

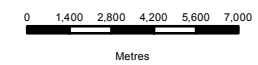
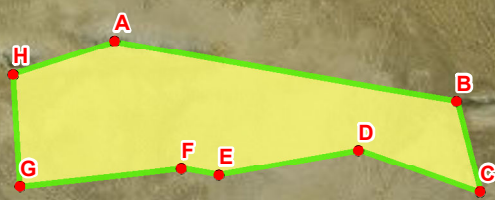
**BIO THERM ENERGY  
(PTY) LTD**

DEVELOPMENT AREA

**Legend**

- Aggeneis Substation
- Development Area
- Khai-ma Local Municipality

Aggeneis  
Substation



DATA SOURCE:  
CHIEF DIRECTORATE: NATIONAL GEO-  
SPATIAL INFORMATION

PROJECTION: WGS HARTBEESHOEK 1984  
PROJECT TITLE: WIND AND SOLAR RENEWABLES

PROJECT NO: 47579  
SCALE: 1:250,000 AT A4      DATE: 25/07/2016  
DRAWN BY: SABELO DUBE      FIGURE NO: 2  
REVIEWED BY: ASHLEA STRONG



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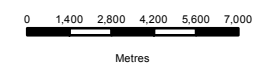
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Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

**BIO THERM ENERGY  
(PTY) LTD**  
LOCALITY OF  
ALTERNATIVE SITES

**Legend**

- Points
- Substation Locations
- N14
- Transmission Lines
- Water Pipeline Route Option 1
- Water Pipeline Route Option 2
- Alternative 2
- Alternative 1
- Khai-ma Local Municipality



DATA SOURCE:

CHIEF DIRECTORATE: NATIONAL GEO-SPATIAL INFORMATION

PROJECTION: WGS 19 HARTEBESHOEK 94

PROJECT TITLE: WIND AND SOLAR RENEWABLES

PROJECT NO: 47579

SCALE: 1:250,000 AT A4      DATE: 25/07/2016

DRAWN BY: SABELO DUBE      FIGURE NO: 1

REVIEWED BY: ASHLEA STRONG



DISCLAIMER

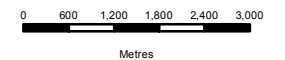
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Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

