



Kidman Barrow Creek Pty Ltd

Exploration Licence 23186

13<sup>th</sup> Annual Technical Report

For Period ending

14<sup>th</sup> July 2014

Map 1:250,000	SF53-06
Map 1:100,000	5755, 5754
Datum/Zone	GDA94, Zone 53
Report reference:	EL23186_20130914_Report.pdf
Target Commodity:	Copper, Gold and Base Metals
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Date of report 12 September 2014

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# 1. INTRODUCTION

This annual report documents activities undertaken on exploration licence (EL) 23186 for the period 15<sup>th</sup> July 2013 to 14<sup>th</sup> July 2014.

Kidman Barrow Creek Pty Ltd, a wholly owned subsidiary of Kidman Resources Ltd, purchased the EL23186 from previous owners, Imperial Granite Pty Ltd, Goldstake Explorations Inc. and Robert Cleaver. The EL transfer was granted by the Northern Territory Department of Resources on the 10th May 2012.

The EL is composed of two historical prospects known as The Home of Bullion Prospect and Prospect D. The primary objective of the exploration is Gold and Base metals with the aim of delivering a JORC compliant inferred resource.

# 2. LOCATION, TENURE & TITLE

EL 23186 is located about 27 km ENE of Barrow Creek; a roadside stop on the Stuart Highway 282 km north of Alice Springs. The Alice Springs to Darwin railway passes 10 km east of the Home of Bullion prospect (Figure 1).

The tenement is within the Neutral Junction pastoral property (PPL 969, Portion 3375). Access to the Home of Bullion prospect is via the road to Neutral Junction Station and the Tara aboriginal community and then tracks utilised by the Neutral Junction Pastoral owners. Access to the Prospect D prospect is from a tourist track off the Stuart Highway and by rarely used pastoral tracks. Flooding in 2010/11 destroyed many of the lesser tracks and access to both prospects had been greatly hindered. However with ownership, rehabilitation, grading and repair of these tracks has occurred and access to all areas of the Home of Bullion Prospect is now possible.

EL 23186 was originally granted on the 15 July 2002 and is in its 13<sup>th</sup> year of tenure for the next reporting period. EL 23186 is comprised of 43 graticule blocks covering 137.47 sq. km.

