

Structural Geology Observation Sheet

Exp.: 370

Site: C0023 Hole: A

Observer: S. Tonai

Summary: core 7 sec 5 ~ core 9 deformation band

Core No.	Section No.	Structure ID	Top of Struct	Bottom 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	1	fill													
	cc	fill													
2	1	filling													
	cc	filling													
3	1														
	2	Bedding	7	7	90	3	0	3							sec 1 45-65cm fracture: but unclear in CT image maybe ass with cutting (splitting)
4	1	filling fracture	8	8	270	2	0	3							
		"	11	11	270	0	0	1							
		"	13	13	270	1	0	3							
2	saupy sand														cc 16-38cm flow in.
5	1	filling													
	2	ASS WR													
	3														
cc															sec 3 10-18cm Calcite (Siderite?) nodule
6															
7	5	deformation band	135	139	270	58	180	32			135	139			partly unavailable because of biscuitting structure is
8	1	filling													
	cc	deformation band fill disturbed	24	27	90	58	0	50			24	34			these could be rotated by drill disturbed (2nd app. dip is measured by X-CT image)
			27.5	31	90	55	0	50			24	34			
9	1	<del>drilling disturbance</del> deformation band	19	22	270	30	0	19			19	22			but drilling disturbance
	cc	filling													

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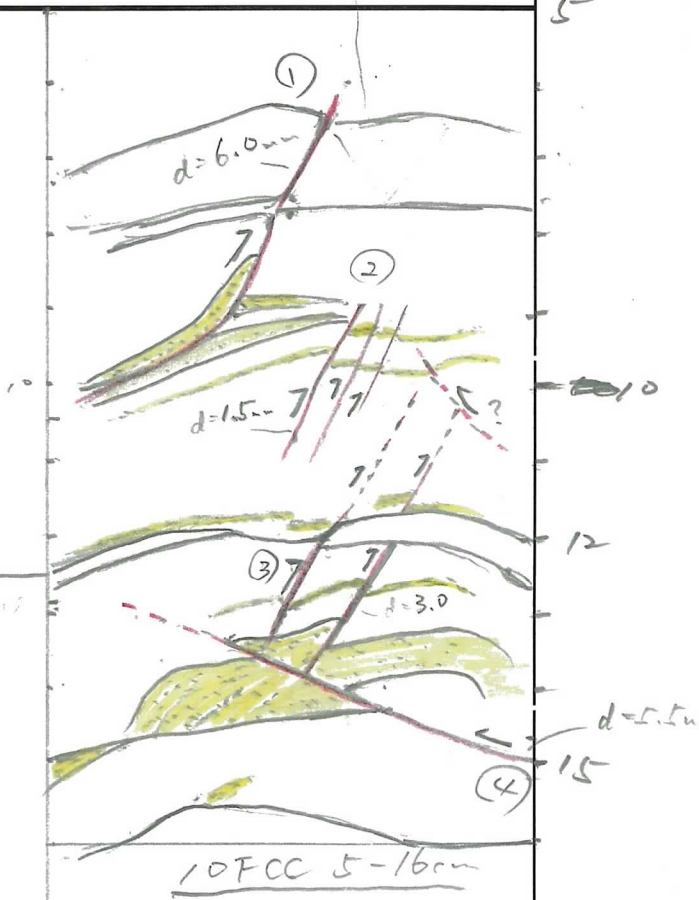
Site: C0023

Hole: A

Observer:

Summary:

Core No.	Section No.	Structure ID	Top of Struct	Bottom 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	CC	R. fault	5	10	58	270	359	0	2	90	5	20			(1)
		"	8	9	60	270	1	0	2	90	5	20			(2)
		"	12	14	56	270	10	0		(none)	5	20			(3)
		"	13	15	18	90	0	12	4	90	5	20			(4)
11															
12															
13	1														
14	1	R. fault	26	29	90	30	180	5	27	270	23	32			sec 2 also WR
		"	91	94	90	25	0	4	12	90	86	97			
		"	33	34.5	90	20	180	4	16	270	33	41			
	3	deformation band	34	36	270	46	0	22			34	41			
		"	33	36	90	33	180	24			34	41			
	CC	lamina	38	38	90	5	0	3			34	41			
		deformation band lamina	6	6	90	6	0	3			2	6			
15	1	lamina	14	14	90	2	180	2			9	14			
		"	25	26	90	12	180	44			25	28			
		deformation band lamina	18.5	18.5	90	1	0	0			14	23			
16	1	R. fault	30	34	270	41	180	31	86	90	26	46			sense are slickenside & stop but not obvious clearly fault plane is flat.
		fault (sense unknown)	30	34	270	31	0	38	88	90	26	46			
		R. fault	58	60	90	21	180	5	15	90	55	72			
6	6	N. ft	62	65	90	35	0	4	14	90	55	92			
		N. ft	15	18	270	27	180	28	32	90	0	26			
4	7		45	49	90	36	0	6	20	270	41	51		Nice slickenside line → photo	



sense are slickenside & stop but not obvious clearly  
fault plane is flat.  
16. sec 3. 10-12 → drill disturb



