

ENVIRONMENT PROTECTION LICENCE 20350 MONITORING DATA

Licence Holder: Santos NSW (Eastern) Pty Ltd
Premises: Narrabri Gas Field
X-Line Road, Narrabri, NSW 2390

Licence No: 20350
EPL LINK: <https://apps.epa.nsw.gov.au/prpoeoapp/Detail.aspx?instid=20350&id=20350&option=licence&searchrange=licence&range=POEO%20lice>
Version 17FEB2025

EPL Period: 1 May 2025 to 30 April 2026
Reporting Period: **Quarter 1 May - 31 July 2025**
Published Date: Aug-25

Monitoring Location: Refer to Table 1
Scheduled Activity: Coal seam gas exploration, assessment and production

General Notes: Monitoring Point 80, 81 & 82 - no sample required in accordance with EPL20350 Condition M2.11 .
Monitoring Point 77 - no sample required in accordance with EPL20350 Condition M2.7 (Plant not operating).
Monitoring Point 69, 70, 75 & 76 - no sample required in accordance with EPL20350 Condition M2.8 and M2.9.
Monitoring Point 83, 84, 85 & 86 - no sample required in accordance with EPL20350 Condition M2.11.
Monitoring points visited and reported dry : 26, 28, 38, 39, 40, 43, 62, 66 and 78.
Grab samples for monitoring points with "Special Frequency 2" are taken annually in June unless results trigger above baseline values.
Monitoring Points 44-49 are not longer reportable under EPL20350 conditions.

Table 1: EPL20350 Water Monitoring Locations

EPA Identification No	Monitoring Type	Location	Latitude	Longitude
7	Groundwater Quality Monitoring	BWD27PRUPS02	-30.66325	149.66586
8	Groundwater Quality Monitoring	BWD27PRLPS03	-30.66313	149.66589
9	Groundwater Quality Monitoring	BWD26PRUPS01	-30.62224	149.60153
10	Groundwater Quality Monitoring	BWD26PRLPS02	-30.62236	149.60145
11	Groundwater Quality Monitoring	DWH14PRUPS01	-30.54892	149.75932
12	Groundwater Quality Monitoring	DWH14PRLPS02	-30.54917	149.75918
13	Groundwater Quality Monitoring	DWH14PRPUR03	-30.54904	149.75925
14	Groundwater Quality Monitoring	DWH3PRUPS01	-30.65363	149.73657
15	Groundwater Quality Monitoring	DWH3PRLPS02	-30.65354	149.73671
18	Groundwater Quality Monitoring	BWD27PRORA01	-30.66339	149.66583
20	Groundwater Quality Monitoring	BHN14PRORA01	-30.47186	149.57446
21	Groundwater Quality Monitoring	BHN14PRUPS02	-30.47173	149.57440
26	Groundwater Quality Monitoring	BWDMW12S	-30.63189	149.64828
27	Groundwater Quality Monitoring	BWDMW12D	-30.63188	149.64829
28	Groundwater Quality Monitoring	BWDMW12I	-30.63189	149.64830
37	Groundwater Quality Monitoring	LWDMW1D	-30.49124	149.61902
38	Groundwater Quality Monitoring	LWDMW1S	-30.49124	149.61903
39	Groundwater Quality Monitoring	LWDMW1I	-30.49125	149.61905
40	Groundwater Quality Monitoring	LWDMW2S	-30.50545	149.61643
41	Groundwater Quality Monitoring	LWDMW2D	-30.50545	149.61642
42	Groundwater Quality Monitoring	LWDMW3D	-30.50645	149.62451
43	Groundwater Quality Monitoring	LWDMW3S	-30.50644	149.62452
44	Groundwater Level Monitoring	DWH8AQGDGY01	-30.55016	149.76832
45	Groundwater Level Monitoring	DWH8AQGARK02	-30.55016	149.76832
46	Groundwater Level Monitoring	DWH8AQGPOR03	-30.55016	149.76832
47	Groundwater Level Monitoring	BWD28QGUPS01	-30.66802	149.64007
48	Groundwater Level Monitoring	BWD28QGLPS01	-30.66802	149.64007
49	Groundwater Level Monitoring	BWD28QGPUR01	-30.66802	149.64007
56	Groundwater Quality Monitoring	WPKMW9D	-30.36301	149.66006
57	Groundwater Quality Monitoring	WPKMW9S	-30.36299	149.66007
59	Groundwater Quality Monitoring	WPKMW13I	-30.36122	149.65886
60	Groundwater Quality Monitoring	WPKMW13S	-30.36122	149.65889
61	Groundwater Quality Monitoring	WPKMW14D	-30.36252	149.65694
62	Groundwater Quality Monitoring	WPKMW14S	-30.36253	149.65695
63	Groundwater Quality Monitoring	WPKMW15D	-30.36086	149.65691
64	Groundwater Quality Monitoring	WPKMW15S	-30.36088	149.65691
65	Groundwater Quality Monitoring	WPKMW16D	-30.36313	149.65370
66	Groundwater Quality Monitoring	WPKMW16S	-30.36315	149.65369
69	Produced Water Storage Pond	BWDPD2	-30.63370	149.64930
70	Produced Water Storage Pond	BWDPD3	-30.63240	149.64890
71	Produced Water Storage Pond	LWDPD1CELL4	-30.49437	149.62000
72	Produced Water Storage Pond	LWDPD1CELL3	-30.49608	149.61991
73	Produced Water Storage Pond	LWDPD1CELL2	-30.49788	149.61962

