McDonnell Cole

October 2021
Ref: 1762-HRA-R1

Hydrogeological Risk Assessment for Tong Quarry, Bacup, Lancashire

Contents

APPENDICES

1. Introduction

McDonnell Cole Ltd has been commissioned by AA Environmental Limited (AAe) to produce a Hydrogeological Risk Assessment in support of a permit application for the extension and restoration using inert waste of Tong Quarry, Tong Lane, Bacup. Tong Quarry is located approximately 0.5km east of Bacup in Lancashire. It is centred around National Grid reference SD880 226 and can be located by postcode OL13 9XA.

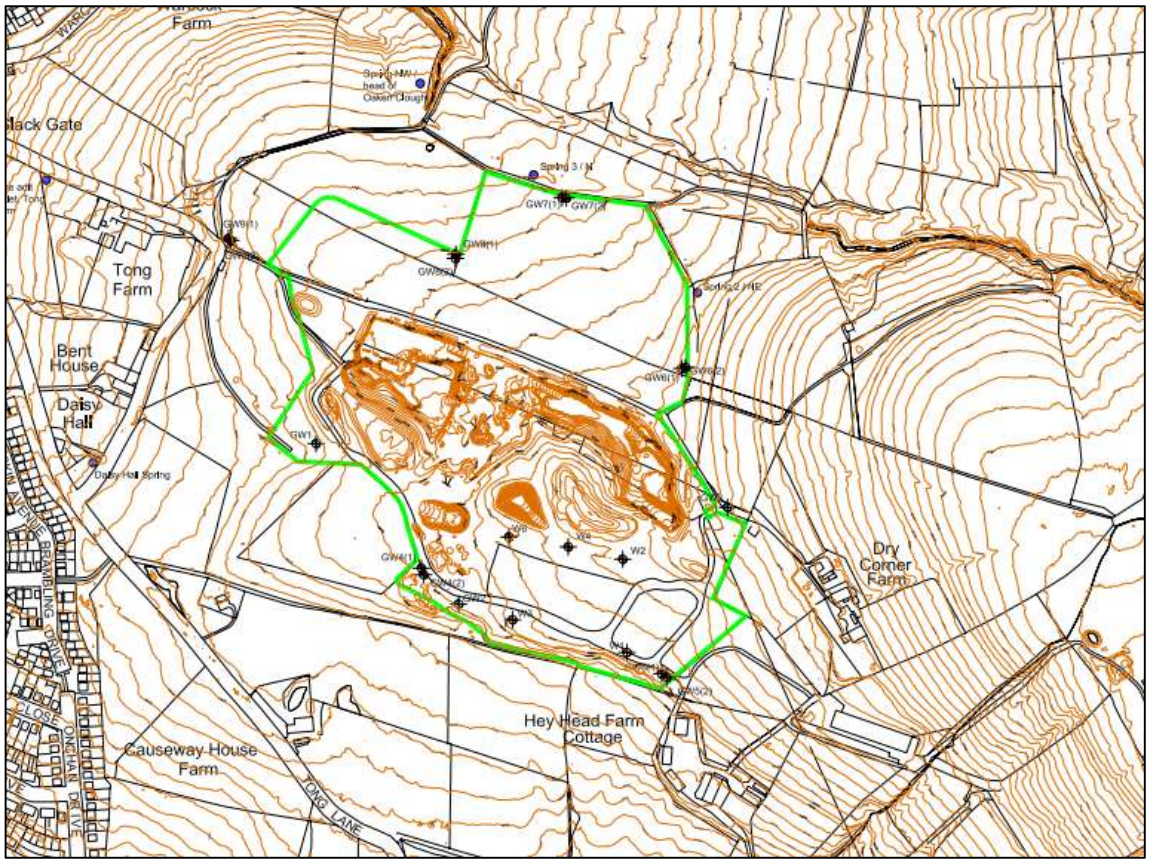
The quarry extracts sandstone, clay and coal. Initially an exemption was being used to allow importation of materials for restoration. A subsequent waste recovery permit reference EPR/CB3138RW, was granted in 2012. This was transferred to the Bacup Clay Company Limited in 2016, reference EPR/EB3307HK/T001. The permit allows for the importation of inert waste, in line with an approved waste recovery plan, to raise ground levels to those within the planning permission. The waste recovery plan has been revised to support the permit application for the extension, refer to AAe report reference 213036/WRP/001, 2021.

Reference has been made to the following reports compiled during the development of the site:

- Envireau Water: 2010: Water Features Survey & Hydrogeological Appraisal. Tong Quarry, Bacup, Lancashire. Reference 1137 Report r6.
- SMFoster Associates Limited: 2017: Inert Waste Disposal, Tong Quarry, Bacup, Lancashire. Environmental Permit Application. Hydrogeological Risk Assessment. Report reference 135/03/hra/1017.
- SMFoster Associates Limited: 2019: Proposed Northern Extension, Tong Quarry, Bacup, Lancashire. Hydrological and Hydrogeological Impact Assessment. Report reference 135/05/hia/0819, (referred to as HIA within the text of this report).
- SMFoster Associates Limited: 2020: Water Features Survey. LCC/2020/0018 Extension, Tong Quarry, reference 135/05.

The site location is shown in drawing 213036/Site Plan/D/001, an extract of which is presented as Figure 1.

Figure 1: Site Plan – proposed permit boundary in green



2. The Site

2.1. Location

The site is located in moorland to the east of The Rossendale Valley and is surrounded by fields. Tong Lane is located approximately 300m southwest of the site and the quarry access tracks are routed from here.

The topography surrounding the quarry rises to hills and moors on the east, with a general fall towards Bacup in the west. The eastern boundary of the site is around 360m AOD. There is a fall of approximately 20m across the site to the west. The northern boundary of the existing quarry forms the centre of a gentle spur, such that ground levels also fall to the south across the area of excavation and to the north beyond the perimeter track.

2.2. Environmental Setting

Tong Quarry is set in moorland and surrounded by fields. Lee Quarry SSSI is approximately 2km southwest of the site. There are no other designated habitats within 2km of the site.

The site is not within a groundwater source protection zone. The site is within the lowest risk flood zone 1.

Further details of local environmental features are presented in the Environmental Setting and Site Design (ESSD) report, prepared by AAe to accompany the 2021 environmental permit application.

2.3. Site History

Historical maps from 1912 show the workings of a quarry southwest of the current site on the east of Tong Lane close to Daisy Hall. The site itself at this time was fields. There are indications of a disused quarry in the southwest of the existing site in 1988 Ordnance Survey maps. The workings of the existing quarry are not otherwise recorded on historical maps of the area.

The quarry extracts sandstone, clay and coal. Historical workings of the Lower Mountain Mine Coal (refer to Section 3) have been encountered as quarrying has progressed. At the base of the quarry floor, old coal workings of the Lower Foot Mine are exposed in places. These connect to adits that drain the site to the west near Tong Farm.

Quarry restoration began with use of a paragraph 9 exemption to allow importation of materials for restoration. A subsequent waste recovery permit reference EPR/CB3138RW, was granted in 2012 and infilling under the permit is understood to have begun in 2012.

2.4. Development Summary

As can be seen in Figure 1, the northern boundary of the existing workings is marked by a track, from which Dry Corner Farm can be accessed. It is proposed that workings will extend northwards by approximately 150 – 200m to the field boundary south of Hoyle Hey Clough. The green line marks the proposed boundary.

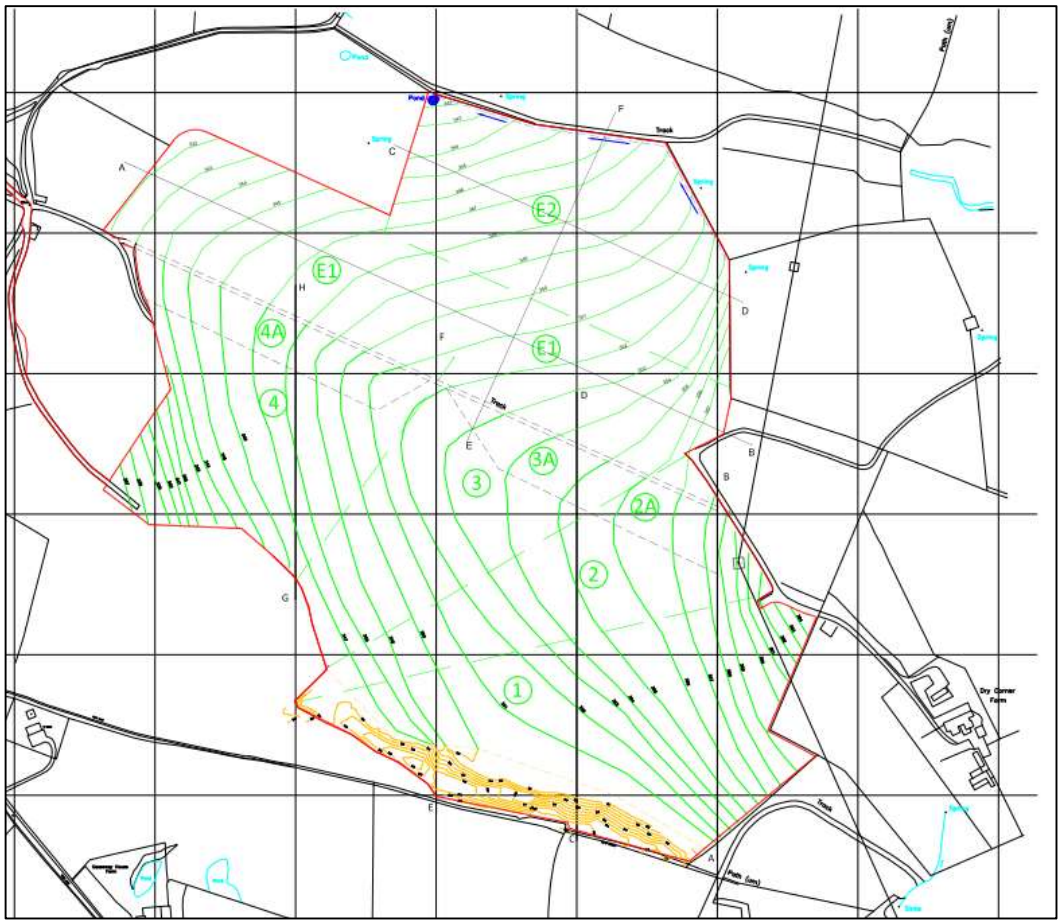
The minimum floor level in the current workings is approximately 325m AOD. It is proposed that the northern extension would be worked to a similar depth on the west, with the base level rising to around 335m AOD in the east. This would give depths of workings of around 15m in the west and 20m in the east.

Imported inert waste materials will be placed in line with the Waste Recovery Plan and Importation Protocol developed by AAe, referenced 213036/WRP/001 and 213036/IP respectively. The infill will have the following controls:

- The low permeability mudstones of the quarry floor will offer protection for underlying water bearing units.
- Former historical coal workings, where encountered, will be sealed over, with clay of permeability no greater than 1 x 10^{-9} m/s.
- The quarry walls will be sealed over their full height with a low permeability engineered geological barrier to limit ingress of water during wet weather.

Restoration contours are presented as Figure 2.

Figure 2: Restoration Plan (taken from MWP Planning Drawing No 9865A/05A)



3. Geology and Hydrogeology

3.1. Geology

The geology and hydrogeology of the site are detailed in the 2019 Hydrological and Hydrogeological Impact Assessment (HIA), prepared by SM Foster Associates Limited to support the planning application. Extracts of a recent Envirocheck report are presented in Appendix 1. These show the geological setting of the site.

The quarry is located within the Pennine Lower Coal Measures (PLCM), a series of interbedded mudstones, sandstones and coal. The Envirocheck maps show how the strata dip approximately northwards, with the younger strata in outcrop to the northeast and the base of the Coal Measures in outcrop to the southwest of the site. The geological succession in and around the quarry is shown in Table 1. All strata listed are part of the Pennine Lower Coal Measures. Further mudstone is encountered below the Woodhouse Hill Rock before reaching the strata of the Millstone Grit. The quarry has worked those horizons highlighted in Table 1, with the base resting in undifferentiated Coal Measures.

Table 1: Geological Succession

Formation	Description	Approx. thickness (m)
Darwen Flags	Fine grained flagstone	15
Upper Mountain Mine	Coal	
	Undifferentiated Coal Measures	24
Great Arc Sandstone	Irregularly bedded sandstone	20
Lower Mountain Mine	Coal	1
	Fireclay	1
Ganister Rock	Ganister	1
	Undifferentiated Coal Measures	6
Lower Foot Mine	Coal	
	Undifferentiated Coal Measures	16
Woodhead Hill Rock	Sandstone and Mudstone	24

There have been historical workings of the Lower Mountain Mine coal, which have been encountered by the quarrying activities. The Lower Foot Mine coal workings have been reported as intermittently exposed in the quarry floor. Based on the dip of the strata to the north (report in the HIA to be approximately 1:100), it is estimated that if the quarry is extended northwards as proposed, the Lower Foot Mine Coal is likely to be approximately 2m lower than in the existing area of excavation.

A geotechnical assessment of the site was produced by James Associates in 2010. This describes the structural geology. Reference is made to the jointing above the worked Lower Mountain Mine, which it says has become enhanced and dilated as a result of collapse into the voids of the worked coal seam.

3.2. Existing Boreholes: 2017 Ground Support Services (UK) Ltd

The HIA reports on the installation of three new groundwater monitoring boreholes in 2017. The borehole logs are presented in Appendix 2. Boreholes GW1 and GW2 were located on the southwestern boundary of the quarry at ground levels between approximately 340 and 345m AOD, with GW1 the most westerly. GW3 was located on higher ground to the east of the quarry at around 365m AOD. The geological sequence confirmed by these boreholes is given in Table 2.

Table 2: Summary of Geology: GW1, GW2, GW3, 2017

Formation	Lithology	GW1		GW2		GW3	
		Depth to base (m)	Thickness (m)	Depth to base (m)	Thickness (m)	Depth to base (m)	Thickness (m)
Made ground	Clay/peat	3.2	3.2	6.1	6.1	2.7	2.7
Pennine Lower Coal Measures (PLCM)	Mudstone					8.4	5.7
Great Arc Sandstone	Sandstone					26.7	18.3
PLCM	Mudstone	3.6	0.3				
Lower Mountain Mine	Coal	5.8	2.2			28	1.3
PLCM	Mudstone	6.7	0.9			29	1
Ganister Rock	Sandstone	7.8	1.1	8.9	2.8	30.3	1.3
PLCM	Mudstone	12.6	4.8	13	4.1		
Lower Foot Mine	Coal	13	0.4	13.3	0.3		
PLCM	Mudstone	27.9	14.9	33.1	19.8	54.2	23.9
Woodhead Hill Rock	Sandstone	33 pen.	5.1	39 pen.	5.9	60 pen.	5.8

pen. – penetrated

3.3. 2021 Additional Boreholes

In February 2021 a series of deep and shallow boreholes were constructed to give greater perimeter coverage of the site and proposed extension. Deep boreholes were drilled approximately 5m into the Woodhead Hill Rock, or deeper if necessary to obtain a water strike. The depth of strike was used to determine the depth of installation. A borehole location plan, together with a plan showing the locations of the boreholes, superimposed on the geology, are presented as Drawings reference 213036/BH/D/001 and 003 respectively. Borehole logs are presented in Appendix 2 and cross sections produced from the logs are presented as drawings Section Line 1 and Section Line 2. Table 3 gives some details of groundwater conditions for boreholes along the southern side of the site and Table 4 the northern side of the site.

Table 3: Southern Boreholes

Borehole	Depth to Woodhead Hill Rock		Depth of water strike		Groundwater level 6 Feb 21
	m bgl	mAOD	m bgl	mAOD	
GW9 (Westernmost)	38.3	299.25	42	295.55	298.23
GW1	33.1	313.17	9 28	330.3 311.3	307.73
GW4	33	313.38	56	290.38	337.75
GW2	33.1	313.17	34	312.27	DRY
GW5	34.4	316.2	42	295.55	303.73
GW3 (Easternmost)	54.2	310.04	54.5	309.74	335.94
	may be affected by local ponding				

Table 4: Northern Boreholes

Borehole	Depth to Woodhead Hill Rock		Depth of water strike		Groundwater level 6 Feb 21
	m bgl	m AOD	m bgl	m AOD	
GW9 (Westernmost)	38.3	299.25	42	295.55	298.23
GW8	42.8	303.76	59	287.56	288.79
GW7	44.2	300.36	44	300.56	343.02
GW6	Not reached		Dry @ 48	Dry @ 318.07	328.74
GW3 (Easternmost)	54.2	310.04	54.5	309.74	335.94
	Affected by Spring / inflow from Hoyle Hey Clough				

Shallow boreholes were constructed to a nominal depth of 20m below ground level. Details are given in Table 5. The variable groundwater levels recorded are indicative of the variable Coal Measures geology and represent water held locally between the interbedded and fractured horizons, rather than a highly transmissive aquifer system. Table 5 indicates the basal elevation of the boreholes, (marked with a thick line), relative to the quarry base.

Table 5: Shallow Boreholes

Geology	GW4S	GW5S	GW6S	GW7S	GW8S	GW9S
	Stratum Base mAOD	Stratum Base mAOD	Stratum Base mAOD	Stratum Base mAOD	Stratum Base mAOD	Stratum Base mAOD
Ground level	346.18	350.70	357.52	344.36	346.27	337.41
Topsoil			357.32		346.07	337.21
Made Ground	337.48	346.1				
Glacial Till		344.6		343.06		335.61
Mudstone/clay	336.18		355.52		345.37	
Sandstone			354.22			
PLCM			350.62			
Great Arc Sst			339.42	331.76	334.07	
PLCM			337.52	326.76	326.27	329.61

Geology	GW4S	GW5S	GW6S	GW7S	GW8S	GW9S
	Stratum Base mAOD	Stratum Base mAOD	Stratum Base mAOD	Stratum Base mAOD	Stratum Base mAOD	Stratum Base mAOD
Ground level	346.18	350.70	357.52	344.36	346.27	337.41
Lower Mountain Mine coal				325.86		
Ganister	332.08	341.6				
Lower Foot Coal *	331.08	339.8				
PLCM	326.18	337.5				
Coal		336.9				
PLCM		330.7				
Quarry Base	325m AOD minimum on west					
PLCM				324.26		317.41 (Sst to 319.51)
Water strike	none	none	none	none	none	none
GWL 6/2/21	333.08	334.88	349.39	328.84	343.43	320.85

'* underdrained by adit to the west of Tong Farm, refer to 2019 HIA.

	Base of borehole

3.4. Hydrogeology

3.4.1. General

The PLCM are designated as a Secondary A aquifer by the Environment Agency. The site is not located within a groundwater source protection zone. The quarry is reported in the 2019 HIA to be established above the prevailing groundwater level within the PLCM. The Woodhead Hill Rock, which is toward the base of the PLCMs, is considered to be the principal groundwater bearing unit local to the site. This has been confirmed by boreholes GW1 and GW3 installed in 2017 and by the location of the major water strikes during borehole construction in 2021.

The BGS Geology of the Rochdale District describes the Woodhead Hill Rock as mainly medium grained, weathering ochreous, with rare pebbles.

3.4.2. Borehole Information

At the western extent of the quarry, drilling (GW1) encountered water in a thin sandstone horizon in the undifferentiated PLCM. Geological mapping suggests this sandstone horizon is of limited lateral extent, but that it may feed a spring approximately 250m southwest of GW1. The groundwater strike was around 330m AOD and the spring is at an elevation of 327m AOD. The sandstone was not encountered in GW2 or GW3. It is unclear whether the sandstone unit extends below the floor of the quarry, but given the relative elevations, it may extend to link to the Lower Foot Mine drainage adit.

During the drilling of GW1 to GW3 all boreholes recorded water strikes at round 310m AOD, which equates to the top of the Woodhouse Hill Rock. Following installation and monitoring

for approximately 18 months, GW2 was found to be dry on all occasions, GW3 on the higher ground to the east recorded levels of 335m AOD and GW1 on the west recorded levels of around 308mAOD.

Details of water strikes in the deep 2021 boreholes are presented in Tables 3 and 4. All strikes were below the lowest level of the existing quarry ie less than 325mAOD. No water strikes were recorded during the construction of the shallow (20m) boreholes.

The following observations are made:

- Boreholes with bases and screened sections below the existing quarry level, have water levels resting below the quarry base.
- Boreholes with bases above the base of the existing quarry have accumulated water since installation, but at varying levels and with very large fluctuations between monitoring visits.
- Water level monitoring on 20 February was carried out during heavy rain. Water levels were observed to be actively rising after sampling in GW7D.
- GW7D (deep) has a water level close to surface. It appears this has intersected a large fracture, or fissure during construction, potentially connecting to recharge from a spring, or the Hoyle Hey Clough. Further evidence of this is given in the water quality data from the first sampling round, which has much higher aluminium concentrations, similar to the springs to the north and northeast.
- GW7S (shallow), directly adjacent, is almost dry.

An interpretation of this data must consider the multi-layered nature of the PLCM and the prevalence of lower permeability mudstone horizons that inhibit flow. Flow through the unit as a whole will be influenced by the local occurrence of fractures and fissures. As noted by James Associates, the occurrence of fractures above the worked coal seams has been enhanced due to coal seam collapse.

A discussion with the quarry operators during field monitoring on 20 February 2021 revealed that the quarry, which was ponded across the quarry floor in the west at the time, drained freely under gravity into the mine adits at the base of the quarry wall within a few days after cessation of rainfall. It was reported that there was no current need to pump water from the quarry. (During 2010 it was reported that water pumped from the deepest sump area was discharged to the mine adits.) Seepages were observed running down the quarry face and into the adits. Previous visits by Envireau Water in August 2010 and SM Foster in July 2019, recorded the face of the quarry to be dry and the adit outfall near Tong Farm to be almost dry. Monthly monitoring has been carried out since the 2021 boreholes were installed and on several occasions it was raining during monitoring. Conditions were dry during the June 2021 monitoring and the quarry base was almost dry.

The principal water bearing unit locally is considered to be the Woodhead Hill Rock, however, the catchment is one of high rainfall and strata higher in the sequence are recharged rapidly

after rainfall. Some of the recharge emerges as springs. Elsewhere recharge is reported to be under-drained by the coal workings of the Lower Foot Coal, as described in the 2019 HIA. The shallow 2021 boreholes show a noticeable drop in groundwater level during the drier months of the year, indicative of a free-draining fractured system.

3.4.3. Prevailing Groundwater Level and Direction of Flow: Woodhead Hill Rock

The prevailing groundwater level is assessed using data from the following boreholes: GW1, GW3, GW5D, GW6D, GW8D and GW9D, refer to Figure 3. The other boreholes are discounted on the following basis:

- The shallow boreholes show very variable levels and appear to be influenced rapidly by rainfall recharge;
- GW2 is dry;
- GW4D has higher groundwater levels than other deep boreholes along the same boundary and these levels are similar to GW4S adjacent. There is a ponded area close to the boreholes, which may be causing short-circuited recharge. It is also of note that water levels are similar to the level of the Lower Foot Mine coal intersected by both boreholes.
- GW7D appears to be affected by the proximity to Spring 3.

Groundwater is highest in the east at around 336m AOD in GW3 and 329m AOD in GW6. There is fall of approximately 30m to the westnorthwest, where groundwater in GW9 is at 299m AOD. Over a distance of approximately 500m this gives a hydraulic gradient of 0.06. There is a steeper fall in groundwater levels to GW8, which is on the northern boundary of the extension. It should be noted that groundwater was originally struck much deeper in this location. There are also falls in groundwater levels to GW1 in the westsouthwest (fall of 21m over 350m, giving a gradient of 0.06) and GW5 in the south (fall of 25m over 250m, giving a gradient of 0.1). Groundwater level data from February to June 2021 is presented as Appendix 3.

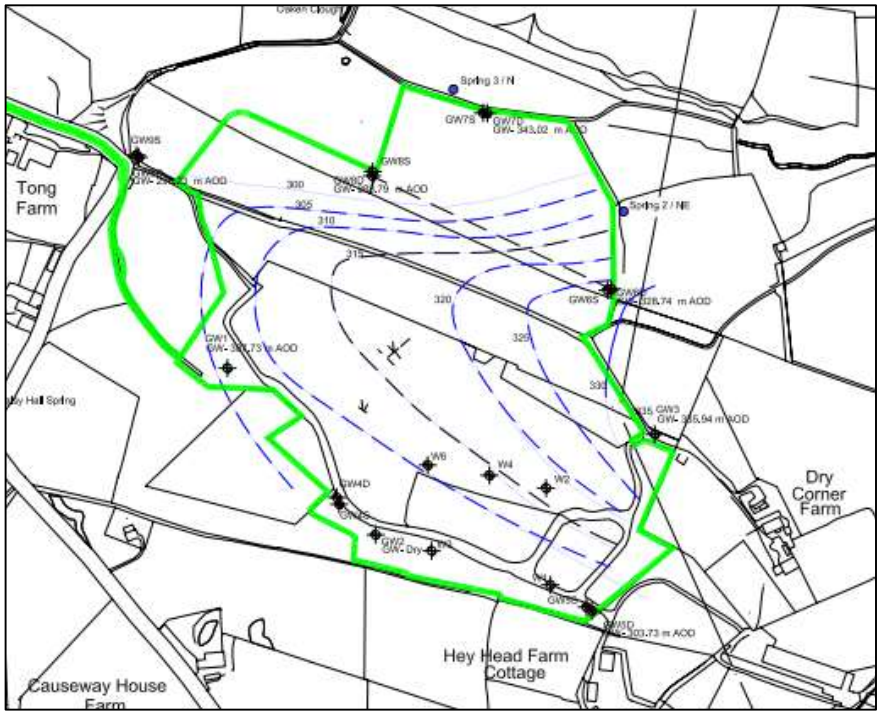
Data from the 2019 HIA indicates that the groundwater levels in GW1 and GW3 remain similar throughout the year, refer to Table 6 below. The new deep boreholes show a similar pattern, indicative of permanently saturated conditions.

Table 6: Groundwater Level Data from HIA

Borehole	GW1		GW2		GW3	
	Depth (mbgl)	Elevation (mAOD)	Depth (mbgl)	Elevation (mAOD)	Depth (mbgl)	Elevation (mAOD)
Water strike	9.0 28.0	330.3 311.3	34.0	312.3	54.5	309.67
RWL 31/05/17	32.48*	307.63	Dry	Dry to 308.29	29.88*	335.04
RWL 08/08/17	32.1*	308.01	Dry	Dry to 308.29	28.92*	336.00
RWL 28/11/17	32.24	307.87	Dry	Dry to 308.29	29.00	335.92
RWL 14/03/18	32.32	307.79	Dry	Dry to 308.29	29.37	335.55
RWL 27/11/18	Dry	-	Dry	Dry to 308.29	29.00	335.92

* below cover level

Figure 3: Groundwater Contours

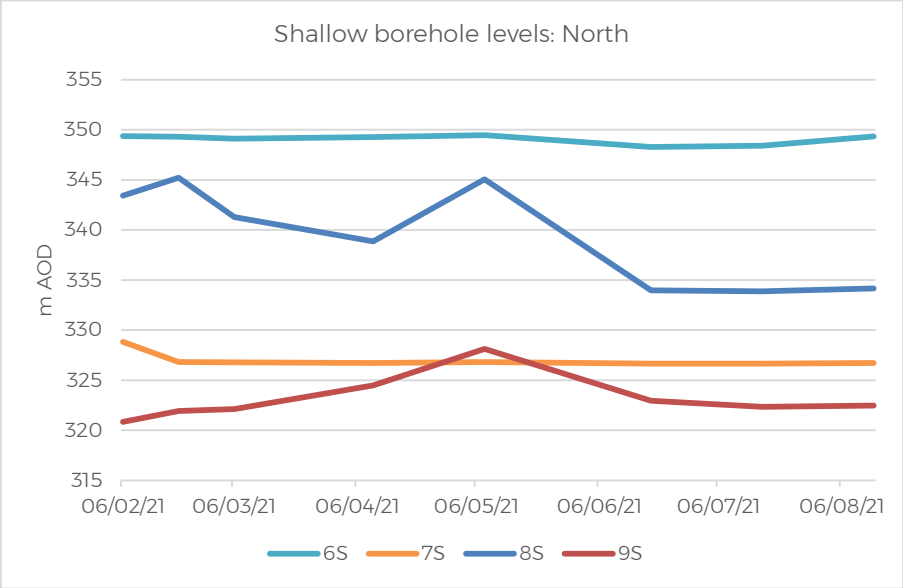


3.4.4. Groundwater in the shallow fracture system

The shallow monitoring boreholes have encountered groundwater held in fractures close to surface, which have been seen to respond rapidly to rainfall. The shallow fracture system is underdrained by the Lower Foot Mine workings, as is the quarry, which also dewaters rapidly after rainfall events. The 2019 HIA describes how the presence of mine workings would serve to dewater overlying strata. Figure 4 shows groundwater level variations since installation.

- Borehole GW6S is upgradient of the quarry, but downgradient of several springs, which appear to keep fractures filled.
- Borehole GW7S is dry, or almost dry. This borehole intersects the Lower Foot Mine 1.5m above its base, which appears to keep the fractures fully drained.
- Borehole GW8S shows a difference of 11m in groundwater levels during the 5 months of monitoring. The Lower Foot Mine is below the base of the borehole, so infiltrating rain water is slower to drain than in GW7S.
- Borehole GW9S shows a fluctuation of more than 7m over the monitoring period.

Figure 4: Shallow borehole water levels



3.4.5. Aquifer Usage

Previous hydrogeological studies of the site have reported that there are no licensed groundwater abstractions within 1km of the site. A recent Envirocheck report listed the following abstractions within 2km of the site, which includes surface water abstractions. Those within 1km are listed as revoked.

Table 7: Water Abstractions

	Status	Name	Nature	Distance from site
1	Revoked	NWWA Eastern division, Sheephouse & New Lime reservoirs	Reservoir/pond	750m SW
2	Revoked	John Taylor and company	Surface	800m N
3	Revoked	NWWA Eastern Division	Reservoir/pond	1000 SW
4	Active	B + R Hattersley, spring-fed catchtank, New Hill Farm, Shawforth	groundwater	1.5 km SE
5	Active	John Prior Engineering Ltd	Surface	1.8km SE
6	Active	The Coal Authority, Old Meadows minewater treatment plant	Surface	2km NW

Table 8 shows the local private water supplies that have been previously reported. Recent correspondence with Rossendale Borough Council confirms the same supplies remain in place. All are east, or southeast of the site, away from the prevailing direction of groundwater flow local to the quarry.

Table 8: Private water supplies within 1km radius of Tong Quarry Landfill

Location	Easting	Northing	Distance from quarry (m)
Higher Hogshead Farm	388586	422120	400 SE
Coal Pit Field Farm	388676	422055	500 SE
Dry Corner Farm	388475	422456	125 E
Gowther Fold Farm	388830	421938	675 SE
Hey Head Farm	388347	422225	125 SE
Moorview Farm	388426	422107	300 SE

3.4.6. Groundwater Quality

The 2019 HIA describes drainage from the Upper Mountain Mine emerging as springs to the east of the quarry. The BGS, 2010, describe mine drainage water as a potential problem in areas of disused collieries. Such water has high acidity in addition to iron and commonly elevated levels of manganese, aluminium and sulphates.

Groundwater quality data has been obtained at the time of the installation of the 2017 boreholes for approximately a year and then more recently since the installation of new boreholes in February 2021. Water quality sampling for determining water quality has included spring locations. Samples have been obtained via different techniques and analysed in different laboratories. Deep boreholes monitoring the Woodhead Hill Rock offer particular challenges to field monitoring techniques. There is rapid infiltration of rainwater to shallow fracture zones prior to discharge to springs, or mine adits lower in the sequence. Some boreholes intersect coal seams/workings. Stagnant periods between monitoring will have allowed borehole conditions to change in a Coal Measures sequence rich in iron and other minerals. This has lead to a very variable chemistry. However, the data shows some clear differences between sample locations, as given below:

- For the following determinands the waste boreholes have the highest average readings, followed by the deep boreholes, then the shallow boreholes, with the springs having the lowest averages: electrical conductivity, alkalinity, chloride, calcium and hardness.
- Spring samples are lower in concentration/recorded value than other locations for the following determinands: electrical conductivity, alkalinity, chloride, sodium, boron, manganese (although this is raised in both the mine adit and Daisy Hall Spring on 6 March 2021) and iron.
- Spring samples have the highest average aluminium concentrations, largely due to concentrations measured for the North/ 3 and Northeast/2 springs.
- Ammoniacal nitrogen is slightly higher in waste boreholes than elsewhere, but the average is still relatively low for waste at 3.32 mg/l.
- Waste boreholes have the lowest concentrations of chromium.
- Data from GW7D from 7 February 2021 shows lower manganese and much higher aluminium than on subsequent dates.
- Data from 2017 for GW1, GW3, W1 and W4 found PAHs above the laboratory limit of detection (LOD). In recent data there is very little occurrence of PAH above LOD. It is

noted that the 2017 samples were subject to a lower LOD than used in 2021 and this explains some, but not all the differences.

- The PAH data from 2018 at Daisy Hall Spring, which has not since recorded such high concentrations, may be due to contamination from road runoff.
- During August 2021 the pH of Spring N and NW was 3.8 and 4 respectively, which is much more acidic than usual. Aluminium was also much higher than usual.
- During August 2021 there were much higher manganese levels in some of the boreholes, which may be related to bacterial activity in warmer months.

Water quality data from 2021 is summarised in Table 9. Further data is presented in Appendix 4. Sampling locations are shown in Figure 1 and drawing 213036/BH/D/001.

The detailed data from the deep borehole GW7D, on the first sampling round, differs from that of other deep boreholes. It has characteristics similar to the spring water quality. This borehole has been found to have very high groundwater levels, even though the adjacent shallow installation is almost dry. This suggests that the borehole has been influenced by rapid recharge through fractures close to surface and is not reflective of conditions in the deep aquifer. For this reason the data from GW7D has not been included to produce the summary in Table 9.

