

Datareport: Grain size distribution Kriegers Flak cable route 2012

Laboratory analysis for Energinet.dk

B. Larsen, I. Nørgaard & A. Stoican

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Results

Appendix 1 show a map of the area and description of samples are listed.

In appendix 2, the water content and loss on ignition are listed. The percentage of water is also shown.

In appendix 3, the grain size distribution for the sediment samples is shown. The grain size distribution shows the distribution of sand, silt and clay in the samples. If the samples do not comply with the DS/EN 933-1DS requirement that the size of the sediment samples is at least 200 gr., this is noted under Total Weight.

Sample treatment

GEUS has carried out analyses on sample sediments from Krigers Flak Cable Route 2012. When received the samples were registered with the following five categories:

- date
- locality
- laboratory number in succession
- client
- analysis requirements

Remaining analysis material is only kept for 14 days after reporting.

Analysis methods

Water content determination

The water content is determined in percentage of natural condition sample weight . The samples are dried at 105° C to constant weight. No salt correction is carried out.

The analyses are carried out according to DS 405.11 in part and DS 204 in part in Water and Environment.

Loss on ignition determination

The organic content and the content of chemically-bonded water are determined with the loss on ignition analysis. The loss on ignition is determined in weight % of material dried at 105° C.

The analyses are carried out according to DS 405 in part and DS 204 in part.

Grain size distribution

The analysis is carried out in two phases:

Sieve analysis:

The total sample is dried and washed through a 0,063 mm sieve. The resulting sediment is sieved through a sieve column from 16 mm to 0,063 mm with ½ phi intervals, which corresponds to 15 sieves. The method is adapted in relation to DS/EN 933-1, as there are more sieves than described in this standard.

DS /EN 933-1 is used as starting point for the particle size distribution analysis, as there are more sieves than described in this standard.

The sediment finer than 0,063 mm is analysed on the Mastersizer 3000.

Mastersizer 3000 analysis:

The particle size distribution of fractions smaller than 0.063 mm is determined with a Mastersizer 3000.

The samples <0.100mm are washed and suspended in a 0,005 mol solution of $\text{Na}_4\text{P}_2\text{O}_7 \cdot 10 \text{H}_2\text{O}$ by ultrasound.

Grain size distribution: The total particle size distribution is obtained by combining the Mastersizer 3000 analysis with the sieve analysis.

Sample descriptions:

Description of samples are done by senior geologist Birger Larsen. GEUS.

References

Standarder for Vand & Miljø. DS Håndbogen 21.2. Dansk Standardiseringsråd, 1991.

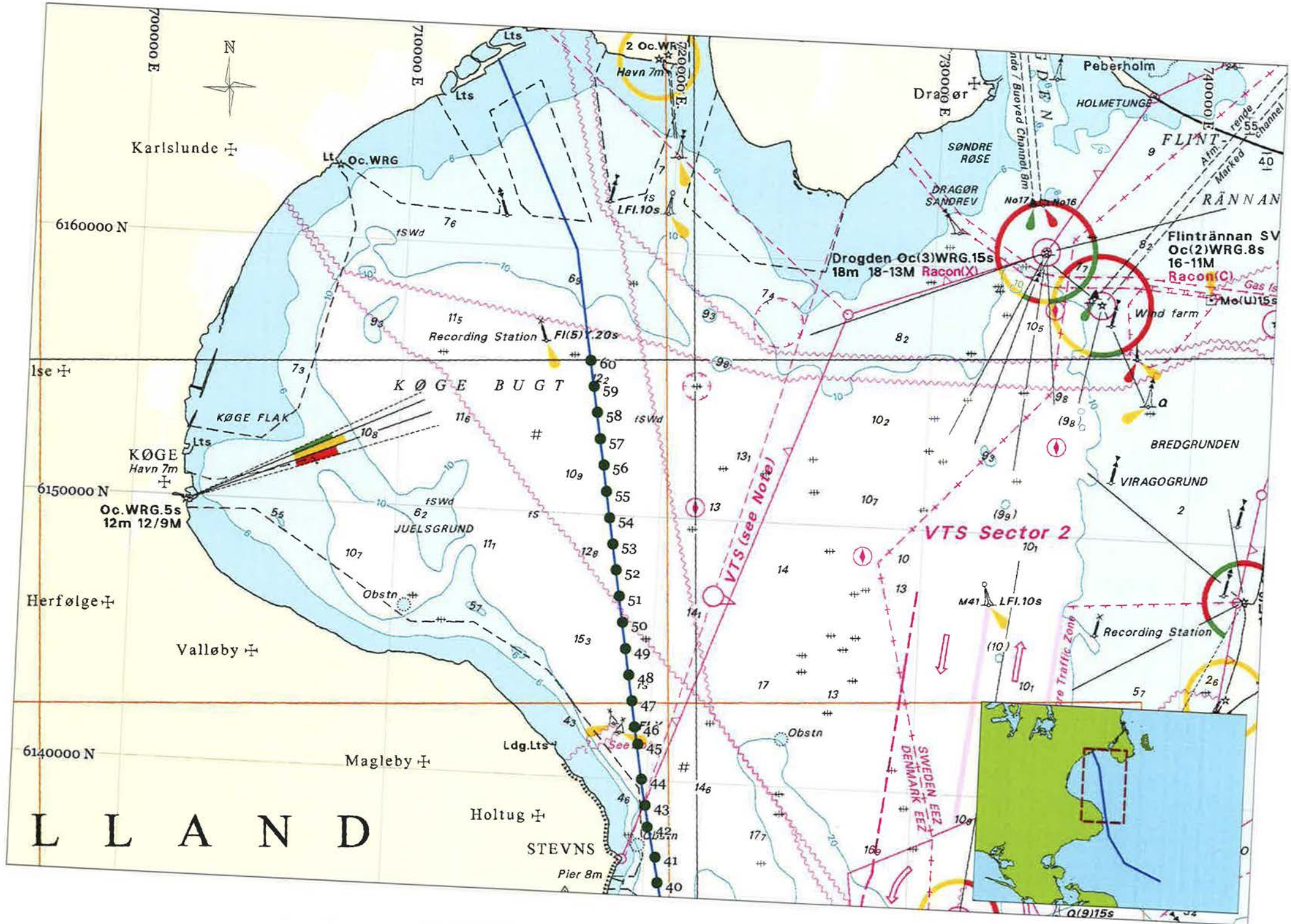
Dansk Standard DS 204. Tørstof og gløderest. Dansk Standardiseringsråd, Kbh.1980.

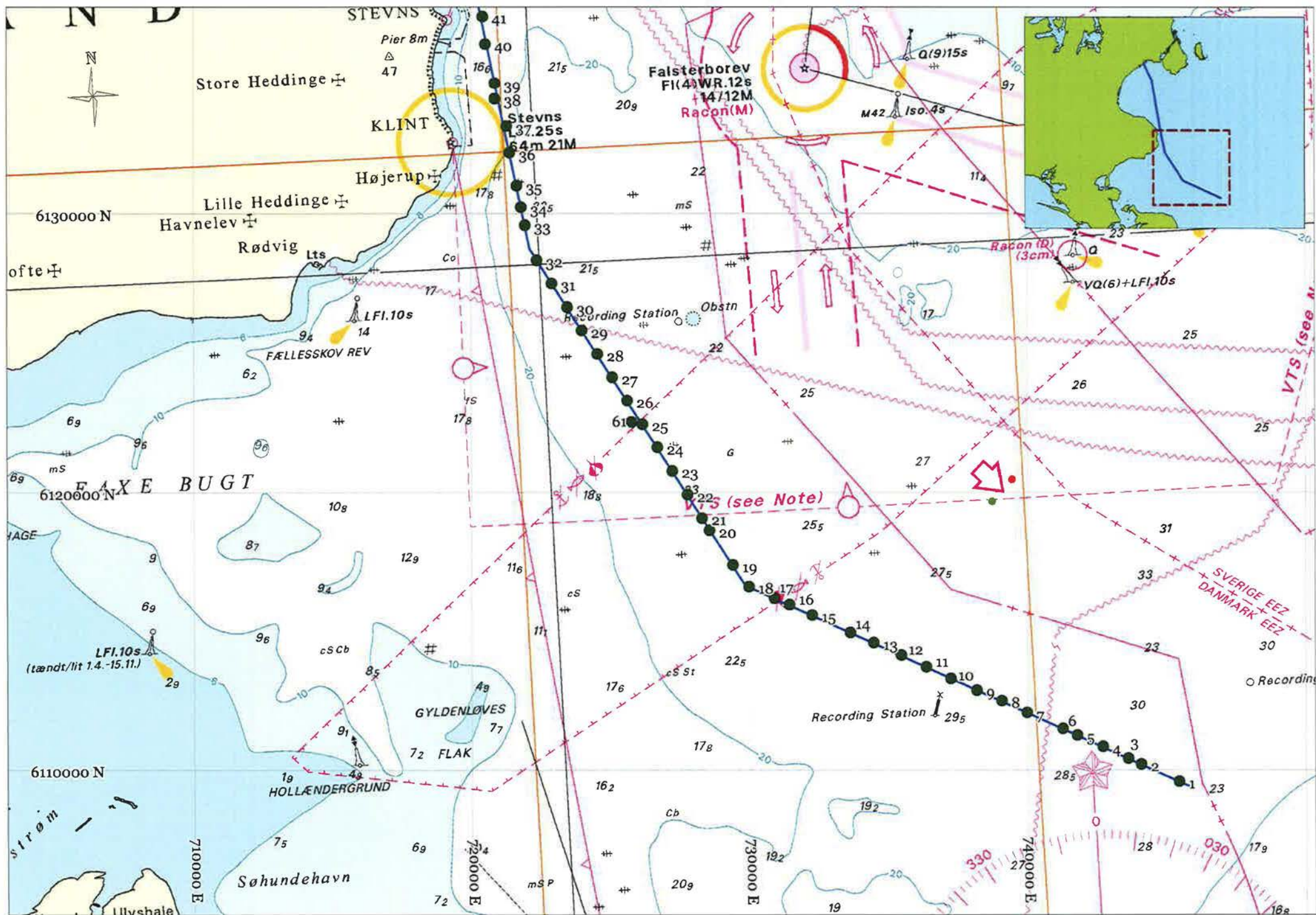
SS/EN 933-1. Kornstørrelsesfordeling bestemt ved sigteanalyse. Dansk Standard. 2004.

Dansk Standard DS 405.11. Vandindhold. Dansk Standardiseringsråd, Kbh.1978.

Mastersizer 3000. Particle Size Analysis System. Malvern mano474 Issue 10.october 2011.

Appendix 1





KRIEGERS FLAK CABLE ROUTE

GRAB samples

		easting	northing	depth										
AQCRGS	1	745445,9	6109559	31		SAND	fine,	silty		sorted	few Macoma	greyish brown	Mar	Recent
AQCRGS	2	744082,2	6110196	32		MYTILUS	whole shells	muddy			shell bank	grey	Mar	Recent
AQCRGS	3	743627,1	6110403	32		SILT	coarse	w.fine sand	sl.clayey	sorted	no shells	grey	Mar	Recent
AQCRGS	4	742707,1	6110821	33		SILT	coarse	w.fine sand	sl.clayey	sorted	no shells	grey	Mar	Recent
AQCRGS	5	741789,8	6111235	33	no sample									
AQCRGS	6	741263,7	6111469	32		SILT	coarse	w.fine sand	sl.clayey	sorted	Macoma, Mya	grey	Mar	Recent
AQCRGS	7	739978,4	6112041	31,5	no sample									
AQCRGS	8	739070,4	6112476	31,5		SILT	coarse	w.fine sand	sl.clayey	sorted	no shells	grey	Mar	Recent
AQCRGS	9	738171,9	6112862	24		SILT	coarse	w.fine sand	sl.clayey	sorted	Macoma shells	grey	Mar	Recent
AQCRGS	10	737226,3	6113278	30,5		SILT	coarse	w.fine sand	sl.clayey	sorted	no shells	grey	Mar	Recent
AQCRGS	11	736347,7	6113696	29,5		SILT	coarse	w.fine sand	sl.clayey	sorted	no shells	grey	Mar	Recent
AQCRGS	12	735442,6	6114126	21,5		SAND	fine&medium	sl.silty		poor sorting	Macoma shells	grey	Mar	Recent
AQCRGS	13	734454,7	6114566	8,4		SAND	fine&medium	sl.silty		poor sorting	few shell frag.	grey	Mar	Recent
AQCRGS	14	733606,2	6114942	5,9		SILT	coarse	w.fine sand	sl.clayey	sorted	no shells	grey	Mar	Recent
AQCRGS	15	732227,3	6115573	27,1		SAND	fine-coarse	w.gravel	silty	unsorted	Mytilus, Macoma		Mar	residual
AQCRGS	16	731426,2	6115943	27		SAND	fine&medium	sl.silty		sorted	no shells	grey	Mar	Recent
AQCRGS	17	730870,9	6116184	27		SAND	fine&medium	sl.silty		sorted	no shells	grey	Mar	Recent
AQCRGS	18	729961,1	6116599	27		SAND	fine	w coarse silt	sl.clayey	sorted	no shells	grey	Mar	Recent
AQCRGS	19	729382,7	6117375	26,5		SAND	fine	w coarse silt	sl.clayey	sorted	no shells	grey	Mar	Recent
AQCRGS	20	728549,5	6118626	26,5		SAND	medium			well sorted	Mya arenaria	light grey	Mar	Recent
AQCRGS	21	728278,1	6119064	26		SAND	medium & coarse			sorted	Macoma shells	light grey	Mar	Recent
AQCRGS	22	727751,8	6119900	25,5		SAND	fine	sl.silty		well sorted	few Macoma	light grey	Mar	Recent
AQCRGS	23	727215,2	6120746	25	no sample									
AQCRGS	24	726676,2	6121593	25		SAND	fine	w.medium sand	sl. silty	well sorted	few Cardium	light grey	Mar	Recent
AQCRGS	25	726142,9	6122432	25,5		SAND	fine	w.medium sand	silty	well sorted	few Cardium	gray	Mar	Recent
AQCRGS	26	725600,6	6123279	24		SAND	fine	w.medium sand	silty	well sorted	no shells	grey	Mar	Recent
AQCRGS	27	725072	6124121	24		SAND	fine	w. coarse silt		well sorted	Macoma shells	grey	Mar	Recent
AQCRGS	28	724530,1	6124966	24		SAND	fine & medium	silty	sl.clayey	sorted	Mytilus, Macoma	grey	Mar	Recent
AQCRGS	29	723969,2	6125805	23,5		SAND	fine	silty	sl.clayey	well sorted	few Macoma shells	grey	Mar	Recent
AQCRGS	30	723446,3	6126651	22,5		SAND	medium	w.fine sand		well sorted	Macoma, Cardium	light grey	Mar	Recent
AQCRGS	31	722895,4	6127495	23		SAND	fine	silty	sl.clayey	well sorted	few Macoma shells	grey	Mar	Recent
AQCRGS	32	722362,2	6128324	22,5		SAND	fine	silty	sl.clayey	well sorted	no shells	grey	Mar	Recent
AQCRGS	33	721943,6	6129586	24		SAND	fine	silty	sl.clayey	well sorted	few Macoma shells	grey	Mar	Recent
AQCRGS	34	721794,9	6130220	5,7		SILT	clayey	w.fine sand		sorted	small Cardium	grey	Mar	Recent
AQCRGS	35	721643,5	6130999	23		SAND	fine	silty	sl.clayey	sorted	few Cardium shells	grey	Mar	Recent
AQCRGS	36	721388,4	6132185	22,5		SILT	clayey	w.fine sand		sorted		grey	Mar	Recent
AQCRGS	37	721271,4	6133144	17,5	2 attempts									Residual
AQCRGS	38	720856,2	6134127	18,5	2 attempts	STONE	20 cm							Residual

AQCRGS	39	720861,7	6134681	18,8		SAND	medium-coarse			well sorted	small Hydrobia	light grey	Mar.	Recent	
AQCRGS	40	720522,3	6136096	16,6	2 attempts	MUD	silty	sinngle stone			many Mytilus shells	dark grey	Mar.	Recent	Pellets mud residual
AQCRGS	41	720416,9	6137072	17	2 attempts										
AQCRGS	42	720068,5	6138200	16		SAND	fine			well sorted	few Cardium	brownish grey	Mar.	Recent	
AQCRGS	43	719954,5	6139031	18		SAND	medium	w.fine sand		well sorted	Mytilus frag.	grey	Mar.	Recent	
AQCRGS	44	719767,5	6140015	16			shells	sl.muddy			many Mytilus shells		Mar.	Recent	Mussel bec
AQCRGS	45	719578,5	6141349	18		SAND	medium	w.fine sand		well sorted	Mytilus frag.	grey	Mar.	Recent	
AQCRGS	46	719420,8	6141996	16,7		SAND	medium	w.fine sand		well sorted		light grey	Mar.	Recent	
AQCRGS	47	719271,4	6142967	17		SAND	medium	w.fine sand		well sorted		light grey	Mar.	Recent	
AQCRGS	48	719107,9	6143958	17,5		SAND	fint	silty	sl.clayey	sorted	Mya arenaria	light grey	Mar.	Recent	
AQCRGS	49	718941,3	6144935	17,5		SILT	coarse	w.fine sand	sl.clayey	sorted	few shell frag.	olive grey	Mar.	Recent	
AQCRGS	50	718790	6145934	16		SILT	coarse	w.fine sand	sl.clayey	sorted	Mya arenaria, Cardium	olive grey	Mar.	Recent	
AQCRGS	51	718613,9	6146918	16,5		SILT	coarse	w.fine sand	sl.clayey	sorted	Mya arenaria,	olive grey	Mar.	Recent	
AQCRGS	52	718451	6147904	16		SILT	coarse	w.fine sand	sl.clayey	sorted	Mya arenaria	olive grey	Mar.	Recent	
AQCRGS	53	718286	6148893	15,5		SILT	coarse	w.fine sand	sl.clayey	sorted	Mya arenaria, Cardium	olive grey	Mar.	Recent	
AQCRGS	54	718117,9	6149879	15		SILT	coarse	w.fine sand	sl.clayey	sorted	Macoma	olive grey	Mar.	Recent	
AQCRGS	55	717949,8	6150864	15		SAND	fine	w.medium sand	sl.silty	well sorted	few Macoma	light grey	Mar.	Recent	
AQCRGS	56	717804	6151852	14		SAND	, CLAY, SILT	sl.gravelly		unsorted		grey			Residual
AQCRGS	57	717626	6152831	14		SAND	, CLAY, SILT	sl.gravelly		unsorted	Cardium frag.	grey			Residual
AQCRGS	58	717464	6153823	13,5		SILT	coarse	w.fine sand	sl.clayey	well sorted	Macoma shells	olive gray	Mar.	Recent	
AQCRGS	59	717295,2	6154809	13,5		SILT	coarse	w.fine sand	sl.clayey	well sorted	Macoma shells	olive grey	Mar.	Recent	
AQCRGS	60	717139	6155775	13		SAND	fint	m.coarse silt		well sorted	few small Macoma	grey	Mar.	Recent	
AQCRGS	61	725747	6122514	25		MYTILUS	whole shells	muddy			shell bank	grey	Mar	Recent	

Appendix 2

Krigers Flak Cabel Route 2012

Water content

DS 405.11

Loss on ignition%

DS 204

Sampel	Water content
AQKFCRGS001	33,00
AQKFCRGS002	26,63
AQKFCRGS003	52,69
AQKFCRGS004	40,61
AQKFCRGS006	44,34
AQKFCRGS008	36,79
AQKFCRGS009	46,40
AQKFCRGS010	38,17
AQKFCRGS011	41,24
AQKFCRGS012	30,12
AQKFCRGS013	31,65
AQKFCRGS014	31,71
AQKFCRGS015	23,75
AQKFCRGS016	23,32
AQKFCRGS017	32,02
AQKFCRGS018	34,85
AQKFCRGS019	38,69
AQKFCRGS020	21,87
AQKFCRGS021	19,22
AQKFCRGS022	25,48
AQKFCRGS024	24,52
AQKFCRGS025	36,45
AQKFCRGS026	28,32
AQKFCRGS027	31,87
AQKFCRGS028	32,13
AQKFCRGS029	33,73
AQKFCRGS030	20,47
AQKFCRGS031	32,72
AQKFCRGS032	40,93
AQKFCRGS033	52,17
AQKFCRGS034	66,55
AQKFCRGS035	30,00
AQKFCRGS036	68,49
AQKFCRGS038_1	76,47
AQKFCRGS039	20,62
AQKFCRGS040_1	68,25
AQKFCRGS042	19,75
AQKFCRGS043	29,25
AQKFCRGS044	70,36
AQKFCRGS045	20,61
AQKFCRGS046	18,62
AQKFCRGS047	21,53
AQKFCRGS048	28,78
AQKFCRGS049	30,8
AQKFCRGS050	34,47
AQKFCRGS051	32,49

Sampel	Loss on ignition%
AQKFCRGS001	2,60
AQKFCRGS003	6,85
AQKFCRGS004	3,53
AQKFCRGS006	3,70
AQKFCRGS008	3,30
AQKFCRGS009	3,84
AQKFCRGS010	3,56
AQKFCRGS011	3,03
AQKFCRGS012	1,99
AQKFCRGS013	1,72
AQKFCRGS014	2,47
AQKFCRGS016	1,25
AQKFCRGS017	2,46
AQKFCRGS018	3,33
AQKFCRGS019	3,14
AQKFCRGS020	0,84
AQKFCRGS021	0,88
AQKFCRGS022	1,91
AQKFCRGS024	1,15
AQKFCRGS025	2,95
AQKFCRGS026	1,54
AQKFCRGS027	2,00
AQKFCRGS028	3,48
AQKFCRGS029	3,30
AQKFCRGS030	0,60
AQKFCRGS031	3,62
AQKFCRGS032	4,22
AQKFCRGS033	6,76
AQKFCRGS034	12,26
AQKFCRGS035	2,22
*AQKFCRGS036	14,57
AQKFCRGS039	0,62
AQKFCRGS040_1	16,13
AQKFCRGS042	0,33
AQKFCRGS043	1,83
AQKFCRGS045	0,53
AQKFCRGS046	0,50
AQKFCRGS047	0,76
AQKFCRGS048	2,54
AQKFCRGS049	3,36
AQKFCRGS050	3,05
AQKFCRGS051	3,65
AQKFCRGS052	3,59
AQKFCRGS053	3,20
AQKFCRGS054	3,03
AQKFCRGS055	0,94

Sampel	Water content
AQKFCRGS052	32,99
AQKFCRGS053	35,24
AQKFCRGS054	32,25
AQKFCRGS055	21,91
AQKFCRGS056	22,15
AQKFCRGS057	32,03
AQKFCRGS058	31,12
AQKFCRGS059	29,09
AQKFCRGS060	29,34
AQKFCRGS061	43,68

Sampel	Loss on ignition%
AQKFCRGS056	2,65
AQKFCRGS057	3,02
AQKFCRGS058	2,49
AQKFCRGS059	2,07
AQKFCRGS060	2,19
AQKFCRGS061	3,45

*56 inde 36 ude på pose

Appendix 3

Grain Size Distribution

Geotechnical

Sample Id: AQKFCRGS001
Lab. Id: CR1
Submitter: Energinet.dk
Subject: KRIGERS FLAK Cable Route Samples
Date: Nov/dec 2012
Executed: I. Nørgaard, A.Stoican
Remarks: For mat.< 2mm



Total Weight 114,76 g

Size Fractions

	Size	Size	Weight	Weight	Cumulated amount passing
	mm	Φ	g	%	%
Grain Size Distribution	16,00	-4,00	0,00	0,00	100,00
	8,00	-3,00	0,00	0,00	100,00
	4,00	-2,00	0,01	0,01	99,99
	2,80	-1,49	0,00	0,00	99,99
	2,00	-1,00	0,05	0,04	99,95
	1,40	-0,49	0,03	0,03	99,92
	1,00	0,00	0,05	0,04	99,88
	0,710	0,49	0,09	0,08	99,80
	0,500	1,00	0,17	0,15	99,65
	0,355	1,49	0,49	0,43	99,22
Mastersizer 3000	0,250	2,00	1,75	1,52	97,70
	0,180	2,47	4,10	3,57	94,13
	0,125	3,00	28,57	24,90	69,23
	0,090	3,47	47,39	41,29	27,94
	0,063	3,99	7,70	6,71	21,23
	0,0442	4,50	1,14	0,99	20,24
	0,0312	5,00	2,32	2,02	18,22
	0,0221	5,50	2,93	2,55	15,67
	0,0156	6,00	3,28	2,86	12,81
	0,0110	6,51	2,20	1,92	10,89
	0,0078	7,00	3,14	2,74	8,15
	0,0055	7,51	2,73	2,38	5,77
	0,0039	8,00	1,54	1,34	4,43
	0,0028	8,48	1,89	1,65	2,78
	0,0020	8,97	1,07	0,93	1,85
Clay	<0,0020	>8,97	2,12	1,85	0,00

Size Classes (DGF-Bulletin 1 1988)

	Weight %
Clay (< 0,002 mm):	1,85
Silt, fine (0,002 mm - 0,006 mm):	4,44
Silt, medium (0,006 mm - 0,020 mm):	8,46
Silt, coarse (0,020 mm - 0,063 mm):	6,48
Sand, fine (0,063 mm - 0,200 mm):	73,92
Sand, medium (0,2 mm - 0,6 mm):	4,57
Sand, coarse (0,6 mm - 2 mm):	0,23
Gravel (> 2 mm):	0,05
Sum:	100,00

Moments Measures

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,20	2,34
16%	84%	0,16	2,67
25%	75%	0,14	2,86
40%	60%	0,12	3,09
50%	50%	0,11	3,20
75%	25%	0,08	3,68
84%	16%	0,02	5,42
90%	10%	0,01	6,65
95%	5%	0,00	7,77

Moments Statistics

Mean	3,76
Sorting	1,51
Skewness	0,65
Kurtosis	2,72
Uniformity Coefficient	11,76

The analysis is executed according to DS/EN 933-1 extended by sieves to the ½ phi scale and test portion mass 0,1 kg

Size Classes and Percentiles are found by linear interpolation

Formulas

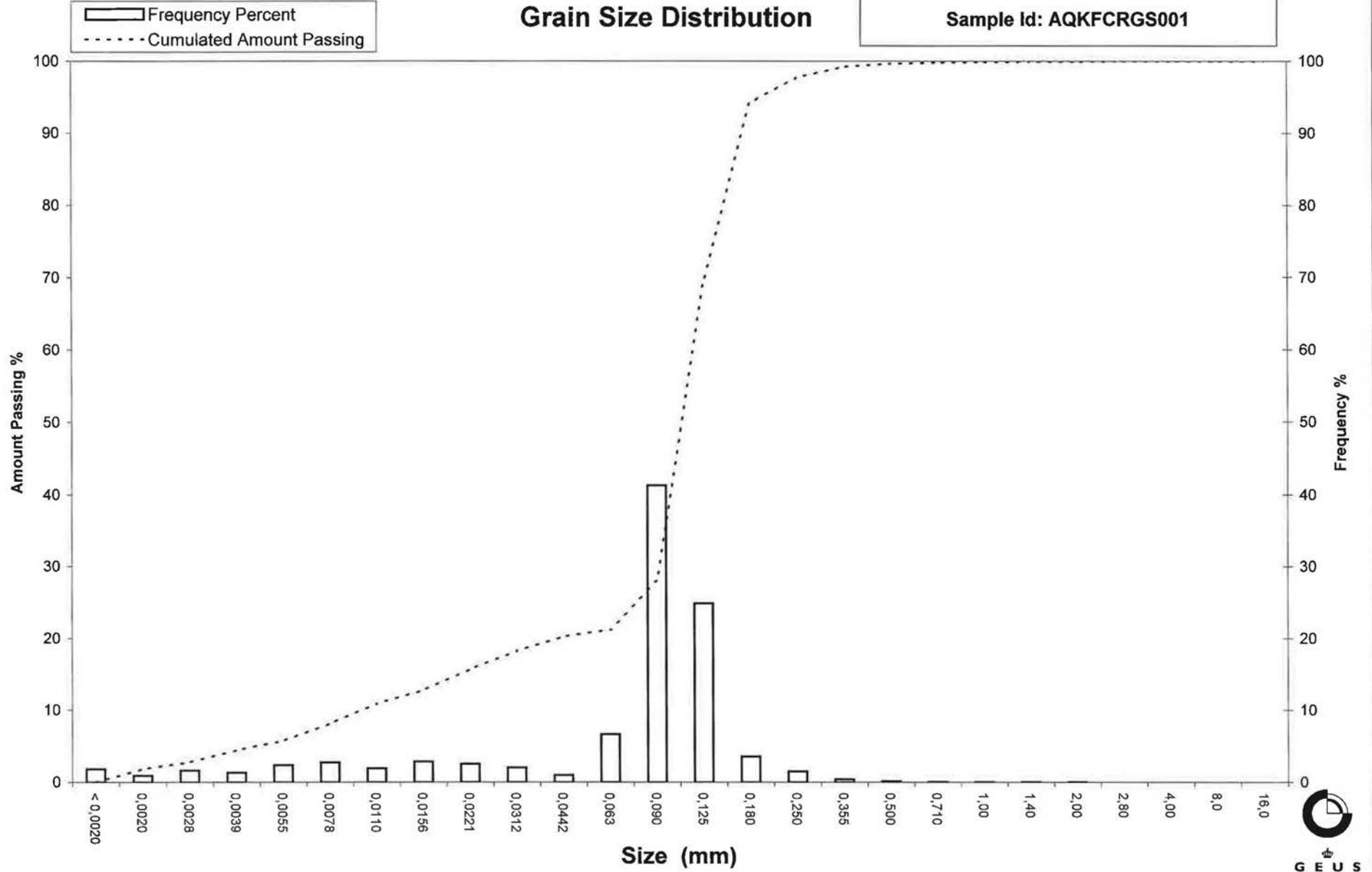
Mean $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$ (Folk and Ward 1957)
 Sorting $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$ (Folk and Ward 1957)
 Kurtosis $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$ (Folk and Ward 1957)
 Skewness $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$ (Folk and Ward 1957)
 Uniformity Coefficient $(d_{60\%} / d_{10\%})$ (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

Øster Voldgade 10 1350 København K
 Tel.: +45 38 14 20 00 Telefax: +45 38 14 20 50
 Email: GEUS@geus.dk
 www.geus.dk

Grain Size Distribution

Sample Id: AQKFCRGS001



Grain Size Distribution

Geotechnical

Sample Id: AQKFCRGS003
Lab. Id: CR3
Submitter: Energinet.dk
Subject: KRIGERS FLAK Cable Route Samples
Date: Nov/dec 2012
Executed: I. Nørgaard, A.Stoican
Remarks: For mat.< 2mm



Total Weight 103,81 g

Size Fractions

	Size	Size	Weight	Weight	Cumulated amount passing
	mm	Φ	g	%	%
Grain Size Distribution	16,00	-4,00	0,00	0,00	100,00
	8,00	-3,00	0,00	0,00	100,00
	4,00	-2,00	0,43	0,41	99,59
	2,80	-1,49	0,11	0,11	99,48
	2,00	-1,00	0,11	0,11	99,37
	1,40	-0,49	0,25	0,24	99,13
	1,00	0,00	0,82	0,79	98,34
	0,710	0,49	0,77	0,74	97,60
	0,500	1,00	0,84	0,81	96,79
	0,355	1,49	1,06	1,02	95,77
Mastersizer 3000	0,250	2,00	1,43	1,38	94,39
	0,180	2,47	1,82	1,75	92,64
	0,125	3,00	1,94	1,87	90,77
	0,090	3,47	2,26	2,18	88,59
	0,063	3,99	16,23	15,63	72,96
	0,0442	4,50	3,75	3,61	69,35
	0,0312	5,00	7,42	7,15	62,20
	0,0221	5,50	8,40	8,09	54,11
	0,0156	6,00	9,05	8,72	45,39
	0,0110	6,51	6,35	6,12	39,27
Clay	0,0078	7,00	9,54	9,19	30,08
	0,0055	7,51	8,74	8,42	21,66
	0,0039	8,00	5,01	4,83	16,83
	0,0028	8,48	6,29	6,06	10,77
	0,0020	8,97	3,62	3,49	7,28
	<0,0020	>8,97	7,56	7,28	0,00

Size Classes (DGF-Bulletin 1 1988)

	Weight %
Clay (< 0,002 mm):	7,28
Silt, fine (0,002 mm - 0,006 mm):	16,21
Silt, medium (0,006 mm - 0,020 mm):	27,80
Silt, coarse (0,020 mm - 0,063 mm):	21,67
Sand, fine (0,063 mm - 0,200 mm):	20,18
Sand, medium (0,2 mm - 0,6 mm):	4,04
Sand, coarse (0,6 mm - 2 mm):	2,20
Gravel (> 2 mm):	0,63
Sum:	100,00

Moments Measures

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,30	1,76
16%	84%	0,08	3,61
25%	75%	0,07	3,91
40%	60%	0,03	5,12
50%	50%	0,02	5,72
75%	25%	0,01	7,28
84%	16%	0,00	8,06
90%	10%	0,00	8,57
95%	5%	#####	-----

Moments Statistics

Mean	5,79
Sorting	-----
Skewness	-----
Kurtosis	-----
Uniformity Coefficient	10,95

The analysis is executed according to DS/EN 933-1 extended by sieves to the 1/2 phi scale and test portion mass 0,1 kg

Size Classes and Percentiles are found by linear interpolation

Formulas

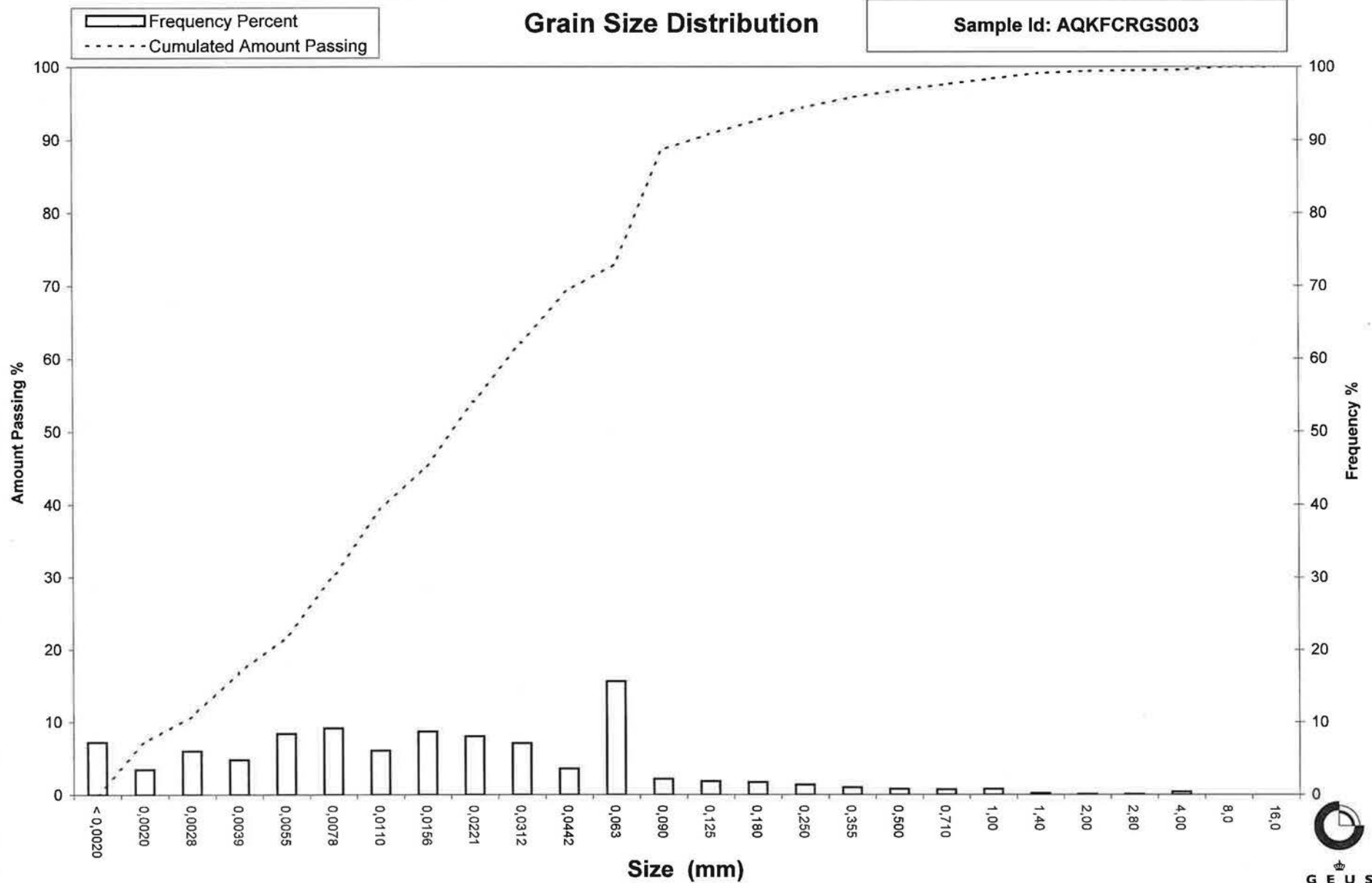
Mean $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$ (Folk and Ward 1957)
 Sorting $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$ (Folk and Ward 1957)
 Kurtosis $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$ (Folk and Ward 1957)
 Skewness $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$ (Folk and Ward 1957)
 Uniformity Coefficient $(d_{60\%} / d_{10\%})$ (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

Øster Voldgade 10 1350 København K
 Tel.: +45 38 14 20 00 Telefax: +45 38 14 20 50
 Email: GEUS@geus.dk
 www.geus.dk

Grain Size Distribution

Sample Id: AQKFCRGS003



Grain Size Distribution

Geotechnical

Sample Id: AQKFCRGS004
Lab. Id: CR4
Submitter: Energinet.dk
Subject: KRIGERS FLAK Cable Route Samples
Date: Nov/dec 2012
Executed: I. Nørgaard, A.Stoican
Remarks: For mat. < 2mm



GEUS

Total Weight 117,21 g

Size Fractions

Size	Size	Weight	Weight	Cumulated amount
mm	Φ	g	%	passing
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,00	0,00	100,00
2,80	-1,49	0,06	0,05	99,95
2,00	-1,00	0,00	0,00	99,95
1,40	-0,49	0,12	0,10	99,85
1,00	0,00	0,36	0,31	99,54
0,710	0,49	0,48	0,41	99,13
0,500	1,00	0,57	0,49	98,64
0,355	1,49	0,78	0,67	97,98
0,250	2,00	1,14	0,97	97,01
0,180	2,47	1,47	1,25	95,75
0,125	3,00	2,31	1,97	93,78
0,090	3,47	4,65	3,97	89,81
0,063	3,99	39,75	33,91	55,90
0,0442	4,50	3,78	3,23	52,67
0,0312	5,00	6,87	5,86	46,81
0,0221	5,50	8,54	7,29	39,52
0,0156	6,00	9,03	7,70	31,82
0,0110	6,51	5,78	4,93	26,89
0,0078	7,00	7,92	6,75	20,13
0,0055	7,51	6,84	5,83	14,30
0,0039	8,00	3,87	3,30	11,00
0,0028	8,48	4,85	4,14	6,86
0,0020	8,97	2,73	2,33	4,54
<0,0020	>8,97	5,32	4,54	0,00

Size Classes (DGF-Bulletin 1 1988)

	Weight %
Clay (< 0,002 mm):	4,54
Silt, fine (0,002 mm - 0,006 mm):	11,03
Silt, medium (0,006 mm - 0,020 mm):	21,46
Silt, coarse (0,020 mm - 0,063 mm):	18,87
Sand, fine (0,063 mm - 0,200 mm):	40,21
Sand, medium (0,2 mm - 0,6 mm):	2,77
Sand, coarse (0,6 mm - 2 mm):	1,07
Gravel (> 2 mm):	0,05
Sum:	100,00

Moments Measures

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,16	2,65
16%	84%	0,09	3,55
25%	75%	0,08	3,68
40%	60%	0,07	3,92
50%	50%	0,04	4,71
75%	25%	0,01	6,63
84%	16%	0,01	7,34
90%	10%	0,00	8,10
95%	5%	0,00	8,85

Moments Statistics

Mean	5,20
Sorting	1,89
Skewness	0,36
Kurtosis	0,86
Uniformity Coefficient	18,24

The analysis is executed according to DS/EN 933-1 extended by sieves to the ½ phi scale and test portion mass 0,1 kg

Size Classes and Percentiles are found by linear interpolation

Formulas

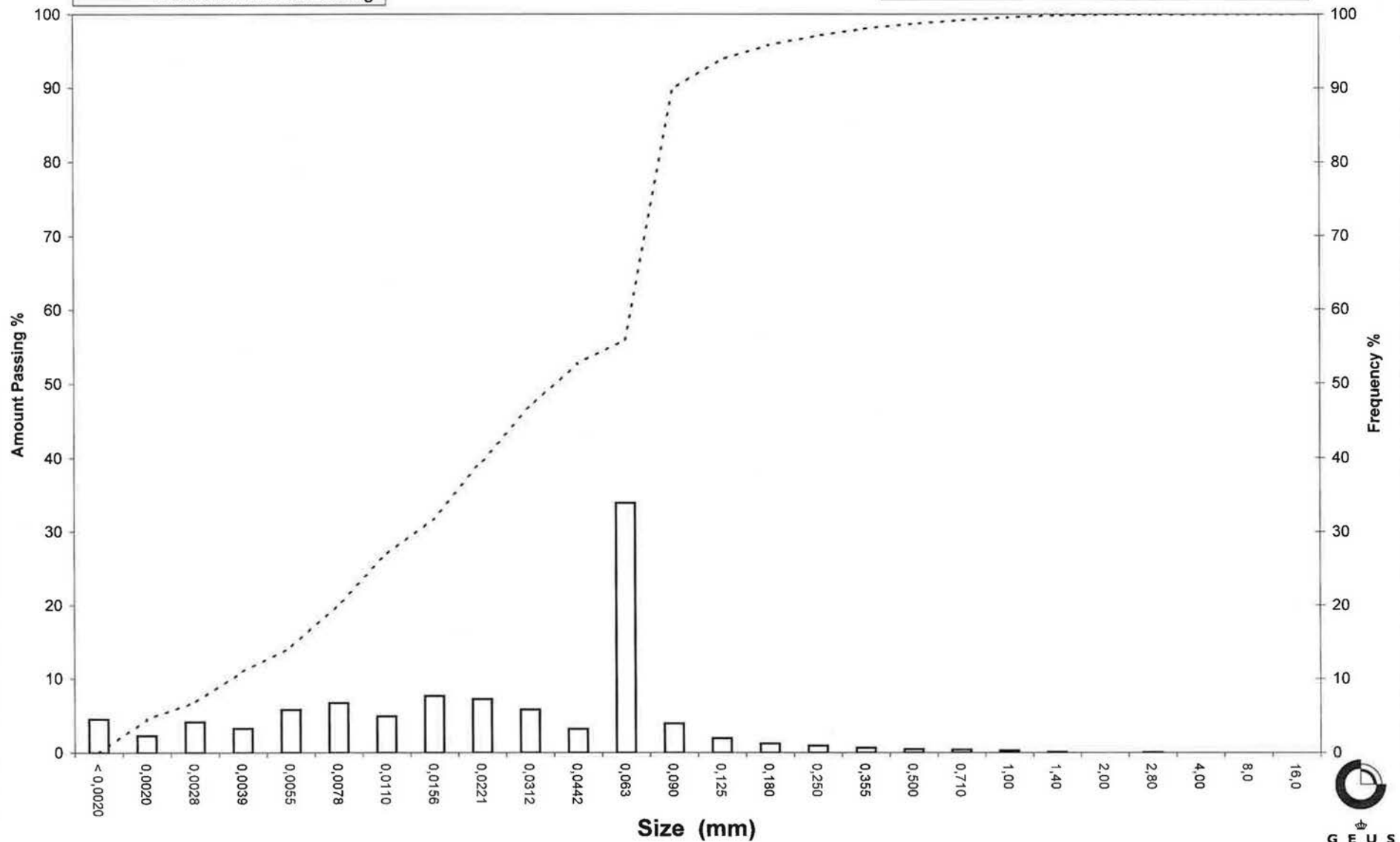
Mean $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$ (Folk and Ward 1957)
 Sorting $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$ (Folk and Ward 1957)
 Kurtosis $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$ (Folk and Ward 1957)
 Skewness $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$ (Folk and Ward 1957)
 Uniformity Coefficient $(d_{60\%} / d_{10\%})$ (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

Øster Voldgade 10 1350 København K
 Tel.: +45 38 14 20 00 Telefax: +45 38 14 20 50
 Email: GEUS@geus.dk
 www.geus.dk

Grain Size Distribution

Sample Id: AQKFCRGS004



Grain Size Distribution

Geotechnical

Sample Id: AQKFCRGS006
Lab. Id: CR6
Submitter: Energinet.dk
Subject: KRIGERS FLAK Cable Route Samples
Date: Nov/dec 2012
Executed: I. Nørgaard, A.Stoican
Remarks: For mat.< 2mm



GEUS

Total Weight 101,96 g

Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,21	0,21	99,79
2,80	-1,49	0,13	0,13	99,67
2,00	-1,00	0,10	0,10	99,57
1,40	-0,49	0,23	0,23	99,34
1,00	0,00	0,43	0,42	98,92
0,710	0,49	0,44	0,43	98,49
0,500	1,00	0,46	0,45	98,04
0,355	1,49	0,56	0,55	97,49
0,250	2,00	0,83	0,81	96,68
0,180	2,47	1,31	1,28	95,39
0,125	3,00	1,76	1,73	93,66
0,090	3,47	4,36	4,28	89,39
0,063	3,99	29,51	28,94	60,45
0,0442	4,50	2,45	2,40	58,05
0,0312	5,00	5,94	5,83	52,22
0,0221	5,50	8,11	7,95	44,27
0,0156	6,00	9,07	8,90	35,37
0,0110	6,51	5,88	5,77	29,60
0,0078	7,00	7,94	7,79	21,81
0,0055	7,51	6,61	6,48	15,33
0,0039	8,00	3,66	3,59	11,74
0,0028	8,48	4,53	4,44	7,30
0,0020	8,97	2,54	2,49	4,81
<0,0020	>8,97	4,90	4,81	0,00

Size Classes (DGF-Bulletin 1 1988)

	Weight %
Clay (< 0,002 mm):	4,81
Silt, fine (0,002 mm - 0,006 mm):	11,93
Silt, medium (0,006 mm - 0,020 mm):	24,65
Silt, coarse (0,020 mm - 0,063 mm):	19,05
Sand, fine (0,063 mm - 0,200 mm):	35,31
Sand, medium (0,2 mm - 0,6 mm):	2,50
Sand, coarse (0,6 mm - 2 mm):	1,32
Gravel (> 2 mm):	0,43
Sum:	100,00

Moments Measures

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,17	2,58
16%	84%	0,08	3,56
25%	75%	0,08	3,71
40%	60%	0,06	4,07
50%	50%	0,03	5,12
75%	25%	0,01	6,78
84%	16%	0,01	7,45
90%	10%	0,00	8,17
95%	5%	0,00	8,92

Moments Statistics

Mean	5,38
Sorting	1,93
Skewness	0,20
Kurtosis	0,85
Uniformity Coefficient	17,15

The analysis is executed according to DS/EN 933-1 extended by sieves to the ½ phi scale and test portion mass 0,1 kg

