

# HERITAGE IMPACT ASSESSMENT

# FOR

# **BRAKFONTEIN THERMAL COAL MINE**

UNIVERSAL COAL (PTY) LTD

AUGUST 2012

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## EXECUTIVE SUMMARY

Digby Wells Environmental (Digby Wells) has been appointed by Universal Coal (Pty) Ltd (Universal Coal) to conduct a Heritage Impact Assessment (HIA) for the Brakfontein Thermal Coal Project. The project area is located within the Victor Khanye Local and Nkangala District Municipalities of the Mpumalanga Province of South Africa along the Western margins of the Witbank Coalfields. The site is located approximately 16 km north-east of the town of Delmas, 14 km and 17 km north of Devon and Leandra respectively, on the farm of Brakfontein 264 IR. The approximate size of the project area is 1 065 hectares (ha).

The HIA complied in compliance with the National Heritage Resources Act, 1999 (Act No. 25 of 1999) (NHRA) and South African Heritage Resources Agency (SAHRA). Additionally, the International Council on Monuments and Sites (ICOMOS) (Guidance on Heritage Impact Assessments for Cultural World Heritage Properties) guidelines were also used.

The HIA consisted of a desktop study, archival and database survey, cartographic and satellite imagery survey, relevant baseline reports, inferred information and results of a physical survey.

During the physical survey, a total of 12 heritage resources were identified, which included the following:

- Burial grounds; and
- Historical structures and sites.

Recommendations included:

- In situ preservation of all burial grounds and graves where:
  - A 20 m bufferzone be fenced / demarcated around each burial ground within the project area to minimise accidental damage;
  - Monitoring must be conducted on the affected burial grounds to assess any damage during blasting; and
  - Access to the burial grounds is granted to interested and affected parties (I&AP)
- Where *in situ* preservation of the burial grounds and graves is not feasible, grave relocation in terms of Section 26 of the NHRA is required.
- Burial Grounds and Graves Survey (BGGS) to pre-empt any consultation required as part of the grave relocation process.
- A Phase 2 archaeological study on 004 (the ash midden) if the current mine plan changes and development activities are to occur within the vicinity of the site H004;
- Application of Destruction Permit for structures older than 60 years (H007, H009, H010 and H011), which will require:
  - Detailed mapping and recording of structures; and
  - Watching brief during destruction of structures as graves may be present in the vicinity of these structures.
- Chance finds procedure to be developed and implemented during ground clearance.



| SITE ID                        | DESCRIPTION  | SAHRA<br>GRADING | SIGNIFICANCE<br>ASSESSMENT | IMPACT<br>ASSESSMENT |
|--------------------------------|--|------------------|----------------------------|----------------------|
| H001<br>(-26.206817 28.844832) | Historic farm complex.<br>Stone walls around cattle pens and<br>outskirts of residence.  | Grade 4A         | 3                          | 42                   |
| H002<br>(-26.198597 28.851158) | An unfenced burial ground containing<br>43 identified burials. The oldest<br>identified date was 1971.   | Grade 3B         | 4                          | 49                   |
| H003<br>(-26.228021 28.833039) | An unfenced burial ground containing<br>14 burials. The oldest identified date<br>was 1966.  | Grade 3B         | 4                          | 49                   |
| H004<br>(-26.226793 28.861516) | A midden on top of small cliff<br>adjacent to Wilge River.<br>Burnt bone and blue and white<br>porcelain was identified in the<br>deposit.                                     | Grade 4B         | 2                          | 41                   |
| H005<br>(-26.223485 28.841899) | An unfenced burial ground containing<br>62 burials was identified at this point.<br>The oldest identified date was 1949.   | Grade 3B         | 4                          | 64                   |
| H006<br>(-26.222939 28.843765) | A dilapidated mud brick house<br>(6 m x 3 m) and ruins of other mud<br>brick dwellings were identified.<br>Some association may exist between<br>the burial site 005 and this. | Grade 4B         | 2                          | 50                   |



