

WITH DEPARTMENTAL CHP

STATEMENT SHOWING ESTIMATED INITIAL INVESTMENT

Appendix A

DEFINITION

(Rs. in Lakhs)

Sl. No.	Particulars	As per Sanctioned PR (6.5 MTY)	Total as per expansion PR 10 MTY	Net Existing as on 31.3.05	Balance/ Additional Amount	PHASINGS			
						1	2	3	4
1	Land	467.00	2502.70	2502.70					
2	Buildings								
	(a) Residential	1123.09	1123.09	1123.09					
	(b) Service	2411.54	2411.54	2411.54					
3	Plant and Machinery								
	(a) HEMM	29229.00	23074.38	23074.38					
	(b) Other than HEMM	19245.09	17760.93	13311.51	4448.52	1277.07			
	Total Plant & Machinery	48474.09	40834.41	36385.89	4448.52	1277.07			
4	Furniture	40.00	768.22	768.22					
5	Railway Siding	6887.00	11815.87	10190.87	1635.00	700.00	235.00		
6	Vehicles	551.00	195.26	195.26					
7	Prospecting & Boring	46.00	203.20	203.20					
8	Development								
(a)	Capital Outlay in Mines	1815.00	877.23	545.91	331.32	40.00	30.00	30.00	251.32
(b)	Roads & Culverts	1770.00	1165.49	1069.95	95.54	53.00	35.78	3.00	3.76
(c)	Water Supply	441.00	381.14	381.14					
(d)	PR preparation Cost & Consultancy	15805.00	19307.24	19274.69	32.55	32.55			
	Sub Total (B)	19831.00	21731.10	21271.69	459.41	125.55	65.78	33.00	235.08
9	Revenue Exp. Capitalised		411.88	411.88					
	Total initial Capital Investment	80346.00	81947.27	75404.34	6542.93	3997.00	2042.85	268.00	235.08
	Coal Preparation Plant	3481.00	31738.24	31738.24					
	Total initial Capital Investment including CPE	83827.00	113685.51	107142.58	6542.93	3997.00	2042.85	268.00	235.08

Existing Equipments to the tune of Rs. 4.65 crores would not be required and proposed to be diverted.

OPTION-I

STATEMENT SHOWING ESTIMATED COMPLETION CAPITAL WITH PHASING

CAL OB BOTH DEPARTMENTAL

APPENDIX - A

(Rs. IN LAKHS)

Sl. No.	Particulars	Total as per expansion to 10 MTY	Existing as on 31.3.05	Balance/ Additional Amount	Phasing of Total Amount			
					1	2	3	4
1	Land	2502.70	2502.70					
2	Buildings							
	(a) Residential	1123.09	1123.09					
	(b) Service	2411.54	2411.54					
3	Plant and Machinery							
	(a) HEMM	23074.38	23074.38					
	(b) Other than HEMM	18031.42	13311.51	4719.91	1398.14			
	Total Plant & Machinery	41105.80	36385.89	4719.91	1398.14			
4	Furniture	708.22	708.22					
5	Railway Siding	11958.83	10190.87	1767.96	766.36	268.42		
6	Vehicles	195.26	195.26					
7	Prospecting & Boring	203.20	203.20					
8	Development							
(a)	Capital Outlay in Mines	930.09	545.91	384.18	41.90	32.84	34.27	275.18
(b)	Roads & Culverts	1172.55	1069.95	102.60	55.52	39.18	3.43	4.47
(c)	Water Supply	381.14	381.14					
(d)	PR preparation Cost	19308.78	19274.69	34.09	34.09			
	Sub Total (b)	21792.57	21271.69	520.88	131.51	72.02	37.69	279.65
9	REC	411.88	411.88					
	Total Initial Capital	82413.08	75404.34	7008.74	4186.46	2236.52	306.11	279.65

STATEMENT SHOWING THE ESTIMATED INVESTMENT IN LAND ACQUISITION
Piparwar OCP (10 Mty)

Sl.No.	Particulars	Land in Ha.	cost in Lakhs/Ha.	Total amount	(Amount in Rs. Lakhs)			
					PHASING			
					1st	2nd	3rd	4th
1	GMK land	279.35	Whole land is	N.A	-	-	-	-
2	Tenancy land	654.4	acquired in all	N.A	-	-	-	-
4	Forest Land	186.5	respect	N.A	-	-	-	-
	TOTAL	1120.25		0.00	0.00	0.00	0.00	0.00

APPENDIX - A.2

PIPARWAR O.C.P. (10.00 MTY.)

STATEMENT SHOWING THE ESTIMATED CAPITAL INVESTMENT ON BUILDINGS.

SL NO	PARTICULARS	P.R. PROVISION	EXISTING AS ON 31.03.2005	ADDITIONAL PROVISION	(AMOUNT IN RS. LAKHS)			
					PHASING			
					1ST. YR.	2ND. YR.	3RD. YR.	4TH YR.
1	RESIDENTIAL BUILDINGS	1123.09	1123.09	0.00	0.00	0.00	0.00	0.00
2	SERVICE BUILDINGS	2411.54	2411.54	0.00	0.00	0.00	0.00	0.00
	TOTAL	3534.63	3534.63	0.00	0.00	0.00	0.00	0.00

PIPARWAR O.C.P.(10.00 MTY)

STATEMENT SHOWING THE REQUIREMENT OF RESIDENTIAL BUILDINGS.

SL. NO.	CATEGORY/SCALE	TYPE OF QTRS.	NO. OF PERS-ONS	%age SATISF-ACTION	TOTAL QTRS. REQD.
1.	CAT.I to V and GRADE E	MQ			
2.	CAT.VI to GR.C,D.	MQ	457	42.45	194
3.	Rs.5691-8247 Rs.5896-8542 & 5962-8644	A	81	65.00	53
4.	Rs.6219-9009 To 7824-12054 & GR. A, B & SPECIAL GRADE	HOSTEL B	269	65.00	35 140
5.	Rs.8600-14600 to 10750-16750 Rs.13750-18700 to 16000-20800	C	33	100.00	33
6.	Rs.17500-23300 AND ABOVE	D	15	100.00	15
	TOTAL		855	55.00	470

STATEMENT SHOWING THE BUILDING COST INDEX.
 (With Ref. to 100 base in Delhi as on 1.10.76)
 IN MAY 2006.
 OPTION - I, II & III

SL. NO.	DESCRIPTION	UNIT	RATES AS ON 1.10.76 AT DELHI	RATES AT SITE	RATIO BET Col.5 & Col.4	WEIGH-TAGE	COST INDEX
1	2	3	4	5	6	7	8
1.	BRICKS	1000	106.15	2200.00	20.73	16	331.61
2.	SAND: 35% Coarse Sand 65% Fine Sand	Cu.m.	21.92	370	16.88	5	84.40
3.	CEMENT	Quintal	35.28	400.00	11.34	21	238.10
4.	STONE AGGREGATE 50% 20 mm Size 50% 50 mm Size	Cu.m.	27.10	795.00	29.34	6.5	190.68
5.	TIMBER	Cu.m.	2021.00	28000.00	13.85	18	249.38
6.	MILD STEEL	Quintal	183.20	3000.00	16.38	10	163.76
7.	LABOUR: (a) Mason 50% 1st. Class 50% 2nd. Class	Each	9.89	117.41	11.87	8.5	100.91
	(b) Carpenter 50% 1st. Class 50% 2nd. Class	Each	9.89	117.41	11.87	4	47.49
	(c) Coolie/Beldar	Each	4.41	85.01	19.28	11	212.04
	TOTAL						1818.36
	i.e. COST INDEX					SAY	1618

STATEMENT SHOWING ESTIMATED INVESTMENT ON PLANT & MACHINERY

(Contn to Rg. Lachy)

Sl. No.	Particulars <i>Colour from 1/12/2011</i>	Start Capacity		Total in set expansion for 10 MTPA		Existing as on 31.3.08		BALANCE/ ADDITIONAL PROVISION		PHASING									
		No.	Unit	No.	Unit	No.	Unit	Unit Cost	Unit	No.	Unit	No.	Unit	No.	Unit	No.	Unit	No.	Unit
19	Power & Diesel		1000.07		1000.07		1000.07												
20	C. E. T		4614.09		4614.09		4614.09												
21	Workshop		475.47		475.47		475.47												
22	Workshop		2751.42		2751.42		2751.42												
23	Water P. & M		954.28		954.28		954.28												
24	Plant Facilities		211.08		211.08		211.08												
25	Construction		911.80		911.80		911.80												
	TOTAL (B)		17760.03		17760.03		13311.81												
	(GRAND TOTAL (A+B))		48034.41		48034.41		36385.89												

PIPARIWAR OCP(10MTY) - BOTH COAL & OB OUTSOURCED FOR 3.5 MTY WITH CHP DEPARTMENTAL
ESTIMATED PHASED CAPITAL EXPENDITURE ON ELECTRICAL PLANT & MACHINERY

SUMMARY SHEET

OPTION - I

Appendix - A.3.1
Amount in Ra. '000

Sl No	Particulars	Sanctioned P.R. For 5.5 MTY		P.R. Prom. For 10MTY		Existing As On 31.3.06		Additional Requirement						Year wise Phasing										From Beyond Target Year														
		Qty	Cost	Qty	Cost	Qty	Cost	Qty	Rate	Cost	Year-1	Year-2	Year-3	Year-4	Year-5	Year-6	Year-7	Year-8	Year-9	Year-10	Year-11	Year-12	Year-13	Year-14	Year-15	Year-16	Year-17	Year-18	Year-19	Year-20	Year-21	Year-22	Year-23					
											Qty	Cost	Qty	Cost	Qty	Cost	Qty	Cost	Qty	Cost	Qty	Cost	Qty	Cost	Qty	Cost	Qty	Cost	Qty	Cost	Qty	Cost	Qty	Cost				
1		3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23																
ii	Power Supply And Distribution							Ls	Ls	35336		28729		7607																								
iii	illumination							Ls	Ls	8811		3026		3543																								
iii	Communication & EDP							Ls	Ls	200		100		100																								
iv	Measuring And Testing Equipment							Ls	Ls	300		300																										
	GRAND TOTAL:		409000							43447		32167		11260																								

