

Oppdrag:

A/S NATIONAL INDUSTRI

NGU Rapport nr. 808 C

MALMBEREGNING AV REPPARFJORDFELTET

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NORGES GEOLOGISKE UNDERSØKELSE

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Innledning.

Denne malmberegning er utført for å vise hvilke malmtonnasjer som totalt er påvist i Ulveryggen. I beregningen kan derfor inngå tonnasjer fra malmsoner som man ved drift ikke vil finne det praktisk eller lønnsomt å bryte.

Selve malmberegningen er bygd på resultatene fra diamantboringer, røskegrøfter og underjordsdrifter samt på det bildet av malmsonene i dagen som den geologiske detaljkartlegging har gitt. I alt har man hatt til rådighet 9842 m diamantborhull, 1720 m røskegrøfter og underjordsdrifter på tilsammen 760 m lengde. De 9842 diamantbormetre er fordelt på 71 hull hvorav 5 hull på tilsammen 480 m lengde ble boret i 1909, 10 hull på tilsammen 2358 m lengde ble boret av det kanadiske selskapet Invex Corporation Ltd., Toronto i 1957 og 56 hull på tilsammen 7004 m lengde av A/S National Industri i årene 1965, 1966 og 1967.

Røskegrøftene og underjordsdriftene ble drevet i årene 1904-1909, og analysene fra dette arbeidet er av samme alder. Det kanadiske selskapet prøvetok på nytt enkelte av røskene og underjordsdriftene og fant en meget god overensstemmelse med de gamle analysedataene. Analyseringen av borkjernene fra Invex's og National Industri's boringer er foretatt av Kjemisk avdeling, NGU.

Analysene fra diamantboringene i 1957, 1965, 1966 og 1967, med angitte gjennomsnittstall for forskjellige soner og partier av malmen, er tatt med i denne rapport mens analysetall for røsker og underjordsdrifter er inntegnet på figurene i bilagsheftet. På figurene i bilagsheftet kan man også finne igjen de nevnte gjennomsnittstall fra boringen, inntegnet på sonene og partiene de representerer.

Når man ser på analysetallene, finner man at analysene fra røsker og underjordsdrifter vanligvis har et noe høyere kobberinnhold enn borkjerneanalysene i samme snitt. Likeledes viser analysene fra diamantboringen at kobberimpregnasjonen, i samme snitt, er rikere og mektigere i hull nær dagflaten enn i hull som skjærer malmen på større dyp. Man har altså i dette området en malmimpregnasjon som er rikest og mektigst i øvre nivåer og som gradvis avtar i mektighet og gehalt mot

dypet. I figurene i bilagsheftet har man derfor latt gehalt og mektighet avta gradvis fra dagflaten og nedover, i overensstemmelse med de data borhullsskjæringene gir. En forklaring på den høyere kobbergehalt nær dagflaten har vært at man her har fått en sekundær malakittdannelse, en dannelse hvis kobberinnhold er tilført fra øvre, nå eroderte partier av impregnasjonen. Malakitten må man i tilfelle regne med går tapt under en flotasjon, så den praktisk utvinnbare kobbermengde fra øvre malmnivåer vil da være mindre enn kobberanalysene skulle tilsi. Imidlertid viser erfaringene fra arbeidet i feltet at malakitten, som hovedsaklig sees i røskene, er dannet etter prøvetakingen og finnes på bruddflater fremkommet ved utskytingen. Malakittmineralenes kobberinnhold er her tilført på bekostning av den tilliggende kobberimpregnasjon. Man regner derfor med at mineraliseringen primært har vært riket og mektigst i øvre nivåer og at dette ikke skyldes en sekundær effekt som en malakittdannelse.

Fremgangsmåten ved malmberegningen.

I bilagsheftet finner man kart over de forskjellige malmfelter. Malmens utgående i dagen er her opptegnet samt også en rekke vertikale malmsnitt. Utgående i dagen er bestemt ved hjelp av røskene og den geologiske detaljkartlegging. De vertikale malmsnitt er bestemt ved borhullsskjæringer og underjordsdrifter. Som "malm" er regnet alle soner som holder 0,1% Cu eller mere. I snittene har man vanligvis latt malmen slutte ca 20 m under nederste borhullsskjæring. I de vertikale snitt, som er lagt til grunn for selve beregningen, har man delt malmen opp i seks kvaliteter (kvalitet A= 0,3 - 0,5% Cu, kvalitet B= 0,5 - 0,7% Cu, kvalitet C= 0,7 - 0,9% Cu, kvalitet D= 0,9 - 1,1% Cu, kvalitet E= 1,1 - 1,5% Cu, kvalitet F² ≥ 1,5% Cu) og latt hver kvalitet få det arealet som analysene tilsier. Hvert av disse arealene er så målt, og resultatene finner man på kartene og dessuten i tabellene bak i denne rapport. Soner som holder mellom 0,1 og 0,3% Cu er også utskilt med egen farve på vertikalsnittene, men disse soner er ikke arealberegnet.

Opprinnelig var kartene tegnet på millimeterpapir i målestokk 1:500, og arealberegningen ble utført ved å telle 1 cm² ruter = 25 m² og

deretter, for kontrollens skyld, ved hjelp av et nøyaktig planometer. Senere ble kartene tracet og fotografert ned til 1:1 000 og kopiert til bruk i bilagsheftet. Under disse arbeidsprosesser kan mindre, ubetydelige feil ha oppstått med målestokken og derved med arealene uten at dette vil få noen merkbar innflytelse på beregningen i sin helhet.

Ved å ta gjennomsnittsarealet for hver malmkvalitet i to etterfølgende snitt og multiplisere med avstanden og bergartens egenvekt fremkommer tonnasje som er ført opp i tabellene. Tallene er avrundet til nærmeste 1 000 tonn. Ved NGU er det foretatt to egenvektbestemmelser av bergarten i malmområdet. Den ene ga egenvekten 2,70, den andre egenvekten 2,73. I beregningene har man brukt verdien 2,70.

I tabellene har man også en rubrikk, kalt Middelgehalt, hvor det innen hver malmkvalitet er forsøkt å beregne en midlere gehalt på den fremkomne tonnasje. I rubrikken Lengde finner man ofte et tall, f. eks. 20, og under tallet kan det stå 9700Y → øst. Dette betyr at malmsonen kiler ut i østlig retning, 20 m fra profil 9700Y. Tonnasjene beregnes på samme måte som ellers bare med den forskjell at arealene i det ene snitt (her 9720Y) blir satt lik null.

Kommentarer til malmberegningen av Vestfeltet.

Vestfeltet er delt opp i fem malmsoner eller kropper. For kropp I og II's vedkommende er det målt horisontale areal. På grunn av at kropp II ser ut til å bli smalere mot dypet er det horisontale areal for kvalitet A kun satt til 3/4 av det målte areal (i dagen) for kvalitet B. Når det gjelder kropp IV er det målte areal, i borprofil 9500Y, brukt som et gjennomsnitt for hele kroppen. Arealene, 220 m² for kvalitet A, 30 m² for kvalitet D, står ikke inntegnet på kartet.

I snitt 9540Y, malmkropp V, har man latt malmens nedre grense gå langt under borhullsskjæringen 954A. Dette skyldes at borhullet, mot vanlig erfaring i feltet, viser en betraktelig høyere kobbergehalt enn røskene i dagflaten (ca 0,3% høyere). Dessuten gir borhull 962B, i påfølgende snitt, relativ god malm på et forholdsvis dypt nivå. I borhull 962A ble de to første metrene, på grunn av dårlig fjell, boret med en større kronedimensjon. Kjernene herfra ble ikke analysert men viste god malm. Sonen man har fra 2,0 m - 4,2 m, i dette snitt, er derfor tegnet noe bredere enn analysene skulle tilsi.

Analyseliste for Vestfeltet.

Borhull	meter	% Cu	Borhull	meter	% Cu
937 A	29,0 - 30,0	0,02	940 A	52,0 - 52,5	0,36
	47,0 - 48,0	0,47		52,5 - 53,0	0,56
	48,0 - 49,0	0,29		53,0 - 54,0	0,37
	49,0 - 50,0	0,35		54,0 - 54,5	0,45
	54,0 - 55,0	0,29		54,5 - 55,0	0,49
	55,0 - 56,0	0,03		55,0 - 56,0	0,38
	56,0 - 57,0	0,20		56,0 - 57,0	0,06
	57,0 - 58,0	0,45		57,0 - 58,0	0,04
	58,0 - 59,0	0,14		58,0 - 59,0	0,08
	59,0 - 60,0	0,79		59,0 - 60,0	0,05
	60,0 - 61,0	0,02		60,0 - 61,0	0,11
	69,0 - 70,0	0,02		61,0 - 62,0	0,34
	70,0 - 71,0	0,03		62,0 - 63,0	0,20
	71,0 - 72,0	0,02		63,0 - 64,0	0,03
	72,0 - 73,0	0,02		64,0 - 65,0	0,39
	73,0 - 74,0	0,12		65,0 - 66,0	0,16
	74,0 - 75,0	0,36			
	75,0 - 76,0	0,33	950 A	1,3 - 2,0	0,14
	76,0 - 77,0	0,26		2,0 - 3,0	0,09
	77,0 - 78,0	0,25		3,0 - 4,0	0,10
	78,0 - 79,0	0,18		4,0 - 5,0	0,04
	79,0 - 80,0	0,41		5,0 - 6,0	0,06
				6,0 - 7,0	0,09
940 A	4,0 - 5,0	0,04		7,0 - 8,0	0,11
	8,3 - 9,0	0,04		8,0 - 9,0	0,06
	9,0 - 10,0	0,61		9,0 - 10,0	0,17
	10,0 - 10,5	0,58		10,0 - 11,0	0,21
	29,0 - 30,0	0,06		11,0 - 12,0	0,19
	43,0 - 44,0	0,26		12,0 - 13,0	0,43
	49,0 - 50,0	0,14		13,0 - 14,0	0,20
	50,0 - 51,0	0,42		14,0 - 15,0	0,10
	51,0 - 52,0	0,10			

Borhull	meter	% Cu	Borhull	meter	% Cu
950 A	15,0 - 16,0	0,60	950 A	81,0 - 82,0	0,82
	16,0 - 17,0	0,51		82,0 - 83,0	0,07
	17,0 - 18,0	0,09		83,0 - 84,0	0,03
	18,0 - 19,0	0,13		87,0 - 88,0	0,01
	19,0 - 20,0	0,05		88,0 - 89,0	0,03
	24,0 - 25,0	0,06		89,0 - 90,0	0,04
	25,0 - 26,0	0,04		90,0 - 91,0	0,03
	26,0 - 27,0	0,06		91,0 - 92,0	0,37
	27,0 - 28,0	0,24		92,0 - 93,0	0,31
	28,0 - 29,0	0,73		93,0 - 94,0	0,15
	29,0 - 30,0	0,12		94,0 - 95,0	0,05
	30,0 - 31,0	0,42		95,0 - 96,0	0,32
	31,0 - 32,0	0,09		96,0 - 97,0	0,14
	32,0 - 33,0	0,40		97,0 - 98,0	0,31
	33,0 - 34,0	0,81		98,0 - 98,7	0,15
	34,0 - 35,0	0,11			
	35,0 - 36,0	0,82	954 A	1,3 - 2,0	0,31
	36,0 - 37,0	0,29		2,0 - 3,5	0,50
	37,0 - 38,0	0,43		3,5 - 4,0	1,32
	38,0 - 39,0	0,24		4,0 - 5,0	0,22
	39,0 - 40,0	0,05		5,0 - 6,0	0,89
	42,0 - 43,0	0,12		6,0 - 7,0	2,80
	43,0 - 44,0	0,15		7,0 - 8,0	1,31
	44,0 - 45,0	0,34		8,0 - 9,0	0,92
	47,0 - 48,0	0,08		9,0 - 10,0	1,23
	48,0 - 49,0	0,16		10,0 - 11,0	0,31
	49,0 - 50,0	0,48		11,0 - 12,0	0,37
	50,0 - 51,0	0,26		12,0 - 13,0	0,13
	51,0 - 52,0	0,03		13,0 - 14,0	0,22
	62,0 - 63,0	0,18		14,0 - 15,0	0,71
	76,0 - 77,0	0,80		15,0 - 16,0	1,43
	77,0 - 78,0	0,68		16,0 - 17,0	1,14
	78,0 - 79,0	0,09		17,0 - 18,0	0,48
	79,0 - 80,0	0,03		18,0 - 19,0	1,45
	80,0 - 81,0	0,15		19,0 - 20,0	0,36

Borhull	meter	% Cu	Borhull	meter	% Cu
954 A	20,0 - 21,0	1,65	962 A	41,0 - 42,0	0,08
	21,0 - 22,0	1,07		42,0 - 43,0	1,23
	22,0 - 23,0	0,40		43,0 - 44,0	2,44
	24,0 - 25,0	0,09		44,0 - 45,0	2,44
	25,0 - 26,0	0,10		45,0 - 46,0	0,45
	26,0 - 27,0	0,48		46,0 - 47,0	1,70
	27,0 - 28,0	1,25		47,0 - 48,0	1,93
	28,0 - 29,0	1,46		48,0 - 49,0	3,38
	29,0 - 30,0	1,06		49,0 - 50,0	2,69
	30,0 - 31,2	2,11		50,0 - 51,0	1,99
	31,2 - 32,0	0,13		51,0 - 52,0	4,09
	32,0 - 33,0	1,18		52,0 - 53,0	0,62
	33,0 - 34,0	1,56		53,0 - 54,0	0,76
	34,0 - 35,4	0,75		54,0 - 55,0	1,22
	35,4 - 37,0	0,03		55,5 - 57,0	1,15
	50,5 - 51,0	0,02		57,0 - 58,0	0,17
	60,0 - 60,5	0,05	962 B	58,0 - 59,0	0,04
	63,0 - 64,0	0,02		59,0 - 60,0	0,05
				61,0 - 62,0	0,03
				62,0 - 63,0	0,02
				69,0 - 70,0	0,04
				75,0 - 76,0	0,03
				78,0 - 79,0	0,02
				79,0 - 80,0	0,02
				63,0 - 64,0	0,02
				64,0 - 65,0	0,02
				65,0 - 66,0	0,03
				66,0 - 67,0	0,05
				67,0 - 68,0	0,05
				68,0 - 69,0	0,05
				69,0 - 70,0	0,05
				70,0 - 71,0	0,42
				71,0 - 72,0	0,42
				72,0 - 72,9	0,68
962 A	2,0 - 3,0	0,94	962 A	41,0 - 42,0	0,08
	3,0 - 4,2	1,34		42,0 - 43,0	1,23
	25,0 - 26,0	0,09		43,0 - 44,0	2,44
	26,0 - 27,0	0,12		44,0 - 45,0	2,44
	27,0 - 28,0	0,04		45,0 - 46,0	0,45
	28,0 - 29,0	0,07		46,0 - 47,0	1,70
	29,0 - 30,0	0,05		47,0 - 48,0	1,93
	30,0 - 31,0	0,06		48,0 - 49,0	3,38
	31,0 - 32,0	0,04		49,0 - 50,0	2,69
	32,0 - 33,0	0,16		50,0 - 51,0	1,99
	33,0 - 34,0	0,09		51,0 - 52,0	4,09
	34,0 - 35,0	0,13		52,0 - 53,0	0,62
	35,0 - 36,0	0,24		53,0 - 54,0	0,76
	36,6 - 37,5	0,16		54,0 - 55,0	1,22
	37,5 - 39,0	0,38		55,5 - 57,0	1,15
	39,0 - 40,0	1,90		57,0 - 58,0	0,17
	40,0 - 41,0	0,32		58,0 - 59,0	0,04

