

27 September 2013

**MUMBWA PROJECT: HIGHEST EVER GRADE AT KITUMBA FOR AN INTERSECTION GREATER THAN 150m - INFILL HOLE REPORTS 166m AT 7.14% Cu**

#### **KEY POINTS**

- **Hole KITDD\_031 has returned further exceptional grades from infill drilling at Kitumba with 166m at 7.14% Cu from 199m to 365m, including:**
  - **12m @ 14.62% Cu from 199m to 211m**
  - **32m @ 13.88% Cu from 264m to 296m**
  - **13m @ 12.46% Cu from 313m to 326m**
- **Infill hole KITDD\_030 has returned results in-line with the Kitumba mineral resource model including:**
  - **184m @ 2.71% Cu from 278m to 462m, including:**
    - **135m @ 3.27 % Cu from 327m to 462m, including:**
      - **8m @ 10.8% Cu from 331m to 339m**
      - **7m @ 13.47% Cu from 350m to 357m**

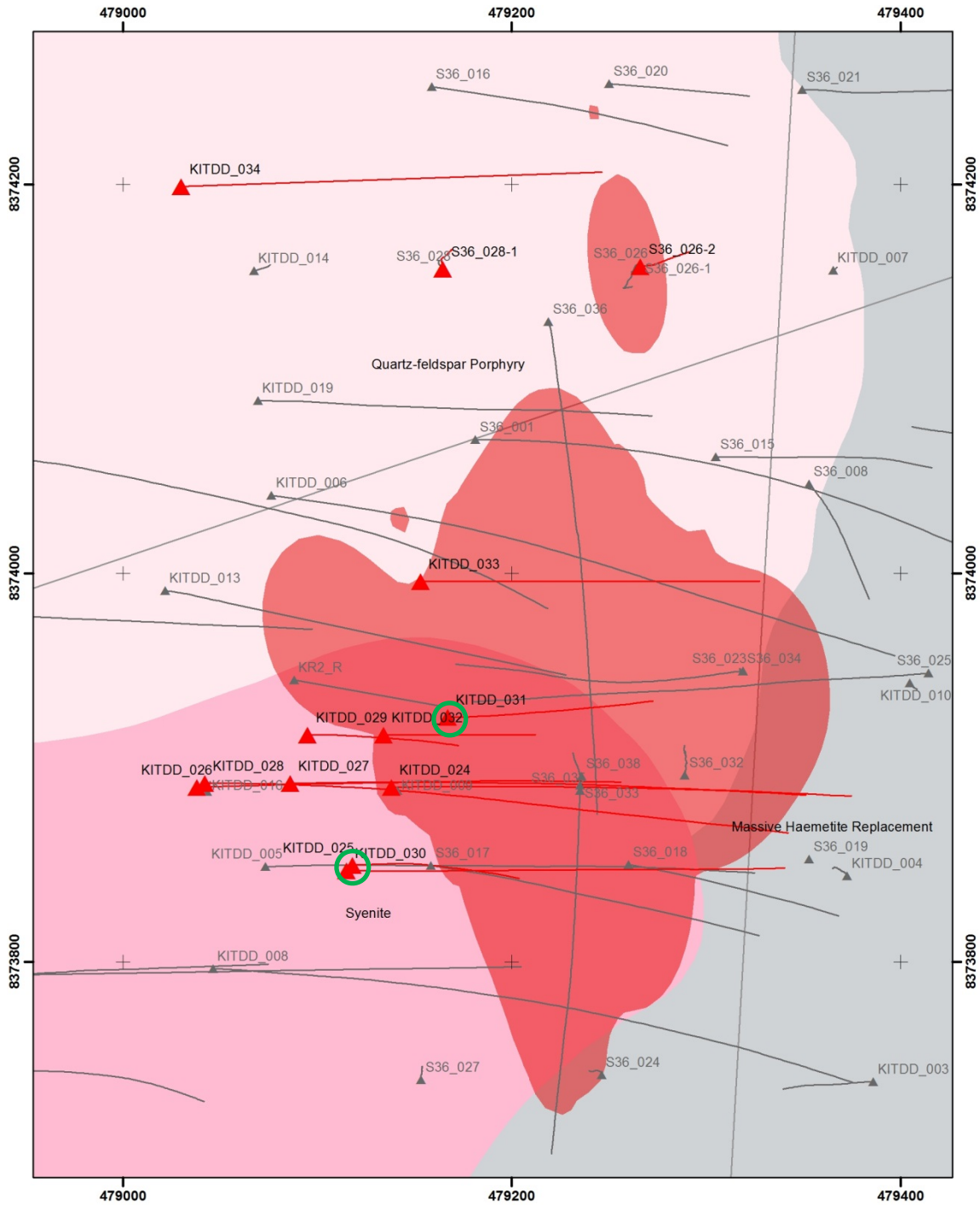
Blackthorn Resources Limited (ASX: BTR) (“the Company” or “Blackthorn Resources”) is pleased to provide assay results for drill holes KITDD\_030 and KITDD\_031.

