CURRAGH RESOURCES INC.

INTER-OFFICE MEMORANDUM

TO: Kurt Forgaard
Bill Weymark
Marv Pelley

FROM: Gregg Jilson
Cam Reed

DATE: 1989 08 24

Last month we carried out a number of recalculations of grade for the geological interpretion by Steven Cheeseman using the total assay data base to the end of 1987.

The calculations have involved varying the rules followed during interpolation by computer and and the use of various assay composite types. The results are shown on the attached Tables.

Table 1

Compares 4 different calculations to blastholes. On the extreme left is the original model (F8805) as calculated by S. Cheeseman. On the extreme right are blastholes for benches 3410 to 3310 in the BZ phase (the same benches and areas as reconcilated by Ed Blaxland).

The columns to the right of Cheesman's calculation are gradually "more relaxed" recalculations. Beside the blasthole columns is our favoured calculation which uses bench composited asssays and a loose matching of rock types. We propose to call this calculation the F8908 model. Because of the bench composites this calculation is not diluted. The comparison of high grade volume to blasthole volumes is very good, however, the tonnage comparison is not as good and is due to the low blasthole density used, (the average of 3 tonnes per cubic yard). Overall at a 4% cutoff blastholes and model are still relatively close.

Table 2

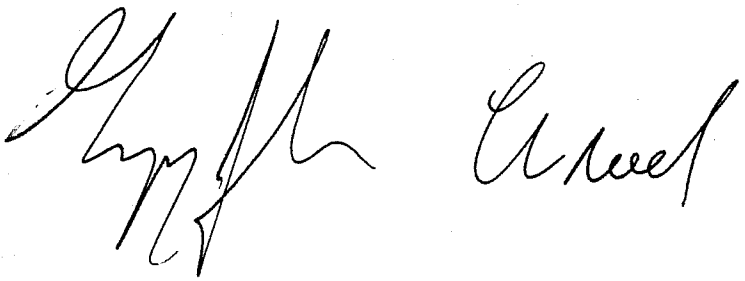
Compares the same 4 calculations to the blastholes for the 3630 bench August 1989 mining volume. It is apparent that our favoured model (F8908) came much closer to the actual tonnage blocked out.

Table 3

Compares total volume mined to date by Curragh for the new bench composite model (F8908), as well as the remaining reserves and the overall start of mining reserves. It appears that the new model calculation does not distort the overall tonnage and grade of the deposit at low cutoff grades as what was originally feared.

We therefore recommend that the F8908 model replace the F8805 model and be used for future mine planning. However, in no case should the current dilution practice of 10% dilution at zero grade with a 95% mining recovery be applied to the F8908 model otherwise grades will be far too low. The dilution by blasthole drilling is inherently included in the model blocks because of the bench compositing.

I believe this brief discussion will need much amplification with the Faro Mine staff. Should you agree that the F8908 model is to be used we will see that this information is conveyed and the model will be made available immediately.



