

Appendix D

Slope/w Outputs

Section 1 Slope/W Outputs

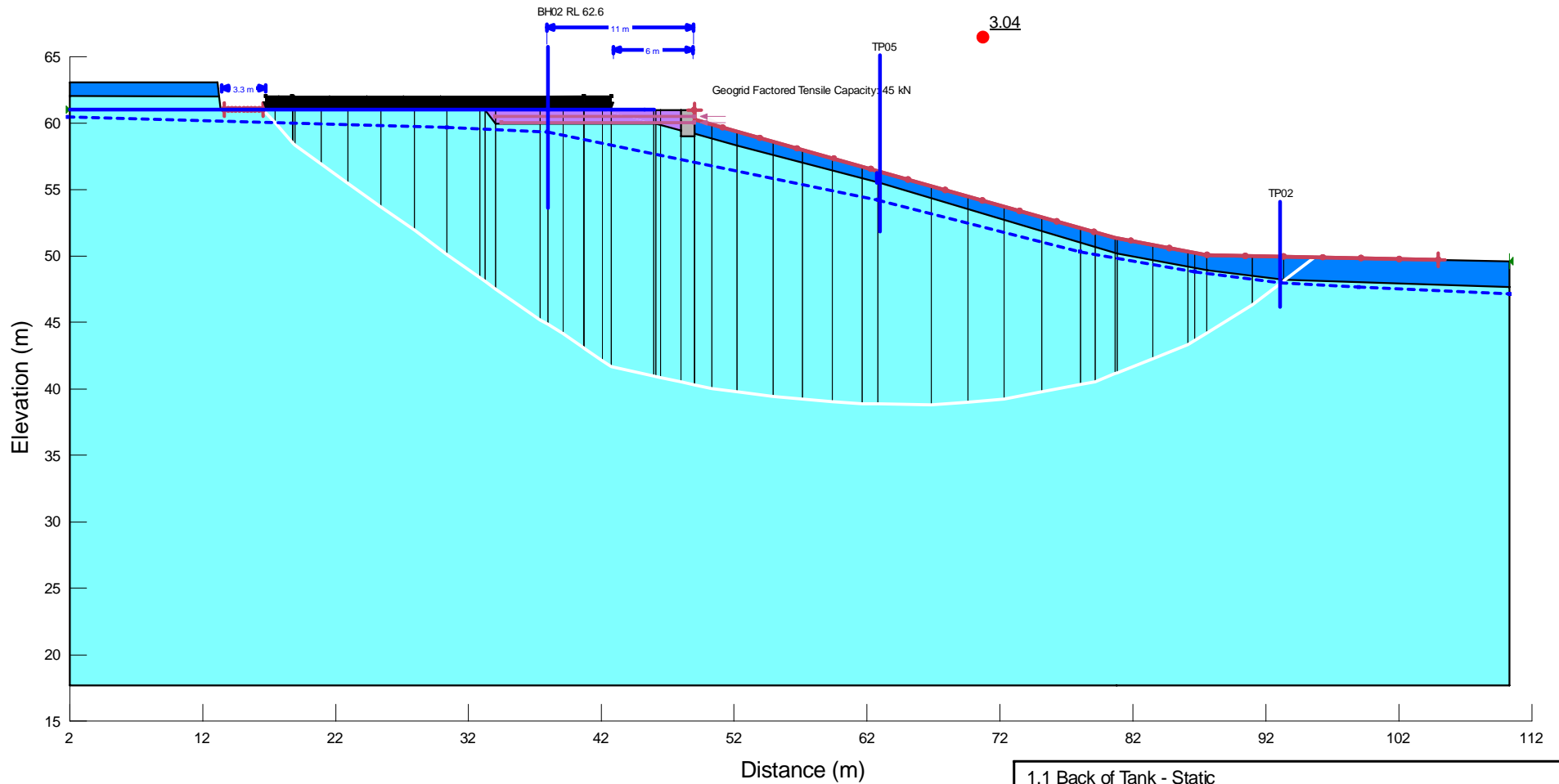
Richmond South Reservoir - Long Section 1

1.1 Back of Tank - Static

Color	Name	Slope Stability Material Model	Unit Weight (kN/m ³)	Effective Cohesion (kPa)	Effective Friction Angle (°)	Piezometric Line
Grey	Gabion Infill	High Strength	21			1
Purple	Granular Fill - AP65	Mohr-Coulomb	21	0	35	1
Cyan	Moutere Gravels DRAINED	Mohr-Coulomb	20	50	32	1
Blue	Silly Clay UNDRAINED	Mohr-Coulomb	16	0	25	1

Surcharge (Unit Weight) 1: 90 kN/m²
 Surcharge (Unit Weight) 2: 136 kN/m²

Horz Seismic Coef.: 0
 Factor of Safety: 3.04



1.1 Back of Tank - Static	
Single Tank Option Slope Model.gsz	
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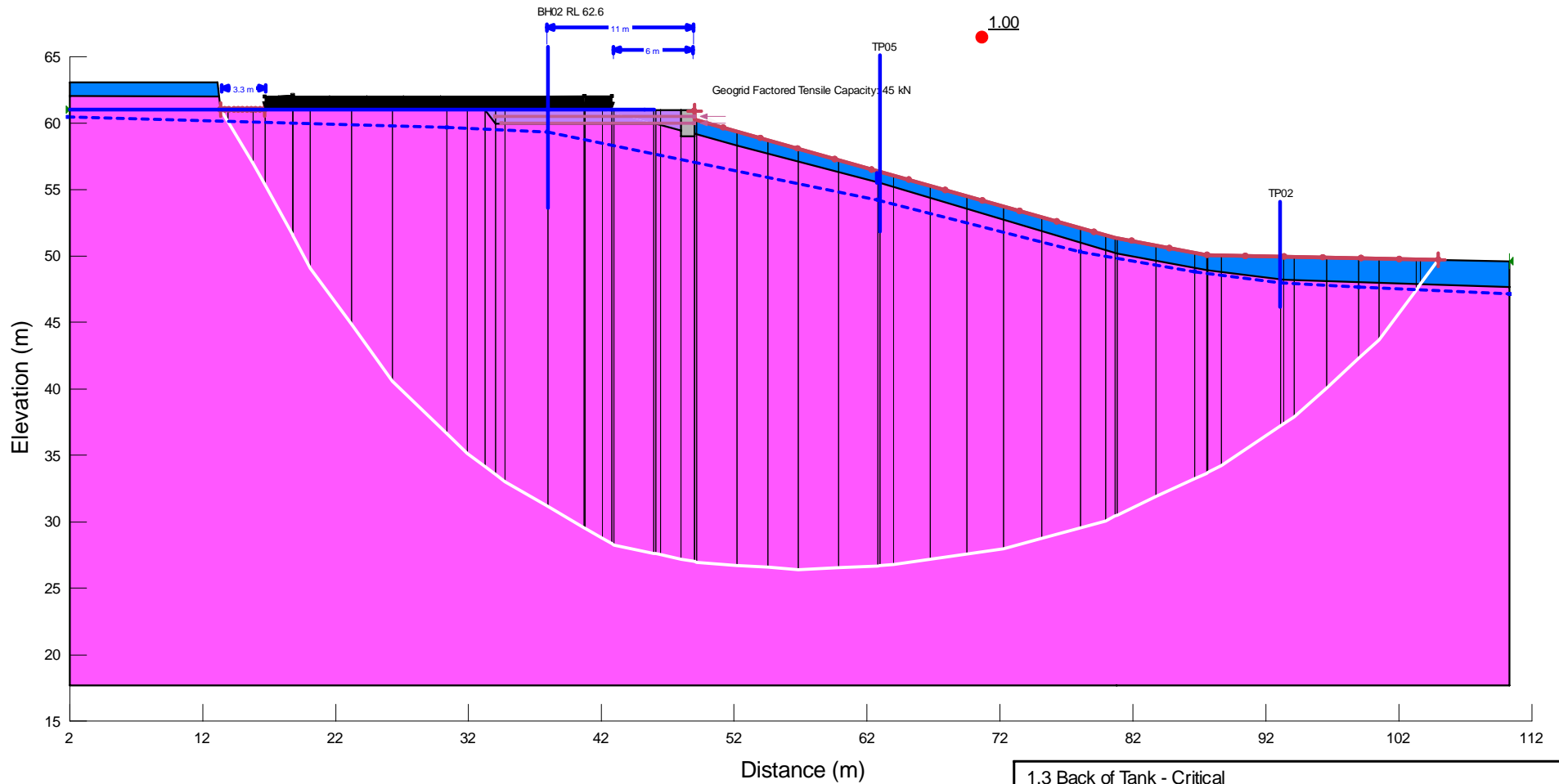
Richmond South Reservoir - Long Section 1

1.3 Back of Tank - Critical

Color	Name	Slope Stability Material Model	Unit Weight (kN/m ³)	Total Cohesion (kPa)	Effective Cohesion (kPa)	Effective Friction Angle (°)	Piezometric Line
Grey	Gabion Fill	High Strength	21				1
Purple	Granular Fill - AP65	Mohr-Coulomb	21	0	0	35	1
Pink	Medium Gravel UNDRAINED 175 KPA	Undrained (Phi=0)	20	175			1
Blue	Silty Clay UNDRAINED	Mohr-Coulomb	16	0	0	25	1

Surcharge (Unit Weight) 1: 90 kN/m³
 Surcharge (Unit Weight) 2: 196 kN/m³

Horz Seismic Coef.: 0.52
 Factor of Safety: 1.00



1.3 Back of Tank - Critical	
Single Tank Option Slope Model.gsz	
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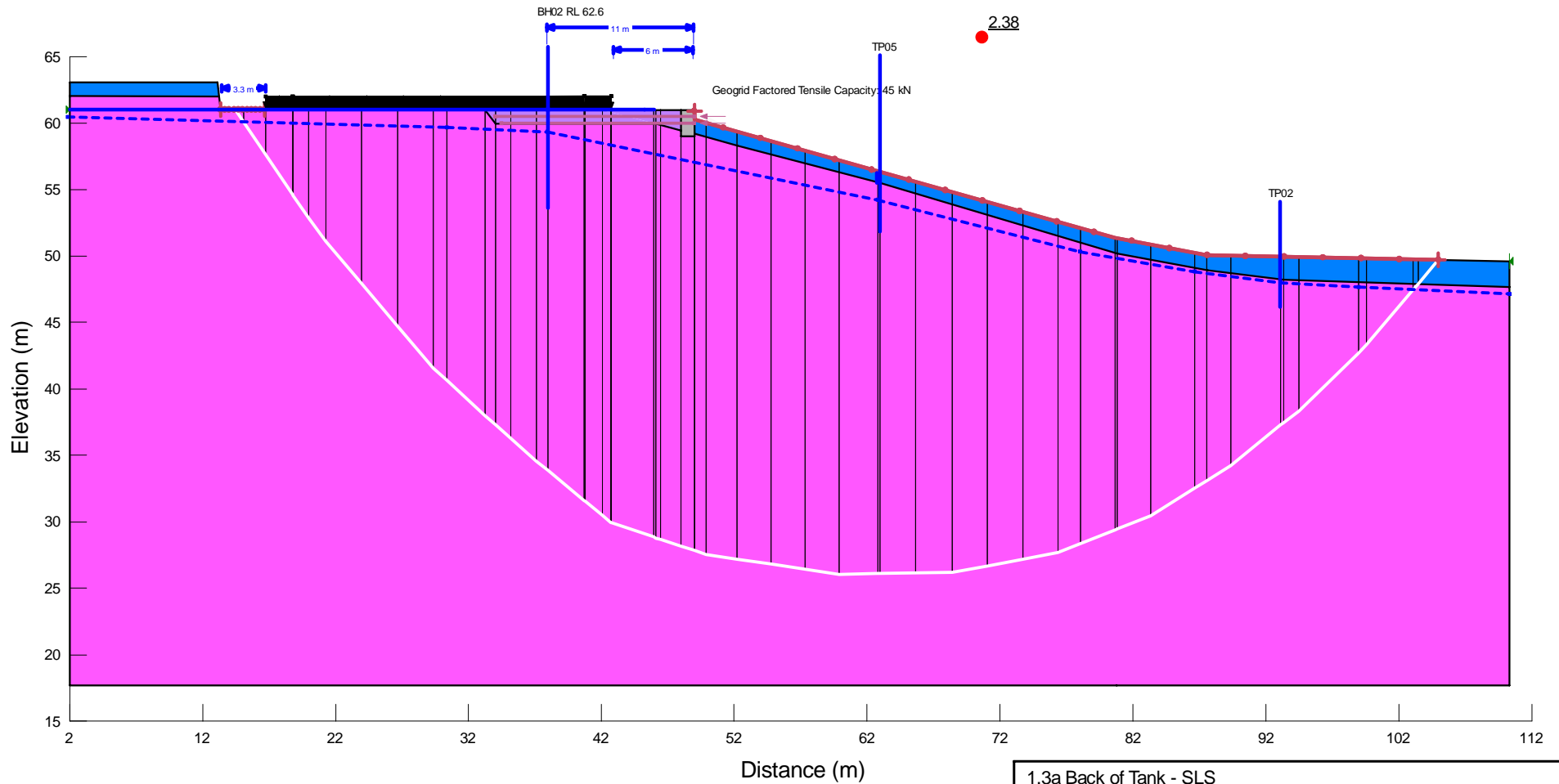
Richmond South Reservoir - Long Section 1

1.3a Back of Tank - SLS

Color	Name	Slope Stability Material Model	Unit Weight (kN/m ³)	Total Cohesion (kPa)	Effective Cohesion (kPa)	Effective Friction Angle (°)	Piezometric Line
Grey	Gabion/Fill	High Strength	21				1
Purple	Granular Fill - AP65	Mohr-Coulomb	21	0	35		1
Pink	Mature Gravel UNDRAINED 175 KPA	Undrained (Phi=0)	20	175			1
Blue	Silty Clay UNDRAINED	Mohr-Coulomb	16	0	25		1

Surcharge (Unit Weight) 1: 90 kN/m³
 Surcharge (Unit Weight) 2: 136 kN/m³

Horz Seismic Coef.: 0.08
 Factor of Safety: 2.38



1.3a Back of Tank - SLS	
Single Tank Option Slope Model.gsz	
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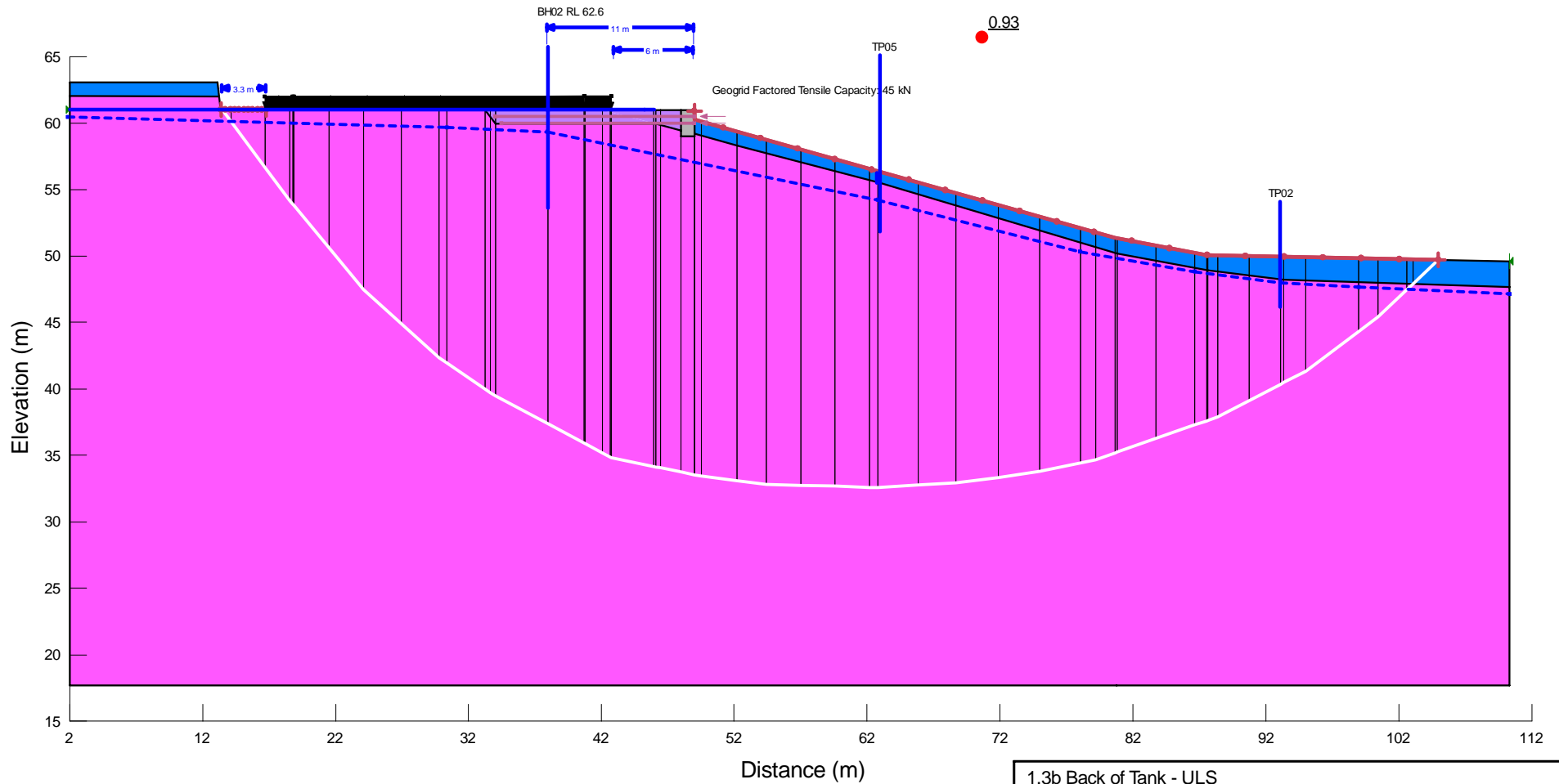
Richmond South Reservoir - Long Section 1

1.3b Back of Tank - ULS

Color	Name	Slope Stability Material Model	Unit Weight (kN/m ³)	Total Cohesion (kPa)	Effective Cohesion (kPa)	Effective Friction Angle (°)	Piezometric Line
Grey	Gabion/Fill	High Strength	21				1
Purple	Granular Fill - AP65	Mohr-Coulomb	21	0	0	35	1
Pink	Medium Gravel UNDRAINED 175 KPA	Undrained (Phi=0)	20	175			1
Blue	Silty Clay UNDRAINED	Mohr-Coulomb	16	0	0	25	1

Surcharge (Unit Weight) 1: 90 kN/m³
 Surcharge (Unit Weight) 2: 196 kN/m³

Horz Seismic Coef.: 0.6
 Factor of Safety: 0.93



1.3b Back of Tank - ULS	
Single Tank Option Slope Model.gsz	
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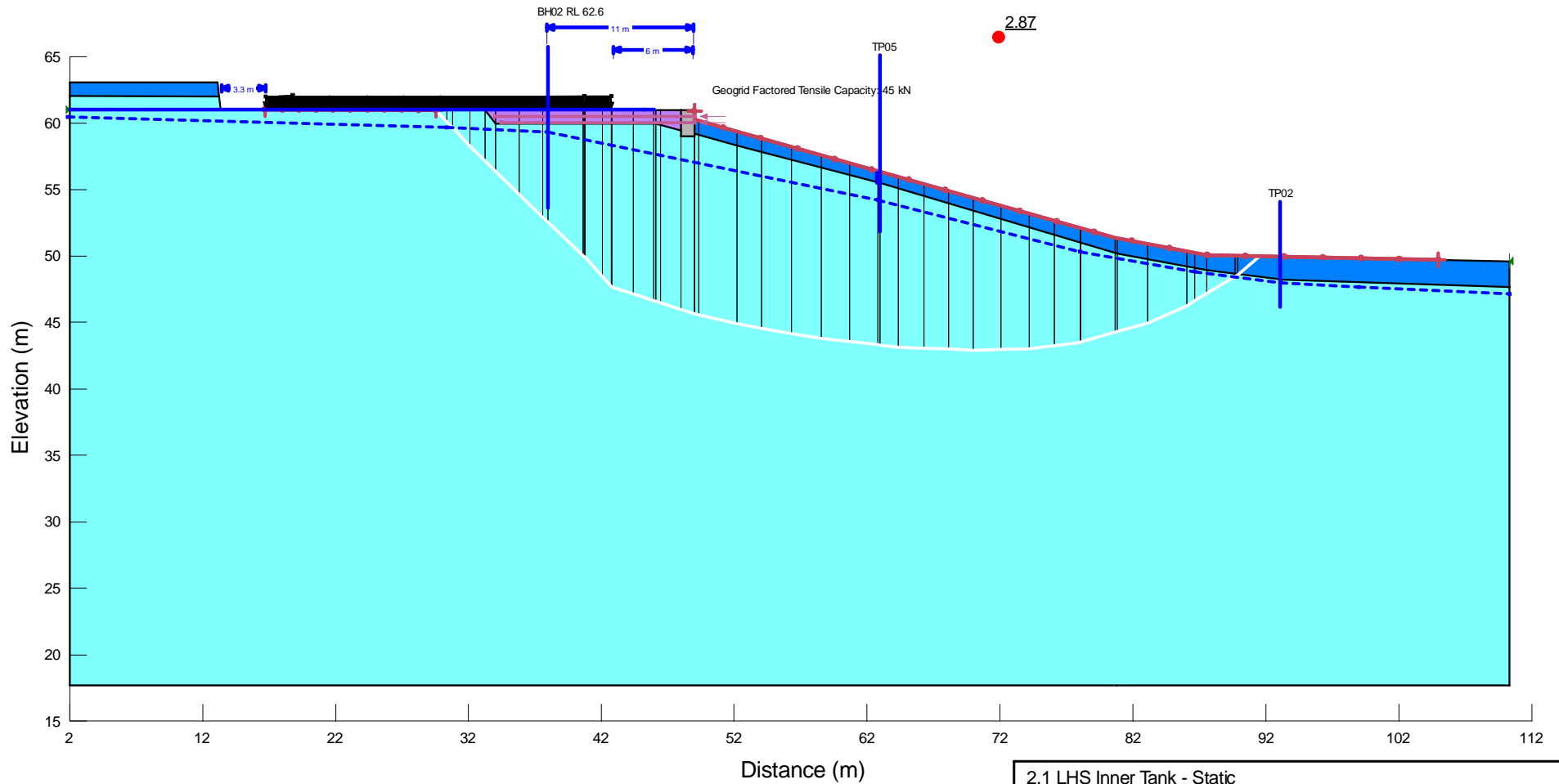
Richmond South Reservoir - Long Section 1

2.1 LHS Inner Tank - Static

Color	Name	Slope Stability Material Model	Unit Weight (kN/m ³)	Effective Cohesion (kPa)	Effective Friction Angle (°)	Piezometric Line
Grey	Gabion Infill	High Strength	21			1
Purple	Granular Fill - AP65	Mohr-Coulomb	21	0	35	1
Cyan	Moutere Gravels DRAINED	Mohr-Coulomb	20	50	32	1
Blue	Silly Clay UNDRAINED	Mohr-Coulomb	16	0	25	1