Size Classes and Percentiles are found by linear interpolation

Formulas

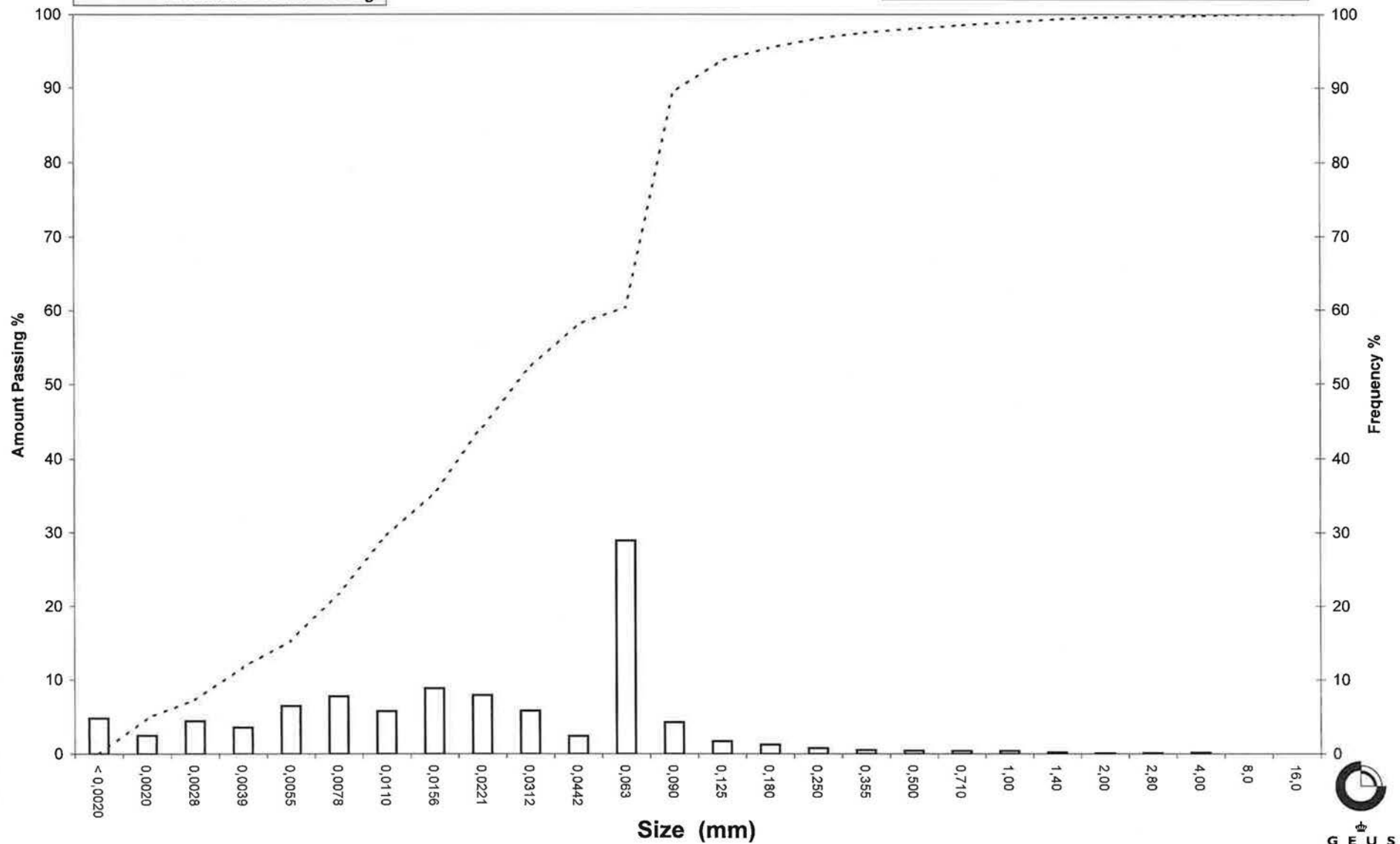
Mean $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$ (Folk and Ward 1957)
 Sorting $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$ (Folk and Ward 1957)
 Kurtosis $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$ (Folk and Ward 1957)
 Skewness $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$ (Folk and Ward 1957)
 Uniformity Coefficient $(d_{60\%} / d_{10\%})$ (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

Øster Voldgade 10 1350 København K
 Tel.: +45 38 14 20 00 Telefax: +45 38 14 20 50
 Email: GEUS@geus.dk
 www.geus.dk

Grain Size Distribution

Sample Id: AQKFCRGS006



Grain Size Distribution

Geotechnical

Sample Id: AQKFCRGS008
Lab. Id: CR8
Submitter: Energinet.dk
Subject: KRIGERS FLAK Cable Route Samples
Date: Nov/dec 2012
Executed: I. Nørgaard, A.Stoican
Remarks: For mat.< 2mm



Total Weight 127,02 g

Size Fractions

Size	Size	Weight	Weight	Cumulated amount
mm	Φ	g	%	passing
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,00	0,00	100,00
2,80	-1,49	0,15	0,12	99,88
2,00	-1,00	0,00	0,00	99,88
1,40	-0,49	0,00	0,00	99,88
1,00	0,00	0,12	0,09	99,79
0,710	0,49	0,18	0,14	99,65
0,500	1,00	0,24	0,19	99,46
0,355	1,49	0,42	0,33	99,13
0,250	2,00	0,60	0,47	98,65
0,180	2,47	0,72	0,57	98,09
0,125	3,00	1,56	1,23	96,86
0,090	3,47	8,34	6,57	90,29
0,063	3,99	44,94	35,38	54,91
0,0442	4,50	3,07	2,42	52,49
0,0312	5,00	5,94	4,68	47,81
0,0221	5,50	6,99	5,50	42,31
0,0156	6,00	7,95	6,26	36,05
0,0110	6,51	5,74	4,52	31,53
0,0078	7,00	8,84	6,96	24,57
0,0055	7,51	8,38	6,60	17,97
0,0039	8,00	4,95	3,90	14,07
0,0028	8,48	6,36	5,01	9,06
0,0020	8,97	3,70	2,91	6,15
<0,0020	>8,97	7,81	6,15	0,00

Size Classes (DGF-Bulletin 1 1988)

	Weight %
Clay (< 0,002 mm):	6,15
Silt, fine (0,002 mm - 0,006 mm):	13,26
Silt, medium (0,006 mm - 0,020 mm):	20,88
Silt, coarse (0,020 mm - 0,063 mm):	14,62
Sand, fine (0,063 mm - 0,200 mm):	43,34
Sand, medium (0,2 mm - 0,6 mm):	1,30
Sand, coarse (0,6 mm - 2 mm):	0,34
Gravel (> 2 mm):	0,12
Sum:	100,00

Moments Measures

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,12	3,12
16%	84%	0,09	3,55
25%	75%	0,08	3,67
40%	60%	0,07	3,90
50%	50%	0,04	4,75
75%	25%	0,01	6,97
84%	16%	0,00	7,74
90%	10%	0,00	8,38
95%	5%	#####	-----

Moments Statistics

Mean	5,34
Sorting	-----
Skewness	-----
Kurtosis	-----
Uniformity Coefficient	22,25

The analysis is executed according to DS/EN 933-1 extended by sieves to the ½ phi scale and test portion mass 0,1 kg

Size Classes and Percentiles are found by linear interpolation

Formulas

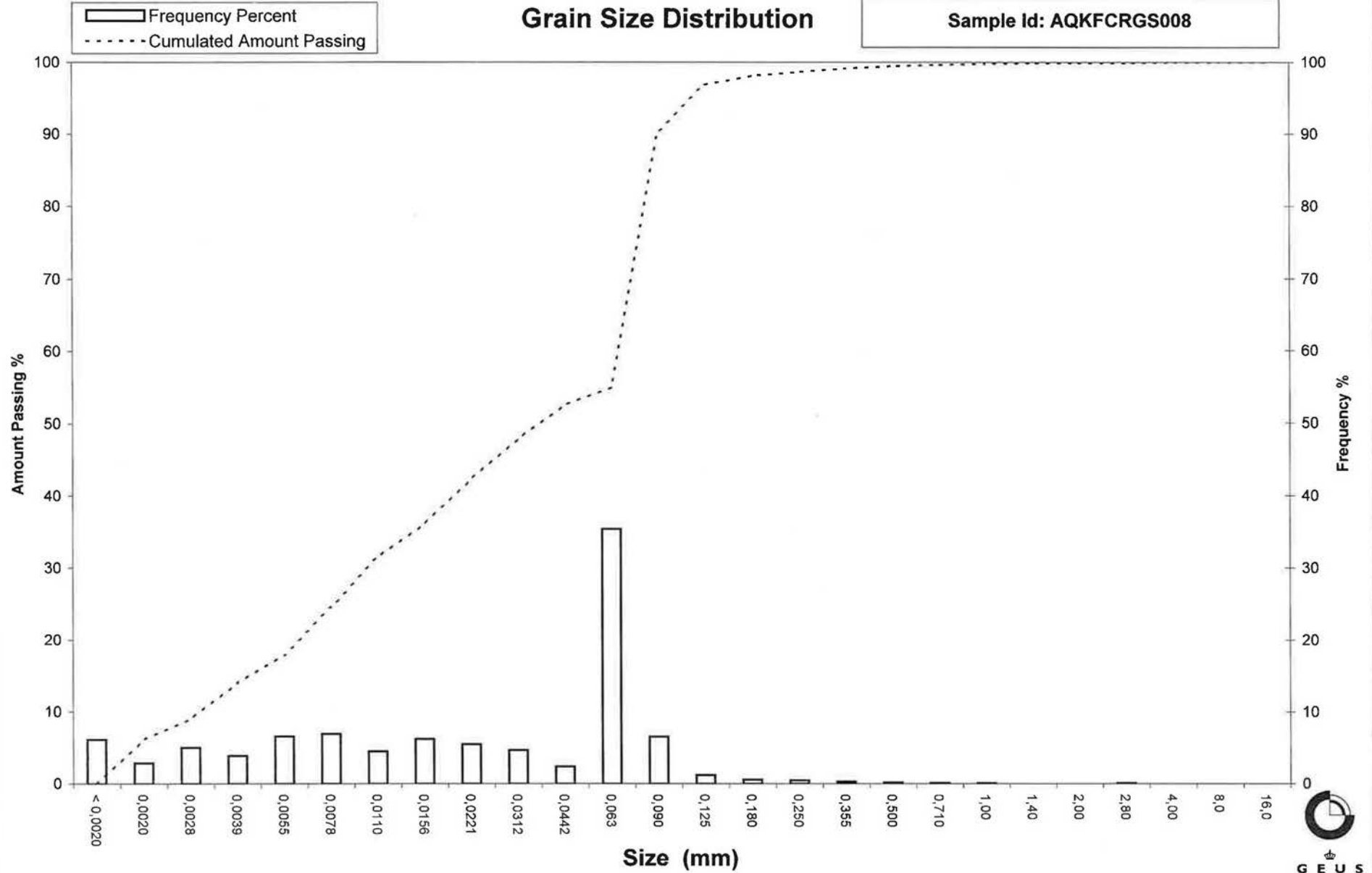
Mean $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$ (Folk and Ward 1957)
 Sorting $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,8$ (Folk and Ward 1957)
 Kurtosis $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$ (Folk and Ward 1957)
 Skewness $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$ (Folk and Ward 1957)
 Uniformity Coefficient $(d_{60\%} / d_{10\%})$ (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

Øster Voldgade 10 1350 København K
 Tel.: +45 38 14 20 00 Telefax: +45 38 14 20 50
 Email: GEUS@geus.dk
 www.geus.dk

Grain Size Distribution

Sample Id: AQKFCRGS008



Grain Size Distribution

Geotechnical

Sample Id: AQKFCRGS009
Lab. Id: CR9
Submitter: Energinet.dk
Subject: KRIGERS FLAK Cable Route Samples
Date: Nov/dec 2012
Executed: I. Nørgaard, A. Stoican
Remarks: For mat.< 2mm



GEUS

Total Weight 109,19 g

Size Fractions

	Size	Size	Weight	Weight	Cumulated amount passing
	mm	Φ	g	%	%
Grain Size Distribution	16,00	-4,00	0,00	0,00	100,00
	8,00	-3,00	0,56	0,51	99,49
	4,00	-2,00	0,06	0,05	99,43
	2,80	-1,49	0,01	0,01	99,42
	2,00	-1,00	0,03	0,03	99,40
	1,40	-0,49	0,06	0,05	99,34
	1,00	0,00	0,33	0,30	99,04
	0,710	0,49	0,50	0,46	98,58
	0,500	1,00	0,60	0,55	98,03
	0,355	1,49	0,65	0,60	97,44
Mastersizer 3000	0,250	2,00	0,86	0,79	96,65
	0,180	2,47	1,23	1,13	95,52
	0,125	3,00	2,47	2,26	93,26
	0,090	3,47	12,24	11,21	82,05
	0,063	3,99	38,77	35,51	46,54
	0,0442	4,50	0,28	0,26	46,28
	0,0312	5,00	2,45	2,24	44,04
	0,0221	5,50	5,31	4,86	39,18
	0,0156	6,00	7,22	6,61	32,57
	0,0110	6,51	5,11	4,68	27,89
Clay	0,0078	7,00	7,28	6,67	21,22
	0,0055	7,51	6,38	5,84	15,38
	0,0039	8,00	3,63	3,32	12,06
	0,0028	8,48	4,64	4,25	7,81
	0,0020	8,97	2,72	2,49	5,32
	<0,0020	>8,97	5,81	5,32	0,00

Size Classes (DGF-Bulletin 1 1988)

	Weight %
Clay (< 0,002 mm):	5,32
Silt, fine (0,002 mm - 0,006 mm):	11,33
Silt, medium (0,006 mm - 0,020 mm):	20,40
Silt, coarse (0,020 mm - 0,063 mm):	9,50
Sand, fine (0,063 mm - 0,200 mm):	49,30
Sand, medium (0,2 mm - 0,6 mm):	2,45
Sand, coarse (0,6 mm - 2 mm):	1,10
Gravel (> 2 mm):	0,60
Sum:	100,00

Moments Measures

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,17	2,58
16%	84%	0,10	3,38
25%	75%	0,08	3,56
40%	60%	0,07	3,77
50%	50%	0,07	3,93
75%	25%	0,01	6,70
84%	16%	0,01	7,44
90%	10%	0,00	8,21
95%	5%	#####	-----

Moments Statistics

Mean	4,92
Sorting	-----
Skewness	-----
Kurtosis	-----
Uniformity Coefficient	21,75

The analysis is executed according to DS/EN 933-1 extended by sieves to the 1/2 phi scale and test portion mass 0,1 kg

Size Classes and Percentiles are found by linear interpolation

Formulas

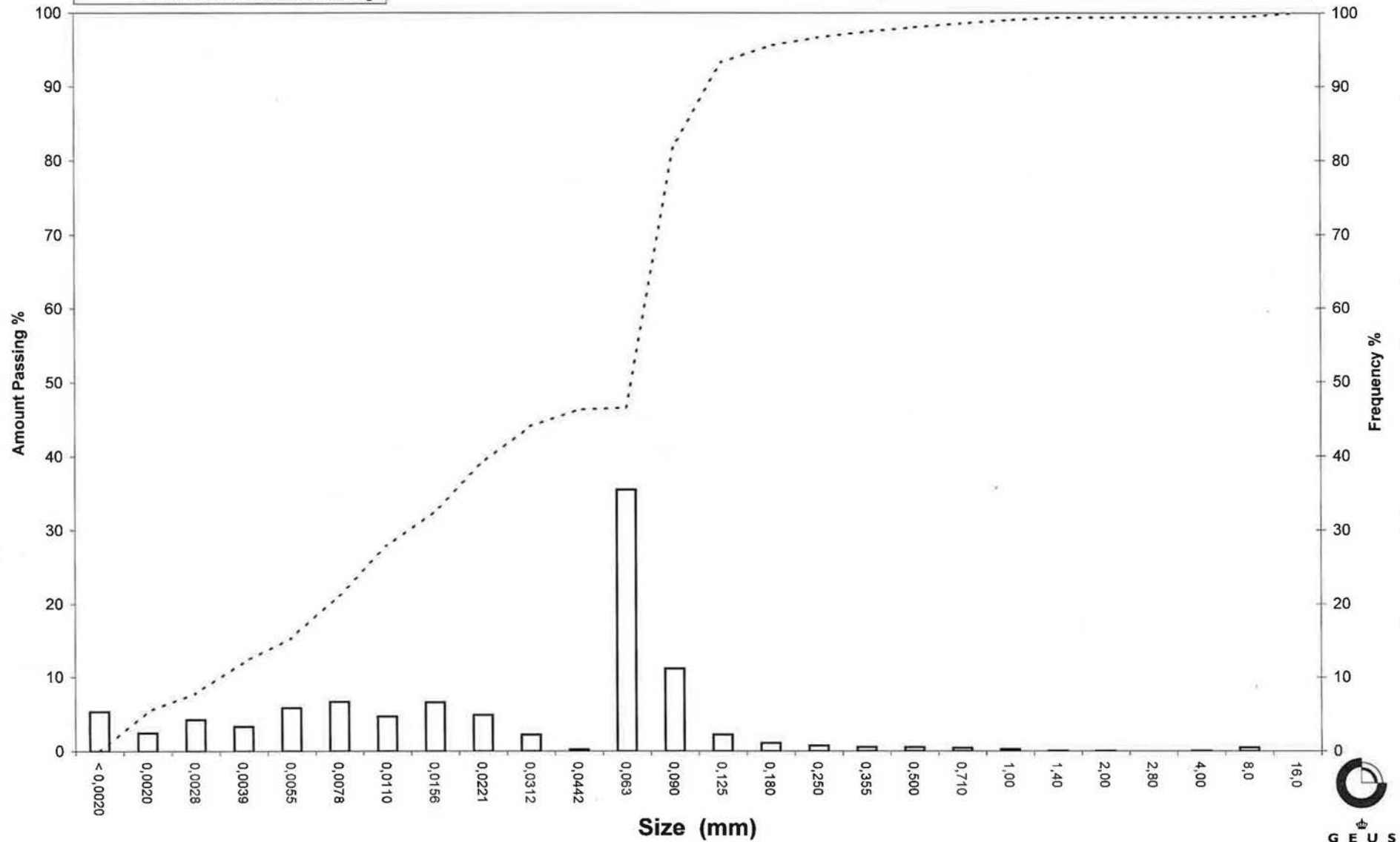
Mean $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$ (Folk and Ward 1957)
 Sorting $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$ (Folk and Ward 1957)
 Kurtosis $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$ (Folk and Ward 1957)
 Skewness $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$ (Folk and Ward 1957)
 Uniformity Coefficient $(d_{60\%} / d_{10\%})$ (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

Øster Voldgade 10 1350 København K
 Tel.: +45 38 14 20 00 Telefax: +45 38 14 20 50
 Email: GEUS@geus.dk
 www.geus.dk

Grain Size Distribution

Sample Id: AQKFCRGS009



Grain Size Distribution

Geotechnical

Sample Id: AQKFCRGS010
Lab. Id: CR10
Submitter: Energinet.dk
Subject: KRIGERS FLAK Cable Route Samples
Date: Nov/dec 2012
Executed: I. Nørgaard, A.Stoican
Remarks: For mat.< 2mm



GEUS

Total Weight 123,87 g

Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,00	0,00	100,00
2,80	-1,49	0,00	0,00	100,00
2,00	-1,00	0,00	0,00	100,00
1,40	-0,49	0,06	0,05	99,95
1,00	0,00	0,21	0,17	99,78
0,710	0,49	0,30	0,24	99,54
0,500	1,00	0,48	0,39	99,15
0,355	1,49	0,84	0,68	98,47
0,250	2,00	1,44	1,16	97,31
0,180	2,47	1,83	1,48	95,83
0,125	3,00	3,60	2,91	92,93
0,090	3,47	14,10	11,38	81,55
0,063	3,99	47,52	38,36	43,18
0,0442	4,50	1,94	1,57	41,61
0,0312	5,00	5,41	4,37	37,25
0,0221	5,50	6,63	5,35	31,90
0,0156	6,00	7,25	5,85	26,04
0,0110	6,51	4,79	3,87	22,17
0,0078	7,00	6,74	5,44	16,73
0,0055	7,51	5,88	4,75	11,98
0,0039	8,00	3,35	2,70	9,28
0,0028	8,48	4,23	3,41	5,87
0,0020	8,97	2,41	1,94	3,92
<0,0020	>8,97	4,86	3,92	0,00

Size Classes (DGF-Bulletin 1 1988)

	Weight %
Clay (< 0,002 mm):	3,92
Silt, fine (0,002 mm - 0,006 mm):	9,10
Silt, medium (0,006 mm - 0,020 mm):	16,99
Silt, coarse (0,020 mm - 0,063 mm):	13,18
Sand, fine (0,063 mm - 0,200 mm):	53,07
Sand, medium (0,2 mm - 0,6 mm):	3,08
Sand, coarse (0,6 mm - 2 mm):	0,66
Gravel (> 2 mm):	0,00
Sum:	100,00

Moments Measures

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,16	2,61
16%	84%	0,10	3,36
25%	75%	0,09	3,55
40%	60%	0,07	3,74
50%	50%	0,07	3,88
75%	25%	0,01	6,12
84%	16%	0,01	7,07
90%	10%	0,00	7,85
95%	5%	0,00	8,68

Moments Statistics

Mean	4,77
Sorting	1,85
Skewness	0,65
Kurtosis	0,97
Uniformity Coefficient	17,30

The analysis is executed according to DS/EN 933-1 extended by sieves to the ½ phi scale and test portion mass 0,1 kg

Size Classes and Percentiles are found by linear interpolation

Formulas

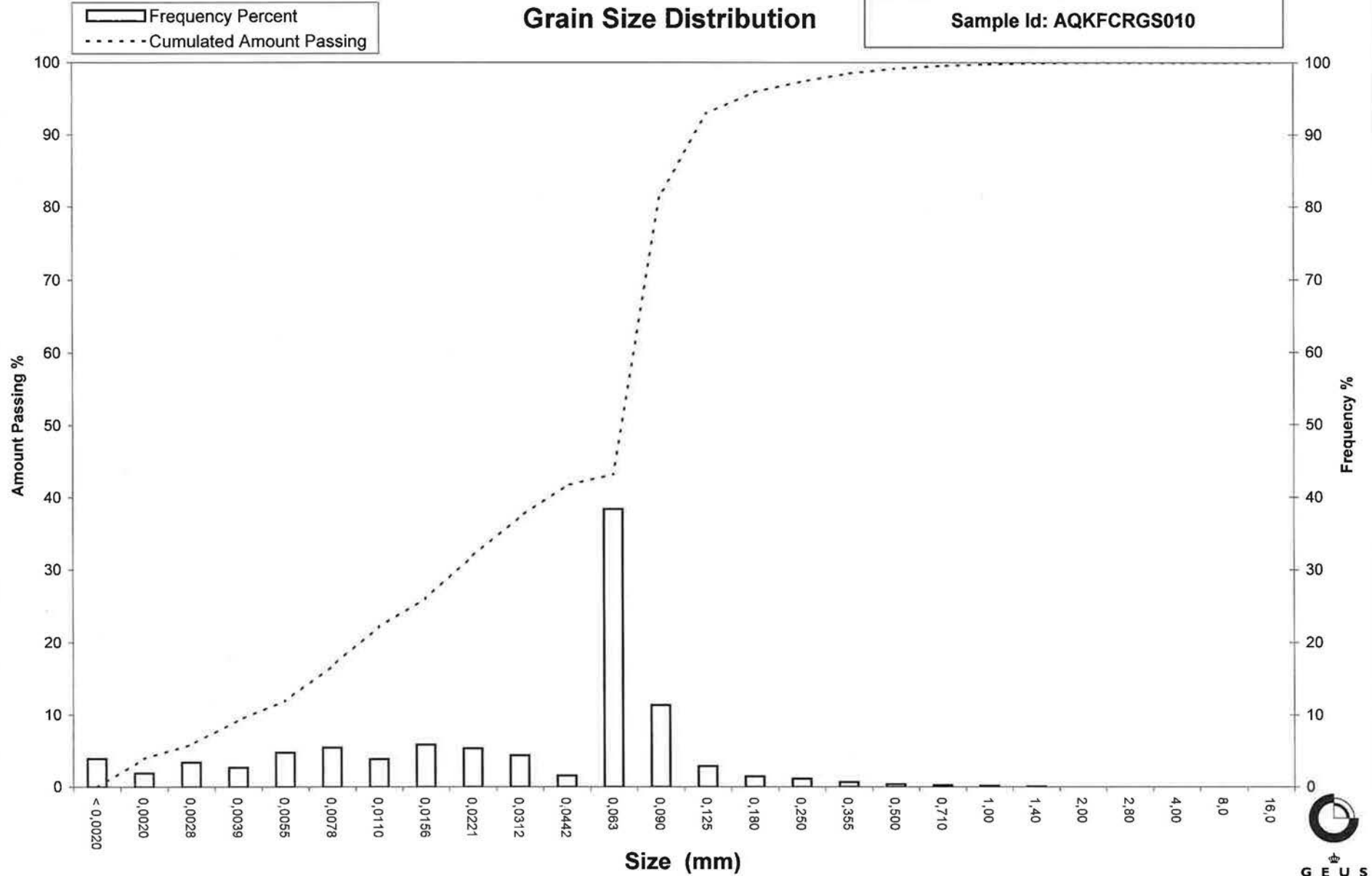
Mean $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$ (Folk and Ward 1957)
 Sorting $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$ (Folk and Ward 1957)
 Kurtosis $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$ (Folk and Ward 1957)
 Skewness $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$ (Folk and Ward 1957)
 Uniformity Coefficient $(d_{60\%} / d_{10\%})$ (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

Øster Voldgade 10 1350 København K
 Tel.: +45 38 14 20 00 Telefax: +45 38 14 20 50
 Email: GEUS@geus.dk
 www.geus.dk

Grain Size Distribution

Sample Id: AQKFCRGS010



Grain Size Distribution

Geotechnical

Sample Id: AQKFCRGS011
Lab. Id: CR11
Submitter: Energinet.dk
Subject: KRIGERS FLAK Cable Route Samples
Date: Nov/dec 2012
Executed: I. Nørgaard, A.Stoican
Remarks: For mat.< 2mm



Total Weight 103,02 g

Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,00	0,00	100,00
2,80	-1,49	0,00	0,00	100,00
2,00	-1,00	0,00	0,00	100,00
1,40	-0,49	0,06	0,06	99,94
1,00	0,00	0,36	0,35	99,59
0,710	0,49	0,37	0,36	99,23
0,500	1,00	0,29	0,28	98,95
0,355	1,49	0,38	0,37	98,58
0,250	2,00	0,51	0,50	98,09
0,180	2,47	0,86	0,83	97,25
0,125	3,00	2,74	2,66	94,59
0,090	3,47	13,15	12,76	81,83
0,063	3,99	38,19	37,07	44,76
0,0442	4,50	1,04	1,01	43,75
0,0312	5,00	2,71	2,63	41,12
0,0221	5,50	4,41	4,28	36,84
0,0156	6,00	5,80	5,63	31,21
0,0110	6,51	4,22	4,10	27,11
0,0078	7,00	6,38	6,19	20,92
0,0055	7,51	5,95	5,78	15,14
0,0039	8,00	3,52	3,42	11,72
0,0028	8,48	4,50	4,37	7,35
0,0020	8,97	2,54	2,47	4,88
<0,0020	>8,97	5,03	4,88	0,00

Size Classes (DGF-Bulletin 1 1988)

	Weight %
Clay (< 0,002 mm):	4,88
Silt, fine (0,002 mm - 0,006 mm):	11,52
Silt, medium (0,006 mm - 0,020 mm):	18,62
Silt, coarse (0,020 mm - 0,063 mm):	9,74
Sand, fine (0,063 mm - 0,200 mm):	52,73
Sand, medium (0,2 mm - 0,6 mm):	1,59
Sand, coarse (0,6 mm - 2 mm):	0,91
Gravel (> 2 mm):	0,00
Sum:	100,00

Moments Measures

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,13	2,91
16%	84%	0,10	3,38
25%	75%	0,09	3,56
40%	60%	0,07	3,75
50%	50%	0,07	3,90
75%	25%	0,01	6,66
84%	16%	0,01	7,42
90%	10%	0,00	8,17
95%	5%	0,00	8,94

Moments Statistics

Mean	4,90
Sorting	1,92
Skewness	0,71
Kurtosis	0,80
Uniformity Coefficient	21,37

The analysis is executed according to DS/EN 933-1 extended by sieves to the 1/2 phi scale and test portion mass 0,1 kg

Size Classes and Percentiles are found by linear interpolation

Formulas

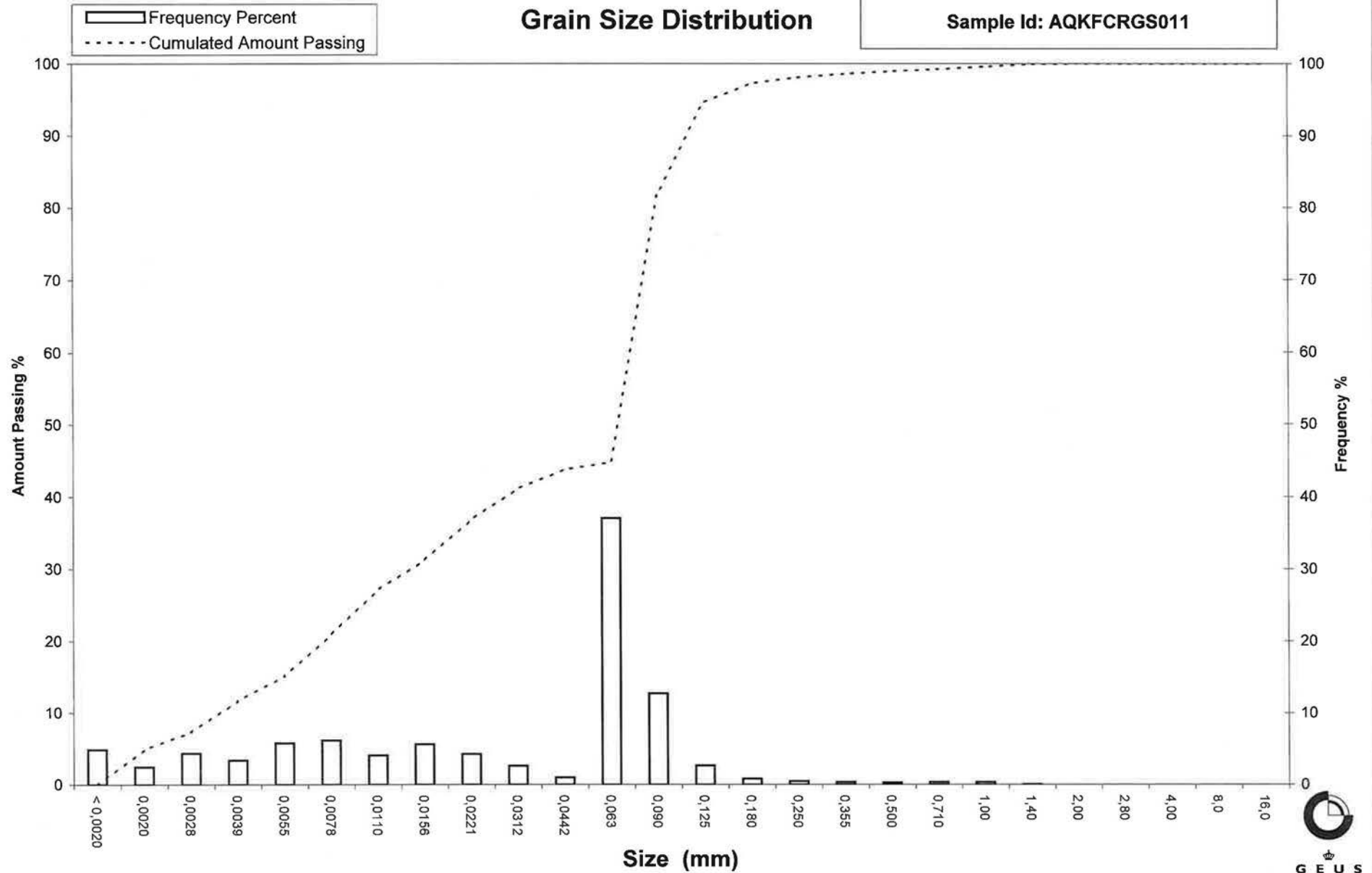
Mean $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$ (Folk and Ward 1957)
 Sorting $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$ (Folk and Ward 1957)
 Kurtosis $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$ (Folk and Ward 1957)
 Skewness $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$ (Folk and Ward 1957)
 Uniformity Coefficient $(d_{60\%} / d_{10\%})$ (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

Øster Voldgade 10 1350 København K
 Tel.: +45 38 14 20 00 Telefax: +45 38 14 20 50
 Email: GEUS@geus.dk
 www.geus.dk

Grain Size Distribution

Sample Id: AQKFCRGS011



Grain Size Distribution

Geotechnical

Sample Id: AQKFCRGS012
Lab. Id: CR12
Submitter: Energinet.dk
Subject: KRIGERS FLAK Cable Route Samples
Date: November 2012
Executed: I. Nørgaard, A.Stoican
Remarks: For mat.< 2mm



Total Weight 106,59 g

Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,00	0,00	100,00
2,80	-1,49	0,27	0,25	99,75
2,00	-1,00	0,12	0,11	99,63
1,40	-0,49	0,79	0,74	98,89
1,00	0,00	4,28	4,02	94,88
0,710	0,49	8,73	8,19	86,69
0,500	1,00	18,01	16,90	69,79
0,355	1,49	22,93	21,51	48,28
0,250	2,00	12,82	12,03	36,25
0,180	2,47	7,26	6,81	29,44
0,125	3,00	11,05	10,37	19,07
0,090	3,47	5,31	4,98	14,09
0,075	3,74	1,12	1,05	13,04
0,063	3,99	1,16	1,09	11,95
< 0,063	> 3,99	12,74	11,95	0,00

Size Classes (DGF-Bulletin 1 1988)

	Weight %
Silt and clay (< 0,063 mm):	11,95
Sand, fine (0,063 mm - 0,200 mm):	19,43
Sand, medium (0,2 mm - 0,6 mm):	46,45
Sand, coarse (0,6 mm - 2 mm):	21,80
Gravel (> 2 mm):	0,37
Sum:	100,00

Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	1,01	-0,02
16%	84%	0,68	0,56
25%	75%	0,56	0,82
40%	60%	0,43	1,20
Median 50%	50%	0,37	1,45
75%	25%	0,16	2,68
84%	16%	0,10	3,27
90%	10%	-----	-----
95%	5%	-----	-----

Moments Statistics

Mean	1,76
Sorting	-----
Skewness	-----
Kurtosis	-----
Uniformity Coefficient	-----

The analysis is executed according to DS405.9
 DS/EN933-1 extended by sieves to the 1/2 phi scale.

Size Classes and Percentiles
 are found by linear interpolation

Formulas

Mean ($\phi_{16\%} + \phi_{84\%} + \phi_{50\%}$) / 3 (Folk and Ward 1957)

Sorting ($\phi_{84\%} - \phi_{16\%}$) / 4 + ($\phi_{95\%} - \phi_{5\%}$) / 6,6 (Folk and Ward 1957)

Kurtosis ($\phi_{95\%} - \phi_{5\%}$) / (2,44 * ($\phi_{75\%} - \phi_{25\%}$)) (Folk and Ward 1957)

Skewness ($\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}$) / (2 * ($\phi_{84\%} - \phi_{16\%}$)) + ($\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}$) / (2 * ($\phi_{95\%} - \phi_{5\%}$)) (Folk and Ward 1957)

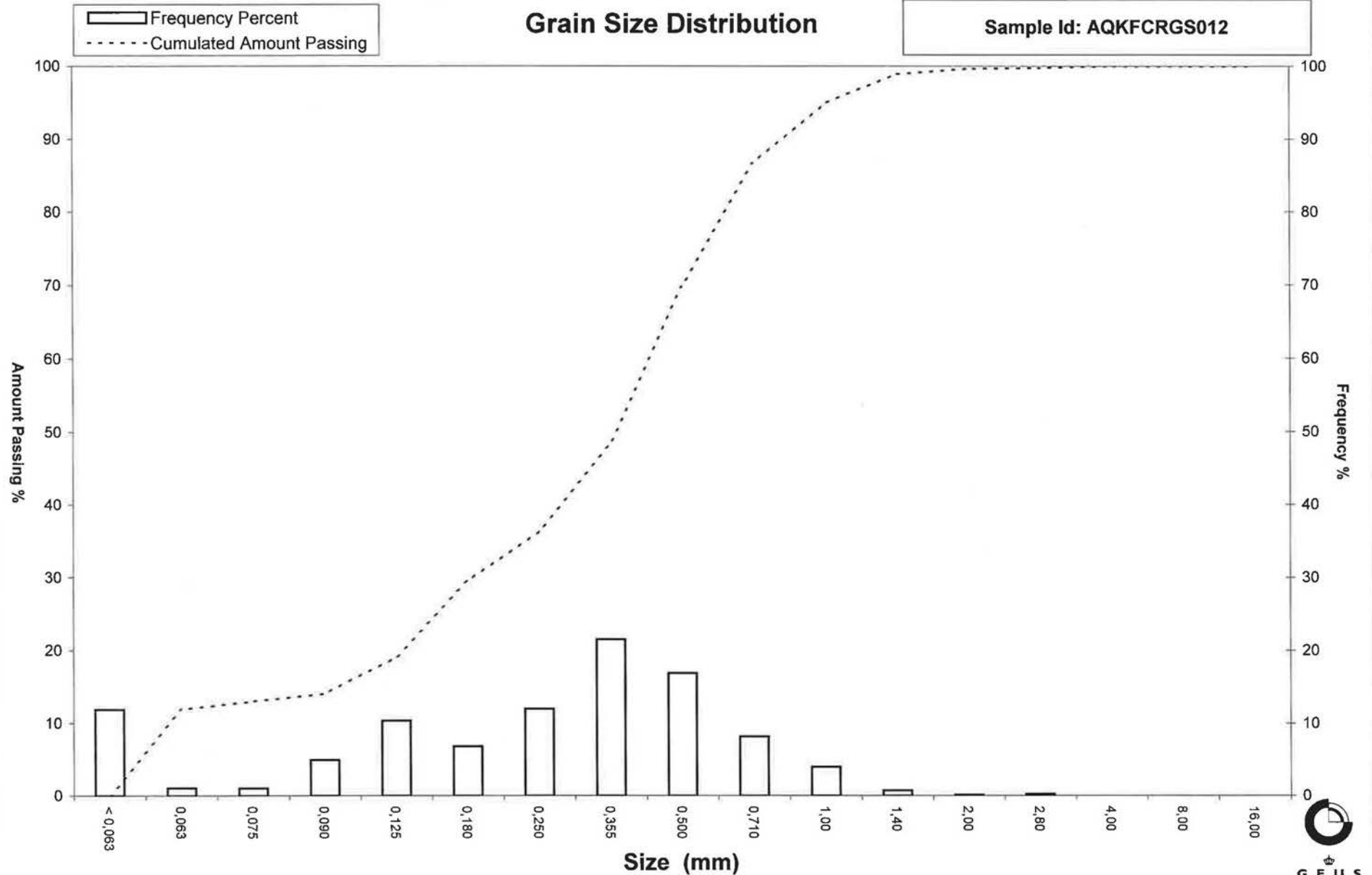
Uniformity Coefficient ($d_{60\%} / d_{10\%}$) (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on
 "Amount in sieve". Uniformity coefficient is based on

Øster Voldgade 10 1350 København K
 Tel.: +45 38 14 20 00 Telefax: +45 38 14 20 50
 Email: GEUS@geus.dk

Grain Size Distribution

Sample Id: AQKFCRGS012



Grain Size Distribution

Geotechnical

Sample Id: AQKFCRGS013
Lab. Id: CR13
Submitter: Energinet.dk
Subject: KRIGERS FLAK Cable Route Samples
Date: November 2012
Executed: I. Nørgaard, A. Stoican
Remarks: For mat. < 2mm



Total Weight 107,01 g

Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,18	0,17	99,83
4,00	-2,00	0,00	0,00	99,83
2,80	-1,49	0,00	0,00	99,83
2,00	-1,00	0,10	0,09	99,74
1,40	-0,49	0,25	0,23	99,50
1,00	0,00	1,78	1,66	97,84
0,710	0,49	4,73	4,42	93,42
0,500	1,00	10,74	10,04	83,38
0,355	1,49	17,57	16,42	66,97
0,250	2,00	20,24	18,91	48,05
0,180	2,47	20,32	18,99	29,06
0,125	3,00	14,55	13,60	15,47
0,090	3,47	3,20	2,99	12,48
0,075	3,74	0,93	0,87	11,61
0,063	3,99	0,29	0,27	11,34
< 0,063	> 3,99	12,13	11,34	0,00

Size Classes (DGF-Bulletin 1 1988)

	Weight %
Silt and clay (< 0,063 mm):	11,34
Sand, fine (0,063 mm - 0,200 mm):	23,15
Sand, medium (0,2 mm - 0,6 mm):	53,68
Sand, coarse (0,6 mm - 2 mm):	11,57
Gravel (> 2 mm):	0,26
Sum:	100,00

Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,81	0,30
16%	84%	0,51	0,96
25%	75%	0,43	1,23
40%	60%	0,32	1,66
Median 50%	50%	0,26	1,94
75%	25%	0,16	2,61
84%	16%	0,13	2,98
90%	10%	-----	-----
95%	5%	-----	-----

Moments Statistics

Mean	1,96
Sorting	-----
Skewness	-----
Kurtosis	-----
Uniformity Coefficient	-----

The analysis is executed according to DS405.9
 DS/EN933-1 extended by sieves to the ½ phi scale.

Size Classes and Percentiles
 are found by linear interpolation

Formulas

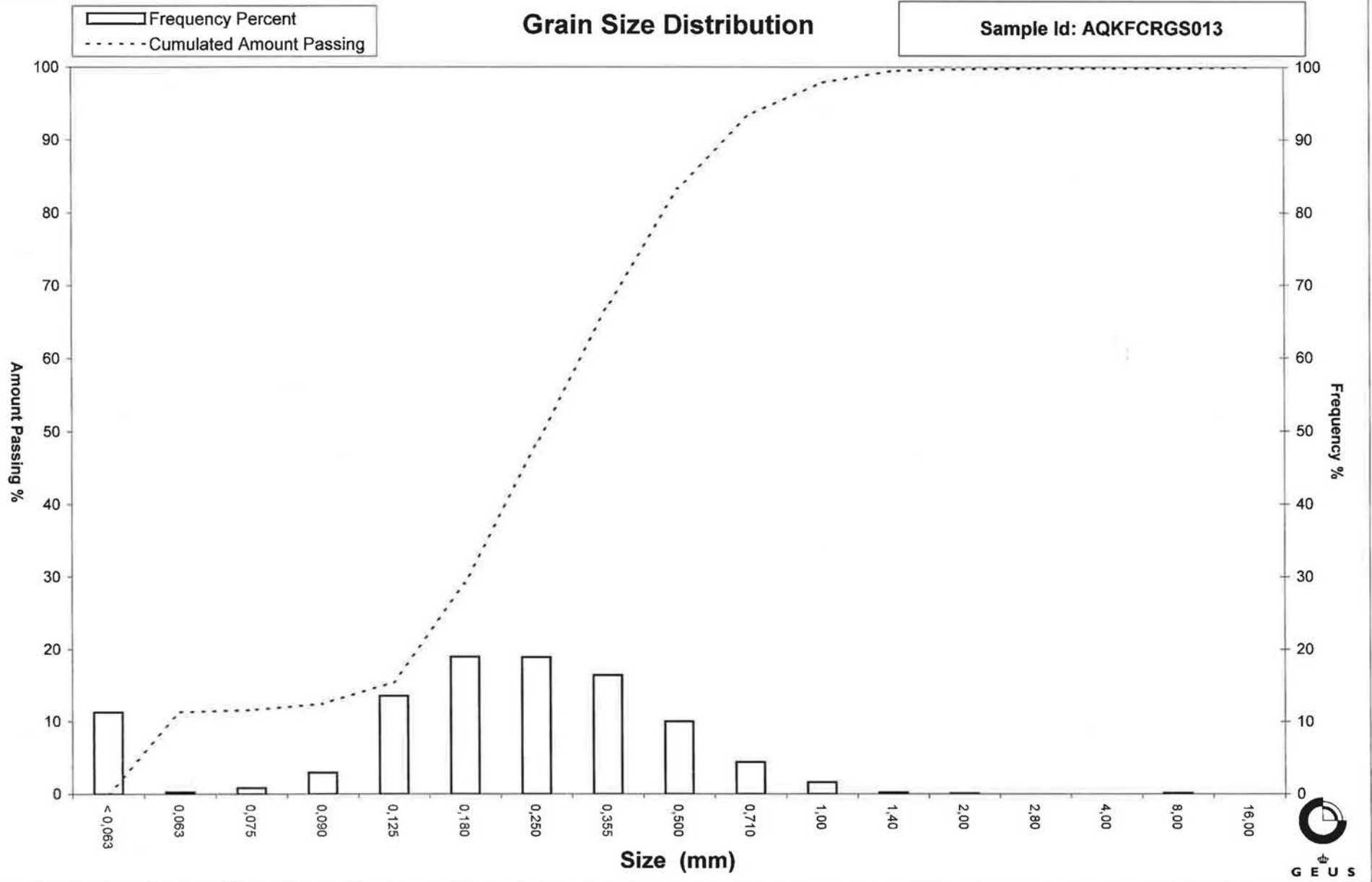
Mean $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$ (Folk and Ward 1957)
 Sorting $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$ (Folk and Ward 1957)
 Kurtosis $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$ (Folk and Ward 1957)
 Skewness $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$ (Folk and Ward 1957)
 Uniformity Coefficient $(d_{60\%} / d_{10\%})$ (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on
 "Amount in sieve". Uniformity coefficient is based on

Øster Voldgade 10 1350 København K
 Tel.: +45 38 14 20 00 Telefax: +45 38 14 20 50
 Email: GEUS@geus.dk

Grain Size Distribution

Sample Id: AQKFCRGS013



Grain Size Distribution

Geotechnical

Sample Id: AQKFCRGS014
Lab. Id: CR14
Submitter: Energinet.dk
Subject: KRIGERS FLAK Cable Route Samples
Date: November 2012
Executed: I. Nørgaard, A.Stoican
Remarks: For mat. < 2mm



Total Weight 107,71 g

Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	8,58	7,97	92,03
4,00	-2,00	0,74	0,69	91,35
2,80	-1,49	0,00	0,00	91,35
2,00	-1,00	0,44	0,41	90,94
1,40	-0,49	0,65	0,60	90,34
1,00	0,00	1,27	1,18	89,16
0,710	0,49	2,39	2,22	86,94
0,500	1,00	3,87	3,59	83,34
0,355	1,49	1,38	1,28	82,06
0,250	2,00	6,35	5,90	76,17
0,180	2,47	16,27	15,11	61,06
0,125	3,00	33,13	30,76	30,30
0,090	3,47	9,74	9,04	21,26
0,075	3,74	2,01	1,87	19,39
0,063	3,99	3,02	2,80	16,59
< 0,063	> 3,99	17,87	16,59	0,00

Size Classes (DGF-Bulletin 1 1988)

	Weight %
Silt and clay (< 0,063 mm):	16,59
Sand, fine (0,063 mm - 0,200 mm):	48,79
Sand, medium (0,2 mm - 0,6 mm):	19,68
Sand, coarse (0,6 mm - 2 mm):	5,88
Gravel (> 2 mm):	9,06
Sum:	100,00

Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	10,98	-3,46
16%	84%	0,54	0,89
25%	75%	0,24	2,03
40%	60%	0,18	2,49
Median 50%	50%	0,16	2,64
75%	25%	0,10	3,26
84%	16%	-----	-----
90%	10%	-----	-----
95%	5%	-----	-----

Moments Statistics

Mean	1,77
Sorting	-----
Skewness	-----
Kurtosis	-----
Uniformity Coefficient	-----

The analysis is executed according to DS405.9
DS/EN933-1 extended by sieves to the ½ phi scale.

