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BUXTON RESOURCES

ASX Release **29th January 2016**

Quarterly Activities Report for period ending 31st December 2015

Highlights

Double Magic Ni & Cu – West Kimberley

- **Heli-borne VTEM*max* data acquisition completed**
- **Phase One & Two RC and diamond core drilling has been completed**
- **>3% Ni mineralisation intersected at 3 separate targets (B, C, D)**
- **High grade mineralisation at Conductor D remains open along strike and down plunge. Drilling targeting extensions is planned**
- **First pass Ni-Cu mineral exploration (Buxton's aerial VTEM survey) over large un-explored areas of mapped Ruins Dolerite to the east of the main project area has identified 22 new conductors, of which an initial 8 have been prioritised for immediate follow-up subject to weather and access**
- **Diamond drill core assays received**
- **An interpretation of mineralisation geometry and genesis at Double Magic has been developed based on all data available; this confirms the potential of the project to host significant deposits**
- **Buxton to continue Phase 3 drilling and exploration programs as soon as weather and access permits**

Yalbra Graphite – Gascoyne Region

- **Australia's highest reported grade graphite resource: 4.0Mt @ 16.2% TGC (Inferred)**
- **Substantial potential to expand resource along strike and down dip**
- **Buxton is ready to commercialise the Yalbra Graphite Project by bringing in a strategic partner for development and/or offtake**

Corporate

- **Buxton held its Annual General Meeting of Shareholders on Monday 30th November 2015 and all resolutions that were put were unanimously passed on a show of hands.**
- **Cash balance (31 December 2015) of approximately $2.06 million**

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Double Magic Ni & Cu – West Kimberley

During the quarter, Buxton announced that final assay results were been received for both diamond core holes sampled as part of Phase 2 drill program at the Double Magic Ni-Cu Project (location in Figure 9). Three separate targets have now returned drillhole intercepts >3% Ni, with results of up to 8.14% Ni in diamond drill core (see Table 1 & 2 below).

The Double Magic Project has been confirmed by drilling as hosting better than economic Ni-Cu grades and thicknesses, marking a historic turning point for mineral exploration in the West Kimberley. Five months after entering the region, Buxton has become the first explorer to detect high grade magmatic sulphides in the Ruins Dolerite, confirming the genetic model, exploration vectors, and potential of the project area to host significant nickel-copper deposits. This success is despite more than 50 years of exploration by other parties, validating Buxton's acquisition of the Double Magic project in late April 2015.

Importantly, all geophysical targets (conductors) drill tested to date have proven to be related to nickel-copper sulphide mineralisation, with no false conductors identified. This is of particular relevance given the number of new VTEM conductors now identified further to the east (Fireant Prospect and elsewhere) where no previous exploration has been undertaken.

Summarising achievements to date, Eamon Hannon, Buxton's CEO said: "Buxton can certainly be pleased with, and proud of, the significant advancements the small team has made at the Double Magic project in the past 5 months. Over this short period of time, the company has proven for the first time the existence of thick and high grade nickel and copper mineralisation within the Ruins Dolerite."

"Buxton has the first mover advantage in what we now consider exceptionally prospective ground, in one of the world's best jurisdictions for exploration."

"The company has immediate follow up drilling targets at Conductors B, C and D and in addition numerous high priority new targets in previously unexplored areas."

"The Buxton team is greatly buoyed with these results and we are counting down the days until returning to Double Magic for Phase 3 exploration targeting significant nickel-copper accumulations, once weather and access permits."

In-depth Review of Exploration Results

An in-depth review of results from the Merlin Prospect (area of exploration to date), incorporating structural data from core, full 3D analysis of geology, and a review of geophysical data, has revealed multiple additional drill targets at and around Conductors D and A-B.

Regionally, analysis of finalised VTEM results from the aerial survey flown in October (~55km^2), combined with data from the regional heli-mapping completed in August, has identified 8 high priority targets within large volumes of completely un-explored Ruins Dolerite to the east (Fireant Prospect). The targets have primarily been identified by strong VTEM conductors which appear much longer and/or larger in area than any previously seen in the region. These outstanding targets will be followed up as soon as

weather conditions allow with more detailed geological mapping, rock chip sampling and ground geophysics, to further refine drillhole targeting.

Assay Results

Final assays have been received for both the diamond core holes samples sampled, DMDD0003 at Conductor C and DMDD0004 at Conductor D. Samples are of HQ3 quarter core, 1 metre in length or less as determined by geological logging. Core from the holes drilled as twins of DMRC0003 and DMRC0017 (DMDD0001 and DMDD0002) is being retained intact for ongoing technical studies so has not been sampled.

Assay results have confirmed previously-reported visual assessment of core. Several different styles and types of mineralisation have been confirmed with varying levels and ratios of the main sulphides pyrrhotite, pentlandite, and chalcopyprite. Grades of up to 8.14% Ni have been intersected in core. See Figures 1, 2 and 3 for a section and plan of Conductor D, and a plan of the central area of the Double Magic Project.

See Figures 4 and 5 for core photographs of high-grade mineralisation at Conductors D and C.

A full listing of all >0.25% and >1% Ni intercepts from the two diamond core holes is provided below in Table 1. All Buxton's RC drilling results were previously reported on 2nd November 2015. A summary of high grade >3% Ni intersections from all Buxton drilling (RC and diamond core) is provided below in Table 2. Full spatial detail for all Buxton's drillholes is provided in Table 3.

The company reminds readers that mineralised intercepts reported are not to be considered as true thicknesses. At Conductor D, the interpreted general geometry of mineralisation indicates that true thickness of the 17 metre high-grade intersection in discovery hole DMRC0003, is probably around 6-8 metres. True thicknesses elsewhere at Merlin are likely to be between 40% and 100% of the drillhole intersection length. Note that massive sulphide geometries in particular can be very irregular to amorphous, making true thickness estimates difficult.

