

To	J. Purkis	cc.	R. Tolbert
From	J. Keir		D. Gregoire
Date	April 8, 1982		J. Bowers
Subject	ORE REMOVED - 3610 BENCH, ZONE 1, PHASE 6		

	<u>SDT</u>	<u>% Pb</u>	<u>% Zn</u>	<u>% Comb.</u>	<u>Ag g/mt</u>
Ore Removed Model	439,600	2.8	4.6	7.4	25.2
Truck Count	221,800	2.5	3.9	6.4	31.5
Blasted	225,000	2.5	4.0	6.5	29.2

COMPARISONS

Variance (truck count vs. model)	-49%	-11%	-15%	-14%	+25%
(blasted vs. model)	-49%	-11%	-13%	-12%	+15%
(truck count vs. blasted)	-1%	-	-2%	-1%	+8%



J. Keir
Mine Geologist

JK/mh

ZONE 2 COMPARISON

Bench	New Model						1974 Model			4.5% Cut-Off		
	4% Cut-Off			5% Cut-Off			5% Cut-Off			4.5% Cut-Off		
	SDT	Pb	Zn	SDT	Pb	Zn	SDT	Pb	Zn	SDT	Pb	Zn
3930	45	3.01	4.50	45	3.01	4.50	29	2.6	5.9	45	3.01	4.50
3910	108	3.17	4.17	103	3.24	4.24	73	3.0	5.1	108	3.17	4.17
3890	194	2.55	4.59	184	2.59	4.77	185	3.8	5.0	189	2.58	4.65
3870	276	2.28	4.43	245	2.32	4.67	227	3.8	5.0	255	2.30	4.62
3850	298	2.73	4.50	262	2.83	4.80	379	3.3	4.6	279	2.81	4.64
3830	670	3.16	4.64	622	3.24	4.81	348	3.1	5.1	649	3.20	4.73
3810	834	3.37	5.07	804	3.44	5.15	522	3.7	5.2	818	3.41	5.12
3790	705	2.95	4.06	637	3.09	4.20	501	3.3	5.3	662	3.05	4.16
3770	679	2.57	4.06	553	2.80	4.31	552	3.1	5.1	639	2.64	4.16
3750	595	2.45	3.72	389	2.88	4.19	325	3.4	5.1	483	2.68	3.98
3730	256	2.25	3.83	187	2.48	4.08	84	3.9	5.6	241	2.29	3.92
3710	79	2.07	3.63	62	2.19	3.82	7	3.5	3.6	73	2.12	3.71
Total	4,739	2.82	4.33	4,093	2.99	4.58	3,230	3.4	5.1	4,441	2.91	4.46

- % oxide Pb, Zn? as indicator of poor metallurgy

To J. Purkis

From J. Keir

Date December 18, 1981

Subject GRADE DISTRIBUTION - PHASE 6, ZONE 1 - FROM BLASTHOLE ASSAYS

The purpose of the exercise was to determine the grade distribution from blast hole assays of the ore and sub-ore material mined in Zone 1, Phase 6, Benches 3850 to 3630. Particular attention was given to the sub-economic material having a combined Pb + Zn grade greater than 3.0 but less than 4.0. The assays were grouped according to their Fe content and assigned an appropriate ore type in the following manner.

2AB	< 14%	
2CD	> 14%	< 20%
2CE	> 20%	< 25%
2EF	> 25%	< 32%
2H	> 32%	

The analysis was done purely on the assayed results, disregarding the location of the samples other than their bench location. All blasthole assays are biased as a result of the sampling technique.