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					az.	dip	az.	dip	rake (≤90)	from (± 1, 90 or 270) *Top → "1" Bottom → "-1"	top	bottom	az./trend	dip	
17	2	laminal #cc	31	32	90	1	0	1			28	37			
			41	41	90	2	0	8			39	41			
18	3	N. fc	65	69	270	41	180	3	13	270	64	83			
	3	D. band	106	114	90	59	345	0			106	121			
	4	laminal	55	55	270	1	0	1			54	88			
	4	Bedding (ash!)	95.5	95.5	270	2	0	8			95.5	107			
	6	"	120	120	90	3	0	5			114	128			
17	7	laminal (pyrite)	17	17	90	1	0	1			14	30			
19	1	N. fault	89	91.5	90	23	180	13	39	270	89	114			
			101	102	270	15	0	26	19	270	89	114			
	4	lamina fault	60	60	270	0	180	2			0	99			
			80	83	270	22	0	11	8	270	81	104			
	6	D. band N. fault	107	118	270	40	0	27			25	124			
			121	124	270	29	0	24	62	270	25	124			
			17	18	90	4	0	30	38	270	0	31			
7	"	86.5	91	270	33	0	17	55	270	81	107				
		93	98	270	41	180	6	72	270	81	107				
20	5 cc	N. fault Bedding (ash)	94	97	270	31	180	19	20	90	93	97			
			6	6	90	2	180	10			0	8			

← #FLU no natural fault? (not entry J-CORES)

slickenline & step

"  
"  
"  
"

### Structural Geology Observation Sheet

Exp.: 370

Site: C0223 Hole: A

Observer:

Summary:

Core No.	Section No.	Structure ID	Top of Struct	Bottom 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	2	Bedding	95	96	270	1	180	4			98	96			
		<del>N. ft</del>	<del>96</del>	<del>99</del>	<del>250</del>	<del>40</del>	<del>180</del>	<del>9</del>	<del>6</del>	<del>90</del>					← drill induced.
		<del>N. ft</del>	<del>102</del>	<del>105</del>				<del>0</del>	<del>12</del>						
		N. ft	96	99	270	40	180	16	6	90	96	130			
		laminae	130	130	270	6	0	7			96	130			
4	4	"	36	36	0	0	180	1			36	65			
		Bedding	59	57	270	3	180	7			36	65			
23	3	N. ft	23	27	270	25	180	20	15	90	10	49			
		Bedding	68.5	68.5	270	4	180	4			49	70			
		"	52	54	90	4	0	1			52	59			
24	4	Bedding	60	60	270	1	180	3			60	65			
		Sand dyke vein?)	54	56	270	55	180	53			0	65			
		"	57	65	270	55	311	0			0	65			
		Bedding	89	90	270	1	0	3			86	106			
		"	49	49	270	1	0	2			0	52			



### Structural Geology Observation Sheet

Exp.: \_\_\_\_\_ Site: \_\_\_\_\_ Hole: \_\_\_\_\_ Observer: \_\_\_\_\_ Summary: \_\_\_\_\_

Core No.	Section No.	Structure ID	Top of Struct	Bottom 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	
25	5	healed fault	0	20	90	85	180	20	---	---	0	41			displacement is 8.5cm on cutting plane by trace fossil  572 75th
		"	67	80	270	69	0	90	---	---	67	123			
		"	81	89	270	54	180	62	---	---					
22	1	Bedding ①	27	30	270	62	0	35	---	---	27	36			cut ① normal sense
		healed fault	28	28	90	0	0	10	---	---	27	36			
		"	48	56	90	88	180	83	---	---	48	56			
		"	68	75	90	70	180	81	---	---	68	75			
	2	N. fault	56	58	270	27	180	13	26	90	56	64			
	4	Bedding (ash)	66.5	66.5	270	4	0	1	---	---	57	86			
	<del>5</del>	<del>healed fault</del>	<del>17</del>	<del>25</del>	<del>90</del>	<del>67</del>	<del>0</del>	<del>65</del>	<del>---</del>	<del>---</del>	<del>17</del>	<del>25</del>			
	4	healed fault	105	113	270	58	0	66	---	---	90	113			
		"	120	124	90	54	180	58	---	---	120	125			
	5	"	121	125	90	67	180	52	---	---					
5	healed fault	17	25	90	67	0	65	---	---	17	25			61-72cm healed fault	
6	"	14	22	90	53	180	65	---	---	14	25			<del>sec 7-6-16cm healed fault</del>	
8	"	33	50	270	74	180	43	---	---	30	57			← double count	
26	2	Bedding	91	91	90	0	0	1			91	103			
	3	"	87	88	270	1	0	10			0	103			
	"	"	111	111	90	1	0	0			108	133			
	5	"	85	65	270	3	0	1			46	67			
27		None													

