



**Australian Bulk Minerals**

**EL 19/2005 Long Plains**

**Annual Report**

**21 January 2007**

**to**

**20 January 2008**

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(1) ABM Savage River

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## LIST OF SUPPLIED FILES

-  EL192005\_200712\_01\_report.pdf
-  EL192005\_200712\_02\_appendix1\_costean\_geology\_plan.pdf
-  EL192005\_200712\_03\_appendix2a\_magnetics\_report.pdf
-  EL192005\_200712\_04\_appendix2b\_magnetics\_data.zip
-  EL192005\_200712\_05\_appendix3a\_collars.txt
-  EL192005\_200712\_06\_appendix3b\_assays.txt
-  EL192005\_200712\_07\_appendix3c\_geology\_logs.txt
-  EL192005\_200712\_08\_appendix3d\_logging\_codes.pdf
-  EL192005\_200712\_09\_appendix4a\_section5397000.pdf
-  EL192005\_200712\_10\_appendix4b\_section5396950.pdf
-  EL192005\_200712\_11\_appendix4c\_section5396900.pdf
-  EL192005\_200712\_12\_appendix4d\_section5396800.pdf

## **1 INTRODUCTION**

Exploration Lease EL 19/2005 "Long Plains" was granted to Goldamere Pty Ltd on 21<sup>st</sup> January 2006. Australian Bulk Minerals (ABM) is a wholly owned subsidiary of Goldamere and manages and conducts all exploration activities on this lease. ABM manages the operation of the magnetite mine and concentrator at Savage River, and the pelletising plant and shiploading facilities at Port Latta on the North West coast.

ABM's interest is focussed on the Long Plains magnetic anomaly as a potential future source of magnetite ore as a feed material for its Savage River concentrator. Only the North Zone of the anomaly lies within EL 19/2005.

The following report summarises exploration activities completed at Long Plains during the second year (2007) of tenure.

## 2 TENURE

ABM's Long Plains Prospect is held under Exploration Lease EL19/2005 that comprises an area of 10km<sup>2</sup> (Figure 1). The lease comprises three parts located around what was formerly a collection of mine leases and a retention lease held by another party. Two of the ABM parts are peripheral to the Long Plains magnetic anomaly, but the third is centred on the North Zone of the anomaly. All activities to date have been conducted on this part. This part will be referred to in this document as 'the lease', as the other parts are not accessible at this time.

ABM was granted EL46/2007 on the 26<sup>th</sup> November 2007. This leases comprises two parts covering the former mine and retention leases. The two leases (EL19/2005, EL46/2007) encompass almost the entire Long Plains magnetic anomaly and provide continuous leasehold connecting all parts of EL19/2005 and the Savage River Mine Lease 2M/2001. ABM has also applied to transfer EL30/2003 to Goldamere after negotiating with the holders, Gregory and Thorne. This lease completes the coverage of the anomaly and incorporates ground adjacent to the anomaly necessary for extended exploration activities and potential mine infrastructure.

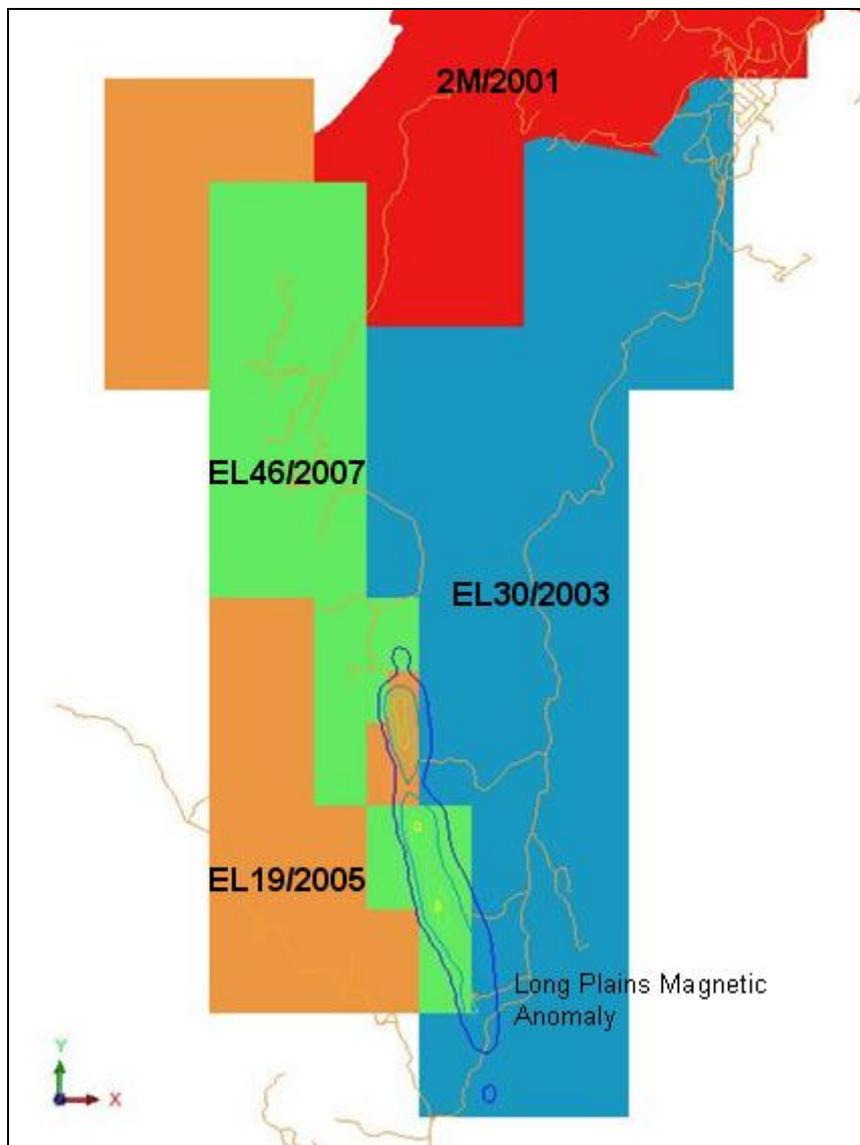


Figure 1: Land Tenure Plan - November 2007

### 3 LOCATION

The Long Plains Prospect is located approximately 10km south by road of the Savage River Mine and concentrator. Savage River is located approximately 100km south west by sealed road from Burnie (Figure 2). The lease is accessed by the all-weather gravel road between Savage River and Corinna, and then by a bush track approximately 2km west of the Corinna Road.

