

CURRAGH RESOURCES INC.

DY DEPOSIT

EXPLORATION & MINING COST ESTIMATE

JUNE 1989

004909

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CURRAGH RESOURCES INC.
DY DEPOSIT

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LETTER OF TRANSMITTAL

CANADIAN MINE DEVELOPMENT

June 26, 1989

Curragh Resources Inc.
95 Wellington St. West
Suite 1900, Box 12
TORONTO, ON
M5J 2N7

ATTENTION: MR. MARVIN H. PELLEY
EXECUTIVE VICE PRESIDENT

Dear Mr. Pelley:

RE: DY DEPOSIT - EXPLORATION AND MINING COST ESTIMATE

Canadian Mine Development takes pleasure in presenting its preliminary report on accessing the ore horizon for underground exploration and mining of the Dy Deposit.

A production hoisting plant has been costed. The steel headframe has been limited in height to 24 metres (80 ft). Ore and waste will be dumped onto storage pads to be moved by front-end loaders. The headframe design should make provision for increasing the dump elevation to accommodate bin installations.

The timbered shaft provides 2 skip compartments 6'0" by 7'6" and a manway 4'4" by 7'6".

It is anticipated that poor ground will require the installation of some concrete rings in the shaft.

Completion of the pilot hole will allow re-evaluation of the ground and water conditions expected to be encountered to the bottom of the shaft. Substantial changes in conditions will be reflected in a revised program and project cost.

Loading pockets will be fed through ore/waste raise systems equipped with hyram-grizzlies.

Sinking will initially be targeted for the 535 m level. Short drill holes will be fanned out to locate the northern ore limit. Drill results will establish the main level station elevation and shaft bottom.

Minimum waste development will be driven from the station to intersect the ore zone.

120 RAILROAD ST., BRAMPTON, ONTARIO L6X 1G8 TELEPHONE (416) 456-0734 TELEX 06-97783 FAX (416) 456-3784
A DIVISION OF HILLSBOROUGH RESOURCES LIMITED

Two months of mine exploration work should prepare the mine for ongoing ore production.

Initial ore production is projected from the higher grade areas of the B2 zone.

Mining costs reflect operating costs for scoop and truck haulage, at the mine production rate of 2,500 tonnes per day.

It is anticipated that the initial mining method for the first 3 years will be 60% pilot, 40% bench.

Appended are additional reports on hoist inspections (2), calculation of ventilation of various shaft sizes and hoisting capacity.

I trust this is as requested.

Yours very truly,

CANADIAN MINE DEVELOPMENT

J.M. PROUDFOOT, P.ENG.

/lh

TERMS OF REFERENCE

TERMS OF REFERENCE

Canadian Mine Development was asked to review the drill data and indicated geologic ore reserves of the Dy Deposit and to prepare a plan and cost estimate to access the ore zones for exploration drifting and test stoping.

A mining cost was to be estimated for a production rate of 875,000 tonnes per annum.

A further request was made to cost a production shaft capable of hoisting 2,500 tonnes per day.

A site visit has been made to the shaft location but the pilot hole was still being drilled. Early indications are that the rock conditions encountered in the shaft might contain areas of poor ground that require concrete rings.

ORE RESERVES

Ore reserves have been estimated by Cypress Anvil personnel, and by Curragh Resources Inc. Drill indicated ore reserves are as tabled on Page 3.

DRILL INDICATED ORE RESERVES

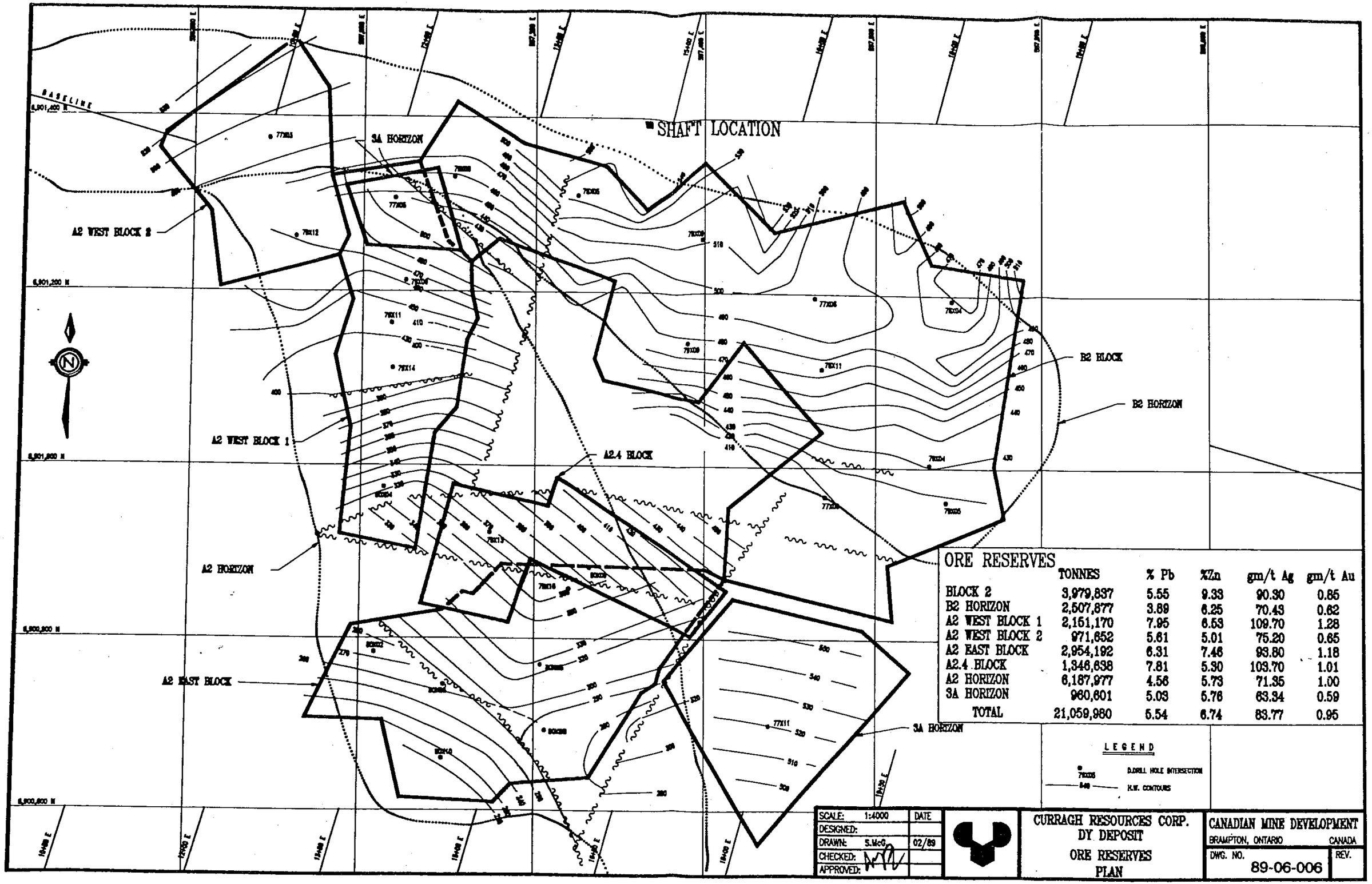
DY DEPOSIT - 1982 - ROLLINGS

	Horizon B2	Horizon A2	Horizon 3A	Total Ore Reserve
Ore Volumes	1,847,880.00	3,217,104.00	231,648.00	5,296,632.00
Ore Tonnes	6,487,749.72	13,611,628.96	960,601.44	21,059,980.12
S.G.	3.51	4.23	4.16	3.98
% Cu	.080	.140	.160	.120
% Pb	4.910	5.870	5.030	5.540
% Zn	8.140	6.140	5.760	6.740
An (g/mT)	82.62	85.76	63.34	83.77
Au (g/mT)	.76	1.06	.59	.95

AVERAGE THICKNESS 9.46 metres
AVERAGE SPECIFIC GRAVITY 3.98

DY DEPOSIT - 1981 - B.V. HALL

	Tonnes	% Pb	% Zn	gm/t Ag
9% Cutoff (3.5 m minimum mining width)				
Total Drill Indicated	17,388,056	5.82	6.84	83.1
Total Drill Inferred	3,946,071	5.03	7.45	75.3
TOTAL DEPOSIT	**21,334,127**	**5.68**	**6.95**	**81.6**
12% Cutoff (3.5 m minimum mining width)				
Total Drill Indicated	9,982,856	6.88	7.95	102.1
Total Drill Inferred	1,647,200	5.91	8.32	90.3
TOTAL DEPOSIT	**11,630,056**	**6.74**	**8.00**	**100.4**



ORE RESERVES

	TONNES	% Pb	%Zn	gm/t Ag	gm/t Au
BLOCK 2	3,979,837	5.55	9.33	90.30	0.85
B2 HORIZON	2,507,877	3.89	6.25	70.43	0.62
A2 WEST BLOCK 1	2,151,170	7.95	6.53	109.70	1.28
A2 WEST BLOCK 2	971,652	5.61	5.01	75.20	0.65
A2 EAST BLOCK	2,954,192	6.31	7.46	93.80	1.18
A2.4 BLOCK	1,346,638	7.81	5.30	103.70	1.01
A2 HORIZON	6,187,977	4.56	5.73	71.35	1.00
3A HORIZON	960,601	5.03	5.76	63.34	0.59
TOTAL	21,059,980	5.54	6.74	83.77	0.95

LEGEND

- DRILL HOLE INTERSECTION
- K.W. CONTOURS

SCALE: 1:4000	DATE	
DESIGNED:		
DRAWN: S.McG	02/89	
CHECKED:		
APPROVED:		

CURRAGH RESOURCES CORP.
DY DEPOSIT
ORE RESERVES
PLAN

CANADIAN MINE DEVELOPMENT
BRAMPTON, ONTARIO CANADA

DWG. NO. 89-06-006 REV.

PRODUCTION SCHEDULE

CURRAGH RESOURCES INC.
DY DEPOSIT
PRODUCTION TONNES AND GRADE

YEAR	1991				1992				1993		1994
QUARTER	1ST	2ND	3RD	4TH	1ST	2ND	3RD	4TH	1ST	2ND	
TONNES			61,200	218,000	221,000	218,000	218,000	438,000	437,000		
Pb%			6.73	5.84	5.84	5.70	5.70	5.58	5.81	5.61	
Zn%			11.34	10.87	10.87	10.47	10.47	10.15	10.12	8.79	
Ag gm/t			115.6	102.97	102.97	100.42	100.43	98.31	96.7	81.5	
Au gm/t			0.84	0.75	0.75	0.79	0.79	0.81	0.81	0.81	

PRODUCTION SCHEDULE
(1,000 tonnes)

YEAR	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
BLOCK										
B2	279	875	875	150	150	54				
A2.4				350	325	150				
A2 WEST				375	400	400	475	300		
A2 EAST						400	400	400	650	350
OTHER								175	225	525
TOTAL	279	875	875	875	875	875	875	875	875	875
GRADE										
Pb %	5.77	5.71	5.71	7.18	7.15	6.94	6.80	6.22	5.79	5.19
Zn %	10.67	10.49	9.46	6.12	6.33	6.56	6.69	6.66	7.05	6.43
Ag g/t	101.70	100.53	89.1	95.0	99.2	97.6	96.60	90.80	87.78	78.59
Au g/t	0.77	0.79	0.81	1.01	1.02	1.09	1.13	1.09	1.09	0.98

MINING STOPING
TONNAGE

MINE STOPING TONNAGE

	Block B2 Block	A2.4 East	A2 East	A2 West	Total	Additional Indicated Ore Reserves	Geologic Reserves
Tonnes	3,979,873	1,346,638	2,954,198	3,122,822	11,403,530	9,656,450	21,059,980
S.G.	3.50	3.89	4.35	4.43	4.02	3.93	3.98
% Pb	5.55	7.81	6.31	7.22	6.47	4.30	5.54
% Zn	9.33	5.30	7.46	6.05	7.47	5.88	6.74
gm/t Ag	90.3	103.7	93.8	98.9	95.1	70.4	83.8
gm/t Au	0.85	1.01	1.18	1.09	1.02	0.87	0.95

SHAFT ACCESS

SHAFT ACCESS

A potential shaft site location was chosen north of the ore zone. A shaft pilot hole is currently being drilled.

A rectangular, 3 compartment timber shaft was selected. Both skip compartments are 6'0" by 7'6". One cage would be installed above the skip. During sinking the manway would be equipped with a vent tube. Initial phase development would require the leak proofing of a ventilation brattice wall between the two skip compartments.

Sets would consist of 10" x 10" timber except for 10" x 8" dividers and internal posts.

SHAFT DEVELOPEMTN
BUDGET

SURFACE PLANT			
Shaft Collar			$ 382,299
Headframe			650,000
Hoist			1,368,065
Site Utilities			454,285
Changeover			82,451
Plant Commission			22,834
Contractor Mobilization & Demobilization			402,191
			$ 3,362,125

SHAFT SINKING - 1ST STAGE - 1108-535

SHAFT SINKING			
3 Comp. Timber	458 m @ $7,031/Lm		3,220,198
3 Comp. c/w Concrete Rings	100 m @ $13,297/Lm		1,329,700
Bearing Set - Concrete Steel	2 @ $36,662		73,324
Bearing Set - Timber	4 @ $7,808		31,232
Rock Catchers	40 @ $2,565		102,600
Water rings	3 @ $4,646		13,938
			$ 4,770,992
STATION EXCAVATION & EQUIPPING			
Station 800 m			**$ 173,675**
EXPLORATION DIAMOND DRILLING - 535 M LEVEL			
Mobilization/Demobilization		$ 10,000	
Diamond Drilling	350 m @ 55/Lm	19,250	
Support	8 days @ $7,195/day	57,560	
			$ 86,810
SHAFT SINKING PHASE I			**$ 5,031,477**

SHAFT SINKING 2ND STAGE - 535-495

SHAFT SINKING		
3 Comp. Timber	40 m @ $7,031/Lm	281,240
Bearing Set - Concrete Steel	2 @ $36,662	73,324
Rock Catchers	2 @ $2,565	5,130
Water rings	1 @ $4,646	4,646
		$ 364,340

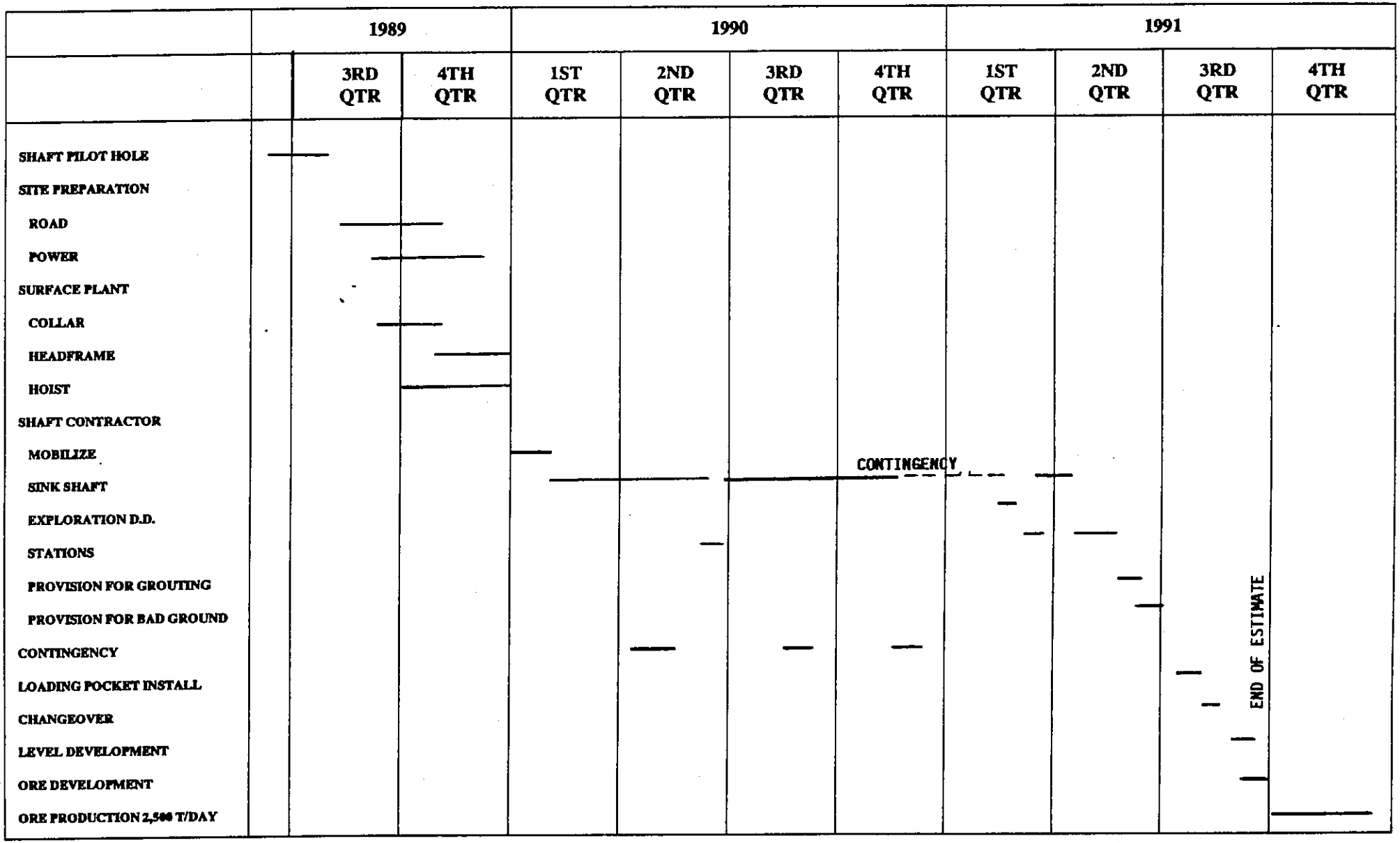
STATION EXCAVATION & EQUIPPING			
535 LEVEL		Excavate	$ 269,550
		Equip	388,211
513 Loading Pocket & Spill Pocket		Excavate	107,632
		Equip	235,789
SHAFT SINKING PHASE II			**$ 1,365,522**
SHAFT SINKING			$ 6,396,999
Add Provision for ground support			200,000
Provision for grouting			200,000
Shaft power cable			53,391
Waste Handling Surface			148,400
Air Heating			24,000
TOTAL SINKING COST			**$ 7,022,790**
TOTAL PLANT & SINKING COST			$ 10,384,915
CAMP			650,000
CONTRACTOR'S G & A	11.5%		1,194,265
CONTRACTOR'S FEE	8.5%		882,540
TOTAL CONTRACTOR'S COST			$ 13,111,720
CONTINGENCY			1,000,000
TOTAL CONTRACTOR'S CONSTRUCTION COST			$ 14,111,720
OWNER'S POWER COST			190,000
PROJECT SINKING COST ESTIMATE			**$ 14,301,720**

MINING DEVELOPMENT & EXPLORATION PROGRAM - 1ST PHASE

Underground Contractor Mobilization		$	167,849
Mine Development (Waste)			185,090
Mine Development (Ore)			944,988
Provision for Air Heating & Ventilation			41,550
Shaft Operation, incl. surface muck handling	64 Days		485,772
TOTAL		**$**	**1,868,939**
Contractor G & A	11.5%		214,928
Contractor fee	8.5%		158,560
TOTAL CONTRACTOR COST			**2,242,727**
Power Cost by Owner			94,620
Geology	2.1 months @ $8,000/mo		16,800
TOTAL OWNER COST		**$**	**111,420**
TOTAL MINE DEVELOPMENT		**$**	**2,354,147**
TOTAL COST EXPLORATION PHASE I		**$**	**16,655,867**

MINE DEVELOPMENT SCHEDULE

CURRAGH RESOURCES INC.
DY DEPOSIT
MINE DEVELOPMENT SCHEDULE



CURRAGH RESOURCES INC.
DY DEPOSIT
MINE DEVELOPMENT CASH FLOW

	1989		1990				1991			
		3RD QTR	4TH QTR	1ST QTR	2ND QTR	3RD QTR	4TH QTR	1ST QTR	2ND QTR	3RD QTR	TOTAL
SURFACE PLANT											
SHAFT COLLAR		152,920	305,839								458,759
HEADFRAME			780,000								780,000
HOIST		445,743	1,195,935								1,641,678
SITE UTILITIES			545,142								545,142
CHANGEOVER									98,941		98,941
PLANT COMMISION			27,401								27,401
CONTRACTOR MOB. & DEMOB.			348,800						133,829		482,629
CAMP		650,000									650,000
SHAFT SINKING & STATION CUTTING											0
SHAFT SINKING - 613 METRES				1,105,273	1,595,640	1,655,379	1,441,074				5,797,366
BEARING SET & MISC. TIMBER				66,328	66,328	66,328	66,329	99,720			365,033
EXPLORATION D.D.							104,172				104,172
ELECTRIC POWER CABLE				64,069							64,069
PROVISION FOR GROUND SUPPORT									240,000		240,000
PROVISION FOR GROUT AND WATER									240,000		240,000
STATION 800 M.					208,410						208,410
STATION 535 M.								789,135			789,135
LIP POCKET 513 M.								129,158	282,947		412,105
AIR HEATING				14,400				14400			28,800
SURFACE MUCK HANDLING				29,828	44,520	44,520	44,520	14,692			178,080
OWNER'S POWER				30,000	40,000	40,000	40,000	30,000	10,000		190,000
										SUBTOTAL	13,301,720
CONTINGENCY				250,000	250,000	250,000	250,000			SUBTOTAL	1,000,000
MINE DEVELOPMENT PROGRAM											
UNDERGROUND CONTRACTOR MOB.									201,419		201,419
MINE DEVELOPMENT										1,356,094	1,356,094
GROUND SUPPORT										52,500	52,500
AIR HEATING										49,860	49,860
SHAFT OPERATION										582,854	582,854
OWNER'S COST										111,420	111,420
										SUBTOTAL	2,354,147
TOTAL		1,248,663	3,203,117	1,569,898	2,204,898	2,056,227	1,946,095	1,077,105	1,207,136	2,152,728	16,655,867

CURRAGH RESOURCES INC.
DY DEPOSIT
DATA SUMMARY
($1,000)

		1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
PRODUCTION SCHEDULE													
TOTAL (1,000 TONNES) Ore Dev.	61.20			61.20									
Production	8,100			225	875	875	875	875	875	875	875	875	875
EXPENDITURES													
Mine Exploration & Development													
Surface Setup		4,452		233									
Sink Shaft			6,766	1,850									
Contingency			1,000										
Phase I Mine Development				2,354									
Subtotal	16,655	4,452	7,766	4,437									
Mine Operating													
Mining				4,850	18,850	18,850	20,125	20,125	20,125	20,125	20,125	20,125	20,125
Mine Equipment							1,500			3,000		2,500	
Ongoing Development & Exploration					1,000	1,000	1,500	2,000	2,000	2,000	2,000	2,000	2,000
Subtotal	205,925			4,850	19,850	19,850	23,125	22,125	22,125	25,125	22,125	24,625	22,125
MINE ANNUAL EXPENDITURES	222,580	4,452	7,766	9,287	19,850	19,850	23,125	22,125	22,125	25,125	22,125	24,625	22,125

MINING COST
CONTRACTOR EQUIPMENT

MINING COST - 2,500 TONNES PER DAY

Contractor supplied and maintained equipment.

Permanent materials by Contractor.

Engineering and geological Services by Company.

Mucking to grizzly, hyram, at shaft station operated and maintained by Contractor, parts and lubricants by Company.

Contractor's Cost	Pilot /Tonne	Bench /Tonne	Slusher Stoping /Tonne	Longhole Mining /Tonne
Direct Labour	0.76	0.75	9.72	0.49
Steel & Bits	0.91	0.45	1.23	0.59
Explosives & Accessories	1.94	1.43	4.02	1.26
Equipment Rental	0.25	0.24	0.25	0.17
Equipment Repairs	0.37	0.21	0.31	0.24
Fuel & Lubricants	0.02	0.02	0.03	0.02
Pipe	0.36	0.00	0.10	0.24
Ventilation Duct	0.35	0.00	0.24	0.23
Electric Cables	1.09	0.00	0.10	0.71
Hoses, Small Tools	0.06	0.03	0.16	0.04
Insurance, Communications	0.06	0.03	0.16	0.04
Freight During Contract	0.18	0.09	0.48	0.11
Haulage to Shaft	5.16	5.16	5.16	5.16
Support Labour & Equipment	2.81	2.81	2.81	2.81
Shaft Operation	3.08	3.08	3.08	3.08
Subtotal	17.40	14.30	27.85	15.19
G & A 11-1/2%	2.00	1.64	3.20	1.75
	19.40	15.94	31.05	16.94
Fee 8-1/2%	1.48	1.22	2.37	1.29
CONTRACTOR'S COST PER TONNE	**20.28**	**17.16**	**33.42**	**18.23**
Electric Power	0.49	0.53	0.47	0.49
Rockbreaker Maintenance	0.15	0.15	0.15	0.15
Mine Air Heating	0.22	0.22	0.22	0.22
Misc. Operating Supplies	0.25	0.25	0.25	0.25
	21.99	18.31	34.51	19.34
Contingency 5%	1.10	0.92	1.73	0.97
MINING COST/TONNE	**23.09**	**19.23**	**36.24**	**20.31**
Estimated Quantity	**50.4%**	**29.6%**	**10.0%**	**10.0%**

Average Cost Per Tonne $22.99/tonne

Average Cost Per Tonne 1st 3 Years $21.54/tonne

MINING EQUIPMENT
OWNER SUPPLIED

MINING EQUIPMENT - OWNER SUPPLIED

2	3 BOOM ELECTRIC/HYDRAULIC JUMBOS	@	$ 600,000	$ 1,200,000
1	1 BOOM ELECTRIC/HYDRAULIC JUMBO	@	300,000	300,000
4	ST8 SCOOPTRAMS	@	370,000	1,480,000
3	CM TRUCKS	@	300,000	900,000
8	VENTILATION FANS	@	6,000	48,000
6	VENTILATION FANS AUX.	@	3,500	21,000
12	JACKLEGS & STOPERS	@	2,700	32,400
LOT	UNDERGROUND PUMPS	@	40,000	40,000
1	GROUT PUMP	@	18,000	18,000
2	MAGAZINES	@	10,000	20,000
1	GRADER	@	125,000	125,000
1	D4 DOZER	@	90,000	90,000
1	MOBILE ANFO LOADER	@	195,000	195,000
1	HYDRAULIC ROCKBOLT JUMBO	@	300,000	300,000
1	MOBILE SHOTCRETE UNIT	@	250,000	250,000
2	MAN CARRIERS	@	65,000	130,000
	MISCELLANEOUS	LOT		100,000
				$ 5,249,400
	SAY			**$5.3 MILLION**

MINING COST
OWNER EQUIPMENT

MINING COST - 2,500 TONNES PER DAY

Owner supplied equipment.

Permanent materials by Contractor.

Engineering and geological Services by Company.

Mucking to grizzly, hyram, at shaft station operated and maintained by Contractor, parts and lubricants by Company.

Contractor's Cost	Pilot /Tonne	Bench /Tonne	Slusher Stoping /Tonne	Longhole Mining /Tonne
Direct Labour	0.76	0.75	9.72	0.49
Steel & Bits	0.91	0.45	1.23	0.59
Explosives & Accessories	1.94	1.43	4.02	1.26
Equipment Rental	-	-	-	-
Equipment Repairs	0.37	0.21	0.31	0.24
Fuel & Lubricants	0.02	0.02	0.03	0.02
Pipe	0.36	0.00	0.10	0.24
Ventilation Duct	0.35	0.00	0.24	0.23
Electric Cables	1.09	0.00	0.10	0.71
Hoses, Small Tools	0.06	0.03	0.16	0.04
Insurance, Communications	0.06	0.03	0.16	0.04
Freight During Contract	0.18	0.09	0.48	0.11
Haulage to Shaft	4.17	4.17	4.17	4.17
Support Labour & Equipment	2.45	2.45	2.45	2.45
Shaft Operation	2.63	2.63	2.63	2.63
Subtotal	15.35	12.26	25.80	13.22
G & A 11-1/2%	1.77	1.41	2.97	1.52
	17.12	13.67	28.77	14.74
Fee 8-1/2%	1.30	1.16	2.19	1.12
CONTRACTOR'S COST PER TONNE	**18.42**	**14.83**	**30.96**	**15.86**
Electric Power	0.49	0.53	0.14	0.49
Rockbreaker Maintenance	0.15	0.15	0.15	0.15
Mine Air Heating	0.22	0.22	0.22	0.22
Misc. Operating Supplies	0.25	0.25	0.25	0.25
	19.53	15.98	31.72	16.97
Contingency	0.98	0.80	1.59	0.85
MINING COST/TONNE	**20.51**	**16.78**	**33.31**	**17.82**
Estimated Quantity	**50.4%**	**29.6%**	**10.0%**	**10.0%**

Average Cost Per Tonne $20.40/tonne

Average Cost Per Tonne 1st 3 Years $19.02/tonne

ORE EXTRACTION
RECOVERY & DILUTION

ORE EXTRACTION

Primary room and pillar mining will extract 60 percent of the geologic reserve prior to fill emplacement. Dilution of the ore grades have not been calculated as the conservative recovery in the first pass stoping is a function of ore left in the back and ribs which should allow mining grades to approximate the drill indicated reserves.

Blocks B2, A2.4E, A2E and A2W will provide 6.8 million tonnes or 7.7 years at 60% extraction.

Initial mining will concentrate on the higher grade B2 zone to the east of the shaft section.

Mining grades by quarters have been calculated for 1991 - 1993.

Additional ongoing exploration and mine development will require further expenditures. Future production will concentrate on the other indicated ore zones and on possible pillar recovery.

Longhole and slusher stoping methods will be employed in appropriate areas.

APPENDIX I

HOISTING PLANT

A hoisting rate of 2,500 tonnes per 14 hours would require a 10 or 12 foot double drum hoist, of which several used units are available. Skip capacity would be 7.3 tonnes (8 ton).

The headframe would be 24 metres (80 feet) to the sheave. Muck would be dumped from the skip dump onto a heated pad via a muck slide. Ore transfer to trucks would be by front end loader. Provision would be made to raise the headframe to 37 metres and to install ore and waste bins.

Shaft stations would be cut at 800 metres and 535 metres. A temporary sump would be installed at the 800 level.

The shaft would be bottomed at the 495 level with loading pockets installed at the 513 level. The loading pockets would be fed by short ore-waste raises from the 535 level. Hyram and grizzly units would be installed on both dumps.

PHASE I DEVELOPMENT

Initial development on the 535 level will include the completion of the permanent sump, and any needed excavation and equipment installation.

The main crosscut will be driven to intersect the ore. Two months driving in ore should develop adequate mining faces to sustain production.

Ventilation air volumes and single opening access will restrict the mining operations.

A second exit opening will be driven once exploration targets are met.

Initial production will be concentrated in the higher grade sections of the B2 zone.