PIPARWAR (CRP10MTY) - BOTH COAL & OB OUTSOURCED FOR 3.5 MTY WITH CHP DEPARTMENTAL
 ESTIMATED PHASED CAPITAL EXPENDITURE ON ELECTRICAL PLANT & MACHINERY
OPTION - 4

Appendix - A.3.1
 Amount in Rs '000

Sl. No.	Particulars	Sanctioned P.F. For 6.5 MTY		P.F. Prov. For 10MTY		Existing As On 31.3.06		Additional Requirement			Year wise Phasing										Prdn. Beyond Target Year				
		Qty	Cost	Qty	Cost	Qty	Cost	Qty	Rate	Cost	Year-1		Year-2		Year-3		Year-4		Year-5		Cost	Qty			
		3	4	5	6	7	8	9	10	11	Qty	Cost	Qty	Cost	Qty	Cost	Qty	Cost	Qty	Cost	21	22	23		
1	Power supply And Distribution.																								
A	2																								
1	Power & Distribution Transformers.																								
a)	5000 KVA, 33KV, 6 KV, O/D type, 50 Hz, 3Ph, Dry 11 power Transformers.																								
										2	1940	3880	2	3880											
b)	100 KVA, 33/0.415 - 0.24KV, 3 Ph, 20Hz, Dry 11, Pole mounted Transformer									1	134	134	1	134											
2	Switch gear																								
a)	33 kv, SF6, 800 A O/D Type, C.B. with C&P panel.									2	960	1920	2	1920											
b)	6.6 KV, 250 MVA, 1250A, indoor type sw/ board comprising 2 nos. incoming, 1 no. bus-coupler & 9 nos. outgoing VCBs.									1	4000	4000	1	4000											
3	440 V. 5/Board comprising 1 no. Incoming CB & 5 nos. outgoing CB.									1	256	256	1	256											
a)	Over Head Line WOLF conductor in steel tubular poles									5	1300	6500	3	3900	2	2600									
b)	6.6 KV OHTL with ACSR WOLF conductor in steel tubular poles									5	700	3500	3	2100	2	1400									

PIPARWAR CCP(10MTY) - BOTH COAL & OB OUTSOURCED FOR 3.5 MTY WITH CHP DEPARTMENTAL
ESTIMATED PHASED CAPITAL EXPENDITURE ON ELECTRICAL PLANT & MACHINERY
OPTION - 1

Appendix - A.3.1

Amount in Rs '000

Sl. No.	Particulars	Sanctioned P.R. For 5.5 MTY		P.R. Provn. For 10MTY		Existing As On 31.3.06		Additional Requirement			Year wise Phasing										Provn. Beyond Target Year				
		Qty	Cost	Qty	Cost	Qty	Cost	Qty	Rate	Cost	Year-1		Year-2		Year-3		Year-4		Year-5		Qty	Cost			
											Qty	Cost	Qty	Cost	Qty	Cost	Qty	Cost	Qty	Cost	Qty	Cost	Qty	Cost	
1		3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
4	Cables							1	1538	1538	1.0	1538													
a)	6.6 KV grade PVC/DWA Cu - cable, of size, 3.5x55sq.mm.							Km			Km														
b)	Control cable, 1.1 KV grade							Ls	Ls	700	Ls	700													
5	Field Switch							2	282	564	2	564.00													
6	Isolators & L. Arrestors																								
a)	33 KV Isolator							12	58	696	12	696.00													
b)	6.6 KV Isolator							6	18	108	6	108.00													
c)	33 KV, 5 KA, LA							2	55	110	2	110.00													
d)	6.6 KV, 5 KA, LA							4	5	20	4	20.00													
e)	33 KV CT							2	91.00	182	2	182.00													
f)	33 KV PT							1	91.00	91	1	91.00													
g)	33 KV, 00 Fuses							2	14.00	28	2	28.00													
7	Capacitor Bank							Ls	Ls	2400	1	1200	1	1200											
a)	1800 KVA, 6.6 KV, composite discharge resistors, AP-CH Panels etc.																								
8	Other Items																								
a)	Steel Structures, Bus bars, cable trenches, earthing rods, fencing, earthing etc. for s/s.							Ls	Ls	3600	Ls	3600													
b)	Fire extinguishers, furnitures, insulation mats, hand gloves, tool kits, telescopic ladder etc.							Ls	Ls	200	Ls	200													
c)	Battery 110 V, Battery charger for S/S							Ls	Ls	300	Ls	300													
d)	Erection, installation, design and engineering, overhead line construction cost, insurance, contingency etc. of substation							Ls	Ls	3000	Ls	2000	Ls	1000											
e)	Installation Charges @ 10% of Sl. No. (1 + 2 + 3 + 4 + 5 + 6)							Ls	Ls	2607	Ls	1200	Ls	1407											
	Sub total: A							Ls	Ls	36336	Ls	28729	Ls	7807											

PIPARWAR CCP(10MTY) - BOTH COAL & OB OUTSOURCED FOR 3.5 MTY WITH CHP DEPARTMENTAL
ESTIMATED PHASED CAPITAL EXPENDITURE ON ELECTRICAL PLANT & MACHINERY
OPTION - I

Appendix - A.3.1

Amount in Rs.'000

Sl. No.	Particulars	Sanctioned P.R. For 6.5 MTY		P.R. Prov. For 10MTY		Existing As On 31.3.08		Additional Requirement		Year wise Phasing										Prov. Beyond Target Year				
		Qty	Cost	Qty	Cost	Qty	Cost	Qty	Rate	Cost	Year-1	Year-2	Year-3	Year-4	Year-5	City	Cost	City	Cost	City	Cost	City	Cost	
											Qty	Cost	Qty	Cost	Qty	Cost	Qty	Cost	Qty	Cost	Qty	Cost	Qty	Cost
1		3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		
3	1) Illumination, Quarry illumination, 10 KVA, 6.6/0.24 KV, transformer, pole mounted type.						4	12	48		4	48												
	ii) Flood lighting towers, 15 m high.						4	80	320		4	320												
	iii) Flood light fixtures with 400 W HPSV lamps, SFU, cables etc.						2	71	142		2	142												
	2) Haul road illumination 100' 50 KVA, 6.6 KV/ 0.415 KV, 50 Hz, O/D type lighting transformer						3	700	2100		3	2100												
	ii) 440 V OHTL with ACSR 'Rabbit' conductor 'minik' conductor.						4	400	1600		4	1600												
	iv) Other items like street lighting fixtures with 250 W HPSV lamps, isolation fuses, switches, cables etc.						1	200	200		1	200												

EPR FOR PIPARWAR OCP (10.0 MTY)

COAL & O B OUTSOURCED FOR 3.5 MTY.

ESTIMATED PHASED CAPITAL EXPENDITURE ON P & M : WORK-SHOP

J

(AMT. IN Rs. Lakhs)

Sl. No.	DESCRIPTION	PROVISION AS PER SANCTIONED REPORT (6.5 MTY)	TOTAL AS PER EXPANSION P.R	EXISTING,AS ON 31-03- 2005	BALANCE / ADDITIONAL PROVISION	P H A S I N G	
						1	2
A	EXCAVATION WORK-SHOP					0.00	0.00
B	E & M WORK-SHOP					0.00	0.00
C	PROJECT STORE					0.00	0.00
D	GRAND TOTAL	856.00	926.67	926.67	0.00	0.00	0.00

PROJECT REPORT FOR PIARWAR OCP (10.0 MTY)

Estimated Expenditure on Pumps, Pipes & Fittings

(Amount in Rs. Lakhs)

Sl. No.	PARTICULARS	EXISTING AS ON 31-03-2005 COST	ADDITIONAL PROVISION			Remarks
			QTY	UNIT COST	TOTAL AMOUNT	
1	PUMPS & PIPES	1808.47	-----	-----	-----	

PROJECT REPORT FOR PIPARWAR OCP [10.0 MTY]

SUMMARY STATEMENT OF CAPITAL EXPENDITURE ESTIMATE FOR P&M

COAL HANDLING PLANT

[NEW CRUSHING SYSTEM FOR 3.5 MTY OF COAL AND SHIFTING OF EXISTING CONVEYORS, ADDITIONAL CONVEYORS, RAMPS, TRUCK UNLOADING HOPPERS ARRANGEMENT ETC.]

[SUMMARY]

SL. No.	PARTICULARS	COST	[Amount in Rs.Lakhs]	
			PHASING	
			1	2
A	Mechanical System			
	i) P & M / Equipment	1051.20	944.60	106.60
	ii) Conveyors	472.40	283.40	189.00
	iii) Belting			
	a) Nylon Nylon Belting	20.40	12.24	8.16
	b) Steel Cord Belting	224.70	89.90	134.80
1	Total of ' A '	1768.70	1330.14	438.56
2	Electrical System	314.05	246.71	67.34
3	Erection and Commissioning	208.27	157.68	50.59
4	Civil & Structural Works (Including Over Head construction cost and design & Engg.)	1240.90	798.60	442.30
5	Design & Engineering	114.55	86.73	27.82
6	Sub Total (1) to (5)	3646.47	2619.86	1026.61
7	Contingency	109.39	78.60	30.80
8	Sub Total (6) to (7)	3755.86	2698.45	1057.41
9	Spares	46.35		46.35
10	GRAND TOTAL	3802.21	2698.45	1103.76
	Existing Capital in CHP as on 31-03-05	5822.78		

PROJECT REPORT FOR PIPARWAR OCP [10.0 MTY]

SUMMARY STATEMENT OF CAPITAL EXPENDITURE ESTIMATE FOR P&M

COAL HANDLING PLANT (REORGANISATION)

[SHIFTING OF EXISTING CONVEYORS, ADDITIONAL CONVEYORS, RAMPS, TRUCK UNLOADING ARRANGEMENT ETC.]

