

Attachment C

Proposed Modifications to Financial Assurance Cash Flow and NPV  
Calculation

Attachment C. Removal of Costs for 4 Tyrone Reclamation Projects - Summary Sheet

Date:	22-Dec-08				
Description:	This FA workbook was changed to document the change to FA that would occur if the cost of work completed in 4 Tyrone project areas in 2008 was removed from the FA calculation.				
	This calculation is performed by subtracting the total cost of the four projects shown on the last tab from the cash flow shown on the "Current Cost" Tab, "Earthwork", Column C (see note below).				
Summary Table					
Values prior to 2008 Reduction (prior values approved in December 2008)					
Component	Current Cost	NPV			
Earthwork	\$166,921,461	\$134,876,308			
Water Treatment	\$195,376,030	\$72,867,719			
Additional Studies	\$2,263,170	\$2,263,170			
Added Rec Cost	\$0	\$0			
Total	\$364,560,662	\$210,007,197			
Values after Costs Removed - Assume costs taken equally out of years 1 through 13					
Component	Current Cost	NPV			
Earthwork	\$141,413,626	\$111,740,944			
Water Treatment	\$195,376,030	\$72,867,719			
Additional Studies	\$2,263,170	\$2,263,170			
Added Rec Cost	\$0	\$0			
Total	\$339,052,827	\$186,871,833			
Delta Total	\$25,507,835	\$23,135,364			
Check		OK - amount = total of all projects in current dollars			
Note:	To remove the costs, the total amount of \$25,507,835 is divided equally and distributed over 13 years of earthwork. The original values and the adjusted values are shown in columns to the right on the current cost tab.				



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MINE CLOSURE FINANCIAL ASSURANCE SUMMARY

***DRAFT - Tyrone Proposal for financial assurance***

Permit	DP-1341& GR010RE
Facility	Tyrone Mine
Operator	Phelps Dodge Tyrone, Inc.
Address	P.O. Drawer 571 Tyrone, NM 88065
Contact	Tom Shelley 505.538.7173
Closure Cost (Current Dollars)	\$ 339,052,827
<b>Required Financial Assurance (NPV)</b>	<b>\$ 186,871,833</b>



NEW MEXICO ED and MMD

DP-1341 & GR010RE Tyrone Mine Closure Financial Assurance

(From Table 9.1, AR DP-1341 A-308; NOTE: Current (2003) Cash flow reflecting Tyrone's proposal to reduce financial assurance for work completed by end of 2008)

Year	Earthwork	Reveg	Plant	Treatment	Maintenance	Total
73	0	0	0	1534300	221000	1755300.2
74	0	0	0	1534300	221000	1755300.2
75	0	0	0	1534300	221000	1755300.2
76	0	0	0	1534300	221000	1755300.2
77	0	0	0	1534300	221000	1755300.2
78	0	0	0	1534300	221000	1755300.2
79	0	0	0	1531900	221000	1752900.6
80	0	0	0	1531900	221000	1752900.6
81	0	0	608178	1531900	221000	2361078.3
82	0	0	0	1531900	221000	1752900.6
83	0	0	0	1531900	221000	1752900.6
84	0	0	0	1531900	221000	1752900.6
85	0	0	0	1531900	221000	1752900.6
86	0	0	0	1531900	221000	1752900.6
87	0	0	0	1531900	221000	1752900.6
88	0	0	0	1529500	221000	1750500.2
89	0	0	0	1529500	221000	1750500.2
90	0	0	0	1529500	221000	1750500.2
91	0	0	0	1529500	221000	1750500.2
92	0	0	0	1529500	221000	1750500.2
93	0	0	0	1529500	221000	1750500.2
94	0	0	0	1529500	221000	1750500.2
95	0	0	0	1529500	221000	1750500.2
96	0	0	0	1529500	221000	1750500.2
97	0	0	0	1529500	221000	1750500.2
98	0	0	0	1529500	221000	1750500.2
99	0	0	0	1529500	221000	1750500.2
100	0	0	0	1529500	221000	1750500.2
<b>Total</b>	<b>115757054</b>	<b>3777538</b>	<b>21341627.88</b>	<b>174034402</b>	<b>21879035.1</b>	<b>336789657</b>

Earthwork		
original Values	Adjusted Values	diff



Attachment C - Table 2. Financial Assurance w/Costs Reduced for Work Completed at Four Tyrone Project

NEW MEXICO ED & MMD

Areas

DP-1341 & GR010RE Tyrone Mine Closure Financial Assurance; NOTE: Reflects Tyrone's proposal to reduce financial assurance for work completed through 2008 on four project areas.

	Escalation Rate	Yr 1-12 Discount Rate	Yr 13-100 Discount Rate
Earth	3.64%	5.00%	8.00%
Water	3.17%	5.00%	8.00%

Component	Current Cost	NPV
Earthwork	\$141,413,626	\$111,740,944
Water Treatment	\$195,376,030	\$72,867,719
Additional Studies	\$2,263,170	\$2,263,170
Added Rec Cost	\$0	\$0
<b>Total</b>	<b>\$339,052,827</b>	<b>\$186,871,833</b>