**BIO THERM ENERGY  
(PTY) LTD**  
LETSOAI SITE 1

**Legend**

- Site Points
- Letsoai Site 1
- Khai-ma Local Municipality



DATA SOURCE:  
CHIEF DIRECTORATE: NATIONAL GEO-  
SPATIAL INFORMATION

PROJECTION: WGS HARTBEESHOEK 94

PROJECT TITLE: WIND AND SOLAR RENEWABLES

PROJECT NO: 47579

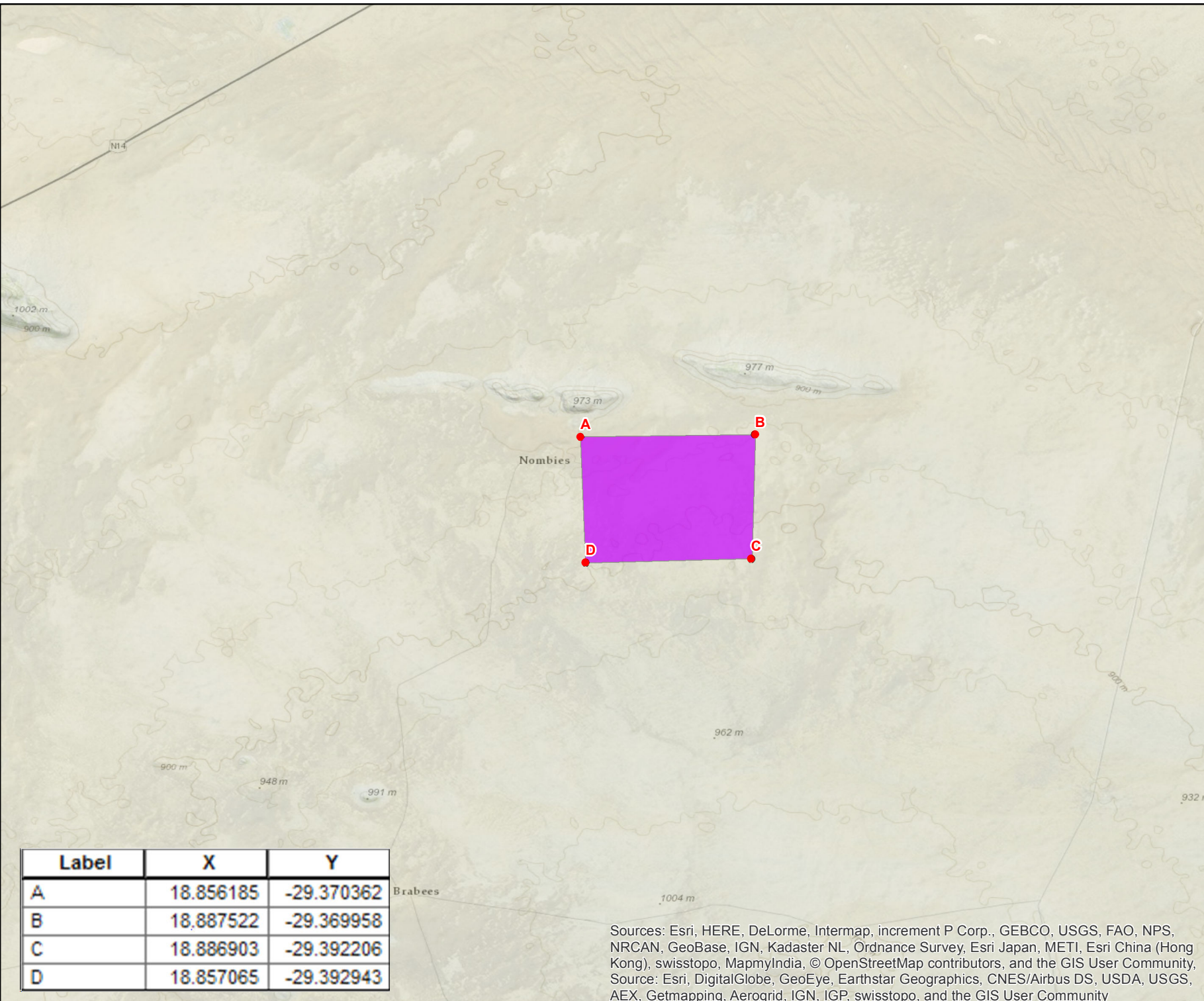
SCALE: 1:100,000 AT A4      DATE: 25/07/2016

