M60/M62/M66 Simister Island Interchange

TR010064

ENVIRONMENTAL STATEMENT APPENDICES

APPENDIX 9.1 CHEMICAL RESULTS SCREENING TABLE

APFP Regulation 5(2)(a)

Planning Act 2008

Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

VOLUME 6.3

April 2024

Infrastructure Planning

Planning Act 2008

The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

M60/M62/M66 Simister Island Interchange

Development Consent Order 202[ ]

ENVIRONMENTAL STATEMENT APPENDICES
APPENDIX 9.1 CHEMICAL RESULTS SCREENING TABLE

Regulation Reference	Regulation 5(2)(a)
Planning Inspectorate Scheme Reference	TR010064
Application Document Reference	TR010064/APP/6.3
Author	M60/M62/M66 Simister Island Interchange Costain Jacobs Partnership Project Team & National Highways

Version	Date	Status of Version
P01	April 2024	FOR DCO APPLICATION

CONTENTS

Appendix 9.1 Chemical results screening table

1.1 Introduction

1.1.1 The following tables present a summary of chemical results gained from three ground investigations to support the assessment in Chapter 9: Geology and Soils of the Environmental Statement (TR10064/APP/6.1). These are extracted from Appendix 9.3: Ground Investigation Report of the Environmental Statement Appendices (TR10064/APP/6.3) for ease of reference.

1.1.2 This appendix is also supported by Figure 9.1.1: Ground Investigation Locations in Annex A.

1.2 Chronic and acute human health generic assessment criteria screening tables

Project Name: M60/M62/M66 Simister Island
Sample Date: 28/06/2021 - 03/03/2023

					Sample Location	BH02	BH02	BH02	BH04	BH04	BH04	BH05	BH05	BH05	BH06	BH06	BH06	BH06	BH07	BH07	BH07	BH07	BH08	BH08	BH08	BH10	BH10A	BH10A	BH11
					Sampled Date	10/02/2023	14/02/2023	14/02/2023	15/02/2023	17/02/2023	17/02/2023	15/02/2022	16/02/2023	17/02/2023	16/02/2023	20/02/2023	21/02/2023	21/02/2023	24/02/2023	27/02/2023	02/03/2023	03/03/2023	20/02/2023	01/03/2023	02/03/2023	23/01/2023	26/01/2023	08/02/2023	16/01/2023
					Top Depth (m)	1	2.2	4	1	3	5	1	3	7	1	2	8.2	10.2	1	2	8	11	1	2.1	3.2	1	0.9	2	0.9
					Base Depth (m)																								
Analyte Group	Analyte	Unit	Commercial/Industrial 1% SOM Threshold	Threshold Source	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Asbestos	Asbestos (Presence of)	none			NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD
Asbestos	Asbestos Identification.	none																											
Asbestos	Asbestos Quantification Stage 2	%																											
Asbestos	Asbestos Quantification (Total %)	%																									-		
Inorganics	Percent Moisture	%			4.3	9.8	12	5.9	7.1	18	2.2	16	8	3.6	20	13	17	1.8	11	26	23	9.5	8.9	12	4.8	6.1	18	5.8
Inorganics	pH	pH UNITS			8.6	7.9	7.1	8.8	8.3	7.7	11.4	8.8	7.7	8.8	9	8.5	7.6	8.8	9	9.5	6.9	8.8	8.6	8.2	9.1	8.7	7.7	8.6
Inorganics	Total Organic Carbon	%																											
Inorganics	Total Organic Matter	%			0.5	0.7	2.3	0.9	0.6	0.8	4.3	3	0.5	5.4	1.5	1.3	2.6	6.1	5.1	1.7	3.6	1.4	1	1.4	0.6	0.8	1.1	0.3
Inorganics	Cyanide (Free)	mg/kg			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Inorganics	Cyanide (Total)	mg/kg			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Metals	Antimony	mg/kg	7500	EIC	<1	1.6	2.9	1.9	<1	1.4	<1	4.3	<1	<1	4.5	1.8	<1	<1	1.4	4.6	<1	<1	<1	<1	<1	1.6	<1	<1
Metals	Arsenic	mg/kg	640	C4SL	3.3	3.4	5.1	4.4	1.7	3.8	2.5	56	4.5	2	100	21	4.6	2.7	16	98	2.6	2.4	2.9	4.4	3.9	3.8	6.7	4.3
Metals	Barium	mg/kg	22000	EIC	90	35	180	200	52	25	56	980	100	120	1200	430	50	150	430	760	94	85	110	38	150	150	150	220
Metals	Beryllium	mg/kg	12	S4UL	0.27	0.38	1.4	0.5	0.41	0.39	0.11	1.8	0.43	0.3	3.2	0.83	0.37	0.22	0.66	3.2	0.31	0.58	0.54	0.34	0.37	0.36	0.47	0.45
Metals	Boron	mg/kg	240000	S4UL																									
Metals	Boron (Water Soluble)	mg/kg			<0.2	0.2	0.4	<0.2	0.2	0.2	0.5	0.8	2.4	0.5	5.3	17	1.3	0.3	1.1	50	1	0.4	<0.2	0.2	<0.2	0.3	0.8	<0.2	
Metals	Cadmium	mg/kg	410	C4SL	<0.2	<0.2	0.5	0.3	<0.2	<0.2	0.6	<0.2	<0.2	0.6	<0.2	<0.2	<0.2	0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.3	0.3	<0.2	0.3	
Metals	Chromium, Hexavalent (Cr6+)	mg/kg	49	C4SL	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	2.5	1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	
Metals	Chromium, Trivalent (Cr3+)	mg/kg	8600	S4UL	10	11	34	15	9.9	7.4	5.4	23	9.8	6.2	37	19	9.7	7.8	15	38	9.5	11	12	12	12	11	12	14	
Metals	Chromium	mg/kg	8600	S4UL	10	11	34	15	10	7.8	5.5	24	9.8	6.3	37	20	10	8	16	38	12	13	13	12	12	11	12	14	
Metals	Copper	mg/kg	68000	S4UL	12	9.5	27	11	13	16	4.4	45	5.8	4.6	78	29	14	8.9	21	88	14	13	12	13	12	13	17	15	
Metals	Lead	mg/kg	2300	C4SL	3.8	9.5	35	8	5.6	7.3	8.6	30	7.5	11	45	16	8.4	15	18	36	12	12	14	6.8	7	5.4	10	6.8	
Metals	Mercury	mg/kg	1100	S4UL	<0.1	<0.3	<0.3	<0.1	<0.3	<0.3	<0.1	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	
Metals	Molybdenum	mg/kg	17000	EIC	<0.25	0.45	0.99	<0.25	0.54	0.29	0.62	1.9	0.67	0.44	3	3.7	1.2	0.55	2.1	8.6	<0.25	0.26	0.87	1.3	0.29	0.31	0.35	<0.25	
Metals	Nickel	mg/kg	980	S4UL	14	10	38	23	19	11	5.3	29	10	6.4	46	18	16	8.4	15	48	11	13	16	8.9	19	17	17	22	
Metals	Selenium	mg/kg	12000	S4UL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Metals	Vanadium	mg/kg	9000	S4UL	11	12	31	16	15	11	9.3	56	11	12	95	31	11	17	25	99	10	14	13	9.1	13	12	14	14	
Metals	Zinc	mg/kg	730000	S4UL	30	31	110	47	25	30	28	48	36	28	79	43	41	38	60	62	24	34	72	25	42	42	45	49	
TPHCWG	TPH Aliphatic >C5-C6	mg/kg	3200	S4UL	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
TPHCWG	TPH Aliphatic >C6-C8	mg/kg	7800	S4UL	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
TPHCWG	TPH Aliphatic >C8-C10	mg/kg	2000	S4UL	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
TPHCWG	TPH Aliphatic >C10-C12	mg/kg	9700	S4UL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	7.6	<1	
TPHCWG	TPH Aliphatic >C12-C16	mg/kg	59000	S4UL	<2	<2	2.6	<2	<2	<2	6	<2	<2	<2	<2	<2	<2	2.5	<2	<2	<2	<2	<2	<2	<2	<2	2.3	<2	
TPHCWG	TPH Aliphatic >C16-C21	mg/kg	1600000	S4UL	<8	<8	<8	<8	<8	<8	15	<8	<8	<8	<8	13	<8	12	<8	<8	<8	<8	<8	<8	<8	<8	<8	<8	
TPHCWG	TPH Aliphatic >C21-C35	mg/kg	1600000	S4UL	<8	<8	<8	33	<8	<8	200	62	12	240	<8	18	<8	480	240	<8	<8	<8	<8	<8	<8	<8	<8	<8	
TPHCWG	TPH Aliphatic >C35-C44	mg/kg	1600000	S4UL	<8.4	<8.4	<8.4	14	<8.4	<8.4	200	43	<8.4	260	<8.4	<8.4	<8.4	690	380	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	
TPHCWG	TPH Aliphatic >C5-C35	mg/kg			<10	<10	<10	38	<10	<10	220	63	19	250	<10	31	<10	500	240	<10	<10	<10	<10	<10	<10	<10	18	<10	
TPHCWG	TPH Aliphatic >C5-C44	mg/kg			<10	<10	<10	52	<10	<10	420	110	19	500	<10	31	<10	1200	630	<10	<10	<10	<10	<10	<10	<10	18	<10	
TPHCWG	TPH Aromatic >C5-C7	mg/kg	26000	S4UL	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
TPHCWG	TPH Aromatic >C7-C8	mg/kg	56000	S4UL	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
TPHCWG	TPH Aromatic >C8-C10	mg/kg	3500	S4UL	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
TPHCWG	TPH Aromatic >C10-C12	mg/kg	16000	S4UL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	6.4	<1	
TPHCWG	TPH Aromatic >C12-C16	mg/kg	36000	S4UL	<2	<2	<2	<2	<2	<2	3.9	<2	<2	<2	<2	<2	<2	10	3.7	<2	<2	<2	<2	<2	<2	<2	5.6	<2	
TPHCWG	TPH Aromatic >C16-C21	mg/kg	28000	S4UL	<10	<10	<10	<10	<10	<10	17	<10	<10	15	<10	<10	<10	80	18	<10	<10	<10	<10	<10	<10	<10	<10	<10	
TPHCWG	TPH Aromatic >C21-C35	mg/kg	28000	S4UL	<10	<10	<10	36	<10	<10	330	89	13	420	<10	<10	<10	1100	370	<10	<10	<10	<10	<10	<10	<10	<10	<10	
TPHCWG	TPH Aromatic >C35-C44	mg/kg	28000	S4UL	<8.4	<8.4	<8.4	34	<8.4	<8.4	520	120	9.4	680	<8.4	<8.4	<8.4	1200	560	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	
TPHCWG	TPH Aromatic >C5-C35	mg/kg			<10	<10	<10	42	<10	<10	350	95	19	440	<10	<10	<10	1200	390	<10	<10	<10	<10	<10	<10	<10	19	<10	
TPHCWG	TPH Aromatic >C5-C44	mg/kg			<10	<10	<10	76	<10	<10	870	210	28	1100	<10	<10	<10	2400	960	<10	<10	<10	<10	<10	<10	<10	19	<10	
TPHCWG	TPH Aliphatic & Aromatic >C5-C44	mg/kg																											
TPHCWG	TPH HI - Commercial Industrial SOM 1% GAC	none	1		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Other TPH	Petroleum Range Organics	mg/kg			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
PAH	Naphthalene	mg/kg	190	S4UL	<0.05	<0.05	<0.05	<0.05	0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.15	<0.05	0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
PAH	Fluorene	mg/kg	63000	S4UL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.47	0.06	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
PAH	Acenaphthylene	mg/kg	83000	S4UL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.08	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
PAH	Acenaphthene	mg/kg	84000	S4UL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.54	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
PAH	Anthracene	mg/kg	520000	S4UL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.13	<0.05	<0.05	0.22	<0.05	<0.05	<0.05	1.6	0.23	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
PAH	Phenanthrene	mg/kg	22000	S4UL	<0.05	<0.05	0.15	<0.05	0.06	<0.05	0.18	0.14	<0.05	0.35	<0.05	0.1	0.12	4.6	0.7	0.05	0.08	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
PAH	Fluoranthene	mg/kg	23000	S4UL	<0.05	<0.05	0.12	0.11	<0.05	<0.05	0.36	0.63	<0.05	1.7	<0.05	<0.05	<0.05	10	1.7	<0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
PAH	Pyrene	mg/kg	54000	S4UL	<0.05	<0.05	0.12	0.16	<0.05	<0.05	0.49	0.99	<0.05	2.4	<0.05	<0.05	<0.05	10	1.9	0.07	0.08	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
PAH	Benzo(a)anthracene	mg/kg	170	S4UL	<0.05	<0.05	<0.05	0.07	<0.05	<0.05	0.3	0.5	<0.05	1.2	<0.05	<0.05	<0.05	5.5	0.96	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
PAH	Chrysene	mg/kg	350	S4UL	<0.05	<0.05	<0.05	0.09	<0.05	<0.05	0.36	0.51	<0.05	1.3	<0.05	<0.05	<0.05	4.7	0.92	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
PAH	Benzo(b)fluoranthene	mg/kg	44	S4UL	<0.05	<0.05	<0.05	0.15	<0.05	<0.05	0.86	1	<0.05	3.7	<0.05	<0.05	<0.05	8.3	2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
PAH	Benzo(k)fluoranthene	mg/kg	1200	S4UL	<0.05	<0.05	<0.05	0.1	<0.05	<0.05	0.53	0.59	<0.05	1.5	<0.05	<0.05	<0.05	2.8	0.69	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
PAH	Benzo(a)pyrene	mg/kg	77	C4SL	<0.05	<0.05	<0.05	0.18	<0.05	<0.05	1.3	1.3	<0.05	4.2	<0.05	<0.05	<0.05	8.3	2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
PAH	Indeno(1,2,3-c,d)Pyrene	mg/kg	500	S4UL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.94	0.67	<0.05	3	<0.05	<0.05	<0.05	4.1	1.4	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
PAH	Dibenz(a,h)Anthracene	mg/kg	35	S4UL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.61	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
PAH	Benzo(g,h,i)perylene	mg/kg	3900	S4UL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	1.1	0.78	<0.05	3.7	<0.05	<0.05	<0.05	5.1	1.6	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
PAH	PAH, Total Detected USEPA 16	mg/kg			<0.8	<0.8	<0.8	0.86	<0.8	<0.8	6.54	7.12	<0.8	23.8	<0.8	<0.8	<0.8	67	14.1	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	
VOC	Benzene	mg/kg	27	C4SL	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	
VOC	Toluene	mg/kg	56000	S4UL	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	
VOC	Ethylbenzene	mg/kg	5700	S4UL	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	
VOC	m & p-Xylene	mg/kg	5900	S4UL	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	
VOC	o-Xylene	mg/kg	6600	S4UL	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	
VOC	Methyl Tert-Butyl Ether	mg/kg	7900	EIC	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	
Phenols	Phenol	mg/kg	760	S4UL																									
Phenols	2,3,5-trimethyl phenol	mg/kg			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
Phenols	2-isopropylphenol	mg/kg			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
Phenols	Catechol	mg/kg			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
Phenols	Resorcinol	mg/kg			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
Phenols	Methylphenols (Total Cresols)	mg/kg	160000	EIC	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	
Phenols	Naphthols	mg/kg			<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	
Phenols	Xylenols & Ethylphenols	mg/kg			<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	
Phenols	Xylenols	mg/kg																											
Phenols	Total Phenols	mg/kg			<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	
Phenols	Phenol (Monohydric - Total by HPLC)	mg/kg																											
Phenols	Total Phenols	mg/kg			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	

Comments
GAC - Generic Assessment Criteria
(blank) - no assessment criteria available
None - No unit
% - Percentage
pH Units - pH Units
mg/kg - milligrams per kilogram
NAD - No asbestos detected

C4SL - Category 4 Screening Levels, DEFRA SP1010, Development of Category 4 Screening Levels for Assessment of Land Affected by Contamination
S4UL - Suitable for Use Levels, The LQM/CIEH S4ULs for Human Health Risk Assessment
EIC - The Soil Generic Assessment Criteria for Human Health Risk Assessment, CL:AIRE in association with AGS and EIC

Key
XXX Exceedance of Commercial/Industrial 1% soil organic matter GAC

Project Name: M60/M62/M66 Simister Island
Sample Date: 28/06/2021 - 03/03/2023

					Sample Location Sampled Date Top Depth (m) Base Depth (m)	BH11 19/01/2023 2	BH12 16/01/2023 2	BH13 10/01/2023 0.5	BH13 12/01/2023 1.75	BH-G01 20/07/2021 0.95	BH-G01A 20/07/2021 0.5	BH-G02 12/07/2021 0.35	BH-G03A 12/07/2021 1	BH-G04 15/07/2021 0.5	BH-G04 15/07/2021 1.8	BH-G06 03/11/2021 0.5	BH-G07A 28/09/2021 1	BH-G09 06/08/2021 0.39	BH-G10 11/08/2021 0.5	BH-G11 06/08/2021 0.4	BH-N01 16/08/2021 0.5	BH-N02 12/08/2021 0.5	BH-N02 13/08/2021 1.9	BH-N03 11/10/2021 0.5	BH-N03 11/10/2021 1	BH-N03 11/10/2021 5	BH-N03 12/10/2021 7	BH-N04 21/10/2021 0.2	BH-N04A 11/10/2021 0.25
Analyte Group	Analyte	Unit	Commercial/Industrial 1% SOM Threshold	Threshold Source		Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Asbestos	Asbestos (Presence of)	none				NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	Loose fibres	NAD	NAD	NAD	NAD		NAD			NAD	NAD
Asbestos	Asbestos Identification.	none																	Chrysotile										
Asbestos	Asbestos Quantification Stage 2	%																											
Asbestos	Asbestos Quantification (Total %)	%																											
Inorganics	Percent Moisture	%				15	16	2	13																				
Inorganics	pH	pH UNITS				8.1	7.8	9.4	8.9	9.02	9.25	8.8	9.24	9.67	9.15	8.65	9.28	9.23	8.5	9.15	8.29	8.42	8.14		7.06			6.63	5.79
Inorganics	Total Organic Carbon	%																						1		0.62	0.9		
Inorganics	Total Organic Matter	%				1.5	1.3	<0.1	0.8	0.4	0.3	0.5	1.5	4.9	4	1.7	0.6	15.5	10.5	15.2	10.2	1.6	1.4		2.1			2.9	5.2
Inorganics	Cyanide (Free)	mg/kg				<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1		<1			<1	<1
Inorganics	Cyanide (Total)	mg/kg				<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	3	<1	<1	<1	<1		<1			<1	<1
Metals	Antimony	mg/kg	7500	EIC		<1	<1	<1	2.2	<5	<5	<5	<5	<5	<5	<5	<5	<5	23	<5	<5	<5	<5		<5			<5	<5
Metals	Arsenic	mg/kg	640	C4SL		5.1	3.8	<1	17	<1	2	2	2	5	4	2	1	<1	51	2	<1	<1	<1		2			4	2
Metals	Barium	mg/kg	22000	EIC		160	71	3.8	520	82	173	24	25	101	190	50	105	67	113	75	31	115	112		158			74	76
Metals	Beryllium	mg/kg	12	S4UL		0.82	0.57	<0.06	0.75	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	0.6	<0.5	1.1	<0.5	<0.5	0.7	0.7		1			0.6	0.7
Metals	Boron	mg/kg	240000	S4UL						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1		<1			<1	<1
Metals	Boron (Water Soluble)	mg/kg				0.3	0.2	<0.2	0.5																				
Metals	Cadmium	mg/kg	410	C4SL		<0.2	0.2	0.3	<0.2	<0.5	<0.5	0.5	0.5	<0.5	0.6	<0.5	0.7	<0.5	0.9	<0.5	<0.5	0.7	0.7		0.7			0.7	<0.5
Metals	Chromium, Hexavalent (Cr6+)	mg/kg	49	C4SL		<1.2	<1.2	<1.2	<1.2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1		<1			<1	<1
Metals	Chromium, Trivalent (Cr3+)	mg/kg	8600	S4UL		21	11	3.5	18	17	6	10	10	13	18	10	13	4	101	6	10	22	21		26			19	20
Metals	Chromium	mg/kg	8600	S4UL		21	12	3.6	18	17	6	10	10	13	18	10	13	4	101	6	10	22	21		26			19	20
Metals	Copper	mg/kg	68000	S4UL		21	14	2.2	29	15	4	4	4	24	48	17	27	2	83	5	4	20	17		26			18	10
Metals	Lead	mg/kg	2300	C4SL		9.8	11	1.4	13	4	4	11	11	32	126	18	37	3	145	4	7	15	12		26			32	10
Metals	Mercury	mg/kg	1100	S4UL		<0.1	<0.1	<0.1	<0.1	1.58	4.22	4.73	4.56	2.53	0.38	<0.17	2.74	5.54	1.05	5.66	5.38	<0.17	<0.17		<0.17			<0.17	<0.17
Metals	Molybdenum	mg/kg	17000	EIC		0.45	0.4	<0.25	0.97	<1	<1	1	1	2	<1	<1	<1	<1	2	2	<1	<1	<1		<1			<1	<1
Metals	Nickel	mg/kg	980	S4UL		26	16	2.1	26	19	6	6	7	12	21	13	12	2	23	4	5	26	24		31			20	20
Metals	Selenium	mg/kg	12000	S4UL		<1	<1	<1	<1	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1		<1			<1	<1
Metals	Vanadium	mg/kg	9000	S4UL		21	13	2.8	27	15	5	6	6	15	20	10	9	5	27	6	8	21	20		28			19	20
Metals	Zinc	mg/kg	730000	S4UL		51	41	6.1	44	35	25	38	40	38	89	38	43	21	187	25	24	48	43		65			61	30
TPHCWG	TPH Aliphatic >C5-C6	mg/kg	3200	S4UL		<0.001	<0.001	<0.001	<0.001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01			<0.01	<0.01
TPHCWG	TPH Aliphatic >C6-C8	mg/kg	7800	S4UL		<0.001	<0.001	<0.001	<0.001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01			<0.01	<0.01
TPHCWG	TPH Aliphatic >C8-C10	mg/kg	2000	S4UL		<0.001	<0.001	<0.001	<0.001	<0.001	<1	<1	<1	<1	2	<1	<1	<1	<1	<1	<1	<1	<1		<1			<1	<1
TPHCWG	TPH Aliphatic >C10-C12	mg/kg	9700	S4UL		<1	<1	<1	<1	<1	<1	<1	<1	<1	2	<1	<1	<1	<1	<1	<1	<1	<1		<1			<1	<1
TPHCWG	TPH Aliphatic >C12-C16	mg/kg	59000	S4UL		<2	<2	<2	<2	<1	<1	<1	1	2	2	<1	<1	<1	<1	<1	<1	<1	<1		<1			<1	<1
TPHCWG	TPH Aliphatic >C16-C21	mg/kg	1600000	S4UL		<8	<8	<8	<8	<3	1	2	1	3	3	2	<3	<3	2	<3	<3	<3	<3		<3			1	<3
TPHCWG	TPH Aliphatic >C21-C35	mg/kg	1600000	S4UL		<8	<8	<8	<8	3	11	33	11	41	11	4	3	8	49	9	13	2	1		1			3	8
TPHCWG	TPH Aliphatic >C35-C44	mg/kg	1600000	S4UL		<8.4	<8.4	<8.4	<8.4	<3	4	21	5	10	3	<3	1	5	33	15	9	<3	<3		<3			<3	2
TPHCWG	TPH Aliphatic >C5-C35	mg/kg				<10	<10	<10	<10	<10																			
TPHCWG	TPH Aliphatic >C5-C44	mg/kg				<10	<10	<10	<10	3	17	55	19	56	23	6	4	13	85	25	22	2	1		1			4	10
TPHCWG	TPH Aromatic >C5-C7	mg/kg	26000	S4UL		<0.001	<0.001	<0.001	<0.001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01			<0.01	<0.01
TPHCWG	TPH Aromatic >C7-C8	mg/kg	56000	S4UL		<0.001	<0.001	<0.001	<0.001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01			<0.01	<0.01
TPHCWG	TPH Aromatic >C8-C10	mg/kg	3500	S4UL		<0.001	<0.001	<0.001	<0.001	<1	<1	<1	<1	1	<1	<1	<1	<1	<1	<1	<1	<1	<1		<1			<1	<1
TPHCWG	TPH Aromatic >C10-C12	mg/kg	16000	S4UL		<1	<1	<1	<1	<1	<1	<1	<1	8	4	<1	<1	<1	<1	<1	<1	<1	<1		<1			<1	<1
TPHCWG	TPH Aromatic >C12-C16	mg/kg	36000	S4UL		<2	<2	<2	<2	1	1	3	3	39	14	<1	<1	<1	2	<1	<1	<1	<1		<1			1	<1
TPHCWG	TPH Aromatic >C16-C21	mg/kg	28000	S4UL		<10	<10	<10	<10	<1	1	2	3	113	26	2	<1	<1	4	<1	1	<1	<1		<1			1	1
TPHCWG	TPH Aromatic >C21-C35	mg/kg	28000	S4UL		<10	<10	<10	<10	2	6	24	9	177	31	4	3	3	27	4	13	2	1		2			6	9
TPHCWG	TPH Aromatic >C35-C44	mg/kg	28000	S4UL		<8.4	<8.4	<8.4	<8.4	<3	3	31	4	8	2	<3	<3	4	35	9	13	<3	<3		<3			2	7
TPHCWG	TPH Aromatic >C5-C35	mg/kg				<10	<10	<10	<10	<10																			
TPHCWG	TPH Aromatic >C5-C44	mg/kg				<10	<10	<10	<10	2	11	57	20	344	77	7	3	7	69	13	26	2	1		2			11	17
TPHCWG	TPH Aliphatic & Aromatic >C5-C44	mg/kg								5	28	113	38	401	100	13	8	21	154	38	48	5	2		4			15	27
TPHCWG	TPH HI - Commercial Industrial SOM 1% GAC	none	1			0.0	0.0	0.0	0.0	7.33036E-05	0.000394921	0.002098492	0.000682336	0.012579553	0.003996741	0.000218036	0.000109643	0.000258125	0.002465198	0.000479286	0.000978036	7.26786E-05	3.63393E-05	0.0	7.20536E-05	0.0	0.0	0.000351706	0.000613393
Other TPH	Petroleum Range Organics	mg/kg				<0.1	<0.1	<0.1	<0.1																				
PAH	Naphthalene	mg/kg	190	S4UL		<0.05	<0.05	<0.05	<0.05	<0.03	<0.03	<0.03	<0.03	6.66	1.44	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03		<0.03			<0.03	<0.03
PAH	Fluorene	mg/kg	63000	S4UL		<0.05	<0.05	<0.05	<0.05	<0.01	<0.01	<0.01	<0.01	4.04	1.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01		0.04			<0.01	<0.01
PAH	Acenaphthylene	mg/kg	83000	S4UL		<0.05	<0.05	<0.05	<0.05	<0.01	<0.01	<0.01	<0.01	0.09	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01			<0.01	<0.01
PAH	Acenaphthene	mg/kg	84000	S4UL		<0.05	<0.05	<0.05	<0.05	<0.01	<0.01	<0.01	<0.01	5.92	1.24	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01		0.05			<0.01	<0.01
PAH	Anthracene	mg/kg	520000	S4UL		<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.02	<0.02	9.59	1.2	<0.02	<0.02	<0.02	0.03	<0.02	<0.02	<0.02	<0.02		0.05			<0.02	<0.02
PAH	Phenanthrene	mg/kg	22000	S4UL		<0.05	<0.05	<0.05	<0.05	<0.03	<0.03	<0.03	<0.03	39.6	5.79	0.08	0.04	<0.03	0.13	<0.03	<0.03	0.05	<0.03		0.27			0.03	0.06
PAH	Fluoranthene	mg/kg	23000	S4UL		<0.05	<0.05	<0.05	<0.05	<0.08	<0.08	<0.08	<0.08	33	3.79	0.11	<0.08	<0.08	0.17	<0.08	<0.08	<0.08	<0.08		0.22			<0.08	0.12
PAH	Pyrene	mg/kg	54000	S4UL		<0.05	<0.05	<0.05	<0.05	<0.07	<0.07	<0.07	<0.07	26.4	2.91	0.09	0.08	<0.07	0.16	<0.07	<0.07	<0.07	<0.07		0.18			<0.07	0.12
PAH	Benzo(a)anthracene	mg/kg	170	S4UL		<0.05	<0.05	<0.05	<0.05	<0.04	<0.04	<0.04	<0.04	13.5	1.14	0.05	0.04	<0.04	0.1	<0.04	<0.04	<0.04	<0.04		0.1			<0.04	0.07
PAH	Chrysene	mg/kg	350	S4UL		<0.05	<0.05	<0.05	<0.05	<0.06	<0.06	<0.06	<0.06	11.6	1.12	<0.06	<0.06	<0.06	0.13	<0.06	<0.06	<0.06	<0.06		0.1			<0.06	0.08
PAH	Benzo(b)fluoranthene	mg/kg	44	S4UL		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	9.38	0.76	0.05	0.06	<0.05	0.13	<0.05	<0.05	<0.05	<0.05		0.11			<0.05	0.06
PAH	Benzo(k)fluoranthene	mg/kg	1200	S4UL		<0.05	<0.05	<0.05	<0.05	<0.07	<0.07	<0.07	<0.07	3.27	0.28	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07		<0.07			<0.07	<0.07
PAH	Benzo(a)pyrene	mg/kg	77	C4SL		<0.05	<0.05	<0.05	<0.05	<0.04	<0.04	<0.04	<0.04	8.74	0.73	0.04	0.06	<0.04	0.11	<0.04	<0.04	<0.04	<0.04		0.08			<0.04	0.07
PAH	Indeno(1,2,3-c,d)Pyrene	mg/kg	500	S4UL		<0.05	<0.05	<0.05	<0.05	<0.03	<0.03	<0.03	<0.03	4.19	0.36	0.04	0.04	<0.03	0.1	<0.03	<0.03	<0.03	<0.03		0.06			<0.03	<0.03
PAH	Dibenz(a,h)Anthracene	mg/kg	3.5	S4UL		<0.05	<0.05	<0.05	<0.05	<0.04	<0.04	<0.04	<0.04	0.81	0.07	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04		<0.04			<0.04	<0.04
PAH	Benzo(g,h,i)perylene	mg/kg	3900	S4UL		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	3.38	0.31	<0.05	<0.05	<0.05	0.09	<0.05	<0.05	<0.05	<0.05		<0.05			<0.05	<0.05
PAH	PAH, Total Detected USEPA 16	mg/kg				<0.8	<0.8	<0.8	<0.8	<0.01	<0.01	<0.01	<0.01	180	22.1	0.46	0.32	<0.01	1.17	<0.01	<0.01	<0.01	<0.01		1.26			<0.01	0.58
VOC	Benzene	mg/kg	27	C4SL		<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01			<0.01	<0.01
VOC	Toluene	mg/kg	56000	S4UL		<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01			<0.01	<0.01
VOC	Ethylbenzene	mg/kg	5700	S4UL		<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01			<0.01	<0.01
VOC	m & p-Xylene	mg/kg	5900	S4UL		<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01			<0.01	<0.01
VOC	o-Xylene	mg/kg	6600	S4UL		<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01			<0.01	<0.01
VOC	Methyl Tert-Butyl Ether	mg/kg	7900	EIC		<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01			<0.01	<0.01
Phenols	Phenol	mg/kg	760	S4UL						<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2		<0.2			<0.2	<0.2
Phenols	2,3,5-trimethyl phenol	mg/kg				<0.1	<0.1	<0.1	<0.1																				
Phenols	2-isopropylphenol	mg/kg				<0.1	<0.1	<0.1	<0.1																				
Phenols	Catechol	mg/kg				<0.1	<0.1	<0.1	<0.1																				
Phenols	Resorcinol	mg/kg				<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2		<0.2			<0.2	<0.2
Phenols	Methylphenols (Total Cresols)	mg/kg	160000	EIC		<0.3	<0.3	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2		<0.2			<0.2	<0.2
Phenols	Naphthols	mg/kg				<0.2	<0.2	<0.2	<0.2																				
Phenols	Xylenols & Ethylphenols	mg/kg				<0.3	<0.3	<0.3	<0.3																				
Phenols	Xylenols	mg/kg								<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2		<0.2			<0.2	<0.2
Phenols	Total Phenols	mg/kg				<1.3	<1.3	<1.3	<1.3																				
Phenols	Phenol (Monohydric - Total by HPLC)	mg/kg								<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2		<0.2			<0.2	<0.2
Phenols	Total Phenols	mg/kg				<0.1	<0.1	<0.1	<0.1																				

Comments
GAC - Generic Assessment Criteria
(blank) - no assessment criteria available
None - No unit
% - Percentage
pH Units - pH Units
mg/kg - milligrams per kilogram
NAD - No asbestos detected

C4SL - Category 4 Screening Levels, DEFRA SP1010, Development of Category 4 Screening Levels for Assessment of Land Affecte
S4UL - Suitable for Use Levels, The LQM/CIEH S4ULs for Human Health Risk Assessment
EIC - The Soil Generic Assessment Criteria for Human Health Risk Assessment, CL:AIRE in association with AGS and EIC

Key
XXX Exceedance of Commercial/Industrial 1% soil organic matter GAC

Project Name: M60/M62/M66 Simister Island
Sample Date: 28/06/2021 - 03/03/2023

					Sample Location	BH-N05	BH-N05	BH-N06	BH-N06A	BH-N06B	BH-N06C	BH-N07	BH-N07	BH-N08	BH-N08	BH-N09	BH-N10	BH-N10	BH-N11	BH-N12A	BH-N13	BH-N14	BH-N14	BH-N15	BH-N16	BH-N17	BH-N17	BH-N17QB	BH-N18
					Sampled Date	20/09/2021	20/09/2021	09/08/2021	27/07/2021	04/08/2021	25/08/2021	03/08/2021	03/08/2021	30/06/2021	06/08/2021	28/06/2021	06/10/2021	06/10/2021	06/09/2021	16/08/2021	20/07/2021	07/07/2021	07/07/2021	24/11/2021	04/10/2021	01/07/2021	01/07/2021	16/09/2021	31/08/2021
					Top Depth (m)	1	1.5	0.5	1	0.5	0.2	0.1	1	0.2	2	0.5	0.5	1	0.25	1	0.5	0.5	1	0.5	0.25	0.2	4	0.2	0.25
					Base Depth (m)																								
Analyte Group	Analyte	Unit	Commercial/Industrial 1% SOM Threshold	Threshold Source		Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Asbestos	Asbestos (Presence of)	none				NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD
Asbestos	Asbestos Identification.	none																											
Asbestos	Asbestos Quantification Stage 2	%																											
Asbestos	Asbestos Quantification (Total %)	%																											
Inorganics	Percent Moisture	%																											
Inorganics	pH	pH UNITS				8.87	7.45	8.65	9.13	9.45	8.47	7.22	6.92	6.85	8.58	6	5.68	5.19	5.87	9.37	9.3	7.56	7.39	5.01	6.47	8.53	7.27	6.9	8.29
Inorganics	Total Organic Carbon	%																	11										
Inorganics	Total Organic Matter	%				0.3	3.1	5.5	0.3	0.7	5.2	7.3	2.6	4.8	1.9	2.4	3.7	4.1	15.4	0.3	0.4	1.8	1.4	1.4	9.3	2.6	8.8	7.2	1.6
Inorganics	Cyanide (Free)	mg/kg				<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Inorganics	Cyanide (Total)	mg/kg				<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Metals	Antimony	mg/kg	7500	EIC		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Metals	Arsenic	mg/kg	640	C4SL		<1	2	<1	<1	2	14	7	5	11	<1	<1	<1	<1	20	<1	<1	2	6	4	21	4	5	6	1
Metals	Barium	mg/kg	22000	EIC		34	24	108	85	127	112	62	23	85	153	68	22	63		98	21	131	92	45	86	162	76	53	121
Metals	Beryllium	mg/kg	12	S4UL		<0.5	0.8	<0.5	<0.5	0.7	0.8	<0.5	<0.5	0.8	0.5	<0.5	<0.5	<0.5	0.9	<0.5	<0.5	0.8	0.9	<0.5	1	0.6	0.6	<0.5	0.5
Metals	Boron	mg/kg	240000	S4UL		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Metals	Boron (Water Soluble)	mg/kg																											
Metals	Cadmium	mg/kg	410	C4SL		<0.5	1.6	0.7	<0.5	0.8	0.7	<0.5	<0.5	0.7	0.5	<0.5	<0.5	<0.5	1.7	0.6	<0.5	0.6	0.8	0.5	2.4	0.6	0.6	0.5	0.6
Metals	Chromium, Hexavalent (Cr6+)	mg/kg	49	C4SL		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Metals	Chromium, Trivalent (Cr3+)	mg/kg	8600	S4UL		11	9	6	11	17	19	10	7	20	19	17	6	13	18	14	5	23	20	10	20	18	13	11	15
Metals	Chromium	mg/kg	8600	S4UL		11	9	6	11	17	19	10	7	20	19	17	6	13	18	14	5	23	20	10	20	18	13	11	15
Metals	Copper	mg/kg	68000	S4UL		11	26	6	7	10	62	33	12	36	15	7	5	17	55	8	1	21	20	13	53	23	18	31	25
Metals	Lead	mg/kg	2300	C4SL		2	27	42	7	16	108	56	11	78	10	13	5	10	138	3	1	11	13	16	115	34	13	56	22
Metals	Mercury	mg/kg	1100	S4UL		0.37	<0.17	3.23	1.13	4.59	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	0.28	2.63	2.15	<0.17	<0.17	<0.17	0.25	0.28	<0.17	<0.17	<0.17
Metals	Molybdenum	mg/kg	17000	EIC		<1	5	<1	<1	<1	2	<1	<1	1	<1	<1	<1	<1	2	<1	<1	<1	<1	<1	5	<1	<1	<1	<1
Metals	Nickel	mg/kg	980	S4UL		14	10	9	11	14	23	10	9	17	22	6	5	12	18	19	4	31	22	9	18	24	16	10	21
Metals	Selenium	mg/kg	12000	S4UL		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Metals	Vanadium	mg/kg	9000	S4UL		9	13	6	11	15	23	15	10	29	17	20	6	15	26	10	4	22	20	15	25	19	16	16	16
Metals	Zinc	mg/kg	730000	S4UL		22	52	86	31	54	99	57	33	74	45	16	6	25	127	32	17	53	42	34	149	66	47	54	68
TPHCWG	TPH Aliphatic >C5-C6	mg/kg	3200	S4UL		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
TPHCWG	TPH Aliphatic >C6-C8	mg/kg	7800	S4UL		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
TPHCWG	TPH Aliphatic >C8-C10	mg/kg	2000	S4UL		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
TPHCWG	TPH Aliphatic >C10-C12	mg/kg	9700	S4UL		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
TPHCWG	TPH Aliphatic >C12-C16	mg/kg	59000	S4UL		<1	<1	<1	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	2	1	<1	2
TPHCWG	TPH Aliphatic >C16-C21	mg/kg	1600000	S4UL		<1	<1	<1	1	<1	<1	2	<1	2	<1	<1	<1	<1	1	<1	<1	<1	<1	<1	1	4	2	<1	3
TPHCWG	TPH Aliphatic >C21-C35	mg/kg	1600000	S4UL		4	<1	3	3	7	14	20	5	15	<1	8	7	10	22	5	13	2	<1	<1	13	38	13	12	8
TPHCWG	TPH Aliphatic >C35-C44	mg/kg	1600000	S4UL		<1	<1	3	<1	4	6	6	1	2	<1	3	2	3	7	2	7	<1	<1	<1	4	10	4	3	<1
TPHCWG	TPH Aliphatic >C5-C35	mg/kg																											
TPHCWG	TPH Aliphatic >C5-C44	mg/kg				5	<1	7	6	12	22	29	6	19	<1	10	10	13	31	7	21	2	<1	<1	18	55	20	15	13
TPHCWG	TPH Aromatic >C5-C7	mg/kg	26000	S4UL		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
TPHCWG	TPH Aromatic >C7-C8	mg/kg	56000	S4UL		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
TPHCWG	TPH Aromatic >C8-C10	mg/kg	3500	S4UL		<1	<1	<1	<1	<1	2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1	<1
TPHCWG	TPH Aromatic >C10-C12	mg/kg	16000	S4UL		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
TPHCWG	TPH Aromatic >C12-C16	mg/kg	36000	S4UL		<1	<1	<1	<1	<1	3	6	<1	2	<1	<1	1	1	3	<1	2	<1	<1	<1	2	3	2	1	2
TPHCWG	TPH Aromatic >C16-C21	mg/kg	28000	S4UL		<1	<1	<1	<1	<1	9	20	<1	5	<1	<1	1	3	6	<1	2	<1	<1	<1	6	4	2	3	3
TPHCWG	TPH Aromatic >C21-C35	mg/kg	28000	S4UL		1	<1	2	2	4	39	87	7	27	<1	17	29	23	76	2	11	2	<1	<1	36	40	7	40	10
TPHCWG	TPH Aromatic >C35-C44	mg/kg	28000	S4UL		<1	<1	2	<1	3	6	33	5	8	<1	18	10	12	44	<1	8	<1	<1	<1	23	16	2	22	2
TPHCWG	TPH Aromatic >C5-C35	mg/kg																											
TPHCWG	TPH Aromatic >C5-C44	mg/kg				2	<1	4	4	7	59	146	11	42	<1	34	41	39	128	2	24	2	<1	<1	68	63	14	68	18
TPHCWG	TPH Aliphatic & Aromatic >C5-C44	mg/kg				7	<1	11	10	19	82	175	17	62	<1	45	51	52	159	9	45	5	<1	<1	86	118	34	83	31
TPHCWG	TPH HI - Commercial Industrial SOM 1% GAC	none	1			3.82143E-05	0	0.000166607	9.08777E-05	0.000256875	0.002955833	0.005184167	0.000432321	0.001496002	0	0.001256875	0.001461974	0.001393046	0.004602083	7.58036E-05	0.000818056	7.26786E-05	0	0	0.002388234	0.002292589	0.00047237	0.002644296	0.000632043
Other TPH	Petroleum Range Organics	mg/kg																											
PAH	Naphthalene	mg/kg	190	S4UL		<0.03	<0.03	<0.03	<0.03	<0.03	0.05	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
PAH	Fluorene	mg/kg	63000	S4UL		<0.01	<0.01	<0.01	<0.01	<0.01	0.05	0.08	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.04	<0.01	<0.01	<0.01	<0.01
PAH	Acenaphthylene	mg/kg	83000	S4UL		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	<0.01	<0.01
PAH	Acenaphthene	mg/kg	84000	S4UL		<0.01	<0.01	<0.01	<0.01	<0.01	0.08	0.14	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.04	0.01	<0.01	0.01	<0.01
PAH	Anthracene	mg/kg	520000	S4UL		<0.02	<0.02	<0.02	<0.02	<0.02	0.13	0.2	<0.02	0.06	<0.02	<0.02	<0.02	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	0.1	0.02	<0.02	<0.02	<0.02
PAH	Phenanthrene	mg/kg	22000	S4UL		<0.03	<0.03	<0.03	<0.03	<0.03	0.62	0.99	<0.03	0.23	<0.03	<0.03	<0.03	<0.03	0.16	<0.03	<0.03	<0.03	<0.03	<0.03	0.41	0.12	<0.03	0.14	0.04
PAH	Fluoranthene	mg/kg	23000	S4UL		<0.08	<0.08	<0.08	<0.08	<0.08	0.93	1.64	<0.08	0.44	<0.08	<0.08	<0.08	<0.08	0.28	<0.08	<0.08	<0.08	<0.08	<0.08	0.86	0.19	<0.08	0.3	<0.08
PAH	Pyrene	mg/kg	54000	S4UL		<0.07	<0.07	<0.07	<0.07	<0.07	0.88	1.52	<0.07	0.41	<0.07	<0.07	<0.07	<0.07	0.26	<0.07	<0.07	<0.07	<0.07	<0.07	0.85	0.19	<0.07	0.3	<0.07
PAH	Benzo(a)anthracene	mg/kg	170	S4UL		<0.04	<0.04	<0.04	<0.04	<0.04	0.54	0.83	<0.04	0.24	<0.04	<0.04	<0.04	<0.04	0.13	<0.04	<0.04	<0.04	<0.04	<0.04	0.49	0.1	<0.04	0.18	<0.04
PAH	Chrysene	mg/kg	350	S4UL		<0.06	<0.06	<0.06	<0.06	<0.06	0.59	0.9	<0.06	0.28	<0.06	<0.06	<0.06	<0.06	0.16	<0.06	<0.06	<0.06	<0.06	<0.06	0.52	0.14	<0.06	0.21	<0.06
PAH	Benzo(b)fluoranthene	mg/kg	44	S4UL		<0.05	<0.05	<0.05	<0.05	<0.05	0.56	0.9	<0.05	0.33	<0.05	<0.05	<0.05	<0.05	0.16	<0.05	<0.05	<0.05	<0.05	<0.05	0.59	0.19	<0.05	0.25	0.06
PAH	Benzo(k)fluoranthene	mg/kg	1200	S4UL		<0.07	<0.07	<0.07	<0.07	<0.07	0.26	0.28	<0.07	0.11	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	0.19	<0.07	<0.07	<0.07	<0.07
PAH	Benzo(a)pyrene	mg/kg	77	C4SL		<0.04	<0.04	<0.04	<0.04	<0.04	0.52	0.82	<0.04	0.25	<0.04	<0.04	<0.04	<0.04	0.12	<0.04	<0.04	<0.04	<0.04	<0.04	0.52	0.14	<0.04	0.19	0.06
PAH	Indeno(1,2,3-c,d)Pyrene	mg/kg	500	S4UL		<0.03	<0.03	<0.03	<0.03	<0.03	0.27	0.53	<0.03	0.15	<0.03	<0.03	<0.03	<0.03	0.09	<0.03	<0.03	<0.03	<0.03	<0.03	0.33	0.11	<0.03	0.12	0.03
PAH	Dibenz(a,h)Anthracene	mg/kg	3.5	S4UL		<0.04	<0.04	<0.04	<0.04	<0.04	0.11	0.11	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.06	<0.04	<0.04	<0.04	<0.04
PAH	Benzo(g,h,i)perylene	mg/kg	3900	S4UL		<0.05	<0.05	<0.05	<0.05	<0.05	0.24	0.41	<0.05	0.13	<0.05	<0.05	<0.05	<0.05	0.07	<0.05	<0.05	<0.05	<0.05	<0.05	0.33	0.1	<0.05	0.11	<0.05
PAH	PAH, Total Detected USEPA 16	mg/kg				<0.01	<0.01	<0.01	<0.01	<0.01	5.72	9.35	<0.01	2.66	<0.01	<0.01	<0.01	<0.01	1.48	<0.01	<0.01	<0.01	<0.01	<0.01	5.35	1.31	<0.01	1.81	0.19
VOC	Benzene	mg/kg	27	C4SL		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
VOC	Toluene	mg/kg	56000	S4UL		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
VOC	Ethylbenzene	mg/kg	5700	S4UL		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
VOC	m & p-Xylene	mg/kg	5900	S4UL		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
VOC	o-Xylene	mg/kg	6600	S4UL		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
VOC	Methyl Tert-Butyl Ether	mg/kg	7900	EIC		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Phenols	Phenol	mg/kg	760	S4UL		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Phenols	2,3,5-trimethyl phenol	mg/kg																											
Phenols	2-isopropylphenol	mg/kg																											
Phenols	Catechol	mg/kg																											
Phenols	Resorcinol	mg/kg				<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Phenols	Methylphenols (Total Cresols)	mg/kg	160000	EIC		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Phenols	Naphthols	mg/kg																											
Phenols	Xylenols & Ethylphenols	mg/kg																											
Phenols	Xylenols	mg/kg				<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Phenols	Total Phenols	mg/kg																											
Phenols	Phenol (Monohydric - Total by HPLC)	mg/kg				<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Phenols	Total Phenols	mg/kg																											

