

4.1.1 Management of reclamation sites

During the year under review, the Hill B and Taysec Carbox stockpile oil palm plantations were maintained regularly through agronomic practices such as slashing of weeds and pruning of palm branches. Ring weeding was also carried out to improve aeration.

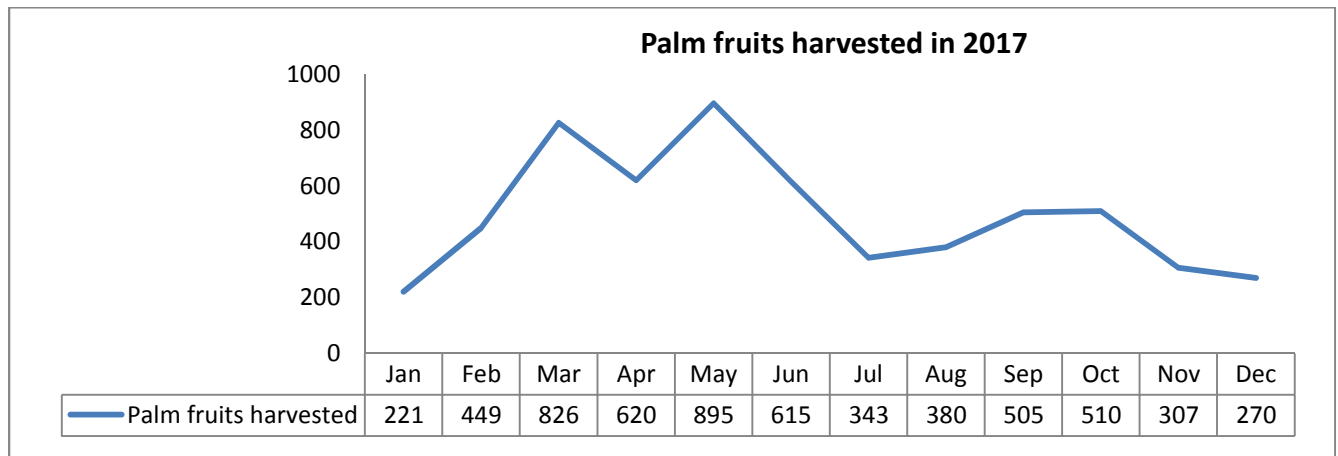


Figure 4.31: 2017 monthly palm fruits harvested

As shown in Figure 4.29, it is observed that the lowest and highest harvests were recorded in January and May respectively, with a total of five thousand, nine hundred and forty-one (5,941) bunches of palm fruits harvested within the year.

4.1.2 Water consumption

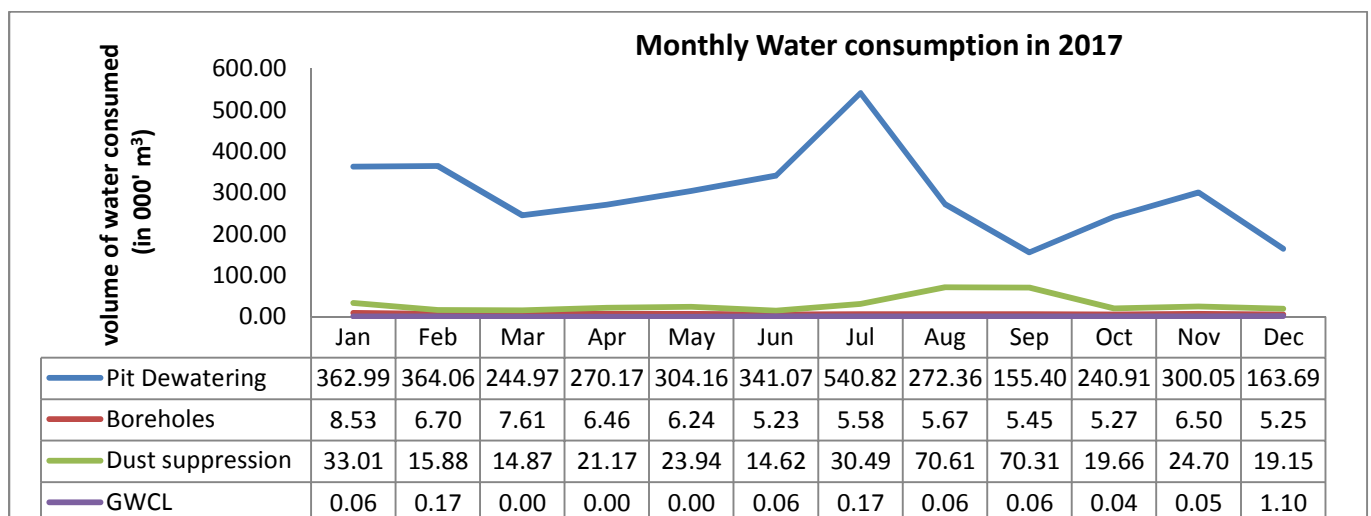


Figure 4.32: GMC water use in 2017

A total of **3,995,295m³** cubic meters of water was used on the mine site. **89.12%** of this total volume was generated during pit dewatering activities (i.e. **3,560,648m³**); with the water from pits channelled to increase the volume of water downstream of River Bonsa, while **8.97%** was abstracted predominantly from Pit CSW and from the Kawere Stream for dust suppression (i.e. **358,392m³**). **1.86%** of the water used on the mine site was abstracted from boreholes on the mine site for potable water supply (i.e. **76,255m³**) while an insignificant volume; **0.04%**; was obtained from Ghana Water Company Limited (i.e. **1,773m³**) . This information is depicted in Figure 4.31 below.

