Validated

CERTIFICATE OF ANALYSIS

SDG: 201212-45 **Client Reference:** P18-669 **Report Number:** 583536
Location: Llanwern **Order Number:** **Superseded Report:** 582539

PAH by GCMS

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	2BSE-1	2BSE-2	2BSE-3	2BSE-4	2BSE-5	2BSE-6
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	10/12/2020	10/12/2020	10/12/2020	10/12/2020	10/12/2020	11/12/2020
			Sample Time	.	.	.	.	.	.
			Date Received	12/12/2020	12/12/2020	12/12/2020	12/12/2020	12/12/2020	12/12/2020
			SDG Ref	201212-45	201212-45	201212-45	201212-45	201212-45	201212-45
			Lab Sample No.(s)	23419848	23419856	23419865	23419873	23419881	23419682
			AGS Reference						
Naphthalene-d8 % recovery**	%	TM218		78.1	80.9	79.4	81	77.8	81.3
Acenaphthene-d10 % recovery**	%	TM218		85.5	86.4	83.6	79.4	88	83
Phenanthrene-d10 % recovery**	%	TM218		87	91.3	90.5	80.5	86.5	84.4
Chrysene-d12 % recovery**	%	TM218		84.3	86.8	84.9	80.8	84.7	85
Perylene-d12 % recovery**	%	TM218		72.2	72.9	71.6	79.5	72	82.8
Naphthalene	<9 µg/kg	TM218		3510 M	1090 M	1250 M	1070 #	6030 M	1840 M
Acenaphthylene	<12 µg/kg	TM218		1730 M	445 M	498 M	337 #	2700 M	550 M
Acenaphthene	<8 µg/kg	TM218		128 M	95.2 M	72.2 M	86.3 #	264 M	92.5 M
Fluorene	<10 µg/kg	TM218		692 M	196 M	291 M	231 #	1570 M	305 M
Phenanthrene	<15 µg/kg	TM218		10700 M	2170 M	3230 M	2730 #	11400 M	3590 M
Anthracene	<16 µg/kg	TM218		4050 M	633 M	1030 M	744 #	4340 M	819 M
Fluoranthene	<17 µg/kg	TM218		23000 M	3510 M	6010 M	4920 #	19000 M	6440 M
Pyrene	<15 µg/kg	TM218		15900 M	2730 M	4590 M	4580 #	14800 M	4630 M
Benz(a)anthracene	<14 µg/kg	TM218		8400 M	1560 M	2440 M	2530 #	8900 M	2920 M
Chrysene	<10 µg/kg	TM218		8480 M	1620 M	2450 M	2370 #	8880 M	2250 M
Benzo(b)fluoranthene	<15 µg/kg	TM218		10200 M	2010 M	3100 M	3070 #	11100 M	3810 M
Benzo(k)fluoranthene	<14 µg/kg	TM218		3940 M	755 M	1080 M	1200 #	3710 M	1320 M
Benzo(a)pyrene	<15 µg/kg	TM218		5920 M	1120 M	1750 M	1920 #	6270 M	2330 M
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		4950 M	944 M	1450 M	1440 #	5290 M	1940 M
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		896 M	177 M	265 M	268 #	1000 M	338 M
Benzo(g,h,i)perylene	<24 µg/kg	TM218		3660 M	752 M	1160 M	1260 #	4060 M	1600 M
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		106000	19800	30700	28700	109000	34800

Validated

CERTIFICATE OF ANALYSIS

SDG:	201212-45	**Client Reference:**	P18-669	**Report Number:**	583536
Location:	Llanwern	**Order Number:**		**Superseded Report:**	582539

PAH by GCMS

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	2BSE-7	2BSE-8	2BSE-9	2BSE-10	2BSE-11	2BSE-12
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	11/12/2020	11/12/2020	11/12/2020	11/12/2020	11/12/2020	11/12/2020
			Sample Time	.	.	.	.	.	.
			Date Received	12/12/2020	12/12/2020	12/12/2020	12/12/2020	12/12/2020	12/12/2020
			SDG Ref	201212-45	201212-45	201212-45	201212-45	201212-45	201212-45
			Lab Sample No.(s)	23419690	23419695	23419701	23419706	23419712	23419718
			AGS Reference						
Naphthalene-d8 % recovery**	%	TM218		83	79.5	79.4	78.8	83.4	78.1
Acenaphthene-d10 % recovery**	%	TM218		83.3	82.9	81	83.6	83.4	82.5
Phenanthrene-d10 % recovery**	%	TM218		87.9	87.5	84	80.9	85.5	86.6
Chrysene-d12 % recovery**	%	TM218		81.3	85.1	81.8	91.6	84.2	84.6
Perylene-d12 % recovery**	%	TM218		70.6	71.8	79.6	87	81.4	71.4
Naphthalene	<9 µg/kg	TM218		2730 M	2040 M	1810 M	3160 M	1930 M	2960
Acenaphthylene	<12 µg/kg	TM218		1170 M	922 M	833 M	1350 M	498 M	1040
Acenaphthene	<8 µg/kg	TM218		495 M	107 M	109 M	153 M	80.3 M	153
Fluorene	<10 µg/kg	TM218		929 M	837 M	495 M	914 M	375 M	657
Phenanthrene	<15 µg/kg	TM218		8050 M	8180 M	4600 M	6900 M	2700 M	5740
Anthracene	<16 µg/kg	TM218		2510 M	2380 M	1350 M	2540 M	813 M	1710
Fluoranthene	<17 µg/kg	TM218		13100 M	11800 M	9200 M	13000 M	4040 M	10600
Pyrene	<15 µg/kg	TM218		9830 M	8810 M	6810 M	9720 M	3010 M	8050
Benz(a)anthracene	<14 µg/kg	TM218		4840 M	4270 M	4120 M	6290 M	1920 M	4250
Chrysene	<10 µg/kg	TM218		4590 M	4330 M	3690 M	5560 M	1710 M	4360
Benzo(b)fluoranthene	<15 µg/kg	TM218		5770 M	5410 M	5600 M	7290 M	2760 M	5660
Benzo(k)fluoranthene	<14 µg/kg	TM218		1870 M	1630 M	1920 M	2640 M	950 M	1640
Benzo(a)pyrene	<15 µg/kg	TM218		3430 M	3270 M	3300 M	4930 M	1630 M	3100
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		2680 M	2700 M	2750 M	3360 M	1310 M	2550
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		485 M	455 M	504 M	781 M	211 M	487
Benzo(g,h,i)perylene	<24 µg/kg	TM218		2170 M	2210 M	2180 M	3290 M	1060 M	1970
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		64600	59400	49300	71900	25000	54900

Validated

CERTIFICATE OF ANALYSIS

SDG:	201212-45	**Client Reference:**	P18-669	**Report Number:**	583536
Location:	Llanwern	**Order Number:**		**Superseded Report:**	582539

PAH by GCMS

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	2BSE-13	2BSE-14	2BSE-22	2BSE-23	2BSE-24	2BSE-25
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	11/12/2020	11/12/2020	11/12/2020	11/12/2020	11/12/2020	11/12/2020
			Sample Time	.	.	.	.	.	.
			Date Received	12/12/2020	12/12/2020	12/12/2020	12/12/2020	12/12/2020	12/12/2020
			SDG Ref	201212-45	201212-45	201212-45	201212-45	201212-45	201212-45
			Lab Sample No.(s)	23419728	23419733	23419739	23419751	23419758	23419763
			AGS Reference						
Naphthalene-d8 % recovery**	%	TM218		87.2	85.7	82.4	81.5	80.2	80
Acenaphthene-d10 % recovery**	%	TM218		88.4	85.1	83.9	84.8	85.2	80.9
Phenanthrene-d10 % recovery**	%	TM218		87.4	87.7	86	88.6	92.7	83.4
Chrysene-d12 % recovery**	%	TM218		85.6	88.7	84.2	88.5	85.8	85.8
Perylene-d12 % recovery**	%	TM218		78.6	86.8	83.8	91	72.3	83.6
Naphthalene	<9 µg/kg	TM218		2800 M	2180 M	4160 M	1590 M	1160 M	3260 M
Acenaphthylene	<12 µg/kg	TM218		10600 M	706 M	1570 M	592 M	444 M	1090 M
Acenaphthene	<8 µg/kg	TM218		859 M	109 M	147 M	89.7 M	60.7 M	124 M
Fluorene	<10 µg/kg	TM218		19100 M	625 M	677 M	272 M	285 M	850 M
Phenanthrene	<15 µg/kg	TM218		99500 M	4460 M	6880 M	2520 M	2470 M	5250 M
Anthracene	<16 µg/kg	TM218		27900 M	1510 M	2030 M	674 M	781 M	2130 M
Fluoranthene	<17 µg/kg	TM218		90900 M	7490 M	12700 M	3960 M	3980 M	8170 M
Pyrene	<15 µg/kg	TM218		61100 M	5320 M	9440 M	2920 M	2940 M	6090 M
Benz(a)anthracene	<14 µg/kg	TM218		29700 M	3290 M	5750 M	1810 M	1560 M	3890 M
Chrysene	<10 µg/kg	TM218		21000 M	2880 M	4790 M	1460 M	1570 M	3480 M
Benzo(b)fluoranthene	<15 µg/kg	TM218		35000 M	4340 M	7110 M	2350 M	1980 M	4850 M
Benzo(k)fluoranthene	<14 µg/kg	TM218		11500 M	1380 M	2670 M	710 M	717 M	1620 M
Benzo(a)pyrene	<15 µg/kg	TM218		20700 M	2610 M	4340 M	1410 M	1090 M	2710 M
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		17200 M	2060 M	3790 M	1200 M	892 M	2150 M
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		2740 M	354 M	625 M	197 M	167 M	419 M
Benzo(g,h,i)perylene	<24 µg/kg	TM218		13700 M	1710 M	2810 M	886 M	699 M	1650 M
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		464000	41000	69500	22600	20800	47700

Validated

CERTIFICATE OF ANALYSIS

SDG:	201212-45	**Client Reference:**	P18-669	**Report Number:**	583536
Location:	Llanwern	**Order Number:**		**Superseded Report:**	582539

PAH by GCMS

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	2BSE-26	2BSE-27	2BSE-28	2BSE-29	2BSE-30	2BSE-31
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	11/12/2020	11/12/2020	11/12/2020	11/12/2020	11/12/2020	11/12/2020
			Sample Time	.	.	.	.	.	.
			Date Received	12/12/2020	12/12/2020	12/12/2020	12/12/2020	12/12/2020	12/12/2020
			SDG Ref	201212-45	201212-45	201212-45	201212-45	201212-45	201212-45
			Lab Sample No.(s)	23419769	23419775	23419781	23419786	23419792	23419798
			AGS Reference						
Naphthalene-d8 % recovery**	%	TM218		83.7	80.6	81.5	78.7	84.3	82.3
Acenaphthene-d10 % recovery**	%	TM218		85.3	83	87.1	85.4	86.6	80.1
Phenanthrene-d10 % recovery**	%	TM218		87.5	89.8	87.3	91	89.4	82.5
Chrysene-d12 % recovery**	%	TM218		89	86.6	82.7	80.1	90.7	82.1
Perylene-d12 % recovery**	%	TM218		89	73.4	70	70.2	90.7	83.6
Naphthalene	<9 µg/kg	TM218		1580 M	1710 M	2160 M	2070 M	1740 M	3390 M
Acenaphthylene	<12 µg/kg	TM218		735 M	434 M	1100 M	652 M	683 M	905 M
Acenaphthene	<8 µg/kg	TM218		109 M	88.3 M	108 M	98.7 M	146 M	135 M
Fluorene	<10 µg/kg	TM218		667 M	403 M	708 M	428 M	699 M	673 M
Phenanthrene	<15 µg/kg	TM218		8850 M	3510 M	7230 M	3730 M	6450 M	5050 M
Anthracene	<16 µg/kg	TM218		1870 M	779 M	1920 M	994 M	2010 M	1410 M
Fluoranthene	<17 µg/kg	TM218		12300 M	4250 M	11300 M	6260 M	10500 M	8270 M
Pyrene	<15 µg/kg	TM218		9340 M	3070 M	8180 M	4810 M	7860 M	6220 M
Benz(a)anthracene	<14 µg/kg	TM218		4870 M	1720 M	3920 M	2460 M	4720 M	3800 M
Chrysene	<10 µg/kg	TM218		4240 M	1830 M	3860 M	2490 M	3560 M	3630 M
Benzo(b)fluoranthene	<15 µg/kg	TM218		6350 M	2200 M	4790 M	3230 M	4580 M	5310 M
Benzo(k)fluoranthene	<14 µg/kg	TM218		2060 M	748 M	1830 M	1120 M	1490 M	1930 M
Benzo(a)pyrene	<15 µg/kg	TM218		4010 M	1190 M	2800 M	1850 M	2570 M	3440 M
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		3240 M	1000 M	2340 M	1400 M	2010 M	2650 M
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		484 M	197 M	414 M	259 M	373 M	557 M
Benzo(g,h,i)perylene	<24 µg/kg	TM218		2660 M	806 M	1920 M	1120 M	1570 M	2270 M
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		63400	23900	54600	33000	51000	49600

Validated

CERTIFICATE OF ANALYSIS

SDG:	201212-45	**Client Reference:**	P18-669	**Report Number:**	583536
Location:	Llanwern	**Order Number:**		**Superseded Report:**	582539

PAH by GCMS

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	2BSE-32	2BSE-33	2BSE-34	2BSE-35	M33-1	M33-2
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.50 - 0.50	1.40 - 1.40
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	11/12/2020	11/12/2020	11/12/2020	11/12/2020	10/12/2020	10/12/2020
			Sample Time	.	.	.	.	.	.
			Date Received	12/12/2020	12/12/2020	12/12/2020	12/12/2020	12/12/2020	12/12/2020
			SDG Ref	201212-45	201212-45	201212-45	201212-45	201212-45	201212-45
			Lab Sample No.(s)	23419803	23419821	23419826	23419833	23419813	23419841
			AGS Reference						
Naphthalene-d8 % recovery**	%	TM218		80.9	79	77.3	80.5	81.4	84.2
Acenaphthene-d10 % recovery**	%	TM218		85.7	84.8	83	80.7	86	84.4
Phenanthrene-d10 % recovery**	%	TM218		82.9	88.9	91	78.9	93.1	85.3
Chrysene-d12 % recovery**	%	TM218		92.2	85.5	86.1	77.7	83.2	86.1
Perylene-d12 % recovery**	%	TM218		82.3	72.5	73	76.2	74.4	90.6
Naphthalene	<9 µg/kg	TM218		3130 M	1880 M	1950 M	3280 M	10.4 M	<9 M
Acenaphthylene	<12 µg/kg	TM218		1250 M	531 M	711 M	9850 M	<12 M	<12 M
Acenaphthene	<8 µg/kg	TM218		160 M	90 M	104 M	649 M	<8 M	<8 M
Fluorene	<10 µg/kg	TM218		1030 M	398 M	441 M	13100 M	<10 M	<10 M
Phenanthrene	<15 µg/kg	TM218		8790 M	3310 M	4120 M	67700 M	24.7 M	22.8 M
Anthracene	<16 µg/kg	TM218		2010 M	858 M	1320 M	19900 M	<16 M	<16 M
Fluoranthene	<17 µg/kg	TM218		12400 M	5870 M	7470 M	76100 M	<17 M	39 M
Pyrene	<15 µg/kg	TM218		9260 M	4900 M	6200 M	50200 M	15.9 M	31.5 M
Benz(a)anthracene	<14 µg/kg	TM218		4960 M	3890 M	2990 M	25700 M	<14 M	20.4 M
Chrysene	<10 µg/kg	TM218		4590 M	4070 M	2890 M	22100 M	15.2 M	23.1 M
Benzo(b)fluoranthene	<15 µg/kg	TM218		5310 M	6040 M	3700 M	29800 M	19.2 M	40.4 M
Benzo(k)fluoranthene	<14 µg/kg	TM218		1660 M	1920 M	1170 M	10100 M	<14 M	<14 M
Benzo(a)pyrene	<15 µg/kg	TM218		3840 M	3290 M	2100 M	18900 M	<15 M	19.3 M
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		2640 M	1660 M	1670 M	15600 M	<18 M	20.6 M
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		592 M	406 M	304 M	2600 M	<23 M	<23 M
Benzo(g,h,i)perylene	<24 µg/kg	TM218		2630 M	1260 M	1360 M	12000 M	<24 M	<24 M
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		64200	40400	38500	377000	<118	217

CERTIFICATE OF ANALYSIS

SDG:	201212-45	**Client Reference:**	P18-669	**Report Number:**	583536
Location:	Llanwern	**Order Number:**		**Superseded Report:**	582539

PAH by GCMS

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	N33-1	N33-2				
			Depth (m)	0.30 - 0.30	1.60 - 1.60				
			Sample Type	Soil/Solid (S)	Soil/Solid (S)				
			Date Sampled	10/12/2020	10/12/2020				
			Sample Time	.	.				
			Date Received	12/12/2020	12/12/2020				
			SDG Ref	201212-45	201212-45				
			Lab Sample No.(s)	23419678	23419744				
			AGS Reference						
Naphthalene-d8 % recovery**	%	TM218		82.4	79.6				
Acenaphthene-d10 % recovery**	%	TM218		82.1	83.5				
Phenanthrene-d10 % recovery**	%	TM218		83.4	90.5				
Chrysene-d12 % recovery**	%	TM218		84.7	84.5				
Perylene-d12 % recovery**	%	TM218		86.1	76.3				
Naphthalene	<9 µg/kg	TM218		414 M	<9 M				
Acenaphthylene	<12 µg/kg	TM218		177 M	<12 M				
Acenaphthene	<8 µg/kg	TM218		108 M	<8 M				
Fluorene	<10 µg/kg	TM218		120 M	<10 M				
Phenanthrene	<15 µg/kg	TM218		1210 M	<15 M				
Anthracene	<16 µg/kg	TM218		326 M	<16 M				
Fluoranthene	<17 µg/kg	TM218		2430 M	<17 M				
Pyrene	<15 µg/kg	TM218		1990 M	<15 M				
Benz(a)anthracene	<14 µg/kg	TM218		1150 M	<14 M				
Chrysene	<10 µg/kg	TM218		1050 M	<10 M				
Benzo(b)fluoranthene	<15 µg/kg	TM218		1750 M	<15 M				
Benzo(k)fluoranthene	<14 µg/kg	TM218		568 M	<14 M				
Benzo(a)pyrene	<15 µg/kg	TM218		1050 M	<15 M				
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		886 M	<18 M				
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		132 M	<23 M				
Benzo(g,h,i)perylene	<24 µg/kg	TM218		798 M	<24 M				
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		14200	<118				

Validated

CERTIFICATE OF ANALYSIS

SDG: 201212-45 **Client Reference:** P18-669 **Report Number:** 583536
Location: Llanwern **Order Number:** **Superseded Report:** 582539

TPH CWG (S)

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	2BSE-1	2BSE-2	2BSE-3	2BSE-4	2BSE-5	2BSE-6
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	10/12/2020	10/12/2020	10/12/2020	10/12/2020	10/12/2020	11/12/2020
			Sample Time	.	.	.	.	.	.
			Date Received	12/12/2020	12/12/2020	12/12/2020	12/12/2020	12/12/2020	12/12/2020
			SDG Ref	201212-45	201212-45	201212-45	201212-45	201212-45	201212-45
			Lab Sample No.(s)	23419848	23419856	23419865	23419873	23419881	23419682
			AGS Reference						
GRO Surrogate % recovery**	%	TM089		56.5 4 @	16.8 4 @	19.2 4 @	39.4 4 @	32.6 4 @	30.4 4 @
Aliphatics >C5-C6	<10 µg/kg	TM089		<10 4 @	10.4 4 @	10.2 4 @	<10 4 @	12.2 4 @	<10 4 @
Aliphatics >C6-C8	<10 µg/kg	TM089		25 4 @	38 4 @	38.4 4 @	15.5 4 @	53.3 4 @	28 4 @
Aliphatics >C8-C10	<10 µg/kg	TM089		34.8 4 @	35.7 4 @	40.7 4 @	18.9 4 @	113 4 @	31.4 4 @
Aliphatics >C10-C12	<1000 µg/kg	TM414		<1000	1080	<1000	<1000	1780	<1000
Aliphatics >C12-C16	<1000 µg/kg	TM414		13500	7750	3690	1440	8340	7520
Aliphatics >C16-C21	<1000 µg/kg	TM414		71200	34500	15100	9260	39800	64000
Aliphatics >C21-C35	<1000 µg/kg	TM414		91800	38800	32800	23600	67100	53300
Aliphatics >C35-C44	<1000 µg/kg	TM414		30600	8880	8690	5780	21700	10100
Total Aliphatics >C10-C44	<5000 µg/kg	TM414		208000	91000	60800	40100	139000	136000
Total Aliphatics & Aromatics >C10-C44	<10000 µg/kg	TM414		475000	171000	139000	91100	406000	202000
Aromatics >EC5-EC7	<10 µg/kg	TM089		<10 4 @	<10 4 @	<10 4 @	<10 4 @	<10 4 @	<10 4 @
Aromatics >EC7-EC8	<10 µg/kg	TM089		<10 4 @	<10 4 @	<10 4 @	<10 4 @	<10 4 @	10.1 4 @
Aromatics >EC8-EC10	<10 µg/kg	TM089		23.9 4 @	24.2 4 @	27.1 4 @	12.2 4 @	75.5 4 @	20.2 4 @
Aromatics > EC10-EC12	<1000 µg/kg	TM414		8450	1810	2160	<1000	8960	2600
Aromatics > EC12-EC16	<1000 µg/kg	TM414		10800	6510	4610	1990	14600	4830
Aromatics > EC16-EC21	<1000 µg/kg	TM414		66100	23800	19300	11400	66500	18300
Aromatics > EC21-EC35	<1000 µg/kg	TM414		153000	44800	48800	33500	157000	37800
Aromatics >EC35-EC44	<1000 µg/kg	TM414		29000	2790	3730	3290	20700	2990
Aromatics > EC40-EC44	<1000 µg/kg	TM414		6240	<1000	<1000	<1000	4660	<1000
Total Aromatics > EC10-EC44	<5000 µg/kg	TM414		267000	79700	78600	51000	268000	66600
Total Aliphatics & Aromatics >C5-C44	<10000 µg/kg	TM414		475000	171000	140000	91200	407000	202000
Total Aliphatics >C5-C10	<50 µg/kg	TM089		59.7 4 @	84 4 @	89.3 4 @	<50 4 @	179 4 @	59.4 4 @
Total Aromatics >EC5-EC10	<50 µg/kg	TM089		<50 4 @	<50 4 @	<50 4 @	<50 4 @	75.5 4 @	<50 4 @
GRO >C5-C10	<20 µg/kg	TM089		59.7 4 @	84 4 @	89.3 4 @	<20 4 @	254 4 @	59.4 4 @

Validated

CERTIFICATE OF ANALYSIS

SDG: 201212-45 **Client Reference:** P18-669 **Report Number:** 583536
Location: Llanwern **Order Number:** **Superseded Report:** 582539

TPH CWG (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	2BSE-7	2BSE-8	2BSE-9	2BSE-10	2BSE-11	2BSE-12
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	11/12/2020	11/12/2020	11/12/2020	11/12/2020	11/12/2020	11/12/2020
			Sample Time	.	.	.	.	.	.
			Date Received	12/12/2020	12/12/2020	12/12/2020	12/12/2020	12/12/2020	12/12/2020
			SDG Ref	201212-45	201212-45	201212-45	201212-45	201212-45	201212-45
			Lab Sample No.(s)	23419690	23419695	23419701	23419706	23419712	23419718
			AGS Reference						
GRO Surrogate % recovery**	%	TM089		21.2 4 @	24.4 4 @	27.2 4 @	27.3 4 @	23.3 4 @	20.1 4 @
Aliphatics >C5-C6	<10 µg/kg	TM089		<10 4 @	<10 4 @	17.3 4 @	<10 4 @	<10 4 @	<10 4 @
Aliphatics >C6-C8	<10 µg/kg	TM089		23.9 4 @	19.4 4 @	57.5 4 @	33.9 4 @	20 4 @	36.1 4 @
Aliphatics >C8-C10	<10 µg/kg	TM089		20.5 4 @	21.6 4 @	56.4 4 @	37.3 4 @	20 4 @	39.3 4 @
Aliphatics >C10-C12	<1000 µg/kg	TM414		1040	<1000	1150	2310	<1000	<1000
Aliphatics >C12-C16	<1000 µg/kg	TM414		5010	3680	6070	8350	2850	5340
Aliphatics >C16-C21	<1000 µg/kg	TM414		23500	15700	20800	35300	17700	46700
Aliphatics >C21-C35	<1000 µg/kg	TM414		42000	36300	42000	65900	38900	56400
Aliphatics >C35-C44	<1000 µg/kg	TM414		9500	10300	11800	17700	6050	13400
Total Aliphatics >C10-C44	<5000 µg/kg	TM414		81000	67000	81800	130000	65800	122000
Total Aliphatics & Aromatics >C10-C44	<10000 µg/kg	TM414		238000	199000	240000	370000	175000	326000
Aromatics >EC5-EC7	<10 µg/kg	TM089		<10 4 @	<10 4 @	<10 4 @	<10 4 @	<10 4 @	<10 4 @
Aromatics >EC7-EC8	<10 µg/kg	TM089		<10 4 @	<10 4 @	11.5 4 @	<10 4 @	<10 4 @	<10 4 @
Aromatics >EC8-EC10	<10 µg/kg	TM089		13.7 4 @	14 4 @	38 4 @	24.9 4 @	13.3 4 @	26.5 4 @
Aromatics > EC10-EC12	<1000 µg/kg	TM414		3760	2600	2600	7320	2970	5250
Aromatics > EC12-EC16	<1000 µg/kg	TM414		8790	5860	6970	12700	5260	7630
Aromatics > EC16-EC21	<1000 µg/kg	TM414		39100	32300	38900	60600	25300	49900
Aromatics > EC21-EC35	<1000 µg/kg	TM414		94300	81500	99500	139000	68300	123000
Aromatics >EC35-EC44	<1000 µg/kg	TM414		11100	9430	10600	21100	7230	17600
Aromatics > EC40-EC44	<1000 µg/kg	TM414		2000	1190	1360	4190	1190	2320
Total Aromatics > EC10-EC44	<5000 µg/kg	TM414		157000	132000	159000	241000	109000	203000
Total Aliphatics & Aromatics >C5-C44	<10000 µg/kg	TM414		238000	199000	241000	370000	175000	326000
Total Aliphatics >C5-C10	<50 µg/kg	TM089		<50 4 @	<50 4 @	131 4 @	71.2 4 @	<50 4 @	75.3 4 @
Total Aromatics >EC5-EC10	<50 µg/kg	TM089		<50 4 @	<50 4 @	<50 4 @	<50 4 @	<50 4 @	<50 4 @
GRO >C5-C10	<20 µg/kg	TM089		<20 4 @	<20 4 @	131 4 @	71.2 4 @	<20 4 @	75.3 4 @

Validated

CERTIFICATE OF ANALYSIS

SDG: 201212-45 **Client Reference:** P18-669 **Report Number:** 583536
Location: Llanwern **Order Number:** **Superseded Report:** 582539

TPH CWG (S)

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	2BSE-13	2BSE-14	2BSE-22	2BSE-23	2BSE-24	2BSE-25
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	11/12/2020	11/12/2020	11/12/2020	11/12/2020	11/12/2020	11/12/2020
			Sample Time	.	.	.	.	.	.
			Date Received	12/12/2020	12/12/2020	12/12/2020	12/12/2020	12/12/2020	12/12/2020
			SDG Ref	201212-45	201212-45	201212-45	201212-45	201212-45	201212-45
			Lab Sample No.(s)	23419728	23419733	23419739	23419751	23419758	23419763
			AGS Reference						
GRO Surrogate % recovery**	%	TM089		35.4 4 @	19.2 4 @	45.7 4 @	20.5 4 @	23.1 4 @	42.7 4 @
Aliphatics >C5-C6	<10 µg/kg	TM089		<10 4 @	14.3 4 @	<10 4 @	<10 4 @	<10 4 @	<10 4 @
Aliphatics >C6-C8	<10 µg/kg	TM089		30.4 4 @	59.5 4 @	25.7 4 @	16.5 4 @	25.4 4 @	39.4 4 @
Aliphatics >C8-C10	<10 µg/kg	TM089		33.6 4 @	60.7 4 @	33.9 4 @	16.5 4 @	25.4 4 @	71.9 4 @
Aliphatics >C10-C12	<1000 µg/kg	TM414		1250	<1000	<1000	<1000	1830	1610
Aliphatics >C12-C16	<1000 µg/kg	TM414		4800	1870	10900	2950	5380	7330
Aliphatics >C16-C21	<1000 µg/kg	TM414		36100	13100	54700	12900	13600	32200
Aliphatics >C21-C35	<1000 µg/kg	TM414		41000	20600	73800	21100	42700	51500
Aliphatics >C35-C44	<1000 µg/kg	TM414		10700	4210	30300	4020	15100	20300
Total Aliphatics >C10-C44	<5000 µg/kg	TM414		93800	40100	170000	41600	78600	113000
Total Aliphatics & Aromatics >C10-C44	<10000 µg/kg	TM414		212000	183000	428000	115000	189000	403000
Aromatics >EC5-EC7	<10 µg/kg	TM089		<10 4 @	10.7 4 @	<10 4 @	<10 4 @	<10 4 @	<10 4 @
Aromatics >EC7-EC8	<10 µg/kg	TM089		<10 4 @	13.1 4 @	<10 4 @	<10 4 @	<10 4 @	10.4 4 @
Aromatics >EC8-EC10	<10 µg/kg	TM089		22.8 4 @	40.5 4 @	22.2 4 @	11.8 4 @	16.9 4 @	47.6 4 @
Aromatics > EC10-EC12	<1000 µg/kg	TM414		3250	3050	7510	3710	3270	9660
Aromatics > EC12-EC16	<1000 µg/kg	TM414		5640	4870	9290	5120	6540	15200
Aromatics > EC16-EC21	<1000 µg/kg	TM414		31000	34300	70200	21800	26500	76400
Aromatics > EC21-EC35	<1000 µg/kg	TM414		70100	89500	150000	39900	67300	163000
Aromatics >EC35-EC44	<1000 µg/kg	TM414		8240	11000	21400	2470	6550	26700
Aromatics > EC40-EC44	<1000 µg/kg	TM414		1090	1970	3880	<1000	<1000	3390
Total Aromatics > EC10-EC44	<5000 µg/kg	TM414		118000	143000	258000	73000	110000	290000
Total Aliphatics & Aromatics >C5-C44	<10000 µg/kg	TM414		212000	183000	428000	115000	189000	404000
Total Aliphatics >C5-C10	<50 µg/kg	TM089		64 4 @	134 4 @	59.7 4 @	<50 4 @	50.8 4 @	111 4 @
Total Aromatics >EC5-EC10	<50 µg/kg	TM089		<50 4 @	64.3 4 @	<50 4 @	<50 4 @	<50 4 @	58 4 @
GRO >C5-C10	<20 µg/kg	TM089		64 4 @	199 4 @	59.7 4 @	<20 4 @	50.8 4 @	169 4 @

Validated

CERTIFICATE OF ANALYSIS

SDG: 201212-45 **Client Reference:** P18-669 **Report Number:** 583536
Location: Llanwern **Order Number:** **Superseded Report:** 582539

TPH CWG (S)

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	2BSE-26	2BSE-27	2BSE-28	2BSE-29	2BSE-30	2BSE-31
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	11/12/2020	11/12/2020	11/12/2020	11/12/2020	11/12/2020	11/12/2020
			Sample Time	.	.	.	.	.	.
			Date Received	12/12/2020	12/12/2020	12/12/2020	12/12/2020	12/12/2020	12/12/2020
			SDG Ref	201212-45	201212-45	201212-45	201212-45	201212-45	201212-45
			Lab Sample No.(s)	23419769	23419775	23419781	23419786	23419792	23419798
			AGS Reference						
GRO Surrogate % recovery**	%	TM089		34.8 4 @	29.2 4 @	31.4 4 @	23.2 4 @	34.6 4 @	41.2 4 @
Aliphatics >C5-C6	<10 µg/kg	TM089		14.8 4 @	10.7 4 @	21.1 4 @	<10 4 @	13 4 @	10.5 4 @
Aliphatics >C6-C8	<10 µg/kg	TM089		65 4 @	41.7 4 @	72.5 4 @	38.7 4 @	50.7 4 @	39.8 4 @
Aliphatics >C8-C10	<10 µg/kg	TM089		76.4 4 @	45.2 4 @	86.6 4 @	33.9 4 @	53.1 4 @	45.6 4 @
Aliphatics >C10-C12	<1000 µg/kg	TM414		<1000	<1000	<1000	<1000	<1000	<1000
Aliphatics >C12-C16	<1000 µg/kg	TM414		2070	5540	4770	3620	3790	4260
Aliphatics >C16-C21	<1000 µg/kg	TM414		14100	33700	31800	16800	18500	18600
Aliphatics >C21-C35	<1000 µg/kg	TM414		38800	41900	48400	33800	34200	44100
Aliphatics >C35-C44	<1000 µg/kg	TM414		8330	6550	13600	6310	7820	5610
Total Aliphatics >C10-C44	<5000 µg/kg	TM414		63400	88300	99100	61000	65200	73400
Total Aliphatics & Aromatics >C10-C44	<10000 µg/kg	TM414		227000	156000	303000	174000	256000	178000
Aromatics >EC5-EC7	<10 µg/kg	TM089		<10 4 @	<10 4 @	11.7 4 @	<10 4 @	<10 4 @	<10 4 @
Aromatics >EC7-EC8	<10 µg/kg	TM089		<10 4 @	11.9 4 @	18.7 4 @	<10 4 @	14.2 4 @	<10 4 @
Aromatics >EC8-EC10	<10 µg/kg	TM089		50.2 4 @	29.8 4 @	58.5 4 @	21.8 4 @	35.4 4 @	30.4 4 @
Aromatics > EC10-EC12	<1000 µg/kg	TM414		2580	2850	4940	2670	2810	2970
Aromatics > EC12-EC16	<1000 µg/kg	TM414		3330	6040	8870	5870	9380	5020
Aromatics > EC16-EC21	<1000 µg/kg	TM414		51600	18200	52800	28000	51800	25100
Aromatics > EC21-EC35	<1000 µg/kg	TM414		92100	37700	121000	69400	114000	65500
Aromatics >EC35-EC44	<1000 µg/kg	TM414		13900	2950	15500	7000	12900	6000
Aromatics > EC40-EC44	<1000 µg/kg	TM414		2090	<1000	1670	<1000	2300	<1000
Total Aromatics > EC10-EC44	<5000 µg/kg	TM414		163000	67800	204000	113000	191000	105000
Total Aliphatics & Aromatics >C5-C44	<10000 µg/kg	TM414		227000	156000	303000	174000	256000	178000
Total Aliphatics >C5-C10	<50 µg/kg	TM089		156 4 @	97.6 4 @	180 4 @	72.6 4 @	117 4 @	95.9 4 @
Total Aromatics >EC5-EC10	<50 µg/kg	TM089		50.2 4 @	<50 4 @	88.9 4 @	<50 4 @	<50 4 @	<50 4 @
GRO >C5-C10	<20 µg/kg	TM089		206 4 @	97.6 4 @	269 4 @	72.6 4 @	117 4 @	95.9 4 @

Validated

CERTIFICATE OF ANALYSIS

SDG: 201212-45 **Client Reference:** P18-669 **Report Number:** 583536
Location: Llanwern **Order Number:** **Superseded Report:** 582539

TPH CWG (S)

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	2BSE-32	2BSE-33	2BSE-34	2BSE-35	M33-1	M33-2
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.50 - 0.50	1.40 - 1.40
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	11/12/2020	11/12/2020	11/12/2020	11/12/2020	10/12/2020	10/12/2020
			Sample Time	.	.	.	.	.	.
			Date Received	12/12/2020	12/12/2020	12/12/2020	12/12/2020	12/12/2020	12/12/2020
			SDG Ref	201212-45	201212-45	201212-45	201212-45	201212-45	201212-45
			Lab Sample No.(s)	23419803	23419821	23419826	23419833	23419813	23419841
			AGS Reference						
GRO Surrogate % recovery**	%	TM089		20.4 4 @	16.4 4 @	22.5 4 @	20 4 @	86.5 @	96.3 @
Aliphatics >C5-C6	<10 µg/kg	TM089		11.4 4 @	13 4 @	<10 4 @	11.6 4 @	<10 @	<10 @
Aliphatics >C6-C8	<10 µg/kg	TM089		41 4 @	53.3 4 @	31.6 4 @	51 4 @	<10 @	<10 @
Aliphatics >C8-C10	<10 µg/kg	TM089		43.3 4 @	58.1 4 @	33.9 4 @	58 4 @	<10 @	<10 @
Aliphatics >C10-C12	<1000 µg/kg	TM414		2740	<1000	<1000	<1000	<1000	<1000
Aliphatics >C12-C16	<1000 µg/kg	TM414		9510	3590	3480	3750	<1000	<1000
Aliphatics >C16-C21	<1000 µg/kg	TM414		35700	20800	19900	25700	<1000	<1000
Aliphatics >C21-C35	<1000 µg/kg	TM414		47600	32800	31800	40400	19500	5250
Aliphatics >C35-C44	<1000 µg/kg	TM414		13400	6860	8540	8930	2530	<1000
Total Aliphatics >C10-C44	<5000 µg/kg	TM414		109000	64700	64700	79200	22600	5580
Total Aliphatics & Aromatics >C10-C44	<10000 µg/kg	TM414		302000	208000	169000	242000	32100	<10000
Aromatics >EC5-EC7	<10 µg/kg	TM089		<10 4 @	<10 4 @	<10 4 @	10.4 4 @	<10 @	<10 @
Aromatics >EC7-EC8	<10 µg/kg	TM089		<10 4 @	<10 4 @	<10 4 @	12.8 4 @	<10 @	<10 @
Aromatics >EC8-EC10	<10 µg/kg	TM089		28.5 4 @	39.1 4 @	22.6 4 @	38.3 4 @	<10 @	<10 @
Aromatics > EC10-EC12	<1000 µg/kg	TM414		6950	3220	2930	5320	<1000	<1000
Aromatics > EC12-EC16	<1000 µg/kg	TM414		12400	6410	4840	8680	<1000	<1000
Aromatics > EC16-EC21	<1000 µg/kg	TM414		49900	31000	23200	39900	<1000	<1000
Aromatics > EC21-EC35	<1000 µg/kg	TM414		109000	91100	64500	97600	8390	<1000
Aromatics >EC35-EC44	<1000 µg/kg	TM414		14900	11200	8900	11600	<1000	<1000
Aromatics > EC40-EC44	<1000 µg/kg	TM414		1520	1440	<1000	1950	<1000	<1000
Total Aromatics > EC10-EC44	<5000 µg/kg	TM414		193000	143000	104000	163000	9480	<5000
Total Aliphatics & Aromatics >C5-C44	<10000 µg/kg	TM414		302000	208000	169000	242000	32100	<10000
Total Aliphatics >C5-C10	<50 µg/kg	TM089		95.8 4 @	124 4 @	65.5 4 @	121 4 @	<50 @	<50 @
Total Aromatics >EC5-EC10	<50 µg/kg	TM089		<50 4 @	<50 4 @	<50 4 @	61.5 4 @	<50 @	<50 @
GRO >C5-C10	<20 µg/kg	TM089		95.8 4 @	124 4 @	65.5 4 @	182 4 @	<20 @	<20 @

CERTIFICATE OF ANALYSIS

SDG:	201212-45	**Client Reference:**	P18-669	**Report Number:**	583536
Location:	Llanwern	**Order Number:**		**Superseded Report:**	582539

TPH CWG (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	N33-1	N33-2				
			Depth (m)	0.30 - 0.30	1.60 - 1.60				
			Sample Type	Soil/Solid (S)	Soil/Solid (S)				
			Date Sampled	10/12/2020	10/12/2020				
			Sample Time	.	.				
			Date Received	12/12/2020	12/12/2020				
			SDG Ref	201212-45	201212-45				
			Lab Sample No.(s)	23419678	23419744				
			AGS Reference						
GRO Surrogate % recovery**	%	TM089		74 @	94.9 @				
Aliphatics >C5-C6	<10 µg/kg	TM089		<10 @	<10 @				
Aliphatics >C6-C8	<10 µg/kg	TM089		11.1 @	<10 @				
Aliphatics >C8-C10	<10 µg/kg	TM089		16.7 @	<10 @				
Aliphatics >C10-C12	<1000 µg/kg	TM414		<1000	<1000				
Aliphatics >C12-C16	<1000 µg/kg	TM414		3150	<1000				
Aliphatics >C16-C21	<1000 µg/kg	TM414		11500	<1000				
Aliphatics >C21-C35	<1000 µg/kg	TM414		67700	7910				
Aliphatics >C35-C44	<1000 µg/kg	TM414		37100	2030				
Total Aliphatics >C10-C44	<5000 µg/kg	TM414		120000	9940				
Total Aliphatics & Aromatics >C10-C44	<10000 µg/kg	TM414		160000	14500				
Aromatics >EC5-EC7	<10 µg/kg	TM089		<10 @	<10 @				
Aromatics >EC7-EC8	<10 µg/kg	TM089		<10 @	<10 @				
Aromatics >EC8-EC10	<10 µg/kg	TM089		11.1 @	<10 @				
Aromatics > EC10-EC12	<1000 µg/kg	TM414		<1000	<1000				
Aromatics > EC12-EC16	<1000 µg/kg	TM414		1730	<1000				
Aromatics > EC16-EC21	<1000 µg/kg	TM414		6440	<1000				
Aromatics > EC21-EC35	<1000 µg/kg	TM414		28700	3440				
Aromatics >EC35-EC44	<1000 µg/kg	TM414		3740	<1000				
Aromatics > EC40-EC44	<1000 µg/kg	TM414		<1000	<1000				
Total Aromatics > EC10-EC44	<5000 µg/kg	TM414		40900	<5000				
Total Aliphatics & Aromatics >C5-C44	<10000 µg/kg	TM414		160000	<10000				
Total Aliphatics >C5-C10	<50 µg/kg	TM089		<50 @	<50 @				
Total Aromatics >EC5-EC10	<50 µg/kg	TM089		<50 @	<50 @				
GRO >C5-C10	<20 µg/kg	TM089		<20 @	<20 @				

Validated

CERTIFICATE OF ANALYSIS

SDG:	201212-45	**Client Reference:**	P18-669	**Report Number:**	583536
Location:	Llanwern	**Order Number:**		**Superseded Report:**	582539

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	2BSE-1	2BSE-2	2BSE-3	2BSE-4	2BSE-5	2BSE-6
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	10/12/2020	10/12/2020	10/12/2020	10/12/2020	10/12/2020	11/12/2020
			Sample Time	.	.	.	.	.	.
			Date Received	12/12/2020	12/12/2020	12/12/2020	12/12/2020	12/12/2020	12/12/2020
			SDG Ref	201212-45	201212-45	201212-45	201212-45	201212-45	201212-45
			Lab Sample No.(s)	23419848	23419856	23419865	23419873	23419881	23419682
			AGS Reference						
Dibromofluoromethane**	%	TM116		102 @	93.2 @	102 @	103 @	106 @	98.9 @
Toluene-d8**	%	TM116		93.6 @	86.1 @	101 @	90.4 @	88.9 @	91.9 @
4-Bromofluorobenzene**	%	TM116		94.4 @	76.2 @	95.7 @	87.9 @	86.7 @	88.3 @
Methyl Tertiary Butyl Ether	<10 µg/kg	TM116		<200 @ M	<200 @ M	<2000 @ M	<200 @ #	<200 @ M	<200 @ M
Benzene	<9 µg/kg	TM116		<180 @ M	<180 @ M	<1800 @ M	<180 @ #	<180 @ M	<180 @ M
Toluene	<7 µg/kg	TM116		<140 @ M	<140 @ M	<1400 @ M	<140 @ #	<140 @ M	<140 @ M
Ethylbenzene	<4 µg/kg	TM116		<80 @ M	<80 @ M	<800 @ M	<80 @ #	<80 @ M	<80 @ M
p/m-Xylene	<10 µg/kg	TM116		<200 @ #	<200 @ #	<2000 @ #	<200 @ #	<200 @ #	<200 @ #
o-Xylene	<10 µg/kg	TM116		<200 @ M	<200 @ M	<2000 @ M	<200 @ #	<200 @ M	<200 @ M
Naphthalene	<13 µg/kg	TM116		468 M	<260 M	429 M	306 #	2730 M	<260 M
Sum of Detected Xylenes	<0.02 mg/kg	TM116		<0.4 @	<0.4 @	<4 @	<0.4 @	<0.4 @	<0.4 @
Sum of BTEX	<40 µg/kg	TM116		<800 @	<800 @	<8000 @	<800 @	<800 @	<800 @

Validated

CERTIFICATE OF ANALYSIS

SDG:	201212-45	**Client Reference:**	P18-669	**Report Number:**	583536
Location:	Llanwern	**Order Number:**		**Superseded Report:**	582539

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	2BSE-7	2BSE-8	2BSE-9	2BSE-10	2BSE-11	2BSE-12
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	11/12/2020	11/12/2020	11/12/2020	11/12/2020	11/12/2020	11/12/2020
			Sample Time	.	.	.	.	.	.
			Date Received	12/12/2020	12/12/2020	12/12/2020	12/12/2020	12/12/2020	12/12/2020
			SDG Ref	201212-45	201212-45	201212-45	201212-45	201212-45	201212-45
			Lab Sample No.(s)	23419690	23419695	23419701	23419706	23419712	23419718
			AGS Reference						
Dibromofluoromethane**	%	TM116		94 @	92.8 @	97.4 @	95.7 @	95.5 @	93.1 @
Toluene-d8**	%	TM116		90.4 @	86.1 @	88 @	97.6 @	95.1 @	91.2 @
4-Bromofluorobenzene**	%	TM116		76.2 @	77.5 @	73.7 @	83.5 @	79.5 @	85.4 @
Methyl Tertiary Butyl Ether	<10 µg/kg	TM116		<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M
Benzene	<9 µg/kg	TM116		<180 @ M	<180 @ M	<180 @ M	<180 @ M	<180 @ M	<180 @ M
Toluene	<7 µg/kg	TM116		<140 @ M	<140 @ M	<140 @ M	<140 @ M	<140 @ M	<140 @ M
Ethylbenzene	<4 µg/kg	TM116		<80 @ M	<80 @ M	<80 @ M	<80 @ M	<80 @ M	<80 @ M
p/m-Xylene	<10 µg/kg	TM116		<200 @ #	<200 @ #	<200 @ #	<200 @ #	<200 @ #	<200 @ #
o-Xylene	<10 µg/kg	TM116		<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M
Naphthalene	<13 µg/kg	TM116		394 M	<260 M	342 M	499 M	<260 M	516 M
Sum of Detected Xylenes	<0.02 mg/kg	TM116		<0.4 @	<0.4 @	<0.4 @	<0.4 @	<0.4 @	<0.4 @
Sum of BTEX	<40 µg/kg	TM116		<800 @	<800 @	<800 @	<800 @	<800 @	<800 @

Validated

CERTIFICATE OF ANALYSIS

SDG:	201212-45	**Client Reference:**	P18-669	**Report Number:**	583536
Location:	Llanwern	**Order Number:**		**Superseded Report:**	582539

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	2BSE-13	2BSE-14	2BSE-22	2BSE-23	2BSE-24	2BSE-25
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	11/12/2020	11/12/2020	11/12/2020	11/12/2020	11/12/2020	11/12/2020
			Sample Time	.	.	.	.	.	.
			Date Received	12/12/2020	12/12/2020	12/12/2020	12/12/2020	12/12/2020	12/12/2020
			SDG Ref	201212-45	201212-45	201212-45	201212-45	201212-45	201212-45
			Lab Sample No.(s)	23419728	23419733	23419739	23419751	23419758	23419763
			AGS Reference						
Dibromofluoromethane**	%	TM116		98.2 @	94 @	105 @	94.8 @	96 @	109 @
Toluene-d8**	%	TM116		90.7 @	91.3 @	93.1 @	92.3 @	91.4 @	91.8 @
4-Bromofluorobenzene**	%	TM116		83 @	83.2 @	83.4 @	80.1 @	80.8 @	90.9 @
Methyl Tertiary Butyl Ether	<10 µg/kg	TM116		<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M
Benzene	<9 µg/kg	TM116		<180 @ M	<180 @ M	<180 @ M	<180 @ M	<180 @ M	<180 @ M
Toluene	<7 µg/kg	TM116		<140 @ M	<140 @ M	<140 @ M	<140 @ M	<140 @ M	<140 @ M
Ethylbenzene	<4 µg/kg	TM116		<80 @ M	<80 @ M	<80 @ M	<80 @ M	<80 @ M	<80 @ M
p/m-Xylene	<10 µg/kg	TM116		<200 @ #	<200 @ #	<200 @ #	<200 @ #	<200 @ #	<200 @ #
o-Xylene	<10 µg/kg	TM116		<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M
Naphthalene	<13 µg/kg	TM116		555 M	486 M	236 M	480 M	<260 M	1280 M
Sum of Detected Xylenes	<0.02 mg/kg	TM116		<0.4 @	<0.4 @	<0.4 @	<0.4 @	<0.4 @	<0.4 @
Sum of BTEX	<40 µg/kg	TM116		<800 @	<800 @	<800 @	<800 @	<800 @	<800 @

Validated

CERTIFICATE OF ANALYSIS

SDG:	201212-45	**Client Reference:**	P18-669	**Report Number:**	583536
Location:	Llanwern	**Order Number:**		**Superseded Report:**	582539

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	2BSE-26	2BSE-27	2BSE-28	2BSE-29	2BSE-30	2BSE-31
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	11/12/2020	11/12/2020	11/12/2020	11/12/2020	11/12/2020	11/12/2020
			Sample Time	.	.	.	.	.	.
			Date Received	12/12/2020	12/12/2020	12/12/2020	12/12/2020	12/12/2020	12/12/2020
			SDG Ref	201212-45	201212-45	201212-45	201212-45	201212-45	201212-45
			Lab Sample No.(s)	23419769	23419775	23419781	23419786	23419792	23419798
			AGS Reference						
Dibromofluoromethane**	%	TM116		99.3 @	94.4 @	96.5 @	103 @	91.6 @	94.8 @
Toluene-d8**	%	TM116		88.4 @	89.5 @	87.9 @	101 @	95.7 @	92.3 @
4-Bromofluorobenzene**	%	TM116		81.8 @	82.2 @	78.1 @	94.3 @	78.4 @	83.4 @
Methyl Tertiary Butyl Ether	<10 µg/kg	TM116		<200 @ M	<200 @ M	<200 @ M	<2000 @ M	<200 @ M	<200 @ M
Benzene	<9 µg/kg	TM116		<180 @ M	<180 @ M	<180 @ M	<1800 @ M	<180 @ M	<180 @ M
Toluene	<7 µg/kg	TM116		<140 @ M	<140 @ M	<140 @ M	<1400 @ M	<140 @ M	<140 @ M
Ethylbenzene	<4 µg/kg	TM116		<80 @ M	<80 @ M	<80 @ M	<800 @ M	<80 @ M	<80 @ M
p/m-Xylene	<10 µg/kg	TM116		<200 @ #	<200 @ #	<200 @ #	<2000 @ #	<200 @ #	<200 @ #
o-Xylene	<10 µg/kg	TM116		<200 @ M	<200 @ M	<200 @ M	<2000 @ M	<200 @ M	<200 @ M
Naphthalene	<13 µg/kg	TM116		594 M	577 M	783 M	511 M	422 M	<260 M
Sum of Detected Xylenes	<0.02 mg/kg	TM116		<0.4 @	<0.4 @	<0.4 @	<4 @	<0.4 @	<0.4 @
Sum of BTEX	<40 µg/kg	TM116		<800 @	<800 @	<800 @	<8000 @	<800 @	<800 @

Validated

CERTIFICATE OF ANALYSIS

SDG:	201212-45	**Client Reference:**	P18-669	**Report Number:**	583536
Location:	Llanwern	**Order Number:**		**Superseded Report:**	582539

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	2BSE-32	2BSE-33	2BSE-34	2BSE-35	M33-1	M33-2
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.50 - 0.50	1.40 - 1.40
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	11/12/2020	11/12/2020	11/12/2020	11/12/2020	10/12/2020	10/12/2020
			Sample Time	.	.	.	.	.	.
			Date Received	12/12/2020	12/12/2020	12/12/2020	12/12/2020	12/12/2020	12/12/2020
			SDG Ref	201212-45	201212-45	201212-45	201212-45	201212-45	201212-45
			Lab Sample No.(s)	23419803	23419821	23419826	23419833	23419813	23419841
			AGS Reference						
Dibromofluoromethane**	%	TM116		94.5 @	95.7 @	97.2 @	104 @	102 @	91.9 @
Toluene-d8**	%	TM116		88.3 @	88 @	88.6 @	94.5 @	93.6 @	95.8 @
4-Bromofluorobenzene**	%	TM116		78.4 @	80.6 @	78.9 @	90.9 @	88.8 @	100 @
Methyl Tertiary Butyl Ether	<10 µg/kg	TM116		<200 @ M	<200 @ M	<200 @ M	<200 @ M	<10 @ M	<200 @ M
Benzene	<9 µg/kg	TM116		<180 @ M	<180 @ M	<180 @ M	<180 @ M	<9 @ M	<180 @ M
Toluene	<7 µg/kg	TM116		<140 @ M	<140 @ M	<140 @ M	<140 @ M	<7 @ M	<140 @ M
Ethylbenzene	<4 µg/kg	TM116		<80 @ M	<80 @ M	<80 @ M	<80 @ M	<4 @ M	<80 @ M
p/m-Xylene	<10 µg/kg	TM116		<200 @ #	<200 @ #	<200 @ #	<200 @ #	<10 @ #	<200 @ #
o-Xylene	<10 µg/kg	TM116		<200 @ M	<200 @ M	<200 @ M	<200 @ M	<10 @ M	<200 @ M
Naphthalene	<13 µg/kg	TM116		564 M	2330 M	533 M	389 M	<13 M	<13 M
Sum of Detected Xylenes	<0.02 mg/kg	TM116		<0.4 @	<0.4 @	<0.4 @	<0.4 @	<0.02 @	<0.4 @
Sum of BTEX	<40 µg/kg	TM116		<800 @	<800 @	<800 @	<800 @	<40 @	<800 @

CERTIFICATE OF ANALYSIS

SDG:	201212-45	**Client Reference:**	P18-669	**Report Number:**	583536
Location:	Llanwern	**Order Number:**		**Superseded Report:**	582539

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	N33-1	N33-2
			Depth (m)	0.30 - 0.30	1.60 - 1.60
			Sample Type	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	10/12/2020	10/12/2020
			Sample Time	.	.
			Date Received	12/12/2020	12/12/2020
			SDG Ref	201212-45	201212-45
			Lab Sample No.(s)	23419678	23419744
			AGS Reference		
Dibromofluoromethane**	%	TM116		82 @	108 @
Toluene-d8**	%	TM116		84.5 @	96.2 @
4-Bromofluorobenzene**	%	TM116		74.3 @	104 @
Methyl Tertiary Butyl Ether	<10 µg/kg	TM116		<10 @ M	<10 @ M
Benzene	<9 µg/kg	TM116		<9 @ M	<9 @ M
Toluene	<7 µg/kg	TM116		<7 @ M	<7 @ M
Ethylbenzene	<4 µg/kg	TM116		<4 @ M	<4 @ M
p/m-Xylene	<10 µg/kg	TM116		<10 @ #	<10 @ #
o-Xylene	<10 µg/kg	TM116		<10 @ M	<10 @ M
Naphthalene	<13 µg/kg	TM116		34 M	<13 M
Sum of Detected Xylenes	<0.02 mg/kg	TM116		<0.02 @	<0.02 @
Sum of BTEX	<40 µg/kg	TM116		<40 @	<40 @

CERTIFICATE OF ANALYSIS

SDG:	201212-45	**Client Reference:**	P18-669	**Report Number:**	583536
Location:	Llanwern	**Order Number:**		**Superseded Report:**	582539

Asbestos Identification - Solid Samples

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
*	Subcontracted test.
(F)	Trigger breach confirmed
1-5&+$@	Sample deviation (see appendix)

		Date of Analysis	Analysed By	Comments	Amosite (Brown) Asbestos	Chrysotile (White) Asbestos	Crocidolite (Blue) Asbestos	Fibrous Actinolite	Fibrous Anthophyllite	Fibrous Tremolite	Non-Asbestos Fibre
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	2BSE-1 0.00 - 0.00 SOLID 10/12/2020 00:00:00 12/12/2020 09:00:00 201212-45 23419848 TM048	21/12/2020	Marcin Magdziarek	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	2BSE-3 0.00 - 0.00 SOLID 10/12/2020 00:00:00 12/12/2020 09:00:00 201212-45 23419865 TM048	21/12/20	Andrzej Ferfecki	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	2BSE-5 0.00 - 0.00 SOLID 10/12/2020 00:00:00 12/12/2020 09:00:00 201212-45 23419881 TM048	21/12/2020	Agnieszka Chelmowska	Loose fibres in soil	Not Detected (#)	Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	2BSE-7 0.00 - 0.00 SOLID 11/12/2020 00:00:00 12/12/2020 09:00:00 201212-45 23419690 TM048	21/12/2020	Agnieszka Chelmowska	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	2BSE-9 0.00 - 0.00 SOLID 11/12/2020 00:00:00 12/12/2020 09:00:00 201212-45 23419701 TM048	21/12/20	Andrzej Ferfecki	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	2BSE-11 0.00 - 0.00 SOLID 11/12/2020 00:00:00 12/12/2020 09:00:00 201212-45 23419712 TM048	21/12/2020	Marcin Magdziarek	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	2BSE-13 0.00 - 0.00 SOLID 11/12/2020 00:00:00 12/12/2020 09:00:00 201212-45 23419728 TM048	21/12/20	Andrzej Ferfecki	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	2BSE-22 0.00 - 0.00 SOLID 11/12/2020 00:00:00 12/12/2020 09:00:00 201212-45 23419739 TM048	21/12/20	Andrzej Ferfecki	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected

CERTIFICATE OF ANALYSIS

SDG:	201212-45	**Client Reference:**	P18-669	**Report Number:**	583536
Location:	Llanwern	**Order Number:**		**Superseded Report:**	582539

		Date of Analysis	Analysed By	Comments	Amosite (Brown) Asbestos	Chrysotile (White) Asbestos	Crocidolite (Blue) Asbestos	Fibrous Actinolite	Fibrous Anthophyllite	Fibrous Tremolite	Non-Asbestos Fibre
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	2BSE-24 0.00 - 0.00 SOLID 11/12/2020 00:00:00 12/12/2020 09:00:00 201212-45 23419758 TM048	21/12/2020	Agnieszka Chelmowska	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	2BSE-26 0.00 - 0.00 SOLID 11/12/2020 00:00:00 12/12/2020 09:00:00 201212-45 23419769 TM048	21/12/20	Andrzej Ferfecki	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	2BSE-28 0.00 - 0.00 SOLID 11/12/2020 00:00:00 12/12/2020 09:00:00 201212-45 23419781 TM048	21/12/20	Andrzej Ferfecki	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	2BSE-30 0.00 - 0.00 SOLID 11/12/2020 00:00:00 12/12/2020 09:00:00 201212-45 23419792 TM048	21/12/20	Andrzej Ferfecki	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	2BSE-32 0.00 - 0.00 SOLID 11/12/2020 00:00:00 12/12/2020 09:00:00 201212-45 23419803 TM048	21/12/2020	Marcin Magdziarek	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	2BSE-34 0.00 - 0.00 SOLID 11/12/2020 00:00:00 12/12/2020 09:00:00 201212-45 23419826 TM048	21/12/20	Andrzej Ferfecki	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	M33-1 0.50 - 0.50 SOLID 10/12/2020 00:00:00 12/12/2020 09:00:00 201212-45 23419813 TM048	21/12/2020	Marcin Magdziarek	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	N33-1 0.30 - 0.30 SOLID 10/12/2020 00:00:00 12/12/2020 09:00:00 201212-45 23419678 TM048	21/12/2020	Marcin Magdziarek	Loose fibres in soil	Not Detected (#)	Not Detected (#)	Trace (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected

CERTIFICATE OF ANALYSIS

SDG:	201212-45	**Client Reference:**	P18-669	**Report Number:**	583536
Location:	Llanwern	**Order Number:**		**Superseded Report:**	582539

Asbestos Quantification - Full

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
*	Subcontracted test.
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

		Additional Asbestos Components	Analysts Comments	Asbestos Quantification - Gravimetric - %	Asbestos Quantification - PCOM	Asbestos Quantification - Total - %
Cust. Sample Ref.	2BSE-5	None (#)	N/A	<0.001 (#)	<0.001 (#)	<0.001 (#)
Depth (m)	0.00 - 0.00					
Sample Type	SOLID					
Date Sampled	10/12/2020 00:00:00					
Date Received	12/12/2020 09:00:00					
SDG	201212-45					
Original Sample	23419881					
Method Number	TM304					
Cust. Sample Ref.	N33-1	None (#)	N/A	<0.001 (#)	<0.001 (#)	<0.001 (#)
Depth (m)	0.30 - 0.30					
Sample Type	SOLID					
Date Sampled	10/12/2020 00:00:00					
Date Received	12/12/2020 09:00:00					
SDG	201212-45					
Original Sample	23419678					
Method Number	TM304					

Table of Results - Appendix

Method No	Reference	Description
PM024	Modified BS 1377	Soil preparation including homogenisation, moisture screens of soils for Asbestos Containing Material
SUB		Subcontracted Test
TM024	Method 4500A & B, AWWA/APHA, 20th Ed., 1999	Determination of Exchangeable Ammonium and Ammoniacal Nitrogen as N by titration on solids
TM048	HSG 248, Asbestos: The analysts' guide for sampling, analysis and clearance procedures	Identification of Asbestos in Bulk Material
TM062 (S)	National Grid Property Holdings Methods for the Collection & Analysis of Samples from National Grid Sites version 1 Sec 3.9	Determination of Phenols in Soils by HPLC
TM089	Modified: US EPA Methods 8020 & 602	Determination of Gasoline Range Hydrocarbons (GRO) by Headspace GC-FID (C4-C12)
TM116	Modified: US EPA Method 8260, 8120, 8020, 624, 610 & 602	Determination of Volatile Organic Compounds by Headspace / GC-MS
TM132	In - house Method	ELTRA CS800 Operators Guide
TM133	BS 1377: Part 3 1990;BS 6068-2.5	Determination of pH in Soil and Water using the GLpH pH Meter
TM153	Method 4500A,B,C, I, M AWWA/APHA, 20th Ed., 1999	Determination of Total Cyanide, Free (Easily Liberatable) Cyanide and Thiocyanate using the Skalar SANS+ System Segmented Flow Analyser
TM181	US EPA Method 6010B	Determination of Routine Metals in Soil by iCap 6500 Duo ICP-OES
TM218	Shaker extraction - EPA method 3546.	The determination of PAH in soil samples by GC-MS
TM304	HSE Contract research Report no 83/1996	Asbestos Quantification in Soil: Fibres identified by morphology only
TM414	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	Determination of Speciated Extractable Petroleum Hydrocarbons in Soils by GCxGC-FID

NA = not applicable.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden (Method codes TM) or ALS Life Sciences Ltd Aberdeen (Method codes S).

CERTIFICATE OF ANALYSIS

SDG:	201212-45	**Client Reference:**	P18-669	**Report Number:**	583536
Location:	Llanwern	**Order Number:**		**Superseded Report:**	582539

Test Completion Dates

Lab Sample No(s)	23419848	23419856	23419865	23419873	23419881	23419682	23419690	23419695	23419701	23419706
Customer Sample Ref.	2BSE-1	2BSE-2	2BSE-3	2BSE-4	2BSE-5	2BSE-6	2BSE-7	2BSE-8	2BSE-9	2BSE-10
AGS Ref.										
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
Ammonium Soil by Titration	21-Dec-2020	21-Dec-2020	21-Dec-2020	21-Dec-2020	21-Dec-2020	21-Dec-2020	21-Dec-2020	21-Dec-2020	21-Dec-2020	21-Dec-2020
Asbestos ID in Solid Samples	21-Dec-2020		21-Dec-2020		21-Dec-2020		21-Dec-2020		21-Dec-2020	
Asbestos Quantification - Full					30-Dec-2020					
Calorific Value (S)*	30-Dec-2020	30-Dec-2020	30-Dec-2020	29-Dec-2020	30-Dec-2020	29-Dec-2020	29-Dec-2020	29-Dec-2020	29-Dec-2020	29-Dec-2020
Cyanide Comp/Free/Total/Thiocyanate	17-Dec-2020	17-Dec-2020	17-Dec-2020	17-Dec-2020	17-Dec-2020	17-Dec-2020	17-Dec-2020	17-Dec-2020	17-Dec-2020	17-Dec-2020
EPH CWG GC (S)	15-Jan-2021	08-Jan-2021	08-Jan-2021	08-Jan-2021	08-Jan-2021	13-Jan-2021	08-Jan-2021	14-Jan-2021	08-Jan-2021	15-Jan-2021
GRO by GC-FID (S)	11-Jan-2021	11-Jan-2021	11-Jan-2021	11-Jan-2021	11-Jan-2021	11-Jan-2021	19-Jan-2021	11-Jan-2021	19-Jan-2021	11-Jan-2021
Metals in solid samples by OES	21-Dec-2020	21-Dec-2020	21-Dec-2020	21-Dec-2020	18-Dec-2020	21-Dec-2020	21-Dec-2020	21-Dec-2020	21-Dec-2020	18-Dec-2020
PAH by GCMS	17-Dec-2020	17-Dec-2020	17-Dec-2020	17-Dec-2020	17-Dec-2020	17-Dec-2020	17-Dec-2020	17-Dec-2020	17-Dec-2020	17-Dec-2020
pH	18-Dec-2020	16-Dec-2020	18-Dec-2020	16-Dec-2020	18-Dec-2020	16-Dec-2020	16-Dec-2020	16-Dec-2020	16-Dec-2020	16-Dec-2020
Phenols by HPLC (S)	17-Dec-2020	20-Dec-2020	18-Dec-2020	18-Dec-2020	17-Dec-2020	18-Dec-2020	18-Dec-2020	17-Dec-2020	17-Dec-2020	18-Dec-2020
Sample description	14-Dec-2020	14-Dec-2020	14-Dec-2020	12-Dec-2020	14-Dec-2020	12-Dec-2020	12-Dec-2020	12-Dec-2020	12-Dec-2020	12-Dec-2020
Total Organic Carbon	21-Dec-2020	22-Dec-2020	21-Dec-2020	18-Dec-2020	21-Dec-2020	18-Dec-2020	21-Dec-2020	18-Dec-2020	21-Dec-2020	21-Dec-2020
TPH CWG GC (S)	15-Jan-2021	11-Jan-2021	11-Jan-2021	11-Jan-2021	11-Jan-2021	13-Jan-2021	19-Jan-2021	14-Jan-2021	19-Jan-2021	15-Jan-2021
VOC MS (S)	08-Jan-2021	08-Jan-2021	11-Jan-2021	08-Jan-2021	08-Jan-2021	08-Jan-2021	18-Jan-2021	08-Jan-2021	18-Jan-2021	11-Jan-2021

Lab Sample No(s)	23419712	23419718	23419728	23419733	23419739	23419751	23419758	23419763	23419769	23419775
Customer Sample Ref.	2BSE-11	2BSE-12	2BSE-13	2BSE-14	2BSE-22	2BSE-23	2BSE-24	2BSE-25	2BSE-26	2BSE-27
AGS Ref.										
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
Ammonium Soil by Titration	21-Dec-2020	21-Dec-2020	21-Dec-2020	21-Dec-2020	21-Dec-2020	21-Dec-2020	21-Dec-2020	21-Dec-2020	21-Dec-2020	21-Dec-2020
Asbestos ID in Solid Samples	21-Dec-2020		21-Dec-2020		21-Dec-2020		21-Dec-2020		21-Dec-2020	
Calorific Value (S)*	29-Dec-2020	30-Dec-2020	29-Dec-2020							
Cyanide Comp/Free/Total/Thiocyanate	17-Dec-2020	17-Dec-2020	17-Dec-2020	17-Dec-2020	17-Dec-2020	17-Dec-2020	16-Dec-2020	16-Dec-2020	17-Dec-2020	16-Dec-2020
EPH CWG GC (S)	08-Jan-2021	13-Jan-2021	14-Jan-2021	08-Jan-2021	13-Jan-2021	14-Jan-2021	13-Jan-2021	13-Jan-2021	13-Jan-2021	11-Jan-2021
GRO by GC-FID (S)	11-Jan-2021	11-Jan-2021	11-Jan-2021	11-Jan-2021	11-Jan-2021	11-Jan-2021	11-Jan-2021	11-Jan-2021	11-Jan-2021	11-Jan-2021
Metals in solid samples by OES	21-Dec-2020	17-Dec-2020	21-Dec-2020	21-Dec-2020	18-Dec-2020	21-Dec-2020	18-Dec-2020	21-Dec-2020	17-Dec-2020	21-Dec-2020
PAH by GCMS	17-Dec-2020	17-Dec-2020	17-Dec-2020	17-Dec-2020	17-Dec-2020	17-Dec-2020	17-Dec-2020	17-Dec-2020	17-Dec-2020	17-Dec-2020
pH	16-Dec-2020	16-Dec-2020	16-Dec-2020	16-Dec-2020	16-Dec-2020	16-Dec-2020	18-Dec-2020	16-Dec-2020	16-Dec-2020	16-Dec-2020
Phenols by HPLC (S)	17-Dec-2020	17-Dec-2020	17-Dec-2020	17-Dec-2020	18-Dec-2020	18-Dec-2020	17-Dec-2020	17-Dec-2020	17-Dec-2020	18-Dec-2020
Sample description	12-Dec-2020	12-Dec-2020	12-Dec-2020	12-Dec-2020	14-Dec-2020	14-Dec-2020	14-Dec-2020	14-Dec-2020	14-Dec-2020	14-Dec-2020
Total Organic Carbon	22-Dec-2020	18-Dec-2020	21-Dec-2020	22-Dec-2020	18-Dec-2020	21-Dec-2020	21-Dec-2020	21-Dec-2020	21-Dec-2020	18-Dec-2020
TPH CWG GC (S)	11-Jan-2021	13-Jan-2021	14-Jan-2021	11-Jan-2021	13-Jan-2021	14-Jan-2021	13-Jan-2021	13-Jan-2021	13-Jan-2021	11-Jan-2021
VOC MS (S)	11-Jan-2021	08-Jan-2021	08-Jan-2021	08-Jan-2021	08-Jan-2021	08-Jan-2021	08-Jan-2021	08-Jan-2021	08-Jan-2021	08-Jan-2021

Lab Sample No(s)	23419781	23419786	23419792	23419798	23419803	23419821	23419826	23419833	23419813	23419841
Customer Sample Ref.	2BSE-28	2BSE-29	2BSE-30	2BSE-31	2BSE-32	2BSE-33	2BSE-34	2BSE-35	M33-1	M33-2
AGS Ref.										
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.50 - 0.50	1.40 - 1.40
Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
Ammonium Soil by Titration	21-Dec-2020	21-Dec-2020	21-Dec-2020	21-Dec-2020	21-Dec-2020	21-Dec-2020	21-Dec-2020	21-Dec-2020	21-Dec-2020	21-Dec-2020
Asbestos ID in Solid Samples	21-Dec-2020		21-Dec-2020		21-Dec-2020		21-Dec-2020		21-Dec-2020	
Cyanide Comp/Free/Total/Thiocyanate	17-Dec-2020	16-Dec-2020	16-Dec-2020	16-Dec-2020	16-Dec-2020	16-Dec-2020	17-Dec-2020	17-Dec-2020	17-Dec-2020	17-Dec-2020
EPH CWG GC (S)	13-Jan-2021	08-Jan-2021	08-Jan-2021	08-Jan-2021	13-Jan-2021	08-Jan-2021	13-Jan-2021	14-Jan-2021	08-Jan-2021	08-Jan-2021
GRO by GC-FID (S)	11-Jan-2021	11-Jan-2021	11-Jan-2021	11-Jan-2021	11-Jan-2021	11-Jan-2021	11-Jan-2021	11-Jan-2021	07-Jan-2021	07-Jan-2021
Metals in solid samples by OES	18-Dec-2020	21-Dec-2020	18-Dec-2020	18-Dec-2020	18-Dec-2020	21-Dec-2020	21-Dec-2020	21-Dec-2020	18-Dec-2020	21-Dec-2020
PAH by GCMS	17-Dec-2020	17-Dec-2020	17-Dec-2020	21-Dec-2020	17-Dec-2020	17-Dec-2020	17-Dec-2020	17-Dec-2020	17-Dec-2020	17-Dec-2020
pH	18-Dec-2020	16-Dec-2020	18-Dec-2020	16-Dec-2020	18-Dec-2020	16-Dec-2020	16-Dec-2020	16-Dec-2020	18-Dec-2020	16-Dec-2020
Phenols by HPLC (S)	18-Dec-2020	17-Dec-2020	18-Dec-2020	18-Dec-2020	18-Dec-2020	17-Dec-2020	18-Dec-2020	17-Dec-2020	17-Dec-2020	17-Dec-2020
Sample description	14-Dec-2020	14-Dec-2020	14-Dec-2020	14-Dec-2020	14-Dec-2020	14-Dec-2020	12-Dec-2020	12-Dec-2020	14-Dec-2020	14-Dec-2020
Total Organic Carbon	21-Dec-2020	18-Dec-2020	21-Dec-2020	21-Dec-2020	18-Dec-2020	18-Dec-2020	22-Dec-2020	18-Dec-2020	21-Dec-2020	21-Dec-2020
TPH CWG GC (S)	13-Jan-2021	11-Jan-2021	11-Jan-2021	11-Jan-2021	13-Jan-2021	11-Jan-2021	13-Jan-2021	14-Jan-2021	08-Jan-2021	08-Jan-2021
VOC MS (S)	08-Jan-2021	11-Jan-2021	11-Jan-2021	08-Jan-2021	08-Jan-2021	08-Jan-2021	08-Jan-2021	08-Jan-2021	08-Jan-2021	08-Jan-2021

Validated

CERTIFICATE OF ANALYSIS

SDG:	201212-45	**Client Reference:**	P18-669	**Report Number:**	583536
Location:	Llanwern	**Order Number:**		**Superseded Report:**	582539

Lab Sample No(s)	23419678	23419744
Customer Sample Ref.	N33-1	N33-2
AGS Ref.		
Depth	0.30 - 0.30	1.60 - 1.60
Type	Soil/Solid (S)	Soil/Solid (S)
Ammonium Soil by Titration	21-Dec-2020	18-Dec-2020
Asbestos ID in Solid Samples	21-Dec-2020	
Asbestos Quantification - Full	30-Dec-2020	
Cyanide Comp/Free/Total/Thiocyanate	17-Dec-2020	16-Dec-2020
EPH CWG GC (S)	08-Jan-2021	13-Jan-2021
GRO by GC-FID (S)	07-Jan-2021	07-Jan-2021
Metals in solid samples by OES	21-Dec-2020	18-Dec-2020
PAH by GCMS	17-Dec-2020	17-Dec-2020
pH	16-Dec-2020	16-Dec-2020
Phenols by HPLC (S)	18-Dec-2020	17-Dec-2020
Sample description	14-Dec-2020	14-Dec-2020
Total Organic Carbon	21-Dec-2020	21-Dec-2020
TPH CWG GC (S)	08-Jan-2021	13-Jan-2021
VOC MS (S)	06-Jan-2021	06-Jan-2021

CERTIFICATE OF ANALYSIS

Work Order	: **PR20C4943**	Issue Date	: 30-Dec-2020
Customer	: **ALS Life Sciences Ltd**	Laboratory	: ALS Czech Republic, s.r.o.
Contact	: ALS Hawarden Reporting	Contact	: Client Service
Address	: Unit 7-8 Hawarden Business Park Manor Road, Hawarden CH5 3US Deeside United Kingdom	Address	: Na Harfe 336/9 Prague 9 - Vysocany 190 00 Czech Republic
E-mail	: euhdnsubconresults@ALSGlobal.com	E-mail	: customer.support@alsglobal.com
Telephone	: ----	Telephone	: +420 226 226 228
Project	: 201212-45	Page	: 1 of 3
Order number	: ----	Date Samples Received	: 15-Dec-2020
		Quote number	: PR2018ALSAL-GB0004 (CZ-256-18-0022)
Site	: ----	Date of test	: 16-Dec-2020 - 30-Dec-2020
Sampled by	: client	QC Level	: ALS CR Standard Quality Control Schedule

General Comments

This report shall not be reproduced except in full, without prior written approval from the laboratory.

The laboratory declares that the test results relate only to the listed samples. If the section "Sampled by" of the Certificate of analysis states: "Sampled by Customer" then the results relate to the sample as received.

Responsible for accuracy

Testing Laboratory No. 1163
Accredited by CAI according to
CSN EN ISO/IEC 17025:2018

Signatories		*Position*
Zdeněk Jirák		Environmental Business Unit Manager

The company is certified according to ČSN EN ISO 14001 (Environmental management systems) and ČSN ISO 45001 (Occupational health and safety management systems)

Analytical Results

Sub-Matrix: SOIL	Client sample ID	23426503 2BSE-1		23426518 2BSE-12		23426480 2BSE-2	
	Laboratory sample ID	PR20C4943-001		PR20C4943-002		PR20C4943-003	
	Client sampling date / time	14-Dec-2020 07:35		14-Dec-2020 07:37		14-Dec-2020 07:29	

Parameter	Method	LOR	Unit	Result	MU	Result	MU	Result	MU
Physical Parameters									
Gross Calorific Value in Dry Matter Q(V/gr/d)	I-CV-CALS	0.50	MJ/kg DW	**5.04**	± 12.0%	**7.47**	± 11.0%	**5.93**	± 11.5%
Gross Calorific Value Original Q(V/gr/ar)	I-CV-CALS	0.50	MJ/kg	**4.41**	± 12.5%	**6.62**	± 11.2%	**5.32**	± 11.8%
Net Calorific Value in Dry Matter Q(V/net/d)	I-CV-CALS	0.50	MJ/kg DW	**4.68**	± 12.3%	**7.11**	± 11.0%	**5.62**	± 11.6%
Net Calorific Value Original Q(V/net/ar)	I-CV-CALS	0.50	MJ/kg	**3.80**	± 13.3%	**6.04**	± 11.4%	**4.81**	± 12.2%
Water Analytical M(ad)	I-WA-GR	0.50	%	**1.58**	± 29.1%	**1.11**	± 36.0%	**0.95**	± 40.4%
Water Gross M(ex)	I-WG-GR	0.50	%	**11.1**	± 20.2%	**10.4**	± 20.2%	**9.39**	± 20.3%
Water Total M(ar)	I-WT-CC	0.50	%	**12.5**	----	**11.4**	----	**10.2**	----

Sub-Matrix: SOIL	Client sample ID	23426494 2BSE-3		23426485 2BSE-5		----	
	Laboratory sample ID	PR20C4943-004		PR20C4943-005		----	
	Client sampling date / time	14-Dec-2020 07:33		14-Dec-2020 07:31		----	

Parameter	Method	LOR	Unit	Result	MU	Result	MU	Result	MU
Physical Parameters									
Gross Calorific Value in Dry Matter Q(V/gr/d)	I-CV-CALS	0.50	MJ/kg DW	**4.17**	± 12.8%	**1.06**	± 33.0%	**----**	----
Gross Calorific Value Original Q(V/gr/ar)	I-CV-CALS	0.50	MJ/kg	**3.56**	± 13.7%	**0.95**	± 36.4%	**----**	----
Net Calorific Value in Dry Matter Q(V/net/d)	I-CV-CALS	0.50	MJ/kg DW	**3.81**	± 13.3%	**0.78**	± 43.8%	**----**	----
Net Calorific Value Original Q(V/net/ar)	I-CV-CALS	0.50	MJ/kg	**2.91**	± 15.2%	<0.50	----	**----**	----
Water Analytical M(ad)	I-WA-GR	0.50	%	**0.92**	± 41.3%	**1.38**	± 31.4%	**----**	----
Water Gross M(ex)	I-WG-GR	0.50	%	**13.9**	± 20.1%	**8.35**	± 20.4%	**----**	----
Water Total M(ar)	I-WT-CC	0.50	%	**14.7**	----	**9.61**	----	**----**	----

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes. Measurement uncertainty is expressed as expanded measurement uncertainty with coverage factor k = 2, representing 95% confidence level.
Key: LOR = Limit of reporting; MU = Measurement Uncertainty. The MU does not include sampling uncertainty.

The end of result part of the certificate of analysis

Brief Method Summaries

Analytical Methods	Method Descriptions
Location of test performance: Bendlova 1687/7 Ceska Lipa Czech Republic 470 01	
I-CV-CALS	CZ_SOP_D06_07_124.A (CSN ISO 1928, CSN EN ISO 18125, CSN EN 15400, CSN EN 15170, CSN DIN 51900-1, CSN DIN 51900-2, CSN DIN 51900-3, CSN P CEN/TS 16023) Determination of gross calorific value by calorimetric method and calculation of net calorific value and emission factor by calculation from measured values.
I-WA-GR	CZ_SOP_D06_07_041 (CSN 44 1377, CSN EN ISO 18134-1, CSN EN ISO 18134-2, CSN EN ISO 18134-3, CSN P CEN/TS 15414-1, CSN P CEN/TS 15414-2, CSN EN 15414-3, CSN EN12880, CSN EN14346, CSN EN 15002) Determination of analytical water and gross water by gravimetry and determination of total water by calculation from measured values.
I-WG-GR	CZ_SOP_D06_07_041 (CSN 44 1377, CSN EN ISO 18134-1, CSN EN ISO 18134-2, CSN EN ISO 18134-3, CSN P CEN/TS 15414-1, CSN P CEN/TS 15414-2, CSN EN 15414-3, CSN EN12880, CSN EN14346, CSN EN 15002) Determination of analytical water and gross water by gravimetry and determination of total water by calculation from measured values.
I-WT-CC	CZ_SOP_D06_07_041 (CSN 44 1377, CSN EN ISO 18134-1, CSN EN ISO 18134-2, CSN EN ISO 18134-3, CSN P CEN/TS 15414-1, CSN P CEN/TS 15414-2, CSN EN 15414-3, CSN EN12880, CSN EN14346, CSN EN 15002) Determination of analytical water and gross water by gravimetry and determination of total water by calculation from measured values.

Preparation Methods	Method Descriptions

Preparation Methods	*Method Descriptions*
Location of test performance: Bendlova 1687/7 Ceska Lipa Czech Republic 470 01	
I-PPBURN	Sample combustion in a calorimetric bomb for fuel tests
* S-PPHOM.07	CZ_SOP_D06_07_P01 Preparation of solid samples for analysis (crushing, milling and pulverizing).
* S-PPHOM0.3	CZ_SOP_D06_07_P01 Preparation of solid samples for analysis (crushing, milling and pulverizing).

A `*` symbol preceding any method indicates laboratory or subcontractor non-accredited test. In the case when a procedure belonging to an accredited method was used for non-accredited matrix, would apply that the reported results are non-accredited. Please refer to General Comment section on front page for information. If the report contains subcontracted analysis, those are made in a subcontracted laboratory outside the laboratories ALS Czech Republic, s.r.o.
The calculation methods of summation parameters are available on request in the client service.

Appendix

General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as "mixed hydrocarbons". Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

18. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

19. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as "Not detected". If no asbestos fibre types are found all will be reported as "Not detected" and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials are obtained from supplied bulk materials which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.
Standing Committee of Analysts, *The Quantification of Asbestos in Soil (2017).*

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

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Deeside
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Rodgers Leask
Office 225
2430/2440
Aztec West
Almondsbury
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BS32 4QA

Attention: Elliot Thomas

CERTIFICATE OF ANALYSIS

Date of report Generation:	27 January 2021
Customer:	Rodgers Leask
Sample Delivery Group (SDG):	210114-156
Your Reference:	P18-669
Location:	Llanwern
Report No:	584521

This report has been revised and directly supersedes 584114 in its entirety.

We received 26 samples on Thursday January 14, 2021 and 26 of these samples were scheduled for analysis which was completed on Wednesday January 27, 2021. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden (Method codes TM) or ALS Life Sciences Ltd Aberdeen (Method codes S).

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:

Sonia McWhan

Operations Manager

CERTIFICATE OF ANALYSIS

SDG:	210114-156	**Client Reference:**	P18-669	**Report Number:**	584521
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584114

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
23544315	AR29-1		1.20 - 1.20	13/01/2021
23544309	AS29-1		1.00 - 1.00	13/01/2021
23544291	AT29-1		0.50 - 0.50	13/01/2021
23544302	AT29-2		1.10 - 1.10	13/01/2021
23544336	AU23-1		0.50 - 0.50	12/01/2021
23544341	AU23-2		1.40 - 1.40	12/01/2021
23544284	AU28-1		0.50 - 0.50	13/01/2021
23544150	AV22-1		0.50 - 0.50	12/01/2021
23544263	AV22-2		1.50 - 1.50	12/01/2021
23544346	AV23-1		0.50 - 0.50	12/01/2021
23544351	AV23-2		1.60 - 1.60	12/01/2021
23544251	AV28-1		0.30 - 0.30	13/01/2021
23544270	AV28-2		1.20 - 1.20	13/01/2021
23544277	AV28-3		2.20 - 2.20	13/01/2021
23544237	AV29-1		0.80 - 0.80	13/01/2021
23544246	AV29-2		1.70 - 1.70	13/01/2021
23544320	AW22-1		0.50 - 0.50	12/01/2021
23544325	AW22-2		1.30 - 1.30	12/01/2021
23544330	AW22-3		2.40 - 2.40	12/01/2021
23544170	AW23-1		0.60 - 0.60	12/01/2021
23544178	AW23-2		1.70 - 1.70	12/01/2021
23544190	AW26-1		0.50 - 0.50	12/01/2021
23544196	AW28-1		0.40 - 0.40	13/01/2021
23544202	AW28-2		1.40 - 1.40	13/01/2021
23544215	AW29-1		0.60 - 0.60	13/01/2021
23544221	AW29-2		1.30 - 1.30	13/01/2021

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG:	210114-156	**Client Reference:**	P18-669	**Report Number:**	584521
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584114

Results Legend

X Test

N No Determination Possible

Sample Types -

S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)			23544315		23544309		23544291		23544302		23544336		23544341		23544284		23544150		23544263		23544346
Customer Sample Reference			AR29-1		AS29-1		AT29-1		AT29-2		AU23-1		AU23-2		AU28-1		AV22-1		AV22-2		AV23-1
AGS Reference																					
Depth (m)			1.20 - 1.20		1.00 - 1.00		0.50 - 0.50		1.10 - 1.10		0.50 - 0.50		1.40 - 1.40		0.50 - 0.50		0.50 - 0.50		1.50 - 1.50		0.50 - 0.50
Container			250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)
Sample Type			S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Ammonium Soil by Titration	All	NDPs: 0 Tests: 26	X		X		X		X		X		X		X		X		X		X
Asbestos ID in Solid Samples	All	NDPs: 0 Tests: 13			X		X						X				X				
Asbestos Quantification - Full	All	NDPs: 0 Tests: 2											X								
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 26	X		X		X		X		X		X		X		X		X		X
EPH CWG GC (S)	All	NDPs: 0 Tests: 26	X		X		X		X		X		X		X		X		X		X
GRO by GC-FID (S)	All	NDPs: 0 Tests: 26		X		X		X		X		X		X		X		X		X	
Metals in solid samples by OES	All	NDPs: 0 Tests: 26	X		X		X		X		X		X		X		X		X		X
PAH by GCMS	All	NDPs: 0 Tests: 26	X		X		X		X		X		X		X		X		X		X
pH	All	NDPs: 0 Tests: 26	X		X		X		X		X		X		X		X		X		X
Phenols by HPLC (S)	All	NDPs: 0 Tests: 26	X		X		X		X		X		X		X		X		X		X
Sample description	All	NDPs: 0 Tests: 26	X		X		X		X		X		X		X		X		X		X
Total Organic Carbon	All	NDPs: 0 Tests: 26	X		X		X		X		X		X		X		X		X		X
TPH CWG GC (S)	All	NDPs: 0 Tests: 26	X		X		X		X		X		X		X		X		X		X
VOC MS (S)	All	NDPs: 0 Tests: 26		X		X		X		X		X		X		X		X		X	

23544178	AW23-2		1.70 - 1.70	250g Amber Jar (ALE210)	S	X	X		X	X		X	X	X	X	X	X	X	X				
23544170	AW23-1		0.60 - 0.60	60g VOC (ALE215)	S						X									X				
				250g Amber Jar (ALE210)	S	X			X	X		X	X	X	X	X	X	X	X					
23544330	AW22-3		2.40 - 2.40	60g VOC (ALE215)	S						X									X				
				250g Amber Jar (ALE210)	S	X	X		X	X		X	X	X	X	X	X	X	X					
23544325	AW22-2		1.30 - 1.30	60g VOC (ALE215)	S						X									X				
				250g Amber Jar (ALE210)	S	X			X	X		X	X	X	X	X	X	X	X					
23544320	AW22-1		0.50 - 0.50	250g Amber Jar (ALE210)	S	X	X		X	X	X	X	X	X	X	X	X	X	X	X				
23544246	AV29-2		1.70 - 1.70	60g VOC (ALE215)	S						X									X				
				250g Amber Jar (ALE210)	S	X			X	X		X	X	X	X	X	X	X	X					
23544237	AV29-1		0.80 - 0.80	60g VOC (ALE215)	S						X									X				
				250g Amber Jar (ALE210)	S	X	X		X	X		X	X	X	X	X	X	X	X					
23544277	AV28-3		2.20 - 2.20	60g VOC (ALE215)	S						X									X				
				250g Amber Jar (ALE210)	S	X	X		X	X		X	X	X	X	X	X	X	X					
23544270	AV28-2		1.20 - 1.20	60g VOC (ALE215)	S						X									X				
				250g Amber Jar (ALE210)	S	X			X	X		X	X	X	X	X	X	X	X					
23544251	AV28-1		0.30 - 0.30	60g VOC (ALE215)	S						X									X				
				250g Amber Jar (ALE210)	S	X	X		X	X		X	X	X	X	X	X	X	X					
23544351	AV23-2		1.60 - 1.60	60g VOC (ALE215)	S						X									X				
				250g Amber Jar (ALE210)	S	X	X		X	X		X	X	X	X	X	X	X	X					
23544346	AV23-1		0.50 - 0.50	60g VOC (ALE215)	S						X									X				

CERTIFICATE OF ANALYSIS

SDG:	210114-156	**Client Reference:**	P18-669	**Report Number:**	584521
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584114

Results Legend

X Test

N No Determination Possible

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)			23544178	23544190		23544196		23544202		23544215	23544221
Customer Sample Reference			AW23-2	AW26-1		AW28-1		AW28-2		AW29-1	AW29-2
AGS Reference											
Depth (m)			1.70 - 1.70	0.50 - 0.50		0.40 - 0.40		1.40 - 1.40		0.60 - 0.60	1.30 - 1.30
Container			60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)
Sample Type			S	S	S	S	S	S	S	S	S	S	S
Ammonium Soil by Titration	All	NDPs: 0 Tests: 26		X		X		X		X		X	
Asbestos ID in Solid Samples	All	NDPs: 0 Tests: 13				X				X			
Asbestos Quantification - Full	All	NDPs: 0 Tests: 2								X			
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 26		X		X		X		X		X	
EPH CWG GC (S)	All	NDPs: 0 Tests: 26		X		X		X		X		X	
GRO by GC-FID (S)	All	NDPs: 0 Tests: 26	X		X		X		X		X		X
Metals in solid samples by OES	All	NDPs: 0 Tests: 26		X		X		X		X		X	
PAH by GCMS	All	NDPs: 0 Tests: 26		X		X		X		X		X	
pH	All	NDPs: 0 Tests: 26		X		X		X		X		X	
Phenols by HPLC (S)	All	NDPs: 0 Tests: 26		X		X		X		X		X	
Sample description	All	NDPs: 0 Tests: 26		X		X		X		X		X	
Total Organic Carbon	All	NDPs: 0 Tests: 26		X		X		X		X		X	
TPH CWG GC (S)	All	NDPs: 0 Tests: 26		X		X		X		X		X	
VOC MS (S)	All	NDPs: 0 Tests: 26	X		X		X		X		X		X

CERTIFICATE OF ANALYSIS

SDG:	210114-156	**Client Reference:**	P18-669	**Report Number:**	584521
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584114

Sample Descriptions

Grain Sizes

very fine	<0.063mm	**fine**	0.063mm - 0.1mm	**medium**	0.1mm - 2mm	**coarse**	2mm - 10mm	**very coarse**	>10mm

Lab Sample No(s)	Customer Sample Ref.	Depth (m)	Colour	Description	Inclusions	Inclusions 2
23544315	AR29-1	1.20 - 1.20	Black	Sand	Stones	None
23544309	AS29-1	1.00 - 1.00	Black	Sand	Stones	None
23544291	AT29-1	0.50 - 0.50	Dark Brown	Loamy Sand	Stones	None
23544302	AT29-2	1.10 - 1.10	Black	Loamy Sand	Stones	None
23544336	AU23-1	0.50 - 0.50	Dark Brown	Sandy Clay Loam	Stones	None
23544341	AU23-2	1.40 - 1.40	Dark Brown	Sandy Loam	Stones	N/A
23544284	AU28-1	0.50 - 0.50	Dark Brown	Sandy Loam	Stones	Vegetation
23544150	AV22-1	0.50 - 0.50	Black	Loamy Sand	Stones	None
23544263	AV22-2	1.50 - 1.50	Dark Brown	Sandy Loam	Stones	Concrete/Aggregate
23544346	AV23-1	0.50 - 0.50	Dark Brown	Sand	Stones	None
23544351	AV23-2	1.60 - 1.60	Light Brown	Sand	Stones	None
23544251	AV28-1	0.30 - 0.30	Dark Brown	Silty Sand	Stones	None
23544270	AV28-2	1.20 - 1.20	Black	Loamy Sand	Stones	None
23544277	AV28-3	2.20 - 2.20	Black	Loamy Sand	Stones	None
23544237	AV29-1	0.80 - 0.80	Dark Brown	Loamy Sand	Stones	None
23544246	AV29-2	1.70 - 1.70	Black	Stone/Soil	None	None
23544320	AW22-1	0.50 - 0.50	Black	Sandy Loam	Stones	None
23544325	AW22-2	1.30 - 1.30	Black	Loamy Sand	Stones	None
23544330	AW22-3	2.40 - 2.40	Grey	Rubble/Soil	Stones	None
23544170	AW23-1	0.60 - 0.60	Dark Brown	Sand	Stones	None
23544178	AW23-2	1.70 - 1.70	Dark Brown	Sand	Stones	N/A
23544190	AW26-1	0.50 - 0.50	Dark Brown	Sand	Stones	None
23544196	AW28-1	0.40 - 0.40	Black	Loamy Sand	Stones	None
23544202	AW28-2	1.40 - 1.40	Black	Loamy Sand	Stones	None
23544215	AW29-1	0.60 - 0.60	Black	Loamy Sand	Stones	None
23544221	AW29-2	1.30 - 1.30	Black	Loamy Sand	Stones	None

These descriptions are only intended to act as a cross check if sample identities are questioned, and to provide a log of sample matrices with respect to MCERTS validation. They are not intended as full geological descriptions.

We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally ocurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample.

Other coarse granular materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

Validated

CERTIFICATE OF ANALYSIS

SDG:	210114-156	**Client Reference:**	P18-669	**Report Number:**	584521
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584114

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AR29-1	AS29-1	AT29-1	AT29-2	AU23-1	AU23-2
			Depth (m)	1.20 - 1.20	1.00 - 1.00	0.50 - 0.50	1.10 - 1.10	0.50 - 0.50	1.40 - 1.40
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	13/01/2021	13/01/2021	13/01/2021	13/01/2021	12/01/2021	12/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021
			SDG Ref	210114-156	210114-156	210114-156	210114-156	210114-156	210114-156
			Lab Sample No.(s)	23544315	23544309	23544291	23544302	23544336	23544341
			AGS Reference						
Moisture Content Ratio (% of as received sample)	%	PM024		15	11	12	24	20	14
Exchangeable Ammonia as N	<12 mg/kg	TM024		<12 M	<12 M	<12 M	<12 M	<12 M	28.7 M
Phenol	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M
Cresols	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M
Xylenols	<0.015 mg/kg	TM062 (S)		<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M
Phenols, Total Detected monohydric	<0.035 mg/kg	TM062 (S)		<0.035 M	<0.035 M	<0.035 M	<0.035 M	<0.035 M	<0.035 M
Soil Organic Matter (SOM)	<0.35 %	TM132		61.9 #	12.8 #	22.1 #	98.8 #	4.98 #	4.47 #
pH	1 pH Units	TM133		11.7 M	11.5 M	10.8 M	10.4 M	9.06 M	10.8 M
Cyanide, Total	<1 mg/kg	TM153		<1 M	<1 M	<1 M	<1 M	<1 M	<1 M
Arsenic	<0.6 mg/kg	TM181		5.37 M	6.29 M	4.22 M	5.02 M	13.6 M	6.17 M
Cadmium	<0.02 mg/kg	TM181		<0.02 M	1.22 M	0.147 M	<0.02 M	0.839 M	0.309 M
Chromium	<0.9 mg/kg	TM181		307 M	222 M	25.6 M	8.05 M	226 M	77.9 M
Copper	<1.4 mg/kg	TM181		19.3 M	<14 M	6.17 M	17.8 M	24.1 M	<14 M
Iron	<1000 mg/kg	TM181		64500 #	102000 #	32600 #	23900 #	87800 #	55000 #
Lead	<0.7 mg/kg	TM181		9.84 M	13.1 M	22.5 M	16.2 M	100 M	109 M
Manganese	<0.13 mg/kg	TM181		19000 M	19600 M	5800 M	1800 M	12600 M	6930 M
Mercury	<0.14 mg/kg	TM181		<0.14 M	<1.4 M	<0.14 M	<0.14 M	<1.4 M	<1.4 M
Nickel	<0.2 mg/kg	TM181		7.08 M	10.1 M	4.84 M	8.34 M	28.4 M	12.3 M
Selenium	<1 mg/kg	TM181		10.1 #	11.5 #	4.19 #	1.3 #	10.7 #	<10 #
Vanadium	<0.2 mg/kg	TM181		895 #	480 #	51.5 #	26.9 #	236 #	140 #
Zinc	<1.9 mg/kg	TM181		35.5 M	522 M	49.7 M	46.3 M	476 M	265 M
Asbestos Quantification - Gravimetric - %	<0.001 %	TM304							<0.001 #
Asbestos Quantification - PCOM Evaluation - %	<0.001 %	TM304							<0.001 #
Additional Asbestos Components (Using TM048)		TM304							None #
Analysts Comments		TM304							0
Asbestos Quantification - Total - %	<0.001 %	TM304							<0.001 #

Validated

CERTIFICATE OF ANALYSIS

SDG:	210114-156	**Client Reference:**	P18-669	**Report Number:**	584521
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584114

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AU28-1	AV22-1	AV22-2	AV23-1	AV23-2	AV28-1
			Depth (m)	0.50 - 0.50	0.50 - 0.50	1.50 - 1.50	0.50 - 0.50	1.60 - 1.60	0.30 - 0.30
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	13/01/2021	12/01/2021	12/01/2021	12/01/2021	12/01/2021	13/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021
			SDG Ref	210114-156	210114-156	210114-156	210114-156	210114-156	210114-156
			Lab Sample No.(s)	23544284	23544150	23544263	23544346	23544351	23544251
			AGS Reference						
Moisture Content Ratio (% of as received sample)	%	PM024		13	9	17	11	6.8	9.8
Exchangeable Ammonia as N	<12 mg/kg	TM024		<12 M	<12 M	30.1 M	<12 M	<12 M	<12 M
Phenol	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	0.0121 M	<0.01 M	<0.01 M	<0.01 M
Cresols	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M
Xylenols	<0.015 mg/kg	TM062 (S)		<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M
Phenols, Total Detected monohydric	<0.035 mg/kg	TM062 (S)		<0.035 M	<0.035 M	<0.035 M	<0.035 M	<0.035 M	<0.035 M
Soil Organic Matter (SOM)	<0.35 %	TM132		3.28 #	17.4 #	7.52 #	1.01 #	0.441 #	26 #
pH	1 pH Units	TM133		9.07 M	10.4 M	11.8 M	9.67 M	10.9 M	9.4 M
Cyanide, Total	<1 mg/kg	TM153		<1 M	<1 M	1.54 M	<1 M	<1 M	<1 M
Arsenic	<0.6 mg/kg	TM181		7.86 M	9.2 M	12.4 M	6.51 M	2.8 M	7.62 M
Cadmium	<0.02 mg/kg	TM181		<0.02 M	<0.2 M	<0.2 M	0.873 M	0.24 M	0.802 M
Chromium	<0.9 mg/kg	TM181		26.5 M	<9 M	<9 M	23.7 M	57.2 M	219 M
Copper	<1.4 mg/kg	TM181		15.2 M	<14 M	15 M	10.2 M	3.15 M	19.1 M
Iron	<1000 mg/kg	TM181		53200 #	238000 #	118000 #	22000 #	6400 #	208000 #
Lead	<0.7 mg/kg	TM181		37.6 M	44.6 M	33.5 M	19.5 M	<0.7 M	29.1 M
Manganese	<0.13 mg/kg	TM181		4440 M	3470 M	3140 M	2090 M	6650 M	8970 M
Mercury	<0.14 mg/kg	TM181		<0.14 M	<1.4 M	<1.4 M	<0.14 M	<0.14 M	<1.4 M
Nickel	<0.2 mg/kg	TM181		14.6 M	53.7 M	30.9 M	13 M	1.37 M	29.5 M
Selenium	<1 mg/kg	TM181		1.61 #	<10 #	<10 #	1.15 #	3.97 #	<10 #
Vanadium	<0.2 mg/kg	TM181		60.3 #	56.6 #	54.5 #	38 #	110 #	146 #
Zinc	<1.9 mg/kg	TM181		136 M	164 M	110 M	90.6 M	27.6 M	180 M

Validated

CERTIFICATE OF ANALYSIS

SDG:	210114-156	**Client Reference:**	P18-669	**Report Number:**	584521
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584114

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AV28-2	AV28-3	AV29-1	AV29-2	AW22-1	AW22-2
			Depth (m)	1.20 - 1.20	2.20 - 2.20	0.80 - 0.80	1.70 - 1.70	0.50 - 0.50	1.30 - 1.30
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	13/01/2021	13/01/2021	13/01/2021	13/01/2021	12/01/2021	12/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021
			SDG Ref	210114-156	210114-156	210114-156	210114-156	210114-156	210114-156
			Lab Sample No.(s)	23544270	23544277	23544237	23544246	23544320	23544325
			AGS Reference						
Moisture Content Ratio (% of as received sample)	%	PM024		19	21	15	12	11	11
Exchangeable Ammonia as N	<12 mg/kg	TM024		<12 M	<12 M	<12 M	127 #	<12 M	<12 M
Phenol	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	<0.01 M	<0.01 #	0.0113 M	<0.01 M
Cresols	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	<0.01 M	<0.01 #	<0.01 M	<0.01 M
Xylenols	<0.015 mg/kg	TM062 (S)		<0.015 M	<0.015 M	<0.015 M	<0.015 #	<0.015 M	<0.015 M
Phenols, Total Detected monohydric	<0.035 mg/kg	TM062 (S)		<0.035 M	<0.035 M	<0.035 M	<0.035 #	<0.035 M	<0.035 M
Soil Organic Matter (SOM)	<0.35 %	TM132		49.1 #	44 #	11.5 #	1.45 #	23.4 #	10.9 #
pH	1 pH Units	TM133		11.5 M	11.3 M	11.3 M	8.31 #	10.2 M	10.4 M
Cyanide, Total	<1 mg/kg	TM153		<1 M	<1 M	<1 M	<1 #	<1 M	<1 M
Arsenic	<0.6 mg/kg	TM181		9.8 M	11.7 M	17.2 M	4.66 #	8.42 M	19 M
Cadmium	<0.02 mg/kg	TM181		<0.2 M	<0.2 M	4.82 M	0.297 #	0.132 M	<0.2 M
Chromium	<0.9 mg/kg	TM181		<9 M	<9 M	<9 M	<9 #	138 M	<9 M
Copper	<1.4 mg/kg	TM181		19.6 M	17.8 M	43.9 M	14.3 #	15.3 M	41.3 M
Iron	<1000 mg/kg	TM181		143000 #	146000 #	321000 #	14800 #	94200 #	264000 #
Lead	<0.7 mg/kg	TM181		51.4 M	74 M	1400 M	31.7 #	147 M	41.5 M
Manganese	<0.13 mg/kg	TM181		4270 M	4290 M	10900 M	2880 #	10400 M	4700 M
Mercury	<0.14 mg/kg	TM181		<1.4 M	<1.4 M	<1.4 M	<0.14 #	0.239 M	<1.4 M
Nickel	<0.2 mg/kg	TM181		20.7 M	21.3 M	41.6 M	7.14 #	18.5 M	41.5 M
Selenium	<1 mg/kg	TM181		<10 #	<10 #	<10 #	6.48 #	3.64 #	<10 #
Vanadium	<0.2 mg/kg	TM181		64.6 #	69 #	156 #	22.1 #	311 #	83.2 #
Zinc	<1.9 mg/kg	TM181		128 M	170 M	2780 M	83 #	449 M	116 M

Validated

CERTIFICATE OF ANALYSIS

SDG:	210114-156	**Client Reference:**	P18-669	**Report Number:**	584521
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584114

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AW22-3	AW23-1	AW23-2	AW26-1	AW28-1	AW28-2
			Depth (m)	2.40 - 2.40	0.60 - 0.60	1.70 - 1.70	0.50 - 0.50	0.40 - 0.40	1.40 - 1.40
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	12/01/2021	12/01/2021	12/01/2021	12/01/2021	13/01/2021	13/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021
			SDG Ref	210114-156	210114-156	210114-156	210114-156	210114-156	210114-156
			Lab Sample No.(s)	23544330	23544170	23544178	23544190	23544196	23544202
			AGS Reference						
Moisture Content Ratio (% of as received sample)	%	PM024		5.8	10	8.2	13	9.9	11
Exchangeable Ammonia as N	<12 mg/kg	TM024		<12 #	<12 M	39.6 M	<12 M	<12 M	<12 M
Phenol	<0.01 mg/kg	TM062 (S)		<0.01 #	<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M
Cresols	<0.01 mg/kg	TM062 (S)		<0.01 #	<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M
Xylenols	<0.015 mg/kg	TM062 (S)		0.0424 #	<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M
Phenols, Total Detected monohydric	<0.035 mg/kg	TM062 (S)		0.0424 #	<0.035 M	<0.035 M	<0.035 M	<0.035 M	<0.035 M
Soil Organic Matter (SOM)	<0.35 %	TM132		2.67 #	1.01 #	1.91 #	4.34 #	14.1 #	7.12 #
pH	1 pH Units	TM133		10.6 #	11.3 M	10.3 M	9.52 M	9.57 M	11.1 M
Cyanide, Total	<1 mg/kg	TM153		<1 #	<1 M	<1 M	<1 M	<1 M	<1 M
Arsenic	<0.6 mg/kg	TM181		<6 #	1.9 M	6.69 M	11 M	7.89 M	6.03 M
Cadmium	<0.02 mg/kg	TM181		<0.2 #	<0.02 M	0.742 M	<0.2 M	0.249 M	<0.2 M
Chromium	<0.9 mg/kg	TM181		101 #	3.79 M	97.2 M	399 M	294 M	399 M
Copper	<1.4 mg/kg	TM181		<14 #	<1.4 M	17.6 M	40.3 M	<14 M	<14 M
Iron	<1000 mg/kg	TM181		42100 #	10800 #	36600 #	64300 #	175000 #	168000 #
Lead	<0.7 mg/kg	TM181		21.3 #	<0.7 M	16.1 M	49.9 M	166 M	56.1 M
Manganese	<0.13 mg/kg	TM181		4710 #	3970 M	2020 M	18900 M	19100 M	30700 M
Mercury	<0.14 mg/kg	TM181		<1.4 #	<1.4 M	0.297 M	<1.4 M	<1.4 M	<1.4 M
Nickel	<0.2 mg/kg	TM181		13.5 #	1.21 M	16.7 M	26.4 M	14 M	11.2 M
Selenium	<1 mg/kg	TM181		<10 #	2.23 #	2.32 #	16.7 #	12.6 #	23.6 #
Vanadium	<0.2 mg/kg	TM181		202 #	14.8 #	102 #	622 #	227 #	506 #
Zinc	<1.9 mg/kg	TM181		43.6 #	21.1 M	95.1 M	205 M	427 M	182 M

CERTIFICATE OF ANALYSIS

SDG:	210114-156	**Client Reference:**	P18-669	**Report Number:**	584521
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584114

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AW29-1	AW29-2
			Depth (m)	0.60 - 0.60	1.30 - 1.30
			Sample Type	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	13/01/2021	13/01/2021
			Sample Time	.	.
			Date Received	14/01/2021	14/01/2021
			SDG Ref	210114-156	210114-156
			Lab Sample No.(s)	23544215	23544221
			AGS Reference		
Moisture Content Ratio (% of as received sample)	%	PM024		12	18
Exchangeable Ammonia as N	<12 mg/kg	TM024		<12 M	<12 M
Phenol	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M
Cresols	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M
Xylenols	<0.015 mg/kg	TM062 (S)		<0.015 M	<0.015 M
Phenols, Total Detected monohydric	<0.035 mg/kg	TM062 (S)		<0.035 M	<0.035 M
Soil Organic Matter (SOM)	<0.35 %	TM132		24.7 #	19.7 #
pH	1 pH Units	TM133		9.1 M	11.2 M
Cyanide, Total	<1 mg/kg	TM153		<1 M	<1 M
Arsenic	<0.6 mg/kg	TM181		15.6 M	17.3 M
Cadmium	<0.02 mg/kg	TM181		1.18 M	3.89 M
Chromium	<0.9 mg/kg	TM181		<9 M	65.1 M
Copper	<1.4 mg/kg	TM181		25.7 M	34.1 M
Iron	<1000 mg/kg	TM181		222000 #	291000 #
Lead	<0.7 mg/kg	TM181		242 M	1100 M
Manganese	<0.13 mg/kg	TM181		6090 M	12000 M
Mercury	<0.14 mg/kg	TM181		<1.4 M	<1.4 M
Nickel	<0.2 mg/kg	TM181		29.7 M	32.9 M
Selenium	<1 mg/kg	TM181		<10 #	<10 #
Vanadium	<0.2 mg/kg	TM181		78.6 #	168 #
Zinc	<1.9 mg/kg	TM181		718 M	2990 M
Asbestos Quantification - Gravimetric - %	<0.001 %	TM304		<0.001 #	
Asbestos Quantification - PCOM Evaluation - %	<0.001 %	TM304		<0.001 #	
Additional Asbestos Components (Using TM048)		TM304		None #	
Analysts Comments		TM304		N/A	
Asbestos Quantification - Total - %	<0.001 %	TM304		<0.001 #	

Validated

CERTIFICATE OF ANALYSIS

SDG:	210114-156	**Client Reference:**	P18-669	**Report Number:**	584521
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584114

PAH by GCMS

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AR29-1	AS29-1	AT29-1	AT29-2	AU23-1	AU23-2
			Depth (m)	1.20 - 1.20	1.00 - 1.00	0.50 - 0.50	1.10 - 1.10	0.50 - 0.50	1.40 - 1.40
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	13/01/2021	13/01/2021	13/01/2021	13/01/2021	12/01/2021	12/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021
			SDG Ref	210114-156	210114-156	210114-156	210114-156	210114-156	210114-156
			Lab Sample No.(s)	23544315	23544309	23544291	23544302	23544336	23544341
			AGS Reference						
Naphthalene-d8 % recovery**	%	TM218		89.7	86.7	82.6	88.9	80.1	89.5
Acenaphthene-d10 % recovery**	%	TM218		86.2	87.6	81.7	87.6	82	88.1
Phenanthrene-d10 % recovery**	%	TM218		78	88.1	79.4	86.1	87.3	87.6
Chrysene-d12 % recovery**	%	TM218		57	79.7	74	69.9	85.9	90.4
Perylene-d12 % recovery**	%	TM218		47.7	79.9	72.4	59.5	74.2	86.3
Naphthalene	<9 µg/kg	TM218		73.9 M	39 M	<45 M	76.7 M	84.1 M	205 M
Acenaphthylene	<12 µg/kg	TM218		<12 M	<12 M	<60 M	<12 M	51.3 M	<12 M
Acenaphthene	<8 µg/kg	TM218		12.3 M	<8 M	<40 M	<8 M	13 M	17.3 M
Fluorene	<10 µg/kg	TM218		22.1 M	12.2 M	<50 M	32.2 M	36.4 M	21.8 M
Phenanthrene	<15 µg/kg	TM218		238 M	107 M	<75 M	256 M	270 M	117 M
Anthracene	<16 µg/kg	TM218		53.3 M	23.1 M	<80 M	39.1 M	83 M	19.6 M
Fluoranthene	<17 µg/kg	TM218		310 M	165 M	164 M	170 M	542 M	157 M
Pyrene	<15 µg/kg	TM218		261 M	149 M	258 M	322 M	424 M	126 M
Benz(a)anthracene	<14 µg/kg	TM218		299 M	119 M	106 M	128 M	262 M	106 M
Chrysene	<10 µg/kg	TM218		321 M	126 M	153 M	194 M	274 M	126 M
Benzo(b)fluoranthene	<15 µg/kg	TM218		357 M	220 M	209 M	187 M	366 M	183 M
Benzo(k)fluoranthene	<14 µg/kg	TM218		134 M	66.9 M	<70 M	47.6 M	110 M	66.1 M
Benzo(a)pyrene	<15 µg/kg	TM218		292 M	135 M	98.4 M	94.7 M	217 M	99.9 M
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		189 M	109 M	<90 M	71.6 M	175 M	94.7 M
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		73.4 M	<23 M	<115 M	<23 M	34.4 M	<23 M
Benzo(g,h,i)perylene	<24 µg/kg	TM218		201 M	98.9 M	<120 M	91.8 M	146 M	85.9 M
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		2840	1370	989	1710	3090	1420

Validated

CERTIFICATE OF ANALYSIS

SDG:	210114-156	**Client Reference:**	P18-669	**Report Number:**	584521
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584114

PAH by GCMS

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AU28-1	AV22-1	AV22-2	AV23-1	AV23-2	AV28-1
			Depth (m)	0.50 - 0.50	0.50 - 0.50	1.50 - 1.50	0.50 - 0.50	1.60 - 1.60	0.30 - 0.30
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	13/01/2021	12/01/2021	12/01/2021	12/01/2021	12/01/2021	13/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021
			SDG Ref	210114-156	210114-156	210114-156	210114-156	210114-156	210114-156
			Lab Sample No.(s)	23544284	23544150	23544263	23544346	23544351	23544251
			AGS Reference						
Naphthalene-d8 % recovery**	%	TM218		91.4	86.1	86.4	91.2	0	88.7
Acenaphthene-d10 % recovery**	%	TM218		87	87.1	86	88.3	86.4	87.1
Phenanthrene-d10 % recovery**	%	TM218		88.8	86.6	83.7	84.8	85.1	83.7
Chrysene-d12 % recovery**	%	TM218		79	85.4	78.9	79.1	79.2	72.9
Perylene-d12 % recovery**	%	TM218		77.3	78.5	73.3	77.1	77.1	63.8
Naphthalene	<9 µg/kg	TM218		<90 M	62.9 M	56.1 M	20.5 M	95 M	48.8 M
Acenaphthylene	<12 µg/kg	TM218		<120 M	20.3 M	<12 M	15.9 M	<12 M	25.8 M
Acenaphthene	<8 µg/kg	TM218		<80 M	<8 M	18.4 M	<8 M	<8 M	9.57 M
Fluorene	<10 µg/kg	TM218		<100 M	12.6 M	52.9 M	<10 M	21.2 M	20.8 M
Phenanthrene	<15 µg/kg	TM218		<150 M	129 M	147 M	89.4 M	129 M	293 M
Anthracene	<16 µg/kg	TM218		<160 M	30.9 M	<16 M	31 M	<16 M	73.3 M
Fluoranthene	<17 µg/kg	TM218		<170 M	170 M	92.7 M	206 M	257 M	417 M
Pyrene	<15 µg/kg	TM218		<150 M	147 M	85.8 M	162 M	215 M	324 M
Benz(a)anthracene	<14 µg/kg	TM218		<140 M	104 M	59.5 M	95.2 M	202 M	228 M
Chrysene	<10 µg/kg	TM218		<100 M	115 M	57.2 M	94.5 M	172 M	245 M
Benzo(b)fluoranthene	<15 µg/kg	TM218		<150 M	201 M	98.2 M	92.1 M	242 M	226 M
Benzo(k)fluoranthene	<14 µg/kg	TM218		<140 M	57.2 M	33.2 M	39.3 M	<14 M	92.2 M
Benzo(a)pyrene	<15 µg/kg	TM218		<150 M	108 M	53.9 M	76.7 M	143 M	182 M
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		<180 M	102 M	52.8 M	56.3 M	105 M	134 M
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		<230 M	<23 M	<23 M	<23 M	<23 M	38.5 M
Benzo(g,h,i)perylene	<24 µg/kg	TM218		<240 M	92.7 M	50.9 M	53.1 M	93.2 M	139 M
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		<1180	1350	859	1030	1670	2500

Validated

CERTIFICATE OF ANALYSIS

SDG:	210114-156	**Client Reference:**	P18-669	**Report Number:**	584521
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584114

PAH by GCMS

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AV28-2	AV28-3	AV29-1	AV29-2	AW22-1	AW22-2
			Depth (m)	1.20 - 1.20	2.20 - 2.20	0.80 - 0.80	1.70 - 1.70	0.50 - 0.50	1.30 - 1.30
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	13/01/2021	13/01/2021	13/01/2021	13/01/2021	12/01/2021	12/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021
			SDG Ref	210114-156	210114-156	210114-156	210114-156	210114-156	210114-156
			Lab Sample No.(s)	23544270	23544277	23544237	23544246	23544320	23544325
			AGS Reference						
Naphthalene-d8 % recovery**	%	TM218		87.2	89	86.1	92.2	87.9	91.3
Acenaphthene-d10 % recovery**	%	TM218		87.3	85.1	83.2	88.4	85.9	87.5
Phenanthrene-d10 % recovery**	%	TM218		85.1	83.7	74.9	85	86.7	84.1
Chrysene-d12 % recovery**	%	TM218		67.5	72.9	42.5	76.2	83.7	79.1
Perylene-d12 % recovery**	%	TM218		63.7	69	27.1	77	82	78.3
Naphthalene	<9 µg/kg	TM218		102 M	54.9 M	38.3 M	11.2 #	1440 M	67.6 M
Acenaphthylene	<12 µg/kg	TM218		17.2 M	<12 M	<12 M	<12 #	341 M	19.4 M
Acenaphthene	<8 µg/kg	TM218		56.4 M	11.2 M	<8 M	<8 #	65.1 M	<8 M
Fluorene	<10 µg/kg	TM218		211 M	27.4 M	12 M	<10 #	279 M	37.4 M
Phenanthrene	<15 µg/kg	TM218		442 M	183 M	113 M	28.7 #	1940 M	137 M
Anthracene	<16 µg/kg	TM218		79.2 M	37.9 M	<16 M	<16 #	530 M	28.3 M
Fluoranthene	<17 µg/kg	TM218		347 M	268 M	82.9 M	28.5 #	2930 M	99.1 M
Pyrene	<15 µg/kg	TM218		312 M	232 M	72.8 M	24.6 #	2190 M	77.6 M
Benz(a)anthracene	<14 µg/kg	TM218		260 M	200 M	22.1 M	16.5 #	1340 M	52 M
Chrysene	<10 µg/kg	TM218		258 M	219 M	25.1 M	16 #	1330 M	56.7 M
Benzo(b)fluoranthene	<15 µg/kg	TM218		383 M	316 M	19.1 M	28 #	1930 M	90.5 M
Benzo(k)fluoranthene	<14 µg/kg	TM218		140 M	102 M	<14 M	<14 #	613 M	27.1 M
Benzo(a)pyrene	<15 µg/kg	TM218		311 M	215 M	<15 M	<15 #	1210 M	41.3 M
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		203 M	137 M	<18 M	<18 #	946 M	35.3 M
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		57.5 M	42.6 M	<23 M	<23 #	197 M	<23 M
Benzo(g,h,i)perylene	<24 µg/kg	TM218		209 M	145 M	<24 M	<24 #	806 M	35.4 M
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		3390	2190	385	153	18100	805

Validated

CERTIFICATE OF ANALYSIS

SDG:	210114-156	**Client Reference:**	P18-669	**Report Number:**	584521
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584114

PAH by GCMS

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AW22-3	AW23-1	AW23-2	AW26-1	AW28-1	AW28-2
			Depth (m)	2.40 - 2.40	0.60 - 0.60	1.70 - 1.70	0.50 - 0.50	0.40 - 0.40	1.40 - 1.40
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	12/01/2021	12/01/2021	12/01/2021	12/01/2021	13/01/2021	13/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021
			SDG Ref	210114-156	210114-156	210114-156	210114-156	210114-156	210114-156
			Lab Sample No.(s)	23544330	23544170	23544178	23544190	23544196	23544202
			AGS Reference						
Naphthalene-d8 % recovery**	%	TM218		89.9	87.5	91.8	87.5	89	85.5
Acenaphthene-d10 % recovery**	%	TM218		87.8	92.5	88.3	90.4	86.7	87.6
Phenanthrene-d10 % recovery**	%	TM218		84.4	96	86.8	94.8	86.4	87.8
Chrysene-d12 % recovery**	%	TM218		80.4	91.5	88.7	90	79.8	76.5
Perylene-d12 % recovery**	%	TM218		79.9	86.5	89.6	80.1	76.6	70.5
Naphthalene	<9 µg/kg	TM218		71.6 #	<450 M	72.6 M	25.1 M	47.3 M	64 M
Acenaphthylene	<12 µg/kg	TM218		<12 #	<600 M	<60 M	<12 M	14.7 M	18 M
Acenaphthene	<8 µg/kg	TM218		<8 #	<400 M	<40 M	<8 M	<8 M	<8 M
Fluorene	<10 µg/kg	TM218		<10 #	<500 M	<50 M	<10 M	<10 M	14.2 M
Phenanthrene	<15 µg/kg	TM218		63 #	962 M	<75 M	72.2 M	106 M	115 M
Anthracene	<16 µg/kg	TM218		18.8 #	<800 M	<80 M	<16 M	22.7 M	32.8 M
Fluoranthene	<17 µg/kg	TM218		91.6 #	995 M	<85 M	122 M	149 M	158 M
Pyrene	<15 µg/kg	TM218		67.8 #	913 M	<75 M	117 M	122 M	120 M
Benz(a)anthracene	<14 µg/kg	TM218		36.2 #	<700 M	<70 M	72.3 M	69.7 M	82.2 M
Chrysene	<10 µg/kg	TM218		28.2 #	<500 M	60.8 M	77.8 M	72.3 M	89.4 M
Benzo(b)fluoranthene	<15 µg/kg	TM218		41.1 #	<750 M	89.8 M	119 M	115 M	150 M
Benzo(k)fluoranthene	<14 µg/kg	TM218		<14 #	<700 M	<70 M	35.7 M	32.6 M	47.1 M
Benzo(a)pyrene	<15 µg/kg	TM218		22.8 #	<750 M	<75 M	63.9 M	65.5 M	74.6 M
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		<18 #	<900 M	<90 M	54.9 M	59.3 M	75.5 M
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		<23 #	<1150 M	<115 M	<23 M	<23 M	<23 M
Benzo(g,h,i)perylene	<24 µg/kg	TM218		<24 #	<1200 M	<120 M	57.5 M	57.3 M	65.2 M
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		441	<5900	<590	818	933	1110

Validated

CERTIFICATE OF ANALYSIS

SDG:	210114-156	**Client Reference:**	P18-669	**Report Number:**	584521
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584114

PAH by GCMS

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AW29-1	AW29-2				
			Depth (m)	0.60 - 0.60	1.30 - 1.30				
			Sample Type	Soil/Solid (S)	Soil/Solid (S)				
			Date Sampled	13/01/2021	13/01/2021				
			Sample Time	.	.				
			Date Received	14/01/2021	14/01/2021				
			SDG Ref	210114-156	210114-156				
			Lab Sample No.(s)	23544215	23544221				
			AGS Reference						
Naphthalene-d8 % recovery**	%	TM218		90.4	87.8				
Acenaphthene-d10 % recovery**	%	TM218		87	86.1				
Phenanthrene-d10 % recovery**	%	TM218		79.7	83.5				
Chrysene-d12 % recovery**	%	TM218		61	79				
Perylene-d12 % recovery**	%	TM218		50.4	69.6				
Naphthalene	<9 µg/kg	TM218		13.5 M	47.7 M				
Acenaphthylene	<12 µg/kg	TM218		<12 M	<12 M				
Acenaphthene	<8 µg/kg	TM218		<8 M	17.9 M				
Fluorene	<10 µg/kg	TM218		<10 M	29.2 M				
Phenanthrene	<15 µg/kg	TM218		46 M	182 M				
Anthracene	<16 µg/kg	TM218		<16 M	49 M				
Fluoranthene	<17 µg/kg	TM218		41.4 M	294 M				
Pyrene	<15 µg/kg	TM218		37.1 M	293 M				
Benz(a)anthracene	<14 µg/kg	TM218		26 M	125 M				
Chrysene	<10 µg/kg	TM218		34.6 M	136 M				
Benzo(b)fluoranthene	<15 µg/kg	TM218		58.2 M	196 M				
Benzo(k)fluoranthene	<14 µg/kg	TM218		17.1 M	50.9 M				
Benzo(a)pyrene	<15 µg/kg	TM218		25.9 M	106 M				
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		22 M	93.5 M				
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		<23 M	<23 M				
Benzo(g,h,i)perylene	<24 µg/kg	TM218		<24 M	79.3 M				
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		322	1700				

Validated

CERTIFICATE OF ANALYSIS

SDG:	210114-156	**Client Reference:**	P18-669	**Report Number:**	584521
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584114

TPH CWG (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AR29-1	AS29-1	AT29-1	AT29-2	AU23-1	AU23-2
			Depth (m)	1.20 - 1.20	1.00 - 1.00	0.50 - 0.50	1.10 - 1.10	0.50 - 0.50	1.40 - 1.40
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	13/01/2021	13/01/2021	13/01/2021	13/01/2021	12/01/2021	12/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021
			SDG Ref	210114-156	210114-156	210114-156	210114-156	210114-156	210114-156
			Lab Sample No.(s)	23544315	23544309	23544291	23544302	23544336	23544341
			AGS Reference						
GRO Surrogate % recovery**	%	TM089		80.1	79.3	79.7	35.1 4	86.2	117
Aliphatics >C5-C6	<10 µg/kg	TM089		<10	<10	<10	<10 4	<10	10.5
Aliphatics >C6-C8	<10 µg/kg	TM089		<10	<10	<10	<10 4	<10	21.1
Aliphatics >C8-C10	<10 µg/kg	TM089		<10	<10	<10	<10 4	<10	24.6
Aliphatics >C10-C12	<1000 µg/kg	TM414		<1000	<1000	<1000	<1000	<1000	<1000
Aliphatics >C12-C16	<1000 µg/kg	TM414		2780	<1000	2450	7050	<1000	<1000
Aliphatics >C16-C21	<1000 µg/kg	TM414		10100	3780	15000	23700	1920	3580
Aliphatics >C21-C35	<1000 µg/kg	TM414		29900	20700	98800	35500	17200	10700
Aliphatics >C35-C44	<1000 µg/kg	TM414		4240	12100	67500	7370	4160	1170
Total Aliphatics >C10-C44	<5000 µg/kg	TM414		47200	37700	184000	73900	23400	16300
Total Aliphatics & Aromatics >C10-C44	<10000 µg/kg	TM414		58800	49400	225000	116000	42400	20300
Aromatics >EC5-EC7	<10 µg/kg	TM089		<10	<10	<10	<10 4	<10	19.9
Aromatics >EC7-EC8	<10 µg/kg	TM089		<10	<10	<10	<10 4	<10	<10
Aromatics >EC8-EC10	<10 µg/kg	TM089		<10	<10	<10	<10 4	<10	16.4
Aromatics > EC10-EC12	<1000 µg/kg	TM414		<1000	<1000	<1000	<1000	<1000	<1000
Aromatics > EC12-EC16	<1000 µg/kg	TM414		<1000	<1000	<1000	4090	<1000	<1000
Aromatics > EC16-EC21	<1000 µg/kg	TM414		2020	<1000	1170	6640	2840	<1000
Aromatics > EC21-EC35	<1000 µg/kg	TM414		8050	9560	34400	27900	14600	2440
Aromatics >EC35-EC44	<1000 µg/kg	TM414		<1000	1270	4610	3050	1300	<1000
Aromatics > EC40-EC44	<1000 µg/kg	TM414		<1000	<1000	<1000	1190	<1000	<1000
Total Aromatics > EC10-EC44	<5000 µg/kg	TM414		11600	11600	40700	41800	19000	<5000
Total Aliphatics & Aromatics >C5-C44	<10000 µg/kg	TM414		58800	49400	225000	116000	42400	16400
Total Aliphatics >C5-C10	<50 µg/kg	TM089		<50	<50	<50	<50 4	<50	56.2
Total Aromatics >EC5-EC10	<50 µg/kg	TM089		<50	<50	<50	<50 4	<50	<50
GRO >C5-C10	<20 µg/kg	TM089		<20	<20	<20	<20 4	<20	56.2

Validated

CERTIFICATE OF ANALYSIS

SDG:	210114-156	**Client Reference:**	P18-669	**Report Number:**	584521
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584114

TPH CWG (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AU28-1	AV22-1	AV22-2	AV23-1	AV23-2	AV28-1
			Depth (m)	0.50 - 0.50	0.50 - 0.50	1.50 - 1.50	0.50 - 0.50	1.60 - 1.60	0.30 - 0.30
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	13/01/2021	12/01/2021	12/01/2021	12/01/2021	12/01/2021	13/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021
			SDG Ref	210114-156	210114-156	210114-156	210114-156	210114-156	210114-156
			Lab Sample No.(s)	23544284	23544150	23544263	23544346	23544351	23544251
			AGS Reference						
GRO Surrogate % recovery**	%	TM089		113	86.7	86.5	90.2	97.7	67 4
Aliphatics >C5-C6	<10 µg/kg	TM089		<10	<10	<10	<10	<10	<10 4
Aliphatics >C6-C8	<10 µg/kg	TM089		<10	<10	47.2	<10	16.1	<10 4
Aliphatics >C8-C10	<10 µg/kg	TM089		<10	<10	388	<10	47.2	<10 4
Aliphatics >C10-C12	<1000 µg/kg	TM414		<1000	<1000	3000	<1000	<1000	<1000
Aliphatics >C12-C16	<1000 µg/kg	TM414		<1000	<1000	33100	<1000	<1000	<1000
Aliphatics >C16-C21	<1000 µg/kg	TM414		1190	4470	50600	<1000	<1000	1790
Aliphatics >C21-C35	<1000 µg/kg	TM414		9020	19900	67000	<1000	5790	8620
Aliphatics >C35-C44	<1000 µg/kg	TM414		1370	6240	14300	<1000	1390	<1000
Total Aliphatics >C10-C44	<5000 µg/kg	TM414		11700	31200	168000	<5000	7180	11300
Total Aliphatics & Aromatics >C10-C44	<10000 µg/kg	TM414		32700	50400	198000	<10000	12500	31100
Aromatics >EC5-EC7	<10 µg/kg	TM089		<10	<10	<10	<10	<10	<10 4
Aromatics >EC7-EC8	<10 µg/kg	TM089		<10	<10	<10	<10	<10	<10 4
Aromatics >EC8-EC10	<10 µg/kg	TM089		<10	<10	259	<10	31.1	<10 4
Aromatics > EC10-EC12	<1000 µg/kg	TM414		<1000	<1000	<1000	<1000	<1000	<1000
Aromatics > EC12-EC16	<1000 µg/kg	TM414		<1000	<1000	9290	<1000	<1000	<1000
Aromatics > EC16-EC21	<1000 µg/kg	TM414		2340	<1000	9860	<1000	<1000	1890
Aromatics > EC21-EC35	<1000 µg/kg	TM414		17400	17500	9820	1180	3980	15200
Aromatics >EC35-EC44	<1000 µg/kg	TM414		1340	<1000	<1000	<1000	<1000	2530
Aromatics > EC40-EC44	<1000 µg/kg	TM414		<1000	<1000	<1000	<1000	<1000	<1000
Total Aromatics > EC10-EC44	<5000 µg/kg	TM414		21000	19300	30100	<5000	5320	19800
Total Aliphatics & Aromatics >C5-C44	<10000 µg/kg	TM414		32700	50400	199000	<10000	12600	31100
Total Aliphatics >C5-C10	<50 µg/kg	TM089		<50	<50	436	<50	63.3	<50 4
Total Aromatics >EC5-EC10	<50 µg/kg	TM089		<50	<50	259	<50	<50	<50 4
GRO >C5-C10	<20 µg/kg	TM089		<20	<20	695	<20	63.3	<20 4

CERTIFICATE OF ANALYSIS

SDG:	210114-156	**Client Reference:**	P18-669	**Report Number:**	584521
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584114

TPH CWG (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AV28-2	AV28-3	AV29-1	AV29-2	AW22-1	AW22-2
			Depth (m)	1.20 - 1.20	2.20 - 2.20	0.80 - 0.80	1.70 - 1.70	0.50 - 0.50	1.30 - 1.30
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	13/01/2021	13/01/2021	13/01/2021	13/01/2021	12/01/2021	12/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021
			SDG Ref	210114-156	210114-156	210114-156	210114-156	210114-156	210114-156
			Lab Sample No.(s)	23544270	23544277	23544237	23544246	23544320	23544325
			AGS Reference						
GRO Surrogate % recovery**	%	TM089		97.4	69.3 4	92.6	109	80.5 2	88.1
Aliphatics >C5-C6	<10 µg/kg	TM089		13.6	<10 4	<10	18.2	38.4 2	42.9
Aliphatics >C6-C8	<10 µg/kg	TM089		36	<10 4	<10	41	64.4 2	98.3
Aliphatics >C8-C10	<10 µg/kg	TM089		37.2	<10 4	<10	85.5	50.9 2	525
Aliphatics >C10-C12	<1000 µg/kg	TM414		<1000	<1000	<1000	<1000	<1000	13700
Aliphatics >C12-C16	<1000 µg/kg	TM414		2050	1170	<1000	4070	4050	9440
Aliphatics >C16-C21	<1000 µg/kg	TM414		6720	6340	20500	6360	11600	4010
Aliphatics >C21-C35	<1000 µg/kg	TM414		12400	10800	38000	17000	32300	39700
Aliphatics >C35-C44	<1000 µg/kg	TM414		2220	1300	1090	6100	31300	18900
Total Aliphatics >C10-C44	<5000 µg/kg	TM414		23400	19600	60400	33500	79800	85700
Total Aliphatics & Aromatics >C10-C44	<10000 µg/kg	TM414		42100	34700	69200	39500	150000	99000
Aromatics >EC5-EC7	<10 µg/kg	TM089		<10	<10 4	<10	<10	<10 2	<10
Aromatics >EC7-EC8	<10 µg/kg	TM089		<10	<10 4	<10	<10	<10 2	<10
Aromatics >EC8-EC10	<10 µg/kg	TM089		24.8	<10 4	<10	57	33.9 2	350
Aromatics > EC10-EC12	<1000 µg/kg	TM414		<1000	<1000	<1000	<1000	1950	<1000
Aromatics > EC12-EC16	<1000 µg/kg	TM414		1640	<1000	<1000	<1000	2950	1170
Aromatics > EC16-EC21	<1000 µg/kg	TM414		3730	2720	2140	<1000	13500	<1000
Aromatics > EC21-EC35	<1000 µg/kg	TM414		12300	10500	5160	4640	48100	9210
Aromatics >EC35-EC44	<1000 µg/kg	TM414		<1000	<1000	<1000	<1000	3990	1350
Aromatics > EC40-EC44	<1000 µg/kg	TM414		<1000	<1000	<1000	<1000	<1000	<1000
Total Aromatics > EC10-EC44	<5000 µg/kg	TM414		18700	15100	8800	6040	70500	13300
Total Aliphatics & Aromatics >C5-C44	<10000 µg/kg	TM414		42200	34700	69200	39700	150000	100000
Total Aliphatics >C5-C10	<50 µg/kg	TM089		86.8	<50 4	<50	145	154 2	667
Total Aromatics >EC5-EC10	<50 µg/kg	TM089		<50	<50 4	<50	57	<50 2	350
GRO >C5-C10	<20 µg/kg	TM089		86.8	<20 4	<20	202	154 2	1020

Validated

CERTIFICATE OF ANALYSIS

SDG:	210114-156	**Client Reference:**	P18-669	**Report Number:**	584521
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584114

TPH CWG (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AW22-3	AW23-1	AW23-2	AW26-1	AW28-1	AW28-2
			Depth (m)	2.40 - 2.40	0.60 - 0.60	1.70 - 1.70	0.50 - 0.50	0.40 - 0.40	1.40 - 1.40
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	12/01/2021	12/01/2021	12/01/2021	12/01/2021	13/01/2021	13/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021
			SDG Ref	210114-156	210114-156	210114-156	210114-156	210114-156	210114-156
			Lab Sample No.(s)	23544330	23544170	23544178	23544190	23544196	23544202
			AGS Reference						
GRO Surrogate % recovery**	%	TM089		90.1	72.6	104	122	70.4	124
Aliphatics >C5-C6	<10 µg/kg	TM089		18	27.8	20.7	<10	<10	<10
Aliphatics >C6-C8	<10 µg/kg	TM089		30.8	43.3	33.8	<10	<10	<10
Aliphatics >C8-C10	<10 µg/kg	TM089		40.3	65.5	38.1	<10	<10	<10
Aliphatics >C10-C12	<1000 µg/kg	TM414		<1000	<10000	2050	<1000	<1000	<1000
Aliphatics >C12-C16	<1000 µg/kg	TM414		<1000	<10000	7070	<1000	5000	<1000
Aliphatics >C16-C21	<1000 µg/kg	TM414		1100	25000	4650	5280	14800	1260
Aliphatics >C21-C35	<1000 µg/kg	TM414		2790	343000	34400	18900	34300	4850
Aliphatics >C35-C44	<1000 µg/kg	TM414		<1000	375000	48300	4980	3520	<1000
Total Aliphatics >C10-C44	<5000 µg/kg	TM414		<5000	747000	96400	30100	57600	6190
Total Aliphatics & Aromatics >C10-C44	<10000 µg/kg	TM414		<10000	1160000	142000	55800	67400	<10000
Aromatics >EC5-EC7	<10 µg/kg	TM089		<10	<10	<10	<10	<10	<10
Aromatics >EC7-EC8	<10 µg/kg	TM089		<10	<10	<10	<10	<10	<10
Aromatics >EC8-EC10	<10 µg/kg	TM089		27.6	43.3	26.1	<10	<10	<10
Aromatics > EC10-EC12	<1000 µg/kg	TM414		<1000	<10000	<1000	<1000	<1000	<1000
Aromatics > EC12-EC16	<1000 µg/kg	TM414		<1000	<10000	<1000	<1000	<1000	<1000
Aromatics > EC16-EC21	<1000 µg/kg	TM414		<1000	<10000	<1000	<1000	<1000	<1000
Aromatics > EC21-EC35	<1000 µg/kg	TM414		1400	381000	39300	22600	7590	2440
Aromatics >EC35-EC44	<1000 µg/kg	TM414		<1000	32500	4470	2600	<1000	<1000
Aromatics > EC40-EC44	<1000 µg/kg	TM414		<1000	15000	1230	<1000	<1000	<1000
Total Aromatics > EC10-EC44	<5000 µg/kg	TM414		<5000	415000	45300	25700	9730	<5000
Total Aliphatics & Aromatics >C5-C44	<10000 µg/kg	TM414		<10000	1160000	142000	55800	67400	<10000
Total Aliphatics >C5-C10	<50 µg/kg	TM089		89.1	137	92.6	<50	<50	<50
Total Aromatics >EC5-EC10	<50 µg/kg	TM089		<50	<50	<50	<50	<50	<50
GRO >C5-C10	<20 µg/kg	TM089		89.1	137	92.6	<20	<20	<20

CERTIFICATE OF ANALYSIS

SDG:	210114-156	**Client Reference:**	P18-669	**Report Number:**	584521
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584114

TPH CWG (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AW29-1	AW29-2				
			Depth (m)	0.60 - 0.60	1.30 - 1.30				
			Sample Type	Soil/Solid (S)	Soil/Solid (S)				
			Date Sampled	13/01/2021	13/01/2021				
			Sample Time	.	.				
			Date Received	14/01/2021	14/01/2021				
			SDG Ref	210114-156	210114-156				
			Lab Sample No.(s)	23544215	23544221				
			AGS Reference						
GRO Surrogate % recovery**	%	TM089		94.3	126				
Aliphatics >C5-C6	<10 µg/kg	TM089		<10	<10				
Aliphatics >C6-C8	<10 µg/kg	TM089		<10	<10				
Aliphatics >C8-C10	<10 µg/kg	TM089		<10	<10				
Aliphatics >C10-C12	<1000 µg/kg	TM414		<1000	<1000				
Aliphatics >C12-C16	<1000 µg/kg	TM414		<1000	<1000				
Aliphatics >C16-C21	<1000 µg/kg	TM414		6380	10000				
Aliphatics >C21-C35	<1000 µg/kg	TM414		10800	33000				
Aliphatics >C35-C44	<1000 µg/kg	TM414		<1000	1510				
Total Aliphatics >C10-C44	<5000 µg/kg	TM414		18500	44800				
Total Aliphatics & Aromatics >C10-C44	<10000 µg/kg	TM414		47500	56300				
Aromatics >EC5-EC7	<10 µg/kg	TM089		<10	<10				
Aromatics >EC7-EC8	<10 µg/kg	TM089		<10	<10				
Aromatics >EC8-EC10	<10 µg/kg	TM089		<10	<10				
Aromatics > EC10-EC12	<1000 µg/kg	TM414		<1000	<1000				
Aromatics > EC12-EC16	<1000 µg/kg	TM414		<1000	<1000				
Aromatics > EC16-EC21	<1000 µg/kg	TM414		<1000	1720				
Aromatics > EC21-EC35	<1000 µg/kg	TM414		25900	8780				
Aromatics >EC35-EC44	<1000 µg/kg	TM414		2710	<1000				
Aromatics > EC40-EC44	<1000 µg/kg	TM414		<1000	<1000				
Total Aromatics > EC10-EC44	<5000 µg/kg	TM414		29000	11600				
Total Aliphatics & Aromatics >C5-C44	<10000 µg/kg	TM414		47500	56300				
Total Aliphatics >C5-C10	<50 µg/kg	TM089		<50	<50				
Total Aromatics >EC5-EC10	<50 µg/kg	TM089		<50	<50				
GRO >C5-C10	<20 µg/kg	TM089		<20	<20				

CERTIFICATE OF ANALYSIS

SDG:	210114-156	**Client Reference:**	P18-669	**Report Number:**	584521
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584114

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AR29-1	AS29-1	AT29-1	AT29-2	AU23-1	AU23-2
			Depth (m)	1.20 - 1.20	1.00 - 1.00	0.50 - 0.50	1.10 - 1.10	0.50 - 0.50	1.40 - 1.40
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	13/01/2021	13/01/2021	13/01/2021	13/01/2021	12/01/2021	12/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021
			SDG Ref	210114-156	210114-156	210114-156	210114-156	210114-156	210114-156
			Lab Sample No.(s)	23544315	23544309	23544291	23544302	23544336	23544341
			AGS Reference						
Dibromofluoromethane**	%	TM116		108	105	111	105	107	108
Toluene-d8**	%	TM116		94.5	98.2	95.8	96	96.7	96.7
4-Bromofluorobenzene**	%	TM116		87.2	97.1	89.8	90.4	93.6	95.3
Methyl Tertiary Butyl Ether	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<200 M	<200 M
Benzene	<9 µg/kg	TM116		<180 M	<180 M	<180 M	<180 M	<180 M	<180 M
Toluene	<7 µg/kg	TM116		<140 M	<140 M	<140 M	<140 M	<140 M	<140 M
Ethylbenzene	<4 µg/kg	TM116		<80 M	<80 M	<80 M	<80 M	<80 M	<80 M
p/m-Xylene	<10 µg/kg	TM116		<200 #	<200 #	<200 #	<200 #	<200 #	<200 #
o-Xylene	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<200 M	<200 M
Naphthalene	<13 µg/kg	TM116		<260 M	<260 M	<260 M	<260 M	<260 M	<260 M
Sum of Detected Xylenes	<0.02 mg/kg	TM116		<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Sum of BTEX	<40 µg/kg	TM116		<800	<800	<800	<800	<800	<800

Validated

CERTIFICATE OF ANALYSIS

SDG:	210114-156	**Client Reference:**	P18-669	**Report Number:**	584521
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584114

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AU28-1	AV22-1	AV22-2	AV23-1	AV23-2	AV28-1
			Depth (m)	0.50 - 0.50	0.50 - 0.50	1.50 - 1.50	0.50 - 0.50	1.60 - 1.60	0.30 - 0.30
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	13/01/2021	12/01/2021	12/01/2021	12/01/2021	12/01/2021	13/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021
			SDG Ref	210114-156	210114-156	210114-156	210114-156	210114-156	210114-156
			Lab Sample No.(s)	23544284	23544150	23544263	23544346	23544351	23544251
			AGS Reference						
Dibromofluoromethane**	%	TM116		108	105	104	109	106	103
Toluene-d8**	%	TM116		95.8	97.9	97.6	96.8	97.3	95.5
4-Bromofluorobenzene**	%	TM116		92.3	93.9	93.1	94.1	95.3	88.2
Methyl Tertiary Butyl Ether	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<200 M	<200 M
Benzene	<9 µg/kg	TM116		<180 M	<180 M	<180 M	<180 M	<180 M	<180 M
Toluene	<7 µg/kg	TM116		<140 M	<140 M	<140 M	<140 M	<140 M	<140 M
Ethylbenzene	<4 µg/kg	TM116		<80 M	<80 M	<80 M	<80 M	<80 M	<80 M
p/m-Xylene	<10 µg/kg	TM116		<200 #	<200 #	<200 #	<200 #	<200 #	<200 #
o-Xylene	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<200 M	<200 M
Naphthalene	<13 µg/kg	TM116		<260 M	<260 M	<260 M	<260 M	<260 M	<260 M
Sum of Detected Xylenes	<0.02 mg/kg	TM116		<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Sum of BTEX	<40 µg/kg	TM116		<800	<800	<800	<800	<800	<800

Validated

CERTIFICATE OF ANALYSIS

SDG:	210114-156	**Client Reference:**	P18-669	**Report Number:**	584521
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584114

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AV28-2	AV28-3	AV29-1	AV29-2	AW22-1	AW22-2
			Depth (m)	1.20 - 1.20	2.20 - 2.20	0.80 - 0.80	1.70 - 1.70	0.50 - 0.50	1.30 - 1.30
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	13/01/2021	13/01/2021	13/01/2021	13/01/2021	12/01/2021	12/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021
			SDG Ref	210114-156	210114-156	210114-156	210114-156	210114-156	210114-156
			Lab Sample No.(s)	23544270	23544277	23544237	23544246	23544320	23544325
			AGS Reference						
Dibromofluoromethane**	%	TM116		105	104	105	110	105 2	106
Toluene-d8**	%	TM116		94.6	97.8	98	98.2	94.3 2	96.9
4-Bromofluorobenzene**	%	TM116		88.1	95.9	96.9	92.2	87.8 2	92.1
Methyl Tertiary Butyl Ether	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 #	<200 2 M	<200 M
Benzene	<9 µg/kg	TM116		<180 M	<180 M	<180 M	<180 #	<180 2 M	<180 M
Toluene	<7 µg/kg	TM116		<140 M	<140 M	<140 M	<140 #	<140 2 M	<140 M
Ethylbenzene	<4 µg/kg	TM116		<80 M	<80 M	<80 M	<80 #	<80 2 M	<80 M
p/m-Xylene	<10 µg/kg	TM116		<200 #	<200 #	<200 #	<200 #	<200 2 #	<200 #
o-Xylene	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 #	<200 2 M	<200 M
Naphthalene	<13 µg/kg	TM116		<260 M	<260 M	<260 M	<260 #	536 M	<260 M
Sum of Detected Xylenes	<0.02 mg/kg	TM116		<0.4	<0.4	<0.4	<0.4	<0.4 2	<0.4
Sum of BTEX	<40 µg/kg	TM116		<800	<800	<800	<800	<800 2	<800

CERTIFICATE OF ANALYSIS

SDG:	210114-156	**Client Reference:**	P18-669	**Report Number:**	584521
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584114

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AW22-3	AW23-1	AW23-2	AW26-1	AW28-1	AW28-2
			Depth (m)	2.40 - 2.40	0.60 - 0.60	1.70 - 1.70	0.50 - 0.50	0.40 - 0.40	1.40 - 1.40
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	12/01/2021	12/01/2021	12/01/2021	12/01/2021	13/01/2021	13/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021
			SDG Ref	210114-156	210114-156	210114-156	210114-156	210114-156	210114-156
			Lab Sample No.(s)	23544330	23544170	23544178	23544190	23544196	23544202
			AGS Reference						
Dibromofluoromethane**	%	TM116		106	112	107	112	104	107
Toluene-d8**	%	TM116		98.5	94.5	97.3	95.9	97.9	96.8
4-Bromofluorobenzene**	%	TM116		97.8	93.9	95.7	93.5	98.1	97.3
Methyl Tertiary Butyl Ether	<10 µg/kg	TM116		<200 #	<200 M	<200 M	<200 M	<200 M	<200 M
Benzene	<9 µg/kg	TM116		<180 #	<180 M	<180 M	<180 M	<180 M	<180 M
Toluene	<7 µg/kg	TM116		<140 #	<140 M	<140 M	<140 M	<140 M	<140 M
Ethylbenzene	<4 µg/kg	TM116		<80 #	<80 M	<80 M	<80 M	<80 M	<80 M
p/m-Xylene	<10 µg/kg	TM116		<200 #	<200 #	<200 #	<200 #	<200 #	<200 #
o-Xylene	<10 µg/kg	TM116		<200 #	<200 M	<200 M	<200 M	<200 M	<200 M
Naphthalene	<13 µg/kg	TM116		<260 #	<260 M	<260 M	<260 M	<260 M	<260 M
Sum of Detected Xylenes	<0.02 mg/kg	TM116		<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Sum of BTEX	<40 µg/kg	TM116		<800	<800	<800	<800	<800	<800

Validated

CERTIFICATE OF ANALYSIS

SDG:	210114-156	**Client Reference:**	P18-669	**Report Number:**	584521
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584114

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AW29-1	AW29-2				
			Depth (m)	0.60 - 0.60	1.30 - 1.30				
			Sample Type	Soil/Solid (S)	Soil/Solid (S)				
			Date Sampled	13/01/2021	13/01/2021				
			Sample Time	.	.				
			Date Received	14/01/2021	14/01/2021				
			SDG Ref	210114-156	210114-156				
			Lab Sample No.(s)	23544215	23544221				
			AGS Reference						
Dibromofluoromethane**	%	TM116		110	105				
Toluene-d8**	%	TM116		97.9	98.8				
4-Bromofluorobenzene**	%	TM116		98.5	97.3				
Methyl Tertiary Butyl Ether	<10 µg/kg	TM116		<200 M	<200 M				
Benzene	<9 µg/kg	TM116		<180 M	<180 M				
Toluene	<7 µg/kg	TM116		<140 M	<140 M				
Ethylbenzene	<4 µg/kg	TM116		<80 M	<80 M				
p/m-Xylene	<10 µg/kg	TM116		<200 #	<200 #				
o-Xylene	<10 µg/kg	TM116		<200 M	<200 M				
Naphthalene	<13 µg/kg	TM116		<260 M	<260 M				
Sum of Detected Xylenes	<0.02 mg/kg	TM116		<0.4	<0.4				
Sum of BTEX	<40 µg/kg	TM116		<800	<800				

CERTIFICATE OF ANALYSIS

SDG:	210114-156	**Client Reference:**	P18-669	**Report Number:**	584521
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584114

Asbestos Identification - Solid Samples

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
*	Subcontracted test.
(F)	Trigger breach confirmed
1-5&+$@	Sample deviation (see appendix)

		Date of Analysis	Analysed By	Comments	Amosite (Brown) Asbestos	Chrysotile (White) Asbestos	Crocidolite (Blue) Asbestos	Fibrous Actinolite	Fibrous Anthophyllite	Fibrous Tremolite	Non-Asbestos Fibre
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	AS29-1 1.00 - 1.00 SOLID 13/01/2021 00:00:00 14/01/2021 05:00:00 210114-156 23544309 TM048	20/01/2021	Paul Poynton	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	AT29-1 0.50 - 0.50 SOLID 13/01/2021 00:00:00 14/01/2021 05:00:00 210114-156 23544291 TM048	20/01/2021	James Richards	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	AU23-2 1.40 - 1.40 SOLID 12/01/2021 00:00:00 14/01/2021 05:00:00 210114-156 23544341 TM048	19/01/2021	Paul Poynton	Loose fibres in soil	Not Detected (#)	Trace (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	AV22-1 0.50 - 0.50 SOLID 12/01/2021 00:00:00 14/01/2021 05:00:00 210114-156 23544150 TM048	21/01/21	Andrzej Ferfecki	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	AV23-2 1.60 - 1.60 SOLID 12/01/2021 00:00:00 14/01/2021 05:00:00 210114-156 23544351 TM048	20/01/2021	Paul Poynton	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	AV28-1 0.30 - 0.30 SOLID 13/01/2021 00:00:00 14/01/2021 05:00:00 210114-156 23544251 TM048	21/01/21	Andrzej Ferfecki	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	AV28-3 2.20 - 2.20 SOLID 13/01/2021 00:00:00 14/01/2021 05:00:00 210114-156 23544277 TM048	20/01/21	Andrzej Ferfecki	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	AV29-1 0.80 - 0.80 SOLID 13/01/2021 00:00:00 14/01/2021 05:00:00 210114-156 23544237 TM048	20/01/2021	Agnieszka Chelmowska	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected

Validated

CERTIFICATE OF ANALYSIS

SDG:	210114-156	**Client Reference:**	P18-669	**Report Number:**	584521
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584114

		Date of Analysis	Analysed By	Comments	Amosite (Brown) Asbestos	Chrysotile (White) Asbestos	Crocidolite (Blue) Asbestos	Fibrous Actinolite	Fibrous Anthophyllite	Fibrous Tremolite	Non-Asbestos Fibre
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	AW22-1 0.50 - 0.50 SOLID 12/01/2021 00:00:00 14/01/2021 05:00:00 210114-156 23544320 TM048	21/01/2021	James Richards	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	AW22-3 2.40 - 2.40 SOLID 12/01/2021 00:00:00 14/01/2021 05:00:00 210114-156 23544330 TM048	20/01/21	Andrzej Ferfecki	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	AW23-2 1.70 - 1.70 SOLID 12/01/2021 00:00:00 14/01/2021 05:00:00 210114-156 23544178 TM048	19/01/2021	Paul Poynton	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	AW28-1 0.40 - 0.40 SOLID 13/01/2021 00:00:00 14/01/2021 05:00:00 210114-156 23544196 TM048	20/01/2021	Paul Poynton	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	AW29-1 0.60 - 0.60 SOLID 13/01/2021 00:00:00 14/01/2021 05:00:00 210114-156 23544215 TM048	20/01/2021	Paul Poynton	Loose fibres in soil	Not Detected (#)	Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected

CERTIFICATE OF ANALYSIS

SDG:	210114-156	**Client Reference:**	P18-669	**Report Number:**	584521
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584114

Asbestos Quantification - Full

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
*	Subcontracted test.
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

		Additional Asbestos Components	Analysts Comments	Asbestos Quantification - Gravimetric - %	Asbestos Quantification - PCOM	Asbestos Quantification - Total - %
Cust. Sample Ref.	AU23-2	None (#)	-	<0.001 (#)	<0.001 (#)	<0.001 (#)
Depth (m)	1.40 - 1.40					
Sample Type	SOLID					
Date Sampled	12/01/2021 00:00:00					
Date Received	14/01/2021 05:00:00					
SDG	210114-156					
Original Sample	23544341					
Method Number	TM304					
Cust. Sample Ref.	AW29-1	None (#)	N/A	<0.001 (#)	<0.001 (#)	<0.001 (#)
Depth (m)	0.60 - 0.60					
Sample Type	SOLID					
Date Sampled	13/01/2021 00:00:00					
Date Received	14/01/2021 05:00:00					
SDG	210114-156					
Original Sample	23544215					
Method Number	TM304					

Table of Results - Appendix

Method No	Reference	Description
PM024	Modified BS 1377	Soil preparation including homogenisation, moisture screens of soils for Asbestos Containing Material
TM024	Method 4500A & B, AWWA/APHA, 20th Ed., 1999	Determination of Exchangeable Ammonium and Ammoniacal Nitrogen as N by titration on solids
TM048	HSG 248, Asbestos: The analysts' guide for sampling, analysis and clearance procedures	Identification of Asbestos in Bulk Material
TM062 (S)	National Grid Property Holdings Methods for the Collection & Analysis of Samples from National Grid Sites version 1 Sec 3.9	Determination of Phenols in Soils by HPLC
TM089	Modified: US EPA Methods 8020 & 602	Determination of Gasoline Range Hydrocarbons (GRO) by Headspace GC-FID (C4-C12)
TM116	Modified: US EPA Method 8260, 8120, 8020, 624, 610 & 602	Determination of Volatile Organic Compounds by Headspace / GC-MS
TM132	In - house Method	ELTRA CS800 Operators Guide
TM133	BS 1377: Part 3 1990;BS 6068-2.5	Determination of pH in Soil and Water using the GLpH pH Meter
TM153	Method 4500A,B,C, I, M AWWA/APHA, 20th Ed., 1999	Determination of Total Cyanide, Free (Easily Liberatable) Cyanide and Thiocyanate using the Skalar SANS+ System Segmented Flow Analyser
TM181	US EPA Method 6010B	Determination of Routine Metals in Soil by iCap 6500 Duo ICP-OES
TM218	Shaker extraction - EPA method 3546.	The determination of PAH in soil samples by GC-MS
TM304	HSE Contract research Report no 83/1996	Asbestos Quantification in Soil: Fibres identified by morphology only
TM414	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	Determination of Speciated Extractable Petroleum Hydrocarbons in Soils by GCxGC-FID

NA = not applicable.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden (Method codes TM) or ALS Life Sciences Ltd Aberdeen (Method codes S).

