

003486

LOOKS GOOD
EXCEPT FOR
3510
3490

FARO MODEL - BLASTHOLE 1991 BENCH RECONCILIATION

P9008 GEOLOGIC BLOCK MODEL - MINED
(Undiluted - Totals have a 95% Mining Recovery)

BLASTHOLE RECOVERY (%)
Blasthole/PCMINE * 100

MINED BLASTHOLE
(Undiluted - No Mining Loss)

	BENCH	VOLUME	SG	TONNAGE	%PB	%ZN	PB+ZN	tPB	tZN	%VOL	%t	%Pb	%Zn	%tPb	%tZn	VOLUME	SG	TONNAGE	%PB	%ZN	PB+ZN	tPB	tZN
	3590	196	2.60	510	1.76	4.51	6.27	9	23	980	1119	165	163	1844	1822	1,920	2.97	5,708	2.91	7.34	10.25	166	419
	3570	5,435	2.80	15,240	2.28	5.48	7.76	347	835	154	164	141	135	232	223	8,347	3.00	25,034	3.22	7.42	10.64	806	1,858
	3550	44,358	2.75	121,770	2.43	4.84	7.26	2,953	5,893	100	113	129	120	145	135	44,552	3.08	137,316	3.12	5.79	8.91	4,283	7,952
	3530	40,924	2.94	120,490	2.77	4.89	7.67	3,342	5,897	107	112	108	119	121	133	43,959	3.07	134,778	3.01	5.82	8.83	4,051	7,844
HIGH GRADE > 6% PB+ZN	3510	41,447	2.94	121,800	2.62	4.46	7.09	3,197	5,436	65	67	126	138	84	93	26,961	3.03	81,595	3.30	6.17	9.48	2,696	5,037
	3490	11,689	2.77	32,390	2.31	4.22	6.53	747	1,367	386	431	111	123	478	528	45,108	3.09	139,523	2.56	5.17	7.73	3,573	7,219
	3470	27,371	2.82	77,100	2.75	5.76	8.51	2,117	4,444	103	118	109	104	129	122	28,279	3.21	90,855	3.00	5.98	8.99	2,730	5,436
	3450	4,191	2.61	10,920	2.49	4.20	6.69	272	459	0	0	0	0	0	0	0	0.00	0	0.00	0.00	0.00	0	0
	3410	7,104	3.08	21,880	2.83	5.07	7.90	619	1,109	0	0	0	0	0	0	0	0.00	0	0.00	0.00	0.00	0	0
	3390	31,394	3.09	96,970	3.08	5.90	8.98	2,965	5,723	115	120	103	95	123	114	36,048	3.22	115,924	3.17	5.63	8.79	3,672	6,522
	3370	14,470	3.06	44,310	2.65	5.46	8.11	1,175	2,420	123	110	92	98	101	107	17,747	2.73	48,531	2.45	5.35	7.80	1,189	2,596
	3350	360	2.53	910	2.20	5.60	7.80	20	51	0	0	0	0	0	0	0	0.00	0	0.00	0.00	0.00	0	0
TOTAL WITH 5% LOSS		217,492	2.90	631,076	2.68	5.07	7.74	16,894	31,974	116	123	111	114	137	140	252,921	3.08	779,264	2.97	5.76	8.73	23,166	44,883
	3590	0	0	0	0	0	0	0	0	0	0	0	0	0	0	855	2.71	2,316	1.33	3.14	4.47	31	73
	3570	2,357	2.71	6,400	1.60	3.73	5.33	102	239	141	141	145	130	204	184	3,334	2.71	9,035	2.31	4.86	7.17	209	439
	3550	22,002	2.97	65,250	2.17	3.32	5.49	1,417	2,163	79	81	93	125	75	102	17,438	3.04	53,013	2.02	4.15	6.17	1,069	2,201
	3530	24,130	2.85	68,670	2.07	3.17	5.25	1,424	2,180	90	103	130	138	133	142	21,636	3.26	70,618	2.69	4.40	7.09	1,900	3,105
MED. GRADE 5-6% PB+ZN	3510	21,937	2.75	60,320	2.02	4.09	6.11	1,219	2,467	74	85	126	101	106	86	16,324	3.13	51,021	2.54	4.14	6.68	1,296	2,110