0,94%/18m

1,14%/9,4m

1,16%/2,2m

0,18%/5,5m

0,80%/3,5m

1,71%/16m

0,51%/5m

Borhull	meter	% Cu		Borhull	meter	% Cu	
962 B	72,9 - 74,0	0,65	0,51%/5m	970 A	10,0 - 11,0	0,02	0,25%/3m
	74,0 - 75,0	0,38			11,0 - 12,0	0,02	
	75,0 - 76,0	0,07			12,0 - 13,0	0,01	
	76,0 - 77,0	0,32	0,50%/2m		13,0 - 14,0	0,01	
	77,0 - 78,0	0,68			14,0 - 15,0	0,02	
	78,0 - 79,0	0,06			15,0 - 16,0	0,22	
	79,0 - 79,5	0,86	16,0 - 17,0		0,25		
	79,5 - 80,0	0,09	17,0 - 18,0		0,29		
	80,0 - 81,0	0,04	18,0 - 19,0		0,04		
	81,0 - 82,0	0,18	0,37%/8m		19,0 - 20,0	0,07	
	82,0 - 83,0	0,38			20,0 - 21,0	0,01	
	83,0 - 84,0	0,49			21,0 - 22,0	0,03	
	84,0 - 85,0	0,39			22,0 - 23,0	0,02	
	85,0 - 86,0	0,41			23,0 - 24,0	0,01	
	86,0 - 87,0	0,65			24,0 - 25,0	0,02	
	87,0 - 88,0	0,14			25,0 - 26,0	0,01	
	88,0 - 89,0	0,28			26,0 - 27,0	0,01	
	89,0 - 90,0	1,22	1,21%/3m		27,0 - 28,0	0,02	
	90,0 - 91,0	1,42			28,0 - 29,0	0,02	
	91,0 - 92,0	0,98			29,0 - 30,0	0,02	
	92,0 - 93,0	0,14			30,0 - 31,0	0,02	
	93,0 - 94,0	0,03			31,0 - 32,0	0,02	
	94,0 - 95,0	0,35	32,0 - 33,0		0,13		
970 A	0,5 - 1,0	0,14	0,14%/5,5m	33,0 - 34,0	0,02		
	1,0 - 2,0	0,24		34,0 - 35,0	0,01		
	2,0 - 3,0	0,08		35,0 - 36,0	0,16		
	3,0 - 4,0	0,13		36,0 - 37,0	0,03		
	4,0 - 5,0	0,11		37,0 - 38,0	0,96		
	5,0 - 6,0	0,13		38,0 - 39,0	0,67		
	6,0 - 7,0	0,02		39,0 - 40,0	1,73		
	7,0 - 8,0	0,03		40,0 - 41,0	1,61		
	8,0 - 9,0	0,02		41,0 - 42,0	1,44		
	9,0 - 10,0	0,02		42,0 - 43,0	0,28		
				43,0 - 44,0	1,23		

Borhull	meter	% Cu	Borhull	meter	% Cu
970 A	44,0 - 45,0	0,37			
	45,0 - 46,0	0,95			
	46,0 - 47,0	0,37			
	47,0 - 48,0	1,16			
	48,0 - 49,0	0,72			
	49,0 - 50,0	1,95			
	50,0 - 50,4	0,17			
	50,4 - 52,0	0,47			
	52,0 - 52,8	0,07			
	52,8 - 53,2	2,39			
	53,2 - 54,0	0,07			
	54,0 - 55,0	0,03			
	55,0 - 56,0	0,02			
	56,0 - 57,0	0,05			
	57,0 - 58,0	0,58			
	58,0 - 59,0	0,04			
	59,0 - 60,0	0,03			
	60,0 - 61,0	0,03			

0,94%/16,2m

Kommentar til beregningen av Hovedfeltet.

Fra de hull som Invex boret i 1957, og som har bokstavbetegnelser, finnes ingen detaljerte analyselister. Analysene og områdene de representerer er kun avmerket på tegnede borhullsprofil. Ved måling ut i fra disse profiler kan man finne omtrentlig plassering og lengde av den analyserte borprøve. Under utregning av gjennomsnittsgehalten for malmsonene, er det tatt hensyn til at de forskjellige analyser ikke alltid representerer samme borlengde. Som oftest dekker imidlertid hver analyse en borlengde på 1,5m (5 fot).

De arealverdier man har funnet i snitt 9950Y er brukt som gjennomsnittstall for denne, tilsynelatende isolerte malmkropp. Hverken røskene eller detaljkartleggingen har kunnet påvise noen forbindelse mellom denne kropp og resten av Hovedfeltet. Anomaliene fra IP-målingene synes derimot å tyde på at det eksisterer en slik forbindelse. Det kan derfor være mulig at man her har kobbermineraliseringen et stykke under dagnivået og således ikke får den registrert ved røsker eller kartlegging.

I snitt 10050Y har man beregnet arealene for hver av de to soner, med ulik lengde vestover, som kartet viser.

I snitt 10090Y finner man igjen de samme to soner. Man har derfor slått sammen arealene til sonene i 10050Y og kombinert dem med areal for tilsvarende kvaliteter i snitt 10090Y. 110 m^2 av kvalitet A som representerer den smale, nordligste sone i snitt 10090Y er holdt utenfor og beregnet for seg, da denne sone ikke er påvist i snitt 10050Y. Denne fremgangsmåte som her er skissert er brukt videre i beregningen. Man kombinerer altså arealene til soner i et snitt med arealene til de samme soner i det påfølgende snitt. Opptrer det nye soner i et påfølgende snitt, beregnes disse i første omgang for seg. Hvis sonene også er påvist i de etterfølgende snitt, vil de i den videre beregning bli slått sammen med de øvrige soner og beregnet under ett.

I snitt 10090Y viser ellers den første gråfarvete sone en forholdsvis sterk svovelkisimpregnasjon. Kobbergehalten er imidlertid lav, godt under 0,1%. Gråbergsonen, som kommer like etter den 7 m brede malmsonen på 0,92% Cu, skal være noe bredere enn tegnet og gå helt inn til den stiplede linjen.

I snitt 10160Y skal skjæringsområdet for borhullene 1016 B og F ligge innen en forholdsvis rik malmsone. 1016 B viser omtrent de samme høye gehalter for denne sone som borhullene 1016 A og 1016 D, mens F i så måte er noe dårligere. Dette kan skyldes at Invex hadde en noe annen orientering på sine hull. Borhull F vil således skjære den nevnte malmsone 10-15 m lengre vest enn de øvrige hull i snittet.

Enkelte hull i feltet er avviksmålt både med flussyre og Craelius' måleutstyr. Er faringene fra disse målinger er lagt til grunn for de tegnede avvik på de lengre borhull.

Da den siste kontrollregning av gjennomsnittsgehaltene ble foretatt etter at kartbilagene var ferdige, er det et par steder en liten forskjell (max. 0,05%) mellom analyseliste og kart. De verdier som står i analyselistene er altså de riktige.

Analyseliste for Hovedfeltet

Borhull	meter	% Cu	Borhull	meter	% Cu
995 A	0,8 - 2,0	0,21	995 A	31,0 - 32,0	0,24
	2,0 - 3,0	0,18		32,0 - 33,0	1,57
	3,0 - 4,0	0,15		33,0 - 34,0	0,36
	4,0 - 5,0	0,20		34,0 - 35,3	0,13
	5,0 - 6,5	0,45		35,3 - 36,0	0,02
	6,5 - 7,4	0,30		36,0 - 37,0	0,20
	7,4 - 8,0	0,20		37,0 - 37,8	0,34
	8,0 - 9,0	0,82		37,8 - 39,0	0,05
	9,0 - 10,0	0,04		39,0 - 40,0	0,04
	10,0 - 11,0	0,06		40,0 - 40,5	0,10
	11,0 - 12,0	0,02		40,5 - 41,0	0,02
	12,0 - 13,0	0,23		41,0 - 42,0	0,01
	13,0 - 14,5	1,08		42,0 - 43,0	0,02
	14,5 - 15,5	0,34		43,0 - 44,0	0,01
	15,5 - 16,5	1,10		44,0 - 45,0	0,01
	16,5 - 17,8	0,12		45,0 - 46,0	0,05
	17,8 - 19,0	0,08		46,0 - 47,0	0,01
	19,0 - 19,5	0,05		47,0 - 48,0	0,01
	19,5 - 20,5	0,02		48,0 - 49,0	0,01
	20,5 - 21,0	1,00		49,0 - 50,0	0,01
	21,0 - 22,1	0,30			
	22,1 - 23,0	0,21	1005 A	0,0 - 1,0	0,01
	23,0 - 24,0	0,60		1,0 - 2,0	0,01
	24,0 - 25,0	1,78		2,0 - 3,0	0,01
	25,0 - 26,4	0,60		3,0 - 4,0	0,01
	26,4 - 27,0	0,80		4,0 - 5,0	0,01
	27,0 - 28,5	0,63		5,0 - 6,0	0,01
	28,5 - 30,0	0,09		6,0 - 7,0	0,01
	30,0 - 31,0	0,08		7,0 - 8,0	0,01
				8,0 - 9,0	0,02

Borhull	meter	% Cu	Borhull	meter	% Cu
1005 A	9,0 - 10,0	0,03	1005 A	42,0 - 43,0	0,01
	10,0 - 11,0	0,02		43,0 - 44,0	0,01
	11,0 - 12,0	0,01		44,0 - 45,0	0,01
	12,0 - 13,0	0,01		45,0 - 46,0	0,01
	13,0 - 14,0	0,01		46,0 - 47,0	0,01
	14,0 - 15,0	0,03		47,0 - 48,0	0,02
	15,0 - 16,0	0,02		48,0 - 49,0	0,01
	16,0 - 17,0	0,02		49,0 - 50,0	0,01
	17,0 - 18,0	0,01		50,0 - 51,0	0,01
	18,0 - 19,0	0,01		51,0 - 52,0	0,01
	19,0 - 20,0	0,02		52,0 - 53,0	0,01
	20,0 - 21,0	0,04		53,0 - 54,0	0,01
	21,0 - 22,0	0,02		54,0 - 55,0	0,01
	22,0 - 23,0	0,06		55,0 - 56,0	0,01
	23,0 - 24,0	0,01		56,0 - 57,0	0,02
	24,0 - 25,0	0,01		57,0 - 58,0	0,01
	25,0 - 26,0	0,01		58,0 - 59,0	0,01
	26,0 - 27,0	0,01		59,0 - 60,0	0,01
	27,0 - 28,0	0,01		60,0 - 61,0	0,01
	28,0 - 29,0	0,02		61,0 - 62,0	0,01
	29,0 - 30,0	0,02		62,0 - 63,0	0,01
	30,0 - 31,0	0,02		63,0 - 64,0	0,01
	31,0 - 32,0	0,02		64,0 - 65,0	0,01
	32,0 - 33,0	0,01		65,0 - 66,0	0,01
	33,0 - 34,0	0,01		66,0 - 67,0	0,01
	34,0 - 35,0	0,01		67,0 - 68,0	0,01
	35,0 - 36,0	0,02		68,0 - 69,0	0,01
	36,0 - 37,0	0,02		69,0 - 70,0	0,02
	37,0 - 38,0	0,01		70,0 - 71,0	0,02
	38,0 - 39,0	0,01		71,0 - 72,0	0,02
	39,0 - 40,0	0,01		72,0 - 73,0	0,02
	40,0 - 41,0	0,01		73,0 - 74,0	0,33
	41,0 - 42,0	0,01			

Borhull	meter	% Cu	Borhull	meter	% Cu
1005 A	74,0 - 75,0	0,48	1005 A	126,0 - 127,0	0,02
	75,0 - 76,0	0,67		127,0 - 128,0	0,02
	76,0 - 77,0	0,36		128,0 - 129,0	0,02
	77,0 - 77,7	0,29		129,0 - 130,0	0,12
	77,7 - 78,0	0,02			
	78,0 - 79,0	0,07			
	79,0 - 80,0	0,32	E	27,0 - 28,0	0,60
	80,0 - 81,0	0,27		64,0 - 65,5	0,11
	81,0 - 82,0	0,02		65,5 - 71,5	0,72
	82,0 - 83,0	0,02			3,31
	90,0 - 91,0	0,01			0,95
	91,0 - 92,0	0,05			0,33
	92,0 - 93,0	0,02			
	97,0 - 98,0	0,02			
	98,0 - 99,0	0,01			
	99,0 - 100,0	0,02			
	100,0 - 100,5	0,02	1009 A	8,0 - 9,0	0,04
	108,0 - 109,0	0,02		9,0 - 10,0	0,04
	109,0 - 110,0	0,02		10,0 - 11,0	0,05
	110,0 - 111,0	0,02		11,0 - 12,0	0,07
	111,0 - 112,0	0,06		12,0 - 13,0	0,09
	113,0 - 114,5	0,02		13,0 - 14,0	0,02
	114,5 - 116,0	0,18		14,0 - 15,0	0,05
	116,0 - 117,0	0,45		15,0 - 16,0	0,02
	117,0 - 118,0	0,14		16,0 - 17,0	0,01
	118,0 - 119,0	0,02		17,0 - 18,0	0,02
	119,0 - 120,0	0,02		18,0 - 19,0	0,03
	120,0 - 121,0	0,03		19,0 - 20,0	0,09
	121,0 - 122,0	0,03		20,0 - 21,0	0,10
	122,0 - 123,0	0,02		21,0 - 22,0	0,11
	123,0 - 124,0	0,03		22,0 - 23,0	0,10
	124,0 - 125,0	0,14		23,0 - 24,0	0,11
	125,0 - 126,0	0,10		24,0 - 25,0	0,11
				25,0 - 26,0	0,14
				26,0 - 27,0	0,03

