Tarago Action Plan Routine Inspection Checklist

Date:	16-Jun-23	UGL RL Environmental Representative completing inspection[1]:	
Start time:	7:55 AM		
Finish time:	9:52 AM	[redacted]	
Weather:	3.7°C, partly cloudy, very high change of no rain, 99% humidity, NW 13km/h wind, 0mm rain since 9am		BoM
Date and volume of maximum rainfall in a 24hr period since last inspection?			
Date:	14-Jun-23		
Max volume (mm) in 24hr period:	3		
General Site Observations			
Is airborne dust from site evident?			
No airborne dust was visible (**Photos 1 - 2**)			
Is sediment run-off evident that is not captured by sediment controls?			
No. Some evidence of sediment was observed in pooled water on site downgradient of the middle culvert (**Photo 4**), however there was no evidence of run-off of this water from site in between inspections (**Photos 5 - 6**). No evidence of sediment run-off past northern and southernmost rail culverts (**Photos 3, 7, 8**).			
Is surface water discharging from site?			
Yes. Surface water discharging at a slow rate from the southern culvert (**Photo 3**). Some pooled water observed on site and immediately downstream of middle culvert but not discharging off site (**Photos 4 - 6**). No surface water at northern culvert (**Photos 7 - 8**).			
Is there evidence of excavation or other works non-compliant with the Action Plan?			
No			

Other observations?
Evidence of patching of minor marker layer exposure (noted in a previous inspection checklist dated 20 April 2023) was seen (**Photos 19 - 20**). One minor marker layer exposure (noted in a previous inspection checklist 15 May 2023) remained (**Photo 21**). Additionally, two new marker layer exposure locations were identified (**Photos 22 - 23**), Ramboll recommends repairing these by patching with sand and cement mixture.

Evidence of erosion was noted upgradient of the southern most culvert in previous site inspection on 20 April 2023 and remains on site but stable (**Photo 9**). Additionally, evidence of similar erosion was noted at the culvert further upgradient (west) of the southern most culvert (**Photo 25**). However, no evidence of sediment was found in water flowing offsite at southern culvert. Ramboll recommends replacing ground cover material (ballast) if further erosion occurs at either locations or sediment is visible in the downstream surface water of the southern culvert.

Evidence of build up of sediment in some silt fences upgradient of middle culverts (**Photo 13**). Ramboll recommends removing silt build up on fences using a shovel to prevent breakage of fences.

Previous inspections identified major damage to the silt fencing uphill of the rail line (western side) and to the south of the middle culvert and minor damage to the silt fencing uphill of rail line and running between the southern and middle culverts. Ramboll notes that this silt fencing has been replaced by coir sediment control logs (**Photos 10 - 14**) as per recommendations from previous inspection checklist dated 15 May 2023. Ramboll notes minor damage to the silt fencing upgradient of trainline running from the middle to the north culvert (**Photo 15**) and recommends retying fencing to stakes.

The quarterly surface water monitoring programme was underway during the monthly EMP inspection checklist (**Photo 24**).

1

Action Plan inspections must be completed by a UGL Representative suitably trained and experienced in application and management of erosion and sediment controls including stockpile management.

s	Control	Inspection Yes	No	Corrective Action
5.1	Is Exclusion Zone signage present as recommended on Figures 2a - 2e Appendix 1 to demarcate contamination in the rail formation and adjacent soils?	Yes (**Photos 17 - 18**)		
	Is Exclusion Zone signage undamaged?	Yes, signage was in good condition (**Photos 17 - 18**)		
	Are sediment controls present in/adjacent each rail culvert?	Yes, rock checks and rock armour observed upgradient of each culvert. Coir sediment control logs west of former Woodlawn siding and along cess drain feeding the south and middle culverts (**Photos 10 - 16**). Silt fencing between middle and northern culvert.		
	If sediment is present what is the estimated depth of sediment?	Moderate sediment present in pooled water on site downgradient of middle culvert (**Photo 4**), however notably less than previous inspection. Sediment present on silt fencing and rock checks (~8cm) (**Photo 13**).		
	Are sediment controls still functional?	Yes, with the exception of silt fencing discussed in **Photo 15**. Refer to 'Other Observations' for recommendations.		

	Is the existing stockpile covered securely to prevent surface water infiltration?	Yes
	Are cracks present in the capping of the existing stockpile? If so record the width and length of cracks in written form and through photographs and consolidate with this checklist.	Yes, minor hairline cracking is present on the stockpile (observed during an inspection 15/03/23), these remain stable and are not expected to adversely affect cap competency in current condition.
	Are there signs of erosion or sediment run-off on or relating to the existing stockpile? If so record in written form and through photographs and consolidate with this checklist.	No. No erosion of, or sediment from the stockpile was observed.
	Are there signs of vegetation on the existing stockpile? If so record in written form and through photographs and consolidate with this checklist.	No, weeds previously growing out of stockpile had been removed due to vegetation maintenance.
	Is geofabric marker layer visible beneath capping of the existing stockpile? If so record in written form and through photographs and consolidate with this checklist. If marker layer is visible rectification work is required.	Yes, geofabric marker layer visible in three locations on west of stockpile. Location and size detailed in **Photos 21 - 23**, refer to 'Other Observations' section for recommendations.
7.3	Have any additional stockpiles of contaminated material been created?	No
	Are additional stockpiles placed away from drainage lines, gutters, stormwater pits or inlets?	n/a no additional stockpiles
	Are stockpiles covered securely to prevent surface water infiltration?	n/a no additional stockpiles
	Are stockpiles positioned on level surfaces with construction of bunds to control water ingress / egress.	n/a no additional stockpiles

