

DECEMBER 2009 QUARTERLY REPORT

ATHENA RESOURCES LIMITED

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CONTACTS

Mr Ed Edwards
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PROJECTS

Ashburton: Gold and Basemetals

Byro: Iron Ore, Nickel-Copper-
PGE's

Ravensthorpe: Nickel-Copper



HIGHLIGHTS

BYRO

- Four exploration licences granted

Iron Ore

- Twenty six magnetic anomalies with a combined length of 35 kilometres identified
- 45 Rock Chips assaying >30% iron collected over 3 target areas.
- Results ranged from a low 31% to high of 58% iron

Copper

- Outcropping copper mineralisation along basal contact at Byro shown to extend for 1.8 kilometres
- Best results of 25.5%, 7.49% and 3.28% copper.

CORPORATE

- Options Rights Issue closed over subscribed

1. BYRO PROJECT (Athena Resources 80%, contributing 100%)

During the Quarter Athena Resources Limited (“Athena” or the “Company”) identified twenty six magnetic anomalies representing potential iron ore targets with a combined strike length of 35 kilometres on exploration licences E09/1507 and E09/1552 (Figures 1 and 2). Reconnaissance rock chip sampling over three of these target areas returned encouraging iron assays in all 45 samples (Figures 1 and 2). All samples exceeded 30% iron (Table 1) and ranged from a low of 31% to a high of 58% iron (Fe).

Rock chip sampling at “Area 1” on Figure 2 gave the best results of 57.7% and 49.6% iron. The geophysics indicates that the best part of this anomaly is under shallow cover to the west of the outcrop. The magnetic anomalies at this locality have combined strike in excess of 3 kilometres long and apparent width of 150 metres, but the shallow dip of the source makes the true width difficult to estimate accurately.

At “Area 2” rock chip sampling along two trends each 1.6 kilometres long returned nine (9) samples over 50% iron. The peak result of 58.2% iron from this sampling programme came from this area. All samples were low in titanium, aluminium, phosphorus.

The majority of magnetic anomalies in the Byro area do not out crop and these target areas only became apparent with the acquisition of the 100 and 400 metre line spaced aeromagnetic data by Athena and the Geological Survey of Western Australia in 2008. An extensive magnetic anomaly is located to the immediately northwest of Byro homestead under cover. This target is over 7 kilometres long.

Athena’s Byro project lies within the same geological terrane as the Jack Hills and Tallering Peak iron deposits and is centred approximately 60 kilometres west of the Jack Hills deposit. At Jack Hills total iron Mineral Resource are estimated at about 96 million tonnes comprising of Direct Shipping Ore grading 58.7% iron and 991 million tonnes of magnetite Beneficiation Feed Ore grading 34.1% iron. Tallering Peak, located 150 kilometres south of the Byro project has a Mineral Resource of 14.9 million tonnes at 61.8% iron.

Athena has applied and received for Ministerial Approval to explore for iron on **E09/1507** and **E09/1552**. The iron opportunity will be progressed in parallel with the search for copper, nickel and platinum group metals (PGM’s) without adversely affecting the Company’s over-riding exploration strategy.

Athena also received further encouraging copper assays from rock chip samples along the eastern basal contact zone at Byro East on Exploration licence application E08/1637 (Table 2, and Figure 3). Ten additional rock chip samples collected from outcrops along the eastern basal contact of the Byro East ultramafic intrusion have extended the area of known copper mineralisation for over 1.8 kilometres. With best results of **7.49 and 3.28% copper**, the new rock chip samples were collected as follow-up to the **25.5% copper** previously reported from sample MBCR186.

The most recent results coincide with outcrops near collars from holes drilled by Jododex in the early 1970's that interested significant copper mineralisation including **67 metres at 0.63% copper** and **3 metres at 1.35% copper**. Jododex's soil geochemistry appears to have been less effective in areas with poor or limited outcrop.

The Byro East Ultramafic complex consists of four zones with a total exposed area of 6.25 square kilometres and a combined basal contact length of 29.1 kilometres. Jododex's soil sampling has partially mapped the basal contact zone for 3.6 kilometres (Figure 3). The long, narrow "tail" and smaller intrusions on the southern end of the body of the main intrusion may be part of the "feeder zone" and as such are attractive exploration targets. It is significant that the peak copper results in the historic soil samples come from this area and have not been drill tested.