### Structural Geology Observation Sheet

Exp.: \_\_\_\_\_ Site: \_\_\_\_\_ Hole: \_\_\_\_\_ Observer: \_\_\_\_\_ Summary: \_\_\_\_\_

Core No.	Section No.	Structure ID	Top of Struct	Bottom 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	
22	8	healed ft (Normal?)	11	17	290	73	180	0					10	52	
	7	"	33	49	290	75	3	0					10	52	
30	2	Bedding	55	55	90	2	0	1					57	55	
	3	healed ft.	37	45	290	54	37	0					33	56	
31	2	N. fault	57	66	270	62	180	77	41	90	47	77			
32	1	healed ft.	35	45	90	66	9	0			26	50			
	3	"	41	48	90	57	0	50			30	54			
33	2	Bedding (ash)	55.5	55.5	90	0	180	3			8	64			
	4	"	29	29	90	2	180	8			3	57			
	5	healed ft.	94	106	270	71	9	0			0	110			
	7	R. fault	12.5	19	270	50	0	47	26	90	0	20			slickenline & step.
	5	healed ft.	84	93	90	65	1	0			0	110			
	6	Bedding (ash)	138.5	138.5	270	1	0	9							
34	2	Bedding (ash)	102	102	90	2	180	7			100	112			
35	6	healed ft	19	25	90	54	73	0			0	64			
	(C)	bedding (ash)	31	31	90	3	180	3			0	33			



Structural Geology Observation Sheet

No. 7

Exp.: 330

Site: C0023 Hole: A

Observer:

Summary:

Core No.	Section No.	Structure ID	Top of Struct	Bottom 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	√2	healed fault ①	62	72	90	69	349	0	—	—	—	—	—	①, ② same fault, but rotated at 72cm. } ① cut ash layer at 70cm normal sense by dragging. 8 sec 3 65-72cm injection slickeline sec 3 at 120cm to 5. 70cm ash 76.5cm ash normal sense on the plane 6.5cm displacement.	
	√	" ②	72	79	90	73	28	0	—	—	72	88			
	√	bedding (ash)	70	70	90	2	0	2	—	—	—	—			
	3	R. fault	74	79	90	37	0	22	33	90	64	142			
	③	N. fault (healed)	120	124	90	38	0	22	—	—	64	142			
④	Bedding	108	108	90	5	180	6	—	—	47	109				
37	3													Sec 92-102cm mud injection	
38	√5													Sec 5 12-18 micro normal faults (healed)	
	√7	R. fault	21	29	270	54	180	41	40	270	11	36			
	√	Bedding (ash)	82	82	90	2	0	2	—	—	11	36			
39	11	Bedding (ash)	57	57	270	10	180	8	—	—	34	71		Sec 2 21-29cm mud injection	
	12	"	17	17	90	1	0	10	—	—	0	22			
	√3	D. band (ash layer)	57	59	90	13	180	30	—	—	47	95		Sec 3 57-59cm cataclastic band in ash layer	
	1	Bedding	64.5	64.5	90	6	0	1	—	—	47	95		21-95cm "	
	√	D. band (ash layer)	80	95	90	8	180	32	—	—	47	95			
	√4	Bedding (ash)	64	64	90	5	180	1	—	—	46	72			
√6	"	8	8	90	2	180	2	—	—	0	35				

### Structural Geology Observation Sheet

Exp.: 370

Site: C0023 Hole: A

Observer:

Summary:

Core No.	Section No.	Structure ID	Top of Struct	Bottom 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	
40	1	laminar	15.5	15.5	250	1	180	2			0	33			slickenline is overprinted by drill?
	3	bedding (ash)	59	80	90	6	0	3			68	111			
	4	Ⓟ N. ft (healed)	93	101	250	62	44	0	25	90	88	107			
	5	Ⓟ "	125	133	250	59	34	0	24	90	105	140			
	7	healed ft	125	132	90	38					105	140			
	12	Bedding	26	26	0	0	180	3			0	32			
	17	Bedding	34	34	250	2	0	6			29	44			
	17	"	51	51	250	1	180	2							
41	1	Bedding	66	66	90	4	0	2			43	112			← cut bioturb. Normal? 40-45 cm ft. 250, 47, 54, 0 (34-107 cm)
	4	"	10	10	250	1	0	1							
	14	R. ft	11	13	250	11	0	37	86	90	0	18			
	15	Ⓟ "	56	79	250	31	0	21	4	250	34	109			
	16	Bedding (ash)	57	59	270	7	0	14			54	68			
	17	Ⓟ R. ft	14	15	270	12	180	3	22	90	0	21			
	17	Ⓟ R. ft	57	60	270	31	0	1	7	270	52	66			
	18	"	18	21	270	34	180	20	18	90	0	58			
42	3	Bedding	121	121	90	4	0	5			120	123			← cut bioturb
	OC	Bedding (ash)	7	8	270	4	180	4			0	11			



