007261

V A N G O R D A A N D G R U M

O R E R E S E R V E S

4.5 m BENCH

MAY, 1988

08.06.88

VANGORDA PIT
INSITU RESERVES
(X 1000)

BENCH ELEVATION	OBDN. Cu. M.	OBDN. Tn.	ROCK Cu. M.	ROCK Tn.	LOW GRADE Cu. M.	LOW GRADE Tn.	HIGH GRADE Cu. M.	HIGH GRADE Tn.	Pb + Zn (%)	Pb (%)	Zn (%)	Ag (g/t)	Au (g/t)
> 1160	141	297	8	21									
1155.5	202	424	10	26									
1151	350	734	17	47									
1146.5	499	1,049	34	102	4	14	5	19	8.499	3.322	5.177	49	.449
1142	559	1,173	60	174	7	23	29	109	8.452	3.524	4.928	49	.585
1137.5	462	970	1,414	402	11	40	63	244	8.569	3.721	4.848	51	.576
1133	395	830	163	462	8	27	93	352	8.206	3.583	4.623	50	.607
1128.5	349	732	185	544	12	43	72	279	8.936	3.837	5.099	55	.678
1124	272	571	221	640	10	32	47	179	10.182	4.222	5.960	65	.728
1119.5	199	418	230	654	5	15	73	269	10.396	4.332	6.064	61	.621
1115	125	263	244	690	9	29	74	264	10.045	4.139	5.906	56	.569
1110.5	57	120	257	720	13	37	82	282	9.753	4.061	5.692	54	.588
1106	6	13	234	652	13	40	95	319	9.637	4.041	5.596	54	.649
1101.5	1	2	205	572	1	31	88	296	9.046	3.857	5.189	54	.781
1097			175	495	9	24	81	285	9.469	4.166	5.304	58	.747
1093.6			155	437	5	12	79	303	11.292	5.157	6.135	74	.688
1088			136	390	5	14	77	295	11.458	5.224	6.255	74	.711
1083.5			149	446	4	12	45	179	12.114	5.480	6.634	80	.663
1079			105	310	10	31	63	236	10.163	4.335	5.829	64	.687
1074.5			76	224	6	21	75	301	10.608	4.585	6.023	68	.740
1070			54	166	6	21	79	314	10.381	4.833	5.548	68	.769
1065.5			39	123	3	12	55	217	9.669	4.369	5.300	64	.744
1061			29	97	2	8	38	153	9.375	4.283	5.092	62	.799
< 1061			31	112	1	5	21	85	8.731	3.956	4.774	56	.877
TOTAL	3,617	7,596	2,958	8,506	154	487	1,334	4,980	9.849	4.291	5.558	61	.685

V A N G O R D A P I T

Diluted by 15 % at zero grade, 5 % mining loss

(X 1000)

BENCH ELEVATION	OBDN. Cu. M.	OBDN. Tn.	ROCK Cu. M.	ROCK Tn.	LOW GRADE Cu. M.	LOW GRADE Tn.	HIGH GRADE Cu. M.	HIGH GRADE Tn.	Pb + Zn (%)	Pb (%)	Zn (%)	Ag (g/t)	Au (g/t)
> 1160	141	297	7	21									
1155.5	202	424	10	26									
1151	350	734	17	47									
1146.5	499	1,049	33	99	4	15	6	21	7.39	2.89	4.50	43	.390
1142	559	1,173	55	162	8	25	33	119	7.35	3.06	4.29	43	.509
1137.5	462	970	131	376	12	44	72	266	7.45	3.24	4.21	44	.501
1133	395	830	149	427	9	29	106	385	7.14	3.12	4.02	43	.528
1128.5	349	732	174	514	13	47	82	305	7.77	3.34	4.43	48	.590
1124	272	571	213	620	11	35	53	196	8.85	3.67	5.18	57	.677
1119.5	199	418	220	628	6	16	83	294	9.04	3.77	5.27	53	.540
1115	125	263	234	663	10	27	84	288	8.74	3.60	5.14	49	.495
1110.5	57	120	246	690	14	40	92	308	8.48	3.53	4.95	47	.511
1106	6	13	221	619	14	44	107	348	8.38	3.51	4.87	47	.564
1101.5	1	2	193	542	12	34	99	323	7.87	3.35	4.51	47	.679
1097			164	466	10	26	91	311	8.23	3.62	4.61	50	.650
1092.5			143	408	5	13	90	331	9.82	4.48	5.34	64	.598
1088			125	361	5	15	88	322	9.96	4.54	5.44	64	.618
1083.5			142	428	4	13	51	196	10.53	4.76	5.77	70	.576
1079			96	285	11	34	71	258	8.84	3.77	5.07	56	.597
1074.5			64	194	7	23	86	329	9.22	3.99	5.24	59	.643
1070			43	135	7	23	90	343	9.03	4.20	4.82	59	.669
1065.5			32	102	3	13	62	237	8.41	3.80	4.61	56	.649
1061			24	82	2	8	43	167	8.15	3.72	4.43	54	.695
< 1061			29	104	1	5	23	93	7.59	3.44	4.15	49	.763
TOTAL	3,617	7,596	2,761	8,000	170	532	1,512	5,440	8.58	3.74	4.84	53	.594