Exploration licences E09/1507, E09/1508, E09/1551 & E09/1552 have been granted by the Department of Minerals and Petroleum. The granting of these four core tenements allows Athena to conduct drilling and other "ground disturbing" activities set out in the tenement conditions subject to obtaining statutory approvals and heritage clearance.

2. ASHBURTON PROJECT (Athena Resources 100%, P08/493 95%, M08/189 90%)

No field work was carried out on the Ashburton Project in the December Quarter. Activity on the project was limited to compilation of the past exploration data from open file reports held by the Department of Mines and Petroleum.

3. RAVENSTHORPE PROJECT (Athena Resources 100%)

Athena has held preliminary discussions with a company regarding the possible sale of the Ravensthorpe group of tenements.

4. Corporate – Option Rights Issue

The Company advised on 21 January 2010 that the Non Renounceable Rights Issue of Options closed on 19 January 2010 with Eligible Shareholders applying to take up 155% of the Rights Issue.

The Company received 19,944,566 acceptances (70%) for options from Eligible Shareholders together with applications for additional options of 24,448,282 (85%).

Funds raised from the rights issue totalled \$286,504.

Donald Thomson
Technical Director
28 January 2010

Competent Persons Statement

The technical information relating to Athena's exploration projects was compiled by Mr Donald Thomson, an employee of Indigo Exploration Services Pty Ltd. Mr Thomson is a Member of the Australasian Institute of Mining and Metallurgy, and has sufficient relevant experience in the styles of mineralisation and deposit styles under consideration to qualify as a Competent Person as defined in "The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2004 edition)". Mr Thomson consents to this inclusion of the information in this report in the context and format in which it appears.

Table 1
Byro Rock Sample Results
(arranged in order of descending iron content)

Sample	East	North	Fe%	SiO ₂ %	Al ₂ O ₃ %	TiO%	P%	S%	LOI%
MBCR183	418439	7122747	58.25	5.61	1.63	0.04	0.07	0.10	8.22
MBCR165	418828	7123735	56.28	7.07	2.82	0.18	0.06	0.09	8.54
MBCR184	418358	7122854	56.13	12.08	1.02	0.02	0.02	0.08	5.45
MBCR164	418815	7123709	55.96	8.28	3.51	0.20	0.07	0.08	6.91
MBCR180	418500	7122732	55.64	4.74	4.57	0.67	0.02	0.07	10.35
MBCR181	418455	7122774	55.42	7.92	5.12	0.20	0.02	0.08	6.51
MBCR167	418851	7123775	55.39	9.65	2.12	0.09	0.04	0.13	7.77
MBCR158	431371	7111343	52.74	13.03	5.12	1.25	0.10	0.12	4.55
MBCR168	418885	7123638	50.85	10.21	7.19	0.36	0.06	0.10	8.97
MBCR169	418923	7123526	50.24	11.71	8.26	0.51	0.04	0.08	6.88
MBCR166	418883	7123820	49.94	9.64	7.91	0.53	0.04	0.15	9.52
MBCR159	431365	7111337	49.62	14.61	6.71	1.41	0.07	0.10	5.94
MBCR163	431300	7110994	48.95	27.00	0.97	0.11	0.03	0.07	1.51
MBCR182	418460	7122775	48.54	13.65	9.21	0.50	0.03	0.09	6.59
MBCR157	431407	7111397	48.09	24.84	1.40	0.10	0.04	0.26	4.06
MBCR149	431380	7111489	47.93	22.49	1.96	0.07	0.05	0.16	5.73
MBCR174	418582	7122556	47.56	25.48	1.89	0.20	0.04	0.14	3.97
MBCR156	431403	7111389	46.99	27.96	0.70	0.06	0.08	0.12	3.11
MBCR170	419005	7123456	46.75	13.53	10.42	0.59	0.05	0.08	8.10
MBCR171	419174	7123245	46.74	12.80	7.81	0.11	0.02	0.13	11.85
MBCR175	418616	7122486	46.53	11.94	8.59	0.23	0.02	0.13	12.03
MBCR177	418566	7122580	45.20	27.10	3.06	0.24	0.04	0.11	4.48
MBCR179	418563	7122577	45.09	30.67	1.75	0.07	0.04	0.07	2.64
MBCR162	431299	7111056	44.99	30.92	0.99	0.06	0.04	0.10	2.85
MBCR160	431360	7111285	44.96	31.77	1.05	0.06	0.03	0.08	2.35
MBCR143	431514	7111777	44.79	25.97	4.87	0.24	0.01	0.09	3.60
MBCR155	431375	7111400	43.67	32.42	2.11	0.10	0.04	0.07	2.33
MBCR148	431496	7111760	43.15	32.74	1.62	0.08	0.04	0.10	3.45
MBCR173	418659	7122586	42.81	16.67	9.82	0.28	0.04	0.14	11.64
MBCR176	418565	7122582	42.62	30.01	3.48	0.13	0.04	0.09	4.73
MBCR178	418566	7122578	42.60	30.34	3.63	0.18	0.05	0.10	4.14
MBCR150	431390	7111480	42.59	34.32	1.55	0.10	0.05	0.08	2.44
MBCR153	431391	7111444	42.03	35.99	1.38	0.08	0.03	0.06	2.11
MBCR151	431379	7111459	41.55	34.35	1.65	0.13	0.13	0.07	3.77
MBCR161	431378	7111282	41.06	36.13	1.77	0.29	0.02	0.19	1.88
MBCR154	431378	7111435	40.91	37.36	1.16	0.07	0.06	0.09	2.33
MBCR152	431390	7111453	40.90	37.24	1.20	0.07	0.06	0.10	1.89
MBCR185	438232	7118507	40.77	39.00	0.66	0.05	0.03	0.06	1.35