Structural Geology Observation Sheet

41 1206, 50-53cm CT dip 22° 350 ward. strike 349.5- RHR = 169.5°, 22°

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Core No.	Section No.	Structure ID	Top of Struct	Bottom 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	
43	✓ 1	R. fault ✓	11	13	90	13	180	29	61	270	7	22			slickenline and step
44	9	Fc. ✓	98	110	90	64	4	0	5	90	50	115			
45		None													
46	✓ 3	Bedding (ash?)	5	9	90	5	180	15			0	13			sec 3 90-112 cm fracture zone
		R. fault ✓	90	92	270	18	0	22	48	270	85	126			
		" ✓	98	101	270	43	0	19	47	270	85	126			
		Fault ✓	109	111	90	14	180	5	48	270	85	126			
47	✓ 1 ✓ ✓ 2	Bedding lamina	66	67	90	8	180	2			41	71			sec 1 55-71 cm healed fault, normal sense cutting bedding. displacement 2mm on the plane.
		Healed fault	68	71	270	66	326	0	ok?		41	71			
		Bedding lamina	70.5	70.5	90	4	180	6			42	72			
48	✓ 2 ✓ 3 4 CC ✓	lamina	11	12	270	7	180	14			0	31			sec 2 34-35 cm Quartz vein
		"	116	117	90	11	180	20			115	123			
		"	16	16	90	0	0	6			15	19			
		"	19	80	250	66	356	0			135	cur.			
		"	19	21	90	18	0	21			16	21			
		"	38	39	90	12	0	3							
49	✓ 2 " ✓ 3	Healed fault	59	71	90	75	315	0			59	71			sec 3 45-63 cm fracture zone (drill disturbance?)
		Lamina	85	86	270	10	180	14			83	88			
		R. fault	54.5	56.5	90	21	0	11	71	90	45	63			
50		None													

37552

core, CT & ...  
sec 1 55-71 cm healed fault, normal sense cutting bedding. displacement 2mm on the plane.

sec 2 34-35 cm Quartz vein  
vertical  
sec 4 19-80 cm healed fault.

689-27  
689-37

545

51-54 None

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					az.	dip	az.	dip	rake (≤90)	from (±1, 90 or 270) *Top -"1" Bottom -"-1"	top	bottom	az./trend	dip	
<del>55</del>	2	laminae healed fr (reverse)	59	60	90	9	0	7			56	64			← unclear 3D-attitude
			73	83	90	62					73	97			
56	1	R. fault	123	124	270	4	180	34	34	90	115	151			← healed 2mm displacement
	1	"	131	133	270	22	180	37	25	90	29	9			
	3	" (+ve. sense)	29	33	270	28	180	7	20	270	26	74			
	5	"	7	11	270	34	0	15	51	270	3	32			
	9	"	<del>11</del> 11	<del>15</del> 15	270	31	0	24	94	270	"	"			
57	3	" Lamina	22	25	90	30	180	18	42	270	10	30			sec 1 drill disturbance
			25	25	90	0	180	4				10	30		
58	1	Lamina	41.5	42	270	11	0	5			7	47			
	2	"	40	41	270	18	180	2			39	76			
		"	60	61	270	16	180	2			39	76			
59	2	Healed fr	108	109	90	11	0	18			99	110			
60		None													
61	3	Healed fr.	69	70	90	9	0	16			61	74			
	4	"	103	104	90	18	0	0			92	106			
	2	R. fr	53	60	270	45	180	9	17	270	19	60			
		"	84	88	90	37	0	18	16	90	45	146			
	"	"	88	92	90	46	0	4	13	90	"	"			
		Bedding	119	120	90	6	0	16							

R.fr 121 122 90 7 0 21 68 270



Structural Geology Observation Sheet

Exp.: 330

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Observer:

Summary:

Core No.	Section No.	Structure ID	Top of Struct	Bottom 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	
62	2	N. fault	92	94	270	13	0	18	26	270	91	115			← change <del>bedding</del> <sup>borrow</sup> dip
		R. fault	104	111	90	43	0	21	44	90	91	115			
	Lamina	113	115	90	23	270	19			91	115				
	N. fault	4	7	270	37	270	11	4	270						
	Lamina	22	22	90	14	0	3			17	32				
63	1	R. fault	29	36	270	51	339	0	18	90	21	47			sec 1 0-21 cm drill disturbance 21-64 cm 2 64-67 cm 3' 67-75 cm 4' 75-77 cm 3' 77-80 4' 80-83 3' 83-87 4' 87-89 3' sec 2 0-23 4' (11-13, 17-19 cm, 2cm pieces) 23-27 3' 27-32 4' 32-41 cm 5' 41-45 2' 45-49 3' (greenish) 49-62 2' (56-63 cm, partly 4) 62-75 2' 75-78 4' 78-93 2' 93-95 3' 95-105 5 1/2' 105-108 3' (low CT value)
		"	83	83	90	15	0	13	46	270	80	83			
	Lamina	37	38	90	23	180	11			21	47				
	R. fault	93	93	90	2	180	21	83	270	78	93				
		2													
64	1	R. fault	78	85	90	61	0	25	19	90	78	119			many slicken lines sec 1 64-89 cm sec 2 0-105 cm
		"	105	106	90	9	0	21	66	270	78	119			
	Lamina	130	132	90	19	0	1			125	140				
	R. fault	22	31	90	62	270	0	4	270	8	31				