| H007<br>(-26.21736 28.833295)   | Two cylindrical brick towers/silos,<br>approximately 8 m high.<br>A cement house foundation and<br>some remaining walls were observed<br>adjacent to the towers. | Grade 4B | 2 | 32  |
|---------------------------------|--|----------|---|-----|
| H008<br>(-26.219527 28.871661)  | A fenced burial ground containing 11<br>graves was identified at this point.<br>The oldest identified date was 1932.   | Grade 3B | 4 | 116 |
| H009<br>(-26.215107 28.871236)  | A small two room structure<br>(4 m x 3 m). It is a possible storage<br>room, and might be associated with<br>the large house identified at 011.                  | Grade C  | 1 | 71  |
| H010<br>(-26.21531 28.870071)   | Large house, measuring<br>approximately 30 m x 15 m, was<br>identified at this point.  | Grade 4A | 3 | 80  |
| H011<br>(-26.219089 28.879261)  | A stone walled house, measuring<br>approximately 30 m x 20 m. A water<br>tower was identified adjacent to the<br>house, though with no water tank on<br>top.     | Grade 4A | 3 | 94  |
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#### GLOSSARY

| ASAPA  | Association of South African Professional Archaeologists   |
|--------|--|
| EIA    | Environmental Impact Assessment                            |
| HIA    | Heritage Impact Assessment                                 |
| ICOMOS | International Council on Monuments and Sites               |
| IFC    | International Finance Co-operation                         |
| NEMA   | National Environmental Management Act, Act No. 107 of 1998 |
| NHRA   | National Heritage Resources Act, No. 25 of 1999            |
| NWA    | National Water Act, 36 of 1998                             |
| SAHRA  | South Africa Heritage Resources Agency                     |



# **1 INTRODUCTION**

Digby Wells Environmental (Digby Wells) has been appointed by Universal Coal (Pty) Ltd (Universal Coal) to conduct a Phase 1 Heritage Impact Assessment (HIA) for the Brakfontein Thermal Coal Project.

### **1.1 Project description**

Universal Coal has submitted a Mining Right Application (MRA) to the Department of Mineral Resources (DMR) in November 2011 for proposed coal mining on the farm Brakfontein 264 IR, portions, 8, 9, 10, 20, 26, 30 and the remaining extent 6.

The Brakfontein Thermal Coal Mine Project will be mined in two phases. Phase 1 will entail opencast mining, which will be undertaken during the continued exploration of the underground resources. This phase is proposed for 2 years. Phase 2 will entail underground mining methods and it is proposed for 8 years. The project site consists of 4 seams for open pit mining and 2 seams for underground mining.

### **1.2 Contact details of the client**

The contact details of the client are summarised in Table 1-1 below.

| Company:        | Universal Coal (Pty) Ltd           |
|-----------------|------------------------------------|
| Contact person: | Mike Seeger                        |
| Tel no:         | 012 460 0805/ 082 411 7510         |
| E-mail address: | m.seeger@universalcoal.co.za       |
| Postal address: | PO Box 2423, Brooklyn Square, 0075 |

| Table <sup>2</sup> | 1-1- | Contact | details | of  | the  | client |
|--------------------|------|---------|---------|-----|------|--------|
| Iable              |      | Contact | uctans  | UI. | LIIC | CHEIL  |

## 1.3 Contact details of the consultant

The contact details of the consultant are summarised in Table 1-2 below.

Table 1-2: Contact details of the consultant

| Company:        | Digby Wells Environmental                        |  |  |  |
|-----------------|--|--|--|--|
| Contact person: | Stephanie Aken                                   |  |  |  |
| Tel no:         | 011 789 9495                                     |  |  |  |
| E-mail address: | stephanie.aken@digbywells.com                    |  |  |  |
| Postal address: | Private Bag X10046, Randburg, 2125, South Africa |  |  |  |

# 2 TERMS OF REFERENCE

Digby Wells Environmental (Digby Wells) has been appointed by Universal Coal as the independent environmental consultant to conduct the Environmental Impact Assessment (EIA) and associated specialist studies in support of a Mining Right Application (MRA) for the mining of coal at the proposed Brakfontein Coal Mine as required by the National



Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA) and the Minerals and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (MPRDA).

