Table 1 provides a summary of the EPA monitoring points for the Rangers Valley Feedlot. This table has been reproduced from Section 2 of Environmental Protection Licence No. 3864. Click on the EPA number to view the monitoring results collected (if available).

Table 1: Summary of EPA Monitoring Points

EPA No.	Type of monitoring point	Type of discharge point	Description of location
EPA Monitoring Point 2	Surface water quality monitoring		Surface water monitoring point (S2) at Cam Creek causeway on Deepwater Road at "Nant Park" labelled as EPA Point 2 on map titled Environmental Monitoring Points - Location of Surface Water Monitoring points dated 1st May 2007. See Fig 1 - 250832A1/10.
EPA Monitoring Point 3	Surface water quality monitoring		Surface water monitoring point (S3) at grassed waterway in Old 2 paddock labelled as EPA Point 3 on map titled Environmental Monitoring Points - Location of Surface Water MP dated 1st May 2007. See Fig 1 - 250832A1/10.
EPA Monitoring Point 4	Surface water quality monitoring		Surface water monitoring point (S4) at Cam Creek bridge on Rangers Valley Road labelled as EPA Point 4 on map titled Environmental Monitoring Points -Location of Surface Water MP dated 1st May 2007. See Fig 1 - 250832A1/10.
EPA Monitoring Point 5	Surface water quality monitoring		Surface water monitoring point (S5) at Severn River Bridge on the Yarraford Road labelled as EPA Point 5 on map titled Environmental Monitoring Points - Location of Surface Water MP dated 1st May 2007. See Fig 1 - 250832A1/10.
EPA Monitoring Point 6	Surface water quality monitoring		Surface water monitoring point (S6) at Severn River Bridge on the Emmaville Road labelled as EPA Point 6 on map titled Environmental Monitoring Points - Location of Surface Water MP dated 1st May 2007. See Fig 1 - 250832A1/10.

EPA No.	Type of monitoring point	Type of discharge point	Description of location
EPA Monitoring Point 7	Surface water quality monitoring		Surface water monitoring point (S7) at Beardy Waters causeway on the Haul Rd (2nd causeway) - upstream of confluence with Severn River, labelled as EPA Point 7 on map titled Env MP -Location of Surface Water MP dated 1st May 2007. (Fig 1).
EPA Monitoring Point 8	Surface water quality monitoring		Surface water monitoring point (S8) at Severn River causeway on the Haul Road (first causeway) labelled as EPA Point 8 on map titled Environmental Monitoring Points - Location of Surface Water MP dated 1st May 2007. See Fig 1 - 250832A1/10.
10	Effluent quality and volume monitoring. Wet weather discharge. Discharge quality monitoring. Discharge to utilisation area.	Effluent quality and volume monitoring. Wet weather discharge. Discharge quality monitoring. Discharge to utilisation area.	Terminal pond and spillway servicing Pivot 3A and 3B including pump labelled as EPA Point 10 on map titled Env MPs-Location of Effluent MP dated 1st May 2007. See Fig 2 250832A1/10.
EPA Monitoring Point 11	Effluent quality and volume monitoring. Wet weather discharge. Discharge quality monitoring. Discharge to utilisation area.	Effluent quality and volume monitoring. Wet weather discharge. Discharge quality monitoring. Discharge to utilisation area.	Final effluent holding pond (on eastern side of the feedlot, known as E2) including spillway and irrigation pumps labelled as EPA Point 11 on map titled Env MPs-Location of Effluent MP dated 1st May 2007. See Fig 2. 250832A1/10.
13	Wet weather discharge. Discharge quality monitoring.	Wet weather discharge. Discharge quality monitoring	Spillway for effluent holding pond known as W2 (on western side of feedlot) labelled as EPA Point 13 on map titled Env MPs-Location of Effluent MP dated 1st May 2007. See Fig 2 250832A1/10.
14	Effluent quality and volume monitoring. Wet weather discharge. Discharge quality monitoring. Discharge to utilisation area.	Effluent quality and volume monitoring. Wet weather discharge. Discharge quality monitoring. Discharge to utilisation area.	Terminal pond and spillway servicing Pivot 1 and located in the paddock Bottom Swamp including pump labelled as EPA Point 14 on map titled Env MPs-Location of Effluent MP dated 1st May 2007. see Fig 2 250832A1/10.

EPA No.	Type of monitoring point	Type of discharge point	Description of location
EPA Monitoring Point 20	Effluent quality and volume monitoring. Wet weather discharge. Discharge quality monitoring. Discharge to utilisation area.	Effluent quality and volume monitoring. Wet weather discharge. Discharge quality monitoring. Discharge to utilisation area.	Effluent holding pond (on western side of feedlot, known as W4) including spillway and irrigation pump labelled as EPA Point 20 on map titled Env MPs-Location of Effluent MP dated 1st May 2007. see Fig 2 250832A1/10.
22	Effluent quality and volume monitoring. Wet weather discharge. Discharge quality monitoring. Discharge to utilisation area.	Effluent quality and volume monitoring. Wet weather discharge. Discharge quality monitoring. Discharge to utilisation area.	Terminal pond and spillway servicing Rye East and Rye West known as W5 including pump labelled as EPA Point 22 on map titled Env MPs-Location of Effluent MP dated 1st May 2007. see Fig 2 250832A1/10.
EPA Monitoring Point 24	Manure quality monitoring. Mass monitoring.		Manure stockpile and composting area containing screened and unscreened manure and labelled as EPA Point 24 on map titled Env MPs-Location of Effluent MP dated 1st May 2007. see Fig 2 250832A1/10.
EPA Monitoring Point 26	Discharge quality monitoring.		Dam located in the bottom corner of "Washpool Road" (13) paddock labelled as EPA Point 26 on map titled Env MPs-Location of Effluent MP dated 1st May 2007. see Fig 2 250832A1/10.
EPA Monitoring Point 27	Soil quality monitoring. Mass monitoring.		Effluent utilisation area known as Pivot 1 labelled as EPA Point 27 on map titled "Rangers Valley Cattle Station Site Plan" dated 30.07.03.
EPA Monitoring Point 28	Soil quality monitoring. Mass monitoring.		Effluent utilisation area known as Pivot 3A labelled as EPA Point 28 on map titled "Rangers Valley Cattle Station Site Plan" dated 30.07.03.
EPA Monitoring Point 29	Soil quality monitoring. Mass monitoring.		Effluent utilisation area known as Pivot 3B labelled as EPA Point 29 on map titled "Rangers Valley Cattle Station Site Plan" dated 30.07.03.
EPA Monitoring Point 30	Soil quality monitoring. Mass monitoring.		Effluent utilisation area known as Rye East labelled as EPA Point 30 on map titled "Rangers Valley Cattle Station Site Plan" dated 30.07.03.

EPA No.	Type of monitoring point	Type of discharge point	Description of location
EPA Monitoring Point 31	Soil quality monitoring. Mass monitoring.		Effluent utilisation area known as Rye West labelled as EPA Point 31 on map titled "Rangers Valley Cattle Station Site Plan" dated 30.07.03.
EPA Monitoring Point 34	Groundwater quality monitoring.		Groundwater monitoring bore (34 located in corner paddock) labelled as EPA Point 34 on map titled Env MP-Location of piezometer MP dated 1st May 2007. see Fig 3
EPA Monitoring Point 35	Groundwater quality monitoring.		Groundwater monitoring bore (35 located in the laneway north of Rye East paddock) labelled as EPA Point 35 on map titled Env MP-Location of piezometer MP dated 1st May 2007. see Fig 3
EPA Monitoring Point 36	Groundwater quality monitoring.		Groundwater monitoring bore (36 located between ponds W3 and W4) labelled as EPA Point 36 on map titled Env MP-Location of piezometer MP dated 1st May 2007. see Fig 3
EPA Monitoring Point 38	Groundwater quality monitoring.		Groundwater monitoring bore (38 located on eastern point of effluent pond E2) labelled as EPA Point 38 on map titled Env MP-Location of piezometer MP dated 1st May 2007. see Fig 3
EPA Monitoring Point 40	Groundwater quality monitoring.		Groundwater monitoring bore (40 located on adjoining fence line between Pivot 3A/3B) on map titled Env MP-Location of piezometer MP dated 1st May 2007. see Fig 3
EPA Monitoring Point 41	Groundwater quality monitoring.		Groundwater monitoring bore (41 below EPA point 14 in paddock Bottom Swamp) labelled as EPA Point 41 on map titled Env MPLocation of piezometer MP dated 1st May 2007. see Fig 3
EPA Monitoring Point 42	Groundwater quality monitoring.		Groundwater monitoring bore (42 located in laneway between Pivot 1 and effluent pond E2) labelled as EPA Point 42 on map titled Env MP-Location of piezometer MP dated 1st May 2007. see Fig 3

EPA No.	Type of monitoring point	Type of discharge point	Description of location
EPA Monitoring Point 43	Soil quality monitoring. Mass monitoring		Utilisation area identified as the 'solid utilisation areas as identified on drawing No 19045-05 as quoted in the consent conditions' on map titled "Map 1 - Rangers Valley Cattle Station" submitted with a letter to the EPA on 25 October 2006.

