



To: Shaun Denny
CC: Sian Trow
Date: 19/01/2023

From: Tenant Sibanda
Business Area: Land and Mineral Resources
Address: Pinnacle House, Main street, Breedon on the Hill, Derby, DE73 8AP

Re: Gilfach Quarry: Cefn Faes Uchaf Farm Spring Water Levels and Groundwater Level Data

Please find enclosed data pursuant to conditions 39 and 40 of the planning permission reference no. 2010/655 relating to groundwater level monitoring and spring water level monitoring at Cefn Faes Uchaf Farm.

Groundwater level monitoring

Groundwater level is currently monitored on a monthly basis at 7no. observation boreholes around the quarry. Enclosed groundwater level data include:

- Monthly groundwater level data from August 2007 to January 2023.
- Long term hydrograph with all monitoring boreholes on the current monitoring network
- Hydrographs for BH01/07 and BH10/07 showing compliance with set trigger levels

Spring water level monitoring at Cefn Faes Uchaf Farm

Spring water levels are monitored every 15 minutes via an automatic datalogger which is linked to telemetry. The water levels are measured with reference to the datum of the logger sensor which records depth of water in meters above the sensor (submergence). The hydrograph for spring water level covering the period from July 2021 to January 2023 is enclosed.

The observed water level fluctuations are in response to pumping from the spring chamber to the Farm house. Spring water levels also show a good correlation with rainfall recharge. High water levels are observed in winter months (December & January) and low levels are observed around May and June as shown on the enclosed hydrograph.

BH ID	BH01/07		BH02/07		BH03/07		BH04/07		BH05/07		BH07/07		BH10/07	
Ref. Elev. mAOD	160.47		191.03		199.92		191.7		187.98		149.49		154.44	
Piezo depth (mbgl)	27.0		33.0		36.5		30.5		41.0		46.0		35.0	
	mbgl	mAOD	mbgl	mAOD	mbgl	mAOD	mbgl	mAOD	mbgl	mAOD	mbgl	mAOD	mbgl	mAOD
22-Aug-07	12.57	147.90	8.03	183.00	2.52	197.40	0.8	190.90	23.58	164.40	32.49	117.00	11.54	142.90
10-Nov-07	22.17	138.30	12.23	178.80	1.32	198.60	1.2	190.50	28.68	159.30	33.89	115.60	12.44	142.00
16-Jan-08	11.07	149.40	4.93	186.10	2.42	197.50	0.3	191.40	19.08	168.90	27.49	122.00	6.94	147.50
08-Feb-08	11.67	148.80	7.73	183.30	3.72	196.20	0.8	190.90	25.88	162.10	28.89	120.60	8.84	145.60
07-Mar-08	12.37	148.10	9.93	181.10	4.02	195.90	1	190.70	27.68	160.30	30.79	118.70	10.54	143.90
28-Mar-08	12.57	147.90	10.93	180.10	10.22	189.70	0.8	190.90	27.48	160.50	30.19	119.30	11.24	143.20
06-May-08	14.07	146.40	15.13	175.90	11.32	188.60	1.6	190.10	28.58	159.40	33.09	116.40	14.44	140.00
02-Jun-08	15.67	144.80	17.23	173.80	11.32	188.60	1.8	189.90	30.18	157.80	34.99	114.50	15.34	139.10
29-Jun-08	16.47	144.00	17.93	173.10	3.82	196.10	1.3	190.40	30.38	157.60	32.99	116.50	15.84	138.60
03-Aug-08	15.37	145.10	12.73	178.30	3.02	196.90	0.9	190.80	28.28	159.70	31.99	117.50	14.14	140.30
14-Sep-08	11.97	148.50	8.63	182.40	1.32	198.60	0.8	190.90	24.58	163.40	30.89	118.60	10.24	144.20
19-Oct-08	11.07	149.40	4.73	186.30	3.32	196.60	0.3	191.40	22.78	165.20	28.29	121.20	8.44	146.00
07-Dec-08	11.97	148.50	9.13	181.90	3.4	196.52	0.9	190.80	26.28	161.70	29.29	120.20	10.34	144.10
13-Feb-09	12.22	148.25	8.98	182.05	1.16	198.76					29.22	120.27		
09-Apr-09	13.46	147.01	13.44	177.59	4.76	195.16	5.09	186.61	27.98	160.00	32.95	116.54	13.62	140.82
14-May-09	12.70	147.77	11.83	179.20	4.12	195.80	1.27	190.43	26.27	161.71	33.49	116.00	12.03	142.41
12-Jun-09	12.48	147.99	9.96	181.07	3.13	196.79	1.1	190.60	25.98	162.00	36.02	113.47	11.88	142.56
10-Jul-09	12.60	147.87	9.44	181.59	2.85	197.07	1.03	190.67	26.08	161.90	31.89	117.60	11.8	142.64
07-Aug-09	11.80	148.67	8.28	182.75	3.19	196.73	0.8	190.90	21.39	166.59	28.32	121.17	9.7	144.74
17-Sep-09	12.48	147.99	9.4	181.63	6.72	193.20	1.02	190.68	24.06	163.92	31.86	117.63	11.21	143.23
15-Oct-09	14.92	145.55	14.66	176.37	2.19	197.73	1.37	190.33	27.03	160.95	33.43	116.06	14.1	140.34
06-Nov-09	11.62	148.85	7.55	183.48	2.79	197.13	0.82	190.88	21.45	166.53	29.94	119.55	8.42	146.02
04-Dec-09	3.29	157.18	8.23	182.80	3.64	196.28	0.78	190.92	19.95	168.03	27.93	121.56	9.03	145.41
03-Feb-10			9.12	181.91	3.49	196.43	0.92	190.78	20.39	167.59	29.62	119.87	10.81	143.63
18-Feb-10			9.78	181.25	4.42	195.50	0.94	190.76	20.72	167.26	30.37	119.12	11.36	143.08
05-Mar-10			11.19	179.84	3.96	195.96	1.24	190.46	24.94	163.04	32.07	117.42	11.53	142.91
22-Apr-10			10.36	180.67	11.1	188.82	1.22	190.48	25.11	162.87	30.3	119.19	12.59	141.85
17-May-10	3.20	157.27			11.44	188.48	1.78	189.92	26.19	161.79	32.22	117.27	14.22	140.22
04-Jun-10			18.22	172.81	11.97	187.95	2.1	189.60	28.18	159.80	32.47	117.02	14.97	139.47
15-Jul-10			19.51	171.52	11.31	188.61	1.84	189.86	32.04	155.94	33.84	115.65	15.54	138.90
20-Aug-10			19.28	171.75	3.45	196.47	1.24	190.46	31.21	156.77	31.61	117.88	15.22	139.22
02-Sep-10			10.01	181.02	3.67	196.25	0.87	190.83	20.44	167.54	30.05	119.44	10.11	144.33
12-Oct-10			10.02	181.01	3.02	196.90	0.85	190.85	20.53	167.45	30.27	119.22	10.79	143.65
05-Nov-10			8.91	182.12	4.21	195.71	0.79	190.91	20.09	167.89	30.97	118.52	9.33	145.11
10-Dec-10			10.98	180.05	1.34	198.58	0.99	190.71	23.99	163.99	31.05	118.44	11.62	142.82
14-Jan-11	3.17	157.30	3.9	187.13	1.99	197.93	0.15	191.55	16.09	171.89	28.3	121.19	5.41	149.03
15-Feb-11	11.37	149.10	6.63	184.40	11.37	188.55	0.62	191.08	20.21	167.77	30.44	119.05	8.27	146.17