GRUM PIT
(X 1000)

	OBDN. Cu. M.	OBDN. Tn.	ROCK Cu. M.	ROCK Tn.	LOW GRADE Cu. M.	LOW GRADE Tn.	HIGH GRADE Cu. M.	HIGH GRADE Tn.	Pb + Zn (%)	Pb (%)	Zn (%)	Ag (g/t)	Au (g/t)
IN SITU													
Stage I	12,503	26,240	15,241	41,238	276	834	1,849	6,148	9.74	3.66	6.08	60.0	.890
Stage II	713	1,496	26,658	72,137	411	1,263	2,699	9,263	10.18	3.80	6.38	63.8	1.014
Stage III	116	244	13,556	36,661	250	749	1,109	3,690	9.27	3.38	5.92	58.7	.954
TOTAL	13,332	27,980	55,455	150,036	937	2,846	5,657	19,101	9.87	3.67	6.19	61.6	.962
DILUTED 15 % (0%) Loss 5 %													
Stage I	12,503	26,240	14,980	40,592	306	911	2,080	6,717	8.47	3.18	5.29	52.2	.774
Stage II	713	1,496	26,259	71,163	457	1,380	3,052	10,120	8.85	3.30	5.55	55.5	.882
Stage III	116	244	13,390	36,250	277	818	1,248	4,031	8.06	2.91	5.15	51.1	.830
TOTAL	13,332	27,980	54,629	148,005	1,042	3,109	6,380	20,868	8.58	3.19	5.39	53.6	.837

GRUM PIT - STAGE I
IN SITU

BENCH ELEVATION	OBDN. Cu. M.	OBDN. Tn.	ROCK Cu. M.	ROCK Tn.	LOW GRADE Cu. M.	LOW GRADE Tn.	HIGH GRADE Cu. M.	HIGH GRADE Tn.	HIGH GRADE ORE				
									Pb + Zn (%)	Pb (%)	Zn (%)	Ag (g/t)	Au (g/t)
1324													
1312													
1300	325	681	8	23									
1295.5	749	1,572	57	155									
1291	806	1,691	104	281									
1286.5	841	1,765	174	470			1	2	5.88	2.25	3.68	35	.486
1282	867	1,819	244	658			2	5	5.88	2.23	3.65	35	.488
1277.5	917	1,925	275	744			3	10	7.21	2.70	4.51	44.9	.559
1273	1,083	2,273	289	782			9	28	7.13	2.71	4.42	45.2	.566
1268.5	1,101	2,311	343	926	1	3	13	38	6.32	2.27	4.05	38.3	.703
1264	1,022	2,145	413	1,117	2	7	15	43	6.12	2.11	4.02	36.1	.786
1259.5	925	1,943	465	1,254	7	21	14	42	6.21	2.11	4.10	36.1	.825
1255	798	1,676	512	1,383	2	5	22	64	6.50	2.22	4.28	38.3	.811
1250.5	697	1,462	542	1,464	9	26	32	93	7.11	2.43	4.68	42.4	.753
1246	575	1,207	581	1,573	15	43	41	124	8.18	2.96	5.24	50.3	.806
1241.5	470	987	610	1,650	19	58	50	155	8.28	3.06	5.22	50.9	.827
1237	368	772	636	1,721	22	64	64	200	9.29	3.51	5.78	57.1	.840
1232.5	292	612	655	1,771	19	56	67	211	9.31	3.44	5.88	55.9	.808
1228	223	469	662	1,791	10	29	80	252	9.26	3.39	5.88	54.4	.783
1223.5	164	343	650	1,760	9	26	96	307	9.10	3.35	5.75	53.5	.775
1219.0	114	239	643	1,741	19	56	90	295	9.57	3.58	5.99	56.8	.824
1214.5	66	139	650	1,762	18	56	77	251	9.73	3.54	6.20	57.2	.844
1210	46	96	635	1,720	18	51	66	215	9.85	3.49	6.36	57.6	.875
1205.5	32	67	599	1,622	14	41	66	212	9.41	3.33	6.08	55.0	.866

Cont'd...