0,50%/3m

0,30%/2m

0,30%/
2,5m

0,97%/6m

0,11%/7m

Borhull	meter	% Cu	Borhull	meter	% Cu
1009 A	27,0 - 28,0	0,18	1009 A	61,0 - 62,0	0,02
	28,0 - 29,0	0,17		62,0 - 63,0	0,02
	29,0 - 30,0	1,10		63,0 - 64,0	0,06
	30,0 - 31,0	0,18		64,0 - 65,0	0,33
	31,0 - 32,0	0,29		65,0 - 66,0	1,10
	32,0 - 33,0	0,21		66,0 - 67,0	2,79
	33,0 - 34,0	0,20		67,0 - 68,0	0,91
	34,0 - 35,0	0,49		68,0 - 69,0	0,43
	35,0 - 36,0	0,35		69,0 - 70,0	0,14
	36,0 - 37,0	0,09		70,0 - 71,0	0,59
	37,0 - 38,0	0,04		71,0 - 72,0	0,46
	38,0 - 39,0	0,03		72,0 - 73,0	0,09
	39,0 - 40,0	0,02		73,0 - 74,0	0,05
	40,0 - 41,0	0,15		74,0 - 75,0	0,03
	41,0 - 42,0	0,11		75,0 - 76,0	0,07
	42,0 - 43,0	0,11		76,0 - 77,0	0,35
	43,0 - 44,0	0,63		77,0 - 78,0	0,28
	44,0 - 45,0	0,03		78,0 - 79,0	0,28
	45,0 - 46,0	0,02		79,0 - 80,0	0,27
	46,0 - 47,0	0,02		80,0 - 81,0	0,39
	47,0 - 48,0	0,02		81,0 - 82,0	0,28
	48,0 - 49,0	0,02		82,0 - 83,0	0,01
	49,0 - 50,0	0,03		83,0 - 84,0	0,02
	50,0 - 51,0	0,12		84,0 - 85,0	0,01
	51,0 - 52,0	0,03		85,0 - 86,0	0,18
	52,0 - 53,0	0,04		86,0 - 87,0	0,34
	53,0 - 54,0	0,02		87,0 - 88,0	0,03
	54,0 - 55,0	0,03		88,0 - 89,0	0,02
	55,0 - 56,0	0,02		89,0 - 90,0	0,43
	56,0 - 57,0	0,02		90,0 - 91,0	0,22
	57,0 - 58,0	0,02		91,0 - 92,0	0,03
	58,0 - 59,0	0,02		92,0 - 93,0	0,03
	59,0 - 60,0	0,03		93,0 - 94,0	0,17
	60,0 - 61,0	0,02			

0,16%/4m

0,31%/5m

0,25%/4m

0,92%/7m

0,31%/6m

0,26%/2m

0,32%/2m

Borhull	meter	% Cu	Borhull	meter	% Cu
1009 A	94,0 - 95,0	0,55	1012 A	3,0 - 5,0	0,45
	95,0 - 96,0	0,59		5,0 - 12,0	0,75
	96,0 - 97,0	0,23		12,0 - 13,0	0,35
	97,0 - 98,0	0,44		13,0 - 20,0	0,20
	98,0 - 99,0	0,30		20,0 - 29,0	0,18
	99,0 - 100,0	0,08			
	100,0 - 101,0	0,06			
	101,0 - 102,0	0,02			
	102,0 - 103,0	0,03	1012 B	48,0 - 49,0	1,64
	103,0 - 104,0	0,52		49,0 - 50,0	1,18
	104,0 - 105,0	0,28		50,0 - 51,0	1,93
	105,0 - 106,0	0,33		51,0 - 52,0	1,39
	106,0 - 107,0	0,46		52,0 - 53,0	0,65
	107,0 - 108,0	0,17		53,0 - 54,0	0,31
	108,0 - 109,0	0,27		54,0 - 55,0	0,28
	109,0 - 110,0	0,09		55,0 - 56,0	0,15
	110,0 - 111,0	0,03		56,0 - 57,0	0,23
	111,0 - 112,0	0,02		57,0 - 58,0	0,12
	112,0 - 113,0	0,18		58,0 - 59,0	0,13
	113,0 - 114,0	0,23		59,0 - 60,0	0,10
	114,0 - 115,0	0,21		60,0 - 61,0	0,04
	115,0 - 116,0	1,58		61,0 - 62,0	0,08
	116,0 - 117,0	0,15		62,0 - 63,0	0,12
	117,0 - 118,0	0,01		63,0 - 64,0	0,11
	118,0 - 119,0	0,02		64,0 - 65,0	0,24
	119,0 - 120,0	0,01		65,0 - 66,0	0,19
	120,0 - 121,0	0,26		66,0 - 67,0	0,23
	121,0 - 122,0	0,25		67,0 - 68,0	0,33
	122,0 - 123,0	0,31		68,0 - 69,0	0,20
	123,0 - 124,0	0,28		69,0 - 70,0	0,17
	124,0 - 125,0	0,02		70,0 - 71,0	0,19
	125,0 - 126,0	0,01		71,0 - 72,0	0,16
				72,0 - 73,0	0,08

0,42%/5m

0,34%/6m

0,47%/5m

0,28%/4m

1,05%/7m

0,15%/5m

0,21%/21,5m

Borhull	meter	% Cu	Borhull	meter	% Cu
1012 B	74,0 - 75,0	0,24	1012 B	109,0 - 110,0	0,87
	75,0 - 76,0	0,39		110,0 - 111,0	1,96
	76,0 - 77,0	0,41		111,0 - 112,0	0,14
	77,0 - 78,0	0,08		112,0 - 113,0	0,10
	78,0 - 79,0	0,38		113,0 - 114,0	1,27
	79,0 - 80,0	0,06		114,0 - 115,0	1,04
	80,0 - 81,0	0,13		115,0 - 116,0	1,02
	81,0 - 82,0	0,22		116,0 - 117,0	1,56
	82,0 - 83,5	0,27		117,0 - 118,0	1,63
	83,5 - 84,5	1,13		118,0 - 119,0	0,70
	84,5 - 86,0	0,31		119,0 - 120,0	0,96
	86,0 - 87,0	1,73		120,0 - 121,0	1,26
	87,0 - 88,0	0,39		121,0 - 122,0	0,75
	88,0 - 89,0	0,37		122,0 - 123,0	1,05
	89,0 - 90,0	0,37		123,0 - 124,0	1,03
	90,0 - 91,0	0,22		124,0 - 125,0	0,78
	91,0 - 92,0	0,29		125,0 - 126,0	0,23
	92,0 - 93,0	0,28		126,0 - 127,0	0,71
	93,0 - 94,0	0,25		127,0 - 128,0	1,03
	94,0 - 95,0	0,25		128,0 - 129,0	0,35
	95,0 - 96,0	0,17		129,0 - 130,0	0,94
	96,0 - 97,0	0,24		130,0 - 131,0	0,52
	97,0 - 98,0	0,23		131,0 - 132,0	0,48
	98,0 - 99,0	0,05		132,0 - 133,0	0,73
	99,0 - 100,0	0,05		133,0 - 134,0	0,25
	100,0 - 101,0	0,07		134,0 - 135,0	0,41
	101,0 - 102,0	0,52		135,0 - 136,0	0,28
	102,0 - 103,0	1,16		136,0 - 137,0	0,25
	103,0 - 104,0	0,14		137,0 - 138,0	0,31
	104,0 - 105,0	0,39		138,0 - 139,0	0,60
	105,0 - 106,0	0,46		139,0 - 140,0	0,09
	106,0 - 107,0	0,27		140,0 - 141,0	0,08
	107,0 - 108,0	0,73		141,0 - 142,0	0,10
	108,0 - 109,0	0,51		142,0 - 143,0	0,07
				143,0 - 144,0	0,06
				144,0 - 145,0	0,28

0,21% /
21,5m

0,95% /
3,5m

0,34% / 4m

0,24% / 7m

0,52% / 8m

0,92% /
21m

0,43% /
9m

0,11% /
6m

Borhull	meter	% Cu	Borhull	meter	% Cu
1016 A	1,0 - 9,0	0,65	1016 B	17,0 - 18,0	0,04
	9,0 - 11,2	0,12		18,0 - 19,0	0,03
	11,2 - 13,3	1,59		19,0 - 20,0	0,01
	13,3 - 20,3	0,05		20,0 - 21,0	0,05
	20,3 - 23,0	1,97		21,0 - 21,5	0,03
	23,0 - 24,2	0,38		21,5 - 22,5	0,03
	24,2 - 33,0	0,60		22,5 - 23,0	0,01
	33,0 - 35,0	0,08		23,0 - 24,0	0,02
	35,0 - 37,6	0,03		24,0 - 25,0	0,03
	37,6 - 55,0	0,64		25,0 - 26,0	0,05
	55,0 - 60,0	1,14		26,0 - 27,0	0,02
	60,0 - 65,0	0,89		27,0 - 28,0	0,04
	65,0 - 70,0	0,68		28,0 - 29,0	0,05
	70,0 - 80,0	0,28		29,0 - 30,0	0,07
	80,0 - 90,0	0,08		30,0 - 31,0	0,19
1016 B	0,5 - 1,0	0,03		31,0 - 31,7	0,05
	1,0 - 2,0	0,03		31,7 - 33,2	0,66
	2,0 - 3,0	0,03		33,2 - 34,2	0,37
	3,0 - 4,0	0,02		34,2 - 35,0	0,23
	4,0 - 5,0	0,03		35,0 - 36,0	0,22
	5,0 - 6,0	0,04		36,0 - 37,5	0,24
	6,0 - 7,0	0,02		37,5 - 38,5	0,39
	7,0 - 8,0	0,03		38,5 - 39,5	0,33
	8,0 - 9,0	0,01		39,5 - 40,0	0,36
	9,0 - 10,0	0,02		40,0 - 41,0	1,00
	10,0 - 11,0	0,03		41,0 - 42,0	0,79
	11,0 - 12,0	0,03		42,0 - 43,0	0,79
	12,0 - 13,0	0,03		43,0 - 44,0	0,65
	13,0 - 14,0	0,05		44,0 - 45,0	0,80
	14,0 - 15,0	0,03		45,0 - 46,0	0,91
	15,0 - 16,0	0,04		46,0 - 47,0	1,25
	16,0 - 17,0	0,02		47,0 - 48,0	1,96
				48,0 - 49,0	1,93
				49,0 - 50,0	0,93

0,72%/12,3m

0,93%/12,7 m

0,76%/33,4m

0,36%/8,3m

0,98%/38,7m

Borhull	meter	% Cu	Borhull	meter	% Cu
1016 B	49,0 - 50,0	0,93	1016 B	85,0 - 86,0	0,25
	50,0 - 51,0	0,70		86,0 - 87,0	0,14
	51,0 - 52,0	1,01		87,0 - 88,0	0,18
	52,0 - 53,0	0,77		88,0 - 89,0	0,18
	53,0 - 54,0	1,58		89,0 - 90,0	0,29
	54,0 - 55,5	1,19		90,0 - 91,0	0,27
	55,5 - 57,0	1,00		91,0 - 92,0	0,16
	57,0 - 58,0	1,00		92,0 - 93,0	0,29
	58,0 - 59,0	1,59		93,0 - 94,0	0,64
	59,0 - 60,0	1,46		94,0 - 95,5	0,51
	60,0 - 61,0	1,05		95,5 - 96,9	0,51
	61,0 - 62,0	1,44		96,9 - 98,0	0,83
	62,0 - 63,0	2,16		98,0 - 99,0	0,50
	63,0 - 64,0	1,53		99,0 - 100,0	0,57
	64,0 - 65,0	1,70		100,0 - 100,5	0,16
	65,0 - 66,0	0,42		100,5 - 101,0	0,41
	66,0 - 67,0	0,62		101,0 - 102,0	0,33
	67,0 - 68,0	0,92		102,0 - 103,0	0,59
	68,0 - 69,0	0,82		103,0 - 104,0	0,51
	69,0 - 70,0	0,40		104,0 - 105,0	0,40
	70,0 - 71,0	0,73		105,0 - 106,5	0,32
	71,0 - 72,0	0,21		106,5 - 107,0	0,82
	72,0 - 73,0	0,46		107,0 - 108,0	0,93
	73,0 - 74,0	0,88		108,0 - 109,0	1,36
	74,0 - 75,0	0,22		109,0 - 110,0	0,71
	75,0 - 76,0	0,52		110,0 - 111,0	0,97
	76,0 - 77,7	0,35		111,0 - 112,0	0,85
	77,7 - 78,7	0,66		112,0 - 113,0	0,79
	78,7 - 80,0	0,13		113,0 - 114,0	0,12
	80,0 - 81,0	0,19		114,0 - 115,0	0,38
	81,0 - 82,0	0,49		115,0 - 116,0	0,81
	82,0 - 83,0	0,39		116,5 - 117,5	1,54
	83,0 - 84,0	0,18		117,5 - 118,5	0,68
	84,0 - 85,0	0,19		118,5 - 119,0	0,51