Comments
GAC - Generic Assessment Criteria
(blank) - no assessment criteria available
None - No unit
% - Percentage
pH Units - pH Units
mg/kg - milligrams per kilogram
NAD - No asbestos detected

C4SL - Category 4 Screening Levels, DEFRA SP1010, Development of Category 4 Screening Levels for Assessment of Land Affecte
S4UL - Suitable for Use Levels, The LQM/CIEH S4ULs for Human Health Risk Assessment
EIC - The Soil Generic Assessment Criteria for Human Health Risk Assessment, CL:AIRE in association with AGS and EIC

Key
XXX Exceedance of Commercial/Industrial 1% soil organic matter GAC

Project Name: M60/M62/M66 Simister Island
Sample Date: 28/06/2021 - 03/03/2023

					Sample Location	BH-N18	BH-N18OB	BH-N19	BH-N20	BH-N20	BH-N21	BHNO03A	BHNO03A	BH-P02	BH-P02	BH-P02	BH-P03	BH-P03	BH-S01	BH-S02	BH-S03	BH-S04	BH-S04	BH-S05	BH-S06	BH-S07	BHWS01A	BHWS01A	BHWS02
					Sampled Date	31/08/2021	16/09/2021	22/09/2021	16/09/2021	16/09/2021	10/09/2021	31/01/2023	31/01/2023	02/12/2021	02/12/2021	02/12/2021	01/12/2021	01/12/2021	18/08/2021	25/10/2021	25/10/2021	18/08/2021	31/08/2021	02/09/2021	23/08/2021	12/08/2021	07/02/2023	07/02/2023	06/02/2023
					Top Depth (m)	1	0.2	0.25	0.25	0.5	0.25	0.25	1	0.2	1	3	0.2	1	1	0.5	0.8	0.5	2	0.25	0.5	0.25	1	2.1	2
					Base Depth (m)																								
Analyte Group	Analyte	Unit	Commercial/Industrial 1% SOM Threshold	Threshold Source		Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Asbestos	Asbestos (Presence of)	none				NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD			NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD
Asbestos	Asbestos Identification.	none																											
Asbestos	Asbestos Quantification Stage 2	%																											
Asbestos	Asbestos Quantification (Total %)	%																											
Inorganics	Percent Moisture	%										13	14														5.8	17	8.2
Inorganics	pH	pH UNITS				8.43	7.4	7.85	6.52	6.15	5.79	8.1	7.9	7.57		4.48	8.18	7.58	8.92	9.28	9.28	9.2	8.67	8.04	10.3	8.74	8.1	7.1	7.6
Inorganics	Total Organic Carbon	%													1.18														
Inorganics	Total Organic Matter	%				1.2	5.5	8.9	10.6	33.4	12.2	1.9	1.9	6.1		0.4	2.1	2	0.3	0.3	0.5	0.4	1.5	3.2	0.8	0.4	0.5	1.4	2.3
Inorganics	Cyanide (Free)	mg/kg				<1	<1	<1	<1	<1	<1	<1	<1	<1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Inorganics	Cyanide (Total)	mg/kg				<1	<1	<1	<1	<1	<1	<1	<1	<1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Metals	Antimony	mg/kg	7500	EIC		<5	<5	<5	<5	<5	<5	1.9	2.4	<5		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	2.2	2.2	<1
Metals	Arsenic	mg/kg	640	C4SL		6	2	5	29	13	21	5.3	7.2	11		3	4	3	<1	<1	1	<1	2	6	1	<1	5.6	4.2	9.9
Metals	Barium	mg/kg	22000	EIC		198	83	105	89	112	88	59	110	81		25	84	64	136	101	155	92	151	36	75	32	140	130	190
Metals	Beryllium	mg/kg	12	S4UL		1	0.5	0.8	1.1	0.8	0.9	0.61	0.71	0.6		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.41	0.72	1.2
Metals	Boron	mg/kg	240000	S4UL		<1	<1	<1	<1	<1	1.3			<1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1			
Metals	Boron (Water Soluble)	mg/kg										<0.2	0.3														0.3	0.2	1.2
Metals	Cadmium	mg/kg	410	C4SL		7.6	0.6	0.7	2	1.2	1.5	0.3	<0.2	1.1		0.6	1	0.8	0.9	<0.5	0.7	0.6	0.6	<0.5	0.8	<0.5	0.2	0.3	<0.2
Metals	Chromium, Hexavalent (Cr6+)	mg/kg	49	C4SL		<1	<1	<1	<1	<1	<1	<1.2	<1.2	<1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1.2	<1.2	<1.2
Metals	Chromium, Trivalent (Cr3+)	mg/kg	8600	S4UL		30	13	17	19	14	16	13	17	15		9	12	10	17	8	19	14	15	12	13	10	14	18	33
Metals	Chromium	mg/kg	8600	S4UL		30	13	17	19	14	16	13	17	15		9	12	10	17	8	19	14	15	12	13	10	15	18	33
Metals	Copper	mg/kg	68000	S4UL		22	22	33	61	38	50	20	23	28		9	18	13	14	2	16	8	23	22	12	6	16	16	25
Metals	Lead	mg/kg	2300	C4SL		11	35	39	143	71	149	18	20	53		5	21	13	3	3	7	4	12	36	37	5	4.3	13	22
Metals	Mercury	mg/kg	1100	S4UL		<0.17	<0.17	0.36	<0.17	<0.17	0.28	<0.04	<0.04	<0.17		<0.17	<0.17	<0.17	<0.17	5.83	2.29	2.9	<0.17	<0.17	4.7	<0.17	<0.1	<0.1	<0.1
Metals	Molybdenum	mg/kg	17000	EIC		<1	<1	1	4	2	2	0.42	0.51	<1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.25	0.34	1.2
Metals	Nickel	mg/kg	980	S4UL		32	14	33	17	16	16	20	20	14		11	16	14	24	3	24	14	20	11	12	9	24	22	37
Metals	Selenium	mg/kg	12000	S4UL		<1	<1	<1	<1	1	<1	<1	<1	<1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Metals	Vanadium	mg/kg	9000	S4UL		31	16	27	29	20	24	16	22	21		9	14	12	12	6	15	9	15	16	13	8	15	20	30
Metals	Zinc	mg/kg	730000	S4UL		1090	50	57	139	73	105	52	52	64		23	45	40	35	21	50	28	44	42	39	15	42	47	83
TPHCWG	TPH Aliphatic >C5-C6	mg/kg	3200	S4UL		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.001	<0.001	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.001	<0.001	<0.001
TPHCWG	TPH Aliphatic >C6-C8	mg/kg	7800	S4UL		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.001	<0.001	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.001	<0.001	<0.001
TPHCWG	TPH Aliphatic >C8-C10	mg/kg	2000	S4UL		<1	<1	<1	<1	<1	<1	<1	<0.001	<0.001		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.001	<0.001	<0.001
TPHCWG	TPH Aliphatic >C10-C12	mg/kg	9700	S4UL		<1	<1	<1	<1	<1	<1	<1	<1	<1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
TPHCWG	TPH Aliphatic >C12-C16	mg/kg	59000	S4UL		1	1	2	<1	<1	<1	<2	5.9	<1		<1	<1	<1	<1	<1	<1	<1	<1	<1	2	<1	<2	<2	<2
TPHCWG	TPH Aliphatic >C16-C21	mg/kg	1600000	S4UL		1	3	5	1	2	1	<8	<8	<1		<1	<1	<1	<1	2	<1	<1	1	<1	5	<1	<8	<8	<8
TPHCWG	TPH Aliphatic >C21-C35	mg/kg	1600000	S4UL		2	41	96	30	97	17	<8	<8	7		<1	5	2	<1	25	8	3	6	8	185	30	<8	<8	<8
TPHCWG	TPH Aliphatic >C35-C44	mg/kg	1600000	S4UL		<1	10	47	3	12	4	<8.4	<8.4	2		<1	2	<1	<1	20	4	<1	2	2	69	7	<8.4	<8.4	<8.4
TPHCWG	TPH Aliphatic >C5-C35	mg/kg										<10	15														<10	<10	<10
TPHCWG	TPH Aliphatic >C5-C44	mg/kg				5	55	151	34	111	22	<10	15	10		<1	7	2	<1	47	13	3	10	10	261	37	<10	<10	<10
TPHCWG	TPH Aromatic >C5-C7	mg/kg	26000	S4UL		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.001	<0.001	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.001	<0.001	<0.001
TPHCWG	TPH Aromatic >C7-C8	mg/kg	56000	S4UL		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.001	<0.001	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.001	<0.001	<0.001
TPHCWG	TPH Aromatic >C8-C10	mg/kg	3500	S4UL		<1	<1	2	<1	<1	<1	<0.001	<0.001	<1		<1	<1	<1	<1	1	1	<1	<1	1	<1	1	<0.001	<0.001	<0.001
TPHCWG	TPH Aromatic >C10-C12	mg/kg	16000	S4UL		<1	<1	2	<1	<1	<1	<1	<1	<1		<1	<1	<1	<1	<1	<1	<1	<1	<1	1	<1	<1	<1	<1
TPHCWG	TPH Aromatic >C12-C16	mg/kg	36000	S4UL		1	3	10	3	2	3	<2	<2	1		<1	1	<1	<1	1	1	<1	<1	<1	13	2	<2	<2	<2
TPHCWG	TPH Aromatic >C16-C21	mg/kg	28000	S4UL		2	3	74	6	5	5	<10	<10	4		<1	2	1	<1	2	1	<1	<1	3	58	2	<10	<10	<10
TPHCWG	TPH Aromatic >C21-C35	mg/kg	28000	S4UL		4	27	467	55	161	48	<10	<10	11		<1	5	4	<1	17	6	<1	4	9	287	28	<10	<10	<10
TPHCWG	TPH Aromatic >C35-C44	mg/kg	28000	S4UL		<1	11	52	16	76	25	<8.4	<8.4	6		<1	1	1	<1	16	2	<1	1	3	69	9	<8.4	<8.4	<8.4
TPHCWG	TPH Aromatic >C5-C35	mg/kg										<10	<10														<10	<10	<10
TPHCWG	TPH Aromatic >C5-C44	mg/kg				7	44	606	80	243	81	<10	<10	22		<1	9	6	<1	36	12	<1	5	16	428	42	<10	<10	<10
TPHCWG	TPH Aliphatic & Aromatic >C5-C44	mg/kg				12	100	756	114	355	103			32		<1	16	8	<1	83	24	3	15	26	690	79			
TPHCWG	TPH HI - Commercial Industrial SOM 1% GAC	none	1			0.000260888	0.001598318	0.022279176	0.002854583	0.008767788	0.002882798	0.0	0.0	0.000783403	0.0	0	0.000317867	0.000215536	0	0.001592867	0.000642421	0.000001875	0.000184196	0.000827679	0.015405099	0.001757252	0.0	0.0	0.0
Other TPH	Petroleum Range Organics	mg/kg										<0.1	<0.1														<0.1	<0.1	<0.1
PAH	Naphthalene	mg/kg	190	S4UL		<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.05	<0.05	<0.03		<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.07	<0.03	<0.05	<0.05	<0.05
PAH	Fluorene	mg/kg	63000	S4UL		0.01	0.01	0.42	0.04	<0.01	0.03	<0.05	0.05	0.01		<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.22	<0.01	<0.05	<0.05	<0.05
PAH	Acenaphthylene	mg/kg	83000	S4UL		<0.01	<0.01	0.35	0.03	<0.01	<0.01	<0.05	<0.05	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.04	<0.01	<0.05	<0.05	<0.05
PAH	Acenaphthene	mg/kg	84000	S4UL		0.01	0.03	0.73	0.05	<0.01	0.03	<0.05	<0.05	0.02		<0.01	0.03	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.37	<0.01	<0.05	<0.05	<0.05
PAH	Anthracene	mg/kg	520000	S4UL		<0.02	0.06	2.24	0.11	<0.02	0.08	<0.05	0.07	0.05		<0.02	0.03	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.69	0.02	<0.05	<0.05	<0.05
PAH	Phenanthrene	mg/kg	22000	S4UL		0.07	0.28	6.72	0.53	0.12	0.37	0.08	0.22	0.21		<0.03	0.17	0.15	<0.03	<0.03	<0.03	<0.03	<0.03	0.05	2.75	0.11	<0.05	<0.05	<0.05
PAH	Fluoranthene	mg/kg	23000	S4UL		<0.08	0.57	37	0.95	<0.08	0.69	0.08	0.39	0.42		<0.08	0.25	0.28	<0.08	<0.08	<0.08	<0.08	<0.08	0.13	7.01	0.22	<0.05	<0.05	<0.05
PAH	Pyrene	mg/kg	54000	S4UL		<0.07	0.53	37	0.93	0.19	0.67	0.07	0.37	0.39		<0.07	0.23	0.28	<0.07	<0.07	<0.07	<0.07	<0.07	0.13	6.44	0.17	<0.05	<0.05	<0.05
PAH	Benzo(a)anthracene	mg/kg	170	S4UL		<0.04	0.3	24	0.53	0.12	0.37	0.05	0.21	0.22		<0.04	0.1	0.15	<0.04	<0.04	<0.04	<0.04	<0.04	0.08	3.22	0.11	<0.05	<0.05	<0.05
PAH	Chrysene	mg/kg	350	S4UL		<0.06	0.36	28.8	0.59	<0.06	0.46	0.05	0.22	0.27		<0.06	0.13	0.19	<0.06	<0.06	<0.06	<0.06	<0.06	0.1	3.13	0.14	<0.05	<0.05	<0.05
PAH	Benzo(b)fluoranthene	mg/kg	44	S4UL		<0.05	0.38	25	0.64	0.14	0.45	0.05	0.17	0.27		<0.05	0.1	0.17	<0.05	<0.05	<0.05	<0.05	<0.05	0.1	3.2	0.16	<0.05	<0.05	<0.05
PAH	Benzo(k)fluoranthene	mg/kg	1200	S4UL		<0.07	0.13	11.7	0.2	<0.07	0.14	<0.05	0.11	0.1		<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	1.17	<0.07	<0.05	<0.05	<0.05
PAH	Benzo(a)pyrene	mg/kg	77	C4SL		<0.04	0.28	24	0.54	<0.04	0.38	<0.05	0.15	0.22		<0.04	0.09	0.13	<0.04	<0.04	<0.04	<0.04	<0.04	0.09	3.22	0.16	<0.05	<0.05	<0.05
PAH	Indeno(1,2,3-c,d)Pyrene	mg/kg	500	S4UL		<0.03	0.18	16.4	0.31	<0.03	0.23	<0.05	0.07	0.15		<0.03	0.05	0.07	<0.03	<0.03	<0.03	<0.03	<0.03	0.05	1.84	0.13	<0.05	<0.05	<0.05
PAH	Dibenz(a,h)Anthracene	mg/kg	35	S4UL		<0.04	<0.04	3.03	0.06	<0.04	<0.04	<0.05	<0.05	<0.04		<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.34	<0.04	<0.05	<0.05	<0.05
PAH	Benzo(g,h,i)perylene	mg/kg	3900	S4UL		<0.05	0.16	14.4	0.28	<0.05	0.18	<0.05	0.12	0.13		<0.05	<0.05	0.07	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	1.54	0.14	<0.05	<0.05	<0.05
PAH	PAH, Total Detected USEPA 16	mg/kg				0.09	3.27	232	5.79	0.57	4.08	<0.8	2.15	2.46		<0.01	1.2	1.52	<0.01	<0.01	<0.01	<0.01	<0.01	0.73	35.2	1.36	<0.8	<0.8	<0.8
VOC	Benzene	mg/kg	27	C4SL		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	<0.005	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005
VOC	Toluene	mg/kg	56000	S4UL		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	<0.005	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005
VOC	Ethylbenzene	mg/kg	5700	S4UL		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	<0.005	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005
VOC	m & p-Xylene	mg/kg	5900	S4UL		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	<0.005	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005
VOC	o-Xylene	mg/kg	6600	S4UL		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	<0.005	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005
VOC	Methyl Tert-Butyl Ether	mg/kg	7900	EIC		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	<0.005	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005
Phenols	Phenol	mg/kg	760	S4UL		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2		<0.2		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2			
Phenols	2,3,5-trimethyl phenol	mg/kg										<0.1	<0.1														<0.1	<0.1	<0.1
Phenols	2-isopropylphenol	mg/kg										<0.1	<0.1														<0.1	<0.1	<0.1
Phenols	Catechol	mg/kg										<0.1	<0.1														<0.1	<0.1	<0.1
Phenols	Resorcinol	mg/kg				<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.1	<0.1	<0.2		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1
Phenols	Methylphenols (Total Cresols)	mg/kg	160000	EIC		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3	<0.3	<0.2		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3	<0.3	<0.3
Phenols	Naphthols	mg/kg										<0.2	<0.2														<0.2	<0.2	<0.2
Phenols	Xylenols & Ethylphenols	mg/kg										<0.3	<0.3														<0.3	<0.3	<0.3
Phenols	Xylenols	mg/kg				<0.2	<0.2	<0.2	<0.2	<0.2	<0.2			<0.2		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2			
Phenols	Total Phenols	mg/kg										<1.3	<1.3														<1.3	<1.3	<1.3
Phenols	Phenol (Monohydric - Total by HPLC)	mg/kg				<0.2	<0.2	<0.2	<0.2	<0.2	<0.2			<0.2		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2			
Phenols	Total Phenols	mg/kg										<0.1	<0.1														<0.1	<0.1	<0.1

Comments
GAC - Generic Assessment Criteria
(blank) - no assessment criteria available
None - No unit
% - Percentage
pH Units - pH Units
mg/kg - milligrams per kilogram
NAD - No asbestos detected

C4SL - Category 4 Screening Levels, DEFRA SP1010, Development of Category 4 Screening Levels for Assessment of Land Affecte
S4UL - Suitable for Use Levels, The LQM/CIEH S4ULs for Human Health Risk Assessment
EIC - The Soil Generic Assessment Criteria for Human Health Risk Assessment, CL:AIRE in association with AGS and EIC

Key
XXX Exceedance of Commercial/Industrial 1% soil organic matter GAC

Project Name: M60/M62/M66 Simister Island
Sample Date: 28/06/2021 - 03/03/2023

					Sample Location Sampled Date Top Depth (m) Base Depth (m)	BHWS02 06/02/2023 3	BHWS02 07/02/2023 4	BHWS03 06/02/2023 2.2	BHWS03 10/02/2023 1	BHWS04 06/02/2023 5	BHWS04 07/02/2023 7	BHWS08 08/02/2023 2.1	BHWS08 09/02/2023 6.1	BHWS09 08/02/2023 2	BHWS10 26/01/2023 3.5	HDP01 31/01/2023 0.25	HDP02 03/03/2023 0.3	HDP03 01/02/2023 0.25	HDP05 01/02/2023 0.5	HDP06 01/02/2023 0.25	HDP07 02/02/2023 0.25	HDP07 02/02/2023 1	HDP08 31/01/2023 0.25	HDP08 31/01/2023 1	HDP09 03/02/2023 1.35	HDP09 03/03/2023 0.55	HDP10 30/01/2023 0.15	HDP10 30/01/2023 0.5	HDP12 30/01/2023 0.1
Analyte Group	Analyte	Unit	Commercial/Industrial 1% SOM Threshold	Threshold Source		Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Asbestos	Asbestos (Presence of)	none				NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	Detected Amosite	Detected Amosite	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD
Asbestos	Asbestos Identification.	none																												
Asbestos	Asbestos Quantification Stage 2	%												0.003	<0.001															
Asbestos	Asbestos Quantification (Total %)	%												0.003	<0.001															
Inorganics	Percent Moisture	%				9	18	25	5.6	12	17	9.6	19	24	13	13	12	21	12	13	14	8.1	16	12	11	11	13	11	14	
Inorganics	pH	pH UNITS				7.7	8.3	9.3	8.4	8.2	7.6	8.1	7.6	9.6	9.1	8.2	8.1	7.8	7.9	8.3	7.9	8.3	7.7	8.4	9	7.9	8.2	8.2	8.1	
Inorganics	Total Organic Carbon	%																												
Inorganics	Total Organic Matter	%				0.6	1.2	1.9	0.8	1	3.1	0.7	1	1.7	1.7	2.8	1.2	5.3	1.7	2	4.7	1.9	4.2	1.9	0.8	3.1	1.9	2.9	2.3	
Inorganics	Cyanide (Free)	mg/kg				<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Inorganics	Cyanide (Total)	mg/kg				<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Metals	Antimony	mg/kg	7500	EIC		<1	1.2	<1	<1	<1	1.2	<1	<1	<1	7.4	2.7	3.1	5.6	2.7	2.7	3.8	2	2.9	<1	3.7	<1	2.2	<1	2.1	
Metals	Arsenic	mg/kg	640	C4SL		1.9	2.5	88	3.9	13	3.3	3.7	3.8	89	85	11	7	18	5.7	7	14	5.8	10	6.7	35	11	7	6.5	7.9	
Metals	Barium	mg/kg	22000	EIC		47	36	1300	350	160	94	170	26	780	630	120	130	220	93	130	140	78	100	100	500	95	120	150	130	
Metals	Beryllium	mg/kg	12	S4UL		0.66	0.4	2.9	0.83	0.45	0.5	0.34	0.44	3.3	2.6	0.73	0.68	0.86	0.63	0.66	0.77	0.48	0.67	0.55	1.3	0.62	0.67	0.62	0.7	
Metals	Boron	mg/kg	240000	S4UL																										
Metals	Boron (Water Soluble)	mg/kg				<0.2	<0.2	47	0.2	3.1	<0.2	1.2	0.3	22	22	0.4	0.2	0.4	0.6	0.6	0.5	<0.2	0.6	0.4	8.8	0.3	0.4	0.2	0.4	
Metals	Cadmium	mg/kg	410	C4SL		0.2	0.5	<0.2	<0.2	<0.2	0.3	<0.2	<0.2	<0.2	<0.2	<0.2	0.3	0.9	<0.2	<0.2	<0.2	0.2	0.4	<0.2	<0.2	<0.2	0.3	0.5	<0.2	
Metals	Chromium, Hexavalent (Cr6+)	mg/kg	49	C4SL		<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	
Metals	Chromium, Trivalent (Cr3+)	mg/kg	8600	S4UL		13	10	43	21	21	11	9.7	9.3	39	32	20	16	22	14	16	17	11	16	13	46	15	17	15	16	
Metals	Chromium	mg/kg	8600	S4UL		13	11	44	21	21	11	9.9	9.5	39	32	20	16	22	14	16	17	11	16	13	46	15	17	15	16	
Metals	Copper	mg/kg	68000	S4UL		13	17	86	14	14	16	8.4	22	84	78	32	21	72	18	27	47	14	37	14	37	25	27	29	29	
Metals	Lead	mg/kg	2300	C4SL		12	7.8	45	14	13	8.6	8	8.3	48	36	38	23	140	17	35	130	20	79	17	22	50	24	21	30	
Metals	Mercury	mg/kg	1100	S4UL		<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	
Metals	Molybdenum	mg/kg	17000	EIC		0.5	0.7	6	<0.25	1.3	0.54	0.49	<0.25	7.4	6.1	0.98	0.62	2.2	0.51	0.74	1.7	0.42	1.3	0.48	2.1	1.1	0.71	0.62	0.81	
Metals	Nickel	mg/kg	980	S4UL		14	15	44	31	14	26	9.7	15	48	46	21	20	21	17	19	18	13	18	15	30	15	20	19	19	
Metals	Selenium	mg/kg	12000	S4UL		<1	<1	3.4	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Metals	Vanadium	mg/kg	9000	S4UL		13	11	95	20	15	12	11	11	95	88	21	18	26	17	19	25	13	21	17	46	20	20	18	20	
Metals	Zinc	mg/kg	730000	S4UL		45	43	87	73	25	43	34	42	93	55	89	58	200	41	66	150	34	130	44	72	48	48	58	53	
TPHCWG	TPH Aliphatic >C5-C6	mg/kg	3200	S4UL		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
TPHCWG	TPH Aliphatic >C6-C8	mg/kg	7800	S4UL		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
TPHCWG	TPH Aliphatic >C8-C10	mg/kg	2000	S4UL		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
TPHCWG	TPH Aliphatic >C10-C12	mg/kg	9700	S4UL		<1	<1	<1	<1	<1	3	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
TPHCWG	TPH Aliphatic >C12-C16	mg/kg	59000	S4UL		<2	<2	<2	<2	<2	5.1	2.9	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	3.5	3.7	
TPHCWG	TPH Aliphatic >C16-C21	mg/kg	1600000	S4UL		<8	<8	<8	<8	<8	<8	<8	<8	<8	<8	<8	<8	<8	<8	<8	<8	<8	<8	<8	<8	<8	<8	<8	<8	
TPHCWG	TPH Aliphatic >C21-C35	mg/kg	1600000	S4UL		<8	<8	<8	<8	<8	12	<8	<8	<8	<8	<8	<8	16	<8	<8	<8	<8	<8	<8	14	<8	<8	<8	9.5	
TPHCWG	TPH Aliphatic >C35-C44	mg/kg	1600000	S4UL		<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	
TPHCWG	TPH Aliphatic >C5-C35	mg/kg				<10	<10	<10	<10	<10	27	15	<10	<10	<10	<10	<10	16	<10	<10	<10	<10	<10	<10	17	<10	<10	<10	15	
TPHCWG	TPH Aliphatic >C5-C44	mg/kg				<10	<10	<10	<10	<10	27	15	<10	<10	<10	<10	<10	16	<10	<10	<10	<10	<10	<10	17	<10	<10	<10	15	
TPHCWG	TPH Aromatic >C5-C7	mg/kg	26000	S4UL		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
TPHCWG	TPH Aromatic >C7-C8	mg/kg	56000	S4UL		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
TPHCWG	TPH Aromatic >C8-C10	mg/kg	3500	S4UL		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
TPHCWG	TPH Aromatic >C10-C12	mg/kg	16000	S4UL		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
TPHCWG	TPH Aromatic >C12-C16	mg/kg	36000	S4UL		<2	<2	<2	<2	<2	<2	<2	<2	<2	2.6	<2	3.7	<2	<2	3.3	<2	<2	<2	<2	<2	<2	<2	<2	2.1	
TPHCWG	TPH Aromatic >C16-C21	mg/kg	28000	S4UL		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
TPHCWG	TPH Aromatic >C21-C35	mg/kg	28000	S4UL		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	11	<10	<10	12	<10	<10	<10	<10	<10	<10	<10	<10	
TPHCWG	TPH Aromatic >C35-C44	mg/kg	28000	S4UL		<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	
TPHCWG	TPH Aromatic >C5-C35	mg/kg				<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	12	<10	22	<10	<10	19	<10	<10	<10	<10	<10	<10	<10	<10	
TPHCWG	TPH Aromatic >C5-C44	mg/kg				<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	12	<10	22	<10	<10	19	<10	<10	<10	<10	<10	<10	<10	<10	
TPHCWG	TPH Aliphatic & Aromatic >C5-C44	mg/kg																												
TPHCWG	TPH HI - Commercial Industrial SOM 1% GAC	none	1			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Other TPH	Petroleum Range Organics	mg/kg				<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
PAH	Naphthalene	mg/kg	190	S4UL		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.19	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
PAH	Fluorene	mg/kg	63000	S4UL		<0.05	<0.05	0.26	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.14	<0.05	<0.05	<0.05	<0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
PAH	Acenaphthylene	mg/kg	83000	S4UL		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
PAH	Acenaphthene	mg/kg	84000	S4UL		<0.05	<0.05	0.51	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.24	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
PAH	Anthracene	mg/kg	520000	S4UL		<0.05	<0.05	0.41	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.07	<0.05	0.35	<0.05	<0.05	0.08	<0.05	0.08	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.1	
PAH	Phenanthrene	mg/kg	22000	S4UL		<0.05	<0.05	2.4	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.11	0.39	0.18	1.6	0.06	0.16	0.53	0.06	0.47	<0.05	0.11	0.1	0.18	0.18	0.5	
PAH	Fluoranthene	mg/kg	23000	S4UL		<0.05	<0.05	2.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.1	0.52	0.28	2.2	0.08	0.22	1.1	0.1	0.66	0.1	0.05	0.23	0.23	0.26	0.72	
PAH	Pyrene	mg/kg	54000	S4UL		<0.05	<0.05	1.8	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.09	0.5	0.28	2.1	0.07	0.2	0.93	0.07	0.66	0.13	<0.05	0.22	0.22	0.27	0.69	
PAH	Benzo(a)anthracene	mg/kg	170	S4UL		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.06	0.22	0.12	1	<0.05	0.14	0.47	<0.05	0.39	<0.05	<0.05	0.11	0.11	0.1	0.31	
PAH	Chrysene	mg/kg	350	S4UL		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.06	0.35	0.13	1.3	0.06	0.16	0.55	0.08	0.41	0.08	<0.05	0.11	0.14	0.21	0.43	
PAH	Benzo(b)fluoranthene	mg/kg	44	S4UL		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.25	0.11	1.2	<0.05	0.17	0.59	0.05	0.38	0.05	<0.05	0.11	0.1	0.13	0.32	
PAH	Benzo(k)fluoranthene	mg/kg	1200	S4UL		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.11	0.09	0.75	<0.05	0.1	0.34	<0.05	0.27	<0.05	<0.05	0.07	0.07	0.06	0.21		
PAH	Benzo(a)pyrene	mg/kg	77	C4SL		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.23	0.12	1.4	<0.05	0.13	0.52	<0.05	0.42	0.05	<0.05	0.11	0.09	0.11	0.33	
PAH	Indeno(1,2,3-c,d)Pyrene	mg/kg	500	S4UL		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.12	<0.05	0.69	<0.05	0.08	0.28	<0.05	0.23	<0.05	<0.05	0.05	<0.05	0.05	0.15	
PAH	Dibenz(a,h)Anthracene	mg/kg	35	S4UL		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.19	<0.05	<0.05	<0.05	<0.05	0.07	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
PAH	Benzo(g,h,i)perylene	mg/kg	3900	S4UL		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.16	<0.05	0.82	<0.05	0.11	0.37	<0.05	0.27	<0.05	<0.05	0.07	<0.05	0.07	0.19	
PAH	PAH, Total Detected USEPA 16	mg/kg				<0.8	<0.8	7.52	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	2.92	1.31	14	<0.8	1.47	5.73	<0.8	4.36	<0.8	<0.8	1.18	1.14	1.44	3.95	
VOC	Benzene	mg/kg	27	C4SL		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	
VOC	Toluene	mg/kg	56000	S4UL		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	
VOC	Ethylbenzene	mg/kg	5700	S4UL		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	
VOC	m & p-Xylene	mg/kg	5900	S4UL		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	
VOC	o-Xylene	mg/kg	6600	S4UL		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	
VOC	Methyl Tert-Butyl Ether	mg/kg	7900	EIC		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	
Phenols	Phenol	mg/kg	760	S4UL																										
Phenols	2,3,5-trimethyl phenol	mg/kg				<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
Phenols	2-isopropylphenol	mg/kg				<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
Phenols	Catechol	mg/kg				<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
Phenols	Resorcinol	mg/kg				<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
Phenols	Methylphenols (Total Cresols)	mg/kg	160000	EIC		<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	
Phenols	Naphthols	mg/kg				<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	
Phenols	Xylenols & Ethylphenols	mg/kg				<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	
Phenols	Xylenols	mg/kg																												
Phenols	Total Phenols	mg/kg				<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	
Phenols	Phenol (Monohydric - Total by HPLC)	mg/kg																												
Phenols	Total Phenols	mg/kg				<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	

Comments
GAC - Generic Assessment Criteria
(blank) - no assessment criteria available
None - No unit
% - Percentage
pH Units - pH Units
mg/kg - milligrams per kilogram
NAD - No asbestos detected

C4SL - Category 4 Screening Levels, DEFRA SP1010, Development of Category 4 Screening Levels for Assessment of Land Affecte
S4UL - Suitable for Use Levels, The LQM/CIEH S4ULs for Human Health Risk Assessment
EIC - The Soil Generic Assessment Criteria for Human Health Risk Assessment, CL:AIRE in association with AGS and EIC

