

Doc Ref: MECL/F8 Site Setting

Morganite Electrical Carbon Ltd.

VP3339PD/As Varied.

**Site Address: Upper Fforest Way,
Morrison,
Swansea,
SA6 8PP**

Partial Site Surrender (Surrender of Vacated Land).

Summary

Partial surrender of land occupied by Morganite Electrical Carbon Ltd., under permit VP3339PD/As Varied. The manufacturing processes on the site have been rationalised reducing the site footprint. Process modernisation and rationalisation of product portfolio have caused this. The vacated areas have been predominantly used in the manufacture of carbon products and materials in solid or powder form. The majority of the site is covered by concrete or hardstand areas and there are no underground storage tanks present or in use on the site.

Groundwater monitoring and soil sampling has been undertaken prior to surrender and the site has in place site condition reports and carries out routine sampling as part of the site SPMP programme.

Site Setting and History:

“Morrison Carbon” (Morganite Electrical Carbon Limited) occupies a manufacturing site of 22 acres located to the North-East of Swansea, within the Lower Swansea Valley, to the east of the River Tawe. The approximate centre of the site is at National Grid Reference 26781981.

The historical use of the site and surrounding land is as follows:

The Lower Swansea Valley was widely regarded as the world centre for the smelting of non-ferrous metals for some 240 years (circa 1720-1960) and a centre of steel and tin-plate production for 120 years (circa 1840 – 1960).

Industrial use on the site can be dated to circa 1845.

Prior to 1845 – There are records of a Grist (Corn) Mill on the site.

1845 – The Upper Forest Iron and Steel works and Tin-plate and sheet metal works were constructed, being fully operational by 1853.

1868 – Worcester Iron works constructed.

1886 – Worcester iron works expanded.

1898 - Site integrated to form the Upper Forest and Worcester steel and tin-plate works.

1909 – Worcester sheet and Galvanising plant constructed.

1924 – Further expansion of Iron works.

1958 – Metal processing Site closed.

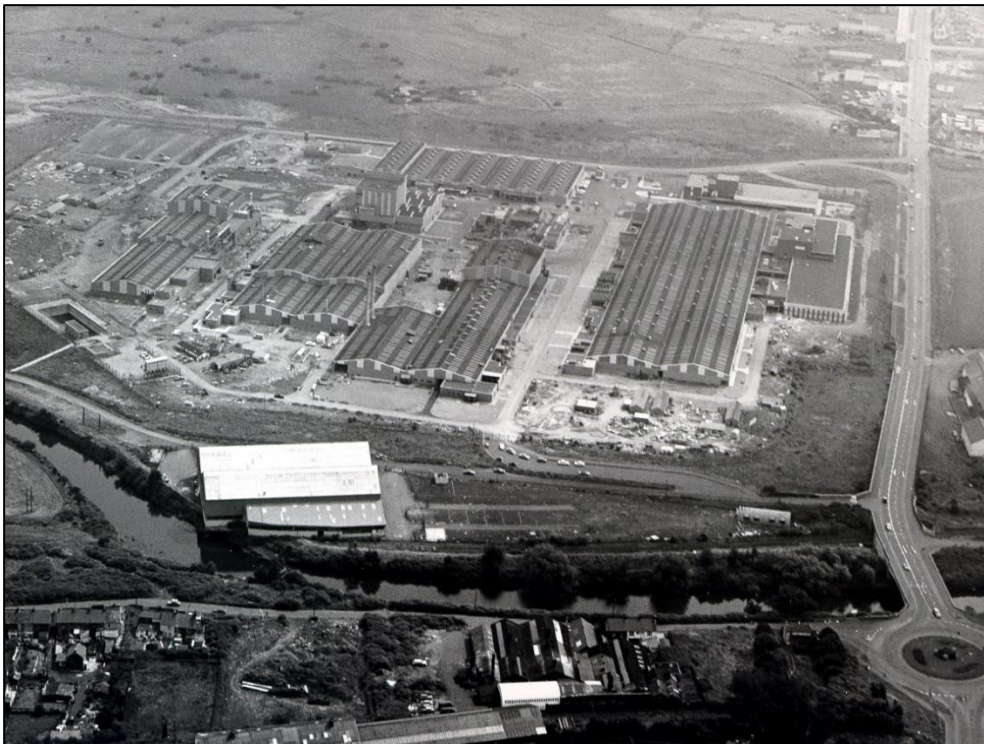
1960 – 1967 The redundant Works were demolished, and the land was raised above flood plain over a period of several years by the local authority in preparation for future occupation of the land for other industrial use. The site was raised between 2 – 4m using demolition rubble and spoil from the redundant slag and furnace waste heaps located within the valley, associated with the copper, lead and zinc smelting, steel and tin-plate metallurgy industries. (Particularly from the Upper Forest and Worcester works and Rio Tinto Zinc and Copper smelter).