Surcharge (Unit Weight) 1: 90 kN/m³
 Surcharge (Unit Weight) 2: 136 kN/m³

Horz Seismic Coef.: 0
 Factor of Safety: 2.87



2.1 LHS Inner Tank - Static	
Single Tank Option Slope Model.gsz	
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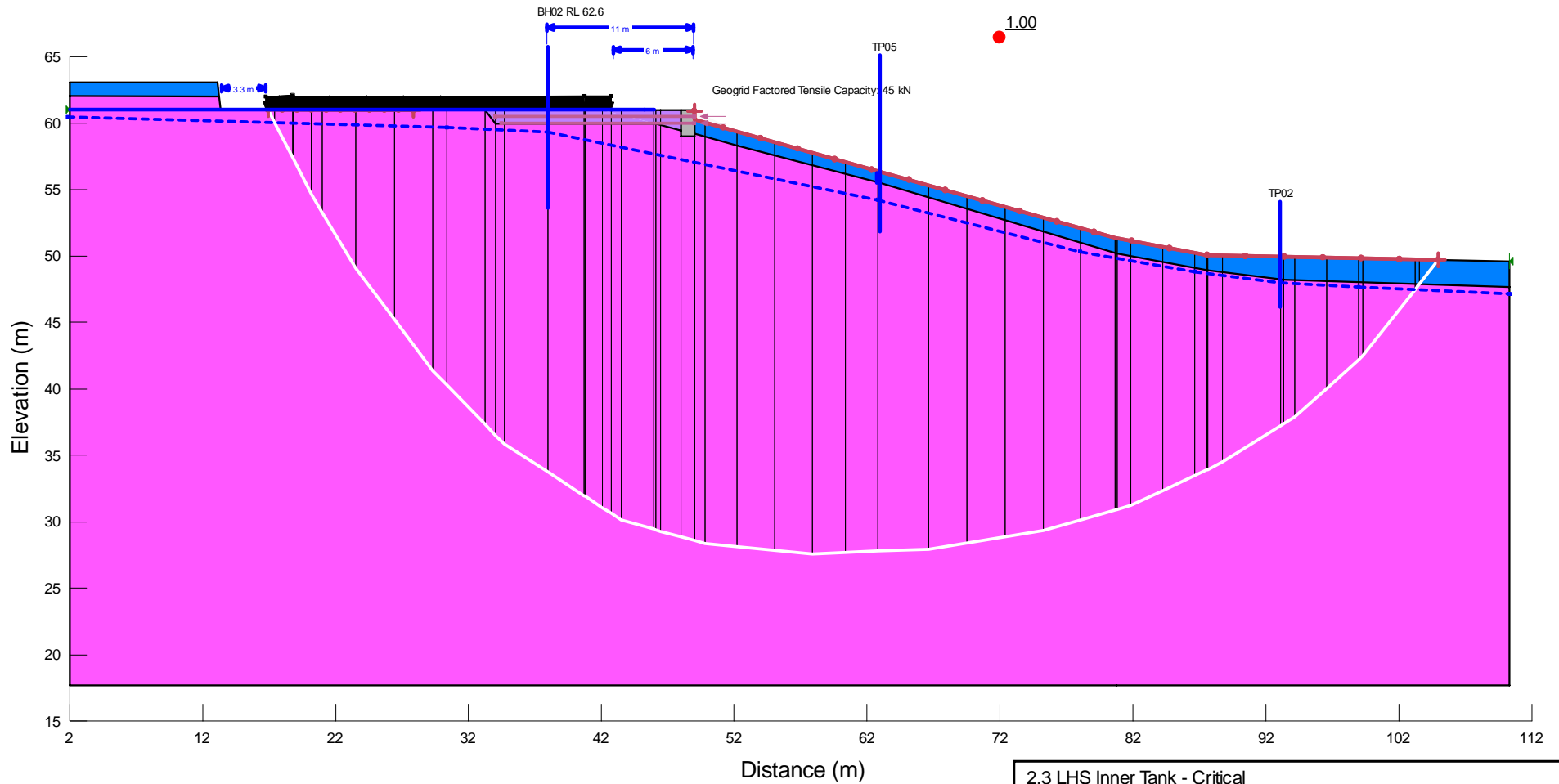
Richmond South Reservoir - Long Section 1

2.3 LHS Inner Tank - Critical

Color	Name	Slope Stability Material Model	Unit Weight (kN/m ³)	Total Cohesion (kPa)	Effective Cohesion (kPa)	Effective Friction Angle (°)	Piezometric Line
Grey	Gabion Infill	High Strength	21				1
Purple	Granular Fill - AP65	Mohr-Coulomb	21	0	35	35	1
Pink	Medium Gravel UNDRAINED 175 KPA	Undrained (Phi=0)	20	175			1
Blue	Silty Clay UNDRAINED	Mohr-Coulomb	16	0	25	25	1

Surcharge (Unit Weight) 1: 90 kN/m³
 Surcharge (Unit Weight) 2: 196 kN/m³

Horz Seismic Coef.: 0.54
 Factor of Safety: 1.00



2.3 LHS Inner Tank - Critical	
Single Tank Option Slope Model.gsz	
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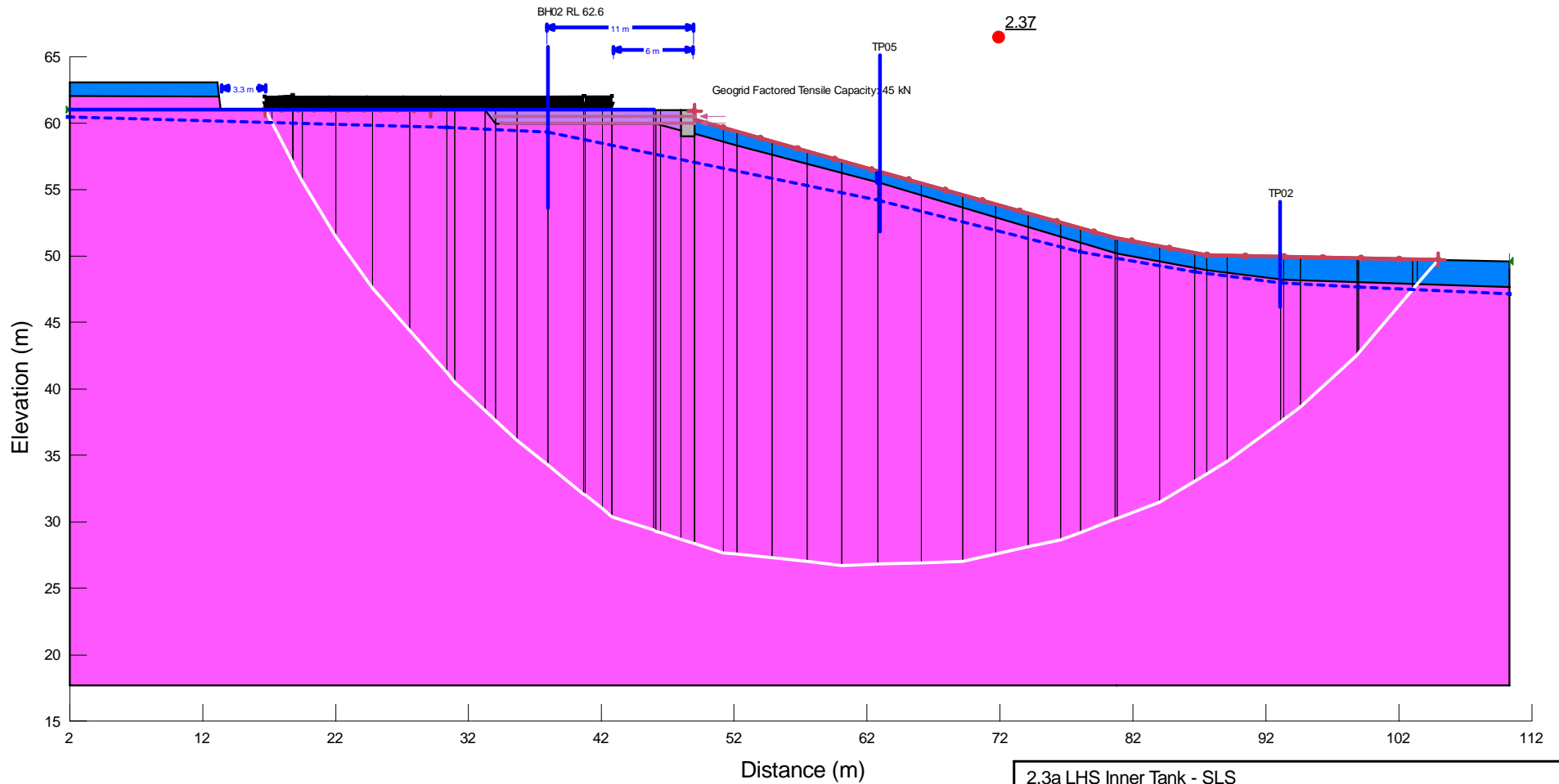
Richmond South Reservoir - Long Section 1

2.3a LHS Inner Tank - SLS

Color	Name	Slope Stability Material Model	Unit Weight (kN/m ³)	Total Cohesion (kPa)	Effective Cohesion (kPa)	Effective Friction Angle (°)	Piezometric Line
Grey	Gabion/Fill	High Strength	21				1
Purple	Granular Fill - AP65	Mohr-Coulomb	21	0	0	35	1
Pink	Medium Gravel UNDRAINED 175 KPA	Undrained (Phi=0)	20	175			1
Blue	Silty Clay UNDRAINED	Mohr-Coulomb	16	0	0	25	1

Surcharge (Unit Weight) 1: 90 kN/m²
 Surcharge (Unit Weight) 2: 136 kN/m²

Horz Seismic Coef.: 0.08
 Factor of Safety: 2.37



2.3a LHS Inner Tank - SLS	
Single Tank Option Slope Model.gsz	
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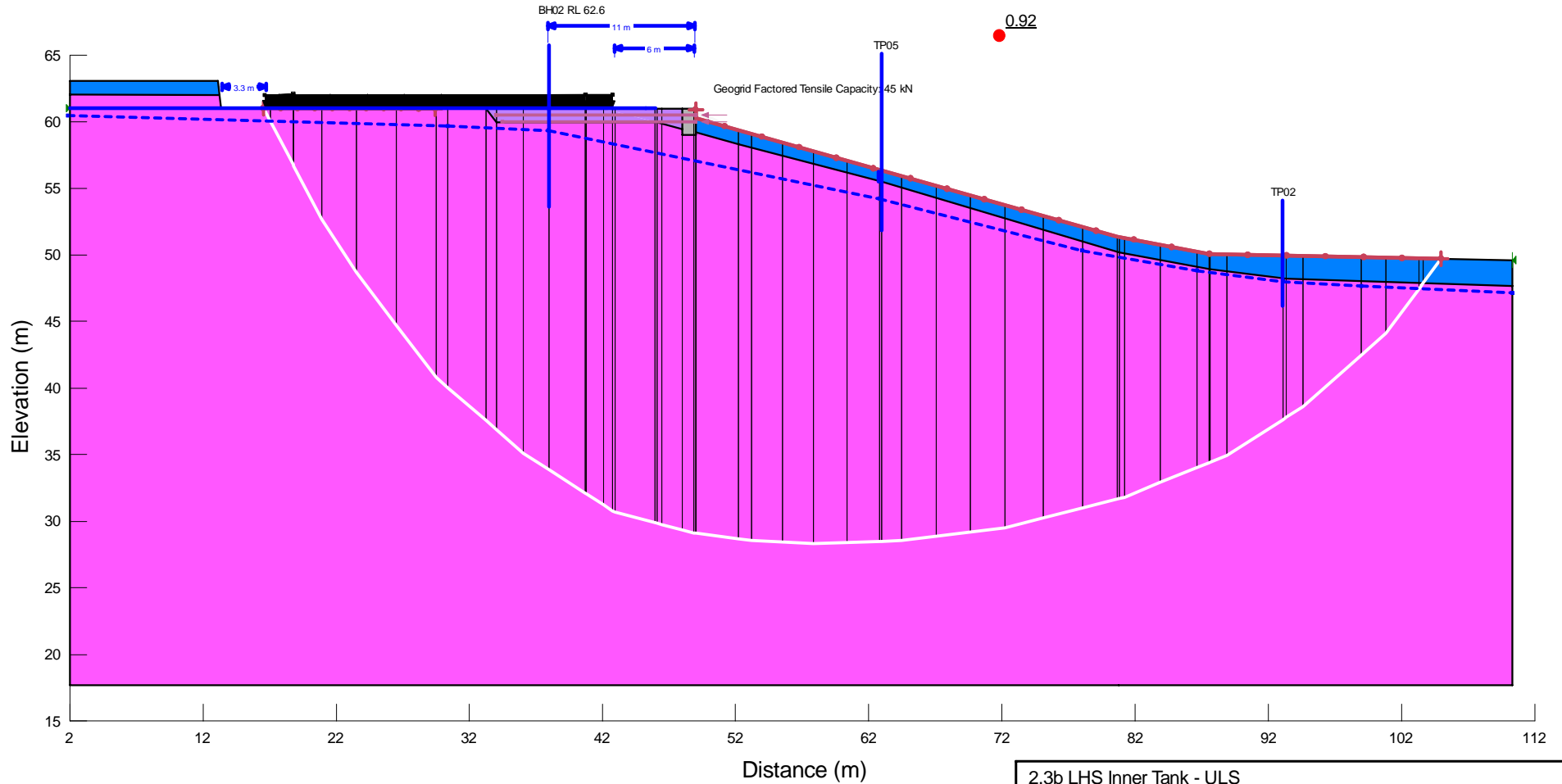
Richmond South Reservoir - Long Section 1

2.3b LHS Inner Tank - ULS

Color	Name	Slope Stability Material Model	Unit Weight (kN/m ³)	Total Cohesion (kPa)	Effective Cohesion (kPa)	Effective Friction Angle (°)	Piezometric Line
Grey	Gabion/Fill	High Strength	21				1
Purple	Granular Fill - AP65	Mohr-Coulomb	21	0	0	35	1
Pink	Medium Gravel UNDRAINED 175 KPA	Undrained (Phi=0)	20	175			1
Blue	Silty Clay UNDRAINED	Mohr-Coulomb	16	0	0	25	1

Surcharge (Unit Weight) 1: 90 kN/m³
 Surcharge (Unit Weight) 2: 196 kN/m³

Horz Seismic Coef.: 0.6
 Factor of Safety: 0.92



2.3b LHS Inner Tank - ULS	
Single Tank Option Slope Model.gsz	
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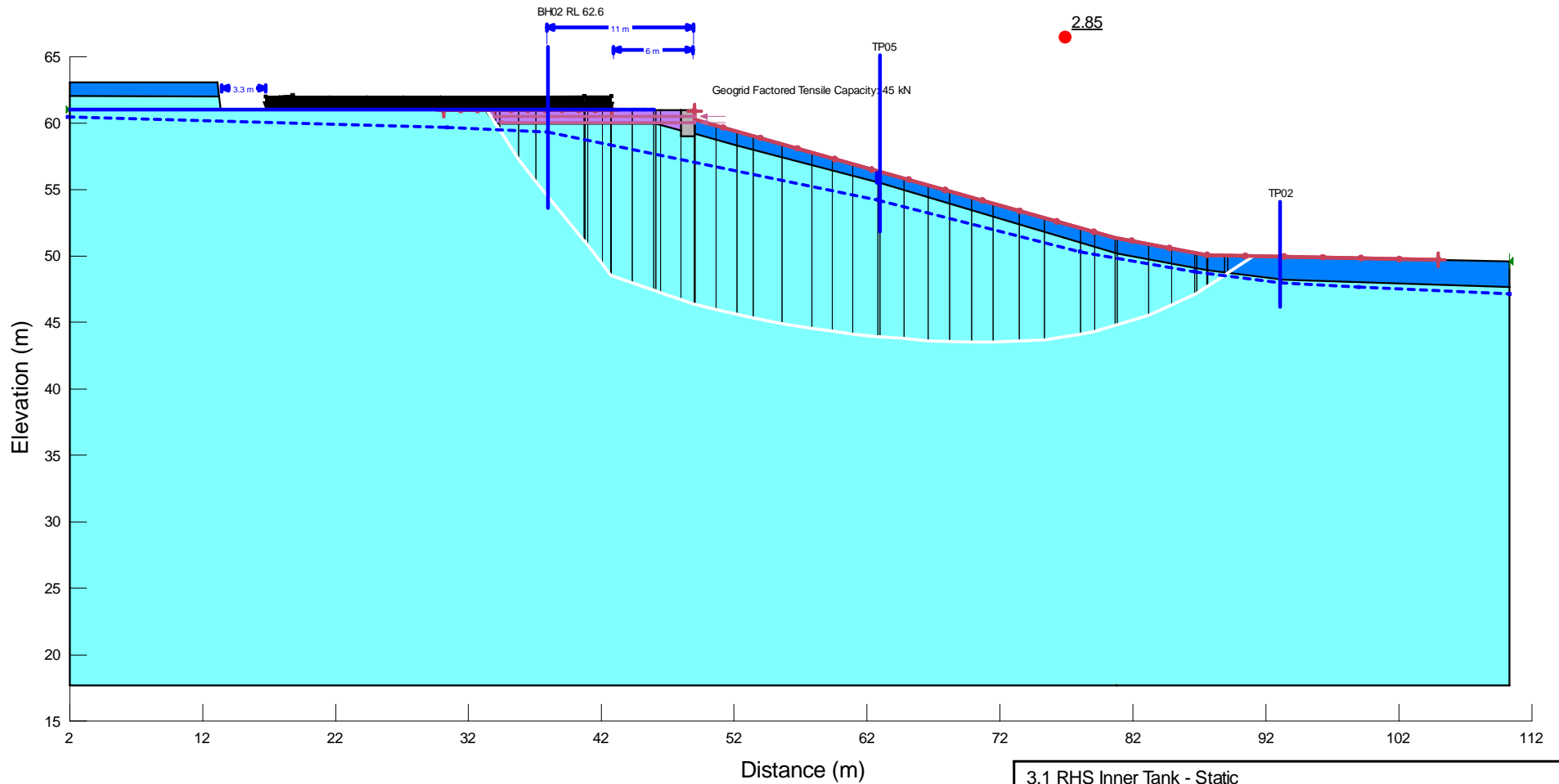
Richmond South Reservoir - Long Section 1

3.1 RHS Inner Tank - Static

Color	Name	Slope Stability Material Model	Unit Weight (kN/m ³)	Effective Cohesion (kPa)	Effective Friction Angle (°)	Piezometric Line
Grey	Gabion Infill	High Strength	21			1
Purple	Granular Fill - AP65	Mohr-Coulomb	21	0	35	1
Cyan	Moutere Gravels DRAINED	Mohr-Coulomb	20	50	32	1
Blue	Silly Clay UNDRAINED	Mohr-Coulomb	16	0	25	1

Surcharge (Unit Weight) 1: 90 kN/m³
 Surcharge (Unit Weight) 2: 136 kN/m³

Horz Seismic Coef.: 0
 Factor of Safety: 2.85



3.1 RHS Inner Tank - Static	
Single Tank Option Slope Model.gsz	
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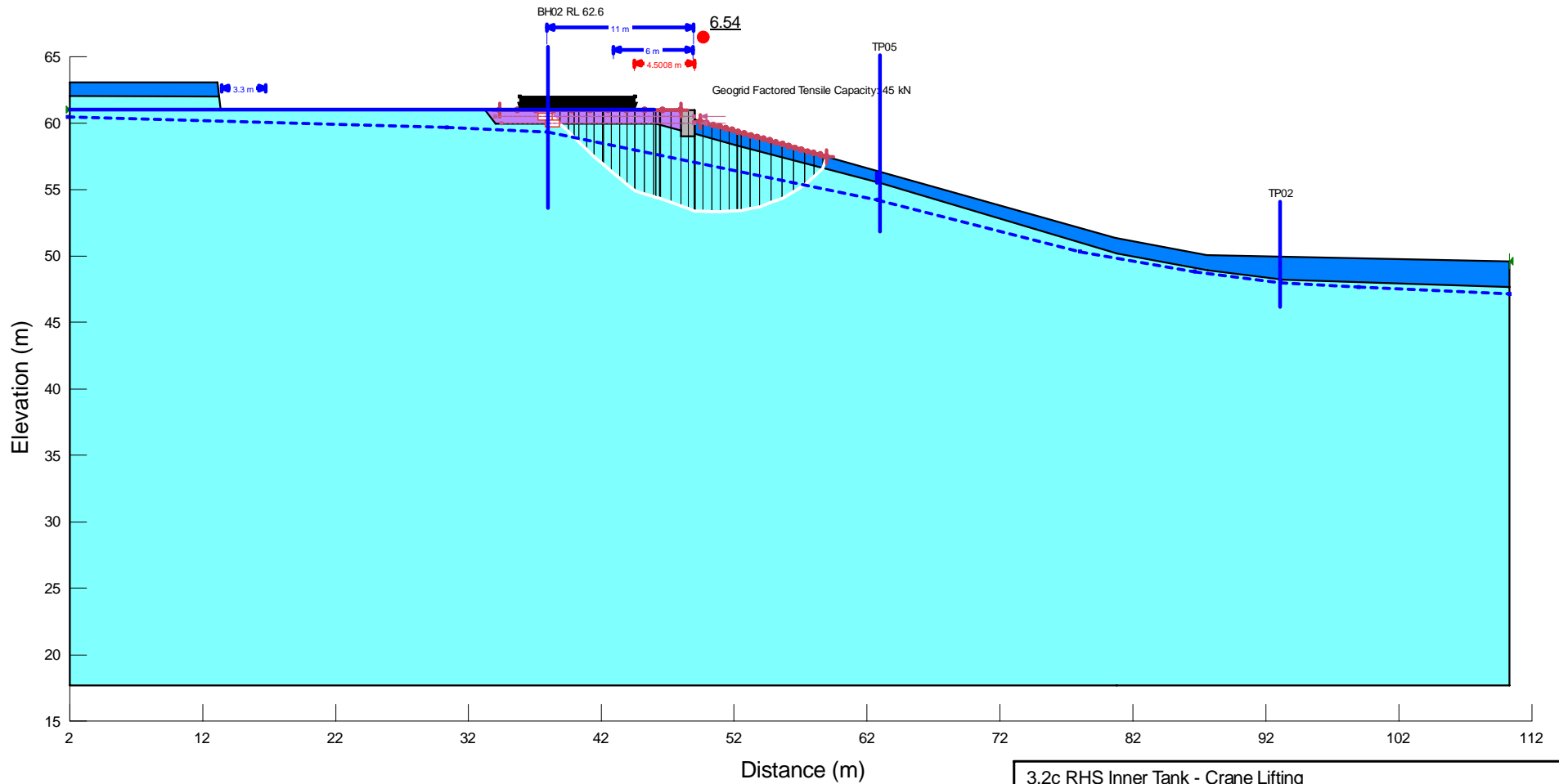
Richmond South Reservoir - Long Section 1

3.2c RHS Inner Tank - Crane Lifting

Color	Name	Slope Stability Material Model	Unit Weight (kN/m ³)	Effective Cohesion (kPa)	Effective Friction Angle (°)	Piezometric Line
Grey	Gabion Infill	High Strength	21			1
Purple	Granular Fill - AP65	Mohr-Coulomb	21	0	35	1
Cyan	Moutere Gravels DRAINED	Mohr-Coulomb	20	50	32	1
Blue	Silly Clay UNDRAINED	Mohr-Coulomb	16	0	25	1

Surcharge (Unit Weight) 1: 26 kN/m³

Horz Seismic Coef.: 0
Factor of Safety: 6.54



3.2c RHS Inner Tank - Crane Lifting	
Single Tank Option Slope Model.gsz	
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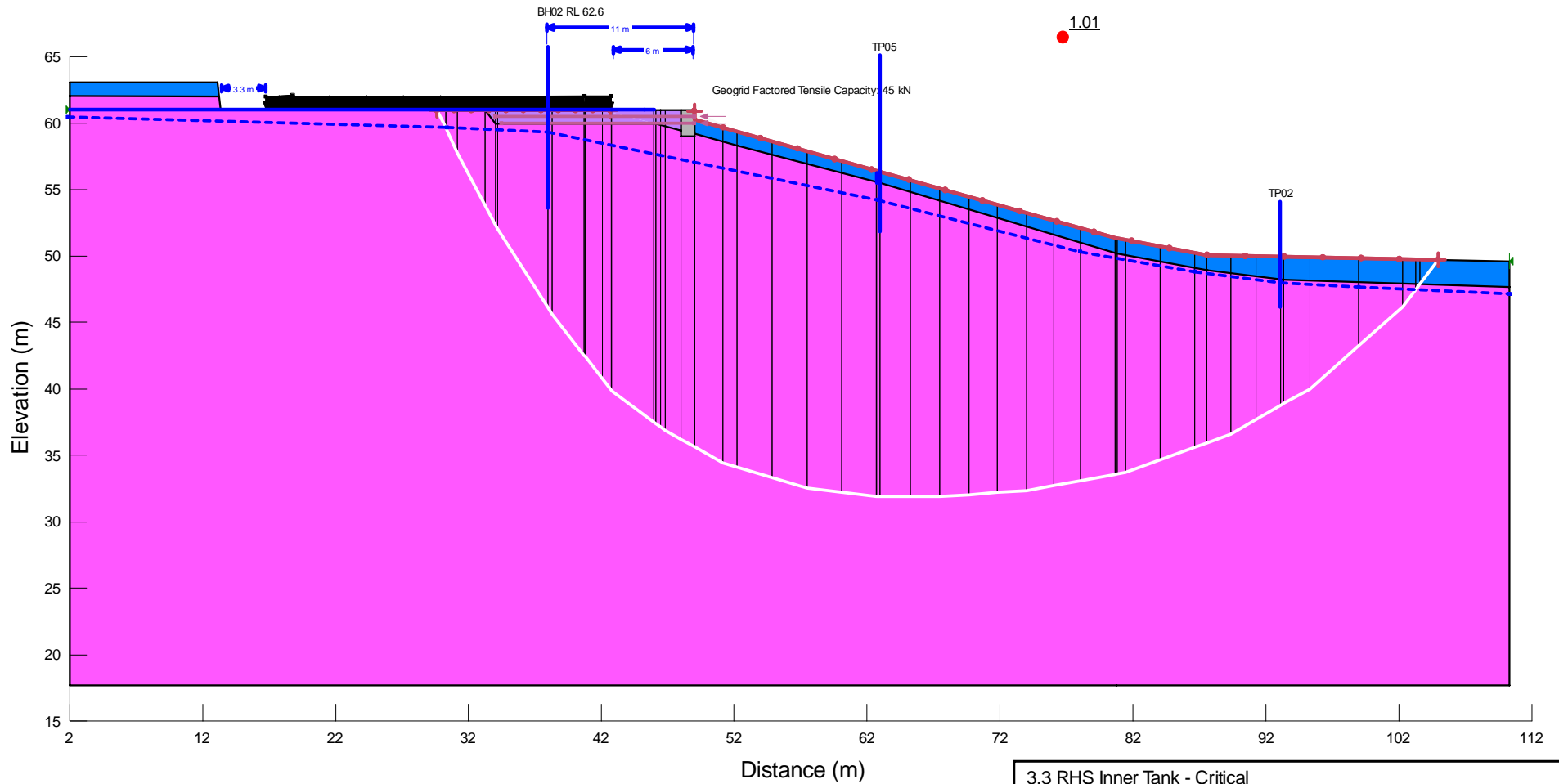
Richmond South Reservoir - Long Section 1

