 | May 18 2017 13:22:23.00 | 00:05:29.00 | Static | 39671389.17o |
| US19 | May 18 2017 13:30:19.00 | 00:09:01.00 | Static | ssssddd0.yyo |
| US21 | May 18 2017 13:42:02.00 | 00:05:43.00 | Static | ssssddd0.yyo |
| US23 | May 18 2017 13:51:42.00 | 00:08:14.00 | Static | ssssddd0.yyo |
| US25 | May 18 2017 14:03:10.00 | 00:05:28.00 | Static | ssssddd0.yyo |

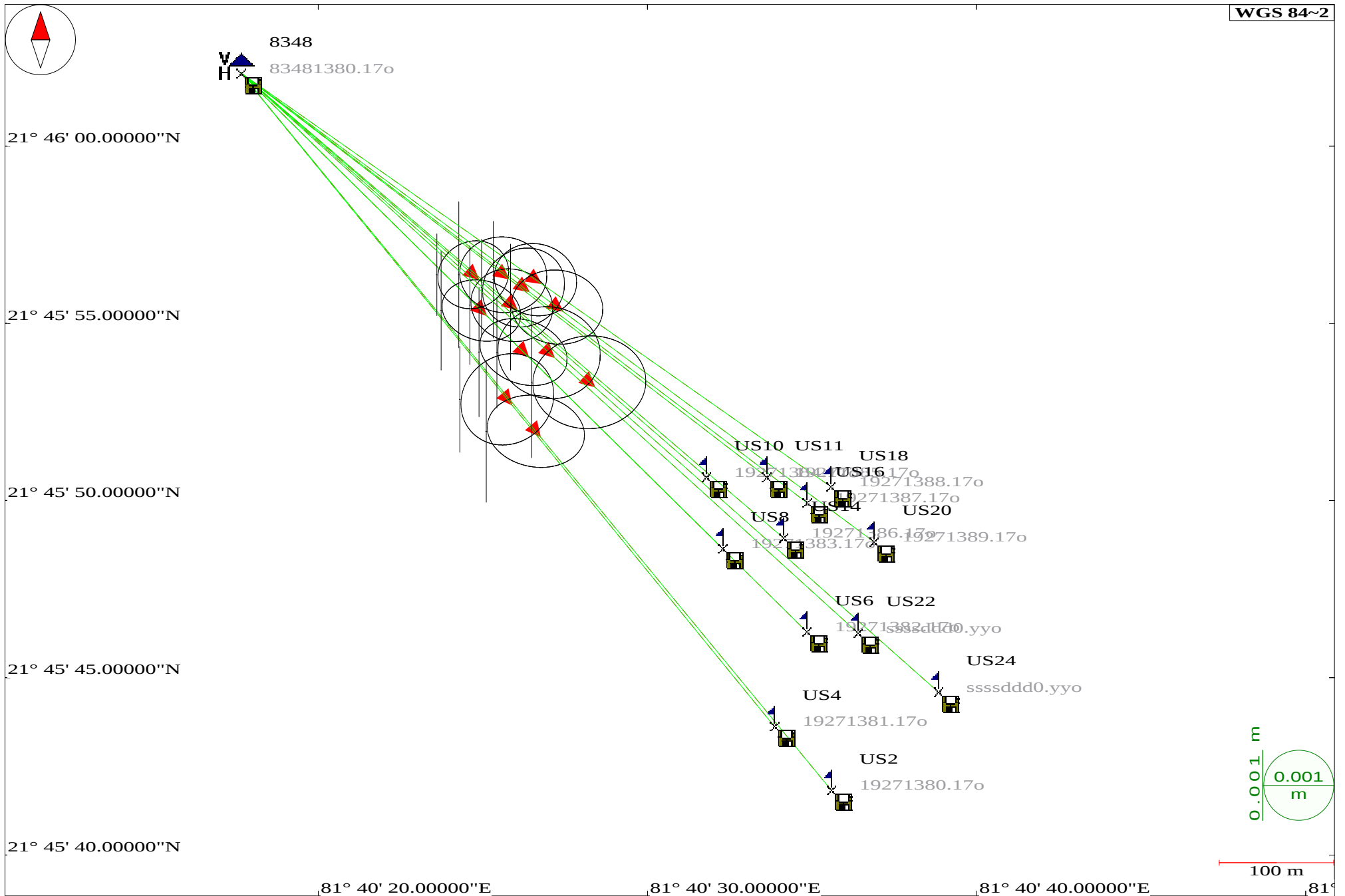
## Processes

| Reference | Reference File | Rover | Rover File   | Mode   | Num |
|-----------|----------------|-------|--------------|--------|-----|
| 8348      | 83481380.17o   | US25  | ssssddd0.yyo | Static | 2   |
| 8348      | 83481380.17o   | US17  | 39671389.17o | Static | 9   |
| 8348      | 83481380.17o   | US19  | ssssddd0.yyo | Static | 10  |
| 8348      | 83481380.17o   | US21  | ssssddd0.yyo | Static | 11  |
| 8348      | 83481380.17o   | US23  | ssssddd0.yyo | Static | 12  |

## Processed vectors

| Vector Identifier    | Vector Length | 95% Error |   | Vector Components | 95% Error | SV | PDOP | QA | Solution |
|----------------------|---------------|-----------|---|-------------------|-----------|----|------|----|----------|
| 8348 - US23          | 786.474       | 0.004     | X | -583.054          | 0.002     | 15 | 1.4  |    | Fixed    |
| 17/05/18 13:51:42.00 |               |           | Y | 263.542           | 0.002     |    |      |    |          |
| +00:08:14.00         |               |           | Z | -457.313          | 0.002     |    |      |    |          |
