

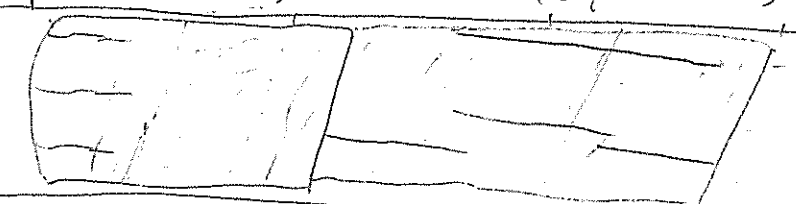
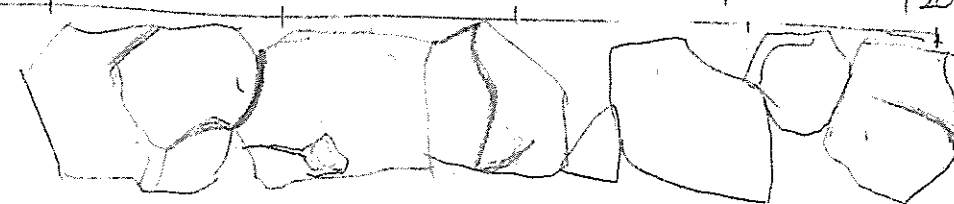
Jan. 6, 2011

CHIKYU Operation

Structural Geology Observation Sheet

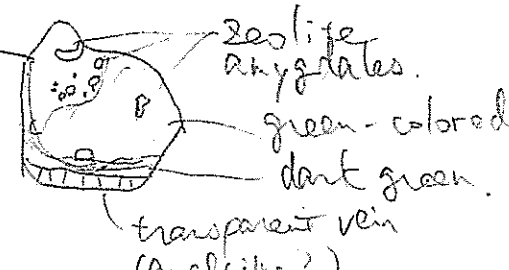
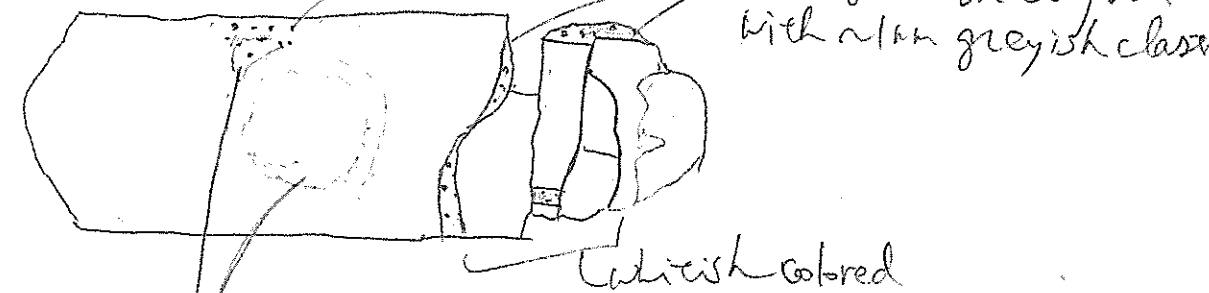
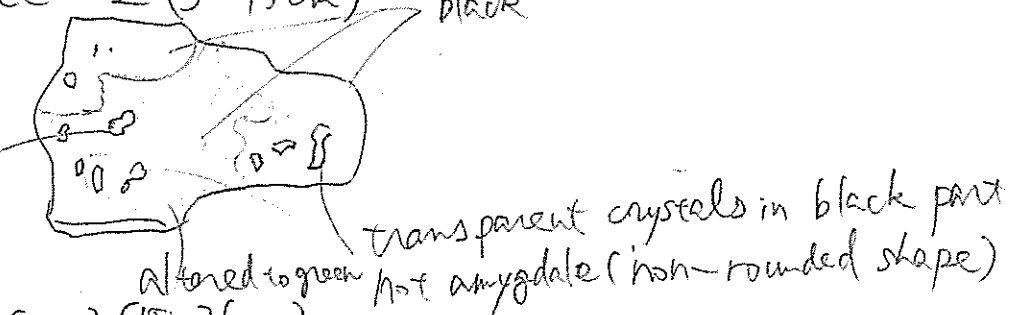
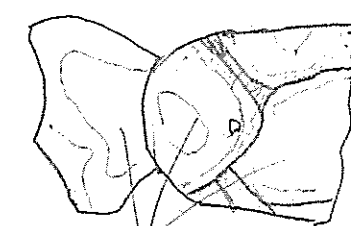
No. \_\_\_\_\_

