Basin Energy Limited: Maiden Drilling Confirms Thick, Shallow and High-Grade Magnet Rare Earth Mineralisation at Newmans

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Brisbane, Australia - Basin Energy Limited (ASX:BSN) (OTCMKTS:BSNEF) announced assay results from the first 3 of 8 drillholes in the maiden reverse circulation ("RC") drilling completed at the Newmans Prospect, part of the Company's Sybella-Barkly Rare Earth Project in northwest Queensland. The results support a revised preserved weathering target model and provide clear direction for the next phase of exploration.

Key Highlights

- SBRC26003 returned 18 m @ 401 ppm NdPr oxide and 49 ppm DyTb oxide from surface within 2,160 ppm TREO, including:

-- 6 m @ 552 ppm NdPr oxide and 48 ppm DyTb oxide from 3 m within 2,752 ppm TREO; and
-- 3 m @ 603 ppm NdPr oxide and 109 ppm DyTb oxide from 12 m within 3,613 ppm TREO

- Mineralisation in SBRC26003 appears to be associated with a well preserved strongly weathered granite profile

- Basin currently interprets the Newmans system to potentially comprise discrete preserved weathering zones developed over fertile rare earth-bearing granites

- SBRC26006 intersected the most extensive and strongly weathered granite profile of the program and is considered an important test of Basin's emerging geological model

- Remaining assay results pending, now expected mid-June

- Follow-up work fully funded following completed A$1.1M financing

- Newmans sits within the Sybella Batholith, 20 km south of Red Metal's (ASX:RDM) Sybella rare earth discovery and 40 km from Mount Isa, an emerging Australian critical minerals district

Drillhole SBRC26003 confirmed thick, shallow and high-grade magnet rare earth mineralisation from surface returning: 18 m @ 401 ppm Neodymium and Praseodymium ("NdPr") oxide, and 49 ppm Dysprosium and Terbium ("DyTb") oxide within 2,160ppm total rare earth element oxide ("TREO"), including:

- 6 m @ 552 ppm NdPr oxide and 48 ppm DyTb oxide from 3 m within 2,752 ppm TREO; and

- 3 m @ 603 ppm NdPr oxide and 109 ppm DyTb oxide from 12 m within 3,613 ppm TREO.

The first two holes, SBRC26001 and SBRC26002, intersected fertile rare earth elements ("REE")- enriched granites, but only had a limited preserved weathering profile. In contrast, SBRC26003 retained a broader strongly weathered profile and returned the strongest mineralisation received to date. This supports Basin's evolving interpretation that preservation of the weathering profile above specific fertile granite phases may be a key control on enhanced near-surface REE enrichment at Newmans.

This relationship is now central to Basin's geological model at Newmans. Of the remaining holes awaiting assay results, SBRC26006 intersected the strongest preserved weathering profile observed during the program, including extensive completely weathered and strongly weathered granite intervals (Figures 1, 2 and 3)*. Basin considers this hole an important test of the emerging target model.

Basin's Managing Director, Pete Moorhouse, commented:

"The outcomes from this targeted first-pass drilling program have exceeded our expectations. Initial results not only confirm thick, shallow and high-grade magnet rare earth mineralisation but also define what Basin believes may be the key geological control on higher-grade REE enrichment at Newmans, warranting significant additional work.

Following completion of our recent strategic placement, Basin is fully funded for additional work programs and eagerly awaits the remaining assay results as we continue refining what we believe is an increasingly compelling geological model at Newmans, which may have larger implications for exploration within the broader Sybella Batholith. Just 40 km from Mount Isa, the region is rapidly emerging as one of Australia's next critical minerals hubs."

Initial Results

The maiden RC drilling program at Newmans comprised 8 vertical drillholes for 627 m across a broadly north-south transect of approximately 9 km. The program was designed to test the depth extent and geological setting of the 2023 NeoDys auger anomalies at Newmans, which identified significant NdPr-dominant REE anomalism within weathered granites.

Geological Interpretation

The Newmans prospect is located within the Sybella Batholith, a group of granites that includes the Templeton granite, host of the Red Metal Sybella discovery, located 20 km to the north.

The initial target concept was to test for Red Metal-style granite-hosted REE mineralisation beneath the 2023 NeoDys auger anomaly. That auger program identified a significant NdPr-dominant REE anomaly, with mineralisation open at depth due to shallow auger blade refusal. The deepest auger sample completed within this anomaly was 11nm, yet significant mineralisation was identified to the end of holes, including 5 m at 578 ppm NdPr Oxide in drillhole SYAH230203. This anomaly is the location of 2026 drillhole SBRC26005. A generalised thickening of the weathering profile correlated with the better results from the 2023 auger sampling program, broadly increasing to the south.
Basin's Exploration Manager, Odile Maufrais commented:

"The initial drilling program was designed to test the potential for Red Metal-style Sybella mineralisation beneath the auger geochemical anomaly identified by NeoDys in 2023. The program quickly evolved from testing granite fertility to targeting a preserved weathered granite system.

