



## Celamin Holdings N.L

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**23 January 2012**  
**ASX Announcement**

### **CHAKETMA EXPLORATION UPDATE – ALL DRILL ASSAYS RECEIVED**

#### **Board of Directors**

Andrew Thomson (Non-executive Chairman)  
David Regan (Managing Director)  
Melanie Leydin (Non-executive Director)  
Justin Mouchacca (Non-executive Director)

#### **Company Secretary**

Melanie Leydin

#### **Securities on Issue:**

**CNL:** 53,956,177 ordinary shares  
**CNLO:** 25,367,001 options expiring 31 March 2014  
**CNLCA:** 15,471,296 partly paid shares

#### **HIGHLIGHTS**

##### **Latest Chaketma drilling results include:**

- CDHH-2011-003 (24 metres at 19.8% P<sub>2</sub>O<sub>5</sub>)
- CDHH-2011-008 (23 metres at 21.6% P<sub>2</sub>O<sub>5</sub>)
- CDHH-2011-002 (20 metres at 21.2% P<sub>2</sub>O<sub>5</sub>)

##### **Historic trench results: -**

- T6 (39 metres at 22.4% P<sub>2</sub>O<sub>5</sub>)
- T9 (27.5 metres at 21.8% P<sub>2</sub>O<sub>5</sub>)
- T1 (18 metres at 20.8% P<sub>2</sub>O<sub>5</sub>)

#### **SUMMARY**

Celamin Holdings NL has received the following report from Celamin Ltd;

As previously announced, Celamin Ltd has completed a 12 holes (1,200m) diamond drilling program on the Chaketma Exploration Permit (EP) in Northern Tunisia held and funded jointly with Tunisian Mining Services SARL (TMS).

Analytical results now been received for all of the 12 (twelve) drill holes. The locations of the holes are shown in Figure 1 and the results for all 12 holes are summarised in Table 1 and the details of the holes listed in Table 3. Eleven of the 12 holes intersected potentially economic thicknesses phosphate rock.

The thickest intercepts were holes CDHH-2011-008 (23.4 metres at 21.6% P<sub>2</sub>O<sub>5</sub>) drilled at Sidi Ali Ben Oum Ezzine, this hole also had the highest grade intercept and Hole CDHH-2011-003 drilled at Gasaa Kebira (24 metres at 19.8% P<sub>2</sub>O<sub>5</sub>).

The length, weight and average grade of the intercept at Gasaa Kebira (7 holes) is 20.4% P<sub>2</sub>O<sub>5</sub> and 20.6% P<sub>2</sub>O<sub>5</sub> (4 holes) at Sidi Ali Ben Oum Ezzine. The average length of all intercepts is 14.4 metres. Overburden in the drill holes thicknesses range from 13 to 153 metres.

**Table 1. Summary of Intercepts above 10% Cut Off Grade for Core Drilling at Chaketma**  
(Sorted by Grade X Width)

Drill Hole	From	To	Intercept Length (m)	Average grade P <sub>2</sub> O <sub>5</sub> %	CaO %
CHDD-2011-008	8.6	32	23.4	21.6	41.5
CHDD-2011-003	137.3	161.3	24	19.8	45.1
CHDD-2011-002	153.2	173.7	20.4	21.2	44.8
CHDD-2011-009	14.9	31	16.1	20.4	41.0
CHDD-2011-004	100.7	116.3	15.6	20.5	44.7
CHDD-2011-001	149	163.7	14.7	20.2	41.0
CHDD-2011-012	13.3	26.8	13.5	21.9	42.4
CHDD-2011-010	23.5	38.4	14.9	18.6	40.2
CHDD-2011-005	73.7	86.7	13	20.5	41.1
CHDD-2011-006	94.3	103.2	8.9	21.1	41.3
CHDD-2011-007	96.9	106	9.1	20.0	41.2
CHDD-2011-011				NSI	

Celamin has also compiled the available historic data for the Chaketma project area which includes two diamond holes and 14 trenches excavated in the late 1960's (Table 4). Results are available for 12 of the trenches and the two diamond drill holes. This historic work extends beyond the limits of the current Celamin/TMS EP. However, ten (10) of the trenches (results available for nine (9)) are within area of the EP (Figure 2). Collectively this early work demonstrates the tenor and continuity of the mineralised phosphate unit. The location of this earlier work is shown on Figure 3.