| 8348 - US21          | 697.841       | 0.004     | X | -518.697          | 0.002     | 15 | 1.4  |    | Fixed    |
| 17/05/18 13:42:02.00 |               |           | Y | 233.128           | 0.002     |    |      |    |          |
| +00:05:43.00         |               |           | Z | -404.459          | 0.002     |    |      |    |          |
| 8348 - US19          | 650.329       | 0.003     | X | -518.519          | 0.001     | 15 | 1.3  |    | Fixed    |
| 17/05/18 13:30:19.00 |               |           | Y | 201.994           | 0.001     |    |      |    |          |
| +00:09:01.00         |               |           | Z | -336.549          | 0.001     |    |      |    |          |
| 8348 - US17          | 609.809       | 0.004     | X | -468.345          | 0.001     | 15 | 1.4  |    | Fixed    |
| 17/05/18 13:22:23.00 |               |           | Y | 195.236           | 0.002     |    |      |    |          |
| +00:05:29.00         |               |           | Z | -338.236          | 0.002     |    |      |    |          |
| 8348 - US25          | 843.514       | 0.006     | X | -613.665          | 0.002     | 15 | 1.4  |    | Fixed    |
| 17/05/18 14:03:10.00 |               |           | Y | 288.515           | 0.003     |    |      |    |          |
| +00:05:28.00         |               |           | Z | -501.687          | 0.002     |    |      |    |          |





**CO-ORDINATES OF THE FIXED BOUNDARY POINTS BY DGPS SURVEY**  
**FOR COMPENSATORY AFFORESTATION AT PRIVATE REVENUE**  
**LAND, USLAPUR, SURVEYED AREA 4.00 HECT**