SOIL ANALYSIS RESULTS (TOP GRANTS)			Groundwater monitoring bore (44 located in the north eastern grassed area of the paddock known as Old 2) labelled as EPA point 44 on map titled Env MP-Location of Peizometer MP dated 1st May 2007. see Fig 3. 250832A1/10.
	Unit		
	-	Groundwater quality monitoring.	
	mg/kg		
	mg/kg		
	mg/kg		
	%		
	µS/cm		
	mg/kg		
	cmol(+)/kg		
	cmol(+)/kg		
	cmol(+)/kg		
	cmol(+)/kg		
	cmol(+)/kg		
cent	%		
city	PSC mg/kg		
on)	-		

Soil Analysis Results (Top Tip)	
	Unit
	-
	mg/kg
	mg/kg
	mg/kg
	%
	µS/cm
	mg/kg
	cmol(+)/kg
	cmol(+)/kg
	cmol(+)/kg
	cmol(+)/kg
	cmol(+)/kg
ent	%
city	PSC mg/kg
on)	-

EPA No.	Type of monitoring point	Type of discharge point	Description of location
EPA Monitoring Point 44			
EPA Monitoring Point 45	Groundwater quality monitoring.		Groundwater monitoring bore (45 located on eastern boundary of the paddock known as "Donnellys Elect" labelled as EPA point 45 on map Titled Env MP location of Piezometer MP dated 1st May 2007. see Fig 3
EPA Monitoring Point 46	Groundwater quality monitoring.		Groundwater monitoring bore (46 located in paddock known as "Oaks Road") labelled as EPA point 46 on map Titled Env MP-location of Piezometer MP dated 1st May 2007. see Fig 3
EPA Monitoring Point 47	Groundwater quality monitoring.		Groundwater monitoring bore (47 located in paddock known as Horse" labelled as EPA point 47 on map Titled Env MP-location of Piezometer MP dated 1st May 2007. see Fig 3
48	Effluent quality and volume monitoring. Wet weather discharge. Discharge quality monitoring. Discharge to utilisation area.	Effluent quality and volume monitoring. Wet weather discharge. Discharge quality monitoring. Discharge to utilisation area.	Terminal Pond One and spillway servicing Pivot 2c located in the paddock known as Spillway including pump labelled as EPA Point 48 on map Titled Environmental Monitoring Points-location of Effluent MP dated 1st May 2007. see Fig 2

EPA No.	Type of monitoring point	Type of discharge point	Description of location
49	Effluent quality and volume monitoring. Wet weather discharge. Discharge quality monitoring. Discharge to utilisation area.	Effluent quality and volume monitoring. Wet weather discharge. Discharge quality monitoring. Discharge to utilisation area.	Terminal Pond Two and spillway servicing Pivot 2B and located in paddock known as Pivot 2B including pump labelled as EPA Point 49 on map Titled Env MP-location of Effluent MP dated 1st May 2007. see Fig 2
50	Effluent quality and volume monitoring. Wet weather discharge. Discharge quality monitoring. Discharge to utilisation area.	Effluent quality and volume monitoring. Wet weather discharge. Discharge quality monitoring. Discharge to utilisation area.	Terminal Pond 3 and spillway servicing Pivot 2B and 2C located in the paddock known as "wally's" including pump labelled as EPA Point 50 on map Titled Env MP-location of Effluent MP dated 1st May 2007. Fig 2
EPA Monitoring Point 51	Soil quality monitoring. Mass monitoring		Effluent utilisation area known as Pivot 2B labelled as EPA Pont 51 on map titled "Rangers Valley Cattle Station" Site Plan date 30.07.03
EPA Monitoring Point 52	Soil quality monitoring. Mass monitoring		Effluent utilisation known as Pivot 2C labelled as EPA Point 52 on map titled "Rangers Valley Cattle Station Site Plan date 30.07.03
EPA Monitoring Point 53	Groundwater quality monitoring.		Groundwater monitoring bore (53 located west of Terminal Pond 1 in the paddock known as spillway) labelled as EPA point 53 on map Titled Env MP-location of Piezometer MP dated 1st May 2007. see Fig 3
EPA Monitoring Point 54	Groundwater quality monitoring.		Groundwater monitoring bore (54 located north of Terminal Pond Two in the paddock known as Pivot 2b) labelled as EPA point 54 on map Titled Env MP location of Piezometer MP dated 1st May 2007. see Fig 3
EPA Monitoring Point 55	Groundwater quality monitoring.		Groundwater monitoring bore (55 located south of Terminal Pond Three in the paddock known as Wallys) labelled as EPA point 55 on map Titled Env MP-location of Piezometer MP dated 1st May 2007. see Fig 3

EPA No.	Type of monitoring point	Type of discharge point	Description of location
EPA Monitoring Point 56	Groundwater quality monitoring.		Groundwater monitoring bore (56 located south of the northern holding pond N1 in the paddock known as Irrigation 1) labelled as EPA point 56 on map titled Env MP dated 1st May 2007. see Fig 3. 250832A1/10
EPA Monitoring Point 57	Effluent Quality and Volume monitoring. Discharge to utilisation area.		Effluent holding pond (known as N1) irrigation pump labelled as EPA point 57 on map titled Env MP-Location of Effluent MP dated 1st May 2007. see Fig 2. 250832A1/10.

EPA MONITORING POINT 2

Surface water monitoring point (S2) at Cam Creek causeway on Deepwater Road at "Nant Park" labelled as EPA Point 2 on map titled Environmental Monitoring Points - Location of Surface Water Monitoring points dated 1st May 2007. See Fig 1 - 250832A1/10.

SURFACE WATER ANALYSIS RESULTS (EPA POINT 2)

Sampled		**19-Jun-18**	**3-Sept-18**	**4-Dec-18**	**12-March-19**
Obtained		**21-Jun-18**	**13-Sept-18**	**13-Dec-18**	**21-March-19**
Published		**2-Jul-18**	**24-Sept-18**	**18-Dec-18**	**15-April-19**
Pollutant	**Unit of measure**	**Result**	**Result**	**Result**	**Result**
Chloride	mg/L	81	110		
Nitrate	mg/L	<0.005	0.02		
Total Kjeldahl Nitrogen	mg/L	0.7	1.1		
pH	-	7.7	7.8		
Conductivity	µS/cm	820	880		
SAR	-	3.1	3.5		
Phosphorus (Reactive)	mg/L	0.22	0.052	DRY	DRY
Nitrogen (Total)	mg/L	0.7	1.1		
Suspended Solids	mg/L	<5	5		
Calcium	mg/L	44	49		
Potassium	mg/L	9.0	7.7		
Magnesium	mg/L	31	34		
Sodium	mg/L	110	130		
Phosphorus (Total)	mg/L	0.1	0.1		
Nitrogen (Ammonia)	mg/L	<0.005	0.016		

[#] Collected during pond overflow event.

EPA MONITORING POINT 3

Surface water monitoring point (S3) at grassed waterway in Old 2 paddock labelled as EPA Point 3 on map titled Environmental Monitoring Points -Location of Surface Water MP dated 1st May 2007. See Fig 1 - 250832A1/10.

SURFACE WATER ANALYSIS RESULTS (EPA POINT 3)

Sampled		**19-Jun-18**	**3-Sept-18**	**4-Dec-18**	**12-March-19**
Obtained		**21-Jun-18**	**13-Sept-18**	**13-Dec-18**	**21-March-19**
Published		**2-Jul-18**	**24-Sept-18**	**18-Dec-18**	**15-April-19**
Pollutant	**Unit of measure**		**Result**	**Result**	**Result**
Chloride	mg/L				
Nitrate	mg/L				
Total Kjeldahl Nitrogen	mg/L				
pH	-				
Conductivity	µS/cm				
SAR	-				
Phosphorus (Reactive)	mg/L				
Nitrogen (Total)	mg/L	DRY	DRY	DRY	DRY
Suspended Solids	mg/L				
Calcium	mg/L				
Potassium	mg/L				
Magnesium	mg/L				
Sodium	mg/L				
Phosphorus (Total)	mg/L				
Nitrogen (Ammonia)	mg/L				

[#] Collected during pond overflow event.

EPA MONITORING POINT 4

Surface water monitoring point (S4) at Cam Creek bridge on Rangers Valley Road labelled as EPA Point 4 on map titled Environmental Monitoring Points -Location of Surface Water MP dated 1st May 2007. See Fig 1 - 250832A1/10.

SURFACE WATER ANALYSIS RESULTS (EPA POINT 4)

Sampled		**19-Jun-18**	**4-Dec-18**	**4-Dec-18**	**12-March-19**
Obtained		**21-Jun-18**	**13-Dec-18**	**13-Dec-18**	**21-March-19**
Published		**2-Jul-18**	**18-Dec-18**	**18-Dec-18**	**15-April-19**
Pollutant	**Unit of measure**	**Result**	**Result**	**Result**	**Result**
Chloride	mg/L	130	190	190	
Nitrate	mg/L	1.5	0.02	0.19	
Total Kjeldahl Nitrogen	mg/L	6.3	1.1	4.0	
pH	-	8.0	8.1	8.3	
Conductivity	µS/cm	1000	1,300	1300	
SAR	-	2.7	3.7	3.8	
Phosphorus (Reactive)	mg/L	0.24	1.2	1.4	
Nitrogen (Total)	mg/L	7.8	1.1	4.0	DRY
Suspended Solids	mg/L	13	14	12	
Calcium	mg/L	59	69	70	
Potassium	mg/L	31	38	37	
Magnesium	mg/L	38	49	52	
Sodium	mg/L	110	170	180	
Phosphorus (Total)	mg/L	0.3	1.4	1.5	
Nitrogen (Ammonia)	mg/L	3.1	0.024	0.72	

[#] Collected during pond overflow event.

EPA MONITORING POINT 5

Surface water monitoring point (S5) at Severn River Bridge on the Yarraford Road labelled as EPA Point 5 on map titled Environmental Monitoring Points -Location of Surface Water MP dated 1st May 2007. See Fig 1 - 250832A1/10.

SURFACE WATER ANALYSIS RESULTS (EPA POINT 5)

Sampled		**19-Jun-18**	**3-Sept-18**	**4-Dec-18**	**12-March-19**
Obtained		**21-Jun-18**	**13-Sept-18**	**13-Dec-18**	**21-March-19**
Published		**2-Jul-18**	**24-Sept-18**	**18-Dec-18**	**15-April-19**
Pollutant	**Unit of measure**	**Result**	**Result**	**Result**	**Result**
Chloride	mg/L	35	34	47	23
Nitrate	mg/L	0.008	0.02	<0.005	<0.025
Total Kjeldahl Nitrogen	mg/L	0.4	0.4	0.6	1.5
pH	-	8.2	8.5	8.3	7.9
Conductivity	µS/cm	520	510	410	300
SAR	-	2.3	2.6	2.6	1.7
Phosphorus (Reactive)	mg/L	0.043	<0.005	0.005	0.022
Nitrogen (Total)	mg/L	0.4	0.4	0.6	1.5
Suspended Solids	mg/L	<5	<5	<5	23
Calcium	mg/L	27	26	18	17
Potassium	mg/L	2.8	2.8	4.8	7.0
Magnesium	mg/L	21	22	14	9.9
Sodium	mg/L	67	75	60	36
Phosphorus (Total)	mg/L	<0.05	<0.05	<0.05	0.2
Nitrogen (Ammonia)	mg/L	0.017	0.008	0.15	0.024

[#] Collected during pond overflow event.

EPA MONITORING POINT 6

Surface water monitoring point (S6) at Severn River Bridge on the Emmaville Road labelled as EPA Point 6 on map titled Environmental Monitoring Points -Location of Surface Water MP dated 1st May 2007. See Fig 1 - 250832A1/10.