Table 9: Water Quality Data Summary

		Deep Boreholes (Ex GW7D)			Shallow Boreholes			Waste Boreholes			Springs		
Determinand	**Units**	Min	Ave	Max	Min	Ave	Max	Min	Average	Max	Min	Average	Max
pH		5.7	7.24	8.1	6.1	7.0	7.9	6.7	7.27	8.1	3.8	7.4	8.5
Electrical Conductivity	µS/cm	87.0	733.35	2700.0	87.0	468.3	1300.0	120	1496.09	3600	60.0	241.9	670.0
Alkalinity (Total)	mg/l	21.0	224.38	670.0	32.0	132.0	440.0	23	356.55	880	18.0	81.5	210.0
Chloride	mg/l	5.3	70.87	630.0	6.9	38.5	130.0	2.2	161.21	510	3.5	11.5	27.0
Fluoride	mg/l	0.1	0.64	4.3	0.1	1.8	8.2	0.12	0.27	0.89	0.1	0.2	0.5
Ammoniacal Nitrogen	mg/l	0.1	1.34	6.8	0.1	1.3	8.6	0.068	3.32	10	0.1	0.3	1.0
Sulphate	mg/l	13.0	71.35	190.0	3.2	60.7	160.0	26	228.82	690	7.5	60.6	260.0
Cyanide (Total)	mg/l	0.2	0.15	0.2	0.0	<0.05	0.0	0	<0.05	0	0.0	<0.05	0.0
Calcium	mg/l	7.0	71.58	250.0	8.3	45.9	170.0	29	197.09	420	6.2	25.6	90.0
Potassium	mg/l	1.2	4.94	21.0	1.3	4.0	14.0	2.1	11.77	42	1.0	2.3	4.2
Magnesium	mg/l	1.2	26.06	310.0	1.2	13.8	31.0	2.7	28.87	59	0.8	8.0	28.0
Sodium	mg/l	3.4	53.01	310.0	3.5	17.8	56.0	5.3	72.89	220	2.1	7.4	21.0
Total Hardness as CaCO3	mg/l	23.0	285.81	1900.0	26.0	171.2	540.0	160	643.33	1300	19.0	97.8	270.0
Mercury (Dissolved)	µg/l	0.0	<0.05	0.0	0.0	<0.05	0.0	0	<0.05	0	0.0	0.0	0.0
Aluminium (Dissolved)	µg/l	5.0	194.41	750.0	5.3	152.7	860.0	70	144.20	220	6.8	1058.6	5600.0
Arsenic (Dissolved)	µg/l	0.2	1.04	3.1	0.2	1.2	6.2	0.38	1.57	2.6	0.3	0.6	1.0
Boron (Dissolved)	µg/l	10.0	71.19	390.0	13.0	96.4	720.0	21	304.89	740	11.0	42.2	170.0
Cadmium (Dissolved)	µg/l	0.0	<0.11	0.0	0.1	0.1	0.1	0.04	0.06	0.089	0.1	0.5	0.9
Chromium (Dissolved)	µg/l	2.6	96.80	300.0	2.4	133.7	510.0	0.54	27.01	85	4.5	83.7	290.0
Copper (Dissolved)	µg/l	0.7	3.44	9.6	1.0	5.2	16.0	1.7	2.96	4.8	1.0	12.4	39.0
Manganese (Dissolved)	µg/l	23.0	1189.54	4600.0	150.0	1668.4	4800.0	140	1834.55	4900	27.0	260.6	780.0
Nickel (Dissolved)	µg/l	0.9	36.26	140.0	2.8	50.2	240.0	3.6	19.97	44	3.3	37.6	130.0
Lead (Dissolved)	µg/l	2.0	2.00	2.0	0.0	<1	0.0	1.1	4.52	10	0.6	1.3	3.0
Selenium (Dissolved)	µg/l	0.6	2.68	10.0	0.6	1.4	3.0	0.59	2.50	6.6	1.2	1.7	2.9
Zinc (Dissolved)	µg/l	2.8	16.93	50.0	2.8	20.7	68.0	1.6	15.37	41	10.0	30.4	78.0
Mercury low level	ug/l	0.0	0.17	0.4	0.0	0.1	0.2	0	<0.01	0	0.2	0.2	0.2
Iron (Dissolved)	mg/l	0.0	3.53	60.0	0.0	4.3	42.0	0.014	1.93	6.9	0.0	0.8	2.4
Total Organic Carbon	mg/l	2.4	8.49	25.0	2.3	9.4	28.0	3.4	30.34	81	2.9	10.2	30.0
Total TPH >C10-C40	µg/l	0.0	<10	0.0	0.0	<10	0.0	0	<10	0	0.0	<10	0.0

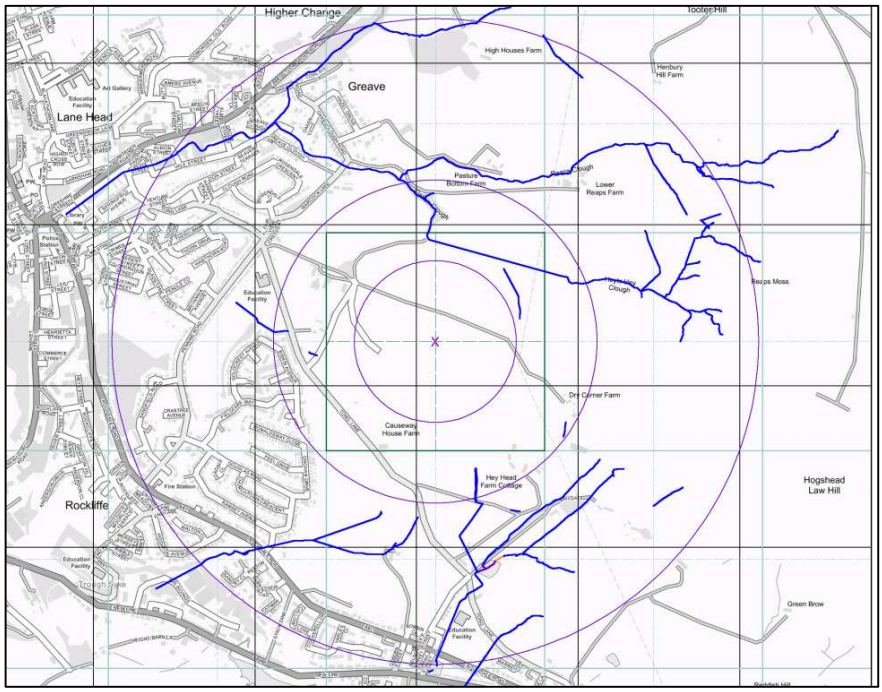
Groundwater quality from the vicinity of the site can be expected to show evidence of coal mine contamination in the form of elevated iron, manganese, aluminium and sulphates. Data from August 2021 also shows that there is an associated lowering of pH. Additionally, based on the data observations in the 2019 HIA, there is likely to be elevated TPH and PAH associated with mine workings. These hydrocarbons are evident both up and downgradient of the site. The fractured sequence close to surface allows rapid rainfall recharge and this is likely to cause some of the wide variation in groundwater quality observed.

3.5. Hydrology

The site is situated on a catchment divide between two tributaries of the River Irwell. The southern part of the site drains in a southerly direction towards the southern branch of the River Irwell. The northern part of the site drains in north westerly direction towards the northern branch of the River Irwell.

The network of drains and cloughs surrounding the site are presented in Figure 4, taken from the Envirocheck report. Many drains rise as springs in the east and drain downgradient to the west and ultimately to the Rossendale Valley to the southwest. There is also a drain, referred to as the southern boundary drain in the 2020 Water Feature Survey, which runs along the southern boundary of the site and joins the drainage channel west of Tong Farm.

Figure 4: Local surface water drainage



There are several springs close to the site perimeter. The 2019 HIA referenced springs 2, 3, 4

and 6, as shown in SMF drawing 135/05/02. Spring 4 is close to Dry Corner Farm. Spring 6 was recorded as no longer present, which concurs with recent findings. Springs 2 and 3 discharge to Hoyle Hey Clough north of the extension boundary. These springs and the head of Oaken Clough have been sampled during the 2021 investigations. Refer to Figure 1.

Further from the site, springs have been sampled at Hey Head Farm to the south and Daisy Hall to the southwest. Samples have also been obtained from drainage that arises at Tong Farm to the west, from a mine adit, which Envireau Water, 2010, report to be associated with workings of the Lower Mountain Mine. The 2019 HIA reports that the mine adit at Tong Farm also under drains the Lower Foot Mine, which has been seen to daylight in the existing quarry floor. Sample locations are shown in Figure 1 and drawing 213036/Site Plan/D/001.

The 2010 water feature survey carried out by Envireau Water concluded that springs marked on OS maps were both natural and manmade associated with coal mining. The springs have been modified in places by channels, stone troughs and flag stones. A line of natural springs flow around Hogshead Law Hill to the east of the quarry and east southeast of Dry Corner Farm. The 2019 HIA describes the springs of Hogshead Law being associated with the Upper Mountain Mine ie, above the geological sequence into which the quarry has been excavated.

There are four discharge consents within 1km of the site, as listed in Table 10.

Table 10: Discharge Consents

	Name	Distance from quarry
1	5 Higher Stack Cottages, Tong Lane	650m south
2	Nanny Brow Cottage, Tong Lane	700m south
3	United Utilities Water Limited	800m northwest
4	United Utilities Water Limited	850m southwest

4. Conceptual Model

4.1. General

The conceptual model considered in this hydrogeological risk assessment is the import of inert wastes and the use of quarry arisings (the source) to restore Tong Quarry to its existing levels on completion. Tong Quarry exploits sequences of the Pennine Lower Coal Measures and will extend northwards into its moorland setting.

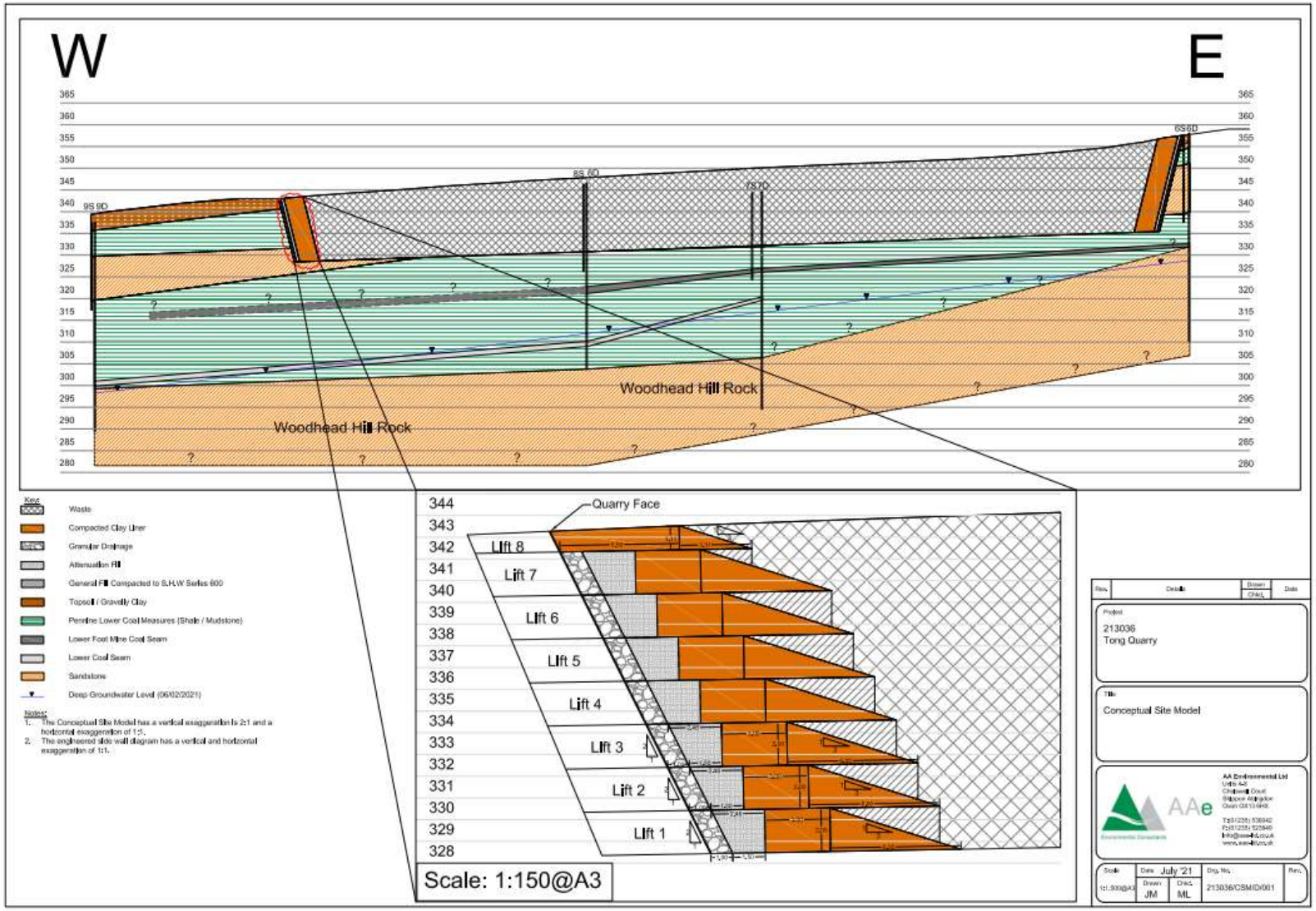
Restoration of the existing quarry is currently being undertaken by a deposit for recovery environmental permit. It is proposed to continue with this approach in the extension area. As such there is no set requirement for engineering of the waste infill. Any engineering proposed will be to address the needs of the site-specific setting.

The base of the quarry is formed from low permeability Coal Measures mudstones and shales. The water-bearing sandstone of the Woodhead Hill Rock is several metres below the base of the site and is considered to be the principal receptor. Engineering of the base is not proposed. However, the base will be inspected for any fractures/voids associated with former coal mining prior to import of wastes. The basal inspection regime will be documented. In the event of any fractures being encountered the area of the base will be reworked and compacted to achieve a low permeability seal, equivalent to the properties of the underlying low permeability strata. Refer to section 4.3 for permeability testing data from site materials.

A conceptual cross section is presented as Figure 5.

In conceptualising the site consideration must also be given to the seasonal presence of water infiltrating the shallow strata. This is under-drained by the coal mine workings, but during excavation of the extension area, this has the potential to drain into the quarry at wetter times of the year. Given the low permeability of the quarry floor, this will require sidewall engineering and drainage to prevent build up within the waste.

Figure 5: Conceptual Cross Section



4.2. Source

4.2.1. Waste Acceptance Controls

The imported material will be inert and will be controlled by inert waste acceptance criteria (WAC). The table below compares inert WAC solids expressed in mg/kg at 10: 1 extract, with the equivalent leachability in mg/l; the UK Drinking Water Standards (UKDWS) and the freshwater environmental quality standards (EQS).

Table 11: Waste Acceptance Criteria

Determinand (total concentration)	WAC Leachate Criteria (LS=10l/kg) (mg/kg)	Solid results (mg/kg)	Equivalent leachability (mg/l)	UKDWS (mg/l)	EQS (mg/l)
Arsenic	0.5		0.05	0.01	0.05
Barium	20		2	n/a	
Cadmium	0.04		0.004	0.005	0.00025 [3]
Chromium	0.5		0.05	0.05	0.0047
Copper	2.0		0.2	2	0.001 bio.
Mercury (inorganic)	0.01		0.001	0.001	0.00007 MAC
Nickel	0.4		0.04	0.02	0.004 bio.
Lead	0.5		0.05	0.01	0.0012 bio.
Selenium	0.1		0.01	0.01	n/a
Zinc	4.0		0.4	n/a	0.0109 bio. + background
Chloride	800		80	250	250
Fluoride	10		1	1.5	5
Sulphate (SO4)*	1000		100	250	400
Phenol	1.0		0.1	n/a	0.0077
TDS	4000		n/a	n/a	n/a
DOC	500		n/a	n/a	n/a
BTEX (TPH C5 – C10)		6	n/a	0.01 [1] (benzene)	0.01 benzene
Mineral oil (C10 – C40)		500	n/a	0.09 [1]	n/a
PCB		1	n/a	n/a	n/a
PAH (total)		100	n/a	0.0001	0.00017 BaP as marker

1 – World Health Organisation (WHO); 2 - Bio- bioavailable; 3 - EQS for hard water in limestone catchment

Table 11 highlights where the equivalent leachability exceeds the lower of the UKDWS, or EQS. As an additional precaution leachability testing will be required for those determinands with exceedances. The Importation Protocol (AAe report reference 213036/IP) requires additional leaching assessment criteria including those determinands given in Table 12. The leaching

assessment criteria include slightly higher criteria for chloride and sulphate than given in the WAC, based on the risk assessment presented in section 5 of this report. Additionally, consideration is also given to European Union Council Decision 2003/33/EC, in relation to sulphate and chloride, which notes:

1) If the waste does not meet the values for sulphate, it may still be considered as complying with the acceptance criteria if the leaching does not exceed either of the following values: 1 500 mg/l as C0 at L/S = 0,1 l/kg and 6 000 mg/kg at L/S = 10 l/kg.
2) The values for total dissolved solids (TDS) can be used alternatively to the values for sulphate and chloride.

On the basis of the above, slightly higher limits are acceptable and the risk assessment in section 5 is used to demonstrate that there is a low likelihood of adverse impact on the hydrogeological setting of this site.

Table 12: Leaching Assessment Criteria

Determinand	Leachate Criteria (L:S 10:1 leachate test) (ug/l)	Environmental Assessment Level (EAL)
Arsenic (total)	50	EQS
Cadmium (total)	5	UKDWS
Chloride	250,000	UKDWS/EQS
Chromium (total)	4.7	EQS
Copper	1	EQS
Lead (total)	1.2	EQS
Mercury (inorganic)	0.07	EQS
Nickel (total)	4	EQS
Phenol	7.7	EQS
Sulphate	400,000	EQS
Zinc	10.9	EQS

4.2.2. Material Types

The site will import materials that comply with the Landfill Directive definition of inert, as presented in Table 13.

Table 13: Inert Materials

Description	EWC code
Concrete	17 01 01
Bricks	17 01 02
Tiles and ceramics	17 01 03
Mixtures of concrete, bricks, tiles and ceramics	17 01 07
Natural soils and stones (must be proven prior to receipt)	17 05 04 20 02 02

Description	EWC code
Soil and stones from brownfield land	17 05 04
Track ballast	17 05 08
Soil and stones from brownfield land	20 02 02
Wastes from mineral non-metalliferous excavation	01 01 02
Waste gravel and crushed rocks	01 04 08
Waste sand and clays	01 04 09
Waste ceramics, bricks, tiles and construction products (after thermal processing)	10 12 08
Solids from physical treatment (limited to soil washing fines only)	19 02 06
Minerals from physical treatment of waste	19 12 09
Solid from soil remediation (limited to soil washing fines only)	19 13 02

4.2.3. Infiltration

The rate of infiltration through the fill will be equivalent to the effective rainfall, considered to be between 649 and 733 mm per annum in this part of the country. The 2019 HIA estimated approximately 1,400 mm total rainfall and 400 mm effective rainfall per annum, although the source is unknown.

4.3. Pathways

4.3.1. General

The chemical constituents within the incoming inert materials can migrate vertically through the full thickness of fill. From here there will be vertical migration through the unsaturated zone. If deemed necessary based on inspection, the upper 1m of the quarry floor will be reworked to achieve a low permeability seal equivalent to that of the mudstones and clays naturally occurring on site.

4.3.2. Pathway to Woodhead Hill Rock - length

The conceptual model indicates the agreed basal levels of the quarry in the extension area relative to the underlying Woodhead Hill Rock. The lowest basal level is 325m AOD in the west and approximately 335m AOD in the east. Groundwater levels, based on the deep boreholes that intercept the Woodhead Hill Rock, fall from 328m AOD in the east to 296m AOD in the west. This gives an unsaturated zone of thickness 7 to 27m.

The range of thicknesses of unsaturated zone for the existing quarry area, where some filling has taken place, is less clear. An estimate of the basal level of the existing wastes is made from

geological cross sections, Section Line 1 and Section Line 2 appended, with knowledge of which seams were worked, together with old topographical surveys. This would suggest, a similar basal elevation below the existing wastes to that of the extension area ie a fall from around 335m AOD in the east to 325m AOD in the west.

A topographical survey from the time of the 2010 planning application gives a minimum contour level of 329m AOD for a low area towards the east of the site. Proposed cross sections in 2010 indicate a general basal elevation of 335m AOD, refer to Rae Connell Associates drawings (TQ-26-05-10-D) appended. Sidewalls on the east are shown no steeper than 1 in 1, giving at least 30m from the boundary before the minimum base level is reached. The highest groundwater level recorded for the deep aquifer is approximately 336m AOD in GW3 on the east of the site. Groundwater contours shown in Figure 3 indicate that groundwater levels fall fairly rapidly to the southwest. Where excavations from 2010 reach their deepest (329m AOD) the groundwater level is likely to be around 325m AOD, or lower. This would give a minimum 4m unsaturated zone. The unsaturated zone increases in thickness to the west.

4.3.3. Hydraulic conductivity

Estimates of the likely hydraulic conductivity of the unsaturated zone are made using recent site investigation data. Samples were taken of quarried materials for geotechnical testing. The results showed a sample from the stockpile of fireclay to have a permeability of 7.4 x 10-9 m/s. A sample taken from the stockpile of quarry fines was found to have a permeability of 7.4 x 10 – 10 m/s. These samples indicate the likely ranges of hydraulic conductivity for the Coal Measures mudstones and shales that form the quarry base.

The quarry floor will, however, be inspected prior to infilling to ensure there are no fissures, or voids as a result of coal workings. Where these are encountered a low permeability seal of no less than 1m thickness will be engineered. The engineered permeability will be no greater than 1 x 10^{-9} m/s.

4.3.4. Lateral Pathways

The sidewall on the northern boundary of the site will be engineered to limit rainwater infiltration through the fractures during wet weather.

4.4. Receptors

The key receptor is considered to be the groundwater held within the Woodhead Hill Rock.

4.5. Qualitative Risk Assessment

A qualitative environmental risk assessment summarising the above is presented in Table 14. The likelihood of impacts to the identified receptor is addressed in more detail in Section 5.

Table 14: Qualitative Environmental Risk Assessment

Source/Hazard	Pathway	Receptor	Risk Management technique	Probability of exposure	Consequence	Overall risk
Imported Fill with the potential to leach chemical determinands at concentrations above the EAL	Rainwater infiltration through fill and unsaturated Coal Measures	Woodhead Hill Rock	Waste acceptance procedures limit fill to inert waste, with additional leachability controls. This should ensure incoming wastes can only leach at concentrations below the EAL. Surface water directed away from quarry void, to minimise infiltration.	Probability of leachate entering the groundwater directly below the site at concentrations above the UKDWS – Low.	Release of hazardous substances to groundwater. Pollution of groundwater by non-hazardous pollutants. Site in breach of the Environmental Permitting Regulations. No source protection zone. Consequence considered – Medium.	Low
Runoff from area of fill containing contaminants.	Runoff from site joins drainage network and surface water courses downgradient	Hoyle Hey Clough and Oaken Clough to the north. Southern boundary and Hey Head Drain to the south.	Surface water will be managed in line with the Surface Water Management Plan, to minimise the likelihood of contaminated runoff. Seeding will be carried out as soon as possible to stabilise ground and minimise sediment entrained runoff.	Probability of leachate entering the drainage system downgradient of the site at concentrations above the EQS – Low.	Release of hazardous substances to surface water. Pollution of surface water by non-hazardous pollutants. Site in breach of the Environmental Permitting Regulations. Consequence considered – Medium.	Low
Rainwater infiltration through quarry faces after rainfall events. Generation of excess leachate.	Fracture system of the Coal Measures sequence, enhanced by collapse of the coal workings at the quarry base.	Wastes used to restore quarry. With increase leachate generation this will also increase the risk of basal seepage to the Woodhead Hill Rock.	Sealing of mine adits in quarry sides and base. Construction of engineered seal against quarry faces.	With engineered seal in place – Low.	Increase leachate generation and increased basal seepage to aquifer. Consequence considered medium	Low
Leachate from restoration wastes	Through mine adits to surface water system at Tong Farm.	Surface water at Tong Farm	Sealing of adits with low permeability clay.	With engineered seal in place – Low.	Release of hazardous substances to surface water. Pollution of surface water by non-hazardous pollutants. Site in breach of the Environmental Permitting Regulations. Consequence considered – Medium.	Low

5. Risk Assessment

5.1. Potential Linkages

The qualitative assessment has identified the potential scenarios for groundwater and surface water receptors associated with the site. The risks are considered to be low, however, based on the site's setting above a secondary aquifer and with proximal surface waters it is considered appropriate to assess the risk quantitatively. If all waste acceptance procedures are adhered to there is a low likelihood that fill could generate leachate at concentrations above the UKDWS, or EAL. However, the quantitative risk assessment will examine the potential effects of unknowingly accepting non-inert waste. This is sometimes referred to as a rogue load assessment.

The first stage in the quantitative risk assessment is to establish a normal operating scenario for wastes accepted in accordance with the Importation Protocol. To be conservative it is assumed that the wastes can leach concentrations up to the C_o concentration given in EU Council Decision 2003/33/EC on waste acceptance criteria. These are higher than inert WAC and higher than the leachate criteria, which are mainly based on EQS values, given within the Importation Protocol, to which the incoming waste will be tested.

5.2. Management of Spills and Non-conforming Wastes

The site will have a Surface Water Management Plan that will have procedures in place for the management of spillages during restoration. It will also have controls for preventing contaminated runoff prior to capping. In addition to the Importation Protocol, visual conformance checks will be made on incoming materials. This will enable a rapid response to the removal of non-conforming materials.

5.3. Monitoring

The site will be designed to have a surface water discharge. Monitoring of the quarry sump will be required prior to discharge. The existing surface water monitoring locations will continue to be monitored during the restoration of the site as shown in Table 15.

Groundwater monitoring of levels will continue monthly in the perimeter boreholes. Groundwater quality will continue to be monitored quarterly during development and for a year after completion. Thereafter, annual samples will be taken for two further years.

Table 15: Surface Water Monitoring

Monitoring Location	Determinands	Frequency	Standard/method
Discharge from quarry sump.	Visual oil and grease, pH, EC, SS	Monthly while the sump is in place	Spot sample. Sampling in accordance with EA technical guidance M18.
	Metals (As, Cd, Cr(iii), Cr(vi), Cu, Hg, Ni, Pb, Zn) ammoniacal nitrogen, chloride, sulphate, BOD, COD, cyanide, phenol, PAH, TPH, BTEX	Annually while the sump is in place	
Spring 2 – NE Spring 3 – N Oaken Clough Mine adit, Tong Farm Daisy Hall Farm Hey Head Drain	Visual oil and grease, pH, EC, SS. Metals (As, Cd, Cr(iii), Cr(vi), Cu, Hg, Ni, Pb, Zn) ammoniacal nitrogen, chloride, sulphate, BOD, COD, cyanide, phenol, PAH, TPH, BTEX	<u>During restoration</u> Quarterly sample <u>After completion</u> Quarterly sample for 1 year Annual sample for a further 2 years	
Groundwater boreholes	pH, EC, hardness. Metals (As, Cd, Cr(iii), Cr(vi), Cu, Hg, Ni, Pb, Zn) ammoniacal nitrogen, chloride, sulphate, BOD, COD, cyanide, phenol, PAH, TPH, BTEX	<u>During restoration</u> Quarterly sample <u>After completion</u> Quarterly sample for 1 year Annual sample for a further 2 years	

5.4. Rogue Load Assessment

5.4.1. Methodology

A rogue load assessment (RLA) has been conducted using Consim as the assessment tool.

A normal operating scenario is modelled , with leachate concentrations conservatively entered as the C_o (2003/33/EC) concentrations. The potential import of hydrocarbons is controlled by concentrations within the soil at inert waste acceptance criteria.

The normal operating scenario is used as a starting point for the rogue load assessment. This is to show that if the Importation Protocol is followed, there will be no exceedance of the EAL at the designated receptor. The leachate concentrations are then raised iteratively to derive a point at which the EAL would be exceeded, to simulate the impact of a potential rogue load.

The resulting concentrations in water leaching through site soils, the unsaturated zone and into the groundwater are assessed at the 95th percentile, diluted concentration. They are compared with the EAL – taken to be

- the limit of quantification (LOQ) for hazardous substances
- the UKDWS for non-hazardous pollutants.

5.4.2. Sensitivity Analysis

In conjunction with the normal operating scenario the sensitivity of the Consim model is examined. Two sensitivity models have been run:

- Sensitivity 1: decreasing unsaturated zone thickness.
- Sensitivity 2: increasing infiltration

5.4.3. Quantification of Rogue Loads

Having established that the site, under normal operating conditions and waste acceptance procedures, does not impact upon the groundwater within the aquifer, the Consim model is used iteratively to determine what increases in site wide leachate concentrations could be tolerated without causing impact above the EAL. In reality a rogue load would only affect a discrete area of the site, rather than the whole volume of fill. Two models have been produced. The first assesses a 2 fold increase in leachate concentrations for all input parameters. The second assesses if a greater increase can be tolerated for some determinands.

The model summary is presented in Table 16.

Table 16: Model Log

Model Name	Scenario
TQ Normal	Normal operations. Waste acceptance procedures adhered to
Sensitivity 1: TQ S1	Decreased thickness of unsaturated zone
Sensitivity 2: TQ S2	Increased infiltration
TQ RLA1	Rogue Load Assessment. Leachate increase x 2
TQ RLA2	Rogue Load Assessment. Leachate increase x 3 or more

5.4.4. Input Parameters

The input parameters which characterise the source under normal operations are presented in Table 17. The remaining input parameters for the Consim assessment are presented in Table 18.

Table 17: Chemical Determinands for Rogue Load Assessment

Determinand	Inert WAC / C_o value 2.1.2.1 2003/33/EC (mg/l)	Partition coefficient (ml/g)	Henry's Law constant (unitless)	Half life anaerobic (years)
Arsenic (total)	0.06	117 [1]	-	-
Cadmium (total)	0.02	240 [1]	-	-
Chloride (total)	460	0	-	-
Chromium (total)	0.1	Logtri (35, 67, 4400)	-	-
Copper	0.6	295		
Lead (total)	0.15	Uni (270, 434.6)	-	-
Mercury (inorganic)	0.002	450	-	-
Nickel (total)	0.12	LogTri (20, 400, 8100)	-	-
Phenol	0.3	koc=27 foc = 0.01	1.89e-5	0.14-0.82
Sulphate as SO4	1500	0	-	-
Zinc –	1.2	LogTri (26, 200, 3.6e4)		

1 = Consim Help File
2 = US EPA : 1996 : Soil Screening Guidelines: Technical Background Document

Table 18: General Input Parameters

Parameter	Unit	Value	Source
Fill: Source 1			
Dry Bulk Density	g/m^3	Uni (1.15, 1.25)	Assumed for inert waste
Moisture content	%	15	Conservatively high for inerts
Particle density	g/cm^3	2.65	Assumed
Porosity	fraction	Calculated by model	
Thickness	m	Uni (18, 25)	Site plans and planning report
Infiltration	mm/yr	Normal (691, 69)	Effective rainfall, ADAS 1982, using areas 10 and 8
Fraction of organic carbon	%	1	Conservative for Coal Measures geology
Unsaturated Zone			
Thickness	m	Tri (4, 10, 27)	Quarry base plans and groundwater levels for the Woodhead Hill Rock
Water filled porosity	fraction	0.3	Assumed for mudstone
Dry Bulk Density	g/cm^3	1.8	Assumed for mudstone
Unsaturated conductivity	m/s	Tri ($7.4e^{-10}$, $1e^{-9}$, $7.4e^{-9}$)	Lab data for quarry clay/silts

Parameter	Unit	Value	Source
Vertical dispersivity	m	Tri (0.4, 1, 2.7)	Consim manual vertical dispersivity in unsat zone = unsat thickness (D)/10
Fraction of organic carbon	%	1	Conservative for Coal Measures
Aquifer Pathway			
Thickness	m	Uni (10, 25)	BGS Sheet 76 Rochdale
Dry Bulk Density	g/cm^3	1.8	Assumed for sandstone
Mixing zone thickness	m	10	Minimum thickness
Hydraulic conductivity	m/s	Uni ($2e^{-6}$, $2e^{-5}$)	BGS minor aquifers: T= 4-40m^2/d, use thickness of 25m
Effective porosity	fraction	0.3	Assumed for sandstone
Hydraulic gradient	-	0.06	Borehole data
Longitudinal dispersivity	m	0.5	Assumed for short pathway length
Lateral dispersivity	m	0.05	Assumed for short pathway length
Fraction of organic carbon	%	1	Conservative for Coal Measures

5.5. Assessment of Results

5.5.1. Normal Operation

All results have been assessed at the 95th percentile. The nature of the determinands within the leachate have been grouped in to two types and assessed as follows:

- Hazardous substances – the diluted concentration is assessed against the LOQ;
- Non-hazardous pollutants – the diluted concentration is assessed against the lower of the UKDWS , or EQS.

The model results have, been assessed in line with the recommendations of UKTAG 2018 regarding hazardous, or non-hazardous classification. Those substances considered hazardous within the assessment are:

Arsenic, lead and mercury.

The results are presented in Table 19. Results indicate that under normal operation of the site all determinands are lower than the EAL at the point of assessment, or there is no breakthrough for at least 2000 years.

5.5.2. Results of Sensitivity Analysis

The results of the sensitivity analysis show that if the thickness of the unsaturated zone was reduced to the minimum thickness of 4m, seen below the existing area of the site, but applied across the whole site, the maximum diluted concentrations of all determinands at the 95th percentile would still comply with the EAL.

If the rate of infiltration is increased to the maximum value for the effective rainfall range, 733 mm per annum, there is little change to the resulting concentrations.

Table 19 : Results TQ LFM (mg/l)

Determinand	UKDWS/EQS	TQ Normal	Sensitivity 1	Sensitivity 2	RLA 1	RLA 2	
	For haz substances - LOQ	Results- diluted conc.	Reduced Unsat thickness to worst case 4m	Increased infiltration to Nor (733,73) worst case effective rain	2 x initial source concentration	Up to 20 times initial source concentration	Source concentration for RLA2
Arsenic	0.005	<1e-8	0 for 2000 yrs	<1e-8	<1e-8	<1e-8	1.2
Cadmium	0.005/0.00025	<1e-8	0 for 4000 yrs	<1e-8	<1e-8	<1e-8	0.4
Chloride	250	55	34	52	105	204	1840
Chromium	0.05/0.0047	<1e-8	0 for 2000 yrs	<1e-8	<1e-8	<1e-8	2
Copper	2/0.001	<1e-8	0 for 4000 yrs	<1e-8	<1e-8	<1e-8	12
Lead	0.0002	<1e-8	< 1e-8	<1e-8	<1e-8	<1e-8	3
Mercury	0.00002	<1e-8	<1e-8	<1e-8	<1e-8	<1e-8	0.04
Nickel	0.020/0.004	<1e-8	0 for 2000 yrs	<1e-8	<1e-8	<1e-8	2.4
Phenol	0.0077 EQS	6e-6	7.1e-4	9e-6	1.3e-5	2e-4	6
Sulphate	250	175	110	168	344	250	2250
Zinc	0.0109 EQS	<1e-8	0 for 2000 yrs	<1e-8	<1e-8	<1e-8	24

5.5.3. Rogue Load Assessment

The rogue load assessment models have determined that it is possible to increase the leachate concentration of all determinands above the inert WAC without exceedance of the EAL. The results are shown below in Table 20.