3.3 RHS Inner Tank - Critical

Color	Name	Slope Stability Material Model	Unit Weight (kN/m ³)	Total Cohesion (kPa)	Effective Cohesion (kPa)	Effective Friction Angle (°)	Piezometric Line
Grey	Gabion Infill	High Strength	21				1
Purple	Granular Fill - AP65	Mohr-Coulomb	21	0	35	35	1
Pink	Medium Gravel UNDRAINED 175 KPA	Undrained (Phi=0)	20	175			1
Blue	Silty Clay UNDRAINED	Mohr-Coulomb	16	0	25	25	1

Surcharge (Unit Weight) 1: 90 kN/m²
 Surcharge (Unit Weight) 2: 196 kN/m²

Horz Seismic Coef.: 0.67
 Factor of Safety: 1.01



3.3 RHS Inner Tank - Critical	
Single Tank Option Slope Model.gsz	
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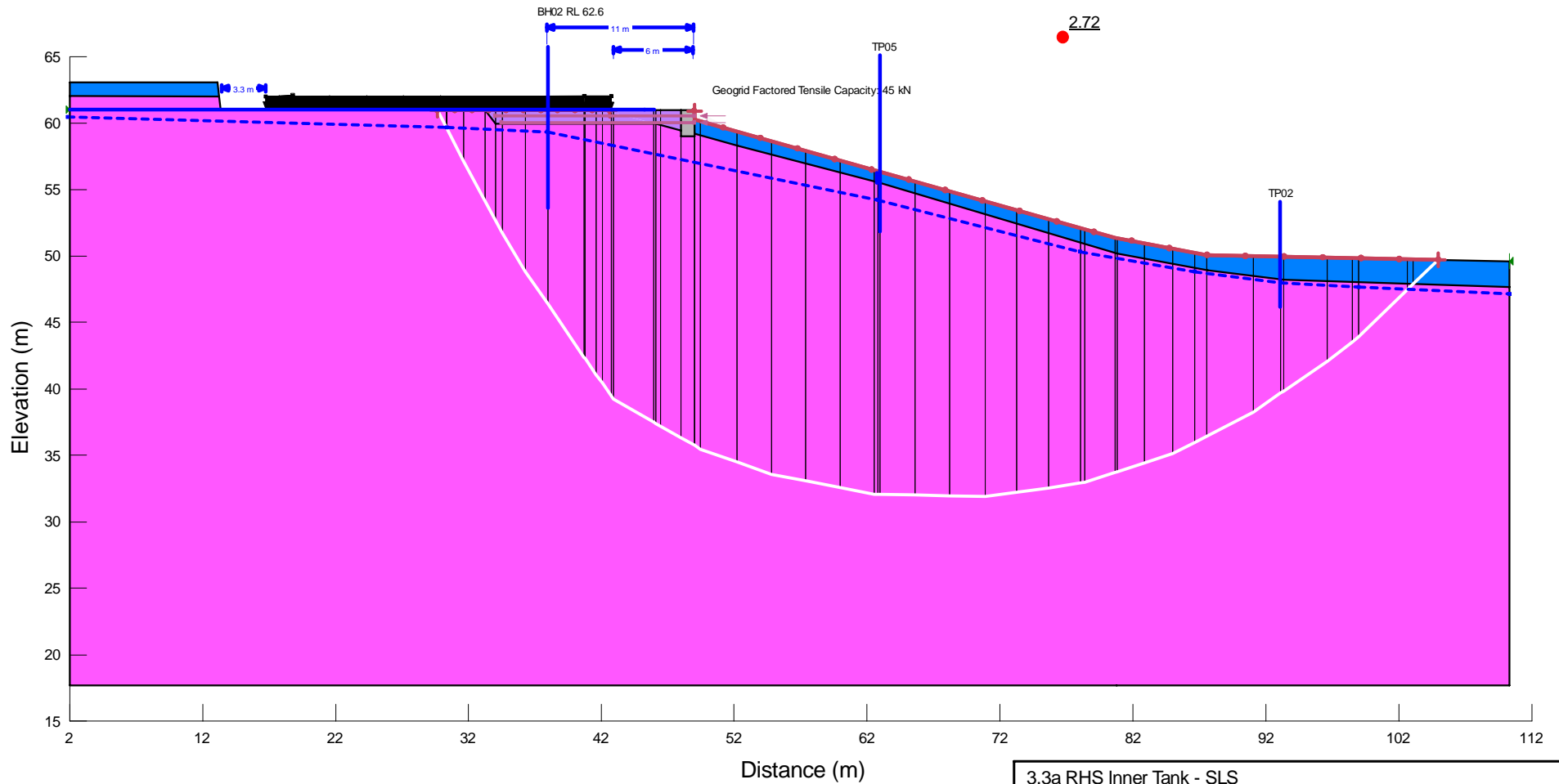
Richmond South Reservoir - Long Section 1

3.3a RHS Inner Tank - SLS

Color	Name	Slope Stability Material Model	Unit Weight (kN/m ³)	Total Cohesion (kPa)	Effective Cohesion (kPa)	Effective Friction Angle (°)	Piezometric Line
Grey	Gabion Fill	High Strength	21				1
Purple	Granular Fill - AP65	Mohr-Coulomb	21	0	0	35	1
Pink	Medium Gravel UNDRAINED 175 KPA	Undrained (Phi=0)	20	175			1
Blue	Silty Clay UNDRAINED	Mohr-Coulomb	16	0	0	25	1

Surcharge (Unit Weight) 1: 90 kN/m²
 Surcharge (Unit Weight) 2: 136 kN/m²

Horz Seismic Coef.: 0.08
 Factor of Safety: 2.72



3.3a RHS Inner Tank - SLS	
Single Tank Option Slope Model.gsz	
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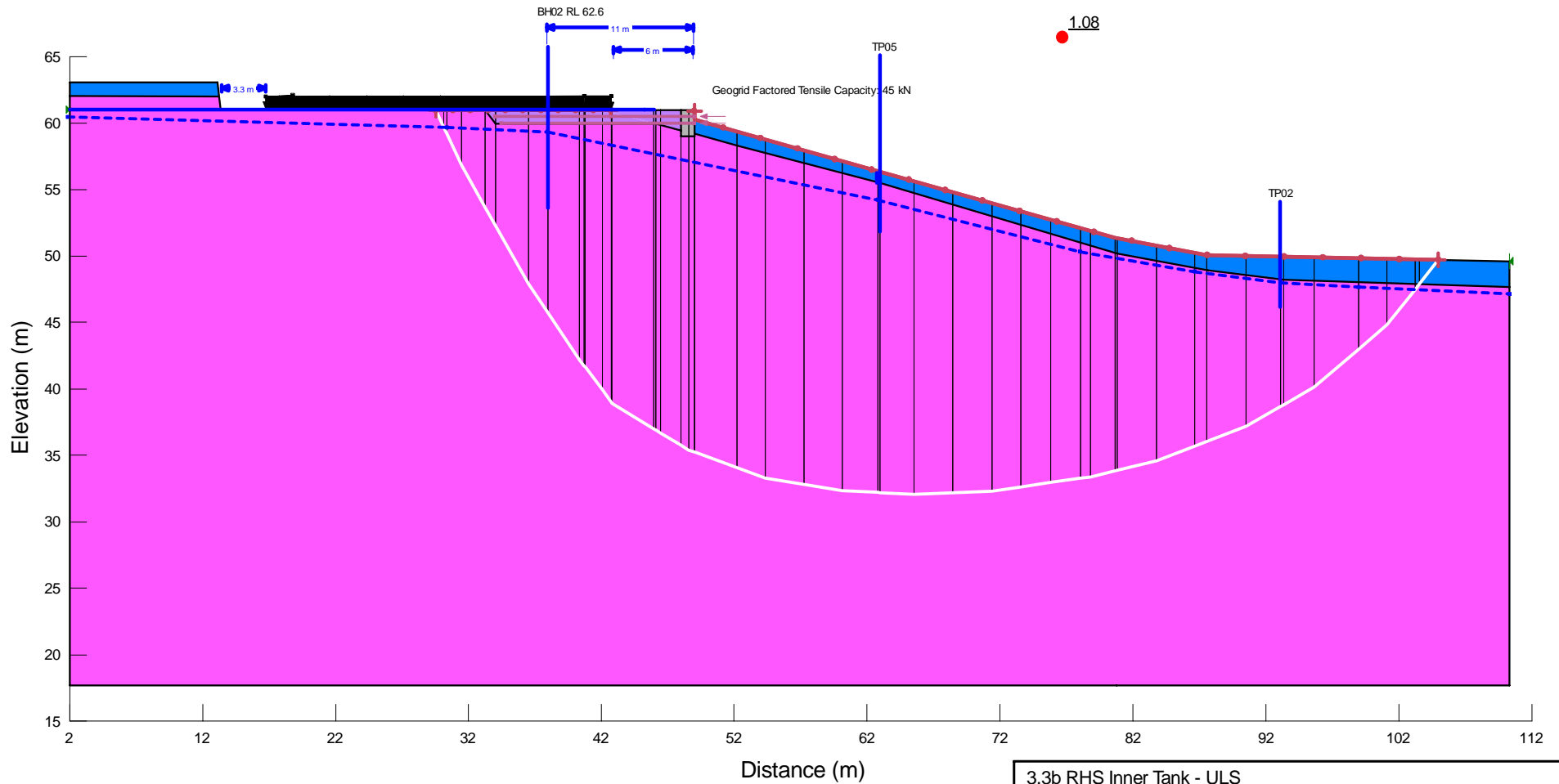
Richmond South Reservoir - Long Section 1

3.3b RHS Inner Tank - ULS

Color	Name	Slope Stability Material Model	Unit Weight (kN/m ³)	Total Cohesion (kPa)	Effective Cohesion (kPa)	Effective Friction Angle (°)	Piezometric Line
Grey	Gabion Infill	High Strength	21				1
Purple	Granular Fill - AP65	Mohr-Coulomb	21	0	0	35	1
Pink	Medium Gravel UNDRAINED 175 KPA	Undrained (Phi=0)	20	175			1
Blue	Silty Clay UNDRAINED	Mohr-Coulomb	16	0	0	25	1

Surcharge (Unit Weight) 1: 90 kN/m²
 Surcharge (Unit Weight) 2: 196 kN/m²

Horz Seismic Coef.: 0.6
 Factor of Safety: 1.08



3.3b RHS Inner Tank - ULS	
Single Tank Option Slope Model.gsz	
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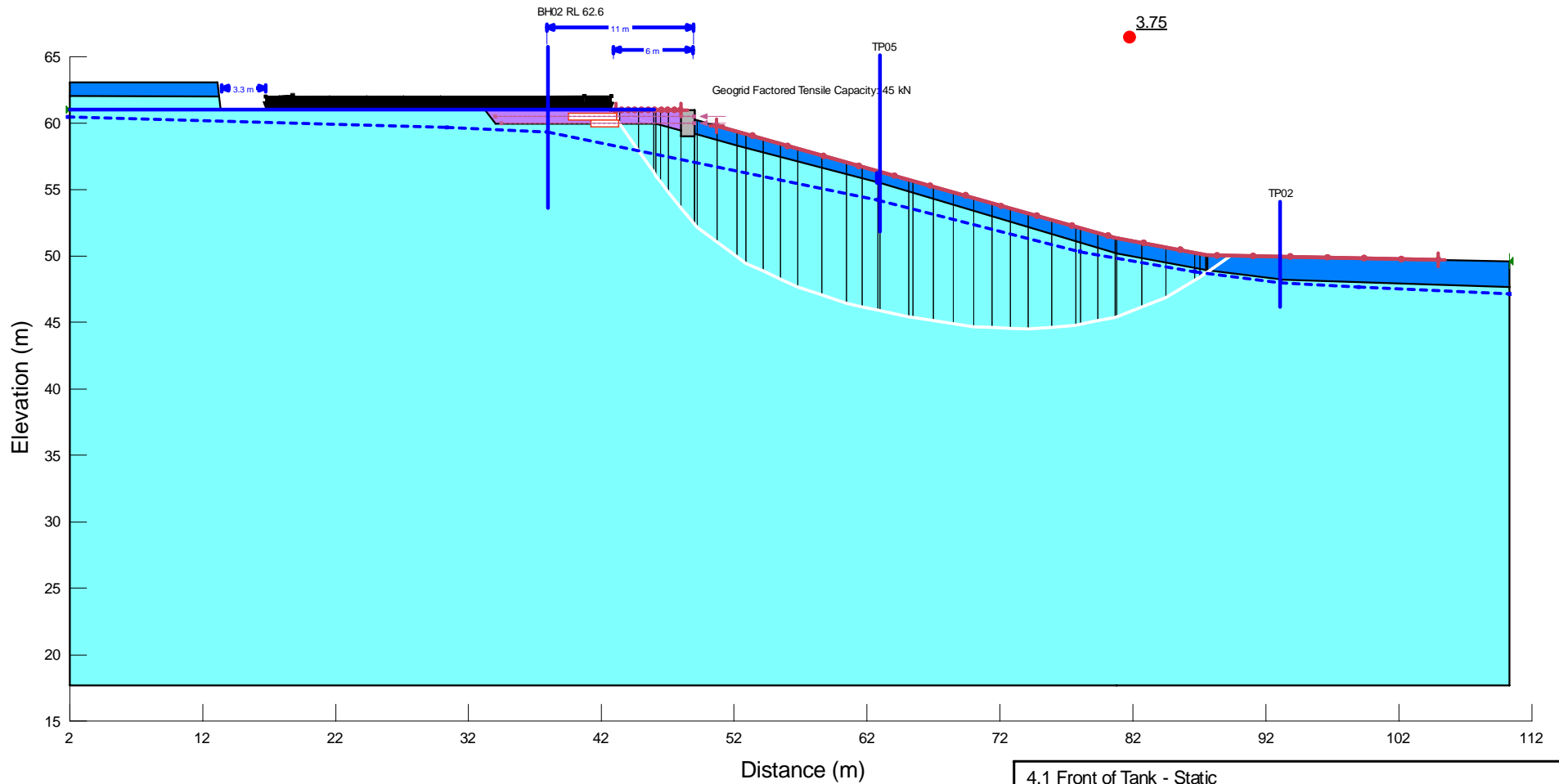
Richmond South Reservoir - Long Section 1

4.1 Front of Tank - Static

Color	Name	Slope Stability Material Model	Unit Weight (kN/m ³)	Effective Cohesion (kPa)	Effective Friction Angle (°)	Piezometric Line
Grey	Gabion Infill	High Strength	21			1
Purple	Granular Fill - AP65	Mohr-Coulomb	21	0	35	1
Cyan	Moutere Gravels DRAINED	Mohr-Coulomb	20	50	32	1
Blue	Silly Clay UNDRAINED	Mohr-Coulomb	16	0	25	1

Surcharge (Unit Weight) 1: 90 kN/m²
 Surcharge (Unit Weight) 2: 136 kN/m²

Horz Seismic Coef.: 0
 Factor of Safety: 3.75



4.1 Front of Tank - Static	
Single Tank Option Slope Model.gsz	
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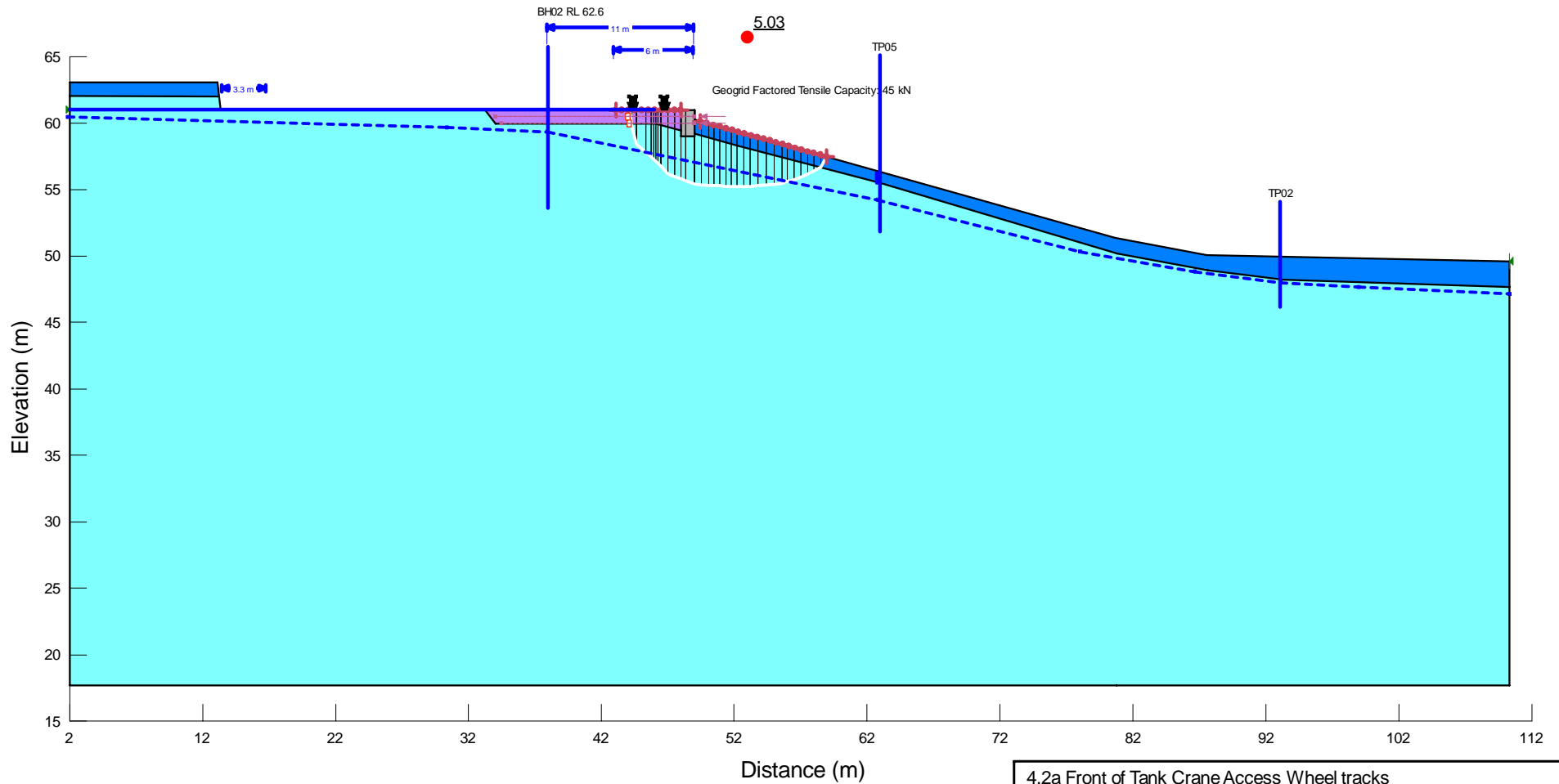
Richmond South Reservoir - Long Section 1

4.2a Front of Tank Crane Access Wheel tracks

Color	Name	Slope Stability Material Model	Unit Weight (kN/m ³)	Effective Cohesion (kPa)	Effective Friction Angle (°)	Piezometric Line
Grey	Gabion Infill	High Strength	21			1
Purple	Granular Fill - AP65	Mohr-Coulomb	21	0	35	1
Cyan	Moutere Gravels DRAINED	Mohr-Coulomb	20	50	32	1
Blue	Silly Clay UNDRAINED	Mohr-Coulomb	16	0	25	1

Surcharge (Unit Weight) 1: 122 kN/m³

Horz Seismic Coef.: 0
Factor of Safety: 5.03



4.2a Front of Tank Crane Access Wheel tracks	
Single Tank Option Slope Model.gsz	
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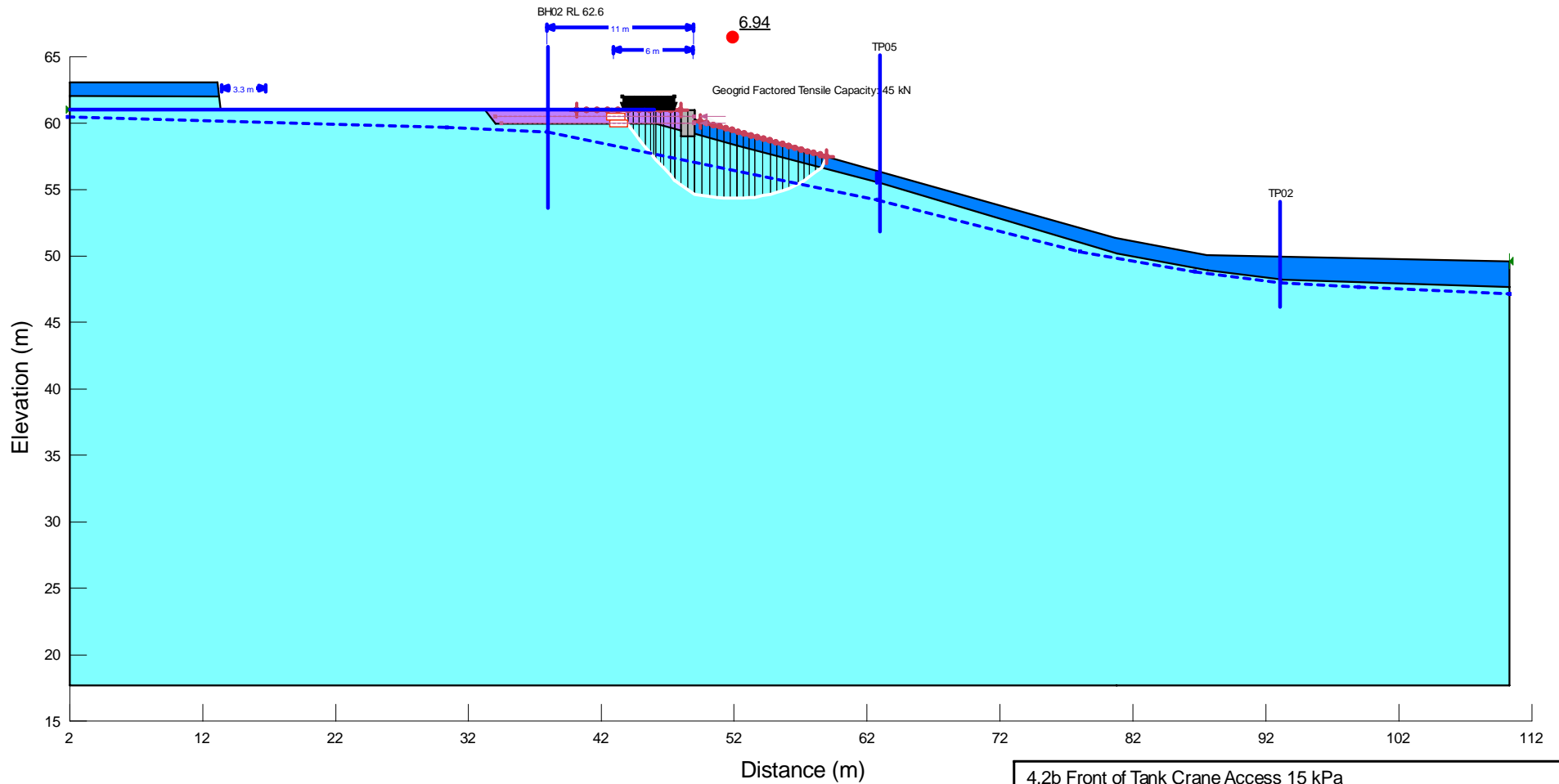
Richmond South Reservoir - Long Section 1