Local topography surrounding the lease is rugged, with incised valleys and steep hills. The North Zone of the anomaly is located on top of a prominent north-south trending ridge. The west flowing Bowry Creek is the main drainage in the area and runs past the northern boundary of lease area before joining with Main Creek near its junction with Savage River.

Regional vegetation includes undisturbed rain forest, wet eucalypt, acacia and open heath land. The immediate area of the prospect has previously been logged extensively approximately 20 years ago, with almost no mature trees present in the working area. A bush fire not long after this time devastated the remaining vegetation, leaving the present vegetation as thick regrowth dominated by eucalypts with several rainforest species. Climate is wet temperate with an average annual rainfall of 1,950mm and mean monthly temperatures ranging from 3-19°C.



Figure 2: Savage River Project Location

## 4 PROJECT HISTORY

Ironstone outcrops on the Savage River were first discovered by State Government surveyor C.P. Sprent in early 1877 during one of his exploration journeys through western Tasmania. The deposits were first reported as a possible source of iron ore in 1919. Modern, systematic exploration techniques were employed by the Australian Bureau of Mineral Resources during 1956 that included ground and airborne magnetic surveys. The largest magnetic anomaly was detected at Savage River with two smaller anomalies being detected at Long Plains and Rocky River further to the south.

In 1965, Savage River Mines Ltd, a joint venture of Australian, Japanese and American interests was formed to develop the Savage River Project. This Project was operated for the full term of a thirty-year lease by PMI (Pickands Mather International – managers of the joint venture). In early 1997, PMI ceased mining activities at Savage River, transferring ownership of the Savage River Project to the Tasmanian Government on March 26 1997. At the end of March 1997, ABM purchased the assets of the Savage River Project from the Tasmanian Government. ABM has continued mining since 1997 with a series of cut-backs on existing pits and has developed the South Deposit.

A 15 year mine life extension project was approved during 2007. This is based on a further cutback on North Pit. Further studies on mine life extensions and production expansions are evaluating the potential of additional ore sources including redeveloping South Deposit and Centre Pit. Long Plains was identified as having potential to yield ore quickly with mineralisation practically outcropping at surface. However the long haul to the Savage River site for processing has restricted the development of the prospect. It was recognised that significant information needs to be obtained from Long Plains before a meaningful evaluation can be carried out and the potential for supplying ore to the mill determined.

An initial program in 2006 was devised to develop a geological model. This involved

- relogging historic core,
- costeaning across the mineralisation (1505 metres),
- logging the costeans,
- establishing survey control points

## 5 GEOLOGY

The Long Plains magnetite deposit lies within and near the eastern margin of the Proterozoic Arthur Metamorphic Complex in north-western Tasmania. The complex is exposed along a northeast-southwest trending structural corridor, the Arthur Lineament, which separates Proterozoic sedimentary rocks to the northwest from a variety of Palaeozoic rocks to the southeast (Figure 3).

The magnetite deposits at Long Plains represent a series of elongate, discontinuous magnetite lenses that extend over a three kilometre strike length (Figure 4). The deposit has been separated into three distinct zones on the basis of total magnetic intensity termed the Northern, Central and Southern Zones. The oblique view of the total magnetic intensity in Figure 4 illustrates the broad geometry of the Zones.

The magnetite zones are sub-vertical to strongly east dipping and hosted within ultramafic and mafic schists. A suite of late metabasalt and metadolerite intrusive dykes occur sub-parallel to the ore zones. Vein magnesite is developed at the western magnetite boundary with the contact marked by the strong weathering and the development of surface clays (Griffith, 2000).

