



Vedanta – The Skorpion Mine & Smelter

A scrapheap beyond salvation, unrealistic restart plans, and a \$15m rehab provision for a hundred-million-dollar problem.

PLEASE READ IMPORTANT DISCLAIMER – PAGE 13

August 11, 2025 – Vedanta Limited's (VEDL) international zinc portfolio is in crisis, with its two flagship operations: **Skorpion Mine and Smelter (Skorpion Complex) in Namibia** and **Black Mountain Mine (BMM) in South Africa** facing massive problems, both physically and financially.

Late last month, Viceroy sent a team to Southern Africa to validate our theory that these assets are worthless or significantly impaired. These will be the subject of our reports this week.

Viceroy Visits Namibia

The Skorpion Mine and SX-EW refinery was once touted as a cornerstone of Vedanta's African footprint, and the largest employer in the region. In 2020, the mine's wall collapsed, and the project was furloughed. Management's assertions over 6 years that mine would be re-opened, and the project expanded to commence re-production, have fallen flat.

- Viceroy's visit to the Skorpion Complex confirms it as a textbook case of asset decay. The site has remained inoperative since 2020, when slope failures halted operations.
- Interviews with residents of the local town and employees of the mine, supported by site visits and drone footage, show the site has been abandoned. VEDL has made no investment into the heavily promoted "smelter conversion" or "mine expansion" projects.
- While the Skorpion Complex itself is held on-book at a nominal \$70m valuation, it supports a >\$1b valuation of Skorpion's sister mine: Black Mountain/Gamsberg.
 - The Skorpion Smelter cannot process Black Mountain's or Gamsberg's ore without complete rebuild to support a different mineral input from a different mine.
 - The conversion project and valuation assume that Black Mountain will haul mineral to Skorpion's smelter from South Africa. No road or bridge between the two sites can support the heavy haulage of minerals.
 - There is currently no industrial power to the Skorpion site, nor plans to re-establish power supply.
 - The smelter has been inoperative for over 6 years. Drone imagery and local worker testimony suggest that the smelter is now a scrapheap.
 - The township which supported Skorpion workers is heavily polluted with lead dust from the neighboring Rosh Pinah mine. It is difficult to imagine the Skorpion Complex could (or would) re-establish a workforce at the site.
- Zinc International's worthless assets are encumbered, and loans are secured against VEDL's stake in Hindustan Zinc Limited (HZL).
- The Skorpion Mine must be rehabilitated, this has not been provisioned. The Skorpion Complex is not an asset, it is an unquantified liability.

*Viceroy's visit to Skorpion enforces our belief that the asset is **completely worthless**.*

*Management's plans to re-start the mine and convert the smelter are **pure fiction**.*

*Zinc International's assets are severely overstated, and **debt is cross guaranteed across other VEDL assets**.*

You can find our work on Vedanta Limited here: <https://viceroyresearch.org/vedanta-resources-research/>



Skorpion Mine and Refinery

Viceroy associates went to the Skorpion Mine and Refinery complex to evaluate the true state of the asset. Physical inspection via drone imagery, on-site human intelligence, and public filings confirm that both the mine and the processing plant are non-operational, degraded, and functionally beyond economic recovery. Based on all observable and reported indicators, the facility should be treated as a teardown, not a rehabilitation candidate.

The Skorpion Complex is held by THL Zinc Namibia.

THL Zinc Namibia was already being stripped of cash through upstream loans to Vedanta well before the 2020 mine wall collapse. After the collapse, the company executed a non-cash “buyback” arrangement to offset these loans, effectively avoiding any return of funds to the now-defunct operation.

26. Changes in loans (payable)/receivable from related parties

The table below details changes in the company's loans including both cash and non-cash changes in order ensure correct classification in the statement of cash flows:

Loans from related parties

Balance at 1 April	(188,294)	(137,771)	(13,785)	(13,375)
Cash flows				
Financing cash flows	4,224	(15,631)	(710)	(410)
Non-cash changes				
Finance cost	(4,188)	(3,416)	-	-
Unrealised foreign exchange gain/(losses)	29,825	(31,476)	-	-
Balance at 31 March	(158,433)	(188,294)	(14,495)	(13,785)

Loans to related parties

Balance at 1 April	1,978,725	1,419,408	999,648	999,648
Cash flows				
Financing cash flows	10,739	281,884	-	-
Non-cash changes				
Finance income	88,237	81,471	-	-
Unrealised foreign exchange gains	(92,583)	195,962	-	-
Reduction of loan through share buy back	(945,000)	-	-	-
Balance at 31 March	1,040,118	1,978,725	999,648	999,648