Size Classes and Percentiles
are found by linear interpolation

Formulas

Mean $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$ (Folk and Ward 1957)

Sorting $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$ (Folk and Ward 1957)

Kurtosis $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$ (Folk and Ward 1957)

Skewness $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$ (Folk and Ward 1957)

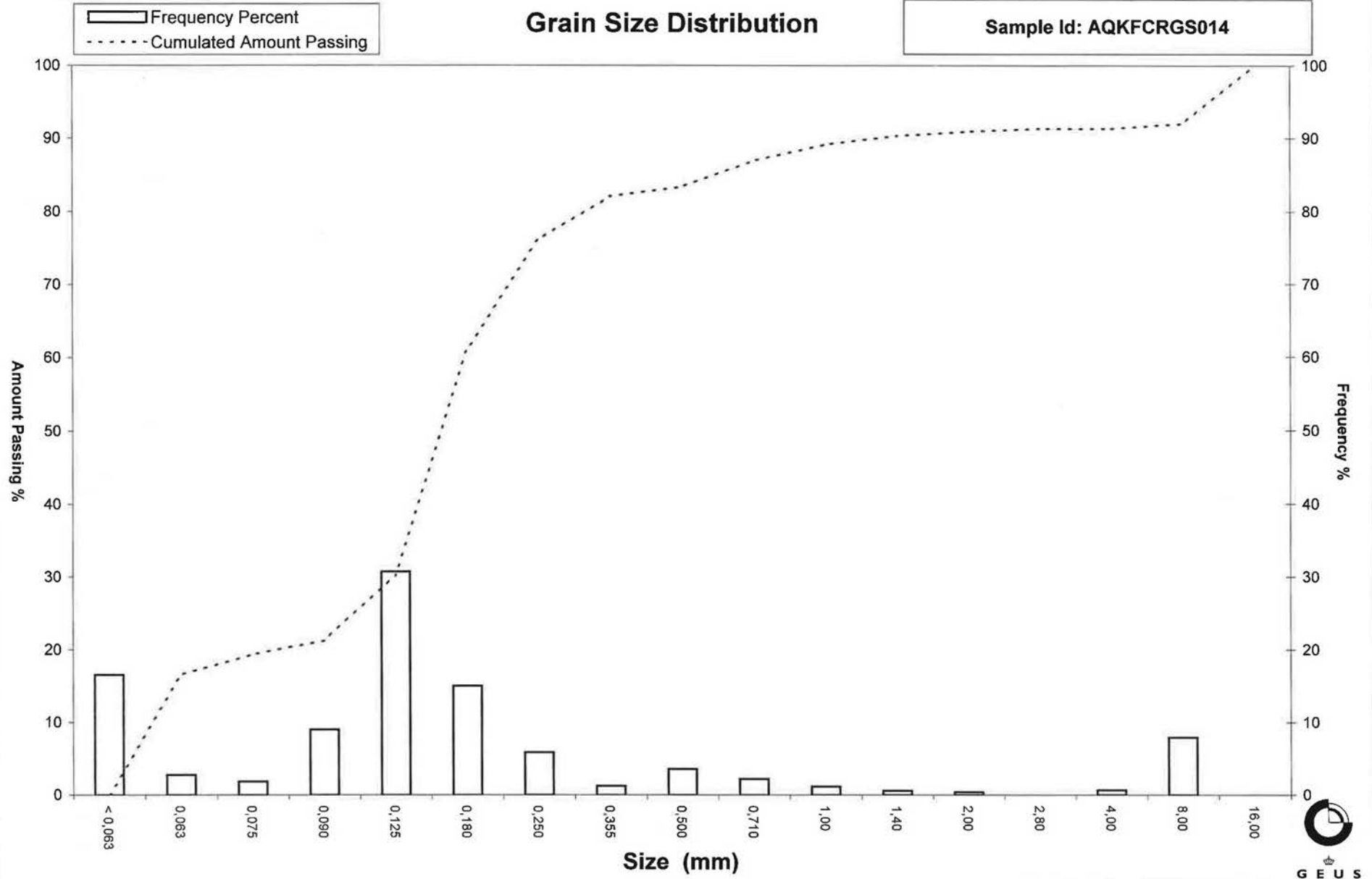
Uniformity Coefficient $(d_{60\%} / d_{10\%})$ (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on
"Amount in sieve". Uniformity coefficient is based on

Øster Voldgade 10 1350 København K
Tel.: +45 38 14 20 00 Telefax: +45 38 14 20 50
Email: GEUS@geus.dk

Grain Size Distribution

Sample Id: AQKFCRGS014



Grain Size Distribution

Geotechnical

Sample Id: AQKFCRGS015
Lab. Id: CR15
Submitter: Energinet.dk
Subject: KRIGERS FLAK Cable Route Samples
Date: November 2012
Executed: I. Nørgaard, A.Stoican
Remarks: For mat. < 16mm. 173 g < 32mm tillagt 16 mm



Total Weight 969,91 g

Size Fractions

Size	Size	Weight	Weight	Cumulated amount
mm	Φ	g	%	amount passing
16,00	-4,00	223,54	23,05	76,95
8,00	-3,00	44,81	4,62	72,33
4,00	-2,00	9,55	0,98	71,35
2,80	-1,49	1,78	0,18	71,16
2,00	-1,00	1,75	0,18	70,98
1,40	-0,49	6,41	0,66	70,32
1,00	0,00	24,44	2,52	67,80
0,710	0,49	50,65	5,22	62,58
0,500	1,00	128,12	13,21	49,37
0,355	1,49	130,04	13,41	35,96
0,250	2,00	95,70	9,87	26,10
0,180	2,47	105,40	10,87	15,23
0,125	3,00	60,30	6,22	9,01
0,090	3,47	14,00	1,44	7,57
0,075	3,74	6,47	0,67	6,90
0,063	3,99	10,24	1,06	5,85
< 0,063	> 3,99	56,72	5,85	0,00

Size Classes (DGF-Bulletin 1 1988)

	Weight %
Silt and clay (< 0,063 mm):	5,85
Sand, fine (0,063 mm - 0,200 mm):	12,49
Sand, medium (0,2 mm - 0,6 mm):	37,33
Sand, coarse (0,6 mm - 2 mm):	15,32
Gravel (> 2 mm):	29,02
Sum:	100,00

Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	-----	-----
16%	84%	-----	-----
25%	75%	12,62	-3,66
40%	60%	0,67	0,58
Median 50%	50%	0,51	0,97
75%	25%	0,24	2,04
84%	16%	0,18	2,43
90%	10%	0,13	2,90
95%	5%	-----	-----

Moments Statistics

Mean	1,70
Sorting	-----
Skewness	-----
Kurtosis	-----
Uniformity Coefficient	5,00

The analysis is executed according to DS405.9
DS/EN933-1 extended by sieves to the 1/2 phi scale.

Size Classes and Percentiles
are found by linear interpolation

Formulas

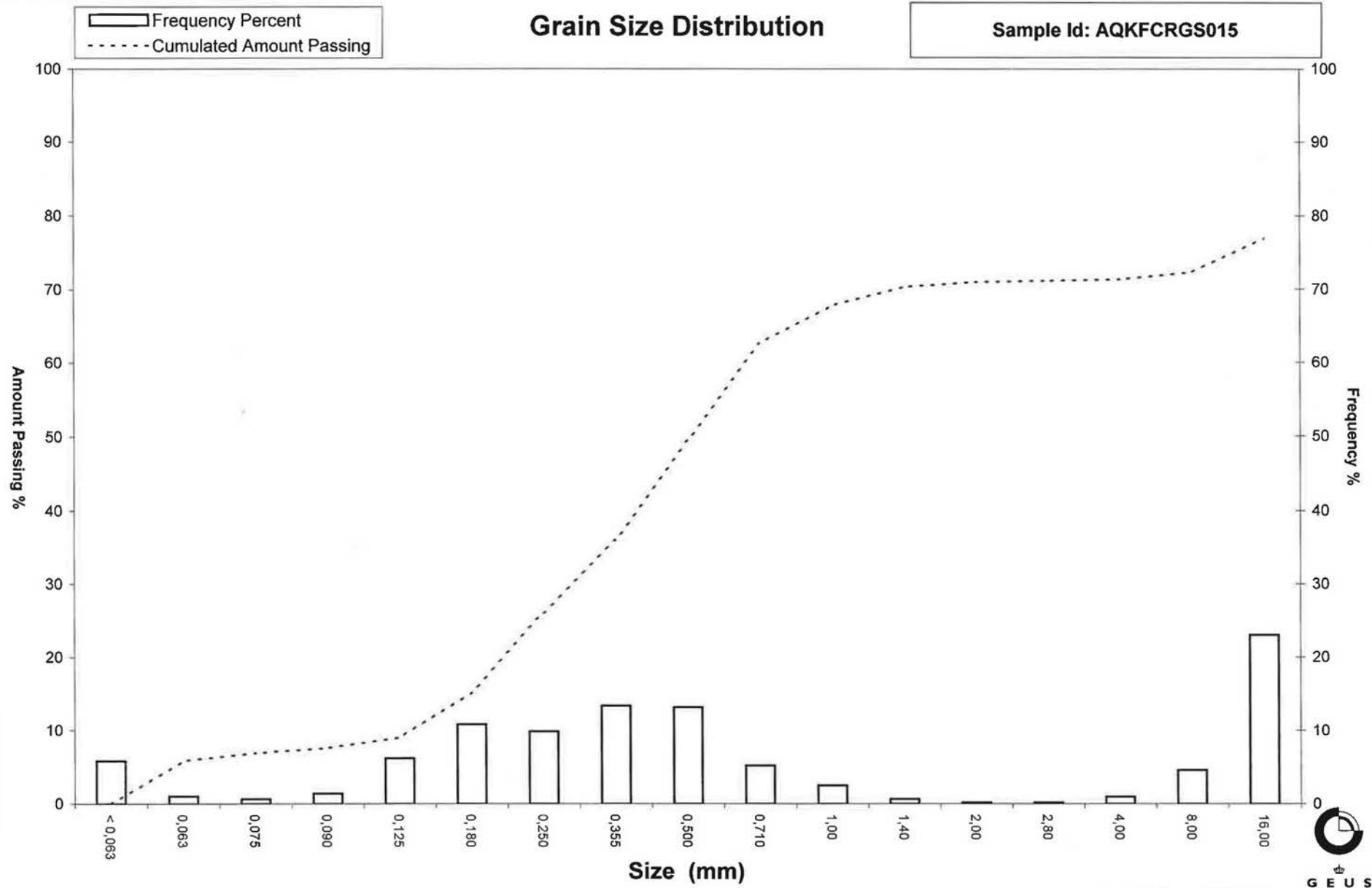
Mean $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$ (Folk and Ward 1957)
Sorting $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$ (Folk and Ward 1957)
Kurtosis $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$ (Folk and Ward 1957)
Skewness $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$ (Folk and Ward 1957)
Uniformity Coefficient $(d_{60\%} / d_{10\%})$ (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on
"Amount in sieve". Uniformity coefficient is based on

Øster Voldgade 10 1350 København K
Tel.: +45 38 14 20 00 Telefax: +45 38 14 20 50
Email: GEUS@geus.dk

Grain Size Distribution

Sample Id: AQQFCRGS015



Grain Size Distribution

Geotechnical

Sample Id: AQKFCRGS016
Lab. Id: CR16
Submitter: Energinet.dk
Subject: KRIGERS FLAK Cable Route Samples
Date: November 2012
Executed: I. Nørgaard, A. Stoican
Remarks: For mat. < 2mm



Total Weight 106,16 g

Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,00	0,00	100,00
2,80	-1,49	0,00	0,00	100,00
2,00	-1,00	0,00	0,00	100,00
1,40	-0,49	0,05	0,05	99,95
1,00	0,00	0,24	0,23	99,73
0,710	0,49	0,32	0,30	99,43
0,500	1,00	1,44	1,36	98,07
0,355	1,49	5,84	5,50	92,57
0,250	2,00	14,28	13,45	79,12
0,180	2,47	32,09	30,23	48,89
0,125	3,00	33,26	31,33	17,56
0,090	3,47	5,14	4,84	12,72
0,075	3,74	1,43	1,35	11,37
0,063	3,99	2,20	2,07	9,30
< 0,063	> 3,99	9,87	9,30	0,00

Sieve Analysis

Gravel

Sand

Size Classes (DGF-Bulletin 1 1988)

	Weight %
Silt and clay (< 0,063 mm):	9,30
Sand, fine (0,063 mm - 0,200 mm):	48,23
Sand, medium (0,2 mm - 0,6 mm):	41,19
Sand, coarse (0,6 mm - 2 mm):	1,29
Gravel (> 2 mm):	0,00
Sum:	100,00

Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,42	1,25
16%	84%	0,29	1,80
25%	75%	0,24	2,06
40%	60%	0,21	2,28
Median 50%	50%	0,18	2,45
75%	25%	0,14	2,86
84%	16%	0,11	3,14
90%	10%	0,07	3,90
95%	5%	-----	-----

Moments Statistics

Mean	2,46
Sorting	-----
Skewness	-----
Kurtosis	-----
Uniformity Coefficient	3,07

The analysis is executed according to DS405.9
 DS/EN933-1 extended by sieves to the 1/2 phi scale.

Size Classes and Percentiles
 are found by linear interpolation

Formulas

Mean $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$ (Folk and Ward 1957)

Sorting $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$ (Folk and Ward 1957)

Kurtosis $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$ (Folk and Ward 1957)

Skewness $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$ (Folk and Ward 1957)

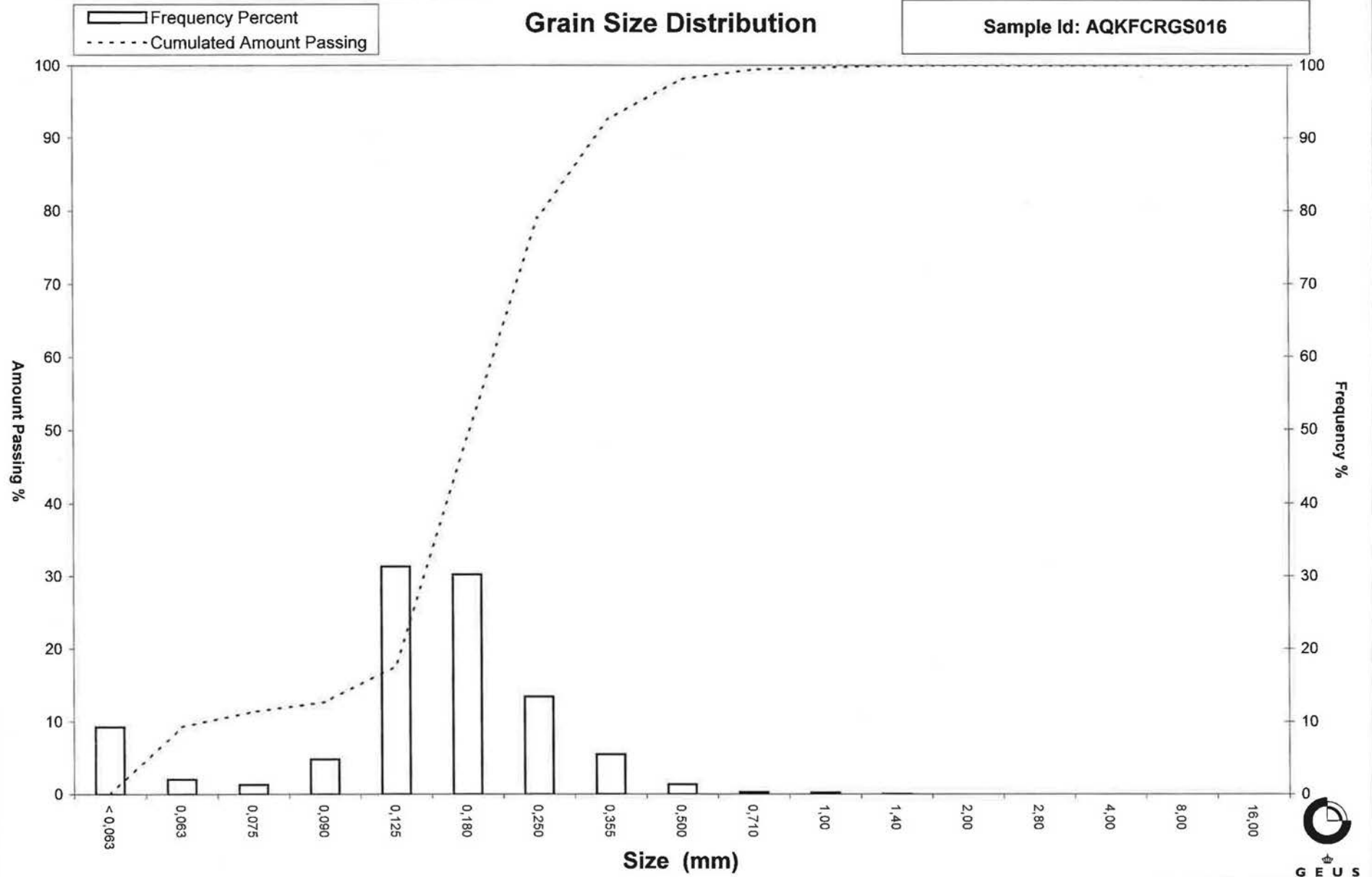
Uniformity Coefficient $(d_{60\%} / d_{10\%})$ (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on
 "Amount in sieve". Uniformity coefficient is based on

Øster Voldgade 10 1350 København K
 Tel.: +45 38 14 20 00 Telefax: +45 38 14 20 50
 Email: GEUS@geus.dk

Grain Size Distribution

Sample Id: AQKFCRGS016



Grain Size Distribution

Geotechnical

Sample Id: AQKFCRGS017
Lab. Id: CR17
Submitter: Energinet.dk
Subject: KRIGERS FLAK Cable Route Samples
Date: November 2012
Executed: I. Nørgaard, A. Stoican
Remarks: For mat. < 2mm



Total Weight 103,72 g

Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,00	0,00	100,00
2,80	-1,49	0,00	0,00	100,00
2,00	-1,00	0,00	0,00	100,00
1,40	-0,49	0,06	0,06	99,94
1,00	0,00	0,08	0,08	99,87
0,710	0,49	0,29	0,28	99,59
0,500	1,00	0,71	0,68	98,90
0,355	1,49	4,84	4,67	94,23
0,250	2,00	12,46	12,01	82,22
0,180	2,47	16,04	15,46	66,76
0,125	3,00	29,69	28,63	38,13
0,090	3,47	16,17	15,59	22,54
0,075	3,74	3,66	3,53	19,01
0,063	3,99	4,71	4,54	14,47
< 0,063	> 3,99	15,01	14,47	0,00

Sieve Analysis

Gravel

Sand

Size Classes (DGF-Bulletin 1 1988)

	Weight %
Silt and clay (< 0,063 mm):	14,47
Sand, fine (0,063 mm - 0,200 mm):	56,70
Sand, medium (0,2 mm - 0,6 mm):	28,05
Sand, coarse (0,6 mm - 2 mm):	0,77
Gravel (> 2 mm):	0,00
Sum:	100,00

Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,38	1,40
16%	84%	0,27	1,91
25%	75%	0,22	2,20
40%	60%	0,17	2,58
Median 50%	50%	0,15	2,76
75%	25%	0,10	3,39
84%	16%	0,07	3,90
90%	10%	-----	-----
95%	5%	-----	-----

Moments Statistics

Mean	2,86
Sorting	-----
Skewness	-----
Kurtosis	-----
Uniformity Coefficient	-----

The analysis is executed according to DS405.9
 DS/EN933-1 extended by sieves to the ½ phi scale.

Size Classes and Percentiles
 are found by linear interpolation

Formulas

Mean $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$ (Folk and Ward 1957)

Sorting $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$ (Folk and Ward 1957)

Kurtosis $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$ (Folk and Ward 1957)

Skewness $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$ (Folk and Ward 1957)

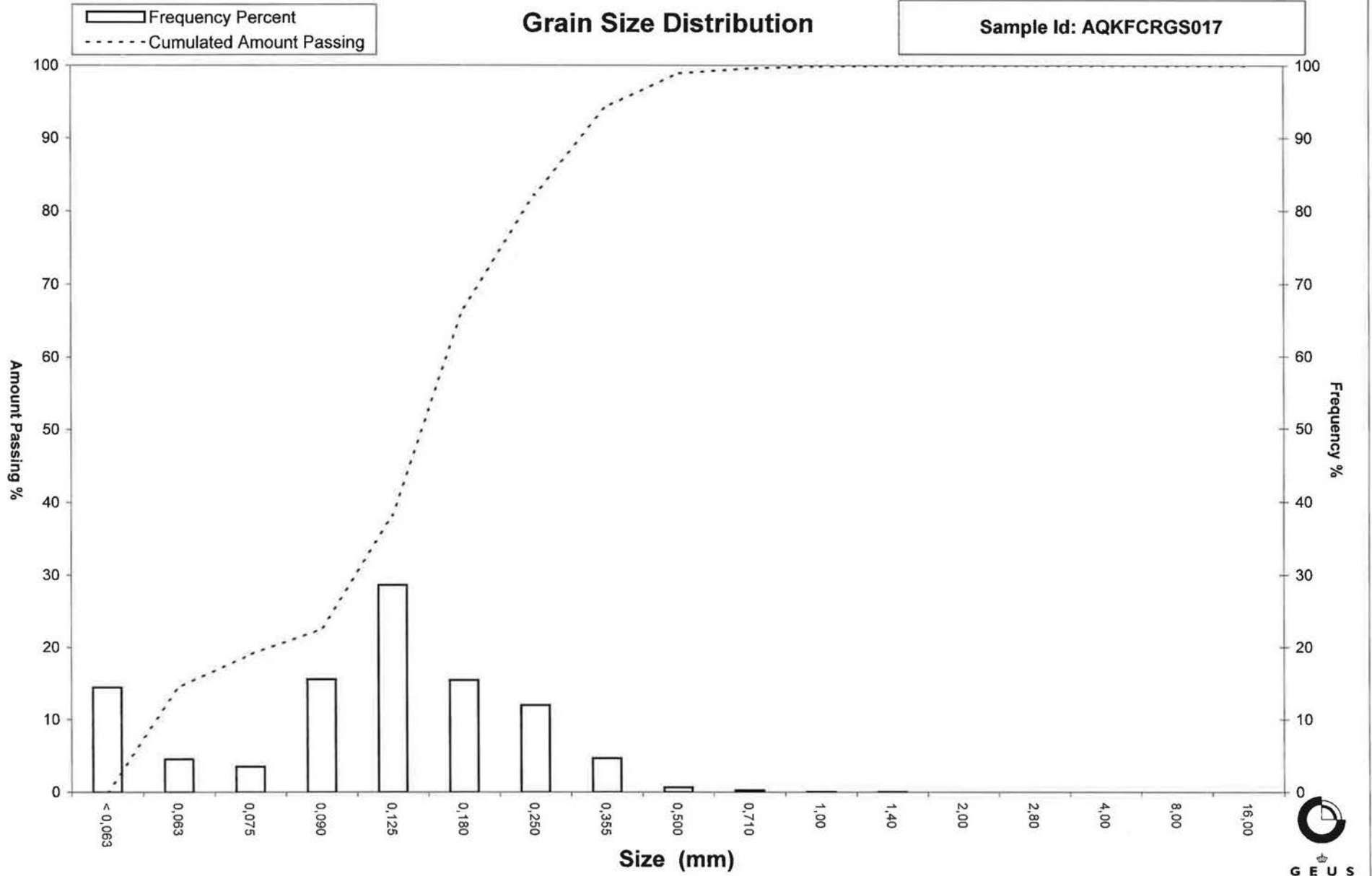
Uniformity Coefficient $(d_{60\%} / d_{10\%})$ (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on
 "Amount in sieve". Uniformity coefficient is based on

Øster Voldgade 10 1350 København K
 Tel.: +45 38 14 20 00 Telefax: +45 38 14 20 50
 Email: GEUS@geus.dk

Grain Size Distribution

Sample Id: AQKFCRGS017



Grain Size Distribution

Geotechnical

Sample Id: AQKFCRGS018
Lab. Id: CR18
Submitter: Energinet.dk
Subject: KRIGERS FLAK Cable Route Samples
Date: Nov/dec 2012
Executed: I. Nørgaard, A.Stoican
Remarks: For mat.< 2mm



Total Weight 114,01 g

Size Fractions

Size	Size	Weight	Weight	Cumulated amount
mm	Φ	g	%	amount passing
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,00	0,00	100,00
2,80	-1,49	0,00	0,00	100,00
2,00	-1,00	0,00	0,00	100,00
1,40	-0,49	0,04	0,04	99,96
1,00	0,00	0,23	0,20	99,76
0,710	0,49	0,26	0,23	99,54
0,500	1,00	0,22	0,19	99,34
0,355	1,49	0,57	0,50	98,84
0,250	2,00	1,93	1,69	97,15
0,180	2,47	4,24	3,72	93,43
0,125	3,00	13,33	11,69	81,74
0,090	3,47	15,88	13,93	67,81
0,063	3,99	40,41	35,44	32,37
0,0442	4,50	1,78	1,56	30,81
0,0312	5,00	4,02	3,53	27,28
0,0221	5,50	5,21	4,57	22,71
0,0156	6,00	5,45	4,78	17,93
0,0110	6,51	3,33	2,92	15,01
0,0078	7,00	4,33	3,80	11,21
0,0055	7,51	3,61	3,17	8,04
0,0039	8,00	2,06	1,81	6,23
0,0028	8,48	2,61	2,29	3,94
0,0020	8,97	1,49	1,31	2,63
<0,0020	>8,97	3,00	2,63	0,00

Size Classes (DGF-Bulletin 1 1988)

	Weight %
Clay (< 0,002 mm):	2,63
Silt, fine (0,002 mm - 0,006 mm):	6,10
Silt, medium (0,006 mm - 0,020 mm):	12,43
Silt, coarse (0,020 mm - 0,063 mm):	11,20
Sand, fine (0,063 mm - 0,200 mm):	62,13
Sand, medium (0,2 mm - 0,6 mm):	4,94
Sand, coarse (0,6 mm - 2 mm):	0,57
Gravel (> 2 mm):	0,00
Sum:	100,00

Moments Measures

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,21	2,25
16%	84%	0,14	2,88
25%	75%	0,11	3,21
40%	60%	0,08	3,57
50%	50%	0,08	3,71
75%	25%	0,03	5,23
84%	16%	0,01	6,31
90%	10%	0,01	7,17
95%	5%	0,00	8,24

Moments Statistics

Mean	4,30
Sorting	1,76
Skewness	0,52
Kurtosis	1,21
Uniformity Coefficient	12,14

The analysis is executed according to DS/EN 933-1 extended by sieves to the ½ phi scale and test portion mass 0,1 kg

Size Classes and Percentiles are found by linear interpolation

Formulas

Mean $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$ (Folk and Ward 1957)

Sorting $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$ (Folk and Ward 1957)

Kurtosis $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$ (Folk and Ward 1957)

Skewness $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$ (Folk and Ward 1957)

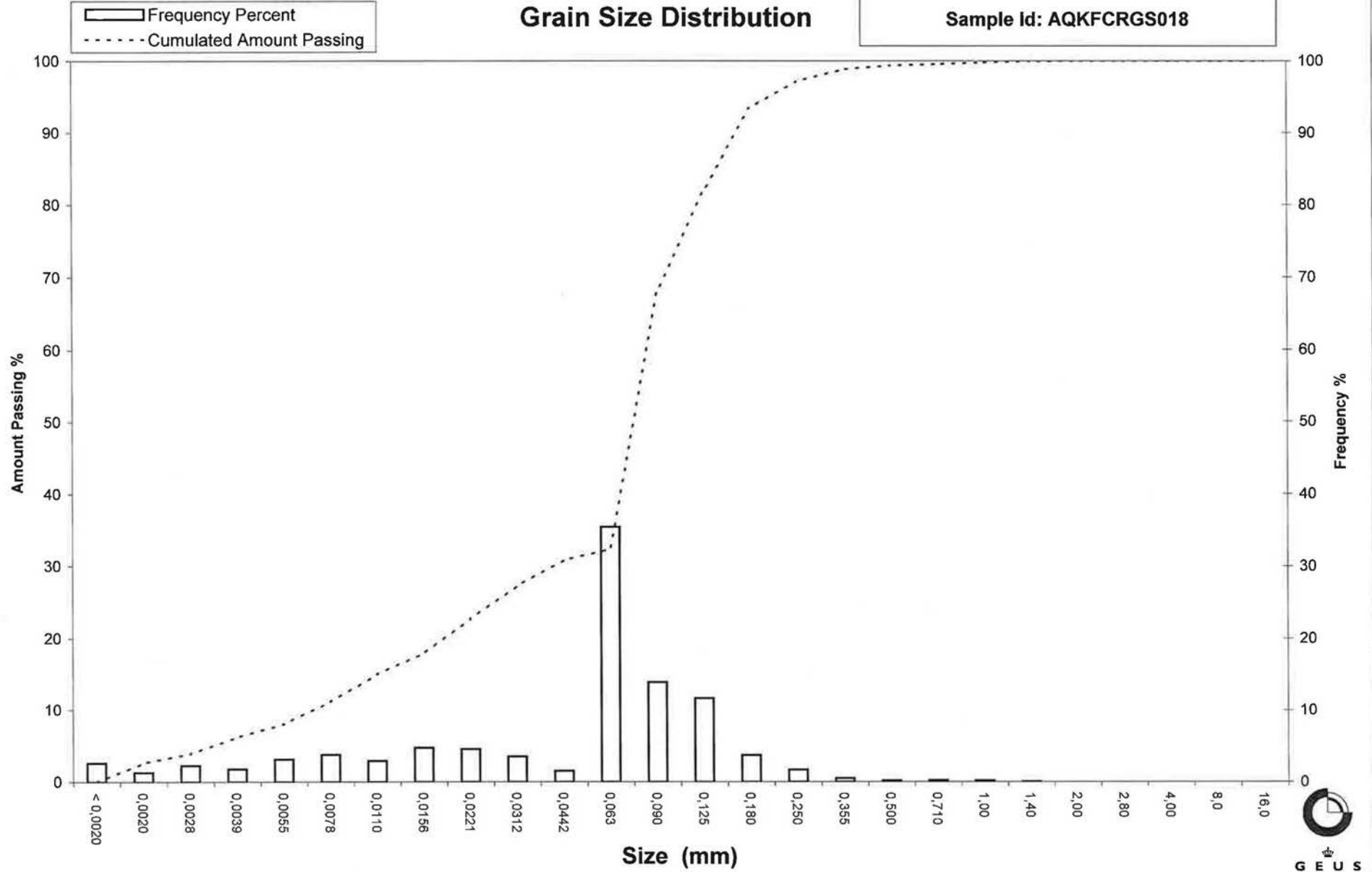
Uniformity Coefficient $(d_{60\%} / d_{10\%})$ (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

Øster Voldgade 10 1350 København K
 Tel.: +45 38 14 20 00 Telefax: +45 38 14 20 50
 Email: GEUS@geus.dk
 www.geus.dk

Grain Size Distribution

Sample Id: AQKFCRGS018



Grain Size Distribution

Geotechnical

Sample Id: AQKFCRGS019
Lab. Id: CR19
Submitter: Energinet.dk
Subject: KRIGERS FLAK Cable Route Samples
Date: Nov/dec 2012
Executed: I. Nørgaard, A.Stoican
Remarks: For mat. < 2mm



GEUS

Total Weight 136,92 g

Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,00	0,00	100,00
2,80	-1,49	0,00	0,00	100,00
2,00	-1,00	0,00	0,00	100,00
1,40	-0,49	0,03	0,02	99,98
1,00	0,00	0,24	0,18	99,80
0,710	0,49	0,21	0,15	99,65
0,500	1,00	0,27	0,20	99,45
0,355	1,49	0,51	0,37	99,08
0,250	2,00	1,08	0,79	98,29
0,180	2,47	2,10	1,53	96,76
0,125	3,00	5,70	4,16	92,59
0,090	3,47	15,09	11,02	81,57
0,063	3,99	61,71	45,07	36,50
0,0442	4,50	2,07	1,51	34,99
0,0312	5,00	4,74	3,46	31,53
0,0221	5,50	6,50	4,75	26,78
0,0156	6,00	7,27	5,31	21,47
0,0110	6,51	4,66	3,40	18,07
0,0078	7,00	6,24	4,56	13,51
0,0055	7,51	5,26	3,84	9,67
0,0039	8,00	2,99	2,18	7,49
0,0028	8,48	3,77	2,75	4,74
0,0020	8,97	2,15	1,57	3,17
<0,0020	>8,97	4,34	3,17	0,00

Size Classes (DGF-Bulletin 1 1988)

	Weight %
Clay (< 0,002 mm):	3,17
Silt, fine (0,002 mm - 0,006 mm):	7,34
Silt, medium (0,006 mm - 0,020 mm):	14,56
Silt, coarse (0,020 mm - 0,063 mm):	11,44
Sand, fine (0,063 mm - 0,200 mm):	60,69
Sand, medium (0,2 mm - 0,6 mm):	2,35
Sand, coarse (0,6 mm - 2 mm):	0,45
Gravel (> 2 mm):	0,00
Sum:	100,00

Moments Measures

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,16	2,67
16%	84%	0,10	3,36
25%	75%	0,09	3,54
40%	60%	0,08	3,70
50%	50%	0,07	3,81
75%	25%	0,02	5,65
84%	16%	0,01	6,71
90%	10%	0,01	7,46
95%	5%	0,00	8,43

Moments Statistics

Mean	4,63
Sorting	1,71
Skewness	0,66
Kurtosis	1,12
Uniformity Coefficient	13,53

The analysis is executed according to DS/EN 933-1 extended by sieves to the ½ phi scale and test portion mass 0,1 kg

Size Classes and Percentiles are found by linear interpolation

Formulas

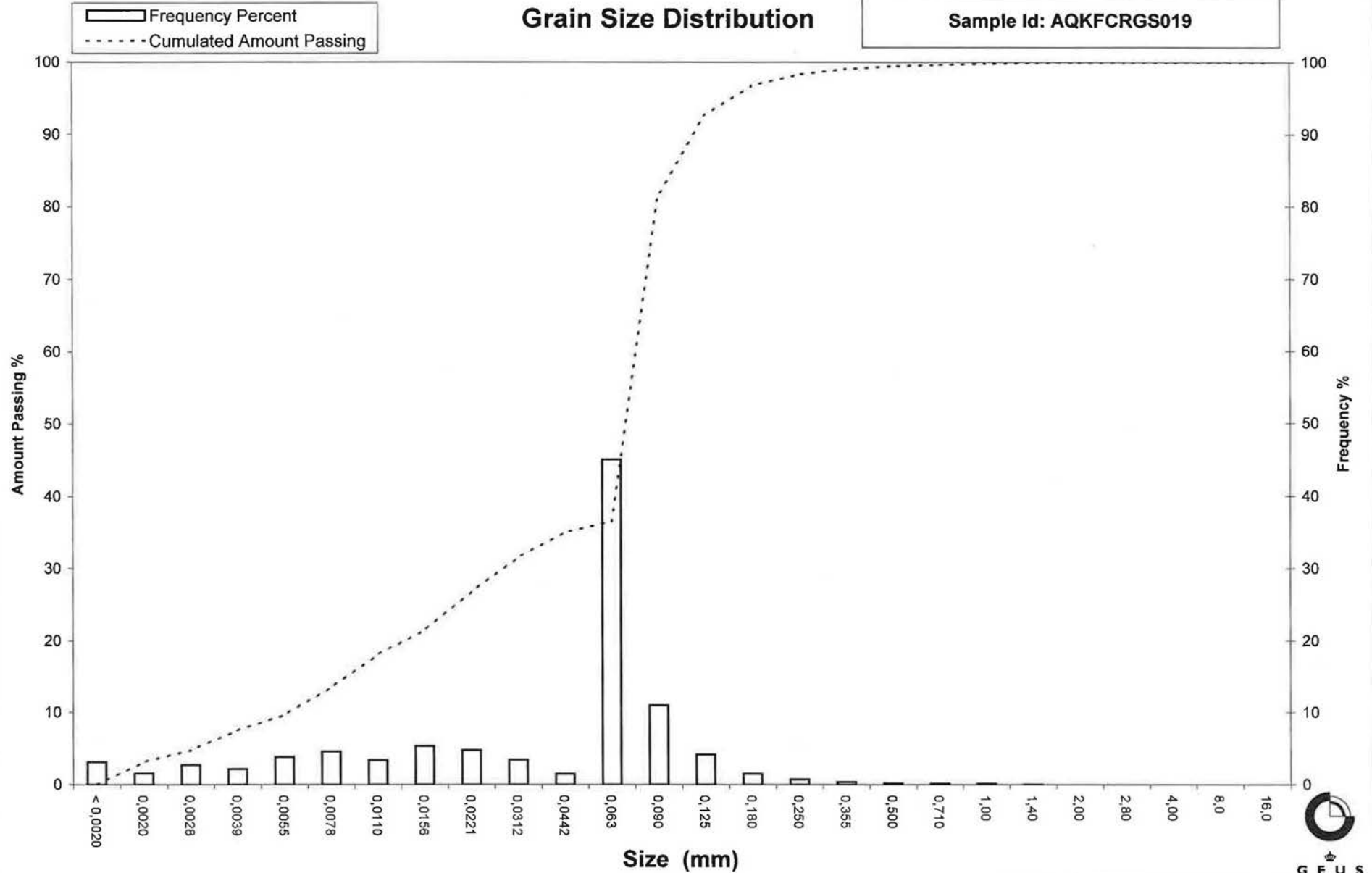
Mean $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$ (Folk and Ward 1957)
 Sorting $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$ (Folk and Ward 1957)
 Kurtosis $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$ (Folk and Ward 1957)
 Skewness $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$ (Folk and Ward 1957)
 Uniformity Coefficient $(d_{60\%} / d_{10\%})$ (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

Øster Voldgade 10 1350 København K
 Tel.: +45 38 14 20 00 Telefax: +45 38 14 20 50
 Email: GEUS@geus.dk
 www.geus.dk

Grain Size Distribution

Sample Id: AQKFCRGS019



Grain Size Distribution

Geotechnical

Sample Id: AQKFCRGS020
Lab. Id: CR20
Submitter: Energinet.dk
Subject: KRIGERS FLAK Cable Route Samples
Date: November 2012
Executed: I. Nørgaard, A. Stoican
Remarks: For mat. < 2mm



Total Weight 111,89 g

Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,02	0,02	99,98
2,80	-1,49	0,07	0,06	99,92
2,00	-1,00	0,09	0,08	99,84
1,40	-0,49	0,02	0,02	99,82
1,00	0,00	0,85	0,76	99,06
0,710	0,49	4,57	4,08	94,98
0,500	1,00	24,22	21,65	73,33
0,355	1,49	36,79	32,88	40,45
0,250	2,00	27,82	24,86	15,59
0,180	2,47	8,81	7,87	7,71
0,125	3,00	4,62	4,13	3,58
0,090	3,47	0,66	0,59	2,99
0,075	3,74	0,42	0,38	2,62
0,063	3,99	0,38	0,34	2,28
< 0,063	> 3,99	2,55	2,28	0,00

Size Classes (DGF-Bulletin 1 1988)

	Weight %
Silt and clay (< 0,063 mm):	2,28
Sand, fine (0,063 mm - 0,200 mm):	7,68
Sand, medium (0,2 mm - 0,6 mm):	73,68
Sand, coarse (0,6 mm - 2 mm):	16,20
Gravel (> 2 mm):	0,16
Sum:	100,00

Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,71	0,49
16%	84%	0,60	0,73
25%	75%	0,52	0,95
40%	60%	0,44	1,18
Median 50%	50%	0,40	1,33
75%	25%	0,29	1,79
84%	16%	0,25	1,99
90%	10%	0,20	2,32
95%	5%	0,14	2,80

Moments Statistics

Mean	1,35
Sorting	0,66
Skewness	0,16
Kurtosis	1,13
Uniformity Coefficient	2,20

The analysis is executed according to DS405.9
DS/EN933-1 extended by sieves to the ½ phi scale.

Size Classes and Percentiles
are found by linear interpolation

Formulas

Mean $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$ (Folk and Ward 1957)

Sorting $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$ (Folk and Ward 1957)

Kurtosis $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$ (Folk and Ward 1957)

Skewness $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$ (Folk and Ward 1957)

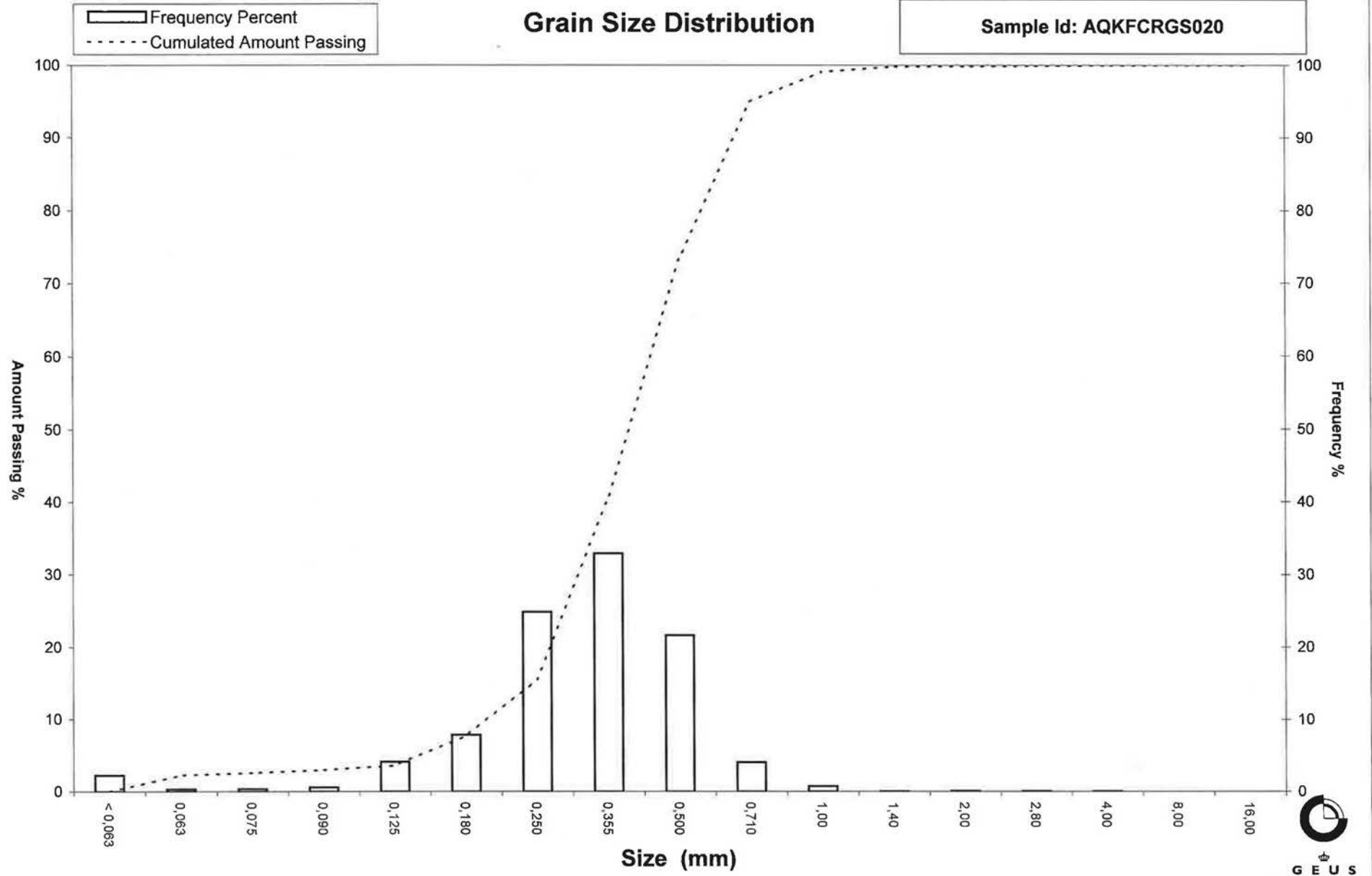
Uniformity Coefficient $(d_{60\%} / d_{10\%})$ (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on
"Amount in sieve". Uniformity coefficient is based on

Øster Voldgade 10 1350 København K
Tel.: +45 38 14 20 00 Telefax: +45 38 14 20 50
Email: GEUS@geus.dk

Grain Size Distribution

Sample Id: AQKFCRGS020



Grain Size Distribution

Geotechnical

Sample Id: AQKFCRGS021
Lab. Id: CR21
Submitter: Energinet.dk
Subject: KRIGERS FLAK Cable Route Samples
Date: November 2012
Executed: I. Nørgaard, A. Stoican
Remarks: For mat. < 8mm



Total Weight 203,67 g

Size Fractions

Size	Size	Weight	Weight	Cumulated amount
mm	Φ	g	%	amount passing
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	1,12	0,55	99,45
2,80	-1,49	0,84	0,41	99,04
2,00	-1,00	2,77	1,36	97,68
1,40	-0,49	8,56	4,20	93,47
1,00	0,00	19,81	9,73	83,75
0,710	0,49	35,57	17,46	66,28
0,500	1,00	72,89	35,79	30,50
0,355	1,49	35,10	17,23	13,26
0,250	2,00	7,51	3,69	9,57
0,180	2,47	7,56	3,71	5,86
0,125	3,00	5,76	2,83	3,03
0,090	3,47	0,97	0,48	2,56
0,075	3,74	0,52	0,26	2,30
0,063	3,99	0,68	0,33	1,97
< 0,063	> 3,99	4,01	1,97	0,00

Size Classes (DGF-Bulletin 1 1988)

	Weight %
Silt and clay (< 0,063 mm):	1,97
Sand, fine (0,063 mm - 0,200 mm):	4,95
Sand, medium (0,2 mm - 0,6 mm):	40,61
Sand, coarse (0,6 mm - 2 mm):	50,14
Gravel (> 2 mm):	2,32
Sum:	100,00

Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	1,62	-0,69
16%	84%	1,01	-0,01
25%	75%	0,85	0,23
40%	60%	0,67	0,57
Median 50%	50%	0,61	0,70
75%	25%	0,45	1,14
84%	16%	0,38	1,40
90%	10%	0,26	1,93
95%	5%	0,16	2,62

Moments Statistics

Mean	0,70
Sorting	0,86
Skewness	0,07
Kurtosis	1,48
Uniformity Coefficient	2,57

The analysis is executed according to DS405.9
 DS/EN933-1 extended by sieves to the 1/2 phi scale.

