

<b>Coal Tip Name</b>	Godre'r-Graig Higher / Pentwyn No. 3 Levels	<b>Tip Ref Number</b>	L044C
		<b>Ownership Status</b>	Private
<b>Located in</b>	Godre'r-Graig, Neath-Port Talbot	<b>Tip Category</b>	D
<b>Led by</b>		<b>Undertaken on behalf of</b>	Welsh Government
<b>Date</b>	08/11/2023	<b>Date of last Detailed Inspection</b>	05/07/2023
<b>Weather</b>	Overcast	Damp	Calm
<b>Comments on access and any limitations</b>	<p>Access to the site was gained via an access track situated just off Graig Road, which leads to Pentwyn Farm.</p> <p>It should be noted that this inspection was conducted without the benefit of a detailed site plan. Dense vegetation and the steep, slippery nature of the flank limited accessibility and visual inspection. Therefore, instability within these areas could exist, but was not detectable at the time of the inspection.</p>		
<b>RAG Status: Capital &amp; Maintenance Works</b>	<b>Description</b>		<b>Status</b>
	Consider clearing the vegetation and silt debris partially obstructing the shallow, unlined cut-off channel which runs parallel to the access track, located to the rear of the tip.		2
	Consider implementing appropriate drainage infrastructure to effectively capture the series of seepages, as well as the uncontrolled flows associated with the outfall of the watercourse. Consider formalising/lining the flow path of the watercourse, to prevent further scouring.		2
	Investigate if planning permission was given for the quarry waste material to be deposited on the tip plateau. Consider undertaking a geotechnical assessment to fully ascertain the geotechnical characteristics of the tip. Consider implementing a retaining wall feature along the toe/base of the flank.		2
<b>General Remarks</b>	<p>This tip is recorded as being comprised of colliery spoil material derived from the historical workings of Godre'r Graig higher level and Pentwyn No. 3 levels. The tip has been formed via end-tipping practices, having being constructed with a plateau and a densely vegetated, steeply sloping, south-east facing flank. A shallow, unlined cut-off channel runs parallel to the access track, located to the rear of the tip. However, the channel is ineffectively capturing some flows, with surface runoff migrating downslope along the access track. Notably, an incised watercourse conveys flows along the eastern boundary, before cascading onto the access track. These uncontrolled flows convey downslope along the access track, adjacent to the front drives/access tracks of residential properties. Additionally, several minor shallow surface slips are situated along the toe, located adjacent to the access track. Natural ground material is exposed along the slip surfaces, with a thin veneer of overlying spoil material evident.</p>		
	<b>Name</b>	<b>Signature</b>	<b>Date</b>
<b>Author</b>			08/11/2023
<b>Approver</b>			28/11/2023

OBSERVATIONS			
GEOTECHNICAL			
ID	Feature	Location	Comment
23/G/01	Creep	E – 274825 N - 206780	Distortion (curvature) of some trees, situated along the flank. Potentially indicative of shallow moving creep.
23/G/02	Minor Slips	E – 274838 N - 206764	Several minor shallow surface slips situated along the toe, located adjacent to the access track. Natural ground material exposed along the slip surfaces, with a thin veneer of overlying spoil material evident.
23/G/03	Seepages	E – 274840 N – 206812; E – 274853 N – 206804	Multiple seepages situated on the north-eastern section of the tip plateau. Flows appear to be conveying towards the incised watercourse which skirts the eastern boundary. Flows emanating from an unknown brick structure, located directly adjacent to the incised watercourse which skirts the eastern perimeter.
23/G/04	Seepages	E - 274819 N - 206758	Several seepages emanating from the base of the flank/toe, adjacent to the access track.
23/G/05	Saturated Ground	E – 274840 N - 206812	Saturated ground conditions spatially associated with areas of seepages.
23/G/06	Erosion	E – 274888 N - 206778	Scouring along the access track which skirts the toe, induced by the downslope migration of strong, uncontrolled flows.
23/G/07	Erosion	E – 274856 N - 206817	Incised scouring along the eastern boundary, induced by strong flows associated with the unnamed issue/watercourse.
23/G/08	Erosion	E – 274836 N - 206764	Scoured, undercut sections of the toe, induced by conveying flows associated with seepages and the unnamed issue/watercourse which cascades onto the access track.
Recommendations			
			Consider implementing a retaining wall feature along the toe/base of the flank. Consider implementing appropriate drainage infrastructure to effectively capture the series of seepages, as well as the uncontrolled flows associated with the outfall of the watercourse. Consider formalising/lining the flow path of the watercourse, to prevent further scouring.
DRAINAGE			
ID	Feature	Location	Comment
23/D/01	Channel	E – 274794 N - 206765	Vegetation and silt debris partially obstructing the shallow, unlined cut-off channel which runs parallel to the access track, located to the rear of the tip. Areas of choking flows along sections of the channel are evident. The channel is ineffectively capturing some flows, with surface runoff migrating downslope along the access track. Flows conveying off-site, adjacent to the front drives/access tracks of residential houses, situated off the main access track.
Recommendations			
			Consider clearing the vegetation and silt debris partially obstructing the shallow, unlined cut-off channel which runs parallel to the access track, located to the rear of the tip.
ENGINEERING INFRASTRUCTURE			
ID	Feature	Location	Comment
N/A			
Recommendations			