APPENDIX II

SHAFT ACCESS

COSTING PARAMETERS

Shaft 3 Compartment
surface to 535 level
shaft bottom 495 m

Scooptram or Trucks to Shaft Station
hoist 200 tonnes/hr, 2,500 tonnes per day

Hoist - **PCA, Saskatoon** - used Nordberg 10' x 6'0"
double drum, double friction clutches
2,400 feet per minute maximum
rope pull 50,000 pounds
2,100 hp DC direct coupled motor
3,680 feet capacity
Lebus grooving 1-1/2" rope
8 ton skips
7.3 tonnes per skip

HOIST PURCHASE				$ 350,000
REFURBISH		MECHANICAL		60,000
		ELECTRICAL		90,000
REMOVAL AND LOADING				56,000
CRANE				10,000
FREIGHT	10 LOADS @ $6,500			65,000
OFFLOAD	10 MS @ $308.40		3,084	
CRANE	10 MS @ $960.00		9,600	
				13,000
HOIST COST ON SITE				**$ 644,000**

HOIST DATA

	DYPHST1	DHYPHST2	DYPHST4	DYPHST5
	Production	Production	Production	Production
Make	Nordberg	Nordberg	Nordberg	Nordberg
Size	12'x7'8"	14'x8'	12'x7'10"	10'x6'
Clutches	2 Friction	1 Tooth	1 Tooth	2 Friction
Brakes	Post	Post	Post	Post
Rope Pull (lbs)	57,400	48,600	57,200	50,000
Rope Speed	2,250	1,500	2,250	2,400
Rope Dia. (in.)	1-7/8"	1-3/4"	1-7/8"	1-1/2"
Horsepower	2,150	1,100	2,250	2,100
Electrics	DC (direct)	DC (direct)	DC (direct)	DC (direct)
Rope Capacity (ft)	5,500	4,532	5,600	3,680
Skip Load (tonnes)	7.3	7.3	9.1	7.3
Tonnes/Hr	294	216	349	268
Price	220,000 US	700,000 Cdn	700,000 US	350,000 Cdn
Owner	Cementation	Inco	Butte Mining	PCA
Loacted At	Tucson	Sudbury	Butte	Saskatoon
	Too expensive	DC Generator		Electrical
	to refurbish	Switchgear		refurbishing
	Centre to	Not Included		required
	centre of	+/- 150,000		
	drums too large	Electrics		

DRUM HOIST CALCULATION SHEET

BALANCED HOISTING

Type of Hoist = Single or Double Drum

Type of Installation: ____ Service ____ Production
____ Manual ____ Automatic

Output Required	Q =	295 tons per hour
Hoisting Distance	St =	2,150 feet
Net Load	W =	16,000 pounds
Desired Hoist Speed		2,000 feet per minute

$$\text{Number of Payloads Per Hour: } J = \frac{2{,}000\ Q}{W} = 36.88$$

Note: For balanced hoisting, a payload is delivered each lift. For counterbalanced hoisting, a payload is delivered only every second lift, so the number of lifts required is double.

$$\text{Time Per Lift : } Tt = \frac{3600}{J} = 98.0 \text{ seconds}$$

CYCLE OF OPERATION:

		Feet		Seconds
Creep	Sc1=	10.0	Tc1=	5.0
Acceleration	Sa =	247.5	Ta =	15.0
Full Speed	Sm =	1684.5	Tm =	51.0
Retardation	Sr =	198.0	Tr =	12.0
Creep	Sc2=	10.0	Tc2=	5.0
Load and Dump			Tl =	10.0
Total Trip	St =	2150	Tt =	98.0

$$\text{Full Speed: } v = \frac{St - Sc}{Tt - Tl - (Ta+Tr)/2 - Tc} = 33 \text{ fps}$$

$$\text{Hoisting Speed: } V = 60\ v = 1{,}980 \text{ fpm}$$

$$\text{Rate of Acceleration: } a = \frac{V}{60\ Ta} = 2.2 \text{ fps2}$$

$$\text{Rate of Retardation: } r = \frac{V}{60\ Tr} = 2.75 \text{ fps2}$$

DRUM HOIST CALCULATION SHEET

ROPE: TYPE	Wh	B (P)	B (ImP)
6 x 19 Round Strand	3.60	88.5	96.0
6 x 25 Flattened Strand	4.05	99.0	108.0
Flattened Strand Haulage	4.05	104.5	114.5
Non-Rotating Flattened Strand	4.26	99.0	108.5
Locked Coil	5.65	129.9	135.0

Required Safety Factor: Top 8.5 Actual: $\frac{2000\ B}{W + Ws}$ = 7.94 TOO LOW

Req'd Safety Factor: Bottom 5.0 Actual: $\frac{2000\ B}{W+Ws+Rh}$ = 6.02 O K A Y

Rope Diameter	d =	1.500	inches
Rope Breaking Strength	B =	108.0	tons
Unit Weight of Rope	Wh =	4.05	pounds/foot
Total Weight of Rope : St x Wh =	Rh =	8,708	pounds
Length of rope		6377	feet O K A Y

LOADING:		Pounds	
Net Load	W =	16,000	
Rope	Rh =	8,708	
Maximum Unbalance: Maxun =	W + Rh =	24,708	
Conveyance	Ws =	11,200	
Total Load One Rope: Ws+Maxun =	T1 =	35,908	O K A Y
Other Rope	Rb =	8,708	
Other Conveyance	Wc =	11,200	
Total Load Balance Rope	T2 =	19,908	
Total Suspended Load	T1 + T2 =	55,815	

HOIST:

Diameter of Drum:	D =	120	inches
Required Drum Diameter : Rope Diameter		80	/1
Actual Drum Diameter : Rope Diameter	D/d =	80	/1 O K A Y
Drum Width required for Rope Capacity =		72	inches

(Check if Drum width exceeds maximum width permitted by fleet angle)

Hoist Size 120 inches x 72 inches

Hoist Rope Pull Rating T: 50,000 pounds

Rope Lead-Off Angle 37 Deg. above horizontal

DRUM HOIST CALCULATION SHEET

ELECTRICS:

Hoist Motor is: AC use \a or DC use \d

Power Supply — Volts / Phase / Cycle

Control Voltage — Volts

Number of Levels, Excluding Collar = 4

Drum Diameter D = 123.75 inches Rope wraps # = 2.5

Rope Speed V = 1980 fpm

Drum Speed : $\frac{12\ V}{pi\ D}$ = N1 = 61.1 rpm

Motor Speed N2 = 60 rpm

Gear Ratio : N1/N2 = 1 O K A Y

Approx. Horsepower = $\frac{\text{Max Unbal Load} \times V}{33{,}000 \times \text{Mech. Eff.}}$ = 1520 HP

TRY 2100 HP Motor I = 72000 lb-ft2

INERTIAS:

Wk2 Hoist and Sheaves Ih = 3500000 lb-ft2

Wk2 Motor(s) at Hoist Speed:

I x (N1 / N2)^2 Im = 72000 lb-ft2

Total Wk2 = Ih + Im = 3572000 lb-ft2

Equivalent Weight at Rope Centre:

Ih + Im x (24/D)^2 = 134352 lb.

		Raising Load
Equivalent Weight at Rope Centre		134,352
Suspended Load	TSL =	55,815
Equ. Weight to Accel or Retard	We =	190,167
Rope Pull to Accel	We x a/32.2 =	12,993 (TAA)
Rope Pull to Retard	We x r/32.2 =	16,241 (TRR)
Shaft Guide Friction	F =	2,233

Mechanical Efficiency Single Reduction = 0.975

Double Reduction = 0.951

Effective Cooling Time (AC)		Effective Cooling Time (DC)	
Acc + Ret'd = (ta+tr)/2 =		(ta+tr) x 3/4 =	20.25
Full Speed tm =		tm =	51.00
Creep + Rest = (tc+t1)/4 =		(tc+t1)/2 =	10.00
E.C.T. Total (raising load)		secs. E.C.T. Total	81.25 secs.

DRUM HOIST CALCULATION SHEET

Raising Load: Rope Pull x HP Factor = Horsepower (secs.)
Pos = V/(33000xE) Neg = VxE/33000
0.0615 0.0585

						TIME	HP2-SEC
Begin Creep: Max. Unbal. + F							
24707.5	2233	26940.5	0.0615	1657			
					Tc =	5.0	
					---)	1654.5	1.37E+07
End Creep: BC - (2 x Sc x Wh)							
26940.5	81	26859.5	0.0615	1652			
Begin Acceleration: EC + TAA							
26859.5	12992.77	39852.27	0.0615	2451			
					Ta =	15.0	
					---)	2389.5	8.56E+07
End Acceleration: BA - (2 x Sa x Wh)							
39852.27	2005	37847.27	0.0615	2328			
Begin Full Speed: EC - (2 x Sa x Wh)							
26859.5	2005	24854.5	0.0615	1529			
					Tm =	51.0	
							3.97E+07
End Full Speed: BFS - (2 x Sm x Wh)							8.07E+06
24854.5	13644	11210.5	0.0615	689			1.79E+07
Begin Retard: EFS - TRR							
11210.5	16240.97	-5030.47	0.0585	-309			
					Tr =	12.0	
					---)	-358.5	1.54E+06
End Retard: BR - (2 x Sr x Wh)							
-5030.47	1604	-6634.47	0.0585	-408			
Begin Creep: ER + TRR							
-6634.47	16240.97	9606.5	0.0615	591			
					Tc =	5.0	
					---)	588.5	1.73E+06
End Creep: BC - (2 x Sc x Wh)							
9606.5	81	9525.5	0.0615	586			
					Total		1.68E+08

$$\text{RMS HP (DC)} = \sqrt{\frac{\text{HP2-sec}}{\text{ECT(DC)}}} = 1439 \text{ HP}$$

$$\text{Peak HP : Motor HP} \quad \frac{2451 \text{ HP}}{2100 \text{ HP}} = 1.17 \qquad \text{O K A Y}$$

CURRAGH RESOURCES INC.
DY DEPOSIT
MINING COST ESTIMATES

SURFACE PLANT			
Shaft Collar			$ 382,299
Headframe			650,000
Hoist			1,368,065
Site Utilities			454,285
Changeover			82,451
Plant Commission			22,834
Contractor Mobilization & Demobilization			402,191
			$ 3,362,125

SHAFT SINKING - 1ST STAGE - 1108-535

SHAFT SINKING			
3 Comp. Timber	458 m @ $7,031/Lm		3,220,198
3 Comp. c/w Concrete Rings	100 m @ $13,297/Lm		1,329,700
Bearing Set - Concrete Steel	2 @ $36,662		73,324
Bearing Set - Timber	4 @ $7,808		31,232
Rock Catchers	40 @ $2,565		102,600
Water rings	3 @ $4,646		13,938
			$ 4,770,992
STATION EXCAVATION & EQUIPPING			
Station 800 m			**$ 173,675**
EXPLORATION DIAMOND DRILLING - 535 M LEVEL			
Mobilization/Demobilization		$ 10,000	
Diamond Drilling	350 m @ 55/Lm	19,250	
Support	8 days @ $7,195/day	57,560	
			$ 86,810
SHAFT SINKING PHASE I			**$ 5,031,477**

SHAFT SINKING 2ND STAGE - 535-495

SHAFT SINKING		
3 Comp. Timber	40 m @ $7,031/Lm	281,240
Bearing Set - Concrete Steel	2 @ $36,662	73,324
Rock Catchers	2 @ $2,565	5,130
Water rings	1 @ $4,646	4,646
		$ 364,340

CURRAGH RESOURCES INC.
DY DEPOSIT
MINING COST ESTIMATES

STATION EXCAVATION & EQUIPPING			
535 LEVEL		Excavate	$ 269,550
		Equip	388,211
513 Loading Pocket & Spill Pocket		Excavate	107,632
		Equip	235,789
SHAFT SINKING PHASE II			**$ 1,365,522**
SHAFT SINKING			$ 6,396,999
Add Provision for ground support			200,000
Provision for grouting			200,000
Shaft power cable			53,391
Waste Handling Surface			148,400
Air Heating			24,000
TOTAL SINKING COST			**$ 7,022,790**
TOTAL PLANT & SINKING COST			$ 10,384,915
CAMP			650,000
CONTRACTOR'S G & A	11.5%		1,194,265
CONTRACTOR'S FEE	8.5%		882,540
TOTAL CONTRACTOR'S COST			$ 13,111,720
CONTINGENCY			1,000,000
TOTAL CONTRACTOR'S CONSTRUCTION COST			$ 14,111,720
OWNER'S POWER COST			190,000
PROJECT SINKING COST ESTIMATE			**$ 14,301,720**

CURRAGH RESOURCES INC.
DY DEPOSIT
MINING COST ESTIMATES

MINING DEVELOPMENT & EXPLORATION PROGRAM - 1ST PHASE

Underground Contractor Mobilization		$	167,849
Mine Development (Waste)			185,090
Mine Development (Ore)			944,988
Provision for Air Heating & Ventilation			41,550
Shaft Operation, incl. surface muck handling	64 Days		485,772
TOTAL		**$**	**1,868,939**
Contractor G & A	11.5%		214,928
Contractor fee	8.5%		158,560
TOTAL CONTRACTOR COST			**2,242,727**
Power Cost by Owner			94,620
Geology	2.1 months @ $8,000/mo		16,800
TOTAL OWNER COST		**$**	**111,420**
TOTAL MINE DEVELOPMENT		**$**	**2,354,147**
TOTAL COST EXPLORATION PHASE I		**$**	**16,655,867**

APPENDIX III

CURRAGH RESOURCES INC.
DY DEPOSIT
MINING COST ESTIMATES

SURFACE PLANT		
SHAFT COLLAR	$	382,299
HEADFRAME		650,000
HOIST		1,368,065
SITE UTILITIES		454,285
CHANGEOVER		82,451
PLANT COMMISSION		22,834
CONTRACTOR MOB & DEMOB		402,191
	$	**3,362,125**

SHAFT COLLAR SUMMARY

EXCAVATION	45.75 DAYS	$	133,125
CONSTRUCTION			
MATERIALS			90,567
LABOUR	46.7 DAYS		89,468
		$	180,035
SHAFT COLLAR EQUIPPING			37,273
VENT BYPASS			31,866
SHAFT COLLAR		$	**382,299**

HEADFRAME SUMMARY

HEADFRAME & COLLAR HOUSE	$	650,000
HEADFRAME	**$**	**650,000**

PRODUCTION HOIST, SUMMARY

ONSITE	$	644,000
FOUNDATION		162,366
INSTALLATION		131,196
HOIST HOUSE		235,543
CONVEYANCES		194,960
PRODUCTION HOIST	**$**	**1,368,065**

SITE UTILITIES SUMMARY

SURFACE ELECTRICS (TRANSFORMER SUBSTATION BY OTHERS)	$	180,537
COMPRESSOR PLANT (2000 CFM)		120,000
SURFACE PIPING		48,552
HEATER & FANS		57,907
WATER DISCHARGE POND		30,038
MAGAZINES		4,034
FUEL TANKS		1,237
SEPTIC SYSTEM		11,980
SITE UTILITIES	**$**	**454,285**

CONTRACTOR'S MOBILIZATION AND PLANT SETUP SUMMARY

3 COMPARTMENT SHAFT 19'4" X 9'2"

MOBILIZATION

FREIGHT	$	78,127
PLANT SETUP		56,240
PLANT SURFACE MATERIALS		41,000
	$	175,367
CONTRACTOR'S EQUIPMENT W.O.		115,300
CONTRACTORS CREW TRANSPORT		IN DAILY LABOUR COST
MOBILIZATION	**$**	**290,667**
DEMOBILIZATION		**111,524**
TOTAL MOBILIZATION & DEMOBILIZATION	**$**	**402,191**

FREIGHT

CRYDERMAN (1)	1			
BUCKETS X HEAD (3) (2)	1			
DUMP HOIST ROPES MINING GEAR	1			
BLASTING SET & GALLOWAY	1			
FRONT END LOADER	1			
630 LOADER	1			
STAGE WINCHES (2)	1			
MISCELLANEOUS	1			
	8	@ $7,500	$	60,000
PREMOB LABOUR 8 @ $145.00				1,160
UNLOAD 8 @ $308.40				2,467
CRANE 5 DAYS @ $1,200				6,000
WAREHOUSE TRAILER (BRAMPTON)	1			7,500
POWDER MAGAZINE (WHITEHORSE)	1			1,000
			$	78,127

PLANT SETUP

SHOP	6	MS		
STAGE WINCHES	12	MS		
SITE ELECTRICS (ADDITIONAL)	12	MS		
VENT FAN (INCL)	--			
DUMP DOOR (2)	36	MS		
SAFETY DOOR (2)	12	MS		
CHAIRS (2)	6	MS		
ROPE UP HOIST (2,000')	4	MS		
ROPE UP WINCH (2)	6	MS		
GEAR IN SHAFT	24	MS		
SHAFT SIGNALS	10	MS		
POWDER MAGAZINES	4	MS		
DRY/OFFICE SETUP	4	MS		
WAREHOUSE TRAILER	2	MS		
COMPRESSOR PLANT	9	MS		
	147	MS @ $308.40	$	45,335
INDIRECTS 147 MS X 10 MS/DAY = 15 DAYS				
SUPERVISION 15 @ $377.00				5,655
SUPPORT 15 @ $350.00				5,250
			$	56,240

PLANT SURFACE MATERIALS

PIPING 300' @ $25.00	$	7,500
ELECTRICAL 300' @ $35.00		10,500
VENTILATION 100' @ $50.00		5,000
CRANE 15 DAYS @ $1,200		18,000
	$	41,000

CONTRACTOR'S EQUIPMENT W.O.

BLASTING SET		$	12,000
CROSS HEAD	2 @ $7,500		15,000
SINKING ROPE	2 X 2,400 @ $5.00		24,000
STAGE WINCH ROPE 7/8"	2 @ 2,400' X $3.50		16,800
CHAIN BLOCKS	4 @ $1,500		6,000
DUMP DOOR	2 @ $9,000		18,000
SAFETY DOOR	2 @ $5,000		10,000
SINKING BUCKETS (70/CU FT)	3 @ $4,500		13,500
		$	115,300

DEMOBILIZATION

FREIGHT		$	78,127
PLANT REMOVAL	7 DAYS X 10 MEN @ $308.40		21,588
CRANE	7 @ $960.00		6,720
INDIRECT SUPERVISION	7 @ $377.00		2,639
INDIRECT SUPPORT	7 @ $350.00		2,450
		$	**111,524**

FILE:SHFTI919

CURRAGH RESOURCES INC.

SINK TIMBER SHAFT

DY DEPOSIT

INLINE 19'4" x 9'2"

ELECTRIC

BID SUMMARY SHEET

CATEGORY	TOTAL COST /METRE	STATION CUTTING TOTAL COST / CUM	PERFORMANCE 50 CUM/DAY OWNER'S COST/METRE	OWNER'S COST / CUM
REGULAR SINKING				
DIRECT LABOUR	$1,814.65	$91.10	-	-
SUPPORT LABOUR	$1,802.23	$90.47	-	-
STEEL & BITS	$134.70	$6.76	-	-
EXPLOSIVES & ACCESSORIES	$385.04	$19.33	-	-
EQUIPMENT RENTAL	$552.53	$27.74	-	-
EQUIPMENT REPAIR	$500.27	$25.11	-	-
FUEL & LUBE	$163.42	$8.20	-	-
PIPE & ACCESSORIES	$136.58	$0.00	-	-
VENTILATION & ACCESSORIES	$29.72	$0.00	-	-
ELECTRIC POWER	$0.00	$0.00	$189.86	$9.53
ELECTRIC CABLE	$124.53	$0.00	-	-
TIMBER	$941.38	$0.00	-	-
HARDWARE	$111.35	$0.00	-	-
HOSES, SMALL TOOLS	$66.96	$2.69	-	-
INSURANCE, COMMUNICATION	$66.96	$2.69	-	-
FREIGHT DURING CONTRACT	$200.89	$8.06	-	-
SUBTOTAL	$7,031.24	$282.15	$189.86 /METRE	$9.53 /CUM
S & A 11.5%	$808.59	$32.45		
TOTAL COST	$7,839.84	$314.60		
MARGIN 8.5%	$597.66	$23.98		
PRICE	$8,437.49 /METRE	$338.58 /CUM		

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ELECTRIC

S/T HOURS	40	/WK
DAYS/WK	7	/WK
O/T HOURS	16	/WK
O/T RATE	1.50	
BONUS	$14.00	/HR
HRLY FRNG	20%	
STAFF FRG	30%	
RM+BD	$40.00	/DAY
%LESS BENCH	25	
HOLE/DEPTH	2.44	METRES
AVER BRK	1.04	METRES
MONTH	30.0	DAYS
ADVANCE	2.57	METRES/DAY

LABOUR	QUANTITY	RATE/HR	BONUS/HR
PROJ.SUPT	1.2	$17.00	$14.00
SHAFT ENGI	1	$14.00	$3.50
SHAFT LEAD	3	$16.50	$14.00
LEAD MECH	1	$17.00	$14.50
MECHANIC	1	$16.00	$9.24
ELECT.	1	$16.00	$10.50
EQUIP. OPE	1	$14.00	$0.00
HOISTMEN	3	$15.00	$7.00
SHAFTMEN	9	$15.50	$14.00
CLAM OPERA	3	$16.00	$14.00
CLERK/EXPE	1	$12.50	$0.00
DECKMAN	1	$15.00	$4.62
TOTAL	26.2		
STEEL & BITS COST/METRE			$1.64

VARIABLES

EXPLOSIVES COSTS			STKS/CSE
FORCITE	$109.95	PER CSE.	175
AMEX	N/A	PER LB.	-
ACTEX	$146.90	PER CSE.	100
MAGNEMITE	$7.39	EACH	-
MISC	$15.00		-
FUEL COST	$0.30	/LITRE	
GAS COST	$0.55	/LITRE	
G & A	11.50%		
MARGIN	8.50%		

	STKS PER HOLE	
# LIFTERS	-	-
# PRIHOLE	17	9
# PERIM	18	4
# CUT	-	-
TOTAL	35	

HOSES	1.00%	
INS/COMM	1.00%	
FREIGHT	3.00%	
DR REPAIR	$0.49	/METRE
CONCRETE	$200.00	/cum
FARES	$42.81	/DAY

CARAGH RESOURCES INC

DY DEPOSIT

SINK TIMBER SHAFT

INLINE 19.4' x 9.2'

ELECTRIC

POWER CONSUMPTION

ITEM	PEAK HP	ACT HP	KW	HRS	KwHrs
FANS	50	38	28	24	671
SUMP PUMP	60	45	34	24	806
STAGE PUMP	200	150	112	12	1,343
FW PUMP	10	8	6	24	134
SHOP	25	19	14	24	336
CAMP	0	0	0	0	0
COMPRESSOR	375	281	210	24	5,036
HOIST	350	263	196	12	2,350
STGE WINCH	100	75	56	3	168
				TOTAL	10,843

KwHr/Day = 10,843

Cost/KwHr $0.045 Cost/Day $487.94

Cost/M $189.86

MANPOWER

REGULAR SINKING

DESCRIPTION	DAY	AFTN	GYD	TOTAL
PROJ.SUPT	1.2	-	-	1.2
SHAFT ENGINEER	1	-	-	1
SHAFT LEADER	1	1	1	3
LEAD MECH	1	-	-	1
MECHANIC	-	-	1	1
ELECT.	1	-	-	1
EQUIP. OPERATOR	1	-	-	1
HOISTMEN	1	1	1	3
SHAFTMEN	3	3	3	9
CLAM OPERATOR	1	1	1	3
CLERK/EXPEDITOR	1	-	-	1
DECKMAN	1	-	-	1
TOTAL	13.2	6	7	26.2

SINKING CYCLE

SHAFT 3 COMP. TIMBER 3.40 BENCH 19.4' x 9.2'

DRILL	TO BOTTOM	0.05	
	SETUP	0.25	
	DRILL 35 x 8.0 / 5 x 0.75 x 60	1.25	
	CLEAR BOTTOM	0.20	
BLAST	LOAD 35 x 3/5 x 60	0.35	
	HOOKUP	0.17	
	TO SURFACE & BLAST	0.05	
	BLOW SMOKE	0.50	HRS/FT
		2.82	0.83
MUCK	TO BOTTOM	0.05	
	SETUP CREWMAN	0.30	
	MUCK 3.40 BENCH		
	= 8.81 YDS/FT @ 12 YDS/HR	2.50	
	BLOW BENCH	0.15	
		3.00	0.88
TIMBER	15 FT 8.00 HRS		0.53
SERVICES	20 FT 1.00 HRS		0.05
LINING	8 FT 2.00 HRS		0.25
			3.54

WORK 22.50 HRS/DAY / 2.54 FT/HR = 8.85 FT/DAY

WORK 20 SHIFTS/WEEK =

8.85 FT/DAY x 20/21 x 30 DAYS = 252.91 FT/MONTH

77.09 M./MONTH

8.43 FT/DAY

PERFORMANCE = 2.57 M./DAY

DIRECT LABOUR COSTS

DESCRIPTION	RATE PER HOUR	HOURS/WEEK STRAIGHT	HOURS/WEEK OVERTIME	HOURS/WEEK TOTAL	WAGE COST /WEEK	WAGE COST	DAILY BONUS COST	SUBTOTAL COST	FRINGES 20%	ROOM & BOARD	FARES	TOTAL PER MAN	# MEN REQ'D	TOTAL DAILY
CLAM OPERATOR	$16.00	40	16	64	$1,024.00	$146.29	$112.00	$258.29	$51.66	$40.00	$42.81	$392.75	3	$1,178.26
MUCK	$15.50	40	16	64	$992.00	$141.71	$112.00	$253.71	$50.74	$40.00	$42.81	$387.27	9	$3,485.40
													12	$4,663.66

DIRECT LABOUR COST = $4,663.66 /DAY @ 2.57 M/DAY = $1,814.65 /M

SUPPORT LABOUR COST

	RATE PER HOUR	HOURS/WEEK STRAIGHT	HOURS/WEEK OVERTIME	HOURS/WEEK TOTAL	WAGE COST /WEEK	WAGE COST	DAILY BONUS COST	SUBTOTAL COST	FRINGES 20%	ROOM & BOARD	FARES	TOTAL PER MAN	# MEN REQ'D	TOTAL DAILY
PROJ.SUPT	$17.00	40	16	64	$1,088.00	$155.43	$112.00	$267.43	$53.49	$40.00	$42.81	$403.72	1.2	$484.47
SHAFT ENGINEER	$14.00	40	16	64	$896.00	$128.00	$28.00	$156.00	$31.20	$40.00	$42.81	$270.01	1	$270.01
SHAFT LEADER	$16.50	40	16	64	$1,056.00	$150.86	$112.00	$262.86	$52.57	$40.00	$42.81	$398.24	3	$1,194.71
LEAD MECH	$17.00	40	16	64	$1,088.00	$155.43	$84.00	$239.43	$47.89	$40.00	$42.81	$370.12	1	$370.12
MECHANIC	$16.00	40	16	64	$1,024.00	$146.29	$73.92	$220.21	$44.04	$40.00	$42.81	$347.06	1	$347.06
ELECT.	$16.00	40	16	64	$1,024.00	$146.29	$84.00	$230.29	$46.06	$40.00	$42.81	$359.15	1	$359.15
EQUIP. OPERATOR	$14.00	40	16	64	$896.00	$128.00	$0.00	$128.00	$25.60	$40.00	$0.00	$193.60	1	$193.60
OILSMEN	$15.00	40	16	64	$960.00	$137.14	$56.00	$193.14	$38.63	$40.00	$42.81	$314.58	2	$943.74
CLERK/EXPEDITOR	$12.50	40	16	64	$800.00	$114.29	$0.00	$114.29	$22.86	$40.00	$0.00	$177.14	1	$177.14
DECKMAN	$15.00	40	16	64	$960.00	$137.14	$36.96	$174.10	$34.82	$40.00	$42.81	$291.73	1	$291.73
													14.2	$4,631.74

SUPPORT LABOUR COST = $4,631.74 /DAY @ 2.57 M/DAY = $1,802.23 /M

HEADING SIZE = INLINE 19'4" x 9'2"

DRILL STEEL & BIT COST

HOLES DRILLED PER DAY	HOLE DEPTH	TOTAL M. DRILLED PER DAY	STEEL & BIT COST PER M. DRILLED	TOTAL STEEL & BITS COST	AVERAGE BREAK PER DAY	STEEL & BITS COST PER M.
86	2.44	211 METRES	$1.64	$346.19	2.57 METRES	$134.70
					TOTAL	$134.70 /M

EXPLOSIVES & ACCESSORIES COST

HEADING SIZE = INLINE 19'4" x 9'2"
HOLES DRILLED = 35
HOLES BLASTED = 35
HOLE DIAMETER = 1 1/4"
POWDER TO BE USED = FORCITE, MAGNEDETS
AVERAGE BREAK PER = 1.04 METRES SHAFT EQUIVALENT

DESCRIPTION	NO. OF HOLES	STICKS PER HOLE	TOTAL STICKS	STICKS /CASE	CASE REQ'D	COST PER CASE		TOTAL COST
PRIMER H.E.	35	1	35	175	0.20	$109.95		$21.99
PERIMETER (AETEX)	18	4	72	100	0.72	$146.90		$105.77
LIFTERS & H.E.	17	9	153	175	0.87	$159.95		$96.13
CUT H.E.	-	-	0	-	-	-		$0.00
BLASTHOLES AMEX	-	-	0	-	-	-		$0.00
							SUBTOTAL	$223.29
							12.00% P.S.T.	$26.67
							0.00% P.S.T.	$0.00
							TOTAL	$250.75

DESCRIPTION	NO. OF HOLES	CAPS PER HOLE	TOTAL CAPS OR FUSE	COST PER CAP	COST PER POUND	COST OF MISC.	TOTAL COST
MAGNEDETS	35	1	35	$3.39	$118.65	$15.00	$133.65
					12.00% P.S.T.		$16.04
					0.00% P.S.T.		$0.00
					TOTAL		$149.69

TOTAL EXPLOSIVES COST = $250.75
TOTAL DETONATORS COST = $149.69
TOTAL COST = $400.44 PER BENCH/ 1.04 METRE = $385.04 /METRE

EQUIPMENT RENTAL AND REPAIR COST

EQUIPMENT DESCRIPTION	COMMENTS	RENT PER UNIT	NO. OF UNITS REQ.D	TOTAL RENTAL COST/MONTH	REPAIR COST PER HR., M.	HRS. OPERATING PER DAY OR M. DRILLED	REPAIR COST PER DAY	RENTAL COST PER DAY	REPAIR COST PER DAY
PLUGGERS		$250	12	$3,000	$1.00	60 HR	$60.00	$100.00	$60.00
DRILL REPAIR		-	-	-	$0.49	211 M.	$103.86	$0.00	$103.86
COMPRESSORS	BY OWNER	$0	2	$0	$1.50	72 HR	$108.00	$0.00	$108.00
SHOP		$0	0	$0	$0.00	0 HR	$0.00	$0.00	$0.00
OFFICE		$0	0	$0	$0.00	0 HR	$0.00	$0.00	$0.00
WAREHOUSE		$0	0	$0	$0.00	0 HR	$0.00	$0.00	$0.00
MINE LIGHTS		$10	30	$300	$0.50	24 HR	$12.00	$10.00	$12.00
DEWATERING PUMPS		$2,500	2	$5,000	$1.50	24 HR	$36.00	$166.67	$36.00
SUMP PUMPS		$1,200	3	$3,900	$3.00	36 HR	$108.00	$130.00	$108.00
FRONT END LOADER		$4,500	1	$4,500	$25.00	8 HR	$200.00	$150.00	$200.00
DOZER		$0	-	$0	$0.00	0 HR	$0.00	$0.00	$0.00
CRYBERMAN		$7,000	2	$14,000	$15.00	12 HR	$180.00	$466.67	$180.00
BUCKETS		$500	3	$1,500	$1.25	12 HR	$15.00	$50.00	$15.00
DUMP DOOR		IN MOB	-	$0	$0.83	12 HR	$9.96	$0.00	$9.96
SAFETY DOOR		IN MOB	-	$0	$0.42	12 HR	$5.04	$0.00	$5.04
CROSSHEAD		IN MOB	2	$0	$0.83	12 HR	$9.96	$0.00	$9.96
BLASTING SET		IN MOB	1	$0	$1.25	12 HR	$15.00	$0.00	$15.00
SINKING ROPE		IN MOB	2	$0	$1.25	12 HR	$15.00	$0.00	$15.00
STAGE WINCHES		$2,000	2	$4,000	$0.83	12 HR	$9.96	$133.33	$9.96
HOIST		BY OWNER	1	$0	$1.04	24 HR	$24.96	$0.00	$24.96
DRY		IN MOB	-	$0	$15.00	8 HR	$120.00	$0.00	$120.00
TUGGER HOIST		$750	1	$750	$0.83	12 HR	$9.96	$25.00	$9.96
MINE AIR HEATER		IN MOB	1	$0	$0.25	8 HR	$2.00	$0.00	$2.00
VENT FANS	BY OWNER	$0	1	$0	$0.25	24 HR	$6.00	$0.00	$6.00
BUILDING HEAT		$0	-	$0	$0.63	24 HR	$15.00	$0.00	$15.00
TEMP. GENSET		$0	-	$0	-	- HR	$0.00	$0.00	$0.00
PICKUP		$1,200	2	$2,400	$10.00	12 HR	$120.00	$80.00	$120.00
EIMCO 630		$1,500	1	$1,500	$0.00	- HR	$0.00	$50.00	$0.00
CHAIN BLOCKS		IN MOB	-	$0	$0.00	- HR	$0.00	$0.00	$0.00
SHOP TOOLS		$1,000	1	$1,000	$5.00	20 HR	$100.00	$33.33	$100.00
POWDER-CAP MAGAZINE		$750	1	$750	$0.00	- HR	$0.00	$25.00	$0.00
TOTALS				$42,600 PER MONTH				$1,420.00	$1,285.70
							ADVANCE PER DAY		2.57 METRES/DAY
							COST/METRE	$552.53	$500.27

FUEL & LUBE COST

EQUIPMENT DESCRIPTION	ENGINE	NUMBER OF UNITS REQ'D	OPERATING HOURS PER DAY PER UNIT	TOTAL OPERATING HOURS PER DAY	FUEL REQ'D PER HOUR	TOTAL FUEL PER DAY	FUEL COST PER LITRE	FUEL COST PER DAY	LUBE COST @ 15% OF FUEL COST	TOTAL OPER. COST PER DAY
PLUGGERS	-	12	5	55	- LT	0.0	-	$0.00	$25.00	$25.00
COMPRESSORS	-	3	24	72	46.0 LT	3,312.00	$0.30	$993.60	$149.04 LUBE ONLY	$149.04
FRONT E.O LOADER	-	1	8	8	43.5 LT	348.0	$0.30	$104.40	$15.66	$120.06
PICKUP	-	2	6	12	10.0 LT	120.0	$0.55	$66.00	$9.90	$75.90
TEMP. GENSET	-	-	0	0	0.0 LT	0.0	$0.30	$0.00	$0.00	$0.00
HOIST	-	1	0	0	- LT	0.0	-	$0.00	$50.00	$50.00
DOZER	-	-	0	0	24.0 LT	0.0	$0.30	$0.00	$0.00	$0.00
										$420.00

OPERATING COST = $420.00 /DAY @ 2.57 M./DAY = $163.42 /METRE

PIPE & ACCESSORY COST

ITEMS	2" LINE AMOUNT	2" LINE PRICE EACH	2" LINE TOTAL PRICE	3" LINE AMOUNT	3" LINE PRICE EACH	3" LINE TOTAL PRICE	6" LINE AMOUNT	6" LINE PRICE EACH	6" LINE TOTAL PRICE	6" LINE (AIR) AMOUNT	6" LINE (AIR) PRICE EACH	6" LINE (AIR) TOTAL PRICE	8" LINE (PUMP) AMOUNT	8" LINE (PUMP) PRICE EACH	8" LINE (PUMP) TOTAL PRICE
PIPES	100	$1.95	$195.00	0	$0.00	$0.00	0	$10.55	$0.00	100	$10.55	$1,055.00	100	$15.98	$1,598.00
COUPLING	5	$3.86	$19.30	0	$0.00	$0.00	0	$19.79	$0.00	5	$19.79	$98.95	5	$30.00	$150.00
VALVES	0	$32.29	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$160.60	$0.00	0	$160.60	$0.00
ELBOWS 90 DEG	0	$5.55	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$36.86	$0.00	0	$36.86	$0.00
ELBOWS 45 DEG	0	$5.55	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$36.86	$0.00	0	$36.86	$0.00
TEES	0	$13.62	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$59.54	$0.00	0	$59.54	$0.00
CHECK VALVE /PRV	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$325.00	$0.00
CHAIN HANGERS	30	$2.92	$87.60	0	$0.00	$0.00	0	$2.92	$0.00	30	$2.92	$87.60	30	$2.92	$87.60
TIE CHAIN	0	$0.32	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.32	$0.00	0	$0.32	$0.00
SUBTOTAL			$301.90			$0.00			$0.00			$1,241.55			$1,835.60
DAMAGE @ 10%			$30.19			$0.00			$0.00			$124.16			$183.56
P.S.T. @ 12%			$39.85			$0.00			$0.00			$163.88			$242.30
P.S.T. @ 0%			$0.00			$0.00			$0.00			$0.00			$0.00
TOTALS			$371.94			$0.00			$0.00			$1,529.59			$2,261.46
COST/METRE $136.58			$12.20 /METRE			$0.00 /METRE			$0.00 /METRE			$50.18 /METRE			$74.19