Year	Earthwork Current Cost	Earthwork NPV	Water Treatment Current Cost	Water Treatment NPV
1	2,940,253	2,940,253	24,977,573	24,977,573
2	4,019,774	3,967,708	5,319,900	5,227,182
3	10,129,655	9,868,948	4,206,100	4,060,765
4	10,153,874	9,764,411	3,603,400	3,418,259
5	10,179,235	9,662,012	2,889,700	2,693,452
6	10,217,764	9,572,963	1,978,800	1,812,269
7	10,252,123	9,480,744	1,952,700	1,757,197
8	10,252,123	9,357,946	1,922,800	1,700,134
9	10,270,076	9,252,914	1,891,200	1,643,049
10	10,304,963	9,164,090	1,869,500	1,595,889
11	10,304,963	9,045,394	1,842,500	1,545,428
12	10,304,963	8,928,234	1,815,000	1,495,830
13	10,332,814	6,301,768	1,792,400	1,035,121
14	1,187,503	694,996	1,771,500	977,298
15	459,290	257,951	1,749,300	921,891
16	451,464	243,320	1,726,100	868,983
17	426,101	220,379	1,712,800	823,724
18	387,573	192,360	1,690,500	776,640
19	353,213	168,230	1,685,100	739,537
20	353,213	161,438	1,671,200	700,636
21	335,261	147,047	1,665,700	667,099
22	300,374	126,427	1,627,400	622,612
23	300,374	121,323	1,625,300	594,000
24	300,374	116,425	1,616,000	564,188
25	272,523	101,365	1,613,900	538,256
26	253,368	90,436	1,609,400	512,750
27	237,392	81,313	1,609,400	489,819
28	221,000	72,643	1,600,300	465,267
29	221,000	69,710	1,598,100	443,849
30	221,000	66,896	1,595,600	423,335
31	221,000	64,195	1,595,600	404,403
32	221,000	61,604	1,593,500	385,809
33	221,000	59,117	1,584,400	366,450
34	221,000	56,730	1,584,400	350,061
35	221,000	54,440	1,582,000	333,899
36	221,000	52,242	1,582,000	318,967
37	221,000	50,133	1,578,600	304,047
38	221,000	48,109	1,578,600	290,449
39	221,000	46,167	1,577,100	277,196
40	221,000	44,303	1,577,100	264,799
41	221,000	42,515	2,176,678	349,125
42	221,000	40,798	1,568,500	240,326
43	221,000	39,151	1,568,500	229,578
44	221,000	37,571	1,566,100	218,976
45	221,000	36,054	1,566,100	209,182
46	221,000	34,598	1,563,800	199,534

Attachment C - Table 2. Financial Assurance w/Costs Reduced for Work Completed at Four Tyrone Project Areas

Year	Earthwork Current Cost	Earthwork NPV	Water Treatment Current Cost	Water Treatment NPV
47	221,000	33,202	1,563,800	190,610
48	221,000	31,861	1,563,800	182,086
49	221,000	30,575	1,561,400	173,675
50	221,000	29,341	1,561,400	165,908
51	221,000	28,156	3,118,099	316,500
52	221,000	27,020	1,552,700	150,557
53	221,000	25,929	1,552,700	143,824
54	221,000	24,882	1,552,700	137,392
55	221,000	23,878	1,550,300	131,044
56	221,000	22,914	1,550,300	125,184
57	221,000	21,989	1,550,300	119,585
58	221,000	21,101	1,550,300	114,237
59	221,000	20,249	1,547,900	108,959
60	221,000	19,432	1,547,900	104,086
61	221,000	18,647	1,547,900	99,431
62	221,000	17,894	1,547,900	94,985
63	221,000	17,172	1,545,400	90,590
64	221,000	16,479	1,545,400	86,539
65	221,000	15,813	1,545,400	82,668
66	221,000	15,175	1,545,400	78,971
67	221,000	14,562	1,536,800	75,020
68	221,000	13,975	1,536,800	71,665
69	221,000	13,410	1,536,800	68,460
70	221,000	12,869	1,536,800	65,398
71	221,000	12,349	1,536,800	62,473
72	221,000	11,851	1,534,300	59,582
73	221,000	11,372	1,534,300	56,918
74	221,000	10,913	1,534,300	54,372
75	221,000	10,473	1,534,300	51,941
76	221,000	10,050	1,534,300	49,618
77	221,000	9,644	1,534,300	47,399
78	221,000	9,255	1,534,300	45,279
79	221,000	8,881	1,531,900	43,186
80	221,000	8,523	1,531,900	41,255
81	221,000	8,179	2,140,078	55,056
82	221,000	7,849	1,531,900	37,647
83	221,000	7,532	1,531,900	35,964
84	221,000	7,228	1,531,900	34,355
85	221,000	6,936	1,531,900	32,819
86	221,000	6,656	1,531,900	31,351
87	221,000	6,387	1,531,900	29,949
88	221,000	6,129	1,529,500	28,565
89	221,000	5,882	1,529,500	27,287
90	221,000	5,644	1,529,500	26,067
91	221,000	5,417	1,529,500	24,901
92	221,000	5,198	1,529,500	23,788
93	221,000	4,988	1,529,500	22,724
94	221,000	4,787	1,529,500	21,707
95	221,000	4,593	1,529,500	20,737
96	221,000	4,408	1,529,500	19,809
97	221,000	4,230	1,529,500	18,923
98	221,000	4,059	1,529,500	18,077
99	221,000	3,895	1,529,500	17,269
100	221,000	3,738	1,529,500	16,496
<b>Total</b>	<b>141,413,626</b>	<b>111,740,944</b>	<b>195,376,030</b>	<b>72,867,719</b>

Attachment C - Direct Costs Summary for Work Completed at Four Tyrone Project Areas

Cost Totals from Various Projects for 2008

See Attachments B and D through G for details on the calculation of these reduction amounts.

Summarized from individual project cost details

Project	Amount	Source
No. 1 Tailing Impoundment	\$8,270,966	See Attachment B
No. 1A Tailing Impoundment	\$7,143,010	See Attachment B
No. 1X Tailing Impoundment	\$8,348,452	See Attachment B
No. 2 Tailing Impoundment	\$1,745,407	See Attachment B

Total **\$25,507,835**

Note: These costs are direct plus indirect costs