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 wa	as changed to docur	ment the change	to FA that would	occur	
if the cost of work co				3434.	
removed from the FA		project areas iii			
This calculation is pe	THE PERSON OF TH	ing the total cost	of the four projec	ets shown on the	
last tab from the casl					
				(332	
Summary Table					
Values prior to 2008	Reduction (prior valu	ues approved in	December 2008)		
Component	Current Cost	NPV	2000111201 2000)		
Earthwork	\$166,921,461			51	
Water Treatment	\$195,376,030				
Additional Studies	\$2,263,170				
Added Rec Cost	\$0	\$0			
Total	\$364,560,662	\$210,007,197			_
Values after Costs R	emoved - Assume o	osts taken equal	ly 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 = t	otal of all project	s in current dolla	rs
Note:					
To remove the costs	According to the second	The second secon			
is divided equally and					
and the adjusted value	ues are shown in col	umns to the right	t on the current of	ost tab.	



State of New Mexico ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT ENVIRONMENT DEPARTMENT

Bill Richardson GOVERNOR

Joanna Prukop SECRETARY

Ron Curry SECRETARY

MINE CLOSURE FINANCIAL ASSURANCE SUMMARY

DRAFT - Tyrone Proposal for financial assurance

Permit	DP-1341& GR010				
Facility		Tyrone Mine			
Operator Phelps Dodge Tyro					
Address	P.O. Drawer Tyrone, NM 88				
Contact		Tom Shelley 505.538.7173			
Closure Cost (Current Dollars)	\$	339,052,827			
Required Financial Assurance (NPV)	\$	186,871,833			

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		Maintenance	Total 27917825
1	2940253	0	18568573	6409000	0	
2	3778621	20153	0	5319900	221000	9339673.
3	9848541	60114	0	4206100	221000	14335756
4	9848541	84332	0	3603400	221000	13757274
5	9848541	109694	0	2889700	221000	1306893
6	9848541	148223	0	1978800	221000	1219656
7	9848541	182581	0	1952700	221000	1220482
8	9848541	182581	0	1922800	221000	1217492
9	9848541	200535	0	1891200	221000	1216127
10	9848541	235421	0	1869500	221000	1217446
11	9848541	235421	0	1842500	221000	1214746
12	9848541	235421	0	1815000	221000	1211996
13	9848541	263272	0	1792400	221000	1212521
14	704229	262274	0	1771500	221000	2959003
		238289	0	1749300	221000	2208589.
15	0		0	1726100	221000	2177564
16	0	230463		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		- an ele-6. or
17	0	205101	0	1712800	221000	2138901.
18	0	166573	0	1690500	221000	2078073
19	0	132213	0	1685100	221000	2038313
20	0	132213	0	1671200	221000	2024413
21	0	114261	0	1665700	221000	2000961
22	0	79373	0	1627400	221000	1927774
23	0	79373	0	1625300	221000	1925674
24	0	79373	0	1616000	221000	1916373
25	O	51522	0	1613900	221000	1886422
26	0	32368	0	1609400	221000	1862767
27	o	16391	0	1609400	221000	1846791
			0	1600300	221000	1821299
28	0	0		1 4 TO SERVICE STATE OF THE SE	221000	
29	0	0	0	1598100		1819100
30	0	0	0	1595600	221000	1816600
31	0	0	0	1595600	221000	1816600
32	0	0	0	1593500	221000	1814500
33	0	0	0	1584400	221000	1805400
34	0	0	0	1584400	221000	1805400
35	0	0	0	1582000	221000	1803000
36	0	0	0	1582000	221000	1803000
37	0	0	0	1578600	221000	1799600
38	0	0	0	1578600	221000	1799600
39	Ö	ō	ō	1577100	221000	1798100
	0	0	0	1577100	221000	1798100
40			608178	1568500	221000	239767
41	0	0		The second secon	221000	1789500
42	0	0	0	1568500		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
43	0	0	0	1568500	221000	1789500
44	0	0	0	1566100	221000	1787100
45	0	0	0	1566100	221000	1787100
46	0	0	0	1563800	221000	1784800
47	0	0	0	1563800	221000	1784800
48	0	0	0	1563800	221000	1784800
49	0	0	0	1561400	221000	178240
50	o	o	0	1561400	221000	178240
51	0	0	1556700	1561400	221000	3339099
52	o	0	0	1552700	221000	1773700
122	626	2.	124	1550700		4770700
53	0	0	0	1552700	221000	1773700
54	0	0	0	1552700	221000	1773700
55	0	0	0	1550300	221000	1771300
56	0	0	0	1550300	221000	1771300
57	0	0	0	1550300	221000	1771300
58	0	0	0	1550300	221000	1771300
59	0	0	0	1547900	221000	1768900
60	0	0	0	1547900	221000	1768900
61	0	0	0	1547900	221000	1768900
62	ō	0	0	1547900	221000	1768900
63	ő	ő	0	1545400	221000	176640
64	0	0	Ö	1545400	221000	176640
					221000	
65	0	0	0	1545400		176640
66	0	0	0	1545400	221000	176640
67	0	0	0	1536800	221000	1757800
68	0	0	0	1536800	221000	1757800
69	0	0	0	1536800	221000	1757800
70	0	0	0	1536800	221000	1757800
71	0	0	0	1536800	221000	1757800
			-			

