CHIKYU Operation

Last Update 3/June/2011

Structural Geology Observation Sheet

No.

Exp.: 338 Site: C0022 Hole: B Core: 1~5 Observer: KOTUF Summary:

Section No.	Structure ID	Top of Struct	Bottom of Struct	ave, depth	Thickness of Struct	Core face app. Dip		2nd app. Dip		Striation on surface		Coherent interval (for P-mag)		P-mag pole		Notes
						az.	dip	az.	dip	rake (≤90)	from (±1, 90 or 270) * Top → "1" Bottom →"-1"	top	bottom	az./trend	dip	
(1) 4 5 6																possible mud breccia from 0 to 88cm " " " " 26 to 32cm " " " " 25 to 53cm + from 64 to 78cm
(2) 1	2															nothing
2.	Fault	2	10			90	80	(impossible)				2	15			normal offset of 1.5cm, in working split surface.
3	bedd	64	64			270	1	0	6			1	131			
4.5.6.8.9 & C.C																no structures visible.
(3) 1 2 3																structures invisible } a 1.5~2.0cm thick bed of sands.
4	bedd	120	122			90	5	0	2			0	135			
5	"	25	27.5			90	2	0	6			0	125			
6, 7, 8 & 9																No structures.
(4) 1, 3, 4, 5 & 6																no structures visible
7	bedding (?)	81	81			270	4	180	4			0	131			sand bed varies abruptly in thickness from 0.4 ~ 0.8 cm
8, 9 & 10																nothing structural
(5) 1	nothing recognisable															
2	Normal fault	120	129		~0.2mm	90	54	13	0			0	129			offset = 16mm  N13°E = strike apparent dip along N90°E = 54°.
3	Normal fault	29	70		<0.5 mm	270	83	56	0			0	129			offset? see CT scan?
4	N.F	38	54			270	72	39	0			0	130			offset? see CT scan images
8	bedding	104	104			270	4	0	5			104	130			Sections 5-6 - 7 : nothing
9	bedding	33	33			270	9	0	0			0	37			

CHIKYU Operation

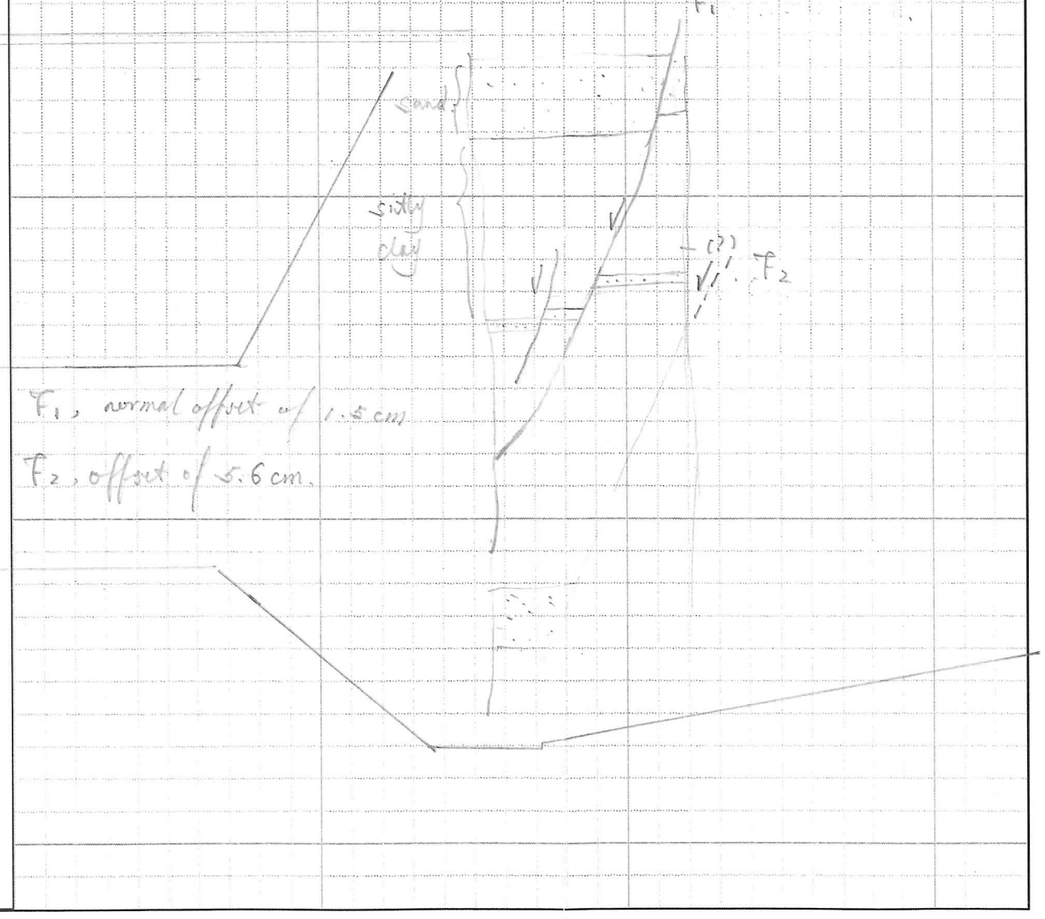
Last Update 3/June/2011

Structural Geology Observation Sheet

No.

Exp.: 338 Site: C0022 Hole: B Core: 6~7 Observer: OF+YS+KO Summary:

Section No.	Structure ID	Top of Struct	Bottom of Struct	ave, depth	Thickness of Struct	Core face app. Dip		2nd app. Dip		Striation on surface		Coherent interval (for P-mag)		P-mag pole		Notes
						az.	dip	az.	dip	rake (≤90)	from (±1, 90 or 270) * Top → "1" Bottom →"-1"	top	bottom	az./trend	dip	
(6) 1	/														→	nothing
2	bedding	120	120			90	14	0	10					0	140	
→ 6 & 7															→	no structures visible.
8	bedd	56	56			90	5	0	4			0	140			
(6) c.c	"	27	27			90	10	0	6			4	85			
4	bedd	33	33			90	12	0	6			0	140			
5	"	25	25			90	12	0	5			0	128			
1	/															
(7) 2	bedd	60	60			90	10	180	6			53	99			
3, 4 & 5, 7, c.c.																
6	bedd	36	36			270	5	180	5			0	95			
"		60	60			90	5	0	28							
8	N.F.	48	60			270	64	160	0			0	138			
"		58	75			270	68	140	0							
bedd		92	92			90	3	180	15							
9	bedd	27	27			90	7	180	6			0	137			



CHIKYU Operation

Last Update 3/June/2011

Structural Geology Observation Sheet

No.

