

CERTIFICATE OF ANALYSIS



ALS Life Sciences Ltd.,
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Hydro Environmental Services
Hydro Environmental Services
22 Lower Main Street
Dungarvan, Co. Waterford
Ireland

Certificate Number: CLN020188-1 Final
Date Reported: 15/04/2025
Date Analysis Started: 04/04/2025

Lab Ref.	Sample Details	Method Number	Test	Result	Units	Flag
CLN63440	Prod: Rcvd Dt: 03/04/2025 Start Testing: 04/04/2025 Description: P1687 Red Rock Quarry Outfall Spt: Effluent Sample Type: WWTP Effluent	P280	BOD 5 day Total	<1	mg/L O ₂	
		P202	Suspended Solids	10	mg/L	
		P281	Chloride	7.7	mg/L Cl	
		P285	Total Nitrogen	<1.0	mg/L N	
		P281	Total Oxidised Nitrogen (TON)	<0.25	mg/L N	
		P281	Ammonia	<0.02	mg/L NH ₃ -N	
		P281	Nitrate	<5.0	mg/L NO ₃	
		P281	Nitrite	<0.05	mg/L NO ₂	
		P207	Total Phosphorus	<0.10	mg/L P	
		P293	Orthophosphate	<0.02	mg/L P	

Certificate approved and electronically signed on 15/04/25 14:59

By Ciara Gildea, Senior Environmental Chemistry Analyst

For and on Behalf of ALS Life Sciences Ltd

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Hydro Environmental Services
Hydro Environmental Services
22 Lower Main Street
Dungarvan, Co. Waterford
Ireland

Certificate Number: CLN033435-1 Final
Date Reported: 08/05/2025
Date Analysis Started: 30/04/2025

Lab Ref.	Sample Details	Method Number	Test	Result	Units	Flag
CLN108415	Prod: Rcvd Dt: 30/04/2025 Start Testing: 30/04/2025 Description: P1687 - Red Rock Quarry Spt: Water Sample Type: Surface Waters Sample Date: 29/04/2025 15:00	P280	BOD 5 day Total	<1	mg/L O ₂	
		P202	Suspended Solids	<5	mg/L	
		P281	Chloride	6.2	mg/L Cl	
		P285	Total Nitrogen	<1.0	mg/L N	
		P281	Total Oxidised Nitrogen (TON)	<0.25	mg/L N	
		P281	Ammonia	<0.02	mg/L NH ₃ -N	
		P281	Nitrate	<5.0	mg/L NO ₃	
		P281	Nitrite	<0.05	mg/L NO ₂	
		P207	Total Phosphorus	<0.10	mg/L P	
		P293	Orthophosphate	0.53	mg/L P	

Certificate approved and electronically signed on 08/05/25 14:14

By David Kinsella, Environmental Chemistry Manager

For and on Behalf of ALS Life Sciences Ltd

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Hydro Environmental Services
Hydro Environmental Services
22 Lower Main Street
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Ireland

Certificate Number: CLN049956-1 Final
Date Reported: 12/06/2025
Date Analysis Started: 30/05/2025

Lab Ref.	Sample Details	Method Number	Test	Result	Units	Flag
CLN164779	Prod: Order No: P1687-0 Rcvd Dt: 30/05/2025 Start Testing: 30/05/2025 Description: P1687-0 - Red Rock Quarry SW1 Discharge 15:00 29/04/2025 Spt: Water Sample Type: Surface Waters	P280	BOD 5 day Total	<1	mg/L O ₂	
		P202	Suspended Solids	<5	mg/L	
		P281	Chloride	5.6	mg/L Cl	
		P285	Total Nitrogen	<1.0	mg/L N	
		P281	Total Oxidised Nitrogen (TON)	<0.25	mg/L N	
		P281	Ammonia	<0.02	mg/L NH ₃ -N	
		P281	Nitrate	<5.0	mg/L NO ₃	
		P281	Nitrite	<0.05	mg/L NO ₂	
		P207	Total Phosphorus	0.52	mg/L P	
		P293	Orthophosphate	<0.02	mg/L P	
CLN164780	Prod: Order No: P1687-0 Rcvd Dt: 30/05/2025 Start Testing: 30/05/2025 Description: P1687-0 - Red Rock Quarry SW2 Discharge 15:15 29/04/2025 Spt: Water Sample Type: Surface Waters	P280	BOD 5 day Total	<1	mg/L O ₂	
		P202	Suspended Solids	<5	mg/L	
		P281	Chloride	5.6	mg/L Cl	
		P285	Total Nitrogen	<1.0	mg/L N	
		P281	Total Oxidised Nitrogen (TON)	<0.25	mg/L N	
		P281	Ammonia	<0.02	mg/L NH ₃ -N	
		P281	Nitrate	<5.0	mg/L NO ₃	
		P281	Nitrite	<0.05	mg/L NO ₂	
		P207	Total Phosphorus	<0.10	mg/L P	
		P293	Orthophosphate	<0.02	mg/L P	

Certificate approved and electronically signed on 12/06/25 11:05

By David Kinsella, Environmental Chemistry Manager

For and on Behalf of ALS Life Sciences Ltd

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Hydro Environmental Services
Hydro Environmental Services
22 Lower Main Street
Dungarvan, Co. Waterford
Ireland

Certificate Number: CLN064330-1 Final
Date Reported: 10/07/2025
Date Analysis Started: 26/06/2025

