

















## **Appendix B    Exploratory Hole Logs: Trial Pits**

## Key to legends

### Composite materials, soils and lithology

	Topsoil		Made Ground		Boulders		Chalk
	Clay		Coal		Cobbles		Concrete
	Gravel		Limestone		Mudstone		Peat
	Sand		Sandstone		Silt		Siltstone

Note: Composite soil types are signified by combined symbols.

## Key to 'test results' and 'sampling' columns

### Test result



Depth	Records depth that the test was carried out (i.e.: at 2.10m or between 2.10m and 2.55m)
Result	<p>PP – Pocket penetrometer result reported as an equivalent undrained shear strength (kN/m<sup>2</sup>) by applying a factor of 50.</p> <p>SV – Hand held shear vane result reported as an undrained shear strength (kN/m<sup>2</sup>). Where multiple readings are taken at the same level the average value is shown on the log.                      * Signifies that instrument limit reached.</p>

### Sampling

From (m) To (m)	Records depth of sampling
	D Disturbed sample
	B Bulk disturbed sample
	ES Environmental sample
	W Water sample
Type	U Undisturbed thick-walled sample 100mm diameter sampler
	UT Undisturbed thin walled sample 100mm diameter sampler
	UTF Failed undisturbed sample






## Water observations

Described at foot of log and shown in the 'water strike' column.


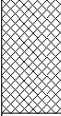
-  Water level observed after specified delay in drilling
-  Water strike

## Density





Density recorded in brackets determined by qualitative field assessment or inferred from density testing and soil descriptions from across the site (i.e.: [Medium dense]).

STRATA				WATER STRIKES	IN SITU TESTING		SAMPLING		
DESCRIPTION	DEPTH (m)	REDUCED LVL (m OD)	LEGEND		TYPE / DEPTH (m)	RESULT	FROM (m)	TO (m)	TYPE
Soft dark brown very sandy CLAY with rare roots to 20mm diameter and abundant rootlets. (TOPSOIL - MADE GROUND)	0.30	86.07		PID 0.05	PID=0.000	0.05		ES	
Firm brown slightly sandy very gravelly CLAY with rare boulders of concrete (up to 500mm x 500mm x 200mm in size). Gravel is fine to coarse, angular to rounded flint, brick, bituminous coated material and concrete. (MADE GROUND)				PID 0.30	PID=0.000	0.30		B	
				PID 0.60	PID=0.000	0.60		B	
				PID 1.00	PID=0.000	1.00		ES	
Firm to stiff orangish brown gravelly CLAY. Gravel is fine to coarse, angular to rounded flint and chalk. (MADE GROUND)	1.50	84.87							
Firm creamish white mottled dark brown gravelly CLAY. Gravel is fine to coarse, subangular to subrounded chalk. (MADE GROUND)	1.70	84.67		PP 1.80	PP=58	1.75		B	
	1.80	84.57				1.85		B	
	1.95	84.42							
Very stiff dark greyish dark brown gravelly CLAY. Gravel is fine to coarse, angular to rounded flint and chalk. Decaying organic matter odour throughout. (MADE GROUND)									
TRIAL PIT TERMINATED AT 1.95m									





<b>Notes</b> Trial pit sides remained upright and stable upon completion. Infiltration testing performed.	<b>Title</b> Trial pit record	<b>Dimensions (w x l)</b> 0.40m x 1.80m	<b>Date(s)</b> 06/10/2022
	<b>Method</b> Machine excavator	<b>Logged by</b> IK	<b>Sheet number</b> Sheet 1 of 1
<b>Groundwater observations</b> No groundwater encountered.	<b>Level (m OD)</b> 86.37	<b>Compiled by</b> IK	<b>Revision</b>
	<b>Co-ordinates</b> 523289mE, 211814mN	<b>Checked by</b> SD	<b>TP01</b>

STRATA				WATER STRIKES	IN SITU TESTING		SAMPLING		
DESCRIPTION	DEPTH (m)	REDUCED LVL (m OD)	LEGEND		TYPE / DEPTH (m)	RESULT	FROM (m)	TO (m)	TYPE
Soft dark brown very sandy CLAY with rare roots to 20mm diameter and abundant rootlets. (TOPSOIL - MADE GROUND)	0.20	85.40			PID 0.05	PID=0.000	0.05		ES
Very stiff brown slightly sandy very gravelly CLAY with rare boulders of concrete (up to 500mm x 500mm x 200mm in size). Gravel is fine to coarse, angular to rounded flint, brick, bituminous coated material and concrete. (MADE GROUND)					PID 0.30	PID=0.000	0.30		ES
						PID 0.60	PID=0.000	0.60 0.60	
TRIAL PIT TERMINATED AT 1.00m	1.00	84.60			PID 1.00	PID=0.000	1.00		ES

<b>Notes</b> Trial pit sides remained upright and stable upon completion. Terminated due to competency of soils.	<b>Title</b> Trial pit record	<b>Dimensions (w x l)</b> 0.40m x 1.80m	<b>Date(s)</b> 06/10/2022
	<b>Method</b> Machine excavator	<b>Logged by</b> IK	<b>Sheet number</b> Sheet 1 of 1
<b>Groundwater observations</b> No groundwater encountered.	<b>Level (m OD)</b> 85.60	<b>Compiled by</b> IK	<b>Revision</b>
	<b>Co-ordinates</b> 523248mE, 211786mN	<b>Checked by</b> SD	<b>TP02</b>

STRATA				WATER STRIKES	IN SITU TESTING		SAMPLING		
DESCRIPTION	DEPTH (m)	REDUCED LVL (m OD)	LEGEND		TYPE / DEPTH (m)	RESULT	FROM (m)	TO (m)	TYPE
Soft to firm dark brown slightly gravelly very sandy CLAY with frequent rootlets. Gravel is fine to coarse, angular to rounded flint, brick and concrete. (TOPSOIL - MADE GROUND)	0.25	84.00			PID 0.05	PID=0.000	0.05		ES
Brown sandy very clayey GRAVEL of fine to coarse, angular to rounded flint, brick, concrete, metal and ceramic. (MADE GROUND)	0.65	83.60			PID 0.30	PID=0.000	0.30		ES
Blackish brown gravelly clayey fine to coarse SAND. Gravel is fine to coarse angular to rounded flint, metal, concrete and ceramic. (MADE GROUND)	0.90	83.35			PID 0.60	PID=0.000	0.60		B ES
Soft to firm yellowish brown very gravelly CLAY. Gravel is fine to coarse angular to rounded flint and sandstone. Occasional medium to coarse gravel-sized metal sheet fragments. (MADE GROUND)	1.80	82.45			PID 1.00	PID=0.000	0.90 1.00		B ES
TRIAL PIT TERMINATED AT 1.80m							1.80		B


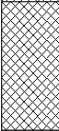

<b>Notes</b> Trial pit sides remained upright and stable upon completion. Infiltration testing performed.	<b>Title</b> Trial pit record	<b>Dimensions (w x l)</b> 0.40m x 1.80m	<b>Date(s)</b> 06/10/2022
	<b>Method</b> Machine excavator	<b>Logged by</b> IK	<b>Sheet number</b> Sheet 1 of 1
<b>Groundwater observations</b> No groundwater encountered.	<b>Level (m OD)</b> 84.25	<b>Compiled by</b> IK	<b>Revision</b>
	<b>Co-ordinates</b> 523225mE, 211712mN	<b>Checked by</b> SD	<b>TP03</b>

STRATA				WATER STRIKES	IN SITU TESTING		SAMPLING		
DESCRIPTION	DEPTH (m)	REDUCED LVL (m OD)	LEGEND		TYPE / DEPTH (m)	RESULT	FROM (m)	TO (m)	TYPE
Dark brown gravelly slightly clayey fine to coarse SAND with abundant rootlets and roots to 10mm diameter. Gravel is fine to coarse angular to rounded flint, brick and concrete. (TOPSOIL - MADE GROUND)	0.10	84.50			PID 0.05	PID=0.000	0.05		ES
Brown slightly clayey silty sandy GRAVEL of fine to coarse angular to rounded flint, brick, concrete and metal with frequent rootlets Gravel. (MADE GROUND)	0.45	84.15			PID 0.30	PID=0.000	0.30		B
Light grey very gravelly slightly clayey fine to coarse SAND with frequent cobbles and boulders of concrete (up to 500mm x 500mm x 300mm in size). Gravel is fine to coarse angular to subrounded concrete, brick and flint. (MADE GROUND)					PID 0.50	PID=0.000	0.50		ES
							0.60		B
					PID 1.00	PID=0.000	1.00		ES
Soft brown mottled greyish brown slightly sandy gravelly CLAY. Gravel is fine to coarse angular to rounded flint, clinker, concrete and brick with plastic present. (MADE GROUND)	1.60	83.00			PID 1.65	PID=0.400	1.60	1.65	B ES
...from 2.5m depth, becoming yellowish brown.					PID 2.60	PID=0.100	2.60	2.60	B ES
TRIAL PIT TERMINATED AT 2.80m	2.80	81.80							

<b>Notes</b> Trial pit sides showing signs of instability between 0.45m and 1.6m depth.	<b>Title</b> Trial pit record	<b>Dimensions (w x l)</b> 1.20m x 2.00m	<b>Date(s)</b> 06/10/2022
	<b>Method</b> Machine excavator	<b>Logged by</b> IK	<b>Sheet number</b> Sheet 1 of 1
<b>Groundwater observations</b> No groundwater encountered.	<b>Level (m OD)</b> 84.60	<b>Compiled by</b> IK	<b>Revision</b>
	<b>Co-ordinates</b> 523166mE, 211627mN	<b>Checked by</b> SD	<b>TP04</b>





STRATA				WATER STRIKES	IN SITU TESTING		SAMPLING		
DESCRIPTION	DEPTH (m)	REDUCED LVL (m OD)	LEGEND		TYPE / DEPTH (m)	RESULT	FROM (m)	TO (m)	TYPE
Grass onto brown very sandy slightly clayey GRAVEL of fine to coarse, angular to rounded brick, concrete and flint. (MADE GROUND)					PID 0.05	PID=0.000	0.05		ES
Dark brown very sandy clayey GRAVEL of fine to coarse, angular to rounded brick, concrete, flint and ash. (MADE GROUND)	0.35	84.47			PID 0.40	PID=0.000	0.40		B
	0.55	84.27			PID 0.60	PID=0.400	0.40 0.60 0.60		ES B ES
Soft to firm greyish brown slightly sandy gravelly CLAY with occasional cobbles and boulders of concrete (up to 500mm x 300mm x 200mm in size) and occasional pockets of dark greenish and greyish brown slightly sandy gravelly CLAY. Gravel is fine to coarse, angular to rounded flint, brick, concrete, porcelain, cloth, metal, ash, clinker with much burnt wood and rare rubber tyres. Decaying organic matter odour present throughout. (MADE GROUND)					PP 1.20	PP=54			
					PID 1.60	PID=0.500	1.60		B
TRIAL PIT TERMINATED AT 2.60m	2.60	82.22			PID 2.60	PID=0.400	2.60 2.60		B ES

<b>Notes</b> Trial pit sides remained upright and stable upon completion. Terminated due to maximum reach of excavator.	<b>Title</b> Trial pit record	<b>Dimensions (w x l)</b> 1.10m x 1.70m	<b>Date(s)</b> 05/10/2022 - 06/10/2022
	<b>Method</b> Machine excavator	<b>Logged by</b> IK	<b>Sheet number</b> Sheet 1 of 1
<b>Groundwater observations</b> No groundwater encountered.	<b>Level (m OD)</b> 84.82	<b>Compiled by</b> IK	<b>Revision</b>
	<b>Co-ordinates</b> 523128mE, 211565mN	<b>Checked by</b> SD	<b>TP05</b>



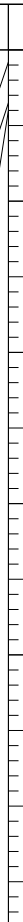
STRATA				WATER STRIKES	IN SITU TESTING		SAMPLING		
DESCRIPTION	DEPTH (m)	REDUCED LVL (m OD)	LEGEND		TYPE / DEPTH (m)	RESULT	FROM (m)	TO (m)	TYPE
Dark brown gravelly slightly clayey fine to coarse SAND with frequent rootlets and roots to 15mm diameter. Gravel is fine to coarse angular to rounded brick, flint and concrete. (TOPSOIL - MADE GROUND)	0.25	84.02		PID 0.05	PID=0.000	0.05		ES	
Firm brown slightly sandy gravelly CLAY. Gravel is fine to coarse angular to rounded flint, quartz, glass and rare brick and metal. (MADE GROUND)				PID 0.30	PID=0.000	0.30		ES	
Soft to firm grey mottled blackish grey and brown slightly gravelly CLAY with occasional cobbles and boulder of concrete (up to 500mm x 500mm x 200mm in size). Gravel is fine to coarse angular to rounded flint, brick, concrete and glass with burnt wood, plastic and ash present. Decaying organic matter odour present throughout. (MADE GROUND)	1.10	83.17		PID 0.60	PID=0.000	0.60 0.60		B ES	
				PID 1.10	PID=0.000	1.10 1.10		B ES	
				PP 1.80	PP=21				
				PID 2.00	PID=0.700	2.00 2.00		B ES	
...from 2.5m depth, becoming grey mottled greyish brown.									
TRIAL PIT TERMINATED AT 2.90m	2.90	81.37		PID 2.80	PID=0.800	2.80 2.80		B ES	

<b>Notes</b> Trial pit sides remained upright and stable upon completion.	<b>Title</b> Trial pit record	<b>Dimensions (w x l)</b> 0.60m x 2.00m	<b>Date(s)</b> 06/10/2022
	<b>Method</b> Machine excavator	<b>Logged by</b> IK	<b>Sheet number</b> Sheet 1 of 1
<b>Groundwater observations</b> No groundwater encountered.	<b>Level (m OD)</b> 84.27	<b>Compiled by</b> IK	<b>Revision</b>
	<b>Co-ordinates</b> 523109mE, 211526mN	<b>Checked by</b> SD	<b>TP06</b>



STRATA				WATER STRIKES	IN SITU TESTING		SAMPLING		
DESCRIPTION	DEPTH (m)	REDUCED LVL (m OD)	LEGEND		TYPE / DEPTH (m)	RESULT	FROM (m)	TO (m)	TYPE
Dark brown gravelly clayey fine to coarse SAND with occasional rootlets and roots to 20mm diameter. Gravel is fine to coarse, angular to rounded flint, brick, metal and bituminous coated material. (TOPSOIL - MADE GROUND) <i>...from 0.3m depth, becoming very clayey.</i>					PID 0.30 PID 0.35 PID 0.55	PID=0.000 PID=0.000 PID=0.000	0.30 0.35 0.55		ES ES B ES
Soft to firm yellowish brown gravelly CLAY. Gravel is fine to coarse subangular to rounded flint. (KESGRAVE CATCHMENT SUBGROUP)	0.50	82.06							
Soft to firm orangish brown slightly sandy slightly gravelly silty CLAY. Gravel is fine to coarse, angular to rounded flint. (KESGRAVE CATCHMENT SUBGROUP)	0.70	81.86			PP 1.00 PID 1.00	PP=25 PID=0.000	1.00		ES
TRIAL PIT TERMINATED AT 1.40m	1.40	81.16			PID 1.40	PID=0.000	1.30 1.40		B D




<b>Notes</b> Trial pit sides showing signs of instability. Infiltration testing performed.	<b>Title</b> Trial pit record	<b>Dimensions (w x l)</b> 1.00m x 0.30m	<b>Date(s)</b> 05/10/2022
	<b>Method</b> Machine excavator	<b>Logged by</b> IK	<b>Sheet number</b> Sheet 1 of 1
<b>Groundwater observations</b> No groundwater encountered.	<b>Level (m OD)</b> 82.56	<b>Compiled by</b> IK	<b>Revision</b>
	<b>Co-ordinates</b> 523194mE, 211448mN	<b>Checked by</b> SD	<b>TP07</b>

STRATA				WATER STRIKES	IN SITU TESTING		SAMPLING		
DESCRIPTION	DEPTH (m)	REDUCED LVL (m OD)	LEGEND		TYPE / DEPTH (m)	RESULT	FROM (m)	TO (m)	TYPE
Dark greyish black ASPHALT. (ASPHALT)	0.08								
Greyish reddish brown slightly sandy fine to coarse angular to subangular GRAVEL of limestone. (MADE GROUND)	0.35						0.40		D
Firm greyish brown slightly gravelly silty CLAY. Gravel fine to coarse angular to rounded flint, quartz and brick. (MADE GROUND)	0.40								
TRIAL PIT TERMINATED AT 0.40m									
									

<b>Notes</b> Trial pit sides remained upright and stable upon completion.	<b>Title</b> Trial pit record	<b>Dimensions (w x l)</b> 0.20m x 0.20m	<b>Date(s)</b> 14/11/2022
	<b>Method</b> Hand Tools	<b>Logged by</b> IK	<b>Sheet number</b> Sheet 1 of 1
<b>Groundwater observations</b> No groundwater encountered.	<b>Level (m OD)</b> -	<b>Compiled by</b> KD	<b>Revision</b> A
	<b>Co-ordinates</b> -	<b>Checked by</b> KB	<b>DCP02</b>

STRATA				WATER STRIKES	IN SITU TESTING		SAMPLING		
DESCRIPTION	DEPTH (m)	REDUCED LVL (m OD)	LEGEND		TYPE / DEPTH (m)	RESULT	FROM (m)	TO (m)	TYPE
Dark greyish black ASPHALT. (ASPHALT)	0.06								
Reddish brown sandy fine to coarse angular to subangular GRAVEL of limestone. (MADE GROUND)	0.20								
Firm greenish brown gravelly silty CLAY. Gravel is fine to coarse angular to rounded flint. (MADE GROUND)	0.25								
TRIAL PIT TERMINATED AT 0.25m									

<b>Notes</b> Trial pit sides remained upright and stable upon completion.	<b>Title</b> Trial pit record	<b>Dimensions (w x l)</b> 0.20m x 0.20m	<b>Date(s)</b> 14/11/2022
	<b>Method</b> Hand Tools	<b>Logged by</b> IK	<b>Sheet number</b> Sheet 1 of 1
<b>Groundwater observations</b> No groundwater encountered.	<b>Level (m OD)</b> -	<b>Compiled by</b> KD	<b>Revision</b> A
	<b>Co-ordinates</b> -	<b>Checked by</b> KB	<b>DCP11</b>

STRATA				WATER STRIKES	IN SITU TESTING		SAMPLING		
DESCRIPTION	DEPTH (m)	REDUCED LVL (m OD)	LEGEND		TYPE / DEPTH (m)	RESULT	FROM (m)	TO (m)	TYPE
Dark greyish black ASPHALT. (ASPHALT)	0.10								
Greyish brown very gravelly slightly clayey fine to coarse SAND. Gravel is fine to coarse angular to rounded flint. (MADE GROUND)	0.35					0.50		B	
Yellowish brown sandy clayey fine to coarse subrounded to rounded GRAVEL of flint. (KESGRAVE CATCHMENT SUBGROUP)	1.00								
TRIAL PIT TERMINATED AT 1.00m									

<b>Notes</b> Log of service trench that had been excavated in the car park by a third party contractor. Log produced in order to provide an indication of ground conditions in this area.	<b>Title</b> Trial pit record	<b>Dimensions (w x l)</b> 0.60m x 10.00m	<b>Date(s)</b> 14/11/2022
	<b>Method</b> Machine excavator	<b>Logged by</b> IK	<b>Sheet number</b> Sheet 1 of 1
<b>Groundwater observations</b> No groundwater encountered.	<b>Level (m OD)</b> -	<b>Compiled by</b> KD	<b>Revision</b> A
	<b>Co-ordinates</b> -	<b>Checked by</b> KB	<b>ST01</b>

## **Appendix C    Photograph Records**

**P1:**



**P2:**



Title

Photographic records of the site

Reference

PS-1

**P3:**



**P4:**



Title

Photographic records of the site

Reference

PS-2

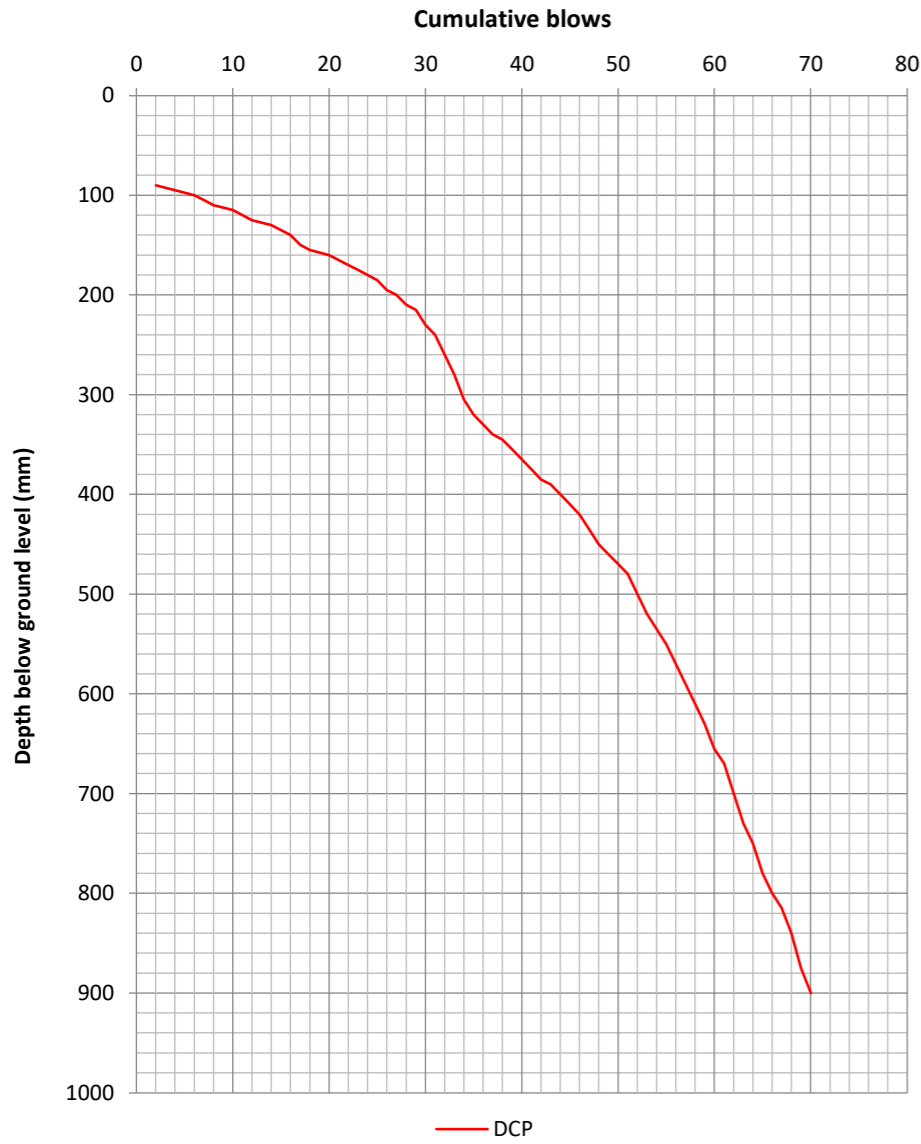
## **Appendix D    Dynamic Cone Penetrometer Results**



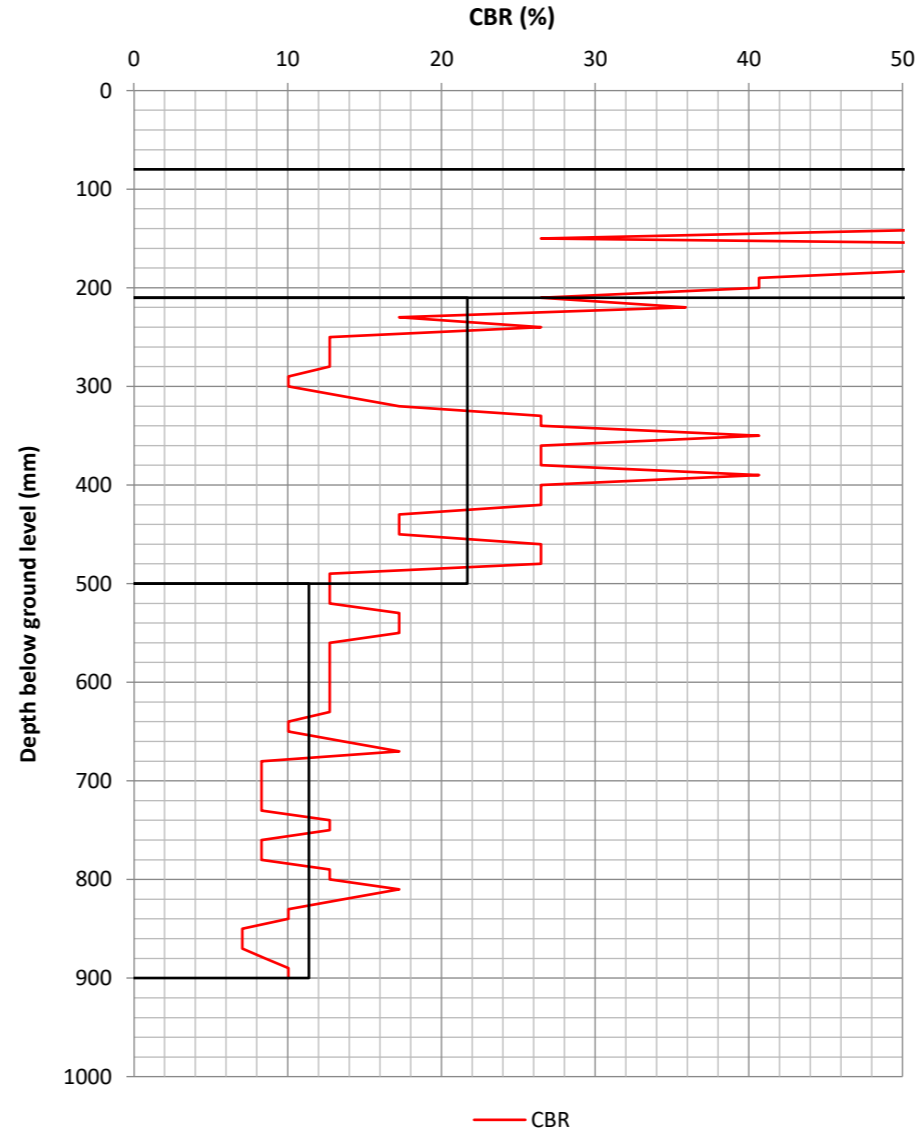
### Dynamic Cone Penetrometer (DCP) test