Exp.: 338 Site: C022 Hole: B Core: 8-9 Observer: T-S Summary:

Section No.	Structure ID	Top of Struct	Bottom of Struct	ave, depth	Thickness of Struct	Core face app. Dip		2nd app. Dip		Striation on surface		Coherent interval (for P-mag)		P-mag pole		Notes
						az.	dip	az.	dip	rake (≤90)	from (±1, 90 or 270) * Top → "1" Bottom →"-1"	top	bottom	az./trend	dip	
(8) 1	Fault	28	44			270	71					20	75			xCT: N50E, SE66, normal offset 1.5cm
2	Bedding	4	4			90	2	0	24			0	62			
5	"	93	93			270	4	180	2			0	143			
6	"	48	48			270	3	0	1			0	144			
	"	97	97			270	4	0	5							
(9) 4	Fault	16	37			270	70									fault zone ~0.4cm, offset > 21cm; xCT: N37W, SW78
	"	34	61.5			270	75									fault zone ≤ 1.5cm, normal offset might be ≈ 6.0cm; xCT: N14W, SW77
	bedding	102	102			270	2	180	4							
7	bedding	12	13			270	6	180	5			0	143			
	"	29	30			270	2	180	4							
	N.F.	25.5	36			270	65									normal offset 0.8cm, xCT: N22W, SW55
	bedding	44	44			90	6	180	2							F, xCT: N11W, W69
	"	86	86			90	0	0	8							
8	bedding	45	45			270	2	0	7			0	102			
3	Fault?	20	60									0	31			F
(9) 1	bedding	10	11			90	9	180	2			0	31			F, xCT: N18W, SW50
						270	2	180	7							
2	"	4	4			270	10	180	7							green blocks → F, xCT: N0W, W68
	"	21	22													F, xCT: N0W, W85
4,5,6 & C.C																

VCD_sheet_str110603.xls

CHIKYU Operation

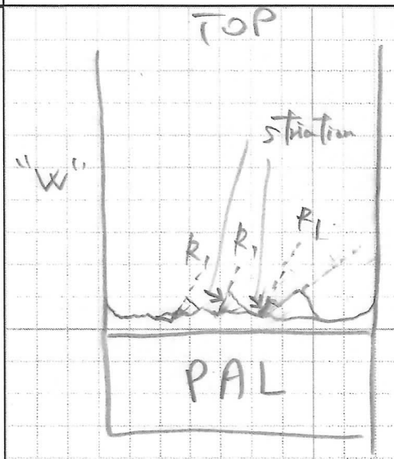
Last Update 3/June/2011

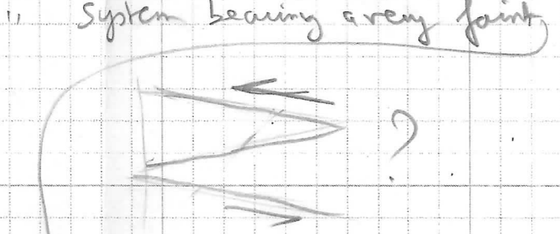
Structural Geology Observation Sheet

No.

Exp. : Site : Hole : 22B Core : 10 Observer : Summary:

Section No.	Structure ID	Top of Struct	Bottom of Struct	ave, depth	Thickness of Struct	Core face app. Dip		2nd app. Dip		Striation on surface		Coherent interval (for P-mag)		P-mag pole		Notes
						az.	dip	az.	dip	rake (≤90)	from (±1, 90 or 270) * Top → *1* Bottom →*-1*	top	bottom	az./trend	dip	
CC																The lowest part of CC mudstone shows a "R" spaced fracture "E" System bearing a very faint linear feature looking like striation R fractures have slightly shiny surfaces
	R	19	20			270	50	180	11			0	20			striation plunge 13° NE rake 2°, 270 on table.
5	bedding?	39	40,5			90	12	180	15			0	49			boundary between sand and claystone (?) = bedding? faintly striated; looks like an incipient "C" surface (?)
	Slip surface(s)	123	124			90	15	180	49	20	270	50	136?			Possible gouge zone from 39cm down to 54cm? Possible foliation within the gouge zone
	Slip surface (?)	50	51			90	8	180	2							
	gouge zone (Tentative)	40	54													
	foliated gouge zone (Tentative)	49	51													





CHIKYU Operation

Last Update 3/June/2011

Structural Geology Observation Sheet

No.

Exp. : 338 Site : C0022 Hole : 22B Core : 11 Observer : Summary:

Section No.	Structure ID	Top of Struct	Bottom of Struct	ave, depth	Thickness of Struct	Core face app. Dip		2nd app. Dip		Striation on surface		Coherent interval (for P-mag)		P-mag pole		Notes
						az.	dip	az.	dip	rake (≤90)	from (±1, 90 or 270) * Top → "1" Bottom →"-1"	top	bottom	az./trend	dip	
CC																Possible planar fabric zone from 14 to 19 cm (progressive transition with underlying planar fabric-free mudstone
1 Planar fabric		18	19			90	15	0	46			35	69			
=						90	5	180	37	85	270					

VCD_sheet_str110603.xls

CHIKYU Operation

Last Update 3/June/2011

Structural Geology Observation Sheet

No.

Exp. : 338 Site : C0022 Hole : B Core : 10, 12 Observer : Summary:

Section No.	Structure ID	Top of Struct	Bottom of Struct	ave, depth	Thickness of Struct	Core face app. Dip		2nd app. Dip		Striation on surface		Coherent interval (for P-mag)		P-mag pole		Notes
						az.	dip	az.	dip	rake (≦90)	from (±1, 90 or 270) * Top → "1" Bottom →"-1"	top	bottom	az./trend	dip	
(10) 1	\															
3	bedd	84	84			270	3	180	5			0	140			
	〃	95	95			90	1	180	13							
	〃	112	112			90	20	180	2							
4	〃	21	21			270	10	0	18			0	141			
	〃	48	48			270	20	180	1							
	〃	116	119			270	24	180	13							
(12) Nothing to describe. (Full of bisouting, cannot see any structure)																

CHIKYU Operation

Last Update 3/June/2011

Structural Geology Observation Sheet

No.