[Amount in Rs.Lakhs]

SL. No.	PARTICULARS	COST	PHASING	
			1	2
A	Mechanical System			
	i) P & M / Equipment	99.30	58.00	41.30
	ii) Conveyors	374.90	224.90	150.00
	iii) Belting			
	a) Nylon Nylon Belting	0.00	0.00	0.00
	b) Steel Cord Belting	224.70	89.90	134.80
1	Total of 'A'	698.90	372.80	326.10
2	Electrical System	106.25	63.38	42.86
3	Erection and Commissioning	80.51	43.62	36.90
4	Civil & Structural Works (including Over Head construction cost and design & Engg.)	939.10	617.50	321.60
5	Design & Engineering	44.28	23.99	20.29
6	Sub Total (1) to (5)	1869.04	1121.29	747.75
7	Contingency	56.07	33.64	22.43
8	Sub Total (6) to (7)	1925.11	1154.93	770.18
9	Spares	20.91		20.91
10	Grand Total	1946.02	1154.93	791.09

PROJECT REPORT FOR PIPARWAR OCP [10.0 MTY]
[A] STATEMENT SHOWING THE PHASED CAPITAL EXPENDITURE ON P&M :CHP

[CONVEYOR]

[Amount in Rs.'000]

SL. No.	PARTICULARS	TOTAL QTY	UNIT COST	TOTAL COST	PHASING	
					1	2
1	Conveyor Dgn. : 1003 (N) Width in mm : 1600 Length in m : 1000 (Shifting with Modifications)	1	7380	7380	4430	2950
2	Conveyor Dgn. : 1002(New Extn.) Width in mm : 1600 Length in m : 500 Power in kW : 3X250	1	9880	9880	5930	3950
3	Conveyor Dgn. : 1004(New) Width in mm : 1600 Length in m : 400 Power in kW : 2X150	1	8940	8940	5360	3580
4	Conveyor Dgn. : 1004 A (New) Width in mm : 1600 Length in m : 100 Power in kW : 2X110	1	3800	3800	2280	1520
5	Conveyor Dgn. : 1002 Width in mm : 1600 Length in m : 1300 (Shifting)	LS	7490	7490	4490	3000
TOTAL ::				37490	22490	15000

PROJECT REPORT FOR PIPARWAR OCP [10.0 MTY]

[B] STATEMENT SHOWING THE PHASED CAPITAL EXPENDITURE ON P&M :CHP

[BELTING]

[Amount in Rs.'000]

SL. No.	PARTICULARS	TOTAL QTY (m)	UNIT COST	TOTAL COST	PHASING	
					1	2
1	Width of Belt,mm : 1600 Type of Belt : ST Type of Carcass : 1250	2100	10.70	22470	8990	13480
	TOTAL ::			22470	8990	13480

PROJECT REPORT FOR PIPARWAR OCP [10.0 MTY]

[C]. STATEMENT SHOWING THE PHASED CAPITAL EXPENDITURE ON P&M:CHP

[P & M]					[Amount in Rs.'000]	
SL No.	PARTICULARS	TOTAL QTY	UNIT COST	TOTAL COST	PHASING	
					1	2
1	Heavy duty reciprocating feeder of 800-1000tph	4	1030	4120	2470	1650.
2	Plant Safety and Fire Fighting System	LS	840	840	500	340
3	Road Weigh Bridge 50 te. Wtl electronic display & Printer	2	760	1520	760	760
4	Dust Suppresion	LS	2510	2510	1510	1000
5	Motorised Hoist, 3t / 5t	2	370	740	440	300
6	Misc.items, tools,tauckles etc.	LS		200	120	80
TOTAL				9930	5800	4130

PROJECT REPORT FOR PIPARWAR OCP [10.0 MTY]

[D].STATEMENT SHOWING THE PHASED CAPITAL EXPENDITURE ON P&M :CHP
[CIVIL & STRUCTURALS]

[Amount in Rs.'000]

Sl. No.	PARTICULARS	TOTAL QTY	UNIT COST	TOTAL COST	PHASING	
					1	2
1	Conveyor Gantries Inclined Roof Type	LS	---	31400	18840	12560
2	New Trestle Conveyor Gantries & Mdfication etc. of 1003 Conveyor	LS	--	15200	9120	6080
3	Shifting of 1002 Gantries	LS	--	8600	6880	1720
4	Transfer House / Drive House	LS	--	12000	7200	4800
5	Receiving Platform for Hoppers etc.and reconstruction of present dump hopper ramp	LS		10600	7420	3180
6	Truck Un-Loading Hopper Cap.-200 Te.	4	3450	13800	11040	2760
7	Survey, misc. activity & Hydrogeological Data	LS	---	310	250	60
8	CHP control room , Weighment House,Road, Water Supply etc.	LS	---	2000	1000	1000
TOTAL				93910	61750	32160

PROJECT REPORT FOR PIPARWAR OCP [10.0 MTY]
 SUMMARY STATEMENT OF CAPITAL EXPENDITURE ESTIMATE FOR P&M
 COAL HANDLING PLANT WITH TRUCK LOADING HOPPERS (CHP-2)

[Amount in Rs.Lakh

No.	PARTICULARS	COST	PHASING	
			1	2
A	Mechanical System			
	i) P & M / Equipment	951.90	886.60	65.30
	ii) Conveyors	97.50	58.50	39.00
	iii) Belting			
	a) Nylon Nylon Belting	20.40	12.24	8.16
	b) Steel Cord Belting	0.00	0.00	0.00
1	Total of ' A'	1069.80	957.34	112.46
2	Electrical System	207.80	183.33	24.48
3	Erection and Commissioning	127.76	114.07	13.69
4	Civil & Structural Works (Including Over Head construction cost and design & Engg.)	301.80	181.10	120.70
5	Design & Engineering	70.27	62.74	7.53
6	Sub Total (1) to (5)	1777.43	1498.57	278.86
7	Contingency	53.32	44.96	8.37
8	Sub Total (6) to (7)	1830.75	1543.53	287.23
9	Spares	25.44		25.44
10	Grand Total	1856.19	1543.53	312.67

PROJECT REPORT FOR PIPARWAR OCP [10.0 MTY]

[A] STATEMENT SHOWING THE PHASED CAPITAL EXPENDITURE ON P&M :CHP

[CONVEYOR]

[Amount in Rs.'000]

SL NO.	PARTICULARS	TOTAL QTY	UNIT COST	TOTAL COST	PHASING	
					1	2
1	Conveyor Dgn. : C1	1	2660	2660	1600	1060
	Width in mm : 1400					
	Length in m : 50					
	Power in kW : 1X75					
2	Conveyor Dgn. : C2	1	7090	7090	4250	2840
	Width in mm : 1400					
	Length in m : 200					
	Power in kW : 2X 90					
TOTAL ::				9750	5850	3900

PROJECT REPORT FOR PIPARWAR OCP [10.0 MTY]

[B].STATEMENT SHOWING THE PHASED CAPITAL EXPENDITURE ON P&M :CHP

[BELTING]

[Amount in Rs.'000]

SL. No.	PARTICULARS	TOTAL QTY.	UNIT COST	TOTAL COST	PHASING	
					1	2
1	Width of Belt,mm : 1400 Type of Belt : NN Type of Carcass : 800/4	540	3.78	2040	1224	816
TOTAL ::				2040	1224	816

PROJECT REPORT FOR PIPARWAR OCP [10.0 MTY]

[C]. STATEMENT SHOWING THE PHASED CAPITAL EXPENDITURE ON P&M:CHP

[Auxiliary Equipment]

[Amount in Rs.'000]

SL. NO.	PARTICULARS	TOTAL QTY	UNIT COST	TOTAL COST	PHASING	
					1	2
1	Hydraulically operated Gate with power pack	4	380	1520	910	610
2	Dust Suppresion	LS		1440	860	580
3	Road Weigh Bridge, 50t with ElectronicDisplay, Printer	2	760	1520	910	610
4	Plant Safety and Fire Fighting System	LS	---	890	530	360
5	Rail Weigh Bridge with digita display & recording	1	1570	1570	940	630
6	Wear Resistant Liners	LS	---	1050	630	420
7	Miscellaneous Items including spare parts, tools & tackles, chain pulley blocks, machine tools etc.	LS	---	1000	600	400
TOTAL ::				8990	5380	3610

PROJECT REPORT FOR PIPARWAR OCP [10.0 MTY]

[F] STATEMENT SHOWING THE PHASED CAPITAL EXPENDITURE ON P&M : CHP

[CIVIL & STRUCTURALS]

SL. NO.	PARTICULARS	TOTAL QTY	UNIT COST	TOTAL COST	[Amount in Rs.'000]	
					PHASING	
					1	2
1	Conveyor Gentries Inclined Roof Type		LS	10870	6520	4350
2	Receiving Platform, Ramp for Primary Sizers	1	LS	9200	5520	3680
3	Control & Weighment Houses	2	410	820	490	330
4	Truck Loading Hopper for Secondary Sizers, Cap. 100 Te.	4	1720	6880	4130	2750
5	General Development in CHP Area		LS	510	310	200
6	Soil Investigation & Other Data		LS	360	220	140
7	CHP Office Building, Water supply, Road etc.		LS	1540	920	620
TOTAL				30180	18110	12070

EPR FOR PIARWAR OCP (10.0 MTY)

ESTIMATED EXPENDITURE ON RAILWAY SIDING

(Amount in Rs. Lakhs)

SL. NO.	PARTICULARS	TOTAL COST	Existing as on 31.3.05	Additional / Balance Cost	P H A S I N G		
					1	2	3
1	Total track length 30,50 Km. (Phase - 1 & II Track length of 13.68 Km. Completed and rest 16.82 is to be laid.			1635.00	700.00	700.00	235.00
	TOTAL	11825.87	10190.87	1635.00	700.00	700.00	235.00

Note : The Estimated Cost given above in Appendix A. 5 has been compiled as per figures of I.C Division of CCL.
 Total Cost Estimate for Piarwar Railway Siding For a length of 30.5 Km. = 17499 Lakhs
 Piarwar Project Share = 11826 Lakhs
 Ashok Project Share = 5673 Lakhs

PIPARWAR OCP (10 MTY)
Estimated Capital for Capital Outlay in Mines

COAL & OB DEPARTMENTAL

Sl.No	Particulars	Proposed amount	Phasing of proposed amount				Amount in Rs. Lakhs)
			1st	2nd	3rd	4th year onwards.	
1	Village rehabilitation for 441 families	0.00	0.00	0.00	0.00	0.00	
2	Compensatory afforestation	0.00	0.00	0.00	0.00	0.00	
3	Biological reclamation of OB dump	209.32	15.00	15.00	15.00	164.32	
4	Arboriculture	62.00	5.00	5.00	5.00	47.00	
5	Baseline environmental data generation/monitoring	10.00	10.00	-	-	-	
6	Nalla diversion, garland drains & check dam etc.	50.00	10.00	10.00	10.00	20.00	
7	Cost of land development in colony area at CI 1618	0.00	-	-	-	-	
8	Cost of land development in mine & Industrial area at CI 1618	0.00	-	-	-	0.00	
	Total	331.320	40.00	30.00	30.00	231.32	

Shri D. R. Singh (F. D. I.)