GRUM PIT - STAGE I
IN SITU

BENCH ELEVATION	OBDN. Cu. M.	OBDN. Tn.	ROCK Cu. M.	ROCK Tn.	LOW GRADE Cu. M.	LOW GRADE Tn.	HIGH GRADE Cu. M.	HIGH GRADE Tn.	HIGH GRADE ORE				
									Pb + Zn (%)	Pb (%)	Zn (%)	Ag (g/t)	Au (g/t)
1201	18	38	564	1,526	13	40	72	237	9.79	3.59	6.20	58.4	.892
1196.5	4	8	530	1,434	8	24	79	266	10.68	4.01	6.67	64.4	.962
1192.0			500	1,351	6	20	76	260	10.95	4.12	6.83	67.3	.999
1187.5			476	1,287	7	21	66	223	10.23	3.76	6.47	62.7	.970
1183			442	1,199	15	45	57	188	9.48	3.45	6.04	58.5	.886
1178.5			404	1,095	12	38	62	203	8.94	3.29	5.66	55.3	.880
1174			373	1,011	6	19	63	210	9.08	3.43	5.65	57.6	.931
1169.5			343	927	3	8	65	218	9.68	3.67	6.02	60.7	.945
1165			304	823	4	13	65	222	10.35	3.88	6.47	63.6	.934
1160.5			272	739	4	13	62	209	9.82	3.75	6.07	61.4	.894
1156			244	658	3	9	59	158	10.00	3.72	6.28	62.2	.920
1151.5			216	584	2	7	56	194	10.41	3.89	6.51	66.0	.955
1147			194	523	1	3	52	191	11.48	4.46	7.02	73.6	1.008
1142.5			167	452	1	3	50	191	12.23	4.94	7.29	80.7	1.033
1138			141	381	2	6	43	164	12.18	4.92	7.26	80.8	1.037
1133.5			113	305	2	5	36	134	10.63	4.40	6.23	71.92	.972
1129			96	261	1	4	26	94	9.45	4.02	5.43	62.9	.855
1124.5			68	185	1	2	26	99	9.67	4.11	5.56	62.6	.872
1120			47	129	1	4	26	100	10.67	4.52	6.15	69.1	.889
1115.5													
1111													
1106.5													
1102													
1097.5													
TOTAL	12,503	2,040	15,241	41,238	276	834	1,849	6,148	9.74	3.66	6.08	60.0	.890

GRUM PIT - STAGE II
IN SITU

BENCH ELEVATION	OBDN. Cu. M.	OBDN. Tn.	ROCK Cu. M.	ROCK Tn.	LOW GRADE Cu. M.	LOW GRADE Tn.	HIGH GRADE Cu. M.	HIGH GRADE Tn.	HIGH GRADE ORE Pb + Zn (%)	Pb (%)	Zn (%)	Ag (g/t)	Au (g/t)
1324													
1312	188	394	145	391									
1300	245	514	1,260	3,402									
1295.5	72	152	643	1,736									
1291	41	85	708	1,912									
1286.5	19	39	770	2,079									
1282	20	42	814	2,197									
1277.5	36	76	823	2,222									
1273	45	95	826	2,231									
1268.5	34	72	829	2,239									
1264	6	14	840	2,268			1	1	5.87	2.19	3.68	35.0	.525
1259.5	2	4	819	2,211			1	4	5.94	2.16	3.78	35.3	.534
1255	2	5	795	2,147			2	6	6.06	2.20	3.86	36.2	.573
1250.5	1	2	782	2,111			5	13	6.65	2.37	4.28	39.8	.585
1246			767	2,071			9	25	7.26	2.47	4.79	42.2	.569
1241.5			753	2,032	1	2	13	38	7.29	2.49	4.80	41.8	.558
1237			732	1,977	5	14	15	42	7.28	2.49	4.79	41.2	.562
1232.5			712	1,923	9	27	17	48	7.29	2.47	4.82	41.2	.568
1228			688	1,859	12	36	22	67	7.25	2.35	4.90	41.3	.529
1223.5			658	1,777	13	39	36	110	7.18	2.31	4.87	41.0	.528
1219.0			637	1,720	10	30	46	136	7.18	2.38	4.80	41.4	.533
1214.5			620	1,676	8	22	48	144	6.88	2.32	4.56	40.3	.521
1210			599	1,618	11	32	54	160	6.64	2.30	4.34	38.6	.527
1205.5			581	1,569	6	20	68	203	6.60	2.35	4.25	38.1	.570

Cont'd...

