



Environment Protection Licence Monitoring Data

Project Name:	WestConnex Stage 3A - M4-M5 Link Mainline Tunnels
Monitoring Period:	18 October 2018 – 14 June 2019
Licensee:	Samsung C&T Corporation, Bouygues Construction Australia Pty Ltd, Lendlease Engineering Pty Limited
Environment Protection Licence Number:	21149
Premise address:	WestConnex between M4 East at Haberfield and The New M5 at St. Peters, Marrickville NSW 2204

Monitoring Type: Water Discharge Monitoring

Discharge / Monitoring Point: 3 - Pyrmont Bridge Road Tunnel Site (C9)

1 Surface Water Discharge

Date Sampled	Turbidity (NTU)		TSS (mg/L)		pH		Oil & Grease		Monitoring Frequency	Comment
	Licence Limit*	Results	Licence Limit	Results	Licence Limit	Results	Licence Limit	Results		
19/03/2019	N/A	N/A	50	22	6.5 - 8.5	7.02	Not Visible	None	Each Discharge	Compliant
19/03/2019	N/A	N/A	50	27	6.5 - 8.5	6.97	Not Visible	None	Each Discharge	Compliant
19/03/2019	N/A	N/A	50	16	6.5 - 8.5	8.06	Not Visible	None	Each Discharge	Compliant
19/03/2019	47	19.6	50	NTU*	6.5 - 8.5	7.3	Not Visible	None	Each Discharge	Compliant
19/03/2019	47	28.1	50	NTU*	6.5 - 8.5	7.03	Not Visible	None	Each Discharge	Compliant
19/03/2019	47	27.9	50	NTU*	6.5 - 8.5	8.45	Not Visible	None	Each Discharge	Compliant
20/03/2019	47	26.7	50	NTU*	6.5 - 8.5	8.29	Not Visible	None	Each Discharge	Compliant
22/03/2019	N/A	N/A	50	17	6.5 - 8.5	7.99	Not Visible	None	Each Discharge	Compliant
22/03/2019	47	24.3	50	NTU*	6.5 - 8.5	8.4	Not Visible	None	Each Discharge	Compliant
1/04/2019	N/A	N/A	50	5	6.5 - 8.5	8.09	Not Visible	None	Each Discharge	Compliant
1/04/2019	N/A	N/A	50	<5	6.5 - 8.5	8	Not Visible	None	Each Discharge	Compliant
1/04/2019	N/A	N/A	50	7	6.5 - 8.5	7.3	Not Visible	None	Each Discharge	Compliant
1/04/2019	N/A	N/A	50	29	6.5 - 8.5	7	Not Visible	None	Each Discharge	Compliant
1/04/2019	N/A	N/A	50	12	6.5 - 8.5	7.51	Not Visible	None	Each Discharge	Compliant
8/04/2019	N/A	N/A	50	22	6.5 - 8.5	7.15	Not Visible	None	Each Discharge	Compliant
9/04/2019	N/A	N/A	50	14	6.5 - 8.5	7.02	Not Visible	None	Each Discharge	Compliant
30/05/2019	N/A	N/A	50	20.0	6.5 - 8.5	7.1	Not Visible	None	Each Discharge	Compliant
31/05/2019	N/A	N/A	50	16.0	6.5 - 8.5	7.7	Not Visible	None	Each Discharge	Compliant
8/06/2019	N/A	N/A	50	28.0	6.5 - 8.5	6.9	Not Visible	None	Each Discharge	Compliant
11/06/2019	N/A	N/A	50	28.0	6.5 - 8.5	7.2	Not Visible	None	Each Discharge	Compliant

*A correlation between TSS and Turbidity (NTU) has been established for the Pyrmont Bridge Road tunnel site.