INSTRUMENTATION & MONITORING			
ID	Feature	Location	Comment
N/A			
Recommendations			
LAND USE			
ID	Feature	Location	Comment
23/L/01	Vegetation Cover	E – 274825 N - 206780	The surfaces of the tip are densely vegetated with grass, brambles and trees.
23/L/02	Land Use	E – 310817 N - 208992	Vehicle and machinery situated on the north-eastern section of the tip plateau. Sandstone quarry waste material, likely sourced from the nearby Cwar Pentwyn quarry is deposited on the north-eastern section of the tip plateau.
23/L/03	Signage	E – 274780 N - 206748	'Private Property Keep Out' signage.
23/L/04	Fly-tipping	E – 274889 N - 206780	Mixed fly-tipped household waste material, deposited on the access track, adjacent to the outfall of the watercourse.
Recommendations		Investigate if planning permission was given for the quarry waste material to be deposited on the tip plateau. Consider undertaking a geotechnical assessment to fully ascertain the geotechnical characteristics of the tip.	
CONTAMINATION / GEO-ENVIRONMENTAL			
ID	Feature	Location	Comment
N/A			
Recommendations			
OTHER			
ID	Feature	Location	Comment
23/O/01	Other	E – 274615 N - 207100	Cilmaengwyn Landslide (ID – 3549).
Recommendations			
Any other remarks			



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<b>Photo No.</b>	1	<b>Comment</b>	Vegetation and silt debris partially obstructing the shallow, unlined cut-off channel which runs parallel to the access track, located to the rear of the tip. Channel ineffectively capturing some flows, surface runoff migrating downslope, resulting in scouring of the access track.
<b>Feature ID</b>	23/D/01		



<b>Photo No.</b>	2	<b>Comment</b>	Vegetation and silt debris partially obstructing the shallow, unlined cut-off channel which runs parallel to the access track, located to the rear of the tip. Channel ineffectively capturing some flows, surface runoff migrating downslope, resulting in scouring of the access track.
<b>Feature ID</b>	23/D/01		



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<b>Photo No.</b>	3	<b>Comment</b>	Vehicle and machinery situated on the north-eastern section of the tip plateau.
<b>Feature ID</b>	23/L/02		



<b>Photo No.</b>	4	<b>Comment</b>	Sandstone quarry waste material, likely sourced from the nearby Cwar Pentwyn quarry deposited on the north-eastern section of the tip plateau.
<b>Feature ID</b>	23/L/02		



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<b>Photo No.</b>	5	<b>Comment</b>	Multiple seepages situated on the north-eastern section of the tip plateau. Associated saturated ground conditions.
<b>Feature ID</b>	23/G/03 23/G/05		



<b>Photo No.</b>	6	<b>Comment</b>	Flows emanating from an unknown brick structure, located directly adjacent to the incised watercourse which skirts the eastern perimeter.
<b>Feature ID</b>	23/G/03		



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<b>Photo No.</b>	7	<b>Comment</b>	Incised scouring along the eastern boundary, induced by strong flows associated with the unnamed issue/watercourse.
<b>Feature ID</b>	23/G/07		



<b>Photo No.</b>	8	<b>Comment</b>	Scoured, undercut section of the toe, where the unnamed issue/watercourse cascades onto the access track. Associated scouring of the adjacent access track, induced by the downslope migration of uncontrolled flows. Fly-tipped material is evident.
<b>Feature ID</b>	23/G/06 23/G/08 23/L/04		



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<b>Photo No.</b>	9	<b>Comment</b>	Seepages emanating from the base of the flank/toe, adjacent to the access track.
<b>Feature ID</b>	23/G/04		



<b>Photo No.</b>	10	<b>Comment</b>	View looking across a minor, shallow surface slip situated along the toe, adjacent to the access track. Natural ground material has been exposed along the slip surface, with a thin veneer of overlying spoil material evident.
<b>Feature ID</b>	23/G/02		