SURFACE WATER ANALYSIS RESULTS (EPA POINT 6)

Sampled		**19-Jun-18**	**3-Sept-18**	**4-Dec-18**	**12-March-19**
Obtained		**21-Jun-18**	**13-Sept-18**	**13-Dec-18**	**21-March-19**
Published		**2-Jul-18**	**24-Sept-18**	**18-Dec-18**	**15-April-19**
Pollutant	**Unit of measure**	**Result**	**Result**	**Result**	**Result**
Chloride	mg/L	38	30	38	49
Nitrate	mg/L	<0.005	<0.005	0.006	<0.025
Total Kjeldahl Nitrogen	mg/L	0.8	0.7	0.6	1.7
pH	-	8.2	8.8	9.4	9.0
Conductivity	µS/cm	480	480	460	610
SAR	-	1.2	1.1	1.6	2.1
Phosphorus (Reactive)	mg/L	0.034	0.024	0.070	<0.005
Nitrogen (Total)	mg/L	0.8	0.7	0.7	1.7
Suspended Solids	mg/L	<5	<5	<5	21
Calcium	mg/L	31	27	18	17
Potassium	mg/L	5.6	4.8	4.7	9.9
Magnesium	mg/L	27	34	32	38
Sodium	mg/L	39	36	49	36
Phosphorus (Total)	mg/L	0.05	<0.05	0.08	0.08
Nitrogen (Ammonia)	mg/L	<0.005	<0.005	0.032	0.008

[#] Collected during pond overflow event.

EPA MONITORING POINT 7

Surface water monitoring point (S7) at Beardy Waters causeway on the Haul Rd (2nd causeway) - upstream of confluence with Severn River, labelled as EPA Point 7 on map titled Env MP -Location of Surface Water MP dated 1st May 2007. See Fig 1.

SURFACE WATER ANALYSIS RESULTS (EPA POINT 7)

Sampled		**19-Jun-18**	**3-Sept-18**	**4-Dec-18**	**12-March-19**
Obtained		**21-Jun-18**	**13-Sept-18**	**13-Dec-18**	**21-March-19**
Published		**2-Jul-18**	**24-Sept-18**	**18-Dec-18**	**15-April-19**
Pollutant	**Unit of measure**	**Result**	**Result**	**Result**	**Result**
Chloride	mg/L	28	29	28	29
Nitrate	mg/L	<0.005	<0.005	<0.005	<0.005
Total Kjeldahl Nitrogen	mg/L	0.5	0.6	0.5	1.5
pH	-	8.5	8.6	9.0	8.9
Conductivity	µS/cm	450	510	480	590
SAR	-	1.2	0.99	0.98	1.3
Phosphorus (Reactive)	mg/L	0.026	<0.005	0.018	0.027
Nitrogen (Total)	mg/L	0.5	0.6	0.5	1.5
Suspended Solids	mg/L	<5	<5	10	9
Calcium	mg/L	31	27	25	25
Potassium	mg/L	5.6	4.6	4.7	9.8
Magnesium	mg/L	27	39	38	47
Sodium	mg/L	39	35	34	47
Phosphorus (Total)	mg/L	0.05	<0.05	<0.05	0.08
Nitrogen (Ammonia)	mg/L	0.014	<0.005	0.16	<0.005

[#] Collected during pond overflow event.

EPA MONITORING POINT 8

Surface water monitoring point (S8) at Severn River causeway on the Haul Road (first causeway) labelled as EPA Point 8 on map titled Environmental Monitoring Points - Location of Surface Water MP dated 1st May 2007. See Fig 1 - 250832A1/10.

SURFACE WATER ANALYSIS RESULTS (EPA POINT 8)

Sampled		**19-Jun-18**	**3-Sept-18**	**4-Dec-18**	**12-March-19**
Obtained		**21-Jun-18**	**13-Sept-18**	**13-Dec-18**	**21-March-19**
Published		**2-Jul-18**	**24-Sept-18**	**18-Dec-18**	**15-April-19**
Pollutant	**Unit of measure**	**Result**	**Result**	**Result**	**Result**
Chloride	mg/L	27	35	32	44
Nitrate	mg/L	0.072	<0.005	0.02	<0.025
Total Kjeldahl Nitrogen	mg/L	0.6	0.6	0.6	1.5
pH	-	8.5	8.7	9.0	8.8
Conductivity	µS/cm	420	520	470	600
SAR	-	0.83	1.1	1.1	1.8
Phosphorus (Reactive)	mg/L	0.016	<0.005	0.021	0.017
Nitrogen (Total)	mg/L	0.6	0.6	0.6	1.5
Suspended Solids	mg/L	<5	<5	6	12
Calcium	mg/L	27	27	23	24
Potassium	mg/L	4.1	4.9	4.9	8.9
Magnesium	mg/L	28	38	37	37
Sodium	mg/L	26	39	36	60
Phosphorus (Total)	mg/L	0.08	<0.05	<0.05	0.09
Nitrogen (Ammonia)	mg/L	0.007	<0.005	0.16	<0.005

[#] Collected during pond overflow event.

EPA MONITORING POINT 11

Final effluent holding pond (on eastern side of the feedlot, known as E2) including spillway and irrigation pumps labelled as EPA Point 11 on map titled Env MPs-Location of Effluent MP dated 1st May 2007. See Fig 2 - 250832A1/10.

EFFLUENT ANALYSIS RESULTS (EPA POINT 11)

Sampled		**19-Jun-18**	**3-Sept-18**	**4-Dec-18**	**12-March-19**
Obtained		**21-Jun-18**	**13-Sept-18**	**13-Dec-18**	**21-March-19**
Published		**2-Jul-18**	**24-Sept-18**	**18-Dec-18**	**15-April-19**
Pollutant	**Unit of measure**	**Result**	**Result**	**Result**	**Result**
Nitrogen (Ammonia)	mg/L	11	7.1	14	3.6
Chloride	mg/L	520	390	360	770
Nitrate	mg/L	<0.005	<0.005	<0.025	<0.025
Phosphorus (Reactive)	mg/L	13	20	13	6.7
pH	-	8.2	8.2	8.1	9.0
Conductivity	µS/cm	3400	2600	2600	5900
SAR	-	3.5	3.6	2.4	0.93
Phosphorus (Total)	mg/L	48	41	31	18
Nitrogen (Total)	mg/L	74	61	76	64
TKN	mg/L	74	61	76	64
Suspended Solids	mg/L	480	270	180	280
Calcium	mg/L	54	48	64	69
Potassium	mg/L	590	450	430	1000
Magnesium	mg/L	61	56	59	140
Sodium	mg/L	160	160	110	360

[#] Collected during pond overflow event.

EPA MONITORING POINT 20

Effluent holding pond (on western side of feedlot, known as W4) including spillway and irrigation pump labelled as EPA Point 20 on map titled Env MPs-Location of Effluent MP dated 1st May 2007. See Fig 2 - 250832A1/10.

EFFLUENT ANALYSIS RESULTS (EPA POINT 20)

Sampled		**19-Jun-18**	**3-Sept-18**	**4-Dec-18**	**12-March-19**
Obtained		**21-Jun-18**	**13-Sept-18**	**13-Dec-18**	**21-March-19**
Published		**2-Jul-18**	**24-Sept-18**	**18-Dec-18**	**15-April-19**
Pollutant	**Unit of measure**	**Result**	**Result**	**Result**	**Result**
Nitrogen (Ammonia)	mg/L	0.011	0.17	0.18	0.021
Chloride	mg/L	370	290	160	300
Nitrate	mg/L	<0.005	<0.005	<0.005	<0.025
Phosphorus (Reactive)	mg/L	7.1	6.6	4.9	0.83
pH	-	9.4	8.8	9.2	9.4
Conductivity	µS/cm	2100	1700	1100	2800
SAR	-	4	3.9	2.3	4.2
Phosphorus (Total)	mg/L	15	19	5.5	3.0
Nitrogen (Total)	mg/L	16	23	9.0	22
TKN	mg/L	16	23	9.0	22
Suspended Solids	mg/L	140	120	93	210
Calcium	mg/L	29	27	30	82
Potassium	mg/L	370	310	180	410
Magnesium	mg/L	33	23	23	57
Sodium	mg/L	130	110	69	210

[#] Collected during pond overflow event.

EPA MONITORING POINT 24

Manure stockpile and composting area containing screened and unscreened manure and labelled as EPA Point 24 on map titled Env MPs-Location of Effluent MP dated 1st May 2007. See Fig 2 250832A1/10.

MANURE ANALYSIS RESULTS (EPA POINT 24)

Sampled		**3-Sept-18**	**3-Sept-18**	**12-March-19**	**12-March-19**
Obtained		**13-Sept-18**	**13-Sept-18**	**22-March-19**	**22-March-19**
Published		**24-Sept-18**	**24-Sept-18**	**15-April-19**	**15-April-19**
Pollutant	**Unit of measure**	**Unscreened Result**	**Screened Result**	**Unscreened Result**	**Screened Result**
Moisture	%	45.2	19.1	41.3	13.9
Nitrate	mg/kg	<0.5	<0.5	<0.5	<0.5
Nitrogen (Total)	mg/kg	25800	24900	20000	19300
pH	-	7.45	6.80	7.45	7.51
Calcium	mg/kg	245	381	18000	25000
Phosphorus (Total)	mg/kg	0.70	0.78	5000	6900
Organic Carbon	%	37.2	38.9	37.8	24.6
Potassium	mg/kg	23800	17300	20700	14000
Magnesium	mg/kg	0.60	0.72	5400	9200
Sodium	mg/kg	0.44	0.42	4100	5500
Conductivity	µS/cm	15.7	13.2	5340	6130
SAR	-	25.3	26.7	24.1	27.0
Sulphur	mg/kg	6400	6100	4300	5200
Chloride	mg/kg	2050	9100	8300	9100
Zinc	mg/kg	168	159	242	374

EPA MONITORING POINT 26

Dam located in the bottom corner of "Washpool Road" (13) paddock labelled as EPA Point 26 on map titled Env MPs-Location of Effluent MP dated 1st May 2007. See Fig 2 - 250832A1/10.

EFFLUENT ANALYSIS RESULTS (EPA POINT 26)

Sampled		**13-Sept-17**	**19-Mar-18**	**3-Sept-18**	
Obtained		**26-Sept-17**	**29-Mar-18**	**13-Sept-18**	
Published		**17-Oct-17**	**4-Apr-18**	**24-Sept-18**	
Pollutant	**Unit of measure**	**Result**	**Result**	**Result**	**Result**
Nitrogen (Ammonia)	mg/L	<0.005	2.2	0.39	
Chloride	mg/L	91	78	140	
Nitrate	mg/L	<0.005	<0.005	0.03	
Phosphorus (Reactive)	mg/L	1.3	5.2	0.73	
pH	-	8.6	7.6	8.4	
Conductivity	µS/cm	600	560	810	
SAR	-	1.6	1.2	2.6	
Phosphorus (Total)	mg/L	7.2	6.4	3.6	
Nitrogen (Total)	mg/L	13	8.7	11	
TKN	mg/L	13	8.7	11	
Suspended Solids	mg/L	270	140	460	
Calcium	mg/L	19	17	20	
Potassium	mg/L	82	85	92	
Magnesium	mg/L	15	12	15	
Sodium	mg/L	38	28	64	

[#] Collected during pond overflow event.