Location	Date of test	Start depth (mm)	Zero reading (mm)	Operator
DCP01	14/11/2022	80	130	IK

Plot showing number of blows against depth



Plot showing CBR (%) against depth



Layer properties

Layer No.	CBR (%)	Thickness (mm)	Start depth (mmBGL)	Base depth (mmBGL)
1	59.6	130	80	210
2	21.7	290	210	500
3	11.4	400	500	900

### Notes

1. Test procedure following Highways England Document CS229 Data for Pavement Assessment.

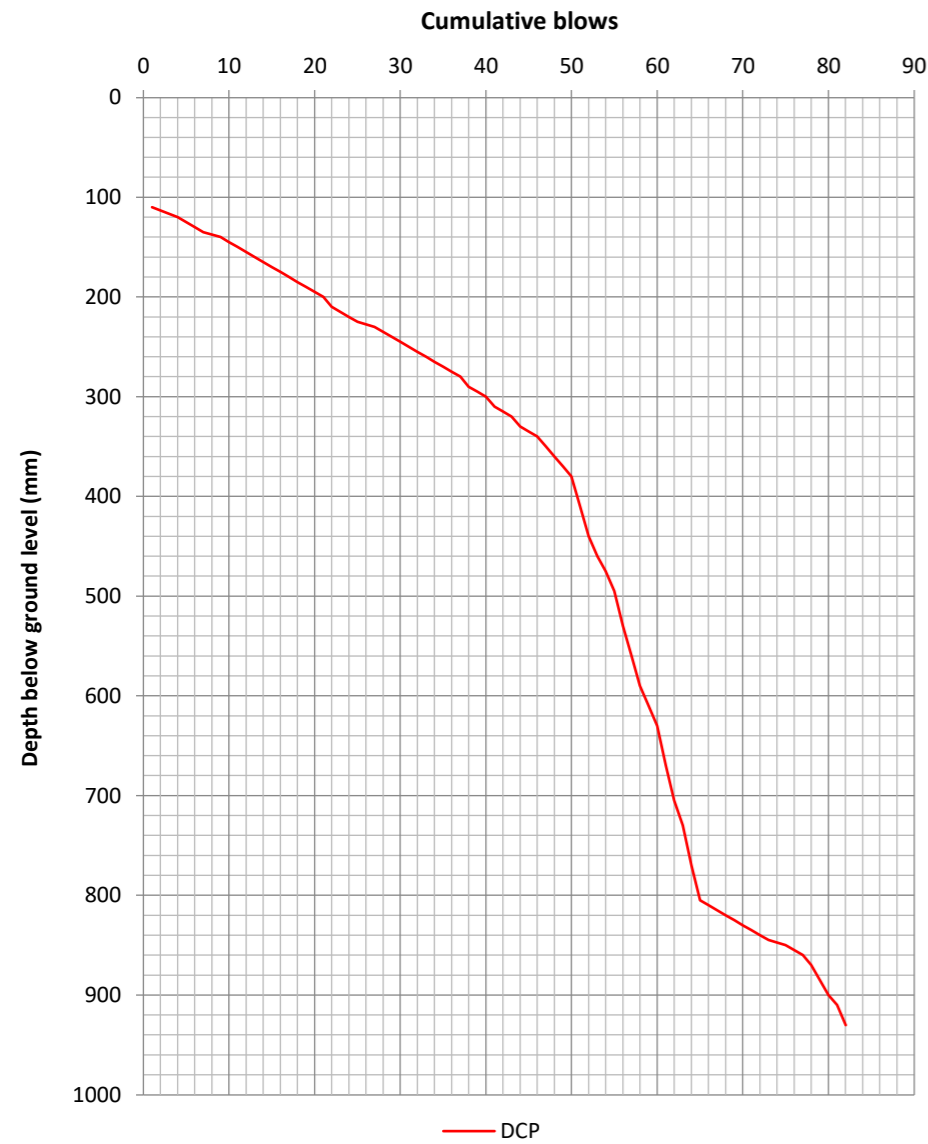
### Calculations

$$\text{Log}_{10}(\text{Uncorrected (UC) CBR}) = 2.48 - 1.057\text{Log}_{10}(\text{mm/blow})$$

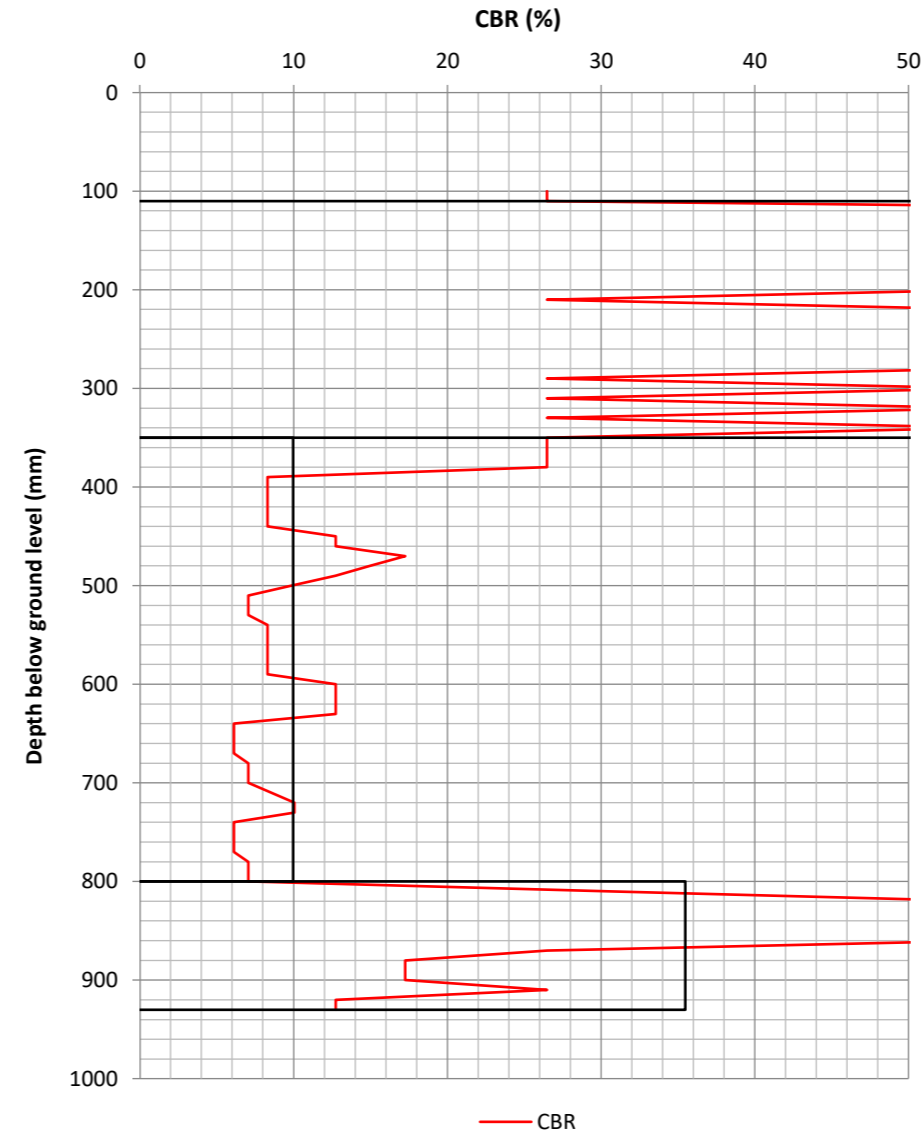
## Dynamic Cone Penetrometer (DCP) test

Location	Date of test	Start depth (mm)	Zero reading (mm)	Operator
DCP02	14/11/2022	100	120	IK

### Plot showing number of blows against depth



### Plot showing CBR (%) against depth



### Layer properties

Layer No.	CBR (%)	Thickness (mm)	Start depth (mmBGL)	Base depth (mmBGL)
1	52.7	240	110	350
2	10.0	450	350	800
3	35.5	130	800	930

### Notes

1. Test procedure following Highways England Document CS229 Data for Pavement Assessment.

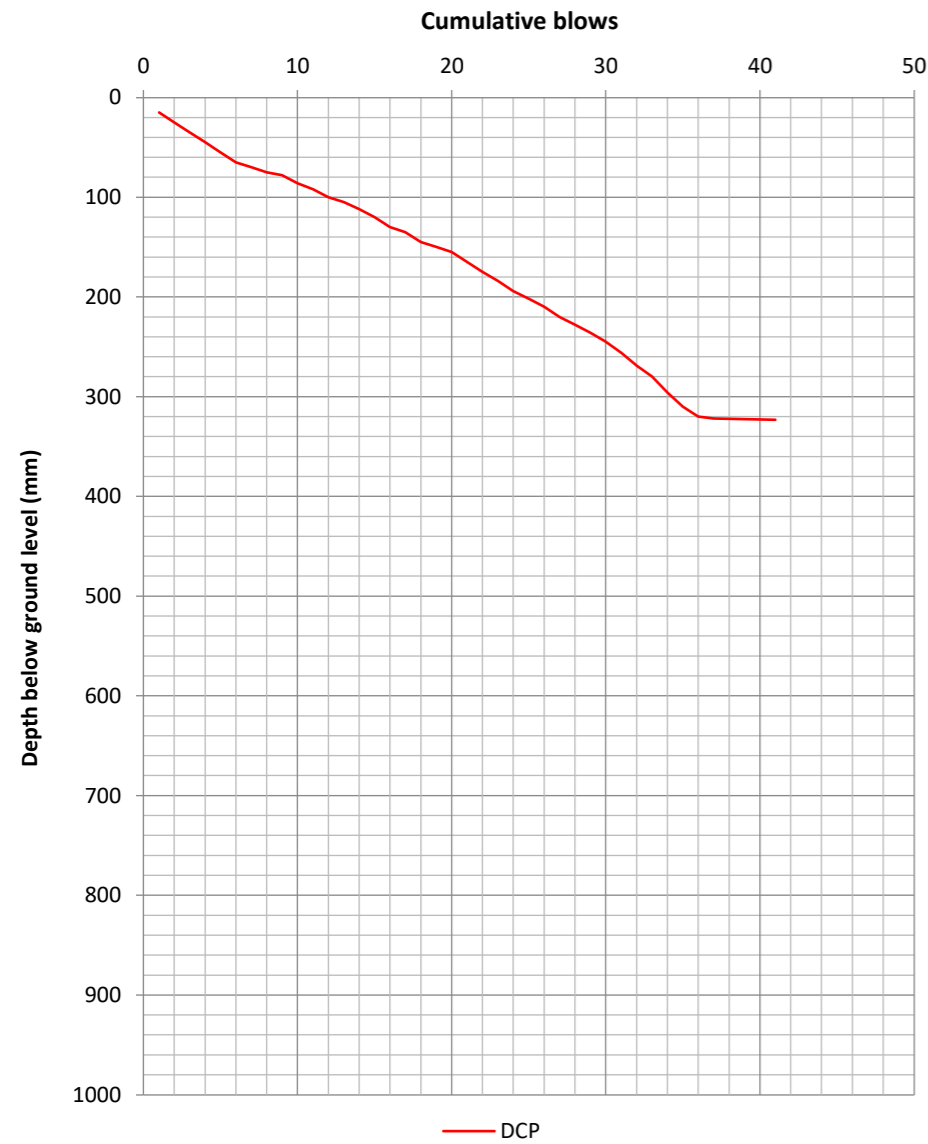
### Calculations

$$\text{Log}_{10}(\text{Uncorrected (UC) CBR}) = 2.48 - 1.057\text{Log}_{10}(\text{mm/blow})$$

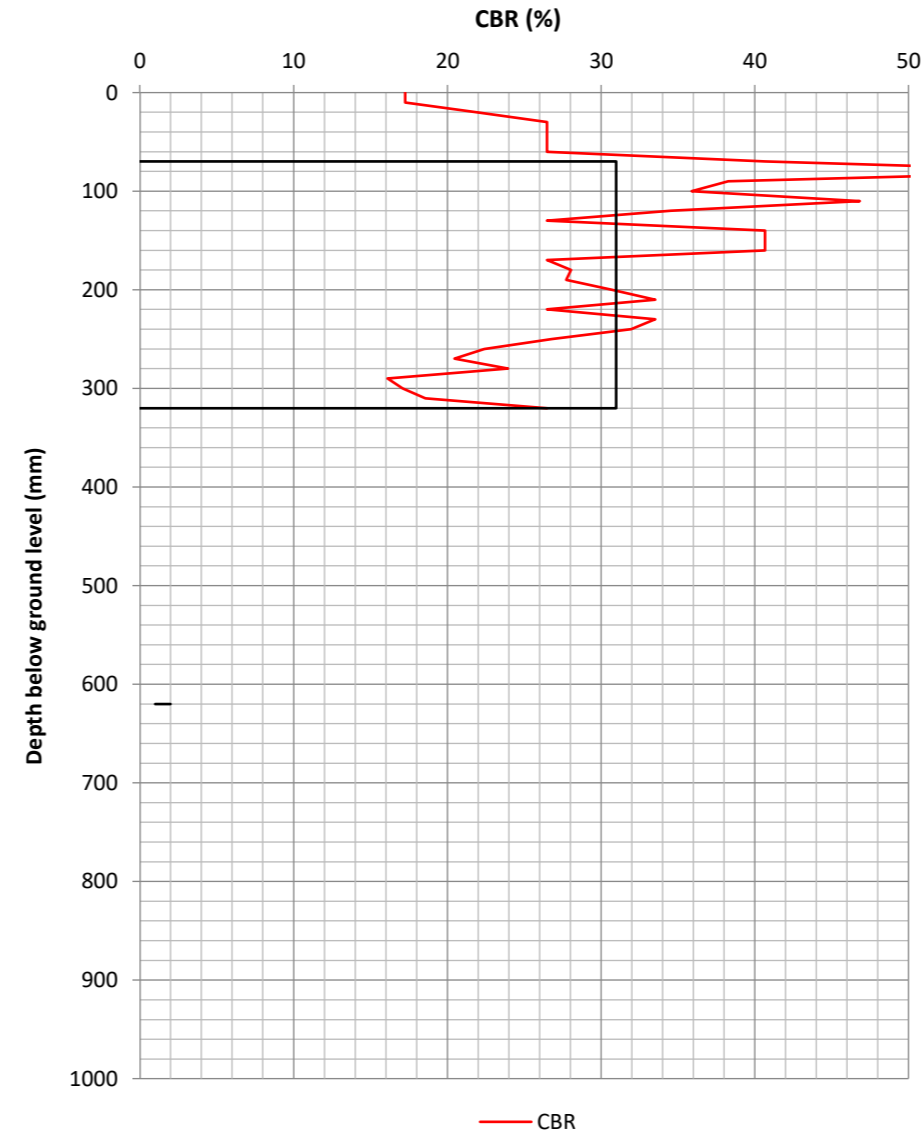
### Dynamic Cone Penetrometer (DCP) test

Location	Date of test	Start depth (mm)	Zero reading (mm)	Operator
DCP03	05/10/2022	0	40	IK

#### Plot showing number of blows against depth



#### Plot showing CBR (%) against depth



#### Layer properties

Layer No.	CBR (%)	Thickness (mm)	Start depth (mmBGL)	Base depth (mmBGL)
1	31.0	250	70	320
2		620		620

#### Notes

1. Test procedure following Highways England Document CS229 Data for Pavement Assessment.

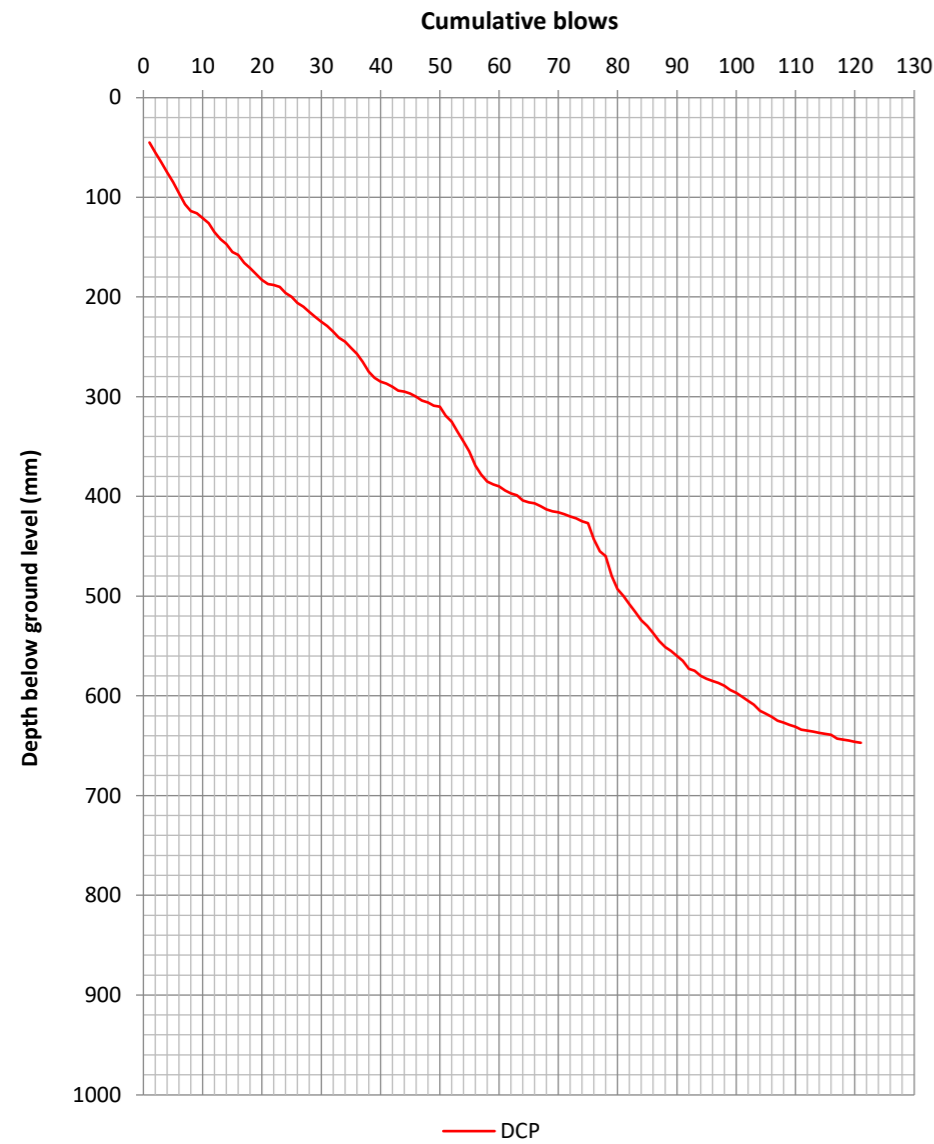
#### Calculations

$$\text{Log}_{10}(\text{Uncorrected (UC) CBR}) = 2.48 - 1.057\text{Log}_{10}(\text{mm/blow})$$

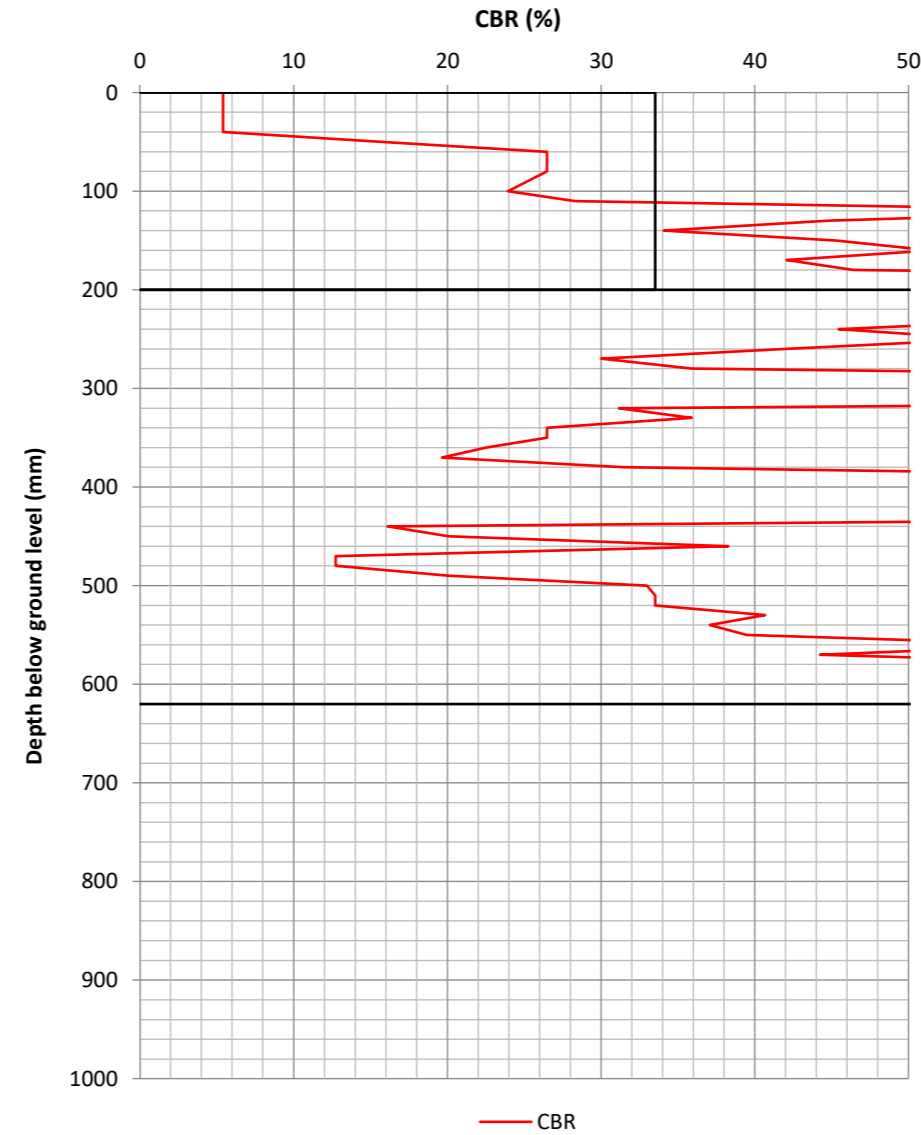
### Dynamic Cone Penetrometer (DCP) test

Location	Date of test	Start depth (mm)	Zero reading (mm)	Operator
DCP03a	05/10/2022	0	85	IK

#### Plot showing number of blows against depth



#### Plot showing CBR (%) against depth



#### Layer properties

Layer No.	CBR (%)	Thickness (mm)	Start depth (mmBGL)	Base depth (mmBGL)
1	33.5	200	0	200
2	52.8	420	200	620

#### Notes

1. Test procedure following Highways England Document CS229 Data for Pavement Assessment.

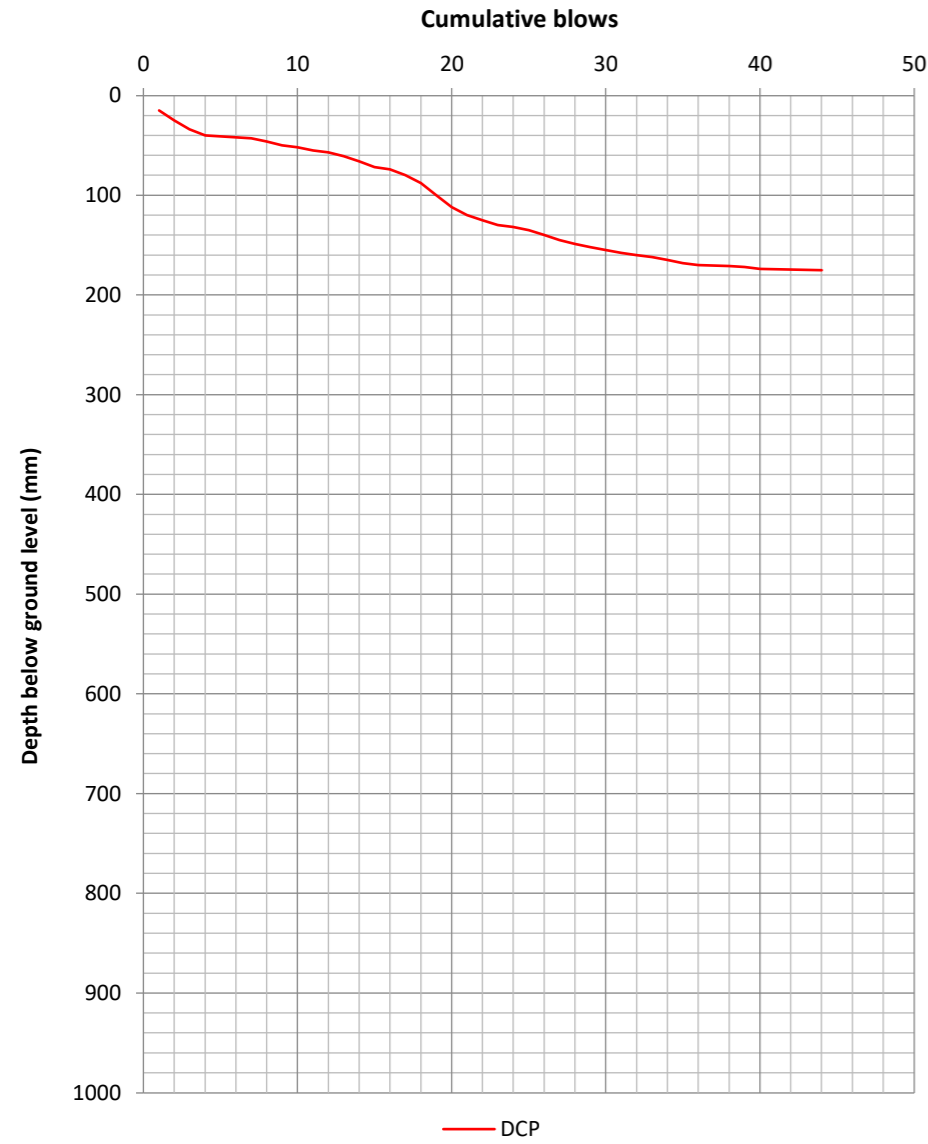
#### Calculations

$$\text{Log}_{10}(\text{Uncorrected (UC) CBR}) = 2.48 - 1.057\text{Log}_{10}(\text{mm/blow})$$