CERTIFICATE OF ANALYSIS

SDG:	210114-156	**Client Reference:**	P18-669	**Report Number:**	584521
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584114

Test Completion Dates

Lab Sample No(s)	23544315	23544309	23544291	23544302	23544336	23544341	23544284	23544150	23544263	23544346
Customer Sample Ref.	AR29-1	AS29-1	AT29-1	AT29-2	AU23-1	AU23-2	AU28-1	AV22-1	AV22-2	AV23-1
AGS Ref.										
Depth	1.20 - 1.20	1.00 - 1.00	0.50 - 0.50	1.10 - 1.10	0.50 - 0.50	1.40 - 1.40	0.50 - 0.50	0.50 - 0.50	1.50 - 1.50	0.50 - 0.50
Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
Ammonium Soil by Titration	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	22-Jan-2021
Asbestos ID in Solid Samples		20-Jan-2021	20-Jan-2021			19-Jan-2021		21-Jan-2021		
Asbestos Quantification - Full						25-Jan-2021				
Cyanide Comp/Free/Total/Thiocyanate	20-Jan-2021	20-Jan-2021	20-Jan-2021	20-Jan-2021	20-Jan-2021	20-Jan-2021	20-Jan-2021	20-Jan-2021	20-Jan-2021	19-Jan-2021
EPH CWG GC (S)	18-Jan-2021	18-Jan-2021	20-Jan-2021	19-Jan-2021	18-Jan-2021	18-Jan-2021	19-Jan-2021	19-Jan-2021	18-Jan-2021	18-Jan-2021
GRO by GC-FID (S)	21-Jan-2021	20-Jan-2021	19-Jan-2021	21-Jan-2021	20-Jan-2021	20-Jan-2021	20-Jan-2021	21-Jan-2021	20-Jan-2021	21-Jan-2021
Metals in solid samples by OES	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	20-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021
PAH by GCMS	21-Jan-2021	20-Jan-2021	20-Jan-2021	21-Jan-2021	18-Jan-2021	19-Jan-2021	19-Jan-2021	20-Jan-2021	19-Jan-2021	21-Jan-2021
pH	15-Jan-2021	18-Jan-2021	18-Jan-2021	15-Jan-2021	15-Jan-2021	15-Jan-2021	15-Jan-2021	18-Jan-2021	15-Jan-2021	15-Jan-2021
Phenols by HPLC (S)	21-Jan-2021	21-Jan-2021	19-Jan-2021	19-Jan-2021	19-Jan-2021	20-Jan-2021	21-Jan-2021	21-Jan-2021	19-Jan-2021	20-Jan-2021
Sample description	15-Jan-2021	15-Jan-2021	15-Jan-2021	15-Jan-2021	15-Jan-2021	15-Jan-2021	15-Jan-2021	15-Jan-2021	15-Jan-2021	15-Jan-2021
Total Organic Carbon	20-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	20-Jan-2021	21-Jan-2021	21-Jan-2021	20-Jan-2021	21-Jan-2021
TPH CWG GC (S)	21-Jan-2021	20-Jan-2021	20-Jan-2021	21-Jan-2021	20-Jan-2021	20-Jan-2021	20-Jan-2021	21-Jan-2021	20-Jan-2021	21-Jan-2021
VOC MS (S)	19-Jan-2021	21-Jan-2021	19-Jan-2021	21-Jan-2021	19-Jan-2021	21-Jan-2021	19-Jan-2021	21-Jan-2021	19-Jan-2021	21-Jan-2021

Lab Sample No(s)	23544351	23544251	23544270	23544277	23544237	23544246	23544320	23544325	23544330	23544170
Customer Sample Ref.	AV23-2	AV28-1	AV28-2	AV28-3	AV29-1	AV29-2	AW22-1	AW22-2	AW22-3	AW23-1
AGS Ref.										
Depth	1.60 - 1.60	0.30 - 0.30	1.20 - 1.20	2.20 - 2.20	0.80 - 0.80	1.70 - 1.70	0.50 - 0.50	1.30 - 1.30	2.40 - 2.40	0.60 - 0.60
Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
Ammonium Soil by Titration	21-Jan-2021	22-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	22-Jan-2021
Asbestos ID in Solid Samples	20-Jan-2021	21-Jan-2021		20-Jan-2021	20-Jan-2021		21-Jan-2021		20-Jan-2021	
Cyanide Comp/Free/Total/Thiocyanate	20-Jan-2021	20-Jan-2021	20-Jan-2021	20-Jan-2021	20-Jan-2021	20-Jan-2021	20-Jan-2021	20-Jan-2021	20-Jan-2021	20-Jan-2021
EPH CWG GC (S)	18-Jan-2021	18-Jan-2021	18-Jan-2021	19-Jan-2021	19-Jan-2021	19-Jan-2021	20-Jan-2021	19-Jan-2021	19-Jan-2021	18-Jan-2021
GRO by GC-FID (S)	20-Jan-2021	21-Jan-2021	20-Jan-2021	21-Jan-2021	20-Jan-2021	19-Jan-2021	21-Jan-2021	20-Jan-2021	20-Jan-2021	21-Jan-2021
Metals in solid samples by OES	22-Jan-2021	22-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	20-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021
PAH by GCMS	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	19-Jan-2021	19-Jan-2021	19-Jan-2021	19-Jan-2021	20-Jan-2021
pH	15-Jan-2021	15-Jan-2021	15-Jan-2021	18-Jan-2021	18-Jan-2021	15-Jan-2021	18-Jan-2021	18-Jan-2021	18-Jan-2021	15-Jan-2021
Phenols by HPLC (S)	20-Jan-2021	20-Jan-2021	21-Jan-2021	21-Jan-2021	20-Jan-2021	21-Jan-2021	19-Jan-2021	21-Jan-2021	19-Jan-2021	21-Jan-2021
Sample description	15-Jan-2021	15-Jan-2021	15-Jan-2021	15-Jan-2021	15-Jan-2021	15-Jan-2021	15-Jan-2021	15-Jan-2021	15-Jan-2021	15-Jan-2021
Total Organic Carbon	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	20-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021
TPH CWG GC (S)	20-Jan-2021	21-Jan-2021	20-Jan-2021	21-Jan-2021	20-Jan-2021	20-Jan-2021	21-Jan-2021	20-Jan-2021	20-Jan-2021	21-Jan-2021
VOC MS (S)	19-Jan-2021	19-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	19-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021

Lab Sample No(s)	23544178	23544190	23544196	23544202	23544215	23544221
Customer Sample Ref.	AW23-2	AW26-1	AW28-1	AW28-2	AW29-1	AW29-2
AGS Ref.						
Depth	1.70 - 1.70	0.50 - 0.50	0.40 - 0.40	1.40 - 1.40	0.60 - 0.60	1.30 - 1.30
Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
Ammonium Soil by Titration	22-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021
Asbestos ID in Solid Samples	19-Jan-2021		20-Jan-2021		20-Jan-2021	
Asbestos Quantification - Full					27-Jan-2021	
Cyanide Comp/Free/Total/Thiocyanate	20-Jan-2021	19-Jan-2021	20-Jan-2021	20-Jan-2021	20-Jan-2021	20-Jan-2021
EPH CWG GC (S)	20-Jan-2021	20-Jan-2021	20-Jan-2021	19-Jan-2021	19-Jan-2021	19-Jan-2021
GRO by GC-FID (S)	20-Jan-2021	20-Jan-2021	21-Jan-2021	20-Jan-2021	20-Jan-2021	20-Jan-2021
Metals in solid samples by OES	21-Jan-2021	21-Jan-2021	21-Jan-2021	20-Jan-2021	21-Jan-2021	21-Jan-2021
PAH by GCMS	20-Jan-2021	20-Jan-2021	19-Jan-2021	20-Jan-2021	21-Jan-2021	20-Jan-2021
pH	15-Jan-2021	15-Jan-2021	18-Jan-2021	20-Jan-2021	18-Jan-2021	15-Jan-2021
Phenols by HPLC (S)	20-Jan-2021	21-Jan-2021	21-Jan-2021	19-Jan-2021	21-Jan-2021	21-Jan-2021
Sample description	15-Jan-2021	15-Jan-2021	15-Jan-2021	15-Jan-2021	15-Jan-2021	15-Jan-2021
Total Organic Carbon	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	20-Jan-2021	20-Jan-2021
TPH CWG GC (S)	20-Jan-2021	20-Jan-2021	21-Jan-2021	20-Jan-2021	20-Jan-2021	20-Jan-2021
VOC MS (S)	21-Jan-2021	19-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021

Appendix General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as "mixed hydrocarbons". Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

18. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

19. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as "Not detected". If no asbestos fibre types are found all will be reported as "Not detected" and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials are obtained from supplied bulk materials which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.
Standing Committee of Analysts, *The Quantification of Asbestos in Soil (2017).*

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

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Hawarden
Deeside
CH5 3US
Tel: (01244) 528700
Fax: (01244) 528701
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Website: www.alsenvironmental.co.uk

Rodgers Leask
Office 225
2430/2440
Aztec West
Almondsbury
Bristol
BS32 4QA

Attention: Elliot Thomas

CERTIFICATE OF ANALYSIS

Date of report Generation:	28 January 2021
Customer:	Rodgers Leask
Sample Delivery Group (SDG):	210115-27
Your Reference:	P18-669
Location:	Llanwern
Report No:	584712

This report has been revised and directly supersedes 584671 in its entirety.

We received 27 samples on Friday January 15, 2021 and 27 of these samples were scheduled for analysis which was completed on Thursday January 28, 2021. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden (Method codes TM) or ALS Life Sciences Ltd Aberdeen (Method codes S).

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:

Sonia McWhan

Operations Manager

CERTIFICATE OF ANALYSIS

SDG:	210115-27	**Client Reference:**	P18-669	**Report Number:**	584712
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584671

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
23547855	AL24-1		0.70 - 0.70	13/01/2021
23547865	AL24-2		1.30 - 1.30	13/01/2021
23547873	AM33-1		0.30 - 0.30	13/01/2021
23547879	AM33-2		1.30 - 1.30	13/01/2021
23547829	AN23-1		0.20 - 0.20	13/01/2021
23547841	AN23-2		1.50 - 1.50	13/01/2021
23548024	AO27-1		0.60 - 0.60	13/01/2021
23548034	AO27-2		1.20 - 1.20	13/01/2021
23547788	AO29-1		0.50 - 0.50	13/01/2021
23547917	AO29-2		1.50 - 1.50	13/01/2021
23548085	AQ24-1		0.20 - 0.20	13/01/2021
23547819	AQ24-2		1.50 - 1.50	13/01/2021
23548065	AQ25-1		0.20 - 0.20	13/01/2021
23548075	AQ25-2		1.50 - 1.50	13/01/2021
23548044	AQ26-1		0.20 - 0.20	13/01/2021
23548052	AQ26-2		1.50 - 1.50	13/01/2021
23547887	W168-1		0.20 - 0.20	14/01/2021
23547896	W168-2		0.20 - 0.20	14/01/2021
23547907	W168-3		0.20 - 0.20	14/01/2021
23547927	W168-4		0.20 - 0.20	14/01/2021
23547935	W168-5		0.20 - 0.20	14/01/2021
23547942	W168-6		0.20 - 0.20	14/01/2021
23547958	W168-7		0.20 - 0.20	14/01/2021
23547970	W168-8		0.20 - 0.20	14/01/2021
23547983	W168-9		0.20 - 0.20	14/01/2021
23548001	W168-10		0.20 - 0.20	14/01/2021
23548010	W168-11		0.20 - 0.20	14/01/2021

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG:	210115-27	**Client Reference:**	P18-669	**Report Number:**	584712
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584671

Results Legend

X Test

N No Determination Possible

Sample Types -

S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)			23547855		23547865		23547873		23547879		23547929		23547841		23548024		23548034				
Customer Sample Reference			AL24-1		AL24-2		AM33-1		AM33-2		AN23-1		AN23-2		AO27-1		AO27-2				
AGS Reference																					
Depth (m)			0.70 - 0.70		1.30 - 1.30		0.30 - 0.30		1.30 - 1.30		0.20 - 0.20		1.50 - 1.50		0.60 - 0.60		1.20 - 1.20				
Container			1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)
Sample Type			S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Ammonium Soil by Titration	All	NDPs: 0 Tests: 27		X		X			X		X			X		X			X		X
Asbestos ID in Solid Samples	All	NDPs: 0 Tests: 14	X					X					X					X			
Asbestos Quantification - Full	All	NDPs: 0 Tests: 1																			
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 27		X		X			X		X			X		X			X		X
EPH CWG GC (S)	All	NDPs: 0 Tests: 27		X		X			X		X			X		X			X		X
GRO by GC-FID (S)	All	NDPs: 0 Tests: 27			X		X			X		X			X		X			X	
Metals in solid samples by OES	All	NDPs: 0 Tests: 27		X		X			X		X			X		X			X		X
PAH by GCMS	All	NDPs: 0 Tests: 27		X		X			X		X			X		X			X		X
pH	All	NDPs: 0 Tests: 27		X		X			X		X			X		X			X		X
Phenols by HPLC (S)	All	NDPs: 0 Tests: 27		X		X			X		X			X		X			X		X
Sample description	All	NDPs: 0 Tests: 26		X		X			X		X			X		X			X		X
Total Organic Carbon	All	NDPs: 0 Tests: 27		X		X			X		X			X		X			X		X
TPH CWG GC (S)	All	NDPs: 0 Tests: 27		X		X			X		X			X		X			X		X
VOC MS (S)	All	NDPs: 0 Tests: 27			X		X			X		X			X		X			X	

23548052	AQ26-2		1.50 - 1.50	60g VOC (ALE215)	S							x											x
				250g Amber Jar (ALE210)	S	x				x	x		x	x	x	x	x	x	x	x			
23548044	AQ26-1		0.20 - 0.20	60g VOC (ALE215)	S							x											x
				250g Amber Jar (ALE210)	S	x				x	x		x	x	x	x	x	x	x	x			
				1kg TUB with Handle (ALE260)	S		x																
23548075	AQ25-2		1.50 - 1.50	60g VOC (ALE215)	S							x											x
				250g Amber Jar (ALE210)	S	x				x	x		x	x	x	x	x	x	x	x			
23548065	AQ25-1		0.20 - 0.20	60g VOC (ALE215)	S							x											x
				250g Amber Jar (ALE210)	S	x				x	x		x	x	x	x	x	x	x	x			
				1kg TUB with Handle (ALE260)	S		x	x															
23547819	AQ24-2		1.50 - 1.50	60g VOC (ALE215)	S							x											x
				250g Amber Jar (ALE210)	S	x				x	x		x	x	x	x	x	x	x	x			
23548085	AQ24-1		0.20 - 0.20	60g VOC (ALE215)	S							x											x
				250g Amber Jar (ALE210)	S	x				x	x		x	x	x	x	x	x	x	x			
				1kg TUB with Handle (ALE260)	S		x																
23547917	AO29-2		1.50 - 1.50	60g VOC (ALE215)	S							x											x
				250g Amber Jar (ALE210)	S	x				x	x		x	x	x	x	x	x	x	x			
23547788	AO29-1		0.50 - 0.50	60g VOC (ALE215)	S							x											x
				250g Amber Jar (ALE210)	S	x				x	x		x	x	x	x	x	x	x	x			
				1kg TUB with Handle (ALE260)	S		x																
23548034	AO27-2		1.20 - 1.20	60g VOC (ALE215)	S							x											x

Validated

CERTIFICATE OF ANALYSIS

SDG:	210115-27	**Client Reference:**	P18-669	**Report Number:**	584712
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584671

Results Legend

X Test

N No Determination Possible

Sample Types -

S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)				23547887	23547896		23547907			23547927			23547935			23547942			23547958		23547970
Customer Sample Reference				W168-1	W168-2		W168-3			W168-4			W168-5			W168-6			W168-7		W168-8
AGS Reference																					
Depth (m)				0.20 - 0.20	0.20 - 0.20		0.20 - 0.20			0.20 - 0.20			0.20 - 0.20			0.20 - 0.20			0.20 - 0.20		0.20 - 0.20
Container				1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)
Sample Type				S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Ammonium Soil by Titration	All	NDPs: 0 Tests: 27			X		X			X		X			X		X			X		X
Asbestos ID in Solid Samples	All	NDPs: 0 Tests: 14		X					X					X					X			
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 27			X		X			X		X			X		X			X		X
EPH CWG GC (S)	All	NDPs: 0 Tests: 27			X		X			X		X			X		X			X		X
GRO by GC-FID (S)	All	NDPs: 0 Tests: 27				X		X			X		X			X		X			X		
Metals in solid samples by OES	All	NDPs: 0 Tests: 27			X		X			X		X			X		X			X		X
PAH by GCMS	All	NDPs: 0 Tests: 27			X		X			X		X			X		X			X		X
pH	All	NDPs: 0 Tests: 27			X		X			X		X			X		X			X		X
Phenols by HPLC (S)	All	NDPs: 0 Tests: 27			X		X			X		X			X		X			X		X
Sample description	All	NDPs: 0 Tests: 26			X		X			X		X			X		X			X		X
Total Organic Carbon	All	NDPs: 0 Tests: 27			X		X			X		X			X		X			X		X
TPH CWG GC (S)	All	NDPs: 0 Tests: 27			X		X			X		X			X		X			X		X
VOC MS (S)	All	NDPs: 0 Tests: 27				X		X			X		X			X		X			X		

23548010	W168-11		0.20 - 0.20	60g VOC (ALE215)	S					X								X
				250g Amber Jar (ALE210)	S	X		X	X		X	X	X	X		X	X	
				1kg TUB with Handle (ALE260)	S		X											
23548001	W168-10		0.20 - 0.20	60g VOC (ALE215)	S					X								X
				250g Amber Jar (ALE210)	S	X		X	X		X	X	X	X	X	X	X	
23547983	W168-9		0.20 - 0.20	60g VOC (ALE215)	S					X								X
				250g Amber Jar (ALE210)	S	X		X	X		X	X	X	X	X	X	X	
				1kg TUB with Handle (ALE260)	S		X											
23547970	W168-8		0.20 - 0.20	60g VOC (ALE215)	S					X								X

CERTIFICATE OF ANALYSIS

SDG:	210115-27	**Client Reference:**	P18-669	**Report Number:**	584712
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584671

Sample Descriptions

Grain Sizes

very fine	<0.063mm	**fine**	0.063mm - 0.1mm	**medium**	0.1mm - 2mm	**coarse**	2mm - 10mm	**very coarse**	>10mm

Lab Sample No(s)	Customer Sample Ref.	Depth (m)	Colour	Description	Inclusions	Inclusions 2
23547855	AL24-1	0.70 - 0.70	Black	Sand	Stones	None
23547865	AL24-2	1.30 - 1.30	Grey	Gravel	Stones	None
23547873	AM33-1	0.30 - 0.30	Dark Brown	Sand	Stones	None
23547879	AM33-2	1.30 - 1.30	Dark Brown	Sand	Stones	None
23547829	AN23-1	0.20 - 0.20	Dark Brown	Loamy Sand	Stones	Vegetation
23547841	AN23-2	1.50 - 1.50	Dark Brown	Sand	Stones	None
23548024	AO27-1	0.60 - 0.60	Dark Brown	Sandy Loam	Stones	Vegetation
23548034	AO27-2	1.20 - 1.20	Grey	Sand	Stones	N/A
23547788	AO29-1	0.50 - 0.50	Dark Brown	Sandy Loam	Stones	Vegetation
23547917	AO29-2	1.50 - 1.50	Dark Brown	Sand	Stones	None
23548085	AQ24-1	0.20 - 0.20	Dark Brown	Sand	Stones	Vegetation
23547819	AQ24-2	1.50 - 1.50	Dark Brown	Sand	Stones	None
23548065	AQ25-1	0.20 - 0.20	Dark Brown	Sandy Loam	Stones	None
23548075	AQ25-2	1.50 - 1.50	Dark Brown	Sand	None	Stones
23548044	AQ26-1	0.20 - 0.20	Dark Brown	Sandy Loam	Stones	Vegetation
23548052	AQ26-2	1.50 - 1.50	Dark Brown	Sand	None	Stones
23547887	W168-1	0.20 - 0.20	Dark Brown	Loamy Sand	Stones	Vegetation
23547896	W168-2	0.20 - 0.20	Dark Brown	Loamy Sand	Vegetation	Stones
23547907	W168-3	0.20 - 0.20	Dark Brown	Silt Loam	Stones	Vegetation
23547927	W168-4	0.20 - 0.20	Dark Brown	Loamy Sand	Stones	Vegetation
23547935	W168-5	0.20 - 0.20	Dark Brown	Loamy Sand	Stones	Vegetation
23547942	W168-6	0.20 - 0.20	Dark Brown	Sandy Loam	Stones	Vegetation
23547958	W168-7	0.20 - 0.20	Dark Brown	Sandy Loam	Stones	Vegetation
23547970	W168-8	0.20 - 0.20	Dark Brown	Silt Loam	Stones	Vegetation
23547983	W168-9	0.20 - 0.20	Dark Brown	Loamy Sand	Stones	Vegetation
23548001	W168-10	0.20 - 0.20	Dark Brown	Sand	Vegetation	Stones
23548010	W168-11	0.20 - 0.20	Dark Brown	Loamy Sand	Vegetation	Tar

These descriptions are only intended to act as a cross check if sample identities are questioned, and to provide a log of sample matrices with respect to MCERTS validation. They are not intended as full geological descriptions.

We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally ocurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample.

Other coarse granular materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

Validated

CERTIFICATE OF ANALYSIS

SDG:	210115-27	**Client Reference:**	P18-669	**Report Number:**	584712
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584671

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AL24-1	AL24-2	AM33-1	AM33-2	AN23-1	AN23-2
			Depth (m)	0.70 - 0.70	1.30 - 1.30	0.30 - 0.30	1.30 - 1.30	0.20 - 0.20	1.50 - 1.50
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	13/01/2021	13/01/2021	13/01/2021	13/01/2021	13/01/2021	13/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	15/01/2021	15/01/2021	15/01/2021	15/01/2021	15/01/2021	15/01/2021
			SDG Ref	210115-27	210115-27	210115-27	210115-27	210115-27	210115-27
			Lab Sample No.(s)	23547855	23547865	23547873	23547879	23547829	23547841
			AGS Reference						
Moisture Content Ratio (% of as received sample)	%	PM024		15	13	8.3	8.6	5.8	8.2
Exchangeable Ammonia as N	<12 mg/kg	TM024		<12 M	<12 #	<12 M	<12 M	<12 M	<12 M
Phenol	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 #	<0.01 M	<0.01 M	<0.01 M	<0.01 M
Cresols	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 #	<0.01 M	<0.01 M	<0.01 M	<0.01 M
Xylenols	<0.015 mg/kg	TM062 (S)		<0.015 M	<0.015 #	<0.015 M	<0.015 M	<0.015 M	<0.015 M
Phenols, Total Detected monohydric	<0.035 mg/kg	TM062 (S)		<0.035 M	<0.035 #	<0.035 M	<0.035 M	<0.035 M	<0.035 M
Soil Organic Matter (SOM)	<0.35 %	TM132		>100 #	2.76 #	1.19 #	10.3 #	3.64 #	1.11 #
pH	1 pH Units	TM133		10.4 M	11 #	12.6 M	11.8 M	12 M	12.7 M
Cyanide, Total	<1 mg/kg	TM153		<1 M	<1 #	<1 M	<1 M	<1 M	<1 M
Arsenic	<0.6 mg/kg	TM181		7.68 M	1.33 #	7.22 M	9.12 M	<6 M	<6 M
Cadmium	<0.02 mg/kg	TM181		<0.02 M	<0.02 #	<0.2 M	0.258 M	0.477 M	<0.2 M
Chromium	<0.9 mg/kg	TM181		13.1 M	7.04 #	628 M	121 M	841 M	376 M
Copper	<1.4 mg/kg	TM181		12.2 M	<1.4 #	14.5 M	23.8 M	<14 M	26.1 M
Iron	<1000 mg/kg	TM181		31600 #	12000 #	180000 #	65800 #	159000 #	139000 #
Lead	<0.7 mg/kg	TM181		18.4 M	<0.7 #	22.5 M	23.5 M	7.35 M	14.9 M
Manganese	<0.13 mg/kg	TM181		2410 M	4760 #	209000 M	5090 M	33700 M	34500 M
Mercury	<0.14 mg/kg	TM181		<0.14 M	<0.14 #	<1.4 M	<1.4 M	<1.4 M	<1.4 M
Nickel	<0.2 mg/kg	TM181		10.4 M	0.818 #	24.6 M	45.1 M	9.88 M	20.6 M
Selenium	<1 mg/kg	TM181		2.33 #	2.98 #	22.7 #	<10 #	18.6 #	24 #
Vanadium	<0.2 mg/kg	TM181		28.7 #	23.1 #	571 #	96 #	839 #	1800 #
Zinc	<1.9 mg/kg	TM181		83.8 M	10.8 #	63.9 M	86.6 M	75.2 M	51.4 M

Validated

CERTIFICATE OF ANALYSIS

SDG:	210115-27	**Client Reference:**	P18-669	**Report Number:**	584712
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584671

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AO27-1	AO27-2	AO29-1	AO29-2	AQ24-1	AQ24-2
			Depth (m)	0.60 - 0.60	1.20 - 1.20	0.50 - 0.50	1.50 - 1.50	0.20 - 0.20	1.50 - 1.50
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	13/01/2021	13/01/2021	13/01/2021	13/01/2021	13/01/2021	13/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	15/01/2021	15/01/2021	15/01/2021	15/01/2021	15/01/2021	15/01/2021
			SDG Ref	210115-27	210115-27	210115-27	210115-27	210115-27	210115-27
			Lab Sample No.(s)	23548024	23548034	23547788	23547917	23548085	23547819
			AGS Reference						
Moisture Content Ratio (% of as received sample)	%	PM024		9.3	7	7.4	6.5	16	5.5
Exchangeable Ammonia as N	<12 mg/kg	TM024		<12 M	<12 M	<12 M	<12 M	<12 M	<12 M
Phenol	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M
Cresols	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M
Xylenols	<0.015 mg/kg	TM062 (S)		<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M
Phenols, Total Detected monohydric	<0.035 mg/kg	TM062 (S)		<0.035 M	<0.035 M	<0.035 M	<0.035 M	<0.035 M	<0.035 M
Soil Organic Matter (SOM)	<0.35 %	TM132		13.6 #	2.5 #	5.14 #	20.5 #	5.65 #	1.14 #
pH	1 pH Units	TM133		11.4 M	11.9 M	8.92 M	12.6 M	10.7 M	11.8 M
Cyanide, Total	<1 mg/kg	TM153		<1 M	<1 M	<1 M	<1 M	<1 M	<1 M
Arsenic	<0.6 mg/kg	TM181		8.95 M	7.22 M	9.67 M	<6 M	<60 M	11 M
Cadmium	<0.02 mg/kg	TM181		0.893 M	<0.2 M	1.81 M	0.401 M	<2 M	<0.2 M
Chromium	<0.9 mg/kg	TM181		131 M	39.8 M	456 M	802 M	291 M	28.6 M
Copper	<1.4 mg/kg	TM181		79.3 M	<14 M	81.4 M	<14 M	<140 M	16.8 M
Iron	<1000 mg/kg	TM181		107000 #	430000 #	140000 #	140000 #	116000 #	356000 #
Lead	<0.7 mg/kg	TM181		135 M	26.3 M	165 M	7.04 M	84.8 M	17.6 M
Manganese	<0.13 mg/kg	TM181		11600 M	6230 M	23400 M	38000 M	16500 M	6350 M
Mercury	<0.14 mg/kg	TM181		<1.4 M	1.84 M	<1.4 M	<1.4 M	<14 M	<1.4 M
Nickel	<0.2 mg/kg	TM181		31.2 M	18.1 M	29.7 M	7.31 M	155 M	35.2 M
Selenium	<1 mg/kg	TM181		<10 #	<10 #	10.1 #	21.7 #	<100 #	<10 #
Vanadium	<0.2 mg/kg	TM181		396 #	325 #	419 #	681 #	696 #	235 #
Zinc	<1.9 mg/kg	TM181		764 M	191 M	531 M	44.5 M	207 M	186 M

Validated

CERTIFICATE OF ANALYSIS

SDG:	210115-27	**Client Reference:**	P18-669	**Report Number:**	584712
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584671

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AQ25-1	AQ25-2	AQ26-1	AQ26-2	W168-1	W168-2
			Depth (m)	0.20 - 0.20	1.50 - 1.50	0.20 - 0.20	1.50 - 1.50	0.20 - 0.20	0.20 - 0.20
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	13/01/2021	13/01/2021	13/01/2021	13/01/2021	14/01/2021	14/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	15/01/2021	15/01/2021	15/01/2021	15/01/2021	15/01/2021	15/01/2021
			SDG Ref	210115-27	210115-27	210115-27	210115-27	210115-27	210115-27
			Lab Sample No.(s)	23548065	23548075	23548044	23548052	23547887	23547896
			AGS Reference						
Moisture Content Ratio (% of as received sample)	%	PM024		24	8.2	18	6.7	13	12
Exchangeable Ammonia as N	<12 mg/kg	TM024		<12 M	<12 M	<12 M	<12 M	<12 M	<12 M
Phenol	<0.01 mg/kg	TM062 (S)		<0.01 M	0.0109 M	<0.01 M	<0.01 M	<0.01 M	0.0114 M
Cresols	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	<0.01 M	<0.01 M	0.0115 M	0.0114 M
Xylenols	<0.015 mg/kg	TM062 (S)		<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M
Phenols, Total Detected monohydric	<0.035 mg/kg	TM062 (S)		<0.035 M	<0.035 M	<0.035 M	<0.035 M	<0.035 M	<0.035 M
Soil Organic Matter (SOM)	<0.35 %	TM132		19.1 #	1.57 #	7.38 #	0.924 #	27.9 #	26.5 #
pH	1 pH Units	TM133		9.53 M	12.7 M	9.19 M	12.7 M	9.42 M	9.7 M
Cyanide, Total	<1 mg/kg	TM153		1.06 M	<1 M	<1 M	<1 M	<1 M	<1 M
Arsenic	<0.6 mg/kg	TM181		8.52 M	<6 M	8.64 M	6.23 M	8 M	8.65 M
Cadmium	<0.02 mg/kg	TM181		1.23 M	<0.2 M	0.337 M	0.794 M	0.896 M	1.26 M
Chromium	<0.9 mg/kg	TM181		257 M	565 M	255 M	302 M	182 M	323 M
Copper	<1.4 mg/kg	TM181		25.6 M	28.5 M	19.3 M	20.4 M	30.2 M	19.5 M
Iron	<1000 mg/kg	TM181		98900 #	210000 #	86000 #	253000 #	72100 #	94900 #
Lead	<0.7 mg/kg	TM181		132 M	24.2 M	121 M	18.9 M	142 M	204 M
Manganese	<0.13 mg/kg	TM181		13100 M	49500 M	13700 M	24100 M	21000 M	15500 M
Mercury	<0.14 mg/kg	TM181		<1.4 M	<1.4 M	<1.4 M	<1.4 M	<1.4 M	<1.4 M
Nickel	<0.2 mg/kg	TM181		21.8 M	23.7 M	20.8 M	39 M	17.9 M	19.8 M
Selenium	<1 mg/kg	TM181		<10 #	27.6 #	10.7 #	<10 #	12.9 #	13.8 #
Vanadium	<0.2 mg/kg	TM181		361 #	1960 #	318 #	1300 #	270 #	357 #
Zinc	<1.9 mg/kg	TM181		446 M	55.6 M	359 M	114 M	501 M	596 M
Asbestos Quantification - Gravimetric - %	<0.001 %	TM304		0.0083 #					
Asbestos Quantification - PCOM Evaluation - %	<0.001 %	TM304		<0.001 #					
Additional Asbestos Components (Using TM048)		TM304		Chrysotile detected. #					
Analysts Comments		TM304		Fibre bundles in soil.					
Asbestos Quantification - Total - %	<0.001 %	TM304		0.0083 #					

Validated

CERTIFICATE OF ANALYSIS

SDG:	210115-27	**Client Reference:**	P18-669	**Report Number:**	584712
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584671

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	W168-3	W168-4	W168-5	W168-6	W168-7	W168-8
			Depth (m)	0.20 - 0.20	0.20 - 0.20	0.20 - 0.20	0.20 - 0.20	0.20 - 0.20	0.20 - 0.20
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	15/01/2021	15/01/2021	15/01/2021	15/01/2021	15/01/2021	15/01/2021
			SDG Ref	210115-27	210115-27	210115-27	210115-27	210115-27	210115-27
			Lab Sample No.(s)	23547907	23547927	23547935	23547942	23547958	23547970
			AGS Reference						
Moisture Content Ratio (% of as received sample)	%	PM024		12	14	12	20	11	15
Exchangeable Ammonia as N	<12 mg/kg	TM024		<12 M	<12 M	<12 M	<12 M	<12 M	<12 M
Phenol	<0.01 mg/kg	TM062 (S)		<0.01 M	0.0116 M	<0.01 M	0.0126 M	<0.01 M	0.0234 M
Cresols	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	<0.01 M	0.0126 M	<0.01 M	0.0117 M
Xylenols	<0.015 mg/kg	TM062 (S)		<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M
Phenols, Total Detected monohydric	<0.035 mg/kg	TM062 (S)		<0.035 M	<0.035 M	<0.035 M	<0.035 M	<0.035 M	<0.035 M
Soil Organic Matter (SOM)	<0.35 %	TM132		27.6 #	28.1 #	19.3 #	28.8 #	24.5 #	13.3 #
pH	1 pH Units	TM133		9.15 M	9.82 M	10.2 M	9.24 M	9.65 M	9.08 M
Cyanide, Total	<1 mg/kg	TM153		<1 M	<1 M	<1 M	<1 M	<1 M	<1 M
Arsenic	<0.6 mg/kg	TM181		7.73 M	10.8 M	8.38 M	9.62 M	7.96 M	<6 M
Cadmium	<0.02 mg/kg	TM181		1.23 M	0.989 M	2.1 M	3.45 M	1.3 M	1.01 M
Chromium	<0.9 mg/kg	TM181		253 M	354 M	304 M	271 M	298 M	175 M
Copper	<1.4 mg/kg	TM181		19.8 M	28.4 M	23.9 M	28.1 M	24.1 M	17 M
Iron	<1000 mg/kg	TM181		87600 #	140000 #	124000 #	99000 #	85000 #	78100 #
Lead	<0.7 mg/kg	TM181		107 M	217 M	241 M	184 M	130 M	93.1 M
Manganese	<0.13 mg/kg	TM181		16000 M	16800 M	17100 M	12000 M	16000 M	12600 M
Mercury	<0.14 mg/kg	TM181		<1.4 M	<1.4 M	<1.4 M	<1.4 M	<1.4 M	<1.4 M
Nickel	<0.2 mg/kg	TM181		19.1 M	25.1 M	20 M	22.1 M	19.1 M	20 M
Selenium	<1 mg/kg	TM181		<10 #	13.6 #	<10 #	11.1 #	11.4 #	<10 #
Vanadium	<0.2 mg/kg	TM181		328 #	365 #	408 #	286 #	290 #	200 #
Zinc	<1.9 mg/kg	TM181		364 M	806 M	903 M	564 M	454 M	324 M

CERTIFICATE OF ANALYSIS

SDG:	210115-27	**Client Reference:**	P18-669	**Report Number:**	584712
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584671

Results Legend

#	ISO17025 accredited.
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aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	W168-9	W168-10	W168-11			
			Depth (m)	0.20 - 0.20	0.20 - 0.20	0.20 - 0.20			
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)			
			Date Sampled	14/01/2021	14/01/2021	14/01/2021			
			Sample Time	.	.	.			
			Date Received	15/01/2021	15/01/2021	15/01/2021			
			SDG Ref	210115-27	210115-27	210115-27			
			Lab Sample No.(s)	23547983	23548001	23548010			
			AGS Reference						
Moisture Content Ratio (% of as received sample)	%	PM024		12	9.1	14			
Exchangeable Ammonia as N	<12 mg/kg	TM024		<12 M	<12 M	<12 M			
Phenol	<0.01 mg/kg	TM062 (S)		<0.01 M	0.011 M	0.0117 M			
Cresols	<0.01 mg/kg	TM062 (S)		<0.01 M	0.011 M	<0.01 M			
Xylenols	<0.015 mg/kg	TM062 (S)		<0.015 M	<0.015 M	<0.015 M			
Phenols, Total Detected monohydric	<0.035 mg/kg	TM062 (S)		<0.035 M	<0.035 M	<0.035 M			
Soil Organic Matter (SOM)	<0.35 %	TM132		23.3 #	30.9 #	30.2 #			
pH	1 pH Units	TM133		10.1 M	9.95 M	10.7 M			
Cyanide, Total	<1 mg/kg	TM153		<1 M	<1 M	<1 M			
Arsenic	<0.6 mg/kg	TM181		7.75 M	9.37 M	8.5 M			
Cadmium	<0.02 mg/kg	TM181		2.49 M	1.39 M	2.29 M			
Chromium	<0.9 mg/kg	TM181		248 M	283 M	290 M			
Copper	<1.4 mg/kg	TM181		20 M	28.2 M	21.2 M			
Iron	<1000 mg/kg	TM181		98300 #	109000 #	111000 #			
Lead	<0.7 mg/kg	TM181		314 M	200 M	255 M			
Manganese	<0.13 mg/kg	TM181		14000 M	14600 M	17400 M			
Mercury	<0.14 mg/kg	TM181		<1.4 M	<1.4 M	<1.4 M			
Nickel	<0.2 mg/kg	TM181		18.7 M	25.1 M	19.8 M			
Selenium	<1 mg/kg	TM181		<10 #	13.6 #	13.3 #			
Vanadium	<0.2 mg/kg	TM181		251 #	355 #	365 #			
Zinc	<1.9 mg/kg	TM181		987 M	645 M	940 M			

Validated

CERTIFICATE OF ANALYSIS

SDG:	210115-27	**Client Reference:**	P18-669	**Report Number:**	584712
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584671

PAH by GCMS

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AL24-1	AL24-2	AM33-1	AM33-2	AN23-1	AN23-2
			Depth (m)	0.70 - 0.70	1.30 - 1.30	0.30 - 0.30	1.30 - 1.30	0.20 - 0.20	1.50 - 1.50
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	13/01/2021	13/01/2021	13/01/2021	13/01/2021	13/01/2021	13/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	15/01/2021	15/01/2021	15/01/2021	15/01/2021	15/01/2021	15/01/2021
			SDG Ref	210115-27	210115-27	210115-27	210115-27	210115-27	210115-27
			Lab Sample No.(s)	23547855	23547865	23547873	23547879	23547829	23547841
			AGS Reference						
Naphthalene-d8 % recovery**	%	TM218		83.9	88.9	88.4	89.6	88.6	91.4
Acenaphthene-d10 % recovery**	%	TM218		85.2	87.3	88.9	91.8	91.7	89.5
Phenanthrene-d10 % recovery**	%	TM218		87.7	87.5	90.1	93.3	92.4	91.3
Chrysene-d12 % recovery**	%	TM218		79.2	83.1	87.1	88.7	82	92.1
Perylene-d12 % recovery**	%	TM218		64.5	85	91.3	92.2	85	95.9
Naphthalene	<9 µg/kg	TM218		426 M	66.3 #	18.5 M	123 M	254 M	253 M
Acenaphthylene	<12 µg/kg	TM218		169 M	18.2 #	<12 M	224 M	72.9 M	58 M
Acenaphthene	<8 µg/kg	TM218		40.7 M	16.9 #	15 M	13.3 M	27.4 M	69.8 M
Fluorene	<10 µg/kg	TM218		129 M	32.3 #	<10 M	125 M	81.2 M	64.9 M
Phenanthrene	<15 µg/kg	TM218		1510 M	262 #	133 M	972 M	782 M	2300 M
Anthracene	<16 µg/kg	TM218		392 M	67.3 #	23.3 M	540 M	206 M	263 M
Fluoranthene	<17 µg/kg	TM218		3040 M	419 #	273 M	2530 M	1100 M	2060 M
Pyrene	<15 µg/kg	TM218		2420 M	420 #	204 M	1750 M	788 M	1410 M
Benz(a)anthracene	<14 µg/kg	TM218		1800 M	191 #	131 M	1270 M	382 M	718 M
Chrysene	<10 µg/kg	TM218		2000 M	202 #	179 M	1370 M	354 M	856 M
Benzo(b)fluoranthene	<15 µg/kg	TM218		2780 M	352 #	319 M	1620 M	557 M	1030 M
Benzo(k)fluoranthene	<14 µg/kg	TM218		875 M	121 #	97.9 M	537 M	185 M	421 M
Benzo(a)pyrene	<15 µg/kg	TM218		1820 M	207 #	128 M	986 M	323 M	630 M
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		1440 M	190 #	167 M	813 M	301 M	515 M
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		345 M	38.5 #	33.7 M	172 M	42.8 M	92.3 M
Benzo(g,h,i)perylene	<24 µg/kg	TM218		1410 M	170 #	147 M	723 M	249 M	489 M
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		20600	2770	1870	13800	5710	11200

Validated

CERTIFICATE OF ANALYSIS

SDG:	210115-27	**Client Reference:**	P18-669	**Report Number:**	584712
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584671

PAH by GCMS

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AO27-1	AO27-2	AO29-1	AO29-2	AQ24-1	AQ24-2
			Depth (m)	0.60 - 0.60	1.20 - 1.20	0.50 - 0.50	1.50 - 1.50	0.20 - 0.20	1.50 - 1.50
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	13/01/2021	13/01/2021	13/01/2021	13/01/2021	13/01/2021	13/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	15/01/2021	15/01/2021	15/01/2021	15/01/2021	15/01/2021	15/01/2021
			SDG Ref	210115-27	210115-27	210115-27	210115-27	210115-27	210115-27
			Lab Sample No.(s)	23548024	23548034	23547788	23547917	23548085	23547819
			AGS Reference						
Naphthalene-d8 % recovery**	%	TM218		88.5	91.1	90.9	81.7	84.7	84.7
Acenaphthene-d10 % recovery**	%	TM218		91.7	90.9	92.2	88.4	86.6	86.8
Phenanthrene-d10 % recovery**	%	TM218		94.3	90.4	93	91.3	88.3	89.6
Chrysene-d12 % recovery**	%	TM218		87.8	85.7	89.6	81	80	82
Perylene-d12 % recovery**	%	TM218		88.6	87.5	92.9	78.7	81.8	85.3
Naphthalene	<9 µg/kg	TM218		1330 M	311 M	92.3 M	134 M	866 M	416 M
Acenaphthylene	<12 µg/kg	TM218		508 M	54.7 M	40.1 M	14.7 M	279 M	88.9 M
Acenaphthene	<8 µg/kg	TM218		112 M	17.8 M	43.5 M	11.6 M	54.3 M	13.6 M
Fluorene	<10 µg/kg	TM218		419 M	22 M	47.2 M	10.8 M	227 M	63.7 M
Phenanthrene	<15 µg/kg	TM218		3880 M	308 M	366 M	266 M	1930 M	476 M
Anthracene	<16 µg/kg	TM218		944 M	70.6 M	88.6 M	32.3 M	418 M	102 M
Fluoranthene	<17 µg/kg	TM218		6780 M	544 M	749 M	338 M	3040 M	732 M
Pyrene	<15 µg/kg	TM218		4880 M	434 M	661 M	277 M	2250 M	558 M
Benz(a)anthracene	<14 µg/kg	TM218		2890 M	256 M	505 M	181 M	1330 M	319 M
Chrysene	<10 µg/kg	TM218		2690 M	255 M	591 M	206 M	1150 M	292 M
Benzo(b)fluoranthene	<15 µg/kg	TM218		4210 M	455 M	910 M	350 M	2100 M	495 M
Benzo(k)fluoranthene	<14 µg/kg	TM218		1350 M	138 M	375 M	141 M	682 M	171 M
Benzo(a)pyrene	<15 µg/kg	TM218		2900 M	267 M	609 M	173 M	1360 M	300 M
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		2450 M	232 M	562 M	143 M	1180 M	270 M
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		368 M	41 M	111 M	<23 M	220 M	53.2 M
Benzo(g,h,i)perylene	<24 µg/kg	TM218		2070 M	209 M	580 M	155 M	1090 M	250 M
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		37800	3620	6330	2430	18200	4600

Validated

CERTIFICATE OF ANALYSIS

SDG:	210115-27	**Client Reference:**	P18-669	**Report Number:**	584712
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584671

PAH by GCMS

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AQ25-1	AQ25-2	AQ26-1	AQ26-2	W168-1	W168-2
			Depth (m)	0.20 - 0.20	1.50 - 1.50	0.20 - 0.20	1.50 - 1.50	0.20 - 0.20	0.20 - 0.20
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	13/01/2021	13/01/2021	13/01/2021	13/01/2021	14/01/2021	14/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	15/01/2021	15/01/2021	15/01/2021	15/01/2021	15/01/2021	15/01/2021
			SDG Ref	210115-27	210115-27	210115-27	210115-27	210115-27	210115-27
			Lab Sample No.(s)	23548065	23548075	23548044	23548052	23547887	23547896
			AGS Reference						
Naphthalene-d8 % recovery**	%	TM218		86	88.5	85.7	88.6	87.5	83.8
Acenaphthene-d10 % recovery**	%	TM218		85.8	90.5	84.9	90.5	89.8	88.1
Phenanthrene-d10 % recovery**	%	TM218		85.2	93	83.1	91.9	91.5	88.7
Chrysene-d12 % recovery**	%	TM218		80.4	89.1	78	89.8	81.6	78.9
Perylene-d12 % recovery**	%	TM218		76.7	92.8	74.9	94.2	78.8	75.5
Naphthalene	<9 µg/kg	TM218		7620 M	1230 M	3890 M	198 M	3280 M	3990 M
Acenaphthylene	<12 µg/kg	TM218		1880 M	830 M	833 M	139 M	977 M	1150 M
Acenaphthene	<8 µg/kg	TM218		264 M	195 M	209 M	135 M	200 M	191 M
Fluorene	<10 µg/kg	TM218		1690 M	1050 M	761 M	146 M	797 M	780 M
Phenanthrene	<15 µg/kg	TM218		13900 M	10400 M	6660 M	3290 M	5600 M	5030 M
Anthracene	<16 µg/kg	TM218		3190 M	1950 M	1420 M	462 M	1690 M	1850 M
Fluoranthene	<17 µg/kg	TM218		20800 M	11900 M	11100 M	3380 M	9570 M	9340 M
Pyrene	<15 µg/kg	TM218		14200 M	8110 M	8060 M	2390 M	6840 M	6890 M
Benz(a)anthracene	<14 µg/kg	TM218		7600 M	4790 M	4410 M	1650 M	4800 M	4770 M
Chrysene	<10 µg/kg	TM218		6160 M	4700 M	3820 M	1680 M	3810 M	3880 M
Benzo(b)fluoranthene	<15 µg/kg	TM218		10600 M	5930 M	6830 M	2290 M	6570 M	6860 M
Benzo(k)fluoranthene	<14 µg/kg	TM218		3740 M	2160 M	2300 M	774 M	2310 M	2390 M
Benzo(a)pyrene	<15 µg/kg	TM218		6210 M	4090 M	3970 M	1330 M	3990 M	4170 M
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		5250 M	3430 M	3700 M	1150 M	3370 M	3590 M
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		676 M	686 M	454 M	261 M	575 M	623 M
Benzo(g,h,i)perylene	<24 µg/kg	TM218		4230 M	2930 M	3040 M	1010 M	2610 M	2720 M
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		108000	64400	61400	20300	57000	58200

Validated

CERTIFICATE OF ANALYSIS

SDG:	210115-27	**Client Reference:**	P18-669	**Report Number:**	584712
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584671

PAH by GCMS

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	W168-3	W168-4	W168-5	W168-6	W168-7	W168-8
			Depth (m)	0.20 - 0.20	0.20 - 0.20	0.20 - 0.20	0.20 - 0.20	0.20 - 0.20	0.20 - 0.20
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	15/01/2021	15/01/2021	15/01/2021	15/01/2021	15/01/2021	15/01/2021
			SDG Ref	210115-27	210115-27	210115-27	210115-27	210115-27	210115-27
			Lab Sample No.(s)	23547907	23547927	23547935	23547942	23547958	23547970
			AGS Reference						
Naphthalene-d8 % recovery**	%	TM218		90	84.7	81.8	86.4	80.8	86.6
Acenaphthene-d10 % recovery**	%	TM218		88.9	86.3	81.7	82.3	87.6	82.5
Phenanthrene-d10 % recovery**	%	TM218		91.3	88	87	81.2	91.4	81.9
Chrysene-d12 % recovery**	%	TM218		89.1	79.3	75	75.1	79.5	79.8
Perylene-d12 % recovery**	%	TM218		89.1	77.1	74.4	74.3	73.9	78.1
Naphthalene	<9 µg/kg	TM218		3190 M	4790 M	4390 M	4170 M	4380 M	2180 M
Acenaphthylene	<12 µg/kg	TM218		1490 M	1260 M	1960 M	4800 M	1040 M	1180 M
Acenaphthene	<8 µg/kg	TM218		158 M	255 M	385 M	868 M	221 M	118 M
Fluorene	<10 µg/kg	TM218		903 M	1060 M	1940 M	10300 M	864 M	674 M
Phenanthrene	<15 µg/kg	TM218		6320 M	7170 M	16300 M	47400 M	5590 M	4750 M
Anthracene	<16 µg/kg	TM218		<16 M	3420 M	5230 M	8330 M	1810 M	1510 M
Fluoranthene	<17 µg/kg	TM218		15300 M	13100 M	26500 M	43400 M	9670 M	9990 M
Pyrene	<15 µg/kg	TM218		10900 M	9310 M	18000 M	26900 M	6960 M	7310 M
Benz(a)anthracene	<14 µg/kg	TM218		7830 M	6280 M	10800 M	15400 M	4450 M	4990 M
Chrysene	<10 µg/kg	TM218		7160 M	5610 M	9500 M	16400 M	3790 M	4850 M
Benzo(b)fluoranthene	<15 µg/kg	TM218		10900 M	9250 M	14600 M	17800 M	6520 M	7170 M
Benzo(k)fluoranthene	<14 µg/kg	TM218		3550 M	3030 M	4850 M	5620 M	2240 M	2270 M
Benzo(a)pyrene	<15 µg/kg	TM218		7170 M	5260 M	8700 M	11100 M	3760 M	4420 M
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		5310 M	4270 M	6950 M	8280 M	2850 M	3570 M
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		1180 M	694 M	1450 M	2030 M	489 M	735 M
Benzo(g,h,i)perylene	<24 µg/kg	TM218		4730 M	3500 M	5800 M	6960 M	2400 M	3150 M
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		86000	78300	137000	230000	57000	58900

Validated

CERTIFICATE OF ANALYSIS

SDG:	210115-27	**Client Reference:**	P18-669	**Report Number:**	584712
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584671

PAH by GCMS

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	W168-9	W168-10	W168-11			
			Depth (m)	0.20 - 0.20	0.20 - 0.20	0.20 - 0.20			
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)			
			Date Sampled	14/01/2021	14/01/2021	14/01/2021			
			Sample Time	.	.	.			
			Date Received	15/01/2021	15/01/2021	15/01/2021			
			SDG Ref	210115-27	210115-27	210115-27			
			Lab Sample No.(s)	23547983	23548001	23548010			
			AGS Reference						
Naphthalene-d8 % recovery**	%	TM218		78.6	88.6	82.1			
Acenaphthene-d10 % recovery**	%	TM218		85.6	90.8	80.3			
Phenanthrene-d10 % recovery**	%	TM218		85.9	92.5	83.5			
Chrysene-d12 % recovery**	%	TM218		77.1	88.1	72.6			
Perylene-d12 % recovery**	%	TM218		70.7	84.6	70.8			
Naphthalene	<9 µg/kg	TM218		4520 M	5430 M	4000 M			
Acenaphthylene	<12 µg/kg	TM218		1690 M	1570 M	1250 M			
Acenaphthene	<8 µg/kg	TM218		272 M	213 M	308 M			
Fluorene	<10 µg/kg	TM218		1230 M	1210 M	1300 M			
Phenanthrene	<15 µg/kg	TM218		8820 M	10800 M	9800 M			
Anthracene	<16 µg/kg	TM218		3780 M	3820 M	3220 M			
Fluoranthene	<17 µg/kg	TM218		18000 M	17500 M	15100 M			
Pyrene	<15 µg/kg	TM218		12800 M	12400 M	11000 M			
Benz(a)anthracene	<14 µg/kg	TM218		8290 M	7860 M	7860 M			
Chrysene	<10 µg/kg	TM218		7010 M	6820 M	6930 M			
Benzo(b)fluoranthene	<15 µg/kg	TM218		11300 M	10300 M	10700 M			
Benzo(k)fluoranthene	<14 µg/kg	TM218		4270 M	3230 M	3640 M			
Benzo(a)pyrene	<15 µg/kg	TM218		6560 M	6260 M	6690 M			
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		4730 M	4900 M	5090 M			
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		745 M	1160 M	1170 M			
Benzo(g,h,i)perylene	<24 µg/kg	TM218		4330 M	4090 M	4270 M			
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		98300	97600	92300			

Validated

CERTIFICATE OF ANALYSIS

SDG:	210115-27	**Client Reference:**	P18-669	**Report Number:**	584712
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584671

TPH CWG (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AL24-1	AL24-2	AM33-1	AM33-2	AN23-1	AN23-2
			Depth (m)	0.70 - 0.70	1.30 - 1.30	0.30 - 0.30	1.30 - 1.30	0.20 - 0.20	1.50 - 1.50
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	13/01/2021	13/01/2021	13/01/2021	13/01/2021	13/01/2021	13/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	15/01/2021	15/01/2021	15/01/2021	15/01/2021	15/01/2021	15/01/2021
			SDG Ref	210115-27	210115-27	210115-27	210115-27	210115-27	210115-27
			Lab Sample No.(s)	23547855	23547865	23547873	23547879	23547829	23547841
			AGS Reference						
GRO Surrogate % recovery**	%	TM089		89.3	115	113	84.8	95.4	103
Aliphatics >C5-C6	<10 µg/kg	TM089		<10	<10	<10	<10	<10	<10
Aliphatics >C6-C8	<10 µg/kg	TM089		11.8	<10	<10	16.4	<10	22.9
Aliphatics >C8-C10	<10 µg/kg	TM089		10.6	<10	<10	16.4	<10	29.4
Aliphatics >C10-C12	<1000 µg/kg	TM414		<1000	<1000	<1000	<1000	<1000	<1000
Aliphatics >C12-C16	<1000 µg/kg	TM414		<1000	<1000	1260	<1000	<1000	2920
Aliphatics >C16-C21	<1000 µg/kg	TM414		11400	<1000	9880	3970	3070	14000
Aliphatics >C21-C35	<1000 µg/kg	TM414		5320	4980	62700	8720	22800	108000
Aliphatics >C35-C44	<1000 µg/kg	TM414		<1000	<1000	16400	1080	7170	52800
Total Aliphatics >C10-C44	<5000 µg/kg	TM414		17000	5850	90200	14000	33600	178000
Total Aliphatics & Aromatics >C10-C44	<10000 µg/kg	TM414		109000	10200	106000	52200	51800	198000
Aromatics >EC5-EC7	<10 µg/kg	TM089		<10	<10	<10	<10	<10	<10
Aromatics >EC7-EC8	<10 µg/kg	TM089		<10	<10	<10	<10	<10	<10
Aromatics >EC8-EC10	<10 µg/kg	TM089		<10	<10	<10	10.9	<10	19.6
Aromatics > EC10-EC12	<1000 µg/kg	TM414		<1000	<1000	<1000	<1000	<1000	<1000
Aromatics > EC12-EC16	<1000 µg/kg	TM414		<1000	<1000	<1000	<1000	<1000	<1000
Aromatics > EC16-EC21	<1000 µg/kg	TM414		14500	1030	<1000	7120	4670	4730
Aromatics > EC21-EC35	<1000 µg/kg	TM414		67000	2270	13600	25800	11700	12500
Aromatics >EC35-EC44	<1000 µg/kg	TM414		9070	<1000	<1000	5020	<1000	1590
Aromatics > EC40-EC44	<1000 µg/kg	TM414		<1000	<1000	<1000	1370	<1000	<1000
Total Aromatics > EC10-EC44	<5000 µg/kg	TM414		91800	<5000	15500	38300	18200	19700
Total Aliphatics & Aromatics >C5-C44	<10000 µg/kg	TM414		109000	<10000	106000	52300	51800	198000
Total Aliphatics >C5-C10	<50 µg/kg	TM089		<50	<50	<50	<50	<50	52.3
Total Aromatics >EC5-EC10	<50 µg/kg	TM089		<50	<50	<50	<50	<50	<50
GRO >C5-C10	<20 µg/kg	TM089		<20	<20	<20	<20	<20	52.3

Validated

CERTIFICATE OF ANALYSIS

SDG:	210115-27	**Client Reference:**	P18-669	**Report Number:**	584712
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584671

TPH CWG (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AO27-1	AO27-2	AO29-1	AO29-2	AQ24-1	AQ24-2
			Depth (m)	0.60 - 0.60	1.20 - 1.20	0.50 - 0.50	1.50 - 1.50	0.20 - 0.20	1.50 - 1.50
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	13/01/2021	13/01/2021	13/01/2021	13/01/2021	13/01/2021	13/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	15/01/2021	15/01/2021	15/01/2021	15/01/2021	15/01/2021	15/01/2021
			SDG Ref	210115-27	210115-27	210115-27	210115-27	210115-27	210115-27
			Lab Sample No.(s)	23548024	23548034	23547788	23547917	23548085	23547819
			AGS Reference						
GRO Surrogate % recovery**	%	TM089		72.6	105	80.4	103	110	95.8
Aliphatics >C5-C6	<10 µg/kg	TM089		<10	<10	<10	<10	18	<10
Aliphatics >C6-C8	<10 µg/kg	TM089		<10	<10	<10	35.3	82.8	21.2
Aliphatics >C8-C10	<10 µg/kg	TM089		<10	<10	<10	51.4	116	37
Aliphatics >C10-C12	<1000 µg/kg	TM414		<1000	<1000	<1000	<1000	18800	<1000
Aliphatics >C12-C16	<1000 µg/kg	TM414		1250	1230	<1000	5390	161000	13400
Aliphatics >C16-C21	<1000 µg/kg	TM414		6110	51200	5810	17300	179000	22500
Aliphatics >C21-C35	<1000 µg/kg	TM414		21100	9890	16500	53300	150000	20200
Aliphatics >C35-C44	<1000 µg/kg	TM414		7780	<1000	1940	22700	16400	2850
Total Aliphatics >C10-C44	<5000 µg/kg	TM414		36200	63000	24500	98700	524000	58900
Total Aliphatics & Aromatics >C10-C44	<10000 µg/kg	TM414		137000	73000	89300	115000	718000	73000
Aromatics >EC5-EC7	<10 µg/kg	TM089		<10	<10	<10	<10	<10	<10
Aromatics >EC7-EC8	<10 µg/kg	TM089		<10	<10	<10	<10	<10	<10
Aromatics >EC8-EC10	<10 µg/kg	TM089		<10	<10	<10	34.2	78	24.3
Aromatics > EC10-EC12	<1000 µg/kg	TM414		<1000	<1000	<1000	1040	1740	<1000
Aromatics > EC12-EC16	<1000 µg/kg	TM414		1220	<1000	<1000	1950	32100	3550
Aromatics > EC16-EC21	<1000 µg/kg	TM414		18700	3820	4900	2360	44400	3220
Aromatics > EC21-EC35	<1000 µg/kg	TM414		70800	4990	50900	9400	104000	6030
Aromatics >EC35-EC44	<1000 µg/kg	TM414		9270	<1000	8570	1420	10900	<1000
Aromatics > EC40-EC44	<1000 µg/kg	TM414		1720	<1000	1750	<1000	2170	<1000
Total Aromatics > EC10-EC44	<5000 µg/kg	TM414		101000	9990	64800	16200	194000	14100
Total Aliphatics & Aromatics >C5-C44	<10000 µg/kg	TM414		137000	73000	89300	115000	718000	73100
Total Aliphatics >C5-C10	<50 µg/kg	TM089		<50	<50	<50	86.7	217	58.2
Total Aromatics >EC5-EC10	<50 µg/kg	TM089		<50	<50	<50	<50	78	<50
GRO >C5-C10	<20 µg/kg	TM089		<20	<20	<20	86.7	295	58.2

Validated

CERTIFICATE OF ANALYSIS

SDG:	210115-27	**Client Reference:**	P18-669	**Report Number:**	584712
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584671

TPH CWG (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AQ25-1	AQ25-2	AQ26-1	AQ26-2	W168-1	W168-2
			Depth (m)	0.20 - 0.20	1.50 - 1.50	0.20 - 0.20	1.50 - 1.50	0.20 - 0.20	0.20 - 0.20
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	13/01/2021	13/01/2021	13/01/2021	13/01/2021	14/01/2021	14/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	15/01/2021	15/01/2021	15/01/2021	15/01/2021	15/01/2021	15/01/2021
			SDG Ref	210115-27	210115-27	210115-27	210115-27	210115-27	210115-27
			Lab Sample No.(s)	23548065	23548075	23548044	23548052	23547887	23547896
			AGS Reference						
GRO Surrogate % recovery**	%	TM089		66.9 4	95.3	85.7	101	36.2 4	30.2 4
Aliphatics >C5-C6	<10 µg/kg	TM089		43.2 4	<10	11	<10	<10 4	<10 4
Aliphatics >C6-C8	<10 µg/kg	TM089		83.8 4	<10	45.1	<10	28.8 4	14.8 4
Aliphatics >C8-C10	<10 µg/kg	TM089		148 4	<10	45.1	<10	46 4	11.4 4
Aliphatics >C10-C12	<1000 µg/kg	TM414		<1000	<1000	<1000	<1000	<1000	<1000
Aliphatics >C12-C16	<1000 µg/kg	TM414		3270	1440	1960	<1000	1980	2630
Aliphatics >C16-C21	<1000 µg/kg	TM414		11000	9490	6420	7270	13800	12100
Aliphatics >C21-C35	<1000 µg/kg	TM414		46000	64500	20900	51100	25200	33300
Aliphatics >C35-C44	<1000 µg/kg	TM414		13300	32900	4250	18200	4530	9690
Total Aliphatics >C10-C44	<5000 µg/kg	TM414		74500	108000	33600	77400	45600	58300
Total Aliphatics & Aromatics >C10-C44	<10000 µg/kg	TM414		447000	158000	210000	106000	421000	256000
Aromatics >EC5-EC7	<10 µg/kg	TM089		<10 4	<10	<10	<10	<10 4	<10 4
Aromatics >EC7-EC8	<10 µg/kg	TM089		<10 4	<10	<10	<10	<10 4	<10 4
Aromatics >EC8-EC10	<10 µg/kg	TM089		98.3 4	<10	30.5	<10	29.9 4	<10 4
Aromatics > EC10-EC12	<1000 µg/kg	TM414		12200	<1000	2820	<1000	5060	5160
Aromatics > EC12-EC16	<1000 µg/kg	TM414		14300	1080	3480	<1000	16900	7030
Aromatics > EC16-EC21	<1000 µg/kg	TM414		104000	10000	30300	6190	128000	39600
Aromatics > EC21-EC35	<1000 µg/kg	TM414		218000	31300	125000	19600	195000	127000
Aromatics >EC35-EC44	<1000 µg/kg	TM414		24100	6460	15200	2600	29900	18900
Aromatics > EC40-EC44	<1000 µg/kg	TM414		5410	1250	2070	<1000	3630	4130
Total Aromatics > EC10-EC44	<5000 µg/kg	TM414		372000	49200	177000	28800	375000	197000
Total Aliphatics & Aromatics >C5-C44	<10000 µg/kg	TM414		447000	158000	211000	106000	421000	256000
Total Aliphatics >C5-C10	<50 µg/kg	TM089		275 4	<50	101	<50	74.8 4	<50 4
Total Aromatics >EC5-EC10	<50 µg/kg	TM089		98.3 4	<50	<50	<50	<50 4	<50 4
GRO >C5-C10	<20 µg/kg	TM089		373 4	<20	101	<20	74.8 4	<20 4

Validated

CERTIFICATE OF ANALYSIS

SDG:	210115-27	**Client Reference:**	P18-669	**Report Number:**	584712
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584671

TPH CWG (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	W168-3	W168-4	W168-5	W168-6	W168-7	W168-8
			Depth (m)	0.20 - 0.20	0.20 - 0.20	0.20 - 0.20	0.20 - 0.20	0.20 - 0.20	0.20 - 0.20
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	15/01/2021	15/01/2021	15/01/2021	15/01/2021	15/01/2021	15/01/2021
			SDG Ref	210115-27	210115-27	210115-27	210115-27	210115-27	210115-27
			Lab Sample No.(s)	23547907	23547927	23547935	23547942	23547958	23547970
			AGS Reference						
GRO Surrogate % recovery**	%	TM089		49.2 4	49.1 4	36.4 4	39.5 4	31.1 4	50.9 4
Aliphatics >C5-C6	<10 µg/kg	TM089		<10 4	<10 4	<10 4	<10 4	<10 4	<10 4
Aliphatics >C6-C8	<10 µg/kg	TM089		<10 4	32.5 4	13.7 4	<10 4	14.6 4	<10 4
Aliphatics >C8-C10	<10 µg/kg	TM089		<10 4	34.8 4	12.5 4	<10 4	13.4 4	<10 4
Aliphatics >C10-C12	<1000 µg/kg	TM414		<1000	<1000	1050	<1000	1070	<1000
Aliphatics >C12-C16	<1000 µg/kg	TM414		<1000	3750	4140	2460	3710	<1000
Aliphatics >C16-C21	<1000 µg/kg	TM414		1290	14200	20900	14500	15600	3110
Aliphatics >C21-C35	<1000 µg/kg	TM414		4110	36200	45200	31100	43800	10600
Aliphatics >C35-C44	<1000 µg/kg	TM414		<1000	13200	12200	6550	11000	1840
Total Aliphatics >C10-C44	<5000 µg/kg	TM414		6350	68000	83500	55000	75200	16900
Total Aliphatics & Aromatics >C10-C44	<10000 µg/kg	TM414		159000	391000	309000	303000	315000	164000
Aromatics >EC5-EC7	<10 µg/kg	TM089		<10 4	<10 4	<10 4	<10 4	<10 4	<10 4
Aromatics >EC7-EC8	<10 µg/kg	TM089		<10 4	<10 4	<10 4	<10 4	<10 4	<10 4
Aromatics >EC8-EC10	<10 µg/kg	TM089		<10 4	23.2 4	<10 4	<10 4	<10 4	<10 4
Aromatics > EC10-EC12	<1000 µg/kg	TM414		2510	5560	5780	5200	8120	2670
Aromatics > EC12-EC16	<1000 µg/kg	TM414		3860	10400	8860	7720	9860	6080
Aromatics > EC16-EC21	<1000 µg/kg	TM414		32900	81300	49100	48500	49100	27000
Aromatics > EC21-EC35	<1000 µg/kg	TM414		98800	201000	143000	163000	143000	92900
Aromatics >EC35-EC44	<1000 µg/kg	TM414		14500	24800	18300	23700	29200	18700
Aromatics > EC40-EC44	<1000 µg/kg	TM414		1790	5510	3370	2940	5010	2350
Total Aromatics > EC10-EC44	<5000 µg/kg	TM414		153000	323000	225000	248000	240000	147000
Total Aliphatics & Aromatics >C5-C44	<10000 µg/kg	TM414		159000	392000	309000	303000	315000	164000
Total Aliphatics >C5-C10	<50 µg/kg	TM089		<50 4	67.3 4	<50 4	<50 4	<50 4	<50 4
Total Aromatics >EC5-EC10	<50 µg/kg	TM089		<50 4	<50 4	<50 4	<50 4	<50 4	<50 4
GRO >C5-C10	<20 µg/kg	TM089		<20 4	67.3 4	<20 4	<20 4	<20 4	<20 4

CERTIFICATE OF ANALYSIS

SDG:	210115-27	**Client Reference:**	P18-669	**Report Number:**	584712
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584671

TPH CWG (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	W168-9	W168-10	W168-11			
			Depth (m)	0.20 - 0.20	0.20 - 0.20	0.20 - 0.20			
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)			
			Date Sampled	14/01/2021	14/01/2021	14/01/2021			
			Sample Time	.	.	.			
			Date Received	15/01/2021	15/01/2021	15/01/2021			
			SDG Ref	210115-27	210115-27	210115-27			
			Lab Sample No.(s)	23547983	23548001	23548010			
			AGS Reference						
GRO Surrogate % recovery**	%	TM089		36.1 4	47.9 4	45.2 4			
Aliphatics >C5-C6	<10 µg/kg	TM089		<10 4	14.3 4	<10 4			
Aliphatics >C6-C8	<10 µg/kg	TM089		21.7 4	29.7 4	32.8 4			
Aliphatics >C8-C10	<10 µg/kg	TM089		22.8 4	24.2 4	30.4 4			
Aliphatics >C10-C12	<1000 µg/kg	TM414		<1000	1000	<1000			
Aliphatics >C12-C16	<1000 µg/kg	TM414		4480	4680	4010			
Aliphatics >C16-C21	<1000 µg/kg	TM414		18300	25800	26900			
Aliphatics >C21-C35	<1000 µg/kg	TM414		42100	50200	50800			
Aliphatics >C35-C44	<1000 µg/kg	TM414		12200	14900	10200			
Total Aliphatics >C10-C44	<5000 µg/kg	TM414		78000	96700	92400			
Total Aliphatics & Aromatics >C10-C44	<10000 µg/kg	TM414		329000	295000	363000			
Aromatics >EC5-EC7	<10 µg/kg	TM089		<10 4	<10 4	<10 4			
Aromatics >EC7-EC8	<10 µg/kg	TM089		<10 4	<10 4	<10 4			
Aromatics >EC8-EC10	<10 µg/kg	TM089		14.8 4	16.5 4	19.9 4			
Aromatics > EC10-EC12	<1000 µg/kg	TM414		6170	5970	7070			
Aromatics > EC12-EC16	<1000 µg/kg	TM414		8870	9030	10300			
Aromatics > EC16-EC21	<1000 µg/kg	TM414		52600	40600	60300			
Aromatics > EC21-EC35	<1000 µg/kg	TM414		163000	125000	169000			
Aromatics >EC35-EC44	<1000 µg/kg	TM414		20400	17900	24200			
Aromatics > EC40-EC44	<1000 µg/kg	TM414		2990	2720	3480			
Total Aromatics > EC10-EC44	<5000 µg/kg	TM414		251000	198000	271000			
Total Aliphatics & Aromatics >C5-C44	<10000 µg/kg	TM414		329000	295000	363000			
Total Aliphatics >C5-C10	<50 µg/kg	TM089		<50 4	68.2 4	63.2 4			
Total Aromatics >EC5-EC10	<50 µg/kg	TM089		<50 4	<50 4	<50 4			
GRO >C5-C10	<20 µg/kg	TM089		<20 4	68.2 4	63.2 4			

CERTIFICATE OF ANALYSIS

SDG:	210115-27	**Client Reference:**	P18-669	**Report Number:**	584712
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584671

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AL24-1	AL24-2	AM33-1	AM33-2	AN23-1	AN23-2
			Depth (m)	0.70 - 0.70	1.30 - 1.30	0.30 - 0.30	1.30 - 1.30	0.20 - 0.20	1.50 - 1.50
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	13/01/2021	13/01/2021	13/01/2021	13/01/2021	13/01/2021	13/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	15/01/2021	15/01/2021	15/01/2021	15/01/2021	15/01/2021	15/01/2021
			SDG Ref	210115-27	210115-27	210115-27	210115-27	210115-27	210115-27
			Lab Sample No.(s)	23547855	23547865	23547873	23547879	23547829	23547841
			AGS Reference						
Dibromofluoromethane**	%	TM116		113	110	104	106	108	103
Toluene-d8**	%	TM116		98.4	98.8	97.3	96.3	97.8	97.6
4-Bromofluorobenzene**	%	TM116		92.5	98.3	95.2	93.8	97.2	97.5
Methyl Tertiary Butyl Ether	<10 µg/kg	TM116		<200 M	<200 #	<200 M	<200 M	<200 M	<200 M
Benzene	<9 µg/kg	TM116		<180 M	<180 #	<180 M	<180 M	<180 M	<180 M
Toluene	<7 µg/kg	TM116		<140 M	<140 #	<140 M	<140 M	<140 M	<140 M
Ethylbenzene	<4 µg/kg	TM116		<80 M	<80 #	<80 M	<80 M	<80 M	<80 M
p/m-Xylene	<10 µg/kg	TM116		<200 #	<200 #	<200 #	<200 #	<200 #	<200 #
o-Xylene	<10 µg/kg	TM116		<200 M	<200 #	<200 M	<200 M	<200 M	<200 M
Naphthalene	<13 µg/kg	TM116		<260 M	<260 #	<260 M	<260 M	<260 M	<260 M
Sum of Detected Xylenes	<0.02 mg/kg	TM116		<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Sum of BTEX	<40 µg/kg	TM116		<800	<800	<800	<800	<800	<800

CERTIFICATE OF ANALYSIS

SDG:	210115-27	**Client Reference:**	P18-669	**Report Number:**	584712
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584671

VOC MS (S)

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AO27-1	AO27-2	AO29-1	AO29-2	AQ24-1	AQ24-2
			Depth (m)	0.60 - 0.60	1.20 - 1.20	0.50 - 0.50	1.50 - 1.50	0.20 - 0.20	1.50 - 1.50
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	13/01/2021	13/01/2021	13/01/2021	13/01/2021	13/01/2021	13/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	15/01/2021	15/01/2021	15/01/2021	15/01/2021	15/01/2021	15/01/2021
			SDG Ref	210115-27	210115-27	210115-27	210115-27	210115-27	210115-27
			Lab Sample No.(s)	23548024	23548034	23547788	23547917	23548085	23547819
			AGS Reference						
Dibromofluoromethane**	%	TM116		108	109	110	112	103	106
Toluene-d8**	%	TM116		99.2	98.6	99.1	99.2	96.3	103
4-Bromofluorobenzene**	%	TM116		93.3	99.5	95.4	96.7	87.9	95.7
Methyl Tertiary Butyl Ether	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<200 M	<200 M
Benzene	<9 µg/kg	TM116		<180 M	<180 M	<180 M	<180 M	<180 M	<180 M
Toluene	<7 µg/kg	TM116		<140 M	<140 M	<140 M	<140 M	<140 M	<140 M
Ethylbenzene	<4 µg/kg	TM116		<80 M	<80 M	<80 M	<80 M	<80 M	<80 M
p/m-Xylene	<10 µg/kg	TM116		<200 #	<200 #	<200 #	<200 #	<200 #	<200 #
o-Xylene	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<200 M	<200 M
Naphthalene	<13 µg/kg	TM116		<260 M	<260 M	<260 M	<260 M	1200 M	<260 M
Sum of Detected Xylenes	<0.02 mg/kg	TM116		<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Sum of BTEX	<40 µg/kg	TM116		<800	<800	<800	<800	<800	<800

CERTIFICATE OF ANALYSIS

SDG:	210115-27	**Client Reference:**	P18-669	**Report Number:**	584712
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584671

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AQ25-1	AQ25-2	AQ26-1	AQ26-2	W168-1	W168-2
			Depth (m)	0.20 - 0.20	1.50 - 1.50	0.20 - 0.20	1.50 - 1.50	0.20 - 0.20	0.20 - 0.20
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	13/01/2021	13/01/2021	13/01/2021	13/01/2021	14/01/2021	14/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	15/01/2021	15/01/2021	15/01/2021	15/01/2021	15/01/2021	15/01/2021
			SDG Ref	210115-27	210115-27	210115-27	210115-27	210115-27	210115-27
			Lab Sample No.(s)	23548065	23548075	23548044	23548052	23547887	23547896
			AGS Reference						
Dibromofluoromethane**	%	TM116		105	102	99.8	103	88.7	96.2
Toluene-d8**	%	TM116		95.4	96.1	96.4	96.9	90.4	96.5
4-Bromofluorobenzene**	%	TM116		89.9	96.8	85.3	96.7	74.3	84
Methyl Tertiary Butyl Ether	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<200 M	<200 M
Benzene	<9 µg/kg	TM116		<180 M	<180 M	<180 M	<180 M	<180 M	<180 M
Toluene	<7 µg/kg	TM116		<140 M	<140 M	<140 M	<140 M	<140 M	<140 M
Ethylbenzene	<4 µg/kg	TM116		<80 M	<80 M	<80 M	<80 M	<80 M	<80 M
p/m-Xylene	<10 µg/kg	TM116		<200 #	<200 #	<200 #	<200 #	<200 #	<200 #
o-Xylene	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<200 M	<200 M
Naphthalene	<13 µg/kg	TM116		1410 M	<260 M	1710 M	<260 M	1680 M	819 M
Sum of Detected Xylenes	<0.02 mg/kg	TM116		<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Sum of BTEX	<40 µg/kg	TM116		<800	<800	<800	<800	<800	<800

CERTIFICATE OF ANALYSIS

SDG:	210115-27	**Client Reference:**	P18-669	**Report Number:**	584712
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584671

VOC MS (S)

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	W168-3	W168-4	W168-5	W168-6	W168-7	W168-8
			Depth (m)	0.20 - 0.20	0.20 - 0.20	0.20 - 0.20	0.20 - 0.20	0.20 - 0.20	0.20 - 0.20
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	15/01/2021	15/01/2021	15/01/2021	15/01/2021	15/01/2021	15/01/2021
			SDG Ref	210115-27	210115-27	210115-27	210115-27	210115-27	210115-27
			Lab Sample No.(s)	23547907	23547927	23547935	23547942	23547958	23547970
			AGS Reference						
Dibromofluoromethane**	%	TM116		96.9	97.9	92.6	94.8	89.2	103
Toluene-d8**	%	TM116		96.9	95.1	93.2	95	95.2	96.2
4-Bromofluorobenzene**	%	TM116		82.9	82.6	78.8	82.9	80.1	89.5
Methyl Tertiary Butyl Ether	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<200 M	<200 M
Benzene	<9 µg/kg	TM116		<180 M	<180 M	<180 M	<180 M	<180 M	<180 M
Toluene	<7 µg/kg	TM116		<140 M	<140 M	<140 M	<140 M	<140 M	<140 M
Ethylbenzene	<4 µg/kg	TM116		<80 M	<80 M	<80 M	<80 M	<80 M	<80 M
p/m-Xylene	<10 µg/kg	TM116		<200 #	<200 #	<200 #	<200 #	<200 #	<200 #
o-Xylene	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<200 M	<200 M
Naphthalene	<13 µg/kg	TM116		948 M	651 M	1270 M	806 M	1310 M	368 M
Sum of Detected Xylenes	<0.02 mg/kg	TM116		<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Sum of BTEX	<40 µg/kg	TM116		<800	<800	<800	<800	<800	<800

CERTIFICATE OF ANALYSIS

SDG:	210115-27	**Client Reference:**	P18-669	**Report Number:**	584712
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584671

VOC MS (S)

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	W168-9	W168-10	W168-11			
			Depth (m)	0.20 - 0.20	0.20 - 0.20	0.20 - 0.20			
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)			
			Date Sampled	14/01/2021	14/01/2021	14/01/2021			
			Sample Time	.	.	.			
			Date Received	15/01/2021	15/01/2021	15/01/2021			
			SDG Ref	210115-27	210115-27	210115-27			
			Lab Sample No.(s)	23547983	23548001	23548010			
			AGS Reference						
Dibromofluoromethane**	%	TM116		101	94.8	97			
Toluene-d8**	%	TM116		97.2	94	95			
4-Bromofluorobenzene**	%	TM116		89.3	81.4	80.4			
Methyl Tertiary Butyl Ether	<10 µg/kg	TM116		<200 M	<200 M	<200 M			
Benzene	<9 µg/kg	TM116		<180 M	<180 M	<180 M			
Toluene	<7 µg/kg	TM116		<140 M	<140 M	<140 M			
Ethylbenzene	<4 µg/kg	TM116		<80 M	<80 M	<80 M			
p/m-Xylene	<10 µg/kg	TM116		<200 #	<200 #	<200 #			
o-Xylene	<10 µg/kg	TM116		<200 M	<200 M	<200 M			
Naphthalene	<13 µg/kg	TM116		491 M	839 M	1240 M			
Sum of Detected Xylenes	<0.02 mg/kg	TM116		<0.4	<0.4	<0.4			
Sum of BTEX	<40 µg/kg	TM116		<800	<800	<800			

CERTIFICATE OF ANALYSIS

SDG:	210115-27	**Client Reference:**	P18-669	**Report Number:**	584712
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584671

Asbestos Identification - Solid Samples

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
*	Subcontracted test.
(F)	Trigger breach confirmed
1-5&+$@	Sample deviation (see appendix)

		Date of Analysis	Analysed By	Comments	Amosite (Brown) Asbestos	Chrysotile (White) Asbestos	Crocidolite (Blue) Asbestos	Fibrous Actinolite	Fibrous Anthophyllite	Fibrous Tremolite	Non-Asbestos Fibre
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	AL24-1 0.70 - 0.70 SOLID 13/01/2021 00:00:00 15/01/2021 05:00:00 210115-27 23547855 TM048	22/01/21	Andrzej Ferfecki	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	AM33-1 0.30 - 0.30 SOLID 13/01/2021 00:00:00 15/01/2021 05:00:00 210115-27 23547873 TM048	22/01/21	Andrzej Ferfecki	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	AN23-1 0.20 - 0.20 SOLID 13/01/2021 00:00:00 15/01/2021 05:00:00 210115-27 23547829 TM048	21/01/21	Andrzej Ferfecki	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	AO27-1 0.60 - 0.60 SOLID 13/01/2021 00:00:00 15/01/2021 05:00:00 210115-27 23548024 TM048	21/01/21	Andrzej Ferfecki	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	AO29-1 0.50 - 0.50 SOLID 13/01/2021 00:00:00 15/01/2021 05:00:00 210115-27 23547788 TM048	22/01/21	Andrzej Ferfecki	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	AQ24-1 0.20 - 0.20 SOLID 13/01/2021 00:00:00 15/01/2021 05:00:00 210115-27 23548085 TM048	21/01/21	Andrzej Ferfecki	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	AQ25-1 0.20 - 0.20 SOLID 13/01/2021 00:00:00 15/01/2021 05:00:00 210115-27 23548065 TM048	22/01/21	Andrzej Ferfecki	loose fibres in soil	Trace (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	AQ26-1 0.20 - 0.20 SOLID 13/01/2021 00:00:00 15/01/2021 05:00:00 210115-27 23548044 TM048	21/01/2021	Agnieszka Chelmowska	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected

Validated

CERTIFICATE OF ANALYSIS

SDG:	210115-27	**Client Reference:**	P18-669	**Report Number:**	584712
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584671

		Date of Analysis	Analysed By	Comments	Amosite (Brown) Asbestos	Chrysotile (White) Asbestos	Crocidolite (Blue) Asbestos	Fibrous Actinolite	Fibrous Anthophyllite	Fibrous Tremolite	Non-Asbestos Fibre
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	W168-1 0.20 - 0.20 SOLID 14/01/2021 00:00:00 15/01/2021 05:00:00 210115-27 23547887 TM048	22/01/21	Andrzej Ferfecki	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	W168-3 0.20 - 0.20 SOLID 14/01/2021 00:00:00 15/01/2021 05:00:00 210115-27 23547907 TM048	22/01/21	Andrzej Ferfecki	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	W168-5 0.20 - 0.20 SOLID 14/01/2021 00:00:00 15/01/2021 05:00:00 210115-27 23547935 TM048	21/01/2021	James Richards	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	W168-7 0.20 - 0.20 SOLID 14/01/2021 00:00:00 15/01/2021 05:00:00 210115-27 23547958 TM048	21/01/21	Andrzej Ferfecki	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	W168-9 0.20 - 0.20 SOLID 14/01/2021 00:00:00 15/01/2021 05:00:00 210115-27 23547983 TM048	21/01/21	Andrzej Ferfecki	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	W168-11 0.20 - 0.20 SOLID 14/01/2021 00:00:00 15/01/2021 05:00:00 210115-27 23548010 TM048	21/01/21	Andrzej Ferfecki	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected

CERTIFICATE OF ANALYSIS

SDG:	210115-27	**Client Reference:**	P18-669	**Report Number:**	584712
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584671

Asbestos Quantification - Full

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
*	Subcontracted test.
(F)	Trigger breach confirmed
1-5&+$@	Sample deviation (see appendix)

		Additional Asbestos Components	Analysts Comments	Asbestos Quantification - Gravimetric - %	Asbestos Quantification - PCOM	Asbestos Quantification - Total - %
Cust. Sample Ref.	AQ25-1	Chrysotile detected. (#)	Fibre bundles in soil.	0.0083 (#)	<0.001 (#)	0.0083 (#)
Depth (m)	0.20 - 0.20					
Sample Type	SOLID					
Date Sampled	13/01/2021 00:00:00					
Date Received	15/01/2021 05:00:00					
SDG	210115-27					
Original Sample	23548065					
Method Number	TM304					

Table of Results - Appendix

Method No	Reference	Description
PM024	Modified BS 1377	Soil preparation including homogenisation, moisture screens of soils for Asbestos Containing Material
TM024	Method 4500A & B, AWWA/APHA, 20th Ed., 1999	Determination of Exchangeable Ammonium and Ammoniacal Nitrogen as N by titration on solids
TM048	HSG 248, Asbestos: The analysts' guide for sampling, analysis and clearance procedures	Identification of Asbestos in Bulk Material
TM062 (S)	National Grid Property Holdings Methods for the Collection & Analysis of Samples from National Grid Sites version 1 Sec 3.9	Determination of Phenols in Soils by HPLC
TM089	Modified: US EPA Methods 8020 & 602	Determination of Gasoline Range Hydrocarbons (GRO) by Headspace GC-FID (C4-C12)
TM116	Modified: US EPA Method 8260, 8120, 8020, 624, 610 & 602	Determination of Volatile Organic Compounds by Headspace / GC-MS
TM132	In - house Method	ELTRA CS800 Operators Guide
TM133	BS 1377: Part 3 1990;BS 6068-2.5	Determination of pH in Soil and Water using the GLpH pH Meter
TM153	Method 4500A,B,C, I, M AWWA/APHA, 20th Ed., 1999	Determination of Total Cyanide, Free (Easily Liberatable) Cyanide and Thiocyanate using the Skalar SANS+ System Segmented Flow Analyser
TM181	US EPA Method 6010B	Determination of Routine Metals in Soil by iCap 6500 Duo ICP-OES
TM218	Shaker extraction - EPA method 3546.	The determination of PAH in soil samples by GC-MS
TM304	HSE Contract research Report no 83/1996	Asbestos Quantification in Soil: Fibres identified by morphology only
TM414	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	Determination of Speciated Extractable Petroleum Hydrocarbons in Soils by GCxGC-FID

NA = not applicable.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden (Method codes TM) or ALS Life Sciences Ltd Aberdeen (Method codes S).

CERTIFICATE OF ANALYSIS

SDG:	210115-27	**Client Reference:**	P18-669	**Report Number:**	584712
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	584671

Test Completion Dates

Lab Sample No(s)	23547855	23547865	23547873	23547879	23547829	23547841	23548024	23548034	23547788	23547917
Customer Sample Ref.	AL24-1	AL24-2	AM33-1	AM33-2	AN23-1	AN23-2	AO27-1	AO27-2	AO29-1	AO29-2
AGS Ref.										
Depth	0.70 - 0.70	1.30 - 1.30	0.30 - 0.30	1.30 - 1.30	0.20 - 0.20	1.50 - 1.50	0.60 - 0.60	1.20 - 1.20	0.50 - 0.50	1.50 - 1.50
Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
Ammonium Soil by Titration	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021
Asbestos ID in Solid Samples	22-Jan-2021		22-Jan-2021		21-Jan-2021		21-Jan-2021		22-Jan-2021	
Cyanide Comp/Free/Total/Thiocyanate	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	20-Jan-2021	21-Jan-2021	20-Jan-2021
EPH CWG GC (S)	22-Jan-2021	22-Jan-2021	19-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	20-Jan-2021	22-Jan-2021
GRO by GC-FID (S)	22-Jan-2021	22-Jan-2021	21-Jan-2021	21-Jan-2021	22-Jan-2021	21-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021
Metals in solid samples by OES	22-Jan-2021	22-Jan-2021	21-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021
PAH by GCMS	22-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021
pH	18-Jan-2021	18-Jan-2021	18-Jan-2021	18-Jan-2021	18-Jan-2021	18-Jan-2021	18-Jan-2021	18-Jan-2021	18-Jan-2021	18-Jan-2021
Phenols by HPLC (S)	21-Jan-2021	22-Jan-2021	21-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	28-Jan-2021	25-Jan-2021	22-Jan-2021	22-Jan-2021
Sample description	18-Jan-2021	16-Jan-2021	16-Jan-2021	18-Jan-2021	18-Jan-2021	18-Jan-2021	16-Jan-2021	16-Jan-2021	16-Jan-2021	16-Jan-2021
Total Organic Carbon	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	21-Jan-2021
TPH CWG GC (S)	22-Jan-2021	22-Jan-2021	21-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021
VOC MS (S)	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021

Lab Sample No(s)	23548085	23547819	23548065	23548075	23548044	23548052	23547887	23547896	23547907	23547927
Customer Sample Ref.	AQ24-1	AQ24-2	AQ25-1	AQ25-2	AQ26-1	AQ26-2	W168-1	W168-2	W168-3	W168-4
AGS Ref.										
Depth	0.20 - 0.20	1.50 - 1.50	0.20 - 0.20	1.50 - 1.50	0.20 - 0.20	1.50 - 1.50	0.20 - 0.20	0.20 - 0.20	0.20 - 0.20	0.20 - 0.20
Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
Ammonium Soil by Titration	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021
Asbestos ID in Solid Samples	21-Jan-2021		22-Jan-2021		21-Jan-2021		22-Jan-2021		22-Jan-2021	
Asbestos Quantification - Full			28-Jan-2021							
Cyanide Comp/Free/Total/Thiocyanate	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	20-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021
EPH CWG GC (S)	22-Jan-2021	22-Jan-2021	20-Jan-2021	19-Jan-2021	19-Jan-2021	20-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021
GRO by GC-FID (S)	21-Jan-2021	21-Jan-2021	22-Jan-2021	21-Jan-2021	22-Jan-2021	21-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021
Metals in solid samples by OES	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	21-Jan-2021
PAH by GCMS	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021
pH	18-Jan-2021	18-Jan-2021	18-Jan-2021	18-Jan-2021	18-Jan-2021	18-Jan-2021	18-Jan-2021	18-Jan-2021	18-Jan-2021	18-Jan-2021
Phenols by HPLC (S)	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	25-Jan-2021	25-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	25-Jan-2021
Sample description	18-Jan-2021	18-Jan-2021	16-Jan-2021	16-Jan-2021	16-Jan-2021	16-Jan-2021	18-Jan-2021	18-Jan-2021	18-Jan-2021	18-Jan-2021
Total Organic Carbon	22-Jan-2021	22-Jan-2021	22-Jan-2021	21-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021
TPH CWG GC (S)	22-Jan-2021	22-Jan-2021	22-Jan-2021	21-Jan-2021	22-Jan-2021	21-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021
VOC MS (S)	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021

Lab Sample No(s)	23547935	23547942	23547958	23547970	23547983	23548001	23548010
Customer Sample Ref.	W168-5	W168-6	W168-7	W168-8	W168-9	W168-10	W168-11
AGS Ref.							
Depth	0.20 - 0.20	0.20 - 0.20	0.20 - 0.20	0.20 - 0.20	0.20 - 0.20	0.20 - 0.20	0.20 - 0.20
Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
Ammonium Soil by Titration	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	21-Jan-2021	22-Jan-2021
Asbestos ID in Solid Samples	21-Jan-2021		21-Jan-2021		21-Jan-2021		21-Jan-2021
Cyanide Comp/Free/Total/Thiocyanate	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021
EPH CWG GC (S)	22-Jan-2021	22-Jan-2021	19-Jan-2021	22-Jan-2021	22-Jan-2021	19-Jan-2021	22-Jan-2021
GRO by GC-FID (S)	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021
Metals in solid samples by OES	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021
PAH by GCMS	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021
pH	18-Jan-2021	18-Jan-2021	18-Jan-2021	18-Jan-2021	18-Jan-2021	18-Jan-2021	18-Jan-2021
Phenols by HPLC (S)	25-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	25-Jan-2021	22-Jan-2021
Sample description	18-Jan-2021	18-Jan-2021	16-Jan-2021	18-Jan-2021	18-Jan-2021	16-Jan-2021	18-Jan-2021
Total Organic Carbon	22-Jan-2021	22-Jan-2021	22-Jan-2021	21-Jan-2021	22-Jan-2021	21-Jan-2021	21-Jan-2021
TPH CWG GC (S)	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021	22-Jan-2021
VOC MS (S)	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021	21-Jan-2021

Appendix General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as "mixed hydrocarbons". Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

18. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

19. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as "Not detected". If no asbestos fibre types are found all will be reported as "Not detected" and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials are obtained from supplied bulk materials which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.
Standing Committee of Analysts, *The Quantification of Asbestos in Soil (2017).*

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

Unit 7-8 Hawarden Business Park
Manor Road (off Manor Lane)
Hawarden
Deeside
CH5 3US
Tel: (01244) 528700
Fax: (01244) 528701
email: hawardencustomerservices@alsglobal.com
Website: www.alsenvironmental.co.uk

Rodgers Leask
Office 225
2430/2440
Aztec West
Almondsbury
Bristol
BS32 4QA

Attention: Elliot Thomas

CERTIFICATE OF ANALYSIS

Date of report Generation:	10 February 2021
Customer:	Rodgers Leask
Sample Delivery Group (SDG):	210130-32
Your Reference:	P18-669
Location:	Llanwern
Report No:	586352

We received 24 samples on Saturday January 30, 2021 and 24 of these samples were scheduled for analysis which was completed on Wednesday February 10, 2021. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden (Method codes TM) or ALS Life Sciences Ltd Aberdeen (Method codes S).

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:

Sonia McWhan

Operations Manager

CERTIFICATE OF ANALYSIS

SDG:	210130-32	**Client Reference:**	P18-669	**Report Number:**	586352
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
23638988	AJ27-1		0.70 - 0.70	29/01/2021
23638943	AJ29-1		0.70 - 0.70	28/01/2021
23638959	AJ29-2		1.50 - 1.50	28/01/2021
23638993	AJ30-1		0.40 - 0.40	28/01/2021
23638999	AJ30-2		1.50 - 1.50	28/01/2021
23638980	AK27-1		0.80 - 0.80	29/01/2021
23638976	AK28-1		1.00 - 1.00	29/01/2021
23639025	AK30-1		0.20 - 0.20	28/01/2021
23639030	AK30-2		1.00 - 1.00	28/01/2021
23639015	AK31-1		0.10 - 0.10	28/01/2021
23639020	AK31-2		1.10 - 1.10	28/01/2021
23639060	AK32-1		1.00 - 1.00	28/01/2021
23639067	AK33-1		0.20 - 0.20	29/01/2021
23639071	AK34-1		0.80 - 0.80	29/01/2021
23639077	AK34-2		1.60 - 1.60	29/01/2021
23638964	AL28-1		0.50 - 0.50	29/01/2021
23638970	AL28-2		1.20 - 1.20	29/01/2021
23638954	AL29-1		0.80 - 0.80	29/01/2021
23639034	AL30-1		0.50 - 0.50	28/01/2021
23639007	AL30-2		2.00 - 2.00	28/01/2021
23639041	AL31-1		0.50 - 0.50	28/01/2021
23639045	AL31-2		1.50 - 1.50	28/01/2021
23639051	AL32-1		0.50 - 0.50	28/01/2021
23638948	AL33-1		0.80 - 0.80	29/01/2021

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG:	210130-32	**Client Reference:**	P18-669	**Report Number:**	586352
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	

Results Legend

X Test

N No Determination Possible

Sample Types -

S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)			23638988		23638943		23638959		23638993		23638999		23638980		23638976		23639025			
Customer Sample Reference			AJ27-1		AJ29-1		AJ29-2		AJ30-1		AJ30-2		AK27-1		AK28-1		AK30-1			
AGS Reference																				
Depth (m)			0.70 - 0.70		0.70 - 0.70		1.50 - 1.50		0.40 - 0.40		1.50 - 1.50		0.80 - 0.80		1.00 - 1.00		0.20 - 0.20			
Container			250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)
Sample Type			S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Ammonium Soil by Titration	All	NDPs: 0 Tests: 24	X			X		X			X		X			X		X		X
Asbestos ID in Solid Samples	All	NDPs: 0 Tests: 12			X					X					X				X	
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 24	X			X		X			X		X			X		X		X
EPH CWG GC (S)	All	NDPs: 0 Tests: 24	X			X		X			X		X			X		X		X
GRO by GC-FID (S)	All	NDPs: 0 Tests: 24		X			X		X			X		X			X		X	
Metals in solid samples by OES	All	NDPs: 0 Tests: 24	X			X		X			X		X			X		X		X
PAH by GCMS	All	NDPs: 0 Tests: 24	X			X		X			X		X			X		X		X
pH	All	NDPs: 0 Tests: 24	X			X		X			X		X			X		X		X
Phenols by HPLC (S)	All	NDPs: 0 Tests: 24	X			X		X			X		X			X		X		X
Sample description	All	NDPs: 0 Tests: 23	X			X					X		X			X		X		X
Total Organic Carbon	All	NDPs: 0 Tests: 23	X			X		X			X		X			X		X		X
TPH CWG GC (S)	All	NDPs: 0 Tests: 24	X			X		X			X		X			X		X		X
VOC MS (S)	All	NDPs: 0 Tests: 24		X			X		X			X		X			X		X	

23638970	AL28-2		1.20 - 1.20	1kg TUB with Handle (ALE260)	S			x											
23638964	AL28-1		0.50 - 0.50	60g VOC (ALE215)	S						x								x
				250g Amber Jar (ALE210)	S	x			x	x		x	x	x	x	x	x	x	
23639077	AK34-2		1.60 - 1.60	60g VOC (ALE215)	S						x								x
				250g Amber Jar (ALE210)	S	x			x	x		x	x	x	x	x	x	x	
				1kg TUB with Handle (ALE260)	S			x											
23639071	AK34-1		0.80 - 0.80	60g VOC (ALE215)	S						x								x
				250g Amber Jar (ALE210)	S	x			x	x		x	x	x	x	x	x	x	
23639067	AK33-1		0.20 - 0.20	60g VOC (ALE215)	S						x								x
				250g Amber Jar (ALE210)	S	x			x	x		x	x	x	x	x	x	x	
				1kg TUB with Handle (ALE260)	S			x											
23639060	AK32-1		1.00 - 1.00	60g VOC (ALE215)	S						x								x
				250g Amber Jar (ALE210)	S	x			x	x		x	x	x	x	x	x	x	
23639020	AK31-2		1.10 - 1.10	60g VOC (ALE215)	S						x								x
				250g Amber Jar (ALE210)	S	x			x	x		x	x	x	x	x		x	
23639015	AK31-1		0.10 - 0.10	60g VOC (ALE215)	S						x								x
				250g Amber Jar (ALE210)	S	x			x	x		x	x	x	x	x	x	x	
				1kg TUB with Handle (ALE260)	S			x											
23639030	AK30-2		1.00 - 1.00	60g VOC (ALE215)	S						x								x
				250g Amber Jar (ALE210)	S	x			x	x		x	x	x	x	x	x	x	
23639025	AK30-1		0.20 - 0.20	60g VOC (ALE215)	S						x								x

Validated

CERTIFICATE OF ANALYSIS

SDG:	210130-32	**Client Reference:**	P18-669	**Report Number:**	586352
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	

Results Legend

X Test

N No Determination Possible

Sample Types -

S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)	23638970	23638954	23639034	23639007	23639041	23639045	23639051	23638948
Customer Sample Reference	AL28-2	AL29-1	AL30-1	AL30-2	AL31-1	AL31-2	AL32-1	AL33-1
AGS Reference								
Depth (m)	1.20 - 1.20	0.80 - 0.80	0.50 - 0.50	2.00 - 2.00	0.50 - 0.50	1.50 - 1.50	0.50 - 0.50	0.80 - 0.80
Container	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)
Sample Type	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S

Ammonium Soil by Titration	All	NDPs: 0 Tests: 24	X			X			X		X			X		X			X		X
Asbestos ID in Solid Samples	All	NDPs: 0 Tests: 12			X			X					X					X			
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 24	X			X			X		X			X		X			X		X
EPH CWG GC (S)	All	NDPs: 0 Tests: 24	X			X			X		X			X		X			X		X
GRO by GC-FID (S)	All	NDPs: 0 Tests: 24		X			X			X		X			X		X			X	
Metals in solid samples by OES	All	NDPs: 0 Tests: 24	X			X			X		X			X		X			X		X
PAH by GCMS	All	NDPs: 0 Tests: 24	X			X			X		X			X		X			X		X
pH	All	NDPs: 0 Tests: 24	X			X			X		X			X		X			X		X
Phenols by HPLC (S)	All	NDPs: 0 Tests: 24	X			X			X		X			X		X			X		X
Sample description	All	NDPs: 0 Tests: 23	X			X			X		X			X		X			X		X
Total Organic Carbon	All	NDPs: 0 Tests: 23	X			X			X		X			X		X			X		X
TPH CWG GC (S)	All	NDPs: 0 Tests: 24	X			X			X		X			X		X			X		X
VOC MS (S)	All	NDPs: 0 Tests: 24		X			X			X		X			X		X			X	

23638948	AL33-1		0.80 - 0.80	60g VOC (ALE215)	S
					X
					X

CERTIFICATE OF ANALYSIS

SDG:	210130-32	**Client Reference:**	P18-669	**Report Number:**	586352
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	

Sample Descriptions

Grain Sizes

very fine	<0.063mm	**fine**	0.063mm - 0.1mm	**medium**	0.1mm - 2mm	**coarse**	2mm - 10mm	**very coarse**	>10mm

Lab Sample No(s)	Customer Sample Ref.	Depth (m)	Colour	Description	Inclusions	Inclusions 2
23638988	AJ27-1	0.70 - 0.70	Dark Brown	Sand	Stones	None
23638943	AJ29-1	0.70 - 0.70	Dark Brown	Sand	Stones	None
23638959	AJ29-2	1.50 - 1.50	Dark Brown	Sand	Stones	None
23638993	AJ30-1	0.40 - 0.40	Black	Sand	Stones	None
23638999	AJ30-2	1.50 - 1.50	Dark Brown	Sand	Stones	None
23638980	AK27-1	0.80 - 0.80	Dark Brown	Sand	Stones	None
23638976	AK28-1	1.00 - 1.00	Grey	Sand	Stones	Concrete/Aggregate
23639025	AK30-1	0.20 - 0.20	Dark Brown	Sand	Stones	None
23639030	AK30-2	1.00 - 1.00	Grey	Sand	Stones	Concrete/Aggregate
23639015	AK31-1	0.10 - 0.10	Dark Brown	Sandy Loam	Stones	Concrete/Aggregate
23639020	AK31-2	1.10 - 1.10	Black	Sand	None	None
23639060	AK32-1	1.00 - 1.00	Black	Sand	Stones	None
23639067	AK33-1	0.20 - 0.20	Dark Brown	Sand	Vegetation	Stones
23639071	AK34-1	0.80 - 0.80	Dark Brown	Sand	None	Stones
23639077	AK34-2	1.60 - 1.60	Dark Brown	Sand	Vegetation	Stones
23638964	AL28-1	0.50 - 0.50	Dark Brown	Sand	Stones	None
23638970	AL28-2	1.20 - 1.20	Dark Brown	Sand	Stones	None
23638954	AL29-1	0.80 - 0.80	Dark Brown	Sand	Brick	Stones
23639034	AL30-1	0.50 - 0.50	Grey	Sand	Stones	None
23639007	AL30-2	2.00 - 2.00	Grey	Sand	Stones	Concrete/Aggregate
23639041	AL31-1	0.50 - 0.50	Grey	Sand	Stones	None
23639045	AL31-2	1.50 - 1.50	Dark Brown	Sand	Stones	N/A
23639051	AL32-1	0.50 - 0.50	Black	Sand	Stones	Concrete/Aggregate
23638948	AL33-1	0.80 - 0.80	Dark Brown	Stone/Soil	None	Stones

These descriptions are only intended to act as a cross check if sample identities are questioned, and to provide a log of sample matrices with respect to MCERTS validation. They are not intended as full geological descriptions.

We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally ocurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample.