These historic trench results correlate well with the mapped geology and include significant results including: -

- Gasaa Kebira Trench **T6 39 metres at 22.4% P<sub>2</sub>O<sub>5</sub>**
- Sidi Ali Ben Oum Ezzine Trench **T9 27.5 metres at 21.8% P<sub>2</sub>O<sub>5</sub>**

Empirically, there is a good correlation between the grades in drill holes at Chaketma and historic trench results. Particularly trench T1 (18m@21% P<sub>2</sub>O<sub>5</sub>) with CHDD2011-001 (20m@21% P<sub>2</sub>O<sub>5</sub>) and trenches T3 (17m@20% P<sub>2</sub>O<sub>5</sub>) and T4 (19m@19% P<sub>2</sub>O<sub>5</sub>) with CHDD2011-002 (14.7m@20% P<sub>2</sub>O<sub>5</sub>).

## **DETAILS**

In Late 2011, Celamin/TMS drilled 12 HQ diamond core holes totaling 1,200 metres at Chaketma. Eleven of the 12 holes intersected potentially economic thicknesses. Empirically, there is a good correlation between the grades in drill holes at Chaketma and historic trench results obtained by previous explorers. Particularly trench T1 (18m@21% P<sub>2</sub>O<sub>5</sub>) with CHDD2011-001 (20m@21% P<sub>2</sub>O<sub>5</sub>) and trenches T3 (17m@20% P<sub>2</sub>O<sub>5</sub>) and T4 (19m@19% P<sub>2</sub>O<sub>5</sub>) with CHDD2011-002 (14.7m@20% P<sub>2</sub>O<sub>5</sub>).

Celamin and TMS have also completed detailed geological mapping of the EP and have excavated six trenches at the same locations as historic trenches. The samples from this work have been submitted for analysis and the results are pending. The standard of trenching is high. Trenches were dug perpendicular to stratigraphy. Sampling to geological boundaries was done along channels, uniformly cut with an angle-grinder. The position of each sample was determined by hand-held GPS. Sample locations were marked with spray paint for later pick up by a surveyor.

## **PROJECT DESCRIPTION**

The Chaketma project is located 210km from Tunis by road. The bulk of the phosphate is located at the base of a massive limestone unit close to the top of a high segmented plateau, which rises approximately 600m above the valley floor. This plateau extends for approximately 12 kilometres from north to south, and from 900 in 1,200 metres width. The average width of the ridge is 1,000 metres.

The plateau is divided in to distinct domains or prospects by a series of normal faults. Within the Celamin/TMS exploration permit these are from north to south: -

**Gassaa Kebira** – a basin like feature with an outer rim at 1100 to 1170 metres dipping to the west at 5 to 20 degrees;

**Douar Ouled Hamouda** – a slump or down faulted block at a height of 875 metres to the east of Gassaa Kebira;

**Kef Sidi Ali Ben Oum Ezzine** – a prominent pinnacle rising to 1307 metres;

**Kef El Louz** – a fault bound monocline which dips to the west at 10-15 degrees;

**Gassaat Ez Zerbat** – the southern most phosphate occurrence in the Chaketma tenement area.

The Chaketma permit area has been mapped in detail. The area is faulted into blocks and tilted plates bordered in some places by high cliffs. The phosphate unit has been identified at all the prospects and is continuous under the limestone overburden.

The limestone cap is from 9 to 153 metres thick in the vertical drill holes. The phosphate unit ranges in thickness from 9 metres to 39 metres with an average of around 15 metres. The strata are relatively flat lying, but have been folded in to a series of broad-open east-west orientated anticlines and synclines then block faulted.

No resource estimate has been made for Chaketma. The relative simplicity of the geology, the continuity and the amount of exposure of the phosphate unit mean that exploration on this project should be a comparatively straight forward exercise. Continuity of the mineralisation has demonstrated both by detailed outcrop mapping and trenching, and then confirmed by drilling.