EPA Identification No	Monitoring Type	Location	Latitude	Longitude
74	Produced Water Storage Pond	LWDPD1CELL1	-30.49960	149.61927
75	Produced Water Storage Pond	TFDPD1	-30.36180	149.65950
76	Produced Water Storage Pond	TFDPD2	-30.36130	149.65830
77	Treated Water Quality Monitoring	LWWTPDM1	-30.50339	149.62206
78	Groundwater Quality Monitoring	WPKMW18S	-30.36193	149.66295
79	Groundwater Quality Monitoring	WPKMW18I	-30.36189	149.66296
80	Groundwater Quality Monitoring	LWDMW4	-30.49852	149.62643
81	Groundwater Quality Monitoring	LWDMW5	-30.49607	149.63064
82	Groundwater Quality Monitoring	LWDMW6	-30.49726	149.63251
83	Soil Quality Monitoring	LWDSMP1	-30.49943	149.62502
84	Soil Quality Monitoring	LWDSMP2	-30.49756	149.62727
85	Soil Quality Monitoring	LWDSMP3	-30.49763	149.63153
86	Soil Quality Monitoring	LWDSMP4	-30.50092	149.63042
87	Groundwater Level Monitoring	BHNS1PRLPS01	-30.57511	149.62233
88	Groundwater Level Monitoring	BHNS1PRDGY02	-30.57512	149.62243
89	Groundwater Level Monitoring	BHNS1PRPOR03	-30.57486	149.62226
90	Groundwater Level Monitoring	BHNS1PRMCF04	-30.57486	149.62226
91	Groundwater Level Monitoring	BHNS1PRMCF05	-30.57486	149.62226
92	Groundwater Level Monitoring	BHNS1PRMCF06	-30.57486	149.62226
93	Groundwater Level Monitoring	BWD6PRLPS01	-30.62721	149.65377
94	Groundwater Level Monitoring	BWD6PRDGY02	-30.62712	149.65378
95	Groundwater Level Monitoring	BWD6PRMCF03	-30.62693	149.65331
96	Groundwater Level Monitoring	BWD6PRMCF04	-30.62693	149.65331
97	Groundwater Level Monitoring	BWD6PRMCF05	-30.62693	149.65331
98	Groundwater Level Monitoring	DWH9PRLPS01	-30.71667	149.65445
99	Groundwater Level Monitoring	DWH9PRDGY02	-30.71666	149.65455
100	Groundwater Level Monitoring	DWH9PRPOP03	-30.71631	149.65482
101	Groundwater Level Monitoring	DWH9PRMCF03	-30.71631	149.65482
102	Groundwater Level Monitoring	DWH9PRMCF04	-30.71631	149.65482
103	Groundwater Level Monitoring	DWH9PRMCF05	-30.71631	149.65482
104	Groundwater Level Monitoring	DWH43PRLPS01	-30.72370	149.70646
105	Groundwater Level Monitoring	DWH43PRDGY02	-30.72379	149.70645
106	Groundwater Level Monitoring	DWH43PRPOR03	To be drilled	To be drilled
107	Groundwater Level Monitoring	DWH43PRMCF03	To be drilled	To be drilled
108	Groundwater Level Monitoring	DWH43PRMCF04	To be drilled	To be drilled
109	Groundwater Level Monitoring	DWH43PRMCF05	To be drilled	To be drilled
110	Groundwater Quality Monitoring	DWH35PRLPS01	-30.62432	149.71276
111	Groundwater Quality Monitoring	DWH35PRDGY02	-30.62441	149.71286
112	Groundwater Quality Monitoring	DWH35PRPOR03	To be drilled	To be drilled
113	Groundwater Quality Monitoring	DWH35PRMCF04	To be drilled	To be drilled
114	Groundwater Quality Monitoring	DWH35PRMCF05	To be drilled	To be drilled
115	Groundwater Quality Monitoring	DWH35PRMCF06	To be drilled	To be drilled
116	Groundwater Quality Monitoring			

