insert lage ENVIRONMENTAL MONITORING TOOL



|  |  |  |  |
| --- | --- | --- | --- |
| Country | Date | Location | Waste |
| Ghana | 1-Jan-19 | Head Office | Engine Oil |
| Ghana | 3-Feb-19 | Head Office | Fuel Filters |
| Ghana | 4-Mar-19 | Head Office | Air Filters |
| Ghana | 5-Apr-19 | Head Office | Air Filters |
| Ghana | 6-May-19 | Head Office | Insecticide |
| Ghana | 7-Jun-19 | Regional Offices | Insecticide |
| Ghana | 8-Jul-19 | Head Office | Herbiodes |
| Ghana | 9-Aug-19 | Regional Offices | Oil filters |
| Ghana | 10-Sep-19 | Regional Offices | Insecticide |
| Ghana | 11-Oct-19 | Head Office | Engine Oil |
| Ghana | 12-Nov-19 | Head Office | Fuel Filters |
| Ghana | 13-Dec-19 | Head Office | Insecticide |
| Insecticide | | | |

REDUCE REUSE RECYCLE



|  |  |  |
| --- | --- | --- |
| Quantity Generated(kg) | Quantity Reused(kg) | Quantity Recycled(kg) |
| 300 | 300 | |
| 150 | 150 | |
| 230 | 230 | |
| 30 | 30 | |
| 30 | 30 | |
| 150 | 150 | |
| 230 | 230 | |
| 30 | 30 | |
| 30 | 30 | |
| 30 | 30 | |
| 30 | 30 | |
| 150 | 150 | |
| 100 | 100 | |

LANDFIL

|  |  |
| --- | --- |
| Quantity Remains(kg) | Hazardous Solid Waste(m3) |
| 0 | |
| 0 | |
| 0 | |
| 0 0.03 | |
| 0 | |
| 0 | |
| 0 | |
| 0 0.03 | |
| 0 | |
| 0 | |
| 0 | |
| 0 0.15 | |
| 0 | |

**ENVIRONMENTAL MONITORING**

* ‍Air Monitoring: Environmental data gathered using specialized observation tools, such as sensor networks and [Geographic Information System](https://www.heavy.ai/technical-glossary/gis) (GIS) models, from multiple different environmental networks and institutes is integrated into air dispersion models, which combine emissions, meteorological, and topographic data to detect and predict concentration of air pollutants.
* Soil Monitoring: Grab sampling (individual samples) and composite sampling (multiple samples) are used to monitor soil, set baselines, and detect threats such as acidification, biodiversity loss, compaction, contamination, erosion, organic material loss, salinization, and slope instability.  
    
  - Salinity Monitoring: Remote sensing, GIS, and electromagnetic induction are used to monitor soil salinity, which, if imbalanced, can cause detrimental effects on water quality, infrastructure, and plant yield.  
    
  - Contamination Monitoring: Chemical techniques such as chromatography and spectrometry are used to measure toxic elements, such as nuclear waste, coal ash, microplastics, petrochemicals, and acid rain, which can lead to the development of pollution-related diseases if consumed by humans or animals.   
    
  - Erosion Monitoring: Monitoring and modeling soil erosion is a complex process in which accurate predictions are nearly impossible for large areas. The Universal Soil Loss Equation (USLE) is most commonly used to try to predict soil loss due to water erosion. Erosion may be due to factors such as rainfall, surface runoff, rivers, streams, floods, wind, mass movement, climate, soil composition and structure, topography, and lack of vegetation plantation
* Water Monitoring: Environmental sampling techniques include judgmental, simple random, stratified, systematic and grid, adaptive cluster, grab, and passive; semi-continuous and continuous environmental monitoring; remote sensing and environmental monitoring; and bio-monitoring are used to measure and monitor ranges for biological, chemical, radiological, microbiological, and population parameters.