0,98%/
38,7m

0,24%/
14,3m

0,50%/
14m

0,94%/
20m

Borhull	meter	% Cu	Borhull	meter	% Cu
1016 B	119,0 - 120,0	1,25	1016 C	96,0 - 97,0	0,05
	120,0 - 121,0	1,26		97,0 - 98,0	0,06
	121,0 - 122,0	1,82		98,0 - 99,0	0,02
	122,0 - 123,0	2,00		99,0 - 100,0	0,04
	123,0 - 124,0	0,90		100,0 - 101,0	0,05
	124,0 - 125,0	0,97		101,0 - 102,0	0,08
	125,0 - 126,0	0,15		102,0 - 103,0	0,12
	126,0 - 127,0	0,77		103,0 - 104,0	0,85
	127,0 - 128,0	0,04		104,0 - 105,0	0,54
	128,0 - 129,0	0,02		105,0 - 106,0	0,45
	129,0 - 130,0	0,04		106,0 - 107,0	0,49
	130,0 - 131,0	0,04		107,0 - 108,0	0,50
	131,0 - 132,0	0,02		108,0 - 109,0	0,36
	132,0 - 133,0	0,04		109,0 - 110,0	0,39
	133,0 - 134,0	0,03		110,0 - 111,0	0,17
	134,0 - 135,0	0,02		111,0 - 112,0	0,06
	135,0 - 136,0	0,01		112,0 - 113,0	0,09
	136,0 - 137,0	0,03		113,0 - 114,0	0,15
	137,0 - 138,0	0,02		114,0 - 115,0	0,70
	138,0 - 139,0	0,02		115,0 - 116,0	0,30
	139,0 - 140,0	0,02		116,0 - 117,0	0,29
	140,0 - 141,0	0,03		117,0 - 118,0	0,12
				118,0 - 119,0	0,04
				119,0 - 120,0	0,13
1016 C	70,0 - 71,0	0,02		120,0 - 121,0	0,49
	84,0 - 85,5	0,20		121,0 - 122,0	0,10
	88,0 - 89,0	0,28		122,0 - 123,0	0,24
	89,0 - 90,0	1,27		123,0 - 124,0	0,32
	90,0 - 91,0	0,77		124,0 - 125,0	1,17
	91,0 - 92,0	0,57		125,0 - 126,0	0,32
	92,9 - 93,0	0,56		126,0 - 127,0	0,38
	93,0 - 94,0	0,76		127,0 - 128,0	0,19
	94,0 - 95,0	0,05		128,0 - 129,0	0,05
	95,0 - 96,0	0,06		129,0 - 130,0	0,06

0,94%/20m

0,33%/34m

0,70%/6m

Borhull	meter	% Cu	Borhull	meter	% Cu
1016 C	130,0 - 131,0	0,32	1016 C	167,0 - 168,0	0,26
	131,0 - 132,0	0,13		168,0 - 169,0	0,24
	132,0 - 133,0	0,22		169,0 - 170,0	0,07
	133,0 - 134,0	0,38		170,0 - 171,0	0,17
	134,0 - 135,0	0,57		171,0 - 172,0	0,27
	135,0 - 136,0	0,42		172,0 - 173,0	0,03
	136,0 - 137,0	0,58		173,0 - 174,0	0,02
	137,0 - 138,0	1,33		174,0 - 175,0	0,03
	138,0 - 139,0	1,02		175,0 - 176,0	0,07
	139,0 - 140,0	0,34		176,0 - 177,0	0,11
	140,0 - 141,0	0,70		177,0 - 178,0	0,23
	141,0 - 142,0	0,59		178,0 - 179,0	0,20
	142,0 - 143,0	0,48		179,0 - 180,0	0,11
	143,0 - 144,0	0,65		180,0 - 181,0	0,04
	144,0 - 145,0	0,83		181,0 - 182,0	0,08
	145,0 - 146,0	0,85		182,0 - 183,0	0,02
	146,0 - 147,0	0,65		183,0 - 184,0	0,02
	147,0 - 148,0	0,56		184,0 - 185,0	0,08
	148,0 - 149,0	0,24		185,0 - 186,0	0,19
	149,0 - 150,0	0,42		186,0 - 187,0	0,01
	150,0 - 151,0	0,22		187,0 - 188,0	0,04
	151,0 - 152,0	0,37		188,0 - 189,0	0,06
	152,0 - 153,0	0,34		189,0 - 190,0	0,02
	153,0 - 154,0	0,27		190,0 - 191,0	0,02
	154,0 - 155,0	0,26		191,0 - 192,0	0,01
	155,0 - 156,0	0,61			
	156,0 - 157,0	0,34	1016 D	70,0 - 71,0	0,01
	157,0 - 158,0	0,49		71,0 - 72,0	0,01
	158,0 - 159,0	2,01		72,0 - 73,0	0,01
	159,0 - 160,0	0,63		89,0 - 90,0	0,01
	160,0 - 161,0	0,14		90,0 - 91,0	0,05
	161,0 - 162,0	0,70		91,0 - 92,0	0,02
	162,0 - 163,0	0,30		92,0 - 93,0	0,08
	163,0 - 164,0	0,69		93,0 - 94,0	0,01
	164,0 - 165,0	0,45		94,0 - 95,0	0,04
	165,0 - 166,0	1,21			
	166,0 - 167,0	0,42			

0,33%/34m

0,20%/5m

0,60%/31m

0,16%/4m

Borhull	meter	% Cu	Borhull	meter	% Cu
1016 D	95,0 - 96,0	0,12	1016 D	129,0 - 130,0	0,05
	96,0 - 97,0	0,10		130,0 - 131,0	0,19
	97,0 - 98,0	0,02		131,0 - 132,0	0,06
	98,0 - 99,0	0,32		132,0 - 133,0	0,04
	99,0 - 100,0	0,42		133,0 - 134,0	0,22
	100,0 - 101,0	0,18		134,0 - 135,0	0,01
	101,0 - 102,0	0,22		135,0 - 136,0	0,01
	102,0 - 103,0	0,08		250,0 - 251,0	0,01
	103,0 - 104,0	0,12		255,0 - 256,0	0,10
	104,0 - 105,0	0,91		256,0 - 257,0	0,02
	105,0 - 106,0	0,61		257,0 - 258,0	0,11
	106,0 - 107,0	0,39		258,0 - 259,0	0,01
	107,0 - 108,0	0,86		259,0 - 260,0	0,08
	108,0 - 109,0	1,38		260,0 - 261,0	0,01
	109,0 - 110,0	1,80		261,0 - 262,0	0,00
	110,0 - 111,0	1,19		262,0 - 263,0	0,01
	111,0 - 112,0	2,04		263,0 - 264,0	0,01
	112,0 - 113,0	1,49		264,0 - 265,0	0,00
	113,0 - 114,0	1,73		273,0 - 274,0	0,00
	114,0 - 115,0	0,96		274,0 - 275,0	0,01
	115,0 - 116,0	2,51		275,0 - 276,0	0,02
	116,0 - 117,0	0,79		276,0 - 277,0	0,01
	117,0 - 118,0	0,24			
	118,0 - 119,0	0,28	F	45,5 - 71,0	0,02
	119,0 - 120,0	0,71			0,02
	120,0 - 121,0	0,79			0,05
	121,0 - 122,0	0,23			0,02
	122,0 - 123,0	0,80			0,03
	123,0 - 124,0	0,33			0,13
	124,0 - 125,0	0,10			0,11
	125,0 - 126,0	0,15			0,53
	126,0 - 127,0	0,06			1,25
	127,0 - 128,0	0,11			1,83
	128,0 - 129,0	0,19			1,24

0,11%/2m

0,29%/4m

0,10%/2m

1,00%/20m

0,12%/10m

0,12%/10m

0,12%/3m

1,05%/16,5m

Borhull	meter	% Cu	Borhull	meter	% Cu
F		2,51	F	72,0 - 109,0	0,21
		0,59			0,07
		0,63			0,14
		0,38			0,15
		0,34			0,09
		1,91			0,20
		0,39			0,42
72 0 - 109,0		0,32			0,38
		0,26			0,24
		0,48			0,12
		0,28	113,5 - 116,5		0,01
		0,09	122,0 - 123,5		0,04
		0,34	125,5 - 130,0		0,28
		0,37			0,06
		0,59			0,05
		0,22			
		0,39			
		0,33			
		0,75			
		0,58			
		0,64			
		0,75			

1,05%/
16,5m

0,33%/
16,5m

0,68%/
6m

0,13%/
6m

0,31%/
6m

Borhull	meter	% Cu	Borhull	meter	% Cu
1020 A	0,9 - 2,0	0,31	1020 A	41,0 - 42,0	0,27
	2,0 - 3,0	0,39		42,0 - 43,0	0,21
	3,0 - 4,0	0,55		43,0 - 44,0	0,54
	4,0 - 5,0	0,26		44,0 - 45,0	0,58
	5,0 - 6,0	0,37		45,0 - 46,0	0,82
	6,0 - 7,0	0,24		46,0 - 47,0	0,92
	7,0 - 8,0	0,31		47,0 - 48,0	0,46
	8,0 - 9,0	0,27		48,0 - 49,0	0,60
	9,0 - 10,0	0,50		49,0 - 50,0	0,42
	10,0 - 11,0	0,57		50,0 - 51,0	0,26
	11,0 - 12,0	0,23		51,0 - 52,0	0,16
	12,0 - 13,0	0,04		52,0 - 53,0	0,28
	13,0 - 14,0	0,04		53,0 - 54,0	0,35
	20,0 - 21,0	0,02		54,0 - 55,0	0,42
	21,0 - 22,0	0,02		55,0 - 56,0	0,23
	22,0 - 23,0	0,02		56,0 - 57,0	0,92
	23,0 - 24,0	0,02		57,0 - 58,0	0,46
	24,0 - 25,0	0,02		58,0 - 59,0	0,45
	25,0 - 26,0	0,84		59,0 - 60,0	0,25
	26,0 - 27,0	0,15		60,0 - 61,0	0,40
	27,0 - 28,0	0,49		61,0 - 62,0	0,68
	28,0 - 29,0	0,83		62,0 - 63,0	0,37
	29,0 - 30,0	0,86		63,0 - 64,0	0,59
	30,0 - 31,0	0,98		64,0 - 65,0	0,43
	31,0 - 32,0	1,03		65,0 - 66,0	0,43
	32,0 - 33,0	0,30		66,0 - 67,0	0,86
	33,0 - 34,0	0,36		67,0 - 68,0	0,60
	34,0 - 35,0	0,22		68,0 - 69,0	0,51
	35,0 - 36,0	0,28		69,0 - 70,0	0,31
	36,0 - 37,0	0,18		70,0 - 71,0	0,46
	37,0 - 38,0	0,23		71,0 - 72,0	0,53
	38,0 - 39,0	0,47		72,0 - 73,0	0,74
	39,0 - 40,0	0,30		73,0 - 74,0	0,35
	40,0 - 41,0	0,16		74,0 - 75,0	0,31

0,36%/
11,1m

0,40%/
27m

0,74%/
7m

0,93%/
37m

0,40%/
27m

Borhull	meter	% Cu	Borhull	meter	% Cu
1020 A	75,0 - 76,0	0,50	1020 A	109,0 - 110,0	0,23
	76,0 - 77,0	0,40		110,0 - 111,0	0,19
	77,0 - 78,0	0,66		111,0 - 112,0	0,11
	78,0 - 79,0	1,74		112,0 - 113,0	0,09
	79,0 - 80,0	0,29		113,0 - 114,0	0,09
	80,0 - 81,0	0,85			
	81,0 - 82,0	2,48			
	82,0 - 83,0	2,27	1020 B	3,6 - 4,0	0,91
	83,0 - 84,0	1,39		4,0 - 5,0	1,99
	84,0 - 85,0	1,45		5,0 - 6,0	0,52
	85,0 - 86,0	1,84		6,0 - 7,0	1,00
	86,0 - 87,0	3,05		7,0 - 8,0	0,87
	87,0 - 88,0	1,79		8,0 - 9,0	0,69
	88,0 - 89,0	0,53		9,0 - 10,0	0,53
	89,0 - 90,0	0,77		10,0 - 11,0	0,57
	90,0 - 91,0	0,56		11,0 - 12,0	0,47
	91,0 - 92,0	0,27		12,0 - 13,0	0,44
	92,0 - 93,0	0,24		13,0 - 14,0	0,45
	93,0 - 94,0	1,06		14,0 - 15,0	0,99
	94,0 - 95,0	3,19		15,0 - 16,0	0,61
	95,0 - 96,0	0,85		16,0 - 17,0	0,69
	96,0 - 97,0	0,62		17,0 - 18,0	0,55
	97,0 - 98,0	0,56		18,0 - 19,0	0,41
	98,0 - 99,0	0,12		19,0 - 20,0	0,52
	99,0 - 100,0	0,25		20,0 - 21,0	0,56
	100,0 - 101,0	0,09		21,0 - 22,0	0,04
	101,0 - 102,0	0,02		22,0 - 23,0	0,04
	102,0 - 103,0	0,21		23,0 - 24,0	0,09
	103,0 - 104,0	0,13		24,0 - 25,0	1,20
	104,0 - 105,0	0,17		25,0 - 26,0	0,25
	105,0 - 106,0	0,18		26,0 - 27,0	0,04
	106,0 - 107,0	0,16		27,0 - 28,0	0,36
	107,0 - 108,0	0,15		28,0 - 29,0	0,07
	108,0 - 109,0	0,19		29,0 - 30,0	0,09

0,93%/37m

0,16%/14m

0,70%/17,4m

0,16%/14m

0,32%/10m

Borhull	meter	% Cu	Borhull	meter	% Cu
1020 B	30,0 - 31,0	0,65	1020 B	64,0 - 65,0	0,01
	31,0 - 32,0	0,06		65,0 - 66,0	0,02
	32,0 - 33,0	0,30		66,0 - 67,0	0,01
	33,0 - 34,0	0,13		67,0 - 68,0	0,08
	34,0 - 35,0	0,05		68,0 - 69,0	0,01
	35,0 - 36,0	1,04		69,0 - 70,0	0,02
	36,0 - 37,0	1,10		70,0 - 71,0	0,03
	37,0 - 38,0	0,46		71,0 - 72,0	0,02
	38,0 - 39,0	0,08		72,0 - 73,0	0,10
	39,0 - 40,0	0,05		73,0 - 74,0	0,26
	40,0 - 41,0	0,28		74,0 - 75,0	0,11
	41,0 - 42,0	0,28		75,0 - 76,0	0,09
	42,0 - 43,0	0,69		76,0 - 77,0	0,63
	42,0 - 43,0	0,97		77,0 - 78,5	1,32
	43,0 - 44,0	0,35		78,5 - 80,0	0,09
	44,0 - 45,0	0,05		80,0 - 81,0	0,21
	45,0 - 46,0	0,04		81,0 - 82,0	0,19
	46,0 - 47,0	0,03		82,0 - 83,0	0,48
	47,0 - 48,0	0,06		83,0 - 84,0	1,39
	48,0 - 49,0	0,18		84,0 - 85,0	1,39
	49,0 - 50,0	0,13		85,0 - 86,0	0,49
	50,0 - 51,0	0,03		86,0 - 87,0	0,38
	51,0 - 52,0	0,47		87,0 - 88,0	0,55
	52,0 - 53,0	0,89		88,0 - 89,0	0,25
	53,0 - 54,0	0,17		89,0 - 90,0	0,39
	54,0 - 55,0	0,31		90,0 - 91,0	0,63
	55,0 - 56,0	0,92		91,0 - 92,0	0,48
	56,0 - 57,0	0,51		92,0 - 93,0	0,41
	57,0 - 58,0	0,69		93,0 - 94,0	0,48
	58,0 - 59,0	0,65		94,0 - 95,0	0,59
	59,0 - 60,0	0,37		95,0 - 96,0	0,59
	60,0 - 61,0	0,02		96,0 - 97,0	0,68
	61,0 - 62,0	0,01		97,0 - 98,0	0,31
	62,0 - 63,0	0,01		98,0 - 99,0	0,20
	63,0 - 64,0	0,01			