CURRAGH RESOURCES INC.
FARO MINE
COMPARISON OF PREDICTED TO ACTUAL BENCH ORE

TABLE I

F8805

		ACTUAL DIG LIMITS GEOL COMP,STRICT MATCH CALCULATED BY PCMINE UNDILUTED				ACTUAL DIG LIMITS GEOL COMP,LOOSE MATCH CALCULATED BY PCMINE UNDILUTED				ACTUAL DIG LIMITS BENCH COMP,STRICT MATCH CALCULATED BY PCMINE UNDILUTED				F8908 ACTUAL DIG LIMITS BENCH COMP,LOOSE MATCH CALCULATED BY PCMINE UNDILUTED				BLASTHOLE at 3 tonnes/bcy for all rocks			
		Tonnes	Volume (bcy)	Pb+Zn (%)	Metal (tonnes)	Tonnes	Volume (bcy)	Pb+Zn (%)	Metal (tonnes)	Tonnes	Volume (bcy)	Pb+Zn (%)	Metal (tonnes)	Tonnes	Volume (bcy)	Pb+Zn (%)	Metal (tonnes)	Tonnes	Volume (bcy)	Pb+Zn (%)	Metal (tonnes)
3410	4-5%	39,660	15,713	4.56	1,810	58,420	21,606	4.54	2,651	112,370	45,176	4.45	5,005	87,900	35,355	4.48	3,936	74,276	24,759	4.56	3,387
	5-7%	94,760	32,736	5.84	5,534	174,890	55,652	6.14	10,738	173,930	52,378	6.11	10,618	254,870	80,531	6.03	15,361	308,952	102,984	6.08	18,784
	+7%	490,750	142,731	8.70	42,695	478,610	140,112	8.64	41,338	348,000	101,483	8.57	29,820	420,730	124,399	8.48	35,686	303,569	101,190	9.04	27,443
	+5%	585,510	175,467	8.24	48,229	653,500	195,764	7.97	52,076	521,930	153,861	7.75	40,439	675,600	204,930	7.56	51,047	612,521	204,174	7.55	46,227
	+4%	625,170	191,181	8.00	50,039	711,920	217,370	7.69	54,727	634,300	199,037	7.16	45,444	763,500	240,285	7.20	54,983	686,797	228,932	7.22	49,614
3390	4-5%	39,190	17,023	4.68	1,835	52,770	20,951	4.62	2,440	59120	24,225	4.74	2,800	60,460	22,916	4.68	2,829	77,223	25,741	4.99	3,853
	5-7%	188,950	7,267	5.99	11,318	266,880	94,936	6.04	16,109	205950	76,603	5.82	11,978	320,900	112,613	5.96	19,119	200,245	66,748	6.21	12,435
	+7%	266,570	75,949	8.55	22,802	214,650	61,544	7.92	17,009	251530	72,675	8.11	20,397	170,430	49,104	7.86	13,401	202,520	67,507	8.54	17,295
	+5%	455,520	83,216	7.49	34,121	481,530	156,480	6.88	33,118	457480	149,278	7.08	32,375	491,330	161,718	6.62	32,520	402,765	134,255	7.38	29,730
	+4%	494,710	100,239	7.27	35,955	534,300	177,431	6.65	35,557	516600	173,503	6.81	35,175	551,790	184,633	6.41	35,349	479,988	159,996	7.00	33,584
3370	4-5%	51,310	22,261	4.87	2,497	51,980	22,261	4.87	2,530	63,980	27,499	4.40	2,816	55,360	22,916	4.48	2,482	42,875	14,292	4.74	2,032
	5-7%	69,210	29,463	5.41	3,744	148,910	53,033	5.89	8,768	53,140	20,951	5.69	3,023	126,490	40,593	5.98	7,562	143,172	47,724	6.13	8,776
	+7%	292,630	86,424	9.04	26,460	232,990	69,401	8.74	20,368	278,340	81,841	8.68	24,146	196,370	58,271	8.47	16,633	256,953	85,651	8.36	21,481