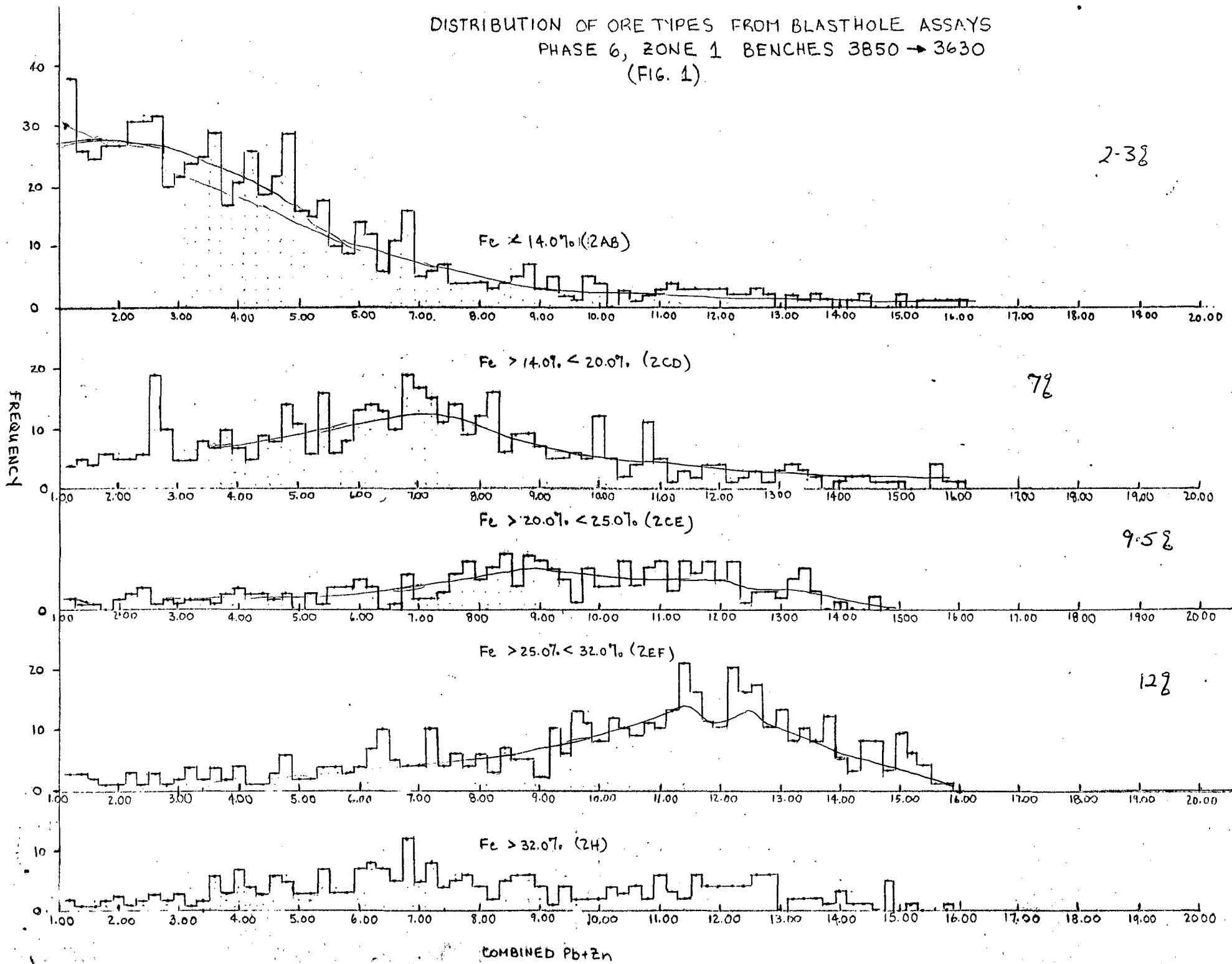
The results are graphically displayed in the attached histograms. Figure 1 shows the individual ore type distribution according to Fe content. Figure 2 shows the combined distribution with a volume determination of material within the 3.0 to 3.4 and 3.4 to 4.0 % Pb + Zn. Figure 3 and 4 shows the distribution of ore types within the sub-ore ranges. Figure 5 shows the bench distribution of the sub-ore material from 3.4 to 4.0 % Pb + Zn.

To summarize the more relevant information, the sub-ore material in the 3.4 to 4.0 % Pb + Zn represents 6% by volume and 4% by weight of all the assays. The predominant ore type in this range is 2AB at 54%, and is relatively evenly distributed in the major benches. The 3.0 to 4.0 % Pb + Zn range represents 10% by volume and 7% by weight of the total assays with again the 2AB being the dominant ore type at 58%.

