



RAMP

CASE HISTORY

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RAMP-HD: Rapid Airborne Mineral Prospecting - High Definition

Commodity: Rare Earth Elements

Location: Northern Saskatchewan



Project: Boffa Lake, Saskatchewan

Client: Critical Path Minerals Corp.

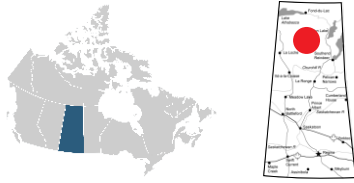


Fig. 1 Conventional Survey Flight Paths

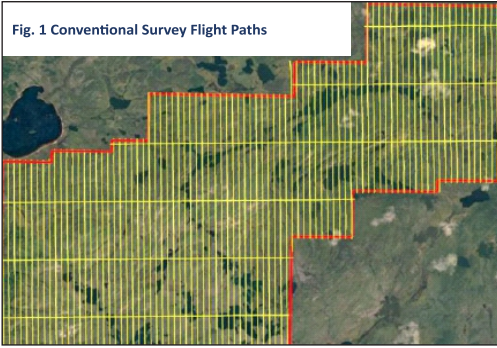


Fig. 2 Conventional Survey eThorium Map

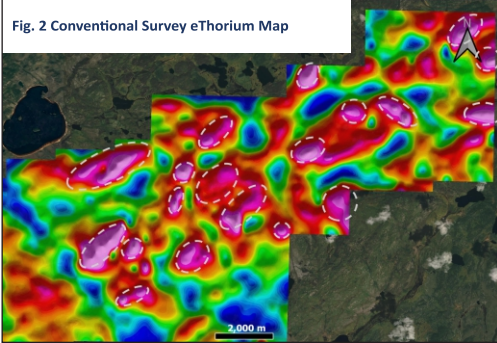


Fig. 3 RAMP-HD eThorium, overlain on Fig 2

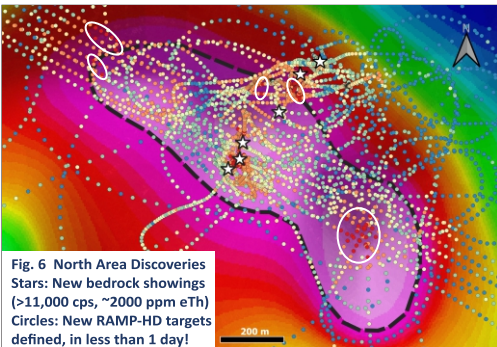
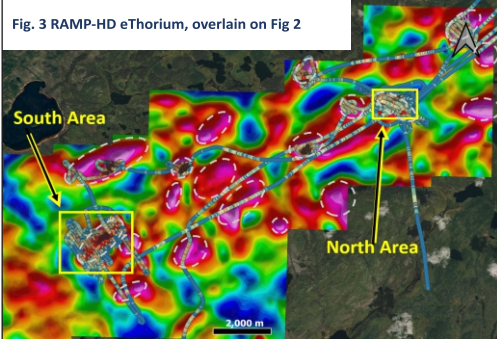


Fig. 6 North Area Discoveries
Stars: New bedrock showings (>11,000 cps, ~2000 ppm eTh)
Circles: New RAMP-HD targets defined, in less than 1 day!

Target

- Precambrian Mudjatik Domain, possible basement to interpreted extended, paleo-Athabasca Basin (REE, Li and U potential).
- Previously unexplored for rare earth elements, yet highly prospective; known bedrock occurrences of U and REEs.
- **Thorium radioactivity in REE-hosted monazite is exploration vector**

Challenge

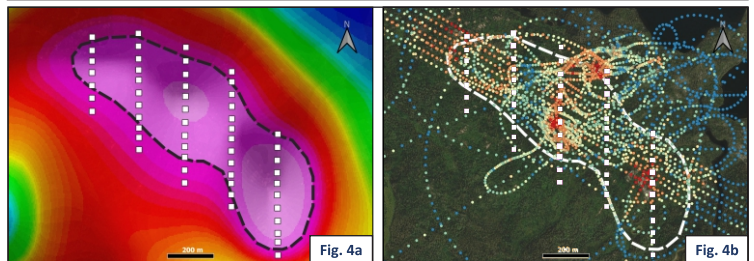
- 200 m spaced conventional airborne gamma ray spectrometric survey flown 2022 (Fig 1) defined many broad eTh anomalies (Fig 2).
- Difficult access, deadfall: heli-supported ground follow-up scint surveying/prospecting to locate sources is time-consuming, costly.

Solution - RAMP-HD

- In less than 1 day, RAMP-HD covered the top conventional survey eTh anomalies (Fig 3) guided by real-time results every second.
- Correlation with conventional survey is excellent, but anomalies are greatly refined by very high sample density. Specific hot spots are accurately located within and between the conventional anomalies, providing precise focus for ground follow-up. New targets detected.

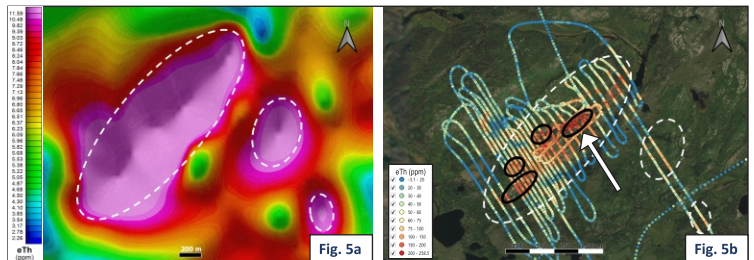
North Area Detailed Comparison

- Conventional survey eTh anomaly based on total of 45 readings every 40 m along 5 lines spaced 200 m apart (Fig 4a, white squares).
- In ~30 minutes RAMP-HD measured 1,955 datapoints (Fig 4b, dots) spaced every few meters or less (>40 times conventional sampling) and down to 20-30 m above ground (based on safety).
- 11 well-focused hot spots were delineated on & between the wide-spaced conventional linespacing, including NEW targets (Fig. 6).



South Area Detailed Comparison

- Large eTh anomaly on conventional survey, ~ 2000m long (Fig 5a).
- RAMP-HD defines discrete targets (Fig 5b) including the hottest spot (white arrow): ground crews can now walk directly to best target.



Bottom Line: RAMP-HD quickly reduced conventional anomaly footprints at Boffa Lake to well-focused targets. A few hours prospecting discovered 6 new bedrock showings. Many more RAMP-HD targets remain at Boffa Lake.

Focus your follow-up, find your best targets sooner, dramatically reduce your time and cost to discovery!