



AFRICAN HERITAGE CONSULTANTS CC

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**CULTURAL HERITAGE RESOURCES IMPACT
ASSESSMENT OF 2 X 132 KV POWER LINES
FROM PRAIRIE B SUBSTATION TO WITKLOOF
AND 2 X 132 KV POWER LINES FROM PRAIRIE B
SUBSTATION TO MACHADODORP
MPUMALANGA PROVINCE
PROJECT NUMBER 12/12/20/1088
CONTRACT NUMBER 4600042166**

1. DEFINITION

The broad generic term *Cultural Heritage Resources* refers to any physical and spiritual property associated with past and present human use or occupation of the environment, cultural activities and history. The term includes sites, structures, places, natural features and material of palaeontological, archaeological, historical, aesthetic, scientific, architectural, religious, symbolic or traditional importance to specific individuals or groups, traditional systems of cultural practice, belief or social interaction.

2. PROTECTED SITES IN TERMS OF THE NATIONAL HERITAGE RESOURCES ACT, ACT NO. 25 OF 1999

The following are the most important sites and objects protected by the National Heritage Act:

- 2.1 Structures or parts of structures older than 60 years.
- 2.2 Archaeological sites and objects.
- 2.3 Palaeontological sites.
- 2.4 Meteorites.
- 2.5 Ship wrecks.
- 2.6 Burial grounds.

- 2.7 Graves of victims of conflict.
- 2.8 Public monuments and memorials.
- 2.9 Structures, places and objects protected through the publication of notices in the Gazette and Provincial Gazette.
- 2.10 Any other places or objects, which are considered to be of interest or of historical or cultural significance.
- 2.11 Geological sites of scientific or cultural importance.
- 2.12 Sites of significance relating to the history of slavery in South Africa.
- 2.13 Objects to which oral traditions are attached.
- 2.14 Sites of cultural significance or other value to a community or pattern of South African history.

3. METHODOLOGY

The proposed power line routes were visited together with the environmental supervisor and two representatives of the construction company. The route was walked on foot and the archaeological sites investigated. The four lines will to a large extent run parallel to an existing power line.

4. RESULTS

All four power lines will run from Gumeni substation in a westerly direction and cross an existing power line (275A2 on Map 2) and then turn north and run parallel to the existing power line. This existing power line (275A) crosses a large Late Iron Age site on a rocky granite outcrop.

The original archaeological impact assessment for this line was part of a larger impact assessment for the Nkomati power line done by Johanna Behrens and Amanda Esterhuysen in 2008.

In their report they state that there are no archaeological sites present on the proposed route of the Gumeni, Witkloof and Machadodorp lines. This is strange as there is a large Late Iron Age Archaeological site present underneath the existing power line and the proposed route for the four new lines.

From north S25° 44' 27.8" E30° 13' 12.6" to south S25 ° 44' 54.18 E30° 13' 9.2" the archaeological site is some 500 metres long - see map 2.

From Gumeni substation the four lines running parallel to each other in a westerly direction and crosses typical escarpment grassland and a small stream. The problem encountered starts as soon as the lines cross the 275A-2 pylon and lines (see map 2 for details). Poles 8, 8 and 16, 16 will be in the best preserved section of the archaeological site as well as near a large farm workers cemetery with eleven graves and extensive stonewalling at S25° 44' 53.07" & E30° 13' 10.14" .

The problem here is that poles 8, 8 & 16, 16 are in the bend of the four lines where they turn north. The bend poles need deep anchors which may destroy

parts of the archaeological site and may even damage the cemeteries stone walls where there are eleven large graves – see photographs below and Map 3.



Stonewalling and graves at the historic site where farm workers re-used the archaeological site

From the cemetery the site stretches in a northerly direction to poles 11/ 11 & 13/ 13 at S25° 44' 34.9" & E30° 13' 8.3" – see photograph.



Stonewalling on the archaeological site

The rest of the route of the power lines run through open grassland, crossing a stream to Witkloof and Machadodorp connections near the chrome smelter.

The archaeological site lies from south to north along a granite area with shale outcrops in-between.