Exp. : 338 Site : C0022 Hole : B Core : 13, 14, 15 Observer : UF Summary:

Section No.	Structure ID	Top of Struct	Bottom of Struct	ave, depth	Thickness of Struct	Core face app. Dip az.	Core face app. Dip dip	2nd app. Dip az.	2nd app. Dip dip	Striation on surface rake (≤90)	Striation on surface from (±1, 90 or 270) * Top → "1" Bottom → "-1"	Coherent interval (for P-mag) top	Coherent interval (for P-mag) bottom	P-mag pole az./trend	P-mag pole dip	Notes
(13) 1																drilling? / splitting? disturbed → nothing visible
2																" "
3																" "
4	deformation band?	76	83			180	40	270	42			1	93			
5, 6, CC																Nothing visible
14 2, 6, 7 & CC																nothing structural, due to drilling.
5	bedding (?)	101	101			90	0	180	15			101	103			boundary between dark and gray mudstone, not clearly exposed.
3	bedding (?)	101	107			90	46	180	25			94	109			
8	bedding	17	18			270	10	0	13			12	46			
"	"	31	35			270	25	0	8							
3	bedding	39	43			90	3	0	43			32	48			
1	bedding	96	100			90	26	0	2			94	110			
15 1, 2, 3, 6 & C.C.																no core recovery, visible structures, due to the disruption of core.
4	bedding	79	82			270	30	180	8			77	82			
5	"	16	18			90	19	0	3			11	18			
6	"	61	66			270	46	0	12			57	67			

CHIKYU Operation

17-18

Structural Geology Observation Sheet

Last Update 3/June/2011

No.

Exp.: 338 Site: C0022 Hole: B Core: 16 Observer: KO Summary:

Section No.	Structure ID	Top of Struct	Bottom of Struct	ave, depth	Thickness of Struct	Core face app. Dip az.	Core face app. Dip dip	2nd app. Dip az.	2nd app. Dip dip	Striation on surface rake (≤90)	Striation on surface from (±1, 90 or 270) * Top → *1* Bottom →*-1*	Coherent interval (for P-mag) top	Coherent interval (for P-mag) bottom	P-mag pole az./trend	P-mag pole dip	Notes
16 1.	} Nothing to describe.															
2.																
3.																
5.	bedding	27	27			90	3	180	23			8	35			above boundary: Muddy ash layer below " : greenish gray mudstone
6.	} Nothing to describe															
7.																
8.																
CC																
17 1	} Nothing to describe															
2																
4																
5																
6.	bedding	70	72		1.0 cm	270	15	180	23			66	87.5			pyrite alines along the surface.
7.	"	25	26		1.0 cm	270	2	180	2			11	28			Layer of tuffaceous mud. wavey surface.
7	"	46	50		1.0 cm	270	30	180	33			45	51			
8.	"	65	70		2.0 cm	90	20	180	85			69.5	72			fine grain pyrite
18 1																drilling disturbance makes recognition of bedding indeed difficult
2	bedding	30	34			90	1	0	35			30	34?			reliable? drilling-dragged?
3	"	59,5	59,5			270	2	0	5			58?	61?			
																Sections 5, 6, CC: drilling induced disruption makes observations and measurements highly doubtful and not reliable

CHIKYU Operation

Last Update 3/June/2011

Structural Geology Observation Sheet

No.

Exp.: 338 Site: 22 Hole: B Core: 19, 20, 21 Observer: OF-YH Summary:

Section No.	Structure ID	Top of Struct	Bottom of Struct	ave, depth	Thickness of Struct	Core face app. Dip az.	Core face app. Dip dip	2nd app. Dip az.	2nd app. Dip dip	Striation on surface rake (≤90)	Striation on surface from (±1, 90 or 270) * Top → *1* Bottom →*-1*	Coherent interval (for P-mag) top	Coherent interval (for P-mag) bottom	P-mag pole az./trend	P-mag pole dip	Notes
19 1	bedding	24	24			90	1					19,5	27			
3																
4	bedd	24	24			90	8 (?)	180	11(?)			23	27			
5, 6	&CC :	no recognisable structure														
20 1	bedding	30	30			270	3	180	1			27	30			
2	"	11	11			90	0	0	2			8	11			
3	"	66	66			270	2	0	0			62	67			
	"	93	93			270	2	180	7			92	97			
5, 8 &		10														no invisible structures instead of description by core
6	bedding	107	107			90	4	0	0			105	107			
7	bedding	13	13			90	0	180	3			12	15			
	"	120	120			90	0	180	7			116	120.5			
9	"	121	121			90	2	0	2			118	121.5			
CC	"	55	55			90	2	0	7			51	55			
21 1	—															
2	bedding	32	32			270	5	0	4			31	33			
3	—															
4	bedding (?)	71	71			90	2	180	3			69	73			a set of densely spaced, parallel fractures

VCD_sheet_str110603.xls

CHIKYU Operation

Last Update 3/June/2011

Structural Geology Observation Sheet

No.

Exp. : 338 Site : C022 Hole : B Core : 21-23 Observer : Summary:

Section No.	Structure ID	Top of Struct	Bottom of Struct	ave, depth	Thickness of Struct	Core face app. Dip		2nd app. Dip		Striation on surface		Coherent interval (for P-mag)		P-mag pole		Notes
						az.	dip	az.	dip	rake (≤90)	from (±1, 90 or 270) * Top → "1" Bottom →"-1"	top	bottom	az./trend	dip	
21	5,7	—														
	8	bedd	68	68		90	10	180	9			65	68			
		"	90	90		90	2	180	6			88	91.5			
	9	—														
	10	bedd	28.5	28.5		90	0	180	5			19	44			
		"	34	35		90	13	0	0							
	cc.	—														
22	1	bedding	69.5	69.5		270	2	0	0			58	84.5			
		"	88.5	88.5		90	0	0	3			84.5	91			
		"	128.5	128.5		270	4	180	1			118	131			
	cc	"	27.5	27.5		90	2	0	2							
23	1, 2 & 3	—														
	5	D.B.	52	52		90	6	180	6			47	50			1mm
	6	bedd	116	116		270	2	0	1			112	117			
	7	"	105	105		90	2	180	12			104	107			
	8	—														
	9	—														
	10	—														
	C.C.	—														

CHIKYU Operation

Last Update 3/June/2011

Structural Geology Observation Sheet

No.

