



ORKUSTOFNUN
Vatnsorkudeild

SKILAGREIN

FLJÓTSDALSVIRKJUN
Hljóðhraðamælingar 1981

Halína Bogadóttir
OS82015/VOD11 - B

Febrúar 1982



ORKUSTOFNUN
GRENSÁSVEGI 9. 108 REYKJAVÍK

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1 INNGANGUR

Þessi skilagrein er framhald af eftirfarandi skýrslum:

1. "Bessastaðaárvirkjun. Hljóðhraða- og viðnámsmælingar sumarið 1975" (OSROD-7617, maí '76).
2. "Bessastaðaárvirkjun. Hljóðhraða- og viðnámsmælingar sumarið 1975, mæligögn" (OSROD-7618, maí '76).
3. "Austurlandsvirkjun. Eyjabakkar-jarðfræðiskýrsla" (OSROD-7830, okt. '78).
4. "Fljótsdalsvirkjun. Hljóðhraðamælingar 1981" (HB-81/01, júlí '81.)

sem eru m.a. um hljóðhraðamælingar vegna Bessastaðaár- og Fljótsdalsvirkjunar 1975-81. Hér er að finna niðurstöður hljóðhraðamælinga frá sumrinu 1981 sem gerðar voru á væntanlegum stíflustæðum og vatnsvegum.

Þær aðferðir sem hér um ræðir gefa einar sér engan veginn fullnægjandi upplýsingar um eðli og uppbyggingu lausra yfirborðslaga og efsta hluta berggrunnins, heldur verður að tengja niðurstöður þeirra efniskönnun á yfirborði og borholum.

2 YFIRLIT

Sumarið 1981 var mældur hljóðhraði á eftirfarandi línunum:

ES	(25	prófílar),	Eyjabakkar stífla	(myndir 2 og 16-22)
JS	(8	"	) Hafursá - Hafursárkvísl,	skurður (myndir 3,4 og 23)
LS	(10	"	) Laugarfell,	skurður (myndir 5 og 24, 25)
FS	(24	"	) Laugará - Axará,	skurður (myndir 6-8 og 26, 27)
LJ	(6	"	) Eyrarselvatn,	stífla (myndir 9 og 28)
KJ	(2	"	) Grjóthálsvatn,	stífla (myndir 10 og 28)
JJ	(4	"	)	" " (myndir 10 og 28)
SG	(3	"	)	" skurður (myndir 10 og 29)
EJ	(4	"	) Gilsárvötn,	stífla (myndir 11 og 29)
TJ	(12	"	) Bessastaðaá,	stífla (myndir 12 og 30)
HJ	(4	"	) Hólmalón,	skurður (myndir 13 og 31)
NJ	(5	"	) Kristínarkíll,	stífla (myndir 13 og 32)
AS	(5	"	) Melgróf, aðrennslisskurður	og inntakslón (myndir 14 og 33)
DS	(4	"	) Fljótsdalur,	skurður (myndir 15 og 34)

Alls eru þetta 116 mælingaprófílar á 14 línunum eða svæðum.

Tilgangur mælinganna var að finna þykkt lausra jarðlaga og gerð berggrunns út frá hraða hljóðbylgna. Jósef Hólmjárn mældi hraða hljóðbylgna með ABEM-tæki.

3 ÚRVINNSLA

Við úrvinnsluna var notuð tölva PDP 11/34 og teikniborð TELEKTRONIX 5665 og efirfarandi forrit:

SEISM (til að reikna þykkt mismunandi laga skv. "Time intercept-aðferð")

PLUMI 2 („plús-mínus aðferð") til að reikna dýpi á grunnberg undir hverjum hljóðnema, þar sem hljóðhraðalínurit er óreglulegt og grunnberg liggur beint undir yfirborðslagi).

SEITEY (til að teikna hljóðhraðalínurit)

JSVRPX (til upplýsinga um hnit, hæð og niðurstöður á töfluformi)

Allar upplýsingar eru á skrá sem ber heitið FLD og eru geymdar á diskettu (102,323) label FHEIDI á Orkustofnun.

Gera má ráð fyrir að skekkja mælinganna hvað varðar þykkt einstakra laga sé 10-20%. Sé lag minna en ca 3 m að þykkt, getur í mælingum skeikað einum metra til eða frá.

4 STAÐSETNING

Staðsetning allra lína er sýnd á myndum 1-15. Staðsetning og hæð mældra sniða er misnákvæm og má skifta í þrjá hópa:

- a. Punkta nákvæmlega mældra. Staðsetningu og hæð er að finna í Landmælingaskýrslu GP OS82003/VOD02 B.
- b. Punkta sem eru staðsettir eftir cobrahælum.
- c. Punkta sem hafa ekki verið mældir

5 NIÐURSTÖÐUR

Niðurstöður allra (116) hljóðhraðamælinga frá 1981 eru sýndar á töflum og myndum 19-34 þ.e. hljóðhraðalínurit hvers prófils og túlkun. Vegna þess að rannsókn 1981 var gerð til að fá viðbótarupplýsingar er oft langt á milli mælipunkta og þeir ekki tengdir saman á þversniðum (nema á stíflustæði við Eyjabakka). Nálvæma túlkun þeirra með útreiknuðu dýpi undir hverjum hljóðnema er að finna á myndum 23-34.

Eyjabakkastífla

Á Eyjabökkum var bætt við 25 mælingum 1981. Nýju mælingarnar voru tengdar þeim eldri. Niðurstöður eru sýndar á sex þversniðum (myndir 16, 17). Hér er dýpi á grunnberg misjafnt, frá 10-40 m. Hugsanleg hæð berggrunns er sýnd á mynd 18.

Eyjabakkaskurður, útheiði og Fljótsdalur

Línur JS, LS, FS, LJ, JJ, KJ, SG, EJ, TJ, HJ, NJ, AS og DS sýna víðast tvö lög.

1. Frekar þunnt yfirborðslag með hljóðhraða um 0,4-0,8 km/s.
2. Grunnberg með hljóðhraða 3-4,8 km/s.

Oft er erfitt að ákvarða nákvæmlega hljóðhraða í efsta lagi en hann skiftir miklu máli við útreikninga á þykkt efra lags í tveggja hljóðhraða líkani. Með hljóðhraðalínuritum eru gefin snið af hljóðhraðalögum. Þar sem hljóðhraði er ónákvæmur er hann í sviga og "T" merki í töflunni. Þar sem um tvö lög er að ræða geta lagamótin hliðrast upp eða niður í réttu hlutfalli við hljóðhraða efra lags. Cobrahólur eru teiknaðar á snið þar sem við á.

6 STUTT LÝSING Á NOKKRUM SVÆÐUM

ES: Vesturendi stíflustæðis.

Eyjabakkasvæði hefur verið þétt mælt með hljóðhraðamælingum frá 1977-81 og merkt ES1-75 frá 1977 (Ág.G. og BA OS-ROD-7830, okt '78) ES1-55 frá 1980 (HB-81/01 og BA-81/01) ES101-125 frá 1981 og niðurstöður er að finna í þessari skýrslu.

Mynd 2 er staðsetningarkort bæði fyrir nýjar mælingar og eldri. Línurit einstakra prófíla við Eyjabakka eru sýnd á myndum 19-22 og nokkur þversnið (A-A' til F-F') á myndum 16-17.

Niðurstöður eru í töflu 1, og mynd 18 sýnir hæð berggrunns skv. mælingum '80 og '81.

Yfirleitt mælast þrjú hljóðhraðalög hér:

Hljóðhraði	Túlkun
1. 0,4-0,9 km/s	Yfirborðslag
2. 1-2 km/s	Aurkeila, möl og sandur blandað fínefnum
3. 3,2-4,8 km/s	Grunnberg (basalt)

1. Í yfirborðslagi er hljóðhraði mjög breytilegur (0,3-1 km/s) og lagið misþykkt (0-10m). Cobrahödur á svæðinu sýna yfirleitt enga breytingu í borhraða milli hljóðhraðalaga 1 og 2.

Á prófílum sem liggja austan og vestan megin á svæðinu sést yfirleitt ekkert yfirborðslag en í miðju rannsóknarsvæði kemur þetta lag fram (mynd 2, 16).

2. Hljóðhraði lags 2 skiftist í þrennt (A, B, C).

A með lágum hljóðhraða (um 1 km/s) liggur norðanmegin á svæðinu (snið A-A' á mynd 7). Þykkt lagsins er um 10 m.

B með hljóðhraða 1,4-1,6 km/s er á flestum prófílum og liggur í miðjunni á rannsóknarsvæðinu með breytilegri þykkt 10-30 m. Þetta lag er skv. loftborsholulýsingu (LK1-4) aurkeila (möl og sandur).

C með mestan hljóðhraða í lagi 2 (1,8-2 km/s). Liggur vestast á rannsóknarsvæðinu. Kjarnahola EB1 sýnir 12 m þykkann sand og 8 m af völuþergi (OS-ROD-7830). Það gæti vel verið að völuþergið hækki hljóðhraða lags 2. Eldri prófíll ES4A (HB-81/01) sem liggur rétt hjá EB1 sýnir hljóðhraðaskil 1,2/2,8 km/s á 12 m dýpi sem gæti verið skil milli sands og völuþergs. Ekki sjást svipuð hljóðhraðaskil á öðrum prófílum í kringum EB1 og gæti skýringin verið að völuþergið sé þynnra en sandlagið sem liggur ofan á því.

3. Hljóðhraði bergsins skiftist í tvennt.

A 3,2-3,5 km/s liggur norðanmegin á rannsóknasvæðinu (A-A')

B 3,6-4,8 km/s annarsstaðar.

Engin kjarnahola hefur verið boruð á svæði þar sem lægri hljóðhraðinn er.

Samantekt:

1. Tilgangur rannsóknarinnar sumarið 1981 var m.a. að finna hvort lögðin sem fram kom í berggrunni í fyrri mælingum væri opin til norðurs. Í ljós kom að þar er þröskuldur (sjá mynd (8)) í allt að 652 m y.s.
2. Hljóðhraði lags 2 minnkar frá suðri til norðurs. Það gæti verið vegna þess að lag 2 þynnist í þá stefnu (mynd 7). Hugsanleg skýring er einnig að annað millilag sé á norðanverðu svæðinu en annarsstaðar.
3. Hljóðhraði í lagi 3 er miklu minni norðarlega (á A-A') en á öðrum stöðum. Sennilega er þar yngra hraun undir en annarsstaðar og þá væntanlega tengt Snæfellseldstöðinni.

JS: Hafursá - Hafursárkvísl, skurður.

Í prófílum JS104-108 var hljóðhraði á efra lagi settur 0,5 km/s. Línur JS101-103 sýna meiri hljóðhraða í efra lagi eða nálægt 1 km/s. Gott samræmi er milli cobraborunar og hljóðhraðamælinga nema í JS101 sem sýnir 20 m á fast undir A enda en ekkert fast undir B. Ekki er fundin skýring á þessu misræmi en taka verður hljóðhraðamælingum með fyrirvara hér, þar sem klapparbrúnin við Hafursárfoss er á yfirborði neðan skurðstæðis nokkur hundruð m frá og aðeins um 5 m lægra í landinu.

LS: Laugarfell, skurðleið (myndir 5 og 24, tafla 3).

10 prófílar voru mældir hér, 107 m langir (nema LS103, LS104 sem eru 65 m langir). Línurit þeirra (sjá myndir 14,25) eru mjög óregluleg, hljóðhraði efsta lags óviss. Tveggja laga líkan var valið til túlkunar á þeim.

1. Lag 1 með hljóðhraða um 0,4-0,5 km/s, misþykkt eða frá 1-6 m (yfirborðslag).
2. Lag 2 með hljóðhraða annaðhvort
 - A. $V_2 = 2,2-2,8$ km/s (LS101, 103, 104, 105, 106, 107, 108) líklega móberg.
 - B. $V_2 \geq 4$ km/s (LS102, 109, 110), líklega grunnberg.

Cobraholur LF (sjá mynd 24, 25) eru grynri en hljóðhraðamæling á sömu stöðum gefur til kynna.

DS: Fljótsdalur, frárennslisskurður (myndir 15 og 34, tafla 14).

Fjórir prófílar (DS20-23) voru mældir sumarið '81. Línurit þeirra (sjá mynd 34) eru mjög óregluleg, hljóðhraði óviss og breytilegt dýpi á grunnberg.

Með nýju og gömlu mælingunum kom í ljós að svæðinu má skipta í þrennt:

- I. Prófílar mældir á áreyrunum. Yfirleitt góðir prófílar, sýna þrenns konar hljóðhraða:

$$V_1 = 0,5 \text{ km/s ca } 2 \text{ m þykkt}$$

$$V_2 = 1,5 \text{ km/s } 5 - 15 \text{ m þykkt}$$

$$V_3 > 4 \text{ km/s}$$

Hér eru eldri prófílar DS7, 8, 9, 12, 13, 14, 15, 17 (HB-81/01) og yngri DS23.

- II. Prófílar mældir á malarhjalla. Prófílar mjög óreglulegir, sýna þykkt (ca. 10 m), þurrt yfirborðslag

með hljóðhraða $V_1 = 0,3-0,4$ km/s og grunnberg

með " $V_2 = 3-4$ km/s.

Þetta þykka og þurra yfirborðslag deyfir P-bylgju svo mikið að stundum er fyrsti komutími hennar ólesandi og þess vegna er hljóðhraði V_1 ekki nákvæmlega þekktur.

Það gæti verið að þunnt (ca 5 m) millilag með hljóðhraða um 1,5 km/s (hljóðhraða í jarðvatni) væri undir yfirborðslagi en "sétt" ekki vegna þess að það er þynnra en yfirborðslagið. Ef svo er hliðrast lagamótin við grunnbergið niður um a.m.k. 5 m.

Í þessum flokki eru eldri prófílar (DS4, 5, 11)
(HB-81/01) og yngri (DS20, 21, 22).

III. Prófílar mældir í skriðuhlíðinni sýna tvenns konar hljóðhraðalög:

$$V_1 = 0,6-0,8 \text{ km/s}$$

$$V_2 = 4,0-4,6 \text{ km/s}$$

Yfirborð grunnbergs er mjög óreglulegt og þykkt efsta lags mjög breytileg eða frá 1-8 m.

Hér eru prófílar frá 1980 DS1, 2, 3, 6, 10 (HB-81/01)

Þessi þriggja flokka skipting (I, II og III) endurspeglast í jarðfræði svæðisins sem sjá má í skilagrein SZ (OS82016/VOD12B) um frárennslis-skurð.

HEIMILDASKRÁ

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TAFLA 1

ORKUSTOFNUN
VATNSORKUÐEITI D

HLJÓÐHRADAMÆLINGAR
EYJABAKKASTÍFLA

1982-02-12
Blad 1 af 1 HB

Hall nr.	Hnit	Hæð		Hljóðhraði, km/s					Pakkörn				
		X-vestur	Y-norður	m s.s.	V1	VuVd	Vt	VuVd	V2	Vt	1.los h1	2.los h2	3.los h2
ES101	A	380784.44	481495.79	685.88		1.70		4.10			13.0		
	B	380694.76	481416.27	683.71		2.40	2.0	4.50	4.3		13.0		Q
ES102	A	380789.02	481504.19	685.79		2.00		3.60			12.6		
	B	380801.83	481622.94	683.75		1.70	1.8	4.40	4.0		18.9		
ES103	A	380694.11	481557.55	681.39	0.4	1.60		3.30		2.0	9.0	11	F
	B	380590.74	481498.04	678.20	0.7			4.30	3.7		12.5		TQ
ES104	A	380901.83	481622.94	683.75		1.90		3.40			17.0		FX
	B	380703.23	481561.59	681.90	0.4	1.80	1.8	4.20	3.8	2.3	8.0	10	TQ
ES105	A	380927.40	481814.87	684.19	0.4	2.00		3.80		1.2	14.0	15	T
	B	380809.42	481798.93	680.81	0.4	1.60	1.8	3.80	3.8	0.5	15.5	16	T
ES106	A	380798.87	481797.17	680.58	0.5	1.80		4.70		1.4	16.6	18	T
	B	380680.02	481780.07	677.28		1.40	1.6	3.10	3.7		13.5		X
ES107	A	380561.80	481728.79	675.40	0.4	1.70		3.00		1.4	18.0	19	TF
	B	380448.98	481688.27	672.52		0.70	1.0	4.90	3.7		28.5		X
ES108	A	380795.38	481925.96	677.34	0.3	2.00		3.00		2.6	6.7	9	
	B	380677.31	481911.37	674.55	0.3	1.80	1.9	4.20	3.5	2.7	15.9	19	
ES109	A	380659.53	481909.90	673.71	0.9	1.50		3.30		11.0	10.0	21	OX
	B	380540.39	481895.58	671.91	0.8	1.70	1.6	3.80	3.5	11.0	20.0	31	
ES110	A	380529.38	481893.37	671.82	0.6	1.80		5.60		8.7	22.6	31	
	B	380411.86	481868.43	668.94	0.5	1.60	1.7	3.60	4.4	7.3	18.2	26	
ES111	A	380383.19	481798.00	670.07	0.4	1.60		5.00		5.4	23.2	29	
	B	380423.48	481910.02	668.93	0.4	1.50	1.5	4.20	4.6	5.2	19.8	25	
ES112	A	380290.89	481862.15	666.17		1.60		3.50			15.0		
	B	380288.81	481979.04	665.12		1.60	1.6	4.20	3.8		20.3		T
ES113	A	380110.44	481867.44	663.13		2.00		3.70			7.0		XS
	B	380126.84	481985.63	662.70		1.40	1.6	3.70	3.7				SE
ES114	A	380493.91	481961.09	669.78	0.4	1.70		3.90		5.0	17.0	22	T
	B	380384.40	482010.61	666.74	0.4	1.40	1.5	4.00	3.9	2.3	23.2	26	T
ES115	A	380369.51	482017.11	666.35		1.40		5.30			21.6		S
	B	380259.14	482064.85	663.55		1.20	1.3	2.90	3.7		11.2		
ES116	A	380250.39	482069.21	663.23		0.90		4.50			12.3		S
	B	380142.62	482117.77	660.37		0.70	0.8	3.10	3.7		7.8		T
ES117	A	380790.25	482061.52	674.59		1.30		2.70			7.2		
	B	380676.23	482098.39	670.91		0.70	0.9	4.00	3.2		10.0		T
ES118	A	380647.11	482108.41	669.74	0.4	0.80		3.60		1.0	14.0	15	TR
	B	380552.88	482140.26	667.59	0.4	0.90	0.8	3.20	3.4	1.0	10.0	11	TF
ES119	A	380541.18	482143.47	667.19		1.20		3.30			9.1		T
	B	380426.92	482178.12	664.12		1.10	1.1	2.90	3.1		9.5		
ES120	A	380416.10	482180.56	664.01		1.10		2.80			10.8		
	B	380325.25	482207.60	662.29		1.00	1.0	2.70	2.7		9.7		
ES121	A	380314.93	482210.21	662.06		0.90		4.00			10.0		TQ
	B	380221.31	482238.32	659.67		0.90	0.9	4.00	4.0		5.0		SX
ES122	A	380651.65	481980.56	672.51		0.70		3.40			14.0		TQ
	B	380676.23	482098.39	670.91		0.70	0.7	3.10	3.2		12.5		TQ
ES123	A	380493.91	481961.09	669.78	0.4	1.00		2.70		5.0	21.3	26	ST
	B	380480.30	482080.92	667.19	0.4	1.10	1.0	4.20	3.3	3.0	19.2	22	ST
ES124	A	380350.39	482069.21	663.23		1.10		3.70			14.4		S
	B	380294.50	482181.17	662.11		1.10	1.1	3.60	3.6		13.3		
ES125	A	380103.31	482081.00	660.67		1.00		4.70			13.0		
	B	380107.91	482200.34	658.20		1.00	1.0	3.70	4.1		7.6		

T HLJÓÐHRADI V1 ÖVISS
 D HLJÓÐHRADI V2 ÖVISS
 F PROFILL FRAHLENGDUR
 S LINURIT MJÖG ÖGREINILEGUR
 X TULKUN ÖVISS

V = velocity / hljóðhraði
 u = up-dir / hallar upp
 d = down-dir / hallar niður
 t = true / rettur

TAFLA 2

**ORKUSTOFNUN
VATNSORKUDEILD**

**HLJÓÐHRADAMÆLINGAR
EYJARSK. S LAUGARFELLS**

1982-02-16
Blad 1 af 1 HB

Hall nr.	Hnit	Hæð	Hljóðhraði, km/s						Þykktum				
			X-vestur	Y-norður	m yis.	V1	Vu,Vd	Vt	Vu,Vd	Vt	1.las h1	2.las h2	3.las h2
JS101	A	4. fónn við SN 832				1.0	3.00				19.5		T
	B					1.1					23.0		R
JS102	A	5. fónn við SN 834				1.0	4.20				1.0		T
	B					1.0	4.70	4.4			2.1		T
JS103	A	1. fónn við SN 840				0.8	3.50				5.5		S
	B					1.3	4.00	3.7			6.6		S
JS104	A	1. fónn við SN 851				0.5	5.20				2.8		T
	B					0.5	4.60	4.9			2.3		T
JS105	A	1. fónn við SN 801				0.5	4.40				4.2		
	B					0.5	4.20	4.3			3.8		
JS106	A	6. fónn við SN 804				0.5	5.50				2.1		
	B					0.5	4.20	4.8			1.8		T
JS107	A	1. fónn við SN 807				0.5	2.90				2.2		T
	B					0.5	4.60	3.6			4.0		T
JS108	A	12. fónn við SN 810				0.5	3.60				1.2		T
	B					0.5	4.30	3.9			1.8		T

T HLJÓÐHRADI V1 ÓVISS
R ÚTREIKNAD MINNSTA DÝPI EF V2>>V1
S LINURIT KJÖG ÓGEINILEGT

U = velocity / hljóðhraði
u = up-dip / hallar upp
d = down-dip / hallar niður
t = true / rettur