1967: Site to be occupied by Morganite. Formerly Occupied by the Upper Fforest and Worcester steel works.

Morganite Electrical Carbon Limited (Morgan Advanced Materials PLC)

Construction: 1968 –1975 Morganite Electrical Carbon Limited and Morganite Special Carbon Limited site constructed. Operational activities commenced circa 1970.



March 1974: The almost completed site looking East.



1975: The completed Morganite Site looking North.

1998 Rationalisation: The site was rationalised during the period 1997-1998, whereby 2/5 of the site were sold for retail development: the south and south East fronts of the site being occupied by ASDA (with associated petrol station), 2 fast food outlets and a Public House (Restaurant) and Hotel.

The site consisted of approximately 22 acres with 5 main buildings - 2 manufacturing, 2 raw materials storage and an office building.

The site produced Carbon based solid substances and articles. In summary the operations undertaken are the manufacture of a range of carbon based products, through a process of Raw Material Preparation, Mixing, Forming, Heat Treatment, Impregnation (with metal or resin – carbon only) and Machining/Finishing. These operations are detailed in PPC application BU3787 and PPC Permit VP3339PD as varied.



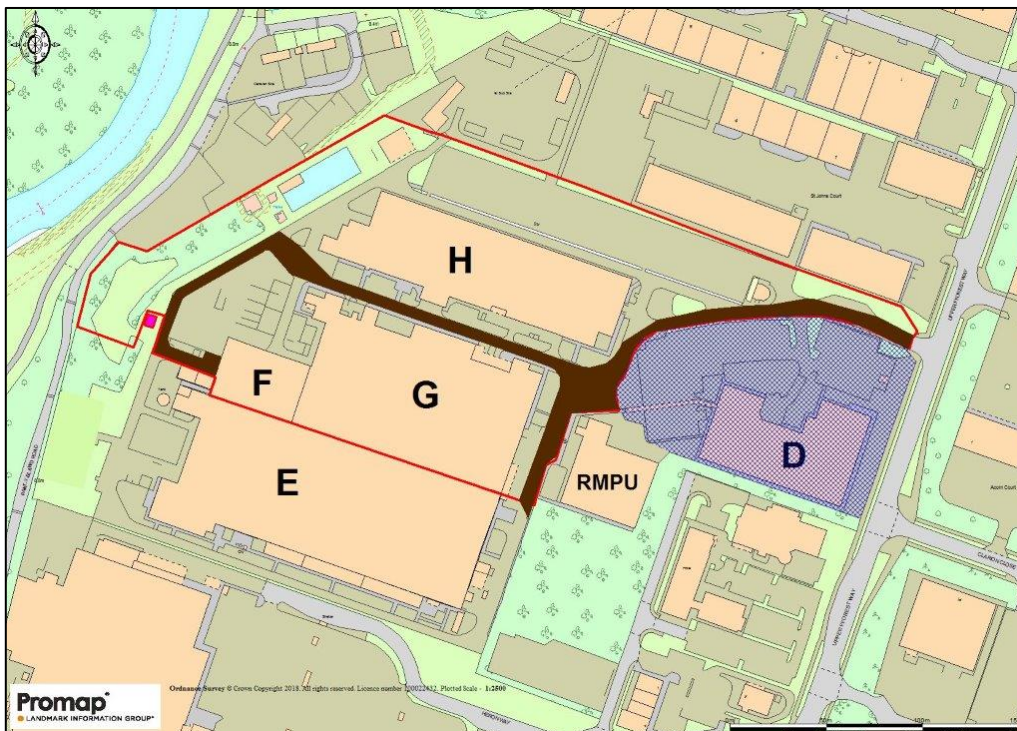
Aerial Photograph of site: circa 1998.