Key
XXX Exceedance of Commercial/Industrial 1% soil organic matter GAC

Project Name: M60/M62/M66 Simister Island
Sample Date: 28/06/2021 - 03/03/2023

					Sample Location	HDP12	TP-N01	TP-N01	TP-N02	WS01	WS01	WS02	WS03	WS04	WS04	WS05	WS05	WS06	WS06	WS07	WS07	WS08	WS08	WS09	WS10	WS10	WS-G08A	WS-N01	WS-N02A
					Sampled Date	30/01/2023	10/08/2021	10/08/2021	01/09/2021	25/01/2023	26/01/2023	25/01/2023	25/01/2023	27/01/2023	07/02/2023	23/01/2023	25/01/2023	20/01/2023	23/01/2023	13/01/2022	17/01/2023	18/01/2023	18/01/2023	19/01/2023	19/01/2023	19/01/2023	19/01/2023	12/11/2021	25/08/2021	06/08/2021
					Top Depth (m)	0.5	0.2	0.5	0.5	0.8	1.5	0.5	0.6	1	2	0.5	2	0.7	2	0.7	1.9	0.3	0.8	0.8	1	1.5	0.1	1.5	1
					Base Depth (m)																								
Analyte Group	Analyte	Unit	Commercial/Industrial 1% SOM Threshold	Threshold Source		Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Asbestos	Asbestos (Presence of)	none				NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	Detected														
Asbestos	Asbestos Identification.	none													Chrysotile														
Asbestos	Asbestos Quantification Stage 2	%													<0.001														
Asbestos	Asbestos Quantification (Total %)	%													<0.001														
Inorganics	Percent Moisture	%			12					5.3	8.9	3.5	3.8	2.9	20	2	18	5.7	19	5.9	18	6.5	7.2	4.9	5.7	17				
Inorganics	pH	pH UNITS			7.6	8.29	8.26	8.72	8.9	8	9.2	10.2	9.1	9.2	9.1	8.4	8.8	7.6	8.7	7.9	8.9	8.7	8.7	9	9	8.72	8.46	8.94
Inorganics	Total Organic Carbon	%																											
Inorganics	Total Organic Matter	%			1.7	4.2	1.6	2	0.5	1.3	1.2	1.1	0.6	1.5	0.4	2	0.9	1.6	0.4	1.3	2.6	0.6	0.6	0.9	2.2	2.9	2	1.4
Inorganics	Cyanide (Free)	mg/kg			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Inorganics	Cyanide (Total)	mg/kg			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Metals	Antimony	mg/kg	7500	EIC		2.2	<5	<5	<5	<1	1.1	<1	<1	<1	5.3	<1	2.8	<1	<1	1.8	1.7	<1	<1	<1	<1	6.3	<5	<5	<5
Metals	Arsenic	mg/kg	640	C4SL		10	7	2	2	5.1	3.8	2.5	1.5	1.6	80	1.8	6	4.8	5.4	5.2	4.7	3.2	3.9	4.6	17	77	2	4	7
Metals	Barium	mg/kg	22000	EIC		110	184	142	109	170	79	130	18	19	1500	9.4	100	300	80	140	54	19	82	110	340	1400	124	138	75
Metals	Beryllium	mg/kg	12	S4UL		0.64	0.7	0.6	<0.5	0.39	0.44	0.31	0.07	0.06	2.2	0.06	1.1	0.66	1.3	0.39	0.39	<0.06	0.32	0.35	0.78	2.9	0.7	0.7	0.7
Metals	Boron	mg/kg	240000	S4UL		<1	<1	<1	<1																		<1	<1	<1
Metals	Boron (Water Soluble)	mg/kg				0.5				<0.2	<0.2	<0.2	<0.2	0.3	4	<0.2	<0.2	<0.2	0.3	<0.2	<0.2	<0.2	0.5	0.2	0.5	1.8			
Metals	Cadmium	mg/kg	410	C4SL		<0.2	0.9	0.7	<0.5	0.2	0.2	0.4	0.3	0.4	<0.2	0.5	<0.2	0.3	0.2	0.3	<0.2	0.4	0.2	0.3	<0.2	<0.2	<0.5	0.6	1.6
Metals	Chromium, Hexavalent (Cr6+)	mg/kg	49	C4SL		<1.2	<1	<1	<1	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1	<1	<1
Metals	Chromium, Trivalent (Cr3+)	mg/kg	8600	S4UL		15	18	17	16	13	12	9.6	5.9	5.8	35	6.1	25	18	25	13	9.5	4.2	13	13	18	32	15	19	16
Metals	Chromium	mg/kg	8600	S4UL		15	18	17	16	13	13	9.6	5.9	5.8	35	6.1	25	18	25	13	10	4.4	13	13	18	32	15	19	16
Metals	Copper	mg/kg	68000	S4UL		23	52	23	20	15	13	9.5	4.3	3.8	59	5	28	19	25	17	16	7	14	17	30	79	21	34	18
Metals	Lead	mg/kg	2300	C4SL		21	85	34	25	6	7.3	6.1	2.3	2.5	33	3.2	11	12	12	8.5	8.8	1.9	9.5	4.3	10	40	34	37	21
Metals	Mercury	mg/kg	1100	S4UL		<0.17	<0.17	<0.17	<0.17	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.17	<0.17	<0.17
Metals	Molybdenum	mg/kg	17000	EIC		0.65	<1	<1	<1	<1	<0.25	0.91	0.52	<0.25	0.27	2.4	0.48	0.35	0.33	0.41	<0.25	0.3	0.37	0.27	<0.25	0.73	2.6	<1	<1	<1
Metals	Nickel	mg/kg	980	S4UL		19	22	22	17	20	15	9.9	3.2	3.3	38	3	33	24	36	20	12	2.9	13	19	27	42	20	21	14
Metals	Selenium	mg/kg	12000	S4UL		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Metals	Vanadium	mg/kg	9000	S4UL		18	22	21	19	14	15	8.8	5.6	5.7	72	5.7	26	18	27	14	12	5.1	15	14	25	84	16	22	18
Metals	Zinc	mg/kg	730000	S4UL		50	123	48	46	45	36	39	16	14	74	25	55	62	64	41	35	21	56	34	49	74	61	61	122
TPHCWG	TPH Aliphatic >C5-C6	mg/kg	3200	S4UL		<0.001	<0.01	<0.01	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	<0.01
TPHCWG	TPH Aliphatic >C6-C8	mg/kg	7800	S4UL		<0.001	<0.01	<0.01	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	<0.01
TPHCWG	TPH Aliphatic >C8-C10	mg/kg	2000	S4UL		<1	<1	<1	<1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<1	<1	<1
TPHCWG	TPH Aliphatic >C10-C12	mg/kg	9700	S4UL		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
TPHCWG	TPH Aliphatic >C12-C16	mg/kg	59000	S4UL		2.5	16	6	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	4.7	<2	<2	<2	<2	1	2	<1
TPHCWG	TPH Aliphatic >C16-C21	mg/kg	1600000	S4UL		<8	1	1	2	<8	<8	<8	<8	<8	<8	<8	<8	<8	<8	<8	<8	9.2	<8	<8	<8	<8	3	3	1
TPHCWG	TPH Aliphatic >C21-C35	mg/kg	1600000	S4UL		29	13	4	5	<8	59	43	69	27	<8	<8	<8	11	<8	<8	16	230	25	<8	<8	<8	8	7	5
TPHCWG	TPH Aliphatic >C35-C44	mg/kg	1600000	S4UL		12	2	<1	<1	<8.4	36	41	69	41	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	13	320	28	<8.4	<8.4	<8.4	2	2	4
TPHCWG	TPH Aliphatic >C5-C35	mg/kg				39				<10	64	43	69	30	<10	<10	<10	11	<10	<10	19	240	26	<10	<10	<10			
TPHCWG	TPH Aliphatic >C5-C44	mg/kg				51	33	11	8	<10	100	84	140	71	<10	<10	<10	11	<10	<10	32	550	54	<10	<10	<10	15	14	9
TPHCWG	TPH Aromatic >C5-C7	mg/kg	26000	S4UL		<0.001	<0.01	<0.01	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	<0.01	<0.01
TPHCWG	TPH Aromatic >C7-C8	mg/kg	56000	S4UL		<0.001	<0.01	<0.01	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	<0.01	<0.01
TPHCWG	TPH Aromatic >C8-C10	mg/kg	3500	S4UL		<0.001	<1	<1	<1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<1	<1	<1
TPHCWG	TPH Aromatic >C10-C12	mg/kg	16000	S4UL		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1	<1
TPHCWG	TPH Aromatic >C12-C16	mg/kg	36000	S4UL		<2	21	7	<1	<2	<2	<2	<2	3.2	<2	<2	<2	<2	<2	<2	<2	<2	2.2	<2	<2	<2	1	3	<1
TPHCWG	TPH Aromatic >C16-C21	mg/kg	28000	S4UL		<10	13	3	3	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	6	7	1
TPHCWG	TPH Aromatic >C21-C35	mg/kg	28000	S4UL		<10	38	9	7	<10	45	65	140	42	<10	<10	<10	<10	<10	<10	<10	290	35	<10	<10	<10	22	18	4
TPHCWG	TPH Aromatic >C35-C44	mg/kg	28000	S4UL		<8.4	5	1	<1	<8.4	53	82	180	37	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	680	110	<8.4	<8.4	<8.4	<1	2	2
TPHCWG	TPH Aromatic >C5-C35	mg/kg				<10				<10	47	69	150	50	<10	<10	<10	<10	<10	<10	<10	300	40	<10	<10	<10			
TPHCWG	TPH Aromatic >C5-C44	mg/kg				<10	77	20	11	<10	99	150	330	88	<10	<10	<10	<10	<10	<10	<10	980	150	<10	<10	<10	29	31	7
TPHCWG	TPH Aliphatic & Aromatic >C5-C44	mg/kg					109	31	19																		44	45	17
TPHCWG	TPH HI - Commercial Industrial SOM 1% GAC	none	1			0.0	0.00286452	0.00076355	0.000361518	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.001052852	0.001151517	0.00025625
Other TPH	Petroleum Range Organics	mg/kg				<0.1				<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		
PAH	Naphthalene	mg/kg	190	S4UL		<0.05	<0.03	<0.03	<0.03	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.03	<0.03
PAH	Fluorene	mg/kg	63000	S4UL		<0.05	0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.02	0.01	<0.01
PAH	Acenaphthylene	mg/kg	83000	S4UL		<0.05	0.03	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.01	<0.01
PAH	Acenaphthene	mg/kg	84000	S4UL		<0.05	0.06	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.02	0.02	0.01
PAH	Anthracene	mg/kg	520000	S4UL		<0.05	0.2	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.06	0.04	0.02
PAH	Phenanthrene	mg/kg	22000	S4UL		0.14	0.64	0.04	0.04	<0.05	<0.05	0.09	0.05	<0.05	<0.05	<0.05	<0.05	0.44	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.2	0.21	0.12
PAH	Fluoranthene	mg/kg	23000	S4UL		0.19	1.68	<0.08	<0.08	<0.05	<0.05	<0.05	0.1	0.17	<0.05	<0.05	<0.05	0.76	<0.05	<0.05	<0.05	<0.05	0.07	<0.05	<0.05	<0.05	0.39	0.26	0.2
PAH	Pyrene	mg/kg	54000	S4UL		0.2	1.58	<0.07	<0.07	<0.05	<0.05	<0.05	0.17	0.21	<0.05	<0.05	<0.05	0.72	<0.05	<0.05	<0.05	<0.05	0.07	<0.05	<0.05	<0.05	0.38	0.25	0.19
PAH	Benzo(a)anthracene	mg/kg	170	S4UL		0.08	1.05	<0.04	0.04	<0.05	<0.05	<0.05	0.07	0.1	<0.05	<0.05	<0.05	0.35	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.21	0.13	0.08
PAH	Chrysene	mg/kg	350	S4UL		0.16	0.98	<0.06	<0.06	<0.05	<0.05	<0.05	0.17	0.16	<0.05	<0.05	<0.05	0.31	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.24	0.17	0.11
PAH	Benzo(b)fluoranthene	mg/kg	44	S4UL		0.1	1.33	<0.05	0.05	<0.05	<0.05	<0.05	0.27	0.26	<0.05	<0.05	<0.05	0.34	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.27	0.13	0.11
PAH	Benzo(k)fluoranthene	mg/kg	1200	S4UL		0.05	0.5	<0.07	<0.07	<0.05	<0.05	<0.05	0.2	0.16	<0.05	<0.05	<0.05	0.16	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.08	<0.07	<0.07
PAH	Benzo(a)pyrene	mg/kg	77	C4SL		0.08	1.14	<0.04	<0.04	<0.05	<0.05	<0.05	0.47	0.38	<0.05	<0.05	<0.05	0.29	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.23	0.13	0.08
PAH	Indeno(1,2,3-c,d)Pyrene	mg/kg	500	S4UL		<0.05	0.76	<0.03	<0.03	<0.05	<0.05	<0.05	0.31	0.19	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.17	0.08	0.05
PAH	Dibenz(a,h)Anthracene	mg/kg	35	S4UL		<0.05	0.14	<0.04	<0.04	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.04	<0.04
PAH	Benzo(g,h,i)perylene	mg/kg	3900	S4UL		<0.05	0.69	<0.05	<0.05	<0.05	<0.05	<0.05	0.46	0.34	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.14	0.08	0.06
PAH	PAH, Total Detected USEPA 16	mg/kg				1	10.8	<0.01	0.13	<0.8	<0.8	<0.8	2.27	1.97	<0.8	<0.8	<0.8	3.47	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	2.41	1.51	1.03
VOC	Benzene	mg/kg	27	C4SL		<0.005	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.01
VOC	Toluene	mg/kg	56000	S4UL		<0.005	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.01
VOC	Ethylbenzene	mg/kg	5700	S4UL		<0.005	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.01
VOC	m & p-Xylene	mg/kg	5900	S4UL		<0.005	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.01
VOC	o-Xylene	mg/kg	6600	S4UL		<0.005	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.01
VOC	Methyl Tert-Butyl Ether	mg/kg	7900	EIC		<0.005	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.01
Phenols	Phenol	mg/kg	760	S4UL			<0.2	<0.2	<0.2																		<0.2	<0.2	<0.2
Phenols	2,3,5-trimethyl phenol	mg/kg				<0.1				<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1			
Phenols	2-isopropylphenol	mg/kg				<0.1				<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1			
Phenols	Catechol	mg/kg				<0.1				<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1			
Phenols	Resorcinol	mg/kg				<0.1	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2
Phenols	Methylphenols (Total Cresols)	mg/kg	160000	EIC		<0.3	<0.2	<0.2	<0.2	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.2	<0.2	<0.2
Phenols	Naphthols	mg/kg				<0.2				<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2			
Phenols	Xylenols & Ethylphenols	mg/kg				<0.3				<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3			
Phenols	Xylenols	mg/kg					<0.2	<0.2	<0.2																		<0.2	<0.2	<0.2
Phenols	Total Phenols	mg/kg				<1.3				<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3			
Phenols	Phenol (Monohydric - Total by HPLC)	mg/kg					<0.2	<0.2	<0.2																		<0.2	<0.2	<0.2
Phenols	Total Phenols	mg/kg				<0.1				<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1			

Comments
GAC - Generic Assessment Criteria
(blank) - no assessment criteria available
None - No unit
% - Percentage
pH Units - pH Units
mg/kg - milligrams per kilogram
NAD - No asbestos detected

C4SL - Category 4 Screening Levels, DEFRA SP1010, Development of Category 4 Screening Levels for Assessment of Land Affecte
S4UL - Suitable for Use Levels, The LQM/CIEH S4ULs for Human Health Risk Assessment
EIC - The Soil Generic Assessment Criteria for Human Health Risk Assessment, CL:AIRE in association with AGS and EIC

Key
XXX Exceedance of Commercial/Industrial 1% soil organic matter GAC

Project Name: M60/M62/M66 Simister Island
Sample Date: 28/06/2021 - 03/03/2023

					Sample Location	WS-N02B	WS-N03	WS-N04	WS-N04A	WS-N04A	WS-N05	WS-N05A	WS-N06	WS-N06A	WS-N07	WS-N08	WS-N09	WS-N10	WS-N10	WS-N10	WS-N10	WS-N10	WS-N11	WS-N11	WS-N12	WS-N12C	WS-N12C	WS-N13	WS-N14
					Sampled Date	19/11/2021	15/10/2021	13/07/2021	12/07/2021	12/07/2021	19/07/2021	14/07/2021	15/07/2021	16/07/2021	26/11/2021	10/08/2021	20/07/2021	17/09/2021	17/09/2021	17/09/2021	17/09/2021	17/09/2021	06/08/2021	06/08/2021	22/07/2021	26/07/2021	26/07/2021	15/10/2021	15/10/2021
					Top Depth (m)	0.5	0.5	0.2	0.1	0.5	1	0.5	0.2	0.5	0.2	0.25	0.2	0.2	0.5	1	1.9	2.5	0.5	1	0.1	0.5	2.2	0.1	0.1
					Base Depth (m)																							
Analyte Group	Analyte	Unit	Commercial/Industrial 1% SOM Threshold	Threshold Source	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Asbestos	Asbestos (Presence of)	none			NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD				NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD
Asbestos	Asbestos Identification.	none																										
Asbestos	Asbestos Quantification Stage 2	%																										
Asbestos	Asbestos Quantification (Total %)	%																										
Inorganics	Percent Moisture	%																										
Inorganics	pH	pH UNITS			8.47	6.45	5.86	5.84	5.9	5.03	5.34	5.43	5.87	6.82	6.28	5.75	7.11				6.6	8.07	7.83	6.27	6.76	6.76	6.93	5.67
Inorganics	Total Organic Carbon	%																1.3	1.8	1.42								
Inorganics	Total Organic Matter	%			3.2	3.9	16.3	26.8	2.6	1.1	1.5	13.1	6.1	11.6	5.2	30.1	10.6				3.1	5.1	19.6	3.1	1	0.9	15	10.2
Inorganics	Cyanide (Free)	mg/kg			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1	<1				<1	<1	2	<1	<1	<1	<1	<1
Inorganics	Cyanide (Total)	mg/kg			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1	<1				<1	<1	118	<1	<1	<1	<1	<1
Metals	Antimony	mg/kg	7500	EIC	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5				<5	<5	117	<5	<5	<5	<5	<5
Metals	Arsenic	mg/kg	640	C4SL	2	<1	17	2	2	<1	<1	19	<1	12	8	12	17				2	11	287	2	3	<1	4	11
Metals	Barium	mg/kg	22000	EIC	103	54	107	34	38	28	162	97	99	86	83	78	101				17	143	391	58	69	1110	105	68
Metals	Beryllium	mg/kg	12	S4UL	0.7	<0.5	0.6	<0.5	<0.5	<0.5	0.9	0.8	2	1	0.7	0.6	0.9				<0.5	0.9	0.9	<0.5	<0.5	<0.5	0.6	<0.5
Metals	Boron	mg/kg	240000	S4UL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1				<1	<1	<1	<1	<1	<1	<1	<1
Metals	Boron (Water Soluble)	mg/kg																										
Metals	Cadmium	mg/kg	410	C4SL	0.9	2	0.8	0.6	0.6	<0.5	<0.5	0.9	0.7	1.7	1.2	0.5	1.7				<0.5	0.9	1.4	<0.5	<0.5	1.3	1.8	2.4
Metals	Chromium, Hexavalent (Cr6+)	mg/kg	49	C4SL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1				<1	<1	<1	<1	<1	<1	<1	<1
Metals	Chromium, Trivalent (Cr3+)	mg/kg	8600	S4UL	16	12	18	10	12	9	26	16	57	25	22	10	20				7	31	537	12	8	7	13	16
Metals	Chromium	mg/kg	8600	S4UL	16	12	18	10	12	9	26	16	57	25	22	10	20				7	31	537	12	8	7	13	16
Metals	Copper	mg/kg	68000	S4UL	37	18	47	4	5	1	22	44	40	44	34	43	47				11	63	124	16	11	13	33	29
Metals	Lead	mg/kg	2300	C4SL	46	26	117	5	6	<1	13	123	19	96	60	84	122				5	127	480	23	7	8	65	77
Metals	Mercury	mg/kg	1100	S4UL	<0.17	<0.17	<0.17	4.66	4.81	6.37	0.31	1.36	<0.17	0.27	<0.17						<0.17	<0.17	0.52	<0.17	<0.17	<0.17	<0.17	<0.17
Metals	Molybdenum	mg/kg	17000	EIC	<1	<1	6	<1	<1	<1	<1	3	<1	2	<1	<1	2				<1	2	2	<1	<1	<1	<1	<1
Metals	Nickel	mg/kg	980	S4UL	25	16	18	7	8	2	27	22	57	23	16	12	17				8	25	19	13	13	28	18	14
Metals	Selenium	mg/kg	12000	S4UL	<1	<1	<1	<1	<1	1	<1	<1	<1	<1	<1	2	<1				<1	<1	<1	<1	<1	6	<1	<1
Metals	Vanadium	mg/kg	9000	S4UL	17	15	30	8	9	8	28	29	61	38	28	18	27				8	25	32	15	11	8	20	23
Metals	Zinc	mg/kg	730000	S4UL	155	46	84	32	36	<5	45	85	44	101	84	72	131				20	99	165	47	35	50	66	59
TPHCWG	TPH Aliphatic >C5-C6	mg/kg	3200	S4UL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01				<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
TPHCWG	TPH Aliphatic >C6-C8	mg/kg	7800	S4UL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01				<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
TPHCWG	TPH Aliphatic >C8-C10	mg/kg	2000	S4UL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1				<1	<1	1	<1	<1	<1	<1	<1
TPHCWG	TPH Aliphatic >C10-C12	mg/kg	9700	S4UL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1				<1	<1	<1	<1	<1	<1	<1	<1
TPHCWG	TPH Aliphatic >C12-C16	mg/kg	59000	S4UL	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1				<1	2	2	<1	<1	<1	<1	<1
TPHCWG	TPH Aliphatic >C16-C21	mg/kg	1600000	S4UL	1	<1	3	<1	<1	<1	<1	3	<1	<1	<1	3	<1				<1	5	5	<1	<1	<1	1	<1
TPHCWG	TPH Aliphatic >C21-C35	mg/kg	1600000	S4UL	2	3	26	56	4	1	4	50	5	31	11	45	18				1	28	98	13	5	<1	19	14
TPHCWG	TPH Aliphatic >C35-C44	mg/kg	1600000	S4UL	<1	<1	8	14	<1	<1	<1	9	1	2	4	10	4				<1	13	18	3	<1	<1	4	2
TPHCWG	TPH Aliphatic >C5-C35	mg/kg																										
TPHCWG	TPH Aliphatic >C5-C44	mg/kg			5	3	37	70	4	1	4	61	7	33	15	58	23				3	47	124	16	5	<1	24	16
TPHCWG	TPH Aromatic >C5-C7	mg/kg	26000	S4UL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01				<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
TPHCWG	TPH Aromatic >C7-C8	mg/kg	56000	S4UL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01				<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
TPHCWG	TPH Aromatic >C8-C10	mg/kg	3500	S4UL	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1	<1	1				<1	2	<1	<1	<1	<1	<1	<1
TPHCWG	TPH Aromatic >C10-C12	mg/kg	16000	S4UL	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1	<1				<1	10	1	<1	<1	<1	<1	<1
TPHCWG	TPH Aromatic >C12-C16	mg/kg	36000	S4UL	4	1	6	4	<1	<1	1	3	<1	2	1	3	3				<1	97	4	1	<1	<1	2	1
TPHCWG	TPH Aromatic >C16-C21	mg/kg	28000	S4UL	5	2	31	13	<1	<1	1	10	1	4	2	5	6				<1	434	7	2	1	<1	10	3
TPHCWG	TPH Aromatic >C21-C35	mg/kg	28000	S4UL	6	7	172	144	16	2	9	143	13	25	15	177	93				1	564	34	18	4	<1	51	19
TPHCWG	TPH Aromatic >C35-C44	mg/kg	28000	S4UL	<1	1	48	91	5	<1	2	66	9	15	9	184	72				<1	17	12	9	2	<1	17	8
TPHCWG	TPH Aromatic >C5-C35	mg/kg																										
TPHCWG	TPH Aromatic >C5-C44	mg/kg			17	11	257	253	21	2	14	221	24	46	29	370	175				1	1130	58	31	8	<1	80	31
TPHCWG	TPH Aliphatic & Aromatic >C5-C44	mg/kg			21	15	295	323	25	4	17	283	31	79	43	428	198				4	1180	183	47	13	<1	104	48
TPHCWG	TPH HI - Commercial Industrial SOM 1% GAC	none	1		0.000871007	0.000386796	0.009154077	0.009012004	0.0007525	7.20536E-05	0.000458849	0.00794512	0.000825179	0.001647609	0.001251438	0.013253512	0.00648994	0.0	0.0	0.0	3.63393E-05	0.040203521	0.002675992	0.001073492	0.000253125	0	0.00285627	0.001109206
Other TPH	Petroleum Range Organics	mg/kg																										
PAH	Naphthalene	mg/kg	190	S4UL	<0.03	<0.03	0.06	0.06	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03				<0.03	<0.03	0.39	<0.03	<0.03	<0.03	<0.03	<0.03
PAH	Fluorene	mg/kg	63000	S4UL	0.01	<0.01	0.2	0.13	<0.01	<0.01	<0.01	0.04	<0.01	0.02	0.07	0.01	<0.01				<0.01	0.03	0.02	0.01	<0.01	<0.01	0.02	0.01
PAH	Acenaphthylene	mg/kg	83000	S4UL	<0.01	<0.01	0.03	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01				<0.01	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01
PAH	Acenaphthene	mg/kg	84000	S4UL	<0.01	<0.01	0.36	0.11	<0.01	<0.01	<0.01	0.09	<0.01	0.04	0.1	0.03	<0.01				<0.01	0.06	<0.01	0.02	<0.01	<0.01	0.05	0.02
PAH	Anthracene	mg/kg	520000	S4UL	<0.02	<0.02	0.67	0.31	<0.02	<0.02	<0.02	0.15	<0.02	0.06	0.12	0.04	<0.02				<0.02	0.1	0.06	0.03	<0.02	<0.02	0.07	0.03
PAH	Phenanthrene	mg/kg	22000	S4UL	0.06	0.05	2.5	1.3	<0.03	<0.03	<0.03	0.47	<0.03	0.29	0.53	0.14	0.08				<0.03	0.4	0.22	0.15	<0.03	<0.03	0.35	0.19
PAH	Fluoranthene	mg/kg	23000	S4UL	<0.08	0.09	5.85	1.67	<0.08	<0.08	<0.08	1.07	<0.08	0.43	0.51	0.23	0.16				<0.08	0.78	0.28	0.3	<0.08	<0.08	0.71	0.37
PAH	Pyrene	mg/kg	54000	S4UL	<0.07	0.09	5.36	1.76	<0.07	<0.07	<0.07	1.06	<0.07	0.4	0.45	0.21	0.16				<0.07	0.77	0.24	0.26	<0.07	<0.07	0.68	0.36
PAH	Benzo(a)anthracene	mg/kg	170	S4UL	<0.04	0.05	2.85	1.06	<0.04	<0.04	<0.04	0.42	<0.04	0.21	0.24	0.1	0.1				<0.04	0.43	0.16	0.15	<0.04	<0.04	0.34	0.22
PAH	Chrysene	mg/kg	350	S4UL	<0.06	0.08	2.96	1.24	<0.06	<0.06	<0.06	0.5	<0.06	0.26	0.26	0.13	0.11				<0.06	0.44	0.18	0.17	<0.06	<0.06	0.4	0.27
PAH	Benzo(b)fluoranthene	mg/kg	44	S4UL	<0.05	0.08	3.21	1.76	<0.05	<0.05	<0.05	0.43	<0.05	0.24	0.22	0.16	0.13				<0.05	0.49	0.25	0.15	<0.05	<0.05	0.44	0.31
PAH	Benzo(k)fluoranthene	mg/kg	1200	S4UL	<0.07	<0.07	1.24	0.56	<0.07	<0.07	<0.07	0.17	<0.07	<0.07	0.09	<0.07	<0.07				<0.07	0.22	0.08	<0.07	<0.07	<0.07	0.15	0.13
PAH	Benzo(a)pyrene	mg/kg	77	C4SL	<0.04	0.06	2.71	1.53	<0.04	<0.04	<0.04	0.41	<0.04	0.2	0.19	0.11	0.08				<0.04	0.45	0.15	0.13	<0.04	<0.04	0.33	0.24
PAH	Indeno(1,2,3-c,d)Pyrene	mg/kg	500	S4UL	<0.03	<0.03	1.46	1.06	<0.03	<0.03	<0.03	0.19	<0.03	0.11	0.09	0.08	0.06				<0.03	0.29	0.15	0.1	<0.03	<0.03	0.17	0.13
PAH	Dibenz(a,h)Anthracene	mg/kg	35	S4UL	<0.04	<0.04	0.31	0.23	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04				<0.04	0.06	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
PAH	Benzo(g,h,i)perylene	mg/kg	3900	S4UL	<0.05	<0.05	1.16	0.9	<0.05	<0.05	<0.05	0.18	<0.05	0.1	0.07	0.1	<0.05				<0.05	0.29	0.13	0.09	<0.05	<0.05	0.16	0.14
PAH	PAH, Total Detected USEPA 16	mg/kg			<0.01	0.5	30.9	13.7	<0.01	<0.01	<0.01	5.18	<0.01	2.36	2.94	1.34	0.88				<0.01	4.81	2.33	1.56	<0.01	<0.01	3.87	2.42
VOC	Benzene	mg/kg	27	C4SL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01				<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
VOC	Toluene	mg/kg	56000	S4UL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01				<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
VOC	Ethylbenzene	mg/kg	5700	S4UL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01				<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
VOC	m & p-Xylene	mg/kg	5900	S4UL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01				<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
VOC	o-Xylene	mg/kg	6600	S4UL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01				<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
VOC	Methyl Tert-Butyl Ether	mg/kg	7900	EIC	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01				<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Phenols	Phenol	mg/kg	760	S4UL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2				<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Phenols	2,3,5-trimethyl phenol	mg/kg																										
Phenols	2-isopropylphenol	mg/kg																										
Phenols	Catechol	mg/kg																										
Phenols	Resorcinol	mg/kg			<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2				<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Phenols	Methylphenols (Total Cresols)	mg/kg	160000	EIC	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2				<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Phenols	Naphthols	mg/kg																										
Phenols	Xylenols & Ethylphenols	mg/kg																										
Phenols	Xylenols	mg/kg			<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2				<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Phenols	Total Phenols	mg/kg																										
Phenols	Phenol (Monohydric - Total by HPLC)	mg/kg			<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2				<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Phenols	Total Phenols	mg/kg																										

Comments
GAC - Generic Assessment Criteria
(blank) - no assessment criteria available
None - No unit
% - Percentage
pH Units - pH Units
mg/kg - milligrams per kilogram
NAD - No asbestos detected

C4SL - Category 4 Screening Levels, DEFRA SP1010, Development of Category 4 Screening Levels for Assessment of Land Affecte
S4UL - Suitable for Use Levels, The LQM/CIEH S4ULs for Human Health Risk Assessment
EIC - The Soil Generic Assessment Criteria for Human Health Risk Assessment, CL:AIRE in association with AGS and EIC

Key
XXX Exceedance of Commercial/Industrial 1% soil organic matter GAC

Project Name: M60/M62/M66 Simister Island
Sample Date: 28/06/2021 - 03/03/2023

					Sample Location	WS-N15	WS-N16	WS-P01	WS-P02	WS-P03	WS-P04	WS-P06	WS-P09	WS-P09	WS-P09	WS-S01	WS-S02	WS-S02	WS-S03	WS-S03	WS-S04	WS-S04	WS-S04	WS-S04	WS-S04	WS-S05	WS-S06	WS-S06A
					Sampled Date	28/09/2021	21/11/2021	21/07/2021	10/11/2021	08/11/2021	08/11/2021	25/11/2021	30/11/2021	30/11/2021	30/11/2021	24/08/2021	01/09/2021	01/09/2021	23/08/2021	23/08/2021	17/09/2021	17/09/2021	17/09/2021	17/09/2021	17/09/2021	17/09/2021	17/09/2021	06/08/2021	11/08/2021
					Top Depth (m)	0.2	0.2	0.5	0.1	0.1	0.5	0.2	0.2	0.5	1	0.65	0.5	3.1	1	1.8	0.2	0.5	1	1.8	2.8	0.2	0.5	0.5
Analyte Group	Analyte	Unit	Commercial/Industrial 1% SOM Threshold	Threshold Source	Base Depth (m)	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Asbestos	Asbestos (Presence of)	none				NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD		NAD	NAD	NAD	NAD	NAD	NAD	NAD					NAD	NAD	NAD
Asbestos	Asbestos Identification.	none																										
Asbestos	Asbestos Quantification Stage 2	%																										
Asbestos	Asbestos Quantification (Total %)	%																										
Inorganics	Percent Moisture	%																										
Inorganics	pH	pH UNITS				6.89	8.12	5.55	5.33	5.49	5.6	6.81	6.83	7.73		9.17	9.36	9.03	9.07	8.14	7.23					7.21	8.54	8.3
Inorganics	Total Organic Carbon	%													1.07							1.61	2.07	2.98	4.43			
Inorganics	Total Organic Matter	%				6.9	2.2	1.6	13.1	24.1	5.9	13.4	7.5	1.8		0.2	0.1	5.9	0.2	1.5	2.8					7.9	2.4	1.8
Inorganics	Cyanide (Free)	mg/kg				<1	<1	<1	<1	3	<1	<1	<1	<1		<1	<1	<1	<1	<1	<1					<1	<1	<1
Inorganics	Cyanide (Total)	mg/kg				<1	<1	<1	<1	3	<1	<1	<1	<1		<1	<1	<1	<1	<1	<1					<1	<1	<1
Metals	Antimony	mg/kg	7500	EIC		<5	<5	<5	<5	<5	<5	<5	<5	<5		<5	<5	<5	<5	<5	<5					<5	<5	<5
Metals	Arsenic	mg/kg	640	C4SL		8	<1	<1	11	19	6	3	11	<1		1	<1	120	<1	<1	3					10	2	5
Metals	Barium	mg/kg	22000	EIC		64	179	274	71	100	56	132	89	60		122	19	1730	114	76	107					149	103	95
Metals	Beryllium	mg/kg	12	S4UL		<0.5	0.7	1.3	0.8	0.9	<0.5	<0.5	0.7	<0.5		<0.5	<0.5	2.6	<0.5	<0.5	<0.5					0.6	<0.5	<0.5
Metals	Boron	mg/kg	240000	S4UL		<1	<1	<1	<1	<1	<1	<1	<1	<1		<1	<1	11.9	<1	<1	<1					<1	<1	<1
Metals	Boron (Water Soluble)	mg/kg																										
Metals	Cadmium	mg/kg	410	C4SL		<0.5	1	<0.5	<0.5	0.7	<0.5	<0.5	0.8	0.6		0.7	<0.5	1.3	0.7	0.8	<0.5					0.5	0.6	0.6
Metals	Chromium, Hexavalent (Cr6+)	mg/kg	49	C4SL		<1	<1	<1	<1	<1	<1	<1	<1	<1		<1	<1	<1	<1	<1	<1					<1	<1	<1
Metals	Chromium, Trivalent (Cr3+)	mg/kg	8600	S4UL		15	21	37	16	23	18	11	21	14		13	10	36	9	14	9					12	9	18
Metals	Chromium	mg/kg	8600	S4UL		15	21	37	16	23	18	11	21	14		13	10	36	9	14	9					12	9	18
Metals	Copper	mg/kg	68000	S4UL		29	22	32	32	51	22	18	38	14		14	3	75	14	7	12					27	9	24
Metals	Lead	mg/kg	2300	C4SL		64	12	17	69	115	48	24	81	12		3	<1	44	8	12	22					66	9	27
Metals	Mercury	mg/kg	1100	S4UL		<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17		<0.17	6.63	0.32	<0.17	<0.17	<0.17					<0.17	4.77	<0.17
Metals	Molybdenum	mg/kg	17000	EIC		<1	<1	<1	3	3	<1	<1	1	<1		<1	<1	<1	<1	<1	<1					<1	<1	<1
Metals	Nickel	mg/kg	980	S4UL		13	28	36	14	19	12	13	16	15		18	6	43	14	16	9					12	9	17
Metals	Selenium	mg/kg	12000	S4UL		<1	<1	<1	<1	2	<1	<1	<1	<1		<1	<1	3	<1	<1	<1					1	<1	<1
Metals	Vanadium	mg/kg	9000	S4UL		21	20	39	20	25	22	12	33	17		10	4	88	7	14	10					18	9	14
Metals	Zinc	mg/kg	730000	S4UL		73	62	62	54	71	44	34	74	34		30	13	74	29	37	33					54	34	53
TPHCWG	TPH Aliphatic >C5-C6	mg/kg	3200	S4UL		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01					<0.01	<0.01	<0.01
TPHCWG	TPH Aliphatic >C6-C8	mg/kg	7800	S4UL		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01					<0.01	<0.01	<0.01
TPHCWG	TPH Aliphatic >C8-C10	mg/kg	2000	S4UL		<1	<1	<1	<1	<1	<1	<1	<1	<1		<1	<1	<1	<1	<1	<1					<1	<1	1
TPHCWG	TPH Aliphatic >C10-C12	mg/kg	9700	S4UL		<1	<1	<1	<1	<1	<1	<1	<1	<1		<1	<1	<1	<1	<1	<1					<1	<1	9
TPHCWG	TPH Aliphatic >C12-C16	mg/kg	59000	S4UL		<1	<1	<1	<1	<1	<1	<1	4	1		<1	<1	<1	<1	<1	<1					<1	<1	31
TPHCWG	TPH Aliphatic >C16-C21	mg/kg	1600000	S4UL		<1	<1	<1	1	3	<1	1	15	2		<1	<1	<1	<1	<1	<1					<1	<1	24
TPHCWG	TPH Aliphatic >C21-C35	mg/kg	1600000	S4UL		7	4	1	32	67	8	22	30	9		1	37	2	2	<1	6					17	<1	10
TPHCWG	TPH Aliphatic >C35-C44	mg/kg	1600000	S4UL		2	<1	<1	4	12	1	9	5	3		<1	21	<1	<1	<1	2					1	<1	1
TPHCWG	TPH Aliphatic >C5-C35	mg/kg																										
TPHCWG	TPH Aliphatic >C5-C44	mg/kg				9	4	1	38	82	9	32	54	16		1	58	2	2	<1	9					18	<1	76
TPHCWG	TPH Aromatic >C5-C7	mg/kg	26000	S4UL		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01					<0.01	<0.01	<0.01
TPHCWG	TPH Aromatic >C7-C8	mg/kg	56000	S4UL		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01					<0.01	<0.01	<0.01
TPHCWG	TPH Aromatic >C8-C10	mg/kg	3500	S4UL		<1	<1	<1	<1	<1	<1	1	<1	<1		<1	<1	<1	<1	<1	<1					<1	<1	1
TPHCWG	TPH Aromatic >C10-C12	mg/kg	16000	S4UL		<1	<1	<1	<1	<1	<1	<1	<1	<1		<1	<1	<1	<1	<1	<1					<1	<1	3
TPHCWG	TPH Aromatic >C12-C16	mg/kg	36000	S4UL		1	2	1	<1	2	<1	1	4	1		<1	<1	<1	<1	<1	<1					<1	<1	12
TPHCWG	TPH Aromatic >C16-C21	mg/kg	28000	S4UL		2	2	1	3	5	1	4	12	3		<1	2	<1	<1	<1	2					3	<1	10
TPHCWG	TPH Aromatic >C21-C35	mg/kg	28000	S4UL		12	6	6	70	147	17	116	29	13		1	16	<1	1	<1	11					27	<1	9
TPHCWG	TPH Aromatic >C35-C44	mg/kg	28000	S4UL		3	1	1	63	110	16	53	21	3		<1	18	<1	<1	<1	4					17	<1	2
TPHCWG	TPH Aromatic >C5-C35	mg/kg																										
TPHCWG	TPH Aromatic >C5-C44	mg/kg				19	13	9	136	264	34	177	66	21		1	37	<1	1	<1	18					46	<1	37
TPHCWG	TPH Aliphatic & Aromatic >C5-C44	mg/kg				28	17	11	174	346	43	209	121	37		3	95	2	3	<1	27					65	<1	112
TPHCWG	TPH HI - Commercial Industrial SOM 1% GAC	none	1			0.000640546	0.000379484	0.000314117	0.004880268	0.009463948	0.001219911	0.006512063	0.002424443	0.000732048	0.0	3.63393E-05	0.001321964	0.00000125	3.69643E-05	0	0.000612143	0.0	0.0	0.0	0.0	0.001689821	0	0.003531681
Other TPH	Petroleum Range Organics	mg/kg																										
PAH	Naphthalene	mg/kg	190	S4UL		<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03		<0.03	<0.03	<0.03	<0.03	<0.03	<0.03					<0.03	<0.03	<0.03
PAH	Fluorene	mg/kg	63000	S4UL		0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01					<0.01	<0.01	<0.01
PAH	Acenaphthylene	mg/kg	83000	S4UL		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01					<0.01	<0.01	<0.01
PAH	Acenaphthene	mg/kg	84000	S4UL		0.05	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01					<0.01	<0.01	<0.01
PAH	Anthracene	mg/kg	520000	S4UL		0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02					<0.02	<0.02	<0.02
PAH	Phenanthrene	mg/kg	22000	S4UL		0.32	<0.03	<0.03	0.08	0.18	0.05	<0.03	0.04	<0.03		<0.03	<0.03	<0.03	<0.03	<0.03	0.06					0.14	<0.03	0.03
PAH	Fluoranthene	mg/kg	23000	S4UL		0.51	<0.08	<0.08	0.18	0.37	0.11	<0.08	<0.08	<0.08		<0.08	<0.08	<0.08	<0.08	<0.08	0.14					0.31	<0.08	<0.08
PAH	Pyrene	mg/kg	54000	S4UL		0.46	<0.07	<0.07	0.17	0.35	0.09	<0.07	<0.07	<0.07		<0.07	<0.07	<0.07	<0.07	<0.07	0.13					0.3	<0.07	<0.07
PAH	Benzo(a)anthracene	mg/kg	170	S4UL		0.25	<0.04	<0.04	0.1	0.18	<0.04	<0.04	<0.04	<0.04		<0.04	<0.04	<0.04	<0.04	<0.04	0.09					0.18	<0.04	<0.04
PAH	Chrysene	mg/kg	350	S4UL		0.26	<0.06	<0.06	0.14	0.23	<0.06	<0.06	<0.06	<0.06		<0.06	<0.06	<0.06	<0.06	<0.06	0.1					0.23	<0.06	<0.06
PAH	Benzo(b)fluoranthene	mg/kg	44	S4UL		0.27	<0.05	<0.05	0.15	0.27	0.07	<0.05	<0.05	<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	0.11					0.25	<0.05	<0.05
PAH	Benzo(k)fluoranthene	mg/kg	1200	S4UL		0.1	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07		<0.07	<0.07	<0.07	<0.07	<0.07	<0.07					<0.07	<0.07	<0.07
PAH	Benzo(a)pyrene	mg/kg	77	C4SL		0.24	<0.04	<0.04	0.11	0.18	<0.04	<0.04	<0.04	<0.04		<0.04	<0.04	0.06	<0.04	<0.04	0.09					0.18	<0.04	<0.04
PAH	Indeno(1,2,3-c,d)Pyrene	mg/kg	500	S4UL		0.14	<0.03	<0.03	0.08	0.13	<0.03	<0.03	<0.03	<0.03		<0.03	<0.03	0.11	<0.03	<0.03	0.06					0.13	<0.03	<0.03
PAH	Dibenz(a,h)Anthracene	mg/kg	35	S4UL		<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04		<0.04	<0.04	0.12	<0.04	<0.04	<0.04					<0.04	<0.04	<0.04
PAH	Benzo(g,h,i)perylene	mg/kg	3900	S4UL		0.12	<0.05	<0.05	<0.05	0.12	<0.05	<0.05	<0.05	<0.05		<0.05	<0.05	0.12	<0.05	<0.05	0.06					0.11	<0.05	<0.05
PAH	PAH, Total Detected USEPA 16	mg/kg				2.81	<0.01	<0.01	1.01	2.03	0.32	<0.01	<0.01	<0.01		<0.01	<0.01	0.41	<0.01	<0.01	0.84					1.83	<0.01	<0.01
VOC	Benzene	mg/kg	27	C4SL		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01					<0.01	<0.01	<0.01
VOC	Toluene	mg/kg	56000	S4UL		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01					<0.01	<0.01	<0.01
VOC	Ethylbenzene	mg/kg	5700	S4UL		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01					<0.01	<0.01	<0.01
VOC	m & p-Xylene	mg/kg	5900	S4UL		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01					<0.01	<0.01	<0.01
VOC	o-Xylene	mg/kg	6600	S4UL		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01					<0.01	<0.01	<0.01
VOC	Methyl Tert-Butyl Ether	mg/kg	7900	EIC		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01					<0.01	<0.01	<0.01
Phenols	Phenol	mg/kg	760	S4UL		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2					<0.2	<0.2	<0.2
Phenols	2,3,5-trimethyl phenol	mg/kg																										
Phenols	2-isopropylphenol	mg/kg																										
Phenols	Catechol	mg/kg																										
Phenols	Resorcinol	mg/kg				<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2					<0.2	<0.2	<0.2
Phenols	Methylphenols (Total Cresols)	mg/kg	160000	EIC		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2					<0.2	<0.2	<0.2
Phenols	Naphthols	mg/kg																										
Phenols	Xylenols & Ethylphenols	mg/kg																										
Phenols	Xylenols	mg/kg				<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2					<0.2	<0.2	<0.2
Phenols	Total Phenols	mg/kg																										
Phenols	Phenol (Monohydric - Total by HPLC)	mg/kg				<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2					<0.2	<0.2	<0.2
Phenols	Total Phenols	mg/kg																										