APPENDIX - A.8.2

PIPARWAR O.C.P. (10.00 M.TY.)

option 1

STATEMENT SHOWING THE ESTIMATED CAPITAL INVESTMENT ON ROADS & CULVERTS.

SL NO	PARTICULARS	P.R. PROVISION	EXISTING AS ON 31.03.2005.	ADDITIONAL PROVISION	(AMOUNT IN Rs. LAKHS)						
					PHASING						
					1ST. YR.	2ND. YR.	3RD. YR.	4TH YR.			
1	HAUL ROAD	82.78		82.78	50.00	32.78	0.00	0.00			
2	APPROACH ROAD TO RAILWAY SIDING	12.76		12.76	3.00	3.00	3.00	3.76			
TOTAL					1166.49	1061.96	95.54	53.00	35.78	3.00	3.76

PIPARWAR O.C.P.(10.00 MTY.)

ESTIMATED CAPITAL EXPENDITURE ON HAUL ROAD (85T).

(AMOUNT IN Rs. '000')

Sl. NO.	PARTICULARS	LENGTH NO./KM	COST/KM AT 100 CI	COST/KM AT 1618 CI	TOTAL COST
A.	HAUL ROAD				
1.	26.5 mt wide 330 mm moorum				
2.	26.5 mt wide 300 mm moorum + sand				
3.	26.5 mt wide 300 mm w.b.m.	0.50	1216.00	19674.88	9837.44
4.	26.5 mt wide 200 mm w.b.m.				
5.	17.5 mt wide 100 mm bituminous macadam.				
	Less 30% for providing moorum instead of 75 mm bituminous macadam.				-2951.23
	SUB-TOTAL				6886.21
B.	CULVERTS & BRIDGES				
1.	Cost of 4.57 mt span R.C.C culvert	1	86.00	1391.48	1391.48
2.	Cost of 3.05 mt span R.C.C culvert	0	50.00	809.00	0.00
3.	Cost of 1.50 mt span R.C.C culvert	0	26.00	420.68	0.00
	GRAND TOTAL				8277.69
	TOTAL AMOUNT IN RS. LAKHS				82.78

PIPARWAR O.C.P. (10.00 MTY)

STATEMENT SHOWING THE ESTIMATED CAPITAL
INVESTMENT ON APPROACH ROAD TO RAILWAY SIDING.

(AMOUNT IN Rs. '000')

Sl. No.	PARTICULARS	Length Km/No.	Cost/Km At 100 CI	Cost/Km At 1618 CI	Total Cost
1.	APPROACH ROAD TO RLY. SIDING				
	3.75 mt wide 75 mm sand/moorum				
	3.75 mt wide 150 mm boulder soling				
	3.75 mt. wide 150 mm W.B.M.				
	3.75 mt. wide 20 mm premix carpet	0.40	132.00	2135.76	854.30
2.	CULVERTS.				
	4.57 mt. span R.C.C. culvert	1	17.00	275.06	275.06
	3.05 mt. span R.C.C. culvert	0	16.00	258.88	0.00
	1.83 mt. span R.C.C. culvert	0	9.20	148.86	0.00
	1.0 mt. dia hume pipe culvert	1	8.60	139.15	139.15
3.	TREE GUARDS (@ 40/Km.)	16	0.03	0.49	7.77
4.	TOTAL				1276.28
5.	TOTAL AMOUNT IN Rs. LAKHS.				12.76

PIPARWAR O.C.P. (10.00 MTY.)

STATEMENT SHOWING THE ESTIMATED CAPITAL INVESTMENT ON WATER SUPPLY & SEWERAGE.

SL NO	PARTICULARS	P.R. PROVISION	EXISTING AS ON 31.03.2005.	ADDITIONAL PROVISION	(AMOUNT IN Rs. LAKHS)			
					PHASING			
					1ST. YR.	2ND. YR.	3RD. YR.	4TH YR.
1	WATER SUPPLY & SEWERAGE	381.14	381.14	0.00	0.00	0.00	0.00	0.00
	TOTAL	381.14	381.14	0.00	0.00	0.00	0.00	0.00

Statement of Manpower

Sl No	Particulars	Category	Years															
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
COAL HANDLING PLANT																		
1	Dy CE (E&M)		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
2	SE(E&M)	16500 - 23900	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
3	Sr EE(E&M)	17500 - 22300	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
4	Engn(E&M)	16000 - 20900	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
5	Foreman incharge	10750 - 16750	2	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
6	Foreman	4052 - 7802	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
7	Asst Sck	4317 - 7257	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
8	Sr PA	3698 - 5878	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
9	Feoh	4552 - 7802	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
10	Filter(Mech)	3384 - 4464	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
11	Filter(Mech)	VI	2	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
12	Filter(Elec)	V	2	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
13	Filter(Elec)	VI	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
14	Store Keeper	V	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
15	Filter Helper	3598-6528	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
16	Rock Breaker/Plough Feeder Operator	II	7	12	12	12	12	12	12	12	12	12	12	12	12	12	12	
17	Welder	VI	4	8	8	8	8	8	8	8	8	8	8	8	8	8	8	
18	Wagon/Truck loading Attendant	V	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
19	Plant Attendant	III	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	
20	Crusher Attendants/Feed. Breaker Attd.	III	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
21	Mazdoor	IV	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
*		I	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
	Sub-Total of CHP		49	70	70	70	70	70	70	70	70	70	70	70	70	70	70	
LOADING/DESPATCH																		
1	Work Supervisor	3545 - 5111	4	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
2	Mazdoor	I	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
	Sub-Total of Loading & Despatch		8	11	11	11	11	11	11	11	11	11	11	11	11	11	11	
	Sub Total of Coal		117	155	155	155	155	155	155	155	155	155	155	155	155	155	155	
			117	155	155	155	155	155	155	155	155	155	155	155	155	155	155	
			117	155	155	155	155	155	155	155	155	155	155	155	155	155	155	

Statement of Manpower

Sl No	Particulars	Category	Years															
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
C4 E&M MAINTENANCE																		
1	Painter (each)	VI	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
2	Painter (each)	V	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
3	Painter (each)	VI	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
4	Painter (each)	V	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
5	Painter (each) (E&M)	III	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
6	Painter	V	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
7	Welder	V	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
8	Blacksmith	V	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
9	Handyman	III	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
10	Carpenter	V	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
11	Tyler	V	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
12	Mastron	IV	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
13	E.O.T. Crane Operator	D	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
14	Tractor operator	V	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
15	Tractor	IV	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
16	Motorist	I	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Sub-Total of E&M Maintenance		44															
C5 OTHER OPERATIONS																		
1	E.O.T. Crane Operator	B	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
2	Water Sprinkler Operator	B	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
3	Grading Compactor Operator	C	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
4	Wagon Op Operator	B	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
5	Grader Operator	C	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
6	Dozer Operator	B	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
7	Tyre Hanger Operator	C	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
8	Load Roller Operator	C	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
9	Fork Lift Operator	C	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
10	Mechanical Truck Operator	C	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
11	Mobile Service Van Operator	3698-5878	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
12	Mechanical Exp. Haulage Operator	3698-5878	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
13	Line Truck Operator	3698-5878	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
14	Fire Fighting Van Driver	3698-5878	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
15	Fire Fighting Machine	I	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
16	Pump Operator	II	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
17	ES Adaptor	II	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
18	Motorist	I	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	Sub-Total of Other Operations		45															
	Total		89															

Statement of Manpower

Sl No	Particulars	Category	Years															
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
C.6 Rly. Station																		
1	Leading Supervisor	3545 - 2111	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
2	Leading Murch		9	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
	Sub-Total of Rly. Station		10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
C.5 SAFETY DEPARTMENT & QUALITY CONTROL																		
1	Pl. D/S	18500 - 22800	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	Head Of Mines	17500 - 22300	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3	Colliery Manager	16000 - 22800	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	Sr. Overman	4652 - 7802	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Overman	4317 - 7257	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
6	Fire Fighting Supervisor	4317 - 7257	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
7	Roasting Overman	4317 - 7257	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
8	O.S.	4652 - 7802	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9	Mining Officer	3968 - 6528	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
10	Peon	3384 - 4264	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Sub-Total of Safety Dept. & Quality Control		14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
C.7 PROJECT OFFICE CUM PLANNING DIV.																		
1	C.M.E	19500 - 20000	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	Asst. Of Mines	17500 - 22300	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3	Asst Colliery Manager	13755-18700	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
4	Sr. Geologist	13755-18700	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Survey Officer	10750 - 16750	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	DM/Man	3968 - 6528	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
7	Revenue Officer	10750 - 16750	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
8	D.S.	4652 - 7802	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9	Sr. Clerk	4317 - 7257	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
10	Pay/Clk	3968 - 6528	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
11	Br. P.A	4652 - 7802	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
12	Peon	3384 - 4264	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Sub-Total of Project Office		14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
C.8 COMMUNICATIONS																		
1	Ex. Of. (Electronics)	13750-18700	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	Female (Communicator)	4317 - 7257	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3	Communication Operator	V	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
4	Telephone Assistant	W	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Sub-Total of Communications		8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
C.9 ACCOUNTS																		
1	Finance Manager	17500 - 22300	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	Finance Officer	13750-18700	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
3	Accounting	4652 - 7802	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
4	Accounts Clerk	3968 - 6528	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
5	UD/Typist	3408 - 5578	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Peon	3384 - 4264	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Sub-Total of Accounts		9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9