| S.NO | POINT NAME | LONGITUDE          | LATITUDE           | ELEVATION |
|------|------------|--------------------|--------------------|-----------|
| 1    | BASE       | 81° 40' 17.64305"E | 21° 46' 02.07009"N | 276.584   |
| 2    | US01       | 81° 40' 40.13652"E | 21° 45' 42.67524"N | 273.302   |
| 3    | US1A       | 81° 40' 38.37362"E | 21° 45' 42.43324"N | 274.451   |
| 4    | US1B       | 81° 40' 37.21441"E | 21° 45' 42.15242"N | 274.353   |
| 5    | US02       | 81° 40' 35.57509"E | 21° 45' 41.83695"N | 274.380   |
| 6    | US03       | 81° 40' 33.69289"E | 21° 45' 41.36420"N | 273.430   |
| 7    | US04       | 81° 40' 33.84257"E | 21° 45' 43.64085"N | 271.766   |
| 8    | US05       | 81° 40' 34.14714"E | 21° 45' 45.06260"N | 270.472   |
| 9    | US06       | 81° 40' 34.82883"E | 21° 45' 46.30377"N | 269.753   |
| 10   | US07       | 81° 40' 30.14563"E | 21° 45' 46.24913"N | 268.711   |
| 11   | US7A       | 81° 40' 30.24842"E | 21° 45' 47.05923"N | 268.580   |
| 12   | US7B       | 81° 40' 30.62640"E | 21° 45' 48.01681"N | 268.980   |
| 13   | US08       | 81° 40' 32.26810"E | 21° 45' 48.64927"N | 268.547   |
| 14   | US09       | 81° 40' 31.81052"E | 21° 45' 48.84107"N | 268.185   |
| 15   | US9A       | 81° 40' 31.80721"E | 21° 45' 49.32001"N | 268.251   |
| 16   | US9B       | 81° 40' 31.82121"E | 21° 45' 50.08322"N | 268.360   |
| 17   | US10       | 81° 40' 31.77541"E | 21° 45' 50.67401"N | 268.940   |
| 18   | US11       | 81° 40' 33.60513"E | 21° 45' 50.67395"N | 268.583   |
| 19   | US12       | 81° 40' 34.43969"E | 21° 45' 50.48463"N | 267.937   |
| 20   | US13       | 81° 40' 33.90601"E | 21° 45' 49.35243"N | 267.790   |

|           |             |                           |                           |                |
|-----------|-------------|---------------------------|---------------------------|----------------|
| <b>21</b> | <b>US14</b> | <b>81° 40' 34.11726"E</b> | <b>21° 45' 48.95673"N</b> | <b>267.984</b> |
| <b>22</b> | <b>US15</b> | <b>81° 40' 34.69776"E</b> | <b>21° 45' 49.40303"N</b> | <b>267.803</b> |
| <b>23</b> | <b>US16</b> | <b>81° 40' 34.85283"E</b> | <b>21° 45' 50.03645"N</b> | <b>267.771</b> |
| <b>24</b> | <b>US17</b> | <b>81° 40' 34.91410"E</b> | <b>21° 45' 50.28483"N</b> | <b>267.691</b> |
| <b>25</b> | <b>US18</b> | <b>81° 40' 35.67723"E</b> | <b>21° 45' 50.46121"N</b> | <b>267.809</b> |
| <b>26</b> | <b>US19</b> | <b>81° 40' 36.51774"E</b> | <b>21° 45' 50.40418"N</b> | <b>267.681</b> |
| <b>27</b> | <b>US20</b> | <b>81° 40' 36.86948"E</b> | <b>21° 45' 48.84257"N</b> | <b>269.976</b> |
| <b>28</b> | <b>US21</b> | <b>81° 40' 36.68083"E</b> | <b>21° 45' 47.98269"N</b> | <b>271.094</b> |
| <b>29</b> | <b>US22</b> | <b>81° 40' 36.38592"E</b> | <b>21° 45' 46.26996"N</b> | <b>272.211</b> |
| <b>30</b> | <b>US23</b> | <b>81° 40' 39.05024"E</b> | <b>21° 45' 46.13630"N</b> | <b>270.791</b> |
| <b>31</b> | <b>US24</b> | <b>81° 40' 38.82772"E</b> | <b>21° 45' 44.60841"N</b> | <b>271.818</b> |
| <b>32</b> | <b>US25</b> | <b>81° 40' 40.08121"E</b> | <b>21° 45' 44.64233"N</b> | <b>273.174</b> |
| <b>33</b> | <b>U25A</b> | <b>81° 40' 40.08221"E</b> | <b>21° 45' 43.72223"N</b> | <b>273.550</b> |
| <b>34</b> | <b>GCP1</b> | <b>81° 40 '07.06345"E</b> | <b>21° 46' 26.19021"N</b> | <b>268.250</b> |
| <b>35</b> | <b>GCP2</b> | <b>81° 41' 08.48162"E</b> | <b>21° 46 '02.99342"N</b> | <b>270.841</b> |



**FIXATION OF BASE POINT**



**FIXATION OF BOUNDARY POINT**



**FIXATION OF BOUNDARY POINT**



**FIXATION OF BOUNDARY POINT**



**FIXATION OF BOUNDARY POINT**