Over burden thicknesses can be estimated from outcrop to a level of confidence not often encountered in exploration. Estimates of potential target size can also be made to a degree not found in other styles of mineral deposit.

**Table 2. Conceptual Exploration Target Size of Prospects at Chaketma**

<b>Prospect</b>	<b>Area m<sup>2</sup></b>	<b>Thickness Range</b>	<b>Tonnage Potential (millions)</b>
Gassaa El Kebira	1,400,000	9 to 39m	30 to 50
Kef Sidi Ali Ben Oum Ezzine	400,000	13 to 24m	10 to 15
Kef El Louz	3,000,000	10 to 20m	70 to 110
Gassaat Ez Zerbat	1,000,000	10 to 20m	20 to 35
Douar Ouled Hamouda	1,000,000	10 to 20m	20 to 35
<b>Total Area</b>	<b>6,800,000</b>		<b>150 to 245 million tonnes</b>
Note: Surface Areas projected to horizontal Plane, SG 2.4t/m <sup>3</sup>			

**SAMPLING AND ASSAYING PROCEDURES**

Core from the drill holes was half split and sampled after geological logging generally at 1-m intervals or to lithological boundaries. These samples were crushed and riffle split and 500g splits were sent to commercial laboratories for analysis.

The samples from six holes, CHDD2011-003 to CHDD2011-008, (145 in total) were sent to both ALS Global in Seville in Spain and Al Amri Laboratory in Jeddah Saudi Arabia for analysis for major oxides using XRF on fused “buttons”. Samples from the remaining holes six, CHDD2011-001, CHDD2011-002 and CHDD2011-009 and CHDD2011-012, were only analysed at Al Amri Laboratory in Jeddah.

At the time of writing Celamin/TMS had received major element oxide analyses for all 12 holes. All samples within the phosphatic horizon will also be analysed from a comprehensive suite of 34 trace elements in due course.

The following graph shows the correlation between the P<sub>2</sub>O<sub>5</sub> analyses of 145 samples by both Al Amri and ALS Global by XRF.

### **About Celamin Holdings NL**

Celamin Holdings NL (ASX Code CNL) is an ASX listed company focused on the exploration and development of resource projects in North Africa initially in Tunisia and Algeria.

Through Celamin Ltd (Celamin), the Company's immediate focus is the Bir El Afou Phosphate project held in partnership with local company Tunisian Mining Services SA (TMS). A pre-feasibility study has now been completed at Bir El Afou and, following the study's recommendation, further delineation work is ongoing.

Celamin also holds another Phosphate exploration permit in Tunisia with TMS (Chaketma). This project has larger target potential than Bir El Afou. The Chaketma project would use the same rail and port infrastructure as for the Bir El Afou project. The first results from channel sampling and drilling at Chaketma have been announced.

Celamin continues to step up work to carry out a due diligence drilling program for its farm-in to an Exploitation Permit at the Oued El Kebir precious and base metal project in Algeria.

Celamin has also acquired rights to several base metal tailings Projects in Tunisia with TMS and is the holder of three Exploration Permits with base metal (Pb/Zn) targets on a 50/50 basis with TMS.

### **DAVID REGAN MANAGING DIRECTOR**

#### **COMPETENT PERSONS STATEMENT**

*Information in this report that relates to Exploration Results from Chaketma is based on information compiled by Mr Donald Thomson, who is a member of the Australasian Institute of Mining and Metallurgy. Mr Donald Thomson is a consultant geologist engaged by Celamin Holdings NL and has sufficient experience relevant to the style of mineralisation and types of deposit under consideration and to the activities reported on to qualify as a Competent Person as defined in the 2004 Edition of the "Australian Code for Reporting of Mineral Resources and Ore Reserves. Mr Thomson consents to the inclusion in this report of the matters based on information in the format and context in which it appears.*