GRUM PIT - STAGE II
IN SITU

BENCH ELEVATION	OBDN. Cu. M.	OBDN. Tn.	ROCK Cu. M.	ROCK Tn.	LOW GRADE Cu. M.	LOW GRADE Tn.	HIGH GRADE Cu. M.	HIGH GRADE Tn.	HIGH GRADE ORE				
									Pb + Zn (%)	Pb (%)	Zn (%)	Ag (g/t)	Au (g/t)
1201			565	1,526	5	15	73	215	6.62	2.30	4.32	37.0	.543
1196.5			556	1,503	8	25	63	188	6.79	2.34	4.44	38.1	.574
1192.0			544	1,472	11	35	55	174	7.66	2.75	4.91	45.2	.644
1187.5			532	1,439	11	33	53	175	8.78	3.36	5.42	53.8	.675
1183			514	1,390	6	19	60	192	8.32	3.28	5.09	52.3	.664
1178.5			491	1,328	6	19	63	203	8.94	3.41	5.53	57.2	.716
1174			454	1,229	10	33	65	212	9.33	3.54	5.79	59.0	.761
1169.5			438	1,185	12	37	64	213	9.50	3.67	5.83	60.7	.824
1165			424	1,146	10	32	65	223	10.19	4.04	6.15	66.1	.845
1160.5			398	1,075	16	50	77	265	10.73	4.16	6.58	67.6	.989
1156			374	1,014	11	34	93	318	10.48	4.04	6.44	66.6	1.117
1151.5			356	963	12	38	97	331	10.84	4.00	6.84	67.6	1.132
1147			330	893	16	47	103	351	10.69	3.94	6.75	66.9	1.104
1142.5			307	834	21	64	103	348	10.18	3.73	6.44	63.6	1.092
1138			289	790	28	84	100	339	10.19	3.74	6.45	63.2	1.120
1133.5			291	799	37	82	90	316	11.57	4.26	7.31	71.5	1.187
1129			284	779	21	64	90	318	12.01	4.42	7.60	74.1	1.172
1124.5			260	709	20	60	93	321	11.04	4.03	7.02	68.1	1.152
1120			247	672	17	52	96	325	10.19	3.70	6.48	63.2	1.090
1115.5			289	786	13	44	99	346	10.45	3.92	6.52	65.1	1.046
1111			278	755	16	53	79	283	11.85	4.38	7.47	74.0	1.124
1106.5			250	682	8	26	81	303	12.85	4.72	8.12	80.2	1.191
1102			229	625	4	13	83	313	13.70	5.03	8.67	85.0	1.286
1097.5			213	579	2	8	77	288	13.16	4.90	8.26	83.3	1.277

Cont'd...

GRUM PIT - STAGE II
IN SITU

BENCH ELEVATION	OBDN. Cu. M.	OBDN. Tn.	ROCK Cu. M.	ROCK Tn.	LOW GRADE Cu. M.	LOW GRADE Tn.	HIGH GRADE Cu. M.	HIGH GRADE Tn.	HIGH GRADE ORE				
									Pb + Zn (%)	Pb (%)	Zn (%)	Ag (g/t)	Au (g/t)
1093			195	531	2	5	68	254	12.07	4.67	7.40	78.9	1.154
1088.5			170	462	2	6	58	216	11.88	4.53	6.85	77.1	1.139
1084			143	385	8	23	46	174	10.96	4.54	6.42	75.5	1.223
1079.5			123	336	5	14	48	184	10.21	4.23	5.98	71.0	1.135
1075.0			104	285	1	3	49	192	9.83	4.04	5.79	67.5	1.248
1070.5			87	242	1	3	40	159	10.36	4.09	6.27	69.5	1.291
1066			51	145	2	5	25	101	10.83	4.03	6.80	71.0	1.408
1061.5			34	96	2	8	21	84	10.26	3.81	6.45	66.9	1.390
1057			16	46	2	6	20	80	9.88	3.62	6.26	63.7	1.316
1052.5			9	25	1	3	21	84	10.21	3.81	6.40	65.3	1.409
1048			6	16			20	81	10.41	3.93	6.48	64.4	1.520
1043.5			5	13			16	65	10.91	4.12	6.79	65.3	1.554
1039			5	13			8	33	11.75	4.27	7.48	67.0	1.533
1034.5													
TOTAL	713	1,496	26,658	72,137	411	1,263	2,699	9,263	10.18	3.80	6.38	63.8	1.014

GRUM PIT - STAGE III
INSITU RESERVES
(X 1000)

BENCH ELEVATION	OBDN. Cu. M.	OBDN. Tn.	ROCK Cu. M.	ROCK Tn.	LOW GRADE Cu. M.	LOW GRADE Tn.	HIGH GRADE Cu. M.	HIGH GRADE Tn.	HIGH GRADE ORE				
									Pb + Zn (%)	Pb (%)	Zn (%)	Ag (g/t)	Au (g/t)
1324	9	20											
1312	66	138	519	1,401									
1300	16	34	841	2,270									
1295.5	2	4	315	851									
1291	2	4	316	853									
1286.5	2	4	317	856									
1282	2	4	315	850									
1277.5	2	4	312	842									
1273	2	4	308	832									
1268.5	2	4	304	821									
1264	2	6	301	813									
1259.5	1	2	298	805									
1255	0	1	300	809									
1250.5	1	2	294	794									
1246	1	2	288	776									
1241.5	1	1	286	771									
1237	0	1	281	758									
1232.5	1	1	277	747									
1228	0	1	272	735									
1223.5	1	1	269	726									
1219.0	0	1	268	724									
1214.5	1	1	270	729									
1210	0	1	266	718									
1205.5	1	1	261	706									

Cont'd....