Statement of Manpower

Sl No	Particulars	Category	Years														
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
C.10 PERSONNEL WELFARE																	
1	Personnel Office	13150-18700	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	LDC/Typist	3028-5878	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3	Peon	3384-4464	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	Steno-typist	3028-5878	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Steno-typist	3028-5878	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Magazine Clerk	3028-5878	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
7	Typist	3028-5878	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
8	Store Magister	3028-5878	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Sub-Total of Personnel Welfare			7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
C.11 STORES																	
1	Jr. Store Officer	13150-18700	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	Chief Store Officer	4850-7650	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3	Asst. S.K.	3028-5878	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	S.K.	3028-5878	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	LDC/Typist	3028-5878	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Magazine Clerk	3028-5878	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
7	Typist	3028-5878	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
8	Store Magister	3028-5878	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Sub-Total of Stores			11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
C.12 CIVIL & WATER SUPPLY																	
1	S.E. (Civil)	13150-22800	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	Sr. E.E. (Civil)	4800-70800	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3	Engineer (Civil)	13150-18700	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	Overseer (Civil)	3028-6528	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Work Supervisor	3045-5111	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	DM/Man	3028-5878	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
7	LDC/Typist	3028-5878	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
8	Carpenter	V	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9	Plumber	V	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
10	Mason	V	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
11	Mason Masonry	II	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
12	Pump Operator	III	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
13	Spk Filter	III	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
14	Pipe Fitter Helper	II	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
15	Filter Plant Attendants	IV	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
16	Water Man	II	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Sub-Total of Civil & Water Supply			28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
C.13 MEDICAL & SANITATION																	
1	Sr. Medical Officer	13150-18700	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	M.O. (Lab.)	10750-18750	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3	Dispenser	3028-5078	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	Druggist	3045-5111	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
5	Nurse	3028-5878	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
6	Sanitary Inspector	3384-4464	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
7	Sanitary Inspector	3028-5878	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
8	Store Keeper	3028-5878	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9	Peon	3384-4464	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
10	Swecor	I	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
Sub-Total of Medical & Sanitation			29	29	29	29	29	29	29	29	29	29	29	29	29	29	29

Statement of Manpower																	
SP No	Particulars	Category	Years														
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
C.14 SURVEY																	
1	Sp. Survey Office																
2	Surveyor	12700-18700	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3	Gridman	2000 - 5528	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
4	Form Printer / Xerox Operator	3983 - 4528	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Chairman	3506 - 4896	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Machiner	3506 - 4896	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	Sub-Total of Survey		10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
C.15 TRANSPORT																	
1	Foreman-Polisher (EAM)	4651 - 7502	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	H.V. Driver	3698 - 5878	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
3	L.V. Driver	3545 - 5111	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
4	Auto Electrician		2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
5	Auto Mechanic		2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
6	Filer (Mech)		2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
7	Cleaner/Driver		2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Sub-Total of Transport		56	56	56	56	56	56	56	56	56	56	56	56	56	56	56
	TOTAL FOR COMMON		562	567	567	567	567	567	567	567	567	567	567	567	567	567	567
RECLAMATION & ENVIRONMENT																	
1	Environment & Reclamation Office	16000 - 20900	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	Environment Asst.	4832 - 7400	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
3	Reclamation Muzool		2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Sub-Total of Reclamation & Environment		5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	GRAND TOTAL		775	832	832	832	834	847	850	855	861	868	872	872	872	872	872

EPR FOR PIPARWAR OCP (10.00 MTY)
ESTIMATED COST OF PRODUCTION AT 100% CAPACITY UTILISATION

OPTION 4

Year	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Total	AVG. COST PER TONNE
Salaries & Wages	1702.04	1947.23	1947.33	1947.33	1852.09	1883.07	1850.64	1802.95	1821.14	1577.39	1577.59	1577.59	1577.59	1577.59	1570.44	1142.80	27155.65	25.57
Staff cost	5173.87	5545.17	5422.44	5501.24	6029.09	6523.32	6702.54	6970.72	5373.18	4563.98	4561.06	4567.79	4970.89	4973.58	4865.92	1854.27	86277.05	81.43
Power cost	2480.02	2213.02	2317.09	2318.85	2330.21	2465.83	2846.59	2583.04	2011.31	1459.62	1450.30	1528.25	1533.45	1538.64	1543.52	957.38	31030.90	29.29
Miscellaneous cost	1803.11	2071.65	2135.07	2144.10	2153.45	2134.66	2129.45	2119.94	1855.11	1374.90	1366.43	1386.32	1386.04	1306.04	1392.63	1080.37	27742.49	26.18
Cost increase of corpus	6.88	15.11	14.25	13.46	13.13	15.08	16.37	18.07	13.98	5.28	5.18	5.22	5.32	5.42	5.56	1.36	150.89	0.16
Administrative Expenses	3335.70	3446.00	3446.00	3446.00	3446.00	3446.00	3446.00	3446.00	4138.96	1906.10	1906.10	1906.10	1906.10	1906.10	1906.10	467.18	57704.64	54.46
Cost Outsourcing Cost		1121.65	1312.99	1251.52	1276.12	1297.83	1338.98	1347.59	1447.17								10293.88	36.75
Cost Outsourcing Cost		2511.04	2408.26	1805.85	1750.21	1727.80	1765.13	1794.87	1770.03								15293.24	53.50
Interest on working capital	592.30	852.18	875.14	863.68	867.89	899.74	910.70	924.28	767.95	470.31	471.94	473.80	474.13	474.59	470.20	233.47	10652.40	10.05
Total Cash cost	14807.42	22054.62	21378.88	21592.07	21637.19	22493.44	22757.38	23107.95	19198.81	11757.79	11788.60	11945.08	11853.22	11864.77	11757.05	5836.84	266309.92	317.48
Interest on Loan Capital																		
Depreciation	4851.64	5165.60	5180.92	5195.61	5223.64	5363.78	5470.16	5528.21	5083.60	4916.67	4916.67	4916.67	4916.67	4916.67	4988.64	3930.45	80463.70	76.94
Total Cost	19838.06	27220.42	27059.50	26787.68	26920.83	27857.21	28237.53	28633.26	24282.31	16674.45	16715.27	16761.74	16769.88	16791.44	16845.89	9767.33	346773.61	393.42
Production (lakh te)	65.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	76.00	35.00	35.00	35.00	35.00	35.00	35.00	8.58	1059.58	
Cost per Tonne (In Rs.)	302.45	272.20	270.59	267.88	269.21	278.57	282.38	286.33	318.50	476.41	477.59	478.91	479.14	479.47	475.58	1136.59	353.42	
Selling Price (In Rs.)	502.00	504.50	515.12	511.65	514.33	601.44	598.08	591.05	590.03	593.58	615.55	615.34	614.81	620.52	628.06	628.06	602.91	
Profit/Loss Per Tonne (In Rs.)	250.15	312.70	344.53	343.77	345.12	322.87	315.71	304.71	270.52	117.17	137.97	136.45	135.67	141.05	152.47	-510.53	208.48	

EPR FOR PIPARWAR OCP (10.00 MTY)