The location of these drill holes is shown in Figure 1.




Sections showing the holes against the April 2013 mineral resource model are contained in Figures 2 and 3.

Managing Director, Mr Scott Lowe said:

*“We are very pleased to see these continuing high-grade results which provide further support for the economic potential of the Kitumba mineral resource deposit. It is particularly pleasing to see in KITDD\_031 the highest grade 150m + intercept we’ve ever reported.”*



Mumbwa Project Phase 7 Diamond Drill Holes

-  — Phase 7 completed drillholes
-  — Mumbwa all drillholes
-  — Cu 1.4 %



**Figure 1.** Phase 7 drill hole location plan showing collar locations for KITDD\_030, and KITDD\_031 (green circles) on surface geology and the surface projection of the 1.4% Cu shell.

**Table 1.** Completed Phase 7 drill holes

BH_ID	X	Y	Z	Azimuth	Dip	EOH
KITDD_024	479141	8373889	1423.8	90	60	449.7
KITDD_025	479113	8373848	1421.6	90	81	530.6
KITDD_026	479044	8373889	1410	90	68	557.6
KITDD_027	479093	8373889	1416.4	90	60	539.9
KITDD_028	479044	8373889	1410	90	60	562.4
KITDD_029	479092	8373920	1413.5	90	80	419.7
KITDD_030	479113	8373848	1421.6	90	68	575.8
KITDD_031	479173	8373920	1426.4	90	80	539.6
KITDD_032	479132	8373920	1420	90	80	581.6
S36_026-2	479266	8374158	1439	0	90	614.8-707.2
S36_028-1	479164	8374157	1428	0	90	524.5-986.3
KITDD_033	479150	8373998	1415.6	90	70	527.5
KITDD_034	479025	8374200	1416	90	70	728.5

Sampling and assaying of the drill core collected follows a standard site protocol with samples of half core being submitted to the Intertek Genalysis Laboratory preparation facility in Chingola, Zambia before being shipped to South Africa for analysis (4-acid digest with an ICP finish).

A cut-off grade of 0.25% Cu and a maximum internal dilution of 2m (drilled width) are used as a guideline when delineating the drilled thickness intervals of mineralisation, with length-weighted average grades reported. True-widths are not quoted, as the mineralised zone is associated with a sub-vertical “pipe” shaped zone of brecciation. No upper limit has been applied to copper grades in these exploration results.

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## KITDD\_030 – Assay Results

KITDD\_030 was drilled on an azimuth of 090, inclined 68 degrees to a depth of 575.8 meters. This hole was drilled as an infill hole within the Kitumba mineral resource area to test the south-western extent of the high grade zone with the purpose of improving resource confidence (Figure 2).

A series of 485 samples, including quality control samples, were submitted to the laboratory for analysis.

Final results having passed QA/QC are summarised here.