GILFACH QUARRY: MONTHLY GROUNDWATER LEVEL MONITORING DATA

BH ID	BH01/07		BH02/07		BH03/07		BH04/07		BH05/07		BH07/07		BH10/07	
Ref. Elev. mAOD	160.47		191.03		199.92		191.7		187.98		149.49		154.44	
Piezo depth (mbgl)	27.0		33.0		36.5		30.5		41.0		46.0		35.0	
	mbgl	mAOD	mbgl	mAOD	mbgl	mAOD	mbgl	mAOD	mbgl	mAOD	mbgl	mAOD	mbgl	mAOD
15-Mar-11	13.20	147.27	12.84	178.19	4.99	194.93	1.11	190.59	23.57	164.41	31.60	117.89	11.83	142.61
11-Apr-11	12.19	148.28	9.50	181.53	3.53	196.39	0.99	190.71	23.59	164.39	32.86	116.63	10.61	143.83
16-May-11	14.85	145.62	16.92	174.11	11.06	188.86	1.57	190.13	25.27	162.71	33.95	115.54	14.24	140.20
06-Jun-11	16.15	144.32	17.46	173.57	10.52	189.40	1.24	190.46	26.13	161.85	33.83	115.66	14.83	139.61
11-Jul-11	12.66	147.81	9.10	181.93	2.65	197.27	0.86	190.84	21.92	166.06	30.90	118.59	10.61	143.83
15-Aug-11	13.88	146.59	13.19	177.84	3.62	196.30	0.98	190.72	23.89	164.09	32.94	116.55	13.33	141.11
07-Sep-11	12.65	147.82	7.65	183.38	2.19	197.73	0.60	191.10	21.90	166.08	31.26	118.23	11.75	142.69
13-Oct-11	13.18	147.29	11.99	179.04	4.53	195.39	0.98	190.72	23.86	164.12	32.36	117.13	12.22	142.22
10-Nov-11	12.52	147.95	10.56	180.47	3.69	196.23	0.76	190.94	21.34	166.64	31.31	118.18	10.77	143.67
01-Dec-11	11.57	148.90	6.99	184.04	2.25	197.67	0.66	191.04	22.39	165.59	30.78	118.71	9.27	145.17
04-Jan-12	11.04	149.43	5.30	185.73	1.67	198.25	0.46	191.24	20.83	167.15	29.61	119.88	7.42	147.02
02-Feb-12	10.86	149.61	5.16	185.87	1.59	198.33	0.38	191.32	20.14	167.84	29.07	120.42	7.11	147.33
01-Mar-12	12.40	148.07	10.22	180.81	4.07	195.85	1.03	190.67	22.91	165.07	31.35	118.14	10.77	143.67
03-Apr-12	13.82	146.65	15.44	175.59	9.42	190.50	1.57	190.13	25.15	162.83	32.47	117.02	13.49	140.95
21-May-12	12.65	147.82	11.64	179.39	4.38	195.54	1.03	190.67	22.72	165.26	31.55	117.94	11.34	143.10
12-Jun-12	12.62	147.85	11.62	179.41	4.36	195.56	1.02	190.68	27.70	160.28	31.53	117.96	11.33	143.11
10-Jul-12	11.81	148.66	11.63	179.40	4.35	195.57	1.00	190.70	27.67	160.31	30.44	119.05	9.59	144.85
02-Aug-12	13.08	147.39	12.02	179.01	4.80	195.12	0.96	190.74	28.92	159.06	10.70	138.79	10.70	143.74
25-Oct-12	12.60	147.87	11.25	179.78	4.40	195.52	1.12	190.58	21.60	166.38	31.10	118.39	11.08	143.36
08-Nov-12	11.90	148.57	8.73	182.30	3.40	196.52	0.90	190.80	19.35	168.63	30.85	118.64	9.70	144.74
18-Dec-12	11.35	149.12	6.60	184.43	2.25	197.67	0.70	191.00	19.30	168.68	28.00	121.49	9.00	145.44
28-Jan-13	11.07	149.40	5.64	185.39	1.85	198.07	0.57	191.13	19.18	168.80	27.93	121.56	8.13	146.31
01-Feb-13	11.20	149.27	6.20	184.83	1.72	198.20	0.56	191.14	18.38	169.60	27.90	121.59	7.67	146.77
01-Mar-13	13.00	147.47	13.30	177.73	5.00	194.92	1.40	190.30	24.15	163.83	28.60	120.89	12.00	142.44
24-Apr-13	14.50	145.97	14.95	176.08	5.20	194.72	1.50	190.20	25.40	162.58	29.40	120.09	14.20	140.24
29-May-13	13.02	147.45	13.33	177.70	4.53	195.39	1.00	190.70	24.40	163.58	29.01	120.48	12.70	141.74
14-Jun-13	13.78	146.69	16.30	174.73	5.10	194.82	1.51	190.19	24.93	163.05	29.39	120.10	13.75	140.69
22-Jul-13	14.18	146.29	15.39	175.64	5.49	194.43	1.71	189.99	25.09	162.89	29.41	120.08	14.38	140.06
27-Aug-13	13.51	146.96	13.09	177.94	4.57	195.35	1.17	190.53	23.98	164.00	29.23	120.26	11.42	143.02
24-Sep-13	13.07	147.40	9.46	181.57	3.36	196.56	0.91	190.79	21.87	166.11	29.23	120.26	10.57	143.87
18-Oct-13	14.12	146.35	14.66	176.37	5.81	194.11	1.24	190.46	23.86	164.12	29.49	120.00	13.55	140.89
29-Nov-13	12.87	147.60	12.52	178.51	4.67	195.25	1.08	190.62	21.64	166.34	27.68	121.81	11.78	142.66
17-Dec-13	11.74	148.73	6.30	184.73	1.89	198.03	0.57	191.13			27.57	121.92	10.49	143.95
24-Jan-14	12.02	148.45	10.16	180.87	2.96	196.96	0.79	190.91			28.09	121.40	11.97	142.47
24-Feb-14	11.84	148.63	8.93	182.10	3.03	196.89	0.66	191.04			27.77	121.72	10.00	144.44
27-Mar-14	13.40	147.07	12.86	178.17	3.92	196.00	0.98	190.72			28.25	121.24	13.00	141.44
22-Apr-14	13.04	147.43	13.68	177.35	10.99	188.93	9.01	182.69			28.31	121.18	14.54	139.90