Double Magic - Buxton Diamond Core Drilling

>0.25% Ni intersections, can include up to 1m below 0.25% Ni

>1% Ni intersections highlighted in bold

		Intersection details					
Hole	Target	Depth from (m)	Depth to (m)	Downhole Width (m)	% Ni	% Cu	% Co
DMDD0003	C	41.40	44.40	3.00	0.38	0.13	0.015
		48.00	52.40	4.40	0.30	0.09	0.012
		59.00	60.00	1.00	0.37	0.14	0.015
		142.40	152.00	9.60	0.59	0.21	0.022
	including	***143.95***	***144.15***	***0.20***	***6.35***	***0.14***	***0.196***
		154.00	162.00	8.00	0.32	0.15	0.014
		170.00	177.00	7.00	0.34	0.12	0.014
DMDD0004	D	12.20	13.60	1.40	0.45	0.16	0.017
		44.00	52.50	8.50	1.20	0.31	0.039
	including	***46.40***	***48.50***	***2.10***	***2.94***	***0.59***	***0.087***

Table 1: Significant (>0.25% Ni) intersections for all Buxton diamond core drillholes sampled. Intersects and sub-intersects >1% Ni highlighted in bold font.

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Double Magic - High Grade Summary from all Buxton Drilling

>3% Ni intersections

Summary of high-grade results from within previously reported intersections

		Intersection details					
Hole	Target	Depth from (m)	Depth to (m)	Downhole Width (m)	% Ni	% Cu	% Co
DMRC0003	D	41	42	1	3.64	0.75	0.118
		53	55	2	3.50	3.36	0.116
		56	58	2	3.87	1.50	0.121
DMRC0016	D	43	46	3	3.57	1.76	0.112
DMRC0017	D	55	57	2	3.18	0.83	0.101
DMRC0019	D	51	52	1	3.31	0.99	0.090
DMRC0021	D	52	53	1	3.87	0.35	0.112
DMRC0023	B	222	223	1	3.93	1.04	0.100
DMRC0024	D	57	58	1	3.78	1.37	0.106
DMDD0003	C	143.95	144.15	0.20	6.35	0.14	0.196
DMDD0004	D	48.00	48.50	0.50	8.14	0.30	0.236

Table 2: >3% Ni intersections from all Buxton drilling at Double Magic. These are high-grade highlights from RC drilling results previously reported, and high-grade highlights from the diamond core results reported in Table 1 above.

Interpretative Comments

An interpretation of mineralisation geometry and genesis at the Merlin Prospect (Double Magic Project) has been developed incorporating all new data collected during the recently completed 2015 field season.

Nickel-copper sulphide mineralisation is interpreted to occur both as primary magmatic accumulations in the original mafic-ultramafic melt, and as structurally remobilised and/or enriched veins or pods. Buxton is the first explorer to detect high grade magmatic sulphides in the Ruins Dolerite of the West Kimberley, confirming the genetic model, exploration vectors, and potential of the project to host significant deposits.

At Conductor D, the high grades, textural characteristics, overall geometry of mineralisation, litho-geochemistry, and juxtaposition of differing rock types suggest that mineralisation represents a primary accumulation of sulphides proximal to a feeder conduit. The feeder conduit or related structural feature was then subsequently stoped out by the later, barren, highly magnetic dolerite dyke identified during mapping in August. Several such dykes have been mapped in the area, generally between 10 and 30 metres thick, dipping approximately at right angles to the interpreted original Ruins Dolerite sill orientation.

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Some limited remobilisation of sulphides has also occurred at Conductor D, possibly during later regional tectonism.