Comments
GAC - Generic Assessment Criteria
(blank) - no assessment criteria available
None - No unit
% - Percentage
pH Units - pH Units
mg/kg - milligrams per kilogram
NAD - No asbestos detected

C4SL - Category 4 Screening Levels, DEFRA SP1010, Development of Category 4 Screening Levels for Assessment of Land Affecte
S4UL - Suitable for Use Levels, The LQM/CIEH S4ULs for Human Health Risk Assessment
EIC - The Soil Generic Assessment Criteria for Human Health Risk Assessment, CL:AIRE in association with AGS and EIC

Key
XXX Exceedance of Commercial/Industrial 1% soil organic matter GAC

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Acute Human Health GAC Screening Table
M60/M62/M66 Simister Island

Project Name: M60/M62/M66 Simister Island
Sample Date: 28/06/2021 - 03/03/2023

			Analyte	Arsenic	Cadmium	Cyanide Free	Benzene	Phenol
			Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
			SoBRA AGAC Oral (Child)	80	140	24	47	2,000
			SoBRA AGAC Inhalation (Child)	7,000,000	1,800,000	380	190	>sat
			SoBRA AGAC Dermal (Child)				>sat	
			SoBRA AGAC Oral (Adult)	7,000	12,000	2,100	4,100	>sat
			SoBRA AGAC Inhalation (Adult)	14,000,000	3,500,000	1,400	370	>sat
			SoBRA AGAC Dermal (Adult)				>sat	
Location ID	Sample Depth (m)	Sample Date						
BH02	1	10/02/2023		3.3	< 0.2	< 1	< 0.005	
BH02	2.2	14/02/2023		3.4	< 0.2	< 1	< 0.005	
BH02	4	14/02/2023		5.1	0.5	< 1	< 0.005	
BH04	1	15/02/2023		4.4	0.3	< 1	< 0.005	
BH04	3	17/02/2023		1.7	< 0.2	< 1	< 0.005	
BH04	5	17/02/2023		3.8	< 0.2	< 1	< 0.005	
BH05	1	15/02/2022		2.5	0.6	< 1	< 0.005	
BH05	3	16/02/2023		56	< 0.2	< 1	< 0.005	
BH05	7	17/02/2023		4.5	< 0.2	< 1	< 0.005	
BH06	1	16/02/2023		2	0.6	< 1	< 0.005	
BH06	2	20/02/2023		100	< 0.2	< 1	< 0.005	
BH06	8.2	21/02/2023		21	< 0.2	< 1	< 0.005	
BH06	10.2	21/02/2023		4.6	< 0.2	< 1	< 0.005	
BH07	1	24/02/2023		2.7	0.5	< 1	< 0.005	
BH07	2	27/02/2023		16	< 0.2	< 1	< 0.005	
BH07	8	02/03/2023		98	< 0.2	< 1	< 0.005	
BH07	11	03/03/2023		2.6	< 0.2	< 1	< 0.005	
BH08	1	20/02/2023		2.4	< 0.2	< 1	< 0.005	
BH08	2.1	01/03/2023		2.9	< 0.2	< 1	< 0.005	
BH08	3.2	02/03/2023		4.4	< 0.2	< 1	< 0.005	
BH10	1	23/01/2023		3.9	0.3	< 1	< 0.005	
BH10A	0.9	26/01/2023		3.8	0.3	< 1	< 0.005	
BH10A	2	08/02/2023		6.7	< 0.2	< 1	< 0.005	
BH11	0.9	16/01/2023		4.3	0.3	< 1	< 0.005	
BH11	2	19/01/2023		5.1	< 0.2	< 1	< 0.005	

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Acute Human Health GAC Screening Table
M60/M62/M66 Simister Island

Project Name: M60/M62/M66 Simister Island
Sample Date: 28/06/2021 - 03/03/2023

		Analyte	Arsenic	Cadmium	Cyanide Free	Benzene	Phenol
		Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
		SoBRA AGAC Oral (Child)	80	140	24	47	2,000
		SoBRA AGAC Inhalation (Child)	7,000,000	1,800,000	380	190	>sat
		SoBRA AGAC Dermal (Child)				>sat	
		SoBRA AGAC Oral (Adult)	7,000	12,000	2,100	4,100	>sat
		SoBRA AGAC Inhalation (Adult)	14,000,000	3,500,000	1,400	370	>sat
		SoBRA AGAC Dermal (Adult)				>sat	
Location ID	Sample Depth (m)	Sample Date					
BH12	2	16/01/2023	3.8	0.2	< 1	< 0.005	
BH13	0.5	10/01/2023	< 1	0.3	< 1	< 0.005	
BH13	1.75	12/01/2023	17	< 0.2	< 1	< 0.005	
BH-G01	0.95	20/07/2021	< 1	< 0.5	< 1	< 0.01	< 0.2
BH-G01A	0.5	20/07/2021	2	< 0.5	< 1	< 0.01	< 0.2
BH-G02	0.35	12/07/2021	2	0.5	< 1	< 0.01	< 0.2
BH-G03A	1	12/07/2021	2	0.5	< 1	< 0.01	< 0.2
BH-G04	0.5	15/07/2021	5	< 0.5	< 1	< 0.01	< 0.2
BH-G04	1.8	15/07/2021	4	0.6	< 1	< 0.01	< 0.2
BH-G06	0.5	03/11/2021	2	< 0.5	< 1	< 0.01	< 0.2
BH-G07A	1	28/09/2021	1	0.7	< 1	< 0.01	< 0.2
BH-G09	0.39	06/08/2021	< 1	< 0.5	< 1	< 0.01	< 0.2
BH-G10	0.5	11/08/2021	51	0.9	< 1	< 0.01	< 0.2
BH-G11	0.4	06/08/2021	2	< 0.5	< 1	< 0.01	< 0.2
BH-N01	0.5	16/08/2021	< 1	< 0.5	< 1	< 0.01	< 0.2
BH-N02	0.5	12/08/2021	< 1	0.7	< 1	< 0.01	< 0.2
BH-N02	1.9	13/08/2021	< 1	0.7	< 1	< 0.01	< 0.2
BH-N03	1	11/10/2021	2	0.7	< 1	< 0.01	< 0.2
BH-N04	0.2	21/10/2021	4	0.7	< 1	< 0.01	< 0.2
BH-N04A	0.25	11/10/2021	2	< 0.5	< 1	< 0.01	< 0.2
BH-N05	1	20/09/2021	< 1	< 0.5	< 1	< 0.01	< 0.2
BH-N05	1.5	20/09/2021	2	1.6	< 1	< 0.01	< 0.2
BH-N06	0.5	09/08/2021	< 1	0.7	< 1	< 0.01	< 0.2
BH-N06A	1	27/07/2021	< 1	< 0.5	< 1	< 0.01	< 0.2
BH-N06B	0.5	04/08/2021	2	0.8	< 1	< 0.01	< 0.2

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Acute Human Health GAC Screening Table
M60/M62/M66 Simister Island

Project Name: M60/M62/M66 Simister Island
Sample Date: 28/06/2021 - 03/03/2023

		Analyte	Arsenic	Cadmium	Cyanide Free	Benzene	Phenol
		Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
		SoBRA AGAC Oral (Child)	80	140	24	47	2,000
		SoBRA AGAC Inhalation (Child)	7,000,000	1,800,000	380	190	>sat
		SoBRA AGAC Dermal (Child)				>sat	
		SoBRA AGAC Oral (Adult)	7,000	12,000	2,100	4,100	>sat
		SoBRA AGAC Inhalation (Adult)	14,000,000	3,500,000	1,400	370	>sat
		SoBRA AGAC Dermal (Adult)				>sat	
Location ID	Sample Depth (m)	Sample Date					
BH-N06C	0.2	25/08/2021	14	0.7	< 1	< 0.01	< 0.2
BH-N07	0.1	03/08/2021	7	< 0.5	< 1	< 0.01	< 0.2
BH-N07	1	03/08/2021	5	< 0.5	< 1	< 0.01	< 0.2
BH-N08	0.2	30/06/2021	11	0.7	< 1	< 0.01	< 0.2
BH-N08A	2	06/08/2021	< 1	0.5	< 1	< 0.01	< 0.2
BH-N09	0.5	28/06/2021	< 1	< 0.5	< 1	< 0.01	< 0.2
BH-N10	0.5	06/10/2021	< 1	< 0.5	< 1	< 0.01	< 0.2
BH-N10	1	06/10/2021	< 1	< 0.5	< 1	< 0.01	< 0.2
BH-N11	0.25	06/09/2021	20	1.7	< 1	< 0.01	< 0.2
BH-N12A	1	16/08/2021	< 1	0.6	< 1	< 0.01	< 0.2
BH-N13	0.5	20/07/2021	< 1	< 0.5	< 1	< 0.01	< 0.2
BH-N14	0.5	07/07/2021	2	0.6	< 1	< 0.01	< 0.2
BH-N14	1	07/07/2021	6	0.8	< 1	< 0.01	< 0.2
BH-N15	0.5	24/11/2021	4	0.5	< 1	< 0.01	< 0.2
BH-N16	0.25	04/10/2021	21	2.4	< 1	< 0.01	< 0.2
BH-N17	0.2	01/07/2021	4	0.6	< 1	< 0.01	< 0.2
BH-N17	4	01/07/2021	5	0.6	< 1	< 0.01	< 0.2
BH-N17OB	0.2	16/09/2021	6	0.5	< 1	< 0.01	< 0.2
BH-N18	0.25	31/08/2021	1	0.6	< 1	< 0.01	< 0.2
BH-N18	1	31/08/2021	6	7.6	< 1	< 0.01	< 0.2
BH-N18OB	0.2	16/09/2021	2	0.6	< 1	< 0.01	< 0.2
BH-N19	0.25	22/09/2021	5	0.7	< 1	< 0.01	< 0.2
BH-N20	0.25	16/09/2021	29	2	< 1	< 0.01	< 0.2
BH-N20	0.5	16/09/2021	13	1.2	< 1	< 0.01	< 0.2
BH-N21	0.25	10/09/2021	21	1.5	< 1	< 0.01	< 0.2

Project Name: M60/M62/M66 Simister Island
Sample Date: 28/06/2021 - 03/03/2023

		Analyte	Arsenic	Cadmium	Cyanide Free	Benzene	Phenol
		Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
		SoBRA AGAC Oral (Child)	80	140	24	47	2,000
		SoBRA AGAC Inhalation (Child)	7,000,000	1,800,000	380	190	>sat
		SoBRA AGAC Dermal (Child)				>sat	
		SoBRA AGAC Oral (Adult)	7,000	12,000	2,100	4,100	>sat
		SoBRA AGAC Inhalation (Adult)	14,000,000	3,500,000	1,400	370	>sat
		SoBRA AGAC Dermal (Adult)				>sat	
Location ID	Sample Depth (m)	Sample Date					
BHNO03A	0.25	31/01/2023	5.3	0.3	< 1	< 0.005	
BHNO03A	1	31/01/2023	7.2	< 0.2	< 1	< 0.005	
BH-P02	0.2	02/12/2021	11	1.1	< 1	< 0.01	< 0.2
BH-P02	3	02/12/2021	3	0.6	< 1	< 0.01	< 0.2
BH-P03	0.2	01/12/2021	4	1	< 1	< 0.01	< 0.2
BH-P03	1	01/12/2021	3	0.8	< 1	< 0.01	< 0.2
BH-S01	1	18/08/2021	< 1	0.9	< 1	< 0.01	< 0.2
BH-S02	0.5	25/10/2021	< 1	< 0.5	< 1	< 0.01	< 0.2
BH-S03	0.8	25/10/2021	1	0.7	< 1	< 0.01	< 0.2
BH-S04	0.5	18/08/2021	< 1	0.6	< 1	< 0.01	< 0.2
BH-S04	2	31/08/2021	2	0.6	< 1	< 0.01	< 0.2
BH-S05	0.25	02/09/2021	6	< 0.5	< 1	< 0.01	< 0.2
BH-S06	0.5	23/08/2021	1	0.8	< 1	< 0.01	< 0.2
BH-S07	0.25	12/08/2021	< 1	< 0.5	< 1	< 0.01	< 0.2
WS01A	1	07/02/2023	5.6	0.2	< 1	< 0.005	
WS01A	2.1	07/02/2023	4.2	0.3	< 1	< 0.005	
WS02	2	06/02/2023	9.9	< 0.2	< 1	< 0.005	
WS02	3	06/02/2023	1.9	0.2	< 1	< 0.005	
WS02	4	07/02/2023	2.5	0.5	< 1	< 0.005	
WS03	1	10/02/2023	3.9	< 0.2	< 1	< 0.005	
WS03	2.2	06/02/2023	88	< 0.2	< 1	< 0.005	
WS04	5	06/02/2023	13	< 0.2	< 1	< 0.005	
WS04	7	07/02/2023	3.3	0.3	< 1	< 0.005	
WS08	2.1	08/02/2023	3.7	< 0.2	< 1	< 0.005	
WS08	6.1	09/02/2023	3.8	< 0.2	< 1	< 0.005	

Project Name: M60/M62/M66 Simister Island
Sample Date: 28/06/2021 - 03/03/2023

		Analyte	Arsenic	Cadmium	Cyanide Free	Benzene	Phenol
		Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
		SoBRA AGAC Oral (Child)	80	140	24	47	2,000
		SoBRA AGAC Inhalation (Child)	7,000,000	1,800,000	380	190	>sat
		SoBRA AGAC Dermal (Child)				>sat	
		SoBRA AGAC Oral (Adult)	7,000	12,000	2,100	4,100	>sat
		SoBRA AGAC Inhalation (Adult)	14,000,000	3,500,000	1,400	370	>sat
		SoBRA AGAC Dermal (Adult)				>sat	
Location ID	Sample Depth (m)	Sample Date					
WS09	2	08/02/2023	89	< 0.2	< 1	< 0.005	
WS10	3.5	26/01/2023	85	< 0.2	< 1	< 0.005	
HDP01	0.25	31/01/2023	11	< 0.2	< 1	< 0.005	
HDP02	0.3	03/03/2023	7	0.3	< 1	< 0.005	
HDP03	0.25	01/02/2023	18	0.9	< 1	< 0.005	
HDP05	0.5	01/02/2023	5.7	< 0.2	< 1	< 0.005	
HDP06	0.25	01/02/2023	7	< 0.2	< 1	< 0.005	
HDP07	0.25	02/02/2023	14	< 0.2	< 1	< 0.005	
HDP07	1	02/02/2023	5.8	0.2	< 1	< 0.005	
HDP08	0.25	31/01/2023	10	0.4	< 1	< 0.005	
HDP08	1	31/01/2023	6.7	< 0.2	< 1	< 0.005	
HDP09	0.55	03/03/2023	11	< 0.2	< 1	< 0.005	
HDP09	1.35	03/02/2023	35	< 0.2	< 1	< 0.005	
HDP10	0.15	30/01/2023	7	0.3	< 1	< 0.005	
HDP10	0.5	30/01/2023	6.5	0.5	< 1	< 0.005	
HDP12	0.1	30/01/2023	7.9	< 0.2	< 1	< 0.005	
HDP12	0.5	30/01/2023	10	< 0.2	< 1	< 0.005	
TP-N01	0.2	10/08/2021	7	0.9	< 1	< 0.01	< 0.2
TP-N01	0.5	10/08/2021	2	0.7	< 1	< 0.01	< 0.2
TP-N02	0.5	01/09/2021	2	< 0.5	< 1	< 0.01	< 0.2
WS01	0.8	25/01/2023	5.1	0.2	< 1	< 0.005	
WS01	1.5	26/01/2023	3.8	0.2	< 1	< 0.005	
WS02	0.5	25/01/2023	2.5	0.4	< 1	< 0.005	
WS03	0.6	25/01/2023	1.5	0.3	< 1	< 0.005	
WS04	1	27/01/2023	1.6	0.4	< 1	< 0.005	

Project Name: M60/M62/M66 Simister Island
Sample Date: 28/06/2021 - 03/03/2023

		Analyte	Arsenic	Cadmium	Cyanide Free	Benzene	Phenol
		Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
		SoBRA AGAC Oral (Child)	80	140	24	47	2,000
		SoBRA AGAC Inhalation (Child)	7,000,000	1,800,000	380	190	>sat
		SoBRA AGAC Dermal (Child)				>sat	
		SoBRA AGAC Oral (Adult)	7,000	12,000	2,100	4,100	>sat
		SoBRA AGAC Inhalation (Adult)	14,000,000	3,500,000	1,400	370	>sat
		SoBRA AGAC Dermal (Adult)				>sat	
Location ID	Sample Depth (m)	Sample Date					
WS04	2	07/02/2023	80	< 0.2	< 1	< 0.005	
WS05	0.5	23/01/2023	1.8	0.5	< 1	< 0.005	
WS05	2	25/01/2023	6	< 0.2	< 1	< 0.005	
WS06	0.7	20/01/2023	4.8	0.3	< 1	< 0.005	
WS06	2	23/01/2023	5.4	0.2	< 1	< 0.005	
WS07	0.7	13/01/2022	5.2	0.3	< 1	< 0.005	
WS07	1.9	17/01/2023	4.7	< 0.2	< 1	< 0.005	
WS08	0.3	18/01/2023	3.2	0.4	< 1	< 0.005	
WS08	0.8	18/01/2023	3.9	0.2	< 1	< 0.005	
WS09	0.8	19/01/2023	4.6	0.3	< 1	< 0.005	
WS10	1	19/01/2023	17	< 0.2	< 1	< 0.005	
WS10	1.5	19/01/2023	77	< 0.2	< 1	< 0.005	
WS-G08A	0.1	12/11/2021	2	< 0.5	< 1	< 0.01	< 0.2
WS-N01	1.5	25/08/2021	4	0.6	< 1	< 0.01	< 0.2
WS-N02A	1	06/08/2021	7	1.6	< 1	< 0.01	< 0.2
WS-N02B	0.5	19/11/2021	2	0.9	< 1	< 0.01	< 0.2
WS-N03	0.5	15/10/2021	< 1	2	< 1	< 0.01	< 0.2
WS-N04	0.2	13/07/2021	17	0.8	< 1	< 0.01	< 0.2
WS-N04A	0.1	12/07/2021	2	0.6	< 1	< 0.01	< 0.2
WS-N04A	0.5	12/07/2021	2	0.6	< 1	< 0.01	< 0.2
WS-N05	1	19/07/2021	< 1	< 0.5	< 1	< 0.01	< 0.2
WS-N05A	0.5	14/07/2021	< 1	< 0.5	< 1	< 0.01	< 0.2
WS-N06	0.2	15/07/2021	19	0.9	< 1	< 0.01	< 0.2
WS-N06A	0.5	16/07/2021	< 1	0.7	< 1	< 0.01	< 0.2
WS-N07	0.2	26/11/2021	12	1.7	< 1	< 0.01	< 0.2

Project Name: M60/M62/M66 Simister Island
Sample Date: 28/06/2021 - 03/03/2023

		Analyte	Arsenic	Cadmium	Cyanide Free	Benzene	Phenol
		Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
		SoBRA AGAC Oral (Child)	80	140	24	47	2,000
		SoBRA AGAC Inhalation (Child)	7,000,000	1,800,000	380	190	>sat
		SoBRA AGAC Dermal (Child)				>sat	
		SoBRA AGAC Oral (Adult)	7,000	12,000	2,100	4,100	>sat
		SoBRA AGAC Inhalation (Adult)	14,000,000	3,500,000	1,400	370	>sat
		SoBRA AGAC Dermal (Adult)				>sat	
Location ID	Sample Depth (m)	Sample Date					
WS-N08	0.25	10/08/2021	8	1.2	< 1	< 0.01	< 0.2
WS-N09	0.2	20/07/2021	12	0.5	1	< 0.01	< 0.2
WS-N10	0.2	17/09/2021	17	1.7	< 1	< 0.01	< 0.2
WS-N10	2.5	17/09/2021	2	< 0.5	< 1	< 0.01	< 0.2
WS-N11	0.5	06/08/2021	11	0.9	< 1	< 0.01	< 0.2
WS-N11	1	06/08/2021	287	1.4	2	< 0.01	< 0.2
WS-N12	0.1	22/07/2021	2	< 0.5	< 1	< 0.01	< 0.2
WS-N12C	0.5	26/07/2021	3	< 0.5	< 1	< 0.01	< 0.2
WS-N12C	2.2	26/07/2021	< 1	1.3	< 1	< 0.01	< 0.2
WS-N13	0.1	15/10/2021	4	1.8	< 1	< 0.01	< 0.2
WS-N14	0.1	15/10/2021	11	2.4	< 1	< 0.01	< 0.2
WS-N15	0.2	28/09/2021	8	< 0.5	< 1	< 0.01	< 0.2
WS-N16	0.2	21/11/2021	< 1	1	< 1	< 0.01	< 0.2
WS-P01	0.5	21/07/2021	< 1	< 0.5	< 1	< 0.01	< 0.2
WS-P02	0.1	10/11/2021	11	< 0.5	< 1	< 0.01	< 0.2
WS-P03	0.1	08/11/2021	19	0.7	3	< 0.01	< 0.2
WS-P04	0.5	08/11/2021	6	< 0.5	< 1	< 0.01	< 0.2
WS-P06	0.2	25/11/2021	3	< 0.5	< 1	< 0.01	< 0.2
WS-P09	0.2	30/11/2021	11	0.8	< 1	< 0.01	< 0.2
WS-P09	0.5	30/11/2021	< 1	0.6	< 1	< 0.01	< 0.2
WS-S01	0.65	24/08/2021	1	0.7	< 1	< 0.01	< 0.2
WS-S02	0.5	01/09/2021	< 1	< 0.5	< 1	< 0.01	< 0.2
WS-S02	3.1	01/09/2021	120	1.3	< 1	< 0.01	< 0.2
WS-S03	1	23/08/2021	< 1	0.7	< 1	< 0.01	< 0.2
WS-S03	1.8	23/08/2021	< 1	0.8	< 1	< 0.01	< 0.2

Acute Human Health GAC Screening Table
M60/M62/M66 Simister Island

Project Name: M60/M62/M66 Simister Island
Sample Date: 28/06/2021 - 03/03/2023

		Analyte	Arsenic	Cadmium	Cyanide Free	Benzene	Phenol
		Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
		SoBRA AGAC Oral (Child)	80	140	24	47	2,000
		SoBRA AGAC Inhalation (Child)	7,000,000	1,800,000	380	190	>sat
		SoBRA AGAC Dermal (Child)				>sat	
		SoBRA AGAC Oral (Adult)	7,000	12,000	2,100	4,100	>sat
		SoBRA AGAC Inhalation (Adult)	14,000,000	3,500,000	1,400	370	>sat
		SoBRA AGAC Dermal (Adult)				>sat	
Location ID	Sample Depth (m)	Sample Date					
WS-S04	0.2	17/09/2021	3	< 0.5	< 1	< 0.01	< 0.2
WS-S05	0.2	17/09/2021	10	0.5	< 1	< 0.01	< 0.2
WS-S06	0.5	06/08/2021	2	0.6	< 1	< 0.01	< 0.2
WS-S06A	0.5	11/08/2021	5	0.6	< 1	< 0.01	< 0.2

Comments

AGAC - Acute Generic Assessment Criteria
(blank) - no assessment criteria available
mg/kg - milligrams per kilogram
>sat - greater than soil saturation limit

SoBRA (July 2020) - Development of Acute Generic Assessment Criteria for Assessing Risks to Human Health from Contaminants in Soil. Version 2

Key

XXX	Exceedance of Oral AGAC (Child)
XXX	Exceedance of Inhalation AGAC (Child)
XXX	Exceedance of Dermal AGAC (Child)
XXX	Exceedance of Oral AGAC (Adult)
XXX	Exceedance of Inhalation AGAC (Adult)
XXX	Exceedance of Dermal AGAC (Adult)

1.3 Soil leachate and groundwater generic assessment criteria screening tables

Project Name: M60/M62/M66 Simister Island
Sample Date: 28/06/2021 - 27/02/2023

							Sample Location	BH04	BH04	BH05	BH06	BH07	BH12	BH-G01
							Sampled Date	15/02/2023	17/02/2023	17/02/2023	20/02/2023	27/02/2023	16/01/2023	20/07/2021
							Top Depth (m)	1	4	4	4	3	1	0.95
							End Depth (m)							
Analyte Group	Analyte	Unit	Freshwater EQS	*Drinking Water Standards*	Freshwater EQS Source	DWS Source		Result	Result	Result	Result	Result	Result	Result
Inorganics	pH	pH UNITS	6 - 9	*6.5 - 9.5*	WFD (Fresh EQS - AA)	WS Regs 2016		8.4	7.9	8.6	*10.3*	8.5	8.3	7.73
Inorganics	Cyanide (Total)	ug/l	1	*50*	WFD (Fresh EQS - AA)	WS Regs 2016								<5
Inorganics	Cyanide, total	ug/l	1		SEPA (Fresh EQS - AA)			<1	<1	2.5	<1	<1	<1	<5
Inorganics	Cyanide (Free)	ug/l	1	*50*	SEPA (Fresh EQS - AA)	WS Regs 2016		<1	<1	<1	<1	<1	<1	<5
Inorganics	Thiocyanate	ug/l		*4*		USEPA RSL (tapwater)		<200	<200	<200	<200	<200	<200	*400*
Inorganics	Ammoniacal Nitrogen as N	mg/l	0.3		WFD (Fresh EQS - AA)			0.051	0.051	0.035	<0.015	0.019	0.049	<0.02
Inorganics	Chloride	mg/l	250	*250*	SEPA (Fresh EQS - AA)	WS Regs 2016		24	20	37	54	77	13	58.96
Inorganics	Nitrite	mg/l	0.01											<0.1
Inorganics	Nitrite as N	mg/l	0.01					0.0014	<0.001	<0.001	0.0093	<0.001	0.0043	<0.1
Inorganics	Nitrate	mg/l												0.3
Inorganics	Nitrate as N	mg/l						0.09	0.03	0.06	0.11	0.18	0.06	0.3
Inorganics	Sulphate	mg/l	400	*250*	SEPA (Fresh EQS - AA)	WS Regs 2016								21.62
Inorganics	Sulphide (Oxidisable) as SO4	mg/l						<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.1
Inorganics	Sulphate	mg/l	400	*250*	SEPA (Fresh EQS - AA)	WS Regs 2016		7.3	10	16.3	97.8	12.6	6.8	21.62
Inorganics	Sulphide	mg/l												<0.1
Inorganics	Sodium	mg/l		*200*		WS Regs 2016		26	13	45	60	51	21	98
Metals	Aluminum	ug/l	15	*200*	SEPA (Fresh EQS - AA)	WS Regs 2016								64
Metals	Aluminium(Available)	ug/l						1400	520	1100	2800	240	110	64
Metals	Antimony	ug/l		*5*		WS Regs 2016		<1.7	<1.7	<1.7	*32*	*7.4*	<1.7	<1
Metals	Arsenic	ug/l	50	*10*	WFD (Fresh EQS - AA)	WS Regs 2016		<1	2.3	*160*	*88*	*71*	4.7	2
Metals	Barium	ug/l		*1300*		WHO DWG 2017		27	11	100	64	110	28	208
Metals	Boron	ug/l	2000	*1000*	SEPA (Fresh EQS - AA)	WS Regs 2016		<10	<10	55	*1900*	130	<10	25
Metals	Cadmium	ug/l	0.08	*5*	WFD (Fresh EQS - AA)	WS Regs 2016		<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<1
Metals	Chromium, Hexavalent (Cr6+)	ug/l	3.4	*50*	WFD (Fresh EQS - AA)	WS Regs 2016		<5	<5	7.7	17	13	<5	<50
Metals	Chromium, Trivalent (Cr3+)	ug/l	4.7	*50*	WFD (Fresh EQS - AA)	WS Regs 2016		<5	<5	5.1	<5	<5	<5	<50
Metals	Chromium	ug/l		*50*		WS Regs 2016		2.4	0.5	13	16	13	<0.4	2
Metals	Copper	ug/l	1	*2000*	WFD (Fresh EQS - AA)	WS Regs 2016		5	5.7	5.2	4.4	5.5	1.9	7
Metals	Iron	ug/l	1000	*200*	WFD (Fresh EQS - AA)	WS Regs 2016		*870*	110	*510*	17	37	37	*508*
Metals	Lead	ug/l	1.2	*10*	WFD (Fresh EQS - AA)	WS Regs 2016		<1	<1	2.2	<1	1.1	1.8	5
Metals	Magnesium	ug/l						1100	680	1700	1500	6400	1000	4000
Metals	Manganese	ug/l	123	*50*	WFD (Fresh EQS - AA)	WS Regs 2016		*62*	45	50	20	43	25	*55*
Metals	Mercury	ug/l	0.07	*1*	WFD (Fresh EQS - MAC)	WS Regs 2016		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1
Metals	Nickel	ug/l	4	*20*	WFD (Fresh EQS - AA)	WS Regs 2016		1.4	1.8	1.9	<0.3	0.6	<0.3	2
Metals	Potassium	ug/l						1300	770	2000	4400	3000	1300	17000
Metals	Selenium	ug/l		*10*		WS Regs 2016		<4	<4	<4	*23*	*28*	<4	1
Metals	Vanadium	ug/l	20	*86*	SEPA (Fresh EQS - AA)	USEPA RSL (tapwater)		1.7	2.2	76	*87*	39	<1.7	3
Metals	Zinc	ug/l	10.9	*6000*	WFD (Fresh EQS - AA)	USEPA RSL (tapwater)		7.1	13	3.7	4.4	7.4	0.5	14
TPHCWG	TPH Aliphatic >C5-C6	ug/l		*15000*		WHO Petroleum DWG 2008		<1	<1	<1	<1	<1	<1	<1
TPHCWG	TPH Aliphatic >C6-C8	ug/l						<1	<1	<1	<1	<1	<1	<1
TPHCWG	TPH Aliphatic >C8-C10	ug/l		*300*		WHO Petroleum DWG 2008		<1	<1	<1	<1	<1	<1	<10
TPHCWG	TPH Aliphatic >C10-C12	ug/l		*300*		WHO Petroleum DWG 2008		<10	<10	<10	<10	<10	<10	<10
TPHCWG	TPH Aliphatic >C12-C16	ug/l		*300*		WHO Petroleum DWG 2008		<10	<10	<10	<10	<10	<10	<10
TPHCWG	TPH Aliphatic >C16-C21	ug/l		*300*		WHO Petroleum DWG 2008		<10	<10	<10	<10	<10	<10	<10
TPHCWG	TPH Aliphatic >C21-C35	ug/l		*300*		WHO Petroleum DWG 2008		<10	<10	<10	<10	<10	<10	39
TPHCWG	TPH Aliphatic >C5-C35	ug/l						<10	<10	<10	<10	<10	<10	40
TPHCWG	TPH Aromatic >C5-C7	ug/l	10	*1*	WFD (Fresh EQS - AA)	WS Regs 2016		<1	<1	<1	<1	<1	<1	<1
TPHCWG	TPH Aromatic >C7-C8	ug/l	74	*700*	WFD (Fresh EQS - AA)	WHO Petroleum DWG 2008		<1	<1	<1	<1	<1	<1	<1
TPHCWG	TPH Aromatic >C8-C10	ug/l		*300*		WHO Petroleum DWG 2008		<1	<1	<1	<1	<1	<1	61
TPHCWG	TPH Aromatic >C10-C12	ug/l		*90*		WHO Petroleum DWG 2008		<10	<10	<10	<10	<10	<10	<10
TPHCWG	TPH Aromatic >C12-C16	ug/l		*90*		WHO Petroleum DWG 2008		<10	<10	<10	<10	<10	<10	<10
TPHCWG	TPH Aromatic >C16-C21	ug/l		*90*		WHO Petroleum DWG 2008		<10	<10	<10	<10	<10	<10	<10
TPHCWG	TPH Aromatic >C21-C35	ug/l		*90*		WHO Petroleum DWG 2008		<10	<10	<10	<10	<10	<10	<20
TPHCWG	TPH Aromatic >C5-C35	ug/l						<10	<10	<10	<10	<10	<10	61
TPHCWG	TPH Aliphatic & Aromatic >C5-35	ug/l												101
PAH	Naphthalene	ug/l	2		WFD (Fresh EQS - AA)			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02
PAH	Fluorene	ug/l						<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02
PAH	Acenaphthylene	ug/l						<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02
PAH	Acenaphthene	ug/l						<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02

Project Name: M60/M62/M66 Simister Island
Sample Date: 28/06/2021 - 27/02/2023

						Sample Location	BH04	BH04	BH05	BH06	BH07	BH12	BH-G01
						Sampled Date	15/02/2023	17/02/2023	17/02/2023	20/02/2023	27/02/2023	16/01/2023	20/07/2021
						Top Depth (m)	1	4	4	4	3	1	0.95
						End Depth (m)							
Analyte Group	Analyte	Unit	Freshwater EQS	*Drinking Water Standards*	Freshwater EQS Source	DWS Source	Result	Result	Result	Result	Result	Result	Result
PAH	Anthracene	ug/l	0.1		WFD (Fresh EQS - AA)		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02
PAH	Phenanthrene	ug/l					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02
PAH	Fluoranthene	ug/l	0.0063	*4*	WFD (Fresh EQS - AA)	WHO DWG 2017	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02
PAH	Pyrene	ug/l					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02
PAH	Benzo[a]anthracene	ug/l					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02
PAH	Chrysene	ug/l					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02
PAH	Benzo[b]fluoranthene	ug/l					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02
PAH	Benzo[k]fluoranthene	ug/l					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02
PAH	Benzo[a]pyrene	ug/l	0.00017	*0.01*	WFD (Fresh EQS - AA)	WS Regs 2016	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02
PAH	Indeno(1,2,3-c,d)Pyrene	ug/l					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02
PAH	Dibenz(a,h)Anthracene	ug/l					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02
PAH	Benzo[g,h,i]perylene	ug/l	0.0082		WFD (Fresh EQS - MAC)		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02
PAH	PAH, Total Detected USEPA 16	ug/l					<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.02
PAH	Total PAH 16	ug/l											0.02
VOC	Benzene	ug/l	10	*1*	WFD (Fresh EQS - AA)	WS Regs 2016	<3	<3	<3	<3	<3	<3	<1
VOC	Toluene	ug/l	74	*700*	WFD (Fresh EQS - AA)	WHO DWG 2017	<3	<3	<3	<3	<3	<3	<1
VOC	Ethylbenzene	ug/l	20	*300*	SEPA (Fresh EQS - AA)	WHO DWG 2017	<3	<3	<3	<3	<3	<3	<1
VOC	m & p-Xylene	ug/l											<1
VOC	Xylenes, m & p	ug/l					<3	<3	<3	<3	<3	<3	<1
VOC	o-Xylene	ug/l		*190*		USEPA RSL (tapwater)	<3	<3	<3	<3	<3	<3	<1
VOC	Methyl Tert-Butyl Ether	ug/l	5100		PNEC (Freshwater)		<10	<10	<10	<10	<10	<10	<1
Phenols	Isopropyl Phenol	ug/l					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Phenols	Phenol	ug/l	7.7	*5800*	WFD (Fresh EQS - AA)	USEPA RSL (tapwater)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10
Phenols	Catechol	ug/l					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Phenols	Resorcinol	ug/l					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10
Phenols	Methylphenols (Total Cresols)	ug/l					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10
Phenols	Trimethylphenol	ug/l					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Phenols	Naphthols	ug/l					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Phenols	Xylenols	ug/l											<0.01
Phenols	Xylenols & Ethylphenols	ug/l					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10
Phenols	Total Phenols	ug/l											<0.01
Phenols	Total Phenols	ug/l					<3.5	<3.5	<3.5	<3.5	<3.5	<3.5	<10

Comments
GAC - Generic Assessment Criteria
(blank) - no assessment criteria available
pH Units - pH Units
ug/l - micrograms per litre
mg/l - milligrams per litre
TPH - Total Petroleum Hydrocarbons
TPHCWG - Total Petroleum Hydrocarbon Criteria Working Group
PAH - Polycyclic Aromatic Hydrocarbons
VOC - Volatile Organic Compounds
DWS - Drinking Water Standards
EQS - Environmental Quality Standards
AA - Annual Average
MAC - Maximum Allowable Concentration
WFD (Fresh EQS - AA) - Water Framework Directive (Standards and Classification) Directions (England and Wales) 2015
SEPA (Fresh EQS - AA) - Scottish Environmental Protection Agency WAT-SG-53 2015
PNEC (Freshwater) - Predicted No-Effect Concentrations (EU REACH) - Freshwater
USEPA RSL (tapwater) - United Sites Environmental Protection Agency, Regional Screening Levels (Tapwater), November 2022
WHO DWG 2017 - World Health Organisation, Definitions Working Group 2017
WHO Petroleum DWG 2008 - WHO Petroleum Definitions Working Group 2008
WS Regs 2016 - Water Supply (Water Quality Regulations) 2016

