



Planning Department,
Kilkenny County Council,
County Hall,
John Street,
Kilkenny,
R95 A39T



16th August 2021

Re: **Planning Application 21599** – Shanoon Resources Ltd - Recommencement of underground mining at the former Galmoy Zinc and Lead Mine.

To whom it may concern,

The Geoscience Regulation Office (GSRO), on behalf of the Minister of the Environment, Climate and Communications (DECC), makes the following submission to Kilkenny County Council (KCC). The submission is in relation to the planning application, File Number 21599, by Shanoon Resources Ltd for the recommencement of underground mining at the former Galmoy Zinc and Lead Mine, comprising access portal, declines, ventilation shafts and extension to underground workings.

# No.	Section	Action	Comment
1	3.4.5.2	Request for further information	Is the River Goul outflow set up, as per Drawing 24, adequate to eliminate any sediment build up from entering the river?
2	3.4.5.3	Comment	If the location of the wheel wash (Figure 3.6) was moved closer to the tepee, nearer the old emulsion shed, it may reduce the spread of contamination from the haulage truck wheels
3	3.4.6.2	Request for further information	SRL state that " <i>no significant changes to the operation of the existing GRPWS wells would be expected if future mining were to take place. Although mining of the K2 orebody is proposed as part of the future mine plan, cover grouting is planned in this area to prevent additional groundwater inflows</i> ". The GSRO notes that during the original mining of the K15 area at the top of the K Orebody, the suspended solids in WW2B increased following blasting. This was attributed to a NW-SW structure that ran through the area and was approximately online with WW2B. In the event that a similar structure runs through the K2 or G West orebodies, online with WW1A, will SRL increase the frequency of monitoring in WW1A or switch production to either well WW2B (if not mining in the K15 area) or the new supply wells?



4	3.4.6.2	Comment	The WW1A hydrograph from the original mining indicates that the water level in the well was affected as the mining advanced up along the main K Orebody. Its hydrograph trend mirrors that of the wells around the TMF, indicating that the WW1A epikarst is probably connected to the Main Galmoy Block. So the water level in WW1A should be impacted as the mine is dewatered, but the lowering of the pump within WW1A will probably overcome this issue as suggested in the SRL's EIAR
5	3.4.6.3	Comment	The predicted maximum extent of drawdown, as shown in Figure 3.8, is likely exaggerated on the southern margin due to a lack of data points in this area. The G Fault and sub cropping ABL act as an aquatard in this area and would probably be better constrained with additional data points in the area, if available
6	3.4.6.3	Request for further information	Are the reverse sensors on the loaders and the alarm sensors on the ore sorting plant within the permitted noise levels, considering the plant will run 24 hours a day 6 days a week?
7	3.5.6	Comment	The GSRO welcomes the inclusion a Ground Control Management Plan which will include a Pillar Management System, the Underground Failure Prevention Plan and the Trigger Action Response Plan. The GSRO notes that the GCMP will be a dynamic document
8	3.5.7	Request for further information	Will the 100,000tpa of discarded material provide adequate backfill material for the proposed mining or will it have to be supplemented with outside material?
9	3.5.9 & 8.6.6	Comment	The Geoscience Regulation Office (GSRO) welcomes SRL's plans to carry out a subsidence monitoring survey, as well as an InSAR survey, prior to the dewatering of the mine and the use of the previous subsidence monitoring stations in this survey. The GSRO will require SRL to agree with the Department of the Environment, Climate and Communications (DECC) the extent of the survey, planned frequency of monitoring, trigger levels, planned responses and any new stations required to account for the extending of mining outside of the original mined areas. The design of any new monitoring points will also have to be agreed with DECC.
10	3.6.1	Request for further information	Are there planned ore stockpile areas, either underground or on surface, in the event of breakdown of the ore sorting plant or other delays?
11	3.7.9	Comment	Based on Figure 3.24 of the proposed groundwater monitoring points, the GSRO suggests that addition monitoring points are added west and north of the K2 orebody. The monitoring points as shown on the map will not take account of the full drawdown cone as mining progresses in the K2. The previous operators of the mine had a number of monitoring points in these areas to track the cone and it maybe possible to re-use these.



12	3.7.9	Request for further information	Figure 3.24 indicates that there will not be a dust monitoring station along the R435 road, which is the main haulage route from the mine. Would it not be prudent to place a monitor along the road close to the entrance to the mine
13	3.9.1	Request for further information	In regard to the decommissioning of the site will SRL remove all contaminated hard-core and soil material from the site to appropriate licenced facilities?
14	3.9.1	Comment	The backfilling and sealing of the mine shafts and Mine Portal will be required to be agreed with DECC and other relevant authorities
15	3.9.2	Request for further information	The CRAMP must be agreed with all the relevant parties, KCC, LCC, GSRO and EPA. Request acknowledgement that the CRAMP will be agreed with the Local Authorities, GSRO and the EPA?
16	3.9.3	Request for further information	With regard to restoration of the mine site, what is to occur if the industrial site can not find a suitable owner / client post closure? Will the industrial site be returned to green field status?
17	6.2.3	Comment	The GSRO welcomes SRL's suggestion of setting up of a Mine Environmental Monitoring Committee
18	6.2.5	Comment	The GSRO welcomes SRL's suggestion of setting up of a Community Engagement Forum to liaise with local communities
19	7.2 Appendix	Comment	With regard to the 2014 CW sinkhole formation SRL states that <i>lowering the water table as a result of dewatering probably accelerated the process (erosion of sediment)</i> . The re-watering of the mine and the proposed dewatering may cause an increased erosion of sediment, especially in the area of the CW K Stope collapse of 2002. This will have to be taken into account when agreeing the subsidence monitoring programme
20	7.3 Appendix	Comment	The GSRO notes Golder's recommendation for the development of a detailed backfill plan, including design, equipment, practicalities and sequencing
21	7.5.2	Comment	The GSRO welcomes the establishment of Cautionary Zones around key surface features. Mining within these Cautionary Zones will be required to be agreed with the GSRO before commencing

Please contact me if you required further information.

Yours sincerely,
Paul Mc Dermott PGeo,
 Principal Geologist
 Geoscience Regulation Office
 29-31 Adelaide Road, Dublin 2, D02 X285
paul.mcdermott@decc.gov.ie
www.decc.gov.ie GSRO@decc.gov.ie