EJL002- West Green Site Drainage plan

Wash Plant Water Catch Tank

A subterranean tank with external dimensions 2.4m deep, 2.4m wide and 6 metres long is installed providing an internal volume capacity of 32m³ of water. This tank is located adjacent to the wash plant and sand stockpiles (where the majority of the water is recovered). Document EJL011 shows the layout of the wash plant with the locations of the storage tanks. The concreted area where the wash plant is situated is laid at a level between 42-42.5 metres AOD as shown in document referenced EJL006. This is engineered to allow any surface run off, such as rainfall, to be directed towards the wash plants ground storage tank. Concrete blockwork has been constructed along the site's boundary where the wash plant is located, designed to slot together with a height of 3 metres to create a sealed drainage system with an impermeable surface. The wash plant is designed to retain 100% of the water used in processing and as such there would be no increase in surface runoff water.

Any surface runoff will flow into the wash plant water catch tank via a silt trap, which will then overflow into a clarified water tank for a pump return to the wash plant. The silt trap and tank will be periodically cleaned of any silts which will be recirculated and re-processed through the wash plant. In the event of storm conditions and localised flooding, this tank can overflow into the site drainage tank at the periphery of the concrete slab, south of the wash plant, before the water flows via the interceptor. Flood overflow will enter Cudworth Dike during storm conditions only, when the wash plant water catch tank and the clarified water tank are at capacity. The water treatment facility built into the wash plant has a silt trap and an interceptor so therefore the likelihood of suspended solids entering Cudworth Dike is low.

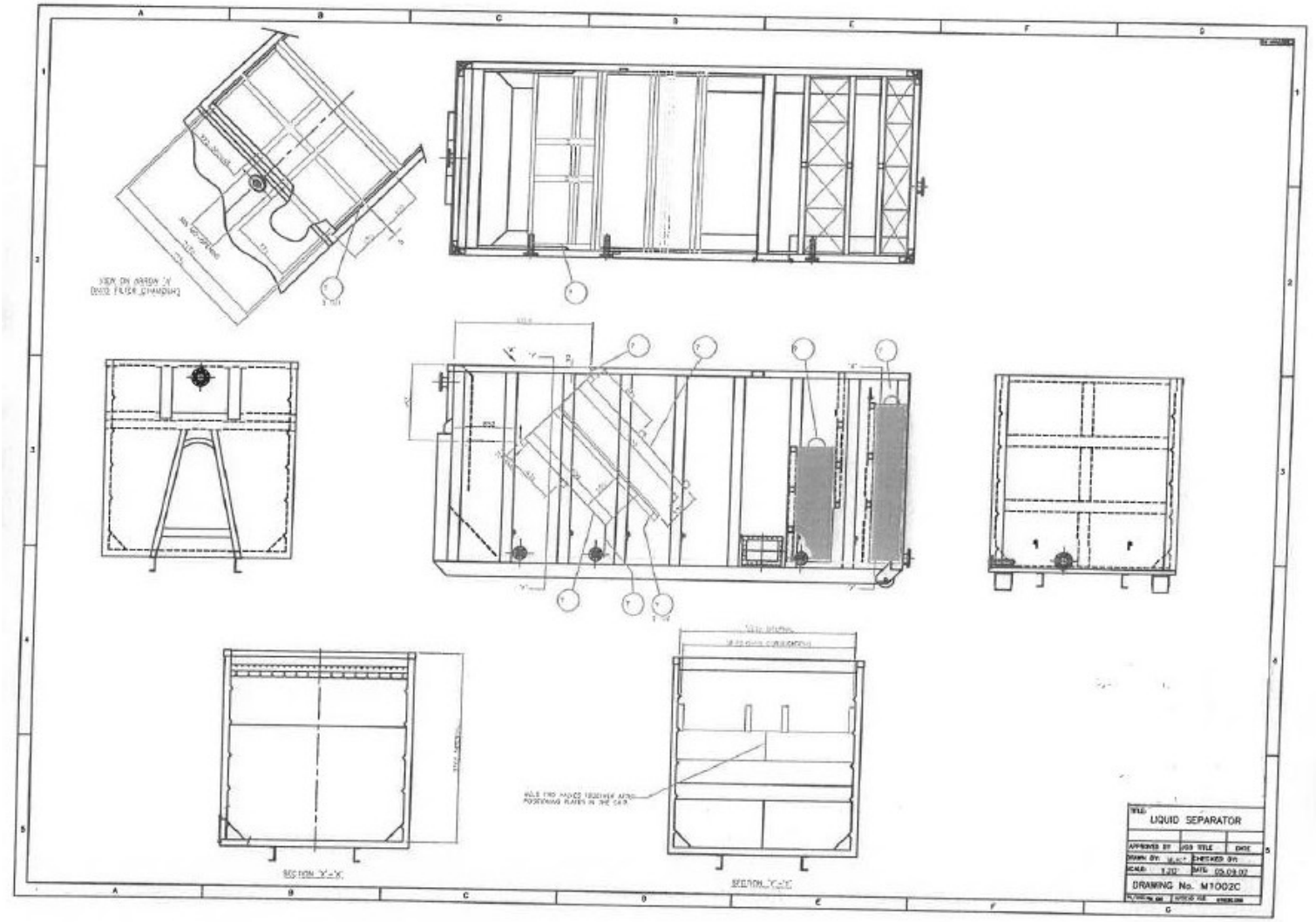
Only non-hazardous inert waste is accepted on site. If required, background samples can be taken and analysed pre-flood conditions to establish a baseline, although during flood conditions the flood overflow will be diluted once entering Cudworth Dike. A flood risk assessment identified the risk of flooding from pluvial and groundwater flooding as low.

Site Drainage Tank

In the event of a storm or localised flooding, the surface water will flow to the interceptor tank located to the south of the wash plant where any rainwater will be stored, and flows attenuated via an interceptor, entering Cudworth Dike which is described as above.

To supplement the wash plant water catch tank, there is also a further 62m³ of attenuation tank capacity for storing water, located to the south of the wash plant. This is a 30m³ storage tank and a 32m³ tank with interceptor which are also monitored, periodically inspected with any silts removed and recycled back through the wash plant. The wash plant removes silts from the secondary aggregates to produce a cleaner product. Any silts are recirculated back through the wash plant.

5-Stage Oil Separator Tank:



Site Sewage connection

Due to the lack of suitable mains drainage within the vicinity of the site, proprietary welfare units with built in sewage storage are to be installed and will be emptied via a third-party contract on a pre-determined schedule. No sewage is released from the site.