Key

XXX	Exceedance of Freshwater EQS
XXX	Exceedance of Drinking Water Standards

Project Name: M60/M62/M66 Simister Island
Sample Date: 28/06/2021 - 27/02/2023

						Sample Location	BH-G04	BH-G06	BH-N01	BH-N02	BH-N03	BH-N04	BH-N06B
						Sampled Date	15/07/2021	03/11/2021	16/08/2021	12/08/2021	11/10/2021	21/10/2021	04/08/2021
						Top Depth (m)	0.5	0.5	0.5	0.5	1	0.2	0.5
						End Depth (m)							
Analyte Group	Analyte	Unit	Freshwater EQS	*Drinking Water Standards*	Freshwater EQS Source	DWS Source	Result	Result	Result	Result	Result	Result	Result
Inorganics	pH	pH UNITS	6 - 9	*6.5 - 9.5*	WFD (Fresh EQS - AA)	WS Regs 2016	8.09	7.95	9.03	7.73	7.91	6.88	9
Inorganics	Cyanide (Total)	ug/l	1	*50*	WFD (Fresh EQS - AA)	WS Regs 2016	<5	<5	<5	<5	<5	<5	<5
Inorganics	Cyanide, total	ug/l	1		SEPA (Fresh EQS - AA)		<5	<5	<5	<5	<5	<5	<5
Inorganics	Cyanide (Free)	ug/l	1	*50*	SEPA (Fresh EQS - AA)	WS Regs 2016	<5	<5	<5	<5	<5	<5	<5
Inorganics	Thiocyanate	ug/l		*4*		USEPA RSL (tapwater)	*800*	<100	<100	<100	<100	*300*	<100
Inorganics	Ammoniacal Nitrogen as N	mg/l	0.3		WFD (Fresh EQS - AA)		<0.02	<0.02	<0.02	<0.02	0.33	0.08	<0.02
Inorganics	Chloride	mg/l	250	*250*	SEPA (Fresh EQS - AA)	WS Regs 2016	199	<1	17.7	9.8	6.66	2.93	57.85
Inorganics	Nitrite	mg/l	0.01				0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Inorganics	Nitrite as N	mg/l	0.01				0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Inorganics	Nitrate	mg/l					7.5	0.2	<0.1	<0.1	<0.1	2.2	3.4
Inorganics	Nitrate as N	mg/l					7.5	0.2	<0.1	<0.1	<0.1	2.2	3.4
Inorganics	Sulphate	mg/l	400	*250*	SEPA (Fresh EQS - AA)	WS Regs 2016	*314.22*	7.51	1.54	5.16	41.64	<1	7.38
Inorganics	Sulphide (Oxidisable) as SO4	mg/l					<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Inorganics	Sulphate	mg/l	400	*250*	SEPA (Fresh EQS - AA)	WS Regs 2016	*314.22*	7.51	1.54	5.16	41.64	<1	7.38
Inorganics	Sulphide	mg/l					<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Inorganics	Sodium	mg/l		*200*		WS Regs 2016	185	2	21	4	4	3	76
Metals	Aluminum	ug/l	15	*200*	SEPA (Fresh EQS - AA)	WS Regs 2016	129	*1590*	155	*432*	*865*	*70100*	*961*
Metals	Aluminium(Available)	ug/l					129	1590	155	432	865	70100	961
Metals	Antimony	ug/l		*5*		WS Regs 2016	2	<1	<1	<1	1	<1	1
Metals	Arsenic	ug/l	50	*10*	WFD (Fresh EQS - AA)	WS Regs 2016	5	<1	<1	<1	4	1	3
Metals	Barium	ug/l		*1300*		WHO DWG 2017	48	19	25	76	83	195	386
Metals	Boron	ug/l	2000	*1000*	SEPA (Fresh EQS - AA)	WS Regs 2016	180	<10	<10	13	37	<10	11
Metals	Cadmium	ug/l	0.08	*5*	WFD (Fresh EQS - AA)	WS Regs 2016	<1	<1	<1	<1	<1	<1	<1
Metals	Chromium, Hexavalent (Cr6+)	ug/l	3.4	*50*	WFD (Fresh EQS - AA)	WS Regs 2016	<50	<50	<50	<50	<50	<50	<50
Metals	Chromium, Trivalent (Cr3+)	ug/l	4.7	*50*	WFD (Fresh EQS - AA)	WS Regs 2016	<50	<50	<50	<50	<50	<50	<50
Metals	Chromium	ug/l		*50*		WS Regs 2016	25	<1	2	<1	<1	2	4
Metals	Copper	ug/l	1	*2000*	WFD (Fresh EQS - AA)	WS Regs 2016	5	2	3	6	15	24	19
Metals	Iron	ug/l	1000	*200*	WFD (Fresh EQS - AA)	WS Regs 2016	21	16	76	*335*	*646*	*809*	*1540*
Metals	Lead	ug/l	1.2	*10*	WFD (Fresh EQS - AA)	WS Regs 2016	2	<1	1	3	*33*	*35*	*48*
Metals	Magnesium	ug/l					34000	1000	<1000	4000	8000	13000	7000
Metals	Manganese	ug/l	123	*50*	WFD (Fresh EQS - AA)	WS Regs 2016	4	<1	*64*	5	*316*	*67*	*585*
Metals	Mercury	ug/l	0.07	*1*	WFD (Fresh EQS - MAC)	WS Regs 2016	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Metals	Nickel	ug/l	4	*20*	WFD (Fresh EQS - AA)	WS Regs 2016	<1	<1	1	<1	2	8	12
Metals	Potassium	ug/l					14000	<1200	<1200	3000	10000	27000	18000
Metals	Selenium	ug/l		*10*		WS Regs 2016	2	<1	<1	<1	<1	<1	2
Metals	Vanadium	ug/l	20	*86*	SEPA (Fresh EQS - AA)	USEPA RSL (tapwater)	8	<1	2	1	4	2	6
Metals	Zinc	ug/l	10.9	*6000*	WFD (Fresh EQS - AA)	USEPA RSL (tapwater)	10	2	6	2	9	34	68
TPHCWG	TPH Aliphatic >C5-C6	ug/l		*15000*		WHO Petroleum DWG 2008	<1	<1	<1	<1	<1	<1	3
TPHCWG	TPH Aliphatic >C6-C8	ug/l					<1	<1	<1	<1	<1	<1	<1
TPHCWG	TPH Aliphatic >C8-C10	ug/l		*300*		WHO Petroleum DWG 2008	<10	<10	<10	<10	<10	<10	<10
TPHCWG	TPH Aliphatic >C10-C12	ug/l		*300*		WHO Petroleum DWG 2008	<10	<10	<10	<10	<10	<10	<10
TPHCWG	TPH Aliphatic >C12-C16	ug/l		*300*		WHO Petroleum DWG 2008	<10	<10	<10	<10	<10	<10	<10
TPHCWG	TPH Aliphatic >C16-C21	ug/l		*300*		WHO Petroleum DWG 2008	<10	<10	<10	<10	<10	<10	<10
TPHCWG	TPH Aliphatic >C21-C35	ug/l		*300*		WHO Petroleum DWG 2008	<20	<20	<20	<20	<20	<20	<20
TPHCWG	TPH Aliphatic >C5-C35	ug/l					<10	<10	<10	<10	<10	<10	<10
TPHCWG	TPH Aromatic >C5-C7	ug/l	10	*1*	WFD (Fresh EQS - AA)	WS Regs 2016	<1	<1	<1	<1	<1	<1	<1
TPHCWG	TPH Aromatic >C7-C8	ug/l	74	*700*	WFD (Fresh EQS - AA)	WHO Petroleum DWG 2008	<1	<1	<1	<1	<1	<1	<1
TPHCWG	TPH Aromatic >C8-C10	ug/l		*300*		WHO Petroleum DWG 2008	<10	10	<10	<10	<10	<10	<10
TPHCWG	TPH Aromatic >C10-C12	ug/l		*90*		WHO Petroleum DWG 2008	<10	<10	<10	<10	<10	<10	<10
TPHCWG	TPH Aromatic >C12-C16	ug/l		*90*		WHO Petroleum DWG 2008	28	<10	<10	<10	<10	<10	<10
TPHCWG	TPH Aromatic >C16-C21	ug/l		*90*		WHO Petroleum DWG 2008	22	<10	<10	<10	<10	<10	<10
TPHCWG	TPH Aromatic >C21-C35	ug/l		*90*		WHO Petroleum DWG 2008	<20	<20	<20	<20	<20	<20	<20
TPHCWG	TPH Aromatic >C5-C35	ug/l					50	<20	<20	<20	<20	<20	<20
TPHCWG	TPH Aliphatic & Aromatic >C5-35	ug/l					50	<20	<20	<20	<60	<80	<20
PAH	Naphthalene	ug/l	2		WFD (Fresh EQS - AA)		<0.02	0.02	<0.02	<0.02	0.02	<0.02	0.04
PAH	Fluorene	ug/l					<0.02	<0.02	<0.02	<0.02	<0.02	0.05	<0.02
PAH	Acenaphthylene	ug/l					<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PAH	Acenaphthene	ug/l					<0.02	<0.02	<0.02	<0.02	<0.02	0.07	<0.02

Project Name: M60/M62/M66 Simister Island
Sample Date: 28/06/2021 - 27/02/2023

							BH-G04	BH-G06	BH-N01	BH-N02	BH-N03	BH-N04	BH-N06B
						Sample Location	BH-G04	BH-G06	BH-N01	BH-N02	BH-N03	BH-N04	BH-N06B
						Sampled Date	15/07/2021	03/11/2021	16/08/2021	12/08/2021	11/10/2021	21/10/2021	04/08/2021
						Top Depth (m)	0.5	0.5	0.5	0.5	1	0.2	0.5
						End Depth (m)							
Analyte Group	Analyte	Unit	Freshwater EQS	*Drinking Water Standards*	Freshwater EQS Source	DWS Source	Result	Result	Result	Result	Result	Result	Result
PAH	Anthracene	ug/l	0.1		WFD (Fresh EQS - AA)		0.04	<0.02	<0.02	<0.02	<0.02	0.02	<0.02
PAH	Phenanthrene	ug/l					0.02	0.03	<0.02	<0.02	<0.02	0.15	<0.02
PAH	Fluoranthene	ug/l	0.0063	*4*	WFD (Fresh EQS - AA)	WHO DWG 2017	0.04	<0.02	<0.02	<0.02	0.09	0.04	<0.02
PAH	Pyrene	ug/l					0.12	<0.02	<0.02	<0.02	0.09	0.02	<0.02
PAH	Benzo[a]anthracene	ug/l					<0.02	<0.02	<0.02	<0.02	0.04	<0.02	<0.02
PAH	Chrysene	ug/l					<0.02	<0.02	<0.02	<0.02	0.05	<0.02	<0.02
PAH	Benzo[b]fluoranthene	ug/l					<0.02	<0.02	<0.02	<0.02	0.06	<0.02	<0.02
PAH	Benzo[k]fluoranthene	ug/l					<0.02	<0.02	<0.02	<0.02	0.02	<0.02	<0.02
PAH	Benzo[a]pyrene	ug/l	0.00017	*0.01*	WFD (Fresh EQS - AA)	WS Regs 2016	<0.02	<0.02	<0.02	<0.02	*0.05*	<0.02	<0.02
PAH	Indeno(1,2,3-c,d)Pyrene	ug/l					<0.02	<0.02	<0.02	<0.02	0.02	<0.02	<0.02
PAH	Dibenz(a,h)Anthracene	ug/l					<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PAH	Benzo[g,h,i]perylene	ug/l	0.0082		WFD (Fresh EQS - MAC)		<0.02	<0.02	<0.02	<0.02	0.03	<0.02	<0.02
PAH	PAH, Total Detected USEPA 16	ug/l					0.22	0.05	<0.02	<0.02	0.47	0.35	0.04
PAH	Total PAH 16	ug/l					0.22	0.05	<0.02	<0.02	0.47	0.35	0.04
VOC	Benzene	ug/l	10	*1*	WFD (Fresh EQS - AA)	WS Regs 2016	<1	<1	<1	<1	<1	<1	<1
VOC	Toluene	ug/l	74	*700*	WFD (Fresh EQS - AA)	WHO DWG 2017	<1	<1	<1	<1	<1	<1	<1
VOC	Ethylbenzene	ug/l	20	*300*	SEPA (Fresh EQS - AA)	WHO DWG 2017	<1	<1	<1	<1	<1	<1	<1
VOC	m & p-Xylene	ug/l					<1	<1	<1	<1	<1	<1	<1
VOC	Xylenes, m & p	ug/l					<1	<1	<1	<1	<1	<1	<1
VOC	o-Xylene	ug/l		*190*		USEPA RSL (tapwater)	<1	<1	<1	<1	<1	<1	<1
VOC	Methyl Tert-Butyl Ether	ug/l	5100		PNEC (Freshwater)		<1	<1	<1	<1	<1	<1	1
Phenols	Isopropyl Phenol	ug/l											
Phenols	Phenol	ug/l	7.7	*5800*	WFD (Fresh EQS - AA)	USEPA RSL (tapwater)	20	<10	<10	<10	<10	<10	<10
Phenols	Catechol	ug/l											
Phenols	Resorcinol	ug/l					<10	<10	<10	<10	<10	<10	<10
Phenols	Methylphenols (Total Cresols)	ug/l					<10	<10	<10	<10	<10	<10	<10
Phenols	Trimethylphenol	ug/l											
Phenols	Naphthols	ug/l											
Phenols	Xylenols	ug/l					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Phenols	Xylenols & Ethylphenols	ug/l					<10	<10	<10	<10	<10	<10	<10
Phenols	Total Phenols	ug/l					20	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Phenols	Total Phenols	ug/l					20	<10	<10	<10	<10	<10	<10

Comments
GAC - Generic Assessment Criteria
(blank) - no assessment criteria available
pH Units - pH Units
ug/l - micrograms per litre
mg/l - milligrams per litre
TPH - Total Petroleum Hydrocarbons
TPHCWG - Total Petroleum Hydrocarbon Criteria Working Group
PAH - Polycyclic Aromatic Hydrocarbons
VOC - Volatile Organic Compounds
DWS - Drinking Water Standards
EQS - Environmental Quality Standards
AA - Annual Average
MAC - Maximum Allowable Concentration
WFD (Fresh EQS - AA) - Water Framework Directive (Standards and Classification) Directions (England and Wales) 2015
SEPA (Fresh EQS - AA) - Scottish Environmental Protection Agency WAT-SG-53 2015
PNEC (Freshwater) - Predicted No-Effect Concentrations (EU REACH) - Freshwater
USEPA RSL (tapwater) - United Sites Environmental Protection Agency, Regional Screening Levels (Tapwater), November 2022
WHO DWG 2017 - World Health Organisation, Definitions Working Group 2017
WHO Petroleum DWG 2008 - WHO Petroleum Definitions Working Group 2008
WS Regs 2016 - Water Supply (Water Quality Regulations) 2016

Key

XXX	Exceedance of Freshwater EQS
XXX	Exceedance of Drinking Water Standards

Project Name: M60/M62/M66 Simister Island
Sample Date: 28/06/2021 - 27/02/2023

						Sample Location	BH-N07	BH-N09	BH-N10	BH-N11	BH-N13	BH-N15	BH-N17
						Sampled Date	03/08/2021	28/06/2021	06/10/2021	06/09/2021	20/07/2021	24/11/2021	01/07/2021
						Top Depth (m)	1	0.5	0.5	0.25	0.5	0.5	0.2
						End Depth (m)							
Analyte Group	Analyte	Unit	Freshwater EQS	*Drinking Water Standards*	Freshwater EQS Source	DWS Source	Result	Result	Result	Result	Result	Result	Result
Inorganics	pH	pH UNITS	6 - 9	*6.5 - 9.5*	WFD (Fresh EQS - AA)	WS Regs 2016	6.68	6.58	*5.99*	*6.14*	8.81	7.44	7.55
Inorganics	Cyanide (Total)	ug/l	1	*50*	WFD (Fresh EQS - AA)	WS Regs 2016	<5	<5	<5	<5	<5	<5	<5
Inorganics	Cyanide, total	ug/l	1		SEPA (Fresh EQS - AA)		<5	<5	<5	<5	<5	<5	<5
Inorganics	Cyanide (Free)	ug/l	1	*50*	SEPA (Fresh EQS - AA)	WS Regs 2016	<5	<5	<5	<5	<5	<5	<5
Inorganics	Thiocyanate	ug/l		*4*		USEPA RSL (tapwater)	<100	<100	<100	<100	<100	*700*	<100
Inorganics	Ammoniacal Nitrogen as N	mg/l	0.3		WFD (Fresh EQS - AA)		0.48	1.94	<0.02	<0.02	<0.02	<0.02	<0.02
Inorganics	Chloride	mg/l	250	*250*	SEPA (Fresh EQS - AA)	WS Regs 2016	1.43	18.58	5.16	1.73	28.79	2.92	1.08
Inorganics	Nitrite	mg/l	0.01				<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Inorganics	Nitrite as N	mg/l	0.01				<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Inorganics	Nitrate	mg/l					0.4	2	<0.1	6.5	3.2	0.7	2.3
Inorganics	Nitrate as N	mg/l					0.4	2	<0.1	6.5	3.2	0.7	2.3
Inorganics	Sulphate	mg/l	400	*250*	SEPA (Fresh EQS - AA)	WS Regs 2016	16.88	<1	8.74	<1	18.83	<1	31.9
Inorganics	Sulphide (Oxidisable) as SO4	mg/l					<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Inorganics	Sulphate	mg/l	400	*250*	SEPA (Fresh EQS - AA)	WS Regs 2016	16.88	<1	8.74	<1	18.83	<1	31.9
Inorganics	Sulphide	mg/l					<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Inorganics	Sodium	mg/l		*200*		WS Regs 2016	2	5	5	3	25	2	2
Metals	Aluminum	ug/l	15	*200*	SEPA (Fresh EQS - AA)	WS Regs 2016	*3610*	*2390*	*1520*	*12000*	*252*	*4350*	*1480*
Metals	Aluminium(Available)	ug/l					3610	2390	1520	12000	252	4350	1480
Metals	Antimony	ug/l		*5*		WS Regs 2016	2	<1	2	*11*	<1	<1	<1
Metals	Arsenic	ug/l	50	*10*	WFD (Fresh EQS - AA)	WS Regs 2016	4	3	2	7	<1	<1	<1
Metals	Barium	ug/l		*1300*		WHO DWG 2017	127	108	64	74	24	115	87
Metals	Boron	ug/l	2000	*1000*	SEPA (Fresh EQS - AA)	WS Regs 2016	58	12	<10	27	11	<10	32
Metals	Cadmium	ug/l	0.08	*5*	WFD (Fresh EQS - AA)	WS Regs 2016	<1	<1	<1	<1	<1	<1	<1
Metals	Chromium, Hexavalent (Cr6+)	ug/l	3.4	*50*	WFD (Fresh EQS - AA)	WS Regs 2016	<50	<50	<50	<50	<50	<50	<50
Metals	Chromium, Trivalent (Cr3+)	ug/l	4.7	*50*	WFD (Fresh EQS - AA)	WS Regs 2016	<50	<50	<50	<50	<50	<50	<50
Metals	Chromium	ug/l		*50*		WS Regs 2016	4	2	2	3	<1	<1	<1
Metals	Copper	ug/l	1	*2000*	WFD (Fresh EQS - AA)	WS Regs 2016	43	26	18	38	2	9	2
Metals	Iron	ug/l	1000	*200*	WFD (Fresh EQS - AA)	WS Regs 2016	*3140*	*2040*	*1100*	*2200*	24	*667*	12
Metals	Lead	ug/l	1.2	*10*	WFD (Fresh EQS - AA)	WS Regs 2016	*49*	*52*	*96*	*144*	<1	9	<1
Metals	Magnesium	ug/l					6000	9000	3000	2000	1000	<1000	6000
Metals	Manganese	ug/l	123	*50*	WFD (Fresh EQS - AA)	WS Regs 2016	*352*	*156*	29	*150*	2	34	1
Metals	Mercury	ug/l	0.07	*1*	WFD (Fresh EQS - MAC)	WS Regs 2016	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Metals	Nickel	ug/l	4	*20*	WFD (Fresh EQS - AA)	WS Regs 2016	3	9	5	7	<1	1	<1
Metals	Potassium	ug/l					12000	24000	5000	3000	<1200	<1200	3000
Metals	Selenium	ug/l		*10*		WS Regs 2016	1	<1	<1	<1	<1	<1	<1
Metals	Vanadium	ug/l	20	*86*	SEPA (Fresh EQS - AA)	USEPA RSL (tapwater)	7	9	18	7	<1	1	<1
Metals	Zinc	ug/l	10.9	*6000*	WFD (Fresh EQS - AA)	USEPA RSL (tapwater)	12	18	32	46	2	6	4
TPHCWG	TPH Aliphatic >C5-C6	ug/l		*15000*		WHO Petroleum DWG 2008	1	<1	<1	<1	<1	<1	<1
TPHCWG	TPH Aliphatic >C6-C8	ug/l					<1	<1	<1	<1	<1	<1	<1
TPHCWG	TPH Aliphatic >C8-C10	ug/l		*300*		WHO Petroleum DWG 2008	<10	<10	<10	<10	<10	<10	<10
TPHCWG	TPH Aliphatic >C10-C12	ug/l		*300*		WHO Petroleum DWG 2008	<10	<10	<10	<10	<10	<10	<10
TPHCWG	TPH Aliphatic >C12-C16	ug/l		*300*		WHO Petroleum DWG 2008	<10	<10	<10	<10	<10	<10	<10
TPHCWG	TPH Aliphatic >C16-C21	ug/l		*300*		WHO Petroleum DWG 2008	<10	<10	<10	<10	<10	<10	<10
TPHCWG	TPH Aliphatic >C21-C35	ug/l		*300*		WHO Petroleum DWG 2008	<20	<20	<20	<20	<20	<20	<20
TPHCWG	TPH Aliphatic >C5-C35	ug/l					<10	<10	<10	<10	<10	<10	<10
TPHCWG	TPH Aromatic >C5-C7	ug/l	10	*1*	WFD (Fresh EQS - AA)	WS Regs 2016	<1	<1	<1	<1	<1	<1	<1
TPHCWG	TPH Aromatic >C7-C8	ug/l	74	*700*	WFD (Fresh EQS - AA)	WHO Petroleum DWG 2008	<1	<1	<1	<1	<1	<1	<1
TPHCWG	TPH Aromatic >C8-C10	ug/l		*300*		WHO Petroleum DWG 2008	<10	<10	<10	<10	<10	<10	<10
TPHCWG	TPH Aromatic >C10-C12	ug/l		*90*		WHO Petroleum DWG 2008	<10	<10	<10	<10	<10	<10	<10
TPHCWG	TPH Aromatic >C12-C16	ug/l		*90*		WHO Petroleum DWG 2008	<10	<10	<10	<10	<10	<10	<10
TPHCWG	TPH Aromatic >C16-C21	ug/l		*90*		WHO Petroleum DWG 2008	<10	<10	<10	<10	<10	<10	<10
TPHCWG	TPH Aromatic >C21-C35	ug/l		*90*		WHO Petroleum DWG 2008	<20	<20	<20	<20	<20	<20	<20
TPHCWG	TPH Aromatic >C5-C35	ug/l					<20	<20	<20	<20	<20	<20	<20
TPHCWG	TPH Aliphatic & Aromatic >C5-35	ug/l					<20	<100	<20	<20	<20	<20	<20
PAH	Naphthalene	ug/l	2		WFD (Fresh EQS - AA)		<0.02	<0.02	0.07	<0.02	<0.02	0.05	<0.02
PAH	Fluorene	ug/l					<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PAH	Acenaphthylene	ug/l					<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PAH	Acenaphthene	ug/l					<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02

Project Name: M60/M62/M66 Simister Island
Sample Date: 28/06/2021 - 27/02/2023

						Sample Location	BH-N07	BH-N09	BH-N10	BH-N11	BH-N13	BH-N15	BH-N17
						Sampled Date	03/08/2021	28/06/2021	06/10/2021	06/09/2021	20/07/2021	24/11/2021	01/07/2021
						Top Depth (m)	1	0.5	0.5	0.25	0.5	0.5	0.2
						End Depth (m)							
Analyte Group	Analyte	Unit	Freshwater EQS	*Drinking Water Standards*	Freshwater EQS Source	DWS Source	Result	Result	Result	Result	Result	Result	Result
PAH	Anthracene	ug/l	0.1		WFD (Fresh EQS - AA)		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PAH	Phenanthrene	ug/l					<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PAH	Fluoranthene	ug/l	0.0063	*4*	WFD (Fresh EQS - AA)	WHO DWG 2017	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PAH	Pyrene	ug/l					<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PAH	Benzo[a]anthracene	ug/l					<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PAH	Chrysene	ug/l					<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PAH	Benzo[b]fluoranthene	ug/l					<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PAH	Benzo[k]fluoranthene	ug/l					<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PAH	Benzo[a]pyrene	ug/l	0.00017	*0.01*	WFD (Fresh EQS - AA)	WS Regs 2016	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PAH	Indeno(1,2,3-c,d)Pyrene	ug/l					<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PAH	Dibenz(a,h)Anthracene	ug/l					<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PAH	Benzo[g,h,i]perylene	ug/l	0.0082		WFD (Fresh EQS - MAC)		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PAH	PAH, Total Detected USEPA 16	ug/l					<0.02	<0.02	0.07	<0.02	<0.02	0.05	<0.02
PAH	Total PAH 16	ug/l					<0.02	<0.02	0.07	<0.02	<0.02	0.05	<0.02
VOC	Benzene	ug/l	10	*1*	WFD (Fresh EQS - AA)	WS Regs 2016	<1	<1	<1	<1	<1	<1	<1
VOC	Toluene	ug/l	74	*700*	WFD (Fresh EQS - AA)	WHO DWG 2017	<1	<1	<1	<1	<1	<1	<1
VOC	Ethylbenzene	ug/l	20	*300*	SEPA (Fresh EQS - AA)	WHO DWG 2017	<1	<1	<1	<1	<1	<1	<1
VOC	m & p-Xylene	ug/l					<1	<1	<1	<1	<1	<1	<1
VOC	Xylenes, m & p	ug/l					<1	<1	<1	<1	<1	<1	<1
VOC	o-Xylene	ug/l		*190*		USEPA RSL (tapwater)	<1	<1	<1	<1	<1	<1	<1
VOC	Methyl Tert-Butyl Ether	ug/l	5100		PNEC (Freshwater)		1	<1	<1	<1	<1	<1	<1
Phenols	Isopropyl Phenol	ug/l											
Phenols	Phenol	ug/l	7.7	*5800*	WFD (Fresh EQS - AA)	USEPA RSL (tapwater)	<10	<10	<10	<10	<10	<10	<10
Phenols	Catechol	ug/l											
Phenols	Resorcinol	ug/l					<10	<10	<10	<10	<10	<10	<10
Phenols	Methylphenols (Total Cresols)	ug/l					<10	<10	<10	<10	<10	<10	<10
Phenols	Trimethylphenol	ug/l											
Phenols	Naphthols	ug/l											
Phenols	Xylenols	ug/l					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Phenols	Xylenols & Ethylphenols	ug/l					<10	<10	<10	<10	<10	<10	<10
Phenols	Total Phenols	ug/l					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Phenols	Total Phenols	ug/l					<10	<10	<10	<10	<10	<10	<10

Comments
GAC - Generic Assessment Criteria
(blank) - no assessment criteria available
pH Units - pH Units
ug/l - micrograms per litre
mg/l - milligrams per litre
TPH - Total Petroleum Hydrocarbons
TPHCWG - Total Petroleum Hydrocarbon Criteria Working Group
PAH - Polycyclic Aromatic Hydrocarbons
VOC - Volatile Organic Compounds
DWS - Drinking Water Standards
EQS - Environmental Quality Standards
AA - Annual Average
MAC - Maximum Allowable Concentration
WFD (Fresh EQS - AA) - Water Framework Directive (Standards and Classification) Directions (England and Wales) 2015
SEPA (Fresh EQS - AA) - Scottish Environmental Protection Agency WAT-SG-53 2015
PNEC (Freshwater) - Predicted No-Effect Concentrations (EU REACH) - Freshwater
USEPA RSL (tapwater) - United Sites Environmental Protection Agency, Regional Screening Levels (Tapwater), November 2022
WHO DWG 2017 - World Health Organisation, Definitions Working Group 2017
WHO Petroleum DWG 2008 - WHO Petroleum Definitions Working Group 2008
WS Regs 2016 - Water Supply (Water Quality Regulations) 2016

Key

XXX	Exceedance of Freshwater EQS
XXX	Exceedance of Drinking Water Standards

Project Name: M60/M62/M66 Simister Island
Sample Date: 28/06/2021 - 27/02/2023

							Sample Location	BH-N17OB	BH-N18OB	BH-N19	BH-N21	BH-P02	BH-P03	BH-P03
							Sampled Date	16/09/2021	16/09/2021	22/09/2021	10/09/2021	02/12/2021	01/12/2021	01/12/2021
							Top Depth (m)	0.2	0.2	0.25	0.25	0.2	0.2	1
							End Depth (m)							
Analyte Group	Analyte	Unit	Freshwater EQS	*Drinking Water Standards*	Freshwater EQS Source	DWS Source		Result	Result	Result	Result	Result	Result	Result
Inorganics	pH	pH UNITS	6 - 9	*6.5 - 9.5*	WFD (Fresh EQS - AA)	WS Regs 2016		*5.81*	7.15	7.45	6.53	8.33	8.01	7.86
Inorganics	Cyanide (Total)	ug/l	1	*50*	WFD (Fresh EQS - AA)	WS Regs 2016		<5	<5	<5	<5	<5	<5	<5
Inorganics	Cyanide, total	ug/l	1		SEPA (Fresh EQS - AA)			<5	<5	<5	<5	<5	<5	<5
Inorganics	Cyanide (Free)	ug/l	1	*50*	SEPA (Fresh EQS - AA)	WS Regs 2016		<5	<5	<5	<5	<5	<5	<5
Inorganics	Thiocyanate	ug/l		*4*		USEPA RSL (tapwater)		*1900*	<100	<100	<100	<100	<100	<100
Inorganics	Ammoniacal Nitrogen as N	mg/l	0.3		WFD (Fresh EQS - AA)			0.77	1.24	0.03	<0.02	0.02	0.19	3.92
Inorganics	Chloride	mg/l	250	*250*	SEPA (Fresh EQS - AA)	WS Regs 2016		12.15	5.75	1.84	8.91	7.31	2.09	2.86
Inorganics	Nitrite	mg/l	0.01					<0.1	0.1	0.2	<0.1	0.1	<0.1	<0.1
Inorganics	Nitrite as N	mg/l	0.01					<0.1	0.1	0.2	<0.1	0.1	<0.1	<0.1
Inorganics	Nitrate	mg/l						1	7.3	7.6	11.5	7.2	<0.1	<0.1
Inorganics	Nitrate as N	mg/l						1	7.3	7.6	11.5	7.2	<0.1	<0.1
Inorganics	Sulphate	mg/l	400	*250*	SEPA (Fresh EQS - AA)	WS Regs 2016		<1	22.31	<1	3.61	23.92	41.36	1.11
Inorganics	Sulphide (Oxidisable) as SO4	mg/l						<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Inorganics	Sulphate	mg/l	400	*250*	SEPA (Fresh EQS - AA)	WS Regs 2016		<1	22.31	<1	3.61	23.92	41.36	1.11
Inorganics	Sulphide	mg/l						<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Inorganics	Sodium	mg/l		*200*		WS Regs 2016		3	4	7	2	5	2	3
Metals	Aluminum	ug/l	15	*200*	SEPA (Fresh EQS - AA)	WS Regs 2016		*4410*	*266*	*1350*	*14300*	*15200*	*2440*	*4810*
Metals	Aluminium(Available)	ug/l						4410	266	1350	14300	15200	2440	4810
Metals	Antimony	ug/l		*5*		WS Regs 2016		2	2	1	2	2	5	2
Metals	Arsenic	ug/l	50	*10*	WFD (Fresh EQS - AA)	WS Regs 2016		3	<1	3	5	4	2	6
Metals	Barium	ug/l		*1300*		WHO DWG 2017		250	92	63	72	60	75	176
Metals	Boron	ug/l	2000	*1000*	SEPA (Fresh EQS - AA)	WS Regs 2016		19	12	29	28	<10	34	26
Metals	Cadmium	ug/l	0.08	*5*	WFD (Fresh EQS - AA)	WS Regs 2016		<1	<1	<1	<1	<1	<1	<1
Metals	Chromium, Hexavalent (Cr6+)	ug/l	3.4	*50*	WFD (Fresh EQS - AA)	WS Regs 2016		<50	<50	<50	<50	<50	<50	<50
Metals	Chromium, Trivalent (Cr3+)	ug/l	4.7	*50*	WFD (Fresh EQS - AA)	WS Regs 2016		<50	<50	<50	<50	<50	<50	<50
Metals	Chromium	ug/l		*50*		WS Regs 2016		1	<1	7	2	2	<1	<1
Metals	Copper	ug/l	1	*2000*	WFD (Fresh EQS - AA)	WS Regs 2016		37	8	8	35	12	5	9
Metals	Iron	ug/l	1000	*200*	WFD (Fresh EQS - AA)	WS Regs 2016		*1780*	*243*	*303*	*1480*	*1670*	*369*	*653*
Metals	Lead	ug/l	1.2	*10*	WFD (Fresh EQS - AA)	WS Regs 2016		*121*	*12*	*15*	*96*	*32*	7	*12*
Metals	Magnesium	ug/l						20000	8000	2000	2000	2000	5000	6000
Metals	Manganese	ug/l	123	*50*	WFD (Fresh EQS - AA)	WS Regs 2016		*53*	13	49	*91*	42	*107*	*105*
Metals	Mercury	ug/l	0.07	*1*	WFD (Fresh EQS - MAC)	WS Regs 2016		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Metals	Nickel	ug/l	4	*20*	WFD (Fresh EQS - AA)	WS Regs 2016		7	1	1	6	2	2	2
Metals	Potassium	ug/l						41000	6000	4000	3000	2000	2000	4000
Metals	Selenium	ug/l		*10*		WS Regs 2016		<1	<1	<1	<1	<1	<1	<1
Metals	Vanadium	ug/l	20	*86*	SEPA (Fresh EQS - AA)	USEPA RSL (tapwater)		8	<1	3	4	6	2	3
Metals	Zinc	ug/l	10.9	*6000*	WFD (Fresh EQS - AA)	USEPA RSL (tapwater)		28	6	29	33	9	6	13
TPHCWG	TPH Aliphatic >C5-C6	ug/l		*15000*		WHO Petroleum DWG 2008		<1	<1	<1	<1	<1	<1	<1
TPHCWG	TPH Aliphatic >C6-C8	ug/l						<1	<1	<1	<1	<1	<1	<1
TPHCWG	TPH Aliphatic >C8-C10	ug/l		*300*		WHO Petroleum DWG 2008		<10	<10	<10	<10	<10	<10	<10
TPHCWG	TPH Aliphatic >C10-C12	ug/l		*300*		WHO Petroleum DWG 2008		<10	<10	<10	<10	<10	<10	<10
TPHCWG	TPH Aliphatic >C12-C16	ug/l		*300*		WHO Petroleum DWG 2008		<10	<10	<10	<10	<10	<10	<10
TPHCWG	TPH Aliphatic >C16-C21	ug/l		*300*		WHO Petroleum DWG 2008		<10	<10	<10	<10	<10	<10	<10
TPHCWG	TPH Aliphatic >C21-C35	ug/l		*300*		WHO Petroleum DWG 2008		<20	<20	<20	<20	<20	<20	58
TPHCWG	TPH Aliphatic >C5-C35	ug/l						<10	<10	<10	<10	<10	<10	58
TPHCWG	TPH Aromatic >C5-C7	ug/l	10	*1*	WFD (Fresh EQS - AA)	WS Regs 2016		<1	<1	<1	<1	<1	<1	<1
TPHCWG	TPH Aromatic >C7-C8	ug/l	74	*700*	WFD (Fresh EQS - AA)	WHO Petroleum DWG 2008		<1	<1	<1	<1	<1	<1	<1
TPHCWG	TPH Aromatic >C8-C10	ug/l		*300*		WHO Petroleum DWG 2008		<10	<10	<10	<10	<10	<10	<10
TPHCWG	TPH Aromatic >C10-C12	ug/l		*90*		WHO Petroleum DWG 2008		<10	<10	<10	<10	<10	<10	<10
TPHCWG	TPH Aromatic >C12-C16	ug/l		*90*		WHO Petroleum DWG 2008		<10	<10	<10	<10	<10	<10	11
TPHCWG	TPH Aromatic >C16-C21	ug/l		*90*		WHO Petroleum DWG 2008		<10	<10	<10	<10	<10	<10	<10
TPHCWG	TPH Aromatic >C21-C35	ug/l		*90*		WHO Petroleum DWG 2008		<20	<20	<20	<20	<20	<20	<20
TPHCWG	TPH Aromatic >C5-C35	ug/l						<20	<20	<20	<20	<20	<20	<20
TPHCWG	TPH Aliphatic & Aromatic >C5-35	ug/l						<20	<20	<20	<20	<20	<20	69
PAH	Naphthalene	ug/l	2		WFD (Fresh EQS - AA)			0.04	0.08	<0.02	<0.02	0.03	0.04	0.07
PAH	Fluorene	ug/l						0.04	0.07	<0.02	<0.02	<0.02	<0.02	0.04
PAH	Acenaphthylene	ug/l						<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PAH	Acenaphthene	ug/l						0.03	0.05	<0.02	<0.02	<0.02	0.02	0.13

Project Name: M60/M62/M66 Simister Island
Sample Date: 28/06/2021 - 27/02/2023

						Sample Location	BH-N17OB	BH-N18OB	BH-N19	BH-N21	BH-P02	BH-P03	BH-P03
						Sampled Date	16/09/2021	16/09/2021	22/09/2021	10/09/2021	02/12/2021	01/12/2021	01/12/2021
						Top Depth (m)	0.2	0.2	0.25	0.25	0.2	0.2	1
						End Depth (m)							
Analyte Group	Analyte	Unit	Freshwater EQS	*Drinking Water Standards*	Freshwater EQS Source	DWS Source	Result	Result	Result	Result	Result	Result	Result
PAH	Anthracene	ug/l	0.1		WFD (Fresh EQS - AA)		<0.02	0.04	0.03	<0.02	<0.02	<0.02	<0.02
PAH	Phenanthrene	ug/l					0.15	0.25	0.04	<0.02	<0.02	0.03	0.04
PAH	Fluoranthene	ug/l	0.0063	*4*	WFD (Fresh EQS - AA)	WHO DWG 2017	0.05	0.07	0.29	<0.02	<0.02	0.03	<0.02
PAH	Pyrene	ug/l					0.04	0.05	0.34	<0.02	<0.02	0.03	<0.02
PAH	Benzo[a]anthracene	ug/l					<0.02	<0.02	0.18	<0.02	<0.02	<0.02	<0.02
PAH	Chrysene	ug/l					<0.02	<0.02	0.26	<0.02	<0.02	<0.02	<0.02
PAH	Benzo[b]fluoranthene	ug/l					<0.02	<0.02	0.4	<0.02	<0.02	<0.02	<0.02
PAH	Benzo[k]fluoranthene	ug/l					<0.02	<0.02	0.16	<0.02	<0.02	<0.02	<0.02
PAH	Benzo[a]pyrene	ug/l	0.00017	*0.01*	WFD (Fresh EQS - AA)	WS Regs 2016	<0.02	<0.02	*0.39*	<0.02	<0.02	<0.02	<0.02
PAH	Indeno(1,2,3-c,d)Pyrene	ug/l					<0.02	<0.02	0.41	<0.02	<0.02	<0.02	<0.02
PAH	Dibenz(a,h)Anthracene	ug/l					<0.02	<0.02	0.09	<0.02	<0.02	<0.02	<0.02
PAH	Benzo[g,h,i]perylene	ug/l	0.0082		WFD (Fresh EQS - MAC)		<0.02	<0.02	0.46	<0.02	<0.02	<0.02	<0.02
PAH	PAH, Total Detected USEPA 16	ug/l					0.35	0.61	3.05	<0.02	0.03	0.15	0.28
PAH	Total PAH 16	ug/l					0.35	0.61	3.05	<0.02	0.03	0.15	0.28
VOC	Benzene	ug/l	10	*1*	WFD (Fresh EQS - AA)	WS Regs 2016	<1	<1	<1	<1	<1	<1	<1
VOC	Toluene	ug/l	74	*700*	WFD (Fresh EQS - AA)	WHO DWG 2017	<1	<1	<1	<1	<1	<1	<1
VOC	Ethylbenzene	ug/l	20	*300*	SEPA (Fresh EQS - AA)	WHO DWG 2017	<1	<1	<1	<1	<1	<1	<1
VOC	m & p-Xylene	ug/l					<1	<1	<1	<1	<1	<1	<1
VOC	Xylenes, m & p	ug/l					<1	<1	<1	<1	<1	<1	<1
VOC	o-Xylene	ug/l		*190*		USEPA RSL (tapwater)	<1	<1	<1	<1	<1	<1	<1
VOC	Methyl Tert-Butyl Ether	ug/l	5100		PNEC (Freshwater)		<1	<1	<1	<1	<1	<1	<1
Phenols	Isopropyl Phenol	ug/l											
Phenols	Phenol	ug/l	7.7	*5800*	WFD (Fresh EQS - AA)	USEPA RSL (tapwater)	<10	<10	<10	<10	<10	<10	<10
Phenols	Catechol	ug/l											
Phenols	Resorcinol	ug/l					<10	<10	<10	<10	<10	<10	<10
Phenols	Methylphenols (Total Cresols)	ug/l					<10	<10	<10	<10	<10	<10	<10
Phenols	Trimethylphenol	ug/l											
Phenols	Naphthols	ug/l											
Phenols	Xylenols	ug/l					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Phenols	Xylenols & Ethylphenols	ug/l					<10	<10	<10	<10	<10	<10	<10
Phenols	Total Phenols	ug/l					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Phenols	Total Phenols	ug/l					<10	<10	<10	<10	<10	<10	<10

Comments
GAC - Generic Assessment Criteria
(blank) - no assessment criteria available
pH Units - pH Units
ug/l - micrograms per litre
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Key