	3490	19,219	2.85	54,760	2.65	4.82	7.47	1,451	2,640	175	199	88	85	176	168	33,725	3.23	109,007	2.34	4.08	6.42	2,547	4,447
	3470	17,680	2.62	46,400	2.51	4.87	7.38	1,165	2,258	145	158	84	79	133	125	25,616	2.87	73,426	2.11	3.84	5.95	1,549	2,823
	3450	7,269	2.44	17,760	2.00	3.57	5.56	354	633	170	173	93	106	162	184	12,370	2.49	30,804	1.86	3.79	5.65	573	1,167
	3410	6,253	2.33	14,550	1.83	3.54	5.37	266	515	0	0	0	0	0	0	0	0.00	0	0.00	0.00	0.00	0	0
	3390	7,825	2.34	18,320	1.91	3.58	5.48	349	655	59	72	121	119	87	85	4,608	2.86	13,163	2.31	4.25	6.56	304	559
	3370	2,816	2.39	6,720	1.62	3.78	5.40	109	254	468	563	137	122	773	685	13,188	2.87	37,849	2.22	4.60	6.82	840	1,741
TOTAL WITH 5% LOSS		124,913	2.73	341,193	2.19	3.90	6.09	7,463	13,304	119	131	105	106	138	140	148,239	3.02	447,936	2.30	4.15	6.45	10,287	18,592
>5% Pb+Zn WITH 5% LOSS		325,285	2.84	923,655	2.51	4.66	7.16	23,139	43,014	123	133	109	111	145	148	401,160	3.06	1,227,200	2.73	5.17	7.90	33,453	63,475
	3570	9,200	2.57	23,650	1.19	2.76	3.95	282	652	58	58	95	100	55	58	5,351	2.57	13,751	1.13	2.75	3.88	155	378
	3550	49,046	2.70	132,610	1.46	2.75	4.21	1,931	3,648	46	53	94	88	50	47	22,608	3.12	70,536	1.37	2.41	3.78	967	1,702
	3530	45,575	2.87	130,590	1.43	2.75	4.18	1,861	3,594	77	82	99	92	82	76	35,108	3.07	107,705	1.41	2.53	3.94	1,524	2,721
LOW GRADE 3-5% PB+ZN	3510	57,787	2.88	166,330	1.33	2.49	3.82	2,212	4,144	52	56	119	110	67	62	29,797	3.14	93,689	1.58	2.74	4.31	1,477	2,565
	3490	87,942	2.90	254,730	1.33	2.59	3.92	3,392	6,606	33	38	96	102	36	39	28,879	3.35	96,685	1.28	2.65	3.93	1,233	2,566
	3470	41,124	2.87	118,160	1.38	2.61	3.99	1,635	3,081	32	29	112	104	32	30	13,086	2.58	33,731	1.55	2.71	4.26	523	914
	3450	12,377	2.47	30,580	1.35	2.73	4.08	413	835	0	0	0	0	0	0	0	0.00	0	0.00	0.00	0.00	0	0
	3430	1,244	2.21	2,750	1.13	2.33	3.45	31	64	0	0	0	0	0	0	0	0.00	0	0.00	0.00	0.00	0	0
	3410	10,739	2.22	23,820	1.50	2.98	4.48	357	711	0	0	0	0	0	0	0	0.00	0	0.00	0.00	0.00	0	0
	3390	30,613	2.19	66,920	1.21	2.76	3.97	812	1,846	16	19	114	105	22	20	5,042	2.54	12,807	1.38	2.90	4.28	177	371
	3370	6,384	2.31	14,760	1.29	2.95	4.24	190	435	0	0	0	0	0	0	0	0.00	0	0.00	0.00	0.00	0	0
TOTAL WITH 5% LOSS		334,429	2.74	916,655	1.36	2.65	4.01	12,459	24,335	42	47	104	99	49	46	139,870	3.07	428,904	1.41	2.62	4.03	6,056	11,217
>3% Pb+Zn WITH 5% LOSS		626,728	2.79	1,748,294	1.93	3.66	5.59	33,818	63,981	86	95	123	123	117	117	541,030	3.06	1,656,104	2.39	4.51	6.90	39,509	74,692