EPA MONITORING POINT 27

Effluent utilisation area known as Pivot 1 labelled as EPA Point 27 on map titled "Rangers Valley Cattle Station Site Plan" dated 30.07.03.

SOIL ANALYSIS RESULTS (EPA POINT 27 - PIVOT 1)

Parameter	Unit	Rayment & Higginson Reference	Annual Return 2017 - 2018	
			0-30cm	60-90cm
pH	-	4A1	6.92	7.55
Nitrogen (Total)	mg/kg	Dumas (Leco)	1266	509
Nitrogen (Nitrate)	mg/kg	7B1	24.5	10.0
Phosphorous (Colwell)	mg/kg	9B1	194	16.8
Organic Carbon	%	6A1	0.64	0.31
Conductivity	µS/cm	3A1	0.13	0.10
Chloride	mg/kg	5A1	5.80	23.0
Cation Exchange Capacity	cmol(+)/kg	15D3	8.88	8.95
Exchangeable Sodium	cmol(+)/kg	15D3	0.29	0.64
Exchangeable Potassium	cmol(+)/kg	15D3	0.62	1.44
Exchangeable Calcium	cmol(+)/kg	15D3	5.68	3.51
Exchangeable Magnesium	cmol(+)/kg	15D3	2.28	3.35
Exchangeable Sodium Percentage	%	15D3	3.26	7.19
Phosphorus Sorption Capacity	mg/kg	9I1 and 9J1	343	342
Aggregate Stability (Emerson)	EAT	-	7.4	4.0

EPA MONITORING POINT 28

Effluent utilisation area known as Pivot 3A labelled as EPA Point 28 on map titled "Rangers Valley Cattle Station Site Plan" dated 30.07.03.

SOIL ANALYSIS RESULTS (EPA POINT 28 - PIVOT 3A)

Parameter	Unit	Rayment & Higginson Reference	Annual Return 2017 - 2018	
			0-30cm	60-90cm
pH	-	4A1	6.87	6.47
Nitrogen (Total)	mg/kg	Dumas (Leco)	487	1344
Nitrogen (Nitrate)	mg/kg	7B1	6.15	31.7
Phosphorous (Colwell)	mg/kg	9B1	5.39	147
Organic Carbon	%	6A1	0.13	0.64
Conductivity	µS/cm	3A1	0.09	0.20
Chloride	mg/kg	5A1	31.0	91.5
Cation Exchange Capacity	cmol(+)/kg	15D3	15.3	7.88
Exchangeable Sodium	cmol(+)/kg	15D3	1.07	0.33
Exchangeable Potassium	cmol(+)/kg	15D3	0.45	1.48
Exchangeable Calcium	cmol(+)/kg	15D3	7.29	4.06
Exchangeable Magnesium	cmol(+)/kg	15D3	6.49	2.00
Exchangeable Sodium Percentage	%	15D3	6.96	4.21
Phosphorus Sorption Capacity	mg/kg	9I1 and 9J1	327	304
Aggregate Stability (Emerson)	EAT	-	4.5	6.0

EPA Monitoring Point 29

Effluent utilisation area known as Pivot 3B labelled as EPA Point 29 on map titled "Rangers Valley Cattle Station Site Plan" dated 30.07.03.

Soil Analysis Results (EPA Point 29 - Pivot 3B)

Parameter	Unit	Rayment & Higginson Reference	Annual Return 2017 - 2018	
			0-30cm	60-90cm
pH	-	4A1	6.50	6.68
Nitrogen (Total)	mg/kg	Dumas (Leco)	1032	588
Nitrogen (Nitrate)	mg/kg	7B1	6.62	3.58
Phosphorous (Colwell)	mg/kg	9B1	48.4	7.84
Organic Carbon	%	6A1	0.49	0.34
Conductivity	µS/cm	3A1	0.07	0.14
Chloride	mg/kg	5A1	25.8	83.1
Cation Exchange Capacity	cmol(+)/kg	15D3	6.94	17.5
Exchangeable Sodium	cmol(+)/kg	15D3	0.25	1.00
Exchangeable Potassium	cmol(+)/kg	15D3	0.98	0.46
Exchangeable Calcium	cmol(+)/kg	15D3	3.66	10.1
Exchangeable Magnesium	cmol(+)/kg	15D3	2.04	5.97
Exchangeable Sodium Percentage	%	15D3	3.60	5.71
Phosphorus Sorption Capacity	mg/kg	9I1 and 9J1	347	747
Aggregate Stability (Emerson)	EAT	-	2.6	24.1

EPA MONITORING POINT 30

Effluent utilisation area known as Rye East labelled as EPA Point 30 on map titled "Rangers Valley Cattle Station Site Plan" dated 30.07.03.

SOIL ANALYSIS RESULTS (EPA POINT 30 - RYE EAST)

Parameter	Unit	Rayment & Higginson Reference	Annual Return 2017 - 2018	
			0-30cm	60-90cm
pH	-	4A1	6.77	7.29
Nitrogen (Total)	mg/kg	Dumas (Leco)	1256	704
Nitrogen (Nitrate)	mg/kg	7B1	6.99	3.50
Phosphorous (Colwell)	mg/kg	9B1	9.65	7.57
Organic Carbon	%	6A1	0.62	0.21
Conductivity	µS/cm	3A1	0.10	0.24
Chloride	mg/kg	5A1	57.2	178
Cation Exchange Capacity	cmol(+)/kg	15D3	8.00	22.5
Exchangeable Sodium	cmol(+)/kg	15D3	0.27	1.27
Exchangeable Potassium	cmol(+)/kg	15D3	1.55	0.24
Exchangeable Calcium	cmol(+)/kg	15D3	4.43	13.4
Exchangeable Magnesium	cmol(+)/kg	15D3	1.75	7.61
Exchangeable Sodium Percentage	%	15D3	3.32	5.65
Phosphorus Sorption Capacity	mg/kg	9I1 and 9J1	244	611
Aggregate Stability (Emerson)	EAT	-	7.7	20.7

EPA MONITORING POINT 31

Effluent utilisation area known as Rye West labelled as EPA Point 31 on map titled "Rangers Valley Cattle Station Site Plan" dated 30.07.03.

SOIL ANALYSIS RESULTS (EPA POINT 31 - RYE WEST)

Parameter	Unit	Rayment & Higginson Reference	Annual Return 2017 - 2018	
			0-30cm	60-90cm
pH	-	4A1	6.48	6.53
Nitrogen (Total)	mg/kg	Dumas (Leco)	1123	582
Nitrogen (Nitrate)	mg/kg	7B1	3.78	3.33
Phosphorous (Colwell)	mg/kg	9B1	77.8	8.67
Organic Carbon	%	6A1	0.57	0.31
Conductivity	µS/cm	3A1	0.09	0.17
Chloride	mg/kg	5A1	48.0	128
Cation Exchange Capacity	cmol(+)/kg	15D3	5.82	18.3
Exchangeable Sodium	cmol(+)/kg	15D3	0.25	0.93
Exchangeable Potassium	cmol(+)/kg	15D3	1.52	0.36
Exchangeable Calcium	cmol(+)/kg	15D3	2.79	12.1
Exchangeable Magnesium	cmol(+)/kg	15D3	1.26	4.87
Exchangeable Sodium Percentage	%	15D3	4.22	5.12
Phosphorus Sorption Capacity	mg/kg	9I1 and 9J1	290	638
Aggregate Stability (Emerson)	EAT	-	0.3	18.6

EPA Monitoring Point 51

Soil Analysis Results (EPA Point 51 - Pivot 2B)

Parameter	Unit	Rayment & Higginson Reference	Annual Return 2017 - 2018	
			0-30cm	60-90cm
pH	-	4A1	6.60	6.63
Nitrogen (Total)	mg/kg	Dumas (Leco)	980	631
Nitrogen (Nitrate)	mg/kg	7B1	6.53	3.62
Phosphorous (Colwell)	mg/kg	9B1	102	10.9
Organic Carbon	%	6A1	0.78	0.19
Conductivity	µS/cm	3A1	0.17	0.15
Chloride	mg/kg	5A1	99.8	89.9
Cation Exchange Capacity	cmol(+)/kg	15D3	7.41	11.2
Exchangeable Sodium	cmol(+)/kg	15D3	0.34	0.57
Exchangeable Potassium	cmol(+)/kg	15D3	2.16	0.39
Exchangeable Calcium	cmol(+)/kg	15D3	2.99	7.29
Exchangeable Magnesium	cmol(+)/kg	15D3	1.90	2.96
Exchangeable Sodium Percentage	%	15D3	4.62	5.11
Phosphorus Sorption Capacity	mg/kg	9I1 and 9J1	332	450
Aggregate Stability (Emerson)	EAT	-	3.8	12.6

EPA Monitoring Point 52

SOIL ANALYSIS RESULTS (EPA POINT 52 - PIVOT 2C)

Parameter	Unit	Rayment & Higginson Reference	Annual Return 2017 - 2018	
			0-30cm	60-90cm
pH	-	4A1	6.52	6.91
Nitrogen (Total)	mg/kg	Dumas (Leco)	1264	624
Nitrogen (Nitrate)	mg/kg	7B1	19.7	6.67
Phosphorous (Colwell)	mg/kg	9B1	130	8.67
Organic Carbon	%	6A1	0.75	0.33
Conductivity	µS/cm	3A1	0.20	0.16
Chloride	mg/kg	5A1	133	115
Cation Exchange Capacity	cmol(+)/kg	15D3	9.96	16.9
Exchangeable Sodium	cmol(+)/kg	15D3	0.35	0.98
Exchangeable Potassium	cmol(+)/kg	15D3	1.97	0.23
Exchangeable Calcium	cmol(+)/kg	15D3	4.77	9.83
Exchangeable Magnesium	cmol(+)/kg	15D3	2.86	5.83
Exchangeable Sodium Percentage	%	15D3	3.53	5.80
Phosphorus Sorption Capacity	mg/kg	9I1 and 9J1	376	496
Aggregate Stability (Emerson)	EAT	-	8.6	5.0

EPA MONITORING POINT 34

Groundwater monitoring bore (34 located in corner paddock) labelled as EPA Point 34 on map titled Env MP-Location of piezometer MP dated 1st May 2007. See Fig 3.