GRUM PIT - STAGE III
INSITU RESERVES
(X 1000)

BENCH ELEVATION	OBDN. Cu. M.	OBDN. Tn.	ROCK Cu. M.	ROCK Tn.	LOW GRADE Cu. M.	LOW GRADE Tn.	HIGH GRADE Cu. M.	HIGH GRADE Tn.	HIGH GRADE ORE				
									Pb + Zn (%)	Pb (%)	Zn (%)	Ag (g/t)	Au (g/t)
1201	1	2	257	693			1	2	6.28	2.27	4.01	35.9	.241
1196.5			249	673			7	20	6.30	2.21	4.09	35.8	.397
1192.0			244	658	1	4	8	22	6.31	2.24	4.07	37.1	.493
1187.5			240	647	4	11	6	18	6.65	2.37	4.28	41.0	.551
1183			234	632	4	11	9	27	6.81	2.39	4.43	42.3	.549
1178.5			233	628	2	5	14	42	6.80	2.44	4.36	36.9	.328
1174			243	657	1	1	18	54	7.08	2.52	4.56	38.4	.331
1169.5			242	654	2	7	16	47	7.07	2.50	4.57	40.8	.462
1165			235	636	8	25	12	37	6.65	2.28	4.57	36.7	.451
1160.5			231	624	7	20	17	49	6.57	2.21	4.36	36.8	.378
1156			225	609	4	13	16	47	6.52	2.20	432	36.8	.392
1151.5			226	609	4	12	13	41	7.41	2.77	4.64	44.9	.620
1147			229	621	1	3	13	40	7.70	2.97	4.73	47.4	.736
1142.5			236	638			13	41	7.35	2.83	4.52	45.4	.719
1138			239	647	1	2	11	33	7.46	2.69	4.77	44.3	.671
1133.5			237	642	1	2	14	43	8.52	3.06	5.46	50.9	.920
1129			230	625	3	10	17	56	9.32	3.38	5.94	56.4	1.007
1124.5			222	607	8	23	26	84	9.42	3.39	6.03	56.9	1.004
1120			201	546	21	61	34	113	10.02	3.52	6.50	60.1	1.036
1115.5			175	475	22	63	54	175	9.59	3.41	6.18	58.9	1.003
1111			159	432	17	47	64	208	9.36	3.38	5.98	57.9	.979
1106.5			148	405	17	48	63	204	9.08	3.31	5.77	57.1	1.015
1102			147	400	16	46	54	178	9.356	3.34	6.00	58.8	1.042
1097.5			132	359	16	48	55	180	9.55	3.36	6.19	59.9	1.042

Cont'd....

GRUM PIT - STAGE III

INSITU RESERVES
(X 1000)

BENCH ELEVATION	OBDN. Cu. M.	OBDN. Tn.	ROCK Cu. M.	ROCK Tn.	LOW GRADE Cu. M.	LOW GRADE Tn.	HIGH GRADE Cu. M.	HIGH GRADE Tn.	HIGH GRADE ORE				
									Pb + Zn (%)	Pb (%)	Zn (%)	Ag (g/t)	Au (g/t)
1093			120	328	13	41	61	199	9.41	3.36	6.05	59.8	1.034
1088.5			102	281	13	40	67	221	9.50	3.47	6.02	61.1	1.022
1084			91	246	12	38	67	222	9.79	3.54	6.25	62.2	1.024
1079.5			87	236	10	30	61	202	9.72	3.50	6.22	61.9	1.016
1075.0			88	245	11	33	46	159	9.87	3.57	6.30	63.6	1.071
1070.5			90	249	8	22	37	127	9.28	3.42	5.86	60.3	.990
1066			80	218	5	16	31	108	8.46	3.06	5.40	53.7	.821
1061.5			71	193	3	11	27	95	8.29	3.00	5.29	53.0	.746
1057			50	138	5	18	25	91	9.45	3.40	6.05	63.0	.878
1052.5			32	89	3	11	32	117	10.10	3.65	6.45	69.7	1.066
1048			21	57	4	13	33	127	10.53	3.89	6.64	74.1	1.204
1043.5			13	37	1	4	32	130	11.81	4.36	7.45	84.3	1.294
1039			12	32	3	10	22	89	10.47	3.97	6.50	68.5	1.277
1034.5			2	6	2	5	10	40	12.35	4.67	7.68	72.6	1.218
TOTAL	116	244	13,557	36,661	250	749	1,109	3,690	9.27	3.35	5.92	58.7	.954

1250.5	697	1,462	538	1,453	10	28	35	102	6.18	2.11	4.07	36.9	.655
1246	575	1,207	575	1,558	17	47	45	135	7.11	2.57	4.56	43.7	.701
1241.5	470	987	602	1,630	21	63	56	169	7.20	2.66	4.54	44.3	.719
1237	368	772	626	1,697	24	70	71	219	8.08	3.05	5.03	49.7	.730
1232.5	292	612	645	1,746	21	61	75	231	8.10	2.99	5.11	48.6	703
1228	223	469	652	1,765	11	32	89	275	8.05	2.95	5.11	47.4	.681
1223.5	164	343	638	1,729	10	28	107	335	7.91	2.91	5.00	46.5	.673
1219.0	114	239	630	1,709	21	61	101	322	8.32	3.11	5.21	49.4	.717
1214.5	66	139	639	1,734	20	61	86	274	8.46	3.08	5.39	49.7	.734
1210	46	96	625	1,695	20	56	74	235	8.57	3.03	5.54	50.1	.761
1205.5	32	67	590	1,599	15	45	74	132	8.18	2.90	5.28	47.8	.753

Cont'd...