DRAWN BY: SABELO DUBE      FIGURE NO: 3

REVIEWED BY: ASHLEA STRONG



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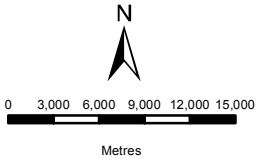
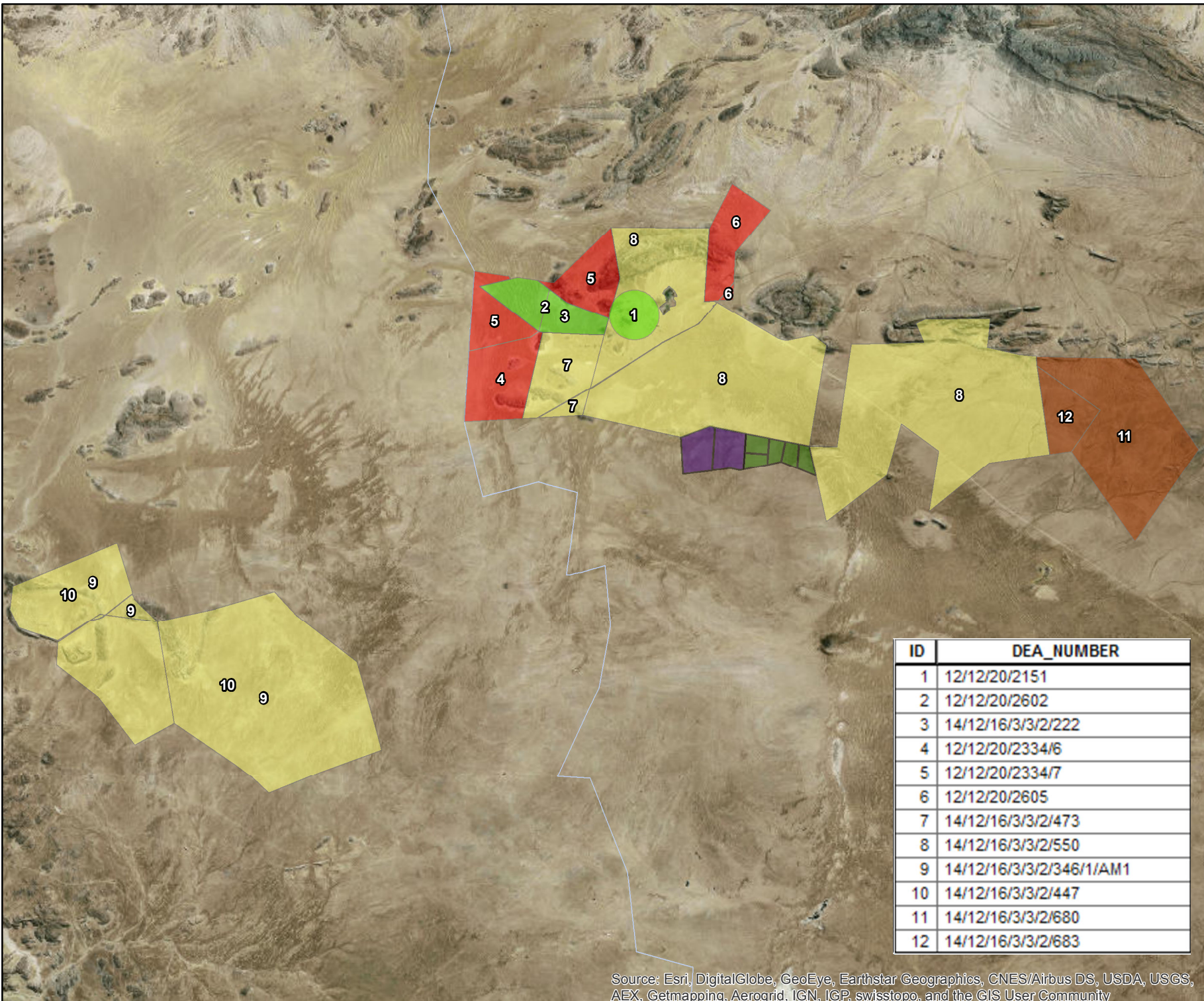
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Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community, Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

**BIO THERM ENERGY  
(PTY) LTD**  
**COMPETITION 2016**  
**RENEWABLE EIAs EA LOCATIONS**

**Legend**

- Alternative 2
- Alternative 1
- Khai-ma Local Municipality
- Unknown
- Approved
- Withdrawn/Lapsed
- In Process



ID	DEA_NUMBER
1	12/12/20/2151
2	12/12/20/2602
3	14/12/16/3/3/2/222
4	12/12/20/2334/6
5	12/12/20/2334/7
6	12/12/20/2605
7	14/12/16/3/3/2/473
8	14/12/16/3/3/2/550
9	14/12/16/3/3/2/346/1/AM1
10	14/12/16/3/3/2/447
11	14/12/16/3/3/2/680
12	14/12/16/3/3/2/683

DATA SOURCE:  
 CHIEF DIRECTORATE: NATIONAL GEO-SPATIAL INFORMATION

PROJECTION: WGS 19 HARTEBESHOEK 94

PROJECT TITLE: WIND AND SOLAR RENEWABLES

PROJECT NO: 47579

SCALE: 1:500,000 AT A4      DATE: 25/07/2016

DRAWN BY: SABELO DUBE      FIGURE NO: 1

REVIEWED BY: ASHLEA STRONG



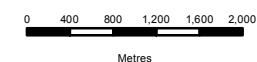
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**BIO THERM ENERGY  
(PTY) LTD**  
LAYOUT OF LETSOAI  
& ENAMANDLA

**Legend**

- Substation Locations
- Points
- Transmission Lines
- Letsoai CSP Sites
- Enamandla PV Sites
- ▭ Farm Portions
- Water Pipeline Route Option 1
- Water Pipeline Route Option 2