Borhull	meter	% Cu	Borhull	meter	% Cu
1020 B	99,0 - 100,0	0,36	1020 B	159,0 - 160,0	0,02
	100,0 - 101,0	0,13		160,7 - 161,8	0,84
	101,0 - 102,0	0,51		161,8 - 163,0	0,28
	102,0 - 103,0	1,22		163,0 - 164,0	0,85
	103,0 - 104,0	1,99		164,0 - 165,0	1,06
	104,0 - 105,5	1,88		165,0 - 166,0	0,80
	106,0 - 107,0	0,07		166,0 - 167,0	0,73
	107,0 - 108,0	0,03		167,5 - 169,0	0,38
	125,0 - 126,0	0,06		169,0 - 170,0	0,32
	126,9 - 128,0	0,26		170,0 - 171,0	0,27
	130,8 - 132,0	0,25		171,0 - 172,0	0,11
	132,0 - 133,0	0,17		172,0 - 173,0	0,09
	133,0 - 134,0	0,08		173,0 - 174,0	0,14
	134,0 - 135,0	0,08		174,0 - 175,0	0,09
	135,0 - 136,0	0,12		175,0 - 176,0	0,06
	136,0 - 137,0	0,13		176,0 - 177,0	0,18
	137,0 - 138,0	0,13		177,0 - 178,0	0,26
	138,0 - 139,0	0,17		178,0 - 179,0	0,10
	139,0 - 140,0	0,14		179,0 - 180,0	0,19
	140,0 - 141,0	0,14		180,0 - 181,0	0,04
	141,0 - 142,0	0,21		181,0 - 182,0	0,04
	142,0 - 143,0	0,22		182,0 - 183,0	0,01
	143,0 - 144,0	0,17		183,0 - 184,0	0,02
	144,0 - 145,0	0,08			
	145,0 - 146,0	0,11			
	146,0 - 147,0	0,14			
	147,0 - 148,0	0,20			
	148,0 - 149,0	0,23			
	149,0 - 150,0	0,22			
	150,0 - 151,0	0,16			
	151,0 - 152,0	0,23			
	152,0 - 153,0	0,17			
	153,0 - 154,0	0,32			
	154,0 - 155,0	0,39			
	155,0 - 156,3	0,47			
	156,3 - 157,0	1,49			
	157,0 - 158,0	0,49			
	158,0 - 159,0	0,16			

0,74%/15,5m

0,75%/6,3m

0,32%/3,5m

0,14%/9m

0,15%/26,1m

0,50%/6m

Borhull	meter	% Cu	Borhull	meter	% Cu
1025 A	1, 0 - 10, 0	0, 36	1025 C	115, 0 - 116, 0	0, 09
	10, 0 - 20, 0	0, 32		116, 0 - 117, 0	0, 75
	20, 0 - 22, 0	0, 21		117, 0 - 118, 0	0, 73
	22, 0 - 27, 0	1, 20		118, 0 - 119, 0	0, 63
	27, 0 - 30, 0	0, 04		119, 0 - 120, 0	0, 94
	30, 0 - 35, 0	0, 74		120, 0 - 121, 0	0, 69
	35, 0 - 41, 5	2, 12		121, 0 - 122, 2	1, 50
	41, 5 - 44, 0	0, 28		122, 2 - 123, 1	0, 07
	44, 0 - 58, 0	1, 20		123, 1 - 124, 0	2, 06
	58, 0 - 60, 0	1, 24		124, 0 - 125, 0	0, 61
	60, 0 - 70, 0	0, 11		125, 0 - 126, 0	0, 13
	70, 0 - 74, 0	0, 23		126, 0 - 127, 0	0, 06
	74, 0 - 83, 5	1, 09		129, 0 - 130, 0	0, 03
	83, 5 - 90, 0	0, 24		132, 0 - 133, 0	0, 03
	110, 0 - 119, 5	0, 09		133, 0 - 134, 0	0, 06
				134, 0 - 135, 0	0, 13
				135, 0 - 136, 0	0, 19
				136, 0 - 137, 0	0, 09
				137, 0 - 137, 6	0, 04
				137, 6 - 138, 6	0, 14
				138, 6 - 139, 0	0, 08
				139, 0 - 140, 0	0, 02
				190, 0 - 191, 0	0, 06
1025 B	20, 0 - 24, 0	0, 07	1025 D	68, 0 - 69, 0	0, 21
	24, 0 - 29, 0	0, 65		69, 0 - 70, 0	0, 03
	29, 0 - 47, 0	0, 01		70, 0 - 71, 0	0, 04
	47, 0 - 48, 0	0, 17		71, 0 - 72, 0	0, 04
	48, 0 - 50, 0	0, 58		72, 0 - 73, 0	0, 05
	50, 0 - 62, 0	0, 05		73, 0 - 74, 0	0, 25
	62, 0 - 67, 0	0, 58		74, 0 - 75, 0	0, 10
	67, 0 - 70, 0	0, 10		75, 0 - 76, 0	0, 08
	70, 0 - 72, 0	0, 41			
	72, 0 - 75, 0	0, 03			
	75, 0 - 86, 0	0, 08			
	86, 0 - 90, 0	0, 00			
	110, 0 - 113, 0	0, 01			

0, 33 %/
21m

1, 38 %/
30m

0, 89 %/
6, 2m

0, 89 %/
2, 9m

0, 12 %/
5m

0, 14 %/
3m

Borhull	meter	% Cu	Borhull	meter	% Cu
1025 D	76,0 - 77,0	0,27	G	5,5 - 29,0	0,03
	77,0 - 78,0	1,07			0,84
	78,0 - 79,0	0,58			1,10
	79,0 - 80,0	0,04			0,38
	80,0 - 81,0	0,47			0,15
	81,0 - 82,0	0,18			0,27
	82,0 - 83,0	0,05			0,47
	83,0 - 84,0	2,22			0,14
	84,0 - 85,0	2,80			0,18
	85,0 - 86,0	0,42			0,06
	86,0 - 87,0	0,04			0,08
	87,0 - 89,5	0,02			0,86
	89,5 - 91,0	1,97			0,27
	91,0 - 91,5	0,17			0,11
	91,5 - 93,0	0,09			0,12
	93,0 - 04,0	0,01			0,12
	94,0 - 95,0	0,01			0,33
	95,0 - 96,0	0,02		32,0 - 78,0	0,26
	96,0 - 97,0	0,11			0,05
	97,0 - 98,0	0,43			0,30
	98,0 - 99,0	1,95			0,82
	99,0 - 100,0	1,28			0,22
	100,0 - 101,0	0,12			0,10
	101,0 - 102,0	0,15			0,55
	102,0 - 103,0	0,74			0,31
	103,0 - 104,0	0,08			3,19
	104,0 - 105,0	0,01			0,39
					1,60
					1,11
					3,20
					2,64
					1,05
					0,23
					2,79
					0,33

Borhull	meter	% Cu	Borhull	meter	% Cu
G		0,03	1028 A	13,0 - 13,5	0,04
		0,03		13,5 - 14,0	0,47
		0,04		14,0 - 15,0	0,04
		0,03		15,0 - 16,0	0,03
		0,35		16,0 - 17,5	0,44
		0,65		17,5 - 19,0	0,45
		0,24		19,0 - 20,0	0,25
		0,94		20,0 - 21,0	0,51
		0,39		21,0 - 22,0	0,34
		0,33		22,0 - 23,0	0,76
		0,36		23,0 - 24,0	1,53
		0,46		24,0 - 25,0	0,31
		0,13		25,0 - 26,0	0,16
		0,07		26,0 - 27,0	0,23
		0,08		27,0 - 28,0	0,29
	84,5 - 88,5	0,14		28,0 - 29,0	0,03
		0,13		29,0 - 30,0	0,38
		0,10		30,0 - 31,5	0,68
	126,5 - 127,5	0,28		31,5 - 32,3	0,32
	147,0 - 150,0	0,19		32,3 - 34,0	0,34
1028 A		0,38		34,0 - 35,0	1,67
				35,0 - 36,0	0,23
	0,8 - 2,0	0,01		36,0 - 37,0	0,30
	2,0 - 3,0	0,02		37,0 - 38,0	0,23
	3,0 - 4,0	0,01		38,0 - 39,0	0,85
	4,0 - 5,0	0,03		39,0 - 40,0	0,07
	5,0 - 6,0	0,02		40,0 - 41,0	0,26
	6,0 - 7,0	0,04		41,0 - 42,0	0,83
	7,0 - 8,0	0,02		42,0 - 43,0	0,07
	8,0 - 9,0	0,02		43,0 - 44,0	0,39
	9,0 - 10,0	0,02		44,0 - 45,0	0,25
	10,0 - 11,0	0,02		45,0 - 46,0	1,62
	11,0 - 12,0	0,01		46,0 - 47,0	0,05
	12,0 - 13,0	0,03		47,0 - 48,0	0,04
				48,0 - 49,0	0,39
				49,0 - 50,0	0,04
				50,0 - 51,0	0,04

Borhull	meter	% Cu	Borhull	meter	% Cu
1028 A	51,0 - 52,0	0,28	1028 A	84,0 - 85,0	0,31
	52,0 - 53,0	0,33		85,0 - 86,0	0,34
	53,0 - 54,0	0,17		86,0 - 87,0	0,34
	54,0 - 55,0	0,17		87,0 - 88,0	0,11
	55,0 - 56,0	0,47		88,0 - 89,0	0,06
	56,0 - 57,0	0,17		89,0 - 90,0	0,25
	57,0 - 58,0	0,25		90,0 - 91,0	0,03
	58,0 - 59,0	0,80		91,0 - 92,0	0,12
	59,0 - 60,0	0,17		92,0 - 93,0	0,06
	60,0 - 61,0	0,24		93,0 - 94,0	0,04
	61,0 - 62,0	0,30		94,0 - 95,0	0,13
	62,0 - 63,0	0,20		95,0 - 96,5	0,31
	63,0 - 64,0	0,15		96,5 - 97,0	0,08
	64,0 - 65,0	0,06		97,0 - 98,0	0,14
	65,0 - 66,0	0,12		98,0 - 99,0	0,21
	66,0 - 67,0	0,19		99,0 - 100,0	0,24
	67,0 - 68,0	0,10		100,0 - 101,0	0,22
	68,0 - 69,0	0,12		101,0 - 102,0	0,78
	69,0 - 70,0	0,12		102,0 - 103,0	0,54
	70,0 - 71,0	0,22		103,0 - 104,0	0,40
	71,0 - 72,0	0,16		104,0 - 104,8	0,08
	72,0 - 73,0	0,11		104,8 - 105,2	0,14
	73,0 - 74,0	0,32		105,2 - 106,0	0,04
	74,0 - 75,0	0,15		106,0 - 107,0	0,66
	75,0 - 76,0	0,22		107,0 - 108,0	0,55
	76,0 - 77,0	0,14		108,0 - 109,0	0,37
	77,0 - 78,0	0,33		109,0 - 110,0	0,82
	78,0 - 79,0	0,37		110,0 - 111,0	0,61
	79,0 - 80,0	0,30		111,0 - 112,0	0,74
	80,0 - 81,0	0,31		112,0 - 113,0	0,95
	81,0 - 82,0	0,91		113,0 - 114,0	0,82
	82,0 - 83,0	0,33		114,0 - 115,0	0,61
	83,0 - 84,0	1,20		115,0 - 116,0	1,06
				116,0 - 117,4	0,95
				117,4 - 118,0	0,55

Borhull	meter	% Cu	Borhull	meter	% Cu
1028 A	118,0 - 119,3	0,43	1032 A	68,0 - 70,0	0,48
	119,3 - 120,0	0,39		70,0 - 73,0	0,62
	120,0 - 121,0	0,02		73,0 - 74,0	0,24
	121,0 - 122,0	0,02		74,0 - 76,0	0,28
	122,0 - 123,2	0,09		76,0 - 78,0	0,06
	123,2 - 124,2	0,04		78,0 - 80,5	0,16
	124,2 - 125,0	1,34		99,0 - 101,0	0,88
	125,0 - 126,0	0,05	1032 B	105,0 - 106,0	0,03
	126,0 - 127,0	0,29		106,0 - 107,0	0,05
	127,0 - 128,0	0,88		107,0 - 108,0	0,28
	128,0 - 128,5	0,48		109,0 - 110,0	0,35
	128,5 - 129,8	1,12		110,0 - 111,0	0,38
1032 A	8,0 - 13,5	0,57		111,0 - 112,0	0,37
	13,5 - 14,5	0,85		112,0 - 113,0	0,35
	14,5 - 16,4	0,44		113,0 - 114,0	0,08
	16,4 - 17,0	0,14		114,0 - 115,0	0,12
	17,0 - 20,0	0,38		115,0 - 116,0	0,04
	20,0 - 21,0	0,61		120,0 - 121,0	0,04
	21,0 - 24,0	0,41		121,0 - 122,0	0,12
	24,0 - 25,0	1,13		122,0 - 123,0	0,05
	25,0 - 29,0	0,04		123,0 - 124,0	0,22
	29,0 - 32,0	0,81		124,0 - 125,0	0,17
	32,0 - 35,0	0,29		125,0 - 126,0	0,07
	35,0 - 39,5	0,52		126,0 - 127,0	0,12
	39,5 - 42,5	0,56		127,0 - 128,0	0,06
	42,5 - 43,6	0,21		128,0 - 129,0	0,08
	43,6 - 45,5	0,62		129,0 - 130,0	0,14
	45,5 - 46,5	1,70		130,0 - 131,0	0,27
	46,5 - 52,0	0,18		131,0 - 132,0	0,21
	52,0 - 55,5	2,21		132,0 - 133,0	0,11
	55,5 - 58,0	0,17		133,0 - 134,0	0,43
	58,0 - 60,0	1,42		134,0 - 135,0	0,40
	60,0 - 66,0	0,57		135,0 - 136,0	0,33
	66,0 - 68,0	0,98			