XXX	Exceedance of Freshwater EQS
XXX	Exceedance of Drinking Water Standards

Project Name: M60/M62/M66 Simister Island
Sample Date: 28/06/2021 - 27/02/2023

							BH-S01	BH-S03	BH-S05	BH-S06	BH-S07	BHWS02	BHWS09
						Sample Location	BH-S01	BH-S03	BH-S05	BH-S06	BH-S07	BHWS02	BHWS09
						Sampled Date	18/08/2021	25/10/2021	02/09/2021	23/08/2021	12/08/2021	06/02/2023	08/02/2023
						Top Depth (m)	1	0.8	0.25	0.5	0.25	3	2
						End Depth (m)							
Analyte Group	Analyte	Unit	Freshwater EQS	*Drinking Water Standards*	Freshwater EQS Source	DWS Source	Result	Result	Result	Result	Result	Result	Result
Inorganics	pH	pH UNITS	6 - 9	*6.5 - 9.5*	WFD (Fresh EQS - AA)	WS Regs 2016	8.34	8.07	8.12	*11.81*	7.82	7.4	*10.5*
Inorganics	Cyanide (Total)	ug/l	1	*50*	WFD (Fresh EQS - AA)	WS Regs 2016	<5	<5	<5	<5	<5		
Inorganics	Cyanide, total	ug/l	1		SEPA (Fresh EQS - AA)		<5	<5	<5	<5	<5	<1	<1
Inorganics	Cyanide (Free)	ug/l	1	*50*	SEPA (Fresh EQS - AA)	WS Regs 2016	<5	<5	<5	<5	<5	<1	<1
Inorganics	Thiocyanate	ug/l		*4*		USEPA RSL (tapwater)	*400*	<100	*100*	*200*	*300*	<200	<200
Inorganics	Ammoniacal Nitrogen as N	mg/l	0.3		WFD (Fresh EQS - AA)		<0.02	<0.02	<0.02	0.1	<0.02	<0.015	0.029
Inorganics	Chloride	mg/l	250	*250*	SEPA (Fresh EQS - AA)	WS Regs 2016	153.56	18.14	1.65	91.85	2.27	17	40
Inorganics	Nitrite	mg/l	0.01				<0.1	0.7	<0.1	2.3	<0.1		
Inorganics	Nitrite as N	mg/l	0.01				<0.1	0.7	<0.1	2.3	<0.1	<0.001	0.054
Inorganics	Nitrate	mg/l					<0.1	18.8	0.7	7	1.6		
Inorganics	Nitrate as N	mg/l					<0.1	18.8	0.7	7	1.6	0.14	0.16
Inorganics	Sulphate	mg/l	400	*250*	SEPA (Fresh EQS - AA)	WS Regs 2016	7.28	<1	<1	41.84	<1		
Inorganics	Sulphide (Oxidisable) as SO4	mg/l					<0.1	<0.1	<0.1	<0.1	<0.1	<0.005	<0.005
Inorganics	Sulphate	mg/l	400	*250*	SEPA (Fresh EQS - AA)	WS Regs 2016	7.28	<1	<1	41.84	<1	5.6	80.5
Inorganics	Sulphide	mg/l					<0.1	<0.1	<0.1	<0.1	<0.1		
Inorganics	Sodium	mg/l		*200*		WS Regs 2016	167	41	1	33	7	9.7	42
Metals	Aluminum	ug/l	15	*200*	SEPA (Fresh EQS - AA)	WS Regs 2016	*3080*	*495*	*424*	*971*	*998*		
Metals	Aluminium(Available)	ug/l					3080	495	424	971	998	330	6800
Metals	Antimony	ug/l		*5*		WS Regs 2016	<1	<1	1	<1	1	<1.7	*11*
Metals	Arsenic	ug/l	50	*10*	WFD (Fresh EQS - AA)	WS Regs 2016	1	1	<1	<1	7	1.7	*74*
Metals	Barium	ug/l		*1300*		WHO DWG 2017	11	4	9	88	470	11	48
Metals	Boron	ug/l	2000	*1000*	SEPA (Fresh EQS - AA)	WS Regs 2016	<10	10	<10	<10	<10	<10	950
Metals	Cadmium	ug/l	0.08	*5*	WFD (Fresh EQS - AA)	WS Regs 2016	<1	<1	<1	<1	<1	<0.08	<0.08
Metals	Chromium, Hexavalent (Cr6+)	ug/l	3.4	*50*	WFD (Fresh EQS - AA)	WS Regs 2016	<50	<50	<50	*160*	<50	<5	<5
Metals	Chromium, Trivalent (Cr3+)	ug/l	4.7	*50*	WFD (Fresh EQS - AA)	WS Regs 2016	<50	<50	<50	<50	<50	<5	5.7
Metals	Chromium	ug/l		*50*		WS Regs 2016	4	2	<1	*170*	4	0.8	5.7
Metals	Copper	ug/l	1	*2000*	WFD (Fresh EQS - AA)	WS Regs 2016	<1	<1	4	28	55	5.7	7.3
Metals	Iron	ug/l	1000	*200*	WFD (Fresh EQS - AA)	WS Regs 2016	107	<10	23	32	*1790*	*720*	79
Metals	Lead	ug/l	1.2	*10*	WFD (Fresh EQS - AA)	WS Regs 2016	<1	<1	<1	2	*77*	<1	<1
Metals	Magnesium	ug/l					<1000	<1000	<1000	<1000	61000	1800	590
Metals	Manganese	ug/l	123	*50*	WFD (Fresh EQS - AA)	WS Regs 2016	*51*	3	3	1	*425*	41	23
Metals	Mercury	ug/l	0.07	*1*	WFD (Fresh EQS - MAC)	WS Regs 2016	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5
Metals	Nickel	ug/l	4	*20*	WFD (Fresh EQS - AA)	WS Regs 2016	<1	<1	<1	3	5	0.8	0.4
Metals	Potassium	ug/l					2000	3000	2000	58000	72000	1200	3800
Metals	Selenium	ug/l		*10*		WS Regs 2016	<1	<1	<1	<1	2	<4	*26*
Metals	Vanadium	ug/l	20	*86*	SEPA (Fresh EQS - AA)	USEPA RSL (tapwater)	<1	<1	<1	4	14	<1.7	82
Metals	Zinc	ug/l	10.9	*6000*	WFD (Fresh EQS - AA)	USEPA RSL (tapwater)	3	3	2	1	120	11	6.4
TPHCWG	TPH Aliphatic >C5-C6	ug/l		*15000*		WHO Petroleum DWG 2008	<1	<1	<1	<1	<1	<1	<1
TPHCWG	TPH Aliphatic >C6-C8	ug/l					<1	<1	<1	<1	<1	<1	<1
TPHCWG	TPH Aliphatic >C8-C10	ug/l		*300*		WHO Petroleum DWG 2008	<10	<10	<10	<10	<10	<1	<1
TPHCWG	TPH Aliphatic >C10-C12	ug/l		*300*		WHO Petroleum DWG 2008	<10	<10	<10	<10	<10	<10	<10
TPHCWG	TPH Aliphatic >C12-C16	ug/l		*300*		WHO Petroleum DWG 2008	<10	<10	<10	<10	<10	<10	<10
TPHCWG	TPH Aliphatic >C16-C21	ug/l		*300*		WHO Petroleum DWG 2008	<10	<10	<10	<10	<10	<10	<10
TPHCWG	TPH Aliphatic >C21-C35	ug/l		*300*		WHO Petroleum DWG 2008	<20	<20	<20	<20	<20	<10	<10
TPHCWG	TPH Aliphatic >C5-C35	ug/l					<10	<10	<10	<10	<10	<10	<10
TPHCWG	TPH Aromatic >C5-C7	ug/l	10	*1*	WFD (Fresh EQS - AA)	WS Regs 2016	<1	<1	<1	<1	<1	<1	<1
TPHCWG	TPH Aromatic >C7-C8	ug/l	74	*700*	WFD (Fresh EQS - AA)	WHO Petroleum DWG 2008	<1	<1	<1	<1	<1	<1	<1
TPHCWG	TPH Aromatic >C8-C10	ug/l		*300*		WHO Petroleum DWG 2008	<10	<10	<10	12	<10	<1	<1
TPHCWG	TPH Aromatic >C10-C12	ug/l		*90*		WHO Petroleum DWG 2008	<10	<10	<10	<10	<10	<10	<10
TPHCWG	TPH Aromatic >C12-C16	ug/l		*90*		WHO Petroleum DWG 2008	<10	<10	<10	21	<10	<10	<10
TPHCWG	TPH Aromatic >C16-C21	ug/l		*90*		WHO Petroleum DWG 2008	<10	<10	<10	40	<10	<10	<10
TPHCWG	TPH Aromatic >C21-C35	ug/l		*90*		WHO Petroleum DWG 2008	<20	<20	<20	74	<20	<10	<10
TPHCWG	TPH Aromatic >C5-C35	ug/l					<20	<20	<20	147	<20	<10	<10
TPHCWG	TPH Aliphatic & Aromatic >C5-35	ug/l					<20	<20	<20	147	<20		
PAH	Naphthalene	ug/l	2		WFD (Fresh EQS - AA)		<0.02	0.05	0.04	0.41	<0.02	<0.01	<0.01
PAH	Fluorene	ug/l					<0.02	<0.02	<0.02	0.1	<0.02	<0.01	<0.01
PAH	Acenaphthylene	ug/l					<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.01
PAH	Acenaphthene	ug/l					<0.02	<0.02	<0.02	0.32	<0.02	<0.01	<0.01

Project Name: M60/M62/M66 Simister Island
Sample Date: 28/06/2021 - 27/02/2023

						Sample Location	BH-S01	BH-S03	BH-S05	BH-S06	BH-S07	BHWS02	BHWS09
						Sampled Date	18/08/2021	25/10/2021	02/09/2021	23/08/2021	12/08/2021	06/02/2023	08/02/2023
						Top Depth (m)	1	0.8	0.25	0.5	0.25	3	2
						End Depth (m)							
Analyte Group	Analyte	Unit	Freshwater EQS	*Drinking Water Standards*	Freshwater EQS Source	DWS Source	Result	Result	Result	Result	Result	Result	Result
PAH	Anthracene	ug/l	0.1		WFD (Fresh EQS - AA)		<0.02	<0.02	<0.02	0.06	<0.02	<0.01	<0.01
PAH	Phenanthrene	ug/l					<0.02	<0.02	<0.02	0.22	<0.02	<0.01	<0.01
PAH	Fluoranthene	ug/l	0.0063	*4*	WFD (Fresh EQS - AA)	WHO DWG 2017	<0.02	0.02	<0.02	0.2	<0.02	<0.01	<0.01
PAH	Pyrene	ug/l					<0.02	<0.02	<0.02	0.16	0.02	<0.01	<0.01
PAH	Benzo[a]anthracene	ug/l					<0.02	<0.02	<0.02	0.06	<0.02	<0.01	<0.01
PAH	Chrysene	ug/l					<0.02	<0.02	<0.02	0.06	<0.02	<0.01	<0.01
PAH	Benzo[b]fluoranthene	ug/l					<0.02	<0.02	<0.02	0.05	0.02	<0.01	<0.01
PAH	Benzo[k]fluoranthene	ug/l					<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.01
PAH	Benzo[a]pyrene	ug/l	0.00017	*0.01*	WFD (Fresh EQS - AA)	WS Regs 2016	<0.02	<0.02	<0.02	*0.03*	<0.02	<0.01	<0.01
PAH	Indeno(1,2,3-c,d)Pyrene	ug/l					<0.02	<0.02	<0.02	<0.02	0.02	<0.01	<0.01
PAH	Dibenz(a,h)Anthracene	ug/l					<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.01
PAH	Benzo[g,h,i]perylene	ug/l	0.0082		WFD (Fresh EQS - MAC)		<0.02	<0.02	<0.02	<0.02	0.02	<0.01	<0.01
PAH	PAH, Total Detected USEPA 16	ug/l					<0.02	0.07	0.04	1.67	0.08	<0.2	<0.2
PAH	Total PAH 16	ug/l					<0.02	0.07	0.04	1.67	0.08		
VOC	Benzene	ug/l	10	*1*	WFD (Fresh EQS - AA)	WS Regs 2016	<1	<1	<1	<1	<1	<3	<3
VOC	Toluene	ug/l	74	*700*	WFD (Fresh EQS - AA)	WHO DWG 2017	<1	<1	<1	<1	<1	<3	<3
VOC	Ethylbenzene	ug/l	20	*300*	SEPA (Fresh EQS - AA)	WHO DWG 2017	<1	<1	<1	<1	<1	<3	<3
VOC	m & p-Xylene	ug/l					<1	<1	<1	<1	<1		
VOC	Xylenes, m & p	ug/l					<1	<1	<1	<1	<1	<3	<3
VOC	o-Xylene	ug/l		*190*		USEPA RSL (tapwater)	<1	<1	<1	<1	<1	<3	<3
VOC	Methyl Tert-Butyl Ether	ug/l	5100		PNEC (Freshwater)		<1	<1	<1	<1	<1	<10	<10
Phenols	Isopropyl Phenol	ug/l										<0.5	<0.5
Phenols	Phenol	ug/l	7.7	*5800*	WFD (Fresh EQS - AA)	USEPA RSL (tapwater)	<10	<10	<10	<10	<10	<0.5	<0.5
Phenols	Catechol	ug/l										<0.5	<0.5
Phenols	Resorcinol	ug/l					<10	<10	<10	<10	<10	<0.5	<0.5
Phenols	Methylphenols (Total Cresols)	ug/l					<10	<10	<10	<10	<10	<0.5	<0.5
Phenols	Trimethylphenol	ug/l										<0.5	<0.5
Phenols	Naphthols	ug/l										<0.5	<0.5
Phenols	Xylenols	ug/l					<0.01	<0.01	<0.01	<0.01	<0.01		
Phenols	Xylenols & Ethylphenols	ug/l					<10	<10	<10	<10	<10	<0.5	<0.5
Phenols	Total Phenols	ug/l					<0.01	<0.01	<0.01	<0.01	<0.01		
Phenols	Total Phenols	ug/l					<10	<10	<10	<10	<10	<3.5	<3.5

Comments
GAC - Generic Assessment Criteria
(blank) - no assessment criteria available
pH Units - pH Units
ug/l - micrograms per litre
mg/l - milligrams per litre
TPH - Total Petroleum Hydrocarbons
TPHCWG - Total Petroleum Hydrocarbon Criteria Working Group
PAH - Polycyclic Aromatic Hydrocarbons
VOC - Volatile Organic Compounds
DWS - Drinking Water Standards
EQS - Environmental Quality Standards
AA - Annual Average
MAC - Maximum Allowable Concentration
WFD (Fresh EQS - AA) - Water Framework Directive (Standards and Classification) Directions (England and Wales) 2015
SEPA (Fresh EQS - AA) - Scottish Environmental Protection Agency WAT-SG-53 2015
PNEC (Freshwater) - Predicted No-Effect Concentrations (EU REACH) - Freshwater
USEPA RSL (tapwater) - United Sites Environmental Protection Agency, Regional Screening Levels (Tapwater), November 2022
WHO DWG 2017 - World Health Organisation, Definitions Working Group 2017
WHO Petroleum DWG 2008 - WHO Petroleum Definitions Working Group 2008
WS Regs 2016 - Water Supply (Water Quality Regulations) 2016

Key

XXX	Exceedance of Freshwater EQS
XXX	Exceedance of Drinking Water Standards

Project Name: M60/M62/M66 Simister Island
Sample Date: 28/06/2021 - 27/02/2023

						Sample Location	BHWS10	HDP04	HDP06	HDP07	HDP08	HDP09	HDP11
						Sampled Date	26/01/2023	01/02/2023	01/02/2023	02/02/2023	31/01/2023	03/02/2023	30/01/2023
						Top Depth (m)	4.5	0.25	0.5	0.5	1	1.35	0.5
						End Depth (m)							
Analyte Group	Analyte	Unit	Freshwater EQS	*Drinking Water Standards*	Freshwater EQS Source	DWS Source	Result	Result	Result	Result	Result	Result	Result
Inorganics	pH	pH UNITS	6 - 9	*6.5 - 9.5*	WFD (Fresh EQS - AA)	WS Regs 2016	*9.7*	7.4	7.4	7.3	7.6	8.7	7.5
Inorganics	Cyanide (Total)	ug/l	1	*50*	WFD (Fresh EQS - AA)	WS Regs 2016							
Inorganics	Cyanide, total	ug/l	1		SEPA (Fresh EQS - AA)		<1	<1	<1	<1	<1	<1	1.3
Inorganics	Cyanide (Free)	ug/l	1	*50*	SEPA (Fresh EQS - AA)	WS Regs 2016	<1	<1	<1	<1	<1	<1	<1
Inorganics	Thiocyanate	ug/l		*4*		USEPA RSL (tapwater)	<200	<200	<200	*530*	<200	<200	<200
Inorganics	Ammoniacal Nitrogen as N	mg/l	0.3		WFD (Fresh EQS - AA)		<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015
Inorganics	Chloride	mg/l	250	*250*	SEPA (Fresh EQS - AA)	WS Regs 2016	25	3.5	6.3	1.8	3.9	17	1.6
Inorganics	Nitrite	mg/l	0.01										
Inorganics	Nitrite as N	mg/l	0.01				0.003	<0.001	0.0076	<0.001	0.0056	0.002	0.0018
Inorganics	Nitrate	mg/l											
Inorganics	Nitrate as N	mg/l					0.28	0.15	0.16	0.22	0.22	0.05	0.23
Inorganics	Sulphate	mg/l	400	*250*	SEPA (Fresh EQS - AA)	WS Regs 2016							
Inorganics	Sulphide (Oxidisable) as SO4	mg/l					<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Inorganics	Sulphate	mg/l	400	*250*	SEPA (Fresh EQS - AA)	WS Regs 2016	93.9	4.1	5.2	3.2	3.4	54.9	1.4
Inorganics	Sulphide	mg/l											
Inorganics	Sodium	mg/l		*200*		WS Regs 2016	49	7.8	9.9	5.6	17	23	3.8
Metals	Aluminum	ug/l	15	*200*	SEPA (Fresh EQS - AA)	WS Regs 2016							
Metals	Aluminium(Available)	ug/l					2900	27	41	49	170	1800	68
Metals	Antimony	ug/l		*5*		WS Regs 2016	*26*	<1.7	<1.7	<1.7	<1.7	*14*	<1.7
Metals	Arsenic	ug/l	50	*10*	WFD (Fresh EQS - AA)	WS Regs 2016	*100*	1.4	<1	<1	<1	*77*	<1
Metals	Barium	ug/l		*1300*		WHO DWG 2017	45	32	31	31	7.5	47	9.8
Metals	Boron	ug/l	2000	*1000*	SEPA (Fresh EQS - AA)	WS Regs 2016	*2400*	<10	<10	<10	<10	800	51
Metals	Cadmium	ug/l	0.08	*5*	WFD (Fresh EQS - AA)	WS Regs 2016	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
Metals	Chromium, Hexavalent (Cr6+)	ug/l	3.4	*50*	WFD (Fresh EQS - AA)	WS Regs 2016	9.1	<5	<5	<5		<5	<5
Metals	Chromium, Trivalent (Cr3+)	ug/l	4.7	*50*	WFD (Fresh EQS - AA)	WS Regs 2016	<5	<5	<5	<5		5.8	<5
Metals	Chromium	ug/l		*50*		WS Regs 2016	9.4	<0.4	<0.4	<0.4	0.7	5.8	0.8
Metals	Copper	ug/l	1	*2000*	WFD (Fresh EQS - AA)	WS Regs 2016	5.1	6	4.1	5.7	8.9	4.9	9.7
Metals	Iron	ug/l	1000	*200*	WFD (Fresh EQS - AA)	WS Regs 2016	32	37	27	26	190	97	*240*
Metals	Lead	ug/l	1.2	*10*	WFD (Fresh EQS - AA)	WS Regs 2016	<1	<1	<1	<1	<1	1.4	<1
Metals	Magnesium	ug/l					5000	1500	1400	1300	530	1000	540
Metals	Manganese	ug/l	123	*50*	WFD (Fresh EQS - AA)	WS Regs 2016	42	36	34	*51*	19	36	38
Metals	Mercury	ug/l	0.07	*1*	WFD (Fresh EQS - MAC)	WS Regs 2016	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Metals	Nickel	ug/l	4	*20*	WFD (Fresh EQS - AA)	WS Regs 2016	<0.3	0.6	<0.3	0.6	0.5	<0.3	0.5
Metals	Potassium	ug/l					3300	1100	830	850	1000	5900	820
Metals	Selenium	ug/l		*10*		WS Regs 2016	*27*	<4	<4	<4	<4	*17*	<4
Metals	Vanadium	ug/l	20	*86*	SEPA (Fresh EQS - AA)	USEPA RSL (tapwater)	69	<1.7	<1.7	<1.7	2.7	36	<1.7
Metals	Zinc	ug/l	10.9	*6000*	WFD (Fresh EQS - AA)	USEPA RSL (tapwater)	4.7	2.8	2.1	3.7	3.3	10	7.8
TPHCWG	TPH Aliphatic >C5-C6	ug/l		*15000*		WHO Petroleum DWG 2008	<1	<1	<1	<1	<1	<1	<1
TPHCWG	TPH Aliphatic >C6-C8	ug/l					<1	<1	<1	<1	<1	<1	<1
TPHCWG	TPH Aliphatic >C8-C10	ug/l		*300*		WHO Petroleum DWG 2008	<1	<1	<1	<1	<1	<1	<1
TPHCWG	TPH Aliphatic >C10-C12	ug/l		*300*		WHO Petroleum DWG 2008	<10	<10	<10	<10	<10	<10	<10
TPHCWG	TPH Aliphatic >C12-C16	ug/l		*300*		WHO Petroleum DWG 2008	<10	<10	<10	<10	<10	<10	<10
TPHCWG	TPH Aliphatic >C16-C21	ug/l		*300*		WHO Petroleum DWG 2008	<10	<10	<10	<10	<10	<10	<10
TPHCWG	TPH Aliphatic >C21-C35	ug/l		*300*		WHO Petroleum DWG 2008	<10	<10	<10	<10	<10	<10	<10
TPHCWG	TPH Aliphatic >C5-C35	ug/l					<10	<10	<10	<10	<10	<10	<10
TPHCWG	TPH Aromatic >C5-C7	ug/l	10	*1*	WFD (Fresh EQS - AA)	WS Regs 2016	<1	<1	<1	<1	<1	<1	<1
TPHCWG	TPH Aromatic >C7-C8	ug/l	74	*700*	WFD (Fresh EQS - AA)	WHO Petroleum DWG 2008	<1	<1	<1	<1	<1	<1	<1
TPHCWG	TPH Aromatic >C8-C10	ug/l		*300*		WHO Petroleum DWG 2008	<1	<1	<1	<1	<1	<1	<1
TPHCWG	TPH Aromatic >C10-C12	ug/l		*90*		WHO Petroleum DWG 2008	<10	<10	<10	<10	<10	<10	<10
TPHCWG	TPH Aromatic >C12-C16	ug/l		*90*		WHO Petroleum DWG 2008	<10	<10	<10	<10	<10	<10	<10
TPHCWG	TPH Aromatic >C16-C21	ug/l		*90*		WHO Petroleum DWG 2008	<10	<10	<10	<10	<10	<10	<10
TPHCWG	TPH Aromatic >C21-C35	ug/l		*90*		WHO Petroleum DWG 2008	<10	<10	<10	<10	<10	<10	<10
TPHCWG	TPH Aromatic >C5-C35	ug/l					<10	<10	<10	<10	<10	<10	<10
TPHCWG	TPH Aliphatic & Aromatic >C5-35	ug/l											
PAH	Naphthalene	ug/l	2		WFD (Fresh EQS - AA)		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAH	Fluorene	ug/l					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAH	Acenaphthylene	ug/l					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAH	Acenaphthene	ug/l					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

Project Name: M60/M62/M66 Simister Island
Sample Date: 28/06/2021 - 27/02/2023

						Sample Location	BHWS10	HDP04	HDP06	HDP07	HDP08	HDP09	HDP11
						Sampled Date	26/01/2023	01/02/2023	01/02/2023	02/02/2023	31/01/2023	03/02/2023	30/01/2023
						Top Depth (m)	4.5	0.25	0.5	0.5	1	1.35	0.5
						End Depth (m)							
Analyte Group	Analyte	Unit	Freshwater EQS	*Drinking Water Standards*	Freshwater EQS Source	DWS Source	Result	Result	Result	Result	Result	Result	Result
PAH	Anthracene	ug/l	0.1		WFD (Fresh EQS - AA)		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAH	Phenanthrene	ug/l					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAH	Fluoranthene	ug/l	0.0063	*4*	WFD (Fresh EQS - AA)	WHO DWG 2017	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAH	Pyrene	ug/l					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAH	Benzo[a]anthracene	ug/l					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAH	Chrysene	ug/l					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAH	Benzo[b]fluoranthene	ug/l					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAH	Benzo[k]fluoranthene	ug/l					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAH	Benzo[a]pyrene	ug/l	0.00017	*0.01*	WFD (Fresh EQS - AA)	WS Regs 2016	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAH	Indeno(1,2,3-c,d)Pyrene	ug/l					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAH	Dibenz(a,h)Anthracene	ug/l					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAH	Benzo[g,h,i]perylene	ug/l	0.0082		WFD (Fresh EQS - MAC)		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAH	PAH, Total Detected USEPA 16	ug/l					<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
PAH	Total PAH 16	ug/l											
VOC	Benzene	ug/l	10	*1*	WFD (Fresh EQS - AA)	WS Regs 2016	<3	<3	<3	<3	<3	<3	<3
VOC	Toluene	ug/l	74	*700*	WFD (Fresh EQS - AA)	WHO DWG 2017	<3	<3	<3	<3	<3	<3	<3
VOC	Ethylbenzene	ug/l	20	*300*	SEPA (Fresh EQS - AA)	WHO DWG 2017	<3	<3	<3	<3	<3	<3	<3
VOC	m & p-Xylene	ug/l											
VOC	Xylenes, m & p	ug/l					<3	<3	<3	<3	<3	<3	<3
VOC	o-Xylene	ug/l		*190*		USEPA RSL (tapwater)	<3	<3	<3	<3	<3	<3	<3
VOC	Methyl Tert-Butyl Ether	ug/l	5100		PNEC (Freshwater)		<10	<10	<10	<10	<10	<10	<10
Phenols	Isopropyl Phenol	ug/l					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Phenols	Phenol	ug/l	7.7	*5800*	WFD (Fresh EQS - AA)	USEPA RSL (tapwater)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Phenols	Catechol	ug/l					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Phenols	Resorcinol	ug/l					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Phenols	Methylphenols (Total Cresols)	ug/l					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Phenols	Trimethylphenol	ug/l					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Phenols	Naphthols	ug/l					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Phenols	Xylenols	ug/l											
Phenols	Xylenols & Ethylphenols	ug/l					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Phenols	Total Phenols	ug/l											
Phenols	Total Phenols	ug/l					<3.5	<3.5	<3.5	<3.5	<3.5	<3.5	<3.5

Comments
GAC - Generic Assessment Criteria
(blank) - no assessment criteria available
pH Units - pH Units
ug/l - micrograms per litre
mg/l - milligrams per litre
TPH - Total Petroleum Hydrocarbons
TPHCWG - Total Petroleum Hydrocarbon Criteria Working Group
PAH - Polycyclic Aromatic Hydrocarbons
VOC - Volatile Organic Compounds
DWS - Drinking Water Standards
EQS - Environmental Quality Standards
AA - Annual Average
MAC - Maximum Allowable Concentration
WFD (Fresh EQS - AA) - Water Framework Directive (Standards and Classification) Directions (England and Wales) 2015
SEPA (Fresh EQS - AA) - Scottish Environmental Protection Agency WAT-SG-53 2015
PNEC (Freshwater) - Predicted No-Effect Concentrations (EU REACH) - Freshwater
USEPA RSL (tapwater) - United Sites Environmental Protection Agency, Regional Screening Levels (Tapwater), November 2022
WHO DWG 2017 - World Health Organisation, Definitions Working Group 2017
WHO Petroleum DWG 2008 - WHO Petroleum Definitions Working Group 2008
WS Regs 2016 - Water Supply (Water Quality Regulations) 2016

Key

XXX	Exceedance of Freshwater EQS
XXX	Exceedance of Drinking Water Standards

Project Name: M60/M62/M66 Simister Island
Sample Date: 28/06/2021 - 27/02/2023

							Sample Location	WS07	WS08	WS09	WS2	WS-G08A	WS-N02A	WS-N04A
							Sampled Date	13/01/2022	18/01/2023	19/01/2023	29/11/2022	12/11/2021	06/08/2021	12/07/2021
							Top Depth (m)	0.7	1.1	1.1	0.6	0.1	1	0.1
							End Depth (m)							
Analyte Group	Analyte	Unit	Freshwater EQS	*Drinking Water Standards*	Freshwater EQS Source	DWS Source		Result	Result	Result	Result	Result	Result	Result
Inorganics	pH	pH UNITS	6 - 9	*6.5 - 9.5*	WFD (Fresh EQS - AA)	WS Regs 2016		8.4	8.5	9.1	7.4	7.75	8.13	6.52
Inorganics	Cyanide (Total)	ug/l	1	*50*	WFD (Fresh EQS - AA)	WS Regs 2016						<5	<5	<5
Inorganics	Cyanide, total	ug/l	1		SEPA (Fresh EQS - AA)			<1	<1	2.1	<1	<5	<5	<5
Inorganics	Cyanide (Free)	ug/l	1	*50*	SEPA (Fresh EQS - AA)	WS Regs 2016		<1	<1	<1	<1	<5	<5	<5
Inorganics	Thiocyanate	ug/l		*4*		USEPA RSL (tapwater)		<200	<200	<200	<200	<100	*1200*	<100
Inorganics	Ammoniacal Nitrogen as N	mg/l	0.3		WFD (Fresh EQS - AA)			0.032	<0.015	<0.015	0.023	<0.02	0.08	0.11
Inorganics	Chloride	mg/l	250	*250*	SEPA (Fresh EQS - AA)	WS Regs 2016		23	31	55	1.1	1.54	*270*	5.07
Inorganics	Nitrite	mg/l	0.01									<0.1	<0.1	0.2
Inorganics	Nitrite as N	mg/l	0.01					<0.001	<0.001	<0.001	<0.001	<0.1	<0.1	0.2
Inorganics	Nitrate	mg/l										0.4	0.2	3.3
Inorganics	Nitrate as N	mg/l						0.08	0.04	0.02	0.29	0.4	0.2	3.3
Inorganics	Sulphate	mg/l	400	*250*	SEPA (Fresh EQS - AA)	WS Regs 2016						2.7	38.2	3.5
Inorganics	Sulphide (Oxidisable) as SO4	mg/l						<0.005	<0.005	<0.005	<0.005	0.1	<0.1	<0.1
Inorganics	Sulphate	mg/l	400	*250*	SEPA (Fresh EQS - AA)	WS Regs 2016		2.8	4.4	5.1	2.1	2.7	38.2	3.5
Inorganics	Sulphide	mg/l										0.1	<0.1	<0.1
Inorganics	Sodium	mg/l		*200*		WS Regs 2016		25	40	63	1.6	2	*251*	4
Metals	Aluminum	ug/l	15	*200*	SEPA (Fresh EQS - AA)	WS Regs 2016						111	*1330*	*4120*
Metals	Aluminium(Available)	ug/l						800	400	900	300	111	1330	4120
Metals	Antimony	ug/l		*5*		WS Regs 2016		<1.7	<1.7	<1.7	<1.7	<1	5	2
Metals	Arsenic	ug/l	50	*10*	WFD (Fresh EQS - AA)	WS Regs 2016		3.6	2.6	<1	1.1	<1	*46*	9
Metals	Barium	ug/l		*1300*		WHO DWG 2017		29	26	12	6.5	44	457	232
Metals	Boron	ug/l	2000	*1000*	SEPA (Fresh EQS - AA)	WS Regs 2016		<10	<10	<10	<10	<10	70	32
Metals	Cadmium	ug/l	0.08	*5*	WFD (Fresh EQS - AA)	WS Regs 2016		<0.08	<0.08	<0.08	<0.08	<1	2	1
Metals	Chromium, Hexavalent (Cr6+)	ug/l	3.4	*50*	WFD (Fresh EQS - AA)	WS Regs 2016		<5	<5	<5		<50	<50	<50
Metals	Chromium, Trivalent (Cr3+)	ug/l	4.7	*50*	WFD (Fresh EQS - AA)	WS Regs 2016		<5	<5	<5		<50	<50	<50
Metals	Chromium	ug/l		*50*		WS Regs 2016		4.1	2.9	1.7	0.9	<1	19	3
Metals	Copper	ug/l	1	*2000*	WFD (Fresh EQS - AA)	WS Regs 2016		5.3	7.2	12	21	7	211	62
Metals	Iron	ug/l	1000	*200*	WFD (Fresh EQS - AA)	WS Regs 2016		*630*	*270*	*640*	*1400*	*344*	*4030*	*7980*
Metals	Lead	ug/l	1.2	*10*	WFD (Fresh EQS - AA)	WS Regs 2016		<1	1.8	<1	2.7	*17*	*308*	*194*
Metals	Magnesium	ug/l						930	780	590	520	2000	31000	6000
Metals	Manganese	ug/l	123	*50*	WFD (Fresh EQS - AA)	WS Regs 2016		*180*	*180*	*61*	35	12	*2970*	*247*
Metals	Mercury	ug/l	0.07	*1*	WFD (Fresh EQS - MAC)	WS Regs 2016		<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1
Metals	Nickel	ug/l	4	*20*	WFD (Fresh EQS - AA)	WS Regs 2016		1.7	2.2	3.8	1.4	<1	14	*21*
Metals	Potassium	ug/l						1300	1100	1200	630	3000	80000	11000
Metals	Selenium	ug/l		*10*		WS Regs 2016		<4	<4	4.1	<4	<1	4	<1
Metals	Vanadium	ug/l	20	*86*	SEPA (Fresh EQS - AA)	USEPA RSL (tapwater)		2.8	3.9	8.7	<1.7	1	45	14
Metals	Zinc	ug/l	10.9	*6000*	WFD (Fresh EQS - AA)	USEPA RSL (tapwater)		7.2	7.8	2.2	10	17	816	51
TPHCWG	TPH Aliphatic >C5-C6	ug/l		*15000*		WHO Petroleum DWG 2008		<1	<1	<1	<1	<1	3	<1
TPHCWG	TPH Aliphatic >C6-C8	ug/l						<1	<1	<1	<1	<1	<1	<1
TPHCWG	TPH Aliphatic >C8-C10	ug/l		*300*		WHO Petroleum DWG 2008		<1	<1	<1	<1	<10	<10	11
TPHCWG	TPH Aliphatic >C10-C12	ug/l		*300*		WHO Petroleum DWG 2008		<10	<10	<10	<10	<10	<10	<10
TPHCWG	TPH Aliphatic >C12-C16	ug/l		*300*		WHO Petroleum DWG 2008		<10	<10	<10	<10	<10	<10	<10
TPHCWG	TPH Aliphatic >C16-C21	ug/l		*300*		WHO Petroleum DWG 2008		<10	<10	<10	<10	<10	<10	<10
TPHCWG	TPH Aliphatic >C21-C35	ug/l		*300*		WHO Petroleum DWG 2008		<10	<10	<10	<10	<20	<20	36
TPHCWG	TPH Aliphatic >C5-C35	ug/l						<10	<10	<10	<10	<10	<10	47
TPHCWG	TPH Aromatic >C5-C7	ug/l	10	*1*	WFD (Fresh EQS - AA)	WS Regs 2016		<1	<1	<1	<1	<1	<1	<1
TPHCWG	TPH Aromatic >C7-C8	ug/l	74	*700*	WFD (Fresh EQS - AA)	WS Regs 2016		<1	<1	<1	<1	<1	<1	<1
TPHCWG	TPH Aromatic >C8-C10	ug/l		*300*		WHO Petroleum DWG 2008		<1	<1	<1	<1	20	<10	89
TPHCWG	TPH Aromatic >C10-C12	ug/l		*90*		WHO Petroleum DWG 2008		<10	<10	<10	<10	<10	<10	<10
TPHCWG	TPH Aromatic >C12-C16	ug/l		*90*		WHO Petroleum DWG 2008		<10	<10	<10	<10	<10	<10	<10
TPHCWG	TPH Aromatic >C16-C21	ug/l		*90*		WHO Petroleum DWG 2008		<10	<10	<10	<10	<10	<10	<10
TPHCWG	TPH Aromatic >C21-C35	ug/l		*90*		WHO Petroleum DWG 2008		<10	<10	<10	<10	<20	<20	52
TPHCWG	TPH Aromatic >C5-C35	ug/l						<10	<10	<10	<10	20	<20	141
TPHCWG	TPH Aliphatic & Aromatic >C5-35	ug/l										20	<20	188
PAH	Naphthalene	ug/l	2		WFD (Fresh EQS - AA)			<0.01	<0.01	<0.01	<0.01	<0.02	0.03	<0.02
PAH	Fluorene	ug/l						<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02
PAH	Acenaphthylene	ug/l						<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02
PAH	Acenaphthene	ug/l						<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02

Project Name: M60/M62/M66 Simister Island
Sample Date: 28/06/2021 - 27/02/2023

							WS07	WS08	WS09	WS2	WS-G08A	WS-N02A	WS-N04A
						Sample Location	WS07	WS08	WS09	WS2	WS-G08A	WS-N02A	WS-N04A
						Sampled Date	13/01/2022	18/01/2023	19/01/2023	29/11/2022	12/11/2021	06/08/2021	12/07/2021
						Top Depth (m)	0.7	1.1	1.1	0.6	0.1	1	0.1
						End Depth (m)							
Analyte Group	Analyte	Unit	Freshwater EQS	*Drinking Water Standards*	Freshwater EQS Source	DWS Source	Result	Result	Result	Result	Result	Result	Result
PAH	Anthracene	ug/l	0.1		WFD (Fresh EQS - AA)		<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02
PAH	Phenanthrene	ug/l					<0.01	<0.01	<0.01	<0.01	0.02	0.05	0.03
PAH	Fluoranthene	ug/l	0.0063	*4*	WFD (Fresh EQS - AA)	WHO DWG 2017	<0.01	<0.01	<0.01	<0.01	<0.02	0.04	<0.02
PAH	Pyrene	ug/l					<0.01	<0.01	<0.01	<0.01	<0.02	0.04	<0.02
PAH	Benzo[a]anthracene	ug/l					<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02
PAH	Chrysene	ug/l					<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02
PAH	Benzo[b]fluoranthene	ug/l					<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02
PAH	Benzo[k]fluoranthene	ug/l					<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02
PAH	Benzo[a]pyrene	ug/l	0.00017	*0.01*	WFD (Fresh EQS - AA)	WS Regs 2016	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02
PAH	Indeno(1,2,3-c,d)Pyrene	ug/l					<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02
PAH	Dibenz(a,h)Anthracene	ug/l					<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02
PAH	Benzo[g,h,i]perylene	ug/l	0.0082		WFD (Fresh EQS - MAC)		<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02
PAH	PAH, Total Detected USEPA 16	ug/l					<0.2	<0.2	<0.2	<0.2	0.02	0.16	0.03
PAH	Total PAH 16	ug/l									0.02	0.16	0.03
VOC	Benzene	ug/l	10	*1*	WFD (Fresh EQS - AA)	WS Regs 2016	<3	<3	<3	<3	<1	<1	<1
VOC	Toluene	ug/l	74	*700*	WFD (Fresh EQS - AA)	WHO DWG 2017	<3	<3	<3	<3	<1	<1	<1
VOC	Ethylbenzene	ug/l	20	*300*	SEPA (Fresh EQS - AA)	WHO DWG 2017	<3	<3	<3	<3	<1	<1	<1
VOC	m & p-Xylene	ug/l									<1	<1	<1
VOC	Xylenes, m & p	ug/l					<3	<3	<3	<3	<1	<1	<1
VOC	o-Xylene	ug/l		*190*		USEPA RSL (tapwater)	<3	<3	<3	<3	<1	<1	<1
VOC	Methyl Tert-Butyl Ether	ug/l	5100		PNEC (Freshwater)		<10	<10	<10	<10	<1	2	<1
Phenols	Isopropyl Phenol	ug/l					<0.5	<0.5	<0.5	<0.5			
Phenols	Phenol	ug/l	7.7	*5800*	WFD (Fresh EQS - AA)	USEPA RSL (tapwater)	<0.5	<0.5	<0.5	<0.5	<10	<10	<10
Phenols	Catechol	ug/l					<0.5	<0.5	<0.5	<0.5			
Phenols	Resorcinol	ug/l					<0.5	<0.5	<0.5	<0.5	<10	<10	<10
Phenols	Methylphenols (Total Cresols)	ug/l					<0.5	<0.5	<0.5	<0.5	<10	<10	<10
Phenols	Trimethylphenol	ug/l					<0.5	<0.5	<0.5	<0.5			
Phenols	Naphthols	ug/l					<0.5	<0.5	<0.5	<0.5			
Phenols	Xylenols	ug/l									<0.01	<0.01	<0.01
Phenols	Xylenols & Ethylphenols	ug/l					<0.5	<0.5	<0.5	<0.5	<10	<10	<10
Phenols	Total Phenols	ug/l									<0.01	<0.01	<0.01
Phenols	Total Phenols	ug/l					<3.5	<3.5	<3.5	<3.5	<10	<10	<10