#### Table 2-1: NEMA Activity table

| NEMA Activity No | Description of activity  |  |  |  |  |
|------------------|--|--|--|--|--|
| 9                | The construction of facilities or infrastructure exceeding 1000 meters in length for the bulk transportation of water, sewage or storm water –   |  |  |  |  |
|                  | <ul> <li>(i) With an internal diameter of 0.36 meters or more; or</li> <li>(ii) With a peak throughput of 120 litres per second or more.</li> </ul>  |  |  |  |  |
| 12               | The construction of facilities or infrastructure for the off-stream storage of water, including dams and reservoirs, with a combined capacity of 50 000 cubic meters or more.  |  |  |  |  |
| 13               | The construction of facilities or infrastructure for the storage and handling of dangerous goods, where such storage occurs in containers with a combined capacity of 80 but not exceeding 500 cubic meters.   |  |  |  |  |
| 22               | The construction of a road outside of urban areas  |  |  |  |  |
|                  | <ul> <li>(i) With a reserve wider than 13.5 meters;</li> <li>(ii) Where no reserve exists where the road is wider than 8 meters.</li> </ul>  |  |  |  |  |
| 3                | The construction of facilities or infrastructure for the storage or storage<br>and handling of dangerous goods, where such storage occurs in<br>containers with a combined capacity of more than 500 cubic meters.   |  |  |  |  |
| 5                | The construction of facilities or infrastructure for any process or<br>activity which requires a permit or license in terms of the national or<br>provincial legislation governing the generation or release of emissions,<br>pollution or effluent and which is not identified in Notice No 544 or<br>included in the list of waste management activities in terms of section<br>19 of NEMWA. |  |  |  |  |
| 15               | Physical alteration of undeveloped, vacant or derelict land for the residential, retail, commercial, recreational, industrial or institutional use where the total area to be transformed is 20 hectares or more.  |  |  |  |  |

## 2.1 Legal Requirements in terms of the HIA

### 2.1.1 Summary

The HIA is governed by national legislation and standards; and International Best Practise. These include:

South African Legislation

- National Heritage Resources Act, 1999 (Act No. 25 of 1999) (NHRA);
- Mineral and Petroleum Resources Development Act, 2002 (Act No. 22 of 2002) (MPRDA);



- National Environmental Management Act 1998 (Act No. 107 of 1998) (NEMA); and
- National Water Act, 1998 (Act No. 36 of 1998) (NWA).

#### Standards and Regulations

- South African Heritage Resources Agency (SAHRA) Minimum Standards; and
- Association of Southern African Professional Archaeologists (ASAPA) Constitution and Code of Ethics.

International Best Practise and Guidelines

- Equator Principles (Drafted 2003, Updated 2006);
- ICOMOS Standards (Guidance on Heritage Impact Assessments for Cultural World Heritage Properties); and
- The UNESCO Convention concerning the Protection of the World Cultural and Natural Heritage (1972).

#### 2.1.2 Section 38 of the NHRA

38. (1) Subject to the provisions of subsections (7), (8) and (9), any person who intends to undertake a development categorised as -

(a) the construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier exceeding 300 m in length;

- (b) the construction of a bridge or similar structure exceeding 50 m in length;
- (c) any development or other activity which will change the character of a site -
  - (i) exceeding 5 000 m<sup>2</sup> in extent; or
  - (ii) involving three or more existing erven or subdivisions thereof; or

(iii) involving three or more erven or divisions thereof which have been consolidated within the past five years; or

(iv) the costs of which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources authority;

(d) the re-zoning of a site exceeding 10 000 m<sup>2</sup> in extent; or

(e) any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority, must at the very earliest stages of initiating such a development, notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development.