GILFACH QUARRY: MONTHLY GROUNDWATER LEVEL MONITORING DATA

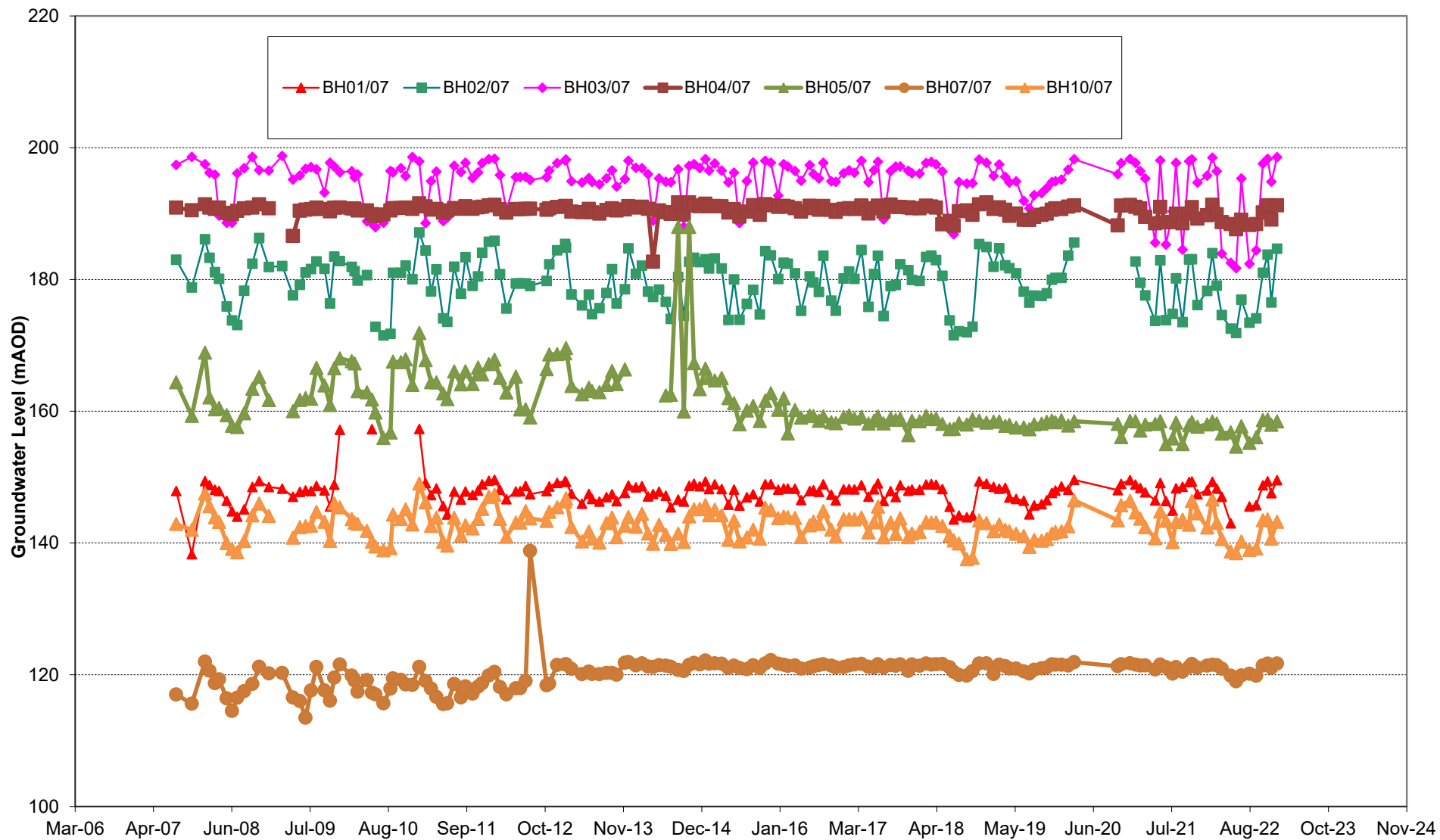
BH ID	BH01/07		BH02/07		BH03/07		BH04/07		BH05/07		BH07/07		BH10/07	
Ref. Elev. mAOD	160.47		191.03		199.92		191.7		187.98		149.49		154.44	
Piezo depth (mbgl)	27.0		33.0		36.5		30.5		41.0		46.0		35.0	
	mbgl	mAOD	mbgl	mAOD	mbgl	mAOD	mbgl	mAOD	mbgl	mAOD	mbgl	mAOD	mbgl	mAOD
22-May-14	12.69	147.78	12.57	178.46	4.59	195.33	1.22	190.48			28.05	121.44	11.68	142.76
26-Jun-14	13.30	147.17	14.43	176.60	5.08	194.84	1.50	190.20	25.59	162.39	28.11	121.38	13.18	141.26
21-Jul-14	15.05	145.42	17.02	174.01	5.16	194.76	1.75	189.95	25.48	162.50	28.29	121.20	14.56	139.88
28-Aug-14	13.88	146.59	10.65	180.38	3.19	196.73		191.70		187.98	28.76	120.73	13.02	141.42
26-Sep-14	14.17	146.30	16.52	174.51	11.92	188.00	1.87	189.83	28.03	159.95	28.93	120.56	14.28	140.16
23-Oct-14	11.79	148.68	8.35	182.68	2.68	197.24		191.70		187.98	28	121.49	10.4	144.04
17-Nov-14	11.48	148.99	7.74	183.29	2.4	197.52	0.48	191.22	20.68	167.30	27.69	121.80	9.32	145.12
16-Dec-14	11.85	148.62	8.39	182.64	3	196.92	0.6	191.10	24.63	163.35	27.94	121.55	9.28	145.16
14-Jan-15	11.14	149.33	7.95	183.08	1.65	198.27	0.21	191.49	21.5	166.48	27.32	122.17	8.67	145.77
02-Feb-15	12.28	148.19	9.36	181.67	3.4	196.52	0.59	191.11	22.94	165.04	27.83	121.66	10.23	144.21
03-Mar-15	11.56	148.91	7.83	183.20	2.3	197.62	0.56	191.14	23.31	164.67	27.76	121.73	9.37	145.07
07-Apr-15	12.28	148.19	9.36	181.67	3.4	196.52	0.59	191.11	22.94	165.04	27.83	121.66	10.23	144.21
12-May-15	14.65	145.82	17.16	173.87	5.18	194.74	1.54	190.16	25.99	161.99	28.47	121.02	13.96	140.48
09-Jun-15	12.35	148.12	11.03	180	3.7	196.22	1.03	190.67	26.76	161.22	28.12	121.37	11.03	143.41
07-Jul-15	14.78	145.69	17.15	173.88	11.35	188.57	2.16	189.54	29.96	158.02	28.46	121.03	14.19	140.25
14-Aug-15	13.54	146.93	14.74	176.29	4.99	194.93	1.41	190.29	27.87	160.11	28.66	120.83	13.58	140.86
15-Sep-15	13.08	147.39	12.61	178.42	2.18	197.74	0.43	191.27	27.17	160.81	28.07	121.42	12.41	142.03