The stonewalling originally was built mainly with granite stones. Stonewalls of the area are typical of the Badfontein stonewalling which occurs from the Carolina area to north of Lydenburg (Huffman 2007) and is associated with Korni settlements. This site is similar to sites on the Komat power line which have been re-used by different groups over a long period of time. It is suspected that this site was occupied by Korni as well as Kgopolwe groups. But it was also re-used by farm workers in recent times – see photographs.



Historic cattle enclosure in the archaeological site

Throughout the site are also shallow quarries where slate was quarried – see photograph.



Remains of a slate quarry

This material was extensively used in farmhouses and buildings in Machadodorp from 1890 to \pm 1930 see photograph.



Detail of slate in an old building in Machadodorp

At S25° 44' 43.7" & E30° 13' 11.9" four small graves were found. These graves are not well built and may be relatively modern \pm 1980/90's. They are probably the graves of farm workers – see photograph below and Map 3.



At present part of the archaeological site is overgrown by invasive wattle trees. – see photograph



During the visit it became clear that most of the proposed power line poles can be moved to positions just outside the stonewall enclosures, though the power lines will still cross the site itself. The real problem through are poles 8/8 & 16/16. These poles are in a bend as already mentioned.

Notwithstanding the partially destruction of the site because of the re-use of the stones from the stonewalls the sites archaeological deposits in the form of hut floors, activity areas, ash midden`s etc. are still intact and can contribute to our knowledge of these stonewalled Late Iron Age sites. Proper recording of the sites layout can also contribute to information on settlement pattern, social status etc.

5. FIELD RATING

The site has been partially destroyed through the re-use of stonewalls. The slate quarries have also contributed to the sites destruction as did the later re-occupation of the site by farm workers. There are far better preserved sites to the east of this site (see Küsel 2011 Nkomati Power line). Taking the above into consideration the site is given a field rating of Grade IV B. It should be mitigated before it is partially destroyed to construct the power lines.

6. SIGNIFICANCE RATING

- Its importance in the pattern of the South African history. This type of Late Iron Age sites occur throughout the escarpment area and not much is known about them.
- it has potential to yield important information to the better understanding of the Late Iron Age as not enough research on these sites is available.

7. CONCLUSION

The archaeological site investigated is a Late Iron Age site of the Badfontein type of stonewalling associated with the Koni (Huffman 2007: 448 & Esterhuysen 2007: 41 – 61) and possible Kgopolwe settlements which occur all along the eastern escarpment. The site is also similar to the sites recorded along the Nkomati power line route which are just east of this site (Küsel U.S. 2011).

The quarries represent the 1890/1930 period to supply building material for houses etc. At the same time farmers workers re-used stonewalls for building purposes.

8. RECOMMENDATION

It is recommended that:-

- No construction work is done on the power lines till the archaeological/historic site has been mitigated and a destruction permit has been issued by SAHRA.
- The site be properly surveyed and documented.
- A representative section of the site is excavated to retrieve the necessary scientific information of the site.
- The two cemeteries be properly recorded, cleaned and restored and fenced in by Eskom as they fall within the servitude of the power line.
- The construction of the line at the archaeological site should be done under supervision of an archaeologist to avoid unnecessary destruction of the site. The same applies to the two cemeteries.
- The new positions of the poles as well as the access routes for vehicles be planned and supervised under guidance of an archaeologist.