DATA SOURCE:  
CHIEF DIRECTORATE: NATIONAL GEO-  
SPATIAL INFORMATION

PROJECTION: WGS 19 HARTEBEE SHOEK 94

PROJECT TITLE: WIND AND SOLAR RENEWABLES

PROJECT NO: 47579

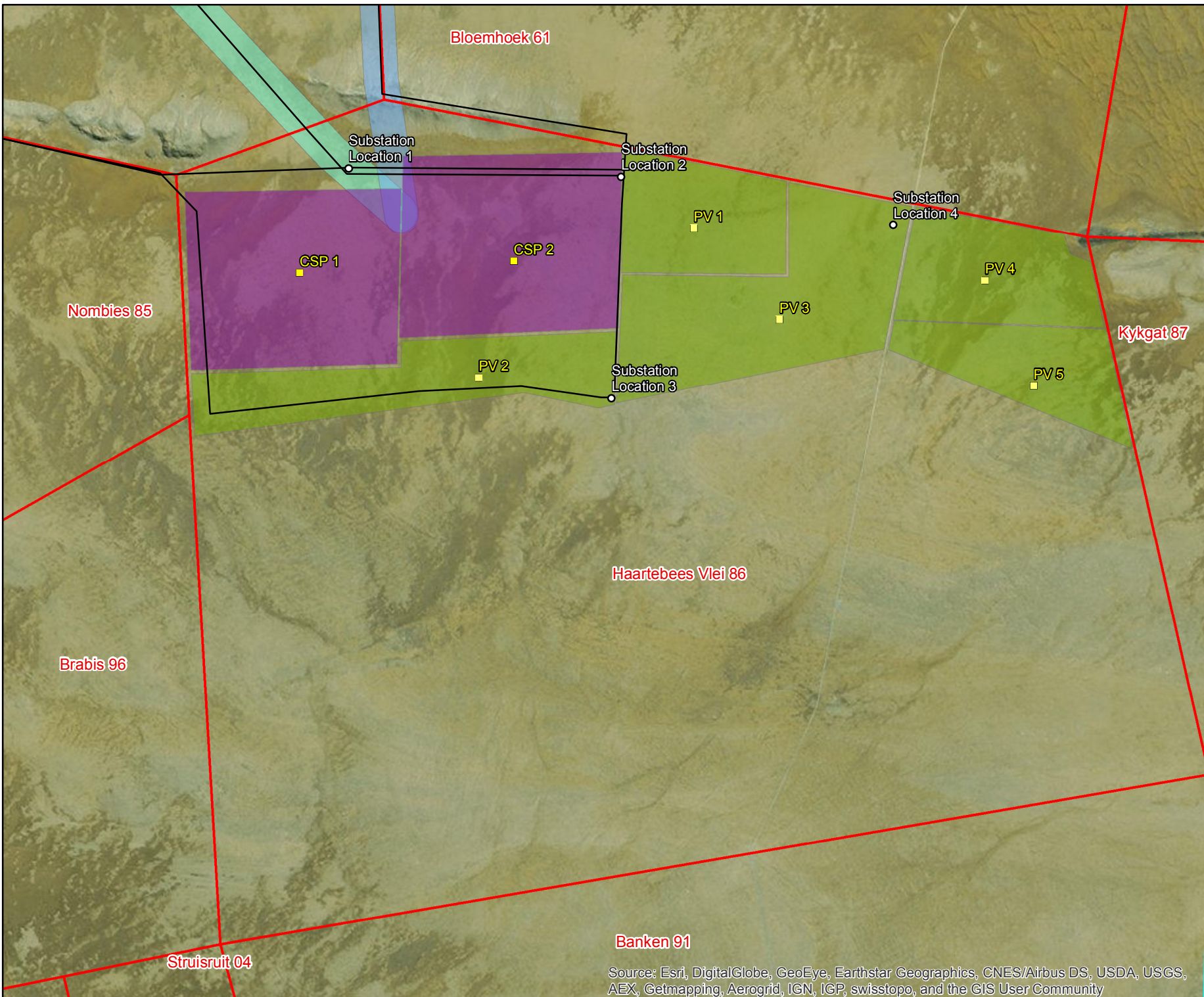
SCALE: 1:70,000 AT A4 DATE: 11/08/2016

DRAWN BY: SABELO DUBE FIGURE NO: 15

REVIEWED BY: ASHLEA STRONG



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**Banken 91**

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

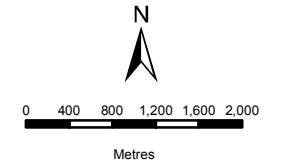