Comments
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Key

XXX	Exceedance of Freshwater EQS
XXX	Exceedance of Drinking Water Standards

Project Name: M60/M62/M66 Simister Island
Sample Date: 28/06/2021 - 27/02/2023

							Sample Location	WS-N07	WS-N10	WS-N12	WS-N12C	WS-N13	WS-N16	WS-P02
							Sampled Date	26/11/2021	17/09/2021	22/07/2021	26/07/2021	15/10/2021	21/11/2021	10/11/2021
							Top Depth (m)	0.2	2.5	0.1	0.5	0.1	0.2	0.1
							End Depth (m)							
Analyte Group	Analyte	Unit	Freshwater EQS	*Drinking Water Standards*	Freshwater EQS Source	DWS Source		Result	Result	Result	Result	Result	Result	Result
Inorganics	pH	pH UNITS	6 - 9	*6.5 - 9.5*	WFD (Fresh EQS - AA)	WS Regs 2016		7.38	*5.56*	7.29	6.87	7.34	7.58	6.94
Inorganics	Cyanide (Total)	ug/l	1	*50*	WFD (Fresh EQS - AA)	WS Regs 2016		<5	<5	<5	<5	<5	<5	<5
Inorganics	Cyanide, total	ug/l	1		SEPA (Fresh EQS - AA)			<5	<5	<5	<5	<5	<5	<5
Inorganics	Cyanide (Free)	ug/l	1	*50*	SEPA (Fresh EQS - AA)	WS Regs 2016		<5	<5	<5	<5	<5	<5	<5
Inorganics	Thiocyanate	ug/l		*4*		USEPA RSL (tapwater)		*500*	<100	<100	<100	<100	<100	<100
Inorganics	Ammoniacal Nitrogen as N	mg/l	0.3		WFD (Fresh EQS - AA)			<0.02	3.29	0.06	0.12	0.21	0.57	0.05
Inorganics	Chloride	mg/l	250	*250*	SEPA (Fresh EQS - AA)	WS Regs 2016		10.67	21.09	6.83	31.83	12.63	4.33	3.24
Inorganics	Nitrite	mg/l	0.01					<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Inorganics	Nitrite as N	mg/l	0.01					<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Inorganics	Nitrate	mg/l						14	0.5	0.6	0.6	2.6	<0.1	2.7
Inorganics	Nitrate as N	mg/l						14	0.5	0.6	0.6	2.6	<0.1	2.7
Inorganics	Sulphate	mg/l	400	*250*	SEPA (Fresh EQS - AA)	WS Regs 2016		16.43	<1	21.02	<1	<1	7.11	1.13
Inorganics	Sulphide (Oxidisable) as SO4	mg/l						<0.1	<0.1	<0.1	<0.1	<0.1	0.5	<0.1
Inorganics	Sulphate	mg/l	400	*250*	SEPA (Fresh EQS - AA)	WS Regs 2016		16.43	<1	21.02	<1	<1	7.11	1.13
Inorganics	Sulphide	mg/l						<0.1	<0.1	<0.1	<0.1	<0.1	0.5	<0.1
Inorganics	Sodium	mg/l		*200*		WS Regs 2016		14	4	4	5	3	2	1
Metals	Aluminum	ug/l	15	*200*	SEPA (Fresh EQS - AA)	WS Regs 2016		*4550*	*1080*	*20500*	*88000*	*1850*	*707*	*3420*
Metals	Aluminium(Available)	ug/l						4550	1080	20500	88000	1850	707	3420
Metals	Antimony	ug/l		*5*		WS Regs 2016		3	2	<1	3	1	<1	<1
Metals	Arsenic	ug/l	50	*10*	WFD (Fresh EQS - AA)	WS Regs 2016		6	5	<1	<1	2	<1	<1
Metals	Barium	ug/l		*1300*		WHO DWG 2017		263	82	89	287	166	264	15
Metals	Boron	ug/l	2000	*1000*	SEPA (Fresh EQS - AA)	WS Regs 2016		66	11	11	26	13	<10	<10
Metals	Cadmium	ug/l	0.08	*5*	WFD (Fresh EQS - AA)	WS Regs 2016		2	<1	<1	<1	<1	<1	<1
Metals	Chromium, Hexavalent (Cr6+)	ug/l	3.4	*50*	WFD (Fresh EQS - AA)	WS Regs 2016		<50	<50	<50	<50	<50	<50	<50
Metals	Chromium, Trivalent (Cr3+)	ug/l	4.7	*50*	WFD (Fresh EQS - AA)	WS Regs 2016		<50	<50	<50	<50	<50	<50	<50
Metals	Chromium	ug/l		*50*		WS Regs 2016		4	3	<1	1	<1	<1	<1
Metals	Copper	ug/l	1	*2000*	WFD (Fresh EQS - AA)	WS Regs 2016		76	45	8	10	21	9	9
Metals	Iron	ug/l	1000	*200*	WFD (Fresh EQS - AA)	WS Regs 2016		*2050*	*4360*	*420*	*646*	*398*	*389*	*373*
Metals	Lead	ug/l	1.2	*10*	WFD (Fresh EQS - AA)	WS Regs 2016		*226*	*25*	*15*	10	*95*	3	*26*
Metals	Magnesium	ug/l						3000	4000	3000	15000	1000	7000	<1000
Metals	Manganese	ug/l	123	*50*	WFD (Fresh EQS - AA)	WS Regs 2016		*377*	*62*	26	*110*	*86*	*124*	15
Metals	Mercury	ug/l	0.07	*1*	WFD (Fresh EQS - MAC)	WS Regs 2016		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Metals	Nickel	ug/l	4	*20*	WFD (Fresh EQS - AA)	WS Regs 2016		11	2	4	6	4	1	3
Metals	Potassium	ug/l						4000	12000	6000	31000	<1200	9000	<1200
Metals	Selenium	ug/l		*10*		WS Regs 2016		1	2	<1	<1	<1	<1	<1
Metals	Vanadium	ug/l	20	*86*	SEPA (Fresh EQS - AA)	USEPA RSL (tapwater)		8	15	1	2	2	1	<1
Metals	Zinc	ug/l	10.9	*6000*	WFD (Fresh EQS - AA)	USEPA RSL (tapwater)		98	10	10	17	25	6	24
TPHCWG	TPH Aliphatic >C5-C6	ug/l		*15000*		WHO Petroleum DWG 2008		<1	<1	<1	<1	<1	<1	<1
TPHCWG	TPH Aliphatic >C6-C8	ug/l						<1	<1	<1	<1	<1	<1	<1
TPHCWG	TPH Aliphatic >C8-C10	ug/l		*300*		WHO Petroleum DWG 2008		<10	<10	<10	<10	<10	<10	<10
TPHCWG	TPH Aliphatic >C10-C12	ug/l		*300*		WHO Petroleum DWG 2008		<10	<10	<10	<10	<10	<10	<10
TPHCWG	TPH Aliphatic >C12-C16	ug/l		*300*		WHO Petroleum DWG 2008		<10	<10	<10	<10	<10	<10	<10
TPHCWG	TPH Aliphatic >C16-C21	ug/l		*300*		WHO Petroleum DWG 2008		<10	<10	<10	<10	<10	<10	<10
TPHCWG	TPH Aliphatic >C21-C35	ug/l		*300*		WHO Petroleum DWG 2008		<20	<20	<20	<20	<20	<20	<20
TPHCWG	TPH Aliphatic >C5-C35	ug/l						<10	<10	<10	<10	<10	<10	<10
TPHCWG	TPH Aromatic >C5-C7	ug/l	10	*1*	WFD (Fresh EQS - AA)	WS Regs 2016		<1	<1	<1	<1	<1	<1	<1
TPHCWG	TPH Aromatic >C7-C8	ug/l	74	*700*	WFD (Fresh EQS - AA)	WHO Petroleum DWG 2008		<1	<1	<1	<1	<1	<1	<1
TPHCWG	TPH Aromatic >C8-C10	ug/l		*300*		WHO Petroleum DWG 2008		<10	<10	17	22	21	<10	<10
TPHCWG	TPH Aromatic >C10-C12	ug/l		*90*		WHO Petroleum DWG 2008		<10	<10	<10	<10	<10	<10	<10
TPHCWG	TPH Aromatic >C12-C16	ug/l		*90*		WHO Petroleum DWG 2008		<10	<10	13	17	<10	<10	<10
TPHCWG	TPH Aromatic >C16-C21	ug/l		*90*		WHO Petroleum DWG 2008		<10	<10	<10	11	<10	<10	<10
TPHCWG	TPH Aromatic >C21-C35	ug/l		*90*		WHO Petroleum DWG 2008		<20	<20	<20	<20	<20	<20	<20
TPHCWG	TPH Aromatic >C5-C35	ug/l						<20	<20	30	50	21	<20	<20
TPHCWG	TPH Aliphatic & Aromatic >C5-35	ug/l						<20	<20	30	51	21	<20	<20
PAH	Naphthalene	ug/l	2		WFD (Fresh EQS - AA)			0.06	0.03	0.14	0.1	<0.02	<0.02	<0.02
PAH	Fluorene	ug/l						<0.02	0.04	0.02	0.02	<0.02	0.03	<0.02
PAH	Acenaphthylene	ug/l						<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PAH	Acenaphthene	ug/l						<0.02	0.03	0.03	<0.02	<0.02	0.05	<0.02

Project Name: M60/M62/M66 Simister Island
Sample Date: 28/06/2021 - 27/02/2023

						Sample Location	WS-N07	WS-N10	WS-N12	WS-N12C	WS-N13	WS-N16	WS-P02
						Sampled Date	26/11/2021	17/09/2021	22/07/2021	26/07/2021	15/10/2021	21/11/2021	10/11/2021
						Top Depth (m)	0.2	2.5	0.1	0.5	0.1	0.2	0.1
						End Depth (m)							
Analyte Group	Analyte	Unit	Freshwater EQS	*Drinking Water Standards*	Freshwater EQS Source	DWS Source	Result	Result	Result	Result	Result	Result	Result
PAH	Anthracene	ug/l	0.1		WFD (Fresh EQS - AA)		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PAH	Phenanthrene	ug/l					0.04	0.12	0.11	0.09	0.07	0.05	<0.02
PAH	Fluoranthene	ug/l	0.0063	*4*	WFD (Fresh EQS - AA)	WHO DWG 2017	0.03	0.02	0.06	0.04	0.04	<0.02	<0.02
PAH	Pyrene	ug/l					0.03	<0.02	0.04	0.03	0.03	<0.02	<0.02
PAH	Benzo[a]anthracene	ug/l					<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PAH	Chrysene	ug/l					0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PAH	Benzo[b]fluoranthene	ug/l					<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PAH	Benzo[k]fluoranthene	ug/l					<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PAH	Benzo[a]pyrene	ug/l	0.00017	*0.01*	WFD (Fresh EQS - AA)	WS Regs 2016	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PAH	Indeno(1,2,3-c,d)Pyrene	ug/l					<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PAH	Dibenz(a,h)Anthracene	ug/l					<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PAH	Benzo[g,h,i]perylene	ug/l	0.0082		WFD (Fresh EQS - MAC)		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PAH	PAH, Total Detected USEPA 16	ug/l					0.18	0.24	0.4	0.28	0.14	0.13	<0.02
PAH	Total PAH 16	ug/l					0.18	0.24	0.4	0.28	0.14	0.13	<0.02
VOC	Benzene	ug/l	10	*1*	WFD (Fresh EQS - AA)	WS Regs 2016	<1	<1	<1	<1	<1	<1	<1
VOC	Toluene	ug/l	74	*700*	WFD (Fresh EQS - AA)	WHO DWG 2017	<1	<1	<1	<1	<1	<1	<1
VOC	Ethylbenzene	ug/l	20	*300*	SEPA (Fresh EQS - AA)	WHO DWG 2017	<1	<1	<1	<1	<1	<1	<1
VOC	m & p-Xylene	ug/l					<1	<1	<1	<1	<1	<1	<1
VOC	Xylenes, m & p	ug/l					<1	<1	<1	<1	<1	<1	<1
VOC	o-Xylene	ug/l		*190*		USEPA RSL (tapwater)	<1	<1	<1	<1	<1	<1	<1
VOC	Methyl Tert-Butyl Ether	ug/l	5100		PNEC (Freshwater)		<1	<1	<1	<1	<1	<1	<1
Phenols	Isopropyl Phenol	ug/l											
Phenols	Phenol	ug/l	7.7	*5800*	WFD (Fresh EQS - AA)	USEPA RSL (tapwater)	<10	<10	20	20	<10	<10	<10
Phenols	Catechol	ug/l											
Phenols	Resorcinol	ug/l					<10	<10	<10	<10	<10	<10	<10
Phenols	Methylphenols (Total Cresols)	ug/l					<10	<10	<10	<10	<10	<10	<10
Phenols	Trimethylphenol	ug/l											
Phenols	Naphthols	ug/l											
Phenols	Xylenols	ug/l					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Phenols	Xylenols & Ethylphenols	ug/l					<10	<10	<10	<10	<10	<10	<10
Phenols	Total Phenols	ug/l					<0.01	<0.01	20	20	<0.01	<0.01	<0.01
Phenols	Total Phenols	ug/l					<10	<10	20	20	<10	<10	<10

Comments
GAC - Generic Assessment Criteria
(blank) - no assessment criteria available
pH Units - pH Units
ug/l - micrograms per litre
mg/l - milligrams per litre
TPH - Total Petroleum Hydrocarbons
TPHCWG - Total Petroleum Hydrocarbon Criteria Working Group
PAH - Polycyclic Aromatic Hydrocarbons
VOC - Volatile Organic Compounds
DWS - Drinking Water Standards
EQS - Environmental Quality Standards
AA - Annual Average
MAC - Maximum Allowable Concentration
WFD (Fresh EQS - AA) - Water Framework Directive (Standards and Classification) Directions (England and Wales) 2015
SEPA (Fresh EQS - AA) - Scottish Environmental Protection Agency WAT-SG-53 2015
PNEC (Freshwater) - Predicted No-Effect Concentrations (EU REACH) - Freshwater
USEPA RSL (tapwater) - United Sites Environmental Protection Agency, Regional Screening Levels (Tapwater), November 2022
WHO DWG 2017 - World Health Organisation, Definitions Working Group 2017
WHO Petroleum DWG 2008 - WHO Petroleum Definitions Working Group 2008
WS Regs 2016 - Water Supply (Water Quality Regulations) 2016

Key

XXX	Exceedance of Freshwater EQS
XXX	Exceedance of Drinking Water Standards

Project Name: M60/M62/M66 Simister Island
Sample Date: 28/06/2021 - 27/02/2023

						Sample Location	WS-P06	WS-P09	WS-P09	WS-P12B	WS-S03	WS-S04	WS-S06
						Sampled Date	25/11/2021	30/11/2021	30/11/2021	11/11/2021	23/08/2021	17/09/2021	06/08/2021
						Top Depth (m)	0.2	0.2	0.5	0.7	1	0.2	0.5
						End Depth (m)							
Analyte Group	Analyte	Unit	Freshwater EQS	*Drinking Water Standards*	Freshwater EQS Source	DWS Source	Result	Result	Result	Result	Result	Result	Result
Inorganics	pH	pH UNITS	6 - 9	*6.5 - 9.5*	WFD (Fresh EQS - AA)	WS Regs 2016	7.49	7.39	7.55	6.92	8.18	*6.1*	8.95
Inorganics	Cyanide (Total)	ug/l	1	*50*	WFD (Fresh EQS - AA)	WS Regs 2016	<5	<5	<5		<5	<5	<5
Inorganics	Cyanide, total	ug/l	1		SEPA (Fresh EQS - AA)		<5	<5	<5	<5	<5	<5	<5
Inorganics	Cyanide (Free)	ug/l	1	*50*	SEPA (Fresh EQS - AA)	WS Regs 2016	<5	<5	<5	<5	<5	<5	<5
Inorganics	Thiocyanate	ug/l		*4*		USEPA RSL (tapwater)	*500*	<100	<100	<100	<100	<100	<100
Inorganics	Ammoniacal Nitrogen as N	mg/l	0.3		WFD (Fresh EQS - AA)		0.15	<0.02	0.02	<0.02	<0.02	1.45	<0.02
Inorganics	Chloride	mg/l	250	*250*	SEPA (Fresh EQS - AA)	WS Regs 2016	1.29	1.87	2.08	12.5	80.83	8.42	3.02
Inorganics	Nitrite	mg/l	0.01				<0.1	<0.1	<0.1		<0.1	<0.1	<0.1
Inorganics	Nitrite as N	mg/l	0.01				<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Inorganics	Nitrate	mg/l					1.8	0.7	0.4		<0.1	19.7	1.2
Inorganics	Nitrate as N	mg/l					1.8	0.7	0.4	0.8	<0.1	19.7	1.2
Inorganics	Sulphate	mg/l	400	*250*	SEPA (Fresh EQS - AA)	WS Regs 2016	<1	6.3	13.05		13.55	8.66	5.92
Inorganics	Sulphide (Oxidisable) as SO4	mg/l					<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Inorganics	Sulphate	mg/l	400	*250*	SEPA (Fresh EQS - AA)	WS Regs 2016	<1	6.3	13.05	8.21	13.55	8.66	5.92
Inorganics	Sulphide	mg/l					<0.1	<0.1	<0.1		<0.1	<0.1	<0.1
Inorganics	Sodium	mg/l		*200*		WS Regs 2016	2	<1	<1	2	97	3	15
Metals	Aluminum	ug/l	15	*200*	SEPA (Fresh EQS - AA)	WS Regs 2016	*1440*	*4430*	*6640*		*34200*	*1970*	24
Metals	Aluminium(Available)	ug/l					1440	4430	6640	8300	34200	1970	24
Metals	Antimony	ug/l		*5*		WS Regs 2016	<1	1	<1	<1	<1	<1	1
Metals	Arsenic	ug/l	50	*10*	WFD (Fresh EQS - AA)	WS Regs 2016	1	1	1	<1	2	1	2
Metals	Barium	ug/l		*1300*		WHO DWG 2017	171	10	28	38	64	261	186
Metals	Boron	ug/l	2000	*1000*	SEPA (Fresh EQS - AA)	WS Regs 2016	<10	<10	<10	18	14	11	<10
Metals	Cadmium	ug/l	0.08	*5*	WFD (Fresh EQS - AA)	WS Regs 2016	<1	<1	<1	<1	<1	<1	<1
Metals	Chromium, Hexavalent (Cr6+)	ug/l	3.4	*50*	WFD (Fresh EQS - AA)	WS Regs 2016	<50	<50	<50	<50	<50	<50	<50
Metals	Chromium, Trivalent (Cr3+)	ug/l	4.7	*50*	WFD (Fresh EQS - AA)	WS Regs 2016	<50	<50	<50	<50	<50	<50	<50
Metals	Chromium	ug/l		*50*		WS Regs 2016	<1	<1	<1	<1	3	<1	2
Metals	Copper	ug/l	1	*2000*	WFD (Fresh EQS - AA)	WS Regs 2016	10	5	5	5	2	18	9
Metals	Iron	ug/l	1000	*200*	WFD (Fresh EQS - AA)	WS Regs 2016	*640*	180	*286*	172	*223*	*654*	*296*
Metals	Lead	ug/l	1.2	*10*	WFD (Fresh EQS - AA)	WS Regs 2016	*26*	*14*	4	7	<1	*33*	10
Metals	Magnesium	ug/l					<1000	<1000	2000	2000	2000	4000	3000
Metals	Manganese	ug/l	123	*50*	WFD (Fresh EQS - AA)	WS Regs 2016	37	4	11	10	*98*	*56*	*149*
Metals	Mercury	ug/l	0.07	*1*	WFD (Fresh EQS - MAC)	WS Regs 2016	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Metals	Nickel	ug/l	4	*20*	WFD (Fresh EQS - AA)	WS Regs 2016	3	<1	<1	2	<1	4	3
Metals	Potassium	ug/l					<1200	<1200	2000	<1200	14000	15000	7000
Metals	Selenium	ug/l		*10*		WS Regs 2016	<1	<1	<1	<1	<1	<1	1
Metals	Vanadium	ug/l	20	*86*	SEPA (Fresh EQS - AA)	USEPA RSL (tapwater)	2	2	1	<1	<1	<1	2
Metals	Zinc	ug/l	10.9	*6000*	WFD (Fresh EQS - AA)	USEPA RSL (tapwater)	8	4	3	19	2	13	28
TPHCWG	TPH Aliphatic >C5-C6	ug/l		*15000*		WHO Petroleum DWG 2008	<1	<1	<1	<1	<1	<1	2
TPHCWG	TPH Aliphatic >C6-C8	ug/l					<1	<1	<1	<1	<1	<1	<1
TPHCWG	TPH Aliphatic >C8-C10	ug/l		*300*		WHO Petroleum DWG 2008	<10	<10	<10	<10	<10	<10	<10
TPHCWG	TPH Aliphatic >C10-C12	ug/l		*300*		WHO Petroleum DWG 2008	<10	<10	<10	<10	<10	<10	<10
TPHCWG	TPH Aliphatic >C12-C16	ug/l		*300*		WHO Petroleum DWG 2008	<10	<10	<10	<10	<10	<10	<10
TPHCWG	TPH Aliphatic >C16-C21	ug/l		*300*		WHO Petroleum DWG 2008	<10	<10	<10	<10	<10	<10	<10
TPHCWG	TPH Aliphatic >C21-C35	ug/l		*300*		WHO Petroleum DWG 2008	<20	<20	<20	69	<20	<20	<20
TPHCWG	TPH Aliphatic >C5-C35	ug/l					<10	<10	<10	69	<10	<10	<10
TPHCWG	TPH Aromatic >C5-C7	ug/l	10	*1*	WFD (Fresh EQS - AA)	WS Regs 2016	<1	<1	<1	<1	<1	<1	<1
TPHCWG	TPH Aromatic >C7-C8	ug/l	74	*700*	WFD (Fresh EQS - AA)	WHO Petroleum DWG 2008	<1	<1	<1	<1	<1	<1	<1
TPHCWG	TPH Aromatic >C8-C10	ug/l		*300*		WHO Petroleum DWG 2008	<10	<10	<10	23	<10	<10	<10
TPHCWG	TPH Aromatic >C10-C12	ug/l		*90*		WHO Petroleum DWG 2008	<10	<10	<10	13	<10	<10	<10
TPHCWG	TPH Aromatic >C12-C16	ug/l		*90*		WHO Petroleum DWG 2008	<10	<10	15	21	<10	<10	<10
TPHCWG	TPH Aromatic >C16-C21	ug/l		*90*		WHO Petroleum DWG 2008	<10	<10	11	14	<10	<10	<10
TPHCWG	TPH Aromatic >C21-C35	ug/l		*90*		WHO Petroleum DWG 2008	<20	<20	<20	*131*	<20	<20	<20
TPHCWG	TPH Aromatic >C5-C35	ug/l					<20	<20	26	202	<20	<20	<20
TPHCWG	TPH Aliphatic & Aromatic >C5-35	ug/l					<20	<20	26		<20	<20	<20
PAH	Naphthalene	ug/l	2		WFD (Fresh EQS - AA)		0.09	0.03	0.07	0.1	0.04	<0.02	<0.02
PAH	Fluorene	ug/l					<0.02	<0.02	<0.02	<0.02	<0.02	0.06	<0.02
PAH	Acenaphthylene	ug/l					<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PAH	Acenaphthene	ug/l					<0.02	<0.02	<0.02	<0.02	<0.02	0.03	<0.02

Project Name: M60/M62/M66 Simister Island
Sample Date: 28/06/2021 - 27/02/2023

						Sample Location	WS-P06	WS-P09	WS-P09	WS-P12B	WS-S03	WS-S04	WS-S06
						Sampled Date	25/11/2021	30/11/2021	30/11/2021	11/11/2021	23/08/2021	17/09/2021	06/08/2021
						Top Depth (m)	0.2	0.2	0.5	0.7	1	0.2	0.5
						End Depth (m)							
Analyte Group	Analyte	Unit	Freshwater EQS	*Drinking Water Standards*	Freshwater EQS Source	DWS Source	Result	Result	Result	Result	Result	Result	Result
PAH	Anthracene	ug/l	0.1		WFD (Fresh EQS - AA)		<0.02	<0.02	<0.02	<0.02	<0.02	0.06	<0.02
PAH	Phenanthrene	ug/l					<0.02	<0.02	<0.02	<0.02	0.02	0.36	0.03
PAH	Fluoranthene	ug/l	0.0063	*4*	WFD (Fresh EQS - AA)	WHO DWG 2017	<0.02	<0.02	<0.02	<0.02	<0.02	0.12	0.02
PAH	Pyrene	ug/l					<0.02	<0.02	<0.02	<0.02	<0.02	0.08	0.02
PAH	Benzo[a]anthracene	ug/l					<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PAH	Chrysene	ug/l					<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PAH	Benzo[b]fluoranthene	ug/l					<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PAH	Benzo[k]fluoranthene	ug/l					<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PAH	Benzo[a]pyrene	ug/l	0.00017	*0.01*	WFD (Fresh EQS - AA)	WS Regs 2016	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PAH	Indeno(1,2,3-c,d)Pyrene	ug/l					<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PAH	Dibenz(a,h)Anthracene	ug/l					<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PAH	Benzo[g,h,i]perylene	ug/l	0.0082		WFD (Fresh EQS - MAC)		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
PAH	PAH, Total Detected USEPA 16	ug/l					0.09	0.03	0.07	0.1	0.06	0.71	0.07
PAH	Total PAH 16	ug/l					0.09	0.03	0.07		0.06	0.71	0.07
VOC	Benzene	ug/l	10	*1*	WFD (Fresh EQS - AA)	WS Regs 2016	<1	<1	<1	<1	<1	<1	<1
VOC	Toluene	ug/l	74	*700*	WFD (Fresh EQS - AA)	WHO DWG 2017	<1	<1	<1	<1	<1	<1	<1
VOC	Ethylbenzene	ug/l	20	*300*	SEPA (Fresh EQS - AA)	WHO DWG 2017	<1	<1	<1	<1	<1	<1	<1
VOC	m & p-Xylene	ug/l					<1	<1	<1		<1	<1	<1
VOC	Xylenes, m & p	ug/l					<1	<1	<1	<1	<1	<1	<1
VOC	o-Xylene	ug/l		*190*		USEPA RSL (tapwater)	<1	<1	<1	<1	<1	<1	<1
VOC	Methyl Tert-Butyl Ether	ug/l	5100		PNEC (Freshwater)		<1	<1	<1	<1	<1	<1	2
Phenols	Isopropyl Phenol	ug/l											
Phenols	Phenol	ug/l	7.7	*5800*	WFD (Fresh EQS - AA)	USEPA RSL (tapwater)	<10	<10	<10	<10	<10	<10	<10
Phenols	Catechol	ug/l											
Phenols	Resorcinol	ug/l					<10	<10	<10	<10	<10	<10	<10
Phenols	Methylphenols (Total Cresols)	ug/l					<10	<10	<10	<10	<10	<10	<10
Phenols	Trimethylphenol	ug/l											
Phenols	Naphthols	ug/l											
Phenols	Xylenols	ug/l					<0.01	<0.01	<0.01		<0.01	<0.01	<0.01
Phenols	Xylenols & Ethylphenols	ug/l					<10	<10	<10	<10	<10	<10	<10
Phenols	Total Phenols	ug/l					<0.01	<0.01	<0.01		<0.01	<0.01	<0.01
Phenols	Total Phenols	ug/l					<10	<10	<10	<10	<10	<10	<10

Comments
GAC - Generic Assessment Criteria
(blank) - no assessment criteria available
pH Units - pH Units
ug/l - micrograms per litre
mg/l - milligrams per litre
TPH - Total Petroleum Hydrocarbons
TPHCWG - Total Petroleum Hydrocarbon Criteria Working Group
PAH - Polycyclic Aromatic Hydrocarbons
VOC - Volatile Organic Compounds
DWS - Drinking Water Standards
EQS - Environmental Quality Standards
AA - Annual Average
MAC - Maximum Allowable Concentration
WFD (Fresh EQS - AA) - Water Framework Directive (Standards and Classification) Directions (England and Wales) 2015
SEPA (Fresh EQS - AA) - Scottish Environmental Protection Agency WAT-SG-53 2015
PNEC (Freshwater) - Predicted No-Effect Concentrations (EU REACH) - Freshwater
USEPA RSL (tapwater) - United Sites Environmental Protection Agency, Regional Screening Levels (Tapwater), November 2022
WHO DWG 2017 - World Health Organisation, Definitions Working Group 2017
WHO Petroleum DWG 2008 - WHO Petroleum Definitions Working Group 2008
WS Regs 2016 - Water Supply (Water Quality Regulations) 2016

Key

XXX	Exceedance of Freshwater EQS
XXX	Exceedance of Drinking Water Standards

Project Name: M60/M62/M66 Simister Island
Sample Date: 01/02/2022 - 24/03/2023

							BH-G08B	BH-N02A	BH-N03	BH-N04	BH-N07	BH-N08B	BH-N11	BH-N14	BH-N15	BH-N16
						Sample Location	BH-G08B	BH-N02A	BH-N03	BH-N04	BH-N07	BH-N08B	BH-N11	BH-N14	BH-N15	BH-N16
						Sampled Date	01/02/2022	01/02/2022	01/02/2022	01/02/2022	03/02/2022	03/02/2022	03/02/2022	02/02/2022	04/02/2022	03/02/2022
						Top Depth (m)	12.5	11.5	6.5	10.5	4	13.5	4.5	13.5	9.3	5.5
						End Depth (m)										
Analyte Group	Analyte	Unit	Freshwater EQS	*Drinking Water Standards*	Freshwater EQS Source	DWS Source	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Inorganics	Dissolved Organic Carbon	mg/l					30.6	70.5	74.6	23.6	93	71	38.5	90.9	9	50.1
Inorganics	Conductivity- Electrical 20deg	us/cm					356	600	1434	1998	713	473	349	1263	283	345
Inorganics	pH	pH UNITS	6 - 9	*6.5 - 9.5*	WFD (Fresh EQS - AA)	WS Regs 2016	*6.4*	*6.39*	6.93	7.16	6.75	*6.28*	6.65	6.71	6.82	6.7
Inorganics	Cyanide (Total)	ug/l	1	*50*	WFD (Fresh EQS - AA)	WS Regs 2016	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Inorganics	Cyanide, total	ug/l	1		SEPA (Fresh EQS - AA)		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Inorganics	Cyanide (Free)	ug/l	1	*50*	SEPA (Fresh EQS - AA)	WS Regs 2016	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Inorganics	Thiocyanate	ug/l		*4*		USEPA RSL (tapwater)	*100*	*200*	*300*	*1700*	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Inorganics	Hardness	mg/l					140	5	54	1	400	246	135	23	116	121
Inorganics	Hardness (Total as CaC03)	MGCACO3/L					140	243	842	318	400	246	135	361	116	121
Inorganics	Ammoniacal Nitrogen as N	mg/l	0.3		WFD (Fresh EQS - AA)		0.56	0.16	0.02	0.08	4.22	0.22	0.93	0.59	0.02	0.14
Inorganics	Chloride	mg/l	250	*250*	SEPA (Fresh EQS - AA)	WS Regs 2016	37	60	85	*534*	14	17	36	32	22	40
Inorganics	Nitrite as N	mg/l	0.01				<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Inorganics	Nitrite as NO2	mg/l	0.01				<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Inorganics	Nitrate as N	mg/l					<0.1	<0.1	20	<0.1	<0.1	<0.1	0.1	<0.1	6.5	<0.1
Inorganics	Nitrate as NO3	mg/l					<0.0001	<0.0001	1.9	<0.0001	<0.0001	<0.0001	0.1	<0.0001	6.5	<0.0001
Inorganics	Sulphate	mg/l	400	*250*	SEPA (Fresh EQS - AA)	WS Regs 2016	34	21	*253*	80	<0.001	6	9	175	23	12
Inorganics	Sulphide (Oxidisable) as SO4	mg/l					312	551	24	719	0.3	0.3	1.4	2	0.3	0.5
Inorganics	Sulphate	mg/l	400	*250*	SEPA (Fresh EQS - AA)	WS Regs 2016	0.3	6.84	0.5	24	<1	6	9	43	23	12
Inorganics	Sulphide	mg/l					0.3	1.5	0.2	0.3	0.3	0.3	1.4	0.4	0.3	0.5
Inorganics	Sodium	mg/l		*200*		WS Regs 2016	20	31	39	*312*	10	10	18	188	10	29
Inorganics	Calcium	mg/l					44	86	241	103	114	79	50	126	43	41
Metals	Aluminum	ug/l	15	*200*	SEPA (Fresh EQS - AA)	WS Regs 2016	<10	<10	<10	<10	*278*	18	<10	<10	<10	73
Metals	Aluminium(Available)	ug/l					<10	<10	<10	<10	278	18	<10	<10	<10	73
Metals	Antimony	ug/l		*5*		WS Regs 2016	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Metals	Arsenic	ug/l	50	*10*	WFD (Fresh EQS - AA)	WS Regs 2016	*14*	*11*	<1	<1	2	2	4	2	<1	9
Metals	Barium	ug/l		*1300*		WHO DWG 2017	312	463	96	240	299	367	230	488	51	150
Metals	Boron	ug/l	2000	*1000*	SEPA (Fresh EQS - AA)	WS Regs 2016	30	24	80	44	17	24	24	160	26	14
Metals	Cadmium	ug/l	0.08	*5*	WFD (Fresh EQS - AA)	WS Regs 2016	<0.2	<0.2	<0.2	<0.2	<0.2	0.4	<0.2	<0.2	<0.2	<0.2
Metals	Chromium, Hexavalent (Cr6+)	ug/l	3.4	*50*	WFD (Fresh EQS - AA)	WS Regs 2016	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Metals	Chromium, Trivalent (Cr3+)	ug/l	4.7	*50*	WFD (Fresh EQS - AA)	WS Regs 2016	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Metals	Chromium	ug/l		*50*		WS Regs 2016	<1	<1	<1	2	7	2	1	<1	5	2
Metals	Copper	ug/l	1	*2000*	WFD (Fresh EQS - AA)	WS Regs 2016	<1	<1	4	<1	<1	1	<1	<1	1	<1
Metals	Iron	ug/l	1000	*200*	WFD (Fresh EQS - AA)	WS Regs 2016	*21300*	*18900*	21	*3440*	*4160*	*37800*	*26400*	*31100*	<10	*19900*
Metals	Lead	ug/l	1.2	*10*	WFD (Fresh EQS - AA)	WS Regs 2016	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Metals	Magnesium	ug/l					7000	7000	58000	15000	28000	12000	3000	11000	2000	4000
Metals	Manganese	ug/l	123	*50*	WFD (Fresh EQS - AA)	WS Regs 2016	*1570*	*1080*	19	*5810*	*4900*	*738*	*1140*	*4820*	32	*1270*
Metals	Mercury	ug/l	0.07	*1*	WFD (Fresh EQS - MAC)	WS Regs 2016	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Metals	Nickel	ug/l	4	*20*	WFD (Fresh EQS - AA)	WS Regs 2016	6	*21*	2	13	5	10	5	*23*	<1	4
Metals	Potassium	ug/l					2000	2000	2000	5000	2000	<1.2	<1.2	5000	2000	2000
Metals	Selenium	ug/l		*10*		WS Regs 2016	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Metals	Vanadium	ug/l	20	*86*	SEPA (Fresh EQS - AA)	USEPA RSL (tapwater)	<1	<1	<1	<1	5	2	<1	<1	<1	2
Metals	Zinc	ug/l	10.9	*6000*	WFD (Fresh EQS - AA)	USEPA RSL (tapwater)	39	9	3	6	5	18	7	20	5	5
TPHCWG	TPH Aliphatic >C5-C6	ug/l		*15000*		WHO Petroleum DWG 2008	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
TPHCWG	TPH Aliphatic >C6-C8	ug/l					<1	<1	<1	<1	<1	<1	<1	<1	1	<1
TPHCWG	TPH Aliphatic >C8-C10	ug/l		*300*		WHO Petroleum DWG 2008	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
TPHCWG	TPH Aliphatic >C10-C12	ug/l		*300*		WHO Petroleum DWG 2008	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
TPHCWG	TPH Aliphatic >C12-C16	ug/l		*300*		WHO Petroleum DWG 2008	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
TPHCWG	TPH Aliphatic >C16-C21	ug/l		*300*		WHO Petroleum DWG 2008	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
TPHCWG	TPH Aliphatic >C21-C35	ug/l		*300*		WHO Petroleum DWG 2008	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
TPHCWG	TPH Aliphatic >C5-C35	ug/l					<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
TPHCWG	TPH Aromatic >C5-C7	ug/l	10	*1*	WFD (Fresh EQS - AA)	WS Regs 2016	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
TPHCWG	TPH Aromatic >C7-C8	ug/l	74	*700*	WFD (Fresh EQS - AA)	WHO Petroleum DWG 2008	<1	<1	<1	<1	<1	<1	<1	1	<1	<1
TPHCWG	TPH Aromatic >C8-C10	ug/l		*300*		WHO Petroleum DWG 2008	<5	<5	<5	<5	<5	<5	<5	6	<5	<5
TPHCWG	TPH Aromatic >C10-C12	ug/l		*90*		WHO Petroleum DWG 2008	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
TPHCWG	TPH Aromatic >C12-C16	ug/l		*90*		WHO Petroleum DWG 2008	<5	<5	<5	<5	<5	<5	<5	6	<5	<5
TPHCWG	TPH Aromatic >C16-C21	ug/l		*90*		WHO Petroleum DWG 2008	<5	<5	<5	<5	<5	<5	<5	11	<5	<5
TPHCWG	TPH Aromatic >C21-C35	ug/l		*90*		WHO Petroleum DWG 2008	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
TPHCWG	TPH Aromatic >C5-C35	ug/l					<10	<10	<10	<10	<10	<10	<10	24	<10	<10

Project Name: M60/M62/M66 Simister Island
Sample Date: 01/02/2022 - 24/03/2023

							BH-G08B	BH-N02A	BH-N03	BH-N04	BH-N07	BH-N08B	BH-N11	BH-N14	BH-N15	BH-N16
						Sample Location	BH-G08B	BH-N02A	BH-N03	BH-N04	BH-N07	BH-N08B	BH-N11	BH-N14	BH-N15	BH-N16
						Sampled Date	01/02/2022	01/02/2022	01/02/2022	01/02/2022	03/02/2022	03/02/2022	03/02/2022	02/02/2022	04/02/2022	03/02/2022
						Top Depth (m)	12.5	11.5	6.5	10.5	4	13.5	4.5	13.5	9.3	5.5
						End Depth (m)										
Analyte Group	Analyte	Unit	Freshwater EQS	*Drinking Water Standards*	Freshwater EQS Source	DWS Source	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
TPHCWG	TPH Aliphatic & Aromatic >C5-35	ug/l					<10	<10	<10	<10	<10	<10	<10	24	<10	<10
PAH	Naphthalene	ug/l	2		WFD (Fresh EQS - AA)		<0.01	0.03	<0.01	0.05	0.03	0.02	0.01	0.14	0.02	0.05
PAH	Fluorene	ug/l					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAH	Acenaphthylene	ug/l					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAH	Acenaphthene	ug/l					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01
PAH	Anthracene	ug/l	0.1		WFD (Fresh EQS - AA)		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAH	Phenanthrene	ug/l					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAH	Fluoranthene	ug/l	0.0063	*4*	WFD (Fresh EQS - AA)	WHO DWG 2017	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAH	Pyrene	ug/l					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAH	Benzo[a]anthracene	ug/l					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAH	Chrysene	ug/l					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAH	Benzo[b]fluoranthene	ug/l					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAH	Benzo[k]fluoranthene	ug/l					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAH	Benzo[a]pyrene	ug/l	0.00017	*0.01*	WFD (Fresh EQS - AA)	WS Regs 2016	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAH	Indeno(1,2,3-c,d)Pyrene	ug/l					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAH	Dibenz(a,h)Anthracene	ug/l					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAH	Benzo[g,h,i]perylene	ug/l	0.0082		WFD (Fresh EQS - MAC)		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAH	PAH, Total Detected USEPA 16	ug/l					<0.01	2	<0.01	3	0.03	0.02	0.02	17	0.02	0.05
PAH	Total PAH 16	ug/l					<0.01	0.03	<0.01	0.05	0.03	0.02	0.02	0.14	0.02	0.05
VOC	Benzene	ug/l	10	*1*	WFD (Fresh EQS - AA)	WS Regs 2016	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
VOC	Toluene	ug/l	74	*700*	WFD (Fresh EQS - AA)	WHO DWG 2017	<1	<1	<1	<1	<1	<1	<1	1	<1	<1
VOC	Ethylbenzene	ug/l	20	*300*	SEPA (Fresh EQS - AA)	WHO DWG 2017	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
VOC	m & p-Xylene	ug/l					<1	<1	<1	<1	<1	<1	<1	1	<1	<1
VOC	Xylenes, m & p	ug/l					<1	<1	<1	<1	<1	<1	<1	310	<1	<1
VOC	o-Xylene	ug/l		*190*		USEPA RSL (tapwater)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
VOC	Methyl Tert-Butyl Ether	ug/l	5100		PNEC (Freshwater)		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Phenols	Isopropyl Phenol	ug/l														
Phenols	Phenol	ug/l	7.7	*5800*	WFD (Fresh EQS - AA)	USEPA RSL (tapwater)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Phenols	Catechol	ug/l														
Phenols	Resorcinol	ug/l					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Phenols	Methylphenols (Total Cresols)	ug/l					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	20
Phenols	Trimethylphenol	ug/l														
Phenols	Naphthols	ug/l														
Phenols	Xylenols	ug/l					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Phenols	Xylenols & Ethylphenols	ug/l					<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Phenols	Total Phenols	ug/l					<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Phenols	Phenol (Monohydric - Total by HPLC)	ug/l					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

Comments
GAC - Generic Assessment Criteria
(blank) - no assessment criteria available
mg/l - milligrams per litre
uS/cm - microsiemens per centimetre
ug/l - micrograms per litre
mgCACO3/l - milligrams Calcium Carbonate per litre
TPH - Total Petroleum Hydrocarbons
TPHCWG - Total Petroleum Hydrocarbon Criteria Working Group
PAH - Polycyclic Aromatic Hydrocarbons
VOC - Volatile Organic Compounds
DWS - Drinking Water Standards
EQS - Environmental Quality Standards
AA - Annual Average
MAC - Maximum Allowable Concentration
WFD (Fresh EQS - AA) - Water Framework Directive (Standards and Classification) Directions (England and Wales) 2015
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WS Regs 2016 - Water Supply (Water Quality Regulations) 2016