Other coarse granular materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

Validated

CERTIFICATE OF ANALYSIS

SDG:	210130-32	**Client Reference:**	P18-669	**Report Number:**	586352
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AJ27-1	AJ29-1	AJ29-2	AJ30-1	AJ30-2	AK27-1
			Depth (m)	0.70 - 0.70	0.70 - 0.70	1.50 - 1.50	0.40 - 0.40	1.50 - 1.50	0.80 - 0.80
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	29/01/2021	28/01/2021	28/01/2021	28/01/2021	28/01/2021	29/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	30/01/2021	30/01/2021	30/01/2021	30/01/2021	30/01/2021	30/01/2021
			SDG Ref	210130-32	210130-32	210130-32	210130-32	210130-32	210130-32
			Lab Sample No.(s)	23638988	23638943	23638959	23638993	23638999	23638980
			AGS Reference						
Moisture Content Ratio (% of as received sample)	%	PM024		14	1.4	10	13	20	17
Exchangeable Ammonia as N	<12 mg/kg	TM024		<12 M	<12 M	<12 M	<12 M	18.6 M	<12 M
Phenol	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M
Cresols	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M
Xylenols	<0.015 mg/kg	TM062 (S)		<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M
Phenols, Total Detected monohydric	<0.035 mg/kg	TM062 (S)		<0.035 M	<0.035 M	<0.035 M	<0.035 M	<0.035 M	<0.035 M
Soil Organic Matter (SOM)	<0.35 %	TM132		1.31 #	3.95 #	4.22 #	>100 #	22.9 #	1.81 #
pH	1 pH Units	TM133		11.9 M	9.91 M	9.58 M	8.83 M	9.57 M	12.1 M
Cyanide, Total	<1 mg/kg	TM153		<1 M	<1 M	<1 M	<1 M	<1 M	<1 M
Arsenic	<0.6 mg/kg	TM181		<6 M	14.2 M	9.37 M	7.95 M	11.5 M	<6 M
Cadmium	<0.02 mg/kg	TM181		1.92 M	2.29 M	1.51 M	0.923 M	0.632 M	0.469 M
Chromium	<0.9 mg/kg	TM181		374 M	<9 M	<9 M	17.8 M	30.6 M	205 M
Copper	<1.4 mg/kg	TM181		27.7 M	23.5 M	14.5 M	34.6 M	31.3 M	<14 M
Iron	<1000 mg/kg	TM181		133000 #	338000 #		49600 #		49900 #
Lead	<0.7 mg/kg	TM181		53.6 M	39.7 M	24.7 M	52.8 M	47.6 M	39.6 M
Manganese	<0.13 mg/kg	TM181		29500 M	4850 M	2970 M	1360 M	1360 M	14900 M
Mercury	<0.1 mg/kg	TM181		<1 M	<1 M	<1 M	<1 M	<1 M	<1 M
Nickel	<0.2 mg/kg	TM181		15.3 M	36.9 M	21.7 M	17.5 M	33.3 M	4.61 M
Selenium	<1 mg/kg	TM181		14 #	<10 #	<10 #	<10 #	<10 #	13.4 #
Vanadium	<0.2 mg/kg	TM181		968 #	49.6 #	36.4 #	34.8 #	43 #	244 #
Zinc	<1.9 mg/kg	TM181		84.5 M	131 M	80.8 M	70.3 M	86.9 M	42.9 M

Validated

CERTIFICATE OF ANALYSIS

SDG:	210130-32	**Client Reference:**	P18-669	**Report Number:**	586352
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AK28-1	AK30-1	AK30-2	AK31-1	AK31-2	AK32-1
			Depth (m)	1.00 - 1.00	0.20 - 0.20	1.00 - 1.00	0.10 - 0.10	1.10 - 1.10	1.00 - 1.00
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	29/01/2021	28/01/2021	28/01/2021	28/01/2021	28/01/2021	28/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	30/01/2021	30/01/2021	30/01/2021	30/01/2021	30/01/2021	30/01/2021
			SDG Ref	210130-32	210130-32	210130-32	210130-32	210130-32	210130-32
			Lab Sample No.(s)	23638976	23639025	23639030	23639015	23639020	23639060
			AGS Reference						
Moisture Content Ratio (% of as received sample)	%	PM024		7.5	12	13	11	23	16
Exchangeable Ammonia as N	<12 mg/kg	TM024		<12 M	<12 M	<12 M	<12 M	<12 M	<12 M
Phenol	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M
Cresols	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M
Xylenols	<0.015 mg/kg	TM062 (S)		<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M
Phenols, Total Detected monohydric	<0.035 mg/kg	TM062 (S)		<0.035 M	<0.035 M	<0.035 M	<0.035 M	<0.035 M	<0.035 M
Soil Organic Matter (SOM)	<0.35 %	TM132		2.6 #	12.1 #	38.4 #	17.2 #		31.5 #
pH	1 pH Units	TM133		12 M	9.22 M	11.3 M	10.5 M	10.8 M	11.4 M
Cyanide, Total	<1 mg/kg	TM153		<1 M	<1 M	<1 M	<1 M	<1 M	<1 M
Arsenic	<0.6 mg/kg	TM181		<6 M	7.22 M	11.2 M	10.3 M	6.83 M	6.44 M
Cadmium	<0.02 mg/kg	TM181		1.27 M	0.769 M	1.47 M	2.19 M	0.45 M	0.963 M
Chromium	<0.9 mg/kg	TM181		723 M	21.9 M	222 M	142 M	15.3 M	265 M
Copper	<1.4 mg/kg	TM181		37.9 M	<14 M	40.9 M	36.5 M	21.7 M	16.4 M
Iron	<1000 mg/kg	TM181		152000 #	58900 #	54800 #	230000 #		
Lead	<0.7 mg/kg	TM181		137 M	44.3 M	60.4 M	46.7 M	57.2 M	34.2 M
Manganese	<0.13 mg/kg	TM181		34000 M	1710 M	8170 M	5740 M	1150 M	3190 M
Mercury	<0.1 mg/kg	TM181		<1 M	<1 M	<1 M	<1 M	<1 M	<1 M
Nickel	<0.2 mg/kg	TM181		13.1 M	24.3 M	26.3 M	37.2 M	11.3 M	14.4 M
Selenium	<1 mg/kg	TM181		23.3 #	<10 #	<10 #	<10 #	<10 #	<10 #
Vanadium	<0.2 mg/kg	TM181		543 #	32.7 #	285 #	97.3 #	26 #	233 #
Zinc	<1.9 mg/kg	TM181		94.1 M	77.6 M	265 M	109 M	75.3 M	68.4 M

Validated

CERTIFICATE OF ANALYSIS

SDG:	210130-32	**Client Reference:**	P18-669	**Report Number:**	586352
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AK33-1	AK34-1	AK34-2	AL28-1	AL28-2	AL29-1
			Depth (m)	0.20 - 0.20	0.80 - 0.80	1.60 - 1.60	0.50 - 0.50	1.20 - 1.20	0.80 - 0.80
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	29/01/2021	29/01/2021	29/01/2021	29/01/2021	29/01/2021	29/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	30/01/2021	30/01/2021	30/01/2021	30/01/2021	30/01/2021	30/01/2021
			SDG Ref	210130-32	210130-32	210130-32	210130-32	210130-32	210130-32
			Lab Sample No.(s)	23639067	23639071	23639077	23638964	23638970	23638954
			AGS Reference						
Moisture Content Ratio (% of as received sample)	%	PM024		12	11	13	6.9	6.9	9.3
Exchangeable Ammonia as N	<12 mg/kg	TM024		<12 M	<12 M	<12 M	<12 M	<12 M	<12 M
Phenol	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M
Cresols	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M
Xylenols	<0.015 mg/kg	TM062 (S)		<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M
Phenols, Total Detected monohydric	<0.035 mg/kg	TM062 (S)		<0.035 M	<0.035 M	<0.035 M	<0.035 M	<0.035 M	<0.035 M
Soil Organic Matter (SOM)	<0.35 %	TM132		9.43 #	10.1 #	4.14 #	<0.35 #	3.31 #	6.14 #
pH	1 pH Units	TM133		10.2 M	9.51 M	10.2 M	12.5 M	12.4 M	11.5 M
Cyanide, Total	<1 mg/kg	TM153		<1 M	<1 M	<1 M	<1 M	<1 M	1.02 M
Arsenic	<0.6 mg/kg	TM181		9.69 M	13.6 M	15.9 M	<6 M	<6 M	<6 M
Cadmium	<0.02 mg/kg	TM181		1.6 M	1.49 M	1.34 M	1.09 M	1.19 M	1.42 M
Chromium	<0.9 mg/kg	TM181		75 M	119 M	33.8 M	1080 M	936 M	836 M
Copper	<1.4 mg/kg	TM181		22.4 M	23.3 M	20.2 M	14.3 M	<14 M	23.3 M
Iron	<1000 mg/kg	TM181		134000 #		101000 #		163000 #	166000 #
Lead	<0.7 mg/kg	TM181		72 M	67.5 M	44.3 M	22.4 M	23.5 M	100 M
Manganese	<0.13 mg/kg	TM181		8420 M	8330 M	6690 M	48700 M	48700 M	43500 M
Mercury	<0.1 mg/kg	TM181		<1 M	<1 M	<1 M	<1 M	<1 M	<1 M
Nickel	<0.2 mg/kg	TM181		45.9 M	26.5 M	27.2 M	5.25 M	5.37 M	9.39 M
Selenium	<1 mg/kg	TM181		<10 #	<10 #	<10 #	30.6 #	31.2 #	29.5 #
Vanadium	<0.2 mg/kg	TM181		139 #	134 #	53.6 #	840 #	709 #	684 #
Zinc	<1.9 mg/kg	TM181		212 M	196 M	120 M	40.6 M	57.3 M	123 M

Validated

CERTIFICATE OF ANALYSIS

SDG:	210130-32	**Client Reference:**	P18-669	**Report Number:**	586352
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AL30-1	AL30-2	AL31-1	AL31-2	AL32-1	AL33-1
			Depth (m)	0.50 - 0.50	2.00 - 2.00	0.50 - 0.50	1.50 - 1.50	0.50 - 0.50	0.80 - 0.80
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	28/01/2021	28/01/2021	28/01/2021	28/01/2021	28/01/2021	29/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	30/01/2021	30/01/2021	30/01/2021	30/01/2021	30/01/2021	30/01/2021
			SDG Ref	210130-32	210130-32	210130-32	210130-32	210130-32	210130-32
			Lab Sample No.(s)	23639034	23639007	23639041	23639045	23639051	23638948
			AGS Reference						
Moisture Content Ratio (% of as received sample)	%	PM024		12	9.3	21	12	9.4	11
Exchangeable Ammonia as N	<12 mg/kg	TM024		<12 M	<12 M	<12 M	<12 M	<12 M	<12 #
Phenol	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 #
Cresols	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 #
Xylenols	<0.015 mg/kg	TM062 (S)		<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 #
Phenols, Total Detected monohydric	<0.035 mg/kg	TM062 (S)		<0.035 M	<0.035 M	<0.035 M	<0.035 M	<0.035 M	<0.035 #
Soil Organic Matter (SOM)	<0.35 %	TM132		20.5 #	21.2 #	54.5 #	3.33 #	18.1 #	1.62 #
pH	1 pH Units	TM133		10.6 M	11.9 M	10.6 M	9.1 M	11.3 M	11.9 #
Cyanide, Total	<1 mg/kg	TM153		<1 M	<1 M	<1 M	<1 M	<1 M	<1 #
Arsenic	<0.6 mg/kg	TM181		8.72 M	<6 M	<6 M	11.4 M	8.28 M	7.73 #
Cadmium	<0.02 mg/kg	TM181		1.22 M	1.45 M	1.11 M	0.662 M	1.87 M	1.01 #
Chromium	<0.9 mg/kg	TM181		235 M	653 M	68.5 M	25.3 M	160 M	1170 #
Copper	<1.4 mg/kg	TM181		19.2 M	15.3 M	<14 M	24 M	20.4 M	53.3 #
Iron	<1000 mg/kg	TM181		90000 #	144000 #	95800 #	32100 #	138000 #	
Lead	<0.7 mg/kg	TM181		90 M	<7 M	23.3 M	19.8 M	37.6 M	26.8 #
Manganese	<0.13 mg/kg	TM181		11800 M	35700 M	11400 M	1690 M	12900 M	16300 #
Mercury	<0.1 mg/kg	TM181		<1 M	<1 M	<1 M	<1 M	<1 M	<1 #
Nickel	<0.2 mg/kg	TM181		23.6 M	5.78 M	22.8 M	26.6 M	34.6 M	496 #
Selenium	<1 mg/kg	TM181		10.2 #	19.7 #	<10 #	<10 #	<10 #	10.4 #
Vanadium	<0.2 mg/kg	TM181		218 #	544 #	94.3 #	40.1 #	157 #	255 #
Zinc	<1.9 mg/kg	TM181		198 M	39.5 M	81.3 M	64.9 M	98.7 M	70.7 #

Validated

CERTIFICATE OF ANALYSIS

SDG:	210130-32	**Client Reference:**	P18-669	**Report Number:**	586352
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	

PAH by GCMS

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AJ27-1	AJ29-1	AJ29-2	AJ30-1	AJ30-2	AK27-1
			Depth (m)	0.70 - 0.70	0.70 - 0.70	1.50 - 1.50	0.40 - 0.40	1.50 - 1.50	0.80 - 0.80
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	29/01/2021	28/01/2021	28/01/2021	28/01/2021	28/01/2021	29/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	30/01/2021	30/01/2021	30/01/2021	30/01/2021	30/01/2021	30/01/2021
			SDG Ref	210130-32	210130-32	210130-32	210130-32	210130-32	210130-32
			Lab Sample No.(s)	23638988	23638943	23638959	23638993	23638999	23638980
			AGS Reference						
Naphthalene-d8 % recovery**	%	TM218		81.4	86.3	83	77.8	82.9	80.2
Acenaphthene-d10 % recovery**	%	TM218		82.2	82.5	83.4	78	80.7	81.8
Phenanthrene-d10 % recovery**	%	TM218		80.2	80.8	80.1	74.5	80.9	80.5
Chrysene-d12 % recovery**	%	TM218		78.5	77.8	72.1	66.8	76.7	78
Perylene-d12 % recovery**	%	TM218		75.5	74.9	70.2	70.4	73.4	74.6
Naphthalene	<9 µg/kg	TM218		21 M	<9 M	<9 M	112 M	117 M	140 M
Acenaphthylene	<12 µg/kg	TM218		<12 M	<12 M	<12 M	173 M	191 M	62.7 M
Acenaphthene	<8 µg/kg	TM218		42.9 M	<8 M	<8 M	<8 M	<8 M	22.8 M
Fluorene	<10 µg/kg	TM218		19.1 M	<10 M	<10 M	34.4 M	58.1 M	33.1 M
Phenanthrene	<15 µg/kg	TM218		458 M	43.8 M	22.3 M	233 M	350 M	306 M
Anthracene	<16 µg/kg	TM218		112 M	<16 M	<16 M	71.2 M	99.1 M	78.5 M
Fluoranthene	<17 µg/kg	TM218		1250 M	64.2 M	31.2 M	956 M	874 M	597 M
Pyrene	<15 µg/kg	TM218		1190 M	46.4 M	27.1 M	892 M	727 M	462 M
Benz(a)anthracene	<14 µg/kg	TM218		715 M	29.7 M	30.7 M	732 M	484 M	330 M
Chrysene	<10 µg/kg	TM218		828 M	30.4 M	37.1 M	560 M	514 M	391 M
Benzo(b)fluoranthene	<15 µg/kg	TM218		1190 M	40.9 M	64.1 M	1450 M	937 M	587 M
Benzo(k)fluoranthene	<14 µg/kg	TM218		376 M	<14 M	19.2 M	430 M	280 M	181 M
Benzo(a)pyrene	<15 µg/kg	TM218		775 M	24.1 M	35.1 M	1060 M	570 M	332 M
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		618 M	23.6 M	38 M	972 M	566 M	318 M
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		103 M	<23 M	<23 M	164 M	108 M	68.9 M
Benzo(g,h,i)perylene	<24 µg/kg	TM218		652 M	<24 M	35.9 M	860 M	524 M	298 M
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		8350	303	341	8700	6400	4210

Validated

CERTIFICATE OF ANALYSIS

SDG:	210130-32	**Client Reference:**	P18-669	**Report Number:**	586352
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	

PAH by GCMS

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AK28-1	AK30-1	AK30-2	AK31-1	AK31-2	AK32-1
			Depth (m)	1.00 - 1.00	0.20 - 0.20	1.00 - 1.00	0.10 - 0.10	1.10 - 1.10	1.00 - 1.00
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	29/01/2021	28/01/2021	28/01/2021	28/01/2021	28/01/2021	28/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	30/01/2021	30/01/2021	30/01/2021	30/01/2021	30/01/2021	30/01/2021
			SDG Ref	210130-32	210130-32	210130-32	210130-32	210130-32	210130-32
			Lab Sample No.(s)	23638976	23639025	23639030	23639015	23639020	23639060
			AGS Reference						
Naphthalene-d8 % recovery**	%	TM218		80.7	81.9	77.2	80.3	77.7	78.8
Acenaphthene-d10 % recovery**	%	TM218		82.4	81	79.1	83.5	78.7	82.5
Phenanthrene-d10 % recovery**	%	TM218		85.2	79.1	80.2	86.6	74.3	86.8
Chrysene-d12 % recovery**	%	TM218		88	75.2	81.2	75.5	63.8	75.9
Perylene-d12 % recovery**	%	TM218		102	72.2	75.3	72.2	62.3	70.5
Naphthalene	<9 µg/kg	TM218		19.5 M	31.9 M	27 M	568 M	134 M	547 M
Acenaphthylene	<12 µg/kg	TM218		<12 M	101 M	26.6 M	665 M	58.5 M	932 M
Acenaphthene	<8 µg/kg	TM218		<8 M	<8 M	<8 M	<80 M	14.4 M	64 M
Fluorene	<10 µg/kg	TM218		<10 M	<10 M	18.7 M	1050 M	89.5 M	562 M
Phenanthrene	<15 µg/kg	TM218		101 M	128 M	151 M	6250 M	835 M	3770 M
Anthracene	<16 µg/kg	TM218		17.8 M	49.4 M	30.8 M	2260 M	268 M	1440 M
Fluoranthene	<17 µg/kg	TM218		339 M	511 M	225 M	7650 M	886 M	11200 M
Pyrene	<15 µg/kg	TM218		316 M	416 M	170 M	5150 M	659 M	9490 M
Benz(a)anthracene	<14 µg/kg	TM218		177 M	317 M	115 M	2720 M	564 M	4800 M
Chrysene	<10 µg/kg	TM218		195 M	316 M	115 M	2220 M	567 M	4920 M
Benzo(b)fluoranthene	<15 µg/kg	TM218		295 M	675 M	184 M	3190 M	771 M	7250 M
Benzo(k)fluoranthene	<14 µg/kg	TM218		114 M	232 M	54.8 M	980 M	238 M	1710 M
Benzo(a)pyrene	<15 µg/kg	TM218		190 M	429 M	106 M	2000 M	537 M	4080 M
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		204 M	471 M	89.4 M	1850 M	377 M	4210 M
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		32.5 M	85.4 M	<23 M	324 M	99.1 M	686 M
Benzo(g,h,i)perylene	<24 µg/kg	TM218		162 M	407 M	85.1 M	1320 M	361 M	3360 M
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		2160	4170	1400	38200	6460	59000

Validated

CERTIFICATE OF ANALYSIS

SDG:	210130-32	**Client Reference:**	P18-669	**Report Number:**	586352
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	

PAH by GCMS

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AK33-1	AK34-1	AK34-2	AL28-1	AL28-2	AL29-1
			Depth (m)	0.20 - 0.20	0.80 - 0.80	1.60 - 1.60	0.50 - 0.50	1.20 - 1.20	0.80 - 0.80
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	29/01/2021	29/01/2021	29/01/2021	29/01/2021	29/01/2021	29/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	30/01/2021	30/01/2021	30/01/2021	30/01/2021	30/01/2021	30/01/2021
			SDG Ref	210130-32	210130-32	210130-32	210130-32	210130-32	210130-32
			Lab Sample No.(s)	23639067	23639071	23639077	23638964	23638970	23638954
			AGS Reference						
Naphthalene-d8 % recovery**	%	TM218		85.8	79.8	78.1	81	85.2	79.6
Acenaphthene-d10 % recovery**	%	TM218		81.2	83.1	82.3	81.9	80.9	85.4
Phenanthrene-d10 % recovery**	%	TM218		76.9	87	86.5	84.4	78	89.9
Chrysene-d12 % recovery**	%	TM218		76.8	75.7	79.4	79.7	76.7	78.6
Perylene-d12 % recovery**	%	TM218		77.9	70	75.9	83.9	73.5	72.1
Naphthalene	<9 µg/kg	TM218		42.1 M	59.9 M	23 M	<9 M	24.4 M	141 M
Acenaphthylene	<12 µg/kg	TM218		31.5 M	46.1 M	<12 M	<12 M	<12 M	47.2 M
Acenaphthene	<8 µg/kg	TM218		<8 M	<8 M	<8 M	<8 M	<8 M	24.7 M
Fluorene	<10 µg/kg	TM218		<10 M	<10 M	<10 M	<10 M	11.2 M	45.4 M
Phenanthrene	<15 µg/kg	TM218		92.3 M	120 M	42.8 M	17.3 M	107 M	409 M
Anthracene	<16 µg/kg	TM218		27.6 M	33.6 M	<16 M	<16 M	38.9 M	96.7 M
Fluoranthene	<17 µg/kg	TM218		193 M	301 M	89.1 M	48.4 M	184 M	776 M
Pyrene	<15 µg/kg	TM218		143 M	259 M	73.7 M	52.2 M	141 M	580 M
Benz(a)anthracene	<14 µg/kg	TM218		104 M	184 M	55 M	22.7 M	86 M	307 M
Chrysene	<10 µg/kg	TM218		101 M	157 M	60.6 M	32.9 M	97.2 M	309 M
Benzo(b)fluoranthene	<15 µg/kg	TM218		186 M	388 M	104 M	50.2 M	130 M	473 M
Benzo(k)fluoranthene	<14 µg/kg	TM218		61.5 M	104 M	29.5 M	18.5 M	47.9 M	140 M
Benzo(a)pyrene	<15 µg/kg	TM218		111 M	195 M	56.7 M	<15 M	77 M	259 M
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		128 M	221 M	62.2 M	23.1 M	71.1 M	268 M
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		<23 M	34.4 M	<23 M	<23 M	<23 M	47.1 M
Benzo(g,h,i)perylene	<24 µg/kg	TM218		113 M	169 M	50.2 M	<24 M	67.2 M	208 M
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		1330	2270	647	265	1080	4130

Validated

CERTIFICATE OF ANALYSIS

SDG:	210130-32	**Client Reference:**	P18-669	**Report Number:**	586352
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	

PAH by GCMS

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AL30-1	AL30-2	AL31-1	AL31-2	AL32-1	AL33-1
			Depth (m)	0.50 - 0.50	2.00 - 2.00	0.50 - 0.50	1.50 - 1.50	0.50 - 0.50	0.80 - 0.80
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	28/01/2021	28/01/2021	28/01/2021	28/01/2021	28/01/2021	29/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	30/01/2021	30/01/2021	30/01/2021	30/01/2021	30/01/2021	30/01/2021
			SDG Ref	210130-32	210130-32	210130-32	210130-32	210130-32	210130-32
			Lab Sample No.(s)	23639034	23639007	23639041	23639045	23639051	23638948
			AGS Reference						
Naphthalene-d8 % recovery**	%	TM218		80.9	81.1	78.5	81	82.1	83.7
Acenaphthene-d10 % recovery**	%	TM218		83.3	82.4	79.8	78	82.6	83.1
Phenanthrene-d10 % recovery**	%	TM218		83.7	79.6	77.5	78.6	83.1	81
Chrysene-d12 % recovery**	%	TM218		78	73.6	69	72.3	80.5	78.6
Perylene-d12 % recovery**	%	TM218		70.3	70	69.1	70.5	86.3	77
Naphthalene	<9 µg/kg	TM218		190 M	52.4 M	143 M	11.5 M	44.7 M	70.5 #
Acenaphthylene	<12 µg/kg	TM218		164 M	59.9 M	63.9 M	<12 M	38.3 M	30.5 #
Acenaphthene	<8 µg/kg	TM218		37 M	<8 M	11.9 M	<8 M	<8 M	<8 #
Fluorene	<10 µg/kg	TM218		136 M	28.1 M	37 M	<10 M	11.6 M	12.4 #
Phenanthrene	<15 µg/kg	TM218		943 M	406 M	390 M	28.8 M	137 M	113 #
Anthracene	<16 µg/kg	TM218		303 M	126 M	101 M	<16 M	43.6 M	30.8 #
Fluoranthene	<17 µg/kg	TM218		1820 M	666 M	704 M	38.5 M	354 M	208 #
Pyrene	<15 µg/kg	TM218		1330 M	496 M	526 M	30.4 M	276 M	163 #
Benz(a)anthracene	<14 µg/kg	TM218		857 M	255 M	409 M	23.2 M	243 M	126 #
Chrysene	<10 µg/kg	TM218		838 M	271 M	391 M	29.2 M	210 M	143 #
Benzo(b)fluoranthene	<15 µg/kg	TM218		1200 M	340 M	525 M	38.3 M	426 M	247 #
Benzo(k)fluoranthene	<14 µg/kg	TM218		380 M	101 M	181 M	<14 M	130 M	74.6 #
Benzo(a)pyrene	<15 µg/kg	TM218		692 M	201 M	382 M	20 M	271 M	149 #
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		589 M	175 M	286 M	<18 M	269 M	175 #
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		132 M	41.1 M	64.2 M	<23 M	47.6 M	31.1 #
Benzo(g,h,i)perylene	<24 µg/kg	TM218		546 M	175 M	261 M	<24 M	231 M	142 #
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		10200	3390	4480	220	2730	1720

Validated

CERTIFICATE OF ANALYSIS

SDG:	210130-32	**Client Reference:**	P18-669	**Report Number:**	586352
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	

TPH CWG (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AJ27-1	AJ29-1	AJ29-2	AJ30-1	AJ30-2	AK27-1
			Depth (m)	0.70 - 0.70	0.70 - 0.70	1.50 - 1.50	0.40 - 0.40	1.50 - 1.50	0.80 - 0.80
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	29/01/2021	28/01/2021	28/01/2021	28/01/2021	28/01/2021	29/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	30/01/2021	30/01/2021	30/01/2021	30/01/2021	30/01/2021	30/01/2021
			SDG Ref	210130-32	210130-32	210130-32	210130-32	210130-32	210130-32
			Lab Sample No.(s)	23638988	23638943	23638959	23638993	23638999	23638980
			AGS Reference						
GRO Surrogate % recovery**	%	TM089		130	96.3	122	77.2	122	102
Aliphatics >C5-C6	<10 µg/kg	TM089		<10	<10	<10	<10	15	<10
Aliphatics >C6-C8	<10 µg/kg	TM089		<10	<10	<10	18.4	20	<10
Aliphatics >C8-C10	<10 µg/kg	TM089		<10	<10	20	42.6	22.5	<10
Aliphatics >C10-C12	<1000 µg/kg	TM414		<1000	<1000	<1000	<1000	<1000	<1000
Aliphatics >C12-C16	<1000 µg/kg	TM414		<1000	<1000	<1000	10400	<1000	7390
Aliphatics >C16-C21	<1000 µg/kg	TM414		<1000	1100	<1000	20900	6190	26300
Aliphatics >C21-C35	<1000 µg/kg	TM414		7440	5090	1410	27100	18600	66600
Aliphatics >C35-C44	<1000 µg/kg	TM414		3070	<1000	<1000	4980	5250	11200
Total Aliphatics >C10-C44	<5000 µg/kg	TM414		11500	6740	<5000	63900	31000	112000
Total Aliphatics & Aromatics >C10-C44	<10000 µg/kg	TM414		45000	<10000	<10000	101000	50800	123000
Aromatics >EC5-EC7	<10 µg/kg	TM089		<10	<10	<10	<10	<10	<10
Aromatics >EC7-EC8	<10 µg/kg	TM089		<10	<10	<10	<10	<10	<10
Aromatics >EC8-EC10	<10 µg/kg	TM089		<10	<10	13.3	28.8	15	<10
Aromatics > EC10-EC12	<1000 µg/kg	TM414		<1000	<1000	<1000	<1000	<1000	<1000
Aromatics > EC12-EC16	<1000 µg/kg	TM414		<1000	<1000	<1000	1020	<1000	<1000
Aromatics > EC16-EC21	<1000 µg/kg	TM414		4410	<1000	<1000	4730	1870	1520
Aromatics > EC21-EC35	<1000 µg/kg	TM414		28000	<1000	<1000	28800	16400	8940
Aromatics >EC35-EC44	<1000 µg/kg	TM414		<1000	<1000	<1000	2340	1030	<1000
Aromatics > EC40-EC44	<1000 µg/kg	TM414		<1000	<1000	<1000	<1000	<1000	<1000
Total Aromatics > EC10-EC44	<5000 µg/kg	TM414		33500	<5000	<5000	36900	19800	11700
Total Aliphatics & Aromatics >C5-C44	<10000 µg/kg	TM414		45000	<10000	<10000	101000	50900	123000
Total Aliphatics >C5-C10	<50 µg/kg	TM089		<50	<50	<50	61	57.5	<50
Total Aromatics >EC5-EC10	<50 µg/kg	TM089		<50	<50	<50	<50	<50	<50
GRO >C5-C10	<20 µg/kg	TM089		<20	<20	<20	61	57.5	<20

Validated

CERTIFICATE OF ANALYSIS

SDG:	210130-32	**Client Reference:**	P18-669	**Report Number:**	586352
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	

TPH CWG (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AK28-1	AK30-1	AK30-2	AK31-1	AK31-2	AK32-1
			Depth (m)	1.00 - 1.00	0.20 - 0.20	1.00 - 1.00	0.10 - 0.10	1.10 - 1.10	1.00 - 1.00
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	29/01/2021	28/01/2021	28/01/2021	28/01/2021	28/01/2021	28/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	30/01/2021	30/01/2021	30/01/2021	30/01/2021	30/01/2021	30/01/2021
			SDG Ref	210130-32	210130-32	210130-32	210130-32	210130-32	210130-32
			Lab Sample No.(s)	23638976	23639025	23639030	23639015	23639020	23639060
			AGS Reference						
GRO Surrogate % recovery**	%	TM089		109	84.7	89.2	55 4	48 4	81.2
Aliphatics >C5-C6	<10 µg/kg	TM089		<10	<10	<10	<10 4	<10 4	<10
Aliphatics >C6-C8	<10 µg/kg	TM089		<10	<10	<10	<10 4	18.1 4	<10
Aliphatics >C8-C10	<10 µg/kg	TM089		<10	<10	10.4	<10 4	28.4 4	<10
Aliphatics >C10-C12	<1000 µg/kg	TM414		<1000	<1000	<1000	<5000	<1000	<1000
Aliphatics >C12-C16	<1000 µg/kg	TM414		2780	<1000	2160	<5000	4910	1960
Aliphatics >C16-C21	<1000 µg/kg	TM414		14800	<1000	4490	10400	15300	18800
Aliphatics >C21-C35	<1000 µg/kg	TM414		54900	2720	1940	16700	22700	12100
Aliphatics >C35-C44	<1000 µg/kg	TM414		13600	1090	<1000	<5000	1930	<1000
Total Aliphatics >C10-C44	<5000 µg/kg	TM414		86200	<5000	8980	32000	45200	33900
Total Aliphatics & Aromatics >C10-C44	<10000 µg/kg	TM414		94200	23800	40800	67600	67000	190000
Aromatics >EC5-EC7	<10 µg/kg	TM089		<10	<10	<10	<10 4	<10 4	<10
Aromatics >EC7-EC8	<10 µg/kg	TM089		<10	<10	<10	<10 4	<10 4	<10
Aromatics >EC8-EC10	<10 µg/kg	TM089		<10	<10	<10	<10 4	19.4 4	<10
Aromatics > EC10-EC12	<1000 µg/kg	TM414		<1000	<1000	<1000	<5000	<1000	<1000
Aromatics > EC12-EC16	<1000 µg/kg	TM414		<1000	<1000	<1000	<5000	1030	2320
Aromatics > EC16-EC21	<1000 µg/kg	TM414		<1000	1420	1990	6630	6510	32200
Aromatics > EC21-EC35	<1000 µg/kg	TM414		6370	12300	18500	23400	13200	110000
Aromatics >EC35-EC44	<1000 µg/kg	TM414		<1000	5140	10900	<5000	<1000	11100
Aromatics > EC40-EC44	<1000 µg/kg	TM414		<1000	1320	1820	<5000	<1000	1350
Total Aromatics > EC10-EC44	<5000 µg/kg	TM414		7990	18900	31800	35500	21800	156000
Total Aliphatics & Aromatics >C5-C44	<10000 µg/kg	TM414		94200	18900	40800	67600	67000	190000
Total Aliphatics >C5-C10	<50 µg/kg	TM089		<50	<50	<50	<50 4	<50 4	<50
Total Aromatics >EC5-EC10	<50 µg/kg	TM089		<50	<50	<50	<50 4	<50 4	<50
GRO >C5-C10	<20 µg/kg	TM089		<20	<20	<20	<20 4	<20 4	<20

Validated

CERTIFICATE OF ANALYSIS

SDG:	210130-32	**Client Reference:**	P18-669	**Report Number:**	586352
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	

TPH CWG (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AK33-1	AK34-1	AK34-2	AL28-1	AL28-2	AL29-1
			Depth (m)	0.20 - 0.20	0.80 - 0.80	1.60 - 1.60	0.50 - 0.50	1.20 - 1.20	0.80 - 0.80
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	29/01/2021	29/01/2021	29/01/2021	29/01/2021	29/01/2021	29/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	30/01/2021	30/01/2021	30/01/2021	30/01/2021	30/01/2021	30/01/2021
			SDG Ref	210130-32	210130-32	210130-32	210130-32	210130-32	210130-32
			Lab Sample No.(s)	23639067	23639071	23639077	23638964	23638970	23638954
			AGS Reference						
GRO Surrogate % recovery**	%	TM089		123	132 4	95.1	121	101	102
Aliphatics >C5-C6	<10 µg/kg	TM089		<10	<10 4	<10	<10	<10	<10
Aliphatics >C6-C8	<10 µg/kg	TM089		<10	<10 4	<10	<10	<10	<10
Aliphatics >C8-C10	<10 µg/kg	TM089		<10	<10 4	<10	<10	<10	<10
Aliphatics >C10-C12	<1000 µg/kg	TM414		<1000	<1000	<1000	<1000	<1000	<1000
Aliphatics >C12-C16	<1000 µg/kg	TM414		<1000	<1000	<1000	<1000	<1000	<1000
Aliphatics >C16-C21	<1000 µg/kg	TM414		<1000	1100	<1000	<1000	1390	12600
Aliphatics >C21-C35	<1000 µg/kg	TM414		8240	8100	6570	12300	11800	44500
Aliphatics >C35-C44	<1000 µg/kg	TM414		<1000	<1000	<1000	1680	1510	12200
Total Aliphatics >C10-C44	<5000 µg/kg	TM414		9500	9880	8000	14900	15000	70200
Total Aliphatics & Aromatics >C10-C44	<10000 µg/kg	TM414		21800	21600	16100	16800	18100	84600
Aromatics >EC5-EC7	<10 µg/kg	TM089		<10	<10 4	<10	<10	<10	<10
Aromatics >EC7-EC8	<10 µg/kg	TM089		<10	<10 4	<10	<10	<10	<10
Aromatics >EC8-EC10	<10 µg/kg	TM089		<10	<10 4	<10	<10	<10	<10
Aromatics > EC10-EC12	<1000 µg/kg	TM414		<1000	<1000	<1000	<1000	<1000	<1000
Aromatics > EC12-EC16	<1000 µg/kg	TM414		<1000	<1000	<1000	<1000	<1000	<1000
Aromatics > EC16-EC21	<1000 µg/kg	TM414		1350	<1000	<1000	<1000	<1000	1570
Aromatics > EC21-EC35	<1000 µg/kg	TM414		9840	10300	7010	<1000	1960	11400
Aromatics >EC35-EC44	<1000 µg/kg	TM414		<1000	1070	<1000	<1000	<1000	<1000
Aromatics > EC40-EC44	<1000 µg/kg	TM414		<1000	<1000	<1000	<1000	<1000	<1000
Total Aromatics > EC10-EC44	<5000 µg/kg	TM414		12300	11800	8070	<5000	<5000	14400
Total Aliphatics & Aromatics >C5-C44	<10000 µg/kg	TM414		21800	21600	16100	14900	15000	84600
Total Aliphatics >C5-C10	<50 µg/kg	TM089		<50	<50 4	<50	<50	<50	<50
Total Aromatics >EC5-EC10	<50 µg/kg	TM089		<50	<50 4	<50	<50	<50	<50
GRO >C5-C10	<20 µg/kg	TM089		<20	<20 4	<20	<20	<20	<20

Validated

CERTIFICATE OF ANALYSIS

SDG:	210130-32	**Client Reference:**	P18-669	**Report Number:**	586352
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	

TPH CWG (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AL30-1	AL30-2	AL31-1	AL31-2	AL32-1	AL33-1
			Depth (m)	0.50 - 0.50	2.00 - 2.00	0.50 - 0.50	1.50 - 1.50	0.50 - 0.50	0.80 - 0.80
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	28/01/2021	28/01/2021	28/01/2021	28/01/2021	28/01/2021	29/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	30/01/2021	30/01/2021	30/01/2021	30/01/2021	30/01/2021	30/01/2021
			SDG Ref	210130-32	210130-32	210130-32	210130-32	210130-32	210130-32
			Lab Sample No.(s)	23639034	23639007	23639041	23639045	23639051	23638948
			AGS Reference						
GRO Surrogate % recovery**	%	TM089		76.6	101	47 4	122	97.8	98.2
Aliphatics >C5-C6	<10 µg/kg	TM089		<10	<10	<10 4	<10	<10	<10
Aliphatics >C6-C8	<10 µg/kg	TM089		<10	<10	<10 4	11.4	<10	<10
Aliphatics >C8-C10	<10 µg/kg	TM089		<10	<10	<10 4	14.8	<10	<10
Aliphatics >C10-C12	<1000 µg/kg	TM414		<1000	<1000	<1000	<1000	<1000	<1000
Aliphatics >C12-C16	<1000 µg/kg	TM414		<1000	<1000	<1000	<1000	<1000	<1000
Aliphatics >C16-C21	<1000 µg/kg	TM414		3810	3080	2500	1150	4380	<1000
Aliphatics >C21-C35	<1000 µg/kg	TM414		19700	10500	22600	5000	18700	4260
Aliphatics >C35-C44	<1000 µg/kg	TM414		8160	1460	30700	<1000	<1000	<1000
Total Aliphatics >C10-C44	<5000 µg/kg	TM414		32100	15300	56400	6500	24300	5540
Total Aliphatics & Aromatics >C10-C44	<10000 µg/kg	TM414		70500	20100	112000	<10000	69500	10900
Aromatics >EC5-EC7	<10 µg/kg	TM089		<10	<10	<10 4	<10	<10	<10
Aromatics >EC7-EC8	<10 µg/kg	TM089		<10	<10	<10 4	<10	<10	<10
Aromatics >EC8-EC10	<10 µg/kg	TM089		<10	<10	<10 4	<10	<10	<10
Aromatics > EC10-EC12	<1000 µg/kg	TM414		<1000	<1000	<1000	<1000	<1000	<1000
Aromatics > EC12-EC16	<1000 µg/kg	TM414		<1000	<1000	<1000	<1000	<1000	<1000
Aromatics > EC16-EC21	<1000 µg/kg	TM414		6390	<1000	4870	<1000	<1000	<1000
Aromatics > EC21-EC35	<1000 µg/kg	TM414		29000	3360	45400	1450	43500	3800
Aromatics >EC35-EC44	<1000 µg/kg	TM414		2250	<1000	4000	<1000	1000	<1000
Aromatics > EC40-EC44	<1000 µg/kg	TM414		<1000	<1000	<1000	<1000	<1000	<1000
Total Aromatics > EC10-EC44	<5000 µg/kg	TM414		38400	<5000	55200	<5000	45200	5320
Total Aliphatics & Aromatics >C5-C44	<10000 µg/kg	TM414		70500	15300	112000	<10000	69500	10900
Total Aliphatics >C5-C10	<50 µg/kg	TM089		<50	<50	<50 4	<50	<50	<50
Total Aromatics >EC5-EC10	<50 µg/kg	TM089		<50	<50	<50 4	<50	<50	<50
GRO >C5-C10	<20 µg/kg	TM089		<20	<20	<20 4	<20	<20	<20

CERTIFICATE OF ANALYSIS

SDG:	210130-32	**Client Reference:**	P18-669	**Report Number:**	586352
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AJ27-1	AJ29-1	AJ29-2	AJ30-1	AJ30-2	AK27-1
			Depth (m)	0.70 - 0.70	0.70 - 0.70	1.50 - 1.50	0.40 - 0.40	1.50 - 1.50	0.80 - 0.80
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	29/01/2021	28/01/2021	28/01/2021	28/01/2021	28/01/2021	29/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	30/01/2021	30/01/2021	30/01/2021	30/01/2021	30/01/2021	30/01/2021
			SDG Ref	210130-32	210130-32	210130-32	210130-32	210130-32	210130-32
			Lab Sample No.(s)	23638988	23638943	23638959	23638993	23638999	23638980
			AGS Reference						
Dibromofluoromethane**	%	TM116		114	116	115	120	155	114
Toluene-d8**	%	TM116		102	100	100	97.4	99.4	101
4-Bromofluorobenzene**	%	TM116		101	98	97.5	81.3	96.2	101
Methyl Tertiary Butyl Ether	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<200 M	<200 M
Benzene	<9 µg/kg	TM116		<180 M	<180 M	<180 M	<180 M	<180 M	<180 M
Toluene	<7 µg/kg	TM116		<140 M	<140 M	<140 M	<140 M	<140 M	<140 M
Ethylbenzene	<4 µg/kg	TM116		<80 M	<80 M	<80 M	<80 M	<80 M	<80 M
p/m-Xylene	<10 µg/kg	TM116		<200 #	<200 #	<200 #	<200 #	<200 #	<200 #
o-Xylene	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<200 M	<200 M
Naphthalene	<13 µg/kg	TM116		<260 M	<260 M	<260 M	<260 M	626 M	<260 M
Sum of Detected Xylenes	<0.02 mg/kg	TM116		<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Sum of BTEX	<40 µg/kg	TM116		<800	<800	<800	<800	<800	<800

CERTIFICATE OF ANALYSIS

SDG:	210130-32	**Client Reference:**	P18-669	**Report Number:**	586352
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AK28-1	AK30-1	AK30-2	AK31-1	AK31-2	AK32-1
			Depth (m)	1.00 - 1.00	0.20 - 0.20	1.00 - 1.00	0.10 - 0.10	1.10 - 1.10	1.00 - 1.00
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	29/01/2021	28/01/2021	28/01/2021	28/01/2021	28/01/2021	28/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	30/01/2021	30/01/2021	30/01/2021	30/01/2021	30/01/2021	30/01/2021
			SDG Ref	210130-32	210130-32	210130-32	210130-32	210130-32	210130-32
			Lab Sample No.(s)	23638976	23639025	23639030	23639015	23639020	23639060
			AGS Reference						
Dibromofluoromethane**	%	TM116		116	115	121	112	110	113
Toluene-d8**	%	TM116		101	97.9	99.3	96.1	96.5	102
4-Bromofluorobenzene**	%	TM116		98.9	91.7	96.7	85	81	95.2
Methyl Tertiary Butyl Ether	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<200 M	<200 M
Benzene	<9 µg/kg	TM116		<180 M	<180 M	<180 M	<180 M	<180 M	<180 M
Toluene	<7 µg/kg	TM116		<140 M	<140 M	<140 M	<140 M	<140 M	<140 M
Ethylbenzene	<4 µg/kg	TM116		<80 M	<80 M	<80 M	<80 M	<80 M	<80 M
p/m-Xylene	<10 µg/kg	TM116		<200 #	<200 #	<200 #	<200 #	<200 #	<200 #
o-Xylene	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<200 M	<200 M
Naphthalene	<13 µg/kg	TM116		<260 M	<260 M	<260 M	<260 M	<260 M	462 M
Sum of Detected Xylenes	<0.02 mg/kg	TM116		<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Sum of BTEX	<40 µg/kg	TM116		<800	<800	<800	<800	<800	<800

CERTIFICATE OF ANALYSIS

SDG:	210130-32	**Client Reference:**	P18-669	**Report Number:**	586352
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AK33-1	AK34-1	AK34-2	AL28-1	AL28-2	AL29-1
			Depth (m)	0.20 - 0.20	0.80 - 0.80	1.60 - 1.60	0.50 - 0.50	1.20 - 1.20	0.80 - 0.80
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	29/01/2021	29/01/2021	29/01/2021	29/01/2021	29/01/2021	29/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	30/01/2021	30/01/2021	30/01/2021	30/01/2021	30/01/2021	30/01/2021
			SDG Ref	210130-32	210130-32	210130-32	210130-32	210130-32	210130-32
			Lab Sample No.(s)	23639067	23639071	23639077	23638964	23638970	23638954
			AGS Reference						
Dibromofluoromethane**	%	TM116		119	115	116	114	111	117
Toluene-d8**	%	TM116		101	102	102	102	99.4	101
4-Bromofluorobenzene**	%	TM116		95.3	98.9	101	100	95.8	99.4
Methyl Tertiary Butyl Ether	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<200 M	<200 M
Benzene	<9 µg/kg	TM116		<180 M	<180 M	<180 M	<180 M	<180 M	<180 M
Toluene	<7 µg/kg	TM116		<140 M	<140 M	<140 M	<140 M	<140 M	<140 M
Ethylbenzene	<4 µg/kg	TM116		<80 M	<80 M	<80 M	<80 M	<80 M	<80 M
p/m-Xylene	<10 µg/kg	TM116		<200 #	<200 #	<200 #	<200 #	<200 #	<200 #
o-Xylene	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<200 M	<200 M
Naphthalene	<13 µg/kg	TM116		<260 M	<260 M	<260 M	<260 M	<260 M	<260 M
Sum of Detected Xylenes	<0.02 mg/kg	TM116		<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Sum of BTEX	<40 µg/kg	TM116		<800	<800	<800	<800	<800	<800

Validated

CERTIFICATE OF ANALYSIS

SDG:	210130-32	**Client Reference:**	P18-669	**Report Number:**	586352
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	AL30-1	AL30-2	AL31-1	AL31-2	AL32-1	AL33-1
			Depth (m)	0.50 - 0.50	2.00 - 2.00	0.50 - 0.50	1.50 - 1.50	0.50 - 0.50	0.80 - 0.80
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	28/01/2021	28/01/2021	28/01/2021	28/01/2021	28/01/2021	29/01/2021
			Sample Time	.	.	.	.	.	.
			Date Received	30/01/2021	30/01/2021	30/01/2021	30/01/2021	30/01/2021	30/01/2021
			SDG Ref	210130-32	210130-32	210130-32	210130-32	210130-32	210130-32
			Lab Sample No.(s)	23639034	23639007	23639041	23639045	23639051	23638948
			AGS Reference						
Dibromofluoromethane**	%	TM116		118	112	166	130	119	114
Toluene-d8**	%	TM116		101	99.5	98.4	98.7	99.1	102
4-Bromofluorobenzene**	%	TM116		98	96.8	93.5	99.2	93	101
Methyl Tertiary Butyl Ether	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<200 M	<200 #
Benzene	<9 µg/kg	TM116		<180 M	<180 M	<180 M	<180 M	<180 M	<180 #
Toluene	<7 µg/kg	TM116		<140 M	<140 M	<140 M	<140 M	<140 M	<140 #
Ethylbenzene	<4 µg/kg	TM116		<80 M	<80 M	<80 M	<80 M	<80 M	<80 #
p/m-Xylene	<10 µg/kg	TM116		<200 #	<200 #	<200 #	<200 #	<200 #	<200 #
o-Xylene	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<200 M	<200 #
Naphthalene	<13 µg/kg	TM116		<260 M	<260 M	<260 M	<260 M	<260 M	<260 #
Sum of Detected Xylenes	<0.02 mg/kg	TM116		<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Sum of BTEX	<40 µg/kg	TM116		<800	<800	<800	<800	<800	<800

CERTIFICATE OF ANALYSIS

SDG:	210130-32	**Client Reference:**	P18-669	**Report Number:**	586352
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	

Asbestos Identification - Solid Samples

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
*	Subcontracted test.
(F)	Trigger breach confirmed
1-5&+$@	Sample deviation (see appendix)

		Date of Analysis	Analysed By	Comments	Amosite (Brown) Asbestos	Chrysotile (White) Asbestos	Crocidolite (Blue) Asbestos	Fibrous Actinolite	Fibrous Anthophyllite	Fibrous Tremolite	Non-Asbestos Fibre
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	AJ29-1 0.70 - 0.70 SOLID 28/01/2021 00:00:00 30/01/2021 05:00:00 210130-32 23638943 TM048	05/02/2021	Marcin Magdziarek	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	AJ30-1 0.40 - 0.40 SOLID 28/01/2021 00:00:00 30/01/2021 05:00:00 210130-32 23638993 TM048	05/02/21	Eva Guerra	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	AK27-1 0.80 - 0.80 SOLID 29/01/2021 00:00:00 30/01/2021 05:00:00 210130-32 23638980 TM048	05/02/2021	James Richards	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	AK30-1 0.20 - 0.20 SOLID 28/01/2021 00:00:00 30/01/2021 05:00:00 210130-32 23639025 TM048	05/02/2021	Marcin Magdziarek	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	AK31-1 0.10 - 0.10 SOLID 28/01/2021 00:00:00 30/01/2021 05:00:00 210130-32 23639015 TM048	05/02/2021	Marcin Magdziarek	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	AK33-1 0.20 - 0.20 SOLID 29/01/2021 00:00:00 30/01/2021 05:00:00 210130-32 23639067 TM048	05/02/2021	Paul Poynton	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	AK34-2 1.60 - 1.60 SOLID 29/01/2021 00:00:00 30/01/2021 05:00:00 210130-32 23639077 TM048	05/02/2021	Paul Poynton	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	AL28-2 1.20 - 1.20 SOLID 29/01/2021 00:00:00 30/01/2021 05:00:00 210130-32 23638970 TM048	05/02/2021	Paul Poynton	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected

Validated

CERTIFICATE OF ANALYSIS

SDG:	210130-32	**Client Reference:**	P18-669	**Report Number:**	586352
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	

		Date of Analysis	Analysed By	Comments	Amosite (Brown) Asbestos	Chrysotile (White) Asbestos	Crocidolite (Blue) Asbestos	Fibrous Actinolite	Fibrous Anthophyllite	Fibrous Tremolite	Non-Asbestos Fibre
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	AL29-1 0.80 - 0.80 SOLID 29/01/2021 00:00:00 30/01/2021 05:00:00 210130-32 23638954 TM048	08/02/21	Eva Guerra	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	AL30-1 0.50 - 0.50 SOLID 28/01/2021 00:00:00 30/01/2021 05:00:00 210130-32 23639034 TM048	05/02/2021	Paul Poynton	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	AL31-1 0.50 - 0.50 SOLID 28/01/2021 00:00:00 30/01/2021 05:00:00 210130-32 23639041 TM048	05/02/2021	Marcin Magdziarek	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	AL32-1 0.50 - 0.50 SOLID 28/01/2021 00:00:00 30/01/2021 05:00:00 210130-32 23639051 TM048	05/02/2021	Marcin Magdziarek	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected

Table of Results - Appendix

Method No	Reference	Description
PM024	Modified BS 1377	Soil preparation including homogenisation, moisture screens of soils for Asbestos Containing Material
TM024	Method 4500A & B, AWWA/APHA, 20th Ed., 1999	Determination of Exchangeable Ammonium and Ammoniacal Nitrogen as N by titration on solids
TM048	HSG 248, Asbestos: The analysts' guide for sampling, analysis and clearance procedures	Identification of Asbestos in Bulk Material
TM062 (S)	National Grid Property Holdings Methods for the Collection & Analysis of Samples from National Grid Sites version 1 Sec 3.9	Determination of Phenols in Soils by HPLC
TM089	Modified: US EPA Methods 8020 & 602	Determination of Gasoline Range Hydrocarbons (GRO) by Headspace GC-FID (C4-C12)
TM116	Modified: US EPA Method 8260, 8120, 8020, 624, 610 & 602	Determination of Volatile Organic Compounds by Headspace / GC-MS
TM132	In - house Method	ELTRA CS800 Operators Guide
TM133	BS 1377: Part 3 1990;BS 6068-2.5	Determination of pH in Soil and Water using the GLpH pH Meter
TM153	Method 4500A,B,C, I, M AWWA/APHA, 20th Ed., 1999	Determination of Total Cyanide, Free (Easily Liberatable) Cyanide and Thiocyanate using the Skalar SANS+ System Segmented Flow Analyser
TM181	US EPA Method 6010B	Determination of Routine Metals in Soil by iCap 6500 Duo ICP-OES
TM218	Shaker extraction - EPA method 3546.	The determination of PAH in soil samples by GC-MS
TM414	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	Determination of Speciated Extractable Petroleum Hydrocarbons in Soils by GCxGC-FID

NA = not applicable.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden (Method codes TM) or ALS Life Sciences Ltd Aberdeen (Method codes S).

CERTIFICATE OF ANALYSIS

SDG:	210130-32	**Client Reference:**	P18-669	**Report Number:**	586352
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	

Test Completion Dates

Lab Sample No(s)	23638988	23638943	23638959	23638993	23638999	23638980	23638976	23639025	23639030	23639015
Customer Sample Ref.	AJ27-1	AJ29-1	AJ29-2	AJ30-1	AJ30-2	AK27-1	AK28-1	AK30-1	AK30-2	AK31-1
AGS Ref.										
Depth	0.70 - 0.70	0.70 - 0.70	1.50 - 1.50	0.40 - 0.40	1.50 - 1.50	0.80 - 0.80	1.00 - 1.00	0.20 - 0.20	1.00 - 1.00	0.10 - 0.10
Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
Ammonium Soil by Titration	05-Feb-2021	03-Feb-2021	05-Feb-2021	03-Feb-2021	05-Feb-2021	05-Feb-2021	05-Feb-2021	05-Feb-2021	05-Feb-2021	05-Feb-2021
Asbestos ID in Solid Samples		05-Feb-2021		05-Feb-2021		05-Feb-2021		05-Feb-2021		05-Feb-2021
Cyanide Comp/Free/Total/Thiocyanate	04-Feb-2021	04-Feb-2021	04-Feb-2021	04-Feb-2021	04-Feb-2021	04-Feb-2021	04-Feb-2021	04-Feb-2021	04-Feb-2021	03-Feb-2021
EPH CWG GC (S)	04-Feb-2021	04-Feb-2021	04-Feb-2021	04-Feb-2021	04-Feb-2021	04-Feb-2021	04-Feb-2021	04-Feb-2021	04-Feb-2021	04-Feb-2021
GRO by GC-FID (S)	08-Feb-2021	08-Feb-2021	08-Feb-2021	08-Feb-2021	09-Feb-2021	08-Feb-2021	08-Feb-2021	08-Feb-2021	08-Feb-2021	08-Feb-2021
Metals in solid samples by OES	08-Feb-2021	05-Feb-2021	04-Feb-2021	05-Feb-2021	04-Feb-2021	04-Feb-2021	04-Feb-2021	04-Feb-2021	08-Feb-2021	04-Feb-2021
PAH by GCMS	03-Feb-2021	08-Feb-2021	03-Feb-2021	05-Feb-2021	03-Feb-2021	03-Feb-2021	05-Feb-2021	03-Feb-2021	05-Feb-2021	03-Feb-2021
pH	01-Feb-2021	02-Feb-2021	01-Feb-2021	02-Feb-2021	01-Feb-2021	02-Feb-2021	02-Feb-2021	02-Feb-2021	02-Feb-2021	02-Feb-2021
Phenols by HPLC (S)	09-Feb-2021	09-Feb-2021	10-Feb-2021	09-Feb-2021	09-Feb-2021	10-Feb-2021	05-Feb-2021	09-Feb-2021	05-Feb-2021	05-Feb-2021
Sample description	30-Jan-2021	30-Jan-2021	30-Jan-2021	30-Jan-2021	30-Jan-2021	30-Jan-2021	30-Jan-2021	30-Jan-2021	30-Jan-2021	30-Jan-2021
Total Organic Carbon	03-Feb-2021	08-Feb-2021	08-Feb-2021	08-Feb-2021	08-Feb-2021	08-Feb-2021	08-Feb-2021	08-Feb-2021	08-Feb-2021	08-Feb-2021
TPH CWG GC (S)	08-Feb-2021	08-Feb-2021	08-Feb-2021	08-Feb-2021	09-Feb-2021	08-Feb-2021	08-Feb-2021	08-Feb-2021	08-Feb-2021	08-Feb-2021
VOC MS (S)	05-Feb-2021	08-Feb-2021	08-Feb-2021	08-Feb-2021	08-Feb-2021	05-Feb-2021	05-Feb-2021	08-Feb-2021	08-Feb-2021	08-Feb-2021

Lab Sample No(s)	23639020	23639060	23639067	23639071	23639077	23638964	23638970	23638954	23639034	23639007
Customer Sample Ref.	AK31-2	AK32-1	AK33-1	AK34-1	AK34-2	AL28-1	AL28-2	AL29-1	AL30-1	AL30-2
AGS Ref.										
Depth	1.10 - 1.10	1.00 - 1.00	0.20 - 0.20	0.80 - 0.80	1.60 - 1.60	0.50 - 0.50	1.20 - 1.20	0.80 - 0.80	0.50 - 0.50	2.00 - 2.00
Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
Ammonium Soil by Titration	05-Feb-2021	05-Feb-2021	05-Feb-2021	08-Feb-2021	05-Feb-2021	05-Feb-2021	05-Feb-2021	05-Feb-2021	05-Feb-2021	05-Feb-2021
Asbestos ID in Solid Samples			05-Feb-2021		05-Feb-2021		05-Feb-2021	08-Feb-2021	05-Feb-2021	
Cyanide Comp/Free/Total/Thiocyanate	03-Feb-2021	03-Feb-2021	03-Feb-2021	03-Feb-2021	03-Feb-2021	04-Feb-2021	04-Feb-2021	04-Feb-2021	04-Feb-2021	04-Feb-2021
EPH CWG GC (S)	04-Feb-2021	05-Feb-2021	05-Feb-2021	05-Feb-2021	05-Feb-2021	04-Feb-2021	04-Feb-2021	04-Feb-2021	04-Feb-2021	04-Feb-2021
GRO by GC-FID (S)	08-Feb-2021	08-Feb-2021	08-Feb-2021	09-Feb-2021	08-Feb-2021	08-Feb-2021	08-Feb-2021	08-Feb-2021	09-Feb-2021	08-Feb-2021
Metals in solid samples by OES	04-Feb-2021	04-Feb-2021	04-Feb-2021	04-Feb-2021	04-Feb-2021	04-Feb-2021	04-Feb-2021	04-Feb-2021	04-Feb-2021	08-Feb-2021
PAH by GCMS	05-Feb-2021	03-Feb-2021	03-Feb-2021	03-Feb-2021	03-Feb-2021	04-Feb-2021	08-Feb-2021	03-Feb-2021	03-Feb-2021	03-Feb-2021
pH	01-Feb-2021	01-Feb-2021	02-Feb-2021	01-Feb-2021	02-Feb-2021	01-Feb-2021	02-Feb-2021	02-Feb-2021	02-Feb-2021	02-Feb-2021
Phenols by HPLC (S)	09-Feb-2021	08-Feb-2021	09-Feb-2021	10-Feb-2021	10-Feb-2021	09-Feb-2021	10-Feb-2021	10-Feb-2021	09-Feb-2021	09-Feb-2021
Sample description	30-Jan-2021	30-Jan-2021	30-Jan-2021	30-Jan-2021	30-Jan-2021	30-Jan-2021	30-Jan-2021	30-Jan-2021	30-Jan-2021	30-Jan-2021
Total Organic Carbon		08-Feb-2021	08-Feb-2021	08-Feb-2021	08-Feb-2021	08-Feb-2021	08-Feb-2021	08-Feb-2021	08-Feb-2021	08-Feb-2021
TPH CWG GC (S)	08-Feb-2021	08-Feb-2021	08-Feb-2021	09-Feb-2021	08-Feb-2021	08-Feb-2021	08-Feb-2021	08-Feb-2021	09-Feb-2021	08-Feb-2021
VOC MS (S)	08-Feb-2021	05-Feb-2021	05-Feb-2021	05-Feb-2021	05-Feb-2021	05-Feb-2021	08-Feb-2021	05-Feb-2021	05-Feb-2021	08-Feb-2021

Lab Sample No(s)	23639041	23639045	23639051	23638948
Customer Sample Ref.	AL31-1	AL31-2	AL32-1	AL33-1
AGS Ref.				
Depth	0.50 - 0.50	1.50 - 1.50	0.50 - 0.50	0.80 - 0.80
Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
Ammonium Soil by Titration	03-Feb-2021	05-Feb-2021	08-Feb-2021	05-Feb-2021
Asbestos ID in Solid Samples	05-Feb-2021		05-Feb-2021	
Cyanide Comp/Free/Total/Thiocyanate	03-Feb-2021	03-Feb-2021	04-Feb-2021	03-Feb-2021
EPH CWG GC (S)	04-Feb-2021	04-Feb-2021	04-Feb-2021	05-Feb-2021
GRO by GC-FID (S)	08-Feb-2021	08-Feb-2021	08-Feb-2021	08-Feb-2021
Metals in solid samples by OES	04-Feb-2021	05-Feb-2021	08-Feb-2021	04-Feb-2021
PAH by GCMS	05-Feb-2021	03-Feb-2021	05-Feb-2021	03-Feb-2021
pH	02-Feb-2021	01-Feb-2021	02-Feb-2021	01-Feb-2021
Phenols by HPLC (S)	09-Feb-2021	09-Feb-2021	09-Feb-2021	05-Feb-2021
Sample description	30-Jan-2021	30-Jan-2021	30-Jan-2021	30-Jan-2021
Total Organic Carbon	09-Feb-2021	08-Feb-2021	08-Feb-2021	08-Feb-2021
TPH CWG GC (S)	08-Feb-2021	08-Feb-2021	08-Feb-2021	08-Feb-2021
VOC MS (S)	08-Feb-2021	08-Feb-2021	08-Feb-2021	05-Feb-2021

Appendix General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as "mixed hydrocarbons". Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

18. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

19. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as "Not detected". If no asbestos fibre types are found all will be reported as "Not detected" and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials are obtained from supplied bulk materials which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.
Standing Committee of Analysts, *The Quantification of Asbestos in Soil (2017).*

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

eurofins | Chemtest
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Final Report

Report No.:	21-41336-1
Initial Date of Issue:	01-Dec-2021
Client	Rodgers Leask Environmental
Client Address:	Office 225 2430/2440 Aztec West Almoundsbury Bristol BS32 4AQ
Contact(s):	Chris Wilson David McCarroll Elliot Thomas
Project	P18-669
Quotation No.:	Q21-24056
Order No.:	PO115623
No. of Samples:	31
Turnaround (Wkdays):	5
Date Approved:	01-Dec-2021
Approved By:	
Details:	Glynn Harvey, Technical Manager

Date Received:	24-Nov-2021
Date Instructed:	24-Nov-2021
Results Due:	30-Nov-2021

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental				**Chemtest Job No.:**	21-41336	21-41336	21-41336	21-41336	21-41336	21-41336	21-41336	21-41336	21-41336	21-41336
Quotation No.: Q21-24056				**Chemtest Sample ID.:**	1326695	1326696	1326697	1326698	1326699	1326700	1326701	1326702	1326703	1326704
				Client Sample ID.:	AU31-1	AU30-1	AU30-2	AT30-1	AT30-2	AS30-1	AS30-2	AS30-3	AT31-1	AT31-2
				Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
				Top Depth (m):	0.4	0.5	1.1	0.2	1.5	0.7	1.5	2.5	0.5	1.8
				Date Sampled:	19-Nov-2021	##########	19-Nov-2021	##########	19-Nov-2021	##########	19-Nov-2021	##########	19-Nov-2021	##########
				Asbestos Lab:	COVENTRY		COVENTRY		COVENTRY		COVENTRY		COVENTRY	
Determinand	**Accred.**	**SOP**	**Units**	**LOD**										
ACM Type	U	2192		N/A	-		-		-		-		-	
Asbestos Identification	U	2192		N/A	No Asbestos Detected		No Asbestos Detected		No Asbestos Detected		No Asbestos Detected		No Asbestos Detected	
Asbestos by Gravimetry	U	2192	%	0.001										
Total Asbestos	U	2192	%	0.001										
Moisture	N	2030	%	0.020	9.4	13	17	10	8.4	7.7	24	16	9.6	8.2
Soil Colour	N	2040		N/A	Black	Black	Black	Brown	Brown	Brown	Black	Brown	Brown	Brown
Other Material	N	2040		N/A	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones
Soil Texture	N	2040		N/A	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand
pH	M	2010		4.0	10.4	10.3	10.7	10.3	10.5	11.8	11.5	10.2	10.3	10.2
Cyanide (Total)	M	2300	mg/kg	0.50	2.7	1.6	20	22	1.7	1.9	< 0.50	< 0.50	0.50	1.3
Ammoniacal Nitrogen	M	2425	mg/kg	0.50	11	7.8	6.0	14	6.9	4.4	4.2	16	1.9	1.4
Iron (Total)	N	2430	mg/kg	100	24000	26000	26000	25000	26000	23000	20000	25000	26000	22000
Arsenic	M	2450	mg/kg	1.0	43	35	19	17	14	22	3.0	14	18	23
Cadmium	M	2450	mg/kg	0.10	0.69	0.40	0.36	1.3	0.25	0.84	< 0.10	0.79	0.33	0.24
Chromium	M	2450	mg/kg	1.0	110	110	130	79	74	590	44	63	49	82
Manganese	M	2450	mg/kg	5.0	12000	11000	6400	5400	5100	26000	1400	2500	4600	6100
Copper	M	2450	mg/kg	0.50	95	95	67	36	130	71	120	180	26	31
Mercury	M	2450	mg/kg	0.10	0.66	0.85	0.89	0.27	0.24	2.7	0.24	0.19	0.26	0.21
Nickel	M	2450	mg/kg	0.50	46	47	34	37	46	58	11	36	51	17
Lead	M	2450	mg/kg	0.50	140	140	310	150	61	52	20	72	87	140
Selenium	M	2450	mg/kg	0.20	< 0.20	0.28	0.33	0.39	< 0.20	< 0.20	0.63	0.54	0.23	< 0.20
Vanadium	U	2450	mg/kg	5.0	140	120	100	110	120	1400	94	100	46	82
Zinc	M	2450	mg/kg	0.50	200	160	160	300	150	91	27	140	150	180
Organic Matter	M	2625	%	0.40	24	59	64	17	98	2.8	100	47	40	21
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	21	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	< 1.0	36	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	88	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental					**Chemtest Job No.:**	21-41336	21-41336	21-41336	21-41336	21-41336	21-41336	21-41336	21-41336	21-41336	21-41336
Quotation No.: Q21-24056					**Chemtest Sample ID.:**	1326695	1326696	1326697	1326698	1326699	1326700	1326701	1326702	1326703	1326704
					Client Sample ID.:	AU31-1	AU30-1	AU30-2	AT30-1	AT30-2	AS30-1	AS30-2	AS30-3	AT31-1	AT31-2
					Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
					Top Depth (m):	0.4	0.5	1.1	0.2	1.5	0.7	1.5	2.5	0.5	1.8
					Date Sampled:	19-Nov-2021	##########	19-Nov-2021	##########	19-Nov-2021	##########	19-Nov-2021	##########	19-Nov-2021	##########
					Asbestos Lab:	COVENTRY		COVENTRY		COVENTRY		COVENTRY		COVENTRY	
Determinand	**Accred.**	**SOP**	**Units**	**LOD**											
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0		< 5.0	150	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0		< 10	150	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Benzene	M	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	M	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	M	2760	µg/kg	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	M	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	M	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl Tert-Butyl Ether	M	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene	M	2800	mg/kg	0.10		< 0.10	< 0.10	1.8	3.2	< 0.10	< 0.10	0.67	< 0.10	< 0.10	< 0.10
Acenaphthylene	N	2800	mg/kg	0.10		< 0.10	< 0.10	0.66	0.67	< 0.10	< 0.10	0.13	< 0.10	< 0.10	< 0.10
Acenaphthene	M	2800	mg/kg	0.10		< 0.10	< 0.10	0.24	0.28	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene	M	2800	mg/kg	0.10		< 0.10	< 0.10	0.32	0.52	< 0.10	< 0.10	0.47	< 0.10	< 0.10	< 0.10
Phenanthrene	M	2800	mg/kg	0.10		0.71	2.5	4.1	3.8	1.1	< 0.10	5.7	1.4	0.84	0.48
Anthracene	M	2800	mg/kg	0.10		0.22	1.0	0.91	1.1	0.19	< 0.10	0.88	0.22	0.32	0.14
Fluoranthene	M	2800	mg/kg	0.10		1.1	4.1	6.4	6.6	2.0	0.98	3.1	1.2	1.9	0.68
Pyrene	M	2800	mg/kg	0.10		1.0	3.2	4.5	4.5	1.3	0.94	1.9	0.82	1.4	0.51
Benzo[a]anthracene	M	2800	mg/kg	0.10		0.74	2.2	3.2	3.2	1.3	0.85	1.7	0.77	1.4	0.48
Chrysene	M	2800	mg/kg	0.10		0.70	2.5	3.4	2.8	1.3	1.0	2.0	0.90	1.6	0.65
Benzo[b]fluoranthene	M	2800	mg/kg	0.10		1.7	4.1	5.2	4.8	1.3	1.7	1.9	1.1	3.1	1.0
Benzo[k]fluoranthene	M	2800	mg/kg	0.10		0.49	1.1	1.4	1.4	0.73	0.77	0.60	0.38	0.87	0.27
Benzo[a]pyrene	M	2800	mg/kg	0.10		0.85	2.8	2.8	3.1	1.2	1.4	1.0	0.72	2.1	0.81
Indeno(1,2,3-c,d)Pyrene	M	2800	mg/kg	0.10		0.72	2.9	2.8	2.4	1.0	1.0	< 0.10	< 0.10	2.1	< 0.10
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.10		0.22	0.43	1.1	0.83	0.24	< 0.10	< 0.10	< 0.10	0.48	< 0.10
Benzo[g,h,i]perylene	M	2800	mg/kg	0.10		0.91	1.9	2.5	2.3	0.84	0.78	< 0.10	< 0.10	1.6	< 0.10
Total Of 16 PAH's	N	2800	mg/kg	2.0		9.4	29	41	42	13	9.4	20	7.5	18	5.0
Resorcinol	M	2920	mg/kg	0.020		< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Phenol	M	2920	mg/kg	0.020		< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Cresols	M	2920	mg/kg	0.020		< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Xylenols	M	2920	mg/kg	0.020		< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
1-Naphthol	N	2920	mg/kg	0.020		< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Trimethylphenols	M	2920	mg/kg	0.020		< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Total Phenols	M	2920	mg/kg	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental				**Chemtest Job No.:**	21-41336	21-41336	21-41336	21-41336	21-41336	21-41336	21-41336	21-41336	21-41336	21-41336
Quotation No.: Q21-24056				**Chemtest Sample ID.:**	1326705	1326706	1326707	1326708	1326709	1326710	1326711	1326712	1326713	1326714
				Client Sample ID.:	AS31-1	AS31-2	AR31-1	AR30-1	AQ31-1	AP31-1	AQ30-1	AQ30-2	AQ30-3	AO30-1
				Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
				Top Depth (m):	0.6	1.7	0.3	0.5	1.0	0.3	0.5	1.7	2.8	0.6
				Date Sampled:	19-Nov-2021	##########	19-Nov-2021	##########	19-Nov-2021	##########	19-Nov-2021	##########	19-Nov-2021	##########
				Asbestos Lab:	COVENTRY		COVENTRY		COVENTRY		COVENTRY		COVENTRY	
Determinand	**Accred.**	**SOP**	**Units**	**LOD**										
ACM Type	U	2192		N/A	-		-		-		Fibres/Clumps		-	
Asbestos Identification	U	2192		N/A	No Asbestos Detected		No Asbestos Detected		No Asbestos Detected		Chrysotile		No Asbestos Detected	
Asbestos by Gravimetry	U	2192	%	0.001							<0.001			
Total Asbestos	U	2192	%	0.001							<0.001			
Moisture	N	2030	%	0.020	10	9.7	5.0	11	4.3	11	12	17	20	10
Soil Colour	N	2040		N/A	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Black	Black	Black
Other Material	N	2040		N/A	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones
Soil Texture	N	2040		N/A	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand
pH	M	2010		4.0	11.8	11.2	10.9	10.7	> 12.0	10.2	11.6	11.2	11.2	12.0
Cyanide (Total)	M	2300	mg/kg	0.50	2.4	3.4	< 0.50	< 0.50	< 0.50	< 0.50	4.5	2.4	< 0.50	1.2
Ammoniacal Nitrogen	M	2425	mg/kg	0.50	< 0.50	0.74	0.75	< 0.50	0.56	< 0.50	< 0.50	0.61	1.5	< 0.50
Iron (Total)	N	2430	mg/kg	100	22000	23000	8900	7500	21000	19000	23000	23000	14000	23000
Arsenic	M	2450	mg/kg	1.0	26	22	55	15	43	19	25	22	12	17
Cadmium	M	2450	mg/kg	0.10	0.15	0.38	0.82	< 0.10	< 0.10	< 0.10	0.59	1.1	2.5	0.15
Chromium	M	2450	mg/kg	1.0	670	120	10	19	1200	67	410	570	86	340
Manganese	M	2450	mg/kg	5.0	28000	7300	1800	3100	35000	4300	18000	11000	2300	13000
Copper	M	2450	mg/kg	0.50	130	51	76	23	290	60	51	73	34	50
Mercury	M	2450	mg/kg	0.10	4.3	0.53	< 0.10	< 0.10	1.9	0.14	1.4	0.85	0.24	0.89
Nickel	M	2450	mg/kg	0.50	35	25	10	8.3	26	9.9	32	150	15	16
Lead	M	2450	mg/kg	0.50	43	65	21	7.5	80	23	78	110	160	38
Selenium	M	2450	mg/kg	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Vanadium	U	2450	mg/kg	5.0	1200	220	24	23	800	95	390	250	82	300
Zinc	M	2450	mg/kg	0.50	77	83	60	24	82	45	110	120	190	86
Organic Matter	M	2625	%	0.40	9.0	11	2.2	0.69	2.8	1.2	9.0	29	59	33
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0	1200	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0	210	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	230	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	1400	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	230	< 5.0	< 5.0	< 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0	19	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	210	< 1.0	< 1.0	< 1.0
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental					**Chemtest Job No.:**	21-41336	21-41336	21-41336	21-41336	21-41336	21-41336	21-41336	21-41336	21-41336	21-41336
Quotation No.: Q21-24056					**Chemtest Sample ID.:**	1326705	1326706	1326707	1326708	1326709	1326710	1326711	1326712	1326713	1326714
					Client Sample ID.:	AS31-1	AS31-2	AR31-1	AR30-1	AQ31-1	AP31-1	AQ30-1	AQ30-2	AQ30-3	AO30-1
					Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
					Top Depth (m):	0.6	1.7	0.3	0.5	1.0	0.3	0.5	1.7	2.8	0.6
					Date Sampled:	19-Nov-2021	##########	19-Nov-2021	##########	19-Nov-2021	##########	19-Nov-2021	##########	19-Nov-2021	##########
					Asbestos Lab:	COVENTRY		COVENTRY		COVENTRY		COVENTRY		COVENTRY	
Determinand	**Accred.**	**SOP**	**Units**	**LOD**											
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0		19	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	210	< 5.0	< 5.0	< 5.0
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0		1400	< 10	< 10	< 10	< 10	< 10	440	< 10	< 10	< 10
Benzene	M	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	M	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	M	2760	µg/kg	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	M	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	M	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl Tert-Butyl Ether	M	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene	M	2800	mg/kg	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthylene	N	2800	mg/kg	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthene	M	2800	mg/kg	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene	M	2800	mg/kg	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene	M	2800	mg/kg	0.10		< 0.10	3.1	< 0.10	1.6	0.24	0.34	< 0.10	1.6	1.4	1.9
Anthracene	M	2800	mg/kg	0.10		< 0.10	0.83	< 0.10	0.93	0.20	0.12	< 0.10	0.27	0.41	0.39
Fluoranthene	M	2800	mg/kg	0.10		0.77	6.1	< 0.10	3.2	0.47	0.90	1.3	2.2	1.8	2.2
Pyrene	M	2800	mg/kg	0.10		0.75	4.6	< 0.10	2.4	0.21	1.2	1.5	1.7	1.6	1.6
Benzo[a]anthracene	M	2800	mg/kg	0.10		0.70	2.5	< 0.10	1.1	0.23	0.91	0.97	1.1	1.1	0.84
Chrysene	M	2800	mg/kg	0.10		0.68	1.7	< 0.10	1.0	0.40	1.0	1.1	1.3	0.99	1.2
Benzo[b]fluoranthene	M	2800	mg/kg	0.10		1.2	1.9	< 0.10	1.1	0.24	2.4	2.2	1.8	1.4	1.7
Benzo[k]fluoranthene	M	2800	mg/kg	0.10		0.49	0.50	< 0.10	0.37	0.17	0.61	0.66	0.58	0.47	0.58
Benzo[a]pyrene	M	2800	mg/kg	0.10		1.0	1.3	< 0.10	0.97	0.27	1.3	1.3	1.2	0.82	0.98
Indeno(1,2,3-c,d)Pyrene	M	2800	mg/kg	0.10		< 0.10	< 0.10	< 0.10	< 0.10	0.37	1.4	< 0.10	1.1	0.43	< 0.10
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.10		< 0.10	< 0.10	< 0.10	< 0.10	0.42	0.34	< 0.10	0.30	0.10	< 0.10
Benzo[g,h,i]perylene	M	2800	mg/kg	0.10		< 0.10	< 0.10	< 0.10	< 0.10	0.38	1.2	< 0.10	0.99	0.58	< 0.10
Total Of 16 PAH's	N	2800	mg/kg	2.0		5.6	23	< 2.0	13	3.6	12	9.0	14	11	11
Resorcinol	M	2920	mg/kg	0.020		< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Phenol	M	2920	mg/kg	0.020		< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Cresols	M	2920	mg/kg	0.020		< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Xylenols	M	2920	mg/kg	0.020		< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
1-Naphthol	N	2920	mg/kg	0.020		< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Trimethylphenols	M	2920	mg/kg	0.020		< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Total Phenols	M	2920	mg/kg	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental				**Chemtest Job No.:**	21-41336	21-41336	21-41336	21-41336	21-41336	21-41336	21-41336	21-41336	21-41336	21-41336
Quotation No.: Q21-24056				**Chemtest Sample ID.:**	1326715	1326716	1326717	1326718	1326719	1326720	1326721	1326722	1326723	1326724
				Client Sample ID.:	AN31-1	AN30-1	AM31-1	AM30-1	AM29-1	AL28-1	AT26-1	AT26-2	W208-3-1	W208-3-2
				Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
				Top Depth (m):	0.3	1.0	1.1	0.4	1.2	0.2	1.0	1.4	0.2	0.2
				Date Sampled:	19-Nov-2021	##########	19-Nov-2021	##########	19-Nov-2021	##########	19-Nov-2021	##########	19-Nov-2021	##########
				Asbestos Lab:	COVENTRY		COVENTRY		COVENTRY		COVENTRY		COVENTRY	
Determinand	**Accred.**	**SOP**	**Units**	**LOD**										
ACM Type	U	2192		N/A	-		-		-		-		-	
Asbestos Identification	U	2192		N/A	No Asbestos Detected		No Asbestos Detected		No Asbestos Detected		No Asbestos Detected		No Asbestos Detected	
Asbestos by Gravimetry	U	2192	%	0.001										
Total Asbestos	U	2192	%	0.001										
Moisture	N	2030	%	0.020	9.0	8.7	8.9	3.6	12	4.1	11	9.4	11	8.0
Soil Colour	N	2040		N/A	Black	Black	Brown	Brown	Black	Brown	Brown	Brown	Brown	Brown
Other Material	N	2040		N/A	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones
Soil Texture	N	2040		N/A	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand
pH	M	2010		4.0	> 12.0	11.1	11.9	> 12.0	> 12.0	> 12.0	> 12.0	11.0	11.0	10.7
Cyanide (Total)	M	2300	mg/kg	0.50	3.6	0.50	0.70	3.9	1.5	0.90	1.1	< 0.50	0.80	0.50
Ammoniacal Nitrogen	M	2425	mg/kg	0.50	0.70	< 0.50	< 0.50	1.0	< 0.50	< 0.50	< 0.50	1.2	1.1	27
Iron (Total)	N	2430	mg/kg	100	23000	22000	21000	21000	22000	21000	22000	22000	20000	21000
Arsenic	M	2450	mg/kg	1.0	27	11	17	41	23	35	33	30	38	30
Cadmium	M	2450	mg/kg	0.10	0.34	0.29	< 0.10	0.40	< 0.10	< 0.10	0.10	0.74	0.66	0.55
Chromium	M	2450	mg/kg	1.0	410	26	200	1000	450	530	400	140	130	100
Manganese	M	2450	mg/kg	5.0	17000	2700	11000	39000	18000	33000	28000	5200	4600	6600
Copper	M	2450	mg/kg	0.50	39	55	18	81	61	34	94	140	230	140
Mercury	M	2450	mg/kg	0.10	1.3	0.18	0.50	2.7	1.2	1.2	0.93	0.41	0.43	0.40
Nickel	M	2450	mg/kg	0.50	21	11	10	28	17	46	51	34	34	28
Lead	M	2450	mg/kg	0.50	67	61	24	180	43	24	31	120	120	97
Selenium	M	2450	mg/kg	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Vanadium	U	2450	mg/kg	5.0	360	38	210	780	400	2200	2300	180	190	160
Zinc	M	2450	mg/kg	0.50	130	80	53	110	60	65	69	220	200	180
Organic Matter	M	2625	%	0.40	26	53	2.4	2.1	22	1.4	2.2	7.1	5.9	6.2
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0	< 1.0	< 1.0	6.2	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	< 5.0	6.2	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	6.4	< 1.0	12
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	56	< 1.0	300
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental					**Chemtest Job No.:**	21-41336	21-41336	21-41336	21-41336	21-41336	21-41336	21-41336	21-41336	21-41336	21-41336
Quotation No.: Q21-24056					**Chemtest Sample ID.:**	1326715	1326716	1326717	1326718	1326719	1326720	1326721	1326722	1326723	1326724
					Client Sample ID.:	AN31-1	AN30-1	AM31-1	AM30-1	AM29-1	AL28-1	AT26-1	AT26-2	W208-3-1	W208-3-2
					Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
					Top Depth (m):	0.3	1.0	1.1	0.4	1.2	0.2	1.0	1.4	0.2	0.2
					Date Sampled:	19-Nov-2021	##########	19-Nov-2021	##########	19-Nov-2021	##########	19-Nov-2021	##########	19-Nov-2021	##########
					Asbestos Lab:	COVENTRY		COVENTRY		COVENTRY		COVENTRY		COVENTRY	
Determinand	**Accred.**	**SOP**	**Units**	**LOD**											
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0		< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	63	< 5.0	310
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0		< 10	< 10	< 10	< 10	< 10	< 10	< 10	63	< 10	310
Benzene	M	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	M	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	M	2760	µg/kg	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	M	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	M	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl Tert-Butyl Ether	M	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene	M	2800	mg/kg	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.18	0.59	2.1	2.6
Acenaphthylene	N	2800	mg/kg	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.13	0.25	0.71	0.98
Acenaphthene	M	2800	mg/kg	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.33	0.14	0.13	0.17
Fluorene	M	2800	mg/kg	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.19	0.24	0.41	0.55
Phenanthrene	M	2800	mg/kg	0.10		0.59	1.2	< 0.10	0.38	< 0.10	2.0	3.7	1.2	3.3	4.1
Anthracene	M	2800	mg/kg	0.10		0.24	0.16	< 0.10	0.26	< 0.10	0.37	0.54	0.36	0.77	1.4
Fluoranthene	M	2800	mg/kg	0.10		1.5	0.76	0.84	0.74	0.83	2.7	5.7	2.3	5.4	6.9
Pyrene	M	2800	mg/kg	0.10		1.3	0.61	0.89	0.58	0.70	2.2	5.2	1.6	3.7	4.5
Benzo[a]anthracene	M	2800	mg/kg	0.10		0.71	0.47	0.69	0.42	0.38	1.9	4.0	1.5	2.6	3.0
Chrysene	M	2800	mg/kg	0.10		0.99	0.55	0.77	0.55	0.52	2.1	3.5	1.6	2.6	3.2
Benzo[b]fluoranthene	M	2800	mg/kg	0.10		1.5	0.55	1.1	0.48	1.0	3.1	5.8	2.5	3.3	4.2
Benzo[k]fluoranthene	M	2800	mg/kg	0.10		0.26	0.26	0.50	0.18	0.31	1.3	2.1	0.61	1.5	1.5
Benzo[a]pyrene	M	2800	mg/kg	0.10		0.95	0.44	0.93	0.13	0.70	2.3	4.6	1.4	2.0	3.0
Indeno(1,2,3-c,d)Pyrene	M	2800	mg/kg	0.10		0.75	< 0.10	< 0.10	< 0.10	< 0.10	2.2	4.1	1.3	2.4	2.9
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.10		0.28	< 0.10	< 0.10	< 0.10	< 0.10	0.42	0.64	0.43	0.41	0.59
Benzo[g,h,i]perylene	M	2800	mg/kg	0.10		0.73	< 0.10	< 0.10	< 0.10	< 0.10	2.0	3.7	1.3	1.6	1.9
Total Of 16 PAH's	N	2800	mg/kg	2.0		9.8	5.0	5.7	3.7	4.4	23	44	17	33	42
Resorcinol	M	2920	mg/kg	0.020		< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Phenol	M	2920	mg/kg	0.020		< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Cresols	M	2920	mg/kg	0.020		< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Xylenols	M	2920	mg/kg	0.020		< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
1-Naphthol	N	2920	mg/kg	0.020		< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Trimethylphenols	M	2920	mg/kg	0.020		< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Total Phenols	M	2920	mg/kg	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

Results - Water

Project: P18-669

Client: Rodgers Leask Environmental			**Chemtest Job No.:**		21-41336
Quotation No.: Q21-24056			**Chemtest Sample ID.:**		1326725
			Client Sample ID.:		D2-S
			Sample Type:		WATER
			Date Sampled:		##########
Determinand	**Accred.**	**SOP**	**Units**	**LOD**	
pH	U	1010		N/A	8.4
Electrical Conductivity	U	1020	µS/cm	1.0	970
Suspended Solids At 105C	U	1030	mg/l	5.0	< 5.0
Total Dissolved Solids	N	1020	mg/l	1.0	630
Turbidity	N	1060	NTU	1.0	4.4
Biochemical Oxygen Demand	N	1090	mg O2/l	4.0	[B] < 4.0
Chemical Oxygen Demand	U	1100	mg O2/l	10	[B] 30
Dissolved Oxygen	N	1150	mg O2/l	0.50	6.0
Redox Potential	N	1170	mV	N/A	130
Chloride	U	1220	mg/l	1.0	55
Fluoride	U	1220	mg/l	0.050	0.56
Ammoniacal Nitrogen	U	1220	mg/l	0.050	7.8
Phosphorus (Total)	N	1220	mg/l	0.020	0.037
Phosphate	U	1220	mg/l	0.200	< 0.20
Phosphorus (Dissolved)	U	1220	mg/l	0.020	0.036
Sulphur	N	1220	mg/l	1.0	83
Sulphate	U	1220	mg/l	1.0	250
Cyanide (Total)	U	1300	mg/l	0.050	< 0.050
Cyanide (Free)	U	1300	mg/l	0.050	< 0.050
Thiocyanate	U	1300	mg/l	0.50	< 0.50
Cyanide (Complex)	U	1300	mg/l	0.050	< 0.050
Sulphide	U	1325	mg/l	0.050	[B] < 0.050
Calcium	U	1455	mg/l	2.00	71
Magnesium	U	1455	mg/l	0.20	16
Total Calcium	N	1455	mg/l	5.0	71
Total Magnesium	N	1455	mg/l	0.50	15
Total Hardness as CaCO3	U	1270	mg/l	15	240
Arsenic (Dissolved)	U	1455	µg/l	0.20	4.4
Boron (Dissolved)	U	1455	µg/l	10.0	390
Barium (Dissolved)	U	1455	µg/l	5.00	130
Beryllium (Dissolved)	U	1455	µg/l	1.00	< 1.0
Cadmium (Dissolved)	U	1455	µg/l	0.11	< 0.11
Chromium (Dissolved)	U	1455	µg/l	0.50	0.67
Copper (Dissolved)	U	1455	µg/l	0.50	2.3
Iron (Dissolved)	N	1455	µg/l	5.0	28
Mercury (Dissolved)	U	1455	µg/l	0.05	< 0.05
Manganese (Dissolved)	U	1455	µg/l	0.50	100
Nickel (Dissolved)	U	1455	µg/l	0.50	2.1
Lead (Dissolved)	U	1455	µg/l	0.50	< 0.50
Antimony (Dissolved)	U	1455	µg/l	0.50	0.55
Selenium (Dissolved)	U	1455	µg/l	0.50	1.7
Vanadium (Dissolved)	U	1455	µg/l	0.50	14
Zinc (Dissolved)	U	1455	µg/l	2.5	3.4
Arsenic (Total)	N	1455	µg/l	0.20	4.4

Results - Water

Project: P18-669

Client: Rodgers Leask Environmental			**Chemtest Job No.:**		21-41336
Quotation No.: Q21-24056			**Chemtest Sample ID.:**		1326725
			Client Sample ID.:		D2-S
			Sample Type:		WATER
			Date Sampled:		##########
Determinand	**Accred.**	**SOP**	**Units**	**LOD**	
Boron (Total)	N	1455	µg/l	10.0	390
Barium (Total)	N	1455	µg/l	5.00	130
Beryllium (Total)	N	1455	µg/l	1.00	< 1.0
Cadmium (Total)	N	1455	µg/l	0.11	< 0.11
Chromium (Total)	N	1455	µg/l	0.50	0.67
Copper (Total)	N	1455	µg/l	0.50	2.3
Iron (Total)	N	1455	µg/l	5.0	28
Mercury (Total)	N	1455	µg/l	0.05	< 0.05
Manganese (Total)	N	1455	µg/l	0.50	100
Nickel (Total)	N	1455	µg/l	0.50	2.1
Lead (Total)	N	1455	µg/l	0.50	< 0.50
Antimony (Total)	N	1455	µg/l	0.50	0.55
Selenium (Total)	N	1455	µg/l	0.50	1.7
Vanadium (Total)	N	1455	µg/l	0.50	14
Zinc (Total)	N	1455	µg/l	2.5	3.4
Chromium (Hexavalent)	U	1490	µg/l	20	[B] < 20
Dissolved Organic Carbon	U	1610	mg/l	2.0	8.0
Total Inorganic Carbon	N	1220	mg/l	2.5	46
Total Organic Carbon	U	1610	mg/l	2.0	8.5
Aliphatic TPH >C5-C6	N	1675	µg/l	0.10	< 0.10
Aliphatic TPH >C6-C8	N	1675	µg/l	0.10	< 0.10
Aliphatic TPH >C8-C10	N	1675	µg/l	0.10	< 0.10
Aliphatic TPH >C10-C12	N	1675	µg/l	0.10	< 0.10
Aliphatic TPH >C12-C16	N	1675	µg/l	0.10	< 0.10
Aliphatic TPH >C16-C21	N	1675	µg/l	0.10	< 0.10
Aliphatic TPH >C21-C35	N	1675	µg/l	0.10	< 0.10
Aliphatic TPH >C35-C44	N	1675	µg/l	0.10	< 0.10
Total Aliphatic Hydrocarbons	N	1675	µg/l	5.0	< 5.0
Aromatic TPH >C5-C7	N	1675	µg/l	0.10	< 0.10
Aromatic TPH >C7-C8	N	1675	µg/l	0.10	< 0.10
Aromatic TPH >C8-C10	N	1675	µg/l	0.10	< 0.10
Aromatic TPH >C10-C12	N	1675	µg/l	0.10	< 0.10
Aromatic TPH >C12-C16	N	1675	µg/l	0.10	< 0.10
Aromatic TPH >C16-C21	N	1675	µg/l	0.10	< 0.10
Aromatic TPH >C21-C35	N	1675	µg/l	0.10	< 0.10
Aromatic TPH >C35-C44	N	1675	µg/l	0.10	< 0.10
Total Aromatic Hydrocarbons	N	1675	µg/l	5.0	< 5.0
Total Petroleum Hydrocarbons	N	1675	µg/l	10	< 10
Dichlorodifluoromethane	U	1760	µg/l	1.0	< 1.0
Chloromethane	U	1760	µg/l	1.0	< 1.0
Vinyl Chloride	N	1760	µg/l	1.0	< 1.0
Bromomethane	U	1760	µg/l	5	< 5
Chloroethane	U	1760	µg/l	2.0	< 2.0
Trichlorofluoromethane	U	1760	µg/l	1.0	< 1.0

Results - Water

Project: P18-669

Client: Rodgers Leask Environmental			**Chemtest Job No.:**		21-41336
Quotation No.: Q21-24056			**Chemtest Sample ID.:**		1326725
			Client Sample ID.:		D2-S
			Sample Type:		WATER
			Date Sampled:		##########
Determinand	**Accred.**	**SOP**	**Units**	**LOD**	
1,1-Dichloroethene	U	1760	µg/l	1.0	< 1.0
Trans 1,2-Dichloroethene	U	1760	µg/l	1.0	< 1.0
1,1-Dichloroethane	U	1760	µg/l	1.0	< 1.0
cis 1,2-Dichloroethene	U	1760	µg/l	1.0	< 1.0
Bromochloromethane	U	1760	µg/l	5	< 5
Trichloromethane	U	1760	µg/l	1.0	< 1.0
1,1,1-Trichloroethane	U	1760	µg/l	1.0	< 1.0
Tetrachloromethane	U	1760	µg/l	1.0	< 1.0
1,1-Dichloropropene	U	1760	µg/l	1.0	< 1.0
Benzene	U	1760	µg/l	1.0	< 1.0
1,2-Dichloroethane	U	1760	µg/l	2.0	< 2.0
Trichloroethene	N	1760	µg/l	1.0	< 1.0
1,2-Dichloropropane	U	1760	µg/l	1.0	< 1.0
Dibromomethane	U	1760	µg/l	10	< 10
Bromodichloromethane	U	1760	µg/l	5	< 5
cis-1,3-Dichloropropene	N	1760	µg/l	10	< 10
Toluene	U	1760	µg/l	1.0	< 1.0
Trans-1,3-Dichloropropene	N	1760	µg/l	10	< 10
1,1,2-Trichloroethane	U	1760	µg/l	10	< 10
Tetrachloroethene	U	1760	µg/l	1.0	< 1.0
1,3-Dichloropropane	U	1760	µg/l	2.0	< 2.0
Dibromochloromethane	U	1760	µg/l	10	< 10
1,2-Dibromoethane	U	1760	µg/l	5	< 5
Chlorobenzene	N	1760	µg/l	1.0	< 1.0
1,1,1,2-Tetrachloroethane	U	1760	µg/l	2.0	< 2.0
Ethylbenzene	U	1760	µg/l	1.0	< 1.0
m & p-Xylene	U	1760	µg/l	1.0	< 1.0
o-Xylene	U	1760	µg/l	1.0	< 1.0
Styrene	U	1760	µg/l	1.0	< 1.0
Tribromomethane	U	1760	µg/l	1.0	< 1.0
Isopropylbenzene	U	1760	µg/l	1.0	< 1.0
Bromobenzene	U	1760	µg/l	1.0	< 1.0
1,2,3-Trichloropropane	N	1760	µg/l	50	< 50
N-Propylbenzene	U	1760	µg/l	1.0	< 1.0
2-Chlorotoluene	U	1760	µg/l	1.0	< 1.0
1,3,5-Trimethylbenzene	U	1760	µg/l	1.0	< 1.0
4-Chlorotoluene	U	1760	µg/l	1.0	< 1.0
Tert-Butylbenzene	U	1760	µg/l	1.0	< 1.0
1,2,4-Trimethylbenzene	U	1760	µg/l	1.0	< 1.0
Sec-Butylbenzene	U	1760	µg/l	1.0	< 1.0
1,3-Dichlorobenzene	N	1760	µg/l	1.0	< 1.0
4-Isopropyltoluene	U	1760	µg/l	1.0	< 1.0
1,4-Dichlorobenzene	U	1760	µg/l	1.0	< 1.0
N-Butylbenzene	U	1760	µg/l	1.0	< 1.0

Results - Water

Project: P18-669

Client: Rodgers Leask Environmental			**Chemtest Job No.:**		21-41336
Quotation No.: Q21-24056			**Chemtest Sample ID.:**		1326725
			Client Sample ID.:		D2-S
			Sample Type:		WATER
			Date Sampled:		##########
Determinand	**Accred.**	**SOP**	**Units**	**LOD**	
1,2-Dichlorobenzene	U	1760	µg/l	1.0	< 1.0
1,2-Dibromo-3-Chloropropane	U	1760	µg/l	50	< 50
1,2,4-Trichlorobenzene	U	1760	µg/l	1.0	< 1.0
Hexachlorobutadiene	U	1760	µg/l	1.0	< 1.0
1,2,3-Trichlorobenzene	U	1760	µg/l	2.0	< 2.0
Methyl Tert-Butyl Ether	N	1760	µg/l	1.0	< 1.0
N-Nitrosodimethylamine	N	1790	µg/l	0.50	< 0.50
Phenol	N	1790	µg/l	0.50	< 0.50
2-Chlorophenol	N	1790	µg/l	0.50	< 0.50
Bis-(2-Chloroethyl)Ether	N	1790	µg/l	0.50	< 0.50
1,3-Dichlorobenzene	N	1790	µg/l	0.50	< 0.50
1,4-Dichlorobenzene	N	1790	µg/l	0.50	< 0.50
1,2-Dichlorobenzene	N	1790	µg/l	0.50	< 0.50
2-Methylphenol (o-Cresol)	N	1790	µg/l	0.50	< 0.50
Bis(2-Chloroisopropyl)Ether	N	1790	µg/l	0.50	< 0.50
Hexachloroethane	N	1790	µg/l	0.50	< 0.50
N-Nitrosodi-n-propylamine	N	1790	µg/l	0.50	< 0.50
4-Methylphenol	N	1790	µg/l	0.50	< 0.50
Nitrobenzene	N	1790	µg/l	0.50	< 0.50
Isophorone	N	1790	µg/l	0.50	< 0.50
2-Nitrophenol	N	1790	µg/l	0.50	< 0.50
2,4-Dimethylphenol	N	1790	µg/l	0.50	< 0.50
Bis(2-Chloroethoxy)Methane	N	1790	µg/l	0.50	< 0.50
2,4-Dichlorophenol	N	1790	µg/l	0.50	< 0.50
1,2,4-Trichlorobenzene	N	1790	µg/l	0.50	< 0.50
Naphthalene	N	1790	µg/l	0.50	< 0.50
4-Chloroaniline	N	1790	µg/l	0.50	< 0.50
Hexachlorobutadiene	N	1790	µg/l	0.50	< 0.50
4-Chloro-3-Methylphenol	N	1790	µg/l	0.50	< 0.50
2-Methylnaphthalene	N	1790	µg/l	0.50	< 0.50
Hexachlorocyclopentadiene	N	1790	µg/l	0.50	< 0.50
2,4,6-Trichlorophenol	N	1790	µg/l	0.50	< 0.50
2,4,5-Trichlorophenol	N	1790	µg/l	0.50	< 0.50
2-Chloronaphthalene	N	1790	µg/l	0.50	< 0.50
2-Nitroaniline	N	1790	µg/l	0.50	< 0.50
Acenaphthylene	N	1790	µg/l	0.50	< 0.50
Dimethylphthalate	N	1790	µg/l	0.50	< 0.50
2,6-Dinitrotoluene	N	1790	µg/l	0.50	< 0.50
Acenaphthene	N	1790	µg/l	0.50	< 0.50
3-Nitroaniline	N	1790	µg/l	0.50	< 0.50
Dibenzofuran	N	1790	µg/l	0.50	< 0.50
4-Chlorophenylphenylether	N	1790	µg/l	0.50	< 0.50
2,4-Dinitrotoluene	N	1790	µg/l	0.50	< 0.50
Fluorene	N	1790	µg/l	0.50	< 0.50

Results - Water

Project: P18-669

Client: Rodgers Leask Environmental			**Chemtest Job No.:**		21-41336
Quotation No.: Q21-24056			**Chemtest Sample ID.:**		1326725
			Client Sample ID.:		D2-S
			Sample Type:		WATER
			Date Sampled:		##########
Determinand	**Accred.**	**SOP**	**Units**	**LOD**	
Diethyl Phthalate	N	1790	µg/l	0.50	< 0.50
4-Nitroaniline	N	1790	µg/l	0.50	< 0.50
2-Methyl-4,6-Dinitrophenol	N	1790	µg/l	0.50	< 0.50
Azobenzene	N	1790	µg/l	0.50	< 0.50
4-Bromophenylphenyl Ether	N	1790	µg/l	0.50	< 0.50
Hexachlorobenzene	N	1790	µg/l	0.50	< 0.50
Pentachlorophenol	N	1790	µg/l	0.50	< 0.50
Phenanthrene	N	1790	µg/l	0.50	< 0.50
Anthracene	N	1790	µg/l	0.50	< 0.50
Carbazole	N	1790	µg/l	0.50	< 0.50
Di-N-Butyl Phthalate	N	1790	µg/l	0.50	< 0.50
Fluoranthene	N	1790	µg/l	0.50	< 0.50
Pyrene	N	1790	µg/l	0.50	< 0.50
Butylbenzyl Phthalate	N	1790	µg/l	0.50	< 0.50
Benzo[a]anthracene	N	1790	µg/l	0.50	< 0.50
Chrysene	N	1790	µg/l	0.50	< 0.50
Bis(2-Ethylhexyl)Phthalate	N	1790	µg/l	0.50	< 0.50
Di-N-Octyl Phthalate	N	1790	µg/l	0.50	< 0.50
Benzo[b]fluoranthene	N	1790	µg/l	0.50	< 0.50
Benzo[k]fluoranthene	N	1790	µg/l	0.50	< 0.50
Benzo[a]pyrene	N	1790	µg/l	0.50	< 0.50
Indeno(1,2,3-c,d)Pyrene	N	1790	µg/l	0.50	< 0.50
Dibenz(a,h)Anthracene	N	1790	µg/l	0.50	< 0.50
Benzo[g,h,i]perylene	N	1790	µg/l	0.50	< 0.50
4-Nitrophenol	N	1790	µg/l	0.50	< 0.50
Naphthalene	U	1800	µg/l	0.10	< 0.10
Acenaphthylene	U	1800	µg/l	0.10	< 0.10
Acenaphthene	U	1800	µg/l	0.10	< 0.10
Fluorene	U	1800	µg/l	0.10	< 0.10
Phenanthrene	U	1800	µg/l	0.10	< 0.10
Anthracene	U	1800	µg/l	0.10	< 0.10
Fluoranthene	U	1800	µg/l	0.10	< 0.10
Pyrene	U	1800	µg/l	0.10	< 0.10
Benzo[a]anthracene	U	1800	µg/l	0.10	< 0.10
Chrysene	U	1800	µg/l	0.10	< 0.10
Benzo[b]fluoranthene	U	1800	µg/l	0.10	< 0.10
Benzo[k]fluoranthene	U	1800	µg/l	0.10	< 0.10
Benzo[a]pyrene	U	1800	µg/l	0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene	U	1800	µg/l	0.10	< 0.10
Dibenz(a,h)Anthracene	U	1800	µg/l	0.10	< 0.10
Benzo[g,h,i]perylene	U	1800	µg/l	0.10	< 0.10
Total Of 16 PAH's	U	1800	µg/l	2.0	< 2.0
Total Phenols	U	1920	mg/l	0.030	< 0.030

Deviations

In accordance with UKAS Policy on Deviating Samples TPS 63. Chemtest have a procedure to ensure 'upon receipt of each sample a competent laboratory shall assess whether the sample is suitable with regard to the requested test(s)'. This policy and the respective holding times applied, can be supplied upon request.The reason a sample is declared as deviating is detailed below. Where applicable the analysis remains UKAS/MCERTs accredited but the results may be compromised.

Sample:	Sample Ref:	Sample ID:	Sample Location:	Sampled Date:	Deviation Code(s):	Containers Received:
1326725		D2-S		19-Nov-2021	B	Coloured Winchester 1000ml
1326725		D2-S		19-Nov-2021	B	EPA Vial 40ml
1326725		D2-S		19-Nov-2021	B	Plastic Bottle 1000ml

Test Methods

SOP	Title	Parameters included	Method summary
1010	pH Value of Waters	pH	pH Meter
1020	Electrical Conductivity and Total Dissolved Solids (TDS) in Waters	Electrical Conductivity and Total Dissolved Solids (TDS) in Waters	Conductivity Meter
1030	Total Suspended Solids	Total suspended solids	Filtration of a mixed sample through a standard glass fibre filter and determination of the mass of residue retained dried at 105°C.
1060	Turbidity	Turbidity	Spetctrophotometry
1090	Biochemical Oxygen Demand	Biochemical Oxygen demand (BOD)	Colorimetric determination of dissolved oxygen in seeded sample after 5 days incubation at 20°C.
1100	Chemical Oxygen Demand	Chemical Oxygen demand (COD)	Dichromate oxidation of organic matter in sample followed by colorimetric determination of residual Cr[VI].
1150	Dissolved Oxygen	Dissolved Oxygen (DO)	Electrometric determination (on site preferred), using oxygen sensitive membrane electrode.
1170	Redox Potential	Redox Potential	Meter
1220	Anions, Alkalinity & Ammonium in Waters	Fluoride; Chloride; Nitrite; Nitrate; Total; Oxidisable Nitrogen (TON); Sulfate; Phosphate; Alkalinity; Ammonium	Automated colorimetric analysis using 'Aquakem 600' Discrete Analyser.
1270	Total Hardness of Waters	Total hardness	Calculation applied to calcium and magnesium results, expressed as mg l-1 CaCO3 equivalent.
1300	Cyanides & Thiocyanate in Waters	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Continuous Flow Analysis.
1325	Sulphide in Waters	Sulphides	Automated colorimetric analysis by 'Aquakem 600' Discrete Analyser using N,N–dimethyl-pphenylenediamine.
1455	Metals in Waters by ICP-MS	Metals, including: Antimony; Arsenic; Barium; Beryllium; Boron; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Tin; Vanadium; Zinc	Filtration of samples followed by direct determination by inductively coupled plasma mass spectrometry (ICP-MS).
1490	Hexavalent Chromium in Waters	Chromium [VI]	Automated colorimetric analysis by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
1610	Total/Dissolved Organic Carbon in Waters	Organic Carbon	TOC Analyser using Catalytic Oxidation
1675	TPH Aliphatic/Aromatic split in Waters by GC-FID(cf. Texas Method 1006 / TPH CWG)	Aliphatics: >C5–C6, >C6–C8, >C8– C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Pentane extraction / GCxGC FID detection
1760	Volatile Organic Compounds (VOCs) in Waters by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics. (cf. USEPA Method 8260)	Automated headspace gas chromatographic (GC) analysis of water samples with mass spectrometric (MS) detection of volatile organic compounds.
1790	Semi-Volatile Organic Compounds (SVOCs) in Waters by GC-MS	Semi-volatile organic compounds	Solvent extraction / GCMS detection
1800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Waters by GC-MS	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenz[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Pentane extraction / GCMS detection
1920	Phenols in Waters by HPLC	Phenolic compounds including: Phenol, Cresols, Xylenols, Trimethylphenols Note: Chlorophenols are excluded.	Determination by High Performance Liquid Chromatography (HPLC) using electrochemical detection.
2010	pH Value of Soils	pH	pH Meter
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930

Test Methods

SOP	Title	Parameters included	Method summary
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Allkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.
2425	Extractable Ammonium in soils	Ammonium	Extraction with potassium chloride solution / analysis by 'Aquakem 600' Discrete Analyser using sodium salicylate and sodium dichloroisocyanurate.
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.
2450	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8,>C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Dichloromethane extraction / GCxGC FID detection
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.
2800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenz[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene*	Dichloromethane extraction / GC-MS
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.

Report Information

Key

U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

Comments or interpretations are beyond the scope of UKAS accreditation
The results relate only to the items tested
Uncertainty of measurement for the determinands tested are available upon request
None of the results in this report have been recovery corrected
All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis
All Asbestos testing is performed at the indicated laboratory
Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

A - Date of sampling not supplied
B - Sample age exceeds stability time (sampling to extraction)
C - Sample not received in appropriate containers
D - Broken Container
E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt
All water samples will be retained for 14 days from the date of receipt
Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com

Eurofins Chemtest Ltd
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

Final Report

Report No.:	22-20454-1
Initial Date of Issue:	09-Jun-2022
Client	Rodgers Leask Environmental
Client Address:	Office 225 2430/2440 Aztec West Almoundsbury Bristol BS32 4AQ
Contact(s):	Chris Wilson Caitlin Davies David McCarroll
Project	P18-669
Quotation No.:	Q21-24056
Order No.:	PO115623
No. of Samples:	23
Turnaround (Wkdays):	5
Date Approved:	09-Jun-2022
Approved By:	
Details:	Stuart Henderson, Technical Manager

Date Received:	01-Jun-2022
Date Instructed:	01-Jun-2022
Results Due:	09-Jun-2022

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental		**Chemtest Job No.:**			22-20454	22-20454	22-20454	22-20454	22-20454	22-20454	22-20454	22-20454	22-20454
Quotation No.: Q21-24056		**Chemtest Sample ID.:**			1440189	1440190	1440191	1440192	1440193	1440194	1440195	1440196	1440197
		Client Sample ID.:			AX37-1	AX37-2	AX36-1	AX36-2	AX35-1	AX35-2	AX34-1	AX34-2	AW37-1
		Sample Type:			SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):			1.00	2.00	0.60	1.50	0.50	1.20	0.70	1.30	0.30
		Date Sampled:			30-May-2022	30-May-2022	30-May-2022	30-May-2022	30-May-2022	30-May-2022	30-May-2022	30-May-2022	30-May-2022
		Asbestos Lab:			DURHAM		DURHAM		DURHAM		DURHAM		DURHAM
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
ACM Type	U	2192		N/A	-		-		-		-		-
Asbestos Identification	U	2192		N/A	No Asbestos Detected		No Asbestos Detected		No Asbestos Detected		No Asbestos Detected		No Asbestos Detected
Moisture	N	2030	%	0.020	8.5	9.7	4.0	7.4	7.3	9.1	4.2	6.6	5.1
Soil Colour	N	2040		N/A	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown
Other Material	N	2040		N/A	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones
Soil Texture	N	2040		N/A	Sand	Sand	Sand	Sand	Sand	Sand	Gravel	Sand	Sand
pH	M	2010		4.0	9.7	8.8	9.4	10.4	9.3	10.0	10.5	9.7	11.6
Cyanide (Total)	M	2300	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Ammoniacal Nitrogen	M	2425	mg/kg	0.50	1.3	23	1.9	4.4	2.0	29	0.56	20	0.67
Iron (Total)	N	2430	mg/kg	100	3500	8200	2200	4800	3900	6000	< 100	8800	17000
Arsenic	M	2455	mg/kg	0.5	2.7	1.2	2.0	< 0.5	2.3	1.5	< 0.5	1.3	1.4
Cadmium	M	2455	mg/kg	0.10	0.25	0.24	< 0.10	< 0.10	0.16	0.55	< 0.10	0.38	0.59
Chromium	M	2455	mg/kg	0.5	8.7	7.8	4.3	2.8	5.2	7.5	0.5	8.7	160
Manganese	M	2455	mg/kg	1.0	1300	840	450	530	750	1100	1700	680	6700
Copper	M	2455	mg/kg	0.50	10	6.3	6.7	1.6	6.9	5.4	0.93	4.8	9.3
Mercury	M	2455	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Nickel	M	2455	mg/kg	0.50	4.7	7.2	4.1	0.88	4.4	3.6	1.2	6.9	3.2
Lead	M	2455	mg/kg	0.50	19	24	8.8	2.2	6.3	37	2.5	18	25
Selenium	M	2455	mg/kg	0.25	0.72	0.26	< 0.25	< 0.25	0.41	0.56	0.76	< 0.25	0.31
Vanadium	U	2455	mg/kg	0.5	18	9.5	8.1	6.0	11	14	< 0.5	27	110
Zinc	M	2455	mg/kg	0.50	26	23	18	3.9	13	38	4.9	24	91
Organic Matter	M	2625	%	0.40	8.1	4.1	3.6	5.0	9.0	3.3	6.7	2.1	1.7
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	5.1

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental			**Chemtest Job No.:**		22-20454	22-20454	22-20454	22-20454	22-20454	22-20454	22-20454	22-20454	22-20454
Quotation No.: Q21-24056			**Chemtest Sample ID.:**		1440189	1440190	1440191	1440192	1440193	1440194	1440195	1440196	1440197
			Client Sample ID.:		AX37-1	AX37-2	AX36-1	AX36-2	AX35-1	AX35-2	AX34-1	AX34-2	AW37-1
			Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Top Depth (m):		1.00	2.00	0.60	1.50	0.50	1.20	0.70	1.30	0.30
			Date Sampled:		30-May-2022	30-May-2022	30-May-2022	30-May-2022	30-May-2022	30-May-2022	30-May-2022	30-May-2022	30-May-2022
			Asbestos Lab:		DURHAM		DURHAM		DURHAM		DURHAM		DURHAM
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	44
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	49
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	49
Benzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl Tert-Butyl Ether	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.41
Acenaphthylene	N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.47
Acenaphthene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.45
Fluorene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.34
Phenanthrene	M	2800	mg/kg	0.10	0.52	0.61	< 0.10	0.51	0.32	0.42	0.29	< 0.10	3.0
Anthracene	M	2800	mg/kg	0.10	0.33	0.24	< 0.10	0.15	0.12	< 0.10	< 0.10	< 0.10	1.1
Fluoranthene	M	2800	mg/kg	0.10	0.94	0.53	< 0.10	0.81	0.32	0.29	0.74	< 0.10	8.0
Pyrene	M	2800	mg/kg	0.10	0.77	0.48	< 0.10	0.63	0.28	0.25	0.67	< 0.10	7.3
Benzo[a]anthracene	M	2800	mg/kg	0.10	0.61	0.45	< 0.10	0.32	< 0.10	< 0.10	0.44	< 0.10	5.4
Chrysene	M	2800	mg/kg	0.10	0.46	0.40	< 0.10	0.45	< 0.10	< 0.10	0.35	< 0.10	6.3
Benzo[b]fluoranthene	M	2800	mg/kg	0.10	0.87	0.50	< 0.10	< 0.10	< 0.10	< 0.10	0.28	< 0.10	9.0
Benzo[k]fluoranthene	M	2800	mg/kg	0.10	0.33	0.38	< 0.10	< 0.10	< 0.10	< 0.10	0.36	< 0.10	4.0
Benzo[a]pyrene	M	2800	mg/kg	0.10	0.43	0.31	< 0.10	< 0.10	< 0.10	< 0.10	0.20	< 0.10	8.2
Indeno(1,2,3-c,d)Pyrene	M	2800	mg/kg	0.10	0.43	0.48	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	5.3
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.10	0.32	0.31	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.74
Benzo[g,h,i]perylene	M	2800	mg/kg	0.10	0.68	0.41	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	5.2
Total Of 16 PAH's	N	2800	mg/kg	2.0	6.7	5.1	< 2.0	2.9	< 2.0	< 2.0	3.3	< 2.0	65
Resorcinol	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Phenol	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Cresols	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Xylenols	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
1-Naphthol	N	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Trimethylphenols	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Total Phenols	M	2920	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental		**Chemtest Job No.:**			22-20454	22-20454	22-20454	22-20454	22-20454	22-20454	22-20454	22-20454	22-20454
Quotation No.: Q21-24056		**Chemtest Sample ID.:**			1440198	1440199	1440200	1440201	1440202	1440203	1440204	1440205	1440206
		Client Sample ID.:			AW37-2	AW36-1	AW36-2	AW35-1	AW34-1	AW34-2	AV34-1	AV34-2	AV35-1
		Sample Type:			SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):			1.50	0.30	1.60	0.50	1.00	2.00	0.40	1.80	1.00
		Date Sampled:			30-May-2022	30-May-2022	30-May-2022	30-May-2022	30-May-2022	30-May-2022	30-May-2022	30-May-2022	30-May-2022
		Asbestos Lab:				DURHAM		DURHAM	DURHAM		DURHAM		DURHAM
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
ACM Type	U	2192		N/A		-		-	-		-		-
Asbestos Identification	U	2192		N/A		No Asbestos Detected		No Asbestos Detected	No Asbestos Detected		No Asbestos Detected		No Asbestos Detected
Moisture	N	2030	%	0.020	11	6.6	12	5.8	13	10	6.3	13	8.8
Soil Colour	N	2040		N/A	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown
Other Material	N	2040		N/A	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones
Soil Texture	N	2040		N/A	Sand	Sand	Sand	Sand	Sand	Gravel	Sand	Sand	Sand
pH	M	2010		4.0	11.1	10.2	9.5	10.8	9.8	10.8	10.5	10.1	10.7
Cyanide (Total)	M	2300	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.50	1.5	4.0	5.2
Ammoniacal Nitrogen	M	2425	mg/kg	0.50	0.86	< 0.50	26	0.61	1.5	0.78	1.1	2.3	0.78
Iron (Total)	N	2430	mg/kg	100	9800	15000	13000	6500	5400	5500	7800	6200	4900
Arsenic	M	2455	mg/kg	0.5	18	2.4	6.1	2.4	2.6	1.9	3.1	2.0	1.9
Cadmium	M	2455	mg/kg	0.10	0.26	0.22	0.24	0.31	0.34	0.14	0.11	0.28	0.35
Chromium	M	2455	mg/kg	0.5	32	85	12	24	15	13	23	13	12
Manganese	M	2455	mg/kg	1.0	2200	3200	810	2400	2100	2200	3000	1900	2000
Copper	M	2455	mg/kg	0.50	12	9.9	13	7.1	12	7.1	7.7	9.9	6.4
Mercury	M	2455	mg/kg	0.05	0.07	0.07	0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.05	< 0.05
Nickel	M	2455	mg/kg	0.50	7.3	2.7	8.2	3.1	5.8	3.3	4.7	5.6	3.6
Lead	M	2455	mg/kg	0.50	30	31	41	43	45	16	24	40	33
Selenium	M	2455	mg/kg	0.25	1.2	0.27	0.47	1.0	0.66	1.3	1.5	0.73	0.48
Vanadium	U	2455	mg/kg	0.5	80	67	19	29	26	20	36	23	17
Zinc	M	2455	mg/kg	0.50	59	99	62	110	90	41	54	180	76
Organic Matter	M	2625	%	0.40	8.1	5.7	7.8	3.8	15	3.3	3.3	7.9	5.0
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	72
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	72
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental			**Chemtest Job No.:**		22-20454	22-20454	22-20454	22-20454	22-20454	22-20454	22-20454	22-20454	22-20454
Quotation No.: Q21-24056			**Chemtest Sample ID.:**		1440198	1440199	1440200	1440201	1440202	1440203	1440204	1440205	1440206
			Client Sample ID.:		AW37-2	AW36-1	AW36-2	AW35-1	AW34-1	AW34-2	AV34-1	AV34-2	AV35-1
			Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Top Depth (m):		1.50	0.30	1.60	0.50	1.00	2.00	0.40	1.80	1.00
			Date Sampled:		30-May-2022	30-May-2022	30-May-2022	30-May-2022	30-May-2022	30-May-2022	30-May-2022	30-May-2022	30-May-2022
			Asbestos Lab:			DURHAM		DURHAM	DURHAM		DURHAM		DURHAM
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	57
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	57
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	130
Benzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl Tert-Butyl Ether	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthylene	N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene	M	2800	mg/kg	0.10	0.47	< 0.10	< 0.10	0.41	0.62	0.60	< 0.10	0.73	1.4
Anthracene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	0.12	0.13	0.13	< 0.10	0.37	0.48
Fluoranthene	M	2800	mg/kg	0.10	0.58	0.21	< 0.10	0.32	0.87	0.60	< 0.10	0.71	3.5
Pyrene	M	2800	mg/kg	0.10	0.60	0.29	< 0.10	0.31	0.80	0.59	< 0.10	0.66	2.9
Benzo[a]anthracene	M	2800	mg/kg	0.10	0.37	< 0.10	< 0.10	< 0.10	0.41	0.26	< 0.10	0.61	2.0
Chrysene	M	2800	mg/kg	0.10	0.49	< 0.10	< 0.10	< 0.10	0.30	0.35	< 0.10	0.46	1.8
Benzo[b]fluoranthene	M	2800	mg/kg	0.10	0.42	< 0.10	< 0.10	< 0.10	0.73	0.30	< 0.10	0.49	3.3
Benzo[k]fluoranthene	M	2800	mg/kg	0.10	0.25	< 0.10	< 0.10	< 0.10	0.34	0.17	< 0.10	0.22	1.2
Benzo[a]pyrene	M	2800	mg/kg	0.10	0.42	< 0.10	< 0.10	< 0.10	0.28	0.35	< 0.10	0.47	2.5
Indeno(1,2,3-c,d)Pyrene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.45	2.4
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.25	0.45
Benzo[g,h,i]perylene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.55	2.1
Total Of 16 PAH's	N	2800	mg/kg	2.0	3.6	< 2.0	< 2.0	< 2.0	4.5	3.4	< 2.0	6.0	24
Resorcinol	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Phenol	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Cresols	M	2920	mg/kg	0.020	< 0.020	1.2	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Xylenols	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
1-Naphthol	N	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Trimethylphenols	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Total Phenols	M	2920	mg/kg	0.10	< 0.10	1.2	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental		**Chemtest Job No.:**			22-20454	22-20454	22-20454	22-20454	22-20454
Quotation No.: Q21-24056		**Chemtest Sample ID.:**			1440207	1440208	1440209	1440210	1440211
		Client Sample ID.:			AV35-2	AV36-1	AV36-2	AV37-1	AV37-2
		Sample Type:			SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):			2.00	0.30	1.30	0.50	1.60
		Date Sampled:			30-May-2022	30-May-2022	30-May-2022	30-May-2022	30-May-2022
		Asbestos Lab:				DURHAM		DURHAM	
Determinand	**Accred.**	**SOP**	**Units**	**LOD**					
ACM Type	U	2192		N/A		-		-	
Asbestos Identification	U	2192		N/A		No Asbestos Detected		No Asbestos Detected	
Moisture	N	2030	%	0.020	9.6	12	7.2	11	6.8
Soil Colour	N	2040		N/A	Brown	Brown	Brown	Brown	Brown
Other Material	N	2040		N/A	Stones	Stones	Stones	Stones	Stones
Soil Texture	N	2040		N/A	Sand	Sand	Sand	Sand	Sand
pH	M	2010		4.0	10.6	10.0	10.3	10.9	11.0
Cyanide (Total)	M	2300	mg/kg	0.50	3.1	8.0	< 0.50	10	< 0.50
Ammoniacal Nitrogen	M	2425	mg/kg	0.50	0.64	0.58	4.4	1.0	< 0.50
Iron (Total)	N	2430	mg/kg	100	8700	9000	6100	7800	12000
Arsenic	M	2455	mg/kg	0.5	2.0	2.1	1.3	2.3	1.2
Cadmium	M	2455	mg/kg	0.10	0.24	0.37	0.29	< 0.10	0.26
Chromium	M	2455	mg/kg	0.5	22	22	12	35	55
Manganese	M	2455	mg/kg	1.0	3300	2800	3000	2600	3900
Copper	M	2455	mg/kg	0.50	6.1	11	6.0	5.4	5.3
Mercury	M	2455	mg/kg	0.05	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Nickel	M	2455	mg/kg	0.50	3.6	5.9	3.7	3.9	3.7
Lead	M	2455	mg/kg	0.50	29	38	34	12	25
Selenium	M	2455	mg/kg	0.25	0.29	0.57	0.29	0.81	0.27
Vanadium	U	2455	mg/kg	0.5	27	26	15	35	55
Zinc	M	2455	mg/kg	0.50	110	130	140	25	46
Organic Matter	M	2625	%	0.40	5.3	11	6.6	4.7	2.1
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	7.3	< 1.0	< 1.0	19
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	14	< 1.0	< 1.0	18
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0	< 1.0	16	< 1.0	< 1.0	64
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	140	< 1.0	< 1.0	140
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	170	< 5.0	< 5.0	240
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	< 1.0	2.7	< 1.0	< 1.0	11

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental		**Chemtest Job No.:**			22-20454	22-20454	22-20454	22-20454	22-20454
Quotation No.: Q21-24056		**Chemtest Sample ID.:**			1440207	1440208	1440209	1440210	1440211
		Client Sample ID.:			AV35-2	AV36-1	AV36-2	AV37-1	AV37-2
		Sample Type:			SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):			2.00	0.30	1.30	0.50	1.60
		Date Sampled:			30-May-2022	30-May-2022	30-May-2022	30-May-2022	30-May-2022
		Asbestos Lab:				DURHAM		DURHAM	
Determinand	**Accred.**	**SOP**	**Units**	**LOD**					
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	84	< 1.0	< 1.0	120
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	86	< 5.0	< 5.0	130
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	< 10	260	< 10	< 10	370
Benzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl Tert-Butyl Ether	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene	M	2800	mg/kg	0.10	< 0.10	0.43	0.62	< 0.10	0.59
Acenaphthylene	N	2800	mg/kg	0.10	< 0.10	0.15	0.63	< 0.10	2.7
Acenaphthene	M	2800	mg/kg	0.10	< 0.10	0.15	0.15	< 0.10	0.34
Fluorene	M	2800	mg/kg	0.10	< 0.10	0.19	0.21	< 0.10	0.40
Phenanthrene	M	2800	mg/kg	0.10	1.1	0.86	1.2	0.24	2.9
Anthracene	M	2800	mg/kg	0.10	1.5	0.38	0.60	< 0.10	4.3
Fluoranthene	M	2800	mg/kg	0.10	6.8	2.9	3.5	0.20	23
Pyrene	M	2800	mg/kg	0.10	6.7	2.4	3.3	0.19	24
Benzo[a]anthracene	M	2800	mg/kg	0.10	4.7	1.8	2.9	0.14	15
Chrysene	M	2800	mg/kg	0.10	6.4	2.0	3.9	0.17	21
Benzo[b]fluoranthene	M	2800	mg/kg	0.10	9.2	2.3	5.8	0.22	33
Benzo[k]fluoranthene	M	2800	mg/kg	0.10	2.8	0.80	1.8	0.12	11
Benzo[a]pyrene	M	2800	mg/kg	0.10	7.1	1.9	4.5	0.16	26
Indeno(1,2,3-c,d)Pyrene	M	2800	mg/kg	0.10	6.5	1.4	4.2	< 0.10	23
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.10	1.0	0.35	0.67	< 0.10	3.9
Benzo[g,h,i]perylene	M	2800	mg/kg	0.10	5.8	1.4	4.0	< 0.10	22
Total Of 16 PAH's	N	2800	mg/kg	2.0	60	19	38	< 2.0	210
Resorcinol	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Phenol	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Cresols	M	2920	mg/kg	0.020	< 0.020	< 0.020	1.1	< 0.020	< 0.020
Xylenols	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
1-Naphthol	N	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Trimethylphenols	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Total Phenols	M	2920	mg/kg	0.10	< 0.10	< 0.10	1.1	< 0.10	< 0.10

Test Methods

SOP	Title	Parameters included	Method summary
2010	pH Value of Soils	pH	pH Meter
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Allkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.
2425	Extractable Ammonium in soils	Ammonium	Extraction with potassium chloride solution / analysis by 'Aquakem 600' Discrete Analyser using sodium salicylate and sodium dichloroisocyanurate.
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8,>C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Dichloromethane extraction / GCxGC FID detection
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.
2800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenz[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene*	Dichloromethane extraction / GC-MS
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.

Report Information

Key

U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

Comments or interpretations are beyond the scope of UKAS accreditation
The results relate only to the items tested
Uncertainty of measurement for the determinands tested are available upon request
None of the results in this report have been recovery corrected
All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis
All Asbestos testing is performed at the indicated laboratory
Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

A - Date of sampling not supplied
B - Sample age exceeds stability time (sampling to extraction)
C - Sample not received in appropriate containers
D - Broken Container
E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt
All water samples will be retained for 14 days from the date of receipt
Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com

eurofins | Chemtest
Eurofins Chemtest Ltd
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

Final Report

Report No.:	22-20747-1
Initial Date of Issue:	10-Jun-2022
Client	Rodgers Leask Environmental
Client Address:	Office 225 2430/2440 Aztec West Almoundsbury Bristol BS32 4AQ
Contact(s):	Caitlin Davies Chris Wilson David McCarroll
Project	P18-669
Quotation No.:	Q21-24056
Order No.:	PO115623
No. of Samples:	9
Turnaround (Wkdays):	5
Date Approved:	10-Jun-2022
Approved By:	
Details:	Stuart Henderson, Technical Manager

Date Received:	06-Jun-2022
Date Instructed:	06-Jun-2022
Results Due:	10-Jun-2022

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental		**Chemtest Job No.:**			22-20747	22-20747	22-20747	22-20747	22-20747	22-20747	22-20747	22-20747	22-20747
Quotation No.: Q21-24056		**Chemtest Sample ID.:**			1441643	1441644	1441645	1441646	1441647	1441648	1441649	1441650	1441651
Order No.: PO115623		Client Sample Ref.:			AR37-2	AR36-2	AR37-1	AS37-2	AR36-1	AS34-1	AS37-1	AS35-1	AS35-2
		Sample Type:			SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):			1.70	1.50	0.40	2.00	0.50	0.40	0.50	0.30	2.00
		Date Sampled:			31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022
		Asbestos Lab:			COVENTRY		COVENTRY		COVENTRY		COVENTRY		COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
ACM Type	U	2192		N/A	-		-		-		-		-
Asbestos Identification	U	2192		N/A	No Asbestos Detected		No Asbestos Detected		No Asbestos Detected		No Asbestos Detected		No Asbestos Detected
Moisture	N	2030	%	0.020	13	24	1.4	14	22	5.8	18	6.2	19
Soil Colour	N	2040		N/A	Brown	Black	Beige	Brown	Brown	Brown	Brown	Brown	Black
Other Material	N	2040		N/A	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones
Soil Texture	N	2040		N/A	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand
pH	M	2010		4.0	9.9	9.4	> 12.0	9.6	10.2	10.5	11.5	11.3	10.5
Cyanide (Total)	M	2300	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	68	14	4.4	1.3	2.1
Ammoniacal Nitrogen	M	2425	mg/kg	0.50	6.6	16	0.93	68	2.4	1.4	2.2	1.3	1.6
Iron (Total)	N	2430	mg/kg	100	21000	19000	4300	17000	26000	26000	24000	24000	23000
Arsenic	M	2455	mg/kg	0.5	12	29	3.1	12	18	13	6.0	7.9	19
Cadmium	M	2455	mg/kg	0.10	0.34	0.26	0.32	0.14	5.1	0.54	0.80	0.57	0.73
Chromium	M	2455	mg/kg	0.5	26	15	15	13	60	36	68	82	150
Manganese	M	2455	mg/kg	1.0	1300	270	430	480	2900	19000	4900	4200	5700
Copper	M	2455	mg/kg	0.50	30	50	10	16	110	16	17	20	83
Mercury	M	2455	mg/kg	0.05	0.13	0.23	< 0.05	0.05	1.7	0.13	0.13	0.26	0.38
Nickel	M	2455	mg/kg	0.50	18	28	5.2	20	44	24	16	17	33
Lead	M	2455	mg/kg	0.50	97	44	17	31	970	41	82	63	160
Selenium	M	2455	mg/kg	0.25	1.9	2.8	0.49	1.3	2.0	2.3	0.64	1.0	2.4
Vanadium	U	2455	mg/kg	0.5	45	26	12	21	49	78	88	81	110
Zinc	M	2455	mg/kg	0.50	160	73	39	33	5700	170	220	140	240
Organic Matter	M	2625	%	0.40	12	22	13	6.2	14	3.8	9.7	4.7	28
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	5.1	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	23	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	80	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	< 5.0	< 5.0	< 5.0	110	< 5.0	< 5.0	< 5.0	< 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental		**Chemtest Job No.:**			22-20747	22-20747	22-20747	22-20747	22-20747	22-20747	22-20747	22-20747	22-20747
Quotation No.: Q21-24056		**Chemtest Sample ID.:**			1441643	1441644	1441645	1441646	1441647	1441648	1441649	1441650	1441651
Order No.: PO115623		Client Sample Ref.:			AR37-2	AR36-2	AR37-1	AS37-2	AR36-1	AS34-1	AS37-1	AS35-1	AS35-2
		Sample Type:			SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):			1.70	1.50	0.40	2.00	0.50	0.40	0.50	0.30	2.00
		Date Sampled:			31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022
		Asbestos Lab:			COVENTRY		COVENTRY		COVENTRY		COVENTRY		COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	< 10	< 10	< 10	< 10	110	< 10	< 10	< 10	< 10
Benzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	M	2760	µg/kg	1.0	1.7	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl Tert-Butyl Ether	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.82	< 0.10	< 0.10	0.38	0.67
Acenaphthylene	N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.42	< 0.10	< 0.10	0.36	0.10
Acenaphthene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.11
Fluorene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.17	< 0.10	< 0.10	0.16	< 0.10
Phenanthrene	M	2800	mg/kg	0.10	0.60	0.21	< 0.10	0.13	1.1	1.4	0.98	2.3	0.67
Anthracene	M	2800	mg/kg	0.10	0.11	< 0.10	< 0.10	< 0.10	0.58	0.31	0.62	0.59	0.14
Fluoranthene	M	2800	mg/kg	0.10	0.55	0.12	< 0.10	0.50	3.4	2.1	4.1	5.7	1.1
Pyrene	M	2800	mg/kg	0.10	0.46	0.12	< 0.10	0.43	4.2	1.5	4.3	4.3	0.77
Benzo[a]anthracene	M	2800	mg/kg	0.10	0.40	< 0.10	< 0.10	0.26	2.9	0.87	3.1	2.4	0.43
Chrysene	M	2800	mg/kg	0.10	0.49	< 0.10	< 0.10	0.29	3.3	0.88	4.8	2.6	0.49
Benzo[b]fluoranthene	M	2800	mg/kg	0.10	0.70	< 0.10	< 0.10	0.29	7.3	1.5	7.3	3.1	0.73
Benzo[k]fluoranthene	M	2800	mg/kg	0.10	0.24	< 0.10	< 0.10	< 0.10	2.3	0.53	2.4	1.1	0.24
Benzo[a]pyrene	M	2800	mg/kg	0.10	0.50	< 0.10	< 0.10	0.20	5.4	0.89	5.7	2.1	0.41
Indeno(1,2,3-c,d)Pyrene	M	2800	mg/kg	0.10	0.40	< 0.10	< 0.10	< 0.10	4.3	0.68	5.4	1.7	0.20
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.10	0.13	< 0.10	< 0.10	< 0.10	0.82	0.18	0.85	0.35	0.10
Benzo[g,h,i]perylene	M	2800	mg/kg	0.10	0.40	< 0.10	< 0.10	< 0.10	4.6	0.78	5.0	1.6	0.27
Total Of 16 PAH's	N	2800	mg/kg	2.0	5.0	< 2.0	< 2.0	2.1	42	12	45	29	6.4
Resorcinol	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Phenol	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Cresols	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Xylenols	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
1-Naphthol	N	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Trimethylphenols	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Total Phenols	M	2920	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

Test Methods

SOP	Title	Parameters included	Method summary
2010	pH Value of Soils	pH	pH Meter
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Allkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.
2425	Extractable Ammonium in soils	Ammonium	Extraction with potassium chloride solution / analysis by 'Aquakem 600' Discrete Analyser using sodium salicylate and sodium dichloroisocyanurate.
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8,>C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Dichloromethane extraction / GCxGC FID detection
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.
2800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenz[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene*	Dichloromethane extraction / GC-MS
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.

Report Information

Key

U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

Comments or interpretations are beyond the scope of UKAS accreditation
The results relate only to the items tested
Uncertainty of measurement for the determinands tested are available upon request
None of the results in this report have been recovery corrected
All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis
All Asbestos testing is performed at the indicated laboratory
Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

A - Date of sampling not supplied
B - Sample age exceeds stability time (sampling to extraction)
C - Sample not received in appropriate containers
D - Broken Container
E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt
All water samples will be retained for 14 days from the date of receipt
Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com

eurofins | Chemtest
Eurofins Chemtest Ltd
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

Final Report

Report No.:	22-20750-1
Initial Date of Issue:	10-Jun-2022
Client	Rodgers Leask Environmental
Client Address:	Office 225 2430/2440 Aztec West Almoundsbury Bristol BS32 4AQ
Contact(s):	Caitlin Davies Chris Wilson David McCarroll
Project	P18-669
Quotation No.:	Q21-24056
Order No.:	PO115623
No. of Samples:	9
Turnaround (Wkdays):	5
Date Approved:	10-Jun-2022
Approved By:	
Details:	Stuart Henderson, Technical Manager

Date Received:	06-Jun-2022
Date Instructed:	06-Jun-2022
Results Due:	10-Jun-2022

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental		**Chemtest Job No.:**			22-20750	22-20750	22-20750	22-20750	22-20750	22-20750	22-20750	22-20750	22-20750
Quotation No.: Q21-24056		**Chemtest Sample ID.:**			1441657	1441658	1441659	1441660	1441661	1441662	1441663	1441664	1441665
		Client Sample ID.:			AR35-2	AR35-1	AQ37-2	AR34-2	AR34-1	AQ35-1	AQ37-1	AT37-1	AQ35-2
		Sample Type:			SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):			1.30	0.60	1.50	2.00	0.50	0.50	0.80	0.80	2.00
		Date Sampled:			31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022
		Asbestos Lab:			COVENTRY		COVENTRY		COVENTRY		COVENTRY		COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
ACM Type	U	2192		N/A	-		-		-		-		-
Asbestos Identification	U	2192		N/A	No Asbestos Detected		No Asbestos Detected		No Asbestos Detected		No Asbestos Detected		No Asbestos Detected
Moisture	N	2030	%	0.020	9.2	7.1	8.7	13	8.0	12	13	8.6	21
Soil Colour	N	2040		N/A	Brown	Brown	Brown	Brown	Brown	Black	Brown	Brown	Black
Other Material	N	2040		N/A	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones
Soil Texture	N	2040		N/A	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand
pH	M	2010		4.0	10.6	9.4	9.2	11.1	11.6	11.0	10.8	> 12.0	9.2
Cyanide (Total)	M	2300	mg/kg	0.50	3.5	3.7	< 0.50	2.7	11	6.9	2.1	5.9	8.5
Ammoniacal Nitrogen	M	2425	mg/kg	0.50	2.7	1.6	16	2.3	0.86	0.74	6.8	0.78	40
Iron (Total)	N	2430	mg/kg	100	22000	23000	19000	15000	22000	20000	15000	21000	22000
Arsenic	M	2455	mg/kg	0.5	15	7.1	12	24	7.0	10	9.3	3.9	17
Cadmium	M	2455	mg/kg	0.10	0.42	0.60	0.45	0.67	0.81	1.1	0.42	0.65	0.19
Chromium	M	2455	mg/kg	0.5	41	54	46	34	100	49	22	230	19
Manganese	M	2455	mg/kg	1.0	2100	3200	2500	2700	4100	1900	1100	9200	620
Copper	M	2455	mg/kg	0.50	35	23	47	20	25	43	23	51	37
Mercury	M	2455	mg/kg	0.05	0.21	0.26	0.11	0.08	0.78	0.61	0.18	0.18	0.18
Nickel	M	2455	mg/kg	0.50	20	18	25	10	16	21	15	16	36
Lead	M	2455	mg/kg	0.50	120	150	52	59	140	180	77	61	30
Selenium	M	2455	mg/kg	0.25	1.2	1.2	1.3	3.1	0.90	1.3	1.3	0.51	2.4
Vanadium	U	2455	mg/kg	0.5	46	46	88	42	83	50	25	330	34
Zinc	M	2455	mg/kg	0.50	220	280	97	150	290	320	110	290	62
Organic Matter	M	2625	%	0.40	15	13	9.1	2.4	6.6	10	8.3	8.3	14
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0	4.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	5.7	< 1.0	< 1.0
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	5.7	< 5.0	< 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	3.3	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	< 1.0	12	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Results - Soil

Project: P18-669

Client: Rodgers Leask Environmental					**Chemtest Job No.:**	22-20750	22-20750	22-20750	22-20750	22-20750	22-20750	22-20750	22-20750	22-20750
Quotation No.: Q21-24056					**Chemtest Sample ID.:**	1441657	1441658	1441659	1441660	1441661	1441662	1441663	1441664	1441665
					Client Sample ID.:	AR35-2	AR35-1	AQ37-2	AR34-2	AR34-1	AQ35-1	AQ37-1	AT37-1	AQ35-2
					Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
					Top Depth (m):	1.30	0.60	1.50	2.00	0.50	0.50	0.80	0.80	2.00
					Date Sampled:	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022
					Asbestos Lab:	COVENTRY		COVENTRY		COVENTRY		COVENTRY		COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**										
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0		12	120	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0		12	130	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0		16	130	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Benzene	M	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	M	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	M	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene	M	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	M	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl Tert-Butyl Ether	M	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene	M	2800	mg/kg	0.10		0.85	1.2	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthylene	N	2800	mg/kg	0.10		2.0	4.2	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthene	M	2800	mg/kg	0.10		0.16	0.18	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene	M	2800	mg/kg	0.10		0.36	0.34	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene	M	2800	mg/kg	0.10		4.0	2.6	0.58	< 0.10	0.95	< 0.10	< 0.10	0.90	< 0.10
Anthracene	M	2800	mg/kg	0.10		1.6	1.6	0.21	< 0.10	0.21	< 0.10	< 0.10	0.35	< 0.10
Fluoranthene	M	2800	mg/kg	0.10		14	15	0.84	< 0.10	0.99	0.40	0.52	2.0	< 0.10
Pyrene	M	2800	mg/kg	0.10		11	14	0.67	< 0.10	0.85	0.45	0.54	1.9	< 0.10
Benzo[a]anthracene	M	2800	mg/kg	0.10		7.3	11	0.65	< 0.10	0.55	< 0.10	< 0.10	1.5	< 0.10
Chrysene	M	2800	mg/kg	0.10		6.7	11	0.59	< 0.10	0.54	< 0.10	< 0.10	1.3	< 0.10
Benzo[b]fluoranthene	M	2800	mg/kg	0.10		14	28	< 0.10	< 0.10	0.84	< 0.10	< 0.10	1.8	< 0.10
Benzo[k]fluoranthene	M	2800	mg/kg	0.10		4.2	9.2	< 0.10	< 0.10	0.29	< 0.10	< 0.10	0.56	< 0.10
Benzo[a]pyrene	M	2800	mg/kg	0.10		11	22	< 0.10	< 0.10	0.68	< 0.10	< 0.10	2.3	< 0.10
Indeno(1,2,3-c,d)Pyrene	M	2800	mg/kg	0.10		10	22	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.10		2.0	3.3	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene	M	2800	mg/kg	0.10		8.6	18	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Of 16 PAH's	N	2800	mg/kg	2.0		98	160	3.5	< 2.0	5.9	< 2.0	< 2.0	13	< 2.0
Resorcinol	M	2920	mg/kg	0.020		< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Phenol	M	2920	mg/kg	0.020		< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Cresols	M	2920	mg/kg	0.020		< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Xylenols	M	2920	mg/kg	0.020		< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
1-Naphthol	N	2920	mg/kg	0.020		< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Trimethylphenols	M	2920	mg/kg	0.020		< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Total Phenols	M	2920	mg/kg	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

Test Methods

SOP	Title	Parameters included	Method summary
2010	pH Value of Soils	pH	pH Meter
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Allkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.
2425	Extractable Ammonium in soils	Ammonium	Extraction with potassium chloride solution / analysis by 'Aquakem 600' Discrete Analyser using sodium salicylate and sodium dichloroisocyanurate.
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8,>C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Dichloromethane extraction / GCxGC FID detection
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.
2800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenz[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene*	Dichloromethane extraction / GC-MS
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.

Report Information

Key

U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

Comments or interpretations are beyond the scope of UKAS accreditation
The results relate only to the items tested
Uncertainty of measurement for the determinands tested are available upon request
None of the results in this report have been recovery corrected
All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis
All Asbestos testing is performed at the indicated laboratory
Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

A - Date of sampling not supplied
B - Sample age exceeds stability time (sampling to extraction)
C - Sample not received in appropriate containers
D - Broken Container
E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt
All water samples will be retained for 14 days from the date of receipt
Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com

Appendix G
CIRIA C552 Terminology

The likelihood of an event can be classified on a four-point system using the following terms and definitions based on CIRIA C552:

- Highly likely: the event appears very likely in the short term and almost inevitable over the long term or there is evidence at the receptor of harm or pollution;
- Likely: it is probable that an event will occur or circumstances are such that the event is not inevitable, but possible in the short term and likely over the long term;
- Low likelihood; circumstances are possible under which an event could occur, but it is not certain even in the long term that an event would occur and it is less likely that in the short term; and
- Unlikely: circumstances are such that it is improbable the event would occur even in the long term

The severity can be classified using a similar system also based on CIRIA C552. The terms and definitions relating to severity are:

- Severe: short term (acute) risk to human health likely to result in 'significant harm' as defined by the Environment Protection Act 1990, Part 11A. Short term risk of pollution of sensitive water resources. Catastrophic damage to buildings or property. Short-term risk to an ecosystem or organism forming part of that ecosystem (note definition of ecosystem in 'Draft Circular on Contaminated Land' DETR 2000);
- Medium; chronic damage to human health ('significant harm' as defined in Draft Circular on Contaminated Land', DETR 2000), pollution of sensitive water resources, significant change in an ecosystem or organism forming part of that ecosystem (note definition of ecosystem in Draft Circular on Contaminated Land', DETR 2000);
- Mild: pollution of non-sensitive water resources. Significant damage to crops, buildings, structures and services ('significant harm' as defined in 'Draft Circular on Contaminated Land', DETR 2000). Damage to sensitive buildings, structures or the environment; and
- Minor: harm, not necessarily significant, but that could result in financial loss or expenditure to resolve. Non-permanent human health effects easily prevented by use of personal protective clothing. Easily repairable damage to buildings, structures and services.

Once the likelihood of an event occurring and its severity have been classified, a risk category can be assigned from the table below:

		Consequences			
		Severe	**Medium**	**Mild**	**Minor**
Probability	**Highly likely**	Very high	high	Moderate	Moderate / low
	Likely	High	Moderate	Moderate / low	Low
	Low likelihood	Moderate	Moderate / low	Low	Very low
	Unlikely	Moderate / low	Low	Very low	Very low

Definitions of these risk categories are as shown below with an assessment of the further work that might be required:

- Very high: there is a high probability that severe harm could occur or there is evidence harm is currently happening. This risk, if realised, could result in substantial liability and urgent investigation and remediation are likely to be required;

- High: harm is likely to occur. Realisation of the risk is likely to present a substantial liability and urgent investigation is required and remedial works may be necessary in the short term and are likely over the long term;

- Moderate: it is possible that harm could arise, but it is unlikely that the harm would be severe and it is more likely that harm would be relatively mild. Investigation is normally required to clarify the risk and determine the liability. Some remedial works may be required in the longer term;

- Low: it is possible that harm could occur, but it is likely that if realised this harm would at worst normally be mild; and

- Very Low: there is a low possibility that harm could occur and if realised the harm is likely to be sever.

Appendix H

Geotechnical Results and Test Certificates

Soil ID	Compaction			General	Particle Distribution							BRE			
					Fines										
	Optimum Moisture Content (%)	Max Dry Density (Mg/m3)	Assumed/ Measured Particle Density (Mg/m3)	Water Content (%)	Clay % (<0.004mm)	Silt % (0.004 - 0.062mm)	% Fines (<0.062)	Sand % (0.062 - 2mm)	Gravel % (2-63mm)	Cobbles % (64-124mm)	Total	Density on a saturated and surface-dried basis (Mg/m3)	Partilcle density on an oven-dried basis (Mg/m3)	Apparent Particle Density	Total Expansion (%)
AK32-1 (1.0)	14	1.80	2.6	16.9			7.5	22.5	70	0	100	2.34	2.24	2.5	
AK33-1 (1.0)	10	2.14	2.95	8.5			1.5	13.5	85	0	100	2.68	2.63	2.78	
AK34-1 (1.6)	9.3	2.18	2.9	9.4			5.2	12.8	80	2	100	2.7	2.61	2.85	0.30
AL32-1 (0.5)	9.9	2.28	3.1	11.2			4.7	21.3	74	0	100	2.82	2.75	2.95	4.70
AL33-1 (0.8)	11	2.27	3.2	8.4			4.2	14.8	81	0	100	2.68	2.61	2.81	
AL33-1 (0.8)	11	2.27	3.2	8.4			4.2	14.8	81	0	100	2.68	2.61	2.81	
AL36-1 (0.9)	11	1.74	2.2	8			10.6	14.4	75	0	100	2.59	2.55	2.66	
AM32-1	18	1.72	2.65	14.7			17.2	27.8	55	0	100	2.39	2.29	2.54	0.20
AM33-1	12	2.11	3	15.3			4	26	60	10	100	2.56	2.44	2.78	
AM34-1 (0.2)	14	1.75	2.49	10.3			24	16	60	0	100	2.63	2.52	2.83	-1.11
AN32-1 (1)	13	1.47	N/A	14.2			4.8	16.2	79	0	100	2.62	2.53	2.79	
AN33-1 (0.30	11	1.94	2.65	8.7			7.5	17.5	42	33	100	2.87	2.8	3	-0.36
AN34-1 (1)	16	1.87	2.65	10.8			2.8	16.2	79	2	100	2.55	2.49	2.66	-0.30
AN35-2 (1)	12	2.11	N/A	21.5			15.3	21.7	63	0	100	2.28	2.16	2.45	-2.43
AN36-1 (0.5)	12	2.13	2.65	8.8			8.2	23.8	62	6	100	2.72	2.66	2.83	
AN37-1 (1)	15	1.90	2.7	13.4			6.2	14.8	79	0	100	2.7	2.67	2.74	
AN37-1 (2)				19.2			12.9	14.1	64	0	91	2.44	2.31	2.66	0.9
AO32-1 (2)	18	1.75	2.65	14.5			7	22	67	4	100	2.23	2.13	2.35	
AO33-1 (1.2)	7.7	2.21	N/A	1.5			3.7	12.3	84	0	100	2.35	2.22	2.56	0.20
AO34-1 (1.5)	18	1.79	2.65	8.6			3.1	9.9	74	13	100	2.37	2.27	2.52	
AO36-1 (0.5)	15	1.91	2.65	10.2			16.4	22.6	61	0	100	2.81	2.77	2.89	0.00
AO37-1 (0.3)	9.2	2.11	2.65	7			7.9	21.1	66	5	100	2.66	2.62	2.72	
AP34-1 (0.4)	16	1.85	2.65	7.1			4.1	9.9	36	50	100	2.41	2.31	2.56	-0.15
AP35-1 (0.5)	27	1.54	2.65	16.1			14.4	23.6	62	0	100	2.18	2.03	2.38	
AP36-2 (1.5)	11	1.68	N/A	24.7			23	29	48	0	100	2.29	2.36	2.46	0.20
AP37-1 (0.2)	9	2.30	N/A	4.8			12.1	16.9	71	0	100	2.67	2.65	2.69	
AQ32-1	13	2.11	N/A	5.6			3	13	66	18	100	2.95	2.85	3.16	0.90
AQ33-1 (0.6)	16	1.79	2.65	14.5			13.1	15.9	39	32	100	2.71	2.59	2.92	0.10
AQ34-1 (0.5)	8.4	2.15	2.65	7.3			2.4	10.6	87	0	100	2.62	2.58	2.7	0.00
AQ35-1 (0.5)	18	1.79	N/A	11			11.6	19.4	41	28	100	2.49	2.41	2.63	
AQ36-1 (0.5)	20	1.77	N/A	7.6			4.6	12.4	83	0	100	2.58	2.51	2.69	0.00
AQ37-1 (0.8)	12	1.97	2.65	9.7			11.3	19.7	69	0	100	2.61	2.54	2.72	
AR32-1	13	2.04	N/A	11.5			7.4	21.6	71	0	100	2.71	2.61	2.92	
AR33-2 (1.6)	31	1.21	2.65	34.1			7.3	16.7	76	0	100	2.4	2.25	2.65	
AR34-2 (2)	15	2.00	N/A	10.7			4.7	7.3	40	48	100	2.41	2.29	2.61	0.10
AR35-1 (0.6)	14	1.86	2.65	9.4			10.9	24.1	65	0	100	2.59	2.51	2.73	
AR36-2 (1.5)	34	1.32	2.65	30.8			27.7	26.3	46	0	100	2.6	2.55	2.71	0.10
AR37-2 (0.4)	11	2.00	2.65	5.8			6.3	15.7	73	5	100	2.62	2.58	2.7	
AS32-1	17	1.68	2.65	30.3			25	30	45	0	100	2.54	2.41	2.76	0.00
AS32-2	10	2.30	N/A	4.3			2.8	12.2	63	22	100	2.54	2.41	2.76	
AS33-1 (1.2)	17	1.66	2.65	14			1.8	18.2	77	3	100	2.56	2.43	2.77	-0.45
AS34-1 (0.4)	14	2.06	N/A	8.4			5.9	15.1	79	0	100	4.17	4.12	4.35	0.00
AS35-1 (0.3)	17	1.89	N/A												
AS36-1 (1)	13	2.41	N/A	5.3			6	18	76	0	100	2.43	2.35	2.55	4.30
AS37-2 (2)	8.6	2.00	2.65	9.6			6.4	16.6	67	10	100	2.55	2.5	2.63	
AT32-1	19	1.75	2.65	13.3			9.4	24.6	63	3	100	2.49	2.4	2.62	0.90
AT33-2 (2.2)	12	1.79	2.65	13.4			9.9	20.1	60	10	100	2.5	2.38	2.69	
AT34-2 (1.5)				5.7			5.7	14.3	60	20	100	2.48	2.36	2.67	0.10
AT35-1 (0.5)	24	1.67	N/A	11.7			9.8	20.2	70	0	100	2.6	2.46	2.84	
AT36-2 (1.8)	23	1.66	N/A	9			3.5	6.5	36	54	100	2.31	2.2	2.48	-0.44
AT37-1 (0.8)	36	1.45	N/A	12.9			11.9	20.1	68	0	100	2.53	2.41	2.76	
AU29-1 (0.5)	9.9	1.97	2.6	13.4			6.2	37.8	53	3	100	2.14	2.06	2.25	0.15
AU29-1	13	2.05	N/A	6.7			6	20	59	15	100	2.51	2.42	2.65	
AU30-1	19	1.49	2.15	19			10.2	27.8	62	0	100	1.82	1.72	1.91	0.30
AU31-1	11	1.89	2.45	11			7.3	19.7	73	0	100	2.25	2.16	2.36	
AU32-1	12	2.16	N/A	4.8			7.9	20.1	69	3	100	2.75	2.62	3.01	0.60
AU33-1 (0.9)	18	1.80	2.65	10.7			2.1	20.9	67	10	100	2.59	2.47	2.8	-0.58
AU34-1 (0.5)	13	2.03	N/A	7.9			17.1	27.9	55	0	100	2.56	2.4	2.86	0.00
AU35-2 (1.5)	18	1.87	N/A	12.5			8	19	69	4	100	2.75	2.65	2.94	
AU36-2 (1.3)	17	1.80	N/A	9.9			10.2	15.8	70	4	100	2.59	2.45	2.84	1.40
AU37-1 (0.8)	21	1.90	N/A	7.9			4.2	9.8	70	16	100	2.86	2.74	3.11	
AV28-1(1.2M)	15	1.87	2.7	19.7			4.9	26.1	66	3	100	2.1	1.99	2.23	
AV29-01 (1.0m)	14	1.86	2.65	15.3			5.9	16.1	78	0	100	2.38	2.26	2.58	-0.10
AV30-1	14	2.09	N/A	9.8			7.9	35.1	49	8	100	2.71	2.61	2.9	
AV31-1 (0.8)				8			9.6	29.4	61	0	100	1.98	1.87	2.1	
AV32-1 (0.8)	15	1.49	N/A	7.7			5	27	68	0	100	2.66	2.52	2.91	0.20
AV33-1 (0.6)	10	2.63	2.65	7.9			6.1	17.9	76	0	100	3.05	2.91	3.39	
AV33-3 (2.2)	9.3	2.51	2.65	8.3			8.8	19.2	69	3	100	2.92	2.83	3.12	0.50
AV34-2 (1.8)	14	1.93	2.65	14.8			10	19	68	3	100	2.48	2.4	2.6	3.80
AV35-2 (2)	24	1.73	N/A	12.4			6.6	12.4	63	18	100	2.37	2.23	2.58	
AV36-2 (1.3)				12			13.1	21.9	65	0	100	2.84	2.77	2.98	0.20
AV37-1 (0.5)	15	1.85	2.66	9.6			4.6	9.4	65	21	100	2.61	2.5	2.8	
AW26-1 (0.5)	11	2.02	2.75	12.6			8.7	18.3	58	15	100	2.45	2.35	2.6	
AW28-1 (0.4)	15	2.12	3.3	16.7			6	27	67	0	100	2.62	2.51	2.82	
AW29-1 (1.5)	10	2.12	2.85	17.4			7.6	26.4	64	2	100	2.76	2.65	2.97	0.60
AW31-1 (0.2)	13	2.01	N/A	8.7			8.3	19.7	55	17	100	2.13	2.04	2.25	
AW32-1 (0.3)	12	1.60	N/A	5.7			3.2	18.8	78	0	100	2.89	2.75	3.19	1.30
AW33-2 (1.8)	15	1.86	2.65	11.1			6.9	13.1	74	6	100	2.32	2.24	2.45	
AW34-1 (1)	15	1.86	2.65	8.9			4	9	61	26	100	2.29	2.16	2.48	0.10
AW35-1 (0.5)	15	2.07	N/A	7.7			13.8	19.2	62	5	100	2.62	2.55	2.75	
AW36-2 (1.6)	19	1.98	N/A	12.2			10.8	20.2	54	15	100	2.56	2.45	2.77	0.20
AW37-2 (1.5)				40.9			66.8	21.2	12	0	100	2.02	1.7	2.5	
AX31-1 (0.7)				10.9			4.8	18.2	48	29	100	2.27	2.17	2.42	
AX32-1 (0.3)	15	1.53	N/A	8.5			4.2	12.8	83	0	100	2.84	2.69	3.15	0.60
AX32-2 (2.3)				10.4			3.6	8.4	74	14	100	2.54	2.48	2.64	
AX33-1 (0.8)	13	1.89	2.65	15			15.7	23.3	61	0	100	2.47	2.39	2.61	0.20
AX34-1 (0.7)	9.7	2.19	N/A	3.2			3.8	4.2	67	25	100	2.72	2.69	2.78	0.20
AX35-2 (1.2)				8.3			9.3	11.7	53	26	100	1.11	1.08	1.12	
AX36-2 (1.5)	19	1.86	N/A	11.2			6.3	15.7	64	14	100	1.11	1.07	1.12	0.20
AX37-1 (1)	15	1.89	N/A	11			12.4	17.6	65	5	100	2.37	2.26	2.54	
AX37-2 (2)	14	1.98	2.75	8.2			4.9	10.1	85	0	100	2.4	2.29	2.58	0.20

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 26 March 2021
Test Report Ref: TR 782353

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Dry Density and Moisture Content Relationship of soil sieve 4.5kg Rammer Method in accordance with BS 1377: 4: 1990 Clause 3.6

SAMPLE DETAILS:

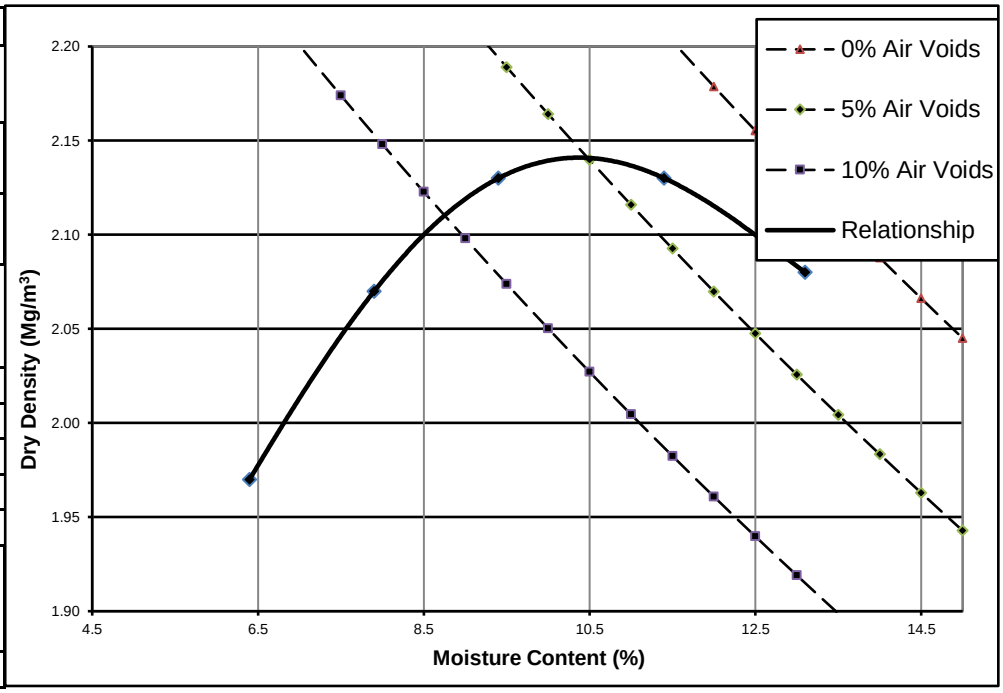
Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S92900**	Method of Sampling:	**Unknown**
Client Ref. :	**AK33-1 - 1.0**	Sampled By:	**Client**
Date and Time of Sampling:	**29/01/2021**	Tested By:	**LW**
Date of Receipt at Lab:	**04/02/2021**	Sample Preparation Procedure:	**Clause X**
Date of Start of Test:	**19/03/2021**	Sample Preparation Method:	**Single**
Sampling Location:	**Unknown**		
Soil Description:	**Granular - 40mm Down**		

RESULTS:

Particle Density: 2.95Mg/m3 (Assumed)

Retained on 37.5mm Sieve:	21 %
Retained on 20mm Sieve:	37 %

Moisture Content (%)	Dry Density Mg/m^3
6.4	1.97
7.9	2.07
9.4	2.13
11.4	2.13
13.1	2.08
Optimum Moisture Content (%)	**Maximum Dry Density Mg/m^3**
10.0	**2.14**



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These results relate only to the items tested.