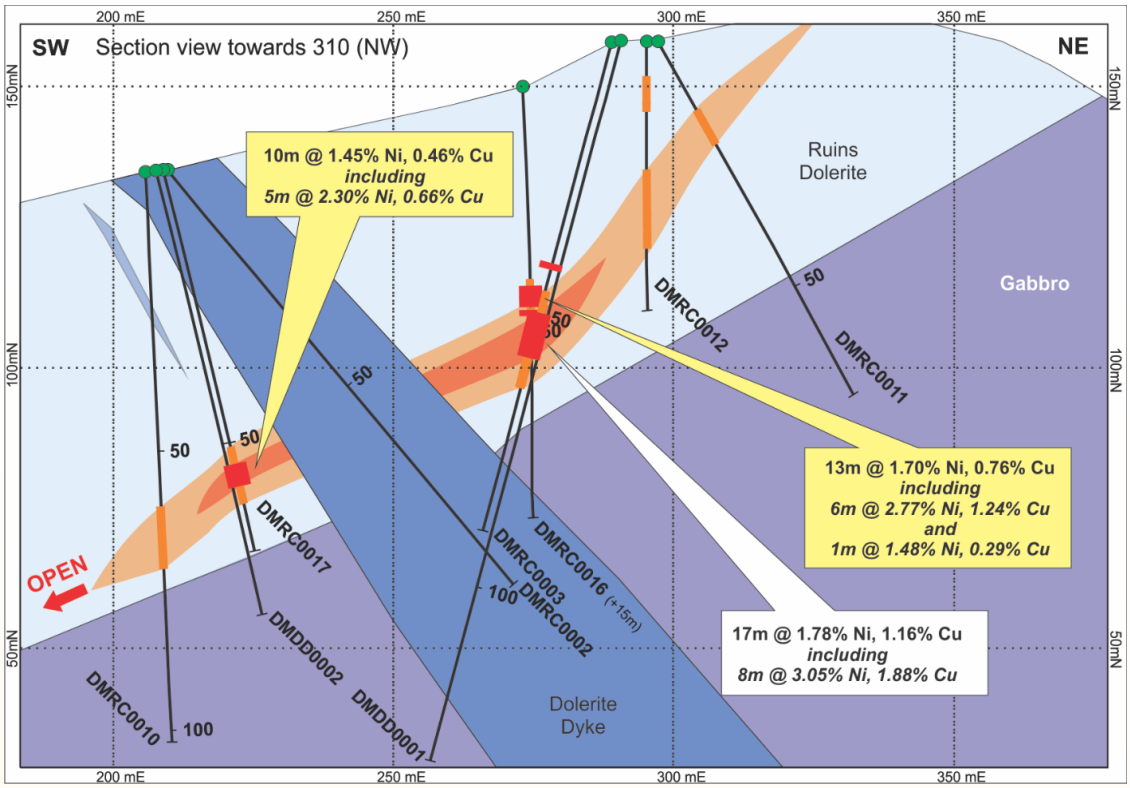

Figure 1 – Schematic cross-section of Conductor D, showing selected drillholes, summarised Ni/Cu assay results, interpreted geology, and interpreted mineralisation extents. Section line below in Figure 2.

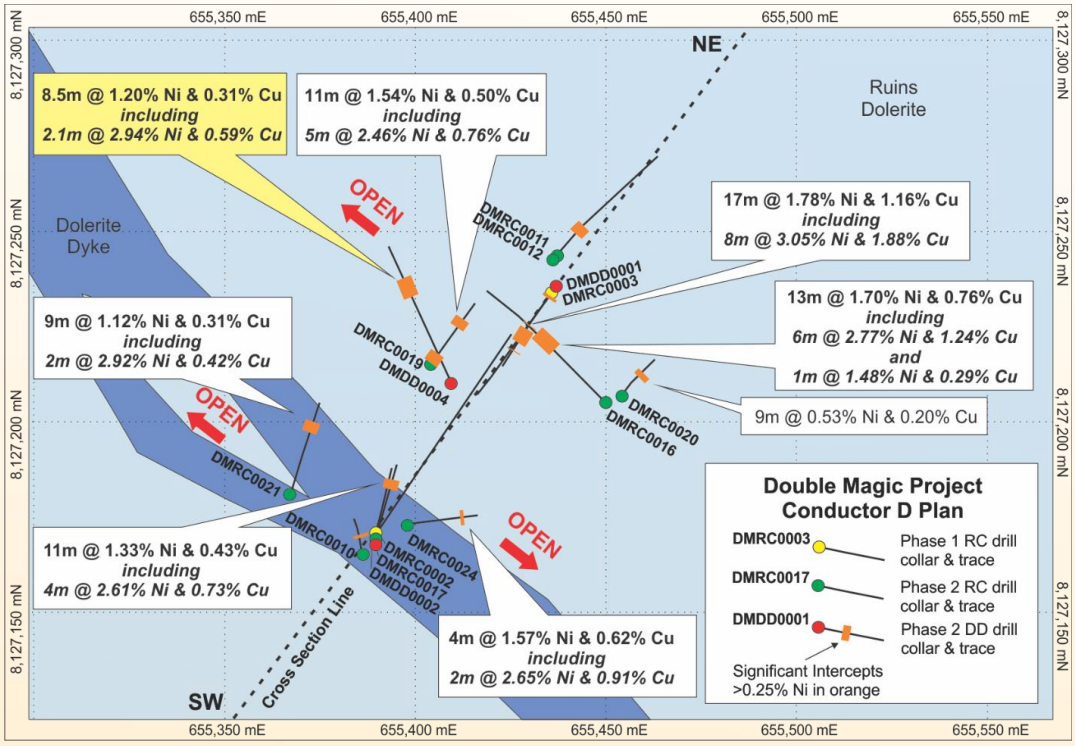

Figure 2 – Conductor D plan view, showing drill hole collars & traces with summarised Ni/Cu assay results, and interpreted geology.

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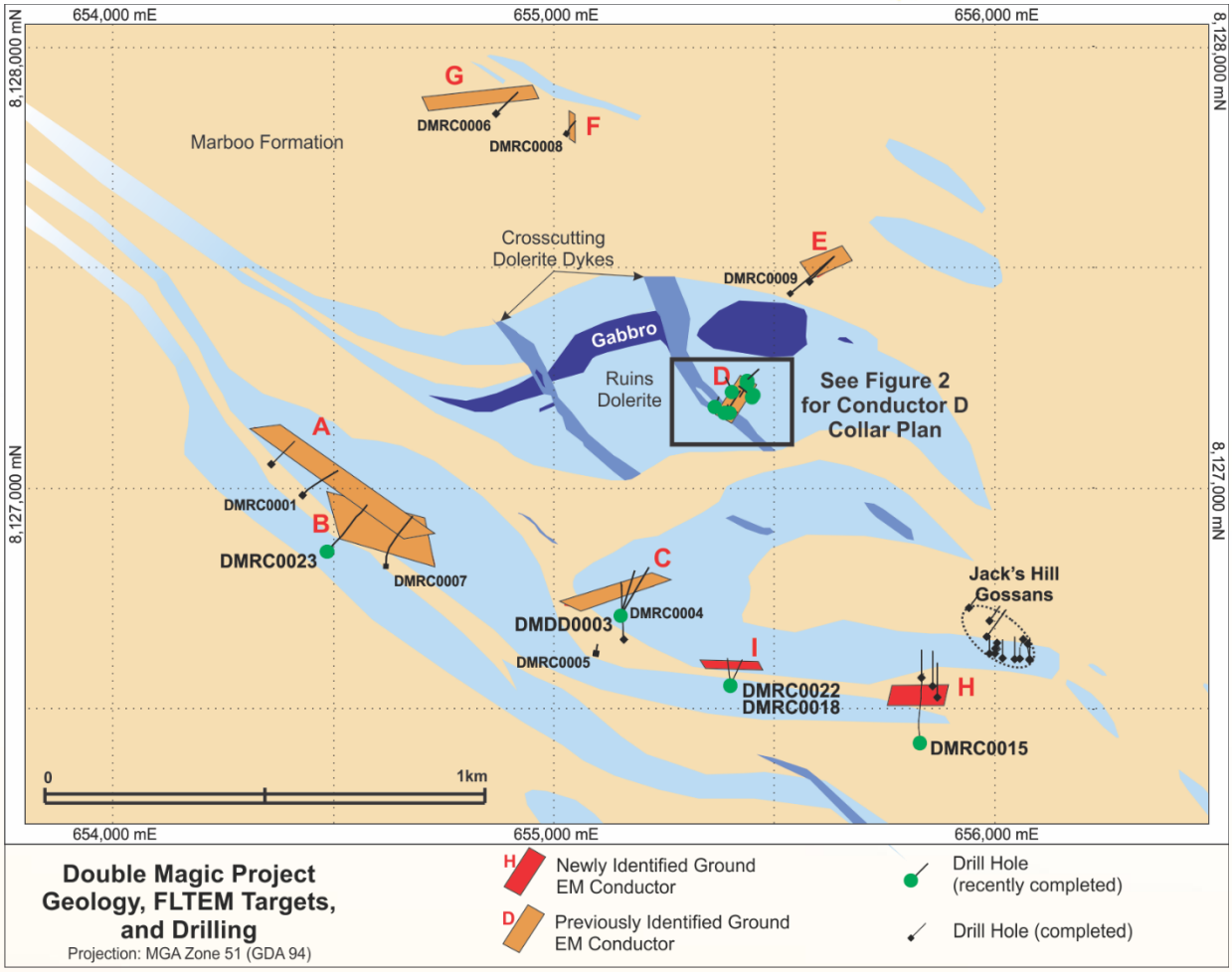