Lab Ref.	Sample Details	Method Number	Test	Result	Units	Flag
CLN212604	Prod: Rcvd Dt: 25/06/2025 Start Testing: 26/06/2025 Description: P1687 - Red Rock Quarry SW1 Discharge Spt: Water Sample Type: Surface Waters	P280	BOD 5 day Total	1	mg/L O ₂	
		P202	Suspended Solids	<5	mg/L	
		P281	Chloride	6.4	mg/L Cl	
		P285	Total Nitrogen	<1.0	mg/L N	
		P281	Total Oxidised Nitrogen (TON)	0.32	mg/L N	
		P281	Ammonia	<0.02	mg/L NH ₃ -N	
		P281	Nitrate	<5.0	mg/L NO ₃	
		P281	Nitrite	<0.05	mg/L NO ₂	
		P207	Total Phosphorus	<0.10	mg/L P	
		P293	Orthophosphate	<0.02	mg/L P	
CLN212605	Prod: Rcvd Dt: 25/06/2025 Start Testing: 26/06/2025 Description: P1687 - Red Rock Quarry SW2 Discharge Spt: Water Sample Type: Surface Waters	P280	BOD 5 day Total	1	mg/L O ₂	
		P202	Suspended Solids	6	mg/L	
		P281	Chloride	4.8	mg/L Cl	
		P285	Total Nitrogen	<1.0	mg/L N	
		P281	Total Oxidised Nitrogen (TON)	<0.25	mg/L N	
		P281	Ammonia	<0.02	mg/L NH ₃ -N	
		P281	Nitrate	<5.0	mg/L NO ₃	
		P281	Nitrite	<0.05	mg/L NO ₂	
		P207	Total Phosphorus	<0.10	mg/L P	
		P293	Orthophosphate	<0.02	mg/L P	
CLN212606	Prod: Rcvd Dt: 25/06/2025 Start Testing: 26/06/2025 Description: P1630-1_SW1 Spt: Water Sample Type: Surface Waters	P280	BOD 5 day Total	1	mg/L O ₂	
		P202	Suspended Solids	<5	mg/L	
		P281	Chloride	14.1	mg/L Cl	
		P285	Total Nitrogen	3.8	mg/L N	
		P281	Total Oxidised Nitrogen (TON)	3.45	mg/L N	
		P281	Ammonia	<0.02	mg/L NH ₃ -N	
		P281	Nitrate	15.5	mg/L NO ₃	
		P281	Nitrite	<0.05	mg/L NO ₂	
		P207	Total Phosphorus	0.11	mg/L P	
		P293	Orthophosphate	0.02	mg/L P	



Certificate Number: CLN064330-1 Final

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Lab Ref.	Sample Details	Method Number	Test	Result	Units	Flag
CLN212607	Prod: Rcvd Dt: 25/06/2025 Start Testing: 26/06/2025 Description: P1630-1_SW2 Spt: Water Sample Type: Surface Waters	P280	BOD 5 day Total	<5	mg/L O ₂	
		P202	Suspended Solids	<5	mg/L	
		P281	Chloride	23.1	mg/L Cl	
		P285	Total Nitrogen	9.8	mg/L N	
		P281	Total Oxidised Nitrogen (TON)	9.10	mg/L N	
		P281	Ammonia	<0.02	mg/L NH ₃ -N	
		P281	Nitrate	40.3	mg/L NO ₃	
		P281	Nitrite	<0.05	mg/L NO ₂	
		P207	Total Phosphorus	<0.10	mg/L P	
		P293	Orthophosphate	<0.02	mg/L P	

Certificate approved and electronically signed on 10/07/25 11:35

By Ciara Gildea, Senior Environmental Chemistry Analyst

For and on Behalf of ALS Life Sciences Ltd

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Hydro Environmental Services
Hydro Environmental Services
22 Lower Main Street
Dungarvan, Co. Waterford
Ireland

Certificate Number: CLN079903-1 Final
Date Reported: 01/08/2025
Date Analysis Started: 25/07/2025

Lab Ref.	Sample Details	Method Number	Test	Result	Units	Flag
CLN264581	Prod: Rcvd Dt: 24/07/2025 Start Testing: 25/07/2025 Description: P1687 Red Rock SW1 Discharge Spt: Effluent Sample Type: WWTP Effluent	P280	BOD 5 day Total	2	mg/L O ₂	
		P202	Suspended Solids	<5	mg/L	
		P281	Chloride	6.2	mg/L Cl	
		P285	Total Nitrogen	<1.0	mg/L N	
		P281	Total Oxidised Nitrogen (TON)	<0.25	mg/L N	
		P281	Ammonia	<0.02	mg/L NH ₃ -N	
		P281	Nitrate	<5.0	mg/L NO ₃	
		P281	Nitrite	<0.05	mg/L NO ₂	
		P207	Total Phosphorus	<0.10	mg/L P	
		P293	Orthophosphate	<0.02	mg/L P	
CLN264582	Prod: Rcvd Dt: 24/07/2025 Start Testing: 25/07/2025 Description: P1687 Red Rock SW2 Discharge Spt: Effluent Sample Type: WWTP Effluent	P280	BOD 5 day Total	2	mg/L O ₂	
		P202	Suspended Solids	<5	mg/L	
		P281	Chloride	4.1	mg/L Cl	
		P285	Total Nitrogen	<1.0	mg/L N	
		P281	Total Oxidised Nitrogen (TON)	<0.25	mg/L N	
		P281	Ammonia	<0.02	mg/L NH ₃ -N	
		P281	Nitrate	<5.0	mg/L NO ₃	
		P281	Nitrite	<0.05	mg/L NO ₂	
		P207	Total Phosphorus	<0.10	mg/L P	
		P293	Orthophosphate	<0.02	mg/L P	

Certificate approved and electronically signed on 01/08/25 12:44

By David Kinsella, Environmental Chemistry Manager

For and on Behalf of ALS Life Sciences Ltd

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