Borhull	meter	% Cu	Borhull	meter	% Cu
1032 B	136,0 - 137,0	0,12	1032 C	79,0 - 80,0	0,17
	137,0 - 138,0	0,99		80,0 - 81,5	0,46
	138,0 - 139,0	0,12		81,5 - 83,0	0,08
	139,0 - 140,0	0,03		83,0 - 84,0	0,12
				84,0 - 85,0	0,21
1032 C	51,0 - 52,0	0,01		85,0 - 86,0	0,76
	52,0 - 53,0	0,00		86,0 - 87,5	0,13
	53,0 - 54,0	0,02		87,5 - 89,0	0,31
	54,0 - 55,0	0,01		89,0 - 90,0	0,24
	55,0 - 56,0	0,01		90,0 - 91,0	0,25
	56,0 - 57,0	0,02		91,0 - 92,0	0,36
	57,0 - 58,0	0,01		92,0 - 93,0	0,19
	58,0 - 59,0	0,16		93,0 - 94,0	0,03
	59,0 - 60,0	0,15		94,0 - 95,0	0,04
	60,0 - 61,0	0,17		95,0 - 96,0	0,03
	61,0 - 62,0	0,08		96,0 - 97,0	0,29
	62,0 - 63,0	0,05		97,0 - 98,0	0,24
	63,0 - 64,0	0,08		98,0 - 99,0	0,04
	64,0 - 65,0	0,03		99,0 - 100,0	0,03
	65,0 - 66,0	0,08		100,0 - 101,0	0,08
	66,0 - 67,0	0,09		101,0 - 102,0	0,11
	67,0 - 68,0	0,06		102,0 - 103,0	0,15
	68,0 - 69,0	0,33		103,0 - 104,0	0,13
	69,0 - 70,0	0,30		104,0 - 105,0	0,10
	70,0 - 71,0	0,12		105,0 - 106,0	0,01
	71,0 - 72,0	0,19		106,0 - 107,0	0,01
	72,0 - 73,0	0,45		130,0 - 131,0	0,02
	73,0 - 74,0	0,75		131,0 - 132,0	0,01
	74,0 - 75,0	0,34		132,0 - 133,0	0,13
	75,0 - 76,0	0,28		136,0 - 137,0	0,02
	76,0 - 77,0	0,31			
	77,0 - 78,0	0,13			
	78,0 - 79,0	0,04			

Borhull	meter	% Cu	Borhull	meter	% Cu
1036 B	4,5 - 6,0	0,11	H	15,5 - 16,5	0,22
	8,0 - 9,0	0,05		29,0 - 29,5	0,16
	9,0 - 10,0	0,04		55,5 - 61,0	0,06
	10,0 - 11,4	0,05			0,03
	11,4 - 12,0	2,89			0,09
	12,0 - 13,0	2,43		65,0 - 79,0	1,30
	13,0 - 14,5	0,40			0,22
	14,5 - 16,0	0,32			1,25
	16,0 - 17,0	0,52			1,80
	17,0 - 18,0	0,67			0,59
	18,0 - 19,0	1,35			1,19
	19,0 - 20,0	0,91			0,71
	20,0 - 21,0	0,36			1,55
	21,0 - 22,0	1,02			0,36
	22,0 - 23,0	0,63		95,5 - 97,0	0,05
	23,0 - 24,0	1,52			
	24,0 - 25,0	0,67			
	25,0 - 26,0	0,72			
	26,0 - 27,0	0,51			
	27,0 - 28,0	0,18			
	28,0 - 29,0	0,22			
	29,0 - 30,0	1,42			
	30,0 - 31,0	3,16			
	31,0 - 32,0	2,45			
	32,0 - 33,0	0,32			
	33,0 - 34,0	0,23			
	34,0 - 35,0	2,33			
	35,0 - 36,0	3,55			
	36,0 - 37,0	1,68			
	37,0 - 38,0	0,77			
	38,0 - 39,0	0,05			
H	3,0 - 9,5	0,34			
		0,24			
		0,18			
		0,34			

1,14%/
26,6m

1,00%/
14,0m

0,28%/
6,5m

Kommentar til malmberegningen av Østfeltet (John).

I snitt 10385Y er arealene inntegnet på grunnlag av gehaltene i røskene og i stollen Olle. På samme måte er arealene i snitt 10750Y bestemt ved røsk og tverrslag til Johnstollen.

I snitt 10360Y har man i den smale, søndre sone, som danner forbindelsen mellom Hovedfeltet og Østfeltet (John), 80 m^2 av malmkvalitet A og 80 m^2 av malmkvalitet B. Denne sone, som er inntegnet på kartet over Hovedfeltet, er uteglemt på kartet over Østfeltet (John). De nevnte areal er derfor ikke tatt med i beregningen over feltet, og følgelig skal man her ha et tillegg på ca 5 000 tonn malm a. 0,5% Cu.

I snitt 10430Y har man, på grunn av de lokale topografiske forhold, latt borhull 1043 B begynne i en rik malmsone, ca 1 m fra sonens sydgrense.

Analyseliste for Østfeltet (John)

Borhull	meter	% Cu	Borhull	meter	% Cu
1043 A	34,0 - 35,0	0,33	1043 A	49,0 - 50,0	0,16
	35,0 - 36,0	0,57		50,0 - 51,0	0,48
	36,0 - 37,0	0,24		51,0 - 52,0	1,08
	37,0 - 38,0	0,36		52,0 - 53,0	0,49
	38,0 - 39,0	0,19		53,0 - 54,0	0,53
	39,0 - 40,0	0,12		54,0 - 55,0	0,80
	40,0 - 41,0	0,27		55,0 - 56,0	0,36
	41,0 - 42,0	0,19		56,0 - 57,0	0,37
	42,0 - 43,0	0,13		57,0 - 58,0	0,51
	43,0 - 44,0	0,16		58,0 - 59,0	0,06
	44,0 - 45,0	0,13		59,0 - 60,0	0,71
	45,0 - 46,0	0,11		60,0 - 61,0	0,54
	46,0 - 47,0	0,12		61,0 - 62,0	0,57
	47,0 - 48,0	0,14		62,0 - 63,0	0,85
	48,0 - 49,0	0,21		63,0 - 64,0	0,36

0,38%/4m

0,16%/11m

0,32%/2m

0,73%/4m

0,41%/3m

0,52%/8m

Borhull	meter	% Cu		Borhull	meter	% Cu	
1043 A	64,0 - 65,0	0,28	0,52%/8m	1043 B	1,0 - 2,0	2,03	0,95%/8m
	65,0 - 66,0	0,50			2,0 - 3,0	2,59	
	66,0 - 67,0	0,35			3,0 - 4,0	1,01	
	67,0 - 68,0	0,29			4,0 - 5,0	0,48	
	68,0 - 69,0	0,05	0,33%/2m		5,0 - 6,0	0,41	0,12%/9m
	69,0 - 70,0	0,03			6,0 - 7,0	0,27	
	70,0 - 71,0	0,11			7,0 - 8,0	0,46	
	71,0 - 72,0	0,54			8,0 - 9,0	0,35	
	72,0 - 73,0	0,09	0,58%/4m		9,0 - 10,0	0,19	0,93%/12m
	73,0 - 74,0	0,08			10,0 - 11,0	0,15	
	74,0 - 75,0	0,04			11,0 - 12,0	0,21	
	75,0 - 76,0	0,04			12,0 - 13,0	0,08	
	76,0 - 77,0	0,02	0,15%/4m		13,0 - 14,0	0,07	0,16%/5m
	77,0 - 78,0	0,07			14,0 - 15,0	0,06	
	78,0 - 79,0	0,04			15,0 - 16,0	0,15	
	79,0 - 80,0	0,03			16,0 - 17,0	0,12	
	80,0 - 81,0	0,03	0,15%/4m		17,0 - 18,0	0,08	0,16%/5m
	81,0 - 82,0	0,08			18,0 - 19,0	0,38	
	82,0 - 83,0	0,03			19,0 - 20,0	0,30	
	83,0 - 84,0	0,05			20,0 - 21,0	0,73	
	84,0 - 85,0	0,69	0,15%/4m		21,0 - 22,0	0,44	0,16%/5m
	85,0 - 86,0	0,52			22,0 - 23,0	1,59	
	86,0 - 87,0	0,73			23,0 - 24,0	1,16	
	87,0 - 88,0	0,36			24,0 - 25,0	0,40	
	88,0 - 89,0	0,16	0,15%/4m		25,0 - 26,0	0,39	0,16%/5m
	89,0 - 90,0	0,09			26,0 - 27,0	0,39	
	90,0 - 91,0	0,13			27,0 - 28,0	0,42	
	91,0 - 92,0	0,22			28,0 - 29,0	3,24	
	92,0 - 93,0	0,06	0,15%/4m		29,0 - 30,0	1,66	0,16%/5m
	93,0 - 94,0	0,05			30,0 - 31,0	0,15	
	94,0 - 95,0	0,09			31,0 - 32,0	0,12	
	95,0 - 96,0	0,03			32,0 - 33,0	0,32	
					33,0 - 34,0	0,12	
					34,0 - 35,0	0,07	

Borhull	meter		% Cu		Borhull	meter		% Cu	
1043 B	35,0 - 36,0	0,69	}	0,53%/2m	1043 B	83,0 - 84,0	0,02		
	36,0 - 37,0	0,37			84,0 - 85,0	0,02			
	37,0 - 38,0	0,09			85,0 - 86,0	0,02			
	38,0 - 39,0	0,31	}	0,19%/3m	86,0 - 87,0	0,02			
	39,0 - 40,0	0,18			87,0 - 88,0	0,03			
	40,0 - 41,0	0,04			88,0 - 89,0	0,04			
	41,0 - 42,0	0,04	89,0 - 90,0	0,03					
	42,0 - 43,0	0,24	90,0 - 91,0	0,06					
	43,0 - 44,0	0,31	}	0,31%/3m	94,0 - 95,0	0,04			
	44,0 - 45,0	0,39			96,0 - 97,0	0,05			
	45,0 - 46,0	1,33			99,0 - 100,0	0,05			
	46,0 - 47,0	0,81	}	1,07% / 2m	104,0 - 105,0	0,06			
	47,0 - 48,0	0,36			105,0 - 106,0	0,07			
	48,0 - 49,0	0,17			106,0 - 107,0	0,12			
	49,0 - 50,0	0,40	}	0,31%/4m	120,8 - 122,0	0,15			
	50,0 - 51,0	0,31			122,0 - 123,0	0,02			
	51,0 - 52,0	0,04			123,0 - 124,0	0,03			
	52,0 - 53,0	0,26	}	0,31%/3m	124,0 - 125,0	0,02			
	53,0 - 54,0	0,37			132,0 - 133,0	0,01			
	54,0 - 55,0	0,30							
	55,0 - 56,0	0,21	}	0,22%/2m	1048 A	9,0 - 10,0	0,02		
	56,0 - 57,0	0,22			10,0 - 11,5	0,01			
	57,0 - 58,0	0,06			11,5 - 12,5	0,01			
	58,0 - 59,0	0,03	}	0,10%/7m	12,5 - 13,0	0,01			
	59,0 - 60,0	0,12			19,0 - 20,0	0,02			
	60,0 - 61,0	0,19			25,0 - 26,0	0,01			
	61,0 - 62,0	0,10			26,0 - 27,0	0,02			
	62,0 - 63,0	0,08			27,0 - 28,0	0,19			
	63,0 - 64,0	0,11			28,0 - 29,0	0,43			
	64,0 - 65,0	0,08			29,0 - 30,0	0,46			
	65,0 - 66,0	0,08	}	0,62%/9m	30,0 - 31,0	2,39			
	66,0 - 67,0	0,21			31,0 - 32,0	0,27			
	67,0 - 68,0	0,12			32,0 - 33,0	0,19			
	68,0 - 69,0	0,06			33,0 - 34,0	0,25			
	69,0 - 70,0	0,00							

Borhull	meter	% Cu		Borhull	meter	% Cu	
1048 A	34,0 - 35,0	0,55	0,62%/9m	U	4,5 - 9,0	0,01	
	35,0 - 36,0	0,83				0,007	
	36,0 - 37,0	0,23				0,007	
	37,0 - 38,0	0,03			73,5 - 75,0	0,009	
	38,0 - 39,0	0,35	0,58%/7m		78,5 - 97,0	0,21	0,34%/10,5m
	39,0 - 40,0	0,44				0,29	
	40,0 - 41,0	0,53				0,20	
	41,0 - 42,0	0,41				0,27	
	42,0 - 43,0	0,53				0,25	
	43,0 - 44,0	1,38				0,35	
	44,0 - 45,0	0,40				0,82	
	45,0 - 46,0	0,11				0,09	0,11%/3m
	46,0 - 47,0	0,27				0,12	
	47,0 - 48,0	0,44				0,36	
	48,0 - 49,0	0,88				0,93	0,51%/6m
	49,0 - 50,0	0,08				0,54	
	50,0 - 51,0	0,11	0,51%/10m			0,20	
	51,0 - 52,0	0,26			122,0 - 123,5	0,02	
	52,0 - 53,0	0,69					
	53,0 - 54,0	1,30		1053 B	32,0 - 33,0	0,00	
	54,0 - 55,0	0,53			33,0 - 34,5	0,00	
	55,0 - 56,0	0,53			34,5 - 36,0	0,01	
	56,0 - 57,0	0,08			36,0 - 36,7	0,10	
	57,0 - 58,0	0,08			36,7 - 38,0	0,94	0,90%/2,3m
	58,0 - 59,0	0,03			38,0 - 39,0	0,86	
	59,0 - 60,0	0,02			39,0 - 40,0	0,09	
	74,0 - 75,0	0,02			40,0 - 41,0	0,04	0,17%/3m
	77,0 - 78,0	0,03			41,0 - 42,0	0,38	
	80,5 - 82,0	0,04			42,0 - 43,0	0,06	
	99,0 - 100,0	0,01			43,0 - 44,0	0,07	
	100,0 - 101,0	0,01					
	101,0 - 102,0	0,00					
	102,0 - 103,0	0,00					

[illegible]

Kommentar til malmberegningen av Østfeltet (Erik).

