



EIS 486

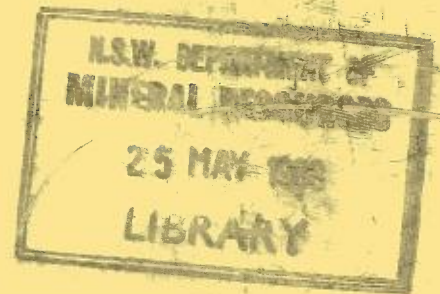
AB019145

Bloomfield Collieries Pty.Limited revision of Rixs Creek Project

NSW DEPT PRIMARY INDUSTRIES



AB019145



EIG
486A

Croft & Associates Pty. Limited

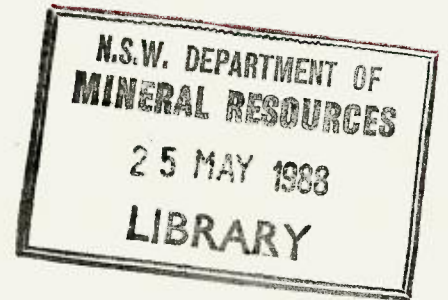
Environmental Consultants
Monitoring & Research Laboratory
92 Young Street,
CARRINGTON N.S.W.
Telephone 61-6114, 69-6337

5486



EIS
486A

283/0570



BLOOMFIELD COLLIERIES PTY. LIMITED

REVISION OF RIXS CREEK PROJECT

Note: This report has been prepared as a first outline of Bloomfield Collieries Pty. Limited's intention to revise the Rixs Creek project to include two stages of mine development. Detailed planning in progress is not expected to change the project significantly.

Prepared by:
CROFT & ASSOCIATES PTY. LIMITED,
92 Young Street, Carrington. 2294.

June 1984.

TABLE OF CONTENTS

	Page
1. OUTLINE OF THE PROJECT	1
2. PROPOSED STAGE I OF PROJECT	3
2.1 Mining Operations	3
2.2 Coal Handling	4
2.3 Workshop Facilities	5
3. PRODUCTION BUILD-UP TO STAGE II	5
4. ENVIRONMENTAL ASPECTS	6
4.1 Revised EIS	6
4.2 Noise Climate	6
4.3 Air Quality	6
4.4 Water Quality	7
5. STAGE II OPERATIONS	7
5.1 Mining	7
5.2 Coal Handling and Washing	8
6. CONCLUSION	8

1. OUTLINE OF THE PROJECT

Bloomfield Collieries Pty. Limited proposes to establish an opencut mining operation and associated surface facilities at Rixs Creek to produce one million tonnes of saleable coal per annum when at full production. The product coal will be split approximately evenly between coking and steaming grades.

Mining will be in two distinct stages. Stage I will consist of a smallscale mine to produce approximately 280,000 tonnes ROM per year for a period up to five years. Stage II will follow Stage I and produce up to 1.4 million tonnes ROM or one million tonnes saleable per year. Details of the Stage II mine were presented in a Draft Environmental Impact Statement in March 1983.

The smallscale of the operation and the relatively uncomplicated nature of the geology of the site have allowed the development of a mine plan which will ensure the maximum recovery of coal resources while minimising the area of disturbance at any time.

The New England Highway bisects the Authorisation. Stage I of mining will be on the northern side of the highway and when at full production mining operations will proceed simultaneously on both sides of the highway.

Initial boxcuts will be established at the outcrop of the lowest or Hebden seam, with subsequent extraction proceeding in strips along the strike of the seam. The strips will work between 1 and 7 seams, removing all coal to a depth of between 80 and 100 metres over 20 years. Major seams will be developed as benches with overburden removal and coal mining being achieved by the use of scrapers, dozers and truck and shovel combinations.

The smallscale of the operation will result in the minimum requirement for out-of-pit disposal of overburden. The spoils produced in exposing the coal are to be hauled back within the opencut after the initial excavations are complete.