Exp.: 333 Site: C02G Core: 1R Observer: A.Y. Summary:

Section No.	Structure ID	Top of Struct	Bottom of Struct	ave. depth	Core face app. Dip		2nd app. Dip		Striation on surface		Coherent interval (for P-mag)		P-mag pole		notes
					az.	dip	az.	dip	rake	from	top	bottom	az./trend	dip	
1R	2	min. vein	13	17	90	60	0	13							Sec. 1: biscuitted (max piece length = 4 cm) 2: biscuitted (max piece length = 6 cm) 4ncc: good coherent pieces.  lithology: red clay (partially browned) greyish clay distribues. sec. 1, 27-33 cm 50-55 cm sec. 2, 14-17 cm (greenish) sec. 4, 1-14 cm (greenish) sec. 5, 23-26 cm (greenish) sec. 5, 17-33 cm & cc all brownish. sec. 4, 90-99 cm: heavily browned piece
	4	min. vein	64	66											
		min. vein	70	76	90	6	24	0							
	cc	bed.	17	18	90	0	180	7							
	5	bed.	26	27	270	10	0	2							
2R	1	bed	20	22	90	7	180	16						black / brown clay, similar to hole E-3X-7 top sec. 2, 20-30 cm gently dipping structure cut by subvertical veins.   Sec. 2, 80-139 cm, cc: basalt.	
	2	min. vein	35	49	270	86	355	0							
		bed.	41	43	90	23	21	0							

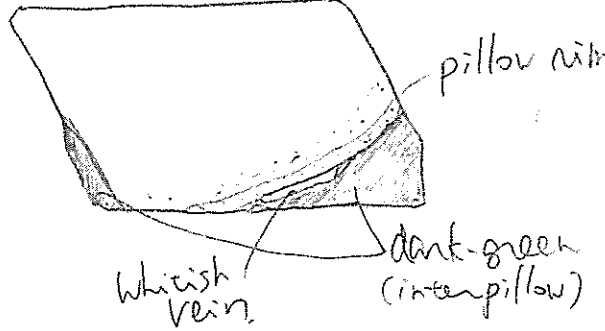
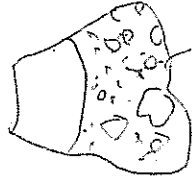
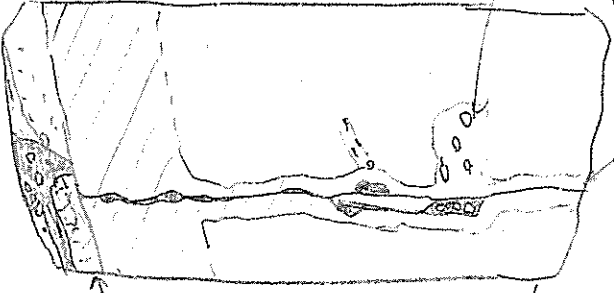
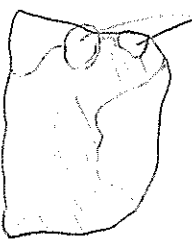
Structural Geology Observation Sheet

Exp.: 333 Site: C0012G Core: 3R Observer: A.Y. Summary:

Section No.	Structure ID	Top of Struct	Bottom of Struct	ave. depth	Core face app. Dip		2nd app. Dip		Striation on surface		Coherent interval (for P-mag)		P-mag pole		notes
					az.	dip	az.	dip	rake	from	top	bottom	az./trend	dip	
3R	1														<p>1-3 (18-22cm)</p>  <p>black colored</p> <p>1-5 (26-43cm) zeolite amygdales</p>  <p>black part appear to be original. other parts are altered to light green.</p> <p>CC-2 (5-15cm) black</p>  <p>zeolite amygdale</p> <p>transparent crystals in black part. altered to green not amygdale (non-rounded shape)</p> <p>CC-3 (15-26cm)</p>  <p>nice mini-pillow!! rims are coated by dark green clay mineral.</p> <p>black</p>


