



TOTAL SOUTH AFRICA (PTY) LTD.
Health, Safety, Security and Environment

24 June 2021

To:

GA Environment (Pty) Ltd

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Attention: Kirthi Peramaul

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COMMENTS: ENVIRONMENTAL IMPACT ASSESSMENT AND WATER USE AUTHORISATION PROCESS FOR THE PROPOSED MINING OF QUARRIES 6A & 6B ASSOCIATED WITH THE UPGRADE OF NATIONAL ROAD R573 (MOLOTO ROAD), GAUTENG PROVINCE.

We refer to your call for public comments on the environmental impact report for application for the proposed mining of quarry 6A situated on the remainder of farm Doornpoort 295JR.

This feedback relates specifically to proposed activity quarry 6A located adjacent and south of the Total Petroport Panorama service stations, which will potentially be directly impacted by the proposed mining activity. Total South Africa has not received information related to location of the other quarries (Quarry 4, Quarry 5 and Quarry 6B), therefore it is believed that their locations have no potential direct or indirect impact to Total Petroport Panorama service stations or any of the other service stations within our network, hence no comments are made regarding these quarries (4, 5 and 6B) in this response.

Feel free to contact the undersigned should you have questions or require any clarification.

Regards,

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Issues of concern:

1. Critical Biodiversity area

It is noted from the EIR that some parts of the proposed mining area comprise of critical biodiversity area, it is not clear how this area will be protected from the impact related to mining activities.

2. Underground Rock Blasting

Based on the proposed mining, it is likely that quarry activities may require to break large rocks insitu/underground using blasting technique.

Blasting induced vibration is known to have potential negative impacts on buildings, underground storage tanks and associated infrastructures. Underground fuel storage tanks, pipelines with sensitive underground sensors are present at the Total service station. These installations are sensitive to major vibrations, therefore, will most likely be impacted by vibrations resulting from blasting activities at the proposed quarry.

There is no record of assessment conducted to evaluate potential impacts on Total Petroport Panorama which may be caused by vibrations induced by rock blasting at the quarry. Apart from the induced crack survey (recommended), other risks such as impact on underground fuel equipment and sensors were not considered in the report.

Recommendations are made in the EIR that adjacent landowners and businesses must be notified well in advance about blasting activities and appropriate precautionary measures must be taken.

Concern: It is not clear in the report what mitigation measures will require to be taken, by whom, at what cost and who will be responsible for such cost/ re-imburement of potential revenue losses which may be suffered by impacted businesses due to such measures/actions.

Objection:

Total Petroport Panorama hereby object the use of blasting as a mechanism to break rocks from the ground. Alternative methods should be employed.

3. Dust Management

Blasting, crushing, transportation (vehicles) as well as soil and rock stockpile activities are likely to generate dust which could disperse over and beyond boundaries of the quarry site. Presence of dust reaching the Total Petroport Panorama will have significant impact on quality of infrastructure and services rendered to customers at the Total site.

- This could impact on attractiveness or appeal of the site services to customers, which will have detrimental impact on customer population visiting the site. This will have direct impact on revenues generated by the site.
- Dust will also impact the infrastructure and paint at the site, which will reduce the paint life.
- In addition, the presence of dust reaching the Total site will lead to direct long term exposure (to dust) by Total employees, of which if not equipped with preventative personal equipment for dust, this could result in long term human health risk.
- Moreover, the presence of dust storms reaching the Total site will lead to reduced visibility for vehicle drivers accessing or driving through the site. This could lead to potential accidents/ collisions on site.

Recommendations:

The cost associated with impact of dust must be internalized throughout the lifecycle of the quarry project. Measures must be implemented to prevent generation of dust and ensure that residual dust does not disperse over and beyond borders of the quarry operations site(s).

4. Underground Water

Total Petroport Panorama service stations uses groundwater to support all activities on sites, including consumption. Mining activities are known to have significant impact on accessibility and quality of the groundwater aquifer. These impacts could be due to;

- Pumping of the pit and encroachment of the highwall toward the wells could dewater the water table aquifer, leading to dry water supply boreholes.

It is noted from your EIR that during excavation no water will needs to be pumped out, but free draining. It is not clear how this free draining is going to be achieved on the quarry (if deep) without dewatering (pumping).

- Long term impacts on water quality due to the mining (the breakup of the rocks). The mechanisms of these changes (via pyrite oxidation) are well known. They increase the

dissolved solids component especially sulfate, iron, manganese, aluminum, and sometimes sodium. Occasionally, other minor metals show up. This could result to long term human health exposure through groundwater ingestion at the Total service stations

Recommendations:

Potential impact of mining activities on groundwater quality at the area should be investigated and well understood. As a result, Total Panorama hereby object to location of deep excavations within distance which mining activities could impact on groundwater accessibility and quality from existing boreholes and any future boreholes which could be drilled within our site boundaries.

Figure 23 of the EIR report: Stockpile SQ1 is located on top of an area classified as of high biodiversity importance. Alternative location should be considered.

5. Visual and Aesthetic Impacts

The mining activities and stockpiles will have negative visual impact encroachment to the Total Petroport Panorama service station. Measures must be implemented to screen visibility to mining activities from the site.