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Zonia Mine
Bench Reserves

Prepared By:	MRA	Pit:	Phase 5
Compiled By:	Gretta		Final Pit
Method:	MedSystem	T.F.	12.5
Material Class:	% Total Copper	As of:	Sept 26,1994

Bench	Catagory	Cut-Off Grade 0.000	0.120	0.140	0.160	0.180	0.200
19	Tons	814160	686960	686960	686960	686960	686320
	Volume (Cu.Yds.)	376926	318037	318037	318037	318037	318037
	Grade	0.28	0.332	0.332	0.332	0.332	0.332
18	Tons	1626640	1154960	1154960	1130960	1116320	1108320
	Volume (Cu.Yds.)	753075	534704	534704	523593	516816	513112
	Grade	0.255	0.359	0.359	0.363	0.366	0.367
17	Tons	2568720	2105280	2079040	2072800	2057600	1977200
	Volume (Cu.Yds.)	1189221	974666	962518	959629	952592	915370
	Grade	0.29	0.354	0.357	0.358	0.359	0.366
16	Tons	4260320	3739440	3723200	3667040	3592640	3494320
	Volume (Cu.Yds.)	1972374	1731226	1723708	1697708	1663263	1617745
	Grade	0.266	0.303	0.303	0.306	0.309	0.312
15	Tons	7727736	6850400	6682160	6537840	6350880	6043120
	Volume (Cu.Yds.)	3577674	3171500	3093611	3026796	2940241	2797759
	Grade	0.295	0.333	0.338	0.342	0.347	0.356
14	Tons	9540837	8419520	8331280	8087840	7813920	7491200
	Volume (Cu.Yds.)	4417081	3897953	3857101	3744397	3617582	3468175
	Grade	0.301	0.339	0.342	0.348	0.354	0.361
13	Tons	10115706	8598328	8245528	7990240	7712400	7422800
	Volume (Cu.Yds.)	4683222	3980732	3817399	3699210	3570581	3436507
	Grade	0.291	0.34	0.349	0.356	0.363	0.37
12	Tons	8232296	6335891	6177571	5889251	5487011	5081011
	Volume (Cu.Yds.)	3811253	2933289	2859992	2826511	2540289	2352326
	Grade	0.25	0.319	0.324	0.333	0.345	0.358
11	Tons	6558713	4234000	4066800	3902160	3665840	3390800
	Volume (Cu.Yds.)	3036445	1960190	1882783	1806560	1697153	1569820
	Grade	0.207	0.313	0.321	0.328	0.339	0.351
10	Tons	5918617	3547040	3382240	3223520	2978480	2737120
	Volume (Cu.Yds.)	2740101	1642149	1565853	1492371	1378927	1267186
	Grade	0.192	0.31	0.319	0.328	0.341	0.355
9	Tons	4962132	1825318	1576208	1396368	118440	1106220
	Volume (Cu.Yds.)	2297287	845056	729727	646468	548338	512140
	Grade	0.104	0.248	0.267	0.283	0.304	0.313
8	Tons	3923931	1008523	911963	847992	749592	655392
	Volume (Cu.Yds.)	1816635	466909	422205	392589	347033	303422
	Grade	0.075	0.262	0.276	0.286	0.302	0.319
7	Tons	1821916	206900	198900	169760	124880	98400
	Volume (Cu.Yds.)	843480	95787	92083	78593	57815	45556
	Grade	0.03	0.193	0.196	0.204	0.217	0.226
6	Tons	676210	30560	30560	30560	30560	30560
	Volume (Cu.Yds.)	313060	14148	14148	14148	14148	14148
	Grade	0.03	0.668	0.668	0.668	0.668	0.668
Cumm.	Tons	68747934	48743120	47247370	45633291	42485523	41322783
	Volume (Cu.Yds.)	31827834	22566346	21873869	21226610	20162815	19131303
	Grade	0.234	0.324	0.331	0.337	0.346	0.354