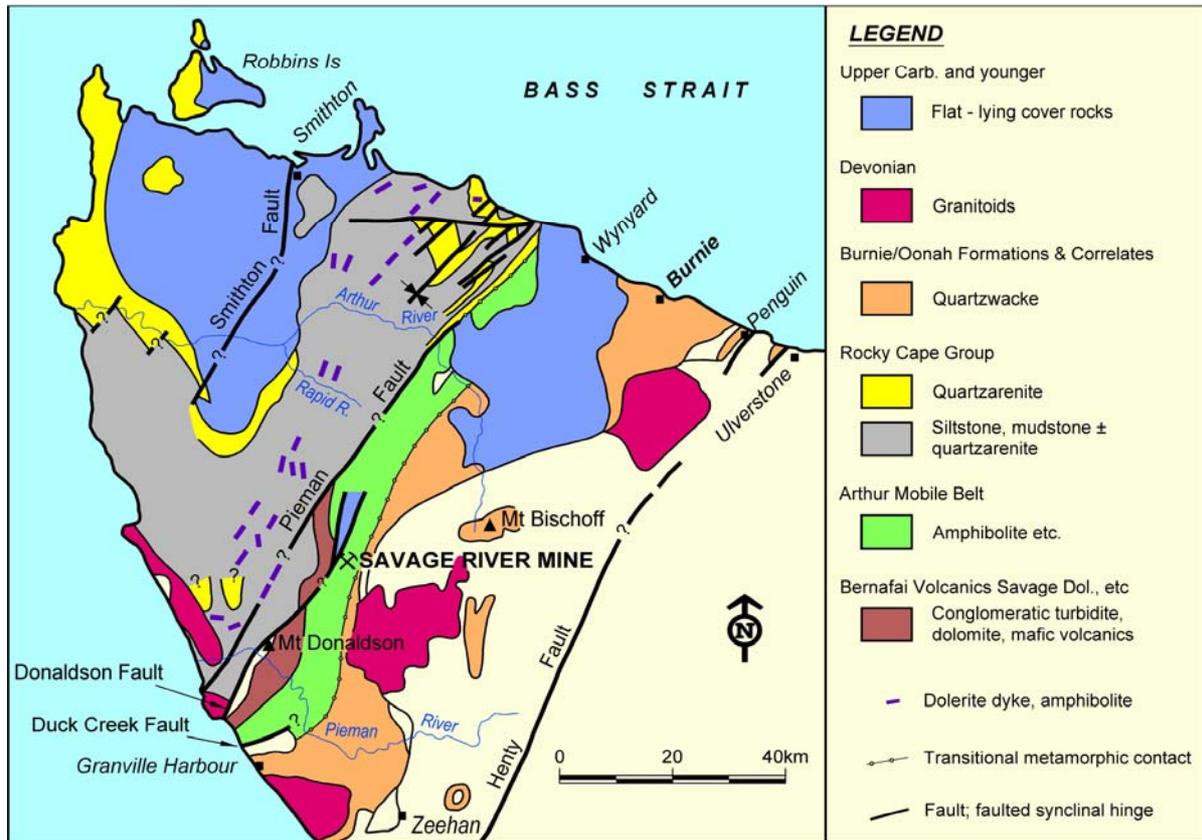


Figure 3: Regional Geology

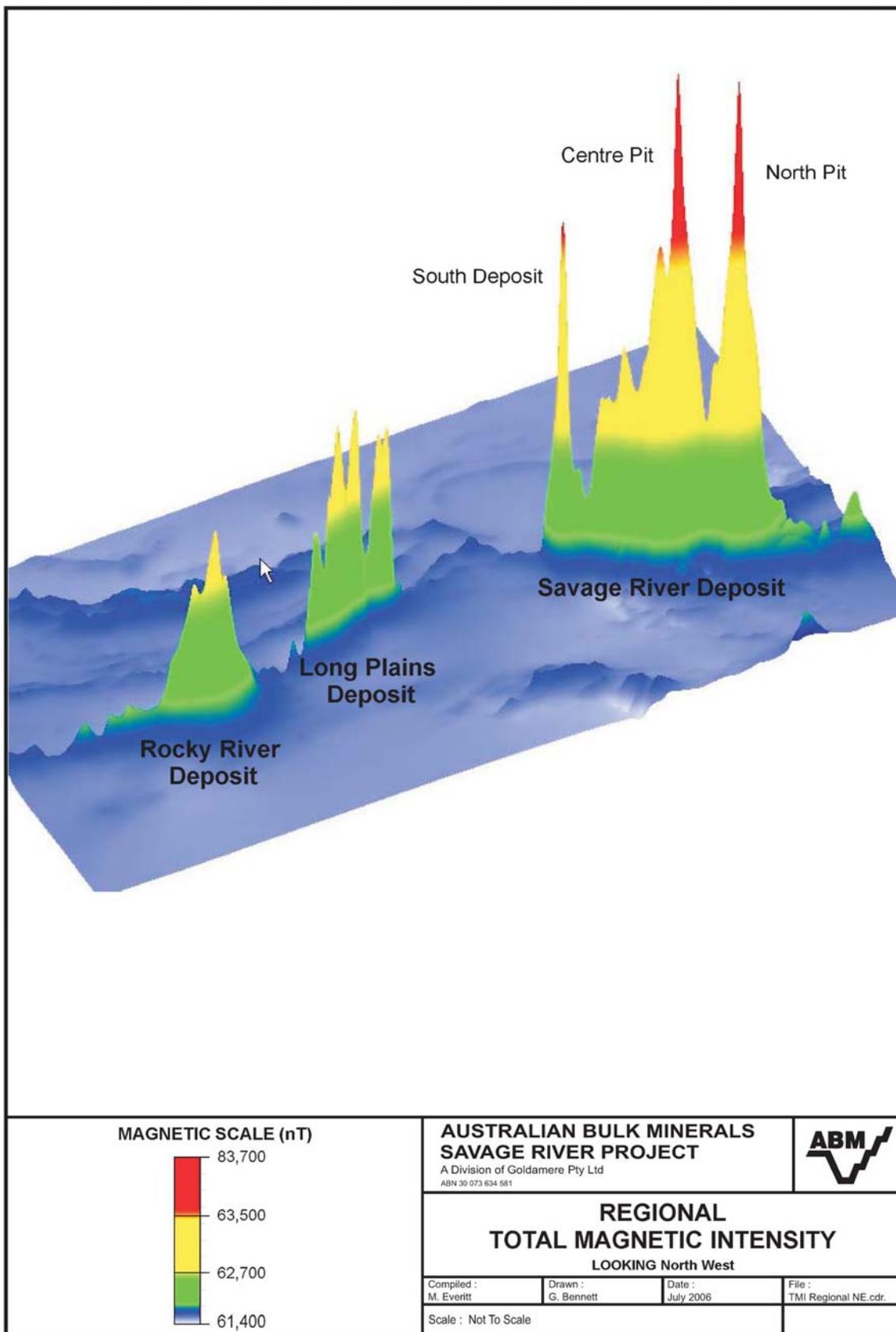


Figure 4

## **6 Exploration History**

The Long Plains magnetite deposit was first investigated during the late 1950's by the Bureau of Mineral Resources (BMR), as part of a regional magnetic study of the Savage River area. A ground magnetics survey was completed in 1962 across the area (Eadie, 1962). The contour map produced for that report has been digitised and converted into AMG66 co-ordinates to be combined with other data.

Diamond drilling and ground magnetic surveys were undertaken by Rio Tinto Australia Exploration (RTAE) Pty Ltd during the early 1960's. One diamond drill hole RTAE-1 totalling 195.0 metres was drilled in the northern end of the deposit.

Ownership of the deposit was transferred to Industrial and Mining Investigations (IMI) Pty Ltd during the 1960's, who completed broadly spaced diamond drilling at Long Plains. A total of seven diamond drill holes (IMI28-30; IMI33-35 and IMI46) totalling 1,135.07 metres were drilled in the northern and southern areas of the deposit.

No further significant exploration was completed at the deposit until 1994 when Savage Resources Pty Ltd completed four diamond drill holes (LPDDH100-103) in the north of the deposit. The program totalling 525 metres was designed to provide a complete cross section through the deposit in an area of moderate grade magnetite development lying between drill holes RTAE 1 and IMI 29.

## **7 2006 EXPLORATION PROGRAM**

The original work program for 2006 was broken down into 3 main areas:

- access & survey control
- costeans
- magnetic survey

Unfortunately the work was not commenced until late in the season and the onset of winter weather and internal issues with ABM curtailed the program in late May until December.

### **7.1 Access & Survey Control**

4.9km of existing tracks were cleared of regrowth vegetation and overhanging branches allowing unhindered, safe access to the North Zone.

A contract surveyor was engaged to establish survey control points for the North Zone. Three primary control points were set out using DGPS. Some difficulty was encountered in obtaining satellite coverage due to the thick vegetation. Using these control points, ABM survey staff have set out a network of secondary stations along the entire North Zone.

