

VAST MINERAL SANDS (Pty) Ltd - HEAVY MINERAL PROSPECTING, ALEXANDER BAY, NORTHERN CAPE

REHABILITATION COST AS PER DMR RATES

PHS CONSULTING - PAUL SLABBERT - B ART ET SCIEN (EAPSA, APHP & IAIA)

Rehabilitation Plan Item	Area	Rehabilitation Action	Unit Cost	Estimated Cost
Note: Note due to the Master Rates being designed for operational mines and bulk sampling prospecting we had to work on a different ratio to suit none-bulk sampling techniques.				
Drilling Phase 2a				
Rehabilitation of Access	Considering that most of the area consist of roads and track, most driving will be on these. An assumption is that on 30 % of the area driving will be off-road . Total approx. distance drill rig could travel off-road = 75 km of off-road, with track footprint that relate to 1 m wide in total = 7.5 ha = 75 000 sqm	Raking and closing new tracks to avoid other people using it.	R 1.8 per m ² 1/20 th of Master Rate (R 36.03), 4x4 tracks requires no grading, layering and surfacing as the case is in mine areas.	R 135 000.00
Drill rig footprint relate to 16 m x 4 m. Consider that drill rig will avoid intact vegetation therefore limited to no vegetation rehab	64 m ² per drill hole approx. 285 holes = 2 ha – approx. 50% in undisturbed area = 1 h	Break up compaction caused over the 2-3 hour drilling period by filling the hole and raking the compacted area manually with seed-mix.	R 25 462.50 per ha	R 25 462. 50

required.				
Hand drilling in littoral active zone and sensitive areas. Vehicles will be parked outside the 100 m zone from the HWM of the sea	10 m ² per drill hole approx. 52 holes = 520 m ²	Break up compaction caused over the 2-3 hour drilling period by filling the hole and raking the compacted area manually with seed-mix.	R 25 462.50 per ha	R 1 324.05
Phase I Total				R 161 786.55
Drilling Phase 2b				
Second phase of drilling in feasible areas	64 m ² per drill hole approx. 110 holes (2/3 number of holes of phase 1) = 0.7 ha	Break up compaction caused over the 2-3 hour drilling period by filling the hole and raking the compacted area manually with seed-mix.	R 25 462.50 per ha	R 17 823. 75
Off-road driving	2/3 of the Phase 1 distance = 5 ha on the same tracks as per Phase 1, limited new tracks, 50% of 5 ha = 25 000 sqm of new tracks not covered by Phase 1 rehab.	Raking and closing new tracks to avoid other people using it.	R 1.8 per m ² 1/20 th of Master Rate, 4x4 tracks requires no grading, layering and surfacing as the case is in mine areas.	R 45 000. 00

Phase II Total				R 62 823.75
Maintenance & Aftercare	Follow-up on approx. 285 holes = R 1.9 ha	Ensure it is closed and filled up & seeding has taken	R 4 000 per ha	R 7 600.00
Follow-up & Unforeseen				R 15 000.00
Total Rehabilitation provision				R 247 210. 30
				Rounded to R 250 000.00