TAFLA 3

ORKUSTOFNUN
VATNSORKUDEILD

HLJÓÐHRADAMÆLINGAR
EYJABSK. V/LAUGARFELL

1982-02-16
Blad 1 af 1 HB

Hall nr.		Hnit		Hæð		Hljóðhradi, km/s				Pökkur		Deðir
		X-vestur	Y-nördur	m s.s.	V1	Vu,Vd	Vl	Vu,Vd	Vl	1.las h1	2.las h2	3.las h2
LS101	A	376072.97	489032.03	663.70	0.4	2.50					2.0	S
	B	376046.41	489124.58	663.94	0.3	3.40	2.9			4.6		T
LS102	A	376029.23	489021.18	651.87	0.4	4.00					2.8	S
	B	375992.71	489110.30	651.61	0.4	3.90	3.9			2.6		T
LS103	A	376013.13	489303.32	669.51	0.4	2.70					4.0	
	B	375994.68	489355.22	668.59	0.7	2.10	2.4			2.0		
LS104	A	375983.13	489286.43	661.24	0.4	2.70					4.0	S
	B				0.4	1.80	2.2			1.6		T
LS105	A	3. fónn við LF 327			0.5	2.60					2.3	S
	B				0.5	2.70	2.6			3.5		T
LS106	A	2. fónn við LF 329			0.5	2.50					4.4	S
	B				0.5	2.00	2.2			1.2		T
LS107	A	3. fónn við LF 629			0.5	2.20					1.8	S
	B	375897.47	489706.68	660.57	0.5	3.40	2.7			5.0		T
LS108	A	ca SF 352			0.5	3.00					4.2	S
	B				0.4	2.40	2.7			1.8		T
LS109	A	ca 15 m frá LF 533			0.4	4.70					1.6	S
	B	10. fónn við LF 534			0.4	4.90	4.8			1.6		T
LS110	A	ca LF 535			0.4	4.70					1.4	S
	B				0.4	4.50	4.6			1.0		T

S LINURIT ÓGEIÑILEGT
T HLJÓÐHRADI V1 ÓVISS

V = velocity / hljóðhradi
u = up-die / hallar upp
d = down-die / hallar niður
t = true / rettur

TAFLA 4

ORKUSTOFNUN
VATNSORKUDEILD

HLJÓÐHRADAMÆLINGAR
EYJABSK. N LAUGARFELLS

1982-02-16
Blad 1 af 2 HB

Hall nr.	Hnit	Hæð	Hljóðhraði, km/s						Þakktími				
			X-vestur	Y-norður	m s.s.	V1	Vu,Vd	Vt	Vu,Vd	Vt	1. las h1	2. las h2	3. las h2
FS101	A	1. fórn við PC 503				0.7	5.00				4.3		
	B					0.9	3.70	4.3			2.8		
FS102	A	1. " " RC 423				0.5	3.90				3.8		T
	B					0.5	4.90	4.3			4.8		S
FS103	A	7. " " RC 416				0.7	5.70				4.4		
	B					0.8	4.00	4.7			2.8		
FS104	A	1. " " RC 413				0.7	4.80				2.8		S
	B					0.6	4.60	4.7			2.5		T
FS105	A	1. " " RC 409				0.8	4.70				2.8		
	B					0.8	4.50	4.6			2.4		T
FS106	A	1. " " RC 404				0.9	4.10				6.2		TS
	B					0.9	3.80	3.9			4.7		TS
FS107	A	1. " " QC 232 → PC 231				0.9	4.00				2.3		T
	B					0.9	4.50	4.2			3.2		T
FS108	A	1. " " NC 225 → NC 224				1.0	1.80				2.0		T
	B					1.0	4.60	4.7			2.6		T
FS109	A	1. " " NC 223 → NC 222				0.9	3.60				1.2		T
	B					0.9	4.30	3.9			3.4		T
FS110	A	1. " " RC 391 → RC 390				1.0	4.00				2.0		T
	B					1.0	4.00	4.0			4.4		T
FS111	A	1. " " RC 387 → 386				0.6	5.00				3.3		T
	B					1.0	3.70	4.3			1.8		T
FS112	A	1. " " RC 383				0.6	4.10				2.2		T
	B					0.8	4.40	4.2			2.5		T
FS113	A	1. " " OC 242 → RC 242				0.8	4.20				5.7		TS
	B					0.8	3.20	3.6			5.1		TS
FS114	A	5. " " OC 241				1.0	4.50				4.0		
	B					1.2	4.10	4.3			3.0		
FS115	A	1. " " RC 370				0.6	5.00				2.4		T
	B					0.6	4.50	4.7			2.2		T
FS116	A	1. " " RC 365				0.5	4.30				2.5		T
	B					0.6	4.70	4.5			2.8		
FS117	A	1. " " RC 362				0.7	3.80				4.0		
	B					0.7	3.70	3.7			3.8		

T HLJÓÐHRADI V1 ÖVISS
S LINURIT MJÖG ÖGEINILEGT

V = velocity / hljóðhradi
u = up-dip / hallar upp
d = down-dip / hallar niður
t = true / rettur

ORKUSTOFNUN
VATNSORKUDEILD

HLJÓÐHRADAMÆLINGAR
EYJABSK. N LAUGARFELLS

1982-02-16
Blad 2 af 2 HB

Hæll nr.	Hnit		Hæð m s.s.	Hljóðhradi, km/s					Þykkt, m		Dæfir, m
	X-vestur	Y-nordur		V1	V _u ,V _d	V _t	V _u ,V _d	V _t	1.les h1	2.les h2		3.les H2
FS118	A	1. fónn við RC 358		0.5	3.50					2.0	T
	B			0.5	3.50	3.5				2.0	T
FS119	A	1. "	" RC 353	0.7	3.70					2.0	T
	B			0.6	5.20	4.3				3.3	
FS120	A	1. "	" RC 339	0.7	4.40					2.8	S
	B			0.7	3.20	3.7				1.4	TS
FS121	A	1. "	" RC 336	0.7	3.20					2.6	S
	B			0.7	2.90	3.0				1.4	TS
FS122	A	12."	" OC 339	0.6	4.20					1.6	T
	B			0.6	4.60	4.4				1.4	TS
FS123	A	1. "	" OC 336	1.0	4.20					2.3	T
	B			1.0	4.50	4.3				2.6	T

T HLJÓÐHRADI V1 ÓVISS
S LINURIT MJÖG ÓGREINILEGT

V = velocity / hljóðhradi
u = up-dip / hallar upp
d = down-dip / hallar niður
t = true / rettur

* RC, OC COBRAHÖLUR STAÐSETNING: SJA GUNNAR ÞORBERGSSON (1982)

TAFLA 5

ORKUSTOFNUN
VATNSORKUDEILD

HLJÓÐHRADAMÆLINGAR
GILSÁRLÓNSSTIFLA

1982-02-08
Blad 1 af 1 HB

Hall nr.	Hnit		Hæð m y.s.	Hljóðhraði, km/s					Pökkun			Dæm a 3.las H2
	X-vestur	Y-nordur		V1	Vu,Vd	Vt	Vu,Vd	Vt	1.las h1	2.las h2	3.las H2	
LJ11	A	9. fónn við LL 215		0.5	3.50					2.5		T
	B			0.4	3.50	3.5				2.7		
LJ12	A	2.	" "	LL 217	0.3	2.70				2.1		T
	B				0.3	2.90	2.8			2.1		S
LJ13	A	6.	" "	LL 220	0.4	3.50				2.0		T
	B				0.4	3.70	3.6			2.2		T
LJ14	A	5.	" "	LL 224	0.3	3.50				2.3		T
	B				0.3	3.60	3.5			2.4		T
LJ15	A	1.	" "	LL 226	0.3	4.80				3.2		T
	B				0.4	2.70	3.5			1.8		T
LJ16	A	1.	" "	LL 230	0.5	2.70				2.0		T
	B				0.5	2.80	2.7			2.3		T

T HLJÓÐHRADIN V1 ÓVISS
S LINURIT KJÖG ÓGREINILEGUR

V = velocity / hljóðhraði
u = up-dip / hallar upp
d = down-dip / hallar niður
t = true / rettur

*LLJÓÐHRADUR STAÐSETNING-SJA GUNNAR ÞORBERGSSON(1982)

TAFLA 6

ORKUSTOFNUN
VATNSORKUDEILD

HLJÓÐHRADAMÆLINGAR
GILSÁRLÓNSSTIFLA

1982-02-12
Blad 1 af 1 HB

Hall nr.	Hnit		Hæð m y.s.	Hljóðhraði, km/s					Pökkun			Dæm a 3.las H2
	X-vestur	Y-nordur		V1	Vu,Vd	Vt	Vu,Vd	Vt	1.las h1	2.las h2	3.las H2	
KJ7	A	367243.77	503075.50	631.68	0.6	3.70				3.2		S
	B	367272.20	503123.41	632.42	0.5	2.70	3.1			1.5		
KJ8	A	1. fónn við KK 218		0.5	2.70					2.2		S
	B				0.7	2.70	2.7			1.9		

S LINURIT KJÖG ÓGREINILEGT

V = velocity / hljóðhraði
u = up-dip / hallar upp
d = down-dip / hallar niður
t = true / rettur

*KKJÓÐHRADUR STAÐSETNING-SJA GUNNAR ÞORBERGSSON(1982)

TAFLA 7

**ORKUSTOFNUN
VATNSORKUDEILD**

**HLJÓÐHRADAMÆLINGAR
GILSÁRLÓNSTIFLA**

1982-02-08
Blad 1 af 1 HB

Hæll nr.	Hnit		Hæð m s.s.	Hljóðhraði, km/s					Þykkt, m			Dæpi, m
	X-vestur	Y-nordur		V1	Vu,Vd	Vt	Vu,Vd	Vt	1.las h1	2.las h2	3.las H2	
JJ5	A	5. fónn við JJ 212		0.5	3.60						2.4	T
	B			0.5	3.60	3.6					2.4	T
JJ6	A	4. " " JJ 218		0.5	3.20						2.4	S
	B			0.4	3.50	3.3					3.0	
JJ7	A	1. " " JJ 203		0.6	3.40						3.8	
	B			0.4	3.70	3.5					4.3	
JJ8	A	1. " " JJ 205		0.6	3.10						1.8	TS
	B			0.5	3.70	3.4					2.2	T

T HLJÓÐHRADI V1 ÓVISS
S LINURIT MJÖG ÓGREINILEGT

V = velocity / hljóðhraði
u = up-dip / hallar upp
d = down-dip / hallar niður
t = true / rettur

TAFLA 8

**ORKUSTOFNUN
VATNSORKUDEILD**

**HLJÓÐHRADAMÆLINGAR
GRJÓTHÁLSVATN, SKURÐUR**

1982-02-08
Blad 1 af 1 HB

Hæll nr.	Hnit		Hæð m s.s.	Hljóðhraði, km/s					Þykkt, m			Dæpi, m
	X-vestur	Y-nordur		V1	Vu,Vd	Vt	Vu,Vd	Vt	1.las h1	2.las h2	3.las H2	
SG1	A	1. fónn við GC 511		0.7	4.30						3.3	
	B			0.7	3.30	3.7					1.5	T
SG2	A	1. " " GC 513		0.5	4.00						2.3	T
	B			0.5	4.50	4.2					2.6	T
SG3	A	10. " " GC 516		0.5	4.40						1.8	TS
	B			1.1	4.20	4.3					1.8	

T HLJÓÐHRADI V1 ÓVISS
S LINURIT MJÖG ÓGREINILEGT

V = velocity / hljóðhraði
u = up-dip / hallar upp
d = down-dip / hallar niður
t = true / rettur

TAFLA 9

**ORKUSTOFNUN
VATNSORKUDEILD**

**HLJÓÐHRADAMÆLINGAR
GILSÁRLÓN, STIFLA**

1982-02-08
Blad 1 af 1 HB

Hæll nr.	Hnit		Hæð m s.s.	Hljóðhraði, km/s					Þykkt, m			Dæpi, m
	X-vestur	Y-nordur		V1	Vu,Vd	Vt	Vu,Vd	Vt	1.las h1	2.las h2	3.las H2	
EJ27	A	1. fónn við EE 215		0.7	4.70						2.8	
	B			0.7	4.60	4.6					2.8	
EJ28	A	3. " " EE 219		0.8	5.20						5.6	
	B			0.8	4.40	4.8					4.8	
EJ29	A	1. " " EE 222		0.7	4.00						3.5	
	B			0.7	4.20	4.1					3.2	
EJ30	A	1. " " EE 233		0.8	5.10						3.5	
	B			0.6	4.10	4.5					3.4	

V = velocity / hljóðhraði
u = up-dip / hallar upp
d = down-dip / hallar niður
t = true / rettur

TAFLA 10

ORKUSTOFNUN
VATNSORKUDEILD

HLJÓÐHRADAMÆLINGAR
GILSÁRLONSTIFLA

1982-02-12
Blad 1 af 1 HB

Hyll nr.	Hnit	Hæð	Hljóðhradi, km/s						Þekktum			Dæðism	
			X-vestur		Y-nordur		m g.s.		V2		V3		1. las	2. las	3. las
			V1	Vu,Vd	Vt	Vu,Vd	Vt	h1	h2	H2			
TJ20	A	1. fónn við TT 205	0.7	3.80				2.4			T		
	B		0.5	5.00	4.3			3.6			T		
TJ21	A	1. " " TT 210	0.5	3.60				2.2			T		
	B		0.7	4.60	4.0			3.3			T		
TJ22	A	1. " " TT 214	0.7	4.90				3.8					
	B		0.7	4.30	4.6			3.0					
TJ23	A	5. " " TT 231	0.8	4.90				2.9			T		
	B		0.8	3.70	4.2			2.8			TX		
TJ24	A	7. " " TT 234	0.8	4.60				5.6			TX		
	B		0.8	2.80	3.5			2.2					
TJ25	A	1. " " TT 236	0.8	3.60				2.0					
	B		0.8	4.90	4.2			3.8			T		
TJ26	A	1. " " TT 242	0.5	4.20				2.1					
	B		0.7	4.50	4.3			2.4					
TJ27	A	363898.34 510275.12 634.24	0.6	4.00				4.6					
	B		363942.49 510241.30 634.90	0.6	3.50	3.7		4.6					
TJ28	A	364039.63 510091.34 629.63	0.6	3.00				3.2			T		
	B		0.6	5.90	4.0			6.0			T		
TJ29	A	364130.08 509730.84 626.40	0.7	4.10				2.0			T		
	B		364125.62 509675.03 625.09	0.7	4.50	4.3		2.3			T		
TJ30	A	364117.22 509549.20 625.88	0.7	4.40				3.8					
	B		364113.19 509492.93 626.01	0.7	4.00	4.2		3.8					
TJ31	A	364100.33 509314.02 627.09	0.7	3.50				4.3					
	B		364096.45 509258.42 627.58	0.7	3.50	3.5		4.2					

T HLJÓÐHRADI V1 ÓVISS
X TÚLKUN ÓVISS

V = velocity / hljóðhradi
u = up-dip / hallar upp
d = down-dip / hallar niður
t = true / rettur

*TT = ÖBBRAÐLUF STADSETNING, SJA GUNNAR ÞORBERGSSON (1982)

TAFLA 11

ORKUSTOFNUN
VATNSORKUDEILD

HLJÓÐHRADAMÆLINGAR
HÓLMALÓN, SKURÐUR

1982-02-12
Blad 1 af 1 HB

Hæll nr.		Hnit		Hæd m s.s.	Hljóðhradi, km/s					Þekktími			Dæpim	
		X-vestur	Y-nordur		V1	V _u ,V _d	Vt	V _u ,V _d	Vt	1.les h1	2.les h2	3.les h2		
HJ11	A	362480.26	506434.09	607.45	0.5	3.40						1.8		T
	B	362487.31	506493.36	607.50	0.5	3.60	3.5					2.0		S
HJ12	A	362601.90	506496.30	608.73	0.5	3.40						2.6		T
	B	362628.97	506544.31	608.89	0.5	4.50	3.9					3.6		S
HJ13	A	362703.17	506481.79	608.04	0.5	2.80						2.0		T
	B	362758.72	506484.84	607.82	0.5	2.70	2.7					1.4		S
HJ14	A	362571.77	506409.64	608.17	0.5	4.00						2.0		T
	B	362589.31	506462.94	608.32	0.5	3.50	3.7					1.4		S

T HLJÓÐHRADI V1 ÓVISS
S LINURIT ÓGREINILEGT

V = velocity / hljóðhradi
u = up-dip / hallar upp
d = down-dip / hallar niður
t = true / rettur

TAFLA 12

ORKUSTOFNUN
VATNSORKUDEILD

HLJÓÐHRADAMÆLINGAR
KRISTINARKILL, STIFLA

1982-02-12
Blad 1 af 1 HB

Hæll nr.		Hnit		Hæd m s.s.	Hljóðhradi, km/s					Þekktími			Dæpim	
		X-vestur	Y-nordur		V1	V _u ,V _d	Vt	V _u ,V _d	Vt	1.les h1	2.les h2	3.les h2		
NJ21	A	5. fónn við NN 201			0.5	2.50						3.4		T
	B	5. fónn við NN 201			0.5	4.00	3.1					6.1		T
NJ22	A	1. " " NN 204			0.5	3.60						7.0		TX
	B	1. " " NN 204			0.5	3.20	3.4					5.0		T
NJ23	A	363572.36	506687.94	602.83	0.5	3.40						0.3		T
	B	363598.83	506639.18	602.96	0.5	3.50	3.4					0.5		T
NJ24	A	1. fónn við NN 207			0.9	2.80						2.2		
	B	1. fónn við NN 207			1.0	3.60	3.1					3.2		
NJ25	A	1. " " NN 211			0.5	3.60						2.3		T
	B	1. " " NN 211			0.5	2.70	3.1					2.0		T

T HLJÓÐHRADI V1 ÓVISS
X TULKUN ÓVISS

V = velocity / hljóðhradi
u = up-dip / hallar upp
d = down-dip / hallar niður
t = true / rettur

TAFLA 13

ORKUSTOFNUN
VATNSORKUDEILD

HLJÓÐHRADAMÆLINGAR
AÐRENNSLISSKURÐUR

1982-02-12
Blad 1 af 1 HB

Hall nr.	Hnit		Hæð m s.s.	Hljóðhradi, km/s						Þykkt, m			Dæpi, m
	X-vestur	Y-nordur		V1	V2	V3	Vt	Vu, Vd	Vt	1. las h1	2. las h2	3. las h2	
AS50	A	1. fónn við MC 502		0.5	3.00							2.6	T
	B			0.6	3.40	3.2						3.2	
AS51	A	1. " " MC 705		0.6	5.00							3.2	
	B			0.6	4.00	4.4						2.6	
AS52	A	1. " " MC 908		0.6	3.20							2.7	T
	B			0.6	3.50	3.3						3.0	T
AS53	A	7. " " MC 1010		0.8	3.40							2.4	T
	B			0.6	3.80	3.6						2.8	T
AS54	A	1. " " MC 1111		0.7	3.10							2.4	T
	B	361311.70	505484.40	613.26	0.7	3.60	3.3					3.2	T

T HLJÓÐHRADI V1 ÓVISS

V = velocity / hljóðhradi
u = up-dip / hallar upp
d = down-dip / hallar niður
t = true / rettur

TAFLA 14

ORKUSTOFNUN
VATNSORKUDEILD

HLJÓÐHRADAMÆLINGAR
FLJÓTSDALUR

1982-02-15
Blad 1 af 1 HB

Hall nr.	Hnit		Hæð m s.s.	Hljóðhradi, km/s						Þykkt, m			Dæpi, m
	X-vestur	Y-nordur		V1	V2	V3	Vt	Vu, Vd	Vt	1. las h1	2. las h2	3. las h2	
DS20	A	359580.61	503900.28	62.92		4.10						11.0	TQ
	B	359503.93	503960.32	61.15	0.4	3.30	3.7					10.0	SX
DS21	A	359550.91	503898.21	59.56	0.6	3.10						15.0	QS
	B	359473.37	503956.28	58.03	0.6	3.30	3.2					17.0	QX
DS22	A	359567.16	503862.86	50.15	0.4	3.20						7.3	S
	B	359513.95	503876.96	48.76	0.4	3.60	3.4					7.5	X
DS23	A	359383.91	503887.18	38.40	0.6	4.60						10.0	TQ
	B	359309.74	503956.02	36.14	1.5	4.00	4.3					9.0	TX
eða DS23	A	359383.91	503887.18	38.40	0.6	1.50		4.60				14.0	24 TQ
	B	359309.74	503956.02	36.14	0.6	1.50	1.5	4.00	4.3	1.5	14.5	16 SX	

T HLJÓÐHRADI V1 ÓVISS
Q HLJÓÐHRADI V2 ÓVISS
S LINURIT MJÖG ÓGREINILEGT
X TULKUN ÓVISS

V = velocity / hljóðhradi
u = up-dip / hallar upp
d = down-dip / hallar niður
t = true / rettur



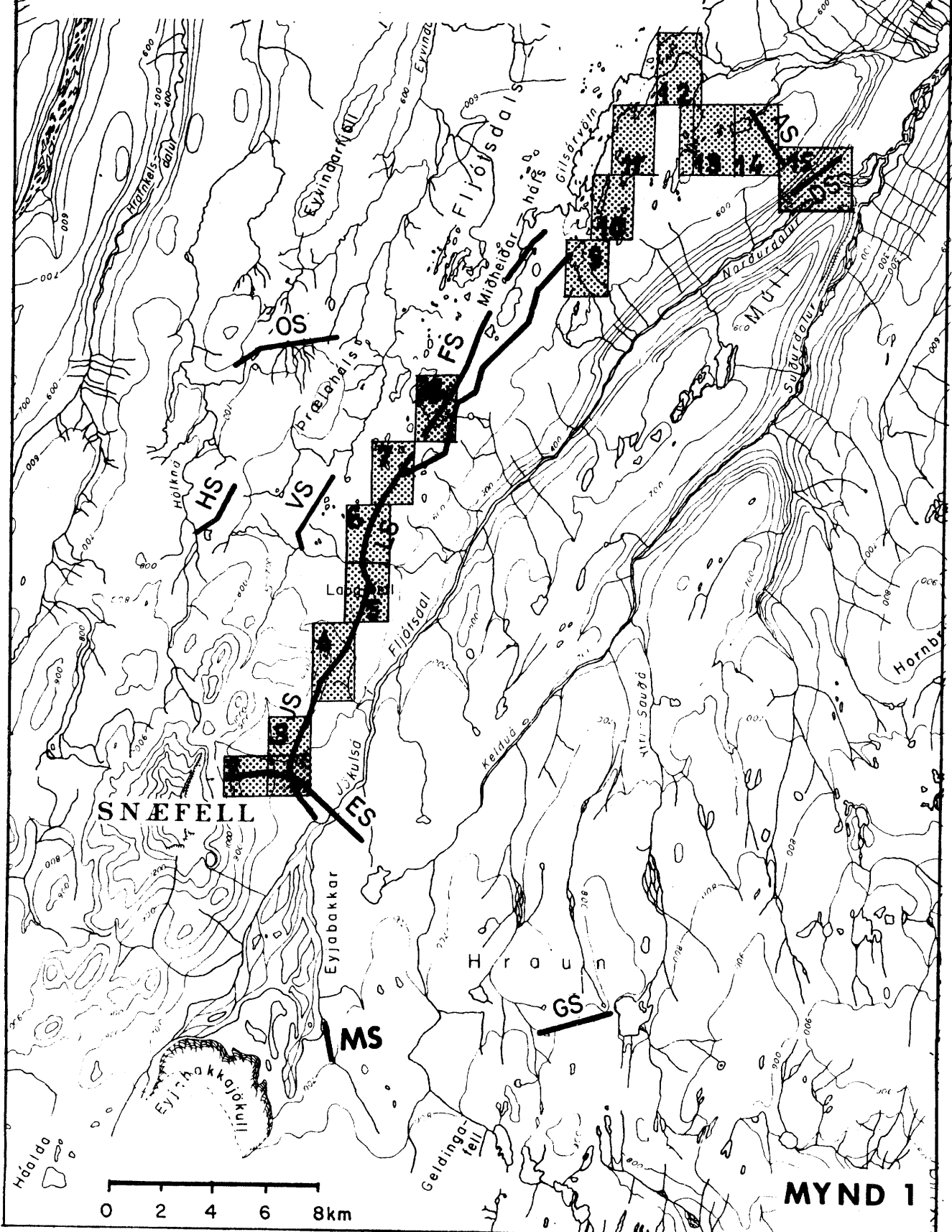
VOD.MJ.760.HB

82.01.