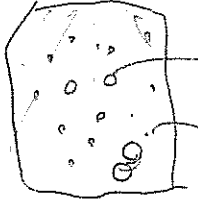
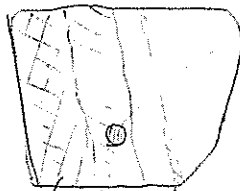
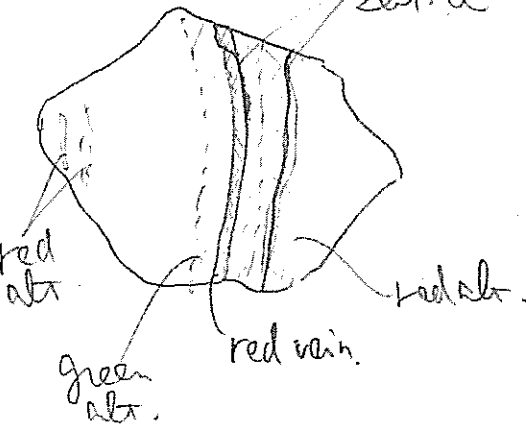
Structural Geology Observation Sheet

Exp. 333 Site: Coo/29 Core: 4R-5R Observer: A.Y. Summary:

Section No.	Structure ID	Top of Struct	Bottom of Struct	ave. depth	Core face app. Dip		2nd app. Dip		Striation on surface		Coherent interval (for P-mag)		P-mag pole		notes
					az.	dip	az.	dip	rake	from	top	bottom	az./trend	dip	
4R	1														<p>Sec. 1-3 (15-26cm)</p>  <p>pillow rim whitish vein dark-green (inter-pillow)</p> <p>CC-5 (32-39cm)</p>  <p>closely-packed fragments. cuttings? less altered</p>
5R															<p>Sec. 1-2 (7-21cm)</p>  <p>anygdale develops brownish-colored altered part. yellowish green alt. halo white vein ② green vein + alteration halo ③ anygdale?</p> <p>whitish vein truncated by dark-green vein</p> <p>CC-2 (13-17cm)</p>  <p>black * heterogeneous alteration.</p>

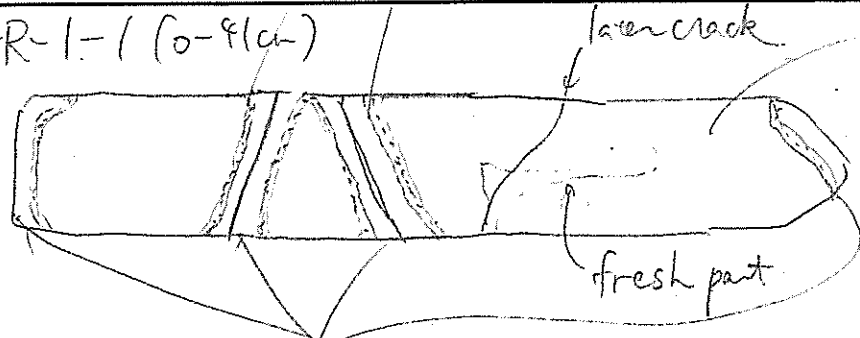

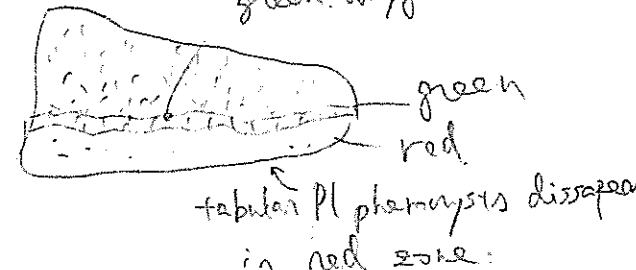
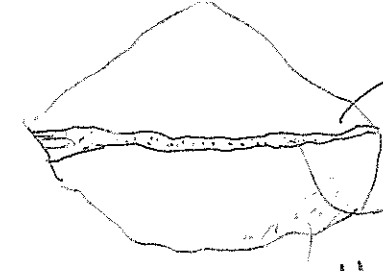
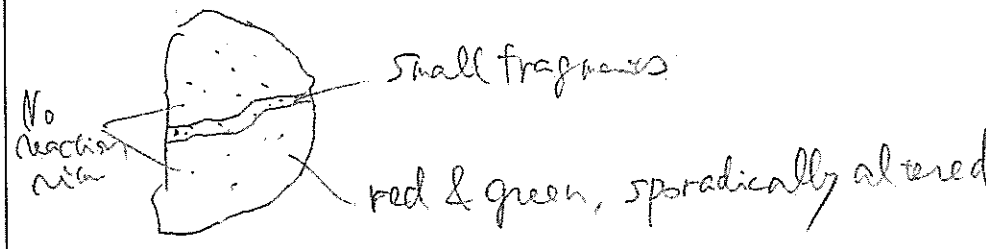
Structural Geology Observation Sheet