Exp. :338 Site : C002 Hole : B Core : 24, 25 Observer : shaw, ko Summary:

Section No.	Structure ID	Top of Struct	Bottom of Struct	ave, depth	Thickness of Struct	Core face app. Dip		2nd app. Dip		Striation on surface		Coherent interval (for P-mag)		P-mag pole		Notes
						az.	dip	az.	dip	rake (≦90)	from (±1, 90 or 270) * Top → "1" Bottom →"-1"	top	bottom	az./trend	dip	
24 1	bedding	21	21			90	2	180	6			21	26			
	"	72	72			270	2	180	3			72	80			
2	"	21	21			90	0	0	6			21	26			
	"	36	36			90	1	0	5			36	40			
4	"	27	32			270	5	180	4			27	32			
	"	84	84			90	2	180	3			80	84			
5	"	83.5	83.5			270	2	180	1			79	85			
6	"	7.5	7.5			90	0	180	2			7.5	13			
7	"	41	41			90	1	180	5			41	43.5			
	"	134	134			270	1	180	6			134	139			
8	"	67.5	67.5			90	3	0	0			67.5	88			
C.C.	"	18	18			270	4	180	5			18	24			
	D.B.	12	14.5			270	32	67	0							
25 1	bedding	10	10			90	0	0	12			10	13.5			
	"	53.5	53.5			90	1	0	1			50	54			
4	bedding	53.5	53.5			270	2	0	3			49	54			
7	"	~~66~~	67			90	4	180	8			63	69			
6	"	89	90			90	5	180	1			83	96			

CHIKYU Operation

Last Update 3/June/2011

Structural Geology Observation Sheet

No.

Exp.: 338 Site: C0022 Hole: B Core: 26 Observer: KO Summary:

Section No.	Structure ID	Top of Struct	Bottom of Struct	ave, depth	Thickness of Struct	Core face app. Dip		2nd app. Dip		Striation on surface		Coherent interval (for P-mag)		P-mag pole		Notes
						az.	dip	az.	dip	rake (≦90)	from (±1, 90 or 270) * Top → "1" Bottom →"-1"	top	bottom	az./trend	dip	
3	bedding	58	58			90	2	180	7					55	61	
1	bedding	135	135			90	5	0	2					135	137	
2	bedding	130	130			270	6	180	8					126	135	
3	〃	94	94			270	1	180	12					91	99	
4	〃	54	54			90	12	180	4					51.5	58	
	〃	100	100			90	10	180	8					95.5	102	
6	〃	21.5	21.5			270	2	180	6					18	25	< 5: Nothing.
2	D.B	7	10			317	0	47	76					6	10.5	43 / 76
	〃	21.5	25.5			70	0	340	55					21	25.5	55 / 70
	〃	57	61			85	0	355	53					57	61	53 \ 85
	〃	82	83.5			78	0	168	16					80	83.5	78 / 16
3	〃	30	35			66	0	156	50					30	35	66 / 50
	〃	61	65			71	0	161	62					61	65	71 / 62
	〃	81	85			16	0	286	45					81	85	45 \ 16

} by X-CT

CHIKYU Operation

Last Update 3/June/2011

Structural Geology Observation Sheet

No.

Exp.: 338 Site: C0022 Hole: B Core: 26 Observer: KO Summary:

Section No.	Structure ID	Top of Struct	Bottom of Struct	ave, depth	Thickness of Struct	Core face app. Dip		2nd app. Dip		Striation on surface		Coherent interval (for P-mag)		P-mag pole		Notes
						az.	dip	az.	dip	rake (≦90)	from (±1, 90 or 270) * Top → "1" Bottom →"-1"	top	bottom	az./trend	dip	
4	D.B.	18	22			11	0	281	73					18	22	73 / 11
	"	46	50			37	0	307	55					46	50	55 / 37
	"	75	82			61	0	331	60					75	82	60 / 61
5	"	13.5	19			23	0	293	77					13.5	19	77 / 23 cuts burrow.
	"	6.0	11.5			81	0	171	55					6.0	11.5	81 / 55 displaced by above deformation band

by X-CT

CHIKYU Operation

Last Update 3/June/2011

Structural Geology Observation Sheet

No.

Exp.: 338 Site: C0022 Hole: B Core: 27 Observer: KO Summary:

Section No.	Structure ID	Top of Struct	Bottom of Struct	ave, depth	Thickness of Struct	Core face app. Dip		2nd app. Dip		Striation on surface		Coherent interval (for P-mag)		P-mag pole		Notes
						az.	dip	az.	dip	rake (≤90)	from (±1, 90 or 270) * Top → "1" Bottom →"-1"	top	bottom	az./trend	dip	
1.	bedding	41	41			270	2	0	2			38	41			
	"	64.5	64.5			90	3	180	1			61	65			
		122	122			270	4	0	2			119	127			
2.	"	50	50			90	0	180	3			47	51			
	"	73	75		2.0	90	4	0	2			69	76.5			
	"	109	109			270	2	180	1			104	110.5			
	"	134	134			270	2	0	6			132	137			
3	"	8.0	9.5		1.5	90	5	0	2			5.5	13			
	"	27	28.5		1.5	270	1	180	7			24	30			
	"	51	52.5		1.5	90	4	0	1			48	53			
	"	65.5	67.5		1.5	90	1	180	1			63	67.5			
5	"	49	51.5		2.5	90	2	0	8			45	52			
CC	"	8	8			90	0	180	10			3.5	8			
3	D.B	59	60			148	.0	238	20			58	60			

32/20 from X-CT image

CHIKYU Operation

Last Update 3/June/2011

Structural Geology Observation Sheet

No.

Exp.: 338 Site: C0022 Hole: B Core: 28+29 Observer: DF Summary:

	Section No.	Structure ID	Top of Struct	Bottom of Struct	ave, depth	Thickness of Struct	Core face app. Dip		2nd app. Dip		Striation on surface		Coherent interval (for P-mag)		P-mag pole		Notes
							az.	dip	az.	dip	rake (≤90)	from (±1, 90 or 270) * Top → "1" Bottom →"-1"	top	bottom	az./trend	dip	
28	1	bedding	99	99	90	0	90	0	0	6			96	101			
	2	bedding	60,5	60,5	60,5	0	90	1	0	1			59	61			
	4	Fault	47	62		0	270	83	27	0	62	270	47	58			possible fault but drilling induced feature cannot be excluded. faint striations. Sense cannot be ascertained.
		bedding	77,5	77,5			90	1	180	1			73,5	78			
	5	bedding	36	36			90	1	0	8			35,5	39,5			
		"	52,5	52,5			90	4	0	5			50	53			
	6	"	26	26			90	0	0	1			19,5	60			
	CC	/															
29	1	bed.	25	25			270	2	180	5			21,5	27			
	3	"	22	22			270	8	0	8			2	28			
		"	79	79			90	1	180	2			77	80			
	4	"	34	34			270	9	180	11			24	42			
	5	/															
	CC	/															
30	1	bedd	6	6			90	7	0	13			4	6			
		"	55	55			90	0	0	8			51,5	56,5			
	2,4	"															
	5	bedd	65	65			270	1	0	5			38	70			
		D.B.	15,5	17		0.5mm	270	21	180	25			10,5	25			
		"	16,5	18		"	270	21	180	20							
		bedd	102	102			90	2	180	3			102	105			

CHIKYU Operation

Last Update 3/June/2011

Structural Geology Observation Sheet

No.