1106.5													
1102													
1097.5													
TOTAL	12,503	26,240	14,980	40,592	306	911	2,080	6,717	8.47	3.18	5.29	52.2	.774

GRUM PIT - STAGE II
Diluted 15 %, Loss 5 %
(X 1000)

BENCH ELEVATION	OBDN. Cu. M.	OBDN. Tn.	ROCK Cu. M.	ROCK Tn.	LOW GRADE Cu. M.	LOW GRADE Tn.	HIGH GRADE Cu. M.	HIGH GRADE Tn.	HIGH GRADE ORE Pb + Zn (%)	Pb (%)	Zn (%)	Ag (g/t)	Au (g/t)
1324													
1312	188	394	145	391									
1300	245	514	1,260	3,402									
1295.5	72	152	643	1,736									
1291	41	85	708	1,912									
1286.5	19	39	770	2,079									
1282	20	42	814	2,197									
1277.5	36	76	823	2,222									
1273	45	95	826	2,231									
1268.5	34	72	829	2,239									
1264	6	14	840	2,268			1	1	5.10	1.90	3.20	30.4	.456
1259.5	2	4	819	2,211			1	4	5.17	1.88	3.29	30.7	.464
1255	2	5	795	2,146			2	7	5.27	1.91	3.36	31.5	.498
1250.5	1	2	782	2,110			5	14	5.78	2.06	3.72	34.6	.509
1246			766	2,069			10	27	6.31	2.15	4.17	36.7	.495
1241.5			752	2,028	1	2	14	42	6.34	2.17	4.17	36.4	.485
1237			730	1,972	5	15	16	46	6.33	2.17	4.17	35.8	.489
1232.5			709	1,916	10	29	19	52	6.34	2.15	4.19	35.8	.494
1228			684	1,849	13	39	24	73	6.30	2.04	4.26	35.9	.460
1223.5			653	1,763	14	43	40	120	6.24	2.01	4.23	35.7	.459
1219.0			631	1,705	11	33	51	149	6.24	2.07	4.17	36.0	.463
1214.5			614	1,661	9	24	53	157	5.98	2.02	3.97	35.0	.453
1210			592	1,600	12	35	60	175	5.77	2.00	3.77	33.6	.458
1205.5			573	1,548	7	22	75	222	5.74	2.04	3.70	33.1	.496

Cont'd...

G R U M P I T - S T A G E I I

Diluted 15 %, Loss 5 %

(X 1000)

BENCH ELEVATION	OBDN. Cu. M.	OBDN. Tn.	ROCK Cu. M.	ROCK Tn.	LOW GRADE Cu. M.	LOW GRADE Tn.	HIGH GRADE Cu. M.	HIGH GRADE Tn.	HIGH GRADE ORE				
									Pb + Zn (%)	Pb (%)	Zn (%)	Ag (g/t)	Au (g/t)
1201			557	1,505	6	16	81	235	5.76	2.00	3.76	32.2	.472
1196.5			548	1,483	9	27	70	205	5.90	2.03	3.86	33.1	.500
1192.0			536	1,453	12	38	61	190	6.66	2.39	4.27	39.3	.560
1187.5			524	1,420	12	36	60	191	7.64	2.92	4.71	46.8	.587
1183			506	1,370	7	21	67	210.5	7.23	2.81	4.43	45.5	.577
1178.5			483	1,307	7	21	71	222	7.77	2.97	4.81	49.7	.623
1174			445	1,206	11	36	73	232	8.11	3.08	5.03	51.3	.662
1169.5			429	1,162	13	40	72	233	8.26	3.19	5.07	52.8	.716
1165			414	1,122	11	35	74	244	8.86	3.51	5.35	57.5	.735
1160.5			386	1,046	18	55	87	290	9.33	3.62	5.72	58.8	.860
1156			361	981	12	37	105	347	9.11	3.51	5.60	57.9	.971
1151.5			342	929	13	42	110	362	9.43	3.48	5.95	58.8	.984
1147			315	856	18	51	116	383	9.29	3.43	5.87	58.2	.960
1142.5			292	796	23	70	116	380	8.85	3.24	5.60	55.3	.950
1138			273	751	31	92	113	370	8.86	3.25	5.61	55.0	.974
1133.5			276	762	30	90	102	345	10.06	3.70	6.36	62.2	1.032
1129			270	744	23	70	102	347	10.44	3.84	6.61	64.4	1.019
1124.5			246	674	22	66	105	351	9.60	3.50	6.10	59.2	1.002
1120			233	637	19	57	108	355	8.85	3.22	5.63	55.0	.948
1115.6			274	750	15	48	112	378	9.09	3.41	5.67	56.6	.910
1111			265	724	18	58	90	309	10.30	3.81	6.50	64.4	.977
1106.5			237	652	9	28	93	331	11.17	4.10	7.06	69.7	1.036
1102			216	595	4	14	95	342	11.91	4.37	7.54	73.9	1.118
1097.5			201	852	2	9	88	315	11.44	4.26	7.10	72.4	1.110

Cont'd...