Exp.: 333 Site: Coo129 Core: 6R-7R Observer: A.T. Summary:

Section No.	Structure ID	Top of Struct	Bottom of Struct	ave. depth	Core face app. Dip		2nd app. Dip		Striation on surface		Coherent interval (for P-mag)		P-mag pole		notes
					az.	dip	az.	dip	rake	from	top	bottom	az./trend	dip	
6R															<p>Sec. 1-4 (22-28 cm) red</p>  <p>cc-7 (29-34 cm)</p>  <p>cc-4 (20-23 cm)</p> 
7R															<p>sec. 1-6 (58-64 cm)</p>  <p>red vein</p> <p>zeolite</p> <p>red alt.</p> <p>green alt.</p> <p>red vein</p> <p>red vein</p> <p>zeolite thin vein</p>

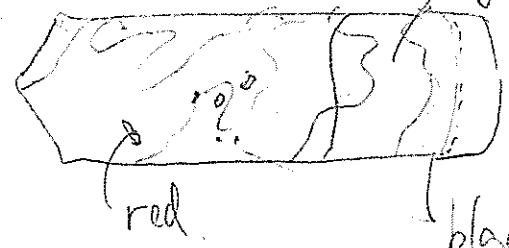
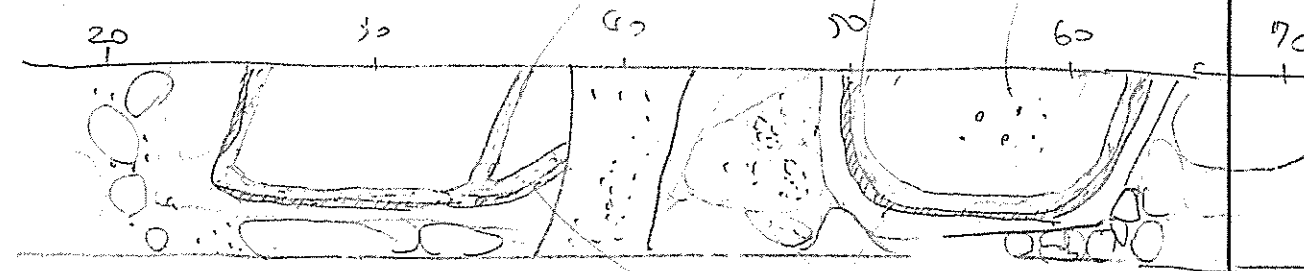
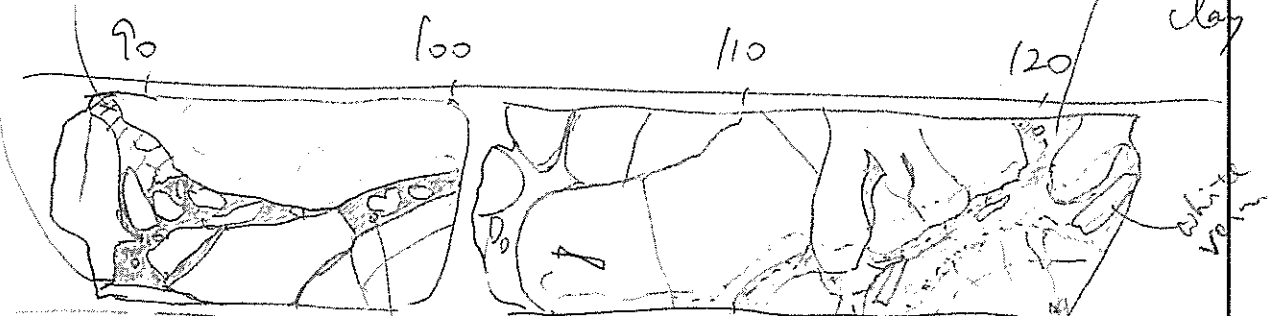
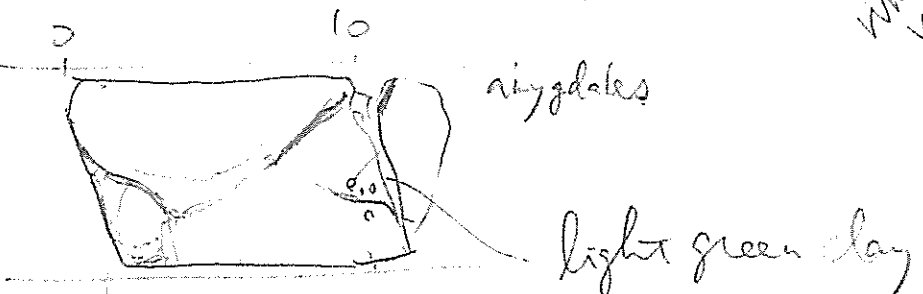
Structural Geology Observation Sheet