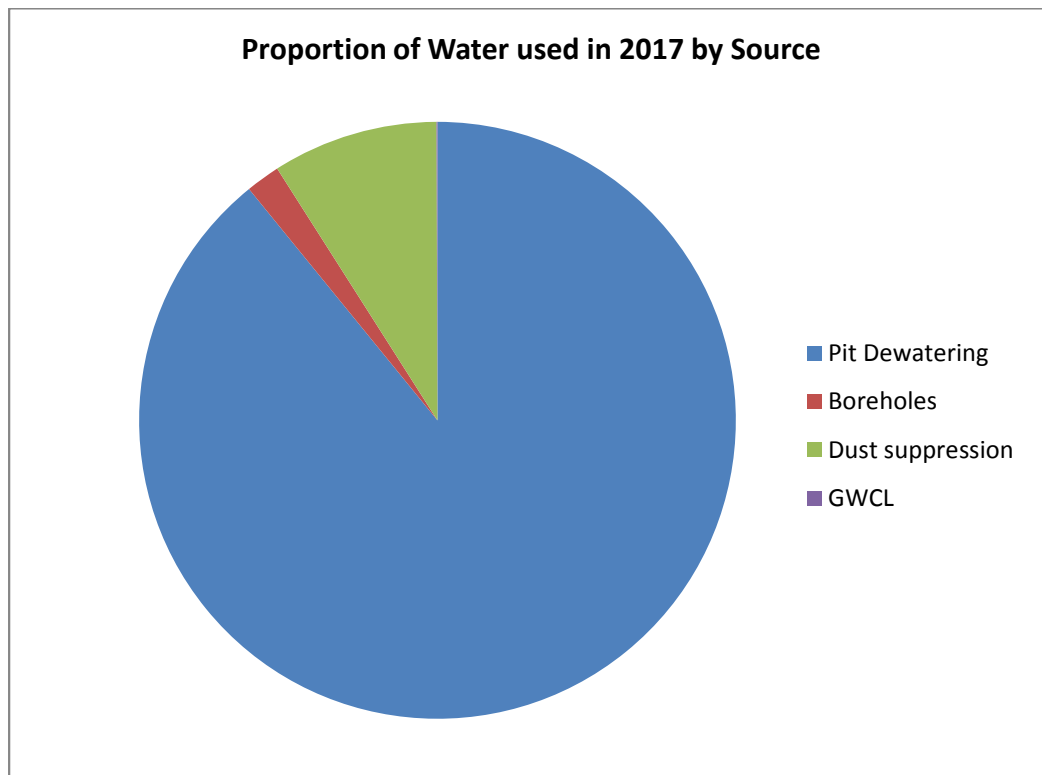


Figure 4.33: Source of water consumed at GMC in 2017

4.1.3 Energy consumption

Monthly energy consumed is provided in Figure 4.32. It is observed that while the highest consumption from the national grid occurred in June, the highest energy generated locally was in August.

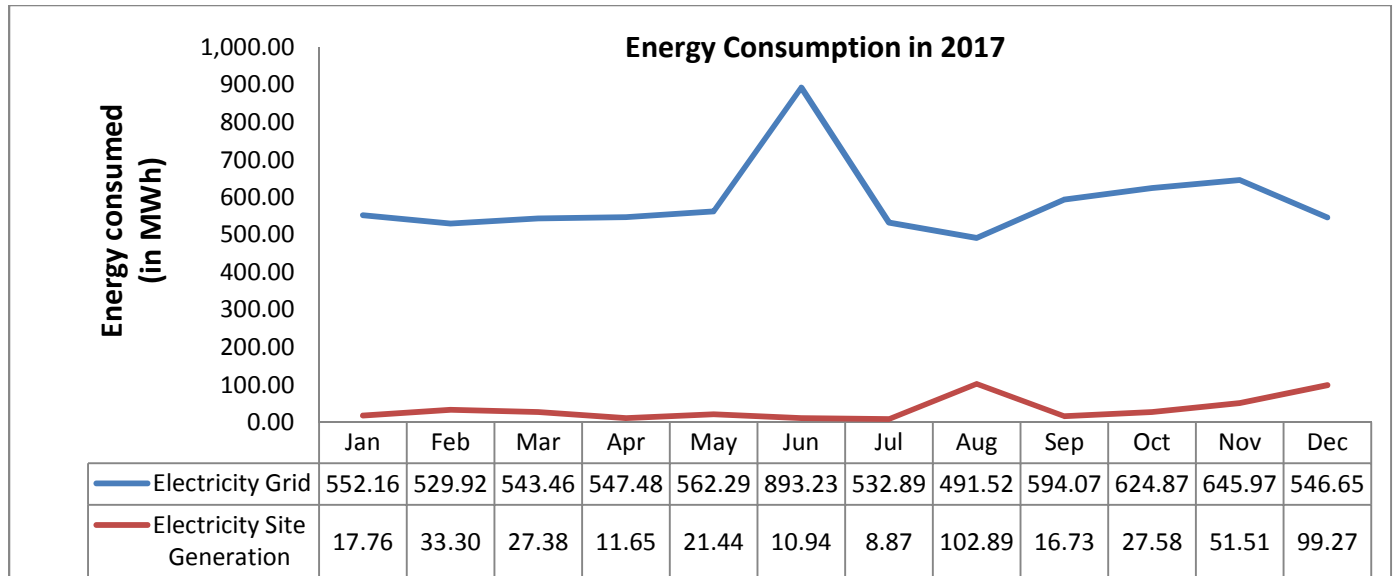


Figure 4.34: Monthly energy consumption in 2017

A total of **7,493.80MWh** of energy was consumed on the mine site during the year under review. **93.27%** of the total energy consumed was obtained from the national grid (i.e. **7,064.49MWh**) while the remaining **5.73%** was generated locally (i.e. **429.30MWh**).

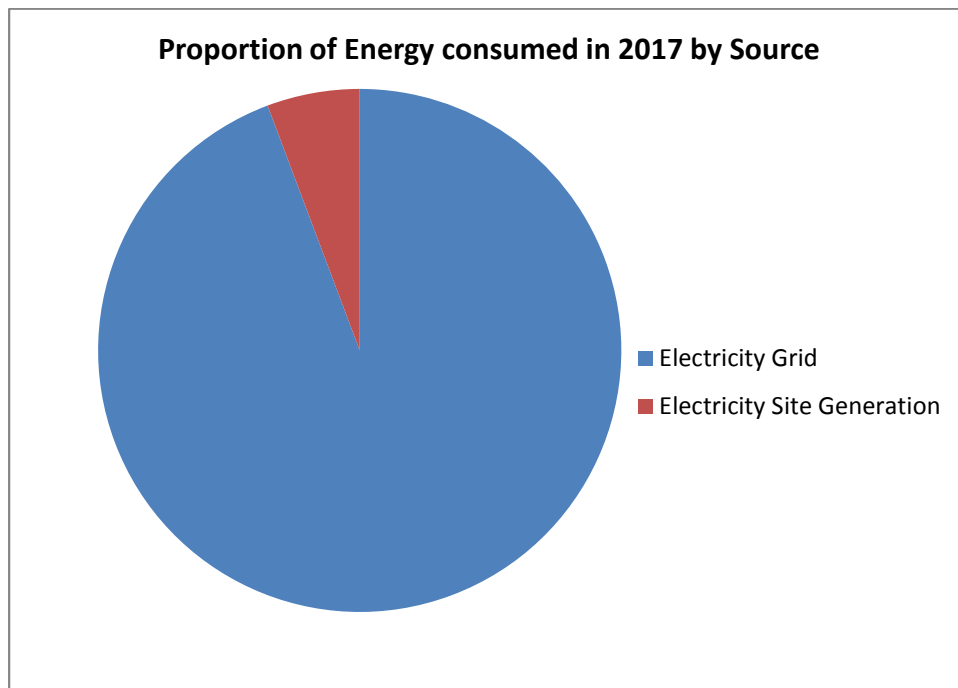


Figure 4.35: Energy consumption by source in 2017

The data on monthly blackouts experienced on the mine site is provided in the figure below. It is observed that the highest number of blackouts (15) was recorded in August.