Table 20: Increases in leachate concentration from rogue load assessment

Determinand	Inert WAC equiv. leachability (mg/l)	Co concentration	Intial model source	Increased source concentration	Size of increase
Arsenic	0.05	0.06	0.06	1.2	20
Cadmium	0.004	0.02	0.02	0.4	20
Chloride	80	460	460	1840	4
Chromium	0.05	0.1	0.1	2	20
Copper	0.2	0.6	0.6	12	20
Lead	0.05	0.15	0.15	3	20
Mercury	0.001	0.002	0.002	0.04	20
Nickel	0.04	0.12	0.12	2.4	20
Phenol	0.1	0.3	0.3	6	20
Sulphate	100	1500	1500	2250	1.5
Zinc	0.4	1.2	1.2	24	20

Table 20 indicates that high leachable concentration of chloride and sulphate can be tolerated across the entire site. This suggests, in addition to the notes in 2003/33/EC on differing limits for chloride and sulphate discussed in section 4.2.1, there can be some tolerance in the leachable limits for these substances above the inert WAC. It is proposed that the leachable limit for chloride is set at the UKDWS/EQS. For sulphate it is proposed that 400mg/l (EQS) is used as the leachable limit.

6. Compliance Limits

Groundwater and surface water locations in a downgradient position from the waste will be used to monitor water quality during and after filling. The key monitoring locations are considered to be

1. Spring 3 / Spring N
2. Spring NW/Oaken Head Clough
3. Tong Farm Mine adit
4. GW8D
5. GW9D

The key monitoring determinands will comprise the following:

Hazardous substances: arsenic, lead, PAH
Non-hazardous pollutants: ammoniacal nitrogen, chloride, copper, sulphate

The limits presented in Table 21 are based on the available monitoring data to date. The control level is equal to the maximum recorded. The compliance level is equal to the maximum + 10%. As GW9D is downgradient of GW8D, where a higher limit has been set for GW8D, this is also used for GW9D. Similarly Spring North is upgradient of Spring NorthWest. Where a higher limit is derived for Spring North, this is also applied at Spring NorthWest.

Table 21: Compliance limits

		GW8D		GW9D		Mine adit		Spr NW		Spr N	
		Contol	Comply	Contol	Comply	Contol	Comply	Contol	Comply	Contol	Comply
Chloride	mg/l	17	18.7	86.00	94.6	23	25.3	27.00	29.7	17	18.7
Ammoniacal Nitrogen	mg/l	0.46	0.506	0.46	0.506	1	1.1	0.86	0.946	0.22	0.242
Sulphate	mg/l	46	50.6	130.00	143	260	286	140	154	140	154
Arsenic (Dissolved)	ug/l	2.2	2.42	2.2	2.42	0.94	1.034	0.95	1.045	0.85	0.935
Copper (Dissolved)	ug/l	7.6	8.36	7.6	8.36	32	35.2	39	42.9	39	42.9
Lead (Dissolved)	ug/l	<1	1.1	<1	1.1	3	3.3	<1	1.1	<1	1.1
Total Of 16 PAH's	ug/l	<2	2.2	<2	2.2	<2	2.2	<2	2.2	<2	2.2

7. Summary and Conclusions

The suitability of the deposit for recovery operation at Tong Quarry has been assessed both qualitatively and quantitatively. The site is not above a principal aquifer, or within a groundwater source protection zone, however, the risks to the secondary aquifers has been assessed and the scheme is considered to be acceptable.

The quantitative assessment has been made on the basis of some conservative assumptions:

- Waste leachate concentrations modelled are higher than the inert WAC, at the Co concentration, across the whole site, when in reality most of the material will be lower in concentration than the inert WAC;
- The rogue load assessment has been undertaken for the whole site, when in reality a rogue load/source would only affect a proportion of the site.

The strict importation controls will limit material types and require both WAC analysis and leachability testing as presented in Tables 11 and 12 of this report. A rogue load assessment has demonstrated that there is tolerance within the acceptance criteria, such that an unknown acceptance of a quantity of non-inert material will have a low likelihood to cause unacceptable impacts on the secondary aquifer.

The principal receptor is considered to be the Woodhead Hill Rock, a sandstone aquifer below the site. The site is in an area of high annual rainfall and this must be considered in the site design, to limit the generation of leachates within the restoration materials and thus the risks to the underlying receptors. The following measures are recommended:

1) Sealing of mine adits in the face and at the base of the quarry walls with clay of permeability no greater than 1 x 10^{-9}m/s;
2) Documented basal inspection regime prior to infilling. Fractures voids associated with coal workings to be infilled with low permeability clay.
3) If necessary, a 1m thickness of the base is to be reworked and recompacted to an engineered specification, to achieve a permeability equivalent to that of the quarry fines, or fire clay.
4) Operation of a permitted discharge from the quarry sump to manage surface water accumulation.
5) Engineered low permeability side wall seal, to minimise the infiltration of rainfall recharge through the fractured strata following rainfall events, with back drainage.

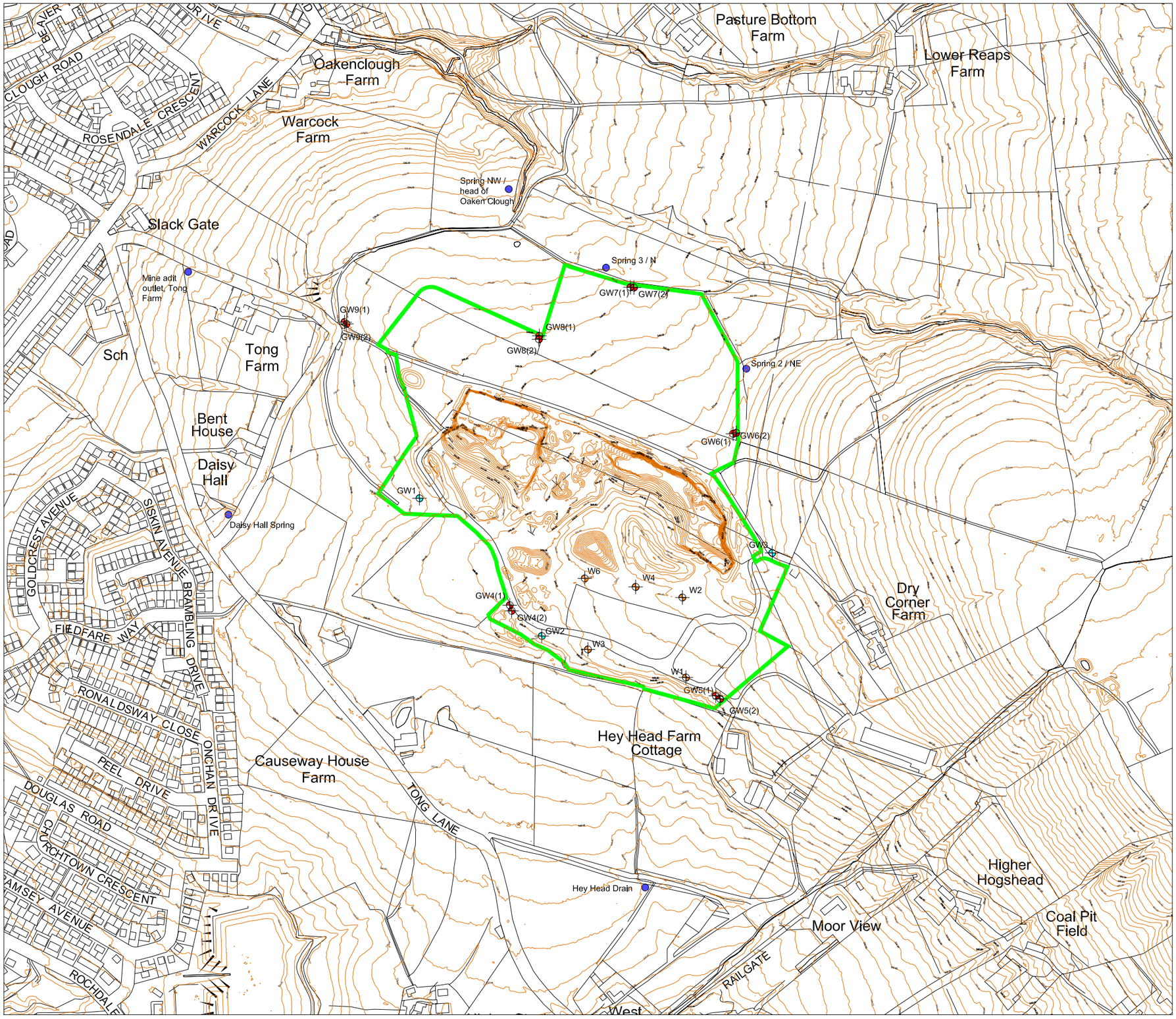
REFERENCES

1. AAe: 2019: Report reference 213036/WRP/001, Tong Quarry, Bacup, Waste Recovery Plan.
2. BGS: 2010: Geology of the Rochdale District. British Geological Survey.
3. CS Eccles: 18/5/21: Tong Quarry, Bacup, Monitoring Report Round 4 & 5, April & May 2021. Reference 192.04-5.01.
4. Envireau Water: 2010: Water Features Survey & Hydrogeological Appraisal. Tong Quarry, Bacup, Lancashire. Reference 1137 Report r6.
5. SMFoster Associates Limited: 2017: Inert Waste Disposal, Tong Quarry, Bacup, Lancashire. Environmental Permit Application. Hydrogeological Risk Assessment. Report reference 135/03/hra/1017.
6. SMFoster Associates Limited: 2019: Proposed Northern Extension, Tong Quarry, Bacup, Lancashire. Hydrological and Hydrogeological Impact Assessment. Report reference 135/05/hia/0819.
7. SMFoster Associates Limited: 2020: Water Features Survey. LCC/2020/0018 Extension, Tong Quarry, reference 135/05.
8. EU : 2003/33/EC : Council Decision of 19 December 2002 establishing criteria and procedures for the acceptance of waste at landfills pursuant to Article 16 of and Annex II to Directive 1999/31/EC. The Council of the European Union
9. James Associates: 2010: Moorland Aggregates Ltd, Tong Quarry Bacup. Geotechnical Design Report. JA.MAL.TQ.01.10.

McDonnell Cole

36 Dunster Road
West Bridgford
Nottingham
NG2 6JE.

DRAWINGS



Key:

- Site Boundary
- Perimeter Borehole (2021)
- Existing Perimeter Borehole
- Existing In-waste Borehole
- Spring Location
- 346 Existing Ground Level Contour (m AOD)

Notes:

1. Existing ground levels were taken from the National LiDAR Survey Data undertaken in 2019.

Rev.	Details	Drawn / Chkd.	Date

Project

213036
Tong Quarry

Title

Borehole Location Plan

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Environmental Consultants

Scale	Date	Drg. No.	Rev.
1:5,000@A3	Feb '21	213036/BH/D/001	A
	Drawn: JM / Chkd.: ML		

Key:

- Site Boundary
- Perimeter Borehole (2021)
- Existing Perimeter Borehole
- Existing In-waste Borehole

Bedrock and Faults

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	PLCM	Pennine Lower Coal Measures Formation	Mudstone, Siltstone and Sandstone	Langsettian - Langsettian
	GNR	Ganister Rock	Sandstone	Langsettian - Langsettian
	GAS	Great Arc Sandstone	Sandstone	Langsettian - Langsettian
	PLCM	Pennine Lower Coal Measures Formation	Sandstone	Langsettian - Langsettian
	WH	Woodhead Hill Rock	Sandstone	Langsettian - Langsettian
	HER	Helpet Edge Rock	Sandstone	Langsettian - Langsettian
	DF	Darwen Flags	Sandstone	Langsettian - Langsettian
	MLRS	Milnrow Sandstone	Sandstone	Langsettian - Langsettian
	IR	Inch Rock	Sandstone	Langsettian - Langsettian
	RR	Rough Rock	Sandstone	Yeadonian - Yeadonian
	UH	Upper Haslingden Flags	Sandstone	Yeadonian - Yeadonian
	LH	Lower Haslingden Flags	Sandstone	Yeadonian - Yeadonian
	MG	Millstone Grit Group [See also Mgr]	Mudstone and Siltstone	Namurian - Namurian

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	Rock			
	Fault			

Rev.	Details	Drawn / Chkd.	Date

Project
213036
Tong Quarry

Title
Bedrock and Faults

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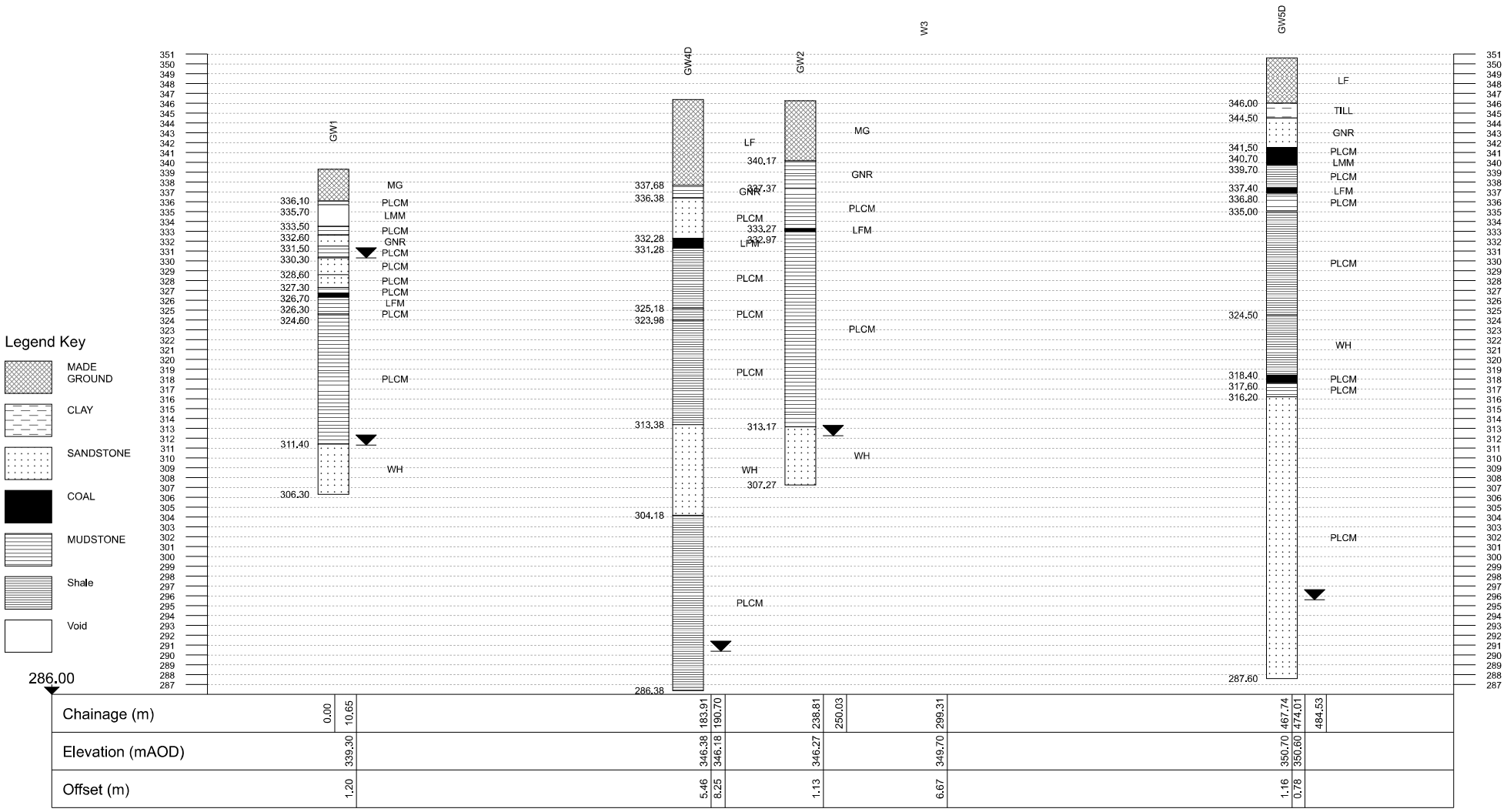
Environmental Consultants

Scale	Date	Drg. No.	Rev.
1:2,500@A3	Feb '21	213036/BH/D/003	
	Drawn: JM / Chkd.: ML		

Section line 1 (Deep BHs)

C S Eccles Brownfield Land Consultancy



Notes: For explanation of symbols and abbreviations see Key Sheet.
All depths and reduced levels are in meters.

Remarks:
None

Issue:	Open	Project:	Tong Quarry
Drawn by:	Geo	Project No:	21/12
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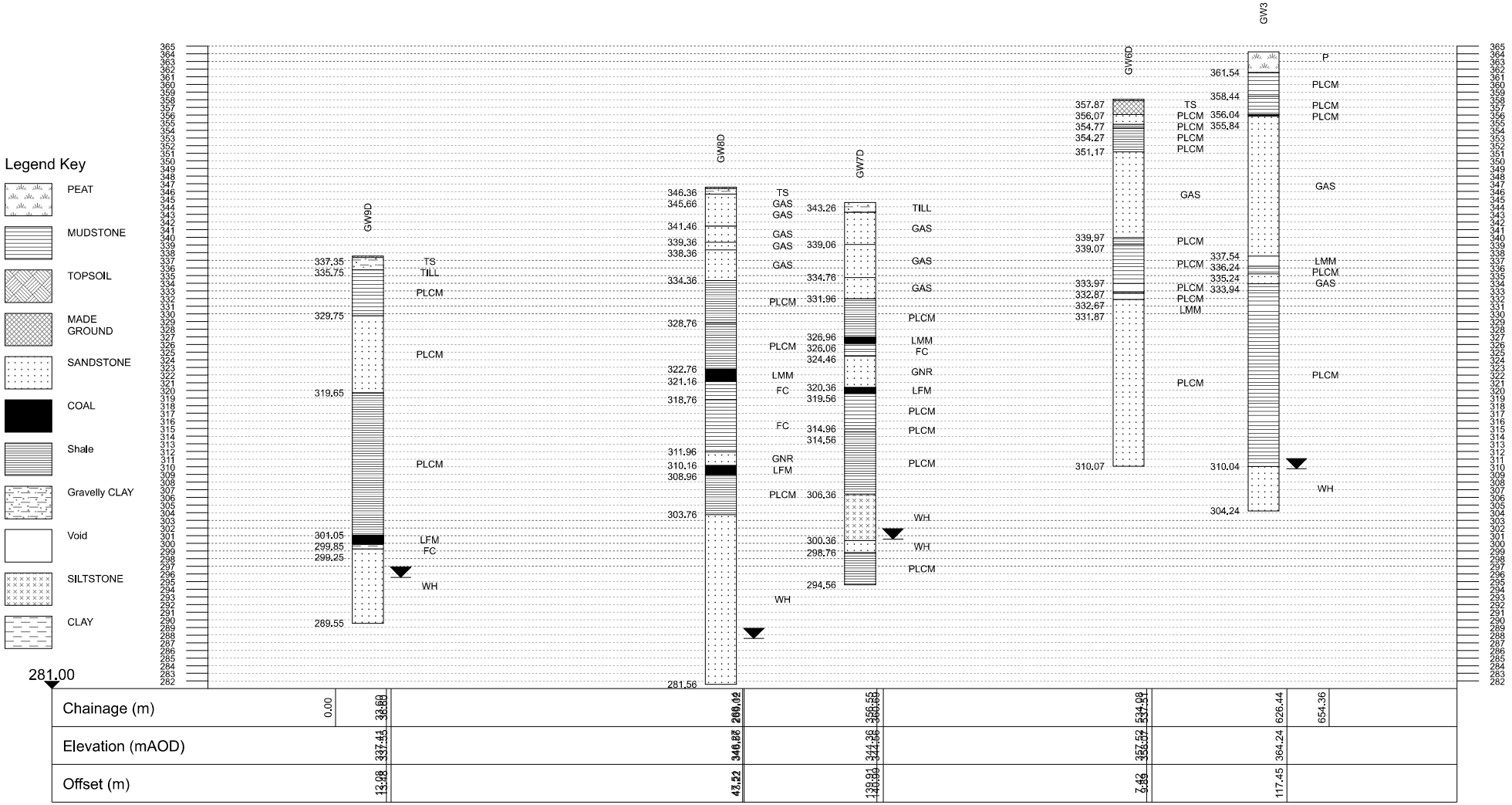
Horizontal scale:	1:1884		

Drawing No:

Drawing No.

Section line 2 (Deep BHs)

C S Eccles Brownfield Land Consultancy



Notes: For explanation of symbols and abbreviations see Key Sheet.
All depths and reduced levels are in meters.

Remarks:
None

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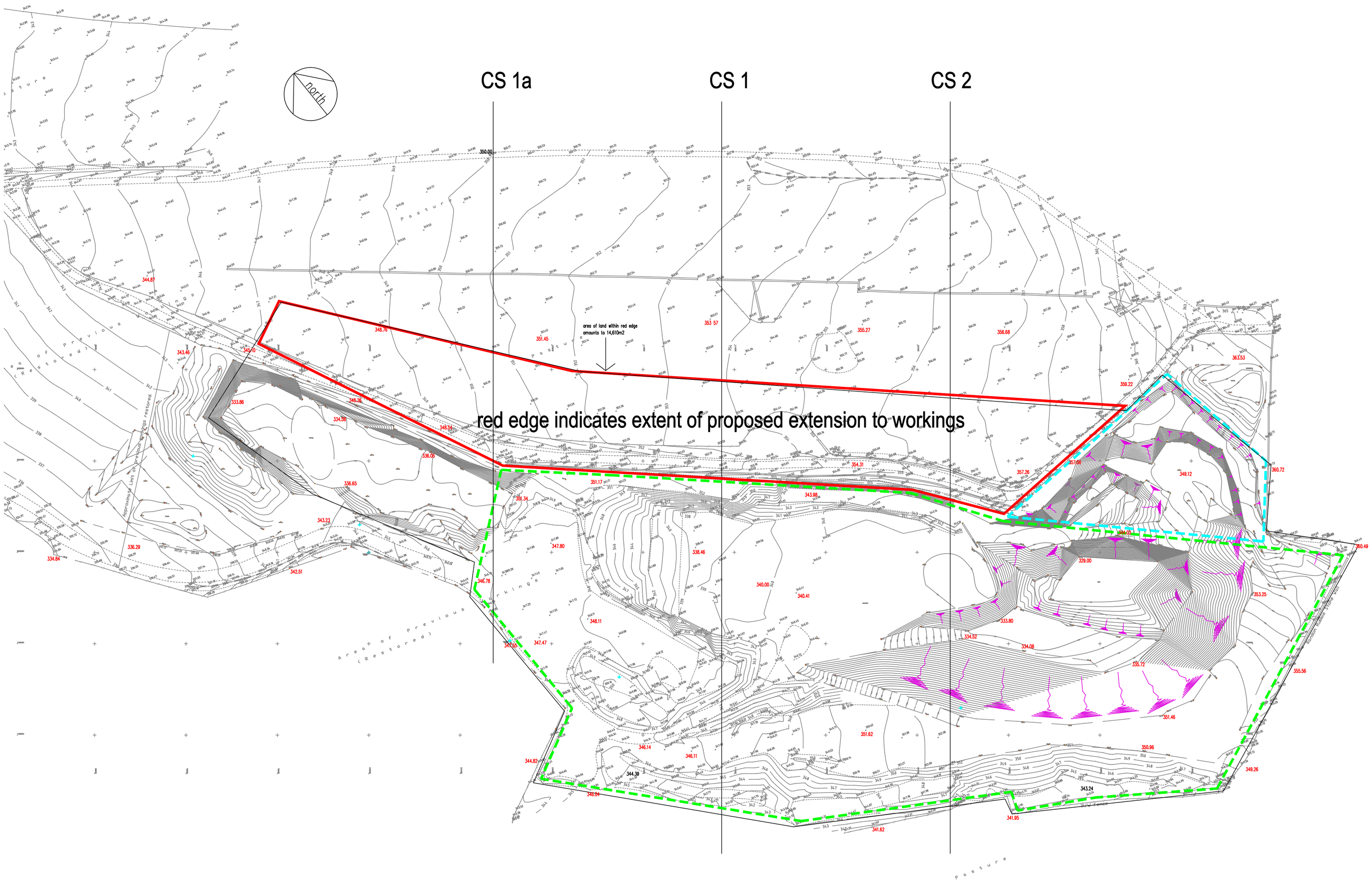
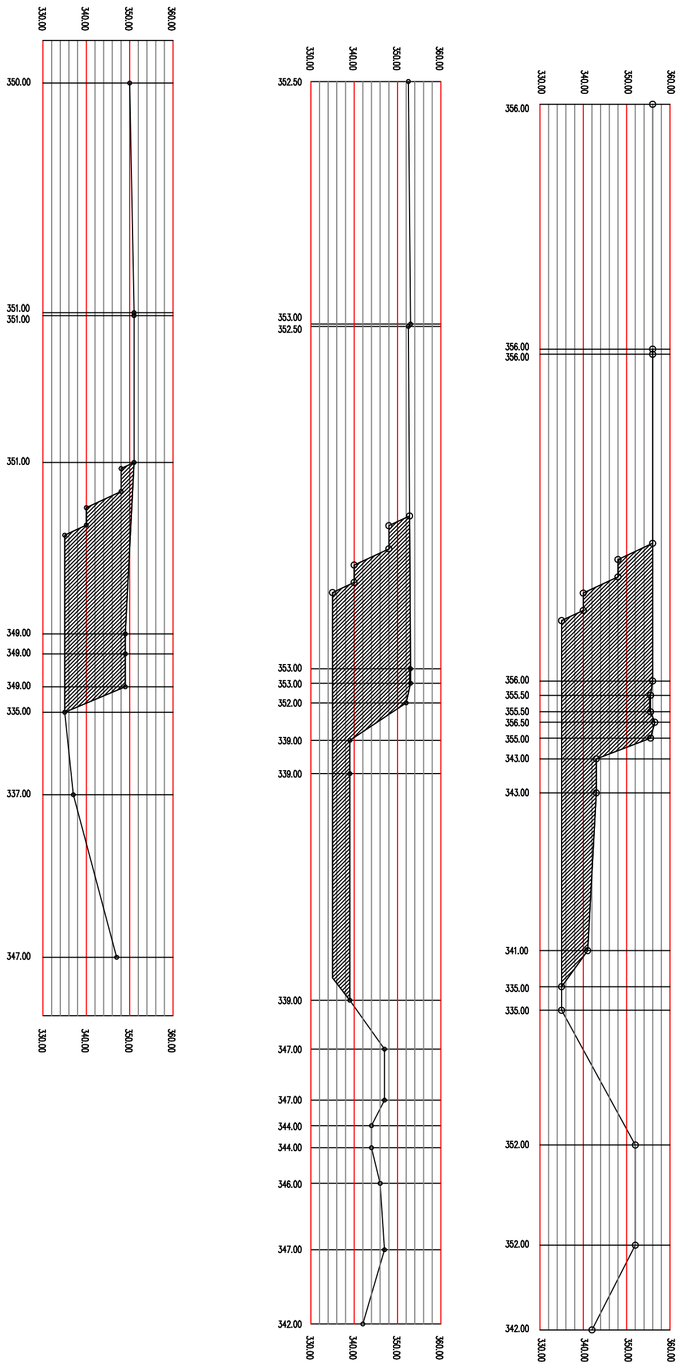
Drawn by:	Geo	Project No:	21/12
Vertical scale:	1:505	Client:	The Bacup Clay Company Ltd
Horizontal scale:	1:2545		

Drawing No:

Drawing No.

drawing number TQ 26-05-10-D





total volume of excavation = volume within red edge + additional 4m depth within existing approved area = 330,000m3

site plan indicating details of excavation

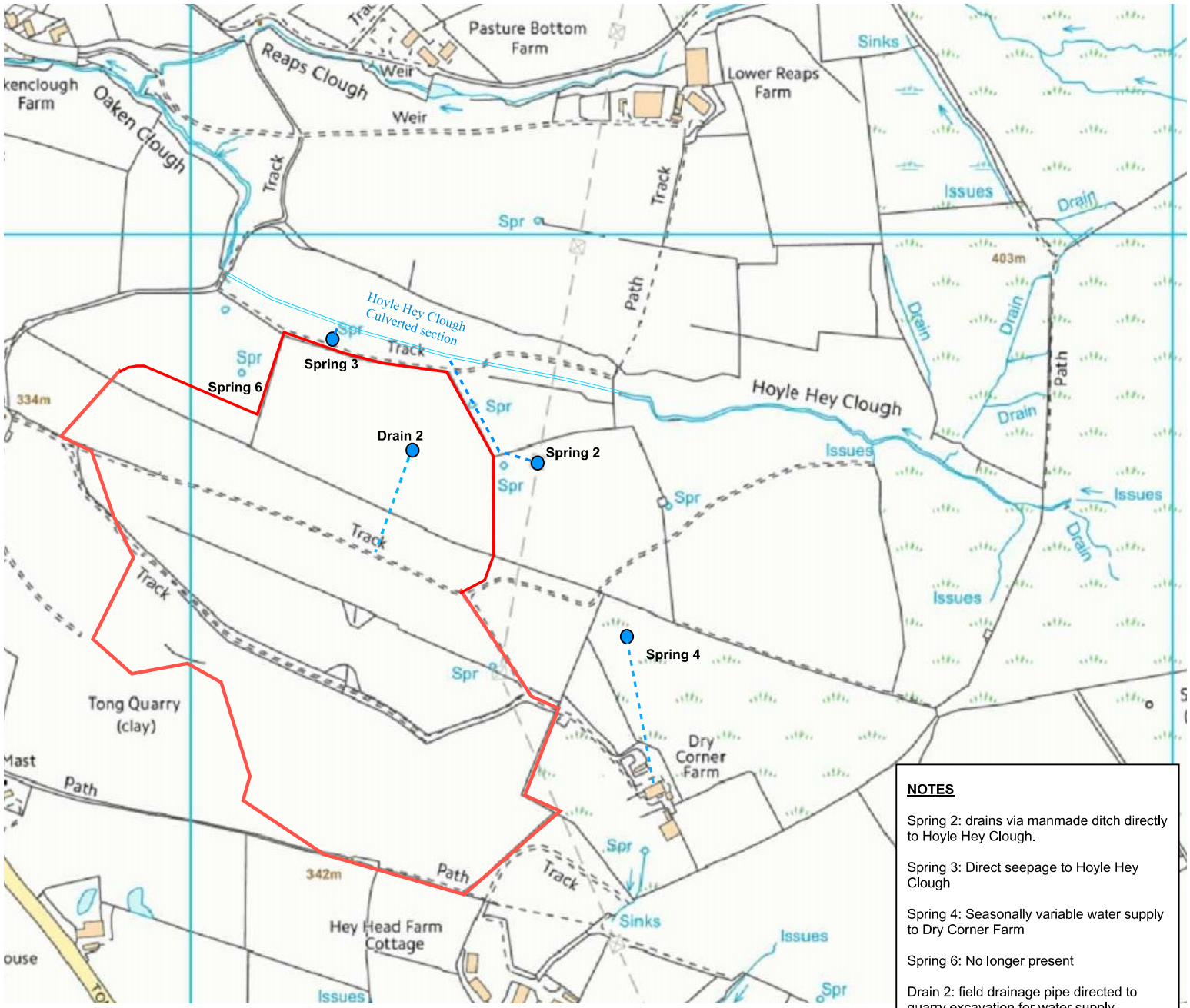
proposed extension to existing workings at

Tong Quarry
Tong Farm
Bacup

10m 20m 30m

linear scale 1:500 @ A0

Rae Connell Associates Building Design and Planning Consultants
214 Burnley Road Bacup Lancashire 01706 873000



NOTES

Spring 2: drains via manmade ditch directly to Hoyle Hey Clough.

Spring 3: Direct seepage to Hoyle Hey Clough

Spring 4: Seasonally variable water supply to Dry Corner Farm

Spring 6: No longer present

Drain 2: field drainage pipe directed to quarry excavation for water supply

S M Foster Associates Limited
Hydrological and Hydrogeological Consultants
7 Bownas Road, Boston Spa, Wetherby
West Yorkshire, LS23 6EX, UK
Tel: 01937 849950, Fax: 01937 849951
Email:stephen.foster@smfassociates.co.uk

Approximate application site boundary

CLIENT:

BACUP CLAY COMPANY LIMITED

PROJECT:

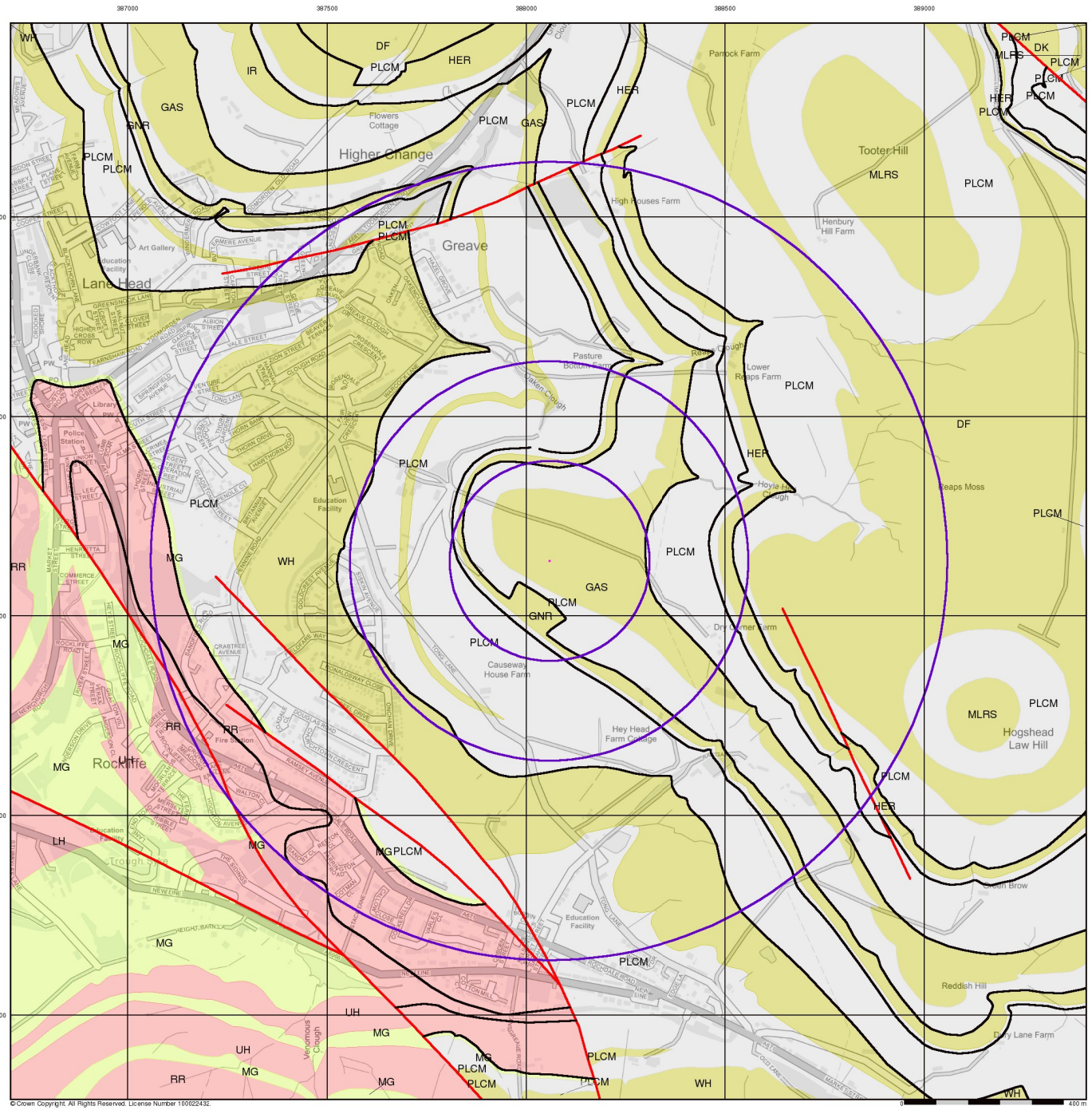
Tong Quarry Extension
Hydrological and Hydrogeological Impact Assessment

Ref: 135/05/02/0819	Date: August 2019
Approved: smf	Rev: 2

DRAWING 135/05/02
LOCAL WATER FEATURES

APPENDIX 1

Envirocheck extracts



Envirocheck®

LANDMARK INFORMATION GROUP®

Bedrock and Faults

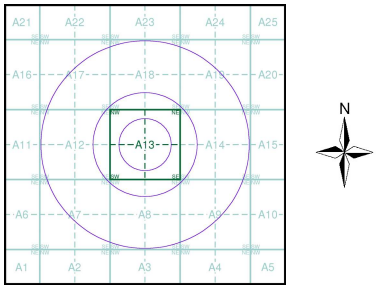
Bedrock geology is a term used for the main mass of rocks forming the Earth and are present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

The bedrock has formed over vast lengths of geological time ranging from ancient and highly altered rocks of the Proterozoic, some 2500 million years ago, or older, up to the relatively young Pliocene, 1.8 million years ago.