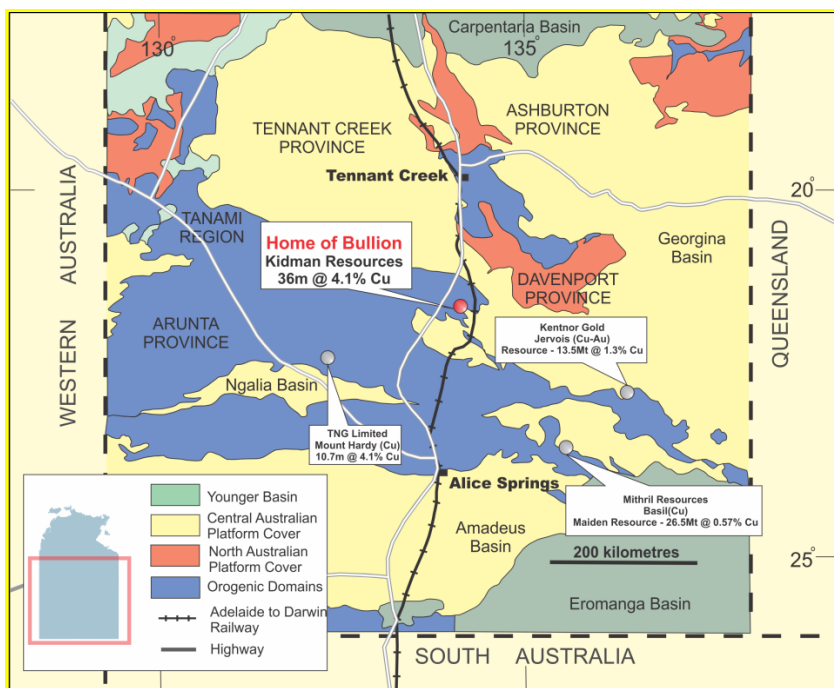


FIGURE 1: NT LOCATION MAP FOR EL23186

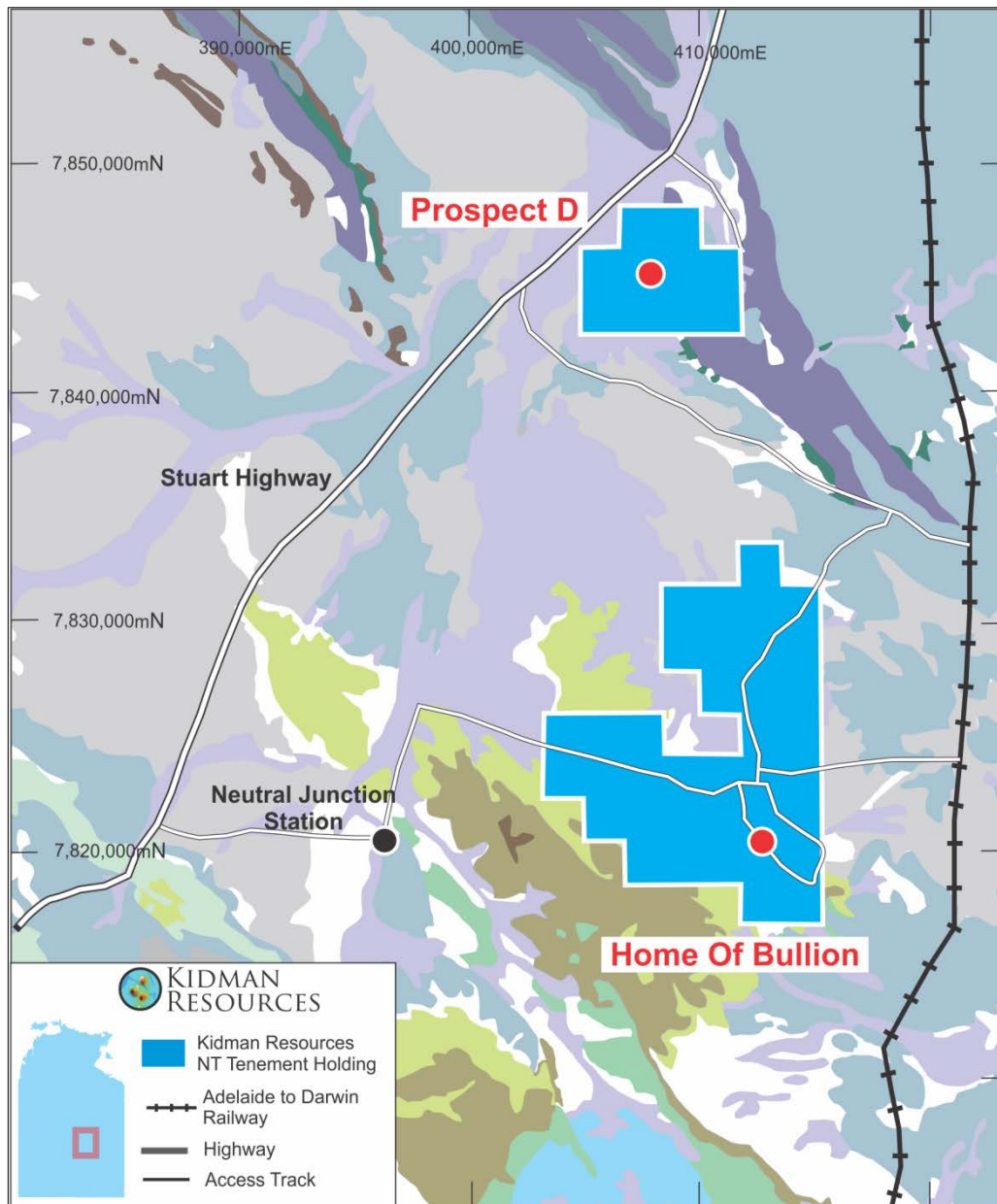


FIGURE 2: LOCATION AND TENEMENT BOUNDARIES FOR EL 23186

### 3. GEOLOGY

The oldest exposed basement in central Australia comprises metamorphic and igneous rocks of the Arunta Inlier (Haines et al., 1991). Rocks of the Arunta Inlier are interpreted as at least partly correlative with sedimentary and volcanic sequences of the adjacent Tennant Creek and Granites – Tanami inliers. Barrow Creek lies on the SW margin of the Late Proterozoic to Palaeozoic Georgina Basin. Block faulting during the Tertiary has produced a number of small non-marine basins in central Australia. Also preserved are relics of a Tertiary silicified land surface. A thin Quaternary veneer of soil, sand and gravel covers most of the lowland area in the region.

The Arunta Inlier (Early – Middle Proterozoic) is characterised by metamorphosed sedimentary and igneous rocks of low to medium pressure facies. Deformation and regional metamorphism of upper greenschist facies took place between 1810 – 1750 Ma (Black, 1981). Shaw and Stewart (1975) established three broad stratigraphic subdivisions based on facies assemblages and lithological correlations. From oldest to youngest, these subdivisions are named Division 1, 2, and 3. Using this model defined by Shaw

and Stewart (1975), the orthogneiss east of Osborne Range, the calc-silicate rocks west of Crawford Range and the Bullion Schist would be included in Division 2, and the Ledan Schist in Division 3 of the Arunta Inlier.

Uncomfortably overlying these rocks are the Hatches Creek Group sediments and volcanics. Blake et al. (1987) formally subdivided the Group into the Ooradidgee, Wauchope and Hanlon Subgroups, comprising a total of 20 Formations and two Members. The Hatches Creek Group is a folded sequence of shallow-water sediments with interbedded volcanic units which reach thicknesses of at least 10,000 metres.

The sediments include ridge-forming quartzites, felspathic, lithic and minor conglomeratic arenites and friable arenite, siltstone, shale and carbonate. The Ooradidgee Subgroup consists mainly of fluvial sediments and sub-aerial volcanics which partly interfinger. The Wauchope Subgroup is characterised by large volumes of volcanics and sediments probably both marine and fluvial in origin. The Hanlon Subgroup may be entirely marine and lacks volcanics (Blake et al., 1987). Following deposition, the Hatches Creek Group was folded about NW trending axes and metamorphosed to upper greenschist facies. Later intrusion of both the Arunta basement and the Hatches Creek Group by granitoids took place around 1660 Ma (Blake et al., 1987). A long erosional period followed with subsequent weathering during the Tertiary to produce silcrete and ferricrete horizons. A thin veneer of Quaternary sands and soils overlays this area.

The Arunta Province records a Paleoproterozoic-Paleozoic tectonic history characterised by regional folding and movement on large-scale shear zones that were active during deposition of the Bullion Schist. The Bullion Schist has been intruded by the Barrow Creek Granite and dolerite leading to its correlation with the Lander Package elsewhere in the Arunta Inlier (Haines et al., 1991) and the Ooradidgee Group in the Davenport Province to the North (Claoue-Long et al., 2008a). Detrital zircon populations and magmatic relationships suggest a ca. 1840-1820Ma depositional timeframe. Regionally the ca. 1820-1800Ma Hatches Creek Group (e.g. Gwynne Sandstone and Strzeleckie Volcanics) is stratigraphically distinct from underlying Bullion Schist and preserves kilometre-scale, NE-inclined folds.

The Home of Bullion (HOB) prospect occurs within metamorphosed, generally thin-bedded pelitic-dominated sediments of the ca. 1840-1820Ma Bullion Schist. This area is located within the SE-facing hinge zone of a WNW-trending ~2x10 kilometre anticlinal F1 structure. This structure's magnetic signature is enhanced by buried magnetic granite, likely sourced from a nearby highly magnetic pluton north of the prospect and possibly involved in the mineralisation.

The first deformation affecting the Bullion Schist in the HOB prospect is correlated with the ca. 1810-1800Ma Stafford Event and characterised by tight to isoclinal, NNE-inclined F1 folds that have strongly attenuated shear-zone style limbs. D1 folds and shears mineralisation that is localised adjacent to a biotite- or chlorite schist that presumably had a mafic protolith. This inferred mafic protolith is altered in the mineralisation zone, but can be structurally correlated with a single, fold-repeated amphibolite sill that outcrops across the mapped area. The northern and southern lenses can be correlated with each other through a major, map-scale fold which exhibits thickened high-grade zones in F1 (western north lens), F3 (western south lens) and F4 (eastern north lens) fold hinge positions. A major F1 hinge zone is interpreted to the SE of known mineralisation and remains untested.

Three subsequent deformations rework the F1 structures and retrogress the rocks to sericite and chlorite schists. D2 is associated with a post-Stafford Event deformation, probably the ca. 1740- 1690 Ma Strangways Orogeny that folds overlying ca. 1820-1800 Ma Hatches Creek Group rocks. At HOB this event is characterised by the development of an intense foliation that overprints F1 structures but does not

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appear to be associated with folding. Partitioned shear zone movements appear localised within and between the north and south lenses and NW-trending F3 and NE trending F4 folds can be linked to separate shearing events, probably associated with ca. 400-300 Ma the Alice Springs Orogeny (Stewart 2013).