Table 1 (Continued)									
Byro Rock Sample Results									
(arranged in order of descending iron content)									
Sample	East	North	Fe%	SiO₂%	Al₂O₃%	TiO%	P%	S%	LOI%
MBCR141	431536	7111904	39.47	38.81	1.05	0.04	0.02	0.03	2.50
MBCR144	432022	7112091	39.34	41.67	0.66	0.10	0.06	0.07	0.82
MBCR146	431500	7111724	38.77	40.30	1.76	0.08	0.04	0.05	1.74
MBCR142	431520	7111878	37.45	44.10	0.66	0.02	0.03	0.03	0.83
MBCR172	418716	7122619	36.84	29.74	7.03	0.31	0.03	0.14	9.78
MBCR145	432031	7112094	36.28	40.92	2.67	0.16	0.05	0.10	3.51
MBCR147	431490	7111747	35.19	45.66	1.43	0.08	0.03	0.13	1.63
MBCR140	431535	7111909	31.11	50.29	1.50	0.10	0.03	0.05	3.18

Fe = Iron, SiO₂ = silica, Al₂O₃ = Aluminium, TiO₂ = Titanium, P = phosphorus, S = Sulphur

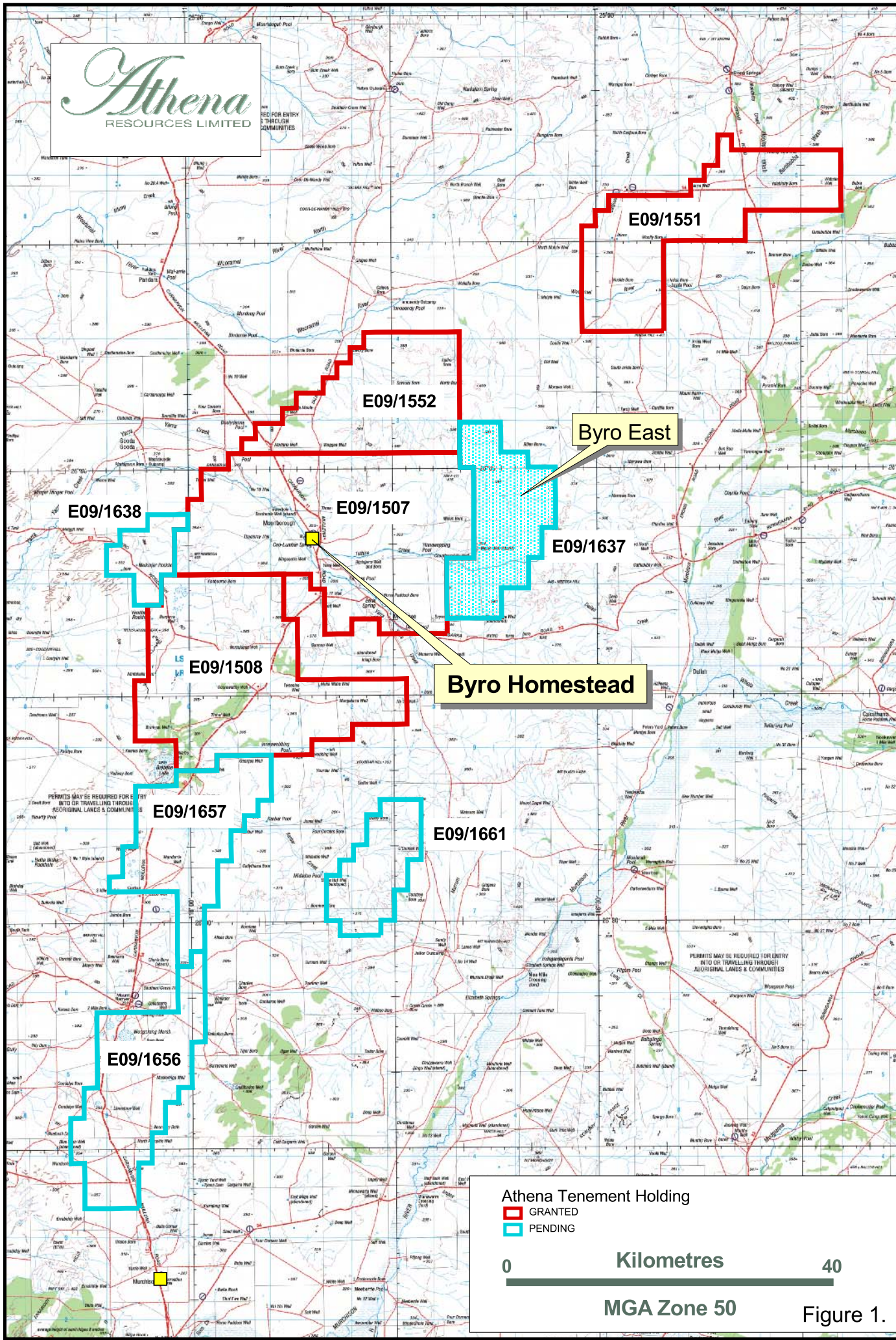
All samples analysed at Ultra Trace Pty Ltd - Canning Vale, Western Australia by method XRF202

Loss on Ignition (LOI) determined Gravimetrically

Table 2								
Byro East Rock Chip Samples (sorted by copper)								