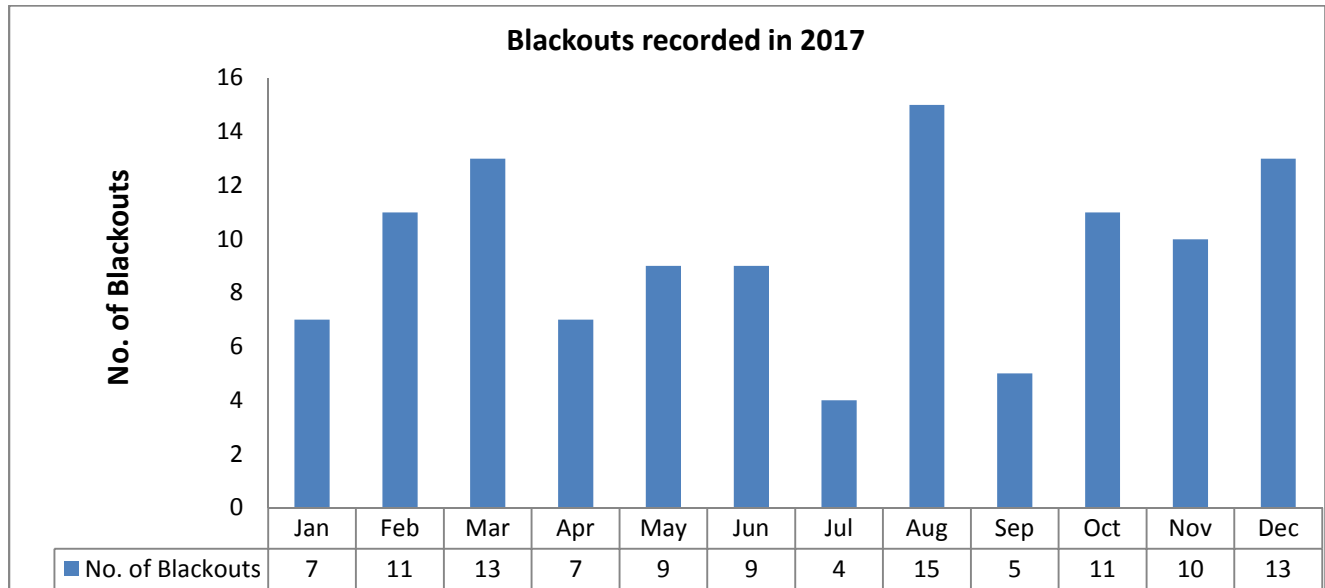


Figure 4.36: Number of blackouts experienced on the mine site in 2017

Diesel powered generators were used to generate power during the blackouts. Monthly fuel consumed during blackouts is provided in Figure 4.35.

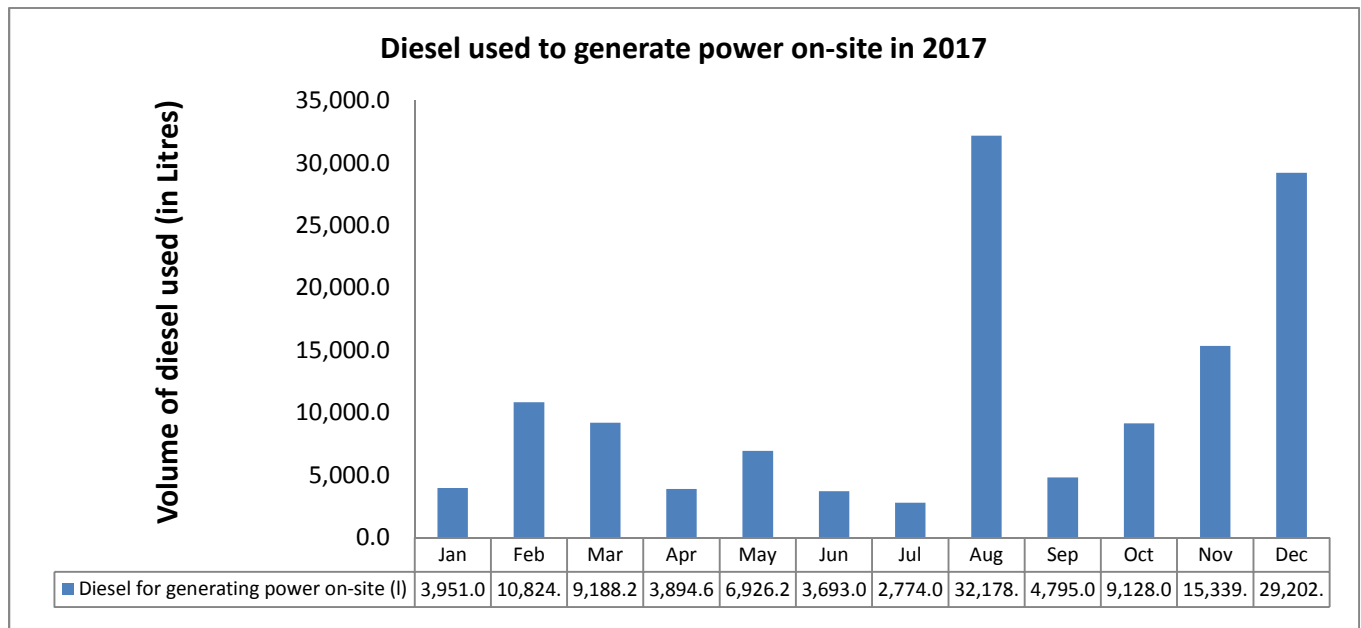


Figure 4.37: Fuel used in generating power during blackouts in 2017

A total of **131,893.60 litres** of diesel was used to generate the power onsite, with August recording the value for the highest diesel consumption for fuel generation (i.e. 32,178.0litres).

4.1.4 Hydrocarbon/oil usage and management

The projected fuel and lubricant volumes in 2017 are provided in the table below:

Table 4.19: Projected fuel and lubricant volumes for 2017

Month	Projected Fuel	Projected Lubricants
Jan	1,102,491.00	36,985.00
Feb	1,149,734.00	55,207.00
Mar	1,262,732.00	50,605.00
Apr	1,242,461.00	55,109.00
May	1,435,190.00	52,373.00
Jun	1,545,451.00	35,321.00
Jul	1,709,856.00	60,780.00
Aug	2,126,883.00	77,108.00
Sep	2,119,573.00	77,493.00
Oct	2,149,808.00	84,687.00
Nov	2,094,471.00	62,632.00
Dec	2,214,492.00	69,666.00
TOTAL	20,153,142.00	717,966.00

Actual monthly diesel and fuel consumption are provided in the Figure below.