The bedrock geology includes many lithologies, often classified into three types based on origin: igneous, metamorphic and sedimentary.

The BGS Faults and Rock Segments dataset includes geological faults and thin beds mapped as lines such as coal seams and mineral veins. These are not restricted by age and could relate to features of any of the 1:10,000 geology datasets.

Bedrock and Faults Map - Slice A



Order Details

Order Number:	275803323_1_1
Customer Ref:	213036
National Grid Reference:	388060, 422640
Slice:	A
Site Area (Ha):	0.01
Search Buffer (m):	1000

Site Details

Tong Farm, Tong Lane, BACUP, OL13 9XA

Landmark® INFORMATION GROUP

Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk

APPENDIX 2

Borehole Logs

Borehole Log

Exploratory position reference:
GW1
Sheet 1 of 2

Borehole formation details:

Type:	From:	To:	Start date:	End date:	Crew:	Plant:	Barrel type:	Drill bit:	Logger:	Logged:	Remarks:
RO	0.00	33.00	15-03-17	16-03-17	GP	Soilmec 400	n/a	Tricone	GP	16-03-17	

Location details:

mE: 387914.52
mN: 422611.73
mAOD: 339.30
Grid: OSGB

Backfill/ Instal'n	Water-strike	Legend	Level	Depth (thick-ness)	Stratum Description	Samples & In Situ Testing: Water	Casing	Depth/Core Run	TCR SCR RQD	If	Results/remarks/ samples
				3.20	MADE GROUND (MADE GROUND)						
			336.10	3.20							
				0.40	Brown MUDSTONE (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
			335.70	3.60							
				2.20	Soft strata. Possible mine workings (LOWER MOUNTAIN MINE)						
			333.50	5.80							
				0.90	Grey MUDSTONE (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
			332.60	6.70							
				1.10	Grey SANDSTONE (GANISTER ROCK)						
			331.50	7.80							
				1.20	Grey MUDSTONE (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
	▼		330.30	9.00							
				1.70	Brown SANDSTONE (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
			328.60	10.70							
				1.30	Grey SANDSTONE (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
			327.30	12.00							
				0.60	Grey MUDSTONE (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
			326.70	12.60							
				0.40	COAL (LOWER FOOT MINE)						
			326.30	13.00							
				1.70	Black MUDSTONE (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
			324.60	14.70							
					Dark grey MUDSTONE (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
	Inst (Ø)					Water	Casing	Depth/Core Run	TCR SCR RQD	If	Results/remarks

Groundwater entries:

Struck:	Rose to:	Casing:	Sealed:
9.00	9.00	6.00	

Diameter & casing:

Dia (mm):	Depth:	Casing:
146	33.00	6.00

Depth related remarks:

From to: Remarks:

Flush details:

Depth: Type: Return: Colour:

Notes: For explanation of symbols and abbreviations see Key Sheet.
All depths and reduced levels are in meters.

Log issue: DRAFT
Scale: 1:100

Project: Tong Quarry
Project No: 21/12
Client: The Bacup Clay Company Ltd

Borehole Log

Exploratory position reference: **GW1**

Borehole formation details:

Type:	From:	To:	Start date:	End date:	Crew:	Plant:	Barrel type:	Drill bit:	Logger:	Logged:	Remarks:
RO	0.00	33.00	15-03-17	16-03-17	GP	Soilmec 400	n/a	Tricone	GP	16-03-17	

Location details:

mE: 387914.52
mN: 422611.73
mAOD: 339.30
Grid: OSGB

Backfill/ Instal'n	Water-strike	Legend	Level	Depth (thick-ness)	Stratum Description	Samples & In Situ Testing: Water	Casing	Depth/Core Run	TCR SCR RQD	If	Results/remarks/ samples
				13.20	Dark grey MUDSTONE (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
	▼ (51)		311.40	27.90	Grey SANDSTONE (WOODHEAD HILL ROCK)						
	SP (51)		306.30	33.00	Borehole ends at 33.00 m (Termination reason: Target depth)						
	Inst (Ø)					Water	Casing	Depth/Core Run	TCR SCR RQD	If	Results/remarks

Groundwater entries:

Struck:	Rose to:	Casing:	Sealed:
28.00	28.00	6.00	

Diameter & casing:

Dia (mm):	Depth:	Casing:
146	33.00	6.00

Depth related remarks:

From to: Remarks:

Flush details:

Depth: Type: Return: Colour:

Notes: For explanation of symbols and abbreviations see Key Sheet.
All depths and reduced levels are in meters.

Log issue: DRAFT
Scale: 1:100

Project: Tong Quarry
Project No: 21/12
Client: The Bacup Clay Company Ltd

Borehole Log

Exploratory position reference:
GW2
Sheet 1 of 2

Borehole formation details:

Type:	From:	To:	Start date:	End date:	Crew:	Plant:	Barrel type:	Drill bit:	Logger:	Logged:	Remarks:
RO	0.00	39.00	17-03-17	17-03-17	GP	Soilmec 400	n/a	Tricone	GP	17-03-17	

Location details:

mE: 388066.03
mN: 422441.14
mAOD: 346.27
Grid: OSGB

Backfill/ Instal'n	Water-strike	Legend	Level	Depth (thick-ness)	Stratum Description	Samples & In Situ Testing: Water	Casing	Depth/Core Run	TCR SCR RQD	If	Results/remarks/ samples
				6.10	MADE GROUND (MADE GROUND)						
			340.17	6.10	Brown MUDSTONE (GANISTER ROCK)						
				2.80							
			337.37	8.90	Grey MUDSTONE (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
				4.10							
			333.27	13.00							
			332.97	0.30	COAL (LOWER FOOT MINE)						
				13.30	Dark grey MUDSTONE (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
	Inst (Ø)					Water	Casing	Depth/Core Run	TCR SCR RQD	If	Results/remarks

Groundwater entries:

Struck:	Rose to:	Casing:	Sealed:

Diameter & casing:

Dia (mm):	Depth:	Casing:
146	39.00	6.00

Depth related remarks:

From to: Remarks:

Flush details:

Depth: Type: Return: Colour:

Notes: For explanation of symbols and abbreviations see Key Sheet.
All depths and reduced levels are in meters.

Log issue: DRAFT
Scale: 1:100

Project: Tong Quarry
Project No: 21/12
Client: The Bacup Clay Company Ltd

Borehole Log

Exploratory position reference:
GW2

Borehole formation details:

Type:	From:	To:	Start date:	End date:	Crew:	Plant:	Barrel type:	Drill bit:	Logger:	Logged:	Remarks:
RO	0.00	39.00	17-03-17	17-03-17	GP	Soilmec 400	n/a	Tricone	GP	17-03-17	

Location details:

mE: 388066.03
mN: 422441.14
mAOD: 346.27
Grid: OSGB

Backfill/ Instal'n	Water-strike	Legend	Level	Depth (thick-ness)	Stratum Description	Samples & In Situ Testing: Water	Casing	Depth/Core Run	TCR SCR RQD	If	Results/remarks/ samples
				19.80	Dark grey MUDSTONE (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
	▼		313.17	33.10	Grey SANDSTONE (WOODHEAD HILL ROCK)						
	(51)			5.90							
	SP (51)		307.27	39.00	Borehole ends at 39.00 m (Termination reason: Target depth)						

	Inst (Ø)					Water	Casing	Depth/Core Run	TCR SCR RQD	If	Results/remarks

Groundwater entries:

Struck:	Rose to:	Casing:	Sealed:
34.00	34.00	6.00	

Diameter & casing:

Dia (mm):	Depth:	Casing:
146	39.00	6.00

Depth related remarks:

From to: Remarks:

Flush details:

Depth: Type: Return: Colour:

Notes: For explanation of symbols and abbreviations see Key Sheet.
All depths and reduced levels are in meters.

Log issue: DRAFT
Scale: 1:100

Project: Tong Quarry
Project No: 21/12
Client: The Bacup Clay Company Ltd

Borehole Log

Exploratory position reference: **GW3**

Borehole formation details:

Type:	From:	To:	Start date:	End date:	Crew:	Plant:	Barrel type:	Drill bit:	Logger:	Logged:	Remarks:
RO	0.00	60.00	27-03-17	29-03-17	GP	Soilmec 400	n/a	Tricone	GP	29-03-17	

Location details:

mE: 388351.55
mN: 422543.98
mAOD: 364.24
Grid: OSGB

Backfill/ Instal'n	Water-strike	Legend	Level	Depth (thick-ness)	Stratum Description	Samples & In Situ Testing: Water	Casing	Depth/Core Run	TCR SCR RQD	If	Results/remarks/ samples
				2.70	PEAT (PEAT)						
			361.54	2.70	Dark grey weathered MUDSTONE (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
				3.10							
			358.44	5.80	Dark grey MUDSTONE (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
				2.40							
			356.04	8.20	COAL (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
			355.84	8.40	Brown and grey SANDSTONE (GREAT ARC SANDSTONE)						
				18.30							
	Inst (Ø)					Water	Casing	Depth/Core Run	TCR SCR RQD	If	Results/remarks

Groundwater entries:

Struck:	Rose to:	Casing:	Sealed:

Diameter & casing:

Dia (mm):	Depth:	Casing:
146	60.00	30.00

Depth related remarks:

From to: Remarks:

Flush details:

Depth: Type: Return: Colour:

Notes: For explanation of symbols and abbreviations see Key Sheet.
All depths and reduced levels are in meters.

Log issue: DRAFT
Scale: 1:100

Project: Tong Quarry
Project No: 21/12
Client: The Bacup Clay Company Ltd

Borehole Log

Exploratory position reference:
GW3

Borehole formation details:

Type:	From:	To:	Start date:	End date:	Crew:	Plant:	Barrel type:	Drill bit:	Logger:	Logged:	Remarks:
RO	0.00	60.00	27-03-17	29-03-17	GP	Soilmec 400	n/a	Tricone	GP	29-03-17	

Location details:

mE: 388351.55
mN: 422543.98
mAOD: 364.24
Grid: OSGB

Backfill/ Instal'n	Water-strike	Legend	Level	Depth (thick-ness)	Stratum Description	Samples & In Situ Testing: Water	Casing	Depth/Core Run	TCR SCR RQD	If	Results/remarks/ samples
					Brown and grey SANDSTONE (GREAT ARC SANDSTONE)						
			337.54	26.70							
				1.30	Soft strata. Possible mine workings (LOWER MOUNTAIN MINE)						
			336.24	28.00							
				1.00	Grey MUDSTONE (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
			335.24	29.00							
				1.30	GANISTER (GREAT ARC SANDSTONE)						
			333.94	30.30							
					Dark grey MUDSTONE (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
	Inst (Ø)					Water	Casing	Depth/Core Run	TCR SCR RQD	If	Results/remarks

Groundwater entries:

Struck:	Rose to:	Casing:	Sealed:

Diameter & casing:

Dia (mm):	Depth:	Casing:
146	60.00	30.00

Depth related remarks:

From	to:	Remarks:

Flush details:

Depth:	Type:	Return:	Colour:

Notes: For explanation of symbols and abbreviations see Key Sheet.
All depths and reduced levels are in meters.

Log issue: DRAFT
Scale: 1:100

Project: Tong Quarry
Project No: 21/12
Client: The Bacup Clay Company Ltd

Borehole Log

Exploratory position reference:
GW3
Sheet 3 of 3

Borehole formation details:

Type:	From:	To:	Start date:	End date:	Crew:	Plant:	Barrel type:	Drill bit:	Logger:	Logged:	Remarks:
RO	0.00	60.00	27-03-17	29-03-17	GP	Soilmec 400	n/a	Tricone	GP	29-03-17	

Location details:

mE: 388351.55
mN: 422543.98
mAOD: 364.24
Grid: OSGB

Backfill/ Instal'n	Water-strike	Legend	Level	Depth (thick-ness)	Stratum Description	Samples & In Situ Testing: Water	Casing	Depth/Core Run	TCR SCR RQD	If	Results/remarks/ samples
				23.90	Dark grey MUDSTONE (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
	▼		310.04	54.20	Grey SANDSTONE (WOODHEAD HILL ROCK)						
	(51)			5.80							
	SP (51) (Ø)		304.24	60.00	Borehole ends at 60.00 m (Termination reason: Target depth)						

Groundwater entries:

Struck:	Rose to:	Casing:	Sealed:
54.50	54.50	30.00	

Diameter & casing:

Dia (mm):	Depth:	Casing:
146	60.00	30.00

Depth related remarks:

From to: Remarks:

Flush details:

Depth: Type: Return: Colour:

Notes: For explanation of symbols and abbreviations see Key Sheet.
All depths and reduced levels are in meters.

Log issue: DRAFT
Scale: 1:100

Project: Tong Quarry
Project No: 21/12
Client: The Bacup Clay Company Ltd

Borehole Log

Exploratory position reference:
GW4D
Sheet 1 of 3

Borehole formation details:

Type:	From:	To:	Start date:	End date:	Crew:	Plant:	Barrel type:	Drill bit:	Logger:	Logged:	Remarks:
RO	0.00	60.00	02-02-21	02-02-21	RP		n/a	Tricone	RP	02-02-21	

Location details:

mE: 388026.35
mN: 422479.32
mAOD: 346.38
Grid: OSGB

Backfill/ Instal'n	Water-strike	Legend	Level	Depth (thick-ness)	Stratum Description	Samples & In Situ Testing: Water	Casing	Depth/Core Run	TCR SCR RQD	If	Results/remarks/ samples
				8.70	Concrete BOULDERS. Occasional wood (LANDFILL)						
			337.68	8.70	Grey MUDSTONE (GANISTER ROCK)						
				1.30							
			336.38	10.00	Strong grey SANDSTONE (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
				4.10							
			332.28	14.10	COAL (LOWER FOOT MINE)						
				1.00							
			331.28	15.10	Greyish black SHALE with sandstone bands (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
				6.10							
	Inst (Ø)					Water	Casing	Depth/Core Run	TCR SCR RQD	If	Results/remarks

Groundwater entries:

Struck:	Rose to:	Casing:	Sealed:

Diameter & casing:

Dia (mm):	Depth:	Casing:
150	60.00	

Depth related remarks:

From	to:	Remarks:

Flush details:

Depth:	Type:	Return:	Colour:
0.00 - 60.00	air/mist		

Notes: For explanation of symbols and abbreviations see Key Sheet.
All depths and reduced levels are in meters.

Log issue: DRAFT
Scale: 1:100

Project: Tong Quarry
Project No: 21/12
Client: The Bacup Clay Company Ltd

Borehole Log

Exploratory position reference:
GW4D

Borehole formation details:

Type:	From:	To:	Start date:	End date:	Crew:	Plant:	Barrel type:	Drill bit:	Logger:	Logged:	Remarks:
RO	0.00	60.00	02-02-21	02-02-21	RP		n/a	Tricone	RP	02-02-21	

Location details:

mE: 388026.35
mN: 422479.32
mAOD: 346.38
Grid: OSGB

Backfill/ Instal'n	Water-strike	Legend	Level	Depth (thick-ness)	Stratum Description	Samples & In Situ Testing: Water	Casing	Depth/Core Run	TCR SCR RQD	If	Results/remarks/ samples
					Greyish black SHALE with sandstone bands (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
			325.18	21.20							
					Black SHALE with coal traces (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
				1.20							
			323.98	22.40	Greyish black SHALE with occasional mudstone bands (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
				10.60							
			313.38	33.00	Grey SANDSTONE (WOODHEAD HILL ROCK)						
				9.20							
	Inst (Ø)					Water	Casing	Depth/Core Run	TCR SCR RQD	If	Results/remarks

Groundwater entries:

Struck:	Rose to:	Casing:	Sealed:

Diameter & casing:

Dia (mm):	Depth:	Casing:
150	60.00	

Depth related remarks:

From	to:	Remarks:

Flush details:

Depth:	Type:	Return:	Colour:

Notes: For explanation of symbols and abbreviations see Key Sheet.
All depths and reduced levels are in meters.

Log issue: DRAFT
Scale: 1:100

Project: Tong Quarry
Project No: 21/12
Client: The Bacup Clay Company Ltd

Borehole Log

Exploratory position reference:
GW4D

Borehole formation details:

Type:	From:	To:	Start date:	End date:	Crew:	Plant:	Barrel type:	Drill bit:	Logger:	Logged:	Remarks:
RO	0.00	60.00	02-02-21	02-02-21	RP		n/a	Tricone	RP	02-02-21	

Location details:

mE: 388026.35
mN: 422479.32
mAOD: 346.38
Grid: OSGB

Backfill/ Instal'n	Water-strike	Legend	Level	Depth (thick-ness)	Stratum Description	Samples & In Situ Testing: Water	Casing	Depth/Core Run	TCR SCR RQD	If	Results/remarks/ samples
					Grey SANDSTONE (WOODHEAD HILL ROCK)						
			304.18	42.20	Grey SHALE with sandstone bands (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
	(51)			17.80							
	SP (51) (Ø)		286.38	60.00	Borehole ends at 60.00 m (Termination reason: Target depth)						

Groundwater entries:

Struck:	Rose to:	Casing:	Sealed:
56.00	56.00		

Diameter & casing:

Dia (mm):	Depth:	Casing:
150	60.00	

Depth related remarks:

From to: Remarks:

Flush details:

Depth: Type: Return: Colour:

Notes: For explanation of symbols and abbreviations see Key Sheet.
All depths and reduced levels are in meters.

Log issue: DRAFT
Scale: 1:100

Project: Tong Quarry
Project No: 21/12
Client: The Bacup Clay Company Ltd

Borehole Log

Exploratory position reference: **GW4S**

Sheet 1 of 1

Borehole formation details:

Type:	From:	To:	Start date:	End date:	Crew:	Plant:	Barrel type:	Drill bit:	Logger:	Logged:	Remarks:
RO	0.00	20.00	02-02-21	02-02-21	DP		n/a	Tricone	DP	02-02-21	

Location details:

mE: 388028.77
mN: 422472.39
mAOD: 346.18
Grid: OSGB

Backfill/ Instal'n	Water-strike	Legend	Level	Depth (thick-ness)	Stratum Description	Samples & In Situ Testing: Water	Casing	Depth/Core Run	TCR SCR RQD	If	Results/remarks/ samples
				8.70	Concrete BOULDERS. Occasional wood (LANDFILL)						
			337.48	8.70	Grey MUDSTONE (GANISTER ROCK)						
				1.30							
			336.18	10.00	Strong grey SANDSTONE (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
				4.10							
			332.08	14.10	COAL (LOWER FOOT MINE)						
				1.00							
			331.08	15.10	Greyish black SHALE with sandstone bands (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
	(51)			4.90							
	SP (51) (Ø)		326.18	20.00	Borehole ends at 20.00 m (Termination reason: Target depth)						

Groundwater entries:

Struck:	Rose to:	Casing:	Sealed:

Diameter & casing:

Dia (mm):	Depth:	Casing:
150	20.00	

Depth related remarks:

From	to:	Remarks:

Flush details:

Depth:	Type:	Return:	Colour:
0.00 - 20.00	air/mist		

Notes: For explanation of symbols and abbreviations see Key Sheet.
All depths and reduced levels are in meters.

Log issue: DRAFT
Scale: 1:100

Project: Tong Quarry
Project No: 21/12
Client: The Bacup Clay Company Ltd

Borehole Log

Exploratory position reference:
GW5D

Borehole formation details:

Type:	From:	To:	Start date:	End date:	Crew:	Plant:	Barrel type:	Drill bit:	Logger:	Logged:	Remarks:
RO	0.00	63.00	01-02-21	01-02-21	RP		n/a	Tricone	RP	01-02-21	

Location details:

mE: 388287.04
mN: 422363.36
mAOD: 350.60
Grid: OSGB

Backfill/ Instal'n	Water-strike	Legend	Level	Depth (thick-ness)	Stratum Description	Samples & In Situ Testing: Water	Casing	Depth/Core Run	TCR SCR RQD	If	Results/remarks/ samples
				4.60	CLAY with abundant brick (LANDFILL)						
			346.00	4.60	Brown CLAY (GLACIAL TILL)						
				1.50							
			344.50	6.10	Grey SANDSTONE (GANISTER ROCK)						
				3.00							
			341.50	9.10	COAL (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
				0.80							
			340.70	9.90	COAL (LOWER MOUNTAIN MINE)						
				1.00							
			339.70	10.90	Blackish grey SHALE (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
				2.30							
			337.40	13.20	COAL (LOWER FOOT MINE)						
				0.60							
			336.80	13.80	Grey MUDSTONE (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
				1.80							
			335.00	15.60	Dark greyish blackish grey SHALE (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
	Inst (Ø)					Water	Casing	Depth/Core Run	TCR SCR RQD	If	Results/remarks

Groundwater entries:

Struck:	Rose to:	Casing:	Sealed:

Diameter & casing:

Dia (mm):	Depth:	Casing:
150	63.00	

Depth related remarks:

From	to:	Remarks:

Flush details:

Depth:	Type:	Return:	Colour:
0.00 - 63.00	air/mist		

AGS

Notes: For explanation of symbols and abbreviations see Key Sheet.
All depths and reduced levels are in meters.

Log issue: DRAFT
Scale: 1:100

Project: Tong Quarry
Project No: 21/12
Client: The Bacup Clay Company Ltd

Borehole Log

Exploratory position reference:
GW5D

Borehole formation details:

Type:	From:	To:	Start date:	End date:	Crew:	Plant:	Barrel type:	Drill bit:	Logger:	Logged:	Remarks:
RO	0.00	63.00	01-02-21	01-02-21	RP		n/a	Tricone	RP	01-02-21	

Location details:

mE: 388287.04
mN: 422363.36
mAOD: 350.60
Grid: OSGB

Backfill/ Instal'n	Water-strike	Legend	Level	Depth (thick-ness)	Stratum Description	Samples & In Situ Testing: Water	Casing	Depth/Core Run	TCR SCR RQD	If	Results/remarks/ samples
				10.50	Dark greyish blackish grey SHALE (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
			324.50	26.10	Grey SHALE with sandstone bands (WOODHEAD HILL ROCK)						
				6.10							
			318.40	32.20	COAL (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
				0.80							
			317.60	33.00	Grey MUDSTONE (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
				1.40							
			316.20	34.40	Strong grey SANDSTONE with occasional shale bands (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
	Inst (Ø)					Water	Casing	Depth/Core Run	TCR SCR RQD	If	Results/remarks

Groundwater entries:

Struck:	Rose to:	Casing:	Sealed:

Diameter & casing:

Dia (mm):	Depth:	Casing:
150	63.00	

Depth related remarks:

From	to:	Remarks:

Flush details:

Depth:	Type:	Return:	Colour:

AGS

Notes: For explanation of symbols and abbreviations see Key Sheet.
All depths and reduced levels are in meters.

Log issue: DRAFT
Scale: 1:100

Project: Tong Quarry
Project No: 21/12
Client: The Bacup Clay Company Ltd

Borehole Log

Exploratory position reference:
GW5D

Borehole formation details:

Type:	From:	To:	Start date:	End date:	Crew:	Plant:	Barrel type:	Drill bit:	Logger:	Logged:	Remarks:
RO	0.00	63.00	01-02-21	01-02-21	RP		n/a	Tricone	RP	01-02-21	

Location details:

mE: 388287.04
mN: 422363.36
mAOD: 350.60
Grid: OSGB

Backfill/ Instal'n	Water-strike	Legend	Level	Depth (thick-ness)	Stratum Description	Samples & In Situ Testing: Water	Casing	Depth/Core Run	TCR SCR RQD	If	Results/remarks/ samples
					Strong grey SANDSTONE with occasional shale bands (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
				28.60							
	▼										
				(51)							
	Inst (Ø)					Water	Casing	Depth/Core Run	TCR SCR RQD	If	Results/remarks

Groundwater entries:

Struck:	Rose to:	Casing:	Sealed:
55.00	55.00		

Diameter & casing:

Dia (mm):	Depth:	Casing:
150	63.00	

Depth related remarks:

From to: Remarks:

Flush details:

Depth: Type: Return: Colour:

Notes: For explanation of symbols and abbreviations see Key Sheet.
All depths and reduced levels are in meters.

Log issue: DRAFT
Scale: 1:100

Project: Tong Quarry
Project No: 21/12
Client: The Bacup Clay Company Ltd

Borehole Log

Exploratory position reference:
GW5D
Sheet 4 of 4

Borehole formation details:

Type:	From:	To:	Start date:	End date:	Crew:	Plant:	Barrel type:	Drill bit:	Logger:	Logged:	Remarks:
RO	0.00	63.00	01-02-21	01-02-21	RP		n/a	Tricone	RP	01-02-21	

Location details:

mE: 388287.04
mN: 422363.36
mAOD: 350.60
Grid: OSGB

Backfill/ Instal'n	Water-strike	Legend	Level	Depth (thick-ness)	Stratum Description	Samples & In Situ Testing: Water	Casing	Depth/Core Run	TCR SCR RQD	If	Results/remarks/ samples
					Strong grey SANDSTONE with occasional shale bands (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
	SP (51)		287.60	63.00	Borehole ends at 63.00 m (Termination reason: Target depth)						

	Inst (Ø)					Water	Casing	Depth/Core Run	TCR SCR RQD	If	Results/remarks

Groundwater entries:

Struck:	Rose to:	Casing:	Sealed:

Diameter & casing:

Dia (mm):	Depth:	Casing:
150	63.00	

Depth related remarks:

From	to:	Remarks:

Flush details:

Depth:	Type:	Return:	Colour:

Notes: For explanation of symbols and abbreviations see Key Sheet.
All depths and reduced levels are in meters.

Log issue: DRAFT
Scale: 1:100

Project: Tong Quarry
Project No: 21/12
Client: The Bacup Clay Company Ltd

Borehole Log

Exploratory position reference: **GW5S**

Sheet 1 of 1

Borehole formation details:

Type:	From:	To:	Start date:	End date:	Crew:	Plant:	Barrel type:	Drill bit:	Logger:	Logged:	Remarks:
RO	0.00	20.00	01-02-21	01-02-21	DP		n/a	Tricone	DP	01-02-21	

Location details:

mE: 388281.68
mN: 422367.15
mAOD: 350.70
Grid: OSGB

Backfill/ Instal'n	Water-strike	Legend	Level	Depth (thick-ness)	Stratum Description	Samples & In Situ Testing: Water	Casing	Depth/Core Run	TCR SCR RQD	If	Results/remarks/ samples
				4.60	CLAY with abundant brick (LANDFILL)						
			346.10	4.60							
				1.50	Brown CLAY (GLACIAL TILL)						
			344.60	6.10							
				3.00	Grey SANDSTONE (GANISTER ROCK)						
			341.60	9.10							
				0.80	COAL (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
			340.80	9.90							
				1.00	COAL (LOWER MOUNTAIN MINE)						
			339.80	10.90							
				2.30	Blackish grey SHALE (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
			337.50	13.20							
				0.60	COAL (LOWER FOOT MINE)						
			336.90	13.80							
				1.80	Grey MUDSTONE (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
			335.10	15.60							
	(51)			4.40	Dark greyish blackish grey SHALE (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
	SP (51) (Ø)		330.70	20.00	Borehole ends at 20.00 m (Termination reason: Target depth)						

Groundwater entries:

Struck:	Rose to:	Casing:	Sealed:

Diameter & casing:

Dia (mm):	Depth:	Casing:
150	20.00	

Depth related remarks:

From	to:	Remarks:

Flush details:

Depth:	Type:	Return:	Colour:
0.00 - 20.00	air/mist		

Notes: For explanation of symbols and abbreviations see Key Sheet.
All depths and reduced levels are in meters.

Log issue: DRAFT
Scale: 1:100

Project: Tong Quarry
Project No: 21/12
Client: The Bacup Clay Company Ltd

Borehole Log

Exploratory position reference:
GW6D
Sheet 1 of 3

Borehole formation details:

Type:	From:	To:	Start date:	End date:	Crew:	Plant:	Barrel type:	Drill bit:	Logger:	Logged:	Remarks:
RO	0.00	60.00	05-02-21	05-02-21	RP		n/a	Tricone	RP	05-02-21	

Location details:

mE: 388307.02
mN: 422692.78
mAOD: 358.07
Grid: OSGB

Backfill/ Instal'n	Water-strike	Legend	Level	Depth (thick-ness)	Stratum Description	Samples & In Situ Testing: Water	Casing	Depth/Core Run	TCR SCR RQD	If	Results/remarks/ samples
			357.87	0.20	TOPSOIL (TOPSOIL)						
				1.80	Gravelly CLAY. Gravel is sandstone (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
			356.07	2.00	Brown SANDSTONE (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
				1.30							
			354.77	3.30	Grey SHALE with sandstone bands (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
				0.50							
			354.27	3.80	Black SHALE (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
				3.10							
			351.17	6.90	Grey SANDSTONE with occasional shale bands (GREAT ARC SANDSTONE)						
				11.20							
			339.97	18.10	Greyish black SHALE with sandstone bands (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
				0.90							
			339.07	19.00	Black MUDSTONE (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
	Inst (Ø)					Water	Casing	Depth/Core Run	TCR SCR RQD	If	Results/remarks

Groundwater entries:

Struck:	Rose to:	Casing:	Sealed:

Diameter & casing:

Dia (mm):	Depth:	Casing:
150	60.00	

Depth related remarks:

From	to:	Remarks:

Flush details:

Depth:	Type:	Return:	Colour:
0.00 - 48.00	air/mist		

Notes: For explanation of symbols and abbreviations see Key Sheet.
All depths and reduced levels are in meters.

Log issue: DRAFT
Scale: 1:100

Project: Tong Quarry
Project No: 21/12
Client: The Bacup Clay Company Ltd

Borehole Log

Exploratory position reference:
GW6D

Borehole formation details:

Type:	From:	To:	Start date:	End date:	Crew:	Plant:	Barrel type:	Drill bit:	Logger:	Logged:	Remarks:
RO	0.00	60.00	05-02-21	05-02-21	RP		n/a	Tricone	RP	05-02-21	

Location details:

mE: 388307.02
mN: 422692.78
mAOD: 358.07
Grid: OSGB

Backfill/ Instal'n	Water-strike	Legend	Level	Depth (thick-ness)	Stratum Description	Samples & In Situ Testing: Water	Casing	Depth/Core Run	TCR SCR RQD	If	Results/remarks/ samples
					Black MUDSTONE (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
				5.10							
			333.97	24.10	VOID (loss of flush) (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
				1.10							
			332.87	25.20	Probably SANDSTONE (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
			332.67	25.40	VOID (loss of flush) (VOID - WORKED LOWER MOUNTAIN MINE?)						
				0.80							
			331.87	26.20	Probably SANDSTONE (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
				21.80							

	Inst (Ø)				Water	Casing	Depth/Core Run	TCR SCR RQD	If	Results/remarks

Groundwater entries:

Struck:	Rose to:	Casing:	Sealed:

Diameter & casing:

Dia (mm):	Depth:	Casing:
150	60.00	

Depth related remarks:

From	to:	Remarks:

Flush details:

Depth:	Type:	Return:	Colour:

Notes: For explanation of symbols and abbreviations see Key Sheet.
All depths and reduced levels are in meters.

Log issue: DRAFT
Scale: 1:100

Project: Tong Quarry
Project No: 21/12
Client: The Bacup Clay Company Ltd

Borehole Log

Exploratory position reference:
GW6D
Sheet 3 of 3

Borehole formation details:

Type:	From:	To:	Start date:	End date:	Crew:	Plant:	Barrel type:	Drill bit:	Logger:	Logged:	Remarks:
RO	0.00	60.00	05-02-21	05-02-21	RP		n/a	Tricone	RP	05-02-21	

Location details:

mE:	388307.02
mN:	422692.78
mAOD:	358.07
Grid:	OSGB

Backfill/ Instal'n	Water-strike	Legend	Level	Depth (thick-ness)	Stratum Description	Samples & In Situ Testing: Water	Casing	Depth/Core Run	TCR SCR RQD	If	Results/remarks/ samples
					Probably SANDSTONE (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
	(51)										
	SP (51)		310.07	48.00	Borehole ends at 48.00 m (Termination reason: Target depth)						
	Inst (Ø)					Water	Casing	Depth/Core Run	TCR SCR RQD	If	Results/remarks

Groundwater entries:

Struck:	Rose to:	Casing:	Sealed:

Diameter & casing:

Dia (mm):	Depth:	Casing:
150	60.00	

Depth related remarks:

From	to:	Remarks:

Flush details:

Depth:	Type:	Return:	Colour:

Notes: For explanation of symbols and abbreviations see Key Sheet.
All depths and reduced levels are in meters.

