


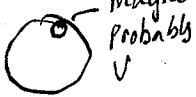
















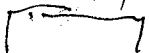






View specimens
in Lab @ UWash
2017
1 of 3

F.A. Conle

Spec.	Size 	$\frac{\Delta E}{Z} \%$	
Iter 89 - 18		± 0.4	
" - 7		± 0.325	
" - 10		± 0.30	possible very small fish eye
- 9(8)		$\pm 0.8 / \pm 0.3$ minut?	small fish eye
"		± 0.8	" probably
12/13		$\pm 0.3 \pm 0.5$	No fish eye - probably surface.
19		± 0.4	maybe very small fish eye near surface
Iter 90 # 6		± 0.40	Possibly a number of internal fish eyes One big one
" # 15		± 0.45	"
5		± 0.45	Small fish eye " No single big one
# 10(9)		$\pm 0.65 / \pm 0.3759$	No apparent fish eye. Surface spot
19		± 0.65	" " " "
16		± 0.45	maybe fish eye at surface.
1		± 0.8	No fish eye probably surface
# 5			No " . Surface
Iter 88 # 16		± 0.5	
# 19		± 0.5	
# 13/14		$\pm 0.4 / \pm 0.55$	Large 30% Dia center fish eye
12/11		± 0.65	unclear. maybe small fish eye
10/9		$\pm 0.8 / \pm 0.275$	probably small fe near surface
5/4		± 0.65	maybe fe. Near/on surface. Knife edge?
6		± 0.4	Surface init.
7/8		$\pm 0.35 / \pm 0.8$	" "
2			" "

Not in
Spread
sheet

89 #5		± 0.375	No Fe	2 of 3
	$\pi 2, 23$		//	
#2		± 0.5	Big Fe @ $1/3$ Pt	
#22		± 0.4	Huge Fe @ center	
#1		± 0.8	no Fe ; surf.	
#4		± 0.4	multiple Fe in center	

It #90 #14  $\pm 0.4\%$ Huge Fe at $1/4$ point




90? #73 No Fe


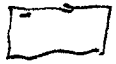


88 #3 ± 0.45 no Fe ; surf.





88 Through carburized Sim case
 Iso then to 75% Martensite 25% Bainite

89 Throy 50% Martensite 50 Bainite

90 Through carb. 25% Marten 75% Bainite

Itr 89 #24? TT2  knife edge?
 #17  maybe fe.; small
 ± 0.35
 #14 ± 0.35 ; No fe.; prob. Surf
~~#1~~ ~~no fe.~~
 6  ± 0.35 huge fe; near middle

Itr 90 #1   No fisheye, probably surface
 #6  " " " "
 #2 ± 0.5 " " " "
 #13  ± 0.4 Fisheye in center, Big
 7/8 $\pm 0.375 / \pm 0.8$ probable surface
 11/12 $\pm 0.375 / \pm 0.65$ no fe.; surface
 17 ± 0.5 no fe. "
 3/4 $\pm 0.35 / \pm 0.8$ " " "
 18 ± 0.5 Big fe; 1/3 point

Itr 88 #3  ± 0.45 Fisheye at 1/3 point
 #2  ± 0.50 Big " , middle.
 #1 ± 0.80 No fe; surface
 #20 ± 0.65 " ; "
 #15  ± 0.65 small fe 1/3 point
 21 ± 0.45 No fe; surf?
 18 ± 0.55 medium fe 1/3 point
 17  ± 0.55 ~~maybe?~~ no approx fe; surface
 TT1 no fe.