Note:

Monitoring points removed in accordance with Environmental Protection Licence (EPL) 23050 amended 17 February 2025.

TABLE 2: GROUNDWATER QUALITY MONITORING (In situ - Quarterly)

		EPA Identification No	26	27	28	37	38	39
		Location	BWDMW12S	BWDMW12D	BWDMW12I	LWDMW1D	LWDMW1S	LWDMW1I
		Date	2/06/2025	2/06/2025	2/06/2025	2/06/2025	2/06/2025	2/06/2025
		Sample Method	No sample - dry	in situ	No sample - dry	in situ	No sample - dry	No sample - dry
Parameter	Units	LOR	RESULT	RESULT	RESULT	RESULT	RESULT	RESULT
Dissolved Oxygen	mg/L	-	-	0.2	-	0.6	-	-
Electrical Conductivity	µS/cm	-	-	4136	-	2116	-	-
pH	pH Unit	-	-	6.96	-	6.23	-	-
Redox Potential	mV	-	-	31	-	39	-	-
Standing Water Level	mTOC	-	-	31.02	-	30.02	-	-

		EPA Identification No	40	41	42	43	56	57
		Location	LWDMW2S	LWDMW2D	LWDMW3D	LWDMW3S	WPKMW9D	WPKMW9S
		Date	2/06/2025	2/06/2025	2/06/2025	2/06/2025	3/06/2025	3/06/2025
		Sample Method	No sample - dry	in situ	in situ	No sample - dry	in situ	in situ
Parameter	Units	LOR	RESULT	RESULT	RESULT	RESULT	RESULT	RESULT
Dissolved Oxygen	mg/L	-	-	0.7	0.1	-	2.1	1.6
Electrical Conductivity	µS/cm	-	-	2000	954	-	1206	3333
pH	pH Unit	-	-	6.81	6.21	-	7.99	7.66
Redox Potential	mV	-	-	62	72	-	89	-110
Standing Water Level	mTOC	-	-	26.07	21.17	-	15.45	15.67

		EPA Identification No	59	60	61	62	63	64
		Location	WPKMW13I	WPKMW13S	WPKMW14D	WPKMW14S	WPKMW15D	WPKMW15S
		Date	3/06/2025	3/06/2025	3/06/2025	3/06/2025	3/06/2025	3/06/2025
		Sample Method	in situ	in situ	in situ	No sample - dry	in situ	in situ
Parameter	Units	LOR	RESULT	RESULT	RESULT	RESULT	RESULT	RESULT
Dissolved Oxygen	mg/L	-	1.4	1.3	0.13	-	0.41	1.4
Electrical Conductivity	µS/cm	-	1256	2867	719	-	1268	8574
pH	pH Unit	-	8.14	7.73	7.44	-	6.01	7.71
Redox Potential	mV	-	83	23	48	-	81	-53
Standing Water Level	mTOC	-	16.77	16.94	20.84	-	22.17	22.37