19-Oct-15	14.18	146.29	16.33	174.7	9.75	190.17	1.89	189.81	29.47	158.51	28.49	121	13.77	140.67
16-Nov-15	11.55	148.92	6.72	184.31	1.91	198.01	0.28	191.42	26.37	161.61	27.78	121.71	9.06	145.38
14-Dec-15	11.52	148.95	7.36	183.67	2.19	197.73	0.44	191.26	25.25	162.73	27.28	122.21	9.43	145.01
21-Jan-16	12.37	148.1	10.95	180.08	7.17	192.75	0.68	191.02	27.76	160.22	27.83	121.66	10.65	143.79
18-Feb-16	12.19	148.28	8.48	182.55	2.41	197.51	0.53	191.17	26.01	161.97	27.98	121.51	10.4	144.04
10-Mar-16	12.21	148.26	8.64	182.39	2.79	197.13	0.66	191.04	31.35	156.63	28.16	121.33	10.51	143.93
15-Apr-16	12.23	148.24	10.08	180.95	3.44	196.48	0.88	190.82	27.78	160.2	28.08	121.41	10.62	143.82
17-May-16	13.95	146.52	15.79	175.24	4.94	194.98	1.4	190.3	28.95	159.03	28.56	120.93	13.53	140.91
30-Jun-16	12.59	147.88	10.56	180.47	2.56	197.36	0.52	191.18	28.63	159.35	28.44	121.05	11.74	142.7
19-Jul-16	12.46	148.01	11.48	179.55	3.91	196.01	0.89	190.81	28.7	159.28	28.23	121.26	11.19	143.25
16-Aug-16	12.71	147.76	12.91	178.12	4.58	195.34	1.13	190.57	29.42	158.56	28.03	121.46	11.54	142.9
07-Sep-16	11.56	148.91	7.43	183.6	2.21	197.71	0.56	191.14	28.76	159.22	27.89	121.6	9.59	144.85
18-Oct-16	13.14	147.33	14.25	176.78	5	194.92	1.14	190.56	29.65	158.33	28.12	121.37	12.4	142.04
10-Nov-16	14	146.47	15.76	175.27	5.1	194.82	1.44	190.26	29.8	158.18	28.38	121.11	13.47	140.97
20-Dec-16	12.31	148.16	10.88	180.15	3.8	196.12	1	190.7	28.85	159.13	28.33	121.16	10.83	143.61
17-Jan-17	12.28	148.19	9.81	181.22	3.35	196.57	0.88	190.82	28.61	159.37	28.09	121.4	10.82	143.62
13-Feb-17	12.34	148.13	10.93	180.1	3.72	196.2	1.01	190.69	29.09	158.89	27.93	121.56	10.84	143.6
21-Mar-17	11.69	148.78	6.56	184.47	1.91	198.01	0.49	191.21	28.84	159.14	27.85	121.64	10.57	143.87
26-Apr-17	13.44	147.03	15.17	175.86	5.15	194.77	1.69	190.01	29.85	158.13	28.29	121.2	12.83	141.61
24-May-17	12.32	148.15	10.19	180.84	3.33	196.59	0.9	190.8	29.41	158.57	28.38	121.11	11.29	143.15