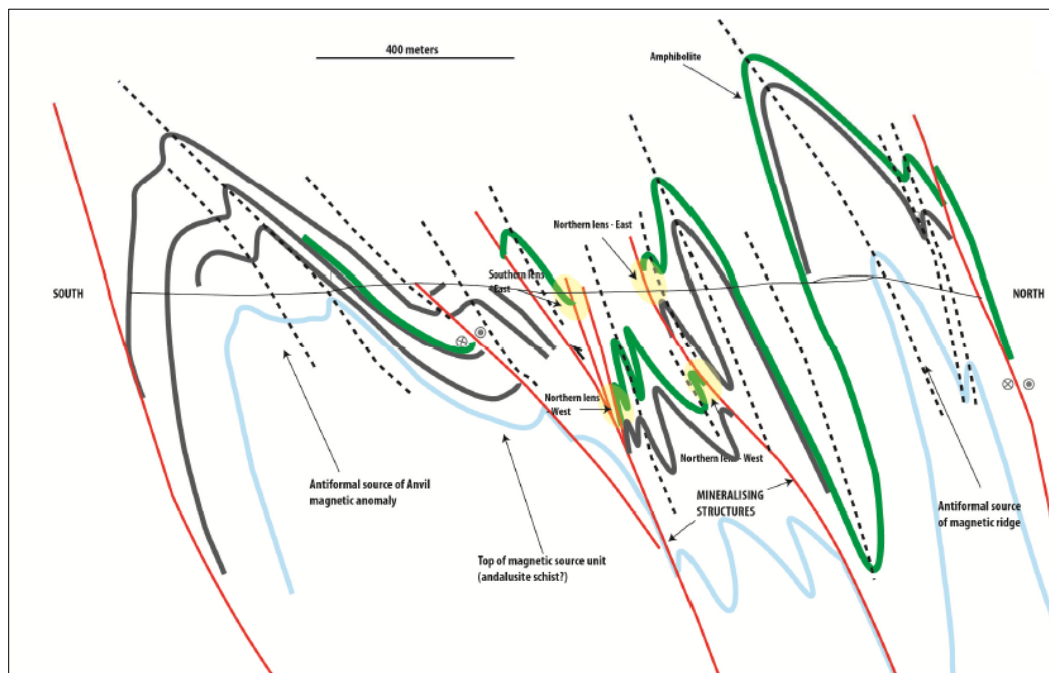


FIGURE 3: COMPOSITE CROSS SECTION INCORPORATING DRILLING, SURFACE OBSERVATIONS AND INTERPOLATION THROUGH THE HOB PROSPECT

## 4. EXPLORATION

### 4.1. PREVIOUS EXPLORATION

Several exploration companies have been active in the area of the Home Of Bullion Project area. Most of the work was targeted at extracting Copper oxide ore from the two mineralised areas. Historical explorer summaries are listed as;

**Ward (1925):** The earliest available record on the Home of Bullion prospect is by the South Australian Government Geologist (Ward, 1925) who examined the workings in July and September 1925.

**Madigan (1934):** The earliest detailed records of the mine geology, exploratory underground mine development, ore reserves and mineral potential of the Home of Bullion copper deposits are given by Madigan (1934). Commissioned by Central Australian Silver, Lead & Copper Mining Company NL, he undertook a property examination on 21-24 August 1934.

**Blanchard (1936):** Blanchard (1936) inspected the property for the Mt Isa Mines Limited (owned by American Smelting and Refining Company). He provides interesting details on transportation, water supply and costs at that time, as well as valuable information on the general geology, exploratory underground development and mineral potential.

**Hossfeld (1937):** The next currently available record of the general geology, aerial photography, mine geology, underground workings, mineral potential, water supply and ore treatment of the Home of Bullion copper deposits is given by Hossfeld (1937), as part of the investigations carried out by the Geophysical Survey of Northern Australia.

**Sullivan (1950):** After a gap of 13 years the next available reports on the Home of Bullion mine were those by Sullivan, Brittingham and Thomson in 1950. Sullivan briefly summarised the main features of the general geology, mine geology, mine workings and mineral potential of the Home of Bullion copper

deposits.

**Thomson (1950):** Thomson (1950) undertook an eight day field examination, magnetometer survey and sampling assessment for Zinc Corporation Limited in May 1950. He summarised the main features of the general geology, mine geology, workings and production, mining operation and mineral potential of the Home of Bullion copper deposits.

**Brittingham (1950):** In a preliminary metallurgical report on flotation of the Home of Bullion mineralisation, Brittingham (1950) provides some interesting facts on previous exploratory underground mine development as well as on two completed diamond drill holes.

**Bell (1953, 1954):** The Bureau of Mineral Resources' Resident Geologist at Alice Springs (Bell, 1953) undertook an assessment of Home of Bullion mine.

**Australian Geophysical (1965b):** In 1965 a private company (Australian Geophysical Pty. Ltd.) undertook geophysical surveys (mainly induced polarisation) and soil sampling by shallow drilling over the Home of Bullion mine.

**Drown (1992):** Aberfoyle Resources Limited examined the abandoned Home of Bullion in 1992 to assess the regional potential of EL 6910 which surrounded the MLC's covering the old mine workings.

**Goldstake Exploration Inc. (2001-2012):** Goldstake undertook an initial diamond drilling programme in June-August 2006. It comprised 15 drill holes totalling 1,406m on both the northern and southern groups of lodes. Seven of the drill holes failed to intersect the targeted lodes so, in September 2006, Goldstake engaged Roy Cox & Associates to carry out a detailed examination of the prospect and of the drilling results to ascertain the reasons for this situation. The main reasons were due to the absence of a detailed topographic survey, a detailed geology map and an accurate 3-D correlation of the surface geology with underground workings and diamond drill holes.

#### **4.2. CLC CLEARANCE CERTIFICATE**

A CLC Sacred Site Clearance Certificate (2012-067) was approved on the 16<sup>th</sup> July 2012.

This allowed Kidman Resources access to the prospects so the proposed exploration for 2012-2013 could begin. A CLC Sacred Site Clearance Certificate (2013-016) was also granted for future work in 2013-2014.

#### **4.3. EXPLORATION 2013-2014**

##### **4.3.1. Drilling**

During the last operational period a total of 36 drill holes for 12,372m had been completed at Home of Bullion. The Drill programmes were undertaken in several stages. The first part involved further delineation of the Southern lode with RC drilling and exploration at regional targets within the tenement area. These targets included Redback, Tin Can Camp, The Anvil and Main Lode West. The regional targets did not intercept any significant mineralisation with the geophysical anomalies attributed to a more magnetic gabbroic horizon seen in other parts of the tenement.