Size Classes and Percentiles
 are found by linear interpolation

Formulas

Mean $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$ (Folk and Ward 1957)

Sorting $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$ (Folk and Ward 1957)

Kurtosis $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$ (Folk and Ward 1957)

Skewness $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$ (Folk and Ward 1957)

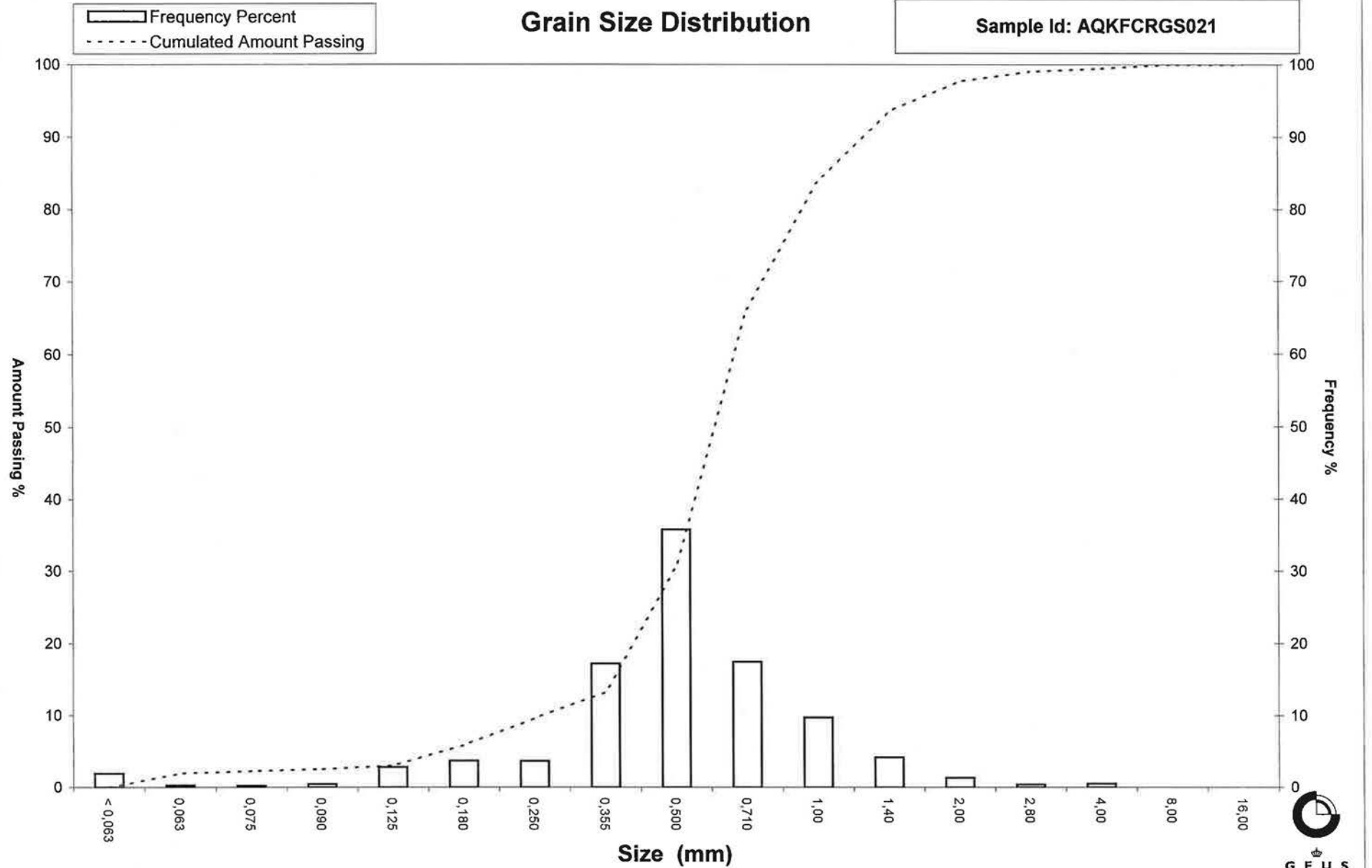
Uniformity Coefficient $(d_{60\%} / d_{10\%})$ (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on
 "Amount in sieve". Uniformity coefficient is based on

Øster Voldgade 10 1350 København K
 Tel.: +45 38 14 20 00 Telefax: +45 38 14 20 50
 Email: GEUS@geus.dk

Grain Size Distribution

Sample Id: AQKFCRGS021



Grain Size Distribution

Geotechnical

Sample Id: AQKFCRGS022
Lab. Id: CR22
Submitter: Energinet.dk
Subject: KRIGERS FLAK Cable Route Samples
Date: November 2012
Executed: I. Nørgaard, A.Stoican
Remarks: For mat. < 2mm



Total Weight 109,22 g

Size Fractions

Size	Size	Weight	Weight	Cumulated amount
mm	Φ	g	%	amount passing
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,00	0,00	100,00
2,80	-1,49	0,00	0,00	100,00
2,00	-1,00	0,04	0,04	99,96
1,40	-0,49	0,12	0,11	99,85
1,00	0,00	1,22	1,12	98,74
0,710	0,49	2,10	1,92	96,81
0,500	1,00	4,93	4,51	92,30
0,355	1,49	4,65	4,26	88,04
0,250	2,00	2,34	2,14	85,90
0,180	2,47	14,35	13,14	72,76
0,125	3,00	47,81	43,77	28,99
0,090	3,47	7,97	7,30	21,69
0,075	3,74	3,48	3,19	18,50
0,063	3,99	4,37	4,00	14,50
< 0,063	> 3,99	15,84	14,50	0,00

Size Classes (DGF-Bulletin 1 1988)

	Weight %
Silt and clay (< 0,063 mm):	14,50
Sand, fine (0,063 mm - 0,200 mm):	62,01
Sand, medium (0,2 mm - 0,6 mm):	17,93
Sand, coarse (0,6 mm - 2 mm):	5,51
Gravel (> 2 mm):	0,04
Sum:	100,00

Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,63	0,68
16%	84%	0,24	2,06
25%	75%	0,19	2,38
40%	60%	0,16	2,61
Median 50%	50%	0,15	2,72
75%	25%	0,11	3,24
84%	16%	0,07	3,89
90%	10%	-----	-----
95%	5%	-----	-----

Moments Statistics

Mean	2,89
Sorting	-----
Skewness	-----
Kurtosis	-----
Uniformity Coefficient	-----

The analysis is executed according to DS405.9
 DS/EN933-1 extended by sieves to the 1/2 phi scale.

Size Classes and Percentiles
 are found by linear interpolation

Formulas

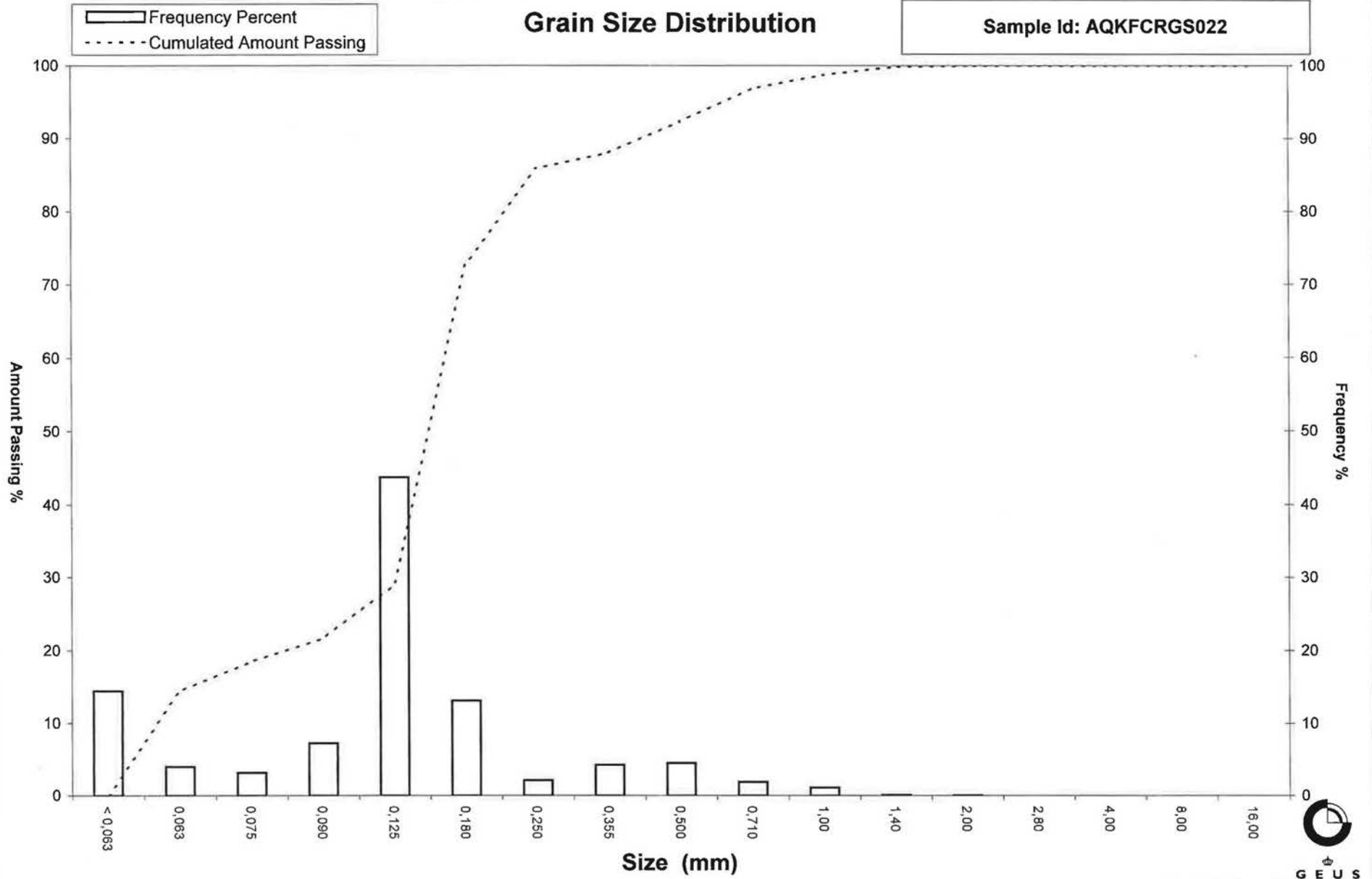
Mean $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$ (Folk and Ward 1957)
 Sorting $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$ (Folk and Ward 1957)
 Kurtosis $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$ (Folk and Ward 1957)
 Skewness $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$ (Folk and Ward 1957)
 Uniformity Coefficient $(d_{60\%} / d_{10\%})$ (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on
 "Amount in sieve". Uniformity coefficient is based on

Øster Voldgade 10 1350 København K
 Tel.: +45 38 14 20 00 Telefax: +45 38 14 20 50
 Email: GEUS@geus.dk

Grain Size Distribution

Sample Id: AQKFCRGS022



Grain Size Distribution

Geotechnical

Sample Id: AQKFCRGS024
Lab. Id: CR24
Submitter: Energinet.dk
Subject: KRIGERS FLAK Cable Route Samples
Date: November 2012
Executed: I. Nørgaard, A.Stoican
Remarks: For mat. < 2mm



Total Weight 103,34 g

Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,00	0,00	100,00
2,80	-1,49	0,00	0,00	100,00
2,00	-1,00	0,00	0,00	100,00
1,40	-0,49	0,09	0,09	99,91
1,00	0,00	0,04	0,04	99,87
0,710	0,49	0,31	0,30	99,57
0,500	1,00	2,00	1,94	97,64
0,355	1,49	5,05	4,89	92,75
0,250	2,00	12,68	12,27	80,48
0,180	2,47	27,76	26,86	53,62
0,125	3,00	41,36	40,02	13,60
0,090	3,47	3,07	2,97	10,63
0,075	3,74	1,39	1,35	9,28
0,063	3,99	2,18	2,11	7,17
< 0,063	> 3,99	7,41	7,17	0,00

Size Classes (DGF-Bulletin 1 1988)

	Weight %
Silt and clay (< 0,063 mm):	7,17
Sand, fine (0,063 mm - 0,200 mm):	54,12
Sand, medium (0,2 mm - 0,6 mm):	37,27
Sand, coarse (0,6 mm - 2 mm):	1,44
Gravel (> 2 mm):	0,00
Sum:	100,00

Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,42	1,25
16%	84%	0,28	1,84
25%	75%	0,24	2,08
40%	60%	0,20	2,35
Median 50%	50%	0,18	2,51
75%	25%	0,14	2,83
84%	16%	0,13	2,96
90%	10%	0,08	3,59
95%	5%	-----	-----

Moments Statistics

Mean	2,44
Sorting	-----
Skewness	-----
Kurtosis	-----
Uniformity Coefficient	2,37

The analysis is executed according to DS405.9
DS/EN933-1 extended by sieves to the 1/2 phi scale.

Size Classes and Percentiles
are found by linear interpolation

Formulas

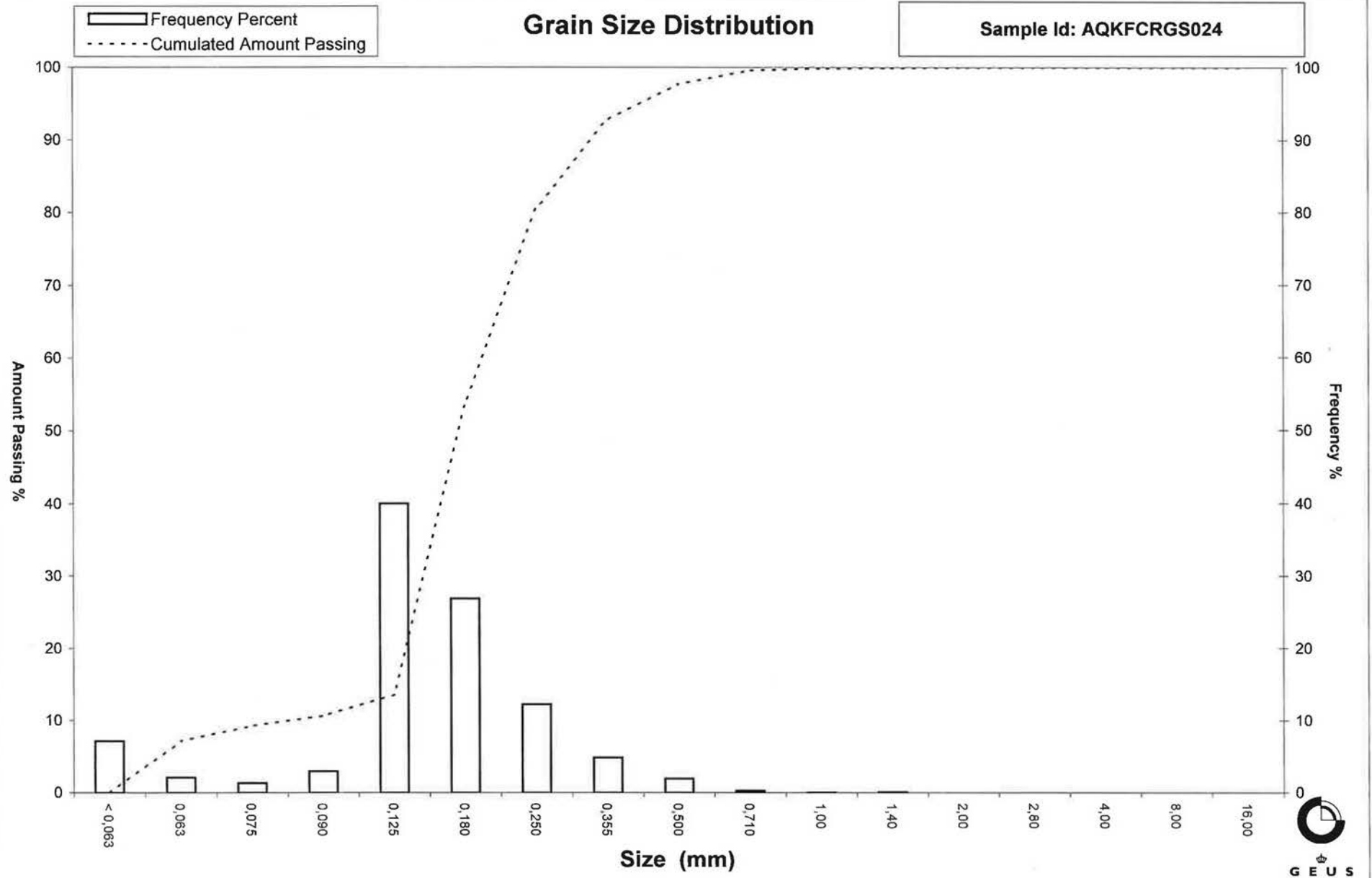
Mean $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$ (Folk and Ward 1957)
Sorting $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$ (Folk and Ward 1957)
Kurtosis $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$ (Folk and Ward 1957)
Skewness $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$ (Folk and Ward 1957)
Uniformity Coefficient $(d_{60\%} / d_{10\%})$ (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on
"Amount in sieve". Uniformity coefficient is based on

Øster Voldgade 10 1350 København K
Tel.: +45 38 14 20 00 Telefax: +45 38 14 20 50
Email: GEUS@geus.dk

Grain Size Distribution

Sample Id: AQKFCRGS024



Grain Size Distribution

Geotechnical

Sample Id: AQKFCRGS025
Lab. Id: CR25
Submitter: Energinet.dk
Subject: KRIGERS FLAK Cable Route Samples
Date: Nov/dec 2012
Executed: I. Nørgaard, A.Stoican
Remarks: For mat.< 2mm



Total Weight 109,34 g

Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,00	0,00	100,00
2,80	-1,49	0,01	0,01	99,99
2,00	-1,00	0,03	0,03	99,96
1,40	-0,49	0,13	0,12	99,84
1,00	0,00	0,81	0,74	99,10
0,710	0,49	0,83	0,76	98,34
0,500	1,00	0,80	0,73	97,61
0,355	1,49	1,15	1,05	96,56
0,250	2,00	4,38	4,01	92,56
0,180	2,47	12,39	11,33	81,22
0,125	3,00	27,70	25,33	55,89
0,090	3,47	9,67	8,84	47,05
0,063	3,99	20,97	19,18	27,87
0,0442	4,50	1,25	1,14	26,73
0,0312	5,00	3,08	2,82	23,91
0,0221	5,50	4,27	3,91	20,00
0,0156	6,00	4,57	4,18	15,82
0,0110	6,51	2,80	2,56	13,26
0,0078	7,00	3,64	3,33	9,93
0,0055	7,51	3,02	2,76	7,17
0,0039	8,00	1,71	1,56	5,61
0,0028	8,48	2,18	1,99	3,62
0,0020	8,97	1,27	1,16	2,46
<0,0020	>8,97	2,69	2,46	0,00

Size Classes (DGF-Bulletin 1 1988)

	Weight %
Clay (< 0,002 mm):	2,46
Silt, fine (0,002 mm - 0,006 mm):	5,31
Silt, medium (0,006 mm - 0,020 mm):	10,88
Silt, coarse (0,020 mm - 0,063 mm):	9,22
Sand, fine (0,063 mm - 0,200 mm):	56,59
Sand, medium (0,2 mm - 0,6 mm):	13,50
Sand, coarse (0,6 mm - 2 mm):	2,00
Gravel (> 2 mm):	0,04
Sum:	100,00

Moments Measures

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,31	1,67
16%	84%	0,20	2,34
25%	75%	0,17	2,59
40%	60%	0,13	2,90
50%	50%	0,10	3,30
75%	25%	0,04	4,79
84%	16%	0,02	5,98
90%	10%	0,01	6,99
95%	5%	0,00	8,13

Moments Statistics

Mean	3,87
Sorting	1,89
Skewness	0,49
Kurtosis	1,20
Uniformity Coefficient	17,02

The analysis is executed according to DS/EN 933-1 extended by sieves to the ½ phi scale and test portion mass 0,1 kg

Size Classes and Percentiles are found by linear interpolation

Formulas

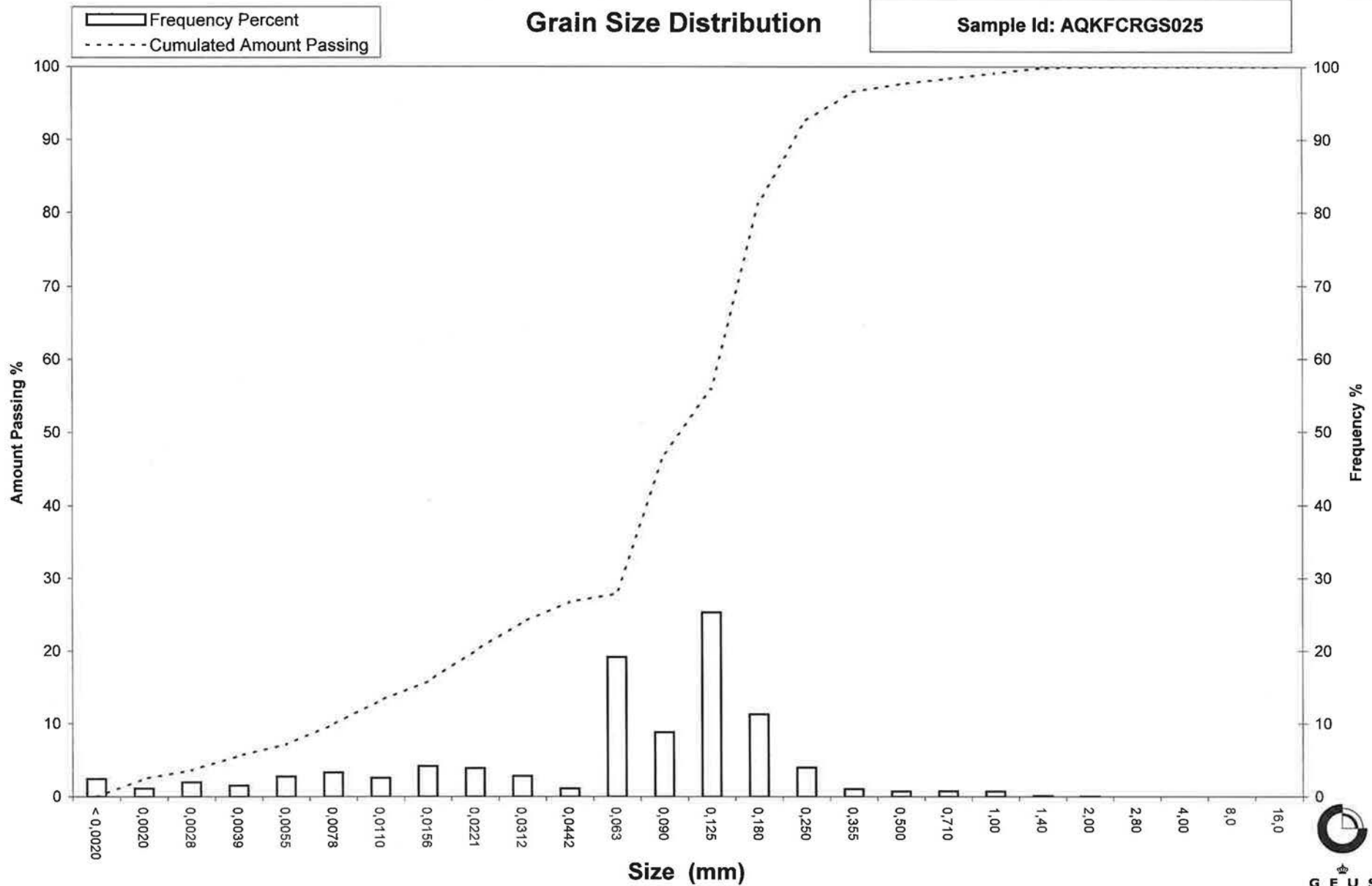
Mean $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$ (Folk and Ward 1957)
 Sorting $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$ (Folk and Ward 1957)
 Kurtosis $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$ (Folk and Ward 1957)
 Skewness $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$ (Folk and Ward 1957)
 Uniformity Coefficient $(d_{60\%} / d_{10\%})$ (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

Øster Voldgade 10 1350 København K
 Tel.: +45 38 14 20 00 Telefax: +45 38 14 20 50
 Email: GEUS@geus.dk
 www.geus.dk

Grain Size Distribution

Sample Id: AQKFCRGS025



Grain Size Distribution

Geotechnical

Sample Id: AQKFCRGS026
Lab. Id: CR26
Submitter: Energinet.dk
Subject: KRIGERS FLAK Cable Route Samples
Date: November 2012
Executed: I. Nørgaard, A.Stoican
Remarks: For mat.< 2mm



Total Weight 104,35 g

Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,04	0,04	99,96
2,80	-1,49	0,00	0,00	99,96
2,00	-1,00	0,00	0,00	99,96
1,40	-0,49	0,01	0,01	99,95
1,00	0,00	0,02	0,02	99,93
0,710	0,49	0,07	0,07	99,87
0,500	1,00	0,37	0,35	99,51
0,355	1,49	1,68	1,61	97,90
0,250	2,00	5,38	5,16	92,75
0,180	2,47	19,49	18,68	74,07
0,125	3,00	55,75	53,43	20,64
0,090	3,47	3,38	3,24	17,40
0,075	3,74	2,07	1,98	15,42
0,063	3,99	3,56	3,41	12,01
< 0,063	> 3,99	12,53	12,01	0,00

Size Classes (DGF-Bulletin 1 1988)

	Weight %
Silt and clay (< 0,063 mm):	12,01
Sand, fine (0,063 mm - 0,200 mm):	67,40
Sand, medium (0,2 mm - 0,6 mm):	20,28
Sand, coarse (0,6 mm - 2 mm):	0,28
Gravel (> 2 mm):	0,04
Sum:	100,00

Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,30	1,76
16%	84%	0,22	2,20
25%	75%	0,18	2,45
40%	60%	0,17	2,59
Median 50%	50%	0,16	2,69
75%	25%	0,13	2,95
84%	16%	0,08	3,65
90%	10%	-----	-----
95%	5%	-----	-----

Moments Statistics

Mean	2,85
Sorting	-----
Skewness	-----
Kurtosis	-----
Uniformity Coefficient	-----

The analysis is executed according to DS405.9
DS/EN933-1 extended by sieves to the ½ phi scale.

Size Classes and Percentiles
are found by linear interpolation

Formulas

Mean ($\phi_{16\%} + \phi_{84\%} + \phi_{50\%}$) / 3 (Folk and Ward 1957)

Sorting ($\phi_{84\%} - \phi_{16\%}$) / 4 + ($\phi_{95\%} - \phi_{5\%}$) / 6,6 (Folk and Ward 1957)

Kurtosis ($\phi_{95\%} - \phi_{5\%}$) / (2,44 * ($\phi_{75\%} - \phi_{25\%}$)) (Folk and Ward 1957)

Skewness ($\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}$) / (2 * ($\phi_{84\%} - \phi_{16\%}$)) + ($\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}$) / (2 * ($\phi_{95\%} - \phi_{5\%}$)) (Folk and Ward 1957)

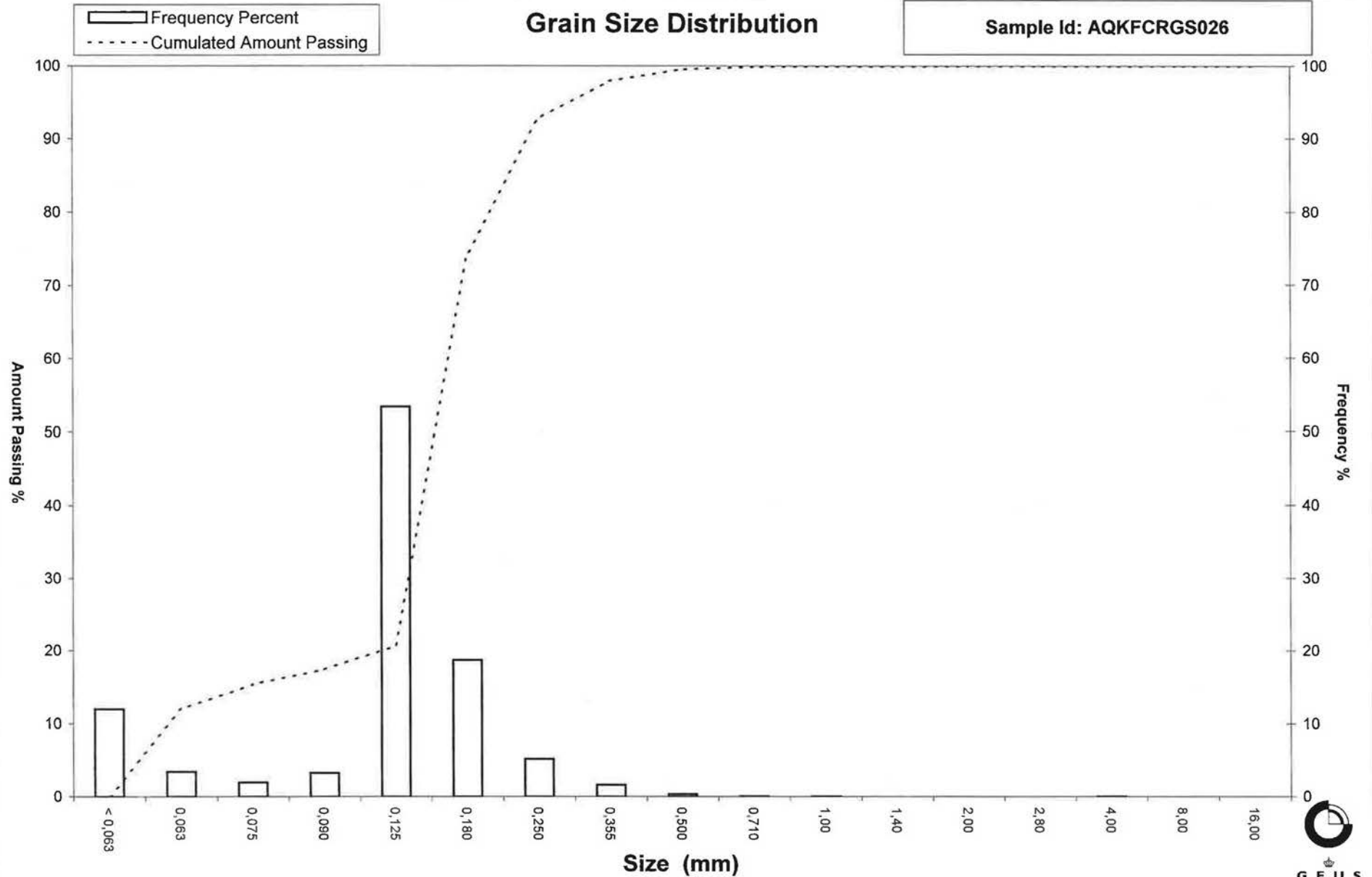
Uniformity Coefficient ($d_{60\%} / d_{10\%}$) (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on
"Amount in sieve". Uniformity coefficient is based on

Øster Voldgade 10 1350 København K
Tel.: +45 38 14 20 00 Telefax: +45 38 14 20 50
Email: GEUS@geus.dk

Grain Size Distribution

Sample Id: AQKFCRGS026



Grain Size Distribution

Geotechnical

Sample Id: AQKFCRGS027
Lab. Id: CR27
Submitter: Energinet.dk
Subject: KRIGERS FLAK Cable Route Samples
Date: Nov/dec 2012
Executed: I. Nørgaard, A. Stoican
Remarks: For mat. < 2mm



Total Weight 112,54 g

Size Fractions

	Size	Size	Weight		Cumulated amount passing
			g	%	
Grain Size Distribution	mm	Φ			%
	16,00	-4,00	0,00	0,00	100,00
	8,00	-3,00	0,00	0,00	100,00
	4,00	-2,00	0,00	0,00	100,00
	2,80	-1,49	0,00	0,00	100,00
	2,00	-1,00	0,00	0,00	100,00
	1,40	-0,49	0,02	0,02	99,98
	1,00	0,00	0,01	0,01	99,97
	0,710	0,49	0,20	0,18	99,80
	0,500	1,00	0,21	0,19	99,61
Mastersizer 3000	mm	Φ			%
	0,355	1,49	1,63	1,45	98,16
	0,250	2,00	5,71	5,07	93,09
	0,180	2,47	13,78	12,24	80,84
	0,125	3,00	37,84	33,62	47,22
	0,090	3,47	8,96	7,96	39,26
	0,063	3,99	19,46	17,29	21,97
	0,0442	4,50	1,24	1,10	20,87
	0,0312	5,00	2,34	2,08	18,79
	0,0221	5,50	2,85	2,53	16,26
Mastersizer 3000	mm	Φ			%
	0,0156	6,00	3,18	2,83	13,43
	0,0110	6,51	2,18	1,94	11,49
	0,0078	7,00	3,12	2,77	8,72
	0,0055	7,51	2,75	2,44	6,28
	0,0039	8,00	1,56	1,39	4,89
	0,0028	8,48	1,95	1,73	3,16
	0,0020	8,97	1,14	1,01	2,15
	<0,0020	>8,97	2,42	2,15	0,00

Size Classes (DGF-Bulletin 1 1988)

	Weight %
Clay (< 0,002 mm):	2,15
Silt, fine (0,002 mm - 0,006 mm):	4,66
Silt, medium (0,006 mm - 0,020 mm):	8,53
Silt, coarse (0,020 mm - 0,063 mm):	6,62
Sand, fine (0,063 mm - 0,200 mm):	62,38
Sand, medium (0,2 mm - 0,6 mm):	15,36
Sand, coarse (0,6 mm - 2 mm):	0,30
Gravel (> 2 mm):	0,00
Sum:	100,00

Moments Measures

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,29	1,79
16%	84%	0,20	2,34
25%	75%	0,17	2,55
40%	60%	0,15	2,78
50%	50%	0,13	2,95
75%	25%	0,07	3,88
84%	16%	0,02	5,54
90%	10%	0,01	6,75
95%	5%	0,00	7,96

Moments Statistics

Mean	3,61
Sorting	1,74
Skewness	0,62
Kurtosis	1,90
Uniformity Coefficient	15,72

The analysis is executed according to DS/EN 933-1 extended by sieves to the 1/2 phi scale and test portion mass 0,1 kg

Size Classes and Percentiles are found by linear interpolation

Formulas

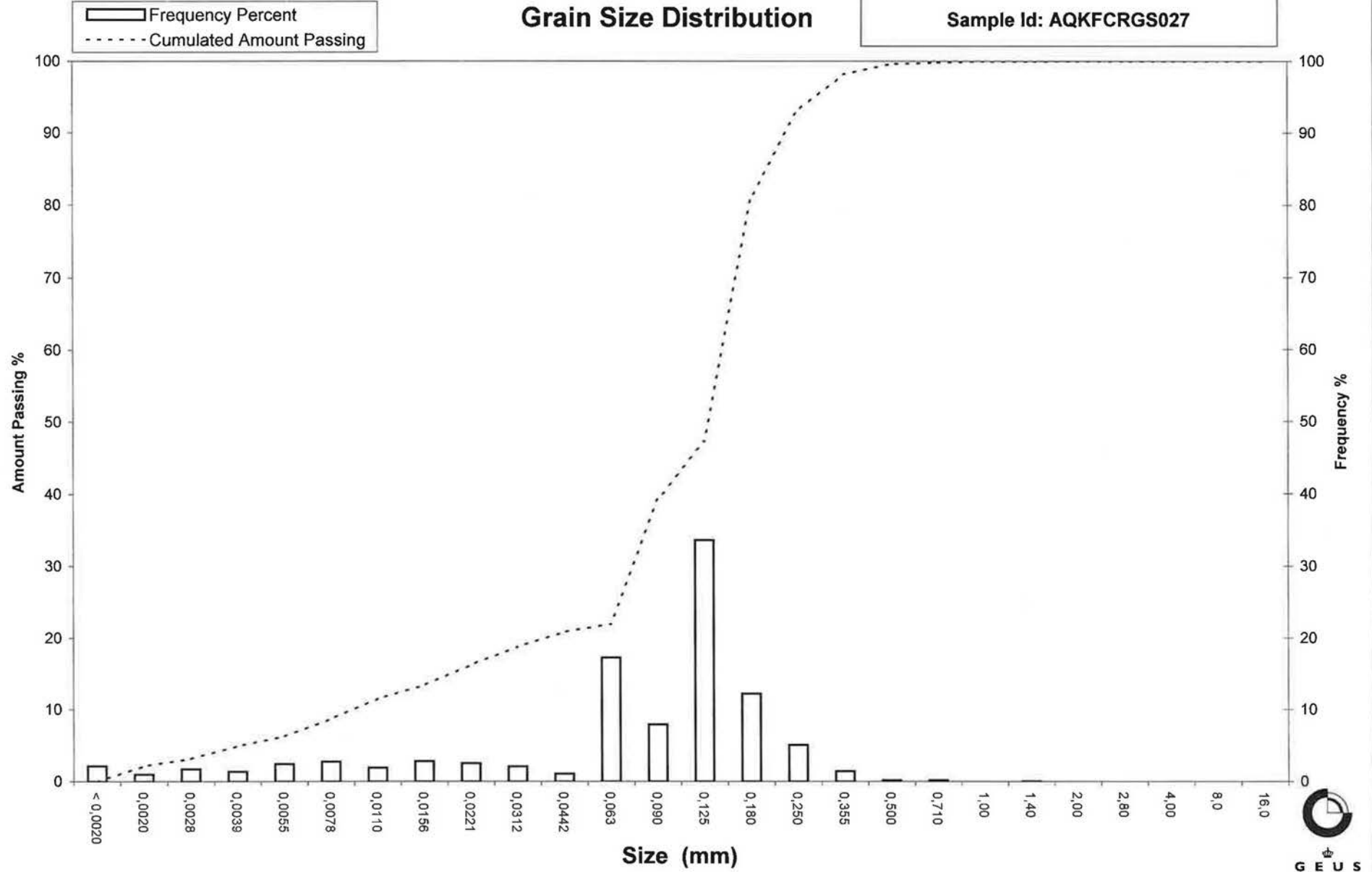
Mean $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$ (Folk and Ward 1957)
 Sorting $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$ (Folk and Ward 1957)
 Kurtosis $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$ (Folk and Ward 1957)
 Skewness $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$ (Folk and Ward 1957)
 Uniformity Coefficient $(d_{60\%} / d_{10\%})$ (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

Øster Voldgade 10 1350 København K
 Tel.: +45 38 14 20 00 Telefax: +45 38 14 20 50
 Email: GEUS@geus.dk
 www.geus.dk

Grain Size Distribution

Sample Id: AQKFCRGS027



Grain Size Distribution

Geotechnical

Sample Id: AQKFCRGS028
Lab. Id: CR28
Submitter: Energinet.dk
Subject: KRIGERS FLAK Cable Route Samples
Date: November 2012
Executed: I. Nørgaard, A. Stoican
Remarks: For mat. < 2mm



Total Weight 101,32 g

Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,65	0,64	99,36
4,00	-2,00	0,70	0,69	98,67
2,80	-1,49	0,59	0,58	98,09
2,00	-1,00	0,75	0,74	97,35
1,40	-0,49	1,22	1,20	96,14
1,00	0,00	1,37	1,35	94,79
0,710	0,49	1,38	1,36	93,43
0,500	1,00	2,04	2,01	91,41
0,355	1,49	5,77	5,69	85,72
0,250	2,00	17,76	17,53	68,19
0,180	2,47	22,82	22,52	45,67
0,125	3,00	23,60	23,29	22,37
0,090	3,47	2,76	2,72	19,65
0,075	3,74	3,54	3,49	16,16
0,063	3,99	4,03	3,98	12,18
< 0,063	> 3,99	12,34	12,18	0,00

Size Classes (DGF-Bulletin 1 1988)

	Weight %
Silt and clay (< 0,063 mm):	12,18
Sand, fine (0,063 mm - 0,200 mm):	39,92
Sand, medium (0,2 mm - 0,6 mm):	40,27
Sand, coarse (0,6 mm - 2 mm):	4,97
Gravel (> 2 mm):	2,65
Sum:	100,00

Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	1,06	-0,09
16%	84%	0,34	1,54
25%	75%	0,29	1,78
40%	60%	0,22	2,15
Median 50%	50%	0,19	2,37
75%	25%	0,13	2,93
84%	16%	0,07	3,75
90%	10%	-----	-----
95%	5%	-----	-----

Moments Statistics

Mean	2,55
Sorting	-----
Skewness	-----
Kurtosis	-----
Uniformity Coefficient	-----

The analysis is executed according to DS405.9
 DS/EN933-1 extended by sieves to the ½ phi scale.

Size Classes and Percentiles
 are found by linear interpolation

Formulas

Mean $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$ (Folk and Ward 1957)

Sorting $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$ (Folk and Ward 1957)

Kurtosis $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$ (Folk and Ward 1957)

Skewness $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$ (Folk and Ward 1957)

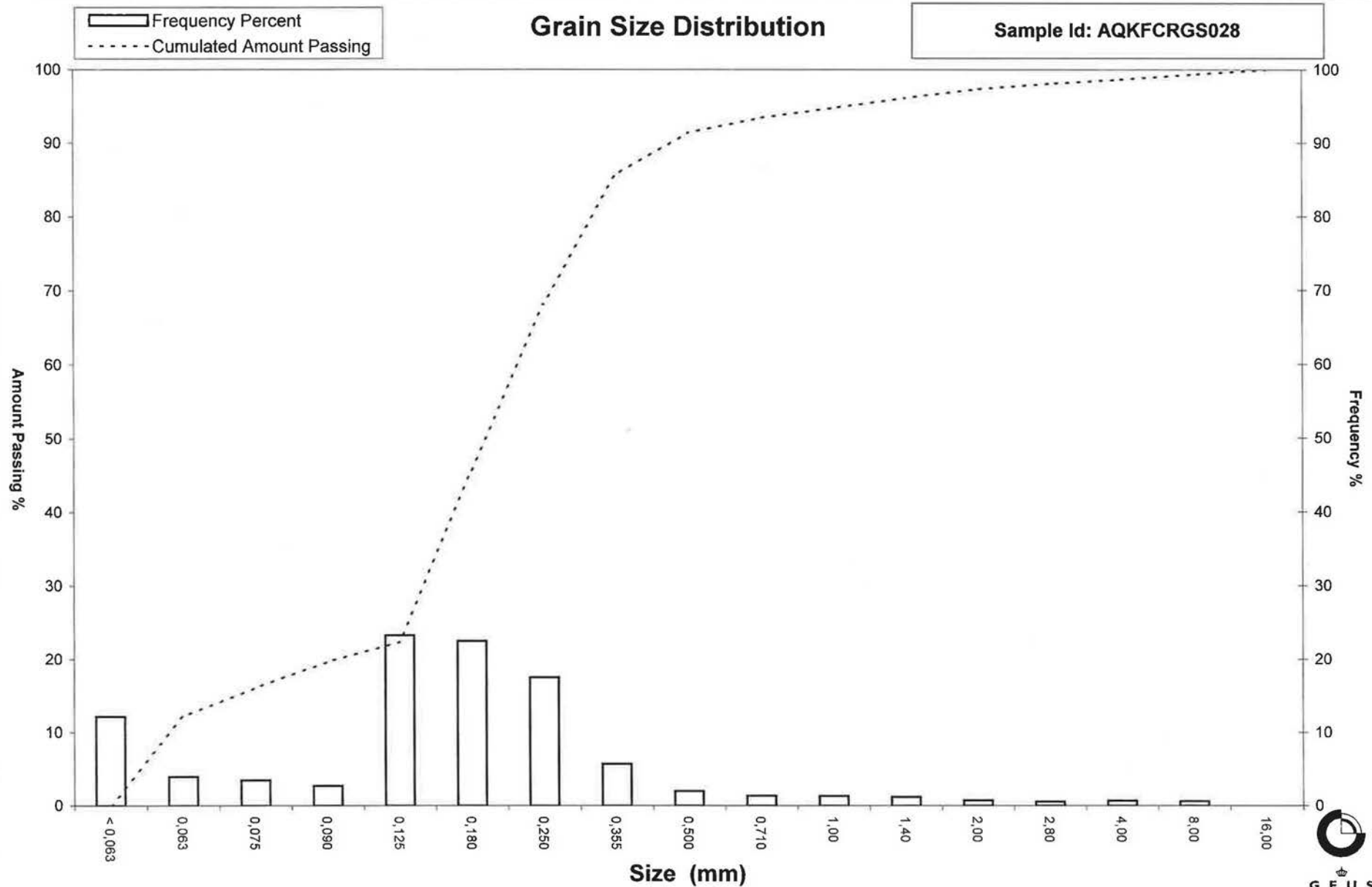
Uniformity Coefficient $(d_{60\%} / d_{10\%})$ (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on
 "Amount in sieve". Uniformity coefficient is based on

Øster Voldgade 10 1350 København K
 Tel.: +45 38 14 20 00 Telefax: +45 38 14 20 50
 Email: GEUS@geus.dk

Grain Size Distribution

Sample Id: AQKFCRGS028



Grain Size Distribution

Geotechnical

Sample Id: AQKFCRGS029
Lab. Id: CR29
Submitter: Energinet.dk
Subject: KRIGERS FLAK Cable Route Samples
Date: Nov/dec 2012
Executed: I. Nørgaard, A.Stoican
Remarks: For mat.< 2mm



Total Weight 114,95 g

Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,00	0,00	100,00
2,80	-1,49	0,00	0,00	100,00
2,00	-1,00	0,00	0,00	100,00
1,40	-0,49	0,00	0,00	100,00
1,00	0,00	0,03	0,03	99,97
0,710	0,49	0,10	0,09	99,89
0,500	1,00	0,09	0,08	99,81
0,355	1,49	0,28	0,24	99,57
0,250	2,00	1,83	1,59	97,97
0,180	2,47	9,89	8,60	89,37
0,125	3,00	23,81	20,71	68,66
0,090	3,47	11,88	10,33	58,32
0,063	3,99	33,41	29,06	29,26
0,0442	4,50	1,92	1,67	27,59
0,0312	5,00	3,68	3,20	24,39
0,0221	5,50	4,36	3,79	20,60
0,0156	6,00	4,60	4,00	16,60
0,0110	6,51	2,97	2,58	14,02
0,0078	7,00	4,03	3,51	10,51
0,0055	7,51	3,44	2,99	7,52
0,0039	8,00	1,94	1,69	5,83
0,0028	8,48	2,45	2,13	3,70
0,0020	8,97	1,41	1,23	2,47
<0,0020	>8,97	2,84	2,47	0,00

Size Classes (DGF-Bulletin 1 1988)

	Weight %
Clay (< 0,002 mm):	2,47
Silt, fine (0,002 mm - 0,006 mm):	5,70
Silt, medium (0,006 mm - 0,020 mm):	11,14
Silt, coarse (0,020 mm - 0,063 mm):	9,95
Sand, fine (0,063 mm - 0,200 mm):	62,57
Sand, medium (0,2 mm - 0,6 mm):	8,02
Sand, coarse (0,6 mm - 2 mm):	0,15
Gravel (> 2 mm):	0,00
Sum:	100,00

Moments Measures

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,23	2,15
16%	84%	0,17	2,59
25%	75%	0,14	2,82
40%	60%	0,10	3,39
50%	50%	0,08	3,60
75%	25%	0,03	4,89
84%	16%	0,01	6,10
90%	10%	0,01	7,08
95%	5%	0,00	8,17

Moments Statistics

Mean	4,10
Sorting	1,79
Skewness	0,47
Kurtosis	1,19
Uniformity Coefficient	12,92

The analysis is executed according to DS/EN 933-1 extended by sieves to the ½ phi scale and test portion mass 0,1 kg

Size Classes and Percentiles are found by linear interpolation

Formulas

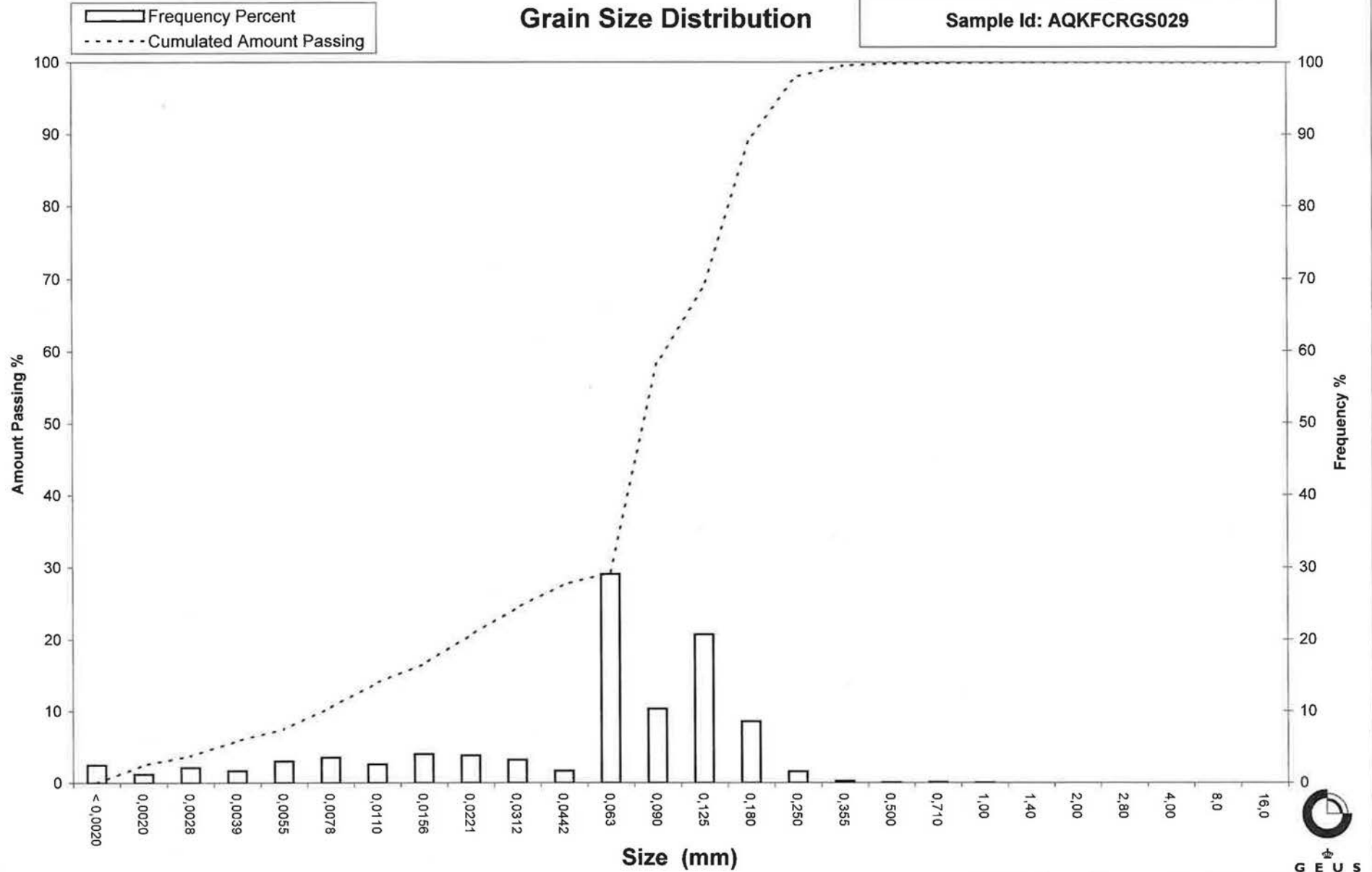
Mean $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$ (Folk and Ward 1957)
 Sorting $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$ (Folk and Ward 1957)
 Kurtosis $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$ (Folk and Ward 1957)
 Skewness $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$ (Folk and Ward 1957)
 Uniformity Coefficient $(d_{60\%} / d_{10\%})$ (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

Øster Voldgade 10 1350 København K
 Tel.: +45 38 14 20 00 Telefax: +45 38 14 20 50
 Email: GEUS@geus.dk
 www.geus.dk

Grain Size Distribution

Sample Id: AQKFCRGS029



Grain Size Distribution

Geotechnical

Sample Id: AQKFCRGS030
Lab. Id: CR30
Submitter: Energinet.dk
Subject: KRIGERS FLAK Cable Route Samples
Date: November 2012
Executed: I. Nørgaard, A. Stoican
Remarks: For mat. < 2mm



Total Weight 109,12 g

Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,00	0,00	100,00
2,80	-1,49	0,00	0,00	100,00
2,00	-1,00	0,00	0,00	100,00
1,40	-0,49	0,00	0,00	100,00
1,00	0,00	0,01	0,01	99,99
0,710	0,49	0,28	0,26	99,73
0,500	1,00	2,98	2,73	97,00
0,355	1,49	13,98	12,81	84,19
0,250	2,00	41,90	38,40	45,79
0,180	2,47	35,69	32,71	13,09
0,125	3,00	10,28	9,42	3,67
0,090	3,47	0,69	0,63	3,03
0,075	3,74	0,64	0,59	2,45
0,063	3,99	0,63	0,58	1,87
< 0,063	> 3,99	2,04	1,87	0,00

Size Classes (DGF-Bulletin 1 1988)

	Weight %
Silt and clay (< 0,063 mm):	1,87
Sand, fine (0,063 mm - 0,200 mm):	20,56
Sand, medium (0,2 mm - 0,6 mm):	75,87
Sand, coarse (0,6 mm - 2 mm):	1,70
Gravel (> 2 mm):	0,00
Sum:	100,00

Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,48	1,07
16%	84%	0,35	1,50
25%	75%	0,33	1,60
40%	60%	0,29	1,79
Median 50%	50%	0,26	1,94
75%	25%	0,21	2,28
84%	16%	0,19	2,42
90%	10%	0,16	2,63
95%	5%	0,13	2,91

Moments Statistics

Mean	1,95
Sorting	0,51
Skewness	0,06
Kurtosis	1,11
Uniformity Coefficient	1,78

The analysis is executed according to DS405.9
 DS/EN933-1 extended by sieves to the ½ phi scale.