Exp. : 338 Site : C0022 Hole : B Core : 30-31 Observer : T-S Summary:

Section No.	Structure ID	Top of Struct	Bottom of Struct	ave, depth	Thickness of Struct	Core face app. Dip		2nd app. Dip		Striation on surface		Coherent interval (for P-mag)		P-mag pole		Notes
						az.	dip	az.	dip	rake (≦90)	from (±1, 90 or 270) * Top → "1" Bottom →"-1"	top	bottom	az./trend	dip	
30																
	7	bedd	93	93		90	4	180	2			82	97			
	8	D.B.	29	31		90	13	180	3			29	31			
	C.C.	bedd	6	6		90	0	180	10			1	6			
					< 0.5mm	270	35	0	55			8	14			} inter distance 12 mm. Photographs taken by OF (1A/5B)
31	8	D.B.	10	14												
		"	11	15	"	270	34	0	46							
												25	90			
		"	28	28	"	90	0	0	1							
	1	bedd	73	73		90	3	0	0			73	77			
	2	"	25	25		90	2	180	4			21	25			
		"	118	118		90	0	♡	1			118	124			
	4	"	76.5	76.5		270	1	180	2			74	79			
	5	"	21	21		90	5	180	3			18	21			
		"	122	122		90	1	0	2			122	126			
	6	"	28	28		90	3	0	3			19	28			
		"	55	55		270	3	180	1			49	55			
		"	77	77		270	3	0	0			77	90.5			
	8	"	4	4		90	0	180	7			4	7			
		"	107	107		270	8	180	1			107	111			
	7	"	107	107		90	0	180	3			104	107			
	a.c	→														

CHIKYU Operation

Last Update 3/June/2011

Structural Geology Observation Sheet

No.

Exp. : 338 Site : C0022 Hole : B Core : 32, 33, 34 Observer : F.S Summary:

Section No.	Structure ID	Top of Struct	Bottom of Struct	ave, depth	Thickness of Struct	Core face app. Dip		2nd app. Dip		Striation on surface		Coherent interval (for P-mag)		P-mag pole		Notes
						az.	dip	az.	dip	rake (≦90)	from (±1, 90 or 270) * Top → "1" Bottom →"-1"	top	bottom	az./trend	dip	
32 1	—															intensely fragmented by coring. no structure inside. ← fine sandstone/siltstone & siltymudstone
2	—															
33 1	DB.	4	8		1mm	90	85	152	0			4	8			
4	..	113	110		1mm↑	90	46	0	58			107	110			D1 D1
1	bedd	16	16			90	0	0	6			13	16			cphotography
	..	125.5	125.5			270	2	180	5			125.5	132			
2	..	79	79			90	0	180	3			69	79			
3	..	42	42			270	1	180	3			42	52			
	..	52	52			270	1	180	4							
4.	..	16.5	16.5			90	0	0	13			16.5	23			
	..	77	77			90	0	0	8			77	84			
5	..	40.5	40.5			90	2	180	14			40.5	43			
6.	..	55	55			270	1	180	10			50	55			
8	—															
C.C.	bedd	17.5	17.5			90	3	180	2			17.5	23.5			
34 1	—															
2	bedd	7.5	7.5			90	0	180	3			3	26			
4	..	125	125			90	0	0	8			125	140			
5	..	113	113			270	1	180	4			113	120			
6	..	125	125			90	0	180	4			112	125			

CHIKYU Operation

Last Update 3/June/2011

Structural Geology Observation Sheet

No.

Exp. : 338 Site : C0022 Hole : B Core : 34 Observer : OF Summary:

Section No.	Structure ID	Top of Struct	Bottom of Struct	ave, depth	Thickness of Struct	Core face app. Dip		2nd app. Dip		Striation on surface		Coherent interval (for P-mag)		P-mag pole		Notes
						az.	dip	az.	dip	rake (≦90)	from (±1, 90 or 270) * Top → "1" Bottom → "-1"	top	bottom	az./trend	dip	
34																
4	DB	76	82		1 mm	90	67	161	0			76	88			B1, about 1cm normal offset(??)
	"	79	88		"	90	58	0	50							B2
	"	23.5	31		2~5 mm	270	33	0	2			24	42			
	"				<1.5 mm	270	27	complicated								← dark-green silty mud str.
	"	115	115.5		3 mm	90	3	180	1			111	119			B1
1	D.B.	76	80		1 mm	90	25	0	60			69	84			B2
6	"	99	106		"	90	60	137	0			97	107			
8	"	81	81		2 mm	90	2	0	7			76	81			
7	"	67	72		<0.5mm	270	60	10	0			66	72			
	bed	14	14			90	6	180	2			14	21			
	"	52	52			90	1	0	2			45	52			
2 & cc -																

CHIKYU Operation

Last Update 3/June/2011

Structural Geology Observation Sheet

No.

Exp.: 338 Site: C0022 Hole: B Core: 35 +36 Observer: OF +KO Summary:

Section No.	Structure ID	Top of Struct	Bottom of Struct	ave, depth	Thickness of Struct	Core face app. Dip		2nd app. Dip		Striation on surface		Coherent interval (for P-mag)		P-mag pole		Notes
						az.	dip	az.	dip	rake (≦90)	from (±1, 90 or 270) * Top → "1" Bottom →"-1"	top	bottom	az./trend	dip	
①	D.B.	12	12,5		<0.5 mm	270	10	0	75			10	13			
	D.B	45	45,5		~1 mm	90	5	0	2			44	46			
②	D.B.	20,5	21		~1 mm	270	12	180	3			20	24			
	bedd.	41	41			90	0	0	1			39	41,5			
③	DB	70,5	71,5			270	22	0	12			66	71,5			
	DB	82,5	83			0	13	90	10			80	83			
④	DB	44,5	44,5			90	1	0	0			42	45			
	DB	50	51			270	12	180	3			49,5	57			
⑥	DB	11	12			90	26	180	60			9	13			
⑦	bedd.	108,5	108,5			90	3	0	1			104	113			
⑧	DB	52,5	52,5			270	3	180	13			48	61			
⑨	bedd.	40,5	40,5			270	2	0	1			35,5	43			
⑩ + ⑤	nothing clear															
26 4	bedding	32	32			90	0	0	1			25	41.5			Section 1, 2. Nothing to describe.
	"	41.5	41.5			90	0	0	4			41.5	50			
5	"	24.5	24.5			270	9	0	4			22.5	26			
	"	102	102.5			270	3	0	10			101	105			
	"	114	114			90	0	180	3			112	115			
7.	"	8	9			90	5	180	2			0	12			

CHIKYU Operation

Last Update 3/June/2011

Structural Geology Observation Sheet

No.