During the September 2013 Quarter, an RC drill program was completed consisting of 20 drill holes for 2964m. The program tested shallow conductors identified from DHEM surveys on the Southern Lode and regional geophysics anomalies located within 3km of the Home of Bullion deposit.

HRC035 intersected a broad zone of high-grade copper mineralization including 26m @ 4.6% Cu, 5.5% Pb, 1.84% Zn, 142.9g/t Ag, from 266m downhole. This drill hole was originally designed from the footwall to test a south dipping conductor but stopped short of the above intersection. DHEM surveys identified a very strong

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conductor at the end of hole so it was decided to extend the drill hole at low cost to the company; as a result, the high-grade zone was intersected. Assay results of up to 13% copper displayed the high-grade potential for the Southern Lode and further confirmed the potential for DHEM surveying to unveil new zones of copper mineralization at Home of Bullion. Other drill intersections from the RC drill program are shown in Table 2.

The first-pass regional RC program tested magnetic and moving loop electro-magnetic (MLEM) targets. Peak results included assays up to 495ppm copper and 0.5g/t silver at the Red Back prospect. No other significant results were received however further assessment of these targets is still required.

A deeper diamond drilling program was completed in the December 2013 Quarter. Drilling commenced in September through to November 2013. The drill programme tested the down-plunge continuity of the main lode to a depth of ~600m below surface and the Southern Lode to ~500m below surface. The aim of the drill program was to significantly extend the known copper mineralisation to assist defining a potential JORC resource. The drilling successfully identified high grade, massive sulphide zones along the central spine of both copper lodes. For a full list of drill results from this program refer to Table 3.

The deep directional drill program utilised the expertise of a highly skilled drilling contractor (DDH1 Drilling) to accurately target designed pierce points down the central spine of both mineralised lodes. A singular drill hole (parent hole) with multiple wedges coming off it (daughter holes) reduced the time and cost of re-drilling drill holes from surface allowing the company to gain more pierce-points into the copper lodes. This drill method also significantly expedited the delivery of drill results.

During the program, geophysical contractors, Outer-Rim Exploration Services, were used to undertake Down-Hole Electromagnetic (DHEM) surveying on all drill holes. This method proved successful in defining new conductive zones associated with high-grade copper mineralisation and was used to generate more precise targets for each drill hole as the program progressed. Further conductive zones defined from these DHEM surveys remain untested and will be targeted in the next phase of drilling.

Further drill programs will test for lateral extensions and internal continuity on both lodes to provide additional tonnage to a maiden JORC resource. Assessment for this maiden resource commenced during the June 2014 Quarter. Kidman engaged SRK Consulting to assess the resources estimate at the Home of Bullion prospect.

Number of Holes	Hole Started	Hole Completed
36	36	36
Type	Metres Drilled	Average Depth
Unspecified	0	0
Reverse Circulation	2,964	151
Diamond	9,408	618
Not Applicable	0	0