Log issue: DRAFT
Scale: 1:100

Project: Tong Quarry
Project No: 21/12
Client: The Bacup Clay Company Ltd

Borehole Log

Exploratory position reference:
GW6S
Sheet 1 of 1

Borehole formation details:

Type:	From:	To:	Start date:	End date:	Crew:	Plant:	Barrel type:	Drill bit:	Logger:	Logged:	Remarks:
RO	0.00	20.00	05-02-21	05-02-21	DP		n/a	Tricone	DP	05-02-21	

Location details:

mE: 388302.99
mN: 422691.51
mAOD: 357.52
Grid: OSGB

Backfill/ Instal'n	Water-strike	Legend	Level	Depth (thick-ness)	Stratum Description	Samples & In Situ Testing: Water	Casing	Depth/Core Run	TCR SCR RQD	If	Results/remarks/ samples
			357.32	0.20	TOPSOIL (TOPSOIL)						
				1.80	Gravelly CLAY. Gravel is sandstone (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
			355.52	2.00	Brown SANDSTONE (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
				1.30							
			354.22	3.30	Grey SHALE with sandstone bands (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
				0.50							
			353.72	3.80	Black SHALE (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
				3.10							
			350.62	6.90	Grey SANDSTONE with occasional shale bands (GREAT ARC SANDSTONE)						
				11.20							
	(51)										
			339.42	18.10	Greyish black SHALE with sandstone bands (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
				0.90							
			338.52	19.00	Black MUDSTONE (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
				1.00							
	SP (51) (Ø)		337.52	20.00	Borehole ends at 20.00 m (Termination reason: Target depth)						
						Water	Casing	Depth/Core Run	TCR SCR RQD	If	Results/remarks

Groundwater entries:

Struck:	Rose to:	Casing:	Sealed:

Diameter & casing:

Dia (mm):	Depth:	Casing:
150	20.00	

Depth related remarks:

From	to:	Remarks:

Flush details:

Depth:	Type:	Return:	Colour:
0.00 - 20.00	air/mist		

Notes: For explanation of symbols and abbreviations see Key Sheet.
All depths and reduced levels are in meters.

Log issue: DRAFT
Scale: 1:100

Project: Tong Quarry
Project No: 21/12
Client: The Bacup Clay Company Ltd

Borehole Log

Exploratory position reference:
GW7D
Sheet 1 of 3

Borehole formation details:

Type:	From:	To:	Start date:	End date:	Crew:	Plant:	Barrel type:	Drill bit:	Logger:	Logged:	Remarks:
RO	0.00	50.00	03-02-21	03-02-21	RP		n/a	Tricone	RP	03-02-21	

Location details:

mE: 388180.20
mN: 422872.70
mAOD: 344.56
Grid: OSGB

Backfill/ Instal'n	Water-strike	Legend	Level	Depth (thick-ness)	Stratum Description	Samples & In Situ Testing: Water	Casing	Depth/Core Run	TCR SCR RQD	If	Results/remarks/ samples
				1.30	Gravelly CLAY. Gravel is sandstone (GLACIAL TILL)						
			343.26	1.30	Brown SANDSTONE (GREAT ARC SANDSTONE)						
				4.20							
			339.06	5.50	Grey SANDSTONE with weaker grey shale bands (GREAT ARC SANDSTONE)						
				4.30							
			334.76	9.80	Strong grey SANDSTONE (GREAT ARC SANDSTONE)						
				2.80							
			331.96	12.60	Grey SHALE with black bands and strong sandstone bands (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
				5.00							
			326.96	17.60	COAL (LOWER MOUNTAIN MINE)						
				0.90							
			326.06	18.50	Interbedded black SHALE and MUDSTONE (FIRECLAY)						
				1.60							
	Inst (Ø)					Water	Casing	Depth/Core Run	TCR SCR RQD	If	Results/remarks

Groundwater entries:

Struck:	Rose to:	Casing:	Sealed:

Diameter & casing:

Dia (mm):	Depth:	Casing:
150	50.00	

Depth related remarks:

From	to:	Remarks:

Flush details:

Depth:	Type:	Return:	Colour:
0.00 - 50.00	air/mist		

Notes: For explanation of symbols and abbreviations see Key Sheet.
All depths and reduced levels are in meters.

Log issue: DRAFT
Scale: 1:100

Project: Tong Quarry
Project No: 21/12
Client: The Bacup Clay Company Ltd

Borehole Log

Exploratory position reference: **GW7D**

Borehole formation details:

Type:	From:	To:	Start date:	End date:	Crew:	Plant:	Barrel type:	Drill bit:	Logger:	Logged:	Remarks:
RO	0.00	50.00	03-02-21	03-02-21	RP		n/a	Tricone	RP	03-02-21	

Location details:

mE: 388180.20
mN: 422872.70
mAOD: 344.56
Grid: OSGB

Backfill/ Instal'n	Water-strike	Legend	Level	Depth (thick-ness)	Stratum Description	Samples & In Situ Testing: Water	Casing	Depth/Core Run	TCR SCR RQD	If	Results/remarks/ samples
			324.46	20.10	Interbedded black SHALE and MUDSTONE (FIRECLAY) Strong grey SANDSTONE (GANISTER ROCK)						
				4.10							
			320.36	24.20	COAL (LOWER FOOT MINE)						
				0.80							
			319.56	25.00	Interbedded black SHALE and MUDSTONE (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
				4.60							
			314.96	29.60	Grey SANDSTONE (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
			314.56	0.40 30.00	Dark greyish blackish grey SHALE with occasional sandstone bands (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
				8.20							
			306.36	38.20	Interbedded grey SILTSTONE and SANDSTONE (WOODHEAD HILL ROCK)						
	Inst (Ø)					Water	Casing	Depth/Core Run	TCR SCR RQD	If	Results/remarks

Groundwater entries:

Struck:	Rose to:	Casing:	Sealed:

Diameter & casing:

Dia (mm):	Depth:	Casing:
150	50.00	

Depth related remarks:

From	to:	Remarks:

Flush details:

Depth:	Type:	Return:	Colour:

Notes: For explanation of symbols and abbreviations see Key Sheet.
All depths and reduced levels are in meters.

Log issue: DRAFT
Scale: 1:100

Project: Tong Quarry
Project No: 21/12
Client: The Bacup Clay Company Ltd

Borehole Log

Exploratory position reference:
GW7D

Borehole formation details:

Type:	From:	To:	Start date:	End date:	Crew:	Plant:	Barrel type:	Drill bit:	Logger:	Logged:	Remarks:
RO	0.00	50.00	03-02-21	03-02-21	RP		n/a	Tricone	RP	03-02-21	

Location details:

mE: 388180.20
mN: 422872.70
mAOD: 344.56
Grid: OSGB

Backfill/ Instal'n	Water-strike	Legend	Level	Depth (thick-ness)	Stratum Description	Samples & In Situ Testing: Water	Casing	Depth/Core Run	TCR SCR RQD	If	Results/remarks/ samples
	(51)			6.00	Interbedded grey SILTSTONE and SANDSTONE (WOODHEAD HILL ROCK)						
			300.36	44.20							
				1.60	Grey SANDSTONE (WOODHEAD HILL ROCK)						
			298.76	45.80							
				4.20	Grey SHALE (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
	SP (51)		294.56	50.00	Borehole ends at 50.00 m (Termination reason: Target depth)						
	Inst (Ø)					Water	Casing	Depth/Core Run	TCR SCR RQD	If	Results/remarks

Groundwater entries:

Struck:	Rose to:	Casing:	Sealed:
44.00	44.00		

Diameter & casing:

Dia (mm):	Depth:	Casing:
150	50.00	

Depth related remarks:

From to: Remarks:

Flush details:

Depth: Type: Return: Colour:

Notes: For explanation of symbols and abbreviations see Key Sheet.
All depths and reduced levels are in meters.

Log issue: DRAFT
Scale: 1:100

Project: Tong Quarry
Project No: 21/12
Client: The Bacup Clay Company Ltd

Borehole Log

Exploratory position reference:
GW7S
Sheet 1 of 1

Borehole formation details:

Type:	From:	To:	Start date:	End date:	Crew:	Plant:	Barrel type:	Drill bit:	Logger:	Logged:	Remarks:
RO	0.00	20.00	03-02-21	03-02-21	DP		n/a	Tricone	DP	03-02-21	

Location details:

mE: 388175.93
mN: 422872.97
mAOD: 344.36
Grid: OSGB

Backfill/ Instal'n	Water-strike	Legend	Level	Depth (thick-ness)	Stratum Description	Samples & In Situ Testing: Water	Casing	Depth/Core Run	TCR SCR RQD	If	Results/remarks/ samples
				1.30	Gravelly CLAY. Gravel is sandstone (GLACIAL TILL)						
			343.06	1.30	Brown SANDSTONE (GREAT ARC SANDSTONE)						
				4.20							
			338.86	5.50	Grey SANDSTONE with weaker grey shale bands (GREAT ARC SANDSTONE)						
				4.30							
			334.56	9.80	Strong grey SANDSTONE (GREAT ARC SANDSTONE)						
				2.80							
			331.76	12.60	Grey SHALE with black bands and strong sandstone bands (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
	(51)			5.00							
			326.76	17.60	COAL (LOWER MOUNTAIN MINE)						
				0.90							
			325.86	18.50	Interbedded black SHALE and MUDSTONE (FIRECLAY)						
				1.50							
	SP (51) (Ø)		324.36	20.00	Borehole ends at 20.00 m (Termination reason: Target depth)						

Groundwater entries:

Struck:	Rose to:	Casing:	Sealed:

Diameter & casing:

Dia (mm):	Depth:	Casing:
150	20.00	

Depth related remarks:

From	to:	Remarks:

Flush details:

Depth:	Type:	Return:	Colour:
0.00 - 20.00	air/mist		

Notes: For explanation of symbols and abbreviations see Key Sheet.
All depths and reduced levels are in meters.

Log issue: DRAFT
Scale: 1:100

Project: Tong Quarry
Project No: 21/12
Client: The Bacup Clay Company Ltd

Borehole Log

Exploratory position reference: **GW8D**

Borehole formation details:

Type:	From:	To:	Start date:	End date:	Crew:	Plant:	Barrel type:	Drill bit:	Logger:	Logged:	Remarks:
RO	0.00	65.00	04-02-21	04-02-21	RP		n/a	Tricone	RP	04-02-21	

Location details:

mE: 388062.50
mN: 422808.59
mAOD: 346.56
Grid: OSGB

Backfill/ Instal'n	Water-strike	Legend	Level	Depth (thick-ness)	Stratum Description	Samples & In Situ Testing: Water	Casing	Depth/Core Run	TCR SCR RQD	If	Results/remarks/ samples
			346.36	0.20	TOPSOIL						
				0.70	(TOPSOIL)						
			345.66	0.90	Gravelly CLAY. Gravel is sandstone (GREAT ARC SANDSTONE)						
				4.20	Weathered brown SANDSTONE (GREAT ARC SANDSTONE)						
			341.46	5.10	Strong grey SANDSTONE with weaker bands (GREAT ARC SANDSTONE)						
			339.36	7.20							
				1.00	Weak brown SANDSTONE (GREAT ARC SANDSTONE)						
			338.36	8.20	Light grey SANDSTONE (GREAT ARC SANDSTONE)						
				4.00							
			334.36	12.20	Interbedded grey SHALE and MUDSTONE (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
				5.60							
			328.76	17.80	Black SHALE (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
	Inst (Ø)					Water	Casing	Depth/Core Run	TCR SCR RQD	If	Results/remarks

Groundwater entries:

Struck:	Rose to:	Casing:	Sealed:

Diameter & casing:

Dia (mm):	Depth:	Casing:
150	65.00	

Depth related remarks:

From	to:	Remarks:

Flush details:

Depth:	Type:	Return:	Colour:
0.00 - 65.00	air/mist		

Notes: For explanation of symbols and abbreviations see Key Sheet.
All depths and reduced levels are in meters.

Log issue: DRAFT
Scale: 1:100

Project: Tong Quarry
Project No: 21/12
Client: The Bacup Clay Company Ltd

Borehole Log

Exploratory position reference:
GW8D

Borehole formation details:

Type:	From:	To:	Start date:	End date:	Crew:	Plant:	Barrel type:	Drill bit:	Logger:	Logged:	Remarks:
RO	0.00	65.00	04-02-21	04-02-21	RP		n/a	Tricone	RP	04-02-21	

Location details:

mE: 388062.50
mN: 422808.59
mAOD: 346.56
Grid: OSGB

Backfill/ Instal'n	Water-strike	Legend	Level	Depth (thick-ness)	Stratum Description	Samples & In Situ Testing: Water	Casing	Depth/Core Run	TCR SCR RQD	If	Results/remarks/ samples
				6.00	Black SHALE (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
			322.76	23.80							
					COAL (LOWER MOUNTAIN MINE)						
				1.60							
			321.16	25.40	Interbedded grey MUDSTONE and SHALE (FIRECLAY)						
				2.40							
			318.76	27.80	Greyish black MUDSTONE (FIRECLAY)						
				6.80							
			311.96	34.60	Grey SANDSTONE with shale bands (GANISTER ROCK)						
				1.80							
			310.16	36.40	COAL (LOWER FOOT MINE)						
				1.20							
			308.96	37.60	Greyish black SHALE (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						

Inst (Ø)	Water	Casing	Depth/Core Run	TCR SCR RQD	If	Results/remarks

Groundwater entries:

Struck:	Rose to:	Casing:	Sealed:

Diameter & casing:

Dia (mm):	Depth:	Casing:
150	65.00	

Depth related remarks:

From	to:	Remarks:

Flush details:

Depth:	Type:	Return:	Colour:

Notes: For explanation of symbols and abbreviations see Key Sheet.
All depths and reduced levels are in meters.

Log issue: DRAFT
Scale: 1:100

Project: Tong Quarry
Project No: 21/12
Client: The Bacup Clay Company Ltd

Borehole Log

Exploratory position reference:
GW8D
Sheet 3 of 4

Borehole formation details:

Type:	From:	To:	Start date:	End date:	Crew:	Plant:	Barrel type:	Drill bit:	Logger:	Logged:	Remarks:
RO	0.00	65.00	04-02-21	04-02-21	RP		n/a	Tricone	RP	04-02-21	

Location details:

mE:	388062.50
mN:	422808.59
mAOD:	346.56
Grid:	OSGB

Backfill/ Instal'n	Water-strike	Legend	Level	Depth (thick-ness)	Stratum Description	Samples & In Situ Testing: Water	Casing	Depth/Core Run	TCR SCR RQD	If	Results/remarks/ samples
				5.20	Greyish black SHALE (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
			303.76	42.80	Grey SANDSTONE with shale bands (WOODHEAD HILL ROCK)						
	(51)										
				22.20							
	Inst (Ø)					Water	Casing	Depth/Core Run	TCR SCR RQD	If	Results/remarks

Groundwater entries:

Struck:	Rose to:	Casing:	Sealed:
59.00	59.00		

Diameter & casing:

Dia (mm):	Depth:	Casing:
150	65.00	

Depth related remarks:

From to: Remarks:

Flush details:

Depth: Type: Return: Colour:

Notes: For explanation of symbols and abbreviations see Key Sheet.
All depths and reduced levels are in meters.

Log issue: DRAFT
Scale: 1:100

Project: Tong Quarry
Project No: 21/12
Client: The Bacup Clay Company Ltd

Borehole Log

Exploratory position reference:
GW8D
Sheet 4 of 4

Borehole formation details:

Type:	From:	To:	Start date:	End date:	Crew:	Plant:	Barrel type:	Drill bit:	Logger:	Logged:	Remarks:
RO	0.00	65.00	04-02-21	04-02-21	RP		n/a	Tricone	RP	04-02-21	

Location details:

mE:	388062.50
mN:	422808.59
mAOD:	346.56
Grid:	OSGB

Backfill/ Instal'n	Water-strike	Legend	Level	Depth (thick-ness)	Stratum Description	Samples & In Situ Testing: Water	Casing	Depth/Core Run	TCR SCR RQD	If	Results/remarks/ samples
					Grey SANDSTONE with shale bands (WOODHEAD HILL ROCK)						
	SP (51)		281.56	65.00	Borehole ends at 65.00 m (Termination reason: Target depth)						

	Inst (Ø)					Water	Casing	Depth/Core Run	TCR SCR RQD	If	Results/remarks

Groundwater entries:

Struck:	Rose to:	Casing:	Sealed:

Diameter & casing:

Dia (mm):	Depth:	Casing:
150	65.00	

Depth related remarks:

From	to:	Remarks:

Flush details:

Depth:	Type:	Return:	Colour:

Notes: For explanation of symbols and abbreviations see Key Sheet.
All depths and reduced levels are in meters.

Log issue: DRAFT
Scale: 1:100

Project: Tong Quarry
Project No: 21/12
Client: The Bacup Clay Company Ltd

Borehole Log

Exploratory position reference:
GW8S
Sheet 1 of 1

Borehole formation details:

Type:	From:	To:	Start date:	End date:	Crew:	Plant:	Barrel type:	Drill bit:	Logger:	Logged:	Remarks:
RO	0.00	20.00	04-02-21	04-02-21	DP		n/a	Tricone	DP	04-02-21	

Location details:

mE: 388063.01
mN: 422812.94
mAOD: 346.27
Grid: OSGB

Backfill/ Instal'n	Water-strike	Legend	Level	Depth (thick-ness)	Stratum Description	Samples & In Situ Testing: Water	Casing	Depth/Core Run	TCR SCR RQD	If	Results/remarks/ samples
			346.07	0.20	TOPSOIL						
				0.70	(TOPSOIL)						
			345.37	0.90	Gravelly CLAY. Gravel is sandstone (GREAT ARC SANDSTONE)						
				4.20	Weathered brown SANDSTONE (GREAT ARC SANDSTONE)						
			341.17	5.10	Strong grey SANDSTONE with weaker bands (GREAT ARC SANDSTONE)						
				2.10							
			339.07	7.20	Weak brown SANDSTONE (GREAT ARC SANDSTONE)						
				1.00							
			338.07	8.20	Light grey SANDSTONE (GREAT ARC SANDSTONE)						
				4.00							
			334.07	12.20	Interbedded grey SHALE and MUDSTONE (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
				5.60							
	(51)										
			328.47	17.80	Black SHALE (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
				2.20							
	SP (51) (Ø)		326.27	20.00	Borehole ends at 20.00 m (Termination reason: Target depth)						

Groundwater entries:

Struck:	Rose to:	Casing:	Sealed:

Diameter & casing:

Dia (mm):	Depth:	Casing:
150	20.00	

Depth related remarks:

From	to:	Remarks:

Flush details:

Depth:	Type:	Return:	Colour:
0.00 - 20.00	air/mist		

Notes: For explanation of symbols and abbreviations see Key Sheet.
All depths and reduced levels are in meters.

Log issue: DRAFT
Scale: 1:100

Project: Tong Quarry
Project No: 21/12
Client: The Bacup Clay Company Ltd

Borehole Log

Exploratory position reference:
GW9D

Borehole formation details:

Type:	From:	To:	Start date:	End date:	Crew:	Plant:	Barrel type:	Drill bit:	Logger:	Logged:	Remarks:
RO	0.00	48.00	06-02-21	06-02-21	RP		n/a	Tricone	RP	06-02-21	

Location details:

mE: 387824.02
mN: 422827.60
mAOD: 337.55
Grid: OSGB

Backfill/ Instal'n	Water-strike	Legend	Level	Depth (thick-ness)	Stratum Description	Samples & In Situ Testing: Water	Casing	Depth/Core Run	TCR SCR RQD	If	Results/remarks/ samples
			337.35	0.20	TOPSOIL (TOPSOIL)						
				1.60	Gravelly CLAY. Gravel is sandstone (GLACIAL TILL)						
			335.75	1.80	Grey MUDSTONE with shale and sandstone bands (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
				6.00							
			329.75	7.80	Strong grey fractured SANDSTONE with clayey bands (loosing flush) (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
				10.10							
			319.65	17.90	Black and grey banded SHALE with occasional sandstone bands (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						

	Inst (Ø)					Water	Casing	Depth/Core Run	TCR SCR RQD	If	Results/remarks

Groundwater entries:

Struck:	Rose to:	Casing:	Sealed:

Diameter & casing:

Dia (mm):	Depth:	Casing:
150	48.00	

Depth related remarks:

From	to:	Remarks:

Flush details:

Depth:	Type:	Return:	Colour:
0.00 - 48.00	air/mist		

AGS

Notes: For explanation of symbols and abbreviations see Key Sheet.
All depths and reduced levels are in meters.

Log issue: DRAFT
Scale: 1:100

Project: Tong Quarry
Project No: 21/12
Client: The Bacup Clay Company Ltd

Borehole Log

Exploratory position reference: **GW9D**

Borehole formation details:

Type:	From:	To:	Start date:	End date:	Crew:	Plant:	Barrel type:	Drill bit:	Logger:	Logged:	Remarks:
RO	0.00	48.00	06-02-21	06-02-21	RP		n/a	Tricone	RP	06-02-21	

Location details:

mE: 387824.02
mN: 422827.60
mAOD: 337.55
Grid: OSGB

Backfill/ Instal'n	Water-strike	Legend	Level	Depth (thick-ness)	Stratum Description	Samples & In Situ Testing: Water	Casing	Depth/Core Run	TCR SCR RQD	If	Results/remarks/ samples
					Black and grey banded SHALE with occasional sandstone bands (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
				18.60							
			301.05	36.50	COAL (LOWER FOOT MINE)						
				1.20							
			299.85	37.70	Fire CLAY (FIRECLAY)						
				0.60							
			299.25	38.30	Grey SANDSTONE with shale bands (WOODHEAD HILL ROCK)						
	Inst (Ø)					Water	Casing	Depth/Core Run	TCR SCR RQD	If	Results/remarks

Groundwater entries:

Struck:	Rose to:	Casing:	Sealed:

Diameter & casing:

Dia (mm):	Depth:	Casing:
150	48.00	

Depth related remarks:

From	to:	Remarks:

Flush details:

Depth:	Type:	Return:	Colour:

Notes: For explanation of symbols and abbreviations see Key Sheet.
All depths and reduced levels are in meters.

Log issue: DRAFT
Scale: 1:100

Project: Tong Quarry
Project No: 21/12
Client: The Bacup Clay Company Ltd

Borehole Log

Exploratory position reference:
GW9D

Borehole formation details:

Type:	From:	To:	Start date:	End date:	Crew:	Plant:	Barrel type:	Drill bit:	Logger:	Logged:	Remarks:
RO	0.00	48.00	06-02-21	06-02-21	RP		n/a	Tricone	RP	06-02-21	

Location details:

mE:	387824.02
mN:	422827.60
mAOD:	337.55
Grid:	OSGB

Backfill/ Instal'n	Water-strike	Legend	Level	Depth (thick-ness)	Stratum Description	Samples & In Situ Testing: Water	Casing	Depth/Core Run	TCR SCR RQD	If	Results/remarks/ samples
	(51)			9.70	Grey SANDSTONE with shale bands (WOODHEAD HILL ROCK)						
	SP (51)		289.55	48.00	Borehole ends at 48.00 m (Termination reason: Target depth)						
	Inst (Ø)					Water	Casing	Depth/Core Run	TCR SCR RQD	If	Results/remarks

Groundwater entries:

Struck:	Rose to:	Casing:	Sealed:
42.00	42.00		

Diameter & casing:

Dia (mm):	Depth:	Casing:
150	48.00	

Depth related remarks:

From to: Remarks:

Flush details:

Depth: Type: Return: Colour:

Notes: For explanation of symbols and abbreviations see Key Sheet.
All depths and reduced levels are in meters.

Log issue: DRAFT
Scale: 1:100

Project: Tong Quarry
Project No: 21/12
Client: The Bacup Clay Company Ltd

Borehole Log

Exploratory position reference:
GW9S
Sheet 1 of 2

Borehole formation details:

Type:	From:	To:	Start date:	End date:	Crew:	Plant:	Barrel type:	Drill bit:	Logger:	Logged:	Remarks:
RO	0.00	20.00	06-02-21	06-02-21	DP		n/a	Tricone	DP	06-02-21	

Location details:

mE: 387821.61
mN: 422829.87
mAOD: 337.41
Grid: OSGB

Backfill/ Instal'n	Water-strike	Legend	Level	Depth (thick-ness)	Stratum Description	Samples & In Situ Testing: Water	Casing	Depth/Core Run	TCR SCR RQD	If	Results/remarks/ samples
			337.21	0.20	TOPSOIL (TOPSOIL)						
				1.60	Gravelly CLAY. Gravel is sandstone (GLACIAL TILL)						
			335.61	1.80	Grey MUDSTONE with shale and sandstone bands (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
				6.00							
			329.61	7.80	Strong grey fractured SANDSTONE with clayey bands (loosing flush) (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
				10.10							
			319.51	17.90	Black and grey banded SHALE with occasional sandstone bands (PENNINE LOWER COAL MEASURES - UNDIFFERENTIATED)						
	(51)			2.10							
	SP (51) (Ø)		317.41	20.00							
						Water	Casing	Depth/Core Run	TCR SCR RQD	If	Results/remarks

Groundwater entries:

Struck:	Rose to:	Casing:	Sealed:

Diameter & casing:

Dia (mm):	Depth:	Casing:
150	20.00	

Depth related remarks:

From	to:	Remarks:

Flush details:

Depth:	Type:	Return:	Colour:
0.00 - 20.00	air/mist		

Notes: For explanation of symbols and abbreviations see Key Sheet.
All depths and reduced levels are in meters.

Log issue: DRAFT
Scale: 1:100

Project: Tong Quarry
Project No: 21/12
Client: The Bacup Clay Company Ltd

Borehole Log

Exploratory position reference:
GW9S

Borehole formation details:

Type:	From:	To:	Start date:	End date:	Crew:	Plant:	Barrel type:	Drill bit:	Logger:	Logged:	Remarks:
RO	0.00	20.00	06-02-21	06-02-21	DP		n/a	Tricone	DP	06-02-21	

Location details:

mE: 387821.61
mN: 422829.87
mAOD: 337.41
Grid: OSGB

Backfill/ Instal'n	Water-strike	Legend	Level	Depth (thick-ness)	Stratum Description	Samples & In Situ Testing: Water	Casing	Depth/Core Run	TCR SCR RQD	If	Results/remarks/ samples
					Borehole ends at 20.00 m (Termination reason: Target depth)						

	Inst (Ø)				Water	Casing	Depth/Core Run	TCR SCR RQD	If	Results/remarks

Groundwater entries:

Struck:	Rose to:	Casing:	Sealed:

Diameter & casing:

Dia (mm):	Depth:	Casing:
150	20.00	

Depth related remarks:

From to: Remarks:

Flush details:

Depth: Type: Return: Colour:

Notes: For explanation of symbols and abbreviations see Key Sheet.
All depths and reduced levels are in meters.

Log issue: DRAFT
Scale: 1:100

Project: Tong Quarry
Project No: 21/12
Client: The Bacup Clay Company Ltd

APPENDIX 3

Groundwater Level Data

GROUNDWATER AND GROUND GAS MONITORING

C Eccles Brownfield Land Consultancy

Site: Tong Quarry, Bacup

Location	Date	Monitored by	Well Details			Groundwater			Gas											Weather		Serial No.
			Standpipe diameter (mm)	Ground Level (mOD)	Depth to Base (m bgl)	Water Depth (m bgl)	Water Level (mOD)	Water Sample Taken?	Atmospheric Pressure (mbar)	Atmospheric Pressure Comment	Relative Pressure (mb)	Flow (l/h)	Peak Flow (l/h)	CH_4 (% v/v)	GSV CH_4 (l/hr)	CO_2 (% v/v)	GSV CO_2 (l/hr)	O_2 (% v/v)	CO (ppm)	H2S (ppm)	Conditions	Ambient Temp °C	
GW1	06/02/21	CE	51	339.30	32.11	31.57	307.73	Y	965	Steady	0.01	0.1	0.1	0.1	0.0001	0.4	0.0004	19.6	1	1	Snow Showers	1 to 3	12417
	20/02/21	CE	51	339.30	32.11	Dry	<317.19	N	954	Steady	0.01	0.1	0.1	0.1	0.0001	1.2	0.0012	17.8	1	1	Strong Winds & Rain	4 to 6	12417
	06/03/21	CE	51	339.30	32.11	31.70	307.60	N	992	Rising	0.01	0.1	0.1	0.1	0.0001	1.2	0.0012	18.5	1	1	Overcast	5 to 7	12417
	10/04/21	CE	51	339.30	32.11	31.75	307.55	N	973	Rising	0.01	0.1	0.1	0.1	0.0001	0.8	0.0008	19.0	1	1	Clear	0	12417
	08/05/21	CE	51	339.30	32.11	31.59	307.71	N	959	Falling	0.01	0.1	0.1	0.1	0.0001	0.8	0.0008	18.7	1	1	Rain and Strong Winds	3 to 8	12417
	19/06/21	CE	51	339.30	32.11	30.35	308.95	N	974	Steady	0.01	0.1	0.1	0.1	0.0001	0.1	0.0001	19.0	1	1	Overcast	15	12417
	17/07/21	CE	51	339.30	32.11	30.35	308.95	N	991	Steady	0.01	0.1	0.1	0.1	0.0001	1.3	0.0013	18.8	1	1	Clear	18 to 24	12417
	14/08/21	CE	51	339.30	32.11	30.46	308.84	Y	997	Falling	0.01	0.1	0.1	0.1	0.0001	1.4	0.0014	18.9	1	1	Overcast	14	12417
GW2	06/02/21	CE	51	346.27	39.01	Dry	<307.26	N	966	Steady	0.01	0.1	0.1	0.1	0.0001	0.2	0.0002	20.2	1	1	Snow Showers	1 to 3	12417
	20/02/21	CE	51	346.27	39.01	Dry	<307.26	N	954	Steady	0.01	0.1	0.1	0.1	0.0001	1.3	0.0013	14.7	1	1	Strong Winds & Rain	4 to 6	12417
	06/03/21	CE	51	346.27	39.01	38.54	307.73	N	992	Rising	-11.91	-70.3	0.1	1.1	-0.7733	0.7	-0.4921	13.9	1	1	Overcast	5 to 7	12417
	10/04/21	CE	51	346.27	39.01	39.01	307.26	N	972	Rising	0.01	0.1	0.1	0.1	0.0001	0.5	0.0005	19.6	1	1	Clear	0	12417
	08/05/21	CE	51	346.27	39.01	38.82	307.45	N	960	Falling	0.01	0.1	0.1	0.1	0.0001	0.8	0.0008	12.7	1	1	Rain and Strong Winds	3 to 8	12417
	19/06/21	CE	51	346.27	39.01	38.52	307.75	N	974	Steady	-3.46	-25.7	0.1	0.1	-0.0257	0.1	-0.0257	20.3	1	1	Overcast	15	12417
	17/07/21	CE	51	346.27	39.01	39.01	307.26	N	990	Steady	<<	-69.6	0.1	0.1	-0.0696	0.1	-0.0696	20.3	1	1	Clear	18 to 24	12417
	14/08/21	CE	51	346.27	39.01	38.77	307.50	N	976	Falling	0.01	0.1	0.1	0.1	0.0001	0.4	0.0004	20.2	1	1	Overcast	14	12417
GW3	06/02/21	CE	51	364.24	32.80	28.30	335.94	Y	967	Steady	0.01	0.1	0.1	0.1	0.0001	0.3	0.0003	19.6	1	1	Snow Showers	1 to 3	12417
	20/02/21	CE	51	364.24	32.80	28.85	335.39	Y	958	Steady	0.01	0.1	0.1	0.1	0.0001	0.3	0.0003	19.6	1	1	Strong Winds & Rain	4 to 6	12417
	06/03/21	CE	51	364.24	32.80	28.43	335.81	N	989	Rising	0.01	0.1	0.1	0.1	0.0001	0.6	0.0006	19.4	1	1	Overcast	5 to 7	12417
	10/04/21	CE	51	364.24	32.80	28.30	335.94	N	971	Rising	0.01	0.1	0.1	0.1	0.0001	0.5	0.0005	19.5	1	1	Clear	0	12417
	08/05/21	CE	51	364.24	32.80	28.35	335.89	Y	956	Falling	0.01	0.1	0.1	0.1	0.0001	0.4	0.0004	19.5	1	1	Rain and Strong Winds	3 to 8	12417
	19/06/21	CE	51	364.24	32.80	28.68	335.56	N	972	Steady	0.01	0.1	0.1	0.1	0.0001	0.4	0.0004	20.2	1	1	Overcast	15	12417
	17/07/21	CE	51	364.24	32.80	28.64	335.60	N	990	Steady	0.01	0.1	0.1	0.1	0.0001	0.3	0.0003	20.7	1	1	Clear	18 to 24	12417
	14/08/21	CE	51	364.24	32.80	28.53	335.71	N	975	Falling	0.01	0.1	0.1	0.1	0.0001	0.2	0.0002	20.5	1	1	Overcast	14	12417
GW4S	06/02/21	CE	51	346.18	20.30	13.10	333.08	Y	967	Steady	0.01	0.1	0.1	0.1	0.0001	0.7	0.0007	19.3	67	1	Snow Showers	1 to 3	12417
	20/02/21	CE	51	346.24	20.30	13.15	333.09	Y	958	Steady	0.01	0.1	0.1	0.1	0.0001	2.4	0.0024	17.5	1	1	Strong Winds & Rain	4 to 6	12417
	06/03/21	CE	51	346.24	20.30	13.32	332.92	N	992	Rising	0.01	0.1	0.1	0.1	0.0001	3.6	0.0036	17.4	1	1	Overcast	5 to 7	12417
	10/04/21	CE	51	346.24	20.30	13.44	332.80	N	972	Rising	0.01	0.1	0.1	4.9	0.0049	5.4	0.0054	15.3	1	1	Clear	0	12417
	08/05/21	CE	51	346.24	20.30	13.81	332.43	Y	959	Falling	0.01	0.1	0.1	9.3	0.0093	6.3	0.0063	12.2	1	1	Rain and Strong Winds	3 to 8	12417
	19/06/21	CE	51	346.24	20.30	13.94	332.30	N	974	Steady	0.01	0.1	0.1	8.3	0.0083	5.3	0.0053	11.2	1	1	Overcast	15	12417
	17/07/21	CE	51	346.24	20.30	13.85	332.39	N	990	Steady	0.01	0.1	0.1	9.8	0.0098	5.4	0.0054	10.7	1	1	Clear	18 to 24	12417
	14/08/21	CE	51	346.24	20.30	14.48	331.76	Y	975	Falling	0.01	0.1	0.1	8.5	0.0085	5.2	0.0052	11.4	1	1	Overcast	14	12417
GW4D	06/02/21	CE	51	346.38	57.64	8.63	337.75	Y	966	Steady	0.01	0.1	0.1	0.1	0.0001	2.2	0.0022	17.8	12	1	Snow Showers	1 to 3	12417
	20/02/21	CE	51	346.28	57.64	9.47	336.81	Y	958	Steady	0.01	0.1	0.1	0.1	0.0001	3.3	0.0033	12.9	1	1	Strong Winds & Rain	4 to 6	12417
	06/03/21	CE	51	346.28	57.64	10.29	335.99	N	992	Rising	0.01	0.1	0.1	4.7	0.0047	3.3	0.0033	14.0	1	1	Overcast	5 to 7	12417
	10/04/21	CE	51	346.28	57.64	11.26	335.02	N	972	Rising	0.01	0.1	0.1	14.6	0.0146	6.8	0.0068	7.6	1	1	Clear	0	12417
	08/05/21	CE	51	346.28	57.64	11.44	334.84	Y	959	Falling	0.01	0.1	0.1	18.2	0.0182	7.0	0.0070	6.8	1	1	Rain and Strong Winds	3 to 8	12417
	19/06/21	CE	51	346.28	57.64	11.00	335.28	N	974	Steady	0.01	0.1	0.1	0.1	0.0001	0.1	0.0001	20.3	1	1	Overcast	15	12417
	17/07/21	CE	51	346.28	57.64	12.45	333.83	N	990	Steady	0.01	0.1	0.1	2.2	0.0022	3.9	0.0039	12.6	1	1	Clear	18 to 24	12417
	14/08/21	CE	51	346.28	57.64	13.24	333.04	Y	975	Falling	0.01	0.1	0.1	0.1	0.0001	0.1	0.0001	20.7	1	1	Overcast	14	12417
GW5S	06/02/21	CE	51	350.70	20.09	15.82	334.88	Y	964	Steady	0.01	0.1	0.1	0.1	0.0001	0.1	0.0001	19.7	1	1	Snow Showers	1 to 3	12417
	20/02/21	CE	51	350.70	20.09	15.96	334.74	Y	952	Steady	0.01	0.1	0.1	0.1	0.0001	0.1	0.0001	19.1	1	1	Strong Winds & Rain	4 to 6	12417
	06/03/21	CE	51	350.70	20.09	16.39	334.31	N	991	Rising	0.01	0.1	0.1	0.1	0.0001	1.1	0.0011	18.2	1	1	Overcast	5 to 7	12417
	10/04/21	CE	51	350.70	20.09	17.01	333.69	N	972	Rising	0.01	0.1	0.1	0.1	0.0001	2.3	0.0023	17.0	1	1	Clear	0	12417
	08/05/21	CE	51	350.70	20.09	17.39	333.31	Y	959	Falling	0.01	0.1	0.1	0.1	0.0001	2.2	0.0022	12.5	1	1	Rain and Strong Winds	3 to 8	12417
	19/06/21	CE	51	350.70	20.09	17.43	333.27	N	973	Steady	0.01	0.1	0.1	0.1	0.0001	1.3	0.0013	19.6	1	1	Overcast	15	12417
	17/07/21	CE	51	350.70	20.09	17.42	333.28	N	990	Steady	0.01	0.1	0.1	0.1	0.0001	0.1	0.0001	20.3	1	1	Clear	18 to 24	12417
	14/08/21	CE	51	350.70	20.09	17.37	333.33	Y	975	Falling	0.01	0.1	0.1	0.1	0.0001	0.3	0.0003	20.3	1	1	Overcast	14	12417
GW5D	06/02/21	CE	51	350.60	64.13	46.87	303.73	Y	964	Steady	0.01	0.1	0.1	0.1	0.0001	0.6	0.0006	17.9	1	1	Snow Showers	1 to 3	12417
	20/02/21	CE	51	350.60	64.13	44.84	305.76	Y	952	Steady	0.01	0.1	0.1	0.1	0.0001	0.1	0.0001	20.0	1	1	Strong Winds & Rain	4 to 6	12417
	06/03/21	CE	51	350.60	64.13	45.17	305.43	N	991	Rising	0.01	0.1	0.1	0.1	0.0001	0.1	0.0001	19.8	1	1	Overcast	5 to 7	12417
	10/04/21	CE	51	350.60	64.13	44.68	305.92	N	972	Rising	0.01	0.1	0.1	0.1	0.0001	0.1	0.0001	20.0	1	1	Clear	0	12417
	08/05/21	CE	51	350.60	64.13	45.10	305.50	Y	959	Falling	0.01	0.1	0.1	0.1	0.0001	0.1	0.0001	20.1	1	1	Rain and Strong Winds	3 to 8	12417
	19/06/21	CE	51	350.60	64.13	45.01	305.59	N	973	Steady	0.01	0.1	0.1	0.1	0.0001	0.5	0.0005	19.7	1	1	Overcast	15	12417
	17/07/21	CE	51	350.60	64.13	45.31	305.29	N	990	Steady	0.01	0.1	0.1	0.1	0.0001	0.1	0.0001	20.8	1	1	Clear	18 to 24	12417
	14/08/21	CE	51	350.60	64.13	45.20	305.40	Y	975	Falling	0.01	0.1	0.1	0.1	0.0001	1.6	0.0016	12.1	1	1	Overcast	14	12417
	06/02/21	CE	51	357.52	19.83	8.13	349.39	Y	967	Steady	0.01	0.1	0.1	0.1	0.0001	0.3	0.0003	19.6	1	1	Snow Showers	1 to 3	12417
	20/02/21	CE	51	357.52	19.83	8.20	349.32	Y	954	Steady	0.01	0.1	0.1	0.1	0.0001	0.2	0.0002	20.0	1	1	Strong Winds & Rain	4 to 6	12417
	06/03/21	CE	51	357.52	19.83	8.39	349.13	N	990	Rising	0.01	0.1	0.1	0.1	0.0001	0.8	0.0008	19.6	1	1	Overcast	5 to 7	12417