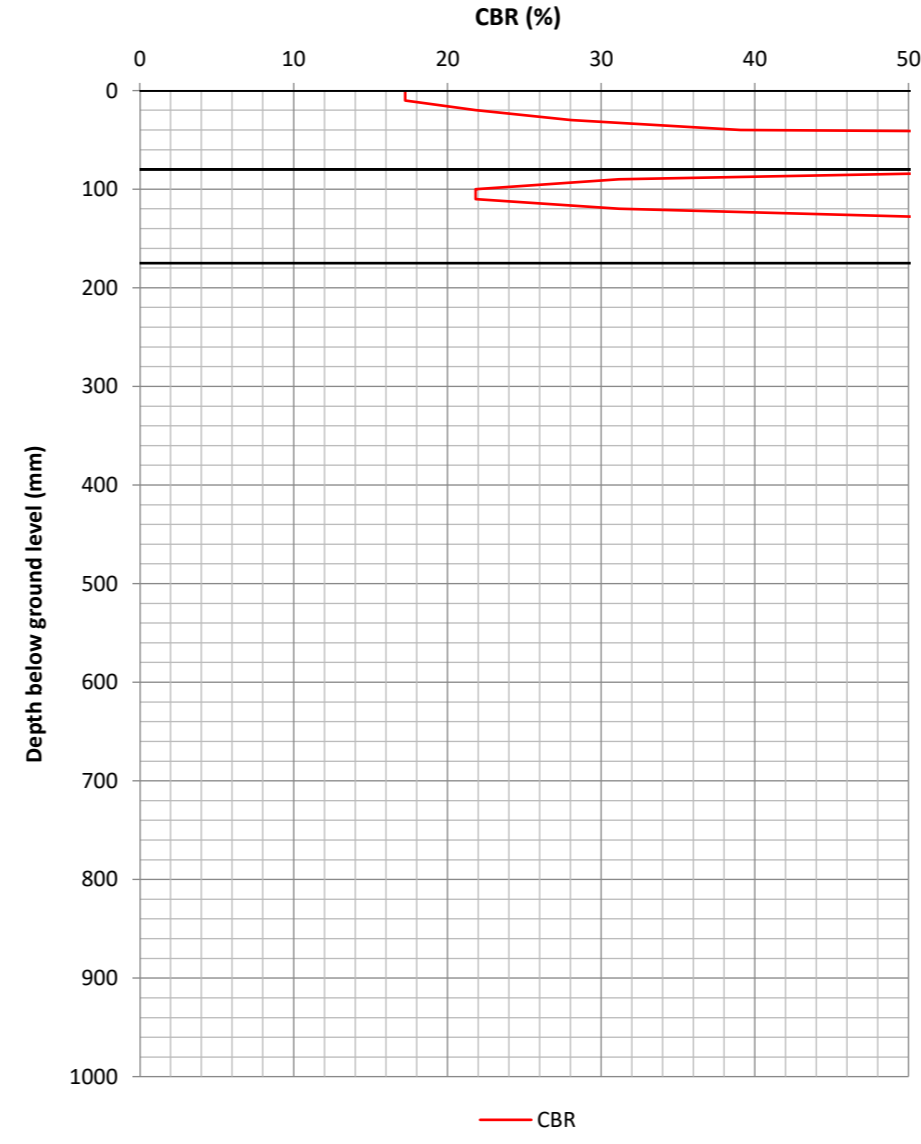
### Dynamic Cone Penetrometer (DCP) test

Location	Date of test	Start depth (mm)	Zero reading (mm)	Operator
DCP04	05/10/2022	0	40	IK

#### Plot showing number of blows against depth



#### Plot showing CBR (%) against depth



#### Layer properties

Layer No.	CBR (%)	Thickness (mm)	Start depth (mmBGL)	Base depth (mmBGL)
1	58.8	80	0	80
2	79.9	95	80	175

#### Notes

1. Test procedure following Highways England Document CS229 Data for Pavement Assessment.

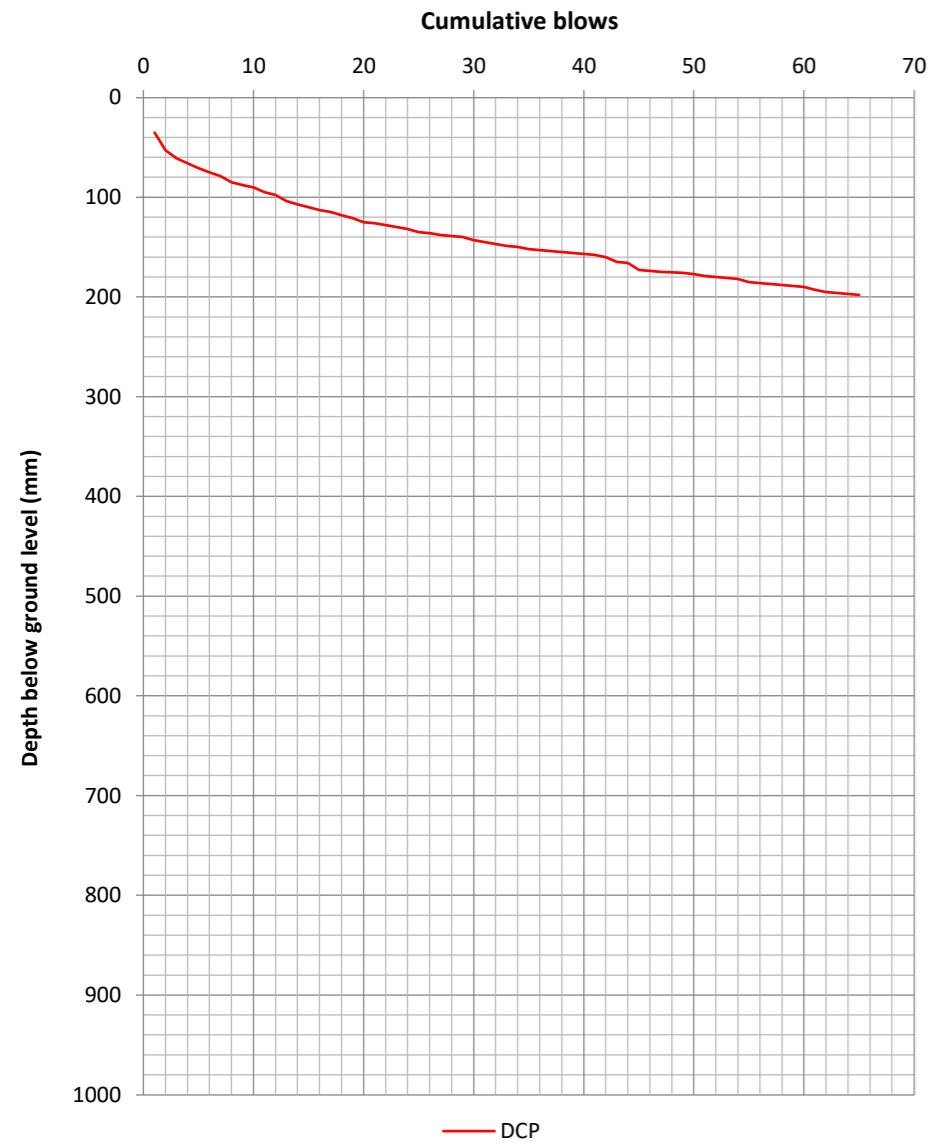
#### Calculations

$$\text{Log}_{10}(\text{Uncorrected (UC) CBR}) = 2.48 - 1.057\text{Log}_{10}(\text{mm/blow})$$

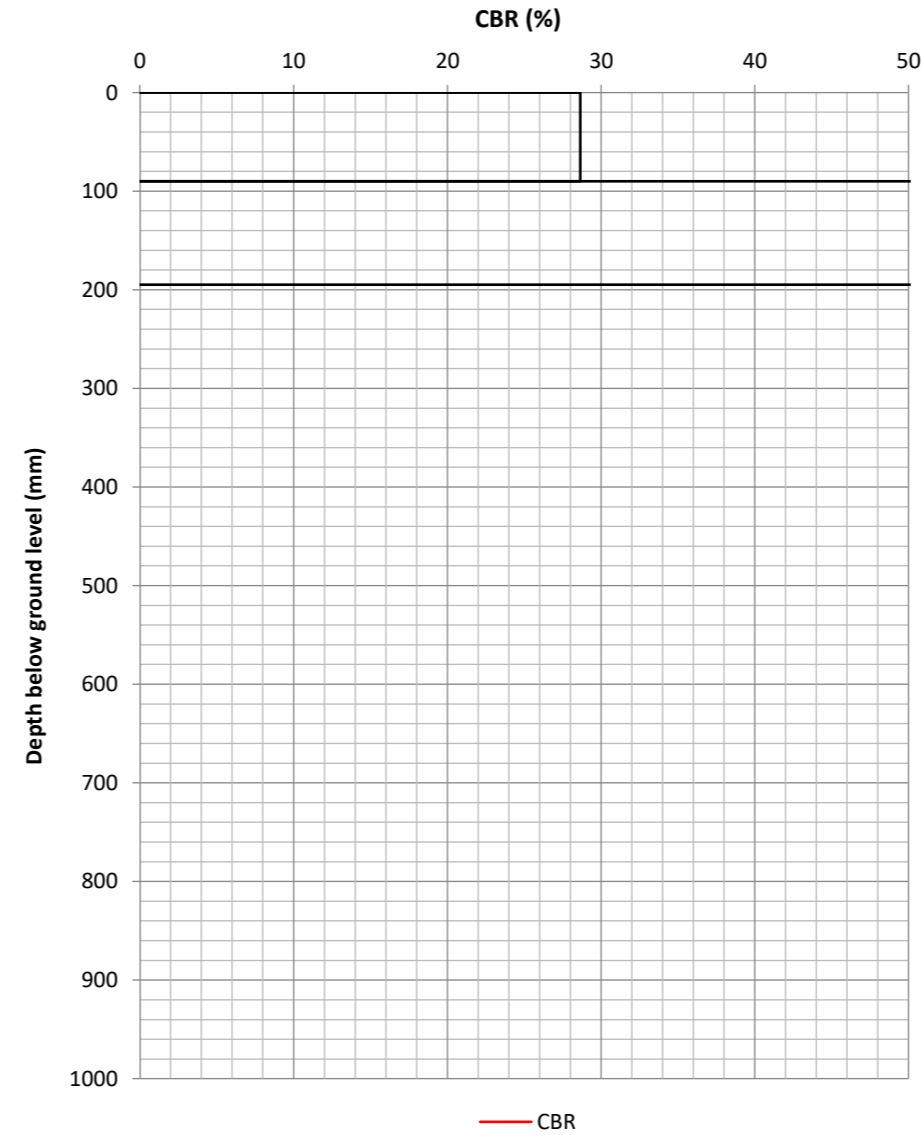
### Dynamic Cone Penetrometer (DCP) test

Location	Date of test	Start depth (mm)	Zero reading (mm)	Operator
DCP04a	05/10/2022	0	55	IK

#### Plot showing number of blows against depth



#### Plot showing CBR (%) against depth



#### Layer properties

Layer No.	CBR (%)	Thickness (mm)	Start depth (mmBGL)	Base depth (mmBGL)
1	28.6	90	0	90
2	144.6	105	90	195

#### Notes

1. Test procedure following Highways England Document CS229 Data for Pavement Assessment.

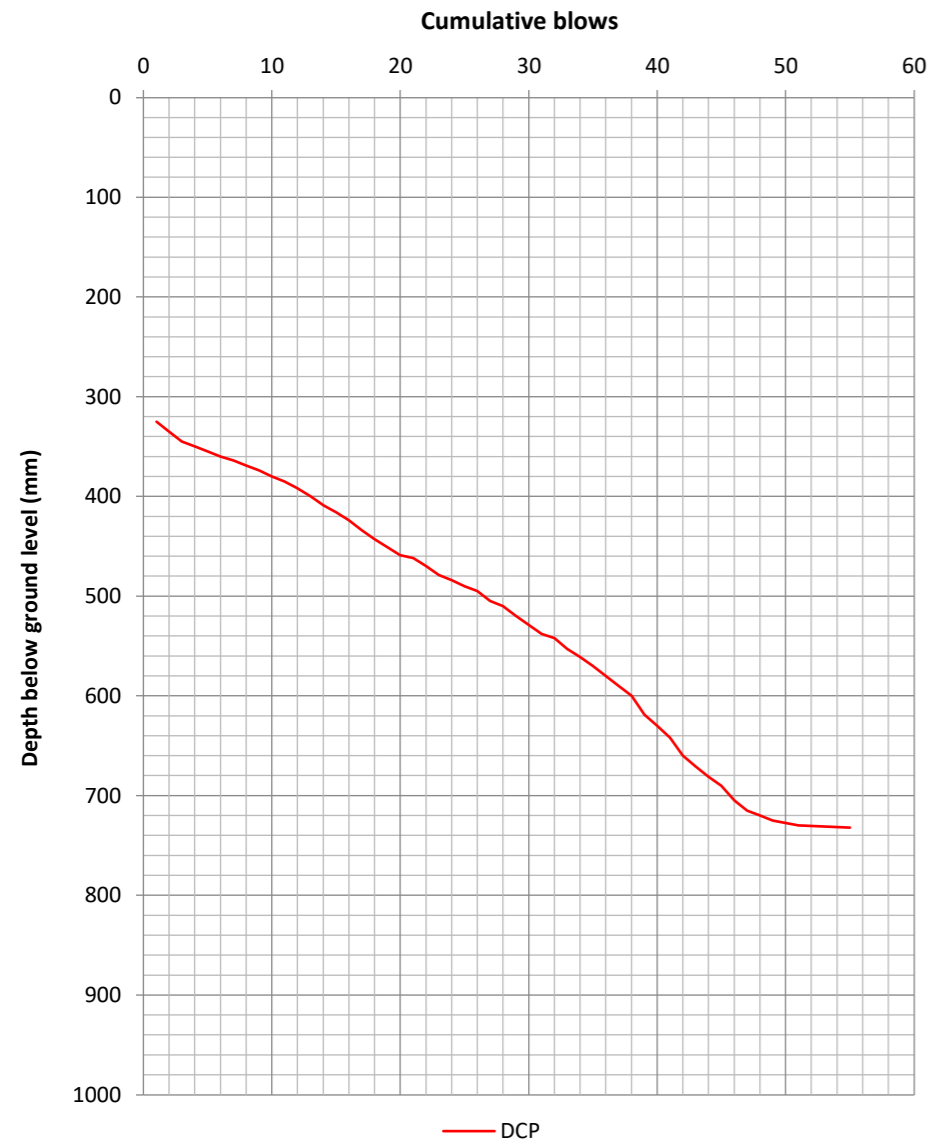
#### Calculations

$$\text{Log}_{10}(\text{Uncorrected (UC) CBR}) = 2.48 - 1.057\text{Log}_{10}(\text{mm/blow})$$

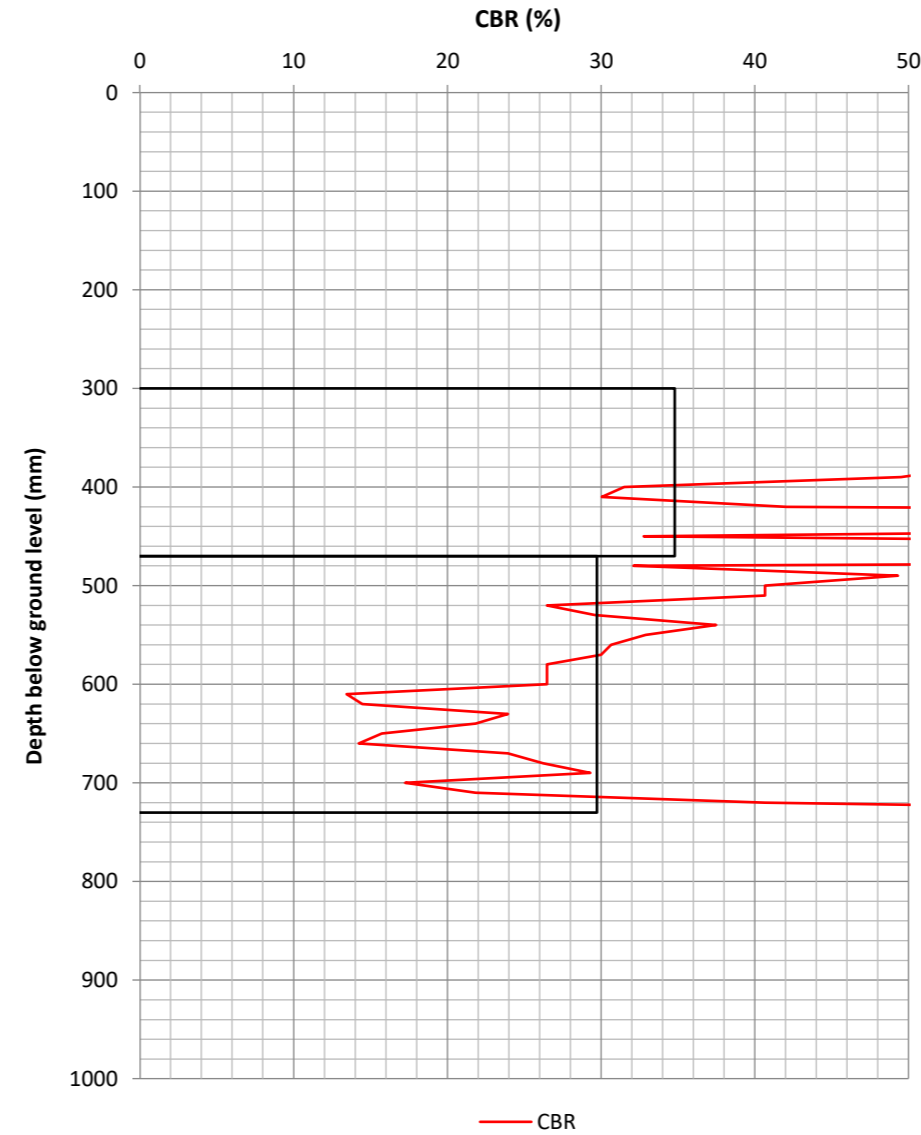
### Dynamic Cone Penetrometer (DCP) test

Location	Date of test	Start depth (mm)	Zero reading (mm)	Operator
DCP04b	05/10/2022	300	390	IK

#### Plot showing number of blows against depth



#### Plot showing CBR (%) against depth



#### Layer properties

Layer No.	CBR (%)	Thickness (mm)	Start depth (mmBGL)	Base depth (mmBGL)
1	34.8	170	300	470
2	29.7	260	470	730

#### Notes

1. Test procedure following Highways England Document CS229 Data for Pavement Assessment.

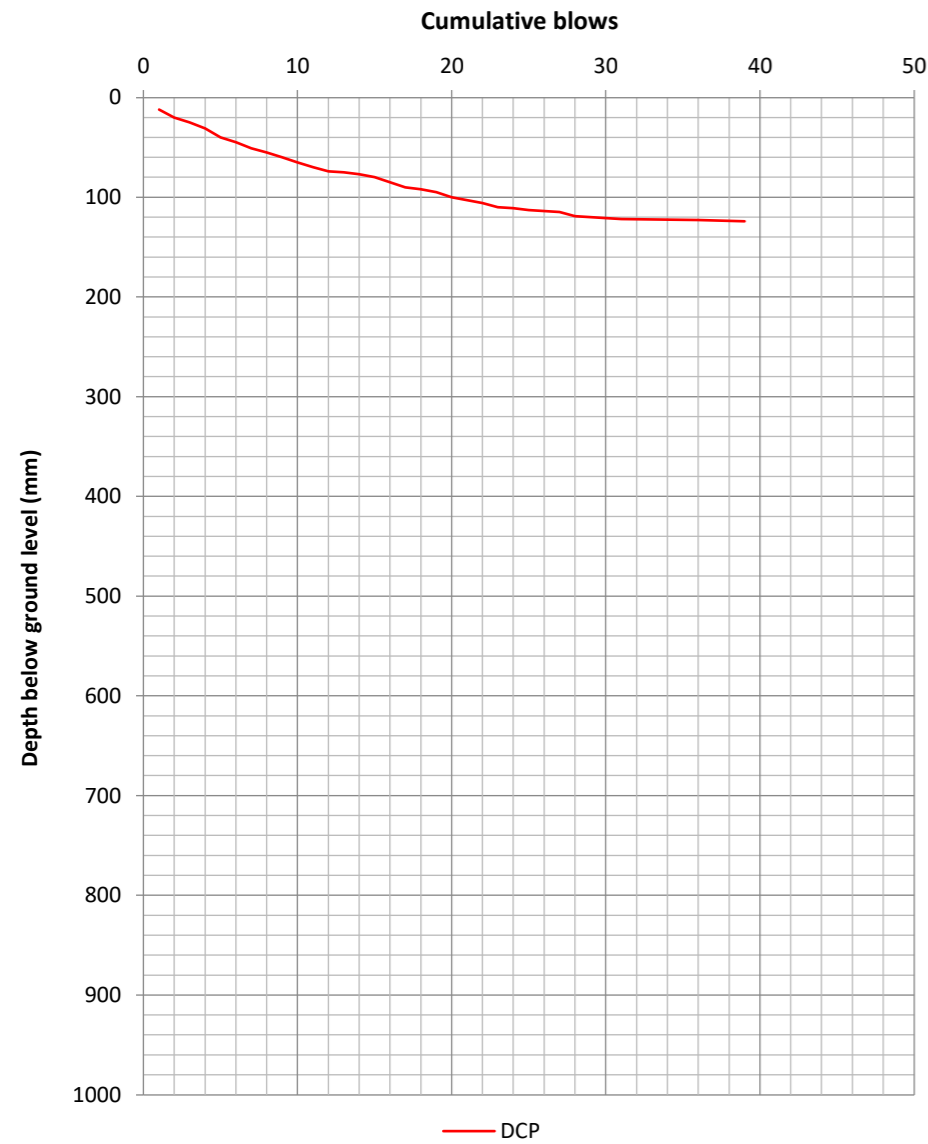
#### Calculations

$$\text{Log}_{10}(\text{Uncorrected (UC) CBR}) = 2.48 - 1.057\text{Log}_{10}(\text{mm/blow})$$