#### **DISCLAIMER**

*This report contains certain forward-looking statements. The words 'anticipate', 'believe', 'expect', 'project', 'forecast', 'estimate', 'likely', 'intend', 'should', 'could', 'may', 'target', 'plan', 'potential' and other similar expressions are intended to identify forward-looking statements.*

*Such forward-looking statements are not guarantees of future performance and involve known and unknown risks, uncertainties and other factors, many of which are beyond the control of Celamin, and its officers, employees, agents and associates, that may cause actual results to differ materially from those expressed or implied in such statements.*

*Actual results, performance or outcomes may differ materially from any projections and forward-looking statements and the assumptions on which those assumptions are based. Exploration Targets are conceptual in nature and further exploration, by drilling and trenching might not convert these in to identified Mineral Resources.*

*You should not place undue reliance on forward-looking statements and neither Celamin nor any of its directors, employees, servants or agents assume any obligation to update such information.*

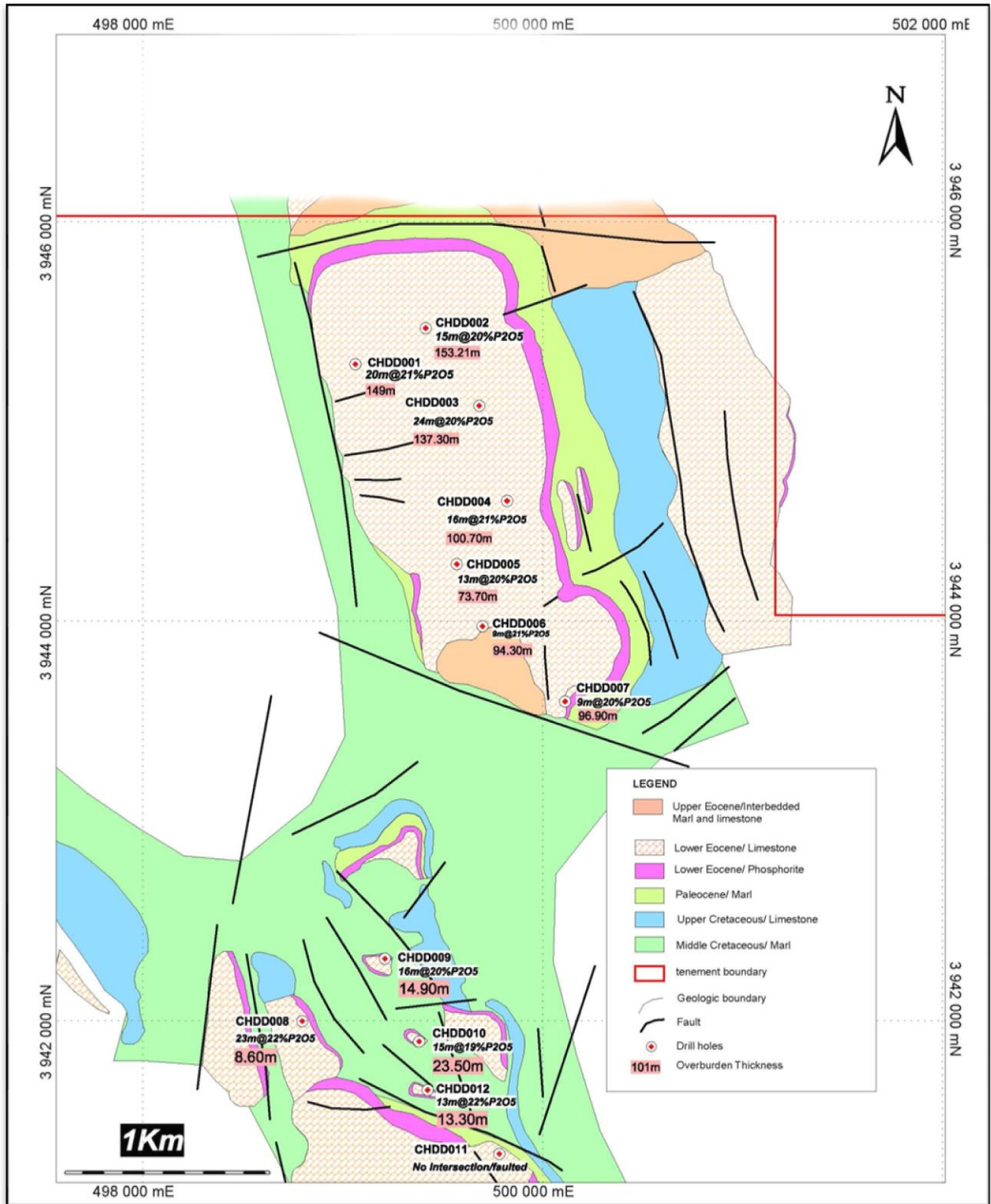


Figure 1. Chaketma Drill Hole Locations with Values of Intercepts.