Comments:
None

Report checked and approved by:

S Parry

Sharon Parry
Aggregate Team Coordinator

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St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 30 March 2021
Test Report Ref: TR 782357

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Dry Density and Moisture Content Relationship of soil sieve 4.5kg Rammer Method in accordance with BS 1377: 4: 1990 Clause 3.6

SAMPLE DETAILS:

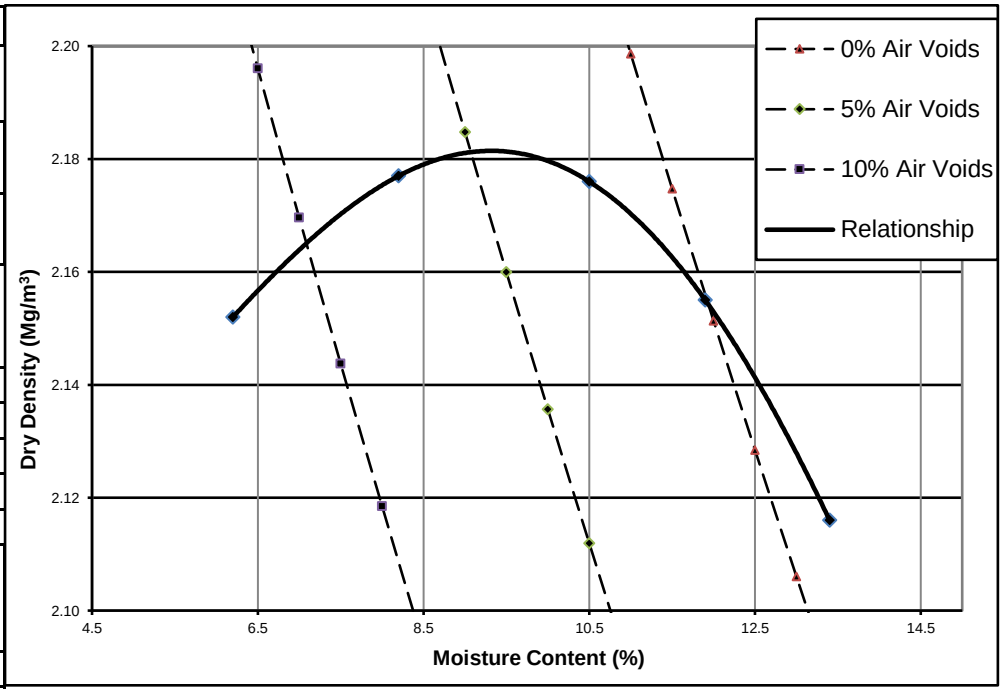
Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S92900**	Method of Sampling:	**Unknown**
Client Ref. :	**AK34-1 - 1.6**	Sampled By:	**Client**
Date and Time of Sampling:	**29/01/2021**	Tested By:	**AO**
Date of Receipt at Lab:	**04/02/2021**	Sample Preparation Procedure:	**Clause X**
Date of Start of Test:	**29/03/2021**	Sample Preparation Method:	**Single**
Sampling Location:	**Unknown**		
Soil Description:	**Granular - 40mm Down**		

RESULTS:

Particle Density: 2.9Mg/m3 (Assumed)

Retained on 37.5mm Sieve:	18 %
Retained on 20mm Sieve:	34 %

Moisture Content (%)	Dry Density Mg/m^3
6.2	2.15
8.2	2.18
10.5	2.18
11.9	2.16
13.4	2.12
Optimum Moisture Content (%)	**Maximum Dry Density Mg/m^3**
9.3	**2.18**



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These results relate only to the items tested.

Comments:
None

Report checked and approved by:

S Parry

Sharon Parry
Aggregate Team Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 26 March 2021
Test Report Ref: TR 782498

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Dry Density and Moisture Content Relationship of soil sieve 4.5kg Rammer Method in accordance with BS 1377: 4: 1990 Clause 3.6

SAMPLE DETAILS:

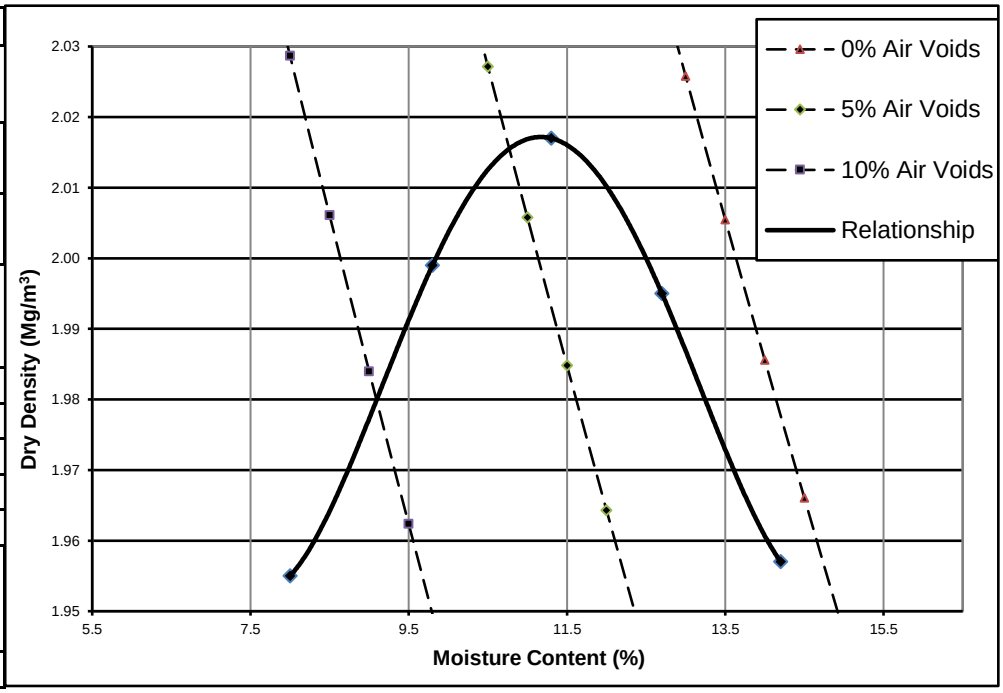
Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S92900**	Method of Sampling:	**Unknown**
Client Ref. :	**AW26-1 - 0.5**	Sampled By:	**Client**
Date and Time of Sampling:	**Unknown**	Tested By:	**AO**
Date of Receipt at Lab:	**04/02/2021**	Sample Preparation Procedure:	**Clause X**
Date of Start of Test:	**25/03/2021**	Sample Preparation Method:	**Single**
Sampling Location:	**Unknown**		
Soil Description:	**Granular - 40mm Down**		

RESULTS:

Particle Density: 2.75Mg/m3 (Assumed)

Retained on 37.5mm Sieve:	32 %
Retained on 20mm Sieve:	47 %

Moisture Content (%)	Dry Density Mg/m^3
8.0	1.96
9.8	2.00
11.3	2.02
12.7	2.00
14.2	1.96
Optimum Moisture Content (%)	**Maximum Dry Density Mg/m^3**
11.0	**2.02**



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These results relate only to the items tested.

Comments:
None

Report checked and approved by:
S Parry
Sharon Parry
Aggregate Team Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 19 March 2021
Test Report Ref: TR 782507

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Dry Density and Moisture Content Relationship of soil sieve 4.5kg Rammer Method in accordance with BS 1377: 4: 1990 Clause 3.6

SAMPLE DETAILS:

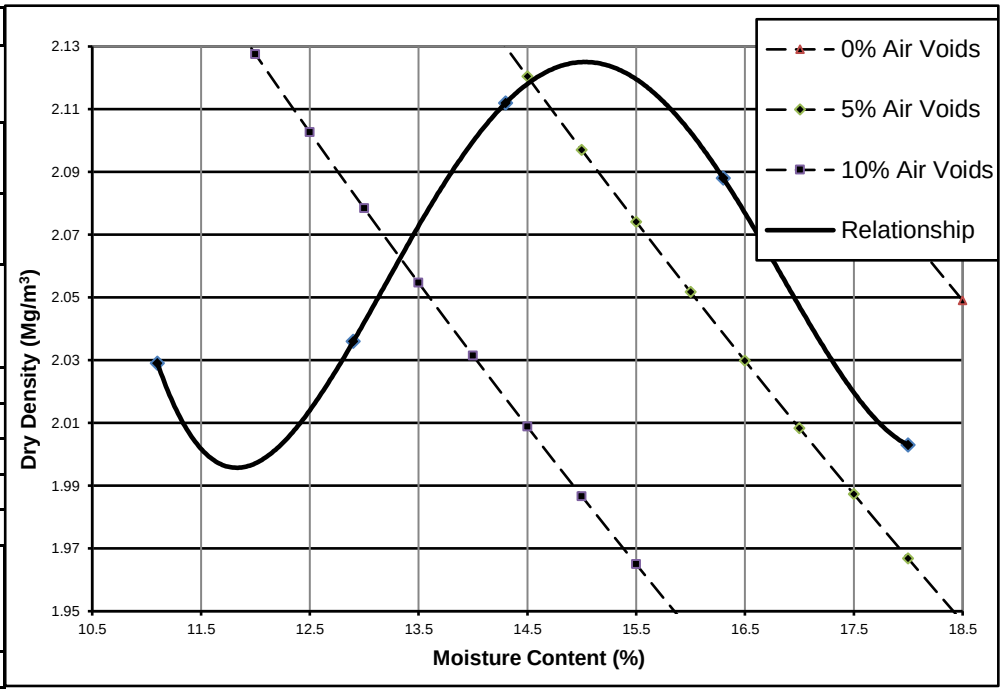
Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S92900**	Method of Sampling:	**Unknown**
Client Ref. :	**AW28-1 - 0.4**	Sampled By:	**Client**
Date and Time of Sampling:	**Unknown**	Tested By:	**LW**
Date of Receipt at Lab:	**04/02/2021**	Sample Preparation Procedure:	**Clause X**
Date of Start of Test:	**15/03/2021**	Sample Preparation Method:	**Single**
Sampling Location:	**Unknown**		
Soil Description:	**Granular - 40mm Down**		

RESULTS:

Particle Density: 3.3Mg/m3 (Assumed)

Retained on 37.5mm Sieve:	14 %
Retained on 20mm Sieve:	28 %

Moisture Content (%)	Dry Density Mg/m^3
11.1	2.03
12.9	2.04
14.3	2.11
16.3	2.09
18.0	2.00
Optimum Moisture Content (%)	**Maximum Dry Density Mg/m^3**
15.0	**2.12**



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These results relate only to the items tested.

Comments:
None

Report checked and approved by:

S Parry

Sharon Parry
Aggregate Team Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 26 March 2021
Test Report Ref: TR 782511

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Dry Density and Moisture Content Relationship of soil sieve 4.5kg Rammer Method in accordance with BS 1377: 4: 1990 Clause 3.6

SAMPLE DETAILS:

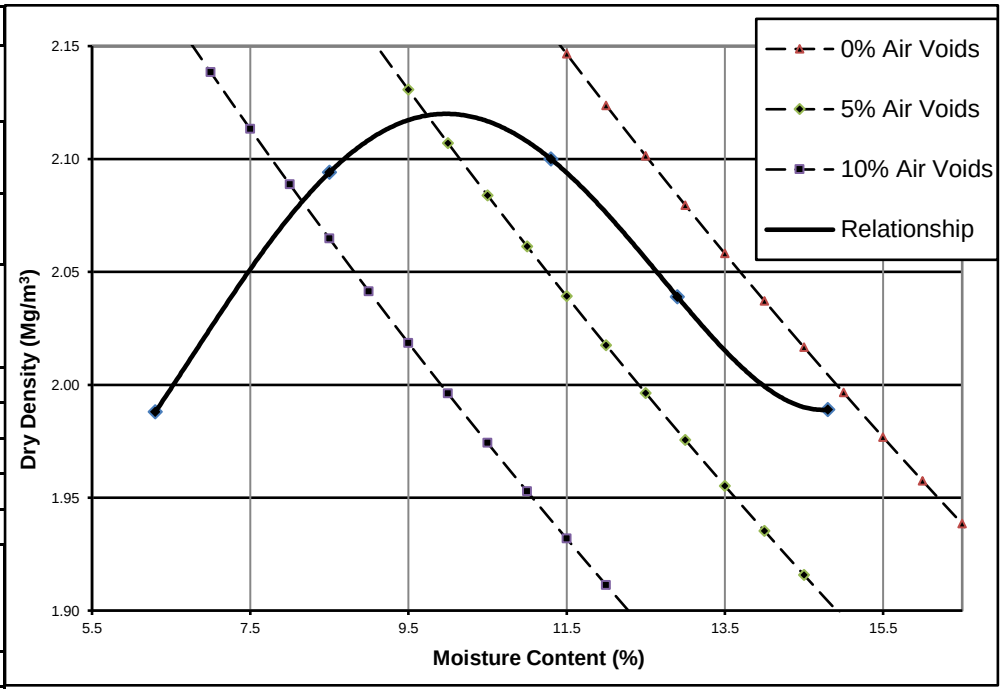
Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S92900**	Method of Sampling:	**Unknown**
Client Ref. :	**AW29-1 - 1.5**	Sampled By:	**Client**
Date and Time of Sampling:	**Unknown**	Tested By:	**LW**
Date of Receipt at Lab:	**04/02/2021**	Sample Preparation Procedure:	**Clause X**
Date of Start of Test:	**24/03/2021**	Sample Preparation Method:	**Single**
Sampling Location:	**Unknown**		
Soil Description:	**Granular - 40mm Down**		

RESULTS:

Particle Density: 2.85Mg/m3 (Assumed)

Retained on 37.5mm Sieve:	17 %
Retained on 20mm Sieve:	22 %

Moisture Content (%)	Dry Density Mg/m^3
6.3	1.99
8.5	2.09
11.3	2.10
12.9	2.04
14.8	1.99
Optimum Moisture Content (%)	**Maximum Dry Density Mg/m^3**
10.0	**2.12**



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These results relate only to the items tested.

Comments:
None

Report checked and approved by:

S Parry

Sharon Parry
Aggregate Team Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 26 March 2021
Test Report Ref: TR 782315

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Dry Density and Moisture Content Relationship of soil sieve 4.5kg Rammer Method in accordance with BS 1377: 4: 1990 Clause 3.6

SAMPLE DETAILS:

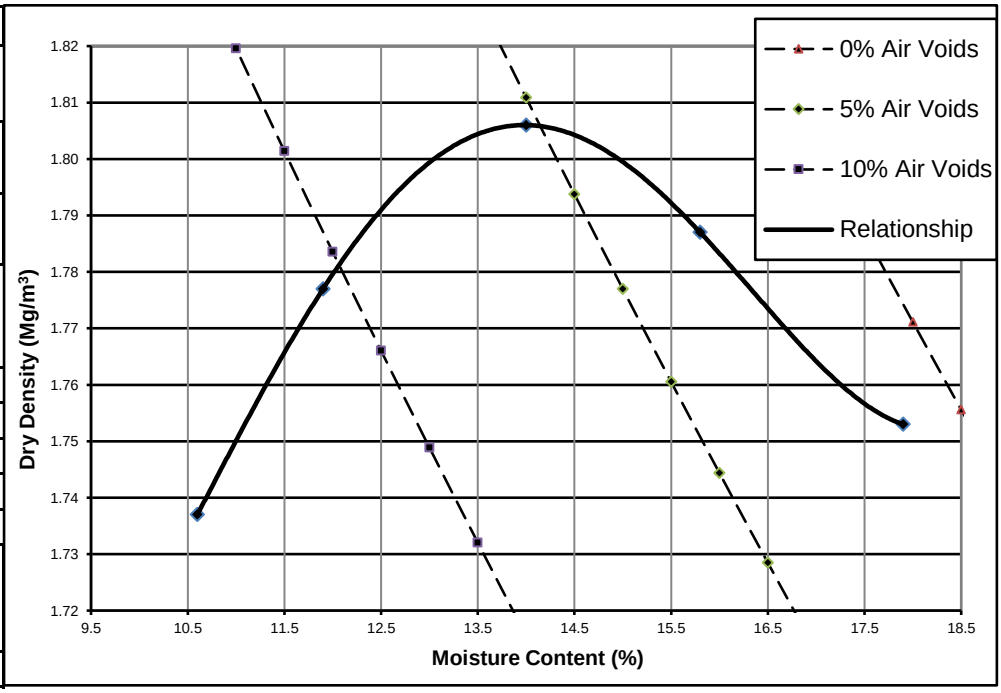
Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S92900**	Method of Sampling:	**Unknown**
Client Ref. :	**AK32-1 - 1.0**	Sampled By:	**Client**
Date and Time of Sampling:	**28/01/2021**	Tested By:	**LW**
Date of Receipt at Lab:	**04/02/2021**	Sample Preparation Procedure:	**Clause X**
Date of Start of Test:	**24/03/2021**	Sample Preparation Method:	**Single**
Sampling Location:	**Unknown**		
Soil Description:	**Granular - 40mm Down**		

RESULTS:

Particle Density: 2.6Mg/m3 (Assumed)

Retained on 37.5mm Sieve:	14 %
Retained on 20mm Sieve:	30 %

Moisture Content (%)	Dry Density Mg/m^3
10.6	1.74
11.9	1.78
14.0	1.81
15.8	1.79
17.9	1.75
Optimum Moisture Content (%)	**Maximum Dry Density Mg/m^3**
14.0	**1.80**



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These results relate only to the items tested.

Comments:
None

Report checked and approved by:

S Parry

Sharon Parry
Aggregate Team Coordinator

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INDEPENDENT MATERIALS TESTING | DIAMOND DRILLING & SAWING

St Modwen Developments (Llanwern) Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 15 February 2023
Test Report Ref: TR 927632

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Dry Density and Moisture Content Relationship of soil using a 4.5kg Rammer Method in accordance with BS 1377: 4: 1990 Clause 3.6

SAMPLE DETAILS:

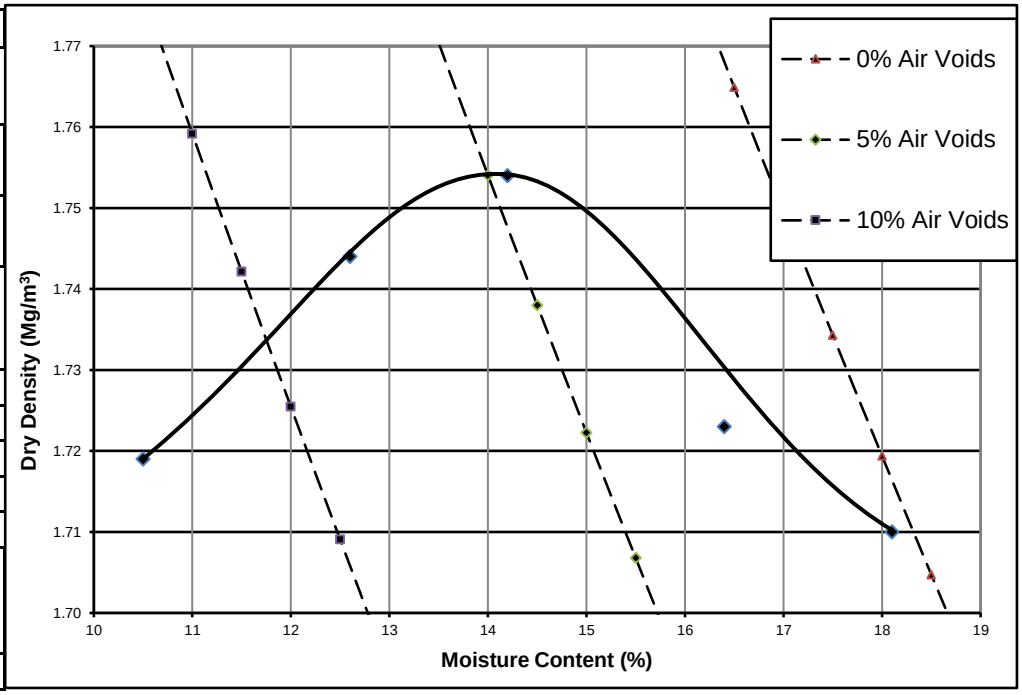
Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S107420**	Method of Sampling:	**Unknown**
Client Ref. :	**AM34-1 - 0.2**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**Unknown**	Tested By:	**JA**
Date of Receipt at Lab:	**16/12/2022**	Sample Preparation Procedure:	**Zone X**
Date of Start of Test:	**09/02/2023**	Sample Preparation Method:	**Separate batches**
Sampling Location:	**AM34-1 - 0.2**		
Soil Description:	**Granular Material**		

RESULTS:

Particle Density: 2.49Mg/m3 (Assumed)

Retained on 37.5mm Sieve:	11
Retained on 20mm Sieve:	44

Moisture Content (%)	Dry Density Mg/m^3
10.5	1.72
12.6	1.74
14.2	1.75
16.4	1.72
18.1	1.71
Optimum Moisture Content (%)	**Maximum Dry Density Mg/m^3**
14.0	**1.75**



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These results relate only to the items tested.

Comments:
None

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

St Modwen Developments (Llanwern) Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 15 February 2023
Test Report Ref: TR 927637

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Dry Density and Moisture Content Relationship of soil using a 4.5kg Rammer Method in accordance with BS 1377: 4: 1990 Clause 3.6

SAMPLE DETAILS:

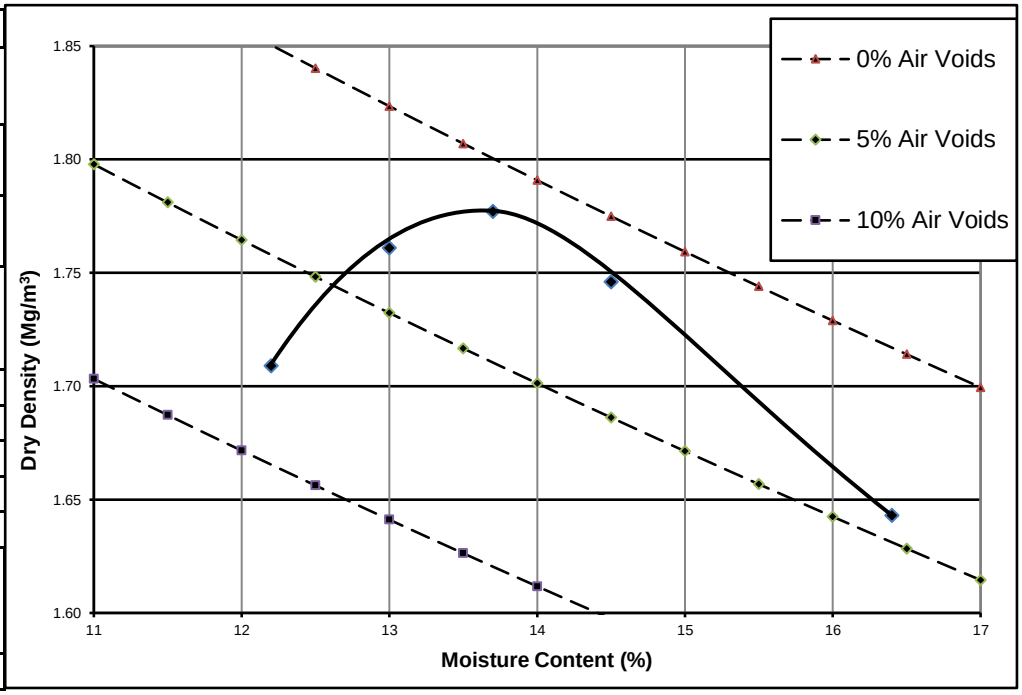
Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S107420**	Method of Sampling:	**Unknown**
Client Ref. :	**AM35-1 - 1**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**Unknown**	Tested By:	**JA**
Date of Receipt at Lab:	**16/12/2022**	Sample Preparation Procedure:	**Zone X**
Date of Start of Test:	**08/02/2023**	Sample Preparation Method:	**Separate batches**
Sampling Location:	**AM35-1 - 1**		
Soil Description:	**Granular Material**		

RESULTS:

Particle Density: 2.39Mg/m3 (Assumed)

Retained on 37.5mm Sieve:	23
Retained on 20mm Sieve:	45

Moisture Content (%)	Dry Density Mg/m^3
12.2	1.71
13.0	1.76
13.7	1.78
14.5	1.75
16.4	1.64
Optimum Moisture Content (%)	**Maximum Dry Density Mg/m^3**
14.0	**1.78**



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These results relate only to the items tested.

Comments:
None

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

St Modwen Developments (Llanwern) Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 15 February 2023
Test Report Ref: TR 927641

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Dry Density and Moisture Content Relationship of soil using a 4.5kg Rammer Method in accordance with BS 1377: 4: 1990 Clause 3.6

SAMPLE DETAILS:

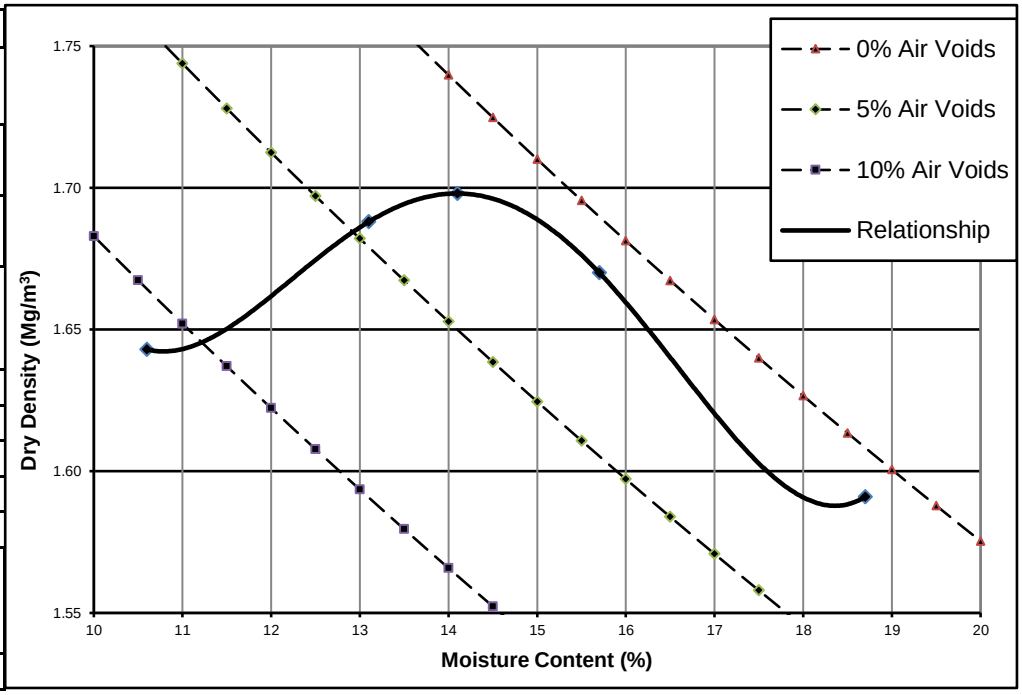
Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S107420**	Method of Sampling:	**Unknown**
Client Ref. :	**AM36-1 - 1.5**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**Unknown**	Tested By:	**JA**
Date of Receipt at Lab:	**16/12/2022**	Sample Preparation Procedure:	**Zone X**
Date of Start of Test:	**08/02/2023**	Sample Preparation Method:	**Separate batches**
Sampling Location:	**AM36-1 - 1.5**		
Soil Description:	**Granular Material**		

RESULTS:

Particle Density: 2.3Mg/m3 (Assumed)

Retained on 37.5mm Sieve:	16
Retained on 20mm Sieve:	43

Moisture Content (%)	Dry Density Mg/m^3
10.6	1.64
13.1	1.69
14.1	1.70
15.7	1.67
18.7	1.59
Optimum Moisture Content (%)	**Maximum Dry Density Mg/m^3**
14.0	**1.70**



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These results relate only to the items tested.

Comments:
None

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

St Modwen Developments (Llanwern) Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 16 March 2023
Test Report Ref: TR 927646

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Dry Density and Moisture Content Relationship of soil using a 4.5kg Rammer Method in accordance with BS 1377: 4: 1990 Clause 3.6

SAMPLE DETAILS:

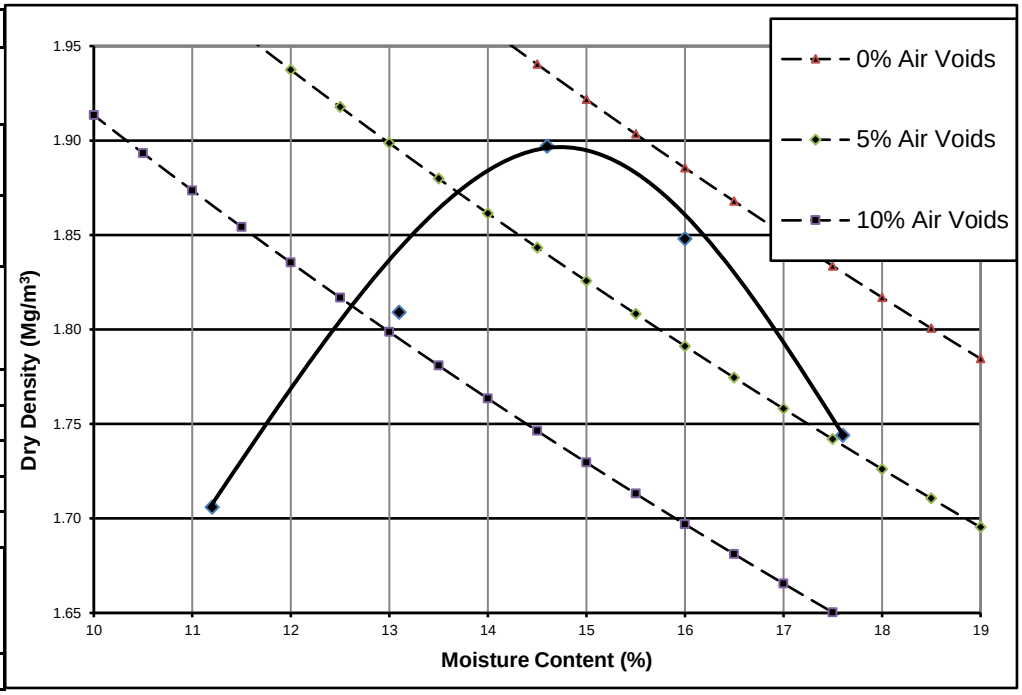
Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S107420**	Method of Sampling:	**Unknown**
Client Ref. :	**AN37-1 - 1**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**Unknown**	Tested By:	**JA**
Date of Receipt at Lab:	**16/12/2022**	Sample Preparation Procedure:	**Zone X**
Date of Start of Test:	**14/03/2023**	Sample Preparation Method:	**Separate batches**
Sampling Location:	**AN37-1 - 1**		
Soil Description:	**Granular Material**		

RESULTS:

Particle Density: 2.7Mg/m3 (Assumed)

Retained on 37.5mm Sieve:	12
Retained on 20mm Sieve:	31

Moisture Content (%)	Dry Density Mg/m^3
17.6	1.74
16.0	1.85
14.6	1.90
13.1	1.81
11.2	1.71
Optimum Moisture Content (%)	**Maximum Dry Density Mg/m^3**
15.0	**1.90**



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These results relate only to the items tested.

Comments:
None

Report checked and approved by:

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Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 17 February 2022
Test Report Ref: TR 849450

Contract: Former Llanwern Steelworks

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Dry Density and Moisture Content Relationship of soil using a 4.5kg Rammer Method in accordance with BS 1377: 4: 1990 Clause 3.6

SAMPLE DETAILS:

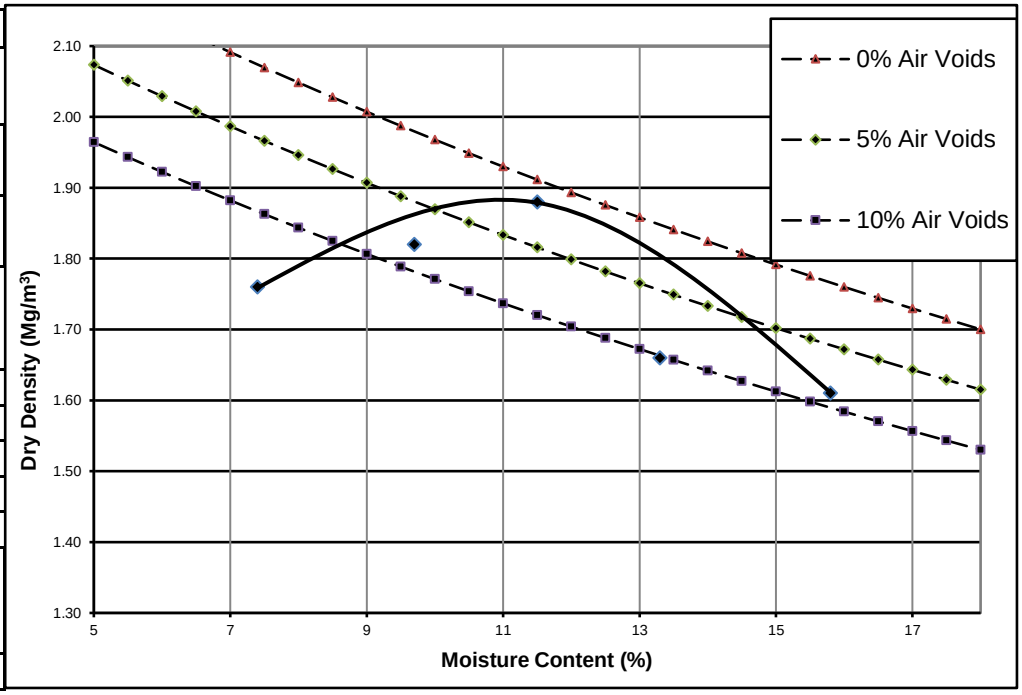
Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S99333**	Method of Sampling:	**Unknown**
Client Ref. :	**AU31-1 - 1.6M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**Unknown**	Tested By:	**MG**
Date of Receipt at Lab:	**26/11/2021**	Sample Preparation Procedure:	**3.2.5.2**
Date of Start of Test:	**08/02/2022**	Sample Preparation Method:	**Separate**
Sampling Location:	**AU31-1 - 1.6M**		
Soil Description:	**Granular Material**		

RESULTS:

Particle Density: 2.45Mg/m3 (Assumed)

Retained on 37.5mm Sieve:	5 %
Retained on 20mm Sieve:	25 %

Moisture Content (%)	Dry Density Mg/m^3
7.4	1.76
9.7	1.82
11.5	1.88
13.3	1.66
15.8	1.61
Optimum Moisture Content (%)	**Maximum Dry Density Mg/m^3**
11.0	**1.89**



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These results relate only to the items tested.

Comments:
None

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

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St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 17 February 2022
Test Report Ref: TR 849463

Contract: Former Llanwern Steelworks

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Dry Density and Moisture Content Relationship of soil using a 4.5kg Rammer Method in accordance with BS 1377: 4: 1990 Clause 3.6

SAMPLE DETAILS:

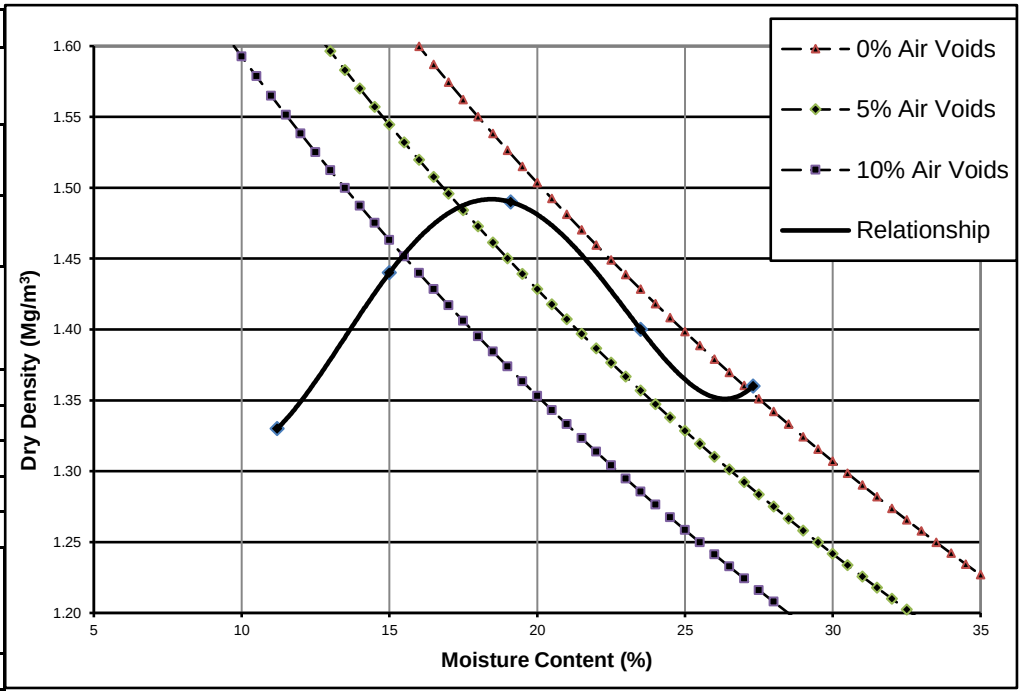
Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S99333**	Method of Sampling:	**Unknown**
Client Ref. :	**AU30-1 - 1.1M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**Unknown**	Tested By:	**MG**
Date of Receipt at Lab:	**26/11/2021**	Sample Preparation Procedure:	**3.2.5.3**
Date of Start of Test:	**09/02/2022**	Sample Preparation Method:	**Separate**
Sampling Location:	**AU30-1 - 1.1M**		
Soil Description:	**Granular Material**		

RESULTS:

Particle Density: 2.15Mg/m3 (Assumed)

Retained on 37.5mm Sieve:	7 %
Retained on 20mm Sieve:	18 %

Moisture Content (%)	Dry Density Mg/m^3
11.2	1.33
15.0	1.44
19.1	1.49
23.5	1.40
27.3	1.36
Optimum Moisture Content (%)	**Maximum Dry Density Mg/m^3**
19.0	**1.49**



This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:
None

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

CMTL Limited
Coventry Laboratory
Unit 8 Hotchkiss Way
Binley Industrial
Estate Coventry
CV3 2RL

CONSTRUCTION MATERIALS TESTING LABORATORIES
A PHENNA GROUP COMPANY

UKAS TESTING
1740

LABORATORY TEST REPORT
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP - BS 1377: Part 4: 1990

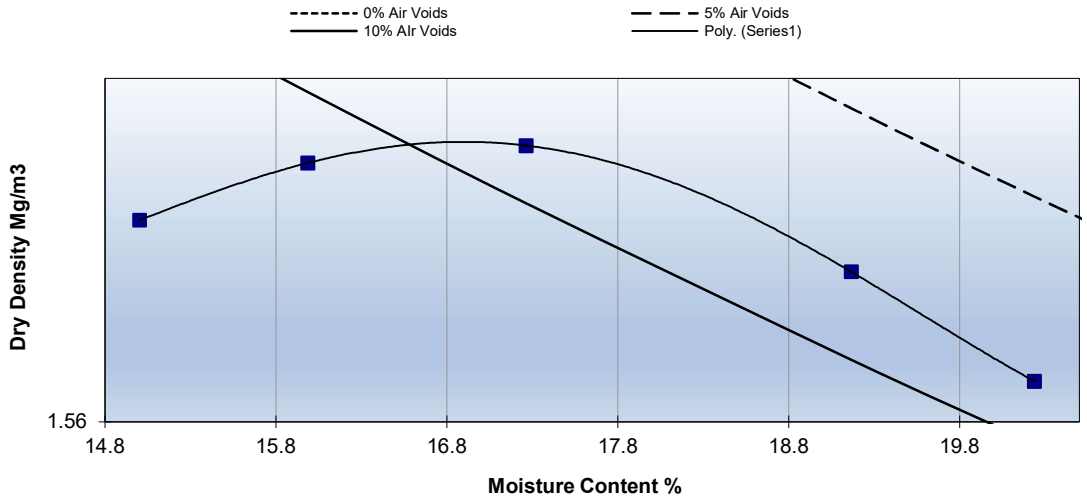
Project:	103682	**Lab Ref No.:**	CL-2446
Client:	Celtest	**Date Sampled:**	07/06/2022
	Trefelin, Llandegai	**Date Received:**	17/11/2022
	Bangor, Gwynedd	**Date Tested:**	28/11/2022
	LL57 4LH	**Date Reported:**	02/12/2022

Originator: **Chantelle Kopec**

Client Sample Ref :	AS33-1 1.2M	**Supplier:**	Celtest
Sample Location:	AS33-1 1.2M	**Sample Type:**	Bulk
Material:	N/S	**Sampled By:**	Client
Specification:	SHW Series 600: Table 6/2	**Sampling Cert/Plan:**	Yes
Visual Description:	Crushed CONCRETE with fines	**Preparation Method:**	BS 1377-1: 2016

Rammer used :	4.5kg	**No of layers:**	Multiple
No of sub samples :	5	**% retained on 37.5mm sieve**	3.7
Mould Size:	CBR	**% retained on 20mm sieve**	12.7

Bulk Density: Mg/m³	1.87	1.91	1.94	1.92	1.89
Moisture Content: %	15	16	17	19	20
Dry Density: Mg/m³	1.63	1.65	1.66	1.61	1.57



Maximum Dry Density (Mg/m³)	**1.66**
Optimum Moisture Content (%)	**17**

The stated result only relates to the item/location tested, this report shall not be reproduced except in full.
Where CMTL are not responsible for sampling, the sample is tested in an as received condition

Tested in accordance with BS 1377: Part 4:1990: Clause 3.5
Particle Density (Mg/m³) - 2.65 (Assumed)

CMTL Limited Approved Signature
Lydia Souch - Senior Laboratory Technician

CMTL Limited
Coventry Laboratory
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Estate Coventry
CV3 2RL

CONSTRUCTION MATERIALS TESTING LABORATORIES
A PHENNA GROUP COMPANY

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LABORATORY TEST REPORT

DRY DENSITY / MOISTURE CONTENT RELATIONSHIP - BS 1377: Part 4: 1990

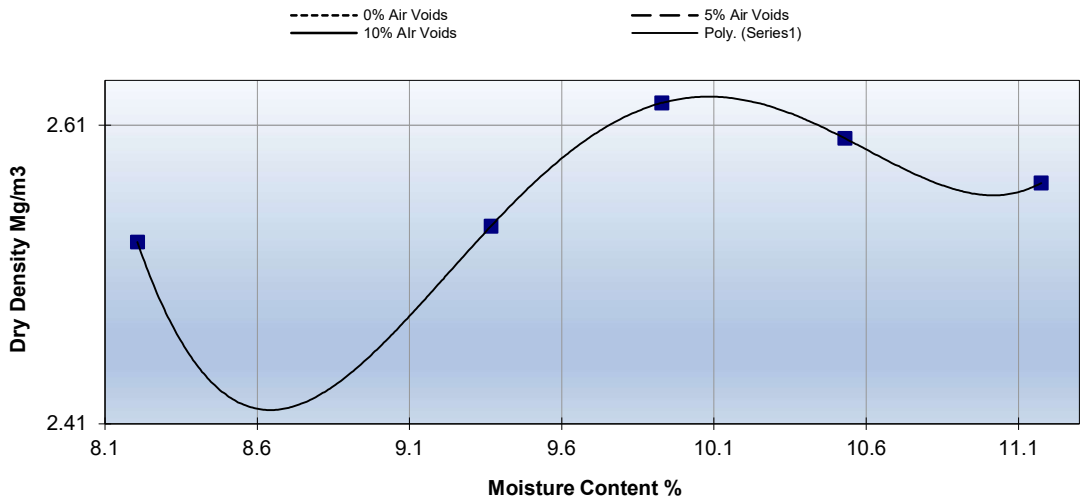
Project:	103682	**Lab Ref No.:**	CL-2443
Client:	Celtest	**Date Sampled:**	07/06/2022
	Trefelin, Llandegai	**Date Received:**	17/11/2022
	Bangor, Gwynedd	**Date Tested:**	28/11/2022
	LL57 4LH	**Date Reported:**	01/12/2022

Originator: **Chantelle Kopec**

Client Sample Ref :	AV33-1 0.60M	**Supplier:**	Celtest
Sample Location:	AV33-1 0.60M	**Sample Type:**	Bulk
Material:	N/S	**Sampled By:**	Client
Specification:	SHW Series 600: Table 6/2	**Sampling Cert/Plan:**	Yes
Visual Description:	Dark Brown Crushed ROCK. With Fines	**Preparation Method:**	BS 1377-1: 2016

Rammer used :	4.5kg	**No of layers:**	Multiple
No of sub samples :	5	**% retained on 37.5mm sieve**	7.0
Mould Size:	CBR	**% retained on 20mm sieve**	9.2

Bulk Density: Mg/m³	2.74	2.78	2.89	2.88	2.86
Moisture Content: %	8.2	9.4	9.9	11	11
Dry Density: Mg/m³	2.53	2.54	2.62	2.60	2.57



Maximum Dry Density (Mg/m³)	**2.63**
Optimum Moisture Content (%)	**10**

The stated result only relates to the item/location tested, this report shall not be reproduced except in full.

Where CMTL are not responsible for sampling, the sample is tested in an as received condition

Tested in accordance with BS 1377: Part 4:1990: Clause 3.5

Particle Density (Mg/m³) - 2.65 (Assumed)

CMTL Limited Approved Signature
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Estate Coventry
CV3 2RL

CONSTRUCTION MATERIALS TESTING LABORATORIES
A PHENNA GROUP COMPANY

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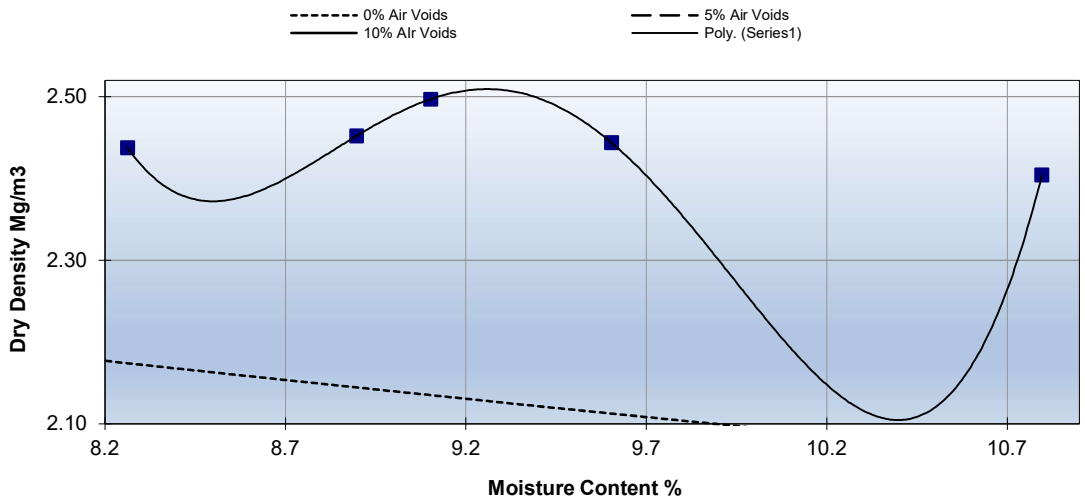
LABORATORY TEST REPORT
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP - BS 1377: Part 4: 1990

Project:	103682	**Lab Ref No.:**	CL-2442
Client:	Celtest	**Date Sampled:**	07/06/2022
	Trefelin, Llandegai	**Date Received:**	17/11/2022
	Bangor, Gwynedd	**Date Tested:**	28/11/2022
	LL57 4LH	**Date Reported:**	01/12/2022

Originator: **Chantelle Kopec**

Client Sample Ref :	AV33-3 2.20M	**Supplier:**	Celtest
Sample Location:	AV33-3 2.20M	**Sample Type:**	Bulk
Material:	N/S	**Sampled By:**	Client
Specification:	SHW Series 600: Table 6/2	**Sampling Cert/Plan:**	Yes
Visual Description:	Dark Brown Crushed ROCK, With Fines.	**Preparation Method:**	BS 1377-1: 2016
Rammer used :	4.5kg	**No of layers:**	Multiple
No of sub samples :	5	**% retained on 37.5mm sieve**	5.8
Mould Size:	CBR	**% retained on 20mm sieve**	9.8

Bulk Density: Mg/m³	2.64	2.67	2.72	2.68	2.66
Moisture Content: %	8.3	8.9	9.1	9.6	11
Dry Density: Mg/m³	2.44	2.45	2.50	2.44	2.40



Maximum Dry Density (Mg/m³)	**2.51**
Optimum Moisture Content (%)	**9.3**

The stated result only relates to the item/location tested, this report shall not be reproduced except in full.
Where CMTL are not responsible for sampling, the sample is tested in an as received condition

Tested in accordance with BS 1377: Part 4:1990: Clause 3.5
Particle Density (Mg/m³) - 2.65 (Assumed)

CMTL Limited Approved Signature
Lydia Souch - Senior Laboratory Technician

CMTL Limited
Coventry Laboratory
Unit 8 Hotchkiss Way
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Estate Coventry
CV3 2RL

CONSTRUCTION MATERIALS TESTING LABORATORIES
A PHENNA GROUP COMPANY

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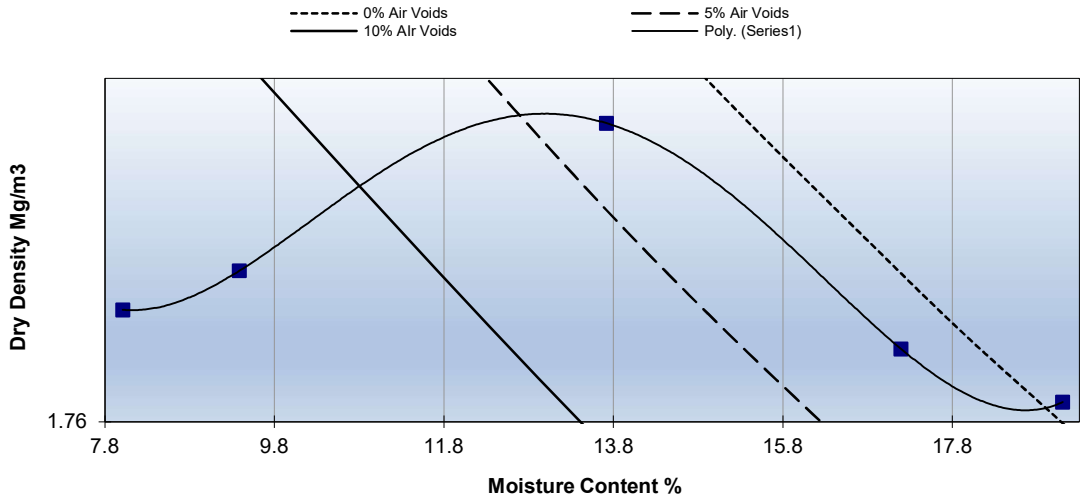
LABORATORY TEST REPORT
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP - BS 1377: Part 4: 1990

Project:	103682	**Lab Ref No.:**	CL-2440
Client:	Celtest	**Date Sampled:**	07/06/2022
	Trefelin, Llandegai	**Date Received:**	17/11/2022
	Bangor, Gwynedd	**Date Tested:**	28/11/2022
	LL57 4LH	**Date Reported:**	01/12/2022

Originator: **Chantelle Kopec**

Client Sample Ref :	AX33-1 0.8M	**Supplier:**	Celtest
Sample Location:	AX33-1 0.8M	**Sample Type:**	Bulk
Material:	N/S	**Sampled By:**	Client
Specification:	SHW Series 600: Table 6/2	**Sampling Cert/Plan:**	Yes
Visual Description:	Dark Brown CLAY, With Crushed Rock	**Preparation Method:**	BS 1377-1: 2016
Rammer used :	4.5kg	**No of layers:**	Multiple
No of sub samples :	5	**% retained on 37.5mm sieve**	8.7
Mould Size:	CBR	**% retained on 20mm sieve**	12.6

Bulk Density: Mg/m³	1.95	1.99	2.14	2.10	2.11
Moisture Content: %	8.	9.4	14	17	19
Dry Density: Mg/m³	1.81	1.82	1.88	1.79	1.77



Maximum Dry Density (Mg/m³)	**1.89**
Optimum Moisture Content (%)	**13**

The stated result only relates to the item/location tested, this report shall not be reproduced except in full.
Where CMTL are not responsible for sampling, the sample is tested in an as received condition

Tested in accordance with BS 1377: Part 4:1990: Clause 3.5
Particle Density (Mg/m³) - 2.65 (Assumed)

CMTL Limited Approved Signature
Lydia Souch - Senior Laboratory Technician

CMTL Limited
Coventry Laboratory
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Binley Industrial
Estate Coventry
CV3 2RL

CONSTRUCTION MATERIALS TESTING LABORATORIES
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LABORATORY TEST REPORT
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP - BS 1377: Part 4: 1990

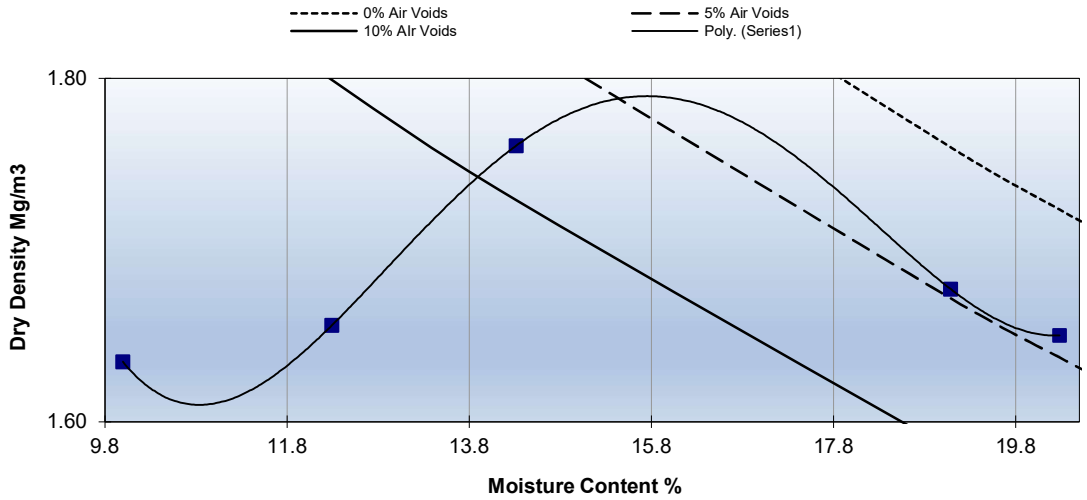
Project:	103682	**Lab Ref No.:**	CL-2448
Client:	Celtest	**Date Sampled:**	07/06/2022
	Trefelin, Llandegai	**Date Received:**	17/11/2022
	Bangor, Gwynedd	**Date Tested:**	28/11/2022
	LL57 4LH	**Date Reported:**	02/12/2022

Originator: **Chantelle Kopec**

Client Sample Ref :	AQ33-1 0.6M	**Supplier:**	Celtest
Sample Location:	AQ33-1 0.6M	**Sample Type:**	Bulk
Material:	N/S	**Sampled By:**	Client
Specification:	SHW Series 600: Table 6/2	**Sampling Cert/Plan:**	Yes
Visual Description:	Dark Brown, Crushed ROCK. With Fines	**Preparation Method:**	BS 1377-1: 2016

Rammer used :	4.5kg	**No of layers:**	Multiple
No of sub samples :	5	**% retained on 37.5mm sieve**	9.7
Mould Size:	CBR	**% retained on 20mm sieve**	4.2

Bulk Density: Mg/m³	1.80	1.86	2.01	2.00	1.99
Moisture Content: %	10.	12	14	19	20
Dry Density: Mg/m³	1.63	1.66	1.76	1.68	1.65



Maximum Dry Density (Mg/m³)	**1.79**
Optimum Moisture Content (%)	**16**

The stated result only relates to the item/location tested, this report shall not be reproduced except in full.

Where CMTL are not responsible for sampling, the sample is tested in an as received condition

Tested in accordance with BS 1377: Part 4:1990: Clause 3.5

Particle Density (Mg/m³) - 2.65 (Assumed)

CMTL Limited Approved Signature
Lydia Souch - Senior Laboratory Technician

CMTL Limited
Coventry Laboratory
Unit 8 Hotchkiss Way
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Estate Coventry
CV3 2RL

CONSTRUCTION MATERIALS TESTING LABORATORIES
A PHENNA GROUP COMPANY

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LABORATORY TEST REPORT
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP - BS 1377: Part 4: 1990

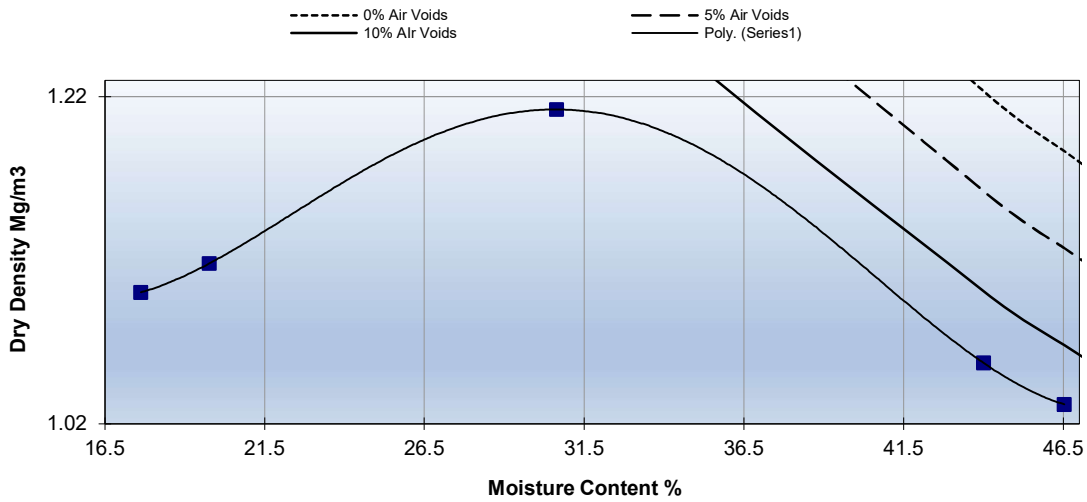
Project:	103682	**Lab Ref No.:**	CL-2447
Client:	Celtest	**Date Sampled:**	07/06/2022
	Trefelin, Llandegai	**Date Received:**	17/11/2022
	Bangor, Gwynedd	**Date Tested:**	12/12/2022
	LL57 4LH	**Date Reported:**	13/12/2022

Originator: **Chantelle Kopec**

Client Sample Ref :	AR33-2 1.6M	**Supplier:**	Celtest
Sample Location:	AR33-2 1.6M	**Sample Type:**	Bulk
Material:	N/S	**Sampled By:**	Client
Specification:	SHW Series 600: Table 6/2	**Sampling Cert/Plan:**	Yes
Visual Description:	White CHALK With Lime	**Preparation Method:**	BS 1377-1: 2016

Rammer used :	4.5kg	**No of layers:**	Multiple
No of sub samples :	5	**% retained on 37.5mm sieve**	4.2
Mould Size:	CBR	**% retained on 20mm sieve**	20.5

Bulk Density: Mg/m³	1.29	1.34	1.58	1.52	1.51
Moisture Content: %	18	20	31	44	47
Dry Density: Mg/m³	1.10	1.12	1.21	1.06	1.03



Maximum Dry Density (Mg/m³)	**1.21**
Optimum Moisture Content (%)	**31**

The stated result only relates to the item/location tested, this report shall not be reproduced except in full.

Where CMTL are not responsible for sampling, the sample is tested in an as received condition

Tested in accordance with BS 1377: Part 4:1990: Clause 3.5

Particle Density (Mg/m³) - 2.65 (Assumed)

CMTL Limited Approved Signature
Lydia Souch - Senior Laboratory Technician

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INDEPENDENT MATERIALS TESTING | DIAMOND DRILLING & SAWING

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 01 March 2021
Test Report Ref: TR 779156

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Dry Density and Moisture Content Relationship of soil sieve 4.5kg Rammer Method in accordance with BS 1377: 4: 1990 Clause 3.6

SAMPLE DETAILS:

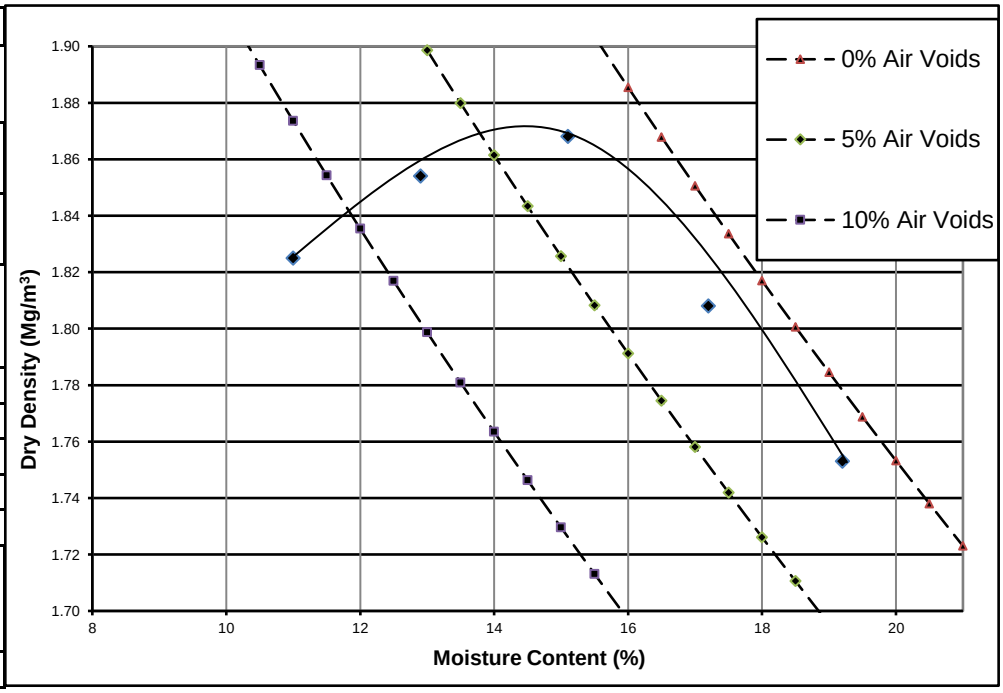
Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S92621**	Method of Sampling:	**Unknown**
Client Ref. :	**AV28-1 @ 1.2M**	Sampled By:	**Client**
Date and Time of Sampling:	**Unknown**	Tested By:	**AO**
Date of Receipt at Lab:	**22/01/2021**	Sample Preparation Procedure:	**3.2.5.3**
Date of Start of Test:	**24/02/2021**	Sample Preparation Method:	**Single**
Sampling Location:	**Unknown**		
Soil Description:	**Granular**		

RESULTS:

Particle Density: 2.7Mg/m3 (Assumed)

Retained on 37.5mm Sieve:	9 %
Retained on 20mm Sieve:	20 %

Moisture Content (%)	Dry Density Mg/m^3
11.0	1.83
12.9	1.85
15.1	1.87
17.2	1.81
19.2	1.75
Optimum Moisture Content (%)	**Maximum Dry Density Mg/m^3**
15.0	**1.87**



This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:
None

Report checked and approved by:

S Parry

Sharon Parry
Aggregate Team Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 02 March 2021
Test Report Ref: TR 779157

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Dry Density and Moisture Content Relationship of soil sieve 4.5kg Rammer Method in accordance with BS 1377: 4: 1990 Clause 3.6

SAMPLE DETAILS:

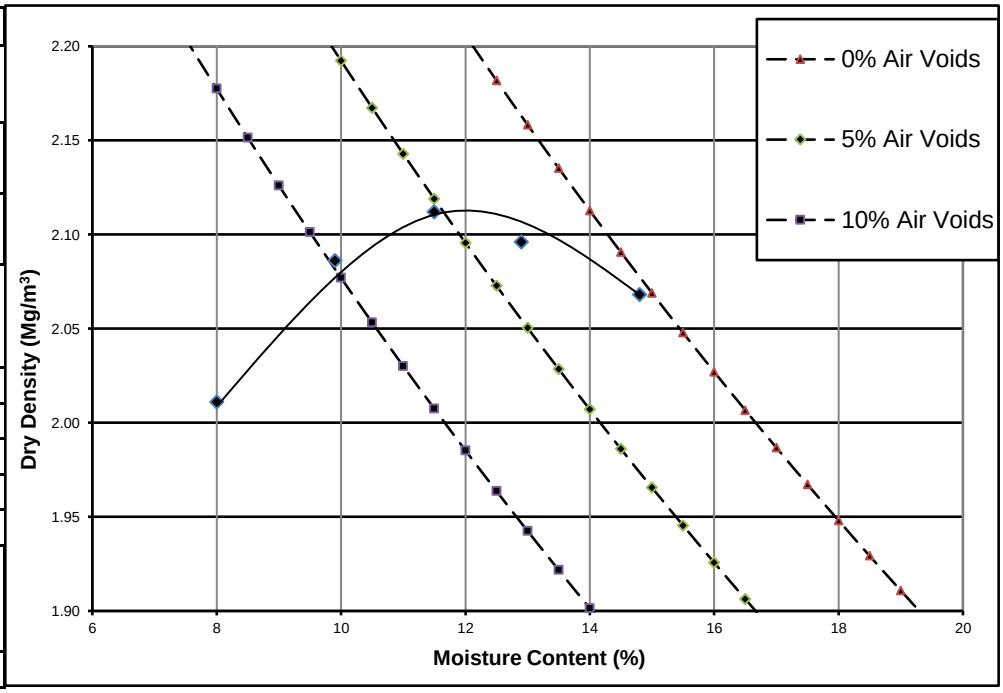
Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S92621**	Method of Sampling:	**Unknown**
Client Ref. :	**AM33-1 @ 1.3M**	Sampled By:	**Client**
Date and Time of Sampling:	**Unknown**	Tested By:	**AO**
Date of Receipt at Lab:	**22/01/2021**	Sample Preparation Procedure:	**Clause X**
Date of Start of Test:	**26/02/2021**	Sample Preparation Method:	**Single**
Sampling Location:	**Unknown**		
Soil Description:	**Granular**		

RESULTS:

Particle Density: 3Mg/m3 (Assumed)

Retained on 37.5mm Sieve:	12 %
Retained on 20mm Sieve:	30 %

Moisture Content (%)	Dry Density Mg/m^3
8.0	2.01
9.9	2.09
11.5	2.11
12.9	2.10
14.8	2.07
Optimum Moisture Content (%)	**Maximum Dry Density Mg/m^3**
12.0	**2.11**



This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:
None

Report checked and approved by:

S Parry

Sharon Parry
Aggregate Team Coordinator

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INDEPENDENT MATERIALS TESTING | DIAMOND DRILLING & SAWING

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 08 March 2021
Test Report Ref: TR 779158

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Dry Density and Moisture Content Relationship of soil sieve 4.5kg Rammer Method in accordance with BS 1377: 4: 1990 Clause 3.6

SAMPLE DETAILS:

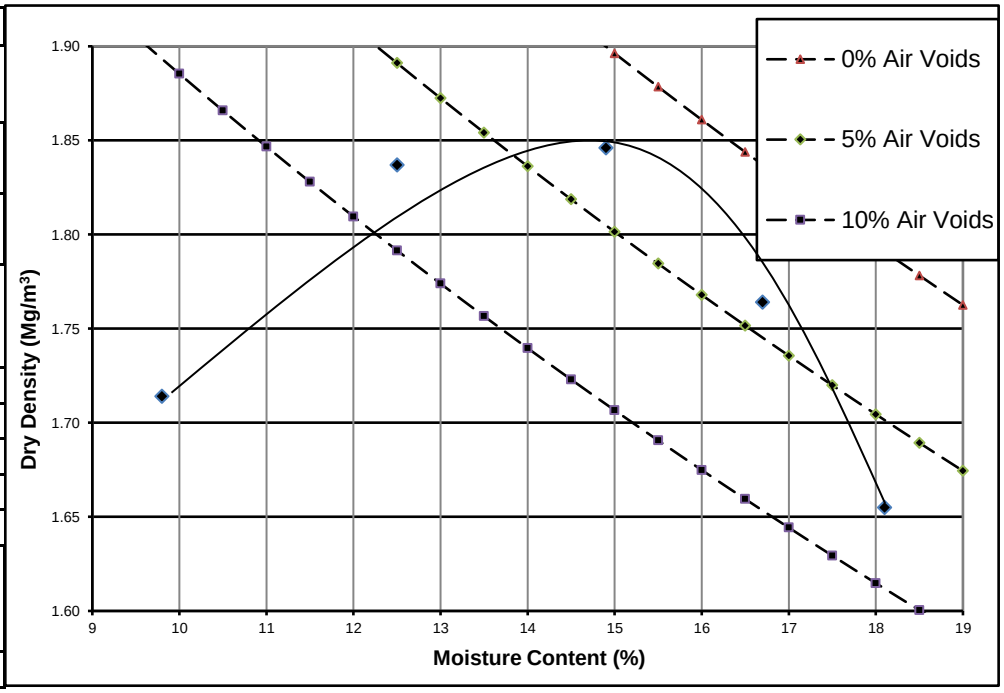
Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S92621**	Method of Sampling:	**Unknown**
Client Ref. :	**AV29-1 @ 1.0M**	Sampled By:	**Client**
Date and Time of Sampling:	**Unknown**	Tested By:	**IJ**
Date of Receipt at Lab:	**22/01/2021**	Sample Preparation Procedure:	**Clause X**
Date of Start of Test:	**01/03/2021**	Sample Preparation Method:	**Single**
Sampling Location:	**Unknown**		
Soil Description:	**Granular**		

RESULTS:

Particle Density: 2.65Mg/m3 (Assumed)

Retained on 37.5mm Sieve:	52 %
Retained on 20mm Sieve:	70 %

Moisture Content (%)	Dry Density Mg/m^3
9.8	1.71
12.5	1.84
14.9	1.85
16.7	1.76
18.1	1.66
Optimum Moisture Content (%)	**Maximum Dry Density Mg/m^3**
14.0	**1.86**



This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:
None

Report checked and approved by:

S Parry

Sharon Parry
Aggregate Team Coordinator

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INDEPENDENT MATERIALS TESTING | DIAMOND DRILLING & SAWING

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 09 March 2021
Test Report Ref: TR 779207

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Dry Density and Moisture Content Relationship of soil sieve 4.5kg Rammer Method in accordance with BS 1377: 4: 1990 Clause 3.6

SAMPLE DETAILS:

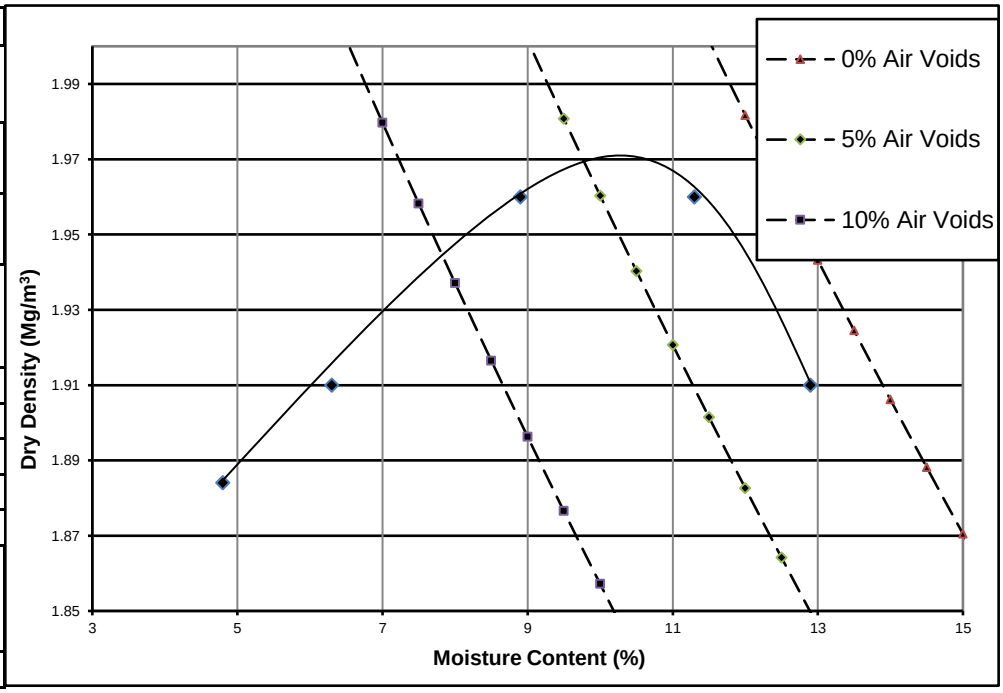
Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S92621**	Method of Sampling:	**Unknown**
Client Ref. :	**AU29-1 @ 0.5M**	Sampled By:	**Client**
Date and Time of Sampling:	**Unknown**	Tested By:	**LW**
Date of Receipt at Lab:	**22/01/2021**	Sample Preparation Procedure:	**3.2.5.3**
Date of Start of Test:	**08/03/2021**	Sample Preparation Method:	**Single**
Sampling Location:	**Unknown**		
Soil Description:	**Granular**		

RESULTS:

Particle Density: 2.6Mg/m3 (Assumed)

Retained on 37.5mm Sieve:	6 %
Retained on 20mm Sieve:	27 %

Moisture Content (%)	Dry Density Mg/m^3
4.8	1.88
6.3	1.91
8.9	1.96
11.3	1.96
12.9	1.91
Optimum Moisture Content (%)	**Maximum Dry Density Mg/m^3**
9.9	**1.97**



This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:
None

Report checked and approved by:

S Parry

Sharon Parry
Aggregate Team Coordinator

1740

Coventry Laboratory
Unit 8 Hotchkiss Way
Binley Industrial
Estate Coventry
CV3 2RL

CONSTRUCTION MATERIALS TESTING LABORATORIES

Report/ Revision No: S104193/CL-2121/1377-2-3.2/
Client Reference No: AM32-1
Date of Issue: 30/09/2022

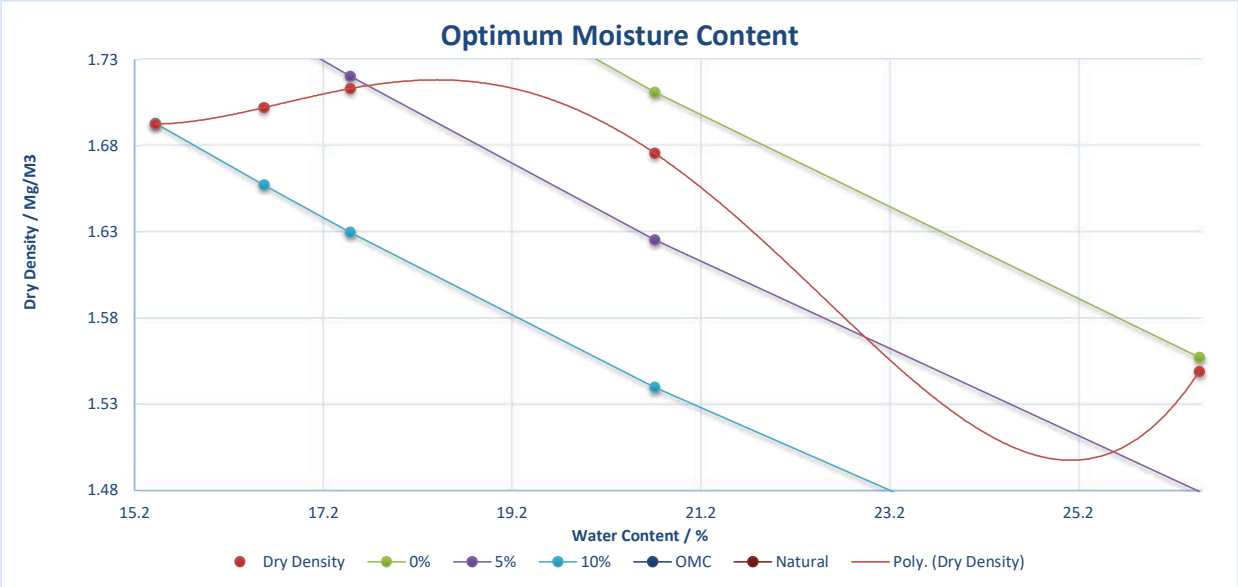
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	S104193
Lab Test No	N/A
Lab Sample No	CL-2121
Client Reference	AM32-1
Date Sampled	Unknown
Date Received	20/09/2022
Date Tested	28/09/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	S104193
Method of Preparation	Quartered
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Dark Brown CLAY
Location	AM32-1

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	18	%
Maximum Dry Density	1.72	Mg/m³
Particle Density	2.65	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	2	%
Proportion of Sample Retained on 20mm Sieve	1	%



Observations

None

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5. Test Procedure: BS 1377:4:1990 Method: Clause 3.5 4.5kg Rammer, Five Layers, 27 Blows Chopped down to 20mm

Client: Celtest
Address: Trefelin
Llandegai
Bangor
Gwynedd
LL57 4LH
Contact: Chantelle Kopec

Authorised:

Lydia Souch - Senior Laboratory Technician

1740

Coventry Laboratory
Unit 8 Hotchkiss Way
Binley Industrial
Estate Coventry
CV3 2RL

Report/ Revision No: S105000/CL-2129/1377-2-3.2/
Client Reference No: AU32-1
Date of Issue: 06/10/2022

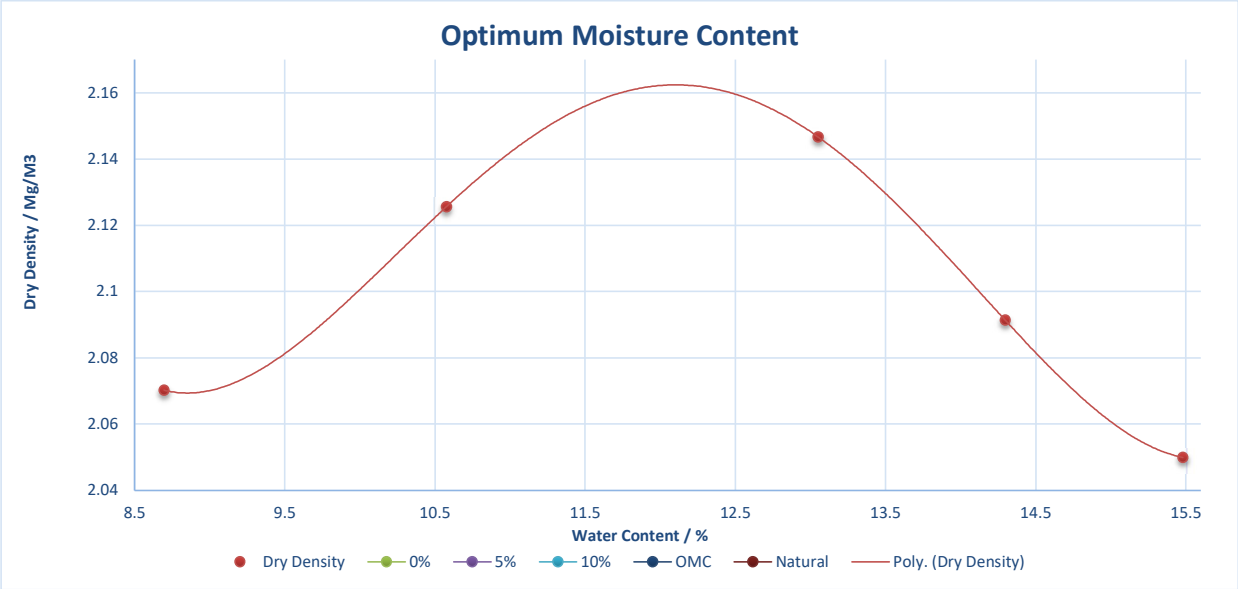
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	S105000
Lab Test No	N/A
Lab Sample No	CL-2129
Client Reference	AU32-1
Date Sampled	Unknown
Date Received	20/09/2022
Date Tested	05/10/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	S105000
Method of Preparation	Quartered
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Black GRANULAR material
Location	AU32-1

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	12	%
Maximum Dry Density	2.16	Mg/m³
Particle Density	Not Applicable	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	10	%
Proportion of Sample Retained on 20mm Sieve	14	%



Observations

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4. Opinions and interpretations, if stated, are not within the scope of our UKAS accreditation.
5. Test Procedure: BS 1377:4:1990 Method: Clause 3.5 4.5kg Rammer, Five Layers, 27 Blows Chopped down to 20mm

Client: Celtest
Address: Trefelin
Llandegai
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Contact: Chantelle Kopec

Authorised:

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Unit 8 Hotchkiss Way
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Report/ Revision No: S105000/CL-2130/1377-2-3.2/
Client Reference No: AU29-1
Date of Issue: 28/09/2022

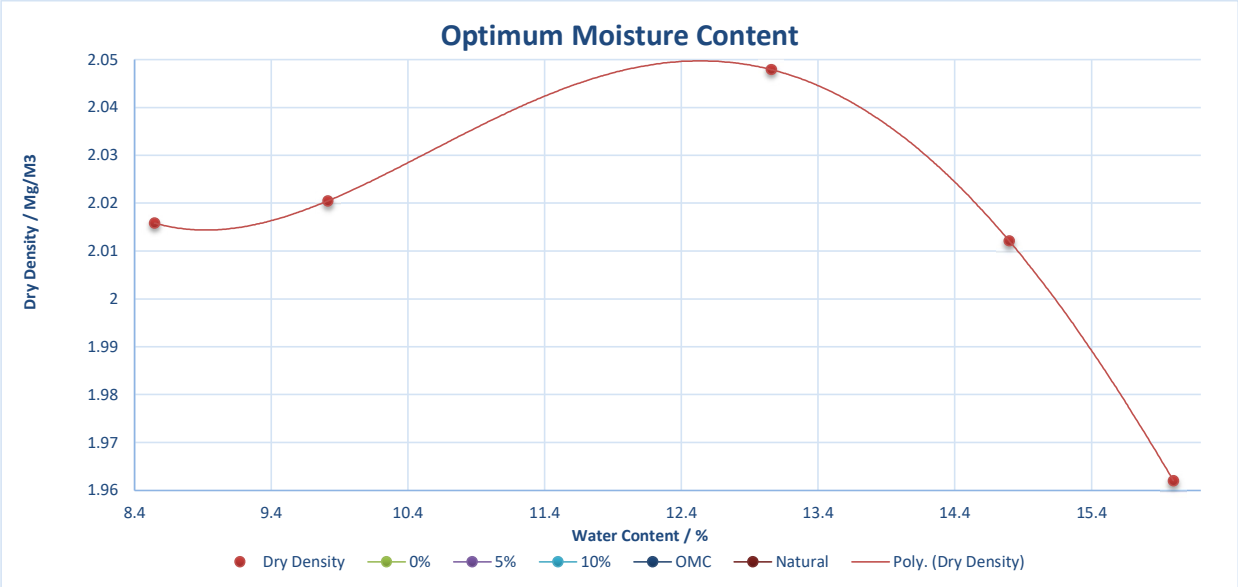
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	S105000
Lab Test No	N/A
Lab Sample No	CL-2130
Client Reference	AU29-1
Date Sampled	Unknown
Date Received	20/09/2022
Date Tested	23/09/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	S105000
Method of Preparation	Quartered
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Brown GRANULAR material
Location	AU29-1

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	13	%
Maximum Dry Density	2.05	Mg/m³
Particle Density	Not Applicable	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	12	%
Proportion of Sample Retained on 20mm Sieve	19	%



Observations

None

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4. Opinions and interpretations, if stated, are not within the scope of our UKAS accreditation.
5. Test Procedure: BS 1377:4:1990 Method: Clause 3.5 4.5kg Rammer, Five Layers, 27 Blows

Client: Celtest
Address: Trefelin
Llandegai
Bangor
Gwynedd
LL57 4LH
Contact: Chantelle Kopec

Authorised:

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Coventry Laboratory
Unit 8 Hotchkiss Way
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Report/ Revision No: S105000/CL-2131/1377-2-3.2/
Client Reference No: AT32-1
Date of Issue: 04/10/2022

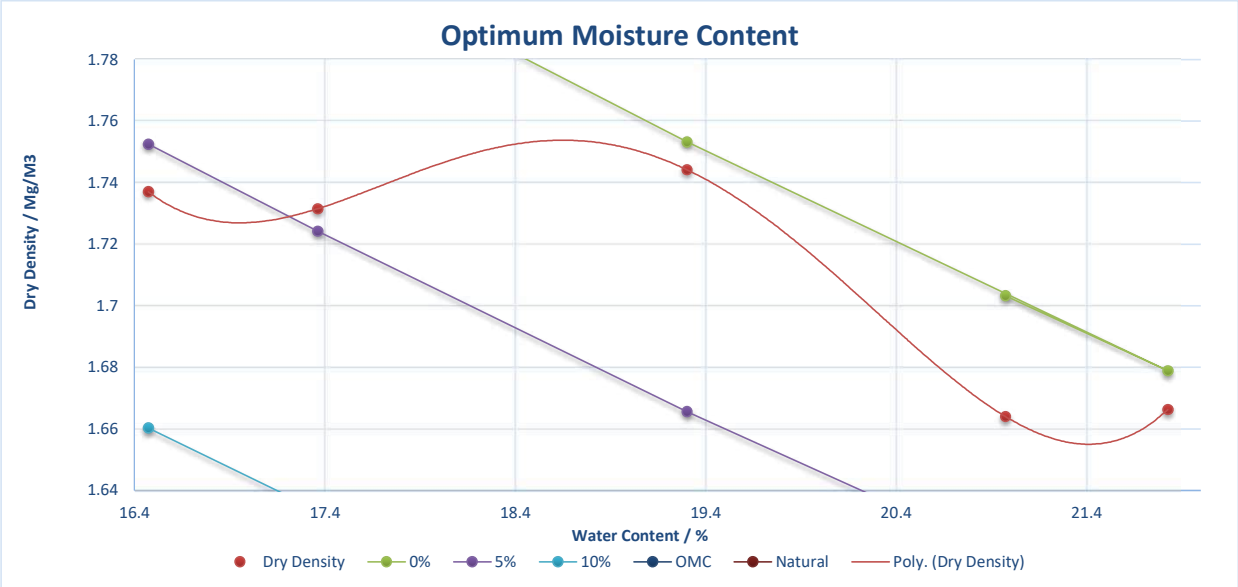
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	S105000
Lab Test No	N/A
Lab Sample No	CL-2131
Client Reference	AT32-1
Date Sampled	Unknown
Date Received	20/09/2022
Date Tested	29/09/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	S105000
Method of Preparation	Quartered
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Black GRANULAR Material
Location	AT32-1

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	19	%
Maximum Dry Density	1.75	Mg/m³
Particle Density	2.65	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	33	%
Proportion of Sample Retained on 20mm Sieve	19	%



Observations

None

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4. Opinions and interpretations, if stated, are not within the scope of our UKAS accreditation.
5. Test Procedure: BS 1377:4:1990 Method: Clause 3.5 4.5kg Rammer, Five Layers, 27 Blows Chopped down to 20mm

Client: Celtest
Address: Trefelin
Llandegai
Bangor
Gwynedd
LL57 4LH
Contact: Chantelle Kopec

Authorised:

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Report/ Revision No: S105000/CL-2132/1377-2-3.2/
Client Reference No: AS32-2
Date of Issue: 30/09/2022

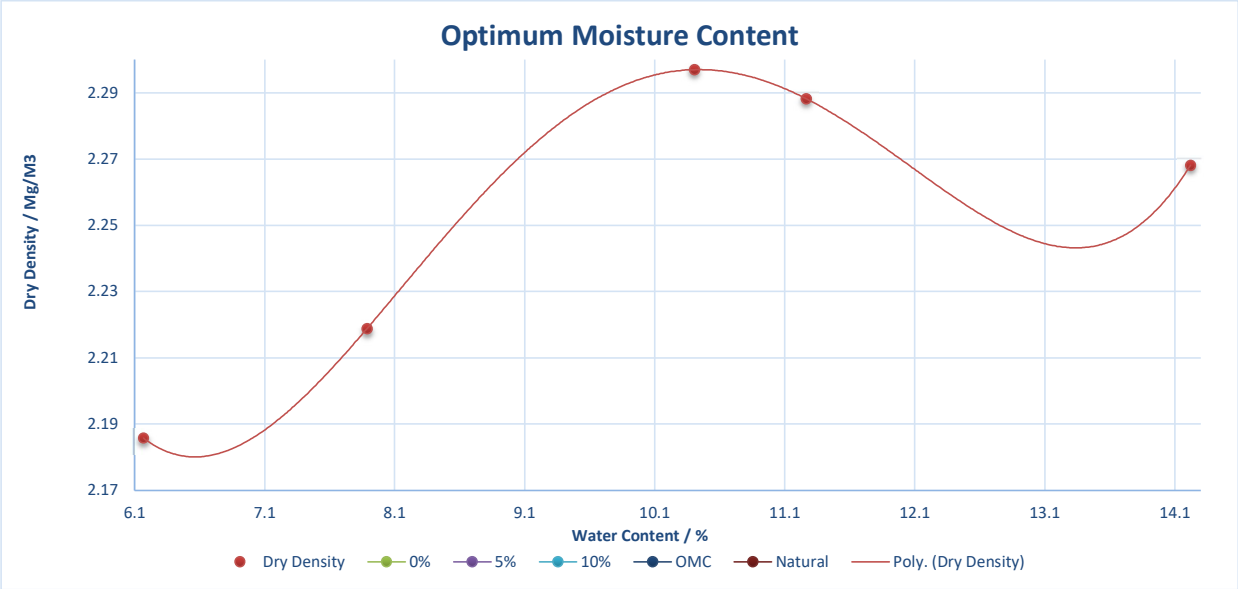
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	S105000
Lab Test No	N/A
Lab Sample No	CL-2132
Client Reference	AS32-2
Date Sampled	Unknown
Date Received	20/09/2022
Date Tested	28/09/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	S105000
Method of Preparation	Quartered
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Brown GRANULAR Material
Location	AS32-2

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	10	%
Maximum Dry Density	2.30	Mg/m³
Particle Density	Not Applicable	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	25	%
Proportion of Sample Retained on 20mm Sieve	21	%



Observations

None

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4. Opinions and interpretations, if stated, are not within the scope of our UKAS accreditation.
5. Test Procedure: BS 1377:4:1990 Method: Clause 3.5 4.5kg Rammer, Five Layers, 27 Blows

Client: Celtest
Address: Trefelin
Llandegai
Bangor
Gwynedd
LL57 4LH
Contact: Chantelle Kopec

Authorised:

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Report/ Revision No: S105000/CL-2133/1377-2-3.2/
Client Reference No: AS32-1
Date of Issue: 06/10/2022

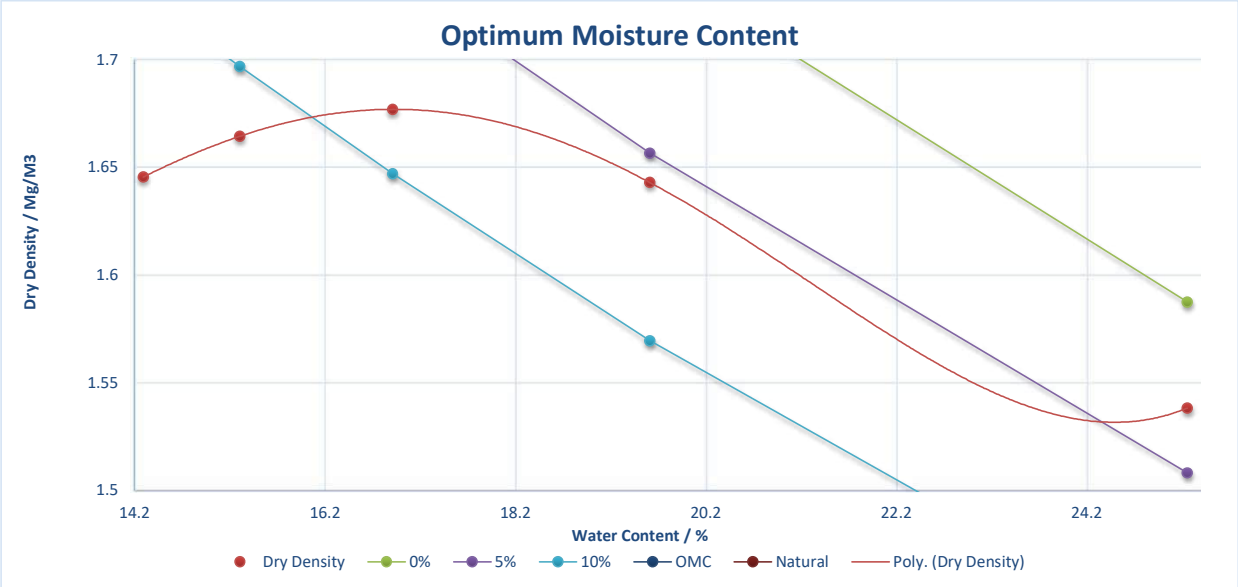
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with some coarse gravel-size particles

Job Number	S105000
Lab Test No	N/A
Lab Sample No	CL-2133
Client Reference	AS32-1
Date Sampled	Unknown
Date Received	20/09/2022
Date Tested	05/10/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	S105000
Method of Preparation	Quartered
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Grey GRANULAR Material
Location	AS32-1

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	17	%
Maximum Dry Density	1.68	Mg/m³
Particle Density	2.65	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	9	%
Proportion of Sample Retained on 20mm Sieve	10	%



Observations

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4. Opinions and interpretations, if stated, are not within the scope of our UKAS accreditation.
5. Test Procedure: BS 1377:4:1990 Method: Clause 3.6 4.5kg Rammer, Five Layers, 62 Blows

Client: Celtest
Address: Trefelin
Llandegai
Bangor
Gwynedd
LL57 4LH
Contact: Chantelle Kopec

Authorised:

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CONSTRUCTION MATERIALS TESTING LABORATORIES

Report/ Revision No: S105000/CL-2134/1377-2-3.2/
Client Reference No: AR32-1
Date of Issue: 27/09/2022

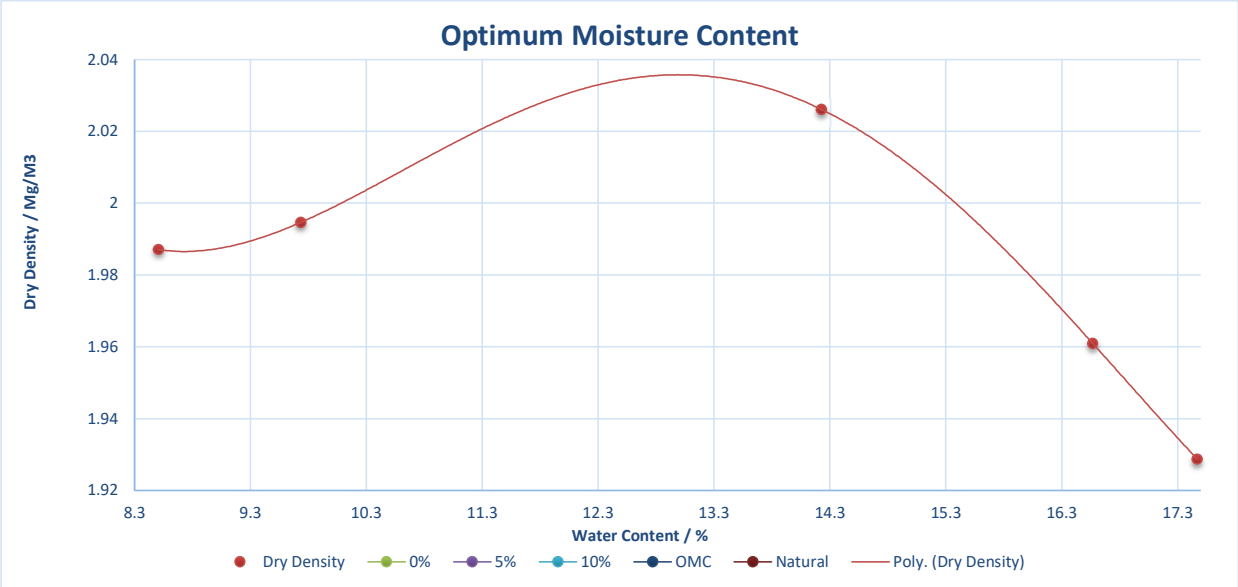
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with some coarse gravel-size particles

Job Number	S105000
Lab Test No	N/A
Lab Sample No	CL-2134
Client Reference	AR32-1
Date Sampled	Unknown
Date Received	20/09/2022
Date Tested	23/09/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	S105000
Method of Preparation	Quartered
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Dark Brown GRANULAR Material
Location	AR32-1

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	13	%
Maximum Dry Density	2.04	Mg/m³
Particle Density	Not Applicable	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	22	%
Proportion of Sample Retained on 20mm Sieve	15	%



Observations

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5. Test Procedure: BS 1377:4:1990 Method: Clause 3.6 4.5kg Rammer, Five Layers, 62 Blows

Client: Celtest
Address: Trefelin
Llandegai
Bangor
Gwynedd
LL57 4LH
Contact: Chantelle Kopec

Authorised:

Lydia Souch - Senior Laboratory Technician

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Unit 8 Hotchkiss Way
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Report/ Revision No: S105000/CL-2135/1377-2-3.2/
Client Reference No: AQ32-1
Date of Issue: 14/10/2022

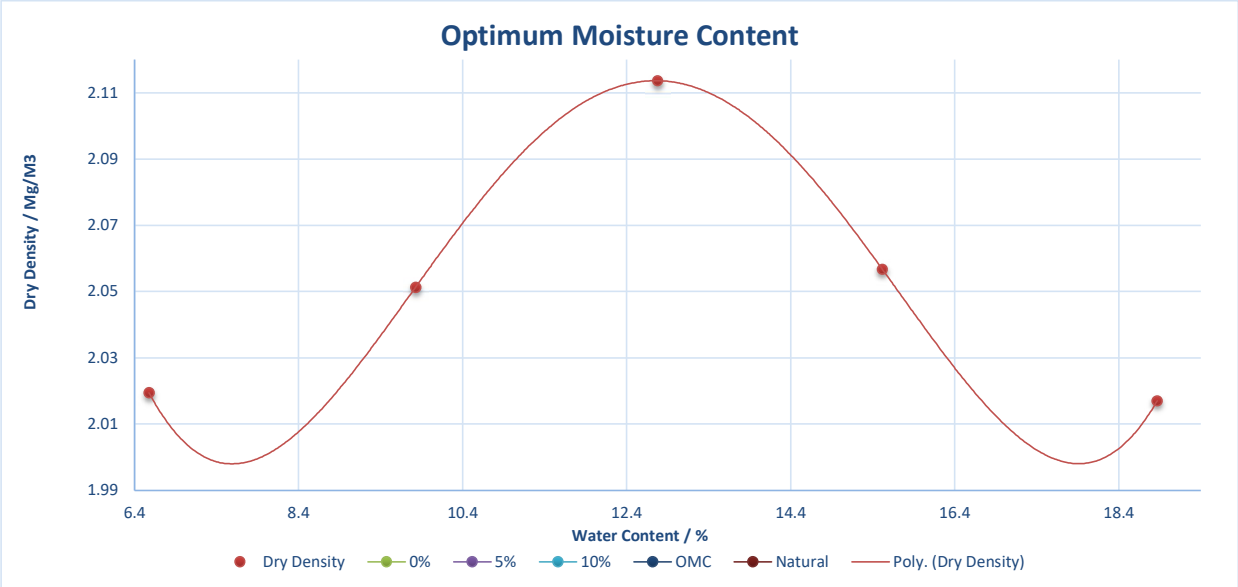
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	S105000
Lab Test No	N/A
Lab Sample No	CL-2135
Client Reference	AQ32-1
Date Sampled	Unknown
Date Received	20/09/2022
Date Tested	11/10/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	S105000
Method of Preparation	Quartered
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Brown GRANULAR material
Location	AQ32-1

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	13	%
Maximum Dry Density	2.11	Mg/m³
Particle Density	Not Applicable	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	27	%
Proportion of Sample Retained on 20mm Sieve	17	%



Observations

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4. Opinions and interpretations, if stated, are not within the scope of our UKAS accreditation.
5. Test Procedure: BS 1377:4:1990 Method: Clause 3.5 4.5kg Rammer, Five Layers, 27 Blows

Client: Celtest
Address: Trefelin
Llandegai
Bangor
Gwynedd
LL57 4LH
Contact: Chantelle Kopec

Authorised:

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Unit 8 Hotchkiss Way
Binley Industrial
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Report/ Revision No: S105136/CL-2153/1377-2-3.2/
Client Reference No: AN34-1 - 1m
Date of Issue: 28/09/2022

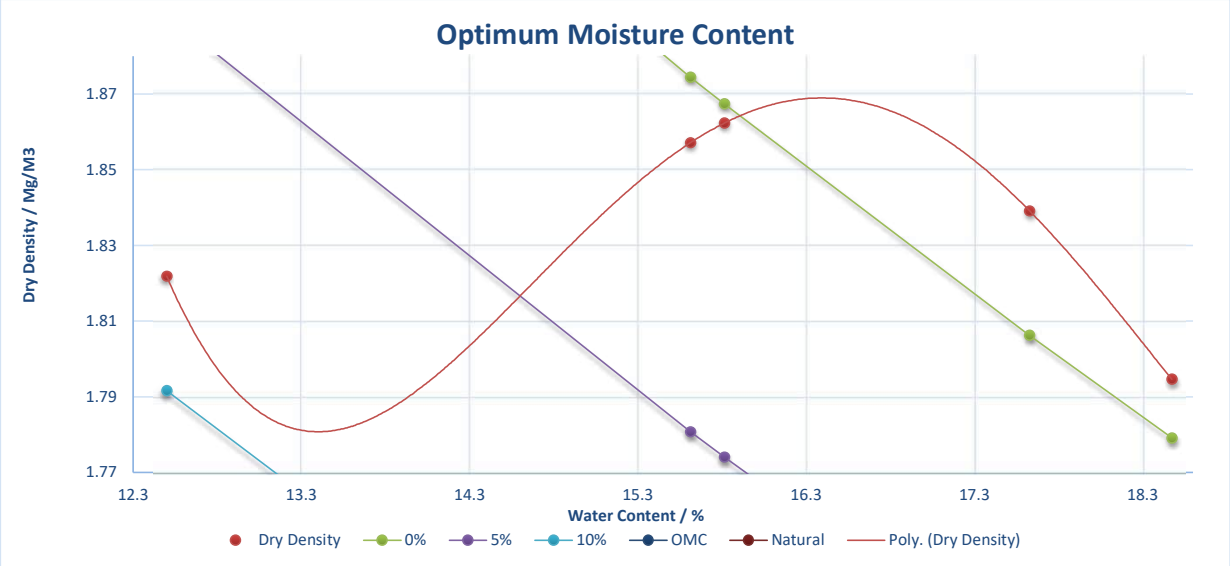
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	S105136
Lab Test No	N/A
Lab Sample No	CL-2153
Client Reference	AN34-1 - 1m
Date Sampled	n/s
Date Received	20/09/2022
Date Tested	22.09.22
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	S105136
Method of Preparation	Quartered
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Dark grey GRANULAR material
Location	AN34-1 - 1m

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	16	%
Maximum Dry Density	1.87	Mg/m³
Particle Density	2.65	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	18	%
Proportion of Sample Retained on 20mm Sieve	11	%



Observations

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5. Test Procedure: BS 1377:4:199C Method: Clause 3.5 4.5kg Rammer, Five Layers, 27 Blows

Client: Celtest
Address: Trefelin
Llandegai
Bangor
Gwynedd
LL57 4LH
Contact: Chantelle Kopec

Authorised:

CMTL Limited
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Unit 8 Hotchkiss Way
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Estate Coventry
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A PHENNA GROUP COMPANY

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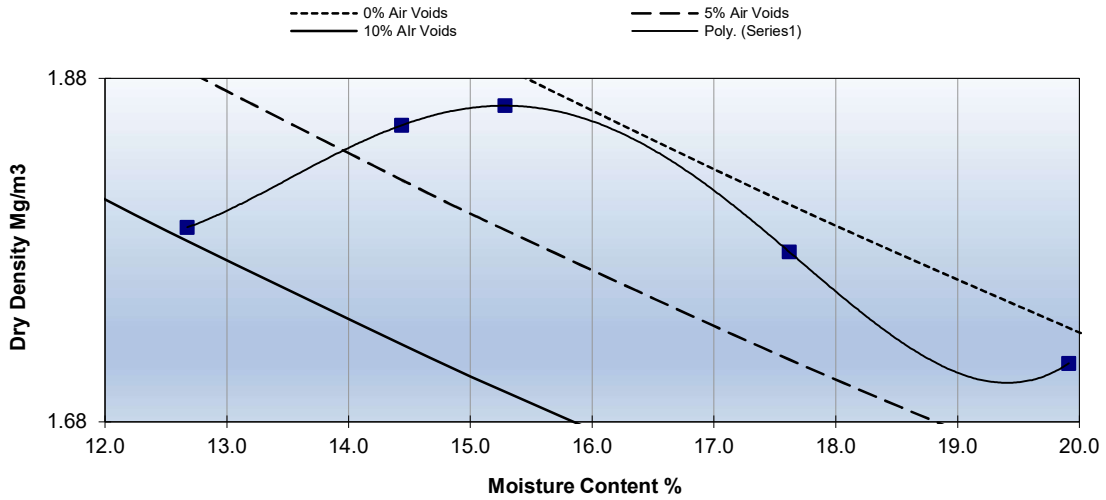
LABORATORY TEST REPORT
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP - BS 1377: Part 4: 1990

Project:	103682	**Lab Ref No.:**	CL-2441
Client:	Celtest	**Date Sampled:**	07/06/2022
	Trefelin, Llandegai	**Date Received:**	17/11/2022
	Bangor, Gwynedd	**Date Tested:**	24/11/2022
	LL57 4LH	**Date Reported:**	06/12/2022

Originator: **Chantelle Kopec**

Client Sample Ref :	AW33-2 1.80M	**Supplier:**	Celtest
Sample Location:	AW33-2 1.80M	**Sample Type:**	Bulk
Material:	N/S	**Sampled By:**	Client
Specification:	SHW Series 600: Table 6/2	**Sampling Cert/Plan:**	Yes
Visual Description:	Crushed CONCRETE, With Some Brick And Fines	**Preparation Method:**	BS 1377-1: 2016
Rammer used :	4.5kg	**No of layers:**	Multiple
No of sub samples :	5	**% retained on 37.5mm sieve**	29.1
Mould Size:	N/A	**% retained on 20mm sieve**	20.9

Bulk Density: Mg/m³	2.02	2.12	2.15	2.09	2.06
Moisture Content: %	13	14	15	18	20
Dry Density: Mg/m³	1.79	1.85	1.86	1.78	1.71



Maximum Dry Density (Mg/m³)	**1.86**
Optimum Moisture Content (%)	**15**

The stated result only relates to the item/location tested, this report shall not be reproduced except in full.
Where CMTL are not responsible for sampling, the sample is tested in an as received condition

Tested in accordance with BS 1377: Part 4:1990: Clause 3.5
Particle Density (Mg/m³) - 2.65 (Assumed)

CMTL Limited Approved Signature
Lydia Souch - Senior Laboratory Technician

CMTL Limited
Coventry Laboratory
Unit 8 Hotchkiss Way
Binley Industrial
Estate Coventry
CV3 2RL

CONSTRUCTION MATERIALS TESTING LABORATORIES
A PHENNA GROUP COMPANY

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LABORATORY TEST REPORT
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP - BS 1377: Part 4: 1990

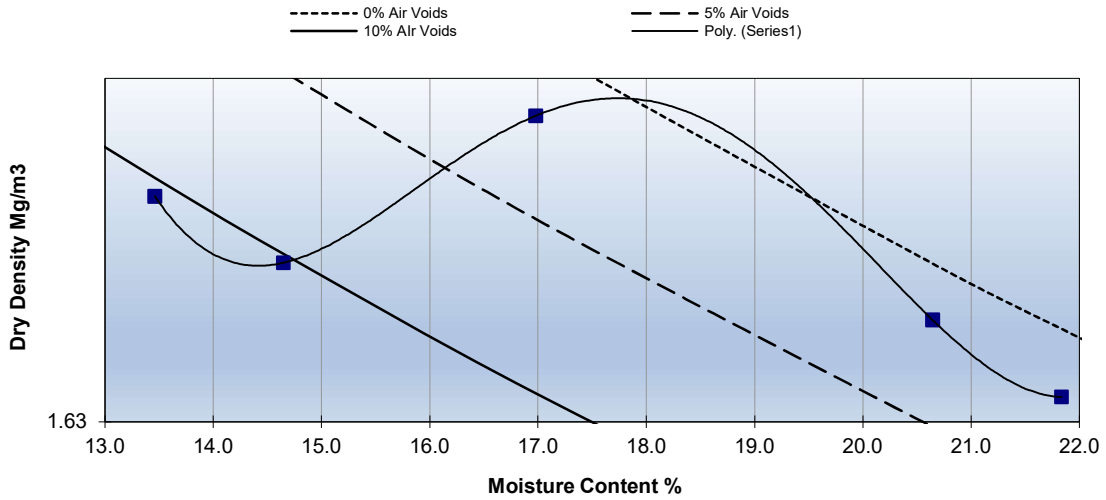
Project:	103682	**Lab Ref No.:**	CL-2444
Client:	Celtest	**Date Sampled:**	07/06/2022
	Trefelin, Llandegai	**Date Received:**	17/11/2022
	Bangor, Gwynedd	**Date Tested:**	02/12/2022
	LL57 4LH	**Date Reported:**	06/12/2022

Originator: **Chantelle Kopec**

Client Sample Ref :	AU33-1 0.90M	**Supplier:**	Celtest
Sample Location:	AU33-1 0.90M	**Sample Type:**	Bulk
Material:	N/S	**Sampled By:**	Client
Specification:	SHW Series 600: Table 6/2	**Sampling Cert/Plan:**	Yes
Visual Description:	Crushed CONCRETE With Fines	**Preparation Method:**	BS 1377-1: 2016

Rammer used :	4.5kg	**No of layers:**	Multiple
No of sub samples :	5	**% retained on 37.5mm sieve**	6.3
Mould Size:	CBR	**% retained on 20mm sieve**	13.1

Bulk Density: Mg/m³	1.98	1.96	2.09	2.03	2.00
Moisture Content: %	13	15	17	21	22
Dry Density: Mg/m³	1.75	1.71	1.79	1.68	1.64



Maximum Dry Density (Mg/m³)	**1.80**
Optimum Moisture Content (%)	**18**

The stated result only relates to the item/location tested, this report shall not be reproduced except in full.

Where CMTL are not responsible for sampling, the sample is tested in an as received condition

Tested in accordance with BS 1377: Part 4:1990: Clause 3.5

Particle Density (Mg/m³) - 2.65 (Assumed)

CMTL Limited Approved Signature
Lydia Souch - Senior Laboratory Technician

CMTL Limited
Coventry Laboratory
Unit 8 Hotchkiss Way
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Estate Coventry
CV3 2RL

CONSTRUCTION MATERIALS TESTING LABORATORIES
A PHENNA GROUP COMPANY

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LABORATORY TEST REPORT
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP - BS 1377: Part 4: 1990

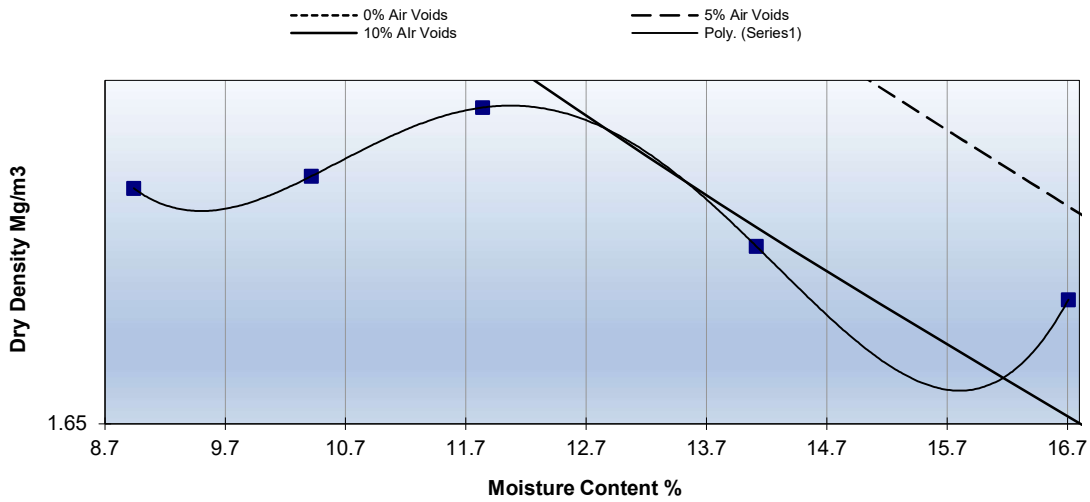
Project:	103682	**Lab Ref No.:**	CL-2445
Client:	Celtest	**Date Sampled:**	07/06/2022
	Trefelin, Llandegai	**Date Received:**	17/11/2022
	Bangor, Gwynedd	**Date Tested:**	24/11/2022
	LL57 4LH	**Date Reported:**	06/12/2022

Originator: **Chantelle Kopec**

Client Sample Ref :	AT33-2 2.20M	**Supplier:**	Celtest
Sample Location:	AT33-2 2.20M	**Sample Type:**	Bulk
Material:	N/S	**Sampled By:**	Client
Specification:	SHW Series 600: Table 6/2	**Sampling Cert/Plan:**	Yes
Visual Description:	Crushed CONCRETE With Fines	**Preparation Method:**	BS 1377-1: 2016

Rammer used :	4.5kg	**No of layers:**	Multiple
No of sub samples :	5	**% retained on 37.5mm sieve**	14.5
Mould Size:	N/A	**% retained on 20mm sieve**	8.4

Bulk Density: Mg/m³	1.91	1.94	2.00	1.97	1.99
Moisture Content: %	8.9	10	12	14	17
Dry Density: Mg/m³	1.75	1.76	1.79	1.73	1.70



Maximum Dry Density (Mg/m³)	**1.79**
Optimum Moisture Content (%)	**12**

The stated result only relates to the item/location tested, this report shall not be reproduced except in full.
Where CMTL are not responsible for sampling, the sample is tested in an as received condition
Tested in accordance with BS 1377: Part 4:1990: Clause 3.5
Particle Density (Mg/m³) - 2.65 (Assumed)

CMTL Limited Approved Signature
Lydia Souch - Senior Laboratory Technician

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Coventry Laboratory
Unit 8 Hotchkiss Way
Binley Industrial
Estate Coventry
CV3 2RL

Report/ Revision No: 103340/CL-1964/1377-2-3.2/
Client Reference No: AN35-2 - 1M
Date of Issue: 20/09/2022

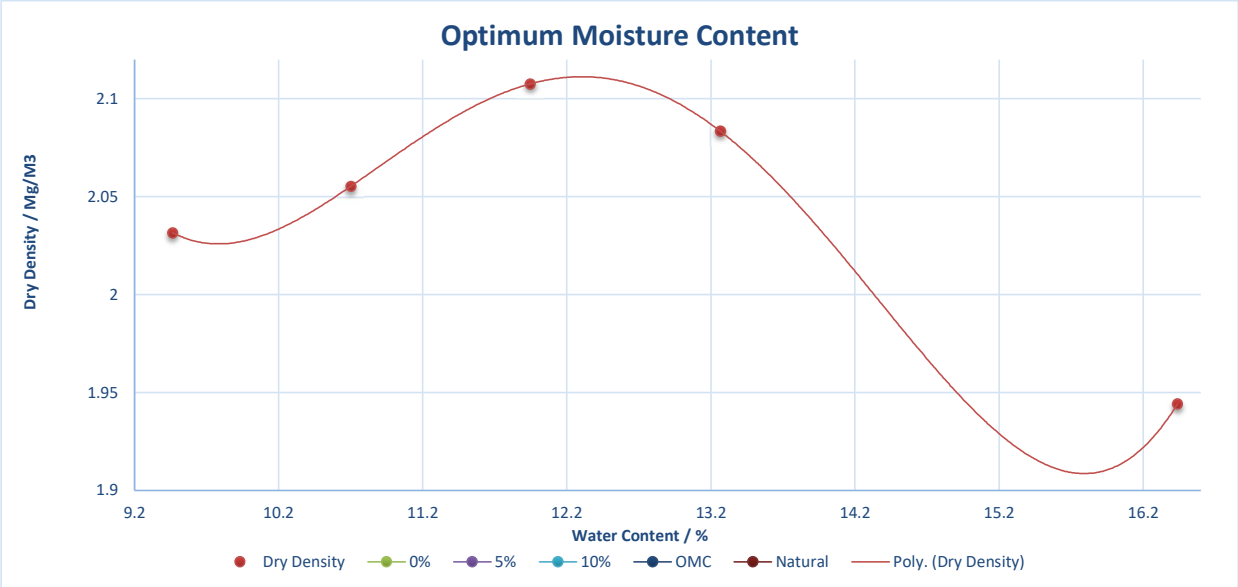
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	103340
Lab Test No	Not Applicable
Lab Sample No	CL-1964
Client Reference	AN35-2 - 1M
Date Sampled	Unknown
Date Received	19/08/2022
Date Tested	12/09/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	103340
Method of Preparation	Chopped down to 20mm
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Brown GRANULAR Material
Location	AN35-2 - 1M

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	12	%
Maximum Dry Density	2.11	Mg/m³
Particle Density	Not Applicable	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	11	%
Proportion of Sample Retained on 20mm Sieve	15	%



Observations

None

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5. Test Procedure: BS 1377:4:1990 Method: Clause 3.5 4.5kg Rammer, Five Layers, 27 Blows Chopped down to 20mm

Client: Celtest
Address: Trefelin
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Contact: Chantelle Kopec

Authorised:

James Caiger - Business Unit Manager South East

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Report/ Revision No: 103340/CL-1965/1377-2-3.2/
Client Reference No: AN36-1-0.5M
Date of Issue: 24/08/2022

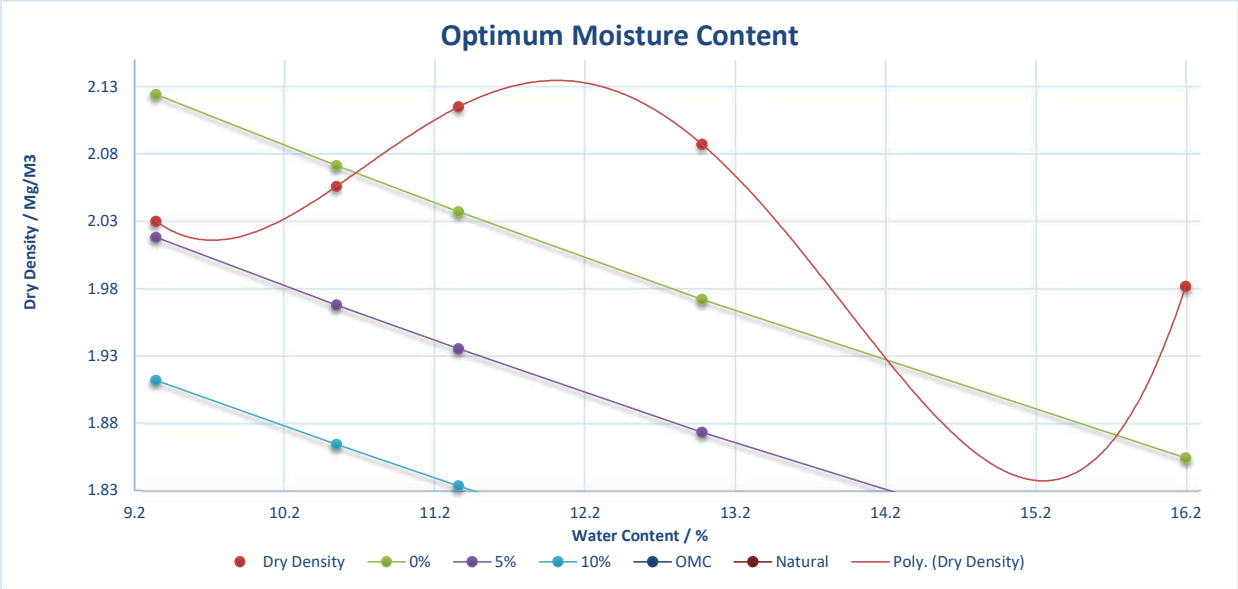
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	103340
Lab Test No	Not Applicable
Lab Sample No	CL-1965
Client Reference	AN36-1-0.5M
Date Sampled	Unknown
Date Received	19/08/2022
Date Tested	22/08/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	103340
Method of Preparation	Chopped down to 20mm
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Brown Crushed ROCK With Fines
Location	AN36-1-0.5M

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	12	%
Maximum Dry Density	2.13	Mg/m³
Particle Density	2.65	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	11	%
Proportion of Sample Retained on 20mm Sieve	14	%



Observations

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5. Test Procedure: BS 1377:4:1990 Method: Clause 3.5 4.5kg Rammer, Five Layers, 27 Blows Chopped down to 20mm

Client: Celtest
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Authorised:

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CONSTRUCTION MATERIALS TESTING LABORATORIES

Report/ Revision No: 103340/CL-1966/1377-2-3.2/
Client Reference No: AO36-1-0.5M
Date of Issue: 24/08/2022

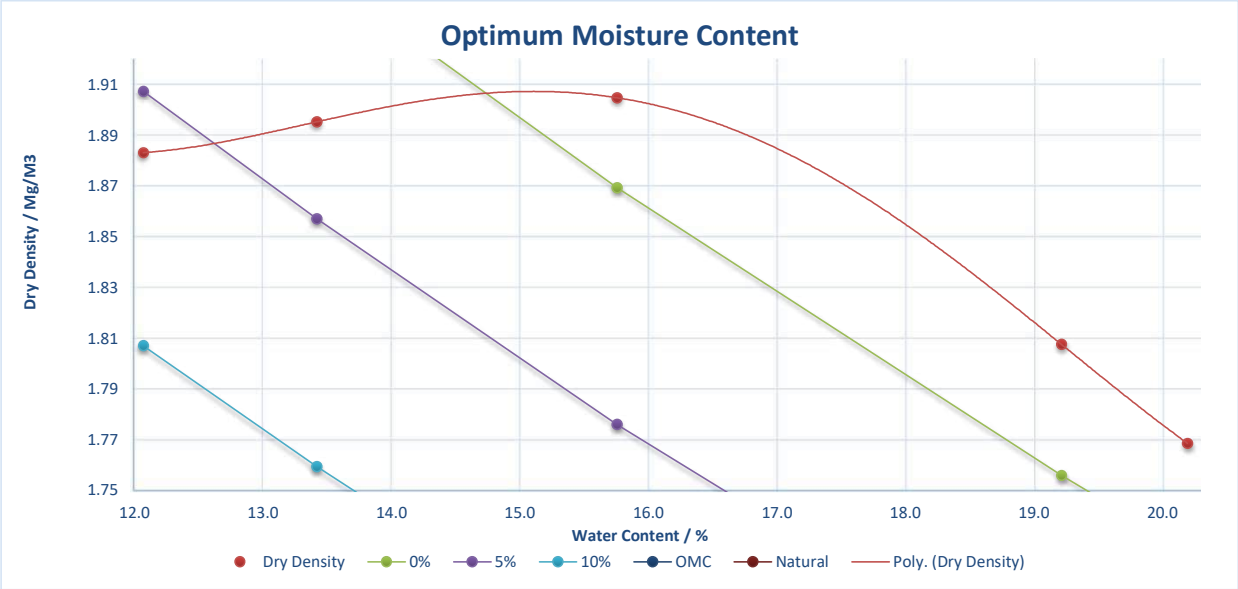
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	103340
Lab Test No	Not Applicable
Lab Sample No	CL-1966
Client Reference	AO36-1-0.5M
Date Sampled	Unknown
Date Received	19/08/2022
Date Tested	22/08/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	103340
Method of Preparation	Chopped down to 20mm
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Crushed ROCK With Clay And Fines
Location	AO36-1-0.5M

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	15	%
Maximum Dry Density	1.91	Mg/m³
Particle Density	2.65	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	3	%
Proportion of Sample Retained on 20mm Sieve	12	%



Observations

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5. Test Procedure: BS 1377:4:1990 Method: Clause 3.5 4.5kg Rammer, Five Layers, 27 Blows Chopped down to 20mm

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CONSTRUCTION MATERIALS TESTING LABORATORIES

Report/ Revision No: 103340/CL-1967/1377-2-3.2/
Client Reference No: AO37-1-0.3M
Date of Issue: 24/08/2022

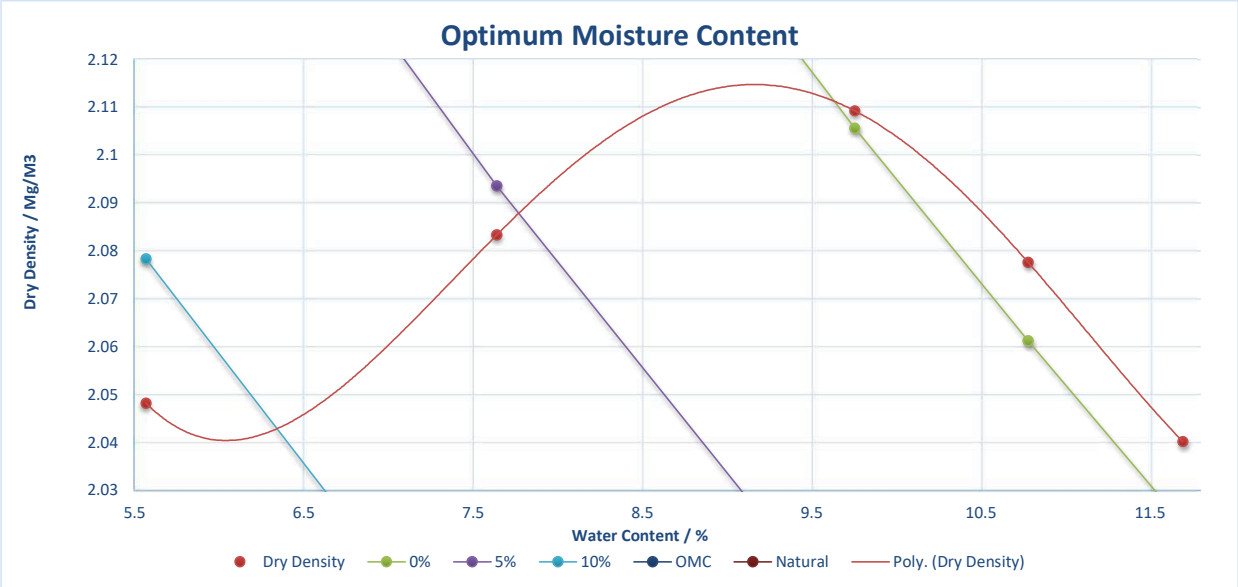
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	103340
Lab Test No	Not Applicable
Lab Sample No	CL-1967
Client Reference	AO37-1-0.3M
Date Sampled	Unknown
Date Received	19/08/2022
Date Tested	23/08/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	103340
Method of Preparation	Chopped down to 20mm
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specififed
Visual Description of Soil (BS 5930)	Crushed ROCK With Fines
Location	AO37-1-0.3M

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	9.2	%
Maximum Dry Density	2.11	Mg/m³
Particle Density	2.65	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	8	%
Proportion of Sample Retained on 20mm Sieve	5	%



Observations

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CONSTRUCTION MATERIALS TESTING LABORATORIES

Report/ Revision No: 103340/CL-1968/1377-2-3.2/
Client Reference No: AP34-1-0.4M
Date of Issue: 24/08/2022

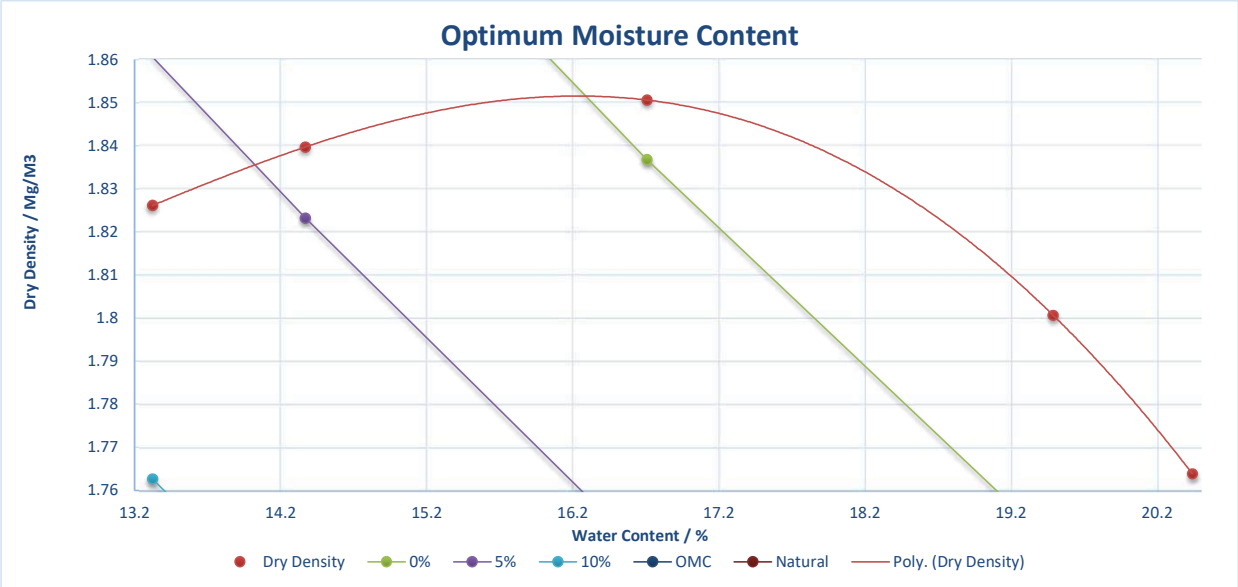
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	103340
Lab Test No	Not Applicable
Lab Sample No	CL-1968
Client Reference	AP34-1-0.4M
Date Sampled	Unknown
Date Received	19/08/2022
Date Tested	22/08/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	103340
Method of Preparation	Chopped down to 20mm
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Crushed ROCK With CLAY. With Some Fines
Location	AP34-1-0.4M

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	16	%
Maximum Dry Density	1.85	Mg/m³
Particle Density	2.65	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	27	%
Proportion of Sample Retained on 20mm Sieve	15	%



Observations

None

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5. Test Procedure: BS 1377:4:1990 Method: Clause 3.5 4.5kg Rammer, Five Layers, 27 Blows Chopped down to 20mm

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Report/ Revision No: 103340/CL-1969/1377-2-3.2/
Client Reference No: AP35-1-0.5M
Date of Issue: 24/08/2022

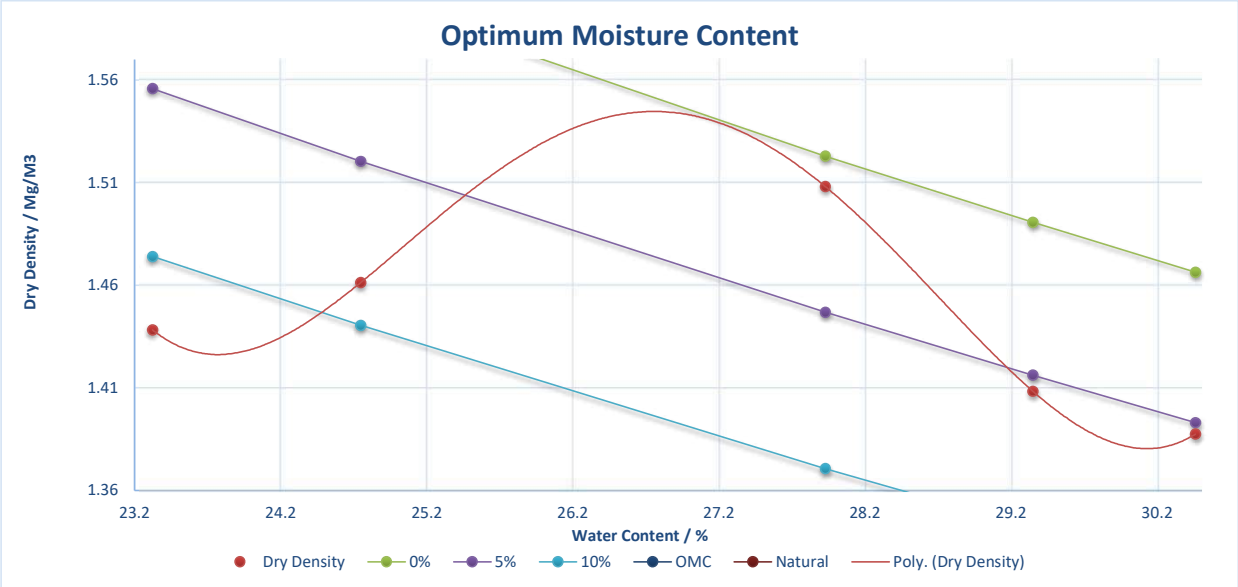
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	103340
Lab Test No	Not Applicable
Lab Sample No	CL-1969
Client Reference	AP35-1-0.5M
Date Sampled	Unknown
Date Received	19/08/2022
Date Tested	22/08/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	103340
Method of Preparation	Chopped down to 20mm
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specififed
Visual Description of Soil (BS 5930)	Black Crushed Slate & GRAVEL. With Clay And Fines
Location	AP35-1-0.5M

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	27	%
Maximum Dry Density	1.54	Mg/m³
Particle Density	2.65	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	8	%
Proportion of Sample Retained on 20mm Sieve	10	%



Observations

None

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5. Test Procedure: BS 1377:4:1990 Method: Clause 3.5 4.5kg Rammer, Five Layers, 27 Blows Chopped down to 20mm

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CONSTRUCTION MATERIALS TESTING LABORATORIES

Report/ Revision No: 103340/CL-1970/1377-2-3.2/
Client Reference No: AP36-2-1.5M
Date of Issue: 02/09/2022

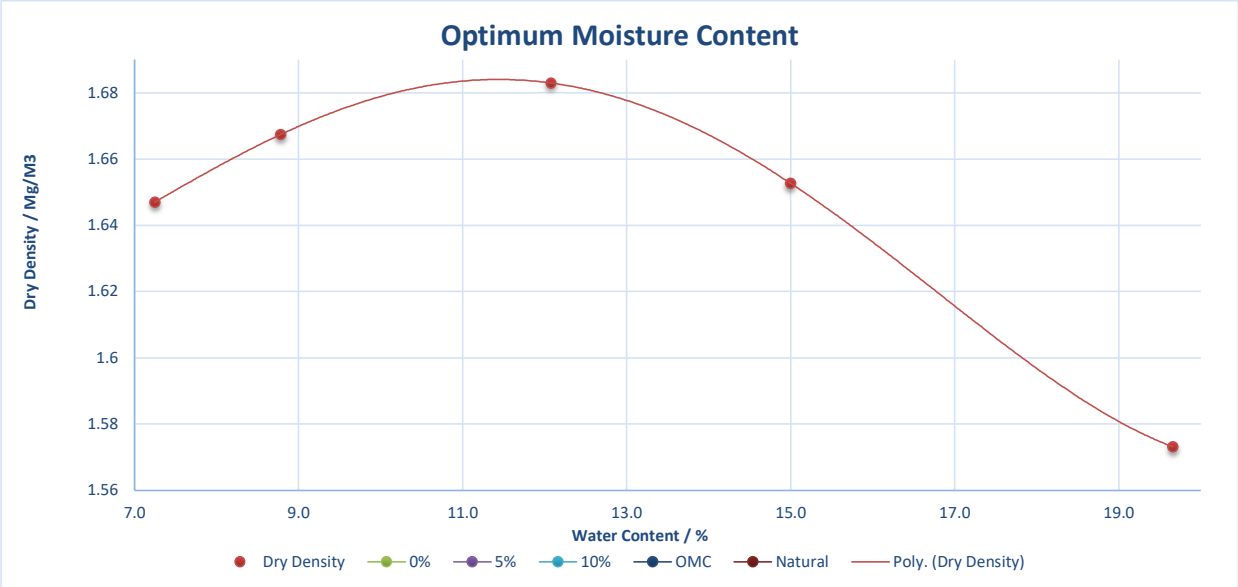
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	103340
Lab Test No	Not Applicable
Lab Sample No	CL-1970
Client Reference	AP36-2-1.5M
Date Sampled	Unknown
Date Received	19/08/2022
Date Tested	30/08/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	103340
Method of Preparation	Chopped down to 20mm
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Black Sandy Organic PEAT. With Crushed Brick / Gravel.
Location	AP36-2-1.5M

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	11	%
Maximum Dry Density	1.68	Mg/m³
Particle Density	Not Applicable.	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	3	%
Proportion of Sample Retained on 20mm Sieve	6	%



Observations

None

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Report/ Revision No: 103340/CL-1971/1377-2-3.2/
Client Reference No: AP37-1-0.2M
Date of Issue: 01/09/2022

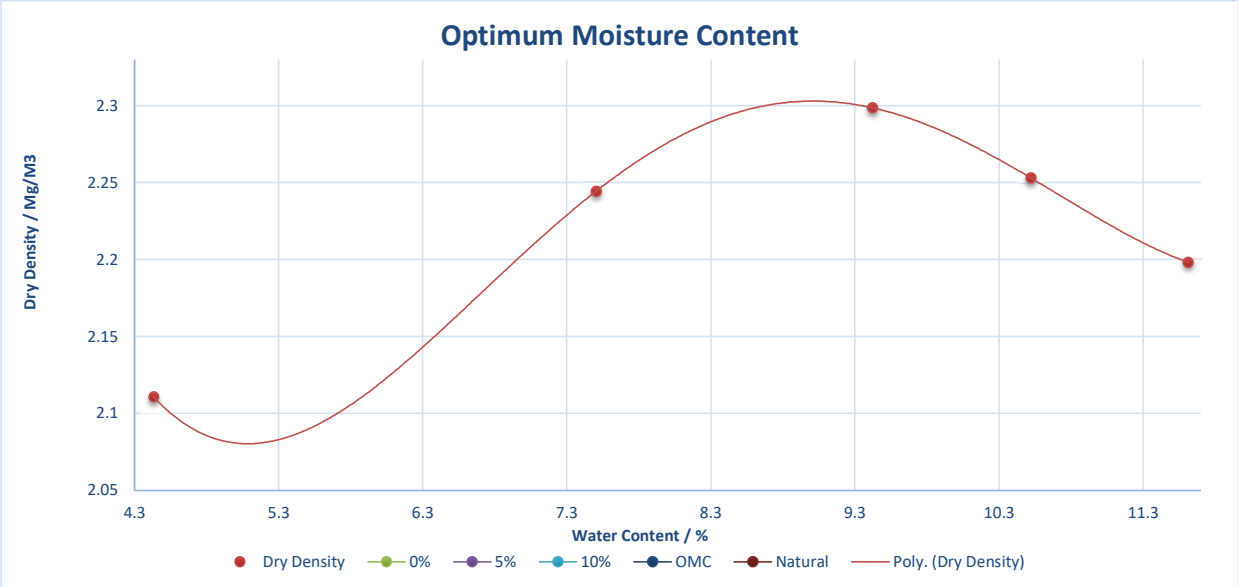
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	103340
Lab Test No	Not Applicable
Lab Sample No	CL-1971
Client Reference	AP37-1-0.2M
Date Sampled	Unknown
Date Received	19/08/2022
Date Tested	29/08/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	103340
Method of Preparation	Chopped down to 20mm
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Light Brown Crushed ROCK. With Fines
Location	AP37-1-0.2M

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	9.0	%
Maximum Dry Density	2.30	Mg/m³
Particle Density	Not Applicable	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	1	%
Proportion of Sample Retained on 20mm Sieve	6	%



Observations

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5. Test Procedure: BS 1377:4:1990 Method: Clause 3.5 4.5kg Rammer, Five Layers, 27 Blows Chopped down to 20mm

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Report/ Revision No: 103340/CL-1972/1377-2-3.2/
Client Reference No: AQ34-1-0.5M
Date of Issue: 09/09/2022