Figure 3 – General plan view of the central area of the Merlin Prospect at the Double Magic Project, showing conductors, drill hole collars, and interpreted geology.

Mineralisation seen at Conductors A, B, C, H and I (as well as at Jack's Hill) exhibits much greater structural influence, particularly where higher grades occur. However, the enveloping low-grade disseminated sulphide zones may represent primary mineralisation, albeit much more distal from any feeder conduit than Conductor D.

Figure 4 – Close up core photo of massive sulphide intercept in DMDD0003 at Conductor C. Interval (0.2m downhole) assayed 6.35% Ni. Note core is HQ3, with a diameter of ~61.1mm.

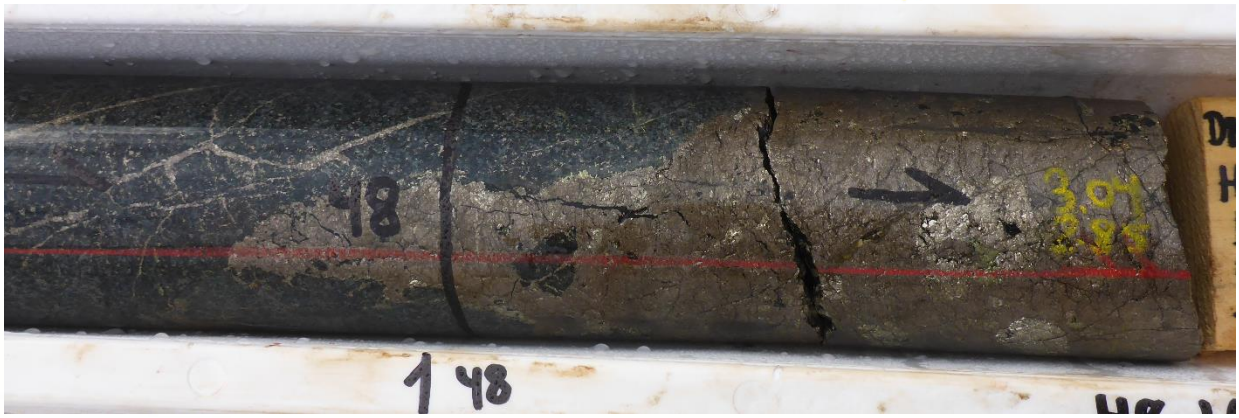

Figure 5 – Close up core photo of irregular top contact of massive sulphide vein in DMDD0004 at Conductor D. Interval (0.5m downhole) assayed 8.14% Ni. Note core is HQ3, with a diameter of ~61.1mm.

Detailed review of ground and aerial geophysical results in conjunction with geological and structural interpretations indicate substantial un-tested potential exists at Conductors D, A-B, and possibly C. High grade mineralisation at Conductor D itself remains open along strike in both directions to the north-west and south-east, as well as down-plunge to the south-west.

The potential for additional separate, fault-dislocated high-grade pods, particularly to the west of Conductor D and/or at depth, is also considered to be excellent. Fault displacements of between 20 to 200m are documented at Panoramic Resources' Sally Malay deposit in the East Kimberley (Savannah Operations), considered the most relevant model for mineralisation at Double Magic and Merlin. These faults are often low-angle (flat) and therefore difficult to detect with geophysical methods. Several un-explained diffuse VTEM anomalies exist at interpreted structural intersections, these may indicate the presence of deeper, fault-displaced conductors which have yet to be drill-tested.

Geophysics

Processing and evaluation of geophysical data has been completed. These datasets include the down-hole TEM logging of 15 selected drillholes, the high power large fixed loop TEM survey, and the regional heli-borne VTEM*max* survey over the balance of Buxton's tenements, coverage as depicted in Figure 6 below.

Preliminary DHTEM and FLTEM results were fully utilized during the field season to target drill holes. Finalisation of data processing, interpretation and full reporting of these surveys has now further assisted Buxton during development of mineralization and exploration models for Double Magic.

The 2015 VTEM survey completed over previously un-explored ground yielded outstanding results. Numerous long, large and strong VTEM anomalies occur at the Fireant Propsect within areas mapped as Ruins Dolerite approximately 10-15km to the east of the Merlin Prospect which has been the focus of exploration up until now.