Keys

XXX	Exceedance of Freshwater EQS
XXX	Exceedance of Drinking Water Standards

Project Name: M60/M62/M66 Simister Island
Sample Date: 01/02/2022 - 24/03/2023

							BH-N18	BH-N19	BH-N20	BH-N21	BHN003A	BH-P03	BH-S05	WS102	WS-N02B	WS-N04	WS-N06
						Sample Location											
						Sampled Date	03/02/2022	03/02/2022	04/02/2022	03/02/2022	24/03/2023	02/02/2022	02/02/2022	23/03/2023	01/02/2022	04/02/2022	03/02/2022
						Top Depth (m)	4	6	2.25	2.24	6.65	1.5	2.2	2.06	2.5	2.5	1.5
						End Depth (m)								5			
Analyte Group	Analyte	Unit	Freshwater EQS	*Drinking Water Standards*	Freshwater EQS Source	DWS Source	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Inorganics	Dissolved Organic Carbon	mg/l					132	44.7	62.4	49.8	9.16	35.4	43.3	15.1	57.8	38.1	45.5
Inorganics	Conductivity- Electrical 20deg	us/cm					1329	346	948	345		303	719		1783	310	86
Inorganics	pH	pH UNITS	6 - 9	*6.5 - 9.5*	WFD (Fresh EQS - AA)	WS Regs 2016	7.09	6.94	7.31	6.79	7.4	8.49	7.35	*6.2*	6.84	6.53	*5.98*
Inorganics	Cyanide (Total)	ug/l	1	*50*	WFD (Fresh EQS - AA)	WS Regs 2016	<0.005	<0.005	<0.005	<0.005		<0.005	<0.005		<0.005	<0.005	<0.005
Inorganics	Cyanide, total	ug/l	1		SEPA (Fresh EQS - AA)		<5	<5	<5	<5	<1	<5	<5	<1	<5	<5	<5
Inorganics	Cyanide (Free)	ug/l	1	*50*	SEPA (Fresh EQS - AA)	WS Regs 2016	<0.005	<0.005	<0.005	<0.005	<1	<0.005	<0.005	<1	<0.005	<0.005	<0.005
Inorganics	Thiocyanate	ug/l		*4*		USEPA RSL (tapwater)	<0.1	<0.1	<0.1	<0.1	*210*	<0.1	<0.1	<200	*1200*	<0.1	<0.1
Inorganics	Hardness	mg/l					721	139	123	143	867	0.3	53	184	0.3	139	25
Inorganics	Hardness (Total as CaC03)	MGCACO3/L					721	139	123	143		95	424		551	139	25
Inorganics	Ammoniacal Nitrogen as N	mg/l	0.3		WFD (Fresh EQS - AA)		1.28	0.04	4.49	0.05	<0.015	0.81	0.02	0.063	0.85	0.02	1.67
Inorganics	Chloride	mg/l	250	*250*	SEPA (Fresh EQS - AA)	WS Regs 2016	31	16	17	13	85	4	11	18	*412*	12	4
Inorganics	Nitrite as N	mg/l	0.01				<0.1	<0.1	<0.1	<0.1	0.0012	<0.1	<0.1	0.0085	<0.1	<0.1	<0.1
Inorganics	Nitrite as NO2	mg/l	0.01				<0.0001	<0.0001	<0.0001	<0.0001		<0.0001	<0.0001		<0.0001	<0.0001	<0.0001
Inorganics	Nitrate as N	mg/l					<0.1	2.7	<0.1	2	0.8	<0.1	<0.1	1.79	<0.1	1.2	0.3
Inorganics	Nitrate as NO3	mg/l					<0.0001	2.7	<0.0001	2		<0.0001	<0.0001		<0.0001	1.2	0.3
Inorganics	Sulphate	mg/l	400	*250*	SEPA (Fresh EQS - AA)	WS Regs 2016	16	17	22	3		4	99		54	19	5
Inorganics	Sulphide (Oxidisable) as SO4	mg/l					0.3	0.3	0.7	1.6	<0.005	93	1.4	<0.005	2290	0.3	0.3
Inorganics	Sulphate	mg/l	400	*250*	SEPA (Fresh EQS - AA)	WS Regs 2016	16	17	22	3	177	46	6.8	13.4	74	19	5
Inorganics	Sulphide	mg/l					0.3	0.3	0.7	1.6		0.4	0.2		0.3	0.3	0.3
Inorganics	Sodium	mg/l		*200*		WS Regs 2016	67	23	*214*	24	46	36	25	7	176	8	4
Inorganics	Calcium	mg/l					205	50	33	55	250	35	156	62	165	46	8
Metals	Aluminum	ug/l	15	*200*	SEPA (Fresh EQS - AA)	WS Regs 2016	<10	80	14	*342*		*640*	<10		<10	118	158
Metals	Aluminium(Available)	ug/l					<10	80	14	342	3.1	6	<10	46.1	<10	118	158
Metals	Antimony	ug/l		*5*		WS Regs 2016	<1	1	<1	1	<0.4	4	<1	1.4	<1	<1	<1
Metals	Arsenic	ug/l	50	*10*	WFD (Fresh EQS - AA)	WS Regs 2016	4	<1	<1	2	0.562	4	<1	0.77	3	<1	2
Metals	Barium	ug/l		*1300*		WHO DWG 2017	494	72	135	50	69	83	63	25	213	118	63
Metals	Boron	ug/l	2000	*1000*	SEPA (Fresh EQS - AA)	WS Regs 2016	47	23	20	15	60	29	37	19	35	23	31
Metals	Cadmium	ug/l	0.08	*5*	WFD (Fresh EQS - AA)	WS Regs 2016	<0.2	<0.2	<0.2	<0.2	0.05	<0.2	<0.2	0.04	<0.2	<0.2	<0.2
Metals	Chromium, Hexavalent (Cr6+)	ug/l	3.4	*50*	WFD (Fresh EQS - AA)	WS Regs 2016	<0.01	<0.01	<0.01	<0.01	<5	<0.01	<0.01	<5	<0.01	<0.01	<0.01
Metals	Chromium, Trivalent (Cr3+)	ug/l	4.7	*50*	WFD (Fresh EQS - AA)	WS Regs 2016	<0.01	10	<0.01	10	<5	10	10	<5	<0.01	<0.01	<0.01
Metals	Chromium	ug/l		*50*		WS Regs 2016	2	12	2	10	0.3	10	10	0.6	2	8	5
Metals	Copper	ug/l	1	*2000*	WFD (Fresh EQS - AA)	WS Regs 2016	1	10	2	6	5.2	18	2	6.6	1	5	<1
Metals	Iron	ug/l	1000	*200*	WFD (Fresh EQS - AA)	WS Regs 2016	*11100*	*292*	*812*	*717*	7	*677*	29	84	*23400*	136	*20800*
Metals	Lead	ug/l	1.2	*10*	WFD (Fresh EQS - AA)	WS Regs 2016	<1	<1	<1	<1	<0.2	<1	<1	<0.2	<1	<1	<1
Metals	Magnesium	ug/l					50000	3000	10000	1000	61000	2000	8000	6800	34000	6000	<1
Metals	Manganese	ug/l	123	*50*	WFD (Fresh EQS - AA)	WS Regs 2016	*3550*	*91*	*1250*	*209*	*63*	*451*	7	35	*9850*	*93*	*178*
Metals	Mercury	ug/l	0.07	*1*	WFD (Fresh EQS - MAC)	WS Regs 2016	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1
Metals	Nickel	ug/l	4	*20*	WFD (Fresh EQS - AA)	WS Regs 2016	*25*	2	8	2	1.4	4	3	0.8	8	6	11
Metals	Potassium	ug/l					5000	3000	3000	<1.2	3000	13000	2000	1200	6000	3000	1000
Metals	Selenium	ug/l		*10*		WS Regs 2016	<1	4	<1	<1	0.9	<1	<1	0.9	<1	<1	<1
Metals	Vanadium	ug/l	20	*86*	SEPA (Fresh EQS - AA)	USEPA RSL (tapwater)	<1	1	2	16	<0.2	5	<1	1.3	<1	<1	7
Metals	Zinc	ug/l	10.9	*6000*	WFD (Fresh EQS - AA)	USEPA RSL (tapwater)	69	29	10	5	16	6	5	4	6	15	13
TPHCWG	TPH Aliphatic >C5-C6	ug/l		*15000*		WHO Petroleum DWG 2008	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
TPHCWG	TPH Aliphatic >C6-C8	ug/l					<1	<1	<1	<1	<1	<1	<1	<1	<1	4	<1
TPHCWG	TPH Aliphatic >C8-C10	ug/l		*300*		WHO Petroleum DWG 2008	<5	<5	<5	<5	<1	<5	<5	<1	<5	<5	<5
TPHCWG	TPH Aliphatic >C10-C12	ug/l		*300*		WHO Petroleum DWG 2008	<5	<5	<5	<5	<10	<5	<5	<10	<5	<5	<5
TPHCWG	TPH Aliphatic >C12-C16	ug/l		*300*		WHO Petroleum DWG 2008	<5	<5	<5	<5	<10	<5	<5	<10	<5	<5	<5
TPHCWG	TPH Aliphatic >C16-C21	ug/l		*300*		WHO Petroleum DWG 2008	<5	<5	<5	<5	<10	<5	<5	<10	<5	<5	<5
TPHCWG	TPH Aliphatic >C21-C35	ug/l		*300*		WHO Petroleum DWG 2008	<5	<5	<5	<5	<10	<5	<5	<10	<5	<5	<5
TPHCWG	TPH Aliphatic >C5-C35	ug/l					<5	<5	<5	<5	<10	<5	<5	<10	<5	<5	<5
TPHCWG	TPH Aromatic >C5-C7	ug/l	10	*1*	WFD (Fresh EQS - AA)	WS Regs 2016	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
TPHCWG	TPH Aromatic >C7-C8	ug/l	74	*700*	WFD (Fresh EQS - AA)	WHO Petroleum DWG 2008	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
TPHCWG	TPH Aromatic >C8-C10	ug/l		*300*		WHO Petroleum DWG 2008	<5	<5	<5	<5	<1	13	<5	<1	<5	<5	<5
TPHCWG	TPH Aromatic >C10-C12	ug/l		*90*		WHO Petroleum DWG 2008	<5	<5	<5	<5	<10	<5	<5	<10	<5	<5	<5
TPHCWG	TPH Aromatic >C12-C16	ug/l		*90*		WHO Petroleum DWG 2008	<5	<5	<5	<5	<10	<5	<5	<10	<5	<5	<5
TPHCWG	TPH Aromatic >C16-C21	ug/l		*90*		WHO Petroleum DWG 2008	<5	<5	<5	<5	<10	<5	<5	<10	<5	<5	<5
TPHCWG	TPH Aromatic >C21-C35	ug/l		*90*		WHO Petroleum DWG 2008	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
TPHCWG	TPH Aromatic >C5-C35	ug/l					<10	<10	<10	<10	<10	13	<10	<10	<10	<10	<10

Project Name: M60/M62/M66 Simister Island
Sample Date: 01/02/2022 - 24/03/2023

							BH-N18	BH-N19	BH-N20	BH-N21	BHN003A	BH-P03	BH-S05	WS102	WS-N02B	WS-N04	WS-N06
						Sample Location	BH-N18	BH-N19	BH-N20	BH-N21	BHN003A	BH-P03	BH-S05	WS102	WS-N02B	WS-N04	WS-N06
						Sampled Date	03/02/2022	03/02/2022	04/02/2022	03/02/2022	24/03/2023	02/02/2022	02/02/2022	23/03/2023	01/02/2022	04/02/2022	03/02/2022
						Top Depth (m)	4	6	2.25	2.24	6.65	1.5	2.2	2.06	2.5	2.5	1.5
						End Depth (m)								5			
Analyte Group	Analyte	Unit	Freshwater EQS	*Drinking Water Standards*	Freshwater EQS Source	DWS Source	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
TPHCWG	TPH Aliphatic & Aromatic >C5-35	ug/l					<10	<10	<10	<10		13	<10		<10	<10	<10
PAH	Naphthalene	ug/l	2		WFD (Fresh EQS - AA)		0.02	<0.01	0.06	<0.01	<0.01	0.05	<0.01	<0.01	0.15	0.08	<0.01
PAH	Fluorene	ug/l					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01
PAH	Acenaphthylene	ug/l					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAH	Acenaphthene	ug/l					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.03	<0.01	<0.01
PAH	Anthracene	ug/l	0.1		WFD (Fresh EQS - AA)		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAH	Phenanthrene	ug/l					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.03	<0.01	<0.01
PAH	Fluoranthene	ug/l	0.0063	*4*	WFD (Fresh EQS - AA)	WHO DWG 2017	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAH	Pyrene	ug/l					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAH	Benzo[a]anthracene	ug/l					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAH	Chrysene	ug/l					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAH	Benzo[b]fluoranthene	ug/l					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAH	Benzo[k]fluoranthene	ug/l					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAH	Benzo[a]pyrene	ug/l	0.00017	*0.01*	WFD (Fresh EQS - AA)	WS Regs 2016	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAH	Indeno(1,2,3-c,d)Pyrene	ug/l					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAH	Dibenz(a,h)Anthracene	ug/l					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAH	Benzo[g,h,i]perylene	ug/l	0.0082		WFD (Fresh EQS - MAC)		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAH	PAH, Total Detected USEPA 16	ug/l					0.02	<0.01	0.06	<0.01	<0.16	593	<0.01	<0.16	80	0.08	<0.01
PAH	Total PAH 16	ug/l					0.02	<0.01	0.06	<0.01		0.05	<0.01		0.22	0.08	<0.01
VOC	Benzene	ug/l	10	*1*	WFD (Fresh EQS - AA)	WS Regs 2016	<1	<1	<1	<1	<3	<1	<1	<3	<1	<1	<1
VOC	Toluene	ug/l	74	*700*	WFD (Fresh EQS - AA)	WHO DWG 2017	<1	<1	<1	<1	<3	<1	<1	<3	<1	<1	<1
VOC	Ethylbenzene	ug/l	20	*300*	SEPA (Fresh EQS - AA)	WHO DWG 2017	<1	<1	<1	<1	<3	<1	<1	<3	<1	<1	<1
VOC	m & p-Xylene	ug/l					<1	<1	<1	<1		2	<1		<1	<1	<1
VOC	Xylenes, m & p	ug/l					<1	<1	<1	<1	<3	6.82	<1	<3	<1	<1	<1
VOC	o-Xylene	ug/l		*190*		USEPA RSL (tapwater)	<1	<1	<1	<1	<3	2	<1	<3	<1	<1	<1
VOC	Methyl Tert-Butyl Ether	ug/l	5100		PNEC (Freshwater)		<1	<1	<1	<1	<3	<1	<1	<3	<1	<1	<1
Phenols	Isopropyl Phenol	ug/l									<0.5			<0.5			
Phenols	Phenol	ug/l	7.7	*5800*	WFD (Fresh EQS - AA)	USEPA RSL (tapwater)	<0.01	<0.01	<0.01	<0.01	<0.5	40	<0.01	<0.5	<0.01	<0.01	<0.01
Phenols	Catechol	ug/l									<0.5			<0.5			
Phenols	Resorcinol	ug/l					<0.01	<0.01	<0.01	<0.01	<0.5	<0.01	<0.01	<0.5	<0.01	<0.01	<0.01
Phenols	Methylphenols (Total Cresols)	ug/l					<0.01	<0.01	<0.01	<0.01	<0.5	20	<0.01	<0.5	<0.01	<0.01	<0.01
Phenols	Trimethylphenol	ug/l									<0.5			<0.5			
Phenols	Naphthols	ug/l									<0.5			<0.5			
Phenols	Xylenols	ug/l					<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		<0.01	<0.01	<0.01
Phenols	Xylenols & Ethylphenols	ug/l					<10	<10	<10	<10		<10	<10		<10	<10	<10
Phenols	Total Phenols	ug/l					<10	<10	<10	<10	<3.5	<10	<10	<3.5	<10	<10	<10
Phenols	Phenol (Monohydric - Total by HPLC)	ug/l					<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		<0.01	<0.01	<0.01

Comments
GAC - Generic Assessment Criteria
(blank) - no assessment criteria available
mg/l - milligrams per litre
uS/cm - microsiemens per centimetre
ug/l - micrograms per litre
mgCACO3/l - milligrams Calcium Carbonate per litre
TPH - Total Petroleum Hydrocarbons
TPHCWG - Total Petroleum Hydrocarbon Criteria Working Group
PAH - Polycyclic Aromatic Hydrocarbons
VOC - Volatile Organic Compounds
DWS - Drinking Water Standards
EQS - Environmental Quality Standards
AA - Annual Average
MAC - Maximum Allowable Concentration
WFD (Fresh EQS - AA) - Water Framework Directive (Standards and Classification) Directions (England and Wales) 2015
SEPA (Fresh EQS - AA) - Scottish Environmental Protection Agency WAT-SG-53 2015
PNEC (Freshwater) - Predicted No-Effect Concentrations (EU REACH) - Freshwater
USEPA RSL (tapwater) - United Sites Environmental Protection Agency, Regional Screening Levels (Tapwater), November 2022
WHO DWG 2017 - World Health Organisation, Definitions Working Group 2017
WHO Petroleum DWG 2008 - WHO Petroleum Definitions Working Group 2008
WS Regs 2016 - Water Supply (Water Quality Regulations) 2016

Keys

XXX	Exceedance of Freshwater EQS
XXX	Exceedance of Drinking Water Standards

Project Name: M60/M62/M66 Simister Island
Sample Date: 01/02/2022 - 24/03/2023

							WS-N07	WS-N09	WS-N12C	WS-N13	WS-P01	WS-P04	WS-P06	WS-P12B	WS-S04	WS-S05
						Sample Location	WS-N07	WS-N09	WS-N12C	WS-N13	WS-P01	WS-P04	WS-P06	WS-P12B	WS-S04	WS-S05
						Sampled Date	04/02/2022	03/02/2022	03/02/2022	01/02/2022	04/02/2022	01/02/2022	02/02/2022	01/02/2022	02/02/2022	02/02/2022
						Top Depth (m)	3.5	0.9	2.5	2	1.5	4.5	3.6	3	2.25	4.5
						End Depth (m)										
Analyte Group	Analyte	Unit	Freshwater EQS	*Drinking Water Standards*	Freshwater EQS Source	DWS Source	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Inorganics	Dissolved Organic Carbon	mg/l					12.7	68	50.3	69.1	31.1	29.1	37.4	76.6	70.3	49.7
Inorganics	Conductivity- Electrical 20deg	us/cm					512	455	486	559	505	306	396	771	704	547
Inorganics	pH	pH UNITS	6 - 9	*6.5 - 9.5*	WFD (Fresh EQS - AA)	WS Regs 2016	*6.37*	6.92	7.22	6.76	7.07	6.6	6.98	6.65	6.89	6.98
Inorganics	Cyanide (Total)	ug/l	1	*50*	WFD (Fresh EQS - AA)	WS Regs 2016	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Inorganics	Cyanide, total	ug/l	1		SEPA (Fresh EQS - AA)		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Inorganics	Cyanide (Free)	ug/l	1	*50*	SEPA (Fresh EQS - AA)	WS Regs 2016	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Inorganics	Thiocyanate	ug/l		*4*		USEPA RSL (tapwater)	*300*	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Inorganics	Hardness	mg/l					99	236	200	1	269	11	192	486	372	250
Inorganics	Hardness (Total as CaC03)	MGCACO3/L					99	236	200	306	269	128	192	361	372	250
Inorganics	Ammoniacal Nitrogen as N	mg/l	0.3		WFD (Fresh EQS - AA)		<2e-005	0.31	0.08	1.86	0.6	0.95	0.31	5.57	0.54	0.04
Inorganics	Chloride	mg/l	250	*250*	SEPA (Fresh EQS - AA)	WS Regs 2016	117	9	9	20	9	15	28	20	34	11
Inorganics	Nitrite as N	mg/l	0.01				<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Inorganics	Nitrite as NO2	mg/l	0.01				<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Inorganics	Nitrate as N	mg/l					8.3	<0.1	0.1	<0.1	0.4	<0.1	<0.1	9	0.5	<0.1
Inorganics	Nitrate as N03	mg/l					8.3	<0.0001	0.1	<0.0001	0.4	<0.0001	<0.0001	0.5	0.5	<0.0001
Inorganics	Sulphate	mg/l	400	*250*	SEPA (Fresh EQS - AA)	WS Regs 2016	23	12	23	4	9	58	3	6	12	39
Inorganics	Sulphide (Oxidisable) as SO4	mg/l					0.3	0.3	0.4	0.02	0.4	0.31	0.3	19	0.2	0.3
Inorganics	Sulphate	mg/l	400	*250*	SEPA (Fresh EQS - AA)	WS Regs 2016	23	12	23	10	9	6.92	3	0.1	12	39
Inorganics	Sulphide	mg/l					0.3	0.3	0.4	0.3	0.4	0.3	0.3	0.4	0.2	0.3
Inorganics	Sodium	mg/l		*200*		WS Regs 2016	61	16	31	12	20	11	13	31	20	29
Inorganics	Calcium	mg/l					37	90	70	105	96	34	65	130	125	74
Metals	Aluminum	ug/l	15	*200*	SEPA (Fresh EQS - AA)	WS Regs 2016	*247*	*227*	<10	51	23	<10	31	24	<10	<10
Metals	Aluminium(Available)	ug/l					247	227	<10	6.75	23	<10	31	70	<10	<10
Metals	Antimony	ug/l		*5*		WS Regs 2016	2	<1	<1	<1	<1	<1	<1	<1	<1	<1
Metals	Arsenic	ug/l	50	*10*	WFD (Fresh EQS - AA)	WS Regs 2016	<1	1	<1	6	2	*17*	2	1	6	1
Metals	Barium	ug/l		*1300*		WHO DWG 2017	85	104	116	186	317	687	160	360	265	149
Metals	Boron	ug/l	2000	*1000*	SEPA (Fresh EQS - AA)	WS Regs 2016	23	20	19	19	24	16	12	<10	23	33
Metals	Cadmium	ug/l	0.08	*5*	WFD (Fresh EQS - AA)	WS Regs 2016	0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Metals	Chromium, Hexavalent (Cr6+)	ug/l	3.4	*50*	WFD (Fresh EQS - AA)	WS Regs 2016	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Metals	Chromium, Trivalent (Cr3+)	ug/l	4.7	*50*	WFD (Fresh EQS - AA)	WS Regs 2016	30	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Metals	Chromium	ug/l		*50*		WS Regs 2016	28	9	<1	2	<1	<1	5	1	<1	1
Metals	Copper	ug/l	1	*2000*	WFD (Fresh EQS - AA)	WS Regs 2016	9	2	2	<1	2	<1	4	<1	1	2
Metals	Iron	ug/l	1000	*200*	WFD (Fresh EQS - AA)	WS Regs 2016	37	*3980*	40	*14300*	*13000*	*19100*	*2390*	*8110*	*20000*	*1820*
Metals	Lead	ug/l	1.2	*10*	WFD (Fresh EQS - AA)	WS Regs 2016	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Metals	Magnesium	ug/l					1000	3000	6000	11000	7000	10000	7000	8000	14000	16000
Metals	Manganese	ug/l	123	*50*	WFD (Fresh EQS - AA)	WS Regs 2016	28	*979*	*1110*	*1060*	*2320*	*1380*	*235*	*2450*	*868*	*2290*
Metals	Mercury	ug/l	0.07	*1*	WFD (Fresh EQS - MAC)	WS Regs 2016	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Metals	Nickel	ug/l	4	*20*	WFD (Fresh EQS - AA)	WS Regs 2016	3	5	1	5	6	12	3	12	5	5
Metals	Potassium	ug/l					<1.2	<1.2	2000	2000	2000	1000	2000	2000	7000	<1.2
Metals	Selenium	ug/l		*10*		WS Regs 2016	1	<1	2	<1	<1	<1	<1	<1	<1	<1
Metals	Vanadium	ug/l	20	*86*	SEPA (Fresh EQS - AA)	USEPA RSL (tapwater)	15	6	<1	1	<1	<1	<1	<1	<1	<1
Metals	Zinc	ug/l	10.9	*6000*	WFD (Fresh EQS - AA)	USEPA RSL (tapwater)	16	4	8	7	4	8	7	7	7	8
TPHCWG	TPH Aliphatic >C5-C6	ug/l		*15000*		WHO Petroleum DWG 2008	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
TPHCWG	TPH Aliphatic >C6-C8	ug/l					<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
TPHCWG	TPH Aliphatic >C8-C10	ug/l		*300*		WHO Petroleum DWG 2008	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
TPHCWG	TPH Aliphatic >C10-C12	ug/l		*300*		WHO Petroleum DWG 2008	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
TPHCWG	TPH Aliphatic >C12-C16	ug/l		*300*		WHO Petroleum DWG 2008	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
TPHCWG	TPH Aliphatic >C16-C21	ug/l		*300*		WHO Petroleum DWG 2008	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
TPHCWG	TPH Aliphatic >C21-C35	ug/l		*300*		WHO Petroleum DWG 2008	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
TPHCWG	TPH Aliphatic >C5-C35	ug/l					<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
TPHCWG	TPH Aromatic >C5-C7	ug/l	10	*1*	WFD (Fresh EQS - AA)	WS Regs 2016	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
TPHCWG	TPH Aromatic >C7-C8	ug/l	74	*700*	WFD (Fresh EQS - AA)	WHO Petroleum DWG 2008	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
TPHCWG	TPH Aromatic >C8-C10	ug/l		*300*		WHO Petroleum DWG 2008	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
TPHCWG	TPH Aromatic >C10-C12	ug/l		*90*		WHO Petroleum DWG 2008	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
TPHCWG	TPH Aromatic >C12-C16	ug/l		*90*		WHO Petroleum DWG 2008	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
TPHCWG	TPH Aromatic >C16-C21	ug/l		*90*		WHO Petroleum DWG 2008	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
TPHCWG	TPH Aromatic >C21-C35	ug/l		*90*		WHO Petroleum DWG 2008	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
TPHCWG	TPH Aromatic >C5-C35	ug/l					<10	<10	<10	<10	<10	<10	<10	<10	<10	<10

Project Name: M60/M62/M66 Simister Island
Sample Date: 01/02/2022 - 24/03/2023

							WS-N07	WS-N09	WS-N12C	WS-N13	WS-P01	WS-P04	WS-P06	WS-P12B	WS-S04	WS-S05
						Sample Location										
						Sampled Date	04/02/2022	03/02/2022	03/02/2022	01/02/2022	04/02/2022	01/02/2022	02/02/2022	01/02/2022	02/02/2022	02/02/2022
						Top Depth (m)	3.5	0.9	2.5	2	1.5	4.5	3.6	3	2.25	4.5
						End Depth (m)										
Analyte Group	Analyte	Unit	Freshwater EQS	*Drinking Water Standards*	Freshwater EQS Source	DWS Source	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
TPHCWG	TPH Aliphatic & Aromatic >C5-35	ug/l					<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
PAH	Naphthalene	ug/l	2		WFD (Fresh EQS - AA)		0.01	0.01	<0.01	0.03	0.02	<0.01	<0.01	0.08	<0.01	<0.01
PAH	Fluorene	ug/l					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAH	Acenaphthylene	ug/l					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAH	Acenaphthene	ug/l					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAH	Anthracene	ug/l	0.1		WFD (Fresh EQS - AA)		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAH	Phenanthrene	ug/l					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAH	Fluoranthene	ug/l	0.0063	*4*	WFD (Fresh EQS - AA)	WHO DWG 2017	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAH	Pyrene	ug/l					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAH	Benzo[a]anthracene	ug/l					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAH	Chrysene	ug/l					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAH	Benzo[b]fluoranthene	ug/l					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAH	Benzo[k]fluoranthene	ug/l					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAH	Benzo[a]pyrene	ug/l	0.00017	*0.01*	WFD (Fresh EQS - AA)	WS Regs 2016	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAH	Indeno(1,2,3-c,d)Pyrene	ug/l					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAH	Dibenz(a,h)Anthracene	ug/l					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAH	Benzo[g,h,i]perylene	ug/l	0.0082		WFD (Fresh EQS - MAC)		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PAH	PAH, Total Detected USEPA 16	ug/l					0.01	0.01	<0.01	150	0.02	<0.01	<0.01	48	<0.01	<0.01
PAH	Total PAH 16	ug/l					0.01	0.01	<0.01	0.03	0.02	<0.01	<0.01	0.08	<0.01	<0.01
VOC	Benzene	ug/l	10	*1*	WFD (Fresh EQS - AA)	WS Regs 2016	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
VOC	Toluene	ug/l	74	*700*	WFD (Fresh EQS - AA)	WHO DWG 2017	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
VOC	Ethylbenzene	ug/l	20	*300*	SEPA (Fresh EQS - AA)	WHO DWG 2017	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
VOC	m & p-Xylene	ug/l					<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
VOC	Xylenes, m & p	ug/l					<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
VOC	o-Xylene	ug/l		*190*		USEPA RSL (tapwater)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
VOC	Methyl Tert-Butyl Ether	ug/l	5100		PNEC (Freshwater)		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Phenols	Isopropyl Phenol	ug/l														
Phenols	Phenol	ug/l	7.7	*5800*	WFD (Fresh EQS - AA)	USEPA RSL (tapwater)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Phenols	Catechol	ug/l														
Phenols	Resorcinol	ug/l					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Phenols	Methylphenols (Total Cresols)	ug/l					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Phenols	Trimethylphenol	ug/l														
Phenols	Naphthols	ug/l														
Phenols	Xylenols	ug/l					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Phenols	Xylenols & Ethylphenols	ug/l					<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Phenols	Total Phenols	ug/l					<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Phenols	Phenol (Monohydric - Total by HPLC)	ug/l					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

Comments
GAC - Generic Assessment Criteria
(blank) - no assessment criteria available
mg/l - milligrams per litre
uS/cm - microsiemens per centimetre
ug/l - micrograms per litre
mgCACO3/l - milligrams Calcium Carbonate per litre
TPH - Total Petroleum Hydrocarbons
TPHCWG - Total Petroleum Hydrocarbon Criteria Working Group
PAH - Polycyclic Aromatic Hydrocarbons
VOC - Volatile Organic Compounds
DWS - Drinking Water Standards
EQS - Environmental Quality Standards
AA - Annual Average
MAC - Maximum Allowable Concentration
WFD (Fresh EQS - AA) - Water Framework Directive (Standards and Classification) Directions (England and Wales) 2015
SEPA (Fresh EQS - AA) - Scottish Environmental Protection Agency WAT-SG-53 2015
PNEC (Freshwater) - Predicted No-Effect Concentrations (EU REACH) - Freshwater
USEPA RSL (tapwater) - United Sites Environmental Protection Agency, Regional Screening Levels (Tapwater), November 2022
WHO DWG 2017 - World Health Organisation, Definitions Working Group 2017
WHO Petroleum DWG 2008 - WHO Petroleum Definitions Working Group 2008
WS Regs 2016 - Water Supply (Water Quality Regulations) 2016

Keys

XXX	Exceedance of Freshwater EQS
XXX	Exceedance of Drinking Water Standards

Annex A Figures

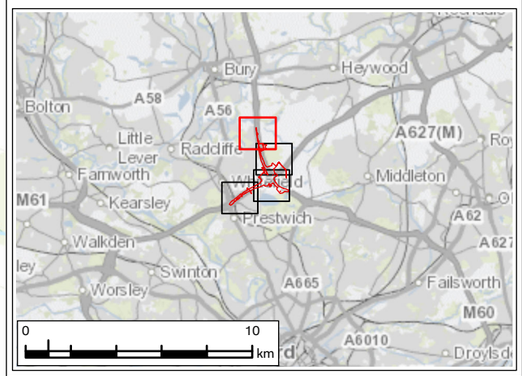
Figure 9.1.1: Ground Investigation Location Plan

ENVIRONMENTAL STATEMENT APPENDIX 9.1 FIGURE 9.1.1

Legend

- Order Limits
- Ground Investigation Locations

BH-G09
BH-G01
BH-G01A
BH-G10
WS103
WS102
WS101



P01	JAN 24	For DCO application	LT	MS	JR	BB
Rev.	Rev. Date	Purpose of revision	Drawn	Check'd	Rev'd	Appr'd

Development Consent Order Number:	Development Consent Order Drawing Number:
TR010064	6.3

Client

national highways

Project

REGIONAL DELIVERY PARTNERSHIP
M60/M62/M66 SIMISTER ISLAND INTERCHANGE

Drawing Title

GROUND INVESTIGATION LOCATION PLAN
SHEET 1 OF 4

Drawing Status: S4 – SUITABLE FOR STAGED APPROVAL

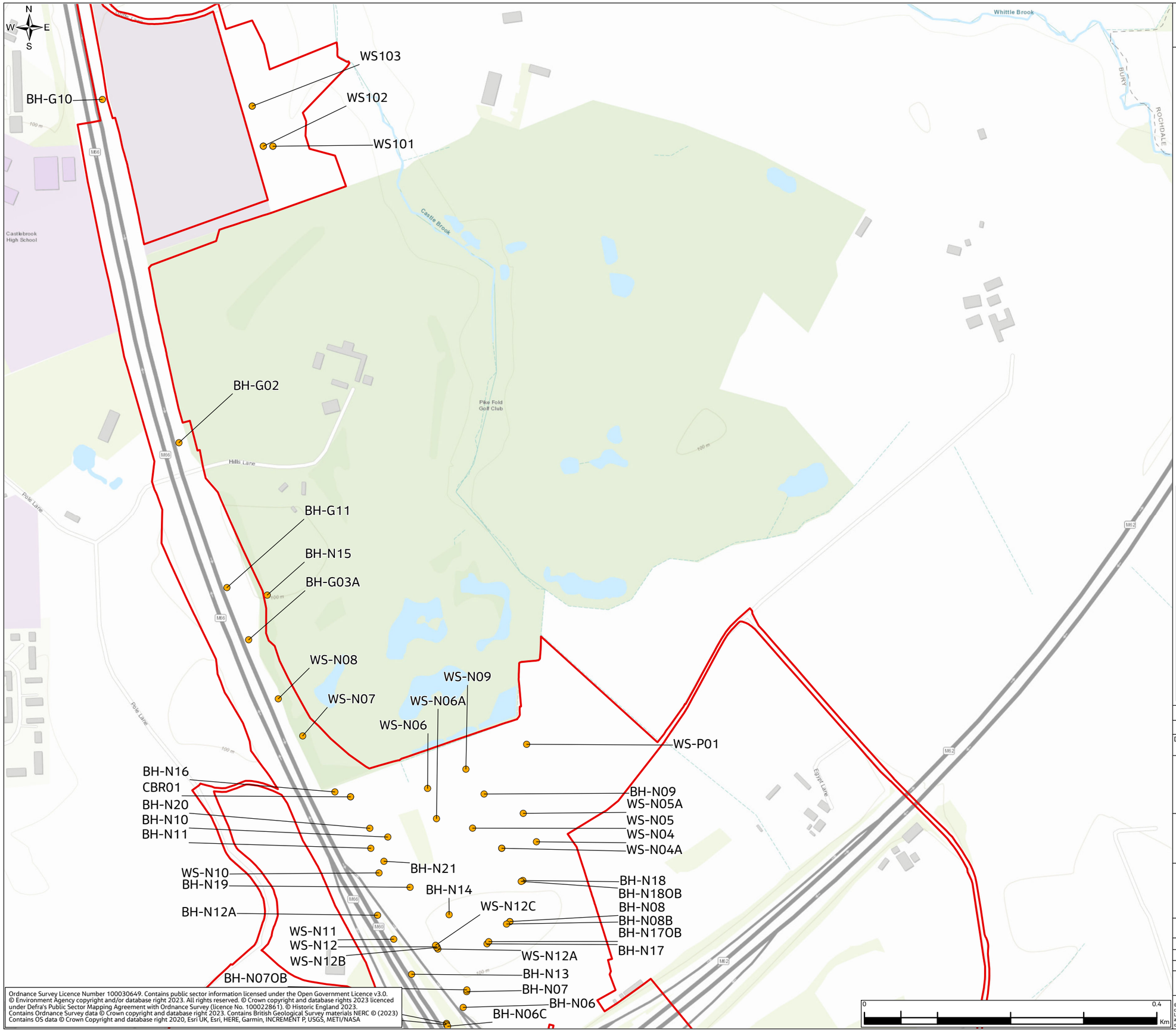
Scale @ A3	1:5,000	DO NOT SCALE
Jacobs No.	B36601F0	
Client No.	HE548642	Rev P01

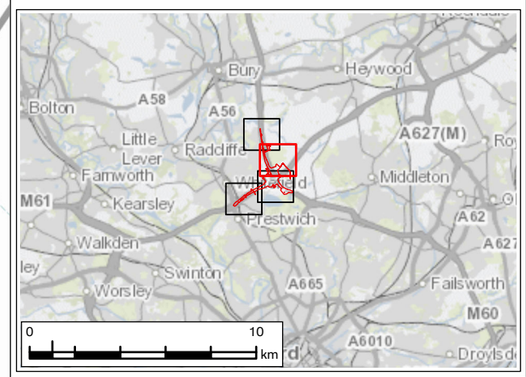
Drawing Number: HE548642-JAC-LDC-SII_MLT-SK-GI-0001

ENVIRONMENTAL STATEMENT APPENDIX 9.1 FIGURE 9.1.1

Legend

- Order Limits
- Ground Investigation Locations





P01	JAN 24	For DCO application	LT	MS	JR	BB
Rev.	Rev. Date	Purpose of revision	Drawn	Check'd	Rev'd	Appr'd

Development Consent Order Number: TR010064	Development Consent Order Drawing Number: 6.3

Client: national highways

Project: REGIONAL DELIVERY PARTNERSHIP
M60/M62/M66 SIMISTER ISLAND INTERCHANGE

Drawing Title: GROUND INVESTIGATION LOCATION PLAN
SHEET 2 OF 4

Drawing Status: S4 – SUITABLE FOR STAGED APPROVAL

Scale @ A3	1:5,000	DO NOT SCALE	
Jacobs No.	B36601F0	Rev	P01
Client No.	HE548642		

Drawing Number: HE548642-JAC-LDC-SII_MLT-SK-GI-0001

ENVIRONMENTAL STATEMENT
APPENDIX 9.1 FIGURE 9.1.1

Legend

- Order Limits
- Ground Investigation Locations

Rev.	Rev. Date	Purpose of revision	Drawn	Check'd	Rev'd	Appr'd
P01	JAN 24	For DCO application	LT	MS	JR	BB

Development Consent Order Number: TR010064

Development Consent Order Drawing Number: 6.3

Client: national highways

Project: REGIONAL DELIVERY PARTNERSHIP
M60/M62/M66 SIMISTER ISLAND INTERCHANGE

Drawing Title: GROUND INVESTIGATION LOCATION PLAN
SHEET 3 OF 4

Drawing Status: S4 – SUITABLE FOR STAGED APPROVAL

Scale @ A3	1:5,000	DO NOT SCALE
Jacobs No.	B36601F0	
Client No.	HE548642	Rev P01

Drawing Number: HE548642-JAC-LDC-SII_MLT-SK-GI-0001

ENVIRONMENTAL STATEMENT APPENDIX 9.1 FIGURE 9.1.1

Legend

- Order Limits
- Ground Investigation Locations

HDP07 HDP09 HDP08 BH07 HDP03 HDP02 HDP13 HDP01 HDP04 WS04 WS-S01 WS02 BH05 BH13 WS10 BH06 HDP05 HDP06 BH-S01 WS09 WS08 BH04 BH03 BH02 WS01 WS01A WS07 WS06 BH10 BH12 BH-G07A WS05 BH11 BH10A

Oak Bank

Besses o' th' Barn

Kirkhams

Whitefield Community Primary School

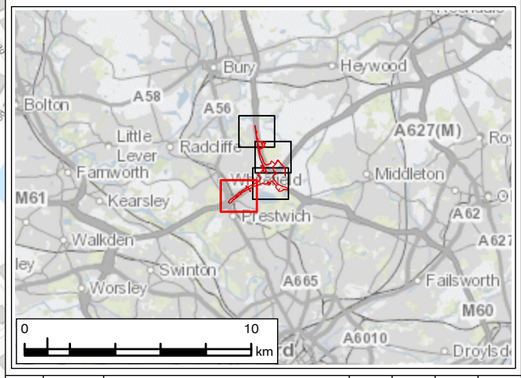
Heaton Park Primary and Nursery School

Our Lady Of Grace Roman Catholic Primary School

Cloughside College

Whitefield Interchange

Metrolink-Besses o th Barn



Rev.	Rev. Date	Purpose of revision	Drawn	Check'd	Rev'd	Appr'd
P01	JAN 24	For DCO application	LT	MS	JR	BB

Development Consent Order Number: TR010064

Development Consent Order Drawing Number: 6.3

Client: national highways

Project: REGIONAL DELIVERY PARTNERSHIP
M60/M62/M66 SIMISTER ISLAND INTERCHANGE

Drawing Title: GROUND INVESTIGATION LOCATION PLAN
SHEET 4 OF 4

Drawing Status: S4 – SUITABLE FOR STAGED APPROVAL

Scale @ A3	1:5,000	DO NOT SCALE
Jacobs No.	B36601F0	
Client No.	HE548642	Rev P01

Drawing Number: HE548642-JAC-LDC-SII_MLT-SK-GI-0001