I dette området har man første borhull i snitt 10920Y, men malmsonen er i dagen fulgt ca 70 m vestover fra dette profil.

I snitt 11040Y har man foruten borhull 1104A også benyttet gehaltene i Erikstollen for bestemmelsen av malmarealene. Likeledes ligger også analysene fra Erikstollen til grunn for arealbestemmelsene i snitt 11055Y. Mot øst har man latt malmen kile ut ved 11085Y. Ved feltarbeidet i 1968 kunne man imidlertid følge malmen, som delvis var skjult av morene, ca 150 m videre østover.

Analyseliste for Østfeltet (Erik).

Borhull	meter	% Cu	Borhull	meter	% Cu
1092 A	32,5 - 33,0	0,55	1098 A	40,0 - 41,0	0,30
	33,0 - 34,0	0,11		41,0 - 42,0	0,56
	34,0 - 35,0	0,69		42,0 - 43,0	0,07
	35,0 - 36,0	0,21		43,0 - 44,0	0,01
	36,0 - 37,0	1,16		44,0 - 45,0	0,01
	37,0 - 38,0	0,96			
	38,0 - 39,0	1,07	1104 A	1,0 - 2,0	0,01
	39,0 - 40,0	0,07		20,0 - 27,0	0,29
	40,0 - 41,0	0,91		27,0 - 31,0	0,94
	41,0 - 42,0	0,02		31,0 - 40,0	0,06
	42,0 - 43,0	0,01		48,0 - 50,0	0,01
1098 A	18,0 - 19,0	0,08			
	19,0 - 20,0	0,06			
	20,0 - 21,0	0,03			
	36,0 - 37,0	0,02			
	37,0 - 38,0	0,29			
	38,0 - 39,0	1,32			
	39,0 - 40,0	0,81			

0,64%/
8,5m

0,66%/
5m

0,53%/
11m

0,66%/
5m

Kommentarer til malmberegningen av Østfeltet (Nord).

En forkastning ser ut til å dele hovedkroppen i to. I det østlige parti har man ingen røsker, men sonen er kjent fra kartleggingen i dagen. I søndre kropp har man, som kartbilaget viser, (snitt 10680Y) to rike partier, avskilt ved et fattigere. Hver av de rike partier er arealberegnet for seg, men i tabellen er arealene slått sammen og brukt som gjennomsnittsverdier for malmkroppen.

Analyseliste for Østfeltet (Nord).

Borhull	meter	% Cu	Borhull	meter	% Cu
1053 A	5,0 - 6,0	0,06	1061 A	0,8 - 2,0	0,02
	6,0 - 7,0	0,06		2,0 - 3,0	0,02
	7,0 - 8,0	0,02		3,0 - 4,0	0,01
	8,0 - 9,0	0,02		4,0 - 5,0	0,01
	9,0 - 10,0	0,01		5,0 - 6,0	0,11
	10,0 - 11,0	0,03		6,0 - 7,0	0,02
	11,0 - 12,5	0,05		7,0 - 8,0	0,03
	12,5 - 13,0	0,18		8,0 - 9,0	0,19
	13,0 - 14,2	0,26		9,0 - 10,0	0,35
	14,2 - 15,0	0,13		10,0 - 11,0	0,09
	15,0 - 16,5	0,30		11,0 - 12,0	0,05
	16,5 - 18,0	0,26		12,0 - 13,0	0,26
	18,0 - 19,0	0,05		13,0 - 14,0	0,36
	19,0 - 20,0	0,17		14,0 - 15,0	0,35
	20,0 - 21,0	0,01		15,0 - 16,0	0,44
	21,0 - 22,0	0,02		16,0 - 17,0	0,29
	22,0 - 23,0	0,05		17,0 - 18,0	0,29
	23,0 - 24,0	0,02		18,0 - 19,0	0,22
	24,0 - 25,0	0,01		19,0 - 20,0	0,38
	25,0 - 26,0	0,03		20,0 - 21,0	0,31
				21,0 - 22,0	0,47
				22,0 - 23,0	0,26
				23,0 - 24,0	0,58
				24,0 - 25,0	0,16

Borhull	meter	% Cu	Borhull	meter	% Cu
1061 A	25,0 - 26,0	0,02	1061 A	74,0 - 75,0	0,01
	26,0 - 27,0	0,02		75,0 - 76,0	0,01
	27,0 - 28,0	0,03		76,0 - 77,0	0,01
	28,0 - 29,0	0,04		77,0 - 78,0	0,01
	29,0 - 30,0	0,13		78,0 - 79,0	0,03
	30,0 - 31,0	0,50		79,0 - 80,0	0,02
	31,0 - 32,0	0,11			
	32,0 - 33,0	0,29	1068 A	23,0 - 26,0	0,65
	33,0 - 34,0	0,34		29,0 - 31,0	0,96
	34,0 - 35,0	0,37		32,0 - 40,0	0,34
	35,0 - 36,0	0,25		44,0 - 45,0	0,05
	36,0 - 37,0	0,87		50,0 - 51,0	0,82
	37,0 - 38,0	0,18		60,0 - 61,0	0,04
	38,0 - 39,0	0,04			
	39,0 - 40,0	0,06			
	40,0 - 41,0	0,02	K	95,0 - 108,5	0,13
	41,0 - 42,0	0,09			0,071
	42,0 - 43,0	0,18			0,13
	43,0 - 44,0	0,07			0,071
	44,0 - 45,0	0,02			0,085
	45,0 - 46,0	0,01			0,03
	46,0 - 47,0	0,01			0,15
	47,0 - 48,0	0,04			0,080
	48,0 - 49,0	0,04			0,020
	49,0 - 50,0	0,01		119,5 - 124,0	0,11
	50,0 - 51,0	0,02			0,040
	51,0 - 52,0	0,02			0,080
	52,0 - 53,0	0,02		126,5 - 128,0	0,21
	53,0 - 54,0	0,19		131,0 - 132,5	0,46
	54,0 - 55,0	0,02		135,0 - 156,0	0,030
	67,0 - 68,0	0,01			0,27
	68,0 - 69,0	0,01			0,35
	72,0 - 73,0	0,01			0,14
	73,0 - 74,0	0,04			0,43
					0,35

0,34%/9m

0,11%/3m

0,10%/7,5m

0,12%/3m

0,31%/16,5m

Borhull	meter	% Cu	Borhull	meter	% Cu
K	135,0 - 156,0	0,14	W	185,5 - 204,0	0,031
		0,18			0,066
		0,47			0,20
		0,12			0,28
		0,11			0,072
		0,90			0,18
		0,02			0,19
		0,02			0,028
		0,01			0,025
					0,05
W	106,6 - 108,5	0,034		208,5 - 216,0	0,025
	114,5 - 116,0	0,030			0,019
	127,0 - 128,5	0,019			0,026
	132,0 - 154,5	0,36			0,025
		2,52			0,025
		1,93			
		0,51	X	127,0 - 187,5	0,075
		0,065			0,075
		0,73			0,14
		0,13			0,24
		0,45			0,27
		0,17			0,19
		0,038			0,072
		0,031			0,10
		0,025			0,078
		0,030			0,052
		0,050			0,11
		0,097			0,084
	173,0 - 174,5	0,062			0,10
	185,5 - 204,0	0,018			0,094
		0,10			0,40
		0,47			0,21
		0,22			0,29

0,31%/
16,5m

0,24%/
3m

0,19%/
3m

0,76%/
13,5m

0,13%/
18m

0,26%/
4,5m

0,30%/
4,5m

Borhull	meter	% Cu	Borhull	meter	% Cu
X	127,0 - 187,5	0,022			
		0,022			
		0,028			
		0,12			
		0,078			
		0,031			
		0,29			
		0,17			
		0,041			
		0,025			
		0,34			
		0,20			
		0,22			
		0,26			
		0,01			
		0,68			
		0,63			
		1,58			
		0,43			
		0,18			
		0,06			
		0,04			
		0,04			
		0,12			
	211,0 - 212,5	0,019			
	226,5 - 228,5	0,025			
	237,5 - 150,0	0,034			
		0,037			
		0,025			
		0,026			
		0,025			
		0,025			

0,14%/
7,5m

0,26%/
6m

0,83%/
6m

Kommentarer til malmberegningen av Dypmalmen (H-T malmen).

Dypmalmen, eller H-T malmen, skiller seg ut fra de andre malmkroppene i feltet ved at den ikke med sikkerhet kan påvises i dagen. Sqm analysene også viser, kommer malmsonen langt dårligere frem i hullet nær dagflaten enn i de dypere hull. Det ser derfor ut til at man har en gradvis reduksjon av impregnasjonstettheten fra dypet opp mot dagen. Borhull 1036A, i snitt 10360Y, syntes opprinnelig å vise at malmen også kilte fort ut mot dypet, idet man i dette borhull ikke kunne påvise malmsonen. En reanalyse av borhullet (høst 1968) viser imidlertid at man fra 235,0 - 240,0 m har en malmsone som fører 0.31% Cu eller 0.62% Cu fra 235,0 - 237,0 m. Dette tyder på at malmkroppen får en sterk draging mot syd i dypere nivåer, en tendens som også er iaktatt i de andre feltene i området.

Ellers viser boringene at Dypmalmen ligger i nær kontakt med 9400X-forkastningen og at Østfeltet (Nord) kan være en direkte fortsettelse av malmen mot øst. En svak mineraliseringssone er også iaktatt i dagen, i kontakt med 9400X-forkastningen, i profil 10160Y. Denne sone er trolig en fortsettelse av Dypmalmen mot vest.

Analyseliste for Dypmalmen (H-T malmen).

Borhull	meter	% Cu	Borhull	meter	% Cu
1025 C	191,0 - 192,0	0,03	1025 C	287,5 - 288,0	0,68
	192,0 - 193,0	0,30		288,0 - 289,0	1,49
	204,5 - 205,1	0,47		289,0 - 290,0	2,32
	230,0 - 231,0	0,02		290,0 - 290,6	1,44
	233,7 - 234,4	0,25		290,6 - 292,0	0,03
	240,0 - 241,0	0,31	} 1,62% / 3,1m		
	241,0 - 242,0	0,20			
	242,0 - 243,5	0,39			
} 0,30% / 3,5m					

Borhull	meter	% Cu		Borhull	meter	% Cu
1032 B	254,0 - 255,0	0,02		1036 A	260,0 - 261,0	0,07
	255,0 - 256,0	0,03			261,0 - 262,0	0,02
	256,0 - 257,0	0,04			262,0 - 263,0	0,05
	257,0 - 258,0	0,16			263,0 - 264,0	0,04
	258,0 - 259,0	0,03			264,0 - 265,0	0,11
	259,0 - 260,0	0,25	0,28%/3m		265,0 - 266,0	0,03
	260,0 - 261,0	0,29			266,0 - 267,0	0,01
	261,0 - 262,0	0,29			267,0 - 268,0	0,01
	262,0 - 263,0	1,37	0,98%/3m		268,0 - 269,0	0,02
	263,0 - 264,0	0,78			269,0 - 270,0	0,03
	264,0 - 265,0	0,80			270,0 - 271,0	0,02
	265,0 - 266,0	0,33			271,0 - 272,0	0,02
	266,0 - 267,0	0,14			272,0 - 273,0	0,00
	267,0 - 268,0	0,02			273,0 - 274,0	0,01
	268,0 - 269,0	0,04			274,0 - 275,0	0,01
	269,0 - 270,0	0,04			275,0 - 276,0	0,01
	270,0 - 271,0	0,01			276,0 - 277,0	0,03
	271,0 - 272,0	0,02			277,0 - 278,0	0,01
					278,0 - 279,0	0,01
					279,0 - 280,0	0,01
1032 C	158,0 - 159,0	0,03			280,0 - 281,0	0,00
	159,0 - 160,0	0,02			281,0 - 282,0	0,00
	160,0 - 161,0	0,01			282,0 - 283,0	0,00
	161,0 - 162,0	0,07			283,0 - 284,0	0,01
	162,0 - 163,0	0,20	0,22%/5m		284,0 - 285,0	0,03
	163,0 - 164,0	0,18			285,0 - 286,0	0,04
	164,0 - 166,0	0,29			286,0 - 287,0	0,01
	166,0 - 166,5	0,20			287,0 - 288,0	0,01
	166,5 - 167,0	0,03			288,0 - 289,0	0,02
	167,0 - 168,0	0,31	0,32%/3m		289,0 - 290,0	0,06
	168,0 - 169,0	0,29				
	169,0 - 170,0	0,35				
	179,0 - 180,0	0,02				
	180,0 - 181,0	0,05				

Borhull	meter	% Cu	Borhull	meter	% Cu
1036 B	111,9 - 113,0	0,03	H		0,03
	113,0 - 114,0	0,15			0,04
	114,0 - 115,0	0,01			0,08
	115,0 - 116,0	0,02			0,09
	116,0 - 117,0	0,02			0,59
	117,0 - 118,0	0,09			0,23
	118,0 - 119,0	0,12			0,69
	119,0 - 120,0	0,20			0,15
	120,0 - 121,0	0,32			0,18
	121,0 - 122,0	0,31		199,0 - 200,5	0,03
	122,0 - 123,0	0,19		203,5 p 206,5	0,01
	123,0 - 124,0	0,02			0,01
	124,0 - 125,0	0,03		108,5 - 111,0	0,01
	125,0 - 126,0	0,04			0,01
	126,0 - 127,0	0,01			
	127,0 - 128,0	0,01	T	241,5 - 269,0	0,36
	128,0 - 129,0	0,12			0,30
	129,0 - 130,0	0,15			0,65
	130,0 - 131,0	0,01			0,43
					1,35
H	159,0 - 193,0	0,05			2,95
		0,55			2,16
		0,16			1,72
		0,20			1,52
		0,18			1,70
		0,12			1,98
		0,03			0,30
		0,69			0,43
		0,15			1,33
		1,85			0,86
		2,27			0,37
		1,06			0,52
		0,98			0,31
		0,18			0,39
					0,73
					0,23