		EPA Identification No	65	66	78	79
		Location	WPKMW16D	WPKMW16S	WPKMW18S	WPKMW18I
		Date	3/06/2025	3/06/2025	3/06/2025	3/06/2025
		Sample Method	in situ	No sample - dry	No sample - dry	in situ
Parameter	Units	LOR	RESULT	RESULT	RESULT	RESULT
Dissolved Oxygen	mg/L	-	2.3	-	-	2.9
Electrical Conductivity	µS/cm	-	1227	-	-	1205
pH	pH Unit	-	7.99	-	-	8.11
Redox Potential	mV	-	26	-	-	41
Standing Water Level	mTOC	-	26.53	-	-	16.07

TABLE 2: GROUNDWATER QUALITY MONITORING (Representative Sample - Special Frequency 2)

EPA Identification No Location Date Sample Method			26 BWDMMW12S 2/06/2025 No sample - dry	27 BWDMMW12D 2/06/2025 Grab sample	28 BWDMMW12I 2/06/2025 No sample - dry	37 LWDMW1D 2/06/2025 Grab sample	38 LWDMW1S 2/06/2025 No sample - dry	39 LWDMW1I 2/06/2025 No sample - dry
Parameter	Units	LOR	RESULT	RESULT	RESULT	RESULT	RESULT	RESULT
Aluminium	mg/L	0.01	-	0.02	-	<0.01	-	-
Ammonia as N	mg/L	0.01	-	0.03	-	<0.01	-	-
Arsenic	mg/L	0.001	-	<0.001	-	<0.001	-	-
Barium	mg/L	0.001	-	0.382	-	0.427	-	-
Beryllium	mg/L	0.001	-	<0.001	-	<0.001	-	-
Bicarbonate Alkalinity as CaCO ₃	mg/L	1	-	1280	-	196	-	-
Boron	mg/L	0.05	-	<0.05	-	0.14	-	-
Bromide	mg/L	0.01	-	3.18	-	1.35	-	-
Cadmium	mg/L	0.0001	-	<0.0001	-	<0.0001	-	-
Calcium	mg/L	1	-	12	-	7	-	-
Carbonate Alkalinity as CaCO ₃	mg/L	1	-	<1	-	<1	-	-
Chloride	mg/L	1	-	667	-	618	-	-
Chromium	mg/L	0.001	-	<0.001	-	<0.001	-	-
Cobalt	mg/L	0.001	-	<0.001	-	<0.001	-	-
Copper	mg/L	0.001	-	<0.001	-	<0.001	-	-
Fluoride	mg/L	0.1	-	0.3	-	0.2	-	-
Iron	mg/L	0.05	-	<0.05	-	<0.05	-	-
Lead	mg/L	0.001	-	<0.001	-	<0.001	-	-
Magnesium	mg/L	1	-	108	-	14	-	-
Manganese	mg/L	0.001	-	0.005	-	0.003	-	-
Mercury	mg/L	0.0001	-	<0.0001	-	<0.0001	-	-
Methane	mg/L	0.01	-	<0.01	-	<0.01	-	-
Molybdenum	mg/L	0.001	-	0.001	-	<0.001	-	-
Nickel	mg/L	0.001	-	0.004	-	0.001	-	-
Nitrate as N	mg/L	0.01	-	0.3	-	0.07	-	-
Nitrite as N	mg/L	0.01	-	<0.01	-	<0.01	-	-
Potassium	mg/L	1	-	33	-	14	-	-
Reactive Phosphorus	mg/L	0.01	-	<0.01	-	0.07	-	-
Selenium	mg/L	0.01	-	0.02	-	<0.01	-	-
Sodium	mg/L	1	-	752	-	434	-	-
Strontium (Dissolved)	mg/L	0.001	-	0.331	-	0.127	-	-
Sulfate as SO ₄ 2-	mg/L	1	-	85	-	15	-	-
Total Dissolved Solids @180°C	mg/L	10	-	2460	-	1290	-	-
Uranium	mg/L	0.001	-	0.002	-	<0.001	-	-
Vanadium	mg/L	0.01	-	<0.01	-	<0.01	-	-
Zinc	mg/L	0.005	-	0.008	-	0.011	-	-