GROUNDWATER ANALYSIS RESULTS (EPA POINT 34)

Sampled		**11-Oct-17**	**13-Apr-18**	**11-Oct-18**	**10-April-19**
Obtained		**20-Oct-17**	**17-Apr-18**	**23-Oct-18**	**23-April-19**
Published		**24-Oct-17**	**20-Apr-18**	**6-Nov-18**	**16-May-19**
Pollutant	**Unit of measure**	**Result**	**Result**	**Result**	**Result**
Nitrogen (ammonia)	mg/L	<0.005	0.031	0.027	<0.005
Nitrogen (nitrate)	mg/L	37	37	46	35
Phosphorus (Reactive)	mg/L	0.092	0.32	0.099	0.094
pH	-	7.8	7.7	7.7	7.4
Conductivity	µS/cm	1,300	1400	1600	1300
Phosphorus (total)	mg/L	0.09	0.1	0.3	0.1
Nitrogen (total)	mg/L	37	47	53	42
Suspended Solids	mg/L	10	95	370	42

EPA MONITORING POINT 35

Groundwater monitoring bore (35 located in the laneway north of Rye East paddock) labelled as EPA Point 35 on map titled Env MP-Location of piezometer MP dated 1st May 2007. See Fig 3.

GROUNDWATER ANALYSIS RESULTS (EPA POINT 35)

Sampled		**11-Oct-17**	**13-Apr-18**	**11-Oct-18**	**10-April-19**
Obtained					
Published					
Pollutant	**Unit of measure**	**Result**	**Result**	**Result**	**Result**
Nitrogen (ammonia)	mg/L				
Nitrogen (nitrate)	mg/L				
Phosphorus (Reactive)	mg/L				
pH	-	**DRY**	**DRY**	**DRY**	**DRY**
Conductivity	µS/cm				
Phosphorus (total)	mg/L				
Nitrogen (total)	mg/L				
Suspended Solids	mg/L				

EPA MONITORING POINT 36

Groundwater monitoring bore (36 located between ponds W3 and W4) labelled as EPA Point 36 on map titled Env MP-Location of piezometer MP dated 1st May 2007. See Fig 3.

GROUNDWATER ANALYSIS RESULTS (EPA POINT 36)

Sampled		**11-Oct-17**	**13-Apr-18**	**11-Oct-18**	**10-April-19**
Obtained		**20-Oct-17**	**17-Apr-18**	**23-Oct-18**	**23-April-19**
Published		**24-Oct-17**	**20-Apr-18**	**6-Nov-18**	**16-May-19**
Pollutant	**Unit of measure**	**Result**	**Result**	**Result**	**Result**
Nitrogen (ammonia)	mg/L	<0.005	0.025	0.071	<0.005
Nitrogen (nitrate)	mg/L	5.5	4.9	5.2	4.5
Phosphorus (Reactive)	mg/L	0.12	0.26	0.14	0.15
pH	-	7.9	7.9	7.8	7.7
Conductivity	µS/cm	5,000	5200	5200	5100
Phosphorus (total)	mg/L	0.1	0.1	0.2	0.4
Nitrogen (total)	mg/L	6.7	6.1	6.0	4.7
Suspended Solids	mg/L	<5	44	510	520

EPA MONITORING POINT 38

Groundwater monitoring bore (located on eastern point of effluent pond E2) labelled as EPA Point 38 on map titled Env MP-Location of piezometer MP dated 1st May 2007. See Fig 3.

GROUNDWATER ANALYSIS RESULTS (EPA POINT 38)

Sampled		**11-Oct-17**	**13-Apr-18**	**11-Oct-18**	**10-April-19**
Obtained		**20-Oct-17**	**17-Apr-18**	**23-Oct-18**	**23-April-19**
Published		**24-Oct-17**	**20-Apr-18**	**6-Nov-18**	**16-May-19**
Pollutant	**Unit of measure**	**Result**	**Result**	**Result**	**Result**
Nitrogen (ammonia)	mg/L	<0.005	<0.005	0.029	<0.005
Nitrogen (nitrate)	mg/L	42	38	37	16
Phosphorus (Reactive)	mg/L	0.10	0.27	0.12	0.15
pH	-	6.8	6.8	6.9	6.8
Conductivity	µS/cm	1700	1500	1900	1600
Phosphorus (total)	mg/L	0.1	0.1	0.1	0.1
Nitrogen (total)	mg/L	44	47	40	16
Suspended Solids	mg/L	6	16	34	44

EPA MONITORING POINT 40

Groundwater monitoring bore (40 located on adjoining fence line between Pivot 3A/3B) on map titled Env MP-Location of piezometer MP dated 1st May 2007. See Fig 3.

GROUNDWATER ANALYSIS RESULTS (EPA POINT 40)

Sampled		**13-Apr-18**	**11-Oct-18**	**10-April-19**	**10-April-19**
Obtained		**17-Apr-18**	**23-Oct-18**	**23-April-19**	**23-April-19**
Published		**20-Apr-18**	**6-Nov-18**	**16-May-19**	**16-May-19**
Pollutant	**Unit of measure**	**Result**	**Result**	**Result**	**Result**
Nitrogen (ammonia)	mg/L	<0.005	0.036	<0.005	<0.005
Nitrogen (nitrate)	mg/L	15	17	16	16
Phosphorus (Reactive)	mg/L	0.32	0.064	0.060	0.060
pH	-	7.4	7.4	7.3	7.3
Conductivity	µS/cm	1500	1400	1600	1600
Phosphorus (total)	mg/L	0.05	<0.05	0.06	0.06
Nitrogen (total)	mg/L	18	20	16	16
Suspended Solids	mg/L	10	34	<5	<5

EPA MONITORING POINT 41

Groundwater monitoring bore (41 below EPA point 14 in paddock Bottom Swamp) labelled as EPA Point 41 on map titled Env MP Location of piezometer MP dated 1st May 2007. See Fig 3.

GROUNDWATER ANALYSIS RESULTS (EPA POINT 41)

Sampled		**11-Oct-17**	**13-Apr-18**	**11-Oct-18**	**10-April-19**
Obtained		**20-Oct-17**	**17-Apr-18**	**23-Oct-18**	
Published		**24-Oct-17**	**20-Apr-18**	**6-Nov-18**	
Pollutant	**Unit of measure**	**Result**	**Result**	**Result**	**Result**
Nitrogen (ammonia)	mg/L	0.009	0.049		
Nitrogen (nitrate)	mg/L	3.9	1.8		
Phosphorus (Reactive)	mg/L	0.037	0.24		
pH	-	7.2	7.3	**DRY**	**DRY**
Conductivity	µS/cm	2800	2100		
Phosphorus (total)	mg/L	<0.05	0.07		
Nitrogen (total)	mg/L	4.5	2.8		
Suspended Solids	mg/L	26	27		

EPA MONITORING POINT 42

Groundwater monitoring bore (42 located in laneway between Pivot 1 and effluent pond E2) labelled as EPA Point 42 on map titled Env MP-Location of piezometer MP dated 1st May 2007. See Fig 3.

GROUNDWATER ANALYSIS RESULTS (EPA POINT 42)

Sampled		**11-Oct-17**	**13-Apr-18**	**11-Oct-18**	**10-April-19**
Obtained		**20-Oct-17**	**17-Apr-18**	**23-Oct-18**	**23-April-19**
Published		**24-Oct-17**	**20-Apr-18**	**6-Nov-18**	**16-May-19**
Pollutant	**Unit of measure**	**Result**	**Result**	**Result**	**Result**
Nitrogen (ammonia)	mg/L	0.020	0.011	0.024	0.022
Nitrogen (nitrate)	mg/L	11	7.2	6.9	2.2
Phosphorus (Reactive)	mg/L	0.015	0.3	0.025	0.024
pH	-	6.8	6.8	6.8	6.8
Conductivity	µS/cm	2600	1800	2800	2600
Phosphorus (total)	mg/L	<0.05	<0.05	0.2	<0.05
Nitrogen (total)	mg/L	11	8.3	8.1	2.6
Suspended Solids	mg/L	<5	24	620	260

EPA MONITORING POINT 43

The following tables are a summary of the analysis results of the soil quality in the utilisation areas identified as the 'solid utilisation areas as identified on drawing No 19045-05 as quoted in the consent conditions' on map titled "Map 1 - Rangers Valley Cattle Station" submitted with a letter to the EPA on 25 October 2006 (EPA Point 43).

Monitoring has been undertaken at Special Frequency 7, in accordance with the frequency required in accordance with Section M2 of Environmental Protection Licence No. 3864.

SOIL ANALYSIS RESULTS (BOTT SWAMP)

Parameter	Unit	Annual Return 2018 - 2019	
		0-30 cm	60-90 cm
pH	-	7.14	6.59
Nitrogen (Total)	mg/kg	1577	596
Nitrogen (Nitrate)	mg/kg	15.1	2.90
Phosphorous (Colwell)	mg/kg	73.8	21
Organic Carbon	%	1.34	0.35
Conductivity	µS/cm	0.19	0.06
Chloride	mg/kg	10.8	10.2
Cation Exchange Capacity	cmol(+)/kg	14.3	12.3
Exchangeable Sodium	cmol(+)/kg	0.47	0.95
Exchangeable Potassium	cmol(+)/kg	0.57	0.21
Exchangeable Calcium	cmol(+)/kg	9.99	7.53
Exchangeable Magnesium	cmol(+)/kg	3.25	3.61
Exchangeable Sodium Percent	%	3.31	7.71
Phosphorus Sorption Capacity	PSC mg/kg	347	511
Aggregate Stability (Emerson)	-	7	3b

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SOIL ANALYSIS RESULTS (BOTT TIP)

Parameter	Unit	Annual Return 2018 - 2019	
		0-30 cm	60-90 cm
pH	-	6.26	6.97
Nitrogen (Total)	mg/kg	536	420
Nitrogen (Nitrate)	mg/kg	10.1	1.41
Phosphorous (Colwell)	mg/kg	18.6	6.41
Organic Carbon	%	0.54	0.50
Conductivity	µS/cm	0.03	0.04
Chloride	mg/kg	8.98	3.07
Cation Exchange Capacity	cmol(+)/kg	4.05	16.8
Exchangeable Sodium	cmol(+)/kg	0.09	0.62
Exchangeable Potassium	cmol(+)/kg	0.13	0.29
Exchangeable Calcium	cmol(+)/kg	2.91	9.90
Exchangeable Magnesium	cmol(+)/kg	0.91	5.95
Exchangeable Sodium Percent	%	2.34	3.68
Phosphorus Sorption Capacity	PSC mg/kg	205	678
Aggregate Stability (Emerson)	-	5	5