NOTES:
NM = Not Measured.
(x) = Peak value recorded.
[grey] = Below detection limit.

GSV (l/HR) = [gas concentration (%v/v)] x [gas well flow rate (l/hr)]
100

GW6S	10/04/21	CE	51	357.52	19.83	8.23	349.29	N	972	Rising	0.01	0.1	0.1	0.1	0.0001	0.5	0.0005	19.6	1	1	Clear	0	12417
	08/05/21	CE	51	357.52	19.83	8.05	349.47	Y	960	Falling	0.01	0.1	0.1	0.1	0.0001	0.6	0.0006	19.7	1	1	Rain and Strong Winds	3 to 8	12417
	19/06/21	CE	51	357.52	19.83	9.21	348.31	N	975	Steady	0.01	0.1	0.1	0.1	0.0001	1.1	0.0011	19.7	1	1	Overcast	15	12417
	17/07/21	CE	51	357.52	19.83	9.10	348.42	N	990	Steady	0.01	0.1	0.1	0.1	0.0001	1.0	0.0010	19.9	1	1	Clear	18 to 24	12417
	14/08/21	CE	51	357.52	19.83	8.16	349.36	Y	975	Falling	0.01	0.1	0.1	0.1	0.0001	1.0	0.0010	19.8	1	1	Overcast	14	12417
GW6D	06/02/21	CE	51	358.07	37.53	29.33	328.74	Y	967	Steady	0.01	0.1	0.1	0.1	0.0001	0.1	0.0001	19.7	1	1	Snow Showers	1 to 3	12417
	20/02/21	CE	51	358.07	37.53	28.72	329.35	Y	954	Steady	0.01	0.1	0.1	0.1	0.0001	3.0	0.0030	19.1	1	1	Strong Winds & Rain	4 to 6	12417
	06/03/21	CE	51	358.07	37.53	29.45	328.62	N	990	Rising	0.01	0.1	0.1	0.1	0.0001	2.5	0.0025	19.2	1	1	Overcast	5 to 7	12417
	10/04/21	CE	51	358.07	37.53	29.46	328.61	N	972	Rising	0.01	0.1	0.1	0.1	0.0001	1.7	0.0017	16.2	1	1	Clear	0	12417
	08/05/21	CE	51	358.07	37.53	29.51	328.56	Y	960	Falling	0.01	0.1	0.1	0.1	0.0001	2.0	0.0020	17.8	1	1	Rain and Strong Winds	3 to 8	12417
	19/06/21	CE	51	358.07	37.53	29.24	328.83	N	975	Steady	0.01	0.1	0.1	0.1	0.0001	0.5	0.0005	19.8	1	1	Overcast	15	12417
	17/07/21	CE	51	358.07	37.53	28.28	329.79	N	990	Steady	0.01	0.1	0.1	0.1	0.0001	0.8	0.0008	20.1	1	1	Clear	18 to 24	12417
	14/08/21	CE	51	358.07	37.53	28.19	329.88	Y	975	Falling	0.01	0.1	0.1	0.1	0.0001	0.7	0.0007	19.8	1	1	Overcast	14	12417

GROUNDWATER AND GROUND GAS MONITORING

C Eccles Brownfield Land Consultancy

Site: Tong Quarry, Bacup

Location	Date	Monitored by	Well Details			Groundwater			Gas											Weather		Serial No.
			Standpipe diameter (mm)	Ground Level (mOD)	Depth to Base (m bgl)	Water Depth (m bgl)	Water Level (mOD)	Water Sample Taken?	Atmospheric Pressure (mbar)	Atmospheric Pressure Comment	Relative Pressure (mb)	Flow (l/h)	Peak Flow (l/h)	CH_4 (% v/v)	GSV CH_4 (l/hr)	CO_2 (% v/v)	GSV CO_2 (l/hr)	O_2 (% v/v)	CO (ppm)	H2S (ppm)	Conditions	Ambient Temp °C	
GW7S	06/02/21	CE	51	344.36	15.57	15.52	328.84	N	967	Steady	0.01	0.1	0.1	0.1	0.0001	1.5	0.0015	18.7	1	1	Snow Showers	1 to 3	12417
	20/02/21	CE	51	344.36	17.68	17.54	326.82	N	956	Steady	0.01	0.1	0.1	0.1	0.0001	1.5	0.0015	18.4	1	1	Strong Winds & Rain	4 to 6	12417
	06/03/21	CE	51	344.36	17.68	17.56	326.80	N	992	Rising	0.01	0.1	0.1	0.1	0.0001	1.2	0.0012	18.7	1	1	Overcast	5 to 7	12417
	10/04/21	CE	51	344.36	17.68	17.63	326.73	N	972	Rising	0.01	0.1	0.1	0.1	0.0001	1.6	0.0016	16.5	1	1	Clear	0	12417
	08/05/21	CE	51	344.36	17.68	17.55	326.81	N	959	Falling	0.01	0.1	0.1	0.1	0.0001	1.6	0.0016	17.1	1	1	Rain and Strong Winds	3 to 8	12417
	19/06/21	CE	51	344.36	17.68	17.68	326.68	N	975	Steady	0.01	0.1	0.1	0.1	0.0001	1.2	0.0012	17.4	1	1	Overcast	15	12417
	17/07/21	CE	51	344.36	17.68	17.68	326.68	N	990	Steady	0.01	0.1	0.1	0.1	0.0001	0.7	0.0007	19.4	1	1	Clear	18 to 24	12417
	14/08/21	CE	51	344.36	17.63	17.63	326.73	N	976	Falling	0.01	0.1	0.1	0.1	0.0001	0.5	0.0005	19.7	1	1	Overcast	14	12417
GW7D	06/02/21	CE	51	344.56	44.00	1.54	343.02	Y	967	Steady	0.01	0.1	0.1	0.1	0.0001	0.2	0.0002	19.7	1	1	Snow Showers	1 to 3	12417
	20/02/21	CE	51	344.56	44.00	4.54	340.02	Y	956	Steady	0.01	0.1	0.1	0.1	0.0001	0.1	0.0001	20.1	1	1	Strong Winds & Rain	4 to 6	12417
	06/03/21	CE	51	344.56	44.00	5.06	339.50	N	992	Rising	0.01	0.1	0.1	0.1	0.0001	0.5	0.0005	19.8	1	1	Overcast	5 to 7	12417
	10/04/21	CE	51	344.56	44.00	10.21	334.35	N	972	Rising	0.01	0.1	0.1	0.1	0.0001	0.2	0.0002	19.7	1	1	Clear	0	12417
	08/05/21	CE	51	344.56	44.00	4.56	340.00	Y	959	Falling	0.01	0.1	0.1	0.1	0.0001	0.2	0.0002	19.8	1	1	Rain and Strong Winds	3 to 8	12417
	19/06/21	CE	51	344.56	44.00	12.11	332.45	N	975	Steady	0.01	0.1	0.1	0.1	0.0001	1.8	0.0018	18.1	1	1	Overcast	15	12417
	17/07/21	CE	51	344.56	44.00	13.91	330.65	N	990	Steady	0.01	0.1	0.1	0.1	0.0001	0.5	0.0005	19.8	1	1	Clear	18 to 24	12417
	14/08/21	CE	51	344.56	44.00	9.96	334.60	Y	976	Falling	0.01	0.1	0.1	0.1	0.0001	2.1	0.0021	13.7	1	1	Overcast	14	12417
GW8S	06/02/21	CE	51	346.27	18.35	2.84	343.43	Y	967	Steady	0.01	0.1	0.1	0.1	0.0001	0.2	0.0002	19.8	1	1	Snow Showers	1 to 3	12417
	20/02/21	CE	51	346.27	18.35	1.05	345.22	Y	957	Steady	0.01	0.1	0.1	0.1	0.0001	0.1	0.0001	20.2	1	1	Strong Winds & Rain	4 to 6	12417
	06/03/21	CE	51	346.27	18.35	4.98	341.29	N	992	Rising	0.01	0.1	0.1	0.1	0.0001	2.4	0.0024	16.8	1	1	Overcast	5 to 7	12417
	10/04/21	CE	51	346.27	18.35	7.39	338.88	N	972	Rising	0.01	0.1	0.1	0.1	0.0001	0.2	0.0002	20.1	1	1	Clear	0	12417
	08/05/21	CE	51	346.27	18.35	1.21	345.06	Y	959	Falling	0.01	0.1	0.1	0.1	0.0001	0.8	0.0008	19.8	1	1	Rain and Strong Winds	3 to 8	12417
	19/06/21	CE	51	346.27	18.35	12.31	333.96	N	977	Steady	0.01	0.1	0.1	0.1	0.0001	0.4	0.0004	20.1	1	1	Overcast	15	12417
	17/07/21	CE	51	346.27	18.35	12.37	333.90	N	990	Steady	0.01	0.1	0.1	0.1	0.0001	0.9	0.0009	20.2	1	1	Clear	18 to 24	12417
	14/08/21	CE	51	346.27	18.35	12.09	334.18	Y	975	Falling	0.01	0.1	0.1	0.1	0.0001	0.3	0.0003	20.5	1	1	Overcast	14	12417
GW8D	06/02/21	CE	51	346.56	64.60	57.77	288.79	Y	967	Steady	0.01	0.1	0.1	0.1	0.0001	0.2	0.0002	19.7	1	1	Snow Showers	1 to 3	12417
	20/02/21	CE	51	346.57	64.60	57.65	288.92	Y	957	Steady	0.01	0.1	0.1	0.1	0.0001	0.1	0.0001	20.2	1	1	Strong Winds & Rain	4 to 6	12417
	06/03/21	CE	51	346.57	64.60	57.97	288.60	N	992	Rising	0.01	0.1	0.1	0.1	0.0001	0.1	0.0001	20.0	1	1	Overcast	5 to 7	12417
	10/04/21	CE	51	346.57	64.60	57.78	288.79	N	972	Rising	0.01	0.1	0.1	0.1	0.0001	0.1	0.0001	20.2	1	1	Clear	0	12417
	08/05/21	CE	51	346.57	64.60	57.72	288.85	Y	959	Falling	0.01	0.1	0.1	0.1	0.0001	0.1	0.0001	20.4	1	1	Rain and Strong Winds	3 to 8	12417
	19/06/21	CE	51	346.57	64.60	57.78	288.79	N	977	Steady	0.01	0.1	0.1	0.1	0.0001	1.1	0.0011	17.6	1	1	Overcast	15	12417
	17/07/21	CE	51	346.57	64.60	58.14	288.43	N	990	Steady	0.01	0.1	0.1	0.1	0.0001	0.8	0.0008	18.9	1	1	Clear	18 to 24	12417
	14/08/21	CE	51	346.57	64.60	58.03	288.54	Y	976	Falling	0.01	0.1	0.1	0.1	0.0001	0.8	0.0008	18.7	1	1	Overcast	14	12417
GW9S	06/02/21	CE	51	337.41	21.57	16.56	320.85	Y	966	Steady	0.01	0.1	0.1	0.1	0.0001	0.7	0.0007	18.6	1	1	Snow Showers	1 to 3	12417
	20/02/21	CE	51	337.41	21.57	15.49	321.92	Y	957	Steady	0.01	0.1	0.1	0.1	0.0001	0.1	0.0001	20.2	1	1	Strong Winds & Rain	4 to 6	12417
	06/03/21	CE	51	337.41	21.57	15.27	322.14	N	992	Rising	0.01	0.1	0.1	0.1	0.0001	1.3	0.0013	15.4	1	1	Overcast	5 to 7	12417
	10/04/21	CE	51	337.41	21.57	12.94	324.47	N	973	Rising	0.01	0.1	0.1	0.1	0.0001	0.9	0.0009	18.9	1	1	Clear	0	12417
	08/05/21	CE	51	337.41	21.57	9.28	328.13	Y	959	Falling	0.01	0.1	0.1	0.1	0.0001	1.1	0.0011	17.8	1	1	Rain and Strong Winds	3 to 8	12417
	19/06/21	CE	51	337.41	21.57	14.46	322.95	N	977	Steady	0.01	0.1	0.1	0.1	0.0001	1.4	0.0014	18.7	1	1	Overcast	15	12417
	17/07/21	CE	51	337.41	21.57	15.05	322.36	N	989	Steady	0.01	0.1	0.1	0.1	0.0001	1.4	0.0014	19.3	1	1	Clear	18 to 24	12417
	14/08/21	CE	51	337.41	21.57	14.93	322.48	Y	976	Falling	0.01	0.1	0.1	0.1	0.0001	1.3	0.0013	19.2	1	1	Overcast	14	12417
	06/02/21	CE	51	337.55	45.28	39.32	298.23	Y	966	Steady	0.01	0.1	0.1	0.1	0.0001	0.1	0.0001	19.9	1	1	Snow Showers	1 to 3	12417
	20/02/21	CE	51	337.55	45.28	39.02	298.53	Y	957	Steady	0.01	0.1	0.1	0.1	0.0001	2.2	0.0022	9.7	1	1	Strong Winds & Rain	4 to 6	12417
	06/03/21	CE	51	337.55	45.28	39.14	298.41	N	992	Rising	0.01	0.1	0.1	0.1	0.0001	0.1	0.0001	20.5	1	1	Overcast	5 to 7	12417
	10/04/21	CE	51	337.55	45.28	39.18	298.37	N	973	Rising	0.01	0.1	0.1	0.1	0.0001	0.7	0.0007	19.7	1	1	Clear	0	12417

NOTES:
NM = Not Measured.
(x) = Peak value recorded.
[grey] = Below detection limit.

GSV (l/HR) = [gas concentration (%v/v)] x [gas well flow rate (l/hr)]
100

GW9D	08/05/21	CE	51	337.55	45.28	38.98	298.57	Y	959	Falling	0.01	0.1	0.1	0.1	0.0001	1.1	0.0011	13.3	1	1	Rain and Strong Winds	3 to 8	12417
	19/06/21	CE	51	337.55	45.28	39.04	298.51	N	975	Steady	-0.51	-49.0	0.1	0.1	-0.0490	0.7	-0.3430	19.6	1	1	Overcast	15	12417
	17/07/21	CE	51	337.55	45.28	39.26	298.29	N	989	Steady	-3.91	-30.0	0.1	0.1	-0.0300	0.1	-0.0300	21.2	1	1	Clear	18 to 24	12417
	14/08/21	CE	51	337.55	45.28	39.31	298.24	Y	976	Falling	-4.22	-38.1	0.1	0.1	-0.0381	0.1	-0.0381	21.3	1	1	Overcast	14	12417
W1	06/02/21	CE	51	351.45	8.22	8.01	343.44	1 Vial	964	Steady	0.01	0.1	0.1	0.1	0.0001	3.4	0.0034	7.4	1	1	Snow Showers	1 to 3	12417
	20/02/21	CE	51	351.45	8.22	Damp	343.23	N	952	Steady	0.01	0.1	0.1	0.1	0.0001	4.9	0.0049	16.3	1	1	Strong Winds & Rain	4 to 6	12417
	06/03/21	CE	51	351.45	8.22	8.22	343.23	N	992	Rising	0.01	0.1	0.1	0.1	0.0001	4.8	0.0048	13.0	1	1	Overcast	5 to 7	12717
	10/04/21	CE	51	351.45	8.22	8.22	343.23	N	972	Rising	0.01	0.1	0.1	0.1	0.0001	4.8	0.0048	16.9	1	1	Clear	0	12417
	08/05/21	CE	51	351.45	8.22	8.22	343.23	N	956	Falling	0.01	0.1	0.1	0.1	0.0001	2.9	0.0029	8.7	1	1	Rain and Strong Winds	3 to 8	12417
	19/06/21	CE	51	351.45	8.22	8.22	343.23	N	973	Steady	0.01	0.1	0.1	0.1	0.0001	1.8	0.0018	17.8	1	1	Overcast	15	12417
	17/07/21	CE	51	351.45	8.22	8.22	343.23	N	989	Steady	0.01	0.1	0.1	0.1	0.0001	4.3	0.0043	0.5	1	1	Clear	18 to 24	12417
	14/08/21	CE	51	351.45	8.07	7.94	343.51	N	975		0.01	0.1	0.1	1.9	0.0019	4.6	0.0046	0.2	1	1	Overcast	14	12417
W2	06/02/21	CE	51	355.44	12.16	4.39	351.05	Y	964	Steady	-0.62	-5.4	0.1	9.8	-0.5292	1.7	-0.0918	4.6	1	1	Snow Showers	1 to 3	12417
	20/02/21	CE	51	355.44	12.16	3.70	351.74	Y	952	Steady	0.01	0.1	0.1	4.0	0.0040	17.0	0.0170	0.8	1	1	Strong Winds & Rain	4 to 6	12417
	06/03/21	CE	51	355.44	12.16	4.78	350.66	N	990	Rising	-0.35	-4.2	0.1	7.8	-0.3276	2.2	-0.0924	1.9	1	1	Overcast	5 to 7	12417
	10/04/21	CE	51	355.44	12.16	4.78	350.66	N	972	Rising	0.01	0.1	0.1	11.7	0.0117	2.5	0.0025	13.5	1	1	Clear	0	12417
	08/05/21	CE	51	355.44	12.16	1.72	353.72	Y	956	Falling	3.26	30.1	30.1	11.1	3.3411	2.0	0.6020	0.1	1	1	Rain and Strong Winds	3 to 8	12417
	19/06/21	CE	51	355.44	12.16	2.22	353.22	N	972	Steady	0.37	5.1	5.1	15.7	0.8007	10.4	0.5304	0.7	10	1	Overcast	15	12417
	17/07/21	CE	51	355.44	12.16	3.85	351.59	N	989	Steady	0.04	0.8	0.8	4.6	0.0368	4.8	0.0384	0.1	1	1	Clear	18 to 24	12417
	14/08/21	CE	51	355.44	12.16	5.59	349.85	Y	975	Falling	0.01	0.1	0.1	10.3	0.0103	7.1	0.0071	0.1	1	1	Overcast	14	12417
W3	06/02/21	CE	51	349.70	-	Blocked	-	N	964	Steady	0.45	3.8	3.8	0.1	0.0038	0.8	0.0304	9.8	1	1	Snow Showers	1 to 3	12417
	20/02/21	CE	51	349.70	-	Blocked	-	N	954	Steady	0.01	0.1	0.1	0.1	0.0001	1.3	0.0013	7.2	1	1	Strong Winds & Rain	4 to 6	12417
	06/03/21	CE	51	349.70		Blocked	-	N	992	Rising	0.01	0.1	0.1	0.1	0.0001	0.9	0.0009	19.0	1	1	Overcast	5 to 7	12417
	10/04/21	CE	51	349.70		Blocked	-	N	972	Rising	0.01	0.1	0.1	0.1	0.0001	2.1	0.0021	18.6	1	1	Clear	0	12417
	08/05/21	CE	51	349.70		Blocked	-	N	956	Falling	0.01	0.1	0.1	0.1	0.0001	1.8	0.0018	13.2	1	1	Rain and Strong Winds	3 to 8	12417
	19/06/21	CE	51	349.70		Blocked	-	N	973	Steady	0.01	0.1	0.1	0.1	0.0001	4.0	0.0040	15.3	1	1	Overcast	15	12417
	17/07/21	CE	51	349.70		Blocked	-	N	990	Steady	0.01	0.1	0.1	0.1	0.0001	0.9	0.0009	19.9	1	1	Clear	18 to 24	12417
	14/08/21	CE	51	349.70		Blocked		N	976	Falling	0.01	0.1	0.1	0.1	0.0001	5.4	0.0054	8.5	1	1	Overcast	14	12417

GROUNDWATER AND GROUND GAS MONITORING

C Eccles Brownfield Land Consultancy

Site: Tong Quarry, Bacup

Location	Date	Monitored by	Well Details			Groundwater			Gas											Weather		Serial No.
			Standpipe diameter (mm)	Ground Level (mOD)	Depth to Base (m bgl)	Water Depth (m bgl)	Water Level (mOD)	Water Sample Taken?	Atmospheric Pressure (mbar)	Atmospheric Pressure Comment	Relative Pressure (mb)	Flow (l/h)	Peak Flow (l/h)	CH_4 (% v/v)	GSV CH_4 (l/hr)	CO_2 (% v/v)	GSV CO_2 (l/hr)	O_2 (% v/v)	CO (ppm)	H2S (ppm)	Conditions	Ambient Temp °C	
W4	06/02/21	CE	51	354.27	15.23	15.13	339.14	Y	966	Steady	0.01	0.1	0.1	33.2	0.0332	20.1	0.0201	0.1	1	1	Snow Showers	1 to 3	12417
	20/02/21	CE	51	354.27	15.23	15.01	339.26	N	952	Steady	1.30	13.3	13.3	41.9	5.5727	18.5	2.4605	0.1	1	1	Strong Winds & Rain	4 to 6	12417
	06/03/2021 (09:10)	CE	51	354.27	15.23	15.23	339.04	N	990	Rising	0.06	0.9	0.9	28.7	0.2583	21.0	0.1890	0.1	1	1	Overcast	5 to 7	12417
	06/03/2021 (10:16)	CE	51	-	-	-	-	N	991	Rising	0.1	1.6	1.6	17.0	0.2720	17.2	0.2752	3.5	1	1	Gas readings taken after Bulk Gas Sampling		12417
	10/04/21	CE	51	354.27	15.23	15.05	339.22	N	972	Rising	0.01	0.1	0.1	41.1	0.0411	18.9	0.0189	0.7	1	1	Clear	0	12417
	08/05/21	CE	51	354.27	15.23	15.08	339.19	N	956	Falling	2.56	24.2	24.2	44.2	10.6964	18.9	4.5738	0.3	9	1	Rain and Strong Winds	3 to 8	12417
	19/06/21	CE	51	354.27	15.23	15.13	339.14	N	973	Steady	0.13	2.7	2.7	45.8	1.2366	22.5	0.6075	0.7	1	1	Overcast	15	12417
	17/07/21	CE	51	354.27	15.23	15.23	339.04	N	990	Steady	0.01	0.1	0.1	30.5	0.0305	17.5	0.0175	1.9	1	1	Clear	18 to 24	12417
	14/08/21	CE	51	354.27	15.23	15.14	339.13	N	975	Falling	0.04	0.6	0.6	47.1	0.2826	19.3	0.1158	0.7	1	1	Overcast	14	12417
W6	06/02/21	CE	51	350.48	12.15	6.37	344.11	Y	Pipe Found Disconnected on Arrival - Now Repaired - Take Readings on 20/02/21												Snow Showers	1 to 3	12417
	20/02/21	CE	51	350.48	12.15	7.08	343.40	Y	953	Steady	2.70	25.5	25.5	79.6	20.2980	15.4	3.9270	0.1	1	1	Strong Winds & Rain	4 to 6	12417
	06/03/2021 (09:15)	CE	51	350.48	12.15	7.79	342.69	N	990	Rising	0.21	4	4	82.7	3.3080	14.0	0.5600	0.1	1	1	Overcast	5 to 7	12417
	06/03/2021 (10:28)	CE	51	-	-	-	-	N	991	Rising	0.25	4.4	4.4	70.7	3.1108	15.1	0.6644	2.1	1	1	Gas readings taken after Bulk Gas Sampling		12417
	10/04/21	CE	51	350.48	12.15	8.13	342.35	N	972	Rising	0.01	0.1	0.1	75.4	0.0754	19.4	0.0194	0.5	1	1	Clear	0	12417
	08/05/21	CE	51	350.48	12.15	8.48	342.00	Y	956	Falling	1.74	18.1	18.1	72.3	13.0863	23.8	4.3078	0.1	1	1	Rain and Strong Winds	3 to 8	12417
	19/06/21	CE	51	350.48	12.15	9.40	341.08	N	973	Steady	0.15	3.0	3.0	77.9	2.3370	18.7	0.5610	0.1	10	1	Overcast	15	12417
	17/07/21	CE	51	350.48	12.15	9.93	340.55	N	990	Steady	0.34	4.4	4.4	80.5	3.5420	17.9	0.7876	0.1	10	1	Clear	18 to 24	12417
	14/08/21	CE	51	350.48	12.15	10.09	340.39	Y	975	Falling	2.50	23.4	23.4	75.8	17.7372	21.9	5.1246	0.1	1	1	Overcast	14	12417
	Below Detection Limit																						

Bung and Cover Removed - See Photo

Flow and DP Falls Rapidly - 1minute - remains steady

NOTES:
NM = Not Measured.
(x) = Peak value recorded.
[grey] = Below detection limit.