	+5%	361,840	115,887	8.35	30,203	381,900	122,434	7.63	29,136	331,480	102,792	8.20	27,169	322,860	98,864	7.49	24,194	400,125	133,375	7.56	30,258
	+4%	413,150	138,147	7.91	32,700	433,880	144,695	7.30	31,666	395,460	130,290	7.58	29,985	378,220	121,779	7.05	26,676	443,000	147,667	7.29	32,290
3350	4-5%	42,220	18,332	4.54	1,918	42,210	18,332	4.54	1,918	21,100	9,166	4.54	957	10,700	4,583	4.45	476	64,167	21,389	4.53	2,907
	5-7%	34,060	14,404	5.96	2,030	34,080	14,404	5.96	2,032	40,570	17,023	5.81	2,356	36,020	15,059	5.99	2,156	71,083	23,694	6.56	4,663
	+7%	172,110	49,104	8.44	14,528	171,430	49,104	8.11	13,901	182,760	56,961	8.31	15,180	201,750	64,163	7.94	16,009	102,333	34,111	8.09	8,279
	+5%	206,170	63,509	8.03	16,558	205,510	63,509	7.75	15,933	223,330	73,984	7.85	17,536	237,770	79,222	7.64	18,165	173,416	57,805	7.46	12,942
	+4%	248,390	81,841	7.44	18,476	247,720	81,841	7.21	17,850	244,430	83,150	7.57	18,493	248,470	83,805	7.50	18,640	237,583	79,194	6.67	15,849
3330	4-5%	22,600	9,821	4.47	1,011	22,600	9,821	4.47	1,011	21,180	9,166	4.66	986	40,090	17,678	4.51	1,808	36,000	12,000	4.87	1,753
and	5-7%	72,650	31,427	6.11	4,437	72,600	31,427	6.11	4,434	68,790	28,153	5.82	4,000	84,350	34,046	6.16	5,192	10,967	3,656	5.75	631
3310	+7%	36,160	10,476	8.40	3,036	38,440	11,130	8.29	3,185	12,160	4,583	7.84	953	27,570	9,821	7.71	2,126	28,606	9,535	8.56	2,449
	+5%	108,810	41,903	6.87	7,473	111,040	42,557	6.86	7,619	80,950	32,736	6.12	4,953	111,920	43,867	6.54	7,318	39,573	13,191	7.78	3,079
	+4%	131,410	51,723	6.46	8,484	133,640	52,378	6.46	8,630	102,130	41,903	5.82	5,939	152,010	61,544	6.00	9,126	75,573	25,191	6.39	4,832
Total	4-5%	194,980	83,150	4.65	9,071	227,980	92,971	4.63	10,549	277,750	115,232	4.52	12,565	254,510	103,447	4.53	11,530	294,541	98,180	4.73	13,933
3410	5-7%	459,630	115,297	5.89	27,063	697,360	249,451	6.03	42,080	542,380	195,109	5.90	31,975	822,630	282,843	6.00	49,389	734,419	244,806	6.17	45,290
To	+7%	1,258,220	364,684	8.70	109,521	1,136,120	331,292	8.43	95,801	1,072,790	317,543	8.44	90,496	1,016,850	305,758	8.25	83,855	893,981	297,994	8.61	76,947
3310	+5%	1,717,950	479,981	7.95	136,584	1,833,480	580,744	7.52	137,881	1,615,170	512,651	7.58	122,471	1,839,480	588,600	7.24	133,244	1,628,400	542,800	7.51	122,236
	+4%	1,912,030	563,131	7.61	145,656	2,061,460	673,714	7.20	148,430	1,897,920	627,883	7.13	135,035	2,093,990	692,047	6.91	144,778	1,922,941	640,980	7.08	136,149