9. SITE INFORMATION

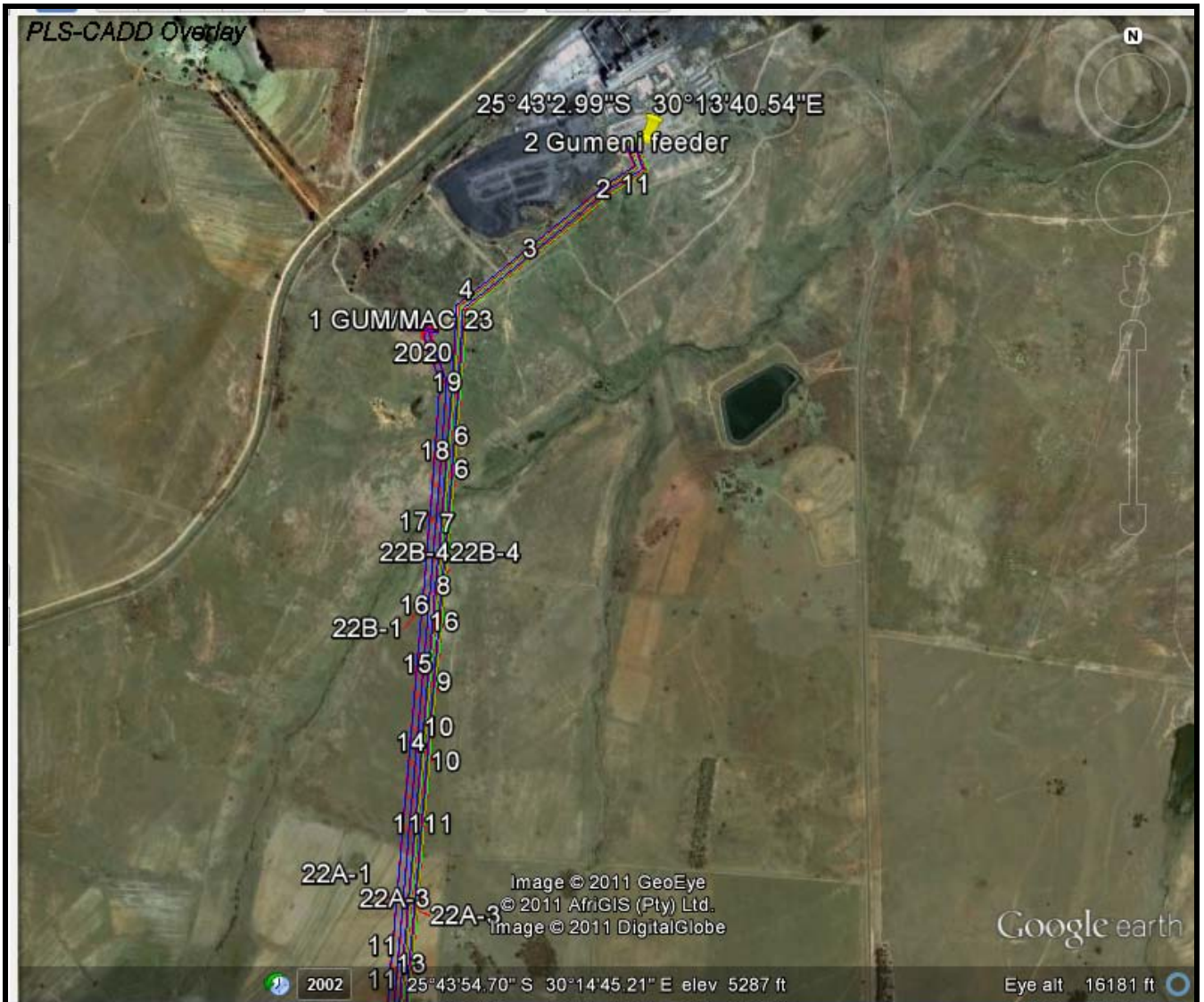
Owners contact details:
Ntuli Sidi & Nhlapo Trust – Sam Mashlangu (chairman) Cell 079-886 6933
Developers contact details:
Eskom Distribution Contact Louise Human Tel (012)421-3150
Consultants contact details:
Mike Da Silva Tel 083-275 2386

<p>Type of development (e.g. low cost housing project, mining etc.)</p> <p>Building of 2 x Loop in and Loop out 132kV Power lines</p>
<p>Whether rezoning and/or subdivision of land is involved:</p> <p>No, only a servitude for power line</p>
<p>Full location of Province, Magisterial District/Local Authority, property (e.g. farm, erf name and number):</p> <p>Farm Name: Dalmanutha 376-JT, Portion 5, Local Authority: Highlands Local Municipality Province Mpumalanga</p>
<p>Location map must have the polygon of the area to be surveyed on it and full geographical coordinates for all relevant points and where applicable indication of the area to be developed (footprint):</p> <p>Attached</p>
<p>If possible an aerial photograph of the specific area showing the location of all site.</p> <p>Attached</p>

10. REFERENCES

- 1/50 000 Map 2530 CA.
- Google maps.
- Archaeological database of the National Cultural Heritage Museum in Pretoria.
- Behrens J. & Esterhysen A. 2008 Nkomati Substation and power line project, Mpumalanga Province.
- Esterhuizen A. & Smith J. 2007, Studies in Stone – In Mpumalanga History and Heritage Ed. Delius P.
- Huffman T.N. 2007, Handbook to the Iron Age.
- Kusel U.S. 2011, Cultural Heritage Resources impact Assessment of the proposed new power lines for Nkomati Machadodorp Mpumalanga Province.