VENTILATION & ACCESSORIES COST

ITEMS	12" DIA. AMOUNT	12" DIA. PRICE EACH	12" DIA. TOTAL PRICE	30" DIA. AMOUNT	30" DIA. PRICE EACH	30" DIA. TOTAL PRICE	36" DIA. AMOUNT	36" DIA. PRICE EACH	36" DIA. TOTAL PRICE	42" DIA. AMOUNT	42" DIA. PRICE EACH	42" DIA. TOTAL PRICE	48" DIA. AMOUNT	48" DIA. PRICE EACH	48" DIA. TOTAL PRICE
VENTILATION PIPE COVER	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00
VENTILATION TUBE	0	$0.00	$0.00	0	$0.00	$0.00	15	$21.45	$321.75	0	$0.00	$0.00	0	$0.00	$0.00
PIPE COUPLING	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00
PIPE HANGERS	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00
PIPE ELBOWS	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00
PIPE TEES	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00
TUBE COUPLING	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00
TUBE HANGER	0	$0.00	$0.00	0	$0.00	$0.00	1	$10.00	$10.00	0	$0.00	$0.00	0	$0.00	$0.00
MESSENGER WIRE	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00
SUBTOTAL			$0.00			$0.00			$331.75			$0.00			$0.00
DAMAGE @ 20%			$0.00			$0.00			$66.35			$0.00			$0.00
P.S.T. @ 12%			$0.00			$0.00			$47.77			$0.00			$0.00
P.S.T. @ 0%			$0.00			$0.00			$0.00			$0.00			$0.00
TOTALS			$0.00			$0.00			$445.87			$0.00			$0.00
COST/METRE $29.72			$0.00 /METRE			$0.00 /METRE			$29.72 /METRE			$0.00 /METRE			$0.00

ELECTRIC CABLE COST

ITEMS	SIGNAL CABLE AMOUNT	SIGNAL CABLE PRICE EACH	SIGNAL CABLE TOTAL PRICE	PUMP CABLE AMOUNT	PUMP CABLE PRICE EACH	PUMP CABLE TOTAL PRICE	TEMPORARY POWER CABLE AMOUNT	TEMPORARY POWER CABLE PRICE EACH	TEMPORARY POWER CABLE TOTAL PRICE	AMOUNT	PRICE EACH	TOTAL PRICE	BLAST LINE AMOUNT	BLAST LINE PRICE EACH	BLAST LINE TOTAL PRICE
ELECTRIC CABLE	1	$9.84	$9.84	1	$42.65	$42.65	1	$42.03	$42.03	0	$0.00	$0.00	1	$6.56	$6.56
CABLE HANGER	0	$1.98	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00
MESSENGER WIRE	0	$2.92	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00
SUBTOTAL			$9.84			$42.65			$42.03			$0.00			$6.56
DAMAGE @ 10%			$0.98			$4.27			$4.20			$0.00			$0.66
P.S.T. @ 12%			$1.30			$5.63			$5.55			$0.00			$0.87
P.S.T. @ 0%			$0.00			$0.00			$0.00			$0.00			$0.00
TOTALS			$12.13			$52.55			$51.78	1		$0.00			$8.08
COST/METRE $124.53			$12.13 /METRE			$52.55 /METRE			$51.78 /METRE			$0.00 /METRE			$8.08

SHAFT TIMBER

TIMBER SETS 7'6" CENTERS =	2.29 M		Lin Ft	Bd Ft	
WALL PLATES	2 @ 10" x 10" x 19'4"		38.66	322	
END PLATES	2 @ 10" x 10" x 9'2"		18.34	153	
DIVIDERS	2 @ 8" x 10" x 7'6"		15.00	100	
POSTS	4 @ 8" x 8" x 6'8"		27.00	144	
	4 @ 10" x 10" x 6'8"		27.00	225	
			126.00	944	
	SETS	0.575 MBFT @ $1,485/1,000	$853.87		
	POSTS	0.369 MBFT @ $1,325/1,000	$488.92		
				$1,342.80	/SET
BLOCKING	15 % x $1,325.00 x	944 BDFT/SET =		$187.62	/SET
LINING BRATTICE	9.5 LIN. FT. x 6.7' x 2" = 0.127 MBDFT @ $500.00/1,000 =			$63.33	/SET
MANWAY	23.7 LIN. FT. x 6.7' x 2" = 0.316 MBDFT @ $450.00/1,000 =			$142.00	
GUIDES	4 - 6" x 8" x 24' PERPI GUIDES @ $236.00 EA.				
	4 x $236.00 / 24' x 7.5' =			$420.00	/SET
				$2,155.75	/SET
TIMBER SETS 7'6" CENTERS =	2.29 M			$941.36	/M.

HARDWARE

GUIDE BRACKETS	4	@	$12.00	$48.00 /SET
HANGING RODS	6	@	$18.00	$108.00 /SET
MANWAY EVERY 3 SETS	0.3	@	$140.00	$46.67 /SET
LADDER EVERY 3 SETS	0.3	@	$70.00	$23.33 /SET
PIPE BRACKETS	1	@	$17.00	$17.00 /SET
VENT BRACKETS	1	@	$12.00	$12.00 /SET
				$255.00 /SET
TIMBER SETS 7'6" CENTERS =	2.29 M			$111.35 /M.

FILE:CON_RING

CURRAGH RESOURCES INC.

BY DEPOSIT

BID SUMMARY SHEET

SINK TIMBER SHAFT

INLINE 19'4" x 9'2"

ELECTRIC
CONCRETE RINGS

CATEGORY	TOTAL COST /METRE	STATION CUTTING TOTAL COST / CUM	PERFORMANCE 50 CUM/DAY OWNER'S COST/METRE	OWNER'S COST / CUM
REGULAR SINKING				
DIRECT LABOUR	$3,460.34	$174.72	-	-
SUPPORT LABOUR	$3,456.52	$173.52	-	-
STEEL & BITS	$152.27	$7.64	-	-
EXPLOSIVES & ACCESSORIES	$435.26	$21.85	-	-
EQUIPMENT RENTAL	$1,059.70	$53.20	-	-
EQUIPMENT REPAIR	$849.29	$42.64	-	-
FUEL & LUBE	$313.43	$15.73	-	-
PIPE & ACCESSORIES	$136.58	$0.00	-	-
VENTILATION & ACCESSORIES	$29.72	$0.00	-	-
ELECTRIC POWER	$0.00	$0.00	$364.13	$18.28
ELECTRIC CABLE	$124.53	$0.00	-	-
TIMBER	$940.91	$0.00	-	-
CONCRETE	$1,577.75	$0.00	-	-
HARDWARE	$111.35	$0.00	-	-
WAGES, SMALL TOOLS	$126.64	$4.89	-	-
INSURANCE, COMMUNICATION	$126.64	$4.89	-	-
FREIGHT DURING CONTRACT	$379.91	$14.68	-	-
SUBTOTAL	$13,296.87	$513.76	$364.13 /METRE	$18.28 /CUM
G & A 11.5%	$1,529.14	$59.08		
TOTAL COST	$14,826.01	$572.85		
MARGIN 8.5%	$1,130.23	$43.67		
PRICE	$15,956.24 /METRE	$616.52 /CUM		
	$4,863.46 /FOOT			

FILE:CON_RING
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ELECTRIC

SFT HOURS	40	/WK
DAYS/WK	7	/WK
O/T HOURS	16	/WK
O/T RATE	1.50	
BONUS	$14.00	/HR
HOLY FRNG	20%	
STAFF FRG	20%	
RM+BD	$40.00	/DAY
HLES/BENCH	35	
HOLE/DEPTH	3.44	METRES
AVER BRK	0.92	METRES
MONTH	30.0	DAYS
ADVANCE	1.34	METRES/DAY

LABOUR	QUANTITY	RATE/HR	BONUS/HR
PROJ.SUPT	1.2	$17.00	$14.00
SHAFT ENGI	1	$14.00	$2.50
SHAFT LEAD	3	$16.50	$14.00
LEAD MECH	1	$17.00	$10.50
MECHANIC	1	$16.00	$9.24
ELECT.	1	$16.00	$10.50
EQUIP. OPE	1	$14.00	$9.00
HOISTMEN	3	$15.00	$7.00
SHAFTMEN	9	$15.50	$14.00
CLAM OPERA	3	$16.00	$14.00
CLERK/EXPE	1	$12.50	$9.00
DECKMAN	1	$15.00	$4.62
TOTAL	26.2		
STEEL & BITS COST/METRE			$1.04

VARIABLES

EXPLOSIVES COSTS

			STKS/CSE
FORCITE	$109.95	PER CSE.	175
AMEX	N/A	PER LB.	-
FACTEX	$148.90	PER CSE.	100
MAGNEBETS	$3.39	EACH	-
MISC	$15.00		-
FUEL COST	$0.30	/LITRE	
GAS COST	$0.55	/LITRE	

HOSES	1.00%
INS/COMM	1.00%
FREIGHT	3.00%
S & A	11.50%
MARGIN	8.50%

	STKS PER HOLE	
# LIFTERS	-	-
# PRDHOLE	17	9
# PERIM	18	4
# CUT	-	-
TOTAL	35	

DR REPAIR	$6.43	/METRE
CONCRETE	$200.00	/cum
FARES	$42.81	/DAY

CURRAGH RESOURCES INC

DY DEPOSIT

SINK TIMBER SHAFT

INLINE 19'4" x 9'2"

ELECTRIC

CONCRETE RINGS

POWER CONSUMPTION

ITEM	PEAK HP	ACT HP	kW	HRS	kWHRS
FANS	50	38	28	24	671
SUMP PUMP	60	45	34	24	806
STAGE PUMP	200	150	113	12	1,343
FW PUMP	10	8	6	24	134
SHOP	25	19	14	24	336
CAMP	0	0	0	0	0
COMPRESSOR	375	281	210	24	5,036
HOIST	350	263	196	12	2,350
STGE WINCH	100	75	56	3	168
				TOTAL	10,843

kWHr/Day = 10,843

Cost/KwHr $0.045 Cost/Day $487.94

Cost/M $364.13

MANPOWER

REGULAR SINKING

DESCRIPTION	DAY	AFTN	GYD	TOTAL
PROJ.SUPT	1.2	-	-	1.2
SHAFT ENGINEER	1	-	-	1
SHAFT LEADER	1	1	1	3
LEAD MECH	1	-	-	1
MECHANIC	-	-	1	1
ELECT.	1	-	-	1
EQUIP. OPERATOR	1	-	-	1
HOISTMEN	1	1	1	3
SHAFTMEN	3	3	3	9
CLAM OPERATOR	1	1	1	3
CLERK/EXPEDITOR	1	-	-	1
DECKMAN	1	-	-	1
TOTAL	13.2	6	7	26.2

SINKING CYCLE

SHAFT 3 COMP. TIMBER 3.00 ' BENCH 19'4" x 9'2"

DRILL	TO BOTTOM		0.05	
	SETUP		0.25	
	DRILL 35 x 8.0 / 5 x 0.75 x 60		1.24	
	CLEAR BOTTOM		0.20	
BLAST	LOAD 35 x 3/5 x 60		0.35	
	HOOKUP		0.17	
	TO SURFACE & BLAST		0.05	
	BLOW SMOKE		0.50	HRS/FT
			2.82	0.94
MUCK	TO BOTTOM		0.05	
	SETUP CRYDERMAN		0.30	
	MUCK	3.00 ' BENCH		
	x 8.81 YDS/FT @ 12 YDS/HR		2.20	
	BLOW BENCH		0.20	
			2.75	0.92
CON RINGS 7' 6"				2.17
TIMBER	15 FT	8.00 HRS		0.53
SERVICES	20 FT	1.00 HRS		0.05
LINING	8 FT	2.00 HRS		0.25
				4.86

WORK 22.50 HRS/DAY / 4.86 FT/HR = 4.63 FT/DAY

WORK 20 SHIFTS/WEEK =

4.63 FT/DAY x 20/21 x 30 DAYS = 132.36 FT/MONTH

40.34 M./MONTH

4.41 FT/DAY

PERFORMANCE = 1.34 M./DAY

DIRECT LABOUR COSTS

DESCRIPTION	RATE PER HOUR	HOURS/WEEK STRAIGHT	HOURS/WEEK OVERTIME	HOURS/WEEK TOTAL	WAGE COST /WEEK	WAGE COST	DAILY BONUS COST	SUBTOTAL COST	FRINGES 20%	ROOM & BOARD	FARES	TOTAL PER MAN	# MEN REQ'D	TOTAL DAILY
CLAM OPERATOR	$16.00	40	16	64	$1,024.00	$146.29	$112.00	$258.29	$51.66	$40.00	$42.81	$392.75	3	$1,178.26
MUCK	$15.50	40	16	64	$992.00	$141.71	$112.00	$253.71	$50.74	$40.00	$42.81	$387.27	9	$3,485.40
													12	$4,663.66

DIRECT LABOUR COST = $4,663.66 /DAY @ 1.34 M/DAY = $3,480.34 /M

SUPPORT LABOUR COST

	RATE PER HOUR	HOURS/WEEK STRAIGHT	HOURS/WEEK OVERTIME	HOURS/WEEK TOTAL	WAGE COST /WEEK	WAGE COST	DAILY BONUS COST	SUBTOTAL COST	FRINGES 20%	ROOM & BOARD	FARES	TOTAL PER MAN	# MEN REQ'D	TOTAL DAILY
PROJ.SUPT	$17.00	40	16	64	$1,088.00	$155.43	$112.00	$267.43	$53.49	$40.00	$42.81	$403.72	1.2	$484.47
SHAFT ENGINEER	$14.00	40	16	64	$896.00	$128.00	$28.00	$156.00	$31.20	$40.00	$42.81	$270.01	1	$270.01
SHAFT LEADER	$16.50	40	16	64	$1,056.00	$150.86	$112.00	$262.86	$52.57	$40.00	$42.81	$398.24	3	$1,194.71
LEAD MECH	$17.00	40	16	64	$1,088.00	$155.43	$84.00	$239.43	$47.89	$40.00	$42.81	$370.12	1	$370.12
MECHANIC	$16.00	40	16	64	$1,024.00	$146.29	$73.92	$220.21	$44.04	$40.00	$42.81	$347.06	1	$347.06
ELECT.	$16.00	40	16	64	$1,024.00	$146.29	$84.00	$230.29	$46.06	$40.00	$42.81	$359.15	1	$359.15
EQUIP. OPERATOR	$14.00	40	16	64	$896.00	$128.00	$0.00	$128.00	$25.60	$40.00	$0.00	$193.60	1	$193.60
HOISTMEN	$15.00	40	16	64	$960.00	$137.14	$56.00	$193.14	$38.63	$40.00	$42.81	$314.58	3	$943.74
CLERK/EXPEDITOR	$12.50	40	16	64	$800.00	$114.29	$0.00	$114.29	$22.86	$40.00	$0.00	$177.14	1	$177.14
DECKMAN	$15.00	40	16	64	$960.00	$137.14	$36.96	$174.10	$34.82	$40.00	$42.81	$291.73	1	$291.73
													14.2	$4,631.74

SUPPORT LABOUR COST = $4,631.74 /DAY @ 1.34 M/DAY = $3,456.53 /M

HEADING SIZE = INLINE 19'4" x 9'2"

DRILL STEEL & BIT COST

HOLES DRILLED PER DAY	HOLE DEPTH	TOTAL M. DRILLED PER DAY	STEEL & BIT COST PER M. DRILLED	TOTAL STEEL & BITS COST	AVERAGE BREAK PER DAY	STEEL & BITS COST PER M.
51	2.44	134 METRES	$1.64	$204.05	1.34 METRES	$152.27
					TOTAL	$152.27 /M

EXPLOSIVES & ACCESSORIES COST

HEADING SIZE = INLINE 19'4" x 9'2"
HOLES DRILLED = 35
HOLES BLASTED = 35
HOLE DIAMETER = 1 1/4"
POWDER TO BE USED = FORCITE, MAGNEDETS
AVERAGE BREAK/BEN = 0.93 METRES SHAFT EQUIVALENT

DESCRIPTION	NO. OF HOLES	STICKS PER HOLE	TOTAL STICKS	STICKS /CASE	CASE REQ'D	COST PER CASE		TOTAL COST
PRIMER H.E.	35	1	35	175	0.20	$109.95		$21.99
PERIMETER FACTER	18	4	72	100	0.72	$146.90		$105.77
LIFTERS & H.E.	17	9	153	175	0.87	$109.95		$96.13
CUT H.E.	-	-	0	-	-	-		$0.00
BLASTHOLES AMEX	-	-	0	-	-	-		$0.00
							SUBTOTAL	$223.89
							12.00% F.S.T.	$26.87
							0.00% F.S.T.	$0.00
							TOTAL	$250.75

DESCRIPTION	NO. OF HOLES	CAPS PER HOLE	TOTAL CAPS OR FUSE	COST PER CAP	COST PER ROUND	COST OF MISC.	TOTAL COST
MAGNEDETS	35	1	35	$3.39	$118.65	$15.00	$133.65
					12.00% F.S.T.		$16.04
					0.00% F.S.T.		$0.00
					TOTAL		$149.69

TOTAL EXPLOSIVES COST = $250.75
TOTAL DETONATORS COST = $149.69
TOTAL COST = $400.44 PER BENCH/ 0.93 METRE = $435.26 /METRE

EQUIPMENT RENTAL AND REPAIR COST

EQUIPMENT DESCRIPTION	COMMENTS	RENT PER UNIT	NO. OF UNITS REQ'D	TOTAL RENTAL COST/MONTH	REPAIR COST PER HR., M.	HRS. OPERATING PER DAY OR M. DRILLED	REPAIR COST PER DAY	RENTAL COST PER DAY	REPAIR COST PER DAY
PLUGGERS		$2[illegible]	12	$3,000	$1.00	60 HR	$60.00	$100.00	$60.00
DRILL REPAIR		-	-	-	$0.49	124 M.	$61.21	$0.00	$61.21
COMPRESSORS	BY OWNER	$0	3	$0	$1.50	72 HR	$108.00	$0.00	$108.00
SHOP		$0	0	$0	$0.00	0 HR	$0.00	$0.00	$0.00
OFFICE		$0	0	$0	$0.00	0 HR	$0.00	$0.00	$0.00
WAREHOUSE		$0	0	$0	$0.00	0 HR	$0.00	$0.00	$0.00
MINE LIGHTS		$[illegible]	24	$300	$0.50	24 HR	$12.00	$10.00	$12.00
DEWATERING PUMPS		$2,500	2	$5,000	$1.50	24 HR	$36.00	$166.67	$36.00
SUMP PUMPS		$1,3[illegible]	3	$3,900	$3.00	36 HR	$108.00	$130.00	$108.00
FRONT END LOADER		$4,5[illegible]	1	$4,500	$25.00	8 HR	$200.00	$150.00	$200.00
DOZER		$0	-	$0	$0.00	0 HR	$0.00	$0.00	$0.00
CRYDERMAN		$7,000	2	$14,000	$15.00	6 HR	$90.00	$466.67	$90.00
BUCKETS		$500	3	$1,500	$1.25	6 HR	$7.50	$50.00	$7.50
DUMP DOOR		IN MOB	-	$0	$0.83	6 HR	$4.98	$0.00	$4.98
SAFETY DOOR		IN MOB	-	$0	$0.42	6 HR	$2.52	$0.00	$2.52
CROSSHEAD		IN MOB	2	$0	$0.83	12 HR	$9.96	$0.00	$9.96
BLASTING SET		IN MOB	1	$0	$1.25	12 HR	$15.00	$0.00	$15.00
SINKING ROPE		IN MOB	2	$0	$1.25	12 HR	$15.00	$0.00	$15.00
STAGE WINCHES		$2,000	2	$4,000	$0.83	12 HR	$9.96	$133.33	$9.96
HOIST		BY OWNER	1	$0	$1.04	24 HR	$24.96	$0.00	$24.96
DRY		IN MOB	-	$0	$15.00	8 HR	$120.00	$0.00	$120.00
TUGGER HOIST		$750	1	$750	$0.83	12 HR	$9.96	$25.00	$9.96
MINE AIR HEATER		IN MOB	1	$0	$0.25	8 HR	$2.00	$0.00	$2.00
VENT FANS	BY OWNER	$[illegible]	1	$0	$0.25	24 HR	$6.00	$0.00	$6.00
BUILDING HEAT		$0	-	$0	$0.65	24 HR	$15.00	$0.00	$15.00
TEMP. GENSET		$0	-	$0	-	- HR	$0.00	$0.00	$0.00
PICKUP		$1,200	2	$2,400	$10.00	12 HR	$120.00	$80.00	$120.00
EIMCO 630		$1,500	1	$1,500	$0.00	- HR	$0.00	$50.00	$0.00
CHAIN BLOCKS		IN MOB	-	$0	$0.00	- HR	$0.00	$0.00	$0.00
SHOP TOOLS		$1,0[illegible]	1	$1,000	$5.00	20 HR	$100.00	$33.33	$100.00
POWDER/CAP MAGAZINE		$750	1	$750	$0.00	- HR	$0.00	$25.00	$0.00
TOTALS				$42,600 PER MONTH				$1,420.00	$1,138.05
							ADVANCE PER DAY		1.34 METRES/DAY
							COST/METRE	$1,059.70	$849.29

FUEL & LUBE COST

EQUIPMENT DESCRIPTION	ENGINE	NUMBER OF UNITS REQ'D	OPERATING HOURS PER DAY PER UNIT	TOTAL OPERATING HOURS PER DAY	FUEL REQ'D PER HOUR	TOTAL FUEL PER DAY	FUEL COST PER LITRE	FUEL COST PER DAY	LUBE COST @ 15% OF FUEL COST	TOTAL OPER. COST PER DAY
PLUGGERS	-	12	5	55	- LT	0.0	-	$0.00	$25.00	$25.00
COMPRESSORS	-	3	24	72	46.0 LT	3,312.00	$0.30	$993.60	$149.04 LUBE ONLY	$149.04
FRONT END LOADER	-	1	8	8	43.5 LT	348.0	$0.30	$104.40	$15.66	$120.06
PICKUP	-	2	6	12	10.0 LT	120.0	$0.55	$66.00	$9.90	$75.90
TEMP. GENSET	-	-	0	0	0.0 LT	0.0	$0.30	$0.00	$0.00	$0.00
HOIST	-	1	0	0	- LT	0.0	-	$0.00	$50.00	$50.00
DOZER	-	-	0	0	24.0 LT	0.0	$0.30	$0.00	$0.00	$0.00
										$420.00

OPERATING COST = $420.00 /DAY @ 1.34 M./DAY = $313.43 /METRE

PIPE & ACCESSORY COST

ITEMS	2" LINE AMOUNT	2" LINE PRICE EACH	2" LINE TOTAL PRICE	3" LINE AMOUNT	3" LINE PRICE EACH	3" LINE TOTAL PRICE	6" LINE AMOUNT	6" LINE PRICE EACH	6" LINE TOTAL PRICE	6" LINE (AIR) AMOUNT	6" LINE (AIR) PRICE EACH	6" LINE (AIR) TOTAL PRICE	8" LINE (PUMP) AMOUNT	8" LINE (PUMP) PRICE EACH	8" LINE (PUMP) TOTAL PRICE
PIPES	100	$1.95	$195.00	0	$0.00	$0.00	0	$10.55	$0.00	100	$10.55	$1,055.00	100	$15.98	$1,598.00
COUPLING	5	$3.86	$19.30	0	$0.00	$0.00	0	$19.79	$0.00	5	$19.79	$98.95	5	$30.00	$150.00
VALVES	0	$72.25	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$160.60	$0.00	0	$160.60	$0.00
ELBOWS 90 DEG	0	$5.55	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$36.86	$0.00	0	$36.86	$0.00
ELBOWS 45 DEG	0	$5.55	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$36.86	$0.00	0	$36.86	$0.00
TEES	0	$13.62	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$59.54	$0.00	0	$59.54	$0.00
CHECK VALVE /REV	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$325.00	$0.00
CHAIN HANGERS	30	$2.92	$87.60	0	$0.00	$0.00	0	$2.92	$0.00	30	$2.92	$87.60	30	$2.92	$87.60
7/16 CHAIN	0	$0.32	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.32	$0.00	0	$0.32	$0.00
SUBTOTAL			$301.90			$0.00			$0.00			$1,241.55			$1,835.60
DAMAGE @ 10%			$30.19			$0.00			$0.00			$124.16			$183.56
P.S.T. @ 12%			$39.85			$0.00			$0.00			$163.88			$242.30
P.S.T. @ 0%			$0.00			$0.00			$0.00			$0.00			$0.00
TOTALS			$371.94			$0.00			$0.00			$1,529.59			$2,261.46
COST/METRE $136.58			$12.20 /METRE			$0.00 /METRE			$0.00 /METRE			$50.18 /METRE			$74.19

SIZE TIMBER SHORT INLINE 19.4" = 9.2" - CONCRETE RINGS

VENTILATION & ACCESSORIES COST

ITEMS	12" DIA. AMOUNT	12" DIA. PRICE EACH	12" DIA. TOTAL PRICE	30" DIA. AMOUNT	30" DIA. PRICE EACH	30" DIA. TOTAL PRICE	36" DIA. AMOUNT	36" DIA. PRICE EACH	36" DIA. TOTAL PRICE	42" DIA. AMOUNT	42" DIA. PRICE EACH	42" DIA. TOTAL PRICE	48" DIA. AMOUNT	48" DIA. PRICE EACH	48" DIA. TOTAL PRICE
VENTILATION PIPE COVER	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00
VENTILATION TUBE	0	$0.00	$0.00	0	$0.00	$0.00	15	$21.45	$321.75	0	$0.00	$0.00	0	$0.00	$0.00
PIPE COUPLING	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00
PIPE HANGERS	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00
PIPE ELBOWS	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00
PIPE TEES	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00
TUBE COUPLING	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00
TUBE HANGER	0	$0.00	$0.00	0	$0.00	$0.00	1	$10.00	$10.00	0	$0.00	$0.00	0	$0.00	$0.00
MESSENGER WIRE	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00
SUBTOTAL			$0.00			$0.00			$331.75			$0.00			$0.00
DAMAGE @ 20%			$0.00			$0.00			$66.35			$0.00			$0.00
P.S.T. @ 12%			$0.00			$0.00			$47.77			$0.00			$0.00
P.S.T. @ 0%			$0.00			$0.00			$0.00			$0.00			$0.00
TOTALS			$0.00			$0.00			$445.87			$0.00			$0.00
COST/METRE $29.72			$0.00 /METRE			$0.00 /METRE			$29.72 /METRE			$0.00 /METRE			$0.00

ELECTRIC CABLE COST

ITEMS	SIGNAL CABLE AMOUNT	SIGNAL CABLE PRICE EACH	SIGNAL CABLE TOTAL PRICE	PUMP CABLE AMOUNT	PUMP CABLE PRICE EACH	PUMP CABLE TOTAL PRICE	TEMPORARY POWER CABLE AMOUNT	TEMPORARY POWER CABLE PRICE EACH	TEMPORARY POWER CABLE TOTAL PRICE	AMOUNT	PRICE EACH	TOTAL PRICE	BLAST LINE AMOUNT	BLAST LINE PRICE EACH	BLAST LINE TOTAL PRICE
ELECTRIC CABLE	1	$9.84	$9.84	1	$42.65	$42.65	1	$42.03	$42.03	0	$0.00	$0.00	1	$6.56	$6.56
CABLE HANGER	0	$1.08	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00
MESSENGER WIRE	0	$2.50	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00
SUBTOTAL			$9.84			$42.65			$42.03			$0.00			$6.56
DAMAGE @ 10%			$0.98			$4.27			$4.20			$0.00			$0.66
P.S.T. @ 12%			$1.30			$5.63			$5.55			$0.00			$0.87
P.S.T. @ 0%			$0.00			$0.00			$0.00			$0.00			$0.00
TOTALS			$12.13			$52.55			$51.78			$0.00			$8.08
COST/METRE $134.53			$12.13 /METRE			$52.55 /METRE			$51.78 /METRE			$0.00 /METRE			$8.08

SHAFT TIMBER

			Lin Ft	Bd Ft
TIMBER SETS 7'6" CENTERS =	2.29 M			
WALL PLATES	2 @ 10" x 10" x 19'4"		38.67	322
END PLATES	2 @ 10" x 10" x 9'2"		18.33	153
DIVIDERS	2 @ 8" x 10" = 7'6"		15.00	100
POSTS	4 @ 8" x 8" x 6'8"		26.67	142
	4 @ 10" x 10" x 6'8"		26.67	222
			125.33	939
	SETS	0.525 MBFT @ $1,485/1,000	$853.87	
	POSTS	0.364 MBFT @ $1,325/1,000	$482.89	
				$1,336.76 /SET
BLOCKING	15 % x $1,325.00 x	939 BDFT/SET =		$186.71 /SET
LINING	35.2 LIN. FT. x 6.7 x 2" = 0.472 MBDFT @ $450.00/1,000 =			$211.20 /SET
GUIDES	4 - 6" x 8" x 24' FERRI GUIDES @ $336.00 EA.			
	4 x $336.00 / 24' x 7.5' =			$420.00 /SET
				$2,154.68 SET
TIMBER SETS 7'6" CENTERS =	2.29 M			$940.91 /M.

HARDWARE

GUIDE BRACKETS	4	@	$12.00	$48.00 /SET
HANGING RODS	6	@	$18.00	$108.00 /SET
MANWAY EVERY 3 SETS	0.3	@	$140.00	$46.67 /SET
LADDER EVERY 3 SETS	0.3	@	$70.00	$23.33 /SET
PIPE BRACKETS	1	@	$17.00	$17.00 /SET
VENT BRACKETS	1	@	$12.00	$12.00 /SET
				$255.00 /SET
TIMBER SETS 7'6" CENTERS =	2.29 M			$111.35 /M.

CONCRETE RINGS PERFORMANCE

3' HIGH x 58'	174 SQFT		
FLOOR 3 x 58'	116		
TOTAL	290 SQFT		
FINED			
8 x 4 x 2	64		
POUR	12.9 CUYDS		
REBAR	100 #/CUYD		
FORM LABOUR	290 SQFT / 60 SQFT/MS. =	4.83 m.s.	
PINS	16 x 0.25/8 =	0.50 m.s.	
REBARS	1,290 # / 400 #/MS =	3.23 m.s.	
POUR	12.9 CUYD/8 CUYD/MS =	1.61 m.s.	
	TOTAL	10.17 m.s.	
	@ 5 MAN CREW =	16.27 MHS.	
	FT/DAY = 7'6" x 2 /	2.03 11.06 FT/DAY	
		2.17 HRS/FT	

CONCRETE RINGS COST

FORMING	290 SQFT @ $3.00 / SQFT	$870
PINS	16 @ $1.50/FT x 4'	$96
REBAR	1,290 # x $0.50 / LB	$645
CONCRETE	12.90 CUYD x $154 / CUYD	$1,987
	TOTAL	$3,598
	/ 7.5 FT =	$479.68 /FT
		$1,573.75 /M

SHAFT SINKING PHASE I

STATION EXCAVATION & EQUIPPING

800 LEVEL

EXCAVATION	300 CU M @ $282	$	84,600	
BOLTING	60 @ $75		4,500	
MESH	65 SQ M @ $100		6,500	
PUMP & SUMP			54,375	
STATION ELECTRICS			23,700	
				$ 173,675

SHAFT SINKING PHASE II

535 LEVEL

EXCAVATION	900 CU M @ $282	$	253,800	
BOLTING	90 @ $75		6,750	
MESH	90 SQ M @ $100		9,000	
PUMP & SUMP (1)			72,025	
STATION ELECTRICS			35,402	
HYRAM & GRIZZLY (2)			280,784	
				$ 657,761

513 LOAD OUT

EXCAVATION	150 CU M @ $282	$	42,300	
BOLTING	100 @ $75		7,500	
MESH	82 SQ M @ $100		8,200	
ORE & WASTE RAISE	44 M @ $282 EQUIV		49,632	
LOADING POCKETS & SPILL POCKET			235,789	
				$ 343,421

APPENDIX IV

CURRAGH RESOURCES - DY DEPOSIT

MINE DEVELOPMENT PROGRAM

SCOPE OF WORK*

	SIZE	GRADE	LENGTH	UNIT RATE	TOTAL COST CONTRACTOR	POWER UNIT COST	POWER COST
1. U/G CONTRACTOR MOBILIZATION					$57,051		
2. LOWER U/G CONTRACTOR GEAR					$110,798		
3. SHAFT SUPPORT DURING LOWERING OF GEAR		+2%	14 DAYS	$4,361.19	$61,057	$444.13	$6,218
4. EXCAVATE MAIN X-CUT SINGLE HEADING	4.27 M X 4.57 M	+2%	60 M	$1,205.19	$72,311	$11.89	$713
5. EXCAVATE WEST DRIFT MULTIPLE HEADING	6.0 M X 5.0 M	+2%	100 M	$1,574.98	$157,498	$29.37	$2,937
6. EXCAVATE EAST DRIFT PANELS							
SINGLE HEADING	6.0 M X 5.0 M	+2%					
MULTIPLE HEADING	6.0 M X 5.0 M	+2%	500 M	$1,574.98	$787,490	$29.37	$14,685
7. EXCAVATE MISC. OPENINGS							
SINGLE HEADING	4.27 M X 4.57 M	+2%		$1,205.19		$11.89	
MULTIPLE HEADING	4.27 M X 4.57 M	+2%	100 M	$1,127.79	$112,779	$9.91	$991
8. DAILY SHAFT INDIRECTS			50 DAYS	$8,493.09	$424,655	$444.13	$22,207
9. PROVISION FOR GROUND SUPPORT			1750 BOLTS	$25.00	$43,750	$1.00	$1,750
10. PROVISION FOR MINE AIR HEATING			64 DAYS	$180.48	$11,551		
11. PROVISION FOR ADDITIONAL VENTILATION					$30,000		$45,120
			TOTAL		$1,868,939		$94,621

* INCLUDES AN ESTIMATED 61,200 TONNES ORE

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CURRAGH RES. CORP.