G R U M P I T - S T A G E I I

Diluted 15 %, Loss 5 %

(X 1000)

BENCH ELEVATION	OBDN. Cu. M.	OBDN. Tn.	ROCK Cu. M.	ROCK Tn.	LOW GRADE Cu. M.	LOW GRADE Tn.	HIGH GRADE Cu. M.	HIGH GRADE Tn.	HIGH GRADE ORE				
									Pb + Zn (%)	Pb (%)	Zn (%)	Ag (g/t)	Au (g/t)
1093			185	507	2	5	78	277	10.50	4.06	6.44	68.6	1.003
1088.5			161	441	2	7	66	236	9.90	3.94	5.96	67.0	.990
1084			136	369	9	25	51	190	9.53	3.95	5.58	65.6	1.063
1079.5			116	318	6	15	54	201	8.88	3.68	5.20	65.7	1.074
1075.0			96	267	1	3	57	210	8.55	3.51	5.03	58.7	1.085
1070.5			81	227	1	3	46	174	9.01	3.56	5.45	60.4	1.123
1066			47	135	2	5	29	110	9.42	3.50	5.91	61.7	1.224
1061.5			30	87	3	9	24	92	8.92	3.31	5.61	58.2	1.209
1057			13	38	2	7	23	87	8.59	3.15	5.44	55.4	1.144
1052.5			6	17	1	3	24	92	8.88	3.31	5.57	56.8	1.225
1048			3	9			23	88	9.05	3.42	5.63	56.0	1.322
1043.5			2	7			19	71	9.49	3.58	5.90	56.8	1.351
1039			4	10			9	36	10.22	3.71	6.50	58.3	1.333
1034.5													
TOTAL	713	1,496	26,259	71,163	457	1,380	3,052	10,120	8.85	3.30	5.55	55.5	.882

GRUM PIT - STAGE III
Diluted by 15 % at zero grade, 5 % mining loss
(X 1000)

BENCH ELEVATION	OBDN. Cu. M.	OBDN. Tn.	ROCK Cu. M.	ROCK Tn.	LOW GRADE Cu. M.	LOW GRADE Tn.	HIGH GRADE Cu. M.	HIGH GRADE Tn.	Pb + Zn (%)	Pb (%)	Zn (%)	Ag (g/t)	Au (g/t)
1324	10	20	0	0					0.00	0.00	0.00	00.0	0.00
1312	66	138	519	1,401					0.00	0.00	0.00	00.0	0.00
1300	16	34	841	2,270					0.00	0.00	0.00	00.0	0.00
1295.5	2	4	315	851					0.00	0.00	0.00	00.0	0.00
1291.0	2	4	316	853					0.00	0.00	0.00	00.0	0.00
1286.5	2	4	317	856					0.00	0.00	0.00	00.0	0.00
1282.0	2	4	315	850					0.00	0.00	0.00	00.0	0.00
1277.5	2	5	312	842					0.00	0.00	0.00	00.0	0.00
1273.0	2	4	308	832					0.00	0.00	0.00	00.0	0.00
1268.5	2	4	304	821					0.00	0.00	0.00	00.0	0.00
1264.0	3	6	301	813					0.00	0.00	0.00	00.0	0.00
1259.5	1	2	298	805					0.00	0.00	0.00	00.0	0.00
1255.0	1	1	300	809					0.00	0.00	0.00	00.0	0.00
1250.5	1	1	294	794					0.00	0.00	0.00	00.0	0.00
1246.0	1	1	288	776					0.00	0.00	0.00	00.0	0.00
1241.5	1	1	286	771					0.00	0.00	0.00	00.0	0.00
1237.0	0	1	281	758					0.00	0.00	0.00	00.0	0.00
1232.5	1	1	277	747					0.00	0.00	0.00	00.0	0.00
1228.0	1	1	272	735					0.00	0.00	0.00	00.0	0.00
1223.5	1	1	269	726					0.00	0.00	0.00	00.0	0.00
1219.0	1	1	268	724					0.00	0.00	0.00	00.0	0.00
1214.5	0	1	269	728				1	7.96	2.51	5.44	42.3	0.26
1210.0	1	1	266	718					7.56	2.54	5.02	41.7	0.26
1205.5	0	1	261	706					0.00	0.00	0.00	00.0	0.00
1201.0	1	1	257	693			1	2	5.46	1.97	3.49	31.2	0.21
1196.5			249	671			8	22	5.48	1.92	3.56	31.1	0.35
1192.0			243	655	1	4	9	25	5.49	1.95	3.54	32.3	0.43
1187.5			239	645	4	11	7	20	5.78	2.06	3.72	35.7	0.48
1183.0			233	629	4	11	10	29	5.93	2.07	3.85	36.8	0.48

Cont'd...