TABLE 1: SUMMARY DRILLING TABLE

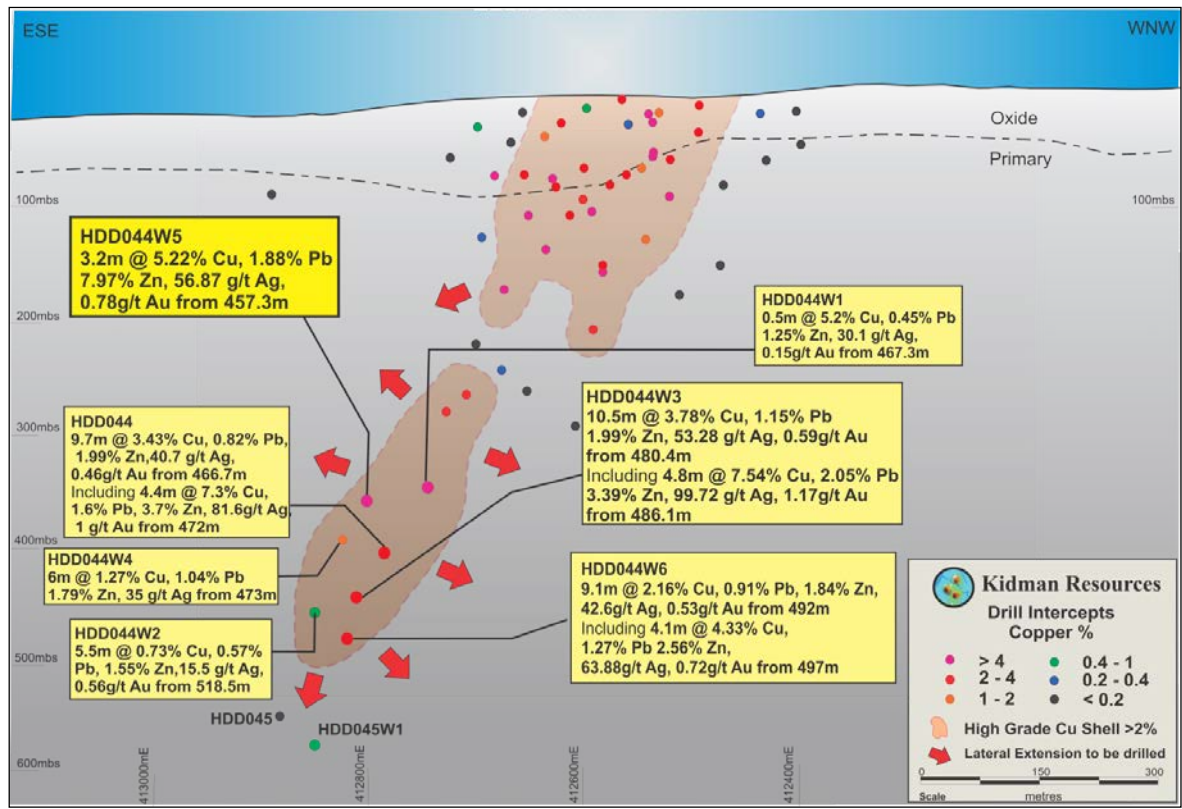


FIGURE 4: MAIN LODE SIGNIFICANT DRILL INTERCEPTS

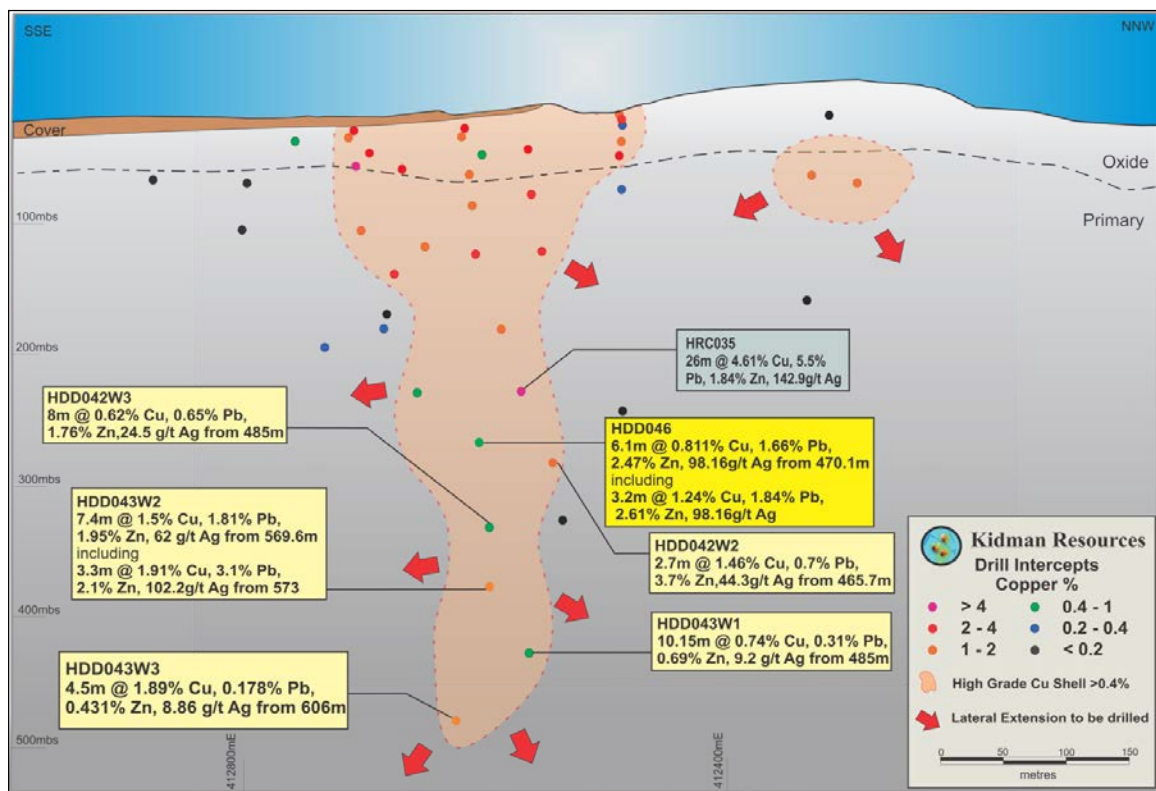


FIGURE 5: SOUTHERN LODE SIGNIFICANT DRILL INTERCEPTS

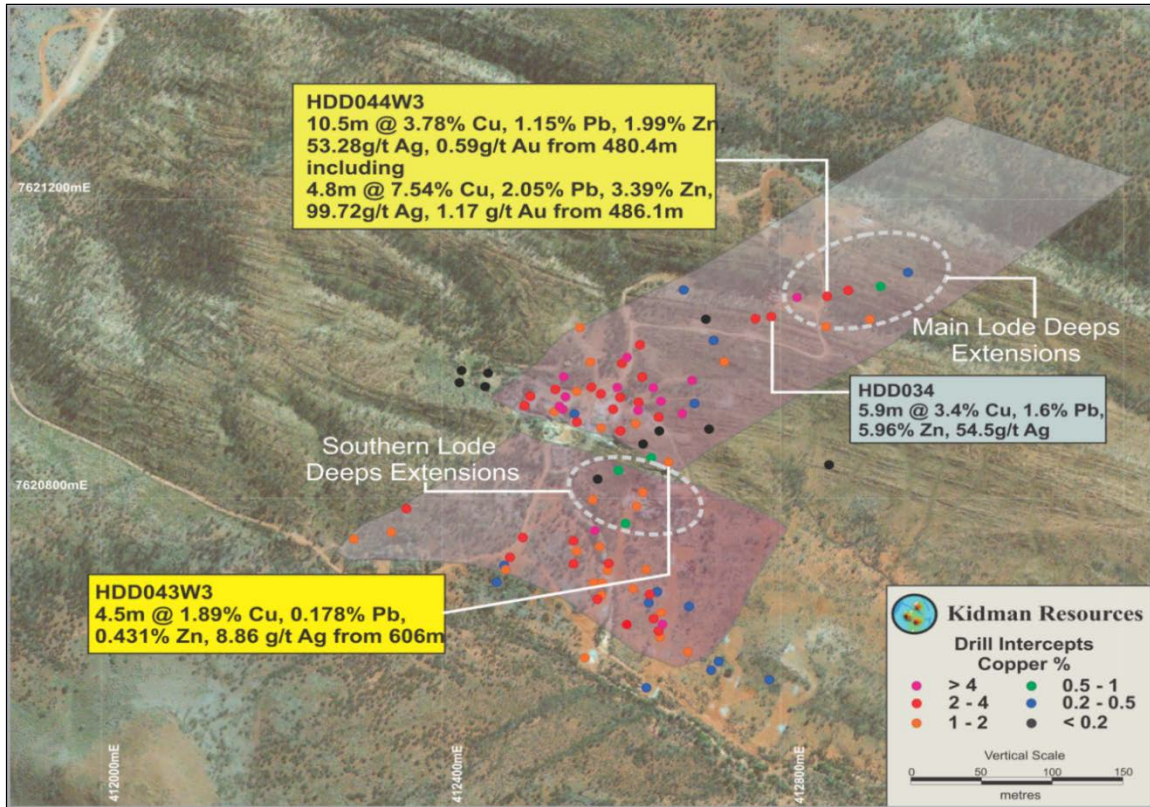


FIGURE 6: DRILLING COMPLETED ON MAIN AND SOUTH LODES AT HOME OF BULLION 2013-2014

Phase 5 - RC Drilling July-August 2013															
Hole ID	Easting	Northing	Azimuth	Dip	From (m)	To (m)	Interval (m)	Cu %	Ag (g/t)	Pb %	Zn %	Au (g/t)	CuEq %	Target	
HRC035	412569	7620590	13.6	-60	266	292	26	4.61	142.9	5.5	1.84	N/A	8.18	Southern Lode	
HRC064	412560	7620910	185.6	-56	12	16.0	4	2.5	44.6	0.34	0.24	N/A	3.18	Main Lode	
HRC065	412647	7620789	173	-72	-	-	-	-	-	-	-	-	-	Southern Lode	
HRC066	412720	7620750	202.4	60.6	-	-	-	-	-	-	-	-	-	Southern Lode	
HRC067	412625	7620675	185.6	-53	69	73	4	2.6	42.9	2.7	0.22	N/A	3.85	Southern Lode	
HRC068	412640	7620760	188.6	-56	133	148	15	1	34.6	1.2	2.11	N/A	2.25	Southern Lode	
					including	133	136	3	2.1	12.8	0.23	3.28	N/A	3.14	Southern Lode
HRC069	412560	7620745	187.6	-55	49	59	10	3.56	13.17	0.31	2.46	N/A	4.42	Southern Lode	
					including	55	58	3	6.56	11.2	0.3	1.71	N/A	7.2	Southern Lode
HRC070	412580	7620835	186.6	-55	154	160	6	2.1	17.2	0.43	1.52	N/A	2.8	Southern Lode	
					including	154	157	3	3.56	23.3	0.43	2.28	N/A	4.53	Southern Lode
HRC080	412695	7620620	186.6	-53	36	40	4	0.82	48.5	1.95	1.09	N/A	2.17	Southern Lode	
HRC082	412570	7620785	183.6	-56	92	99	7	1.97	14.48	0.614	2.319	N/A	2.89	Southern Lode	

TABLE 2: SIGNIFICANT INTERSECTIONS SUMMARY TABLE (RC DRILLING)

Prospect D is within the Barrow Creek licence area and is located 25km's northeast of Barrow Creek and 5kms east of the Stuart Highway. It also situated 30kms north of the Home of Bullion Prospect.

Prospect D consists of copper-nickel mineralisation, the near surface part of which has been oxidized. Mineralisation was first identified in the early to mid-1970's and was detected over a length of 2km's, within which, the higher grade zone was traced for over 250m and remains largely untested at depth (see figure 5). The copper-nickel mineralisation is described as a massive sulphide band with lower grade disseminated sulphide mineralisation in the gabbroic footwall rocks. The mineralisation is also believed to be either structurally thickened by tight folds or by intersecting shears that plunge steeply towards the northwest. These zones were considered the most prospective targets.

No drilling was completed at Prospect D during the September and December 2013 Quarters due to the extensive drill programme undertaken at Home of Bullion for the period of this time.

Hole ID	Easting	Northing	RL	From (m)	To (m)	Interval (m)	Cu %	Ag (g/t)	Pb %	Zn %	Au (g/t)	CuEq %	Target
HDD044	413012	7621272	531	466.70	476.40	9.70	3.43	40.7	0.82	1.99	0.46	4.9	Main Lode
		including		472.00	476.40	4.40	7.3	81.64	1.598	3.71	0.47	9.9	