(2) The responsible heritage resources authority must, within 14 days of receipt of a notification in terms of subsection (1) -

(a) if there is reason to believe that heritage resources will be affected by such development, notify the person who intends to undertake the development to submit an impact assessment report. Such report must be compiled at the cost of the person proposing the development, by a person or persons approved by the responsible heritage resources authority with relevant qualifications and experience and professional standing in heritage resources management; or

(b) notify the person concerned that this section does not apply.



(3) The responsible heritage resources authority must specify the information to be provided in a report required in terms of subsection (2) (a): Provided that the following must be included:

(a) The identification and mapping of all heritage resources in the area affected;

(b) an assessment of the significance of such resources in terms of the heritage assessment criteria set out in section 6 (2) or prescribed under section 7;

(c) an assessment of the impact of the development on such heritage resources;

(d) an evaluation of the impact of the development on heritage resources relative to the sustainable social and economic benefits to be derived from the development;

(e) the results of consultation with communities affected by the proposed development and other interested parties regarding the impact of the development on heritage resources;

(f) if heritage resources will be adversely affected by the proposed development, the consideration of alternatives; and

(g) plans for mitigation of any adverse effects during and after the completion of the proposed development.

(4) The report must be considered timeously by the responsible heritage resources authority which must, after consultation with the person proposing the development, decide -

(a) whether or not the development may proceed;

(b) any limitations or conditions to be applied to the development;

(c) what general protections in terms of this Act apply, and what formal protections may be applied, to such heritage resources;

(d) whether compensatory action is required in respect of any heritage resources damaged or destroyed as a result of the development, and

(e) whether the appointment of specialists is required as a condition of approval of the proposal.

(5) A provincial heritage resources authority shall not make any decision under subsection

(4) with respect to any development which impacts on a heritage resource protected at national level unless it has consulted SAHRA.

(6) The applicant may appeal against the decision of the provincial heritage resources authority to the MEC, who -

(a) must consider the views of both parties; and

(b) may at his or her discretion -

(i) appoint a committee to undertake an independent review of the impact assessment report and the decision of the responsible heritage authority; and

(ii) consult SAHRA; and

(c) must uphold, amend or overturn such decision.



(7) The provisions of this section do not apply to a development described in subsection (1) affecting any heritage resource formally protected by SAHRA unless the authority concerned decides otherwise.

(8) The provisions of this section do not apply to a development as described in subsection (1) if an evaluation of the impact of such development on heritage resources is required in terms of the Environment Conservation Act, 1989 (Act No. 73 of 1989), or the integrated environmental management guidelines issued by the Department of Environment Affairs and Tourism, or the Minerals Act, 1991 (Act No. 50 of 1991), or any other legislation: Provided that the consenting authority must ensure that the evaluation fulfils the requirements of the relevant heritage resources authority in terms of subsection (3), and any comments and recommendations of the relevant heritage resources authority with regard to such development have been taken into account prior to the granting of the consent.

(9) The provincial heritage resources authority, with the approval of the MEC, may, by notice in the Provincial Gazette, exempt from the requirements of this section any place specified in the notice.

(10) Any person who has complied with the decision of a provincial heritage resources authority in subsection (4) or of the MEC in terms of subsection (6) or other requirements referred to in subsection (8), must be exempted from compliance with all other protections in terms of this Part, but any existing heritage agreements made in terms of section 42 must continue to apply.