Size Classes and Percentiles
 are found by linear interpolation

Formulas

Mean $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$ (Folk and Ward 1957)

Sorting $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$ (Folk and Ward 1957)

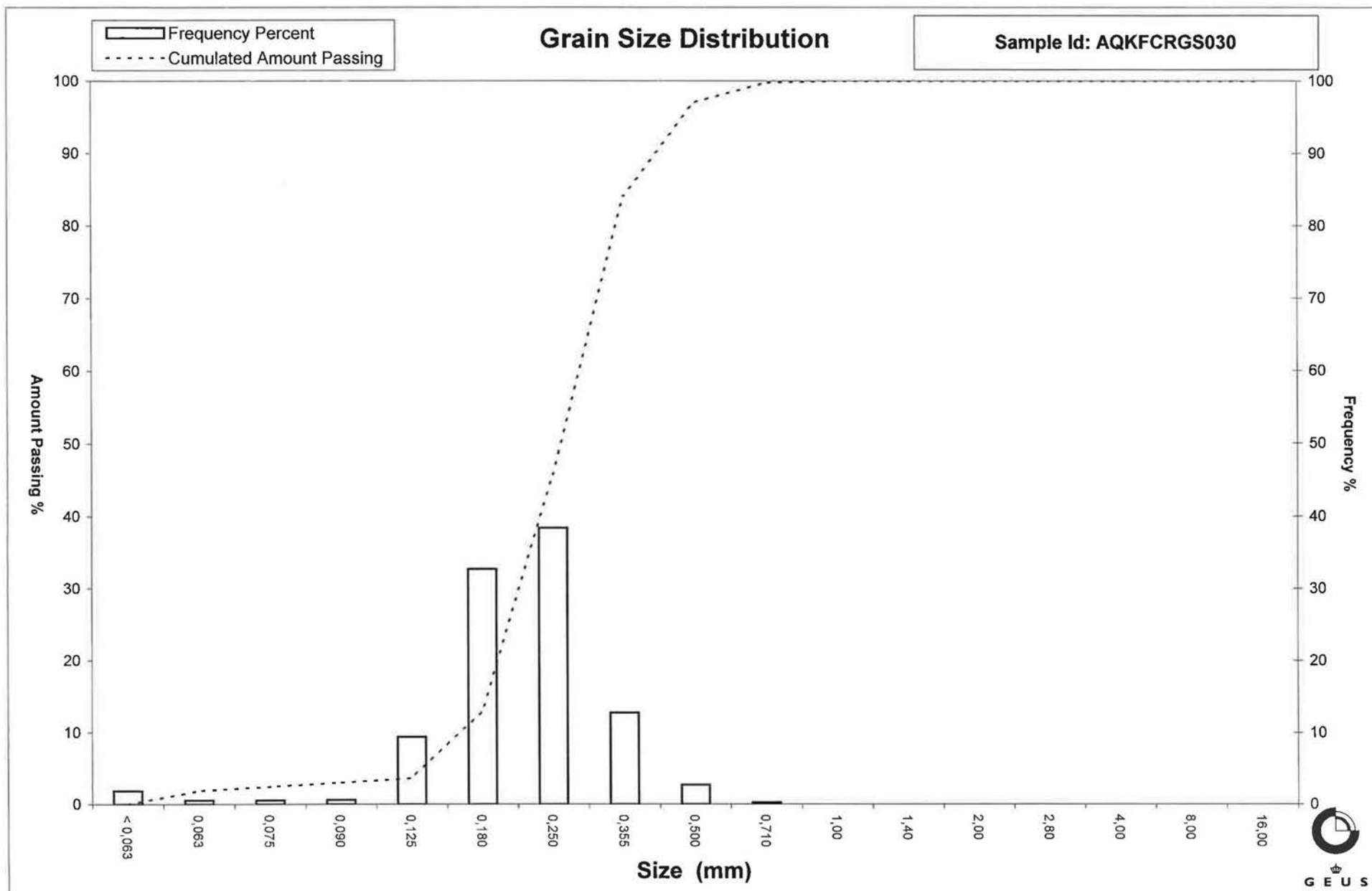
Kurtosis $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$ (Folk and Ward 1957)

Skewness $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$ (Folk and Ward 1957)

Uniformity Coefficient $(d_{60\%} / d_{10\%})$ (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on
 "Amount in sieve". Uniformity coefficient is based on

Øster Voldgade 10 1350 København K
 Tel.: +45 38 14 20 00 Telefax: +45 38 14 20 50
 Email: GEUS@geus.dk



Grain Size Distribution

Geotechnical

Sample Id: AQKFCRGS031
Lab. Id: CR31
Submitter: Energinet.dk
Subject: KRIGERS FLAK Cable Route Samples
Date: Nov/dec 2012
Executed: I. Nørgaard, A.Stoican
Remarks: For mat. < 2mm



Total Weight 111,25 g

Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,05	0,04	99,96
2,80	-1,49	0,00	0,00	99,96
2,00	-1,00	0,00	0,00	99,96
1,40	-0,49	0,00	0,00	99,96
1,00	0,00	0,01	0,01	99,95
0,710	0,49	0,24	0,22	99,73
0,500	1,00	0,52	0,47	99,26
0,355	1,49	0,98	0,88	98,38
0,250	2,00	3,33	2,99	95,39
0,180	2,47	10,42	9,37	86,02
0,125	3,00	10,09	9,07	76,95
0,090	3,47	15,20	13,66	63,29
0,063	3,99	38,27	34,40	28,89
0,0442	4,50	2,01	1,81	27,08
0,0312	5,00	3,26	2,93	24,15
0,0221	5,50	3,37	3,03	21,12
0,0156	6,00	3,66	3,29	17,83
0,0110	6,51	2,61	2,35	15,48
0,0078	7,00	3,95	3,55	11,93
0,0055	7,51	3,63	3,26	8,67
0,0039	8,00	2,09	1,88	6,79
0,0028	8,48	2,67	2,40	4,39
0,0020	8,97	1,56	1,40	2,99
<0,0020	>8,97	3,33	2,99	0,00

Size Classes (DGF-Bulletin 1 1988)

	Weight %
Clay (< 0,002 mm):	2,99
Silt, fine (0,002 mm - 0,006 mm):	6,39
Silt, medium (0,006 mm - 0,020 mm):	10,68
Silt, coarse (0,020 mm - 0,063 mm):	8,83
Sand, fine (0,063 mm - 0,200 mm):	59,81
Sand, medium (0,2 mm - 0,6 mm):	10,79
Sand, coarse (0,6 mm - 2 mm):	0,47
Gravel (> 2 mm):	0,04
Sum:	100,00

Moments Measures

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,25	2,02
16%	84%	0,17	2,58
25%	75%	0,12	3,06
40%	60%	0,09	3,52
50%	50%	0,08	3,65
75%	25%	0,03	4,84
84%	16%	0,01	6,38
90%	10%	0,01	7,28
95%	5%	0,00	8,34

Moments Statistics

Mean	4,20
Sorting	1,91
Skewness	0,46
Kurtosis	1,46
Uniformity Coefficient	13,58

The analysis is executed according to DS/EN 933-1 extended by sieves to the ½ phi scale and test portion mass 0,1 kg

Size Classes and Percentiles are found by linear interpolation

Formulas

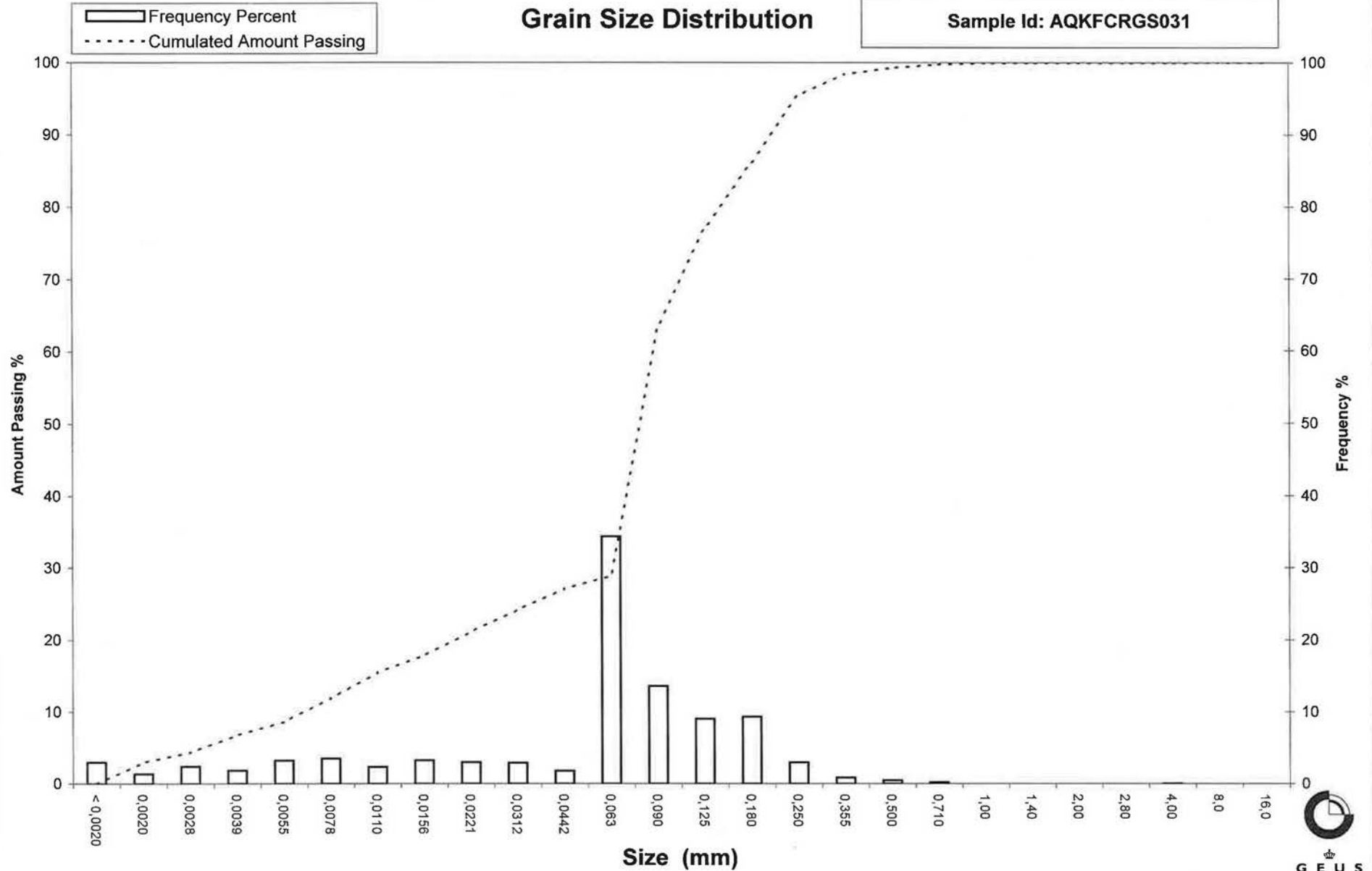
Mean $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$ (Folk and Ward 1957)
 Sorting $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$ (Folk and Ward 1957)
 Kurtosis $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$ (Folk and Ward 1957)
 Skewness $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$ (Folk and Ward 1957)
 Uniformity Coefficient $(d_{60\%} / d_{10\%})$ (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

Øster Voldgade 10 1350 København K
 Tel.: +45 38 14 20 00 Telefax: +45 38 14 20 50
 Email: GEUS@geus.dk
 www.geus.dk

Grain Size Distribution

Sample Id: AQKFCRGS031



Grain Size Distribution

Geotechnical

Sample Id: AQKFCRGS032
Lab. Id: CR32
Submitter: Energinet.dk
Subject: KRIGERS FLAK Cable Route Samples
Date: Nov/dec 2012
Executed: I. Nørgaard, A.Stoican
Remarks: For mat. < 2mm



Total Weight 104,15 g

Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,00	0,00	100,00
2,80	-1,49	0,00	0,00	100,00
2,00	-1,00	0,00	0,00	100,00
1,40	-0,49	0,00	0,00	100,00
1,00	0,00	0,02	0,02	99,98
0,710	0,49	0,12	0,12	99,87
0,500	1,00	0,22	0,21	99,65
0,355	1,49	1,06	1,02	98,64
0,250	2,00	2,27	2,18	96,46
0,180	2,47	5,25	5,04	91,42
0,125	3,00	6,68	6,41	85,00
0,090	3,47	16,51	15,85	69,15
0,063	3,99	36,78	35,31	33,84
0,0442	4,50	0,93	0,89	32,95
0,0312	5,00	2,63	2,53	30,42
0,0221	5,50	4,25	4,08	26,34
0,0156	6,00	5,14	4,94	21,40
0,0110	6,51	3,39	3,26	18,14
0,0078	7,00	4,63	4,45	13,69
0,0055	7,51	3,99	3,83	9,86
0,0039	8,00	2,29	2,20	7,66
0,0028	8,48	2,95	2,83	4,83
0,0020	8,97	1,69	1,62	3,21
<0,0020	>8,97	3,34	3,21	0,00

Size Classes (DGF-Bulletin 1 1988)

	Weight %
Clay (< 0,002 mm):	3,21
Silt, fine (0,002 mm - 0,006 mm):	7,48
Silt, medium (0,006 mm - 0,020 mm):	14,05
Silt, coarse (0,020 mm - 0,063 mm):	9,09
Sand, fine (0,063 mm - 0,200 mm):	59,02
Sand, medium (0,2 mm - 0,6 mm):	6,90
Sand, coarse (0,6 mm - 2 mm):	0,25
Gravel (> 2 mm):	0,00
Sum:	100,00

Moments Measures

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,23	2,12
16%	84%	0,12	3,03
25%	75%	0,10	3,28
40%	60%	0,08	3,59
50%	50%	0,08	3,73
75%	25%	0,02	5,62
84%	16%	0,01	6,72
90%	10%	0,01	7,48
95%	5%	0,00	8,45

Moments Statistics

Mean	4,49
Sorting	1,88
Skewness	0,56
Kurtosis	1,11
Uniformity Coefficient	14,86

The analysis is executed according to DS/EN 933-1 extended by sieves to the 1/2 phi scale and test portion mass 0,1 kg

Size Classes and Percentiles are found by linear interpolation

Formulas

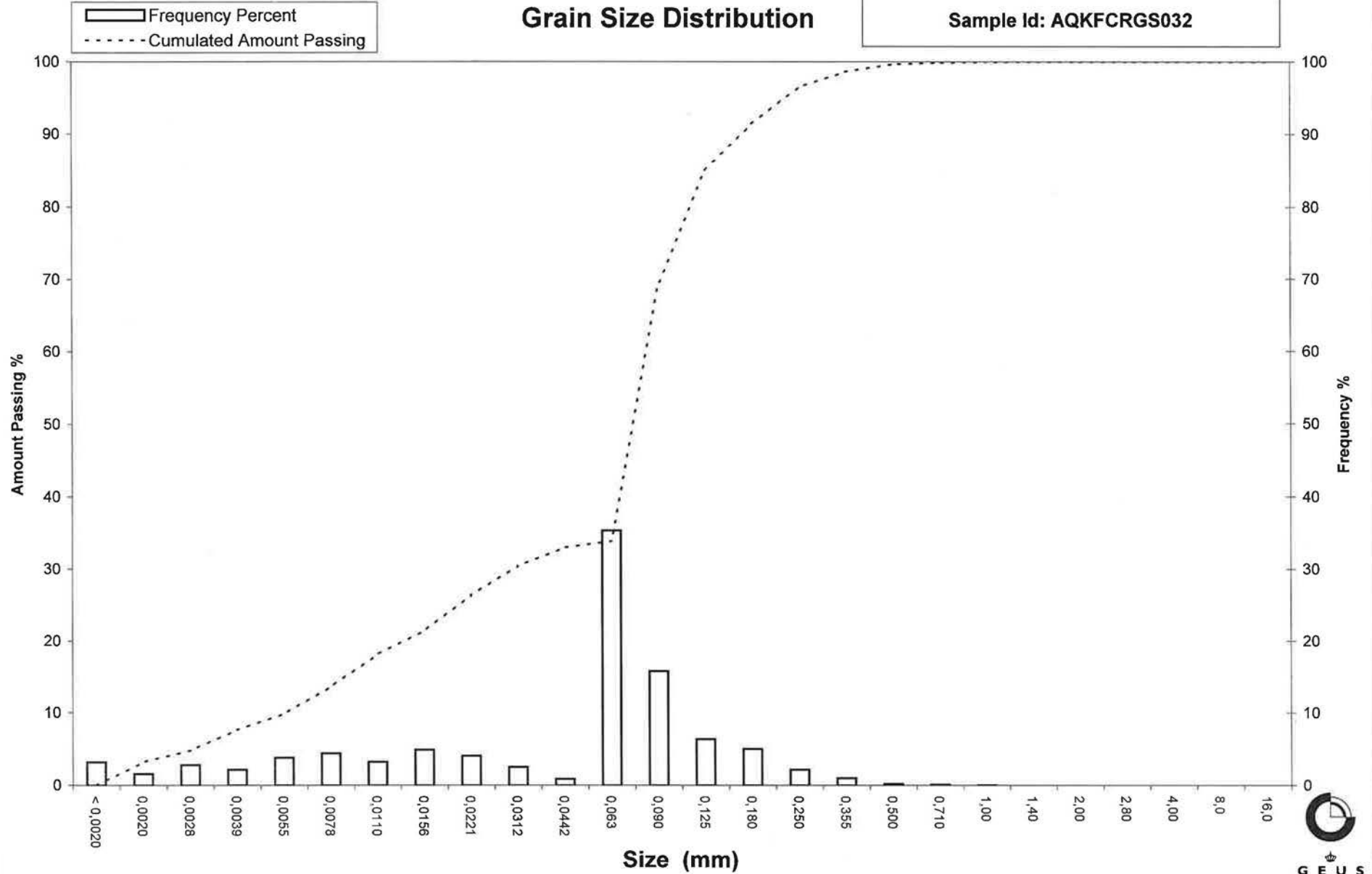
Mean $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$ (Folk and Ward 1957)
 Sorting $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$ (Folk and Ward 1957)
 Kurtosis $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$ (Folk and Ward 1957)
 Skewness $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$ (Folk and Ward 1957)
 Uniformity Coefficient $(d_{60\%} / d_{10\%})$ (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

Øster Voldgade 10 1350 København K
 Tel.: +45 38 14 20 00 Telefax: +45 38 14 20 50
 Email: GEUS@geus.dk
 www.geus.dk

Grain Size Distribution

Sample Id: AQKFCRGS032



Grain Size Distribution

Geotechnical

Sample Id: AQKFCRGS033
Lab. Id: CR33
Submitter: Energinet.dk
Subject: KRIGERS FLAK Cable Route Samples
Date: Nov/dec 2012
Executed: I. Nørgaard, A.Stoican
Remarks: For mat. < 2mm



GEUS

Total Weight 106,6 g

Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,01	0,01	99,99
2,80	-1,49	0,08	0,08	99,92
2,00	-1,00	0,03	0,03	99,89
1,40	-0,49	0,06	0,06	99,83
1,00	0,00	0,11	0,10	99,73
0,710	0,49	0,13	0,12	99,61
0,500	1,00	0,21	0,20	99,41
0,355	1,49	0,32	0,30	99,11
0,250	2,00	1,23	1,15	97,95
0,180	2,47	2,03	1,90	96,05
0,125	3,00	3,30	3,10	92,95
0,090	3,47	4,29	4,02	88,93
0,063	3,99	20,61	19,33	69,60
0,0442	4,50	2,48	2,33	67,27
0,0312	5,00	6,14	5,76	61,51
0,0221	5,50	9,07	8,51	53,00
0,0156	6,00	10,42	9,78	43,22
0,0110	6,51	6,77	6,35	36,87
0,0078	7,00	9,21	8,64	28,23
0,0055	7,51	8,07	7,57	20,66
0,0039	8,00	4,72	4,43	16,23
0,0028	8,48	6,13	5,75	10,48
0,0020	8,97	3,58	3,36	7,12
<0,0020	>8,97	7,59	7,12	0,00

Size Classes (DGF-Bulletin 1 1988)

	Weight %
Clay (< 0,002 mm):	7,12
Silt, fine (0,002 mm - 0,006 mm):	15,18
Silt, medium (0,006 mm - 0,020 mm):	27,53
Silt, coarse (0,020 mm - 0,063 mm):	19,76
Sand, fine (0,063 mm - 0,200 mm):	27,00
Sand, medium (0,2 mm - 0,6 mm):	2,91
Sand, coarse (0,6 mm - 2 mm):	0,38
Gravel (> 2 mm):	0,11
Sum:	100,00

Moments Measures

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,16	2,63
16%	84%	0,08	3,59
25%	75%	0,07	3,83
40%	60%	0,03	5,08
50%	50%	0,02	5,64
75%	25%	0,01	7,20
84%	16%	0,00	8,02
90%	10%	0,00	8,54
95%	5%	#####	-----

Moments Statistics

Mean	5,75
Sorting	-----
Skewness	-----
Kurtosis	-----
Uniformity Coefficient	11,02

The analysis is executed according to DS/EN 933-1 extended by sieves to the 1/2 phi scale and test portion mass 0,1 kg

Size Classes and Percentiles are found by linear interpolation

Formulas

Mean $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$ (Folk and Ward 1957)

Sorting $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$ (Folk and Ward 1957)

Kurtosis $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$ (Folk and Ward 1957)

Skewness $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$ (Folk and Ward 1957)

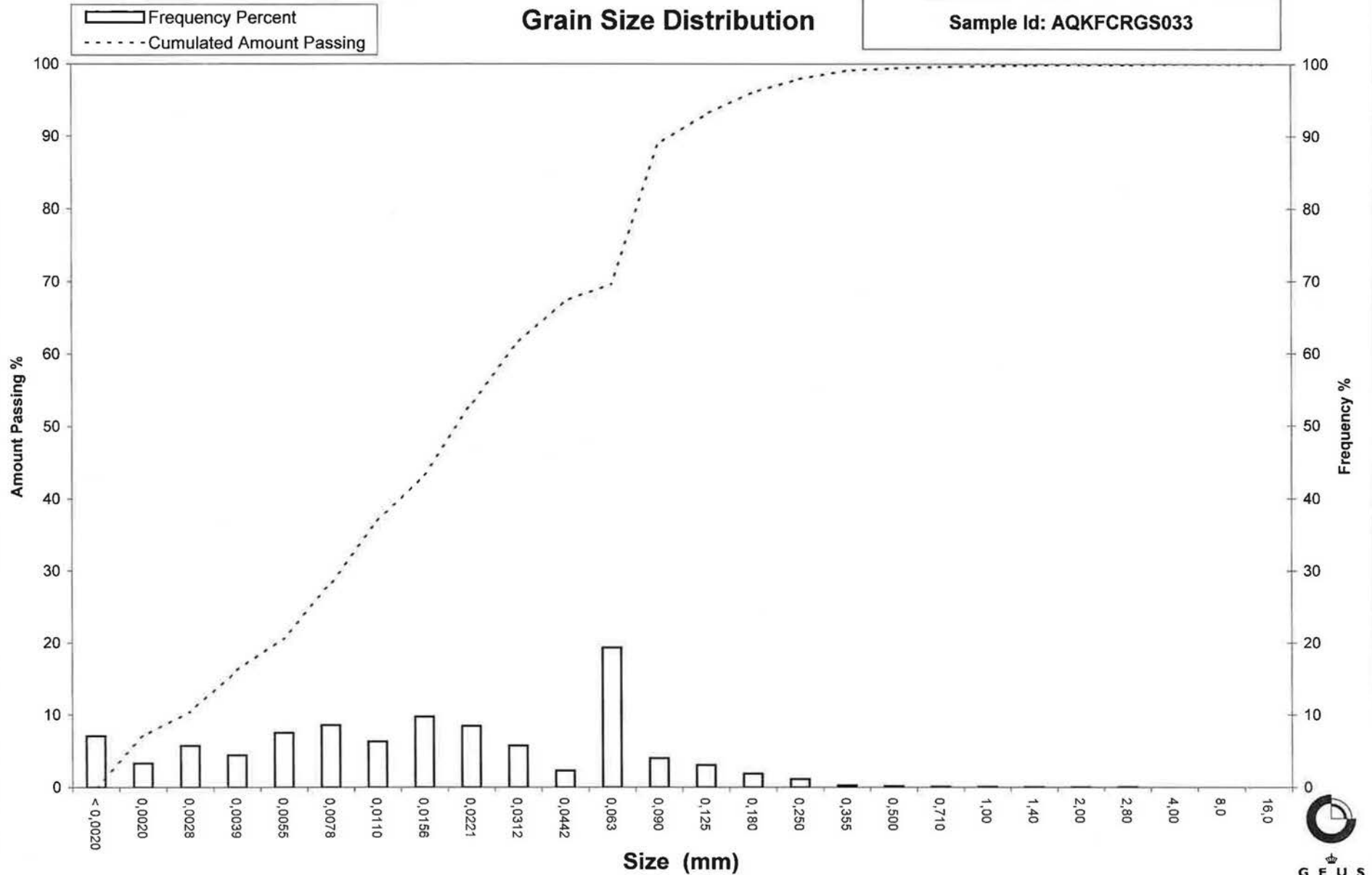
Uniformity Coefficient $(d_{60\%} / d_{10\%})$ (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

Øster Voldgade 10 1350 København K
 Tel.: +45 38 14 20 00 Telefax: +45 38 14 20 50
 Email: GEUS@geus.dk
 www.geus.dk

Grain Size Distribution

Sample Id: AQKFCRGS033



Grain Size Distribution

Geotechnical

Sample Id: AQKFCRGS034
Lab. Id: CR34
Submitter: Energinet.dk
Subject: KRIGERS FLAK Cable Route Samples
Date: Nov/dec 2012
Executed: I. Nørgaard, A. Stoican
Remarks: For mat. < 2mm



Total Weight 86,5 g

Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,00	0,00	100,00
2,80	-1,49	0,00	0,00	100,00
2,00	-1,00	0,00	0,00	100,00
1,40	-0,49	0,00	0,00	100,00
1,00	0,00	0,01	0,01	99,99
0,710	0,49	0,02	0,02	99,97
0,500	1,00	0,02	0,02	99,94
0,355	1,49	0,04	0,05	99,90
0,250	2,00	0,06	0,07	99,83
0,180	2,47	0,52	0,60	99,23
0,125	3,00	0,97	1,12	98,10
0,090	3,47	0,99	1,14	96,96
0,063	3,99	4,47	5,17	91,79
0,0442	4,50	2,38	2,75	89,04
0,0312	5,00	6,07	7,02	82,02
0,0221	5,50	8,73	10,09	71,93
0,0156	6,00	10,32	11,93	60,00
0,0110	6,51	7,15	8,26	51,74
0,0078	7,00	10,39	12,01	39,73
0,0055	7,51	9,44	10,91	28,82
0,0039	8,00	5,52	6,38	22,44
0,0028	8,48	7,09	8,20	14,24
0,0020	8,97	4,08	4,72	9,52
<0,0020	>8,97	8,23	9,52	0,00

Size Classes (DGF-Bulletin 1 1988)

	Weight %
Clay (< 0,002 mm):	9,52
Silt, fine (0,002 mm - 0,006 mm):	21,67
Silt, medium (0,006 mm - 0,020 mm):	36,88
Silt, coarse (0,020 mm - 0,063 mm):	23,71
Sand, fine (0,063 mm - 0,200 mm):	7,61
Sand, medium (0,2 mm - 0,6 mm):	0,56
Sand, coarse (0,6 mm - 2 mm):	0,05
Gravel (> 2 mm):	0,00
Sum:	100,00

Moments Measures

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,08	3,65
16%	84%	0,03	4,84
25%	75%	0,02	5,33
40%	60%	0,02	6,00
50%	50%	0,01	6,57
75%	25%	0,00	7,78
84%	16%	0,00	8,36
90%	10%	0,00	8,91
95%	5%	#####	-----

Moments Statistics

Mean	6,59
Sorting	-----
Skewness	-----
Kurtosis	-----
Uniformity Coefficient	7,49

The analysis is executed according to DS/EN 933-1 extended by sieves to the ½ phi scale and test portion mass 0,1 kg

Size Classes and Percentiles are found by linear interpolation

Formulas

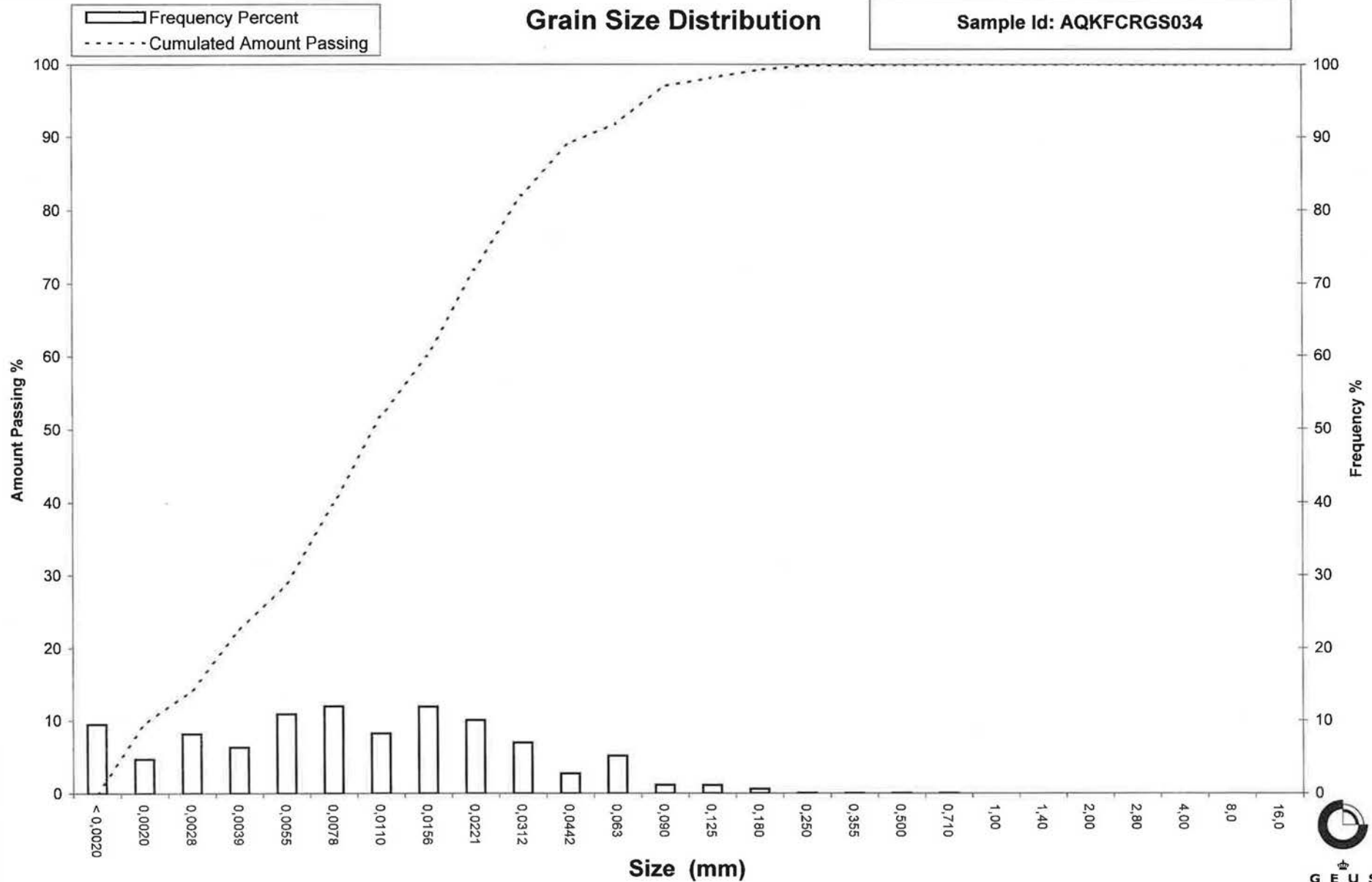
Mean $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$ (Folk and Ward 1957)
 Sorting $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$ (Folk and Ward 1957)
 Kurtosis $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$ (Folk and Ward 1957)
 Skewness $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$ (Folk and Ward 1957)
 Uniformity Coefficient $(d_{60\%} / d_{10\%})$ (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

Øster Voldgade 10 1350 København K
 Tel.: +45 38 14 20 00 Telefax: +45 38 14 20 50
 Email: GEUS@geus.dk
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Grain Size Distribution

Sample Id: AQKFCRGS034



Grain Size Distribution

Geotechnical

Sample Id: AQKFCRGS035
Lab. Id: CR35
Submitter: Energinet.dk
Subject: KRIGERS FLAK Cable Route Samples
Date: November 2012
Executed: I. Nørgaard, A.Stoican
Remarks: For mat. < 2mm



Total Weight 103,9 g

Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,00	0,00	100,00
2,80	-1,49	0,00	0,00	100,00
2,00	-1,00	0,00	0,00	100,00
1,40	-0,49	0,13	0,13	99,87
1,00	0,00	1,10	1,06	98,82
0,710	0,49	1,40	1,35	97,47
0,500	1,00	1,89	1,82	95,65
0,355	1,49	1,85	1,78	93,87
0,250	2,00	3,17	3,05	90,82
0,180	2,47	25,65	24,69	66,13
0,125	3,00	30,40	29,26	36,87
0,090	3,47	6,80	6,54	30,33
0,075	3,74	5,14	4,95	25,38
0,063	3,99	4,24	4,08	21,30
< 0,063	> 3,99	22,13	21,30	0,00

Sieve Analysis

Gravel

Sand

Size Classes (DGF-Bulletin 1 1988)

	Weight %
Silt and clay (< 0,063 mm):	21,30
Sand, fine (0,063 mm - 0,200 mm):	51,89
Sand, medium (0,2 mm - 0,6 mm):	23,33
Sand, coarse (0,6 mm - 2 mm):	3,48
Gravel (> 2 mm):	0,00
Sum:	100,00

Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,45	1,16
16%	84%	0,23	2,12
25%	75%	0,21	2,29
40%	60%	0,17	2,57
Median 50%	50%	0,15	2,74
75%	25%	0,07	3,76
84%	16%	-----	-----
90%	10%	-----	-----
95%	5%	-----	-----

Moments Statistics

Mean	2,43
Sorting	-----
Skewness	-----
Kurtosis	-----
Uniformity Coefficient	-----

The analysis is executed according to DS405.9
 DS/EN933-1 extended by sieves to the ½ phi scale.

Size Classes and Percentiles
 are found by linear interpolation

Formulas

Mean $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$ (Folk and Ward 1957)

Sorting $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$ (Folk and Ward 1957)

Kurtosis $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$ (Folk and Ward 1957)

Skewness $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$ (Folk and Ward 1957)

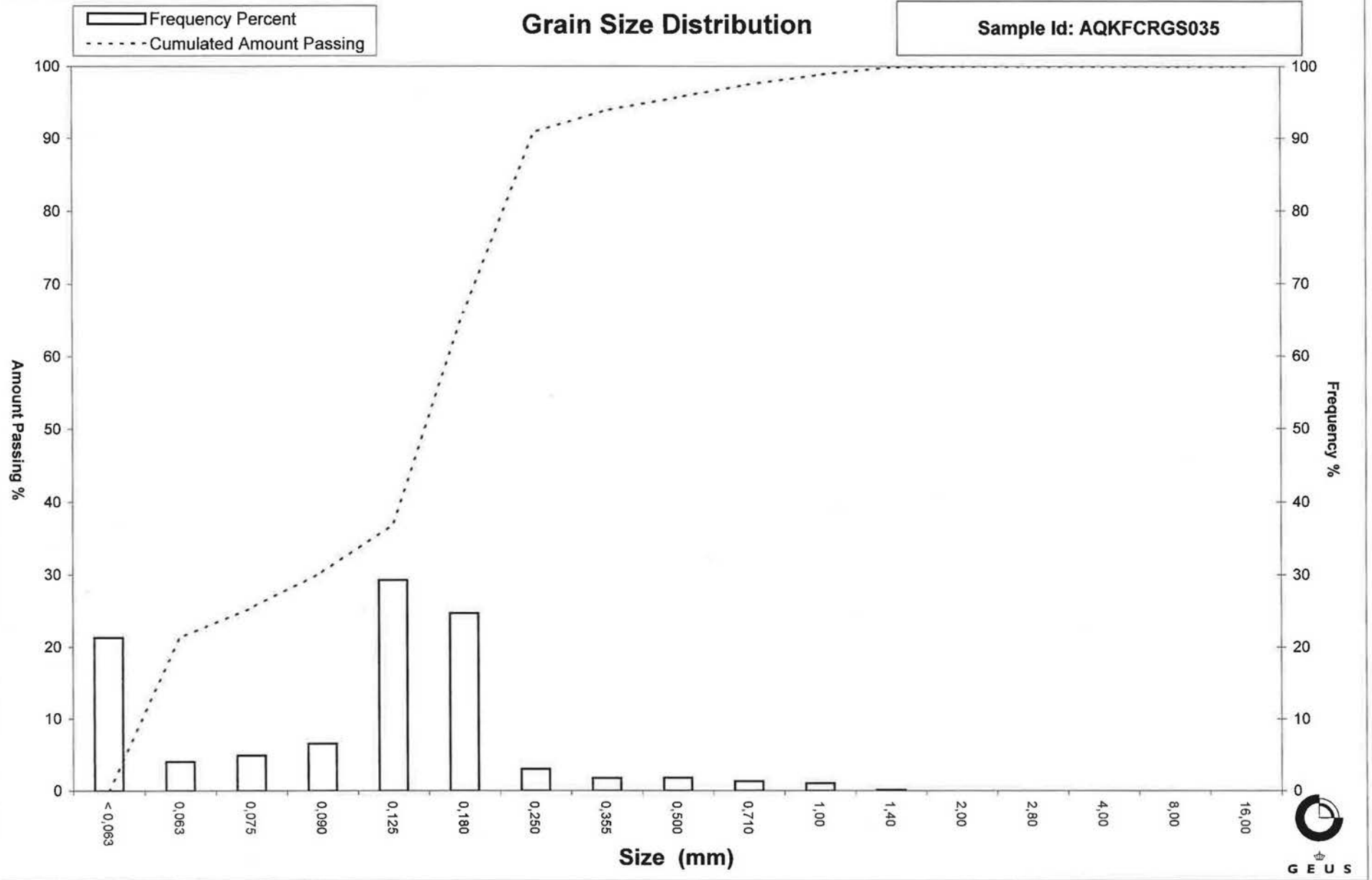
Uniformity Coefficient $(d_{60\%} / d_{10\%})$ (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on
 "Amount in sieve". Uniformity coefficient is based on

Øster Voldgade 10 1350 København K
 Tel.: +45 38 14 20 00 Telefax: +45 38 14 20 50
 Email: GEUS@geus.dk

Grain Size Distribution

Sample Id: A Q K F C R G S 0 3 5



Grain Size Distribution

Geotechnical

Sample Id: AQKFCRGS036
Lab. Id: CR36
Submitter: Energinet.dk
Subject: KRIGERS FLAK Cable Route Samples
Date: Nov/dec 2012
Executed: I. Nørgaard, A.Stoican
Remarks: For mat.< 2mm



GEUS

Total Weight 59,61 g

Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,00	0,00	100,00
2,80	-1,49	0,00	0,00	100,00
2,00	-1,00	0,00	0,00	100,00
1,40	-0,49	0,03	0,05	99,95
1,00	0,00	0,01	0,02	99,93
0,710	0,49	0,05	0,08	99,85
0,500	1,00	0,06	0,10	99,75
0,355	1,49	0,14	0,23	99,51
0,250	2,00	0,31	0,52	98,99
0,180	2,47	0,88	1,48	97,52
0,125	3,00	1,14	1,91	95,60
0,090	3,47	0,80	1,34	94,26
0,063	3,99	2,35	3,94	90,32
0,0442	4,50	1,28	2,14	88,18
0,0312	5,00	3,63	6,09	82,09
0,0221	5,50	5,79	9,72	72,37
0,0156	6,00	7,14	11,98	60,39
0,0110	6,51	4,90	8,22	52,17
0,0078	7,00	6,97	11,69	40,48
0,0055	7,51	6,24	10,46	30,02
0,0039	8,00	3,70	6,21	23,81
0,0028	8,48	4,91	8,24	15,57
0,0020	8,97	2,95	4,95	10,62
<0,0020	>8,97	6,33	10,62	0,00

Size Classes (DGF-Bulletin 1 1988)

	Weight %
Clay (< 0,002 mm):	10,62
Silt, fine (0,002 mm - 0,006 mm):	21,67
Silt, medium (0,006 mm - 0,020 mm):	36,21
Silt, coarse (0,020 mm - 0,063 mm):	21,82
Sand, fine (0,063 mm - 0,200 mm):	7,62
Sand, medium (0,2 mm - 0,6 mm):	1,86
Sand, coarse (0,6 mm - 2 mm):	0,20
Gravel (> 2 mm):	0,00
Sum:	100,00

Moments Measures

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,11	3,19
16%	84%	0,04	4,83
25%	75%	0,02	5,35
40%	60%	0,02	6,02
50%	50%	0,01	6,59
75%	25%	0,00	7,89
84%	16%	0,00	8,45
90%	10%	#####	-----
95%	5%	#####	-----

Moments Statistics

Mean	6,62
Sorting	-----
Skewness	-----
Kurtosis	-----
Uniformity Coefficient	-----

The analysis is executed according to DS/EN 933-1 extended by sieves to the ½ phi scale and test portion mass 0,1 kg

Size Classes and Percentiles are found by linear interpolation

Formulas

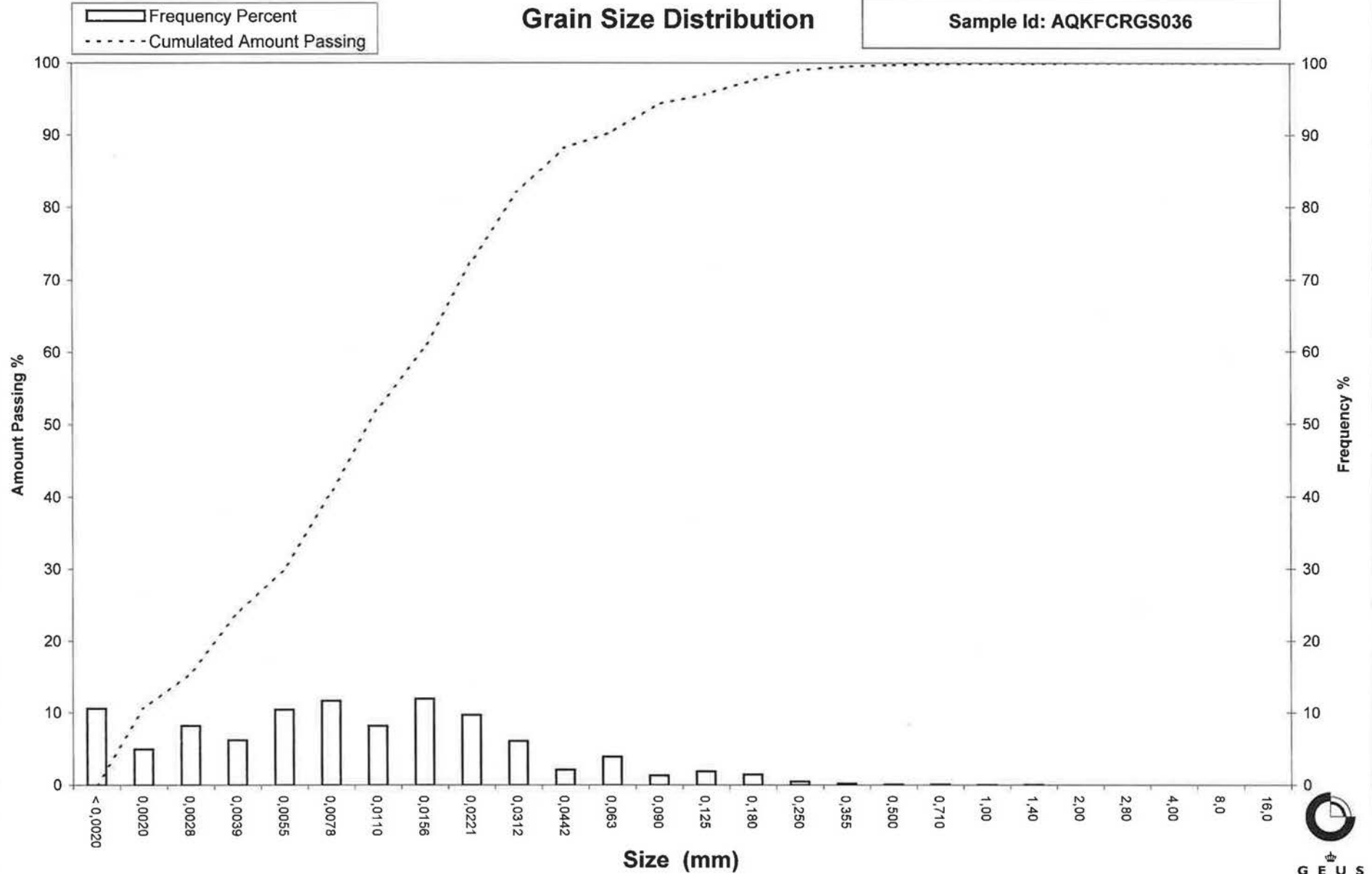
Mean $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$ (Folk and Ward 1957)
 Sorting $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$ (Folk and Ward 1957)
 Kurtosis $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$ (Folk and Ward 1957)
 Skewness $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$ (Folk and Ward 1957)
 Uniformity Coefficient $(d_{60\%} / d_{10\%})$ (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

Øster Voldgade 10 1350 København K
 Tel.: +45 38 14 20 00 Telefax: +45 38 14 20 50
 Email: GEUS@geus.dk
 www.geus.dk

Grain Size Distribution

Sample Id: AQKFCRGS036



Grain Size Distribution

Geotechnical

Sample Id: AQKFCRGS039
Lab. Id: CR39
Submitter: Energinet.dk
Subject: KRIGERS FLAK Cable Route Samples
Date: November 2012
Executed: I. Nørgaard, A.Stoican
Remarks: For mat.< 2mm



GEUS

Total Weight 114,92 g

Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,94	0,82	99,18
4,00	-2,00	0,29	0,25	98,93
2,80	-1,49	0,04	0,03	98,89
2,00	-1,00	0,02	0,02	98,88
1,40	-0,49	0,03	0,03	98,85
1,00	0,00	0,11	0,10	98,76
0,710	0,49	0,18	0,16	98,60
0,500	1,00	4,00	3,48	95,12
0,355	1,49	61,77	53,75	41,37
0,250	2,00	38,63	33,61	7,75
0,180	2,47	4,41	3,84	3,92
0,125	3,00	1,05	0,91	3,00
0,090	3,47	0,57	0,50	2,51
0,075	3,74	0,33	0,29	2,22
0,063	3,99	0,22	0,19	2,03
< 0,063	> 3,99	2,33	2,03	0,00

Size Classes (DGF-Bulletin 1 1988)

	Weight %
Silt and clay (< 0,063 mm):	2,03
Sand, fine (0,063 mm - 0,200 mm):	2,98
Sand, medium (0,2 mm - 0,6 mm):	91,76
Sand, coarse (0,6 mm - 2 mm):	2,10
Gravel (> 2 mm):	1,12
Sum:	100,00

Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,50	1,00
16%	84%	0,47	1,09
25%	75%	0,45	1,17
40%	60%	0,41	1,30
Median 50%	50%	0,38	1,40
75%	25%	0,30	1,72
84%	16%	0,28	1,86
90%	10%	0,26	1,96
95%	5%	0,20	2,32

Moments Statistics

Mean	1,45
Sorting	0,39
Skewness	0,29
Kurtosis	0,98
Uniformity Coefficient	1,58

The analysis is executed according to DS405.9
DS/EN933-1 extended by sieves to the ½ phi scale.