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Structural Geology Observation Sheet

Exp.: 370

Site: C0023 Hole: A

Observer:

Summary:

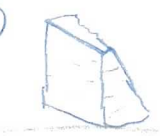
Core No.	Section No.	Structure ID	Top of Struct	Bottom of Struct	Core face app. Dip		2nd app. Dip		Striation on surface		Coherent interval (for P-mag)		P-mag pole		Notes
					az.	dip	az.	dip	rake (±90)	from (±1, 90 or 270) *Top → "1" Bottom → "-1"	top	bottom	az./trend	dip	
65	1	R. fault	55	58	90	7	180	17	55	90	45	60			
	1	fract. zone (R. fault sense) 1-3cm size	65	55											
66	4	Healed fr	15	32	90	7	8	0			0	48			
67	3	fract. zone R. fault (1-3cm size)	64	68	90	3	0	37	65	250	46	83			
		"	65	65											
		"	67	67	90	4	0	20	92	270	"	"			
		"	68	68	250	1	0	19	69	250	"	"			
68	1	Lamina	94.5	94.5	270	4	0	0			88	96		Sec 1 90-93cm, 105-107cm mud injection.	
69	2	Lamina	88	89	90	1	0	0			82	109			
70	1	"	20	20	90	0	180	4			0	22			
71	2	Bedding	32	32	90	5	180	4			18	40		Sec 2 54-112cm damage zone.	
	4	Bedding	121	122	250	2	0	16			121	142			
	3	fault ✓	28	32	90	25	0	49	33	90	27	36			
	4	fract. zone (3-10mm in size) R. fault sense	88	107	250	3	180	5	23	250					
72															

73 None  
74



Structural Geology Observation Sheet

Exp.: Site: Hole: Observer: Summary:

Core No.	Section No.	Structure ID	Top of Struct	Bottom 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	
75	1	Lamina	28	25	270	11	0	2			23	37			
76	1	N. fault	93	110	90	74	15	0	13	250	93	130			← Likely drill-induced displacement. (striation rotated?)
	1	Carb. breccia	114	130											
77	1	R. fault (+V)	55	60	270	48	180	47	73	90	55	75			← Mineral vein (Barite?) slicken lines
	2	N. fault (+V)	87	86	0	60	312	0	40	90	81	86			sec 1 55-76 cm several minor faults
78	2	R. Fault	8	12	270	28	0	24	26	90	0	17			Mineral vein bedding is slightly dipping (20-30°)
		N. fault	37	45	270	65	341	0	21	270	17	57			(Calcite?) slicken fiber
		N. fault	59	67	90	34	12	0	31	90	17	57			sec 2 17-30cm several minor faulting
	3	N. fault	86	91	90	45	180	30	6	270	65	100			
79	2	laminae	117	118	90	1	0	0			110	131			
	2	N. fault	119	121	90	7	80	30	35	250	"	"			
	3	laminae	42	44	90	8	0	1			35	45			
	"	N. fault (+V?) (barite)	63	65	90	24	0	45	32	90	55	102			
	"	laminae	66	69	270	13	180	8			"	"			
	"	N. fault (+V) (barite)	99	101	90	30	0	29	7	90	"	"			
	"	N. fault	102	105	270	20	180	42	67	90	102	150			
	4	N. fault	10	12	270	23	0	10	43	90	6	16			
	"	N. fault	6	12	270	56	322	0	18	90	"	"			
	"	fault	20	21	90	13	0	6	43	90	17	33			
	"	fault (+V) (barite)	23	24	90	5	180	15	47	90	"	"			

### Structural Geology Observation Sheet

No. 18

Exp.: \_\_\_\_\_ Site: \_\_\_\_\_ Hole: \_\_\_\_\_ Observer: \_\_\_\_\_ Summary: \_\_\_\_\_

Core No.	Section No.	Structure ID	Top of Struct	Bottom 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	
80	2 ✓	N. fault	79	79	250	12	180	8	35	250	56	85			
	3	laminae	45	48	250	10	180	7			40	54			
		N. fault (+V?)	59	62	90	16	180	36	89	250	54	75			← spot barite (?) along tc.
	4	" (+V?)	40	43	270	17	180	42	86	270	0	46			
	5 ✓	"	25	27	270	6	0	16	60	270	0	28			
	✓	R. fault	105	108	270	34	0	45	42	270	64	125			← 62-65cm. tc. 270, 32; 316, 0 (48-125cm?)
	6	Lamina	61	62	270	10	180	4			58	66			
cc	"	9	10	270	11	180	2			0	33				
81	1 ✓	R. fault	29	31	90	23	0	20	18	270	23	49			
	" ✓	N. fault	39	46	90	52	3	0	42	270	"	"			
	" ✓	"	61	65	90	43	49	0	33	270	52	95			
	"	laminae	123	124	90	7	180	14			100	134			
	5	"	31	33	90	14	180	13			0	108			
	"	N. fault (+V barite)	50	59	250	67	4	0	3	90	"	"			← barite? along tc.
	7	laminae	85	89	90	11	180	5			11	48			
82	1	N. Fault (+V barite)	19	31	90	59	0	49	48	90	3	65			← spot barite (?) along tc.
	✓	"	43	45	90	26	0	37	68	90	3	65			
	✓	"	63	65	270	25	0	30	12	270	3	65			