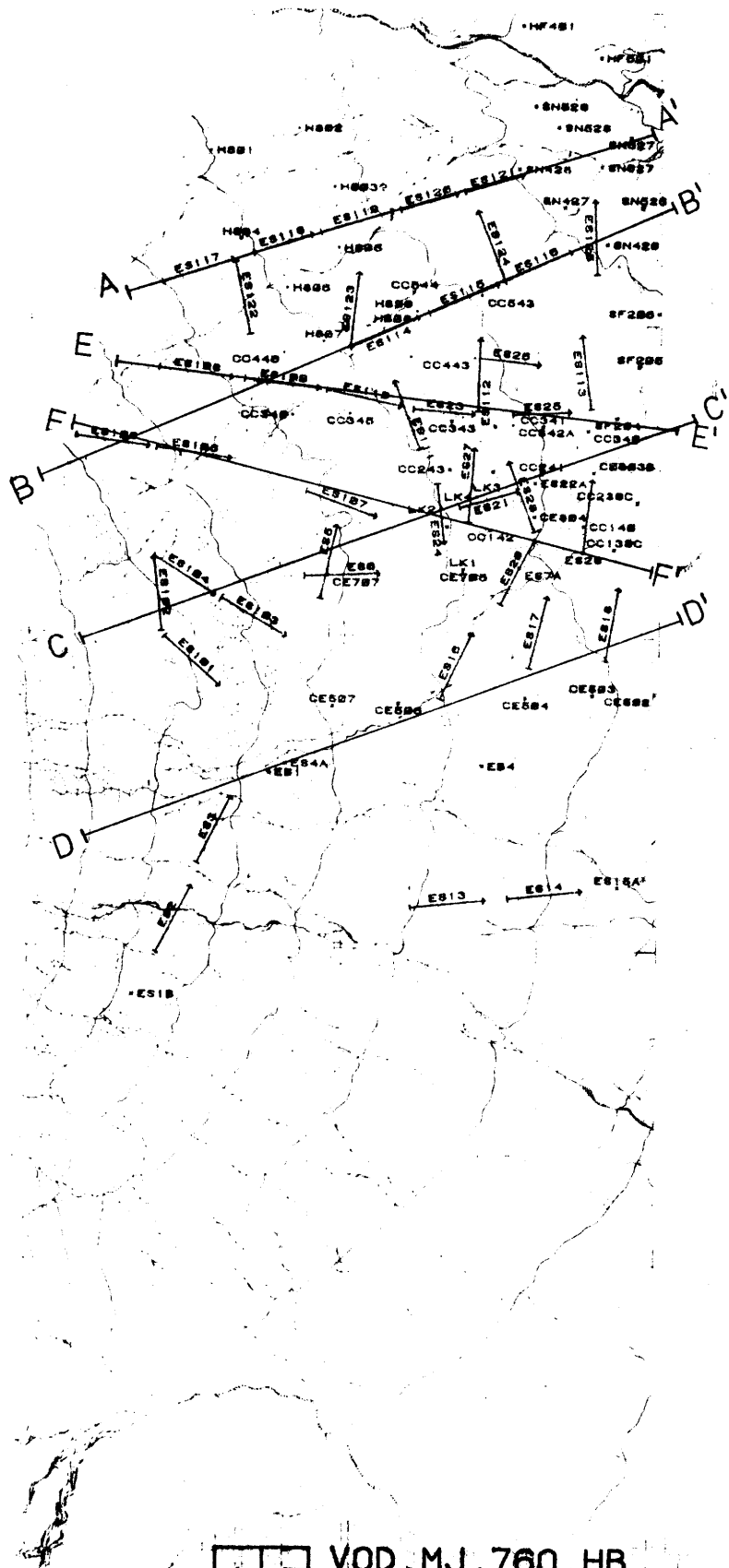
FLJÓTSDALSVIRKJUN
YFIRLITSKORT

HLJÓÐRAÐAM.1980 OG 1981

MYND 1

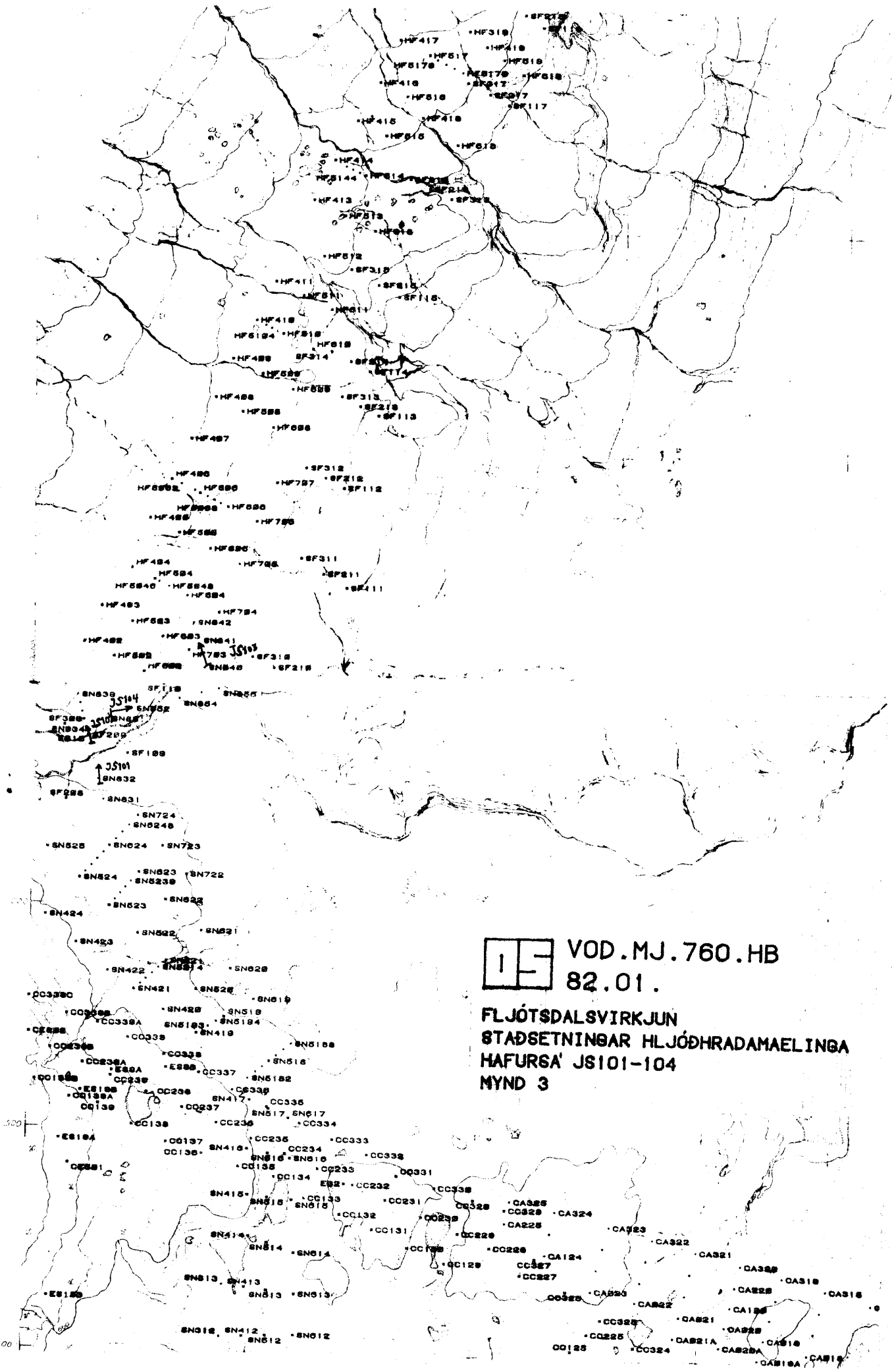


MYND 1



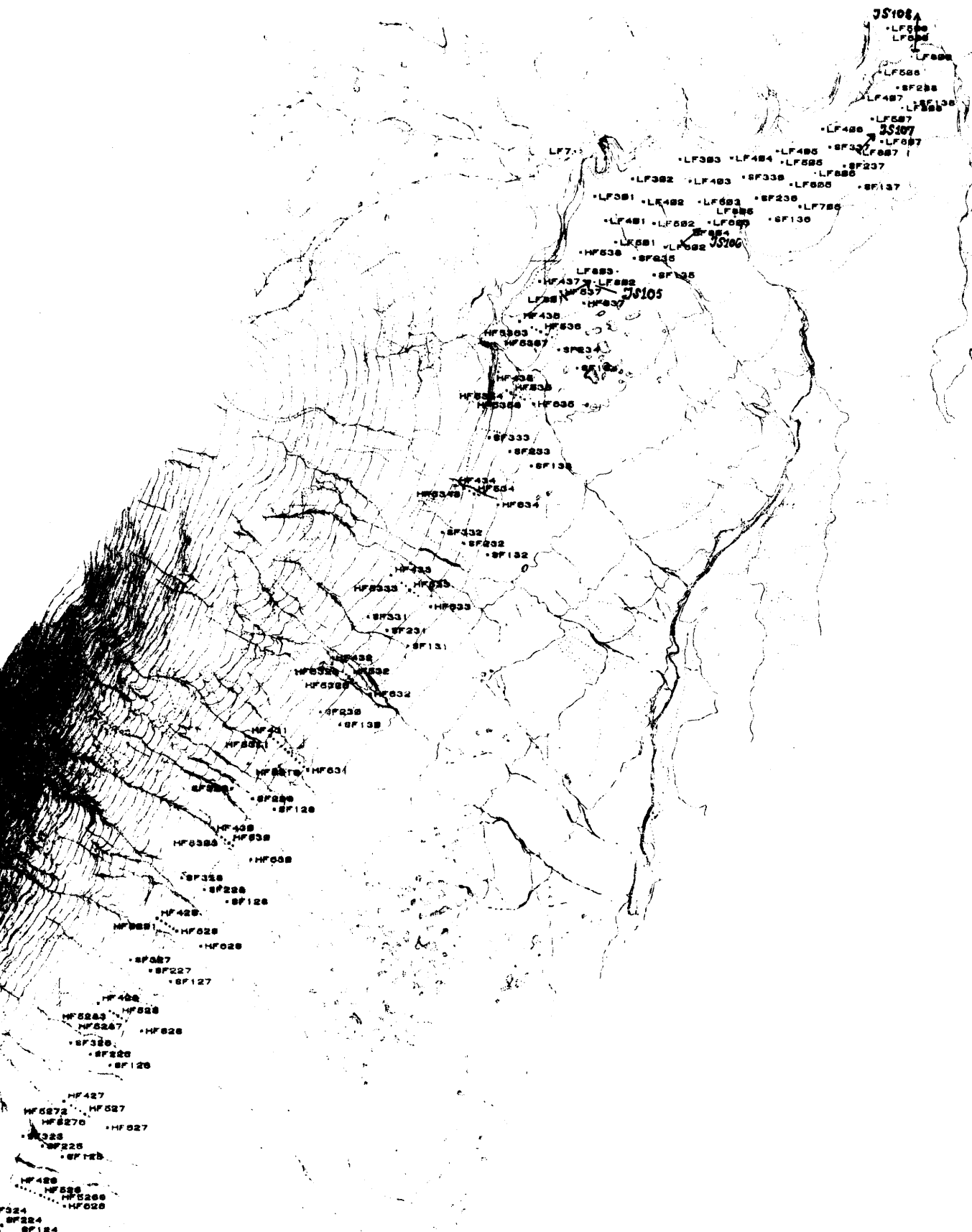
VOD.MJ.760.HB
82.01.

FLJÓTSDALSVIRKJUN
STADSETNINGAR HLJÓÐHRADAMAELINGA
EYJABAKKAR ES101-125
MYND 2




VOD.MJ.760.HB
82.01.

FLJÓTSDALSVIRKJUN
STAÐSETNINGAR HLJÓÐHRADAMAELINGA
HAFURSA' JS101-104
MYND 3



1:5000

 VOD.MJ.760.HB
82.01.

FLJÓTSDALSVIRKJUN
STADSETNINGAR HLJÓÐRADAMAELINGA
HAFURSAKVISL JS105-108
MYND 4

418.
1 M-A7 01
1980.
3.000.
1976.
1972,10



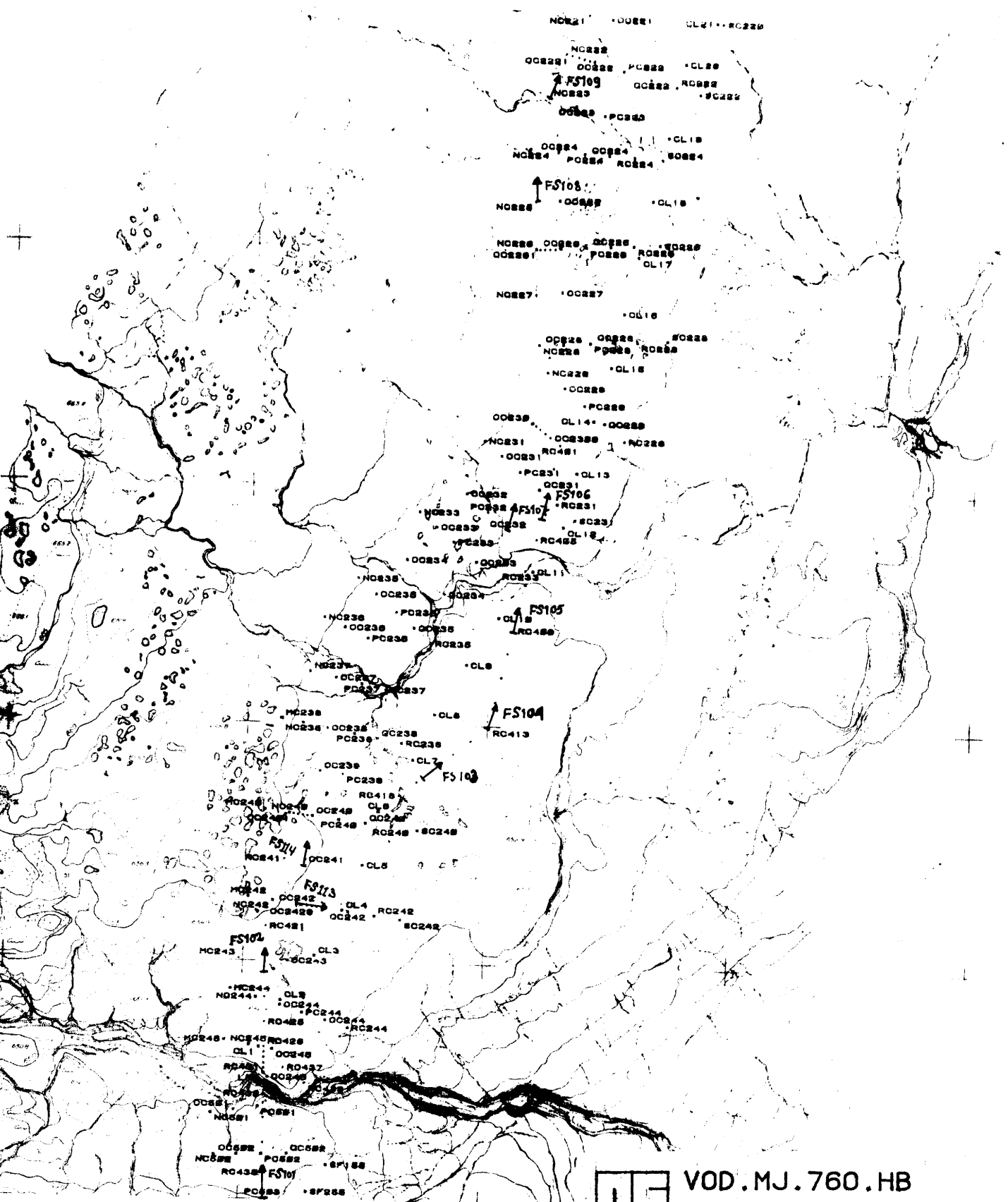
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 Myndir 1:5000
 Myndir 1:5000

1:5000



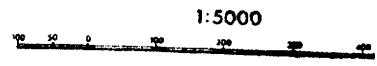
VOD.MJ.760.HB
82.01.

FLJÓTSDALSVIRKJUN
 STAÐSETNINGAR HLJÓÐHRADAMAELINGA
 LAUGARFELL LS101-110
 MYND 5



03
02
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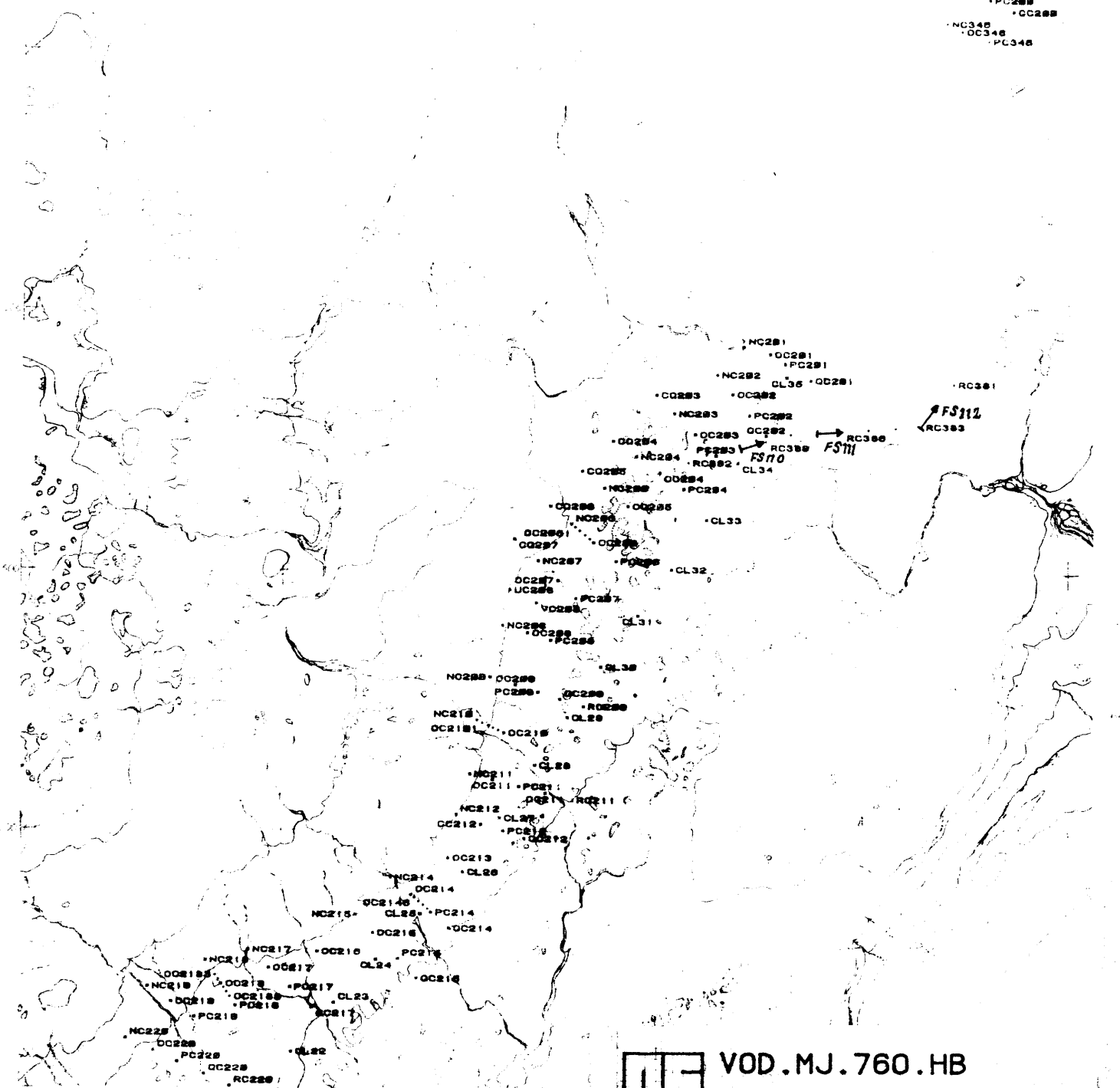
FORVERK H.F.
 Myndmalt kort d.nr.418.
 Myndþrífyrirgámalt í W-A7 09
 Myndmalt í W-B8 1980.
 Myndmálkvarði 1:13.000.
 Myndir teknar á vaxum
 Landmál. Ísl.18.8.1976.
 Mýndav. 10.10.1976



VOD.MJ.760.HB
82.01.