Size Classes and Percentiles
are found by linear interpolation

Formulas

Mean $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$ (Folk and Ward 1957)

Sorting $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$ (Folk and Ward 1957)

Kurtosis $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$ (Folk and Ward 1957)

Skewness $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$ (Folk and Ward 1957)

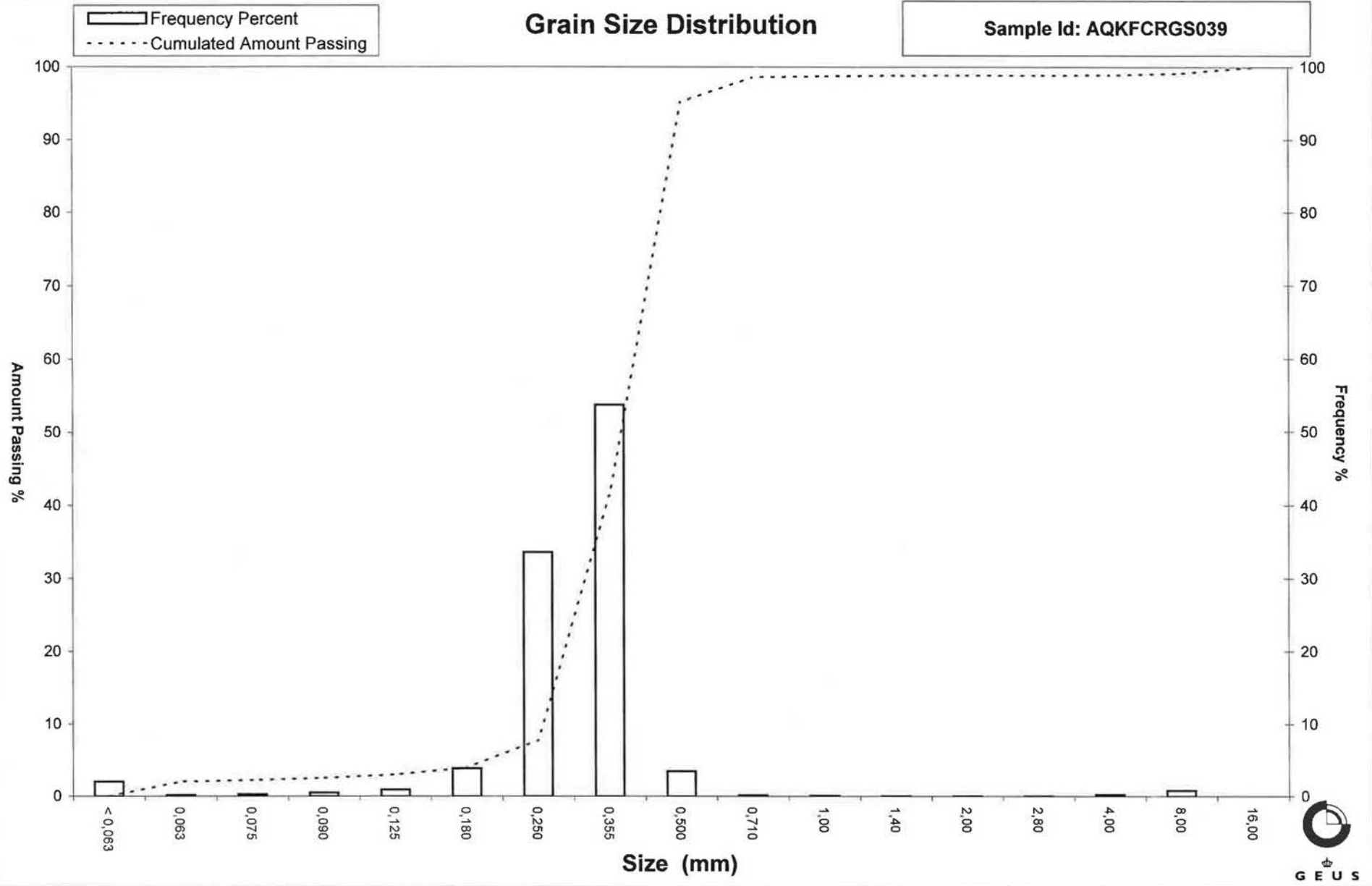
Uniformity Coefficient $(d_{60\%} / d_{10\%})$ (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on
"Amount in sieve". Uniformity coefficient is based on

Øster Voldgade 10 1350 København K
Tel.: +45 38 14 20 00 Telefax: +45 38 14 20 50
Email: GEUS@geus.dk

Grain Size Distribution

Sample Id: AQKFCRGS039



Grain Size Distribution

Geotechnical

Sample Id: AQKFCRGS040_1
Lab. Id: CR40_1
Submitter: Energinet.dk
Subject: KRIGERS FLAK Cable Route Samples
Date: Nov/dec 2012
Executed: I. Nørgaard, A.Stoican
Remarks: For mat. < 2mm



GEUS

Total Weight 104,45 g

Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,00	0,00	100,00
2,80	-1,49	0,00	0,00	100,00
2,00	-1,00	0,00	0,00	100,00
1,40	-0,49	0,35	0,34	99,66
1,00	0,00	0,71	0,68	98,99
0,710	0,49	1,16	1,11	97,87
0,500	1,00	1,25	1,20	96,68
0,355	1,49	1,60	1,53	95,15
0,250	2,00	2,19	2,10	93,05
0,180	2,47	7,79	7,46	85,59
0,125	3,00	9,91	9,49	76,10
0,090	3,47	4,90	4,69	71,41
0,063	3,99	3,99	3,82	67,59
0,0442	4,50	0,97	0,93	66,66
0,0312	5,00	2,31	2,21	64,45
0,0221	5,50	4,02	3,85	60,60
0,0156	6,00	5,92	5,67	54,93
0,0110	6,51	4,78	4,58	50,35
0,0078	7,00	8,13	7,78	42,57
0,0055	7,51	9,02	8,64	33,93
0,0039	8,00	6,25	5,98	27,95
0,0028	8,48	9,21	8,82	19,13
0,0020	8,97	5,93	5,68	13,45
<0,0020	>8,97	14,05	13,45	0,00

Size Classes (DGF-Bulletin 1 1988)

	Weight %
Clay (< 0,002 mm):	13,45
Silt, fine (0,002 mm - 0,006 mm):	22,36
Silt, medium (0,006 mm - 0,020 mm):	22,96
Silt, coarse (0,020 mm - 0,063 mm):	8,82
Sand, fine (0,063 mm - 0,200 mm):	20,13
Sand, medium (0,2 mm - 0,6 mm):	9,53
Sand, coarse (0,6 mm - 2 mm):	2,75
Gravel (> 2 mm):	0,00
Sum:	100,00

Moments Measures

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,35	1,52
16%	84%	0,17	2,55
25%	75%	0,12	3,10
40%	60%	0,02	5,55
50%	50%	0,01	6,53
75%	25%	0,00	8,15
84%	16%	0,00	8,73
90%	10%	#####	-----
95%	5%	#####	-----

Moments Statistics

Mean	5,93
Sorting	-----
Skewness	-----
Kurtosis	-----
Uniformity Coefficient	-----

The analysis is executed according to DS/EN 933-1 extended by sieves to the 1/2 phi scale and test portion mass 0,1 kg

Size Classes and Percentiles are found by linear interpolation

Formulas

Mean $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$ (Folk and Ward 1957)

Sorting $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$ (Folk and Ward 1957)

Kurtosis $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$ (Folk and Ward 1957)

Skewness $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$ (Folk and Ward 1957)

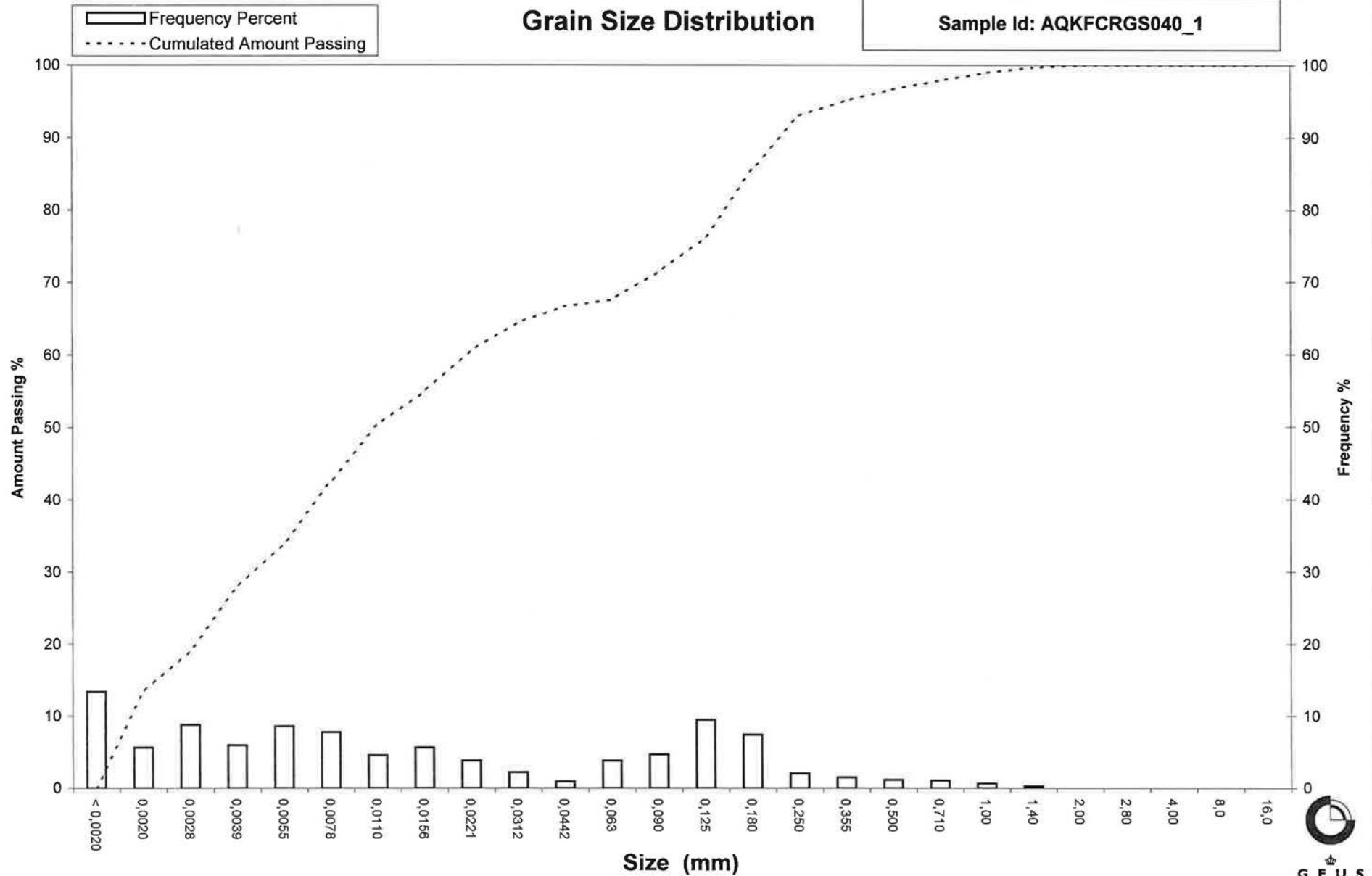
Uniformity Coefficient $(d_{60\%} / d_{10\%})$ (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

Øster Voldgade 10 1350 København K
 Tel.: +45 38 14 20 00 Telefax: +45 38 14 20 50
 Email: GEUS@geus.dk
 www.geus.dk

Grain Size Distribution

Sample Id: A Q K F C R G S 0 4 0 _ 1



Grain Size Distribution

Geotechnical

Sample Id: AQKFCRGS042
Lab. Id: CR42
Submitter: Energinet.dk
Subject: KRIGERS FLAK Cable Route Samples
Date: November 2012
Executed: I. Nørgaard, A. Stoican
Remarks: For mat. < 2mm



Total Weight 115,92 g

Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,00	0,00	100,00
2,80	-1,49	0,00	0,00	100,00
2,00	-1,00	0,00	0,00	100,00
1,40	-0,49	0,00	0,00	100,00
1,00	0,00	0,01	0,01	99,99
0,710	0,49	0,11	0,09	99,90
0,500	1,00	5,81	5,01	94,88
0,355	1,49	81,68	70,46	24,42
0,250	2,00	24,18	20,86	3,56
0,180	2,47	2,51	2,17	1,40
0,125	3,00	0,61	0,53	0,87
0,090	3,47	0,18	0,16	0,72
0,075	3,74	0,04	0,03	0,68
0,063	3,99	0,01	0,01	0,67
< 0,063	> 3,99	0,78	0,67	0,00

Size Classes (DGF-Bulletin 1 1988)

	Weight %
Silt and clay (< 0,063 mm):	0,67
Sand, fine (0,063 mm - 0,200 mm):	1,34
Sand, medium (0,2 mm - 0,6 mm):	95,25
Sand, coarse (0,6 mm - 2 mm):	2,73
Gravel (> 2 mm):	0,00
Sum:	100,00

Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,50	0,99
16%	84%	0,48	1,07
25%	75%	0,46	1,12
40%	60%	0,43	1,22
Median 50%	50%	0,41	1,29
75%	25%	0,36	1,49
84%	16%	0,31	1,68
90%	10%	0,28	1,82
95%	5%	0,26	1,96

Moments Statistics

Mean	1,35
Sorting	0,30
Skewness	0,31
Kurtosis	1,09
Uniformity Coefficient	1,52

The analysis is executed according to DS405.9
DS/EN933-1 extended by sieves to the 1/2 phi scale.

Size Classes and Percentiles
are found by linear interpolation

Formulas

Mean $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$ (Folk and Ward 1957)

Sorting $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$ (Folk and Ward 1957)

Kurtosis $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$ (Folk and Ward 1957)

Skewness $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$ (Folk and Ward 1957)

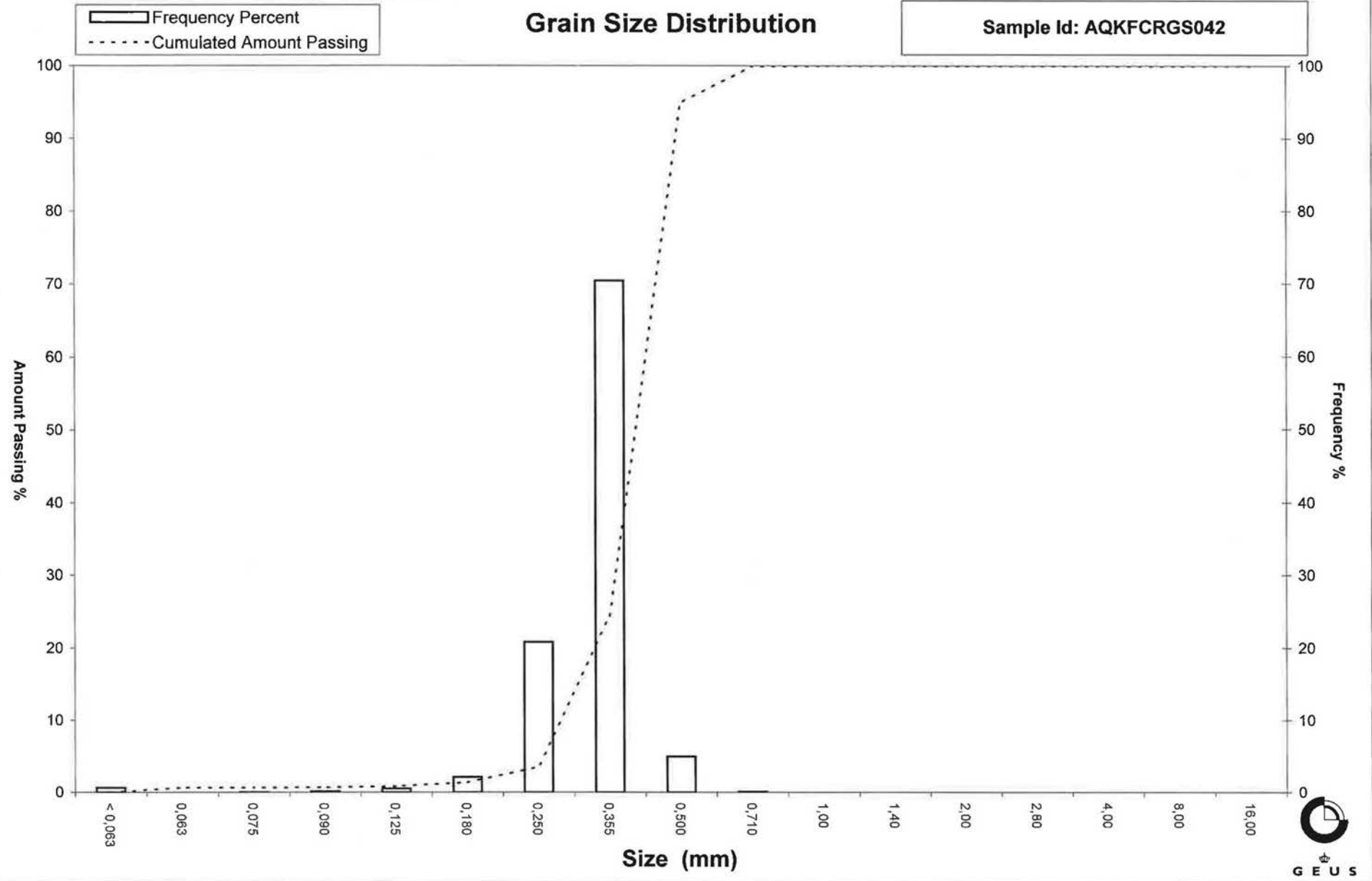
Uniformity Coefficient $(d_{60\%} / d_{10\%})$ (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on
"Amount in sieve". Uniformity coefficient is based on

Øster Voldgade 10 1350 København K
Tel.: +45 38 14 20 00 Telefax: +45 38 14 20 50
Email: GEUS@geus.dk

Grain Size Distribution

Sample Id: AQKFCRGS042



Grain Size Distribution

Geotechnical

Sample Id: AQKFCRGS043
Lab. Id: CR43
Submitter: Energinet.dk
Subject: KRIGERS FLAK Cable Route Samples
Date: November 2012
Executed: I. Nørgaard, A.Stoican
Remarks: For mat. < 2mm



Total Weight 107,3 g

Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,35	0,33	99,67
2,80	-1,49	0,03	0,03	99,65
2,00	-1,00	0,22	0,21	99,44
1,40	-0,49	0,79	0,74	98,70
1,00	0,00	2,19	2,04	96,66
0,710	0,49	2,95	2,75	93,91
0,500	1,00	9,42	8,78	85,14
0,355	1,49	26,53	24,73	60,41
0,250	2,00	18,38	17,13	43,28
0,180	2,47	17,49	16,30	26,98
0,125	3,00	15,77	14,70	12,28
0,090	3,47	4,74	4,42	7,87
0,075	3,74	0,96	0,89	6,97
0,063	3,99	0,64	0,60	6,37
< 0,063	> 3,99	6,84	6,37	0,00

Size Classes (DGF-Bulletin 1 1988)

	Weight %
Silt and clay (< 0,063 mm):	6,37
Sand, fine (0,063 mm - 0,200 mm):	25,26
Sand, medium (0,2 mm - 0,6 mm):	57,68
Sand, coarse (0,6 mm - 2 mm):	10,13
Gravel (> 2 mm):	0,56
Sum:	100,00

Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,82	0,28
16%	84%	0,49	1,02
25%	75%	0,44	1,18
40%	60%	0,35	1,50
Median 50%	50%	0,29	1,78
75%	25%	0,17	2,53
84%	16%	0,14	2,85
90%	10%	0,11	3,23
95%	5%	-----	-----

Moments Statistics

Mean	1,88
Sorting	-----
Skewness	-----
Kurtosis	-----
Uniformity Coefficient	3,30

The analysis is executed according to DS405.9
 DS/EN933-1 extended by sieves to the ½ phi scale.

Size Classes and Percentiles
 are found by linear interpolation

Formulas

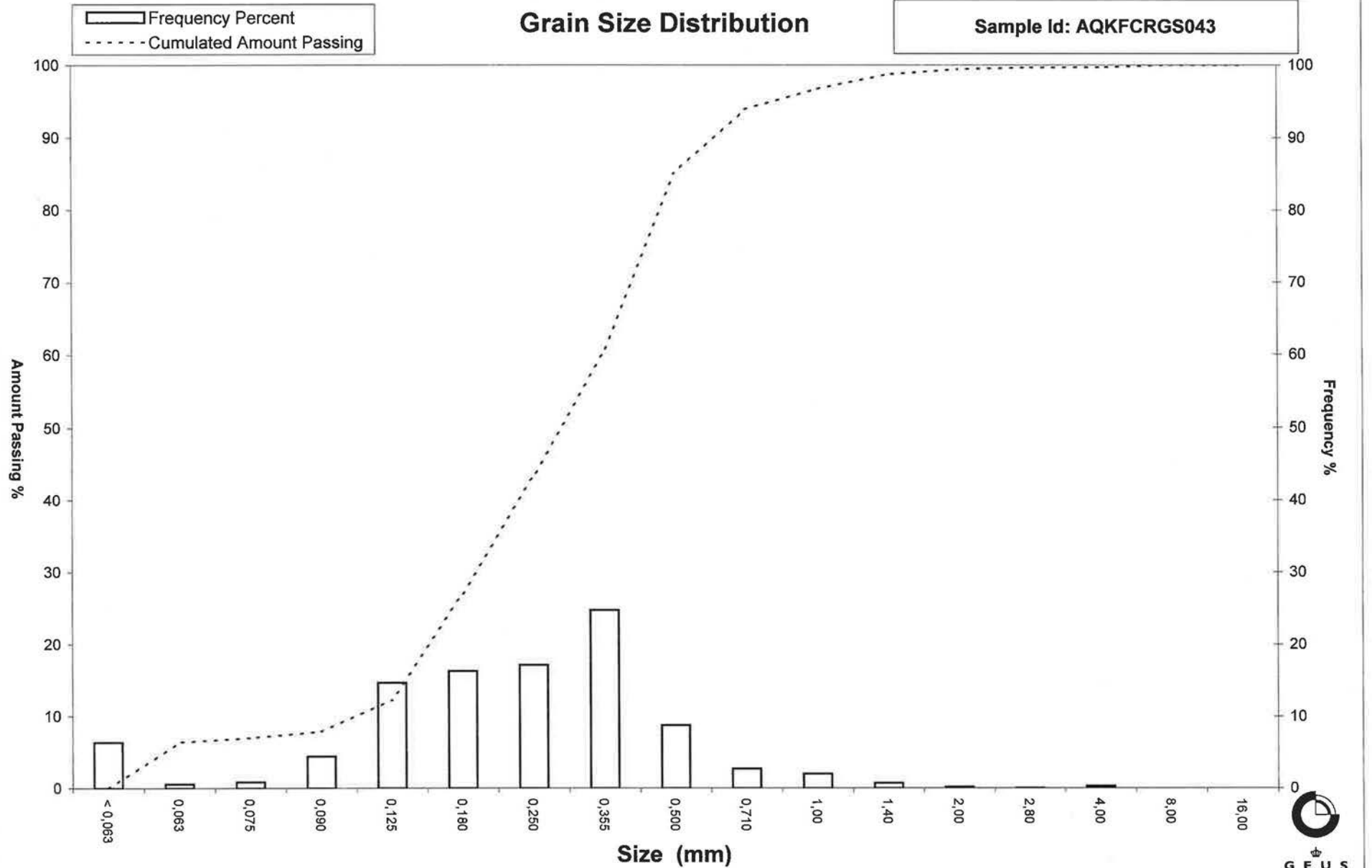
Mean $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$ (Folk and Ward 1957)
 Sorting $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$ (Folk and Ward 1957)
 Kurtosis $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$ (Folk and Ward 1957)
 Skewness $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$ (Folk and Ward 1957)
 Uniformity Coefficient $(d_{60\%} / d_{10\%})$ (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on
 "Amount in sieve". Uniformity coefficient is based on

Øster Voldgade 10 1350 København K
 Tel.: +45 38 14 20 00 Telefax: +45 38 14 20 50
 Email: GEUS@geus.dk

Grain Size Distribution

Sample Id: AQKFCRGS043



Grain Size Distribution

Geotechnical

Sample Id: AQKFCRGS045
Lab. Id: CR45
Submitter: Energinet.dk
Subject: KRIGERS FLAK Cable Route Samples
Date: November 2012
Executed: I. Nørgaard, A.Stoican
Remarks: For mat. < 2mm



Total Weight 113,06 g

Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,01	0,01	99,99
2,80	-1,49	0,00	0,00	99,99
2,00	-1,00	0,00	0,00	99,99
1,40	-0,49	0,00	0,00	99,99
1,00	0,00	0,01	0,01	99,98
0,710	0,49	0,08	0,07	99,91
0,500	1,00	2,12	1,88	98,04
0,355	1,49	20,71	18,32	79,72
0,250	2,00	51,67	45,70	34,02
0,180	2,47	24,50	21,67	12,35
0,125	3,00	8,14	7,20	5,15
0,090	3,47	2,45	2,17	2,98
0,075	3,74	0,39	0,34	2,64
0,063	3,99	0,38	0,34	2,30
< 0,063	> 3,99	2,60	2,30	0,00

Size Classes (DGF-Bulletin 1 1988)

	Weight %
Silt and clay (< 0,063 mm):	2,30
Sand, fine (0,063 mm - 0,200 mm):	16,24
Sand, medium (0,2 mm - 0,6 mm):	80,39
Sand, coarse (0,6 mm - 2 mm):	1,06
Gravel (> 2 mm):	0,01
Sum:	100,00

Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,48	1,07
16%	84%	0,39	1,36
25%	75%	0,34	1,54
40%	60%	0,31	1,69
Median 50%	50%	0,29	1,80
75%	25%	0,22	2,18
84%	16%	0,19	2,38
90%	10%	0,16	2,63
95%	5%	0,12	3,03

Moments Statistics

Mean	1,85
Sorting	0,55
Skewness	0,20
Kurtosis	1,25
Uniformity Coefficient	1,91

The analysis is executed according to DS405.9
 DS/EN933-1 extended by sieves to the 1/2 phi scale.

Size Classes and Percentiles
 are found by linear interpolation

Formulas

Mean $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$ (Folk and Ward 1957)

Sorting $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$ (Folk and Ward 1957)

Kurtosis $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$ (Folk and Ward 1957)

Skewness $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$ (Folk and Ward 1957)

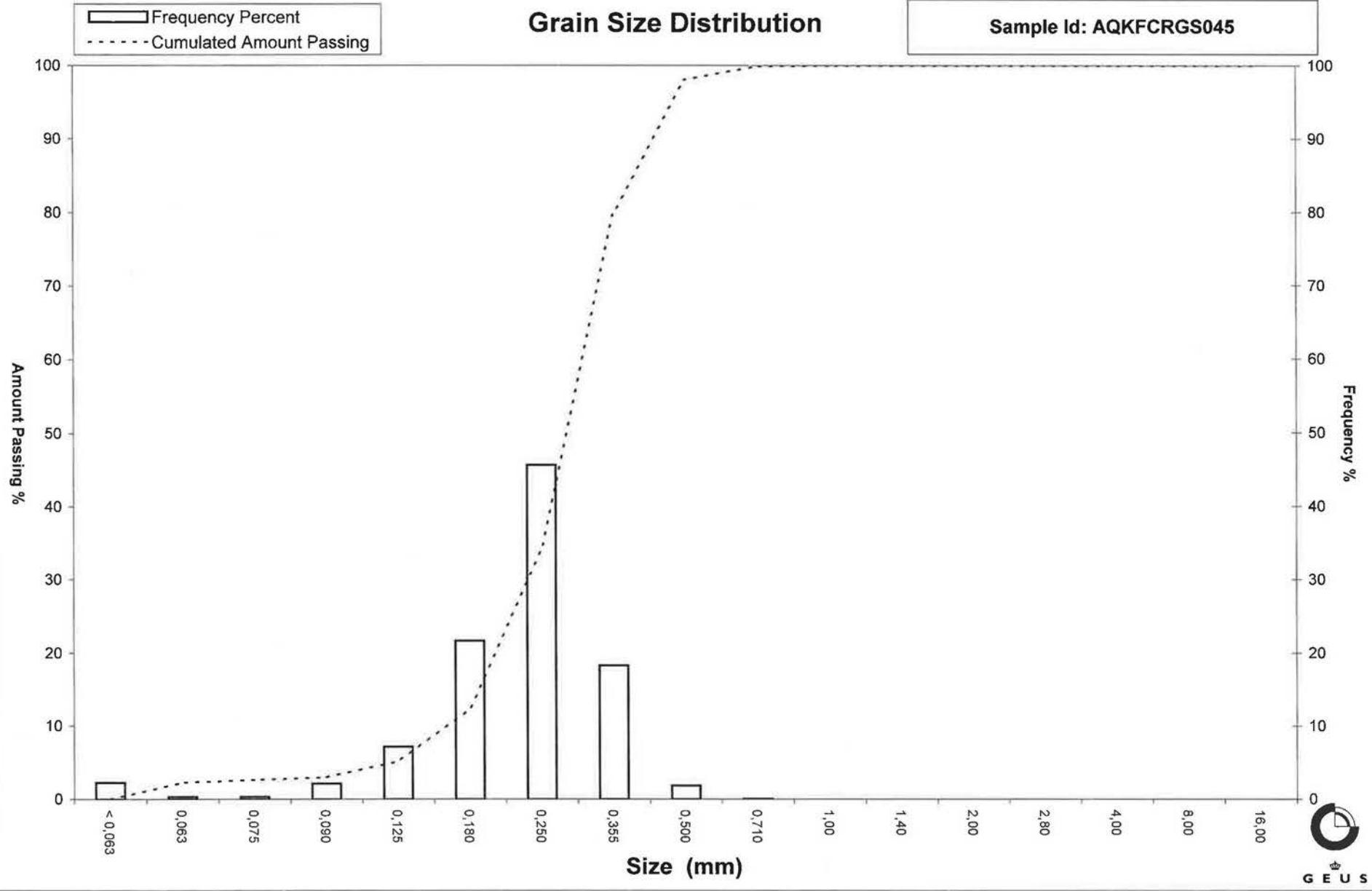
Uniformity Coefficient $(d_{60\%} / d_{10\%})$ (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on
 "Amount in sieve". Uniformity coefficient is based on

Øster Voldgade 10 1350 København K
 Tel.: +45 38 14 20 00 Telefax: +45 38 14 20 50
 Email: GEUS@geus.dk

Grain Size Distribution

Sample Id: AQKFCRGS045



Grain Size Distribution

Geotechnical

Sample Id: AQKFCRGS046
Lab. Id: CR46
Submitter: Energinet.dk
Subject: KRIGERS FLAK Cable Route Samples
Date: November 2012
Executed: I. Nørgaard, A. Stoican
Remarks: For mat. < 2mm



Total Weight 116,31 g

Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,12	0,10	99,90
2,80	-1,49	0,00	0,00	99,90
2,00	-1,00	0,00	0,00	99,90
1,40	-0,49	0,00	0,00	99,90
1,00	0,00	0,03	0,03	99,87
0,710	0,49	0,45	0,39	99,48
0,500	1,00	5,42	4,66	94,82
0,355	1,49	34,41	29,58	65,24
0,250	2,00	55,08	47,36	17,88
0,180	2,47	14,52	12,48	5,40
0,125	3,00	2,97	2,55	2,85
0,090	3,47	0,76	0,65	2,19
0,075	3,74	0,19	0,16	2,03
0,063	3,99	0,27	0,23	1,80
< 0,063	> 3,99	2,09	1,80	0,00

Size Classes (DGF-Bulletin 1 1988)

	Weight %
Silt and clay (< 0,063 mm):	1,80
Sand, fine (0,063 mm - 0,200 mm):	7,17
Sand, medium (0,2 mm - 0,6 mm):	88,08
Sand, coarse (0,6 mm - 2 mm):	2,85
Gravel (> 2 mm):	0,10
Sum:	100,00

Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,51	0,98
16%	84%	0,45	1,16
25%	75%	0,40	1,31
40%	60%	0,34	1,54
Median 50%	50%	0,32	1,64
75%	25%	0,27	1,91
84%	16%	0,24	2,06
90%	10%	0,21	2,28
95%	5%	0,17	2,54

Moments Statistics

Mean	1,62
Sorting	0,46
Skewness	0,05
Kurtosis	1,07
Uniformity Coefficient	1,67

The analysis is executed according to DS405.9
DS/EN933-1 extended by sieves to the ½ phi scale.

Size Classes and Percentiles
are found by linear interpolation

Formulas

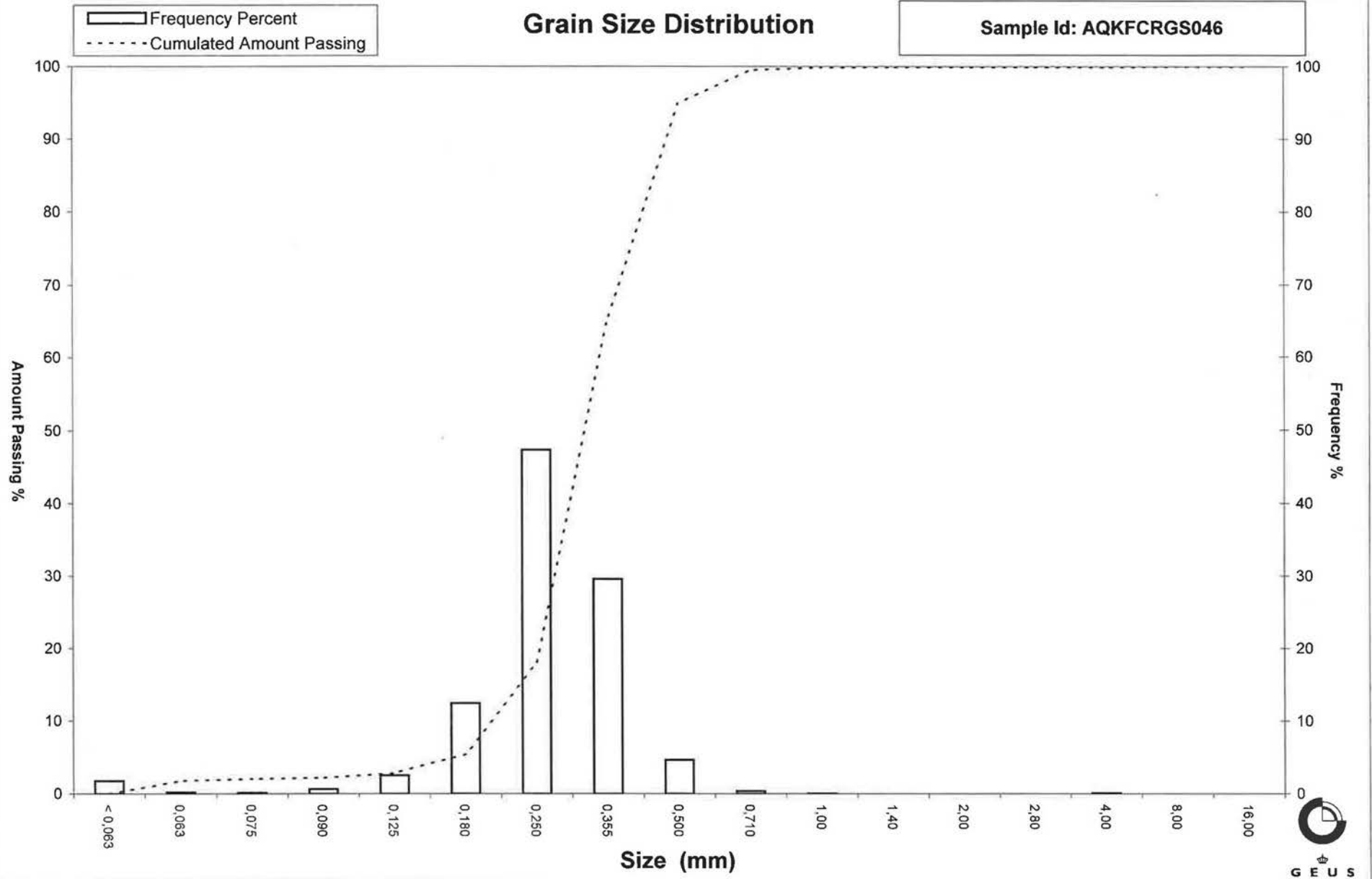
Mean $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$ (Folk and Ward 1957)
Sorting $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$ (Folk and Ward 1957)
Kurtosis $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$ (Folk and Ward 1957)
Skewness $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$ (Folk and Ward 1957)
Uniformity Coefficient $(d_{60\%} / d_{10\%})$ (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on
"Amount in sieve". Uniformity coefficient is based on

Øster Voldgade 10 1350 København K
Tel.: +45 38 14 20 00 Telefax: +45 38 14 20 50
Email: GEUS@geus.dk

Grain Size Distribution

Sample Id: AQKFCRGS046



Grain Size Distribution

Geotechnical

Sample Id: AQKFCRGS047
Lab. Id: CR47
Submitter: Energinet.dk
Subject: KRIGERS FLAK Cable Route Samples
Date: November 2012
Executed: I. Nørgaard, A. Stoican
Remarks: For mat. < 2mm



GEUS

Total Weight 101,93 g

Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,00	0,00	100,00
2,80	-1,49	0,00	0,00	100,00
2,00	-1,00	0,00	0,00	100,00
1,40	-0,49	0,02	0,02	99,98
1,00	0,00	0,01	0,01	99,97
0,710	0,49	0,07	0,07	99,90
0,500	1,00	0,75	0,74	99,17
0,355	1,49	8,86	8,69	90,47
0,250	2,00	27,94	27,41	63,06
0,180	2,47	36,65	35,96	27,11
0,125	3,00	15,60	15,30	11,80
0,090	3,47	4,69	4,60	7,20
0,075	3,74	0,97	0,95	6,25
0,063	3,99	1,29	1,27	4,98
< 0,063	> 3,99	5,08	4,98	0,00

Size Classes (DGF-Bulletin 1 1988)

	Weight %
Silt and clay (< 0,063 mm):	4,98
Sand, fine (0,063 mm - 0,200 mm):	32,40
Sand, medium (0,2 mm - 0,6 mm):	62,14
Sand, coarse (0,6 mm - 2 mm):	0,48
Gravel (> 2 mm):	0,00
Sum:	100,00

Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,43	1,22
16%	84%	0,33	1,60
25%	75%	0,30	1,76
40%	60%	0,24	2,03
Median 50%	50%	0,22	2,15
75%	25%	0,17	2,54
84%	16%	0,14	2,84
90%	10%	0,11	3,17
95%	5%	0,06	3,98

Moments Statistics

Mean	2,20
Sorting	0,73
Skewness	0,21
Kurtosis	1,46
Uniformity Coefficient	2,19

The analysis is executed according to DS405.9
 DS/EN933-1 extended by sieves to the ½ phi scale.