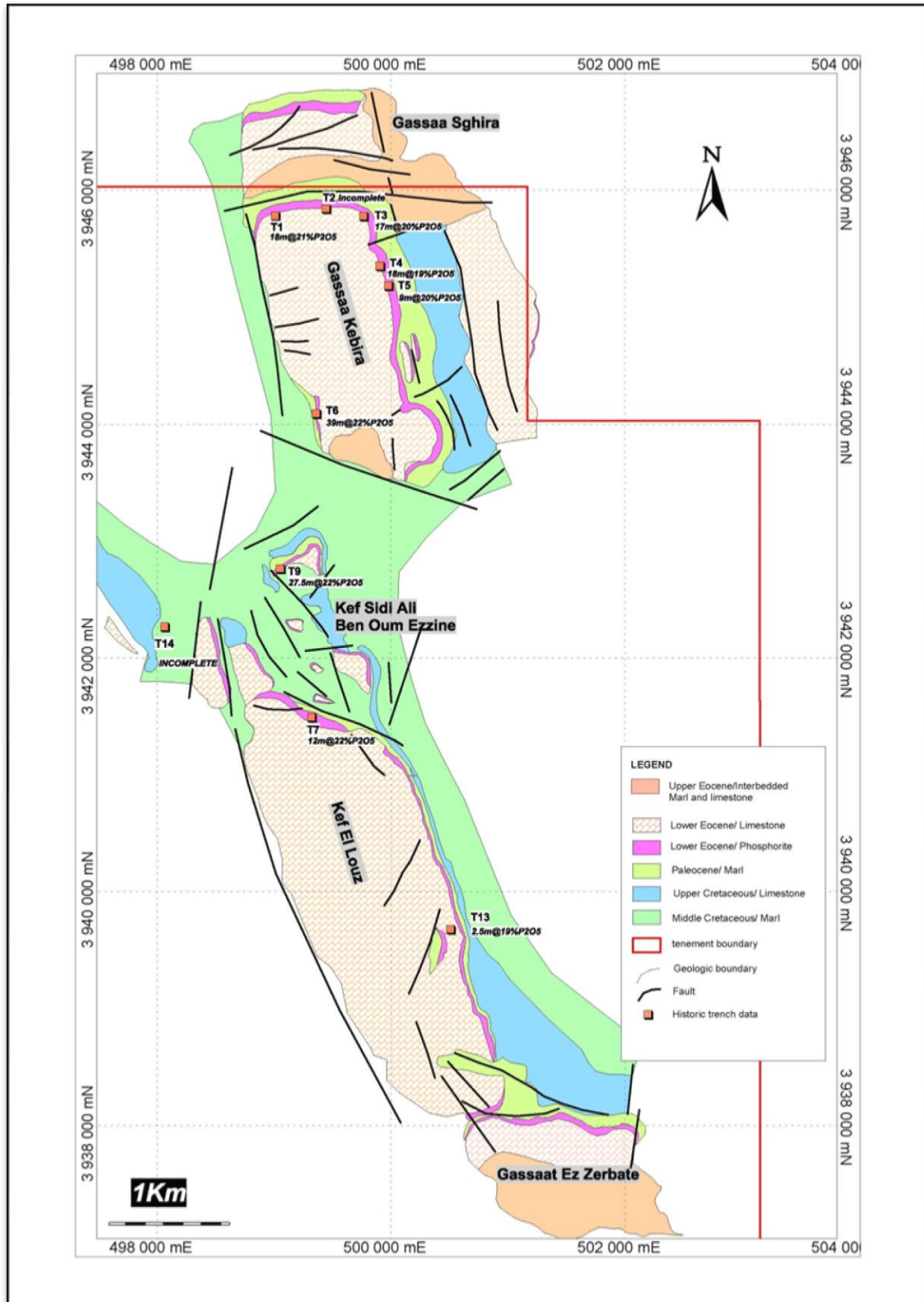


Figure 2. Chaketma Geology and Location of Historic Trenching



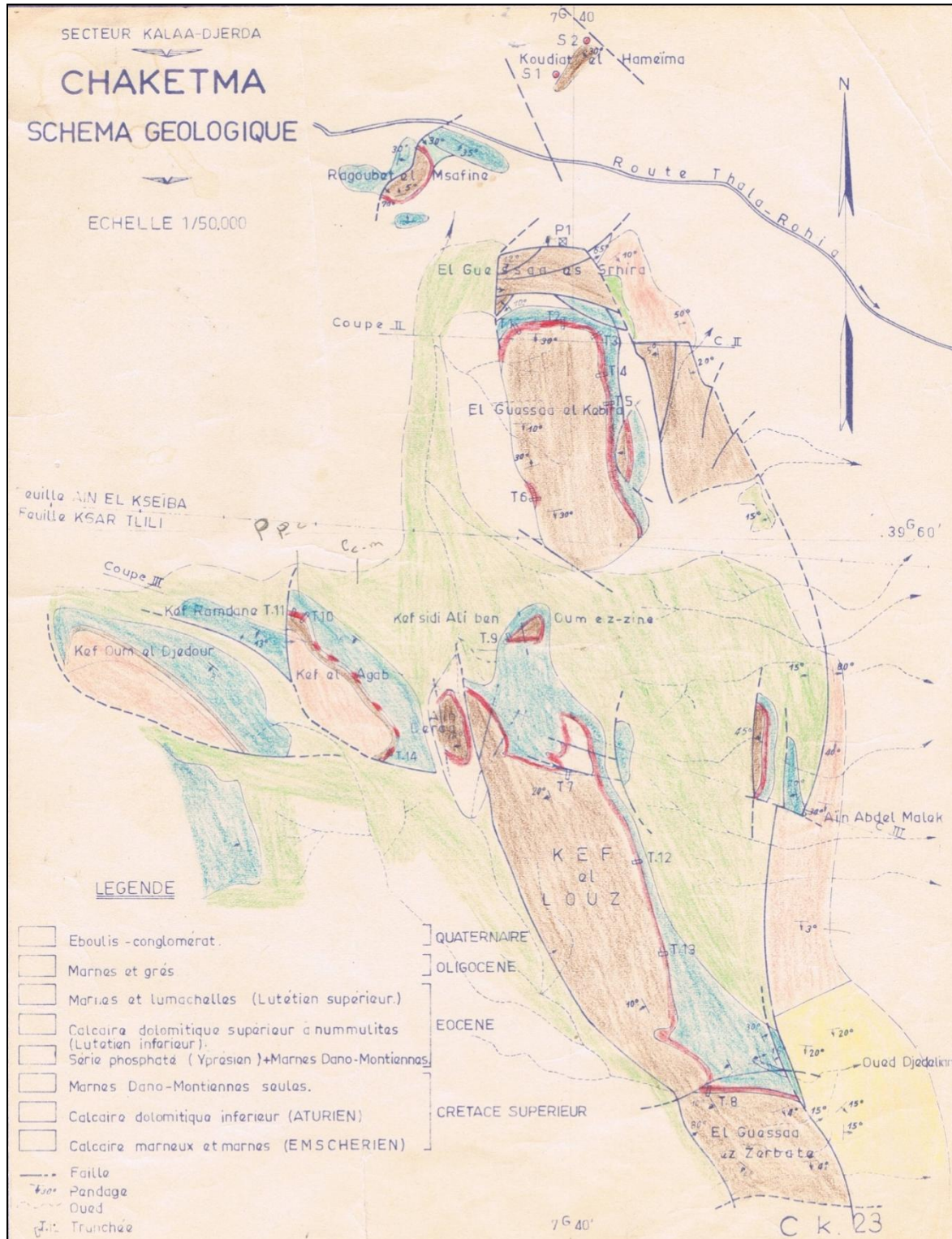