Site Rationalisation 2014 - 2019

In 2014 Morgan Group announced the rationalisation of its Electrical Carbon Division and therefore the consolidation of its manufactured product range from the Swansea site. The Swansea site retained the Collector transfer systems and Linear Graphite manufacturing capabilities including small section of Carbon Brush manufacture.

Investment was made into the site during this period to allow the modernisation of the Collector manufacturing processes which has allowed a significant reduction of the site manufacturing footprint and the further investment of a Long Metallised Carbon (LMC) impregnation plant which will remove the existing Short Metallised Carbon (SMC/Theta) Impregnation Process (VP3339PD/V008 & V009).

The retained site area remains the property of Morgan, while the vacated land is to be sold to 3rd parties. Morgan will retain access rights through the vacated areas of the site.



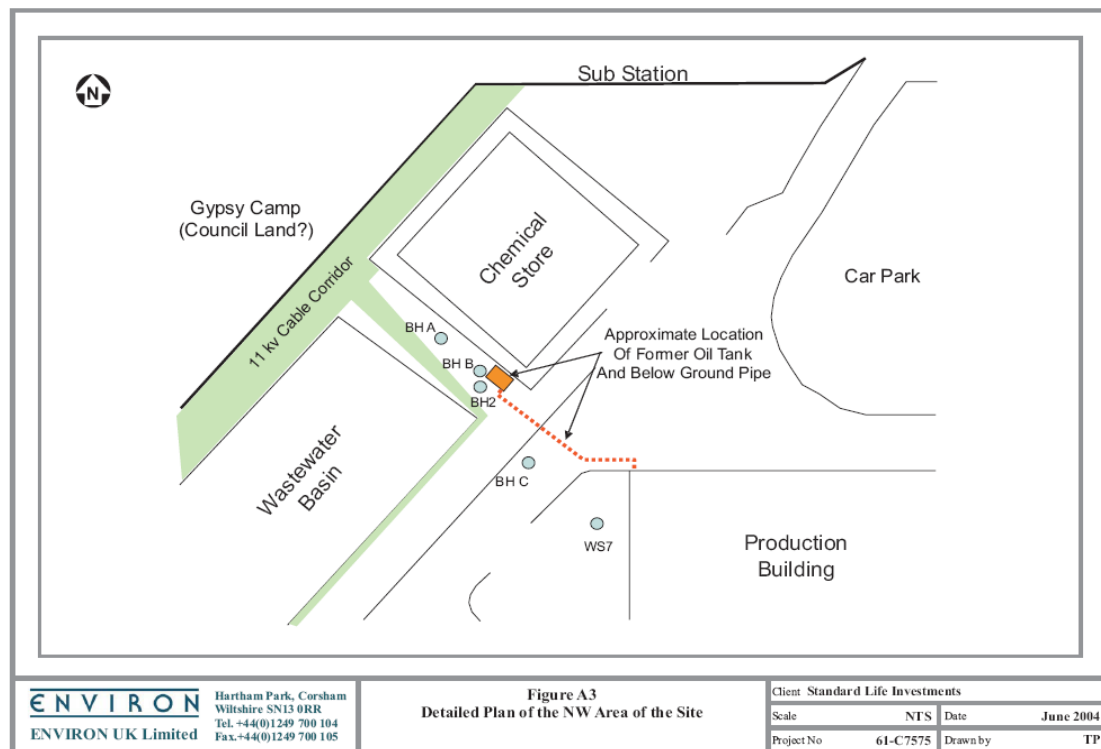
The area of the site with in the red outline is to be sold as one lot and the hatched blue area sold as another lot. Morgan retain the area outside these lots to the South West side of the site.

Summary of Site Environmental History: Land Pollution Further Investigation:

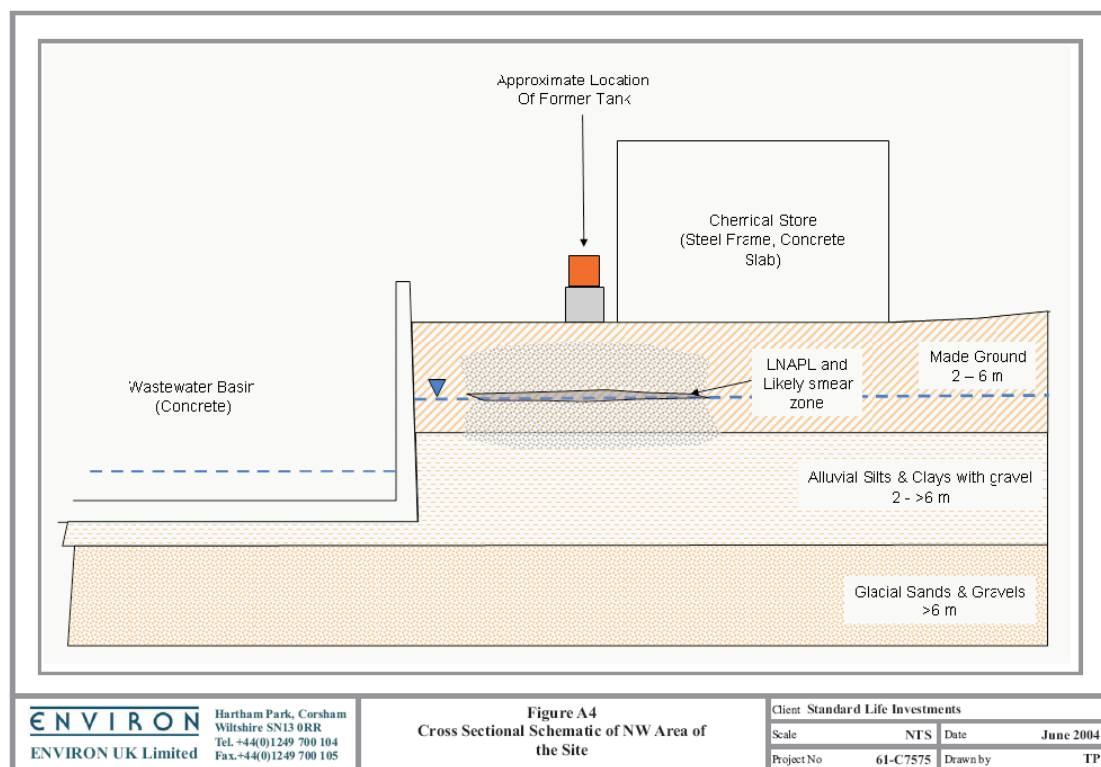
There have been 2 recorded cases of land pollution, referenced in the SPMP Design, prior to the implementation of the SPMP, both to the North-West of the site as shown below:

- On February 6th 2002 notification was sent to the Environment Agency (AG0194 Annex 1 to schedule 6), regarding the uncontrolled release to the ground of an unknown volume of Light fuel oil, from a fuel tank storage unit, since removed.
- Circa 1977 there was a release of diesel oil from the site oil-heating system, however there is no documentary evidence of this occurrence available.

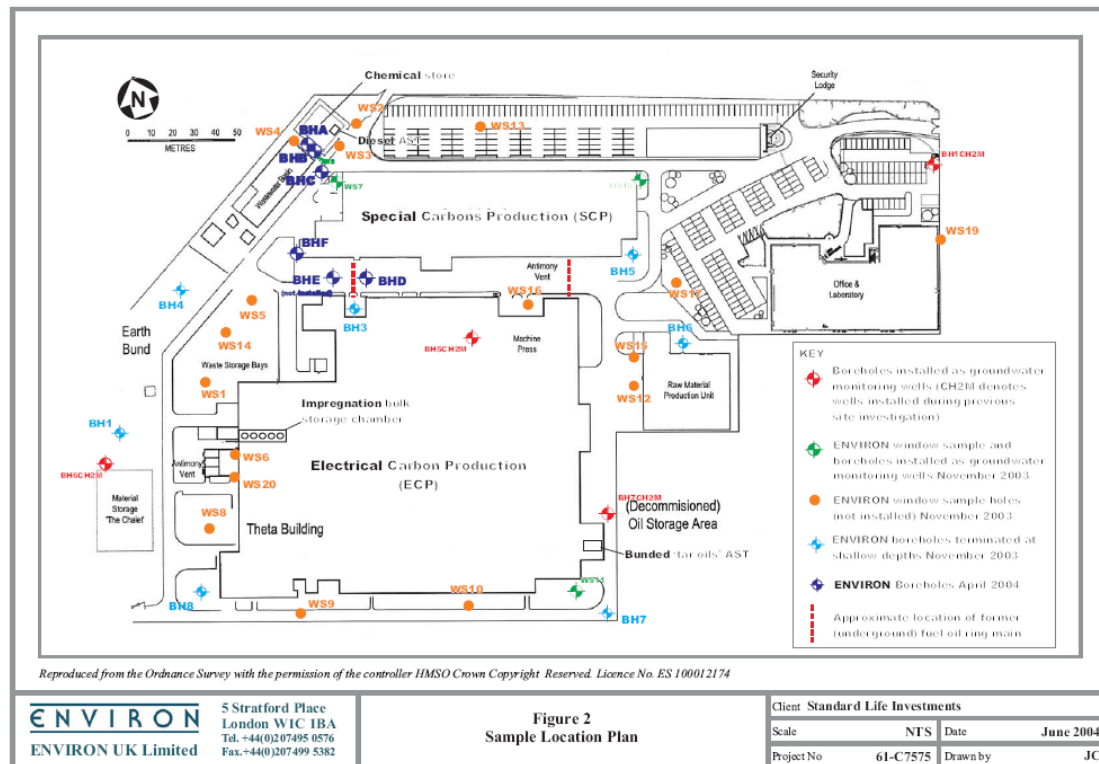
Picture 1: Location and Schematic of Oil Tank at North West corner of the site.