| NHRA Trigger | Trigger description  |  |  |  |  |  |
|--------------|--|--|--|--|--|--|
| 38 (1) (c)   | (c) any development or other activity which will change the character of a site -                                    |  |  |  |  |  |
|              | (i) exceeding 5 000 m <sup>2</sup> in extent; or   |  |  |  |  |  |
|              | (ii) involving three or more existing erven or subdivisions thereof;   |  |  |  |  |  |
|              | (iii) involving three or more erven or divisions thereof which have<br>been consolidated within the past five years; |  |  |  |  |  |
| 38 (1) (d)   | (d) the re-zoning of a site exceeding 10 000 m <sup>2</sup> in extent  |  |  |  |  |  |

#### Table 2-2: NHRA Triggers

#### 2.1.3 Section 34 of the NHRA

34. (1) No person may alter or demolish any structure or part of a structure which is older than 60 years without a permit issued by the relevant provincial heritage resources authority.

(2) Within three months of the refusal of the provincial heritage resources authority to issue a permit, consideration must be given to the protection of the place concerned in terms of one of the formal designations provided for in Part I of this Chapter.

(3) The provincial heritage resources authority may at its discretion, by notice in the Provincial Gazette, make an exemption from the requirements of subsection (1) within a defined geographical area, or for certain defined categories of site within a defined geographical area, provided that it is satisfied that heritage resources falling into the defined area or category have been identified and are adequately provided.



(4) Should the provincial heritage resources authority believe it to be necessary it may, following a three-month notice period published in the Provincial Gazette, withdraw or amend a notice under subsection (3).

#### 2.1.4 Section 35 of the NHRA

35. (1) Subject to the provisions of section 8, the protection of archaeological and palaeontological sites and material and meteorites is the responsibility of a provincial heritage resources authority: Provided that the protection of any wreck in the territorial waters and the maritime cultural zone shall be the responsibility of SAHRA.

(2) Subject to the provisions of subsection (8) (a), all archaeological objects, palaeontological material and meteorites are the property of the State. The responsible heritage authority must, on behalf of the State, at its discretion ensure that such objects are lodged with a museum or other public institution that has a collection policy acceptable to the heritage resources authority and may in so doing establish such terms and conditions as it sees fit for the conservation of such objects.

(3) Any person who discovers archaeological or palaeontological objects or material or a meteorite in the course of development or agricultural activity must immediately report the find to the responsible heritage resources authority, or to the nearest local authority offices or museum, which must immediately notify such heritage resources authority.

(4) No person may, without a permit issued by the responsible heritage resources authority -

(a) destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or palaeontological site or any meteorite;

(b) destroy, damage, excavate, remove from its original position, collect or own any archaeological or palaeontological material or object or any meteorite;

(c) trade in, sell for private gain, export or attempt to export from the Republic any category of archaeological or palaeontological material or object, or any meteorite; or

(d) bring onto or use at an archaeological or palaeontological site any excavation equipment or any equipment which assist in the detection or recovery of metals or archaeological and palaeontological material or objects, or use such equipment for the recovery of meteorites.

(5) When the responsible heritage resources authority has reasonable cause to believe that any activity or development which will destroy, damage or alter any archaeological or palaeontological site is under way, and where no application for a permit has been submitted and no heritage resources management procedure in terms of section 38 has been followed, it may -

(a) serve on the owner or occupier of the site or on the person undertaking such development an order for the development to cease immediately for such period as is specified in the order;

(b) carry out an investigation for the purpose of obtaining information on whether or not an archaeological or palaeontological site exists and whether mitigation is necessary;

(c) if mitigation is deemed by the heritage resources authority to be necessary, assist the person on whom the order has been served under paragraph (a) to apply for a permit as required in subsection (4); and



(d) recover the costs of such investigation from the owner or occupier of the land on which it is believed an archaeological or palaeontological site is located or from the person proposing to undertake the development if no application for a permit is received within two weeks of the order being served.

(6) The responsible heritage resources authority may, after consultation with the owner of the land on which an archaeological or palaeontological site or a meteorite is situated, serve a notice on the owner or any other controlling authority, to prevent activities within a specified distance from such site or meteorite.