ESTIMATED COST OF PRODUCTION AT 100% CAPACITY UTILISATION

OPTION 4

UNITED COAL PREPARATION PLANT

Year	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Total	Ave Cost Rs/Tonne
Salaries & Wages	1753.64	1947.33	1847.33	1847.33	1552.05	1803.07	1890.64	1902.65	1821.11	1577.59	1577.59	1577.59	1577.59	1577.59	1570.44	1142.80	27196.60	25.67
Share cost	311.87	5845.82	5922.44	5904.24	6005.09	6623.32	6707.64	6976.72	5373.18	4563.56	4961.06	4967.75	4970.59	4973.38	4865.87	1964.27	86277.03	81.43
Power cost	2150.50	2213.00	2317.06	2318.86	2230.21	2465.93	2546.69	2583.04	2011.31	1459.62	1459.30	1528.25	1533.45	1538.64	1545.92	967.38	31050.90	29.29
Miscellaneous cost	1802.11	2071.68	2135.07	2144.10	2163.45	2134.66	2129.45	2119.94	1855.11	1374.90	1368.43	1386.32	1388.04	1369.04	1392.03	1080.37	27742.46	26.79
Cost of water & oil	6.88	15.11	14.28	13.46	13.13	15.09	16.37	16.67	13.30	5.28	5.18	5.22	5.32	6.42	5.56	1.36	159.89	0.15
Administrative Expenses	3538.50	5446.00	5446.00	5446.00	5446.00	5446.00	5446.00	5446.00	4138.96	1905.10	1906.10	1906.10	1906.10	1906.10	1906.10	467.16	67704.54	54.45
Cost of fuel (washing) Cost	1121.60	1212.99	1212.99	1251.52	1275.12	1297.83	1339.86	1347.69	1447.17									
OS Contribution Cost	2511.04	2108.25	2108.25	1805.85	1780.21	1727.80	1785.13	1794.87	1770.03									
Cost of washing	11578.04	11579.04	11579.04	11579.04	11579.04	11579.04	11579.04	11579.04	11579.04	6234.87	6234.87	6234.87	6234.87	6234.87	6234.87	1520.16	143145.76	178.14
Interest on working capital	1674.74	1254.64	1357.50	1346.14	1359.35	1382.20	1393.16	1406.74	1250.41	730.10	731.73	733.59	733.91	734.38	730.07	297.15	16816.93	20.23
Total Cash cost	25688.52	34116.12	33540.08	33653.57	33780.70	34584.94	34828.89	35165.56	31260.31	18262.44	18293.26	18339.73	18347.87	18389.43	18261.71	7428.67		568.79
Invested Loan Capital																		
Depreciation	5614.87	6329.04	6944.15	6956.85	6996.87	7127.01	7233.39	7289.44	6946.74	6579.90	6679.90	6679.90	6679.90	6679.90	6651.87	3930.48	106912.23	100.30
Total Cost	35483.80	41045.16	40684.23	40612.42	40745.57	41691.95	42062.27	42458.00	39107.05	24932.34	24973.16	25019.63	25027.78	25039.33	24903.58	11368.15		606.70
Production (in lakh t/c)	55.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	75.00	35.00	35.00	35.00	35.00	35.00	35.00	8.69	1669.68	
Input for OCP for washing of coal (in lakh t/c)	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	36.00	36.00	35.00	35.00	35.00	35.00	8.58	803.59	
Output from OCP washed coal (in lakh t/c)	53.19	53.19	53.19	53.19	53.19	53.19	53.19	53.19	53.19	28.64	28.64	29.64	28.64	28.64	28.64	7.62	657.57	
Cost per tonne (Rs./t.)	629.52	724.03	721.26	716.40	718.75	736.27	741.56	748.56	672.09	870.53	871.95	873.58	873.06	874.26	869.52	1618.18	606.70	
Excluding O.C.P. (Rs./t.)	1045.00	861.25	876.25	861.00	875.25	861.25	861.25	861.25	967.00	1045.00	1045.00	1045.00	1045.00	1045.00	1045.00	1045.00	915.96	
Excluding O.C.P. & Interest (Rs./t.)	410.40	437.21	451.04	464.60	456.50	425.98	419.27	412.29	294.92	174.47	173.05	171.42	171.14	170.74	175.48	-573.18	313.27	

STATEMENT SHOWING CASHFLOWS FOR FINANCIAL ANALYSIS AT 100 % CAPACITY UTILISATION
OPTION-II

(Fig. In Rs. Lakhs)

Year	CAPITAL OUTFLOW		OPERATING COST	INT. ON WORKING CAPITAL	TOTAL OUTFLOW	Total Production MTY	ANNUAL SALES	NET CASHFLOWS
	ORIGINAL	REPLACEMENT						
Existing	75404.34				75404.34			-75404.34
1	3997.00	9766.33	14215.12	592.30	28570.75	6.50	37869.00	9298.25
2	2042.85	3766.99	21172.44	882.18	27864.46	10.00	58511.91	30647.45
3	253.00	551.71	21003.43	875.14	22698.29	10.00	61489.09	38790.80
4	235.08	102.00	20728.39	863.68	21929.15	10.00	61152.88	39223.53
5		578.25	20829.31	867.89	22275.44	10.00	61454.69	39179.24
6		3119.53	21593.70	899.74	25612.97	10.00	60150.08	34537.11
7		4482.53	21856.69	910.70	27249.92	10.00	59790.10	32540.18
8		3572.12	22182.77	924.28	26679.18	10.00	59136.28	32457.10
9		3401.23	18430.85	767.95	22600.03	7.60	44810.59	22210.56
10		11904.21	11287.48	470.31	23662.00	3.50	20775.33	-2686.67
11		1225.83	11326.66	471.94	13024.43	3.50	21544.19	8519.76
12		2150.52	11371.27	473.60	13995.59	3.50	21536.74	7541.14
13		102.00	11379.09	474.13	11955.22	3.50	21518.26	9563.04
14		280.68	11390.18	474.59	12145.46	3.50	21718.16	9572.70
15		43.48	11286.77	470.28	11800.53	3.50	21982.25	10181.72
16		0.61	5603.37	233.47	5837.45	0.86	5387.79	-449.66
Total	61947.27	30970.20	255657.52	10652.40	379227.39	105.96	638827.13	14077.84

Internal Rate of Return

34.83%

STATEMENT SHOWING CASHFLOWS FOR FINANCIAL ANALYSIS AT 85 % CAPACITY UTILISATION
OPT(10)w

Appendix D 1

(Fig. in Rs. Lakhs)

Year	CAPITAL OUTFLOW		OPERATING COST	INT. ON WORKING CAPITAL	TOTAL OUTFLOW	Total Production MTY	ANNUAL SALES	NET CASHFLOWS
	ORIGINAL	REPLACEMENT						
Existing	75404.34				75404.34			-75404.34
1	3997.00	9766.33	13677.37	569.89	28010.59	5.53	32188.65	4178.06
2	2042.85	3766.99	19999.04	833.29	26642.18	6.50	49735.13	23092.95
3	299.00	551.71	19868.71	827.86	21516.29	8.50	52265.72	30749.43
4	235.08	102.00	19633.76	818.07	20788.91	8.50	51979.78	31190.87
5		578.25	19731.80	822.16	21132.20	8.50	52236.48	31104.28
6		3119.53	20455.60	852.32	24427.45	8.50	51127.57	26700.12
7		4482.53	20696.17	862.34	26041.04	8.50	50821.59	24780.54
8		3572.12	21002.79	875.12	25450.03	8.50	50265.84	24815.80
9		3401.23	17381.40	724.23	21506.85	6.46	38089.00	16582.15
10		11904.21	10810.37	450.43	23165.01	2.98	17659.03	-5505.96
11		1225.83	10847.55	451.98	12525.37	2.98	18312.56	5787.20
12		2150.52	10890.34	453.76	13494.63	2.98	18306.22	4811.60
13		102.00	10697.81	454.08	11453.88	2.98	18290.52	6836.63
14		280.68	10908.25	454.51	11643.45	2.98	18460.43	6816.98
15		43.48	10810.66	450.44	11304.58	2.98	18684.91	7380.33
16		0.61	5352.77	223.03	5576.42	0.73	4579.63	-896.79
		-14077.84			-14077.84			14077.84
Total	61947.27	30970.20	242984.40	10123.52	366005.38	90.06	543003.06	176997.68

Internal Rate of Return

25.56%

STATEMENT SHOWING CASHFLOWS FOR FINANCIAL ANALYSIS AT 100 % CAPACITY UTILISATION.
 OPTION-I (WITH COAL PREPARATION PLANT FOR CLEAN COAL)

(Fig. in Rs. Lakhs)

Year	CAPITAL OUTFLOW		OPERATING COST	INT. ON WORKING CAPITAL	TOTAL OUTFLOW	Total Production MTY		ANNUAL SALES	NET CASHFLOWS
	ORIGINAL	REPLACEMENT				Clean coal	Raw coal		
Starting	107142.58				107142.58				-107142.58
1	3997.00	9766.33	25794.17	1074.76	40632.26	5.32		55583.03	14950.77
2	2042.85	3766.99	32751.48	1364.64	39925.97	5.32	3.50	75953.03	36027.06
3	268.00	551.71	32582.48	1357.60	34759.79	5.32	3.50	77188.03	42428.23
4	235.08	102.00	32307.43	1346.14	33990.65	5.32	3.50	77695.03	43704.37
5		578.25	32408.35	1350.35	34336.94	5.32	3.50	77188.03	42851.08
6		3119.53	33172.74	1382.20	37674.47	5.32	3.50	75953.03	38278.55
7		4482.53	33435.73	1383.16	39311.42	5.32	3.50	75953.03	36641.61
8		3572.12	33761.82	1406.74	38740.68	5.32	3.50	75953.03	37212.35
9		3401.23	30009.90	1250.41	34861.54	5.32	1.10	62071.45	27409.92
10		11904.21	17522.35	730.10	30156.65	2.86		29929.32	-227.33
11		1225.83	17561.53	731.73	19619.09	2.86		29929.32	10410.23
12		2150.52	17606.14	733.59	20490.25	2.86		29929.32	9439.07
13		102.00	17613.96	733.91	18449.87	2.86		29929.32	11479.45
14		280.68	17625.05	734.38	18640.11	2.86		29929.32	11289.21
15		43.48	17521.64	730.07	18295.19	2.86		29929.32	11634.13
16		0.61	7131.52	297.15	7429.28	0.70		7335.60	-93.68
		-14077.84			-14077.84				14077.84
Total	113685.51	30970.20	399806.28	16616.93	590078.92		25.60	840449.21	280370.29

Internal Rate of Return

28.39%

STATEMENT SHOWING CASHFLOWS FOR ECONOMIC ANALYSIS AT 100 % CAPACITY UTILISATION.
OPTION-

-Appendix D 2

(fig. in Rs. Lakhs)

Year	CAPITAL OUTFLOW		OPERATING COST	INT. ON WORKING CAPITAL	TOTAL OUTFLOW	Total Production MTY	ANNUAL SALES	NET CASHFLOWS
	ORIGINAL	REPLACEMENT						
Existing	75404.34				75404.34			-75404.34
1	3277.54	8008.39	12935.76	538.99	24760.69	6.50	37869.00	13108.31
2	1675.14	3088.93	15266.92	802.79	24833.78	10.00	58511.91	33678.14
3	219.76	452.40	19113.12	796.38	20581.67	10.00	61489.09	40907.42
4	182.77	83.64	18862.83	785.95	19925.19	10.00	61152.68	41227.49
5		474.15	18954.67	789.78	20218.61	10.00	61454.69	41236.08
6		2558.02	19850.27	818.76	23027.05	10.00	60150.08	37123.03
7		3675.68	19889.59	828.73	24394.00	10.00	59790.10	35396.10
8		2929.14	20186.32	841.10	23956.56	10.00	59136.28	35179.72
9		2789.00	16772.08	698.84	20259.92	7.60	44810.59	24550.67
10		9761.45	10271.60	427.98	20461.04	3.50	20775.33	314.29
11		1005.18	10307.26	429.47	11741.91	3.50	21544.19	9802.28
12		1763.43	10347.86	431.16	12542.44	3.50	21536.74	8994.29
13		83.64	10354.97	431.46	10870.07	3.50	21518.26	10648.19
14		230.16	10365.06	431.88	11027.10	3.50	21718.16	10691.05
15		35.65	10270.96	427.96	10734.57	3.50	21982.25	11247.68
16		0.50	5099.06	212.46	5312.03	0.86	5387.79	75.77
Total	80769.54	-11543.83 25395.56	232648.34	9693.68	-11543.83 348507.13	105.96	638827.13	11543.83 290320.00

Internal Rate of Return 38.48%

STATEMENT SHOWING CASHFLOWS FOR ECONOMIC ANALYSIS AT 85 % CAPACITY UTILISATION.