1 Action Plan inspections must be completed by a UGL Representative suitably trained and experienced in application and management of erosion and sediment controls including stockpile management.

Photo 1: Picture at southern end of railway station facing south west. No airborne dust visible in air or on surfaces.

Title: Tarago Rail Yard Inspection	**Approved:** SM	**Project-Nr.:** 318001704	**Date:** June 2023
Site: Tarago, NSW			
Client: UGL Regional Linx			

Photo 2: Picture at northern end of railway station facing south west. No airborne dust visible in air or on surfaces.

Photo 3: Southern most culvert downgradient of rail line, showing evidence of surface water run off on site. Water is clear, no turbidity, with no observable sediment, some algae present.

Photo 4: Downgradient of middle culvert showing pooled sediment laden water on site. Sediment has settled more on the bottom of the water body compared to last inspection. Brown, moderate turbidity. No surface water running off site at middle culvert.

Title: Tarago Rail Yard Inspection	**Approved:** SM	**Project-Nr.:** 318001704	**Date:** June 2023
Site: Tarago, NSW			
Client: UGL Regional Linx			

Photo 5: Downgradient of middle culvert. Dry beyond the pooled water and no evidence of current surface water run off on site.

Photo 6: Causeway downgradient of middle culvert showing no evidence of current surface water run off on site. No visible sediment on road or vegetation nearby from sediment water was running off site in between inspections.

Photo 7: Downgradient of northernmost culvert showing evidence of no surface water runoff from site to neighbouring property.

Title: Tarago Rail Yard Inspection	**Approved:** SM	**Project-Nr.:** 318001704	**Date:** June 2023
Site: Tarago, NSW			
Client: UGL Regional Linx			

Photo 8: Downgradient of northernmost culvert showing evidence of no surface water surrounding.

Photo 9: Visible evidence of erosion due to loss of ground cover (ballast material) upgradient of southernmost culvert. Remaining stable and no major further erosion since last inspection. Facing south.

Photo 10: Upgradient of southernmost culvert showing previous silt fencing replaced by Coir sediment control logs, used as control measures for sediment control. Facing north.

Photo 11: Rock checks running along former Woodlawn siding and between southern and middle culverts. Silt fencing replaced by Coir sediment control logs.

Photo 12: Rock checks running alongside former Woodlawn siding towards the middle culvert. Previous silt fencing with major damage replaced by Coir sediment control logs as recommended in previous inspections. No evidence of sediment build-up in rock armoury.

Photo 13: Upgradient of middle culvert showing signs of sediment in silt fencing on northern side. Silt fencing is full and sediment needs to be clear or fencing needs to be replaced before breakages. New Coir sediment control logs placed on southern side.

Photo 14: Upgradient of trainline culvert facing north, showing minor pooling on site near rock checks and silt fencing. New Coir sediment control log placed in drainage channel running towards middle culvert.

Photo 15: Silt fencing and rock armoury upgradient of trainline running from the middle to the north culvert. Silt fencing damaged and not attached to stakes.

Photo 16: Upgradient of northernmost culvert. No evidence of surface water run off on site. No evidence of sediment buildup on rocks. Rock armory and natural vegetation allow for sediment control in surface water.

Photo 17: Exclusion zone signing placed periodically along contamination areas. Undamaged and in good condition.

Photo 18: Additional exclusion zone signing placed periodically along contamination areas.

Photo 19: Geofabric marker layer visible in stockpile capping noted in previous inspection 20/04/23 had been patched as per recommendations.

Photo 20: Geofabric marker layer visible in stockpile capping noted in previous inspection 20/04/23 had been patched as per recommendations.

Photo 21. Geofabric marker layer visible in stockpile capping noted in previous inspection 15/05/23 remains. Approximately 5cm x 3cm.

Photo 22. New location of geofabric marker layer visible in stockpile capping. Approximately 2cm x 5cm.

Photo 23. New location of geofabric marker layer visible in stockpile capping. Approximately 3cm x 3cm.

Photo 24. Quarterly surface water monitoring underway during monthly environmental monitoring plan inspection.

Photo 25. Notable erosion evident adjacent to the culvert further upgradient of the southernmost culvert. Surface water pooled near culvert and below erosion is clear with no visible signs of sediment. This erosion is not expected to impact surface water flowing off site.