Size Classes and Percentiles
 are found by linear interpolation

Formulas

Mean ($\phi_{16\%} + \phi_{84\%} + \phi_{50\%}$) / 3 (Folk and Ward 1957)

Sorting ($\phi_{84\%} - \phi_{16\%}$) / 4 + ($\phi_{95\%} - \phi_{5\%}$) / 6,6 (Folk and Ward 1957)

Kurtosis ($\phi_{95\%} - \phi_{5\%}$) / (2,44 * ($\phi_{75\%} - \phi_{25\%}$)) (Folk and Ward 1957)

Skewness ($\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}$) / (2 * ($\phi_{84\%} - \phi_{16\%}$)) + ($\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}$) / (2 * ($\phi_{95\%} - \phi_{5\%}$)) (Folk and Ward 1957)

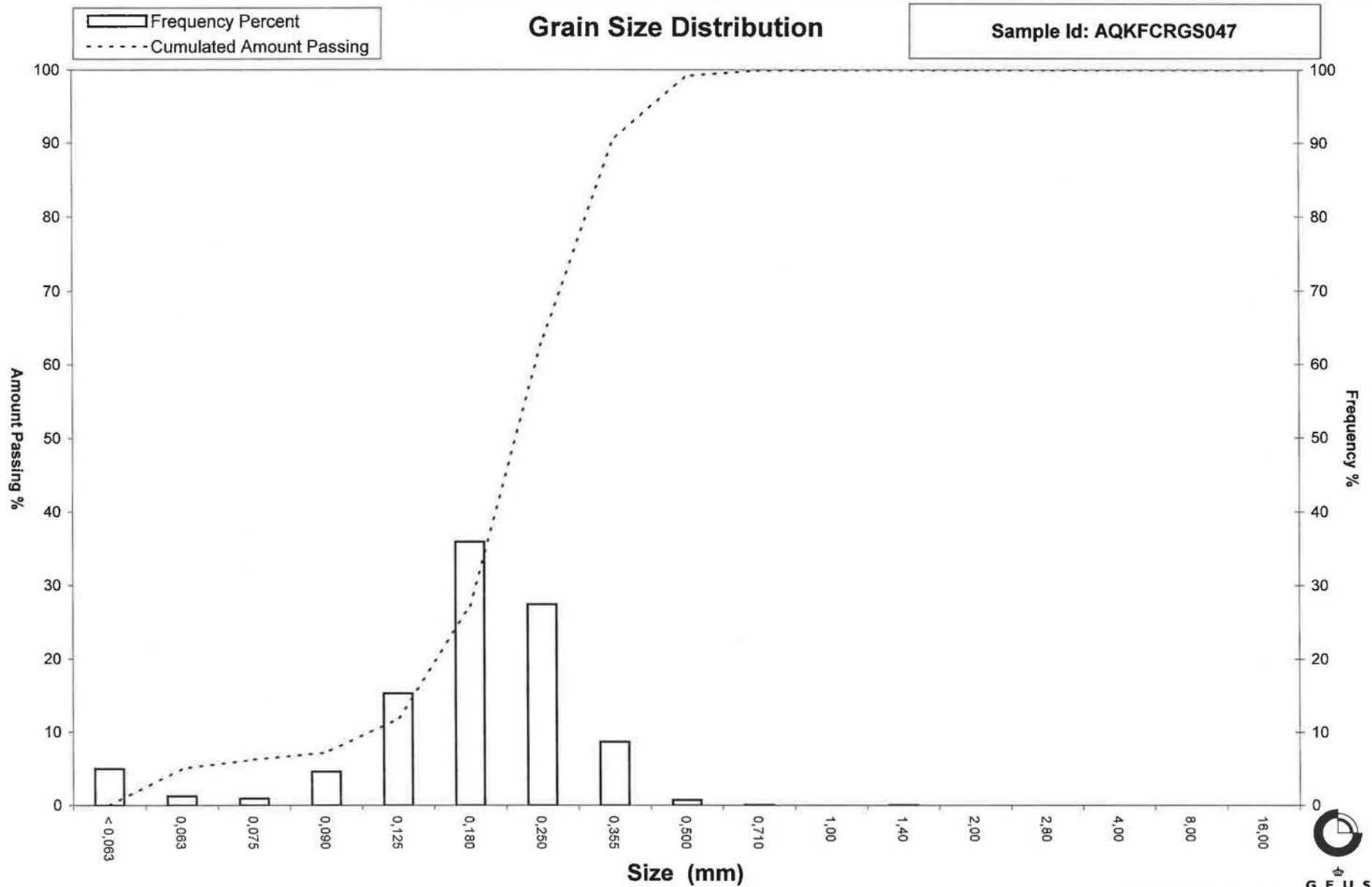
Uniformity Coefficient ($d_{60\%} / d_{10\%}$) (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on
 "Amount in sieve". Uniformity coefficient is based on

Øster Voldgade 10 1350 København K
 Tel.: +45 38 14 20 00 Telefax: +45 38 14 20 50
 Email: GEUS@geus.dk

Grain Size Distribution

Sample Id: AQKFCRGS047



Grain Size Distribution

Geotechnical

Sample Id: AQKFCRGS048
Lab. Id: CR48
Submitter: Energinet.dk
Subject: KRIGERS FLAK Cable Route Samples
Date: Nov/dec 2012
Executed: I. Nørgaard, A. Stoican
Remarks: For mat. < 2mm



Total Weight 107,06 g

Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,17	0,16	99,84
4,00	-2,00	0,00	0,00	99,84
2,80	-1,49	0,00	0,00	99,84
2,00	-1,00	0,00	0,00	99,84
1,40	-0,49	0,00	0,00	99,84
1,00	0,00	0,03	0,03	99,81
0,710	0,49	0,09	0,08	99,73
0,500	1,00	0,17	0,16	99,57
0,355	1,49	0,90	0,84	98,73
0,250	2,00	5,88	5,49	93,24
0,180	2,47	15,48	14,46	78,78
0,125	3,00	18,95	17,70	61,08
0,090	3,47	16,67	15,57	45,51
0,063	3,99	17,73	16,56	28,95
0,0442	4,50	1,18	1,10	27,85
0,0312	5,00	1,96	1,83	26,02
0,0221	5,50	2,16	2,02	24,00
0,0156	6,00	2,67	2,49	21,51
0,0110	6,51	2,18	2,04	19,47
0,0078	7,00	3,80	3,55	15,92
0,0055	7,51	4,05	3,78	12,14
0,0039	8,00	2,58	2,41	9,73
0,0028	8,48	3,52	3,29	6,44
0,0020	8,97	2,13	1,99	4,45
<0,0020	>8,97	4,76	4,45	0,00

Size Classes (DGF-Bulletin 1 1988)

	Weight %
Clay (< 0,002 mm):	4,45
Silt, fine (0,002 mm - 0,006 mm):	8,51
Silt, medium (0,006 mm - 0,020 mm):	10,23
Silt, coarse (0,020 mm - 0,063 mm):	5,75
Sand, fine (0,063 mm - 0,200 mm):	53,96
Sand, medium (0,2 mm - 0,6 mm):	16,74
Sand, coarse (0,6 mm - 2 mm):	0,20
Gravel (> 2 mm):	0,16
Sum:	100,00

Moments Measures

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,28	1,82
16%	84%	0,21	2,28
25%	75%	0,17	2,57
40%	60%	0,12	3,03
50%	50%	0,10	3,32
75%	25%	0,03	5,23
84%	16%	0,01	6,99
90%	10%	0,00	7,94
95%	5%	0,00	8,81

Moments Statistics

Mean	4,20
Sorting	2,24
Skewness	0,56
Kurtosis	1,08
Uniformity Coefficient	30,04

The analysis is executed according to DS/EN 933-1 extended by sieves to the ½ phi scale and test portion mass 0,1 kg

Size Classes and Percentiles are found by linear interpolation

Formulas

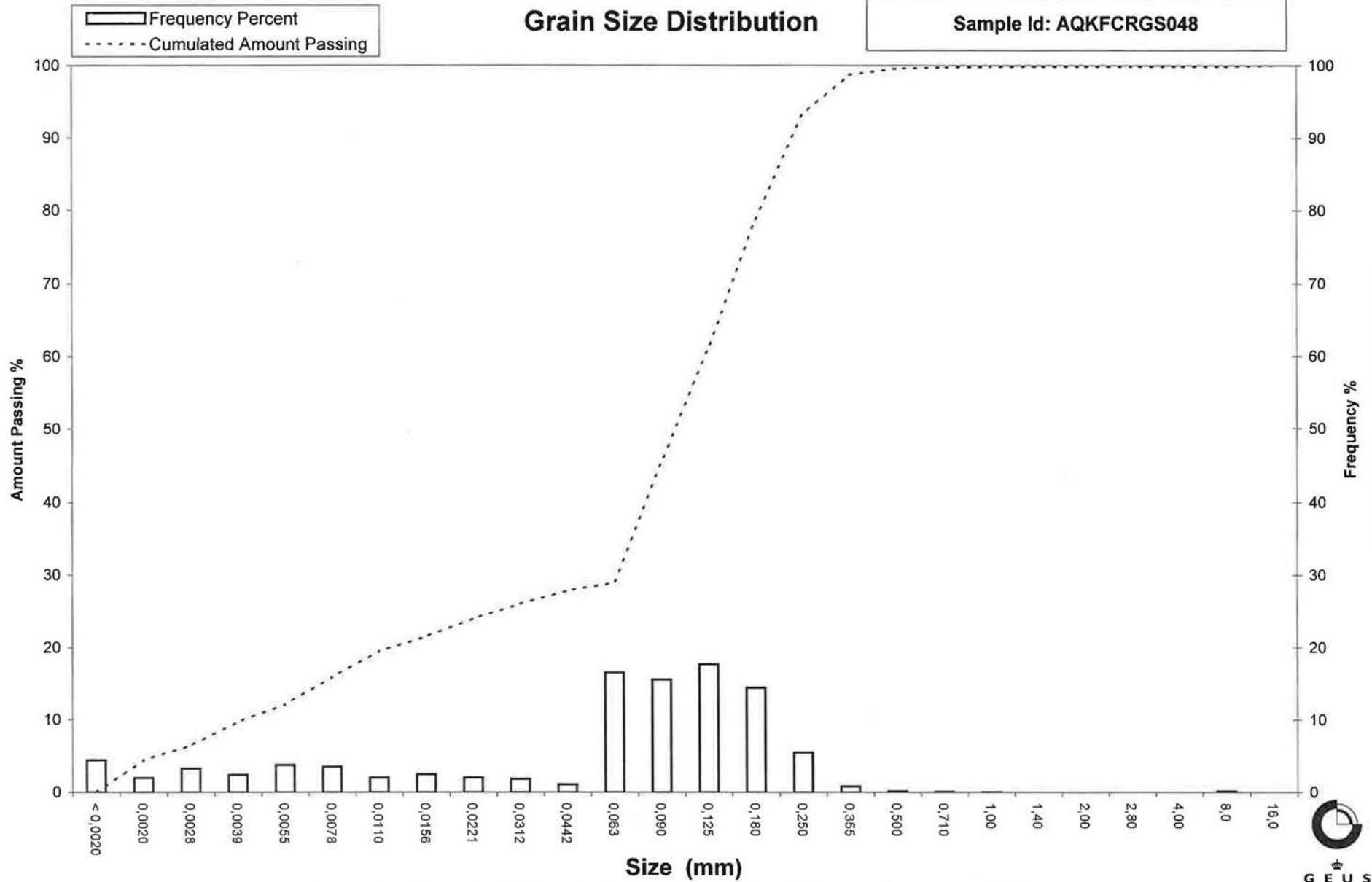
Mean $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$ (Folk and Ward 1957)
 Sorting $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$ (Folk and Ward 1957)
 Kurtosis $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$ (Folk and Ward 1957)
 Skewness $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$ (Folk and Ward 1957)
 Uniformity Coefficient $(d_{60\%} / d_{10\%})$ (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

Øster Voldgade 10 1350 København K
 Tel.: +45 38 14 20 00 Telefax: +45 38 14 20 50
 Email: GEUS@geus.dk
 www.geus.dk

Grain Size Distribution

Sample Id: AQKFCRGS048



Grain Size Distribution

Geotechnical

Sample Id: AQKFCRGS049
Lab. Id: CR49
Submitter: Energinet.dk
Subject: KRIGERS FLAK Cable Route Samples
Date: Nov/dec 2012
Executed: I. Nørgaard, A.Stoican
Remarks: For mat < 2mm



GEUS

Total Weight 109,38 g

Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,00	0,00	100,00
2,80	-1,49	0,00	0,00	100,00
2,00	-1,00	0,00	0,00	100,00
1,40	-0,49	0,10	0,09	99,91
1,00	0,00	0,13	0,12	99,79
0,710	0,49	0,18	0,16	99,63
0,500	1,00	0,15	0,14	99,49
0,355	1,49	0,33	0,30	99,19
0,250	2,00	1,00	0,91	98,27
0,180	2,47	3,22	2,94	95,33
0,125	3,00	6,58	6,02	89,31
0,090	3,47	9,07	8,29	81,02
0,063	3,99	38,27	34,99	46,03
0,0442	4,50	1,25	1,14	44,89
0,0312	5,00	2,57	2,35	42,54
0,0221	5,50	4,00	3,66	38,88
0,0156	6,00	5,68	5,19	33,69
0,0110	6,51	4,45	4,07	29,62
0,0078	7,00	7,00	6,40	23,22
0,0055	7,51	6,69	6,12	17,10
0,0039	8,00	4,04	3,69	13,41
0,0028	8,48	5,28	4,83	8,58
0,0020	8,97	3,10	2,83	5,75
<0,0020	>8,97	6,29	5,75	0,00

Size Classes (DGF-Bulletin 1 1988)

	Weight %
Clay (< 0,002 mm):	5,75
Silt, fine (0,002 mm - 0,006 mm):	12,68
Silt, medium (0,006 mm - 0,020 mm):	18,77
Silt, coarse (0,020 mm - 0,063 mm):	8,83
Sand, fine (0,063 mm - 0,200 mm):	50,14
Sand, medium (0,2 mm - 0,6 mm):	3,38
Sand, coarse (0,6 mm - 2 mm):	0,45
Gravel (> 2 mm):	0,00
Sum:	100,00

Moments Measures

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,18	2,50
16%	84%	0,10	3,29
25%	75%	0,09	3,55
40%	60%	0,07	3,76
50%	50%	0,07	3,92
75%	25%	0,01	6,85
84%	16%	0,01	7,64
90%	10%	0,00	8,32
95%	5%	#####	-----

Moments Statistics

Mean	4,95
Sorting	-----
Skewness	-----
Kurtosis	-----
Uniformity Coefficient	23,62

The analysis is executed according to DS/EN 933-1 extended by sieves to the ½ phi scale and test portion mass 0,1 kg

Size Classes and Percentiles are found by linear interpolation

Formulas

Mean $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$ (Folk and Ward 1957)

Sorting $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$ (Folk and Ward 1957)

Kurtosis $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$ (Folk and Ward 1957)

Skewness $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$ (Folk and Ward 1957)

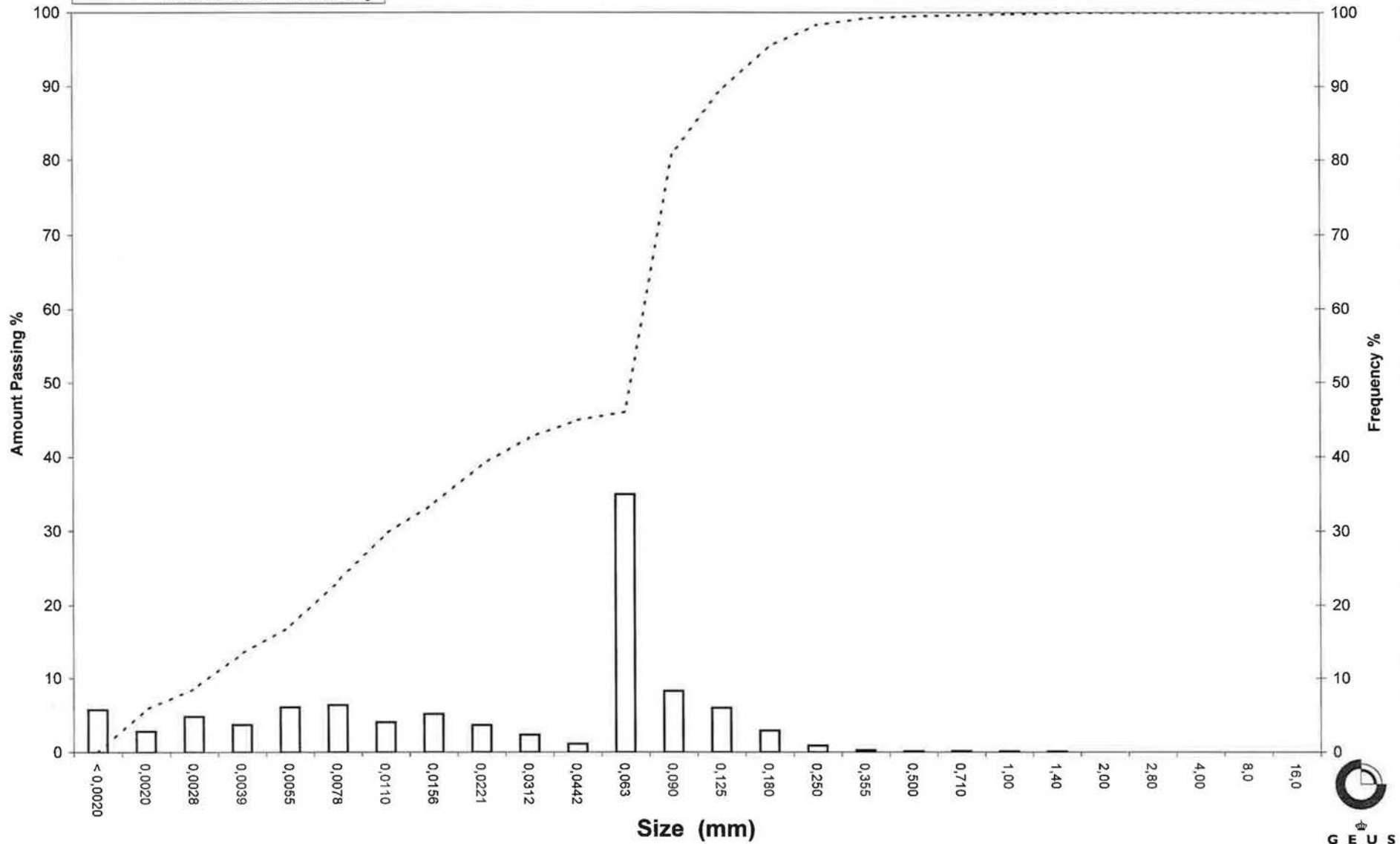
Uniformity Coefficient $(d_{60\%} / d_{10\%})$ (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

Øster Voldgade 10 1350 København K
 Tel.: +45 38 14 20 00 Telefax: +45 38 14 20 50
 Email: GEUS@geus.dk
 www.geus.dk

Grain Size Distribution

Sample Id: AQKFCRGS049



Grain Size Distribution

Geotechnical

Sample Id: AQKFCRGS050
Lab. Id: CR50
Submitter: Energinet.dk
Subject: KRIGERS FLAK Cable Route Samples
Date: Nov/dec 2012
Executed: I. Nørgaard, A. Stoican
Remarks: For mat. < 2mm



Total Weight 138,12 g

Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,78	0,56	99,44
4,00	-2,00	0,93	0,67	98,76
2,80	-1,49	0,18	0,13	98,63
2,00	-1,00	0,12	0,09	98,54
1,40	-0,49	0,15	0,11	98,44
1,00	0,00	0,12	0,09	98,35
0,710	0,49	0,15	0,11	98,24
0,500	1,00	0,12	0,09	98,15
0,355	1,49	0,24	0,17	97,98
0,250	2,00	1,20	0,87	97,11
0,180	2,47	2,88	2,09	95,03
0,125	3,00	6,00	4,34	90,68
0,090	3,47	17,52	12,68	78,00
0,063	3,99	52,92	38,31	39,68
0,0442	4,50	1,60	1,16	38,52
0,0312	5,00	3,56	2,58	35,94
0,0221	5,50	5,41	3,92	32,02
0,0156	6,00	6,82	4,94	27,09
0,0110	6,51	4,81	3,48	23,61
0,0078	7,00	6,97	5,05	18,56
0,0055	7,51	6,48	4,69	13,87
0,0039	8,00	3,95	2,86	11,01
0,0028	8,48	5,32	3,85	7,16
0,0020	8,97	3,18	2,30	4,86
<0,0020	>8,97	6,71	4,86	0,00

Size Classes (DGF-Bulletin 1 1988)

	Weight %
Clay (< 0,002 mm):	4,86
Silt, fine (0,002 mm - 0,006 mm):	10,03
Silt, medium (0,006 mm - 0,020 mm):	15,54
Silt, coarse (0,020 mm - 0,063 mm):	9,25
Sand, fine (0,063 mm - 0,200 mm):	55,94
Sand, medium (0,2 mm - 0,6 mm):	2,57
Sand, coarse (0,6 mm - 2 mm):	0,35
Gravel (> 2 mm):	1,46
Sum:	100,00

Moments Measures

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,18	2,48
16%	84%	0,11	3,23
25%	75%	0,09	3,51
40%	60%	0,08	3,69
50%	50%	0,07	3,83
75%	25%	0,01	6,28
84%	16%	0,01	7,26
90%	10%	0,00	8,11
95%	5%	0,00	8,93

Moments Statistics

Mean	4,77
Sorting	1,98
Skewness	0,64
Kurtosis	0,95
Uniformity Coefficient	21,41

The analysis is executed according to DS/EN 933-1 extended by sieves to the ½ phi scale and test portion mass 0,1 kg

Size Classes and Percentiles are found by linear interpolation

Formulas

Mean $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$ (Folk and Ward 1957)

Sorting $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$ (Folk and Ward 1957)

Kurtosis $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$ (Folk and Ward 1957)

Skewness $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$ (Folk and Ward 1957)

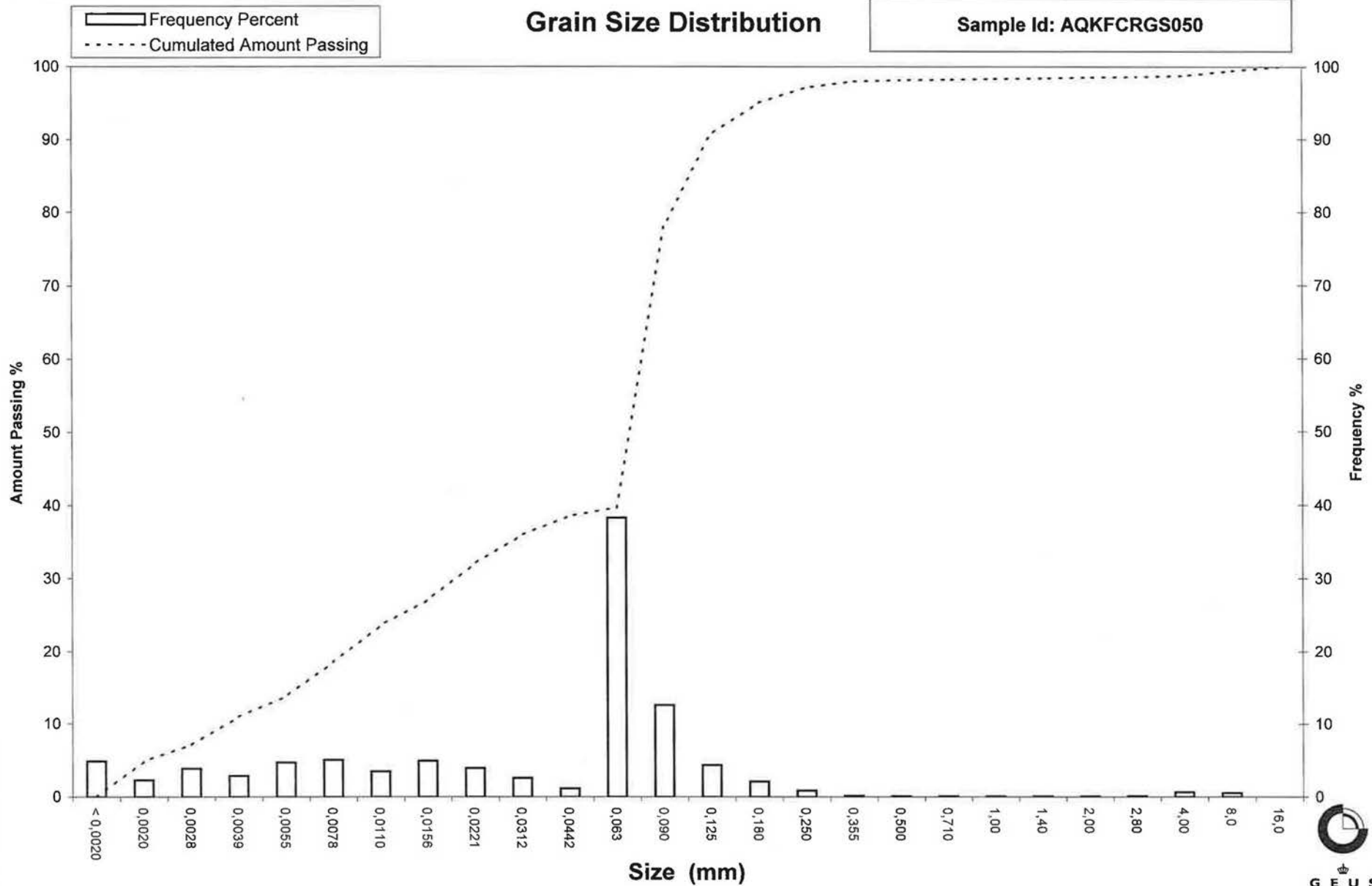
Uniformity Coefficient $(d_{60\%} / d_{10\%})$ (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

Øster Voldgade 10 1350 København K
 Tel.: +45 38 14 20 00 Telefax: +45 38 14 20 50
 Email: GEUS@geus.dk
 www.geus.dk

Grain Size Distribution

Sample Id: AQKFCRGS050



Grain Size Distribution

Geotechnical

Sample Id: AQKFCRGS051
Lab. Id: CR51
Submitter: Energinet.dk
Subject: KRIGERS FLAK Cable Route Samples
Date: Nov/dec 2012
Executed: I. Nørgaard, A.Stoican
Remarks: For mat.< 2mm



Total Weight 108,26 g

Size Fractions

Size	Size	Weight	Weight	Cumulated amount
mm	Φ	g	%	amount passing
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,00	0,00	100,00
2,80	-1,49	0,00	0,00	100,00
2,00	-1,00	0,05	0,05	99,95
1,40	-0,49	0,04	0,04	99,92
1,00	0,00	0,08	0,07	99,84
0,710	0,49	0,11	0,10	99,74
0,500	1,00	0,10	0,09	99,65
0,355	1,49	0,15	0,14	99,51
0,250	2,00	0,48	0,44	99,07
0,180	2,47	2,26	2,09	96,98
0,125	3,00	6,11	5,64	91,34
0,090	3,47	13,36	12,34	79,00
0,063	3,99	25,16	23,24	55,75
0,0442	4,50	1,38	1,27	54,48
0,0312	5,00	3,56	3,29	51,19
0,0221	5,50	5,97	5,51	45,68
0,0156	6,00	7,68	7,09	38,59
0,0110	6,51	5,39	4,98	33,61
0,0078	7,00	7,90	7,30	26,31
0,0055	7,51	7,45	6,88	19,43
0,0039	8,00	4,57	4,22	15,21
0,0028	8,48	6,05	5,59	9,62
0,0020	8,97	3,51	3,24	6,38
<0,0020	>8,97	6,91	6,38	0,00

Size Classes (DGF-Bulletin 1 1988)

	Weight %
Clay (< 0,002 mm):	6,38
Silt, fine (0,002 mm - 0,006 mm):	14,55
Silt, medium (0,006 mm - 0,020 mm):	22,47
Silt, coarse (0,020 mm - 0,063 mm):	12,36
Sand, fine (0,063 mm - 0,200 mm):	41,82
Sand, medium (0,2 mm - 0,6 mm):	2,12
Sand, coarse (0,6 mm - 2 mm):	0,26
Gravel (> 2 mm):	0,05
Sum:	100,00

Moments Measures

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,16	2,64
16%	84%	0,10	3,26
25%	75%	0,09	3,55
40%	60%	0,07	3,88
50%	50%	0,03	5,10
75%	25%	0,01	7,09
84%	16%	0,00	7,90
90%	10%	0,00	8,44
95%	5%	#####	-----

Moments Statistics

Mean	5,42
Sorting	-----
Skewness	-----
Kurtosis	-----
Uniformity Coefficient	23,63

The analysis is executed according to DS/EN 933-1 extended by sieves to the ½ phi scale and test portion mass 0,1 kg

Size Classes and Percentiles are found by linear interpolation

Formulas

Mean $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$ (Folk and Ward 1957)

Sorting $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$ (Folk and Ward 1957)

Kurtosis $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$ (Folk and Ward 1957)

Skewness $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$ (Folk and Ward 1957)

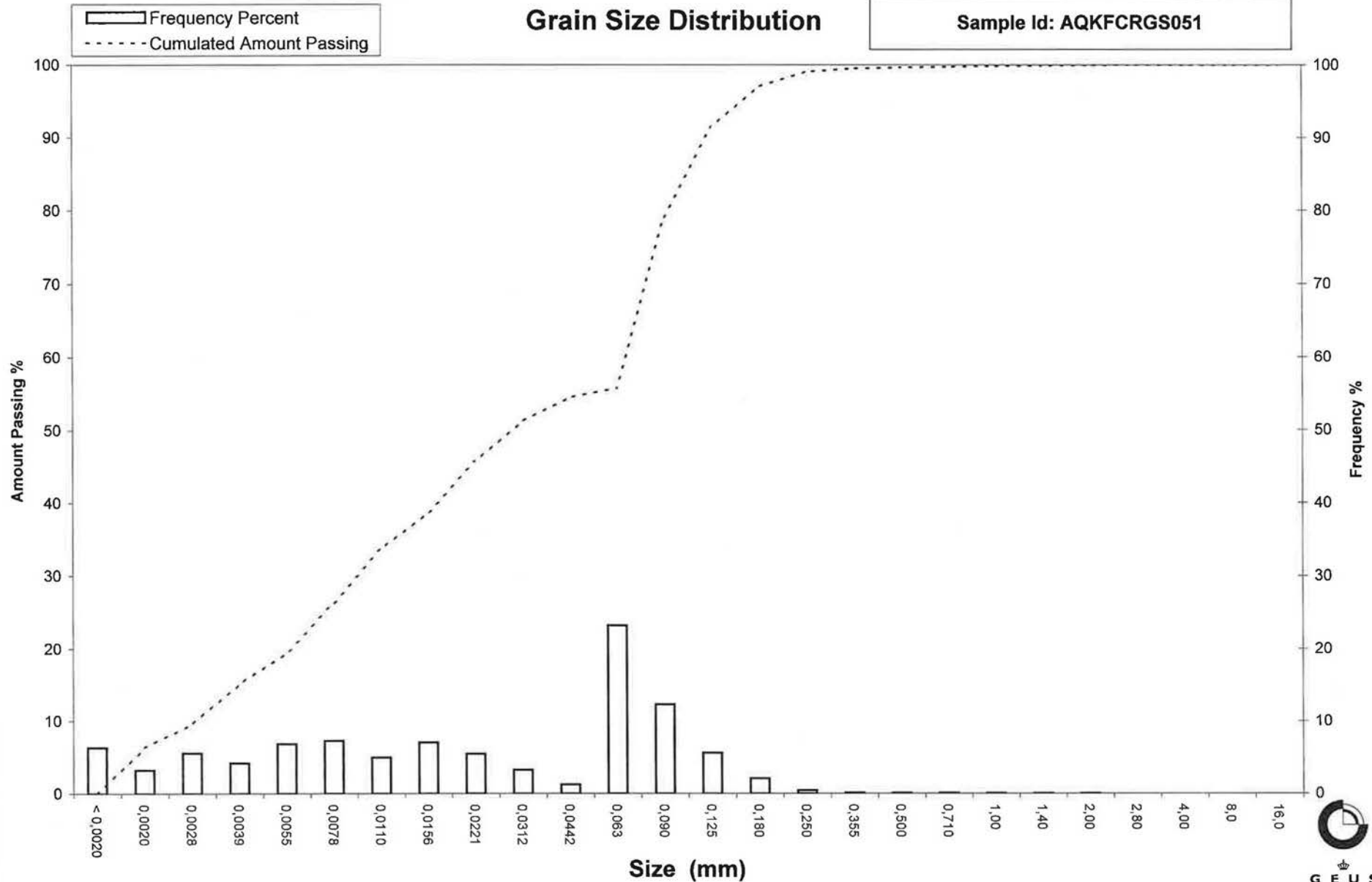
Uniformity Coefficient $(d_{60\%} / d_{10\%})$ (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

Øster Voldgade 10 1350 København K
 Tel.: +45 38 14 20 00 Telefax: +45 38 14 20 50
 Email: GEUS@geus.dk
 www.geus.dk

Grain Size Distribution

Sample Id: AQKFCRGS051



Grain Size Distribution

Geotechnical

Sample Id: AQKFCRGS052
Lab. Id: CR52
Submitter: Energinet.dk
Subject: KRIGERS FLAK Cable Route Samples
Date: Nov/dec 2012
Executed: I. Nørgaard, A.Stoican
Remarks: For mat.< 2mm



GEUS

Total Weight 137,16 g

Size Fractions

Size	Size	Weight	Weight	Cumulated amount
mm	Φ	g	%	amount passing
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,00	0,00	100,00
2,80	-1,49	0,00	0,00	100,00
2,00	-1,00	0,00	0,00	100,00
1,40	-0,49	0,12	0,09	99,91
1,00	0,00	0,24	0,17	99,74
0,710	0,49	0,21	0,15	99,58
0,500	1,00	0,21	0,15	99,43
0,355	1,49	0,39	0,28	99,15
0,250	2,00	0,93	0,68	98,47
0,180	2,47	1,89	1,38	97,09
0,125	3,00	4,08	2,97	94,12
0,090	3,47	12,84	9,36	84,76
0,063	3,99	55,74	40,64	44,12
0,0442	4,50	1,78	1,30	42,82
0,0312	5,00	4,75	3,46	39,36
0,0221	5,50	7,10	5,18	34,18
0,0156	6,00	8,12	5,92	28,26
0,0110	6,51	5,28	3,85	24,41
0,0078	7,00	7,41	5,40	19,01
0,0055	7,51	6,84	4,99	14,02
0,0039	8,00	4,17	3,04	10,98
0,0028	8,48	5,54	4,04	6,94
0,0020	8,97	3,20	2,33	4,61
<0,0020	>8,97	6,32	4,61	0,00

Size Classes (DGF-Bulletin 1 1988)

	Weight %
Clay (< 0,002 mm):	4,61
Silt, fine (0,002 mm - 0,006 mm):	10,49
Silt, medium (0,006 mm - 0,020 mm):	17,16
Silt, coarse (0,020 mm - 0,063 mm):	11,85
Sand, fine (0,063 mm - 0,200 mm):	53,37
Sand, medium (0,2 mm - 0,6 mm):	2,02
Sand, coarse (0,6 mm - 2 mm):	0,50
Gravel (> 2 mm):	0,00
Sum:	100,00

Moments Measures

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,14	2,82
16%	84%	0,09	3,48
25%	75%	0,08	3,58
40%	60%	0,07	3,77
50%	50%	0,07	3,90
75%	25%	0,01	6,42
84%	16%	0,01	7,28
90%	10%	0,00	8,10
95%	5%	0,00	8,87

Moments Statistics

Mean	4,89
Sorting	1,87
Skewness	0,71
Kurtosis	0,87
Uniformity Coefficient	20,24

The analysis is executed according to DS/EN 933-1 extended by sieves to the ½ phi scale and test portion mass 0,1 kg

Size Classes and Percentiles are found by linear interpolation

Formulas

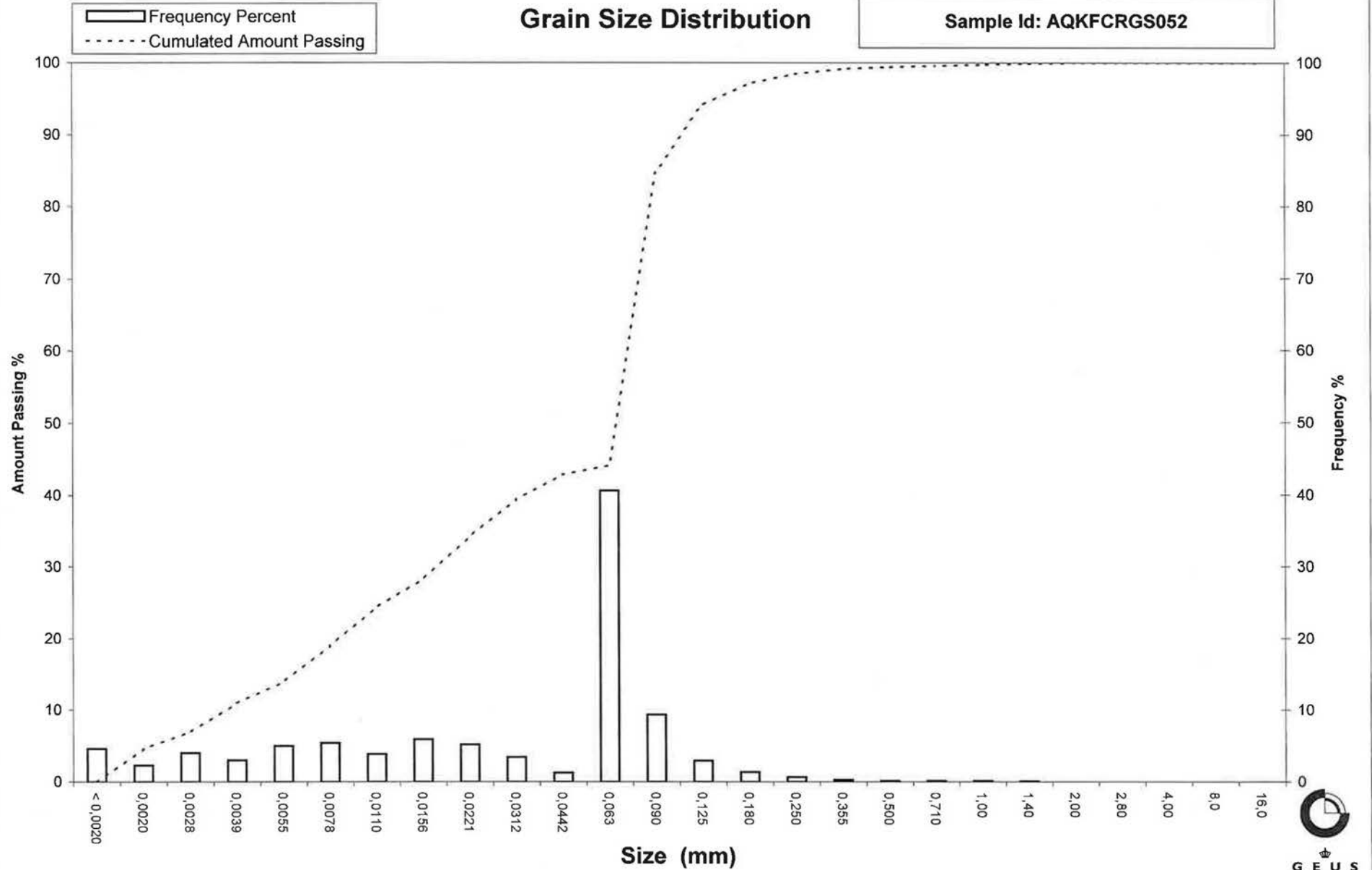
Mean $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$ (Folk and Ward 1957)
 Sorting $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$ (Folk and Ward 1957)
 Kurtosis $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$ (Folk and Ward 1957)
 Skewness $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$ (Folk and Ward 1957)
 Uniformity Coefficient $(d_{60\%} / d_{10\%})$ (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

Øster Voldgade 10 1350 København K
 Tel.: +45 38 14 20 00 Telefax: +45 38 14 20 50
 Email: GEUS@geus.dk
 www.geus.dk

Grain Size Distribution

Sample Id: AQKFCRGS052



Grain Size Distribution

Geotechnical

Sample Id: AQKFCRGS053
Lab. Id: CR53
Submitter: Energinet.dk
Subject: KRIGERS FLAK Cable Route Samples
Date: Nov/dec 2012
Executed: I. Nørgaard, A.Stoican
Remarks: For mat. < 2mm



Total Weight 104,66 g

Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,00	0,00	100,00
2,80	-1,49	0,01	0,01	99,99
2,00	-1,00	0,03	0,03	99,96
1,40	-0,49	0,01	0,01	99,95
1,00	0,00	0,05	0,05	99,90
0,710	0,49	0,06	0,06	99,85
0,500	1,00	0,10	0,10	99,75
0,355	1,49	0,14	0,13	99,62
0,250	2,00	0,31	0,30	99,32
0,180	2,47	0,53	0,51	98,82
0,125	3,00	0,93	0,89	97,93
0,090	3,47	7,50	7,17	90,76
0,063	3,99	31,20	29,81	60,95
0,0442	4,50	3,31	3,16	57,79
0,0312	5,00	6,25	5,97	51,82
0,0221	5,50	7,45	7,12	44,70
0,0156	6,00	8,12	7,76	36,94
0,0110	6,51	5,38	5,14	31,80
0,0078	7,00	7,60	7,26	24,54
0,0055	7,51	6,86	6,55	17,99
0,0039	8,00	4,08	3,90	14,09
0,0028	8,48	5,35	5,11	8,98
0,0020	8,97	3,11	2,97	6,01
<0,0020	>8,97	6,29	6,01	0,00

Size Classes (DGF-Bulletin 1 1988)

	Weight %
Clay (< 0,002 mm):	6,01
Silt, fine (0,002 mm - 0,006 mm):	13,40
Silt, medium (0,006 mm - 0,020 mm):	22,78
Silt, coarse (0,020 mm - 0,063 mm):	18,76
Sand, fine (0,063 mm - 0,200 mm):	38,01
Sand, medium (0,2 mm - 0,6 mm):	0,84
Sand, coarse (0,6 mm - 2 mm):	0,16
Gravel (> 2 mm):	0,04
Sum:	100,00

Moments Measures

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,11	3,18
16%	84%	0,08	3,58
25%	75%	0,08	3,72
40%	60%	0,06	4,12
50%	50%	0,03	5,11
75%	25%	0,01	6,97
84%	16%	0,00	7,74
90%	10%	0,00	8,37
95%	5%	#####	-----

Moments Statistics

Mean	5,48
Sorting	-----
Skewness	-----
Kurtosis	-----
Uniformity Coefficient	18,99

The analysis is executed according to DS/EN 933-1 extended by sieves to the 1/2 phi scale and test portion mass 0,1 kg

Size Classes and Percentiles are found by linear interpolation

Formulas

Mean $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$ (Folk and Ward 1957)

Sorting $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$ (Folk and Ward 1957)

Kurtosis $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$ (Folk and Ward 1957)

Skewness $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$ (Folk and Ward 1957)

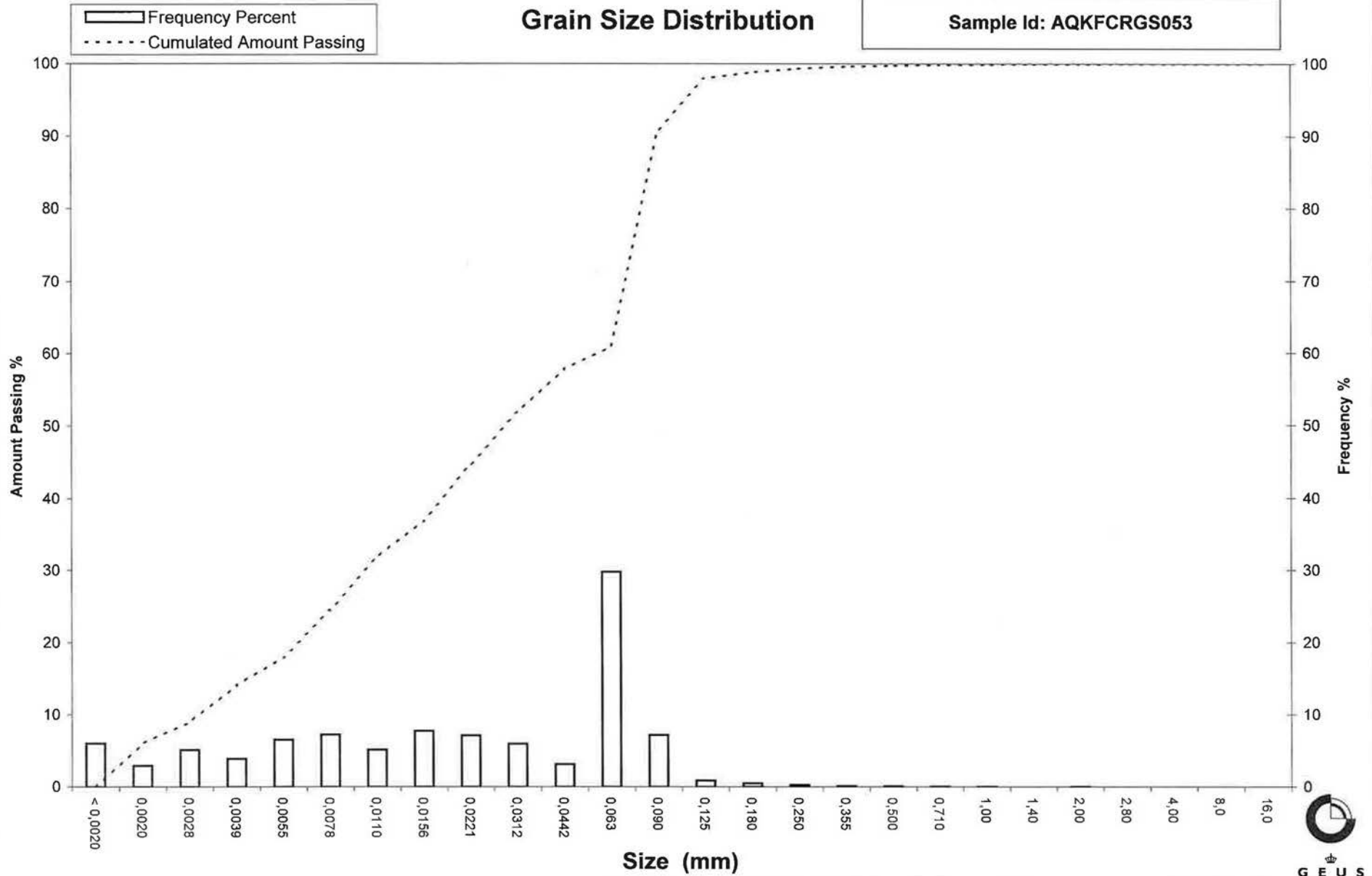
Uniformity Coefficient $(d_{60\%} / d_{10\%})$ (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

Øster Voldgade 10 1350 København K
 Tel.: +45 38 14 20 00 Telefax: +45 38 14 20 50
 Email: GEUS@geus.dk
 www.geus.dk

Grain Size Distribution

Sample Id: AQKFCRGS053



Grain Size Distribution

Geotechnical

Sample Id: AQKFCRGS054
Lab. Id: CR54
Submitter: Energinet.dk
Subject: KRIGERS FLAK Cable Route Samples
Date: Nov/dec 2012
Executed: I. Nørgaard, A.Stoican
Remarks: For mat.< 2mm



Total Weight 102,71 g

Size Fractions

Size	Size	Weight	Weight	Cumulated amount
mm	Φ	g	%	passing
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,00	0,00	100,00
2,80	-1,49	0,00	0,00	100,00
2,00	-1,00	0,00	0,00	100,00
1,40	-0,49	0,05	0,05	99,95
1,00	0,00	0,01	0,01	99,94
0,710	0,49	0,02	0,02	99,92
0,500	1,00	0,03	0,03	99,89
0,355	1,49	0,06	0,06	99,83
0,250	2,00	0,20	0,19	99,64
0,180	2,47	1,19	1,16	98,48
0,125	3,00	4,52	4,40	94,08
0,090	3,47	11,74	11,43	82,65
0,063	3,99	37,62	36,63	46,02
0,0442	4,50	1,17	1,14	44,88
0,0312	5,00	2,25	2,19	42,69
0,0221	5,50	3,40	3,31	39,38
0,0156	6,00	4,94	4,81	34,57
0,0110	6,51	3,95	3,85	30,72
0,0078	7,00	6,35	6,18	24,54
0,0055	7,51	6,29	6,12	18,42
0,0039	8,00	3,90	3,80	14,62
0,0028	8,48	5,25	5,11	9,51
0,0020	8,97	3,12	3,04	6,47
<0,0020	>8,97	6,65	6,47	0,00

Size Classes (DGF-Bulletin 1 1988)

	Weight %
Clay (< 0,002 mm):	6,47
Silt, fine (0,002 mm - 0,006 mm):	13,28
Silt, medium (0,006 mm - 0,020 mm):	18,08
Silt, coarse (0,020 mm - 0,063 mm):	8,19
Sand, fine (0,063 mm - 0,200 mm):	52,79
Sand, medium (0,2 mm - 0,6 mm):	1,09
Sand, coarse (0,6 mm - 2 mm):	0,09
Gravel (> 2 mm):	0,00
Sum:	100,00

Moments Measures

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,14	2,87
16%	84%	0,09	3,41
25%	75%	0,08	3,57
40%	60%	0,07	3,77
50%	50%	0,07	3,92
75%	25%	0,01	6,96
84%	16%	0,00	7,80
90%	10%	0,00	8,43
95%	5%	#####	-----

Moments Statistics

Mean	5,04
Sorting	-----
Skewness	-----
Kurtosis	-----
Uniformity Coefficient	25,23

The analysis is executed according to DS/EN 933-1 extended by sieves to the ½ phi scale and test portion mass 0,1 kg

Size Classes and Percentiles are found by linear interpolation

Formulas

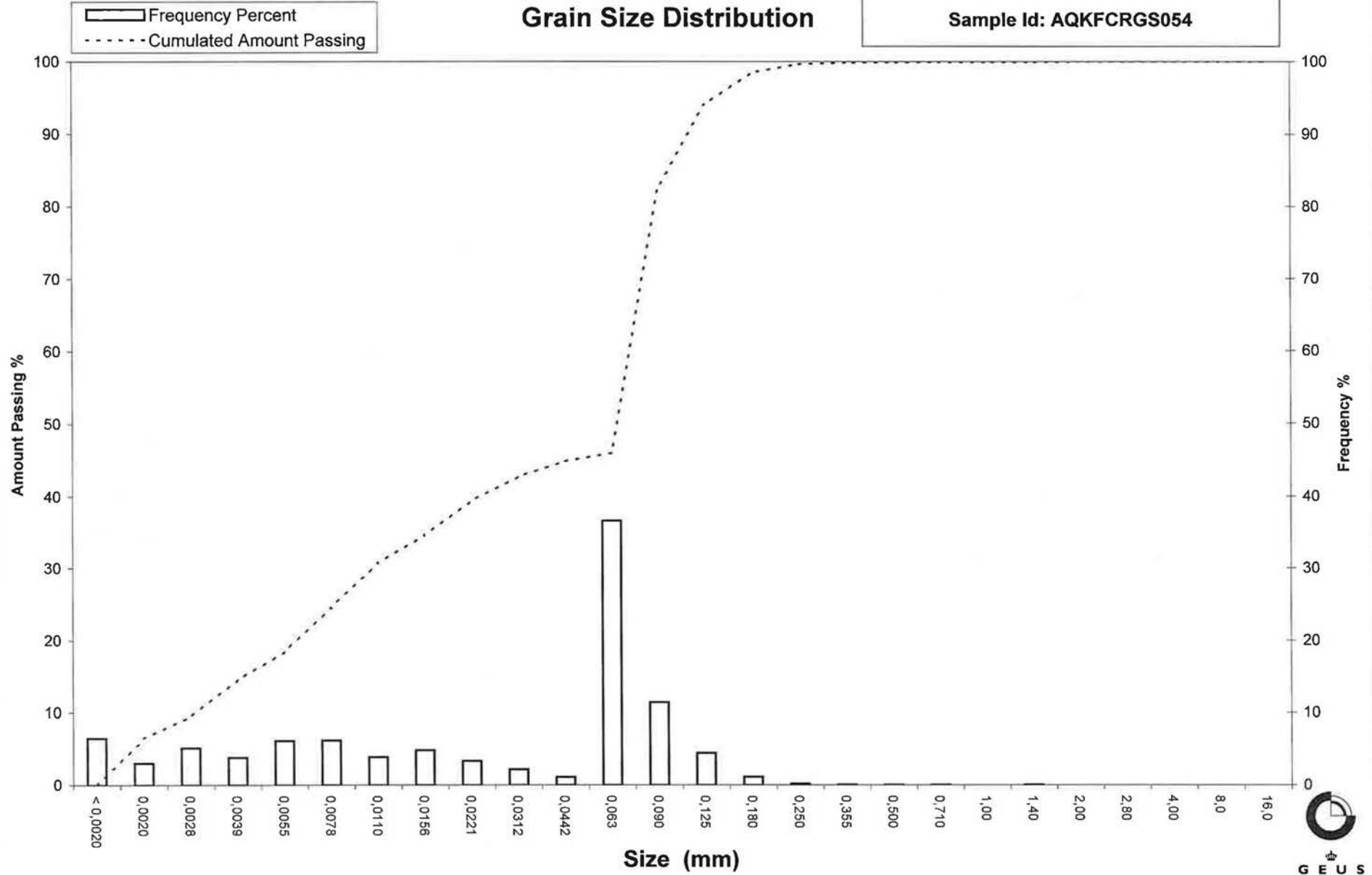
Mean $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$ (Folk and Ward 1957)
 Sorting $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$ (Folk and Ward 1957)
 Kurtosis $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$ (Folk and Ward 1957)
 Skewness $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$ (Folk and Ward 1957)
 Uniformity Coefficient $(d_{60\%} / d_{10\%})$ (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

Øster Voldgade 10 1350 København K
 Tel.: +45 38 14 20 00 Telefax: +45 38 14 20 50
 Email: GEUS@geus.dk
 www.geus.dk

Grain Size Distribution

Sample Id: AQKFCRGS054



Grain Size Distribution

Geotechnical

Sample Id: AQKFCRGS055
Lab. Id: CR55
Submitter: Energinet.dk
Subject: KRIGERS FLAK Cable Route Samples
Date: November 2012
Executed: I. Nørgaard, A.Stoican
Remarks: For mat.< 2mm



Total Weight 109,96 g

Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,00	0,00	100,00
2,80	-1,49	0,00	0,00	100,00
2,00	-1,00	0,00	0,00	100,00
1,40	-0,49	0,01	0,01	99,99
1,00	0,00	0,01	0,01	99,98
0,710	0,49	0,01	0,01	99,97
0,500	1,00	0,16	0,15	99,83
0,355	1,49	2,34	2,13	97,70
0,250	2,00	9,16	8,33	89,37
0,180	2,47	28,30	25,74	63,63
0,125	3,00	38,32	34,85	28,78
0,090	3,47	7,97	7,25	21,54
0,075	3,74	2,09	1,90	19,63
0,063	3,99	4,63	4,21	15,42
< 0,063	> 3,99	16,96	15,42	0,00

Size Classes (DGF-Bulletin 1 1988)

	Weight %
Silt and clay (< 0,063 mm):	15,42
Sand, fine (0,063 mm - 0,200 mm):	55,56
Sand, medium (0,2 mm - 0,6 mm):	28,91
Sand, coarse (0,6 mm - 2 mm):	0,10
Gravel (> 2 mm):	0,00
Sum:	100,00

Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,32	1,64
16%	84%	0,24	2,09
25%	75%	0,21	2,25
40%	60%	0,17	2,52
Median 50%	50%	0,16	2,66
75%	25%	0,11	3,23
84%	16%	0,06	3,95
90%	10%	-----	-----
95%	5%	-----	-----

Moments Statistics

Mean	2,90
Sorting	-----
Skewness	-----
Kurtosis	-----
Uniformity Coefficient	-----

The analysis is executed according to DS405.9
DS/EN933-1 extended by sieves to the ½ phi scale.