Figure 3 Historic Geological Map Chaketma Project



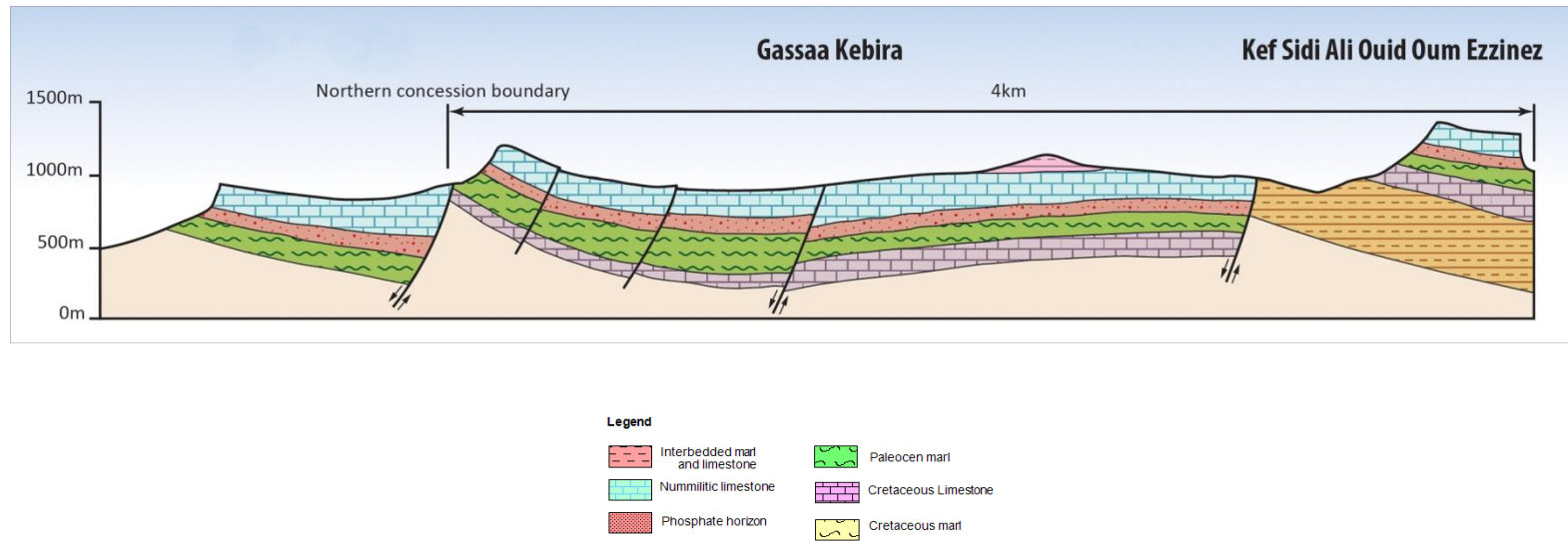


Figure 4 Generalised Longitudinal Section through Gassaa Kebira and Kef Sidi Ali Ben Oum Ezzine showing the Eocene phosphate under massive limestone