Exp. : 338 Site : C0022 Hole : B Core : 36 Observer : KO Summary:

Section No.	Structure ID	Top of Struct	Bottom of Struct	ave, depth	Thickness of Struct	Core face app. Dip		2nd app. Dip		Striation on surface		Coherent interval (for P-mag)		P-mag pole		Notes
						az.	dip	az.	dip	rake (≤90)	from (±1, 90 or 270) * Top → "1" Bottom →"-1"	top	bottom	az./trend	dip	
36																
	3	D.B	13.5	22		13	0	283	71			13.5	22			
	5	〃	128	131		51	0	141	46			127	132			
	CC	Nothing To describe														

71/13
51/46
from CT image

CHIKYU Operation

Last Update 3/June/2011

Structural Geology Observation Sheet

No.

Exp.: 338 Site: C0022 Hole: B Core: 37-38 Observer: KO-FS Summary:

Section No.	Structure ID	Top of Struct	Bottom of Struct	ave, depth	Thickness of Struct	Core face app. Dip az.	Core face app. Dip dip	2nd app. Dip az.	2nd app. Dip dip	Striation on surface rake (≤90)	Striation on surface from (±1, 90 or 270) * Top → "1" Bottom → "-1"	Coherent interval (for P-mag) top	Coherent interval (for P-mag) bottom	P-mag pole az./trend	P-mag pole dip	Notes
37 1	bedding	51	55			90	3	180	4			51	55			
2	D.B	14.5	14.5		2.0mm	90	0	0	0			13	16			
	"	14.5	16		1.0mm	270	21	0	35			13	16			
3.	Bedding	17				90	10	180	6			14	20			
CC	Nothing To describe.															
1	D.B.	16	16		1-2mm	270	3	0	3			14	39			
38	bedding	62	62			90	0	0	3			50	64			
	D.B.	102	106		<0.5mm	270	56	180	37			67	106			
	bedding	134	134			90	2	0	0			124	141			
	D.B.	129.5	129.5		<0.5mm	270	1	180	4							
	D.B.	22	22		1mm	90	14	180	1			5	102			
2	D.B.	127	140			270	66	0	62	87	270	69	140			unknown slip sense; strike-slip.
4	bedding	31.5	31.5			270	1	180	5			21	82			
5	D.B.	89	93		<1mm	270	37	180	20			68	141			
6	D.B.	80	81.5		<0.5mm	90	19	0	87			76	82			
7	bedding	61	61			90	3	0	5			53	67			
8	Joint	0	17			90	33	147	0			0	17			(the first & the third) two conjugate, one low planar structure with an axis sub parallel to the core axis (seemingly)
	"	0	17			90	81	154	0							
	"	0	17			90	90	61	0							

CHIKYU Operation

Last Update 3/June/2011

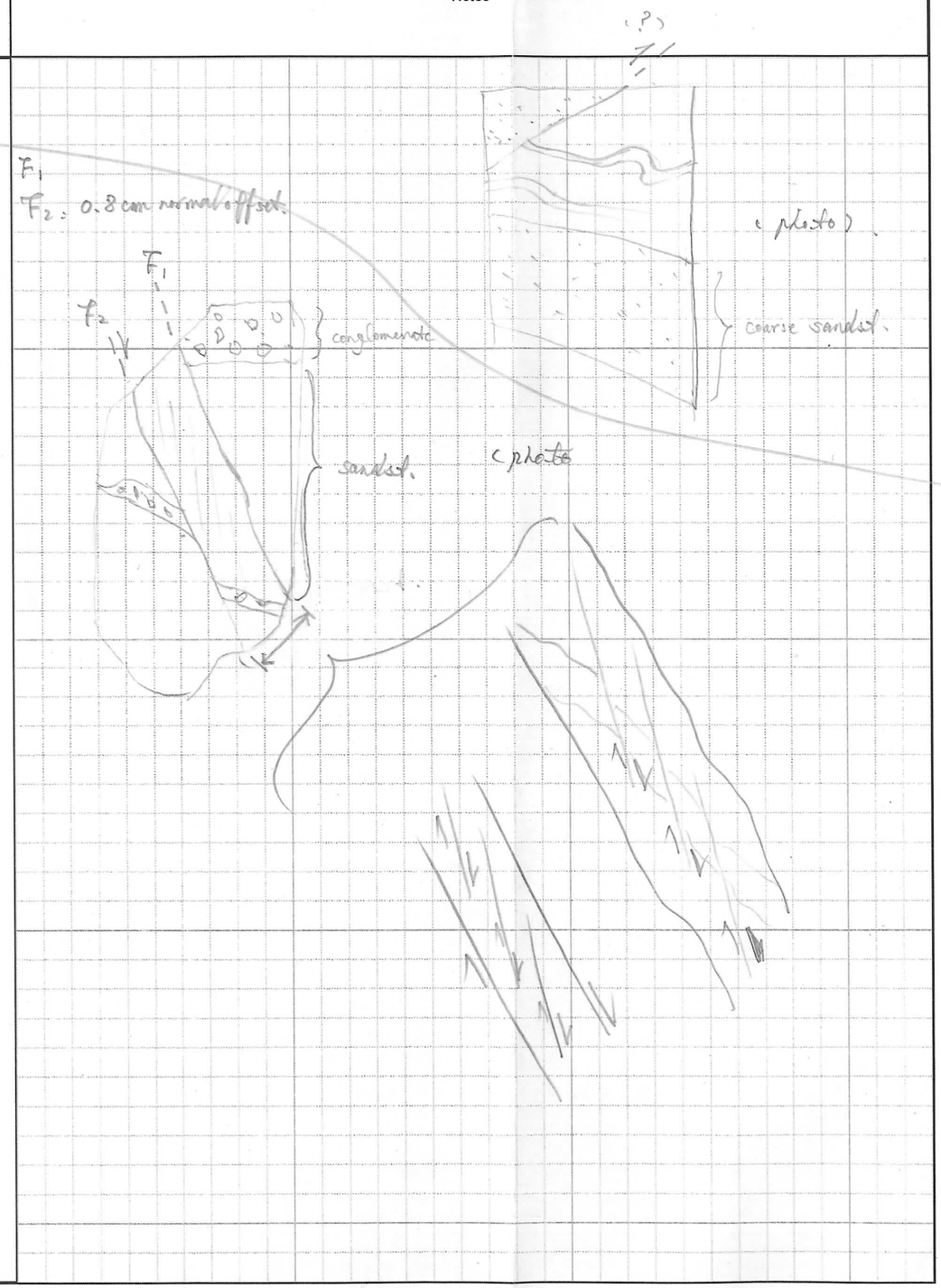
Structural Geology Observation Sheet

No.