Sample No.	MGA East	MGA North	Copper (ppm)	Copper %	Gold ppb	Platinum ppb	Palladium ppb	Nickel ppm
MBCR186	438440	7122471	255000	25.5	200	38	28	287
MBCR191	438755	7121556	74900	7.49	468	2	10	936
MBCR195	438782	7119599	32800	3.28	27	3	3	954
MBCR194	438629	7120340	22300	2.23	382	1	2	894
MBCR196	438782	7119565	5800	0.58	18	2	1	297
MBCR192	438775	7120075	96		3	45	3	1290
MBCR193	438631	7120340	36		1	4	1	2380
MBCR190	438743	7121274	26		2	3	6	238
MBCR189	438749	7121284	21		2	6	8	1290
MBCR187	438777	7121364	16		18	2	1	440
MBCR188	438752	7121278	4		1	11	4	2070



PERMITS MAY BE REQUIRED FOR ENTRY INTO OR TRAVELLING THROUGH ORIGINAL LANDS & COMMUNITIES



Athena Tenement Holding
█ GRANTED
█ PENDING



MGA Zone 50

Figure 1.

400000

410000

420000

430000

440000

7140000

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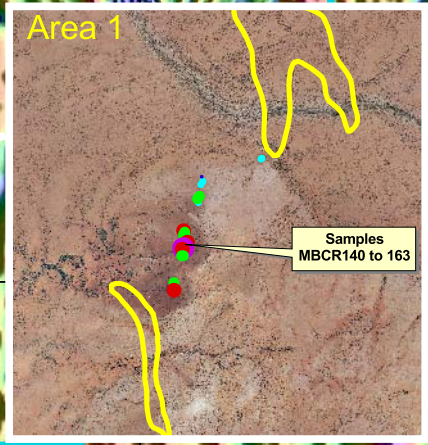
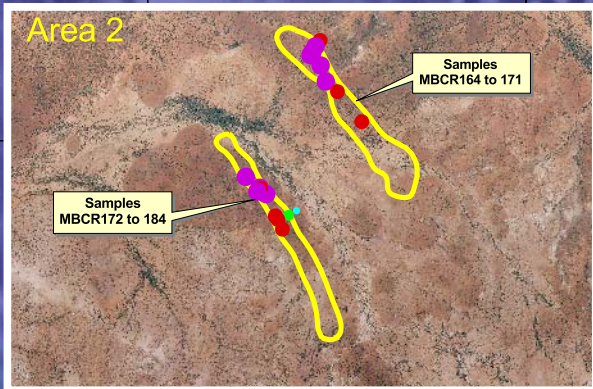
Athena
 RESOURCES LIMITED
 Figure 2.