**Table 2.** Summary of assay results for drill hole KITDD\_030 (azi 090, dip 68 EOH 575.8 m)

From	To	Interval	Cu %	ASCu %
81	93	12	0.25	0.03
102	114	12	0.25	0.03
137	147	10	0.38	0.12
155	159	4	0.46	0.19
162	165	3	0.36	0.03
171	176	5	0.43	0.08
180	182	2	0.48	0.16
194	196	2	0.40	0.03
199	209	10	0.30	0.03
220	222	2	0.48	0.26
246	271	25	1.30	0.38
278	462	184	2.71	0.49
<i>Including</i>				
327	462	135	3.27	0.52
<i>Including</i>				
331	339	8	10.80	1.09
350	357	7	13.47	0.77
470	476	6	1.03	0.06
479	490	11	1.29	0.08
526	528	2	0.86	0.03
532	534	2	1.04	0.09
553	559	6	0.63	0.04

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### KITDD\_031 – Assay Results

KITDD\_031 was drilled on an azimuth of 090, inclined 80 degrees to a depth of 539.6 meters. This hole was drilled as an infill hole within the Kitumba mineral resource area to with the purpose of improving resource confidence (Figure 3).

A series of 462 samples, including quality control samples, were submitted to the laboratory for analysis.

Final results having passed QA/QC are summarised here.

**Table 3.** Summary of assay results for drill hole KITDD\_031 (azi 090, dip 80 EOH 539.6 m)

From	To	Interval	Cu %	ASCu %
50	74	24	0.49	0.03
88	402	314	4.09	1.63
<i>Including</i>				
199	365	166	7.14	2.87
<i>Including</i>				
199	211	12	14.62	10.84
264	296	32	13.88	5.12
313	326	13	12.46	0.74
408	411	3	0.38	0.03
414	435	21	0.56	0.03
439	442	3	0.96	0.05
445	457	12	0.74	0.05
460	464	4	0.36	0.03
471	493	22	0.55	0.06
496	507	11	0.64	0.13
518	528	10	0.44	0.15

### About The Phase 7 Drilling Program

Drilling restarted on Kitumba in June 2013. The drill pattern was designed to focus on the conversion of material in the “Indicated Mineral Resource” category to “Measured Mineral Resource” in the high-grade core. A total of 10 infill holes and 3 geotechnical holes were planned focusing on the Kitumba mineral resource area.

The extension of holes S36-026 and S36-028 as well as a single angled hole from surface (KITDD\_034) were drilled to assess the potential for further deep hypogene mineralisation as drilled in S36-026 (41m at 2.31% from 569m) immediately to the north of Kitumba.

Geotechnical holes have been designed to further characterise the structural and engineering properties of material within the current extent of any potential future mining operations.

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Samples representative of material for an underground operation have been collected for further metallurgical assessment. A selection of holes has been chosen for probing with an Acoustic Televiwer (ATV) for the collection of detailed geotechnical data. Down hole Electro-Magnetics (DHEM) is planned for selected holes to characterise the electrical properties of the deposit to aid further exploration.

Phase 7 drilling is now complete with a total of 8231m of diamond drill core completed, including all infill holes, the extensions on S36-026 and S36-028, KITDD\_034 and geotech holes.

**Notes:**

A total of 8 elements were analysed. Multi-element analyses (including copper) were performed using Inductively Coupled Plasma – Mass Spectrometry (ICP-MS) and Inductively Coupled Plasma – Optical Emission Spectroscopy (ICP-OES) analyses by the fully NATA accredited Intertek Genalysis Laboratory in Johannesburg, South Africa. Samples were analysed for total copper and Ca, Fe, K, Mn and S by 4-acid digest with an ICP-OES finish, and acid-soluble copper (ASCu) by cold acid leach with an AAS finish and U by 4-acid digest with an ICP-MS finish.

A Quality Assurance/Quality Control (QA/QC) program includes chain of custody protocol, a systematic submittal of 20% QA/QC samples including field duplicates, field blanks and certified reference samples into the flow of samples submitted to the laboratory as well as re-assaying of the mineralised zones and submission of samples for umpire analysis by a second accredited laboratory.