Final shaping and rehabilitation of the backfilled areas will commence during Year 1 of mining and continue progressively thereafter. The final landform will be very similar to premining conditions.

A rail loop will be constructed in the northeast of the Authorisation connecting to the Main Northern Railway. During Stage I of mining all raw coal will be hauled by rail for washing off the site. A coal preparation plant and handling facilities will be constructed prior to the buildup to fullscale production. Coking and steaming grade coals produced on site will be hauled by rail to the Port of Newcastle for export.

Access to the mine site will be from Rixs Creek Lane. The intersection of this road with the New England Highway will be upgraded. The construction of the highway underpass connecting the southern and northern areas of the Authorisation will enable raw coal haulage within the boundaries of the site and at the same time avoid any conflict with highway traffic.

It is planned for full production to be achieved by Year 6 of mining and to continue until Year 21. No detailed plans have been formulated for the continuation of operations beyond this time, although it is expected that the mine will advance in a westerly direction and that overburden and coal extraction will extend to a greater depth over subsequent years.

A workforce of 12 persons will be required during Stage I to operate a single shift 5 days per week. At full production the mine will employ 100-120 persons. Coal handling and washing will operate 24 hours per day, 5 days per week and opencut operations approximately 21 hours per day, 5 days per week.

Site power requirements will be drawn from a 66 kV feeder to be built adjacent to the Authorisation. Potable water supplies will be obtained from an extension of the Singleton Heights domestic supply. Raw water will be generated on site and will be sufficient to cater for the site needs except under extreme drought

conditions. Any shortfall will be drawn from the Singleton Shire Council raw water supply network.

Earthworks for the rail loop, surface facilities and coal preparation plant will commence prior to mining operations and continue for a period of 12 months. The construction of the coal preparation plant and associated facilities will similarly extend for a period of 12 months with an average of 70 persons being employed during construction operations.

2. PROPOSED STAGE I OF PROJECT

2.1 Mining Operations

Mining will commence at a small coal output to produce an average of 280,000 tpa or 6,000 t/wk ROM for a period of up to 5 years.

Overburden removal will be carried out by three Caterpillar 660 scrapers and two D10 bulldozers. Operations will be 7 hours per day for 5 days per week.

Mining will commence at the outcrop of the Hebden Seam, immediately to the south of the barrier zone surrounding the coke oven ruins. The scrapers will work a 30 m wide strip along the Hebden Seam outcrop running in a southeasterly direction toward the highway barrier zone. A second 30 m wide strip will be established downdip upon completion of the first with some six strips necessary to mine the coal reserves between the coke oven and highway barrier zone over the first year.

The second year of mining will see coal removed immediately to the west of the coke ovens with overburden removal following the sequence of 30 m wide strips.

Mining in Years 3 to 5 will see coal won from the areas to the north of the coke ovens with the initial strip being established along the Hebden Seam outcrop and

subsequent strips downdip of this.

Coal removal will be by a D9 bulldozer which will rip and heap the coal. A Caterpillar 980 front-end loader will load 25t highway trucks which will haul the coal to the stockpile area before final transport from the site.

A grader and watercart will provide support for the overburden removal and coal winning operations.

Approximately 20,000 m³ of overburden will require disposal before haulback within the opencut can commence. This material will be used in the construction of the bund wall which will be adjacent to the main coal haul road from the southern mine area, part of the second stage of operations.

2.2 Coal Handling

Coal will not be prepared on site during Stage I of operations. ROM coal will be sent by rail to the Company's facility at East Maitland or will be washed by agreement with another company. A rail loop will be constructed adjacent to the Main Northern Railway to SRA requirements. The loop will satisfy the needs of the mine over its lifetime.

A ROM coal stockpile area will be established to serve Stage I of the mine and will be extended prior to Stage II of operations. When at full production it will represent the product coal stockpile area.