TABLE 2: GROUNDWATER QUALITY MONITORING (Representative Sample - Special Frequency 2)

EPA Identification No Location Date Sample Method			40 LWDMW2S 2/06/2025 No sample - dry	41 LWDMW2D 2/06/2025 Grab sample	42 LWDMW3D 2/06/2025 Grab sample	43 LWDMW3S 2/06/2025 No sample - dry	56 WPKMW9D 3/06/2025 Grab sample	57 WPKMW9S 3/06/2025 Grab sample
Parameter	Units	LOR	RESULT	RESULT	RESULT	RESULT	RESULT	RESULT
Aluminium	mg/L	0.01	-	<0.01	<0.01	-	<0.01	0.18
Ammonia as N	mg/L	0.01	-	0.02	<0.01	-	0.07	0.39
Arsenic	mg/L	0.001	-	<0.001	0.002	-	0.004	0.003
Barium	mg/L	0.001	-	0.573	0.078	-	0.112	0.178
Beryllium	mg/L	0.001	-	<0.001	<0.001	-	<0.001	<0.001
Bicarbonate Alkalinity as CaCO ₃	mg/L	1	-	448	99	-	615	1550
Boron	mg/L	0.05	-	0.13	0.09	-	0.23	0.36
Bromide	mg/L	0.01	-	0.837	0.549	-	0.271	1.53
Cadmium	mg/L	0.0001	-	<0.0001	<0.0001	-	<0.0001	<0.0001
Calcium	mg/L	1	-	20	2	-	6	8
Carbonate Alkalinity as CaCO ₃	mg/L	1	-	<1	<1	-	<1	<1
Chloride	mg/L	1	-	439	241	-	60	366
Chromium	mg/L	0.001	-	0.004	<0.001	-	<0.001	<0.001
Cobalt	mg/L	0.001	-	<0.001	0.001	-	<0.001	<0.001
Copper	mg/L	0.001	-	0.002	0.004	-	<0.001	<0.001
Fluoride	mg/L	0.1	-	0.4	0.3	-	0.8	0.7
Iron	mg/L	0.05	-	0.11	<0.05	-	0.19	0.32
Lead	mg/L	0.001	-	<0.001	<0.001	-	<0.001	<0.001
Magnesium	mg/L	1	-	25	4	-	1	2
Manganese	mg/L	0.001	-	0.028	0.005	-	0.244	0.093
Mercury	mg/L	0.0001	-	<0.0001	<0.0001	-	<0.0001	<0.0001
Methane	mg/L	0.01	-	<0.01	<0.01	-	0.078	0.361
Molybdenum	mg/L	0.001	-	0.007	0.001	-	0.001	0.001
Nickel	mg/L	0.001	-	0.035	0.011	-	0.006	<0.001
Nitrate as N	mg/L	0.01	-	0.8	0.16	-	0.01	<0.01
Nitrite as N	mg/L	0.01	-	<0.01	<0.01	-	<0.01	<0.01
Potassium	mg/L	1	-	27	10	-	4	9
Reactive Phosphorus	mg/L	0.01	-	0.13	0.05	-	0.32	0.42
Selenium	mg/L	0.01	-	<0.01	<0.01	-	<0.01	<0.01
Sodium	mg/L	1	-	374	177	-	304	897
Strontium (Dissolved)	mg/L	0.001	-	0.263	0.025	-	0.06	0.09
Sulfate as SO ₄ 2-	mg/L	1	-	14	4	-	11	28
Total Dissolved Solids @180°C	mg/L	10	-	1200	583	-	806	2360
Uranium	mg/L	0.001	-	0.001	<0.001	-	<0.001	<0.001
Vanadium	mg/L	0.01	-	<0.01	<0.01	-	<0.01	<0.01
Zinc	mg/L	0.005	-	0.065	0.086	-	<0.005	<0.005