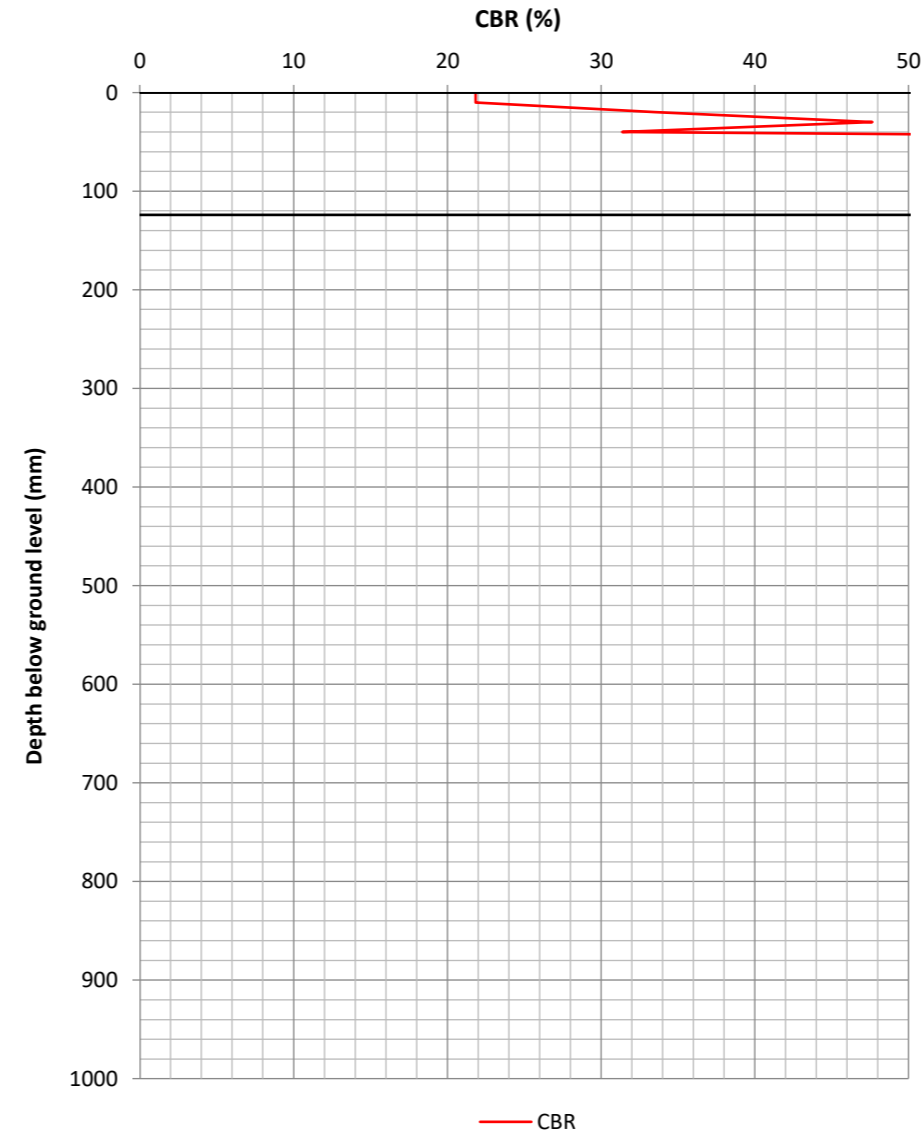
### Dynamic Cone Penetrometer (DCP) test

Location	Date of test	Start depth (mm)	Zero reading (mm)	Operator
DCP05	05/10/2022	0	30	IK

#### Plot showing number of blows against depth



#### Plot showing CBR (%) against depth



#### Layer properties

Layer No.	CBR (%)	Thickness (mm)	Start depth (mmBGL)	Base depth (mmBGL)
1	87.0	124	0	124

#### Notes

1. Test procedure following Highways England Document CS229 Data for Pavement Assessment.

#### Calculations

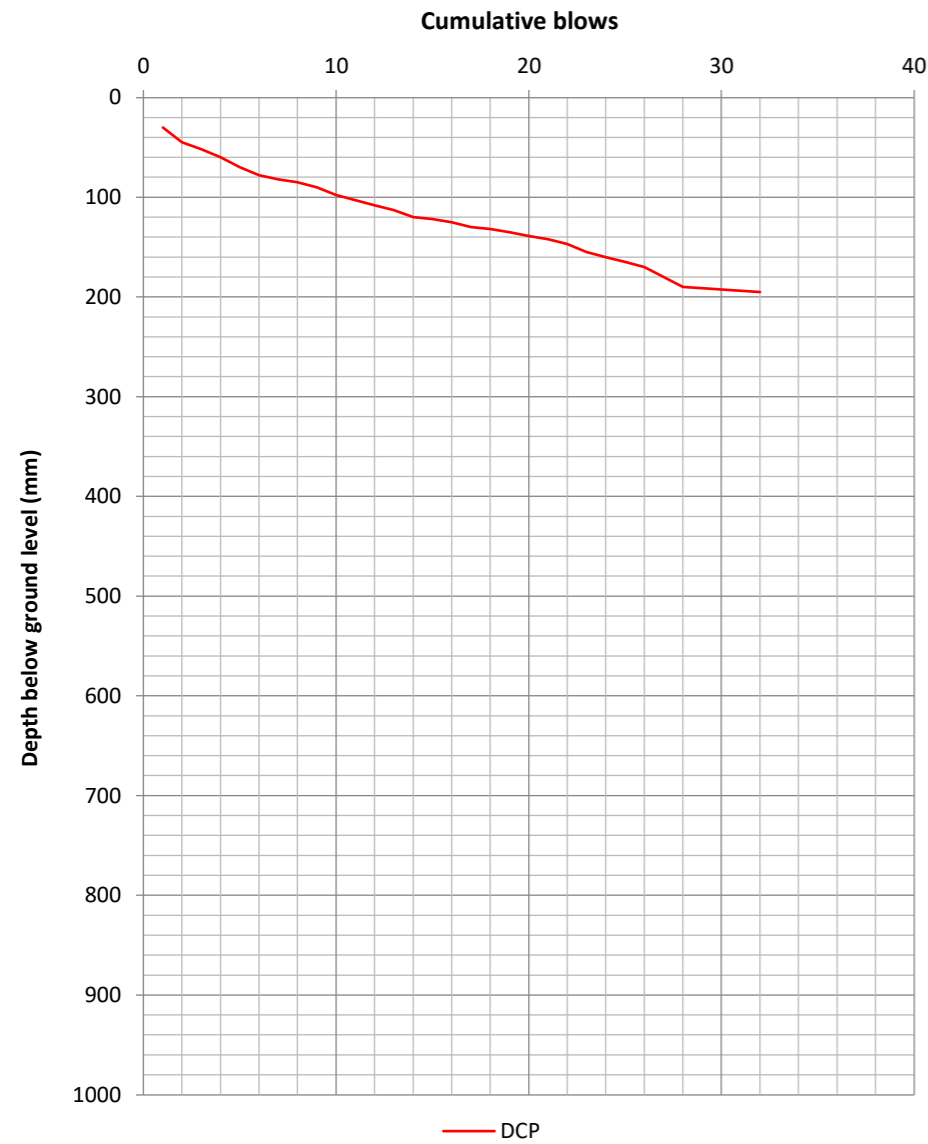
$$\text{Log}_{10}(\text{Uncorrected (UC) CBR}) = 2.48 - 1.057\text{Log}_{10}(\text{mm/blow})$$



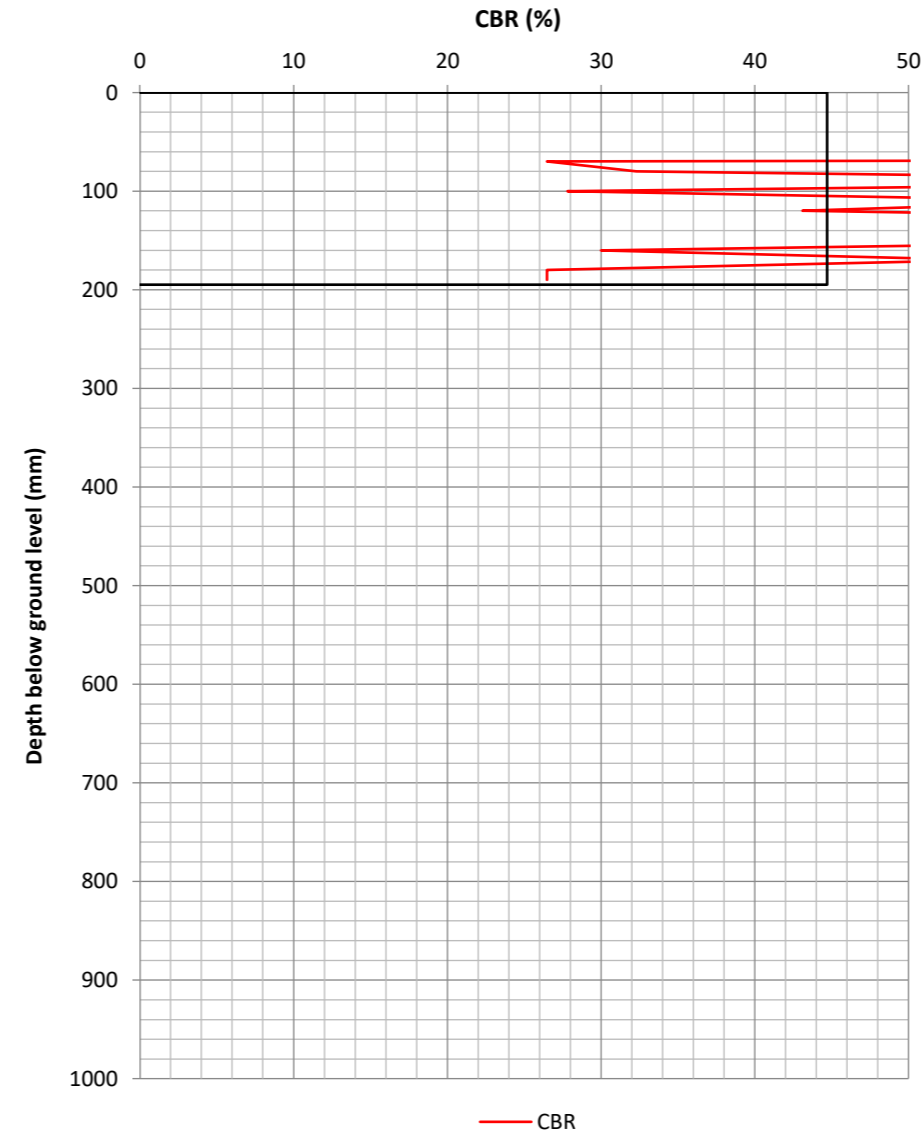
### Dynamic Cone Penetrometer (DCP) test

Location	Date of test	Start depth (mm)	Zero reading (mm)	Operator
DCP05a	05/10/2022	0	50	IK

#### Plot showing number of blows against depth



#### Plot showing CBR (%) against depth



#### Layer properties

Layer No.	CBR (%)	Thickness (mm)	Start depth (mmBGL)	Base depth (mmBGL)
1	44.7	195	0	195

#### Notes

1. Test procedure following Highways England Document CS229 Data for Pavement Assessment.

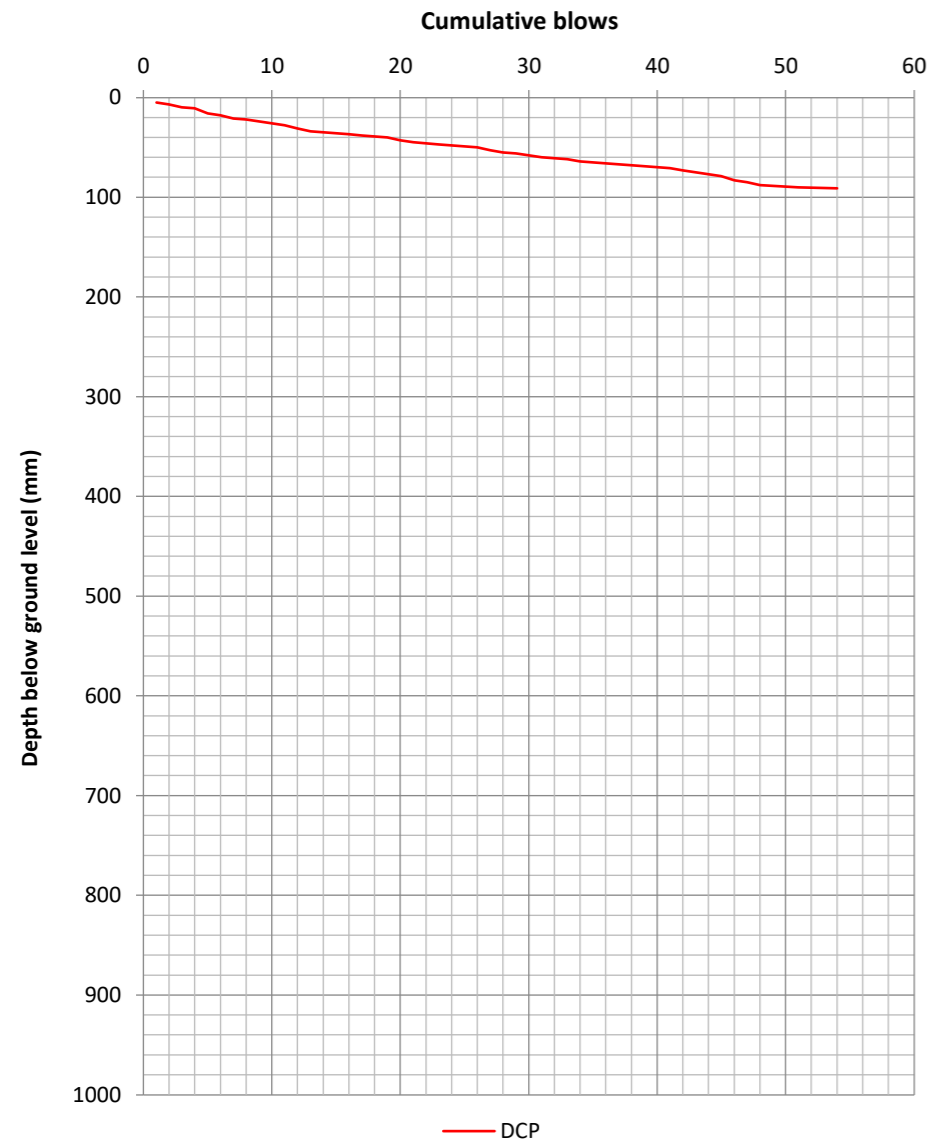
#### Calculations

$$\text{Log}_{10}(\text{Uncorrected (UC) CBR}) = 2.48 - 1.057\text{Log}_{10}(\text{mm/blow})$$

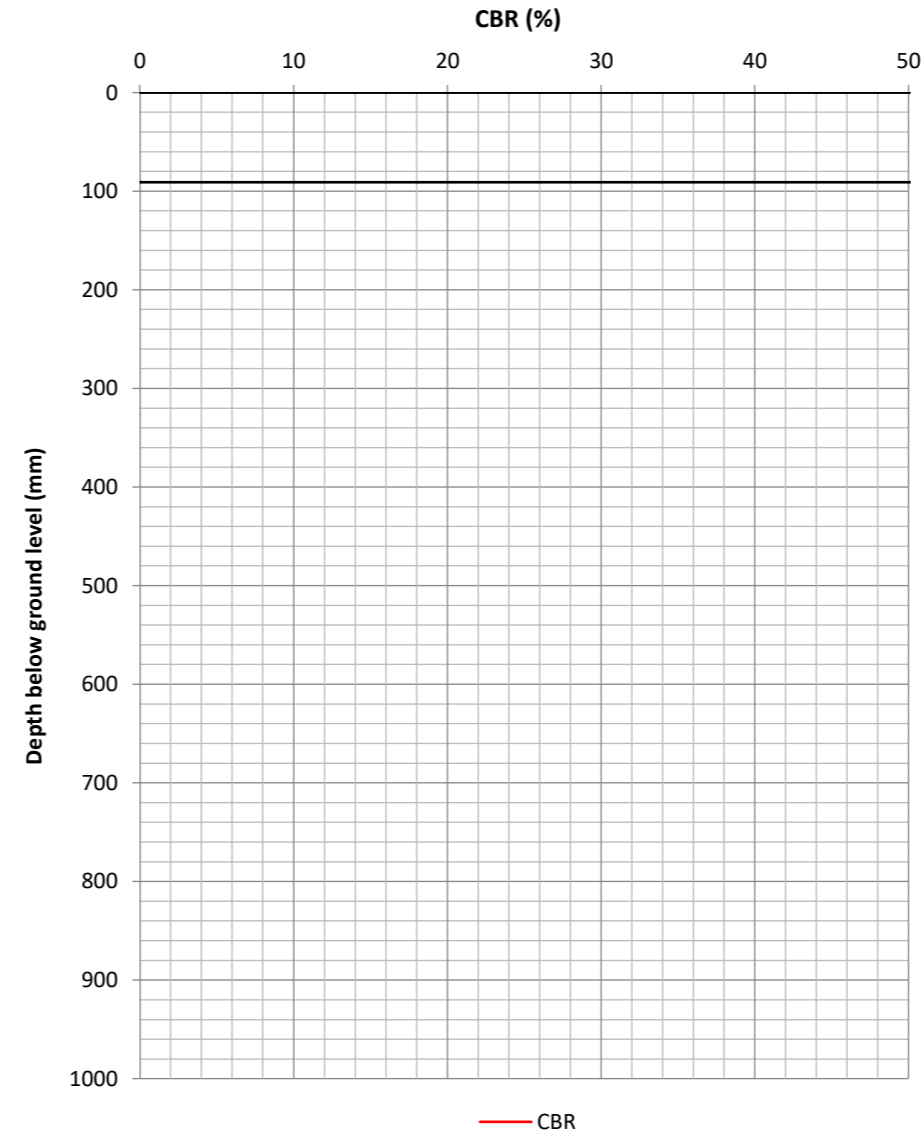
### Dynamic Cone Penetrometer (DCP) test

Location	Date of test	Start depth (mm)	Zero reading (mm)	Operator
DCP06	05/10/2022	0	35	IK

#### Plot showing number of blows against depth



#### Plot showing CBR (%) against depth



#### Layer properties

Layer No.	CBR (%)	Thickness (mm)	Start depth (mmBGL)	Base depth (mmBGL)
1	172.6	91	0	91

#### Notes

1. Test procedure following Highways England Document CS229 Data for Pavement Assessment.

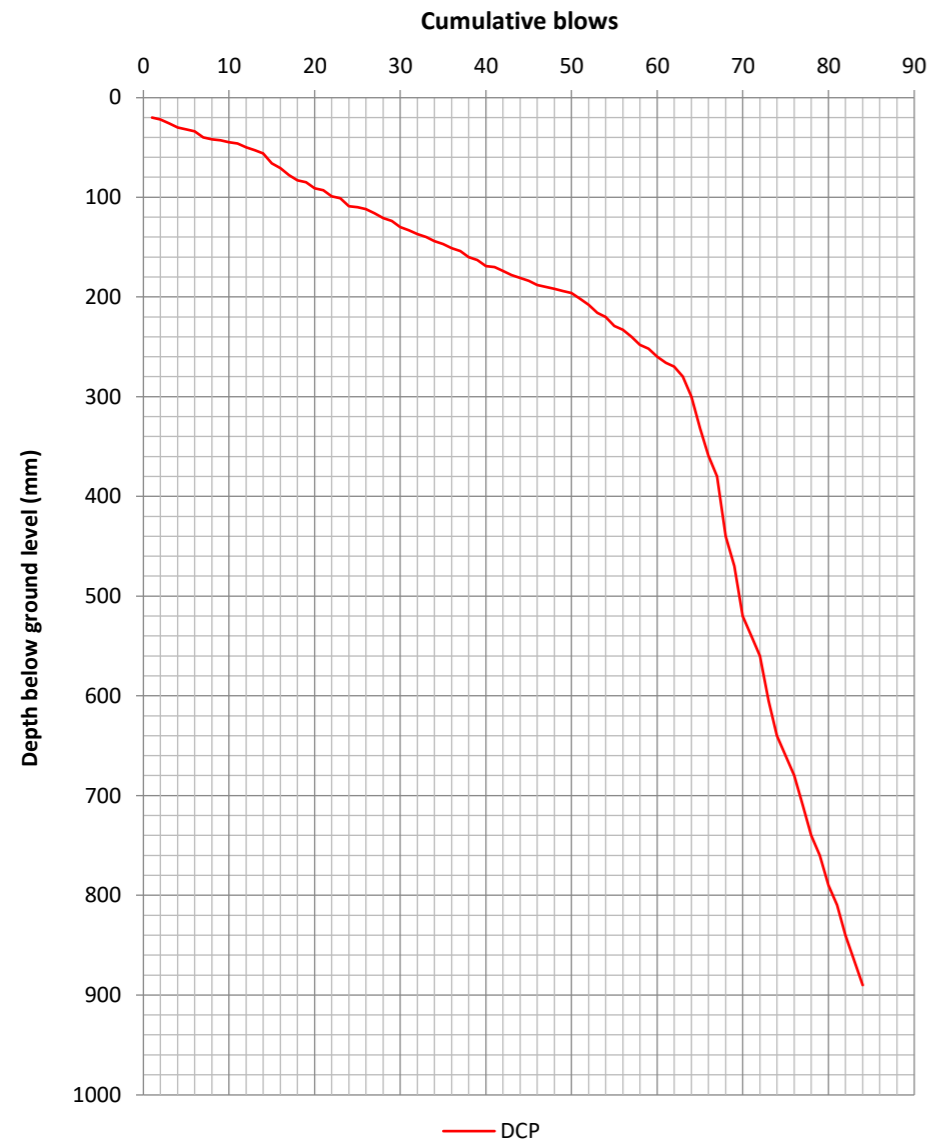
#### Calculations

$$\text{Log}_{10}(\text{Uncorrected (UC) CBR}) = 2.48 - 1.057\text{Log}_{10}(\text{mm/blow})$$

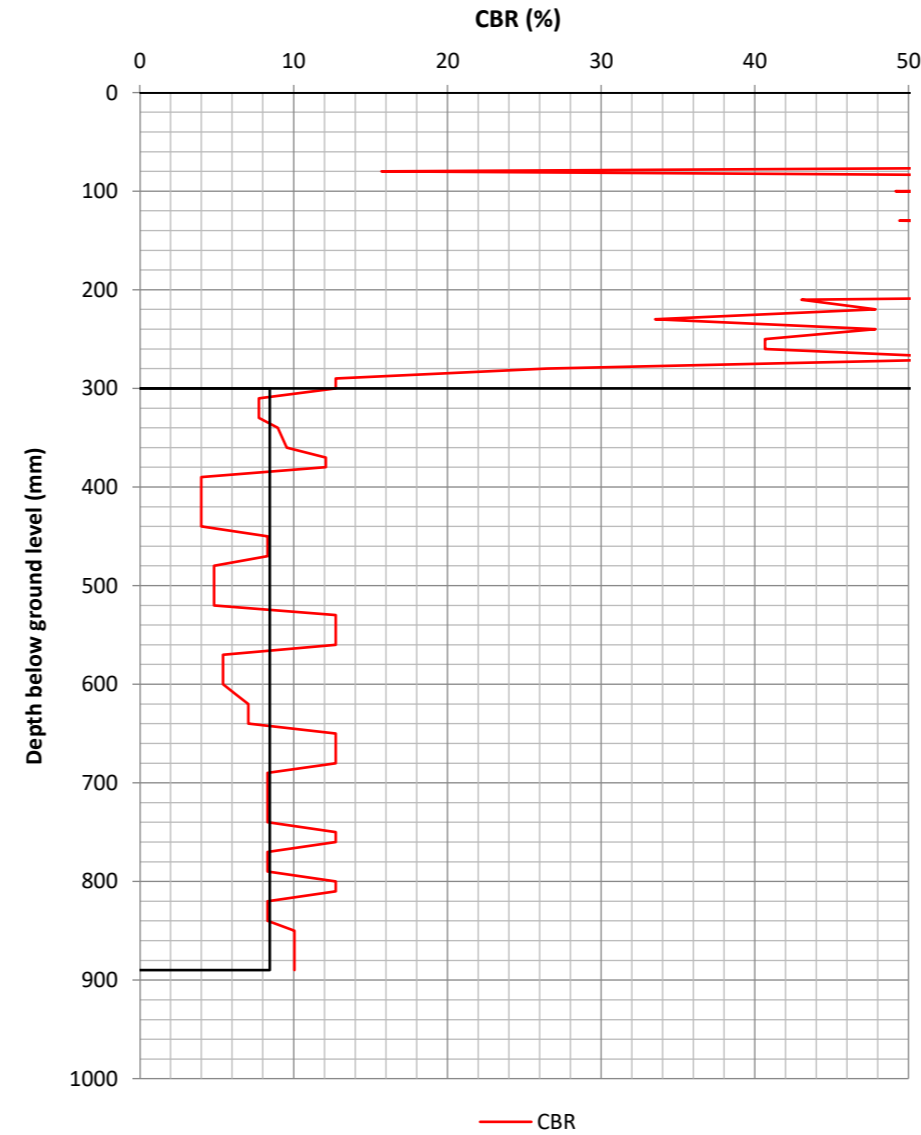
### Dynamic Cone Penetrometer (DCP) test

Location	Date of test	Start depth (mm)	Zero reading (mm)	Operator
DCP06a	05/10/2022	0	50	IK

#### Plot showing number of blows against depth



#### Plot showing CBR (%) against depth



#### Layer properties

Layer No.	CBR (%)	Thickness (mm)	Start depth (mmBGL)	Base depth (mmBGL)
1	59.0	300	0	300
2	8.4	590	300	890