Picture 2: Cross Sectional Schematic of NW area of the site:



Picture 3: Showing location of diesel oil pipe-line – red dashed line adjacent BHD



Further investigation of the historical pollution incidents: As a result of these 2 incidents it was decided in consultation with the Environment Agency a risk assessment was undertaken with a supporting monitoring regime, whereby oil was baled from the bore-hole sunk adjacent to the old tank position. This took place during 2004 to 2005, with various reports submitted to the Environment Agency. The Risk Assessment and monitoring showed the risk to be insignificant and the monitoring activity ceased in December 2005, with agreement of the Environment Agency: dated 5th December 2005.

In addition SPMP monitoring of Zone 4 has continued to indicate that the oil plume is not migrating off-site towards the River Tawe.

Surrender of Vacated Land and Buildings

In September 2018 all production operations ceased within the vacated area of the site.

Clearance of the redundant plant and equipment was carried out from October to December 2018 with the remainder of the site areas cleared during early January 2019. There was no noted incidents of pollution or complaints issued during the clearance.

Following clearance, floors were hoovered and road sweeper used to remove remaining surface dust as far as practicable.

Any pits within the buildings containing plant and equipment have been cleaned out, backfilled with type 1 material and capped with concrete.

New mains utilities etc. supplies have been run in to the buildings so to separate from the retained site.

Photos of vacated site

The following photos are taken from the vacated areas of the site following clearance:



G Building (Former Line 8/Extrusion area)



G Building (Former Line 4/6, Batch Mixing Area)



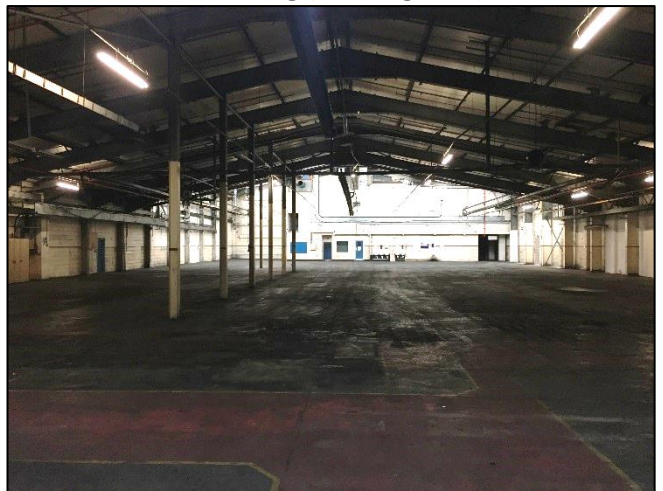
G Building (Former Stores)



G Building (Pressing Area)