Exp. : 338 Site : C0022 Hole : B Core : 38 Observer : T-S Summary:

Section No.	Structure ID	Top of Struct	Bottom of Struct	ave, depth	Thickness of Struct	Core face app. Dip		2nd app. Dip		Striation on surface		Coherent interval (for P-mag)		P-mag pole		Notes
						az.	dip	az.	dip	rake (≤90)	from (±1, 90 or 270) * Top → "1" Bottom →"-1"	top	bottom	az./trend	dip	
9	Fault	0	4			270	31	180	8			0	21			
5	Fault	9	15			90	45	180	50			8	20			
	〃	11	16			90	49	180	23							

38



CHIKYU Operation

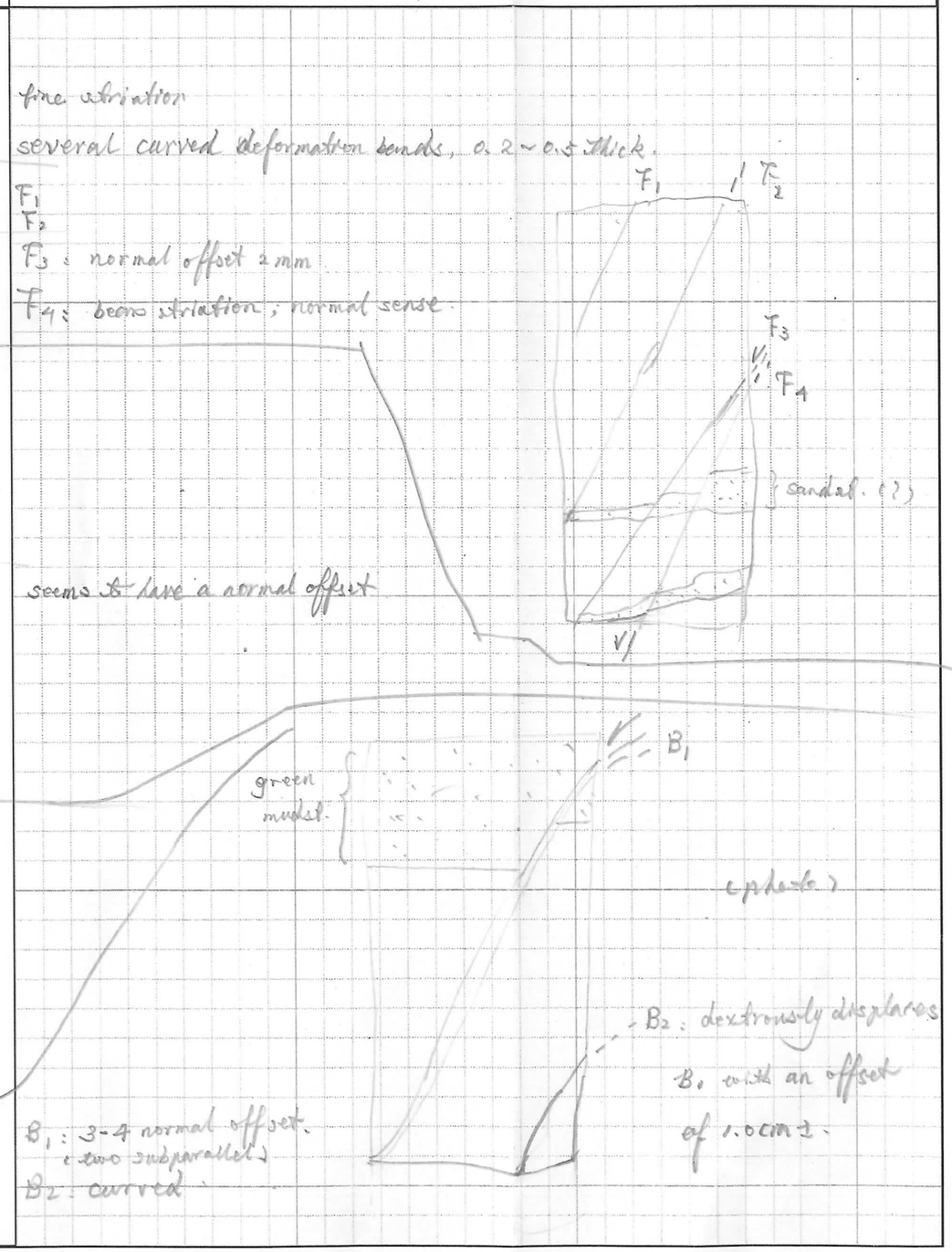
Last Update 3/June/2011

Structural Geology Observation Sheet

No.

Exp. : 338 Site : C0022 Hole : B Core : 39 Observer : F-S Summary:

Section No.	Structure ID	Top of Struct	Bottom of Struct	ave, depth	Thickness of Struct	Core face app. Dip az.	Core face app. Dip dip	2nd app. Dip az.	2nd app. Dip dip	Striation on surface rake (≤90)	Striation on surface from (±1, 90 or 270) * Top → "1" Bottom →"-1"	Coherent interval (for P-mag) top	Coherent interval (for P-mag) bottom	P-mag pole az./trend	P-mag pole dip	Notes
39																
1	bedd.	89	89			270	2	0	5			47.5	105			
2	Fault	57	61			90	50	0	61	64	90	57	115			fine striation
	D.B.	86	94		<0.5mm											several curved deformation bands, 0.2~0.5 thick.
	Fault	102	107			270	52	180	46							
	"	103	107			270	51	176	0							F_1
	"	103	110			270	57	156	0							F_2
	"	108	114			270	59	156	0	47	90					F_3 : normal offset 2mm
																F_4 : beans striation; normal sense.
4	bedd.	7	7			270	4	0	4			0	14			
	"	133	133			270	2	0	0			133	140			
5	"	10	10			90	3	0	3			2	10			
6	D.B.	50	50		<0.5mm	270	47	0	31			0	95			
	bedd.	89	89			270	3	180	14							
7	"	35	35			90	0	0	0			0	72			
C.C.	—															
40																
1	bedd.	12	12			270	2	180	1			9.5	13.5			
2	"	29.5	29.5			270	2	180	5			17.5	31.0			
	D.B.	61	65		<0.5mm	270	34	150	0			53	73			
	D.B.	97.5	104		"	270	50	28	0			97.5	104			
	bedd.	118	118			90	6	180	6			114	121			
4	NF	39	54		1~5 mm	270	62	0	60			32	60			
	"	47	55		"	270	50~60	180	62							