(7) (a) Within a period of two years from the commencement of this Act, any person in possession of any archaeological or palaeontological material or object or any meteorite which was acquired other than in terms of a permit issued in terms of this Act, equivalent provincial legislation or the National Monuments Act, 1969 (Act No. 28 of 1969), must lodge with the responsible heritage resources authority lists of such objects and other information prescribed by that authority. Any such object which is not listed within the prescribed period shall be deemed to have been recovered after the date on which this Act came into effect.

(b) Paragraph (a) does not apply to any public museum or university.

(c) The responsible authority may at its discretion, by notice in the Gazette or the Provincial Gazette, as the case may be, exempt any institution from the requirements of paragraph (a) subject to such conditions as may be specified in the notice, and may by similar notice withdraw or amend such exemption.

(8) An object or collection listed under subsection (7) -

(a) remains in the ownership of the possessor for the duration of his or her lifetime, and SAHRA must be notified who the successor is; and

(b) must be regularly monitored in accordance with regulations by the responsible heritage authority.

#### 2.1.5 Section 36 of the NHRA

36. (1) Where it is not the responsibility of any other authority, SAHRA must conserve and generally care for burial grounds and graves protected in terms of this section, and it may make such arrangements for their conservation as it sees fit.

(2) SAHRA must identify and record the graves of victims of conflict and any other graves which it deems to be of cultural significance and may erect memorials associated with the grave referred to in subsection (1), and must maintain such memorials.

(3) (a) No person may, without a permit issued by SAHRA or a provincial heritage resources authority -

(a) destroy, damage, alter, exhume or remove from its original position or otherwise disturb the grave of a victim of conflict, or any burial ground or part thereof which contains such graves;

(b) destroy, damage, alter, exhume, remove from its original position or otherwise disturb any grave or burial ground older than 60 years which is situated outside a formal cemetery administered by a local authority; or

(c) bring onto or use at a burial ground or grave referred to in paragraph (a) or (b) any excavation equipment, or any equipment which assists in the detection or recovery of metals.



(4) SAHRA or a provincial heritage resources authority may not issue a permit for the destruction or damage of any burial ground or grave referred to in subsection (3) (a) unless it is satisfied that the applicant has made satisfactory arrangements for the exhumation and reinterment of the contents of such graves, at the cost of the applicant and in accordance with any regulations made by the responsible heritage resources authority.

(5) SAHRA or a provincial heritage resources authority may not issue a permit for any activity under subsection (3) (b) unless it is satisfied that the applicant has, in accordance with regulations made by the responsible heritage resources authority -

(a) made a concerted effort to contact and consult communities and individuals who by tradition have an interest in such grave or burial ground; and

(b) reached agreements with such communities and individuals regarding the future of such grave or burial ground.

(6) Subject to the provision of any other law, any person who in the course of development or any other activity discovers the location of a grave, the existence of which was previously unknown, must immediately cease such activity and report the discovery to the responsible heritage resources authority which must, in co-operation with the South African Police Service and in accordance with regulations of the responsible heritage resources authority -

> (a) carry out an investigation for the purpose of obtaining information on whether or not such grave is protected in terms of this Act or is of significance to any community; and

> (b) if such grave is protected or is of significance, assist any person who or community which is a direct descendant to make arrangements for the exhumation and re-interment of the contents of such grave or, in the absence of such person or community, make any such arrangements as it deems fit.

(7) (a) SAHRA must, over a period of five years from the commencement of this Act, submit to the Minister for his or her approval lists of graves and burial grounds of persons connected with the liberation struggle and who died in exile or as a result of the action of State security forces or agents provocateur and which, after a process of public consultation, it believes should be included among those protected under this section.

(b) The Minister must publish such lists as he or she approves in the Gazette.

(8) Subject to section 56 (2), SAHRA has the power, with respect to the graves of victims of conflict outside the Republic, to perform any function of a provincial heritage resources authority in terms of this section.