Discharge / Monitoring Point: 4 Campbell Road Civil and Tunnel Site (C10)

1 Surface Water Discharge

Date Sampled	Turbidity (NTU)		TSS (mg/L)		pH		Oil & Grease		Monitoring Frequency	Comment
	Licence Limit*	Results	Licence Limit	Results	Licence Limit	Results	Licence Limit	Results		
18/10/2018	N/A	N/A	50	15	6.5 - 8.5	8.21	Not Visible	None	Each Discharge	Compliant
29/10/2018	N/A	N/A	50	33	6.5 - 8.5	8.46	Not Visible	None	Each Discharge	Compliant
30/10/2018	N/A	N/A	50	33	6.5 - 8.5	7.55	Not Visible	None	Each Discharge	Compliant
21/11/2018	N/A	N/A	50	44	6.5 - 8.5	8.31	Not Visible	None	Each Discharge	Compliant
14/01/2019	N/A	N/A	50	14	6.5 - 8.5	8.03	Not Visible	None	Each Discharge	Compliant
22/01/2019	N/A	N/A	50	<5	6.5 - 8.5	8.39	Not Visible	None	Each Discharge	Compliant
7/02/2019	N/A	N/A	50	9	6.5 - 8.5	8.13	Not Visible	None	Each Discharge	Compliant
11/02/2019	N/A	N/A	50	6	6.5 - 8.5	8.33	Not Visible	None	Each Discharge	Compliant
18/03/2019	N/A	N/A	50	28	6.5 - 8.5	7.34	Not Visible	None	Each Discharge	Compliant
18/03/2019	N/A	N/A	50	38	6.5 - 8.5	7.34	Not Visible	None	Each Discharge	Compliant
18/03/2019	N/A	N/A	50	29	6.5 - 8.5	7.12	Not Visible	None	Each Discharge	Compliant
19/03/2019	N/A	N/A	50	28	6.5 - 8.5	7.68	Not Visible	None	Each Discharge	Compliant
19/03/2019	N/A	N/A	50	29	6.5 - 8.5	7.15	Not Visible	None	Each Discharge	Compliant
20/03/2019	N/A	N/A	50	31	6.5 - 8.5	7.68	Not Visible	None	Each Discharge	Compliant
20/03/2019	N/A	N/A	50	30	6.5 - 8.5	6.66	Not Visible	None	Each Discharge	Compliant
21/03/2019	N/A	N/A	50	25	6.5 - 8.5	7.59	Not Visible	None	Each Discharge	Compliant
22/03/2019	111	15.6	50	NTU*	6.5 - 8.5	8.3	Not Visible	None	Each Discharge	Compliant
25/03/2019	111	25.3	50	NTU*	6.5 - 8.5	6.9	Not Visible	None	Each Discharge	Compliant
26/03/2019	111	3.8	50	NTU*	6.5 - 8.5	7.27	Not Visible	None	Each Discharge	Compliant
30/03/2019	111	14.9	50	NTU*	6.5 - 8.5	8.45	Not Visible	None	Each Discharge	Compliant
1/04/2019	111	8.6	50	NTU*	6.5 - 8.5	7.4	Not Visible	None	Each Discharge	Compliant
1/04/2019	111	3.9	50	NTU*	6.5 - 8.5	7.78	Not Visible	None	Each Discharge	Compliant
2/04/2019	111	17	50	NTU*	6.5 - 8.5	7.75	Not Visible	None	Each Discharge	Compliant
4/04/2019	111	20.7	50	NTU*	6.5 - 8.5	7.89	Not Visible	None	Each Discharge	Compliant
5/04/2019	111	42.4	50	NTU*	6.5 - 8.5	8.46	Not Visible	None	Each Discharge	Compliant
6/04/2019	111	6	50	NTU*	6.5 - 8.5	7.66	Not Visible	None	Each Discharge	Compliant
8/04/2019	111	3.3	50	NTU*	6.5 - 8.5	8.17	Not Visible	None	Each Discharge	Compliant
9/04/2019	111	35.3	50	NTU*	6.5 - 8.5	8.49	Not Visible	None	Each Discharge	Compliant
9/04/2019	111	19.4	50	NTU*	6.5 - 8.5	8.34	Not Visible	None	Each Discharge	Compliant
9/04/2019	111	6.7	50	NTU*	6.5 - 8.5	7.85	Not Visible	None	Each Discharge	Compliant
13/04/2019	111	17.2	50	NTU*	6.5 - 8.5	7.42	Not Visible	None	Each Discharge	Compliant
16/04/2019	111	5	50	NTU*	6.5 - 8.5	7.32	Not Visible	None	Each Discharge	Compliant
17/04/2019	N/A	N/A	50	22	6.5 - 8.5	8.32	Not Visible	None	Each Discharge	Compliant
18/04/2019	111	27.5	50	NTU*	6.5 - 8.5	8.17	Not Visible	None	Each Discharge	Compliant
18/04/2019	111	14.5	50	NTU*	6.5 - 8.5	7.19	Not Visible	None	Each Discharge	Compliant



