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| **Department:** | HEALTH, SAFETY, ENVIRONMENTAL AND QUALITY DEPARTMENT | |
| **Title:** | **Annexure 09: MONTHLY GROUP INTEGRATED ENVIRONMENTAL REPORT (FY 2021)** | |
| **Procedure No:** | HSEQ-GP-PO-18 | |
| **Distribution:** | Petra Diamonds Ltd | |
| **Originator:** | Group HSEQ Data Analyst and Reporting Coordinator | |
| **Responsible HOD:** | Group HSEQ Environmental Lead | |
| **References:** | HSEQ-GP-PO-40 | |
| **Annexures:** | None | |
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| **Approved:** | Original Signed | **Authorised:** | Original Signed |
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| **Designation:** | HSEQ Environmental Lead | **Designation:** | Group HSEQ Manager |
| **Approval date:** | 30 July 2020 | **Authorisation Date:** | 15 August 2020 |
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**DOCUMENT VERIFICATION**

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| Responsible & Accountable | Name: J M Reynecke  Job Title: Group Environmental Lead  Signed:  Date: 10 February 2021 |
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The objective of this report is to give a brief overview of the state of the Environment at Petra Diamonds, for the period **January 2021**.

**To be noted**: Williamson Diamond Mine’s operating status is “Care and Maintenance”. Thus, KPI tracking could not be applied as most KPIs are normalised against tonnes treated.

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|  | No Concern | |
|  | Low Concern, Mitigation In Progress | |
|  | High Concern, Mitigation Pending | |
|  | Not applicable or no information | |
| **Issue** | | | **Description** | |
| **Directives/Instructions**  (KPI: < 1 per operation pa) | | | WDL: Environmental Protection order Dated 30 December 2020. The National Environmental Council (NEMC) visited the mine on 3 August 2020 and noted issues of concern. The protection order reached the mine in January 2021. Numerous issues are highlighted, some with no foundation or relevance to WDL. The mine is already addressing the challenges. The most relevant of these are listed below:   * Old Slimes Dams (pre-1995) lack water monitoring points and lined run-off catchment facilities. * Current Slimes Dam poor water (pool) management. * Waste Rock Dump has a steep slope which may add to erosion potential, also no concurrent rehab on the dump. * It is alleged that the small-scale miner responsible for reworking WDL’s tailings, is doing so without proper authorisation (Environmental Management Plan). * Lack of monitoring data for the discharge from the waste stabilization ponds. * Waste incinerators are operated without permits. | |
| **External Complaints** | | | CDM: A complaint was received on 16 January on overgrown vegetation near residences in Railway street. A contractor was appointed and the area was cleared. | |
| **Significant Incidents**  (KPI: major incidents = 0) | | | KDM: During severe rains in Koffiefontein brought on by the Tropical Storm Eloise on **27 January 2021** the town experienced rain measured at 143 mm within 18 hours. The event is measured as greater as a 1:100 year event. This resulted in localised flooding with high volumes of water with the mines storm water system. The high volumes of water reported to the paddocks which as a result overflowed to the Mine Lake where the water was contained. Actions to address the incident included:   * Monitoring of all pollution control facilities on mine due to the impact of the high rainfall event. * All controls at pollution control facilities inspected. * Systems were found to be in working condition after the event and during an external WUL audit during the first week of February. All was found to be compliant.   FDM: Due to heavy rain received over a 24-hour period (+- 180mm) on **26 – 27 January 2021**, the Five Mission Dam was not able to contain the volume of water reporting to it. Water from Five Mission Dam is pumped to Earth Dam and then to Bonza Quarry, but the pumping capacity was jeopardised with a power failure at the Bonza Quarry which resulted in a closed pneumatic valve. The high volume of water that reported to the dam and the limited pumping resulted in an overflow from Five Mission Dam into Five Mission emergency dam, which then over flowed into the adjacent open area. Actions to address the incident included:   * The valve at the Quarry was opened and pumping from Earth continued in order to make capacity for water from 5 Mission dam. * Sumps at the FRD 1 & 3 that pump to earth dam was stopped and diverted via a trench to Little Bonza to alleviate the volume of water reporting to Earth dam. * The Incident was reported to the relevant authority (DWS). | |
| **Legal Compliance**  (Compliance to all relevant environmental legislation; KPI 100% completion of Annual Rehabilitation Plan document with proof of consultation workshops) | | | CDM: Four surface monitoring points exceeded the water quality standard as recorded in the Water Use License (WUL). This non-conformance is continues as the quality standard included in the WUL is not practicable to the operation’s circumstances. An amendment application was submitted to the Department of Water and Sanitation (DWS). Feedback from the Department is still awaited. | |
| **Statutory Audits by Third Parties** | | | KDM: A Legal Compliance Audit was completed during the 1st week in January. The mine is waiting on the draft report. | |
| **Authority Audits and Inspections** | | | None | |
| **Total Water Use Efficiency**  (KPI: Within 1% deviation from FY 2020 actuals)  **Performance ≤ KPI value** | | | **CDM:** 0.113m3/t (KPI: 0.161 m3/t)  **FDM:** 0.38m3/t (KPI: 1.105 m3/t)  **KDM:** 2.92m3/t (KPI: 2.103 m3/t) | |
| **Electricity Efficiency**  (KPI: Within 1% deviation from FY 2020 actuals)  **Performance ≤ KPI value** | | | **CDM:** 40.13kWh/t (KPI: 47.90 kWh/t)  **FDM:** 58.21kWh/t (KPI: 57.56 kWh/t)  **KDM:** 81.48 kWh/t (KPI: 49.48 kWh/t) | |
| **Waste to Landfill**  (KPI: **1% reduction YOY)**  **Performance ≤ KPI value** | | | **CDM:** 17.12t (KPI: 27.13 t/month - Group set; 41.56 t/month - CDM set)  **FDM:** 61.15t (KPI: 18.10 t/month)  **KDM**: 0t(KPI: 14.95 t/month)  **WDL:** 312.65t (KPI: 188,10 t/month) | |
| **Diesel Efficiency (TMM)**  (KPI: **1% reduction YOY)**  **Performance ≤ KPI value** | | | **CDM:** 0.427l/t (KPI: 0.564 l/t - Group set; 0.67 l/t - CDM set)  **FDM:** 0.59l/t (KPI: 0.626 l/t)  **KDM**: 0.84l/t (KPI: 0.690 l/t) | |
| **Other** | | | CDM: The operation hosted their annual CAP audit (Internal HSEms Audit as per Group HSEQ schedule) on 25 – 28 January. | |