GILFACH QUARRY: MONTHLY GROUNDWATER LEVEL MONITORING DATA

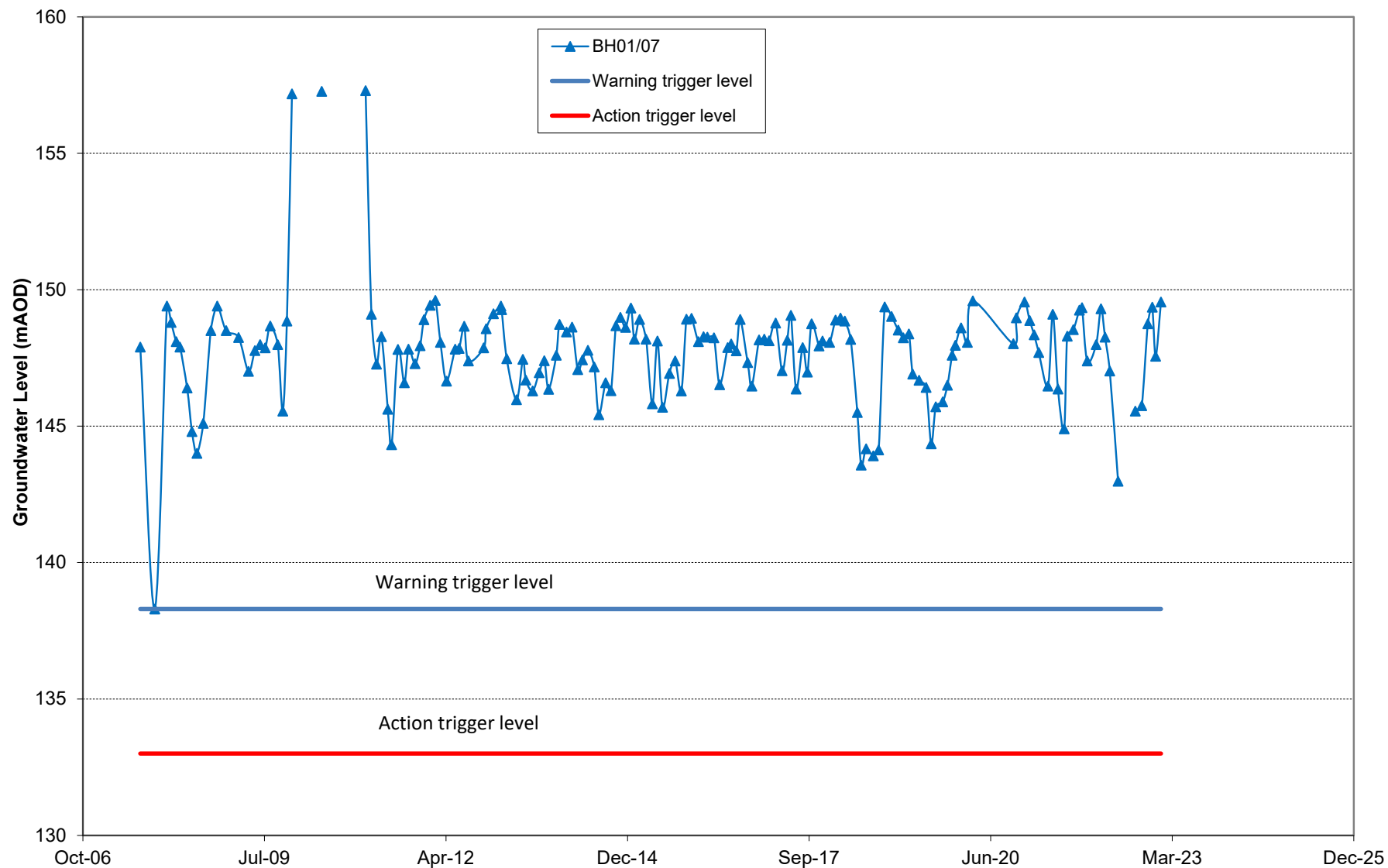
BH ID	BH01/07		BH02/07		BH03/07		BH04/07		BH05/07		BH07/07		BH10/07	
Ref. Elev. mAOD	160.47		191.03		199.92		191.7		187.98		149.49		154.44	
Piezo depth (mbgl)	27.0		33.0		36.5		30.5		41.0		46.0		35.0	
	mbgl	mAOD	mbgl	mAOD	mbgl	mAOD	mbgl	mAOD	mbgl	mAOD	mbgl	mAOD	mbgl	mAOD
13-Jun-17	11.41	149.06	7.42	183.61	2.05	197.87	0.5	191.2	28.76	159.22	27.91	121.58	8.91	145.53
12-Jul-17	14.11	146.36	16.58	174.45	10.8	189.12	1.41	190.29	29.83	158.15	28.39	121.1	13.57	140.87
17-Aug-17	12.59	147.88	12.04	178.99	3.47	196.45	0.34	191.36	29.03	158.95	28.02	121.47	11.35	143.09
12-Sep-17	13.49	146.98	11.86	179.17	2.79	197.13	0.68	191.02	29.27	158.71	28.13	121.36	13.05	141.39
05-Oct-17	11.72	148.75	8.7	182.33	2.76	197.16	0.7	191	29.1	158.88	27.91	121.58	10.68	143.76
15-Nov-17	12.53	147.94	9.61	181.42	3.42	196.5	0.75	190.95	31.62	156.36	28.9	120.59	13.54	140.9
04-Dec-17	12.35	148.12	11.09	179.94	3.79	196.13	0.89	190.81	29.43	158.55	27.94	121.55	12.99	141.45
12-Jan-18	12.4	148.07	11.25	179.78	3.85	196.07	0.9	190.8	29.5	158.48	28.14	121.35	12.75	141.69
14-Feb-18	11.58	148.89	7.6	183.43	2.24	197.68	0.51	191.19	28.7	159.28	27.79	121.7	11.26	143.18
13-Mar-18	11.51	148.96	7.41	183.62	2.07	197.85	0.63	191.07	29.17	158.81	27.96	121.53	11.35	143.09
06-Apr-18	11.62	148.85	8.08	182.95	2.43	197.49	0.79	190.91	29.08	158.9	27.89	121.6	11.32	143.12
08-May-18	12.29	148.18	10.48	180.55	3.52	196.4	3.33	188.37	29.9	158.08	27.86	121.63	11.83	142.61
14-Jun-18	14.97	145.50	17.24	173.79	12.36	187.56	2.82	188.88	30.69	157.29	28.35	121.14	13.31	141.13
05-Jul-18	16.9	143.57	19.5	171.53	13.05	186.87	3.56	188.14	30.65	157.33	29.05	120.44	14.05	140.39
01-Aug-18	16.3	144.17	18.9	172.13	5.12	194.8	1.35	190.35	29.8	158.18	29.53	119.96	14.5	139.94
10-Sep-18	16.56	143.91	19.04	171.99	5.36	194.56	1.21	190.49	29.99	157.99	29.62	119.87	16.89	137.55