4.2b Front of Tank Crane Access 15 kPa

Color	Name	Slope Stability Material Model	Unit Weight (kN/m ³)	Effective Cohesion (kPa)	Effective Friction Angle (°)	Piezometric Line
Grey	Gabion Infill	High Strength	21			1
Purple	Granular Fill - AP65	Mohr-Coulomb	21	0	35	1
Cyan	Moutere Gravels DRAINED	Mohr-Coulomb	20	50	32	1
Blue	Silly Clay UNDRAINED	Mohr-Coulomb	16	0	25	1

Surcharge (Unit Weight) 1: 15 kN/m³

Horz Seismic Coef.: 0
Factor of Safety: 6.94



4.2b Front of Tank Crane Access 15 kPa	
Single Tank Option Slope Model.gsz	
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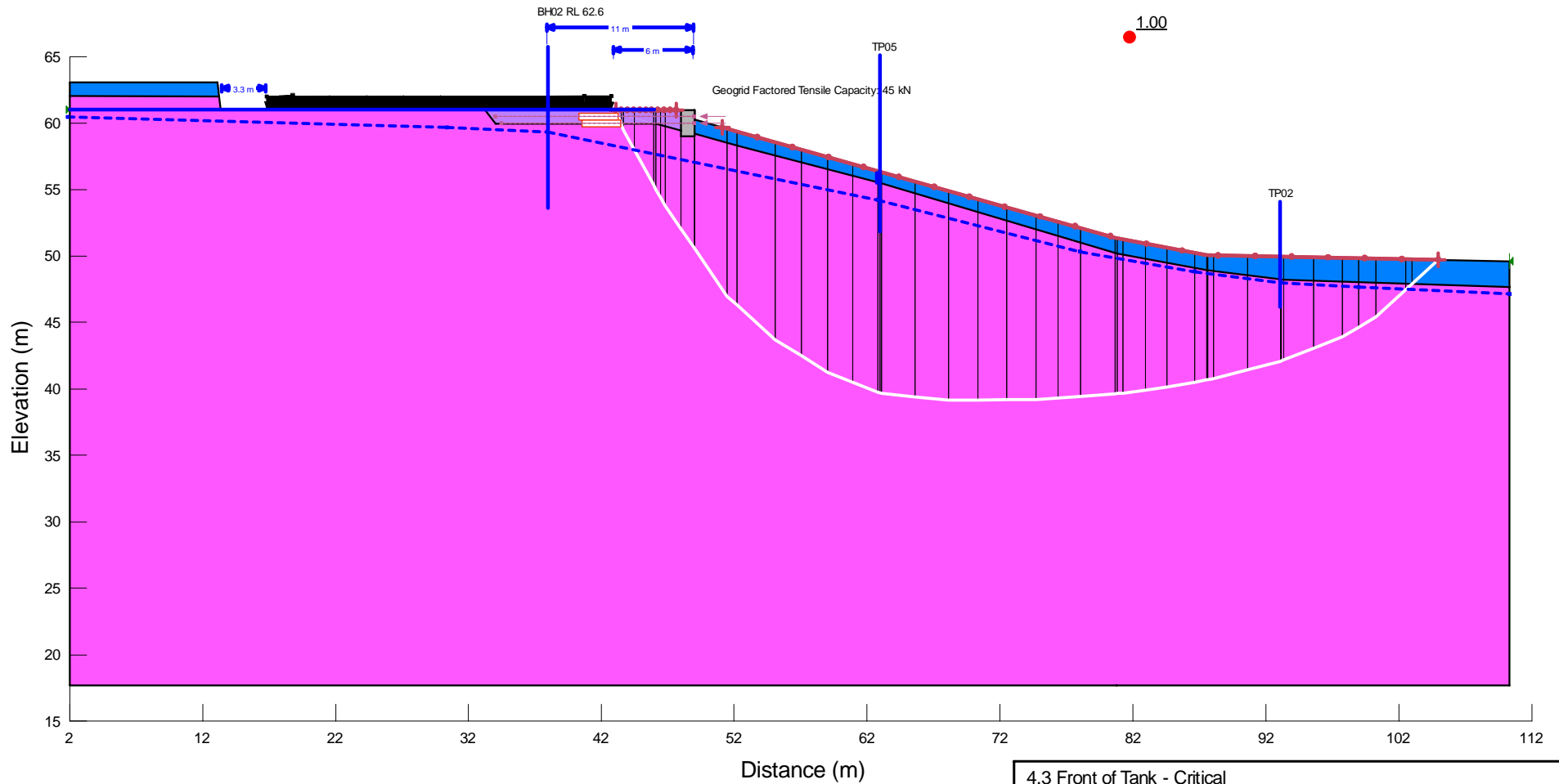
Richmond South Reservoir - Long Section 1

4.3 Front of Tank - Critical

Color	Name	Slope Stability Material Model	Unit Weight (kN/m ³)	Total Cohesion (kPa)	Effective Cohesion (kPa)	Effective Friction Angle (°)	Piezometric Line
Grey	Gabion/Fill	High Strength	21				1
Purple	Granular Fill - AP65	Mohr-Coulomb	21	0	0	35	1
Pink	Mature Gravels UNDRAINED 175 KPA	Undrained (Phi=0)	20	175			1
Blue	Silty Clay UNDRAINED	Mohr-Coulomb	16	0	0	25	1

Surcharge (Unit Weight) 1: 90 kN/m³
 Surcharge (Unit Weight) 2: 196 kN/m³

Horz Seismic Coef.: 1.04
 Factor of Safety: 1.00



4.3 Front of Tank - Critical	
Single Tank Option Slope Model.gsz	
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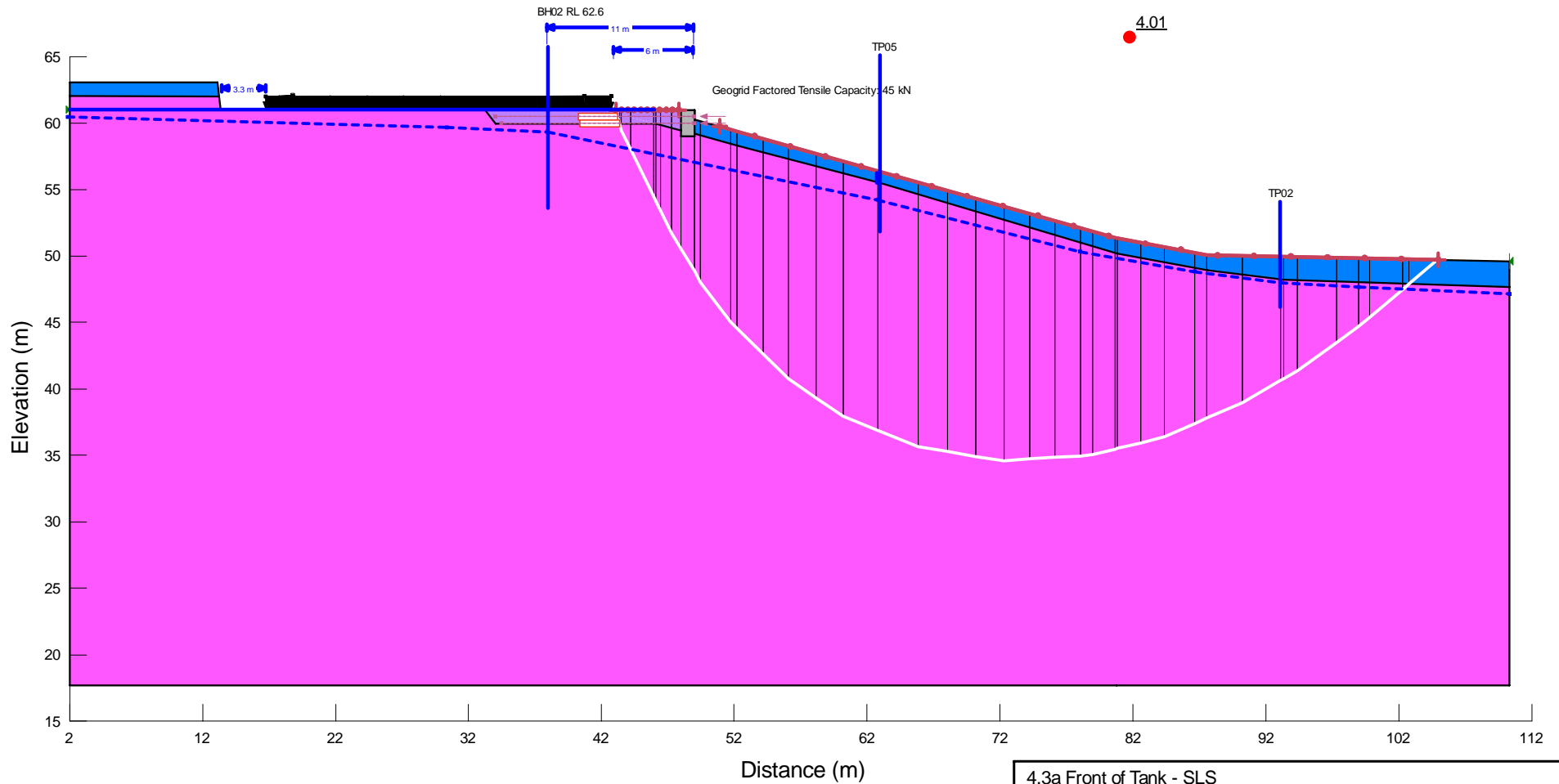
Richmond South Reservoir - Long Section 1

4.3a Front of Tank - SLS

Color	Name	Slope Stability Material Model	Unit Weight (kN/m ³)	Total Cohesion (kPa)	Effective Cohesion (kPa)	Effective Friction Angle (°)	Piezometric Line
Grey	Gabion/Fill	High Strength	21				1
Purple	Granular Fill - AP65	Mohr-Coulomb	21	0	0	35	1
Pink	Mature Gravel UNDRAINED 175 KPA	Undrained (Phi=0)	20	175			1
Blue	Silty Clay UNDRAINED	Mohr-Coulomb	16	0	0	25	1

Surcharge (Unit Weight) 1: 90 kN/m³
 Surcharge (Unit Weight) 2: 136 kN/m³

Horz Seismic Coef.: 0.08
 Factor of Safety: 4.01



4.3a Front of Tank - SLS	
Single Tank Option Slope Model.gsz	
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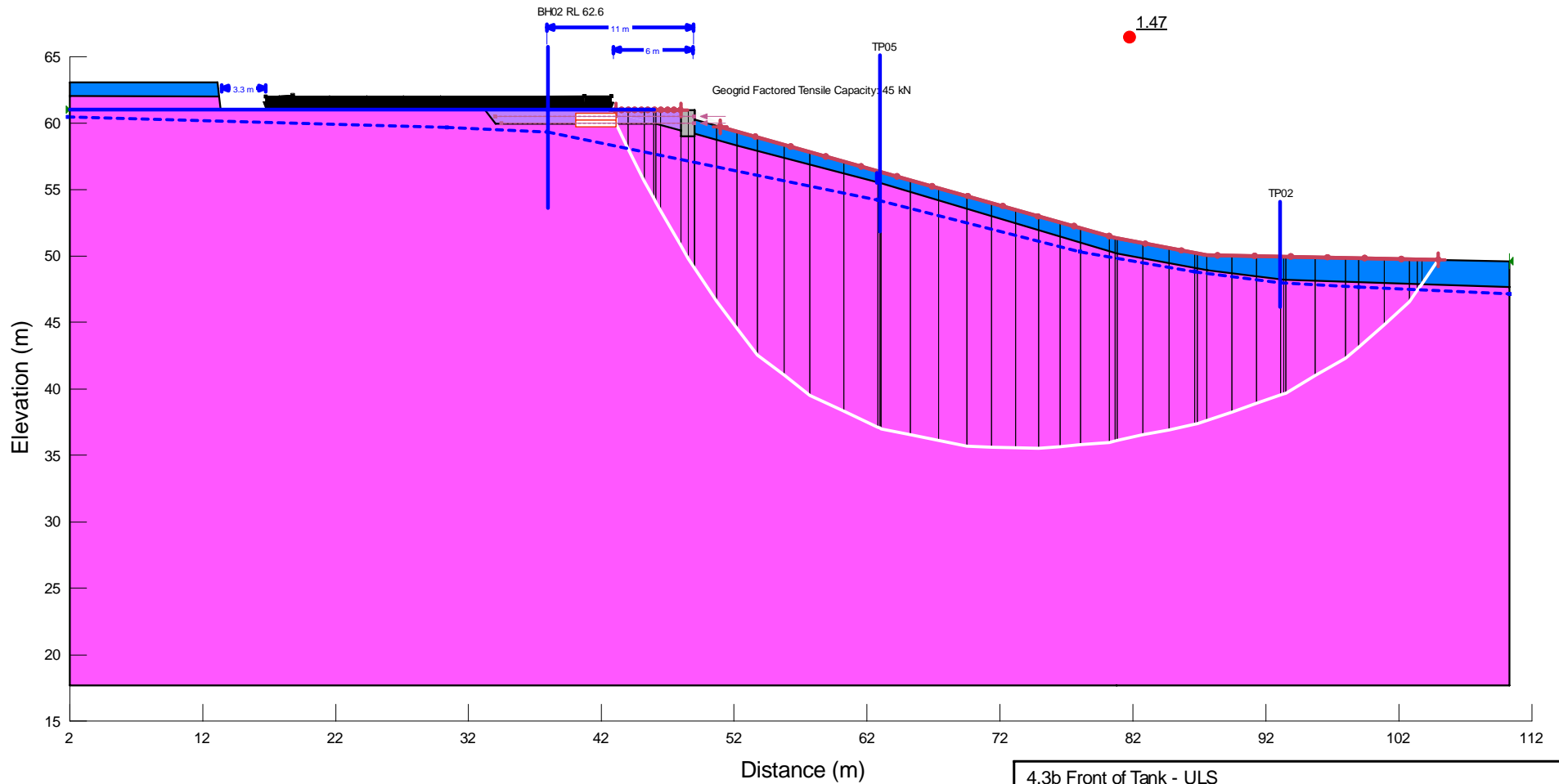
Richmond South Reservoir - Long Section 1

4.3b Front of Tank - ULS

Color	Name	Slope Stability Material Model	Unit Weight (kN/m ³)	Total Cohesion (kPa)	Effective Cohesion (kPa)	Effective Friction Angle (°)	Piezometric Line
Grey	Gabion/Fill	High Strength	21				1
Purple	Granular Fill - AP65	Mohr-Coulomb	21	0	0	35	1
Pink	Mature Gravel UNDRAINED 175 KPA	Undrained (Phi=0)	20	175			1
Blue	Silty Clay UNDRAINED	Mohr-Coulomb	16	0	0	25	1

Surcharge (Unit Weight) 1: 90 kN/m³
 Surcharge (Unit Weight) 2: 196 kN/m³

Horz Seismic Coef.: 0.6
 Factor of Safety: 1.47



4.3b Front of Tank - ULS	
Single Tank Option Slope Model.gsz	
15/02/2022	1:465.3

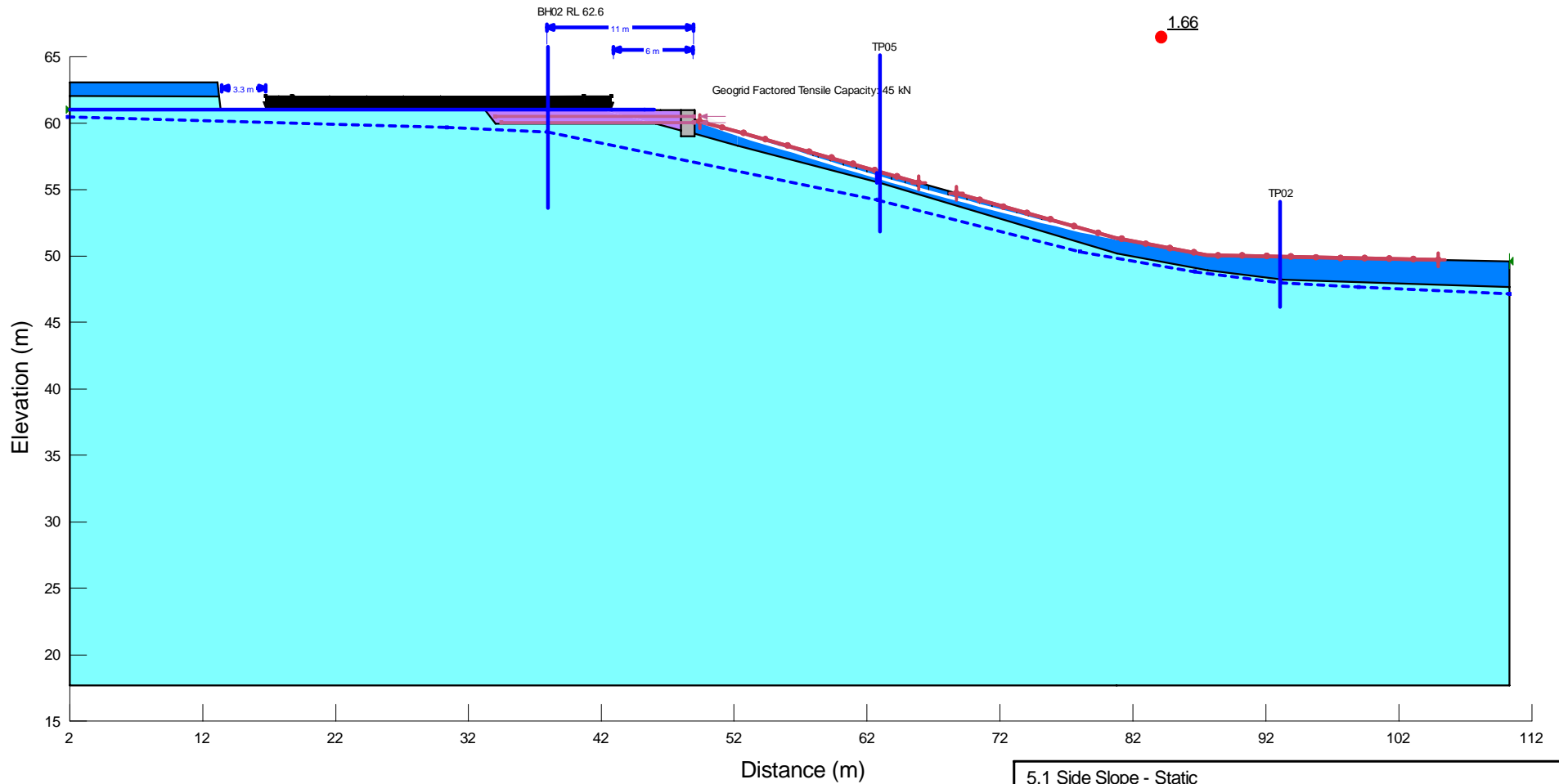
Richmond South Reservoir - Long Section 1

5.1 Side Slope - Static

Color	Name	Slope Stability Material Model	Unit Weight (kN/m ³)	Effective Cohesion (kPa)	Effective Friction Angle (°)	Piezometric Line
Grey	Gabion Infill	High Strength	21			1
Purple	Granular Fill - AP65	Mohr-Coulomb	21	0	35	1
Cyan	Moutere Gravels DRAINED	Mohr-Coulomb	20	50	32	1
Blue	Silly Clay UNDRAINED	Mohr-Coulomb	16	0	25	1

Surcharge (Unit Weight) 1: 90 kN/m³
 Surcharge (Unit Weight) 2: 136 kN/m³

Horz Seismic Coef.: 0
 Factor of Safety: 1.66



5.1 Side Slope - Static	
Single Tank Option Slope Model.gsz	
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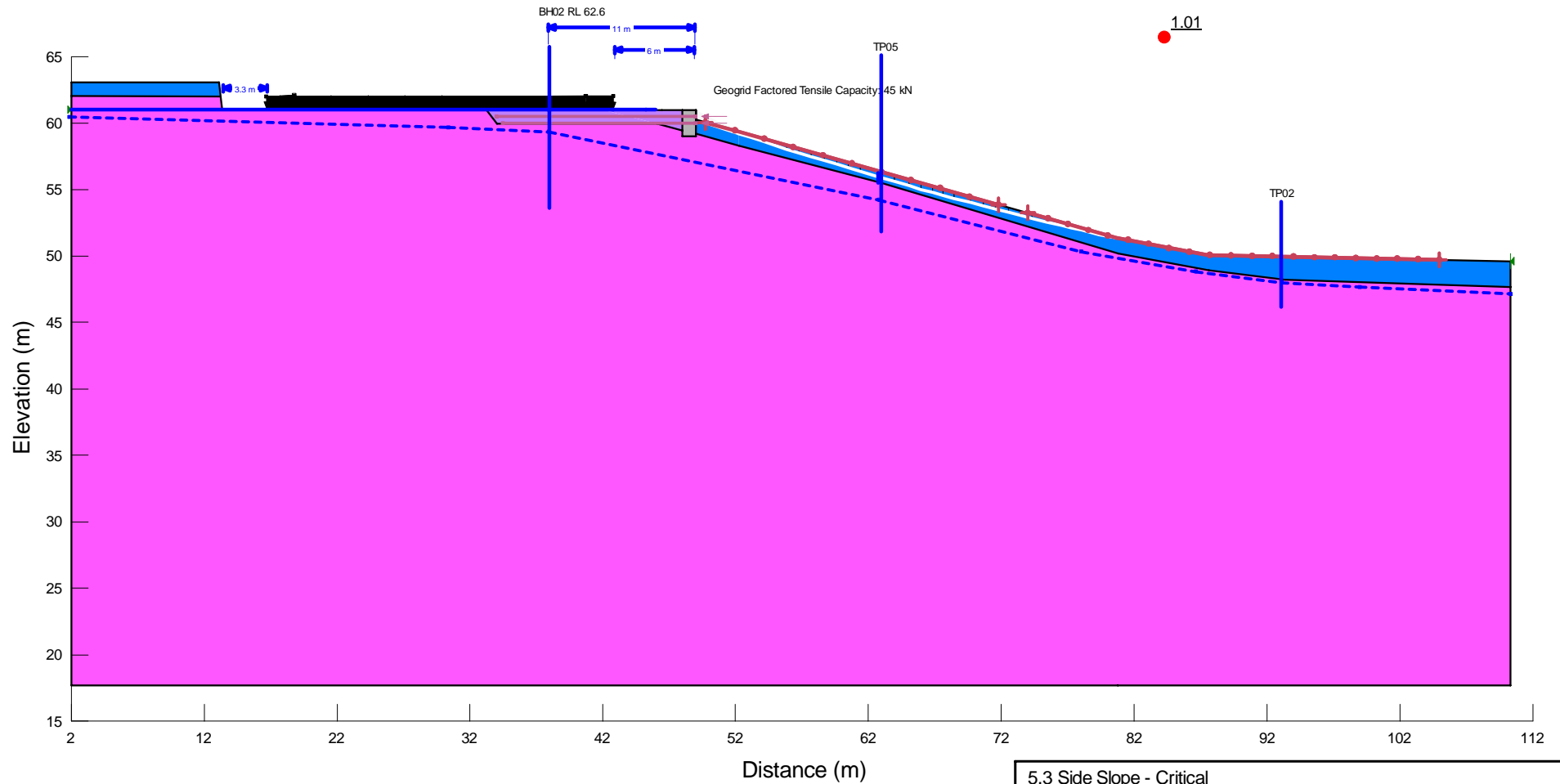
Richmond South Reservoir - Long Section 1

5.3 Side Slope - Critical

Color	Name	Slope Stability Material Model	Unit Weight (kN/m ³)	Total Cohesion (kPa)	Effective Cohesion (kPa)	Effective Friction Angle (°)	Piezometric Line
Grey	Gabion/Fill	High Strength	21				1
Purple	Granular Fill - AP65	Mohr-Coulomb	21	0	35	35	1
Pink	Mature Gravels UNDRAINED 175 KPA	Undrained (Phi=0)	20	175			1
Blue	Silty Clay UNDRAINED	Mohr-Coulomb	16	0	25	25	1