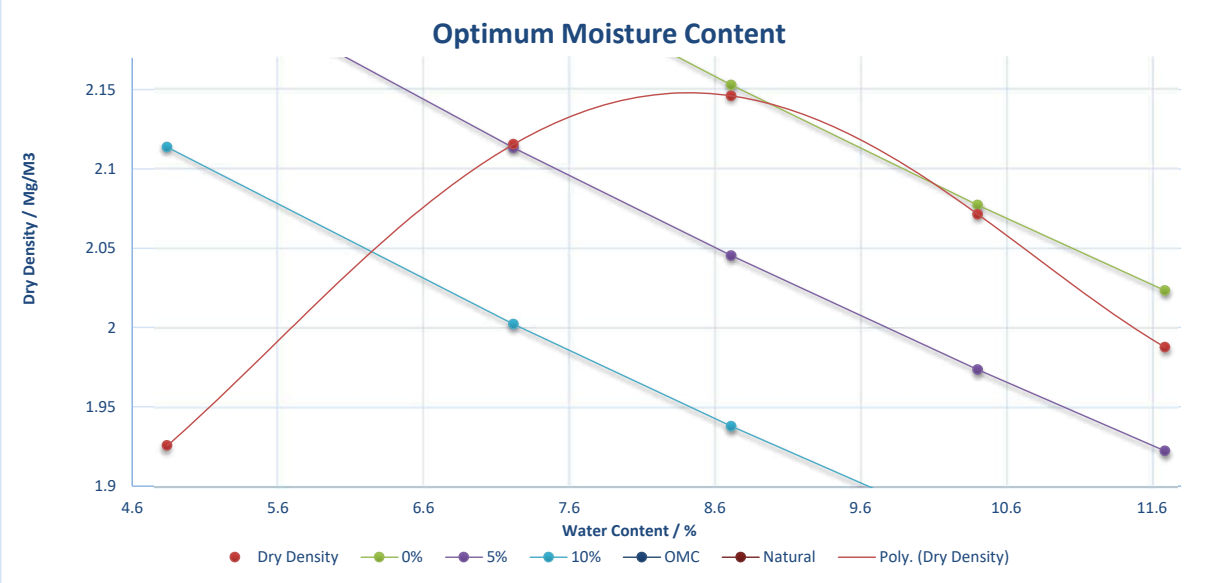
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	103340
Lab Test No	Not Applicable
Lab Sample No	CL-1972
Client Reference	AQ34-1-0.5M
Date Sampled	Unknown
Date Received	19/08/2022
Date Tested	31/08/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	103340
Method of Preparation	Chopped down to 20mm
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specifiefd
Visual Description of Soil (BS 5930)	Granular Material
Location	AQ34-1-0.5M

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	8.4	%
Maximum Dry Density	2.15	Mg/m³
Particle Density	2.65	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	2	%
Proportion of Sample Retained on 20mm Sieve	16	%



Observations

None

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5. Test Procedure: BS 1377:4:1990 Method: Clause 3.5 4.5kg Rammer, Five Layers, 27 Blows Chopped down to 20mm

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CONSTRUCTION MATERIALS TESTING LABORATORIES

Report/ Revision No: 103340/CL-1973/1377-2-3.2/
Client Reference No: AQ35-1-0.5M
Date of Issue: 23/09/2022

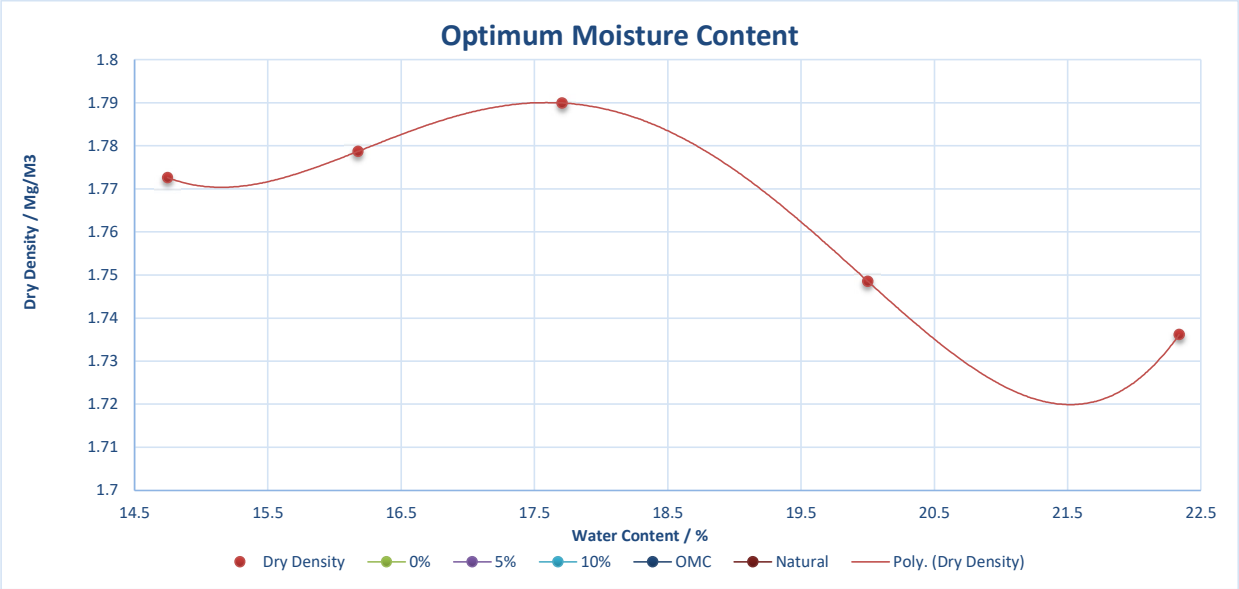
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	103340
Lab Test No	Not Applicable
Lab Sample No	CL-1973
Client Reference	AQ35-1-0.5M
Date Sampled	Unknown
Date Received	19/08/2022
Date Tested	12/09/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	103340
Method of Preparation	Chopped down to 20mm
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Grey Granular Material
Location	AQ35-1-0.5M

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	18	%
Maximum Dry Density	1.79	Mg/m³
Particle Density	Not Applicable	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	17	%
Proportion of Sample Retained on 20mm Sieve	31	%



Observations

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Report/ Revision No: 103340/CL1974/1377-2-3.2/
Client Reference No: AQ36-1-0.5M
Date of Issue: 23/09/2022

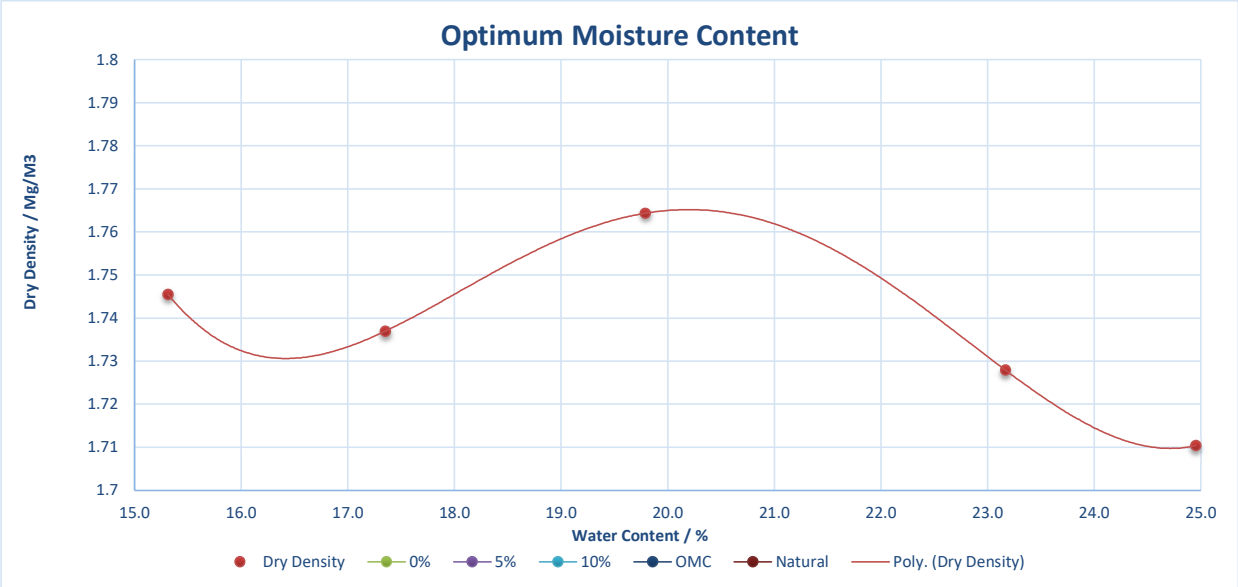
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	103340
Lab Test No	Not Applicable
Lab Sample No	CL1974
Client Reference	AQ36-1-0.5M
Date Sampled	Unknown
Date Received	19/08/2022
Date Tested	02/09/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	103340
Method of Preparation	Chopped down to 20mm
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specififed
Visual Description of Soil (BS 5930)	Grey Granular Material
Location	AQ36-1-0.5M

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	20	%
Maximum Dry Density	1.77	Mg/m³
Particle Density	Not Applicable	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	17	%
Proportion of Sample Retained on 20mm Sieve	31	%



Observations

None

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4. Opinions and interpretations, if stated, are not within the scope of our UKAS accreditation.
5. Test Procedure: BS 1377:4:1990 Method: Clause 3.5 4.5kg Rammer, Five Layers, 27 Blows Chopped down to 20mm

Client: Celtest
Address: Trefelin
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Contact: Chantelle Kopec

Authorised:

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Estate Coventry
CV3 2RL

CONSTRUCTION MATERIALS TESTING LABORATORIES

Report/ Revision No: 103340/CL-1975/1377-2-3.2/
Client Reference No: AQ37-1-0.8M
Date of Issue: 25/08/2022

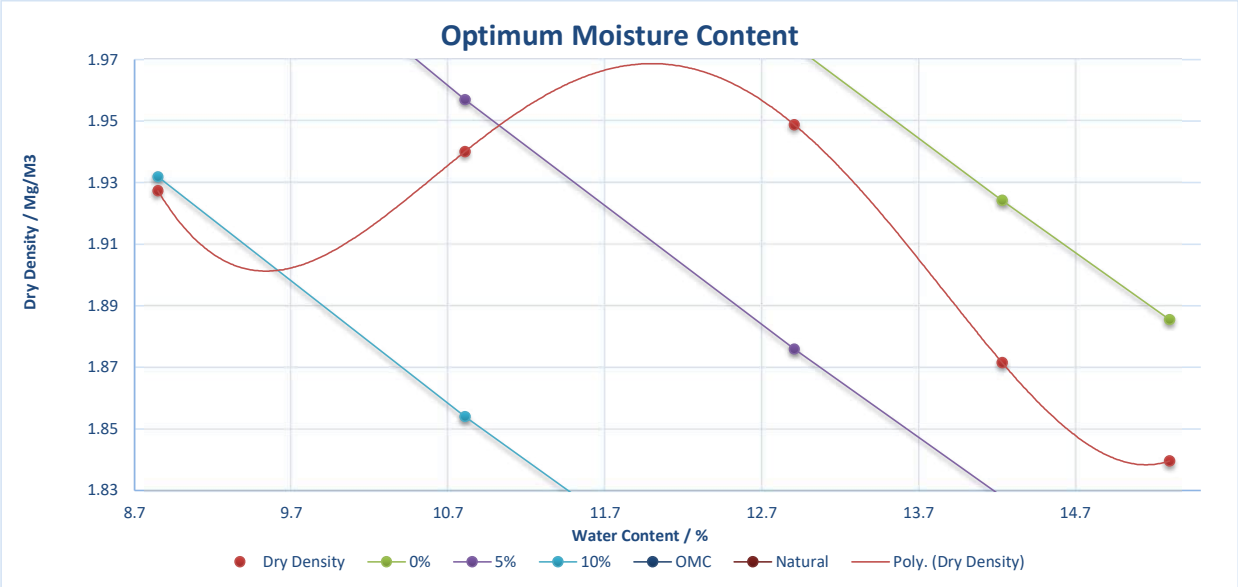
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	103340
Lab Test No	Not Applicable
Lab Sample No	CL-1975
Client Reference	AQ37-1-0.8M
Date Sampled	Unknown
Date Received	19/08/2022
Date Tested	23/08/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	103340
Method of Preparation	Chopped down to 20mm
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Brown Crushed ROCK. With Fines
Location	AQ37-1-0.8M

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	12	%
Maximum Dry Density	1.97	Mg/m³
Particle Density	2.65	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	11	%
Proportion of Sample Retained on 20mm Sieve	16	%



Observations

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5. Test Procedure: BS 1377:4:1990 Method: Clause 3.5 4.5kg Rammer, Five Layers, 27 Blows Chopped down to 20mm

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Report/ Revision No: 103340/CL-1976/1377-2-3.2/
Client Reference No: AR34-2-2M
Date of Issue: 20/09/2022

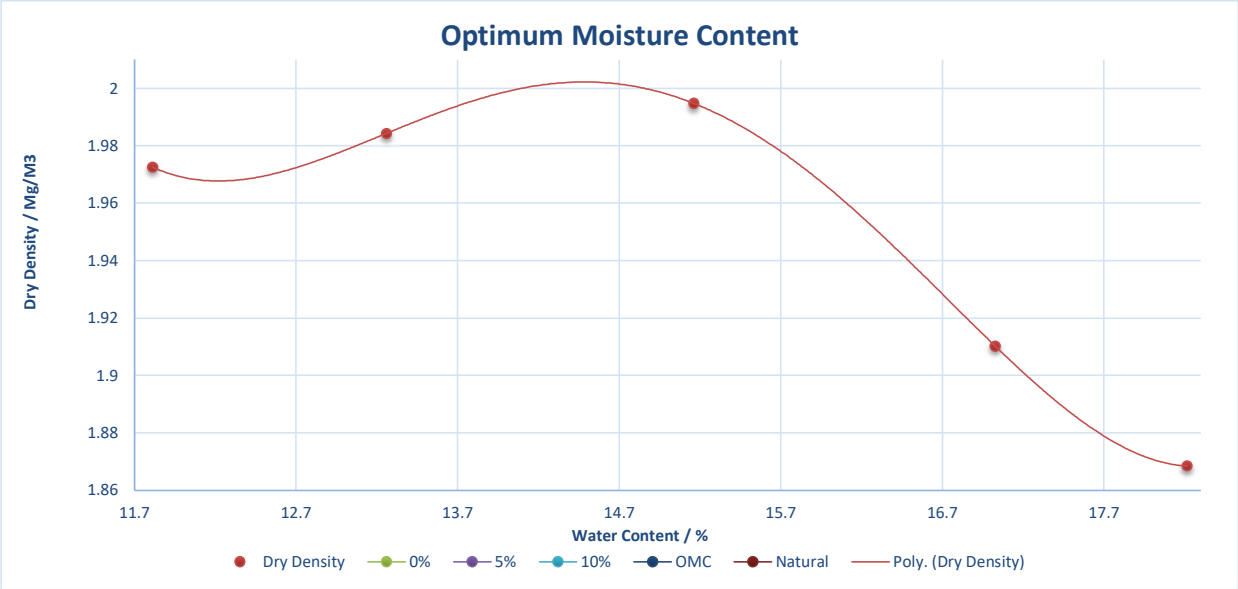
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	103340
Lab Test No	Not Applicable
Lab Sample No	CL-1976
Client Reference	AR34-2-2M
Date Sampled	Unknown
Date Received	19/08/2022
Date Tested	12/09/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	103340
Method of Preparation	Chopped down to 20mm
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Dark Brown GRANULAR Material
Location	AR34-2-2M

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	15	%
Maximum Dry Density	2.00	Mg/m³
Particle Density	Not Applicable	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	52	%
Proportion of Sample Retained on 20mm Sieve	15	%



Observations

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5. Test Procedure: BS 1377:4:1990 Method: Clause 3.5 4.5kg Rammer, Five Layers, 27 Blows Chopped down to 20mm

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CONSTRUCTION MATERIALS TESTING LABORATORIES

Report/ Revision No: 103340/CL-1977/1377-2-3.2/
Client Reference No: AR35-1-0.6M
Date of Issue: 25/08/2022

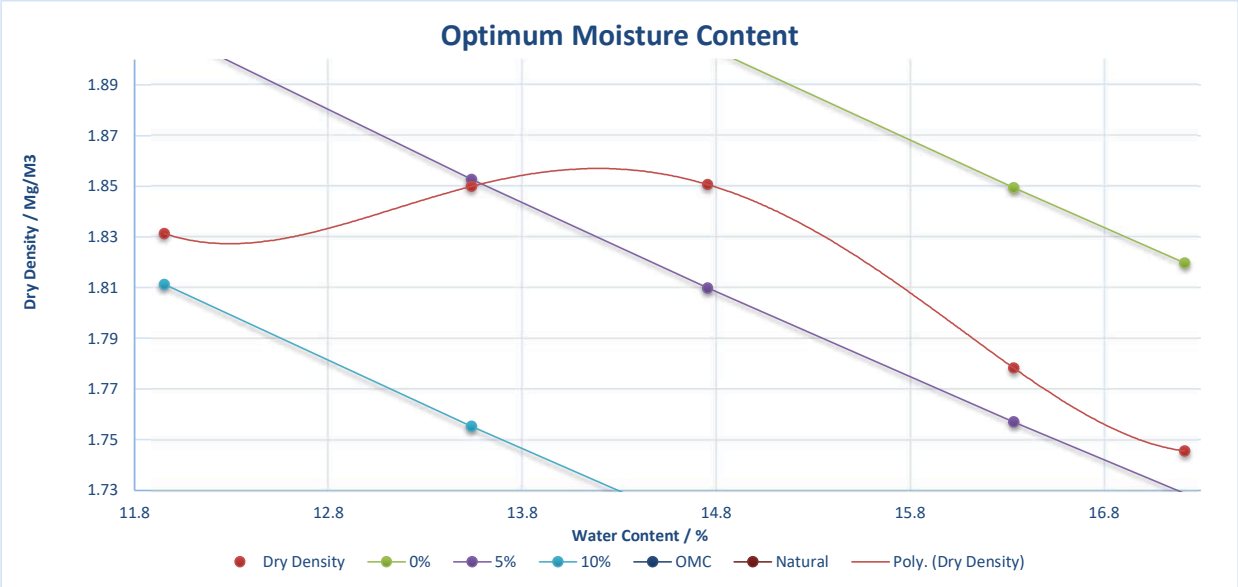
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	103340
Lab Test No	Not Applicable
Lab Sample No	CL-1977
Client Reference	AR35-1-0.6M
Date Sampled	Unknown
Date Received	19/08/2022
Date Tested	22/08/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	103340
Method of Preparation	Chopped down to 20mm
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specififed
Visual Description of Soil (BS 5930)	Black ROCK With Fines
Location	AR35-1-0.6M

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	14	%
Maximum Dry Density	1.86	Mg/m³
Particle Density	2.65	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	11	%
Proportion of Sample Retained on 20mm Sieve	16	%



Observations

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5. Test Procedure: BS 1377:4:1990 Method: Clause 3.5 4.5kg Rammer, Five Layers, 27 Blows Chopped down to 20mm

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CONSTRUCTION MATERIALS TESTING LABORATORIES

Report/ Revision No: 103340/CL-1978/1377-2-3.2/
Client Reference No: AR36-2-1.5M
Date of Issue: 26/08/2022

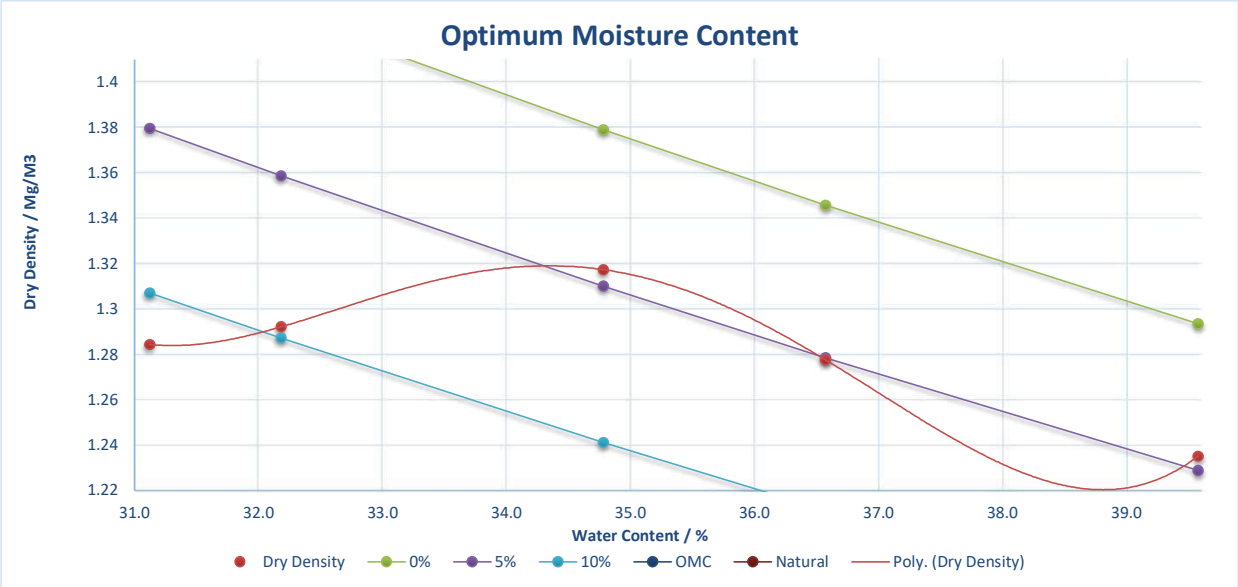
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	103340
Lab Test No	Not Applicable
Lab Sample No	CL-1978
Client Reference	AR36-2-1.5M
Date Sampled	Unknown
Date Received	19/08/2022
Date Tested	23/08/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	103340
Method of Preparation	Chopped down to 20mm
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Peaty Organic ROCK With Sandy Fines.
Location	AR36-2-1.5M

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	34	%
Maximum Dry Density	1.32	Mg/m³
Particle Density	2.65	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	3	%
Proportion of Sample Retained on 20mm Sieve	4	%



Observations

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Report/ Revision No: 103340/CL-1979/1377-2-3.2/
Client Reference No: AR37-2-0.4M
Date of Issue: 09/09/2022

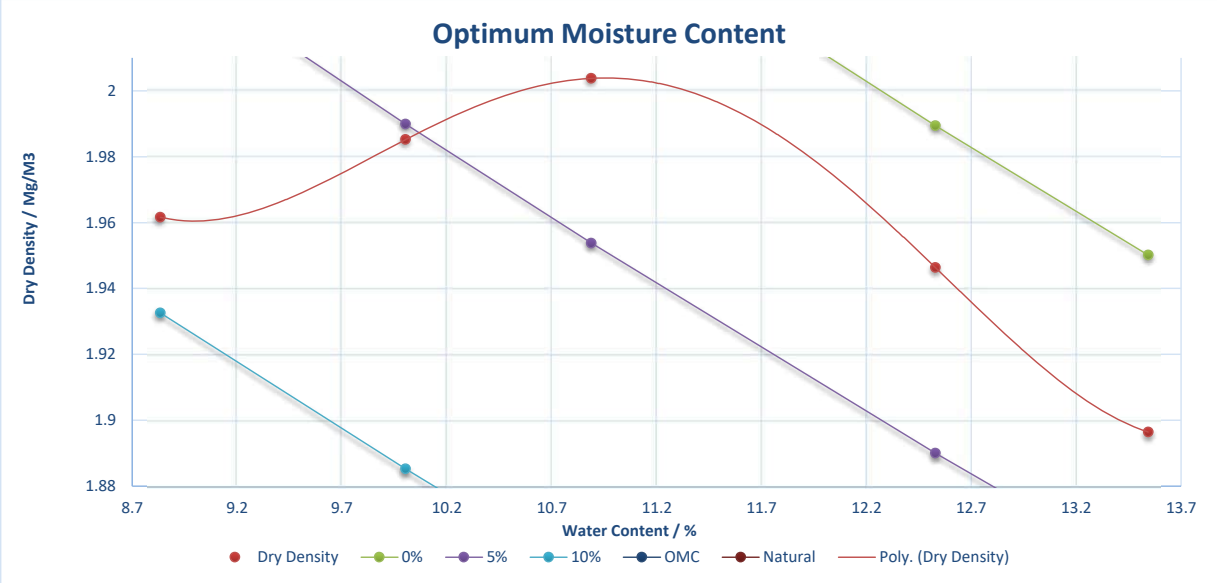
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	103340
Lab Test No	Not Applicable
Lab Sample No	CL-1979
Client Reference	AR37-2-0.4M
Date Sampled	31/05/2022
Date Received	19/08/2022
Date Tested	31/08/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	103340
Method of Preparation	Chopped down to 20mm
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specififed
Visual Description of Soil (BS 5930)	Granular material
Location	AR37-2-0.4M

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	11	%
Maximum Dry Density	2.00	Mg/m³
Particle Density	2.65	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	14	%
Proportion of Sample Retained on 20mm Sieve	21	%



Observations

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CONSTRUCTION MATERIALS TESTING LABORATORIES

Report/ Revision No: 103340/CL-1980/1377-2-3.2/
Client Reference No: AS34-1-0.4M
Date of Issue: 25/08/2022

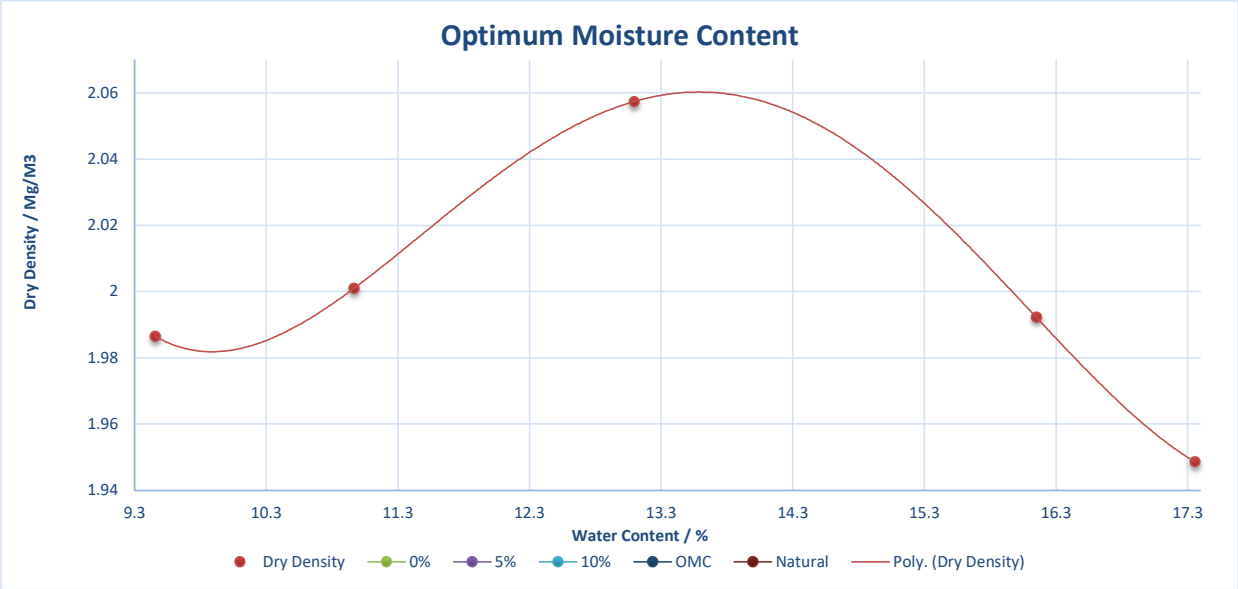
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	103340
Lab Test No	Not Applicable
Lab Sample No	CL-1980
Client Reference	AS34-1-0.4M
Date Sampled	Unknown
Date Received	19/08/2022
Date Tested	23/08/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	103340
Method of Preparation	Chopped down to 20mm
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Black Crushed Rock With Fines.
Location	AS34-1-0.4M

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	14	%
Maximum Dry Density	2.06	Mg/m³
Particle Density	N/A	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	18	%
Proportion of Sample Retained on 20mm Sieve	11	%



Observations

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CONSTRUCTION MATERIALS TESTING LABORATORIES

Report/ Revision No: 103340/CL-1981/1377-2-3.2/
Client Reference No: AS35-1-0.3M
Date of Issue: 25/08/2022

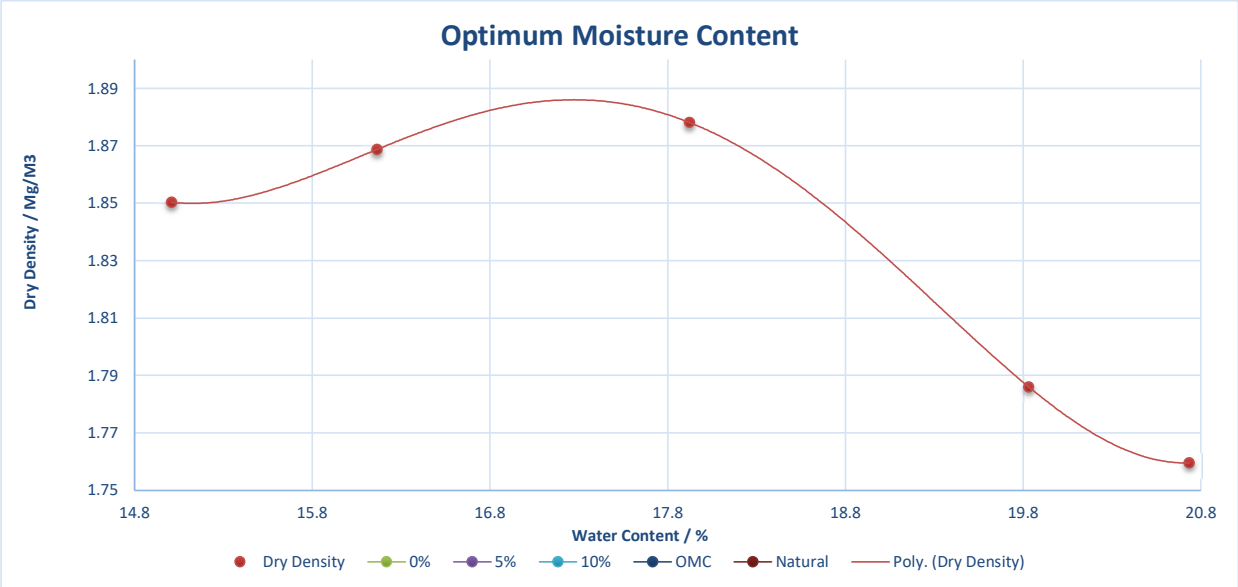
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	103340
Lab Test No	Not Applicable
Lab Sample No	CL-1981
Client Reference	AS35-1-0.3M
Date Sampled	Unknown
Date Received	19/08/2022
Date Tested	23/08/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	103340
Method of Preparation	Chopped down to 20mm
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Brown Crushed ROCK With Fines.
Location	AS35-1-0.3M

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	17	%
Maximum Dry Density	1.89	Mg/m³
Particle Density	N/A	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	30	%
Proportion of Sample Retained on 20mm Sieve	13	%



Observations

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Report/ Revision No: 103340/CL-1982/1377-2-3.2/
Client Reference No: AS36-1-1M
Date of Issue: 31/08/2022

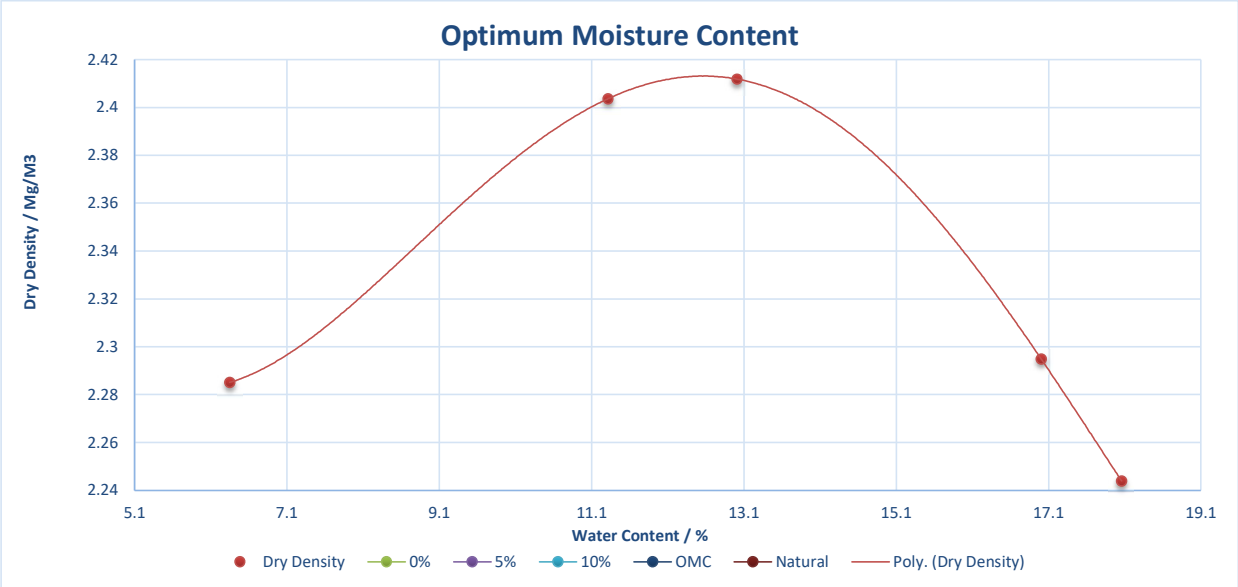
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	103340
Lab Test No	Not Applicable
Lab Sample No	CL-1982
Client Reference	AS36-1-1M
Date Sampled	Unknown
Date Received	19/08/2022
Date Tested	23/08/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	103340
Method of Preparation	Chopped Down to 20mm
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specififed
Visual Description of Soil (BS 5930)	Red Crushed GRAVEL. With Concrete And Fines.
Location	AS36-1-1M

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	13	%
Maximum Dry Density	2.41	Mg/m³
Particle Density	Not Applicable	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	6	%
Proportion of Sample Retained on 20mm Sieve	16	%



Observations

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5. Test Procedure: BS 1377:4:1990 Method: Clause 3.5 4.5kg Rammer, Five Layers, 27 Blows Chopped down to 20mm

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CONSTRUCTION MATERIALS TESTING LABORATORIES

Report/ Revision No: 103340/CL-1983/1377-2-3.2/
Client Reference No: AS37-2-2M
Date of Issue: 31/08/2022

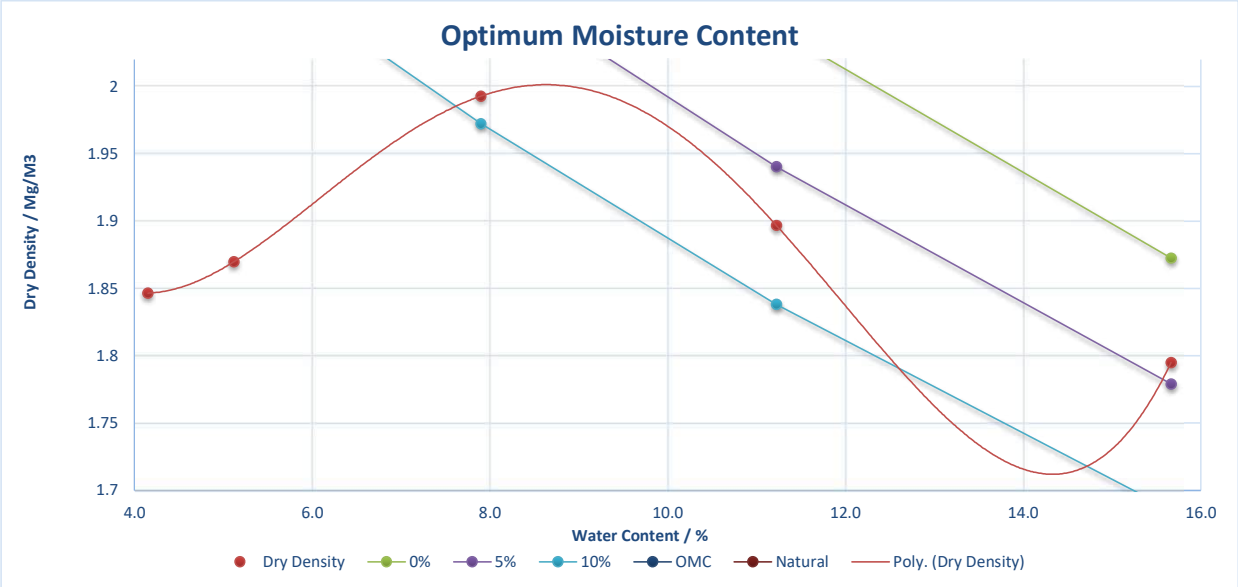
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	103340
Lab Test No	Not Applicable
Lab Sample No	CL-1983
Client Reference	AS37-2-2M
Date Sampled	Unknown
Date Received	19/08/2022
Date Tested	23/08/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	103340
Method of Preparation	Chopped down to 20mm
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Crushed Gravel With some Fines.
Location	AS37-2-2M

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	8.6	%
Maximum Dry Density	2.00	Mg/m³
Particle Density	2.65	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	5	%
Proportion of Sample Retained on 20mm Sieve	16	%



Observations

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5. Test Procedure: BS 1377:4:1990 Method: Clause 3.5 4.5kg Rammer, Five Layers, 27 Blows Chopped down to 20mm

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CONSTRUCTION MATERIALS TESTING LABORATORIES

Report/ Revision No: 103340/CL-1985/1377-2-3.2/
Client Reference No: AT35-1-0.5M
Date of Issue: 31/08/2022

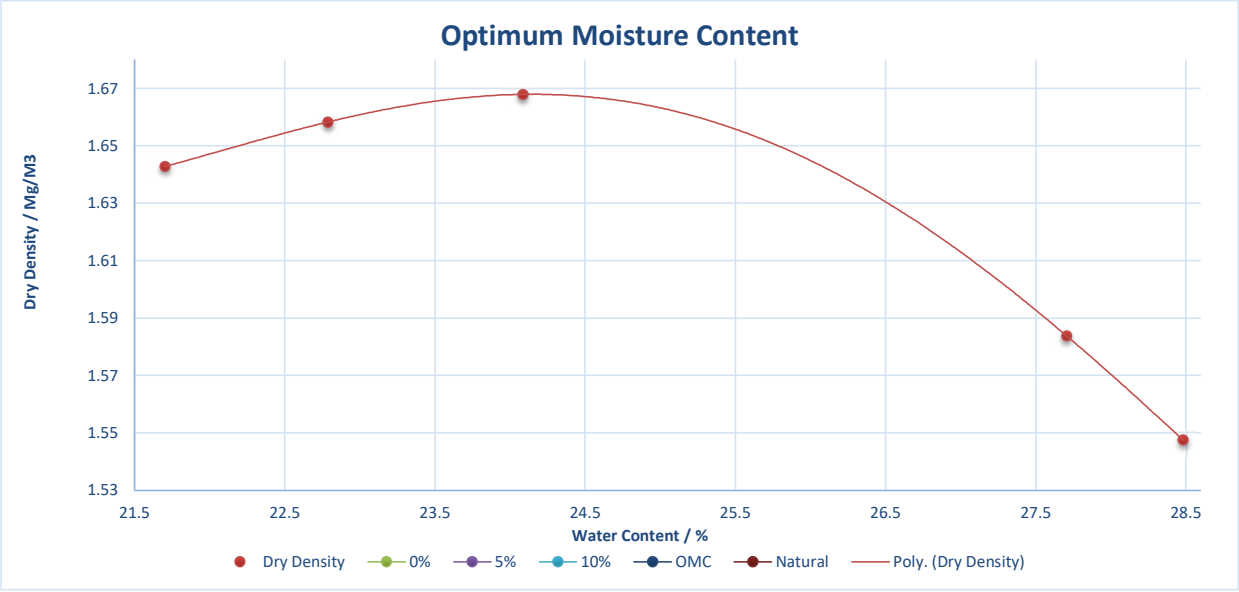
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	103340
Lab Test No	Not Applicable
Lab Sample No	CL-1985
Client Reference	AT35-1-0.5M
Date Sampled	Unknown
Date Received	19/08/2022
Date Tested	23/08/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	103340
Method of Preparation	Chopped down to 20mm
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Brown, Crushed GRAVEL. With Fines.
Location	AT35-1-0.5M

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	24	%
Maximum Dry Density	1.67	Mg/m³
Particle Density	Not Applicable	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	5	%
Proportion of Sample Retained on 20mm Sieve	19	%



Observations

None

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CONSTRUCTION MATERIALS TESTING LABORATORIES

Report/ Revision No: 103340/CL-1986/1377-2-3.2/
Client Reference No: AT36-2-1.8M
Date of Issue: 23/09/2022

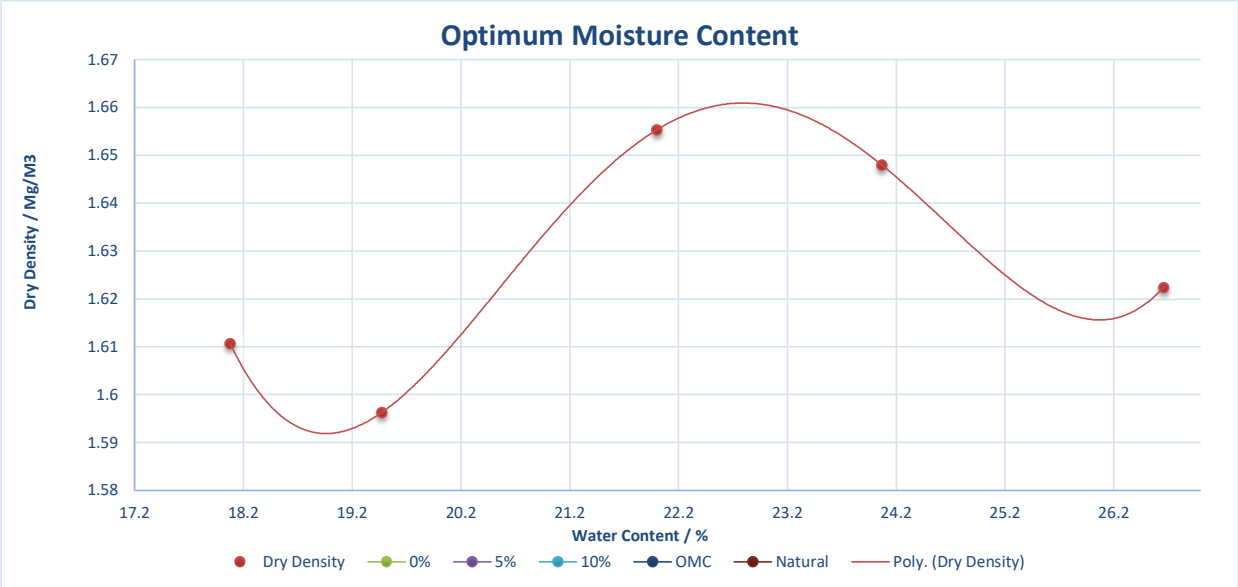
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	103340
Lab Test No	Not Applicable
Lab Sample No	CL-1986
Client Reference	AT36-2-1.8M
Date Sampled	Unknown
Date Received	19/08/2022
Date Tested	23/08/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	103340
Method of Preparation	Chopped down to 20mm
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Secififed
Visual Description of Soil (BS 5930)	Reddy Brown Granular Material
Location	AT36-2-1.8M

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	23	%
Maximum Dry Density	1.66	Mg/m³
Particle Density	Not Applicable	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	46	%
Proportion of Sample Retained on 20mm Sieve	15	%



Observations

None

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4. Opinions and interpretations, if stated, are not within the scope of our UKAS accreditation.
5. Test Procedure: BS 1377:4:1990 Method: Clause 3.5 4.5kg Rammer, Five Layers, 27 Blows Chopped down to 20mm

Client: Celtest
Address: Trefelin
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Contact: Chantelle Kopec

Authorised:

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Coventry Laboratory
Unit 8 Hotchkiss Way
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CONSTRUCTION MATERIALS TESTING LABORATORIES

Report/ Revision No: 103340/CL-1987/1377-2-3.2/
Client Reference No: AT37-1-0.8M
Date of Issue: 02/09/2022

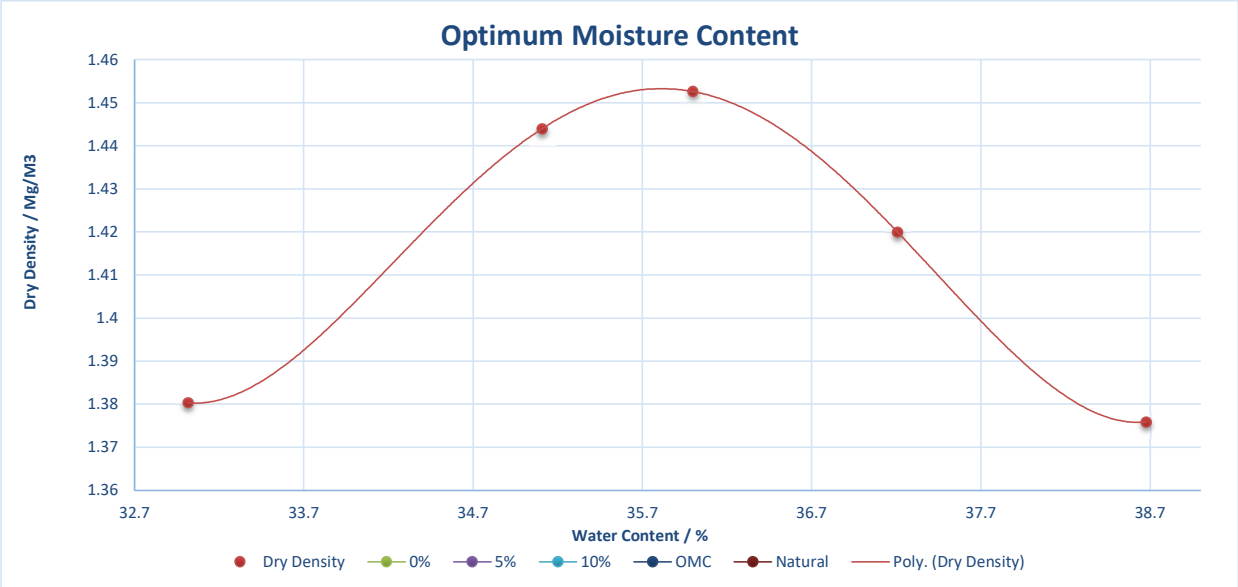
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	103340
Lab Test No	Not Applicable
Lab Sample No	CL-1987
Client Reference	AT37-1-0.8M
Date Sampled	Unknown
Date Received	19/08/2022
Date Tested	30/08/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	103340
Method of Preparation	Chopped Down to 20mm
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Crushed Fine GRAVEL. With Fines.
Location	AT37-1-0.8M

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	36	%
Maximum Dry Density	1.45	Mg/m³
Particle Density	Not Applicable.	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	7	%
Proportion of Sample Retained on 20mm Sieve	30	%



Observations

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5. Test Procedure: BS 1377:4:1990 Method: Clause 3.5 4.5kg Rammer, Five Layers, 27 Blows Chopped down to 20mm

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CONSTRUCTION MATERIALS TESTING LABORATORIES

Report/ Revision No: 103340/CL-1989/1377-2-3.2/
Client Reference No: AU35-2-1.5M
Date of Issue: 31/08/2022

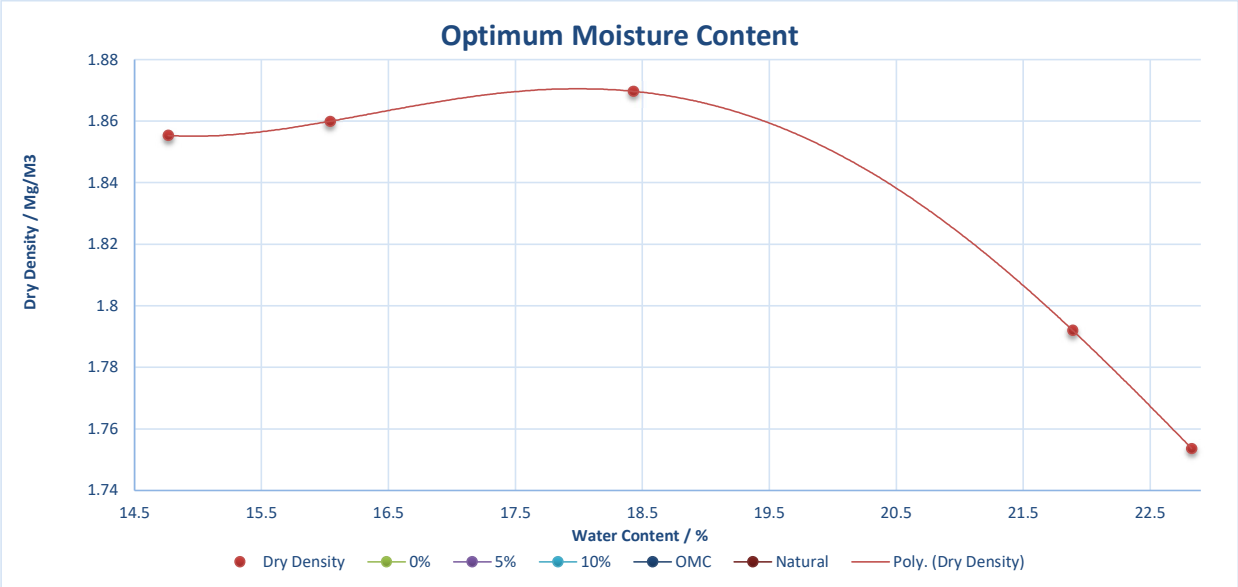
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	103340
Lab Test No	Not Applicable
Lab Sample No	CL-1989
Client Reference	AU35-2-1.5M
Date Sampled	Unknown
Date Received	19/08/2022
Date Tested	24/08/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	103340
Method of Preparation	Chopped down to 20mm
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specififed
Visual Description of Soil (BS 5930)	Brown / Red Crushed GRAVEL. With Fines
Location	AU35-2-1.5M

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	18	%
Maximum Dry Density	1.87	Mg/m³
Particle Density	0.00	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	21	%
Proportion of Sample Retained on 20mm Sieve	12	%



Observations

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5. Test Procedure: BS 1377:4:1990 Method: Clause 3.5 4.5kg Rammer, Five Layers, 27 Blows Chopped down to 20mm

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CONSTRUCTION MATERIALS TESTING LABORATORIES

Report/ Revision No: 103340/CL-1990/1377-2-3.2/
Client Reference No: AU36-2-1.3M
Date of Issue: 20/09/2022

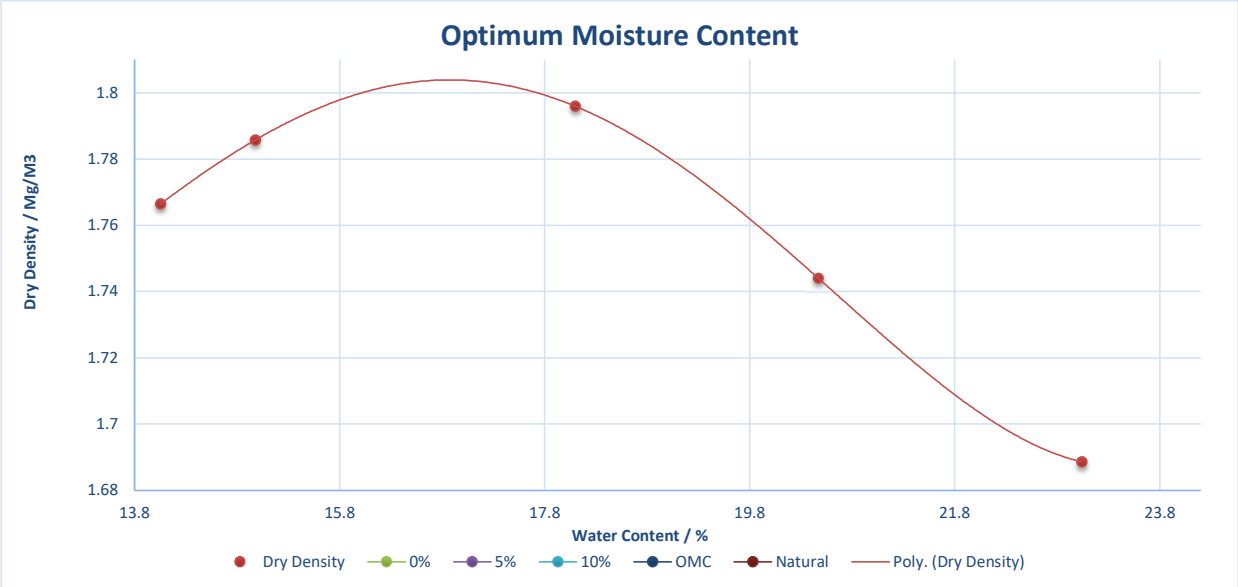
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	103340
Lab Test No	Not Applicable
Lab Sample No	CL-1990
Client Reference	AU36-2-1.3M
Date Sampled	Unknown
Date Received	19/08/2022
Date Tested	13/09/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	103340
Method of Preparation	Chopped down to 20mm
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Brown GRANULAR Material. With Fines
Location	AU36-2-1.3M

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	17	%
Maximum Dry Density	1.80	Mg/m³
Particle Density	Not Applicable	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	21	%
Proportion of Sample Retained on 20mm Sieve	14	%



Observations

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Report/ Revision No: 103340/CL-1991/1377-2-3.2/
Client Reference No: AU37-1-0.8M
Date of Issue: 20/09/2022

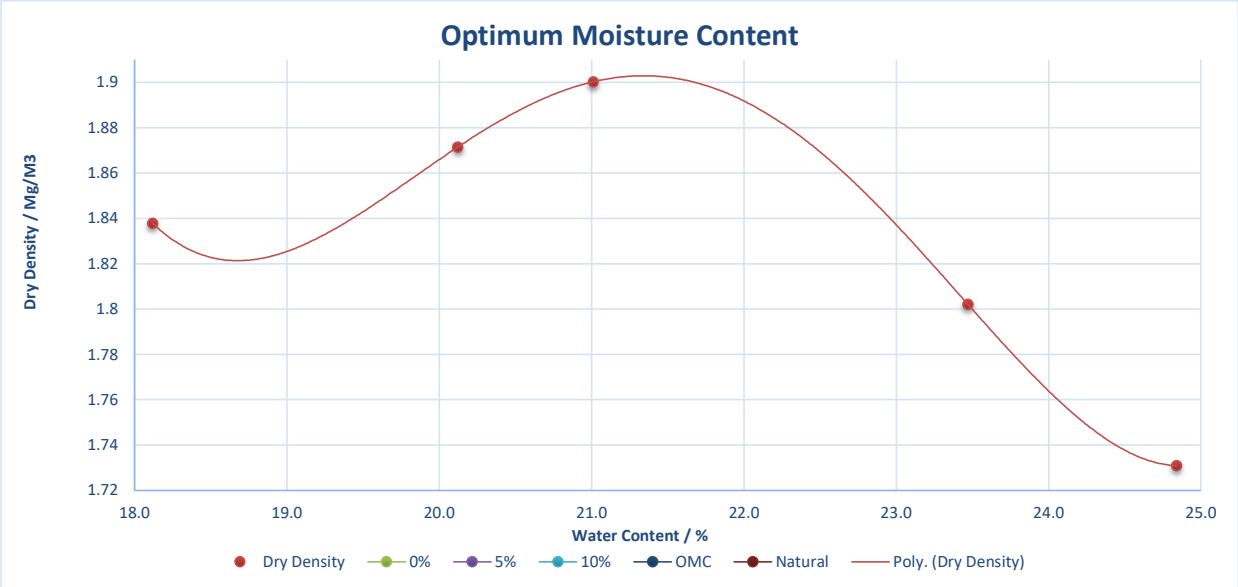
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	103340
Lab Test No	Not Applicable
Lab Sample No	CL-1991
Client Reference	AU37-1-0.8M
Date Sampled	Unknown
Date Received	19/08/2022
Date Tested	13/09/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	103340
Method of Preparation	Chopped down to 20mm
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Grey GRANULAR Material
Location	AU37-1-0.8M

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	21	%
Maximum Dry Density	1.90	Mg/m³
Particle Density	Not Applicable	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	44	%
Proportion of Sample Retained on 20mm Sieve	16	%



Observations

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Report/ Revision No: 103340/CL-1992/1377-2-3.2/
Client Reference No: AV34-2-1.8M
Date of Issue: 09/09/2022

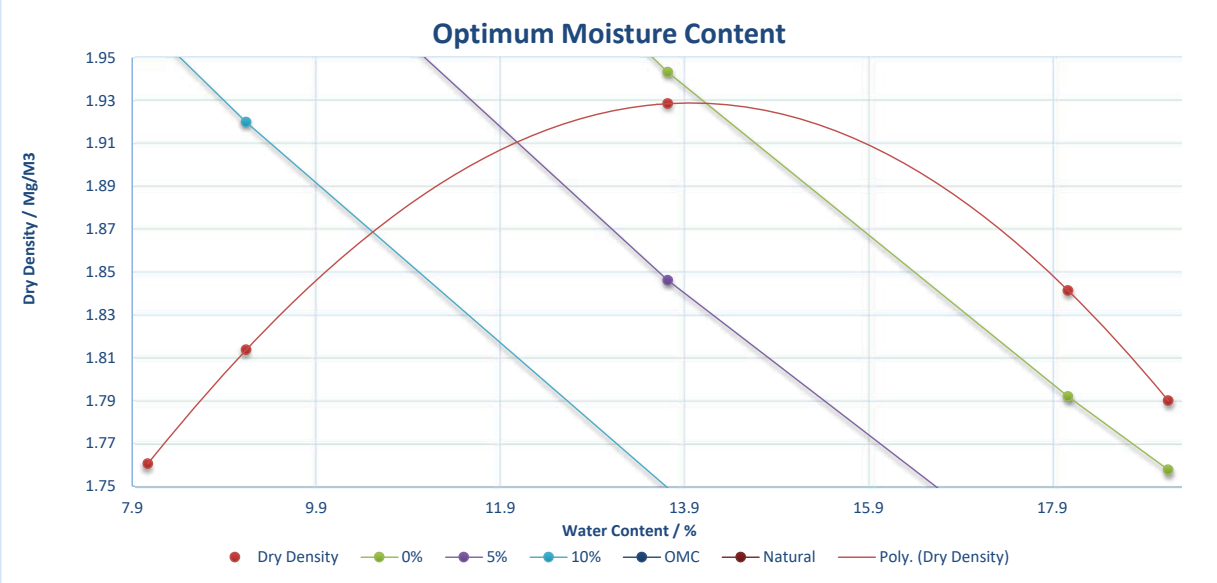
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	103340
Lab Test No	Not Applicable
Lab Sample No	CL-1992
Client Reference	AV34-2-1.8M
Date Sampled	Unknown
Date Received	19/08/2022
Date Tested	24/08/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	103340
Method of Preparation	Chopped down to 20mm
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Granular Material
Location	AV34-2-1.8M

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	14	%
Maximum Dry Density	1.93	Mg/m³
Particle Density	2.65	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	23	%
Proportion of Sample Retained on 20mm Sieve	20	%



Observations

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5. Test Procedure: BS 1377:4:1990 Method: Clause 3.5 4.5kg Rammer, Five Layers, 27 Blows Chopped down to 20mm

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CONSTRUCTION MATERIALS TESTING LABORATORIES

Report/ Revision No: 103340/CL1995/1377-2-3.2/
Client Reference No: AV37-1-0.50M
Date of Issue: 23/09/2022

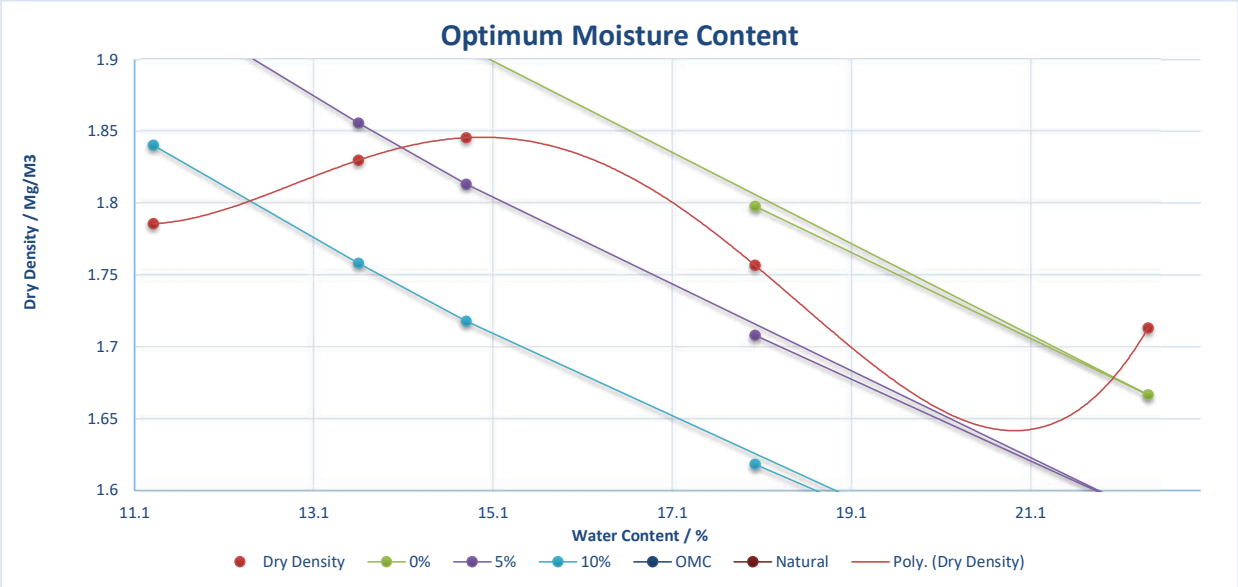
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	103340
Lab Test No	Not Applicable
Lab Sample No	CL1995
Client Reference	AV37-1-0.50M
Date Sampled	Unknown
Date Received	19/08/2022
Date Tested	24/08/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	103340
Method of Preparation	Chopped down to 20mm
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Brown Granular Material.
Location	AV37-1-0.50M

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	15	%
Maximum Dry Density	1.85	Mg/m³
Particle Density	2.66	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	40	%
Proportion of Sample Retained on 20mm Sieve	16	%



Observations

None

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CONSTRUCTION MATERIALS TESTING LABORATORIES

Report/ Revision No: 103340/CL-1996/1377-2-3.2/
Client Reference No: AW34-1-1.00M
Date of Issue: 23/09/2022

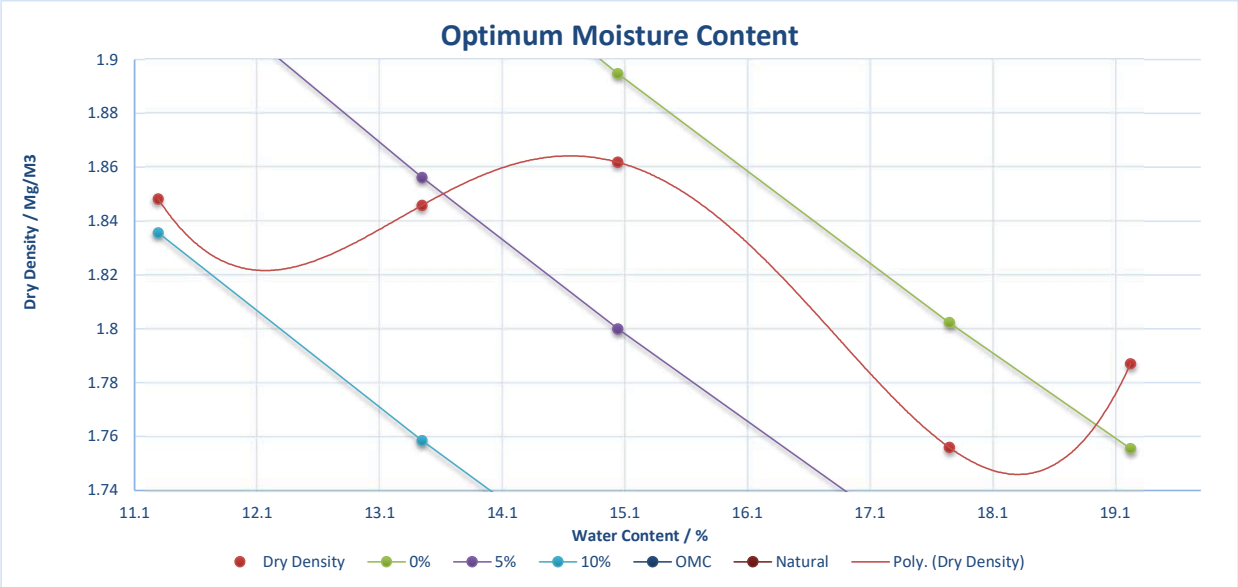
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	103340
Lab Test No	Not Applicable
Lab Sample No	CL-1996
Client Reference	AW34-1-1.00M
Date Sampled	Unknown
Date Received	19/08/2022
Date Tested	24/08/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	103340
Method of Preparation	Chopped down to 20mm
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Brown Granular Material.
Location	AW34-1-1.00M

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	15	%
Maximum Dry Density	1.86	Mg/m³
Particle Density	2.65	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	32	%
Proportion of Sample Retained on 20mm Sieve	21	%



Observations

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Report/ Revision No: 103340/CL-1998/1377-2-3.2/
Client Reference No: AW36-2-1.60M
Date of Issue: 09/09/2022

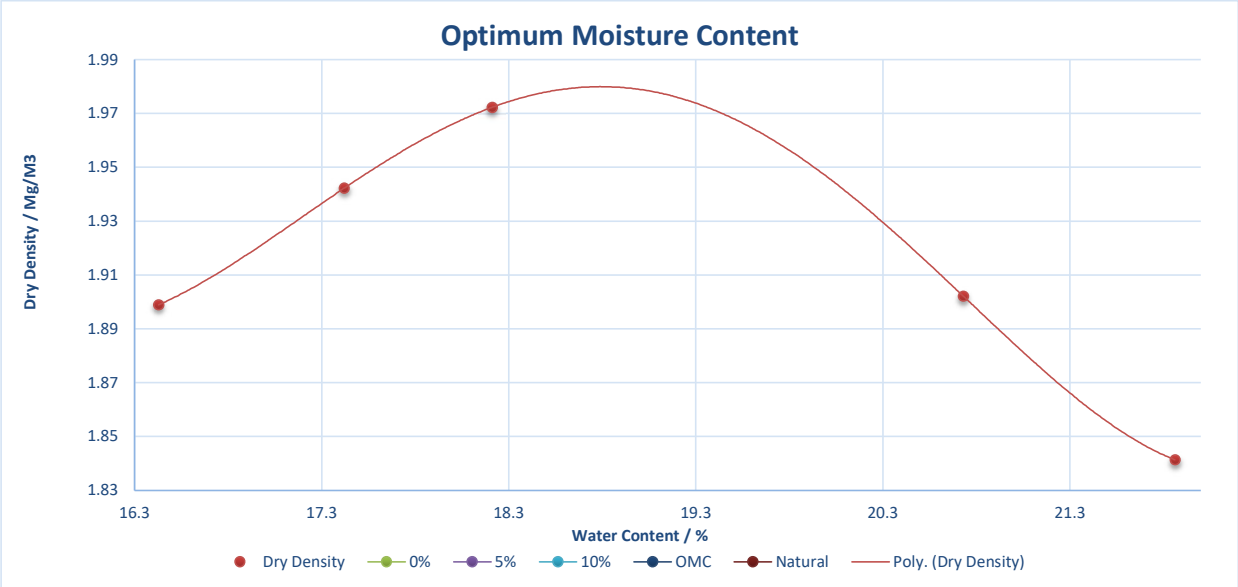
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	103340
Lab Test No	Not Applicable
Lab Sample No	CL-1998
Client Reference	AW36-2-1.60M
Date Sampled	Unknown
Date Received	19/08/2022
Date Tested	24/08/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	103340
Method of Preparation	Chopped down to 20mm
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specififed
Visual Description of Soil (BS 5930)	Brown GRANULAR material
Location	AW36-2-1.60M

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	19	%
Maximum Dry Density	1.98	Mg/m³
Particle Density	Not Applicable	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	27	%
Proportion of Sample Retained on 20mm Sieve	15	%



Observations

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CONSTRUCTION MATERIALS TESTING LABORATORIES

Report/ Revision No: 103340/CL-2000/1377-2-3.2/
Client Reference No: AX34-1-0.7M
Date of Issue: 23/09/2022

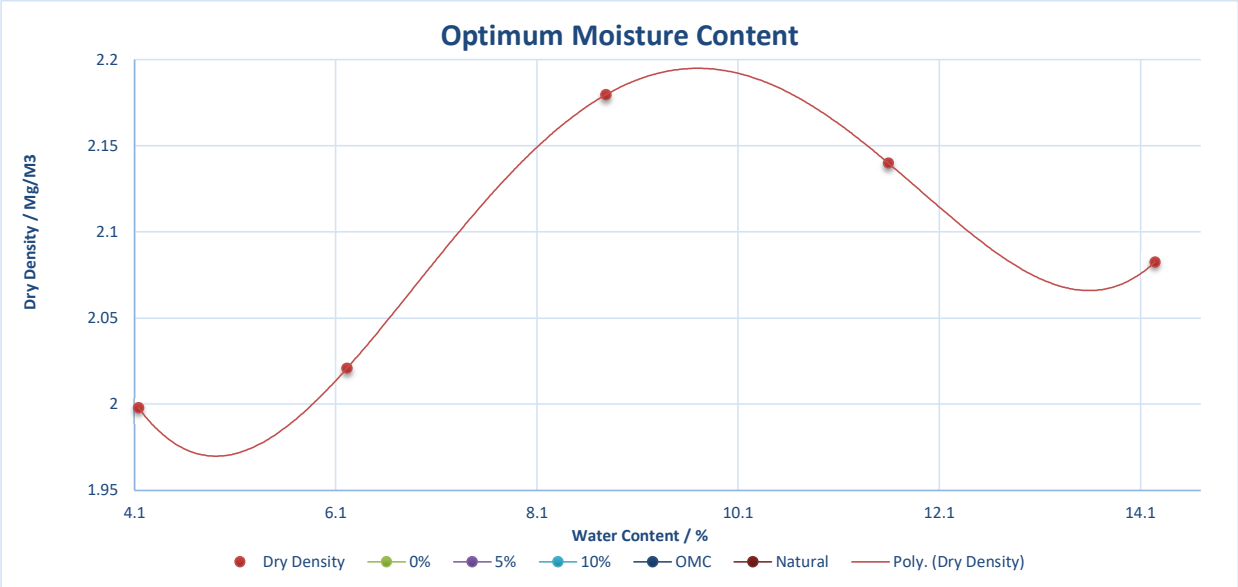
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	103340
Lab Test No	Not Applicable
Lab Sample No	CL-2000
Client Reference	AX34-1-0.7M
Date Sampled	Unknown
Date Received	19/08/2022
Date Tested	25/08/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	103340
Method of Preparation	Chopped down to 20mm
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Red Granular Material
Location	AX34-1-0.7M

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	9.7	%
Maximum Dry Density	2.19	Mg/m³
Particle Density	Not Applicable	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	54	%
Proportion of Sample Retained on 20mm Sieve	24	%



Observations

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Report/ Revision No: 103340/CL-2002/1377-2-3.2/
Client Reference No: AX36-2-1.5M
Date of Issue: 20/09/2022

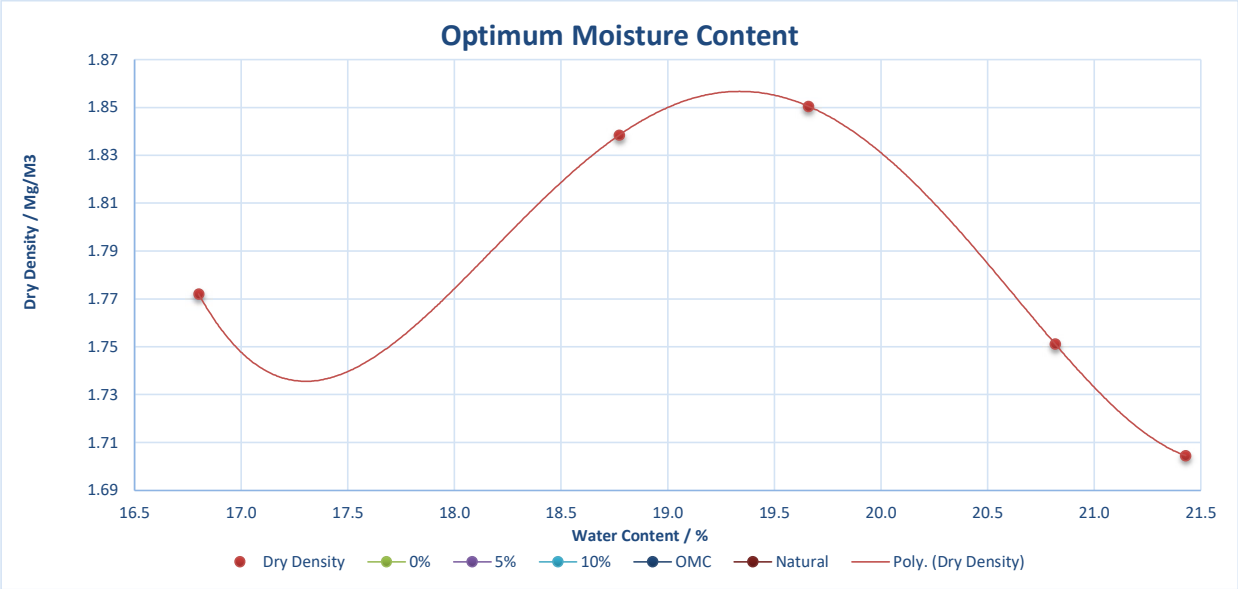
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	103340
Lab Test No	Not Applicable
Lab Sample No	CL-2002
Client Reference	AX36-2-1.5M
Date Sampled	Unknown
Date Received	19/08/2022
Date Tested	12/09/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	103340
Method of Preparation	Chopped down to 20mm
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Brown GRANULAR Material
Location	AX36-2-1.5M

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	19	%
Maximum Dry Density	1.86	Mg/m³
Particle Density	Not Applicable	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	18	%
Proportion of Sample Retained on 20mm Sieve	20	%



Observations

None

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Client: Celtest
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LL57 4LH
Contact: Chantelle Kopec

Authorised:

James Caiger - Business Unit Manager South East

1740

Coventry Laboratory
Unit 8 Hotchkiss Way
Binley Industrial
Estate Coventry
CV3 2RL

Report/ Revision No: 103340/CL-2003/1377-2-3.2/
Client Reference No: AX37-1.00M
Date of Issue: 20/09/2022

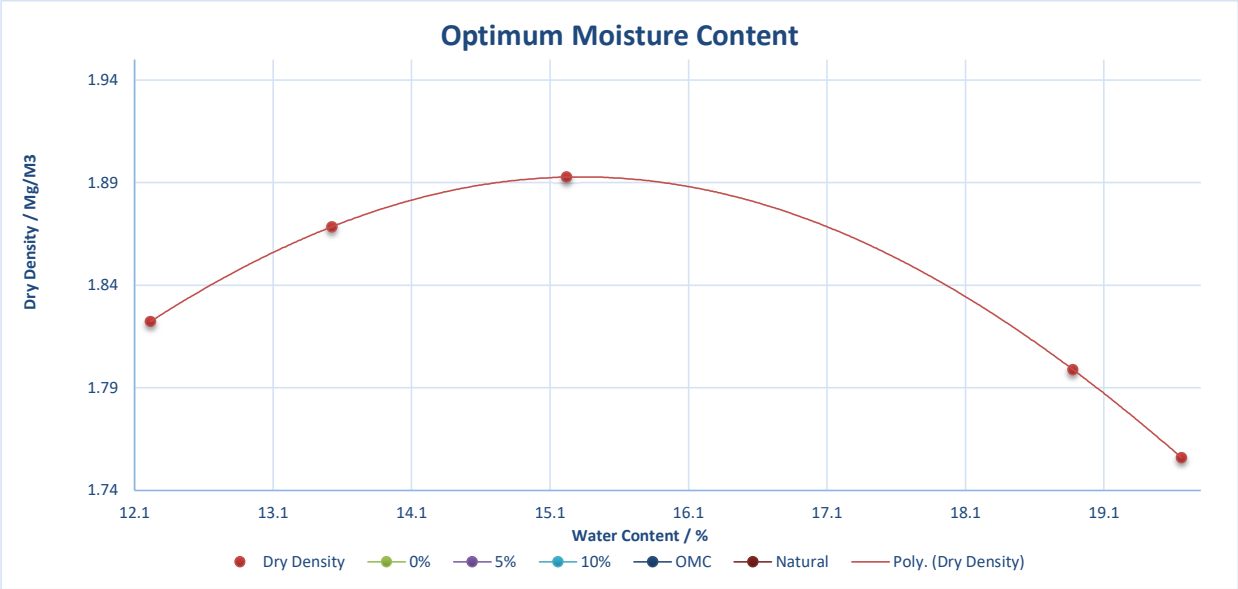
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	103340
Lab Test No	Not Applicable
Lab Sample No	CL-2003
Client Reference	AX37-1.00M
Date Sampled	Unknown
Date Received	19/08/2022
Date Tested	13/09/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	103340
Method of Preparation	Chopped down to 20mm
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Brown GRANULAR Material
Location	AX37-1.00M

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	15	%
Maximum Dry Density	1.89	Mg/m³
Particle Density	Not Applicable	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	47	%
Proportion of Sample Retained on 20mm Sieve	11	%



Observations

None

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4. Opinions and interpretations, if stated, are not within the scope of our UKAS accreditation.
5. Test Procedure: BS 1377:4:1990 Method: Clause 3.5 4.5kg Rammer, Five Layers, 27 Blows Chopped down to 20mm

Client: Celtest
Address: Trefelin
Llandegai
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Contact: Chantelle Kopec

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Unit 8 Hotchkiss Way
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Report/ Revision No: 103340/CL-2004/1377-2-3.2/
Client Reference No: AX37-2-2.00M
Date of Issue: 09/09/2022

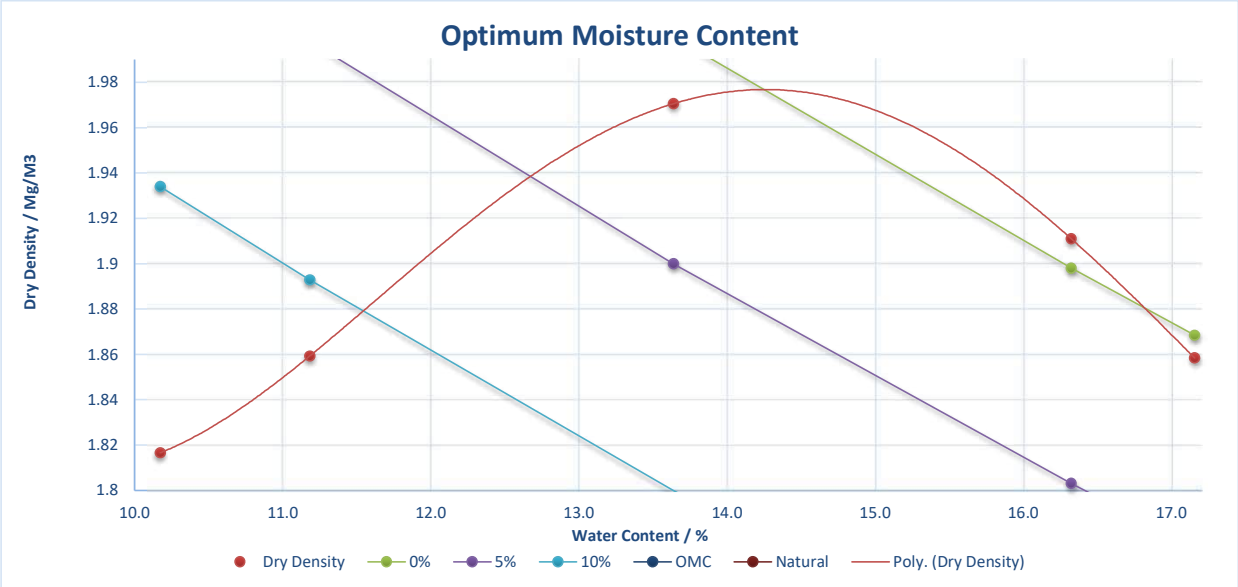
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	103340
Lab Test No	Not Applicable
Lab Sample No	CL-2004
Client Reference	AX37-2-2.00M
Date Sampled	Unknown
Date Received	19/08/2022
Date Tested	05/09/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	103340
Method of Preparation	Chopped down to 20mm
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Granular Material
Location	AX37-2-2.00M

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	14	%
Maximum Dry Density	1.98	Mg/m³
Particle Density	2.75	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	18	%
Proportion of Sample Retained on 20mm Sieve	18	%



Observations

None

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4. Opinions and interpretations, if stated, are not within the scope of our UKAS accreditation.
5. Test Procedure: BS 1377:4:1990 Method: Clause 3.5 4.5kg Rammer, Five Layers, 27 Blows Chopped down to 20mm

Client: Celtest
Address: Trefelin
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Contact: Chantelle Kopec

Authorised:

James Caiger - Business Unit Manager South East

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CONSTRUCTION MATERIALS TESTING LABORATORIES

Report/ Revision No: S104193/CL-2111/1377-2-3.2/
Client Reference No: AX32-1
Date of Issue: 14/10/2022

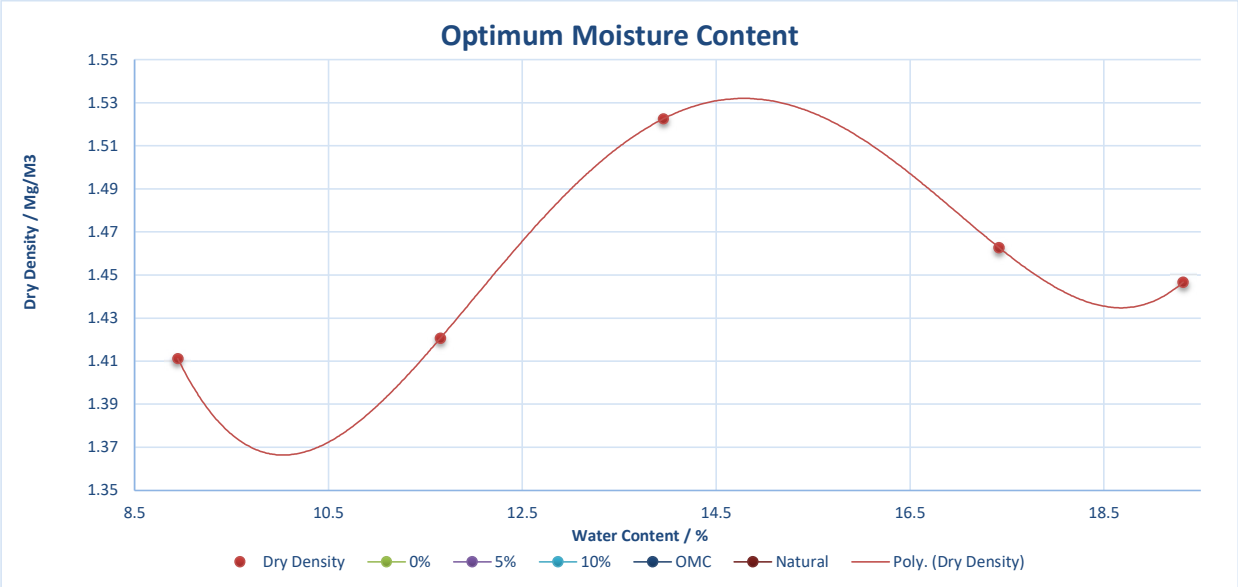
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
#N/A

Job Number	S104193
Lab Test No	N/A
Lab Sample No	CL-2111
Client Reference	AX32-1
Date Sampled	Unknown
Date Received	20/09/2022
Date Tested	12/10/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	S104193
Method of Preparation	Quartered
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Brown GRANULAR Material
Location	AX32-1

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	15	%
Maximum Dry Density	1.53	Mg/m³
Particle Density	Not Applicable	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	23	%
Proportion of Sample Retained on 20mm Sieve	22	%



Observations

None

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4. Opinions and interpretations, if stated, are not within the scope of our UKAS accreditation.
5. Test Procedure: BS 1377:4:1990 Method: #N/A #N/A Chopped down to 20mm

Client: Celtest
Address: Trefelin
Llandegai
Bangor
Gwynedd
LL57 4LH
Contact: Chantelle Kopec

Authorised:

Lydia Souch - Senior Laboratory Technician

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Coventry Laboratory
Unit 8 Hotchkiss Way
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Estate Coventry
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CONSTRUCTION MATERIALS TESTING LABORATORIES

Report/ Revision No: S104193/CL-2114/1377-2-3.2/
Client Reference No: AW31-1
Date of Issue: 14/10/2022

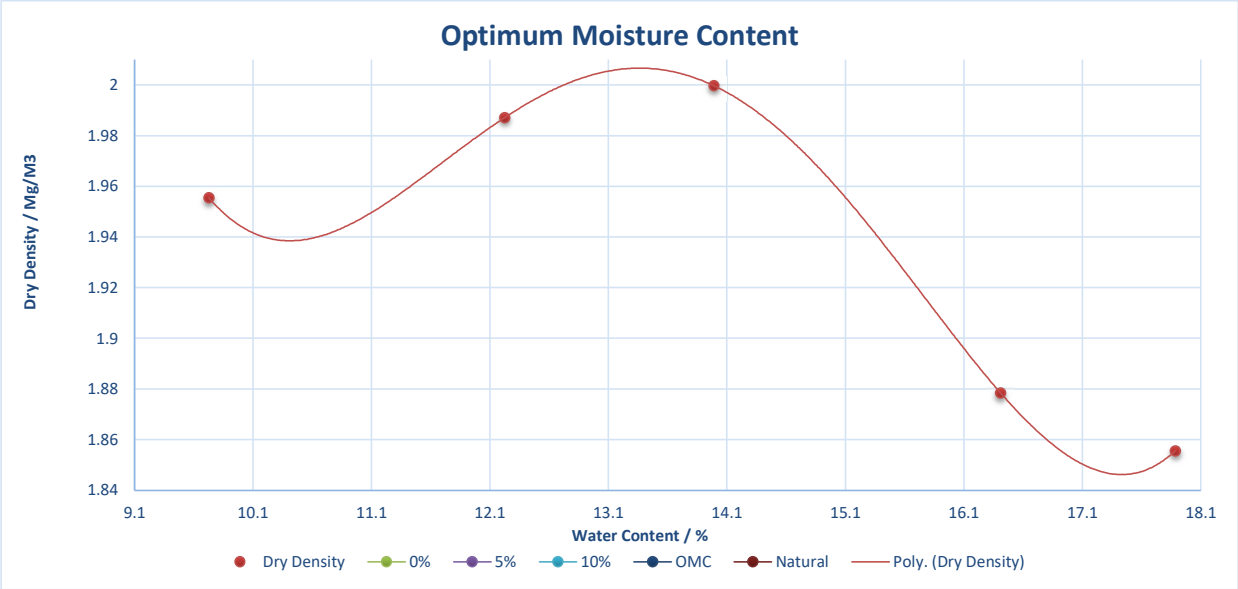
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	S104193
Lab Test No	N/A
Lab Sample No	CL-2114
Client Reference	AW31-1
Date Sampled	Unknown
Date Received	20/09/2022
Date Tested	11/10/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	S104193
Method of Preparation	Quartered
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Black GRANULAR Material With Some Clay
Location	AW31-1

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	13	%
Maximum Dry Density	2.01	Mg/m³
Particle Density	Not Applicable	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	19	%
Proportion of Sample Retained on 20mm Sieve	9	%



Observations

None

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4. Opinions and interpretations, if stated, are not within the scope of our UKAS accreditation.
5. Test Procedure: BS 1377:4:1990 Method: Clause 3.5 4.5kg Rammer, Five Layers, 27 Blows Chopped down to 20mm

Client: Celtest
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Contact: Chantelle Kopec

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CONSTRUCTION MATERIALS TESTING LABORATORIES

Report/ Revision No: S104193/CL-2115/1377-2-3.2/
Client Reference No: AV32-1
Date of Issue: 14/10/2022

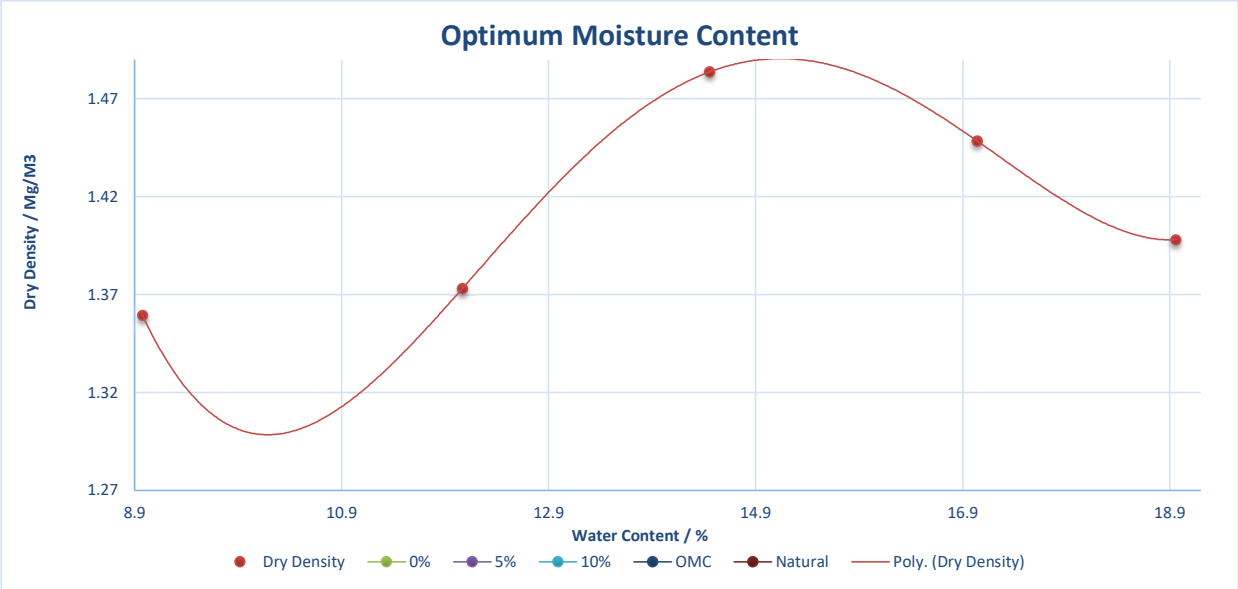
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	S104193
Lab Test No	N/A
Lab Sample No	CL-2115
Client Reference	AV32-1
Date Sampled	Unknown
Date Received	20/09/2022
Date Tested	12/10/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	S104193
Method of Preparation	Quartered
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Black GRANULAR material
Location	AV32-1

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	15	%
Maximum Dry Density	1.49	Mg/m³
Particle Density	Not Applicable	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	14	%
Proportion of Sample Retained on 20mm Sieve	18	%



Observations

None

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4. Opinions and interpretations, if stated, are not within the scope of our UKAS accreditation.
5. Test Procedure: BS 1377:4:1990 Method: Clause 3.5 4.5kg Rammer, Five Layers, 27 Blows Chopped down to 20mm

Client: Celtest
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CONSTRUCTION MATERIALS TESTING LABORATORIES

Report/ Revision No: S104193/CL-2117/1377-2-3.2/
Client Reference No: AO33-1
Date of Issue: 14/10/2022

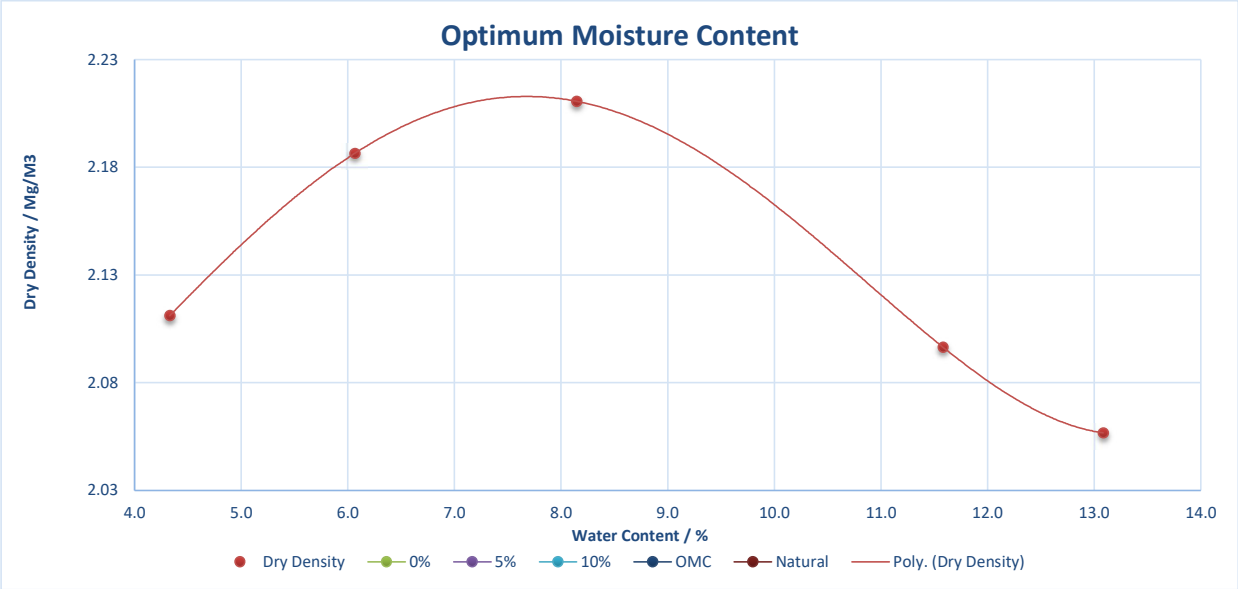
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	S104193
Lab Test No	N/A
Lab Sample No	CL-2117
Client Reference	AO33-1
Date Sampled	Unknown
Date Received	20/09/2022
Date Tested	11/10/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	S104193
Method of Preparation	Quartered
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Brown / Grey GRANULAR Material
Location	AO33-1

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	7.7	%
Maximum Dry Density	2.21	Mg/m³
Particle Density	Not Applicable	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	14	%
Proportion of Sample Retained on 20mm Sieve	31	%



Observations

None

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4. Opinions and interpretations, if stated, are not within the scope of our UKAS accreditation.
5. Test Procedure: BS 1377:4:1990 Method: Clause 3.5 4.5kg Rammer, Five Layers, 27 Blows Chopped down to 20mm

Client: Celtest
Address: Trefelin
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LL57 4LH
Contact: Chantelle Kopec

Authorised:

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Estate Coventry
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Report/ Revision No: S104193/CL-2118/1377-2-3.2/
Client Reference No: AO32-1
Date of Issue: 14/10/2022

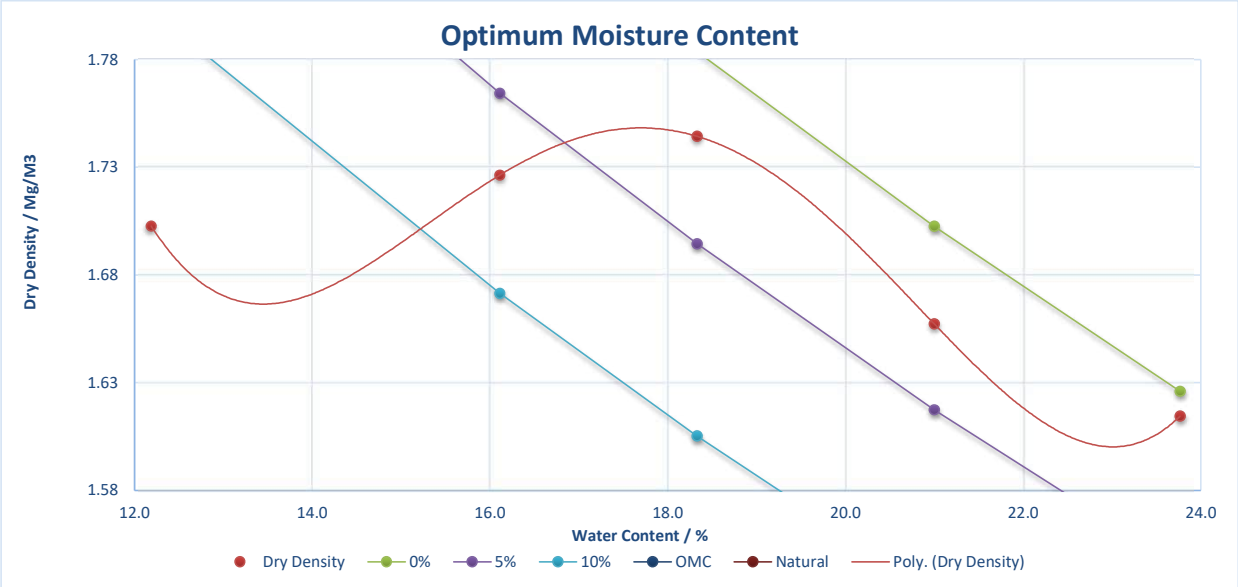
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
#N/A

Job Number	S104193
Lab Test No	N/A
Lab Sample No	CL-2118
Client Reference	AO32-1
Date Sampled	Unknown
Date Received	20/09/2022
Date Tested	11/10/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	S104193
Method of Preparation	Quartered
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Black GRANULAR material
Location	AO32-1

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	18	%
Maximum Dry Density	1.75	Mg/m³
Particle Density	2.65	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	22	%
Proportion of Sample Retained on 20mm Sieve	20	%



Observations

None

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4. Opinions and interpretations, if stated, are not within the scope of our UKAS accreditation.

5. Test Procedure: BS 1377:4:1990 Method: #N/A #N/A Chopped down to 20mm

Client: Celtest
Address: Trefelin
Llandegai
Bangor
Gwynedd
Gwynedd
Contact: LL57 4LH

Authorised:

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Coventry Laboratory
Unit 8 Hotchkiss Way
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CV3 2RL

CONSTRUCTION MATERIALS TESTING LABORATORIES

Report/ Revision No: S104193/CL-2119/1377-2-3.2/
Client Reference No: AN33-1
Date of Issue: 18/10/2022

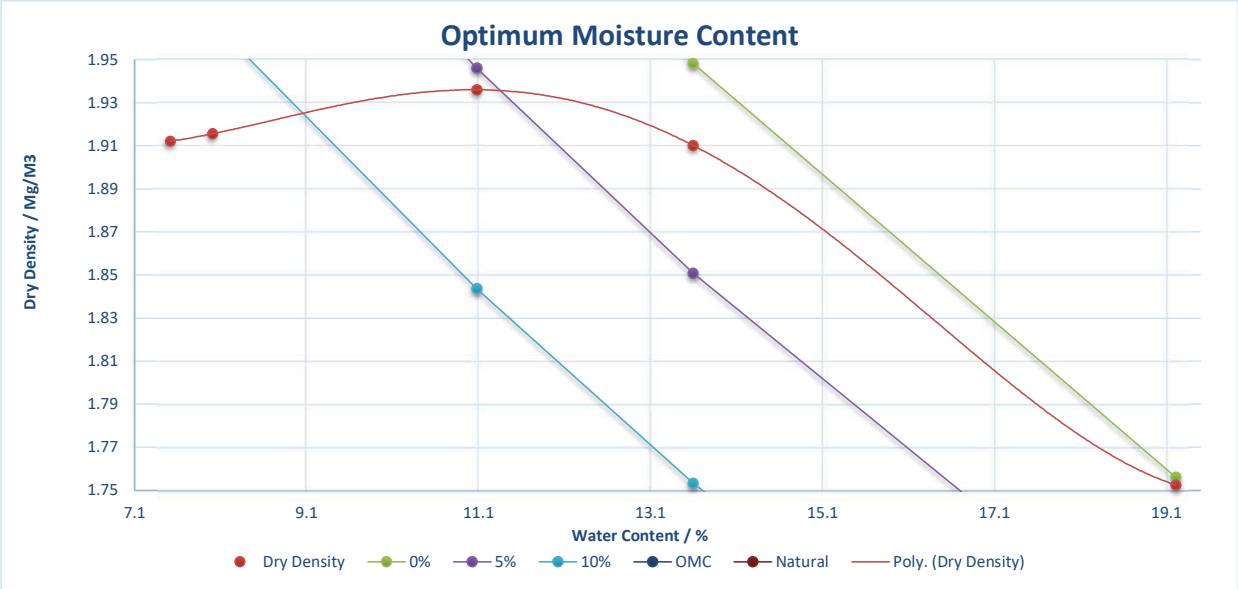
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	S104193
Lab Test No	N/A
Lab Sample No	CL-2119
Client Reference	AN33-1
Date Sampled	Unknown
Date Received	20/09/2022
Date Tested	13/10/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	S104193
Method of Preparation	Quartered
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	BLACK GRANULAR MATERIAL
Location	AN33-1

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	11	%
Maximum Dry Density	1.94	Mg/m³
Particle Density	2.65	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	22	%
Proportion of Sample Retained on 20mm Sieve	14	%



Observations

None

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5. Test Procedure: BS 1377:4:1990 Method: Clause 3.5 4.5kg Rammer, Five Layers, 27 Blows Chopped down to 20mm

Client: Celtest
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Contact: Chantelle Kopec

Authorised:

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CONSTRUCTION MATERIALS TESTING LABORATORIES

Report/ Revision No: S104193/CL-2120/1377-2-3.2/
Client Reference No: AN32-1
Date of Issue: 14/10/2022

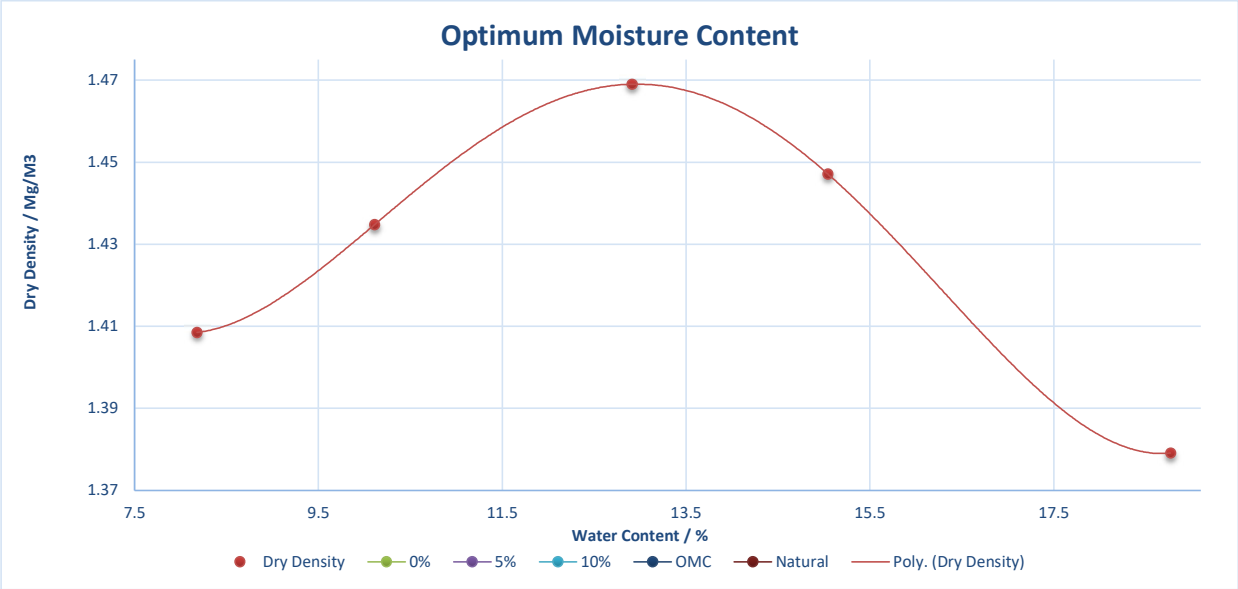
- CERTIFICATE OF TEST -
Compaction-Related Tests - In accordance with BS 1377-4:1990
Method using 4.5 kg rammer for soils with particles up to medium-gravel size

Job Number	S104193
Lab Test No	N/A
Lab Sample No	CL-2120
Client Reference	AN32-1
Date Sampled	Unknown
Date Received	20/09/2022
Date Tested	12/10/2022
Observed or Inferred Sample Disturbance	None
Type of sample	Bulk

Scheme	S104193
Method of Preparation	Quartered
Sample Reduction	Quartering
Supplier/ Source	Site Won
Specification	Not Specified
Visual Description of Soil (BS 5930)	Brown GRANULAR Material
Location	AN32-1

Test Results

Tested parameter	Result	Units
Optimum Moisture Content	13	%
Maximum Dry Density	1.47	Mg/m³
Particle Density	Not Applicable	Mg/m³ (assumed)
Proportion of Sample Retained on 37.5mm Sieve	17	%
Proportion of Sample Retained on 20mm Sieve	20	%



Observations

None

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4. Opinions and interpretations, if stated, are not within the scope of our UKAS accreditation.
5. Test Procedure: BS 1377:4:1990 Method: Clause 3.5 4.5kg Rammer, Five Layers, 27 Blows Chopped down to 20mm

Client: Celtest
Address: Trefelin
Bangor
Gwynedd
LL57 4LH
Contact: Chantelle Kopec

Authorised:

Lydia Souch - Senior Laboratory Technician

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 23 February 2021
Test Report Ref: TR 778980

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S92621**
Client Ref. No:	**AV28-1 @ 1.2M**
Date and Time of Sampling:	**Unknown**
Date of Receipt at Lab:	**22/01/2021**
Date of Start of Test:	**11/02/2021**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client**
Tested By:	**JP**
Material Description:	**Granular**
Target Specification:	**N/A**

RESULTS:

Water Content (%) =	**19.7**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	S Parry Sharon Parry Aggregate Team Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 23 February 2021
Test Report Ref: TR 778981

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S92621**
Client Ref. No:	**AM33-1 @ 1.3M**
Date and Time of Sampling:	**Unknown**
Date of Receipt at Lab:	**22/01/2021**
Date of Start of Test:	**11/02/2021**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client**
Tested By:	**JP**
Material Description:	**Granular**
Target Specification:	**N/A**

RESULTS:

Water Content (%) =	**15.3**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	S Parry Sharon Parry Aggregate Team Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 17 February 2021
Test Report Ref: TR 778982

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S92621**
Client Ref. No:	**AV29-1 @ 1.0M**
Date and Time of Sampling:	**Unknown**
Date of Receipt at Lab:	**22/01/2021**
Date of Start of Test:	**11/02/2021**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client**
Tested By:	**JP**
Material Description:	**Granular**
Target Specification:	**N/A**

RESULTS:

Water Content (%) =	**15.3**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	S Parry Sharon Parry Aggregate Team Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 23 February 2021
Test Report Ref: TR 779031

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S92621**
Client Ref. No:	**AU29-1 @ 0.5M**
Date and Time of Sampling:	**Unknown**
Date of Receipt at Lab:	**22/01/2021**
Date of Start of Test:	**11/02/2021**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client**
Tested By:	**JP**
Material Description:	**Granular**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = 13.4

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	S Parry Sharon Parry Aggregate Team Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 14 April 2021
Test Report Ref: TR 779056

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S92621**
Client Ref. No:	**AV28-1 @ 1.2M**
Date and Time of Sampling:	**Unknown**
Date of Receipt at Lab:	**22/01/2021**
Date of Start of Test:	**02/03/2021**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client**
Tested By:	**WK**
Material Description:	**Granular**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**1.99 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.10 Mg/m³**
Apparent Particle density =	**2.23 Mg/m³**
Water absorption (of dry mass) =	**5.5 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	S Parry Sharon Parry Aggregate Team Coordinator

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St Modwen Developments Limited
Park Point
17 High Street
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B31 2UQ

Date: 03 March 2021
Test Report Ref: TR 779058

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S92621**
Client Ref. No:	**AM33-1 @ 1.3M**
Date and Time of Sampling:	**Unknown**
Date of Receipt at Lab:	**22/01/2021**
Date of Start of Test:	**01/03/2021**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client**
Tested By:	**WK**
Material Description:	**Granular**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.44 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.56 Mg/m³**
Apparent Particle density =	**2.78 Mg/m³**
Water absorption (of dry mass) =	**5.0 %**

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None	S Parry Sharon Parry Aggregate Team Coordinator

St Modwen Developments Limited
Park Point
17 High Street
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B31 2UQ

Date: 14 April 2021
Test Report Ref: TR 779061

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S92621**
Client Ref. No:	**AV29-1 @ 1.0M**
Date and Time of Sampling:	**Unknown**
Date of Receipt at Lab:	**22/01/2021**
Date of Start of Test:	**02/03/2021**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client**
Tested By:	**WK**
Material Description:	**Granular**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.26 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.38 Mg/m³**
Apparent Particle density =	**2.58 Mg/m³**
Water absorption (of dry mass) =	**5.4 %**

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Comments:
None

Report checked and approved by:

S Parry

Sharon Parry
Aggregate Team Coordinator

St Modwen Developments Limited
Park Point
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B31 2UQ

Date: 09 February 2022
Test Report Ref: TR 849449

Contract: Former Llanwern Steelworks

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Moisture Content of a soil sample (definitive oven-drying method) in accordance with **BS 1377 : Part 2 : 1990 : clause 3.2**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S99333**
Client Ref. No:	**AU31-1 - 1.6M**
Date and Time of Sampling:	**Unknown**
Date of Receipt at Lab:	**26/11/2021**
Date of Start of Test:	**21/01/2022**
Sampling Location:	**AU31-1 - 1.6M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**KH**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Moisture Content (%) = **11**

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None	Chantelle Kopec-Williams Job Coordinator

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Birmingham
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Date: 02 March 2022
Test Report Ref: TR 849451

Contract: Former Llanwern Steelworks

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S99333**
Client Ref. No:	**AU31-1 - 1.6M**
Date and Time of Sampling:	**Unknown**
Date of Receipt at Lab:	**26/11/2021**
Date of Start of Test:	**25/02/2022**
Sampling Location:	**AU31-1 - 1.6M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.16 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.25 Mg/m³**
Apparent Particle density =	**2.36 Mg/m³**
Water absorption (of dry mass) =	**3.9 %**

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None	Chantelle Kopec-Williams Job Coordinator

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Date: 09 February 2022
Test Report Ref: TR 849462

Contract: Former Llanwern Steelworks

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Moisture Content of a soil sample (definitive oven-drying method) in accordance with **BS 1377 : Part 2 : 1990 : clause 3.2**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S99333**
Client Ref. No:	**AU30-1 - 1.1M**
Date and Time of Sampling:	**Unknown**
Date of Receipt at Lab:	**26/11/2021**
Date of Start of Test:	**21/01/2022**
Sampling Location:	**AU30-1 - 1.1M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DJ**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Moisture Content (%) = **19**

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B31 2UQ

Date: 02 March 2022
Test Report Ref: TR 849464

Contract: Former Llanwern Steelworks

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S99333**
Client Ref. No:	**AU30-1 - 1.1M**
Date and Time of Sampling:	**Unknown**
Date of Receipt at Lab:	**26/11/2021**
Date of Start of Test:	**26/02/2022**
Sampling Location:	**AU30-1 - 1.1M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**1.72 Mg/m³**
Particle density on a saturated and surface-dried basis =	**1.82 Mg/m³**
Apparent Particle density =	**1.91 Mg/m³**
Water absorption (of dry mass) =	**5.8 %**

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None	Chantelle Kopec-Williams Job Coordinator

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Date: 26 August 2022
Test Report Ref: TR 887372

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AN35-2 - 1M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**02/08/2022**
Sampling Location:	**AN35-2 - 1M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**SR**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) =	**21.5**

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None	Chantelle Kopec-Williams Job Coordinator

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Date: 26 August 2022
Test Report Ref: TR 887373

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AN36-1 - 0.5M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**02/08/2022**
Sampling Location:	**AN36-1 - 0.5M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**KH**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = **8.8**

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Date: 26 August 2022
Test Report Ref: TR 887374

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AO36-1 - 0.5M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**05/08/2022**
Sampling Location:	**AO36-1 - 0.5M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**KH**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = **10.2**

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Date: 26 August 2022
Test Report Ref: TR 887375

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AO37-1 - 0.3M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**05/08/2022**
Sampling Location:	**AO37-1 - 0.3M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**SR**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) =	**7.0**

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None	Chantelle Kopec-Williams Job Coordinator

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Date: 26 August 2022
Test Report Ref: TR 887376

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AP34-1 - 0.4M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**02/08/2022**
Sampling Location:	**AP34-1 - 0.4M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**KH**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = **7.1**

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Date: 26 August 2022
Test Report Ref: TR 887377

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AP35-1 - 0.5M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**02/08/2022**
Sampling Location:	**AP35-1 - 0.5M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**KH**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = **16.1**

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None	Chantelle Kopec-Williams Job Coordinator

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Date: 26 August 2022
Test Report Ref: TR 887378

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AP36-2 - 1.5M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**02/08/2022**
Sampling Location:	**AP36-2 - 1.5M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**KH**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) =	**24.7**

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B31 2UQ

Date: 26 August 2022
Test Report Ref: TR 887379

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AP37-1 - 0.2M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**02/08/2022**
Sampling Location:	**AP37-1 - 0.2M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**MD**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = **4.8**

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Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

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B31 2UQ

Date: 26 August 2022
Test Report Ref: TR 887380

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AQ34-1 - 0.5M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**05/08/2022**
Sampling Location:	**AQ34-1 - 0.5M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**MD**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = **7.3**

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These results relate only to the items tested.

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None	Chantelle Kopec-Williams Job Coordinator

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Date: 26 August 2022
Test Report Ref: TR 887381

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AQ35-1 - 0.5M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**02/08/2022**
Sampling Location:	**AQ35-1 - 0.5M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**MD**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = **11.0**

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These results relate only to the items tested.

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None	Chantelle Kopec-Williams Job Coordinator

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Date: 26 August 2022
Test Report Ref: TR 887382

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AQ36-1 - 0.5M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**02/08/2022**
Sampling Location:	**AQ36-1 - 0.5M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**KH**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = **7.6**

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None	Chantelle Kopec-Williams Job Coordinator

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Date: 26 August 2022
Test Report Ref: TR 887383

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AQ37-1 - 0.8M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**02/08/2022**
Sampling Location:	**AQ37-1 - 0.8M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**MD**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = **9.7**

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Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

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B31 2UQ

Date: 26 August 2022
Test Report Ref: TR 887384

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AR34-2 - 2M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**02/08/2022**
Sampling Location:	**AR34-2 - 2M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**KH**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = 10.7

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Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

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Date: 26 August 2022
Test Report Ref: TR 887385

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AR35-1 - 0.6M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**02/08/2022**
Sampling Location:	**AR35-1 - 0.6M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**KH**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) =	**9.4**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 26 August 2022
Test Report Ref: TR 887386

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AR36-2 - 1.5M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**02/08/2022**
Sampling Location:	**AR36-2 - 1.5M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**MD**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = **30.8**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
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B31 2UQ

Date: 26 August 2022
Test Report Ref: TR 887387

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AR37-2 - 0.4M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**02/08/2022**
Sampling Location:	**AR37-2 - 0.4M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**KH**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = **5.8**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
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B31 2UQ

Date: 26 August 2022
Test Report Ref: TR 887388

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AS34-1 - 0.4M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**05/08/2022**
Sampling Location:	**AS34-1 - 0.4M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**SR**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = **8.4**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
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B31 2UQ

Date: 26 August 2022
Test Report Ref: TR 887390

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AS36-1 - 1M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**05/08/2022**
Sampling Location:	**AS36-1 - 1M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**KH**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = **5.3**

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Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

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17 High Street
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Date: 26 August 2022
Test Report Ref: TR 887391

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AS37-2 - 2M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**05/08/2022**
Sampling Location:	**AS37-2 - 2M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**KH**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = **9.6**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

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Park Point
17 High Street
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B31 2UQ

Date: 26 August 2022
Test Report Ref: TR 887392

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AT34-2 - 1.5M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**05/08/2022**
Sampling Location:	**AT34-2 - 1.5M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DJ**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = 5.7

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
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B31 2UQ

Date: 26 August 2022
Test Report Ref: TR 887393

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AT35-1 - 0.5M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**05/08/2022**
Sampling Location:	**AT35-1 - 0.5M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DJ**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = 11.7

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

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B31 2UQ

Date: 26 August 2022
Test Report Ref: TR 887394

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AT36-2 - 1.8M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**05/08/2022**
Sampling Location:	**AT36-2 - 1.8M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**KH**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = **9.0**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

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B31 2UQ

Date: 26 August 2022
Test Report Ref: TR 887395

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AT37-1 - 0.8M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**05/08/2022**
Sampling Location:	**AT37-1 - 0.8M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DJ**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = 12.9

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Date: 26 August 2022
Test Report Ref: TR 887396

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AU34-1 - 0.5M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**05/08/2022**
Sampling Location:	**AU34-1 - 0.5M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DJ**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = 7.9

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None	Chantelle Kopec-Williams Job Coordinator

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B31 2UQ

Date: 26 August 2022
Test Report Ref: TR 887397

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AU35-2 - 1.5M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**05/08/2022**
Sampling Location:	**AU35-2 - 1.5M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**KH**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) =	**12.5**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

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St Modwen Developments Limited
Park Point
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B31 2UQ

Date: 26 August 2022
Test Report Ref: TR 887398

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AU36-2 - 1.3M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**05/08/2022**
Sampling Location:	**AU36-2 - 1.3M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**KH**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = **9.9**

This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

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Park Point
17 High Street
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Birmingham
B31 2UQ

Date: 26 August 2022
Test Report Ref: TR 887399

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AU37-1 - 0.8M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**05/08/2022**
Sampling Location:	**AU37-1 - 0.8M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DJ**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) =	**7.9**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 26 August 2022
Test Report Ref: TR 887402

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AV36-2 - 1.30M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**02/08/2022**
Sampling Location:	**AV36-2 - 1.30M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**MD**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = **12.0**

This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

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B31 2UQ

Date: 26 August 2022
Test Report Ref: TR 887404

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AW34-1 - 1.00M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**02/08/2022**
Sampling Location:	**AW34-1 - 1.00M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**KH**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = **8.9**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
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B31 2UQ

Date: 26 August 2022
Test Report Ref: TR 887408

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AX34-1 - 0.7M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**02/08/2022**
Sampling Location:	**AX34-1 - 0.7M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**KH**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = **3.2**

This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

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Date: 26 August 2022
Test Report Ref: TR 887409

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AX35-2 - 1.20M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**02/08/2022**
Sampling Location:	**AX35-2 - 1.20M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**KH**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = 8.3

This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

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17 High Street
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B31 2UQ

Date: 26 August 2022
Test Report Ref: TR 887410

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AX36-2 - 1.5M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**02/08/2022**
Sampling Location:	**AX36-2 - 1.5M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**KH**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = **11.2**

This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

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Date: 26 August 2022
Test Report Ref: TR 887411

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AX37-1 - 1.00M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**02/08/2022**
Sampling Location:	**AX37-1 - 1.00M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**KH**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = **11.0**

This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

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17 High Street
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B31 2UQ

Date: 26 August 2022
Test Report Ref: TR 887412

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AX37-2 - 2.00M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**02/08/2022**
Sampling Location:	**AX37-2 - 2.00M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**KH**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = **8.2**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

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St Modwen Developments Limited
Park Point
17 High Street
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B31 2UQ

Date: 02 September 2022
Test Report Ref: TR 887486

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AN35-2 - 1M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**01/09/2022**
Sampling Location:	**AN35-2 - 1M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.16 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.28 Mg/m³**
Apparent Particle density =	**2.45 Mg/m³**
Water absorption (of dry mass) =	**5.6 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

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INDEPENDENT MATERIALS TESTING | DIAMOND DRILLING & SAWING

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 02 September 2022
Test Report Ref: TR 887487

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AN36-1 - 0.5M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**01/09/2022**
Sampling Location:	**AN36-1 - 0.5M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.66 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.72 Mg/m³**
Apparent Particle density =	**2.83 Mg/m³**
Water absorption (of dry mass) =	**2.2 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 02 September 2022
Test Report Ref: TR 887488

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AO36-1 - 0.5M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**01/09/2022**
Sampling Location:	**AO36-1 - 0.5M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.77 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.81 Mg/m³**
Apparent Particle density =	**2.89 Mg/m³**
Water absorption (of dry mass) =	**1.5 %**

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St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 02 September 2022
Test Report Ref: TR 887489

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AO37-1 - 0.3M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**01/09/2022**
Sampling Location:	**AO37-1 - 0.3M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.62 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.66 Mg/m³**
Apparent Particle density =	**2.72 Mg/m³**
Water absorption (of dry mass) =	**1.3 %**

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St Modwen Developments Limited
Park Point
17 High Street
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B31 2UQ

Date: 02 September 2022
Test Report Ref: TR 887490

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AP34-1 - 0.4M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**01/09/2022**
Sampling Location:	**AP34-1 - 0.4M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.31 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.41 Mg/m³**
Apparent Particle density =	**2.56 Mg/m³**
Water absorption (of dry mass) =	**4.3 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

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St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 02 September 2022
Test Report Ref: TR 887491

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AP35-1 - 0.5M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**01/09/2022**
Sampling Location:	**AP35-1 - 0.5M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.03 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.18 Mg/m³**
Apparent Particle density =	**2.38 Mg/m³**
Water absorption (of dry mass) =	**7.0 %**

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These results relate only to the items tested.

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St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 02 September 2022
Test Report Ref: TR 887492

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AP36-2 - 1.5M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**01/09/2022**
Sampling Location:	**AP36-2 - 1.5M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.29 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.36 Mg/m³**
Apparent Particle density =	**2.46 Mg/m³**
Water absorption (of dry mass) =	**3.1 %**

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17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 02 September 2022
Test Report Ref: TR 887493

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AP37-1 - 0.2M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**01/09/2022**
Sampling Location:	**AP37-1 - 0.2M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.65 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.67 Mg/m³**
Apparent Particle density =	**2.69 Mg/m³**
Water absorption (of dry mass) =	**0.5 %**

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17 High Street
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Birmingham
B31 2UQ

Date: 02 September 2022
Test Report Ref: TR 887494

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AQ34-1 - 0.5M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**01/09/2022**
Sampling Location:	**AQ34-1 - 0.5M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.58 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.62 Mg/m³**
Apparent Particle density =	**2.70 Mg/m³**
Water absorption (of dry mass) =	**1.8 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

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Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 02 September 2022
Test Report Ref: TR 887495

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AQ35-1 - 0.5M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**01/09/2022**
Sampling Location:	**AQ35-1 - 0.5M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.41 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.49 Mg/m³**
Apparent Particle density =	**2.63 Mg/m³**
Water absorption (of dry mass) =	**3.6 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
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St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 02 September 2022
Test Report Ref: TR 887496

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AQ36-1 - 0.5M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**01/09/2022**
Sampling Location:	**AQ36-1 - 0.5M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.51 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.58 Mg/m³**
Apparent Particle density =	**2.69 Mg/m³**
Water absorption (of dry mass) =	**2.6 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

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St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 02 September 2022
Test Report Ref: TR 887497

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AQ37-1 - 0.8M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**01/09/2022**
Sampling Location:	**AQ37-1 - 0.8M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.54 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.61 Mg/m³**
Apparent Particle density =	**2.72 Mg/m³**
Water absorption (of dry mass) =	**2.5 %**

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Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

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Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 02 September 2022
Test Report Ref: TR 887498

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AR34-2 - 2M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**01/09/2022**
Sampling Location:	**AR34-2 - 2M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.29 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.41 Mg/m³**
Apparent Particle density =	**2.61 Mg/m³**
Water absorption (of dry mass) =	**5.4 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

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St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 02 September 2022
Test Report Ref: TR 887499

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AR35-1 - 0.6M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**01/09/2022**
Sampling Location:	**AR35-1 - 0.6M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.51 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.59 Mg/m³**
Apparent Particle density =	**2.73 Mg/m³**
Water absorption (of dry mass) =	**3.2 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

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St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 30 September 2022
Test Report Ref: TR 887500

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AR36-2 - 1.5M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**05/09/2022**
Sampling Location:	**AR36-2 - 1.5M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.55 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.60 Mg/m³**
Apparent Particle density =	**2.71 Mg/m³**
Water absorption (of dry mass) =	**1.9 %**

This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

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St Modwen Developments Limited
Park Point
17 High Street
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Birmingham
B31 2UQ

Date: 12 September 2022
Test Report Ref: TR 887501

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AR37-2 - 0.4M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**09/09/2022**
Sampling Location:	**AR37-2 - 0.4M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.58 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.62 Mg/m³**
Apparent Particle density =	**2.70 Mg/m³**
Water absorption (of dry mass) =	**1.8 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

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St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 12 September 2022
Test Report Ref: TR 887502

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AS34-1 - 0.4M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**09/09/2022**
Sampling Location:	**AS34-1 - 0.4M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**4.12 Mg/m³**
Particle density on a saturated and surface-dried basis =	**4.17 Mg/m³**
Apparent Particle density =	**4.35 Mg/m³**
Water absorption (of dry mass) =	**1.3 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

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St Modwen Developments Limited
Park Point
17 High Street
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Birmingham
B31 2UQ

Date: 12 September 2022
Test Report Ref: TR 887504

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AS36-1 - 1M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**09/09/2022**
Sampling Location:	**AS36-1 - 1M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.35 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.43 Mg/m³**
Apparent Particle density =	**2.55 Mg/m³**
Water absorption (of dry mass) =	**3.3 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 12 September 2022
Test Report Ref: TR 887505

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AS37-2 - 2M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**09/09/2022**
Sampling Location:	**AS37-2 - 2M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.50 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.55 Mg/m³**
Apparent Particle density =	**2.63 Mg/m³**
Water absorption (of dry mass) =	**2.0 %**

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17 High Street
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Date: 12 September 2022
Test Report Ref: TR 887506

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AT34-2 - 1.5M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**09/09/2022**
Sampling Location:	**AT34-2 - 1.5M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.36 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.48 Mg/m³**
Apparent Particle density =	**2.67 Mg/m³**
Water absorption (of dry mass) =	**4.9 %**

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B31 2UQ

Date: 12 September 2022
Test Report Ref: TR 887507

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AT35-1 - 0.5M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**09/09/2022**
Sampling Location:	**AT35-1 - 0.5M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.46 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.60 Mg/m³**
Apparent Particle density =	**2.84 Mg/m³**
Water absorption (of dry mass) =	**5.4 %**

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These results relate only to the items tested.

Comments:
None

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

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Park Point
17 High Street
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B31 2UQ

Date: 12 September 2022
Test Report Ref: TR 887508

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AT36-2 - 1.8M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**09/09/2022**
Sampling Location:	**AT36-2 - 1.8M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.20 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.31 Mg/m³**
Apparent Particle density =	**2.48 Mg/m³**
Water absorption (of dry mass) =	**5.1 %**

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These results relate only to the items tested.

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Park Point
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Date: 12 September 2022
Test Report Ref: TR 887509

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AT37-1 - 0.8M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**09/09/2022**
Sampling Location:	**AT37-1 - 0.8M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.41 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.53 Mg/m³**
Apparent Particle density =	**2.76 Mg/m³**
Water absorption (of dry mass) =	**5.2 %**

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St Modwen Developments Limited
Park Point
17 High Street
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Date: 12 September 2022
Test Report Ref: TR 887511

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AU35-2 - 1.5M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**10/09/2022**
Sampling Location:	**AU35-2 - 1.5M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.65 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.75 Mg/m³**
Apparent Particle density =	**2.94 Mg/m³**
Water absorption (of dry mass) =	**3.8 %**

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St Modwen Developments Limited
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B31 2UQ

Date: 12 September 2022
Test Report Ref: TR 887512

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AU36-2 - 1.3M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**10/09/2022**
Sampling Location:	**AU36-2 - 1.3M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.45 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.59 Mg/m³**
Apparent Particle density =	**2.84 Mg/m³**
Water absorption (of dry mass) =	**5.6 %**

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St Modwen Developments Limited
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Date: 12 September 2022
Test Report Ref: TR 887513

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AU37-1 - 0.8M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**10/09/2022**
Sampling Location:	**AU37-1 - 0.8M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.74 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.86 Mg/m³**
Apparent Particle density =	**3.11 Mg/m³**
Water absorption (of dry mass) =	**4.3 %**

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None	Chantelle Kopec-Williams Job Coordinator

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B31 2UQ

Date: 12 September 2022
Test Report Ref: TR 887514

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AV34-2 - 1.8M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**10/09/2022**
Sampling Location:	**AV34-2 - 1.8M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.40 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.48 Mg/m³**
Apparent Particle density =	**2.60 Mg/m³**
Water absorption (of dry mass) =	**3.3 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
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B31 2UQ

Date: 12 September 2022
Test Report Ref: TR 887516

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AV36-2 - 1.30M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**10/09/2022**
Sampling Location:	**AV36-2 - 1.30M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.77 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.84 Mg/m³**
Apparent Particle density =	**2.98 Mg/m³**
Water absorption (of dry mass) =	**2.4 %**

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These results relate only to the items tested.

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Date: 12 September 2022
Test Report Ref: TR 887517

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AV37-1 - 0.50M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**10/09/2022**
Sampling Location:	**AV37-1 - 0.50M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.50 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.61 Mg/m³**
Apparent Particle density =	**2.80 Mg/m³**
Water absorption (of dry mass) =	**4.4 %**

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These results relate only to the items tested.

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None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
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B31 2UQ

Date: 13 September 2022
Test Report Ref: TR 887518

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AW34-1 - 1.00M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**12/09/2022**
Sampling Location:	**AW34-1 - 1.00M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.16 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.29 Mg/m³**
Apparent Particle density =	**2.48 Mg/m³**
Water absorption (of dry mass) =	**6.0 %**

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17 High Street
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B31 2UQ

Date: 13 September 2022
Test Report Ref: TR 887520

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AW36-2 - 1.60M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**12/09/2022**
Sampling Location:	**AW36-2 - 1.60M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.45 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.56 Mg/m³**
Apparent Particle density =	**2.77 Mg/m³**
Water absorption (of dry mass) =	**4.7 %**

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Date: 13 September 2022
Test Report Ref: TR 887522

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AX34-1 - 0.7M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**12/09/2022**
Sampling Location:	**AX34-1 - 0.7M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.69 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.72 Mg/m³**
Apparent Particle density =	**2.78 Mg/m³**
Water absorption (of dry mass) =	**1.2 %**

This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:
None

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

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Date: 13 September 2022
Test Report Ref: TR 887523

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AX35-2 - 1.20M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**12/09/2022**
Sampling Location:	**AX35-2 - 1.20M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**1.08 Mg/m³**
Particle density on a saturated and surface-dried basis =	**1.11 Mg/m³**
Apparent Particle density =	**1.12 Mg/m³**
Water absorption (of dry mass) =	**2.6 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
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B31 2UQ

Date: 13 September 2022
Test Report Ref: TR 887524

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AX36-2 - 1.5M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**12/09/2022**
Sampling Location:	**AX36-2 - 1.5M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**1.06 Mg/m³**
Particle density on a saturated and surface-dried basis =	**1.11 Mg/m³**
Apparent Particle density =	**1.12 Mg/m³**
Water absorption (of dry mass) =	**4.9 %**

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These results relate only to the items tested.

Comments:
None

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
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B31 2UQ

Date: 13 September 2022
Test Report Ref: TR 887525

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AX37-1 - 1.00M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**12/09/2022**
Sampling Location:	**AX37-1 - 1.00M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.26 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.37 Mg/m³**
Apparent Particle density =	**2.54 Mg/m³**
Water absorption (of dry mass) =	**4.8 %**

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Comments:	Report checked and approved by:
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Date: 13 September 2022
Test Report Ref: TR 887526

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AX37-2 - 2.00M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**12/09/2022**
Sampling Location:	**AX37-2 - 2.00M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.29 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.40 Mg/m³**
Apparent Particle density =	**2.58 Mg/m³**
Water absorption (of dry mass) =	**4.9 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 07 October 2022
Test Report Ref: TR 890901

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103682**
Client Ref. No:	**AQ33-1 0.6M**
Date and Time of Sampling:	**08/06/2022**
Date of Receipt at Lab:	**23/06/2022**
Date of Start of Test:	**27/07/2022**
Sampling Location:	**AQ33-1 0.6M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**CM**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = 14.5

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
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B31 2UQ

Date: 23 September 2022
Test Report Ref: TR 890903

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103682**
Client Ref. No:	**AQ33-1 0.6M**
Date and Time of Sampling:	**08/06/2022**
Date of Receipt at Lab:	**23/06/2022**
Date of Start of Test:	**23/09/2022**
Sampling Location:	**AQ33-1 0.6M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.59 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.71 Mg/m³**
Apparent Particle density =	**2.92 Mg/m³**
Water absorption (of dry mass) =	**4.3 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
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B31 2UQ

Date: 07 October 2022
Test Report Ref: TR 890906

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103682**
Client Ref. No:	**AR33-2 1.60M**
Date and Time of Sampling:	**08/06/2022**
Date of Receipt at Lab:	**23/06/2022**
Date of Start of Test:	**27/07/2022**
Sampling Location:	**AR33-2 1.60M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**CM**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) =	**34.1**

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None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
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B31 2UQ

Date: 23 September 2022
Test Report Ref: TR 890908

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103682**
Client Ref. No:	**AR33-2 1.60M**
Date and Time of Sampling:	**08/06/2022**
Date of Receipt at Lab:	**23/06/2022**
Date of Start of Test:	**23/09/2022**
Sampling Location:	**AR33-2 1.60M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.25 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.40 Mg/m³**
Apparent Particle density =	**2.65 Mg/m³**
Water absorption (of dry mass) =	**6.8 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
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B31 2UQ

Date: 07 October 2022
Test Report Ref: TR 890910

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103682**
Client Ref. No:	**AS33-1 1.20M**
Date and Time of Sampling:	**08/06/2022**
Date of Receipt at Lab:	**23/06/2022**
Date of Start of Test:	**27/07/2022**
Sampling Location:	**AS33-1 1.20M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**CM**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = 14.0

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Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

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St Modwen Developments Limited
Park Point
17 High Street
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B31 2UQ

Date: 23 September 2022
Test Report Ref: TR 890912

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103682**
Client Ref. No:	**AS33-1 1.20M**
Date and Time of Sampling:	**08/06/2022**
Date of Receipt at Lab:	**23/06/2022**
Date of Start of Test:	**23/09/2022**
Sampling Location:	**AS33-1 1.20M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.43 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.56 Mg/m³**
Apparent Particle density =	**2.77 Mg/m³**
Water absorption (of dry mass) =	**5.1 %**

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These results relate only to the items tested.