Borhull	meter	% Cu	Borhull	meter	% Cu
1043 A	213,0 - 214,0	0,33	1043 A	245,0 - 246,0	0,78
	214,0 - 215,0	0,66		246,0 - 247,0	0,38
	215,0 - 216,0	0,11		247,0 - 248,0	0,46
	216,0 - 217,0	0,06		248,0 - 249,0	0,14
	217,0 - 218,0	0,35		249,0 - 250,0	0,21
	218,0 - 219,0	0,13		250,0 - 251,0	0,70
	219,0 - 220,0	0,21		251,0 - 252,0	0,66
	220,0 - 221,0	0,25		252,0 - 253,0	0,68
	221,0 - 222,0	0,34		253,0 - 254,0	0,03
	222,0 - 223,0	0,27		254,0 - 255,0	0,03
	223,0 - 224,0	0,02		255,0 - 256,0	0,06
	224,0 - 225,0	0,04		256,0 - 257,0	0,02
	225,0 - 226,0	0,16		257,0 - 258,0	0,04
	226,0 - 227,0	0,03		258,0 - 259,0	0,04
	227,0 - 228,0	0,12		259,0 - 260,0	0,02
	228,0 - 229,0	0,26			
	229,0 - 230,0	0,22	1043 B	143,0 - 144,0	0,32
	230,0 - 231,0	0,26		144,0 - 145,5	0,03
	231,0 - 232,0	0,26		145,5 - 147,0	0,10
	232,0 - 233,0	0,26		147,0 - 148,0	0,17
	232,0 - 233,0	0,24		148,0 - 149,0	0,02
	233,0 - 234,0	0,04		149,0 - 150,0	0,03
	234,0 - 235,0	0,02		152,0 - 153,0	0,02
	235,0 - 236,0	0,03		153,0 - 154,0	0,01
	236,0 - 237,0	0,04		154,0 - 155,0	0,05
	237,0 - 238,0	0,48		159,5 - 161,0	0,17
	238,0 - 239,0	0,97		161,0 - 162,0	0,08
	239,0 - 240,0	0,12		162,0 - 163,0	0,09
	240,0 - 241,0	0,36		163,0 - 164,0	0,08
	241,0 - 242,0	0,07		164,0 - 165,0	0,08
	242,0 - 243,0	0,28		165,0 - 166,0	0,09
	243,0 - 244,0	0,48		166,0 - 167,0	0,10
	244,0 - 245,0	0,25		167,0 - 168,0	0,09

Borhull	meter	% Cu		Borhull	meter	% Cu
1043 B	168,0 - 169,0	0,08	} 0,11%/11m			
	169,0 - 170,0	0,18				
	170,0 - 171,0	0,05				
	171,0 - 172,0	0,06				
	172,0 - 172,7	0,03				
	172,7 - 173,2	0,18				
	173,2 - 174,0	0,01				
	176,0 - 177,0	0,04				
1048 A	155,0 - 156,0	0,02				
	156,0 - 157,0	0,13				
	157,0 - 158,0	0,16				
	158,0 - 159,0	0,23				
	159,0 - 160,0	0,02				
	168,0 - 169,0	0,15				
	169,0 - 170,0	0,01				
	170,0 - 171,0	0,02				
	171,0 - 172,0	0,01				
	172,0 - 173,0	0,17				
	173,0 - 174,0	0,32	} 0,30%/2m			
	174,0 - 175,0	0,28				
	175,0 - 176,0	0,10	} 0,11%/2m			
	176,0 - 177,0	0,11				
	177,0 - 178,0	0,05				
	178,0 - 179,0	0,01				
	179,0 - 180,0	0,02				
	180,0 - 181,0	0,03				
	190,0 - 191,0	0,02				
	191,0 - 192,0	0,05				
	192,0 - 193,0	0,05				
	193,0 - 194,0	0,03				

Kommentar til malmberegningen av Hansfeltet.

Analysene fra Hansstollen viser at den minste malmkroppen holder 0,30% Cu over 7 m. Borhull 1186A, som også gjennomskjærer kroppen, er ikke analysert i dette området.

Ved tonnasjeberegningen er arealene i snitt 11860Y redusert med 1/3 og deretter brukt som gjennomsnittstall for hele feltet. Dette er gjort fordi kroppene har en forskjellig feltutstrekning.

Analyseliste for Hansfeltet.

Borhull	meter	% Cu	Borhull	meter	% Cu
1186 A	1,0 - 8,2	0,03	1186 B	62,8 - 70,0	0,05
	8,2 - 10,8	1,48		70,0 - 71,2	0,16
	50,0 - 60,0	0,08		71,2 - 73,7	0,10
	60,0 - 62,3	0,07		73,7 - 80,0	0,14
115,0 - 120,0	0,10			82,4 - 85,4	0,07
120,0 - 128,0	0,39			85,4 - 96,0	0,04
137,8 - 139,8	0,05			98,1 - 110,0	0,04
139,8 - 142,9	0,02		110,0 - 124,0	0,38	
1186 B	1,7 - 2,5	0,02			
	5,0 - 6,0	0,02			
	8,4 - 17,5	0,02			
	18,0 - 19,0	0,01			
	19,0 - 22,6	0,08			
	22,6 - 25,6	0,17			
	25,6 - 30,0	0,02			
	30,0 - 40,0	0,09			
	40,0 - 44,8	0,06			
	44,8 - 48,9	0,05			
	48,9 - 59,7	0,08			
	59,7 - 62,8	0,02			

Resymé.

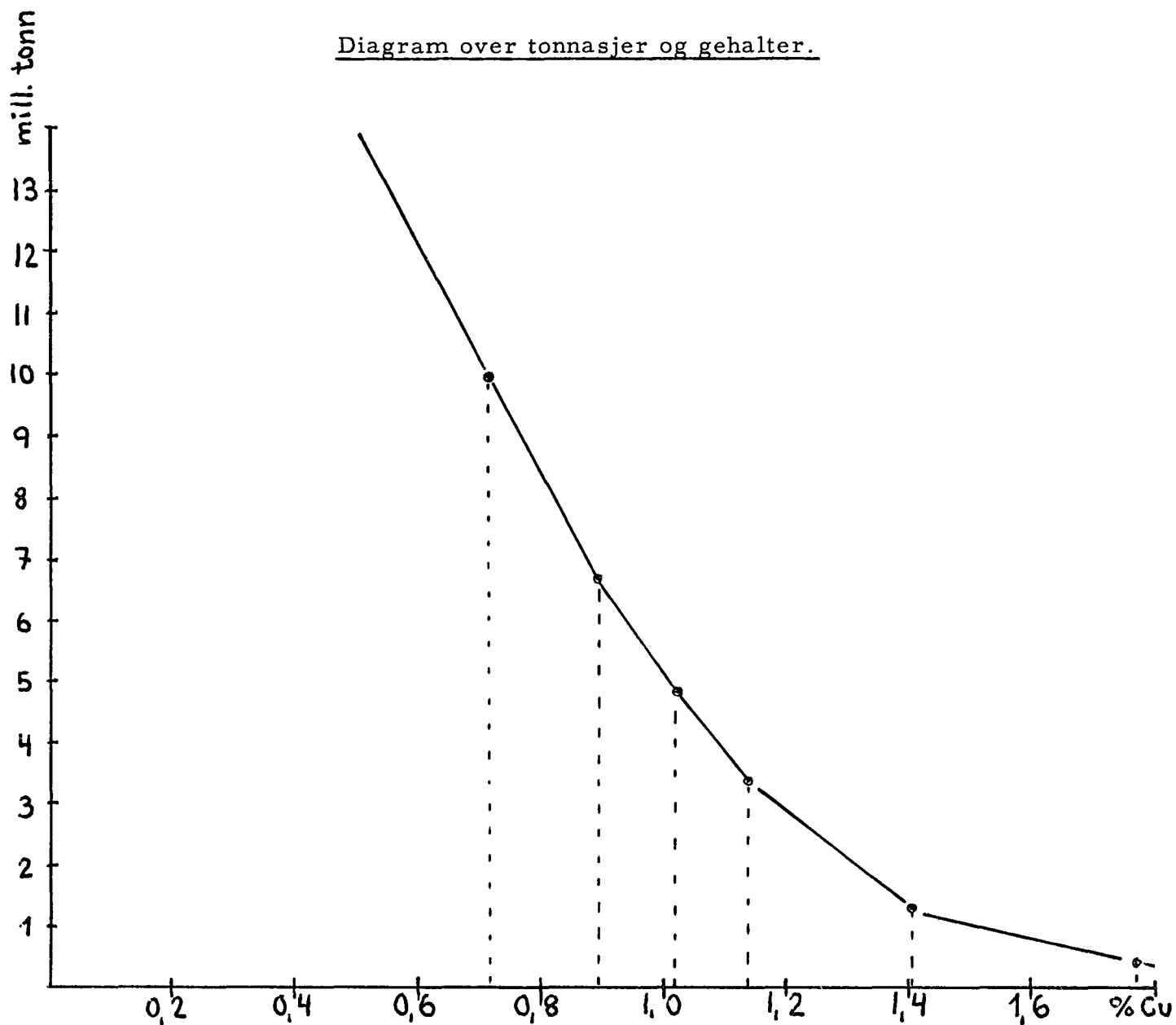
Ved denne malmberegning har man funnet følgende tonnasje i de ulike felter:

Vestfeltet	: 1 212 000 t a 0,75% Cu
Hovedfeltet	: 4 054 000 t a 0,80% Cu
Østfeltet (John)	: 1 467 000 t a 0,77% Cu
Østfeltet (Erik)	: 307 000 t a 1,16% Cu
Østfeltet (Nord)	: 1 368 000 t a 0,49% Cu
Dypmalmen	: 840 000 t a 0,67% Cu
Hansfeltet	: 696 000 t a 0,43% Cu
Tilsammen	: 9 944 000 t a 0,72% Cu

Ved å bruke tabellene kan man finne hvorledes den totale tonnasje fordeler seg på de ulike malmkvaliteter og hvilken gjennomsnittsgehalt hver malmkvalitet har. En oversikt over dette er vist på neste side. Her er malmkvalitetene dessuten suksessivt slått sammen, noe som resulterer i andre tonnasje og gehalter. Disse tonnasje og gehalter er også avsatt grafisk.

Nå kan man ikke helt bestemme selv hvilke malmkvaliteter man vil bryte. For å bryte soner med C, D, E, F malm vil det også være nødvendig å ta med noe A, B malm. Men det faktisk at malmen vanligvis er rikere nær dagen og gradvis blir fattigere mot dypet, gjør at man ved å velge en nedre bruddgrense også til en viss grad kan bestemme gehalten på det utbrutte gods.

Diagram over tonnasje og gealter.



A: 3 300 000 t
(0,35%)

B: 1 800 000 t
(0,57%)

C: 1 496 000 t
(0,77%)

D: 2 076 000 t
(0,98%)

E: 868 000 t
(1,24%)

F: 404 000 t
(1,78%)

1 272 000 t
(1,41%)

3 348 000 t
(1,14%)

4 844 000 t
(1,03%)

6 644 000 t
(0,90%)

9 944 000 t
(0,72%)

MALMAREALER (m²)									LENGDE	MALMTONNASJE (tonn)						MIDDELGEHALT				
KROPP	SNITT	A	B	C	D	E	F	TOTALT	(m)	A	B	C	D	E	F	A	B	C	D	E
I	H		150					150	20 ^x		8000						0,6			
II	H	1020	1360					2380	(A) (B) 35', 20'	96000	78000					0,4	0,55			
III	9370 Y	760			30			790	(A) (D) 35', 10' 9370Y → VEST	36000						0,41				
	9370 Y	760			30			790	30	43000		1000	1000	1000		0,38		0,75	1,00	1,25
	9400 Y	300	10	30		30		370	100	80000	1000	4000		7000		0,36	0,60	0,75		1,25
	9500 Y	290				20		310												
	9500 Y	290				20		310	(A) (E) 25', 20' 9500Y → ØST	10000				1000		0,36				1,25
IV	9500 Y	220			30				(A) (D) 45', 20'	27000			2000			0,35			0,92	
V	9500 Y	230	130	45				810	20 9500Y → VEST	6000	4000	12000				0,36	0,60	0,79		
	9500 Y	230	130	450				810	40	29000	22000	40000	34000	18000		0,38	0,59	0,78	0,95	1,11
	9540 Y	310	280	290	630	330		1840	80	71000	44000	52000	71000	59000	58000	0,39	0,58	0,77	0,95	1,15
	9620 Y	350	130	190	30	220	540	1450	80	52000	36000	39000	44000	38000	58000	0,39	0,59	0,77	0,97	1,15
	9700 Y	130	210	170	380	130		1020												
	9700 Y	130	210	170	380	130		1020	20 9700Y → ØST	4000	6000	5000	10000	4000		0,40	0,59	0,80	0,98	1,15
										454000	199000	153000	162000	128000	116000					

MALMAREALER (m²)									LENGDE	MALMTONNASJE (tonn)						MIDDELGEHALT				
KROPP	SNITT	A	B	C	D	E	F	TOTALT	(m)	A	B	C	D	E	F	A	B	C	D	E
Dypmalmen(H-Tmalmen)	10250Y	75	50	50	50	40	125	380	25 10250Y→VEST	3000	2000	2000	2000	1000	4000	0,40	0,60	0,80	1,00	1,30
	10250Y	75	50	50	50	40	125	390		43000	11000	10 000	23 000	4 000	12000	0,33	0,60	0,80	0,94	1,30
	10320Y	380	70	60	190			700												
	10360Y	550	270	280	1940			3040												
	10430Y	1040	350					1390												
	10480Y	90						90												
	10480Y	90						90	25 10480Y→ ØST	3 000						0,30				
										326000	114 000	56000	323000	5 000	16 000					
Hans feltet	11860Y	2360	1470			25		4855	(A)(B) 100 50 (F)	427000	266000				3 000	0,36	0,52			1,48