1 Project

Kwasa Colliery is an abandoned colliery that was left in an un-rehabilitated state with old equipment, scrap metal, old coal dumps and rock heaps. Five shafts in the adit complex were left open and in an unsafe state and the area was also eroded by water erosion over the years. It is planned to re-establish a small, underground coal mine. It is planned to establish a wash plant on site. The mining methods will be bord and pillar, using a coal cutter with minimal drill and blast. There will be no secondary mining of the pillars that would compromise the long term integrity of the roof.

Regional Setting

Kwasa Colliery is situated in the Gert Sibande Magisterial District which falls within the Mkondo Local Municipality in Mpumalanga.

The coal reserve is located approximately 37 km south-west of the town of Piet Retief, 22 km due East of the town of Dirkiesdorp and 58 km East of the town of Wakkerstroom.

Distance to the Neighbouring Towns and Villages

Town	Distance
Dirkiesdorp	22km
Piet Retief	31km
Wakkerstroom	58km

1.1 Physical project description

Completed Activities

The development of the mine up to this point in time have all been done and funded by Kwasa Mining Services (Pty) Ltd. The following activities had been completed approximately three years ago but would need to be refurbished:

- Refurbishment of access road to the mine and shafts;
- Installation of Eskom power lines and transformers;
- Refurbishment of the underground workings, with
  a) roof stabilisation,
  b) conveyor system,
  c) ventilation infrastructure,
  d) water management.
- Fencing of the shafts;
- Development of access control;

- Setting out of a stockpile and loading area in place;

Planned Activities

Construction Phase

The following activities will be carried out during the construction phase:

- Refurbishment and reconstruction of the water pollution control system;
- Construction of one fresh water storage dams;
- Construction of four pollution control dams (PCDs);
- Construction of the silt traps at each PCD;
- Transport to site and erection of a modular washing plant;
- Preparation of the discard management facility;
- Construction of offices and a change house;
- Commissioning of an existing weighbridge;
- New security house at main gate;
- Final trenching and berms;
- New runoff water catchment areas;
- Three freshwater towers and tanks;
- Installation of a new conveyor belt in the Alfred seam belt adit;
- Road signs;
- Water pumps and piping for PCDs and clean water storage dam;
- Security lights at gates.
- Five year contractual commitments for the supply and operation of crushing and screening equipment;
- Five year contractual commitments for underground mining services.

The facilities inside the operational area will be fenced such as the PCDs, fresh water dam, washing plant area, co disposal site and stockpile areas.

Operational Phase

Activities to be conducted during the operational phase of the mine are:

- Underground board and pillar mining with continuous miner which will not involve blasting;
- Transportation of run-off mine from the shaft to crushing and screening area via a conveyor belt system;
- Crushing and screening of run-off mine;
- Stockpiling of the coal product;
- Spraying of water on access roads to suppress dust;
- Transportation of coal product to client via trucks;

- Cleaning of silt traps;
- Disposal of discard and silt at the Co-Disposal site;
- Toil stockpiling (hard and softs);
- Sewage management;
- Solid waste management;
- Dirty water handling including pumping water from PCD 3 to the coal washing plant.

Closure and Post Closure Phase

Activities to be conducted during the closure and post-closure phase of the mine are:

- Plugging/sealing of the three adits (ventilation, access and exit);
- Removal of storage equipment;
- Cleaning and re-vegetation of the discard dump and product stockpile area at the plant;
- Removal of coal wastes;
- Demolition of unwanted (by the post-mining land users) infrastructure such as offices, change house, pollution control dams, access roads, high wall etc.;
- The pollution control dams will be cleaned before it is filled and re-vegetated.
- Landscaping and re-vegetation of disturbed areas.
- Ground and surface water monitoring.