ABM will conduct all its exploration activities using the AMG66 grid. Historical drilling has all been drilled on an arbitrary grid approximately at right angles to the strike of the anomaly. This arbitrary grid appears to be rotated approximately 15 degrees off AMG66.

### **7.2 Costeans**

A total of 1,505m of costeans were dug on selected northings. They were designed to expose all mineralised zones as indicated by the 1962 ground magnetics survey. A 25t excavator was used to clear scrub then dig the costeans. This machine returned to the site in December to fill in all the costeans after geological mapping and photographing of the costeans was completed.

The mapping of the costeans revealed a similar sequence of rocks to that at Savage River as expected. The sequence was highly weathered and often reduced to massive clay with little texture of the original rocks preserved. Ironstone lenses were obvious with little magnetism remaining due to the weathering. For this reason it was decided not to sample the mineralised intervals as the results would not be indicative of the nature of the fresh mineralisation.

The distribution of the lenses indicates that the 1962 magnetics survey cannot be relied upon to assist in program design. In some areas the survey agreed well with the mapped ironstone; however it was very common to find more or less lenses compared to peaks in the survey. On the western margin, lenses were encountered where there was no magnetic response at all. Based on these results it was decided to go ahead with a modern ground magnetic survey during the next year.

### **7.3 Magnetic Surveys**

Apart from providing geological information, the other purpose of the costeans was to check the reliability of the 1962 ground magnetics survey. The instruments used are now out of date and there is no way of confirming the geographical position of the survey lines. If the old

survey had proved accurate, it could have been used to assist in drilling design work, avoiding expensive track cutting and a carrying out a modern survey of the entire prospect.

As mentioned above, numerous discrepancies have been noted between the survey and the mapped lenses in the costeans, necessitating a modern survey. Track cutting work commenced in December 2006.

## 8 2007 EXPLORATION PROGRAM

In late 2006 a three stage program was devised to bring Long Plains from exploration potential to an indicated/measured resource suitable for detailed mine planning. The timeframe for the program could be up to 3 years or more depending on ABM's production requirements into the future.

Table 1: Long Plains North Zone exploration plan for 2007 onwards

Cost Area		Cost Estimate	Reason
Long Plains Exploration – North Zone			
Stage 1	Ground Magnetic Survey	\$42,400	Potential/Inferred Resource
	Earthmoving	\$15,400	
	Reverse Circulation Drilling	\$97,200	
	Diamond Drilling	\$143,200	
	Geological Modelling	\$18,300	
	Approvals	\$401,648	
		\$718,148	
Stage 2			Inferred/Indicated Resource
	Diamond Drilling	\$639,600	
	Reverse Circulation Drilling	\$195,400	
		\$835,000	
Stage 3			Indicated/Measured Resource
	Diamond Drilling	\$142,000	
	Reverse Circulation Drilling	\$372,100	
		\$514,100	
	Long Plains Cost Estimate	\$2,067,300	

Stage 1 was carried out during the 2007 field season and is a follow-up on the 2006 program. The main objective was to develop a reliable geological model. The work carried out included:

- Compilation of the costean mapping
- Track-cutting and completion of a ground magnetic survey
- RC and diamond drilling

All field work was completed by February 2007. The Approvals item in the 3 stage plan included costs associated with environmental surveys and development of an EMP. As a decision to apply for a mine lease was not made during 2007, the Approvals work was not commenced. Further work on Stages 2 and 3 will be dependant on results and ABM's future requirements and may not be implemented for several years.

## **8.1 Costean Geology**

The mapping of the costeans undertaken in 2006 was compiled and loaded into the database as individual drill holes. A plan of the costean geology is included in Appendix 1. This mapping indicates that the distribution of the mineralisation is much more complex than previously understood. As such no interpretive plan has been produced. The ground magnetics suggest some clues to the overall structure of the deposit and will be discussed below.

The mapping has confirmed that the Long Plains deposit is hosted in the same sequence of rocks as the Savage River deposits. The exact sequence in the North Zone area has not yet been determined due to the complexity and deformation.

## **8.2 Ground Magnetism Survey**

3,500m of track cutting was completed and a high resolution ground magnetism survey was undertaken over the North Zone. The report on the survey is included in Appendix 2. Figure 5 illustrates the results.

The survey on the northern portion was run on 25m spaced lines, increasing to 50 and 100m towards the southern end. The southern end was believed to be less intense from the historic survey, but this has been shown to be false. Larger pods and a stronger zone the the west side were encountered. Additional follow-up lines are planned to in-fill these areas as well as close it off to the north.