ROM coal will be reclaimed from the stockpile by a Caterpillar 980 front-end loader which will feed a conveyor by means of a mobile hopper.

The conveyor will in turn feed coal to a 250t rail load-out bin to be constructed above the rail loop. This bin will be replaced by a 1750t bin for the second stage of operations. An average of less than two unit trains per week will haul coal

from the mine.

2.3 Workshop Facilities

A small workshop, office, bath house, lunch room and ambulance room will be constructed to serve the Stage I workforce. These facilities will be constructed as part of the opencut workshop complex and will be extended for the fullscale mining operation.

3. PRODUCTION BUILD-UP TO STAGE II

Prior to the increase in coal production from the opencut, the construction of the coal preparation plant and full surface facilities will commence. It is expected that these will be complete around the time of build-up to fullscale production. Details for the coal preparation plant and surface facilities are presented in the draft EIS.

The highway underpass connecting the southern mine area with the surface facilities and northern mine area will be constructed prior to production buildup. There will be no mining of the southern area until the underpass is complete.

Expansion within the opencut will simply entail the widening of the scraper strip of 30 m to a width of 60 m, sufficient to allow the operation of shovel and trucks within the pit area. When fullscale production commences on the northern side of the highway the team of scrapers and bulldozers will commence mining on the southern side of the highway. Operations will then continue as detailed in the draft EIS.

4. ENVIRONMENTAL ASPECTS

4.1 Revised EIS

The draft EIS for the project is to be revised to include the slower startup during Stage I.

4.2 Noise Climate

The residential area of Singleton Heights will not experience any noise impacts resulting from the mining operations. Noise impacts for Stage II of the operation are detailed in the draft EIS.

Noise levels at residences along Rixs Creek Lane will be above background level during Stages I and II due to their close proximity to the mine. The occurrence of levels above background will be much less frequent during Stage I due to the smallscale of this phase of mining. Similarly, properties at Maison Dieu will receive noise levels above background with these levels occurring for limited periods during Stage II of operations. These aspects will be considered further with the SPCC before the final draft of the EIS is prepared.

4.3 Air Quality

Details of environmental safeguards and air quality from Stage II are detailed in the draft EIS. The reduced production of Stage I, and hence reduced production over the 21 years of mining, will result in a decrease in dust generated from the site. Dust levels during the first five years at residences close to the mine will be less than originally predicted in the draft EIS. Levels at houses close to the eastern boundary of the Authorisation will increase after Year 5 when the mine reaches full production. Levels after this time however will be less than those originally predicted for mining during Year 1 to 5 at full production because of the additional distance to the houses when this stage is reached.

4.4 Water Quality

Full water management safeguards for Stage II are detailed in the draft EIS. Appropriate safeguards will be introduced into the Stage I operations including the construction of sedimentation and minewater dams. The small area of the pit at any time during Stage I will result in corresponding small volumes of minewater. Any minewater generated will be stored and used for in-pit and coal stockpile dust suppression. Sedimentation dams will be constructed to collect runoff from backfill areas and surface haul roads. Water from those dams will be used on site as required or overflow to natural watercourses during high rainfall events.

5. STAGE II OPERATIONS

5.1 Mining

Details of these operations are provided in the draft EIS. Following the necessary preparation within the opencut an overburden team consisting of a 23 m³ electric rope shovel and three 170t rear dump trucks will commence overburden removal in the northern mine area. The scraper and dozer combination which operated in Stage I will commence overburden removal south of the New England Highway. The scrapers will continue operations in the southern mine area except to occasionally remove topsoil and weathered overburden in the northern area. A front-end loader and two 77t rear dump trucks will work both the north and south areas, being mainly involved with the removal of rock splits between sections of some coal seams.

Coal production will be by means of a Caterpillar D10 bulldozer which will rip and heap the coal, a Caterpillar 992 front-end loader and a fleet of 100t coal haulers. A grader and watercarts will maintain opencut and surface haul roads.