FLJÓTSDALSVIRKJUN
 STAÐSETNINGAR HLJÓÐHRADAMAELINGA
 LAUGARA FS101-109 OG FS113-114
 MYND 6

OC344
 NC188
 CL38
 PC188
 OC188
 OC345
 NC189
 CL48
 PC189
 NC288 OC189
 CL41
 PC288
 OC288
 NC348
 OC348
 PC348

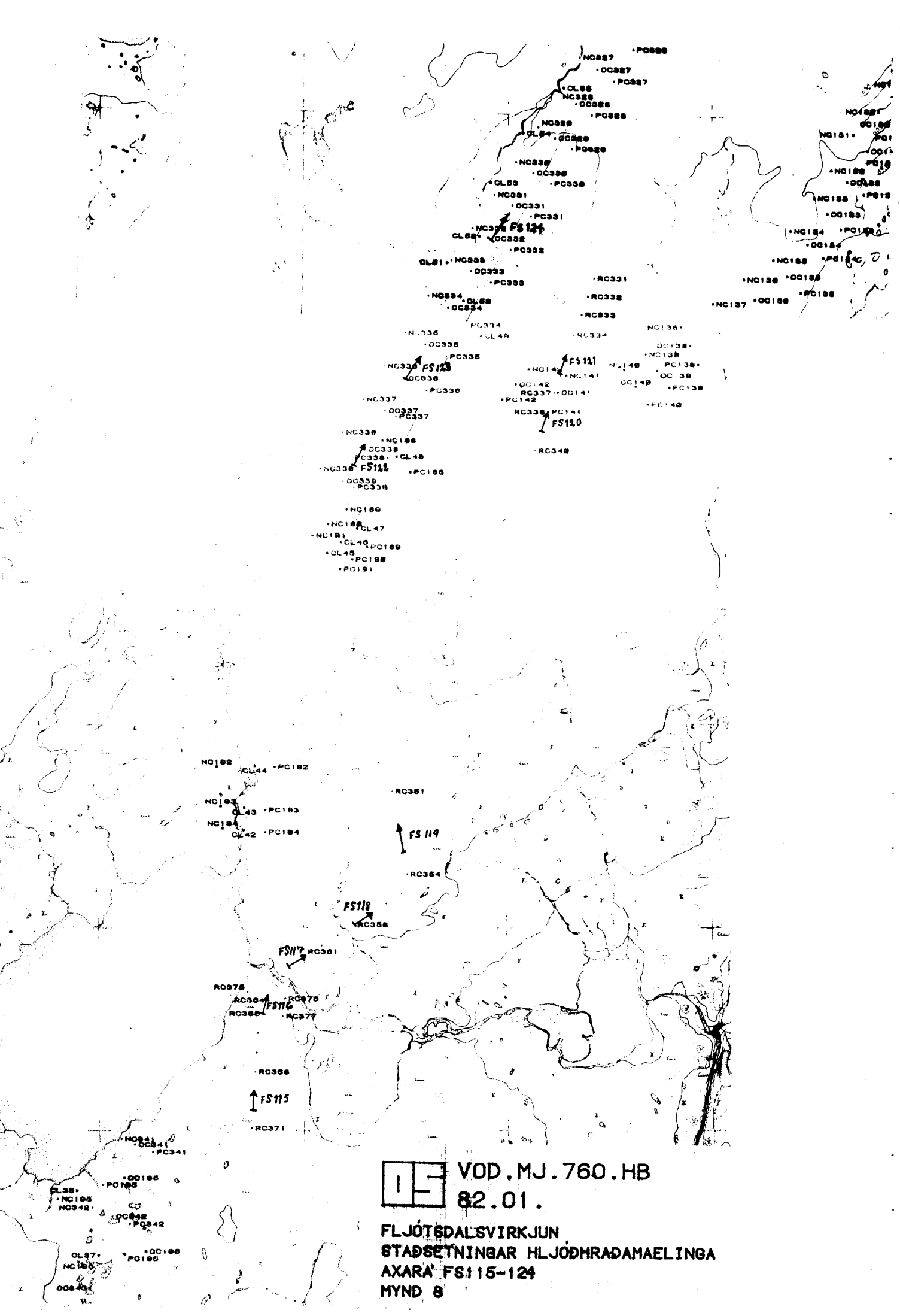


VOD.MJ.760.HB
82.01.

FLJÓTSDALSVIRKJUN
 STADSETNINGAR HLJÓÐHRADAMAELINGA
 STÓRILÆKUR FS110-112
 MYND 7

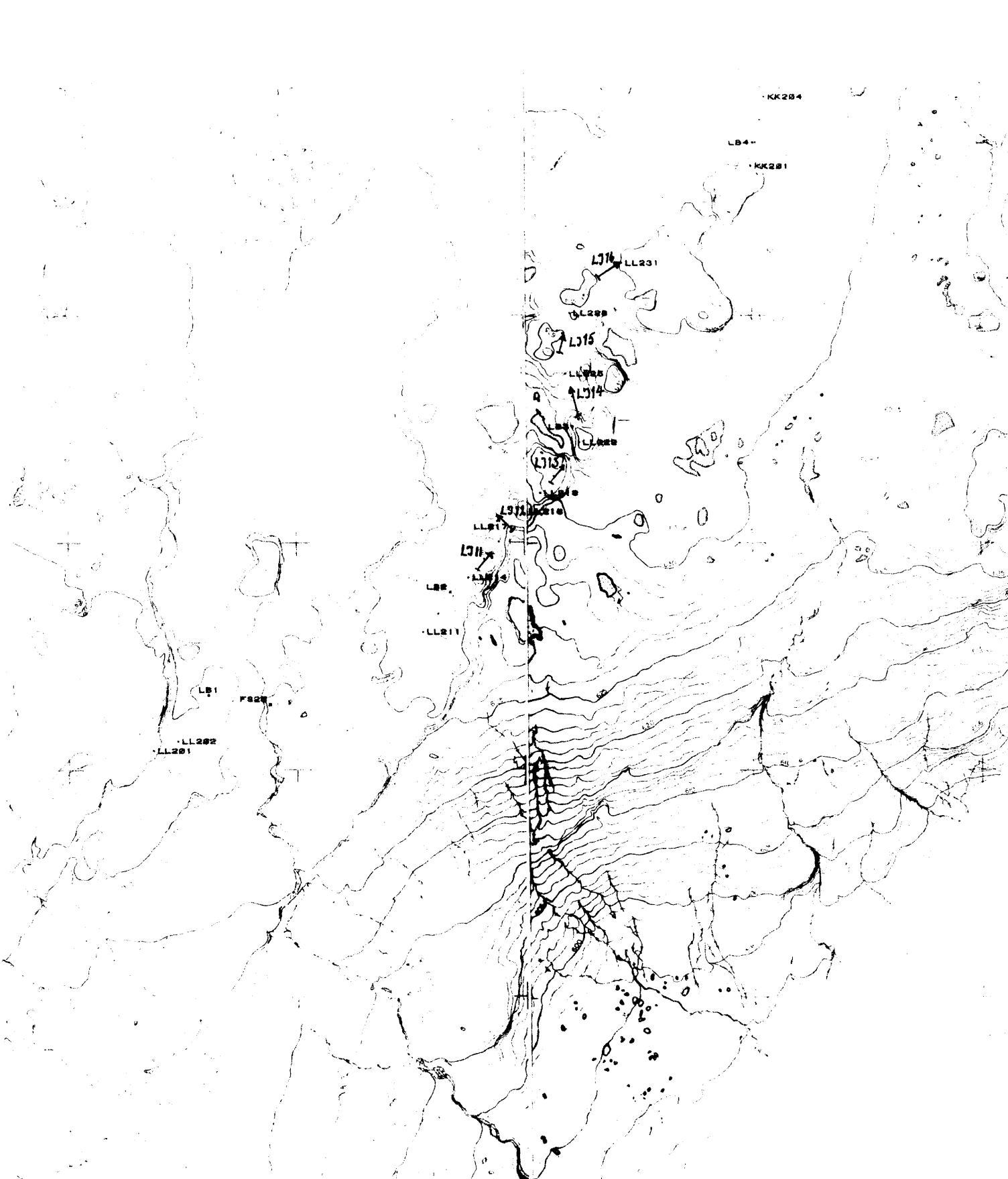
ORKUSTOFNUN		Landmælingar	
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1m	brælaháls		
FORVERK 1980			

	2350			
	33	23	13	03
	32	22	12	02
	31	21	11	01



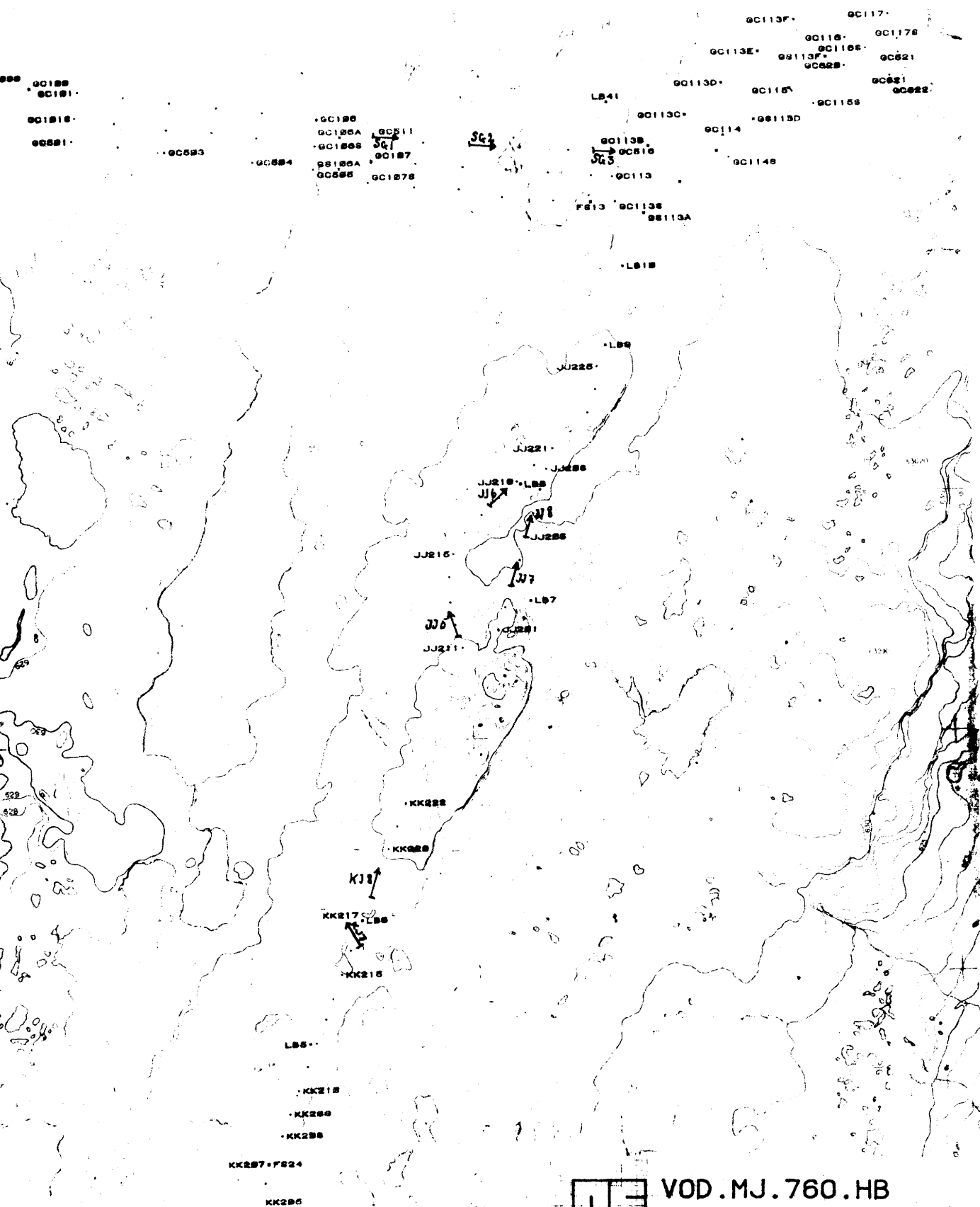
VOD, MJ. 760. HB
82.01.

FLJÓTSDALSVIRKJUN
STADSETNINGAR HLJÓÐHRADAMAELINGA
AXARA FS:115-124
MYND 8



VOD . MJ . 760 . HB
82 . 01 .

FLJÓTSDALSVIRKJUN
STADSETNINGAR HLJÓÐRADAMAELINGA
EYRARSELSVATN LJ11-16
MYND 9



VOD.MJ.760.HB
82.01.

ORKUSTOFNUN Landmælingar
1 5000 2750
1 m

33	23	13	03
32	22	12	02
31	21	11	01

FLJÓTSDALEVIRKJUN
STADSETNINGAR HLJÓÐHRADAMAELINGA
ORJÓTHALSVATN KJ7,8 JJ5-8 SG1-3
MIND 10

LB59

LB48

EE236

EE235
EJ30
LB48

EE261

EE263

EE238

EE257

EE225

EJ29

EE221

EE220 LB47

EE219 EJ28

EE218
EJ27

EE213

LB48

EE211

EE212

LB46

EE207

EE204

EE201

LB44

LB43

LB42

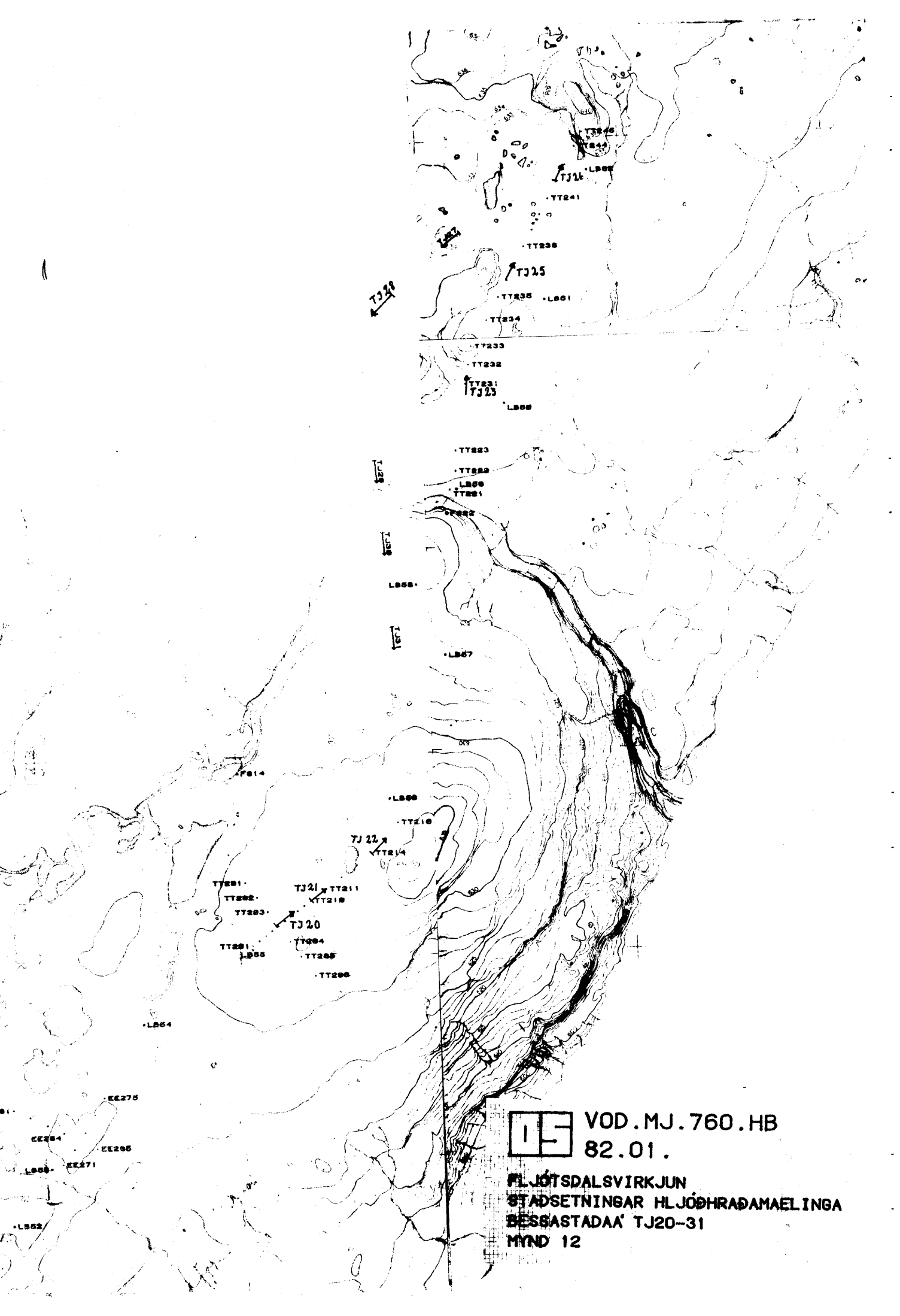


VOD.MJ.760.HB
82.01.

FLJÓTSDALSVIRKJUN
STADSETNINGAR HLJÓÐRAÐANAEILINGA
GILSARVÖTN EJ27-30
MYND 11

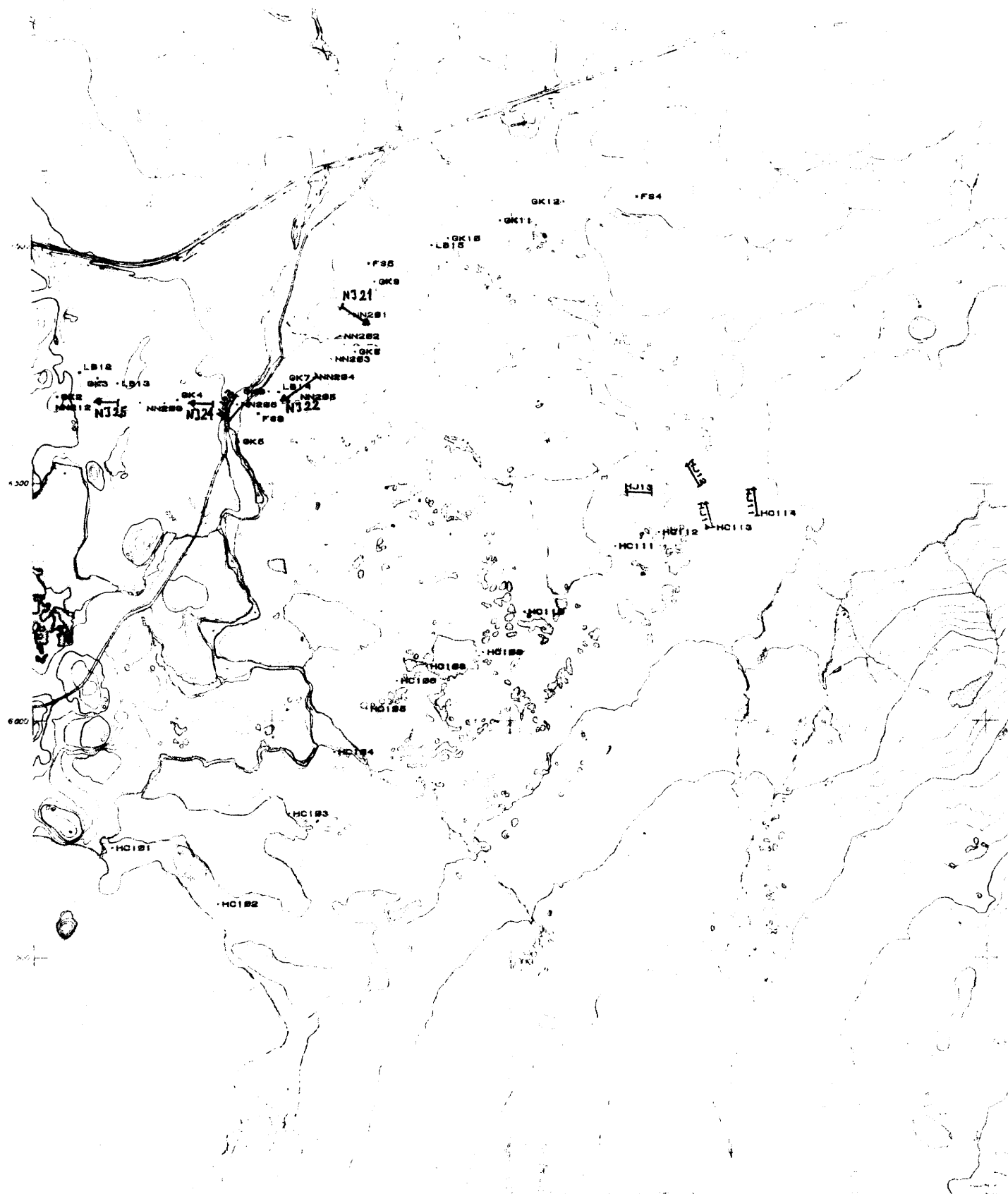
FORVERK H.F.
myndmalt kort d.nr.418.
Myndfríhyrningasmalt í W-A7 og
myndmalt í W-58 1981.
Myndmælikvarði 1:13.000.
Myndir teknar á vegum
Landmæl. Ísl. 27.8.1980.
Myndavéi Wild RC 10 (2157,13)

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VOD.MJ.760.HB
82.01.

FLJÓTSDALSVIRKJUN
STADSETNINGAR HLJÓÐRADAMAELINGA
BESSASTADAA' TJ20-31
MYND 12



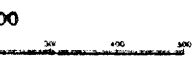
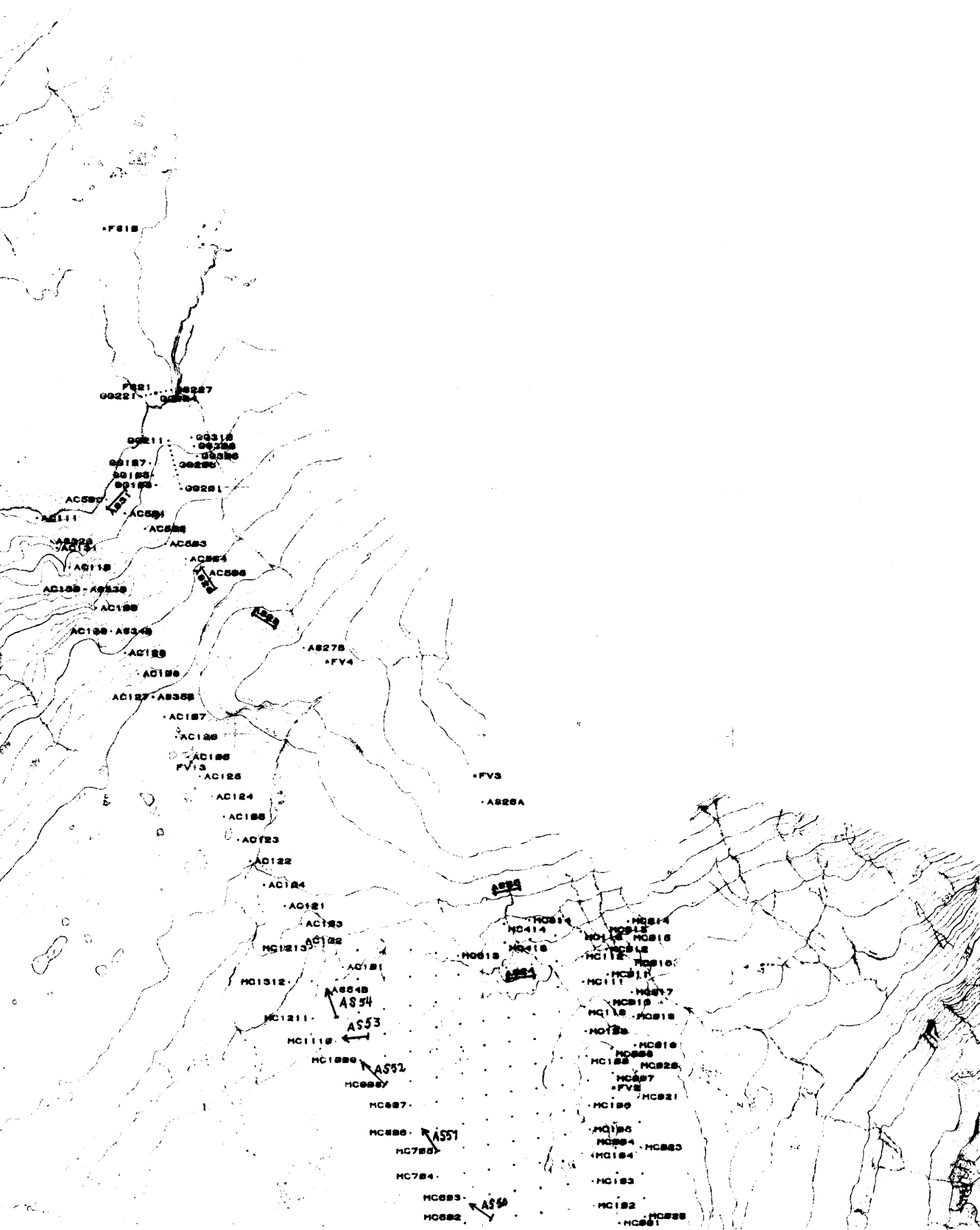
ORKUSTOFNUN Landmælingar
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 1 m Veiðyfisking
 Mærkt OS 1977 v. 1980 FORVERK 1980
 Hækkert. L. og S. m. 1980 OS NA- and


		241		
33	23	13	03	
32	22	12	02	
31	21	11	01	
30	20	10	00	
		220		



VOD.MJ.760.HB
 82.01.