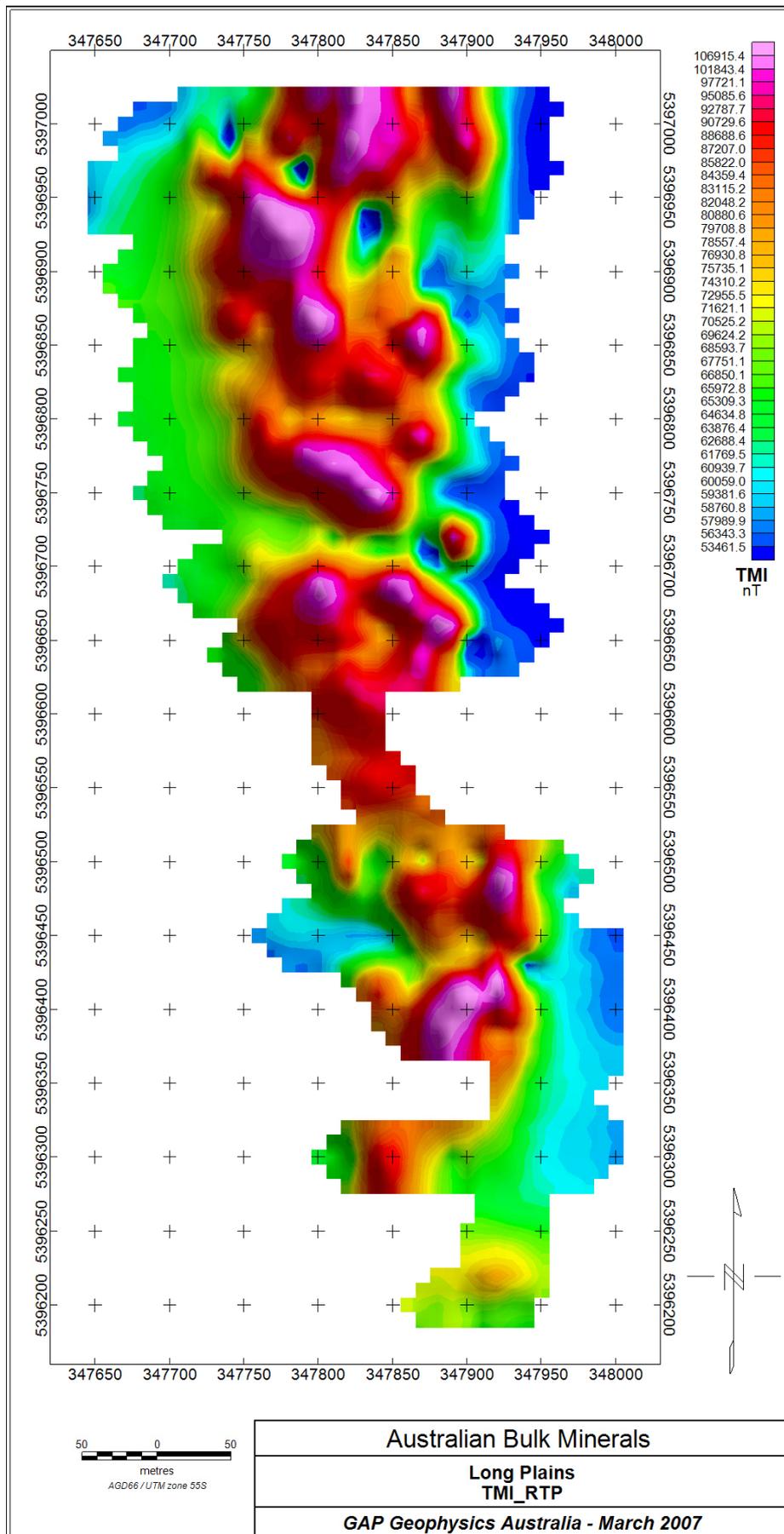


Figure 5.

The data was imported into Surpac mining software for comparison with the existing database. Contouring of the data suggests at least one north-northeast trending fault offsetting deformed zones of mineralisation. Further parallel structures are indicated throughout the deposit as shown in Figure 6. There are several potential models to be considered including northwest trending faults instead or as well as the north-northeast faults. Future work will focus on identifying these structures and verifying their trend.

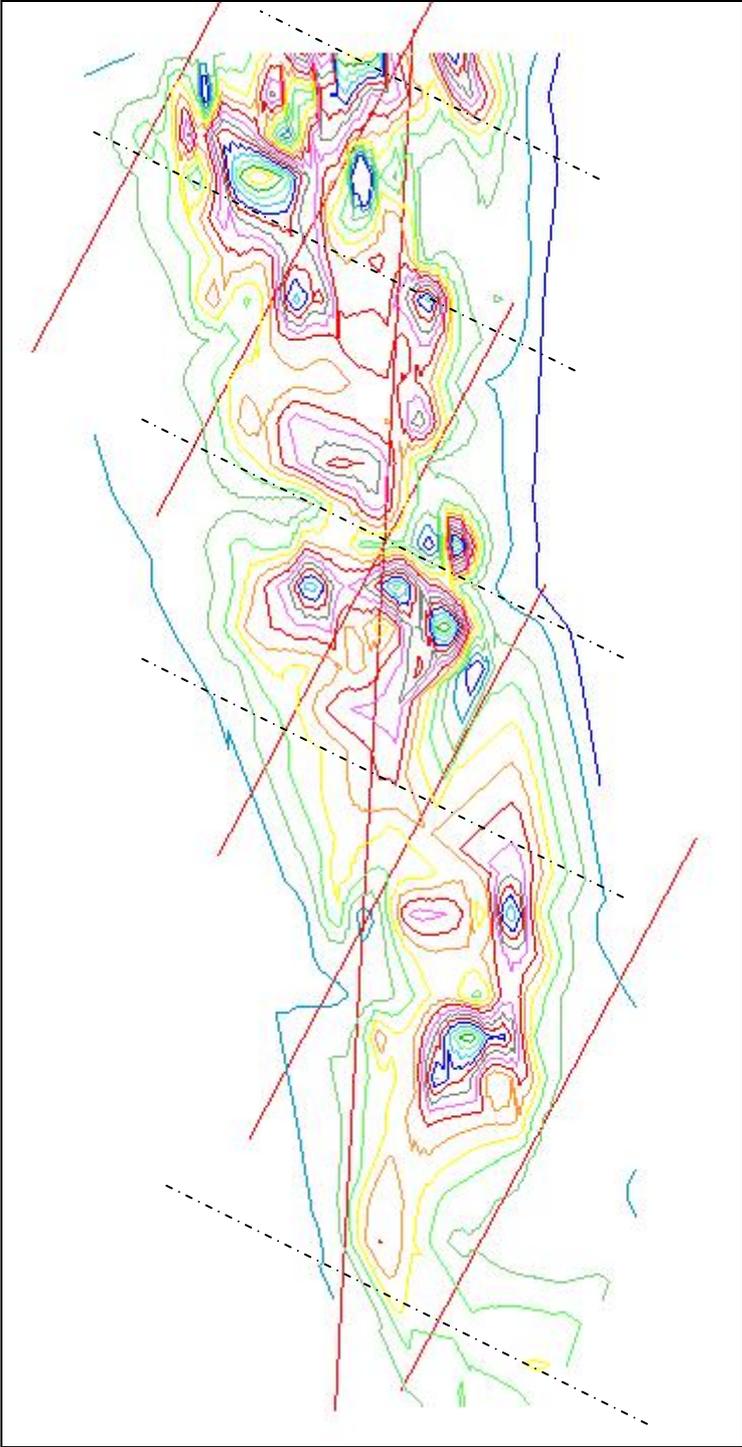


Figure 6. Contoured TMI data with lineaments

### 8.3 Drilling Program

Six reverse circulation percussion holes were drilled for a total of 917m. One HQ3 diamond hole was drilled for a total of 156.2m. Collar, geology and assay data are included in Appendix 3. Figure 7 shows the location of the drill hole collars, the costeans and historic drill hole collars. Appendix 4 contains sections showing each new drill hole.