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None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
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B31 2UQ

Date: 07 October 2022
Test Report Ref: TR 890915

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103682**
Client Ref. No:	**AT33-2 2.20M**
Date and Time of Sampling:	**08/06/2022**
Date of Receipt at Lab:	**23/06/2022**
Date of Start of Test:	**27/07/2022**
Sampling Location:	**AT33-2 2.20M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**CM**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = 13.4

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None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
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B31 2UQ

Date: 23 September 2022
Test Report Ref: TR 890917

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103682**
Client Ref. No:	**AT33-2 2.20M**
Date and Time of Sampling:	**08/06/2022**
Date of Receipt at Lab:	**23/06/2022**
Date of Start of Test:	**23/09/2022**
Sampling Location:	**AT33-2 2.20M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.38 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.50 Mg/m³**
Apparent Particle density =	**2.69 Mg/m³**
Water absorption (of dry mass) =	**4.8 %**

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None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
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Date: 07 October 2022
Test Report Ref: TR 890919

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103682**
Client Ref. No:	**AU33-1 0.90M**
Date and Time of Sampling:	**08/06/2022**
Date of Receipt at Lab:	**23/06/2022**
Date of Start of Test:	**27/07/2022**
Sampling Location:	**AU33-1 0.90M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**CM**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = **10.7**

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Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

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St Modwen Developments Limited
Park Point
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Date: 23 September 2022
Test Report Ref: TR 890921

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103682**
Client Ref. No:	**AU33-1 0.90M**
Date and Time of Sampling:	**08/06/2022**
Date of Receipt at Lab:	**23/06/2022**
Date of Start of Test:	**23/09/2022**
Sampling Location:	**AU33-1 0.90M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.47 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.59 Mg/m³**
Apparent Particle density =	**2.80 Mg/m³**
Water absorption (of dry mass) =	**4.8 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
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B31 2UQ

Date: 07 October 2022
Test Report Ref: TR 890924

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103682**
Client Ref. No:	**AV33-1 0.60M**
Date and Time of Sampling:	**08/06/2022**
Date of Receipt at Lab:	**23/06/2022**
Date of Start of Test:	**27/07/2022**
Sampling Location:	**AV33-1 0.60M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**CM**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = **7.9**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

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St Modwen Developments Limited
Park Point
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Longbridge
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B31 2UQ

Date: 23 September 2022
Test Report Ref: TR 890926

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103682**
Client Ref. No:	**AV33-1 0.60M**
Date and Time of Sampling:	**08/06/2022**
Date of Receipt at Lab:	**23/06/2022**
Date of Start of Test:	**23/09/2022**
Sampling Location:	**AV33-1 0.60M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.91 Mg/m³**
Particle density on a saturated and surface-dried basis =	**3.05 Mg/m³**
Apparent Particle density =	**3.39 Mg/m³**
Water absorption (of dry mass) =	**4.8 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments (Llanwern) Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 07 October 2023
Test Report Ref: TR 890928

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103682**
Client Ref. No:	**AV33-3 2.20M**
Date and Time of Sampling:	**08/06/2022**
Date of Receipt at Lab:	**23/06/2022**
Date of Start of Test:	**27/07/2022**
Sampling Location:	**AV33-3 2.20M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**CM**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) =	**8.3**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
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B31 2UQ

Date: 23 September 2022
Test Report Ref: TR 890930

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103682**
Client Ref. No:	**AV33-3 2.20M**
Date and Time of Sampling:	**08/06/2022**
Date of Receipt at Lab:	**23/06/2022**
Date of Start of Test:	**23/09/2022**
Sampling Location:	**AV33-3 2.20M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.83 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.92 Mg/m³**
Apparent Particle density =	**3.12 Mg/m³**
Water absorption (of dry mass) =	**3.3 %**

This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

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17 High Street
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B31 2UQ

Date: 07 October 2022
Test Report Ref: TR 890933

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103682**
Client Ref. No:	**AW33-2 1.80M**
Date and Time of Sampling:	**08/06/2022**
Date of Receipt at Lab:	**23/06/2022**
Date of Start of Test:	**27/07/2022**
Sampling Location:	**AW33-2 1.80M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**CM**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) =	**11.1**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

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B31 2UQ

Date: 23 September 2022
Test Report Ref: TR 890935

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103682**
Client Ref. No:	**AW33-2 1.80M**
Date and Time of Sampling:	**08/06/2022**
Date of Receipt at Lab:	**23/06/2022**
Date of Start of Test:	**23/09/2022**
Sampling Location:	**AW33-2 1.80M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.24 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.32 Mg/m³**
Apparent Particle density =	**2.45 Mg/m³**
Water absorption (of dry mass) =	**3.9 %**

This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
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B31 2UQ

Date: 07 October 2022
Test Report Ref: TR 890937

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103682**
Client Ref. No:	**AX33-1 0.8M**
Date and Time of Sampling:	**08/06/2022**
Date of Receipt at Lab:	**23/06/2022**
Date of Start of Test:	**27/07/2022**
Sampling Location:	**AX33-1 0.8M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**CM**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) =	**15.0**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
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Date: 23 September 2022
Test Report Ref: TR 890939

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103682**
Client Ref. No:	**AX33-1 0.8M**
Date and Time of Sampling:	**08/06/2022**
Date of Receipt at Lab:	**23/06/2022**
Date of Start of Test:	**23/09/2022**
Sampling Location:	**AX33-1 0.8M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.39 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.47 Mg/m³**
Apparent Particle density =	**2.61 Mg/m³**
Water absorption (of dry mass) =	**3.5 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments (Llanwern) Limited
Two Devon Way
Longbridge
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B31 2TS

Date: 20 February 2023
Test Report Ref: TR 927651

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S107420**
Client Ref. No:	**AN37-1 - 2**
Date and Time of Sampling:	**Unknown**
Date of Receipt at Lab:	**16/12/2022**
Date of Start of Test:	**20/02/2023**
Sampling Location:	**AN37-1 - 2**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.31 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.44 Mg/m³**
Apparent Particle density =	**2.66 Mg/m³**
Water absorption (of dry mass) =	**5.7 %**

This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

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INDEPENDENT MATERIALS TESTING | DIAMOND DRILLING & SAWING

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 14 April 2021
Test Report Ref: TR 779119

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S92621**
Client Ref. No:	**AU29-1 @ 0.5M**
Date and Time of Sampling:	**Unknown**
Date of Receipt at Lab:	**22/01/2021**
Date of Start of Test:	**02/03/2021**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client**
Tested By:	**WK**
Material Description:	**Granular**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.06 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.14 Mg/m³**
Apparent Particle density =	**2.25 Mg/m³**
Water absorption (of dry mass) =	**4.3 %**

This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:	Report checked and approved by:
None	S Parry Sharon Parry Aggregate Team Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 07 October 2022
Test Report Ref: TR 896092

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S104193**
Client Ref. No:	**AM32-1**
Date and Time of Sampling:	**13/07/2022**
Date of Receipt at Lab:	**15/07/2022**
Date of Start of Test:	**27/07/2022**
Sampling Location:	**AM32-1**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**CM**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) =	**14.7**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
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B31 2UQ

Date: 27 September 2022
Test Report Ref: TR 896094

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S104193**
Client Ref. No:	**AM32-1**
Date and Time of Sampling:	**13/07/2022**
Date of Receipt at Lab:	**15/07/2022**
Date of Start of Test:	**26/09/2022**
Sampling Location:	**AM32-1**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.29 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.39 Mg/m³**
Apparent Particle density =	**2.54 Mg/m³**
Water absorption (of dry mass) =	**4.3 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
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B31 2UQ

Date: 07 October 2022
Test Report Ref: TR 896097

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S104193**
Client Ref. No:	**AN32-1**
Date and Time of Sampling:	**13/07/2022**
Date of Receipt at Lab:	**15/07/2022**
Date of Start of Test:	**27/07/2022**
Sampling Location:	**AN32-1**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**CM**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) =	**14.2**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
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Birmingham
B31 2UQ

Date: 27 September 2022
Test Report Ref: TR 896099

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S104193**
Client Ref. No:	**AN32-1**
Date and Time of Sampling:	**13/07/2022**
Date of Receipt at Lab:	**15/07/2022**
Date of Start of Test:	**26/09/2022**
Sampling Location:	**AN32-1**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.53 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.62 Mg/m³**
Apparent Particle density =	**2.79 Mg/m³**
Water absorption (of dry mass) =	**3.7 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
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B31 2UQ

Date: 07 October 2022
Test Report Ref: TR 896101

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S104193**
Client Ref. No:	**AN33-1**
Date and Time of Sampling:	**13/07/2022**
Date of Receipt at Lab:	**15/07/2022**
Date of Start of Test:	**27/07/2022**
Sampling Location:	**AN33-1**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**CM**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = **8.7**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
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B31 2UQ

Date: 27 September 2022
Test Report Ref: TR 896103

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S104193**
Client Ref. No:	**AN33-1**
Date and Time of Sampling:	**13/07/2022**
Date of Receipt at Lab:	**15/07/2022**
Date of Start of Test:	**26/09/2022**
Sampling Location:	**AN33-1**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.80 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.87 Mg/m³**
Apparent Particle density =	**3.00 Mg/m³**
Water absorption (of dry mass) =	**2.3 %**

This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
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B31 2UQ

Date: 07 October 2022
Test Report Ref: TR 896106

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S104193**
Client Ref. No:	**AO32-1**
Date and Time of Sampling:	**13/07/2022**
Date of Receipt at Lab:	**15/07/2022**
Date of Start of Test:	**27/07/2022**
Sampling Location:	**AO32-1**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**CM**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) =	**14.5**

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Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
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B31 2UQ

Date: 27 September 2022
Test Report Ref: TR 896108

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S104193**
Client Ref. No:	**AO32-1**
Date and Time of Sampling:	**13/07/2022**
Date of Receipt at Lab:	**15/07/2022**
Date of Start of Test:	**26/09/2022**
Sampling Location:	**AO32-1**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.13 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.23 Mg/m³**
Apparent Particle density =	**2.35 Mg/m³**
Water absorption (of dry mass) =	**4.4 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
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B31 2UQ

Date: 07 October 2022
Test Report Ref: TR 896110

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S104193**
Client Ref. No:	**AO33-1**
Date and Time of Sampling:	**13/07/2022**
Date of Receipt at Lab:	**15/07/2022**
Date of Start of Test:	**27/07/2022**
Sampling Location:	**AO33-1**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**CM**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) =	**1.5**

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Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

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St Modwen Developments Limited
Park Point
17 High Street
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B31 2UQ

Date: 27 September 2022
Test Report Ref: TR 896112

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S104193**
Client Ref. No:	**AO33-1**
Date and Time of Sampling:	**13/07/2022**
Date of Receipt at Lab:	**15/07/2022**
Date of Start of Test:	**26/09/2022**
Sampling Location:	**AO33-1**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.22 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.35 Mg/m³**
Apparent Particle density =	**2.56 Mg/m³**
Water absorption (of dry mass) =	**6.0 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 07 October 2022
Test Report Ref: TR 896115

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S104193**
Client Ref. No:	**AV31-1**
Date and Time of Sampling:	**13/07/2022**
Date of Receipt at Lab:	**15/07/2022**
Date of Start of Test:	**27/07/2022**
Sampling Location:	**AV31-1**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**CM**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = 8.0

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

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St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 27 September 2022
Test Report Ref: TR 896117

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S104193**
Client Ref. No:	**AV31-1**
Date and Time of Sampling:	**13/07/2022**
Date of Receipt at Lab:	**15/07/2022**
Date of Start of Test:	**26/09/2022**
Sampling Location:	**AV31-1**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**1.87 Mg/m³**
Particle density on a saturated and surface-dried basis =	**1.98 Mg/m³**
Apparent Particle density =	**2.10 Mg/m³**
Water absorption (of dry mass) =	**6.0 %**

This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 07 October 2022
Test Report Ref: TR 896119

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S104193**
Client Ref. No:	**AV32-1**
Date and Time of Sampling:	**13/07/2022**
Date of Receipt at Lab:	**15/07/2022**
Date of Start of Test:	**27/07/2022**
Sampling Location:	**AV32-2**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**CM**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = **7.7**

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Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
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B31 2UQ

Date: 27 September 2022
Test Report Ref: TR 896121

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S104193**
Client Ref. No:	**AV32-1**
Date and Time of Sampling:	**13/07/2022**
Date of Receipt at Lab:	**15/07/2022**
Date of Start of Test:	**26/09/2022**
Sampling Location:	**AV32-2**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.52 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.66 Mg/m³**
Apparent Particle density =	**2.91 Mg/m³**
Water absorption (of dry mass) =	**5.3 %**

This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
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B31 2UQ

Date: 07 October 2022
Test Report Ref: TR 896124

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S104193**
Client Ref. No:	**AW31-1**
Date and Time of Sampling:	**13/07/2022**
Date of Receipt at Lab:	**15/07/2022**
Date of Start of Test:	**27/07/2022**
Sampling Location:	**AW31-1**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**CM**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = 8.7

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

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B31 2UQ

Date: 27 September 2022
Test Report Ref: TR 896126

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S104193**
Client Ref. No:	**AW31-1**
Date and Time of Sampling:	**13/07/2022**
Date of Receipt at Lab:	**15/07/2022**
Date of Start of Test:	**26/09/2022**
Sampling Location:	**AW31-1**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.04 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.13 Mg/m³**
Apparent Particle density =	**2.25 Mg/m³**
Water absorption (of dry mass) =	**4.4 %**

This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
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B31 2UQ

Date: 07 October 2022
Test Report Ref: TR 896133

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S104193**
Client Ref. No:	**AX31-1**
Date and Time of Sampling:	**13/07/2022**
Date of Receipt at Lab:	**15/07/2022**
Date of Start of Test:	**27/07/2022**
Sampling Location:	**AX31-1**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**CM**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = 10.9

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
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B31 2UQ

Date: 27 September 2022
Test Report Ref: TR 896135

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S104193**
Client Ref. No:	**AX31-1**
Date and Time of Sampling:	**13/07/2022**
Date of Receipt at Lab:	**15/07/2022**
Date of Start of Test:	**26/09/2022**
Sampling Location:	**AX31-1**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.17 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.27 Mg/m³**
Apparent Particle density =	**2.42 Mg/m³**
Water absorption (of dry mass) =	**4.8 %**

This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
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B31 2UQ

Date: 07 October 2022
Test Report Ref: TR 896137

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S104193**
Client Ref. No:	**AX32-1**
Date and Time of Sampling:	**13/07/2022**
Date of Receipt at Lab:	**15/07/2022**
Date of Start of Test:	**27/07/2022**
Sampling Location:	**AX32-1**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**CM**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = 8.5

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 27 September 2022
Test Report Ref: TR 896139

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S104193**
Client Ref. No:	**AX32-1**
Date and Time of Sampling:	**13/07/2022**
Date of Receipt at Lab:	**15/07/2022**
Date of Start of Test:	**26/09/2022**
Sampling Location:	**AX32-1**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.69 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.84 Mg/m³**
Apparent Particle density =	**3.15 Mg/m³**
Water absorption (of dry mass) =	**5.4 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

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St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 07 October 2022
Test Report Ref: TR 896142

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S104193**
Client Ref. No:	**AX32-2**
Date and Time of Sampling:	**13/07/2022**
Date of Receipt at Lab:	**15/07/2022**
Date of Start of Test:	**27/07/2022**
Sampling Location:	**AX32-2**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**CM**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = **10.4**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 27 September 2022
Test Report Ref: TR 896144

Contract: Llanwern

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S104193**
Client Ref. No:	**AX32-2**
Date and Time of Sampling:	**13/07/2022**
Date of Receipt at Lab:	**15/07/2022**
Date of Start of Test:	**26/09/2022**
Sampling Location:	**AX32-2**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.48 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.54 Mg/m³**
Apparent Particle density =	**2.64 Mg/m³**
Water absorption (of dry mass) =	**2.6 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 19 October 2022
Test Report Ref: TR 903959

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S105000**
Client Ref. No:	**AQ32-1**
Date and Time of Sampling:	**16/08/2022**
Date of Receipt at Lab:	**23/08/2022**
Date of Start of Test:	**16/09/2022**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**CM**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = **5.6**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Two Devon Way
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B31 2TS

Date: 19 October 2022
Test Report Ref: TR 903962

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S105000**
Client Ref. No:	**AQ32-1**
Date and Time of Sampling:	**16/08/2022**
Date of Receipt at Lab:	**23/08/2022**
Date of Start of Test:	**19/10/2022**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.85 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.95 Mg/m³**
Apparent Particle density =	**3.16 Mg/m³**
Water absorption (of dry mass) =	**3.4 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Two Devon Way
Longbridge
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Date: 19 October 2022
Test Report Ref: TR 903967

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S105000**
Client Ref. No:	**AR32-1**
Date and Time of Sampling:	**16/08/2022**
Date of Receipt at Lab:	**23/08/2022**
Date of Start of Test:	**16/09/2022**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**CM**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) =	**11.5**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	 Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Two Devon Way
Longbridge
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B31 2TS

Date: 19 October 2022
Test Report Ref: TR 903969

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S105000**
Client Ref. No:	**AR32-1**
Date and Time of Sampling:	**16/08/2022**
Date of Receipt at Lab:	**23/08/2022**
Date of Start of Test:	**19/10/2022**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.61 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.71 Mg/m³**
Apparent Particle density =	**2.92 Mg/m³**
Water absorption (of dry mass) =	**4.1 %**

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Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Two Devon Way
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Date: 19 October 2022
Test Report Ref: TR 903971

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S105000**
Client Ref. No:	**AS32-1**
Date and Time of Sampling:	**16/08/2022**
Date of Receipt at Lab:	**23/08/2022**
Date of Start of Test:	**16/09/2022**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**CM**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) =	**30.3**

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St Modwen Developments Limited
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Date: 19 October 2022
Test Report Ref: TR 903973

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S105000**
Client Ref. No:	**AS32-1**
Date and Time of Sampling:	**16/08/2022**
Date of Receipt at Lab:	**23/08/2022**
Date of Start of Test:	**19/10/2022**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.41 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.54 Mg/m³**
Apparent Particle density =	**2.76 Mg/m³**
Water absorption (of dry mass) =	**5.2 %**

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Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Two Devon Way
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Date: 19 October 2022
Test Report Ref: TR 903976

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S105000**
Client Ref. No:	**AS32-2**
Date and Time of Sampling:	**16/08/2022**
Date of Receipt at Lab:	**23/08/2022**
Date of Start of Test:	**16/09/2022**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**CM**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) =	**4.3**

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Comments:	Report checked and approved by:
None	 Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Two Devon Way
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Date: 19 October 2022
Test Report Ref: TR 903978

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S105000**
Client Ref. No:	**AS32-2**
Date and Time of Sampling:	**16/08/2022**
Date of Receipt at Lab:	**23/08/2022**
Date of Start of Test:	**19/10/2022**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**3.10 Mg/m³**
Particle density on a saturated and surface-dried basis =	**3.21 Mg/m³**
Apparent Particle density =	**3.50 Mg/m³**
Water absorption (of dry mass) =	**3.6 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Two Devon Way
Longbridge
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B31 2TS

Date: 19 October 2022
Test Report Ref: TR 903980

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S105000**
Client Ref. No:	**AT32-1**
Date and Time of Sampling:	**16/08/2022**
Date of Receipt at Lab:	**23/08/2022**
Date of Start of Test:	**16/09/2022**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**CM**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) =	**13.3**

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Comments:	Report checked and approved by:
None	 Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 19 October 2022
Test Report Ref: TR 903982

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S105000**
Client Ref. No:	**AT32-1**
Date and Time of Sampling:	**16/08/2022**
Date of Receipt at Lab:	**23/08/2022**
Date of Start of Test:	**19/10/2022**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.40 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.49 Mg/m³**
Apparent Particle density =	**2.62 Mg/m³**
Water absorption (of dry mass) =	**3.6 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 19 October 2022
Test Report Ref: TR 903985

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S105000**
Client Ref. No:	**AU29-1**
Date and Time of Sampling:	**16/08/2022**
Date of Receipt at Lab:	**23/08/2022**
Date of Start of Test:	**16/09/2022**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**CM**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) =	**6.7**

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Comments:	Report checked and approved by:
None	 Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 19 October 2022
Test Report Ref: TR 903987

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S105000**
Client Ref. No:	**AU29-1**
Date and Time of Sampling:	**16/08/2022**
Date of Receipt at Lab:	**23/08/2022**
Date of Start of Test:	**19/10/2022**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.42 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.51 Mg/m³**
Apparent Particle density =	**2.65 Mg/m³**
Water absorption (of dry mass) =	**3.6 %**

This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 19 October 2022
Test Report Ref: TR 903989

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S105000**
Client Ref. No:	**AU32-1**
Date and Time of Sampling:	**16/08/2022**
Date of Receipt at Lab:	**23/08/2022**
Date of Start of Test:	**16/09/2022**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**CM**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = 4.8

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Two Devon Way
Longbridge
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B31 2TS

Date: 19 October 2022
Test Report Ref: TR 903991

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S105000**
Client Ref. No:	**AU32-1**
Date and Time of Sampling:	**16/08/2022**
Date of Receipt at Lab:	**23/08/2022**
Date of Start of Test:	**19/10/2022**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.62 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.75 Mg/m³**
Apparent Particle density =	**3.01 Mg/m³**
Water absorption (of dry mass) =	**5.0 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 19 October 2022
Test Report Ref: TR 903994

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S105000**
Client Ref. No:	**AV30-1**
Date and Time of Sampling:	**16/08/2022**
Date of Receipt at Lab:	**23/08/2022**
Date of Start of Test:	**16/09/2022**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**CM**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = **9.8**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 19 October 2022
Test Report Ref: TR 903996

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S105000**
Client Ref. No:	**AV30-1**
Date and Time of Sampling:	**16/08/2022**
Date of Receipt at Lab:	**23/08/2022**
Date of Start of Test:	**19/10/2022**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.61 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.71 Mg/m³**
Apparent Particle density =	**2.90 Mg/m³**
Water absorption (of dry mass) =	**3.8 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Two Devon Way
Longbridge
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B31 2TS

Date: 24 October 2022
Test Report Ref: TR 904884

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S105136**
Client Ref. No:	**AN34-1 - 1m**
Date and Time of Sampling:	**24/08/2022**
Date of Receipt at Lab:	**30/08/2022**
Date of Start of Test:	**13/10/2022**
Sampling Location:	**AN34-1 - 1m**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**KH**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) =	**10.8**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	 Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 31 October 2022
Test Report Ref: TR 904886

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S105136**
Client Ref. No:	**AN34-1 - 1m**
Date and Time of Sampling:	**24/08/2022**
Date of Receipt at Lab:	**30/08/2022**
Date of Start of Test:	**27/10/2022**
Sampling Location:	**AN34-1 - 1m**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.49 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.55 Mg/m³**
Apparent Particle density =	**2.66 Mg/m³**
Water absorption (of dry mass) =	**2.6 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments (Llanwern) Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 20 February 2023
Test Report Ref: TR 927633

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S107420**
Client Ref. No:	**AM34-1 - 0.2**
Date and Time of Sampling:	**Unknown**
Date of Receipt at Lab:	**16/12/2022**
Date of Start of Test:	**20/02/2023**
Sampling Location:	**AM34-1 - 0.2**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.52 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.63 Mg/m³**
Apparent Particle density =	**2.83 Mg/m³**
Water absorption (of dry mass) =	**4.4 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments (Llanwern) Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 20 February 2023
Test Report Ref: TR 927638

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S107420**
Client Ref. No:	**AM35-1 - 1**
Date and Time of Sampling:	**Unknown**
Date of Receipt at Lab:	**16/12/2022**
Date of Start of Test:	**20/02/2023**
Sampling Location:	**AM35-1 - 1**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.24 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.35 Mg/m³**
Apparent Particle density =	**2.51 Mg/m³**
Water absorption (of dry mass) =	**4.8 %**

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St Modwen Developments (Llanwern) Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 31 January 2023
Test Report Ref: TR 927640

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S107420**
Client Ref. No:	**AM36-1 - 1.5**
Date and Time of Sampling:	**Unknown**
Date of Receipt at Lab:	**16/12/2022**
Date of Start of Test:	**12/01/2023**
Sampling Location:	**AM36-1 - 1.5**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**BR**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = **11.9**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments (Llanwern) Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 20 February 2023
Test Report Ref: TR 927642

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S107420**
Client Ref. No:	**AM36-1 - 1.5**
Date and Time of Sampling:	**Unknown**
Date of Receipt at Lab:	**16/12/2022**
Date of Start of Test:	**20/02/2023**
Sampling Location:	**AM36-1 - 1.5**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.40 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.47 Mg/m³**
Apparent Particle density =	**2.58 Mg/m³**
Water absorption (of dry mass) =	**2.9 %**

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These results relate only to the items tested.

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None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments (Llanwern) Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 31 January 2023
Test Report Ref: TR 927645

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S107420**
Client Ref. No:	**AN37-1 - 1**
Date and Time of Sampling:	**Unknown**
Date of Receipt at Lab:	**16/12/2022**
Date of Start of Test:	**12/01/2023**
Sampling Location:	**AN37-1 - 1**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**BR**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = 13.4

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None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments (Llanwern) Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 20 February 2023
Test Report Ref: TR 927647

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S107420**
Client Ref. No:	**AN37-1 - 1**
Date and Time of Sampling:	**Unknown**
Date of Receipt at Lab:	**16/12/2022**
Date of Start of Test:	**20/02/2023**
Sampling Location:	**AN37-1 - 1**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**DW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.67 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.70 Mg/m³**
Apparent Particle density =	**2.74 Mg/m³**
Water absorption (of dry mass) =	**0.9 %**

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These results relate only to the items tested.

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None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments (Llanwern) Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 31 January 2023
Test Report Ref: TR 927649

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S107420**
Client Ref. No:	**AN37-1 - 2**
Date and Time of Sampling:	**Unknown**
Date of Receipt at Lab:	**16/12/2022**
Date of Start of Test:	**12/01/2023**
Sampling Location:	**AN37-1 - 2**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**BR**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = 19.2

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	Chantelle Kopec-Williams Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 10 March 2021
Test Report Ref: TR 782358

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S92900**
Client Ref. No:	**AK34-1 - 1.6**
Date and Time of Sampling:	**29/01/2021**
Date of Receipt at Lab:	**04/02/2021**
Date of Start of Test:	**08/02/2021**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client**
Tested By:	**DW**
Material Description:	**Granular - 40mm Down**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.61 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.70 Mg/m³**
Apparent Particle density =	**2.85 Mg/m³**
Water absorption (of dry mass) =	**3.1 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	S Parry Sharon Parry Aggregate Team Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 10 March 2021
Test Report Ref: TR 782497

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S92900**
Client Ref. No:	**AW26-1 - 0.5**
Date and Time of Sampling:	**Unknown**
Date of Receipt at Lab:	**04/02/2021**
Date of Start of Test:	**18/02/2021**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client**
Tested By:	**JP**
Material Description:	**Granular - 40mm Down**
Target Specification:	**N/A**

RESULTS:

Water Content (%) =	**12.6**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	S Parry Sharon Parry Aggregate Team Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
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B31 2UQ

Date: 29 March 2021
Test Report Ref: TR 782499

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S92900**
Client Ref. No:	**AW26-1 - 0.5**
Date and Time of Sampling:	**Unknown**
Date of Receipt at Lab:	**04/02/2021**
Date of Start of Test:	**23/03/2021**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client**
Tested By:	**DD**
Material Description:	**Granular - 40mm Down**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.35 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.45 Mg/m³**
Apparent Particle density =	**2.60 Mg/m³**
Water absorption (of dry mass) =	**4.1 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	S Parry Sharon Parry Aggregate Team Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 14 April 2021
Test Report Ref: TR 782506

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S92900**
Client Ref. No:	**AW28-1 - 0.4**
Date and Time of Sampling:	**Unknown**
Date of Receipt at Lab:	**04/02/2021**
Date of Start of Test:	**18/02/2021**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client**
Tested By:	**JP**
Material Description:	**Granular - 40mm Down**
Target Specification:	**N/A**

RESULTS:

Water Content (%) =	**16.7**

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Comments:	Report checked and approved by:
None	S Parry Sharon Parry Aggregate Team Coordinator

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St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 16 March 2021
Test Report Ref: TR 782508

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S92900**
Client Ref. No:	**AW28-1 - 0.4**
Date and Time of Sampling:	**Unknown**
Date of Receipt at Lab:	**04/02/2021**
Date of Start of Test:	**13/03/2021**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client**
Tested By:	**DW**
Material Description:	**Granular - 40mm Down**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.51 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.62 Mg/m³**
Apparent Particle density =	**2.82 Mg/m³**
Water absorption (of dry mass) =	**4.3 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	S Parry Sharon Parry Aggregate Team Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 04 March 2021
Test Report Ref: TR 782510

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S92900**
Client Ref. No:	**AW29-1 - 1.5**
Date and Time of Sampling:	**Unknown**
Date of Receipt at Lab:	**04/02/2021**
Date of Start of Test:	**18/02/2021**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client** **(Test result apply to sample as received)**
Tested By:	**JP**
Material Description:	**Granular - 40mm Down**
Target Specification:	**N/A**

RESULTS:

Water Content (%) =	**17.4**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	S Parry Sharon Parry Aggregate Team Coordinator

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St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 16 March 2021
Test Report Ref: TR 782512

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S92900**
Client Ref. No:	**AW29-1 - 1.5**
Date and Time of Sampling:	**Unknown**
Date of Receipt at Lab:	**04/02/2021**
Date of Start of Test:	**13/03/2021**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client**
Tested By:	**DW**
Material Description:	**Granular - 40mm Down**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.65 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.76 Mg/m³**
Apparent Particle density =	**2.97 Mg/m³**
Water absorption (of dry mass) =	**4.2 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	S Parry Sharon Parry Aggregate Team Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
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B31 2UQ

Date: 04 March 2021
Test Report Ref: TR 782314

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S92900**
Client Ref. No:	**AK32-1 - 1.0**
Date and Time of Sampling:	**28/01/2021**
Date of Receipt at Lab:	**04/02/2021**
Date of Start of Test:	**19/02/2021**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client** **(Test result apply to sample as received)**
Tested By:	**JP**
Material Description:	**Granular - 40mm Down**
Target Specification:	**N/A**

RESULTS:

Water Content (%) =	**16.9**

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Comments:	Report checked and approved by:
None	S Parry Sharon Parry Aggregate Team Coordinator

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St Modwen Developments Limited
Park Point
17 High Street
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B31 2UQ

Date: 10 March 2021
Test Report Ref: TR 782317

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S92900**
Client Ref. No:	**AK32-1 - 1.0**
Date and Time of Sampling:	**28/01/2021**
Date of Receipt at Lab:	**04/02/2021**
Date of Start of Test:	**08/02/2021**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client**
Tested By:	**DW**
Material Description:	**Granular - 40mm Down**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.24 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.34 Mg/m³**
Apparent Particle density =	**2.50 Mg/m³**
Water absorption (of dry mass) =	**4.6 %**

This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:	Report checked and approved by:
None	S Parry Sharon Parry Aggregate Team Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 04 March 2021
Test Report Ref: TR 782352

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S92900**
Client Ref. No:	**AK33-1 - 1.0**
Date and Time of Sampling:	**29/01/2021**
Date of Receipt at Lab:	**04/02/2021**
Date of Start of Test:	**19/02/2021**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client** **(Test result apply to sample as received)**
Tested By:	**JP**
Material Description:	**Granular - 40mm Down**
Target Specification:	**N/A**

RESULTS:

Water Content (%) =	**8.5**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	S Parry Sharon Parry Aggregate Team Coordinator

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St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 10 March 2021
Test Report Ref: TR 782354

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Density and water absorption for aggregate sample between 4 mm and 31.5mm, in accordance with **BS EN 1097-6: 2013 Clause 8**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S92900**
Client Ref. No:	**AK33-1 - 1.0**
Date and Time of Sampling:	**29/01/2021**
Date of Receipt at Lab:	**04/02/2021**
Date of Start of Test:	**08/02/2021**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client**
Tested By:	**DW**
Material Description:	**Granular - 40mm Down**
Target Specification:	**N/A**

RESULTS:

Particle density on an oven-dried basis =	**2.63 Mg/m³**
Particle density on a saturated and surface-dried basis =	**2.68 Mg/m³**
Apparent Particle density =	**2.78 Mg/m³**
Water absorption (of dry mass) =	**2.0 %**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	S Parry Sharon Parry Aggregate Team Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 04 March 2021
Test Report Ref: TR 782356

LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Water Content of aggregates by – drying in a ventilated oven according to **BS EN 1097-5: 2008**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S92900**
Client Ref. No:	**AK34-1 - 1.6**
Date and Time of Sampling:	**29/01/2021**
Date of Receipt at Lab:	**04/02/2021**
Date of Start of Test:	**19/02/2021**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client** **(Test result apply to sample as received)**
Tested By:	**JP**
Material Description:	**Granular - 40mm Down**
Target Specification:	**N/A**

RESULTS:

Water Content (%) = **9.4**

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These results relate only to the items tested.

Comments:	Report checked and approved by:
None	S Parry Sharon Parry Aggregate Team Coordinator

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INDEPENDENT MATERIALS TESTING | DIAMOND DRILLING & SAWING

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 20 September 2022
Test Report Ref: TR 890936

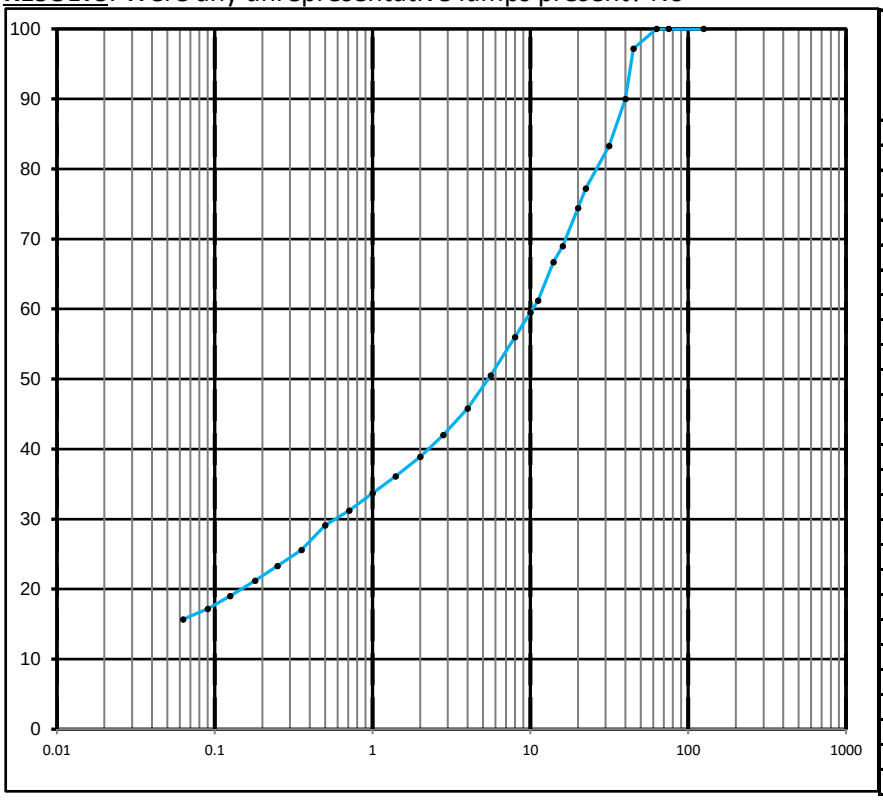
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103682**	Method of Sampling:	**Unknown**
Client Ref. No:	**AX33-1 0.8M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**08/06/2022**	Tested By:	**CM**
Date of Receipt at Lab:	**23/06/2022**		
Date of Start of Test:	**27/07/2022**		
Sampling Location:	**AX33-1 0.8M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	100	
45.0 mm	97	
40.0 mm	90	
31.5 mm	83	
22.4 mm	77	
20.0 mm	74	
16.0 mm	69	
14.0 mm	67	
11.2 mm	61	
10.0 mm	60	
8.0 mm	56	
5.6 mm	51	
4.0 mm	46	
2.8 mm	42	
2.0 mm	39	
1.4 mm	36	
1.0 mm	34	
0.710 mm	31	
0.500 mm	29	
0.355 mm	26	
0.250 mm	23	
0.180 mm	21	
0.125 mm	19	
0.090 mm	17	
0.063 mm	15.7	

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These results relate only to the items tested.

Comments:

None

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

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INDEPENDENT MATERIALS TESTING | DIAMOND DRILLING & SAWING

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 20 September 2022
Test Report Ref: TR 890936

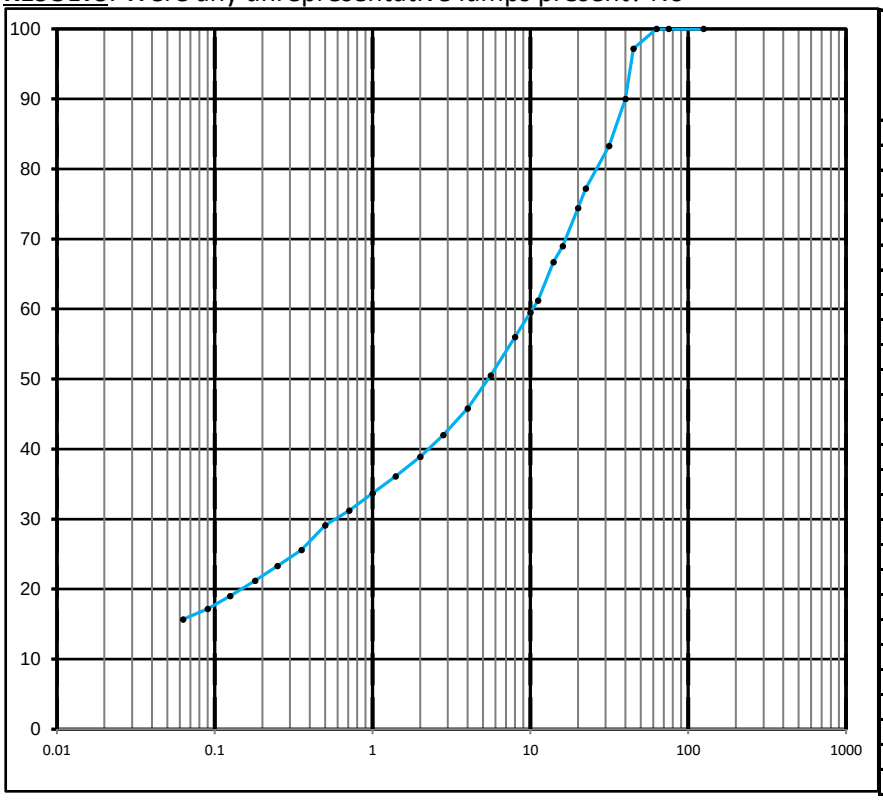
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103682**	Method of Sampling:	**Unknown**
Client Ref. No:	**AX33-1 0.8M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**08/06/2022**	Tested By:	**CM**
Date of Receipt at Lab:	**23/06/2022**		
Date of Start of Test:	**27/07/2022**		
Sampling Location:	**AX33-1 0.8M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	100	
45.0 mm	97	
40.0 mm	90	
31.5 mm	83	
22.4 mm	77	
20.0 mm	74	
16.0 mm	69	
14.0 mm	67	
11.2 mm	61	
10.0 mm	60	
8.0 mm	56	
5.6 mm	51	
4.0 mm	46	
2.8 mm	42	
2.0 mm	39	
1.4 mm	36	
1.0 mm	34	
0.710 mm	31	
0.500 mm	29	
0.355 mm	26	
0.250 mm	23	
0.180 mm	21	
0.125 mm	19	
0.090 mm	17	
0.063 mm	15.7	

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These results relate only to the items tested.

Comments:

None

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 23 February 2021
Test Report Ref: TR 778908

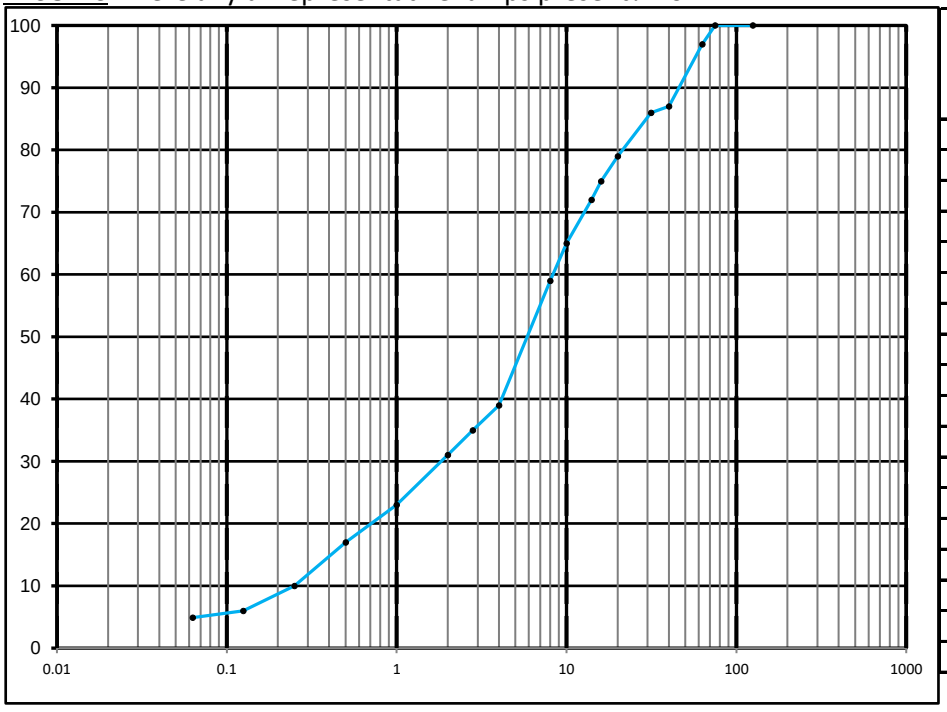
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample-washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S92621**	Method of Sampling:	**Unknown**
Client Ref. No:	**AV28-1 @ 1.2M**	Sampled By:	**Client**
Date and Time of Sampling:	**Unknown**	Tested By:	**JP**
Date of Receipt at Lab:	**22/01/2021**		
Date of Start of Test:	**11/02/2021**		
Sampling Location:	**Unknown**		
Material Description	**Granular**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	97	
40.0 mm	87	
31.5 mm	86	
20.0 mm	79	
16.0 mm	75	
14.0 mm	72	
10.0 mm	65	
8.0 mm	59	
4.0 mm	39	
2.8 mm	35	
2.0 mm	31	
1.0 mm	23	
0.500 mm	17	
0.250 mm	10	
0.125 mm	6	
0.063 mm	4.9	

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These results relate only to the items tested.

Comments:

None

Report checked and approved by:

S Parry

Sharon Parry
Aggregate Team Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 23 February 2021
Test Report Ref: TR 778909

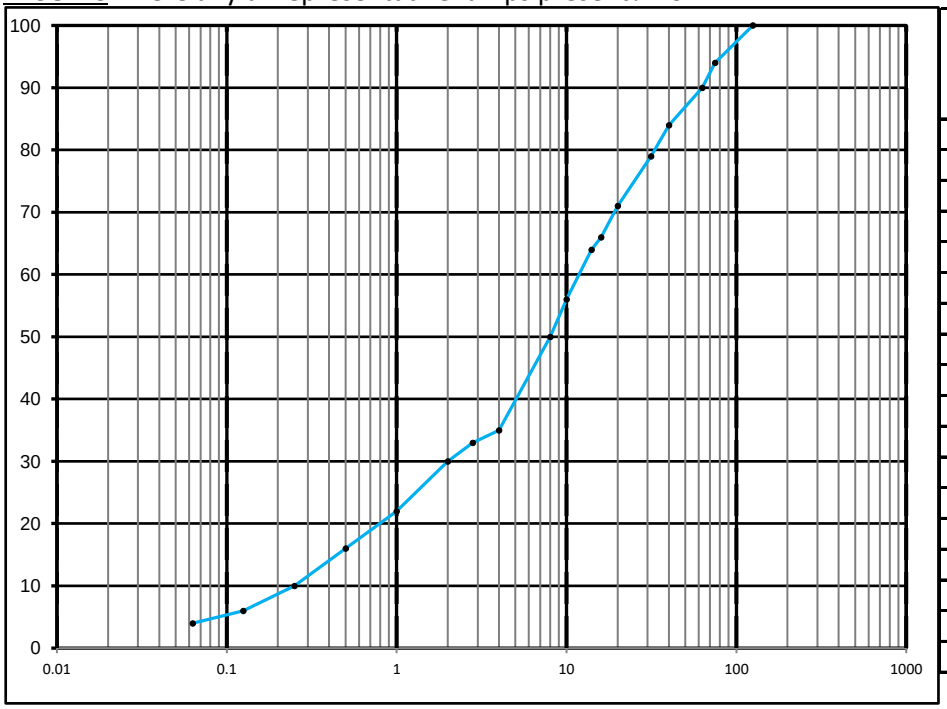
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample-washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S92621**	Method of Sampling:	**Unknown**
Client Ref. No:	**AM33-1 @ 1.3M**	Sampled By:	**Client**
Date and Time of Sampling:	**Unknown**	Tested By:	**JP**
Date of Receipt at Lab:	**22/01/2021**		
Date of Start of Test:	**11/02/2021**		
Sampling Location:	**Unknown**		
Material Description	**Granular**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	94	
63.0 mm	90	
40.0 mm	84	
31.5 mm	79	
20.0 mm	71	
16.0 mm	66	
14.0 mm	64	
10.0 mm	56	
8.0 mm	50	
4.0 mm	35	
2.8 mm	33	
2.0 mm	30	
1.0 mm	22	
0.500 mm	16	
0.250 mm	10	
0.125 mm	6	
0.063 mm	4.0	

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These results relate only to the items tested.

Comments:

None

Report checked and approved by:

S Parry

Sharon Parry

Aggregate Team Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 17 February 2021
Test Report Ref: TR 778910

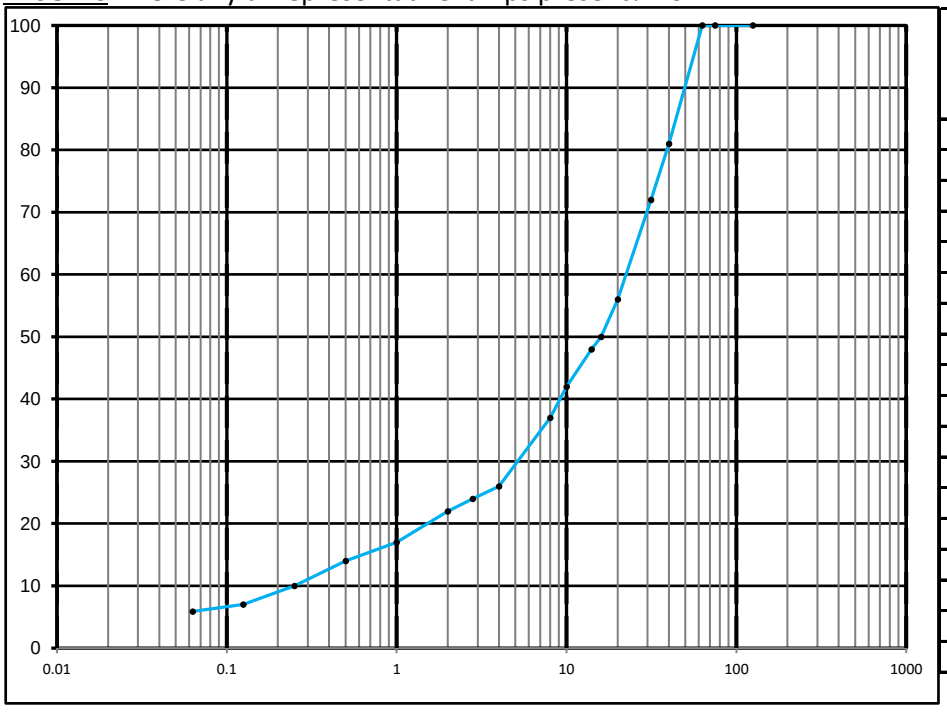
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample-washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S92621**	Method of Sampling:	**Unknown**
Client Ref. No:	**AV29-1 @ 1.0M**	Sampled By:	**Client**
Date and Time of Sampling:	**Unknown**	Tested By:	**JP**
Date of Receipt at Lab:	**22/01/2021**		
Date of Start of Test:	**11/02/2021**		
Sampling Location:	**Unknown**		
Material Description	**Granular**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	100	
40.0 mm	81	
31.5 mm	72	
20.0 mm	56	
16.0 mm	50	
14.0 mm	48	
10.0 mm	42	
8.0 mm	37	
4.0 mm	26	
2.8 mm	24	
2.0 mm	22	
1.0 mm	17	
0.500 mm	14	
0.250 mm	10	
0.125 mm	7	
0.063 mm	5.9	

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These results relate only to the items tested.

Comments:

None

Report checked and approved by:

S Parry

Sharon Parry
Aggregate Team Coordinator

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St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 23 February 2021
Test Report Ref: TR 778959

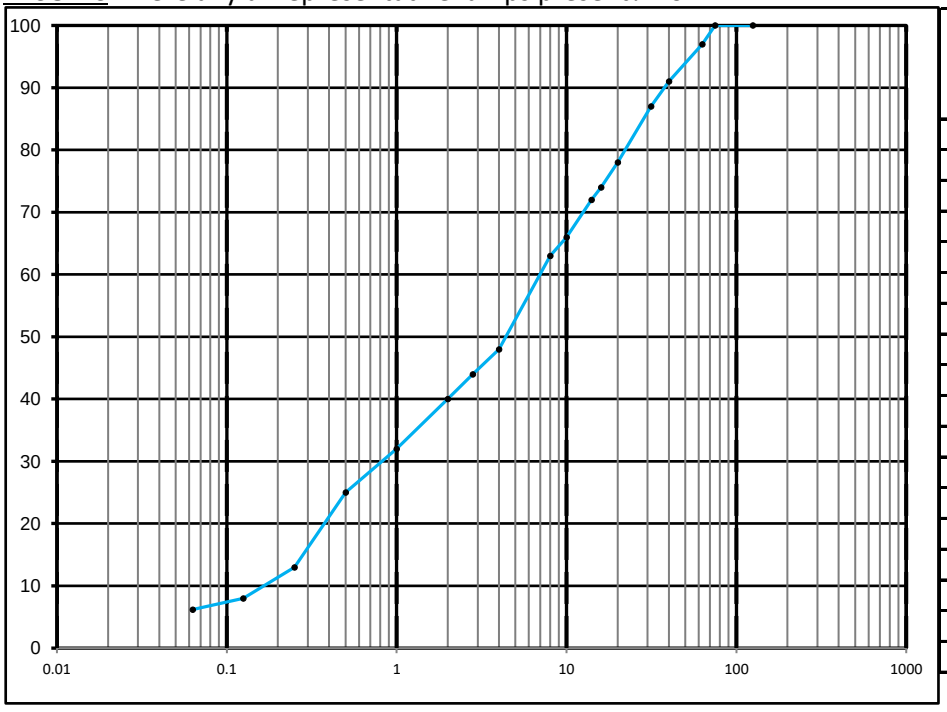
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample-washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S92621**	Method of Sampling:	**Unknown**
Client Ref. No:	**AU29-1 @ 0.5M**	Sampled By:	**Client**
Date and Time of Sampling:	**Unknown**	Tested By:	**JP**
Date of Receipt at Lab:	**22/01/2021**		
Date of Start of Test:	**11/02/2021**		
Sampling Location:	**Unknown**		
Material Description	**Granular**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	97	
40.0 mm	91	
31.5 mm	87	
20.0 mm	78	
16.0 mm	74	
14.0 mm	72	
10.0 mm	66	
8.0 mm	63	
4.0 mm	48	
2.8 mm	44	
2.0 mm	40	
1.0 mm	32	
0.500 mm	25	
0.250 mm	13	
0.125 mm	8	
0.063 mm	6.2	

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These results relate only to the items tested.

Comments:

None

Report checked and approved by:

S Parry

Sharon Parry
Aggregate Team Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 03 February 2022
Test Report Ref: TR 849448

Contract: Former Llanwern Steelworks

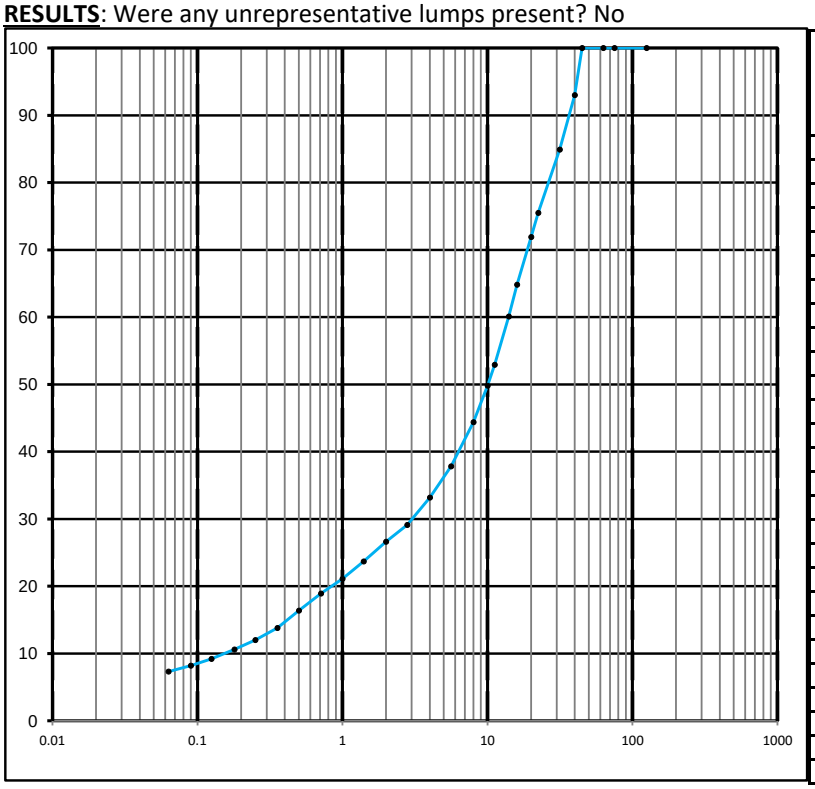
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample-washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S99333**	Method of Sampling:	**Unknown**
Client Ref. No:	**AU31-1 - 1.6M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**Unknown**	Tested By:	**KH**
Date of Receipt at Lab:	**26/11/2021**		
Date of Start of Test:	**21/01/2022**		
Sampling Location:	**AU31-1 - 1.6M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	100	
45.0 mm	100	
40.0 mm	93	
31.5 mm	85	
22.4 mm	76	
20.0 mm	72	
16.0 mm	65	
14.0 mm	60	
11.2 mm	53	
10.0 mm	50	
8.0 mm	44	
5.6 mm	38	
4.0 mm	33	
2.8 mm	29	
2.0 mm	27	
1.4 mm	24	
1.0 mm	21	
0.710 mm	19	
0.500 mm	16	
0.355 mm	14	
0.250 mm	12	
0.180 mm	11	
0.125 mm	9	
0.090 mm	8	
0.063 mm	7.3	

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These results relate only to the items tested.

Comments:

None

Report checked and approved by:

Chantelle Kopec-Williams

Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 03 February 2022
Test Report Ref: TR 849461

Contract: Former Llanwern Steelworks

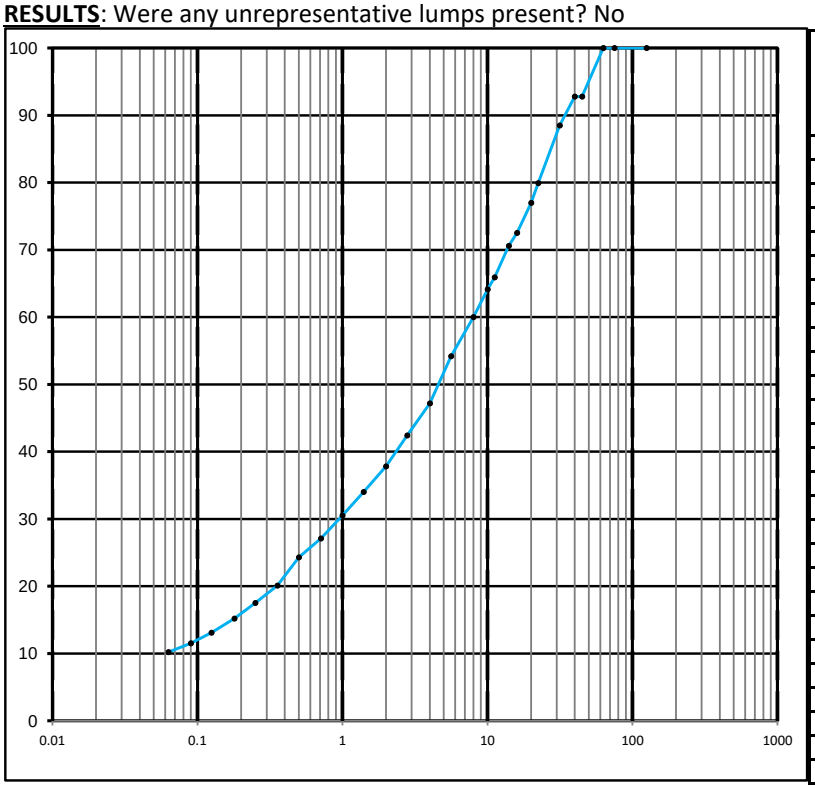
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample-washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S99333**	Method of Sampling:	**Unknown**
Client Ref. No:	**AU30-1 - 1.1M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**Unknown**	Tested By:	**DJ**
Date of Receipt at Lab:	**26/11/2021**		
Date of Start of Test:	**21/01/2022**		
Sampling Location:	**AU30-1 - 1.1M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	100	
45.0 mm	93	
40.0 mm	93	
31.5 mm	89	
22.4 mm	80	
20.0 mm	77	
16.0 mm	73	
14.0 mm	71	
11.2 mm	66	
10.0 mm	64	
8.0 mm	60	
5.6 mm	54	
4.0 mm	47	
2.8 mm	42	
2.0 mm	38	
1.4 mm	34	
1.0 mm	31	
0.710 mm	27	
0.500 mm	24	
0.355 mm	20	
0.250 mm	18	
0.180 mm	15	
0.125 mm	13	
0.090 mm	12	
0.063 mm	10.2	

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These results relate only to the items tested.

Comments:

None

Report checked and approved by:

Chantelle Kopec-Williams

Job Coordinator

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St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 24 August 2022
Test Report Ref: TR 887315

Contract: Llanwern

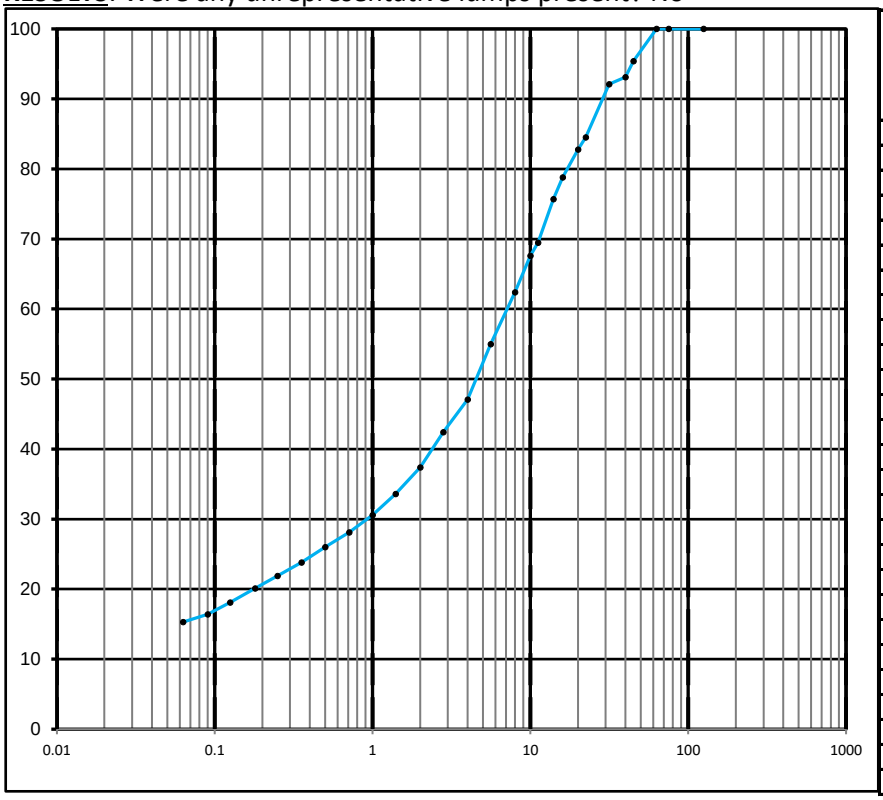
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AN35-2 - 1M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**SR**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**02/08/2022**		
Sampling Location:	**AN35-2 - 1M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	100	
45.0 mm	95	
40.0 mm	93	
31.5 mm	92	
22.4 mm	85	
20.0 mm	83	
16.0 mm	79	
14.0 mm	76	
11.2 mm	70	
10.0 mm	68	
8.0 mm	62	
5.6 mm	55	
4.0 mm	47	
2.8 mm	42	
2.0 mm	37	
1.4 mm	34	
1.0 mm	31	
0.710 mm	28	
0.500 mm	26	
0.355 mm	24	
0.250 mm	22	
0.180 mm	20	
0.125 mm	18	
0.090 mm	16	
0.063 mm	15.3	

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These results relate only to the items tested.

Comments:

None

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

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St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 24 August 2022
Test Report Ref: TR 887316

Contract: Llanwern

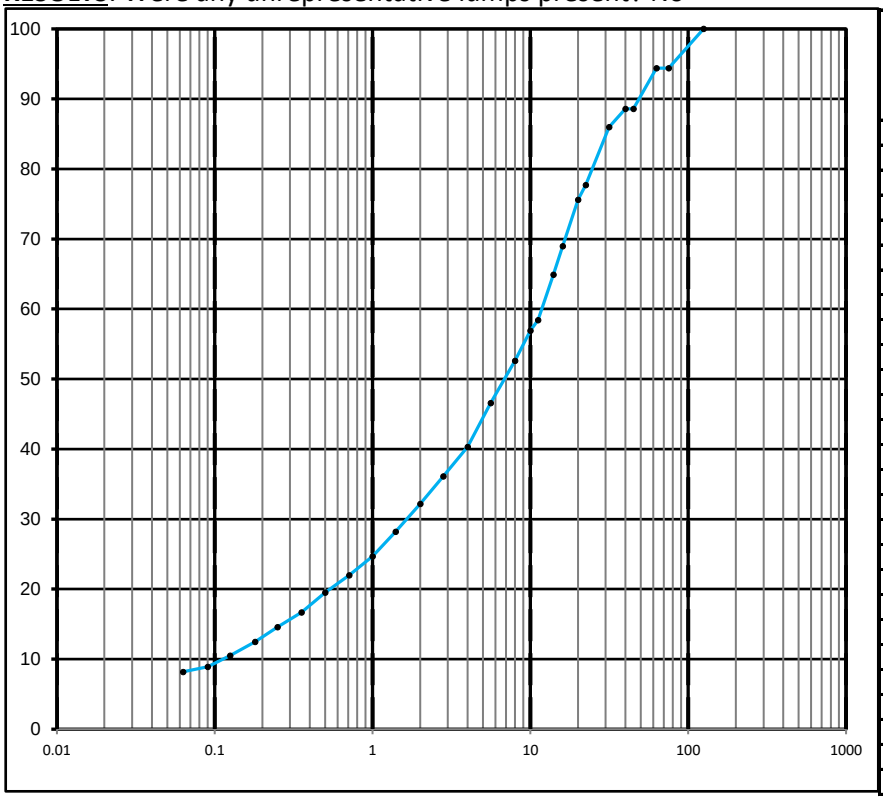
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AN36-1 - 0.5M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**KH**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**02/08/2022**		
Sampling Location:	**AN36-1 - 0.5M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	94	
63.0 mm	94	
45.0 mm	89	
40.0 mm	89	
31.5 mm	86	
22.4 mm	78	
20.0 mm	76	
16.0 mm	69	
14.0 mm	65	
11.2 mm	58	
10.0 mm	57	
8.0 mm	53	
5.6 mm	47	
4.0 mm	40	
2.8 mm	36	
2.0 mm	32	
1.4 mm	28	
1.0 mm	25	
0.710 mm	22	
0.500 mm	20	
0.355 mm	17	
0.250 mm	15	
0.180 mm	13	
0.125 mm	11	
0.090 mm	9	
0.063 mm	8.2	

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These results relate only to the items tested.

Comments:

None

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

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St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 25 August 2022
Test Report Ref: TR 887317

Contract: Llanwern

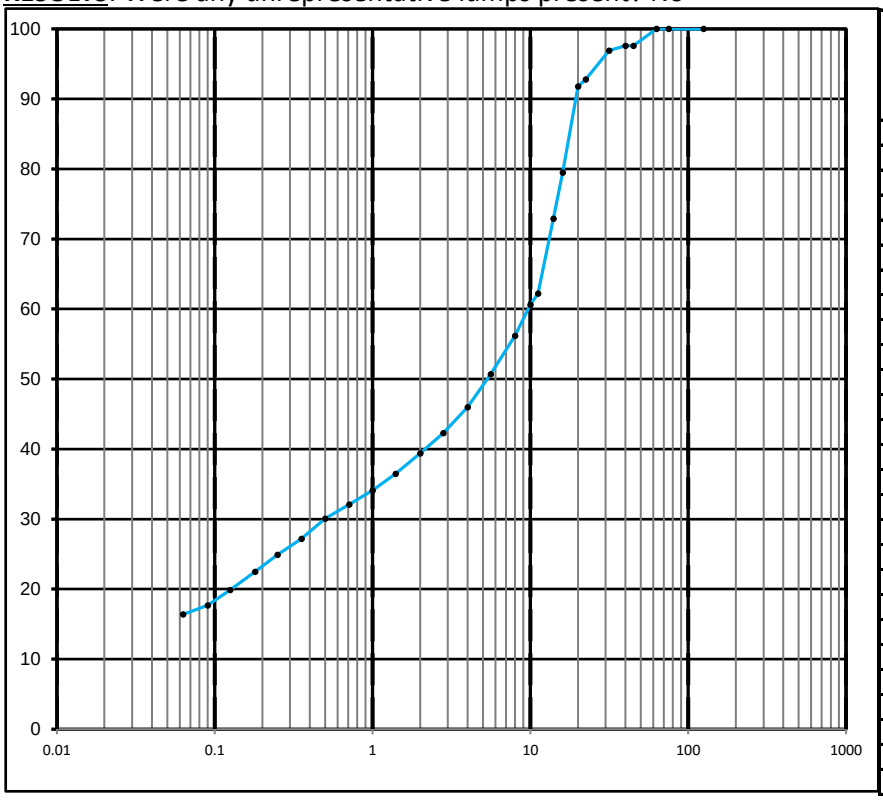
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AO36-1 - 0.5M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**KH**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**05/08/2022**		
Sampling Location:	**AO36-1 - 0.5M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	100	
45.0 mm	98	
40.0 mm	98	
31.5 mm	97	
22.4 mm	93	
20.0 mm	92	
16.0 mm	80	
14.0 mm	73	
11.2 mm	62	
10.0 mm	61	
8.0 mm	56	
5.6 mm	51	
4.0 mm	46	
2.8 mm	42	
2.0 mm	39	
1.4 mm	37	
1.0 mm	34	
0.710 mm	32	
0.500 mm	30	
0.355 mm	27	
0.250 mm	25	
0.180 mm	23	
0.125 mm	20	
0.090 mm	18	
0.063 mm	16.4	

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These results relate only to the items tested.

Comments:

None

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

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Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 23 August 2022
Test Report Ref: TR 887318

Contract: Llanwern

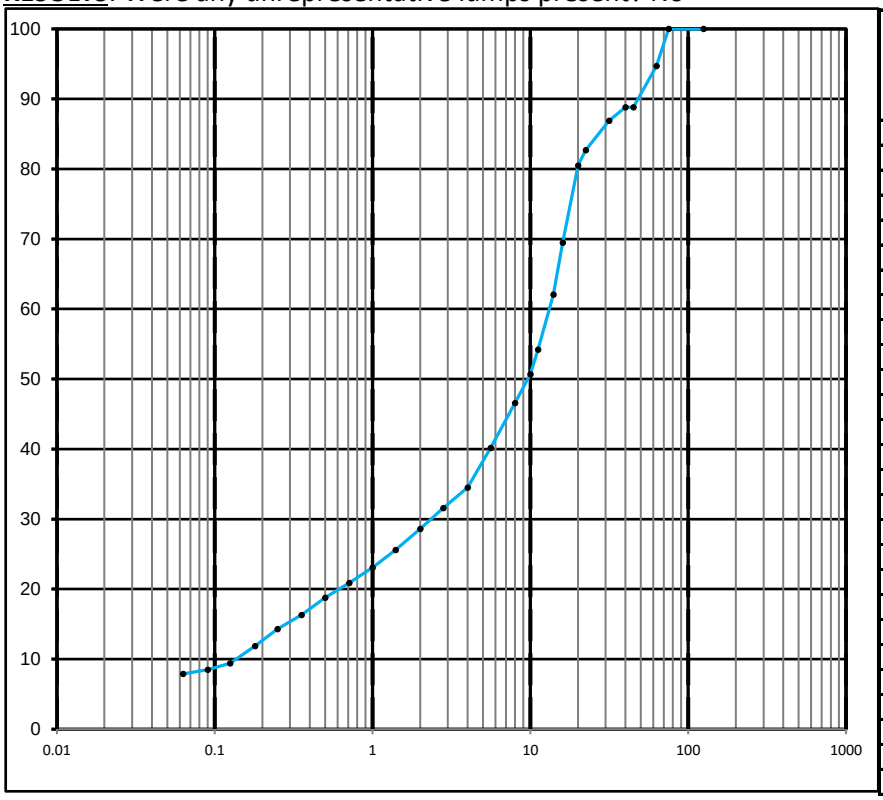
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AO37-1 - 0.3M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**SR**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**05/08/2022**		
Sampling Location:	**AO37-1 - 0.3M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	95	
45.0 mm	89	
40.0 mm	89	
31.5 mm	87	
22.4 mm	83	
20.0 mm	81	
16.0 mm	70	
14.0 mm	62	
11.2 mm	54	
10.0 mm	51	
8.0 mm	47	
5.6 mm	40	
4.0 mm	35	
2.8 mm	32	
2.0 mm	29	
1.4 mm	26	
1.0 mm	23	
0.710 mm	21	
0.500 mm	19	
0.355 mm	16	
0.250 mm	14	
0.180 mm	12	
0.125 mm	9	
0.090 mm	9	
0.063 mm	7.9	

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Comments:

None

Report checked and approved by:

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Job Coordinator

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Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 24 August 2022
Test Report Ref: TR 887319

Contract: Llanwern

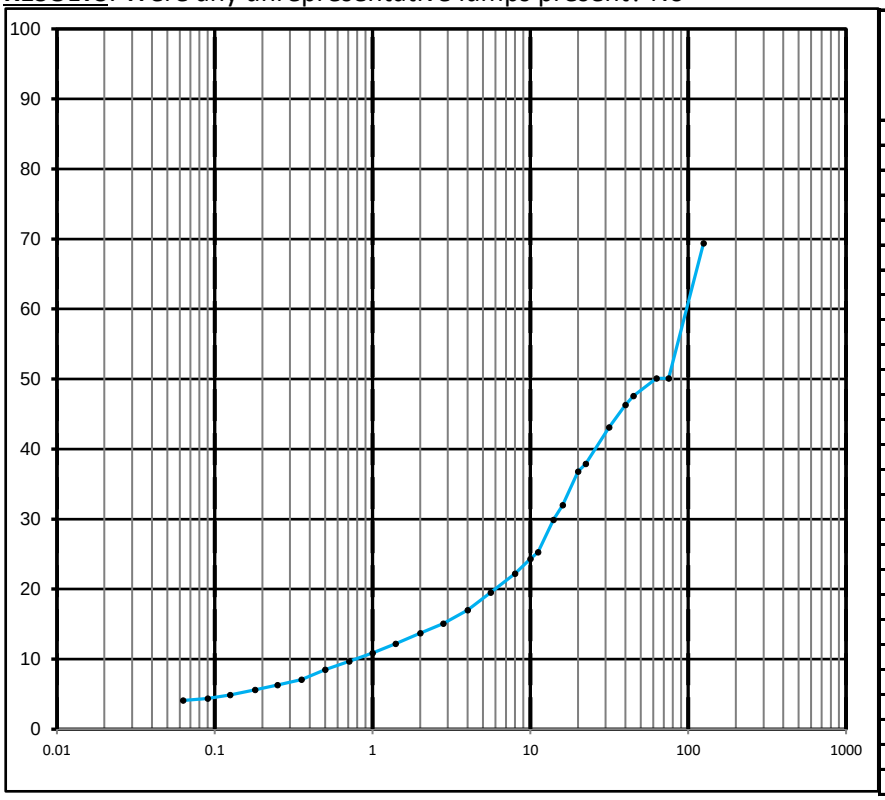
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AP34-1 - 0.4M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**KH**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**02/08/2022**		
Sampling Location:	**AP34-1 - 0.4M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	69	
75.0 mm	50	
63.0 mm	50	
45.0 mm	48	
40.0 mm	46	
31.5 mm	43	
22.4 mm	38	
20.0 mm	37	
16.0 mm	32	
14.0 mm	30	
11.2 mm	25	
10.0 mm	24	
8.0 mm	22	
5.6 mm	20	
4.0 mm	17	
2.8 mm	15	
2.0 mm	14	
1.4 mm	12	
1.0 mm	11	
0.710 mm	10	
0.500 mm	9	
0.355 mm	7	
0.250 mm	6	
0.180 mm	6	
0.125 mm	5	
0.090 mm	4	
0.063 mm	4.1	

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Comments:

None

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Park Point
17 High Street
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Birmingham
B31 2UQ

Date: 24 August 2022
Test Report Ref: TR 887320

Contract: Llanwern

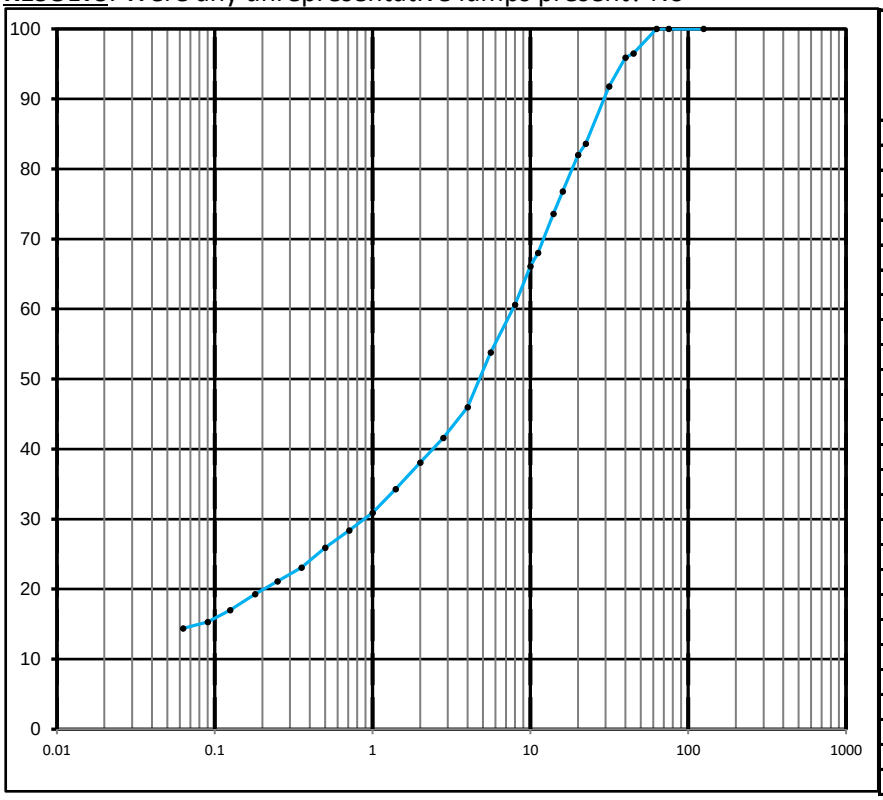
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AP35-1 - 0.5M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**KH**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**02/08/2022**		
Sampling Location:	**AP35-1 - 0.5M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	100	
45.0 mm	97	
40.0 mm	96	
31.5 mm	92	
22.4 mm	84	
20.0 mm	82	
16.0 mm	77	
14.0 mm	74	
11.2 mm	68	
10.0 mm	66	
8.0 mm	61	
5.6 mm	54	
4.0 mm	46	
2.8 mm	42	
2.0 mm	38	
1.4 mm	34	
1.0 mm	31	
0.710 mm	28	
0.500 mm	26	
0.355 mm	23	
0.250 mm	21	
0.180 mm	19	
0.125 mm	17	
0.090 mm	15	
0.063 mm	14.4	

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Comments:

None

Report checked and approved by:

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Park Point
17 High Street
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Birmingham
B31 2UQ

Date: 25 August 2022
Test Report Ref: TR 887321

Contract: Llanwern

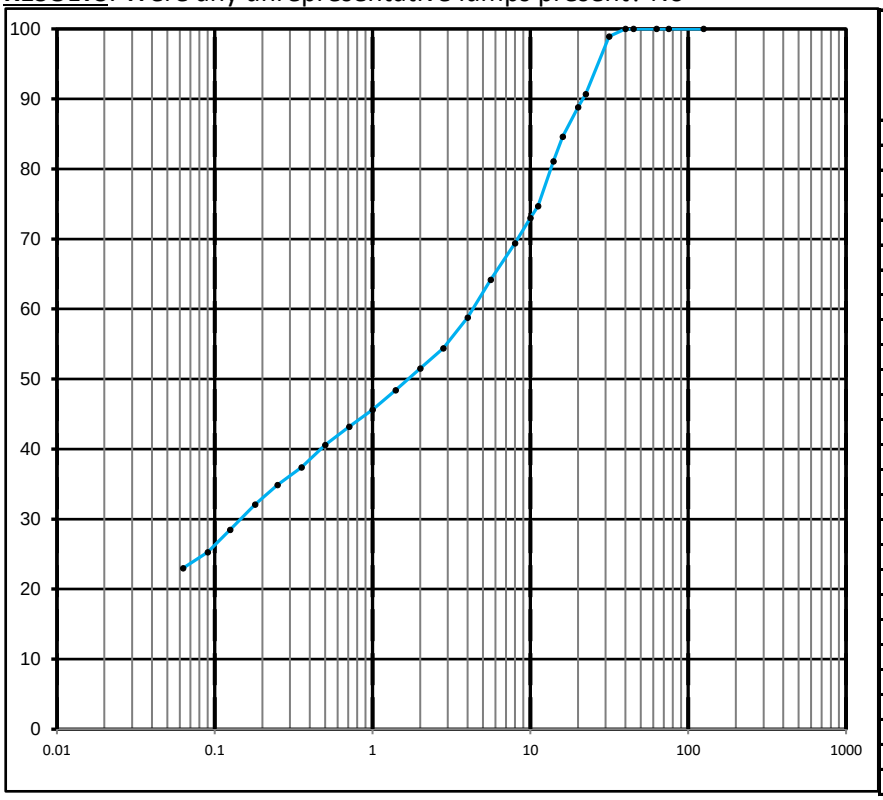
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AP36-2 - 1.5M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**KH**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**02/08/2022**		
Sampling Location:	**AP36-2 - 1.5M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	100	
45.0 mm	100	
40.0 mm	100	
31.5 mm	99	
22.4 mm	91	
20.0 mm	89	
16.0 mm	85	
14.0 mm	81	
11.2 mm	75	
10.0 mm	73	
8.0 mm	69	
5.6 mm	64	
4.0 mm	59	
2.8 mm	54	
2.0 mm	52	
1.4 mm	48	
1.0 mm	46	
0.710 mm	43	
0.500 mm	41	
0.355 mm	37	
0.250 mm	35	
0.180 mm	32	
0.125 mm	29	
0.090 mm	25	
0.063 mm	23.0	

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Comments:

None

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Date: 24 August 2022
Test Report Ref: TR 887322

Contract: Llanwern

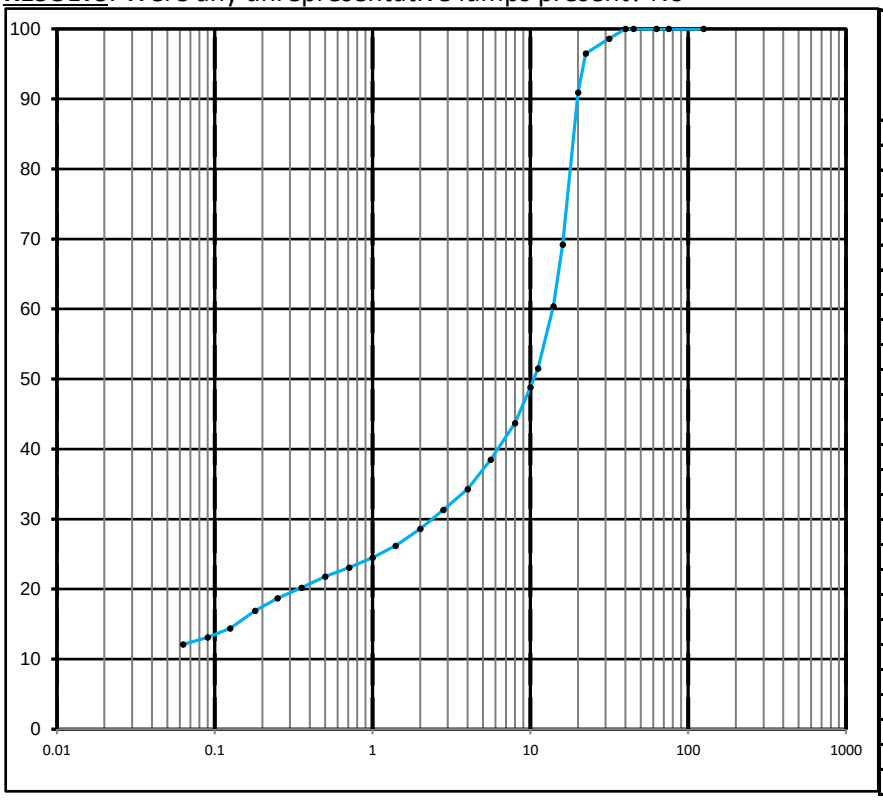
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AP37-1 - 0.2M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**MD**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**02/08/2022**		
Sampling Location:	**AP37-1 - 0.2M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	100	
45.0 mm	100	
40.0 mm	100	
31.5 mm	99	
22.4 mm	97	
20.0 mm	91	
16.0 mm	69	
14.0 mm	60	
11.2 mm	52	
10.0 mm	49	
8.0 mm	44	
5.6 mm	39	
4.0 mm	34	
2.8 mm	31	
2.0 mm	29	
1.4 mm	26	
1.0 mm	25	
0.710 mm	23	
0.500 mm	22	
0.355 mm	20	
0.250 mm	19	
0.180 mm	17	
0.125 mm	14	
0.090 mm	13	
0.063 mm	12.1	

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Comments:

None

Report checked and approved by:

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Job Coordinator

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Park Point
17 High Street
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B31 2UQ

Date: 25 August 2022
Test Report Ref: TR 887323

Contract: Llanwern

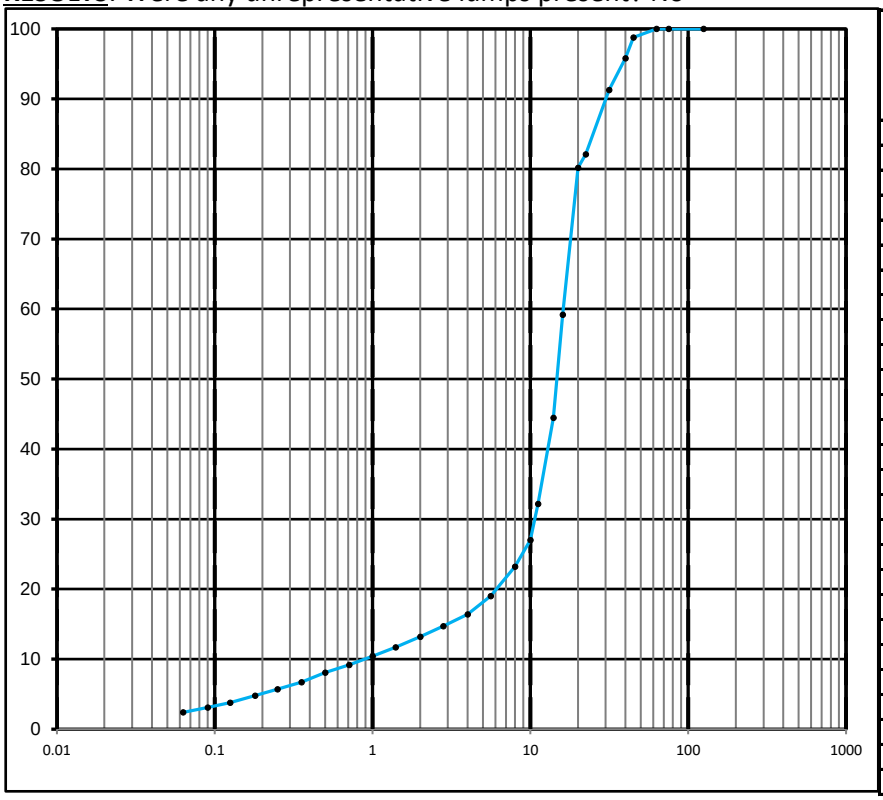
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AQ34-1 - 0.5M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**MD**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**05/08/2022**		
Sampling Location:	**AQ34-1 - 0.5M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	100	
45.0 mm	99	
40.0 mm	96	
31.5 mm	91	
22.4 mm	82	
20.0 mm	80	
16.0 mm	59	
14.0 mm	45	
11.2 mm	32	
10.0 mm	27	
8.0 mm	23	
5.6 mm	19	
4.0 mm	16	
2.8 mm	15	
2.0 mm	13	
1.4 mm	12	
1.0 mm	10	
0.710 mm	9	
0.500 mm	8	
0.355 mm	7	
0.250 mm	6	
0.180 mm	5	
0.125 mm	4	
0.090 mm	3	
0.063 mm	2.4	

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Comments:

None

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Date: 24 August 2022
Test Report Ref: TR 887324

Contract: Llanwern

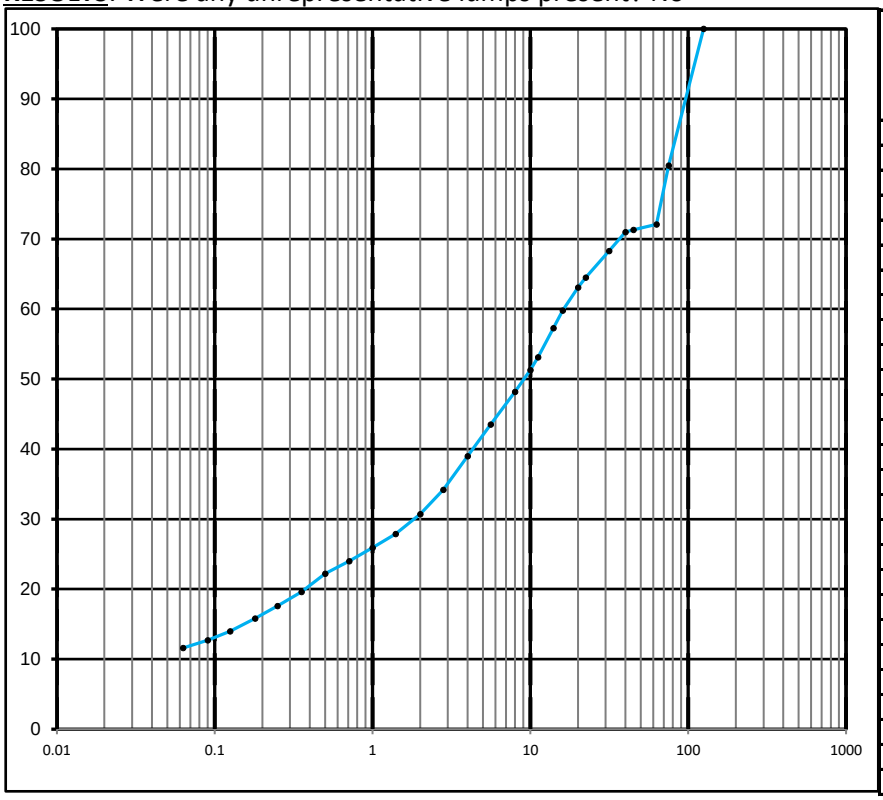
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AQ35-1 - 0.5M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**MD**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**02/08/2022**		
Sampling Location:	**AQ35-1 - 0.5M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	81	
63.0 mm	72	
45.0 mm	71	
40.0 mm	71	
31.5 mm	68	
22.4 mm	65	
20.0 mm	63	
16.0 mm	60	
14.0 mm	57	
11.2 mm	53	
10.0 mm	51	
8.0 mm	48	
5.6 mm	44	
4.0 mm	39	
2.8 mm	34	
2.0 mm	31	
1.4 mm	28	
1.0 mm	26	
0.710 mm	24	
0.500 mm	22	
0.355 mm	20	
0.250 mm	18	
0.180 mm	16	
0.125 mm	14	
0.090 mm	13	
0.063 mm	11.6	

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Comments:

None

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Date: 24 August 2022
Test Report Ref: TR 887325

Contract: Llanwern

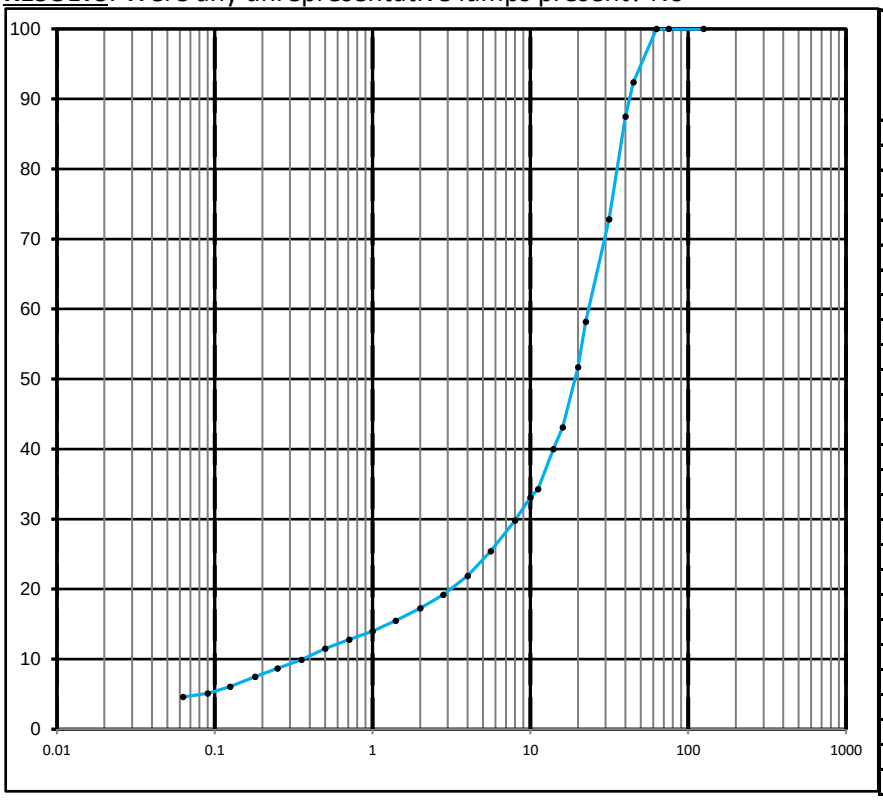
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AQ36-1 - 0.5M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**KH**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**02/08/2022**		
Sampling Location:	**AQ36-1 - 0.5M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	100	
45.0 mm	92	
40.0 mm	88	
31.5 mm	73	
22.4 mm	58	
20.0 mm	52	
16.0 mm	43	
14.0 mm	40	
11.2 mm	34	
10.0 mm	33	
8.0 mm	30	
5.6 mm	25	
4.0 mm	22	
2.8 mm	19	
2.0 mm	17	
1.4 mm	16	
1.0 mm	14	
0.710 mm	13	
0.500 mm	12	
0.355 mm	10	
0.250 mm	9	
0.180 mm	8	
0.125 mm	6	
0.090 mm	5	
0.063 mm	4.6	

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Comments:

None

Report checked and approved by:

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Date: 25 August 2022
Test Report Ref: TR 887326

Contract: Llanwern

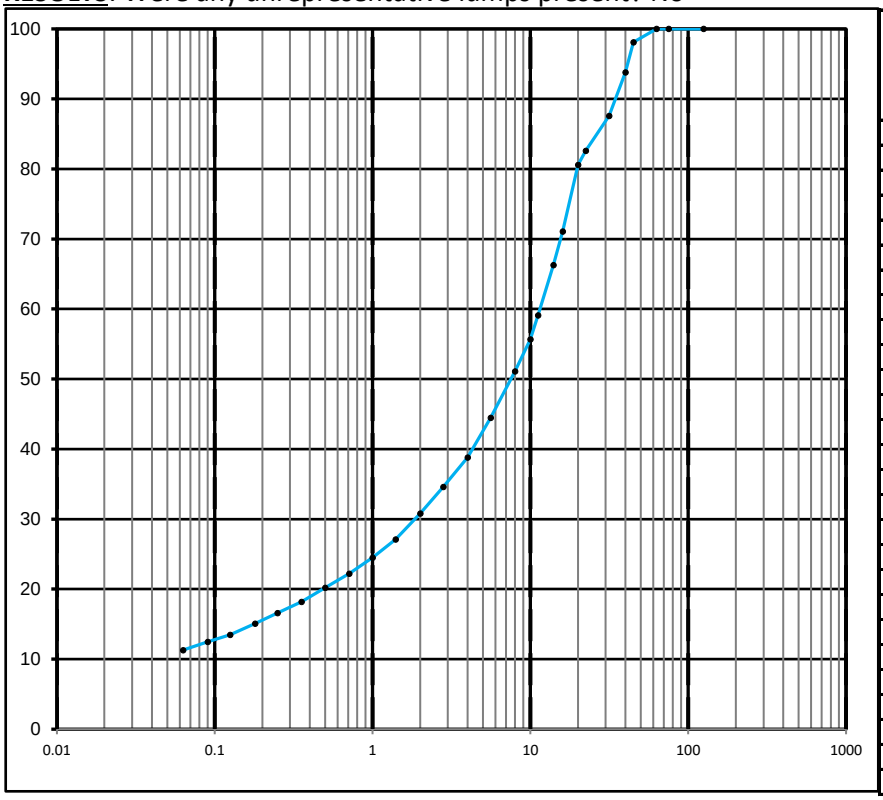
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AQ37-1 - 0.8M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**MD**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**02/08/2022**		
Sampling Location:	**AQ37-1 - 0.8M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	100	
45.0 mm	98	
40.0 mm	94	
31.5 mm	88	
22.4 mm	83	
20.0 mm	81	
16.0 mm	71	
14.0 mm	66	
11.2 mm	59	
10.0 mm	56	
8.0 mm	51	
5.6 mm	45	
4.0 mm	39	
2.8 mm	35	
2.0 mm	31	
1.4 mm	27	
1.0 mm	25	
0.710 mm	22	
0.500 mm	20	
0.355 mm	18	
0.250 mm	17	
0.180 mm	15	
0.125 mm	14	
0.090 mm	13	
0.063 mm	11.3	

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Comments:

None

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Date: 24 August 2022
Test Report Ref: TR 887327

Contract: Llanwern

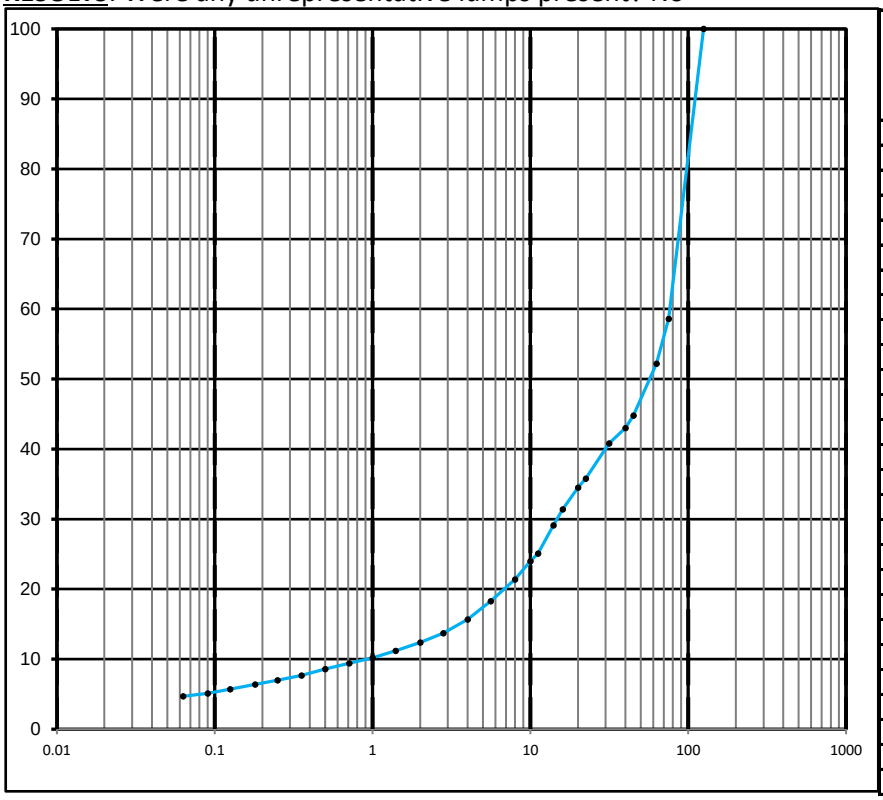
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AR34-2 - 2M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**KH**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**02/08/2022**		
Sampling Location:	**AR34-2 - 2M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	59	
63.0 mm	52	
45.0 mm	45	
40.0 mm	43	
31.5 mm	41	
22.4 mm	36	
20.0 mm	35	
16.0 mm	31	
14.0 mm	29	
11.2 mm	25	
10.0 mm	24	
8.0 mm	21	
5.6 mm	18	
4.0 mm	16	
2.8 mm	14	
2.0 mm	12	
1.4 mm	11	
1.0 mm	10	
0.710 mm	9	
0.500 mm	9	
0.355 mm	8	
0.250 mm	7	
0.180 mm	6	
0.125 mm	6	
0.090 mm	5	
0.063 mm	4.7	

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Comments:

None

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Job Coordinator

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INDEPENDENT MATERIALS TESTING | DIAMOND DRILLING & SAWING

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 25 August 2022
Test Report Ref: TR 887328

Contract: Llanwern

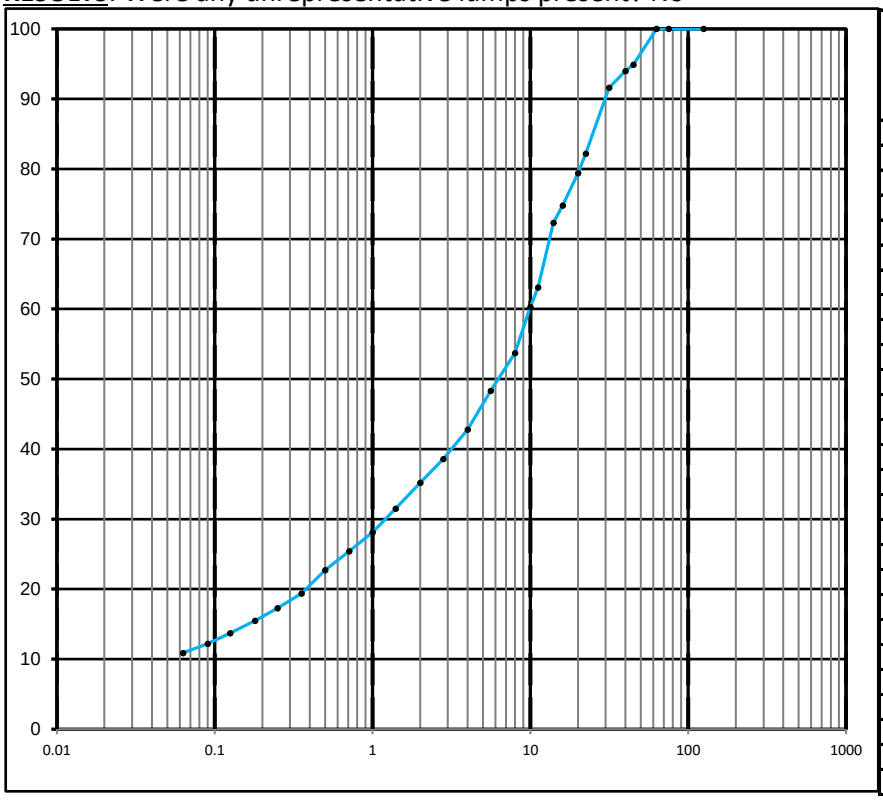
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AR35-1 - 0.6M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**KH**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**02/08/2022**		
Sampling Location:	**AR35-1 - 0.6M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	100	
45.0 mm	95	
40.0 mm	94	
31.5 mm	92	
22.4 mm	82	
20.0 mm	79	
16.0 mm	75	
14.0 mm	72	
11.2 mm	63	
10.0 mm	60	
8.0 mm	54	
5.6 mm	48	
4.0 mm	43	
2.8 mm	39	
2.0 mm	35	
1.4 mm	32	
1.0 mm	28	
0.710 mm	25	
0.500 mm	23	
0.355 mm	19	
0.250 mm	17	
0.180 mm	16	
0.125 mm	14	
0.090 mm	12	
0.063 mm	10.9	

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These results relate only to the items tested.

Comments:

None

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

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St Modwen Developments Limited
Park Point
17 High Street
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B31 2UQ

Date: 23 August 2022
Test Report Ref: TR 887329

Contract: Llanwern

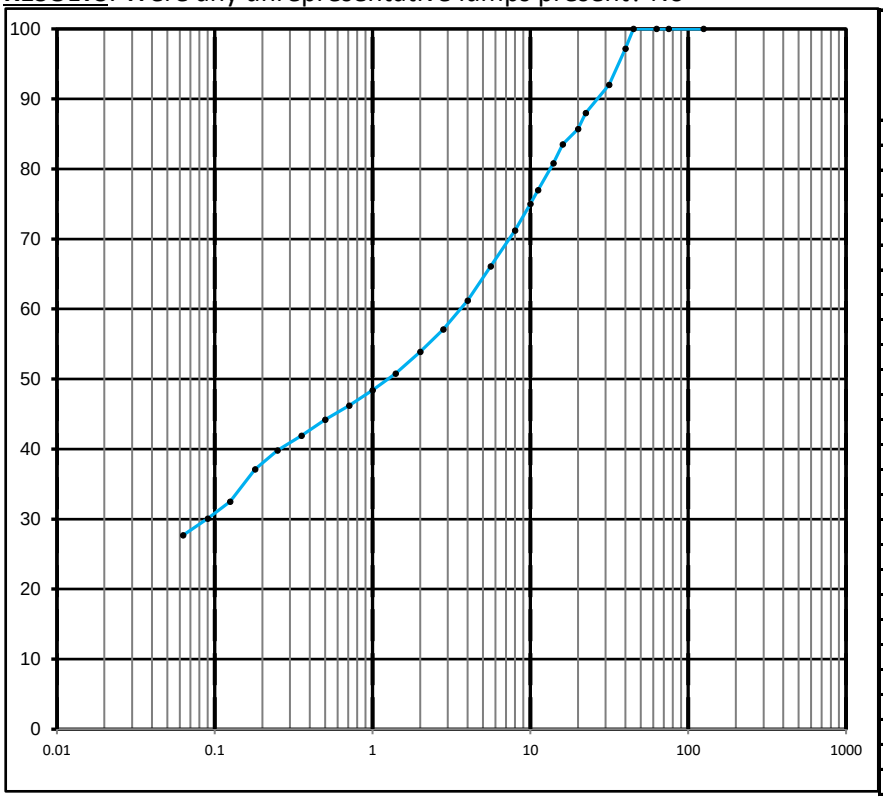
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AR36-2 - 1.5M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**MD**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**02/08/2022**		
Sampling Location:	**AR36-2 - 1.5M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	100	
45.0 mm	100	
40.0 mm	97	
31.5 mm	92	
22.4 mm	88	
20.0 mm	86	
16.0 mm	84	
14.0 mm	81	
11.2 mm	77	
10.0 mm	75	
8.0 mm	71	
5.6 mm	66	
4.0 mm	61	
2.8 mm	57	
2.0 mm	54	
1.4 mm	51	
1.0 mm	48	
0.710 mm	46	
0.500 mm	44	
0.355 mm	42	
0.250 mm	40	
0.180 mm	37	
0.125 mm	33	
0.090 mm	30	
0.063 mm	27.7	

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Comments:

None

Report checked and approved by:

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Park Point
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Date: 24 August 2022
Test Report Ref: TR 887330

Contract: Llanwern

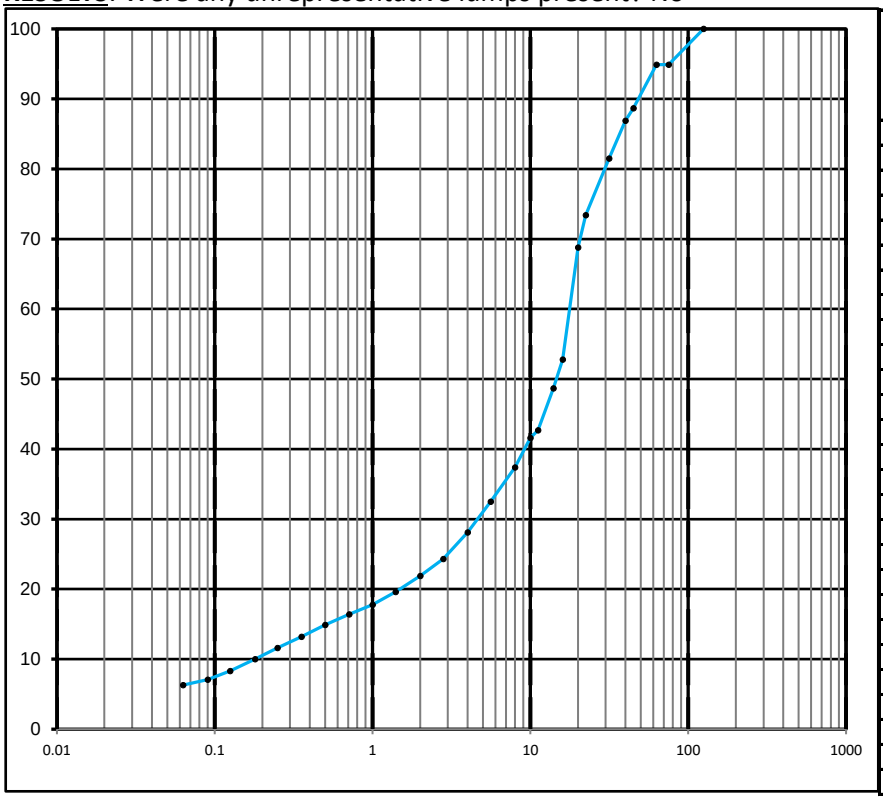
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AR37-2 - 0.4M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**KH**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**02/08/2022**		
Sampling Location:	**AR37-2 - 0.4M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	95	
63.0 mm	95	
45.0 mm	89	
40.0 mm	87	
31.5 mm	82	
22.4 mm	73	
20.0 mm	69	
16.0 mm	53	
14.0 mm	49	
11.2 mm	43	
10.0 mm	42	
8.0 mm	37	
5.6 mm	33	
4.0 mm	28	
2.8 mm	24	
2.0 mm	22	
1.4 mm	20	
1.0 mm	18	
0.710 mm	16	
0.500 mm	15	
0.355 mm	13	
0.250 mm	12	
0.180 mm	10	
0.125 mm	8	
0.090 mm	7	
0.063 mm	6.3	

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Comments:

None

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Park Point
17 High Street
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B31 2UQ

Date: 24 August 2022
Test Report Ref: TR 887331

Contract: Llanwern

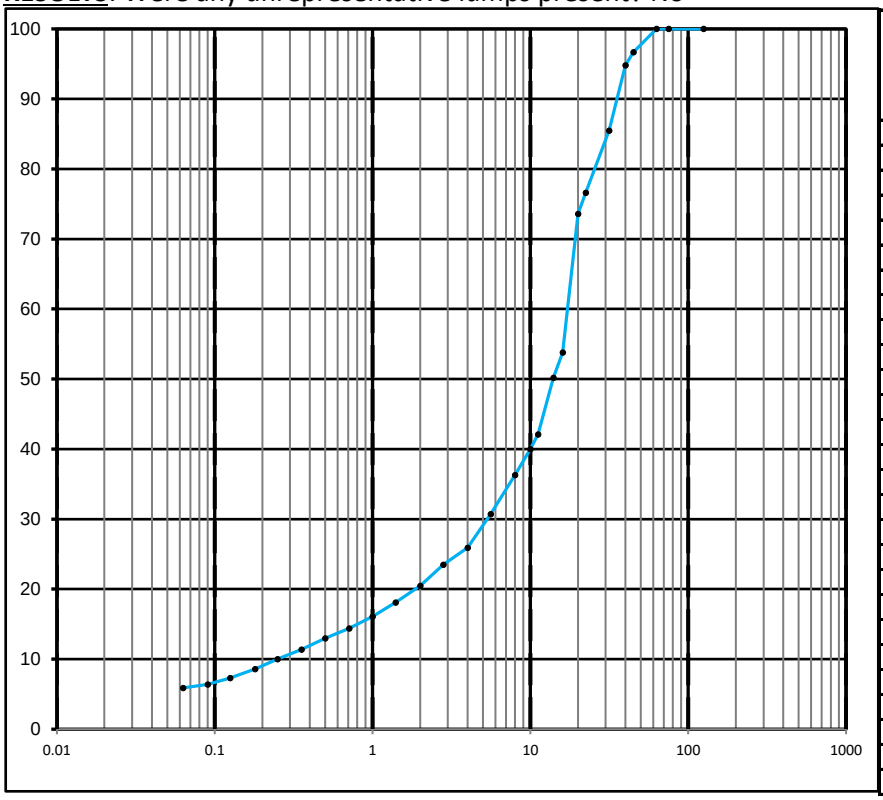
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AS34-1 - 0.4M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**SR**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**05/08/2022**		
Sampling Location:	**AS34-1 - 0.4M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	100	
45.0 mm	97	
40.0 mm	95	
31.5 mm	86	
22.4 mm	77	
20.0 mm	74	
16.0 mm	54	
14.0 mm	50	
11.2 mm	42	
10.0 mm	40	
8.0 mm	36	
5.6 mm	31	
4.0 mm	26	
2.8 mm	24	
2.0 mm	21	
1.4 mm	18	
1.0 mm	16	
0.710 mm	14	
0.500 mm	13	
0.355 mm	11	
0.250 mm	10	
0.180 mm	9	
0.125 mm	7	
0.090 mm	6	
0.063 mm	5.9	

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Comments:

None

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St Modwen Developments Limited
Park Point
17 High Street
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B31 2UQ

Date: 25 August 2022
Test Report Ref: TR 887333

Contract: Llanwern

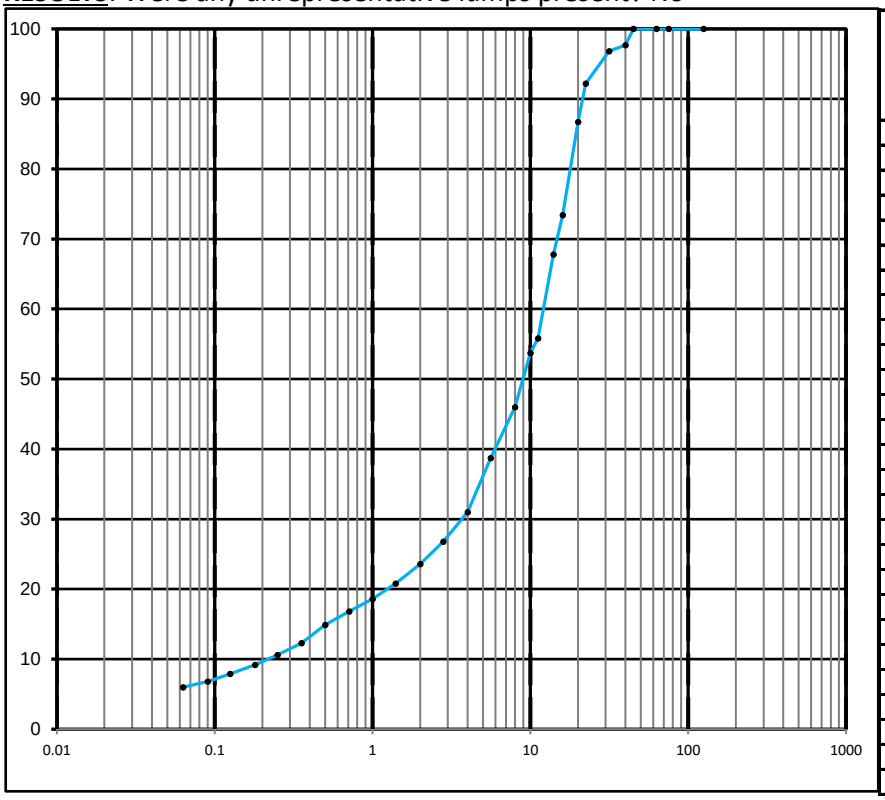
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AS36-1 - 1M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**KH**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**05/08/2022**		
Sampling Location:	**AS36-1 - 1M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	100	
45.0 mm	100	
40.0 mm	98	
31.5 mm	97	
22.4 mm	92	
20.0 mm	87	
16.0 mm	73	
14.0 mm	68	
11.2 mm	56	
10.0 mm	54	
8.0 mm	46	
5.6 mm	39	
4.0 mm	31	
2.8 mm	27	
2.0 mm	24	
1.4 mm	21	
1.0 mm	19	
0.710 mm	17	
0.500 mm	15	
0.355 mm	12	
0.250 mm	11	
0.180 mm	9	
0.125 mm	8	
0.090 mm	7	
0.063 mm	6.0	

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Comments:

None

Report checked and approved by:

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Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 24 August 2022
Test Report Ref: TR 887334

Contract: Llanwern

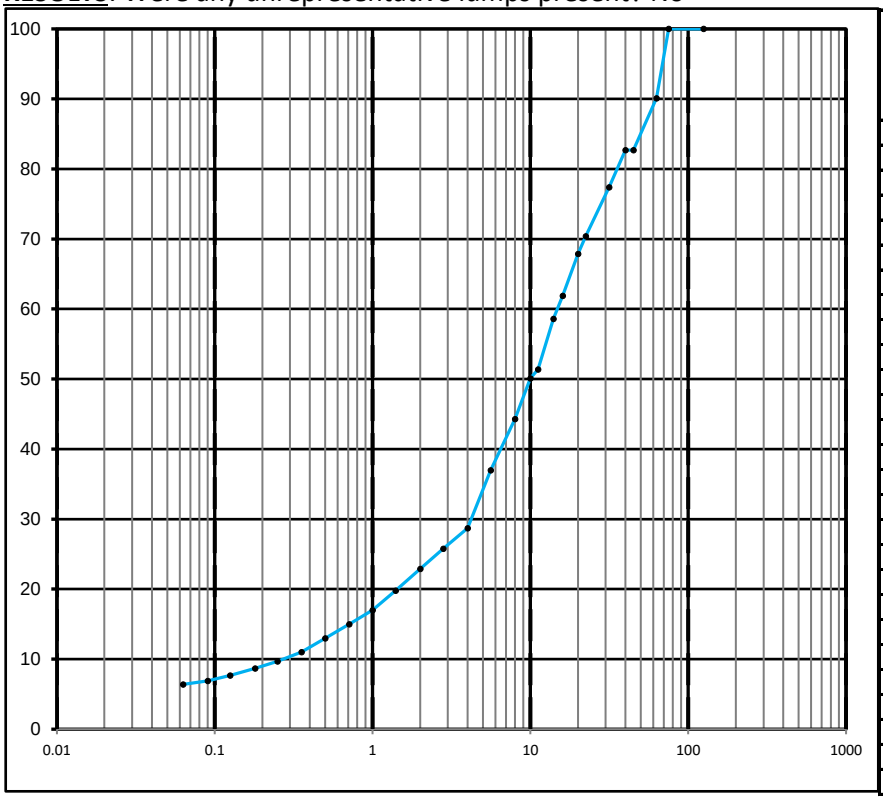
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AS37-2 - 2M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**KH**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**05/08/2022**		
Sampling Location:	**AS37-2 - 2M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	90	
45.0 mm	83	
40.0 mm	83	
31.5 mm	77	
22.4 mm	70	
20.0 mm	68	
16.0 mm	62	
14.0 mm	59	
11.2 mm	51	
10.0 mm	50	
8.0 mm	44	
5.6 mm	37	
4.0 mm	29	
2.8 mm	26	
2.0 mm	23	
1.4 mm	20	
1.0 mm	17	
0.710 mm	15	
0.500 mm	13	
0.355 mm	11	
0.250 mm	10	
0.180 mm	9	
0.125 mm	8	
0.090 mm	7	
0.063 mm	6.4	

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Comments:

None

Report checked and approved by:

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St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 23 August 2022
Test Report Ref: TR 887335

Contract: Llanwern

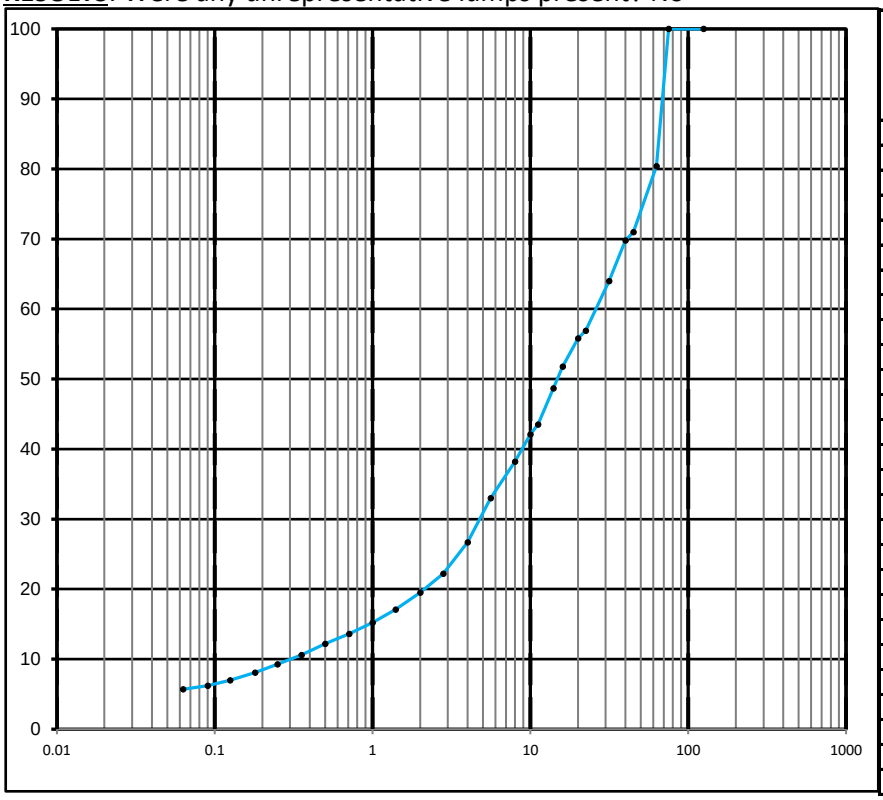
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AT34-2 - 1.5M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**DJ**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**05/08/2022**		
Sampling Location:	**AT34-2 - 1.5M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	80	
45.0 mm	71	
40.0 mm	70	
31.5 mm	64	
22.4 mm	57	
20.0 mm	56	
16.0 mm	52	
14.0 mm	49	
11.2 mm	44	
10.0 mm	42	
8.0 mm	38	
5.6 mm	33	
4.0 mm	27	
2.8 mm	22	
2.0 mm	20	
1.4 mm	17	
1.0 mm	15	
0.710 mm	14	
0.500 mm	12	
0.355 mm	11	
0.250 mm	9	
0.180 mm	8	
0.125 mm	7	
0.090 mm	6	
0.063 mm	5.7	

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Comments:

None

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Park Point
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B31 2UQ

Date: 23 August 2022
Test Report Ref: TR 887336

Contract: Llanwern

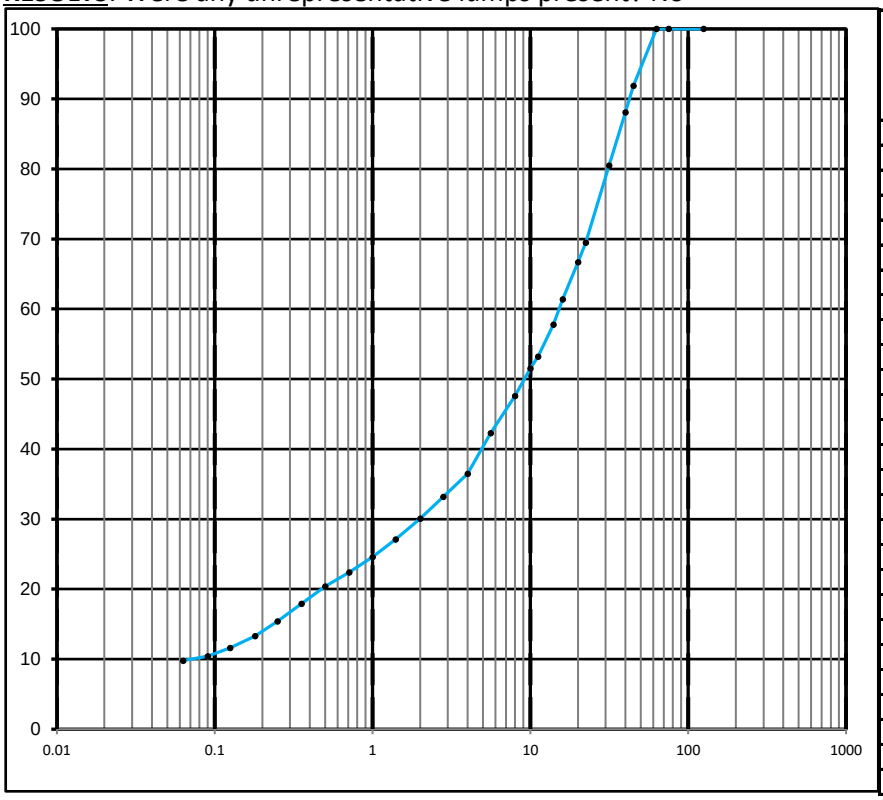
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AT35-1 - 0.5M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**DJ**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**05/08/2022**		
Sampling Location:	**AT35-1 - 0.5M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	100	
45.0 mm	92	
40.0 mm	88	
31.5 mm	81	
22.4 mm	70	
20.0 mm	67	
16.0 mm	61	
14.0 mm	58	
11.2 mm	53	
10.0 mm	52	
8.0 mm	48	
5.6 mm	42	
4.0 mm	37	
2.8 mm	33	
2.0 mm	30	
1.4 mm	27	
1.0 mm	25	
0.710 mm	22	
0.500 mm	20	
0.355 mm	18	
0.250 mm	15	
0.180 mm	13	
0.125 mm	12	
0.090 mm	10	
0.063 mm	9.8	

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Comments:

None

Report checked and approved by:

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Park Point
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Date: 25 August 2022
Test Report Ref: TR 887337

Contract: Llanwern

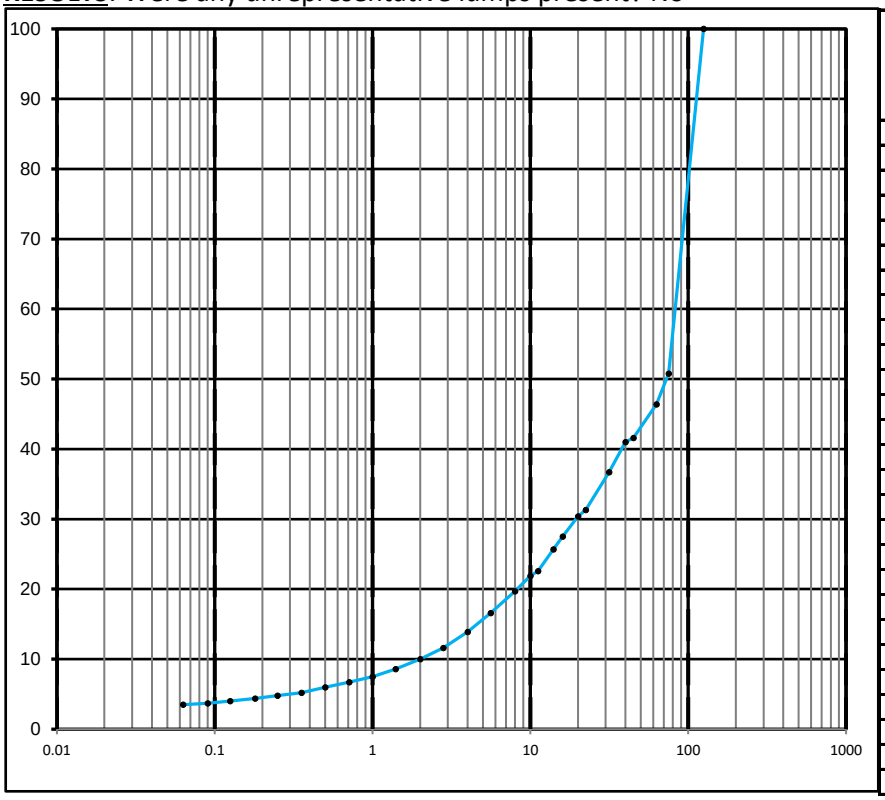
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AT36-2 - 1.8M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**KH**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**05/08/2022**		
Sampling Location:	**AT36-2 - 1.8M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	51	
63.0 mm	46	
45.0 mm	42	
40.0 mm	41	
31.5 mm	37	
22.4 mm	31	
20.0 mm	30	
16.0 mm	28	
14.0 mm	26	
11.2 mm	23	
10.0 mm	22	
8.0 mm	20	
5.6 mm	17	
4.0 mm	14	
2.8 mm	12	
2.0 mm	10	
1.4 mm	9	
1.0 mm	8	
0.710 mm	7	
0.500 mm	6	
0.355 mm	5	
0.250 mm	5	
0.180 mm	4	
0.125 mm	4	
0.090 mm	4	
0.063 mm	3.5	

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Comments:

None

Report checked and approved by:

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Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 23 August 2022
Test Report Ref: TR 887338

Contract: Llanwern

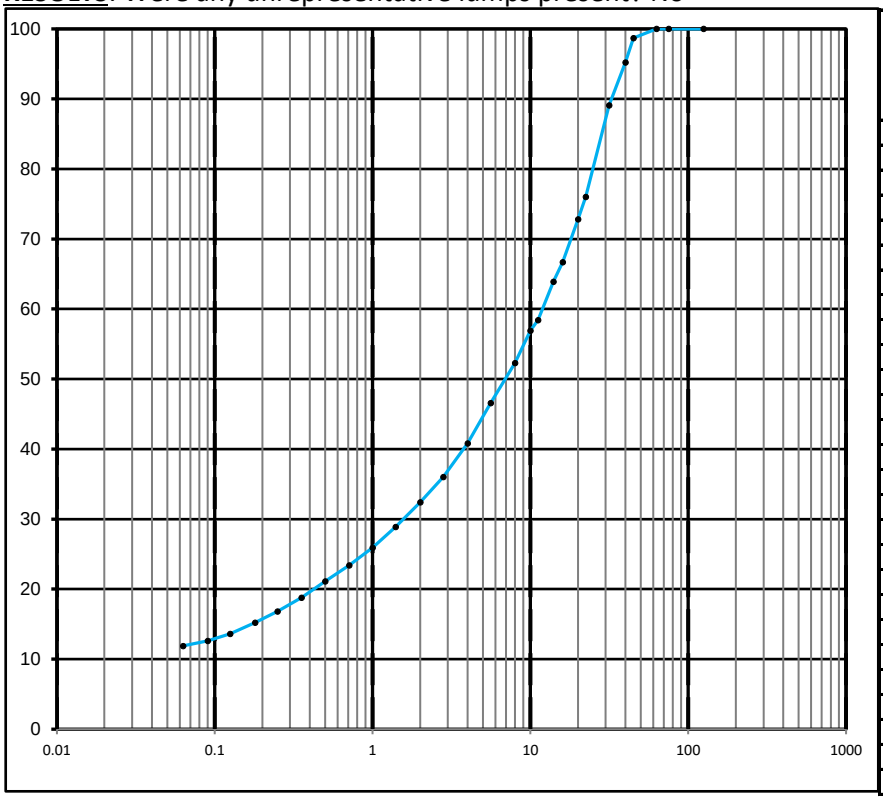
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AT37-1 - 0.8M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**DJ**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**05/08/2022**		
Sampling Location:	**AT37-1 - 0.8M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	100	
45.0 mm	99	
40.0 mm	95	
31.5 mm	89	
22.4 mm	76	
20.0 mm	73	
16.0 mm	67	
14.0 mm	64	
11.2 mm	58	
10.0 mm	57	
8.0 mm	52	
5.6 mm	47	
4.0 mm	41	
2.8 mm	36	
2.0 mm	32	
1.4 mm	29	
1.0 mm	26	
0.710 mm	23	
0.500 mm	21	
0.355 mm	19	
0.250 mm	17	
0.180 mm	15	
0.125 mm	14	
0.090 mm	13	
0.063 mm	11.9	

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Comments:

None

Report checked and approved by:

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Job Coordinator

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St Modwen Developments Limited
Park Point
17 High Street
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B31 2UQ

Date: 25 August 2022
Test Report Ref: TR 887340

Contract: Llanwern

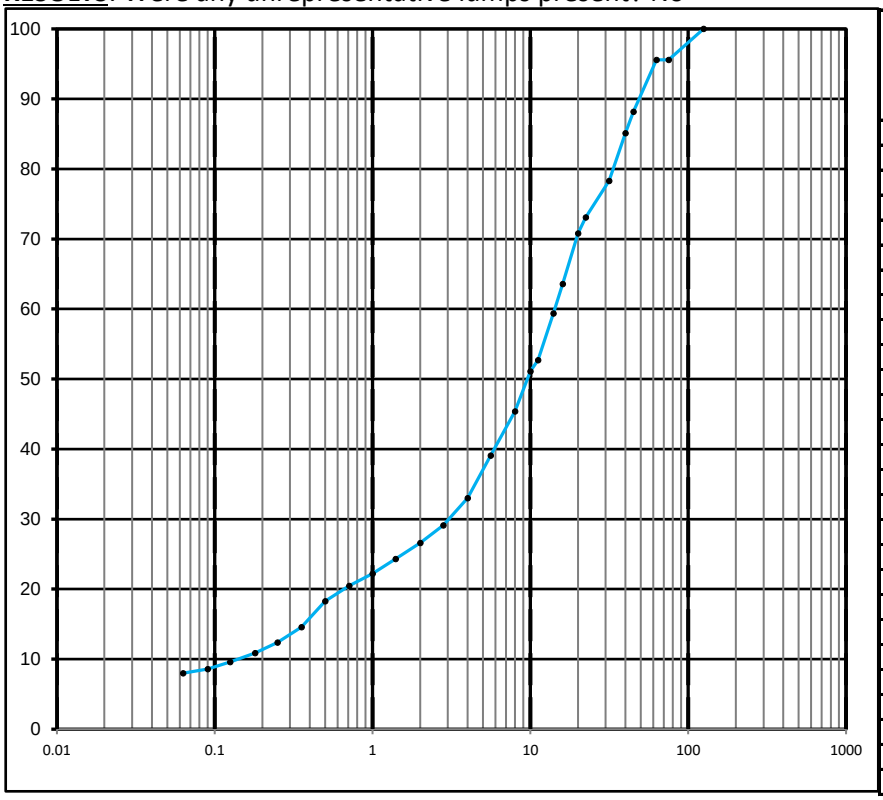
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AU35-2 - 1.5M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**KH**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**05/08/2022**		
Sampling Location:	**AU35-2 - 1.5M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	96	
63.0 mm	96	
45.0 mm	88	
40.0 mm	85	
31.5 mm	78	
22.4 mm	73	
20.0 mm	71	
16.0 mm	64	
14.0 mm	59	
11.2 mm	53	
10.0 mm	51	
8.0 mm	45	
5.6 mm	39	
4.0 mm	33	
2.8 mm	29	
2.0 mm	27	
1.4 mm	24	
1.0 mm	22	
0.710 mm	21	
0.500 mm	18	
0.355 mm	15	
0.250 mm	12	
0.180 mm	11	
0.125 mm	10	
0.090 mm	9	
0.063 mm	8.0	

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These results relate only to the items tested.

Comments:

None

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

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Birmingham
B31 2UQ

Date: 24 August 2022
Test Report Ref: TR 887341

Contract: Llanwern

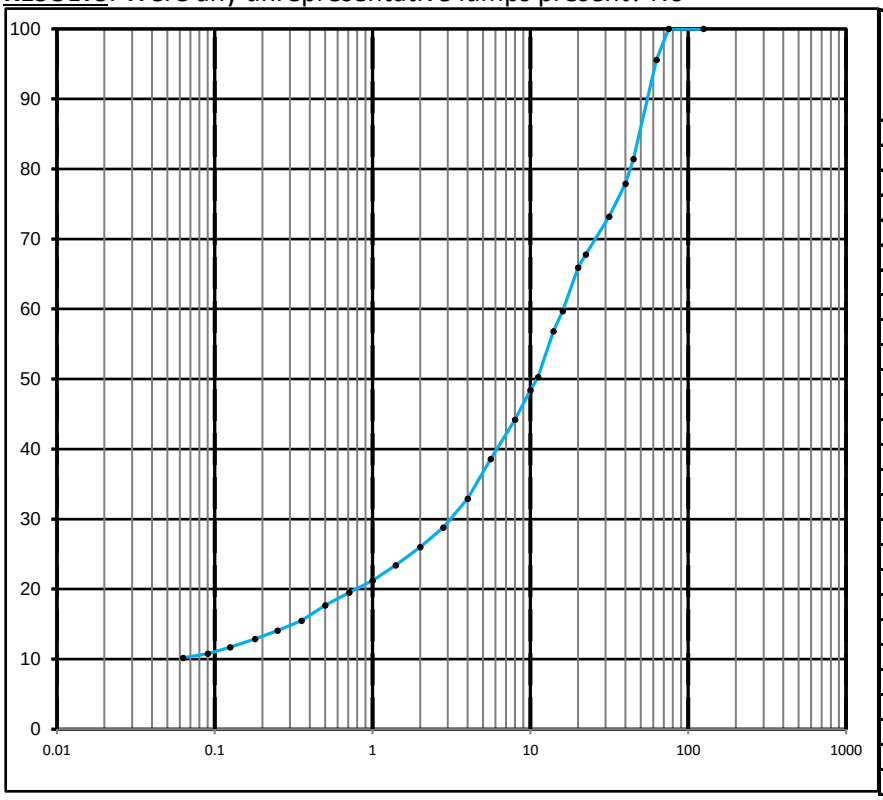
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AU36-2 - 1.3M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**KH**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**05/08/2022**		
Sampling Location:	**AU36-2 - 1.3M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	96	
45.0 mm	81	
40.0 mm	78	
31.5 mm	73	
22.4 mm	68	
20.0 mm	66	
16.0 mm	60	
14.0 mm	57	
11.2 mm	50	
10.0 mm	48	
8.0 mm	44	
5.6 mm	39	
4.0 mm	33	
2.8 mm	29	
2.0 mm	26	
1.4 mm	23	
1.0 mm	21	
0.710 mm	20	
0.500 mm	18	
0.355 mm	16	
0.250 mm	14	
0.180 mm	13	
0.125 mm	12	
0.090 mm	11	
0.063 mm	10.2	

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Comments:

None

Report checked and approved by:

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Job Coordinator

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Park Point
17 High Street
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B31 2UQ

Date: 23 August 2022
Test Report Ref: TR 887342

Contract: Llanwern

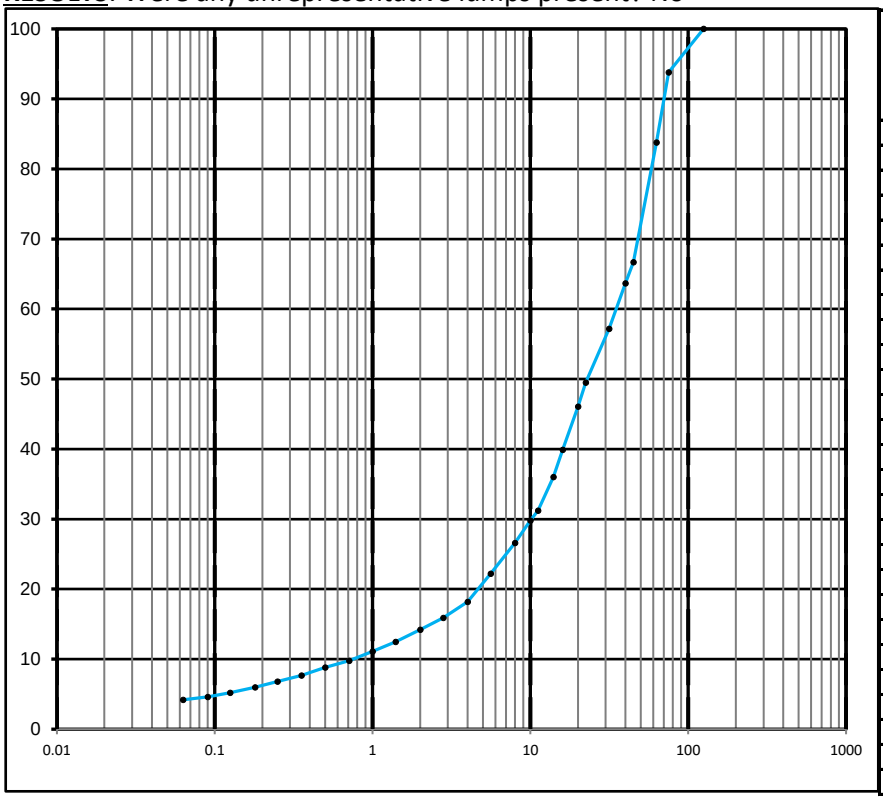
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AU37-1 - 0.8M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**DJ**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**05/08/2022**		
Sampling Location:	**AU37-1 - 0.8M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	94	
63.0 mm	84	
45.0 mm	67	
40.0 mm	64	
31.5 mm	57	
22.4 mm	50	
20.0 mm	46	
16.0 mm	40	
14.0 mm	36	
11.2 mm	31	
10.0 mm	30	
8.0 mm	27	
5.6 mm	22	
4.0 mm	18	
2.8 mm	16	
2.0 mm	14	
1.4 mm	13	
1.0 mm	11	
0.710 mm	10	
0.500 mm	9	
0.355 mm	8	
0.250 mm	7	
0.180 mm	6	
0.125 mm	5	
0.090 mm	5	
0.063 mm	4.2	

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Comments:

None

Report checked and approved by:

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Date: 24 August 2022
Test Report Ref: TR 887343

Contract: Llanwern

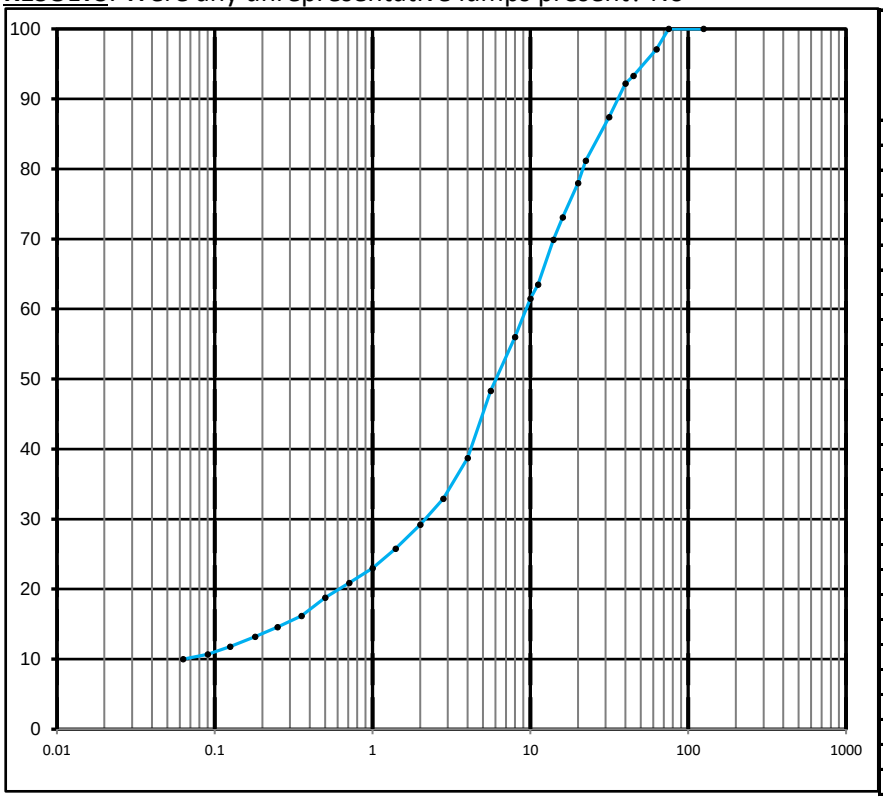
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AV34-2 - 1.8M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**KH**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**02/08/2022**		
Sampling Location:	**AV34-2 - 1.8M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	97	
45.0 mm	93	
40.0 mm	92	
31.5 mm	87	
22.4 mm	81	
20.0 mm	78	
16.0 mm	73	
14.0 mm	70	
11.2 mm	64	
10.0 mm	62	
8.0 mm	56	
5.6 mm	48	
4.0 mm	39	
2.8 mm	33	
2.0 mm	29	
1.4 mm	26	
1.0 mm	23	
0.710 mm	21	
0.500 mm	19	
0.355 mm	16	
0.250 mm	15	
0.180 mm	13	
0.125 mm	12	
0.090 mm	11	
0.063 mm	10.0	

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Comments:

None

Report checked and approved by:

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Park Point
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Date: 24 August 2022
Test Report Ref: TR 887345

Contract: Llanwern

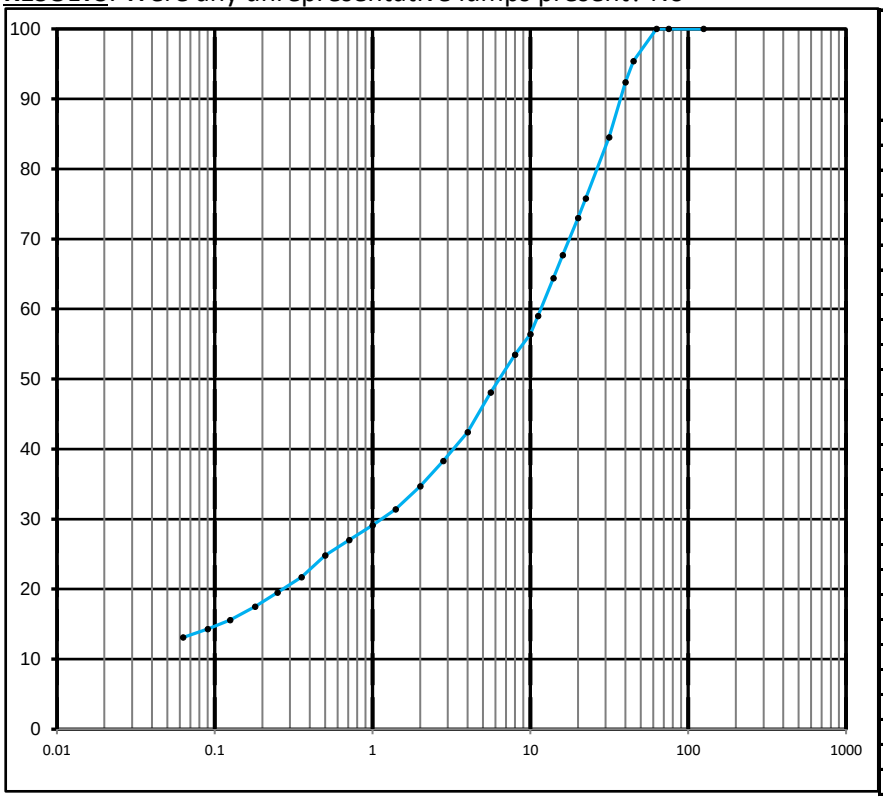
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AV36-2 - 1.30M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**MD**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**02/08/2022**		
Sampling Location:	**AV36-2 - 1.30M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	100	
45.0 mm	95	
40.0 mm	92	
31.5 mm	85	
22.4 mm	76	
20.0 mm	73	
16.0 mm	68	
14.0 mm	64	
11.2 mm	59	
10.0 mm	56	
8.0 mm	54	
5.6 mm	48	
4.0 mm	42	
2.8 mm	38	
2.0 mm	35	
1.4 mm	31	
1.0 mm	29	
0.710 mm	27	
0.500 mm	25	
0.355 mm	22	
0.250 mm	20	
0.180 mm	18	
0.125 mm	16	
0.090 mm	14	
0.063 mm	13.1	

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Comments:

None

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17 High Street
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B31 2UQ

Date: 26 August 2022
Test Report Ref: TR 887346

Contract: Llanwern

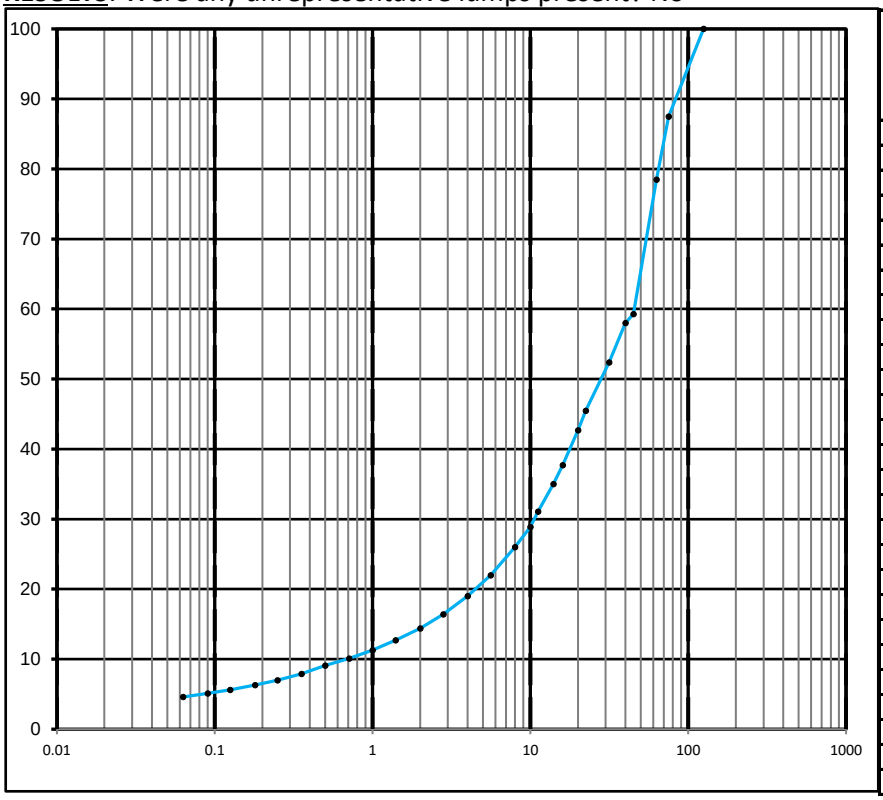
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AV37-1 - 0.50M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**MD**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**02/08/2022**		
Sampling Location:	**AV37-1 - 0.50M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	88	
63.0 mm	79	
45.0 mm	59	
40.0 mm	58	
31.5 mm	52	
22.4 mm	46	
20.0 mm	43	
16.0 mm	38	
14.0 mm	35	
11.2 mm	31	
10.0 mm	29	
8.0 mm	26	
5.6 mm	22	
4.0 mm	19	
2.8 mm	16	
2.0 mm	14	
1.4 mm	13	
1.0 mm	11	
0.710 mm	10	
0.500 mm	9	
0.355 mm	8	
0.250 mm	7	
0.180 mm	6	
0.125 mm	6	
0.090 mm	5	
0.063 mm	4.6	

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Comments:

None

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Date: 24 August 2022
Test Report Ref: TR 887347

Contract: Llanwern

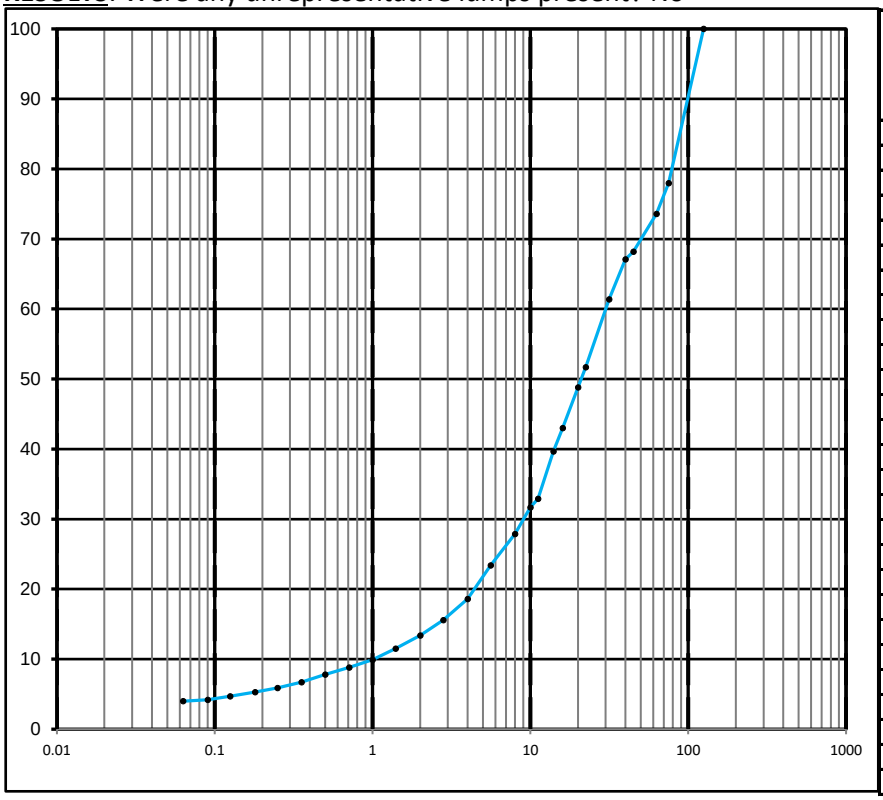
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AW34-1 - 1.00M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**KH**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**02/08/2022**		
Sampling Location:	**AW34-1 - 1.00M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	78	
63.0 mm	74	
45.0 mm	68	
40.0 mm	67	
31.5 mm	61	
22.4 mm	52	
20.0 mm	49	
16.0 mm	43	
14.0 mm	40	
11.2 mm	33	
10.0 mm	32	
8.0 mm	28	
5.6 mm	23	
4.0 mm	19	
2.8 mm	16	
2.0 mm	13	
1.4 mm	12	
1.0 mm	10	
0.710 mm	9	
0.500 mm	8	
0.355 mm	7	
0.250 mm	6	
0.180 mm	5	
0.125 mm	5	
0.090 mm	4	
0.063 mm	4.0	

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Comments:

None

Report checked and approved by:

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Date: 24 August 2022
Test Report Ref: TR 887349

Contract: Llanwern

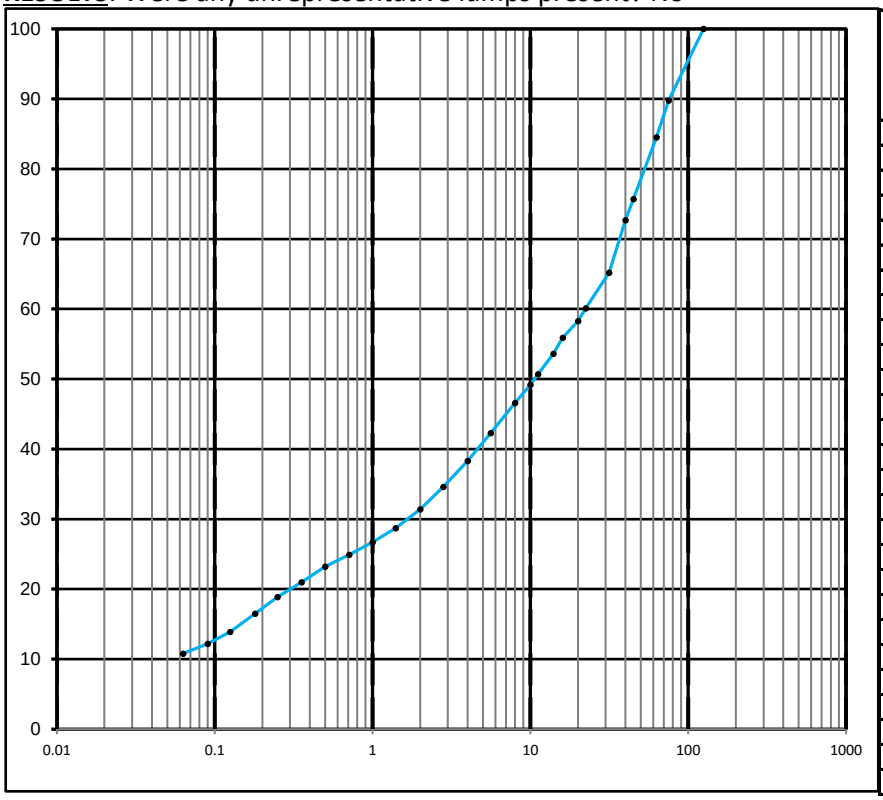
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AW36-2 - 1.60M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**MD**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**02/08/2022**		
Sampling Location:	**AW36-2 - 1.60M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	90	
63.0 mm	85	
45.0 mm	76	
40.0 mm	73	
31.5 mm	65	
22.4 mm	60	
20.0 mm	58	
16.0 mm	56	
14.0 mm	54	
11.2 mm	51	
10.0 mm	49	
8.0 mm	47	
5.6 mm	42	
4.0 mm	38	
2.8 mm	35	
2.0 mm	31	
1.4 mm	29	
1.0 mm	27	
0.710 mm	25	
0.500 mm	23	
0.355 mm	21	
0.250 mm	19	
0.180 mm	17	
0.125 mm	14	
0.090 mm	12	
0.063 mm	10.8	

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These results relate only to the items tested.