GSV (l/HR) = [gas concentration (%v/v)] x [gas well flow rate (l/hr)
100

NOTES:
NM = Not Measured.
(x) = Peak value recorded.
[grey] = Below detection limit.

$$GSV\ (l/HR) = \frac{[\text{gas concentration (\%v/v)}] \times [\text{gas well flow rate (l/hr)}}{100}$$

APPENDIX 4

Groundwater Quality Data

	Chemtest Job No.:				21-03718		21-28639	21-03718	21-05451	21-15426	21-28639	21-03718	21-05451	21-15426	21-28639	21-03718	21-05451	21-15426	21-28639	21-03718	21-05451	21-15426	21-28639	21-03718	21-05451	21-15426	21-28639	21-03718	21-05451	21-15426	21-28639	21-03718	21-05451	21-15426	21-28639
	Chemtest Sample ID.:				1138186	DRY	1262731	1138187	1146563	1197511	1262732	1138189	1146565	1197513	1262734	1138191	1146567	1197515	1262736	1138193	1146569	1197517	1262738	1138196	1146572	1197520	1262741	1138198	1146574	1197522	1262743	1138194	1146570	1197518	1262739
	Sample Location:				GW1	GW1	GW1	GW3	GW3	GW3	GW3	GW4D	GW4D	GW4D	GW4D	GW5D	GW5D	GW5D	GW5D	GW6D	GW6D	GW6D	GW6D	GW8D	GW8D	GW8D	GW8D	GW9D	GW9D	GW9D	GW9D	GW7D	GW7D	GW7D	GW7D
	Sample Type:				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
	Date Sampled:				6/2/21	20/2/21	14/8/21	6/2/21	20/2/21	8/5/21	14/8/21	6/2/21	20/2/21	8/5/21	14/8/21	6/2/21	20/2/21	8/5/21	14/8/21	6/2/21	20/2/21	8/5/21	14/8/21	7/2/21	20/2/21	8/5/21	14/8/21	7/2/21	20/2/21	8/5/21	14/8/21	7/2/21	20/2/21	8/5/21	14/8/21
Determinand	**Accred.**	**SOP**	**Units**	**LOD**																															
pH	U	1010		N/A	8.0		7.2	7.9	7.1	8.1	6.7	6.9	6.8	7.2	6.3	7.9	7.1	8.0	6.7	8.0	7.0	8.1	6.9	8.1	6.4	7.7	5.7	7.6	6.6	7.9	6.4	8.1	6.8	8.1	6.1
Electrical Conductivity	U	1020	µS/cm	1.0	1400		1400	410	320	310	340	1700	2700	1500	1100	630	460	740	710	470	470	460	550	370	150	350	87	570	590	610	670	120	140	81	140
Alkalinity (Total)	U	1220	mg/l	10	660		670	140	120	93	97	320	500	480	360	160	120	200	200	230	180	190	210	240	35	160	21	100	110	98	140	40	42	42	25
Chloride	U	1220	mg/l	1.0	34		36	9.6	15	8.4	10	340	630	220	120	22	23	28	29	12	13	10	8.4	17	8.9	15	5.3	45	57	40	86	3.6	5.7	2.3	7.9
Fluoride	U	1220	mg/l	0.050	0.21		0.19	2.1	0.81	0.16	0.15	4.3	0.48	0.29	4.2	0.43	0.16	0.15	0.14	0.25	0.39	0.21	0.17	0.16	0.14	0.14	0.12	0.74	0.31	0.14	0.13	0.18	0.16	0.14	0.13
Ammoniacal Nitrogen	U	1220	mg/l	0.050	2.7		< 0.050	0.58	1.5	0.38	0.10	3.9	6.8	6.7	4.3	0.28	0.23	0.40	0.19	0.24	0.20	0.23	< 0.050	0.46	0.21	0.37	< 0.050	0.26	0.22	0.28	0.19	0.070	0.12	0.27	0.22
Sulphate	U	1220	mg/l	1.0	140		120	55	53	50	56	38	40	18	34	130	100	190	140	34	45	20	78	46	16	31	13	110	130	100	68	3.4	20	15	22
Cyanide (Total)	U	1300	mg/l	0.050	0.15		< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Calcium	U	1415	mg/l	5.0	80		85	55	39	36	30	120	250	160	100	74	61	100	91	38	52	53	64	63	17	53	7.0	51	56	51	75	16	7.7	10	110
Potassium	U	1415	mg/l	0.50	6.4		6.6	3.1	1.9	1.8	1.7	8.8	21	11	8.5	2.9	12	2.9	2.8	3.4	3.3	3.1	2.8	4.0	1.8	2.5	1.2	5.0	4.2	2.9	2.8	1.1	2.0	1.6	1.5
Magnesium	U	1415	mg/l	0.50	16		20	11	8.6	8.1	9.1	23	310	24	20	16	10	24	22	9.9	27	14	24	11	8.7	9.4	1.2	16	1.5	16	17	2.7	9.6	2.0	17
Sodium	U	1415	mg/l	0.50	280		210	46	6.3	6.1	7.1	140	310	92	65	12	10	11	11	35	12	8.0	8.2	18	5.1	12	3.4	21	23	15	11	9.7	6.8	2.7	4.4
Total Hardness as CaCO3	U	1270	mg/l	15	270		290	180	130	120	110	380	1900	500	340	250	190	360	320	140	240	190	260	200	78	170	23	190	150	190	260	51	59	33	360
Mercury (Dissolved)	U	1455	µg/l	0.05	< 0.05			< 0.05	< 0.010			< 0.05	< 0.010			< 0.05	< 0.010			< 0.05	< 0.010			< 0.05	< 0.010			< 0.05	< 0.010			< 0.05	< 0.010		
Aluminium (Dissolved)	N	1450	µg/l	10	200		400	12	< 5.0	< 5.0	300	< 10	< 5.0	< 5.0	65	< 10	< 5.0	< 5.0	65	< 10	< 5.0	< 5.0	750	< 10	5.0	7.1	140	< 10	< 5.0	< 5.0	< 5.0	900	15	80	260
Arsenic (Dissolved)	U	1450	µg/l	1.0	3.1		0.57	< 1.0	< 0.20	< 0.20	< 0.20	2.0	0.72	0.33	1.6	< 1.0	< 0.20	< 0.20	< 0.20	< 1.0	< 0.20	< 0.20	0.21	2.2	0.25	0.23	0.23	< 1.0	< 0.20	< 0.20	< 0.20	< 1.0	0.32	0.44	3.0
Boron (Dissolved)	U	1450	µg/l	20	73		45	23	35	< 10	13	81	96	88	69	27	15	< 10	21	27	15	< 10	13	40	< 10	< 10	10	360	390	29	25	< 20	< 10	< 10	37
Cadmium (Dissolved)	U	1450	µg/l	0.080	< 0.080		< 0.11	< 0.080	< 0.08	< 0.11	< 0.11	< 0.080	< 0.08	< 0.11	< 0.11	< 0.080	< 0.08	< 0.11	< 0.11	< 0.080	< 0.08	< 0.11	< 0.11	< 0.080	< 0.08	< 0.11	< 0.11	< 0.080	< 0.08	< 0.11	< 0.11	< 0.080	< 0.08	< 0.11	0.19
Chromium (Dissolved)	U	1450	µg/l	1.0	< 1.0		< 0.50	< 1.0	76	190	< 0.50	2.6	75	190	< 0.50	< 1.0	83	240	< 0.50	< 1.0	90	300	3.4	< 1.0	79	23	5.5	< 1.0	85	9.5	< 0.50	< 1.0	83	450	2.4
Copper (Dissolved)	U	1450	µg/l	1.0	7.3		1.0	1.6	2.1	6.2	< 0.50	1.5	2.7	5.9	< 0.50	< 1.0	2.4	7.8	0.73	1.1	2.4	9.6	0.78	1.0	4.2	2.8	7.6	< 1.0	2.7	0.91	< 0.50	15	7.2	18	11
Manganese (Dissolved)	U	1450	µg/l	1.0	650		100	940	2500	23	2100	1900	4100	4600	3900	910	1100	620	590	550	480	380	95	400	860	170	190	800	2200	300	470	63	200	230	180
Nickel (Dissolved)	U	1450	µg/l	1.0	12		6.2	18	44	94	11	63	39	110	46	3.7	44	110	0.94	2.0	42	140	2.6	4.7	42	13	5.0	19	60	8.7	1.9	5.4	41	210	6.0
Lead (Dissolved)	U	1450	µg/l	1.0	2.0		< 0.50	< 1.0	< 0.50	< 0.50	< 0.50	< 1.0	< 0.50	< 0.50	< 0.50	< 1.0	< 0.50	< 0.50	< 0.50	< 1.0	< 0.50	< 0.50	< 0.50	< 1.0	< 0.50	< 0.50	< 0.50	< 1.0	< 0.50	< 0.50	< 0.50	< 1.0	< 0.50	< 0.50	1.8
Selenium (Dissolved)	U	1450	µg/l	1.0	1.9		0.82	< 1.0	0.57	< 0.50	< 0.50	4.5	< 0.50	< 0.50	2.2	1.0	< 0.50	< 0.50	< 0.50	10	0.81	< 0.50	< 0.50	2.3	< 0.50	< 0.50	< 0.50	< 1.0	< 0.50	< 0.50	< 0.50	1.0	< 0.50	< 0.50	1.6
Zinc (Dissolved)	U	1450	µg/l	1.0	22		< 2.5	45	14	14	7.4	50	10	12	< 2.5	42	9.2	9.8	2.8	5.3	5.6	12	< 2.5	4.7	33	7.4	19	22	20	19	3.3	29	20	29	820
Mercury low level							0.39			< 0.010	0.034			< 0.010	0.11			< 0.010	0.15			< 0.010	< 0.010			< 0.010	< 0.010			< 0.010	< 0.010			< 0.010	0.096
Iron (Dissolved)	N	1450	mg/l	0.020	0.89		0.13	6.6	0.57	0.17	0.47	12	0.31	1.5	60	0.41	0.33	0.99	0.36	0.36	0.40	0.22	0.34	0.30	0.32	0.10	0.080	1.1	0.34	0.038	< 0.005	0.39	0.37	11	4.5
Total Organic Carbon	U	1610	mg/l	2.0	3.7		3.0	3.5	5.0	< 2.0	< 2.0	11	13	12	9.7	3.2	5.2	24	2.4	< 2.0	4.6	< 2.0	< 2.0	3.4	25	< 2.0	5.7	2.5	16	< 2.0	< 2.0	16	7.8	4.2	< 2.0
Total TPH >C10-C40	U	1670	µg/l	10	< 10		< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Naphthalene	U	1700	µg/l	0.10	< 0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthylene	U	1700	µg/l	0.10	< 0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthene	U	1700	µg/l	0.10	< 0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene	U	1700	µg/l	0.10	< 0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene	U	1700	µg/l	0.10	< 0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Anthracene	U	1700	µg/l	0.10	< 0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluoranthene	U	1700	µg/l	0.10	< 0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Pyrene	U	1700	µg/l	0.10	< 0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[a]anthracene	U	1700	µg/l	0.10	< 0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Chrysene	N	1700	µg/l	0.10	< 0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[b]fluoranthene	U	1700	µg/l	0.10	< 0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[k]fluoranthene	U	1700	µg/l	0.10	< 0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[a]pyrene	U	1700	µg/l	0.10	< 0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene	U	1700	µg/l	0.10	< 0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene	U	1700	µg/l	0.10	< 0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene	U	1700	µg/l	0.10	< 0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Of 16 PAH's	N	1700	µg/l	2.0	< 2.0		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Dichlorodifluoromethane	U	1760	µg/l	1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[C] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloromethane	U	1760	µg/l	1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[C] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vinyl Chloride	N	1760	µg/l	1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[C] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromomethane	U	1760	µg/l	5.0	< 5.0		< 5	< 5.0	< 5	< 5	< 5	< 5.0	< 5	< 5	< 5	< 5.0	< 5	< 5	< 5	< 5.0	< 5	< 5	< 5	< 5.0	< 5	< 5	< 5	[C] < 5.0	< 5	< 5	< 5	< 5.0	< 5	< 5	< 5
Chloroethane	U	1760	µg/l	2.0	< 2.0		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	[C] < 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Trichlorofluoromethane	U	1760	µg/l	1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[C] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethene	U	1760	µg/l	1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[C] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trans 1,2-Dichloroethene	U	1760	µg/l	1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[C] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane	U	1760	µg/l	1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[C] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
cis 1,2-Dichloroethene	U	1760	µg/l	1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[C] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromochloromethane	U	1760	µg/l	5.0	< 5.0		< 5	< 5.0	< 5	< 5	< 5	< 5.0	< 5	< 5	< 5	< 5.0	< 5	< 5	< 5	< 5.0	< 5	< 5	< 5	< 5.0	< 5	< 5	< 5	[C] < 5.0	< 5	< 5	< 5	< 5.0	< 5	< 5	< 5
Trichloromethane	U	1760	µg/l	1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[C] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,1-Trichloroethane	U	1760	µg/l	1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[C] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloromethane	U	1760	µg/l	1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[C] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloropropene	U	1760	µg/l	1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[C] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Benzene	U	1760	µg/l	1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[C] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethane	U	1760	µg/l	2.0	< 2.0		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	[C] < 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Trichloroethene	N	1760	µg/l	1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[C] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane	U	1760	µg/l	1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[C] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Dibromomethane	U	1760	µg/l	10	< 10		< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	[C] < 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Bromodichloromethane	U	1760	µg/l	5.0	< 5.0		< 5	< 5.0	< 5	< 5	< 5	< 5.0	< 5	< 5	< 5	< 5.0	< 5	< 5	< 5	< 5.0	< 5	< 5	< 5	< 5.0	< 5	< 5	< 5	[C] < 5.0	< 5	< 5	< 5	< 5.0	< 5	< 5	< 5
cis-1,3-Dichloropropene	N	1760	µg/l	10	< 10		< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	[C] < 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Toluene	U	1760	µg/l	1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[C] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trans-1,3-Dichloropropene	N	1760	µg/l	10	< 10		< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	[C] < 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1,1,2-Trichloroethane	U	1760	µg/l	10	< 10		< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	[C] < 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Tetrachloroethene	U	1760	µg/l	1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[C] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,3-Dichloropropane	U	1760	µg/l	2.0	< 2.0		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	[C] < 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Dibromochloromethane	U	1760	µg/l	10	< 10		< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	[C] < 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1,2-Dibromoethane	U	1760	µg/l	5.0	< 5.0		< 5	< 5.0	< 5	< 5	< 5	< 5.0	< 5	< 5	< 5	< 5.0	< 5	< 5	< 5	< 5.0	< 5	< 5	< 5	< 5.0	< 5	< 5	< 5	[C] < 5.0	< 5	< 5	< 5	< 5.0	< 5	< 5	< 5
Chlorobenzene	N	1760	µg/l	1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[C] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,1,2-Tetrachloroethane	U	1760	µg/l	2.0	< 2.0		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	[C] < 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Ethylbenzene	U	1760	µg/l	1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[C] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene	U	1760	µg/l	1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[C] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	U	1760	µg/l	1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[C] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Styrene	U	1760	µg/l	1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[C] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

				Chemtest Job No.:	21-03718		21-28639	21-03718	21-05451	21-15426	21-28639	21-03718	21-05451	21-15426	21-28639	21-03718	21-05451	21-15426	21-28639	21-03718	21-05451	21-15426	21-28639	21-03718	21-05451	21-15426	21-28639	21-03718	21-05451	21-15426	21-28639	21-03718	21-05451	21-15426	21-28639
				Chemtest Sample ID.:	1138186	DRY	1262731	1138187	1146563	1197511	1262732	1138189	1146565	1197513	1262734	1138191	1146567	1197515	1262736	1138193	1146569	1197517	1262738	1138196	1146572	1197520	1262741	1138198	1146574	1197522	1262743	1138194	1146570	1197518	1262739
				Sample Location:	GW1	GW1	GW1	GW3	GW3	GW3	GW3	GW4D	GW4D	GW4D	GW4D	GW5D	GW5D	GW5D	GW5D	GW6D	GW6D	GW6D	GW6D	GW8D	GW8D	GW8D	GW8D	GW9D	GW9D	GW9D	GW9D	GW7D	GW7D	GW7D	GW7D
				Sample Type:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
				Date Sampled:	6/2/21	20/2/21	14/8/21	6/2/21	20/2/21	8/5/21	14/8/21	6/2/21	20/2/21	8/5/21	14/8/21	6/2/21	20/2/21	8/5/21	14/8/21	6/2/21	20/2/21	8/5/21	14/8/21	7/2/21	20/2/21	8/5/21	14/8/21	7/2/21	20/2/21	8/5/21	14/8/21	7/2/21	20/2/21	8/5/21	14/8/21
Determinand	**Accred.**	**SOP**	**Units**	**LOD**																															
Tribromomethane	U	1760	µg/l	1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[C] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Isopropylbenzene	U	1760	µg/l	1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[C] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromobenzene	U	1760	µg/l	1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[C] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2,3-Trichloropropane	N	1760	µg/l	50	< 50		< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	[C] < 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
N-Propylbenzene	U	1760	µg/l	1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[C] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2-Chlorotoluene	U	1760	µg/l	1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[C] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,3,5-Trimethylbenzene	U	1760	µg/l	1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[C] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
4-Chlorotoluene	U	1760	µg/l	1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[C] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Tert-Butylbenzene	U	1760	µg/l	1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[C] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2,4-Trimethylbenzene	U	1760	µg/l	1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[C] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Sec-Butylbenzene	U	1760	µg/l	1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[C] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,3-Dichlorobenzene	N	1760	µg/l	1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[C] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
4-Isopropyltoluene	U	1760	µg/l	1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[C] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,4-Dichlorobenzene	U	1760	µg/l	1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[C] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
N-Butylbenzene	U	1760	µg/l	1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[C] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichlorobenzene	U	1760	µg/l	1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[C] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dibromo-3-Chloropropane	U	1760	µg/l	50	< 50		< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	[C] < 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
1,2,4-Trichlorobenzene	U	1760	µg/l	1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[C] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Hexachlorobutadiene	U	1760	µg/l	1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[C] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2,3-Trichlorobenzene	U	1760	µg/l	2.0	< 2.0		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	[C] < 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Methyl Tert-Butyl Ether	N	1760	µg/l	1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[C] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
N-Nitrosodimethylamine	N	1790	µg/l	0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Phenol	N	1790	µg/l	0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Chlorophenol	N	1790	µg/l	0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bis-(2-Chloroethyl)Ether	N	1790	µg/l	0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,3-Dichlorobenzene	N	1790	µg/l	0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,4-Dichlorobenzene	N	1790	µg/l	0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,2-Dichlorobenzene	N	1790	µg/l	0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Methylphenol (o-Cresol)	N	1790	µg/l	0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bis(2-Chloroisopropyl)Ether	N	1790	µg/l	0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Hexachloroethane	N	1790	µg/l	0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
N-Nitrosodi-n-propylamine	N	1790	µg/l	0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Methylphenol	N	1790	µg/l	0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Nitrobenzene	N	1790	µg/l	0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Isophorone	N	1790	µg/l	0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Nitrophenol	N	1790	µg/l	0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,4-Dimethylphenol	N	1790	µg/l	0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bis(2-Chloroethoxy)Methane	N	1790	µg/l	0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,4-Dichlorophenol	N	1790	µg/l	0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,2,4-Trichlorobenzene	N	1790	µg/l	0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Naphthalene	N	1790	µg/l	0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Chloroaniline	N	1790	µg/l	0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Hexachlorobutadiene	N	1790	µg/l	0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Chloro-3-Methylphenol	N	1790	µg/l	0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Methylnaphthalene	N	1790	µg/l	0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Hexachlorocyclopentadiene	N	1790	µg/l	0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,4,6-Trichlorophenol	N	1790	µg/l	0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,4,5-Trichlorophenol	N	1790	µg/l	0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Chloronaphthalene	N	1790	µg/l	0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Nitroaniline	N	1790	µg/l	0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Acenaphthylene	N	1790	µg/l	0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Dimethylphthalate	N	1790	µg/l	0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,6-Dinitrotoluene	N	1790	µg/l	0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Acenaphthene	N	1790	µg/l	0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
3-Nitroaniline	N	1790	µg/l	0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Dibenzofuran	N	1790	µg/l	0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Chlorophenylphenylether	N	1790	µg/l	0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,4-Dinitrotoluene	N	1790	µg/l	0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Fluorene	N	1790	µg/l	0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Diethyl Phthalate	N	1790	µg/l	0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Nitroaniline	N	1790	µg/l	0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Methyl-4,6-Dinitrophenol	N	1790	µg/l	0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Azobenzene	N	1790	µg/l	0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Bromophenylphenyl Ether	N	1790	µg/l	0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Hexachlorobenzene	N	1790	µg/l	0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Pentachlorophenol	N	1790	µg/l	0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Phenanthrene	N	1790	µg/l	0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Anthracene	N	1790	µg/l	0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Carbazole	N	1790	µg/l	0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Di-N-Butyl Phthalate	N	1790	µg/l	0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Fluoranthene	N	1790	µg/l	0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Pyrene	N	1790	µg/l	0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Butylbenzyl Phthalate	N	1790	µg/l	0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Benzo[a]anthracene	N	1790	µg/l	0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Chrysene	N	1790	µg/l	0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bis(2-Ethylhexyl)Phthalate	N	1790	µg/l	0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Di-N-Octyl Phthalate	N	1790	µg/l	0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Benzo[b]fluoranthene	N	1790	µg/l	0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Benzo[k]fluoranthene	N	1790	µg/l	0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Benzo[a]pyrene	N	1790	µg/l	0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Indeno(1,2,3-c,d)Pyrene	N	1790	µg/l	0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Dibenz(a,h)Anthracene	N	1790	µg/l	0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Benzo[g,h,i]perylene	N	1790	µg/l	0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Nitrophenol	N	1790	µg/l	0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Phenols	U	1920	mg/l	0.030	< 0.030		< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030

	Chemtest Job No.:				21-03718	21-05451	21-15426	21-28639	21-03718	21-05451	21-15426	21-28639	21-03718	21-05451	21-15426	21-28639	21-03718	21-05451	21-15426	21-28639	21-03718	21-05451	21-15426	21-28639
	Chemtest Sample ID.:				1138188	1146564	1197512	1262733	1138190	1146566	1197514	1262735	1138192	1146568	1197516	1262737	1138195	1146571	1197519	1262740	1138197	1146573	1197521	1262742
	Sample Location:				GW4S	GW4S	GW4S	GW4S	GW5S	GW5S	GW5S	GW5S	GW6S	GW6S	GW6S	GW6S	GW8S	GW8S	GW8S	GW8S	GW9S	GW9S	GW9S	GW9S
	Sample Type:				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
	Date Sampled:				6/2/21	20/2/21	8/5/21	14/8/21	6/2/21	20/2/21	8/5/21	14/8/21	6/2/21	20/2/21	8/5/21	14/8/21	7/2/20	20/2/21	8/5/21	14/8/21	7/2/21	20/2/21	8/5/21	14/8/21
Determinand	**Accred.**	**SOP**	**Units**	**LOD**																				
pH	U	1010		N/A	6.9	6.7	7.1	6.5	7.5	7.2	7.7	6.6	7.5	6.9	7.9	6.3	[B] 8.0	6.5	7.9	6.6	7.5	6.6	7.7	6.1
Electrical Conductivity	U	1020	µS/cm	1.0	910	960	1300	820	400	570	270	290	240	380	220	220	[B] 360	140	87	290	500	440	410	450
Alkalinity (Total)	U	1220	mg/l	10	290	350	440	330	96	110	95	36	80	71	56	54	[B] 150	32	75	170	63	72	49	39
Chloride	U	1220	mg/l	1.0	120	130	110	81	23	74	33	10	8.6	10	6.9	7.0	[B] 6.8	9.8	17	14	30	16	15	16
Fluoride	U	1220	mg/l	0.050	7.0	3.9	0.28	3.8	1.2	0.20	0.16	0.18	3.7	3.5	0.19	0.18	[B] 0.16	0.16	0.15	0.13	8.2	0.17	0.14	0.12
Ammoniacal Nitrogen	U	1220	mg/l	0.050	2.3	3.6	8.6	3.7	0.23	0.86	1.2	0.072	0.16	0.20	0.33	0.061	[B] 1.0	0.18	1.2	0.17	0.33	0.12	0.25	< 0.050
Sulphate	U	1220	mg/l	1.0	44	31	3.2	36	57	66	58	54	44	49	41	38	[B] 23	14	11	37	150	130	130	160
Cyanide (Total)	U	1300	mg/l	0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	[B] < 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Calcium	U	1415	mg/l	5.0	110	86	170	86	40	33	27	18	17	17	18	13	[B] 47	16	8.3	53	29	48	41	41
Potassium	U	1415	mg/l	0.50	11	7.2	14	5.6	2.1	3.7	1.9	1.6	2.5	2.3	2.0	1.3	[B] 6.9	2.4	1.3	2.4	6.9	3.2	2.4	2.4
Magnesium	U	1415	mg/l	0.50	23	31	26	19	8.9	14	9.7	6.3	6.9	6.4	8.6	7.6	[B] 7.3	16	1.2	9.7	15	17	16	20
Sodium	U	1415	mg/l	0.50	56	41	41	31	19	14	11	7.7	7.6	6.4	6.7	5.5	[B] 6.3	4.1	3.5	13	28	24	8.1	10
Total Hardness as CaCO3	U	1270	mg/l	15	360	340	540	290	140	140	110	72	71	69	80	65	[B] 150	110	26	170	130	190	170	180
Mercury (Dissolved)	U	1455	µg/l	0.05	< 0.05	< 0.010			< 0.05	< 0.010			< 0.05	< 0.010			[B] < 0.05	< 0.010			< 0.05	< 0.010		
Aluminium (Dissolved)	N	1450	µg/l	10	34	< 5.0	< 5.0	12	< 10	< 5.0	5.3	860	< 10	< 5.0	< 5.0	6.9	[B] < 10	28	250	25	< 10	< 5.0	< 5.0	< 5.0
Arsenic (Dissolved)	U	1450	µg/l	1.0	3.0	0.52	0.63	0.60	< 1.0	< 0.20	< 0.20	< 0.20	6.2	0.23	0.25	0.26	[B] < 1.0	0.50	0.32	< 0.20	< 1.0	0.21	< 0.20	< 0.20
Boron (Dissolved)	U	1450	µg/l	20	72	79	130	62	20	19	< 10	14	20	13	< 10	< 10	[B] < 20	< 10	< 10	23	720	68	< 10	13
Cadmium (Dissolved)	U	1450	µg/l	0.080	< 0.080	< 0.08	< 0.11	< 0.11	< 0.080	< 0.08	< 0.11	< 0.11	< 0.080	< 0.08	< 0.11	< 0.11	[B] < 0.080	< 0.08	0.13	< 0.11	< 0.080	< 0.08	< 0.11	< 0.11
Chromium (Dissolved)	U	1450	µg/l	1.0	< 1.0	77	170	< 0.50	< 1.0	83	510	2.4	< 1.0	86	220	9.6	[B] < 1.0	83	270	< 0.50	< 1.0	80	13	< 0.50
Copper (Dissolved)	U	1450	µg/l	1.0	2.0	2.4	5.6	< 0.50	< 1.0	2.4	16	0.96	< 1.0	2.4	7.4	< 0.50	[B] < 1.0	6.1	15	2.8	< 1.0	3.0	1.0	< 0.50
Manganese (Dissolved)	U	1450	µg/l	1.0	4800	4400	2900	2300	610	1600	1400	280	410	2800	3200	2300	[B] 190	430	200	150	1200	950	770	1000
Nickel (Dissolved)	U	1450	µg/l	1.0	55	55	88	11	7.2	45	240	10	7.8	40	100	9.3	[B] 6.1	44	130	2.8	45	45	13	5.7
Lead (Dissolved)	U	1450	µg/l	1.0	< 1.0	< 0.50	< 0.50	< 0.50	< 1.0	< 0.50	< 0.50	< 0.50	< 1.0	< 0.50	< 0.50	< 0.50	[B] < 1.0	< 0.50	< 0.50	< 0.50	< 1.0	< 0.50	< 0.50	< 0.50
Selenium (Dissolved)	U	1450	µg/l	1.0	3.0	0.62	< 0.50	< 0.50	1.3	< 0.50	< 0.50	< 0.50	< 1.0	< 0.50	< 0.50	< 0.50	[B] < 1.0	< 0.50	0.59	< 0.50	< 1.0	< 0.50	< 0.50	< 0.50
Zinc (Dissolved)	U	1450	µg/l	1.0	68	18	6.4	< 2.5	23	6.2	12	6.4	39	18	15	4.0	[B] 3.0	43	39	2.8	23	23	20	5.5
							< 0.010	< 0.010			< 0.010	0.18			< 0.010	0.042			< 0.010	0.026			< 0.010	0.060
Iron (Dissolved)	N	1450	mg/l	0.020	42	0.42	0.58	23	1.7	0.33	0.16	0.46	1.9	5.4	0.90	0.44	0.19	0.40	0.43	0.013	8.2	0.32	0.056	0.009
Total Organic Carbon	U	1610	mg/l	2.0	13	17	23	6.6	2.6	5.1	< 2.0	< 2.0	2.3	4.6	< 2.0	< 2.0	3.7	28	4.6	3.9	2.7	14	< 2.0	< 2.0
Total TPH >C10-C40	U	1670	µg/l	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	[B] < 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Naphthalene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	[B] < 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthylene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	[B] < 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	[B] < 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	[B] < 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	[B] < 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Anthracene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	[B] < 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluoranthene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	[B] < 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Pyrene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	[B] < 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[a]anthracene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	[B] < 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Chrysene	N	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	[B] < 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[b]fluoranthene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	[B] < 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[k]fluoranthene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	[B] < 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[a]pyrene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	[B] < 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	[B] < 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	[B] < 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	[B] < 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Of 16 PAH's	N	1700	µg/l	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	[B] < 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Dichlorodifluoromethane	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[B] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloromethane	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[B] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vinyl Chloride	N	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[B] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromomethane	U	1760	µg/l	5.0	< 5.0	< 5	< 5	< 5	< 5.0	< 5	< 5	< 5	< 5.0	< 5	< 5	< 5	[B] < 5.0	< 5	< 5	< 5	< 5.0	< 5	< 5	< 5
Chloroethane	U	1760	µg/l	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	[B] < 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Trichlorofluoromethane	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[B] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[B] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trans 1,2-Dichloroethene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[B] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[B] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
cis 1,2-Dichloroethene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[B] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromochloromethane	U	1760	µg/l	5.0	< 5.0	< 5	< 5	< 5	< 5.0	< 5	< 5	< 5	< 5.0	< 5	< 5	< 5	[B] < 5.0	< 5	< 5	< 5	< 5.0	< 5	< 5	< 5
Trichloromethane	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[B] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,1-Trichloroethane	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[B] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloromethane	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[B] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloropropene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[B] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Benzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[B] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethane	U	1760	µg/l	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	[B] < 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Trichloroethene	N	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[B] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[B] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Dibromomethane	U	1760	µg/l	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	[B] < 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Bromodichloromethane	U	1760	µg/l	5.0	< 5.0	< 5	< 5	< 5	< 5.0	< 5	< 5	< 5	< 5.0	< 5	< 5	< 5	[B] < 5.0	< 5	< 5	< 5	< 5.0	< 5	< 5	< 5
cis-1,3-Dichloropropene	N	1760	µg/l	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	[B] < 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Toluene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[B] 6.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trans-1,3-Dichloropropene	N	1760	µg/l	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	[B] < 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1,1,2-Trichloroethane	U	1760	µg/l	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	[B] < 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Tetrachloroethene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[B] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,3-Dichloropropane	U	1760	µg/l	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	[B] < 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Dibromochloromethane	U	1760	µg/l	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	[B] < 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1,2-Dibromoethane	U	1760	µg/l	5.0	< 5.0	< 5	< 5	< 5	< 5.0	< 5	< 5	< 5	< 5.0	< 5	< 5	< 5	[B] < 5.0	< 5	< 5	< 5	< 5.0	< 5	< 5	< 5
Chlorobenzene	N	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[B] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,1,2-Tetrachloroethane	U	1760	µg/l	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	[B] < 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Ethylbenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[B] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[B] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[B] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Styrene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[B] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Tribromomethane	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[B] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Isopropylbenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[B] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromobenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[B] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2,3-Trichloropropane	N	1760	µg/l	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	[B] < 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
N-Propylbenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[B] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2-Chlorotoluene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[B] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,3,5-Trimethylbenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[B] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
4-Chlorotoluene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[B] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Tert-Butylbenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[B] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2,4-Trimethylbenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[B] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Sec-Butylbenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[B] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,3-Dichlorobenzene	N	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[B] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
4-Isopropyltoluene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[B] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,4-Dichlorobenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[B] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
N-Butylbenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[B] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichlorobenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[B] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dibromo-3-Chloropropane	U	1760	µg/l	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	[B] < 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
1,2,4-Trichlorobenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[B] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Hexachlorobutadiene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[B] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2,3-Trichlorobenzene	U	1760	µg/l	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	[B] < 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0

	Chemtest Job No.:				21-03718	21-05451	21-15426	21-28639	21-03718	21-05451	21-15426	21-28639	21-03718	21-05451	21-15426	21-28639	21-03718	21-05451	21-15426	21-28639	21-03718	21-05451	21-15426	21-28639
	Chemtest Sample ID.:				1138188	1146564	1197512	1262733	1138190	1146566	1197514	1262735	1138192	1146568	1197516	1262737	1138195	1146571	1197519	1262740	1138197	1146573	1197521	1262742
	Sample Location:				GW4S	GW4S	GW4S	GW4S	GW5S	GW5S	GW5S	GW5S	GW6S	GW6S	GW6S	GW6S	GW8S	GW8S	GW8S	GW8S	GW9S	GW9S	GW9S	GW9S
	Sample Type:				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
	Date Sampled:				6/2/21	20/2/21	8/5/21	14/8/21	6/2/21	20/2/21	8/5/21	14/8/21	6/2/21	20/2/21	8/5/21	14/8/21	7/2/20	20/2/21	8/5/21	14/8/21	7/2/21	20/2/21	8/5/21	14/8/21
Determinand	**Accred.**	**SOP**	**Units**	**LOD**																				
Methyl Tert-Butyl Ether	N	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	[B] < 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
N-Nitrosodimethylamine	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Phenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Chlorophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bis-(2-Chloroethyl)Ether	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,3-Dichlorobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,4-Dichlorobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,2-Dichlorobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Methylphenol (o-Cresol)	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bis(2-Chloroisopropyl)Ether	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Hexachloroethane	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
N-Nitrosodi-n-propylamine	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Methylphenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Nitrobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Isophorone	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Nitrophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,4-Dimethylphenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bis(2-Chloroethoxy)Methane	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,4-Dichlorophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,2,4-Trichlorobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Naphthalene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Chloroaniline	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Hexachlorobutadiene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Chloro-3-Methylphenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Methylnaphthalene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Hexachlorocyclopentadiene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,4,6-Trichlorophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,4,5-Trichlorophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Chloronaphthalene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Nitroaniline	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Acenaphthylene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Dimethylphthalate	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,6-Dinitrotoluene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Acenaphthene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
3-Nitroaniline	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Dibenzofuran	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Chlorophenylphenylether	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,4-Dinitrotoluene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Fluorene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Diethyl Phthalate	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Nitroaniline	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Methyl-4,6-Dinitrophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Azobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Bromophenylphenyl Ether	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Hexachlorobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Pentachlorophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Phenanthrene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Anthracene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Carbazole	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Di-N-Butyl Phthalate	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Fluoranthene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Pyrene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Butylbenzyl Phthalate	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Benzo[a]anthracene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Chrysene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bis(2-Ethylhexyl)Phthalate	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Di-N-Octyl Phthalate	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Benzo[b]fluoranthene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Benzo[k]fluoranthene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Benzo[a]pyrene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Indeno(1,2,3-c,d)Pyrene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Dibenz(a,h)Anthracene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Benzo(g,h,i)perylene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Nitrophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Phenols	U	1920	mg/l	0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	[B] < 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030