Date Sampled	Turbidity (NTU)		TSS (mg/L)		pH		Oil & Grease		Monitoring Frequency	Comment
	Licence Limit*	Results	Licence Limit	Results	Licence Limit	Results	Licence Limit	Results		
18/04/2019	111	50.4	50	NTU*	6.5 - 8.5	7	Not Visible	None	Each Discharge	Compliant
24/04/2019	111	52.1	50	NTU*	6.5 - 8.5	7.17	Not Visible	None	Each Discharge	Compliant
29/04/2019	111	66.8	50	NTU*	6.5 - 8.5	8.07	Not Visible	None	Each Discharge	Compliant
2/05/2019	111	9.9	50	NTU*	6.5 - 8.5	8.12	Not Visible	None	Each Discharge	Compliant
3/05/2019	111	17.7	50	NTU*	6.5 - 8.5	8.31	Not Visible	None	Each Discharge	Compliant
6/05/2019	111	68.4	50	NTU*	6.5 - 8.5	8.14	Not Visible	None	Each Discharge	Compliant
14/05/2019	N/A	N/A	50	14	6.5 - 8.5	8.48	Not Visible	None	Each Discharge	Compliant
20/05/2019	111	24.6	50	NTU*	6.5 - 8.5	8.2	Not Visible	None	Each Discharge	Compliant
3/06/2019	111	44.7	50	NTU*	6.5 - 8.5	8.29	Not Visible	None	Each Discharge	Compliant
4/06/2019	N/A	N/A	50	18	6.5 - 8.5	7.66	Not Visible	None	Each Discharge	Compliant
6/06/2019	111	39.7	50	NTU*	6.5 - 8.5	6.97	Not Visible	None	Each Discharge	Compliant
7/06/2019	111	47.6	50	NTU*	6.5 - 8.5	8.18	Not Visible	None	Each Discharge	Compliant
14/06/2019	111	38.9	50	NTU*	6.5 - 8.5	8.36	Not Visible	None	Each Discharge	Compliant

*A correlation between TSS and Turbidity (NTU) has been established for the Campbell Road civil and tunnel site.



Discharge / Monitoring Point: 5 – Northcote Street Tunnel Site (C3a)