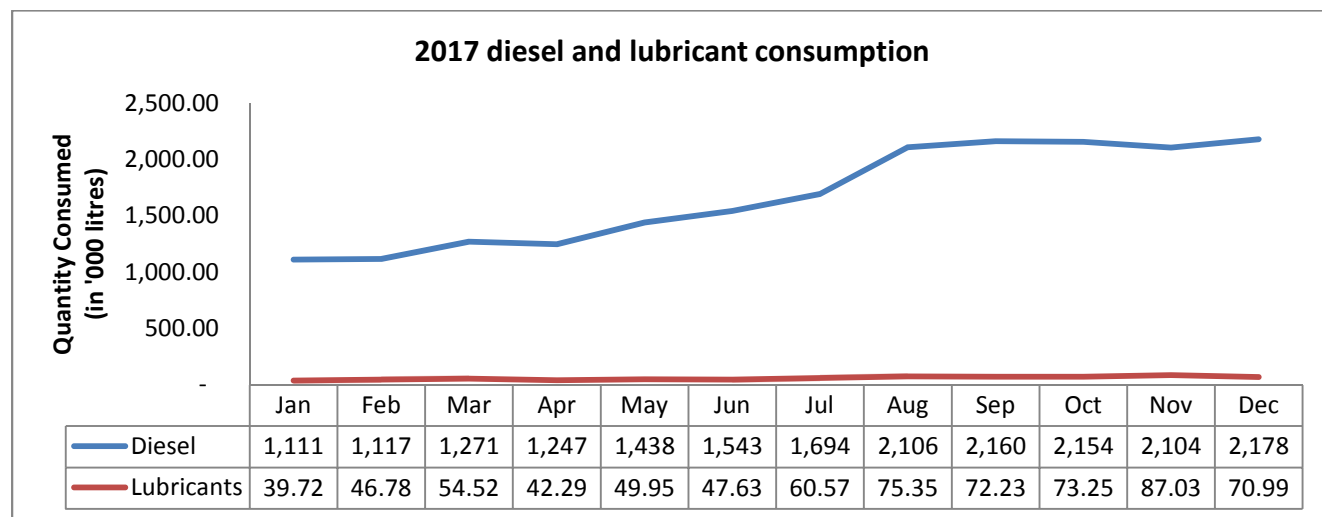


Figure 4.38: monthly diesel consumption in 2017

The total diesel and lubricants consumed in the year were **20,128,810**litres and **720,309**litres respectively. Whereas the total diesel consumed was 99.88% of the projected consumption, the total lubricant consumed in the year exceeded the anticipated consumption figure by 0.32%.

4.1.5 Waste management

General wastes comprising polythene, paper, plastic and canned materials are generated at various areas on the mine. Although no hazardous chemicals are used in the ore processing on GMC mine site, small quantities of acids are stored for exclusive use by the onsite analytical laboratory. Other hazardous wastes such as oil contaminated soils, oils from servicing, sewage sludge are also generated. Monthly values of waste generated on the mine site are provided in the Figure below.

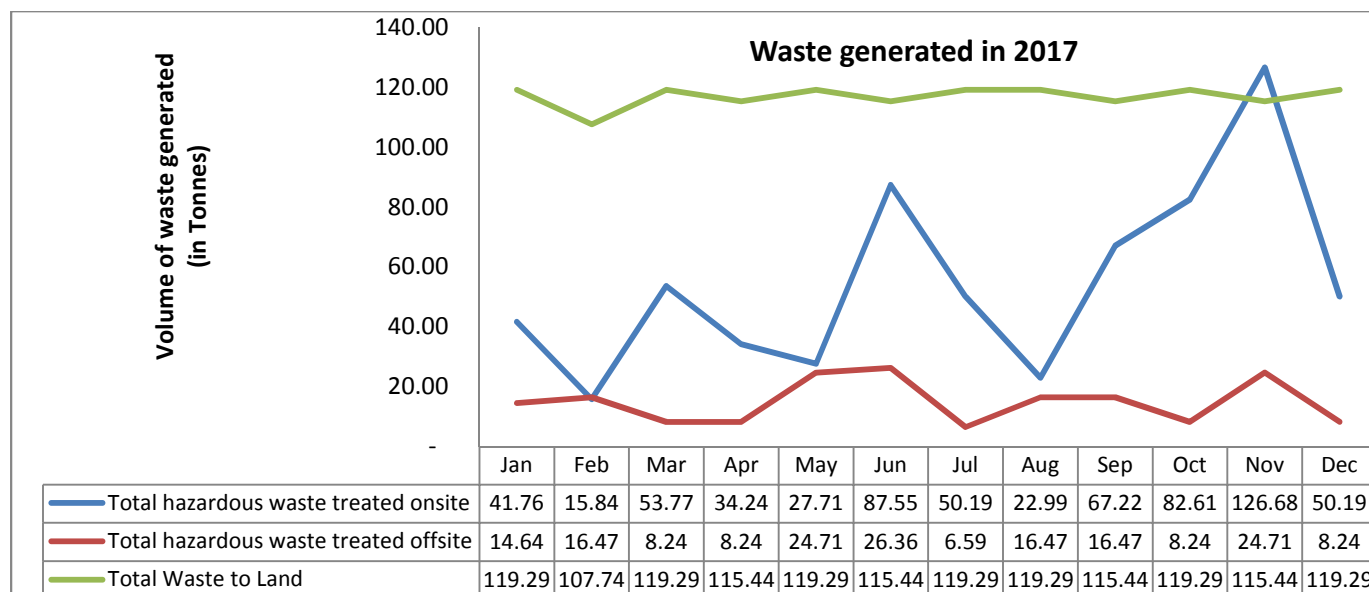


Figure 4:39: Monthly waste generation in 2017

Hazardous wastes that are treated onsite include solid and liquid chemical wastes from the Assay Lab, oil contaminated soils and sawdust, and sewage sludge, whereas used or dirty oil comprises the hazardous wastes that are treated or used offsite.

Increased sewage desludging activities in November accounted for the high volume of hazardous waste that was generated and treated onsite.

During the year under review, a total of **2,244.65**tonnes of waste was generated on site of which **62.57%** was general waste disposed to the on-site landfill for encapsulation (i.e.**1,404.52** tonnes) while the remaining 37.43% was classified as hazardous waste (i.e. **840.12** tonnes). **78.65%** of the total hazardous waste generated was treated onsite at designated locations (i.e. **660.75** tonnes), while the remaining **21.35%** was sold off to an EPA certified waste dealer (i.e. **179.38** tonnes)

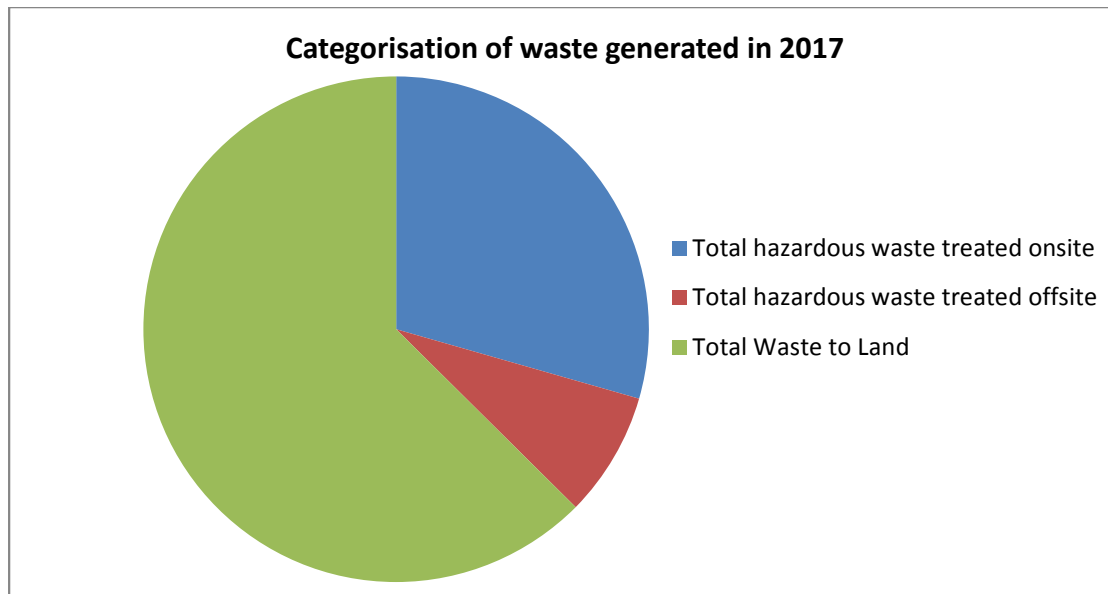


Figure 4:40: Categorisation of waste generated in 2017

4.2 Environmental Improvement Activities

The following routine environmental improvement activities were undertaken during the year under review:

- Had engineers from Ghana Highways Authority (GHA) visit the mine in January to assist in the development of a plan to solve drainage/runoff challenges on the mine site and its environs.
- Replacement of the stolen felt material at the volatilisation pad was completed in March.
- Completed the volatilisation pad demarcation project in April.
- Floors under parked unused heavy equipment which have been lined with polythene sheets and covered with sawdust were routinely inspected for leakages.
- Pit dewatering pumps were inspected frequently to ensure that there was no oil spilled into water bodies.
- Oil contaminated soil at the volatilization pad was turned fortnightly to speed up the breakdown of hydrocarbon chains.
- Regular inspection of workshops and mine face occurred to ensure that operations were within regulatory standards.
- Various silt traps and ponds were desilted and thoroughly cleaned up to prevent or reduce silt entering the Kawere Stream.

A lot of modifications have been implemented to minimise or suppress the dust generated on the mine site especially at the carbonate plant; in spite of the numerous exceedances recorded.

The mine began the process to source for and purchase industrial dust extractors to replace the existing water sprinkler system at the facility. The reason for this shift is due to the high alkaline levels of the water being used for the suppression resulting in extensive corroding of structures at the crushing plant.

A complete refurbishment of the main sub-station on site was undertaken in order to reduce power losses and rampant current draws in the system. During the refurbishment, more economical power units were installed to replace the old units.

The increase in production targets has seen a proportional increase in the demand for reliable energy supply on the mine site. A proposal for a modernized substation was prepared and sent to our cooperate office for approval. Discussions are also on-going with Genser Energy to provide self-generating on-site from their plants at Goldfields, which will enable the company to minimise the power consumed from the national grid. The Genser Energy project if undertaken will subsequently reduce the quantity of fuel used to power the diesel powered generator plants that are operated during blackouts.

4.3 Environmental Studies Conducted

The following environmental studies were conducted during the year under review:

- **Waste dump site investigation**

The continuous dumping of waste rock at the location is pushing the waste dump towards the adjacent western railway corridor. It has however noticed that certain areas along the dumping site were marshy and that could result in mud displacement and the potential destruction of the railway line which would impede the company's ability to haul the manganese ore by rail. Professor Affram; from the University of Mines and Technology (UMaT), was tasked to assess the suitability of the location for continuous dumping of waste rock by GMC towards the western railway corridor.

The assessment was conducted in accordance with *ASTM: E 1527-13* standards for conducting environmental site assessment for a parcel of land.

The investigation concluded that the ground was poor at near-surface but registered enhanced bearing pressure with increasing depth. It was also evident that the subgrade material was largely saprolytic, with portions prone to water stagnation because of the marshy ground characteristics and location in relatively lower elevation. Although the distance between the waste dump and the railway line was varied at certain areas, it was agreed that a minimum allowable interval of 50metres will be appropriate to prevent damage to the railway lines.

- **Hydrological studies of GMC concession**

The company contracted Professor Kuma; also from UMaT, to undertake hydrological studies of the mine concession to assist geotechnical investigations of the pit slopes for mine planning purposes, which is a critical aspect of the Environmental Impact Assessment (EIA) process. The study was also carried out to assess the risk of mining operations to alter surface and groundwater quantity and quality in the mining operational area and to also evaluate the relative roles of the surface and groundwater distribution which tend to affect pit stability in the immediate environs.

During the study, the aquatic environment of the mine and its surroundings were characterised, after which possible seepage migration from the waste dumps and puts were evaluated to develop a hydrological model of the mine.

Interpretation of pumping test data using the Cooper Jacob straight line method on three boreholes in the area indicated that the transmissivities were high while drawdowns were low. The boreholes also recovered 100% after five (5) hours of pump shutdown which suggest good groundwater potential in the area.

The use of the electrical resistivity imaging enabled the drilling of additional monitoring boreholes at identified locations. Results indicated that the area was underlain by (3-45,000) Ω -m resistive rocks. Zones with resistivity (3-500) Ω -m which indicated weak or fractured zones were earmarked for additional drilling to be incorporated into the groundwater monitoring programme.

Generally, it was observed that the impacts of GMC activities on the various surface water bodies on and around the mine concession were graded from minimum to low except for the pit waters which had elevated chemical parameters above the EPA waste water quality guidelines for discharges into watercourses.

- Flood assessment prediction and hydrological impact assessment of Tarkwa Bansa Resettlement area

As part of GMC's resettlement programme for buildings which fall within the five hundred (500) metre perimeter of the Pit C North mining project at Tarkwa Bansa, Mac Water Engineering Services were contracted to conduct flood assessment prediction and hydrological impact assessment at the resettlement site since flooding is a critical environmental problem and one of the most common, devastating and widespread natural disasters of the world. The study was necessitated because of the filling conducted in the area which was initially a marshy area.

The objectives of the project were:

- To reproduce the extent and duration of flood inundations for various return periods;
- To prepare flood hazard maps;
- To assess and classify the flood risk by overlaying the flood hazard maps with the land use maps; and
- To evaluate the effectiveness of selected structural intervention; i.e. the proposed storm drainage system, as a flood prevention measure.

This project provided insight into how the coupled SWAT and HEC-RAS models could be useful in providing pertinent information about how river flow fluctuations are affected by extreme rainfall events. The predicted stream flow values (i.e. the SWAT output) compared very well with the hydrological characteristics of the Bansa River Basin. It is believed that the current location for the Tarkwa Bansa resettlement project site is adequate to withstand a 200-year return period flood as a consequence of the filling which has raised the elevation of the project site. Furthermore, the project location does not obstruct the flow in the Whoowhoo catchment.

4.4 Meetings, Programmes and Workshops

The following meetings, programmes and workshops were carried out in the year under review:

- World Environment Day was celebrated on 6th June.

Considering that the theme ‘Connecting People to Nature’ implored people to get outdoors to appreciate the beauty and importance of nature and to champion the call, the HSE department along with Managers and members of GMC Miners Wives Association cleaned-up in and around the Nsuta market, followed by a tree planting exercise. Pupils and teachers of the various schools in the Nsuta community also participated in the celebration by undertaking clean-up and tree planting exercises on their respective compounds.