**MILL – BLASTHOLE RECONCILIATION
1991 YEAR END**

DELL 386, E:\1991YE\1991MILL.WK3
M. WASEL, JANUARY 13, 1992

	Opening stockpile (Corrected to Survey)					Mined material 1991 (Indicated by Blasthole Database)					Closing stockpile (Corrected to Survey)				
	Tonnes	Pb%	Zn%	T Pb	T Zn	Tonnes	Pb%	Zn%	T Pb	T Zn	Tonnes	Pb%	Zn%	T Pb	T Zn
FARO															
High	104,392	3.29	5.70	3,434	5,950	751,524	2.94	5.75	22,095	43,213	3,792	2.06	4.39	78	166
Medium	685,811	2.18	3.61	14,951	24,758	458,056	2.30	4.13	10,535	18,918	0	0.00	0.00	0	0
Low	2,007,993	1.77	2.71	35,545	54,326	430,293	1.41	2.62	6,067	11,274	2,320,089	1.69	2.69	39,210	62,410
u/g	10,981	4.48	6.69	492	735	605,903	4.53	7.19	27,447	43,564	40,232	4.61	7.19	1,855	2,893
Coarse ore	0	0	0	0	0	(23,612)	4.18	6.10	(986)	(1,441)	12040	3.46	5.11	417	615
Vangorda															
good	47,369	4.22	4.66	1,999	2,207	1,045,994	4.26	5.21	44,559	54,496	58,004	4.08	5.31	2,367	3,080
refractory	144,035	3.84	3.47	5,538	4,994	388,018	4.64	5.10	18,004	19,789	92,460	4.60	4.95	4,253	4,577
Refc Fines	388,778	4.45	4.77	17,320	18,557	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
low grade	0	0.00	0.00	0	0	167,801	2.12	2.73	3,557	4,581	165,666	2.12	2.73	3,512	4,523
TOTAL	3,389,359	2.34	3.29	79,279	111,527	3,823,977	3.43	5.08	131,280	194,394	2,692,283	1.92	2.91	51,691	78,264

	MILL FEED (Indicated by Blasthole Database)					REGRESSED VALUES (Multiple Regression coefficients have been applied)				
	Tonnes	Pb%	Zn%	T Pb	T Zn	Tonnes	Pb%	Zn%	T Pb	T Zn
FARO										
High	852,124	2.99	5.75	25,451	48,997	852,124	2.64	5.15	22,529	43,863
Medium	1,143,867	2.23	3.82	25,486	43,675	1,143,867	2.34	3.59	26,804	41,081
Low	118,197	2.03	2.70	2,403	3,190	118,197	2.03	2.70	2,403	3,190
u/g	576,652	4.52	7.18	26,085	41,406	576,652	3.65	5.84	21,033	33,658
Coarse Ore	(35,652)	3.93	5.77	(1,402)	(2,056)	(35,652)	3.93	5.77	(1,402)	(2,056)
Vangorda										
good	1,035,359	4.27	5.18	44,192	53,624	1,035,359	3.73	4.90	38,609	50,746
refractory	439,593	4.39	4.60	19,289	20,206	439,593	3.85	4.35	16,903	19,122
Refc Fines										
low grade	2,135	2.12	2.73	45	58	2,135	2.12	2.73	45	58
TOTAL	4,132,275	3.43	5.06	141,549	209,100	4,132,275	3.07	4.59	126,924	189,661
MILL FEED	4,126,588	3.03	4.53	125,036	186,934	4,126,588	3.03	4.53	125,036	186,934
(Indicated by Mill)										
VARIANCE	5,687			16,513	22,165	5,687			1,888	2,727
% VARIANCE	100	113	112	113	112	100	101	101	102	101

