# RECENT DISCOVERIES IN THE KALAHARI COPPER BELT, BOTSWANA

## MOD RESOURCES LTD & METAL TIGER PLC 25 AUGUST 2016







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## MOD RESOURCES LTD



ASX Code:	MOD
Тор 20:	49%
Issued shares:	1.41Bn
Options :	172 M
Market Cap:	~A\$80M
Cash:	~A\$3M
Debt:	\$1.5M



### MOD/MTR JOINT VENTURE

- ✓ 2011: MOD discovered 2.4km long high grade Cu/Ag deposit at T1 (Mahumo)
- ✓ Aug 2015: MOD and MTR form JV to acquire Discovery Mines (DMI)
- ✓ Feb 2016: Ministerial consent to transfer DMI licences to Tshukudu Metals
- ✓ Mar 2016: Significant Cu/Ag mineralisation discovered in first hole at T3
- ✓ Aug 2016: Visible Cu sulphides intersected in first hole at T2, 20km N of T3
- ✓ Sept 2016: Target first resource at T3. Scoping study underway for open pit
- ✓ MOD and MTR: Strong management & technical team with diversified funding



General Manager Exploration Jacques Janse van Rensburg.

Tshukudu Metals Director Gaba Chinyepi





#### JOINT VENTURE & MOD 100% HOLDINGS





#### **BOTSWANA COPPER ADVANTAGE**

- ✓ Largely unexplored Copper Belt with many sediment hosted Cu/Ag deposits
- ✓ Deposits relatively easy to find (cf VHMS). Soils sampling, structure, drilling
- ✓ Copper grade 'niche' 1.3% to 2.0% Cu, plus significant silver credits
- ✓ High grade (up to ~40% Cu) high quality Cu concentrates for smelting
- Potential to establish best practice (eg concentrate transport & handling)
- ✓ Govt supportive of copper industry, evaluating new smelter, extend power grid





#### CURRENT FOCUS – T1, T2 & T3



20km wide by >50km long structural zone. Many soil anomalies **3 MOD discoveries to** date: T1, T2 West, T3. Shallow dips, regional thrusts, vein hosted & disseminated Cu/Ag



Bonanza Cu/Ag grades at T3 bornite & chalcopyrite veins



#### T3 DEPOSIT

- ✓ Shallow Cu/Ag intersections (10m to 45m) along 1km strike. Dips 30 deg
- ✓ Nothing comparable. Sediment hosted deposit with bonanza Cu/Ag veins
- ✓ 4 diamond drill rigs on site. First resource to 200m depth due end Sept Q16



Phase 1 resource (white rectangle). Minimal drilling elsewhere Cu/Zn soil anomalies extend ~12kms along interp. 25km long Dome T3 occurs above redox 'prospective contact'



#### T3 RESOURCE AREA – significant intersections





#### T3 – interpreted resource cross section and IP targets



T3 hosted by 50-60m sequence of green siltstones and marls

Vein and disseminated Cu/Ag & Pb/Zn sulphides within shallow regional thrust onto 25km dome

Minimal drilling outside resource area. MOD/MTR licences cover ~1,000km<sup>2</sup> potential around T3







#### T3 – vein hosted bonanza Cu/Ag grades

INTERV	AL (m)	Ag	Cu	Cu	Мо	Pb	Pb	Zn	Zn
From	То	ppm	ppm	%	ppm	ppm	%	ppm	%
		3AD/ICP*							
100	101	<3.0	2627		<2.5	30		246	
101	102	<3.0	1432		<2.5	12		221	
102	103	<3.0	691		<2.5	10		140	
103	104	<3.0	2955		2.8	24		170	
104	105	<3.0	3410		<2.5	13		207	
105	106	19.8		1.30	19	41		172	
106	107	12.8		1.39	<2.5	209		325	
107	108	<3.0	3576		4.0	267		211	
108	109	<3.0	1046		<2.5	62		236	
109	110	<3.0	1465		6.6	55		205	
110	111	<3.0		1.23	6.4	68		247	
111	112	<3.0	5139		3.2	14		213	
112	113	<3.0		1.67	3.8	39		218	
113	114	<3.0		1.67	12	192		142	
114	115	<3.0	9656		9.5	126		139	
115	116	-2.0	8119		<2.5	119		215	
116	117	46.9		2.99	7.3	31		241	
117	115	101.5		4.06	9.3	110		292	
118	.19	102.3		5.01	99	56		336	
119	120	120.0		5.94	14	176		380	
120	121	128.3		5.59	443	142		209	
121	122	91.5		3.15	2075	100		293	
122	123	64.9		2.57	722	157		324	
123	124	41.4		1.75	9.4	67		261	
124	125	92.3		4.73	373	67		322	
125	126	22.9		1.02	4.8	30		257	
126	127	31.0		1.41	30	41		240	
127	128	14.5	7768		107	17		296	
128	120	148.9		6.92	482	58		306	
129	130	21.5		1.25	5.9	19		230	

T3 'Discovery Intersection' RC drill hole MO-G-12R:

52m @ 2.0% Cu Including 7m @ 4.2% Cu & 93.6g/t Ag

Individual 1m assays: 6.9% Cu 994g/t Ag 2,075ppm Mo



#### T3 – scoping study

Scoping study evaluating a concept 190m deep open pit & on site flotation plant

#### Indicative Timeframe:

- Sept 2016: Complete Phase 1 Resource. Infill & extensional drilling commence
- Oct 2016: Complete Metallurgical Testwork. Target >40% Cu conc
- Nov 2016: Preliminary pit, processing, environmental & social studies
- Dec 2016: Completion scoping study and decision to proceed PFS

Mineral	Chemical Formula	Cu	Fe	S
Chalcopyrite	CuFeS <sub>2</sub>	34.6%	30.4%	34.9%
Bornite	Cu₅FeS₄	63.3%	11.1%	25.6%
Chalcocite	Cu <sub>2</sub> S	79.9%		20.1%
Digenite	Cu <sub>9</sub> S <sub>5</sub>	78.1%		21.9%
Covellite	CuS	66.5%		33.5%
Malachite	Cu <sub>2</sub> (CO <sub>3</sub> )(OH) <sub>2</sub>	57.5%		
Enargite	Cu <sub>3</sub> AsS <sub>4</sub>	48.4%		32.6%





## T2 West – copper intersected in first RC holes



- ✓ Two ~1500m long soil anomalies located 12km apart, either side of Mahumo
- ✓ Cu soil values ~3 times higher than Cu values at T3 and Mahumo
- ✓ Visible Cu minerals intersected in first T2 West drillholes (release 15 Aug 16)
- ✓ >20m widths of vein hosted & disseminated Cu sulphides. Assays awaited



#### T2 West – 3.5km west of Mahumo (announced Aug 2016)



- Shallow RC holes intersect bornite, chalcocite, chalcopyrite. Assays awaited
- Cu sulphide zones >20m wide appear associated with thrust folding
- Width of sulphide intersections >5 times wider than Mahumo deposit
- RC drilling now testing strike extensions and related folded structures



#### T1 – Mahumo Deposit (100% MOD)



- T1 resource 2.4km long, completely open below 300m depth
- 2015 U/G scoping study recommended target 10Mt @ 2.0% Cu & 50g/t
- Drilling planned Dec Q16 to test West Zone resource extensions



#### MOD/MTR – next drilling targets: T5, T7, T4, T9 (clockwise)