MAP 1



MAP 2

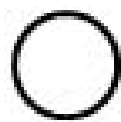


MAP 3



Position of the two cemeteries

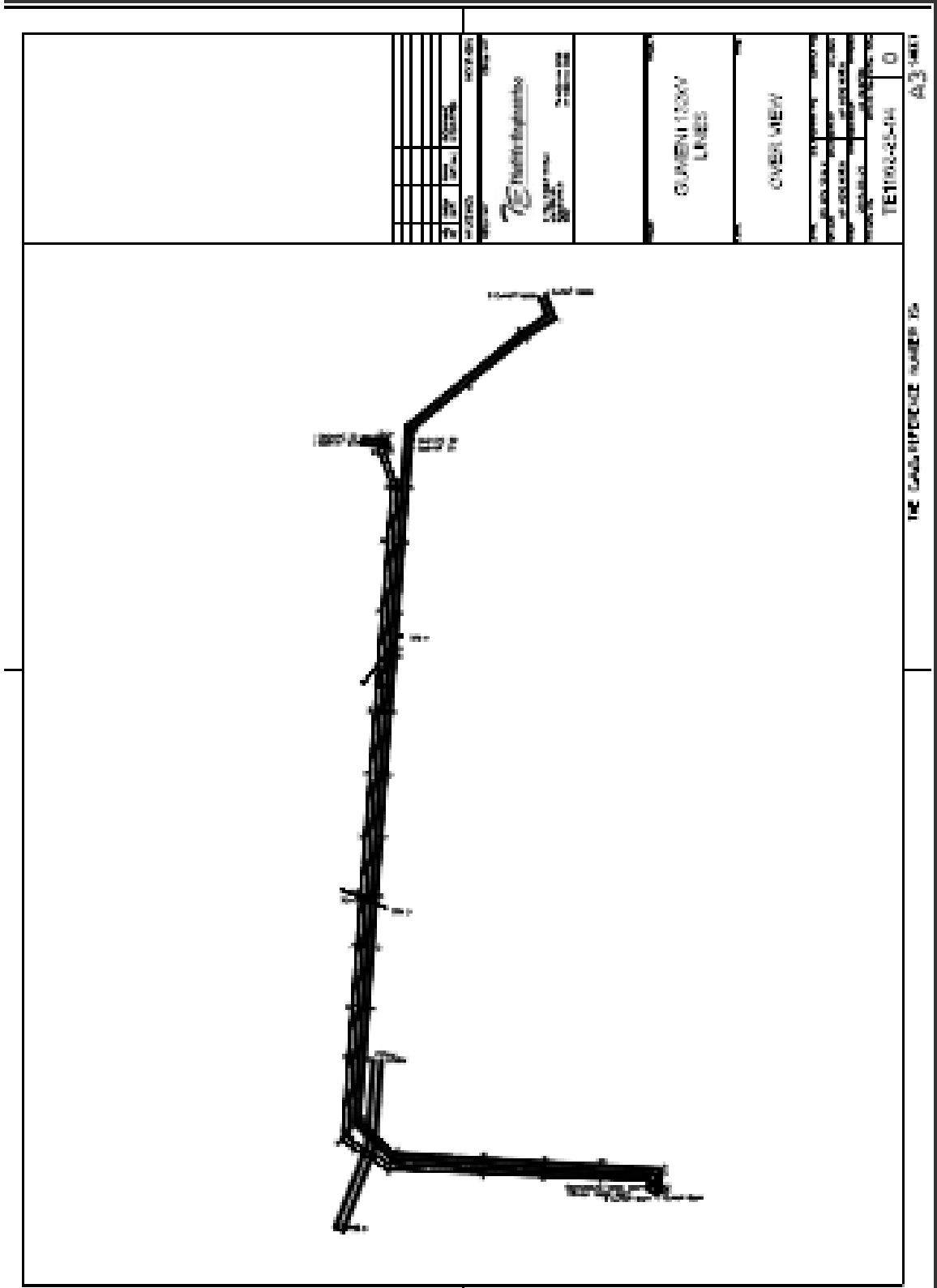
LOCALITY MAP

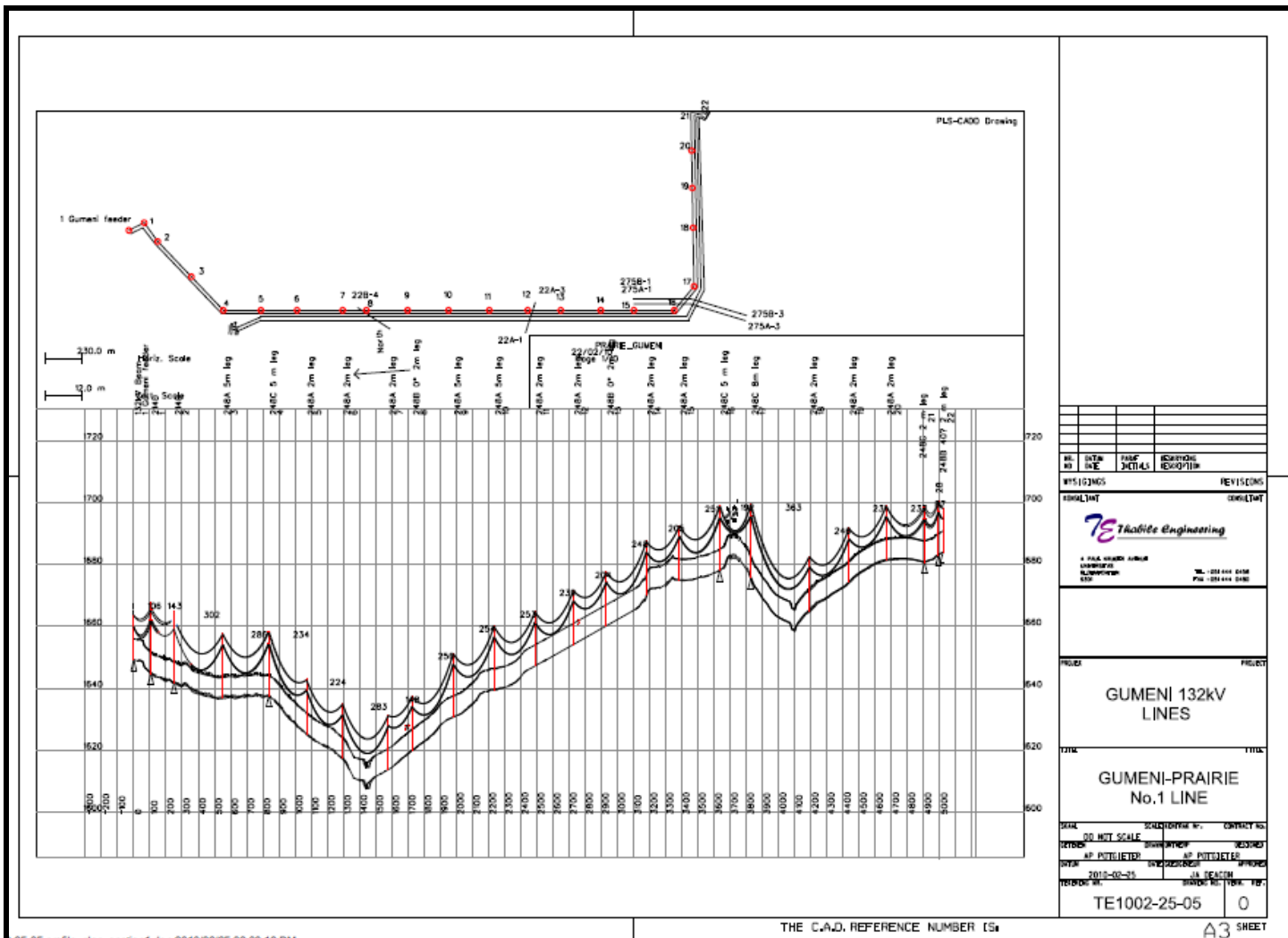


LOCATION OF 132KV POWER LINE SERVITUDES