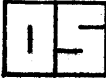
FLJÓTSDALSVIRKJUN
 STAÐSETNINGAR HLJÓÐHRADAMAELINGA
 KRISTINARKILL NJ21-25 OG HJ11-14
 MYND 13



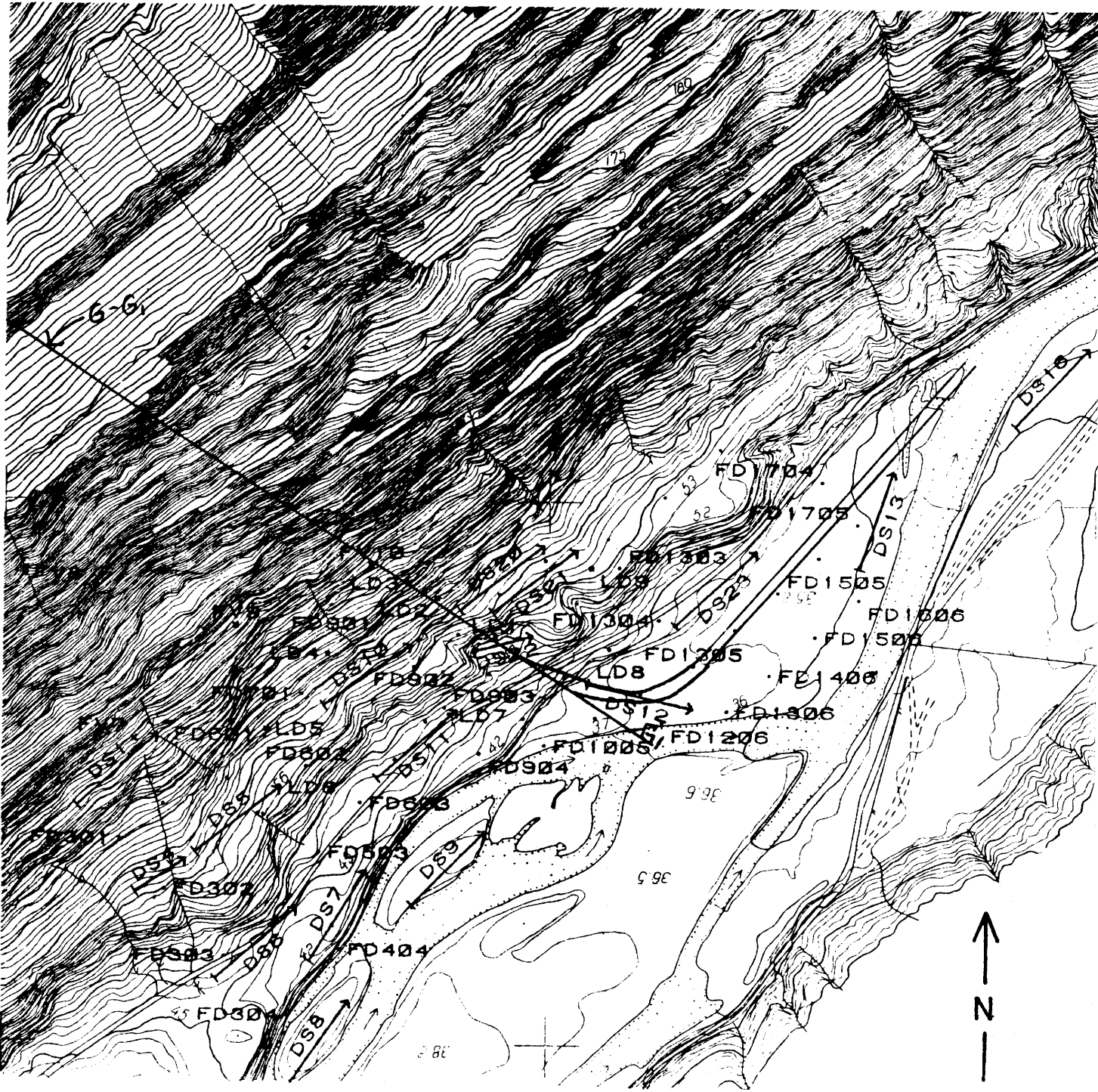

 VOD.MJ.760.HB
 82.01.

FLJÓTSDALSVIRKJUN
 STAÐSETNINGAR HLJÓÐHRADAMAELINGA
 MELGRÓF AS50-54
 MYND 14

- FV *Kjarnaborholur*
- LD *Loftborholur*
- DS *Hljóðhradamælingar*
- FD *Cobradorholur*

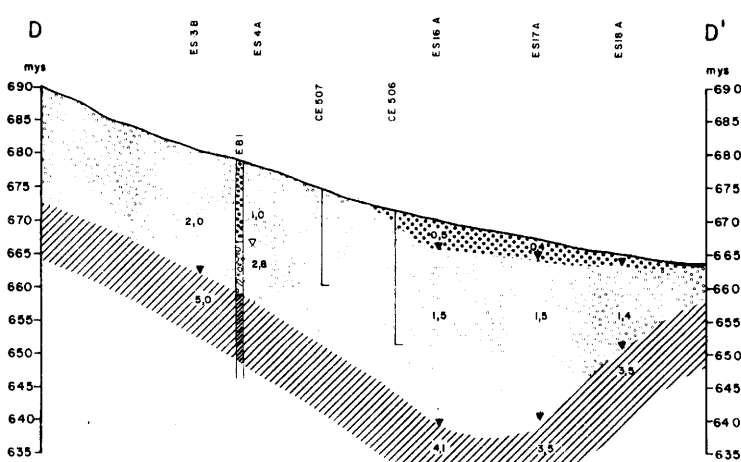
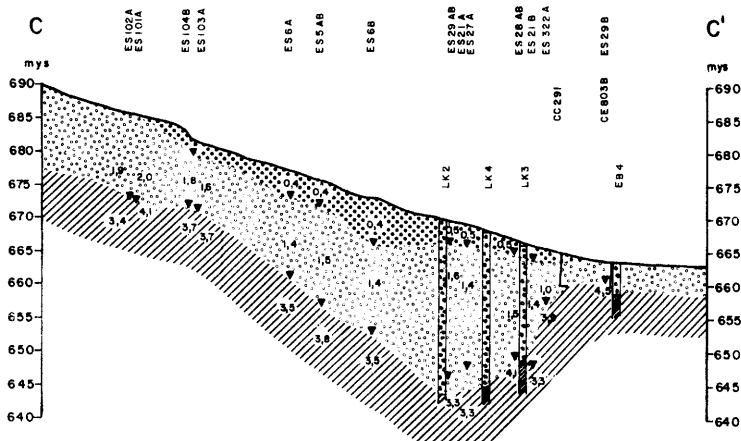
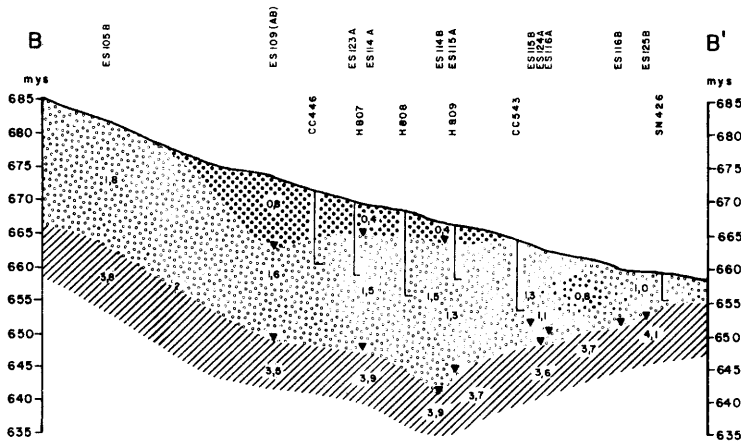
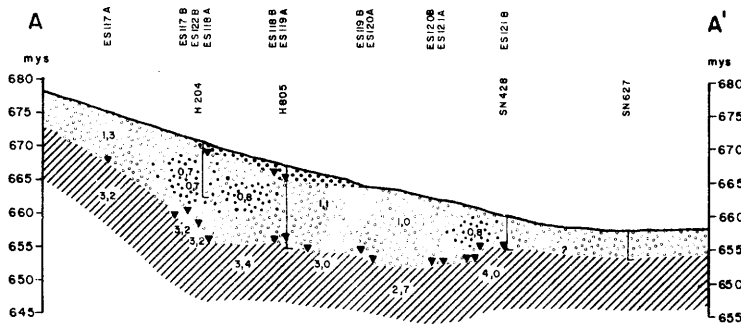

 VOD.MJ.760.HB
 82.01.

FLJÓTSDALSVIRKJUN
 STAÐSETNINGAR HLJÓÐHRADAMAELINGA
 FLJÓTSDALUR DS20-23
 MYND 15



FLJÓTSDALSVIRKJUN EYJABAKKASTÍFLA

Þversnið hljóðhradalaga A-A', B-B',
C-C', D-D'

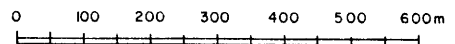


SKÝRINGAR

Hljóðhraði

- Lag 1 0,4-0,9 km/s yfirborðslag
- Lag 2 1-2 km/s aurkeila?
- Lag 3 3,2-4,8 km/s grunnberg
- Völuberg

- 1,5 - hljóðhraði i km/s
- ES112A skotpunktur hljóðhradamæling
- ES101-125 hljóðhradamæling fra 1981
- ES1-55 hljóðhradamæling fra 1980 (greinargerð HB-81/01)
- ▼ hljóðhraðaskil
- LK - loftborholur 1981
- EB - kjarnaholur
- | cobraholur



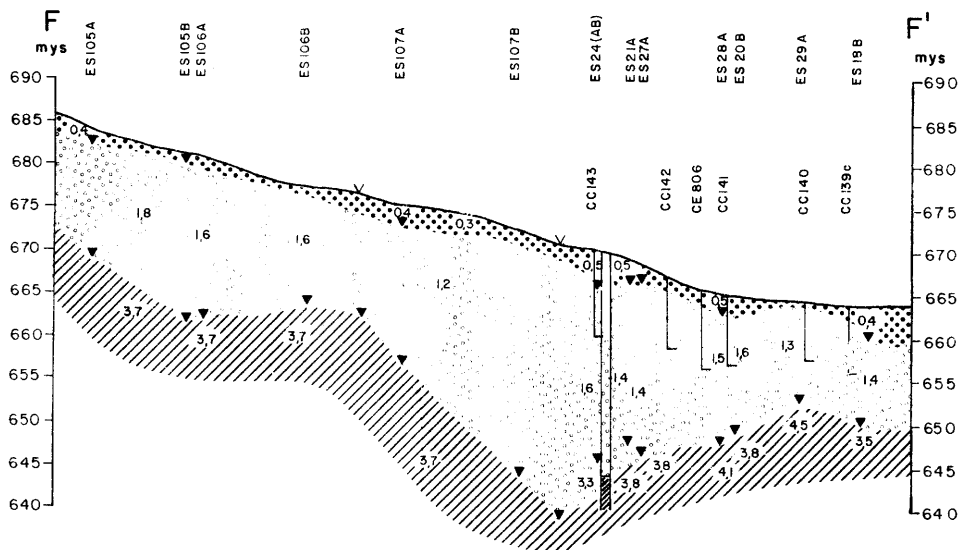
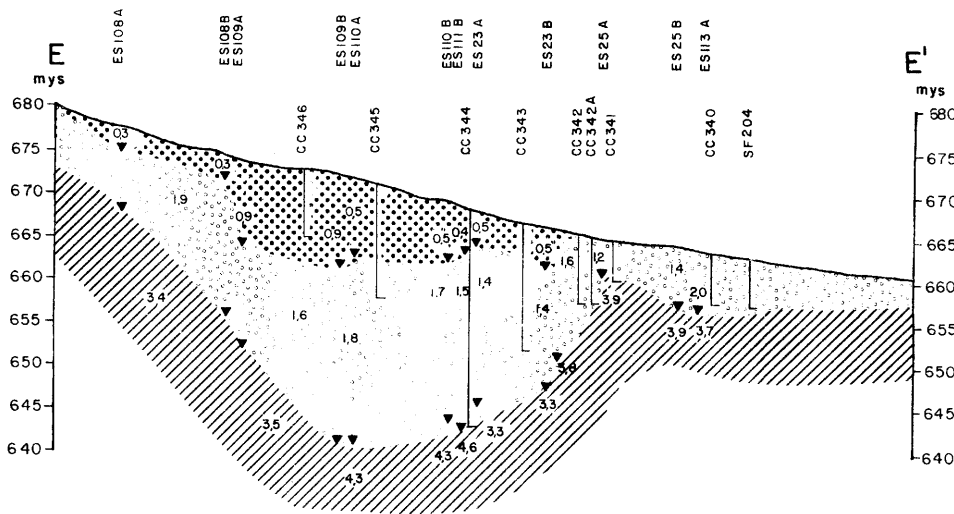
Lega sniðs á mynd 2

VOD·MJ·760·HB
82.01.0237.em

FLJÓTSDALSVIRKJUN

EYJABAKKASTÍFLA

Þversnið hljóðhradalaga E-E;
F-F'



MYND 17.

SKÝRINGAR:
sjá mynd 16.



VOD-MJ-760-HB.
82.01.0238.em.

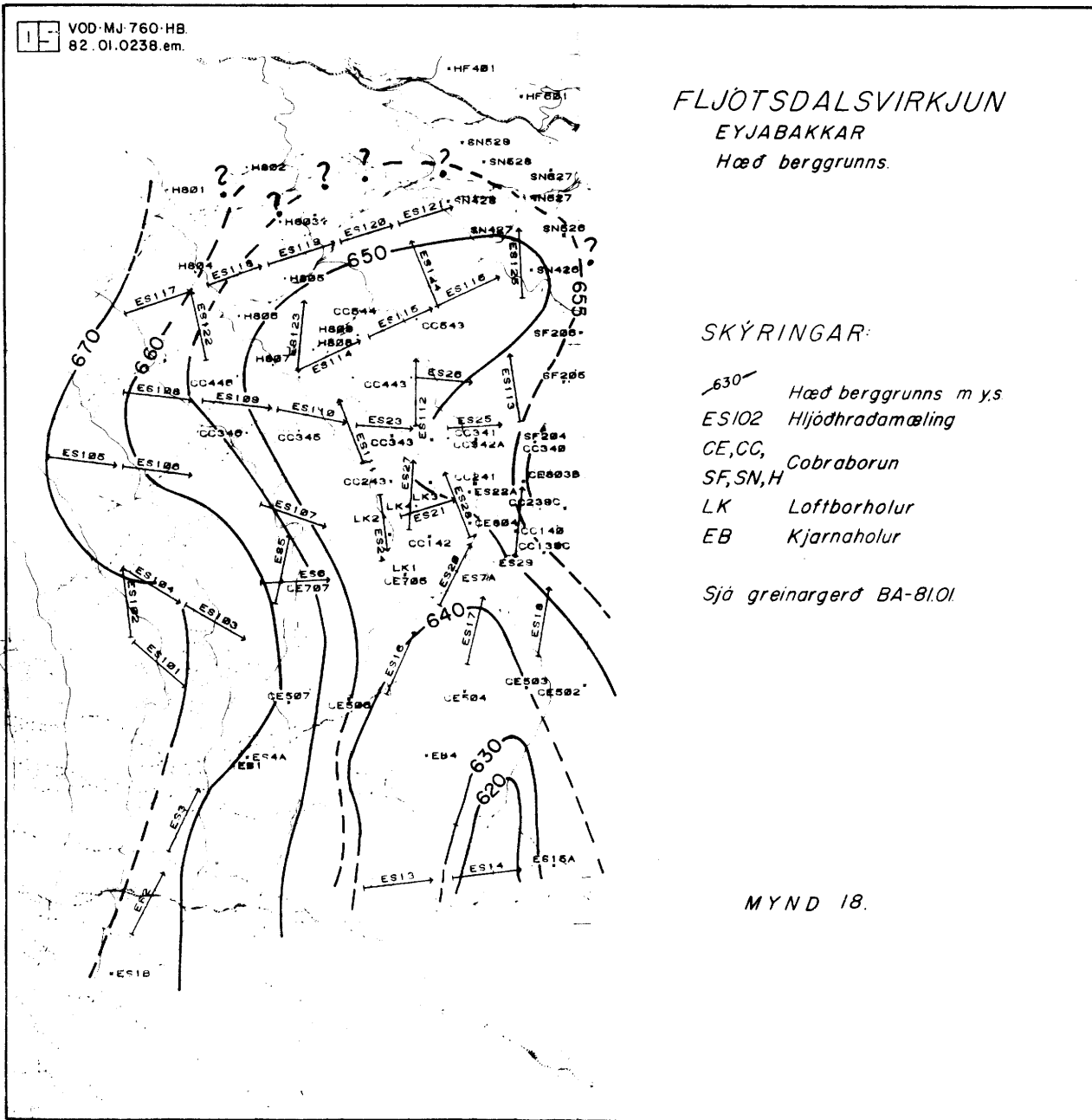
FLJÓTSDALSVIRKJUN
EYJABAKKAR
Hæð berggrunns.

SKÝRINGAR:

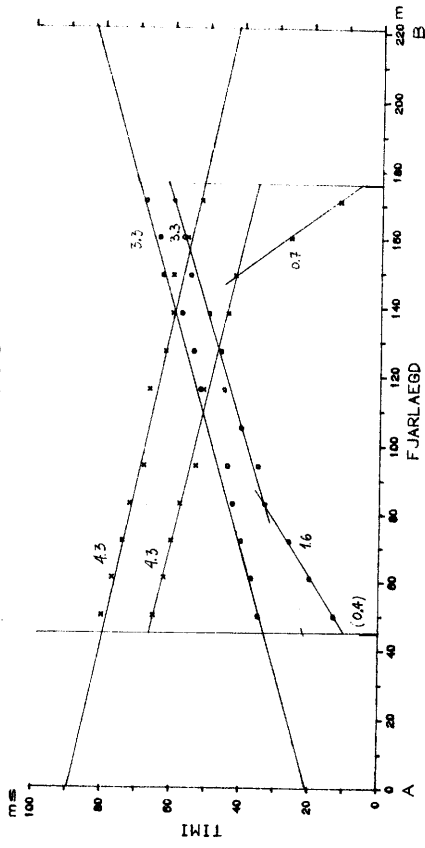
- 630 Hæð berggrunns m y.s
- ES102 Hljóðhradamæling
- CE, CC, Cobraborun
- SF, SN, H
- LK Loftborholur
- EB Kjarnaholur

Sjá greinargerð BA-8101

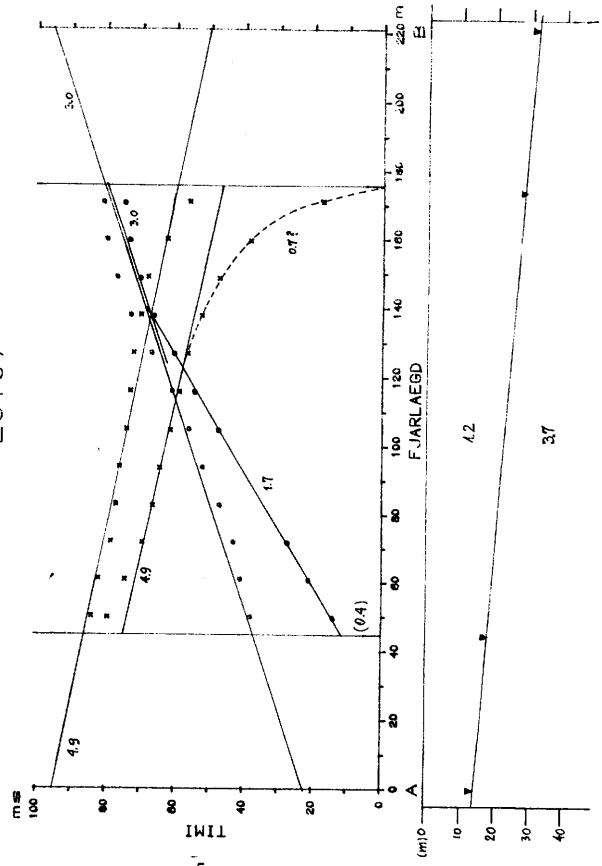
MYND 18.