	Earthwork	
original Values	Adjusted Values	diff
4902394	2940253	1962141
5740762	3778621	1962141
11810682	9848541	1962141
11810682	9848541	1962141
11810682	9848541	1962141
11810682	9848541	1962141
11810682	9848541	1962141
11810682	9848541	1962141
11810682	9848541	1962141
11810682	9848541	1962141
11810682	9848541	1962141
11810682	9848541	1962141
11810682	9848541	1962141
704229		
	Total Check	25507835

\$1,962,141.15 = J25/13

\$25,507,835

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 redu
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	1755300.3
79	0	0	0	1531900	221000	1752900.0
80	0	0	0	1531900	221000	1752900.0
81	0	0	608178	1531900	221000	2361078.
82	0	0	0	1531900	221000	1752900.
83	0	0	0	1531900	221000	1752900.
84	0	0	0	1531900	221000	1752900.
85	0	0	0	1531900	221000	1752900.
86	0	0	0	1531900	221000	1752900.
87	0	0	0	1531900	221000	1752900.
88	0	0	0	1529500	221000	1750500.
89	0	0	0	1529500	221000	1750500.
90	0	0	0	1529500	221000	1750500.
91	0	0	0	1529500	221000	1750500.
92	0	0	0	1529500	221000	1750500.
93	0	0	0	1529500	221000	1750500.
94	0	0	0	1529500	221000	1750500.
95	0	0	0	1529500	221000	1750500.
96	0	0	0	1529500	221000	1750500.
97	0	0	0	1529500	221000	1750500.
98	0	0	0	1529500	221000	1750500.
99	0	0	0	1529500	221000	1750500
100	0	0	0	1529500	221000	1750500.
Total	115757054	3777538	21341627,88	174034402	21879035.1	33678965

	Earthwork	
original Values	Adjusted Values	diff

NEW MEXICO ED & MMD

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
Total	\$339,052,827	\$186,871,833

	Earthwork	Earthwork	Water Treatment	Water Treatment
Year	Current Cost	NPV	Current Cost	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
10	221,000	0-7,000	1,000,000	100,004

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

	Earthwork	Earthwork	Water Treatment	Water Treatment
Year	Current Cost	NPV	Current Cost	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
	221,000		1,547,900	99,431
61		18,647		
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
	and the second s	U. W. 1 C. July	1,531,900	37,647
82	221,000	7,849		
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
Tota		111,740,944	195,376,030	72,867,719
1012	171,713,020	111,740,344	190,070,030	12,007,718

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