DY DEPOSIT

BID SUMMARY SHEET

4.27 M x 4.57 M LEVEL

SINGLE HEADING

ELECTRIC

CONCURRENT

CATEGORY	TOTAL COST / M.	OWNER'S COST / M.
DIRECT LABOUR	$188.33	-
SUPPORT LABOUR	$291.42	-
STEEL & BITS	$76.82	-
EXPLOSIVES & ACCESSORIES	$199.97	-
EQUIPMENT RENTAL	$116.80	-
EQUIPMENT REPAIR	$73.58	-
FUEL & LUBE	$28.69	-
PIPE & ACCESSORIES	$32.69	-
VENTILATION & ACCESSORIES	$34.02	-
ELECTRIC CABLE	$105.49	-
ELECTRIC POWER	$0.00	$11.89
HOSES, SMALL TOOLS	$11.48	-
INSURANCE, COMMUNICATION	$11.48	-
FREIGHT DURING CONTRACT	$34.43	-
SUBTOTAL	$1,205.19	$11.89 /METRE
G & A 11.5%	$138.60	
TOTAL COST	$1,343.79	
MARGIN 8.5%	$102.44	
PRICE	$1,446.23 /METRE	
	$440.81 /FT	

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SINGLE HEADING
ELECTRIC

S/T HOURS	40	/WK
DAYS/WK	7	/WK
O/T HOURS	16	/WK
O/T RATE	1.50	
BONUS	$12.00	/HR
HALY FRNG	20%	
STAFF FRG	20%	
RM+BD	$40.00	/DAY
HOLES/RND	49	
HOLE/DEPT	4.27	METRES
AVER BRK	3.81	METRES
MONTH	30	DAYS
ADVANCE	11.43	METRES/DAY

LABOUR	QUANTITY	RATE/HR	BONUS/HR
PROJ.SUPT	1	$17.00	$12.00
SHIFTBOSS	3	$16.25	$12.00
LEAD MECH	1	$16.50	$9.00
MECHANIC	2	$16.00	$6.00
ELECT.	1	$16.50	$9.00
MINER	6	$15.00	$12.00
SUR/EXP	1	$14.00	$3.00
CLERK	0	$10.00	$0.00
EXPEDITOR	1	$12.50	$0.00
TOTAL	16		
STEEL & BITS COST/METRE			$1.31

VARIABLES

EXPLOSIVES COSTS			STKS/CSE
CILGEL 70%	$101.90	PER CSE.	125
ANEX	$0.90	PER KG.	1.55
IRCTEX	$146.90	PER CSE.	100
CAPS	$2.48	EACH	-
MISC	$25.00		-
FUEL COST	$0.45	/LITRE	
GAS COST	$0.55	/LITRE	
G & A	11.50%		
MARGIN	8.50%		

STKS/CSE	
HOSES	1.00%
INS/COMM	1.00%
FREIGHT	3.00%

	NO. OF HOLES	STICKS PER HOLE
# LIFTERS	18	20
# PROHOLE	11	-
# PERIM	14	5
# CUT	3	20
TOTAL	46	

DR REPAIR $0.49 /METRE
FARES $42.81 /DAY
($874+$21+$501)/42 DAYS

CURRAGH RES. CORP.

DY DEPOSIT

4.27 M x 4.57 M LEVEL

SINGLE HEADING

ELECTRIC

CONCURRENT

POWER CONSUMPTION

ITEM	PEAK HP	ACT HP	Kw	HRS	Kwhrs
FANS	150	113	84	24	2,014
PUMPS	0	0	0	24	0
JUMBO	200	150	112	9	1,007
FW PUMP	0	0	0	24	0
SHOP	0	0	0	24	0
COMP	0	0	0	0	0
COMPRESSOR	0	0	0	24	0
				TOTAL	3,021

Kwhr = 3,021

Cost/Kwhr $0.045 Cost/Day $135.96

Cost/M $11.89

MANPOWER

DESCRIPTION	DAY	AFTN	BYD	TOTAL
PROJ.SUPT	1	-	-	1
SHIFTBOSS	1	1	1	3
LEAD MECH	1	-	-	1
MECHANIC	-	1	1	2
ELECT.	1	-	-	1
MINER	2	2	2	6
SUR/EXP	1	-	-	1
CLERK	-	-	-	0
EXPEDITOR	1	-	-	1
TOTAL	8	4	4	16

DIRECT LABOUR COSTS

DESCRIPTION	RATE PER HOUR	HOURS/WEEK STRAIGHT	HOURS/WEEK OVERTIME	HOURS/WEEK TOTAL	WAGE COST /WEEK	WAGE COST	DAILY BONUS COST	SUBTOTAL COST	FRINGES 20%	ROOM & BOARD	FARES	TOTAL PER MAN	# MEN REQ'D	TOTAL DAILY
MINER	$15.00	40	16	64	$960.00	$137.14	$96.00	$233.14	$46.63	$40.00	$42.81	$358.76	6	$2,152.57
													6	$2,152.57

DIRECT LABOUR COST= $2,152.57 /DAY @ 11.43 M/DAY = $188.33 /METRE

SUPPORT LABOUR COST

	RATE PER HOUR	HOURS/WEEK STRAIGHT	HOURS/WEEK OVERTIME	HOURS/WEEK TOTAL	WAGE COST /WEEK	WAGE COST	DAILY BONUS COST	SUBTOTAL COST	FRINGES 20%	ROOM & BOARD	FARES	TOTAL PER MAN	# MEN REQ'D	TOTAL DAILY
PROJ.SUPT	$17.00	40	16	64	$1,088.00	$155.43	$96.00	$251.43	$50.29	$40.00	$42.81	$384.52	1	$384.52
SHIFTBOSS	$16.25	40	16	64	$1,040.00	$148.57	$96.00	$244.57	$48.91	$40.00	$42.81	$376.30	3	$1,128.89
LEAD MECH	$16.50	40	16	64	$1,056.00	$150.86	$72.00	$222.86	$44.57	$40.00	$42.81	$350.24	1	$350.24
MECHANIC	$16.00	40	16	64	$1,024.00	$146.29	$48.00	$194.29	$38.86	$40.00	$42.81	$315.95	2	$631.90
ELECT.	$16.50	40	16	64	$1,056.00	$150.86	$72.00	$222.86	$44.57	$40.00	$42.81	$350.24	1	$350.24
SURV/EXP	$14.00	40	16	64	$896.00	$128.00	$24.00	$152.00	$30.40	$40.00	$42.81	$265.21	1	$265.21
CLERK	$10.00	40	16	64	$640.00	$91.43	$0.00	$91.43	$18.29	$40.00	$42.81	$192.52	0	$0.00
EXPEDITOR	$12.50	40	16	64	$800.00	$114.29	$0.00	$114.29	$22.86	$40.00	$42.81	$219.95	1	$219.95
													10	$3,330.95

SUPPORT LABOUR COST = $3,330.95 /DAY @ 11.43 M/DAY = $291.42 /METRE

HEADING SIZE = 4.27 M x 4.57 M

DRILL STEEL & BIT COST

HOLES DRILLED PER ROUND	HOLE DEPTH	TOTAL M. DRILLED PER ROUND	STEEL & BIT COST PER M. DRILLED	TOTAL STEEL & BITS COST	AVERAGE BREAK PER ROUND	STEEL & BITS COST PER M.
49	4.27	209 METRES	$1.31	$274.58	3.81 METRES	$72.07
3 (REAMED)	4.27	13 METRES	$1.41	$18.09	3.81 METRES	$4.75
					TOTAL	$76.82 /M

EXPLOSIVES & ACCESSORIES COST

HEADING SIZE = 4.27 M x 4.57 M
HOLES DRILLED = 49
HOLES BLASTED = 46
HOLE DIAMETER = 45 mm
POWDER TO BE USED = CILGEL 70%, AMEX, XACTEX
AVERAGE BREAK/RND = 3.81 METRES

DESCRIPTION	NO. OF HOLES	STICKS PER HOLE	TOTAL STICKS	STICKS /CASE	CASE REQ'D	COST PER CASE		TOTAL COST
PRIMER H.E.	46	1	46	125	0.37	$101.90		$37.50
PERIMETER XACTEX	14	5	70	100	0.70	$146.90		$102.83
LIFTERS & H.E.	18	20	360	125	2.88	$101.90		$293.47
CUT H.E.	3	20	60	125	0.48	$101.90		$48.91
BLASTHOLES AMEX	11	1.55 (KG/M.)	65 (KG.)	-	-	$0.90	/KG.	$58.46
							SUBTOTAL	$541.18
							12.00% F.S.T.	$64.94
							0.00% P.S.T.	$0.00
							TOTAL	$606.12

DESCRIPTION	NO. OF HOLES	CAPS PER HOLE	TOTAL CAPS OR FUSE	COST PER CAP	COST PER ROUND	COST OF MISC.	TOTAL COST
DETONATORS	46	1	46	$2.48	$114.08	$25.00	$139.08
					12.00% F.S.T.		$16.69
					0.00% P.S.T.		$0.00
					TOTAL		$155.77

TOTAL EXPLOSIVES COST = $606.12
TOTAL DETONATORS COST = $155.77

TOTAL COST = $761.89 PER RND / 3.81 M. = $199.97 / METRE

EQUIPMENT RENTAL AND REPAIR COST

EQUIPMENT DESCRIPTION	COMMENTS	RENT PER UNIT	NO. OF UNITS REQ,D	TOTAL RENTAL COST/MONTH	REPAIR COST PER HR., M.	HRS. OPERATING PER DAY OR M. DRILLED	REPAIR COST PER DAY	RENTAL COST PER DAY	REPAIR COST PER DAY
DRILL JUMBO		$10,000	1	$10,000	$15.00	3 HR	$45.00	$333.33	$45.00
DRILL REPAIR		-	-	-	$0.49	628 M.	$308.90	$0.00	$308.90
ST-8 SCOOPTRAM		$10,000	2	$20,000	$29.00	12 HR	$348.00	$666.67	$348.00
CH 1824 TRUCK		$8,700	-	$0	$21.00	0 HR	$0.00	$0.00	$0.00
600 CFM ELECT COMPRESSOR		$2,100	N/A	$0	$1.50	0 HR	$0.00	$0.00	$0.00
WAREHOUSE TRAILER		$300	N/A	$0	$0.00	0 HR	$0.00	$0.00	$0.00
OFFICE TRAILER		$450	N/A	$0	$0.25	0 HR	$0.00	$0.00	$0.00
FRESH WATER PUMP		$210	N/A	$0	$0.25	0 HR	$0.00	$0.00	$0.00
MINE LIGHTS & CHARGER		$15	20	$300	$1.50	24 HR	$36.00	$10.00	$36.00
VENTILATION FANS		$450	2	$900	$0.20	48 HR	$9.60	$30.00	$9.60
OXY & ACET TORCHES		$50	1	$50	$1.00	8 HR	$8.00	$1.67	$8.00
SAFETY GEAR		$100	1	$100	$0.00	0 HR	$0.00	$3.33	$0.00
FIRST AID GEAR		$150	1	$150	$0.00	0 HR	$0.00	$5.00	$0.00
SHOP TOOLS		$1,500	1	$1,500	$1.00	8 HR	$8.00	$50.00	$8.00
PICKUP / CREW VAN		$1,000	N/A	$0	$4.50	0 HR	$0.00	$0.00	$0.00
JACKLEG / STOPER		$250	4	$1,000	$1.00	2 HR	$2.00	$33.33	$2.00
400 AMP WELDER		$150	1	$150	$0.25	8 HR	$2.00	$5.00	$2.00
U/G PUMPS (13,30 HP)		$1,500	-	$0	$7.00	0 HR	$0.00	$0.00	$0.00
GROUT PUMP		$1,500	1	$1,500	$0.00	0 HR	$0.00	$50.00	$0.00
POWDER/CAP MAGAZINE		$650	N/A	$0	$0.00	0 HR	$0.00	$0.00	$0.00
GRADER		$3,500	1	$3,500	$20.00	3 HR	$60.00	$116.67	$60.00
POWER DISTRIBUTION RACK		$500	1	$500	$0.50	24 HR	$12.00	$16.67	$12.00
INTERMEDIATE LOADER		$200	2	$400	$0.25	6 HR	$1.50	$13.33	$1.50
TOTALS				$40,050 PER MONTH				$1,335.00	$841.00

ADVANCE PER DAY 11.43 M./DAY

	RENTALS	REPAIRS
COST/METRE	$116.80	$73.58

FUEL / LUBE COST

EQUIPMENT DESCRIPTION	ENGINE	NUMBER OF UNITS REQ'D	OPERATING HOURS PER DAY PER UNIT	TOTAL OPERATING HOURS PER DAY	FUEL REQ'D PER HOUR	TOTAL FUEL PER DAY	FUEL COST PER LITRE	FUEL COST PER DAY	LUBE COST @ 15% OF FUEL COST	TOTAL OPER. COST PER DAY
DRILL JUMBO	-	1	3	3	16.6 LT	49.8	$0.45	$22.41	$3.36	$25.77
ST 8 SCOOPTRAM	-	1	12	12	42.0 LT	504.0	$0.45	$226.80	$34.02	$260.82
CH 1824 TRUCK	-	1	0	0	42.0 LT	0.0	$0.45	$0.00	$0.00	$0.00
GRADER	-	1	3	3	25.0 LT	75.0	$0.45	$33.75	$5.06	$38.81
JACKLEG/STOPER	-	4	0	0	0.0 LT	0.0	-	$0.00	$2.50	$2.50
PICKUP / CREW VAN	-	-	0	0	15.0 LT	0.0	$0.55	$0.00	$0.00	$0.00
						TOTAL	628.80 L/DAY			$327.90

OPERATING COST = $327.90 /DAY @ 11.43 M/DAY = $28.69 COST/METRE

PIPE & ACCESSORY COST

ITEMS	2" LINE AMOUNT	2" LINE PRICE EACH	2" LINE TOTAL PRICE	4" LINE AMOUNT	4" LINE PRICE EACH	4" LINE TOTAL PRICE	4" LINE AMOUNT	4" LINE PRICE EACH	4" LINE TOTAL PRICE	6" LINE AMOUNT	6" LINE PRICE EACH	(PUMP) TOTAL PRICE	6" LINE AMOUNT	6" LINE PRICE EACH	TOTAL PRICE
PIPES	100	$1.32	$132.00	0	$3.73	$0.00	100	$3.73	$373.00	0	$5.00	$0.00	0	$5.00	$0.00
COUPLING	7	$5.92	$41.44	0	$11.85	$0.00	7	$11.85	$82.95	0	$20.40	$0.00	0	$20.40	$0.00
VALVES	1/200	$50.14	$25.07	0	$50.14	$0.00	1/200	$50.14	$25.07	0	$245.51	$0.00	0	$245.51	$0.00
ELBOWS 90 DEG	1/200	$7.91	$3.96	0	$22.27	$0.00	1/200	$22.27	$11.14	0	$56.36	$0.00	0	$56.36	$0.00
ELBOWS 45 DEG	1/200	$7.91	$3.96	0	$22.27	$0.00	1/200	$22.27	$11.14	0	$56.36	$0.00	0	$56.36	$0.00
TEES	1/200	$11.96	$5.98	0	$34.35	$0.00	1/200	$34.35	$17.18	0	$92.70	$0.00	0	$92.70	$0.00
CHECK VALVE /PRV	1/500'	$380.00	$76.00	0	$0.00	$0.00	1/500'	$0.00	$0.00	0	$380.00	$0.00	0	$380.00	$0.00
CHAIN HANGERS	0	$2.92	$0.00	0	$2.92	$0.00	0	$2.92	$0.00	0	$2.92	$0.00	0	$2.92	$0.00
3/16 CHAIN	0	$0.32	$0.00	0	$0.32	$0.00	0	$0.32	$0.00	0	$0.32	$0.00	0	$0.32	$0.00
SUBTOTAL			$288.40			$0.00			$520.47			$0.00			$0.00
DAMAGE @ 10%			$28.84			$0.00			$52.05			$0.00			$0.00
F.S.T. @ 12%			$38.07			$0.00			$68.70			$0.00			$0.00
P.S.T. @ 0%			$0.00			$0.00			$0.00			$0.00			$0.00
TOTALS			$355.31			$0.00			$641.21			$0.00			$0.00
	TOTAL														
COST/FT	$9.97 /FOOT		$3.33 /FT			$0.00 /FT			$6.41 /FT			$0.00 /FT			$0.00
COST/M	$32.69 /METRE		$11.66 /M.			$0.00 /M.			$21.04 /M.			$0.00 /M.			$0.00

VENTILATION & ACCESSORIES COST

ITEMS	12" DIA. AMOUNT	12" DIA. PRICE EACH	12" DIA. TOTAL PRICE	30" DIA. AMOUNT	30" DIA. PRICE EACH	30" DIA. TOTAL PRICE	36" DIA. AMOUNT	36" DIA. PRICE EACH	36" DIA. TOTAL PRICE	42" DIA. AMOUNT	42" DIA. PRICE EACH	42" DIA. TOTAL PRICE	48" DIA. AMOUNT	48" DIA. PRICE EACH	48" DIA. TOTAL PRICE
VENTILATION PIPE	0	$0.00	$0.00	0	$0.00	$0.00	0	$5.65	$0.00	0	$6.49	$0.00	50	$7.91	$395.50
VENTILATION TUBE	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00
PIPE COUPLING	0	$0.00	$0.00	0	$0.00	$0.00	0	$2.25	$0.00	0	$2.25	$0.00	5	$2.25	$11.25
PIPE HANGERS	0	$0.00	$0.00	0	$0.00	$0.00	0	$2.92	$0.00	0	$2.92	$0.00	0	$0.00	$0.00
PIPE ELBOWS	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00
PIPE TEES	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00
TUBE COUPLING	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00
TUBE HANGER	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	3	$2.92	$8.76
MESSENGER WIRE	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.33	$0.00	0	$0.33	$0.00	50	$0.33	$16.50
SUBTOTAL			$0.00			$0.00			$0.00			$0.00			$432.01
DAMAGE @ 20%			$0.00			$0.00			$0.00			$0.00			$86.40
F.S.T. @ -			$0.00			$0.00			$0.00			$0.00			$0.00
P.S.T. @ 0%			$0.00			$0.00			$0.00			$0.00			$0.00
TOTALS			$0.00			$0.00			$0.00			$0.00			$518.41
COST/FT			$0.00 /FT			$0.00 /FT			$0.00 /FT			$0.00 /FT			$10.37
COST/M. $34.02 /METRE			$0.00 /M.			$0.00 /M.			$0.00 /M.			$0.00 /M.			$34.02

ELECTRIC CABLE COST
(FOR FUTURE DECLINE)

ITEMS	3C #4 (BOOSTER FAN) AMOUNT	3C #4 PRICE EACH	3C #4 TOTAL PRICE	3C #6 (PUMP) AMOUNT	3C #6 PRICE EACH	3C #6 TOTAL PRICE	3C #2 AMOUNT	3C #2 PRICE EACH	3C #2 TOTAL PRICE	4C #4/0 AMOUNT	4C #4/0 PRICE EACH	4C #4/0 TOTAL PRICE	BLAST LINE (2C #18) AMOUNT	BLAST LINE (2C #18) PRICE EACH	BLAST LINE (2C #18) TOTAL PRICE
ELECTRIC CABLE	1	$4.31	$4.31	1	$2.93	$2.93	0	$0.00	$0.00	1	$16.80	$16.80	1	$0.50	$0.50
CABLE HANGER	1	$1.08	$1.08												
MESSENGER WIRE	1/6.096	$2.92	$0.48												
SUBTOTAL			$5.87			$2.93			$0.00			$16.80			$0.50
DAMAGE @ 10%			$0.59			$0.29			$0.00			$1.68			$0.05
F.S.T. @ 12%			$0.77			$0.39			$0.00			$2.22			$0.07
P.S.T. @ 0%			$0.00			$0.00			$0.00			$0.00			$0.00
TOTALS			$7.23			$3.61			$0.00			$20.70			$0.62
COST/FT = $32.15			$7.23 /FT			$3.61 /FT			$0.00 /FT			$20.70 /FT			$0.62
COST/M. $105.49 /METRE			$23.72 /M.			$11.84 /M.			$0.00 /M.			$67.91 /M.			$2.02

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CURRAGH RES. CORP.

DY DEPOSIT

BID SUMMARY SHEET

4.27 M x 4.57 M LEVEL

MULTIPLE HEADING

ELECTRIC

CONCURRENT

CATEGORY	TOTAL COST / M.	OWNER'S COST / M.
DIRECT LABOUR	$221.32	-
SUPPORT LABOUR	$227.07	-
STEEL & BITS	$76.62	-
EXPLOSIVES & ACCESSORIES	$199.97	-
EQUIPMENT RENTAL	$87.60	-
EQUIPMENT REPAIR	$70.54	-
FUEL & LUBE	$18.58	-
PIPE & ACCESSORIES	$32.69	-
VENTILATION & ACCESSORIES	$34.02	-
ELECTRIC CABLE	$105.49	-
ELECTRIC POWER	$0.00	$9.91
HOSES, SMALL TOOLS	$10.74	-
INSURANCE, COMMUNICATION	$10.74	-
FREIGHT DURING CONTRACT	$32.22	-
SUBTOTAL	$1,127.79	$9.91 /METRE
G & A 11.5%	$129.70	
TOTAL COST	$1,257.49	
MARGIN 8.5%	$95.86	
PRICE	$1,353.35 /METRE	
	$412.50 /FT	

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CURRAGH RES. CORP.

DY DEPOSIT

4.27 M x 4.57 M LEVEL

MULTIPLE HEADING

ELECTRIC

CONCURRENT

MULTIPLE HEADING
ELECTRIC

S/T HOURS	40	/WK
DAYS/WK	7	/WK
O/T HOURS	16	/WK
O/T RATE	1.50	
BONUS	$14.00	/HR
HRLY FRG	20%	
STAFF FRG	20%	
RM+BD	$40.00	/DAY
HOLES/RND	49	
HOLE/DEPT	4.27	METRES
AVER BRK	3.81	METRES
MONTH	30	DAYS
ADVANCE	15.24	METRES/DAY

LABOUR	QUANTITY	RATE/HR	BONUS/HR
PROJ.SUPT	1	$17.00	$14.00
SHIFTBOSS	3	$16.25	$14.00
LEAD MECH	1	$16.50	$10.50
MECHANIC	2	$16.00	$7.00
ELECT.	1	$16.50	$10.50
MINER	9	$15.00	$14.00
SUR/EXP	1	$14.00	$3.50
CLERK	0	$10.00	$0.00
EXPEDITOR	1	$12.50	$0.00
TOTAL	19		
STEEL & BITS COST/METRE			$1.31

VARIABLES

EXPLOSIVES COSTS			STKS/CSE
CILGEL 70%	$101.90	PER CSE.	125
ANEX	$0.90	PER KG.	1.35
XACTEX	$146.90	PER CSE.	100
CAPS	$2.48	EACH	-
MISC	$25.00		-
FUEL COST	$0.30	/LITRE	
GAS COST	$0.55	/LITRE	
G & A	11.50%		
MARGIN	8.50%		

	STKS/CSE
HOSES	1.00%
INS/COMM	1.00%
FREIGHT	3.00%

	NO. OF HOLES	STICKS PER HOLE
# LIFTERS	18	20
# PROHOLE	11	-
# PERIM	14	5
# CUT	3	20
TOTAL	46	

DR REPAIR	$0.49	/METRE
FARES	$42.81	/DAY
	(9874+2)+850)/42 DAYS	

POWER CONSUMPTION

ITEM	PEAK HP	ACT HP	Kw	HRS	Kwhrs
FANS	150	113	84	24	2,014
PUMPS	0	0	0	24	0
JUMBO	200	150	112	12	1,343
FW PUMP	0	0	0	24	0
SHOP	0	0	0	24	0
CAMP	0	0	0	0	0
COMPRESSOR	0	0	0	24	0
				TOTAL	3,357

Kwhr = 3,357

Cost/Kwhr $0.045 Cost/Day $151.07

Cost/M $9.91

MANPOWER

DESCRIPTION	DAY	AFTN	BYD	TOTAL
PROJ.SUPT	1	-	-	1
SHIFTBOSS	1	1	1	3
LEAD MECH	1	-	-	1
MECHANIC	-	1	1	2
ELECT.	1	-	-	1
MINER	3	3	3	9
SUR/EXP	1	-	-	1
CLERK	-	-	-	0
EXPEDITOR	1	-	-	1
TOTAL	9	5	5	19

DIRECT LABOUR COSTS

DESCRIPTION	RATE PER HOUR	HOURS/WEEK STRAIGHT	HOURS/WEEK OVERTIME	HOURS/WEEK TOTAL	WAGE COST /WEEK	WAGE COST	DAILY BONUS COST	SUBTOTAL COST	FRINGES 20%	ROOM & BOARD	FARES	TOTAL PER MAN	# MEN REQ'D	TOTAL DAILY
MINER	$15.00	40	16	64	$960.00	$137.14	$112.00	$249.14	$49.83	$40.00	$42.81	$374.76	9	$3,372.86
													9	$3,372.86

DIRECT LABOUR COST= $3,372.86 /DAY @ 15.24 M/DAY = $221.32 /METRE

SUPPORT LABOUR COST

	RATE PER HOUR	HOURS/WEEK STRAIGHT	HOURS/WEEK OVERTIME	HOURS/WEEK TOTAL	WAGE COST /WEEK	WAGE COST	DAILY BONUS COST	SUBTOTAL COST	FRINGES 20%	ROOM & BOARD	FARES	TOTAL PER MAN	# MEN REQ'D	TOTAL DAILY
PROJ.SUPT	$17.00	40	16	64	$1,088.00	$155.43	$112.00	$267.43	$53.49	$40.00	$42.81	$403.72	1	$403.72
SHIFTBOSS	$16.25	40	16	64	$1,040.00	$148.57	$112.00	$260.57	$52.11	$40.00	$42.81	$395.50	3	$1,186.49
LEAD MECH	$16.50	40	16	64	$1,056.00	$150.86	$84.00	$234.86	$46.97	$40.00	$42.81	$364.64	1	$364.64
MECHANIC	$16.00	40	16	64	$1,024.00	$146.29	$56.00	$202.29	$40.46	$40.00	$42.81	$325.55	2	$651.10
ELECT.	$16.50	40	16	64	$1,056.00	$150.86	$84.00	$234.86	$46.97	$40.00	$42.81	$364.64	1	$364.64
SURV/EXP	$14.00	40	16	64	$896.00	$128.00	$28.00	$156.00	$31.20	$40.00	$42.81	$270.01	1	$270.01
CLERK	$10.00	40	16	64	$640.00	$91.43	$0.00	$91.43	$18.29	$40.00	$42.81	$192.52	0	$0.00
EXPEDITOR	$12.50	40	16	64	$800.00	$114.29	$0.00	$114.29	$22.86	$40.00	$42.81	$219.95	1	$219.95
													10	$3,460.55

SUPPORT LABOUR COST = $3,460.55 /DAY @ 15.24 M/DAY = $227.07 /METRE

HEADING SIZE = 4.27 M x 4.57 M

DRILL STEEL & BIT COST

HOLES DRILLED PER ROUND	HOLE DEPTH	TOTAL M. DRILLED PER ROUND	STEEL & BIT COST PER M. DRILLED	TOTAL STEEL & BITS COST	AVERAGE BREAK PER ROUND	STEEL & BITS COST PER M.
49	4.27	209 METRES	$1.31	$274.58	3.81 METRES	$72.07
3 (REAMED)	4.27	13 METRES	$1.41	$18.09	3.81 METRES	$4.75
					TOTAL	$76.82 /M

EXPLOSIVES & ACCESSORIES COST

HEADING SIZE = 4.27 M x 4.57 M
HOLES DRILLED = 49
HOLES BLASTED = 46
HOLE DIAMETER = 45 mm
POWDER TO BE USED = CILBEL 70%, AMEX, XACTEX
AVERAGE BREAK/RND = 3.81 METRES

DESCRIPTION	NO. OF HOLES	STICKS PER HOLE	TOTAL STICKS	STICKS /CASE	CASE REQ'D	COST PER CASE		TOTAL COST
PRIMER H.E.	46	1	46	125	0.37	$101.90		$37.50
PERIMETER XACTEX	14	5	70	100	0.70	$146.90		$102.83
LIFTERS & H.E.	18	20	360	125	2.88	$101.90		$293.47
CUT H.E.	3	20	60	125	0.48	$101.90		$48.91
BLASTHOLES AMEX	11	1.33 (KG/M.)	65 (KG.)	-	-	$0.90	/KG.	$58.46
							SUBTOTAL	$541.18
							12.00% F.S.T.	$64.94
							0.00% P.S.T.	$0.00
							TOTAL	$606.12

DESCRIPTION	NO. OF HOLES	CAPS PER HOLE	TOTAL CAPS OR FUSE	COST PER CAP	COST PER ROUND	COST OF MISC.	TOTAL COST
DETONATORS	46	1	46	$2.48	$114.08	$25.00	$139.08
					12.00% F.S.T.		$16.69
					0.00% P.S.T.		$0.00
					TOTAL		$155.77

TOTAL EXPLOSIVES COST = $606.12
TOTAL DETONATORS COST = $155.77

TOTAL COST = $761.89 PER RND / 3.81 M. = $199.97 / METRE

EQUIPMENT RENTAL AND REPAIR COST

EQUIPMENT DESCRIPTION	COMMENTS	RENT PER UNIT	NO. OF UNITS REQ,D	TOTAL RENTAL COST/MONTH	REPAIR COST PER HR., M.	HRS. OPERATING PER DAY OR M. DRILLED	REPAIR COST PER DAY	RENTAL COST PER DAY	REPAIR COST PER DAY
DRILL JUMBO		$10,000	1	$10,000	$15.00	4 HR	$60.00	$333.33	$60.00
DRILL REPAIR		-	-	-	$0.49	837 M	$411.87	$0.00	$411.87
ST-8 SCOOPTRAM		$10,000	2	$20,000	$29.00	16 HR	$464.00	$666.67	$464.00
CH 1824 TRUCK		$8,700	-	$0	$21.00	0 HR	$0.00	$0.00	$0.00
600 CFM ELECT COMPRESSOR		$2,100	N/A	$0	$1.50	0 HR	$0.00	$0.00	$0.00
WAREHOUSE TRAILER		$300	N/A	$0	$0.00	0 HR	$0.00	$0.00	$0.00
OFFICE TRAILER		$450	N/A	$0	$0.25	0 HR	$0.00	$0.00	$0.00
FRESH WATER PUMP		$210	N/A	$0	$0.25	0 HR	$0.00	$0.00	$0.00
MINE LIGHTS & CHARGER		$15	20	$300	$1.50	24 HR	$36.00	$10.00	$36.00
VENTILATION FANS		$450	2	$900	$0.20	48 HR	$9.60	$30.00	$9.60
OXY & ACET TORCHES		$50	1	$50	$1.00	8 HR	$8.00	$1.67	$8.00
SAFETY GEAR		$100	1	$100	$0.00	0 HR	$0.00	$3.33	$0.00
FIRST AID GEAR		$150	1	$150	$0.00	0 HR	$0.00	$5.00	$0.00
SHOP TOOLS		$1,500	1	$1,500	$1.00	8 HR	$8.00	$50.00	$8.00
PICKUP / CREW VAN		$1,000	N/A	$0	$4.50	0 HR	$0.00	$0.00	$0.00
JACKLEG / STOPER		$250	4	$1,000	$1.00	2 HR	$2.00	$33.33	$2.00
400 AMP WELDER		$150	1	$150	$0.25	8 HR	$2.00	$5.00	$2.00
U/G PUMPS (13,30 HP)		$1,500	-	$0	$7.00	0 HR	$0.00	$0.00	$0.00
GROUT PUMP		$1,500	1	$1,500	$0.00	0 HR	$0.00	$50.00	$0.00
POWDER/CAP MAGAZINE		$650	N/A	$0	$0.00	0 HR	$0.00	$0.00	$0.00
GRADER		$3,500	1	$3,500	$20.00	3 HR	$60.00	$116.67	$60.00
POWER DISTRIBUTION RACK		$500	1	$500	$0.50	24 HR	$12.00	$16.67	$12.00
INTERMEDIATE LOADER		$200	2	$400	$0.25	6 HR	$1.50	$13.33	$1.50
TOTALS				$40,050 PER MONTH				$1,335.00	$1,074.97

ADVANCE PER DAY — 15.24 M./DAY

	RENTALS	REPAIRS
COST/METRE	$87.60	$70.54

FUEL / LUBE COST

EQUIPMENT DESCRIPTION	ENGINE	NUMBER OF UNITS REQ'D	OPERATING HOURS PER DAY PER UNIT	TOTAL OPERATING HOURS PER DAY	FUEL REQ'D PER HOUR	TOTAL FUEL PER DAY	FUEL COST PER LITRE	FUEL COST PER DAY	LUBE COST @ 15% OF FUEL COST	TOTAL OPER. COST PER DAY
DRILL JUMBO	-	1	4	4	16.6 LT	66.4	$0.30	$19.92	$2.99	$22.91
ST 8 SCOOPTRAM	-	1	16	16	42.0 LT	672.0	$0.30	$201.60	$30.24	$231.84
CH 1824 TRUCK	-	1	0	0	42.0 LT	0.0	$0.30	$0.00	$0.00	$0.00
GRADER	-	1	3	3	25.0 LT	75.0	$0.30	$22.50	$3.38	$25.88
JACKLEG/STOPER	-	4	0	0	0.0 LT	0.0	-	$0.00	$2.50	$2.50
PICKUP / CREW VAN	-	-	0	0	15.0 LT	0.0	$0.55	$0.00	$0.00	$0.00
						TOTAL	813.40 L/DAY			$283.12