(9) SAHRA must assist other State Departments in identifying graves in a foreign country of victims of conflict connected with the liberation struggle and, following negotiations with the next of kin, or relevant authorities, it may re-inter the remains of that person in a prominent place in the capital of the Republic.

### 2.2 Aims and objectives

The following aims and objectives were identified in terms of the Brakfontein project:

- Locate, identify, record, map and document existing heritage resources in the proposed development area;
- Contextualise identified heritage resources relative to the cultural landscape;



- Determine the value of identified heritage resources based on criteria defined in section 3 of the NRHA and the context within which these occur in the cultural landscape;
- Assess the significance and magnitude of environmental impacts that may result from mining activities on heritage resources;
- Provide appropriate environmental mitigation recommendations aimed at avoiding or minimising negative impacts heritage resources;
- Provide appropriate management recommendations that may include mitigation of physical heritage resources such as grave relocation, excavations, or sampling; and
- Promote the overall conservation and protection of natural and cultural heritage resources.

### 2.3 Methods

The methods that were employed in the HIA are discussed briefly.

- Desktop study:
  - Literature review of available published research;
  - Review of available impact assessment reports;
  - Integration of applicable legislation and international best practice;
  - Desktop survey of available cartographic and satellite imagery survey.
- Physical survey:
  - A physical survey that consisted of a vehicular survey and pedestrian survey;
  - Positions of identified resources and sites were recorded by GPS
  - All identified resources mapped on 1: 50 000 topographical maps using ArcGIS
  - Photographic records were generated using a Canon SX30IS camera; and
  - No artefacts or samples were collected.
- Assessment:
  - Determine significance rankings for different heritage resource categories that may be identified; and
  - The value of individual heritage resources was determined based on defining criteria in section 3 of the NHRA.
  - Assess possible direct, indirect and cumulative impacts identified heritage resources, based on current mine design using the Digby Wells environmental impact matrix.

## 3 EXPERTISE OF THE SPECIALIST

Natasha Higgitt received her Honours in Archaeology from the University of Pretoria in 2009. She is currently employed as an Archaeology Consultant at Digby Wells. She is a professional member of ASAPA and accredited by the ASAPA CRM section. She has 3 years of experience in Archaeology of which two years have been spent conducting



Archaeological and Heritage Impact Assessments. She has conducted nine Archaeological Impact Assessments and eight Heritage Statements.

Johan Nel received his Honours in Archaeology from the University of Pretoria in 2002 and is currently enrolled for a Master's Degree in Archaeology at the University of Pretoria. He holds the position of Unit Manager: Cultural Resources Management (CRM) at Digby Wells. He has 13 years' work experience in of which eight have been spent in the commercial archaeology and consulting sectors. He has gained experience throughout South Africa and Africa. His experience includes archaeological and heritage impact assessments, archaeological mitigation, and grave relocation. He is a professional member of ASAPA and accredited by the ASAPA CRM section. He is also a member of the Society for Africanist Archaeologists and International Association of Impact Assessors (South Africa).

Full CV's of the specialists and a declaration of independence are attached in Appendix C.

# 4 STUDY AREA

### 4.1 Geographic location

The Brakfontein Project is located on the farm of Brakfontein 264 IR, falling within the Western margins of the Witbank Coalfields, situated in the Victor Khanye Local and Nkangala District Municipalities, Mpumalanga Province. The project area is located approximately 16 km north-east of Delmas, 14 km and 17 km north of Devon and Leandra respectively (See Table 4-1). The approximate size of the project area is 1 065 ha.

| Farm name          | Province   | Municipality   | Map<br>Sheet<br>number | Central co-ordinates     |
|--------------------|------------|--|------------------------|--------------------------|
| Brakfontein 264 IR | Mpumalanga | Victor Khanye<br>Local and<br>Nkangala<br>District<br>Municipalities | 2628 BB<br>Kendal      | -26.209491/<br>28.861734 |

Table 4-1: Brakfontein Thermal Coal Project location data