CURRAGH RESOURCES INC.
FARO MINE
"S" Phase Predicted Ore Quantities - 3630 Bench

TABLE II

		ACTUAL DIG LIMITS F8805 MODEL GEOL COMP.STRICT MATCH CALCULATED BY PCMINE UNDILUTED				ACTUAL DIG LIMITS F8805 MODEL GEOL COMP,LOOSE MATCH CALCULATED BY PCMINE UNDILUTED				ACTUAL DIG LIMITS F8805 MODEL BENCH COMP,STRICT MATCH CALCULATED BY PCMINE UNDILUTED				ACTUAL DIG LIMITS F8805 MODEL BENCH COMP,LOOSE MATCH CALCULATED BY PCMINE UNDILUTED				BLASTHOLE			
		Tonnes	Volume	Pb+Zn (%)	Metal (tonnes)	Tonnes	Volume	Pb+Zn (%)	Metal (tonnes)	Tonnes	Volume	Pb+Zn (%)	Metal (tonnes)	Tonnes	Volume	Pb+Zn (%)	Metal (tonnes)	Tonnes	Volume	Pb+Zn (%)	Metal (tonnes)
3630	4-5%	3,230	1,310	4.29	139				0	1,790	655	4.19	75	26,260	9,821	4.37	1,147	7,535	2,512	4.28	322
	5-7%	1,880	655	6.03	113				0	45,820	15,059	6.35	2,911	61,110	20,951	5.99	3,659	27,952	9,317	6.55	1,831
	+7%	175,340	53,033	10.40	18,230				0	26,380	8,511	7.34	1,936	88,780	28,808	8.37	7,434	97,401	32,467	9.68	9,428
	+5%	177,220	53,688	10.35	18,343	0	0	ERR	0	72,200	23,570	6.71	4,847	149,890	49,759	7.40	11,094	125,353	41,784	8.98	11,259
	+4%	180,450	54,997	10.24	18,482	0	0	ERR	0	73,990	24,225	6.65	4,922	176,150	59,580	6.95	12,241	132,888	44,296	8.72	11,582
										lots of UI blocks?											
ramp	4-5%	0	0	0.00	0				0	0	0	0.00	0	0	0	0.00	0				
	5-7%	0	0	0.00	0				0	0	0	0.00	0	0	0	0.00	0				
	+7%	13,195	3,928	8.87	1,171				0	0	0	0.00	0	13,105	3,928	8.86	1,161				
	+5%	13,195	3,928	8.87	1,171	0	0	ERR	0	0	0	ERR	0	13,105	3,928	8.86	1,161				
	+4%	13,195	3,928	8.87	1,171	0	0	ERR	0	0	0	ERR	0	13,105	3,928	8.86	1,161				
Total	4-5%	3,230	1,310	4.29	139	4-5%	0	0	ERR	1,790	655	4.19	75	26,260	9,821	4.37	1,147	7,535	2,512	4.28	322
	5-7%	1,880	655	6.03	113	5-7%	0	0	ERR	45,820	15,059	6.35	2,911	61,110	20,951	5.99	3,659	27,952	9,317	6.55	1,831
	+7%	188,535	56,961	10.29	19,401	+7%	0	0	ERR	26,380	8,511	7.34	1,936	101,885	32,736	8.44	8,595	97,401	32,467	9.68	9,428
	+5%	190,415	57,616	10.25	19,514	+5%	0	ERR	ERR	72,200	23,570	6.71	4,847	162,995	53,688	7.52	12,254	125,353	41,784	8.98	11,259
	+4%	193,645	58,926	10.15	19,653	+4%	0	ERR	ERR	73,990	24,225	6.65	4,922	189,255	63,508	7.08	13,402	132,888	44,296	8.72	11,582