GRUM PIT - STAGE III
Diluted by 15 % at zero grade, 5 % mining loss
(X 1000)

BENCH ELEVATION	OBDN. Cu. M.	OBDN. Tn.	ROCK Cu. M.	ROCK Tn.	LOW GRADE Cu. M.	LOW GRADE Tn.	HIGH GRADE Cu. M.	HIGH GRADE Tn.	Pb + Zn (%)	Pb (%)	Zn (%)	Ag (g/t)	Au (g/t)
1178.5			231	625	2	5	16	46	5.91	2.12	3.79	32.1	0.29
1174.0			241	652	0	1	20	59	6.15	2.19	3.97	33.4	0.29
1169.5			241	650	2	7	17	52	6.15	2.17	3.98	35.5	0.40
1165.0			235	634	8	23	14	40	5.78	1.98	3.80	31.9	0.39
1160.5			229	620	7	20	18	54	5.71	1.92	3.79	32.0	0.33
1156.0			224	605	4	13	17	51	5.67	1.92	3.76	32.0	0.34
1151.5			224	606	4	11	15	45	6.44	2.41	4.03	39.0	0.54
1147.0			229	618	1	3	14	44	6.70	2.59	4.11	41.2	0.64
1142.5			235	635	0	0	15	45	6.39	2.46	3.93	39.5	0.63
1138.0			238	644	1	2	12	36	6.49	2.34	4.15	38.5	0.58
1133.5			235	638	1	2	15	47	7.41	2.66	4.75	44.3	0.80
1129.0			227	620	3	10	20	61	8.11	2.94	5.17	49.0	0.88
1124.5			219	600	8	23	29	92	8.19	2.94	5.24	49.5	0.87
1120.0			197	536	21	61	39	123	8.71	3.06	5.65	52.3	0.90
1115.5			168	459	22	63	60	191	8.34	2.96	5.37	51.2	0.87
1111.0			151	412	16	47	72	227	8.14	2.94	5.20	50.3	0.85
1106.5			142	386	16	48	70	223	7.90	2.88	5.02	49.7	0.88
1102.0			140	383	16	46	61	194	8.13	2.91	5.22	51.1	0.91
1097.5			125	342	16	48	62	197	8.30	2.92	5.38	52.1	0.91
1093.0			113	309	13	41	68	217	8.18	2.93	5.26	52.0	0.90
1088.5			95	260	13	40	75	242	8.26	3.02	5.24	53.1	0.89
1084.0			82	226	12	38	76	243	8.51	3.08	5.43	54.1	0.89
1079.5			79	218	10	30	68	221	8.45	3.04	5.41	53.8	0.88
1075.0			84	230	11	33	52	174	8.58	3.11	5.48	55.3	0.93
1070.5			87	237	8	23	42	139	8.07	2.97	5.10	52.4	0.86
1066.0			76	208	5	16	36	118	7.36	2.66	4.70	46.7	0.71
1061.5			68	184	3	11	31	104	7.21	2.61	4.60	46.1	0.65
1057.0			47	130	5	18	28	100	8.22	2.95	5.27	54.8	0.76
1052.5			28	78	3	11	36	128	8.78	3.17	5.61	60.6	0.93
1048.0			16	45	4	13	38	138	9.16	3.38	5.77	64.4	1.05
1043.5			8	25	1	4	37	142	10.27	3.79	6.48	73.3	1.13
1039.0			8	24	3	10	25	95	9.10	3.45	5.65	59.6	1.11
1034.5			1	2	2	5	12	44	10.74	4.06	6.68	63.1	1.06
TOTAL	116	244	13,419	36,320	250	749	1,246	4,031	8.06	2.91	5.15	51.1	0.83

G R U M P I T
LOW GRADE
Dilution 15 % at 0 %
Loss 5 %

	t x 10^3	Pb & Zn	Pb	Zn	Ag	Au
STAGE I						
In Situ:	840	4.46	1.47	3.00	28.3	.607
Dilution	917	3.88	1.28	2.61	24.6	.528
STAGE II						
In Situ:	1,263	4.52	1.74	2.78	30.8	.747
Dilution	1,380	3.93	1.51	2.42	26.8	.650
STAGE III						
In Situ:	749	4.42	1.75	2.67	30.3	.717
Dilution	818	3.84	1.52	2.32	26.4	.623
TOTAL						
In Situ:	2,852	4.48	1.66	2.82	29.9	.698
Dilution	3,115	3.89	1.44	2.45	26.1	.607

V A N G O R D A P I T
LOW GRADE

TOTAL						
In Situ:	487	4.50	1.97	2.53	27.0	.584
Dilution	532	3.91	1.71	2.20	23.5	.508