5.2 Coal Handling and Washing

A coal preparation plant will be constructed on site, designed to handle a raw coal feed of 500 t/h. It will be a two stage dense medium cyclone plant able to simultaneously produce a low ash soft coking coal and a higher ash steaming coal. Alternatively, if only one product is being washed the plant can function on only one circuit or with both circuits operating in parallel.

Raw coal from the opencut will be hauled to surface facilities and end dumped directly into a receival hopper. The hopper will feed a rotary breaker which will crush the coal to -62mm.

Crushed coal will then be fed either to the washery via two 3,000t surge bins or onto a 40,000t capacity raw coal stockpile. The surge bins will ensure a constant feed to the coal preparation plant and at the same time allow blending of raw coal from different seams. The raw coal stockpile will be fed by a luffing and slewing stacker with reclaiming of coal by a bridge type reclaimer.

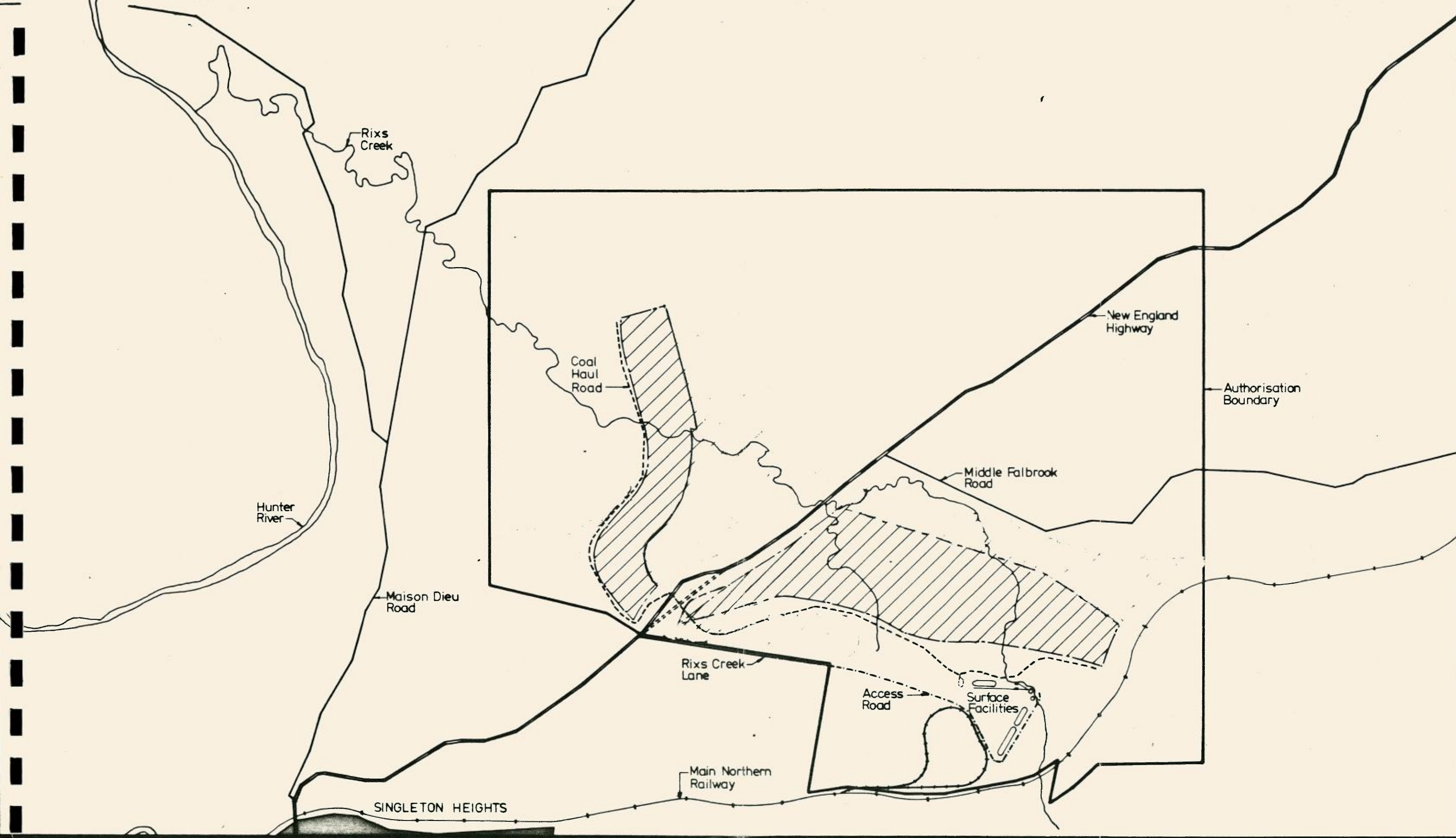
Two product stockpiles will have capacities of 93,000 t and 47,000 t. The stockpiles will be fed by separate conveyors via a transfer station, each conveyor being provided with a rail mounted luffing and slewing stacker. Coal will be reclaimed by a bridge type reclaimer discharging to a single recovery conveyor which will feed a 1,750t rail load-out bin. The facility will serve an average of seven unit trains per week when at full production.