Additionally, many smaller discrete VTEM anomalies have also been identified of similar or larger size to those initially identifying Conductors A-B and D in 2013. From this total of 22 newly identified VTEM targets, eight have been selected for immediate on-ground

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follow-up as soon as access is possible at the end of the northern wet season. This ground follow-up will include more detailed geological mapping, rock-chip sampling and ground geochemical traverses, as well as ground geophysics, to refine drill targets.

The 2015 VTEM survey was flown on north-south, 100 metre spaced flight lines, identical with the 2013 survey specifications. Refer to Figures 6, 7 & 8 for survey coverage areas and locations of areas of interest.

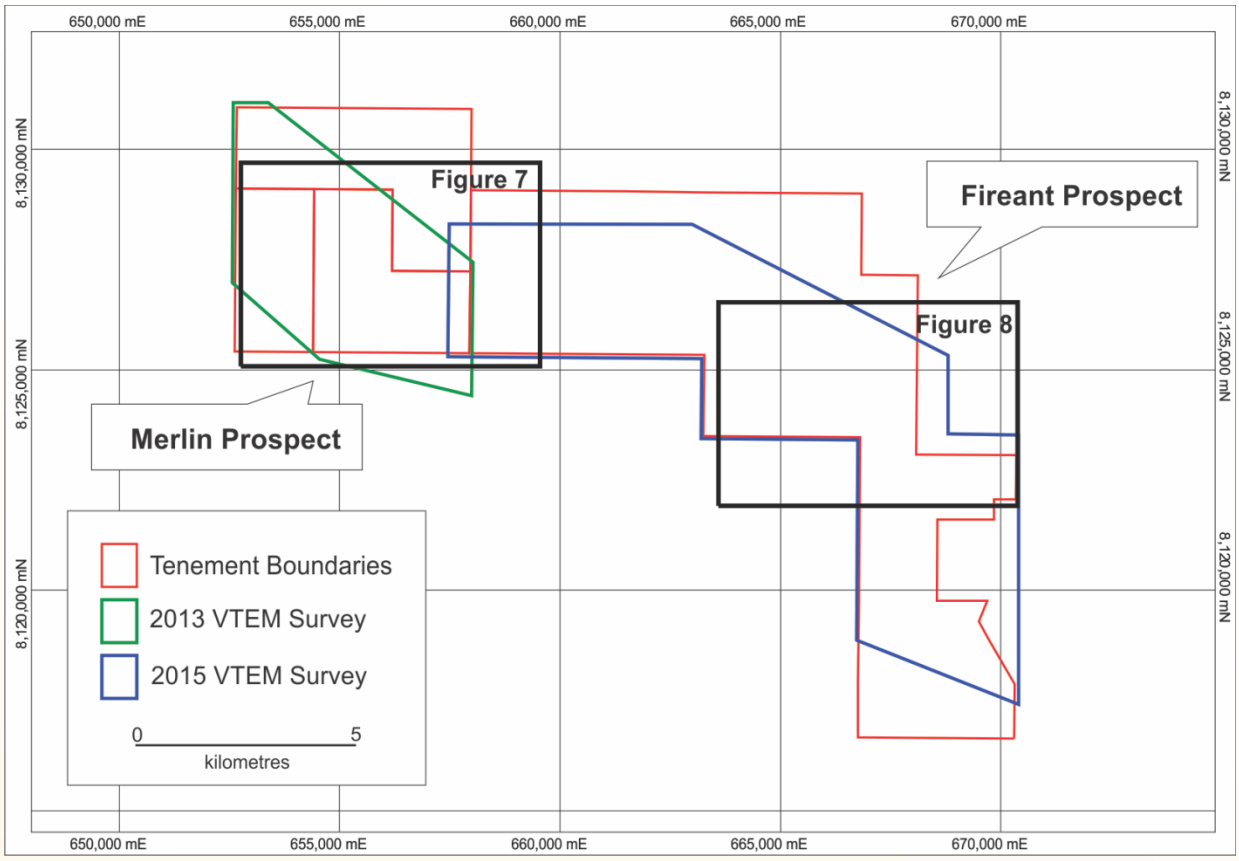

Figure 6 – Map of Buxton's Double Magic tenement package, showing tenements, prospect areas, survey coverage from previous (2013) and new (2015) VTEM surveys and boxes showing the extent of Figures 7 and 8.