OPERATING COST = $283.12 /DAY @ 15.24 M./DAY = $18.58 COST/METRE

PIPE & ACCESSORY COST

ITEMS	2" LINE AMOUNT	2" LINE PRICE EACH	2" LINE TOTAL PRICE	4" LINE AMOUNT	4" LINE PRICE EACH	4" LINE TOTAL PRICE	4" LINE AMOUNT	4" LINE PRICE EACH	4" LINE TOTAL PRICE	6" LINE AMOUNT	6" LINE PRICE EACH	(PUMP) TOTAL PRICE	6" LINE AMOUNT	6" LINE PRICE EACH	TOTAL PRICE
PIPES	100	$1.32	$132.00	0	$3.73	$0.00	100	$3.73	$373.00	0	$5.00	$0.00	0	$5.00	$0.00
COUPLING	7	$5.92	$41.44	0	$11.85	$0.00	7	$11.85	$82.95	0	$20.40	$0.00	0	$20.40	$0.00
VALVES	1/200	$50.14	$25.07	0	$50.14	$0.00	1/200	$50.14	$25.07	0	$245.51	$0.00	0	$245.51	$0.00
ELBOWS 90 DEG	1/200	$7.91	$3.96	0	$22.27	$0.00	1/200	$22.27	$11.14	0	$56.36	$0.00	0	$56.36	$0.00
ELBOWS 45 DEG	1/200	$7.91	$3.96	0	$22.27	$0.00	1/200	$22.27	$11.14	0	$56.36	$0.00	0	$56.36	$0.00
TEES	1/200	$11.96	$5.98	0	$34.35	$0.00	1/200	$34.35	$17.18	0	$92.70	$0.00	0	$92.70	$0.00
CHECK VALVE /PRV	1/500'	$380.00	$76.00	0	$0.00	$0.00	1/500'	$0.00	$0.00	0	$380.00	$0.00	0	$380.00	$0.00
CHAIN HANGERS	0	$2.92	$0.00	0	$2.92	$0.00	0	$2.92	$0.00	0	$2.92	$0.00	0	$2.92	$0.00
3/16 CHAIN	0	$0.32	$0.00	0	$0.32	$0.00	0	$0.32	$0.00	0	$0.32	$0.00	0	$0.32	$0.00
SUBTOTAL			$288.40			$0.00			$520.47			$0.00			$0.00
DAMAGE @ 10%			$28.84			$0.00			$52.05			$0.00			$0.00
F.S.T. @ 12%			$38.07			$0.00			$68.70			$0.00			$0.00
P.S.T. @ 0%			$0.00			$0.00			$0.00			$0.00			$0.00
TOTALS			$355.31			$0.00			$641.21			$0.00			$0.00
	TOTAL														
COST/FT	$9.97 /FOOT		$3.55 /FT			$0.00 /FT			$6.41 /FT			$0.00 /FT			$0.00
COST/M	$32.69 /METRE		$11.66 /M.			$0.00 /M.			$21.04 /M.			$0.00 /M.			$0.00

VENTILATION & ACCESSORIES COST

ITEMS	12" DIA. AMOUNT	12" DIA. PRICE EACH	12" DIA. TOTAL PRICE	30" DIA. AMOUNT	30" DIA. PRICE EACH	30" DIA. TOTAL PRICE	36" DIA. AMOUNT	36" DIA. PRICE EACH	36" DIA. TOTAL PRICE	42" DIA. AMOUNT	42" DIA. PRICE EACH	42" DIA. TOTAL PRICE	48" DIA. AMOUNT	48" DIA. PRICE EACH	48" DIA. TOTAL PRICE
VENTILATION PIPE	0	$0.00	$0.00	0	$0.00	$0.00	0	$5.65	$0.00	0	$6.49	$0.00	50	$7.91	$395.50
VENTILATION TUBE	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00
PIPE COUPLING	0	$0.00	$0.00	0	$0.00	$0.00	0	$2.25	$0.00	0	$2.25	$0.00	5	$2.25	$11.25
PIPE HANGERS	0	$0.00	$0.00	0	$0.00	$0.00	0	$2.92	$0.00	0	$2.92	$0.00	0	$0.00	$0.00
PIPE ELBOWS	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00
PIPE TEES	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00
TUBE COUPLING	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00
TUBE HANGER	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	3	$2.92	$8.76
MESSENGER WIRE	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.33	$0.00	0	$0.33	$0.00	50	$0.33	$16.50
SUBTOTAL			$0.00			$0.00			$0.00			$0.00			$432.01
DAMAGE @ 20%			$0.00			$0.00			$0.00			$0.00			$86.40
F.S.T. @ -			$0.00			$0.00			$0.00			$0.00			$0.00
P.S.T. @ 0%			$0.00			$0.00			$0.00			$0.00			$0.00
TOTALS			$0.00			$0.00			$0.00			$0.00			$518.41
COST/FT			$0.00 /FT			$0.00 /FT			$0.00 /FT			$0.00 /FT			$10.37
COST/M. $34.02 /METRE			$0.00 /M.			$0.00 /M.			$0.00 /M.			$0.00 /M.			$34.02

ELECTRIC CABLE COST
(FOR FUTURE DECLINE)

ITEMS	3C #4 (BOOSTER FAN) AMOUNT	3C #4 PRICE EACH	3C #4 TOTAL PRICE	3C #6 (PUMP) AMOUNT	3C #6 PRICE EACH	3C #6 TOTAL PRICE	3C #2 AMOUNT	3C #2 PRICE EACH	3C #2 TOTAL PRICE	4C #4/0 AMOUNT	4C #4/0 PRICE EACH	4C #4/0 TOTAL PRICE	BLAST LINE (2C #18) AMOUNT	BLAST LINE (2C #18) PRICE EACH	BLAST LINE (2C #18) TOTAL PRICE
ELECTRIC CABLE	1	$4.31	$4.31	1	$2.93	$2.93	0	$0.00	$0.00	1	$16.80	$16.80	1	$0.50	$0.50
CABLE HANGER	1	$1.08	$1.08												
MESSENGER WIRE	1/6.096	$2.92	$0.48												
SUBTOTAL			$5.87			$2.93			$0.00			$16.80			$0.50
DAMAGE @ 10%			$0.59			$0.29			$0.00			$1.68			$0.05
F.S.T. @ 12%			$0.77			$0.39			$0.00			$2.22			$0.07
P.S.T. @ 0%			$0.00			$0.00			$0.00			$0.00			$0.00
TOTALS			$7.23			$3.61			$0.00			$20.70			$0.62
COST/FT = $32.15			$7.23 /FT			$3.61 /FT			$0.00 /FT			$20.70 /FT			$0.62
COST/M. $105.49 /METRE			$23.72 /M.			$11.84 /M.			$0.00 /M.			$67.91 /M.			$2.02

FILE:RMP_A

CURRAGH RES. CORP.

DY DEPOSIT

BID SUMMARY SHEET

4.27 M x 4.57 M RAMP

SINGLE HEADING

ELECTRIC

CONCURRENT

CATEGORY	TOTAL COST / M.	OWNER'S COST / M.
DIRECT LABOUR	$188.33	-
SUPPORT LABOUR	$291.42	-
STEEL & BITS	$76.82	-
EXPLOSIVES & ACCESSORIES	$199.97	-
EQUIPMENT RENTAL	$116.80	-
EQUIPMENT REPAIR	$73.56	-
FUEL & LUBE	$28.69	-
PIPE & ACCESSORIES	$70.86	-
VENTILATION & ACCESSORIES	$34.02	-
ELECTRIC CABLE	$105.49	-
ELECTRIC POWER	$0.00	$14.96
HOSES, SMALL TOOLS	$11.86	-
INSURANCE, COMMUNICATION	$11.86	-
FREIGHT DURING CONTRACT	$35.58	-
SUBTOTAL	$1,245.27	$14.96 /METRE
G & A 11.5%	$143.21	
TOTAL COST	$1,388.47	
MARGIN 8.5%	$105.85	
PRICE	$1,494.32 /METRE	
	$455.47 /FT	

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SINGLE HEADING
ELECTRIC

S/T HOURS	40	/WK
DAYS/WK	7	/WK
O/T HOURS	16	/WK
O/T RATE	1.50	
BONUS	$12.00	/HR
HRLY FRNG	20%	
STAFF FRG	20%	
RM+BD	$40.00	/DAY
HOLES/RND	49	
HOLE/DEPT	4.27	METRES
AVER BRK	3.81	METRES
MONTH	30	DAYS
ADVANCE	11.43	METRES/DAY

LABOUR	QUANTITY	RATE/HR	BONUS/HR
PROJ.SUPT	1	$17.00	$12.00
SHIFTBOSS	3	$16.25	$12.00
LEAD MECH	1	$16.50	$9.00
MECHANIC	2	$16.00	$6.00
ELECT.	1	$16.50	$9.00
MINER	6	$15.00	$12.00
SUR/EXP	1	$14.00	$3.00
CLERK	0	$10.00	$0.00
EXPEDITOR	1	$12.50	$0.00
TOTAL	16		

STEEL & BITS COST/METRE $1.31

VARIABLES

EXPLOSIVES COSTS			STKS/CSE
CILBEL 70%	$101.90	PER CSE.	125
ANEX	$0.90	PER KG.	1.55
XACTEX	$146.90	PER CSE.	100
CAPS	$2.48	EACH	-
MISC	$25.00		-
FUEL COST	$0.45	/LITRE	
GAS COST	$0.55	/LITRE	
G & A	11.50%		HOSES 1.00%
MARGIN	8.50%		INS/COMM 1.00%
			FREIGHT 3.00%

	NO. OF HOLES	STICKS PER HOLE
# LIFTERS	18	20
# PRIMHOLE	11	-
# PERIM	14	5
# CUT	3	20
TOTAL	46	

DR REPAIR $0.49 /METRE
FARES $42.81 /DAY
($874*2)+$50)/42 DAYS

CURRAGH RES. CORP.
DY DEPOSIT
4.27 M x 4.57 M RAMP
SINGLE HEADING
ELECTRIC
CONCURRENT

POWER CONSUMPTION

ITEM	PEAK HP	ACT HP	Kw	HRS	Kwhrs
FANS	150	113	84	24	2,014
PUMPS	58	44	32	24	779
JUMBO	200	150	112	9	1,007
FW PUMP	0	0	0	24	0
SHOP	0	0	0	24	0
CAMP	0	0	0	0	0
COMPRESSOR	0	0	0	24	0
				TOTAL	3,800

Kwhr = 3,800

Cost/Kwhr $0.045 Cost/Day $171.01

Cost/M $14.96

MANPOWER

DESCRIPTION	DAY	AFTN	SYD	TOTAL
PROJ.SUPT	1	-	-	1
SHIFTBOSS	1	1	1	3
LEAD MECH	1	-	-	1
MECHANIC	-	1	1	2
ELECT.	1	-	-	1
MINER	2	2	2	6
SUR/EXP	1	-	-	1
CLERK	-	-	-	0
EXPEDITOR	1	-	-	1
TOTAL	8	4	4	16

DIRECT LABOUR COSTS

DESCRIPTION	RATE PER HOUR	HOURS/WEEK STRAIGHT	HOURS/WEEK OVERTIME	HOURS/WEEK TOTAL	WAGE COST /WEEK	WAGE COST	DAILY BONUS COST	DAILY SUBTOTAL COST	FRINGES 20%	ROOM & BOARD	FARES	TOTAL PER MAN	# MEN REQ'D	TOTAL DAILY
MINER	$15.00	40	16	64	$960.00	$137.14	$96.00	$233.14	$46.63	$40.00	$42.81	$358.76	6	$2,152.57
													6	$2,152.57

DIRECT LABOUR COST= $2,152.57 /DAY @ 11.43 M/DAY = $188.33 /METRE

SUPPORT LABOUR COST

	RATE PER HOUR	HOURS/WEEK STRAIGHT	HOURS/WEEK OVERTIME	HOURS/WEEK TOTAL	WAGE COST /WEEK	WAGE COST	DAILY BONUS COST	DAILY SUBTOTAL COST	FRINGES 20%	ROOM & BOARD	FARES	TOTAL PER MAN	# MEN REQ'D	TOTAL DAILY
PROJ.SUPT	$17.00	40	16	64	$1,088.00	$155.43	$96.00	$251.43	$50.29	$40.00	$42.81	$384.52	1	$384.52
SHIFTBOSS	$16.25	40	16	64	$1,040.00	$148.57	$96.00	$244.57	$48.91	$40.00	$42.81	$376.30	3	$1,128.89
LEAD MECH	$16.50	40	16	64	$1,056.00	$150.86	$72.00	$222.86	$44.57	$40.00	$42.81	$350.24	1	$350.24
MECHANIC	$16.00	40	16	64	$1,024.00	$146.29	$48.00	$194.29	$38.86	$40.00	$42.81	$315.95	2	$631.90
ELECT.	$16.50	40	16	64	$1,056.00	$150.86	$72.00	$222.86	$44.57	$40.00	$42.81	$350.24	1	$350.24
SURV/EXP	$14.00	40	16	64	$896.00	$128.00	$24.00	$152.00	$30.40	$40.00	$42.81	$265.21	1	$265.21
CLERK	$10.00	40	16	64	$640.00	$91.43	$0.00	$91.43	$18.29	$40.00	$42.81	$192.52	0	$0.00
EXPEDITOR	$12.50	40	16	64	$800.00	$114.29	$0.00	$114.29	$22.86	$40.00	$42.81	$219.95	1	$219.95
													10	$3,330.95

SUPPORT LABOUR COST = $3,330.95 /DAY @ 11.43 M/DAY = $291.42 /METRE

HEADING SIZE = 4.27 M x 4.57 M

DRILL STEEL & BIT COST

HOLES DRILLED PER ROUND	HOLE DEPTH	TOTAL M. DRILLED PER ROUND	STEEL & BIT COST PER M. DRILLED	TOTAL STEEL & BITS COST	AVERAGE BREAK PER ROUND	STEEL & BITS COST PER M.
49	4.27	209 METRES	$1.31	$274.58	3.81 METRES	$72.07
3 (REAMED)	4.27	13 METRES	$1.41	$18.09	3.81 METRES	$4.75
					TOTAL	$76.82 /M

EXPLOSIVES & ACCESSORIES COST

HEADING SIZE = 4.27 M x 4.57 M
HOLES DRILLED = 49
HOLES BLASTED = 46
HOLE DIAMETER = 45 mm
POWDER TO BE USED = CILGEL 70%, AMEX, XACTEX
AVERAGE BREAK/RND = 3.81 METRES

DESCRIPTION	NO. OF HOLES	STICKS PER HOLE	TOTAL STICKS	STICKS /CASE	CASE REQ'D	COST PER CASE		TOTAL COST
PRIMER H.E.	46	1	46	125	0.37	$101.90		$37.50
PERIMETER XACTEX	14	5	70	100	0.70	$146.90		$102.83
LIFTERS & H.E.	18	20	360	125	2.88	$101.90		$293.47
CUT H.E.	3	20	60	125	0.48	$101.90		$48.91
BLASTHOLES AMEX	11	1.55 (KG/M.)	65 (KG.)	-	-	$0.90	/KG.	$58.46
							SUBTOTAL	$541.18
						12.00%	F.S.T.	$64.94
						0.00%	P.S.T.	$0.00
							TOTAL	$606.12

DESCRIPTION	NO. OF HOLES	CAPS PER HOLE	TOTAL CAPS OR FUSE	COST PER CAP	COST PER ROUND	COST OF MISC.	TOTAL COST
DETONATORS	46	1	46	$2.48	$114.08	$25.00	$139.08
					12.00%	F.S.T.	$16.69
					0.00%	P.S.T.	$0.00
						TOTAL	$155.77

TOTAL EXPLOSIVES COST = $606.12
TOTAL DETONATORS COST = $155.77

TOTAL COST = $761.89 PER RND / 3.81 M. = $199.97 / METRE

EQUIPMENT RENTAL AND REPAIR COST

EQUIPMENT DESCRIPTION	COMMENTS	RENT PER UNIT	NO. OF UNITS REQ'D	TOTAL RENTAL COST/MONTH	REPAIR COST PER HR., M.	HRS. OPERATING PER DAY OR M. DRILLED	REPAIR COST PER DAY	RENTAL COST PER DAY	REPAIR COST PER DAY
DRILL JUMBO		$10,000	1	$10,000	$15.00	3 HR	$45.00	$333.33	$45.00
DRILL REPAIR		-	-	-	$0.49	628 M.	$308.90	$0.00	$308.90
ST-8 SCOOPTRAM		$10,000	2	$20,000	$29.00	12 HR	$348.00	$666.67	$348.00
CH 1824 TRUCK		$6,700	-	$0	$21.00	0 HR	$0.00	$0.00	$0.00
600 CFM ELECT COMPRESSOR		$2,100	N/A	$0	$1.50	0 HR	$0.00	$0.00	$0.00
WAREHOUSE TRAILER		$300	N/A	$0	$0.00	0 HR	$0.00	$0.00	$0.00
OFFICE TRAILER		$450	N/A	$0	$0.25	0 HR	$0.00	$0.00	$0.00
FRESH WATER PUMP		$210	N/A	$0	$0.25	0 HR	$0.00	$0.00	$0.00
MINE LIGHTS & CHARGER		$15	20	$300	$1.50	24 HR	$36.00	$10.00	$36.00
VENTILATION FANS		$450	2	$900	$0.20	48 HR	$9.60	$30.00	$9.60
OXY & ACET TORCHES		$50	1	$50	$1.00	8 HR	$8.00	$1.67	$8.00
SAFETY GEAR		$100	1	$100	$0.00	0 HR	$0.00	$3.33	$0.00
FIRST AID GEAR		$150	1	$150	$0.00	0 HR	$0.00	$5.00	$0.00
SHOP TOOLS		$1,500	1	$1,500	$1.00	8 HR	$8.00	$50.00	$8.00
PICKUP / CREW VAN		$1,000	N/A	$0	$4.50	0 HR	$0.00	$0.00	$0.00
JACKLEG / STOPER		$250	4	$1,000	$1.00	2 HR	$2.00	$33.33	$2.00
400 AMP WELDER		$150	1	$150	$0.25	8 HR	$2.00	$5.00	$2.00
U/G PUMPS (13,30 HP)		$1,500	-	$0	$7.00	0 HR	$0.00	$0.00	$0.00
GROUT PUMP		$1,500	1	$1,500	$0.00	0 HR	$0.00	$50.00	$0.00
POWDER/CAP MAGAZINE		$650	N/A	$0	$0.00	0 HR	$0.00	$0.00	$0.00
GRADER		$3,500	1	$3,500	$20.00	3 HR	$60.00	$116.67	$60.00
POWER DISTRIBUTION RACK		$500	1	$500	$0.50	24 HR	$12.00	$16.67	$12.00
INTERMEDIATE LOADER		$200	2	$400	$0.25	6 HR	$1.50	$13.33	$1.50
TOTALS				$40,050 PER MONTH				$1,335.00	$841.00

	RENTALS	REPAIRS
ADVANCE PER DAY		11.43 M./DAY
COST/METRE	$116.80	$73.58

FUEL / LUBE COST

EQUIPMENT DESCRIPTION	ENGINE	NUMBER OF UNITS REQ'D	OPERATING HOURS PER DAY PER UNIT	TOTAL OPERATING HOURS PER DAY	FUEL REQ'D PER HOUR	TOTAL FUEL PER DAY	FUEL COST PER LITRE	FUEL COST PER DAY	LUBE COST @ 15% OF FUEL COST	TOTAL OPER. COST PER DAY
DRILL JUMBO	-	1	3	3	16.6 LT	49.8	$0.45	$22.41	$3.36	$25.77
ST 8 SCOOPTRAM	-	1	12	12	42.0 LT	504.0	$0.45	$226.80	$34.02	$260.82
CH 1824 TRUCK	-	1	0	0	42.0 LT	0.0	$0.45	$0.00	$0.00	$0.00
GRADER	-	1	3	3	25.0 LT	75.0	$0.45	$33.75	$5.06	$38.81
JACKLEG/STOPER	-	4	0	0	0.0 LT	0.0	-	$0.00	$2.50	$2.50
PICKUP / CREW VAN	-	-	0	0	15.0 LT	0.0	$0.55	$0.00	$0.00	$0.00
					TOTAL	628.80 L/DAY				$327.90

OPERATING COST = $327.90 /DAY @ 11.43 M/DAY = $28.69 COST/METRE

PIPE & ACCESSORY COST

ITEMS	2" LINE AMOUNT	2" LINE PRICE EACH	2" LINE TOTAL PRICE	4" LINE AMOUNT	4" LINE PRICE EACH	4" LINE TOTAL PRICE	4" LINE AMOUNT	4" LINE PRICE EACH	4" LINE TOTAL PRICE	6" LINE AMOUNT	6" LINE PRICE EACH	(PUMP) TOTAL PRICE	6" LINE AMOUNT	6" LINE PRICE EACH	6" LINE TOTAL PRICE
PIPES	100	$1.32	$132.00	0	$3.73	$0.00	100	$3.73	$373.00	100	$5.00	$500.00	0	$5.00	$0.00
COUPLING	7	$5.92	$41.44	0	$11.85	$0.00	7	$11.85	$82.95	7	$20.40	$142.80	0	$20.40	$0.00
VALVES	1/200	$50.14	$25.07	0	$50.14	$0.00	1/200	$50.14	$25.07	1/200	$245.51	$122.76	0	$245.51	$0.00
ELBOWS 90 DEG	1/200	$7.91	$3.96	0	$22.27	$0.00	1/200	$22.27	$11.14	1/200	$56.36	$28.18	0	$56.36	$0.00
ELBOWS 45 DEG	1/200	$7.91	$3.96	0	$22.27	$0.00	1/200	$22.27	$11.14	1/200	$56.36	$28.18	0	$56.36	$0.00
TEES	1/200	$11.96	$5.98	0	$34.35	$0.00	1/200	$34.35	$17.18	1/200	$92.70	$46.35	0	$92.70	$0.00
CHECK VALVE /PRV	1/500'	$380.00	$76.00	0	$0.00	$0.00	1/500'	$0.00	$0.00	1/500'	$380.00	$76.00	0	$380.00	$0.00
CHAIN HANGERS	0	$2.92	$0.00	0	$2.92	$0.00	0	$2.92	$0.00	0	$2.92	$0.00	0	$2.92	$0.00
3/16 CHAIN	0	$0.32	$0.00	0	$0.32	$0.00	0	$0.32	$0.00	0	$0.32	$0.00	0	$0.32	$0.00
SUBTOTAL			$268.40			$0.00			$520.47			$944.27			$0.00
DAMAGE @ 10%			$26.84			$0.00			$52.05			$94.43			$0.00
F.S.T. @ 12%			$38.07			$0.00			$68.70			$124.64			$0.00
P.S.T. @ 0%			$0.00			$0.00			$0.00			$0.00			$0.00
TOTALS			$355.31			$0.00			$641.21			$1,163.33			$0.00
TOTAL															
COST/FT $21.60 /FOOT			$3.35 /FT			$0.00 /FT			$6.41 /FT			$11.63 /FT			$0.00
COST/M $70.86 /METRE			$11.66 /M.			$0.00 /M.			$21.04 /M.			$38.17 /M.			$0.00

VENTILATION & ACCESSORIES COST

ITEMS	12" DIA. AMOUNT	12" DIA. PRICE EACH	12" DIA. TOTAL PRICE	30" DIA. AMOUNT	30" DIA. PRICE EACH	30" DIA. TOTAL PRICE	36" DIA. AMOUNT	36" DIA. PRICE EACH	36" DIA. TOTAL PRICE	42" DIA. AMOUNT	42" DIA. PRICE EACH	42" DIA. TOTAL PRICE	48" DIA. AMOUNT	48" DIA. PRICE EACH	48" DIA. TOTAL PRICE
VENTILATION PIPE	0	$0.00	$0.00	0	$0.00	$0.00	0	$5.65	$0.00	0	$6.49	$0.00	50	$7.91	$395.50
VENTILATION TUBE	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00
PIPE COUPLING	0	$0.00	$0.00	0	$0.00	$0.00	0	$2.25	$0.00	0	$2.25	$0.00	5	$2.25	$11.25
PIPE HANGERS	0	$0.00	$0.00	0	$0.00	$0.00	0	$2.92	$0.00	0	$2.92	$0.00	0	$0.00	$0.00
PIPE ELBOWS	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00
PIPE TEES	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00
TUBE COUPLING	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00
TUBE HANGER	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	3	$2.92	$8.76
MESSENGER WIRE	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.33	$0.00	0	$0.33	$0.00	50	$0.33	$16.50
SUBTOTAL			$0.00			$0.00			$0.00			$0.00			$432.01
DAMAGE @ 20%			$0.00			$0.00			$0.00			$0.00			$86.40
F.S.T. @ -			$0.00			$0.00			$0.00			$0.00			$0.00
P.S.T. @ 0%			$0.00			$0.00			$0.00			$0.00			$0.00
TOTALS			$0.00			$0.00			$0.00			$0.00			$518.41
COST/FT			$0.00 /FT			$0.00 /FT			$0.00 /FT			$0.00 /FT			$10.37
COST/M. $34.02 /METRE			$0.00 /M.			$0.00 /M.			$0.00 /M.			$0.00 /M.			$34.02

ELECTRIC CABLE COST

ITEMS	3C #4 (BOOSTER FAN) AMOUNT	3C #4 PRICE EACH	3C #4 TOTAL PRICE	3C #6 (PUMP) AMOUNT	3C #6 PRICE EACH	3C #6 TOTAL PRICE	3C #2 AMOUNT	3C #2 PRICE EACH	3C #2 TOTAL PRICE	4C #4/0 AMOUNT	4C #4/0 PRICE EACH	4C #4/0 TOTAL PRICE	BLAST LINE (2C #18) AMOUNT	BLAST LINE (2C #18) PRICE EACH	BLAST LINE (2C #18) TOTAL PRICE
ELECTRIC CABLE	1	$4.31	$4.31	1	$2.93	$2.93	0	$0.00	$0.00	1	$16.80	$16.80	1	$0.50	$0.50
CABLE HANGER	1	$1.08	$1.08												
MESSENGER WIRE	1/6.096	$2.92	$0.48												
SUBTOTAL			$5.87			$2.93			$0.00			$16.80			$0.50
DAMAGE @ 10%			$0.59			$0.29			$0.00			$1.68			$0.05
F.S.T. @ 12%			$0.77			$0.39			$0.00			$2.22			$0.07
P.S.T. @ 0%			$0.00			$0.00			$0.00			$0.00			$0.00
TOTALS			$7.23			$3.61			$0.00			$20.70			$0.62
COST/FT = $32.15			$7.23 /FT			$3.61 /FT			$0.00 /FT			$20.70 /FT			$0.62
COST/M. $105.49 /METRE			$23.72 /M.			$11.84 /M.			$0.00 /M.			$67.91 /M.			$2.02

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CURRAGH RES. CORP.

DY DEPOSIT

BID SUMMARY SHEET

4.27 M x 4.57 M RAMP

MULTIPLE HEADING

ELECTRIC

CONCURRENT

CATEGORY	TOTAL COST / M.	OWNER'S COST / M.
DIRECT LABOUR	$221.32	-
SUPPORT LABOUR	$227.07	-
STEEL & BITS	$76.82	-
EXPLOSIVES & ACCESSORIES	$199.97	-
EQUIPMENT RENTAL	$87.60	-
EQUIPMENT REPAIR	$70.54	-
FUEL & LUBE	$27.78	-
PIPE & ACCESSORIES	$70.86	-
VENTILATION & ACCESSORIES	$34.02	-
ELECTRIC CABLE	$105.49	-
ELECTRIC POWER	$0.00	$12.21
HOSES, SMALL TOOLS	$11.21	-
INSURANCE, COMMUNICATION	$11.21	-
FREIGHT DURING CONTRACT	$33.64	-
SUBTOTAL	$1,177.54	$12.21 /METRE
G & A 11.5%	$135.42	
TOTAL COST	$1,312.95	
MARGIN 8.5%	$100.09	
PRICE	$1,413.04 /METRE	
	$430.70 /FT	

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MULTIPLE HEADING
ELECTRIC

S/T HOURS	40	/WK
DAYS/WK	7	/WK
O/T HOURS	16	/WK
O/T RATE	1.50	
BONUS	$14.00	/HR
HALY FRB	20%	
STAFF FRB	20%	
RM+BD	$40.00	/DAY
HOLES/RND	49	
HOLE/DEPT	4.27	METRES
AVER BRK	3.81	METRES
MONTH	30	DAYS
ADVANCE	15.24	METRES/DAY

LABOUR	QUANTITY	RATE/HR	BONUS/HR
PROJ.SUPT	1	$17.00	$14.00
SHIFTBOSS	3	$16.25	$14.00
LEAD MECH	1	$16.50	$10.50
MECHANIC	2	$16.00	$7.00
ELECT.	1	$16.50	$10.50
MINER	9	$15.00	$14.00
SUR/EXP	1	$14.00	$3.50
CLERK	0	$10.00	$0.00
EXPEDITOR	1	$12.50	$0.00
TOTAL	19		
STEEL & BITS COST/METRE			$1.31

VARIABLES

EXPLOSIVES COSTS		STKS/CSE
CILGEL 70%	$101.90 PER CSE.	125
AMEX	$0.90 PER KG.	1.35
XACTEX	$146.90 PER CSE.	100
CAPS	$2.48 EACH	-
MISC	$25.00	-
FUEL COST	$0.45 /LITRE	
BAB COST	$0.35 /LITRE	
G & A	11.50%	
MARGIN	8.50%	

	HOSES	1.00%
	ING/COMM	1.00%
	FREIGHT	3.00%

	NO. OF HOLES	STICKS PER HOLE
@ LIFTERS	18	20
@ PROHOLE	11	-
@ PERIN	14	5
@ CUT	3	20
TOTAL	46	

DR REPAIR $0.49 /METRE
FARES $42.81 /DAY
((874*2)+850)/42 DAYS

CURRAGH RES. CORP.