Surcharge (Unit Weight) 1: 90 kN/m³
 Surcharge (Unit Weight) 2: 196 kN/m³

Horz Seismic Coef.: 0.16
 Factor of Safety: 1.01



5.3 Side Slope - Critical	
Single Tank Option Slope Model.gsz	
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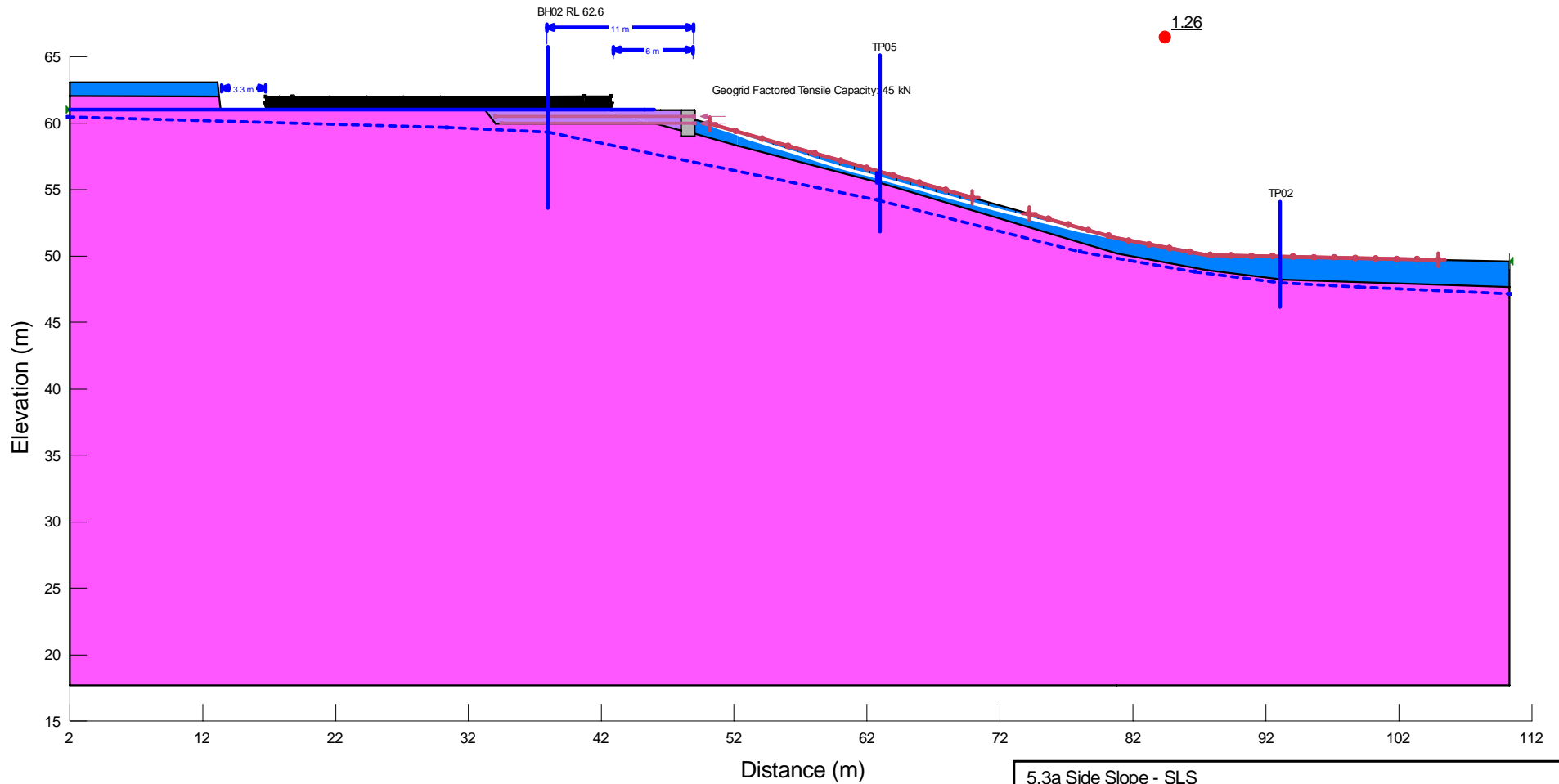
Richmond South Reservoir - Long Section 1

5.3a Side Slope - SLS

Color	Name	Slope Stability Material Model	Unit Weight (kN/m ³)	Total Cohesion (kPa)	Effective Cohesion (kPa)	Effective Friction Angle (°)	Piezometric Line
Grey	Gabion/Fill	High Strength	21				1
Purple	Granular Fill - AP65	Mohr-Coulomb	21	0	0	35	1
Pink	Medium Gravel UNDRAINED 175 KPA	Undrained (Phi=0)	20	175			1
Blue	Silty Clay UNDRAINED	Mohr-Coulomb	16	0	0	25	1

Surcharge (Unit Weight) 1: 90 kN/m³
 Surcharge (Unit Weight) 2: 136 kN/m³

Horz Seismic Coef.: 0.08
 Factor of Safety: 1.26



5.3a Side Slope - SLS	
Single Tank Option Slope Model.gsz	
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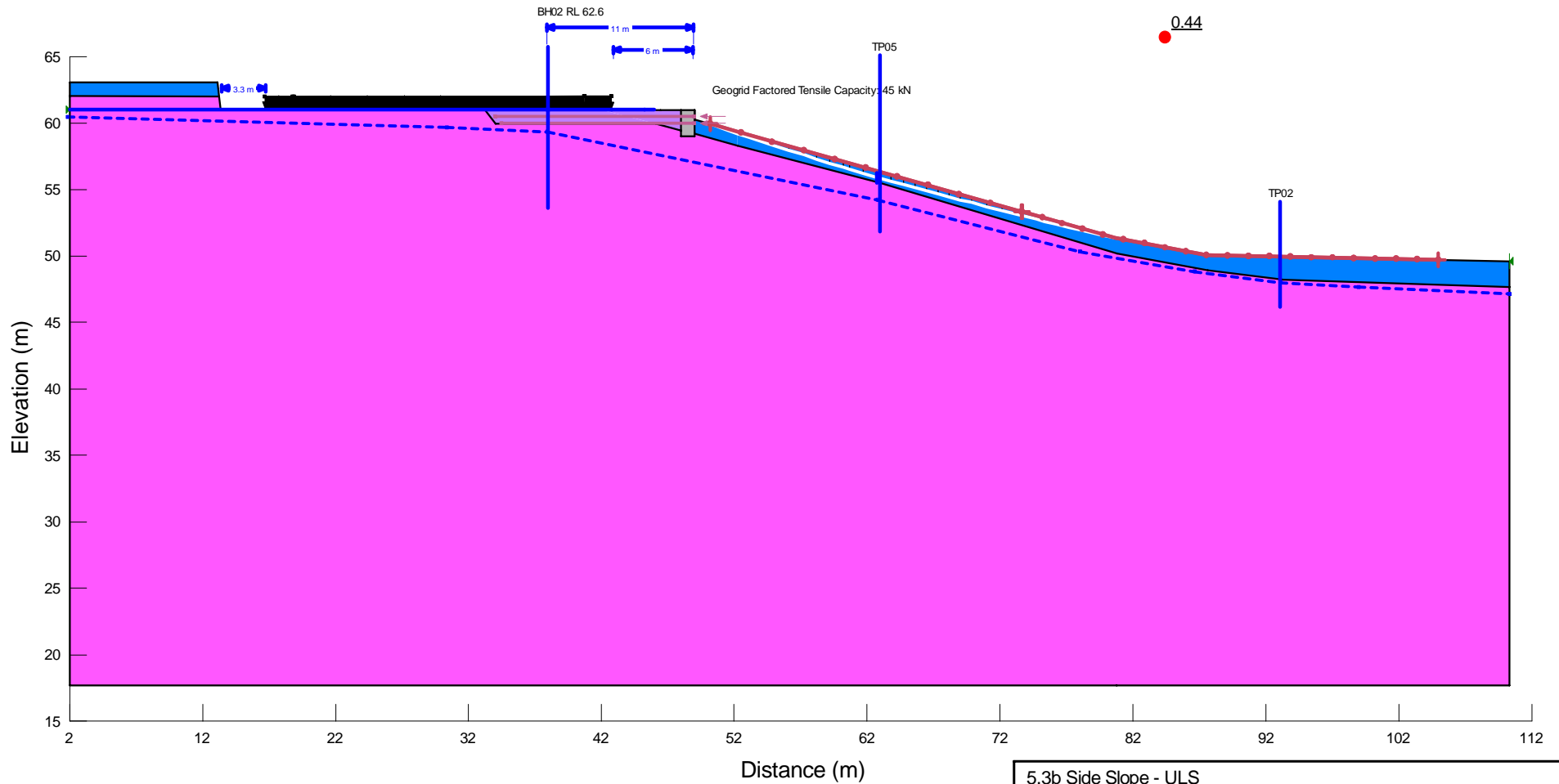
Richmond South Reservoir - Long Section 1

5.3b Side Slope - ULS

Color	Name	Slope Stability Material Model	Unit Weight (kN/m ³)	Total Cohesion (kPa)	Effective Cohesion (kPa)	Effective Friction Angle (°)	Piezometric Line
Grey	Gabion/Fill	High Strength	21				1
Purple	Granular Fill - AP65	Mohr-Coulomb	21	0	0	35	1
Pink	Medium Gravel UNDRAINED 175 KPA	Undrained (Phi=0)	20	175			1
Blue	Silty Clay UNDRAINED	Mohr-Coulomb	16	0	0	25	1

Surcharge (Unit Weight) 1: 90 kN/m³
 Surcharge (Unit Weight) 2: 196 kN/m³

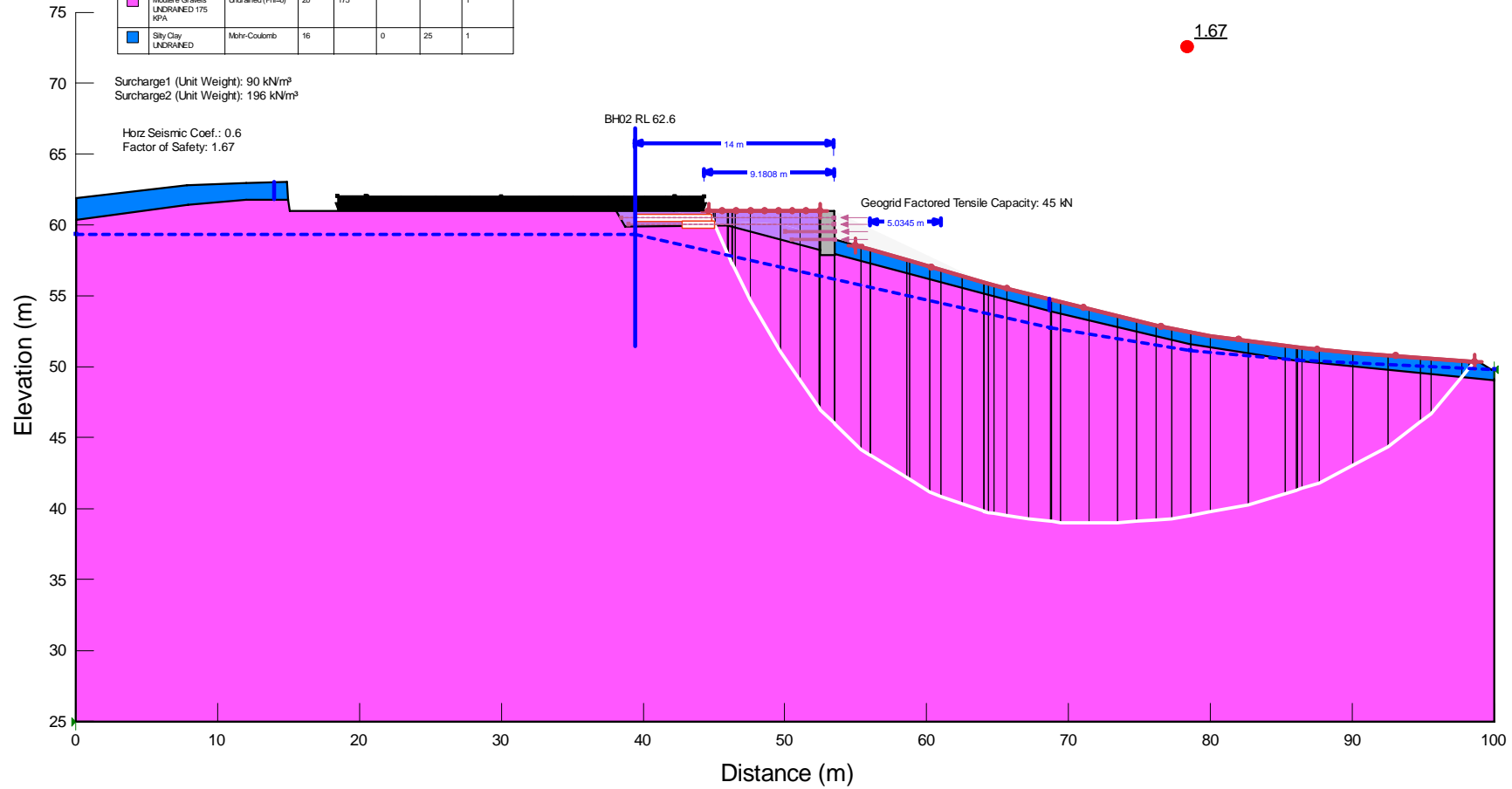
Horz Seismic Coef.: 0.6
 Factor of Safety: 0.44



5.3b Side Slope - ULS	
Single Tank Option Slope Model.gsz	
15/02/2022	1:465.3

Richmond South Reservoir - Long Section 6
S6 4.3b Front of Tank - ULS

Color	Name	Slope Stability Material Model	Unit Weight (kNm ³)	Total Cohesion (kPa)	Effective Cohesion (kPa)	Effective Friction Angle (°)	Piezometric Line
Grey	Gabion Infill	High Strength	21				1
Purple	Granular Fill - AP65	Mohr-Coulomb	21		0	35	1
Pink	Mature Gravels UNDRAINED 175 kPa	Undrained (Phi=0)	20	175			1
Blue	Silty Clay UNDRAINED	Mohr-Coulomb	16		0	25	1

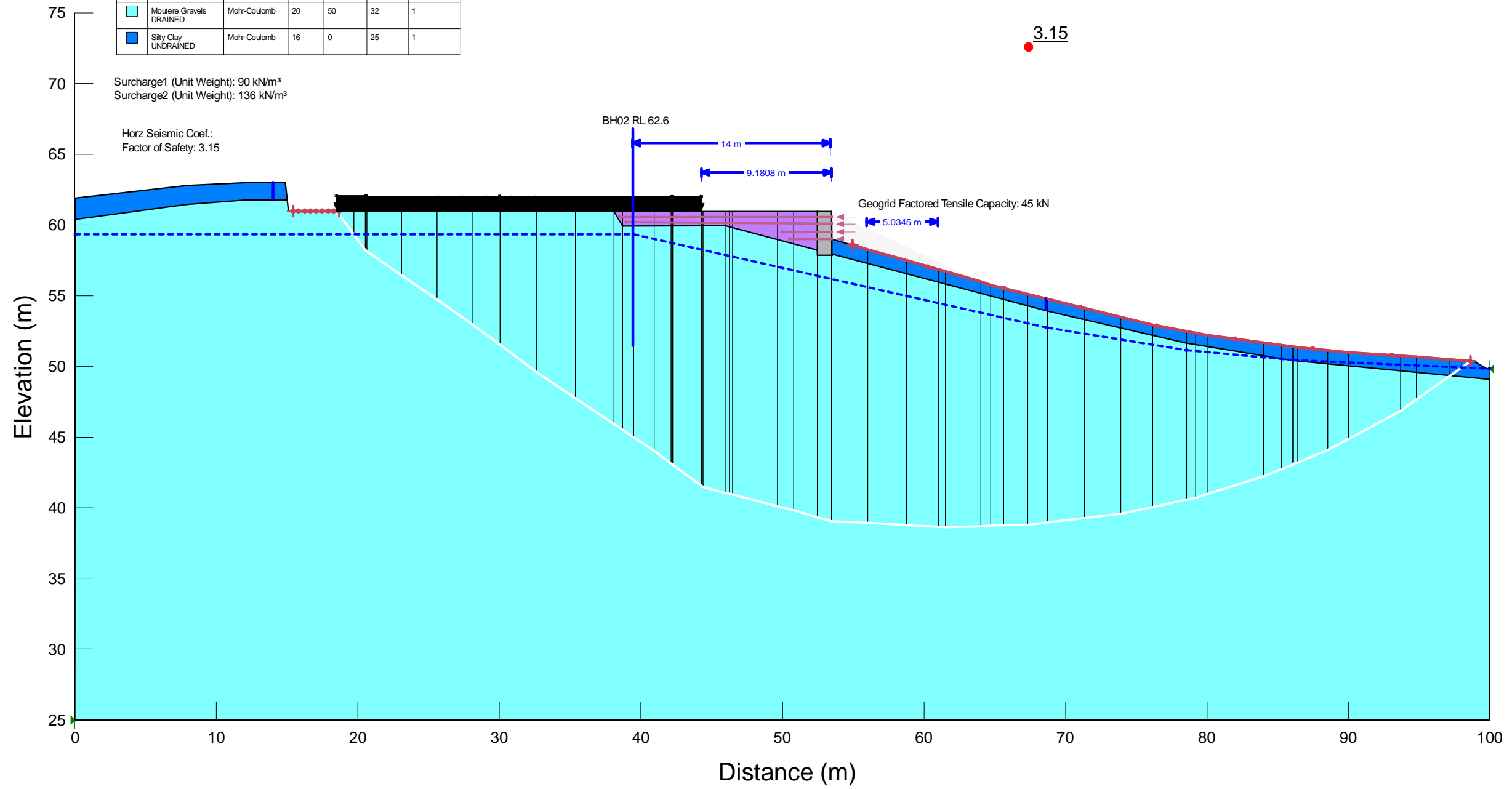


S6 4.3b Front of Tank - ULS	
Single Tank Option Slope Model.gsz	
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Section 6 Slope/W Outputs

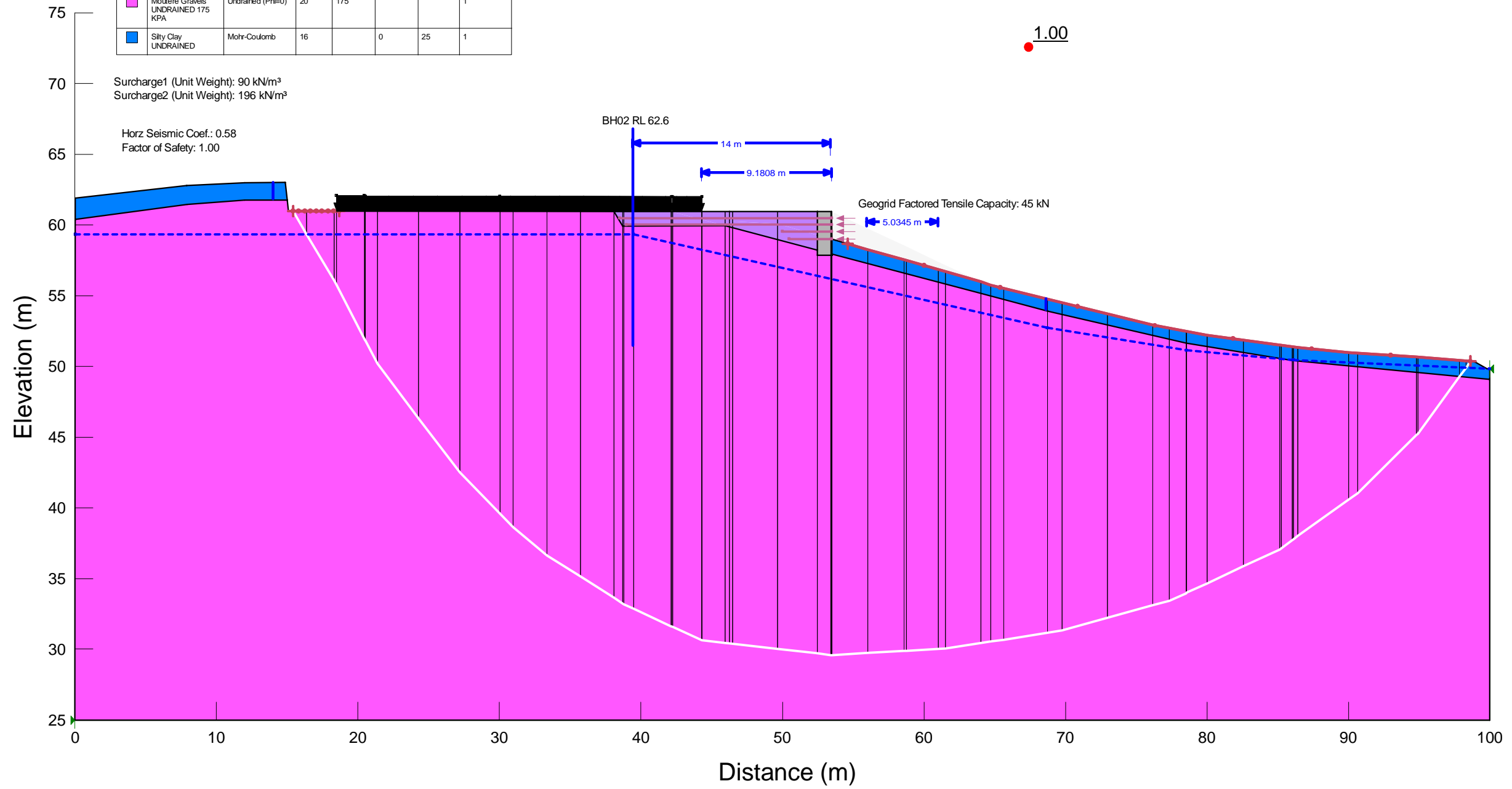
Richmond South Reservoir - Long Section 6
S6 1.1 Back of Tank - Static

Color	Name	Slope Stability Material Model	Unit Weight (kN/m³)	Effective Cohesion (kPa)	Effective Friction Angle (°)	Piezometric Line
Grey	Gabion Infill	High Strength	21			1
Purple	Granular Fill - AP65	Mohr-Coulomb	21	0	35	1
Cyan	Moulere Gravels DRAINED	Mohr-Coulomb	20	50	32	1
Blue	Silty Clay UNDRAINED	Mohr-Coulomb	16	0	25	1



Richmond South Reservoir - Long Section 6
S6 1.3 Back of Tank - Critical UNDRAINED 175 KPA

Color	Name	Slope Stability Material Model	Unit Weight (kN/m ³)	Total Cohesion (kPa)	Effective Cohesion (kPa)	Effective Friction Angle (°)	Piezometric Line
Grey	Gabion Infill	High Strength	21				1
Purple	Granular Fill - AP65	Mohr-Coulomb	21	0	35	1	1
Pink	Moutere Gravels UNDRAINED 175 KPA	Undrained (Phi=0)	20	175			1
Blue	Silty Clay UNDRAINED	Mohr-Coulomb	16	0	25	1	1

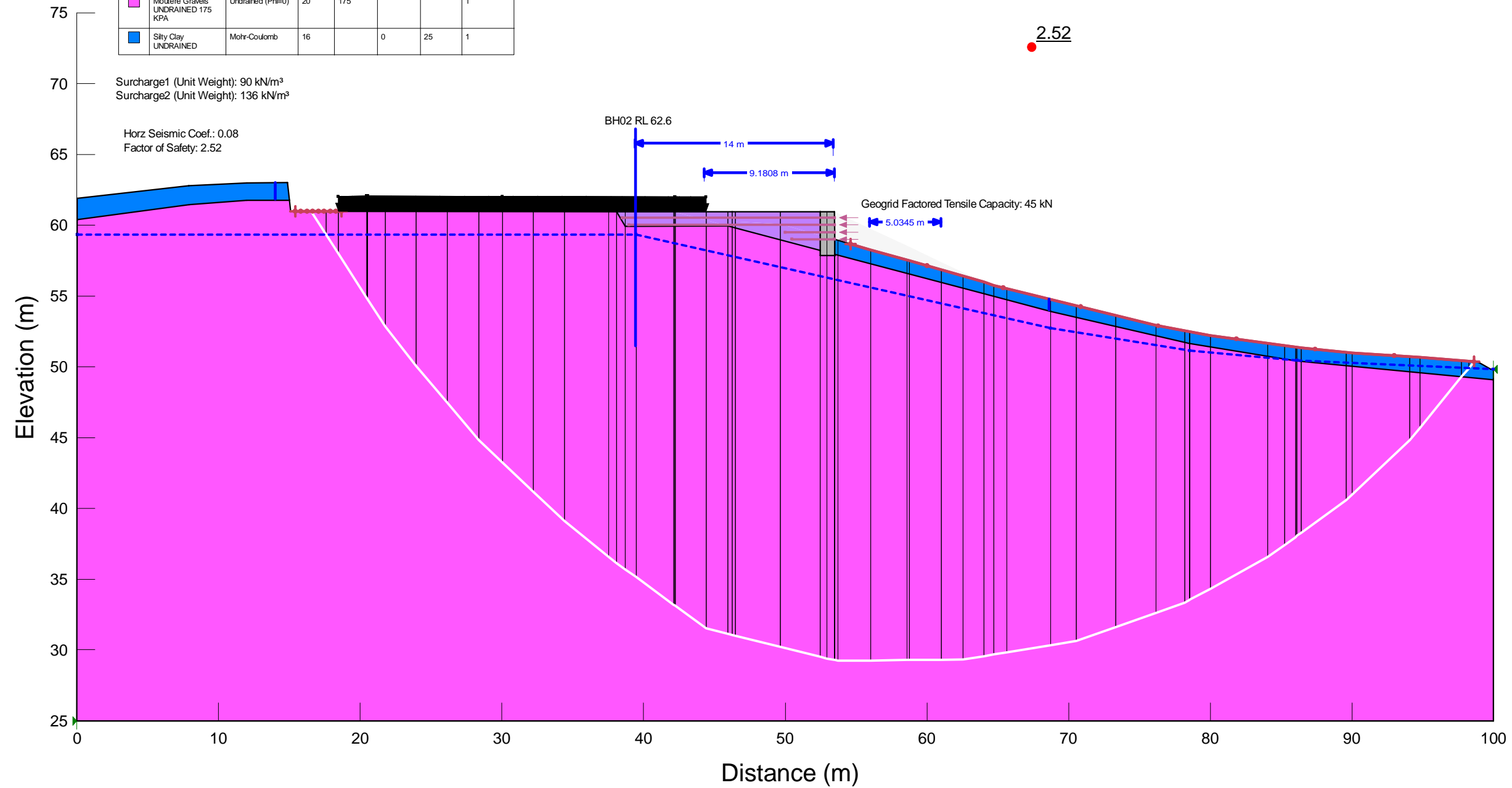


S6 1.3 Back of Tank - Critical UNDRAINED 175 KPA	
Single Tank Option Slope Model.gsz	
15/02/2022	1:329