#### Notes

1. Test procedure following Highways England Document CS229 Data for Pavement Assessment.

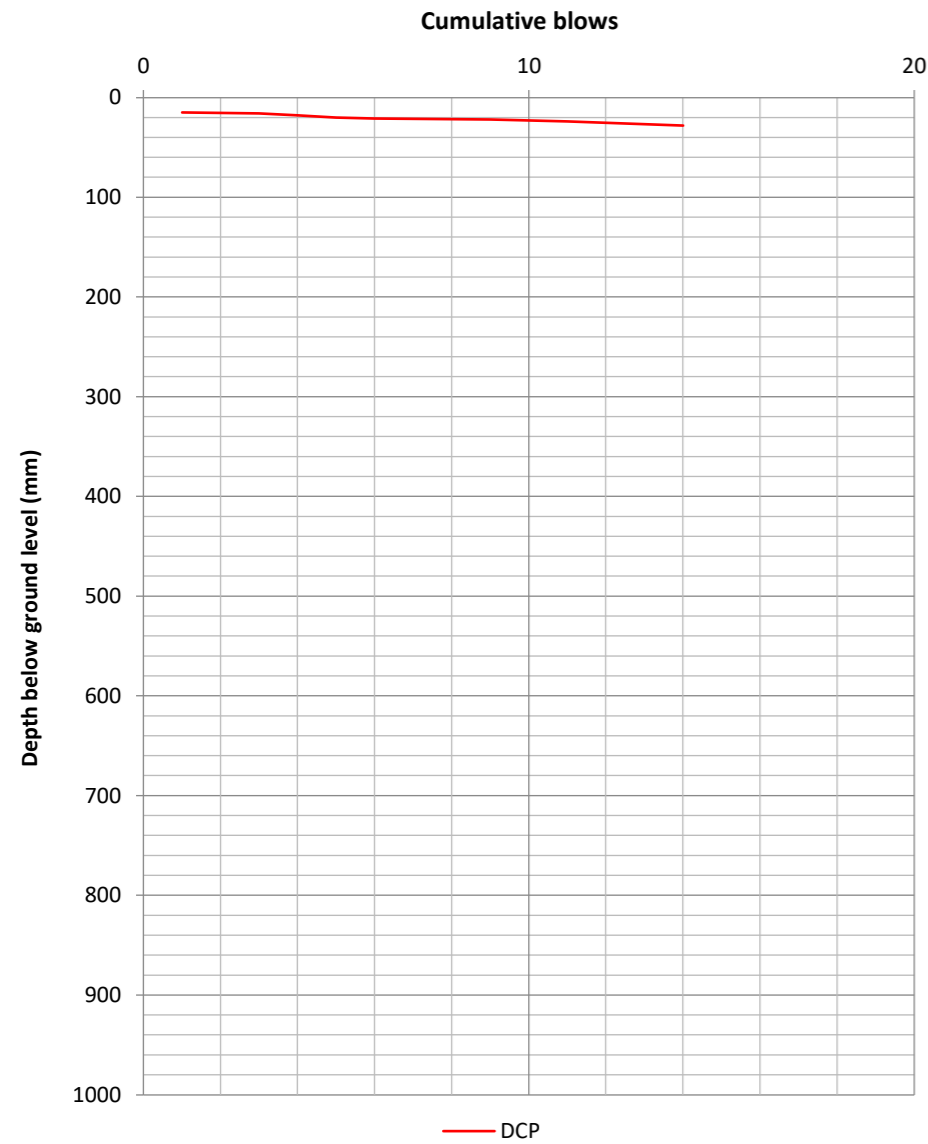
#### Calculations

$$\text{Log}_{10}(\text{Uncorrected (UC) CBR}) = 2.48 - 1.057\text{Log}_{10}(\text{mm/blow})$$

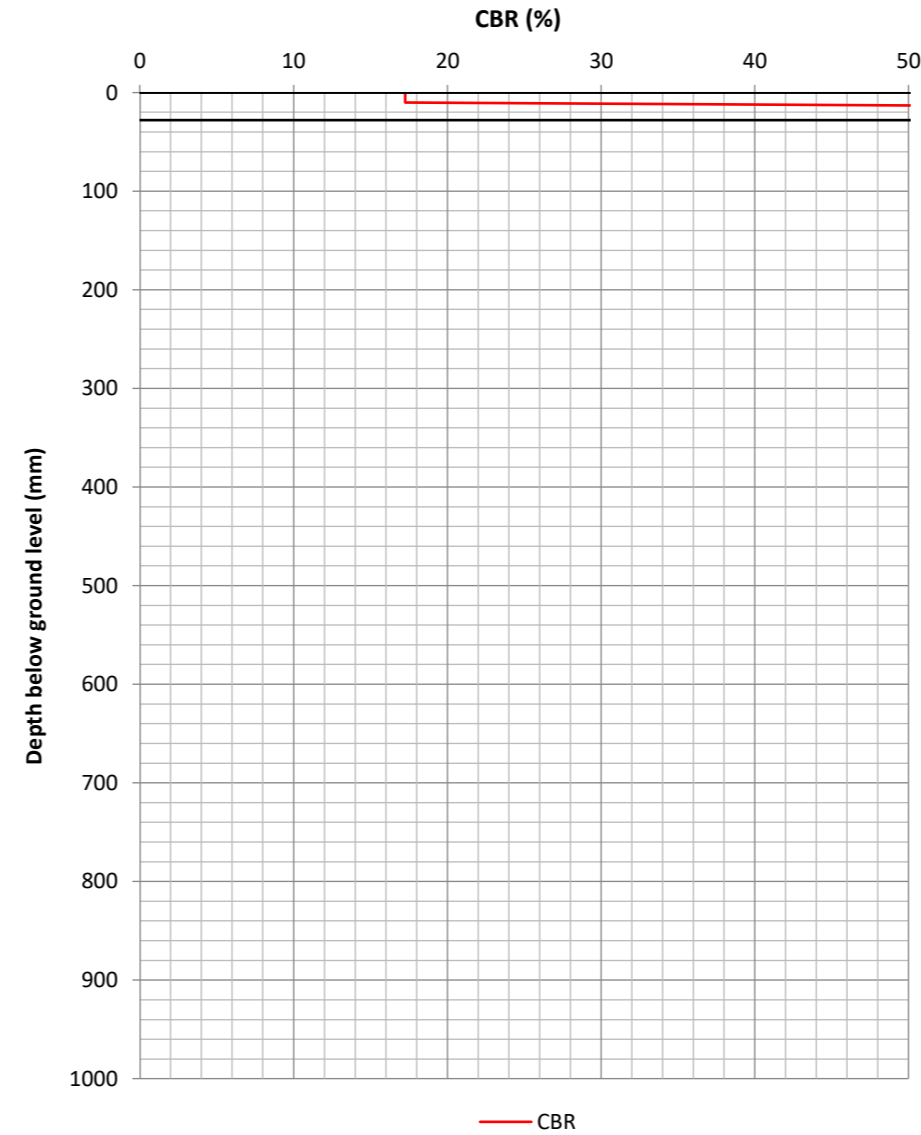
### Dynamic Cone Penetrometer (DCP) test

Location	Date of test	Start depth (mm)	Zero reading (mm)	Operator
DCP07	05/10/2022	0	30	IK

#### Plot showing number of blows against depth



#### Plot showing CBR (%) against depth



#### Layer properties

Layer No.	CBR (%)	Thickness (mm)	Start depth (mmBGL)	Base depth (mmBGL)
1	145.1	28	0	28

#### Notes

1. Test procedure following Highways England Document CS229 Data for Pavement Assessment.

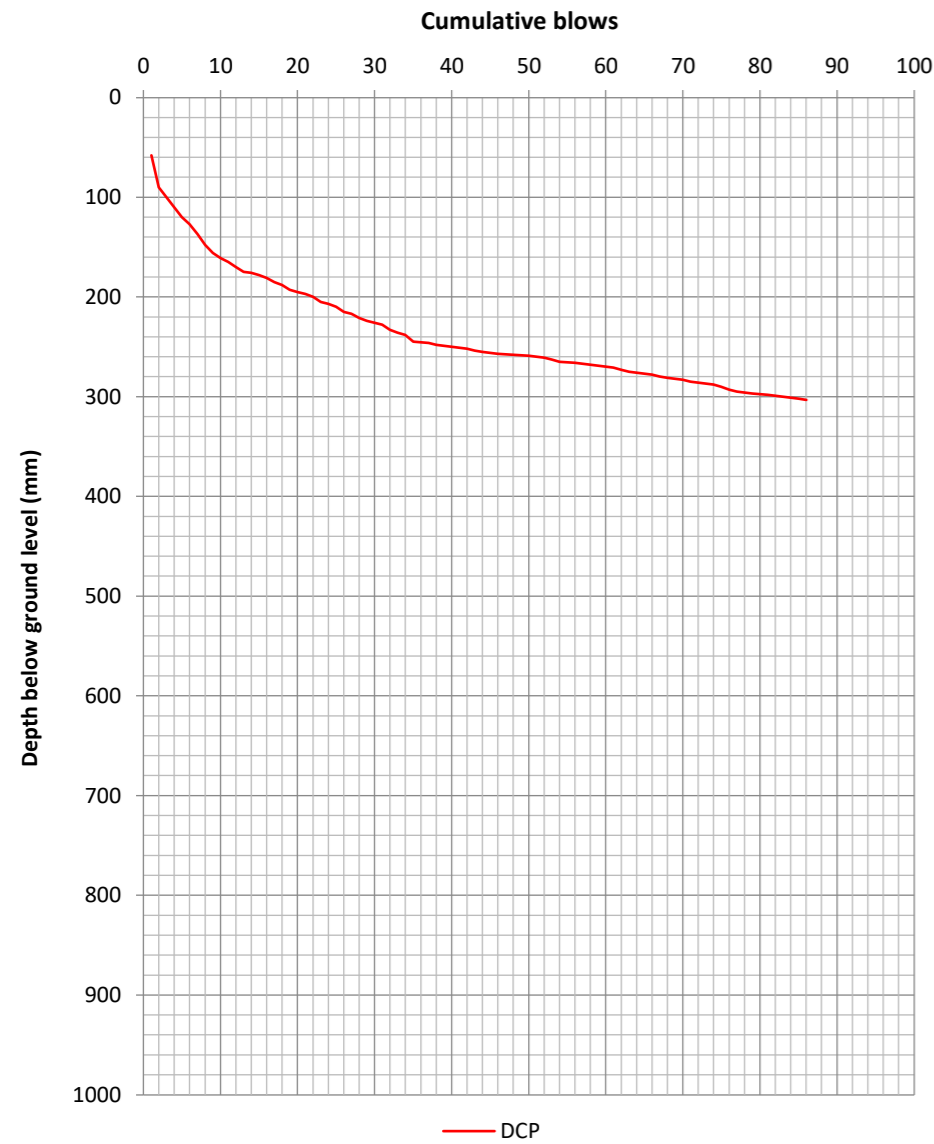
#### Calculations

$$\text{Log}_{10}(\text{Uncorrected (UC) CBR}) = 2.48 - 1.057\text{Log}_{10}(\text{mm/blow})$$

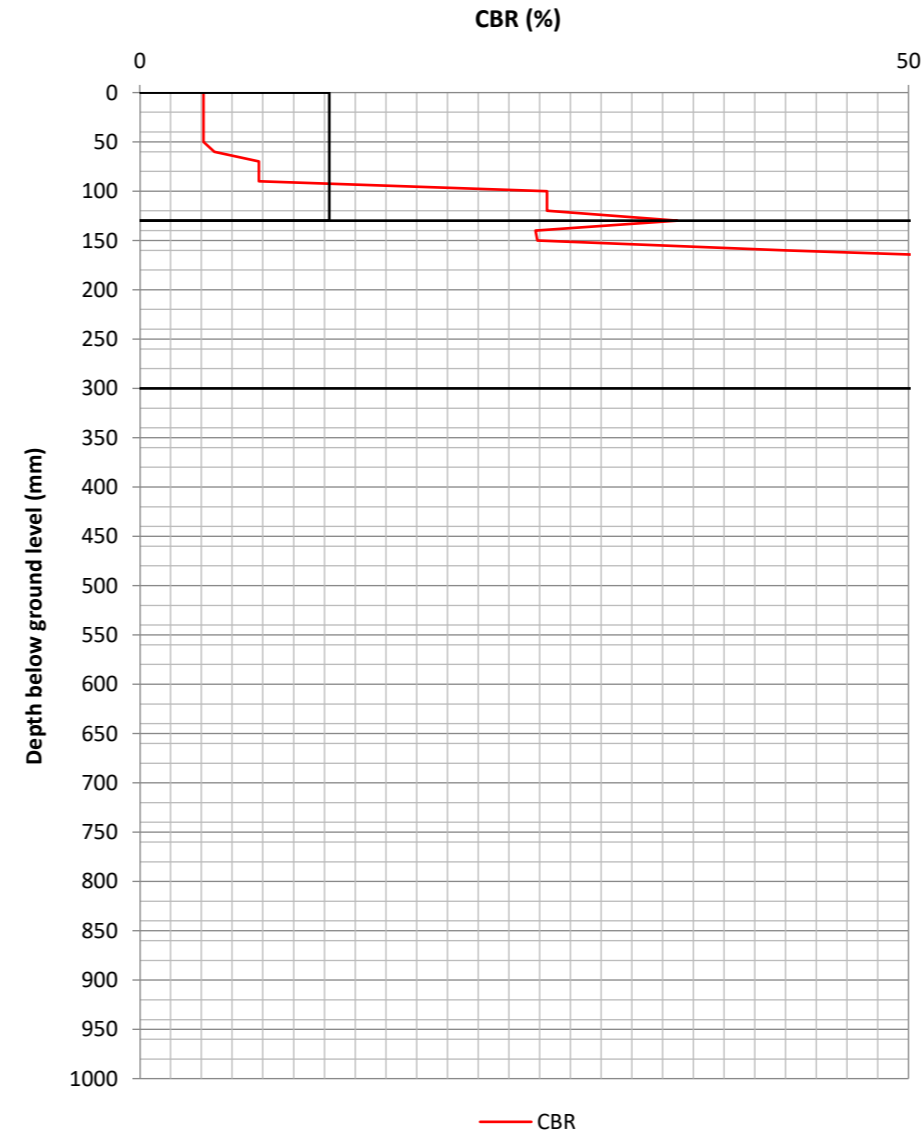
### Dynamic Cone Penetrometer (DCP) test

Location	Date of test	Start depth (mm)	Zero reading (mm)	Operator
DCP07a	05/10/2022	0	35	IK

#### Plot showing number of blows against depth



#### Plot showing CBR (%) against depth



#### Layer properties

Layer No.	CBR (%)	Thickness (mm)	Start depth (mmBGL)	Base depth (mmBGL)
1	12.3	130	0	130
2	130.2	170	130	300

#### Notes

1. Test procedure following Highways England Document CS229 Data for Pavement Assessment.

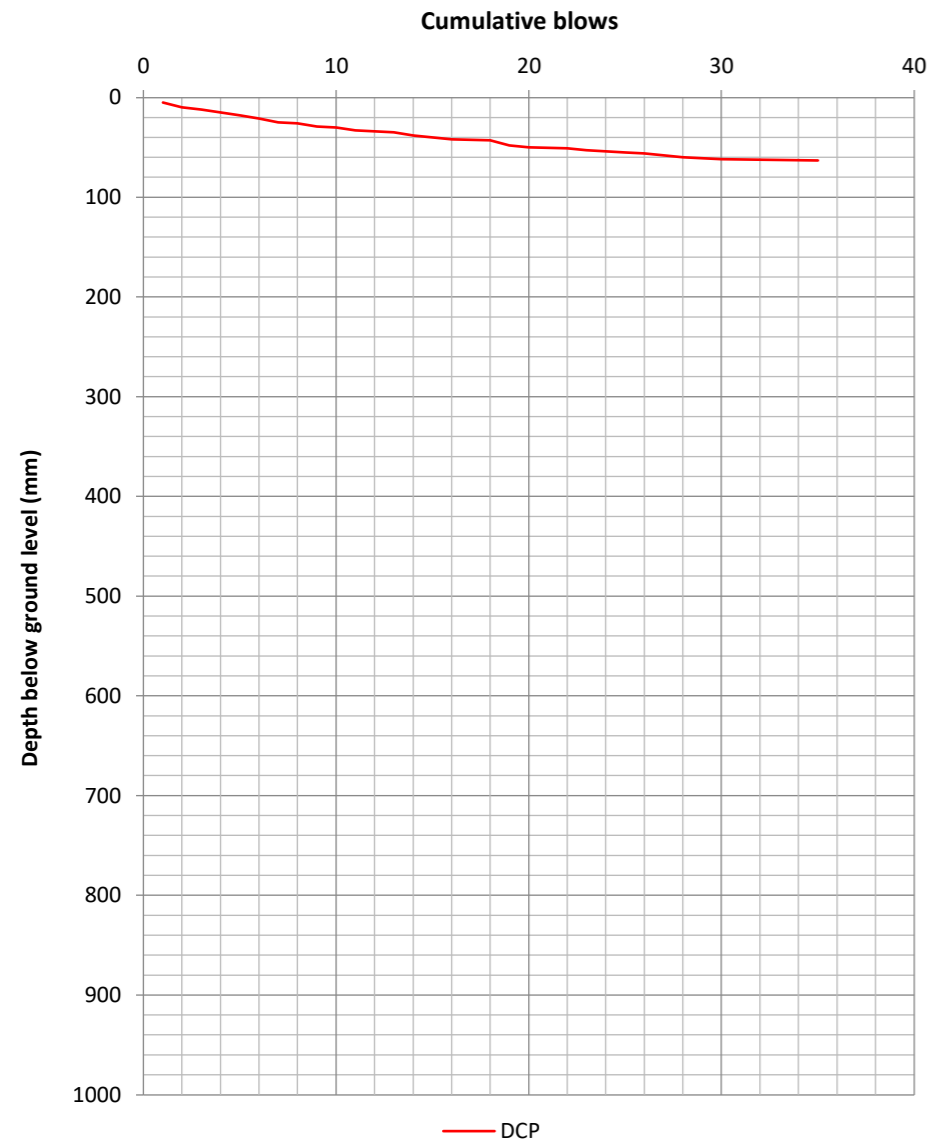
#### Calculations

$$\text{Log}_{10}(\text{Uncorrected (UC) CBR}) = 2.48 - 1.057\text{Log}_{10}(\text{mm/blow})$$

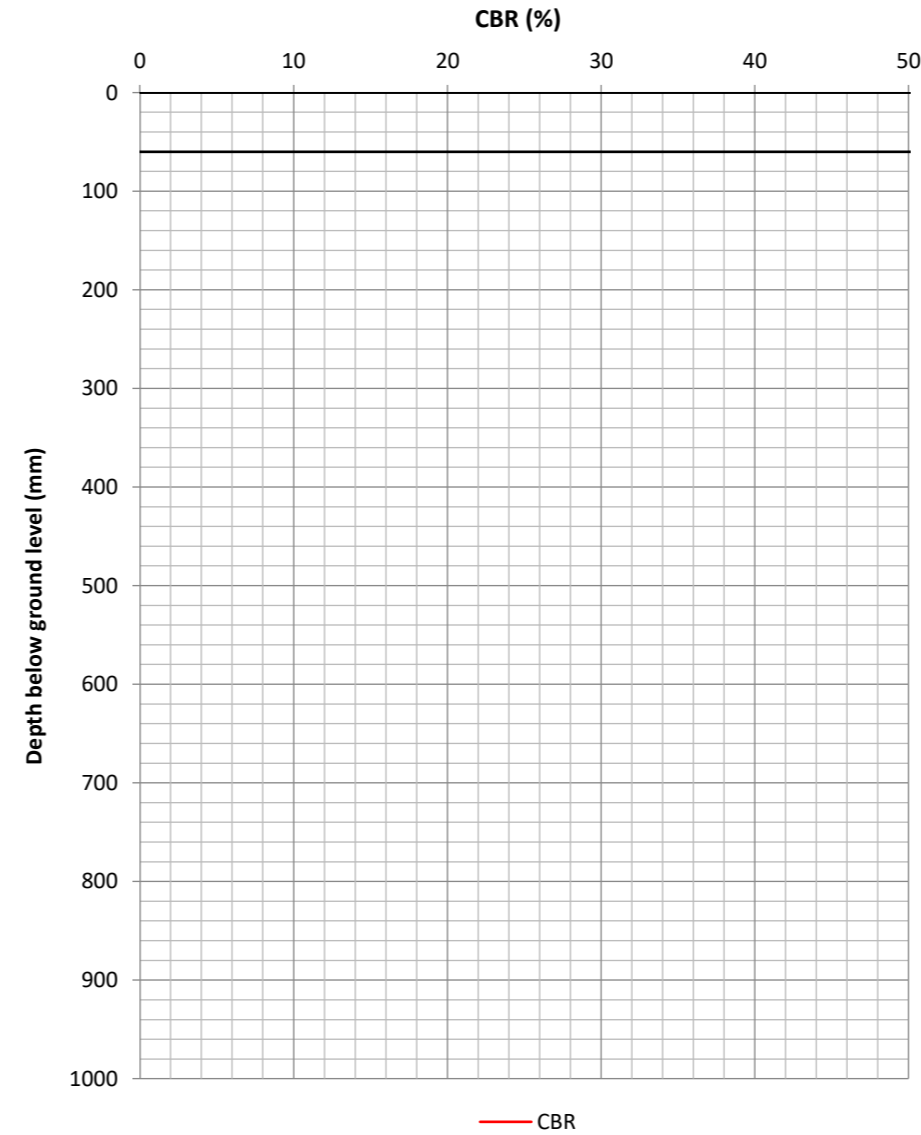
### Dynamic Cone Penetrometer (DCP) test

Location	Date of test	Start depth (mm)	Zero reading (mm)	Operator
DCP08	05/10/2022	0	30	IK

#### Plot showing number of blows against depth



#### Plot showing CBR (%) against depth



#### Layer properties

Layer No.	CBR (%)	Thickness (mm)	Start depth (mmBGL)	Base depth (mmBGL)
1	134.9	60	0	60

#### Notes

1. Test procedure following Highways England Document CS229 Data for Pavement Assessment.

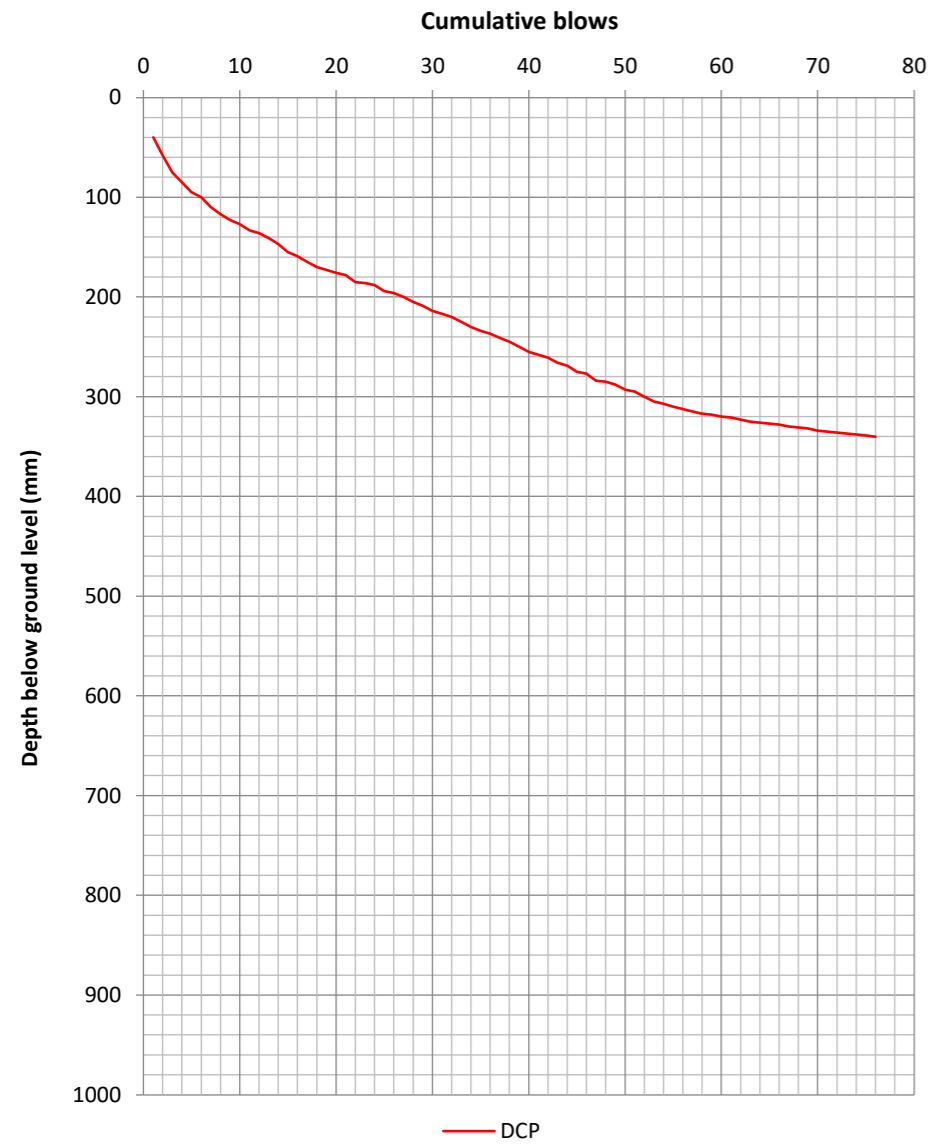
#### Calculations

$$\text{Log}_{10}(\text{Uncorrected (UC) CBR}) = 2.48 - 1.057\text{Log}_{10}(\text{mm/blow})$$