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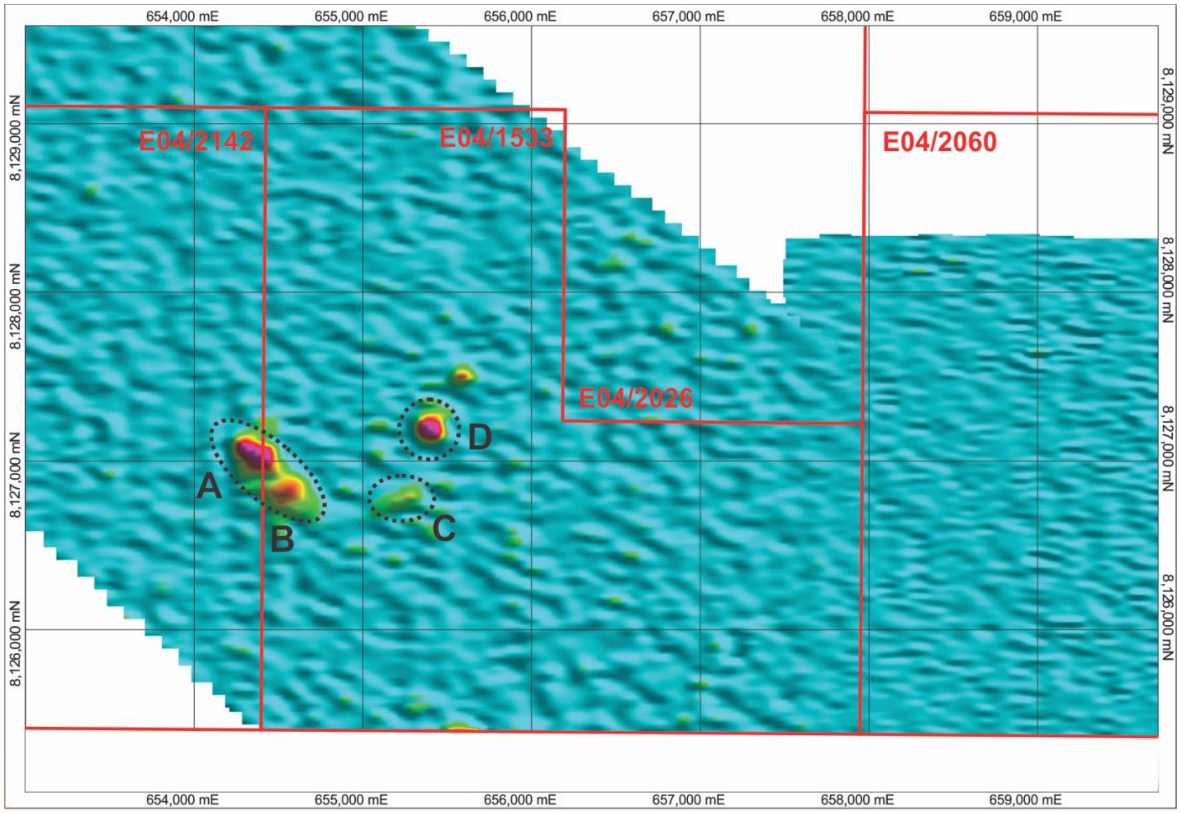

Figure 7 – Map of Buxton's 2015 field season area of focus at the Merlin Prospect, highlighting Conductors A-D (all now known to be related to Ni-Cu mineralisation), over a merged image of the 2013 & 2015 VTEM survey data (latest VTEM channel - CH48BZ).

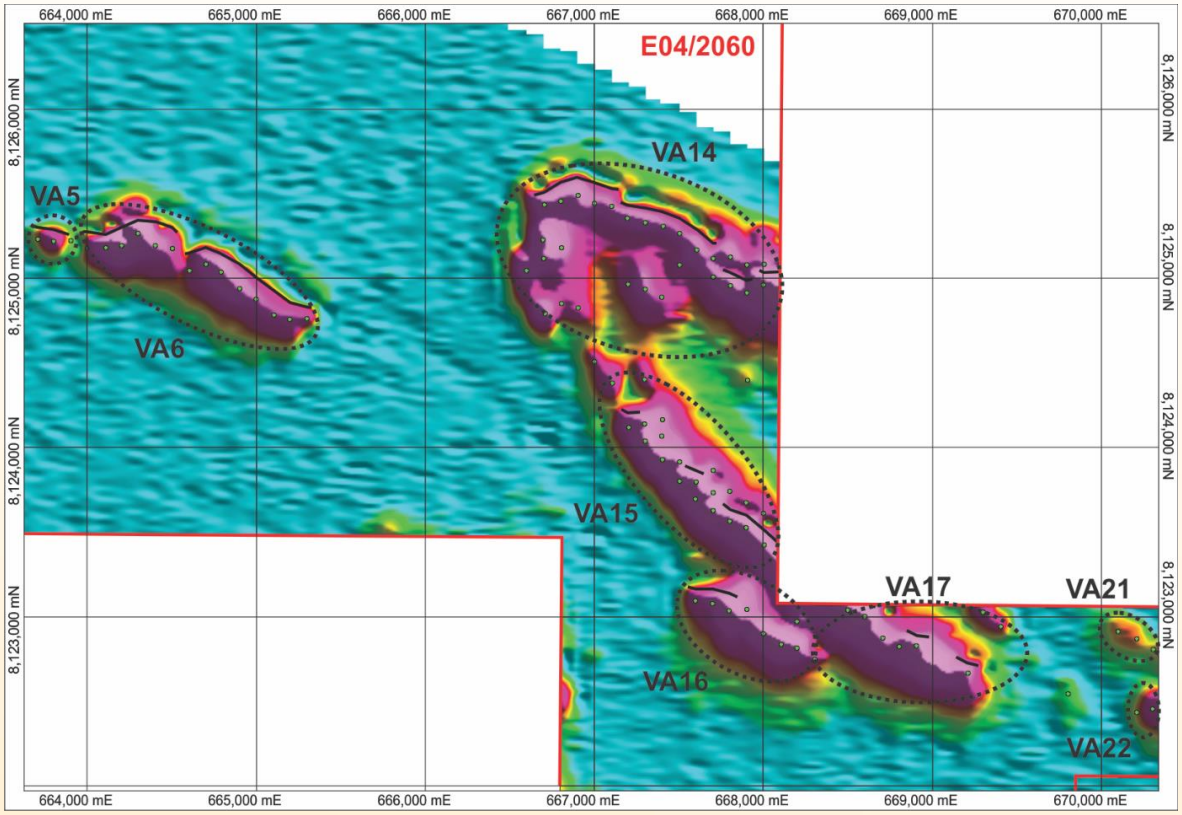

Figure 8 – Map of Buxton's new Fireant prospect, showing 8 new priority VTEM anomalies to be followed up as soon as weather permits, over an image of the 2015 VTEM survey data (latest VTEM channel - CH48BZ).