SOIL ANALYSIS RESULTS (CREEK)

Parameter	Unit	Annual Return 2018 - 2019	
		0-30 cm	60-90 cm
pH	-	5.80	7.24
Nitrogen (Total)	mg/kg	1226	390
Nitrogen (Nitrate)	mg/kg	28.9	14.4
Phosphorous (Colwell)	mg/kg	109	10.3
Organic Carbon	%	0.93	0.49
Conductivity	µS/cm	0.09	0.05
Chloride	mg/kg	24.4	3.89
Cation Exchange Capacity	cmol(+)/kg	7.44	6.15
Exchangeable Sodium	cmol(+)/kg	0.12	0.11
Exchangeable Potassium	cmol(+)/kg	0.55	0.13
Exchangeable Calcium	cmol(+)/kg	4.91	4.21
Exchangeable Magnesium	cmol(+)/kg	1.84	1.69
Exchangeable Sodium Percent	%	1.63	1.71
Phosphorus Sorption Capacity	PSC mg/kg	272	246
Aggregate Stability (Emerson)	-	5	5

SOIL ANALYSIS RESULTS (CROUCHES)

Parameter	Unit	Annual Return 2018 - 2019	
		0-30 cm	60-90 cm
pH	-	6.29	6.98
Nitrogen (Total)	mg/kg	1489	472
Nitrogen (Nitrate)	mg/kg	36.0	23.7
Phosphorous (Colwell)	mg/kg	260	11.5
Organic Carbon	%	1.39	0.58
Conductivity	µS/cm	0.34	0.14
Chloride	mg/kg	13.5	2.12
Cation Exchange Capacity	cmol(+)/kg	10.2	14.2
Exchangeable Sodium	cmol(+)/kg	0.20	0.29
Exchangeable Potassium	cmol(+)/kg	0.48	0.22
Exchangeable Calcium	cmol(+)/kg	7.04	9.89
Exchangeable Magnesium	cmol(+)/kg	2.44	3.81
Exchangeable Sodium Percent	%	1.95	2.05
Phosphorus Sorption Capacity	PSC mg/kg	401	697
Aggregate Stability (Emerson)	-	5	6

SOIL ANALYSIS RESULTS (DONN NTH)

Parameter	Unit	Annual Return 2018 - 2019	
		0-30 cm	60-90 cm
pH	-	5.99	6.37
Nitrogen (Total)	mg/kg	1276	460
Nitrogen (Nitrate)	mg/kg	33.1	8.59
Phosphorous (Colwell)	mg/kg	91.1	13.4
Organic Carbon	%	0.77	0.39
Conductivity	µS/cm	0.11	0.05
Chloride	mg/kg	33.6	<2.0
Cation Exchange Capacity	cmol(+)/kg	7.36	15.8
Exchangeable Sodium	cmol(+)/kg	0.08	0.48
Exchangeable Potassium	cmol(+)/kg	0.40	0.31
Exchangeable Calcium	cmol(+)/kg	5.25	9.71
Exchangeable Magnesium	cmol(+)/kg	1.62	5.34
Exchangeable Sodium Percent	%	1.11	3.05
Phosphorus Sorption Capacity	PSC mg/kg	270	533
Aggregate Stability (Emerson)	-	5	5

SOIL ANALYSIS RESULTS (DONN STH)

Parameter	Unit	Annual Return 2018 - 2019	
		0-30 cm	60-90 cm
pH	-	5.76	6.78
Nitrogen (Total)	mg/kg	1029	393
Nitrogen (Nitrate)	mg/kg	12.4	3.0
Phosphorous (Colwell)	mg/kg	47.9	10.8
Organic Carbon	%	0.78	0.22
Conductivity	µS/cm	0.05	0.04
Chloride	mg/kg	11.1	6.15
Cation Exchange Capacity	cmol(+)/kg	8.51	13.1
Exchangeable Sodium	cmol(+)/kg	0.25	0.36
Exchangeable Potassium	cmol(+)/kg	0.73	0.20
Exchangeable Calcium	cmol(+)/kg	5.32	8.34
Exchangeable Magnesium	cmol(+)/kg	2.20	4.19
Exchangeable Sodium Percent	%	2.97	2.75
Phosphorus Sorption Capacity	PSC mg/kg	294	413
Aggregate Stability (Emerson)	-	8	5

SOIL ANALYSIS RESULTS (MORRIES)

Parameter	Unit	Annual Return 2018 - 2019	
		0-30 cm	60-90 cm
pH	-	5.85	6.69
Nitrogen (Total)	mg/kg	937	408
Nitrogen (Nitrate)	mg/kg	21.1	6.00
Phosphorous (Colwell)	mg/kg	87.3	24.3
Organic Carbon	%	0.550	0.60
Conductivity	µS/cm	0.11	0.04
Chloride	mg/kg	49.9	6.44
Cation Exchange Capacity	cmol(+)/kg	8.35	15.3
Exchangeable Sodium	cmol(+)/kg	0.21	0.42
Exchangeable Potassium	cmol(+)/kg	0.34	0.30
Exchangeable Calcium	cmol(+)/kg	5.71	10.4
Exchangeable Magnesium	cmol(+)/kg	2.08	4.17
Exchangeable Sodium Percent	%	2.57	2.72
Phosphorus Sorption Capacity	PSC mg/kg	222	264
Aggregate Stability (Emerson)	-	5	5

SOIL ANALYSIS RESULTS (NO 36)

Parameter	Unit	Annual Return 2018 - 2019	
		0-30 cm	60-90 cm
pH	-	5.27	6.63
Nitrogen (Total)	mg/kg	887	364
Nitrogen (Nitrate)	mg/kg	20.3	3.82
Phosphorous (Colwell)	mg/kg	88.5	13.9
Organic Carbon	%	0.57	0.38
Conductivity	µS/cm	0.05	0.05
Chloride	mg/kg	32.8	7.44
Cation Exchange Capacity	cmol(+)/kg	5.68	14.6
Exchangeable Sodium	cmol(+)/kg	0.08	0.37
Exchangeable Potassium	cmol(+)/kg	0.25	0.20
Exchangeable Calcium	cmol(+)/kg	3.88	9.27
Exchangeable Magnesium	cmol(+)/kg	1.46	4.77
Exchangeable Sodium Percent	%	1.42	2.52
Phosphorus Sorption Capacity	PSC mg/kg	267	502
Aggregate Stability (Emerson)	-	5	5

SOIL ANALYSIS RESULTS (OATS)

Parameter	Unit	Annual Return 2018 - 2019	
		0-30 cm	60-90 cm
pH	-	5.74	6.60
Nitrogen (Total)	mg/kg	1266	364
Nitrogen (Nitrate)	mg/kg	28.8	2.99
Phosphorous (Colwell)	mg/kg	165	10.5
Organic Carbon	%	0.73	0.68
Conductivity	µS/cm	0.10	0.09
Chloride	mg/kg	73.8	11.1
Cation Exchange Capacity	cmol(+)/kg	5.75	13.7
Exchangeable Sodium	cmol(+)/kg	0.02	0.45
Exchangeable Potassium	cmol(+)/kg	0.74	0.28
Exchangeable Calcium	cmol(+)/kg	4.17	9.36
Exchangeable Magnesium	cmol(+)/kg	0.81	3.63
Exchangeable Sodium Percent	%	0.32	3.30
Phosphorus Sorption Capacity	PSC mg/kg	268	542
Aggregate Stability (Emerson)	-	8	5

SOIL ANALYSIS RESULTS (PERKINS 1)

Parameter	Unit	Annual Return 2018 - 2019	
		0-30 cm	60-90 cm
pH	-	6.16	7.01
Nitrogen (Total)	mg/kg	829	307
Nitrogen (Nitrate)	mg/kg	17.7	3.20
Phosphorous (Colwell)	mg/kg	82.7	10.7
Organic Carbon	%	0.66	0.77
Conductivity	µS/cm	0.09	0.09
Chloride	mg/kg	21.0	13.7
Cation Exchange Capacity	cmol(+)/kg	5.28	16.6
Exchangeable Sodium	cmol(+)/kg	0.20	0.54
Exchangeable Potassium	cmol(+)/kg	0.62	0.28
Exchangeable Calcium	cmol(+)/kg	3.22	10.1
Exchangeable Magnesium	cmol(+)/kg	1.23	5.64
Exchangeable Sodium Percent	%	3.77	3.25
Phosphorus Sorption Capacity	PSC mg/kg	157	431
Aggregate Stability (Emerson)	-	5	5

SOIL ANALYSIS RESULTS (PIVOT 1)

Parameter	Unit	Annual Return 2018 - 2019	
		0-30 cm	60-90 cm
pH	-	6.76	7.74
Nitrogen (Total)	mg/kg	1010	328
Nitrogen (Nitrate)	mg/kg	32.9	10.1
Phosphorous (Colwell)	mg/kg	209	13.3
Organic Carbon	%	0.79	0.26
Conductivity	µS/cm	0.16	0.13
Chloride	mg/kg	50.2	18.0
Cation Exchange Capacity	cmol(+)/kg	8.57	14.5
Exchangeable Sodium	cmol(+)/kg	0.29	2.10
Exchangeable Potassium	cmol(+)/kg	1.42	0.79
Exchangeable Calcium	cmol(+)/kg	5.08	6.12
Exchangeable Magnesium	cmol(+)/kg	1.78	5.43
Exchangeable Sodium Percent	%	3.38	14.6
Phosphorus Sorption Capacity	PSC mg/kg	336	366
Aggregate Stability (Emerson)	-	5	2

SOIL ANALYSIS RESULTS (PIVOT 2B)

Parameter	Unit	Annual Return 2018 - 2019	
		0-30 cm	60-90 cm
pH	-	6.55	6.76
Nitrogen (Total)	mg/kg	1023	444
Nitrogen (Nitrate)	mg/kg	23.8	7.49
Phosphorous (Colwell)	mg/kg	114	11.0
Organic Carbon	%	0.61	0.32
Conductivity	µS/cm	0.23	0.18
Chloride	mg/kg	84.1	82.8
Cation Exchange Capacity	cmol(+)/kg	7.46	15.9
Exchangeable Sodium	cmol(+)/kg	0.41	0.83
Exchangeable Potassium	cmol(+)/kg	2.19	0.39
Exchangeable Calcium	cmol(+)/kg	3.04	10.6
Exchangeable Magnesium	cmol(+)/kg	1.80	4.11
Exchangeable Sodium Percent	%	5.50	5.19
Phosphorus Sorption Capacity	PSC mg/kg	260	531
Aggregate Stability (Emerson)	-	3b	6