Exp.: 333 Site: G0029 Core: PR Observer: A.Y. Summary:

Section No.	Structure ID	Top of Struct	Bottom of Struct	ave. depth	Core face app. Dip		2nd app. Dip		Striation on surface		Coherent interval (for P-mag)		P-mag pole		notes
					az.	dip	az.	dip	rake	from	top	bottom	az./trend	dip	
															<p>DR-1-1 (0-9cm) <span style="float: right;">green alt.</span></p>  <p>lateral crack matrix: altered to greenish color. fresh part</p> <p>DR-1-2 (41-50cm) <span style="float: right;">red alt.</span></p>  <p>dark green</p> <p>DR-1-3 (50-59cm)</p>  <p>green amygdaloids green red tabular Pl phenocrysts disappear in red zone.</p> <p>DR-CC-2 (29-38cm)</p>  <p>reddish No reaction halo along red vein red vein includes small (&lt;0.5mm) fragments.</p> <p>DR-CC-3 (45-48cm)</p>  <p>No reaction vein small fragments red &amp; green, sporadically altered</p>

Structural Geology Observation Sheet

Exp.: 333 Site: 60029 Core: 9R Observer: A.T. Summary:

Section No.	Structure ID	Top of Struct	Bottom of Struct	ave. depth	Core face app. Dip		2nd app. Dip		Striation on surface		Coherent interval (for P-mag)		P-mag pole		notes
					az.	dip	az.	dip	rake	from	top	bottom	az./trend	dip	
															<p>1-1 (0-18cm) (Archival) grey</p>  <p>1-2 (18-65cm) (working)</p>  <p>1-5 (87-125cm) malcine vein.</p>  <p>CC-1 (0-15cm) green clay</p>  <p>dark green clay.</p>


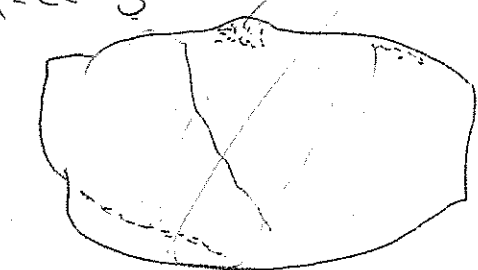
Structural Geology Observation Sheet

Exp.: 333 Site: G029 Core: 10R Observer: A.Y. Summary:

Section No.	Structure ID	Top of Struct	Bottom of Struct	ave. depth	Core face app. Dip		2nd app. Dip		Striation on surface		Coherent interval (for P-mag)		P-mag pole		notes
					az.	dip	az.	dip	rake	from	top	bottom	az./trend	dip	
															<p>Sec. 2</p> <p>Sec. 3 21-30cm</p> <p>cc. 0-10a</p> <p>* flu. reaction - diffusion</p> <p>*  ?</p>

Structural Geology Observation Sheet

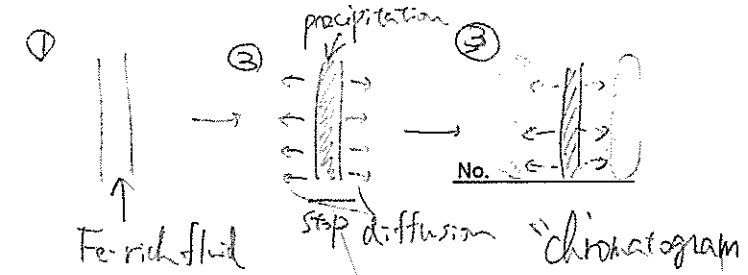
Exp.: 333 Site: Co0129 Core: 1R Observer: A.T. Summary:

Section No.	Structure ID	Top of Struct	Bottom of Struct	ave. depth	Core face app. Dip		2nd app. Dip		Striation on surface		Coherent interval (for P-mag)		P-mag pole		notes
					az.	dip	az.	dip	rake	from	top	bottom	az./trend	dip	
															<p>11R-cc-2 pyrite. highly altered greyish rock with small grains of pyrite.</p>  <p>pyrite.</p> <p>11R-cc-5</p>  <p>reducing alteration with pyrite grains.</p>



### Structural Geology Observation Sheet

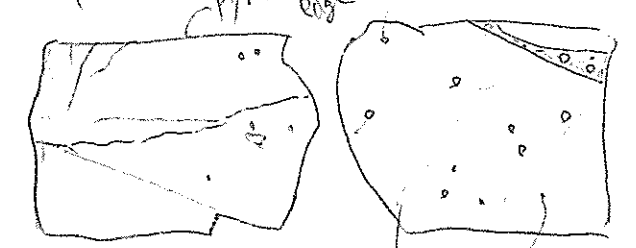

Exp.: 333 Site: C0229 Core: 12R Observer: A.T. Summary:



Section No.	Structure ID	Top of Struct	Bottom of Struct	ave. depth	Core face app. Dip		2nd app. Dip		Striation on surface		Coherent interval (for P-mag)		P-mag pole		notes
					az.	dip	az.	dip	rake	from	top	bottom	az./trend	dip	
															<p>Sec. 1 1 2 3 4 5 6 7 8 9 100 11 12 13 140</p> <p>hyalodactyls or pills baccera orange argillite orange alb. halo red vein 130 135 celadonite rim. orange alb. halo zeolite *red veins &amp; orange reaction rim develops throughout the core.</p> <p>Sec. 2 10 100</p> <p>zeolite</p> <p>orange halo. red/white vein outside: red inside: transparent crystal Fe-rich fluid Fe depleted fluid?</p>