09-Oct-18	16.34	144.13	18.2	172.83	5.3	194.62	1.9	189.8	29.2	158.78	28.95	120.54	16.68	137.76
12-Nov-18	11.1	149.37	5.65	185.38	1.7	198.22	0.3	191.4	29.4	158.58	27.78	121.71	11.02	143.42
19-Dec-18	11.45	149.02	6.1	184.93	2.2	197.72		191.7	29.7	158.28	27.76	121.73	11.42	143.02
25-Jan-19	11.95	148.52	9.09	181.94	4.2	195.72	1	190.7	29.56	158.42	29.38	120.11	12.65	141.79
22-Feb-19	12.23	148.24	6.29	184.74	2.45	197.47	0.75	190.95	29.53	158.45	27.98	121.51	11.63	142.81
25-Mar-19	12.09	148.38	8.87	182.16	4.33	195.59	1.12	190.58	30.2	157.78	28.2	121.29	12.43	142.01
15-Apr-19	13.56	146.91	9.32	181.71	5.2	194.72	2.04	189.66	30.04	157.94	28.54	120.95	12.65	141.79
20-May-19	13.79	146.68	10.09	180.94	5.03	194.89	1.69	190.01	30.45	157.53	28.56	120.93	13.03	141.41
28-Jun-19	14.05	146.42	12.89	178.14	7.98	191.94	2.65	189.05	30.42	157.56	28.98	120.51	13.37	141.07
26-Jul-19	16.12	144.35	14.54	176.49	9.12	190.8	2.67	189.03	30.71	157.27	29.32	120.17	15.02	139.42
20-Aug-19	14.76	145.71	13.47	177.56	7.12	192.8	2.21	189.49	29.98	158	28.74	120.75	13.97	140.47
27-Sep-19	14.58	145.89	13.52	177.51	6.81	193.11	1.89	189.81	29.87	158.11	28.52	120.97	14.09	140.35
23-Oct-19	13.97	146.5	13.12	177.91	6.03	193.89	1.72	189.98	29.59	158.39	28.39	121.1	13.82	140.62
18-Nov-19	12.87	147.6	11.07	179.96	5.13	194.79	1.12	190.58	29.41	158.57	27.92	121.57	12.99	141.45
06-Dec-19	12.51	147.96	10.78	180.25	5.01	194.91	0.91	190.79	29.65	158.33	27.98	121.51	12.76	141.68
06-Jan-20	11.87	148.6	10.79	180.24	4.76	195.16	1.02	190.68	29.35	158.63	27.98	121.51	12.67	141.77
10-Feb-20	12.4	148.07	7.4	183.63	3.25	196.67	0.65	191.05	30.15	157.83	28.1	121.39	11.9	142.54
11-Mar-20	10.88	149.59	5.42	185.61	1.66	198.26	0.47	191.23	29.5	158.48	27.58	121.91	7.96	146.48
20-Oct-20	12.45	148.02	191.03		3.95	195.97	3.49	188.21	29.91	158.07	28.2	121.29	11	143.44
06-Nov-20	11.5	148.97	191.03		2.25	197.67	0.48	191.22	31.9	156.08	27.9	121.59	8.7	145.74
21-Dec-20	10.92	149.55	191.03		1.62	198.3	0.39	191.31	29.45	158.53	27.75	121.74	8.05	146.39