TABLE 2: GROUNDWATER QUALITY MONITORING (Representative Sample - Special Frequency 2)

EPA Identification No Location Date Sample Method			59 WPKMW13I 3/06/2025 Grab sample	60 WPKMW13S 3/06/2025 Grab sample	61 WPKMW14D 3/06/2025 Grab sample	62 WPKMW14S 3/06/2025 No sample - dry	63 WPKMW15D 3/06/2025 Grab sample
Parameter	Units	LOR	RESULT	RESULT	RESULT	RESULT	RESULT
Aluminium	mg/L	0.01	0.1	0.02	0.01	-	0.03
Ammonia as N	mg/L	0.01	0.15	0.01	<0.01	-	0.07
Arsenic	mg/L	0.001	0.002	0.002	0.002	-	0.002
Barium	mg/L	0.001	0.047	0.094	0.348	-	0.433
Beryllium	mg/L	0.001	<0.001	<0.001	<0.001	-	<0.001
Bicarbonate Alkalinity as CaCO ₃	mg/L	1	654	1230	611	-	648
Boron	mg/L	0.05	0.26	0.36	0.24	-	0.18
Bromide	mg/L	0.01	0.391	1.58	0.279	-	0.221
Cadmium	mg/L	0.0001	<0.0001	<0.0001	<0.0001	-	<0.0001
Calcium	mg/L	1	4	4	8	-	7
Carbonate Alkalinity as CaCO ₃	mg/L	1	<1	<1	12	-	<1
Chloride	mg/L	1	68	421	56	-	59
Chromium	mg/L	0.001	<0.001	<0.001	0.001	-	<0.001
Cobalt	mg/L	0.001	<0.001	<0.001	<0.001	-	<0.001
Copper	mg/L	0.001	<0.001	<0.001	<0.001	-	<0.001
Fluoride	mg/L	0.1	0.7	0.6	0.6	-	0.4
Iron	mg/L	0.05	0.08	<0.05	<0.05	-	0.2
Lead	mg/L	0.001	<0.001	<0.001	<0.001	-	<0.001
Magnesium	mg/L	1	<1	1	2	-	2
Manganese	mg/L	0.001	0.022	0.03	0.003	-	0.047
Mercury	mg/L	0.0001	<0.0001	<0.0001	<0.0001	-	<0.0001
Methane	mg/L	0.01	0.118	<0.01	<0.01	-	0.146
Molybdenum	mg/L	0.001	<0.001	0.002	<0.001	-	0.007
Nickel	mg/L	0.001	<0.001	0.002	0.002	-	0.002
Nitrate as N	mg/L	0.01	0.02	<0.01	0.06	-	<0.01
Nitrite as N	mg/L	0.01	<0.01	<0.01	<0.01	-	<0.01
Potassium	mg/L	1	4	10	5	-	8
Reactive Phosphorus	mg/L	0.01	0.28	0.28	0.22	-	0.3
Selenium	mg/L	0.01	<0.01	<0.01	<0.01	-	<0.01
Sodium	mg/L	1	319	748	294	-	311
Strontium (Dissolved)	mg/L	0.001	0.02	0.043	0.045	-	0.052
Sulfate as SO ₄ 2-	mg/L	1	<1	1	<1	-	12
Total Dissolved Solids @180°C	mg/L	10	801	1990	760	-	860
Uranium	mg/L	0.001	<0.001	<0.001	<0.001	-	<0.001
Vanadium	mg/L	0.01	<0.01	<0.01	<0.01	-	<0.01
Zinc	mg/L	0.005	<0.005	<0.005	<0.005	-	<0.005

TABLE 2: GROUNDWATER QUALITY MONITORING (Representative Sample - Special Frequency 2)