SOIL ANALYSIS RESULTS (PIVOT 2C)

Parameter	Unit	Annual Return 2018 - 2019	
		0-30 cm	60-90 cm
pH	-	6.33	6.95
Nitrogen (Total)	mg/kg	1169	510
Nitrogen (Nitrate)	mg/kg	23.9	3.70
Phosphorous (Colwell)	mg/kg	65.6	19.5
Organic Carbon	%	0.85	0.42
Conductivity	µS/cm	0.23	0.16
Chloride	mg/kg	131	86.8
Cation Exchange Capacity	cmol(+)/kg	10.4	20
Exchangeable Sodium	cmol(+)/kg	0.70	1.30
Exchangeable Potassium	cmol(+)/kg	1.67	0.32
Exchangeable Calcium	cmol(+)/kg	5.26	11.7
Exchangeable Magnesium	cmol(+)/kg	2.75	6.68
Exchangeable Sodium Percent	%	6.74	6.49
Phosphorus Sorption Capacity	PSC mg/kg	305	554
Aggregate Stability (Emerson)	-	5	5

SOIL ANALYSIS RESULTS (PIVOT 3A)

Parameter	Unit	Annual Return 2018 - 2019	
		0-30 cm	60-90 cm
pH	-	6.77	7.14
Nitrogen (Total)	mg/kg	783	397
Nitrogen (Nitrate)	mg/kg	23.9	3.70
Phosphorous (Colwell)	mg/kg	65.6	19.5
Organic Carbon	%	0.85	0.42
Conductivity	µS/cm	0.23	0.16
Chloride	mg/kg	131	86.8
Cation Exchange Capacity	cmol(+)/kg	10.4	20.0
Exchangeable Sodium	cmol(+)/kg	0.62	0.43
Exchangeable Potassium	cmol(+)/kg	1.67	0.32
Exchangeable Calcium	cmol(+)/kg	4.32	3.59
Exchangeable Magnesium	cmol(+)/kg	1.90	2.02
Exchangeable Sodium Percent	%	7.67	5.63
Phosphorus Sorption Capacity	PSC mg/kg	206	447
Aggregate Stability (Emerson)	-	5	5

SOIL ANALYSIS RESULTS (PIVOT 3B)

Parameter	Unit	Annual Return 2018 - 2019	
		0-30 cm	60-90 cm
pH	-	6.77	7.66
Nitrogen (Total)	mg/kg	809	572
Nitrogen (Nitrate)	mg/kg	35.9	11.6
Phosphorous (Colwell)	mg/kg	52.2	15.4
Organic Carbon	%	0.55	0.48
Conductivity	µS/cm	0.22	0.25
Chloride	mg/kg	77.8	42.4
Cation Exchange Capacity	cmol(+)/kg	17.6	14.0
Exchangeable Sodium	cmol(+)/kg	1.43	0.64
Exchangeable Potassium	cmol(+)/kg	0.51	1.05
Exchangeable Calcium	cmol(+)/kg	9.60	8.62
Exchangeable Magnesium	cmol(+)/kg	6.09	3.66
Exchangeable Sodium Percent	%	8.13	4.60
Phosphorus Sorption Capacity	PSC mg/kg	225	585
Aggregate Stability (Emerson)	-	5	5

SOIL ANALYSIS RESULTS (REILLYS)

Parameter	Unit	Annual Return 2018 - 2019	
		0-30 cm	60-90 cm
pH	-	6.40	6.98
Nitrogen (Total)	mg/kg	1017	301
Nitrogen (Nitrate)	mg/kg	25.9	3.06
Phosphorous (Colwell)	mg/kg	141	27.6
Organic Carbon	%	0.76	0.12
Conductivity	µS/cm	0.12	0.06
Chloride	mg/kg	23.9	8.61
Cation Exchange Capacity	cmol(+)/kg	6.92	9.43
Exchangeable Sodium	cmol(+)/kg	0.10	0.34
Exchangeable Potassium	cmol(+)/kg	0.83	0.28
Exchangeable Calcium	cmol(+)/kg	4.27	5.72
Exchangeable Magnesium	cmol(+)/kg	1.72	3.09
Exchangeable Sodium Percent	%	1.49	3.56
Phosphorus Sorption Capacity	PSC mg/kg	268	308
Aggregate Stability (Emerson)	-	5	5

SOIL ANALYSIS RESULTS (RYE EAST)

Parameter	Unit	Annual Return 2018 - 2019	
		0-30 cm	60-90 cm
pH	-	6.56	7.46
Nitrogen (Total)	mg/kg	996	349
Nitrogen (Nitrate)	mg/kg	47.6	2.88
Phosphorous (Colwell)	mg/kg	71.3	11.2
Organic Carbon	%	0.50	0.31
Conductivity	µS/cm	0.24	0.27
Chloride	mg/kg	80.3	159
Cation Exchange Capacity	cmol(+)/kg	7.79	7.65
Exchangeable Sodium	cmol(+)/kg	0.31	0.34
Exchangeable Potassium	cmol(+)/kg	1.81	1.77
Exchangeable Calcium	cmol(+)/kg	3.85	3.74
Exchangeable Magnesium	cmol(+)/kg	1.81	1.79
Exchangeable Sodium Percent	%	4.03	4.43
Phosphorus Sorption Capacity	PSC mg/kg	196	472
Aggregate Stability (Emerson)	-	5	5

SOIL ANALYSIS RESULTS (RYE WEST)

Parameter	Unit	Annual Return 2018 - 2019	
		0-30 cm	60-90 cm
pH	-	6.51	6.53
Nitrogen (Total)	mg/kg	794	378
Nitrogen (Nitrate)	mg/kg	31.2	2.12
Phosphorous (Colwell)	mg/kg	69.8	10.5
Organic Carbon	%	0.42	0.24
Conductivity	µS/cm	0.13	0.16
Chloride	mg/kg	42.4	94.7
Cation Exchange Capacity	cmol(+)/kg	20.6	5.57
Exchangeable Sodium	cmol(+)/kg	1.60	0.21
Exchangeable Potassium	cmol(+)/kg	0.34	1.05
Exchangeable Calcium	cmol(+)/kg	11.9	2.93
Exchangeable Magnesium	cmol(+)/kg	6.69	1.37
Exchangeable Sodium Percent	%	7.81	3.81
Phosphorus Sorption Capacity	PSC mg/kg	179	590
Aggregate Stability (Emerson)	-	5	6

SOIL ANALYSIS RESULTS (TOP GRANTS)

Parameter	Unit	Annual Return 2018 - 2019	
		0-30 cm	60-90 cm
pH	-	6.14	6.50
Nitrogen (Total)	mg/kg	1389	540
Nitrogen (Nitrate)	mg/kg	12.8	31.0
Phosphorous (Colwell)	mg/kg	93.8	15.1
Organic Carbon	%	1.04	0.31
Conductivity	µS/cm	0.08	0.10
Chloride	mg/kg	8.15	13.3
Cation Exchange Capacity	cmol(+)/kg	17.7	19.0
Exchangeable Sodium	cmol(+)/kg	0.93	0.49
Exchangeable Potassium	cmol(+)/kg	0.29	0.22
Exchangeable Calcium	cmol(+)/kg	11.9	12.2
Exchangeable Magnesium	cmol(+)/kg	4.56	6.07
Exchangeable Sodium Percent	%	5.26	2.56
Phosphorus Sorption Capacity	PSC mg/kg	264	561
Aggregate Stability (Emerson)	-	5	5

SOIL ANALYSIS RESULTS (TOP TIP)

Parameter	Unit	Annual Return 2018 - 2019	
		0-30 cm	60-90 cm
pH	-	5.58	6.52
Nitrogen (Total)	mg/kg	1156	314
Nitrogen (Nitrate)	mg/kg	12.9	2.87
Phosphorous (Colwell)	mg/kg	95.0	13.6
Organic Carbon	%	0.60	0.63
Conductivity	µS/cm	0.06	0.06
Chloride	mg/kg	16.0	9.50
Cation Exchange Capacity	cmol(+)/kg	5.11	7.35
Exchangeable Sodium	cmol(+)/kg	0.14	0.23
Exchangeable Potassium	cmol(+)/kg	0.47	0.23
Exchangeable Calcium	cmol(+)/kg	3.50	4.62
Exchangeable Magnesium	cmol(+)/kg	0.98	2.26
Exchangeable Sodium Percent	%	2.77	3.17
Phosphorus Sorption Capacity	PSC mg/kg	242	328
Aggregate Stability (Emerson)	-	5	5

EPA MONITORING POINT 44

Groundwater monitoring bore (44 located in the north eastern grassed area of the paddock known as Old 2) labelled as EPA point 44 on map titled Env MP-Location of Peizometer MP dated 1st May 2007. See Fig 3 - 250832A1/10.

GROUNDWATER ANALYSIS RESULTS (EPA POINT 44)

Sampled		**21-Apr-17**	**11-Oct-17**	**13-Apr-18**	**11-Oct-18**	**10-April-19**
Obtained		**4-Apr-17**	**20-Oct-17**	**17-Apr-18**	**23-Oct-18**	**23-April-19**
Published		**26-Apr-17**	**24-Oct-17**	**20-Apr-18**	**6-Nov-18**	**16-May-19**
Pollutant	**Unit of measure**	**Result**	**Result**	**Result**	**Result**	**Result**
Nitrogen (ammonia)	mg/L	0.007	0.020	<0.005	0.008	<0.005
Nitrogen (nitrate)	mg/L	0.70	0.81	0.77	0.78	0.96
Phosphorus (Reactive)	mg/L	0.17	0.053	0.3	0.092	0.097
pH	-	7.1	7.2	7.2	7.2	7.2
Conductivity	µS/cm	550	610	610	610	640
Phosphorus (total)	mg/L	0.1	0.2	0.1	0.1	0.1
Nitrogen (total)	mg/L	0.8	2.3	1.1	0.7	1.0
Suspended Solids	mg/L	49	58	30	140	19

EPA MONITORING POINT 45

Groundwater monitoring bore (45 located on eastern boundary of the paddock known as "Donnellys Elect" labelled as EPA point 45 on map titled Env MP location of Piezometer MP dated 1st May 2007. See Fig 3.