DY DEPOSIT

4.27 M x 4.57 M RAMP

MULTIPLE HEADING

ELECTRIC

CONCURRENT

POWER CONSUMPTION

ITEM	PEAK HP	ACT HP	Kw	HRS	Kwhrs
FANS	150	113	84	24	2,014
PUMPS	58	44	32	24	779
JUMBO	200	150	112	12	1,343
FW PUMP	0	0	0	24	0
SHOP	0	0	0	24	0
CAMP	0	0	0	0	0
COMPRESSOR	0	0	0	24	0
				TOTAL	4,136

Kwhr = 4,136

Cost/Kwhr $0.045 Cost/Day $186.11

Cost/M $12.21

MANPOWER

DESCRIPTION	DAY	AFTN	GYD	TOTAL
PROJ.SUPT	1	-	-	1
SHIFTBOSS	1	1	1	3
LEAD MECH	1	-	-	1
MECHANIC	-	1	1	2
ELECT.	1	-	-	1
MINER	3	3	3	9
SUR/EXP	1	-	-	1
CLERK	-	-	-	0
EXPEDITOR	1	-	-	1
TOTAL	9	5	5	19

DIRECT LABOUR COSTS

DESCRIPTION	RATE PER HOUR	HOURS/WEEK STRAIGHT	OVERTIME	TOTAL	WAGE COST /WEEK	WAGE COST	DAILY BONUS COST	SUBTOTAL COST	FRINGES 20%	ROOM & BOARD	FARES	TOTAL PER MAN	# MEN REQ'D	TOTAL DAILY
MINER	$15.00	40	16	64	$960.00	$137.14	$112.00	$249.14	$49.83	$40.00	$42.81	$374.76	9	$3,372.86
													9	$3,372.86

DIRECT LABOUR COST= $3,372.86 /DAY @ 15.24 M/DAY = $221.32 /METRE

SUPPORT LABOUR COST

	RATE PER HOUR	HOURS/WEEK STRAIGHT	OVERTIME	TOTAL	WAGE COST /WEEK	WAGE COST	DAILY BONUS COST	SUBTOTAL COST	FRINGES 20%	ROOM & BOARD	FARES	TOTAL PER MAN	# MEN REQ'D	TOTAL DAILY
PROJ.SUPT	$17.00	40	16	64	$1,088.00	$155.43	$112.00	$267.43	$53.49	$40.00	$42.81	$403.72	1	$403.72
SHIFTBOSS	$16.25	40	16	64	$1,040.00	$148.57	$112.00	$260.57	$52.11	$40.00	$42.81	$395.50	3	$1,186.49
LEAD MECH	$16.50	40	16	64	$1,056.00	$150.86	$84.00	$234.86	$46.97	$40.00	$42.81	$364.64	1	$364.64
MECHANIC	$16.00	40	16	64	$1,024.00	$146.29	$56.00	$202.29	$40.46	$40.00	$42.81	$325.55	2	$651.10
ELECT.	$16.50	40	16	64	$1,056.00	$150.86	$84.00	$234.86	$46.97	$40.00	$42.81	$364.64	1	$364.64
SURV/EXP	$14.00	40	16	64	$896.00	$128.00	$28.00	$156.00	$31.20	$40.00	$42.81	$270.01	1	$270.01
CLERK	$10.00	40	16	64	$640.00	$91.43	$0.00	$91.43	$18.29	$40.00	$42.81	$192.52	0	$0.00
EXPEDITOR	$12.50	40	16	64	$800.00	$114.29	$0.00	$114.29	$22.86	$40.00	$42.81	$219.95	1	$219.95
													10	$3,460.55

SUPPORT LABOUR COST = $3,460.55 /DAY @ 15.24 M/DAY = $227.07 /METRE

HEADING SIZE = 4.27 M x 4.57 M

DRILL STEEL & BIT COST

HOLES DRILLED PER ROUND	HOLE DEPTH	TOTAL M. DRILLED PER ROUND	STEEL & BIT COST PER M. DRILLED	TOTAL STEEL & BITS COST	AVERAGE BREAK PER ROUND	STEEL & BITS COST PER M.
49	4.27	209 METRES	$1.31	$274.58	3.81 METRES	$72.07
3 (REAMED)	4.27	13 METRES	$1.41	$18.09	3.81 METRES	$4.75
					TOTAL	$76.82 /M

EXPLOSIVES & ACCESSORIES COST

HEADING SIZE = 4.27 M x 4.57 M
HOLES DRILLED = 49
HOLES BLASTED = 46
HOLE DIAMETER = 45 mm
POWDER TO BE USED = CILBEL 70%, AMEX, XACTEX
AVERAGE BREAK/RND = 3.81 METRES

DESCRIPTION	NO. OF HOLES	STICKS PER HOLE	TOTAL STICKS	STICKS /CASE	CASE REQ'D	COST PER CASE		TOTAL COST
PRIMER H.E.	46	1	46	125	0.37	$101.90		$37.50
PERIMETER XACTEX	14	5	70	100	0.70	$146.90		$102.83
LIFTERS & H.E.	18	20	360	125	2.88	$101.90		$293.47
CUT H.E.	3	20	60	125	0.48	$101.90		$48.91
BLASTHOLES AMEX	11	1.55 (KG/M.)	65 (KG.)	-	-	$0.90	/KG.	$58.46
							SUBTOTAL	$541.18
							12.00% F.S.T.	$64.94
							0.00% P.S.T.	$0.00
							TOTAL	$606.12

DESCRIPTION	NO. OF HOLES	CAPS PER HOLE	TOTAL CAPS OR FUSE	COST PER CAP	COST PER ROUND	COST OF MISC.	TOTAL COST
DETONATORS	46	1	46	$2.48	$114.08	$25.00	$139.08
					12.00% F.S.T.		$16.69
					0.00% P.S.T.		$0.00
					TOTAL		$155.77

TOTAL EXPLOSIVES COST = $606.12
TOTAL DETONATORS COST = $155.77

TOTAL COST = $761.89 PER RND / 3.81 M. = $199.97 / METRE

EQUIPMENT RENTAL AND REPAIR COST

EQUIPMENT DESCRIPTION	COMMENTS	RENT PER UNIT	NO. OF UNITS REQ,D	TOTAL RENTAL COST/MONTH	REPAIR COST PER HR., M.	HRS. OPERATING PER DAY OR M. DRILLED	REPAIR COST PER DAY	RENTAL COST PER DAY	REPAIR COST PER DAY
DRILL JUMBO		$10,000	1	$10,000	$15.00	4 HR	$60.00	$333.33	$60.00
DRILL REPAIR		-	-	-	$0.49	837 M.	$411.87	$0.00	$411.87
ST-8 SCOOPTRAM		$10,000	2	$20,000	$29.00	16 HR	$464.00	$666.67	$464.00
CH 1824 TRUCK		$8,700	-	$0	$21.00	0 HR	$0.00	$0.00	$0.00
600 CFM ELECT COMPRESSOR		$2,100	N/A	$0	$1.50	0 HR	$0.00	$0.00	$0.00
WAREHOUSE TRAILER		$300	N/A	$0	$0.00	0 HR	$0.00	$0.00	$0.00
OFFICE TRAILER		$450	N/A	$0	$0.25	0 HR	$0.00	$0.00	$0.00
FRESH WATER PUMP		$210	N/A	$0	$0.25	0 HR	$0.00	$0.00	$0.00
MINE LIGHTS & CHARGER		$15	20	$300	$1.50	24 HR	$36.00	$10.00	$36.00
VENTILATION FANS		$450	2	$900	$0.20	48 HR	$9.60	$30.00	$9.60
OXY & ACET TORCHES		$50	1	$50	$1.00	8 HR	$8.00	$1.67	$8.00
SAFETY GEAR		$100	1	$100	$0.00	0 HR	$0.00	$3.33	$0.00
FIRST AID GEAR		$150	1	$150	$0.00	0 HR	$0.00	$5.00	$0.00
SHOP TOOLS		$1,500	1	$1,500	$1.00	8 HR	$8.00	$50.00	$8.00
PICKUP / CREW VAN		$1,000	N/A	$0	$4.50	0 HR	$0.00	$0.00	$0.00
JACKLEG / STOPER		$250	4	$1,000	$1.00	2 HR	$2.00	$33.33	$2.00
400 AMP WELDER		$150	1	$150	$0.25	8 HR	$2.00	$5.00	$2.00
U/G PUMPS (13,30 HP)		$1,500	-	$0	$7.00	0 HR	$0.00	$0.00	$0.00
GROUT PUMP		$1,500	1	$1,500	$0.00	0 HR	$0.00	$50.00	$0.00
POWDER/CAP MAGAZINE		$650	N/A	$0	$0.00	0 HR	$0.00	$0.00	$0.00
GRADER		$3,500	1	$3,500	$20.00	3 HR	$60.00	$116.67	$60.00
POWER DISTRIBUTION ROCK		$500	1	$500	$0.50	24 HR	$12.00	$16.67	$12.00
INTERMEDIATE LOADER		$200	2	$400	$0.25	6 HR	$1.50	$13.33	$1.50
TOTALS				$40,050 PER MONTH				$1,335.00	$1,074.97

	ADVANCE PER DAY	15.24 M./DAY
		RENTALS / REPAIRS
COST/METRE	$87.60	$70.54

FUEL / LUBE COST

EQUIPMENT DESCRIPTION	ENGINE	NUMBER OF UNITS REQ'D	OPERATING HOURS PER DAY PER UNIT	TOTAL OPERATING HOURS PER DAY	FUEL REQ'D PER HOUR	TOTAL FUEL PER DAY	FUEL COST PER LITRE	FUEL COST PER DAY	LUBE COST @ 15% OF FUEL COST	TOTAL OPER. COST PER DAY
DRILL JUMBO	-	1	4	4	16.6 LT	66.4	$0.45	$29.88	$4.48	$34.36
ST 8 SCOOPTRAM	-	1	16	16	42.0 LT	672.0	$0.45	$302.40	$45.36	$347.76
CH 1824 TRUCK	-	1	0	0	42.0 LT	0.0	$0.45	$0.00	$0.00	$0.00
GRADER	-	1	3	3	25.0 LT	75.0	$0.45	$33.75	$5.06	$38.81
JACKLEG/STOPER	-	4	0	0	0.0 LT	0.0	-	$0.00	$2.50	$2.50
PICKUP / CREW VAN	-	-	0	0	15.0 LT	0.0	$0.55	$0.00	$0.00	$0.00
						TOTAL	813.40 L/DAY			$423.43

OPERATING COST = $423.43 /DAY @ 15.24 M./DAY = $27.78 COST/METRE

PIPE & ACCESSORY COST

ITEMS	2" LINE AMOUNT	2" LINE PRICE EACH	2" LINE TOTAL PRICE	4" LINE AMOUNT	4" LINE PRICE EACH	4" LINE TOTAL PRICE	4" LINE AMOUNT	4" LINE PRICE EACH	4" LINE TOTAL PRICE	6" LINE AMOUNT	6" LINE PRICE EACH	(PUMP) TOTAL PRICE	6" LINE AMOUNT	6" LINE PRICE EACH	TOTAL PRICE
PIPES	100	$1.32	$132.00	0	$3.73	$0.00	100	$3.73	$373.00	100	$5.00	$500.00	0	$5.00	$0.00
COUPLING	7	$5.92	$41.44	0	$11.85	$0.00	7	$11.85	$82.95	7	$20.40	$142.80	0	$20.40	$0.00
VALVES	1/200	$50.14	$25.07	0	$50.14	$0.00	1/200	$50.14	$25.07	1/200	$245.51	$122.76	0	$245.51	$0.00
ELBOWS 90 DEG	1/200	$7.91	$3.96	0	$22.27	$0.00	1/200	$22.27	$11.14	1/200	$56.36	$28.18	0	$56.36	$0.00
ELBOWS 45 DEG	1/200	$7.91	$3.96	0	$22.27	$0.00	1/200	$22.27	$11.14	1/200	$56.36	$28.18	0	$56.36	$0.00
TEES	1/200	$11.96	$5.98	0	$34.35	$0.00	1/200	$34.35	$17.18	1/200	$92.70	$46.35	0	$92.70	$0.00
CHECK VALVE /PRV	1/500'	$380.00	$76.00	0	$0.00	$0.00	1/500'	$0.00	$0.00	1/500'	$380.00	$76.00	0	$380.00	$0.00
CHAIN HANGERS	0	$2.92	$0.00	0	$2.92	$0.00	0	$2.92	$0.00	0	$2.92	$0.00	0	$2.92	$0.00
3/16 CHAIN	0	$0.32	$0.00	0	$0.32	$0.00	0	$0.32	$0.00	0	$0.32	$0.00	0	$0.32	$0.00
SUBTOTAL			$288.40			$0.00			$520.47			$944.27			$0.00
DAMAGE @ 10%			$28.84			$0.00			$52.05			$94.43			$0.00
F.S.T. @ 12%			$36.07			$0.00			$68.70			$124.64			$0.00
P.S.T. @ 0%			$0.00			$0.00			$0.00			$0.00			$0.00
TOTALS			$353.31			$0.00			$641.21			$1,163.33			$0.00
TOTAL															
COST/FT $21.60 /FOOT			$3.55 /FT			$0.00 /FT			$6.41 /FT			$11.63 /FT			$0.00
COST/M $70.86 /METRE			$11.66 /M.			$0.00 /M.			$21.04 /M.			$38.17 /M.			$0.00

VENTILATION & ACCESSORIES COST

ITEMS	18" DIA. AMOUNT	18" DIA. PRICE EACH	18" DIA. TOTAL PRICE	30" DIA. AMOUNT	30" DIA. PRICE EACH	30" DIA. TOTAL PRICE	36" DIA. AMOUNT	36" DIA. PRICE EACH	36" DIA. TOTAL PRICE	42" DIA. AMOUNT	42" DIA. PRICE EACH	42" DIA. TOTAL PRICE	48" DIA. AMOUNT	48" DIA. PRICE EACH	48" DIA. TOTAL PRICE
VENTILATION PIPE	0	$0.00	$0.00	0	$0.00	$0.00	0	$5.65	$0.00	0	$6.49	$0.00	50	$7.91	$395.50
VENTILATION TUBE	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00
PIPE COUPLING	0	$0.00	$0.00	0	$0.00	$0.00	0	$2.25	$0.00	0	$2.25	$0.00	5	$2.25	$11.25
PIPE HANGERS	0	$0.00	$0.00	0	$0.00	$0.00	0	$2.92	$0.00	0	$2.92	$0.00	0	$0.00	$0.00
PIPE ELBOWS	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00
PIPE TEES	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00
TUBE COUPLING	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00
TUBE HANGER	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	3	$2.92	$8.76
MESSENGER WIRE	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.33	$0.00	0	$0.33	$0.00	50	$0.33	$16.50
SUBTOTAL			$0.00			$0.00			$0.00			$0.00			$432.01
DAMAGE @ 20%			$0.00			$0.00			$0.00			$0.00			$86.40
F.S.T. @ -			$0.00			$0.00			$0.00			$0.00			$0.00
P.S.T. @ 0%			$0.00			$0.00			$0.00			$0.00			$0.00
TOTALS			$0.00			$0.00			$0.00			$0.00			$518.41
COST/FT			$0.00 /FT			$0.00 /FT			$0.00 /FT			$0.00 /FT			$10.37
COST/M. $34.02 /METRE			$0.00 /M.			$0.00 /M.			$0.00 /M.			$0.00 /M.			$34.02

ELECTRIC CABLE COST

ITEMS	3C #4 (BOOSTER FAN) AMOUNT	3C #4 PRICE EACH	3C #4 TOTAL PRICE	3C #6 (PUMP) AMOUNT	3C #6 PRICE EACH	3C #6 TOTAL PRICE	3C #2 AMOUNT	3C #2 PRICE EACH	3C #2 TOTAL PRICE	4C #4/0 AMOUNT	4C #4/0 PRICE EACH	4C #4/0 TOTAL PRICE	BLAST LINE (2C #18) AMOUNT	BLAST LINE (2C #18) PRICE EACH	BLAST LINE (2C #18) TOTAL PRICE
ELECTRIC CABLE	1	$4.31	$4.31	1	$2.93	$2.93	0	$0.00	$0.00	1	$16.80	$16.80	1	$0.50	$0.50
CABLE HANGER	1	$1.08	$1.08												
MESSENGER WIRE	1/6.096	$2.92	$0.48												
SUBTOTAL			$5.87			$2.93			$0.00			$16.80			$0.50
DAMAGE @ 10%			$0.59			$0.29			$0.00			$1.68			$0.05
F.S.T. @ 12%			$0.77			$0.39			$0.00			$2.22			$0.07
P.S.T. @ 0%			$0.00			$0.00			$0.00			$0.00			$0.00
TOTALS			$7.23			$3.61			$0.00			$20.70			$0.62
COST/FT = $32.15			$7.23 /FT			$3.61 /FT			$0.00 /FT			$20.70 /FT			$0.62
COST/M. $105.49 /METRE			$23.72 /M.			$11.84 /M.			$0.00 /M.			$67.91 /M.			$2.02

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CURRAGH RES. CORP.

DY DEPOSIT

BID SUMMARY SHEET

3.05 M x 3.05 M CONVEYOR WAY

SINGLE HEADING

ELECTRIC

CONCURRENT

CATEGORY	TOTAL COST / M.	OWNER'S COST / M.
DIRECT LABOUR	$220.55	-
SUPPORT LABOUR	$341.29	-
STEEL & BITS	$65.99	-
EXPLOSIVES & ACCESSORIES	$132.98	-
EQUIPMENT RENTAL	$101.09	-
EQUIPMENT REPAIR	$72.18	-
FUEL & LUBE	$30.96	-
PIPE & ACCESSORIES	$32.69	-
VENTILATION & ACCESSORIES	$24.43	-
ELECTRIC CABLE	$0.00	-
ELECTRIC POWER	$0.00	$9.29
HOSES, SMALL TOOLS	$10.22	-
INSURANCE, COMMUNICATION	$10.22	-
FREIGHT DURING CONTRACT	$30.66	-
SUBTOTAL	$1,073.26	$9.29 /METRE
G & A 11.5%	$123.43	
TOTAL COST	$1,196.69	
MARGIN 8.5%	$91.23	
PRICE	$1,287.92 /METRE	
	$392.56 /FT	

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S I N G L E H E A D I N G
E L E C T R I C

S/T HOURS	40	/WK
DAYS/WK	7	/WK
O/T HOURS	16	/WK
O/T RATE	1.50	
BONUS	$12.00	/HR
HALY FRG	20%	
STAFF FRG	20%	
RM+BD	$40.00	/DAY
HOLES/RND	37	
HOLE/DEPT	3.05	METRES
AVER BRK	2.44	METRES
MONTH	30	DAYS
ADVANCE	9.76	METRES/DAY

LABOUR	QUANTITY	RATE/HR	BONUS/HR
PROJ.SUPT	1	$17.00	$12.00
SHIFTBOSS	3	$16.25	$12.00
LEAD MECH	1	$16.50	$9.00
MECHANIC	2	$16.00	$6.00
ELECT.	1	$16.50	$9.00
MINER	6	$15.00	$12.00
SUR/EXP	1	$14.00	$3.00
CLERK	0	$10.00	$0.00
EXPEDITOR	1	$12.50	$0.00
TOTAL	16		

STEEL & BITS COST/METRE $1.31

V A R I A B L E S

EXPLOSIVES COSTS		STKS/CSE
CILBEL 70%	$103.20 PER CSE.	195
ANEX	$0.90 PER KG.	0.80
XACTEX	$146.90 PER CSE.	100
CAPS	$2.48 EACH	-
MISC	$25.00	-
FUEL COST	$0.45 /LITRE	
GAS COST	$0.55 /LITRE	
B & A	11.50%	
MARGIN	8.50%	

HOSES	1.00%
ING/COMM	1.00%
FREIGHT	3.00%

	NO. OF HOLES	STICKS PER HOLE
# LIFTERS	13	12
# PRDHOLE	7	-
# PERIM	11	3
# CUT	3	12
TOTAL	34	

DR REPAIR $0.49 /METRE
FARES $42.81 /DAY
($874*2)+$50)/42 DAYS

C U R R A G H R E S . C O R P .

D Y D E P O S I T

3.05 M x 3.05 M CONVEYOR WAY

S I N G L E H E A D I N G

E L E C T R I C

C O N C U R R E N T

POWER CONSUMPTION

ITEM	PEAK HP	ACT HP	Km	HRS	Kwhrs
FANS	150	113	84	24	2,014
PUMPS	0	0	0	24	0
JUMBO	200	150	112	0	0
FW PUMP	0	0	0	24	0
SHOP	0	0	0	24	0
CAMP	0	0	0	0	0
COMPRESSOR	0	0	0	24	0
				TOTAL	2,014

Kwhr = 2,014

Cost/Kwhr $0.045 Cost/Day $90.64

Cost/M $9.29

M A N P O W E R

DESCRIPTION	DAY	AFTN	GYD	TOTAL
PROJ.SUPT	1	-	-	1
SHIFTBOSS	1	1	1	3
LEAD MECH	1	-	-	1
MECHANIC	-	1	1	2
ELECT.	1	-	-	1
MINER	2	2	2	6
SUR/EXP	1	-	-	1
CLERK	-	-	-	0
EXPEDITOR	1	-	-	1
TOTAL	8	4	4	16

DIRECT LABOUR COSTS

DESCRIPTION	RATE PER HOUR	HOURS/WEEK STRAIGHT	HOURS/WEEK OVERTIME	HOURS/WEEK TOTAL	WAGE COST /WEEK	WAGE COST	DAILY BONUS COST	SUBTOTAL COST	FRINGES 20%	ROOM & BOARD	FARES	TOTAL PER MAN	# MEN REQ'D	TOTAL DAILY
MINER	$15.00	40	16	64	$960.00	$137.14	$96.00	$233.14	$46.63	$40.00	$42.81	$358.76	6	$2,152.57
													6	$2,152.57

DIRECT LABOUR COST= $2,152.57 /DAY @ 9.76 M/DAY = $220.55 /METRE

SUPPORT LABOUR COST

	RATE PER HOUR	HOURS/WEEK STRAIGHT	HOURS/WEEK OVERTIME	HOURS/WEEK TOTAL	WAGE COST /WEEK	WAGE COST	DAILY BONUS COST	SUBTOTAL COST	FRINGES 20%	ROOM & BOARD	FARES	TOTAL PER MAN	# MEN REQ'D	TOTAL DAILY
PROJ.SUPT	$17.00	40	16	64	$1,088.00	$155.43	$96.00	$251.43	$50.29	$40.00	$42.81	$384.52	1	$384.52
SHIFTBOSS	$16.25	40	16	64	$1,040.00	$148.57	$96.00	$244.57	$48.91	$40.00	$42.81	$376.30	3	$1,128.89
LEAD MECH	$16.50	40	16	64	$1,056.00	$150.86	$72.00	$222.86	$44.57	$40.00	$42.81	$350.24	1	$350.24
MECHANIC	$16.00	40	16	64	$1,024.00	$146.29	$48.00	$194.29	$38.86	$40.00	$42.81	$315.95	2	$631.90
ELECT.	$16.50	40	16	64	$1,056.00	$150.86	$72.00	$222.86	$44.57	$40.00	$42.81	$350.24	1	$350.24
SURV/EXP	$14.00	40	16	64	$896.00	$128.00	$24.00	$152.00	$30.40	$40.00	$42.81	$265.21	1	$265.21
CLERK	$10.00	40	16	64	$640.00	$91.43	$0.00	$91.43	$18.29	$40.00	$42.81	$192.52	0	$0.00
EXPEDITOR	$12.50	40	16	64	$800.00	$114.29	$0.00	$114.29	$22.86	$40.00	$42.81	$219.95	1	$219.95
													10	$3,330.95

SUPPORT LABOUR COST = $3,330.95 /DAY @ 9.76 M/DAY = $341.29 /METRE

HEADING SIZE = 3.05 M x 3.05 M

DRILL STEEL & BIT COST

HOLES DRILLED PER ROUND	HOLE DEPTH	TOTAL M. DRILLED PER ROUND	STEEL & BIT COST PER M. DRILLED	TOTAL STEEL & BITS COST	AVERAGE BREAK PER ROUND	STEEL & BITS COST PER M.
37	3.05	113 METRES	$1.31	$148.10	2.44 METRES	$60.70
3 (REAMED)	3.05	9 METRES	$1.41	$12.92	2.44 METRES	$5.30
					TOTAL	$65.99 /M

EXPLOSIVES & ACCESSORIES COST

HEADING SIZE = 3.05 M x 3.05 M
HOLES DRILLED = 37
HOLES BLASTED = 34
HOLE DIAMETER = 34 mm
POWDER TO BE USED = CILBEL 70%, AMEX, XACTEX
AVERAGE BREAK/RND = 2.44 METRES

DESCRIPTION	NO. OF HOLES	STICKS PER HOLE	TOTAL STICKS	STICKS /CASE	CASE REQ'D	COST PER CASE		TOTAL COST
PRIMER H.E.	34	1	34	195	0.17	$103.20		$17.99
PERIMETER XACTEX	11	3	33	100	0.33	$146.90		$48.48
LIFTERS & H.E.	13	12	156	195	0.80	$103.20		$82.56
CUT H.E.	3	12	36	195	0.18	$103.20		$19.05
BLASTHOLES AMEX	7	0.80 (KG/ML)	14 (KG.)	-	-	$0.90 /KG.		$12.30
							SUBTOTAL	$180.38
							12.00% F.S.T.	$21.65
							0.00% P.S.T.	$0.00
							TOTAL	$202.03

DESCRIPTION	NO. OF HOLES	CAPS PER HOLE	TOTAL CAPS OR FUSE	COST PER CAP	COST PER ROUND	COST OF MISC.	TOTAL COST
DETONATORS	34	1	34	$2.48	$84.32	$25.00	$109.32
					12.00% F.S.T.		$13.12
					0.00% P.S.T.		$0.00
					TOTAL		$122.44

TOTAL EXPLOSIVES COST = $202.03
TOTAL DETONATORS COST = $122.44

TOTAL COST = $324.46 PER RND / 2.44 M. = $132.98 / METRE

EQUIPMENT RENTAL AND REPAIR COST

EQUIPMENT DESCRIPTION	COMMENTS	RENT PER UNIT	NO. OF UNITS REQ,D	TOTAL RENTAL COST/MONTH	REPAIR COST PER HR., M.	HREL OPERATING PER DAY OR M. DRILLED	REPAIR COST PER DAY	RENTAL COST PER DAY	REPAIR COST PER DAY
DRILL JUMBO		$10,000	-	$0	$15.00	0 HR	$0.00	$0.00	$0.00
DRILL REPAIR		-	-	-	$0.49	451 M.	$222.15	$0.00	$222.15
ST-8 SCOOPTRAM		$10,000	2	$20,000	$29.00	12 HR	$348.00	$666.67	$348.00
CM 1824 TRUCK		$8,700	-	$0	$21.00	0 HR	$0.00	$0.00	$0.00
600 CFM ELECT COMPRESSOR		$2,100	N/A	$0	$1.50	0 HR	$0.00	$0.00	$0.00
WAREHOUSE TRAILER		$300	N/A	$0	$0.00	0 HR	$0.00	$0.00	$0.00
OFFICE TRAILER		$450	N/A	$0	$0.25	0 HR	$0.00	$0.00	$0.00
FRESH WATER PUMP		$210	N/A	$0	$0.25	0 HR	$0.00	$0.00	$0.00
MINE LIGHTS & CHARGER		$15	20	$300	$1.50	24 HR	$36.00	$10.00	$36.00
VENTILATION FANS		$450	1	$450	$0.20	24 HR	$4.80	$15.00	$4.80
OXY & ACET TORCHES		$50	1	$50	$1.00	8 HR	$8.00	$1.67	$8.00
SAFETY GEAR		$100	1	$100	$0.00	0 HR	$0.00	$3.33	$0.00
FIRST AID GEAR		$150	1	$150	$0.00	0 HR	$0.00	$5.00	$0.00
SHOP TOOLS		$1,500	1	$1,500	$1.00	8 HR	$8.00	$50.00	$8.00
PICKUP / CREW VAN		$1,000	N/A	$0	$4.50	0 HR	$0.00	$0.00	$0.00
JACKLEG / STOPER		$250	4	$1,000	$1.00	2 HR	$2.00	$33.33	$2.00
400 AMP WELDER		$150	1	$150	$0.25	8 HR	$2.00	$5.00	$2.00
U/B PUMPS (13,30 HP)		$1,500	-	$0	$7.00	0 HR	$0.00	$0.00	$0.00
GROUT PUMP		$1,500	1	$1,500	$0.00	0 HR	$0.00	$50.00	$0.00
POWDER/CAP MAGAZINE		$650	N/A	$0	$0.00	0 HR	$0.00	$0.00	$0.00
GRADER		$3,500	1	$3,500	$20.00	3 HR	$60.00	$116.67	$60.00
POWER DISTRIBUTION ROCK		$500	1	$500	$0.50	24 HR	$12.00	$16.67	$12.00
INTERMEDIATE LOADER		$200	2	$400	$0.25	6 HR	$1.50	$13.33	$1.50
TOTALS				$29,600 PER MONTH				$986.67	$704.45

ADVANCE PER DAY — RENTALS $101.09 — 9.76 M./DAY REPAIRS $72.18

COST/METRE

FUEL / LUBE COST

EQUIPMENT DESCRIPTION	ENGINE	NUMBER OF UNITS REQ'D	OPERATING HOURS PER DAY PER UNIT	TOTAL OPERATING HOURS PER DAY	FUEL REQ'D PER HOUR	TOTAL FUEL PER DAY	FUEL COST PER LITRE	FUEL COST PER DAY	LUBE COST @ 15% OF FUEL COST	TOTAL OPER. COST PER DAY
DRILL JUMBO	-	-	0	0	16.6 LT	0.0	$0.45	$0.00	$0.00	$0.00
ST 8 SCOOPTRAM	-	1	12	12	42.0 LT	504.0	$0.45	$226.80	$34.02	$260.82
CH 1824 TRUCK	-	1	0	0	42.0 LT	0.0	$0.45	$0.00	$0.00	$0.00
GRADER	-	1	3	3	25.0 LT	75.0	$0.45	$33.75	$5.06	$38.81
JACKLEG/STOPER	-	4	0	0	0.0 LT	0.0	-	$0.00	$2.50	$2.50
PICKUP / CREW VAN	-	-	0	0	15.0 LT	0.0	$0.55	$0.00	$0.00	$0.00
						TOTAL	579.00 L/DAY			$302.13

OPERATING COST = $302.13 /DAY @ 9.76 M/DAY = $30.96 COST/METRE

PIPE & ACCESSORY COST

ITEMS	2" LINE AMOUNT	2" LINE PRICE EACH	2" LINE TOTAL PRICE	4" LINE AMOUNT	4" LINE PRICE EACH	4" LINE TOTAL PRICE	4" LINE AMOUNT	4" LINE PRICE EACH	4" LINE TOTAL PRICE	6" LINE AMOUNT	6" LINE PRICE EACH	(PUMP) TOTAL PRICE	6" LINE AMOUNT	6" LINE PRICE EACH	TOTAL PRICE
PIPES	100	$1.32	$132.00	0	$3.73	$0.00	100	$3.73	$373.00	0	$5.00	$0.00	0	$5.00	$0.00
COUPLING	7	$5.92	$41.44	0	$11.85	$0.00	7	$11.85	$82.95	0	$20.40	$0.00	0	$20.40	$0.00
VALVES	1/200	$50.14	$25.07	0	$50.14	$0.00	1/200	$50.14	$25.07	0	$245.51	$0.00	0	$245.51	$0.00
ELBOWS 90 DEG	1/200	$7.91	$3.96	0	$22.27	$0.00	1/200	$22.27	$11.14	0	$56.36	$0.00	0	$56.36	$0.00
ELBOWS 45 DEG	1/200	$7.91	$3.96	0	$22.27	$0.00	1/200	$22.27	$11.14	0	$56.36	$0.00	0	$56.36	$0.00
TEES	1/200	$11.96	$5.98	0	$34.35	$0.00	1/200	$34.35	$17.18	0	$92.70	$0.00	0	$92.70	$0.00
CHECK VALVE /PAV	1/500'	$380.00	$76.00	0	$0.00	$0.00	1/500'	$0.00	$0.00	0	$380.00	$0.00	0	$380.00	$0.00
CHAIN HANGERS	0	$2.92	$0.00	0	$2.92	$0.00	0	$2.92	$0.00	0	$2.92	$0.00	0	$2.92	$0.00
3/16 CHAIN	0	$0.32	$0.00	0	$0.32	$0.00	0	$0.32	$0.00	0	$0.32	$0.00	0	$0.32	$0.00
SUBTOTAL			$288.40			$0.00			$520.47			$0.00			$0.00
DAMAGE @ 10%			$28.84			$0.00			$52.05			$0.00			$0.00
F.S.T. @ 12%			$38.07			$0.00			$68.70			$0.00			$0.00
P.S.T. @ 0%			$0.00			$0.00			$0.00			$0.00			$0.00
TOTALS			$355.31			$0.00			$641.21			$0.00			$0.00
	TOTAL														
COST/FT	$9.97 /FOOT		$3.55 /FT			$0.00 /FT			$6.41 /FT			$0.00 /FT			$0.00
COST/M	$32.69 /METRE		$11.66 /M			$0.00 /M			$21.04 /M			$0.00 /M			$0.00

VENTILATION & ACCESSORIES COST

ITEMS	12" DIA. AMOUNT	12" DIA. PRICE EACH	12" DIA. TOTAL PRICE	30" DIA. AMOUNT	30" DIA. PRICE EACH	30" DIA. TOTAL PRICE	36" DIA. AMOUNT	36" DIA. PRICE EACH	36" DIA. TOTAL PRICE	42" DIA. AMOUNT	42" DIA. PRICE EACH	42" DIA. TOTAL PRICE	48" DIA. AMOUNT	48" DIA. PRICE EACH	48" DIA. TOTAL PRICE
VENTILATION PIPE	0	$0.00	$0.00	0	$0.00	$0.00	50	$5.65	$282.50	0	$6.49	$0.00	0	$7.91	$0.00
VENTILATION TUBE	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00
PIPE COUPLING	0	$0.00	$0.00	0	$0.00	$0.00	5	$2.25	$11.25	0	$2.25	$0.00	0	$2.25	$0.00
PIPE HANGERS	0	$0.00	$0.00	0	$0.00	$0.00	0	$2.92	$0.00	0	$2.92	$0.00	0	$0.00	$0.00
PIPE ELBOWS	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00
PIPE TEES	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00
TUBE COUPLING	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00
TUBE HANGER	0	$0.00	$0.00	0	$0.00	$0.00	3	$0.00	$0.00	0	$0.00	$0.00	0	$2.92	$0.00
MESSENGER WIRE	0	$0.00	$0.00	0	$0.00	$0.00	50	$0.33	$16.50	0	$0.33	$0.00	0	$0.33	$0.00
SUBTOTAL			$0.00			$0.00			$310.25			$0.00			$0.00
DAMAGE @ 20%			$0.00			$0.00			$62.05			$0.00			$0.00
F.S.T. @ -			$0.00			$0.00			$0.00			$0.00			$0.00
P.S.T. @ 0%			$0.00			$0.00			$0.00			$0.00			$0.00
TOTALS			$0.00			$0.00			$372.30			$0.00			$0.00
COST/FT			$0.00 /FT			$0.00 /FT			$7.45 /FT			$0.00 /FT			$0.00
COST/M. $24.43 /METRE			$0.00 /M.			$0.00 /M.			$24.43 /M.			$0.00 /M.			$0.00

ELECTRIC CABLE COST
(FOR FUTURE DECLINE)

ITEMS	3C #4 (BOOSTER FAN) AMOUNT	3C #4 PRICE EACH	3C #4 TOTAL PRICE	3C #6 (PUMP) AMOUNT	3C #6 PRICE EACH	3C #6 TOTAL PRICE	3C #2 AMOUNT	3C #2 PRICE EACH	3C #2 TOTAL PRICE	4C #4/0 AMOUNT	4C #4/0 PRICE EACH	4C #4/0 TOTAL PRICE	BLAST LINE (2C #18) AMOUNT	BLAST LINE (2C #18) PRICE EACH	BLAST LINE (2C #18) TOTAL PRICE
ELECTRIC CABLE	0	$4.31	$0.00	0	$2.93	$0.00	0	$0.00	$0.00	0	$16.80	$0.00	0	$0.50	$0.00
CABLE HANGER	0	$1.08	$0.00												
MESSENGER WIRE	0	$2.92	$0.00												
SUBTOTAL			$0.00			$0.00			$0.00			$0.00			$0.00
DAMAGE @ 10%			$0.00			$0.00			$0.00			$0.00			$0.00
F.S.T. @ 12%			$0.00			$0.00			$0.00			$0.00			$0.00
P.S.T. @ 0%			$0.00			$0.00			$0.00			$0.00			$0.00
TOTALS			$0.00			$0.00			$0.00			$0.00			$0.00
COST/FT = $0.00			$0.00 /FT			$0.00 /FT			$0.00 /FT			$0.00 /FT			$0.00
COST/M. $0.00 /METRE			$0.00 /M.			$0.00 /M.			$0.00 /M.			$0.00 /M.			$0.00

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CURRAGH RES. CORP.

