

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

REHABILITATION COST

PHS CONSULTING

PAUL SLABBERT

B ART ET SCIEN (EAPSA, APHP & IAIA)

Rehabilitation Plan Item	Area	Rehabilitation Action	Unit Cost	Estimated Cost
<p>Note: The unit cost was determined as follow. 1st Phase Drilling will take approx. 180 days. Four workers are required to do rehabilitation during this period. Two will work on tracks and two will work on holes. A daily wage of R 122.22 per person apply; 4 x 122.22 x 180 = R 88 000, 00. Total disturbance is approx. 320 000 m² = R 0,275 per m² unit cost.</p>				
Drilling Phase 2a				
Off-road driving	Considering that the entire area consist of roads and track, most driving will be on these. An assumption is that on 10% of the area driving will be off-road . Total approx. distance drill rig will travel = 540 km x 10% = 54 km of off-road, with track footprint that relate to 1 m wide in total = 5.4 ha	Raking and closing new tracks to avoid other people using it.	R 0,275 per m ²	R 14 850, 00
Drill rig footprint relate to 16 m x 4 m. Consider that drill rig will avoid intact	64 m ² per drill hole approx. 410 holes = 26.24 ha	Break up compaction caused over the 2-3 hour drilling period by filling the hole and	R 0,275 per m ²	R 72 160, 00

vegetation therefore limited to no vegetation rehab required.		raking the compacted area manually.		
Hand drilling in littoral active zone and sensitive areas. Vehicles will be parked outside the 100 m zone from the HWM of the sea	9 m ² per drill hole approx. 90 holes = 810 m ²	Break up compaction caused over the 2-3 hour drilling period by filling the hole and raking the compacted area manually.	R 0,275 per m ²	R 222, 75
Phase I Total				R 87 232, 75
Drilling Phase 2b				
Second phase of drilling in feasible areas	64 m ² per drill hole approx. 300 holes (2/3 number of holes of phase 1) = 19,2 ha	Break up compaction caused over the 2-3 hour drilling period by filling the hole and raking the compacted area manually.	R 0,275 per m ²	R 52 800, 00
Off-road driving	2/3 of the Phase 1 distance = 3.6 ha	Raking and closing new tracks to avoid other people using it.	R 0,275 per m ²	R 9 900, 00
Phase II Total				R 62 700, 00
Total Rehabilitation provision				R 149 932, 75