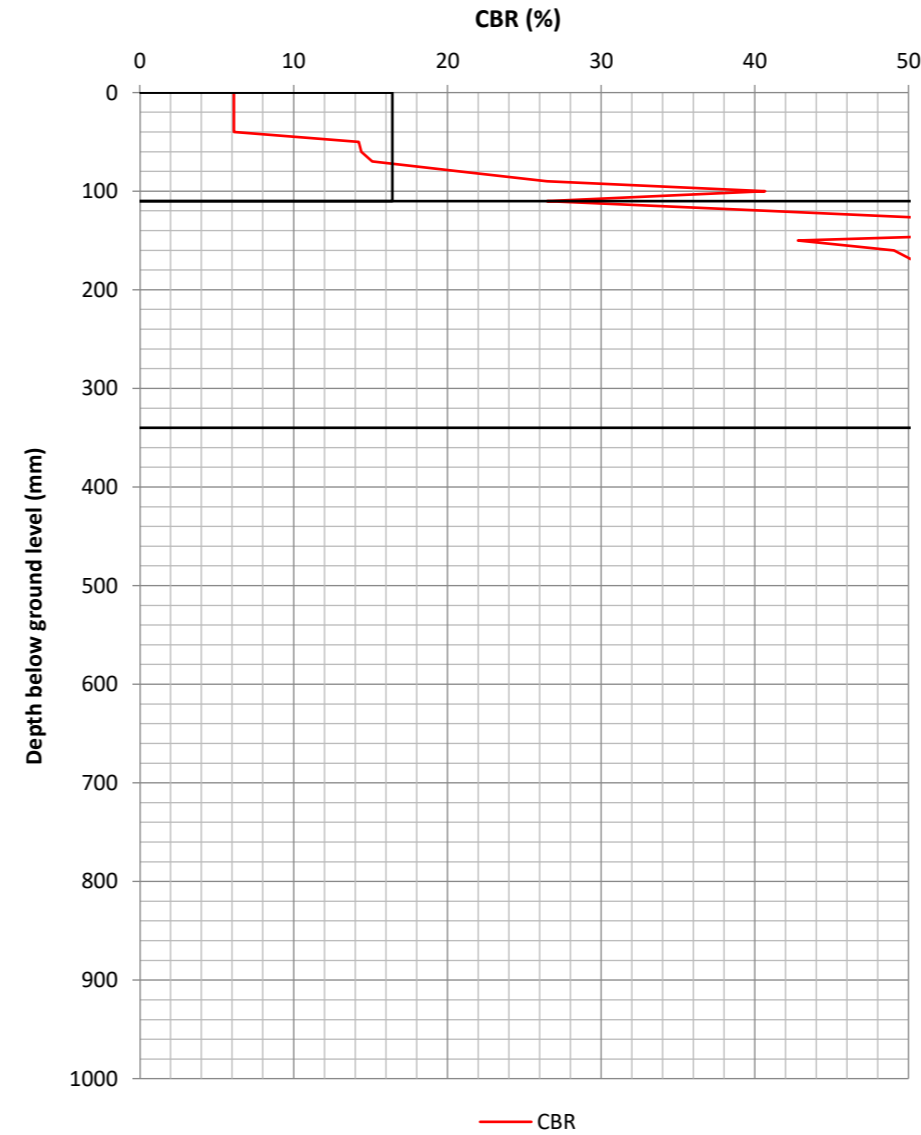
### Dynamic Cone Penetrometer (DCP) test

Location	Date of test	Start depth (mm)	Zero reading (mm)	Operator
DCP08a	05/10/2022	0	35	IK

#### Plot showing number of blows against depth



#### Plot showing CBR (%) against depth



#### Layer properties

Layer No.	CBR (%)	Thickness (mm)	Start depth (mmBGL)	Base depth (mmBGL)
1	16.4	110	0	110
2	84.6	230	110	340

#### Notes

1. Test procedure following Highways England Document CS229 Data for Pavement Assessment.

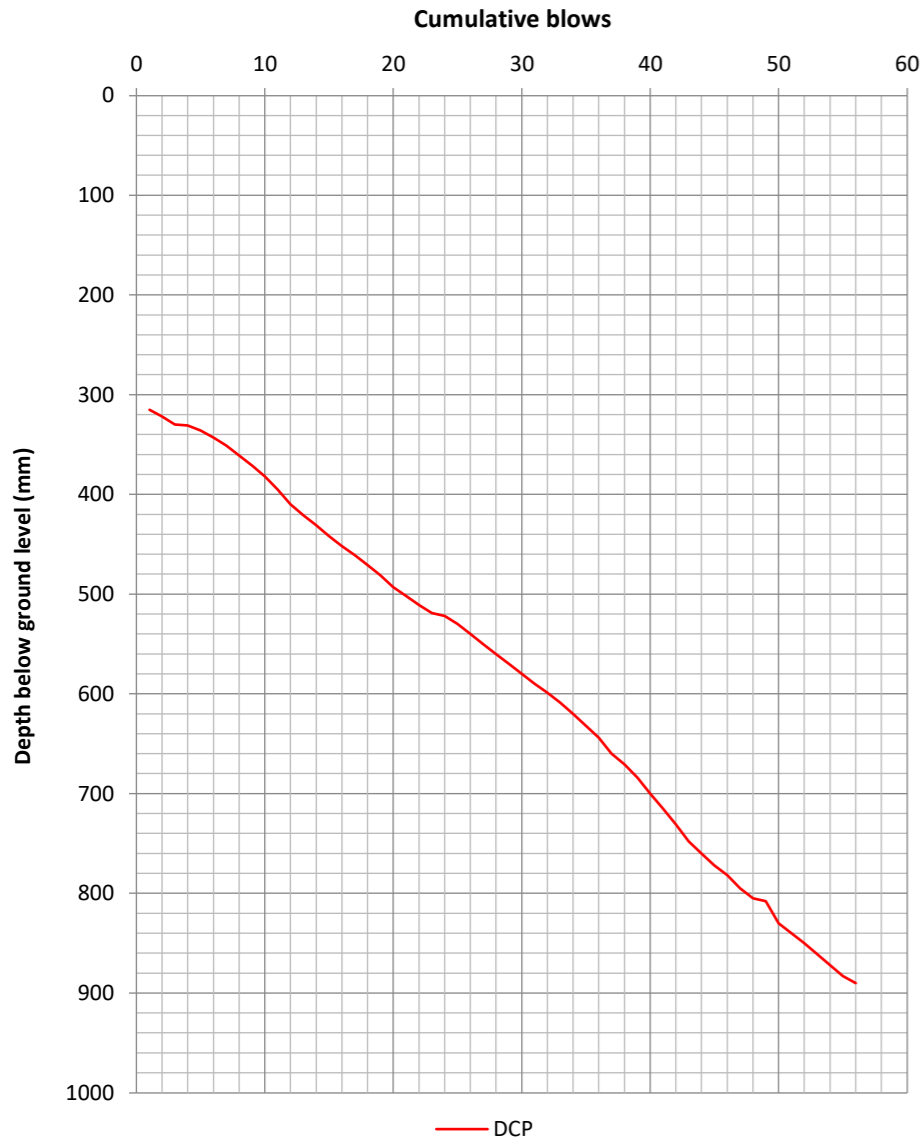
#### Calculations

$$\text{Log}_{10}(\text{Uncorrected (UC) CBR}) = 2.48 - 1.057\text{Log}_{10}(\text{mm/blow})$$

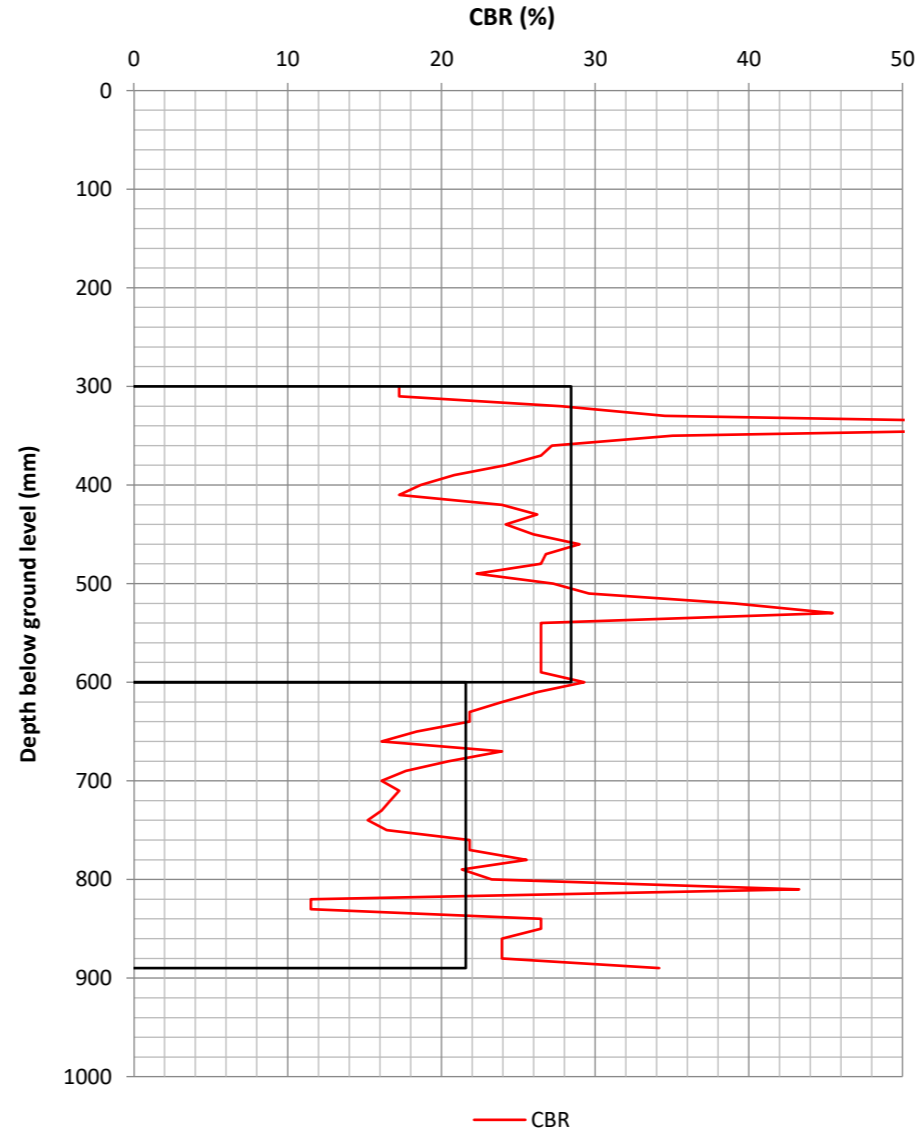
### Dynamic Cone Penetrometer (DCP) test

Location	Date of test	Start depth (mm)	Zero reading (mm)	Operator
DCP08b	05/10/2022	300	350	IK

#### Plot showing number of blows against depth



#### Plot showing CBR (%) against depth



#### Layer properties

Layer No.	CBR (%)	Thickness (mm)	Start depth (mmBGL)	Base depth (mmBGL)
1	28.4	300	300	600
2	21.6	290	600	890

#### Notes

1. Test procedure following Highways England Document CS229 Data for Pavement Assessment.

#### Calculations

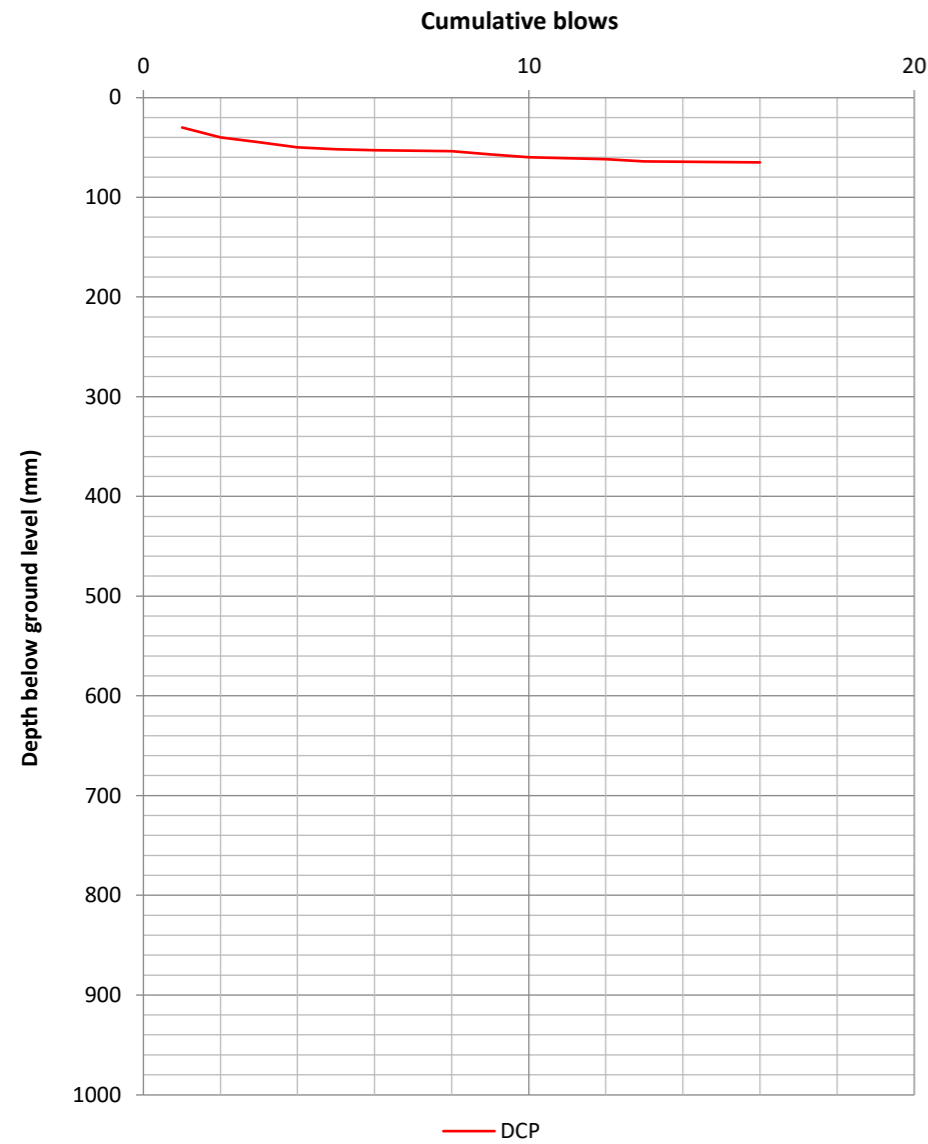
$$\text{Log}_{10}(\text{Uncorrected (UC) CBR}) = 2.48 - 1.057\text{Log}_{10}(\text{mm/blow})$$



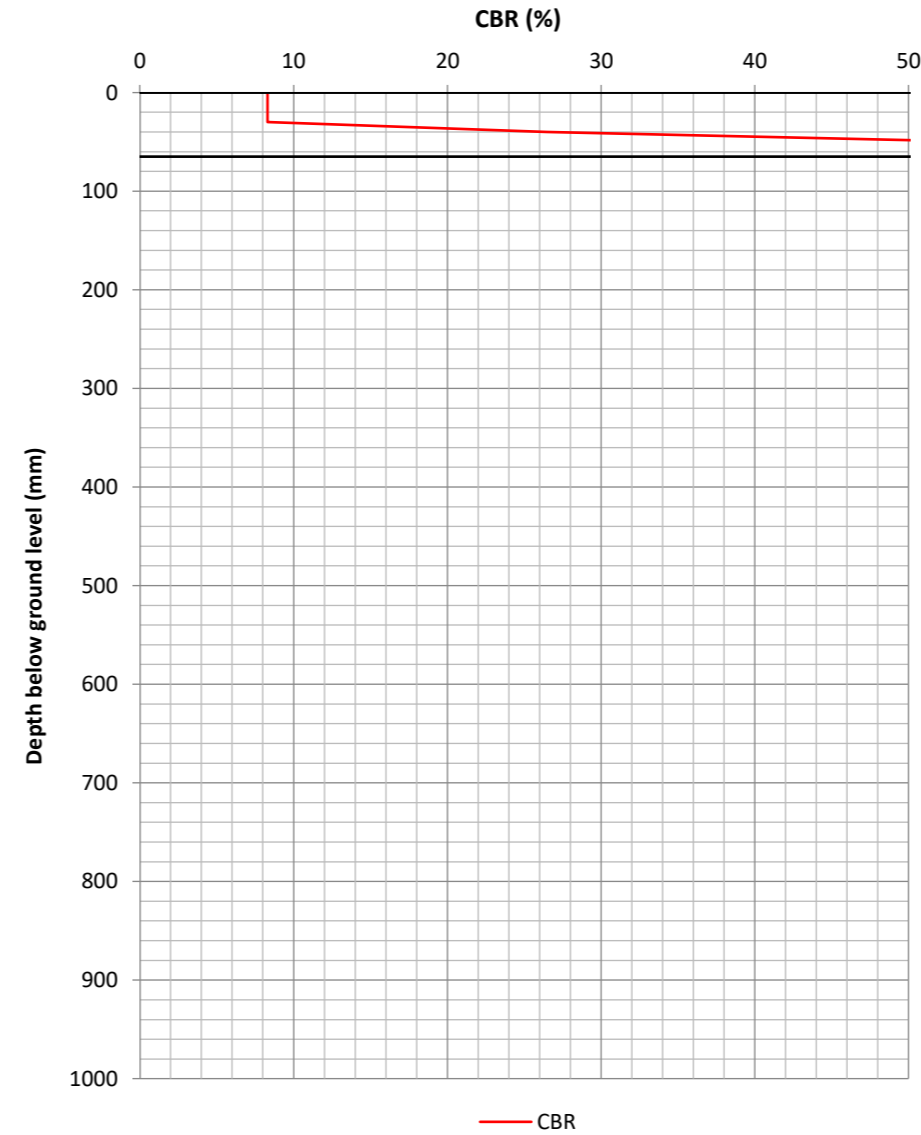
### Dynamic Cone Penetrometer (DCP) test

Location	Date of test	Start depth (mm)	Zero reading (mm)	Operator
DCP09	05/10/2022	0	40	IK

#### Plot showing number of blows against depth



#### Plot showing CBR (%) against depth



#### Layer properties

Layer No.	CBR (%)	Thickness (mm)	Start depth (mmBGL)	Base depth (mmBGL)
1	68.6	65	0	65

#### Notes

1. Test procedure following Highways England Document CS229 Data for Pavement Assessment.

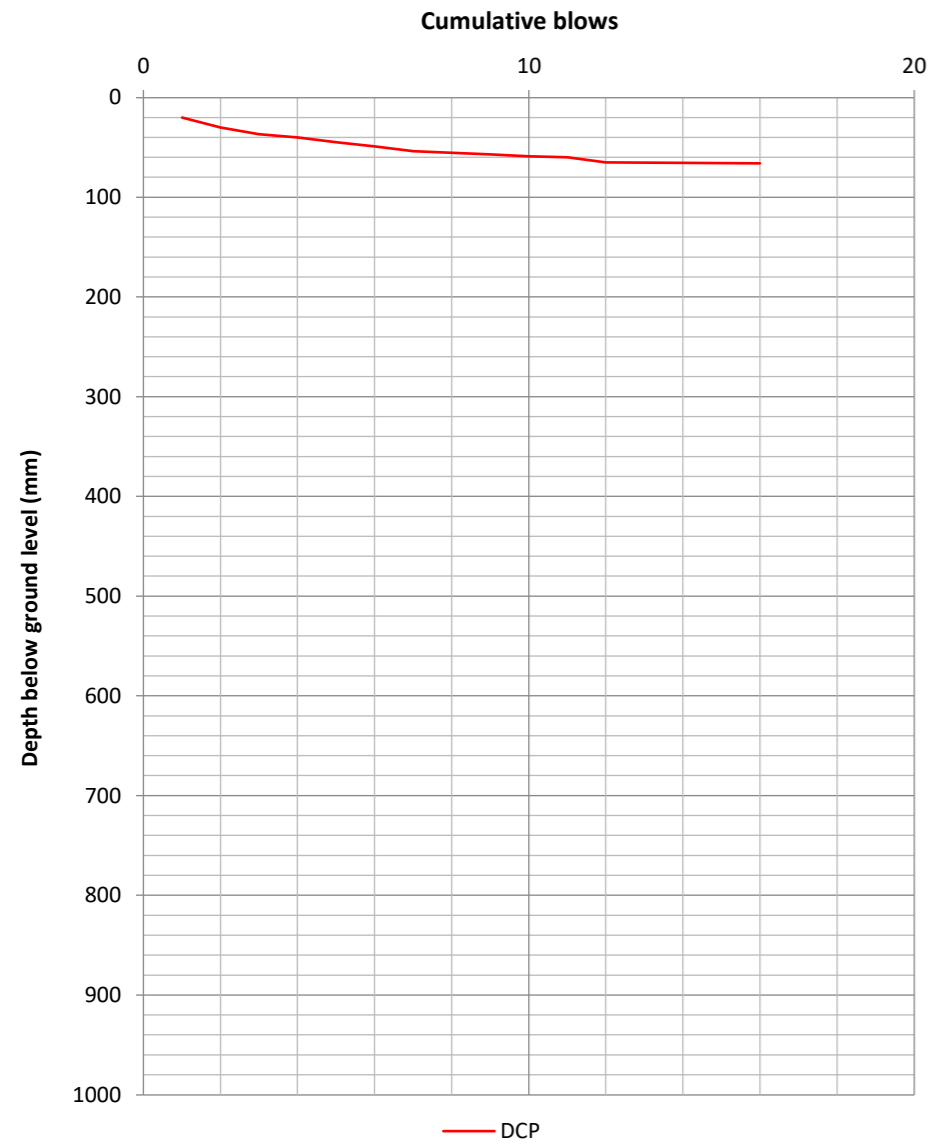
#### Calculations

$$\text{Log}_{10}(\text{Uncorrected (UC) CBR}) = 2.48 - 1.057\text{Log}_{10}(\text{mm/blow})$$

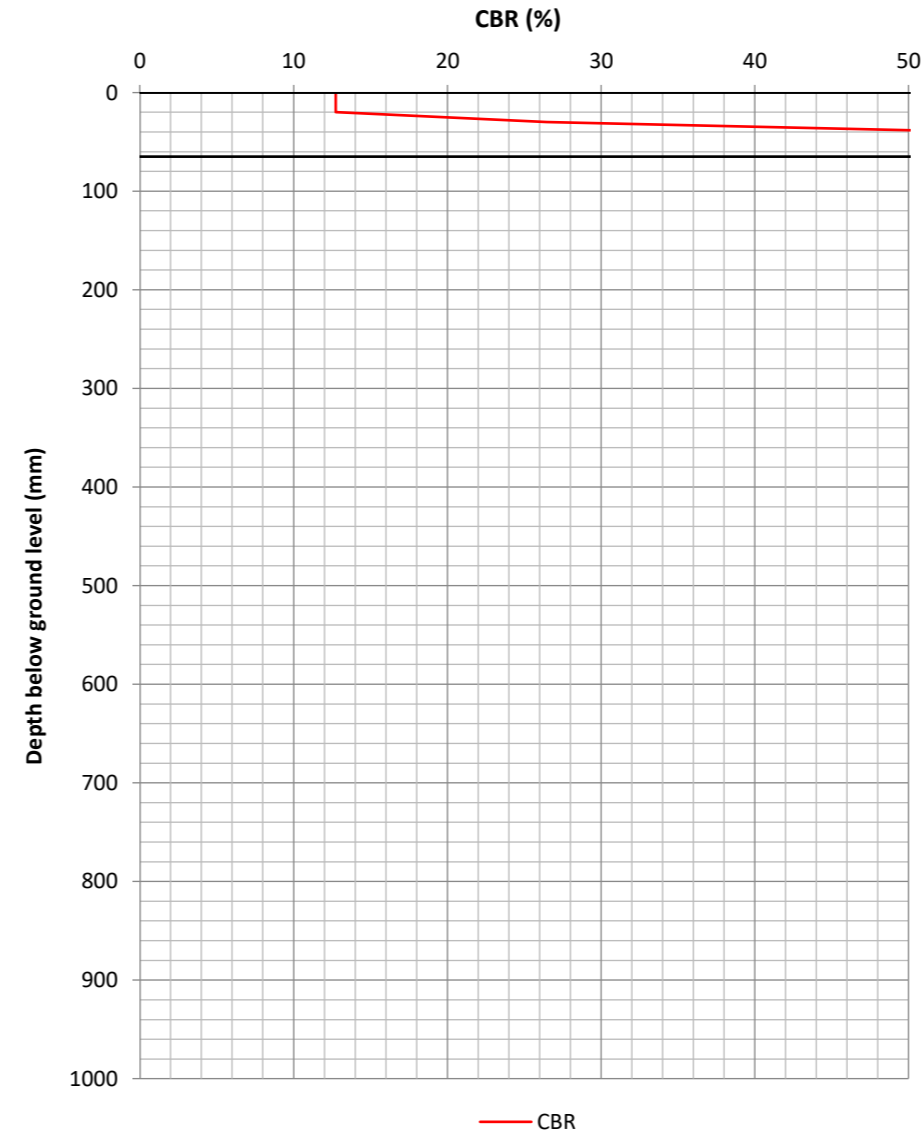
### Dynamic Cone Penetrometer (DCP) test

Location	Date of test	Start depth (mm)	Zero reading (mm)	Operator
DCP09a	05/10/2022	0	35	IK

#### Plot showing number of blows against depth



#### Plot showing CBR (%) against depth



#### Layer properties

Layer No.	CBR (%)	Thickness (mm)	Start depth (mmBGL)	Base depth (mmBGL)
1	50.6	65	0	65