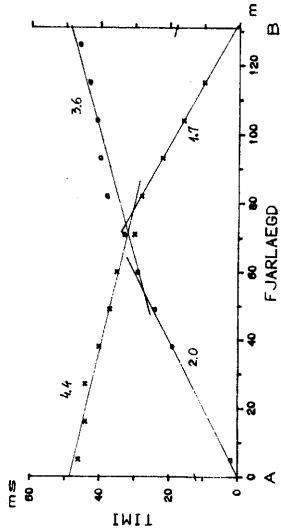
ES103



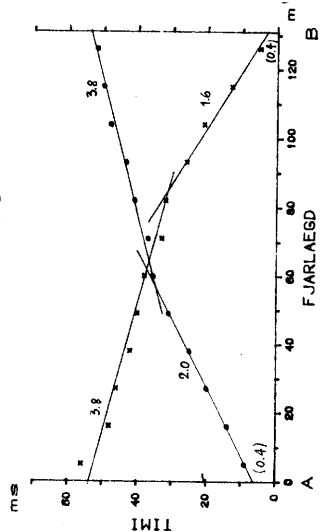
ES107



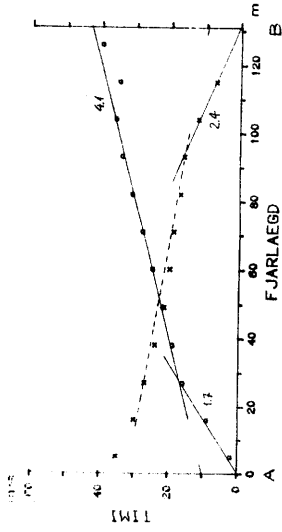
ES102



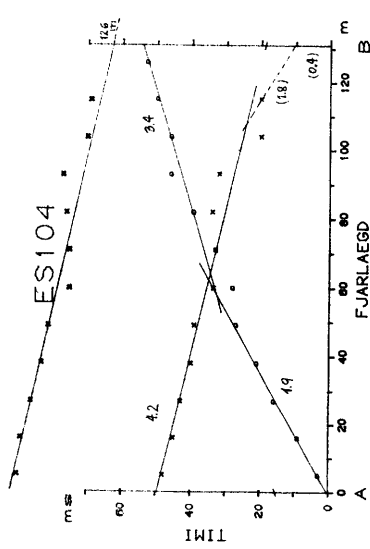
ES105



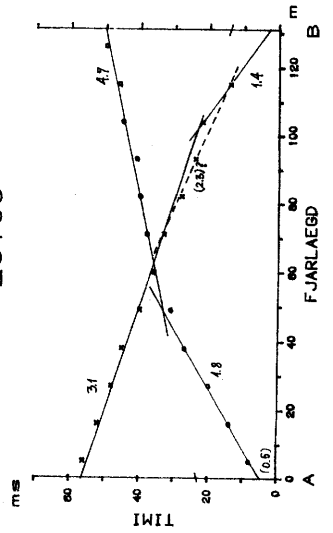
ES101




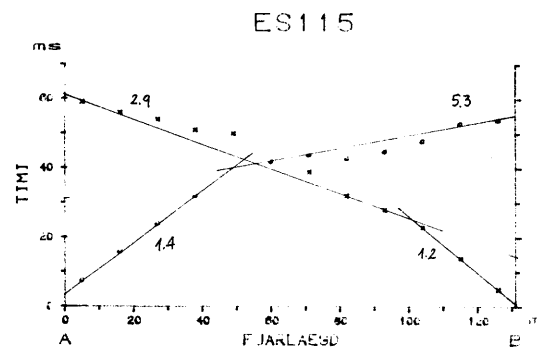
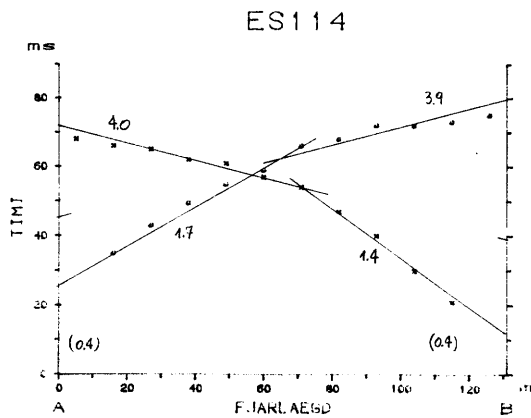
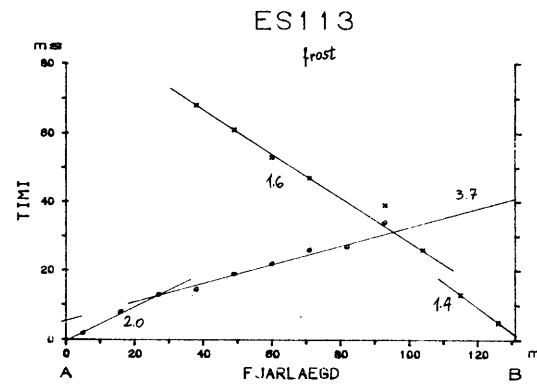
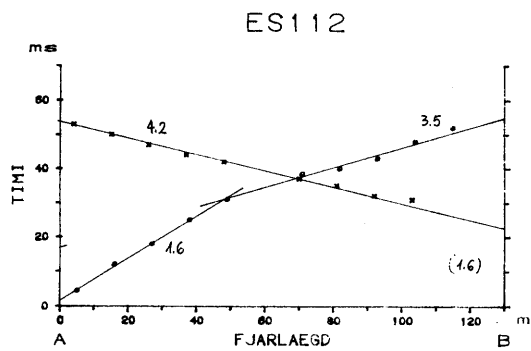
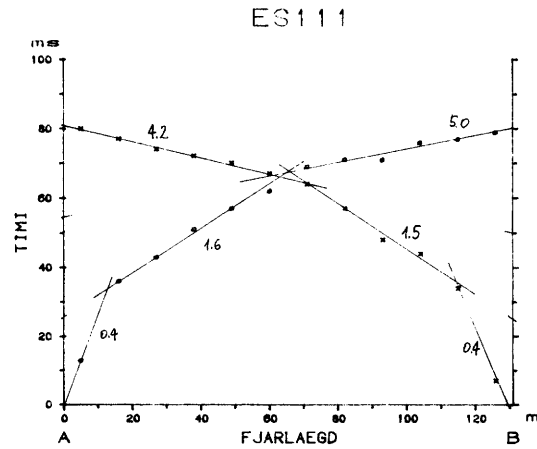
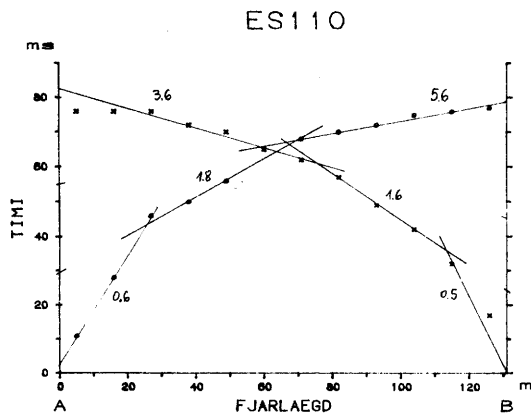
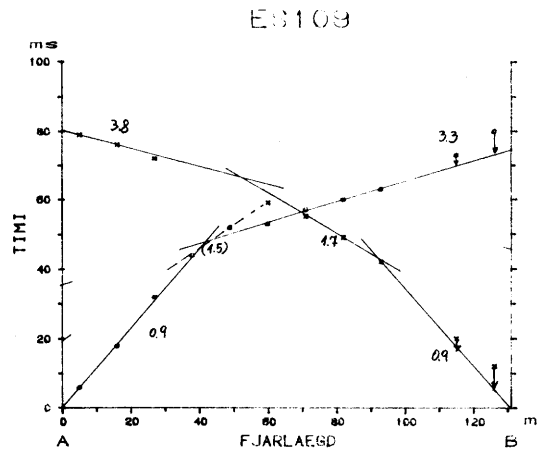
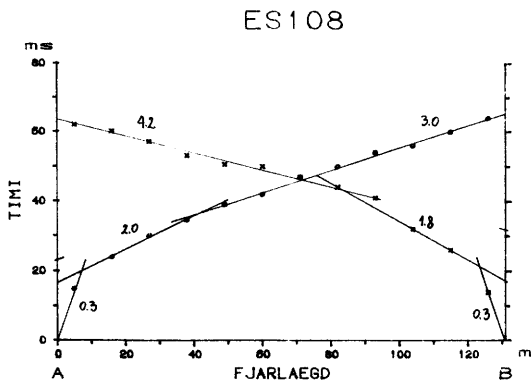
ES104



ES106

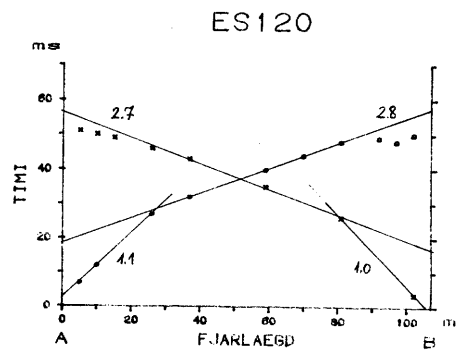
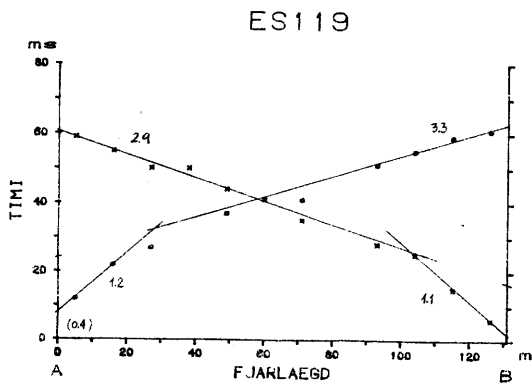
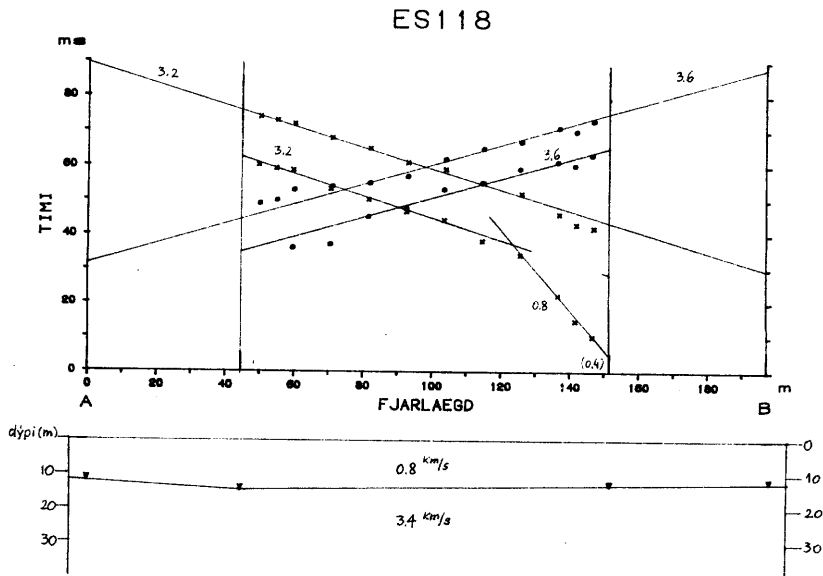
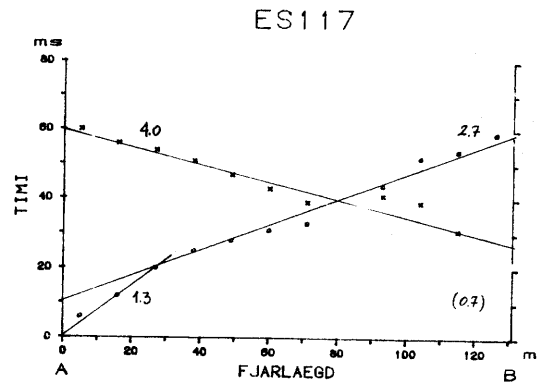
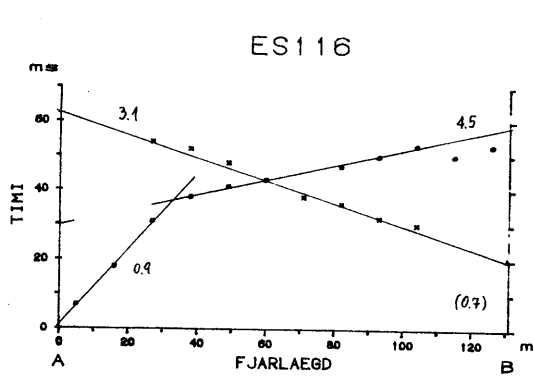



 VOD. MJ. 760. HB
 82.01.0251
 FLJÓTSDALSVIRKJUN
 HLJÓÐRADALINURIT ES101-107
 EYJABAKKAR
 MYND 19



VOD.MJ.760.HB
82.01.0252

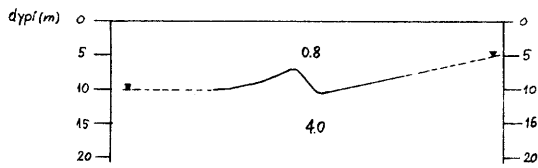
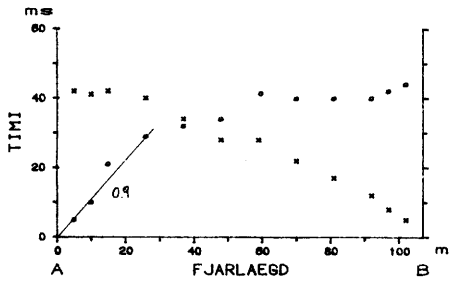
FLJÓTSDALSVIRKJUN
HLÓÐRADALINURIT ES108-115
EYJABAKKAR
MYR 100



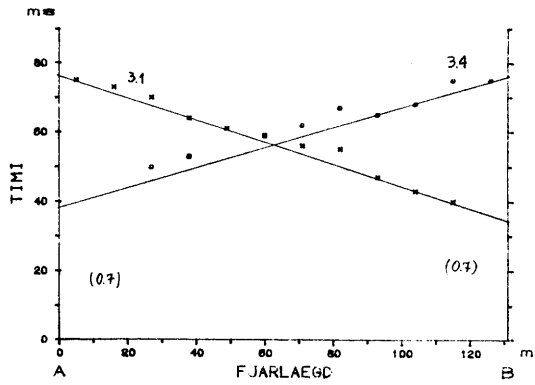
VOD.MJ.760.HB
82.01.0253

FLJÓTSDALSVIRKJUN
HLJÓÐRÁÐALINURIT ES116-120
EYJABAKKAR
MYND 21

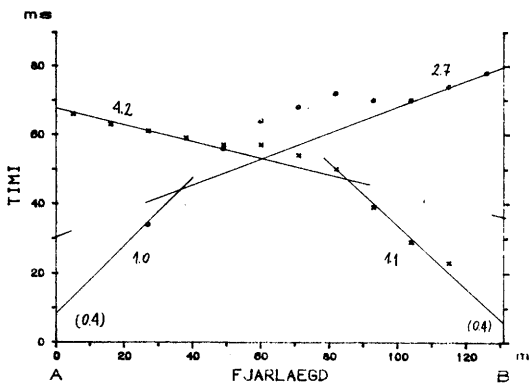
ES121



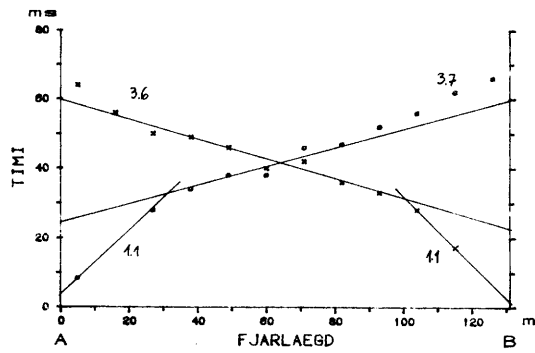
ES122



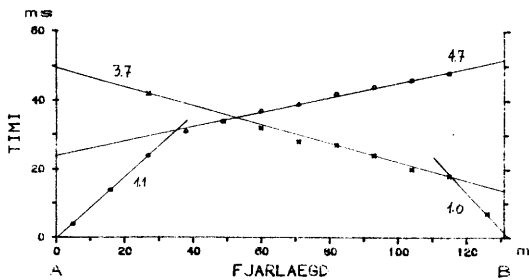
ES123



ES124



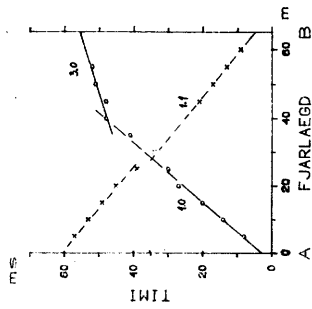
ES125



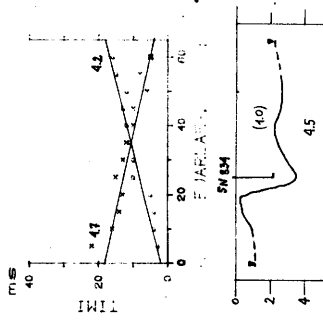
VOD.MJ.760.HB
82.01.0254

FLJÓTSDALSVIRKJUN
HLJÓÐHRADALINURIT ES121-125
EYJABAKKAR
MYND 22

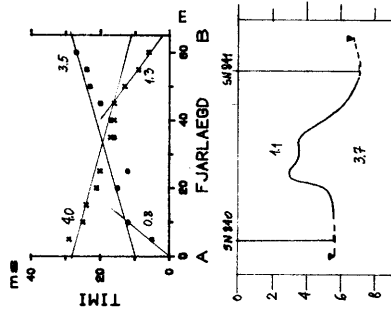
JS101



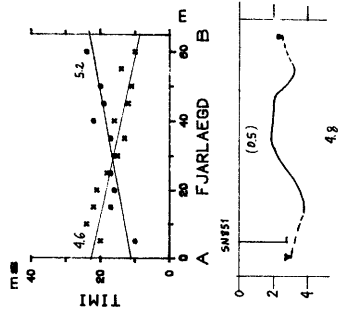
JS102



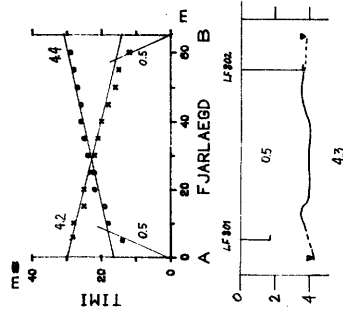
JS103



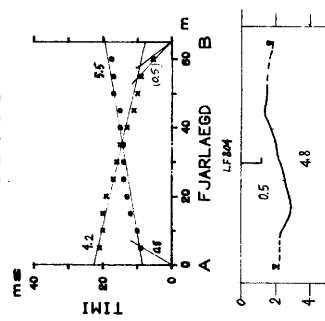
JS104



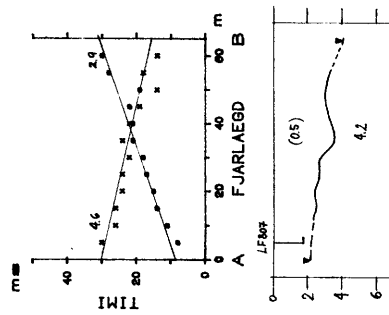
JS105



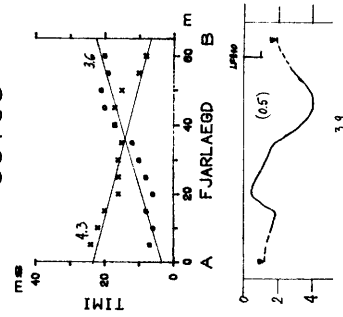
JS106



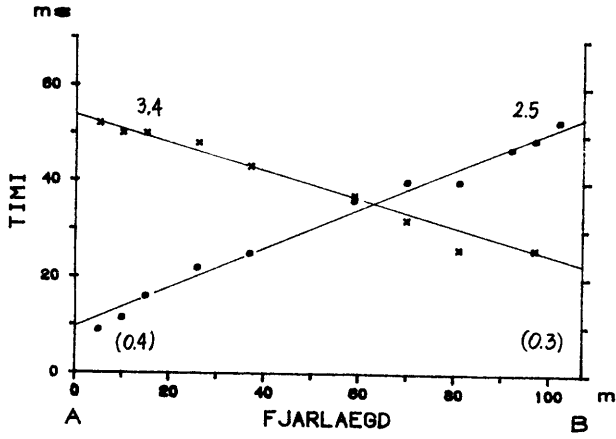
JS107



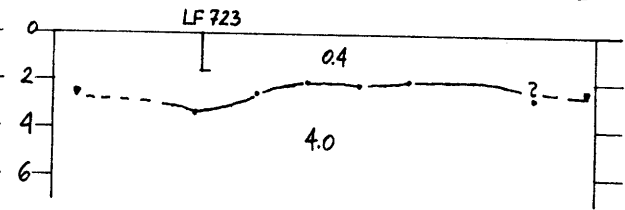
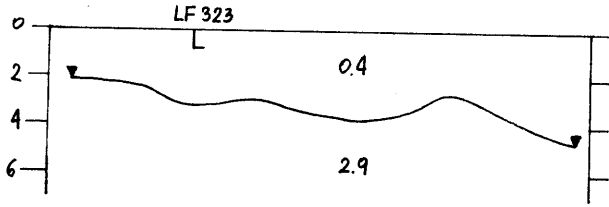
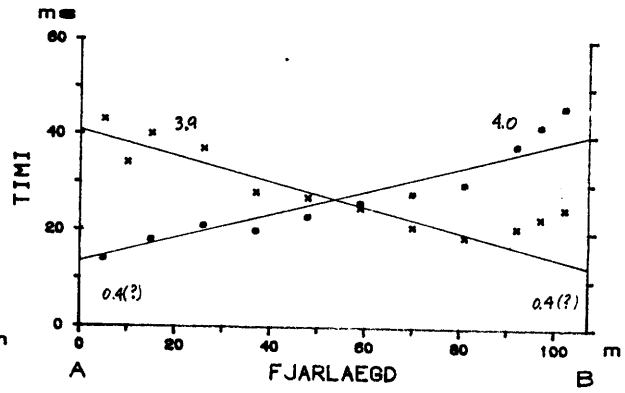
JS108



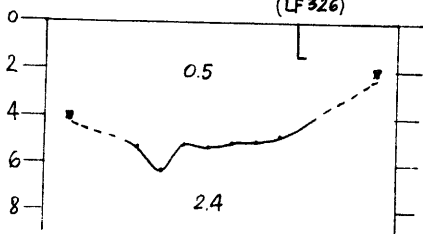
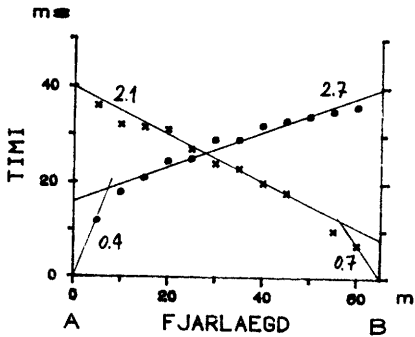
LS101