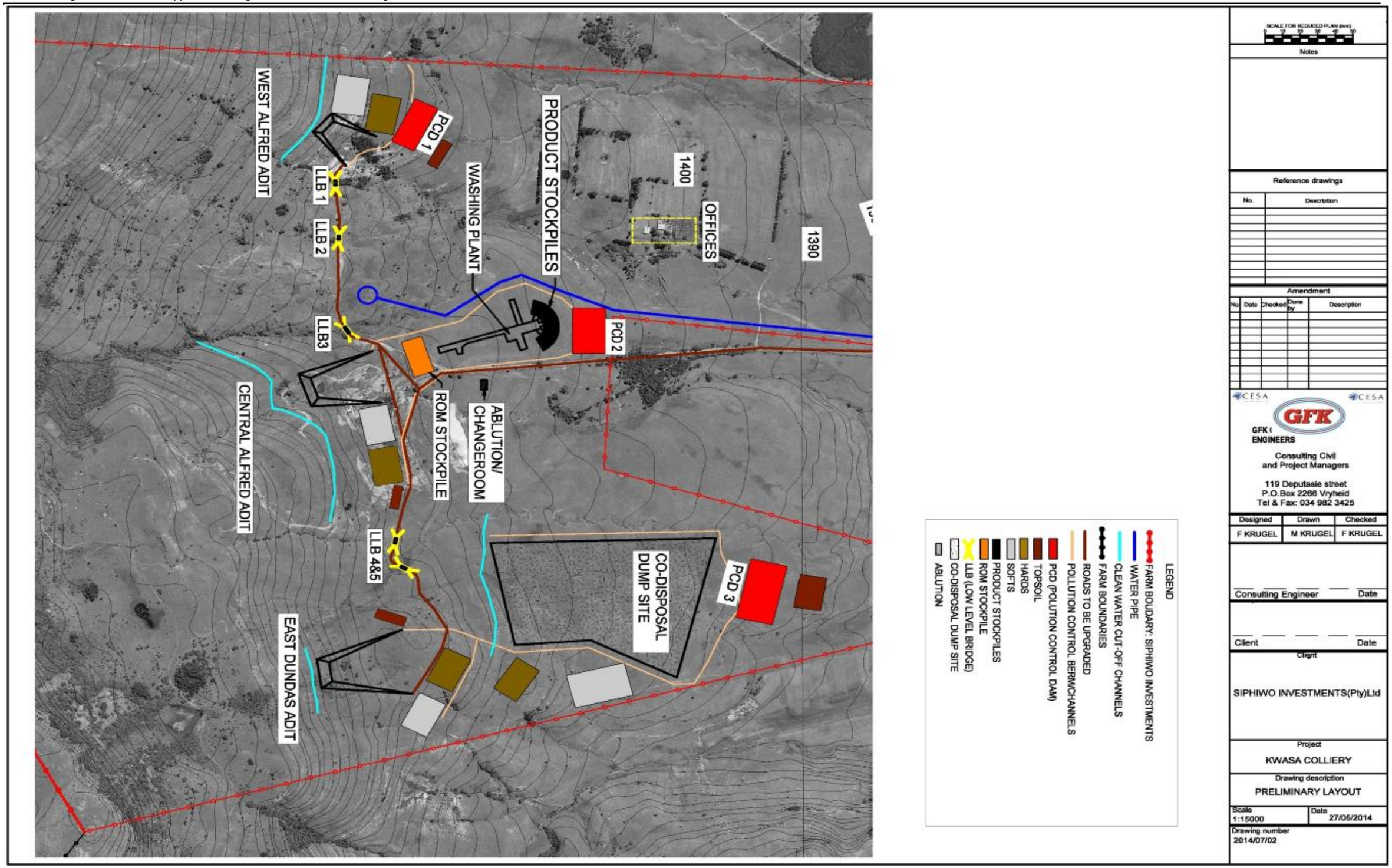

Figure 1: Layout plan of the mining area

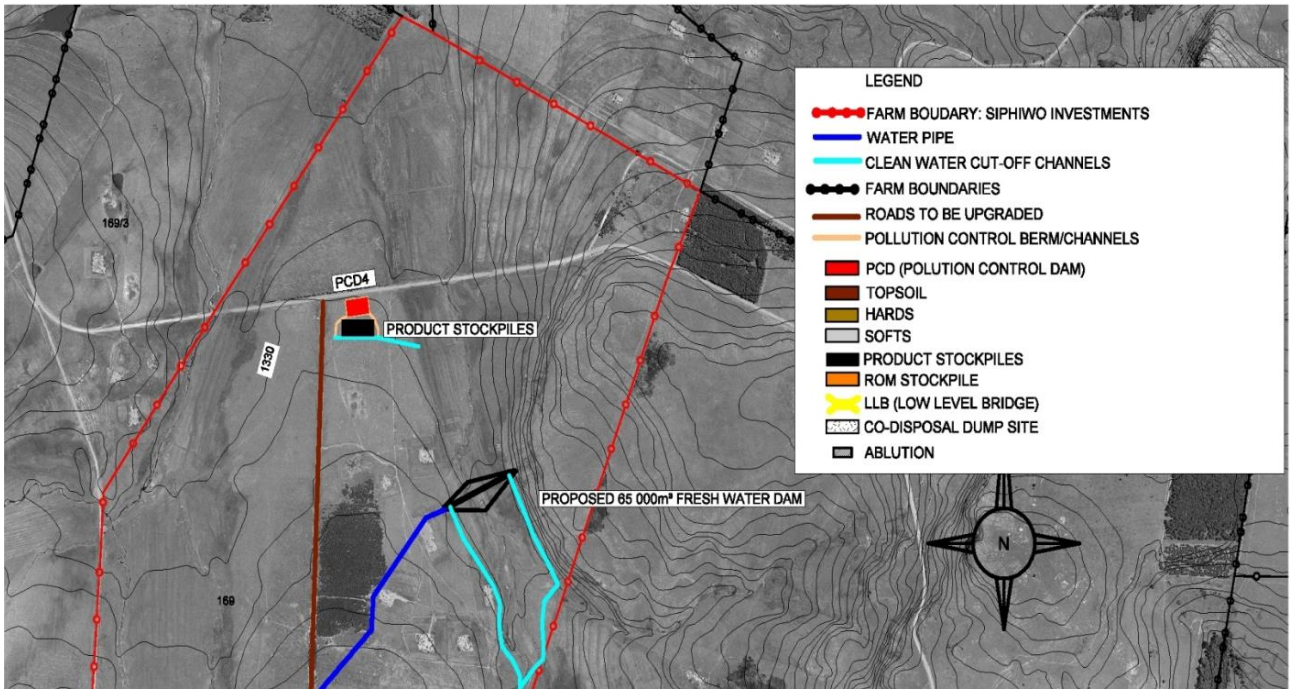

Figure 2: Product Stockpile area at the access gate

Please refer to Appendix A for the full size layout plan as well as the Kmz google earth file for the proposed layout.

2. Scope of Work

Conduct a phase 1 heritage impact assessment focussing on the undisturbed areas namely the proposed Co-Disposal dump site, planned new roads as well as the proposed fresh water dam site. The study must include.

3. Aim

All end deliverables should provide enough detail to cover requirements of the EIA process as they will form part of the final document.