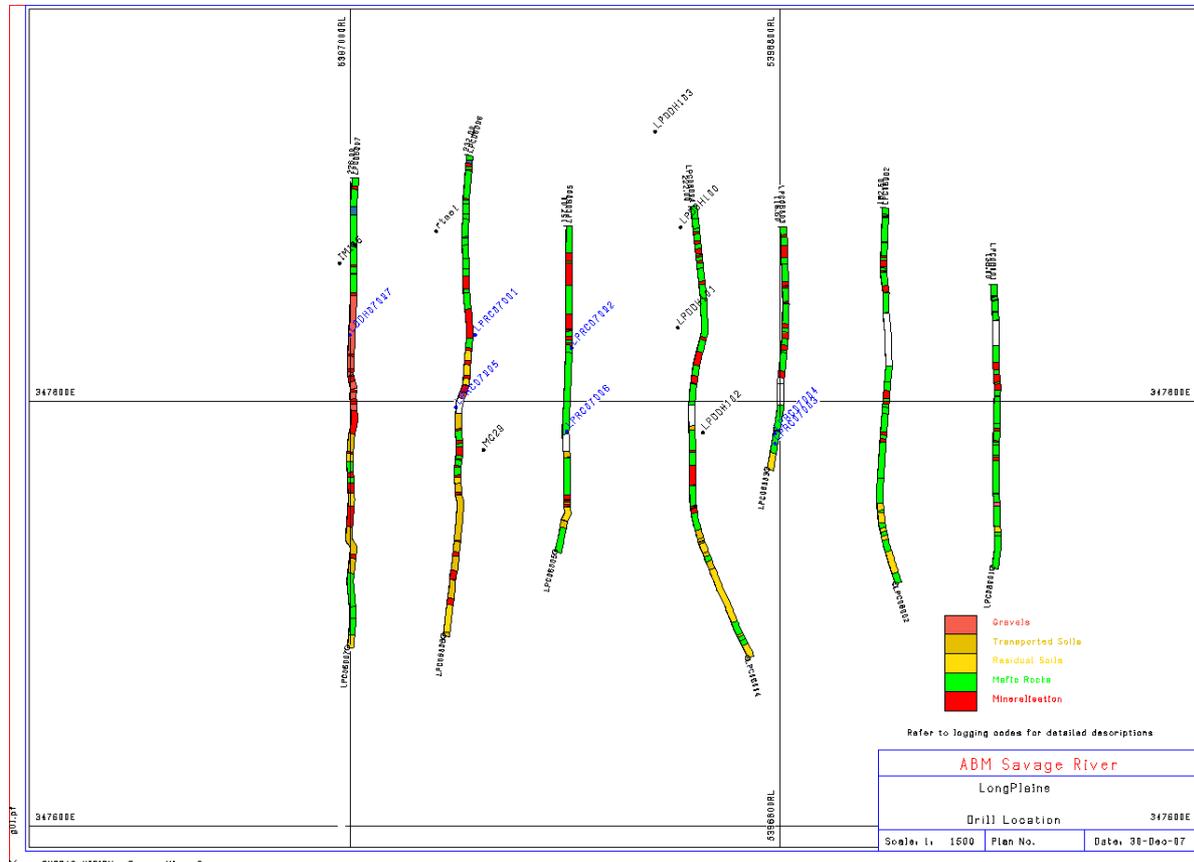


Figure 7 Drill hole locations (blue – 2007), costeans and historic drilling

Drill holes were targeted to build a broad framework on which to base a geological model. The diamond holes (two were planned) were designed also to intersect most waste rock types to gain an appreciation of the environmental issues involved in waste management. The diamond hole was orientated and geotechnically logged to start building a geotechnical database for the deposit.

The northern holes (1,2,5-7) all encountered large volumes of water and deep weathering either side of the orebodies. This created very difficult drilling conditions. The majority of the RC samples were wet and therefore of questionable value. The diamond hole encountered numerous cavities and soft zones with poor recovery. Much was learned of drilling in this ground and both drilling methods will be used in future programs.

The turn around on sample results was extremely slow during the year and little analysis has been completed to date. Broadly the holes encountered slightly wider and stronger zones of mineralisation than expected, although some of this may be due to the poor sample quality from the wet RC samples. At a detailed level, the internal structure has not been clarified with little certainty possible in joining up lenses between holes. An understanding of the geometry of the fault structures will be necessary before the geometry of the mineralisation can be defined.

## 9 2007 EXPENDITURE

The following table details expenditure on the lease up to the 31<sup>st</sup> December 2007.

Table 2: 2007 Expenditure for EL19/2005

<b>Cost Area</b>	<b>Expenditure</b>
Geology – data analysis and design work	\$11,020
Geochemistry – drill sample analysis	\$15,415
Geophysics-land – ground magnetic survey	\$9,100
Feasibility Studies – desktop study for future planning	\$5,600
Rehabilitation – filling in costeans	\$5,620
Drilling - 1073m of 1 diamond and 6 RC holes	\$71,578
Gridding – track cutting for ground mag survey	\$19,231
Administration – tenement details, hire of equipment, sundries	\$3,801
<b>Total</b>	<b>\$141,365</b>

Required expenditure for the first two years was \$10,000. ABM exceeded this amount the previous year by \$65,000.

## 10 Future Work Plans

The next phase of work for Long Plains is Stage 2 which follows on from the work completed in Stage 1 with the objective of defining a formal resource at least over the North Zone. Based on the outcome of the Stage 1 work completed in 2007, the following work has been proposed as a program beginning in 2008 and possibly running for 2-3 years.

- Handcut lines for follow-up ground magnetic survey to fill the gaps in the 2007 survey and provide assistance in developing a geological model
- Drill site preparation – approximately 330m of new tracks
- 3,700m of diamond drilling for geochemical characterisation, geotechnical and geological data
- 2,500m of RC drilling to test the continuity and extent of the mineralisation
- Develop a geological model for the North Zone on which resource, structural, metallurgical and environmental models can be developed
- Establish access to the Central and South Zones

Phase 1 of Stage 2 is the work prioritised for completion in the 2008 field season, subject to budget approvals. The remainder of the work listed above will be completed in successive seasons.