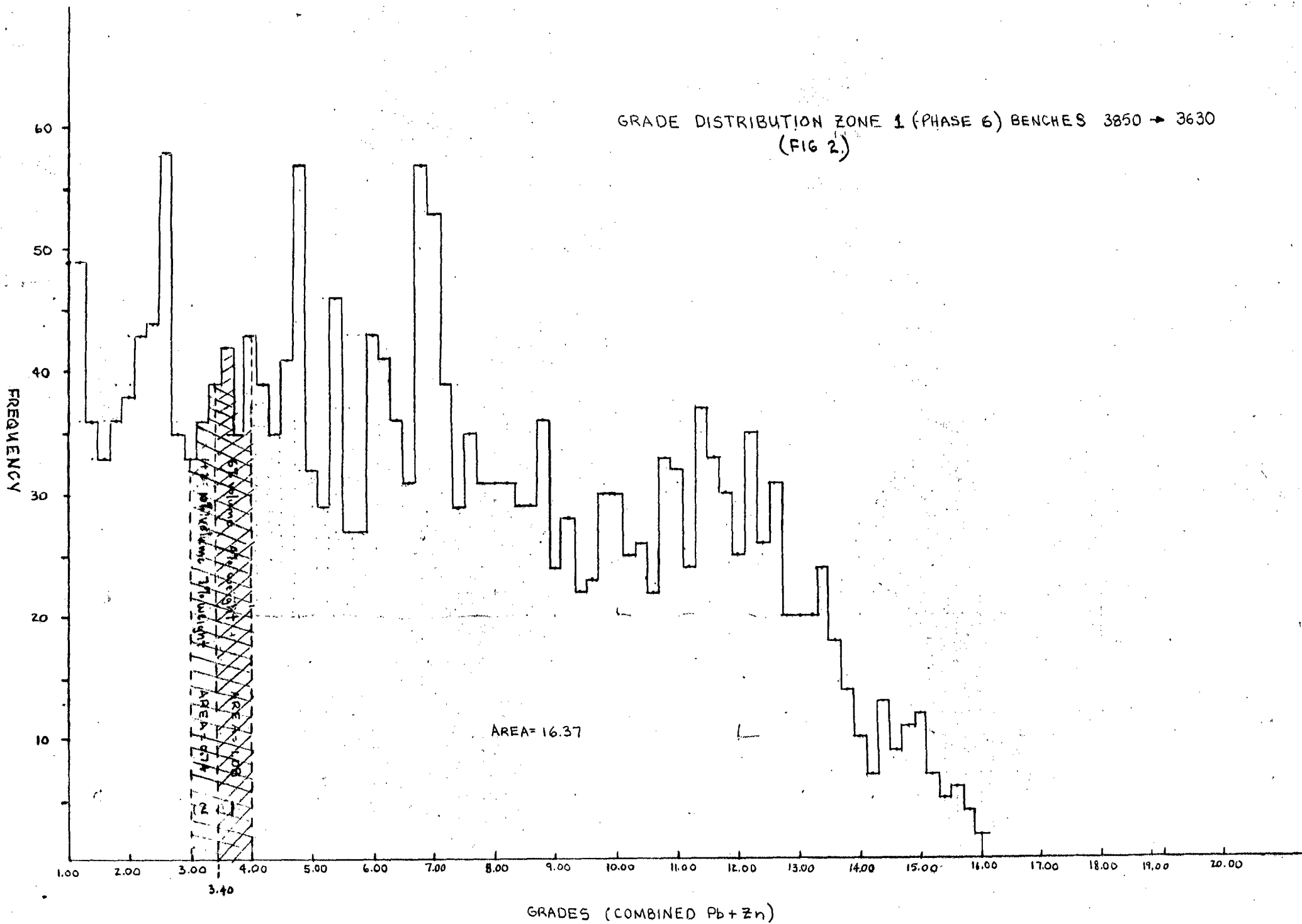


J. Keir
Mine Geologist

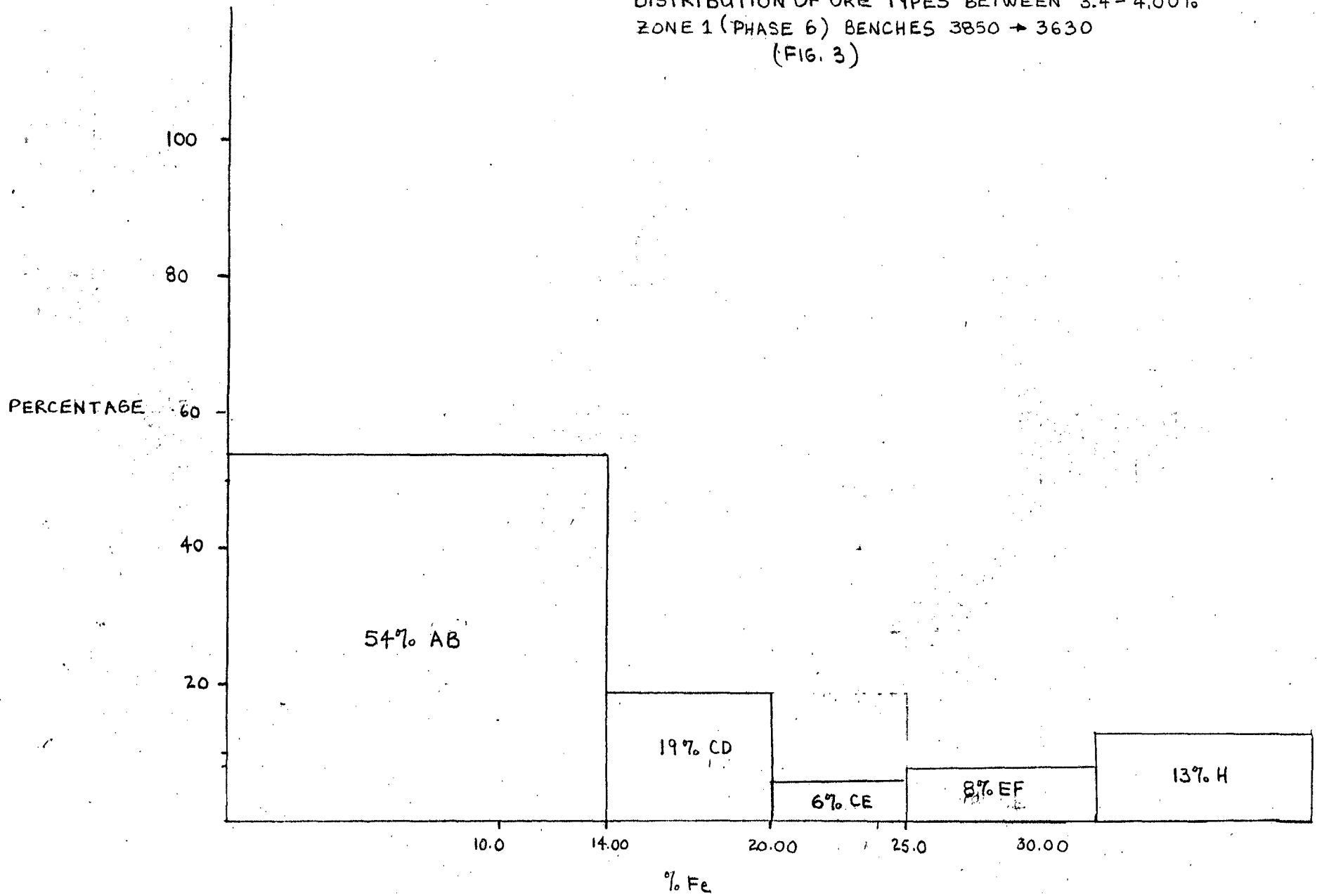
DISTRIBUTION OF ORE TYPES FROM BLASTHOLE ASSAYS
 PHASE 6, ZONE 1 BENCHES 3850 → 3630
 (FIG. 1)