Richmond South Reservoir - Long Section 6

S6 1.3a Back of Tank - SLS

Color	Name	Slope Stability Material Model	Unit Weight (kN/m ³)	Total Cohesion (kPa)	Effective Cohesion (kPa)	Effective Friction Angle (°)	Piezometric Line
Grey	Gabion Infill	High Strength	21				1
Purple	Granular Fill - AP65	Mohr-Coulomb	21	0	35	1	1
Pink	Moutere Gravels UNDRAINED 175 KPA	Undrained (Phi=0)	20	175			1
Blue	Silty Clay UNDRAINED	Mohr-Coulomb	16	0	25	1	1

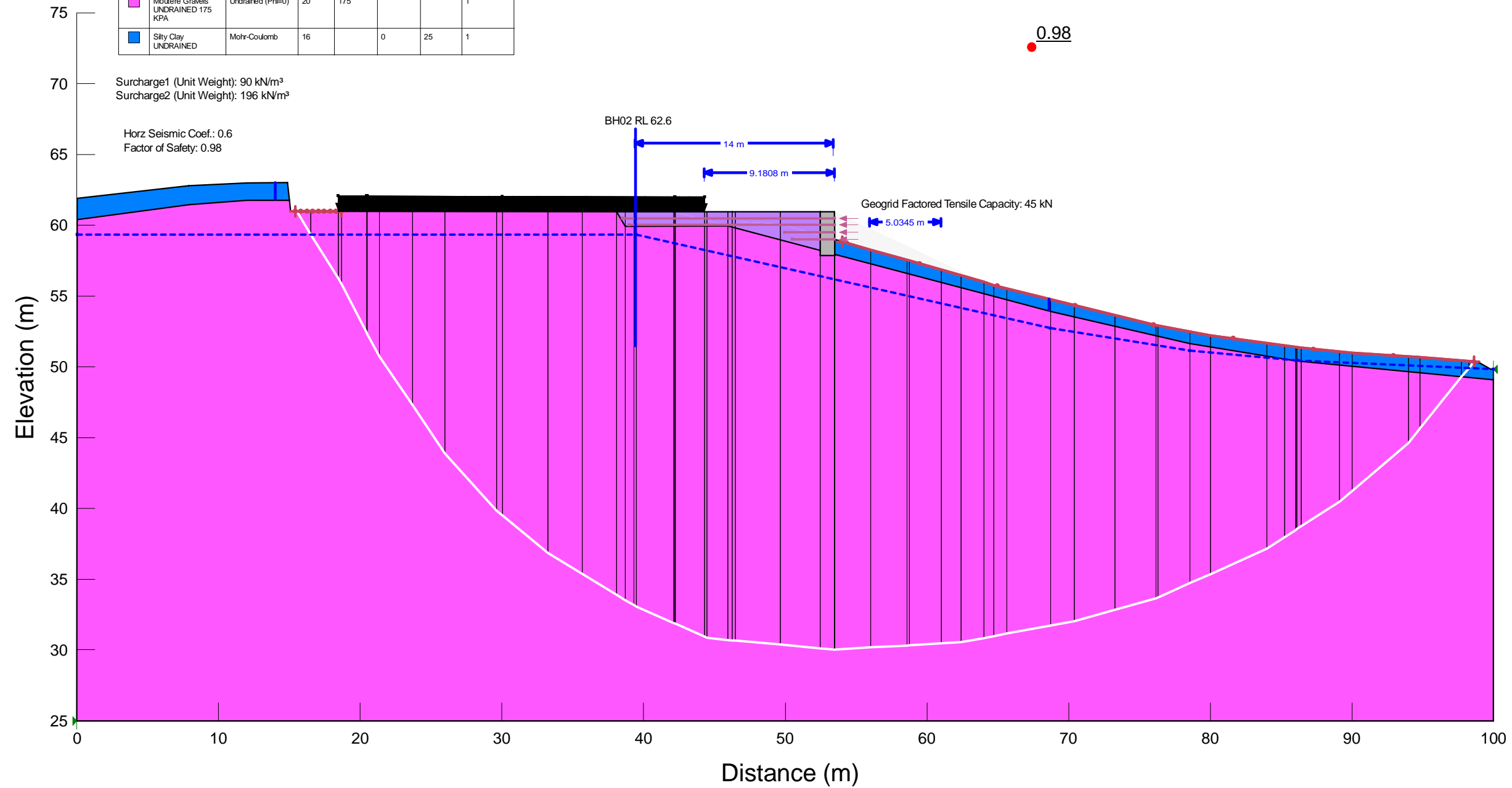


S6 1.3a Back of Tank - SLS	
Single Tank Option Slope Model.gsz	
15/02/2022	1:329

Richmond South Reservoir - Long Section 6

S6 1.3b Back of Tank - ULS

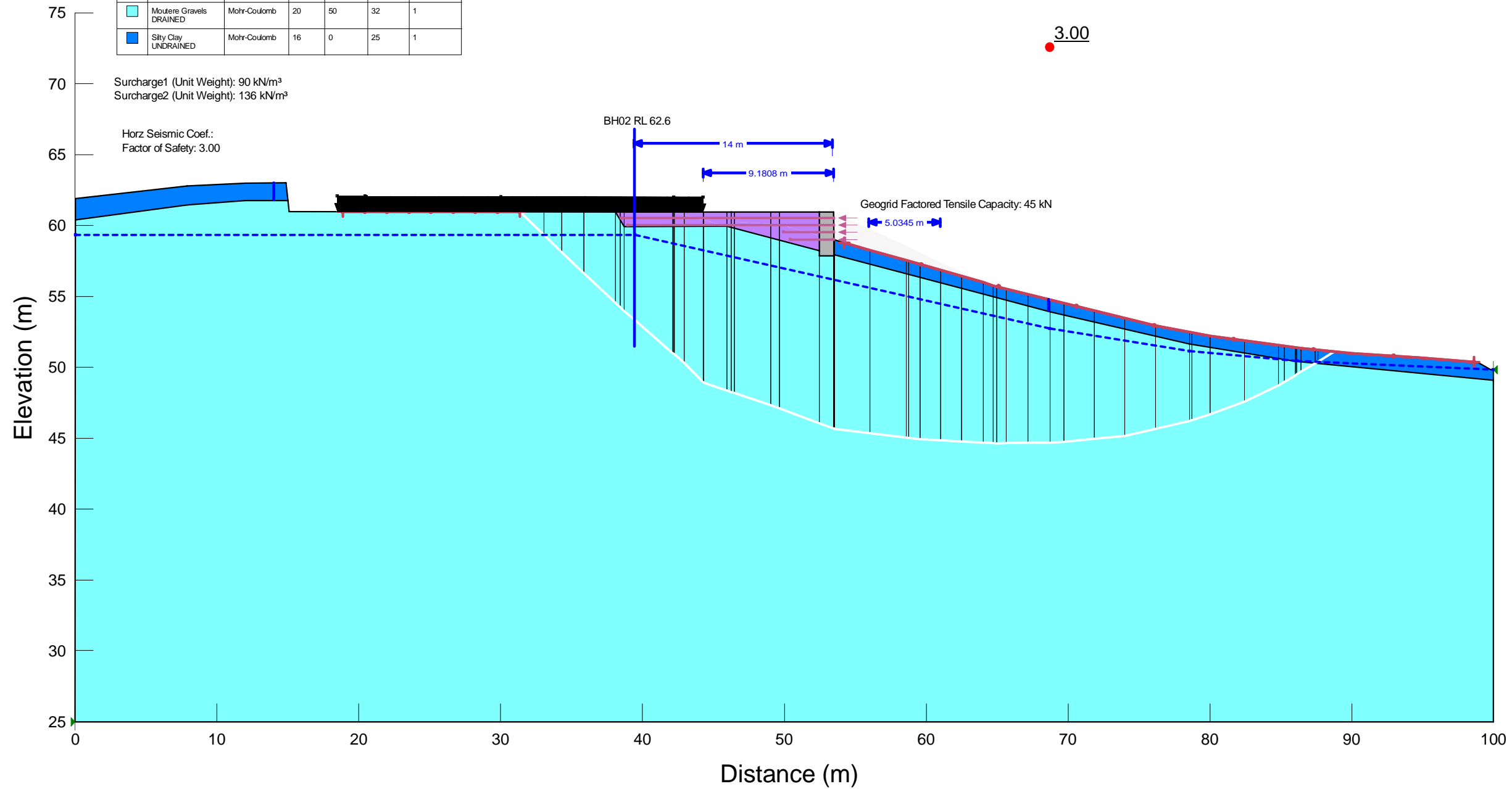
Color	Name	Slope Stability Material Model	Unit Weight (kN/m ³)	Total Cohesion (kPa)	Effective Cohesion (kPa)	Effective Friction Angle (°)	Piezometric Line
Grey	Gabion Infill	High Strength	21				1
Purple	Granular Fill - AP65	Mohr-Coulomb	21	0	35	1	1
Pink	Moutere Gravels UNDRAINED 175 KPA	Undrained (Phi=0)	20	175			1
Blue	Silty Clay UNDRAINED	Mohr-Coulomb	16	0	25	1	1



S6 1.3b Back of Tank - ULS	
Single Tank Option Slope Model.gsz	
15/02/2022	1:329

Richmond South Reservoir - Long Section 6
S6 2.1 LHS Inner Tank - Static

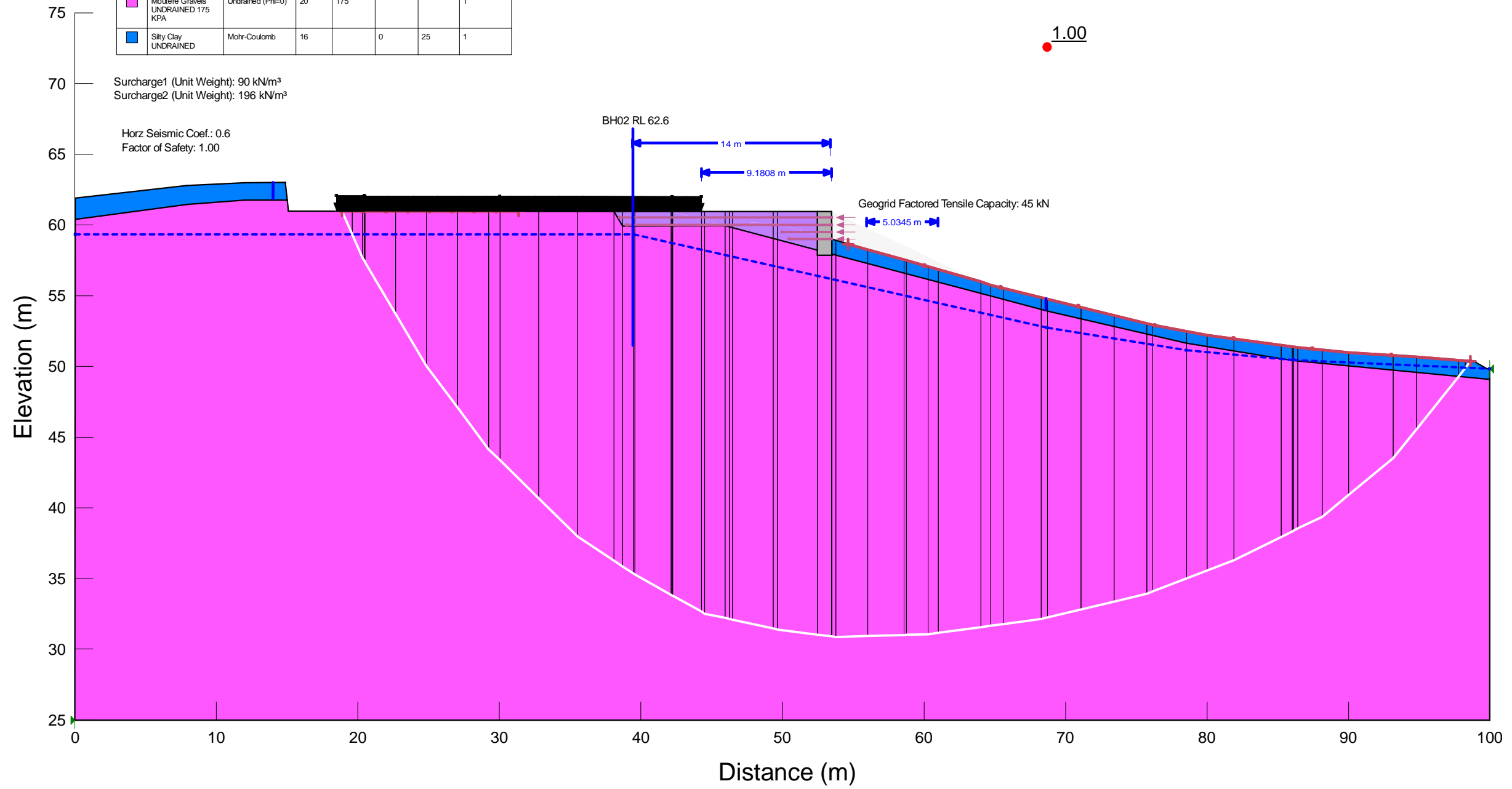
Color	Name	Slope Stability Material Model	Unit Weight (kN/m³)	Effective Cohesion (kPa)	Effective Friction Angle (°)	Piezometric Line
Grey	Gabion Infill	High Strength	21			1
Purple	Granular Fill - AP65	Mohr-Coulomb	21	0	35	1
Cyan	Mouere Gravels DRAINED	Mohr-Coulomb	20	50	32	1
Blue	Silty Clay UNDRAINED	Mohr-Coulomb	16	0	25	1



S6 2.1 LHS Inner Tank - Static	
Single Tank Option Slope Model.gsz	
15/02/2022	1:329

Richmond South Reservoir - Long Section 6
S6 2.3 LHS Inner Tank - Critical UNDRAINED 175 KPA

Color	Name	Slope Stability Material Model	Unit Weight (kN/m ³)	Total Cohesion (kPa)	Effective Cohesion (kPa)	Effective Friction Angle (°)	Piezometric Line
Grey	Gabion Infill	High Strength	21				1
Purple	Granular Fill - AP65	Mohr-Coulomb	21	0	35	1	1
Pink	Moutere Gravels UNDRAINED 175 KPA	Undrained (Phi=0)	20	175			1
Blue	Silty Clay UNDRAINED	Mohr-Coulomb	16		0	25	1

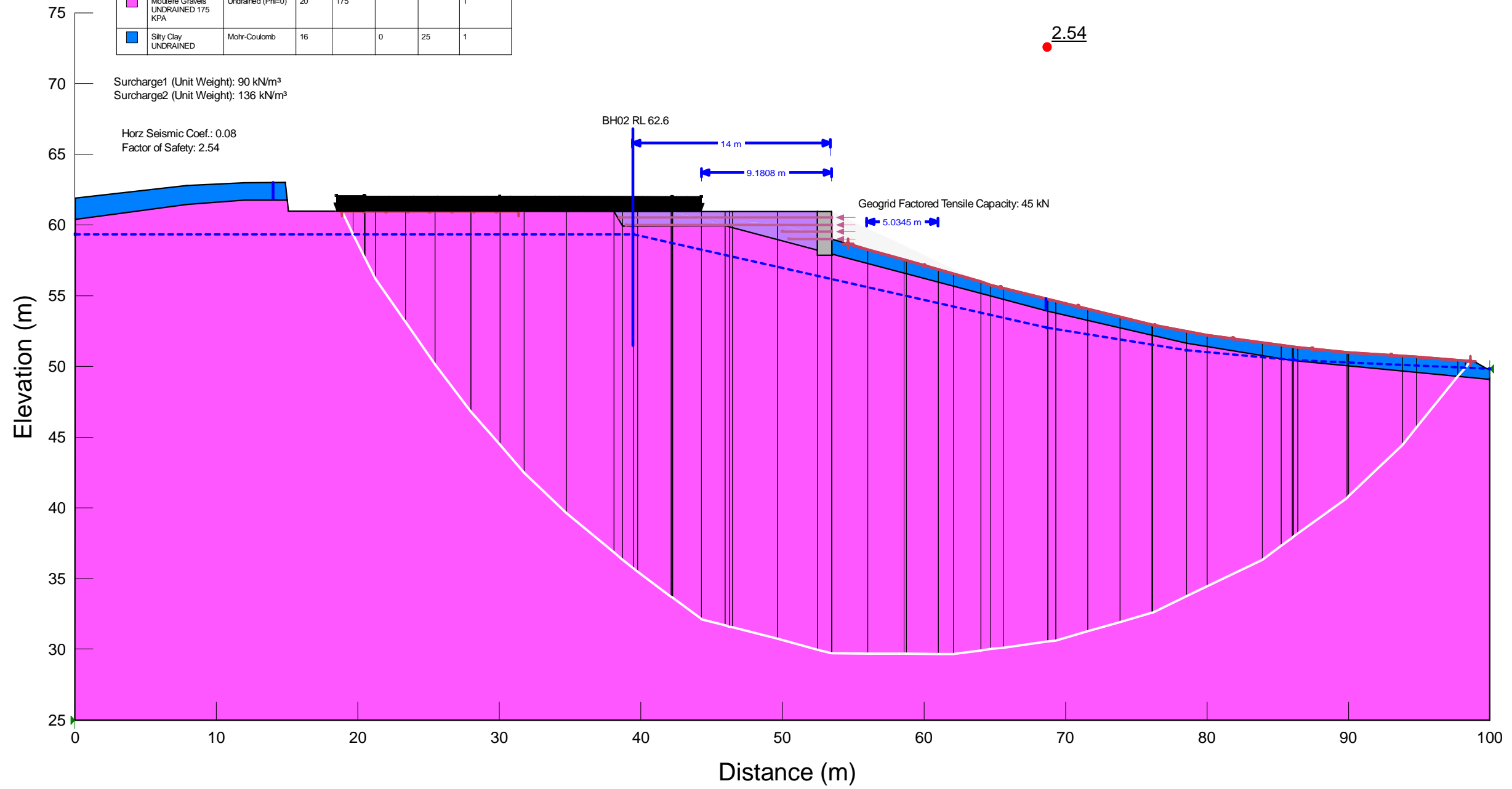


S6 2.3 LHS Inner Tank - Critical UNDRAINED 175 KPA	
Single Tank Option Slope Model.gsz	
15/02/2022	1:329

Richmond South Reservoir - Long Section 6

S6 2.3a LHS Inner Tank - SLS

Color	Name	Slope Stability Material Model	Unit Weight (kN/m ³)	Total Cohesion (kPa)	Effective Cohesion (kPa)	Effective Friction Angle (°)	Piezometric Line
Grey	Gabion Infill	High Strength	21				1
Purple	Granular Fill - AP65	Mohr-Coulomb	21	0	0	35	1
Pink	Moutere Gravels UNDRAINED 175 KPA	Undrained (Phi=0)	20	175			1
Blue	Silty Clay UNDRAINED	Mohr-Coulomb	16		0	25	1

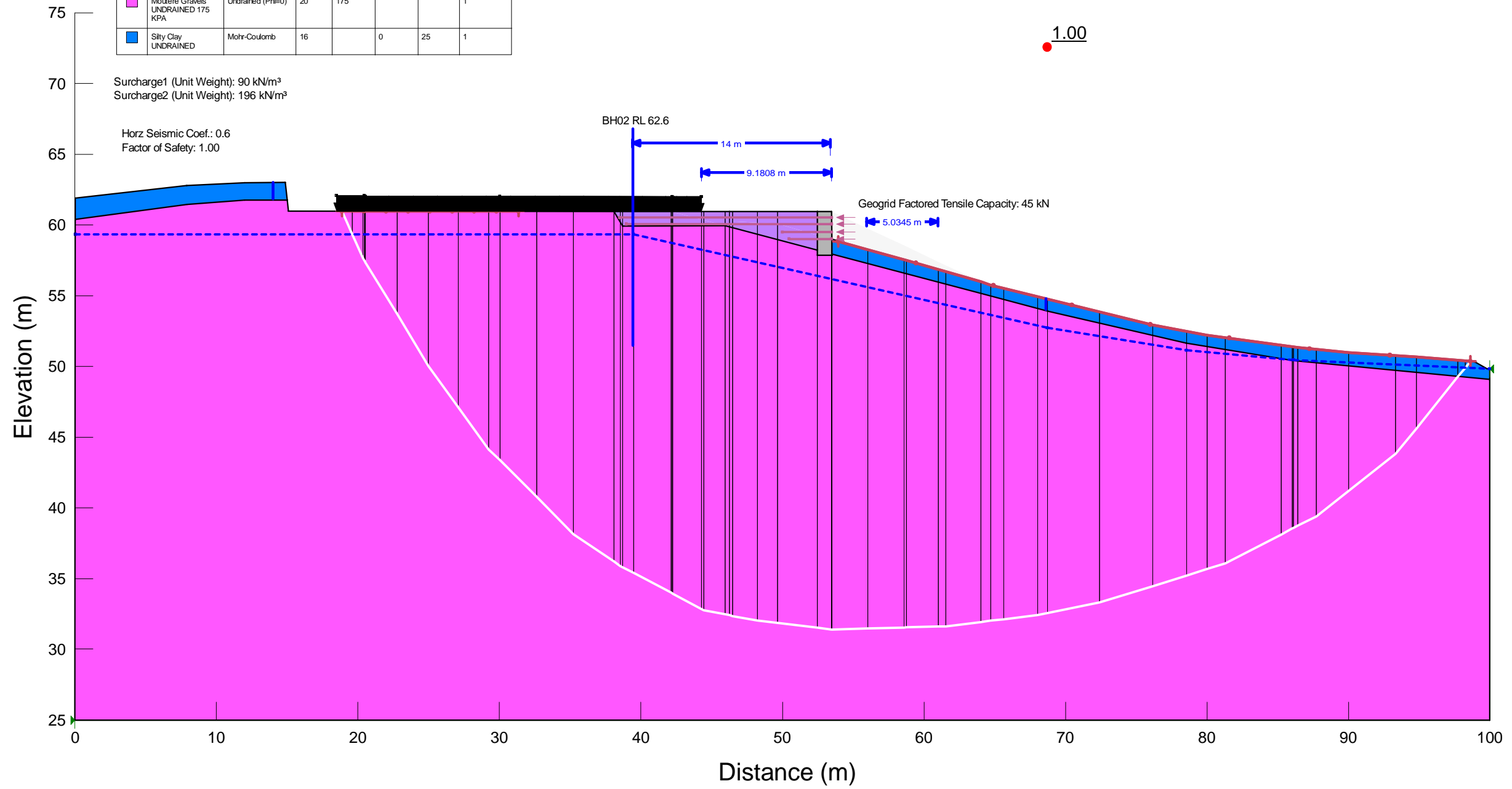


S6 2.3a LHS Inner Tank - SLS	
Single Tank Option Slope Model.gsz	
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Richmond South Reservoir - Long Section 6