Zonia Mine Bench Reserves Report
ARIMETCO, Inc.
September 23, 1994

The following mineable bench reserves for the Zonia mine were calculated from the mine model and design prepared by Mine Reserves Associates, Inc.(MRA). MRA constructed the model as described in the "Ore Reserve Estimate and Mine Plan" report dated February 8, 1994. The model and data files were tranferred to ARIMETCO where the final pit outlines were digitized and used to calculate bench reserves. Hand digitizing the pit outlines and rounding the numbers resulted in a 1/2% variance in the total reserve tonnages reported by MRA and ARIMETCO, Inc..

Bench maps were plotted from this data.

Prepared by: Greta Mattson

Reserves for LEVEL 19 4240.00 CUMULATIVE RESERVES

Material Class: %TOTALCU

CUT-OFF GRADE %TCU	0.000	0.120	0.140	0.160	0.180	0.200
TONS	814160.	686960.	686960.	686960.	686960.	686320.
Volume (YARDS)	376926.	318037.	318037.	318037.	318037.	317741.
%TCU GRADE	0.280	0.332	0.332	0.332	0.332	0.332

Reserves for LEVEL 18 4280.00 CUMULATIVE RESERVES

Material Class: %TOTALCU

CUT-OFF GRADE %TCU	0.000	0.120	0.140	0.160	0.180	0.200
TONS	1626640.	1154960.	1154960.	1130960.	1116320.	1108320.
Volume (YARDS)	753075.	534704.	534704.	523593.	516816.	513112.
%TCU GRADE	0.255	0.359	0.359	0.363	0.366	0.367

Reserves for LEVEL 17 4320.00 CUMULATIVE RESERVES

Material Class: %TOTALCU

CUT-OFF GRADE %TCU	0.000	0.120	0.140	0.160	0.180	0.200
TONS	2568720.	2105280.	2079040.	2072800.	2057600.	1977200.
Volume (YARDS)	1189221.	974666.	962518.	959629.	952592.	915370.
%TCU GRADE	0.290	0.354	0.357	0.358	0.359	0.366

Reserves for LEVEL 16 4360.00 CUMULATIVE RESERVES

Material Class: %TOTALCU

CUT-OFF GRADE %TCU	0.000	0.120	0.140	0.160	0.180	0.200
TONS	4260320.	3739440.	3723200.	3667040.	3592640.	3494320.
Volume (YARDS)	1972374.	1731226.	1723708.	1697708.	1663263.	1617745.
%TCU GRADE	0.266	0.303	0.303	0.306	0.309	0.312

Reserves for LEVEL 15 4400.00 CUMULATIVE RESERVES

Material Class: %TOTALCU

CUT-OFF GRADE %TCU	0.000	0.120	0.140	0.160	0.180	0.200
TONS	7727736.	6850400.	6682160.	6537840.	6350880.	6043120.
Volume (YARDS)	3577674.	3171500.	3093611.	3026796.	2940241.	2797759.
%TCU GRADE	0.295	0.333	0.338	0.342	0.347	0.356

Reserves for LEVEL 14 4440.00 CUMULATIVE RESERVES

Material Class: %TOTALCU

CUT-OFF GRADE %TCU	0.000	0.120	0.140	0.160	0.180	0.200
TONS	9540837.	8419520.	8331280.	8087840.	7813920.	7491200.
Volume (YARDS)	4417081.	3897953.	3857101.	3744397.	3617582.	3468175.
%TCU GRADE	0.301	0.339	0.342	0.348	0.354	0.361

Reserves for LEVEL 13 4480.00 CUMULATIVE RESERVES

Material Class: %TOTALCU

CUT-OFF GRADE %TCU	0.000	0.120	0.140	0.160	0.180	0.200
TONS	10115706.	8598328.	8245528.	7990240.	7712400.	7422800.
Volume (YARDS)	4683222.	3980732.	3817399.	3699210.	3570581.	3436507.
%TCU GRADE	0.291	0.340	0.349	0.356	0.363	0.370