**BIO THERM ENERGY (PTY) LTD**  
**LAYOUT OF LETSOAI AND ENAMANDLA**

**Legend**

- Points
- Substation Locations
- Letsoai CSP Sites
- Enamandla PV Sites
- Farm Portions

**Powerlines**

- Option 1
- Option 2
- Option 3
- Option 4
- Option 5



DATA SOURCE:  
 CHIEF DIRECTORATE: NATIONAL GEO-SPATIAL INFORMATION

PROJECTION: WGS 19 HARTEBEEHOCK 94

PROJECT TITLE: WIND AND SOLAR RENEWABLES

PROJECT NO: 47579

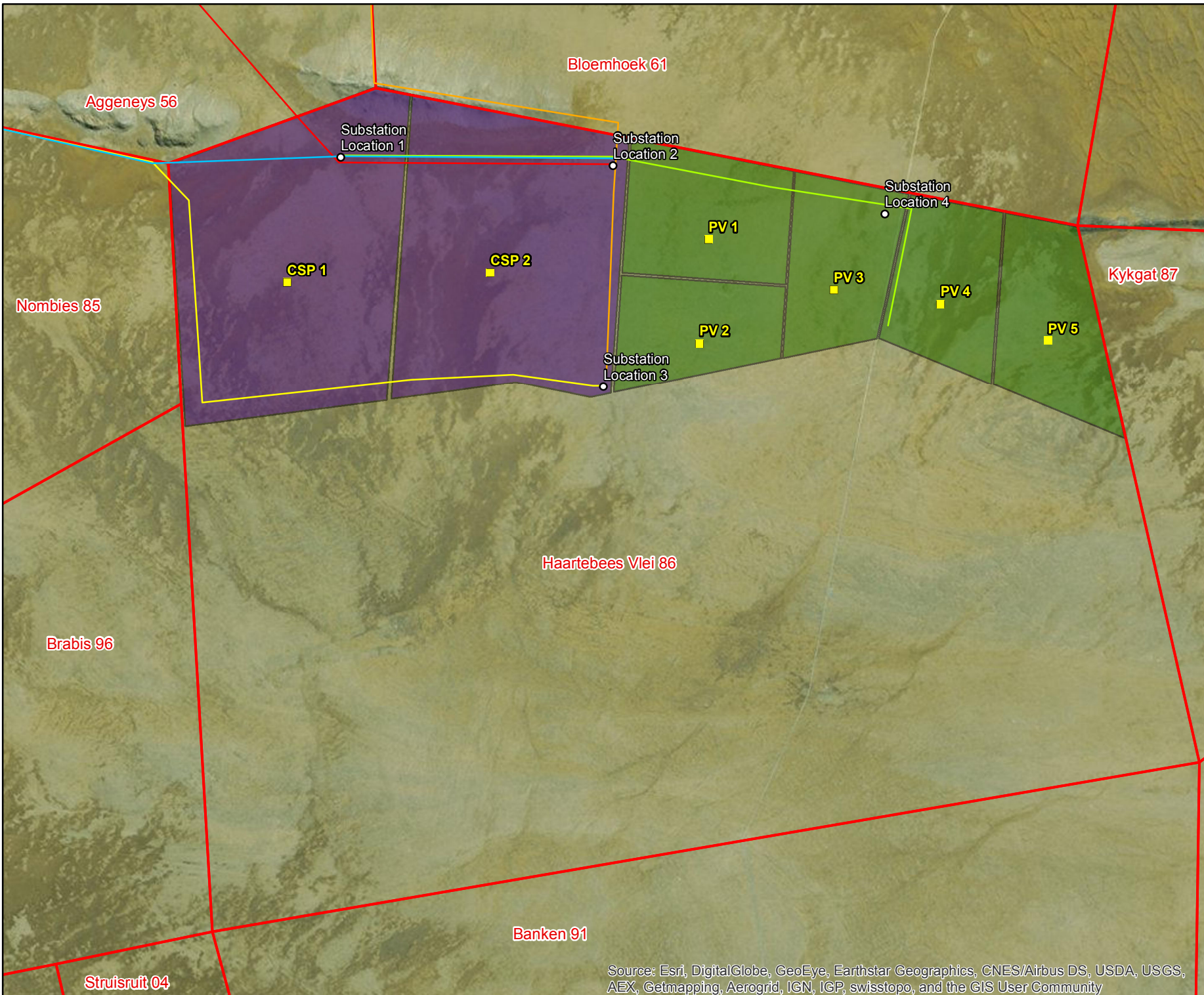
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DRAWN BY: SABELO DUBE      FIGURE NO: 15