EPA Identification No Location Date Sample Method			64 WPKMW15S 3/06/2025 Grab sample	65 WPKMW16D 3/06/2025 Grab sample	66 WPKMW16S 3/06/2025 No sample - dry	78 WPKMW18S 3/06/2025 No sample - dry	79 WPKMW18I 3/06/2025 Grab sample
Parameter	Units	LOR	RESULT	RESULT	RESULT	RESULT	RESULT
Aluminium	mg/L	0.01	<0.01	<0.01	-	-	0.06
Ammonia as N	mg/L	0.01	0.02	0.16	-	-	<0.01
Arsenic	mg/L	0.001	0.003	0.002	-	-	0.001
Barium	mg/L	0.001	1.69	0.211	-	-	0.099
Beryllium	mg/L	0.001	<0.001	<0.001	-	-	<0.001
Bicarbonate Alkalinity as CaCO3	mg/L	1	4170	617	-	-	628
Boron	mg/L	0.05	0.62	0.06	-	-	0.24
Bromide	mg/L	0.01	4.32	0.315	-	-	0.243
Cadmium	mg/L	0.0001	<0.0001	<0.0001	-	-	<0.0001
Calcium	mg/L	1	7	8	-	-	2
Carbonate Alkalinity as CaCO3	mg/L	1	<1	<1	-	-	<1
Chloride	mg/L	1	958	68	-	-	57
Chromium	mg/L	0.001	0.014	<0.001	-	-	<0.001
Cobalt	mg/L	0.001	<0.001	<0.001	-	-	<0.001
Copper	mg/L	0.001	<0.001	<0.001	-	-	<0.001
Fluoride	mg/L	0.1	0.9	0.5	-	-	0.2
Iron	mg/L	0.05	<0.05	<0.05	-	-	<0.05
Lead	mg/L	0.001	<0.001	<0.001	-	-	<0.001
Magnesium	mg/L	1	10	2	-	-	<1
Manganese	mg/L	0.001	<0.001	0.003	-	-	0.006
Mercury	mg/L	0.0001	<0.0001	<0.0001	-	-	<0.0001
Methane	mg/L	0.01	<0.01	<0.01	-	-	<0.01
Molybdenum	mg/L	0.001	0.006	0.003	-	-	0.002
Nickel	mg/L	0.001	<0.001	0.001	-	-	<0.001
Nitrate as N	mg/L	0.01	0.49	0.1	-	-	0.39
Nitrite as N	mg/L	0.01	<0.01	<0.01	-	-	<0.01
Potassium	mg/L	1	35	12	-	-	5
Reactive Phosphorus	mg/L	0.01	0.62	0.3	-	-	0.38
Selenium	mg/L	0.01	<0.01	<0.01	-	-	<0.01
Sodium	mg/L	1	2310	299	-	-	310
Strontium (Dissolved)	mg/L	0.001	0.236	0.058	-	-	0.015
Sulfate as SO4 2-	mg/L	1	2	5	-	-	<1
Total Dissolved Solids @180°C	mg/L	10	6390	815	-	-	789
Uranium	mg/L	0.001	0.015	0.002	-	-	<0.001
Vanadium	mg/L	0.01	0.02	<0.01	-	-	<0.01
Zinc	mg/L	0.005	<0.005	<0.005	-	-	<0.005