**ATTRIBUTION**

The information in this report which relates to exploration results at the Mumbwa Project in Zambia is based on information compiled by Mr Michael J Robertson, MSc, Pr.Sci.Nat., MSAIMM who is a member of The South African Institute of Mining and Metallurgy, which is a Recognised Overseas Professional Organisation ('ROPO'). Mr Robertson has 22 years' experience in mineral exploration and is a full-time employee of the MSA Group. Mr Robertson has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which is being undertaken to qualify as a Competent Person as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Robertson consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

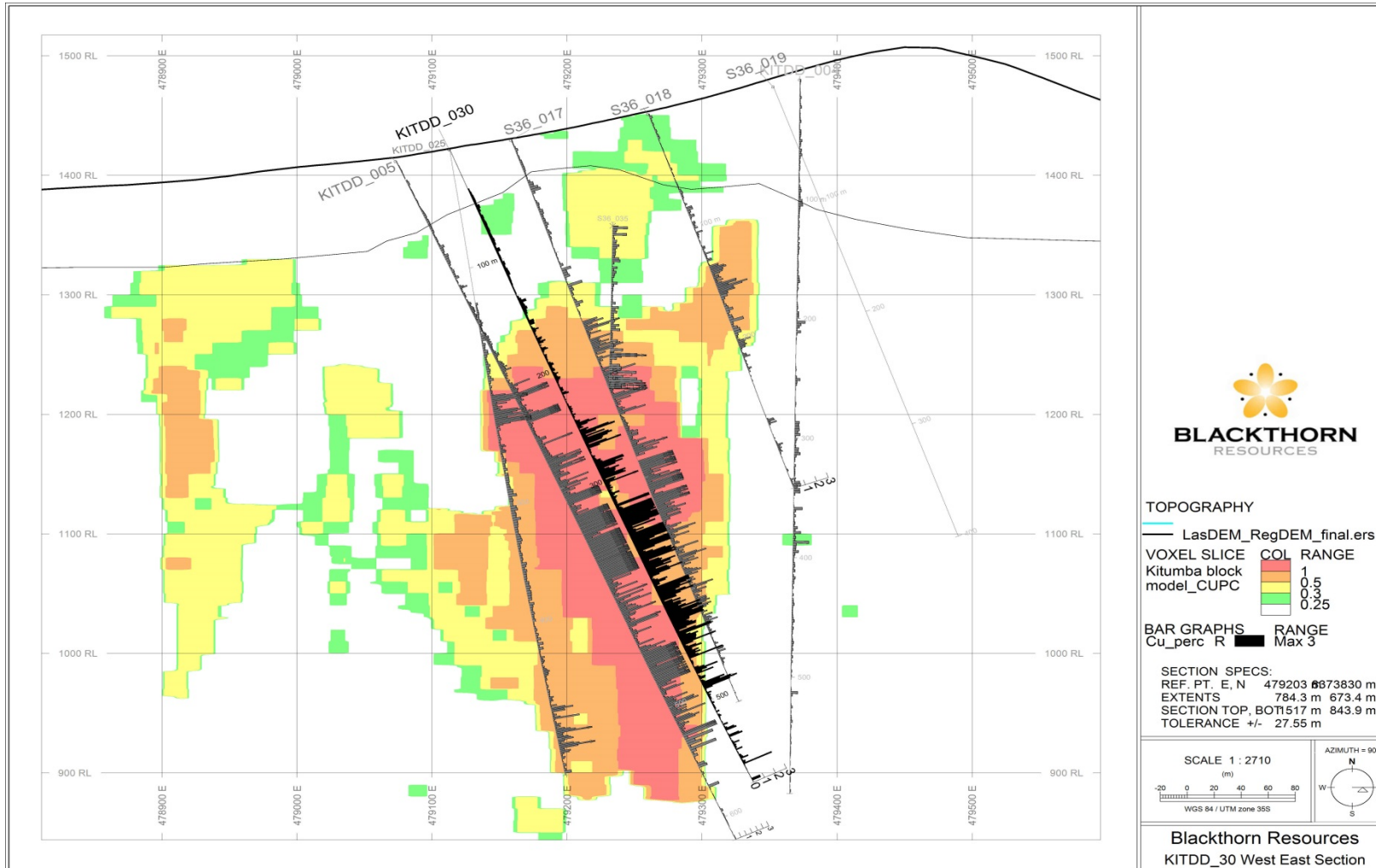
Should you require further information please contact:

**Scott Lowe**

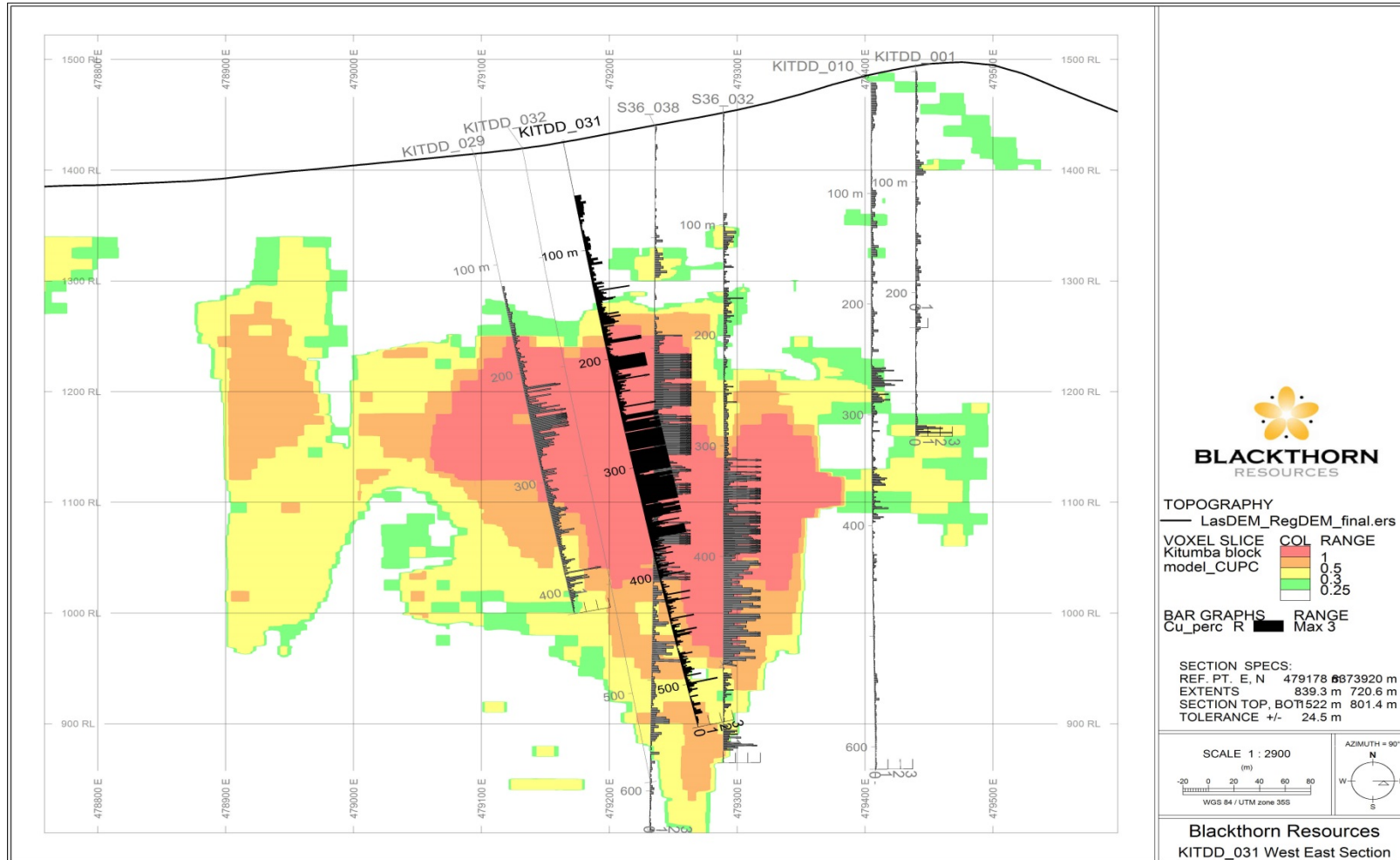
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**Figure 2.** Section showing KITDD\_030 drill hole projection on the April 2013 Kitumba mineral resource block model.



**Figure 3.** Section showing KITDD\_031 drill hole projection on the April 2013 Kitumba mineral resource block model.

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