1 Surface Water Discharge

Date Sampled	Turbidity (NTU)		TSS (mg/L)		pH		Oil & Grease		Monitoring Frequency	Comment
	Licence Limit*	Results	Licence Limit	Results	Licence Limit	Results	Licence Limit	Results		
15/03/2019	N/A	N/A	50	10	6.5 - 8.5	7.86	Not Visible	None	Each Discharge	Compliant
19/03/2019	N/A	N/A	50	9	6.5 - 8.5	6.8	Not Visible	None	Each Discharge	Compliant
20/03/2019	N/A	N/A	50	12	6.5 - 8.5	7.8	Not Visible	None	Each Discharge	Compliant
21/03/2019	59	32.3	50	NTU*	6.5 - 8.5	7.8	Not Visible	None	Each Discharge	Compliant
22/03/2019	N/A	N/A	50	16	6.5 - 8.5	7.69	Not Visible	None	Each Discharge	Compliant
25/03/2019	N/A	N/A	50	20	6.5 - 8.5	7.15	Not Visible	None	Each Discharge	Compliant
27/03/2019	59	14.7	50	NTU*	6.5 - 8.5	7.65	Not Visible	None	Each Discharge	Compliant
29/03/2019	N/A	N/A	50	<5	6.5 - 8.5	7.74	Not Visible	None	Each Discharge	Compliant
1/04/2019	59	18.8	50	NTU*	6.5 - 8.5	7.54	Not Visible	None	Each Discharge	Compliant
2/04/2019	N/A	N/A	50	11	6.5 - 8.5	7.65	Not Visible	None	Each Discharge	Compliant
5/04/2019	N/A	N/A	50	22	6.5 - 8.5	8.13	Not Visible	None	Each Discharge	Compliant
6/04/2019	N/A	N/A	50	23	6.5 - 8.5	6.62	Not Visible	None	Each Discharge	Compliant
9/04/2019	59	9.2	50	NTU*	6.5 - 8.5	8.06	Not Visible	None	Each Discharge	Compliant
13/05/2019	N/A	N/A	50	10	6.5 - 8.5	8.05	Not Visible	None	Each Discharge	Compliant
1/06/2019	N/A	N/A	50	17	6.5 - 8.5	7.03	Not Visible	None	Each Discharge	Compliant
6/06/2019	N/A	N/A	50	35	6.5 - 8.5	6.66	Not Visible	None	Each Discharge	Compliant
7/06/2019	59	5	50	NTU*	6.5 - 8.5	7.47	Not Visible	None	Each Discharge	Compliant
13/06/2019	59	30	50	NTU*	6.5 - 8.5	6.8	Not Visible	None	Each Discharge	Compliant

*A correlation between TSS and Turbidity (NTU) has been established for the Northcote Street tunnel site.



Discharge / Monitoring Point: 6 – Wattle Street Ramps Tunnel Site (C1a)

1 Surface Water Discharge

Date Sampled	Turbidity (NTU)		TSS (mg/L)		pH		Oil & Grease		Monitoring Frequency	Comment
	Licence Limit*	Results	Licence Limit	Results	Licence Limit	Results	Licence Limit	Results		
8/04/2019	N/A	N/A	50	16	6.5 - 8.5	7.55	Not Visible	None	Each Discharge	Compliant
12/04/2019	59	11.7	50	NTU*	6.5 - 8.5	7.14	Not Visible	None	Each Discharge	Compliant
18/04/2019	59	15.8	50	NTU*	6.5 - 8.5	7.3	Not Visible	None	Each Discharge	Compliant
26/04/2019	N/A	N/A	50	36	6.5 - 8.5	7.88	Not Visible	None	Each Discharge	Compliant
4/05/2019	N/A	N/A	50	17	6.5 - 8.5	7.09	Not Visible	None	Each Discharge	Compliant
10/05/2019	N/A	N/A	50	16	6.5 - 8.5	8.01	Not Visible	None	Each Discharge	Compliant
23/05/2019	N/A	N/A	50	48	6.5 - 8.5	7.5	Not Visible	None	Each Discharge	Compliant
29/05/2019	59	36.5	50	NTU*	6.5 - 8.5	7	Not Visible	None	Each Discharge	Compliant
5/06/2019	N/A	N/A	50	9	6.5 - 8.5	7.4	Not Visible	None	Each Discharge	Compliant

*A correlation between TSS and Turbidity (NTU) has been established for the Wattle Street Ramps tunnel site.

2 Water Treatment Plant Commissioned to Process Groundwater

Date Sampled	TSS (mg/L)	pH	Oil & Grease	Arsenic (mg/L)	Cadmium (mg/L)	Chromium (IV) (mg/L)	Chromium (III) (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Mercury (mg/L)	Nickel (mg/L)	Zinc (mg/L)	Monitoring Frequency	Comment
N/A	50	6.5 – 8.5	Not Visible	0.05	0.014	0.02	0.0486	0.003	0.3	0.0066	2.5	0.0007	0.2	0.023	N/A	Licence Limit
23/05/2019	48	7.5	None	0.001	<0.0001	0.013**	N/A	<0.0001	<0.05	<0.001	0.064	<0.0001	<0.001	0.018	Monthly	Complaint

**Total chromium reported, however still compliant with licence limits for Chromium IV and III.