HDD044W1	413012	7621272	531	467.30	468.50	1.20	2.3	13.3	0.2	0.56	NSR	2.65	Main Lode
		including		467.30	467.80	0.50	5.2	30.1	0.45	1.25	NSR	6	
HDD044W2	413012	7621272	531	518.5	524	5.50	0.73	15.52	0.57	1.55	0.565	1.8	Main Lode
HDD044W3	413012	7621272	531	480.40	490.90	10.50	3.78	53.28	1.15	1.99	0.596	5.6	Main Lode
		including		486.10	490.90	4.80	7.54	99.72	2.05	3.39	1.17	10.9	
HDD044W4	413012	7621272	531	473.00	479.00	6.00	1.27	35	1.04	1.79	NSR	2.41	Main Lode
		including		477.80	479.00	1.20	4.86	91	2.44	4.41	NSR	7.69	Main Lode
HDD044W5	413012	7621272	531	457.3	460.3	3.2	5.22	56.87	1.88	7.97	0.78	8.89	Main Lode
HDD044W6	413012	7621272	531	492.00	501.10	9.10	2.16	42.6	0.91	1.84	0.53	3.7	Main Lode
		including		497.00	501.10	4.10	4.33	63.88	1.27	2.56	0.72	6.52	
HDD045	413120	7621300	530	645	646	1.00	0.12	20.6	0.2	0.56	NSR	0.6	Main Lode
HDD045W1	413120	7621300	530	650.40	651.63	1.23	0.4	21.7	0.74	2.15	NSR	1.4	Main Lode
HDD042W1	412803	7621069	519	483.00	484.00	1.00	0.04	2.7	0.16	0.19	NSR	0.2	Southern Lode
HDD042W2	412803	7621069	519	465.70	468.40	2.70	1.46	44.3	0.7	3.7	NSR	3.1	Southern Lode
HDD042W3	412803	7621069	519	485.00	493.00	8.00	0.62	24.5	0.65	1.76	NSR	1.5	Southern Lode
HDD043W1	412776	7621171	526	587.00	597.15	10.15	0.74	9.2	0.31	0.69	NSR	1.1	Southern Lode
HDD043W2	412776	7621171	526	569.60	577.00	7.40	1.5	62	1.81	1.95	NSR	3.2	Southern Lode
		including		573.00	576.30	3.30	1.91	102.2	3.1	2.1	NSR	4.5	
HDD043W3	412776	7621171	526	606.00	610.50	4.50	1.89	8.86	0.178	0.431	NSR	2.15	Southern Lode
		including		606.00	606.70	0.70	7.72	19.1	0.21	0.18	NSR	8.05	
HDD046	412803	7621069	519	470.1	476.2	6.1	0.811	85.11	1.66	2.47	NSR	2.88	Southern Lode
		including		473	476.2	3.2	1.24	98.16	1.84	2.61	NSR	3.55	

TABLE 3: SIGNIFICANT INTERSECTIONS SUMMARY TABLE (DIAMOND DRILLING)

#### 4.3.2. Geophysics

During the 2013-2014 reporting period KIDMAN undertook several geophysical surveys to further define exploration targets within EL23186. Downhole EM (DHEM) and moving loop EM Surveys. DHEM was the primary tool for delineating targets during the extensional Diamond Drill programme in Q4 2013.

Prospect D was known to have sporadic, narrow vein occurrences of copper and nickel mineralisation housed in a shear over a strike length of around 1600m. Unfortunately intersections and down hole EM undertaken to date had indicated that the bodies were of sub-economic size. Although not enough work had been done to be conclusive, it appeared that the intersections may in some way be related to mafic intrusives within or near the shear. Unlike the Home of Bullion mineralisation there did not appear to be an association between mineralisation and magnetic minerals (mg + po) although the mafic intrusives were magnetic.

To the south of the known mineralised shear zone is elongate magnetic anomaly cut by a shear running near-parallel to the known mineralised shear. The EM survey reported on here covered that magnetic ridge as shown in Figure 8.