TABLE 3: TREATED WATER QUALITY MONITORING

EPA Identification No Location Date Sample Method			77 LWWTPDM1 No sample - plant not operating	77 LWWTPDM1 No sample - plant not operating	77 LWWTPDM1 No sample - plant not operating
Parameter	Units	LOR	RESULT	RESULT	RESULT
Ammonia as N	mg/L	0.01	-	-	-
Bicarbonate Alkalinity as CaCO ₃	mg/L	1	-	-	-
Boron	mg/L	0.05	-	-	-
Calcium	mg/L	1	-	-	-
Carbonate Alkalinity as CaCO ₃	mg/L	1	-	-	-
Chloride	mg/L	1	-	-	-
Electrical Conductivity	µS/cm	-	-	-	-
Fluoride	mg/L	0.1	-	-	-
Magnesium	mg/L	1	-	-	-
Nitrate as N	mg/L	0.01	-	-	-
Nitrite as N	mg/L	0.01	-	-	-
pH	pH Unit	-	-	-	-
Potassium	mg/L	1	-	-	-
Reactive Silica	mg/L	1	-	-	-
Sodium Adsorption Ratio	-	0.01	-	-	-
Sodium	mg/L	1	-	-	-
Sulfate as SO ₄ 2-	mg/L	1	-	-	-
Total Alkalinity (as CaCO ₃)	mg/L	1	-	-	-
Total Dissolved Solids @180°C	mg/L	10	-	-	-
Total Hardness (as CaCO ₃)	mg/L	1	-	-	-
Total Nitrogen (as N)	mg/L	0.5	-	-	-
Total Phosphorus (as P)	mg/L	0.01	-	-	-
Total Residual Chlorine	mg/L		-	-	-
Turbidity	NTU	0.1	-	-	-

TABLE 4: PRODUCED WATER STORAGE QUALITY MONITORING

		EPA Identification No	71	72	73	74	75
		Location	LWDPD1CELL4	LWDPD1CELL3	LWDPD1CELL2	LWDPD1CELL1	TFDPD1
		Date	19/06/2025	19/06/2025	19/06/2025	19/06/2025	3/06/2025
		Sample Method	in situ	in situ	in situ	in situ	in situ
Parameter	Units	LOR	RESULT	RESULT	RESULT	RESULT	RESULT
Aluminium	mg/L	0.01	-	-	-	-	-
Ammonia as N	mg/L	0.01	-	-	-	-	-
Arsenic	mg/L	0.001	-	-	-	-	-
Barium	mg/L	0.001	-	-	-	-	-
Beryllium	mg/L	0.001	-	-	-	-	-
Bicarbonate Alkalinity as CaCO3	mg/L	1	-	-	-	-	-
Boron	mg/L	0.05	-	-	-	-	-
Bromide	mg/L	0.01	-	-	-	-	-
Cadmium	mg/L	0.0001	-	-	-	-	-
Calcium	mg/L	1	-	-	-	-	-
Carbonate Alkalinity as CaCO3	mg/L	1	-	-	-	-	-
Chloride	mg/L	1	-	-	-	-	-
Chromium	mg/L	0.001	-	-	-	-	-
Cobalt	mg/L	0.001	-	-	-	-	-
Copper	mg/L	0.001	-	-	-	-	-
Dissolved Oxygen*	mg/L		8.8	10.2	12.7	7.2	2.3
Electrical Conductivity*	µS/cm		26518	46810	35770	41086	15023
Iron	mg/L	0.05	-	-	-	-	-
Lead	mg/L	0.001	-	-	-	-	-
Magnesium	mg/L	1	-	-	-	-	-
Manganese	mg/L	0.001	-	-	-	-	-
Mercury	mg/L	0.0001	-	-	-	-	-
Molybdenum	mg/L	0.001	-	-	-	-	-
Nickel	mg/L	0.001	-	-	-	-	-
Nitrate as N	mg/L	0.01	-	-	-	-	-
Nitrite as N	mg/L	0.01	-	-	-	-	-
pH*	pH Unit		9.49	9.55	9.57	9.4	8.7
Potassium	mg/L	1	-	-	-	-	-
Redox potential*	mV		28	-6	13	14	-83
Selenium	mg/L	0.01	-	-	-	-	-
Sodium Adsorption Ratio	-	0.01	-	-	-	-	-
Sodium	mg/L	1	-	-	-	-	-
Strontium	mg/L	0.001	-	-	-	-	-
Sulfate as SO4 2-	mg/L	10	-	-	-	-	-
Total Dissolved Solids @180°C	mg/L	10	-	-	-	-	-
Total Organic Carbon	mg/L	100	-	-	-	-	-
Total Phosphorus as P	mg/L	0.01	-	-	-	-	-
Uranium	mg/L	0.001	-	-	-	-	-
Vanadium	mg/L	0.01	-	-	-	-	-
Zinc	mg/L	0.005	-	-	-	-	-

*Sampling method In-situ are taken quarterly.