Rock Chip Samples (Iron)

- 50 - 58%
- 45 - 50%
- 40 - 45%
- 35 - 40%
- 31 - 35%

Reduced to Pole Aeromagnetic Data with 60deg ENE Sun Angle

▭ Peak Magnetic Zones



**Bryo East
 Ultramafic Intrusion**

**Moonborough
 Prospect**

**Byro
 Homestead**



400000

410000

420000

430000

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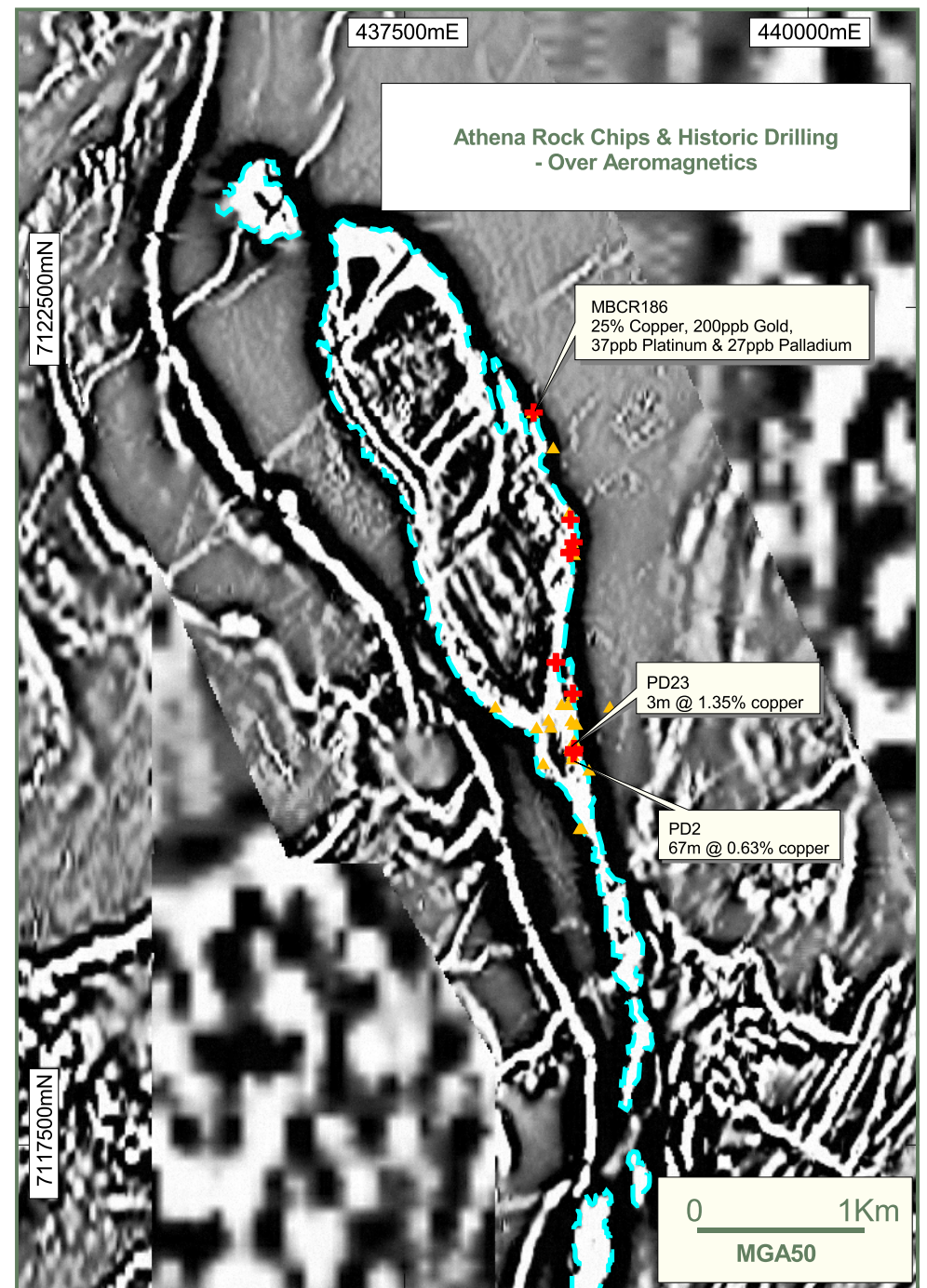
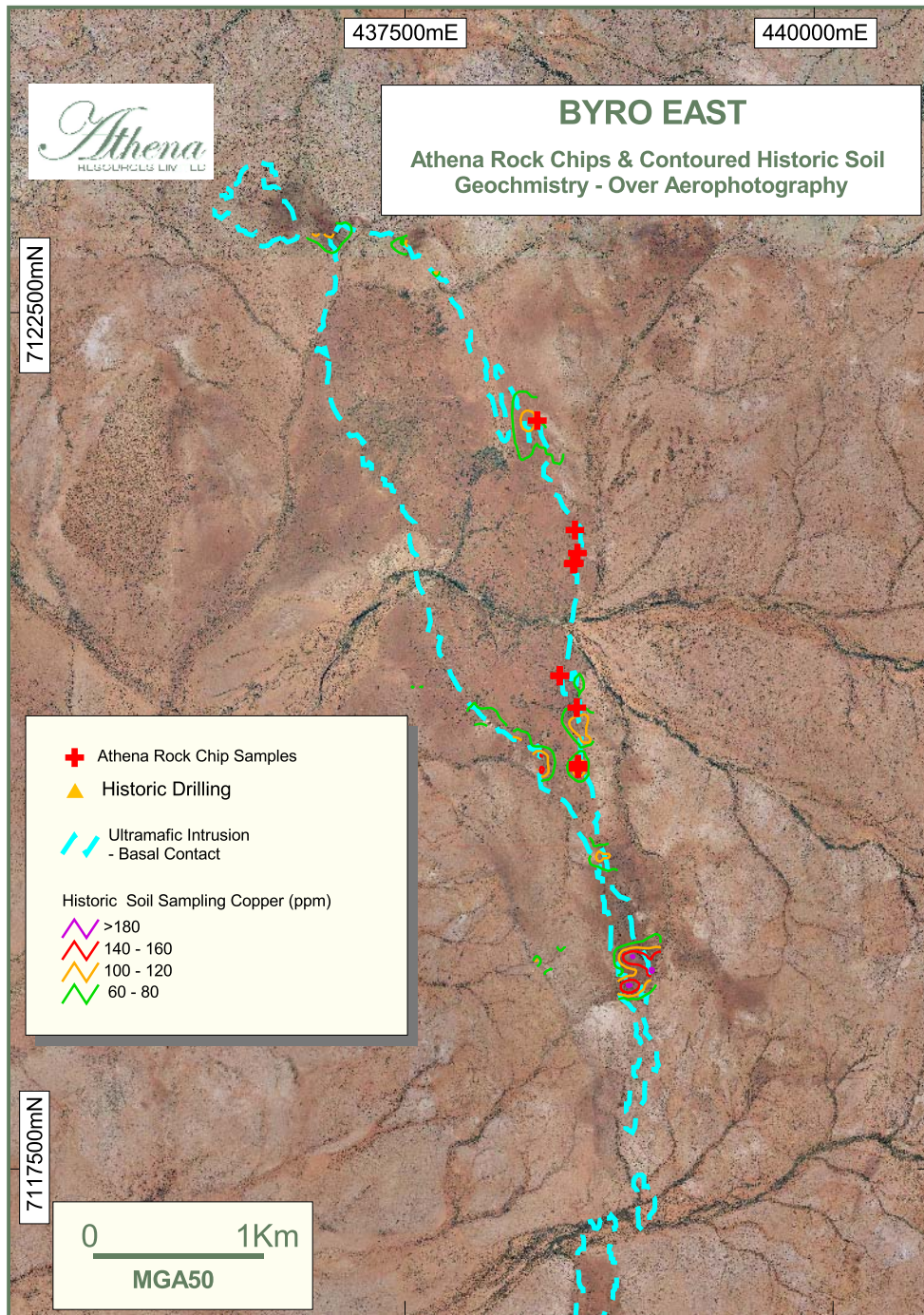


Figure 3