MILL FEED BY MONTH FROM GENERAL MANAGERS REPORT

DELL 386, E:\1991ME\1991MILL.WK3
M. WASEL JANUARY 14, 1992

	FARO HIGH GRADE					FARO MEDIUM GRADE					FARO LOW GRADE					FARO UNDERGROUND				
	Tonnes	Pb%	Zn%	T Pb	T Zn	Tonnes	Pb%	Zn%	T Pb	T Zn	Tonnes	Pb%	Zn%	T Pb	T Zn	Tonnes	Pb%	Zn%	T Pb	T Zn
JAN	187,673	3.31	5.56	6,212	10,435	41,307	2.1	3.7	867	1,528	0	0	0	0	0	47,633	4.31	6.45	2,053	3,072
FEB	142,540	3.34	5.65	4,761	8,054	38,304	2.53	4	969	1,532	0	0	0	0	0	60,446	4.57	6.86	2,762	4,147
MARCH	59,029	2.64	5.43	1,558	3,205	150,089	2.26	3.76	3,392	5,643	0	0	0	0	0	62,337	4.47	6.72	2,786	4,189
APRIL	54,034	2.64	5.43	1,426	2,934	100,644	2.26	3.76	2,275	3,784	0	0	0	0	0	755	4.47	6.72	34	51
MAY	9,141	2.73	5.61	250	513	131,004	2.19	3.66	2,869	4,795	241	1.74	2.69	4	6	0	0.00	0.00	0	0
JUNE	46,084	2.74	5.64	1,263	2,599	184,844	2.26	3.81	4,177	7,043	0	0	0	0	0	27,605	4.52	6.76	1,248	1,866
JULY	0	0	0	0	0	238,758	2.26	3.8	5,396	9,073	0	0	0	0	0	50,494	4.55	7.01	2,297	3,540
AUGUST	28,378	2.9	6.15	823	1,745	75,901	2.27	3.75	1,723	2,846	0	0	0	0	0	69,068	4.53	7.16	3,129	4,945
SEPT	108,928	2.88	6.48	3,137	7,059	56,700	1.9	3.5	1,077	1,985	14,760	1.91	2.72	282	401	74,528	4.50	7.31	3,354	5,448
OCT.	179,730	2.58	5.42	4,637	9,741	0	0	0	0	0	3,050	1.91	2.72	58	83	61,390	4.40	7.17	2,701	4,402
NOV	113,738	2.33	4.32	2,650	4,913	0	0	0	0	0	21,547	1.92	2.72	414	586	53,906	4.59	7.25	2,474	3,908
DEC	61,384	2.21	4.63	1,357	2,842	0	0	0	0	0	79,652	1.84	2.67	1,466	2,127	39,625	3.71	6.65	1,470	2,635
	990,659	2.83	5.45	28,074	54,040	1,017,551	2.24	3.76	22,746	38,229	119,250	1.86	2.69	2,224	3,204	547,787	4.44	6.97	24,309	38,203

	VANGORDA GOOD & REFRACTORY					COARSE ORE TRAMMED IN					COARSE ORE TRAMMED OUT					MONTH TOTAL				
	Tonnes	Pb%	Zn%	T Pb	T Zn	Tonnes	Pb%	Zn%	T Pb	T Zn	Tonnes	Pb%	Zn%	T Pb	T Zn	Tonnes	Pb%	Zn%	T Pb	T Zn
JAN	96,686	4.3	4.58	4,157	4,428	0	0	0	0	0	(12,810)	3.69	5.15	(473)	(660)	360,489	3.56	5.22	12,817	18,804
FEB	152,845	4.13	4.56	6,312	6,970	0	0	0	0	0	(18,076)	3.69	5.15	(667)	(931)	376,059	3.76	5.26	14,138	19,771
MARCH	156,959	3.97	4.59	6,231	7,204	0	0	0	0	0	(23,209)	3.26	4.7	(757)	(1,091)	405,205	3.26	4.73	13,211	19,151
APRIL	32,491	3.97	4.59	1,290	1,491	17,585	3.38	4.79	594	842	(19,792)	3.26	4.7	(645)	(930)	185,717	2.68	4.40	4,974	8,172
MAY	83,874	3.98	4.6	3,338	3,858	4,300	3.38	4.79	145	206	(11,840)	3.38	4.79	(400)	(567)	216,720	2.86	4.07	6,206	8,811
JUNE	17,958	3.98	4.6	715	826	0	0	0	0	0	(2,480)	2.8	4.5	(69)	(112)	274,011	2.68	4.46	7,333	12,222
JULY	40,062	4.52	5.5	1,811	2,203	41,040	3.17	4.57	1,301	1,876	(7,420)	3.17	4.57	(235)	(339)	362,934	2.91	4.51	10,570	16,352
AUGUST	163,421	4.9	5.46	8,008	8,923	29,630	3.46	4.84	1,025	1,434	(7,280)	4.06	5.36	(296)	(390)	359,118	4.01	5.43	14,412	19,503
SEPT	147,496	4.77	5.3	7,036	7,817	51,700	3.99	5.96	2,063	3,081	(66,700)	3.99	5.96	(2,661)	(3,975)	387,412	3.69	5.63	14,287	21,816
OCT.	161,330	4.24	4.93	6,840	7,954	18,020	3.43	5.34	618	962	(19,220)	3.43	5.34	(659)	(1,026)	404,300	3.51	5.47	14,196	22,115
NOV	196,960	4.27	5.3	8,410	10,439	12,740	3.34	5.02	426	640	(7,640)	3.13	4.83	(239)	(369)	391,251	3.61	5.14	14,135	20,117
DEC	224,870	4.15	5.21	9,332	11,716	2,500	3.65	5.3	91	133	(4,660)	3.17	4.81	(148)	(224)	403,371	3.36	4.77	13,568	19,228
	1,474,952	4.30	5.01	63,481	73,830	177,515	3.53	5.17	6,264	9,174	(201,127)	3.60	5.28	(7,249)	(10,615)	4,126,587	3.39	4.99	139,847	206,064