Size Classes and Percentiles
are found by linear interpolation

Formulas

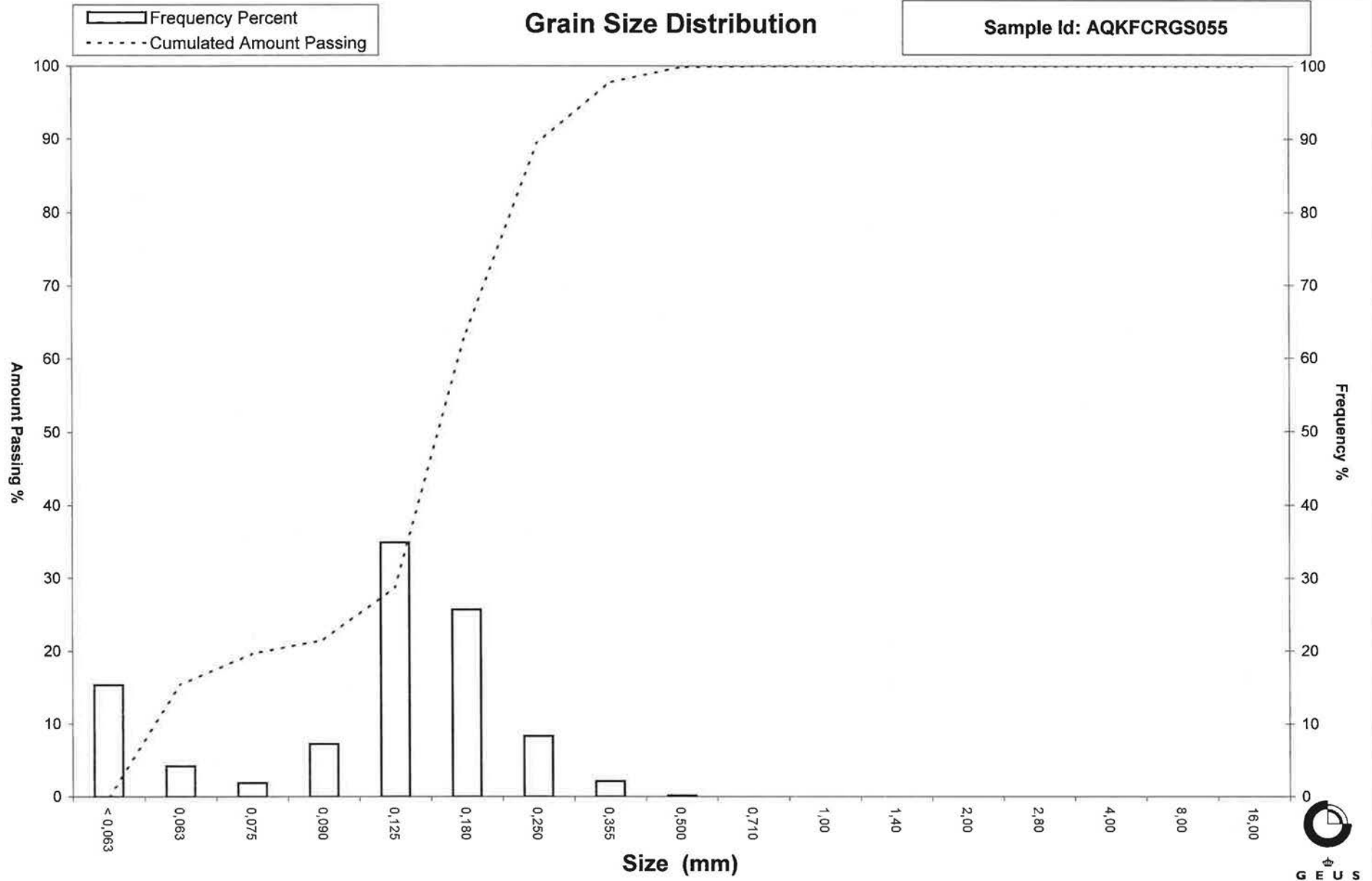
Mean $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$ (Folk and Ward 1957)
Sorting $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$ (Folk and Ward 1957)
Kurtosis $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$ (Folk and Ward 1957)
Skewness $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$ (Folk and Ward 1957)
Uniformity Coefficient $(d_{60\%} / d_{10\%})$ (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on
"Amount in sieve". Uniformity coefficient is based on

Øster Voldgade 10 1350 København K
Tel.: +45 38 14 20 00 Telefax: +45 38 14 20 50
Email: GEUS@geus.dk

Grain Size Distribution

Sample Id: AQKFCRGS055



Grain Size Distribution

Geotechnical

Sample Id: AQKFCRGS056
Lab. Id: CR56
Submitter: Energinet.dk
Subject: KRIGERS FLAK Cable Route Samples
Date: November 2012
Executed: I. Nørgaard, A.Stoican
Remarks: For mat.< 2mm



Total Weight 110,68 g

Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	1,53	1,38	98,62
4,00	-2,00	5,90	5,33	93,29
2,80	-1,49	3,22	2,91	90,38
2,00	-1,00	2,27	2,05	88,33
1,40	-0,49	2,09	1,89	86,44
1,00	0,00	2,54	2,29	84,14
0,710	0,49	2,72	2,46	81,69
0,500	1,00	4,03	3,64	78,04
0,355	1,49	5,88	5,31	72,73
0,250	2,00	9,38	8,47	64,26
0,180	2,47	10,65	9,62	54,63
0,125	3,00	16,57	14,97	39,66
0,090	3,47	16,81	15,19	24,48
0,075	3,74	5,35	4,83	19,64
0,063	3,99	6,08	5,49	14,15
< 0,063	> 3,99	15,66	14,15	0,00

Sieve Analysis

Gravel

Sand

Size Classes (DGF-Bulletin 1 1988)

	Weight %
Silt and clay (< 0,063 mm):	14,15
Sand, fine (0,063 mm - 0,200 mm):	43,24
Sand, medium (0,2 mm - 0,6 mm):	22,39
Sand, coarse (0,6 mm - 2 mm):	8,55
Gravel (> 2 mm):	11,67
Sum:	100,00

Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	5,29	-2,40
16%	84%	0,98	0,02
25%	75%	0,42	1,26
40%	60%	0,22	2,19
Median 50%	50%	0,16	2,62
75%	25%	0,09	3,45
84%	16%	0,07	3,90
90%	10%	-----	-----
95%	5%	-----	-----

Moments Statistics

Mean	2,18
Sorting	-----
Skewness	-----
Kurtosis	-----
Uniformity Coefficient	-----

The analysis is executed according to DS405.9
 DS/EN933-1 extended by sieves to the ½ phi scale.

Size Classes and Percentiles
 are found by linear interpolation

Formulas

Mean $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$ (Folk and Ward 1957)

Sorting $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$ (Folk and Ward 1957)

Kurtosis $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$ (Folk and Ward 1957)

Skewness $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$ (Folk and Ward 1957)

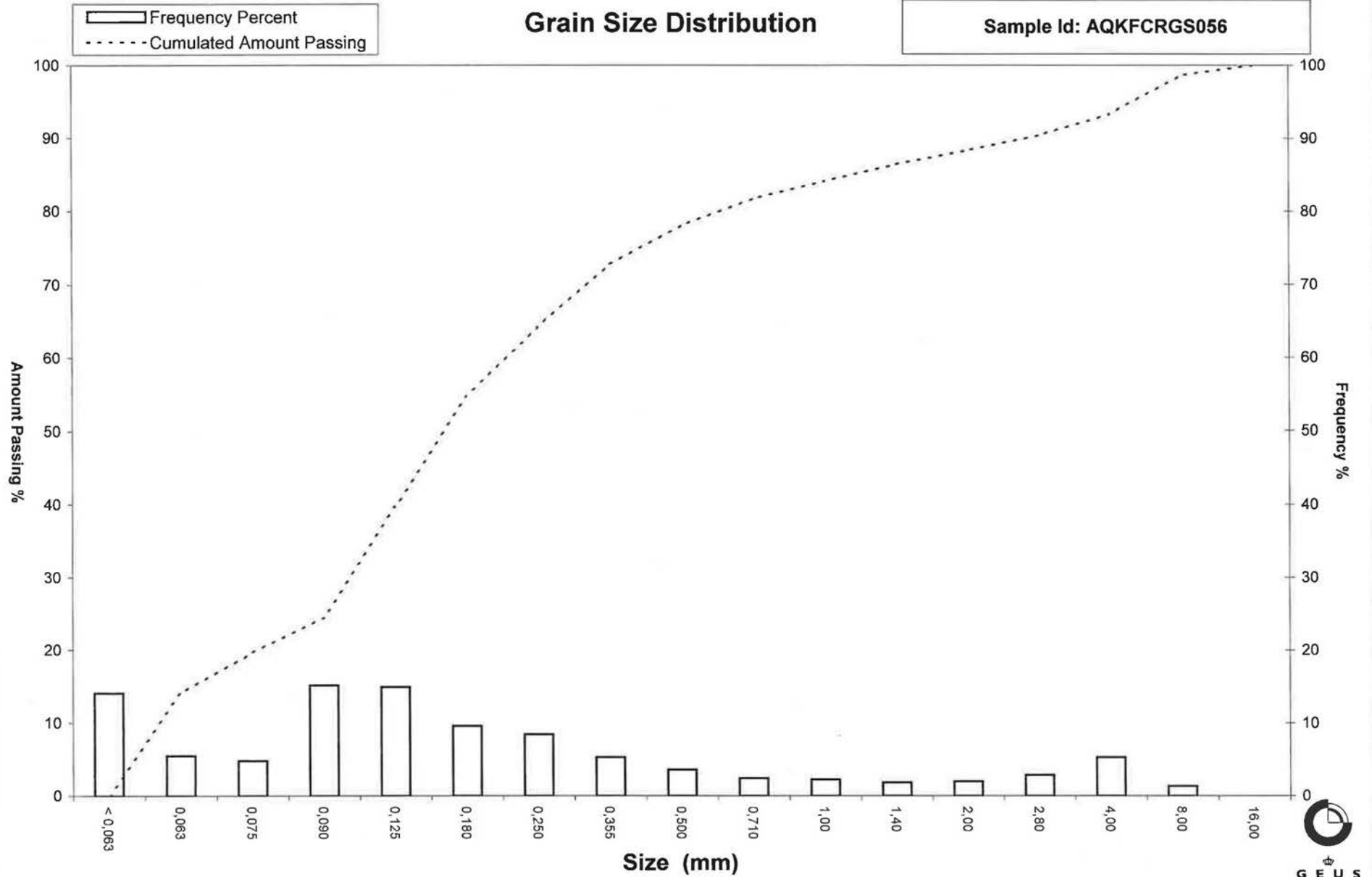
Uniformity Coefficient $(d_{60\%} / d_{10\%})$ (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on
 "Amount in sieve". Uniformity coefficient is based on

Øster Voldgade 10 1350 København K
 Tel.: +45 38 14 20 00 Telefax: +45 38 14 20 50
 Email: GEUS@geus.dk

Grain Size Distribution

Sample Id: AQKFCRGS056



Grain Size Distribution

Geotechnical

Sample Id: AQKFCRGS057
Lab. Id: CR57
Submitter: Energinet.dk
Subject: KRIGERS FLAK Cable Route Samples
Date: Nov/dec 2012
Executed: I. Nørgaard, A.Stoican
Remarks: For mat. < 2mm



Total Weight 104,4 g

Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,00	0,00	100,00
2,80	-1,49	0,00	0,00	100,00
2,00	-1,00	0,02	0,02	99,98
1,40	-0,49	0,04	0,04	99,94
1,00	0,00	0,03	0,03	99,91
0,710	0,49	0,06	0,06	99,86
0,500	1,00	0,13	0,12	99,73
0,355	1,49	0,31	0,30	99,43
0,250	2,00	0,56	0,54	98,90
0,180	2,47	1,33	1,27	97,62
0,125	3,00	4,94	4,73	92,89
0,090	3,47	13,48	12,91	79,98
0,063	3,99	28,95	27,73	52,25
0,0442	4,50	2,12	2,03	50,22
0,0312	5,00	4,25	4,07	46,15
0,0221	5,50	5,69	5,45	40,70
0,0156	6,00	6,88	6,59	34,11
0,0110	6,51	4,85	4,65	29,46
0,0078	7,00	7,12	6,82	22,64
0,0055	7,51	6,51	6,24	16,40
0,0039	8,00	3,86	3,70	12,70
0,0028	8,48	4,97	4,76	7,94
0,0020	8,97	2,84	2,72	5,22
<0,0020	>8,97	5,45	5,22	0,00

Size Classes (DGF-Bulletin 1 1988)

	Weight %
Clay (< 0,002 mm):	5,22
Silt, fine (0,002 mm - 0,006 mm):	12,54
Silt, medium (0,006 mm - 0,020 mm):	20,81
Silt, coarse (0,020 mm - 0,063 mm):	13,68
Sand, fine (0,063 mm - 0,200 mm):	45,74
Sand, medium (0,2 mm - 0,6 mm):	1,80
Sand, coarse (0,6 mm - 2 mm):	0,19
Gravel (> 2 mm):	0,02
Sum:	100,00

Moments Measures

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,15	2,74
16%	84%	0,10	3,31
25%	75%	0,09	3,55
40%	60%	0,07	3,83
50%	50%	0,04	4,52
75%	25%	0,01	6,81
84%	16%	0,01	7,55
90%	10%	0,00	8,25
95%	5%	#####	-----

Moments Statistics

Mean	5,13
Sorting	-----
Skewness	-----
Kurtosis	-----
Uniformity Coefficient	21,53

The analysis is executed according to DS/EN 933-1 extended by sieves to the 1/2 phi scale and test portion mass 0,1 kg

Size Classes and Percentiles are found by linear interpolation

Formulas

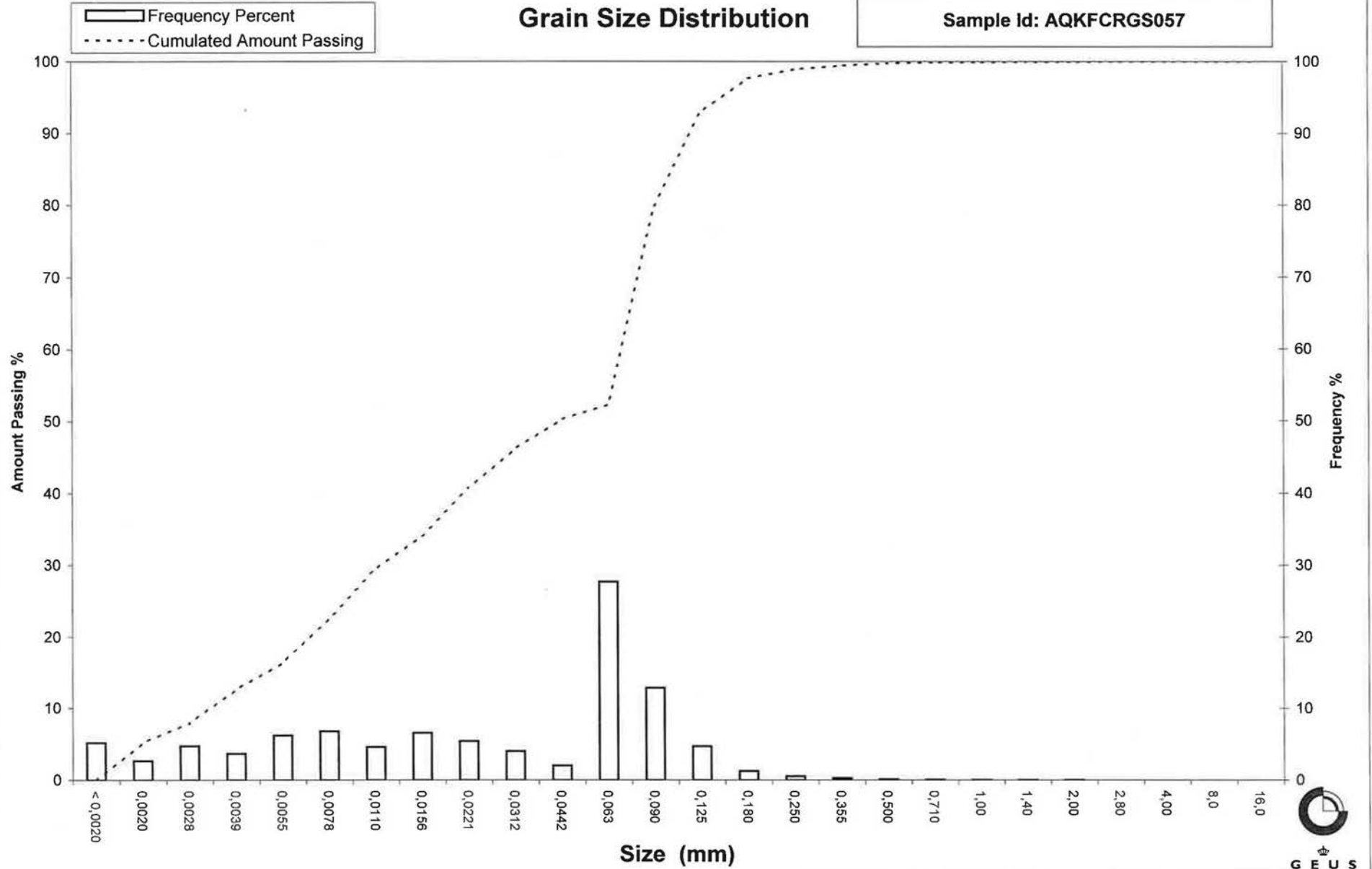
Mean $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$ (Folk and Ward 1957)
 Sorting $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$ (Folk and Ward 1957)
 Kurtosis $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$ (Folk and Ward 1957)
 Skewness $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$ (Folk and Ward 1957)
 Uniformity Coefficient $(d_{60\%} / d_{10\%})$ (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

Øster Voldgade 10 1350 København K
 Tel.: +45 38 14 20 00 Telefax: +45 38 14 20 50
 Email: GEUS@geus.dk
 www.geus.dk

Grain Size Distribution

Sample Id: AQKFCRGS057



Grain Size Distribution

Geotechnical

Sample Id: AQKFCRGS058
Lab. Id: CR58
Submitter: Energinet.dk
Subject: KRIGERS FLAK Cable Route Samples
Date: Nov/dec 2012
Executed: I. Nørgaard, A. Stoican
Remarks: For mat. < 2mm



Total Weight 124,32 g

Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,12	0,10	99,90
4,00	-2,00	0,00	0,00	99,90
2,80	-1,49	0,00	0,00	99,90
2,00	-1,00	0,03	0,02	99,88
1,40	-0,49	0,03	0,02	99,86
1,00	0,00	0,09	0,07	99,78
0,710	0,49	0,15	0,12	99,66
0,500	1,00	0,18	0,14	99,52
0,355	1,49	0,33	0,27	99,25
0,250	2,00	0,87	0,70	98,55
0,180	2,47	1,32	1,06	97,49
0,125	3,00	4,50	3,62	93,87
0,090	3,47	19,65	15,81	78,06
0,063	3,99	54,54	43,87	34,19
0,0442	4,50	1,54	1,24	32,95
0,0312	5,00	3,27	2,63	30,32
0,0221	5,50	4,60	3,70	26,62
0,0156	6,00	5,43	4,37	22,25
0,0110	6,51	3,71	2,98	19,27
0,0078	7,00	5,40	4,34	14,93
0,0055	7,51	5,04	4,05	10,88
0,0039	8,00	3,05	2,45	8,43
0,0028	8,48	3,97	3,19	5,24
0,0020	8,97	2,24	1,80	3,44
<0,0020	>8,97	4,28	3,44	0,00

Size Classes (DGF-Bulletin 1 1988)

	Weight %
Clay (< 0,002 mm):	3,44
Silt, fine (0,002 mm - 0,006 mm):	8,32
Silt, medium (0,006 mm - 0,020 mm):	13,45
Silt, coarse (0,020 mm - 0,063 mm):	8,98
Sand, fine (0,063 mm - 0,200 mm):	63,60
Sand, medium (0,2 mm - 0,6 mm):	1,79
Sand, coarse (0,6 mm - 2 mm):	0,29
Gravel (> 2 mm):	0,12
Sum:	100,00

Moments Measures

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,14	2,81
16%	84%	0,10	3,28
25%	75%	0,09	3,50
40%	60%	0,08	3,66
50%	50%	0,07	3,78
75%	25%	0,02	5,67
84%	16%	0,01	6,86
90%	10%	0,00	7,67
95%	5%	0,00	8,54

Moments Statistics

Mean	4,64
Sorting	1,76
Skewness	0,69
Kurtosis	1,08
Uniformity Coefficient	16,02

The analysis is executed according to DS/EN 933-1 extended by sieves to the ½ phi scale and test portion mass 0,1 kg

Size Classes and Percentiles are found by linear interpolation

Formulas

Mean $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$ (Folk and Ward 1957)

Sorting $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$ (Folk and Ward 1957)

Kurtosis $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$ (Folk and Ward 1957)

Skewness $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$ (Folk and Ward 1957)

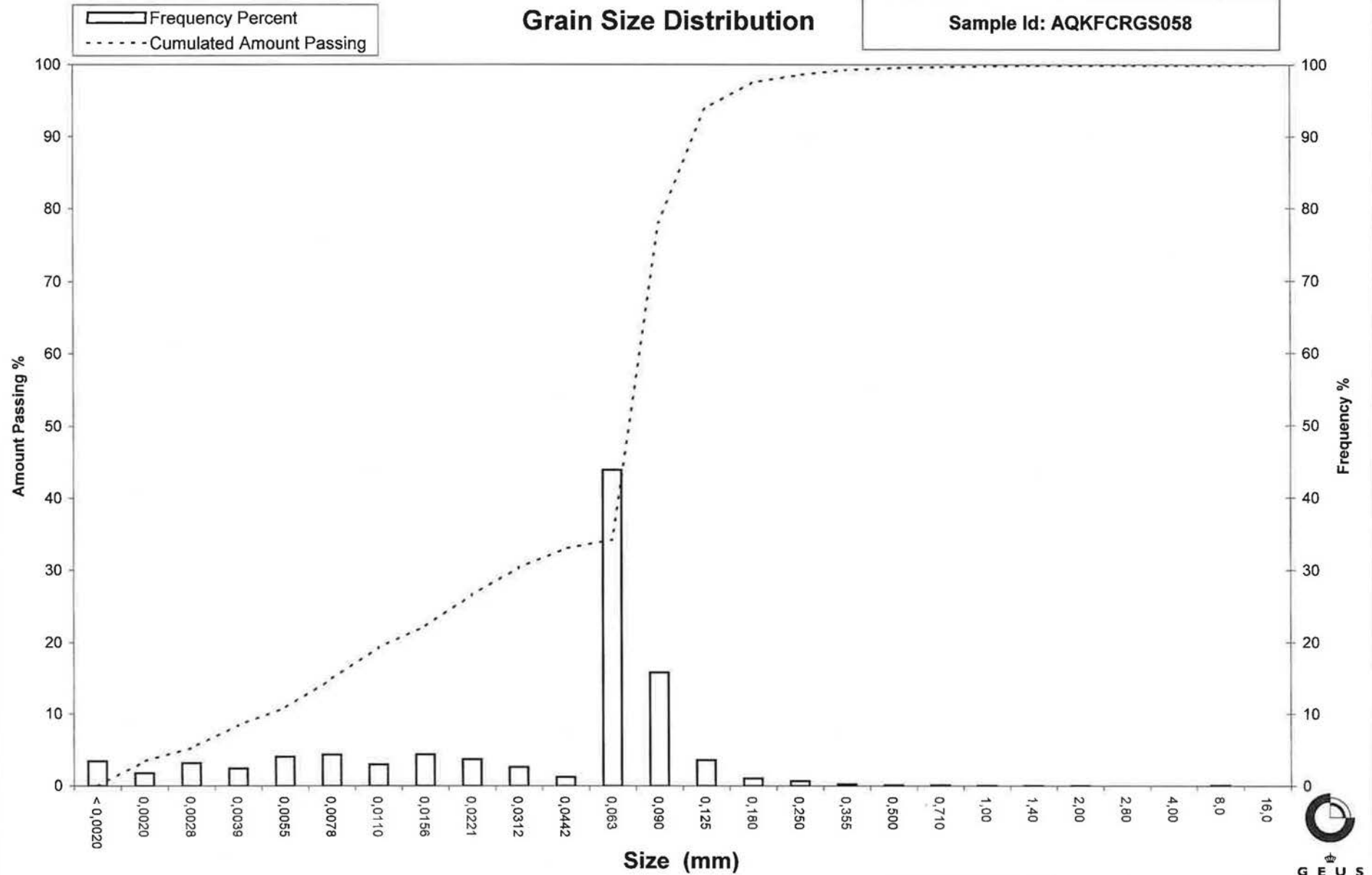
Uniformity Coefficient $(d_{60\%} / d_{10\%})$ (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

Øster Voldgade 10 1350 København K
 Tel.: +45 38 14 20 00 Telefax: +45 38 14 20 50
 Email: GEUS@geus.dk
 www.geus.dk

Grain Size Distribution

Sample Id: AQKFCRGS058



Grain Size Distribution

Geotechnical

Sample Id: AQKFCRGS059
Lab. Id: CR59
Submitter: Energinet.dk
Subject: KRIGERS FLAK Cable Route Samples
Date: Nov/dec 2012
Executed: I. Nørgaard, A.Stoican
Remarks: For mat. < 2mm



Total Weight 108,9 g

Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,00	0,00	100,00
2,80	-1,49	0,00	0,00	100,00
2,00	-1,00	0,00	0,00	100,00
1,40	-0,49	0,01	0,01	99,99
1,00	0,00	0,07	0,06	99,93
0,710	0,49	0,09	0,08	99,84
0,500	1,00	0,18	0,17	99,68
0,355	1,49	0,27	0,25	99,43
0,250	2,00	0,69	0,63	98,80
0,180	2,47	1,73	1,59	97,21
0,125	3,00	3,60	3,31	93,90
0,090	3,47	14,35	13,18	80,73
0,063	3,99	43,42	39,87	40,85
0,0442	4,50	2,56	2,35	38,50
0,0312	5,00	4,44	4,08	34,42
0,0221	5,50	4,89	4,49	29,93
0,0156	6,00	5,40	4,96	24,97
0,0110	6,51	3,77	3,46	21,51
0,0078	7,00	5,51	5,06	16,45
0,0055	7,51	4,98	4,57	11,88
0,0039	8,00	2,91	2,67	9,21
0,0028	8,48	3,71	3,41	5,80
0,0020	8,97	2,13	1,96	3,84
<0,0020	>8,97	4,18	3,84	0,00

Size Classes (DGF-Bulletin 1 1988)

	Weight %
Clay (< 0,002 mm):	3,84
Silt, fine (0,002 mm - 0,006 mm):	9,03
Silt, medium (0,006 mm - 0,020 mm):	15,46
Silt, coarse (0,020 mm - 0,063 mm):	12,52
Sand, fine (0,063 mm - 0,200 mm):	56,81
Sand, medium (0,2 mm - 0,6 mm):	2,09
Sand, coarse (0,6 mm - 2 mm):	0,24
Gravel (> 2 mm):	0,00
Sum:	100,00

Moments Measures

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,14	2,80
16%	84%	0,10	3,34
25%	75%	0,09	3,54
40%	60%	0,08	3,72
50%	50%	0,07	3,85
75%	25%	0,02	6,00
84%	16%	0,01	7,04
90%	10%	0,00	7,84
95%	5%	0,00	8,66

Moments Statistics

Mean	4,75
Sorting	1,81
Skewness	0,68
Kurtosis	0,98
Uniformity Coefficient	17,37

The analysis is executed according to DS/EN 933-1 extended by sieves to the ½ phi scale and test portion mass 0,1 kg

Size Classes and Percentiles are found by linear interpolation

Formulas

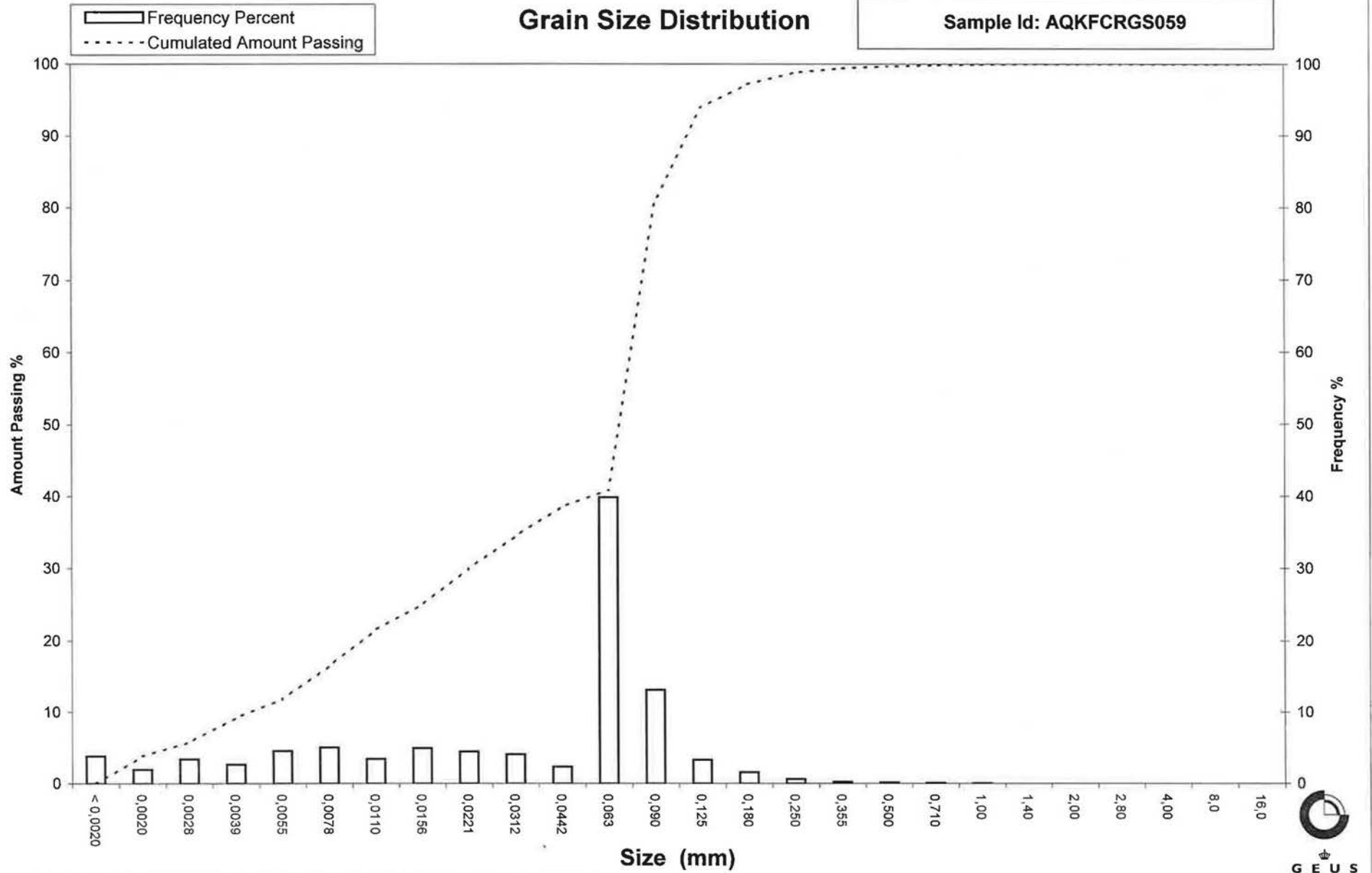
Mean $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$ (Folk and Ward 1957)
 Sorting $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$ (Folk and Ward 1957)
 Kurtosis $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$ (Folk and Ward 1957)
 Skewness $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$ (Folk and Ward 1957)
 Uniformity Coefficient $(d_{60\%} / d_{10\%})$ (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

Øster Voldgade 10 1350 København K
 Tel.: +45 38 14 20 00 Telefax: +45 38 14 20 50
 Email: GEUS@geus.dk
 www.geus.dk

Grain Size Distribution

Sample Id: AQKFCRGS059



Grain Size Distribution

Geotechnical

Sample Id: AQKFCRGS060
Lab. Id: CR60
Submitter: Energinet.dk
Subject: KRIGERS FLAK Cable Route Samples
Date: Nov/dec 2012
Executed: I. Nørgaard, A.Stoican
Remarks: For mat.< 2mm



Total Weight 106,37 g

Size Fractions

	Size	Size	Weight	Weight	Cumulated amount passing
	mm	Φ	g	%	%
Grain Size Distribution	16,00	4,00	0,00	0,00	100,00
	8,00	3,00	0,00	0,00	100,00
	4,00	2,00	0,00	0,00	100,00
	2,80	1,49	0,00	0,00	100,00
	2,00	1,00	0,00	0,00	100,00
	1,40	0,49	0,02	0,02	99,98
	1,00	0,00	0,01	0,01	99,97
	0,710	0,49	0,08	0,08	99,90
	0,500	1,00	0,12	0,11	99,78
	0,355	1,49	0,27	0,25	99,53
Mastersizer 3000	0,250	2,00	0,51	0,48	99,05
	0,180	2,47	0,74	0,70	98,35
	0,125	3,00	2,28	2,14	96,21
	0,090	3,47	11,19	10,52	85,69
	0,063	3,99	63,66	59,85	25,84
	0,0442	4,50	2,56	2,41	23,43
	0,0312	5,00	3,48	3,27	20,16
	0,0221	5,50	2,76	2,59	17,57
	0,0156	6,00	2,69	2,53	15,04
	0,0110	6,51	1,98	1,86	13,18
Clay	0,0078	7,00	3,17	2,98	10,20
	0,0055	7,51	3,02	2,84	7,36
	0,0039	8,00	1,78	1,67	5,69
	0,0028	8,48	2,26	2,12	3,57
	0,0020	8,97	1,29	1,21	2,36
	<0,0020	>8,97	2,51	2,36	0,00

Size Classes (DGF-Bulletin 1 1988)

	Weight %
Clay (< 0,002 mm):	2,36
Silt, fine (0,002 mm - 0,006 mm):	5,62
Silt, medium (0,006 mm - 0,020 mm):	8,78
Silt, coarse (0,020 mm - 0,063 mm):	9,09
Sand, fine (0,063 mm - 0,200 mm):	72,71
Sand, medium (0,2 mm - 0,6 mm):	1,28
Sand, coarse (0,6 mm - 2 mm):	0,16
Gravel (> 2 mm):	0,00
Sum:	100,00

Moments Measures

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,12	3,05
16%	84%	0,09	3,49
25%	75%	0,09	3,55
40%	60%	0,08	3,67
50%	50%	0,07	3,76
75%	25%	0,06	4,15
84%	16%	0,02	5,79
90%	10%	0,01	7,03
95%	5%	0,00	8,14

Moments Statistics

Mean	4,35
Sorting	1,35
Skewness	0,74
Kurtosis	3,51
Uniformity Coefficient	10,27

The analysis is executed according to DS/EN 933-1 extended by sieves to the 1/2 phi scale and test portion mass 0,1 kg

Size Classes and Percentiles are found by linear interpolation

Formulas

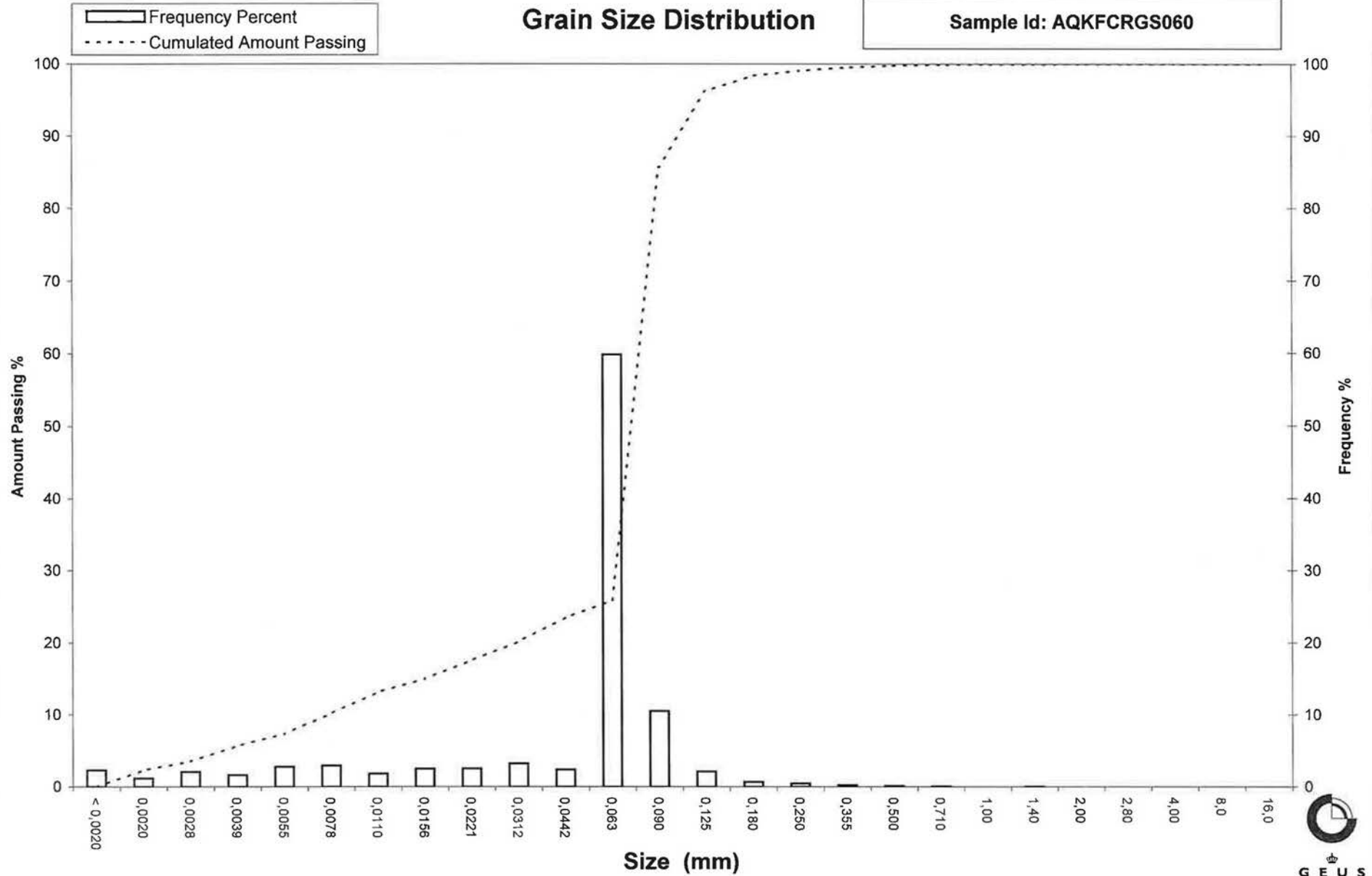
Mean $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$ (Folk and Ward 1957)
 Sorting $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$ (Folk and Ward 1957)
 Kurtosis $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$ (Folk and Ward 1957)
 Skewness $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$ (Folk and Ward 1957)
 Uniformity Coefficient $(d_{60\%} / d_{10\%})$ (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

Øster Voldgade 10 1350 København K
 Tel.: +45 38 14 20 00 Telefax: +45 38 14 20 50
 Email: GEUS@geus.dk
 www.geus.dk

Grain Size Distribution

Sample Id: AQKFCRGS060



Grain Size Distribution

Geotechnical

Sample Id: AQKFCRGS061
Lab. Id: CR61
Submitter: Energinet.dk
Subject: KRIGERS FLAK Cable Route Samples
Date: November 2012
Executed: I. Nørgaard, A.Stoican
Remarks: For mat. < 2mm



GEUS

Total Weight 115,82 g

Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	9,07	7,83	92,17
4,00	-2,00	4,22	3,64	88,53
2,80	-1,49	2,02	1,74	86,78
2,00	-1,00	2,38	2,05	84,73
1,40	-0,49	1,85	1,60	83,13
1,00	0,00	3,29	2,84	80,29
0,710	0,49	3,22	2,78	77,51
0,500	1,00	6,17	5,33	72,18
0,355	1,49	13,37	11,54	60,64
0,250	2,00	26,62	22,98	37,65
0,180	2,47	16,29	14,06	23,59
0,125	3,00	9,19	7,93	15,65
0,090	3,47	2,32	2,00	13,65
0,075	3,74	1,57	1,36	12,29
0,063	3,99	2,33	2,01	10,28
< 0,063	> 3,99	11,91	10,28	0,00

Size Classes (DGF-Bulletin 1 1988)

	Weight %
Silt and clay (< 0,063 mm):	10,28
Sand, fine (0,063 mm - 0,200 mm):	17,32
Sand, medium (0,2 mm - 0,6 mm):	47,11
Sand, coarse (0,6 mm - 2 mm):	10,01
Gravel (> 2 mm):	15,27
Sum:	100,00

Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	10,89	-3,45
16%	84%	1,73	-0,79
25%	75%	0,61	0,71
40%	60%	0,35	1,51
Median 50%	50%	0,31	1,71
75%	25%	0,19	2,42
84%	16%	0,13	2,97
90%	10%	-----	-----
95%	5%	-----	-----

Moments Statistics

Mean	1,30
Sorting	-----
Skewness	-----
Kurtosis	-----
Uniformity Coefficient	-----

The analysis is executed according to DS405.9
 DS/EN933-1 extended by sieves to the 1/2 phi scale.

Size Classes and Percentiles
 are found by linear interpolation

Formulas

Mean $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$ (Folk and Ward 1957)

Sorting $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$ (Folk and Ward 1957)

Kurtosis $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$ (Folk and Ward 1957)

Skewness $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$ (Folk and Ward 1957)

Uniformity Coefficient $(d_{60\%} / d_{10\%})$ (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on
 "Amount in sieve". Uniformity coefficient is based on

Øster Voldgade 10 1350 København K
 Tel.: +45 38 14 20 00 Telefax: +45 38 14 20 50
 Email: GEUS@geus.dk

Grain Size Distribution

Sample Id: A Q K F C R G S 0 6 1