Reserves for LEVEL 12 4520.00 CUMULATIVE RESERVES

Material Class: %TOTALCU

CUT-OFF GRADE %TCU	0.000	0.120	0.140	0.160	0.180	0.200
TONS	8232296.	6335891.	6177571.	5889251.	5487011.	5081011.
Volume (YARDS)	3811253.	2933289.	2859992.	2726511.	2540289.	2352326.
%TCU GRADE	0.250	0.319	0.324	0.333	0.345	0.358

Reserves for LEVEL 11 4560.00 CUMULATIVE RESERVES

Material Class: %TOTALCU

CUT-OFF GRADE %TCU	0.000	0.120	0.140	0.160	0.180	0.200
TONS	6558713.	4234000.	4066800.	3902160.	3665840.	3390800.
Volume (YARDS)	3036445.	1960190.	1882783.	1806560.	1697153.	1569820.
%TCU GRADE	0.207	0.313	0.321	0.328	0.339	0.351

Reserves for LEVEL 10 4600.00 CUMULATIVE RESERVES

Material Class: %TOTALCU

CUT-OFF GRADE %TCU	0.000	0.120	0.140	0.160	0.180	0.200
TONS	5918617.	3547040.	3382240.	3223520.	2978480.	2737120.
Volume (YARDS)	2740101.	1642149.	1565853.	1492371.	1378927.	1267186.
%TCU GRADE	0.192	0.310	0.319	0.328	0.341	0.355

Reserves for LEVEL 9 4640.00 CUMULATIVE RESERVES

Material Class: %TOTALCU

CUT-OFF GRADE %TCU	0.000	0.120	0.140	0.160	0.180	0.200
TONS	4962132.	1825318.	1576208.	1396368.	1184408.	1106220.
Volume (YARDS)	2297287.	845056.	729727.	646468.	548338.	512140.
%TCU GRADE	0.104	0.248	0.267	0.283	0.304	0.313

Reserves for LEVEL 8 4680.00 CUMULATIVE RESERVES

Material Class: %TOTALCU

CUT-OFF GRADE %TCU	0.000	0.120	0.140	0.160	0.180	0.200
TONS	3923931.	1008523.	911963.	847992.	749592.	655392.
Volume (YARDS)	1816635.	466909.	422205.	392589.	347033.	303422.
%TCU GRADE	0.075	0.262	0.276	0.286	0.302	0.319

Reserves for LEVEL 7 4720.00 CUMULATIVE RESERVES

Material Class: %TOTALCU

CUT-OFF GRADE %TCU	0.000	0.120	0.140	0.160	0.180	0.200
TONS	1821916.	206900.	198900.	169760.	124880.	98400.
Volume (YARDS)	843480.	95787.	92083.	78593.	57815.	45556.
%TCU GRADE	0.030	0.193	0.196	0.204	0.217	0.226

Reserves for LEVEL 6 4760.00 CUMULATIVE RESERVES

Material Class: %TOTALCU

CUT-OFF GRADE %TCU	0.000	0.120	0.140	0.160	0.180	0.200
TONS	676210.	30560.	30560.	30560.	30560.	30560.
Volume (YARDS)	313060.	14148.	14148.	14148.	14148.	14148.
%TCU GRADE	0.030	0.668	0.668	0.668	0.668	0.668

*** Reserves for all LEVELS CUMULATIVE RESERVES ***

Material Class: %TOTALCU

CUT-OFF GRADE %TCU	0.000	0.120	0.140	0.160	0.180	0.200
TONS	68747936.	48743124.	47247372.	45633292.	43551492.	41322784.
Volume (YARDS)	31827840.	22566348.	21873872.	21126612.	20162818.	19131006.
%TCU GRADE	0.233	0.324	0.331	0.337	0.345	0.354
POUNDS CU (MILLION)		315.9	312.7	307.6	300.5	292.6