				Chemtest Job No.:	21-03718	21-05451	21-15426	21-28639	21-03718	21-05451	21-15426	21-28639	21-03718	21-05451	21-15426	21-28639	21-07435	21-15426	21-28639	21-07435	21-15426	21-28639	21-15426	21-28639
				Chemtest Sample ID.:	1138203	1146577	1197508	1262728	1138204	1146578	1197509	1262729	1138205	1146579	1197510	1262730	1156613	1197505	1262725	1156614	1197506	1262726	1197507	1262727
				Sample Location:	Spr NW	Spr NW	SPR NW	Spr NW	Spr N	Spr N	SPR N	Spr N	Spr NE	Spr NE	SPR NE	Spr NE	Mine Adit	MINE ADIT	Mine Adit	Daisey Hall Spring	DAISEY HALL SPRING	Daisey Hall Spring	HEY HEAD DRAIN	Hey Head Drain
				Sample Type:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
				Date Sampled:	06-Feb-2021	20-Feb-2021	##########	14-Aug-2021	06-Feb-2021	20-Feb-2021	##########	14-Aug-2021	06-Feb-2021	20-Feb-2021	##########	14-Aug-2021	06-Mar-2021	##########	14-Aug-2021	06-Mar-2021	##########	14-Aug-2021	##########	14-Aug-2021
Determinand	**Accred.**	**SOP**	**Units**	**LOD**																				
pH	U	1010		N/A	8.0	7.5	8.5	4.0	7.8	7.4	8.4	3.8	7.8	7.3	8.4	6.3	8.3	8.5	7.4	8.2	8.5	7.4	8.4	6.7
Electrical Conductivity	U	1020	µS/cm	1.0	170	170	68	360	96	130	89	410	87	97	60	110	530	330	670	270	200	500	180	310
Alkalinity (Total)	U	1220	mg/l	10	34	80	24	< 10	< 10	18	68	< 10	< 10	19	27	33	210	98	97	200	85	160	70	< 10
Chloride	U	1220	mg/l	1.0	8.8	27	3.7	9.8	4.9	8.0	17	9.0	4.0	8.6	3.5	10	23	19	21	13	10	14	5.5	11
Fluoride	U	1220	mg/l	0.050	0.18	0.28	0.19	0.51	0.22	0.29	0.17	0.51	0.21	0.29	0.13	0.13	0.16	0.19	0.22	0.13	0.17	0.20	0.17	0.46
Ammoniacal Nitrogen	U	1220	mg/l	0.050	0.15	0.53	0.86	0.057	0.070	0.11	0.22	< 0.050	< 0.050	0.15	0.29	0.18	1.0	0.25	0.16	1.0	0.23	0.065	0.26	< 0.050
Sulphate	U	1220	mg/l	1.0	17	41	12	130	23	23	11	140	21	26	7.5	17	140	68	260	23	19	77	27	130
Cyanide (Total)	U	1300	mg/l	0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Calcium	U	1415	mg/l	5.0	37	11	9.6	21	11	9.0	8.4	21	7.6	9.7	6.2	8.4	52	37	60	32	31	90	28	22
Potassium	U	1415	mg/l	0.50	2.5	3.4	1.0	1.6	1.4	2.1	0.99	1.6	1.1	1.6	1.8	3.0	3.5	4.2	3.7	2.0	2.0	4.1	2.7	1.6
Magnesium	U	1415	mg/l	0.50	4.2	20	1.2	9.3	1.7	21	1.2	9.8	1.2	1.7	0.83	1.8	23	8.7	28	3.8	3.4	7.0	2.0	10
Sodium	U	1415	mg/l	0.50	13	4.2	2.4	6.2	3.4	3.2	2.7	6.5	2.4	3.0	2.1	7.5	21	12	18	9.5	6.4	13	4.1	6.7
Total Hardness as CaCO3	U	1270	mg/l	15	110	110	29	91	35	110	26	93	24	31	19	28	230	130	270	95	91	260	77	97
Mercury (Dissolved)	U	1455	µg/l	0.05	< 0.05	< 0.010			< 0.05	< 0.010			< 0.05	0.012										
Aluminium (Dissolved)	N	1450	µg/l	10	95	360	210	5300	480	410	200	5600	490	400	110	37	6.8	140	< 5.0	19	740	22	94	5400
Arsenic (Dissolved)	U	1450	µg/l	1.0	< 1.0	0.72	0.95	0.38	< 1.0	0.66	0.85	0.41	< 1.0	0.69	0.33	0.33	0.94	0.51	< 0.20	0.44	1.0	1.0	0.82	0.34
Boron (Dissolved)	U	1450	µg/l	20	22	28	< 10	17	< 20	12	< 10	20	< 20	11	< 10	14	100	27	86	81	11	170	15	19
Cadmium (Dissolved)	U	1450	µg/l	0.080	< 0.080	< 0.08	< 0.11	0.82	0.11	< 0.08	< 0.11	0.84	0.12	0.10	< 0.11	< 0.11	< 0.12	< 0.11	< 0.11	< 0.12	< 0.11	< 0.11	< 0.11	0.86
Chromium (Dissolved)	U	1450	µg/l	1.0	< 1.0	84	90	9.5	< 1.0	69	140	10	< 1.0	80	140	4.5	< 0.50	290	< 0.50	< 0.50	130	5.6	110	9.7
Copper (Dissolved)	U	1450	µg/l	1.0	3.7	8.0	7.9	38	5.9	7.8	8.9	39	6.1	8.3	9.5	2.6	3.2	32	0.96	1.7	11	6.2	10	38
Manganese (Dissolved)	U	1450	µg/l	1.0	42	81	34	730	79	80	34	780	76	85	27	630	490	140	390	550	83	110	30	740
Nickel (Dissolved)	U	1450	µg/l	1.0	3.3	45	41	57	6.8	36	62	60	6.4	43	63	5.5	7.2	130	7.0	7.8	61	5.7	48	57
Lead (Dissolved)	U	1450	µg/l	1.0	< 1.0	1.0	1.5	1.7	1.1	1.0	1.4	1.6	1.2	0.72	< 0.50	< 0.50	< 0.50	3.0	< 0.50	< 0.50	0.75	0.58	0.71	1.8
Selenium (Dissolved)	U	1450	µg/l	1.0	< 1.0	< 0.50	< 0.50	1.3	< 1.0	< 0.50	< 0.50	1.4	< 1.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	2.9	< 0.50	1.2
Zinc (Dissolved)	U	1450	µg/l	1.0	35	41	13	72	19	13	13	78	19	12	31	10	41	17	23	18	< 3.0	< 2.5	22	71
Mercury Low level			ug/l				< 0.010	< 0.010			< 0.010	< 0.010			< 0.010	0.18	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Iron (Dissolved)	N	1450	mg/l	0.020	0.13	0.71	0.73	2.1	0.42	0.70	0.90	2.4	0.42	0.68	0.71	0.99	0.045	0.36	< 0.005	0.56	0.79	0.99	0.56	1.9
Total Organic Carbon	U	1610	mg/l	2.0	5.3	20	13	3.6	8.9	29	13	3.6	8.5	30	6.4	3.9	2.9	4.9	< 2.0	4.1	7.1	15	9.8	4.7
Total TPH >C10-C40	U	1670	µg/l	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Naphthalene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	1.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthylene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Anthracene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluoranthene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Pyrene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[a]anthracene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Chrysene	N	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[b]fluoranthene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[k]fluoranthene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[a]pyrene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene	U	1700	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Of 16 PAH's	N	1700	µg/l	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Dichlorodifluoromethane	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloromethane	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vinyl Chloride	N	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromomethane	U	1760	µg/l	5.0	< 5.0	< 5	< 5	< 5	< 5.0	< 5	< 5	< 5	< 5.0	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroethane	U	1760	µg/l	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Trichlorofluoromethane	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trans 1,2-Dichloroethene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
cis 1,2-Dichloroethene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromochloromethane	U	1760	µg/l	5.0	< 5.0	< 5	< 5	< 5	< 5.0	< 5	< 5	< 5	< 5.0	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trichloromethane	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,1-Trichloroethane	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloromethane	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

				Chemtest Job No.:	21-03718	21-05451	21-15426	21-28639	21-03718	21-05451	21-15426	21-28639	21-03718	21-05451	21-15426	21-28639	21-07435	21-15426	21-28639	21-07435	21-15426	21-28639	21-15426	21-28639
				Chemtest Sample ID.:	1138203	1146577	1197508	1262728	1138204	1146578	1197509	1262729	1138205	1146579	1197510	1262730	1156613	1197505	1262725	1156614	1197506	1262726	1197507	1262727
				Sample Location:	Spr NW	Spr NW	SPR NW	Spr NW	Spr N	Spr N	SPR N	Spr N	Spr NE	Spr NE	SPR NE	Spr NE	Mine Adit	MINE ADIT	Mine Adit	Daisey Hall Spring	DAISEY HALL SPRING	Daisey Hall Spring	HEY HEAD DRAIN	Hey Head Drain
				Sample Type:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
				Date Sampled:	06-Feb-2021	20-Feb-2021	##########	14-Aug-2021	06-Feb-2021	20-Feb-2021	##########	14-Aug-2021	06-Feb-2021	20-Feb-2021	##########	14-Aug-2021	06-Mar-2021	##########	14-Aug-2021	06-Mar-2021	##########	14-Aug-2021	##########	14-Aug-2021
Determinand	**Accred.**	**SOP**	**Units**	**LOD**																				
1,1-Dichloropropene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Benzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethane	U	1760	µg/l	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Trichloroethene	N	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Dibromomethane	U	1760	µg/l	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Bromodichloromethane	U	1760	µg/l	5.0	< 5.0	< 5	< 5	< 5	< 5.0	< 5	< 5	< 5	< 5.0	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,3-Dichloropropene	N	1760	µg/l	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Toluene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trans-1,3-Dichloropropene	N	1760	µg/l	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1,1,2-Trichloroethane	U	1760	µg/l	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Tetrachloroethene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,3-Dichloropropane	U	1760	µg/l	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Dibromochloromethane	U	1760	µg/l	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1,2-Dibromoethane	U	1760	µg/l	5.0	< 5.0	< 5	< 5	< 5	< 5.0	< 5	< 5	< 5	< 5.0	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	N	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,1,2-Tetrachloroethane	U	1760	µg/l	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Ethylbenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Styrene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Tribromomethane	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Isopropylbenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromobenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2,3-Trichloropropane	N	1760	µg/l	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
N-Propylbenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2-Chlorotoluene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,3,5-Trimethylbenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
4-Chlorotoluene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Tert-Butylbenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2,4-Trimethylbenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Sec-Butylbenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,3-Dichlorobenzene	N	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
4-Isopropyltoluene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,4-Dichlorobenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
N-Butylbenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichlorobenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dibromo-3-Chloropropane	U	1760	µg/l	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
1,2,4-Trichlorobenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Hexachlorobutadiene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2,3-Trichlorobenzene	U	1760	µg/l	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Methyl Tert-Butyl Ether	N	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
N-Nitrosodimethylamine	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Phenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Chlorophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bis-(2-Chloroethyl)Ether	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,3-Dichlorobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,4-Dichlorobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,2-Dichlorobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Methylphenol (o-Cresol)	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bis(2-Chloroisopropyl)Ether	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Hexachloroethane	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
N-Nitrosodi-n-propylamine	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Methylphenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Nitrobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Isophorone	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Nitrophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,4-Dimethylphenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bis(2-Chloroethoxy)Methane	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,4-Dichlorophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50

			Chemtest Job No.:	21-03718	21-05451	21-15426	21-28639	21-03718	21-05451	21-15426	21-28639	21-03718	21-05451	21-15426	21-28639	21-07435	21-15426	21-28639	21-07435	21-15426	21-28639	21-15426	21-28639
			Chemtest Sample ID.:	1138203	1146577	1197508	1262728	1138204	1146578	1197509	1262729	1138205	1146579	1197510	1262730	1156613	1197505	1262725	1156614	1197506	1262726	1197507	1262727
			Sample Location:	Spr NW	Spr NW	SPR NW	Spr NW	Spr N	Spr N	SPR N	Spr N	Spr NE	Spr NE	SPR NE	Spr NE	Mine Adit	MINE ADIT	Mine Adit	Daisey Hall Spring	DAISEY HALL SPRING	Daisey Hall Spring	HEY HEAD DRAIN	Hey Head Drain
			Sample Type:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Date Sampled:	06-Feb-2021	20-Feb-2021	##########	14-Aug-2021	06-Feb-2021	20-Feb-2021	##########	14-Aug-2021	06-Feb-2021	20-Feb-2021	##########	14-Aug-2021	06-Mar-2021	##########	14-Aug-2021	06-Mar-2021	##########	14-Aug-2021	##########	14-Aug-2021
Determinand	**Accred.**	**SOP**	**Units**	**LOD**																			
1,2,4-Trichlorobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Naphthalene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Chloroaniline	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Hexachlorobutadiene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Chloro-3-Methylphenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Methylnaphthalene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Hexachlorocyclopentadiene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,4,6-Trichlorophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,4,5-Trichlorophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Chloronaphthalene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Nitroaniline	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Acenaphthylene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Dimethylphthalate	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,6-Dinitrotoluene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Acenaphthene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
3-Nitroaniline	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Dibenzofuran	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Chlorophenylphenylether	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,4-Dinitrotoluene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Fluorene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Diethyl Phthalate	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Nitroaniline	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Methyl-4,6-Dinitrophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Azobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Bromophenylphenyl Ether	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Hexachlorobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Pentachlorophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Phenanthrene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Anthracene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Carbazole	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Di-N-Butyl Phthalate	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Fluoranthene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Pyrene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Butylbenzyl Phthalate	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Benzo[a]anthracene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Chrysene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bis(2-Ethylhexyl)Phthalate	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Di-N-Octyl Phthalate	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Benzo[b]fluoranthene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Benzo[k]fluoranthene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Benzo[a]pyrene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Indeno(1,2,3-c,d)Pyrene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Dibenz(a,h)Anthracene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Benzo[g,h,i]perylene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Nitrophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Phenols	U	1920	mg/l	0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030

			Chemtest Job No.:			21-03718	21-03718	21-05451	21-15426	21-28639		21-03718	21-03718	21-05451	21-15426	21-28639
			Chemtest Sample ID.:			1138199	1138200	1146575	1197523	1262744		1138201	1138202	1146576	1197524	1262745
			Sample Location:		W1	W1	W2	W2	W2	W2	W4	W4	W6	W6	W6	W6
			Sample Type:			WATER	WATER	WATER	WATER	WATER		WATER	WATER	WATER	WATER	WATER
			Date Sampled:		31/05/1917	06-Feb-2021	06-Feb-2021	20-Feb-2021	##########	14-Aug-2021	31-May-2017	06-Feb-2021	06-Feb-2021	20-Feb-2021	##########	14-Aug-2021
Determinand	**Accred.**	**SOP**	**Units**	**LOD**												
pH	U	1010		N/A	7.3		7.9	6.9	7.9	6.7	7.1	8.1	7.2	6.8	7.4	6.7
Electrical Conductivity	U	1020	µS/cm	1.0	347		490	490	740	1400	2570	120	1800	2000	2900	3600
Alkalinity (Total)	U	1220	mg/l	10	79		170	150	160	230	500	23	560	680	490	880
Chloride	U	1220	mg/l	1.0	14		6.1	12	29	130	120	2.2	200	250	500	510
Fluoride	U	1220	mg/l	0.050	<0.1		0.19	0.23	0.15	0.14	<0.1	0.12	0.89	0.33	0.19	0.21
Ammoniacal Nitrogen	U	1220	mg/l	0.050	0.5		0.47	0.4	0.61	0.42	9.1	0.068	4.3	5	5.7	10
Sulphate	U	1220	mg/l	1.0	73		98	110	260	370	690	26	210	210	150	320
Cyanide (Total)	U	1300	mg/l	0.050			< 0.050	< 0.050	< 0.050	< 0.050		< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Calcium	U	1415	mg/l	5.0	29		68	62	100	160	260	49	320	310	390	420
Potassium	U	1415	mg/l	0.50	2.1		3.2	3	4.6	6.3	42	2.3	15	13	17	21
Magnesium	U	1415	mg/l	0.50	9.7		16	2.7	27	49	59	9.6	38	3.6	49	54
Sodium	U	1415	mg/l	0.50	9.1		5.8	5.6	12	32	62	5.3	130	110	220	210
Total Hardness as CaCO3	U	1270	mg/l	15			240	170	370	600		160	960	790	1200	1300
Mercury (Dissolved)	U	1455	µg/l	0.05	<0.01		< 0.05	< 0.010			<0.01	< 0.05	< 0.05	< 0.010		
Aluminium (Dissolved)	N	1450	µg/l	10	<10		70	< 5.0	71	< 5.0	40	220	160	< 5.0	200	< 5.0
Arsenic (Dissolved)	U	1450	µg/l	1.0	0.84		1.7	0.38	1.0	0.59	2.6	1.3	2.5	1.6	2.3	2.5
Boron (Dissolved)	U	1450	µg/l	20			61	57	21	45		40	590	530	660	740
Cadmium (Dissolved)	U	1450	µg/l	0.080	0.04		< 0.080	< 0.08	< 0.11	< 0.11	<0.03	0.089	< 0.080	< 0.08	< 0.11	< 0.11
Chromium (Dissolved)	U	1450	µg/l	1.0	0.54		< 1.0	76	11	< 0.50	1.5	< 1.0	3	85	12	< 0.50
Copper (Dissolved)	U	1450	µg/l	1.0	2		4.8	3.1	4.1	1.7	2.1	4.2	2.6	2.4	3.3	2.3
Manganese (Dissolved)	U	1450	µg/l	1.0	970		810	460	1100	2000	4900	140	2700	1800	3400	1900
Nickel (Dissolved)	U	1450	µg/l	1.0			3.6	35	11	10		29	26	44	14	7.1
Lead (Dissolved)	U	1450	µg/l	1.0	<0.09		1.8	< 0.50	1.1	< 0.50	0.28	10	6.8	< 0.50	2.9	< 0.50
Selenium (Dissolved)	U	1450	µg/l	1.0	1.4		< 1.0	< 0.50	< 0.50	< 0.50	13	< 1.0	6.6	0.59	1.4	< 0.50
Zinc (Dissolved)	U	1450	µg/l	1.0	41		7.7	1.6	5.3	< 2.5	8.9	17	22	1.8	33	< 2.5
Mercury Low Level									< 0.010	< 0.010					< 0.010	< 0.010
Iron (Dissolved)	N	1450	mg/l	0.020	0.014		0.51	0.3	0.20	2.1	1.4	2	6.9	0.37	2.4	5.0
Total Organic Carbon	U	1610	mg/l	2.0			3.4	13	5.0	9.0	31	4	27	50	81	80
Total TPH >C10-C40	U	1670	µg/l	10	<40		< 10	< 10	< 10	< 10	320	< 10	< 10	< 10	< 10	< 10
Naphthalene	U	1700	µg/l	0.10	0.06		< 0.10	< 0.10	< 0.10	< 0.10	0.09	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthylene	U	1700	µg/l	0.10	<0.01		< 0.10	< 0.10	< 0.10	< 0.10	<0.01	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthene	U	1700	µg/l	0.10	<0.01		< 0.10	< 0.10	< 0.10	< 0.10	0.05	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene	U	1700	µg/l	0.10	<0.01		< 0.10	< 0.10	< 0.10	< 0.10	0.03	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene	U	1700	µg/l	0.10	0.02		< 0.10	< 0.10	< 0.10	< 0.10	0.15	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Anthracene	U	1700	µg/l	0.10	<0.01		< 0.10	< 0.10	< 0.10	< 0.10	0.03	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluoranthene	U	1700	µg/l	0.10	0.02		< 0.10	< 0.10	< 0.10	< 0.10	0.16	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Pyrene	U	1700	µg/l	0.10	0.02		< 0.10	< 0.10	< 0.10	< 0.10	0.15	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[a]anthracene	U	1700	µg/l	0.10	0.01		< 0.10	< 0.10	< 0.10	< 0.10	0.08	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Chrysene	N	1700	µg/l	0.10	0.01		< 0.10	< 0.10	< 0.10	< 0.10	0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[b]fluoranthene	U	1700	µg/l	0.10	0.02		< 0.10	< 0.10	< 0.10	< 0.10	0.12	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[k]fluoranthene	U	1700	µg/l	0.10	0.01		< 0.10	< 0.10	< 0.10	< 0.10	0.04	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[a]pyrene	U	1700	µg/l	0.10	0.02		< 0.10	< 0.10	< 0.10	< 0.10	0.09	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene	U	1700	µg/l	0.10	0.01		< 0.10	< 0.10	< 0.10	< 0.10	0.07	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene	U	1700	µg/l	0.10	<0.01		< 0.10	< 0.10	< 0.10	< 0.10	0.02	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene	U	1700	µg/l	0.10	0.01		< 0.10	< 0.10	< 0.10	< 0.10	0.08	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Of 16 PAH's	N	1700	µg/l	2.0	0.22		< 2.0	< 2.0	< 2.0	< 2.0	1.2	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Dichlorodifluoromethane	U	1760	µg/l	1.0	<LOD below	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<LOD below	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloromethane	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vinyl Chloride	N	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromomethane	U	1760	µg/l	5.0		< 5.0	< 5.0	< 5	< 5	< 5		< 5.0	< 5.0	< 5	< 5	< 5
Chloroethane	U	1760	µg/l	2.0		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Trichlorofluoromethane	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trans 1,2-Dichloroethene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
cis 1,2-Dichloroethene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromochloromethane	U	1760	µg/l	5.0		< 5.0	< 5.0	< 5	< 5	< 5		< 5.0	< 5.0	< 5	< 5	< 5
Trichloromethane	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,1-Trichloroethane	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloromethane	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloropropene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Benzene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethane	U	1760	µg/l	2.0		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Trichloroethene	N	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Dibromomethane	U	1760	µg/l	10		< 10	< 10	< 10	< 10	< 10		< 10	< 10	< 10	< 10	< 10
Bromodichloromethane	U	1760	µg/l	5.0		< 5.0	< 5.0	< 5	< 5	< 5		< 5.0	< 5.0	< 5	< 5	< 5
cis-1,3-Dichloropropene	N	1760	µg/l	10		< 10	< 10	< 10	< 10	< 10		< 10	< 10	< 10	< 10	< 10
Toluene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trans-1,3-Dichloropropene	N	1760	µg/l	10		< 10	< 10	< 10	< 10	< 10		< 10	< 10	< 10	< 10	< 10
1,1,2-Trichloroethane	U	1760	µg/l	10		< 10	< 10	< 10	< 10	< 10		< 10	< 10	< 10	< 10	< 10
Tetrachloroethene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

			Chemtest Job No.:			21-03718	21-03718	21-05451	21-15426	21-28639		21-03718	21-03718	21-05451	21-15426	21-28639
			Chemtest Sample ID.:			1138199	1138200	1146575	1197523	1262744		1138201	1138202	1146576	1197524	1262745
			Sample Location:		W1	W1	W2	W2	W2	W2	W4	W4	W6	W6	W6	W6
			Sample Type:			WATER	WATER	WATER	WATER	WATER		WATER	WATER	WATER	WATER	WATER
			Date Sampled:		31/05/1917	06-Feb-2021	06-Feb-2021	20-Feb-2021	##########	14-Aug-2021	31-May-2017	06-Feb-2021	06-Feb-2021	20-Feb-2021	##########	14-Aug-2021
Determinand	**Accred.**	**SOP**	**Units**	**LOD**												
1,3-Dichloropropane	U	1760	µg/l	2.0		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Dibromochloromethane	U	1760	µg/l	10		< 10	< 10	< 10	< 10	< 10		< 10	< 10	< 10	< 10	< 10
1,2-Dibromoethane	U	1760	µg/l	5.0		< 5.0	< 5.0	< 5	< 5	< 5		< 5.0	< 5.0	< 5	< 5	< 5
Chlorobenzene	N	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,1,2-Tetrachloroethane	U	1760	µg/l	2.0		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Ethylbenzene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Styrene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Tribromomethane	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Isopropylbenzene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromobenzene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2,3-Trichloropropane	N	1760	µg/l	50		< 50	< 50	< 50	< 50	< 50		< 50	< 50	< 50	< 50	< 50
N-Propylbenzene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2-Chlorotoluene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,3,5-Trimethylbenzene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
4-Chlorotoluene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Tert-Butylbenzene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2,4-Trimethylbenzene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Sec-Butylbenzene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,3-Dichlorobenzene	N	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
4-Isopropyltoluene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,4-Dichlorobenzene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
N-Butylbenzene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichlorobenzene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dibromo-3-Chloropropane	U	1760	µg/l	50		< 50	< 50	< 50	< 50	< 50		< 50	< 50	< 50	< 50	< 50
1,2,4-Trichlorobenzene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Hexachlorobutadiene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2,3-Trichlorobenzene	U	1760	µg/l	2.0		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Methyl Tert-Butyl Ether	N	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
N-Nitrosodimethylamine	N	1790	µg/l	0.50			< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Phenol	N	1790	µg/l	0.50			< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Chlorophenol	N	1790	µg/l	0.50			< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bis-(2-Chloroethyl)Ether	N	1790	µg/l	0.50			< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,3-Dichlorobenzene	N	1790	µg/l	0.50			< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,4-Dichlorobenzene	N	1790	µg/l	0.50			< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,2-Dichlorobenzene	N	1790	µg/l	0.50			< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Methylphenol (o-Cresol)	N	1790	µg/l	0.50			< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bis(2-Chloroisopropyl)Ether	N	1790	µg/l	0.50			< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Hexachloroethane	N	1790	µg/l	0.50			< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
N-Nitrosodi-n-propylamine	N	1790	µg/l	0.50			< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Methylphenol	N	1790	µg/l	0.50			< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Nitrobenzene	N	1790	µg/l	0.50			< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Isophorone	N	1790	µg/l	0.50			< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Nitrophenol	N	1790	µg/l	0.50			< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,4-Dimethylphenol	N	1790	µg/l	0.50			< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bis(2-Chloroethoxy)Methane	N	1790	µg/l	0.50			< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,4-Dichlorophenol	N	1790	µg/l	0.50			< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,2,4-Trichlorobenzene	N	1790	µg/l	0.50			< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Naphthalene	N	1790	µg/l	0.50			< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Chloroaniline	N	1790	µg/l	0.50			< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Hexachlorobutadiene	N	1790	µg/l	0.50			< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Chloro-3-Methylphenol	N	1790	µg/l	0.50			< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Methylnaphthalene	N	1790	µg/l	0.50			< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Hexachlorocyclopentadiene	N	1790	µg/l	0.50			< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,4,6-Trichlorophenol	N	1790	µg/l	0.50			< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,4,5-Trichlorophenol	N	1790	µg/l	0.50			< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Chloronaphthalene	N	1790	µg/l	0.50			< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Nitroaniline	N	1790	µg/l	0.50			< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Acenaphthylene	N	1790	µg/l	0.50			< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Dimethylphthalate	N	1790	µg/l	0.50			< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,6-Dinitrotoluene	N	1790	µg/l	0.50			< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Acenaphthene	N	1790	µg/l	0.50			< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
3-Nitroaniline	N	1790	µg/l	0.50			< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Dibenzofuran	N	1790	µg/l	0.50			< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Chlorophenylphenylether	N	1790	µg/l	0.50			< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,4-Dinitrotoluene	N	1790	µg/l	0.50			< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Fluorene	N	1790	µg/l	0.50			< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Diethyl Phthalate	N	1790	µg/l	0.50			< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50

				Chemtest Job No.:		21-03718	21-03718	21-05451	21-15426	21-28639		21-03718	21-03718	21-05451	21-15426	21-28639
				Chemtest Sample ID.:		1138199	1138200	1146575	1197523	1262744		1138201	1138202	1146576	1197524	1262745
				Sample Location:	W1	W1	W2	W2	W2	W2	W4	W4	W6	W6	W6	W6
				Sample Type:		WATER	WATER	WATER	WATER	WATER		WATER	WATER	WATER	WATER	WATER
				Date Sampled:	31/05/1917	06-Feb-2021	06-Feb-2021	20-Feb-2021	##########	14-Aug-2021	31-May-2017	06-Feb-2021	06-Feb-2021	20-Feb-2021	##########	14-Aug-2021
Determinand	**Accred.**	**SOP**	**Units**	**LOD**												
4-Nitroaniline	N	1790	µg/l	0.50			< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Methyl-4,6-Dinitrophenol	N	1790	µg/l	0.50			< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Azobenzene	N	1790	µg/l	0.50			< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Bromophenylphenyl Ether	N	1790	µg/l	0.50			< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Hexachlorobenzene	N	1790	µg/l	0.50			< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Pentachlorophenol	N	1790	µg/l	0.50			< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Phenanthrene	N	1790	µg/l	0.50			< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Anthracene	N	1790	µg/l	0.50			< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Carbazole	N	1790	µg/l	0.50			< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Di-N-Butyl Phthalate	N	1790	µg/l	0.50			< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Fluoranthene	N	1790	µg/l	0.50			< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Pyrene	N	1790	µg/l	0.50			< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Butylbenzyl Phthalate	N	1790	µg/l	0.50			< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Benzo[a]anthracene	N	1790	µg/l	0.50			< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Chrysene	N	1790	µg/l	0.50			< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bis(2-Ethylhexyl)Phthalate	N	1790	µg/l	0.50			< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Di-N-Octyl Phthalate	N	1790	µg/l	0.50			< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Benzo[b]fluoranthene	N	1790	µg/l	0.50			< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Benzo[k]fluoranthene	N	1790	µg/l	0.50			< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Benzo[a]pyrene	N	1790	µg/l	0.50			< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Indeno(1,2,3-c,d)Pyrene	N	1790	µg/l	0.50			< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Dibenz(a,h)Anthracene	N	1790	µg/l	0.50			< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Benzo[g,h,i]perylene	N	1790	µg/l	0.50			< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Nitrophenol	N	1790	µg/l	0.50			< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Phenols	U	1920	mg/l	0.030			< 0.030	< 0.030	< 0.030	< 0.030		< 0.030	< 0.030	< 0.030	< 0.030	< 0.030

			GW1	GW1	GW1	GW3	GW3	GW3	GW3	Mine adit	Mine adit	Mine adit	Daisy Hall Spring	Daisy Hall Spring	Hey Head drain	Hey Head drain
Date			31/05/2017	08/08/2017	28/11/2017	31/05/2017	08/08/2017	28/11/2017	26/11/2018	28/11/2017	26/11/2018	25/02/2020	26/11/2018	25/02/2020	26/11/2018	25/02/2020
Test	**Units**	**UKDWS**														
Metals																
Aluminium	**ug/l**	**200**	94	<10	30	<10	<10	95	<4	130	<4	26	11	64	109	64
Arsenic	**ug/l**	**10**	1.7	0.96	0.97	2.2	0.41	0.29	0.24	0.33	0.11	0.73	0.54	1.76	0.71	1.76
Barium	**ug/l**	**1000**	150	190	150	630	56	33		43		56			20	
Cadmium	**ug/l**	**5**	<0.03	<0.03	<0.03	<0.03	0.04	0.08	<0.07	<0.03	<0.07	<0.07	<0.07	<0.07	<0.07	0.33
Calcium	**mg/l**	**250**	9.7	82	120	520	40	38	47.3	35	60.61	25.41	73.83	35.72	47.54	90.53
Chromium	**ug/l**	**50**	0.95	<0.25	0.29	1.5	<0.25	0.28	<0.2	0.45	<0.2	<0.2	0.3	1	1	0.7
Copper	**ug/l**	**2000**	3.8	1.3	1.8	<0.4	1.7	1.9	<0.4	2.7	<0.4	5.2	3.4	3.7	6.2	29.7
Iron	**ug/l**	**200**	74	11	32	6800	<5.5	130	168	140	3.2	85	10	6	303	376
Lead	**ug/l**	**10**	0.75	0.17	0.14	<0.09	<0.09	0.45	<0.2	0.67	<0.2	0.2	<0.2	<0.2	0.2	1.5
Magnesium	**mg/l**	**50**	3	15	22	93	11	14	12.99	11	21.66	3.38	9.85	3.13	2.52	13.98
Manganese	**ug/l**	**50**	17	3.4	120	4700	470	270	686.6	8.6	420.6	58.1	439.3	71.4	14.4	406.7
Mercury	**ug/l**	**1**	<0.01	0.02	<0.01	<0.01	0.01	<0.01	0.008	<0.01	<0.008	<0.008	<0.008	<0.008	<0.008	0.034
Nickel	**ug/l**								24			6.1		2.8	2.7	14.6
Potassium	**mg/l**	**10**	2.4	6.9	6.4	45	2.4	2.4	3.03	2	4.73	3.97	4.95	2.23	1.63	16.29
Selenium	**ug/l**	**10**	13	2.7	1.7	1.4	2.6	0.7	0.19	1.1	0.34	0.26	0.53	1.25	0.39	0.55
Sodium	**mg/l**	**200**	89	200	200	650	11	14	10.4	7.9	16	11.4	17.9	11.3	4.8	45.1
Zinc	**ug/l**	**3000**	97	5.5	24	6.6	30	19	167	18	102	12	<1	<1	11	180
Inorganics																
Conductivity	**uS/cm**		1890	1410	1590	7550	359	441	298	339	238	805	404	235	431	805
pH			7.9	7.4	7.3	7.3	7.2	7.4	8.2	7.1	8	7.8	8.5	8.4	7.9	
Alkalinity as CACO3	**mg/l**		330	430	490	810	90	77	86	75	68	52	104	202	66	
Ammonia	**ug/l**								62		21	90	<10	42	30	1960
Ammoniacal Nitroge	**mg/l**	**0.5**	<0.015	<0.015	0.082	21	0.049	0.044		0.019						
Chloride	**mg/l**	**250**	10	36	32	1600	12	22	11	9.5	19	13	24	27	6.3	58
Flouride	**mg/l**	**1.5**	<0.1	<0.10	0.15	<0.1	<0.10	0.22	<0.1	0.12	<0.1	<0.1	0.2	0.2	<0.1	0.2
Sulphate as S)4	**mg/l**	**250**	110	250	470	380	71	170	68	91	146	20	102	45	55	180
Total Organic Carbo	**mg/l**		160	12	6	62	3.7	3.3		2.7	<5	6.3	11	34	16	29
Petroleum Hydrocarbons																
EPH (C10-C40)	**ug/l**	**10**	250	2300	<33.3	990	<40.0	140	735	41	74	21	17508	26	121	165
PAHs		**0.1**														
Naphthalene	**ug/l**		0.86	0.07	<0.01	11	0.09	<0.01	<0.1	<0.01	<0.1	<0.1	2.6	<0.1	<0.1	<0.1
Acenaphthylene	**ug/l**		<0.1	<0.01	<0.01	0.06	<0.01	<0.01	<0.1	<0.01	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	**ug/l**		0.14	0.03	<0.01	2.2	<0.01	<0.01	<0.1	<0.01	<0.1	<0.1	0.7	<0.1	<0.1	<0.1
Fluorene	**ug/l**		0.17	0.03	<0.01	0.47	0.02	<0.01	<0.1	<0.01	<0.1	<0.1	2.2	<0.1	<0.1	<0.1
Phenanthrene	**ug/l**		0.64	0.07	<0.01	0.46	0.07	<0.01	<0.1	<0.01	<0.1	<0.1	14.1	0.9	<0.1	<0.1
Anthracene	**ug/l**		<0.1	<0.01	<0.01	0.08	<0.01	<0.01	<0.1	<0.01	<0.1	<0.1	4.1	0.9	<0.1	<0.1
Fluoranthene	**ug/l**		<0.1	<0.01	0.02	0.18	0.04	0.02	<0.1	<0.01	<0.1	<0.1	31.5	2.5	<0.1	<0.1
Pyrene	**ug/l**		0.14	0.01	0.03	0.14	0.04	0.03	<0.1	<0.01	<0.1	<0.1	29.4	1.1	<0.1	<0.1
Benzo(a)anthracene	**ug/l**		<0.1	<0.01	<0.01	0.05	0.03	<0.01	<0.1	<0.01	<0.1	<0.1	14.2	1.4	<0.1	<0.1
Chrysene	**ug/l**		0.23	0.02	<0.01	0.06	0.03	<0.01	<0.1	<0.01	<0.1	<0.1	13.5	1.8	<0.1	<0.1
Benzo(b)fluoranthen	**ug/l**		<0.1	0.01	<0.01	0.07	0.04	<0.01	<0.1	<0.01	<0.1	<0.1	25	2.2	<0.1	<0.1
Benzo(k)fluoranthen	**ug/l**		<0.1	<0.01	<0.01	0.03	0.01	<0.01	<0.1	<0.01	<0.1	<0.1	6.8	2.3	<0.1	<0.1
Benzo(a)pyrene	**ug/l**		<0.1	<0.01	<0.01	0.06	0.03	<0.01	<0.1	<0.01	<0.1	<0.1	15.8	1.7	<0.1	<0.1
Indeno(1,2,3-c,d)pyr	**ug/l**		<0.1	<0.01	<0.01	0.04	0.02	<0.01	<0.1	<0.01	<0.1	<0.1	15.3	2.6	<0.1	<0.1
Dibenzo(a,h)anthrac	**ug/l**		<0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	<0.01	<0.1	<0.1	1.7	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	**ug/l**		0.15	0.01	<0.01	0.05	0.03	<0.01	<0.1	<0.01	<0.1	<0.1	12.7	2.4	<0.1	<0.1
PAH Total	**ug/l**		2.3	0.27	0.04	15	0.47	0.04	<1.6	<0.04	<1.6	<1.6	189.5	19.4	<1.6	<1.6

VOCs		*	*	*			*	*	*	*	*		*	*	*	*
SVOCs		*	*	*			**	*	*	*	*		*	*	*	*