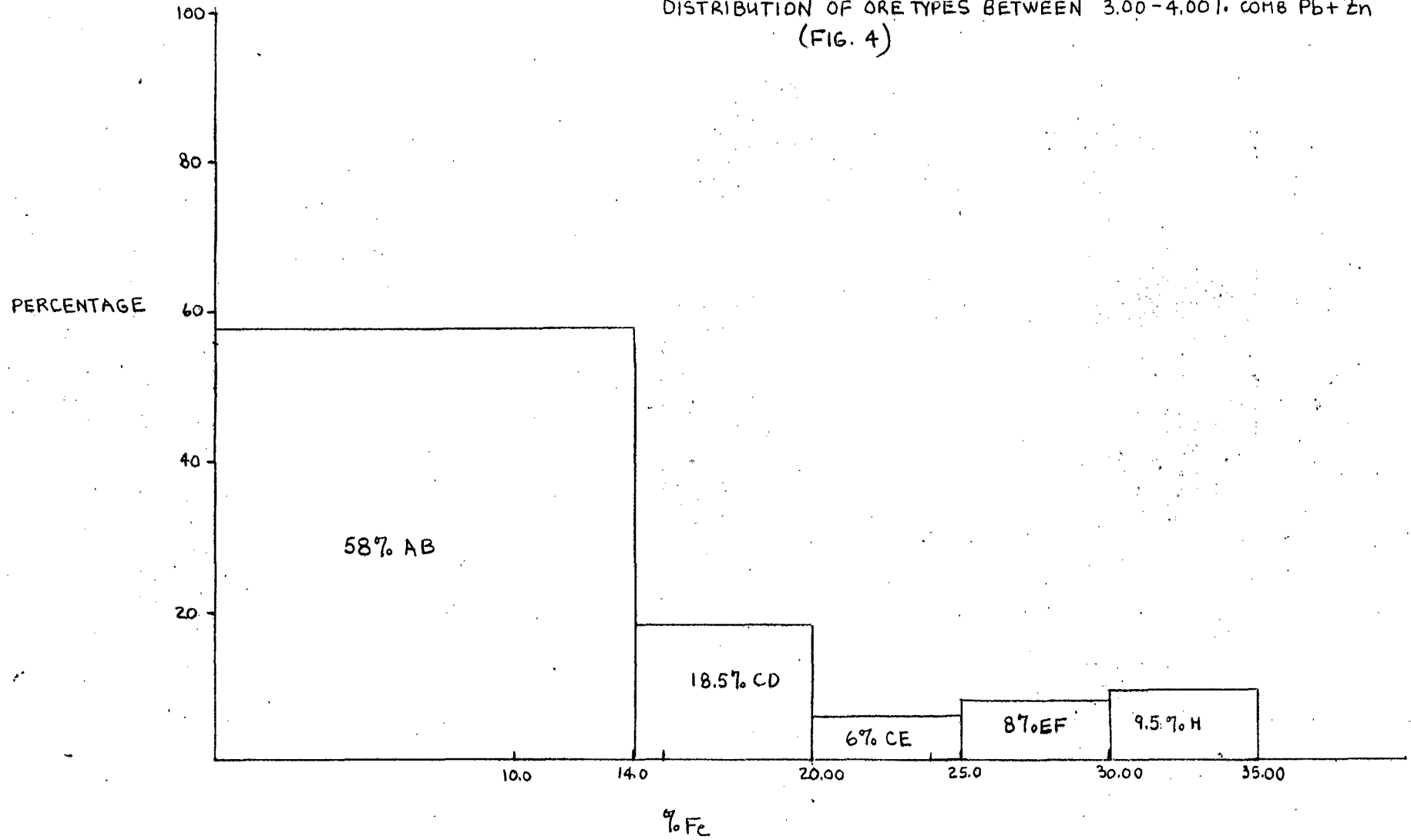
GRADE DISTRIBUTION ZONE 1 (PHASE 6) BENCHES 3850 → 3630
(FIG 2.)



DISTRIBUTION OF ORE TYPES BETWEEN 3.4 - 4.00%
ZONE 1 (PHASE 6) BENCHES 3850 → 3630
(FIG. 3)



ZONE 1 (PHASE 6) BENCHES 3850 → 3630
DISTRIBUTION OF ORE TYPES BETWEEN 3.00-4.00% COMB Pb+Zn
(FIG. 4)



ZONE 1 PHASE 6
DISTRIBUTION PER BENCH OF 3.4-4.0% Pb+Zn
(FIG. 5)