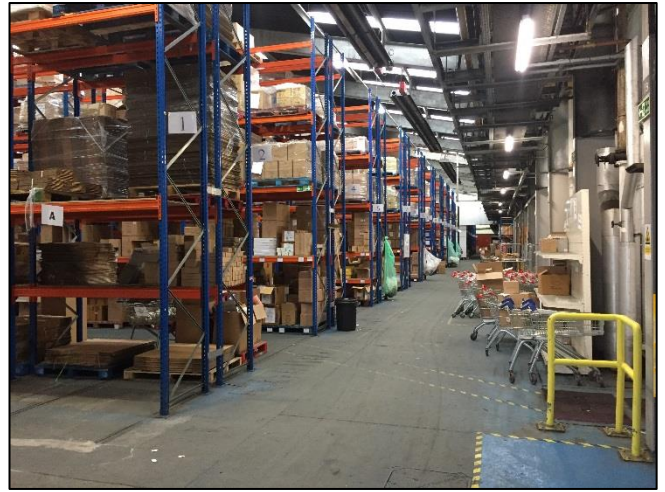
G Building (Heat Treatment, Kilning)



G Building (Brush/Brush Holder/Auto Consumer)



G Building (Ex-Armour Area)



H Building (Currently Occupied by Tenant; Something Different Wholesalers)



External Areas (Loading Bay and Scrubbers)



External Areas (Loading Bay and Scrubbers)



External Areas (Middle Road and Extraction Units)



External Areas (Middle Road and Extraction Units)



Waste Handling (Non-Hazardous Area)



Waste Handling (Non-Hazardous Area)



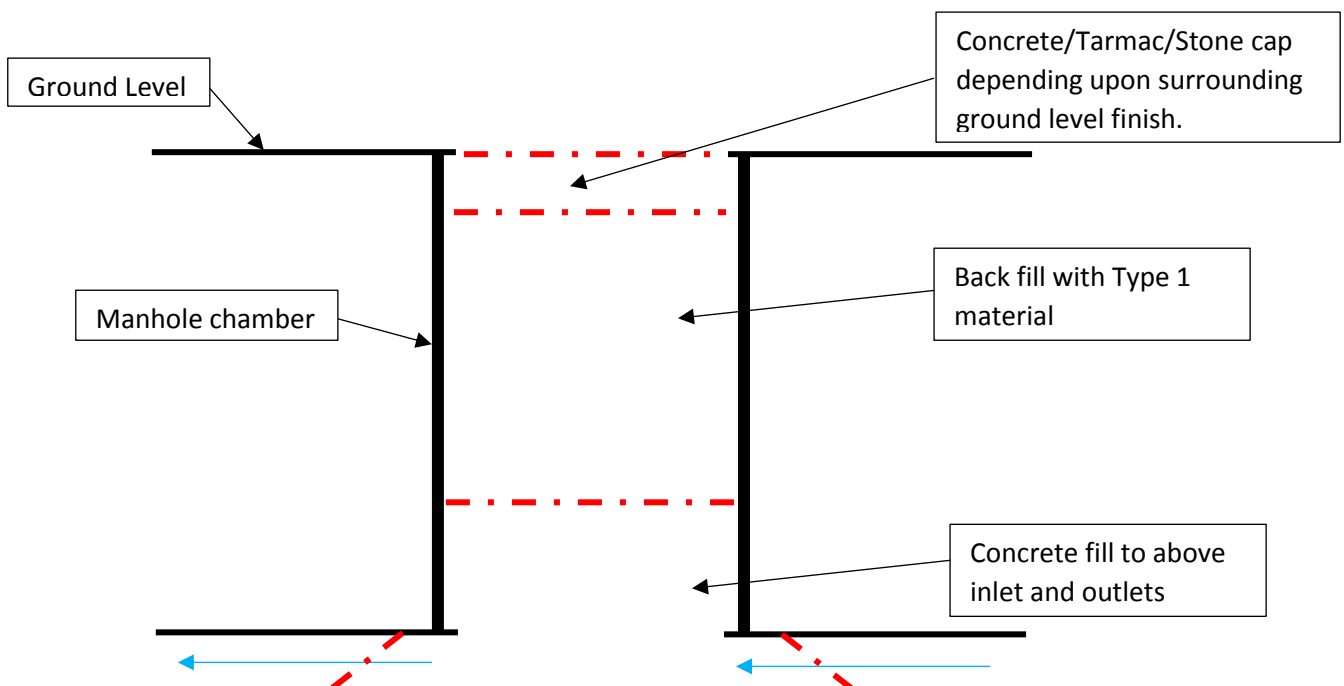
Waste Handling (Hazardous Area)



Surge Pond (Emissions Point W1)

Drainage and Effluent Systems

The site Trade Effluent Systems drains into a single outfall point (S1). Sources, manholes and pits feeding into this drainage system which fell outside of the retained site boundary have been capped using the method below and thus only effluent sources from the retained site permit boundary now drain into this outfall point.