Normal fault

CHIKYU Operation

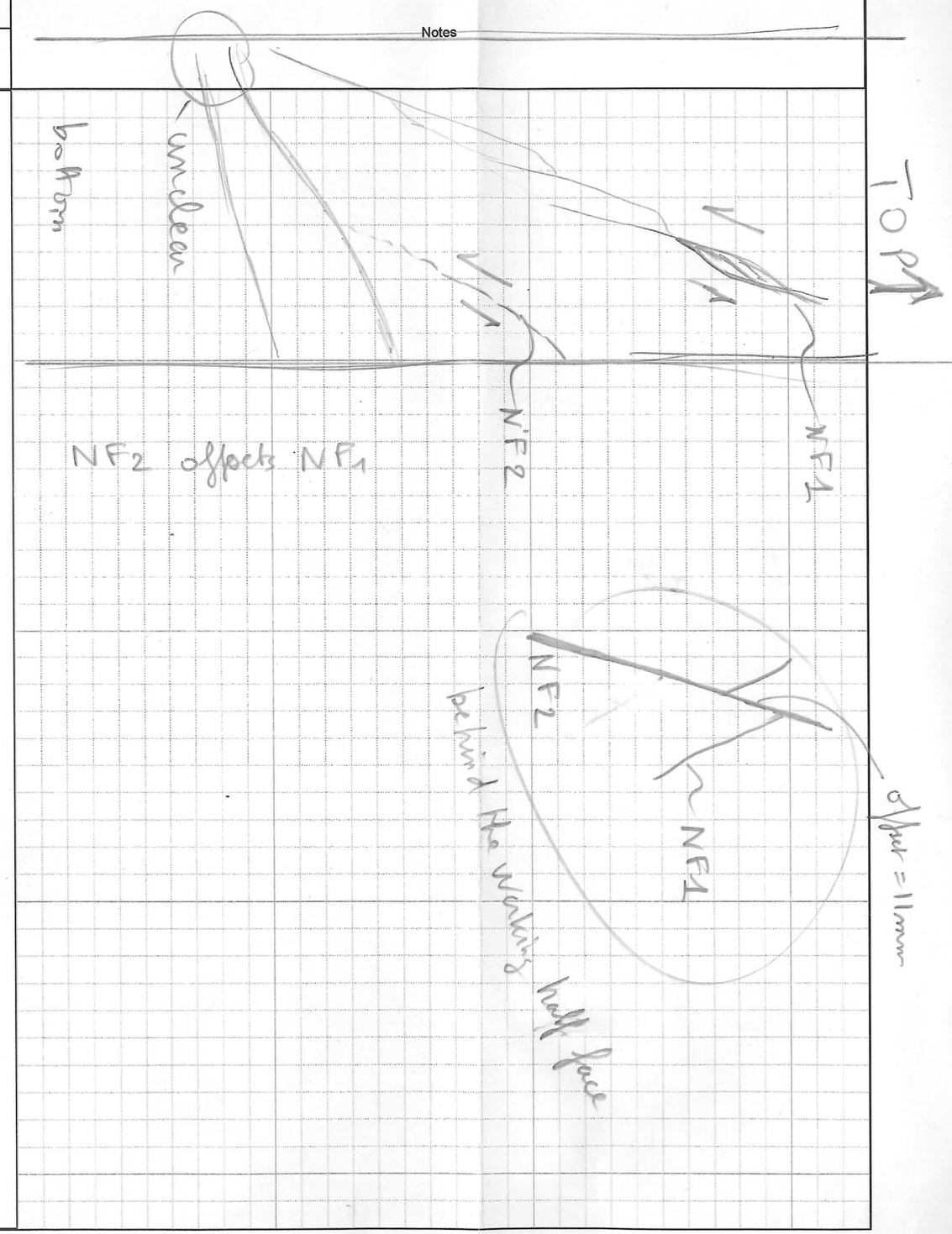
Last Update 3/June/2011

Structural Geology Observation Sheet

No.

Exp. : 338 Site : C0022 Hole : 22B Core : 40 Observer : Summary:

Section No.	Structure ID	Top of Struct	Bottom of Struct	ave, depth	Thickness of Struct	Core face app. Dip		2nd app. Dip		Striation on surface		Coherent interval (for P-mag)		P-mag pole		Notes
						az.	dip	az.	dip	rake (≤90)	from (±1, 90 or 270) * Top → "1" Bottom →"-1"	top	bottom	az./trend	dip	
4	NF_1	39	50		3-6 mm	270	62	0	58							
	NF_2	48	54,5		<1mm	270	37	180	68							
	DB	53	54,5		0.5 mm	270	15	180	48							
	Bed	56	56			270	3	0	3							



CHIKYU Operation

Structural Geology Observation Sheet

Last Update 3/June/2011

No.

Exp. : 338 Site : C0022 Hole : R Core : 40-41 Observer : F-S Summary:

Section No.	Structure ID	Top of Struct	Bottom of Struct	ave, depth	Thickness of Struct	Core face app. Dip		2nd app. Dip		Striation on surface		Coherent interval (for P-mag)		P-mag pole		Notes
						az.	dip	az.	dip	rake (≦90)	from (±1, 90 or 270) * Top → "1" Bottom →"-1"	top	bottom	az./trend	dip	
4	bedd.	39	39			90	0	180	2							
	D.B.	93	97.5		1mm	90	32	0	4			90	100			
5	D.B.	145	25		1mm	90	66	116	0			14	37			
	"	25	25.5		1mm	90	9	0	10							
	"	25	30.5		<0.5mm	270	75	28	0							
	"	21.5	22.5		<0.5mm	270	14	0	4			66	80			
	bedd.	31	31			90	0	0	4							
C.C	bedd.	13	13			270	4	0	0			13	19			
1	bedd.	51	51			90	1	0	0			44	60			
	D.B.	46	46.5		1mm.	90	4	0	0							
2	bedd.	87	87			90	2	180	3			76	87			
3	bedd.	129	129			90	1	0	3			129	132.5			
4	"	2.5	2.5			270	5	0	0			2.5	10			
5	"	9	9			270	2	0	5			0	9			
C.C	"	10	10			270	3	180	7			0	93