REVIEWED BY: ASHLEA STRONG



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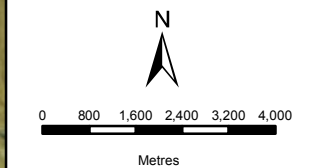


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**BIO THERM ENERGY  
(PTY) LTD**  
**SENSITIVITY MAP**  
 LETSOAI SITE 1 & 2

**Legend**

- Letsoai Substations
- Homesteads
- Letsoai Powerline Options
- Letsoai Ridgelines
- Heritage Sensitivities
- Gamsberg Inselberg
- Letsoai Site 1 & 2
- Letsoai Enamandla Boundaries
- Homesteads Buffer 400m
- Loop10Rd Buffer 500m
- N14 Buffer 3km
- Letsoai Substations Footprints



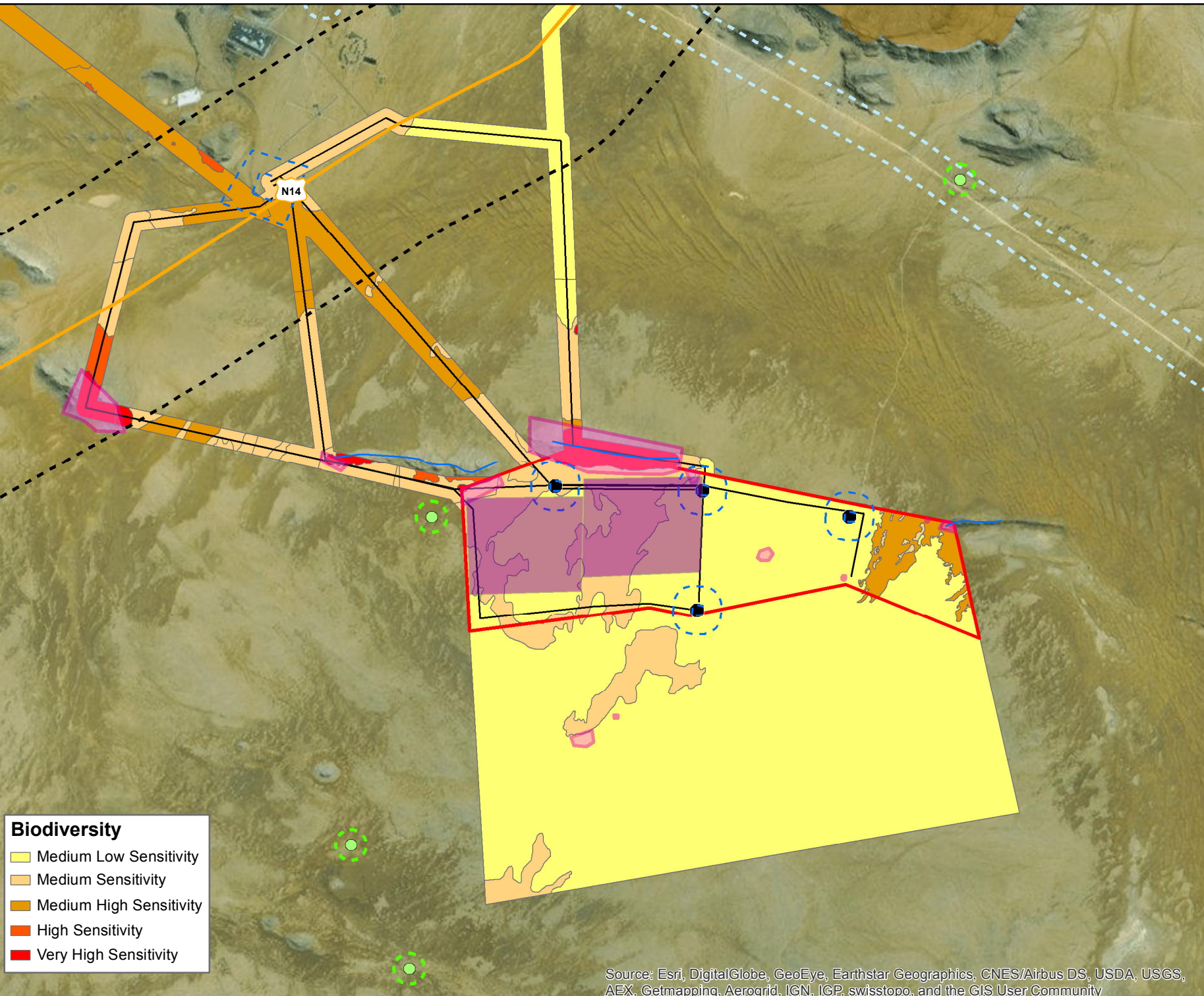
DATA SOURCE:  
 CHIEF DIRECTORATE: NATIONAL GEO-SPATIAL INFORMATION

PROJECTION: WGS 19 HARTEBEESSHOEK 94  
 PROJECT TITLE: WIND AND SOLAR RENEWABLES

PROJECT NO: 47579  
 SCALE: 1:130,000 AT A4      DATE: 25/07/2016  
 DRAWN BY: SABELO DUBE      FIGURE NO: 7  
 REVIEWED BY: ASHLEA STRONG



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**Biodiversity**

- Medium Low Sensitivity
- Medium Sensitivity
- Medium High Sensitivity
- High Sensitivity
- Very High Sensitivity

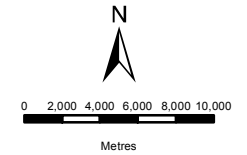
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**BIO THERM ENERGY  
(PTY) LTD**

LINEAR ALTERNATIVES  
PIPELINES

**Legend**

- Water Pipelines
- Alternative 1
- Alternative 2
- Letsoai & Enamandla Solar Facilities