#### Notes

1. Test procedure following Highways England Document CS229 Data for Pavement Assessment.

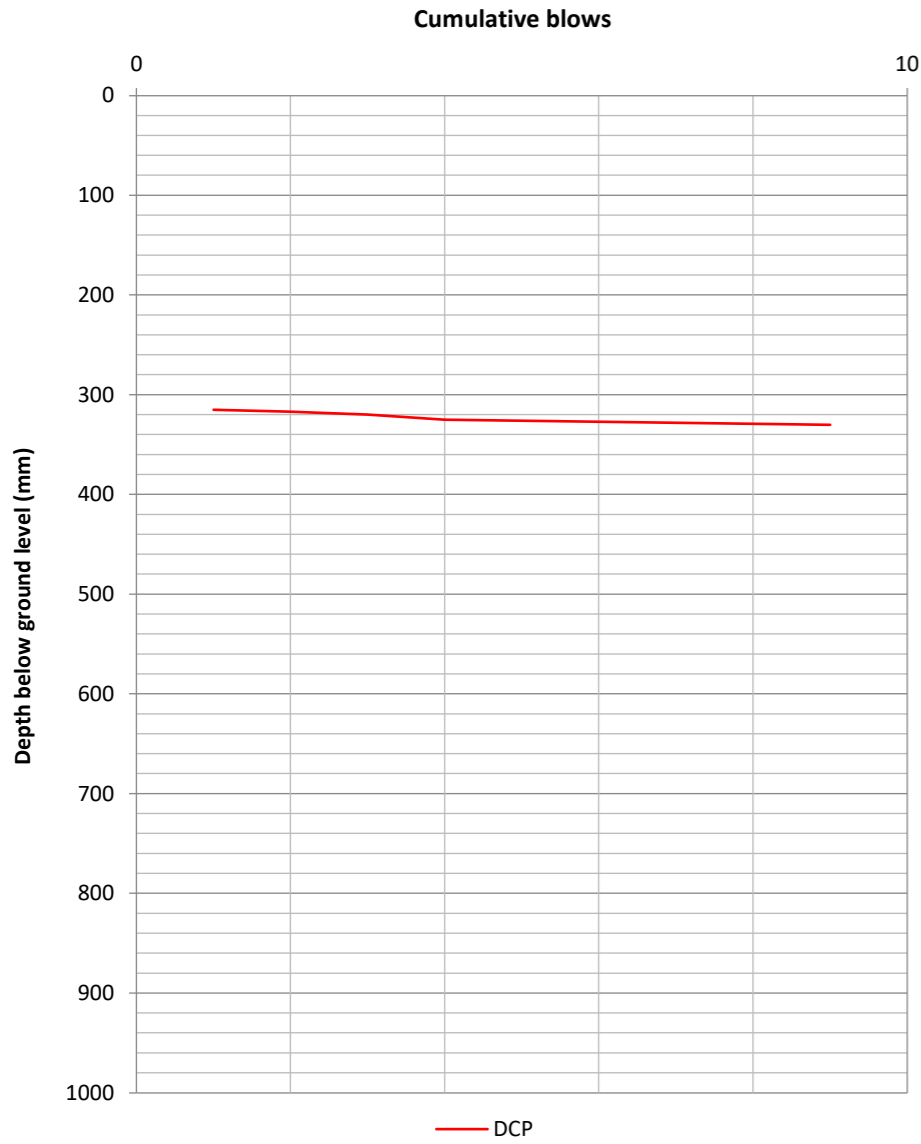
#### Calculations

$$\text{Log}_{10}(\text{Uncorrected (UC) CBR}) = 2.48 - 1.057\text{Log}_{10}(\text{mm/blow})$$

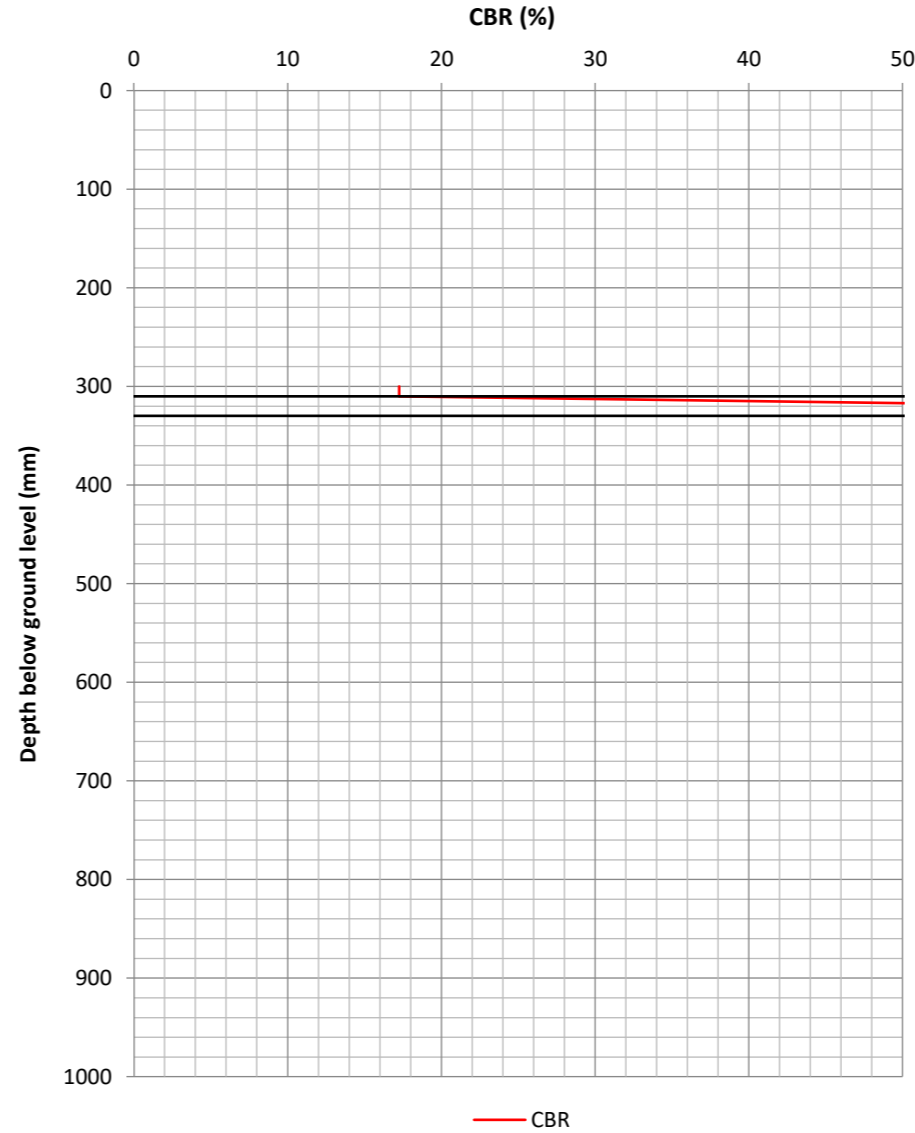
### Dynamic Cone Penetrometer (DCP) test

Location	Date of test	Start depth (mm)	Zero reading (mm)	Operator
DCP09b	05/10/2022	300	335	IK

#### Plot showing number of blows against depth



#### Plot showing CBR (%) against depth



#### Layer properties

Layer No.	CBR (%)	Thickness (mm)	Start depth (mmBGL)	Base depth (mmBGL)
1	119.7	20	310	330

#### Notes

1. Test procedure following Highways England Document CS229 Data for Pavement Assessment.

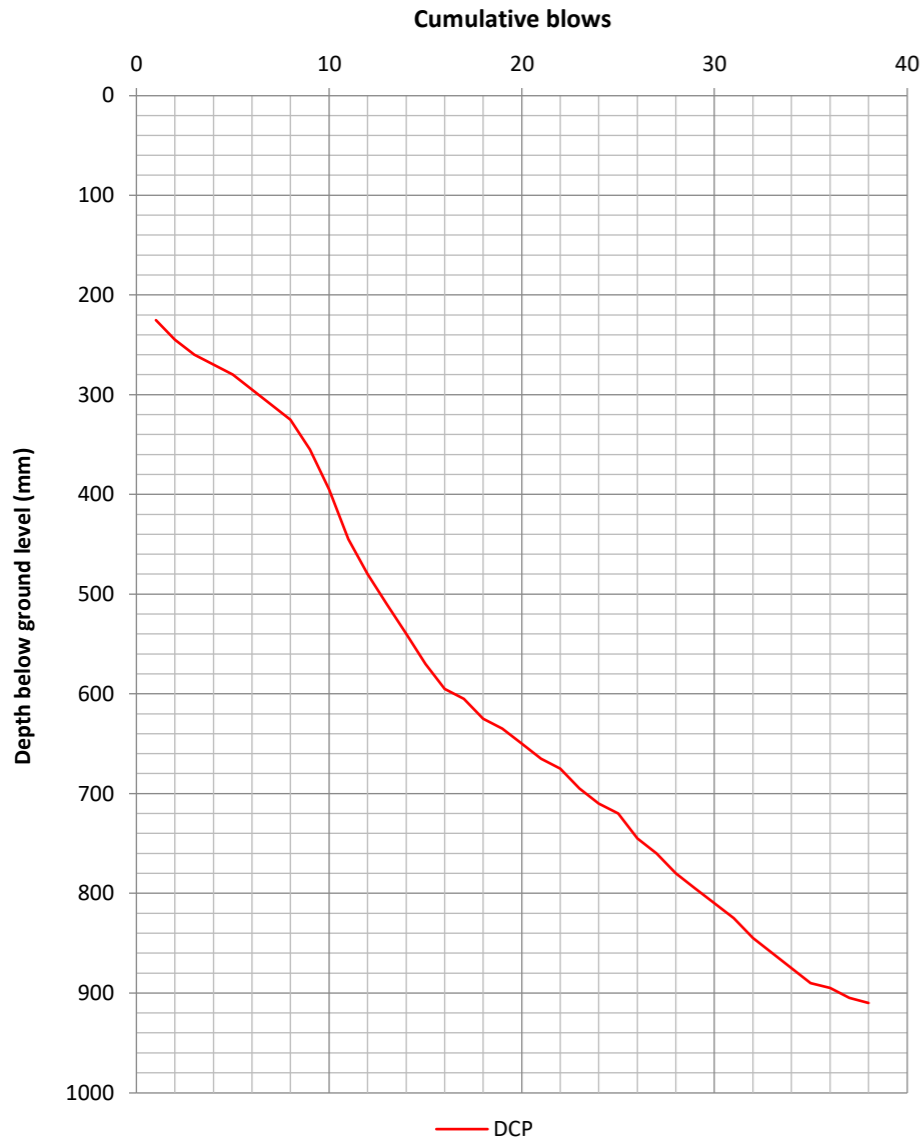
#### Calculations

$$\text{Log}_{10}(\text{Uncorrected (UC) CBR}) = 2.48 - 1.057\text{Log}_{10}(\text{mm/blow})$$

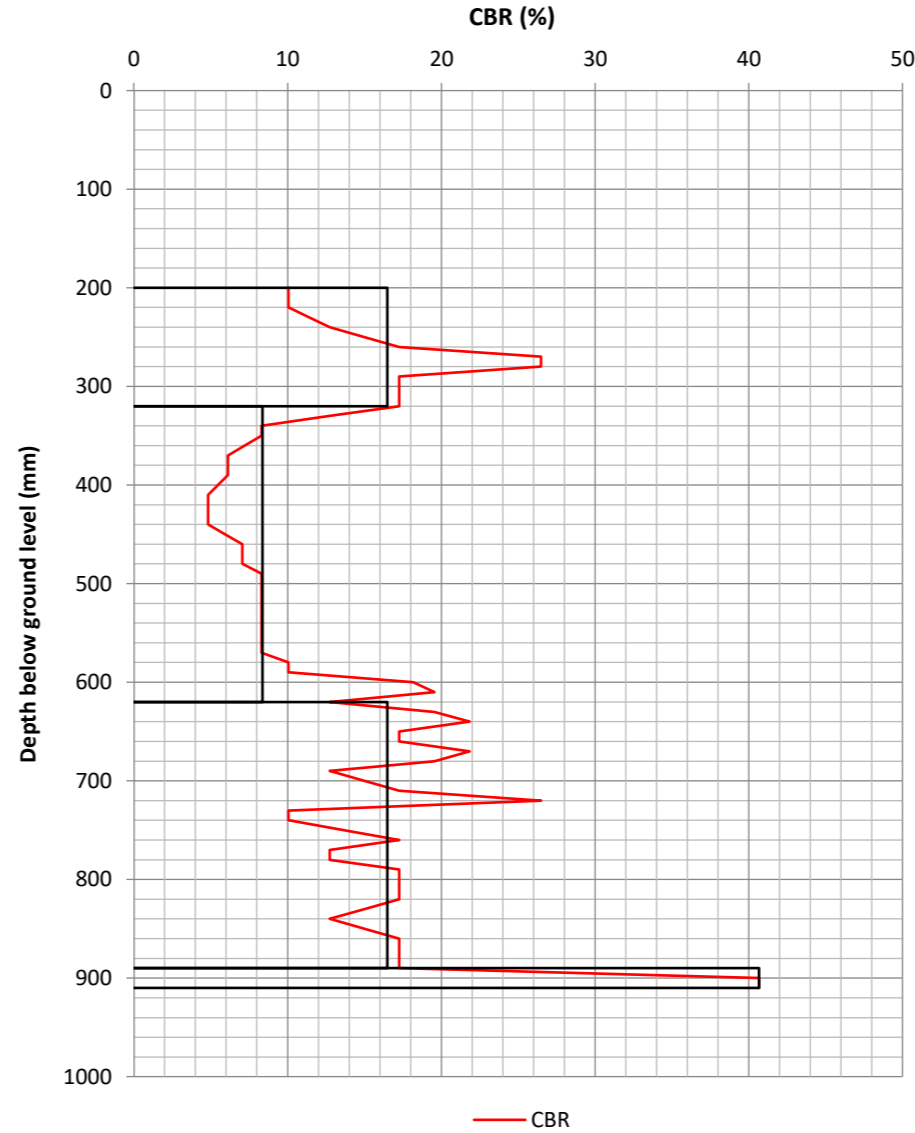
### Dynamic Cone Penetrometer (DCP) test

Location	Date of test	Start depth (mm)	Zero reading (mm)	Operator
DCP11	14/11/2022	200	235	IK

Plot showing number of blows against depth



Plot showing CBR (%) against depth



Layer properties

Layer No.	CBR (%)	Thickness (mm)	Start depth (mmBGL)	Base depth (mmBGL)
1	16.5	120	200	320
2	8.4	300	320	620
3	16.5	270	620	890
4	40.7	20	890	910

### Notes

1. Test procedure following Highways England Document CS229 Data for Pavement Assessment.

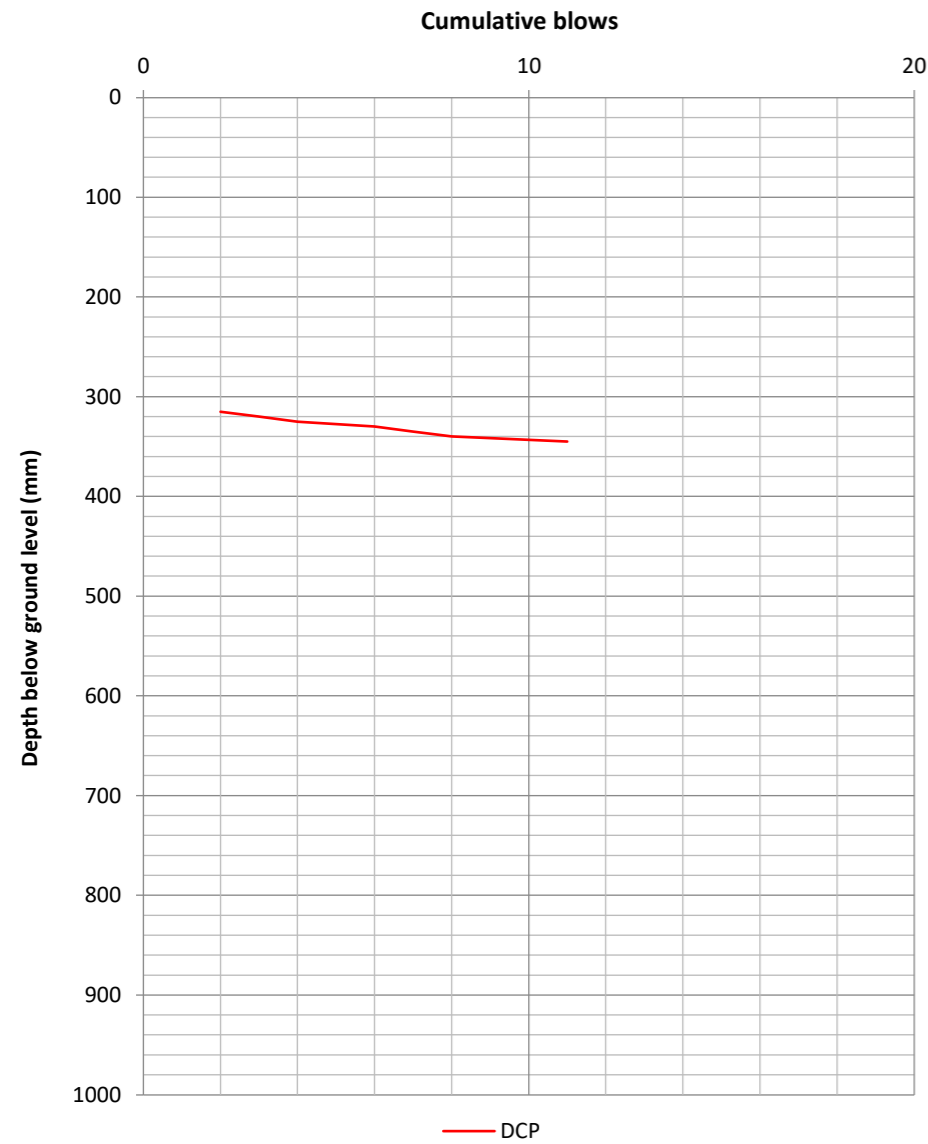
### Calculations

$$\text{Log}_{10}(\text{Uncorrected (UC) CBR}) = 2.48 - 1.057\text{Log}_{10}(\text{mm/blow})$$

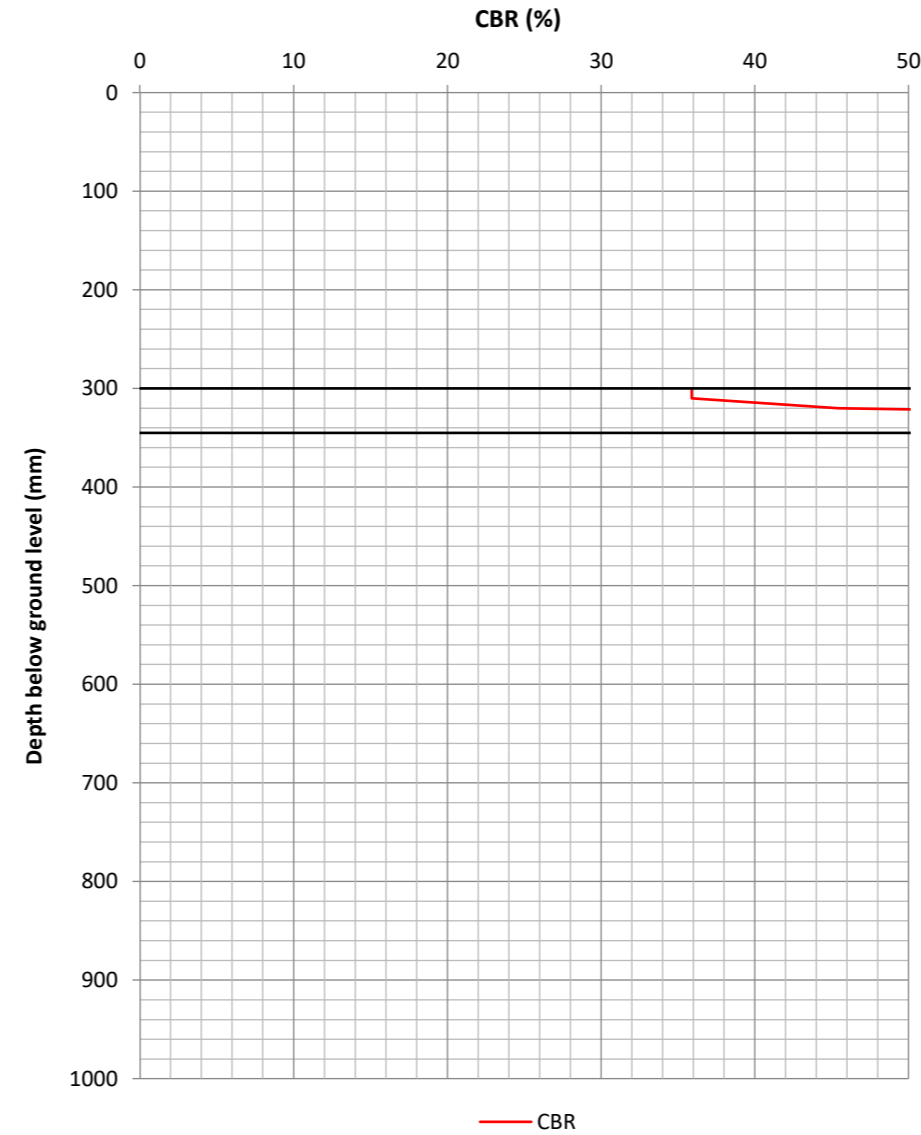
### Dynamic Cone Penetrometer (DCP) test

Location	Date of test	Start depth (mm)	Zero reading (mm)	Operator
DCP12	14/11/2022	300	295	IK

#### Plot showing number of blows against depth



#### Plot showing CBR (%) against depth



#### Layer properties

Layer No.	CBR (%)	Thickness (mm)	Start depth (mmBGL)	Base depth (mmBGL)
1	68.1	45	300	345

#### Notes

1. Test procedure following Highways England Document CS229 Data for Pavement Assessment.

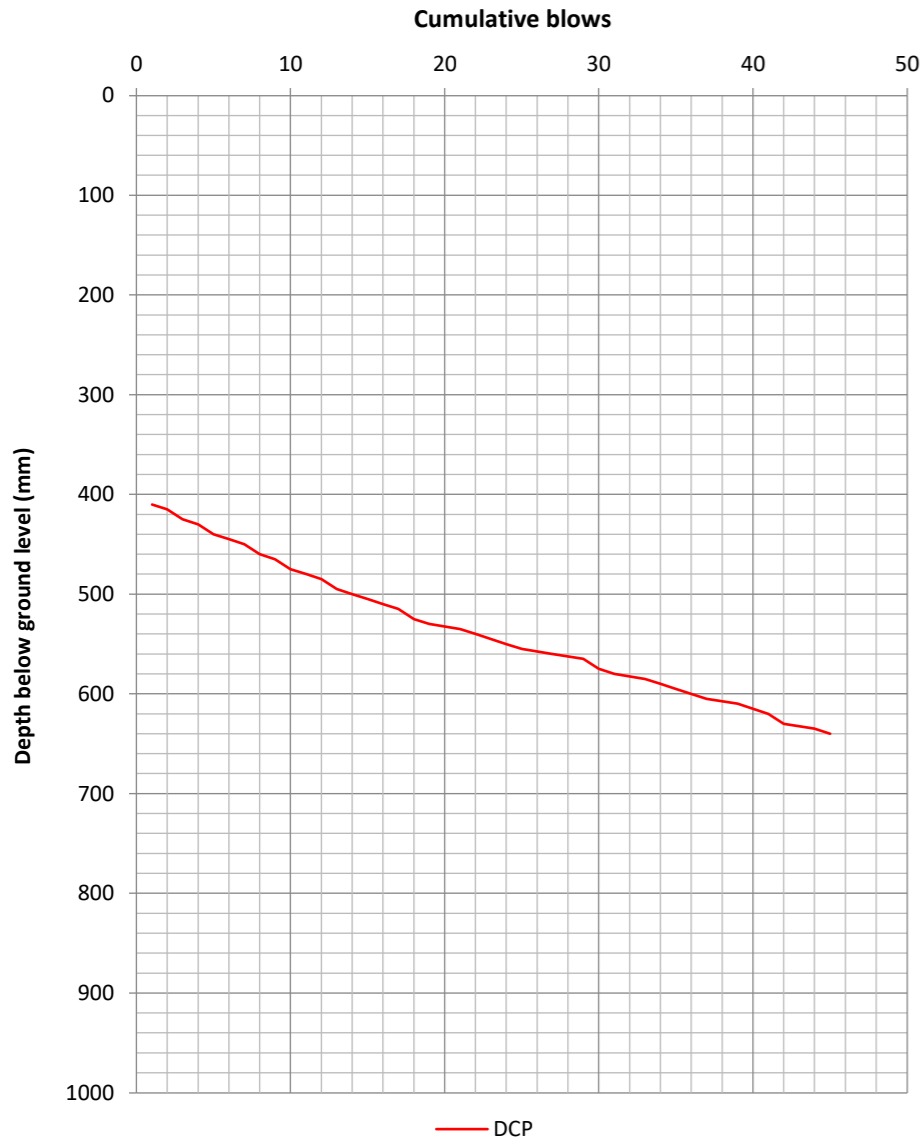
#### Calculations

$$\text{Log}_{10}(\text{Uncorrected (UC) CBR}) = 2.48 - 1.057\text{Log}_{10}(\text{mm/blow})$$