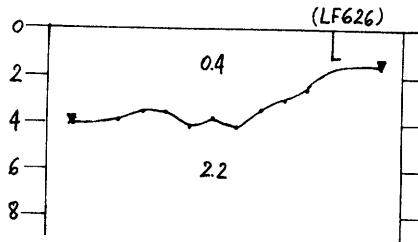
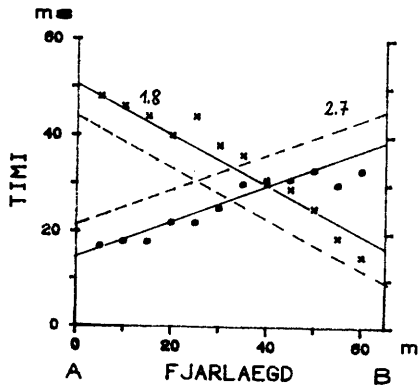
LS102



LS103



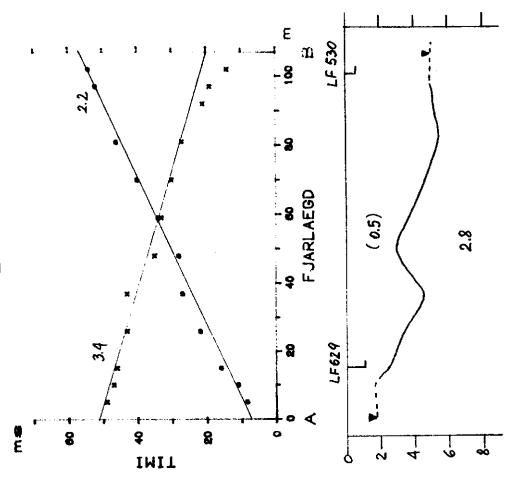
LS104



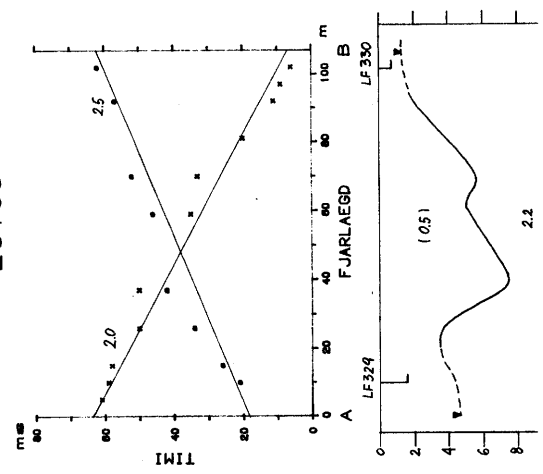
VOD.MJ.760.HB
82.01.0256

FLJÓTSDALSVIRKJUN
HLJÓÐHRÁDALINURIT LS101-104
LAUGARFELL
MYND 24

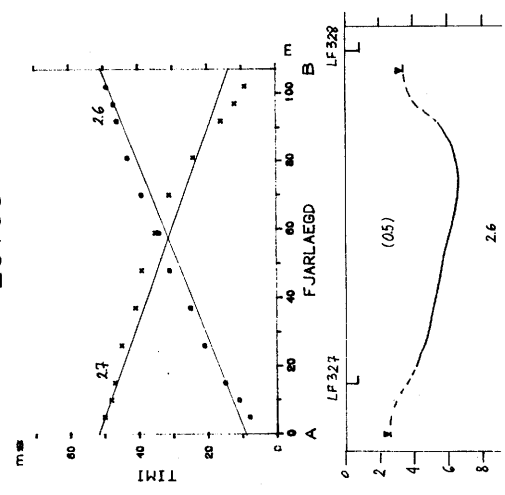
LS107



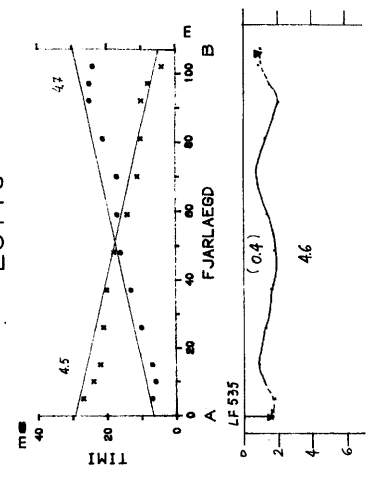
LS106



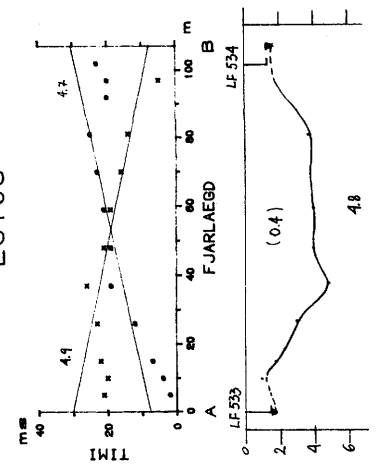
LS105



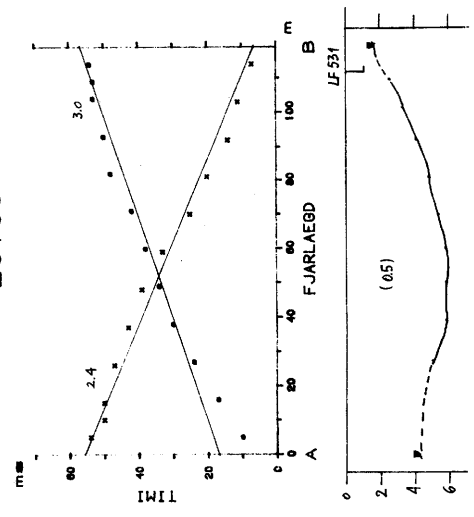
LS110



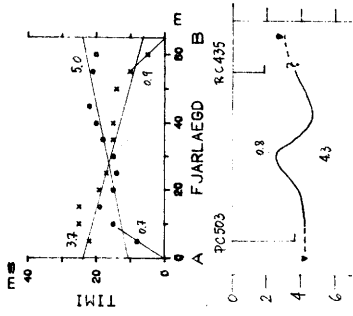
LS109



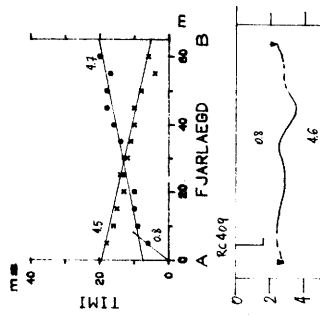
LS108



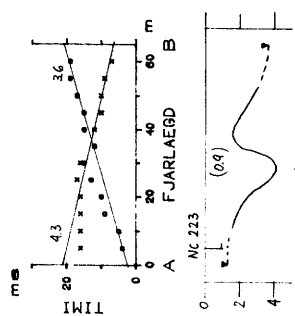
FS101



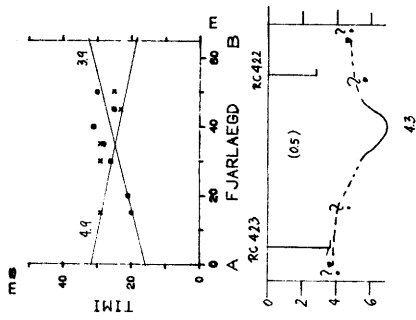
FS105



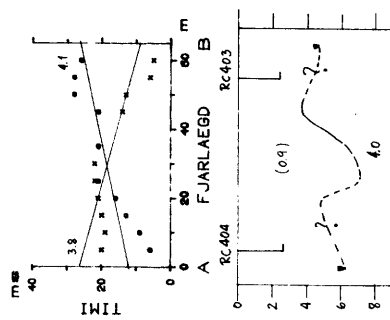
FS109



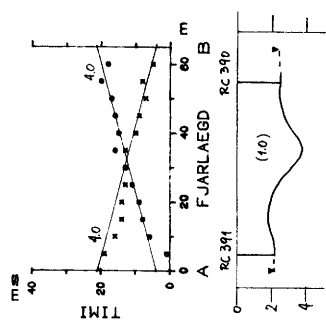
FS102



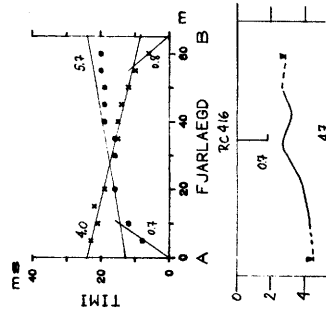
FS106



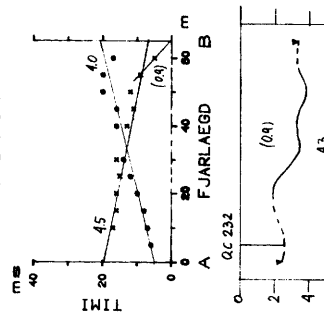
FS110



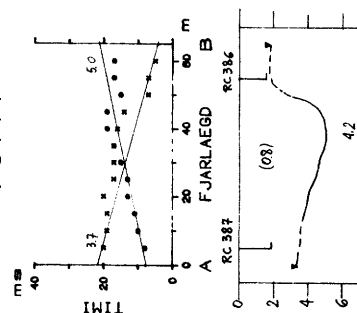
FS103



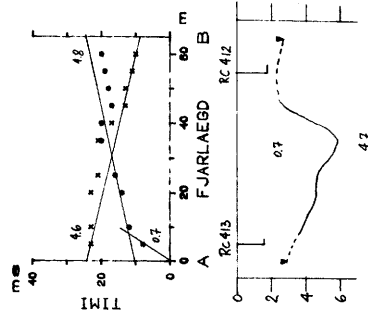
FS107



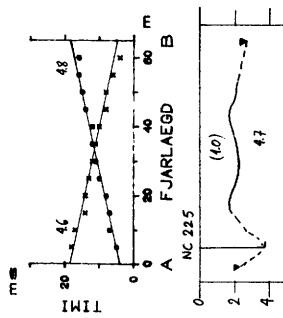
FS111



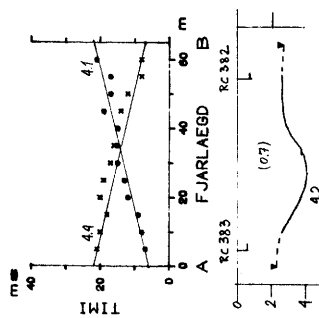
FS104




FS108

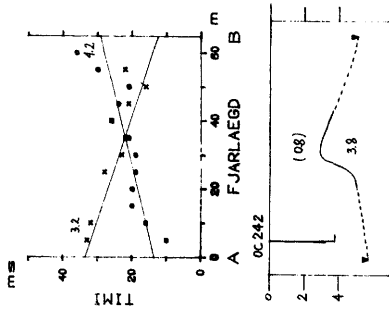


FS112

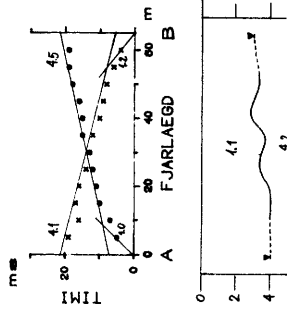



 VOD . M.J. 760 . HB
 82.01.0258
 FLJÓTSDALSVIRKJUN
 HLJÓÐRÁÐALINURIT FS101-112
 LAUGARÁ
 HYNÐ 26

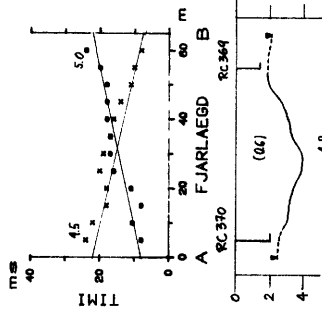
FS113



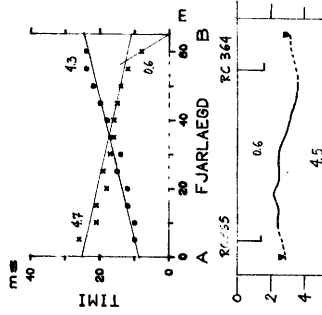
FS114



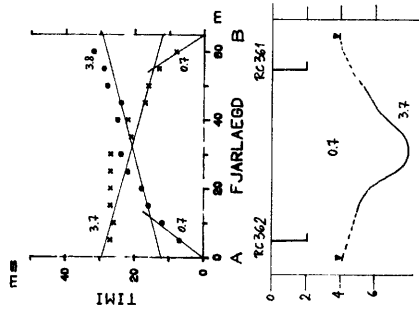
FS115



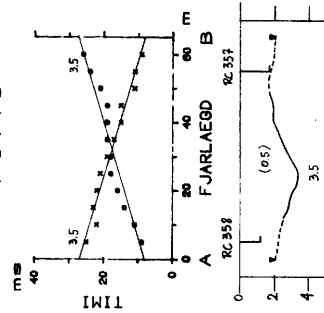
FS116



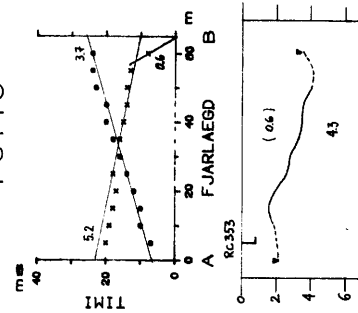
FS117



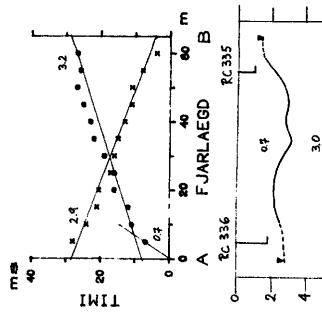
FS118



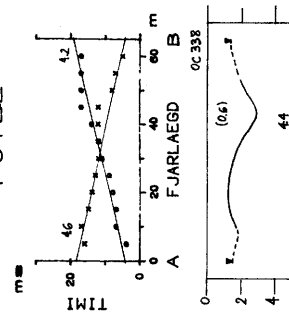
FS119



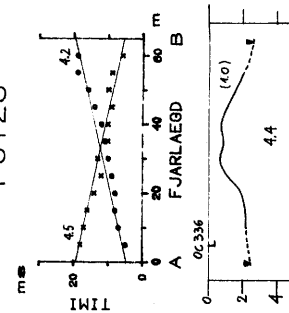
FS121



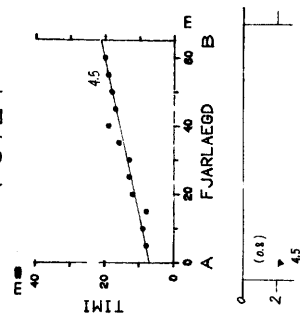
FS122



FS123

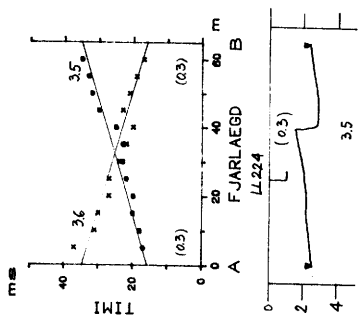


FS124

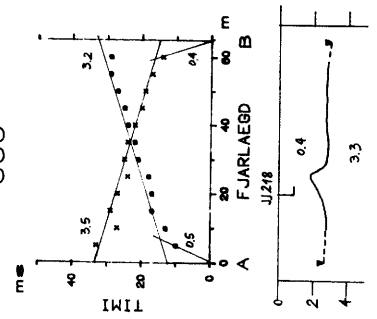


VOD. MJ. 760. HB
 82.01.0259
 FLJÓTSDALSVIRKJUN
 HLJÓDRAPALINURIT FS113-124
 STÓRILAEKUR
 MYND 27

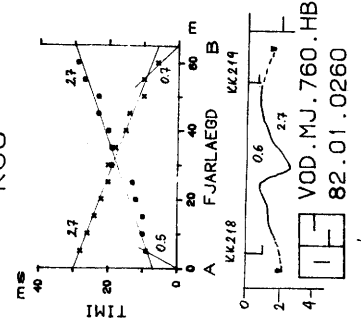
LJ14



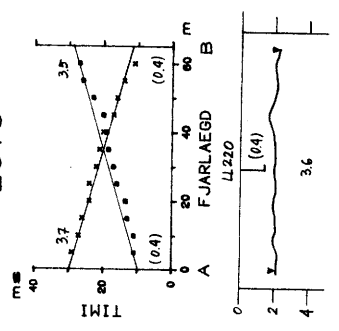
JJ6



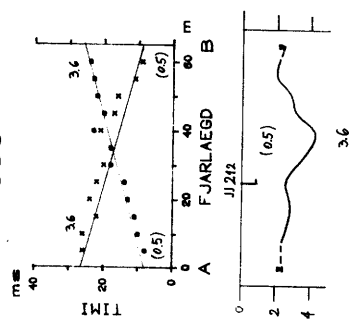
KJ8



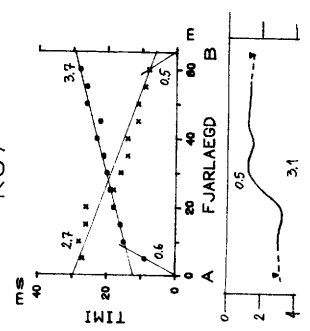
LJ13



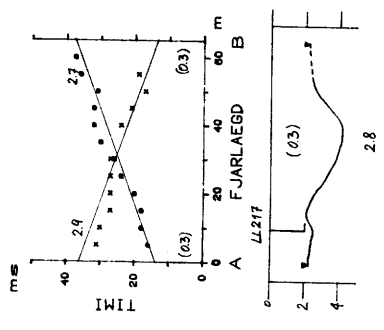
JJ5



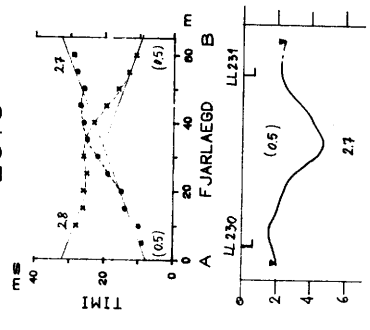
KJ7



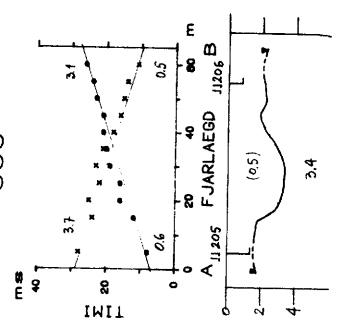
LJ12



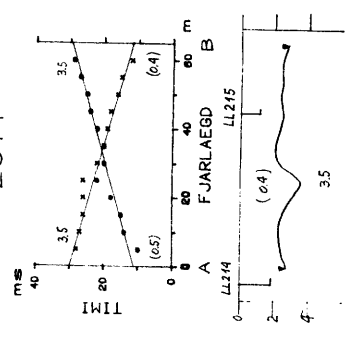
LJ16



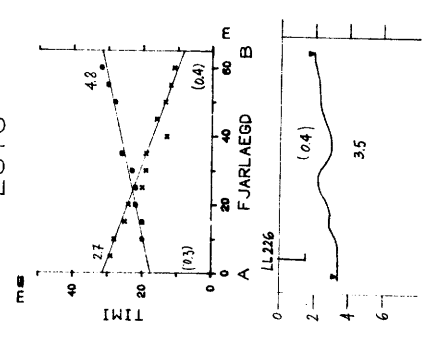
JJ8



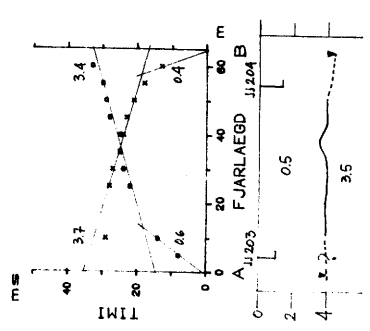
LJ11



LJ15

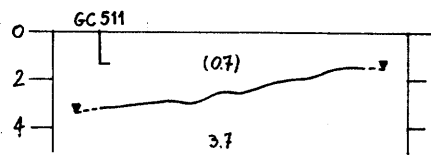
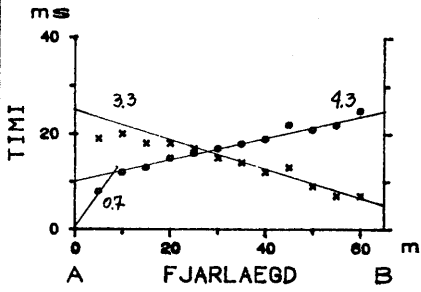


JJ7

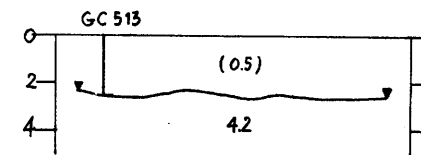
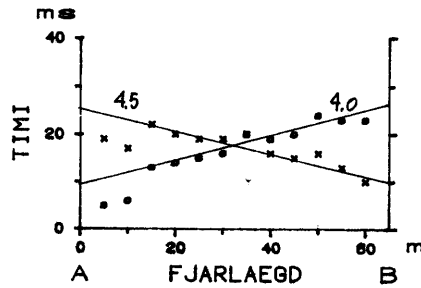


FLJÓTSDALSVIRKJUN
HLJÓÐRABALINURIT LJ11-16; JJ5-8; KJ7-8
EYRARSELSVATN
MYND 28

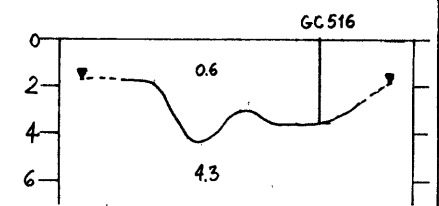
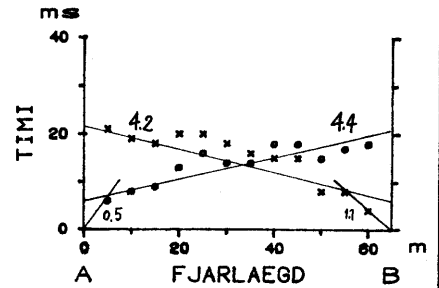
SG1



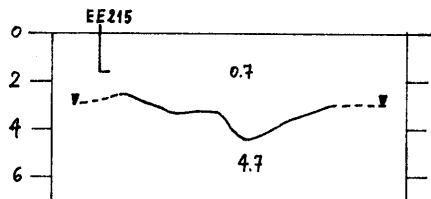
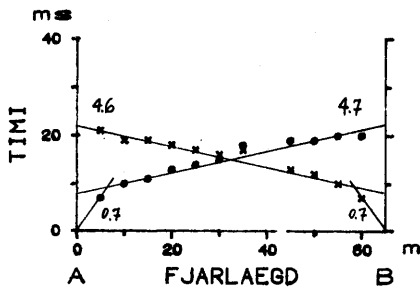
SG2



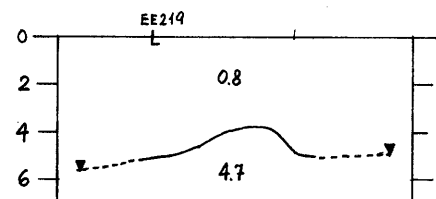
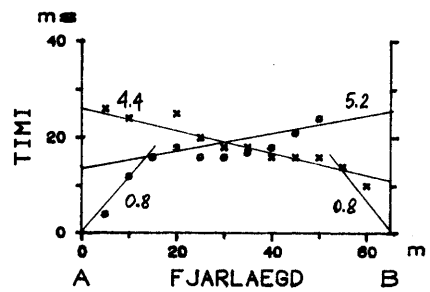
SG3