The emissions point (S1) was removed as a monitored point by V010 of the permit (VP3339PD) in November 2018.



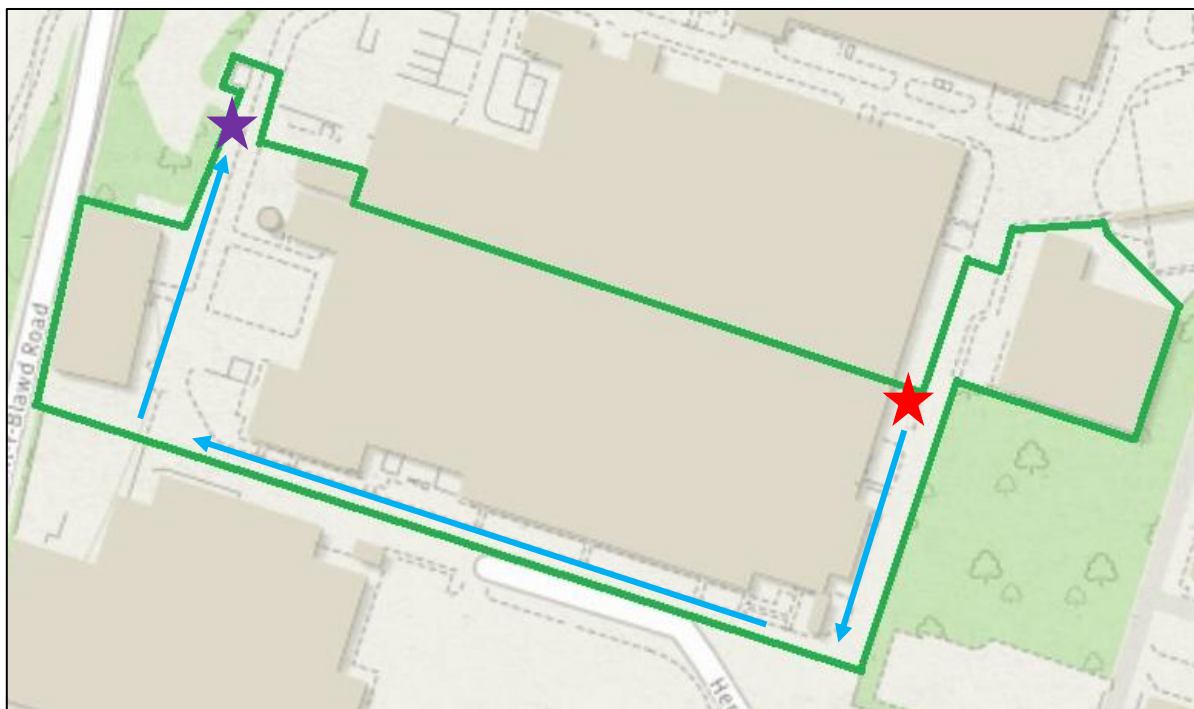
Trade Effluent Compound (Emissions point S1)



Note: This emission point (S1) will continue to be monitored as part of the sites Welsh Water sewer discharge consent.

Storm Water Monitoring

Surface water drainage systems for the retained site will remain shared with the surrendered area of the site and the discharge point to River Tawe will be responsibility of the purchaser of the vacated site.

The drainage system enters the site at the North-East Boundary and Flows in a clockwise direction around the perimeter and exits through the North-West Boundary, as shown below. Regular visual checks of the manholes will be taken and if determined that possible contamination is present, water samples will be taken to determine the source of pollutant from the first and last identified manhole chambers to identify if any pollution/contaminates are entering or leaving the site boundary.



	Entry Point – Just inside fence line on Green Walkway
	Exit Point – In Grass in front of Security Cabin

The site operates under certificated ISO 14001:2015 management system and this will be reviewed in light of the changes listed above.

The proposed SPMP will be submitted as separate document as part of the submission of this partial variation submission (Ref: Revised SPMP Morganite VP3339PD - April 2019).