DY DEPOSIT

BID SUMMARY SHEET

3.05 M x 3.05 M CONVEYOR WAY

MULTIPLE HEADING

ELECTRIC

CONCURRENT

CATEGORY	TOTAL COST / M.	OWNER'S COST / M.
DIRECT LABOUR	$230.39	-
SUPPORT LABOUR	$236.38	-
STEEL & BITS	$65.99	-
EXPLOSIVES & ACCESSORIES	$132.98	-
EQUIPMENT RENTAL	$67.40	-
EQUIPMENT REPAIR	$63.63	-
FUEL & LUBE	$26.58	-
PIPE & ACCESSORIES	$32.69	-
VENTILATION & ACCESSORIES	$24.43	-
ELECTRIC CABLE	$0.00	-
ELECTRIC POWER	$0.00	$6.19
HOSES, SMALL TOOLS	$8.80	-
INSURANCE, COMMUNICATION	$8.80	-
FREIGHT DURING CONTRACT	$26.41	-
SUBTOTAL	$924.48	$6.19 /METRE
G & A 11.5%	$106.31	
TOTAL COST	$1,030.79	
MARGIN 8.5%	$78.58	
PRICE	$1,109.37 /METRE	
	$338.14 /FT	

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MULTIPLE HEADING ELECTRIC

S/T HOURS	40	/WK
DAYS/WK	7	/WK
O/T HOURS	16	/WK
O/T RATE	1.50	
BONUS	$14.00	/HR
HRLY FRNG	20%	
STAFF FRG	20%	
RM+BD	$40.00	/DAY
HOLES/RND	37	
HOLE/DEPT	3.05	METRES
AVER BRK	2.44	METRES
MONTH	30	DAYS
ADVANCE	14.64	METRES/DAY

LABOUR	QUANTITY	RATE/HR	BONUS/HR
PROJ.SUPT	1	$17.00	$14.00
SHIFTBOSS	3	$16.25	$14.00
LEAD MECH	1	$16.50	$10.50
MECHANIC	2	$16.00	$7.00
ELECT.	1	$16.50	$10.50
MINER	9	$15.00	$14.00
SUR/EXP	1	$14.00	$3.50
CLERK	0	$10.00	$0.00
EXPEDITOR	1	$12.50	$0.00
TOTAL	19		

STEEL & BITS COST/METRE $1.31

VARIABLES

EXPLOSIVES COSTS			STKS/CSE
CILBEL 70%	$103.20	PER CSE.	195
ANEX	$0.90	PER KG.	0.80
XACTEX	$146.90	PER CSE.	100
CAPS	$2.48	EACH	-
MISC	$25.00		-
FUEL COST	$0.45	/LITRE	
GAS COST	$0.55	/LITRE	
			HOSES 1.00%
G & A	11.50%		INS/COMM 1.00%
MARGIN	8.50%		FREIGHT 3.00%

	NO. OF HOLES	STICKS PER HOLE
# LIFTERS	13	12
# PROHOLE	7	-
# PERIM	11	3
# CUT	3	12
TOTAL	34	

DR REPAIR $0.49 /METRE
FARES $42.81 /DAY
(($674*2)+$50)/42 DAYS

CURRAGH RES. CORP.

DY DEPOSIT

3.05 M x 3.05 M CONVEYOR WAY

MULTIPLE HEADING

ELECTRIC

CONCURRENT

POWER CONSUMPTION

ITEM	PEAK HP	ACT HP	Kw	HRS	Kwhrs
FANS	150	113	84	24	2,014
PUMPS	0	0	0	24	0
JUMBO	200	150	112	0	0
FW PUMP	0	0	0	24	0
SHOP	0	0	0	24	0
CAMP	0	0	0	0	0
COMPRESSOR	0	0	0	24	0
				TOTAL	2,014

Kwhr = 2,014

Cost/Kwhr $0.045 Cost/Day $90.64

Cost/M $6.19

MANPOWER

DESCRIPTION	DAY	AFTN	BYD	TOTAL
PROJ.SUPT	1	-	-	1
SHIFTBOSS	1	1	1	3
LEAD MECH	1	-	-	1
MECHANIC	-	1	1	2
ELECT.	1	-	-	1
MINER	3	3	3	9
SUR/EXP	1	-	-	1
CLERK	-	-	-	0
EXPEDITOR	1	-	-	1
TOTAL	9	5	5	19

DIRECT LABOUR COSTS

DESCRIPTION	RATE PER HOUR	HOURS/WEEK STRAIGHT	HOURS/WEEK OVERTIME	HOURS/WEEK TOTAL	WAGE COST /WEEK	WAGE COST	DAILY BONUS COST	SUBTOTAL COST	FRINGES 20%	ROOM & BOARD	FARES	TOTAL PER MAN	# MEN REQ'D	TOTAL DAILY
MINER	$15.00	40	16	64	$960.00	$137.14	$112.00	$249.14	$49.83	$40.00	$42.81	$374.76	9	$3,372.86
													9	$3,372.86

DIRECT LABOUR COST= $3,372.86 /DAY @ 14.64 M/DAY = $230.39 /METRE

SUPPORT LABOUR COST

	RATE PER HOUR	HOURS/WEEK STRAIGHT	HOURS/WEEK OVERTIME	HOURS/WEEK TOTAL	WAGE COST /WEEK	WAGE COST	DAILY BONUS COST	SUBTOTAL COST	FRINGES 20%	ROOM & BOARD	FARES	TOTAL PER MAN	# MEN REQ'D	TOTAL DAILY
PROJ.SUPT	$17.00	40	16	64	$1,088.00	$155.43	$112.00	$267.43	$53.49	$40.00	$42.81	$403.72	1	$403.72
SHIFTBOSS	$16.25	40	16	64	$1,040.00	$148.57	$112.00	$260.57	$52.11	$40.00	$42.81	$395.50	3	$1,186.49
LEAD MECH	$16.50	40	16	64	$1,056.00	$150.86	$84.00	$234.86	$46.97	$40.00	$42.81	$364.64	1	$364.64
MECHANIC	$16.00	40	16	64	$1,024.00	$146.29	$56.00	$202.29	$40.46	$40.00	$42.81	$325.55	2	$651.10
ELECT.	$16.50	40	16	64	$1,056.00	$150.86	$84.00	$234.86	$46.97	$40.00	$42.81	$364.64	1	$364.64
SURV/EXP	$14.00	40	16	64	$896.00	$128.00	$28.00	$156.00	$31.20	$40.00	$42.81	$270.01	1	$270.01
CLERK	$10.00	40	16	64	$640.00	$91.43	$0.00	$91.43	$18.29	$40.00	$42.81	$192.52	0	$0.00
EXPEDITOR	$12.50	40	16	64	$800.00	$114.29	$0.00	$114.29	$22.86	$40.00	$42.81	$219.95	1	$219.95
													10	$3,460.55

SUPPORT LABOUR COST = $3,460.55 /DAY @ 14.64 M/DAY = $236.38 /METRE

HEADING SIZE = 3.05 M x 3.05 M

DRILL STEEL & BIT COST

HOLES DRILLED PER ROUND	HOLE DEPTH	TOTAL M. DRILLED PER ROUND	STEEL & BIT COST PER M. DRILLED	TOTAL STEEL & BITS COST	AVERAGE BREAK PER ROUND	STEEL & BITS COST PER M.
37	3.05	113 METRES	$1.31	$148.10	2.44 METRES	$60.70
3 (REAMED)	3.05	9 METRES	$1.41	$12.92	2.44 METRES	$5.30
					TOTAL	$65.99 /M

EXPLOSIVES & ACCESSORIES COST

HEADING SIZE = 3.05 M x 3.05 M
HOLES DRILLED = 37
HOLES BLASTED = 34
HOLE DIAMETER = 34 mm
POWDER TO BE USED = CILBEL 70%, AMEX, XACTEX
AVERAGE BREAK/RND = 2.44 METRES

DESCRIPTION	NO. OF HOLES	STICKS PER HOLE	TOTAL STICKS	STICKS /CASE	CASE REQ'D	COST PER CASE		TOTAL COST
PRIMER H.E.	34	1	34	195	0.17	$103.20		$17.99
PERIMETER XACTEX	11	3	33	100	0.33	$146.90		$48.48
LIFTERS & H.E.	13	12	156	195	0.80	$103.20		$82.56
CUT H.E.	3	12	36	195	0.18	$103.20		$19.05
BLASTHOLES AMEX	7	0.80 (KG/M.)	14 (KG.)	-	-	$0.90	/KG.	$12.30
							SUBTOTAL	$180.38
						12.00%	F.S.T.	$21.65
						0.00%	P.S.T.	$0.00
							TOTAL	$202.03

DESCRIPTION	NO. OF HOLES	CAPS PER HOLE	TOTAL CAPS OR FUSE	COST PER CAP	COST PER ROUND	COST OF MISC.	TOTAL COST
DETONATORS	34	1	34	$2.48	$84.32	$25.00	$109.32
					12.00%	F.S.T.	$13.12
					0.00%	P.S.T.	$0.00
						TOTAL	$122.44

TOTAL EXPLOSIVES COST = $202.03
TOTAL DETONATORS COST = $122.44

TOTAL COST = $324.46 PER RND / 2.44 M. = $132.98 / METRE

EQUIPMENT RENTAL AND REPAIR COST

EQUIPMENT DESCRIPTION	COMMENTS	RENT PER UNIT	NO. OF UNITS REQ,D	TOTAL RENTAL COST/MONTH	REPAIR COST PER HR., M.	HRS. OPERATING PER DAY OR M. DRILLED	REPAIR COST PER DAY	RENTAL COST PER DAY	REPAIR COST PER DAY
DRILL JUMBO		$10,000	-	$0	$15.00	0 HR	$0.00	$0.00	$0.00
DRILL REPAIR		-	-	-	$0.49	677 M.	$333.22	$0.00	$333.22
ST-8 SCOOPTRAM		$10,000	2	$20,000	$29.00	16 HR	$464.00	$666.67	$464.00
CH 1824 TRUCK		$8,700	-	$0	$21.00	0 HR	$0.00	$0.00	$0.00
600 CFM ELECT COMPRESSOR		$2,100	N/A	$0	$1.50	0 HR	$0.00	$0.00	$0.00
WAREHOUSE TRAILER		$300	N/A	$0	$0.00	0 HR	$0.00	$0.00	$0.00
OFFICE TRAILER		$450	N/A	$0	$0.25	0 HR	$0.00	$0.00	$0.00
FRESH WATER PUMP		$210	N/A	$0	$0.25	0 HR	$0.00	$0.00	$0.00
MINE LIGHTS & CHARGER		$15	20	$300	$1.50	24 HR	$36.00	$10.00	$36.00
VENTILATION FANS		$450	1	$450	$0.20	24 HR	$4.80	$15.00	$4.80
OXY & ACET TORCHES		$50	1	$50	$1.00	8 HR	$8.00	$1.67	$8.00
SAFETY GEAR		$100	1	$100	$0.00	0 HR	$0.00	$3.33	$0.00
FIRST AID GEAR		$150	1	$150	$0.00	0 HR	$0.00	$5.00	$0.00
SHOP TOOLS		$1,500	1	$1,500	$1.00	8 HR	$8.00	$50.00	$8.00
PICKUP / CREW VAN		$1,000	N/A	$0	$4.50	0 HR	$0.00	$0.00	$0.00
JACKLEG / STOPER		$250	4	$1,000	$1.00	2 HR	$2.00	$33.33	$2.00
400 AMP WELDER		$150	1	$150	$0.25	8 HR	$2.00	$5.00	$2.00
U/G PUMPS (13,30 HP)		$1,500	-	$0	$7.00	0 HR	$0.00	$0.00	$0.00
GROUT PUMP		$1,500	1	$1,500	$0.00	0 HR	$0.00	$50.00	$0.00
POWDER/CAP MAGAZINE		$650	N/A	$0	$0.00	0 HR	$0.00	$0.00	$0.00
GRADER		$3,500	1	$3,500	$20.00	3 HR	$60.00	$116.67	$60.00
POWER DISTRIBUTION RACK		$500	1	$500	$0.50	24 HR	$12.00	$16.67	$12.00
INTERMEDIATE LOADER		$200	2	$400	$0.25	6 HR	$1.50	$13.33	$1.50
TOTALS				$29,600 PER MONTH				$986.67	$931.52

ADVANCE PER DAY — 14.64 M./DAY

	RENTALS	REPAIRS
COST/METRE	$67.40	$63.63

FUEL / LUBE COST

EQUIPMENT DESCRIPTION	ENGINE	NUMBER OF UNITS REQ'D	OPERATING HOURS PER DAY PER UNIT	TOTAL OPERATING HOURS PER DAY	FUEL REQ'D PER HOUR	TOTAL FUEL PER DAY	FUEL COST PER LITRE	FUEL COST PER DAY	LUBE COST @ 15% OF FUEL COST	TOTAL OPER. COST PER DAY
DRILL JUMBO	-	-	0	0	16.6 LT	0.0	$0.45	$0.00	$0.00	$0.00
ST 8 SCOOPTRAM	-	1	16	16	42.0 LT	672.0	$0.45	$302.40	$45.36	$347.76
CH 1824 TRUCK	-	1	0	0	42.0 LT	0.0	$0.45	$0.00	$0.00	$0.00
GRADER	-	1	3	3	25.0 LT	75.0	$0.45	$33.75	$5.06	$38.81
JACKLEG/STOPER	-	4	0	0	0.0 LT	0.0	-	$0.00	$2.50	$2.50
PICKUP / CREW VAN	-	-	0	0	15.0 LT	0.0	$0.55	$0.00	$0.00	$0.00
					TOTAL	747.00 L/DAY				$389.07

OPERATING COST = $389.07 /DAY @ 14.64 M./DAY = $26.58 COST/METRE

PIPE & ACCESSORY COST

ITEMS			2" LINE AMOUNT	2" LINE PRICE EACH	2" LINE TOTAL PRICE	4" LINE AMOUNT	4" LINE PRICE EACH	4" LINE TOTAL PRICE	4" LINE AMOUNT	4" LINE PRICE EACH	4" LINE TOTAL PRICE	6" LINE AMOUNT	6" LINE PRICE EACH	(PUMP) TOTAL PRICE	6" LINE AMOUNT	6" LINE PRICE EACH	TOTAL PRICE
PIPES			100	$1.32	$132.00	0	$3.73	$0.00	100	$3.73	$373.00	0	$5.00	$0.00	0	$5.00	$0.00
COUPLING			7	$5.92	$41.44	0	$11.85	$0.00	7	$11.85	$82.95	0	$20.40	$0.00	0	$20.40	$0.00
VALVES			1/200	$50.14	$25.07	0	$50.14	$0.00	1/200	$50.14	$25.07	0	$245.51	$0.00	0	$245.51	$0.00
ELBOWS 90 DEG			1/200	$7.91	$3.96	0	$22.27	$0.00	1/200	$22.27	$11.14	0	$56.36	$0.00	0	$56.36	$0.00
ELBOWS 45 DEG			1/200	$7.91	$3.96	0	$22.27	$0.00	1/200	$22.27	$11.14	0	$56.36	$0.00	0	$56.36	$0.00
TEES			1/200	$11.96	$5.98	0	$34.35	$0.00	1/200	$34.35	$17.18	0	$92.70	$0.00	0	$92.70	$0.00
CHECK VALVE /PRV			1/500'	$380.00	$76.00	0	$0.00	$0.00	1/500'	$0.00	$0.00	0	$380.00	$0.00	0	$380.00	$0.00
CHAIN HANGERS			0	$2.92	$0.00	0	$2.92	$0.00	0	$2.92	$0.00	0	$2.92	$0.00	0	$2.92	$0.00
3/16 CHAIN			0	$0.32	$0.00	0	$0.32	$0.00	0	$0.32	$0.00	0	$0.32	$0.00	0	$0.32	$0.00
	SUBTOTAL				$288.40			$0.00			$520.47			$0.00			$0.00
	DAMAGE @	10%			$28.84			$0.00			$52.05			$0.00			$0.00
	F.S.T. @	12%			$38.07			$0.00			$68.70			$0.00			$0.00
	P.S.T. @	0%			$0.00			$0.00			$0.00			$0.00			$0.00
	TOTALS				$355.31			$0.00			$641.21			$0.00			$0.00
		TOTAL															
	COST/FT	$5.97 /FOOT			$3.55 /FT			$0.00 /FT			$6.41 /FT			$0.00 /FT			$0.00
	COST/M	$32.69 /METRE			$11.66 /M.			$0.00 /M.			$21.04 /M.			$0.00 /M.			$0.00

VENTILATION & ACCESSORIES COST

ITEMS	12" DIA. AMOUNT	12" DIA. PRICE EACH	12" DIA. TOTAL PRICE	30" DIA. AMOUNT	30" DIA. PRICE EACH	30" DIA. TOTAL PRICE	36" DIA. AMOUNT	36" DIA. PRICE EACH	36" DIA. TOTAL PRICE	42" DIA. AMOUNT	42" DIA. PRICE EACH	42" DIA. TOTAL PRICE	48" DIA. AMOUNT	48" DIA. PRICE EACH	48" DIA. TOTAL PRICE
VENTILATION PIPE	0	$0.00	$0.00	0	$0.00	$0.00	50	$5.65	$282.50	0	$6.49	$0.00	0	$7.91	$0.00
VENTILATION TUBE	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00
PIPE COUPLING	0	$0.00	$0.00	0	$0.00	$0.00	5	$2.25	$11.25	0	$2.25	$0.00	0	$2.25	$0.00
PIPE HANGERS	0	$0.00	$0.00	0	$0.00	$0.00	0	$2.92	$0.00	0	$2.92	$0.00	0	$0.00	$0.00
PIPE ELBOWS	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00
PIPE TEES	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00
TUBE COUPLING	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00
TUBE HANGER	0	$0.00	$0.00	0	$0.00	$0.00	3	$0.00	$0.00	0	$0.00	$0.00	0	$2.92	$0.00
MESSENGER WIRE	0	$0.00	$0.00	0	$0.00	$0.00	50	$0.33	$16.50	0	$0.33	$0.00	0	$0.33	$0.00
SUBTOTAL			$0.00			$0.00			$310.25			$0.00			$0.00
DUNAGE @ 20%			$0.00			$0.00			$62.05			$0.00			$0.00
F.S.T. @ -			$0.00			$0.00			$0.00			$0.00			$0.00
P.S.T. @ 0%			$0.00			$0.00			$0.00			$0.00			$0.00
TOTALS			$0.00			$0.00			$372.30			$0.00			$0.00
COST/FT			$0.00 /FT			$0.00 /FT			$7.45 /FT			$0.00 /FT			$0.00
COST/M. $24.43 /METRE			$0.00 /M.			$0.00 /M.			$24.43 /M.			$0.00 /M.			$0.00

ELECTRIC CABLE COST
(FOR FUTURE DECLINE)

ITEMS	3C #4 (BOOSTER FAN) AMOUNT	3C #4 PRICE EACH	3C #4 TOTAL PRICE	3C #6 (PUMP) AMOUNT	3C #6 PRICE EACH	3C #6 TOTAL PRICE	3C #2 AMOUNT	3C #2 PRICE EACH	3C #2 TOTAL PRICE	AC #4/0 AMOUNT	AC #4/0 PRICE EACH	AC #4/0 TOTAL PRICE	BLAST LINE (2C #18) AMOUNT	BLAST LINE (2C #18) PRICE EACH	BLAST LINE (2C #18) TOTAL PRICE
ELECTRIC CABLE	0	$4.31	$0.00	0	$2.93	$0.00	0	$0.00	$0.00	0	$16.80	$0.00	0	$0.50	$0.00
CABLE HANGER	0	$1.08	$0.00												
MESSENGER WIRE	0	$2.92	$0.00												
SUBTOTAL			$0.00			$0.00			$0.00			$0.00			$0.00
DUNAGE @ 10%			$0.00			$0.00			$0.00			$0.00			$0.00
F.S.T. @ 12%			$0.00			$0.00			$0.00			$0.00			$0.00
P.S.T. @ 0%			$0.00			$0.00			$0.00			$0.00			$0.00
TOTALS			$0.00			$0.00			$0.00			$0.00			$0.00
COST/FT = $0.00			$0.00 /FT			$0.00 /FT			$0.00 /FT			$0.00 /FT			$0.00
COST/M. $0.00 /METRE			$0.00 /M.			$0.00 /M.			$0.00 /M.			$0.00 /M.			$0.00

FILE:MUCKBAY

CURRAGH RES. CORP.

4.27 M x 4.57 M MUCKBAY

DY DEPOSIT

ELECTRIC

CONCURRENT

BID SUMMARY SHEET

CATEGORY	TOTAL COST / M.	OWNER'S COST / M.
DIRECT LABOUR	$188.33	-
SUPPORT LABOUR	$291.42	-
STEEL & BITS	$76.82	-
EXPLOSIVES & ACCESSORIES	$199.97	-
EQUIPMENT RENTAL	$114.90	-
EQUIPMENT REPAIR	$73.16	-
FUEL & LUBE	$19.20	-
PIPE & ACCESSORIES	$0.00	-
VENTILATION & ACCESSORIES	$0.00	-
ELECTRIC CABLE	$0.00	-
ELECTRIC POWER	$0.00	$7.93
HOSES, SMALL TOOLS	$9.64	-
INSURANCE, COMMUNICATION	$9.64	-
FREIGHT DURING CONTRACT	$28.91	-
SUBTOTAL	$1,011.98	$7.93 /METRE
G & A 11.5%	$116.38	
TOTAL COST	$1,128.36	
MARGIN 8.5%	$86.02	
PRICE	$1,214.38 /METRE	
	$370.14 /FT	

FILE:MUCKBAY
10-Apr-89 02:44 PM

CURRAGH RES. CORP.

DY DEPOSIT

4.27 M x 4.57 M MUCKBAY

ELECTRIC

CONCURRENT

ELECTRIC

S/T HOURS	40	/WK
DAYS/WK	7	/WK
O/T HOURS	16	/WK
O/T RATE	1.50	
BONUS	$12.00	/HR
HRLY FRNG	20%	
STAFF FRG	20%	
RM+BD	$40.00	/DAY
HOLES/RND	49	
HOLE/DEPT	4.27	METRES
AVER BRK	3.81	METRES
MONTH	30	DAYS
ADVANCE	11.43	METRES/DAY

LABOUR	QUANTITY	RATE/HR	BONUS/HR
PROJ.SUPT	1	$17.00	$12.00
SHIFTBOSS	3	$16.25	$12.00
LEAD MECH	1	$16.50	$9.00
MECHANIC	2	$16.00	$6.00
ELECT.	1	$16.50	$9.00
MINER	6	$15.00	$12.00
SUR/EXP	1	$14.00	$3.00
CLERK	0	$10.00	$0.00
EXPEDITOR	1	$12.50	$0.00
TOTAL	16		
STEEL & BITS COST/METRE			$1.31

VARIABLES

EXPLOSIVES COSTS			STKS/CSE
CILBEL 70%	$101.90	PER CSE.	125
AMEX	$0.90	PER KG.	1.55
IRCTEX	$146.90	PER CSE.	100
CAPS	$2.48	EACH	-
MISC	$25.00		-
FUEL COST	$0.30	/LITRE	
GAS COST	$0.55	/LITRE	
G & A	11.50%		
MARGIN	6.50%		

HOSES	1.00%
INS/COMM	1.00%
FREIGHT	3.00%

	NO. OF HOLES	STICKS PER HOLE
# LIFTERS	18	20
# PRIMOLE	11	-
# PERIM	14	5
# CUT	3	20
TOTAL	46	

DR REPAIR	$0.49 /METRE
FARES	$42.81 /DAY
	($6874+21+$50)/42 DAYS

POWER CONSUMPTION

ITEM	PEAK HP	ACT HP	Kw	HRS	Kwhrs
FANS	75	56	42	24	1,007
PUMPS	0	0	0	24	0
JUMBO	200	150	112	9	1,007
FW PUMP	0	0	0	24	0
SHOP	0	0	0	24	0
CRMP	0	0	0	0	0
COMPRESSOR	0	0	0	24	0
				TOTAL	2,014

Kwhr = 2,014

Cost/Kwhr $0.045 Cost/Day $90.64

Cost/M $7.93

MANPOWER

DESCRIPTION	DAY	AFTN	SYD	TOTAL
PROJ.SUPT	1	-	-	1
SHIFTBOSS	1	1	1	3
LEAD MECH	1	-	-	1
MECHANIC	-	1	1	2
ELECT.	1	-	-	1
MINER	2	2	2	6
SUR/EXP	1	-	-	1
CLERK	-	-	-	0
EXPEDITOR	1	-	-	1
TOTAL	8	4	4	16

DIRECT LABOUR COSTS

DESCRIPTION	RATE PER HOUR	HOURS/WEEK STRAIGHT	OVERTIME	TOTAL	WAGE COST /WEEK	WAGE COST	DAILY BONUS COST	SUBTOTAL COST	FRINGES 20%	ROOM & BOARD	FARES	TOTAL PER MAN	# MEN REQ'D	TOTAL DAILY
MINER	$15.00	40	16	64	$960.00	$137.14	$96.00	$233.14	$46.63	$40.00	$42.81	$358.76	6	$2,152.57
													6	$2,152.57

DIRECT LABOUR COST= $2,152.57 /DAY @ 11.43 M/DAY = $188.33 /METRE

SUPPORT LABOUR COST

	RATE PER HOUR	HOURS/WEEK STRAIGHT	OVERTIME	TOTAL	WAGE COST /WEEK	WAGE COST	DAILY BONUS COST	SUBTOTAL COST	FRINGES 20%	ROOM & BOARD	FARES	TOTAL PER MAN	# MEN REQ'D	TOTAL DAILY
PROJ.SUPT	$17.00	40	16	64	$1,088.00	$155.43	$96.00	$251.43	$50.29	$40.00	$42.81	$384.52	1	$384.52
SHIFTBOSS	$16.25	40	16	64	$1,040.00	$148.57	$96.00	$244.57	$48.91	$40.00	$42.81	$376.30	3	$1,128.89
LEAD MECH	$16.50	40	16	64	$1,056.00	$150.86	$72.00	$222.86	$44.57	$40.00	$42.81	$350.24	1	$350.24
MECHANIC	$16.00	40	16	64	$1,024.00	$146.29	$48.00	$194.29	$38.86	$40.00	$42.81	$315.95	2	$631.90
ELECT.	$16.50	40	16	64	$1,056.00	$150.86	$72.00	$222.86	$44.57	$40.00	$42.81	$350.24	1	$350.24
SURV/EXP	$14.00	40	16	64	$896.00	$128.00	$24.00	$152.00	$30.40	$40.00	$42.81	$265.21	1	$265.21
CLERK	$10.00	40	16	64	$640.00	$91.43	$0.00	$91.43	$18.29	$40.00	$42.81	$192.52	0	$0.00
EXPEDITOR	$12.50	40	16	64	$800.00	$114.29	$0.00	$114.29	$22.86	$40.00	$42.81	$219.95	1	$219.95
													10	$3,330.95

SUPPORT LABOUR COST = $3,330.95 /DAY @ 11.43 M/DAY = $291.42 /METRE

HEADING SIZE = 4.27 M x 4.57 M

DRILL STEEL & BIT COST

HOLES DRILLED PER ROUND	HOLE DEPTH	TOTAL M. DRILLED PER ROUND	STEEL & BIT COST PER M. DRILLED	TOTAL STEEL & BITS COST	AVERAGE BREAK PER ROUND	STEEL & BITS COST PER M.
49	4.27	209 METRES	$1.31	$274.56	3.81 METRES	$72.07
3 (REAMED)	4.27	13 METRES	$1.41	$18.09	3.81 METRES	$4.75
					TOTAL	$76.82 /M

EXPLOSIVES & ACCESSORIES COST

HEADING SIZE = 4.27 M x 4.57 M
HOLES DRILLED = 49
HOLES BLASTED = 46
HOLE DIAMETER = 45 mm
POWDER TO BE USED = CILBEL 70%, AMEX, XACTEX
AVERAGE BREAK/RND = 3.81 METRES

DESCRIPTION	NO. OF HOLES	STICKS PER HOLE	TOTAL STICKS	STICKS /CASE	CASE REQ'D	COST PER CASE		TOTAL COST
PRIMER H.E.	46	1	46	125	0.37	$101.90		$37.50
PERIMETER XACTEX	14	5	70	100	0.70	$146.90		$102.83
LIFTERS & H.E.	18	20	360	125	2.88	$101.90		$293.47
CUT H.E.	3	20	60	125	0.48	$101.90		$48.91
BLASTHOLES AMEX	11	1.55 (KG/M.)	65 (KG.)	-	-	$0.90 /KG.		$58.46
							SUBTOTAL	$541.18
							12.00% F.S.T.	$64.94
							0.00% P.S.T.	$0.00
							TOTAL	$606.12

DESCRIPTION	NO. OF HOLES	CAPS PER HOLE	TOTAL CAPS OR FUSE	COST PER CAP	COST PER ROUND	COST OF MISC.	TOTAL COST
DETONATORS	46	1	46	$2.48	$114.08	$25.00	$139.08
					12.00% F.S.T.		$16.69
					0.00% P.S.T.		$0.00
					TOTAL		$155.77

TOTAL EXPLOSIVES COST = $606.12
TOTAL DETONATORS COST = $155.77

TOTAL COST = $761.89 PER RND / 3.81 M. = $199.97 / METRE

FUEL / LUBE COST

EQUIPMENT DESCRIPTION	ENGINE	NUMBER OF UNITS REQ'D	OPERATING HOURS PER DAY PER UNIT	TOTAL OPERATING HOURS PER DAY	FUEL REQ'D PER HOUR	TOTAL FUEL PER DAY	FUEL COST PER LITRE	FUEL COST PER DAY	LUBE COST @ 15% OF FUEL COST	TOTAL OPER. COST PER DAY
DRILL JUMBO	-	1	3	3	16.6 LT	49.8	$0.30	$14.94	$2.24	$17.18
ST 8 SCOOPTRAM	-	1	12	12	42.0 LT	504.0	$0.30	$151.20	$22.68	$173.88
CH 1824 TRUCK	-	1	0	0	42.0 LT	0.0	$0.30	$0.00	$0.00	$0.00
GRADER	-	1	3	3	25.0 LT	75.0	$0.30	$22.50	$3.38	$25.88
JACKLEG/STOPER	-	4	0	0	0.0 LT	0.0	-	$0.00	$2.50	$2.50
PICKUP / CREW VAN	-	-	0	0	15.0 LT	0.0	$0.55	$0.00	$0.00	$0.00
					TOTAL	628.80 L/DAY				$219.44

OPERATING COST = $219.44 /DAY @ 11.43 ML/DAY = $19.20 COST/METRE

FILE:SAF_BAY

CURRAGH RES. CORP.

6 FT x 6 FT x 6 FT SAFETY BAY

DY DEPOSIT

ELECTRIC

BID SUMMARY SHEET

CATEGORY	TOTAL COST / M.	TOTAL COST/BAY	OWNER'S COST/BAY
DIRECT LABOUR	$198.13	$362.34	-
SUPPORT LABOUR	$0.00	$0.00	-
STEEL & BITS	$49.39	$90.33	-
EXPLOSIVES & ACCESSORIES	$96.12	$175.79	-
EQUIPMENT RENTAL	$1.52	$2.78	-
EQUIPMENT REPAIR	$17.50	$32.00	-
FUEL & LUBE	$4.53	$8.33	-
PIPE & ACCESSORIES	$0.00	$0.00	-
VENTILATION & ACCESSORIES	$0.00	$0.00	-
ELECTRIC CABLE	$0.00	$0.00	-
ELECTRIC POWER	$0.00	$0.00	$0.00
HOSES, SMALL TOOLS	$3.67	$6.72	-
INSURANCE, COMMUNICATION	$3.67	$6.72	-
FREIGHT DURING CONTRACT	$11.02	$20.15	-
SUBTOTAL	$385.58	$705.14 EACH	$0.00 EACH
G & A 11.5%	$44.34	$81.09	
TOTAL COST	$429.92	$786.24	
MARGIN 8.5%	$32.77	$59.94	
PRICE	$462.69 /METRE	$846.17 each	
	$141.03 /FT		

FILE:SAF_DAY
10-Apr-89 03:18 PM

VARIABLES

DIESEL		
S/T HOURS	40	/WK
DAYS/WK	7	/WK
O/T HOURS	16	/WK
O/T RATE	1.50	
BONUS	$12.00	/WK
HRLY FRNG	20%	
STAFF FRG	20%	
RM+BD	$40.00	/DAY
HOLES/RND	25	
HOLE/DEPT	2.44	METRES
AVER RUN	1.83	METRES
MONTH	30	DAYS
ADVANCE	5.49	METRES/DAY

LABOUR	QUANTITY	RATE/HR	BONUS/HR
PROJ.SUPT	0	$17.00	$12.00
SHIFTBOSS	0	$16.25	$12.00
LEAD MECH	0	$16.50	$9.00
MECHANIC	0	$16.00	$6.00
ELECT.	0	$16.50	$9.00
MINER	3	$15.00	$12.00
SUR/EXP	0	$14.00	$3.00
CLERK	0	$10.00	$0.00
EXPEDITOR	0	$12.50	$0.00
TOTAL	3		

STEEL & BITS COST/METRE $1.31

EXPLOSIVES COSTS			STKS/CSE
CILGEL 70%	$103.20	PER CSE.	135
ANEX	$0.90	PER KG.	0.80
XACTEX	$146.90	PER CSE.	100
CAPS	$2.24	EACH	-
MISC	$25.00		-
FUEL COST	$0.30	/LITRE	
GAS COST	$0.35	/LITRE	
G & A	11.50%		
MARGIN	8.50%		

STKS/CSE	
HOSES	1.00%
INS/COMM	1.00%
FREIGHT	3.00%

# LIFTERS	5	
# PRIMHOLE	5	HALF ANEX
# PERIM	9	
# CUT	3	
TOTAL	22	
DR REPAIR	$0.49	/METRE
FARES	$42.81	/DAY

CURRAGH RES. CORP.