6. CONCLUSION





A summary of the Company's proposals for Stage I and Stage II of the project is presented in Table 1.

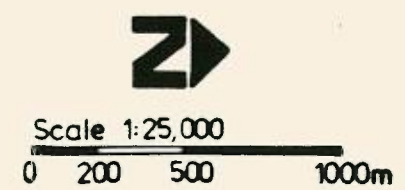
TABLE 1
SUMMARY OF STAGE I AND STAGE II OPERATIONS

Stage I	Stage II
Coal production - 280,000 t ROM average over 2-5 years.	Coal production, 1,400,000 t ROM
Overburden removal Scrapers - 30,000 m ³ /wk	Overburden removal Scrapers - 30,000 m ³ /wk Shovel and trucks - 60,000 m ³ /wk FEL and trucks - 18,000 m ³ /wk
Manning - 12 persons	Manning - 100-120 persons
Coal washing - off site	Coal washing - on site coal preparation plant
Operating hours - 7 hrs/day, 5 days/week	Operating hours - Overburden: 21 hrs/day, 5 days/week Coal washing: 24 hrs/day, 5 days/week
Train loading - <2 trains per week	Train loading - 7 trains per week

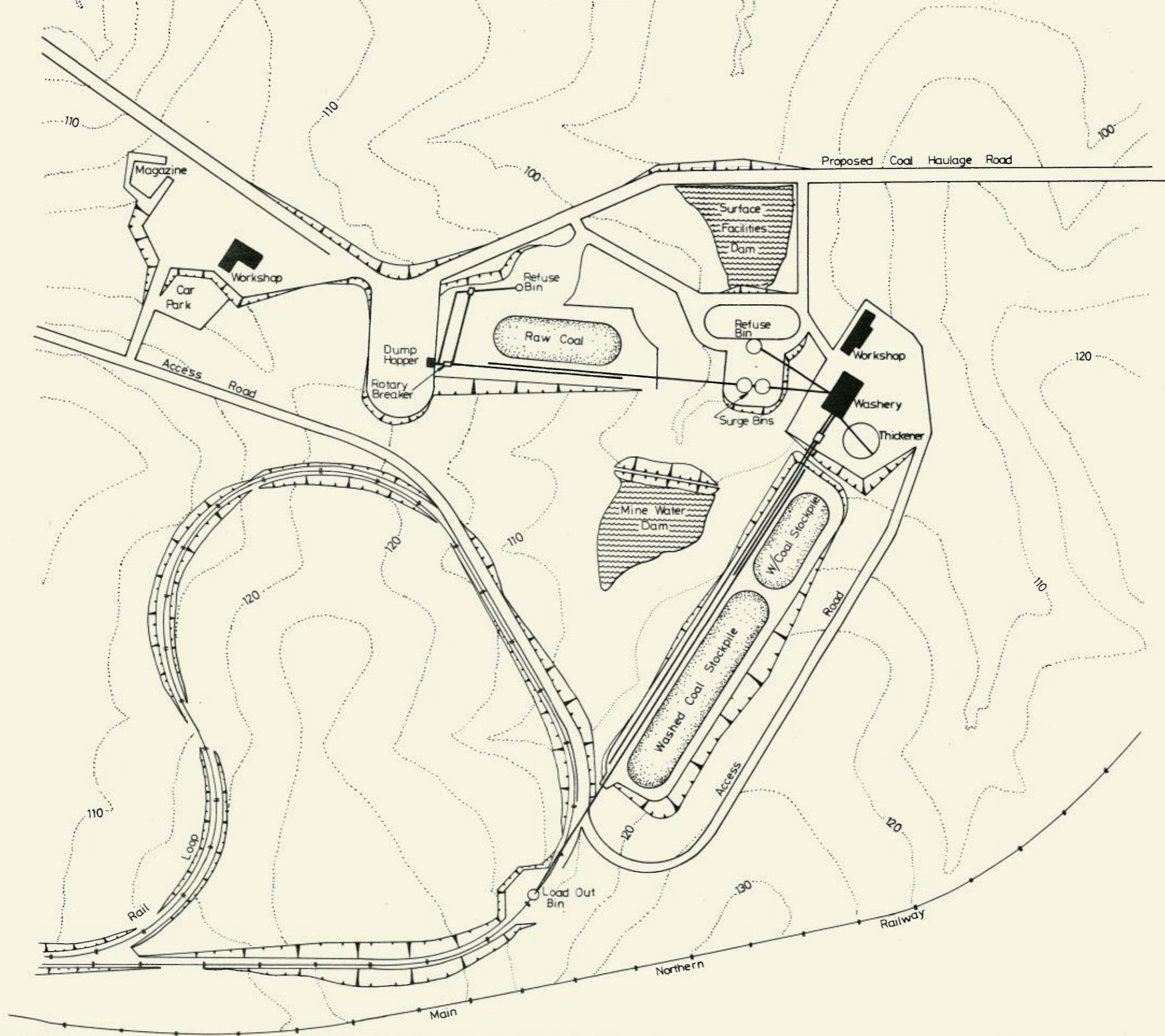


LEGEND

-  Opencut Area
-  Urban Area
-  Rail Loop
-  Proposed Highway Re-alignment



SITE LAYOUT

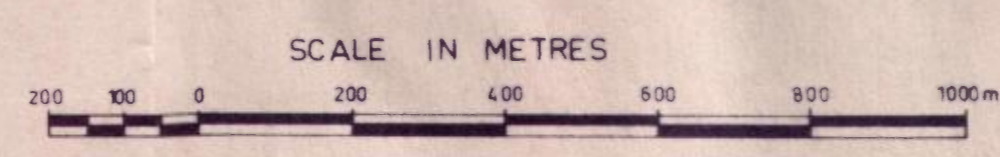


Scale 1:5000
 0 50 100 200m

SURFACE FACILITIES LAYOUT



- YEAR 1
- YEAR 2
- YEAR 3
- YEAR 4
- YEAR 5
- YEAR 6
- YEAR 7
- YEAR 8
- YEAR 9
- YEAR 10
- YEARS 11-15
- YEARS 16-20



SCALE 1:10,000
 TRD R D DATE 19 5 78
 FILE No.
 REV. DATE

20 YEAR MINING PLAN AT
 BLOOMFIELD RIXS CREEK AREA.
 APPD.RAB DATE 19 5 78
 Plan No. A1 - SHEET OF SHEETS REV

BLOOMFIELD COLLIERIES

EIS
486A

Revision of Rixs Creek project