7. Loans to group companies

Joint ventures

RoshSkor Township (Proprietary) Limited *	9,941	9,941	-	-
Terms and conditions				

Fellow subsidiaries

Skorpion Mining Company (Proprietary) Limited *	-	-	16,600	16,600
Monte Cello BV **	32,879	38,869	-	-
THL Zinc Limited ***	122,290	1,022,062	-	-
Black Mountain Mining (Proprietary) Limited ****	875,008	906,489	-	-
Skorpion Zinc (Proprietary) Limited *	-	-	983,048	983,048
Vedanta Resources Limited *	-	1,325	-	-
Vedanta Limited - Copper Division *	-	39	-	-
	1,030,177	1,968,784	999,648	999,648

Figures 1 & 2- THL Zinc Namibia FY20 Annual Report



Key Findings

The following photos and videos were taken on a Wednesday afternoon in July. They show a complex in deep decay.





Analysis of Company Claims

Vedanta asserts that the Skorpion Complex remains a strategic asset, explicitly holding a valuation of \$70m on its balance sheet, but implicitly supporting a >\$1b valuation for the Black Mountain project through its smelter conversion project.

The date for the reopening of the Skorpion Complex has been pushed back repeatedly since its closure with management consistently claiming that the reopening is less than a year away. This was confirmed by a long-serving worker at the mine who stated, “from the year they closed they are talking about opening this year coming, then opening next year”.

Skorpion Management Statements	
Report Date	Forecast Mine Opening
2020	"mining to resume in October 2020"
2021	"the last quarter of the 2022 financial year"
2022	"the last quarter of the 2022 financial year"
2023	"the last quarter of the 2024 financial year"
2024	"in the 2027 financial year"
2025	"in the 2027 financial year"

Figure 3 – Skorpion Management Forecast Mine Opening

This reopening fantasy is supported by three key claims:

1. The mining operations at Skorpion will resume in FY27.
2. That the mine and refinery are under care and maintenance.
3. That the SX-EW refinery will be converted to process sulfide ore from Black Mountain Mine (BMM).

Our investigation finds all three of these claims to be materially misleading.



Claim 1: Mining operations are currently halted but are scheduled to restart during the fiscal year ending March 2027 – **FALSE**

On the 31st of March 2020 the mine was put into care and maintenance after a series of slope failures that occurred in the 2020 financial year. The pit has been assessed by a series of industry experts who have concluded that the pit is minable and a new mine plan has been developed. **The directors currently expect mining to resume in the 2027 financial year.** The directors estimate this will take eight months from the restart of mining operations to fully mine the declared ore resources in the pit. The board has approved management's plan to restart mining

Figure 4 – THL Zinc Namibia FY25 Annual Report

The Skorpion mine shows no sign of maintenance, rehabilitation, or any preparation for restart. The pit is compromised, with visible slope failures and water accumulation, and there is no evidence of dewatering or safe access. Not a single piece of mobile equipment remains on site: no haul trucks, dozers, or support vehicles.

No stockpiling, blasting, or surveying activity is underway. Restarting the mine would require a full mobile fleet rebuild, likely costing tens of millions of dollars, along with reinstallation of power infrastructure, road rehabilitation, and pit stabilization.

The Mine Pit Is Structurally Compromised

- Aerial imagery shows major slope failures and significant erosion across multiple benches.



- Water pooling at the pit bottom indicates long-term neglect of dewatering infrastructure, a red flag for both safety and operability.
- Bench access roads are degraded, with no signs of maintenance, clearing, or stability work underway.

There is No Mobile Equipment On-Site

- Not a single haul truck, excavator, dozer, or even light vehicle is present across the mine, yard, or refinery complex.





- The mining workshop vehicle maintenance depot appears completely deserted and stripped of equipment.
- Equipment and vehicle staging areas are empty, with some zones being repurposed for scrap storage.

No Evidence of Restart Preparation

- No stockpiling of ore or waste, no blasting residue, and no surveying markers are visible in or around the pit.
- The Complex has no industrial power supply, no backup systems in place, and no movement toward restoration.

Ore Depletion and Economics

- Internal report confirms less than 8 months of recoverable ore remains.
- With a high strip ratio and marginal economics, the remaining ore cannot justify the required capital to reinitiate operations.

In its current state, the Skorpion is not a mine on standby: it is a defunct and dismantled asset. The notion of resuming mining by FY27 for only 8 months of recoverable ore is not credible.