S6 2.3b LHS Inner Tank - ULS

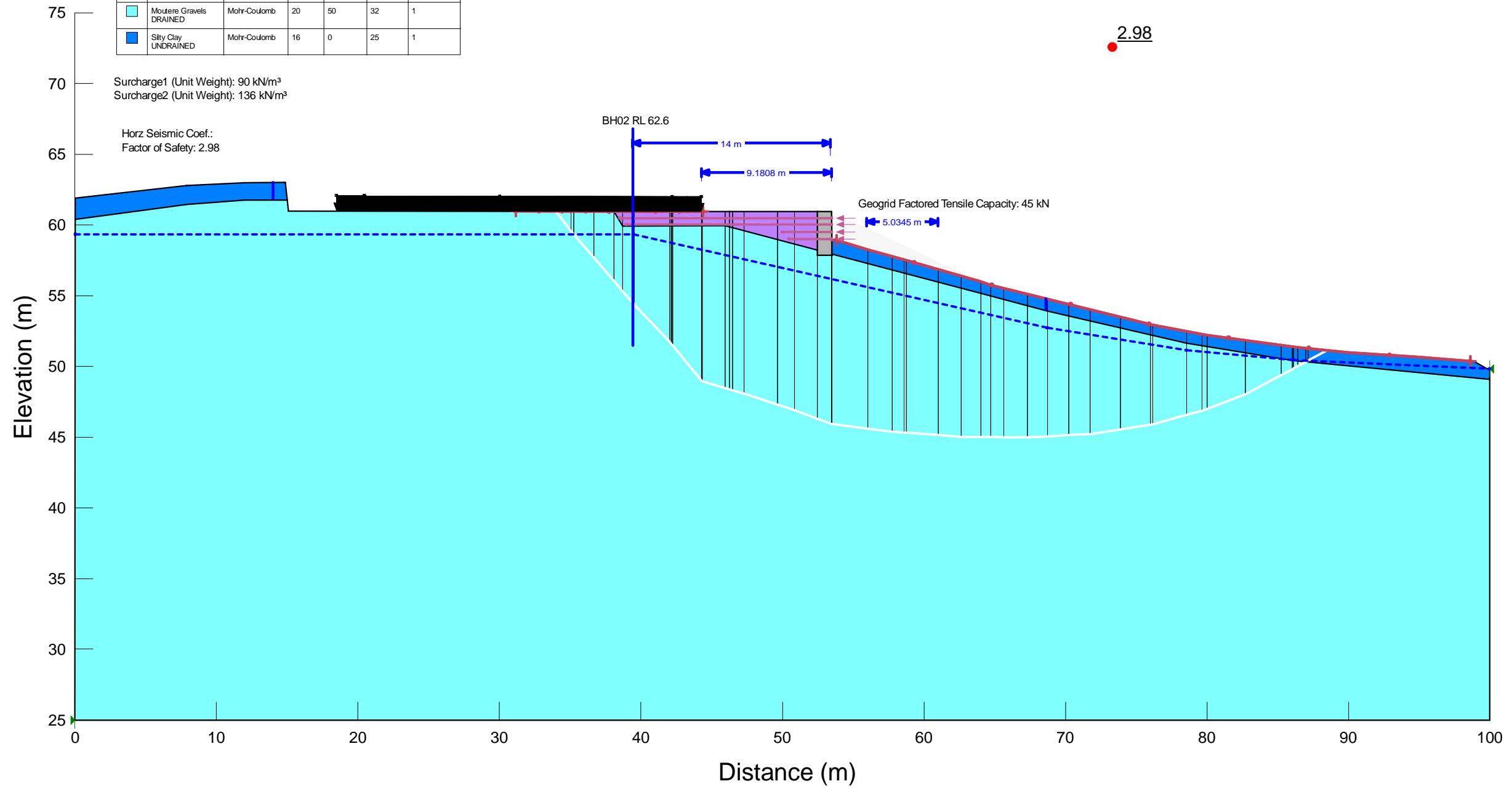
Color	Name	Slope Stability Material Model	Unit Weight (kN/m ³)	Total Cohesion (kPa)	Effective Cohesion (kPa)	Effective Friction Angle (°)	Piezometric Line
Grey	Gabion Infill	High Strength	21				1
Purple	Granular Fill - AP65	Mohr-Coulomb	21	0	0	35	1
Pink	Moutere Gravels UNDRAINED 175 KPA	Undrained (Phi=0)	20	175			1
Blue	Silty Clay UNDRAINED	Mohr-Coulomb	16		0	25	1



S6 2.3b LHS Inner Tank - ULS	
Single Tank Option Slope Model.gsz	
16/02/2022	1:329

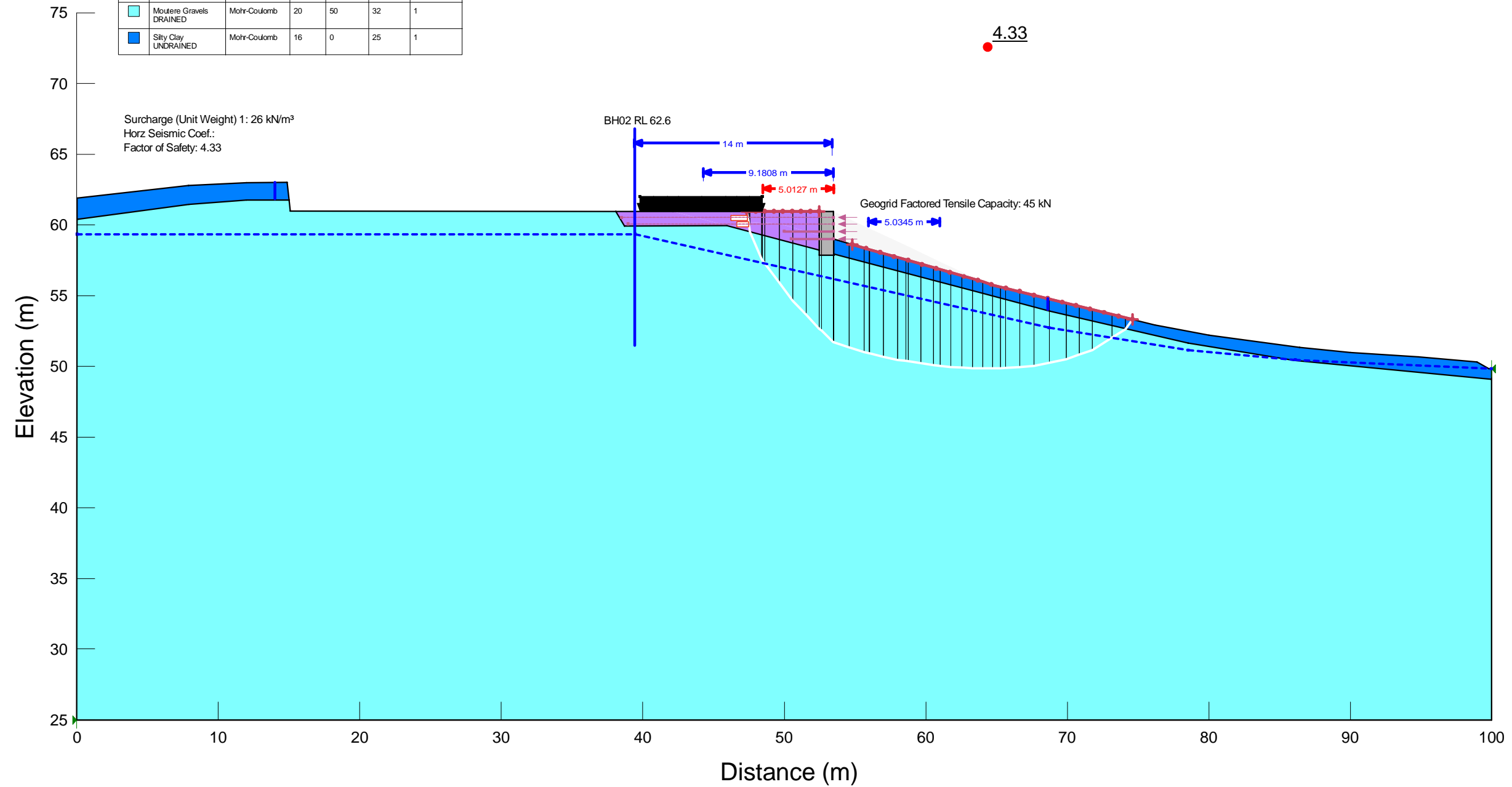
Richmond South Reservoir - Long Section 6
S6 3.1 RHS Inner Tank - Static

Color	Name	Slope Stability Material Model	Unit Weight (kN/m³)	Effective Cohesion (kPa)	Effective Friction Angle (°)	Piezometric Line
Grey	Gabion Infill	High Strength	21			1
Purple	Granular Fill - AP65	Mohr-Coulomb	21	0	35	1
Cyan	Mouere Gravels DRAINED	Mohr-Coulomb	20	50	32	1
Blue	Silty Clay UNDRAINED	Mohr-Coulomb	16	0	25	1



Richmond South Reservoir - Long Section 6
S6 3.2c RHS Inner Tank - Crane Lifting

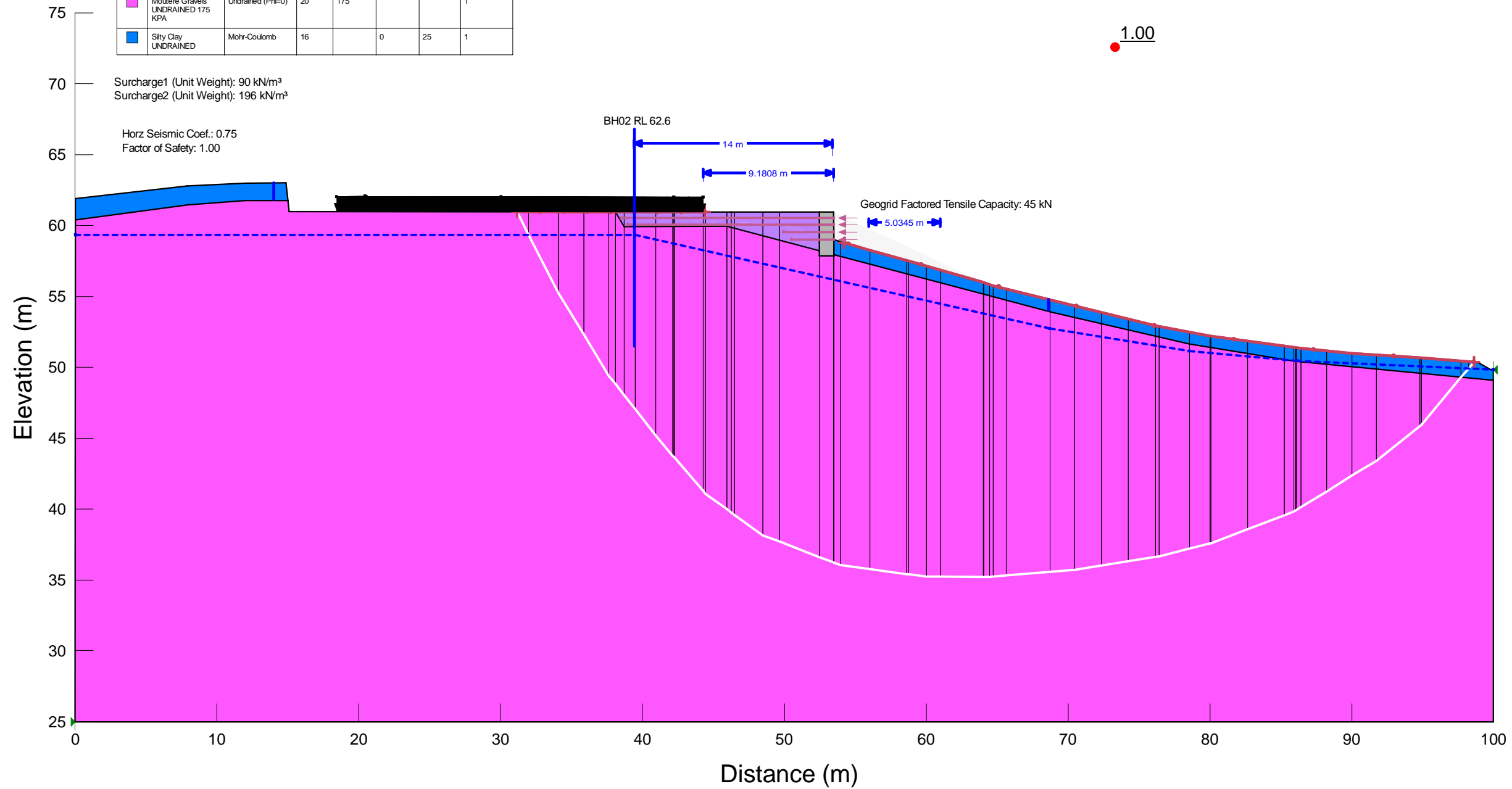
Color	Name	Slope Stability Material Model	Unit Weight (kN/m ³)	Effective Cohesion (kPa)	Effective Friction Angle (°)	Piezometric Line
Grey	Gabion Infill	High Strength	21			1
Purple	Granular Fill - AP65	Mohr-Coulomb	21	0	35	1
Cyan	Mouere Gravels DRAINED	Mohr-Coulomb	20	50	32	1
Blue	Silty Clay UNDRAINED	Mohr-Coulomb	16	0	25	1



S6 3.2c RHS Inner Tank - Crane Lifting	
Single Tank Option Slope Model.gsz	
15/02/2022	1:329

Richmond South Reservoir - Long Section 6
S6 3.3 RHS Inner Tank - Critical UNDRAINED 175 KPA

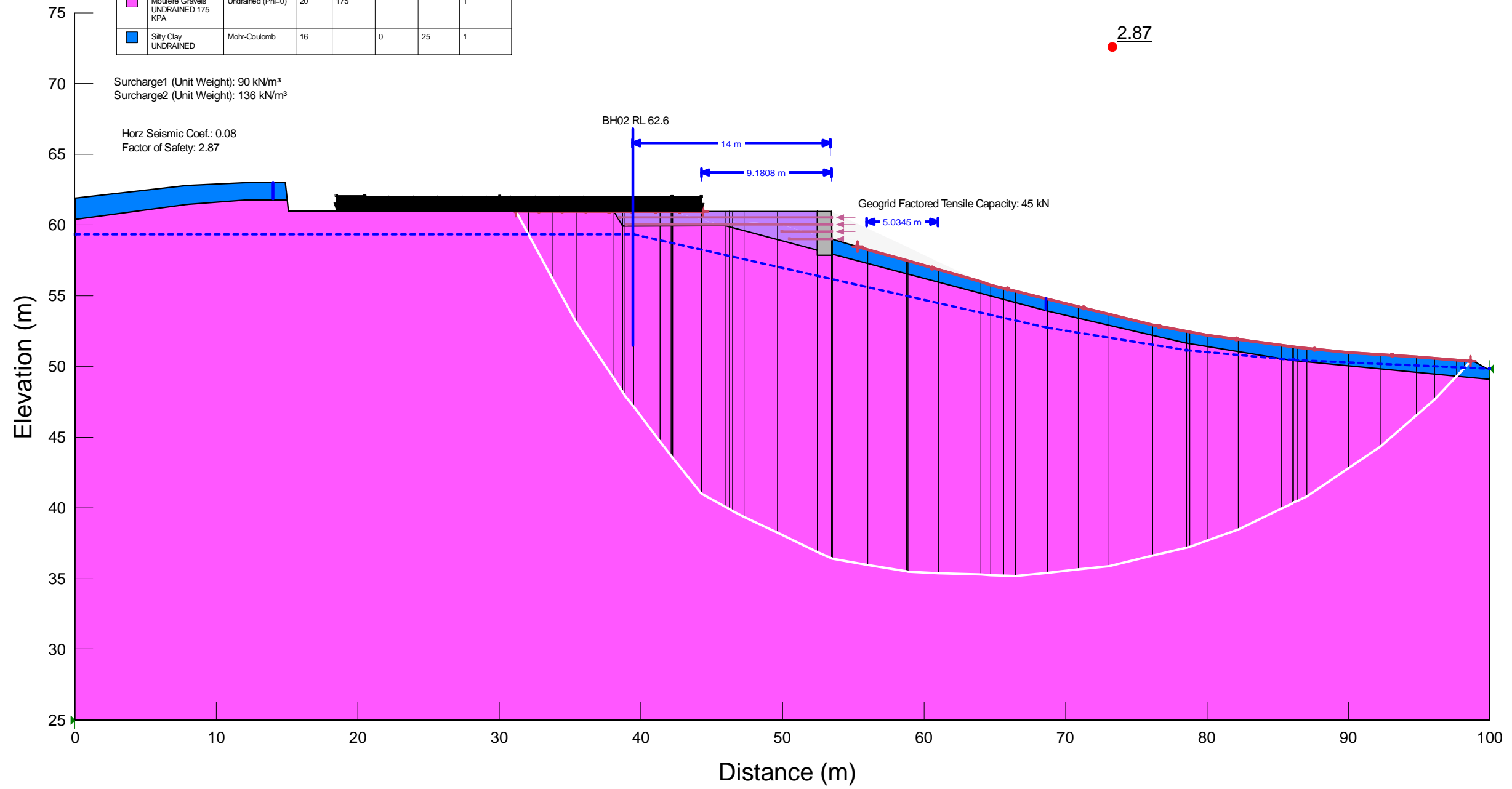
Color	Name	Slope Stability Material Model	Unit Weight (kN/m ³)	Total Cohesion (kPa)	Effective Cohesion (kPa)	Effective Friction Angle (°)	Piezometric Line
Grey	Gabion Infill	High Strength	21				1
Purple	Granular Fill - AP65	Mohr-Coulomb	21	0	0	35	1
Pink	Moutere Gravels UNDRAINED 175 KPA	Undrained (Phi=0)	20	175			1
Blue	Silty Clay UNDRAINED	Mohr-Coulomb	16		0	25	1



Richmond South Reservoir - Long Section 6

S6 3.3a RHS Inner Tank - SLS

Color	Name	Slope Stability Material Model	Unit Weight (kN/m³)	Total Cohesion (kPa)	Effective Cohesion (kPa)	Effective Friction Angle (°)	Piezometric Line
Grey	Gabion Infill	High Strength	21				1
Purple	Granular Fill - AP65	Mohr-Coulomb	21	0	35	1	1
Pink	Moutere Gravels UNDRAINED 175 KPA	Undrained (Phi=0)	20	175			1
Blue	Silty Clay UNDRAINED	Mohr-Coulomb	16	0	25	1	1

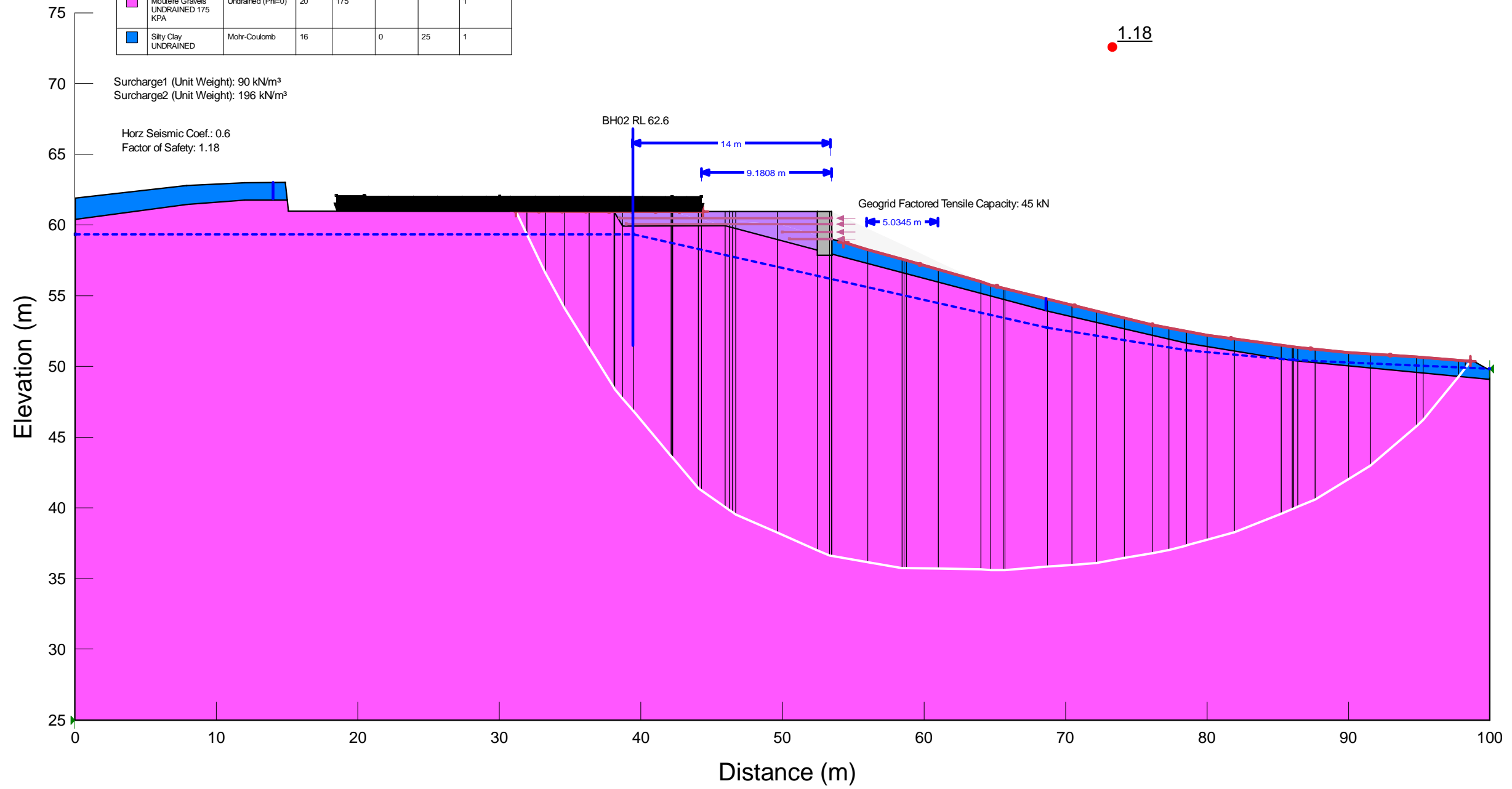


S6 3.3a RHS Inner Tank - SLS	
Single Tank Option Slope Model.gsz	
15/02/2022	1:329

Richmond South Reservoir - Long Section 6

S6 3.3b RHS Inner Tank - ULS

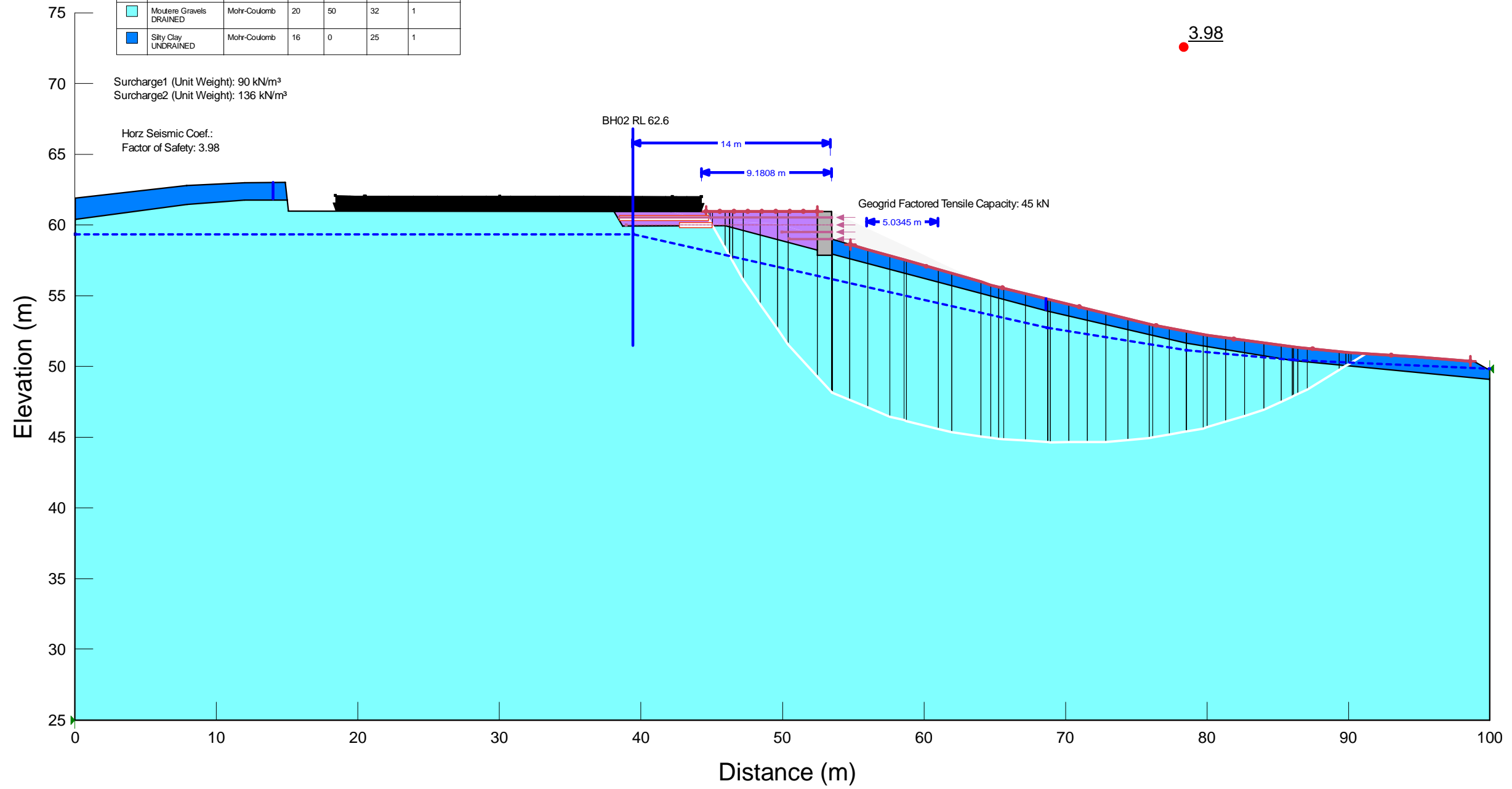
Color	Name	Slope Stability Material Model	Unit Weight (kN/m ³)	Total Cohesion (kPa)	Effective Cohesion (kPa)	Effective Friction Angle (°)	Piezometric Line
Grey	Gabion Infill	High Strength	21				1
Purple	Granular Fill - AP65	Mohr-Coulomb	21	0	0	35	1
Pink	Moutere Gravels UNDRAINED 175 KPA	Undrained (Phi=0)	20	175			1
Blue	Silty Clay UNDRAINED	Mohr-Coulomb	16		0	25	1