Comments:

None

Report checked and approved by:

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Job Coordinator

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17 High Street
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B31 2UQ

Date: 24 August 2022
Test Report Ref: TR 887351

Contract: Llanwern

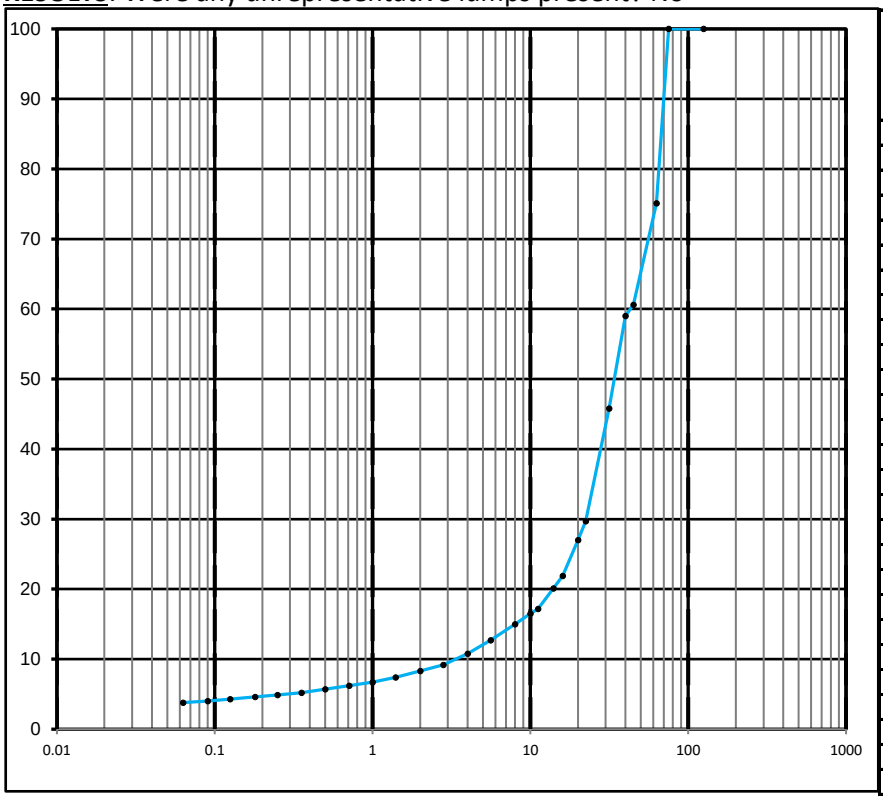
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AX34-1 - 0.7M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**KH**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**02/08/2022**		
Sampling Location:	**AX34-1 - 0.7M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	75	
45.0 mm	61	
40.0 mm	59	
31.5 mm	46	
22.4 mm	30	
20.0 mm	27	
16.0 mm	22	
14.0 mm	20	
11.2 mm	17	
10.0 mm	17	
8.0 mm	15	
5.6 mm	13	
4.0 mm	11	
2.8 mm	9	
2.0 mm	8	
1.4 mm	7	
1.0 mm	7	
0.710 mm	6	
0.500 mm	6	
0.355 mm	5	
0.250 mm	5	
0.180 mm	5	
0.125 mm	4	
0.090 mm	4	
0.063 mm	3.8	

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Comments:

None

Report checked and approved by:

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Date: 24 August 2022
Test Report Ref: TR 887352

Contract: Llanwern

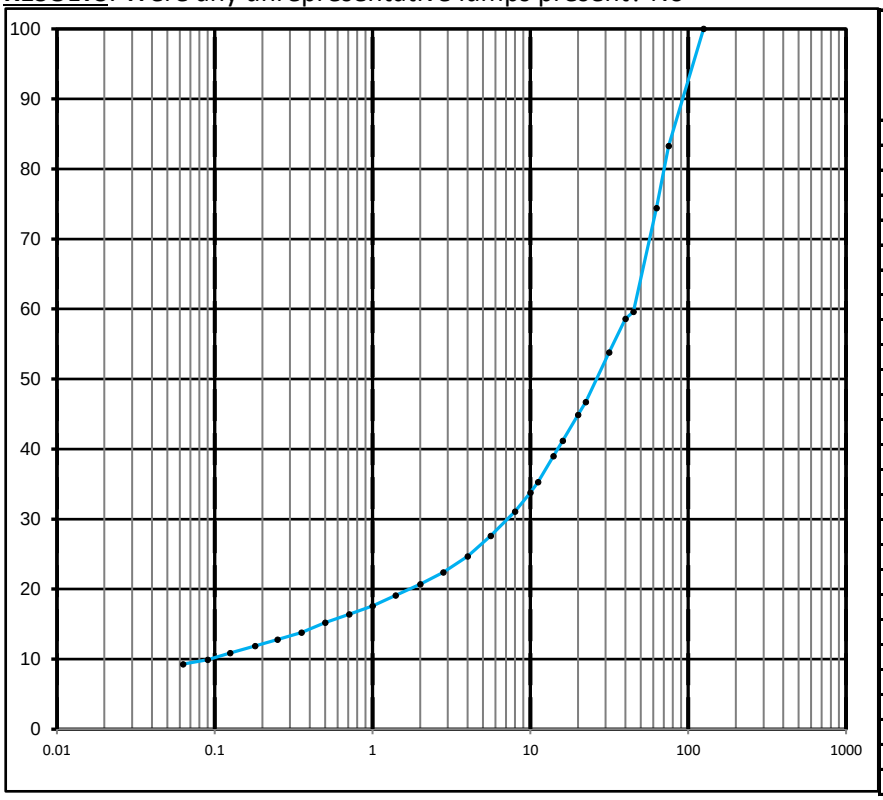
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AX35-2 - 1.20M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**KH**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**02/08/2022**		
Sampling Location:	**AX35-2 - 1.20M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	83	
63.0 mm	74	
45.0 mm	60	
40.0 mm	59	
31.5 mm	54	
22.4 mm	47	
20.0 mm	45	
16.0 mm	41	
14.0 mm	39	
11.2 mm	35	
10.0 mm	34	
8.0 mm	31	
5.6 mm	28	
4.0 mm	25	
2.8 mm	22	
2.0 mm	21	
1.4 mm	19	
1.0 mm	18	
0.710 mm	16	
0.500 mm	15	
0.355 mm	14	
0.250 mm	13	
0.180 mm	12	
0.125 mm	11	
0.090 mm	10	
0.063 mm	9.3	

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Comments:

None

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B31 2UQ

Date: 24 August 2022
Test Report Ref: TR 887353

Contract: Llanwern

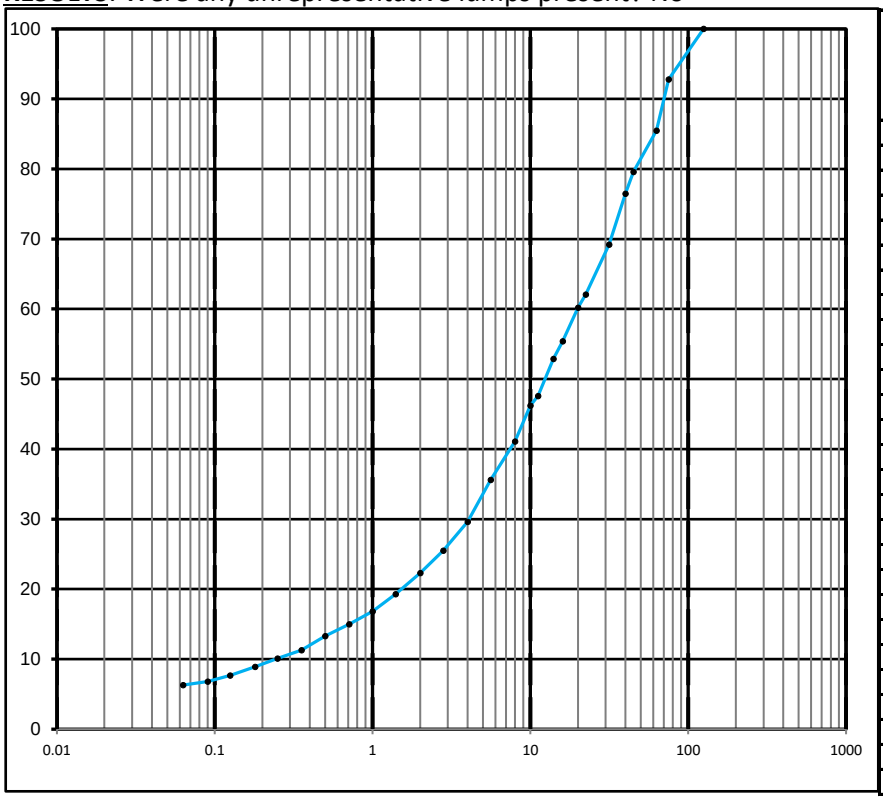
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AX36-2 - 1.5M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**KH**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**02/08/2022**		
Sampling Location:	**AX36-2 - 1.5M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	93	
63.0 mm	86	
45.0 mm	80	
40.0 mm	77	
31.5 mm	69	
22.4 mm	62	
20.0 mm	60	
16.0 mm	55	
14.0 mm	53	
11.2 mm	48	
10.0 mm	46	
8.0 mm	41	
5.6 mm	36	
4.0 mm	30	
2.8 mm	26	
2.0 mm	22	
1.4 mm	19	
1.0 mm	17	
0.710 mm	15	
0.500 mm	13	
0.355 mm	11	
0.250 mm	10	
0.180 mm	9	
0.125 mm	8	
0.090 mm	7	
0.063 mm	6.3	

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Comments:

None

Report checked and approved by:

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Job Coordinator

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Park Point
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Date: 24 August 2022
Test Report Ref: TR 887354

Contract: Llanwern

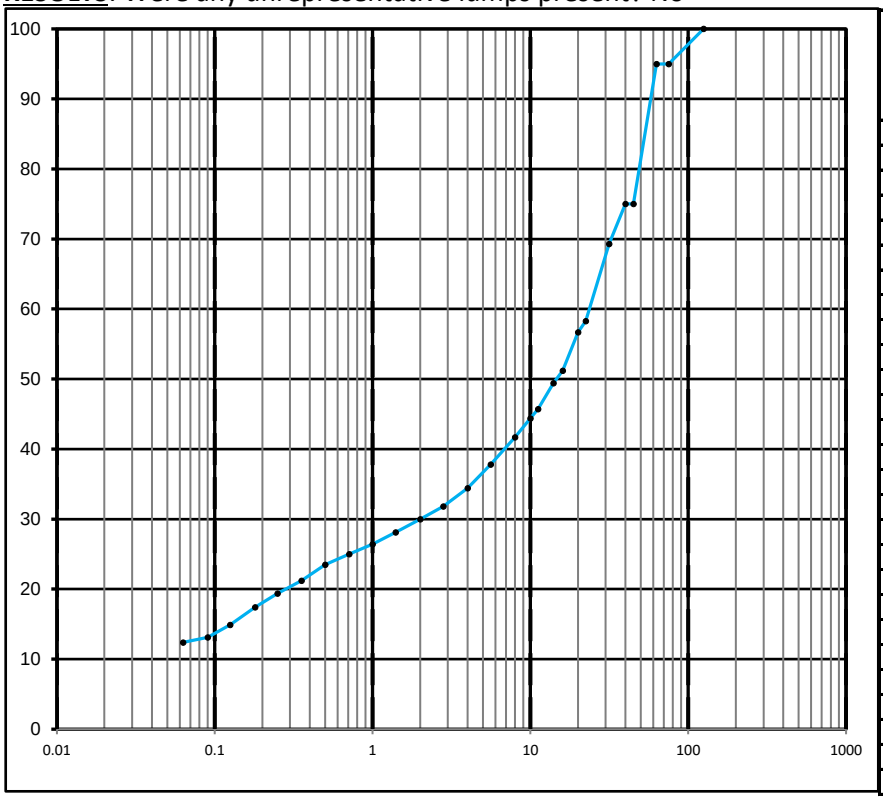
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AX37-1 - 1.00M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**KH**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**02/08/2022**		
Sampling Location:	**AX37-1 - 1.00M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	95	
63.0 mm	95	
45.0 mm	75	
40.0 mm	75	
31.5 mm	69	
22.4 mm	58	
20.0 mm	57	
16.0 mm	51	
14.0 mm	49	
11.2 mm	46	
10.0 mm	44	
8.0 mm	42	
5.6 mm	38	
4.0 mm	34	
2.8 mm	32	
2.0 mm	30	
1.4 mm	28	
1.0 mm	26	
0.710 mm	25	
0.500 mm	24	
0.355 mm	21	
0.250 mm	19	
0.180 mm	17	
0.125 mm	15	
0.090 mm	13	
0.063 mm	12.4	

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Comments:

None

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Park Point
17 High Street
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B31 2UQ

Date: 24 August 2022
Test Report Ref: TR 887355

Contract: Llanwern

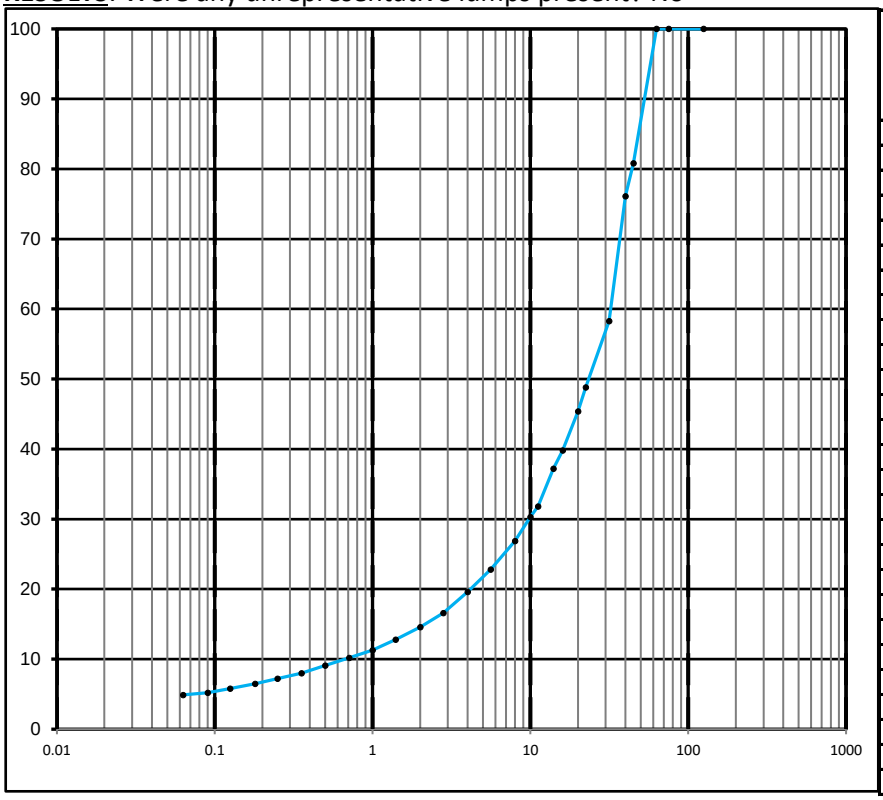
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103340**	Method of Sampling:	**Unknown**
Client Ref. No:	**AX37-2 - 2.00M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**01/06/2022**	Tested By:	**KH**
Date of Receipt at Lab:	**08/06/2022**		
Date of Start of Test:	**02/08/2022**		
Sampling Location:	**AX37-2 - 2.00M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	100	
45.0 mm	81	
40.0 mm	76	
31.5 mm	58	
22.4 mm	49	
20.0 mm	45	
16.0 mm	40	
14.0 mm	37	
11.2 mm	32	
10.0 mm	30	
8.0 mm	27	
5.6 mm	23	
4.0 mm	20	
2.8 mm	17	
2.0 mm	15	
1.4 mm	13	
1.0 mm	11	
0.710 mm	10	
0.500 mm	9	
0.355 mm	8	
0.250 mm	7	
0.180 mm	6	
0.125 mm	6	
0.090 mm	5	
0.063 mm	4.9	

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Comments:

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Date: 20 September 2022
Test Report Ref: TR 890900

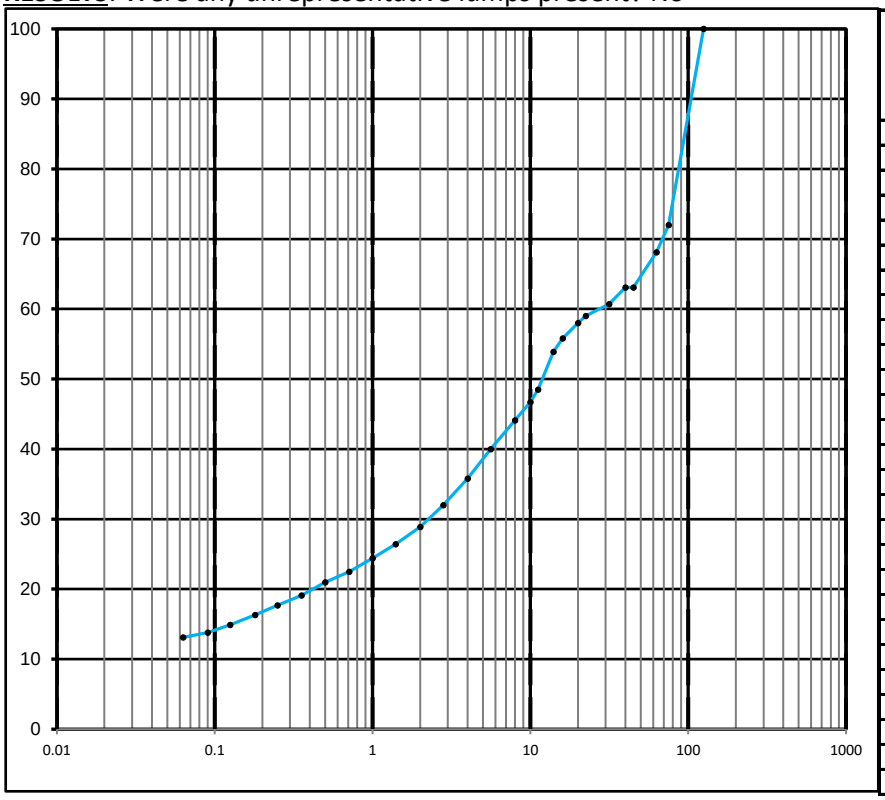
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103682**	Method of Sampling:	**Unknown**
Client Ref. No:	**AQ33-1 0.6M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**08/06/2022**	Tested By:	**CM**
Date of Receipt at Lab:	**23/06/2022**		
Date of Start of Test:	**27/07/2022**		
Sampling Location:	**AQ33-1 0.6M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	72	
63.0 mm	68	
45.0 mm	63	
40.0 mm	63	
31.5 mm	61	
22.4 mm	59	
20.0 mm	58	
16.0 mm	56	
14.0 mm	54	
11.2 mm	49	
10.0 mm	47	
8.0 mm	44	
5.6 mm	40	
4.0 mm	36	
2.8 mm	32	
2.0 mm	29	
1.4 mm	26	
1.0 mm	24	
0.710 mm	23	
0.500 mm	21	
0.355 mm	19	
0.250 mm	18	
0.180 mm	16	
0.125 mm	15	
0.090 mm	14	
0.063 mm	13.1	

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Comments:

None

Report checked and approved by:

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Job Coordinator

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Park Point
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Date: 20 September 2022
Test Report Ref: TR 890905

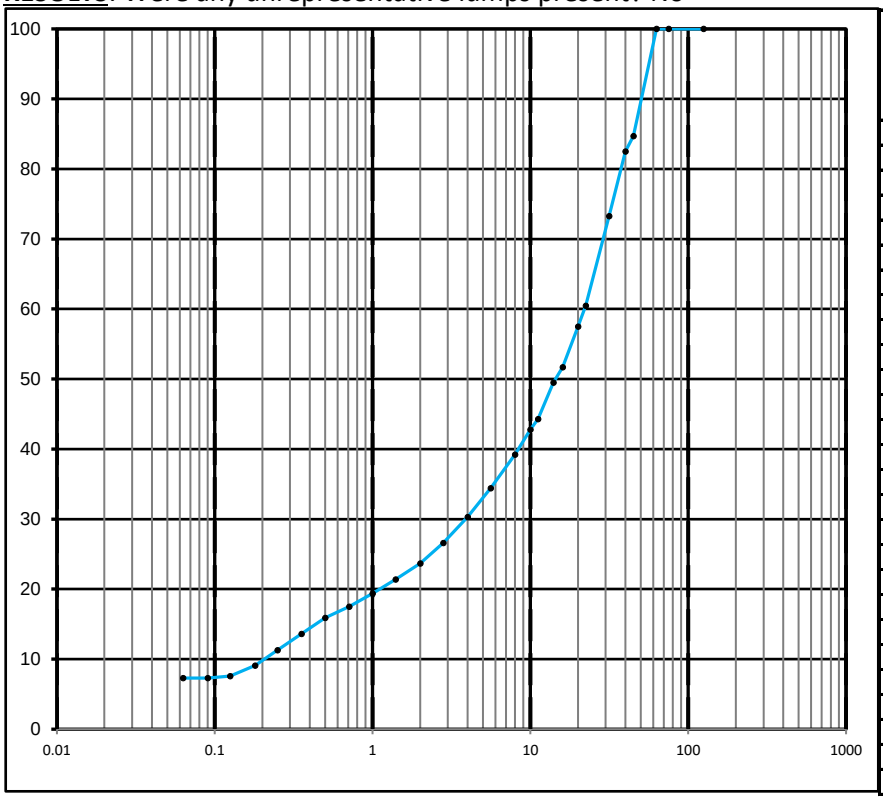
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103682**	Method of Sampling:	**Unknown**
Client Ref. No:	**AR33-2 1.60M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**08/06/2022**	Tested By:	**CM**
Date of Receipt at Lab:	**23/06/2022**		
Date of Start of Test:	**27/07/2022**		
Sampling Location:	**AR33-2 1.60M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	100	
45.0 mm	85	
40.0 mm	83	
31.5 mm	73	
22.4 mm	61	
20.0 mm	58	
16.0 mm	52	
14.0 mm	50	
11.2 mm	44	
10.0 mm	43	
8.0 mm	39	
5.6 mm	34	
4.0 mm	30	
2.8 mm	27	
2.0 mm	24	
1.4 mm	21	
1.0 mm	19	
0.710 mm	18	
0.500 mm	16	
0.355 mm	14	
0.250 mm	11	
0.180 mm	9	
0.125 mm	8	
0.090 mm	7	
0.063 mm	7.3	

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Comments:

None

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Birmingham
B31 2UQ

Date: 20 September 2022
Test Report Ref: TR 890909

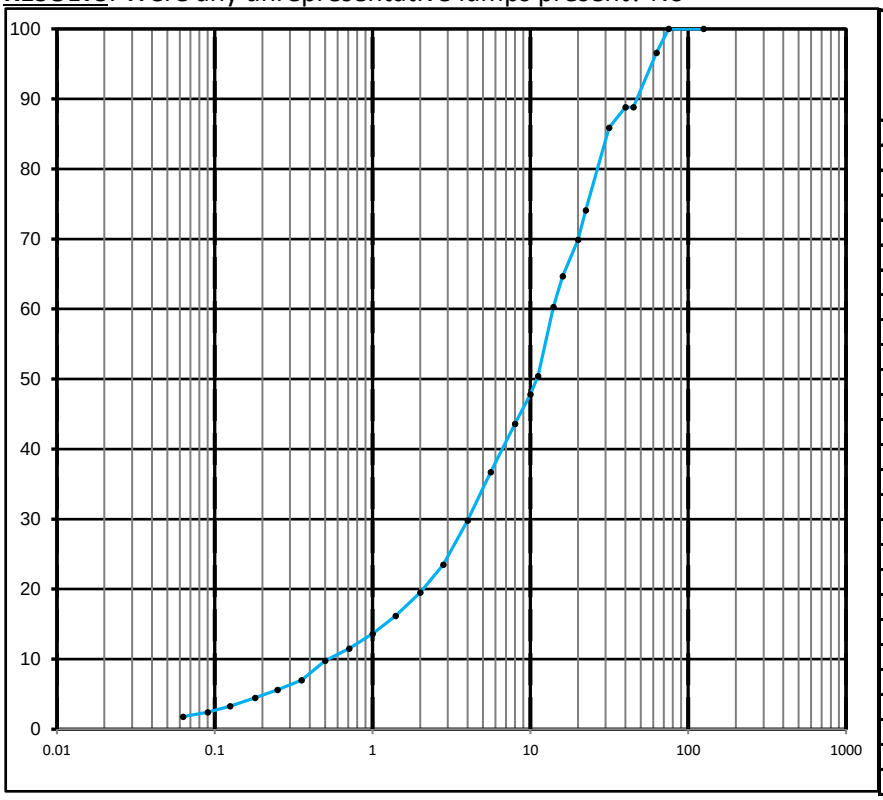
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103682**	Method of Sampling:	**Unknown**
Client Ref. No:	**AS33-1 1.20M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**08/06/2022**	Tested By:	**CM**
Date of Receipt at Lab:	**23/06/2022**		
Date of Start of Test:	**27/07/2022**		
Sampling Location:	**AS33-1 1.20M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	97	
45.0 mm	89	
40.0 mm	89	
31.5 mm	86	
22.4 mm	74	
20.0 mm	70	
16.0 mm	65	
14.0 mm	60	
11.2 mm	50	
10.0 mm	48	
8.0 mm	44	
5.6 mm	37	
4.0 mm	30	
2.8 mm	24	
2.0 mm	20	
1.4 mm	16	
1.0 mm	14	
0.710 mm	12	
0.500 mm	10	
0.355 mm	7	
0.250 mm	6	
0.180 mm	4	
0.125 mm	3	
0.090 mm	2	
0.063 mm	1.8	

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Comments:

None

Report checked and approved by:

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B31 2UQ

Date: 20 September 2022
Test Report Ref: TR 890914

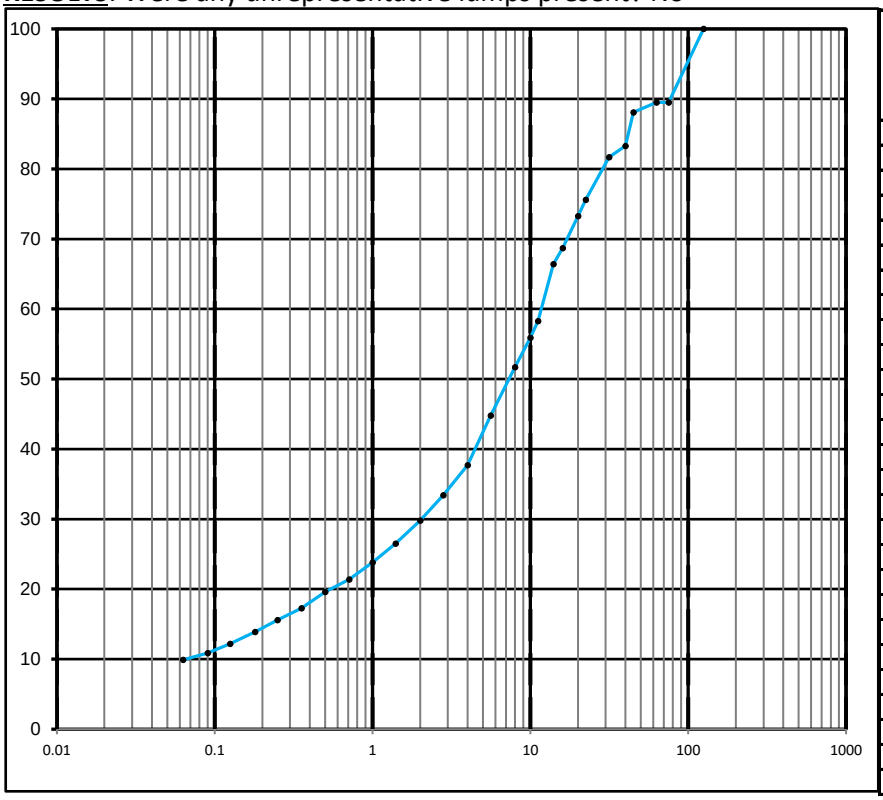
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103682**	Method of Sampling:	**Unknown**
Client Ref. No:	**AT33-2 2.20M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**08/06/2022**	Tested By:	**CM**
Date of Receipt at Lab:	**23/06/2022**		
Date of Start of Test:	**27/07/2022**		
Sampling Location:	**AT33-2 2.20M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	90	
63.0 mm	90	
45.0 mm	88	
40.0 mm	83	
31.5 mm	82	
22.4 mm	76	
20.0 mm	73	
16.0 mm	69	
14.0 mm	66	
11.2 mm	58	
10.0 mm	56	
8.0 mm	52	
5.6 mm	45	
4.0 mm	38	
2.8 mm	33	
2.0 mm	30	
1.4 mm	27	
1.0 mm	24	
0.710 mm	21	
0.500 mm	20	
0.355 mm	17	
0.250 mm	16	
0.180 mm	14	
0.125 mm	12	
0.090 mm	11	
0.063 mm	9.9	

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Comments:

None

Report checked and approved by:

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Job Coordinator

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B31 2UQ

Date: 20 September 2022
Test Report Ref: TR 890918

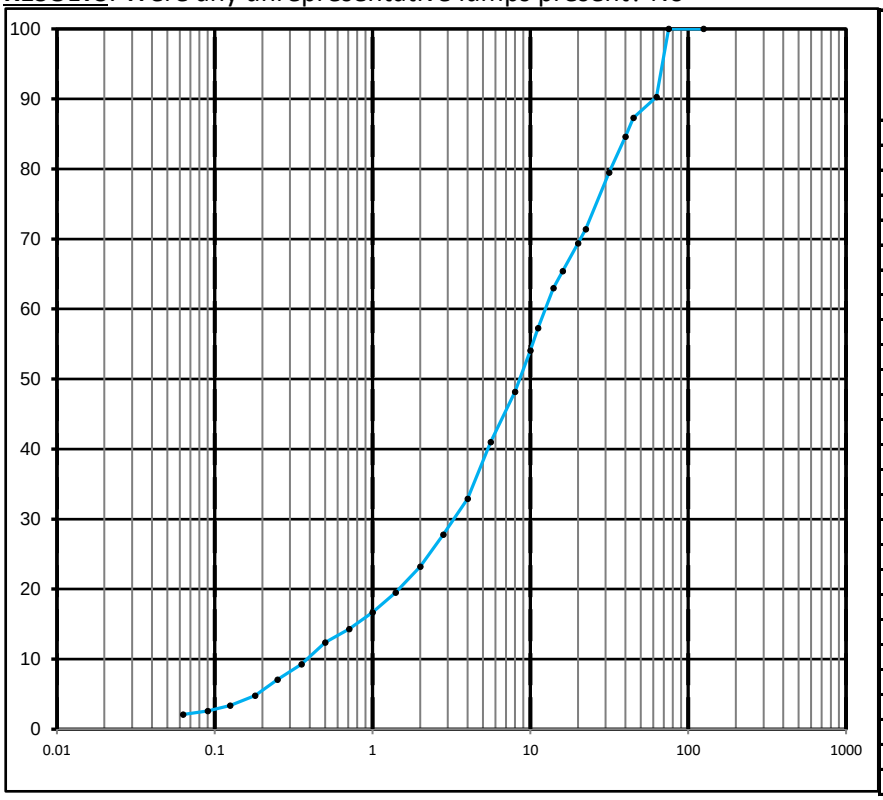
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103682**	Method of Sampling:	**Unknown**
Client Ref. No:	**AU33-1 0.90M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**08/06/2022**	Tested By:	**CM**
Date of Receipt at Lab:	**23/06/2022**		
Date of Start of Test:	**27/07/2022**		
Sampling Location:	**AU33-1 0.90M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	90	
45.0 mm	87	
40.0 mm	85	
31.5 mm	80	
22.4 mm	71	
20.0 mm	69	
16.0 mm	65	
14.0 mm	63	
11.2 mm	57	
10.0 mm	54	
8.0 mm	48	
5.6 mm	41	
4.0 mm	33	
2.8 mm	28	
2.0 mm	23	
1.4 mm	20	
1.0 mm	17	
0.710 mm	14	
0.500 mm	12	
0.355 mm	9	
0.250 mm	7	
0.180 mm	5	
0.125 mm	3	
0.090 mm	3	
0.063 mm	2.1	

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Comments:

None

Report checked and approved by:

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Date: 20 September 2022
Test Report Ref: TR 890923

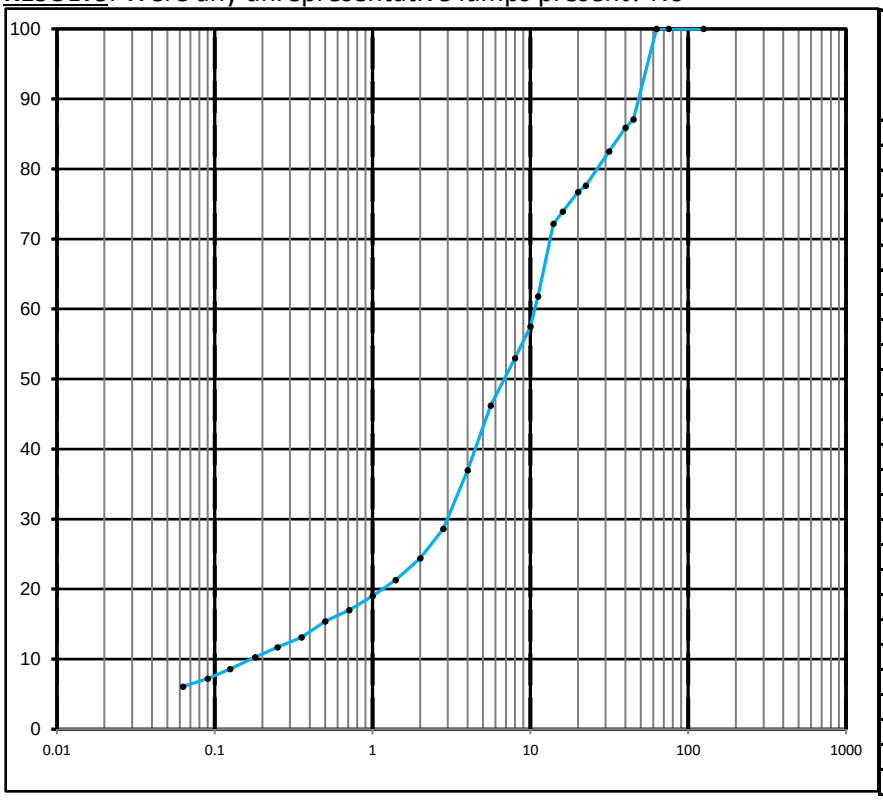
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103682**	Method of Sampling:	**Unknown**
Client Ref. No:	**AV33-1 0.60M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**08/06/2022**	Tested By:	**CM**
Date of Receipt at Lab:	**23/06/2022**		
Date of Start of Test:	**27/07/2022**		
Sampling Location:	**AV33-1 0.60M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	100	
45.0 mm	87	
40.0 mm	86	
31.5 mm	83	
22.4 mm	78	
20.0 mm	77	
16.0 mm	74	
14.0 mm	72	
11.2 mm	62	
10.0 mm	58	
8.0 mm	53	
5.6 mm	46	
4.0 mm	37	
2.8 mm	29	
2.0 mm	24	
1.4 mm	21	
1.0 mm	19	
0.710 mm	17	
0.500 mm	15	
0.355 mm	13	
0.250 mm	12	
0.180 mm	10	
0.125 mm	9	
0.090 mm	7	
0.063 mm	6.1	

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Comments:

None

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Date: 20 September 2022
Test Report Ref: TR 890927

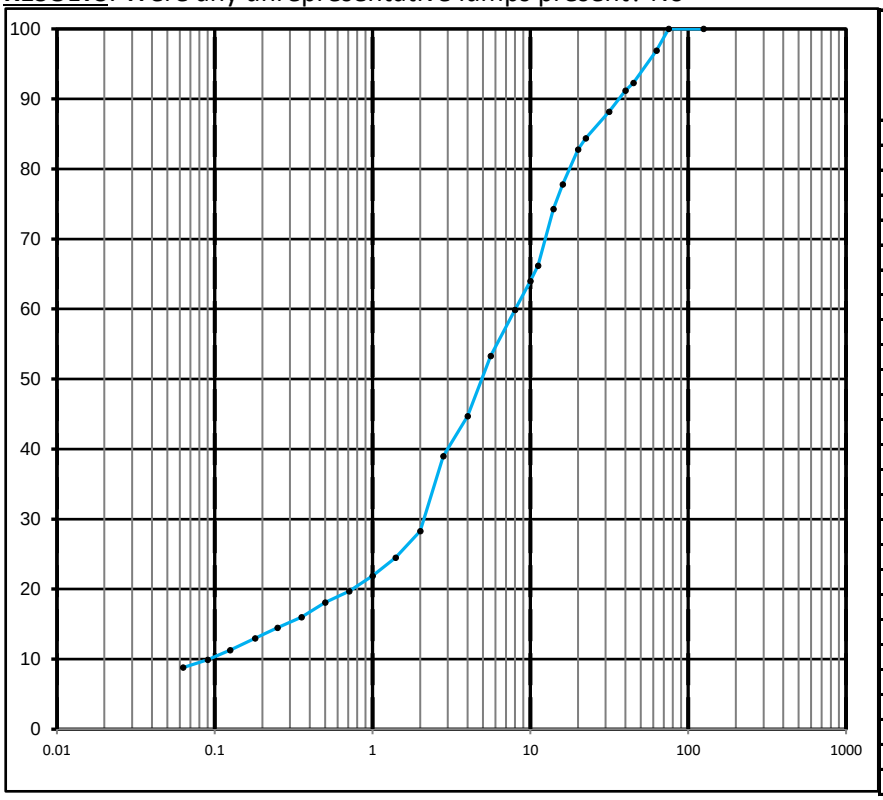
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103682**	Method of Sampling:	**Unknown**
Client Ref. No:	**AV33-3 2.20M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**08/06/2022**	Tested By:	**CM**
Date of Receipt at Lab:	**23/06/2022**		
Date of Start of Test:	**27/07/2022**		
Sampling Location:	**AV33-3 2.20M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	97	
45.0 mm	92	
40.0 mm	91	
31.5 mm	88	
22.4 mm	84	
20.0 mm	83	
16.0 mm	78	
14.0 mm	74	
11.2 mm	66	
10.0 mm	64	
8.0 mm	60	
5.6 mm	53	
4.0 mm	45	
2.8 mm	39	
2.0 mm	28	
1.4 mm	25	
1.0 mm	22	
0.710 mm	20	
0.500 mm	18	
0.355 mm	16	
0.250 mm	15	
0.180 mm	13	
0.125 mm	11	
0.090 mm	10	
0.063 mm	8.8	

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Comments:

None

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Date: 20 September 2022
Test Report Ref: TR 890932

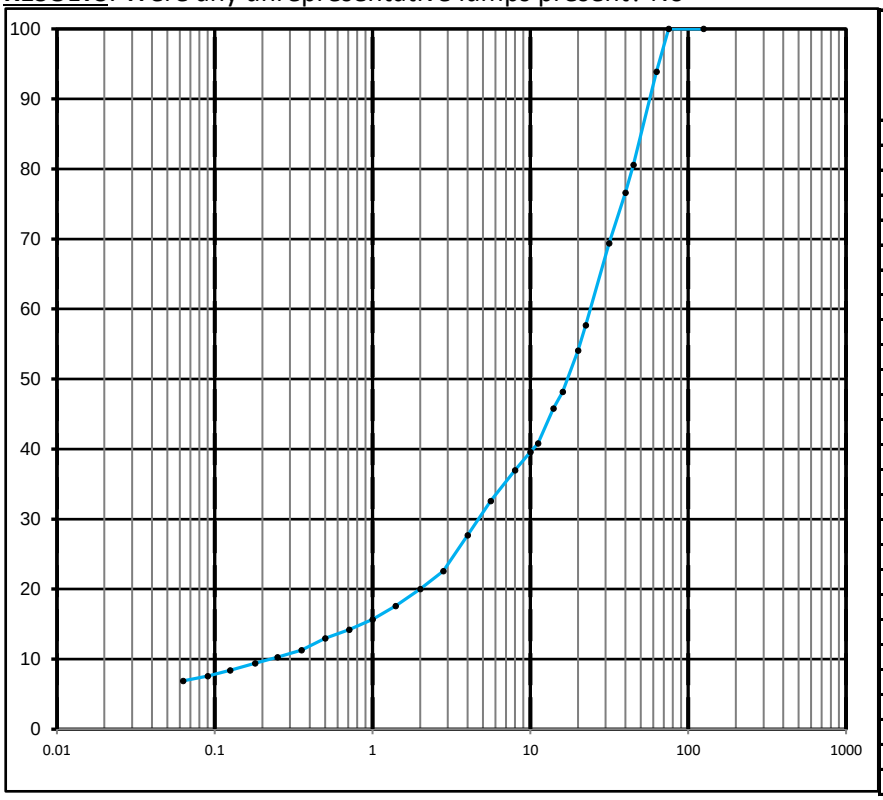
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S103682**	Method of Sampling:	**Unknown**
Client Ref. No:	**AW33-2 1.80M**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**08/06/2022**	Tested By:	**CM**
Date of Receipt at Lab:	**23/06/2022**		
Date of Start of Test:	**27/07/2022**		
Sampling Location:	**AW33-2 1.80M**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	94	
45.0 mm	81	
40.0 mm	77	
31.5 mm	69	
22.4 mm	58	
20.0 mm	54	
16.0 mm	48	
14.0 mm	46	
11.2 mm	41	
10.0 mm	40	
8.0 mm	37	
5.6 mm	33	
4.0 mm	28	
2.8 mm	23	
2.0 mm	20	
1.4 mm	18	
1.0 mm	16	
0.710 mm	14	
0.500 mm	13	
0.355 mm	11	
0.250 mm	10	
0.180 mm	9	
0.125 mm	8	
0.090 mm	8	
0.063 mm	6.9	

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Comments:

None

Report checked and approved by:

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Park Point
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B31 2UQ

Date: 20 September 2022
Test Report Ref: TR 896091

Contract: Llanwern

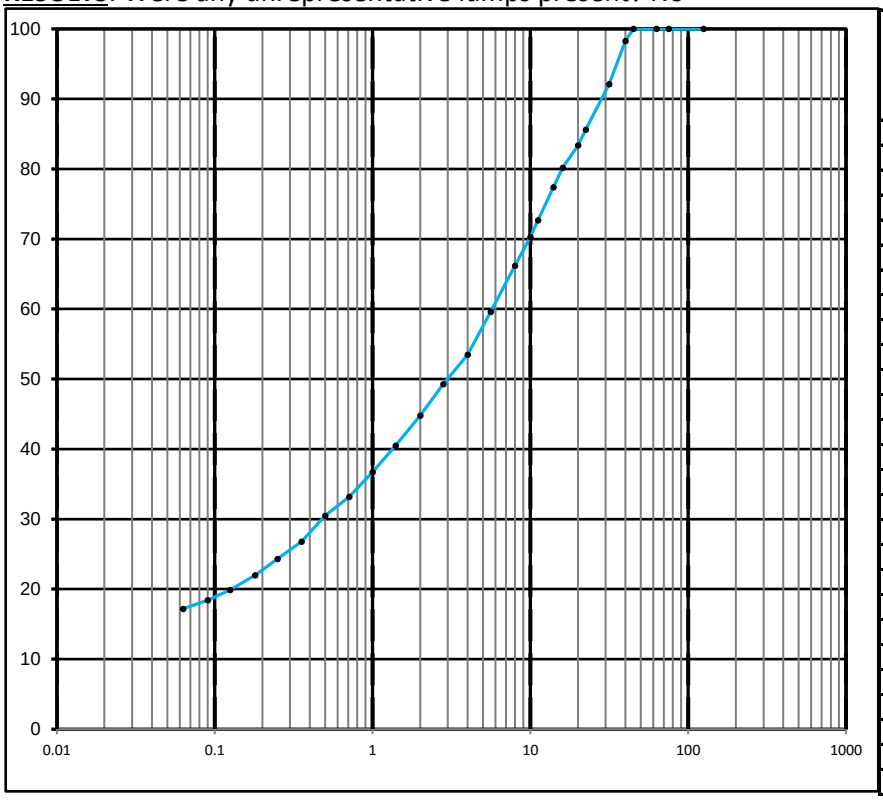
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S104193**	Method of Sampling:	**Unknown**
Client Ref. No:	**AM32-1**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**13/07/2022**	Tested By:	**CM**
Date of Receipt at Lab:	**15/07/2022**		
Date of Start of Test:	**27/07/2022**		
Sampling Location:	**AM32-1**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	100	
45.0 mm	100	
40.0 mm	98	
31.5 mm	92	
22.4 mm	86	
20.0 mm	83	
16.0 mm	80	
14.0 mm	77	
11.2 mm	73	
10.0 mm	70	
8.0 mm	66	
5.6 mm	60	
4.0 mm	54	
2.8 mm	49	
2.0 mm	45	
1.4 mm	41	
1.0 mm	37	
0.710 mm	33	
0.500 mm	31	
0.355 mm	27	
0.250 mm	24	
0.180 mm	22	
0.125 mm	20	
0.090 mm	18	
0.063 mm	17.2	

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Comments:

None

Report checked and approved by:

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B31 2UQ

Date: 20 September 2022
Test Report Ref: TR 896096

Contract: Llanwern

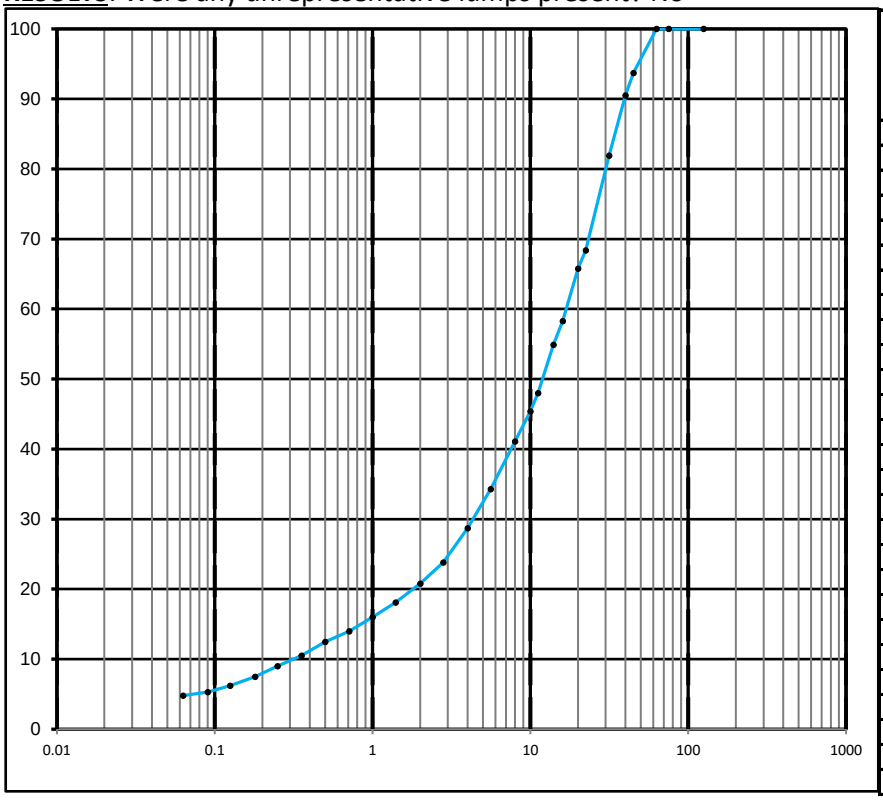
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S104193**	Method of Sampling:	**Unknown**
Client Ref. No:	**AN32-1**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**13/07/2022**	Tested By:	**CM**
Date of Receipt at Lab:	**15/07/2022**		
Date of Start of Test:	**27/07/2022**		
Sampling Location:	**AN32-1**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	100	
45.0 mm	94	
40.0 mm	91	
31.5 mm	82	
22.4 mm	68	
20.0 mm	66	
16.0 mm	58	
14.0 mm	55	
11.2 mm	48	
10.0 mm	45	
8.0 mm	41	
5.6 mm	34	
4.0 mm	29	
2.8 mm	24	
2.0 mm	21	
1.4 mm	18	
1.0 mm	16	
0.710 mm	14	
0.500 mm	13	
0.355 mm	11	
0.250 mm	9	
0.180 mm	8	
0.125 mm	6	
0.090 mm	5	
0.063 mm	4.8	

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Comments:

None

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Date: 20 September 2022
Test Report Ref: TR 896100

Contract: Llanwern

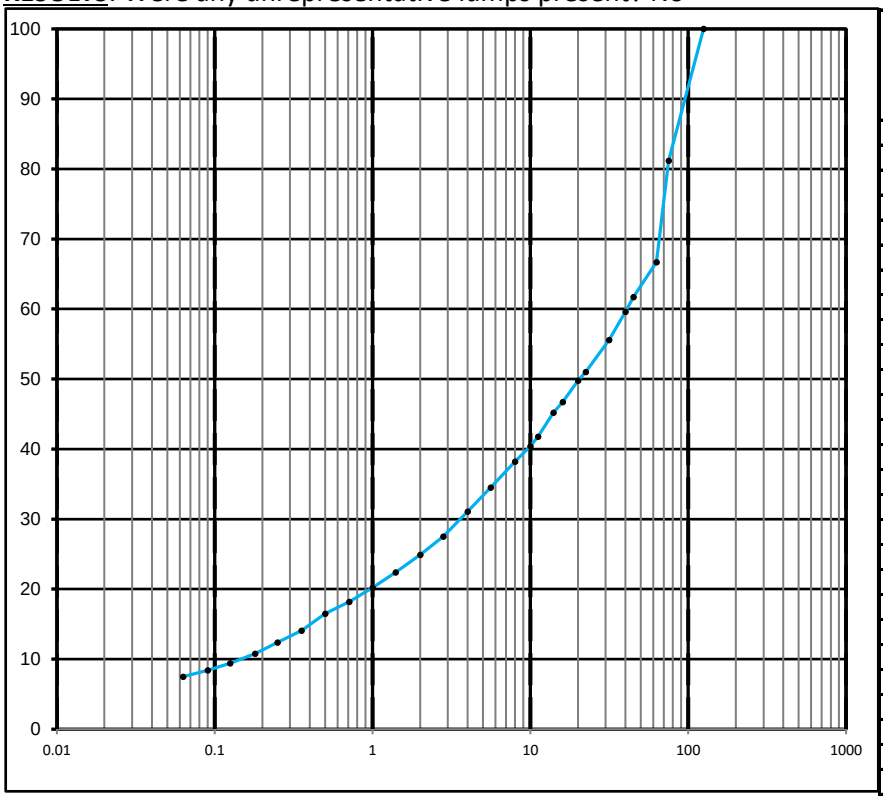
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S104193**	Method of Sampling:	**Unknown**
Client Ref. No:	**AN33-1**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**13/07/2022**	Tested By:	**CM**
Date of Receipt at Lab:	**15/07/2022**		
Date of Start of Test:	**27/07/2022**		
Sampling Location:	**AN33-1**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	81	
63.0 mm	67	
45.0 mm	62	
40.0 mm	60	
31.5 mm	56	
22.4 mm	51	
20.0 mm	50	
16.0 mm	47	
14.0 mm	45	
11.2 mm	42	
10.0 mm	40	
8.0 mm	38	
5.6 mm	35	
4.0 mm	31	
2.8 mm	28	
2.0 mm	25	
1.4 mm	22	
1.0 mm	20	
0.710 mm	18	
0.500 mm	17	
0.355 mm	14	
0.250 mm	12	
0.180 mm	11	
0.125 mm	9	
0.090 mm	8	
0.063 mm	7.5	

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Comments:

None

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Date: 20 September 2022
Test Report Ref: TR 896105

Contract: Llanwern

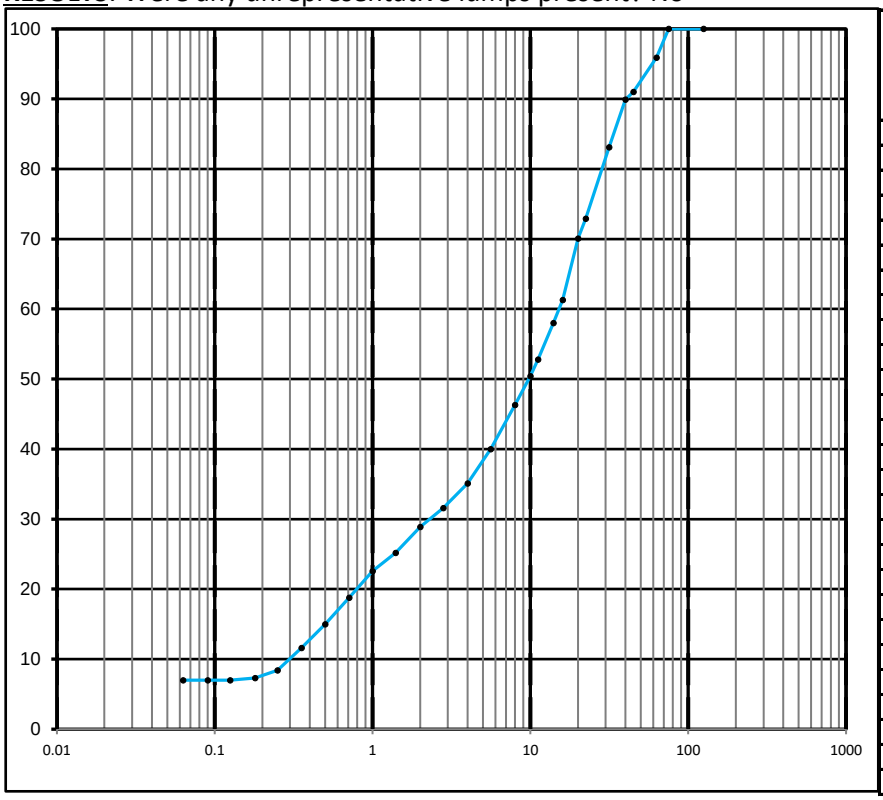
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S104193**	Method of Sampling:	**Unknown**
Client Ref. No:	**AO32-1**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**13/07/2022**	Tested By:	**CM**
Date of Receipt at Lab:	**15/07/2022**		
Date of Start of Test:	**27/07/2022**		
Sampling Location:	**AO32-1**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	96	
45.0 mm	91	
40.0 mm	90	
31.5 mm	83	
22.4 mm	73	
20.0 mm	70	
16.0 mm	61	
14.0 mm	58	
11.2 mm	53	
10.0 mm	50	
8.0 mm	46	
5.6 mm	40	
4.0 mm	35	
2.8 mm	32	
2.0 mm	29	
1.4 mm	25	
1.0 mm	23	
0.710 mm	19	
0.500 mm	15	
0.355 mm	12	
0.250 mm	8	
0.180 mm	7	
0.125 mm	7	
0.090 mm	7	
0.063 mm	7.0	

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Comments:

None

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Date: 16 September 2022
Test Report Ref: TR 896109

Contract: Llanwern

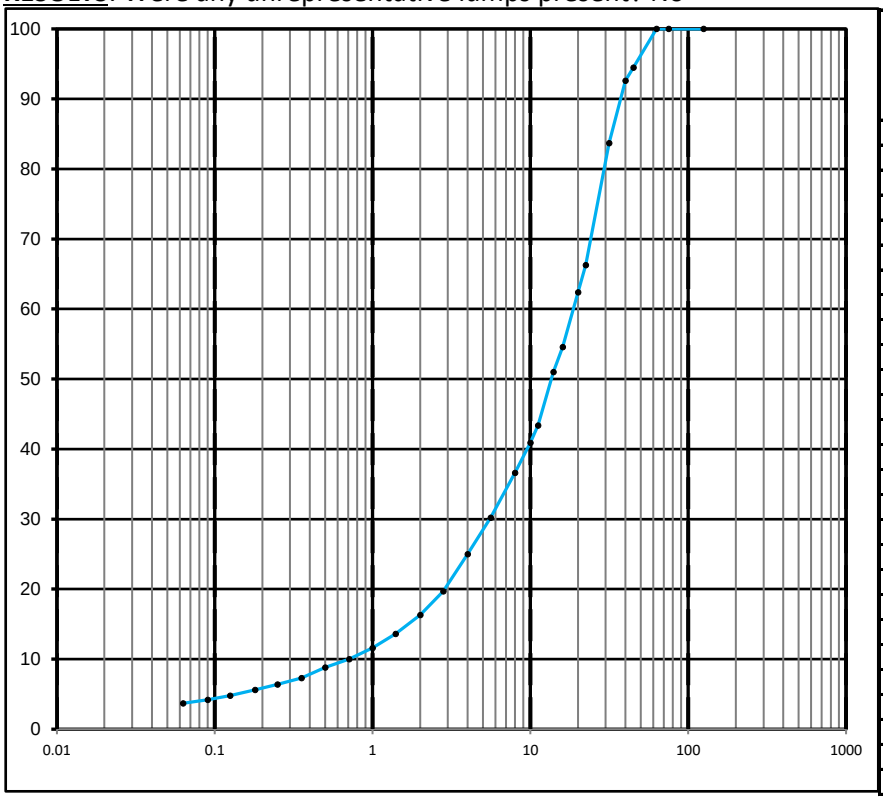
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S104193**	Method of Sampling:	**Unknown**
Client Ref. No:	**AO33-1**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**13/07/2022**	Tested By:	**CM**
Date of Receipt at Lab:	**15/07/2022**		
Date of Start of Test:	**27/07/2022**		
Sampling Location:	**AO33-1**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	100	
45.0 mm	95	
40.0 mm	93	
31.5 mm	84	
22.4 mm	66	
20.0 mm	62	
16.0 mm	55	
14.0 mm	51	
11.2 mm	43	
10.0 mm	41	
8.0 mm	37	
5.6 mm	30	
4.0 mm	25	
2.8 mm	20	
2.0 mm	16	
1.4 mm	14	
1.0 mm	12	
0.710 mm	10	
0.500 mm	9	
0.355 mm	7	
0.250 mm	6	
0.180 mm	6	
0.125 mm	5	
0.090 mm	4	
0.063 mm	3.7	

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Comments:

None

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Park Point
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Date: 16 September 2022
Test Report Ref: TR 896114

Contract: Llanwern

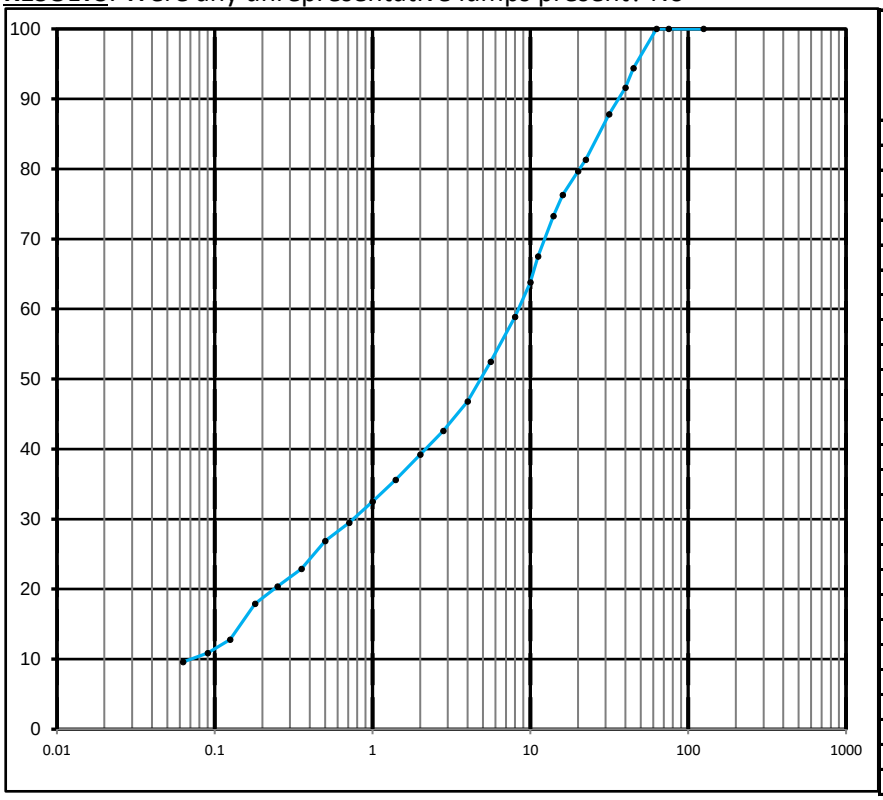
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S104193**	Method of Sampling:	**Unknown**
Client Ref. No:	**AV31-1**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**13/07/2022**	Tested By:	**CM**
Date of Receipt at Lab:	**15/07/2022**		
Date of Start of Test:	**27/07/2022**		
Sampling Location:	**AV31-1**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	100	
45.0 mm	94	
40.0 mm	92	
31.5 mm	88	
22.4 mm	81	
20.0 mm	80	
16.0 mm	76	
14.0 mm	73	
11.2 mm	68	
10.0 mm	64	
8.0 mm	59	
5.6 mm	53	
4.0 mm	47	
2.8 mm	43	
2.0 mm	39	
1.4 mm	36	
1.0 mm	33	
0.710 mm	30	
0.500 mm	27	
0.355 mm	23	
0.250 mm	20	
0.180 mm	18	
0.125 mm	13	
0.090 mm	11	
0.063 mm	9.6	

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Comments:

None

Report checked and approved by:

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B31 2UQ

Date: 20 September 2022
Test Report Ref: TR 896118

Contract: Llanwern

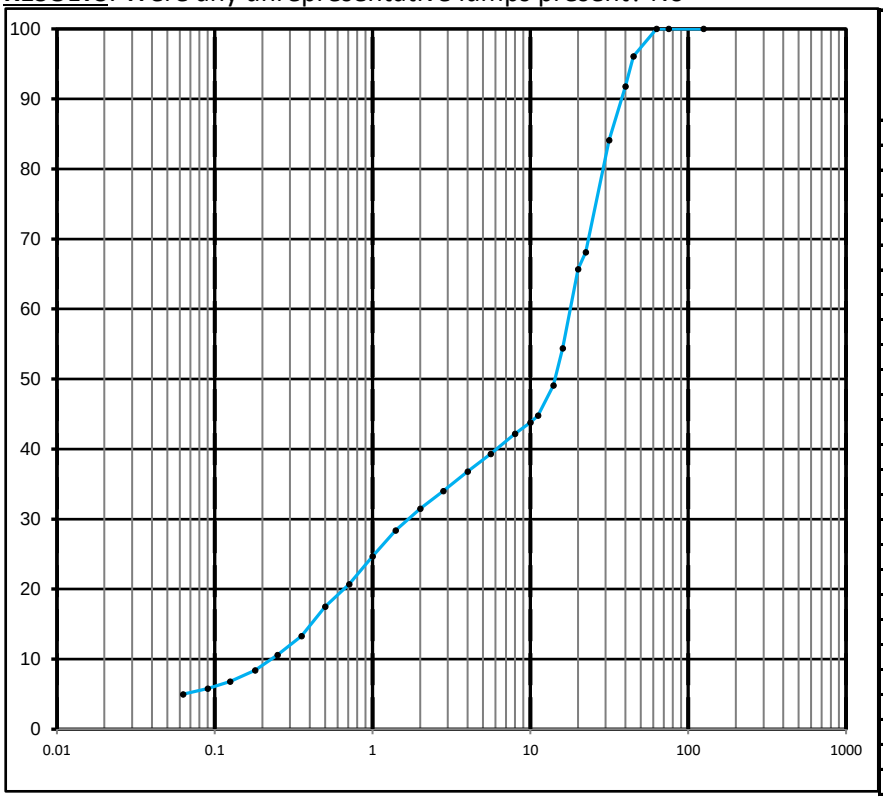
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S104193**	Method of Sampling:	**Unknown**
Client Ref. No:	**AV32-1**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**13/07/2022**	Tested By:	**CM**
Date of Receipt at Lab:	**15/07/2022**		
Date of Start of Test:	**27/07/2022**		
Sampling Location:	**AV32-2**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	100	
45.0 mm	96	
40.0 mm	92	
31.5 mm	84	
22.4 mm	68	
20.0 mm	66	
16.0 mm	54	
14.0 mm	49	
11.2 mm	45	
10.0 mm	44	
8.0 mm	42	
5.6 mm	39	
4.0 mm	37	
2.8 mm	34	
2.0 mm	32	
1.4 mm	28	
1.0 mm	25	
0.710 mm	21	
0.500 mm	18	
0.355 mm	13	
0.250 mm	11	
0.180 mm	8	
0.125 mm	7	
0.090 mm	6	
0.063 mm	5.0	

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These results relate only to the items tested.

Comments:

None

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Date: 20 September 2022
Test Report Ref: TR 896123

Contract: Llanwern

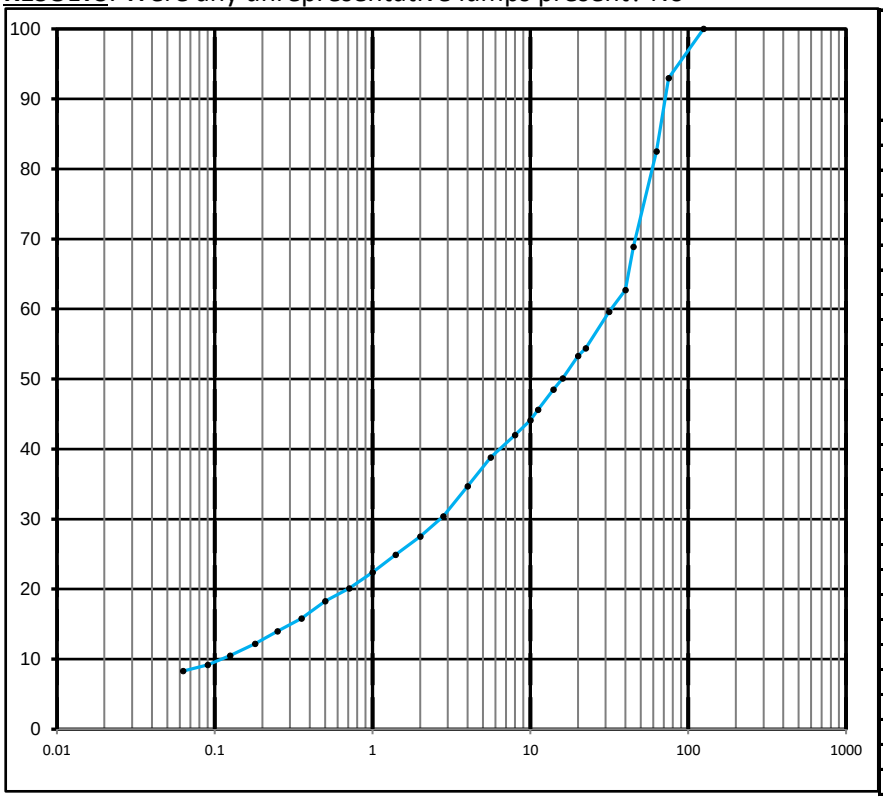
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S104193**	Method of Sampling:	**Unknown**
Client Ref. No:	**AW31-1**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**13/07/2022**	Tested By:	**CM**
Date of Receipt at Lab:	**15/07/2022**		
Date of Start of Test:	**27/07/2022**		
Sampling Location:	**AW31-1**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	93	
63.0 mm	83	
45.0 mm	69	
40.0 mm	63	
31.5 mm	60	
22.4 mm	54	
20.0 mm	53	
16.0 mm	50	
14.0 mm	49	
11.2 mm	46	
10.0 mm	44	
8.0 mm	42	
5.6 mm	39	
4.0 mm	35	
2.8 mm	30	
2.0 mm	28	
1.4 mm	25	
1.0 mm	22	
0.710 mm	20	
0.500 mm	18	
0.355 mm	16	
0.250 mm	14	
0.180 mm	12	
0.125 mm	11	
0.090 mm	9	
0.063 mm	8.3	

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Comments:

None

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Date: 16 September 2022
Test Report Ref: TR 896132

Contract: Llanwern

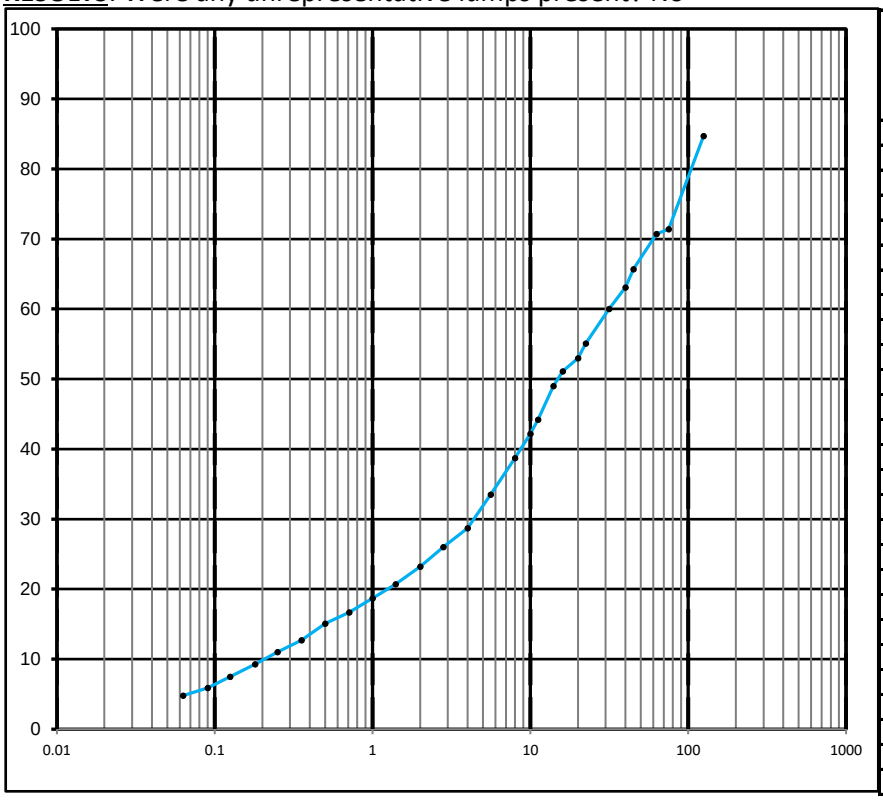
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample-washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S104193**	Method of Sampling:	**Unknown**
Client Ref. No:	**AX31-1**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**13/07/2022**	Tested By:	**CM**
Date of Receipt at Lab:	**15/07/2022**		
Date of Start of Test:	**27/07/2022**		
Sampling Location:	**AX31-1**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	85	
75.0 mm	71	
63.0 mm	71	
45.0 mm	66	
40.0 mm	63	
31.5 mm	60	
22.4 mm	55	
20.0 mm	53	
16.0 mm	51	
14.0 mm	49	
11.2 mm	44	
10.0 mm	42	
8.0 mm	39	
5.6 mm	34	
4.0 mm	29	
2.8 mm	26	
2.0 mm	23	
1.4 mm	21	
1.0 mm	19	
0.710 mm	17	
0.500 mm	15	
0.355 mm	13	
0.250 mm	11	
0.180 mm	9	
0.125 mm	7	
0.090 mm	6	
0.063 mm	4.8	

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Comments:

None

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Date: 20 September 2022
Test Report Ref: TR 896136

Contract: Llanwern

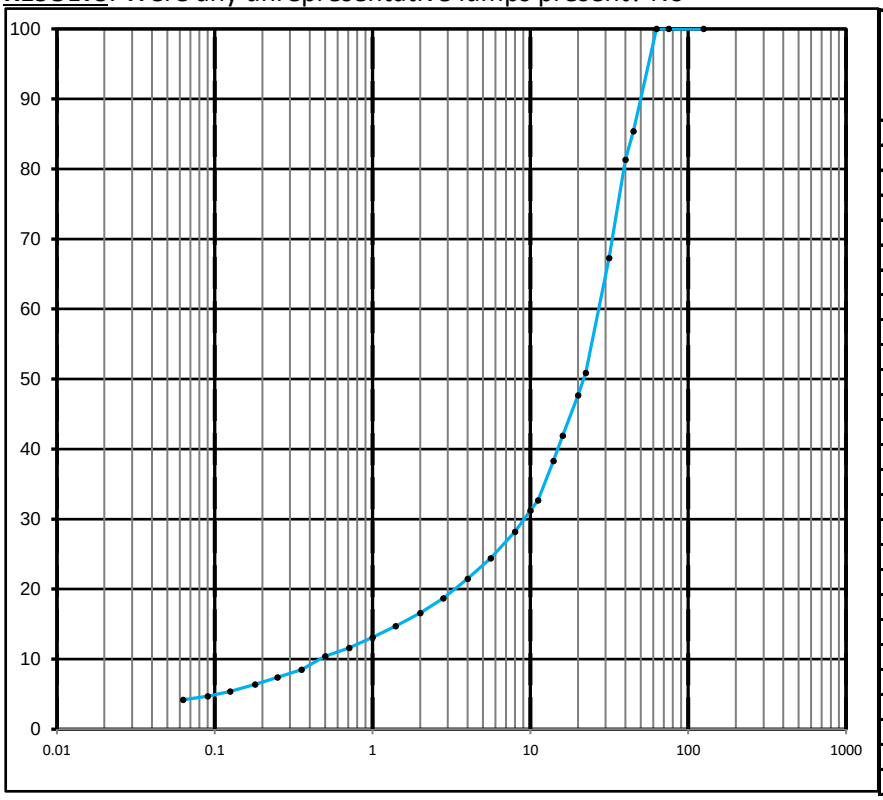
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S104193**	Method of Sampling:	**Unknown**
Client Ref. No:	**AX32-1**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**13/07/2022**	Tested By:	**CM**
Date of Receipt at Lab:	**15/07/2022**		
Date of Start of Test:	**27/07/2022**		
Sampling Location:	**AX32-1**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	100	
45.0 mm	85	
40.0 mm	81	
31.5 mm	67	
22.4 mm	51	
20.0 mm	48	
16.0 mm	42	
14.0 mm	38	
11.2 mm	33	
10.0 mm	31	
8.0 mm	28	
5.6 mm	24	
4.0 mm	22	
2.8 mm	19	
2.0 mm	17	
1.4 mm	15	
1.0 mm	13	
0.710 mm	12	
0.500 mm	10	
0.355 mm	9	
0.250 mm	7	
0.180 mm	6	
0.125 mm	5	
0.090 mm	5	
0.063 mm	4.2	

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These results relate only to the items tested.

Comments:

None

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 16 September 2022
Test Report Ref: TR 896141

Contract: Llanwern

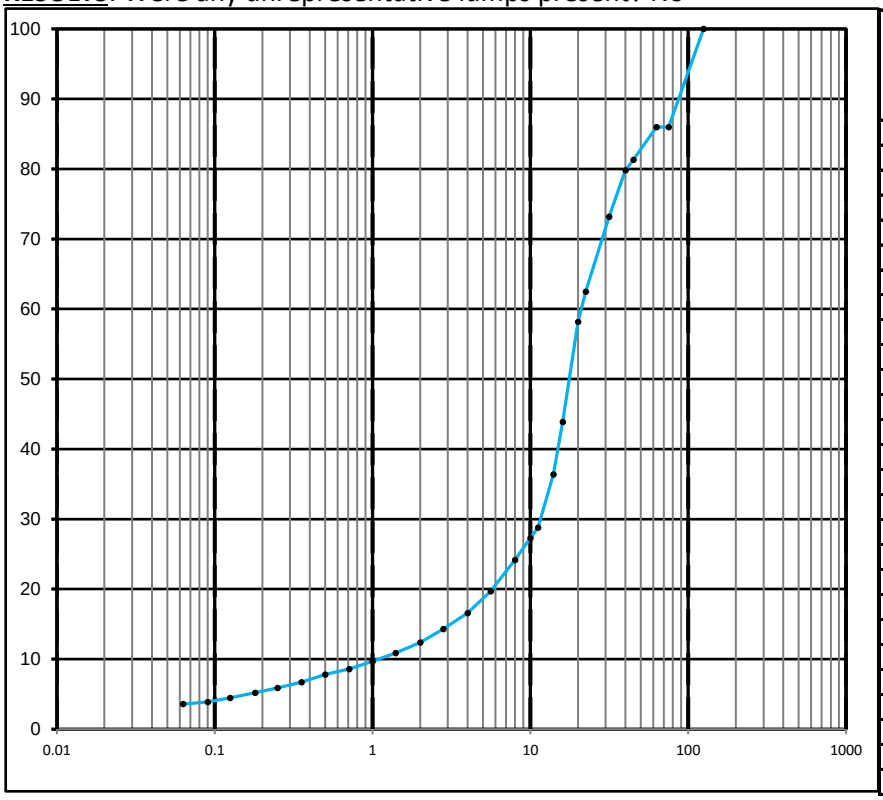
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S104193**	Method of Sampling:	**Unknown**
Client Ref. No:	**AX32-2**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**13/07/2022**	Tested By:	**CM**
Date of Receipt at Lab:	**15/07/2022**		
Date of Start of Test:	**27/07/2022**		
Sampling Location:	**AX32-2**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	86	
63.0 mm	86	
45.0 mm	81	
40.0 mm	80	
31.5 mm	73	
22.4 mm	63	
20.0 mm	58	
16.0 mm	44	
14.0 mm	36	
11.2 mm	29	
10.0 mm	27	
8.0 mm	24	
5.6 mm	20	
4.0 mm	17	
2.8 mm	14	
2.0 mm	12	
1.4 mm	11	
1.0 mm	10	
0.710 mm	9	
0.500 mm	8	
0.355 mm	7	
0.250 mm	6	
0.180 mm	5	
0.125 mm	5	
0.090 mm	4	
0.063 mm	3.6	

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These results relate only to the items tested.

Comments:

None

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

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St Modwen Developments Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 13 October 2022
Test Report Ref: TR 903958

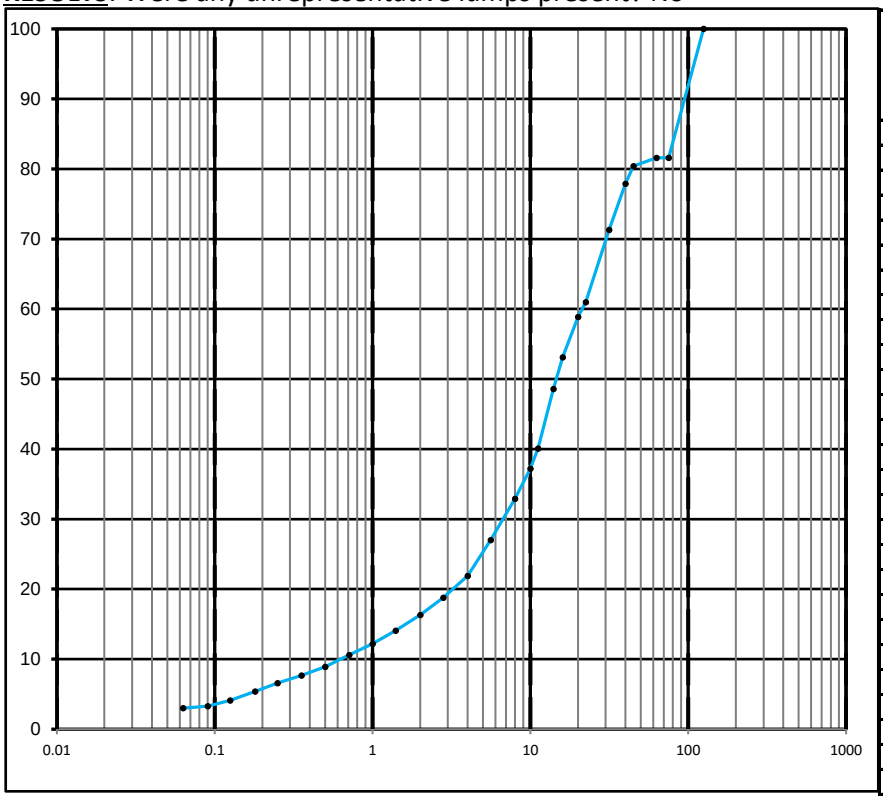
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S105000**	Method of Sampling:	**Unknown**
Client Ref. No:	**AQ32-1**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**16/08/2022**	Tested By:	**CM**
Date of Receipt at Lab:	**23/08/2022**		
Date of Start of Test:	**16/09/2022**		
Sampling Location:	**Unknown**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	82	
63.0 mm	82	
45.0 mm	80	
40.0 mm	78	
31.5 mm	71	
22.4 mm	61	
20.0 mm	59	
16.0 mm	53	
14.0 mm	49	
11.2 mm	40	
10.0 mm	37	
8.0 mm	33	
5.6 mm	27	
4.0 mm	22	
2.8 mm	19	
2.0 mm	16	
1.4 mm	14	
1.0 mm	12	
0.710 mm	11	
0.500 mm	9	
0.355 mm	8	
0.250 mm	7	
0.180 mm	5	
0.125 mm	4	
0.090 mm	3	
0.063 mm	3.0	

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Comments:

None

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

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St Modwen Developments Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 14 October 2022
Test Report Ref: TR 903966

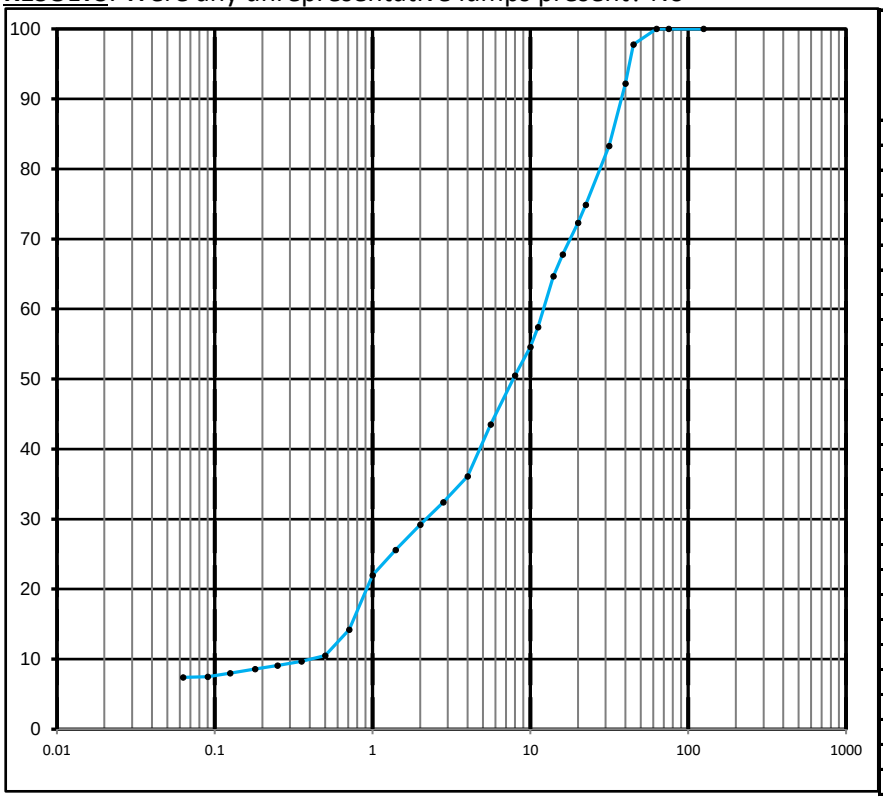
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S105000**	Method of Sampling:	**Unknown**
Client Ref. No:	**AR32-1**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**16/08/2022**	Tested By:	**CM**
Date of Receipt at Lab:	**23/08/2022**		
Date of Start of Test:	**16/09/2022**		
Sampling Location:	**Unknown**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	100	
45.0 mm	98	
40.0 mm	92	
31.5 mm	83	
22.4 mm	75	
20.0 mm	72	
16.0 mm	68	
14.0 mm	65	
11.2 mm	57	
10.0 mm	55	
8.0 mm	51	
5.6 mm	44	
4.0 mm	36	
2.8 mm	32	
2.0 mm	29	
1.4 mm	26	
1.0 mm	22	
0.710 mm	14	
0.500 mm	11	
0.355 mm	10	
0.250 mm	9	
0.180 mm	9	
0.125 mm	8	
0.090 mm	8	
0.063 mm	7.4	

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Comments:

None

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

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St Modwen Developments Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 13 October 2022
Test Report Ref: TR 903970

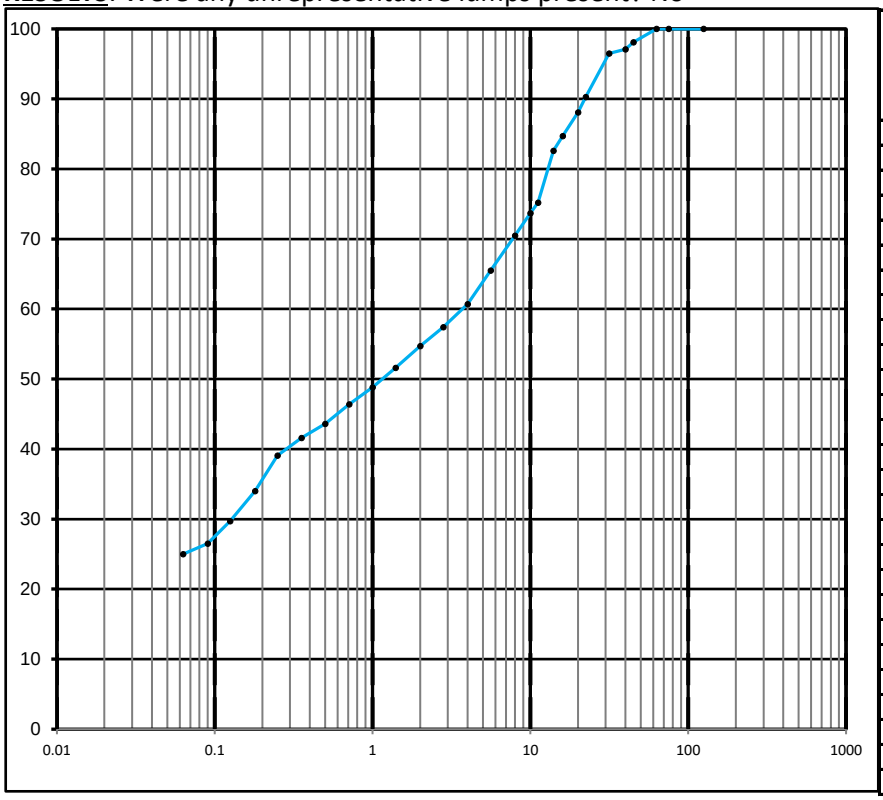
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S105000**	Method of Sampling:	**Unknown**
Client Ref. No:	**AS32-1**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**16/08/2022**	Tested By:	**CM**
Date of Receipt at Lab:	**23/08/2022**		
Date of Start of Test:	**16/09/2022**		
Sampling Location:	**Unknown**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	100	
45.0 mm	98	
40.0 mm	97	
31.5 mm	97	
22.4 mm	90	
20.0 mm	88	
16.0 mm	85	
14.0 mm	83	
11.2 mm	75	
10.0 mm	74	
8.0 mm	71	
5.6 mm	66	
4.0 mm	61	
2.8 mm	57	
2.0 mm	55	
1.4 mm	52	
1.0 mm	49	
0.710 mm	46	
0.500 mm	44	
0.355 mm	42	
0.250 mm	39	
0.180 mm	34	
0.125 mm	30	
0.090 mm	27	
0.063 mm	25.0	

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These results relate only to the items tested.

Comments:

None

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

St Modwen Developments Limited
Two Devon Way
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Birmingham
B31 2TS

Date: 13 October 2022
Test Report Ref: TR 903975

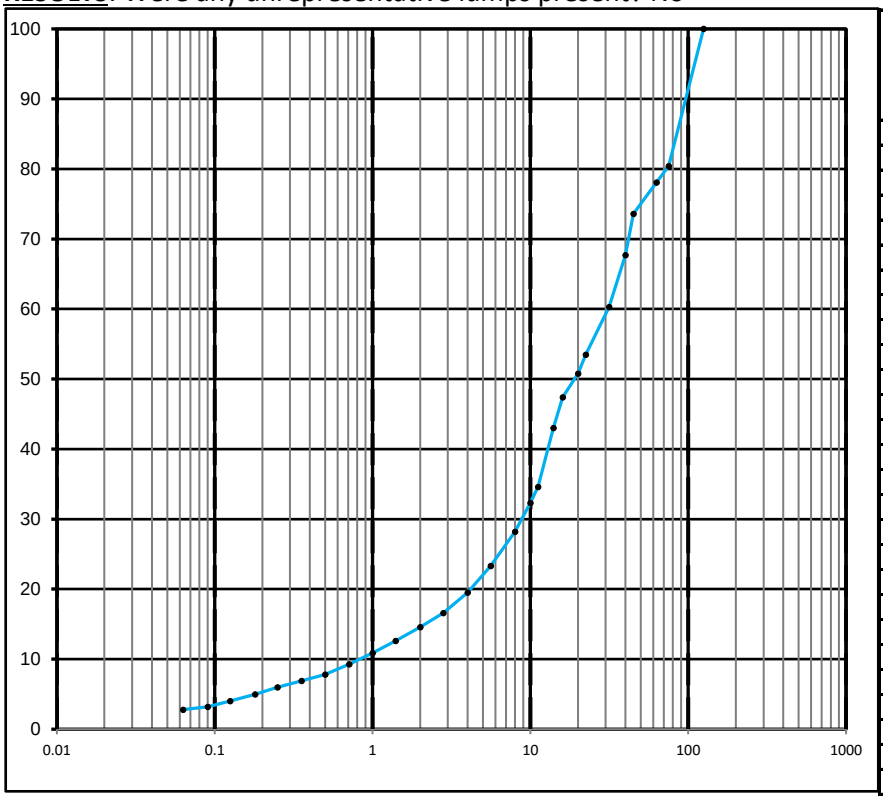
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S105000**	Method of Sampling:	**Unknown**
Client Ref. No:	**AS32-2**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**16/08/2022**	Tested By:	**CM**
Date of Receipt at Lab:	**23/08/2022**		
Date of Start of Test:	**16/09/2022**		
Sampling Location:	**Unknown**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	80	
63.0 mm	78	
45.0 mm	74	
40.0 mm	68	
31.5 mm	60	
22.4 mm	54	
20.0 mm	51	
16.0 mm	47	
14.0 mm	43	
11.2 mm	35	
10.0 mm	32	
8.0 mm	28	
5.6 mm	23	
4.0 mm	20	
2.8 mm	17	
2.0 mm	15	
1.4 mm	13	
1.0 mm	11	
0.710 mm	9	
0.500 mm	8	
0.355 mm	7	
0.250 mm	6	
0.180 mm	5	
0.125 mm	4	
0.090 mm	3	
0.063 mm	2.8	

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Comments:

None

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

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St Modwen Developments Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 13 October 2022
Test Report Ref: TR 903979

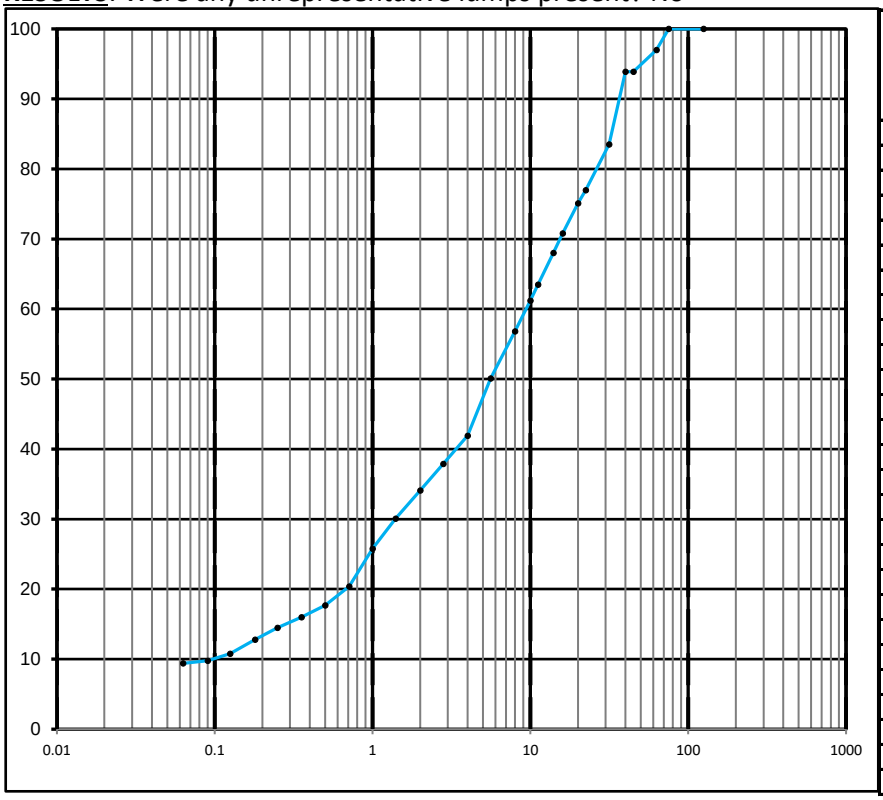
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S105000**	Method of Sampling:	**Unknown**
Client Ref. No:	**AT32-1**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**16/08/2022**	Tested By:	**CM**
Date of Receipt at Lab:	**23/08/2022**		
Date of Start of Test:	**16/09/2022**		
Sampling Location:	**Unknown**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	97	
45.0 mm	94	
40.0 mm	94	
31.5 mm	84	
22.4 mm	77	
20.0 mm	75	
16.0 mm	71	
14.0 mm	68	
11.2 mm	64	
10.0 mm	61	
8.0 mm	57	
5.6 mm	50	
4.0 mm	42	
2.8 mm	38	
2.0 mm	34	
1.4 mm	30	
1.0 mm	26	
0.710 mm	20	
0.500 mm	18	
0.355 mm	16	
0.250 mm	15	
0.180 mm	13	
0.125 mm	11	
0.090 mm	10	
0.063 mm	9.4	

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These results relate only to the items tested.

Comments:

None

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

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St Modwen Developments Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 13 October 2022
Test Report Ref: TR 903984

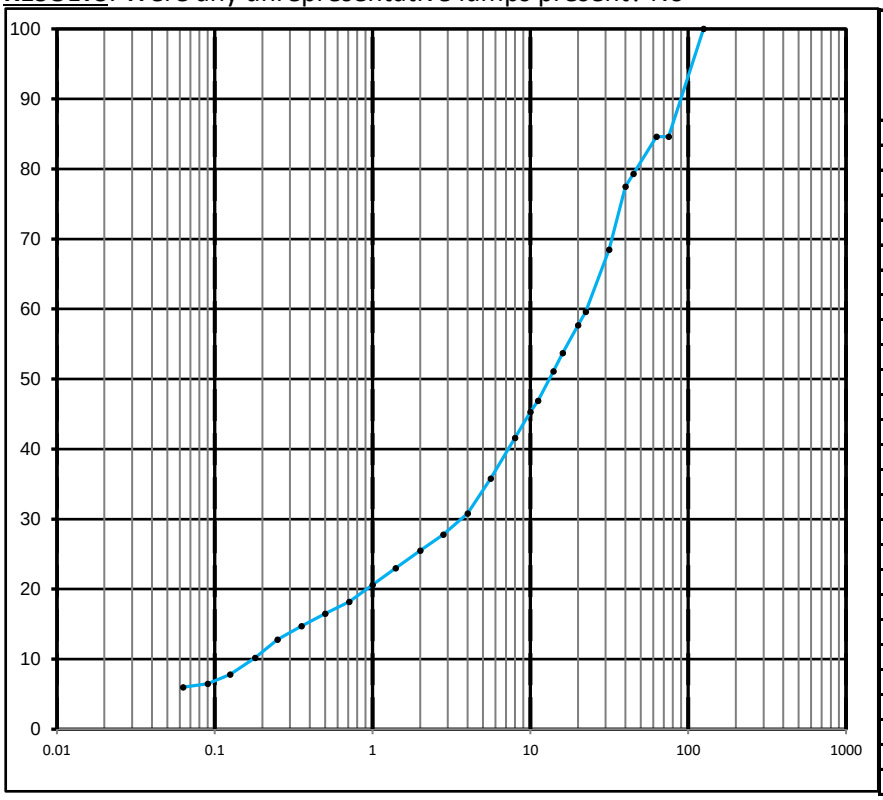
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S105000**	Method of Sampling:	**Unknown**
Client Ref. No:	**AU29-1**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**16/08/2022**	Tested By:	**CM**
Date of Receipt at Lab:	**23/08/2022**		
Date of Start of Test:	**16/09/2022**		
Sampling Location:	**Unknown**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	85	
63.0 mm	85	
45.0 mm	79	
40.0 mm	78	
31.5 mm	69	
22.4 mm	60	
20.0 mm	58	
16.0 mm	54	
14.0 mm	51	
11.2 mm	47	
10.0 mm	45	
8.0 mm	42	
5.6 mm	36	
4.0 mm	31	
2.8 mm	28	
2.0 mm	26	
1.4 mm	23	
1.0 mm	21	
0.710 mm	18	
0.500 mm	17	
0.355 mm	15	
0.250 mm	13	
0.180 mm	10	
0.125 mm	8	
0.090 mm	6	
0.063 mm	6.0	

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These results relate only to the items tested.

Comments:

None

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

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St Modwen Developments Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 13 October 2022
Test Report Ref: TR 903988

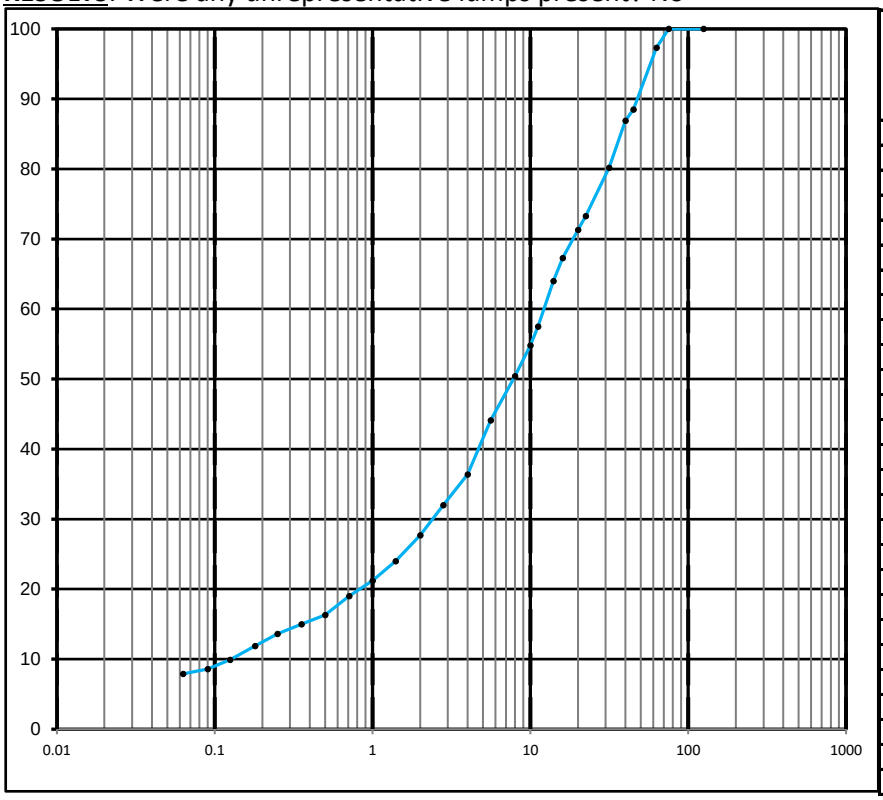
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S105000**	Method of Sampling:	**Unknown**
Client Ref. No:	**AU32-1**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**16/08/2022**	Tested By:	**CM**
Date of Receipt at Lab:	**23/08/2022**		
Date of Start of Test:	**16/09/2022**		
Sampling Location:	**Unknown**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	97	
45.0 mm	89	
40.0 mm	87	
31.5 mm	80	
22.4 mm	73	
20.0 mm	71	
16.0 mm	67	
14.0 mm	64	
11.2 mm	58	
10.0 mm	55	
8.0 mm	50	
5.6 mm	44	
4.0 mm	36	
2.8 mm	32	
2.0 mm	28	
1.4 mm	24	
1.0 mm	21	
0.710 mm	19	
0.500 mm	16	
0.355 mm	15	
0.250 mm	14	
0.180 mm	12	
0.125 mm	10	
0.090 mm	9	
0.063 mm	7.9	

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These results relate only to the items tested.

Comments:

None

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

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St Modwen Developments Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 13 October 2022
Test Report Ref: TR 903993

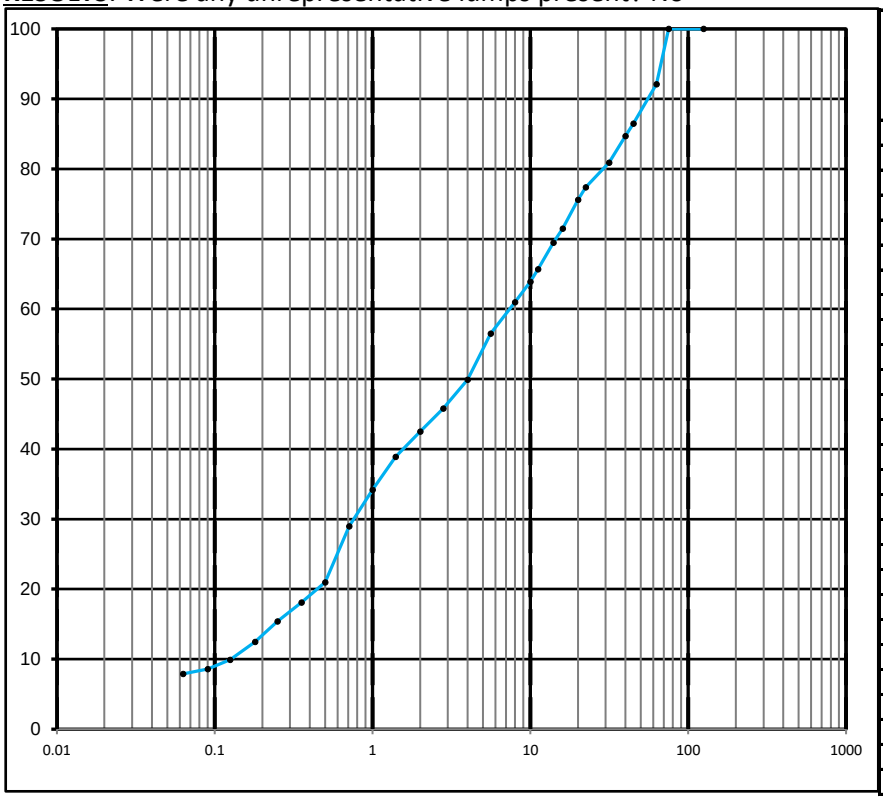
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S105000**	Method of Sampling:	**Unknown**
Client Ref. No:	**AV30-1**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**16/08/2022**	Tested By:	**CM**
Date of Receipt at Lab:	**23/08/2022**		
Date of Start of Test:	**16/09/2022**		
Sampling Location:	**Unknown**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	92	
45.0 mm	87	
40.0 mm	85	
31.5 mm	81	
22.4 mm	77	
20.0 mm	76	
16.0 mm	72	
14.0 mm	70	
11.2 mm	66	
10.0 mm	64	
8.0 mm	61	
5.6 mm	57	
4.0 mm	50	
2.8 mm	46	
2.0 mm	43	
1.4 mm	39	
1.0 mm	34	
0.710 mm	29	
0.500 mm	21	
0.355 mm	18	
0.250 mm	15	
0.180 mm	13	
0.125 mm	10	
0.090 mm	9	
0.063 mm	7.9	

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These results relate only to the items tested.

Comments:

None

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

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St Modwen Developments Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 24 October 2022
Test Report Ref: TR 904883

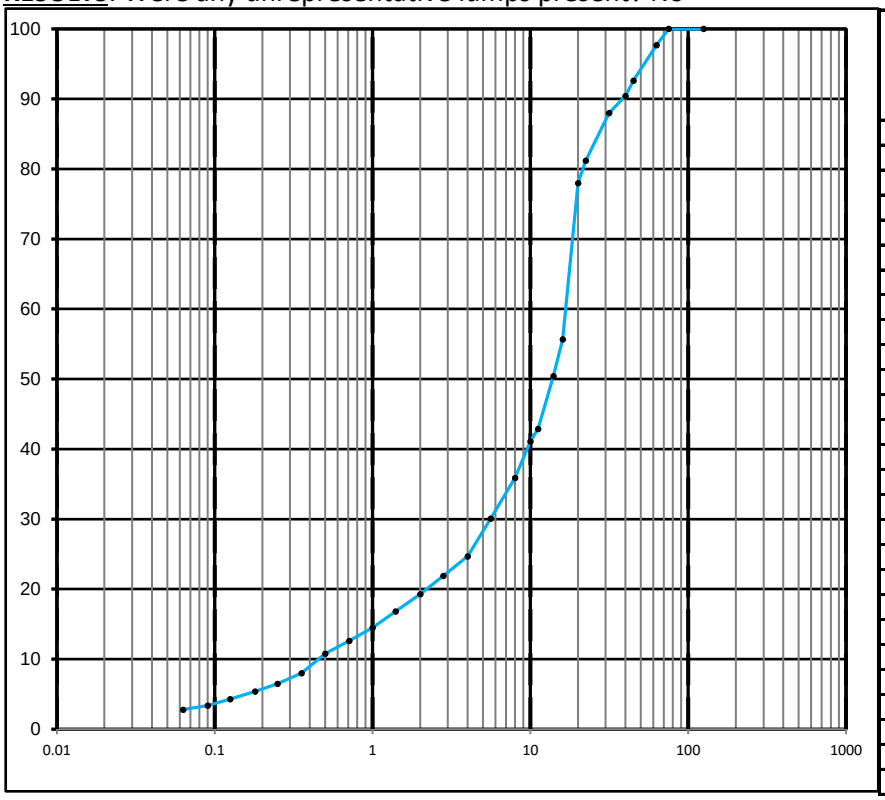
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S105136**	Method of Sampling:	**Unknown**
Client Ref. No:	**AN34-1 - 1m**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**24/08/2022**	Tested By:	**KH**
Date of Receipt at Lab:	**30/08/2022**		
Date of Start of Test:	**13/10/2022**		
Sampling Location:	**AN34-1 - 1m**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	98	
45.0 mm	93	
40.0 mm	90	
31.5 mm	88	
22.4 mm	81	
20.0 mm	78	
16.0 mm	56	
14.0 mm	50	
11.2 mm	43	
10.0 mm	41	
8.0 mm	36	
5.6 mm	30	
4.0 mm	25	
2.8 mm	22	
2.0 mm	19	
1.4 mm	17	
1.0 mm	15	
0.710 mm	13	
0.500 mm	11	
0.355 mm	8	
0.250 mm	6	
0.180 mm	5	
0.125 mm	4	
0.090 mm	3	
0.063 mm	2.8	

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These results relate only to the items tested.

Comments:

None

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

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St Modwen Developments (Llanwern) Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 31 January 2023
Test Report Ref: TR 927639

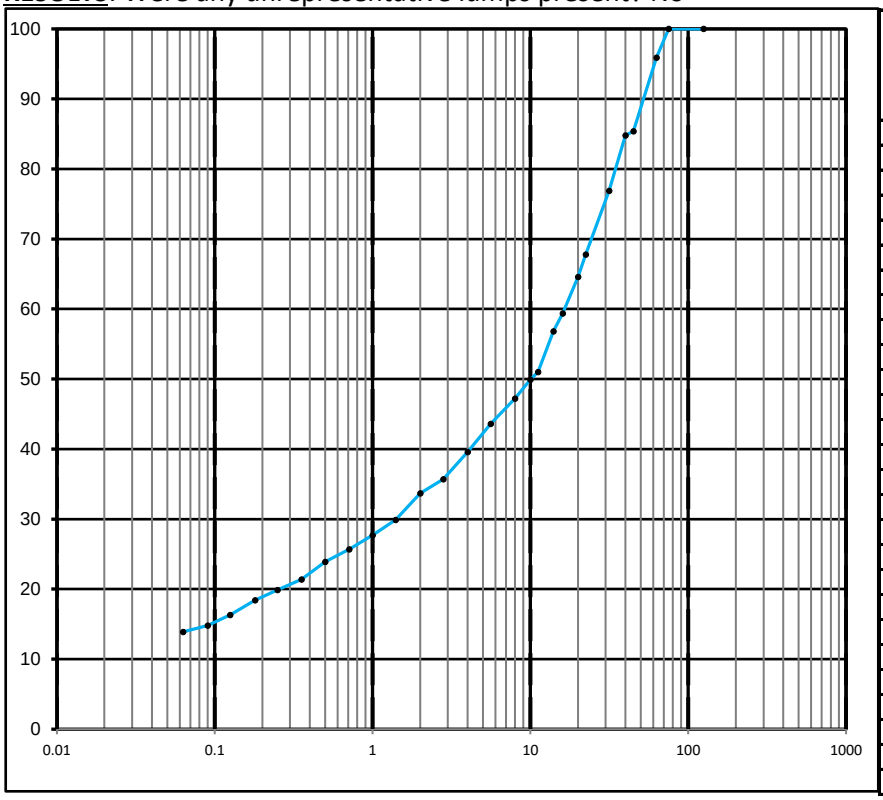
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample-washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S107420**	Method of Sampling:	**Unknown**
Client Ref. No:	**AM36-1 - 1.5**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**Unknown**	Tested By:	**BR**
Date of Receipt at Lab:	**16/12/2022**		
Date of Start of Test:	**12/01/2023**		
Sampling Location:	**AM36-1 - 1.5**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	96	
45.0 mm	85	
40.0 mm	85	
31.5 mm	77	
22.4 mm	68	
20.0 mm	65	
16.0 mm	59	
14.0 mm	57	
11.2 mm	51	
10.0 mm	50	
8.0 mm	47	
5.6 mm	44	
4.0 mm	40	
2.8 mm	36	
2.0 mm	34	
1.4 mm	30	
1.0 mm	28	
0.710 mm	26	
0.500 mm	24	
0.355 mm	21	
0.250 mm	20	
0.180 mm	18	
0.125 mm	16	
0.090 mm	15	
0.063 mm	13.9	

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These results relate only to the items tested.

Comments:

None

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

St Modwen Developments (Llanwern) Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 31 January 2023
Test Report Ref: TR 927644

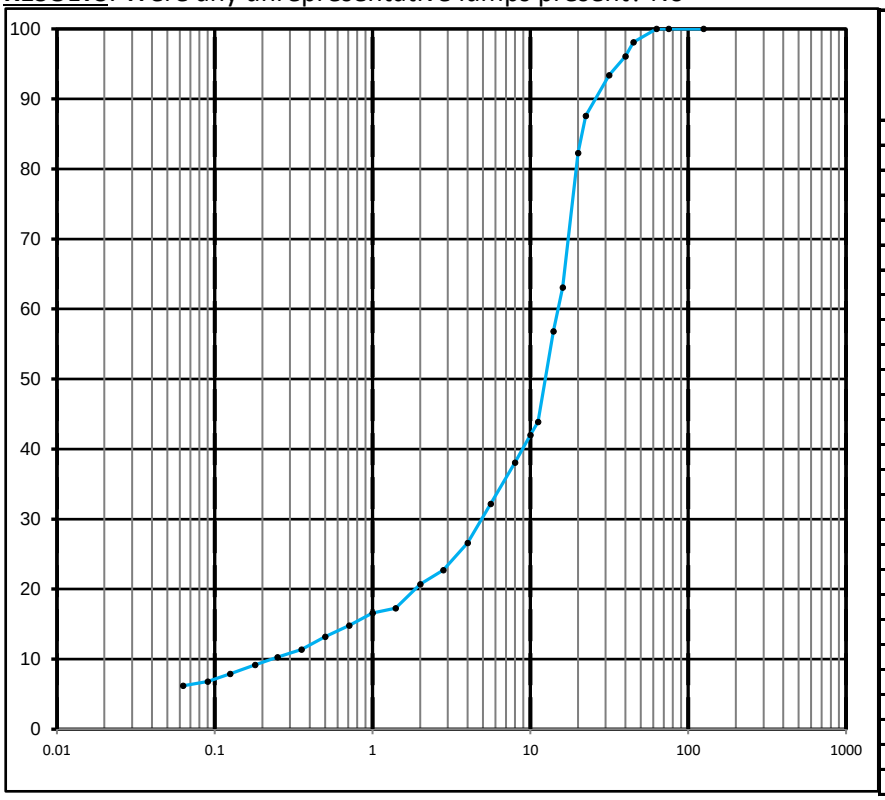
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S107420**	Method of Sampling:	**Unknown**
Client Ref. No:	**AN37-1 - 1**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**Unknown**	Tested By:	**BR**
Date of Receipt at Lab:	**16/12/2022**		
Date of Start of Test:	**12/01/2023**		
Sampling Location:	**AN37-1 - 1**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	100	
63.0 mm	100	
45.0 mm	98	
40.0 mm	96	
31.5 mm	93	
22.4 mm	88	
20.0 mm	82	
16.0 mm	63	
14.0 mm	57	
11.2 mm	44	
10.0 mm	42	
8.0 mm	38	
5.6 mm	32	
4.0 mm	27	
2.8 mm	23	
2.0 mm	21	
1.4 mm	17	
1.0 mm	17	
0.710 mm	15	
0.500 mm	13	
0.355 mm	11	
0.250 mm	10	
0.180 mm	9	
0.125 mm	8	
0.090 mm	7	
0.063 mm	6.2	

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These results relate only to the items tested.

Comments:

None

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

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St Modwen Developments (Llanwern) Limited
Two Devon Way
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Birmingham
B31 2TS

Date: 31 January 2023
Test Report Ref: TR 927648

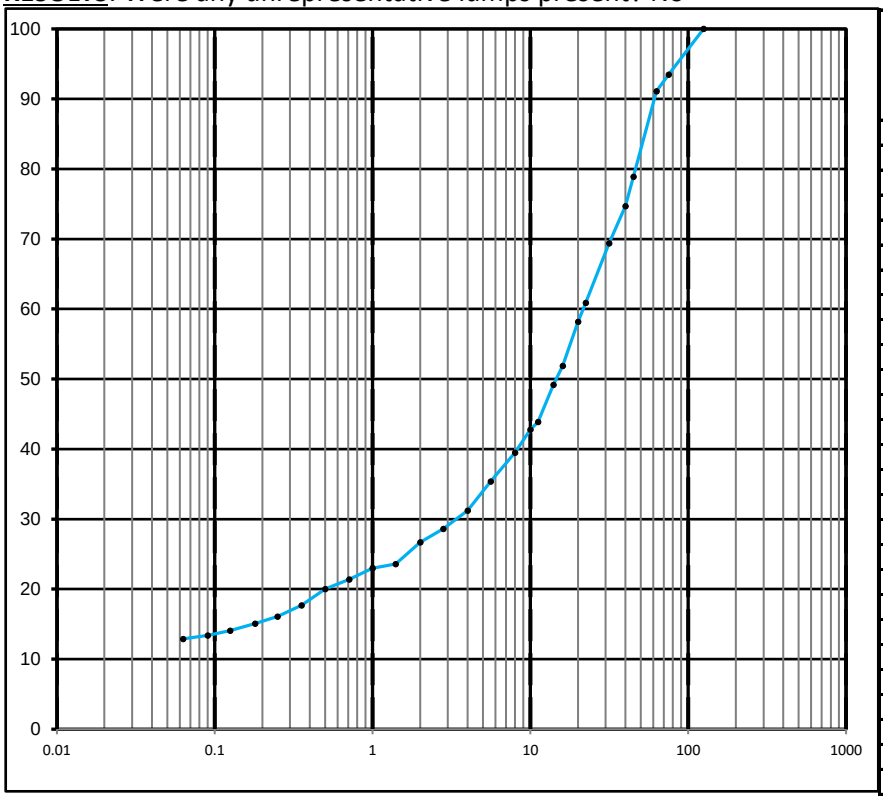
LABORATORY TEST REPORT

TEST REQUIREMENTS: To determine the Particle Size Distribution (PSD) of a aggregate sample- washing and sieving method in accordance with **BS EN 933-1: 2012.**

SAMPLE DETAILS:

Certificate of sampling received:	**No**	Name of Source:	**Former Llanwern Steelworks**
Laboratory Ref. No:	**S107420**	Method of Sampling:	**Unknown**
Client Ref. No:	**AN37-1 - 2**	Sampled By:	**Client (Test results apply to sample as received)**
Date and Time of Sampling:	**Unknown**	Tested By:	**BR**
Date of Receipt at Lab:	**16/12/2022**		
Date of Start of Test:	**12/01/2023**		
Sampling Location:	**AN37-1 - 2**		
Material Description	**Granular Material**		

RESULTS: Were any unrepresentative lumps present? No



BS Test Sieve Size	Percentage By Mass Passing	Specification Limit
125.0 mm	100	
75.0 mm	94	
63.0 mm	91	
45.0 mm	79	
40.0 mm	75	
31.5 mm	69	
22.4 mm	61	
20.0 mm	58	
16.0 mm	52	
14.0 mm	49	
11.2 mm	44	
10.0 mm	43	
8.0 mm	40	
5.6 mm	35	
4.0 mm	31	
2.8 mm	29	
2.0 mm	27	
1.4 mm	24	
1.0 mm	23	
0.710 mm	21	
0.500 mm	20	
0.355 mm	18	
0.250 mm	16	
0.180 mm	15	
0.125 mm	14	
0.090 mm	13	
0.063 mm	12.9	

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These results relate only to the items tested.