Claim 2: While operations have ceased, the site is being actively maintained in a state that allows for future restart – FALSE

On the 31st of March 2020 the mine was put into care and maintenance after a series of slope failures that occurred in the 2020 financial year. The pit has been assessed by a series of industry experts who have concluded that the pit is minable and a new mine plan has been developed. The directors currently expect mining to resume in the

Figure 5 – THL Zinc Namibia FY25 Annual Report

Despite the Company's assertions, there is no credible evidence that the Skorpion site is being kept in care and maintenance. The remaining personnel are limited to a minimal caretaker presence with no operational staff, engineers, or maintenance crews active on site. The pit is inaccessible and deteriorating, with no pumping, monitoring, or safety work underway. There are no signs of backup generation or infrastructure preservation.

Physical Evidence Confirms Site Abandonment

- Since 2020, the mine has suffered multiple slope failures and collapsed benches making most of the pit completely inaccessible for dewatering. Satellite imagery confirms these failures have happened since May 2023.

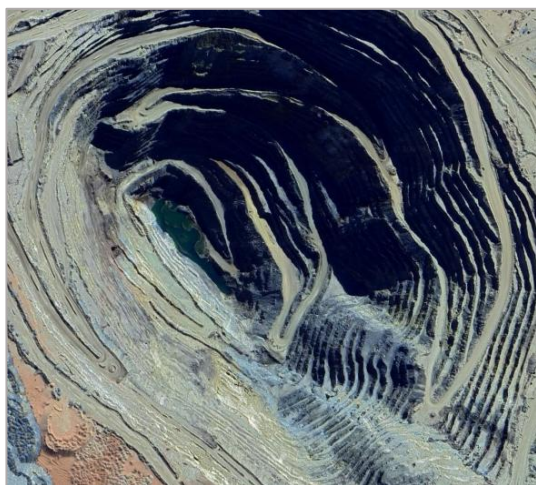


Figure 6 – Google Earth Image of Skorpion Mine dated May 10, 2023, and photo taken July 2025

- The bottom of the pit is flooded with no visible pumps, pipelines or drainage efforts. Satellite imagery shows the pit had already accumulated water in May 2023.



- Employees reported that the only activities are trucks from Zambia that come to pick up sulphuric acid. This is consistent with a shut-down refinery being stripped of surplus inventory, not one getting ready for a restart.

No Mobile Equipment on Site

- The site had no mining equipment either in service or storage. We saw zero trucks, excavators, dozers or service vehicles. Even light vehicles and fuel trucks were absent.
- The maintenance yard was visibly clean but devoid of activity with only one small pickup truck driving through the site at the time.
- Employees reported that the Skorpion complex's equipment and vehicles were either salvaged or sold.

No Operational Staff or Activity

- Less than 40 part-time personnel remain working at the Skorpion Complex with none assigned to operations or pit safety.
- No geologists, engineers, or skilled workers active on the site. Former workers moved on to other jobs. What remains is a caretaker crew, not an operational standby team.

Utilities and Critical Infrastructure Are Offline

- Since its contract with Eskom finished in January 2021, the Skorpion Complex has had no viable source of power.
- No solar backup systems have been installed, and no substations, generators or battery infrastructure were observed anywhere on the site.
- The site currently draws power from the public grid which is insufficient even for full care and maintenance operations.

Water & Fluid Circulation

- Evaporation ponds are dry, cracked, and mineral-encrusted.
- Clarifier and thickener tanks are dry, sedimented, and in decay.
- No leachate movement, no process fluid circuits.

Key facilities including evaporation ponds, clarifiers, and the vehicle maintenance yard are visibly abandoned, and all mobile equipment has been removed or sold. A site under care and maintenance would show ongoing preservation measures, power continuity, and regular equipment cycling. Skorpion shows none of these. The site is abandoned.



Claim 3: Instead of restarting the existing SX-EW refinery, VEDL plan to retrofit it to process BMM’s sulfide ore, completing the job in under 18-24 months for \$220m – **FALSE**

To startup the refinery will cost an estimated USD10 million. The sulphide conversion is expected to cost USD220 million and will have a 18-24 months construction period. This will result in a plant capacity of 150 kilotons per annum of zinc metal produced. In March 2023, the board approved the restart of mining in Pit 112 and the full

Figure 7 – THL Zinc Namibia FY25 Annual Report

Conversion is not a possibility

This claim relies on the audience’s lack of familiarity with refining processes. A SX-EW plant cannot be “upgraded” or “converted” to process sulphide ores instead of zinc oxide ores; they are fundamentally different processes which require fundamentally different plant and equipment.