GROUNDWATER ANALYSIS RESULTS (EPA POINT 45)

Sampled		**21-Apr-17**	**11-Oct-17**	**13-Apr-18**	**11-Oct-18**	**10-April-19**
Obtained		**4-Apr-17**	**20-Oct-17**	**17-Apr-18**	**23-Oct-18**	**23-April-19**
Published		**26-Apr-17**	**24-Oct-17**	**20-Apr-18**	**6-Nov-18**	**16-May-19**
Pollutant	**Unit of measure**	**Result**	**Result**	**Result**	**Result**	**Result**
Nitrogen (ammonia)	mg/L	0.054	0.040	<0.005	0.043	0.005
Nitrogen (nitrate)	mg/L	6.9	11	3.9	3.8	2.6
Phosphorus (Reactive)	mg/L	0.13	0.020	0.24	0.030	0.037
pH	-	7.1	7.4	7.2	7.2	7.2
Conductivity	µS/cm	380	430	370	350	360
Phosphorus (total)	mg/L	0.08	<0.05	<0.05	<0.05	<0.05
Nitrogen (total)	mg/L	7.0	11	4.6	4.2	2.9
Suspended Solids	mg/L	55	11	20	40	14

EPA MONITORING POINT 46

Groundwater monitoring bore (46 located in paddock known as "Oaks Road") labelled as EPA point 46 on map Titled Env MP-location of Piezometer MP dated 1st May 2007. See Fig 3.

GROUNDWATER ANALYSIS RESULTS (EPA POINT 46)

Sampled		**21-Apr-17**	**11-Oct-17**	**13-Apr-18**	**11-Oct-18**	**10-April-19**
Obtained		**4-Apr-17**	**20-Oct-17**	**17-Apr-18**	**23-Oct-18**	**23-April-19**
Published		**26-Apr-17**	**24-Oct-17**	**20-Apr-18**	**6-Nov-18**	**16-May-19**
Pollutant	**Unit of measure**	**Result**	**Result**	**Result**	**Result**	**Result**
Nitrogen (ammonia)	mg/L	0.024	0.052	0.009	0.022	<0.005
Nitrogen (nitrate)	mg/L	8.3	9.2	9.3	10	9.7
Phosphorus (Reactive)	mg/L	0.11	0.01	0.2	0.015	0.033
pH	-	7.5	7.7	7.5	7.5	7.5
Conductivity	µS/cm	1300	1400	1300	1400	1500
Phosphorus (total)	mg/L	<0.05	<0.05	<0.05	<0.05	<0.05
Nitrogen (total)	mg/L	8.9	9.7	11	12	10
Suspended Solids	mg/L	50	6	11	12	29

EPA MONITORING POINT 47

Groundwater monitoring bore 47 located in paddock known as “Horse" labelled as EPA point 47 on map Titled Env MP-location of Piezometer MP dated 1st May 2007. See Fig 3.

GROUNDWATER ANALYSIS RESULTS (EPA POINT 47)

Sampled		**21-Apr-17**	**11-Oct-17**	**13-Apr-18**	**11-Oct-18**	**10-April-19**
Obtained		**4-Apr-17**	**DRY**	**DRY**		
Published		**26-Apr-17**				
Pollutant	**Unit of measure**	**Result**	**Result**	**Result**	**Result**	**Result**
Nitrogen (ammonia)	mg/L	0.040				
Nitrogen (nitrate)	mg/L	0.40				
Phosphorus (Reactive)	mg/L	0.14				
pH	-	6.6	**DRY**	**DRY**	**DRY**	**DRY**
Conductivity	µS/cm	140				
Phosphorus (total)	mg/L	0.3				
Nitrogen (total)	mg/L	2.1				
Suspended Solids	mg/L	260				

EPA MONITORING POINT 53

Groundwater monitoring bore 53 located west of Terminal Pond 1 in the paddock known as spillway labelled as EPA point 53 on map Titled Env MP-location of Piezometer MP dated 1st May 2007. See Fig 3. 250832A1/10.

GROUNDWATER ANALYSIS RESULTS (EPA POINT 53)

Sampled		**21-Apr-17**	**11-Oct-17**	**13-Apr-18**	**11-Oct-18**	**10-April-19**
Obtained		**4-Apr-17**	**20-Oct-17**	**17-Apr-18**	**23-Oct-18**	**23-April-19**
Published		**26-Apr-17**	**24-Oct-17**	**20-Apr-18**	**6-Nov-18**	**16-May-19**
Pollutant	**Unit of measure**	**Result**	**Result**	**Result**	**Result**	**Result**
Nitrogen (ammonia)	mg/L	0.040	0.010	0.013	0.032	0.007
Nitrogen (nitrate)	mg/L	0.40	0.13	0.04	0.14	0.04
Phosphorus (Reactive)	mg/L	0.11	0.014	0.22	0.027	0.023
pH	-	7.5	7.6	7.5	7.4	7.4
Conductivity	µS/cm	530	580	570	590	610
Phosphorus (total)	mg/L	<0.05	<0.05	<0.05	<0.05	<0.05
Nitrogen (total)	mg/L	0.7	0.4	0.2	0.2	0.1
Suspended Solids	mg/L	15	10	53	18	34

EPA MONITORING POINT 54

Groundwater monitoring bore 54 located north of Terminal Pond Two in the paddock known as Pivot 2b labelled as EPA point 54 on map titled Env MP location of Piezometer MP dated 1st May 2007. See Fig 3. 250832A1/10.

GROUNDWATER ANALYSIS RESULTS (EPA POINT 54)

Sampled		**21-Apr-17**	**11-Oct-17**	**13-Apr-18**	**11-Oct-18**	**10-April-19**
Obtained		**4-Apr-17**	**20-Oct-17**	**17-Apr-18**	**23-Oct-18**	**23-April-19**
Published		**26-Apr-17**	**24-Oct-17**	**20-Apr-18**	**6-Nov-18**	**16-May-19**
Pollutant	**Unit of measure**	**Result**	**Result**	**Result**	**Result**	**Result**
Nitrogen (ammonia)	mg/L	0.12	0.072	0.064	0.14	0.86
Nitrogen (nitrate)	mg/L	1.8	1.9	2	1.2	1.1
Phosphorus (Reactive)	mg/L	0.19	0.049	0.31	0.059	0.15
pH	-	6.8	6.9	6.8	6.8	6.8
Conductivity	µS/cm	570	620	600	640	660
Phosphorus (total)	mg/L	0.08	<0.05	0.08	0.09	0.1
Nitrogen (total)	mg/L	2.3	2.4	2.5	1.3	2.3
Suspended Solids	mg/L	68	11	36	40	500

EPA MONITORING POINT 55

Groundwater monitoring bore 55 located south of Terminal Pond Three in the paddock known as “Wallys” labelled as EPA point 55 on map titled Env MP-location of Piezometer MP dated 1st May 2007. See Fig 3. 250832A1/10.

GROUNDWATER ANALYSIS RESULTS (EPA POINT 55)

Sampled		**21-Apr-17**	**11-Oct-17**	**13-Apr-18**	**11-Oct-18**	**10-April-19**
Obtained		**4-Apr-17**	**20-Oct-17**	**17-Apr-18**	**23-Oct-18**	**23-April-19**
Published		**24-Oct-17**	**20-Apr-18**	**20-Apr-18**	**6-Nov-18**	**16-May-19**
Pollutant	**Unit of measure**	**Result**	**Result**	**Result**	**Result**	**Result**
Nitrogen (ammonia)	mg/L	0.034	0.059	<0.005	0.013	<0.005
Nitrogen (nitrate)	mg/L	0.01	0.056	0.053	0.05	0.01
Phosphorus (Reactive)	mg/L	0.15	0.036	0.24	0.057	0.048
pH	-	7.3	7.5	7.3	7.3	7.3
Conductivity	µS/cm	450	480	510	510	510
Phosphorus (total)	mg/L	0.08	0.06	0.1	0.1	0.1
Nitrogen (total)	mg/L	0.2	0.4	0.3	<0.1	0.1
Suspended Solids	mg/L	89	21	240	280	510

EPA MONITORING POINT 56

Groundwater monitoring bore (56 located south of the northern holding pond N1 in the paddock known as Irrigation 1) labelled as EPA point 56 on map titled Env MP dated 1st May 2007. See Fig 3. 250832A1/10.

GROUNDWATER ANALYSIS RESULTS (EPA POINT 56)

Sampled		**21-Apr-17**	**11-Oct-17**	**13-Apr-18**	**11-Oct-18**	**10-April-19**
Obtained		**4-Apr-17**	**20-Oct-17**	**17-Apr-18**	**23-Oct-18**	**23-April-19**
Published		**26-Apr-17**	**24-Oct-17**	**20-Apr-18**	**6-Nov-18**	**16-May-19**
Pollutant	**Unit of measure**	**Result**	**Result**	**Result**	**Result**	**Result**
Nitrogen (ammonia)	mg/L	0.023	0.099	0.027	0.017	<0.005
Nitrogen (nitrate)	mg/L	9.4	11	16	17	12
Phosphorus (Reactive)	mg/L	0.10	0.018	0.22	0.022	0.023
pH	-	7.0	7.2	7.1	7.1	7.1
Conductivity	µS/cm	1500	1800	1500	1700	1600
Phosphorus (total)	mg/L	<0.05	<0.05	<0.05	<0.05	<0.05
Nitrogen (total)	mg/L	10	12	19	19	12
Suspended Solids	mg/L	27	8	16	17	37

EPA MONITORING POINT 57

Effluent holding pond (known as N1) irrigation pump labelled as EPA point 57 on map titled Env MP- Location of Effluent MP dated 1st May 2007. See Fig 2 - 250832A1/10.

EFFLUENT ANALYSIS RESULTS (EPA POINT 57)

Sampled		**19-Jun-18**	**3-Sept-18**	**4-Dec-18**	**12-March-19**
Obtained		**21-Jun-18**	**13-Sept-18**	**13-Dec-18**	**21-March-19**
Published		**2-Jul-18**	**24-Sept-18**	**18-Dec-18**	**15-April-19**
Pollutant	**Unit of measure**	**Result**	**Result**	**Result**	**Result**
Nitrogen (Ammonia)	mg/L	5.2	0.009	0.17	1.5
Chloride	mg/L	340	340	360	390
Nitrate	mg/L	1.6	0.82	2.7	<0.025
Phosphorus (Reactive)	mg/L	24	28	20	6.8
pH	-	7.8	7.9	8.2	9.0
Conductivity	µS/cm	2400	2300	2300	3100
SAR	-	2.8	3.2	2.7	4.5
Phosphorus (Total)	mg/L	45	40	26	10
Nitrogen (Total)	mg/L	25	21	16	19
TKN	mg/L	24	21	13	19
Suspended Solids	mg/L	110	63	45	100
Calcium	mg/L	65	57	50	40
Potassium	mg/L	380	380	380	490
Magnesium	mg/L	53	51	56	77
Sodium	mg/L	130	140	120	210

[#] Collected during pond overflow event.