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Phase 1 RC Drilling

Hole ID	Target	East	North	RL	Az	Dip	EOH
DMRC0001	A	654,428	8,126,983	95	040	-65	192
DMRC0002	D	655,389	8,127,171	130	032	-50	96
DMRC0003	D	655,436	8,127,234	151	212	-75	90
DMRC0004	C	655,150	8,126,711	117	018	-55	186
DMRC0005*	C	655,098	8,126,625	98	006	-55	37
DMRC0006	G	654,871	8,127,848	84	038	-60	120
DMRC0007	B	654,625	8,126,822	96	358	-70	330
DMRC0008	F	655,033	8,127,804	86	018	-65	78
DMRC0009	E	655,537	8,127,440	94	045	-55	204
*Hole abandoned due to excessive deviation							1,333

Phase 2 RC Drilling

DMRC0010	D	655,386	8,127,165	129	352	-86	102
DMRC0011	D	655,437	8,127,244	152	040	-60	72
DMRC0012	D	655,436	8,127,243	152	002	-90	48
DMRC0013	V7	653,791	8,130,253	82	010	-55	78
DMRC0014	V6	656,505	8,128,172	89	030	-60	150
DMRC0015	H	655,831	8,126,420	99	352	-60	286
DMRC0016	D	655,450	8,127,205	137	314	-60	88
DMRC0017	D	655,389	8,127,170	130	014	-75	70
DMRC0018	I	655,401	8,126,549	99	020	-70	172
DMRC0019	D	655,403	8,127,216	147	035	-75	80
DMRC0020	D	655,454	8,127,207	138	035	-80	64
DMRC0021	D	655,367	8,127,181	134	015	-70	70
DMRC0022	I	655,403	8,126,553	99	350	-70	160
DMRC0023	B	654,484	8,126,854	93	035	-65	280
DMRC0024	D	655,398	8,127,173	131	080	-75	70
							1,790

Phase 2 Diamond Drilling

DMDD0001	D	655,437	8,127,236	151	214	-75	134.6
DMDD0002	D	655,389	8,127,168	130	014	-75	81.3
DMDD0003	C	655,146	8,126,706	117	030	-52	204.2
DMDD0004	D	655,409	8,127,210	147	337	-60	75.2
							495.3

Table 3 – Buxton's completed drilling at the Merlin Prospect, Double Magic Project. Coordinates are MGA Zone 51 (GDA94)

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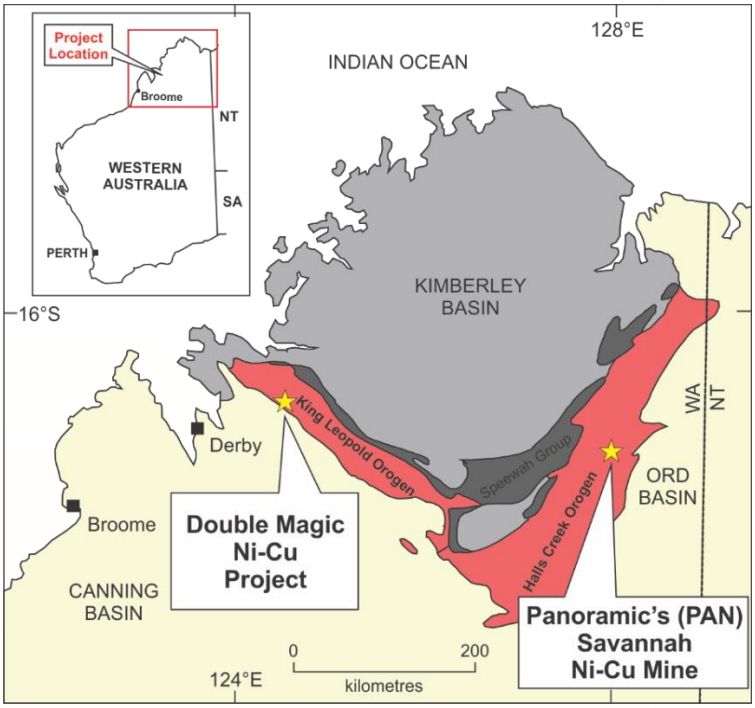

Figure 9 – Location of the Double Magic Ni-Cu Project in Western Australia. Also shown is the location of Panoramic's Savannah Ni-Cu Mine.

Zanthus Ni & Cu – Fraser Range

The Company's 100% owned, highly prospective Zanthus Ni-Cu Project is located 60km along strike from Sirius Resources' Nova-Bollinger Ni-Cu discovery in the Fraser Range Nickel province, Western Australia.

The Company's drilling program targeted two conductors, ZM02 and ZM07. Hole ZRC095 on conductor ZM02 was completed at 306m with a zone of disseminated pyrrhotite and minor chalcopyrite in gneiss over 20m explaining the conductor. No significant Ni-Cu mineralization was encountered.

Zanthus hole ZRC096 targeting the large ZM07 conductor at ~700m depth has been temporarily suspended at 256m due to technical difficulties associated with running sands in the top 40m of the hole. Additionally, the drilling contractor has undertaken to re-mobilise to Zanthus and re-enter (or re-drill to the previously reached depth) ZRC096 at no cost to Buxton.

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Yalbra Graphite – Gascoyne Region

Buxton reported initial flotation and acid purification test-work results for its high-grade Yalbra Graphite Project in Western Australia.

Flotation batch test results from a representative fresh rock diamond drill sample grading 20.0% C(t) returned a concentrate grade of 91% C(t). This concentrate showed a good proportion of medium to coarse flake material with 30% falling into categories above +149 microns in size (Table 1). The overall recovery of graphite was 80%, although this should be improved in future locked cycle tests. The process involved a primary grind, a rougher flotation stage, 2 stages of polishing grind and 5 cleaner flotation stages.

A final leaching stage using a combined H_2SO_4/HF solution to upgrade the concentrate was also completed and showed that a final concentrate grading 99.5% C(t) could be achieved, with the coarser size fractions grading as high as 99.7% C(t).