VANGORDA 1991 MODEL – BLASTHOLE BENCH RECONCILIATION

GEOMODEL POLYGONAL CALCULATION
- Diluted with a 90% Mining Recovery

% PREDICTED RESERVE MINED
Blasthole/Geomodel*100

PCMINE V9009 BLOCK MODEL
- Diluted 15% with a 90% Mining Recovery

% PREDICTED RESERVE MINED
Blasthole/Pcmine*100

MINED ACCORDING TO BLASTHOLES

Bench	Geomodel Polygonal Calculation						% Predicted Reserve Mined (Geomodel)						Pcmine V9009 Block Model						% Predicted Reserve Mined (Pcmine)						Mined According to Blastholes					
	Volume	Tonnage	%Pb	%Zn	t Pb	t Zn	%Vol	%t Pb	Zn	t Pb	t Zn	Volume	Tonnage	%Pb	%Zn	t Pb	t Zn	%Vol	%t Pb	Zn	t Pb	t Zn	Volume	Tonnage	%Pb	%Zn	t Pb	t Zn		
1146	0	0	0	0	0	0	0	0	0	0	0	570	2,490	5.64	5.56	140	138	0	0	0	0	0	0	0	0	0	0	0	0	
1140	972	3,887	4.96	4.56	193	177	0	0	0	0	0	7,397	29,758	4.30	4.77	1,281	1,419	0	0	0	0	0	0	0	0	0	0	0	0	
1134	41,730	166,919	3.20	3.84	5,341	6,410	59	58	136	133	79	77	59,199	226,394	3.49	4.28	7,895	9,691	41	43	125	119	53	51	24,526	96,492	4.36	5.10	4,207	4,921
1128	92,405	369,619	3.72	4.68	13,735	17,284	103	102	113	98	114	100	104,761	422,829	3.88	4.69	16,397	19,818	91	89	108	98	96	87	95,156	375,280	4.18	4.60	15,696	17,265
1122	66,015	258,684	4.25	5.01	10,987	12,968	119	118	112	106	133	125	82,138	327,082	4.03	4.82	13,170	15,778	95	94	119	110	111	103	78,313	306,077	4.77	5.30	14,612	16,208
1116	75,507	286,887	3.38	4.34	9,687	12,460	94	103	131	128	136	132	80,814	316,078	3.21	4.13	10,155	13,067	88	94	138	135	129	126	71,318	295,743	4.44	5.57	13,132	16,470
1110	66,601	259,143	3.61	4.84	9,353	12,531	114	114	121	111	139	127	79,923	314,267	3.74	5.02	11,746	15,786	95	94	117	107	111	101	75,967	296,242	4.39	5.37	12,990	15,913
1104	8,474	33,011	3.27	4.50	1,079	1,484	86	90	124	119	112	107	10,992	43,781	3.33	4.54	1,457	1,988	66	68	122	117	83	80	7,284	29,856	4.06	5.33	1,212	1,591
TOTAL	351,704	1,378,150	3.66	4.59	50,375	63,314	100	102	121	113	123	114	425,794	1,682,679	3.70	4.62	62,241	77,685	83	83	119	112	99	93	352,564	1,399,690	4.42	5.17	61,849	72,368

- Geomodel tonnages and volumes have been diluted the same as the budget.
- Small equipment mining tonnages have been excluded from geomodel values.