Table 3: Planned Phase 1 expenditure for Stage 2, Long Plains

<b>Activity</b>	<b>Estimated Cost</b>
Follow-up ground magnetic survey	\$83,000
Diamond Drilling – 1,500m	\$405,000
Geological Model	\$35,000
Site access – drill sites, Central and Southern Zones	\$51,000
<b>Total for Stage 2 Phase 1</b>	<b>\$574,000</b>

In August 2007 the ownership of ABM changed hands. Since that time considerable work has been undertaken on developing various options for extending and expanding production at the Savage River Project. Long Plains plays a varying role in some of these options. Until clear recommendations are accepted by the new board it is uncertain what the exact timeframe will be on achieving the outcomes of the 3 stage plan for Long Plains. Confirmation of a budget for 2008 is waiting on a strategic plan to be finalised.

The following plans illustrate the current designs for the work as listed above should budgets be approved.

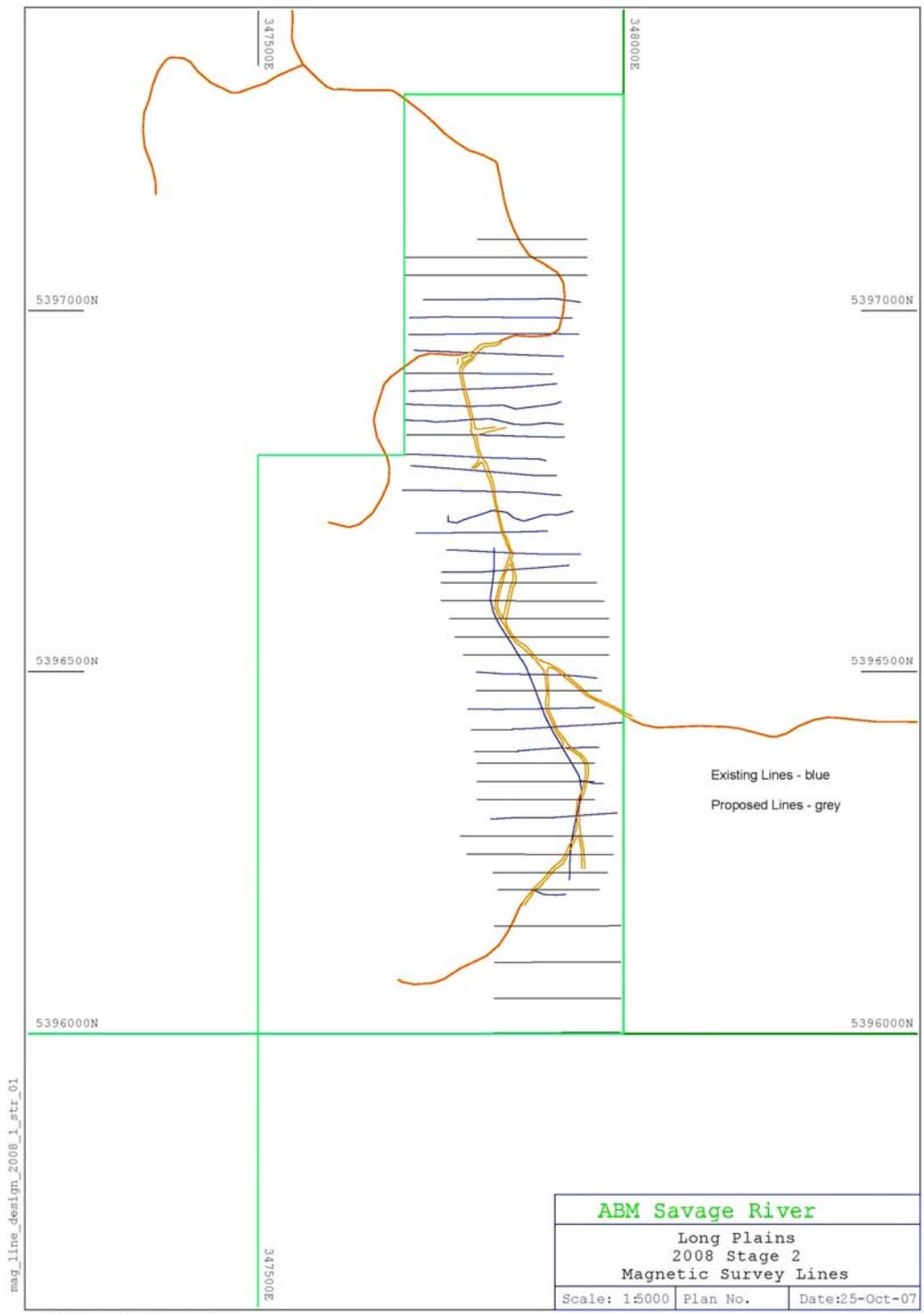


Figure 8: Planned follow-up ground magnetics survey

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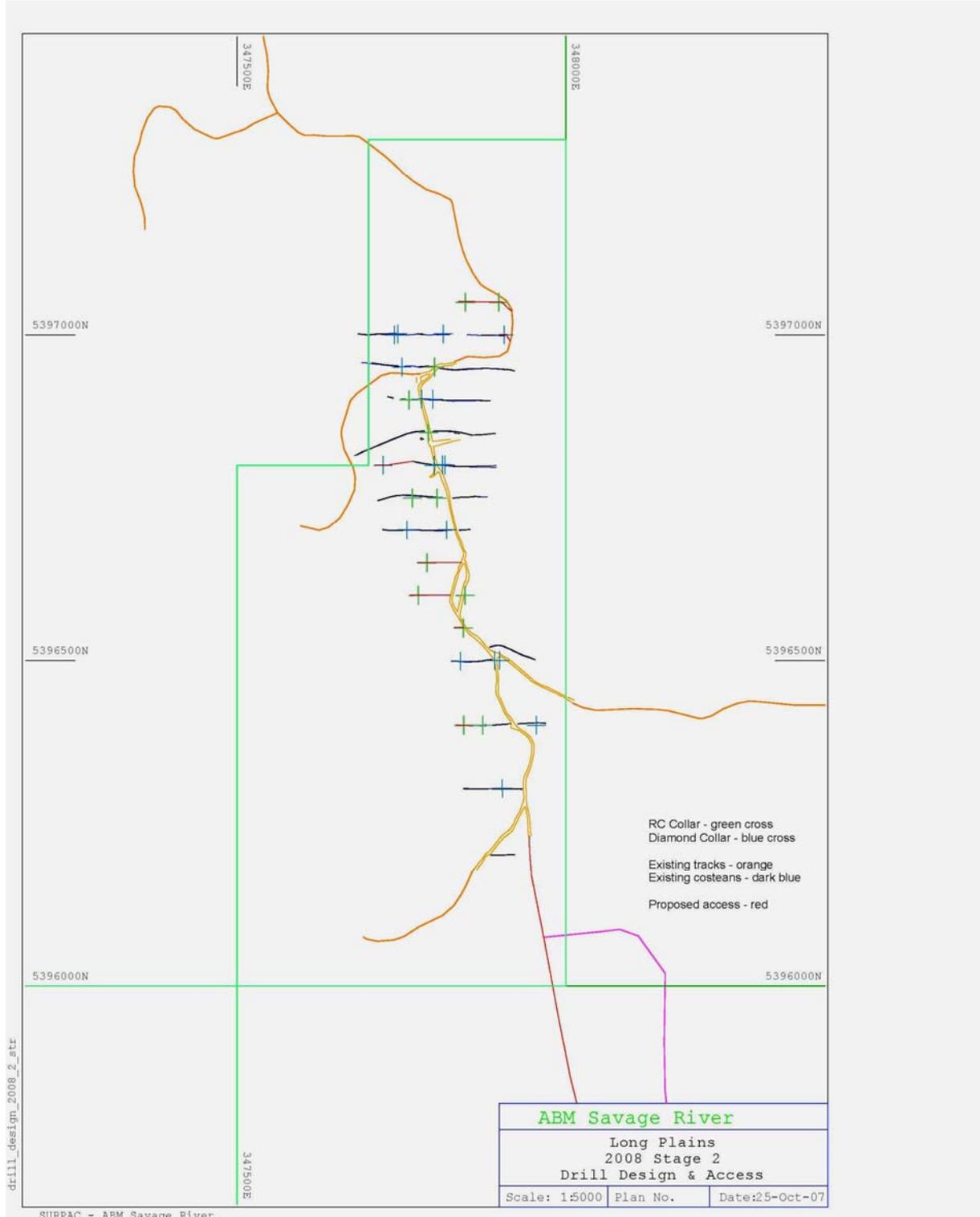