What is becoming increasingly clear when integrating geological observations with historical auger geochemistry and Basin's initial assay results is that preservation of the weathering profile appears critical. Our first two holes intersected fertile rare earth-bearing granites but only limited preserved weathering development, while hole SBRC26003 retained broader strongly weathered zones associated with elevated rare earth anomalism.

These observations, together with the 2023 auger results, satellite imagery and in-field mapping, suggest the potential for a more significant preserved weathering system within a larger 4-kilometre target corridor surrounding hole SBRC26006, which intersected the most extensive completely and strongly weathered granite profile encountered during the program."

The new drilling has materially advanced Basin's understanding of the Newmans system. Rather than simply identifying a uniformly mineralised granite body, the assay results received to date and the additional geological insight in context with the auger results indicate a clear relationship between increasing preservation of the weathering profile and increasing REE enrichment intensity. Weathered granite profiles can be partially or completely removed through erosion over geological time, with preserved weathering zones potentially representing areas where REE enrichment processes remain intact. Weathering processes may also contribute to local REE enrichment through the breakdown and redistribution of REE-bearing minerals within the granite profile.

Visual logging, chip tray observations and assay results received to date indicate the drilled area can be broadly divided into three interpreted domains:

- fresh granite
- transitional weathered granite; and
- strongly or completely weathered granite

All drill holes ended in fresh granite, with some variation to the composition of these noted. Drillholes SBRC26001, SBRC26002, SBRC26007 and SBRC26008 were dominated by a minimal preserved weathered profile. In assays received to date, the fresh granite is demonstrated to be broadly elevated in rare earth minerals however not in concentrations high enough to be a primary target.

In addition to the fresh granite, drillholes SBRC26003, SBRC26004 and SBRC26005 intersected broader intervals of transitional granite with some strongly weathered granite of varying intensities.

The best-preserved weathering profile from the drilling program, including the strongest weathering intensity

was observed in drillhole SBRC26006.

Basin currently interprets the higher-priority target at Newmans to be preserved weathering zones developed over fertile REE-bearing granites, rather than fresh granite alone.

Regional Granite Hosted Potential

Basin Energy holds 5,805 km2 of strategic landholding to the west and southwest of Mount Isa, an area which is becoming increasingly strategically important to Australia as a critical minerals hub.

The Newmans Prospect sits within the Sybella Batholith, a major fertile granite system that also hosts Red Metal's (ASX:RDM) Sybella REE discovery approximately 20 kilometres to the north. Of the total Sybella-Barkly Project area, approximately 685 km2 is known or interpreted to be over the Sybella Batholith.

Strong initial REE results from targeted drilling at Newmans have provided Basin with a revised exploration model to focus further exploration on preserved weathering zones above fertile REEbearing granites. Basin believes this emerging preserved weathering model identified at Newmans may provide a broader targeting framework across additional REE anomalies within the Sybella Batholith. In addition to Newmans, historical auger sampling has already identified further REE anomalies at Eight Mile and Three Ways, providing additional drill-ready targets across Basin's Sybella-Barkly tenure.

Next Steps

Assays remain pending for the final 5 drillholes from the maiden RC program and are expected in mid-June.

Basin will integrate the remaining assay results with geological logging, chip tray observations, satellite imagery and mapping to refine the preserved weathering model at Newmans.

The Company is funded for follow-up work following the recently completed A$1.1M strategic placement.

Planned next steps include:

- Assessment of remaining drillhole assays

- Refinement of the weathering profile model

- Assessment of potential preliminary mineralogical and metallurgical work programs utilising archived samples subject to ongoing results and geological interpretation

- Ranking of preserved weathering targets

- Assessment of Eight Mile and Three Ways

*To view the release including tables and figures, please visit:
https://basinenergy.com.au/investor-centre/#asx

About Basin Energy Ltd:

Basin Energy Ltd (ASX:BSN) (OTCMKTS:BSNEF) is a green energy metals exploration and development company with an interest in three highly prospective projects positioned in the southeast corner and margins of the world-renowned Athabasca Basin in Canada and has recently acquired a significant portfolio of Green Energy Metals exploration assets located in Scandinavia.

Source:
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