Plate 4.1: World Environment Day Celebration



a. Engineering, HSE and General Mine Managers during the clean-up exercise



b. HSE Manager during the tree planting exercise



c. Some members of the Miners Wives Association participating in the clean-up exercise with employees of GMC

d. Member of HSE department with some staff and students of Nsuta Methodist School

- Induction of newly employed personnel and employees resuming from annual leave, as well as third party contractors was carried out on a regular basis.
- The quarterly Health, Safety and Environmental Committee Meetings (HSECM) came off as scheduled.
- Personnel from Regulatory Bodies including EPA, Minerals Commission and Water Resources Commission visited the mine for varied inspections.
- Attended ENSOC meetings; organised quarterly by the Ghana Chamber of Mines, during which members share knowledge and experiences on best practices, successes and challenges.
- The Minerals Commission mine audit came off from the 28th – 29th August.
- Began a training programme on oil spill prevention, containment and clean-up for workshop supervisors.

1. CHALLENGES, ACHIEVEMENTS AND FAILURES

5.1 Challenges

During the year under review, the under-listed challenges were encountered:

5.1.1 Dust

In spite of increasing the number of water bowsers on the mine from five (5) to eight (8), increased dust levels were still prevalent.

5.1.2 Oil spills

Oil spillages routinely occurred as a result of leakages, hose bursts, and poor handling of hydrocarbons. These were however minor in nature; as described in the risk matrix.

5.1.3 Poor water quality results

Table 5.1: Summary of % Exceedance and Pass for Surface Water Parameters

PARAMETER	Results Received	Exceedance	% Exceedance	% Pass
pH	84	0	0.00	100.00
Total Suspended Solids	84	17	20.24	79.76
Total Dissolved Solids	84	0	0.00	100.00
Dissolved Oxygen	84	-	-	-
Biochemical Oxygen Demand	84	0	0.00	100.00
True Color	84	58	69.05	30.95

Turbidity	84	4	4.76	95.24
Conductivity	84	0	0.00	100.00
Nitrate	84	0	0.00	100.00
Sulphate	84	0	0.00	100.00
Manganese	84	77	91.67	8.33
Arsenic Total	84	3	3.57	96.43
Arsenic Dissolved	84	0	0.00	100.00
Chromium	84	-	-	-
Selenium	84	-	-	-
Iron	84	31	36.90	63.10
Cadmium	84	0	0.00	100.00
Copper	84	0	0.00	100.00
	1512	190	12.57	87.43

As indicated in the table above, exceedances were recorded for the following parameters which were analysed in surface water samples: Total Suspended Solids (TSS), True Colour, Turbidity, Manganese and Iron. However, the problematic parameters were Manganese, True Colour and Iron. Three (3) final year students of the University of Mines and Technology (UMaT) were requested to undertake a research work on the causes of these exceedances for their dissertation. They are also required to propose possible solutions to minimise these exceedances.

5.1.4 Upheaval by some Tarkwa Bansa community members

This occurred on the 21st of June and resulted in the seizure of the GeoSonics SSU 3000EZ+ seismograph by some inhabitants of the community. Therefore thirty-six (36) blast events carried out until 20th July; when the situation amicably resolved, were not monitored. This is why four hundred and five (405) out of the four hundred and forty one (441) blast events carried out were monitored.

5.1.5 Exceedances in blast monitoring values

Three hundred and seventy-six (376) out of the total number of blasts events monitored during the year triggered the seismograph, with forty-six (46) exceedances recorded. Whereas 15% of the total exceedances recorded were for air over pressure, the remaining 85% were for peak particle velocity or ground vibration.

5.1.6 Community complaints

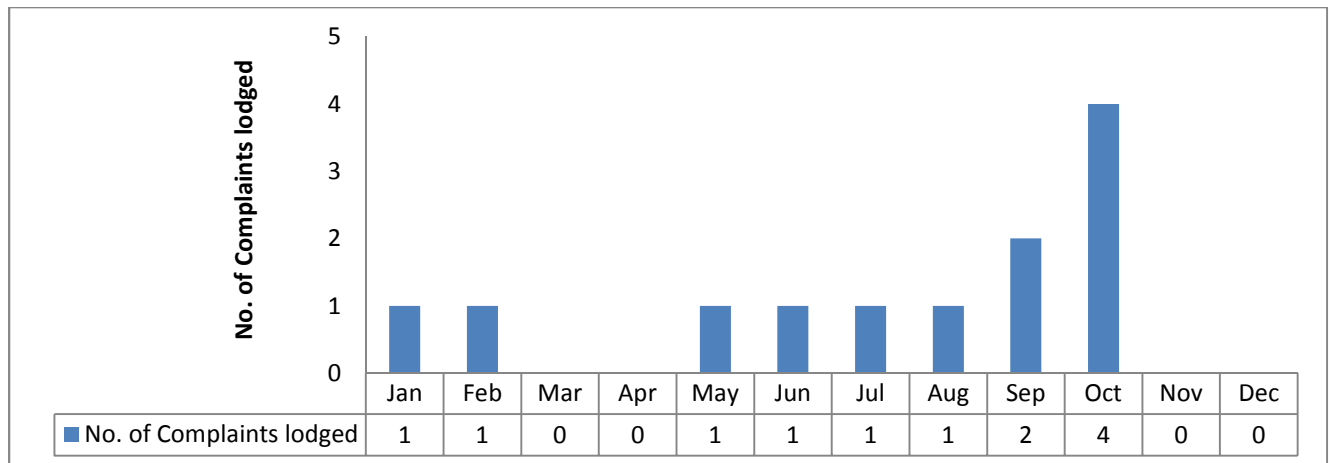


Figure 5.1: Community complaints lodged in 2017

Twelve (12) community complaints were lodged in the year, as indicated in figure 5.1.

5.1.7 Chieftaincy conflicts

Chieftaincy conflicts in Akyem and Akyempim communities posed a challenge to effective stakeholder engagement in those communities. These conflicts also retarded progress on dealing with challenges such as land encroachment.

5.1.8 OHS incidents

Fifty (50) incidents occurred in the year under review; with the breakdown indicated in the figure below:

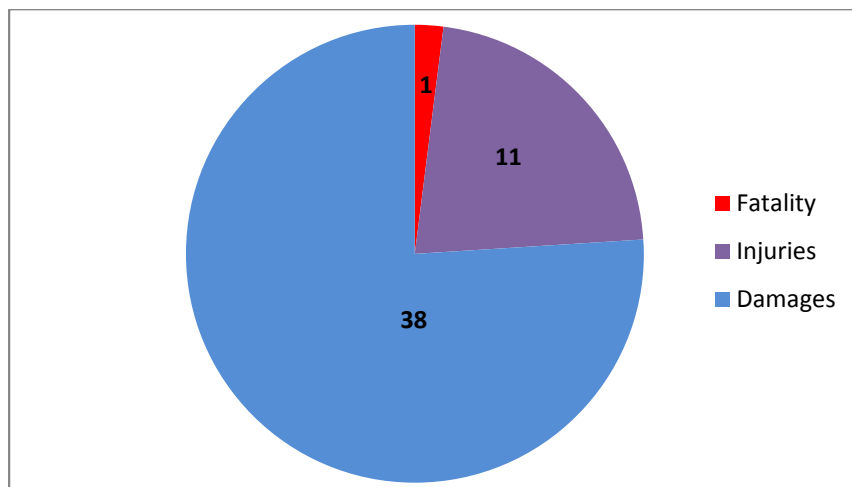


Figure 5.2: 2017 incident breakdown

The injury breakdown is depicted in the table below:

Table 5.2: Breakdown of Injuries

Type of Injury	Number
Lost Time Injury (LTI)	3
Medical Treated Injuries (MTI)	4
Minor Injuries	4
Total Injuries	11

5.2 Achievements

5.2.1 Recording only minor environmental impacts

All environmental incidents recorded in the year under review fell below the L2 category.