Structural Geology Observation Sheet

Exp.: 330

Site: C0023 Hole: A

Observer:

Summary:

Core No.	Section No.	Structure ID	Top of Struct	Bottom 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	
83	2	Laminae	46	47	90	8	180	10			40	78			
	4	"	112	113	90	12	180	16			58	120			
86	3	N. fault	146	151	270	72	20	0	3	90					ASR
8X	7														sec 7 11~13 cm mineral precipitation, <sup>(healed)</sup> fracture network
85	4	Lamina	85	87	270	12	0	1			42	111			
		N. fault	116	118	90	25	180	8	1	270	111	130			← displacement 2mm by barrow
		"	117	119	90	41	0	8	0	270	111	130			
		"	119	120	90	9	180	1	0	270	111	130			
	cc	" (100%)	3	4	90	14	0	13	30	270	0	7			
	4	Bedding	112	113	270	5	0	5			111	130			
86	2	← ?													
87	5	Healed fault (Hydro fracturing)	79	88	90	54	0	20			76	97			sec 5 17-50 cm concretion
	6	Healed fault	18	21	90	24	180	29			0	25			76-86 cm hydrofracturing
															sec 6 17-44 cm healed fault (hydro fracturing?)
88	2	(reverse te)	52	56	270	38	0	51			40	59			
89		None													

Structural Geology Observation Sheet

No. 16

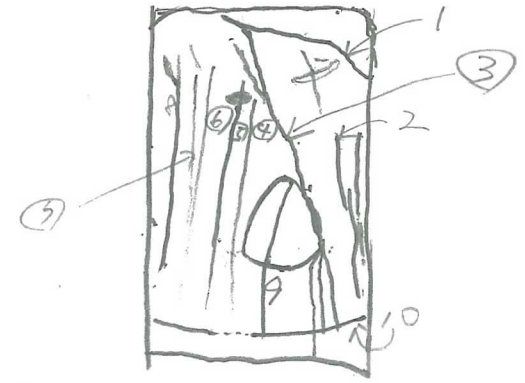
Exp.: 370

Site: C0023 Hole: A

Observer:

Summary:

Core No.	Section No.	Structure ID	Top of Struct	Bottom 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			
90	3	Mineral vein (cal)	80	89	90	37	180	29			80	90			1		
					90	84	29	0								2	
					90	71	32	0								3	
					270	77	20	0								4	
					250	77	21	0								5	
					250	83	26	0								6	
					<del>90</del>	89	23	0									7
					250	84	22	0									8
					250	55	25	0									9
					250	2	180	2									10
91	5	Healed fault	4	23					—								
					108	123	90	39	0	2	—	100	124				
					9	(Fracture network) PRL Lamina	62	62	90	3	0	16	—	58	141		
			83	184	270	3	0	17	—	58	141			sec 6 94-110 cm pyrite vein (tension gash?) greenish layer			
92	1	Lamina	131	132	270	14	180	18	—	109	143						
93	2	Pyrite layer	82	83	270	2	0	17	—	0	85						
94	6	Healed fault (normal fr.)	43	45	250	43	285	0			0	45					
					108	111	270	30	180	25			64	147			





### Structural Geology Observation Sheet

No. 17

Exp.: 370

Site: C0023 Hole: A

Observer:

Summary:

Core No.	Section No.	Structure ID	Top of Struct	Bottom 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	
95	3	Mineral vein	35	41	90	35	0	11			0	59			→ XRD
	4	N. fault with barite	8	10	250	16	180	48	56	90					
	5	fault vein barite	50	60	250	54	45	0			50	85			
96	2	fault (+U cal)	3	12	90	56	180	33	6	270	0	25			Calcite?
	4	" (+U) barite?	34	41	270	67	180	47	1	270	0	91			
		Fracture network (Hydro fracturing)	135	136	90	7	0	11			91	136			
97	1	Fracture	7	7	270	3	180	40			0	31			
	2	"	74	77	90	20	0	13			50	90			
	3	"	75	77	90	10	0	34			55	101			
	5	"	67	70	270	29	0	3			37	141			
	6	Normal Fault	14	21	270	38	180	40	72	90	0	122			← mineral veins (barite)
		Fracture	50	52	270	22	0	33			0	122			
		"	94	96	270	21	0	32			0	122			
?	7	(Damage zone) (+U) barite	<del>25</del>	<del>34</del>	<del>270</del>	<del>36</del>	<del>0</del>	<del>21</del>			0	58			← mineral veins
		Bedding (lawina?)	29	33	270	36	0	21			0	58			
		Normal fault ✓	42	43	90	10	180	50	31	270	0	58			← slickelines