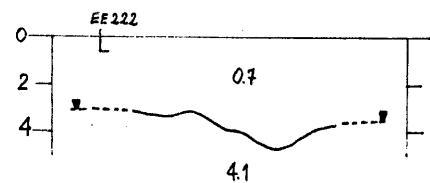
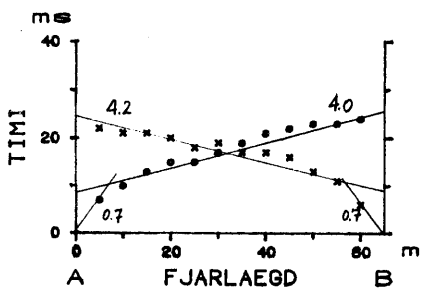
EJ27



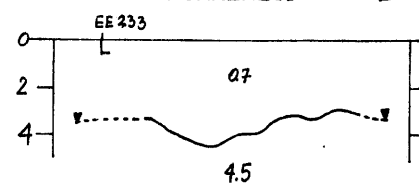
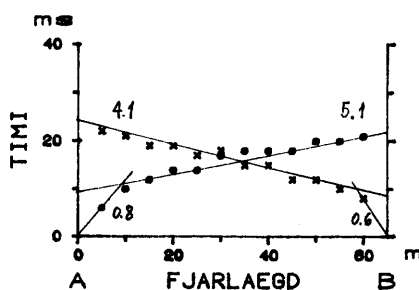
EJ28



EJ29



EJ30

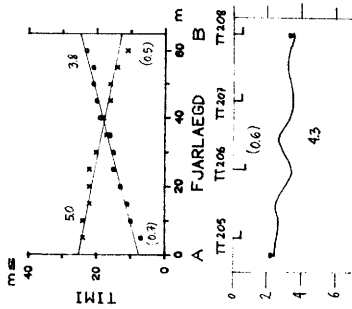


VOD. MJ. 760. HB
82.01.0261

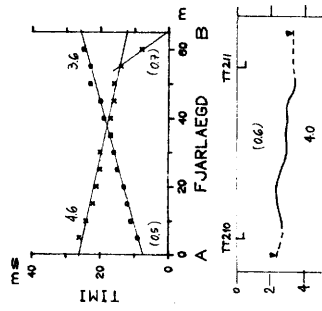


FLJÓTSDALSVIRKJUN
HLJÓÐHRÁÐALINURIT SG1-3; EJ27-30
GILSARVÖTN
MYND 29

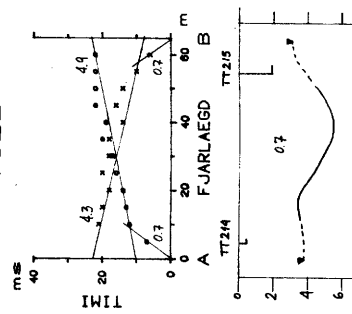
TJ20



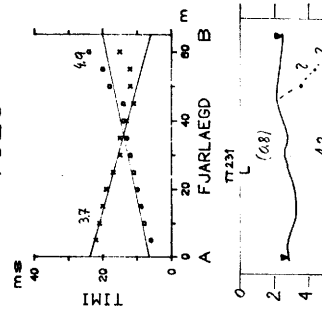
TJ21



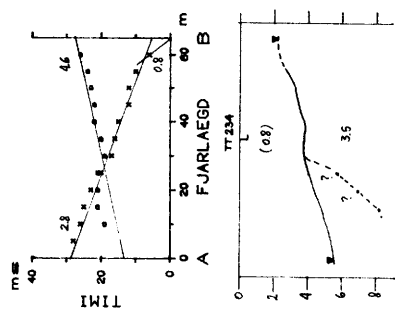
TJ22



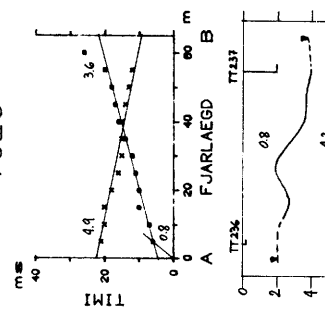
TJ23



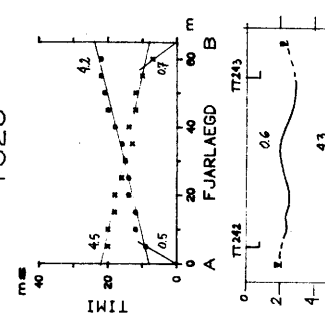
TJ24



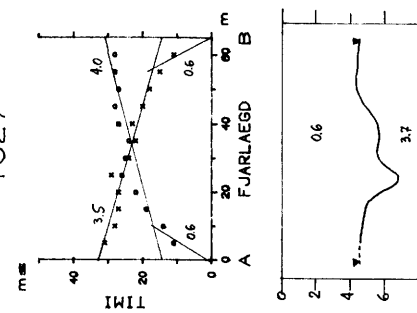
TJ25



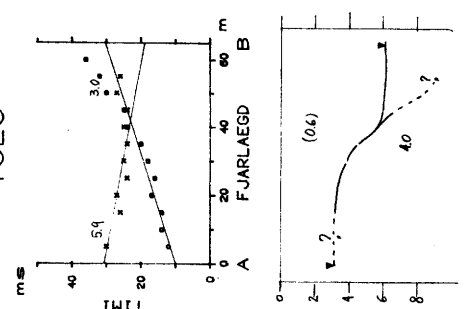
TJ26



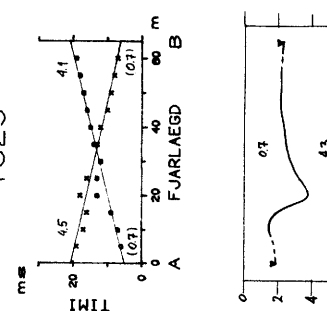
TJ27



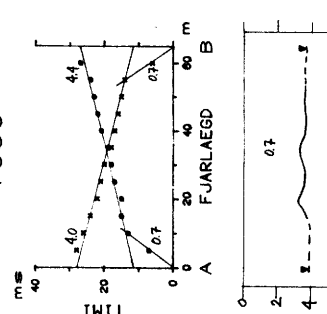
TJ28



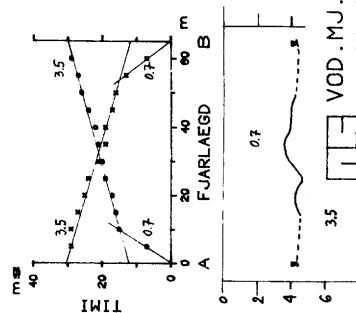
TJ29




TJ30

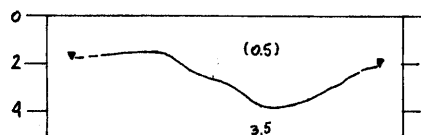
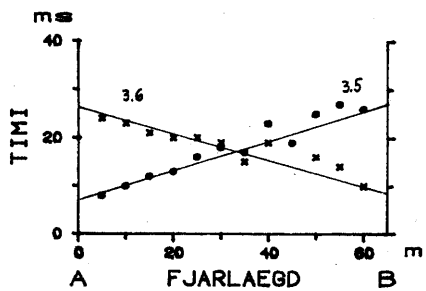


TJ31

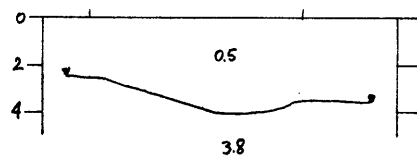
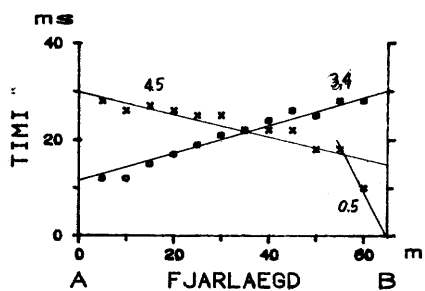



 VOD. MJ. 760. HB
 FLJÓTSDALSVIRKJUN
 BESSASTADAN
 MYND 30

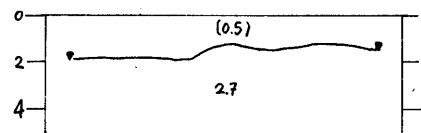
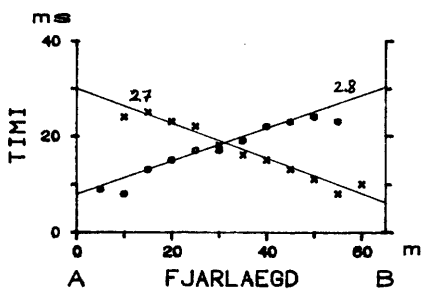
HJ11



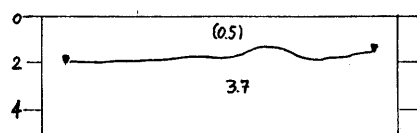
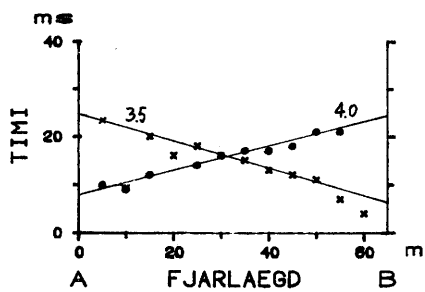
HJ12



HJ13



HJ14

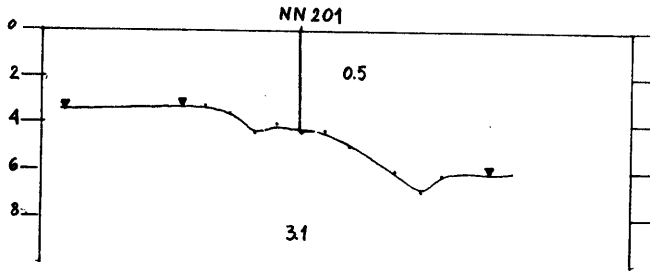
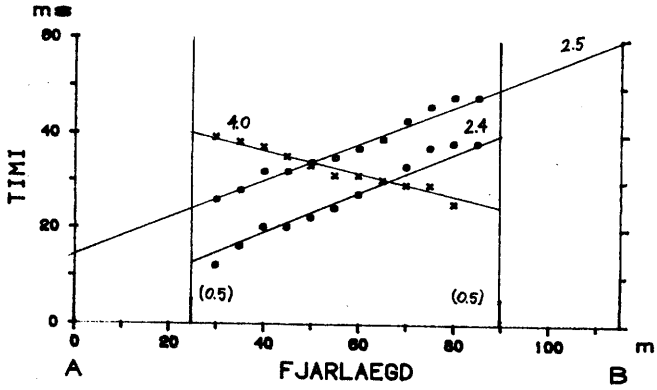


VOD.MJ.760.HB

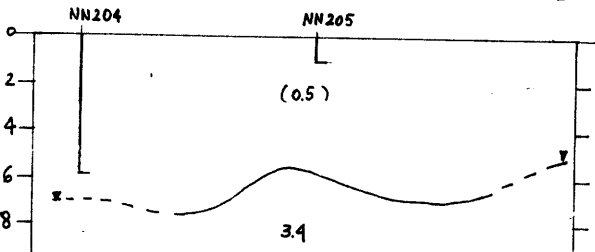
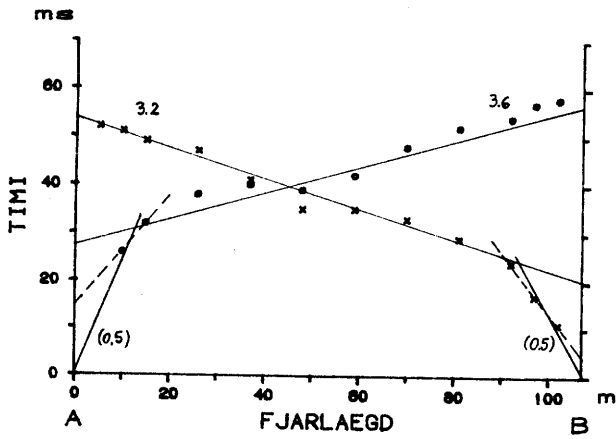
82.01.0263

FLJÓTSDALSVIRKJUN
HLJÓÐHRAÐALINURIT HJ11-14
KRISTINARKILL
MYND 31

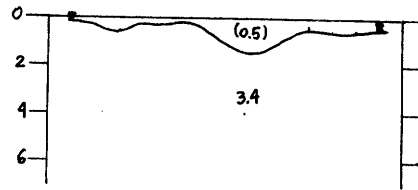
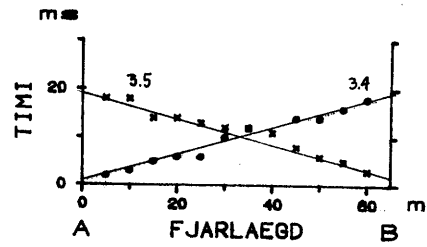
NJ21



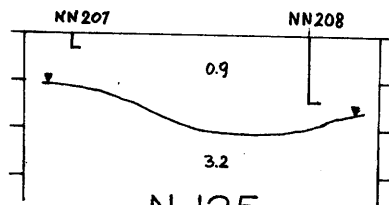
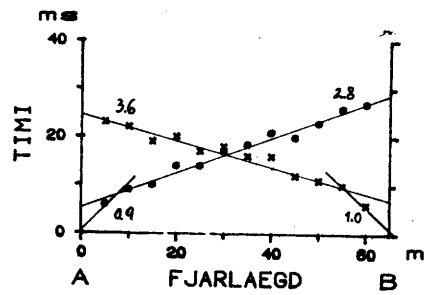
NJ22



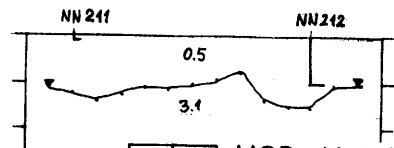
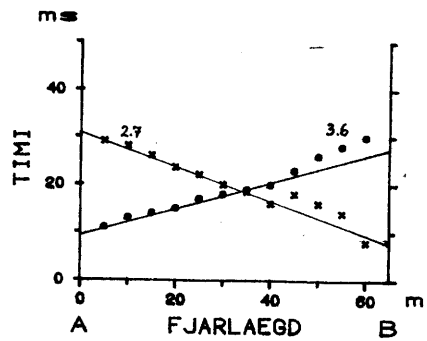
NJ23



NJ24



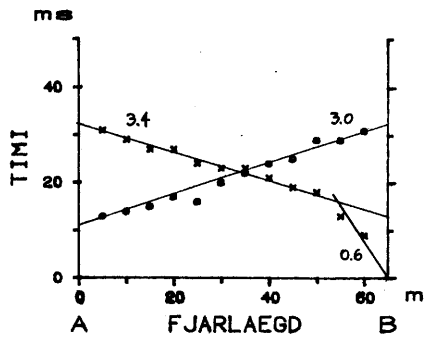
NJ25



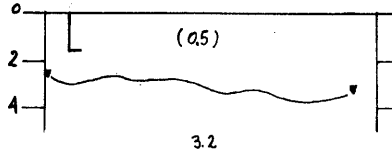
VOD.MJ.760.HB
82.01.0264

FLJÓTSDALSVIRKJUN
HLJÓÐHRAÐALINURIT NJ21-25
KRISTINARKILL
MYND 32

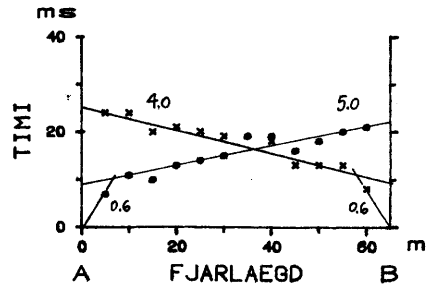
AS50



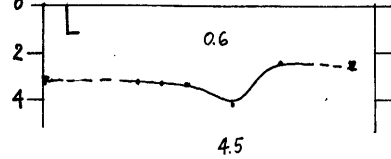
MC 502



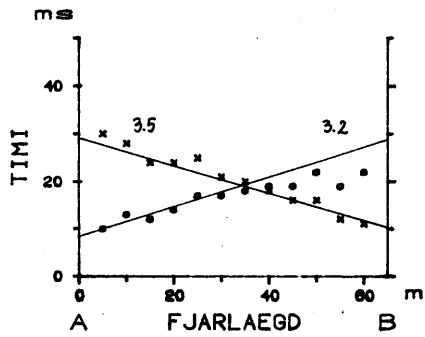
AS51



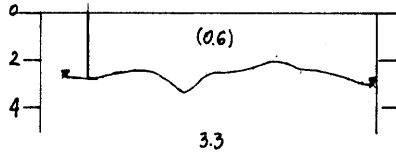
MC 405



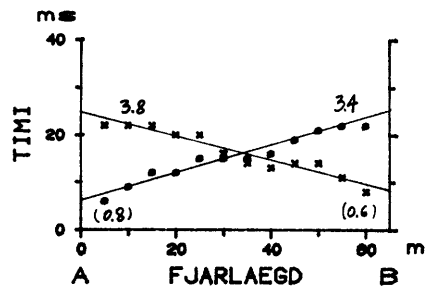
AS52



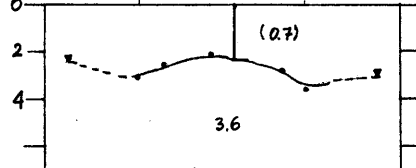
MC 908



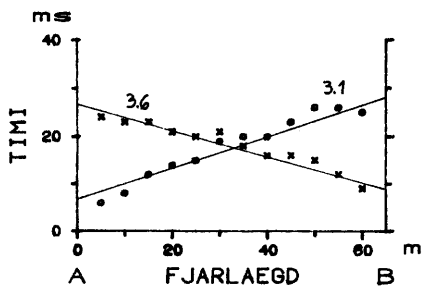
AS53



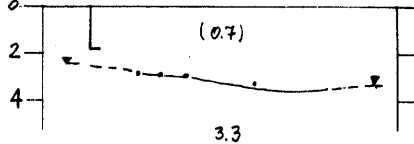
MC 1010



AS54



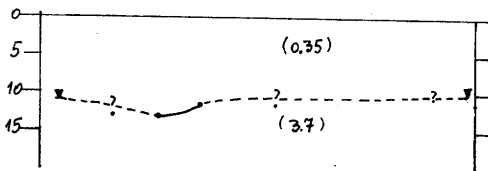
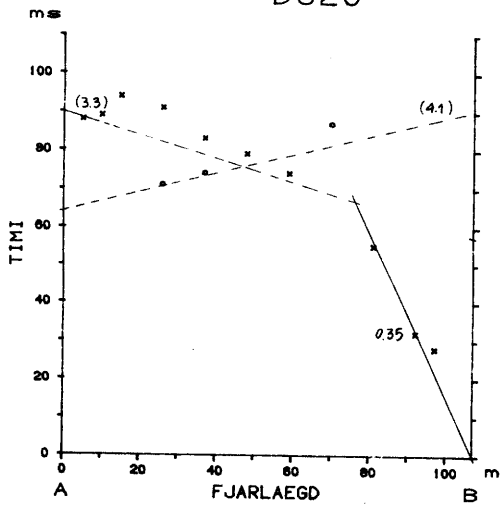
MC 1111



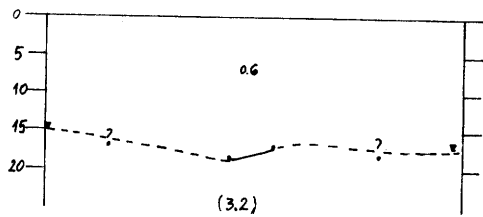
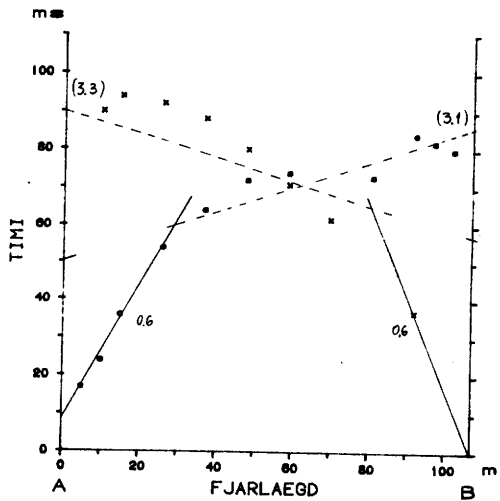
VOD.MJ.760.HB
82.01.0265

FLJÓTSDALSVIRKJUN
HLJÓÐHRAÐALINURIT AS50-54
MELGRÓF
MYND 33

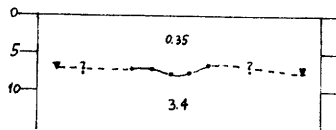
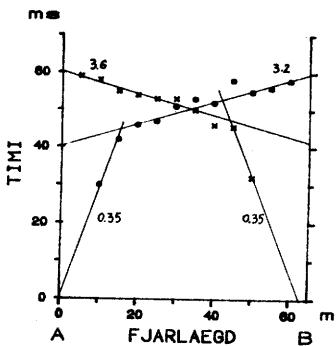
DS20



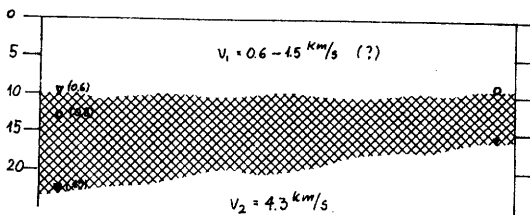
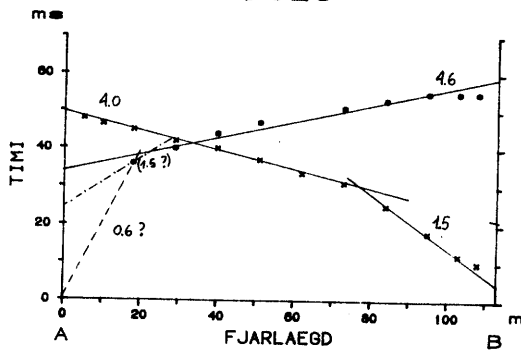
DS21



DS22



DS23



Minnssta og mesta
hugsanlegt útreiknað
dýpi á grunnbergi ef
 $V_1 = 0.6 - 1.5 \text{ km/s}$



VOD.MJ.760.HB
82.01.0266

FLJÓTSDALSVIRKJUN
HLJÓÐHRADALINURIT DS20-23
FLJÓTSDALUR
MYND 34