CURRAGH RESOURCES INC. 24-Aug-89
FARO MINE
TOTAL MINING RESERVES
FILE : MODCOMP.WRI

TABLE III

		ACTUAL DIG LIMITS F8805 MODEL GEOL COMP,STRICT MATCH CALCULATED BY PCMINE UNDILUTED				ACTUAL DIG LIMITS F8805 MODEL GEOL COMP,STRICT MATCH CALCULATED BY PCMINE DILUTED			ACTUAL DIG LIMITS F8908 MODEL BENCH COMP,LOOSE MATCH CALCULATED BY PCMINE UNDILUTED					BLASTHOLE CALCULATION (AVERAGE ORE DENSITY = 3MT/BCY)				
		Tonnes	Volume	Density mt/bcy	Pb+Zn (%)	Metal (tonnes)	Tonnes	Pb+Zn (%)	Metal (tonnes)		Tonnes	Volume	Density mt/bcy	Pb+Zn (%)	Metal (tonnes)		Tonnes	Volume bcy	Density mt/bcy	Pb+Zn (%)	Metal (tonnes)
Start-up	4-5%	893,260	357,481	2.50	4.54	40,536	933,457	4.13	38,509	4-5%	1,839,920	643,073	2.86	4.51	82,962	4-5%	1,443,459	481,153	3.00	4.77	68,853
to	5-6%	1,261,120	472,746	2.67	5.50	69,412	1,317,870	5.00	65,941	5-6%	2,214,860	753,264	2.94	5.53	122,482						
June 30 89	6-7%	1,525,020	524,470	2.91	6.49	99,020	1,593,646	5.90	94,069	6-7%	2,193,740	715,323	3.07	6.51	142,747						
	+7%	9,359,150	2,895,171	3.23	10.16	950,796	9,780,312	9.24	903,256	+7%	7,930,020	2,498,210	3.17	9.70	769,291						
	+6%	10,884,170	3,419,640	3.18	9.65	1,049,816	11,373,958	8.77	997,325	+6%	10,123,760	3,213,532	3.15	9.01	912,038						
	+5%	12,145,290	3,892,386	3.12	9.22	1,119,228	12,691,828	8.38	1,063,266	+5%	12,338,620	3,966,796	3.11	8.38	1,034,520	+5%	12,279,176	4,093,059	3.00	8.46	1,038,818
	+4%	13,038,550	4,249,868	3.07	8.89	1,159,764	13,625,285	8.09	1,101,776	+4%	14,178,540	4,609,870	3.08	7.88	1,117,482	+4%	13,722,635	4,574,212	3.00	8.07	1,107,671
June 30 89	4-5%	1,377,870	535,698	2.57	4.47	61,605	1,439,874	4.06	58,524	4-5%	2,360,490	829,507	2.85	4.49	105,939						
to	5-6%	1,092,250	429,141	2.55	5.50	60,030	1,141,401	5.00	57,029	5-6%	2,037,340	710,150	2.87	5.50	112,135						
Ultimate	6-7%	1,179,520	446,000	2.64	6.52	76,940	1,232,598	5.93	73,093	6-7%	2,039,860	698,627	2.92	6.49	132,285						
Pit	+7%	7,821,850	2,461,778	3.18	9.96	779,134	8,173,833	9.06	740,178	+7%	6,863,540	2,212,587	3.10	9.27	636,525						
	+6%	9,001,370	2,907,778	3.10	9.51	856,075	9,406,432	8.65	813,271	+6%	8,903,400	2,911,214	3.06	8.64	768,810						
	+5%	10,093,620	3,336,919	3.02	9.08	916,105	10,547,833	8.25	870,299	+5%	10,940,740	3,621,364	3.02	8.05	880,945						
	+4%	11,471,490	3,872,617	2.96	8.52	977,709	11,987,707	7.75	928,824	+4%	13,301,230	4,450,871	2.99	7.42	986,884						
Total	4-5%	2,271,130	893,180	2.54	4.50	102,141	2,373,331	4.09	97,034	4-5%	4,200,410	1,472,580	2.85	4.50	188,901						
Mining	5-6%	2,353,370	901,887	2.61	5.50	129,442	2,459,272	5.00	122,970	5-6%	4,252,200	1,463,414	2.91	5.52	234,617						
Reserves	6-7%	2,704,540	970,470	2.79	6.51	175,960	2,826,244	5.91	167,162	6-7%	4,233,600	1,413,950	2.99	6.50	275,032						
	+7%	17,181,000	5,356,949	3.21	10.07	1,729,931	17,954,145	9.15	1,643,434	+7%	14,793,560	4,710,797	3.14	9.50	1,405,816						
	+6%	19,885,540	6,327,419	3.14	9.58	1,905,890	20,780,389	8.71	1,810,596	+6%	19,027,160	6,124,747	3.11	8.83	1,680,848						
	+5%	22,238,910	7,229,306	3.08	9.15	2,035,332	23,239,661	8.32	1,933,566	+5%	23,279,360	7,588,161	3.07	8.23	1,915,464						
	+4%	24,510,040	8,122,485	3.02	8.72	2,137,473	25,612,992	7.93	2,030,599	+4%	27,479,770	9,060,741	3.03	7.66	2,104,365						