OPTION-I

(Fig. in Rs. Lakhs.)

Year	CAPITAL OUTFLOW		OPERATING COST	INT. ON WORKING	TOTAL OUTFLOW	Total Production	ANNUAL SALES	NET CASHFLOWS
	ORIGINAL	REPLACEMENT						
Existing	75404.34				75404.34			-75404.34
1	3277.54	8008.39	12446.40	518.60	24260.94	5.53	32188.65	7937.71
2	1675.14	3088.93	18199.13	758.30	23721.50	8.50	49735.13	26013.63
3	219.76	452.40	18080.53	753.36	19506.05	8.50	52265.72	32759.67
4	192.77	83.64	17866.72	744.45	18887.57	8.50	51979.78	33092.21
5		474.16	17955.94	748.16	19178.26	8.50	52236.48	33058.22
6		2558.02	18614.60	775.61	21948.22	8.50	51127.57	29179.35
7		3675.66	18833.51	784.73	23293.92	8.50	50821.59	27527.66
8		2929.14	19112.54	796.36	22838.04	8.50	50265.84	27427.80
9		2789.00	15817.08	659.04	19265.12	6.46	38089.00	18823.88
10		9761.45	9637.44	409.89	20008.78	2.98	17659.03	-2349.75
11		1005.18	9871.27	411.30	11287.76	2.98	18312.56	7024.81
12		1763.43	9910.21	412.93	12086.56	2.98	18306.22	6219.66
13		83.64	9917.01	413.21	10413.85	2.98	18290.52	7876.66
14		230.16	9926.51	413.60	10570.27	2.98	18460.43	7890.16
15		35.65	9837.70	409.90	10283.25	2.98	18684.91	8401.66
16		0.50	4871.02	202.96	5074.48	0.73	4579.63	-494.86
		-11543.83			-11543.83			11543.83
Total	80769.54	25395.56	221097.60	9212.40	336475.11	90.06	543003.06	206527.96

Internal Rate of Return

29.28%

STATEMENT SHOWING CASHFLOWS FOR FINANCIAL ANALYSIS AT 100 % CAPACITY UTILISATION
OPTION-I
(ON COMPLETION COST)

Fig. in Rs. Lacs.

Year	CAPITAL OUTFLOW		OPERATING COST	INT. ON WORKING CAPITAL	TOTAL OUTFLOW	Total Production MTY	ANNUAL SALES	NET CASHFLOWS
	ORIGINAL	REPLACEMENT						
Existing	75404.34				75404.34			-75404.34
1	4186.46	9766.33	14215.12	692.30	28760.22	6.50	37869.00	9108.78
2	2236.52	3766.99	21172.44	882.18	28058.13	10.00	58511.91	30453.78
3	306.11	551.71	21003.43	875.14	22736.40	10.00	61489.09	38752.69
4	279.65	102.00	20728.39	863.68	21973.72	10.00	61152.68	39178.96
5		578.25	20829.31	867.69	22275.44	10.00	61454.69	39179.24
6		3119.53	21593.70	899.74	25612.97	10.00	60150.06	34537.11
7		4482.53	21856.89	910.70	27249.92	10.00	59790.10	32540.18
8		3572.12	22182.77	924.28	26679.18	10.00	59136.28	32457.10
9		3401.23	18430.85	767.86	22800.03	7.60	44810.59	22210.56
10		11904.21	11287.48	470.31	23662.00	3.50	20775.33	-2888.67
11		1225.83	11326.66	471.94	13024.43	3.50	21544.19	8519.76
12		2150.52	11371.27	473.80	13995.59	3.50	21536.74	7541.14
13		102.00	11378.09	474.13	11965.22	3.50	21518.26	9563.04
14		280.68	11390.18	474.59	12145.46	3.50	21718.16	9572.70
15		43.48	11286.77	470.28	11800.53	3.50	21982.25	10181.72
16		0.61	5603.37	233.47	5637.45	0.66	5387.79	-449.66
		-14077.84			-14077.84			14077.84
Total	82413.08	30970.20	255657.52	10652.40	379693.20	105.96	638827.13	259133.93

Internal Rate of Return

34.71%

STATEMENT SHOWING CASHFLOWS FOR FINANCIAL ANALYSIS AT 85 % CAPACITY UTILISATION.
 OPTION-I
 (ON COMPLETION COST)

Appendix D.5

(fig. in Rs. Lakhs)

Year	CAPITAL OUTFLOW		OPERATING COST	INT. ON WORKING	TOTAL OUTFLOW	Total Production	ANNUAL SALES	NET CASHFLO
	ORIGINAL	REPLACEMENT						
Existing	75404.34				75404.34			-75404.34
1	4186.46	9766.33	13677.37	569.89	28200.05	5.53	32188.65	3988.60
2	2236.52	3766.99	19999.04	833.29	26835.85	8.50	49735.13	22899.28
3	306.11	551.71	18668.71	827.86	21554.40	8.50	52265.72	30711.32
4	279.65	102.00	19633.76	818.07	20833.48	8.50	51979.78	31146.30
5		578.25	19731.60	822.16	21132.20	8.50	52236.46	31104.28
6		3119.53	20455.60	852.32	24427.45	8.50	51127.57	26700.12
7		4482.53	20696.17	862.34	26041.04	8.50	50821.59	24780.54
8		3572.12	21002.79	875.12	25450.03	8.50	50265.64	24815.80
9		3401.23	17381.40	724.23	21506.85	6.46	38089.00	16582.15
10		11904.21	10610.37	450.43	23165.01	2.98	17659.03	-5505.96
11		1225.53	10847.55	451.96	12525.37	2.98	18312.56	5787.20
12		2150.52	10890.34	453.76	13494.63	2.98	18306.22	4811.60
13		102.00	10897.81	454.06	11453.88	2.98	18290.52	6836.63
14		280.68	10908.25	454.51	11643.45	2.98	18460.43	6816.99
15		43.48	10810.66	450.44	11304.58	2.98	18684.91	7380.33
16		0.61	5352.77	223.03	5576.42	0.73	4579.63	-996.79
		-14077.84			-14077.84			14077.84
Total	82413.08	30970.20	242964.40	10123.52	366471.20	90.06	543003.06	176531.87

Internal Rate of Return

25.44%

STATEMENT SHOWING CASHFLOWS FOR ECONOMIC ANALYSIS AT 100 % CAPACITY UTILISATION,
OPTION-I
(ON COMPLETION COST)

(fig. in Rs. Lakhs)

Year	CAPITAL OUTFLOW		OPERATING COST	INT. ON WORKING CAPITAL	TOTAL OUTFLOW	Total Production MTY	ANNUAL SALES	NET CASHFLOWS
	ORIGINAL	REPLACEMENT						
Existing	75404.34				75404.34			-75404.34
1	3432.90	8008.39	12905.76	538.99	24916.04	6.50	37889.00	12952.96
2	1833.95	3088.93	19268.92	802.79	24992.59	10.00	58511.91	33519.33
3	251.01	452.40	19113.12	796.38	20612.92	10.00	61489.09	40875.17
4	229.32	83.64	18862.83	795.95	19961.74	10.00	61152.68	41190.94
5		474.18	18954.67	789.78	20218.61	10.00	61454.69	41236.08
6		2558.02	19650.27	818.76	23027.05	10.00	60150.08	37123.03
7		3675.68	19889.59	828.73	24394.00	10.00	59790.10	35396.10
8		2929.14	20166.32	841.10	23956.56	10.00	59136.28	35179.72
9		2789.00	16772.08	698.84	20259.92	7.60	44810.59	24550.67
10		9761.45	10271.60	427.98	20461.04	3.50	20775.33	314.29
11		1005.18	10307.29	429.47	11741.91	3.50	21544.19	9502.28
12		1763.43	10347.86	431.16	12542.44	3.50	21536.74	8994.29
13		83.64	10354.97	431.46	10870.07	3.50	21518.26	10648.19
14		230.16	10365.06	431.88	11027.10	3.50	21718.16	10691.05
15		35.65	10270.98	427.96	10734.57	3.50	21962.25	11247.68
16		0.50	5099.06	212.48	5312.03	0.86	5387.79	75.77
		-11543.83			-11543.83			11543.83
Total	81151.51	25395.56	232648.34	9693.68	348889.10	105.96	638827.13	289938.04

Internal Rate of Return

38.37%

STATEMENT SHOWING CASHFLOWS FOR ECONOMIC ANALYSIS AT 85 % CAPACITY UTILISATION,
 OPTION-I (ON COMPLETION COST)

Appendix D.7

(fig. in Rs. Lakhs)