5.2.2 75% compliance rate for the following reportable environmental monitoring parameters

5.2.2.1 Surface water quality

As indicated in Table 5.1, the overall pass rate for water quality parameters on site was 87.43 which exceeded the internally set target of 75%.

5.2.2.2 Ambient noise levels

As indicated in Table 4.15, the overall pass rate for ambient noise levels measured on the mine was 93.33% which exceeded the internally set target of 75%.

5.2.2.3 Blast values

As indicated in Table 4.16, the total exceedance recorded during the year was 12.23%, indicating an overall pass rate of 87.77%; which exceeded the internally set target of 75%.

5.2.3 Engagement with key stakeholders

The following key stakeholders were engaged during the year under review:

5.2.3.1 Wassa Fiase Traditional Council (WFTC)

The company had a good relationship with WFTC. During the council meeting in June, the company received an invitation to participate in the Mankuma festival, slated to take place from 11th-17th December. The company made a cash donation toward the celebration of the festival.

5.2.3.2 Esuaso Stool Divisional Council (ESDC)

The company had a lot of engagement with the ESDC on a variety of issues, key among them regarding employment, community support projects, scholarships and bursary schemes, and the Tarkwa Bansa Resettlement Project. GMC also supported the ESDC in performing the annual cow slaughtering ceremony.

5.2.3.3 Tarkwa Nsuaem Municipal Assembly (TNMA)

GMC had a fruitful relationship with the TNMA during the year under review. Technical persons from the Assembly were constantly engaged in all activities relating to the Tarkwa Banso Resettlement project. GMC also participated in the year's Farmer's Day celebration at the invitation of the Assembly.

5.2.3.4 Municipal Education Office (MEO)

The MEO were engaged in reviewing the 2017/18 scholarship and bursary selection criteria, and were actively involved in the award of the scholarship packages to the deserving students.

5.2.3.5 Community engagements

A number of community engagements were undertaken during the year under review. Some of the meetings were held on the mine premises while others were held in the communities.

Such meetings were used to discuss issues such as GMC's planned activities, community and company concerns. These meetings also served as a platform where inputs were received from community leaders and factored into the company's planned programmes.

The Community Affairs team also visited the neighbouring communities in the company's catchment area to inform them of the formation of the Community Consultative Committee (CCC) which would serve as a liaison between the communities and the company especially when dealing with complaints and other issues. Although the youth of Bonsawire were adamant on the formation of the CCC in spite of explanations by the chiefs and elders on its benefits, most of the other communities accepted to form the committee. The inauguration of the committees did not however take place in the other communities due to poor turnout by the indigenes. The chiefs and opinion leaders in those communities were requested to choose a suitable day; when their members would be available to attend, so the inauguration can proceed.

The Community Affairs team also engaged with the youth in some catchment communities to address the concerns regarding employment.

5.2.3.6 Resettlement Monitoring Committee (RMC) Meetings

The RMC met every three (3) weeks to address challenges including the following:

- i. Complaints by community members on the quality of work being undertaken by contractors at the project site;
- ii. Payment of cash compensations to project affected persons (PAPs);

- iii. PAPs accepting the value of their properties as calculated by the certified valuer;
- iv. Issues on speculative building after the signing of the Moratorium at Tarkwa Bansa; and
- v. Investigation into other project related complaints.

5.2.4 Progress on Tarkwa Bansa resettlement project

During the second quarter of the year, earthworks began at the resettlement site with eight (8) local contractors engaged on the project. Most of the workers were employed from the Tarkwa Bansa community. By the end of the year, phases 1 and 2 buildings had been completed leaving those buildings to be completed in the third phase.

The project is solely monitored by the RMC; with a technical monitoring committee within the RMC visiting the project site fortnightly to assess the progress of work done and make recommendations based on findings from the field visit.

The Municipal Chief Executive visited the resettlement site on two (2) occasions within the year to acquaint himself with the progress of work.

5.2.5 Corporate Social Responsibility (CSR) activities

5.2.5.1 Scholarship/bursary awards

In collaboration with the ESDC, GMC offered a total of **GH¢137,900.00** for the 2017/18 scholarship or bursary awards to brilliant but needy students on the Esuaso Stool Lands. This amount covered a total of seventy one students; forty-two (42) from tertiary institutions and the remaining twenty-nine (29) from second cycle institutions.

5.2.5.2 Community assistance programmes

The company made a number of donations and provided assistance in the form of infrastructural projects in some of the catchment communities. The table below depicts some major donations made and assistance provided in the year under review:

Table 5.3: Community Assistance Provided

SN	Type of assistance/project	Community	Cost (¢)
1	Construction of three unit classroom blocks with office and store room.	Bankyim	350,846.82
2	Painting and reroofing of Bankyim JHS Block	Bankyim	110,723.76
3	Construction of three unit classroom block with office and store.	Jerusalem	398,117.39
4	Construction of Community Social Centre.	Agona Wassa	561,846.15
5	Construction of ground floor of one storey building (six unit classroom block with staff common room and sanitary facility)	Tamso	680,247.00

	for the Community Development Vocational Technical Institute.		
6	Grading and re-gravelling of the Kawerekwanano -Tarkwa Banso road.	Tarkwa Banso	147,613.50
7	Re-roofing of Akyem Junior High School block.	Akyem	12,605.36
8	Grading and re-gravelling of the Akyempim – Akyem road.	Akyem	147,613.50
9	20-Seater Water closet toilet facility	Akyem	255,366.00
10	Donation to Apinto Stool Council	Apintoman	29,580
TOTAL			2,694,559.47

Some community projects undertaken in the year are indicated in the Plate 5.1:

Plate 5.1: Some Community Infrastructure Projects Undertaken during the year



a. Bankyim Basic School

b. Agona Wassa Community Social Centre

5.2.6 Resolution of community complaints

Eleven (11) out of the twelve (12) complaints lodged during the year had been resolved, indicating a complaint resolution rate of 91.67%

5.2.7 Payment of crop compensation

Activities such as rock waste dumping, exploration drilling and those undertaken at the resettlement site impacted on farms on the company's concession. Majority of these farms were cash compensated, though

some farmers expressed dissatisfaction with the crop rates that were used to compute the compensation claims. The company also undertook other forms of compensation as a result of the resettlement project, namely:

- i. Cash compensations for affected farms on the land; and
- ii. Cash compensations for buildings or structures that do not fall within the 'replacement' category as defined in the Resettlement Action Plan (RAP) for the project.

GMC spent a total of **GH¢ 2,477,475.25** on crop compensation in 2017.