Comments:

None

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
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B31 2UQ
Contract: Former Llanwern Steelworks

Date: 17 February 2022
Test Report Ref: TR 849465

LABORATORY TEST REPORT

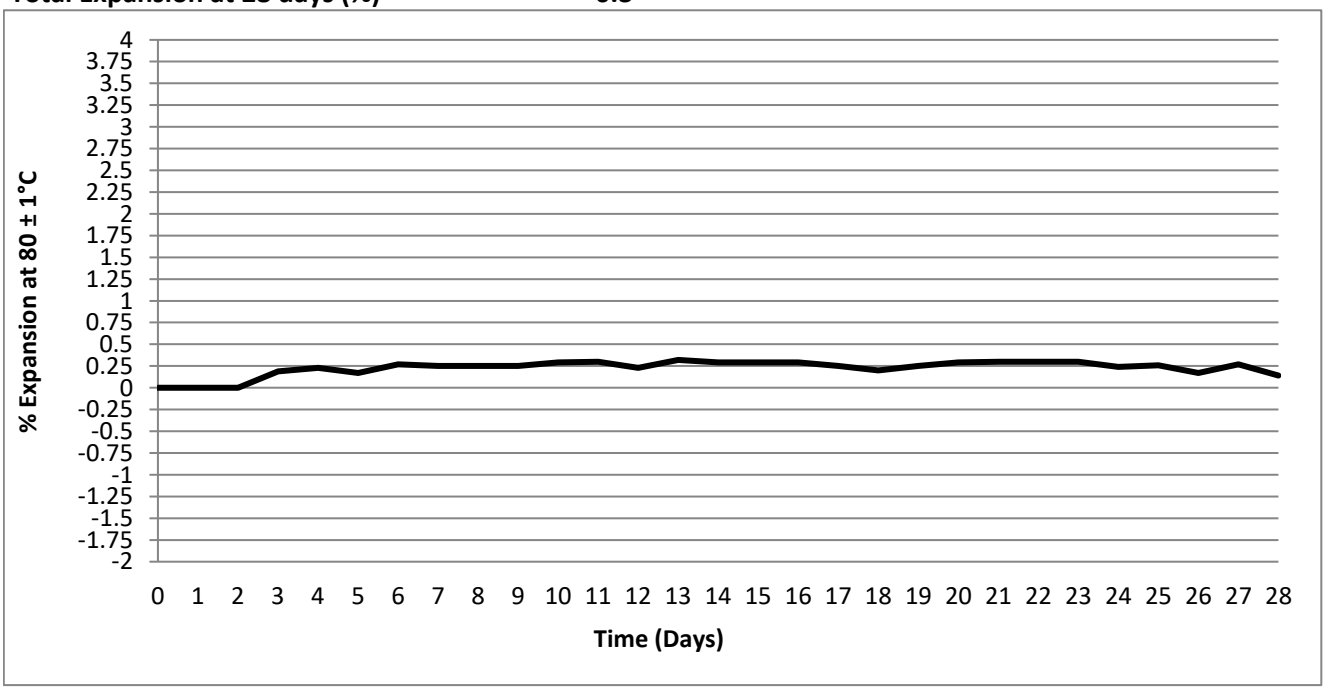
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S99333**
Client Ref. No:	**AU30-1 - 1.1M**
Date and Time of Sampling:	**Unknown**
Date of Receipt at Lab:	**26/11/2021**
Date of Start of Test:	**14/01/2022**
Sampling Location:	**AU30-1 - 1.1M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**LW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = 0.3



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These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 0

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

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St Modwen Developments Limited
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Contract: Llanwern

Date: 23 August 2022
Test Report Ref: TR 887543

LABORATORY TEST REPORT

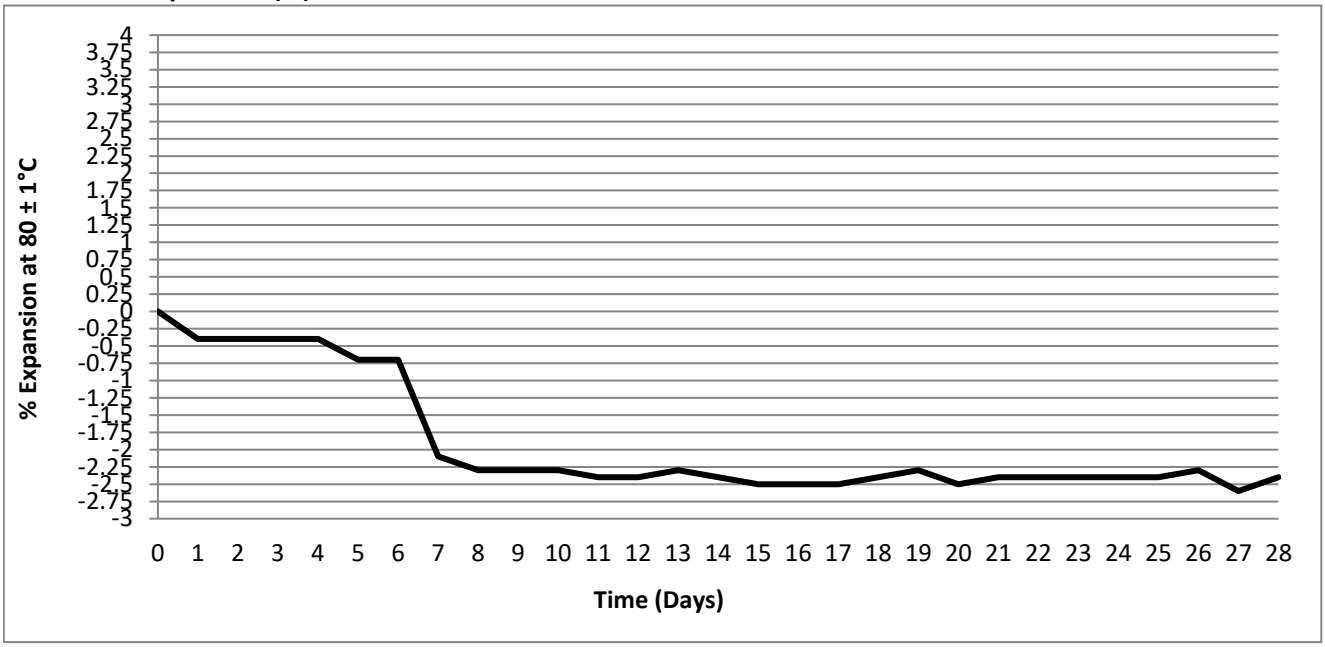
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AN35-2 - 1M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**04/08/2022**
Sampling Location:	**AN35-2 - 1M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**LW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = -2.43
Maximum Expansion (%) = -0.4



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These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 17

Report checked and approved by:

Chantelle Kopec-Williams
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17 High Street
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Contract: Llanwern

Date: 23 August 2022
Test Report Ref: TR 887544

LABORATORY TEST REPORT

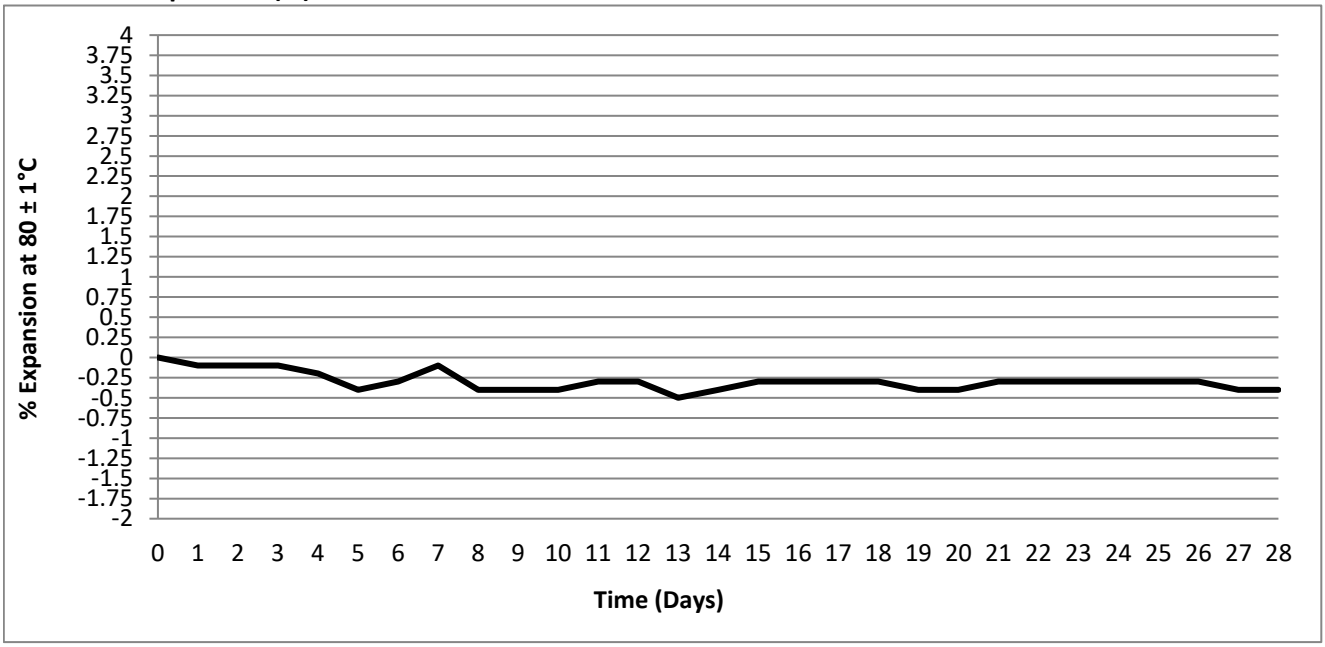
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AO36-1 - 0.5M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**04/08/2022**
Sampling Location:	**AO36-1 - 0.5M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**LW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = -0.42
Maximum Expansion (%) = -0.1



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These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 8

Report checked and approved by:

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Contract: Llanwern

Date: 23 August 2022
Test Report Ref: TR 887545

LABORATORY TEST REPORT

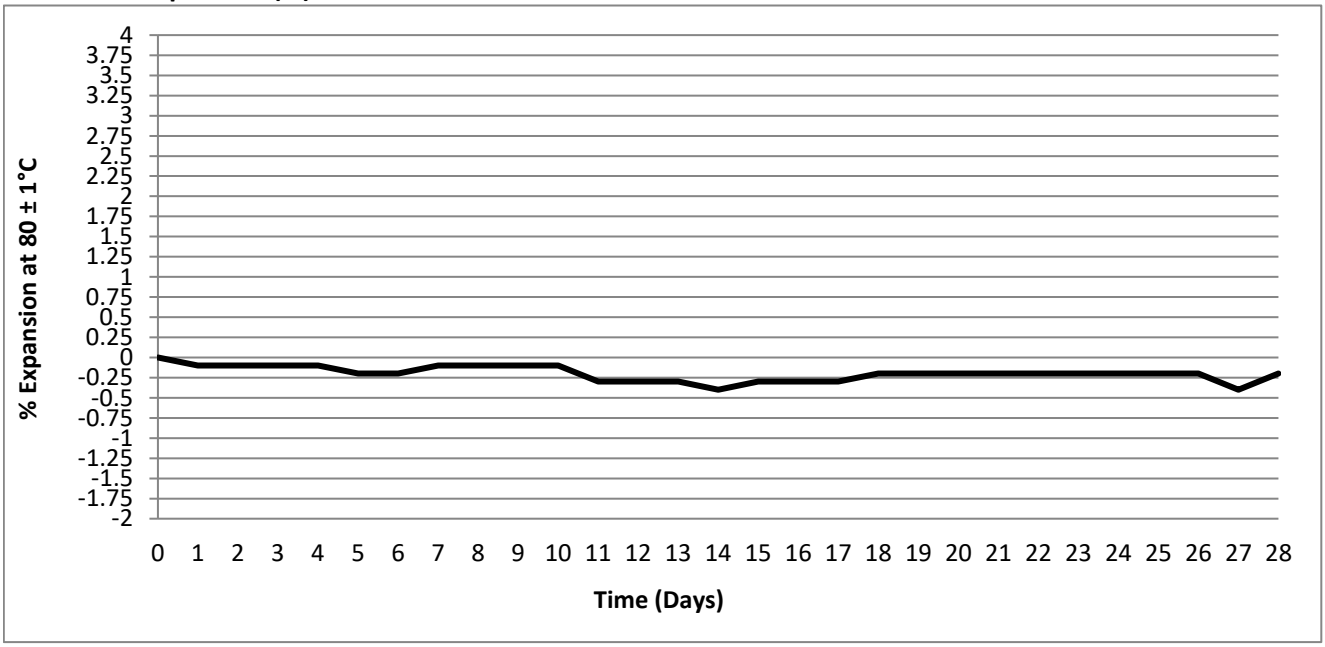
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AP34-1 - 0.4M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**04/08/2022**
Sampling Location:	**AP34-1 - 0.4M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**LW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = -0.15
Maximum Expansion (%) = -0.1



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These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 63.2

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

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Contract: Llanwern

Date: 23 August 2022
Test Report Ref: TR 887546

LABORATORY TEST REPORT

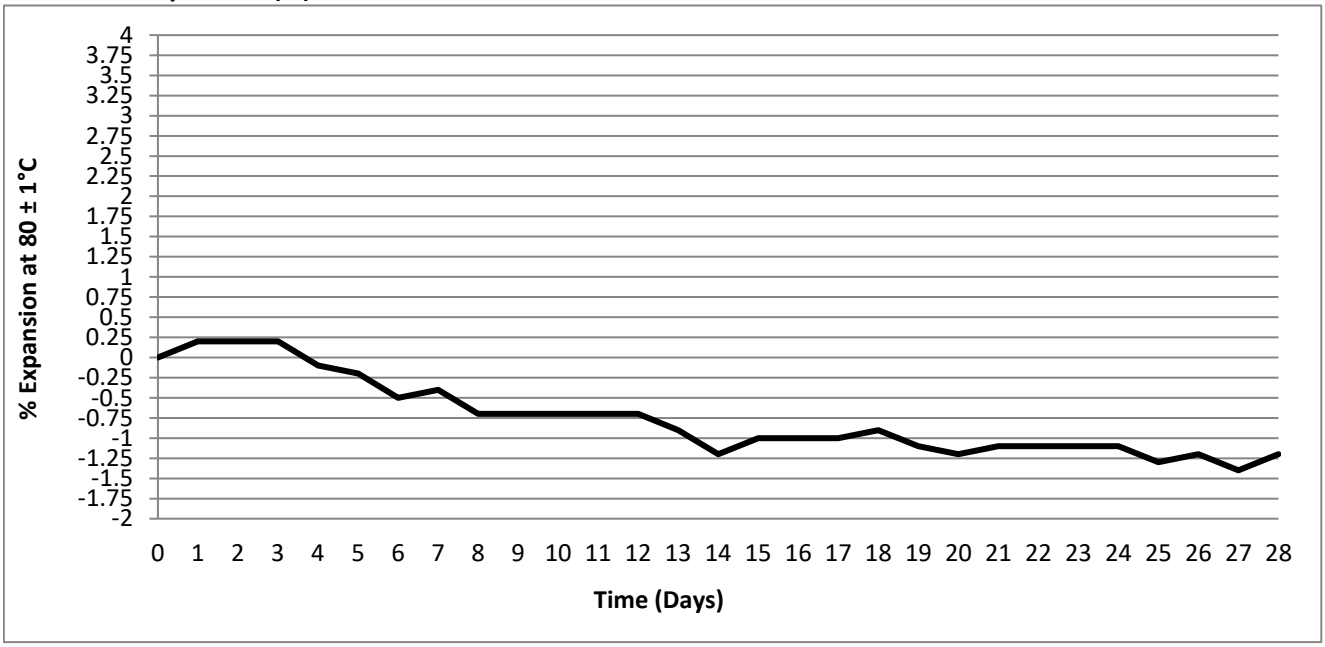
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AP36-2 - 1.5M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**04/08/2022**
Sampling Location:	**AP36-2 - 1.5M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**LW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = -1.23
Maximum Expansion (%) = 0.2



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These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 11

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

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Contract: Llanwern

Date: 23 August 2022
Test Report Ref: TR 887547

LABORATORY TEST REPORT

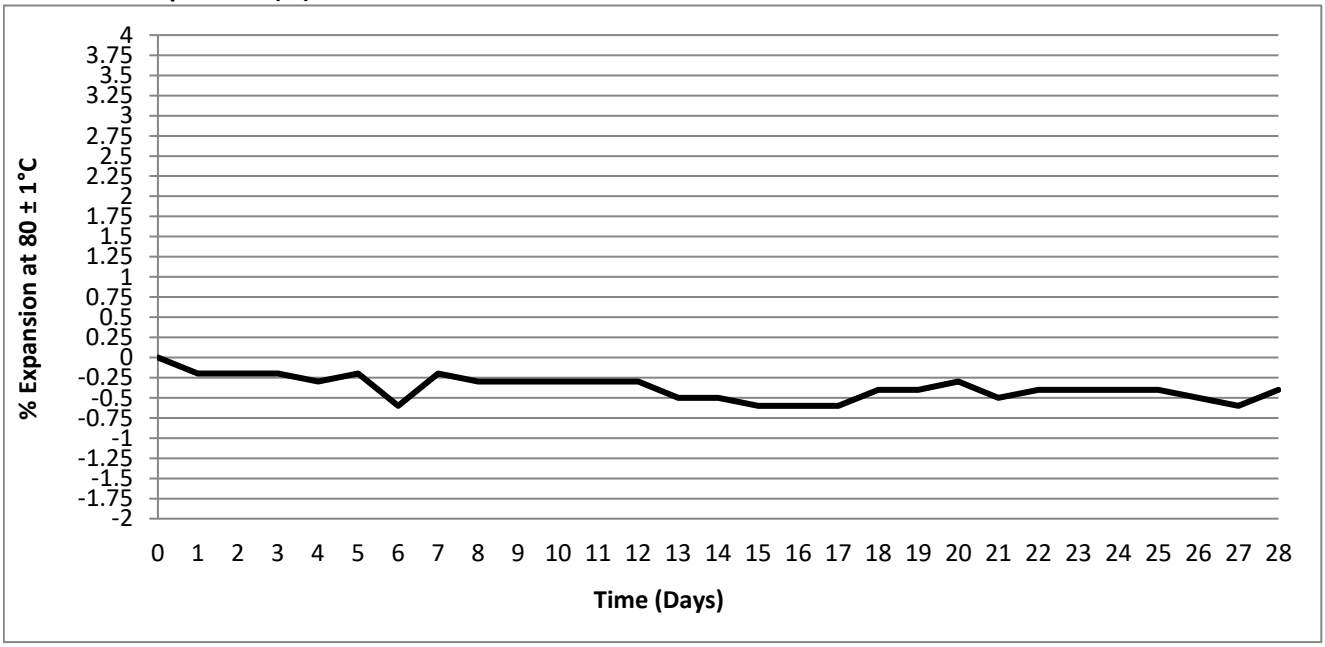
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AQ34-1 - 0.5M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**04/08/2022**
Sampling Location:	**AQ34-1 - 0.5M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**LW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = -0.42
Maximum Expansion (%) = -0.2



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These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 20

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

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St Modwen Developments Limited
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17 High Street
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B31 2UQ
Contract: Llanwern

Date: 23 August 2022
Test Report Ref: TR 887548

LABORATORY TEST REPORT

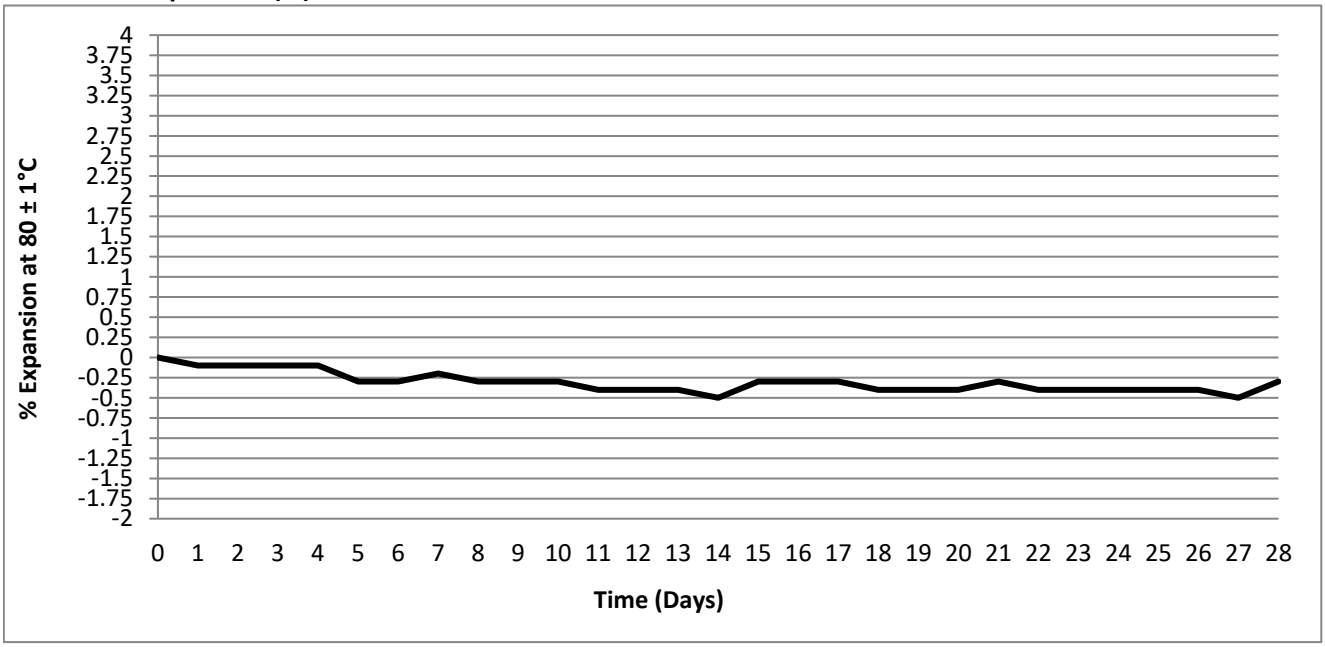
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AQ36-1 - 0.5M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**04/08/2022**
Sampling Location:	**AQ36-1 - 0.5M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**LW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = -0.34
Maximum Expansion (%) = -0.1



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These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 48.3

Report checked and approved by:

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B31 2UQ
Contract: Llanwern

Date: 23 August 2022
Test Report Ref: TR 887549

LABORATORY TEST REPORT

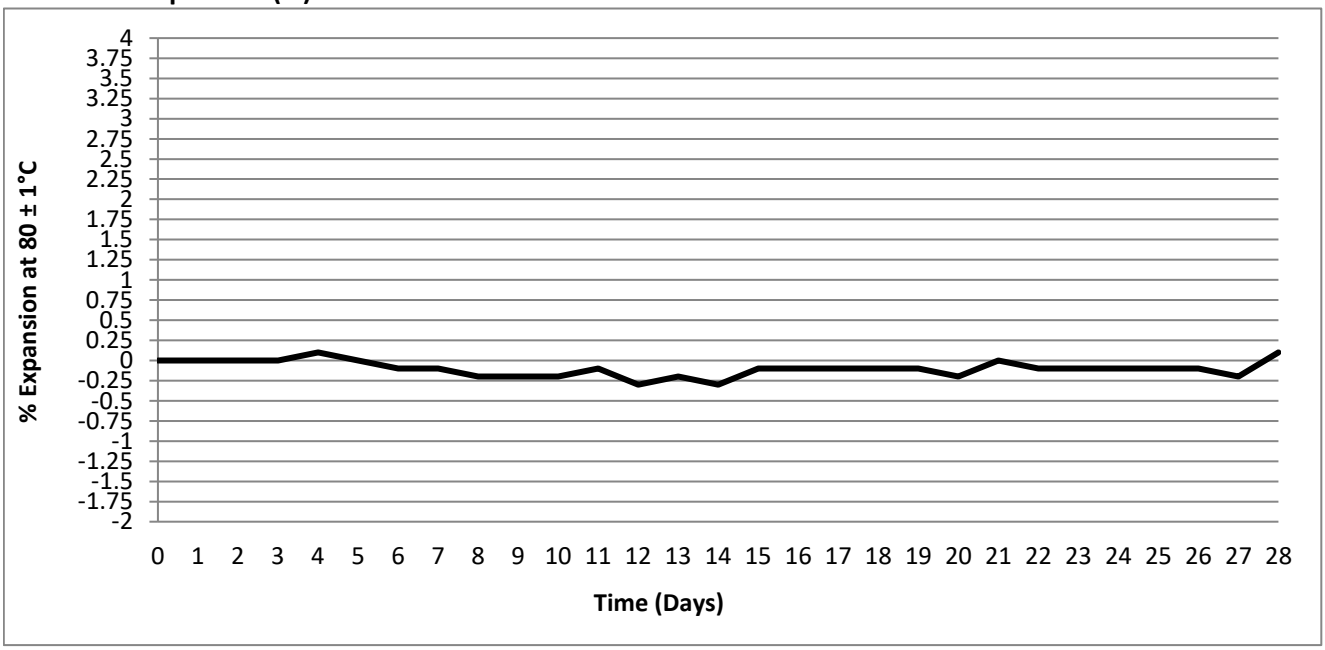
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AR34-2 - 2M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**04/08/2022**
Sampling Location:	**AR34-2 - 2M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**LW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = 0.05
Maximum Expansion (%) = 0.1



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These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 66

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

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St Modwen Developments Limited
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17 High Street
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B31 2UQ
Contract: Llanwern

Date: 23 August 2022
Test Report Ref: TR 887550

LABORATORY TEST REPORT

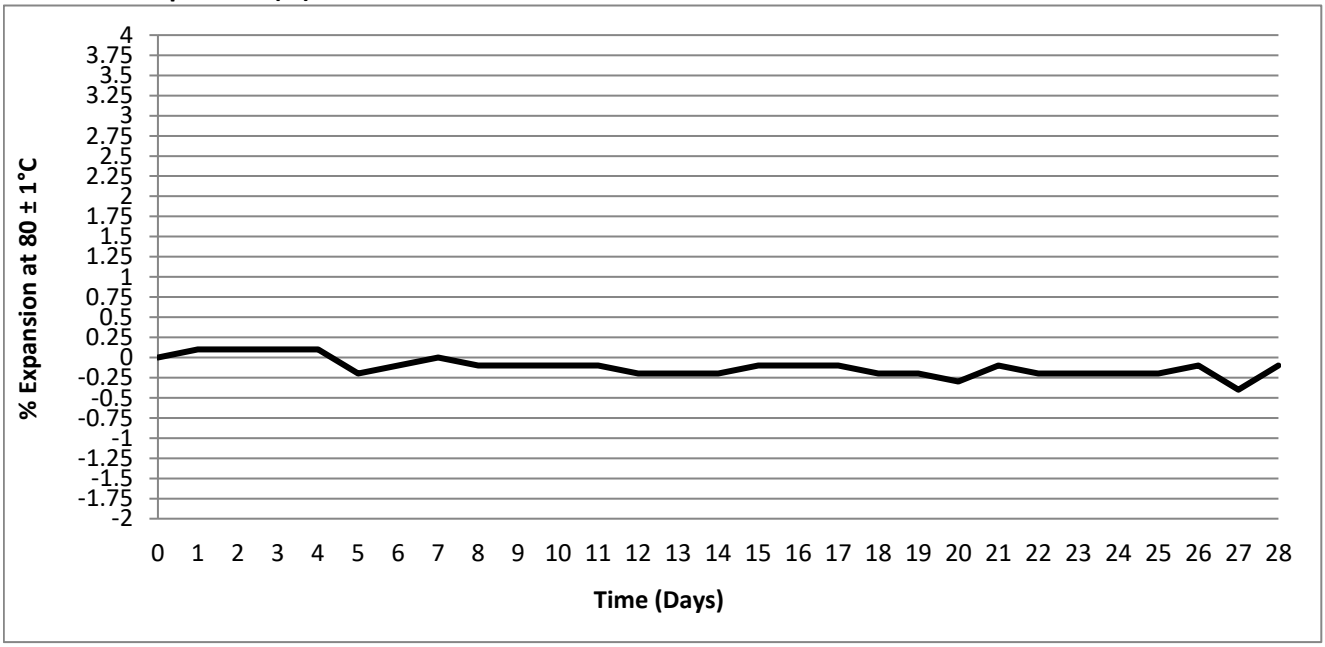
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AR36-2 - 1.5M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**04/08/2022**
Sampling Location:	**AR36-2 - 1.5M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**LW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = -0.13
Maximum Expansion (%) = 0.1



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These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 14

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

St Modwen Developments Limited
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17 High Street
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B31 2UQ
Contract: Llanwern

Date: 23 August 2022
Test Report Ref: TR 887551

LABORATORY TEST REPORT

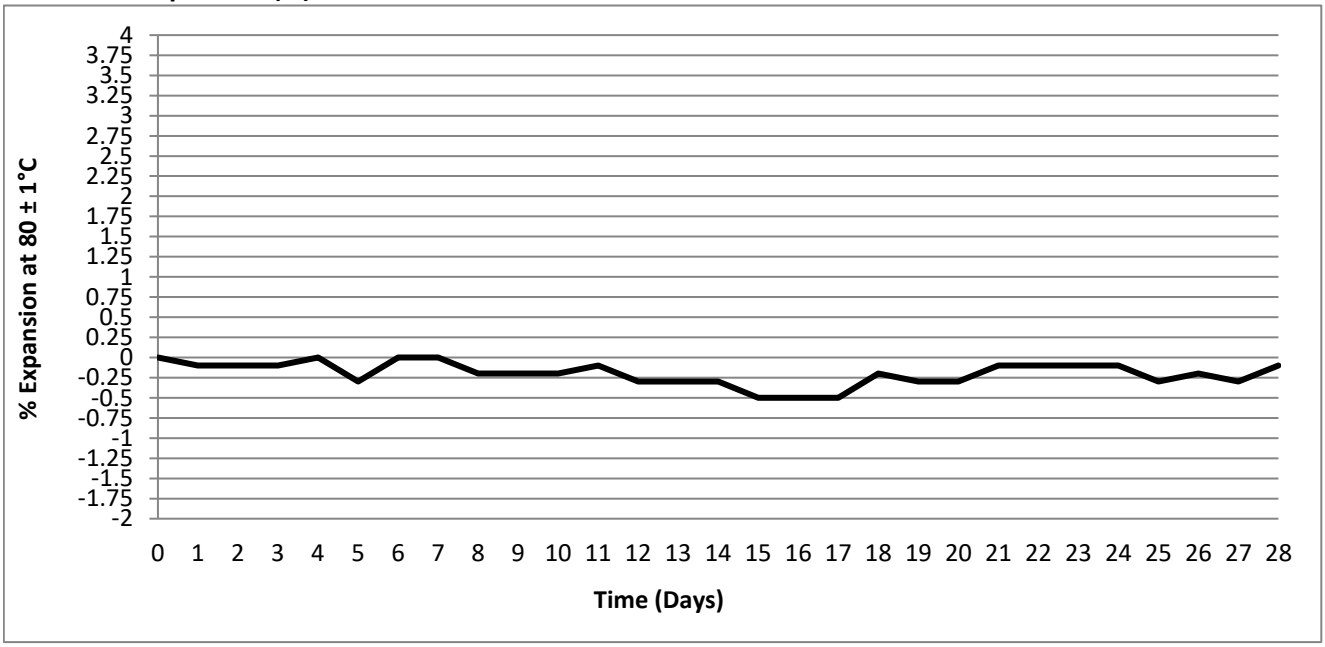
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AS34-1 - 0.4M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**04/08/2022**
Sampling Location:	**AS34-1 - 0.4M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**LW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = -0.07
Maximum Expansion (%) = 0



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These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 26

Report checked and approved by:

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St Modwen Developments Limited
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17 High Street
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B31 2UQ
Contract: Llanwern

Date: 23 August 2022
Test Report Ref: TR 887552

LABORATORY TEST REPORT

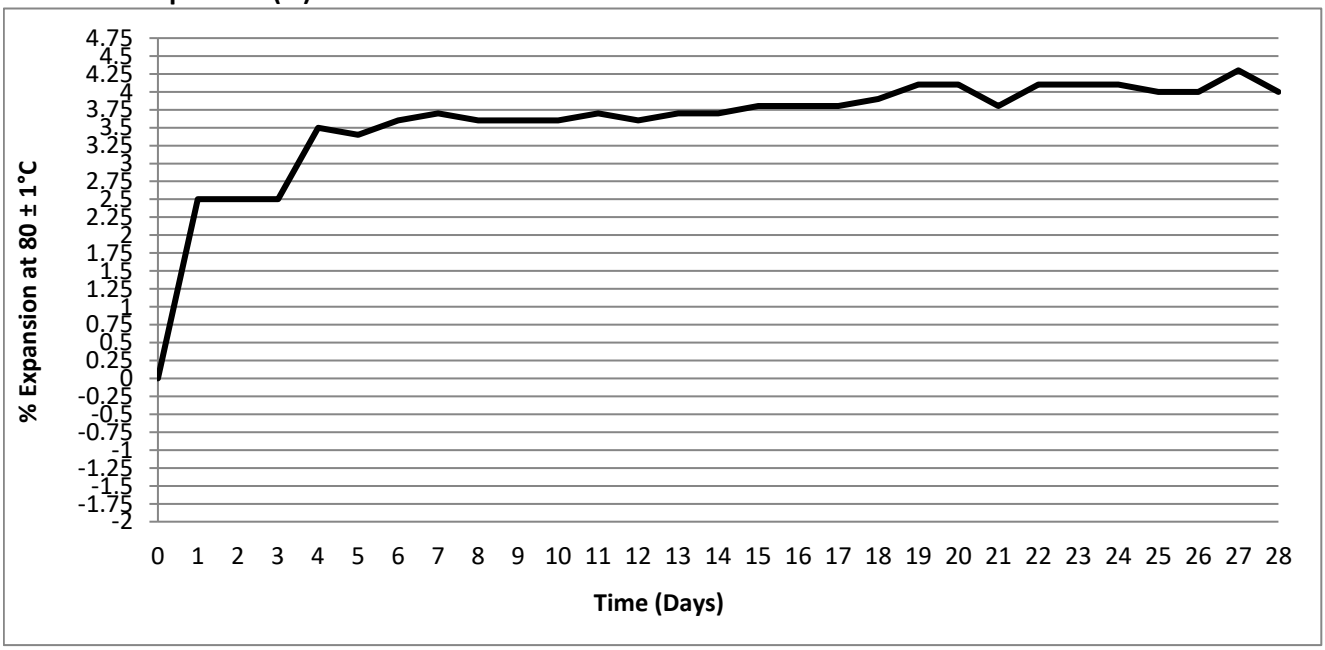
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AS36-1 - 1M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**15/08/2022**
Sampling Location:	**AS36-1 - 1M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**LW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = 3.97
Maximum Expansion (%) = 4.3



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These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 13

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

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INDEPENDENT MATERIALS TESTING | DIAMOND DRILLING & SAWING

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ
Contract: Llanwern

Date: 23 August 2022
Test Report Ref: TR 887553

LABORATORY TEST REPORT

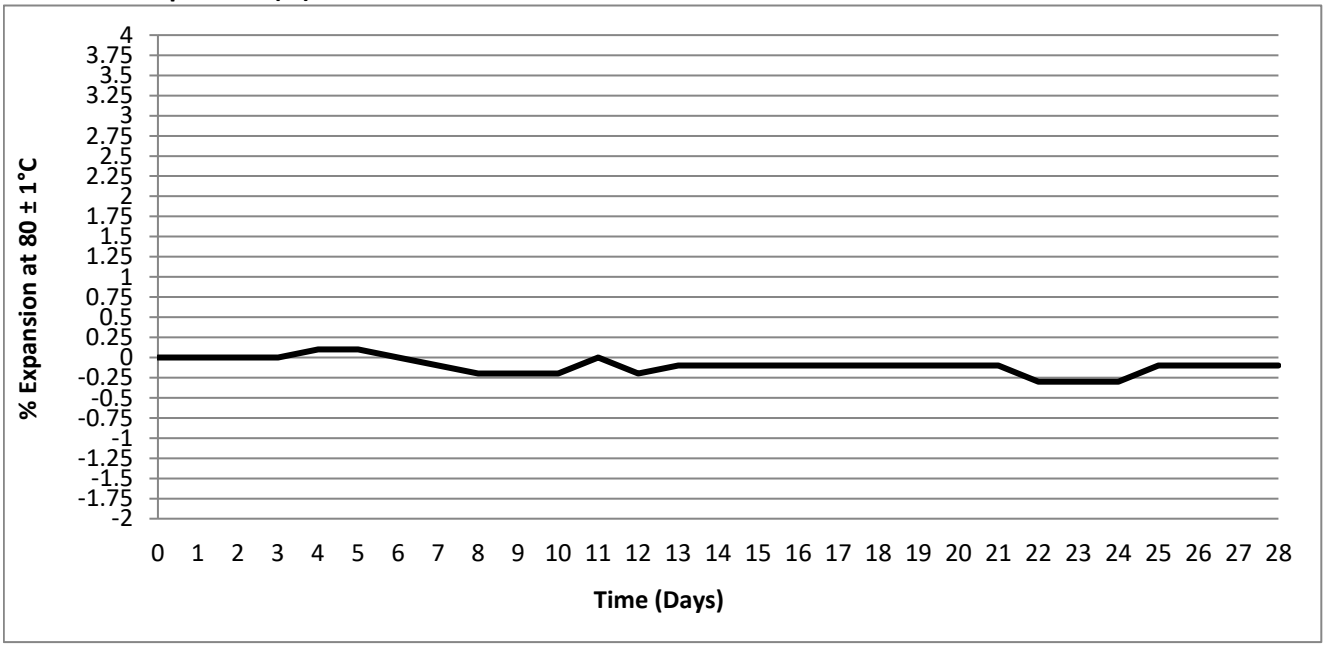
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AT34-2 - 1.5M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**15/08/2022**
Sampling Location:	**AT34-2 - 1.5M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**LW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = -0.12
Maximum Expansion (%) = 0.1



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These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 44

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

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St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ
Contract: Llanwern

Date: 23 August 2022
Test Report Ref: TR 887554

LABORATORY TEST REPORT

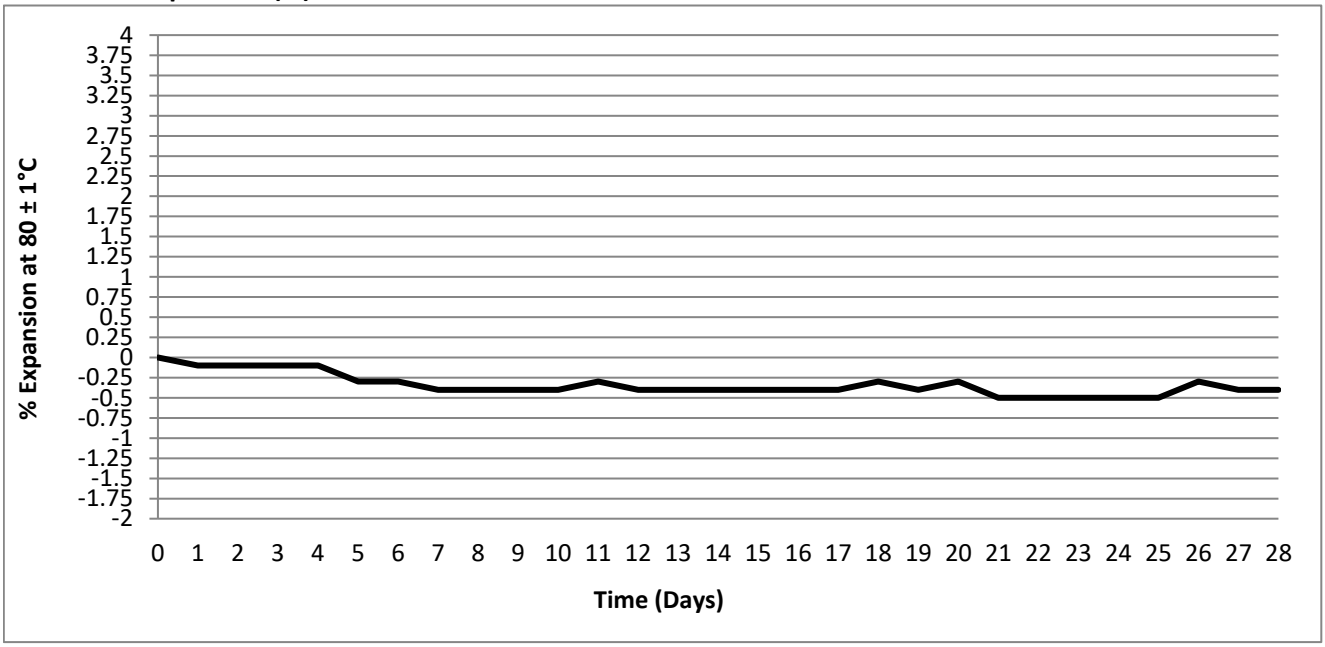
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AT36-2 - 1.8M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**15/08/2022**
Sampling Location:	**AT36-2 - 1.8M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**LW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = -0.44
Maximum Expansion (%) = -0.1



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These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 70

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

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St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ
Contract: Llanwern

Date: 23 August 2022
Test Report Ref: TR 887556

LABORATORY TEST REPORT

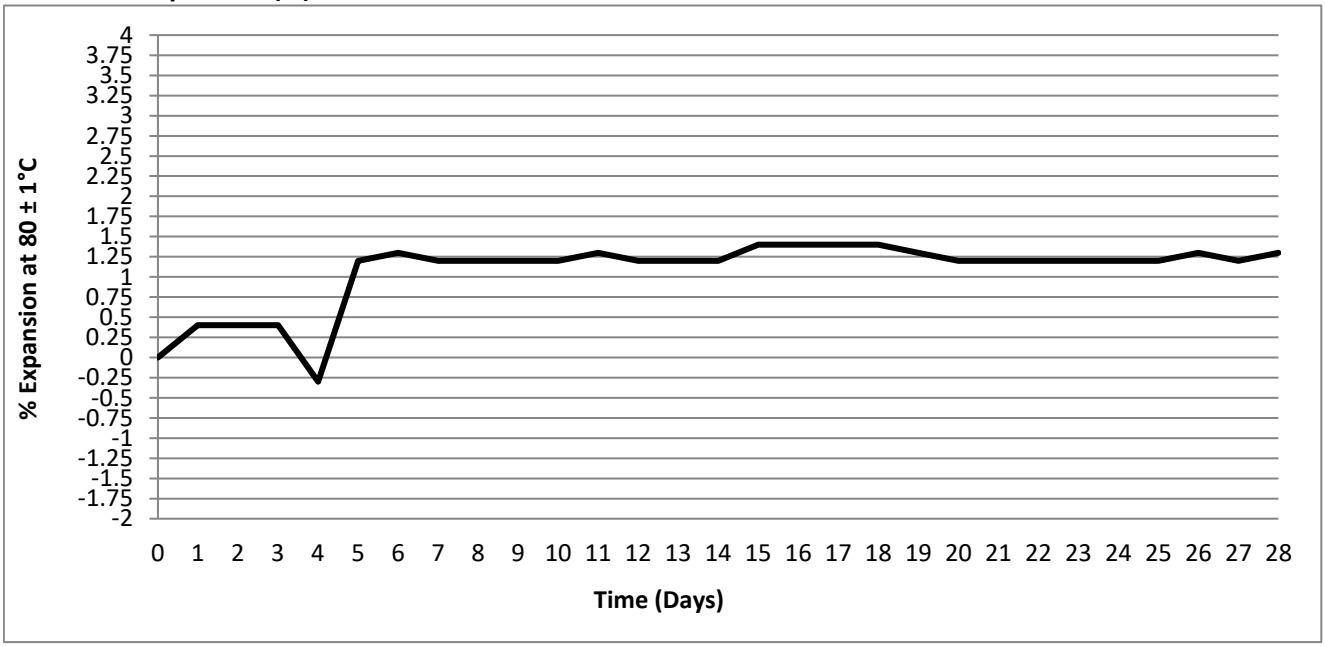
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AU36-2 - 1.3M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**15/08/2022**
Sampling Location:	**AU36-2 - 1.3M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**LW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = 1.25
Maximum Expansion (%) = 1.4



This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 34

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ
Contract: Llanwern

Date: 23 August 2022
Test Report Ref: TR 887557

LABORATORY TEST REPORT

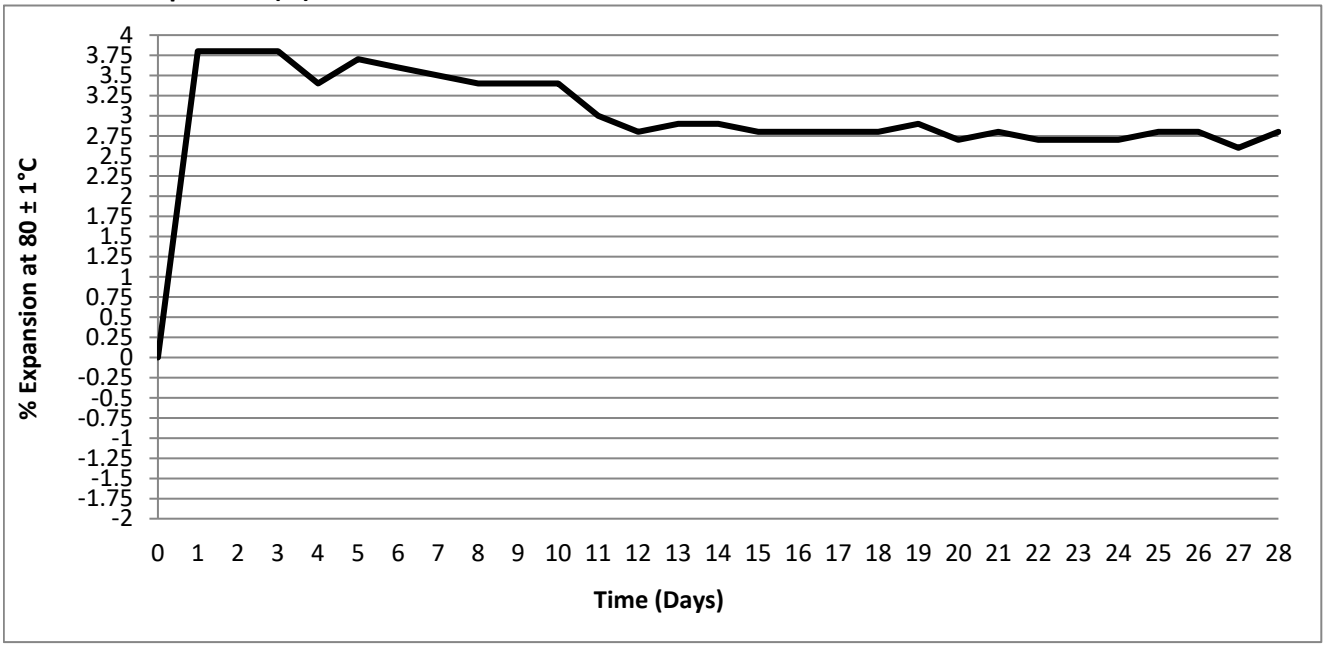
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AV34-2 - 1.8M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**22/08/2022**
Sampling Location:	**AV34-2 - 1.8M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**LW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = 2.76
Maximum Expansion (%) = 3.8



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These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 22

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

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St Modwen Developments Limited
Park Point
17 High Street
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B31 2UQ
Contract: Llanwern

Date: 23 August 2022
Test Report Ref: TR 887558

LABORATORY TEST REPORT

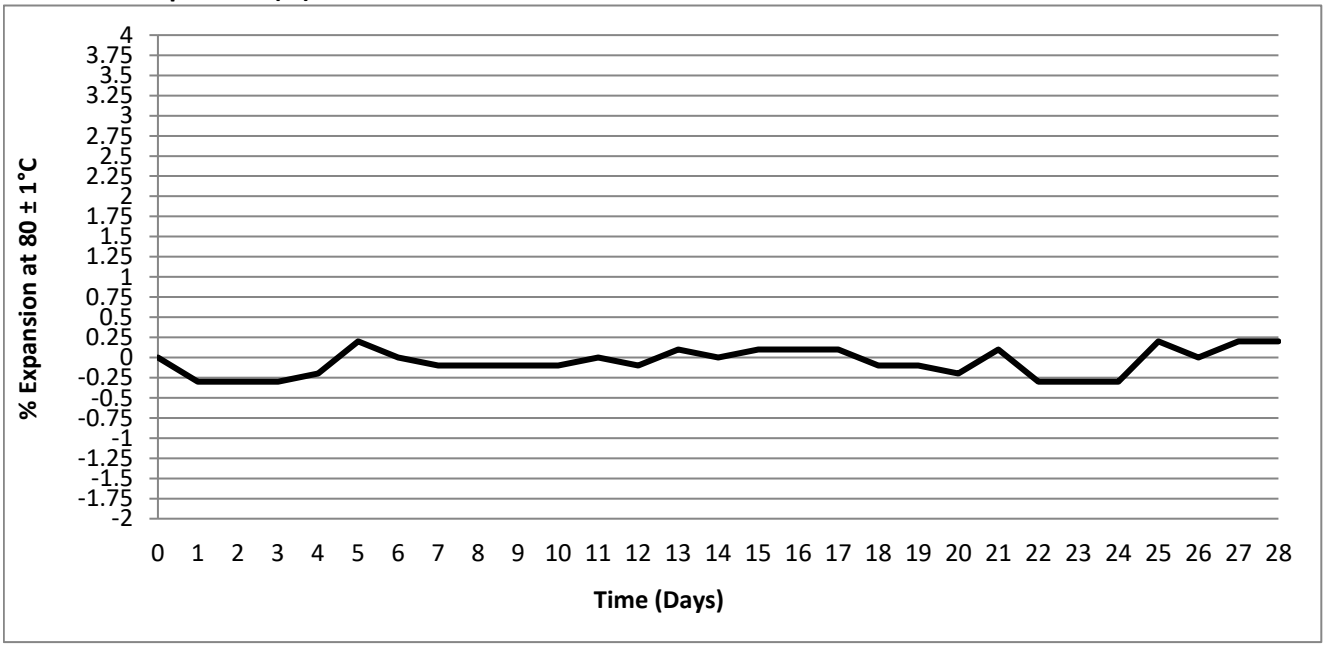
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AV36-2 - 1.30M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**22/08/2022**
Sampling Location:	**AV36-2 - 1.30M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**LW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = 0.15
Maximum Expansion (%) = 0.2



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These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 27

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ
Contract: Llanwern

Date: 23 August 2022
Test Report Ref: TR 887559

LABORATORY TEST REPORT

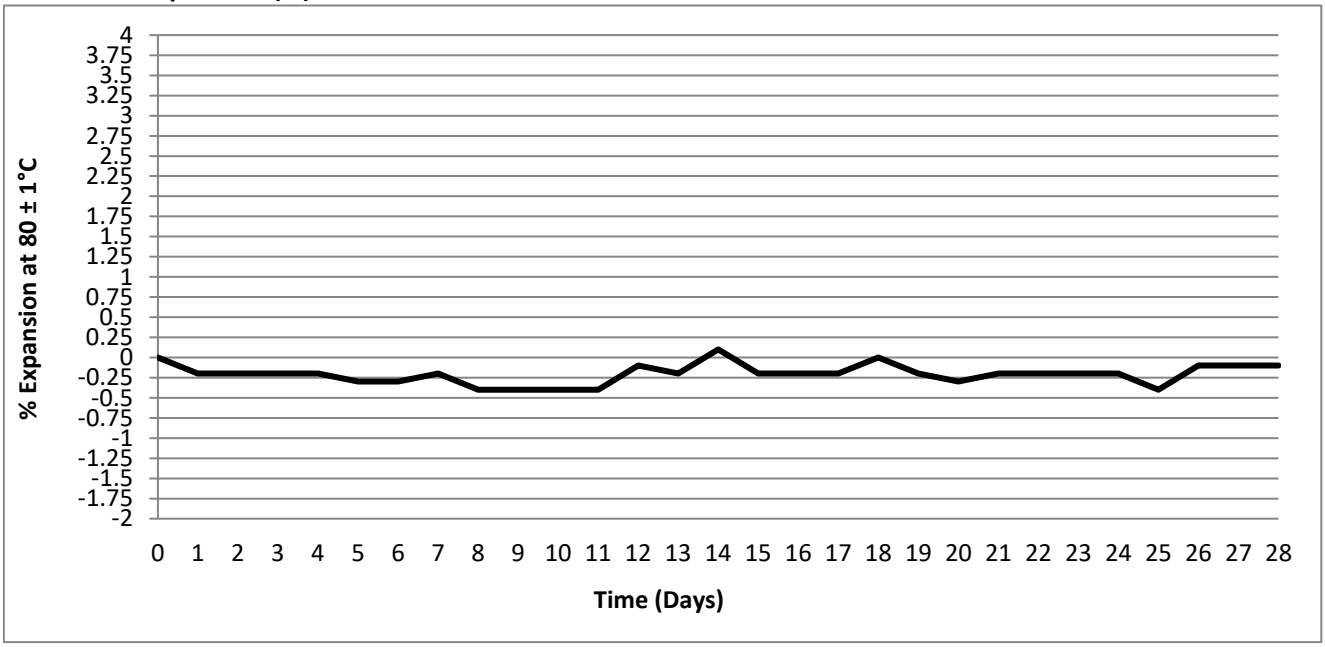
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AW34-1 - 1.00M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**15/08/2022**
Sampling Location:	**AW34-1 - 1.00M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**LW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = -0.13
Maximum Expansion (%) = 0.1



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These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 49

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

St Modwen Developments Limited
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17 High Street
Longbridge
Birmingham
B31 2UQ
Contract: Llanwern

Date: 23 August 2022
Test Report Ref: TR 887560

LABORATORY TEST REPORT

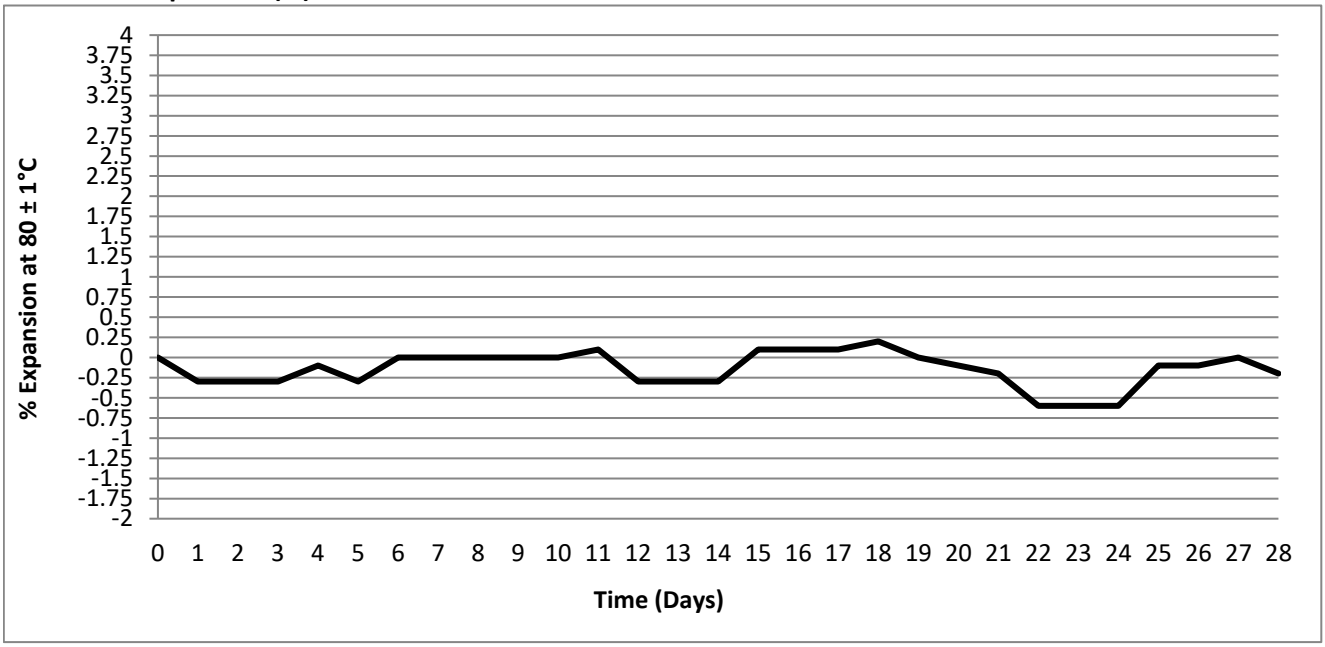
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AW36-2 - 1.60M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**15/08/2022**
Sampling Location:	**AW36-2 - 1.60M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**LW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = -0.2
Maximum Expansion (%) = 0.2



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These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 42

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ
Contract: Llanwern

Date: 23 August 2022
Test Report Ref: TR 887561

LABORATORY TEST REPORT

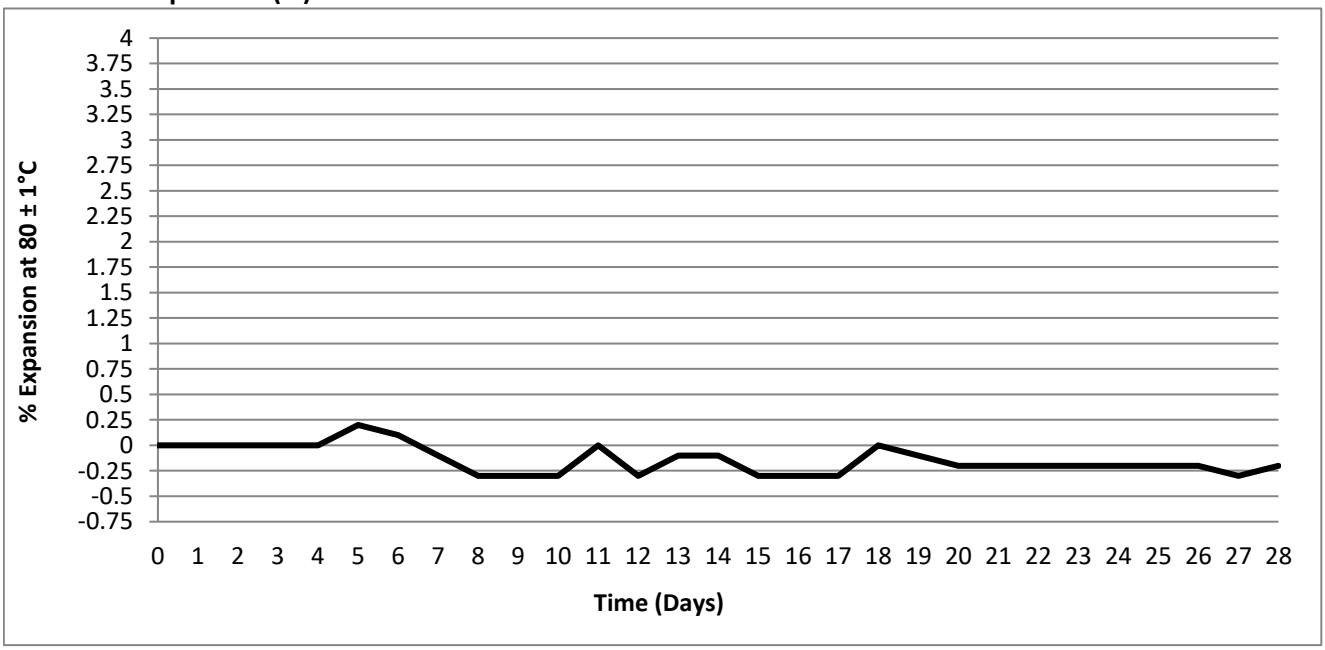
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AX34-1 - 0.7M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**15/08/2022**
Sampling Location:	**AX34-1 - 0.7M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**LW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = -0.21
Maximum Expansion (%) = 0.2



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These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 73

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ
Contract: Llanwern

Date: 23 August 2022
Test Report Ref: TR 887562

LABORATORY TEST REPORT

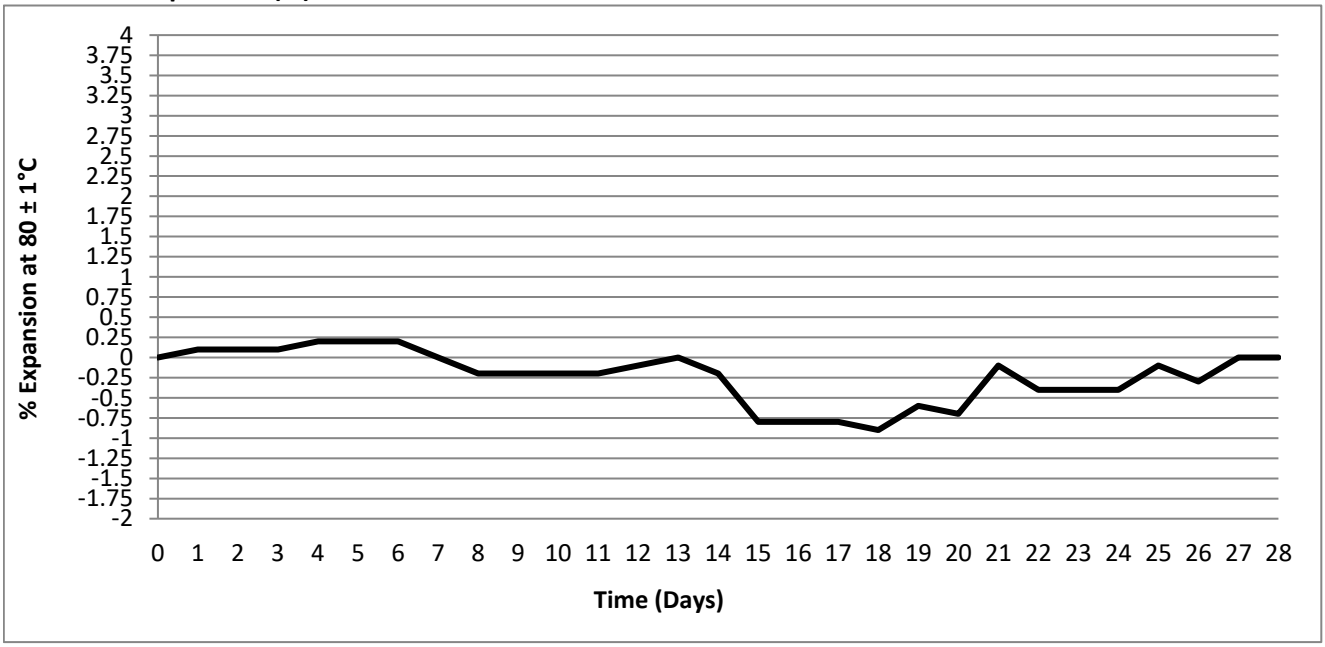
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AX36-2 - 1.5M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**15/08/2022**
Sampling Location:	**AX36-2 - 1.5M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**LW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = -0.04
Maximum Expansion (%) = 0.2



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These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 40

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ
Contract: Llanwern

Date: 23 August 2022
Test Report Ref: TR 887563

LABORATORY TEST REPORT

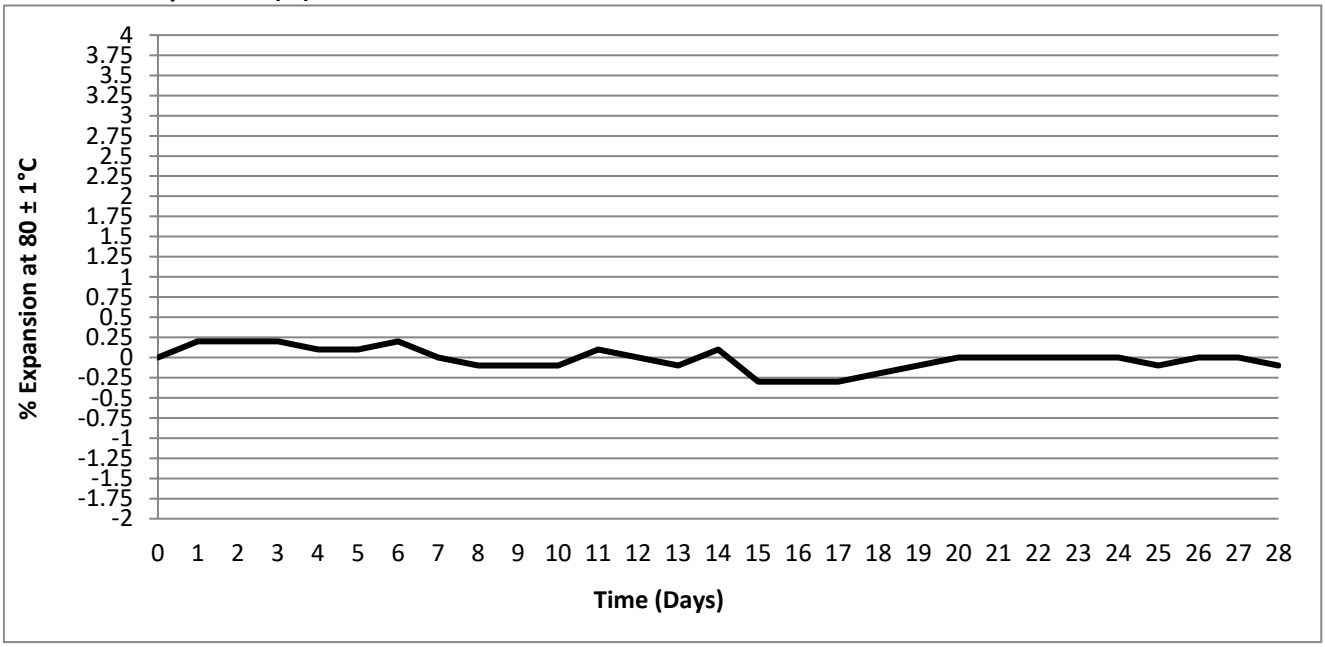
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103340**
Client Ref. No:	**AX37-2 - 2.00M**
Date and Time of Sampling:	**01/06/2022**
Date of Receipt at Lab:	**08/06/2022**
Date of Start of Test:	**15/08/2022**
Sampling Location:	**AX37-2 - 2.00M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**LW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = -0.08
Maximum Expansion (%) = 0.2



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These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 55

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 01 September 2022
Test Report Ref: TR 890922

LABORATORY TEST REPORT

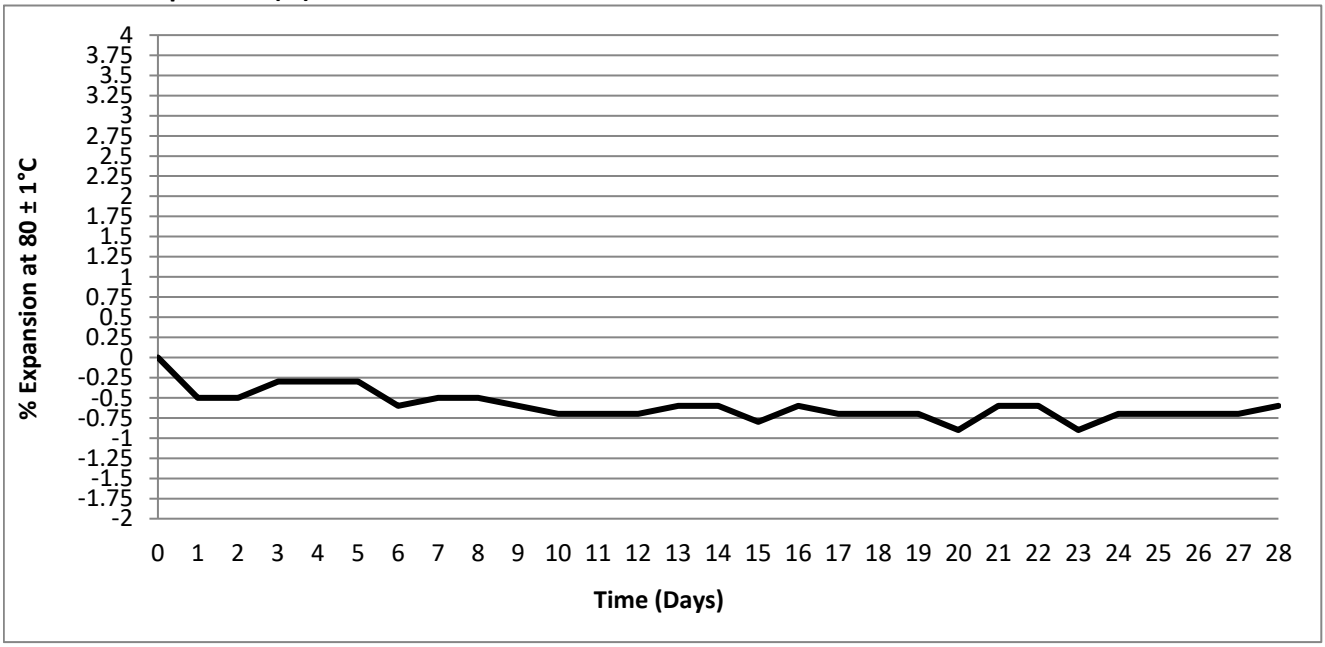
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103682**
Client Ref. No:	**AU33-1 0.90M**
Date and Time of Sampling:	**08/06/2022**
Date of Receipt at Lab:	**23/06/2022**
Date of Start of Test:	**01/09/2022**
Sampling Location:	**AU33-1 0.90M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**LW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = -0.58
Maximum Expansion (%) = -0.3



This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 31

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 01 September 2022
Test Report Ref: TR 890931

LABORATORY TEST REPORT

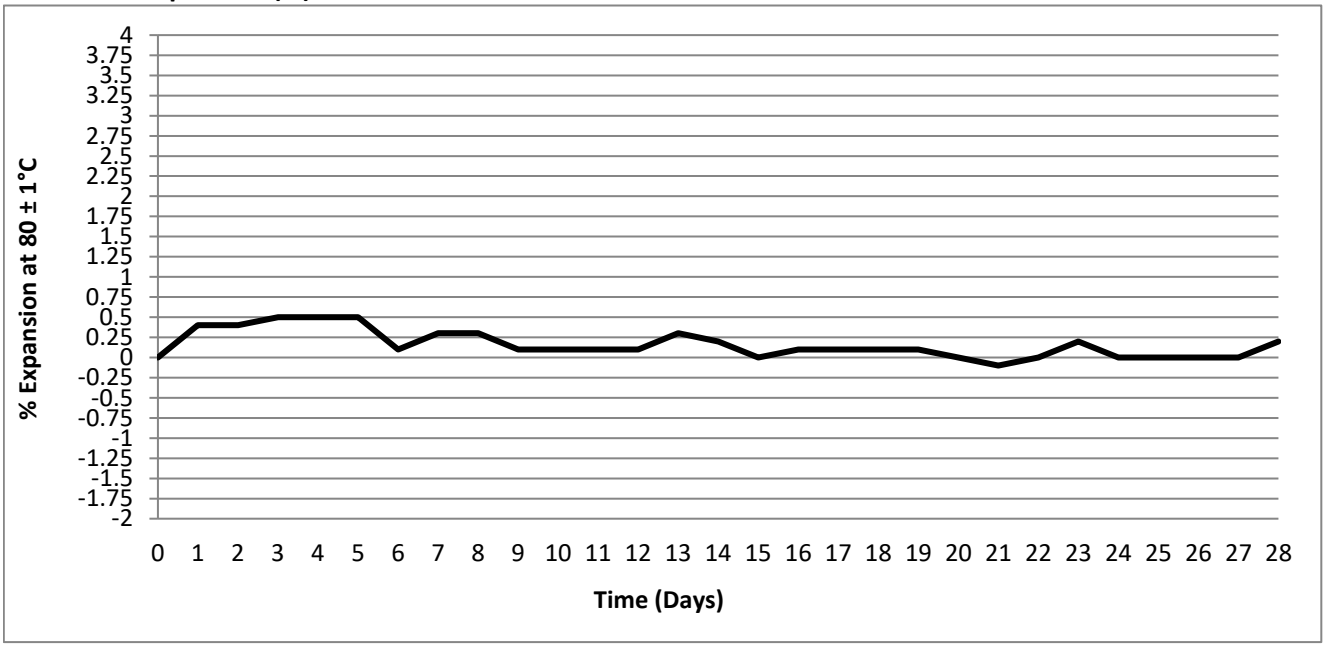
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103682**
Client Ref. No:	**AV33-3 2.20M**
Date and Time of Sampling:	**08/06/2022**
Date of Receipt at Lab:	**23/06/2022**
Date of Start of Test:	**01/09/2022**
Sampling Location:	**AV33-3 2.20M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**LW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = 0.16
Maximum Expansion (%) = 0.5



This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 17

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

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INDEPENDENT MATERIALS TESTING | DIAMOND DRILLING & SAWING

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 01 September 2022
Test Report Ref: TR 890940

LABORATORY TEST REPORT

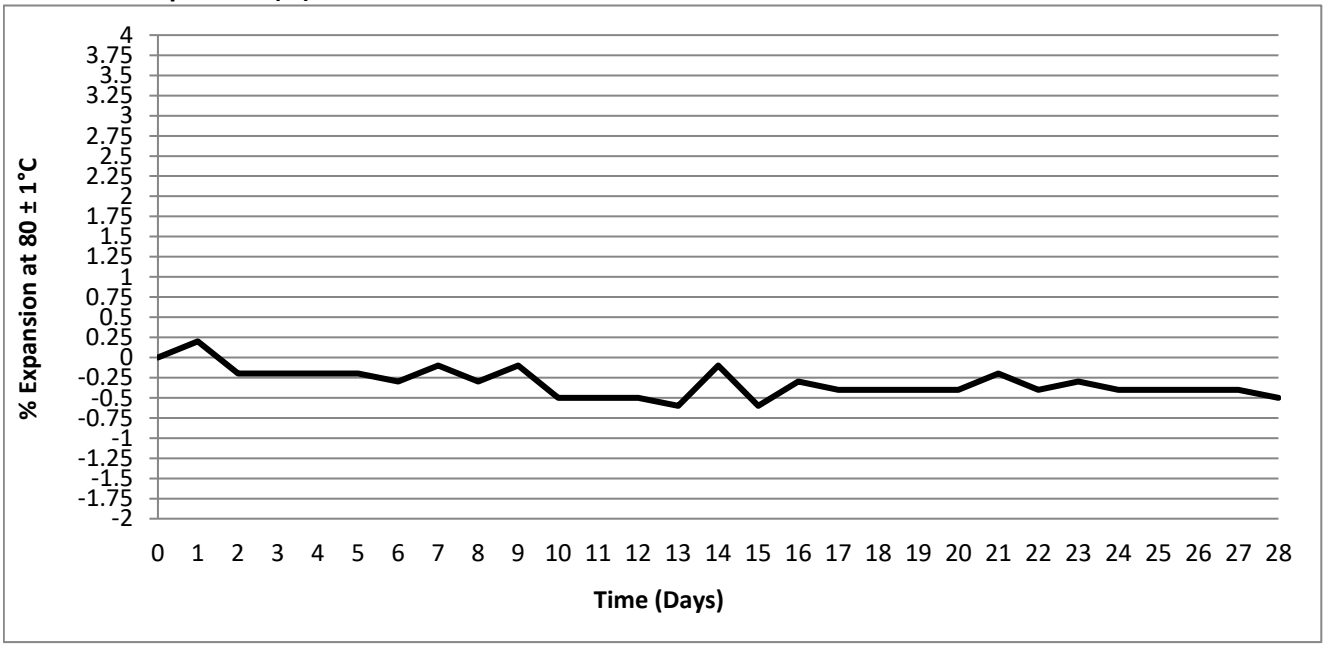
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103682**
Client Ref. No:	**AX33-1 0.8M**
Date and Time of Sampling:	**08/06/2022**
Date of Receipt at Lab:	**23/06/2022**
Date of Start of Test:	**01/09/2022**
Sampling Location:	**AX33-1 0.8M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**LW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = -0.45
Maximum Expansion (%) = 0.2



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These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 26

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

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INDEPENDENT MATERIALS TESTING | DIAMOND DRILLING & SAWING

St Modwen Developments (Llanwern) Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 21 February 2023
Test Report Ref: TR 927652

LABORATORY TEST REPORT

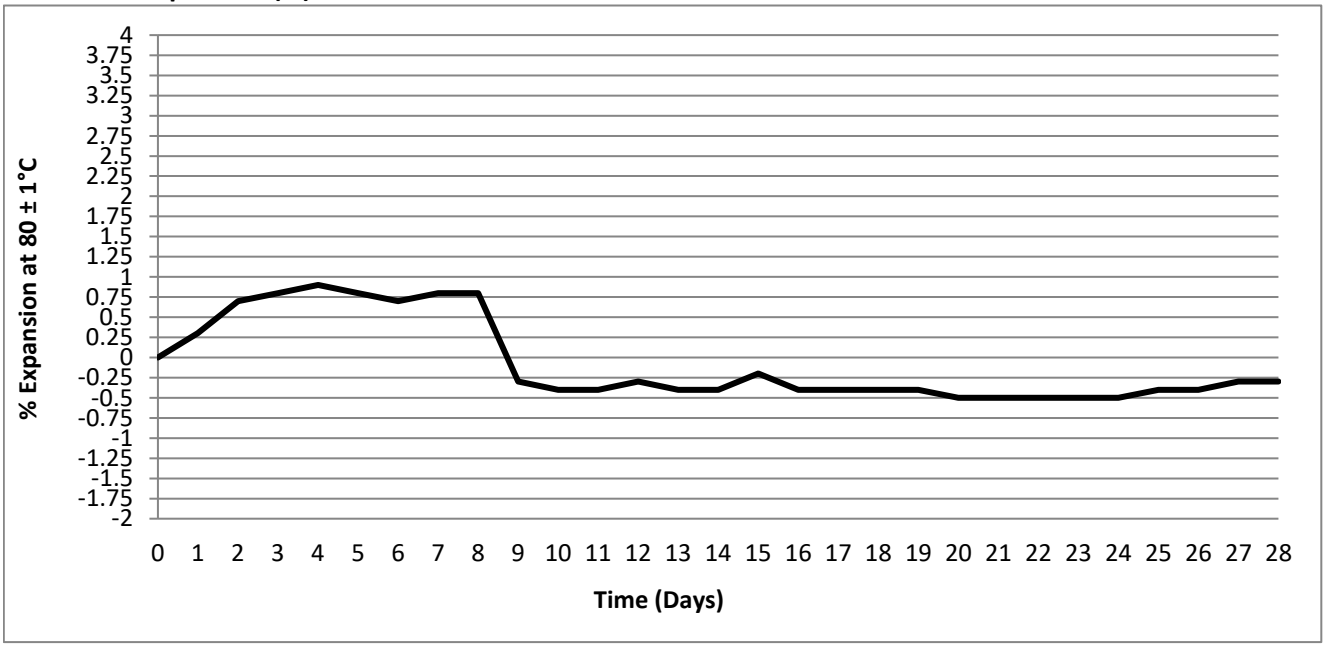
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S107420**
Client Ref. No:	**AN37-1 - 2**
Date and Time of Sampling:	**Unknown**
Date of Receipt at Lab:	**16/12/2022**
Date of Start of Test:	**20/02/2023**
Sampling Location:	**AN37-1 - 2**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**AW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = -0.3
Maximum Expansion (%) = 0.9



This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 37

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ
Contract: Llanwern

Date: 01 September 2022
Test Report Ref: TR 896095

LABORATORY TEST REPORT

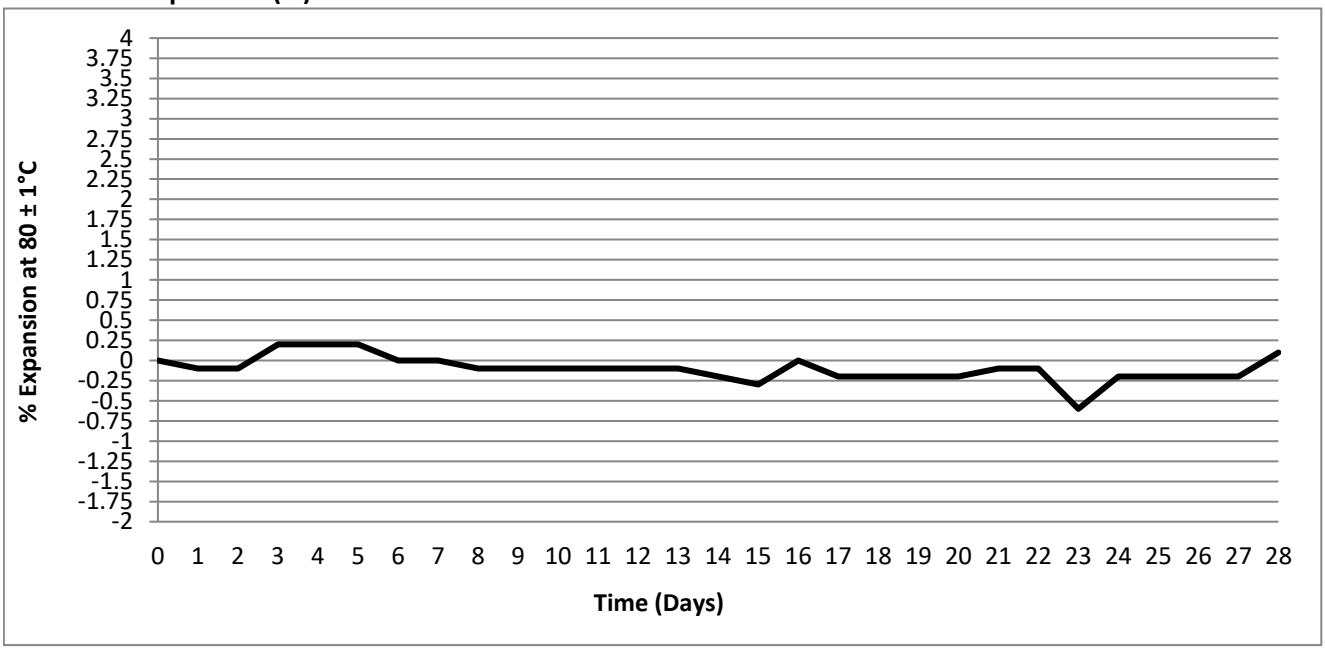
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S104193**
Client Ref. No:	**AM32-1**
Date and Time of Sampling:	**13/07/2022**
Date of Receipt at Lab:	**15/07/2022**
Date of Start of Test:	**01/09/2022**
Sampling Location:	**AM32-1**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**LW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = 0.05
Maximum Expansion (%) = 0.2



This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 17

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ
Contract: Llanwern

Date: 01 September 2022
Test Report Ref: TR 896104

LABORATORY TEST REPORT

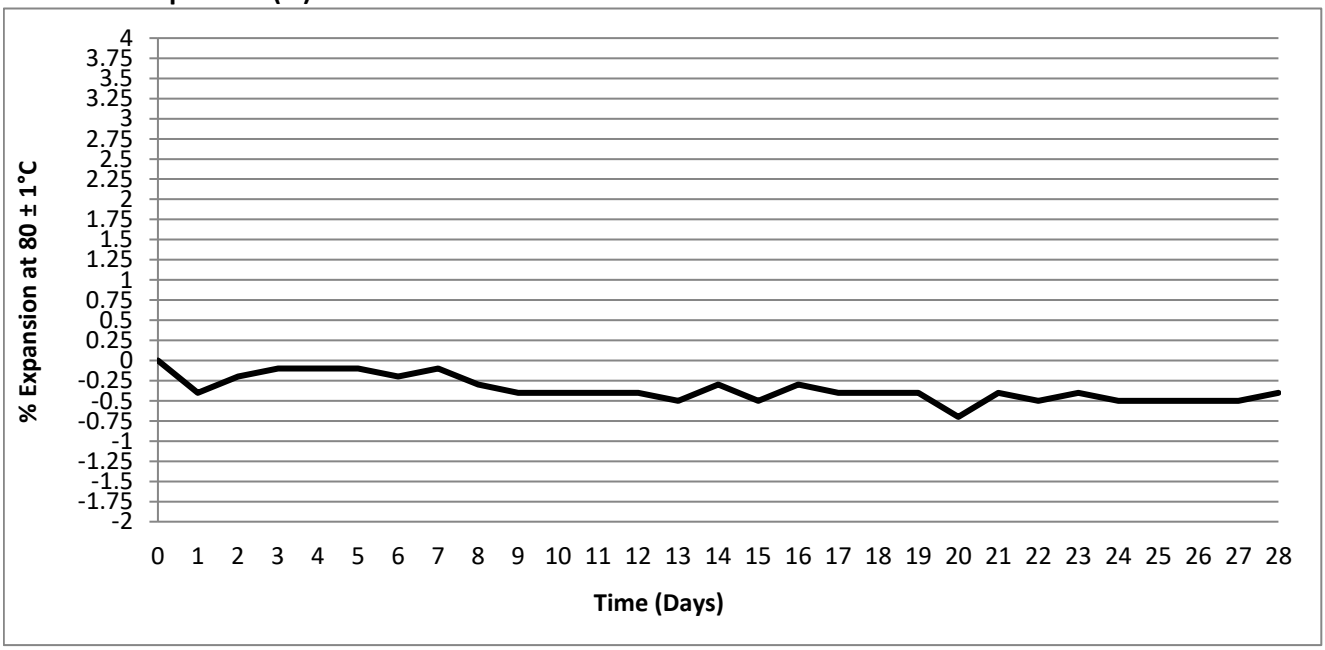
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S104193**
Client Ref. No:	**AN33-1**
Date and Time of Sampling:	**13/07/2022**
Date of Receipt at Lab:	**15/07/2022**
Date of Start of Test:	**01/09/2022**
Sampling Location:	**AN33-1**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**LW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = -0.36
Maximum Expansion (%) = -0.1



This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 50

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ
Contract: Llanwern

Date: 01 September 2022
Test Report Ref: TR 896113

LABORATORY TEST REPORT

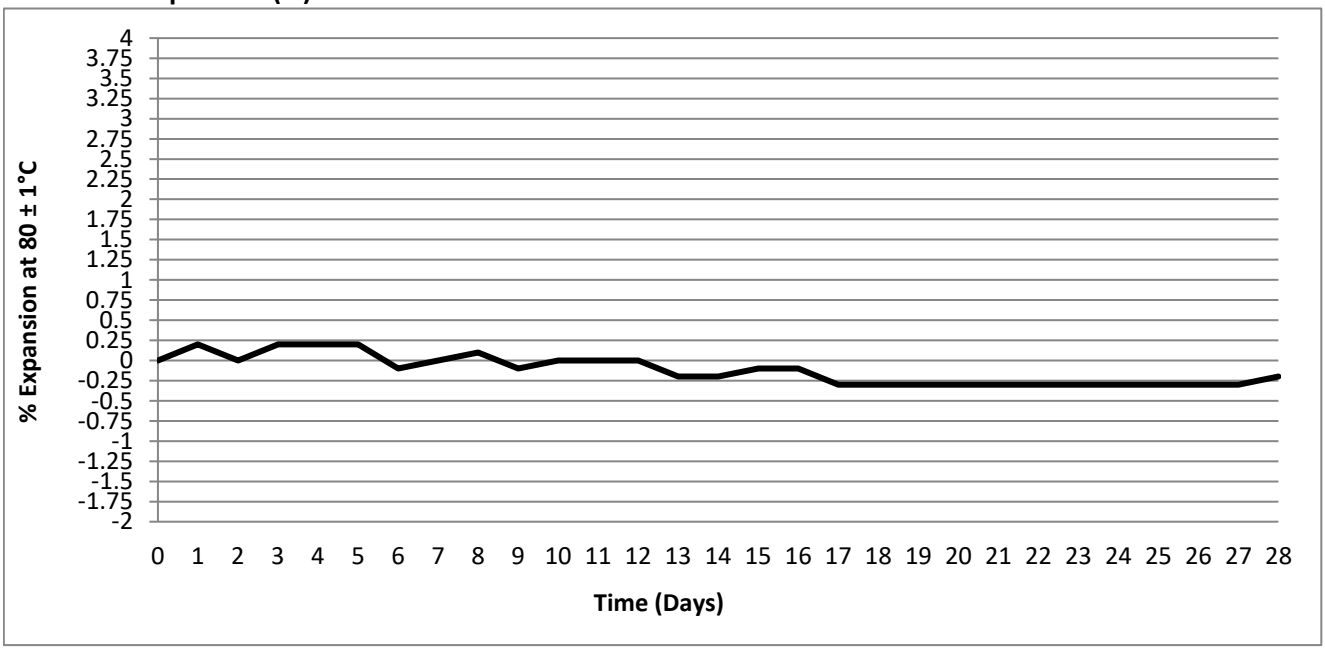
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S104193**
Client Ref. No:	**AO33-1**
Date and Time of Sampling:	**13/07/2022**
Date of Receipt at Lab:	**15/07/2022**
Date of Start of Test:	**01/09/2022**
Sampling Location:	**AO33-1**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**LW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = -0.21
Maximum Expansion (%) = 0.2



This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 38

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

celtest
INDEPENDENT MATERIALS TESTING | DIAMOND DRILLING & SAWING

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ
Contract: Llanwern

Date: 01 September 2022
Test Report Ref: TR 896122

LABORATORY TEST REPORT

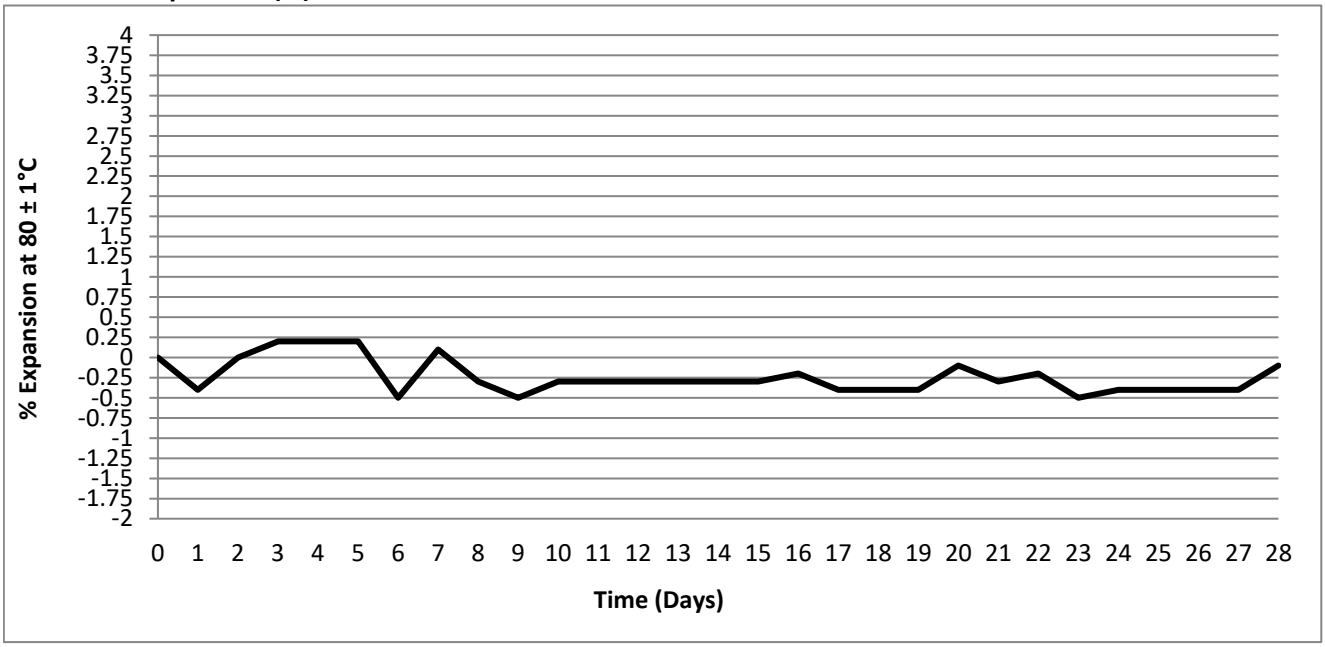
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S104193**
Client Ref. No:	**AV32-1**
Date and Time of Sampling:	**13/07/2022**
Date of Receipt at Lab:	**15/07/2022**
Date of Start of Test:	**01/09/2022**
Sampling Location:	**AV32-2**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**LW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = -0.11
Maximum Expansion (%) = 0.2



This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 34

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

celtest
INDEPENDENT MATERIALS TESTING | DIAMOND DRILLING & SAWING

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ
Contract: Llanwern

Date: 01 September 2022
Test Report Ref: TR 896140

LABORATORY TEST REPORT

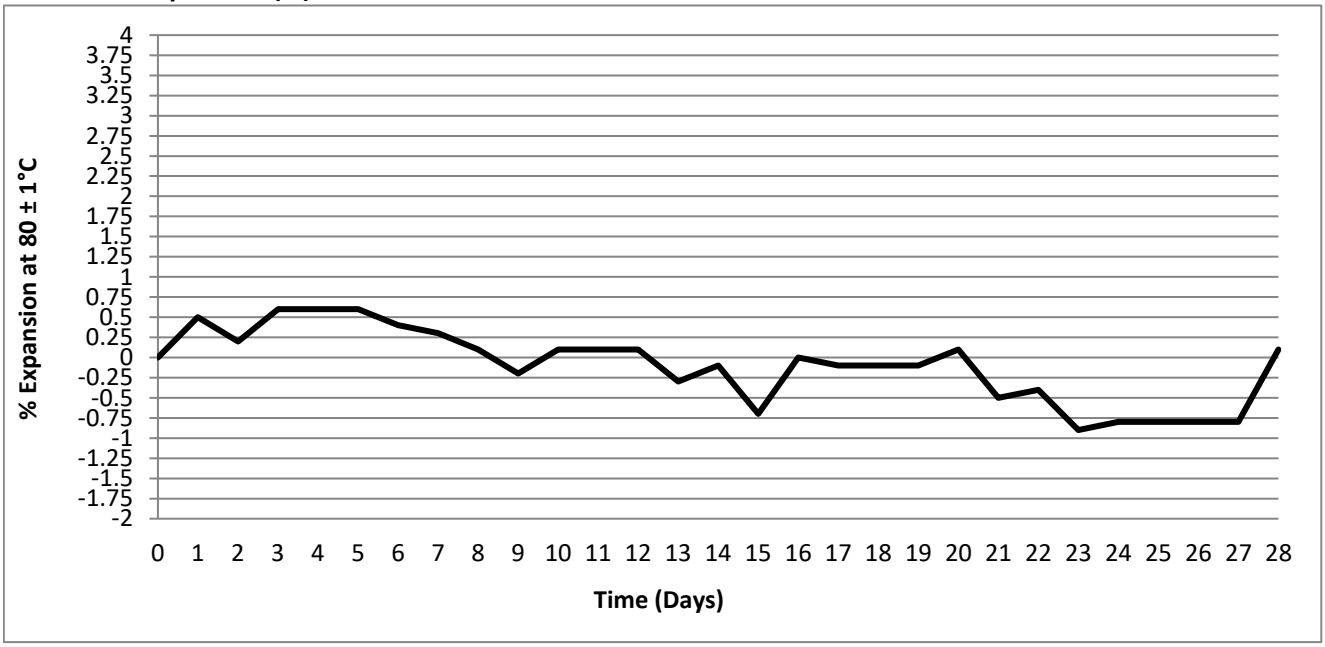
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S104193**
Client Ref. No:	**AX32-1**
Date and Time of Sampling:	**13/07/2022**
Date of Receipt at Lab:	**15/07/2022**
Date of Start of Test:	**01/09/2022**
Sampling Location:	**AX32-1**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**LW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = 0.05
Maximum Expansion (%) = 0.6



This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 52

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

St Modwen Developments Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 03 November 2022
Test Report Ref: TR 903963

LABORATORY TEST REPORT

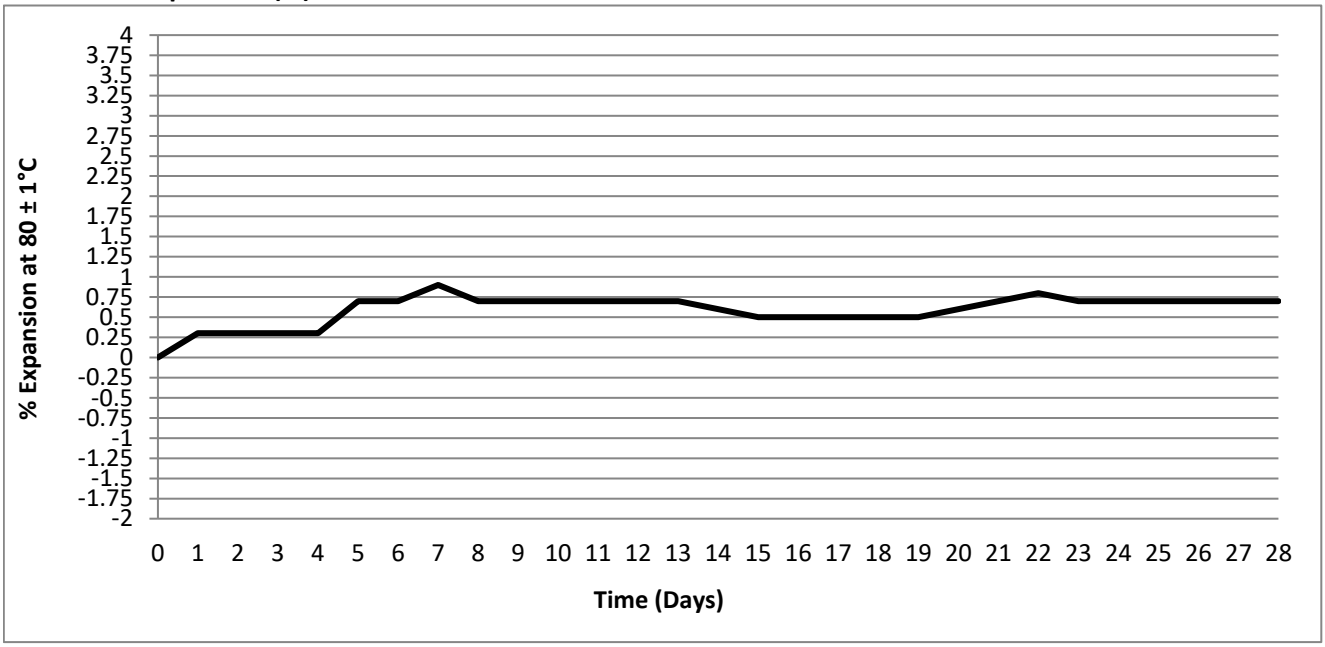
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S105000**
Client Ref. No:	**AQ32-1**
Date and Time of Sampling:	**16/08/2022**
Date of Receipt at Lab:	**23/08/2022**
Date of Start of Test:	**02/11/2022**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**ST**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = 0.73
Maximum Expansion (%) = 0.9



This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 41

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

St Modwen Developments Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 03 November 2022
Test Report Ref: TR 903974

LABORATORY TEST REPORT

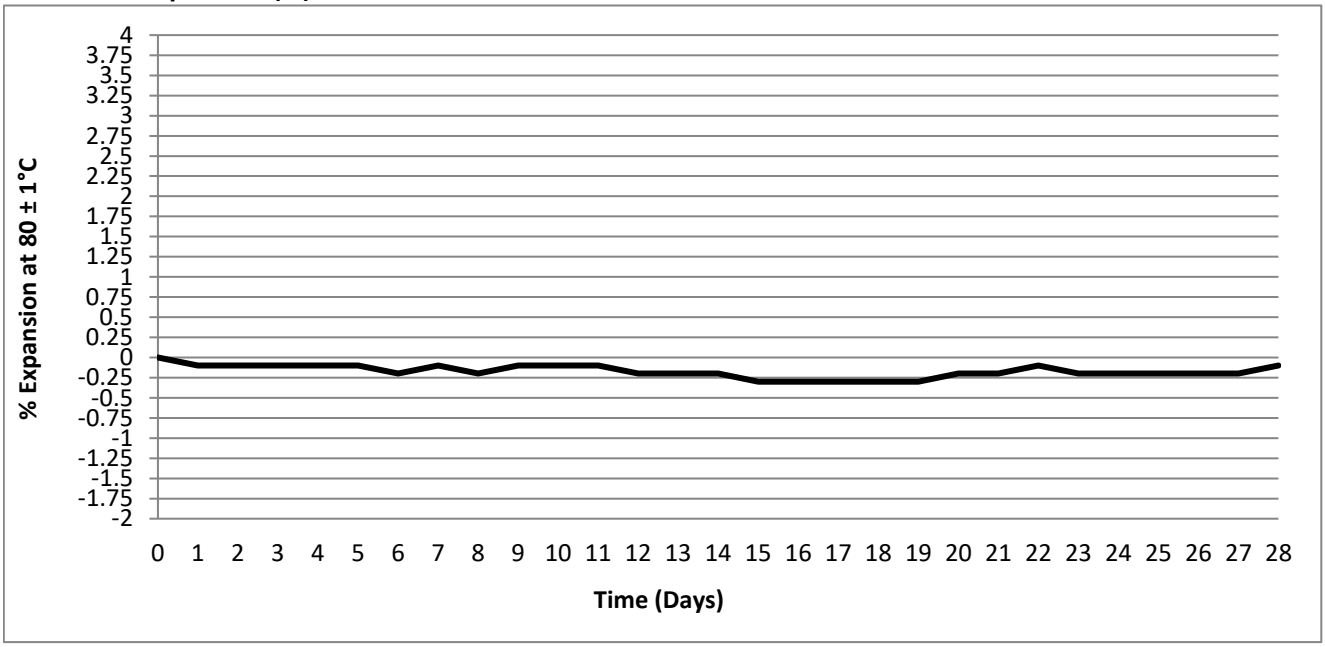
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S105000**
Client Ref. No:	**AS32-1**
Date and Time of Sampling:	**16/08/2022**
Date of Receipt at Lab:	**23/08/2022**
Date of Start of Test:	**02/11/2022**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**ST**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = -0.14
Maximum Expansion (%) = -0.1



This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 12

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

St Modwen Developments Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 03 November 2022
Test Report Ref: TR 903983

LABORATORY TEST REPORT

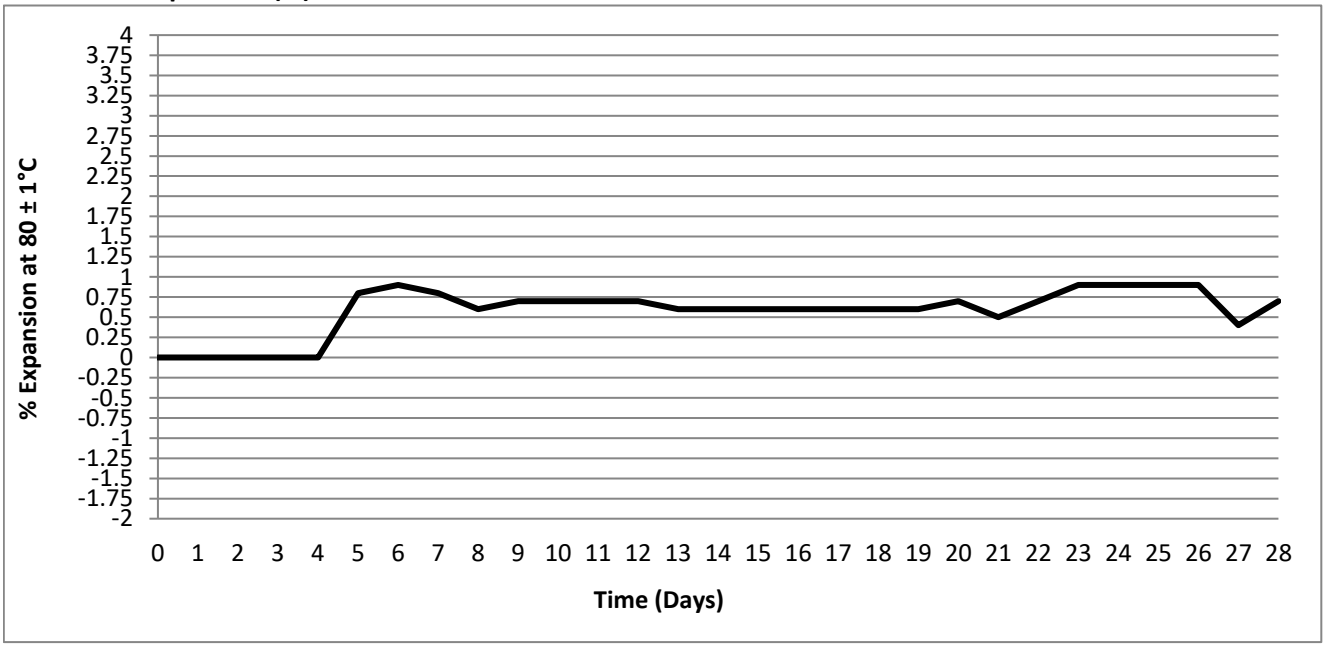
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S105000**
Client Ref. No:	**AT32-1**
Date and Time of Sampling:	**16/08/2022**
Date of Receipt at Lab:	**23/08/2022**
Date of Start of Test:	**02/11/2022**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**ST**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = 0.71
Maximum Expansion (%) = 0.9



This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 25

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

St Modwen Developments Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 03 November 2022
Test Report Ref: TR 903992

LABORATORY TEST REPORT

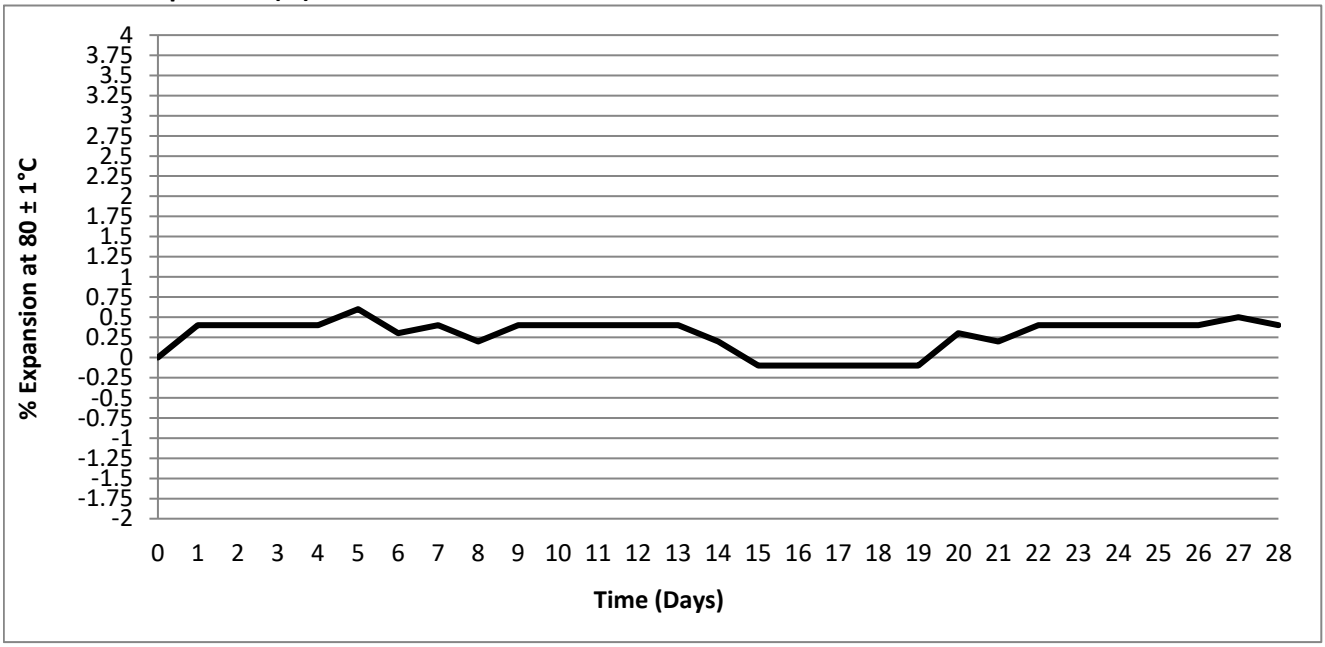
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S105000**
Client Ref. No:	**AU32-1**
Date and Time of Sampling:	**16/08/2022**
Date of Receipt at Lab:	**23/08/2022**
Date of Start of Test:	**02/11/2022**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**ST**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = 0.37
Maximum Expansion (%) = 0.6



This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 29

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

St Modwen Developments Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 03 November 2022
Test Report Ref: TR 904887

LABORATORY TEST REPORT

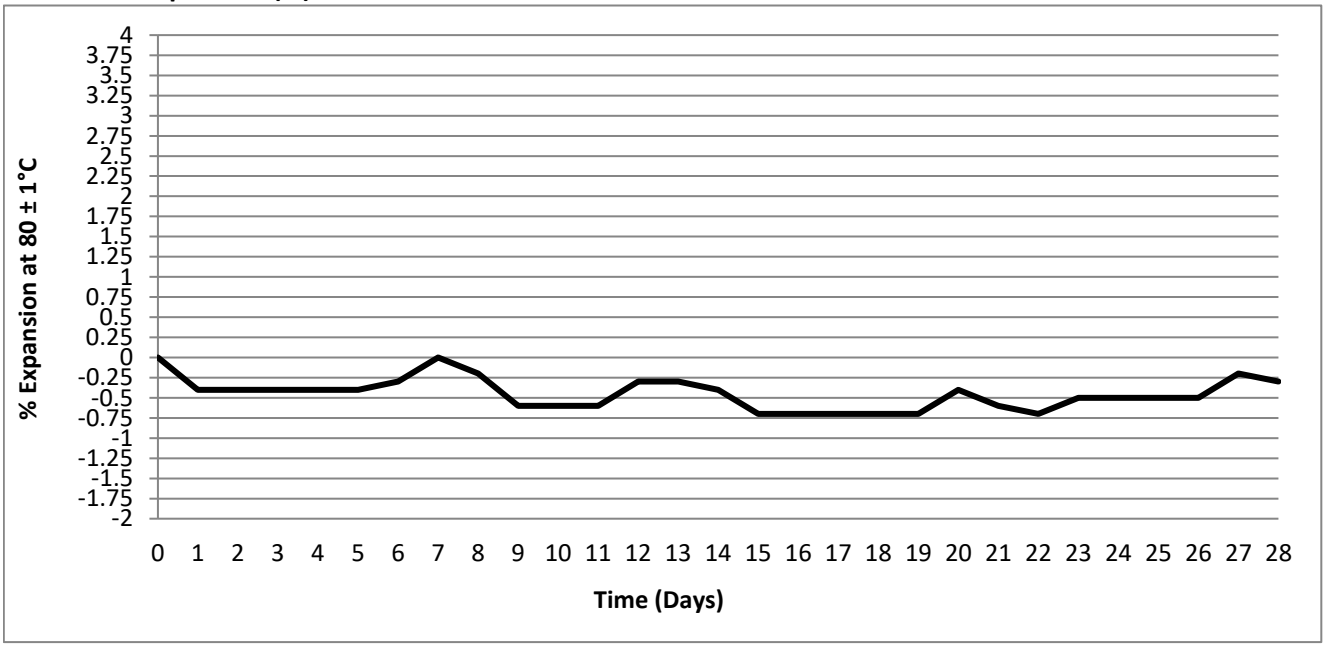
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S105136**
Client Ref. No:	**AN34-1 - 1m**
Date and Time of Sampling:	**24/08/2022**
Date of Receipt at Lab:	**30/08/2022**
Date of Start of Test:	**02/11/2022**
Sampling Location:	**AN34-1 - 1m**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**ST**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = -0.3
Maximum Expansion (%) = 0



This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 22

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

St Modwen Developments (Llanwern) Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 21 February 2023
Test Report Ref: TR 927634

LABORATORY TEST REPORT

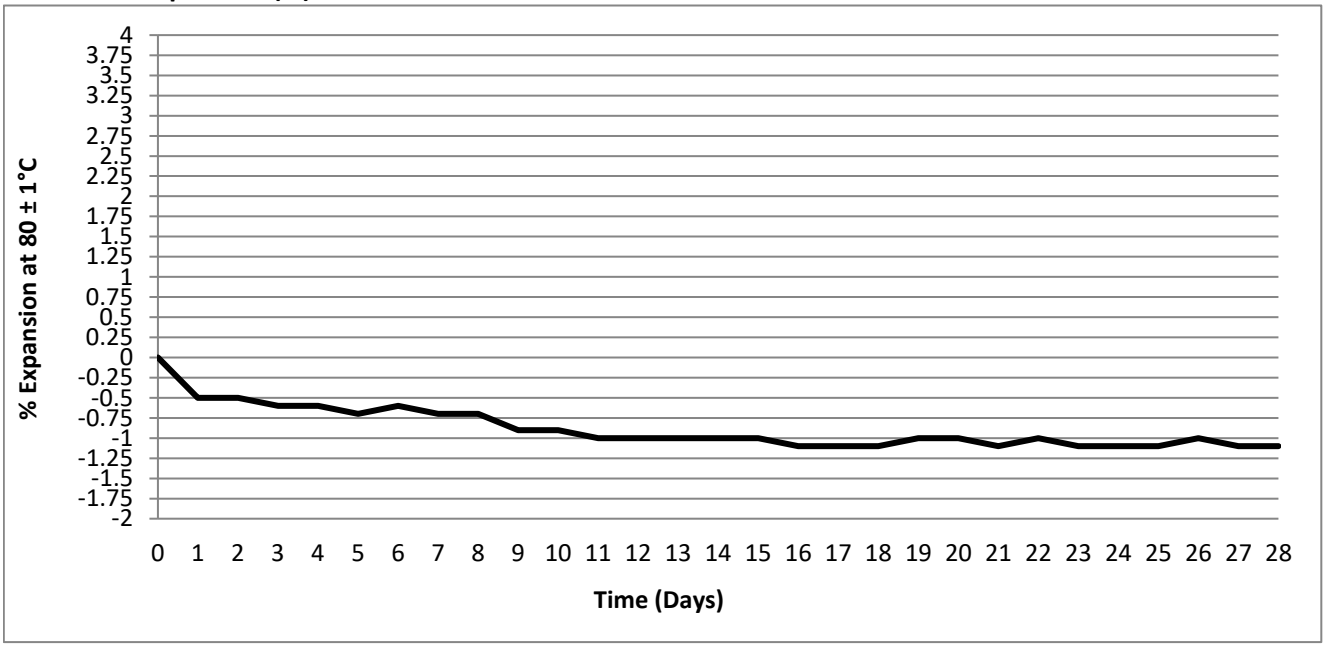
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S107420**
Client Ref. No:	**AM34-1 - 0.2**
Date and Time of Sampling:	**Unknown**
Date of Receipt at Lab:	**16/12/2022**
Date of Start of Test:	**20/02/2023**
Sampling Location:	**AM34-1 - 0.2**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**AW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = -1.11
Maximum Expansion (%) = -0.5



This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 28

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

St Modwen Developments (Llanwern) Limited
Two Devon Way
Longbridge
Birmingham
B31 2TS

Date: 21 February 2023
Test Report Ref: TR 927643

LABORATORY TEST REPORT

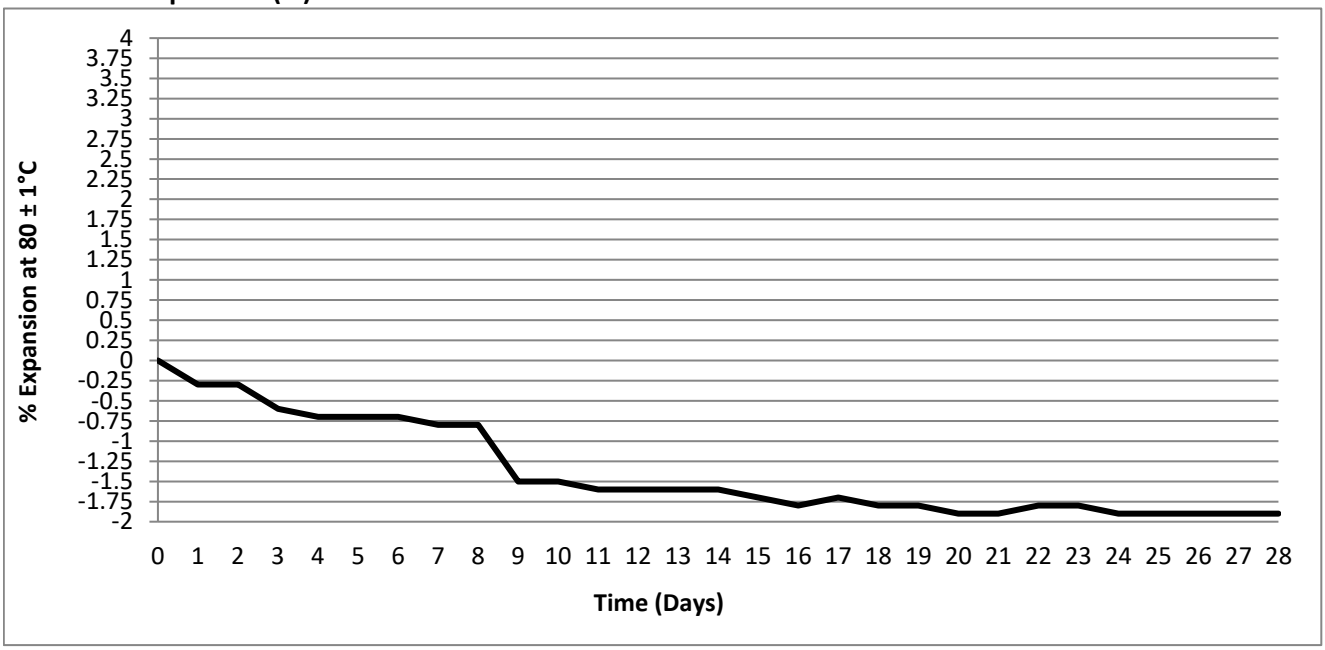
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S107420**
Client Ref. No:	**AM36-1 - 1.5**
Date and Time of Sampling:	**Unknown**
Date of Receipt at Lab:	**16/12/2022**
Date of Start of Test:	**20/02/2023**
Sampling Location:	**AM36-1 - 1.5**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**AW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = -1.91
Maximum Expansion (%) = -0.3



This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 42

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 14 June 2021
Test Report Ref: TR 782359

LABORATORY TEST REPORT

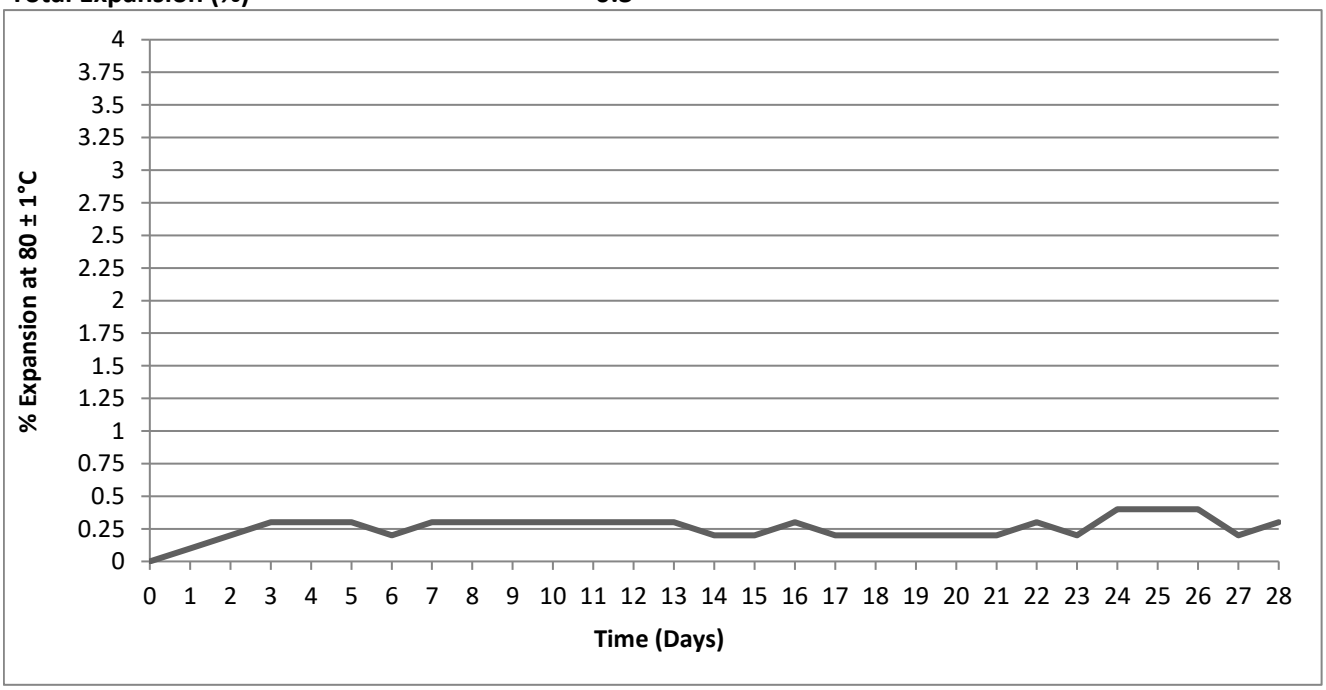
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S92900**
Client Ref. No:	**AK34-1 - 1.6**
Date and Time of Sampling:	**29/01/2021**
Date of Receipt at Lab:	**04/02/2021**
Date of Start of Test:	**13/04/2021**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client**
Tested By:	**IJ**
Material Description:	**Granular - 40mm Down**
Target Specification:	**N/A**

RESULTS:

Total Expansion (%) = 0.3



This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 35

Report checked and approved by:

Mathew Sayer
Aggregate Team Manager

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 14 June 2021
Test Report Ref: TR 782513

LABORATORY TEST REPORT

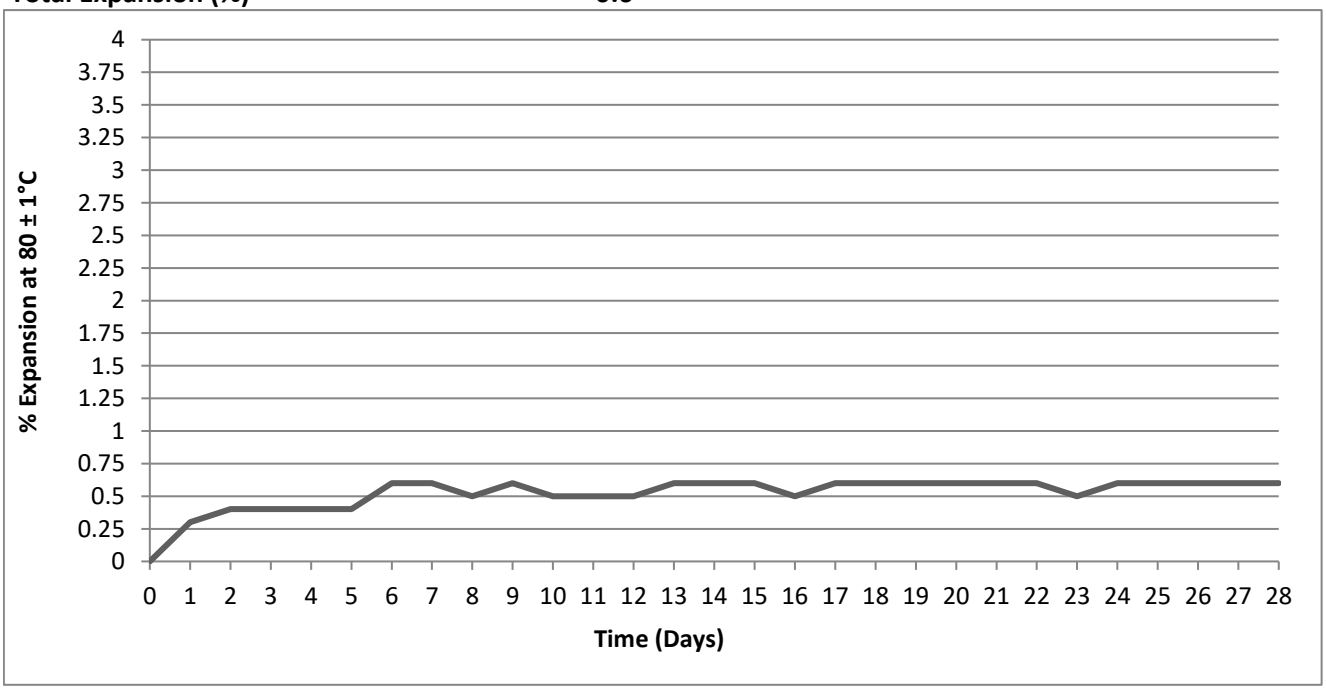
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S92900**
Client Ref. No:	**AW29-1 - 1.5**
Date and Time of Sampling:	**Unknown**
Date of Receipt at Lab:	**04/02/2021**
Date of Start of Test:	**13/04/2021**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client**
Tested By:	**IJ**
Material Description:	**Granular - 40mm Down**
Target Specification:	**N/A**

RESULTS:

Total Expansion (%) = 0.6



This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 22

Report checked and approved by:

Mathew Sayer
Aggregate Team Manager

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 21 April 2021
Test Report Ref: TR 779241

LABORATORY TEST REPORT

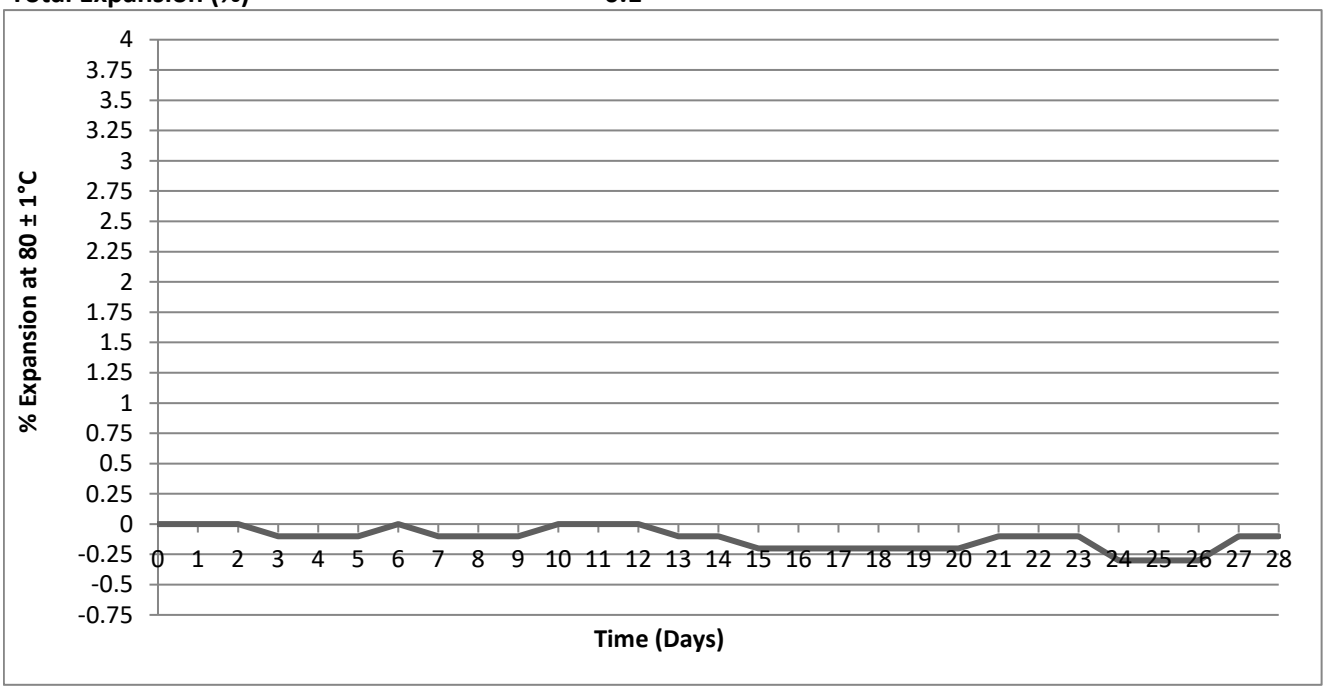
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S92621**
Client Ref. No:	**AV29-1 @ 1.0M**
Date and Time of Sampling:	**Unknown**
Date of Receipt at Lab:	**22/01/2021**
Date of Start of Test:	**16/03/2021**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client**
Tested By:	**IJ**
Material Description:	**Granular**
Target Specification:	**N/A**

RESULTS:

Total Expansion (%) = -0.1



This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 45

Report checked and approved by:

Mathew Sayer
Aggregate Team Manager

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 21 April 2021
Test Report Ref: TR 779242

LABORATORY TEST REPORT

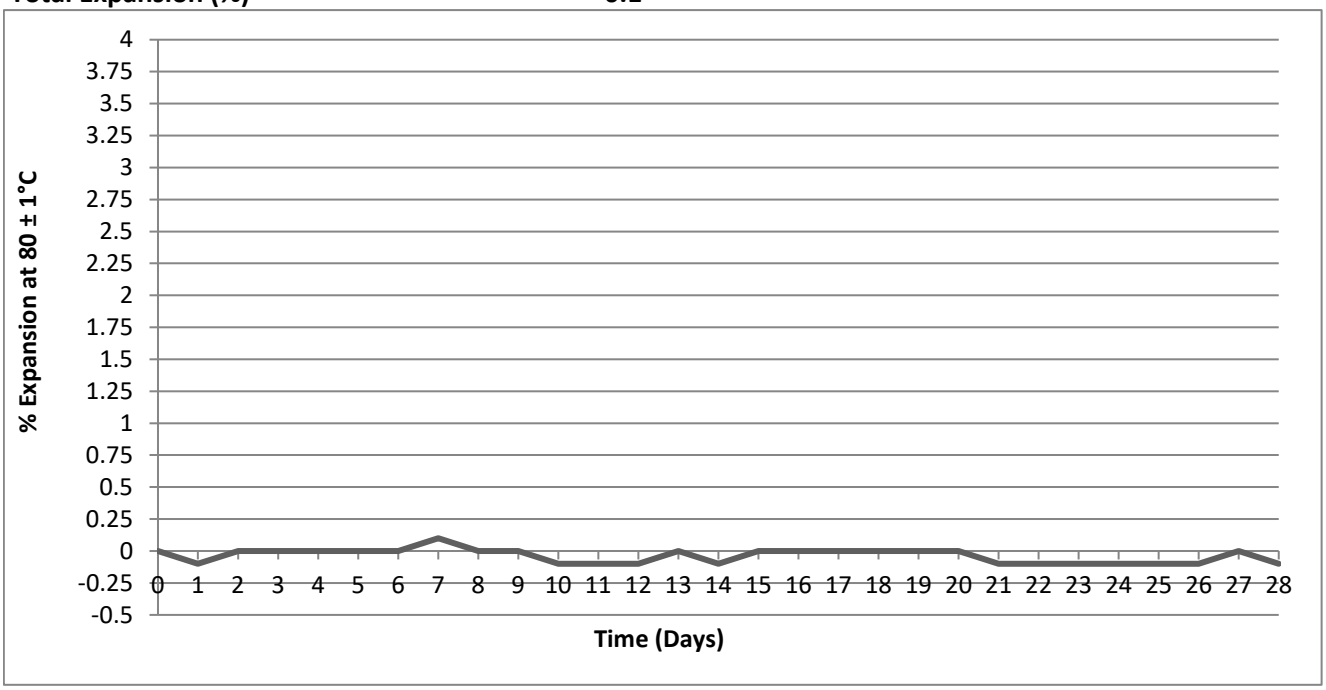
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S92621**
Client Ref. No:	**AU29-1 @ 0.5M**
Date and Time of Sampling:	**Unknown**
Date of Receipt at Lab:	**22/01/2021**
Date of Start of Test:	**16/03/2021**
Sampling Location:	**Unknown**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client**
Tested By:	**IJ**
Material Description:	**Granular**
Target Specification:	**N/A**

RESULTS:

Total Expansion (%) = **-0.1**



This test report shall not be reproduced, except in full, without the written approval of Celtest Company Limited.

These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 39

Report checked and approved by:

Mathew Sayer
Aggregate Team Manager

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 01 September 2022
Test Report Ref: TR 890904

LABORATORY TEST REPORT

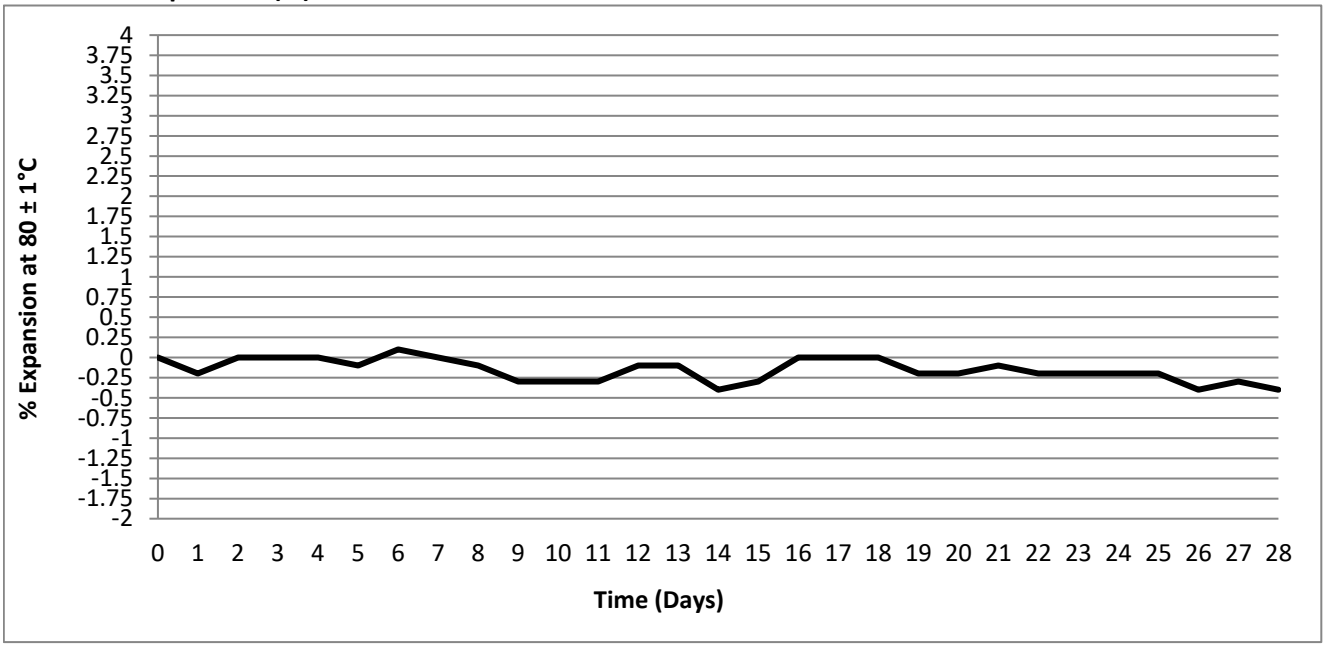
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103682**
Client Ref. No:	**AQ33-1 0.6M**
Date and Time of Sampling:	**08/06/2022**
Date of Receipt at Lab:	**23/06/2022**
Date of Start of Test:	**01/09/2022**
Sampling Location:	**AQ33-1 0.6M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**LW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = -0.35
Maximum Expansion (%) = 0.1



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These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 42

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

St Modwen Developments Limited
Park Point
17 High Street
Longbridge
Birmingham
B31 2UQ

Date: 01 September 2022
Test Report Ref: TR 890913

LABORATORY TEST REPORT

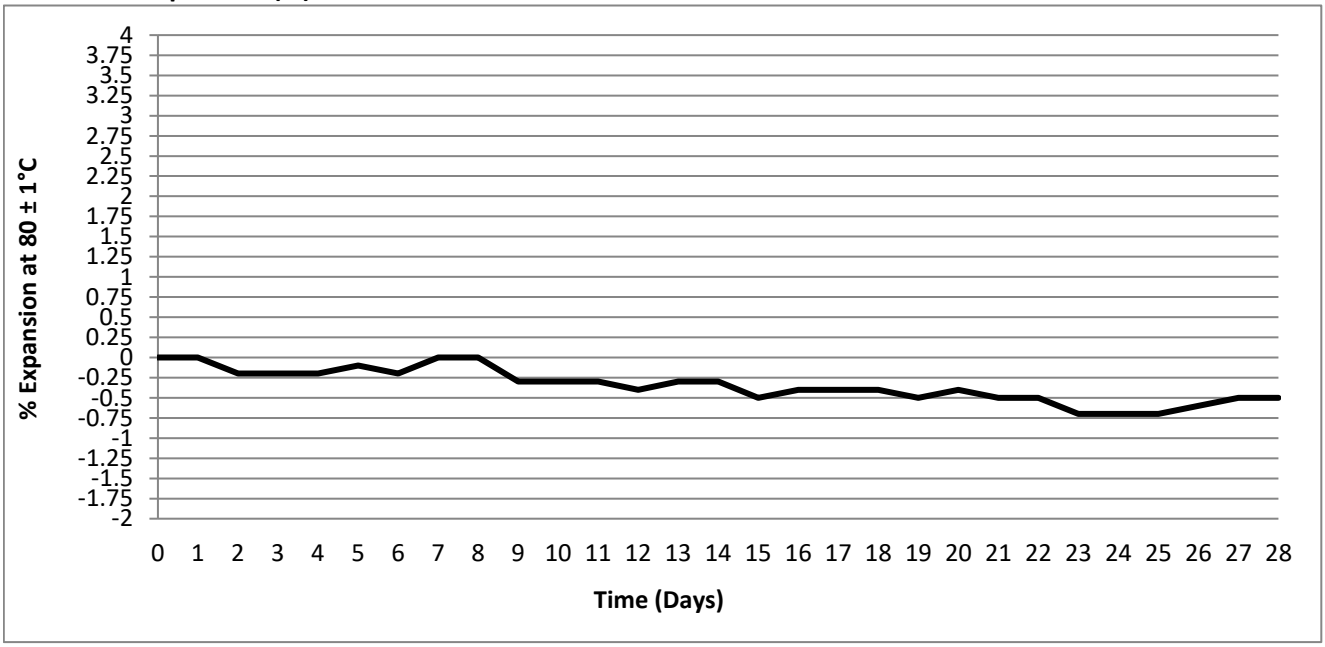
TEST REQUIREMENTS: To determine the Expansion of Steel Slag over 28 days at 80°C by **BRE in-house method (BR 481 Part B - Appendix B)**

SAMPLE DETAILS:

Certificate of sampling received:	**No**
Laboratory Ref. No:	**S103682**
Client Ref. No:	**AS33-1 1.20M**
Date and Time of Sampling:	**08/06/2022**
Date of Receipt at Lab:	**23/06/2022**
Date of Start of Test:	**01/09/2022**
Sampling Location:	**AS33-1 1.20M**
Name of Source:	**Former Llanwern Steelworks**
Method of Sampling:	**Unknown**
Sampled By:	**Client (Test results apply to sample as received)**
Tested By:	**LW**
Material Description:	**Granular Material**
Target Specification:	**N/A**

RESULTS:

Total Expansion at 28 days (%) = -0.45
Maximum Expansion (%) = 0



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These results relate only to the items tested.

Comments:

% of material retained on the 20mm sieve = 30

Report checked and approved by:

Chantelle Kopec-Williams
Job Coordinator

Appendix I

RLL Radiological Walkover Survey Technical Note

Technical Note

Project:	P18-669 Llanwern - Sitewide		
Subject:	Technical Note – Phase 5e2 Radiological Walkover		
Prepared by:	Elliot Thomas – Geo-Environmental Consultant	**Date:**	05 June 2023
Authorised by:	Chris Wilson – Senior Geo-Environmental Consultant	**Status:**	S2 - Information
Document Ref:	18669-RLL-23-XX-RP-O-00400	**Revision:**	P01

1 Introduction

Rodgers Leask Ltd (RLL) have prepared this Technical Note to provide a summary of a radiological walkover undertaken in Phase 5e2 within the Glan Llyn development, Newport. The Site historically comprised part of the Llanwern steelworks. Historical plans of the steelworks during its operational years indicate that a 'Radioactive Store' was present within Phase 5e2 in the south-east of the wider Glan Lynn development.

The Radioactive Store is located approximately central to Phase 5e2, a site location plan is shown on RLL Drawing 18669-RLL-22-XX-DR-O-0321-B included in **Appendix A**.

The Radioactive Store is thought to have been used for the storage of radioactive sources during the operational years of the steelworks, they are thought to no longer remain in situ. The Site was demolished to slab level circa 2006, since demolition the Site has comprised open ground utilised for stockpiling associated with the remediation of the wider development.

The earthworks in Phase 5e2 commenced in June 2022 and involved the turnover of Made Ground and removal of below ground obstructions. In advance of earthworks in the area of the Radioactive Store, as a precaution, a radiological walkover was considered necessary to confirm absence of significant radiological activity within the region of the former Radioactive Store.

2 Radiological Walkover

Two Engineers from RLL undertook a walkover on the 9th of September 2022 in the location of the former Radioactive Store with a handheld monitor - Mini 900 Monitor 44A. This monitor detects gamma radiation and was compared to background levels to see if counts per second (cps) were significantly above.

To establish background levels, measurements were undertaken in the Site car park and a completed phase on the wider development. The area of the radioactive store was marked

out and then covered in passes with the probe, as shown on RLL drawing 18669-RLL-23-XX-RP-O-0401 in **Appendix A.**

The Method statement and risk assessment were produced by a specialist company Radman Associates and are included in **Appendix B**.

3 Results and Conclusion

Results from the walkover are presented below;

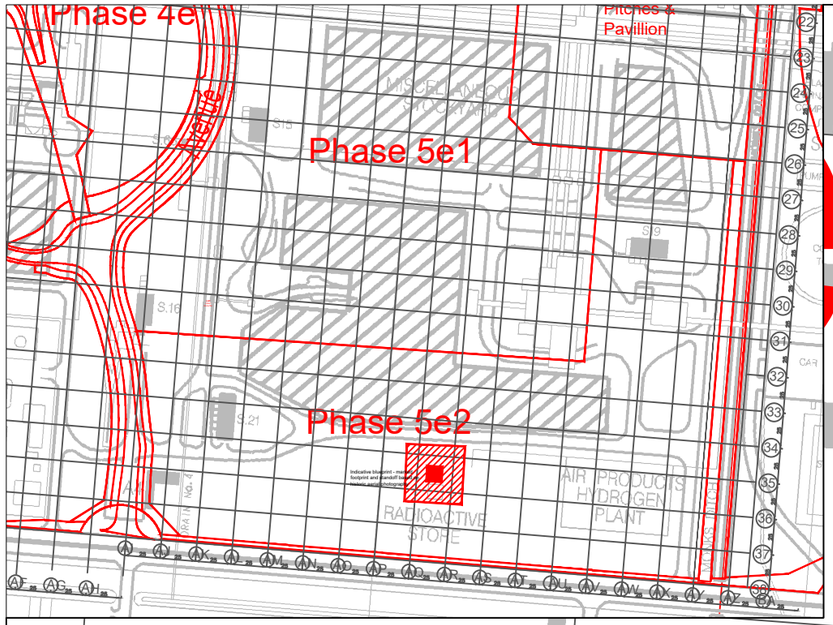
Location*	Count Rate at Ground Level (cps)	Count Rate at 1.00m Height (cps)
Car Park – Control	5	n/a
Phase 4h– Control	5 - 10	
Radioactive Store – Zone 1	5 - 10	n/a
Radioactive Store – Zone 2	5 - 10	n/a
Radioactive Store – Zone 3	7 - 10	n/a
Radioactive Store – Zone 4	7 - 10	n/a
Radioactive Store – Zone 5	8 - 10	n/a
Radioactive Store – Zone 6	8 - 10	n/a
Radioactive Store – Zone 7	8 - 10	n/a
Radioactive Store – Zone 8	7 - 10	n/a
Radioactive Store – Zone 9	7 - 10	n/a
Radioactive Store – Background @ 1.00m	n/a	10
Radioactive Store – 1.00m Perimeter	n/a	5-10
Radioactive Store – Ground Level Perimeter	5 - 10	n/a

*Zones correspond to RLL drawing 18669-RLL-23-XX-RP-O-0401.

Background levels taken at control areas have shown maximum counts per second (cps) of 10. Monitoring of the radioactive store detected no results higher than 10cps. The lack of elevated cps above background levels indicates that the area has not been significantly impacted by materials historically stored in the location and that any radioactive materials historically stored in the location are no longer present.

No further action / remedial requirements were considered necessary and earthworks within phase 5e2 are able to continue.

Appendix A – Drawings.



5e2

Indicative blueprint - marked footprint and standoff based on historic aerial photography

RADIOACTIVE

STORE

GENERAL NOTES

NO DIMENSIONS TO BE SCALED OFF THIS DRAWING.

THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECT'S AND ENGINEER'S DRAWINGS.

ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.

ALL LEVELS ARE IN METRES UNLESS NOTED OTHERWISE.

ANY DISCREPANCIES NOTED ON SITE ARE TO BE REPORTED TO THE ENGINEER IMMEDIATELY.

Key

Phase Boundary

Standoff Area (15m)

Approximate footprint of historical Radioactive Store

Rev	Date	Amendments	By	Chk
B	07/09/2022	Updated Standoff / Footprint	DM	CW
A	02/09/2022		DM	CW

Client

St Modwen Developments

Project

P18-669 Llanwern Reclamation

Drawing Title

Phase 5e2 Radiological Walkover Location Plan

INFORMATION

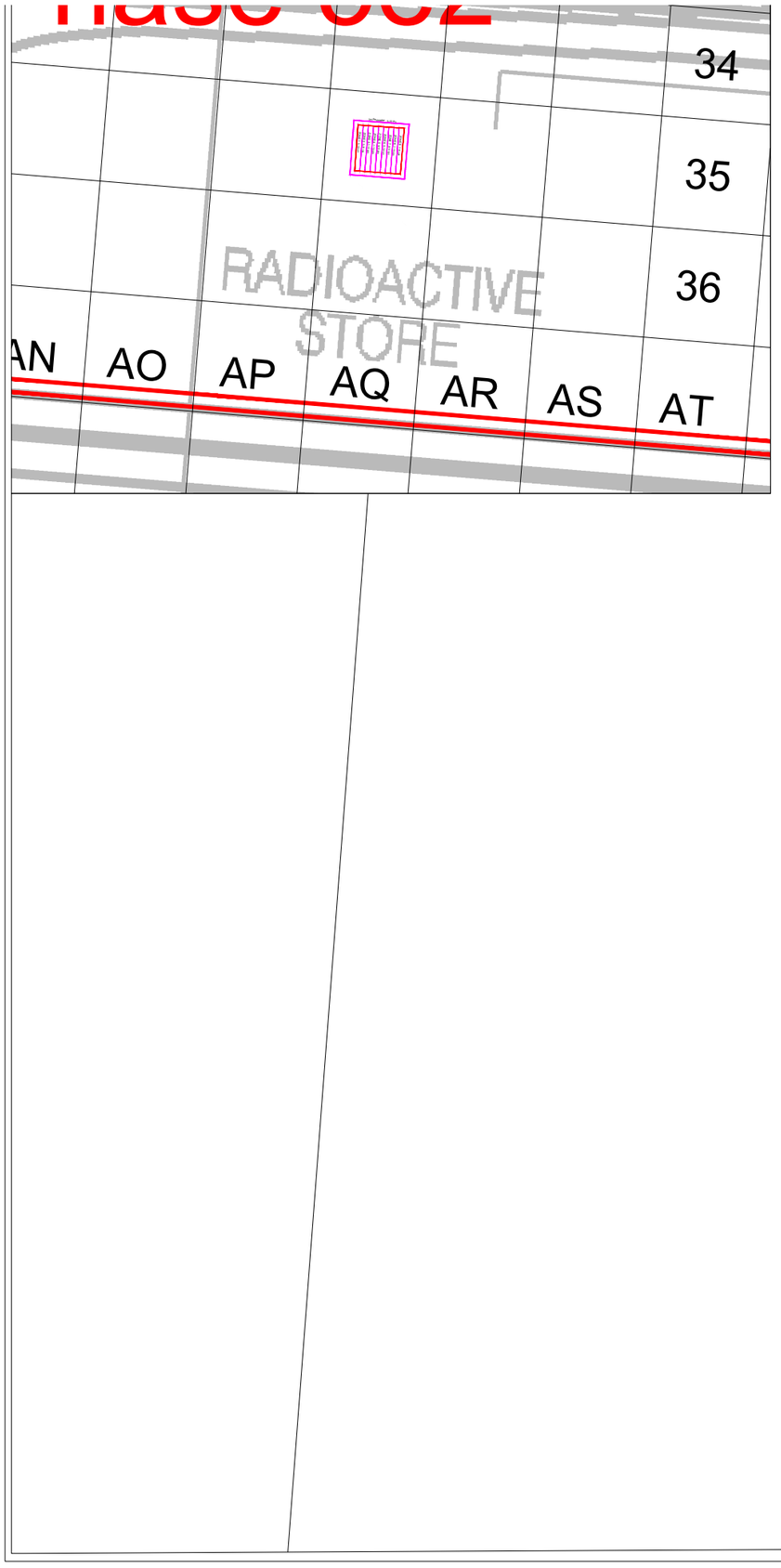
	Drawn	Checked	Date
NTS	DMcC	CW	02/09/22

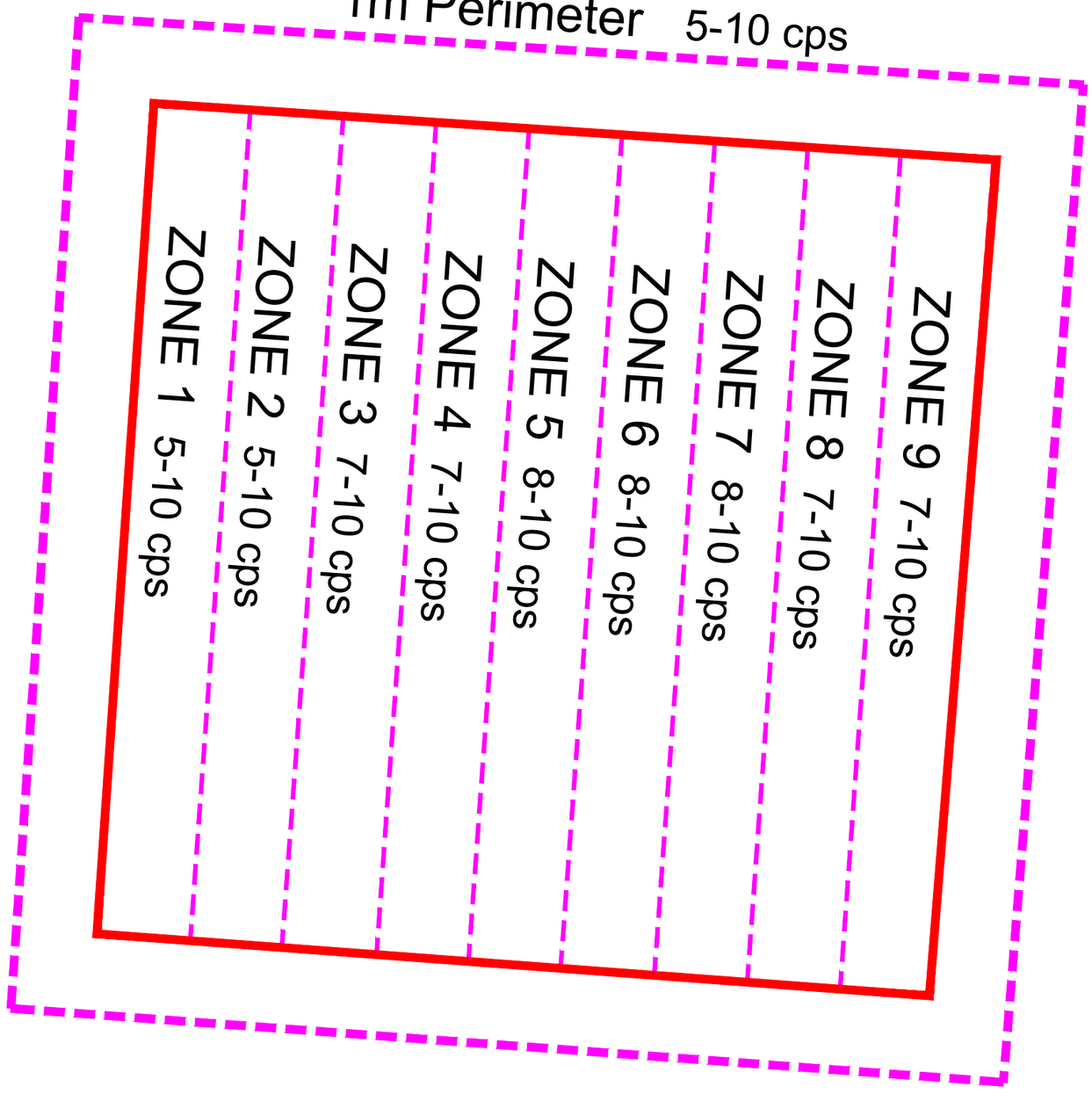
Drawing No. | Rev.

18669-RLL-22-XX-DR-O-0321

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RELEVANT ARCHITECT'S AND ENGINEER'S DRAWINC

ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOT OTHERWISE.

ALL LEVELS ARE IN METRES UNLESS NOTED OTHEF

ANY DISCREPANCIES NOTED ON SITE ARE TO BE REPORTED TO THE ENGINEER IMMEDIATELY.

Key

APPROXIMATE FOOTPRINT OF RADIOACTIVE STORE

RADIOLOGICAL SURVEY ZONI

Rev	Date	Amendments	By	Chk

Client

St Modwen Developments

Project

P18-669 Llanwern Reclamatic

Drawing Title

Phase 5e2 Radiological Walkover Results Summary

INFORMATION

	Drawn	Checked	Date
NTS	SR	CW	02/02/

Drawing No. Rev.

18669-RLL-23-XX-DR-O-0401

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Radman Associates

Specialists in Radiological Protection Management

Radiological monitoring during non-intrusive investigations

Risk Assessment/Method Statement

Client:	**Rodgers Leask Limited**
Client address:	Office 311 2430/2440 Aztec West Almondsbury BS32 4AQ
Client contact:	Chris Wilson (Senior Geo-environmental Consultant)
Address of premises to be surveyed:	Llanwern Steelworks, Newport, Gwent
Proposed survey start date:	9 September 2022
RAMS date:	2 September 2022
Author:	 Alan Wale Accredited Radiation Protection Adviser & Radioactive Waste Adviser
Document Status:	1st Issue
Document reference:	RL/LLan/MS1

Appendix B – Method Statement and Risk Assessment

Introduction

This method statement/risk assessment relates to reassurance radiological monitoring by suitably trained site operatives at Llanwern Steelworks, Newport, Gwent.

Walkover monitoring at the site is to be conducted by Rogers Leask personnel for gross radiological contamination in the footprint of a former radioactive store at the site.

The following provides information on the measures to be taken by site operatives to ensure that all on-site exposures to ionising radiation are kept *as low as reasonably practicable (ALARP)*. ALARP is the key principle upon which all radiation protection measures are based and provides the foundation for regulatory control of occupational exposures in the Ionising Radiations Regulations 2017 (IRR17)[1] made under the enabling Health and Safety at Work etc. Act 1974.

1. Potential radioactive contaminants

Whilst this building had been marked as being used for storing radioactive sources none are expected to remain and this monitoring is for reassurance and precautionary purposes only.

Steel works have commonly used or held:

- Gamma ray emitting sealed sources for imaging castings or industrial radiography;
- Refractory furnace linings and casting sands containing Naturally Occurring Radioactive Materials (NORM);
- Orphan radioactive sources identified in scrap coming onto the site prior to offsite disposal.

2. Risk Assessment

All work will be performed in accordance with the ALARP principle for the restriction of exposure to sources of ionising radiation. The work will also be conducted taking into consideration any additional hazards that may be present on site.

2.1 Contaminant radionuclides

Radionuclides can decay via emission of either **alpha** or **beta** particles, frequently accompanied by **gamma rays** (photons).

Alpha particles are intensely ionising but are easily shielded (e.g. piece of paper, layer of dead skin cells). They present an insignificant external radiation hazard, but a significant **internal contamination hazard**. We should therefore prevent uptake of any material into the body via inadvertent ingestion or inhalation.

Beta particles are relatively easily to shield (several mms of Perspex, depending on the nuclide and energy of emission) and so present both an **internal** contamination, and **external** (depending on energy of emission) radiation hazard.

Gamma rays are a highly penetrating form of electromagnetic radiation, requiring dense shielding materials such as lead and concrete. They are considered to present an **external radiation hazard**.

2.2 Exposure routes

External radiation: Being in close proximity to surface ground contamination or radioactive items raises the potential for exposure to external gamma radiation. Since this type of radiation follows the inverse square law, the exposure levels increase significantly with reduced distance from the emitting material/item.

Contamination: Contamination of the person leading to internal exposure may occur via physical skin contact, or uptake via inhalation or ingestion of contaminant radionuclides. Dry, dusty conditions leading to airborne contamination shall be avoided by damping down such materials.

The operational exposure risk from both routes is considered to be low.

2.3 Precautionary measures

Given the potential for internal contamination, workers should take the following precautions to prevent uptake of material:

- No consumption of foodstuffs on site.
- Covering of any broken skin.
- Wearing of disposable gloves (if handling material).

If significant concentrations of contaminated material are found to be present, the following additional precautions are recommended:

- Damping down of material and wearing dust masks if dusty conditions prevail.
- Wearing coveralls and disposable gloves.
- Periodic monitoring of footwear, clothing and equipment, with record keeping.

If significant contamination is found, the contamination contingency (Section 4) should be followed.

Following these simple procedures ensures that the exposure risk from contamination remains ALARP.

2.4 Personal Protective Equipment

The following standard PPE will be worn during the work:

- Hard hat
- High-vis jacket/vest
- Safety boots with steel mid-sole and toe caps

If handling material, disposable gloves will also be worn.

Further PPE will be required for emergency procedures as detailed in Section 5 to include disposable coveralls, safety glasses, overshoes, and gloves, and (if considered necessary by the RPA) suitable RPE.

3. Monitoring protocol

3.1 Monitoring equipment

The identification of contaminated material is possible, and best achieved, via detection of gamma radiation count rates significantly above the natural background response. Monitoring will be performed by suitably trained site operatives who have been taken through this method statement.

A handheld monitor (Table 1) will be used to detect any gamma emitting radionuclides within the excavation spoil. Instrument is calibrated in compliance with Reg 20 of the IRR17 and in accordance with guidance published by the National Physical Laboratory[3].

Table 1 Instruments used during radiological survey

No.	Instrument	Probe	Radiation detected	Background response
1	Mini900	44B probe	Gamma	8-12 cps

cps: counts per second

For the 44B probe the plastic end cap can be left in place, to protect the end window, as gamma rays can pass through. The co-axial cable connecting the 44A to the ratemeter is not designed to support the weight of the probe and the probe should not be hung from this cable. Please ensure the cable connector at the probe is fully screwed in before use.

Prior to each use turn the monitor switch to the first position (battery check) and ensure the needle remains steady in the green band on the dial. The monitor uses one 9V or six AA batteries and these can be replaced at any time without affecting the calibration.

The monitor is not weatherproof and so must be protected from rain. When not in use it should be stored in a dry location. The 44B monitor can be used for short periods inside a plastic bag and this will not affect the sensitivity of their readings.

3.2 Monitoring methodology

1. Record the background count rate on both monitors at a distance of at least 10m away from the area to be surveyed.

2. Monitoring is to be carried out at 10 mm (approximate) from the surface of the material removed.

3. Readings below 20 cps (gamma probe) (Twice natural background) may be regarded as uncontaminated and work may continue. The odd spike above the action levels can occur due to normal fluctuation in the natural background. For the action levels you are looking for a continuous, consistent reading at or above the specified action level.

4. Surfaces returning a count rate **20 – 200 cps** (gamma) shall be noted and the survey can continue without resulting in significant radiological exposure.

5. Where count rates exceed **200 cps** work should cease until advice has been obtained from the RPA about potential exposure rates. Where work is discontinued, the contaminated area will be cordoned off and appropriately marked.

6. A record sheet will be completed following each days monitoring for retention on file.

7. Following work individuals shall be personally monitored to ensure the absence of personal contamination. If personal contamination has occurred then the RPS shall seek advice from the Site operator and RPA.

Any reading greater than 2000 cps recorded on 44B: Work should immediately cease; the area should be cordoned off and the RPA contacted for advice on how to proceed. The emergency procedures detailed in Section 5 should be followed. In this case the RPA is likely to arrange dose-rate monitoring to ascertain whether it is safe to continue work.

4. Emergency Procedures

If measured count rates exceed the specified upper action level then the area shall be cordoned off, and access restricted. The aim at all times is to maintain operational and public exposures to levels agreeable with ALARP. Therefore, in the event of contamination being identified, workers should adhere to the following:

- Immediately cease work.
- Monitor footwear, clothing and hands prior to leaving the work area.
- Remove any contaminated clothing and leave in the contaminated area.
- Decontaminate hands if necessary (wash with water, or wipe using wetted blue roll).
- Leave area, erect suitable cordon and restrict access.

If re-entry is required (e.g. for decontamination and removal of tools/plant, or for sampling/further monitoring), workers should wear suitable disposable coveralls, overshoes, safety glasses and gloves, and (if considered necessary by the RPA) suitable RPE. Monitoring/decontamination of personnel/equipment should be performed as necessary, prior to leaving the area.

5. RPA contact

The monitoring is to be conducted by suitably trained site operatives. Contact may be made with the RPA's office (Radman Associates: 01625 576000), as required.

References

1. Ionising Radiations Regulations 2017 S.I. 1075.
2. Measurement Good Practice Guide No 14: The Examination, Testing & Calibration of Portable Radiation Protection Instruments. Issue 3.

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