Zinc Oxide Ore Processing	Zinc Sulphide Ore Processing
<ol style="list-style-type: none"> 1. Leaching: crushing zinc oxide ores and soak it in sulphuric acid, dissolving it into zinc sulphate. 2. Solvent extraction: the liquid is mixed with a chemical that grabs only zinc ions and then separated into a concentrated zinc solution and waste. 3. Electrowinning: the copper solution is electrified using steel plates. Zinc sticks to these plates and results in pure zinc sheets after a few days. 	<ol style="list-style-type: none"> 1. Crushing and Grinding: rock is blasted, crushed and then ground into a fine powder. 2. Floatation: mix powder with water and reagents, then aerate; zinc-rich minerals attach to bubbles and float, waste sinks. 3. Processing: concentrates are heated in a furnace to oxidize sulphides and produce zinc metal.

SX-EW equipment is mechanically inert and likely beyond retrofitting:

- Clarifiers and thickeners are crusted, sedimented and dry.
- Multiple pieces of plant and equipment are corroded or filled with sediment.
- Electrowinning cells are lifeless, with no sign of circuit preservation or maintenance.
- Stacks at the plant show no emissions.

Neither the mine nor the refinery site show any indication of construction preparation

Neither the Skorpion complex nor the nearby town showed any signs of preparation for a large-scale construction project. We saw:

- No contractor mobilization visible.
- No site clearance, trenching, pad prep, or survey markers. No deliveries of steel, tanks, mills, or flotation units visible.
- No main power or backup generation or substations.

THL Zinc’s FY25 Annual Report stated that the mine is planned to reopen in FY27. This 21-month timeline assumes that permits are secured, contractors signed, and long lead-time items are ordered. There is no sign of the Company hiring additional workers for the Skorpion Complex’s reopening or operation.

No viable transport route

Vedanta claims it will transport ore from Black Mountain Mine to the Skorpion complex using standard linked haulage trucks. This assertion does not withstand scrutiny. There are only two viable road routes between the sites:

1. The coastal route via Oranjemund, Port Nolloth, and Springbok.



2. The inland route crossing the South Africa and Namibia border at Vioolsdrif.

Neither route can support Vedanta's proposed transport model. Linked trucks are both too tall and too heavy for the available crossings.

- The Oranjemund crossing relies on an extremely narrow single lane bridge with a maximum load limit of 56 tonnes.
- The Vioolsdrif crossing is restricted to vehicles no taller than 4.3 metres.



Figures 8 & 9 – The Border Crossings at Oranjemund and Vioolsdrif, respectively

No alternate logistics plan has been disclosed. There is no evidence of permitting, infrastructure upgrades, or route modifications underway.

Conclusion

Despite a stated budget of USD 220m and an 18–24 month construction timeline, there is no indication that the sulphide conversion of the Skorpion Refinery is feasible, nor has begun in any form.

The plant is fully inactive and heavily degraded, with corroded tanks, dry circuits, sedimented clarifiers, and no power supply. There is no evidence of site preparation, contractor mobilization, material deliveries, or infrastructure upgrades.

Even if fully funded, the conversion would effectively require a full rebuild, not a modification, given the difference between SX-EW and sulphide flotation processes. Critically, the refinery still lacks the power agreements required for future operation.

A 150 ktpa sulphide facility cannot function without industrial-scale electricity, yet no resolution has been reached with Nampower, and no generation assets are in place. At present, the project is neither technically nor logistically viable.



ESG Claims vs On-Ground Reality: From Extraction to Abandonment

VRL's management continues to promote its ESG credentials, yet its end-of-life Namibian assets are abandoned, with staff housed in communities exposed to toxic chemicals.

Rehabilitation

VRL has allocated only N\$282m (\$16m) for the decommissioning and restoration of the Skorpion mine and smelter. This provision is wholly inadequate relative to the scale of remediation required.

13. Decommissioning provisions				
Reconciliation of provisions - Group - 2025				
	Opening balance N\$'000	Unwinding discount N\$'000	Change in estimate N\$'000	Total N\$'000
Decommissioning provision	125,913	14,918	16,416	157,247
Restoration provision	118,992	11,300	(5,545)	124,747
	244,905	26,218	10,871	281,994
Reconciliation of provisions - Group - 2024				
	Opening balance N\$'000	Unwinding discount N\$'000	Change in estimate N\$'000	Total N\$'000
Decommissioning provision	196,794	13,427	(84,308)	125,913
Restoration provision	135,222	11,088	(27,318)	118,992
	332,016	24,515	(111,626)	244,905

The decommissioning provision relates to decommissioning of property, plant and equipment where either a legal or constructive obligation is recognised as a result of past events. Estimates are based upon costs that are regularly reviewed and adjusted as appropriate for new circumstances. The current estimate was escalated using inflation rate of 4.38% (Mining) and 4.43% (Refinery) (2024: 5.04% (Mining) 4.91% (Refinery)) and discounted at a rate of 8.35% (Mining) and 9.65% (Refinery) (2024: 9.54% (Mining) 11.44% (Refinery)). These costs are expected to be incurred over the remaining life-of-mine currently being 10 years (NZ) and 4 years (SMC) (2024: 11 years) (Mining) 5 years (Refinery)).