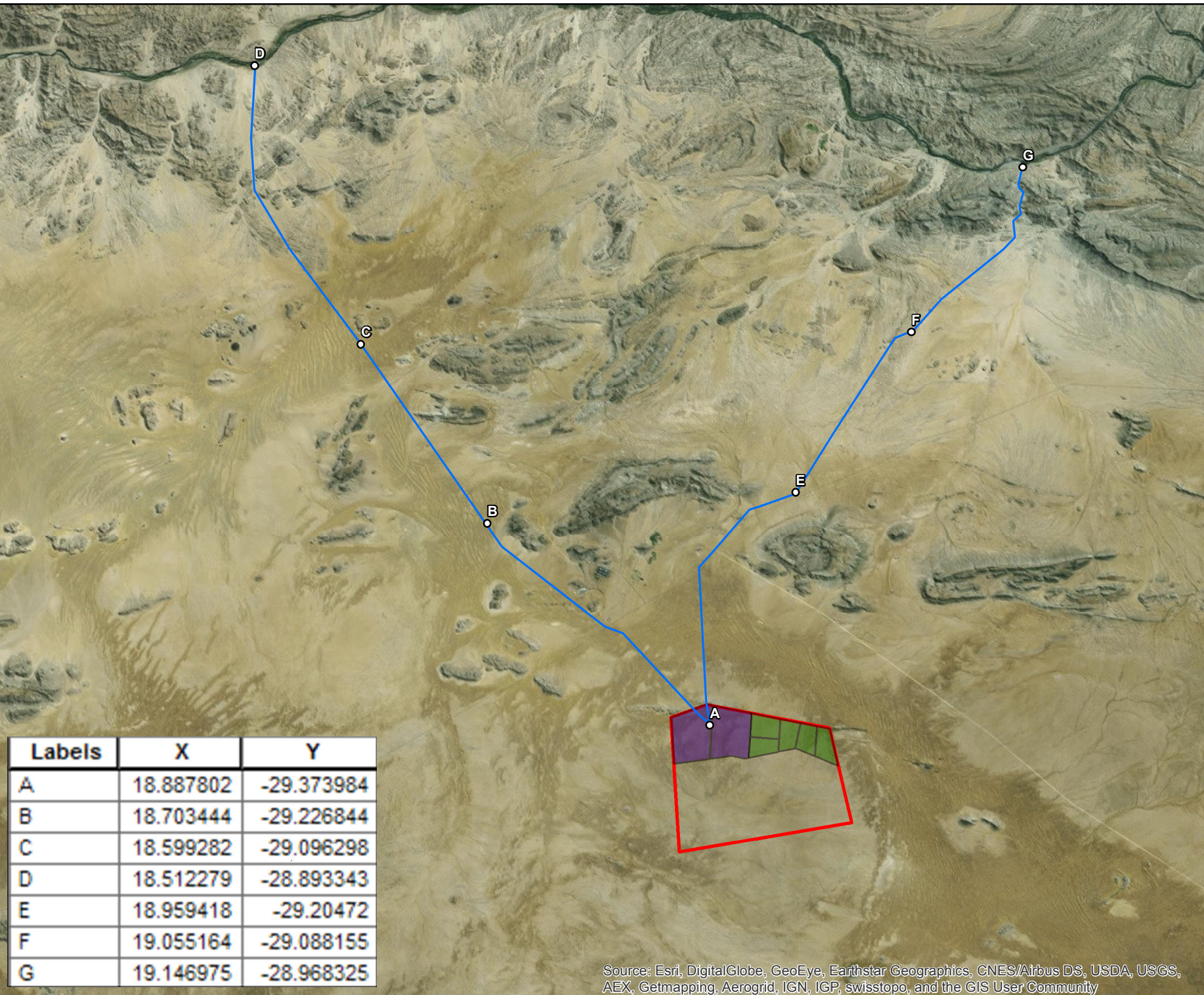
DATA SOURCE:  
CHIEF DIRECTORATE: NATIONAL GEO-  
SPATIAL INFORMATION

PROJECTION: WGS 19 HARTEBEESSHOEK 94  
PROJECT TITLE: WIND AND SOLAR RENEWABLES

PROJECT NO: 47579  
SCALE: 1:400,000 AT A4      DATE: 25/07/2016  
DRAWN BY: SABELO DUBE      FIGURE NO: 8  
REVIEWED BY: ASHLEA STRONG



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F	19.055164	-29.088155
G	19.146975	-28.968325

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



**BIO THERM ENERGY  
(PTY) LTD**  
LINEAR ALTERNATIVES  
UPDATED PIPELINES

**Legend**

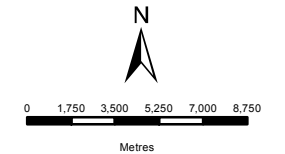
- Alternative 1
- Alternative 2

**New Water Pipelines**

- Option 1
- Option 2
- Option 3

**New Pipeline Corridors**

- Option 1
- Option 2
- Option 3



DATA SOURCE:  
CHIEF DIRECTORATE: NATIONAL GEO-  
SPATIAL INFORMATION

PROJECTION: WGS 19 HARTEBESHOEK 94  
PROJECT TITLE: WIND AND SOLAR RENEWABLES

PROJECT NO: 47579  
SCALE: 1:300,000 AT A4      DATE: 25/07/2016  
DRAWN BY: SABELO DUBE      FIGURE NO: 11  
REVIEWED BY: ASHLEA STRONG



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F	18.974539	-29.335526
G	18.930862	-29.266047
H	18.869681	-29.208711
I	18.884031	-29.367417
J	18.916854	-29.217056
K	19.043344	-29.120397
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Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community