Year	CAPITAL OUTFLOW		OPERATING COST	INT. ON WORKING CAPITAL	TOTAL OUTFLOW	Total Production MTY	ANNUAL SALES	NET CASHFLOWS
	ORIGINAL	REPLACEMENT						
Existing	75404.34				75404.34			-75404.34
1	3432.90	8008.39	12446.40	518.60	24406.30	5.53	32188.65	7782.35
2	1833.95	3088.93	18199.13	758.30	23880.31	8.50	49735.13	25854.82
3	251.01	452.40	18080.53	753.36	19537.30	8.50	52295.72	32728.42
4	229.32	83.64	17866.72	744.45	18924.12	8.50	51979.78	33055.66
5		474.18	17955.94	748.16	19178.26	8.50	52236.48	33058.22
6		2558.02	18614.60	775.61	21948.22	8.50	51127.57	29179.35
7		3675.68	18833.51	784.73	23293.92	8.50	50821.59	27527.68
8		2929.14	19112.54	796.36	22838.04	8.50	50265.84	27427.80
9		2789.00	15817.08	659.04	19265.12	6.46	38089.00	18823.88
10		9761.45	9637.44	409.89	20008.78	2.98	17659.03	-2349.75
11		1005.18	9871.27	411.30	11287.76	2.98	18312.56	7024.81
12		1783.43	9910.21	412.93	12086.56	2.98	18306.22	6219.66
13		83.64	9917.01	413.21	10413.85	2.98	18290.52	7876.66
14		230.16	9926.51	413.80	10570.27	2.98	18460.43	7890.16
15		35.65	9837.70	409.90	10283.26	2.98	18684.91	8401.65
16		0.50	4871.02	202.96	5074.48	0.73	4579.63	-494.85
		-11543.83			-11543.83			11543.83
Total	81151.51	25395.56	221097.80	9212.40	336857.08	90.06	543003.06	208145.99

Internal Rate of Return

29.17%

EPR FOR PIPARWAR OCP (10 .00 MTY)

APPENDIX - E

STATEMENT SHOWING THE ESTIMATED INVESTMENT ON LAND RECLAMATION

S.N	Particulars	Capacity/ Size	Existing as on 31.3.05	
			Nos.	Amount
A	Capital Investment			
1	Dozer	410 HP	1	282.54
2	Dozer	320 HP	1	52.58
	TOTAL			335.12

B	Operating Cost			Rs./t
	Wages			0.11
	Stores			0.71
	Miscellaneous cost			0.07
	Interest on Working Capital			0.04
	Depreciation			0.35
	Total Operating Cost for Reclamation Rs./t			1.28

COAL & OB DEPARTMENTAL

Appendix-F

ESTIMATED CAPITAL EXPENDITURE ON ENVIRONMENTAL PROTECTION MEASURES

A-CAPITAL EXPENDITURE

Name of the Project: PIPARWAR OCP (10 MTY)

COST OF REHABILITATION

a	Total no. of families to be rehabilitated	Nil
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CAPITAL ESTIMATES

Sl.No.	Description	(Amount in Rs. Lakhs)	
		Amount	Remarks
1	Compensation of land to be acquired for rehabilitation lakhs/Ha	N.A.	Appendix-A.8.1
2	Cost of development of land plots including Schools, Township, Roads etc. @/-per plot for 451 plots	N.A.	Appendix-A.8.1
3	Shifting allowance @Rs. 2000/-per family for 451 families	N.A.	Appendix-A.8.1
4	Payment of lump sum grant of Rs. 50,000/- each for such family (i.e. 451 nos.) who want to shift at the place of their own choice instead of the above mentioned in sl.nos. 1 to 4 as per CIL rehabilitation policy.	N.A.	Appendix-A.8.1
5	Lumpsum assistance to eligible PAPs to establish self employment through the provisions of infrastructures or formation of co-operatives @ 5% of rehabilitation cost	N.A.	
SUB-TOTAL		0.00	

II COST OF COMPENSATORY AFFORSTATION

a	Forest land to be acquired in ha	N.A.
b	Density of forest:	0.3
c	No. of trees at 100% density	2000
d	Forest in safety zone in ha	N.A.

CAPITAL ESTIMATES

Sl.No.	Description	(Amount in Rs. Lakhs)	
		Amount	Remarks
1	Cost of forest growth & capital NPV for Ha @Rs. Lakh/Ha as per actual expenditure	N.A.	
2	Cost of afforestation @Rs/-per Ha. for double the forest land.	N.A.	
3	Enrichment of forest @Rs.70000/- per hectare in safety Zone for 20 Ha. including compensation of cost of produce on actual vegetation basis density along with sales tax.	N.A.	
SUB-TOTAL		0.00	

III CAPITAL FOR RESTORATION

1	HEMM for Reclamation	335.12	Appendix-E
2	Biological reclamation of balance O.B. dump @ Rs. 60,000/-per Ha for 348.87 Ha.	209.32	Appendix-A.8.1
SUB-TOTAL		644.44	

IV CAPITAL FOR ANTI-POLLUTION MEASURES IN MINE AND INDUSTRIAL AREA

1	2 Nos. water sprinklers	0.00	Appendix-A.3
2	Industrial sewage treatment in workshop	0.00	Appendix-A.8.3
3	Water supply distribution system	0.00	Appendix-A.8.3
4	Nallah diversion/sedimentation lagoons/check dam/flood protective embankment/storm water drains etc.	50.00	Appendix-A.8.1
SUB-TOTAL		50.00	

COAL & OB DEPARTMENTAL

Appendix-F

ESTIMATED CAPITAL EXPENDITURE ON ENVIRONMENTAL PROTECTION MEASURES

A-CAPITAL EXPENDITURE

Name of the Project: PIPARWAR OCP (10 MTY)

V

CAPITAL FOR ANTI-POLLUTION MEASURES IN TOWNSHIP

1	Colony Sewage treatment	0.00	Appendix-A.8.3
2	Storm water drain	0.00	Appendix-A.8.3
3	Water treatment plant & Distribution system	0.00	Appendix-A.8.3
SUB-TOTAL		0.00	

VI

OTHER PROVISIONS

1	Base line data generation and monitoring works	10.00	Appendix-A.8.1
2	Cost for Arboriculture	62.00	Appendix-A.8.1
3	Housing for 20 nos. of personnel for pollution control	0.00	Appendix-A.2.1
SUB-TOTAL		72.00	

VII

COMPENSATION FOR TENANCY LAND

		N.A	Appendix-A.1
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VIII

FINANCIAL IMPACT

CAPITAL

1	Cost of rehabilitation	0.00	
2	Cost of compensatory afforestation	0.00	
3	Cost of restoration	544.44	
4	Cost of Anti-pollution measures in mine & Industrial area	50.00	
5	Cost of Anti-pollution measures in township	0.00	
6	Other provisions	72.00	
7	Compensation for Tenancy Land	0.00	
TOTAL CAPITAL		666.44	

OPTION - II

STATEMENT SHOWING ESTIMATED INITIAL INVESTMENT

OPTION-II

IN ₹ LAKHS

Sl No.	Particulars	As per Sanctioned PR (6.5 MTY)	Total as per expansion PR 10 MTY	Existing as on 31.3.05	Balance/ Additional Amount	PHASINGS			
						1	2	3	4
1	Land	467.00	2502.70	2502.70					
2	Buildings								
	(a) Residential	1149.00	1123.09	1123.09					
	(b) Service	2901.00	2411.54	2411.54					
3	Plant and Machinery								
	(a) HEMM	29229.00	23074.38	23074.38					
	(b) Other than HEMM	19245.00	13474.13	13311.51	162.62		54.96		
	Total Plant & Machinery	48474.00	36548.52	36385.89	162.62		54.96		
4	Furniture	40.00	708.22	708.22					
5	Railway Siding	6887.00	11825.87	10190.87	1635.00		700.00	235.00	
6	Vehicles	551.00	195.26	195.26					
7	Prospecting & Boring	46.00	203.20	203.20					
8	Development								
(a)	Capital Outlay in Mines	1815.00	877.23	545.91	331.32		30.00	30.00	231.32
(b)	Roads & Culverts	1770.00	1152.73	1069.95	82.78		32.78		
(c)	Water Supply	441.00	381.14	381.14					
(d)	PR preparation Cost & Consultancy	15805.00	19285.75	19274.69	11.06				
	Sub Total (B)	19831.00	21696.85	21271.69	425.16		62.78	30.00	231.32
9	Reverse Exp. Capitalized		411.88	411.88					
	Total initial Capital Investment	80346.00	77627.12	75404.34	2222.78		817.74	265.00	231.32
10	Coal Preparation Plant	3481.00	31738.24	31738.24					
	Total initial Capital Investment	83827.00	109365.36	107142.58	2222.78		817.74	265.00	231.32

Existing Equipments to the tune of Rs. 4.65 crores would not be required and proposed to be diverted.

STATEMENT SHOWING ESTIMATED COMPLETION CAPITAL WITH PHASING
OPTION-II

APPENDIX - A'

Sl. No.	Particulars	Total as per expansion to 10 MTY	Existing as on 31.3.05	Balance/ Additional Amount	Phasing of Total Amount			
					1	2	3	4
1	Land	2502.70	2502.70					
2	Buildings							
	(a) Residential	1123.09	1123.09					
	(b) Service	2411.54	2411.54					
3	Plant and Machinery							
	(a) HEMM	23074.38	23074.38					
	(b) Other than HEMM	13484.45	13311.51	172.94				
	Total Plant & Machinery	36558.83	36385.89	172.94				
4	Furniture	708.22	708.22					
5	Railway Siding	11958.83	10190.87	1767.96				
6	Vehicles	195.26	195.26			766.36		268.42
7	Prospecting & Boring	203.20	203.20					
8	Development							
(a)	Capital Outlay in Mines	930.09	545.91	384.18				
(b)	Roads & Culverts	1158.22	1069.95	88.27	41.90	32.84	34.27	275.18
(c)	Water Supply	381.14	381.14		52.37	35.89		
(d)	PR preparation Cost	19286.27	19274.69	11.58	11.58			
	Sub Total (8)	21755.73	21271.69	484.04	105.85	68.74	34.27	275.18
9	REC	411.88	411.88					
	Total Initial Capital	77829.27	75404.34	2424.93	951.80	895.26	302.68	275.18

(RS IN LAKHS)