Figure 10 – THL Zinc Namibia FY25 Annual Report

- N\$282m (\$16m) would not even begin to cover the costs to rehabilitate the massive slope collapse at Skorpion mine, let alone tailings storage facilities, waste rock dump rehab or basic infrastructure to secure the site.
 - For example, Australia's Century zinc mine closure is estimated at \$750m – \$1b. Even allowing for Skorpion's smaller scale, VEDL's \$15m provision is disproportionately low.
- VEDL has made no reserves to pay this amount, and the government of Namibia has no recourse to pursue Vedanta internationally for these funds. Once remaining inventories have been sold, VEDL will place Skorpion into liquidation and never make the (miniscule) rehabilitation provisions required.

The Skorpion Complex exemplifies Vedanta's approach in India and abroad: extract maximum value from under-resourced communities and walk away from the liabilities and destruction. Anil Agarwal is banking on Crony Capitalism and Lemon Socialism to bail out the failed Southern Africa expansion.



Lead Poisoning

The township of Rosh Pinah, which formerly housed Skorpion employees, has documented lead contamination linked to local mining activity, including Skorpion and the Rosh Pinah mine.



- Our team noted that sheens of toxic lead dust were visible under doors every morning in Rosh Pinah.
- Interviews with workers and engineers described Rosh Pinah as amongst the worst living conditions they had experienced, with many citing health hazards as the reason for high turnover.
- The Township has not undergone any rehabilitation. Instead, ownership was transferred to the state under the pretext of addressing a “housing shortage”, despite Rosh Pinah’s isolation, lack of employment opportunities and proximity to contaminated mining areas.



Interview with Skorpion Complex Worker

The following exchange with a current Skorpion worker provides first-hand insight into the mine's deteriorated condition and the declining prospects for Rosh Pinah.

Interviewer: You know they are talking about re-opening it as a smelter?

Skorpion Worker: No – Yes, I'm still there, helping the guys with [REDACTED]. Even last week I was there. But from the year they closed, they talk about opening again. This year they say "We [will] open next year". Next year, they will say "open next year".

Interviewer: But is there still zinc there to mine?

Skorpion Worker: No, no. There was a sort of high-grade zinc when it was mined. Now the zinc is there, which is... a place they called [undiscernible, presume Gamsberg] one side there. It's a low-grade zinc. For that zinc, they need to build another plant, not to use this one. This one was only for high-grade zinc.

Interviewer: And they will bring this in from South Africa?

Skorpion Worker: I think so. But for now for mining, there is still deposit there. I don't know how much is there, but there is still a little bit there. So what they are going to do with those things because if you see the mine, the plant there is like falling apart.

Interviewer: Okay. Well, thanks for your information.

Skorpion Worker: Only a little bit, I know, I don't know much, but to open it again, they need a heavy capital. You know it got frustrating if you restart something you had built before when you start from scratch again. It's very frustrating, but it fell apart.

Interviewer: It's falling apart.

Skorpion Worker: It's falling apart.

Interviewer: Hmm. I see. And what do you think of the future for Rosh Pinah if they don't reopen?

Skorpion Worker: The future is down. The town itself will not be more there. It is affected. You know, when Skorpion was there... it was like a booming town. It's becoming... it's not a ghost town, but it's going down now. It now depends on this mine.

Interviewer: So, how many people here were working at the Skorpion Mine?

Skorpion Worker: Very few.

Interviewer: No, but before.

Skorpion Worker: Before, yeah. So let me see... about 400.

Interviewer: Wow.

Skorpion Worker: A huge number.

Interviewer: Yeah. Especially for a small town.

Skorpion Worker: Yeah.

Interviewer: And now?

Skorpion Worker: Well, now it's like 30, 30-something. Not over 40, let me say like that.



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Viceroy encourage any parties with information pertaining to misconduct within Vedanta Resources, its affiliates, or any other entity to file a report with the appropriate regulatory body.

We also understand first-hand the retaliation whistleblowers sometimes face for championing these issues. Where possible, Viceroy is happy act as intermediaries in providing information to regulators and reporting information in the public interest in order to protect the identities of whistleblowers.

You can contact the Viceroy team via email on viceroy@viceroyresearch.com.

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