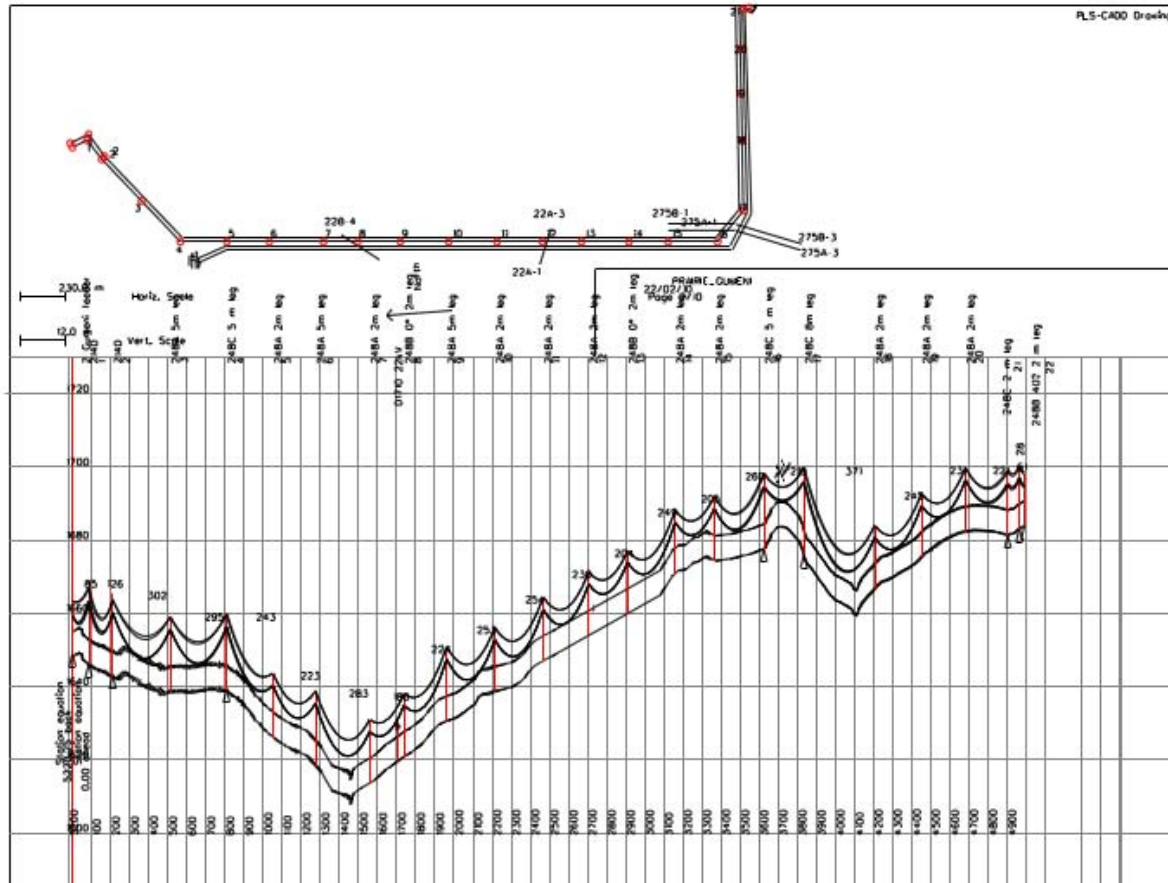
132KV POWER LINES






THE C.A.D. REFERENCE NUMBER IS:

03 SHEET



NO. DATE		BY	REVISION
LINE		METHOD	DESCRIPTION
REVISIONS		REVISIONS	
DESIGNER		DRAWN	
			
A Full Service Survey CONSULTING LTD. 15, 101-111, 21st Fwy. W. Sask. S4S 0A6			
PROJECT		PROJECT	
GUMENI 132KV LINES			
GUMENI-RAIRIE No. 2 LINE			
DATE	SCALE	PROJECT NO.	DATE
2010-02-25	AS SHOWN		
PROJECT NO.	SCALE	PROJECT NO.	DATE
TE1002-25-06			