Figure 9: Planned drill collars for Stage 2 – North Zone

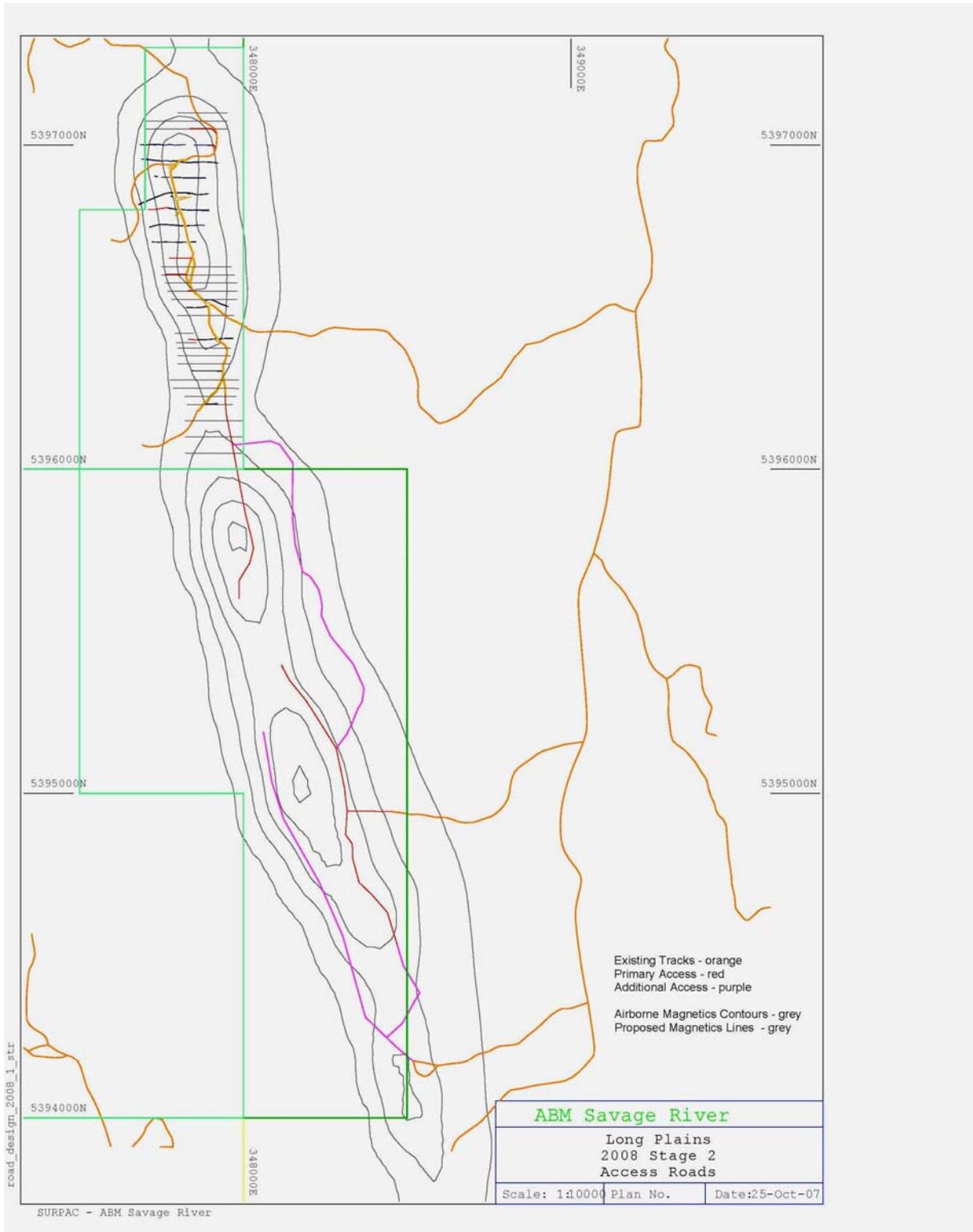


Figure 10: Planned access construction

## **Appendix 1**

### **Costean Geology Plan**

## **Appendix 2**

**a) Ground Magnetic Survey Report**

**b) Ground Magnetic Survey Data**

## **Appendix 3**

- a) Drill hole and costean collar data**
- b) Drill hole assay data**
- c) Drill hole and costean geology logs**
- d) Geology Codes**

## **Appendix 4**

**a) Drill section 53 97 000mN**

**b) Drill section 53 96 950mN**

**c) Drill section 53 96 900mN**

**d) Drill section 53 96 800mN**