GILFACH QUARRY: MONTHLY GROUNDWATER LEVEL MONITORING DATA

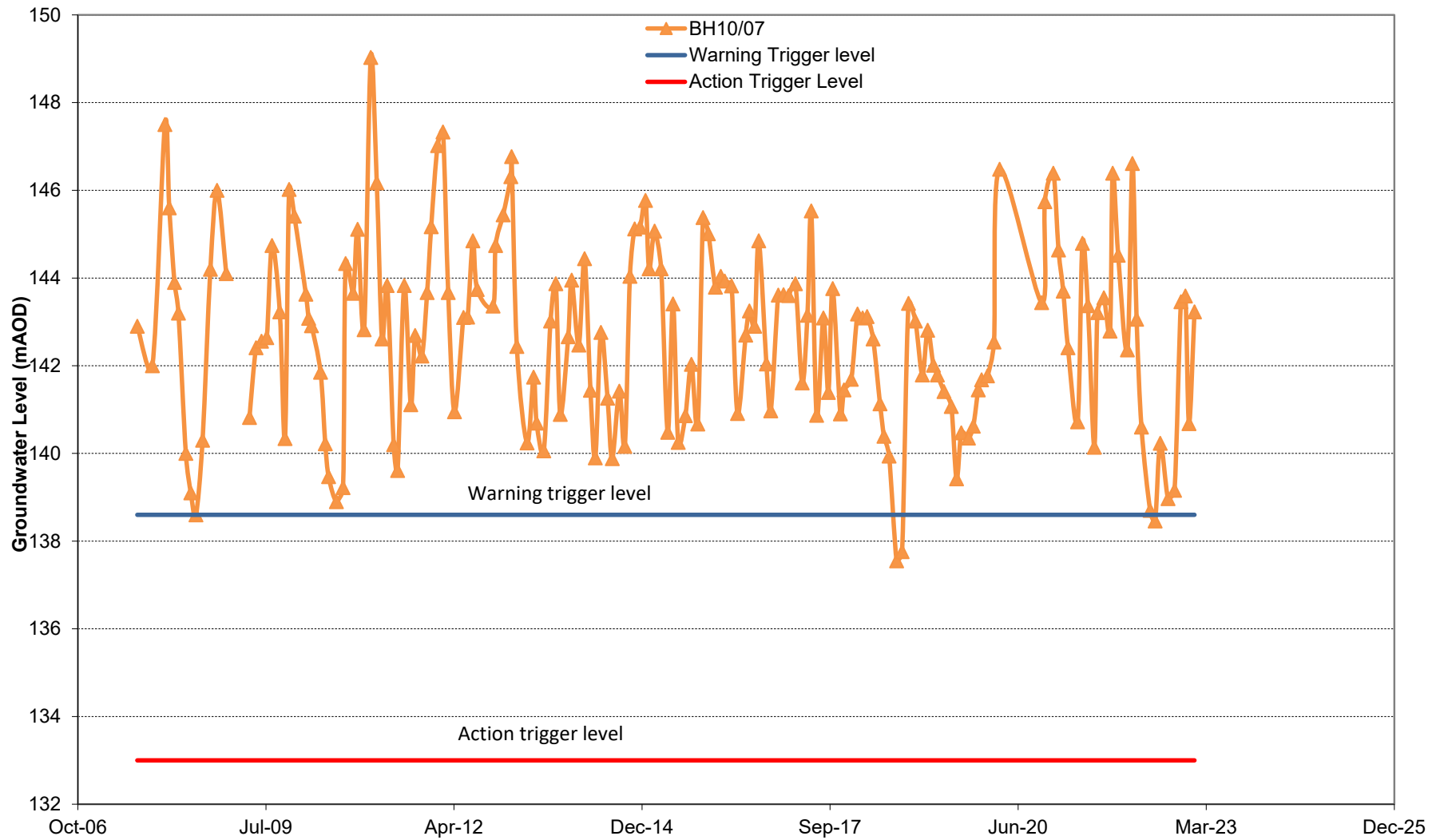
BH ID	BH01/07		BH02/07		BH03/07		BH04/07		BH05/07		BH07/07		BH10/07	
Ref. Elev. mAOD	160.47		191.03		199.92		191.7		187.98		149.49		154.44	
Piezo depth (mbgl)	27.0		33.0		36.5		30.5		41.0		46.0		35.0	
	mbgl	mAOD	mbgl	mAOD	mbgl	mAOD	mbgl	mAOD	mbgl	mAOD	mbgl	mAOD	mbgl	mAOD
18-Jan-21	11.6	148.87	8.3	182.73	2.22	197.7	0.68	191.02	29.5	158.48	27.95	121.54	9.8	144.64
12-Feb-21	12.12	148.35	11.52	179.51	3.47	196.45	0.92	190.78	30.92	157.06	28.1	121.39	10.74	143.7
09-Mar-21	12.77	147.7	13.45	177.58	4.58	195.34	2.21	189.49	30	157.98	28.08	121.41	12.03	142.41
29-Apr-21	14	146.47	17.32	173.71	14.32	185.6	3.18	188.52	29.9	158.08	28.69	120.8	13.72	140.72
25-May-21	11.37	149.1	8.12	182.91	1.85	198.07	0.69	191.01	29.48	158.5	27.95	121.54	9.65	144.79
23-Jun-21	14.11	146.36	17.2	173.83	14.62	185.3	3.04	188.66	32.98	155	28.33	121.16	11.07	143.37
27-Jul-21	15.57	144.9	16.25	174.78	9.57	190.35	3.01	188.69	32.1	155.88	29.33	120.16	14.3	140.14
13-Aug-21	12.17	148.3	10.86	180.17	2.21	197.71	1.72	189.98	29.7	158.28	28.33	121.16	11.23	143.21
16-Sep-21	11.93	148.54	17.5	173.53	15.4	184.52	3.18	188.52	32.98	155	29.04	120.45	10.89	143.55
19-Oct-21	11.22	149.25	7.99	183.04	1.97	197.95	1.7	190	30.1	157.88	28.33	121.16	11.65	142.79
02-Nov-21	11.13	149.34	7.95	183.08	1.68	198.24	0.72	190.98	29.6	158.38	27.87	121.62	8.05	146.39
01-Dec-21	13.08	147.39	14.9	176.13	5.21	194.71	2.47	189.23	30.33	157.65	28.42	121.07	9.92	144.52