Yalbra is Australia's highest reported grade graphite resource at 4.0Mt @ 16.2% TGC (Inferred) and has considerable potential to be expanded along strike, and for discovery of additional resources. Additionally, Buxton has shown commercial products can be produced from its very high grade Yalbra Graphite Project. As such, the Company is now in a position to seek a development and/or offtake partner to assist in commercialising the project.

Table 1. Flotation and purification results for the Yalbra Graphite Project.

Size	***Size***	***Assays***	***Assays***	***Distribution***
		Flotation Conc.	***Purified Conc.***	
Microns (µm)	***Tyler Mesh***	***C (t) %***	***C (t) %***	***C (t) %***
+297 µm	+48 mesh	91.8	99.7	6.6
+149 µm	+100 mesh	90.6	99.7	22.8
+74 µm	+200 mesh	90.0	99.5	31.2
-74 µm	-200 mesh	91.7	99.1	39.5
Weighted Avg.		**90.9**	**99.5**	**100.0**

Corporate

Buxton held its Annual General Meeting of Shareholders at Steve's Wine Cellar, 30 The Avenue, Nedlands, Western Australia on Monday 30th November 2015. All resolutions that were put were unanimously passed on a show of hands.

Cash balance as at 31 December 2015 was approximately $2.06 million.

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For further information please contact:

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Competent Persons

The information in this report that relates to exploration results and geology for the Double Magic Project is based on information previously reported under the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves based on information compiled by Mr Rolf Forster, Member of the Australasian Institute of Mining and Metallurgy, and Mr Derek Marshall, Member of the Australian Institute of Geoscientists. Mr Forster is an Independent Consultant to Buxton Resources Limited and Mr Marshall is a full-time employee. Mr Forster and Mr Marshall have sufficient experience which is relevant to the activity being undertaken to qualify as a "Competent Person", as defined in the 2012 edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Forster and Mr Marshall consent to the inclusion in this report of the matters based on the information in the form and context in which it appears.

The information in this report that relates to exploration results and geology for the Yalbra and Zanthus projects is based on information previously reported under the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves based on information compiled and/or reviewed by Mr Eamon Hannon, Fellow of the Australian Institute of Mining and Metallurgy and CEO at Buxton Resources Limited. No material changes have occurred to this information. Mr Hannon has sufficient experience which is relevant to the activity being undertaken to qualify as a "Competent Person", as defined in the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves and consents to the inclusion in this report of the matters reviewed by him in the form and context in which they appear. There have been no material changes to the information reported in the previous report.

The information in this report that relates to in-situ Mineral Resources is based on information compiled by David Williams of CSA Global Pty Ltd and previously reported 25/2/2014. David Williams is a Member of the Australasian Institute of Mining and Metallurgy, and a Member of the Australian Institute of Geoscientists and has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration, and to the activity he has undertaken, to qualify as a Competent Person in terms of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (JORC Code 2012 Edition). David Williams previously consented to the inclusion of such information in the previous report in the form and context in which it appeared. There have been no material changes to the information reported in the previous report.

VTEM Survey Parameters

Helicopter-borne Time Domain Electromagnetic Survey
VTEM max system – UTS Geophysics Pty Ltd
Flight line specifications – Line Spacing 100m, Line Direction 0-180, Line Kilometres 557
Optimum terrain clearances – Helicopter 90m, EM sensor 35m, Magnetic sensor 75m
Airspeed/data collection – Normal airspeed approx. 90km/hr, data-recording rate 10 points per second, geophysical measurements acquired approx. every 2m along survey lines
VTEM max Configuration – Transmitter loop diameter 36m, Peak dipole moment 865,000 NIA, Transmitter Pulse Width 5ms, VTEM receiver Z,X coils
Real time GPS – Novatel WAAS OEM4-G2-3151W, position accuracy (CEP) is 1.8m, with WAAS on 1.2m
Altimeter system – ground clearance recorded to an accuracy of approx. 1m. Output repetition rate of 0.5sec.

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Appendix 1: Changes in interests in mining tenements - Buxton Resources Ltd 01/10/15 - 31/12/15

	Tenement	Location	% at beginning of quarter	% at end of quarter
Interests in mining tenements relinquished, reduced or lapsed				

Interest in mining tenements acquired or increased	P04/269	Derby/West Kimberley	0	100

The mining tenements held at the end of the quarter and their location	E 28/2201	Zanthus	100	100
	E 28/1959	Zanthus	100	100
	E 63/1595	Dempster	100	100
	E 63/1582	Dempster	90	90
	E 63/1720	Dempster	100	100
	ELA 63/1675	Dempster	100	100
	ELA 63/1676	Dempster	100	100
	ELA 63/1677	Dempster	100	100
	ELA 63/1685	Dempster	100	100
	ELA 63/1686	Dempster	100	100
	ELA 63/1687	Dempster	100	100
	ELA 63/1688	Dempster	100	100
	E 09/1985	Yalbra	85	85
	E 09/1972	Yalbra	90	90
	E 09/2101	Yalbra	100	100
	ELA 66/87	Northampton	100	100
	ELA 66/88	Northampton	100	100
	E 66/90	Northhampton	100	100
	E 66/91	Northhampton	100	100
	E 66/92	Northhampton	100	100
	ELA 77/2237	Yilgarn	100	100
	ELA 77/2238	Yilgarn	100	100
	E04/1533	Derby/West Kimberley	100	100
	E04/2026	Derby/West Kimberley	100	100
	E04/2060	Derby/West Kimberley	100	100
	E04/2142	Derby/West Kimberley	100	100
	ELA 04/2406	Derby/West Kimberley	100	100
	ELA 04/2407	Derby/West Kimberley	100	100
	ELA 04/2408	Derby/West Kimberley	100	100
	ELA 04/2411	Derby/West Kimberley	100	100
	ELA 70/4730	Northampton	100	100

Abbreviations and Definitions used in Tenement Schedule:

E Exploration Licence ELA Exploration Licence Application P Prospecting Licence