S6 3.3b RHS Inner Tank - ULS	
Single Tank Option Slope Model.gsz	
15/02/2022	1:329

Richmond South Reservoir - Long Section 6
S6 4.1 Front of Tank - Static

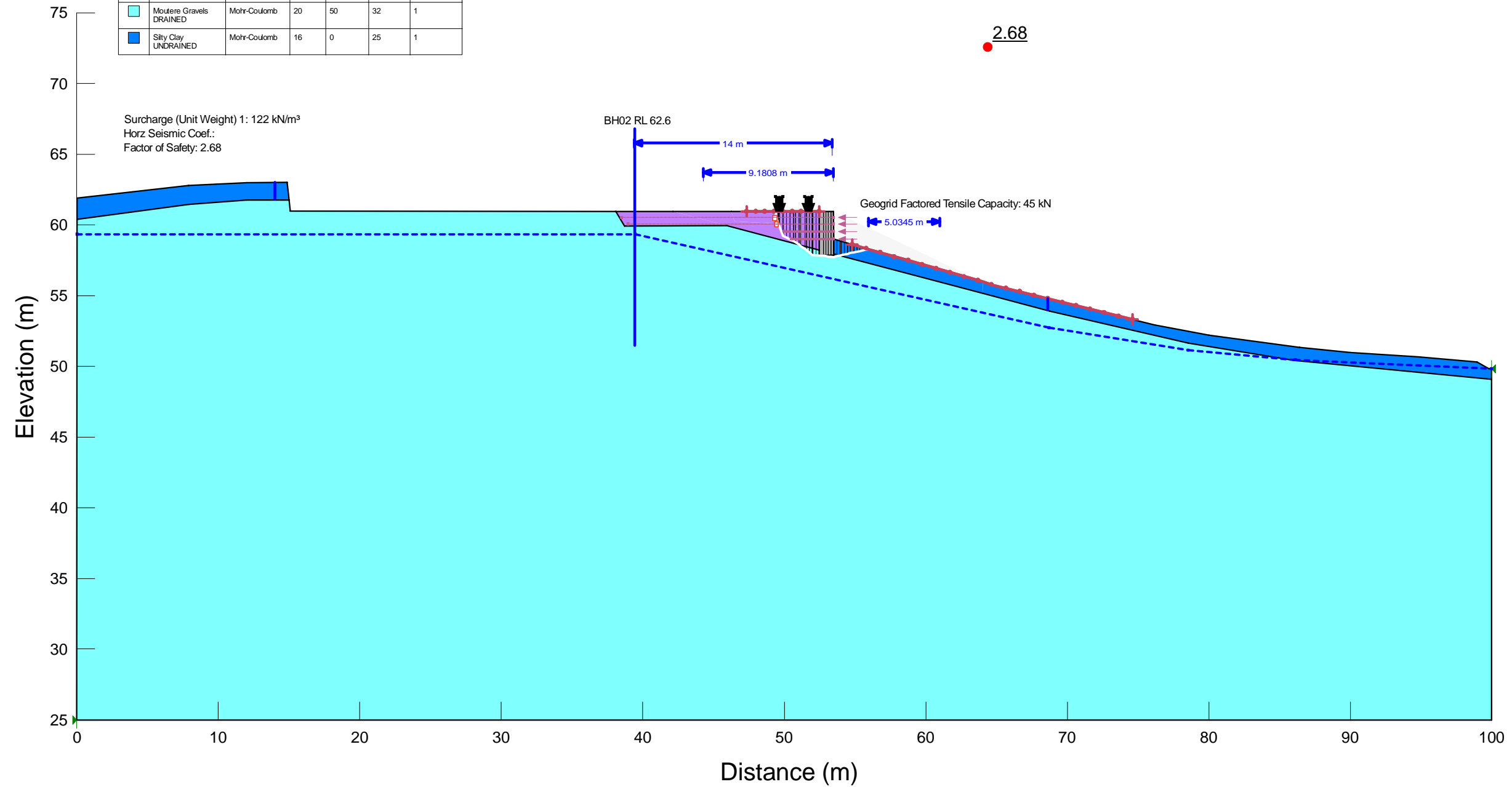
Color	Name	Slope Stability Material Model	Unit Weight (kN/m³)	Effective Cohesion (kPa)	Effective Friction Angle (°)	Piezometric Line
Grey	Gabion Infill	High Strength	21			1
Purple	Granular Fill - AP65	Mohr-Coulomb	21	0	35	1
Cyan	Mouere Gravels DRAINED	Mohr-Coulomb	20	50	32	1
Blue	Silty Clay UNDRAINED	Mohr-Coulomb	16	0	25	1



S6 4.1 Front of Tank - Static	
Single Tank Option Slope Model.gsz	
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Richmond South Reservoir - Long Section 6
S6 4.2a Front of Tank - Crane Acces Wheel tracks

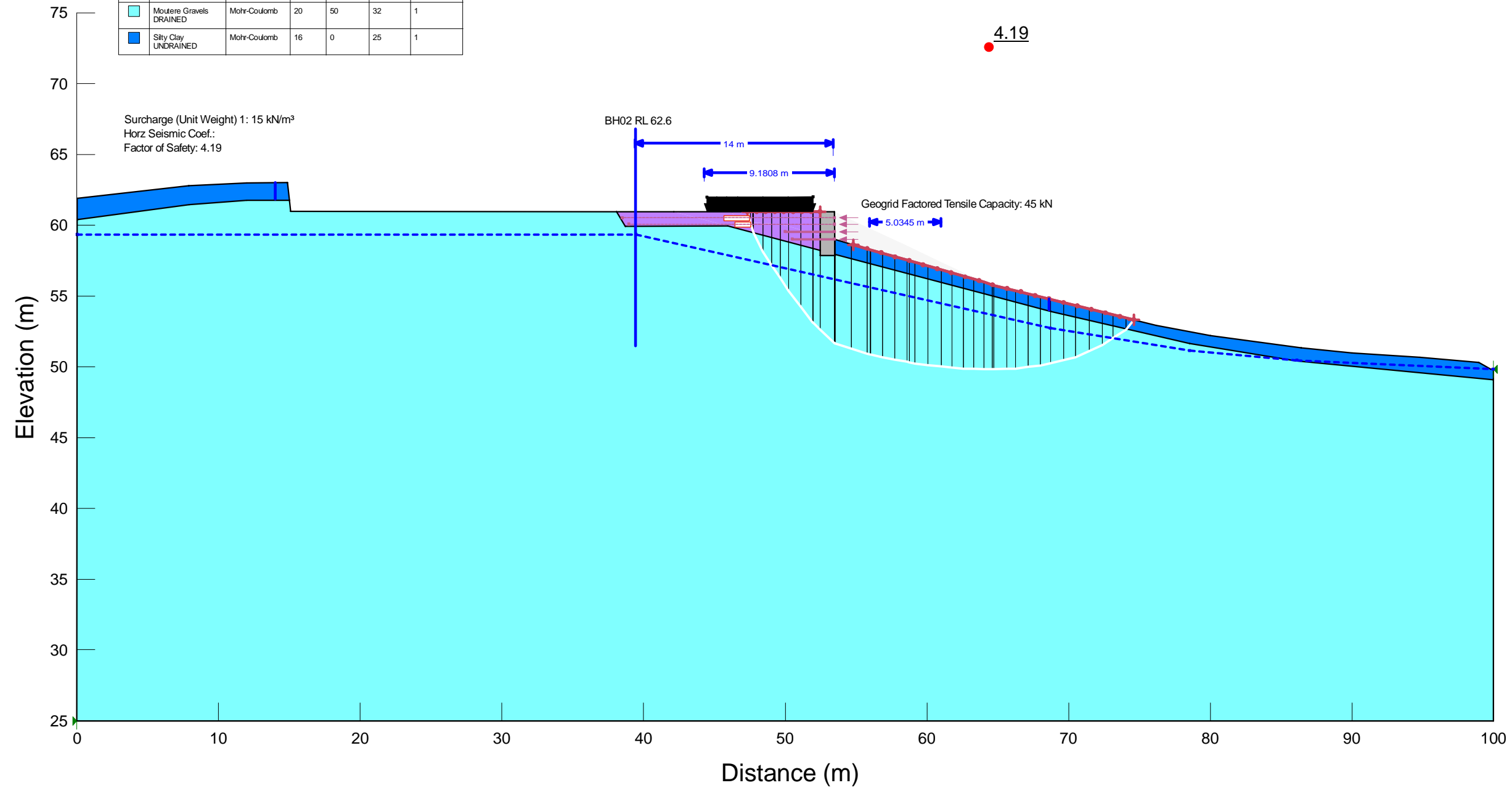
Color	Name	Slope Stability Material Model	Unit Weight (kN/m³)	Effective Cohesion (kPa)	Effective Friction Angle (°)	Piezometric Line
Grey	Gabion Infill	High Strength	21			1
Purple	Granular Fill - AP65	Mohr-Coulomb	21	0	35	1
Cyan	Mouliere Gravels DRAINED	Mohr-Coulomb	20	50	32	1
Blue	Silty Clay UNDRAINED	Mohr-Coulomb	16	0	25	1



S6 4.2a Front of Tank - Crane Acces Wheel tracks	
Single Tank Option Slope Model.gsz	
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Richmond South Reservoir - Long Section 6
S6 4.2b Front of Tank - Crane Access 15kpa

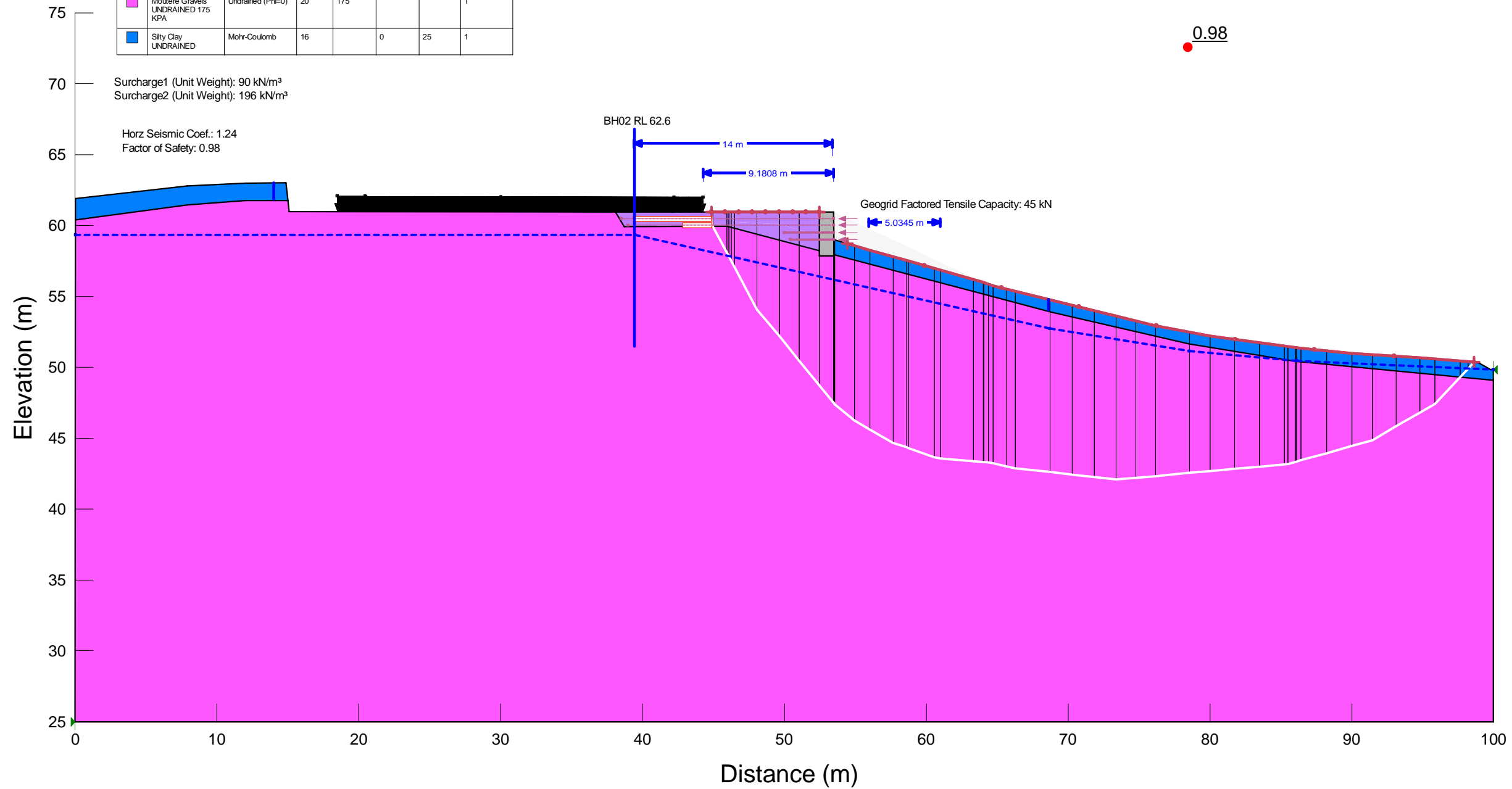
Color	Name	Slope Stability Material Model	Unit Weight (kN/m ³)	Effective Cohesion (kPa)	Effective Friction Angle (°)	Piezometric Line
Grey	Gabion Infill	High Strength	21			1
Purple	Granular Fill - AP65	Mohr-Coulomb	21	0	35	1
Cyan	Mouere Gravels DRAINED	Mohr-Coulomb	20	50	32	1
Blue	Silty Clay UNDRAINED	Mohr-Coulomb	16	0	25	1



S6 4.2b Front of Tank - Crane Access 15kpa	
Single Tank Option Slope Model.gsz	
15/02/2022	1:329

Richmond South Reservoir - Long Section 6
S6 4.3 Front of Tank - Critical UNDRAINED 175 KPA

Color	Name	Slope Stability Material Model	Unit Weight (kN/m ³)	Total Cohesion (kPa)	Effective Cohesion (kPa)	Effective Friction Angle (°)	Piezometric Line
Grey	Gabion Infill	High Strength	21				1
Purple	Granular Fill - AP65	Mohr-Coulomb	21	0	0	35	1
Pink	Moutere Gravels UNDRAINED 175 KPA	Undrained (Phi=0)	20	175			1
Blue	Silty Clay UNDRAINED	Mohr-Coulomb	16		0	25	1

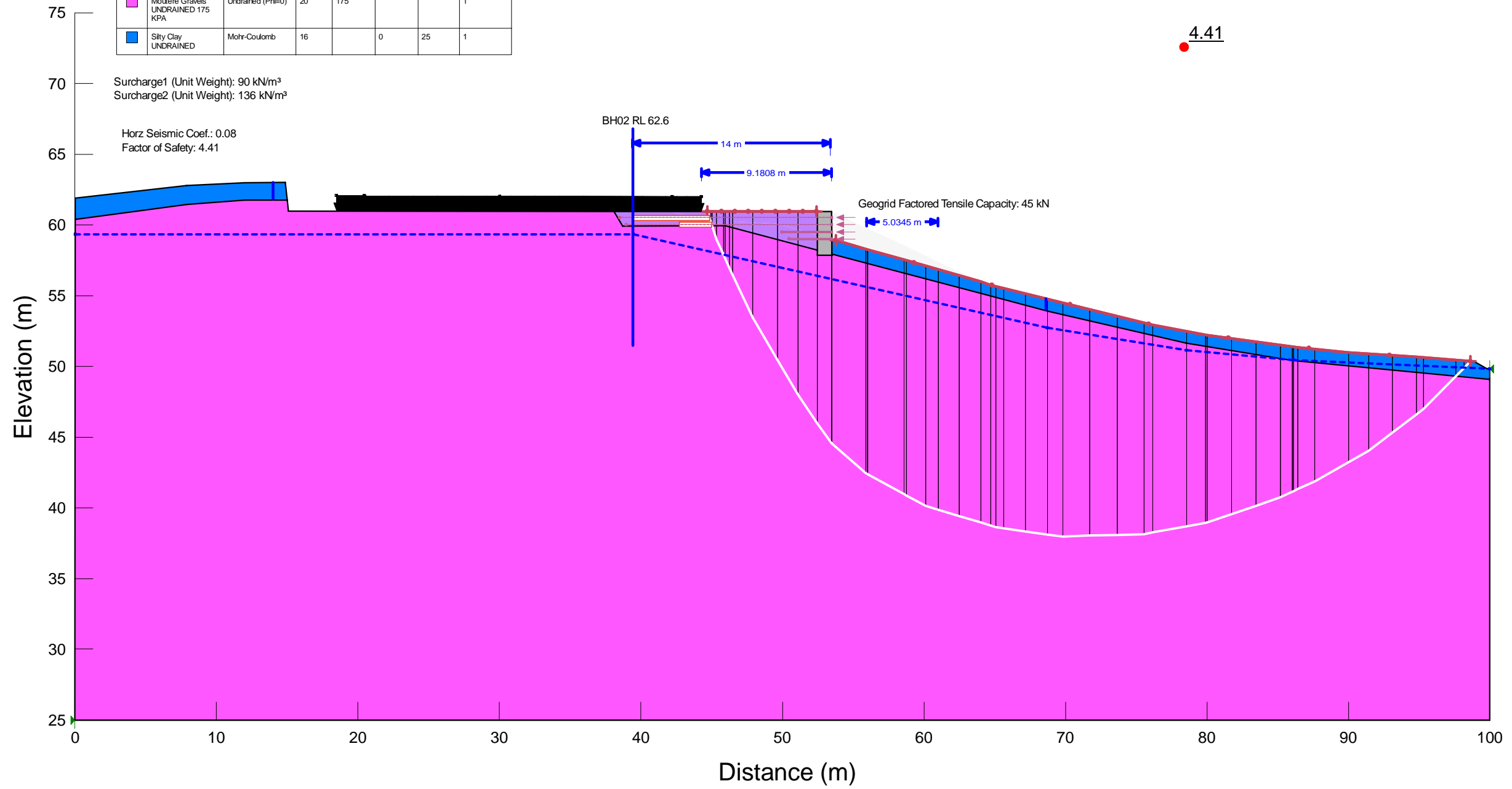


S6 4.3 Front of Tank - Critical UNDRAINED 175 KPA	
Single Tank Option Slope Model.gsz	
15/02/2022	1:329

Richmond South Reservoir - Long Section 6

S6 4.3a Front of Tank - SLS

Color	Name	Slope Stability Material Model	Unit Weight (kN/m ³)	Total Cohesion (kPa)	Effective Cohesion (kPa)	Effective Friction Angle (°)	Piezometric Line
Grey	Gabion Infill	High Strength	21				1
Purple	Granular Fill - AP65	Mohr-Coulomb	21	0	0	35	1
Pink	Moutere Gravels UNDRAINED 175 KPA	Undrained (Phi=0)	20	175			1
Blue	Silty Clay UNDRAINED	Mohr-Coulomb	16		0	25	1

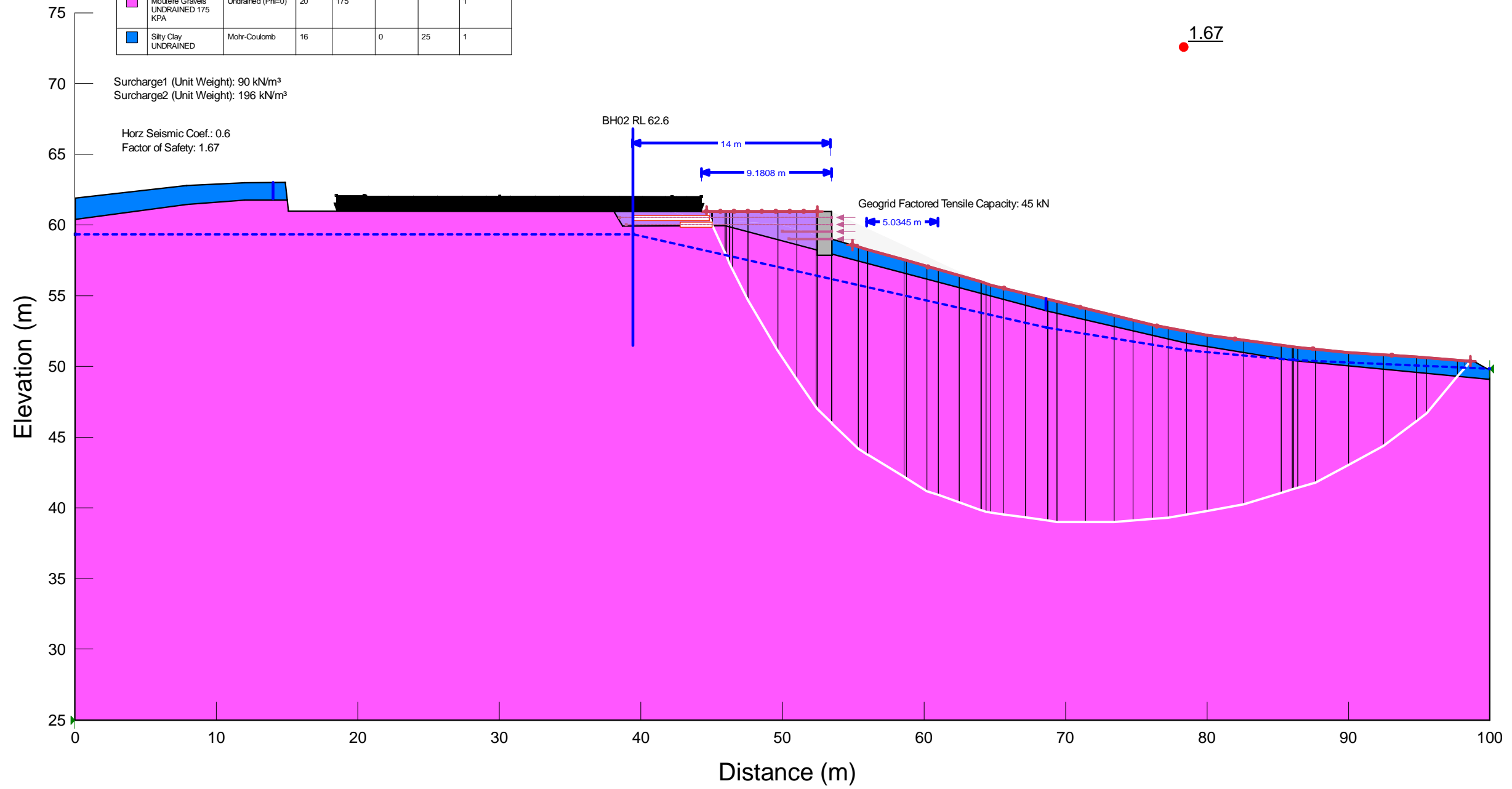


S6 4.3a Front of Tank - SLS	
Single Tank Option Slope Model.gsz	
15/02/2022	1:329

Richmond South Reservoir - Long Section 6

S6 4.3b Front of Tank - ULS

Color	Name	Slope Stability Material Model	Unit Weight (kN/m³)	Total Cohesion (kPa)	Effective Cohesion (kPa)	Effective Friction Angle (°)	Piezometric Line
Grey	Gabion Infill	High Strength	21				1
Purple	Granular Fill - AP65	Mohr-Coulomb	21	0	0	35	1
Pink	Moutere Gravels UNDRAINED 175 KPA	Undrained (Phi=0)	20	175			1
Blue	Silty Clay UNDRAINED	Mohr-Coulomb	16		0	25	1



S6 4.3b Front of Tank - ULS	
Single Tank Option Slope Model.gsz	
15/02/2022	1:329