19-Jan-22	12.48	147.99	12.77	178.26	4.17	195.75	1.95	189.75	29.98	158	28.12	121.37	12.08	142.36
15-Feb-22	11.17	149.3	7.04	183.99	1.43	198.49	0.38	191.32	29.53	158.45	27.97	121.52	7.83	146.61
09-Mar-22	12.21	148.26	11.96	179.07	3.48	196.44	1.8	189.9	29.85	158.13	28.05	121.44	11.38	143.06
04-Apr-22	13.45	147.02	16.43	174.6	16	183.92	3	188.7	31.38	156.6	28.58	120.91	13.84	140.6
20-May-22	17.49	142.98	18.49	172.54	17.4	182.52	3.3	188.4	31.17	156.81	29.64	119.85	15.74	138.7
16-Jun-22			19.15	171.88	18.21	181.71	4.09	187.61	33.35	154.63	30.49	119	15.98	138.46
13-Jul-22			14.1	176.93	4.59	195.33	2.64	189.06	30.26	157.72	29.61	119.88	14.21	140.23
23-Aug-22	14.92	145.55	17.58	173.45	17.55	182.37	3.45	188.25	32.78	155.2	29.35	120.14	15.47	138.97
27-Sep-22	14.72	145.75	16.92	174.11	15.49	184.43	3.3	188.4	31.93	156.05	29.65	119.84	15.28	139.16
31-Oct-22	11.72	148.75	10.01	181.02	2.34	197.58	1.53	190.17	29.32	158.66	28.1	121.39	10.98	143.46
24-Nov-22	11.11	149.36	7.25	183.78	1.6	198.32	0.44	191.26	29.23	158.75	27.8	121.69	10.85	143.59
13-Dec-22	12.91	147.56	14.51	176.52	5.08	194.84	2.62	189.08	30.03	157.95	28.43	121.06	13.76	140.68
11-Jan-23	10.92	149.55	6.35	184.68	1.35	198.57	0.44	191.26	29.52	158.46	27.79	121.7	11.21	143.23



GILFACH QUARRY - COMPOSITE LONG TERM GROUNDWATER HYDROGRAPH



GILFACH QUARRY - BH01/07 HYDROGRAPH AND TRIGGER LEVELS



GILFACH QUARRY - BH10/07 HYDROGRAPH AND TRIGGER LEVELS

Gilfach Quarry: Cefn Faes Uchaf Farm Spring Water Level (masl)

July 2021 - January 2023