Mithril who had held the ground previously had drilled a hole into the central part of the magnetic ridge (BCD010). They intersected gabbro and logged the hole with down hole EM but found no conductors.



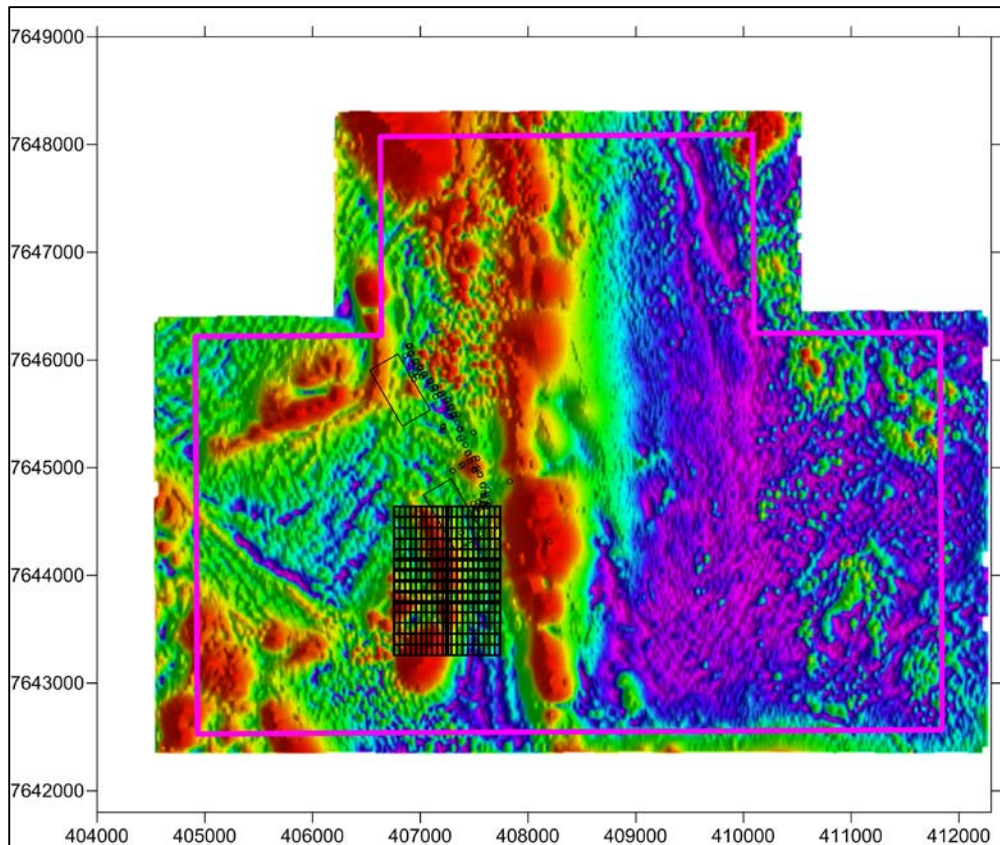


FIGURE 7: PLAN SHOWING LOOP LOCATIONS FOR THE 2014 SURVEY AS WELL AS FIXED LOOPS FROM 2013 WITH DRILL COLLARS OVERLAIN ON AN IMAGE OF THE ANALYTIC SIGNAL OF THE DETAILED MAGNETICS

Acquired By	Driller
Tool	Global Tech Pathfinder and Reflex Ezi Track
Station spacing	median 6m
Number of Holes/Stations surveyed	38 Holes, 2172 stations
Hole Metres surveyed	12,516m
Survey Dates	Q3 and Q4 2013

TABLE 4: SURVEY SPECIFICATIONS DOWNHOLE MAG

Contractor	Outer Rim Exploration Pty Ltd
Receiver	Crone
Transmitter	Crone
Mode	Time Domain
Array	600m x 300m single turn loops 6 to 13 2 x 600m x 300m figure of 8 with 400m Separation between the two parts – loops 14-8 and 15-8
Number Of components read	3
Frequency	~5Hz
Line Spacing Fixed Loop	100m
Station spacing	Down hole – 2-30m Avg 10m Fixed loop – 50m
Transmitter Current (Turns)	10-23 Amp turns – Avg 18A
Number of Holes/Stations surveyed	26 Holes 1069 stations 8 Lines, 112 stations
Hole Metres Surveyed	6.98km
Line Kilometres	5.2km
Survey Dates	Aug-Nov 2013

TABLE 5: DOWNHOLE EM SPECIFICATIONS

Contractor	Outer Rim Exploration Pty Ltd
Receiver	Fixed Loop EMIT Smartem 24
Transmitter	Monex Tx 50
Mode	Time Domain
Array	100m x 100m single turn in-loop
Number Of components read	3
Frequency	~5Hz
Station spacing	50m
Transmitter Current (Turns)	32.3-43.3 Amp turns – Avg 38A
Number of Lines/Stations surveyed	10 Lines, 110 stations
Line Kilometres	5km
Survey Dates	March 2014

TABLE 6: SURVEY SPECIFICATIONS FIXED LOOP EM

#### 4.3.3. Metallurgical Testing

Drill Core Samples from Main and South zone were sent to ALS Burnie Research Laboratory in Tasmania for preliminary ore characterisation testing. A limited amount of sample was available – some 12-14 kg for each composite sample.

In the Home of Bullion ore case, the objective of producing saleable copper, lead and zinc concentrates plus some possible precious metal and other by-products. Test work at this stage of the development is preliminary ore characterisation and the beneficiation results regarded as sighter or scout accuracy.

The practical mineral dressing options to achieve a separation using the properties of minerals are size, specific gravity, magnetic susceptibility, conductivity, colour, floatability and solubility. Based on assays and some mineralogical work it was deemed that of the practical options available the use of Magnetic, Floatability, and possibly Gravity seemed to be the best approach to achieve a process outcome.

The metallurgical scope of work on one composite drill core sample from Main, and one composite drill core sample from Southern lodes comprised crushing and grinding to establish a liberation size, followed by magnetic separation and sequential flotation with relevant assays on feed, concentrate and tailings. Mineralogical inspection was made on selected products. The results of the Preliminary Ore Characterisation work carried out by ALS Burnie Labs showed that:-

Mineralisation is massive sulphide comprising:-

- Dominant pyrrhotite, minor pyrite
- Quartz, other silicates, biotite, and amphibole
- Potentially valuable minerals, Chalcopyrite, Galena and Sphalerite with gold and Silver
- Magnetite
- Other minor sulphides

Association

- Good liberation of valuable minerals by grinding to 50 microns

Beneficiation

- Saleable copper, lead, and zinc concentrates could be made from Main and Southern Lodes through a process comprising Crushing, Grinding and Sequential flotation.