Table 3. Drill Hole Details

Hole ID	Prospect	Northing UTM WGS 84	Easting UTM WGS84	RL	Azimuth	Angle	Depth	Size	Type
CHDD-2011-001	Gassa kebira	499063	3945287	1012	-	Vertical	175.8	HQ	Core
CHDD-2011-002	Gassa kebira	499415	3945468	1038	-	Vertical	188.2	HQ	Core
CHDD-2011-003	Gassa kebira	499683	3945079	1071	-	Vertical	172.0	HQ	Core
CHDD-2011-004	Gassa kebira	499822	3944602	1141	-	Vertical	130.8	HQ	Core
CHDD-2011-005	Gassa kebira	499570	3944286	1152	-	Vertical	104.5	HQ	Core
CHDD-2011-006	Gassa kebira	499699	3943975	1138	-	Vertical	139.3	HQ	Core
CHDD-2011-007	Gassa kebira	500112	3943598	1152	-	Vertical	81.3	HQ	Core
CHDD-2011-008	Sidi Ali Ben Oum Zine	498819	3942072	1077	-	Vertical	35.5	HQ	Core
CHDD-2011-009	Sidi Ali Ben Oum Zine	499211	3942310	1130	-	Vertical	50.9	HQ	Core
CHDD-2011-010	Sidi Ali Ben Oum Zine	499438	3941910	1106	-	Vertical	43.0	HQ	Core
CHDD-2011-011	Sidi Ali Ben Oum Zine	499783	3941332	1141	-	Vertical	42.3	HQ	Core
CHDD-2011-012	Sidi Ali Ben Oum Zine	499504	3941644	1090	-	Vertical	36.1	HQ	Core
<b>Total</b>							<b>1199.7</b>		

**Table 4. Historic Trenching and Drilling Chaketma as \*Bone Phosphate of Lime (2.19 x P<sub>2</sub>O<sub>5</sub>)**

Note: Down hole depth of intercepts, dip and azimuth of holes not known

Prospect	Site	E_UTM WGS 84 32N	N_UTM WGS 84 32N	From (m)	To (m)	Length (m)	BPL %	P <sub>2</sub> O <sub>5</sub> %	Comments
Gassa El Kabira	T1	499013	3945775	0.0	18.0	18.0	45.42	20.78	
	Including and			5.5	7.5	2.0	56.56	25.88	
				10.0	13.0	3.0	55.59	25.44	
Gassa El Kabira	T2	499447	3945837						Incomplete
Gassa El Kabira	T3	499769	3945773	0.0	17.0	17.0	43.06	19.70	
	Including and			6.0	8.5	2.0	52.62	24.08	
				11.0	14.0	3.0	52.18	23.88	
Gassa El Kabira	T4	499908	3945347	0.0	18.0	18.0	41.34	18.92	
	Included and			6.0	8.5	2.5	52.96	24.23	
				14.0	16.5	2.5	52.12	23.85	
Gassa El Kabira	T5	499980	3945178	0.0	9.0	9.0	44.54	20.38	
	Including and			3.5	5.0	1.5	50.60	23.15	
				8.5	10.0	1.5	54.36	24.88	
Gassa El Kabira	T6	499411	3944053	0.0	39.0	39.0	48.91	22.38	
	Including and and			8.5	10.5	2.0	60.39	27.63	
				15.0	19.0	4.0	58.43	26.74	
				20.0	22.0	2.0	58.92	26.96	
Kef Sidi Ali Ben Oum Ezzine	T9	498956	3942842	0.0	27.5	27.5	47.71	21.83	
	Including and and			2.5	4.0	1.5	58.42	26.73	
				8.0	9.5	1.5	59.68	27.31	
				14.0	16.0	2.0	56.33	25.78	

(Table 4. Continued)

Historic Trenching and Drilling Chaketma (as \*Bone Phosphate of Lime (2.19 x P<sub>2</sub>O<sub>5</sub>))

Note: Down hole depth of intercepts, dip and azimuth of holes not known

Prospect	Site	E_UTM WGS 84 32N	N_UTM WGS 84 32N	From (m)	To (m)	Length (m)	BPL %	P <sub>2</sub> O <sub>5</sub> %	Comments
Kef El Louz	T7	499795	3941465	0.0	12.0	12.0	47.20	21.60	
	Including			2.5	5.5	3.0	58.00	26.54	
Kef El Louz	T12	500275	3940551	0.0	2.0	2.0	39.93	18.24	
	Including			0.5	1.5	1.5	45.39	20.77	
Kef El Louz	T13	500513	3939671	0.0	2.5	2.5	42.47	19.43	
	Including			2.0	2.5	0.5	50.65	23.18	
Gassa Ez Zerbate	T8								Not Available