Structural Geology Observation Sheet

Exp.: 330

Site: C0023 Hole: A

Observer:

Summary:

Core No.	Section No.	Structure ID	Top of Struct	Bottom 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	
98	2	healed tc (Normal)	106	108	250	63	32	0	10	90	85	115			
	4	" (+V) cal	109	112	90	35	180	38			4	5			
	3	" (+V) cal	5	12	250	50	28	0							
	4	fault with vein (cal?)	10	13	250	12	180	23	54	90					
	7	fault	89	92	90	39	34	0	29	250	51	125			
	4	N. fault (+V) cal	112	113	250	14	180	42	50	90	↓	↓			
	4	pyrite rich layer	113	116	90	18	180	12			↓	↓			
	"	N. fault	118	120	90	13	180	44	65	90					
	4	N. fault	25	30	250	26	0	38	68	250	20	54			
	"	N. fault	40	43	250	18	0	39	83	90	20	54			
5	pyrite rich layer	126	128	90	16	0	9			None					
8	laminae (pyrite)	32	34	250	20	0	11			23	40				
99	4	laminae	41	42	250	18	0	18			0	59			
	4	N. fault	116	118	90	20	180	18	35	250	59	141			
	4	" (+V) cal	95	96	90	8	180	31	62	250	4	5			
	5	" (CT?)	58	60	250	15	0	12	47	250	19	141			
	7	" (+V) cal	90	95	90	54	332	0	19	90	↓	↓			
	4	pyrite rich laminae (+V) cal	100	105	90	42	326	0	39	90	↓	↓			

tc vein (cal?)  
 ← 3-fm 250, 28; 250 (0-19m)  
 biscuit.



Structural Geology Observation Sheet

Exp.: 370

Site: C0023 Hole: A

Observer:

Summary:

Core No.	Section No.	Structure ID	Top of Struct	Bottom 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	
100	5	Hydro fract.	37	45	250	64	0	0			35	55			
	6	Cement boundary	31	31	250	5	180	24			0	38			
	6	clay laminae	41	41	250	2	0	10			40	44			
	6	bedding	53	55	250	28	180	8			51	61			
	6	"	95	96	90	3	0	21			93	114			
101	4	PRL	33	36	270	23	180	10			19	65			
	7	N. fault <sup>dry</sup> <u>TU</u>	36	39	90	32	180	28	5	270	19	65			← mineral vein
	7	Fault <u>TU</u>	31	31	270	2	0	23	61	90	0	39			← mineral vein
	8	PRL	84	86	270	22	180	20			49	102			
102	5	PRL	71	13	270	19	180	15			0	50			
	8	"	35	37	90	16	180	7			8	71			
103	1	Bedding	10.5	11	250	4	180	23			5	32			
	"	"	17	18	250	5	180	22			5	32			
	"	"	41	44	250	21	180	37			32	50			
	2	laminae	42	45	250	25	180	21			30	45			
	6	mineral vein	101	103	90	13	180	12			100	114			
	"	N. fault	102	108	250	60	12	0			"	"			) vein cuts N. fault. stage 1. N. fault stage 2. vein

PRL: pyrite-rich ~~laminar~~ laminae

Structural Geology Observation Sheet

Exp.: 370

Site: C0023 Hole: A

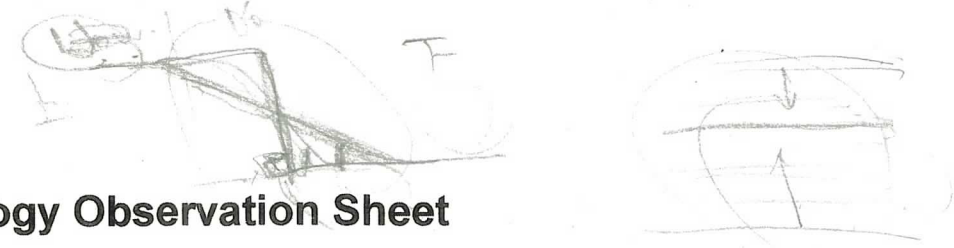
Observer:

Summary:

Core No.	Section No.	Structure ID	Top of Struct	Bottom 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	
103	7	N. fault (vein along fc)	2	85	270	29	0	46	84	90	0	10			
	"	bedding	128	130	290	25	0	4							
8	N. fault (+vein) pyrite vein.	6	9	90	29	0	41	39	90	0	36				
		38	41	290	42	39	0				36	152			
104	1	N. fault	29	31	290	31	0	6	20	90	26	7			
	1	"	19	21	290	25	0	22	37	290	17	25			← 21-25 in vein 270, 31, 313, 0 Calc. bearing
	2	mineral vein	141	141	No info		orientation								
		laminae Healed fr (N. fault)	143	143	90	5	180	27				141	150		
			118	124	290	65	290	0				114	180		
	3	laminae	50	52	290	24	180	12			69	73			
	4	Normal fault (& vein) <i>Hayte</i>	28	30	90	18	0	22	38	90	29	31			
105	2	mineral vein	114	115	No info		orientation								
106	1	"	66.5	67	270	6	0	8	---	---	62	77			
			121.5	122	90	8	0	1	---	---	121.5	125			← along top of burrow
	2	Bedding	15	15	270	2	0	5	---	---	0	21			



### Structural Geology Observation Sheet



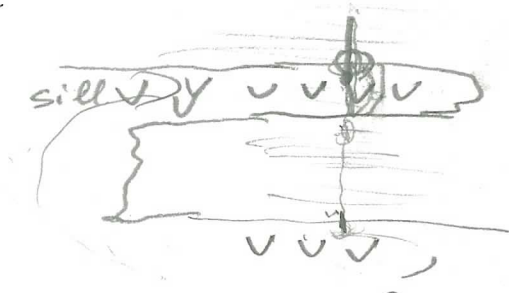
Exp.: \_\_\_\_\_ Site: \_\_\_\_\_ Hole: \_\_\_\_\_ Observer: \_\_\_\_\_ Summary: \_\_\_\_\_

Core No.	Section No.	Structure ID	Top of Struct	Bottom 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	
106	3	Bedding (altered or ash layer)	60	63	90	19	0	5	—		55	75			See 88-90cm several thin mineral vein parallel to bedding.
			87	87	90	8	180	12	—		88	90			
107	2	Mineral veins	96	100	90	85	330	0	—		97	100			
			62	64	270	12	180	7	—		59	66			
108	1	Bedding	23	23	90	2	0	7	—		11	29			
			4	4	270	6	0	1	—		0	8			
			94	94	270	9	0	3	—		87	99			
			65	66	270	12	180	7			65	67			
CC	4	"	8	9	90	11	0	3			8	9			
			23	24	90	13	180	4			22	25			
			23	24	90	13	180	4			22	25			
109	1	laminar	116	118	90	12	180	25			116	118			
			<del>27</del>	<del>29</del>	<del>90</del>	<del>40</del>			<del>27</del>	<del>34</del>					
			27	34	90	85	341	0	20	250	27	34			
			53	55	90	27	180	27			53	59			
110	1	mineral vein	5	5	90	9	0	49			5	14			
			6	7	90	11	180	16							
			9	9	250	4	180	36							
			10	11	90	2	180	10							
			11	13	90	37	0	8	43	250					
			14	16	90	26	180	15	34	250	14	23			
		9	22	23	250	5	180	27	60	90	9	9			
		laminar	24	24	250	5	180	12			24	32			
		9	32	32	90	10	0	10							

### Structural Geology Observation Sheet

Exp.: \_\_\_\_\_ Site: \_\_\_\_\_ Hole: \_\_\_\_\_ Observer: \_\_\_\_\_ Summary: \_\_\_\_\_

Core No.	Section No.	Structure ID	Top of Struct	Bottom 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	
110	1	mineral vein (N. fault)	44	45	90	31	180	24			44	53			
		mineral vein	45	46	250	11	180	38			↓	↓			
		"	45	46	270	12	180	39			↓	↓			
	2	N. fault + vein	30	32	90	5	180	35	60	290	0	35			
		laminar	18	21	250	16	0	2			"	"			
	3	bedding	88	89	90	3	0	10			88	102			
		laminar	94	94	90	3	0	9			"	"			
	4	N. fault	30	33	270	35	180	37	15	90	29	40			
		"	55	56	90	8	0	34	87	90	40	88			
		mineral vein	58	59	90	15	180	33			↓	↓			
		laminar	59	60	90	15	180	6			↓	↓			
		"	79	81	90	11	0	15			↓	↓			
		<del>laminar</del>	<del>87</del>	<del>87</del>											
		laminar	106	107	270	6	0	16			88	123			
		Altand zone (vein)	116	120	270	49	0	22			116	129			
		"	120	124	270	43	0	38			"	"			
	CC	mineral vein	5	12	90	52	345	0			8	21			
		"	23	34	90	69	180	0			23	34			





### Structural Geology Observation Sheet

No. 23

Exp.: \_\_\_\_\_ Site: \_\_\_\_\_ Hole: \_\_\_\_\_ Observer: \_\_\_\_\_ Summary: \_\_\_\_\_

Core No.	Section No.	Structure ID	Top of Struct	Bottom 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	
111	1	Glass-rim of pillow	14	20	90	42	29	0			14	20			
	CC	mineral vein	39	41	250	68	63	0			—	—			
	CC	"	40	41	250	2	180	12			—	—			
112	1	"	2	3	250	16	0	22			0	6			
	4	4	10	12	250	46	338	0			10	16			
	4	4	11	16	90	64	46	0			10	16			