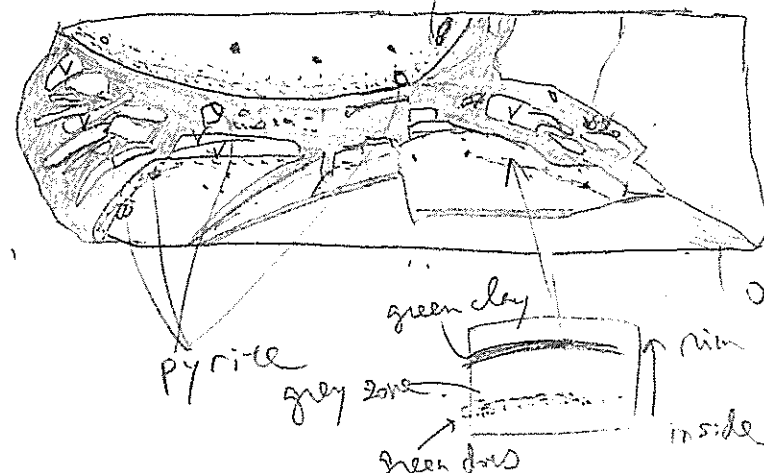
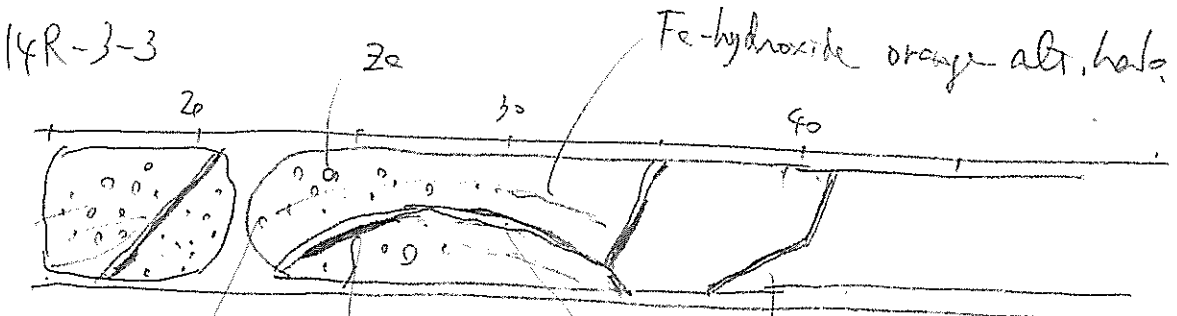
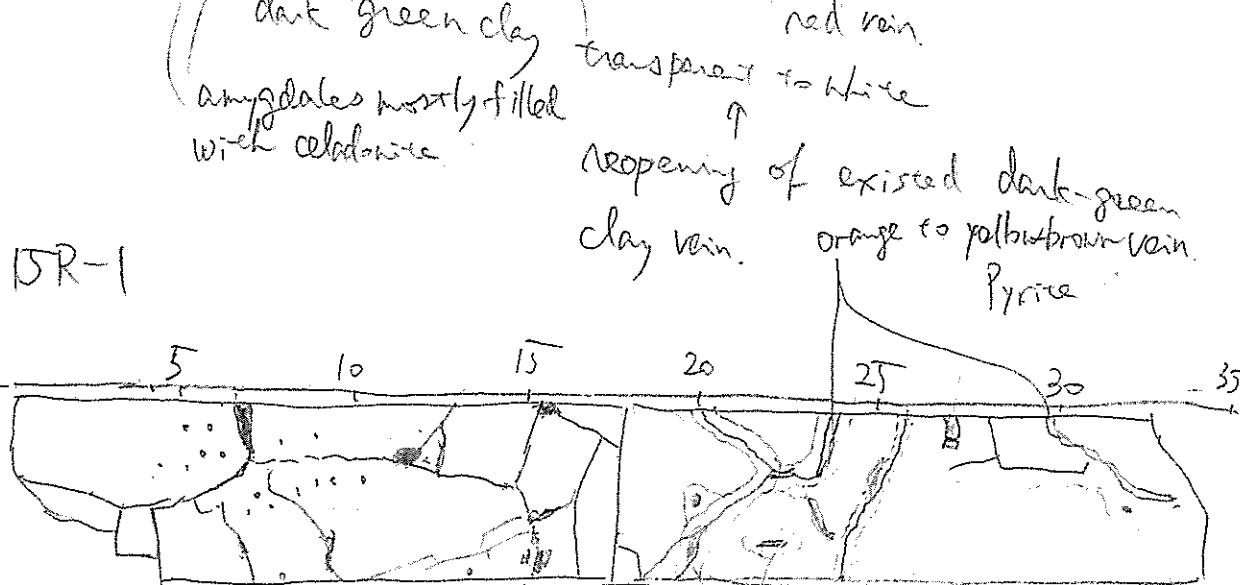
Structural Geology Observation Sheet

Exp.: 333 Site: Gool2G Core: BR Observer: A.T. Summary:

Section No.	Structure ID	Top of Struct	Bottom of Struct	ave. depth	Core face app. Dip		2nd app. Dip		Striation on surface		Coherent interval (for P-mag)		P-mag pole		notes
					az.	dip	az.	dip	rake	from	top	bottom	az./trend	dip	
															<p>sec. 1                      1~6: pyrite alteration                      7~11, cc: Fe-hydroxide alt. with weak reducing alt.                      1-3 (22-37 cm) <sup>pyrite-filled</sup>                        white diffusive vein                      pyrite-filled vesicles                      CC- (10-15 cm) <sup>anastomosing brownish alt. halo</sup> red brown altered.                        red anhydrites</p>

Structural Geology Observation Sheet

Exp.: 333 Site: Coo/29 Core: 14R-15R Observer: A.T. Summary:

Section No.	Structure ID	Top of Struct	Bottom of Struct	ave. depth	Core face app. Dip		2nd app. Dip		Striation on surface		Coherent interval (for P-mag)		P-mag pole		notes
					az.	dip	az.	dip	rake	from	top	bottom	az./trend	dip	
															<p>2W 21-38cm</p>  <p>14R-3-3</p>  <p>15R-1</p>  <p>All veins &amp; amygdaloides show dark-greenish color.</p>