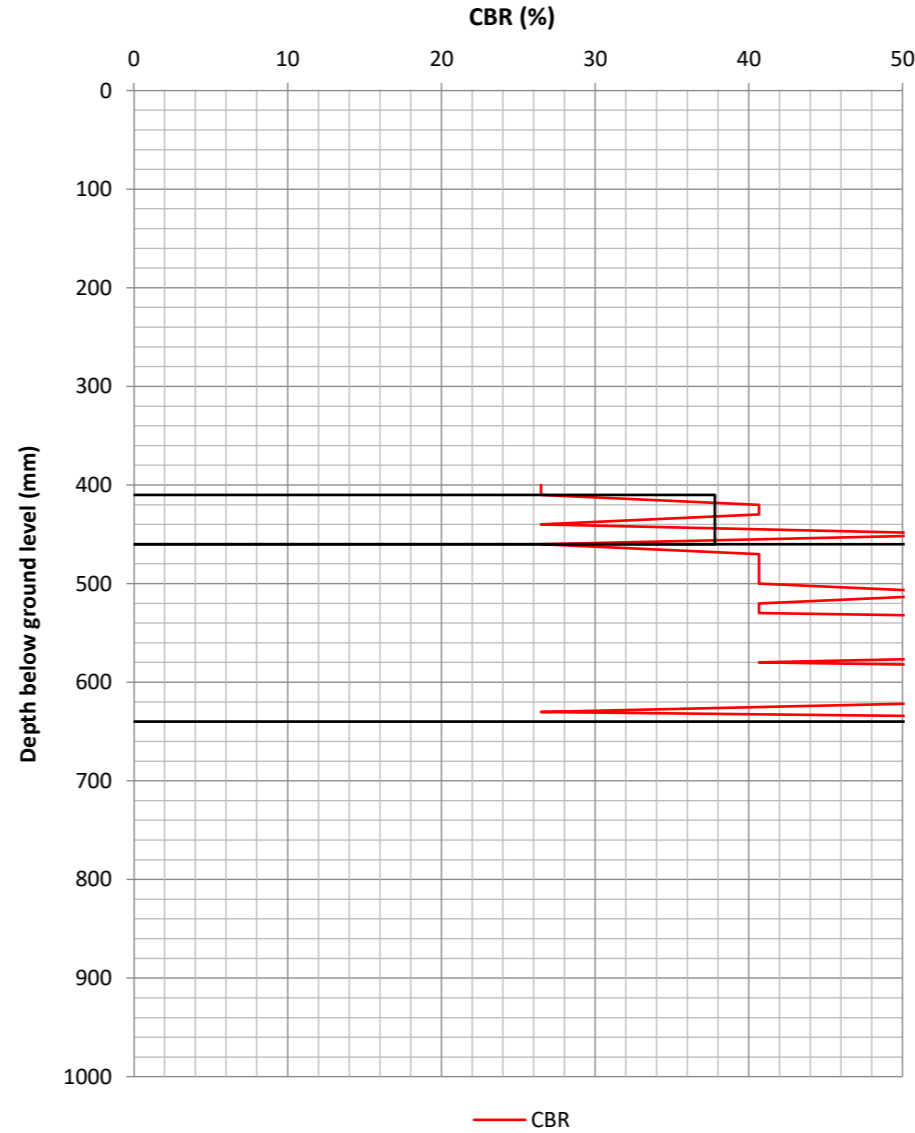
### Dynamic Cone Penetrometer (DCP) test

Location	Date of test	Start depth (mm)	Zero reading (mm)	Operator
DCP12A	14/11/2022	400	425	IK

Plot showing number of blows against depth



Plot showing CBR (%) against depth



Layer properties

Layer No.	CBR (%)	Thickness (mm)	Start depth (mmBGL)	Base depth (mmBGL)
1	37.8	50	410	460
2	56.7	180	460	640

### Notes

1. Test procedure following Highways England Document CS229 Data for Pavement Assessment.

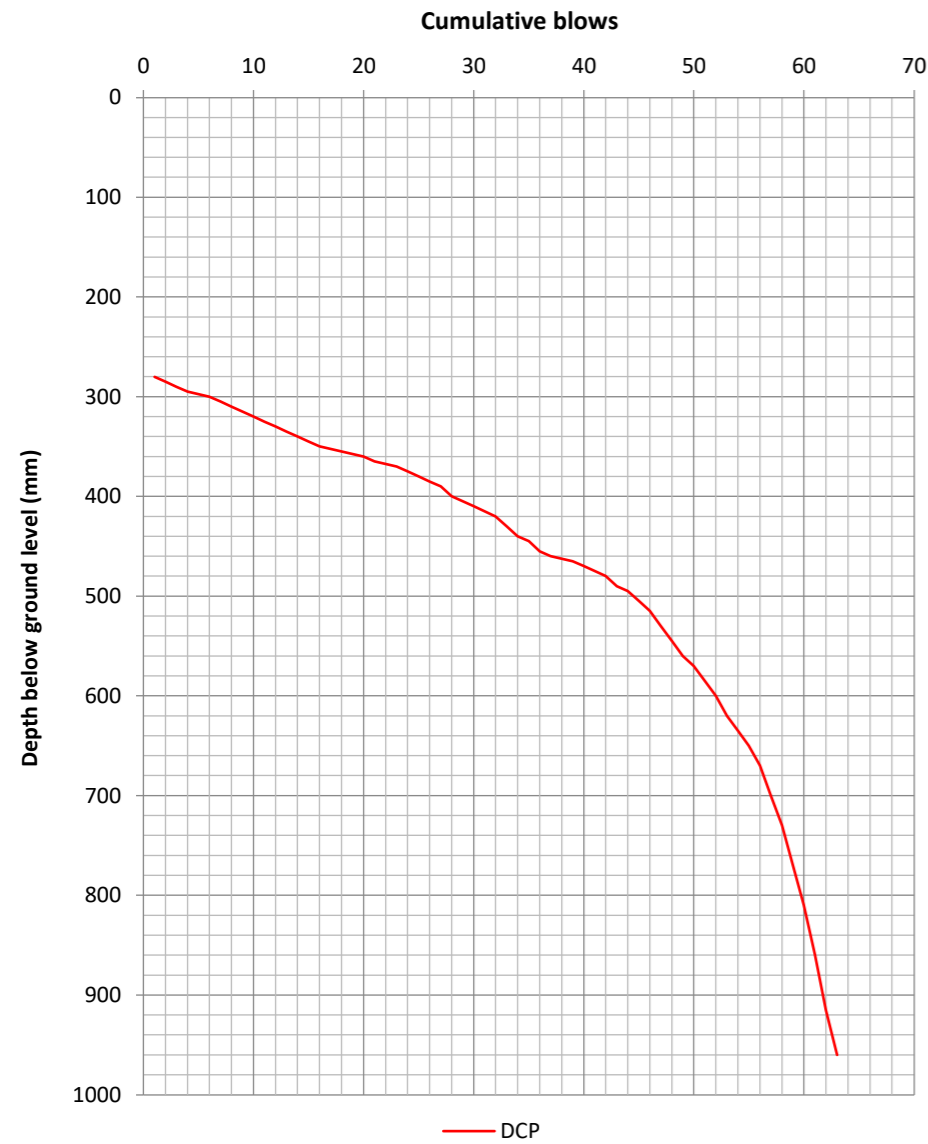
### Calculations

$$\text{Log}_{10}(\text{Uncorrected (UC) CBR}) = 2.48 - 1.057\text{Log}_{10}(\text{mm/blow})$$

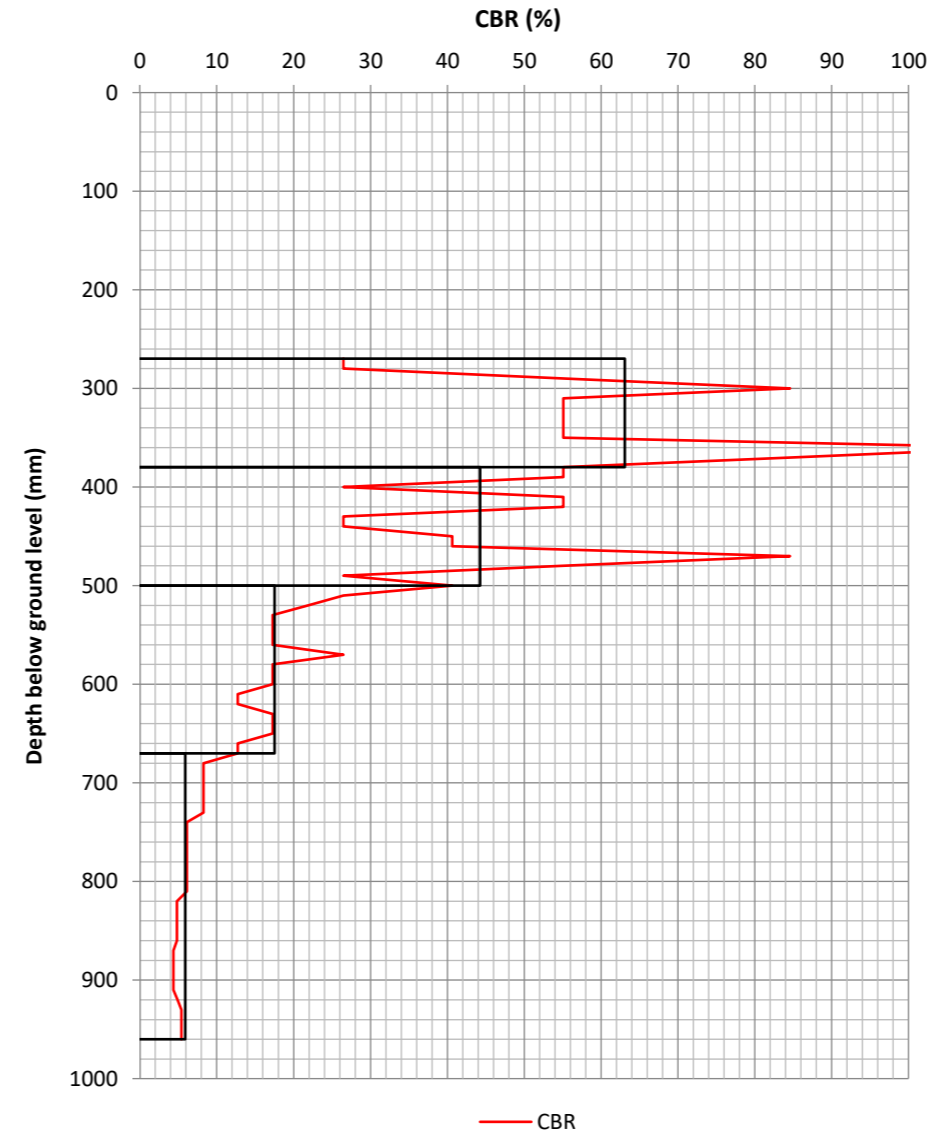
### Dynamic Cone Penetrometer (DCP) test

Location	Date of test	Start depth (mm)	Zero reading (mm)	Operator
DCP13	14/11/2022	270	260	IK

#### Plot showing number of blows against depth



#### Plot showing CBR (%) against depth



#### Layer properties

Layer No.	CBR (%)	Thickness (mm)	Start depth (mmBGL)	Base depth (mmBGL)
1	63.1	110	270	380
2	44.2	120	380	500
3	17.5	170	500	670
4	5.9	290	670	960

#### Notes

1. Test procedure following Highways England Document CS229 Data for Pavement Assessment.

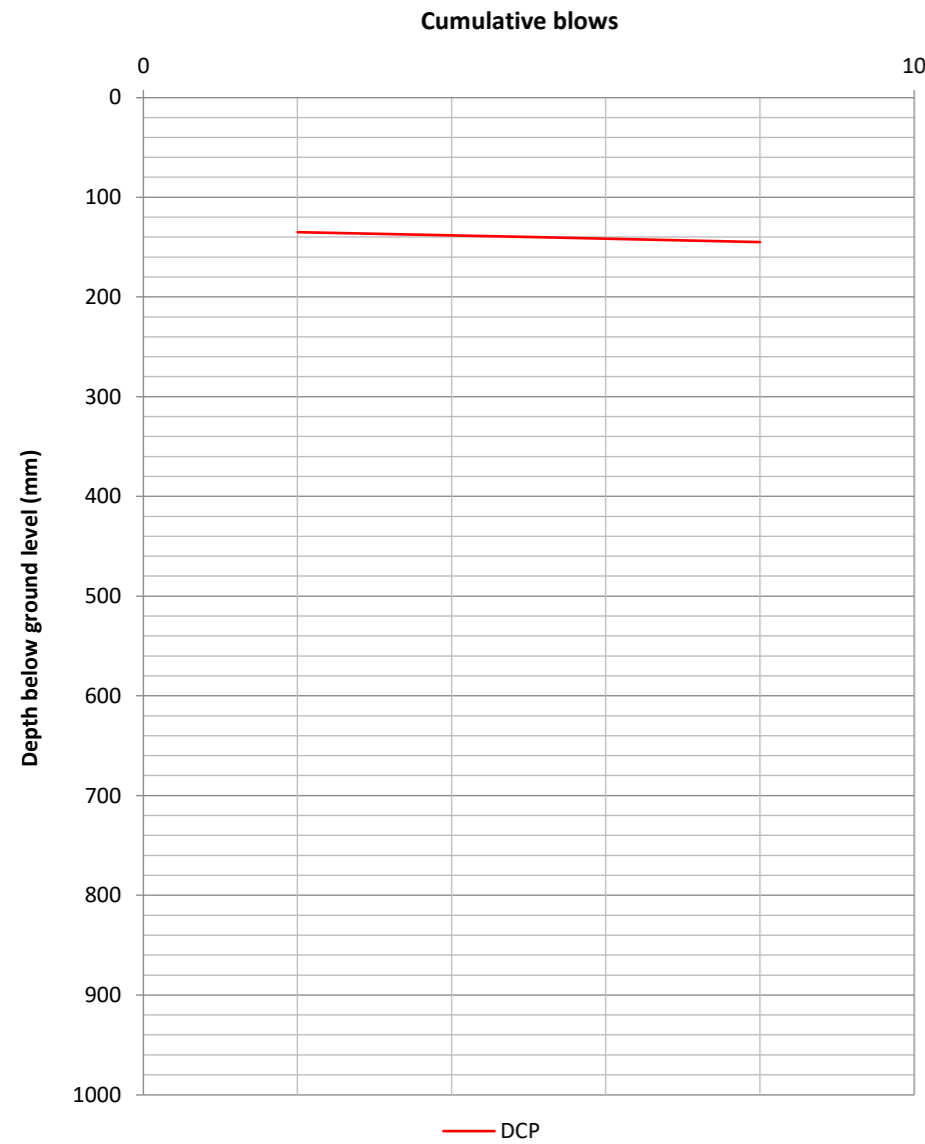
#### Calculations

$$\text{Log}_{10}(\text{Uncorrected (UC) CBR}) = 2.48 - 1.057\text{Log}_{10}(\text{mm/blow})$$

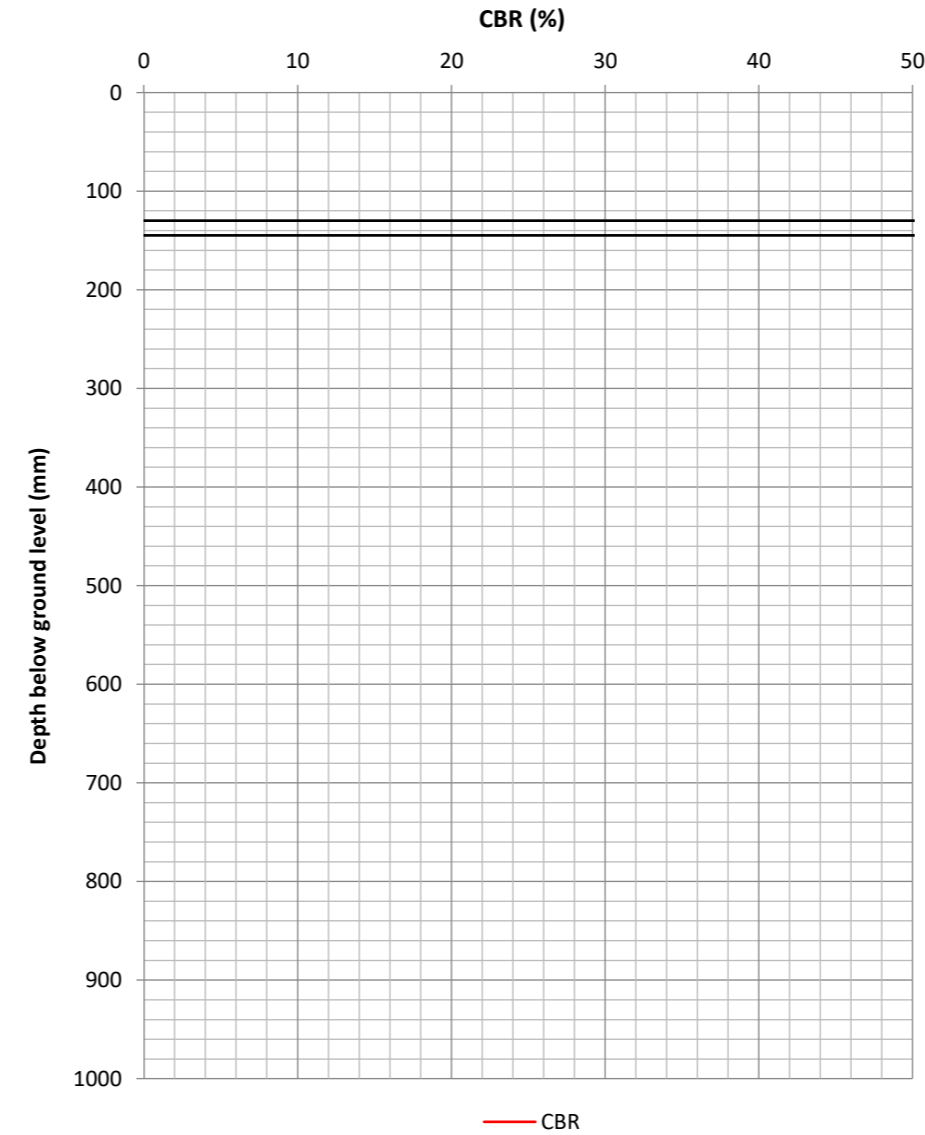
### Dynamic Cone Penetrometer (DCP) test

Location	Date of test	Start depth (mm)	Zero reading (mm)	Operator
DCP14	14/11/2022	130	155	IK

#### Plot showing number of blows against depth



#### Plot showing CBR (%) against depth



#### Layer properties

Layer No.	CBR (%)	Thickness (mm)	Start depth (mmBGL)	Base depth (mmBGL)
1	155.4	15	130	145

#### Notes

1. Test procedure following Highways England Document CS229 Data for Pavement Assessment.

#### Calculations

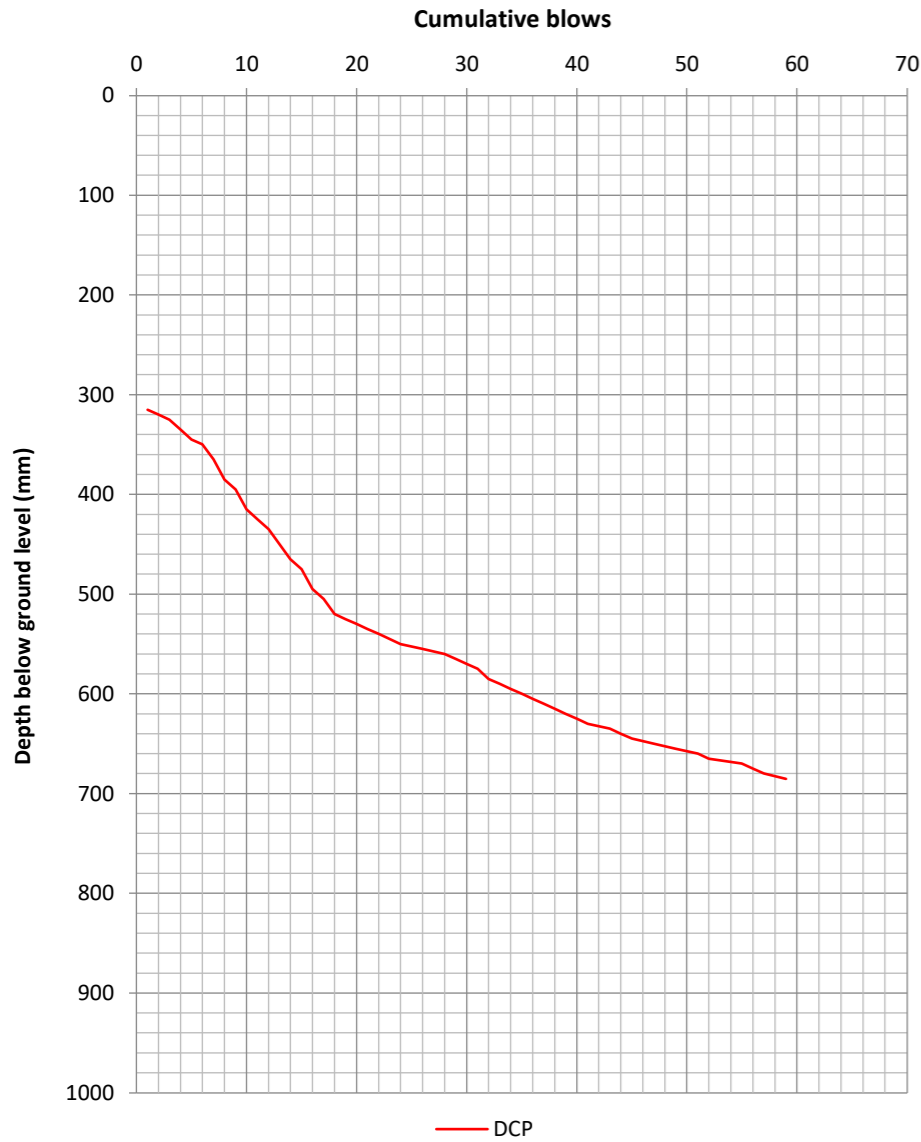
$$\text{Log}_{10}(\text{Uncorrected (UC) CBR}) = 2.48 - 1.057\text{Log}_{10}(\text{mm/blow})$$



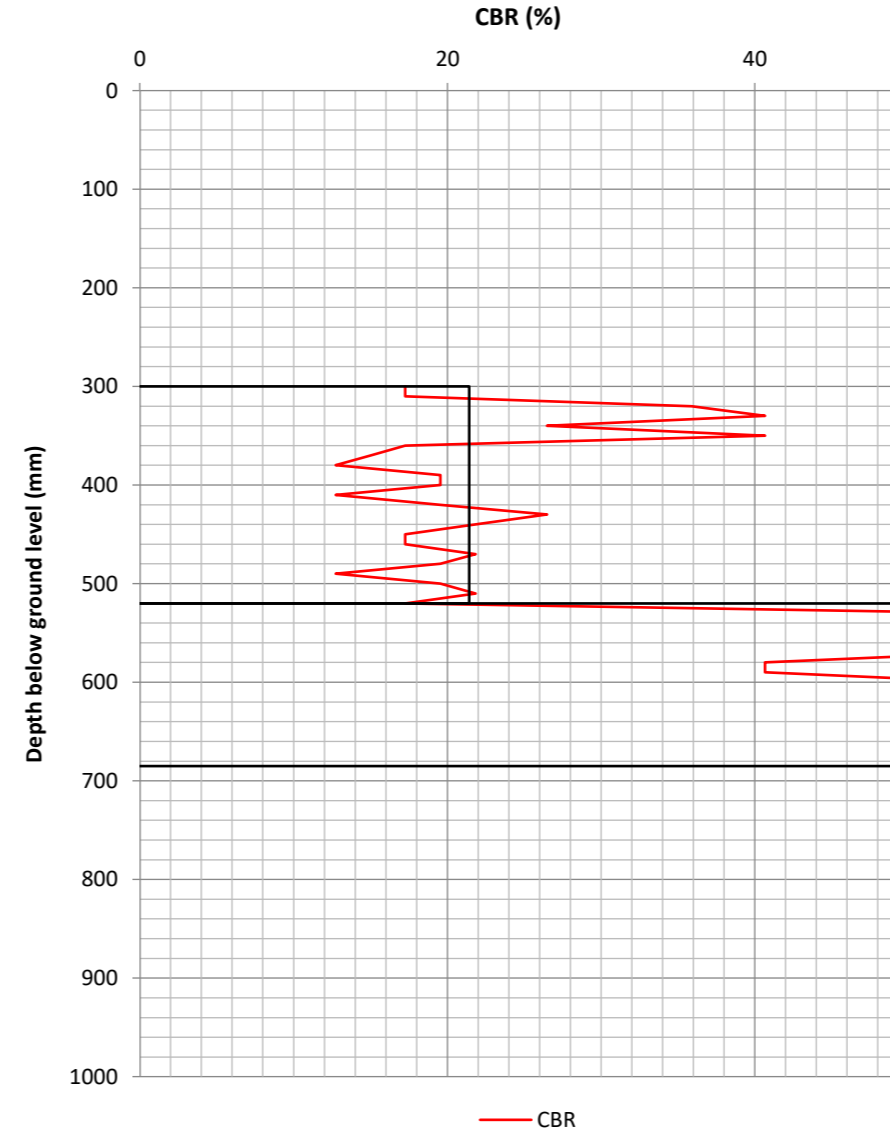
### Dynamic Cone Penetrometer (DCP) test

Location	Date of test	Start depth (mm)	Zero reading (mm)	Operator
DCP14A	14/11/2022	300	295	IK

#### Plot showing number of blows against depth



#### Plot showing CBR (%) against depth



#### Layer properties

Layer No.	CBR (%)	Thickness (mm)	Start depth (mmBGL)	Base depth (mmBGL)
1	21.4	220	300	520
2	69.3	165	520	685

#### Notes

1. Test procedure following Highways England Document CS229 Data for Pavement Assessment.

#### Calculations

$$\text{Log}_{10}(\text{Uncorrected (UC) CBR}) = 2.48 - 1.057\text{Log}_{10}(\text{mm/blow})$$