5.2.8 Staff development programmes/training

The staff development programmes organised in the year are provided in the Table below:

Table 5.4: Details of staff development programmes in 2017

S/N	Type of training	Purpose of the training	Who conducted the training?	Beneficiaries	Participation fee
1	A professional career development sponsored programme – Jan	GMC's upgrade of employees	Inspectorate Division of Minerals Commission	Twenty-Two (22)	GH¢ 0.00
2	A professional career development conference – Mar	Professional career development	Food and Drugs Authority	Ubaedata Haruna Kunnin	GH¢ 0.00
3	A professional career development sponsored programme – Mar	In connection with GMC's upgrade of employees	Ghana Institute of Engineers	Ruth Menz	GH¢ 3,500.00
4	A professional career development sponsored programme – Mar	To deepen knowledge in health and safety	OSHA, UK	George Bentum, Florence Nkrumah, Isaac Ackah	GH¢ 900.00
5	A professional career development sponsored programme in geology and survey related issues – May	Professional career development	PDSA Ghana	Nana Owusu Opppong Isaac Anaman, Daniel Danso	GH¢ 0.00
6	Continuous professional development programme refresher training – Jun	GMC's upgrade of employees	NOSA	Sixty-one (61) employees	USD 23,000.00
7	Continuous professional development programme refresher training – Jul	Professional career development	UGBS	Kofi Gyetua Ankomah	GH¢ 900.00
8	Continuous professional development programme refresher training – Jul	Professional career development	SMART Group Events	Edwin Ofori Esther Aboagye-Tandoh	USD 995.00
9	Continuous professional development programme in mining – Jul	Professional career development	West Africa Institute of Mining, Metallurgy & Petroleum	Ruth Menz, Sylvester Zoe, Sadick Quainoo	GH¢ 4,520.00
10	Continuous professional development programme in Microsoft Excel 2016 applications refresher training - Aug	Professional career development	Dataman System Consultancy	Emmanuel Cobbinah, Emmanuel Eshun-Mills	USD 800.00

11	Continuous professional development programme in organizational health and safety practices refresher training - Aug	Professional career development	UGBS	Florence Nkrumah	GH¢ 900.00
12	Continuous professional development programme - Aug	Professional career development	Imperial College of Mines and Safety	GMC E-learning	USD 12,000.00
13	Continuous professional development programme - Aug	Professional career development	UGBS	Florence Nkrumah	GH¢ 900.00
	Continuous professional development programme on health issues - Aug	Professional career development	HR Perspective	Managers and Superintendents	GH¢ 12,000.00
14	Behavioral interview – Sep	Professional career development	IHRMP	Ramatu Ali Toure,	GH¢ 0.00
15	Continuous professional development programme on health issues - Sep	Professional career development	MOH	Richard Yao Dokli, Barnes Ayisi	GH¢ 0.00
16	Talent Management refresher training - Sep	Professional career development	IHRMP	Ramatu Ali Toure, Maxwell Nyanzu	GH¢ 0.00
17	Continuous professional development Conference - Oct	Professional career development	Ghana Physician Assistant Association	Benjamin Kpolley Yankey	GH¢ 1,000.00
18	Continuous professional development programme refresher training - Nov	Professional career development	Africa Partners Medical	Doreen Apah	GH¢ 500.00
19	Continuous professional development programme refresher training - Nov	Professional career development	Pasico Ghana	Twenty-three (23) employees	GH¢ 0.00
20	Continuous professional development conference - Nov	Professional career development	Pasico Ghana	Emmanuel Ackon, Francis Essel Moses, Emmanuel Cobbinah	GH¢ 0.00
21	Continuous professional development programme in CSR - Nov	Professional career development	CSR Training Institute	Wisdom Adjei Mensah, Ben Asare Ankrah	USD 3,499.00

In addition to the above-mentioned, the emergency response and in-house security teams were taken through several simulation drills during the year to sharpen their alertness in real case scenarios.

One thousand, eight hundred and eighty (1,880) employees, contractors and visitors were taken through GMC's induction and training modules while three hundred and sixty-five (365) employees underwent the departmental specific training.

Additionally, a three (3) week defensive driver training was organised for all the haulage companies affiliated to the mine.

5.2.9 Awards

GMC received the following awards in the year provided in Table 5.5

Table 5.5: Details of awards won in 2017

Organizers	Date	Venue	Award Category
National Planning Committee of Ghana's 60 th Independence Anniversary	22 nd Sep	Accra	Special Award
Chamber of Mines	Nov	Accra	OHS Award
Ghana Mining Industry Awards	Nov	Accra	1 st Runner-Up, Best Performer Environmental Management
			Best performer in Occupational Health and Safety
			Best performer in Local Content
			Best mine based on Occupational Injury Statistics
			2 nd Best Improved Mine
Western Regional Co-ordinating Council and Western Regional	15 th Dec	Takoradi	Platinum Award

House of Chiefs			
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5.3 Failures

Targets that could not be achieved included:

5.3.1 Exceedance of dust values

As indicated in Table 4.15, the overall pass rate for ambient dust levels measured on the mine was 35.83%. Although it was an improvement to the 25% recorded in the previous year, it was well below the internally set target of 50%.

5.3.2 Increased community complaints lodged

Twelve (12) community complaints were lodged during the year under review as compared to the five (5) lodged in the previous year. This clearly indicates a substantial increase in the number of community complaints lodged; hence the target to achieve a 10% reduction in community complaints lodged could not be achieved.

5.3.3 Increased incidents on the mine

Fifty (50) incidents were recorded on the mine site in the year under review as compared to the forty-six (46) recorded in the previous year. This indicates a slight increase in incidents recorded; which could be attributed to the numerous projects being undertaken and additional labour being employed as a result of increased production targets, hence the inability to meet the set target to achieve a 10% reduction in incident occurrence on the mine. Incident reduction strategies being implemented on the mine include inductions and training personnel on standard operating procedures (SOPs) for tasks, training on and ensuring the completion of risk assessments and work permits, improved supervision by the completion of planned task observations (PTOs), regular inspections and audits, and ensuring that all corrective and preventive actions are acted upon and closed out in a timely fashion.

5.3.4 Occurrence of injury types above MTI

In the year under review, the mine recorded three (3) lost time injuries (LTIs) and one (1) fatality, which are categories above the stipulated target of medically treated injuries. In as much as GMC strongly believes that all accidents are preventable, it is also envisaged that there is a possibility of unplanned and unanticipated events occurring no matter how well risks are managed. However, recording such injury types; especially the fatality, was overwhelming. The major lesson learnt was that it takes only a second, one mistake and that can be the last.

5.3.5 HSE related fine

The company received one (1) HSE related fine from the Inspectorate Division of Minerals Commission (IDMC) after the inquisition that followed the incident that resulted in the fatal injury.

2. CONCLUSION

GMC will strive to ensure that the protection of the health and safety of workers and indigenes of the adjoining communities, as well as safeguarding the environment and property are an integral part of the company's health, safety, environment and community culture.

In light of this, the company will continue to pursue the full implementation of its policies, strategies and targets which will enhance the integrated management system that has been adopted.

The HSE and CA departments will seek to improve on our achievements while adopting best practices to address the challenges and failures experienced in the past year, so as to gain strides in attaining the objective of becoming a model mine with regards to regulatory requirements.