Recoveries achieved were not optimum due to losses in pre-flotation magnetic separation and optimum grind size not being used meaning that liberation was not complete. Future work will be at a finer grind size, ~ 50 microns; this work was carried out at 75 microns. The use of magnetic separation ahead of flotation was not beneficial in this test program but may have a role at some other point in the process circuitry.

#### **4.4. Proposed Exploration**

##### **4.4.1. Drilling**

It is proposed that drill program comprise of two phases:

###### Home of Bullion

The drilling areas proposed for a 2 part drill program (RC followed by a diamond drilling) will be confined to the polygons and tracks shown in Figure 2. The actual drill positions will be dependent on results generated from a recent geological review and structural interpretation. Where possible existing tracks will be utilised avoiding local waterways and steep slopes to minimise disturbance to the environment. Once the proposed drill hole locations are confirmed, collar coordinates will be supplied in an amendment to the Department of Mines and Energy. The two drill phases include:

###### Phase 7

This phase of drilling will consist of a total of 16 RC drill holes for 1780m. The program will involve infill drilling on the Southern Lodes (12 holes) and initial testing of new structural targets located along strike from the Southern Lode (6 holes).

###### Phase 8

Drilling on the Main Lode will consist of 32 diamond drill holes infill drilling on a nominal 40 x 40m pattern from surface to 600mbs. This will enable us to determine the geometry and continuity of the high grade copper mineralisation in addition to strike extents both east and west of the Main Lode. This information will add to a maiden JORC resource which will be delivered in the next reporting period. The drilling will also test zones of copper enrichment in the oxide and supergene zones which may be amenable to mining via open cut methods.

###### Prospect D

A small program of RC/DD consisting of 6 drill holes for approximately 1650m will target the better zones of mineralisation intersected during the 2013 exploration program.

##### **4.4.2. Geophysics**

The company will utilise two primary geophysical survey methods on EL23186 including;

- Down-hole Electromagnetics (DHEM) surveys to be utilised on deeper/periphery drill holes at all targets
- 3 component down-hole magnetic surveys (from standard down-hole surveying)

The aim of the DHEM surveys is to identify further conductive zones potentially related to sulphide mineralisation; both along strike and down-plunge from existing drill holes, and generate more drill targets. The 3 component magnetic data is captured while the drill hole is routinely surveyed for azimuth and dip.

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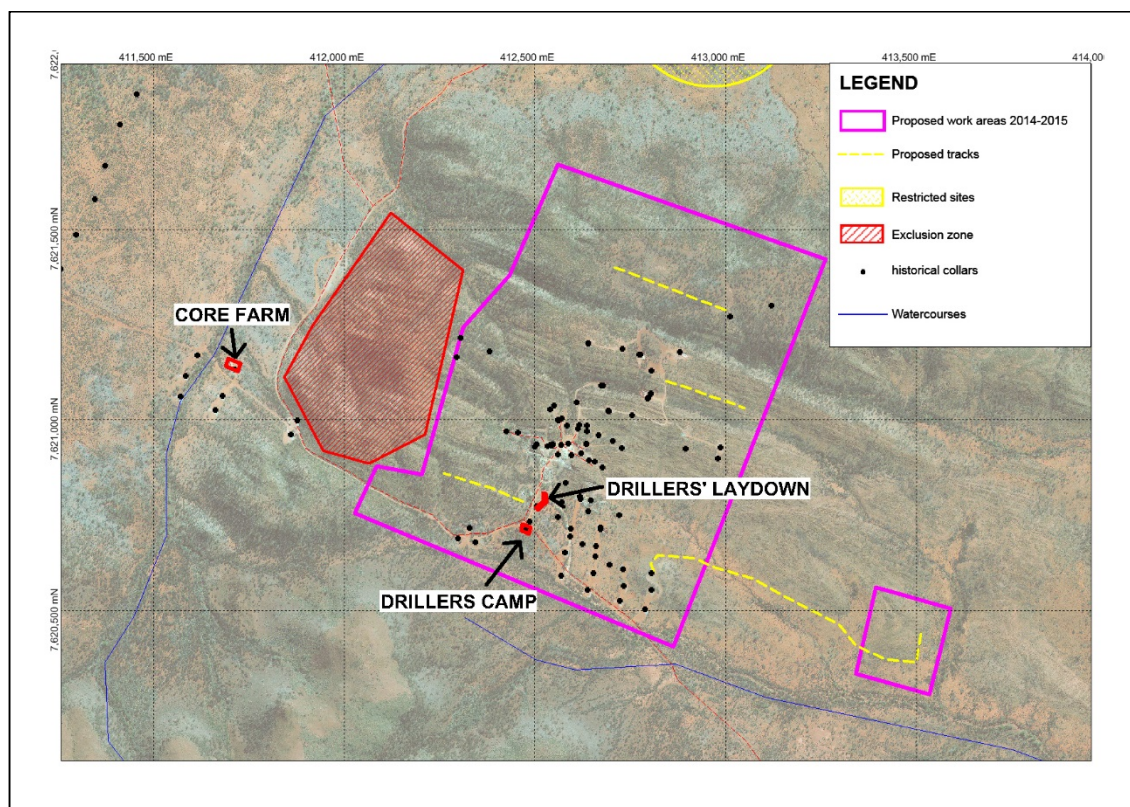


FIGURE 8: HOME OF BULLION PROJECT AREA WITH PROPOSED DRILL ZONES (PINK POLYGONS) AND ACCESS TRACKS (YELLOW DASHES). THE LOCATION OF PERMANENT AND PORTABLE INFRASTRUCTURE (CORE FARM, DRILLERS CAMP AND LAYDOWN) ERECTED DURING 2013 ARE ALSO SHOWN.

## 5. CONCLUSION AND SUMMARY

Home of Bullion is strategically located near to significant infrastructure. The Stuart Hwy and gas pipeline passes immediately west of the project and the Darwin – Adelaide railway line also passes approximately 10km to the East of the project.

Kidman Resources Ltd acquired 100% of the Home of Bullion project in April 2012. The exploration license covers approximately 137.5 square kilometres and within this area there are several more regional projects that could provide resource extensions to the Home of Bullion high grade ore body.

The potential for extensions of the known mineralized lenses remain open particularly as the structural complexity of the project is understood and the ore forming processes are established. The regional geological framework is also being developed which should unlock potential ore forming domains. An extensive drill programme is planned for the next reporting period which should provide a clearer understanding of the style and scale of mineralisation within EL23186.

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