DY DEPOSIT

6 FT x 6 FT x 6 FT SAFETY DAY

ELECTRIC

POWER CONSUMPTION

ITEM	PERK HP	ACT HP	Kw	HRS	Kwhrs
FANS	0	0	0	0	0
PUMPS	0	0	0	0	0
JUMBO	0	0	0	0	0
FW PUMP	0	0	0	0	0
SHOP	0	0	0	0	0
CAMP	0	0	0	0	0
COMPRESSOR	0	0	0	0	0
				TOTAL	0

Kwhr = 0

Cost/Kwhr $0.045 Cost/Day $0.00

Cost/M $0.00

MANPOWER

DESCRIPTION	DAY	AFTN	GYD	TOTAL
PROJ.SUPT	-	-	-	0
SHIFTBOSS	-	-	-	0
LEAD MECH	-	-	-	0
MECHANIC	-	-	-	0
ELECT.	-	-	-	0
MINER	1	1	1	3
SUR/EXP	-	-	-	0
CLERK	-	-	-	0
EXPEDITOR	-	-	-	0
TOTAL	1	1	1	3

DIRECT LABOUR COSTS

DESCRIPTION	RATE PER HOUR	HOURS/WEEK STRAIGHT	HOURS/WEEK OVERTIME	HOURS/WEEK TOTAL	WAGE COST /WEEK	WAGE COST	DAILY BONUS COST	SUBTOTAL COST	FRINGES 20%	FARES	ROOM & BOARD	TOTAL PER MAN	# MEN REQ'D	TOTAL DAILY
MINER	$15.00	40	16	64	$960.00	$137.14	$96.00	$233.14	$46.63	$42.81	$40.00	$362.58	3	$1,087.74
													3	$1,087.74

DIRECT LABOUR COST= $1,087.74 /DAY @ 5.49 M/DAY = $198.13 /METRE

SUPPORT LABOUR COST

	RATE PER HOUR	HOURS/WEEK STRAIGHT	HOURS/WEEK OVERTIME	HOURS/WEEK TOTAL	WAGE COST /WEEK	WAGE COST	DAILY BONUS COST	SUBTOTAL COST	FRINGES 20%	FARES	ROOM & BOARD	TOTAL PER MAN	# MEN REQ'D	TOTAL DAILY
PROJ.SUPT	$17.00	40	16	64	$1,088.00	$155.43	$96.00	$251.43	$50.29	$42.81	$40.00	$384.52	0	$0.00
SHIFTBOSS	$16.25	40	16	64	$1,040.00	$148.57	$96.00	$244.57	$48.91	$42.81	$40.00	$376.30	0	$0.00
LEAD MECH	$16.50	40	16	64	$1,056.00	$150.86	$72.00	$222.86	$44.57	$42.81	$40.00	$350.24	0	$0.00
MECHANIC	$16.00	40	16	64	$1,024.00	$146.29	$48.00	$194.29	$38.86	$42.81	$40.00	$315.95	0	$0.00
ELECT.	$16.50	40	16	64	$1,056.00	$150.86	$72.00	$222.86	$44.57	$42.81	$40.00	$350.24	0	$0.00
SURV/EXP	$14.00	40	16	64	$896.00	$128.00	$24.00	$152.00	$30.40	$42.81	$40.00	$265.21	0	$0.00
CLERK	$10.00	40	16	64	$640.00	$91.43	$0.00	$91.43	$18.29	$42.81	$40.00	$192.52	0	$0.00
EXPEDITOR	$12.50	40	16	64	$800.00	$114.29	$0.00	$114.29	$22.86	$42.81	$40.00	$219.95	0	$0.00
													0	$0.00

SUPPORT LABOUR COST = $0.00 /DAY @ 5.49 M/DAY = $0.00 /METRE

HEADING SIZE = 6' x 6' x 6'

DRILL STEEL & BIT COST

HOLES DRILLED PER ROUND	HOLE DEPTH	TOTAL M. DRILLED PER ROUND	STEEL & BIT COST PER M. DRILLED	TOTAL STEEL & BITS COST	AVERAGE BREAK PER ROUND	STEEL & BITS COST PER M.
25	2.44	61 METRES	$1.31	$80.05	1.83 METRES	$43.74
3 (REAMED)	2.44	7 METRES	$1.41	$10.34	1.83 METRES	$5.65
					TOTAL	$49.39 /M

EXPLOSIVES & ACCESSORIES COST

HEADING SIZE = 6' x 6' x 6'
HOLES DRILLED = 25
HOLES BLASTED = 22
HOLE DIAMETER = 34 mm
POWDER TO BE USED = CILBEL, AMEX, XACTEX
AVERAGE BREAK/RND = 1.83 METRES

DESCRIPTION	NO. OF HOLES	STICKS PER HOLE	TOTAL STICKS	STICKS /CASE	CASE REQ'D	COST PER CASE		TOTAL COST
PRIMER H.E.	22	1	22	195	0.11	$103.20		$11.64
PERIMETER XACTEX	9	2	18	100	0.18	$146.90		$26.44
LIFTERS & H.E.	5	9	45	195	0.23	$103.20		$23.82
CUT H.E.	3	9	27	195	0.14	$103.20		$14.29
BLASTHOLES AMEX	5	0.80 (KG/H.)	7 (KG.)	-	-	$0.90	/KG.	$6.59
							SUBTOTAL	$82.78
							12.00% F.S.T.	$9.93
							0.00% P.S.T.	$0.00
							TOTAL	$92.71

DESCRIPTION	NO. OF HOLES	CAPS PER HOLE	TOTAL CAPS OR FUSE	COST PER CAP	COST PER ROUND	COST OF MISC.	TOTAL COST
DETONATORS	22	1	22	$2.24	$49.28	$25.00	$74.28
					12.00% F.S.T.		$8.91
					0.00% P.S.T.		$0.00
					TOTAL		$83.19

TOTAL EXPLOSIVES COST = $92.71
TOTAL DETONATORS COST = $83.19

TOTAL COST = $175.90 PER RND / 1.83 M. = $96.12 / METRE

EQUIPMENT RENTAL AND REPAIR COST

EQUIPMENT DESCRIPTION	COMMENTS	RENT PER UNIT	NO. OF UNITS REQ,D	TOTAL RENTAL COST/MONTH	REPAIR COST PER HR., M.	HRS. OPERATING PER DAY OR M. DRILLED	REPAIR COST PER DAY	RENTAL COST PER DAY	REPAIR COST PER DAY
DRILL REPAIR		-	-	-	$0.49	183 M.	$90.06	$0.00	$90.06
JACKLEG / STOPER		$250	1	$250	$1.00	6 HR	$6.00	$8.33	$6.00
TOTALS				$250 PER MONTH				$8.33	$96.06

ADVANCE PER DAY 5.49 M./DAY

	RENTALS	REPAIRS
COST/METRE	$1.52	$17.50

FUEL / LUBE COST

EQUIPMENT DESCRIPTION	ENGINE	NUMBER OF UNITS REQ'D	OPERATING HOURS PER DAY PER UNIT	TOTAL OPERATING HOURS PER DAY	FUEL REQ'D PER HOUR	TOTAL FUEL PER DAY	FUEL COST PER LITRE	FUEL COST PER DAY	LUBE COST @ 15% OF FUEL COST	TOTAL OPER. COST PER DAY
JACKLEG/STOPER	-	4	0	0	0.0 LT	0.0	-	$0.00	$25.00	$25.00
										$25.00

OPERATING COST = $25.00 /DAY @ 5.49 AL/DAY = $4.55 COST/METRE

FILE:DRILLBAY

CURRAGH RES. CORP.

BY DEPOSIT

BID SUMMARY SHEET

1.0M x 1.0M DRILL BAY

0

ELECTRIC

CONCURRENT

CATEGORY	TOTAL COST / M.	CHEP'S COST / M.
DIRECT LABOUR	$188.33	-
SUPPORT LABOUR	$291.42	-
STEEL & BITS	$62.11	-
EXPLOSIVES & ACCESSORIES	$159.95	-
EQUIPMENT RENTAL	$114.90	-
EQUIPMENT REPAIR	$67.64	-
FUEL & LUBE	$19.20	-
PIPE & ACCESSORIES	$0.00	-
VENTILATION & ACCESSORIES	$0.00	-
ELECTRIC CABLE	$0.00	-
ELECTRIC POWER	$0.00	$7.93
HOSES, SMALL TOOLS	$3.04	-
INSURANCE, COMMUNICATION	$3.04	-
FREIGHT DURING CONTRACT	$27.11	-
SUBTOTAL	$948.73	$7.93 /METRE
G & A 11.5%	$109.10	
TOTAL COST	$1,057.83	
MARGIN 8.5%	$80.64	
PRICE	$1,138.47 /METRE	
	$347.01 /FT	

FILE: VENTBBE
10-Apr-89
03:25 PM

CURRAGH RES. CORP.

DY DEPOSIT

2.00 M X 2.00 M RAISE

CONCURRENT

BID SUMMARY SHEET

CATEGORY	COST / M.	OWNER'S COST / M.
DIRECT LABOUR	$477.36	-
SUPPORT LABOUR	$0.00	-
STEEL & BITS	$53.22	-
EXPLOSIVES & ACCESSORIES	$125.25	-
EQUIPMENT RENTAL	$11.90	-
EQUIPMENT REPAIR	$20.09	-
FUEL & LUBE	$11.35	-
PIPE & ACCESSORIES	$21.99	-
VENTILATION & ACCESSORIES	$0.00	-
ELECTRIC CABLE	$0.00	-
LADDERS	$32.81	-
ELECTRIC POWER	$0.00	$0.00
HOSES, SMALL TOOLS	$7.54	-
INSURANCE, COMMUNICATION	$7.54	-
FREIGHT DURING CONTRACT	$22.62	-
SUBTOTAL	$791.66	$0.00 /METRE
G & A 11.5%	$91.04	
TOTAL COST	$882.70	
MARGIN 8.5%	$67.29	
PRICE	$949.99 /M.	
	$289.56 /FT	

FILE: VENTRSE
10-Apr-89 03:25 PM
CONCURRENT

VARIABLES

S/T HOURS	40	/WK	LABOUR	QUANTITY	RATE/HR	BONUS/HR	EXPLOSIVES COSTS		STKS/CSE				CURRAGH RES. CORP.
DAYS/WK	7	/WK								# LIFTERS	16		
O/T HOURS	16	/WK	PROJ.SUPT	0	$17.00	$16.00	CILBEL	$103.20 PER CSE.	195	# PROHOLE	15	HALF AMEX	DY DEPOSIT
O/T RATE	1.50		SHIFTBOSS	0	$16.25	$16.00	AMEX	$0.90 PER KG.	0.50	# PERIM	0		
BONUS	$16.00	/HR	MECHANIC	0	$16.00	$8.00	XACTEX	$146.90 PER CSE.	100	# CUT	0		2.00 M X 2.00 M RAISE
HOLY FRNG	20%		ELECT.	0	$16.50	$8.00	CAPS	$2.24 EACH	-	TOTAL	31		
STAFF FRG	20%		MINER	4	$15.00	$16.00	MISC	$5.00	-				CONCURRENT
RM+BD	$40.00	/DAY	SURV/EXP	0	$14.00	$4.00				DR REPAIR	$0.49	/M.	
HOLES/RND	34		CLERK	0	$10.00	$0.00	GAS COST	$0.55 /LITRE		FARES	$42.81	/DAY	
HOLE/DEPT	1.83	METRES	EXPEDITOR	0	$14.00	$4.00	FUEL COST	$0.30 /LITRE					
AVER BRK	1.68	METRES	TOTAL	4					HOSES	1.00%			
MONTH	30	DAYS					G & A	11.50%	INS/COMM	1.00%			
ADVANCE	3.36	METRES/DAY	STEEL & BITS COST/M.			$1.31	MARGIN	8.50%	FREIGHT	3.00%			

DIRECT LABOUR COSTS

DESCRIPTION	RATE PER HOUR	HOURS/WEEK STRAIGHT	OVERTIME	TOTAL	WAGE COST /WEEK	WAGE COST	DAILY BONUS COST	SUBTOTAL COST	FRINGES 20%	FARES	ROOM & BOARD	TOTAL PER MAN	# MEN REQ'D	TOTAL DAILY
MINER	$15.00	40	16	64	$960.00	$137.14	$128.00	$265.14	$53.03	$42.81	$40.00	$400.98	4	$1,603.92
													4	$1,603.92

DIRECT LABOUR COST= $1,603.92 /DAY @ 3.36 M./DAY = $477.36 /M.

DRILL STEEL & BIT COST

HEADING SIZE = 2.00 M x 2.00 M

HOLES DRILLED PER ROUND	HOLE DEPTH	TOTAL M. DRILLED PER ROUND	STEEL & BIT COST PER M. DRILLED	TOTAL STEEL & BITS COST	AVERAGE BREAK PER ROUND	STEEL & BITS COST PER M.
34	1.83	62.22 M.	$1.31	$81.65	1.68 M.	$48.60
3 (REAMED)	1.83	5.49 M.	$1.41	$7.75	1.68 M.	$4.62
					TOTAL	$53.22 /M.

EXPLOSIVES & ACCESSORIES COST

HEADING SIZE = 2.00 M x 2.00 M
HOLES DRILLED = 34
HOLES BLASTED = 31
HOLE DIAMETER = 1 1/4 "
POWDER TO BE USED = ANEX, CILGEL 70%, XACTEX
AVERAGE BREAK/RND = 1.68 METRES

DESCRIPTION	NO. OF HOLES	STICKS PER HOLE	TOTAL STICKS	STICKS /CASE	CASE REQ'D	COST PER CASE		TOTAL COST
PRIMER H.E.	31	1	31	195	0.16	$103.20		$16.41
PERIMETER XACTEX	0	5	0	100	0.00	$146.90		$0.00
LIFTERS & H.E.	16	10	160	195	0.82	$103.20		$84.68
CUT H.E.	0	10	0	195	0.00	$103.20		$0.00
BLASTHOLES ANEX	15	0.50 (KG/M.)	14 (KG.)	-	-	$0.90	/KG.	$12.35
							SUBTOTAL	$113.44
							12.00% F.S.T.	$13.61
							0.00% P.S.T.	$0.00
							TOTAL	$127.05

DESCRIPTION	NO. OF HOLES	CAPS PER HOLE	TOTAL CAPS OR FUSE	COST PER CAP	COST PER ROUND	COST OF MISC.	TOTAL COST
DETONATORS	31	1	31	$2.24	$69.44	$5.00	$74.44
					12.00% F.S.T.		$8.93
					0.00% P.S.T.		$0.00
					TOTAL		$83.37

TOTAL EXPLOSIVES COST = $127.05
TOTAL DETONATORS COST = $83.37

TOTAL COST = $210.42 PER RND / 1.68 M. = $125.25 / M.

EQUIPMENT RENTAL AND REPAIR COST

EQUIPMENT DESCRIPTION	COMMENTS	RENT PER UNIT	NO. OF UNITS REQ,D	TOTAL RENTAL COST/MONTH	REPAIR COST PER HR., M.	HRS. OPERATING PER DAY OR M. DRILLED	REPAIR COST PER DAY	RENTAL COST PER DAY	REPAIR COST PER DAY
ST - 8 SCOOPTRAM		$10,000	0	$0	$29.00	2 HR	$58.00	$0.00	$58.00
JACKLEG / STOPER		$250	4	$1,000	$1.00	8 HR	$8.00	$33.33	$8.00
INTERMEDIATE LOADER		$200	1	$200	$0.25	6 HR	$1.50	$6.67	$1.50
TOTALS				$1,200 PER MONTH				$40.00	$67.50
							ADVANCE PER DAY		3.36 M./DAY
								RENTALS	REPAIRS
							COST/M.	$11.90	$20.09

FUEL / LUBE COST

EQUIPMENT DESCRIPTION	ENGINE	NUMBER OF UNITS REQ'D	OPERATING HOURS PER DAY PER UNIT	TOTAL OPERATING HOURS PER DAY	FUEL REQ'D PER HOUR	TOTAL FUEL PER DAY	FUEL COST PER LITRE	FUEL COST PER DAY	LUBE COST @ 15% OF FUEL COST	TOTAL OPER. COST PER DAY
ST - 8 SCOOPTRAM		2	1.0	2	48.0 LT	96.0	$0.30	$28.80	$4.32	$33.12
JACKLEG / STOPER									$5.00	$5.00
										$38.12

OPERATING COST = $38.12 /DAY @ 3.36 M./DAY = $11.35 COST/M.

PIPE & ACCESSORY COST

ITEMS	2" LINE AMOUNT	2" LINE PRICE EACH	2" LINE TOTAL PRICE	4" LINE (AIR) AMOUNT	4" LINE (AIR) PRICE EACH	4" LINE (AIR) TOTAL PRICE	4" LINE AMOUNT	4" LINE PRICE EACH	4" LINE TOTAL PRICE	6" LINE (PUMP) AMOUNT	6" LINE (PUMP) PRICE EACH	6" LINE (PUMP) TOTAL PRICE	8" LINE AMOUNT	8" LINE PRICE EACH	8" LINE TOTAL PRICE
PIPES	100	$1.32	$132.00	0	$3.45	$0.00	0	$3.45	$0.00	0	$4.80	$0.00	0	$0.00	$0.00
COUPLING	7	$5.92	$41.44	0	$9.60	$0.00	0	$9.60	$0.00	0	$16.53	$0.00	0	$0.00	$0.00
VALVES	1	$50.14	$50.14	0	$105.80	$21.16	0	$105.80	$0.00	0	$198.85	$39.77	0	$0.00	$0.00
ELBOWS 90 DEG	0	$7.91	$0.00	0	$18.05	$0.00	0	$18.05	$0.00	0	$45.65	$22.83	0	$0.00	$0.00
ELBOWS 45 DEG	0	$7.91	$0.00	0	$18.05	$0.00	0	$18.05	$0.00	0	$45.65	$22.83	0	$0.00	$0.00
TEES	1	$11.96	$11.96	0	$27.85	$5.57	0	$27.85	$0.00	0	$73.55	$14.71	0	$0.00	$0.00
REDUCERS	0	$380.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00
CHAIN HANGERS	7	$2.92	$20.44	0	$2.92	$0.00	0	$2.92	$0.00	0	$2.92	$0.00	0	$0.00	$0.00
3/16 CHAIN	50	$0.32	$16.00	0	$0.32	$0.00	0	$0.32	$0.00	0	$0.32	$0.00	0	$0.00	$0.00
SUBTOTAL			$271.98			$26.73			$0.00			$100.13			$0.00
DAMAGE @ 10%			$27.20			$2.67			$0.00			$10.01			$0.00
F.S.T. @ 12%			$35.90			$3.53			$0.00			$13.22			$0.00
P.S.T. @ 0%			$0.00			$0.00			$0.00			$0.00			$0.00
TOTALS			$335.08			$32.93			$0.00			$123.36			$0.00
COST/FT = $6.70 / FT = $21.99 /M.			$3.35 x 2 $6.70 /FT (2 PIPES)			$0.00 /FT			$0.00 /FT			$0.00 /FT			$0.00

FILE:PILOT
10-Apr-89
11:11 AM

CURRAGH RES. CORP.

DY DEPOSIT

26.13 CM/LM
97.00 TONNES PER LM

BID SUMMARY SHEET

6.00 M x 5.00 M ONE DRIFT

MULTIPLE HEADING

ELECTRIC

CONCURRENT

CATEGORY	TOTAL COST / M.	TOTAL COST/TONNE	OWNER'S COST/TONNE
DIRECT LABOUR	$73.77	$0.76	-
SUPPORT LABOUR	$0.00	$0.00	-
STEEL & BITS	$88.58	$0.91	-
EXPLOSIVES & ACCESSORIES	$188.51	$1.94	-
EQUIPMENT RENTAL	$24.06	$0.25	-
EQUIPMENT REPAIR	$35.90	$0.37	-
FUEL & LUBE	$1.67	$0.02	-
PIPE & ACCESSORIES	$35.17	$0.36	-
VENTILATION & ACCESSORIES	$34.02	$0.35	-
ELECTRIC CABLE	$105.49	$1.09	-
ELECTRIC POWER	$0.00	$0.00	$0.07
HOSES, SMALL TOOLS	$5.87	$0.06	-
INSURANCE, COMMUNICATION	$5.87	$0.06	-
FREIGHT DURING CONTRACT	$17.62	$0.18	-
SUBTOTAL	$616.53	$6.36	$0.07 /TONNE
G & A 11.5%	$70.90	$0.73	
TOTAL COST	$687.43	$7.09	
MARGIN 8.5%	$52.40	$0.54	
PRICE	$739.83 /METRE	$7.63 /TONNE	
	$225.50 /FT		

FILE:PILOT

10-Apr-89 11:12 AM

MULTIPLE HEADING

ELECTRIC

S/T HOURS	40	/WK
DAYS/WK	7	/WK
O/T HOURS	16	/WK
O/T RATE	1.50	
BONUS	$14.00	/HR
HRLY FRNG	20%	
STAFF FRG	20%	
RM+BD	$40.00	/DAY
HOLES/RND	57	
HOLE/DEPT	4.27	METRES
AVER RUN	3.81	METRES
MONTH	30	DAYS
ADVANCE	15.24	METRES/DAY

LABOUR	QUANTITY	RATE/HR	BONUS/HR
PROJ.SUPT	0	$17.00	$14.00
SHIFTBOSS	0	$16.25	$14.00
LEAD MECH	0	$16.50	$10.50
MECHANIC	0	$16.00	$7.00
ELECT.	0	$16.50	$10.50
MINER	3	$15.00	$14.00
SUR/EXP	0	$14.00	$3.50
CLERK	0	$10.00	$0.00
EXPEDITOR	0	$12.50	$0.00
TOTAL	3		

STEEL & BITS COST/METRE $1.31

VARIABLES

EXPLOSIVES COSTS			STKS/CSE
CILBEL 70%	$101.90	PER CSE.	125
ANEX	$0.90	PER KG.	1.55
XACTEX	$146.90	PER CSE.	100
CAPS	$2.48	EACH	-
MISC	$25.00		-
FUEL COST	$0.30	/LITRE	
GAS COST	$0.55	/LITRE	
B & A	11.50%		
MARGIN	8.50%		

	STKS/CSE
HOSES	1.00%
INS/COMM	1.00%
FREIGHT	3.00%

	NO. OF HOLES	STICKS PER HOLE
# LIFTERS	8	20
# PRIHOLE	28	-
# PERIM	15	5
# CUT	3	20
TOTAL	54	

DR REPAIR $0.49 /METRE

FARES $42.81 /DAY

(9874+2)+850)/42 DAYS

CURRAGH RES. CORP.

BY DEPOSIT

6.00 M x 5.00 M ORE DRIFT

MULTIPLE HEADING

ELECTRIC

CONCURRENT

POWER CONSUMPTION

ITEM	PEAK HP	ACT HP	Kw	HRS	Kwhrs
FANS	0	0	0	0	0
PUMPS	0	0	0	0	0
JUMBO	200	150	112	20	2,236
FW PUMP	0	0	0	0	0
SHOP	0	0	0	0	0
CRMP	0	0	0	0	0
COMPRESSOR	0	0	0	0	0
				TOTAL	2,236 Kwhr / DAY

Kwhr = 2,236

Cost/Kwhr $0.045 Cost/Day $100.71

Cost/M $6.61

MANPOWER

DESCRIPTION	DAY	AFTN	GYD	TOTAL
PROJ.SUPT	-	-	-	0
SHIFTBOSS	-	-	-	0
LEAD MECH	-	-	-	0
MECHANIC	-	-	-	0
ELECT.	-	-	-	0
MINER	1	1	1	3
SUR/EXP	-	-	-	0
CLERK	-	-	-	0
EXPEDITOR	-	-	-	0
TOTAL	1	1	1	3

DIRECT LABOUR COSTS

DESCRIPTION	RATE PER HOUR	HOURS/WEEK STRAIGHT	HOURS/WEEK OVERTIME	HOURS/WEEK TOTAL	WAGE COST /WEEK	WAGE COST	DAILY BONUS COST	DAILY SUBTOTAL COST	FRINGES 20%	ROOM & BOARD	FARES	TOTAL PER MAN	# MEN REQ'D	TOTAL DAILY
MINER	$15.00	40	16	64	$960.00	$137.14	$112.00	$249.14	$49.83	$40.00	$42.81	$374.76	3	$1,124.29
													3	$1,124.29

DIRECT LABOUR COST= $1,124.29 /DAY @ 15.24 M/DAY = $73.77 /METRE

SUPPORT LABOUR COST

	RATE PER HOUR	HOURS/WEEK STRAIGHT	HOURS/WEEK OVERTIME	HOURS/WEEK TOTAL	WAGE COST /WEEK	WAGE COST	DAILY BONUS COST	DAILY SUBTOTAL COST	FRINGES 20%	ROOM & BOARD	FARES	TOTAL PER MAN	# MEN REQ'D	TOTAL DAILY
PROJ.SUPT	$17.00	40	16	64	$1,088.00	$155.43	$112.00	$267.43	$53.49	$40.00	$42.81	$403.72	0	$0.00
SHIFTBOSS	$16.25	40	16	64	$1,040.00	$148.57	$112.00	$260.57	$52.11	$40.00	$42.81	$395.50	0	$0.00
LEAD MECH	$16.50	40	16	64	$1,056.00	$150.86	$84.00	$234.86	$46.97	$40.00	$42.81	$364.64	0	$0.00
MECHANIC	$16.00	40	16	64	$1,024.00	$146.29	$56.00	$202.29	$40.46	$40.00	$42.81	$325.55	0	$0.00
ELECT.	$16.50	40	16	64	$1,056.00	$150.86	$84.00	$234.86	$46.97	$40.00	$42.81	$364.64	0	$0.00
SURV/EXP	$14.00	40	16	64	$896.00	$128.00	$28.00	$156.00	$31.20	$40.00	$42.81	$270.01	0	$0.00
CLERK	$10.00	40	16	64	$640.00	$91.43	$0.00	$91.43	$18.29	$40.00	$42.81	$192.52	0	$0.00
EXPEDITOR	$12.50	40	16	64	$800.00	$114.29	$0.00	$114.29	$22.86	$40.00	$42.81	$219.95	0	$0.00
													0	$0.00

SUPPORT LABOUR COST = $0.00 /DAY @ 15.24 M/DAY = $0.00 /METRE

HEADING SIZE = 6.00 M x 5.00 M ORE DRIFT

DRILL STEEL & BIT COST

HOLES DRILLED PER ROUND	HOLE DEPTH	TOTAL M. DRILLED PER ROUND	STEEL & BIT COST PER M. DRILLED	TOTAL STEEL & BITS COST	AVERAGE BREAK PER ROUND	STEEL & BITS COST PER M.
57	4.27	243 METRES	$1.31	$319.41	3.81 METRES	$83.83
3 (REAMED)	4.27	13 METRES	$1.41	$18.09	3.81 METRES	$4.75
					TOTAL	$88.58 /M

EXPLOSIVES & ACCESSORIES COST

HEADING SIZE = 6.00 M x 5.00 M ORE DRIFT
HOLES DRILLED = 57
HOLES BLASTED = 54
HOLE DIAMETER = 45 mm
POWDER TO BE USED = CILGEL 70%, AMEX, XACTEX
AVERAGE BREAK/RND = 3.81 METRES

DESCRIPTION	NO. OF HOLES	STICKS PER HOLE	TOTAL STICKS	STICKS /CASE	CASE REQ'D	COST PER CASE		TOTAL COST
PRIMER H.E.	54	1	54	125	0.43	$101.90		$44.02
PERIMETER XACTEX	15	5	75	100	0.75	$146.90		$110.18
LIFTERS & H.E.	8	20	160	125	1.28	$101.90		$130.43
CUT H.E.	3	20	60	125	0.48	$101.90		$48.91
BLASTHOLES AMEX	28	1.55 (KG/M.)	165 (KG.)	-	-	$0.90	/KG.	$148.82
							SUBTOTAL	$482.36
							12.00% F.S.T.	$57.88
							0.00% P.S.T.	$0.00
							TOTAL	$540.24

DESCRIPTION	NO. OF HOLES	CAPS PER HOLE	TOTAL CAPS OR FUSE	COST PER CAP	COST PER ROUND	COST OF MISC.	TOTAL COST
DETONATORS	54	1	54	$2.48	$133.92	$25.00	$158.92
					12.00% F.S.T.		$19.07
					0.00% P.S.T.		$0.00
					TOTAL		$177.99

TOTAL EXPLOSIVES COST = $540.24
TOTAL DETONATORS COST = $177.99

TOTAL COST = $718.23 PER RND / 3.81 M. = $188.51 / METRE

EQUIPMENT RENTAL AND REPAIR COST

EQUIPMENT DESCRIPTION	COMMENTS	RENT PER UNIT	NO. OF UNITS REQ,D	TOTAL RENTAL COST/MONTH	REPAIR COST PER HR., M.	HRS. OPERATING PER DAY OR M. DRILLED	REPAIR COST PER DAY	RENTAL COST PER DAY	REPAIR COST PER DAY
DRILL JUMBO		$10,000	1	$10,000	$15.00	4 HR	$60.00	$333.33	$60.00
DRILL REPAIR		-	-	-	$0.49	574 M.	$479.11	$0.00	$479.11
ST-8 SCOOPTRAM		$10,000	-	$0	$29.00	0 HR	$0.00	$0.00	$0.00
CH 1824 TRUCK		$8,700	-	$0	$21.00	0 HR	$0.00	$0.00	$0.00
600 CFM ELECT COMPRESSOR		$2,100	-	$0	$1.50	0 HR	$0.00	$0.00	$0.00
WAREHOUSE TRAILER		$300	-	$0	$0.00	0 HR	$0.00	$0.00	$0.00
OFFICE TRAILER		$450	-	$0	$0.25	0 HR	$0.00	$0.00	$0.00
FRESH WATER PUMP		$210	-	$0	$0.25	0 HR	$0.00	$0.00	$0.00
MINE LIGHTS & CHARGER		$15	-	$0	$1.50	0 HR	$0.00	$0.00	$0.00
VENTILATION FANS		$450	-	$0	$0.20	0 HR	$0.00	$0.00	$0.00
OXY & ACET TORCHES		$50	-	$0	$1.00	0 HR	$0.00	$0.00	$0.00
SAFETY GEAR		$100	-	$0	$0.00	0 HR	$0.00	$0.00	$0.00
FIRST AID GEAR		$150	-	$0	$0.00	0 HR	$0.00	$0.00	$0.00
SHOP TOOLS		$1,500	-	$0	$1.00	0 HR	$0.00	$0.00	$0.00
PICKUP / CREW VAN		$1,000	-	$0	$4.50	0 HR	$0.00	$0.00	$0.00
JACKLEG / STOPER		$250	4	$1,000	$1.00	8 HR	$8.00	$33.33	$8.00
400 AMP WELDER		$150	-	$0	$0.25	0 HR	$0.00	$0.00	$0.00
U/G PUMPS (13,30 HP)		$1,500	-	$0	$7.00	0 HR	$0.00	$0.00	$0.00
GROUT PUMP		$1,500	-	$0	$0.00	0 HR	$0.00	$0.00	$0.00
POWDER/CAP MAGAZINE		$650	-	$0	$0.00	0 HR	$0.00	$0.00	$0.00
GRADER		$3,500	-	$0	$20.00	0 HR	$0.00	$0.00	$0.00
POWER DISTRIBUTION BOX		$500	-	$0	$0.50	0 HR	$0.00	$0.00	$0.00
INTERMEDIATE LOADER		$200	-	$0	$0.25	0 HR	$0.00	$0.00	$0.00
TOTALS				$11,000 PER MONTH				$366.67	$547.11

ADVANCE PER DAY 15.24 M./DAY

	RENTALS	REPAIRS
COST/METRE	$24.06	$35.90

FUEL / LUBE COST

EQUIPMENT DESCRIPTION	ENGINE	NUMBER OF UNITS REQ'D	OPERATING HOURS PER DAY PER UNIT	TOTAL OPERATING HOURS PER DAY	FUEL REQ'D PER HOUR	TOTAL FUEL PER DAY	FUEL COST PER LITRE	FUEL COST PER DAY	LUBE COST @ 15% OF FUEL COST	TOTAL OPER. COST PER DAY
DRILL JUMBO	-	2	2	4	16.6 LT	66.4	$0.30	$19.92	$2.99	$22.91
ST 8 SCOOPTRAM	-	-	0	0	42.0 LT	0.0	$0.30	$0.00	$0.00	$0.00
CH 1824 TRUCK	-	-	0	0	42.0 LT	0.0	$0.30	$0.00	$0.00	$0.00
GRADER	-	-	0	0	25.0 LT	0.0	$0.30	$0.00	$0.00	$0.00
JACKLEG/STOPER	-	-	0	0	0.0 LT	0.0	-	$0.00	$2.50	$2.50
PICKUP / CREW VAN	-	-	0	0	15.0 LT	0.0	$0.55	$0.00	$0.00	$0.00
						TOTAL	66.40 L/DAY			$25.41

OPERATING COST = $25.41 /DAY @ 15.24 RL /DAY = $1.67 COST/METRE

PIPE & ACCESSORY COST

ITEMS	2" LINE AMOUNT	2" LINE PRICE EACH	2" LINE TOTAL PRICE	4" LINE AMOUNT	4" LINE PRICE EACH	4" LINE TOTAL PRICE	4" LINE AMOUNT	4" LINE PRICE EACH	4" LINE TOTAL PRICE	6" LINE AMOUNT	6" LINE PRICE EACH	(PUMP) TOTAL PRICE	6" LINE AMOUNT	6" LINE PRICE EACH	TOTAL PRICE
PIPES	100	$1.32	$132.00	0	$3.73	$0.00	100	$3.73	$373.00	0	$5.00	$0.00	0	$5.00	$0.00
COUPLING	7	$5.92	$41.44	0	$11.85	$0.00	7	$11.85	$82.95	0	$20.40	$0.00	0	$20.40	$0.00
VALVES	1/200	$50.14	$25.07	0	$50.14	$0.00	1/200	$50.14	$25.07	0	$245.51	$0.00	0	$245.51	$0.00
ELBOWS 90 DEG	1/200	$7.91	$3.96	0	$22.27	$0.00	1/200	$22.27	$11.14	0	$56.36	$0.00	0	$56.36	$0.00
ELBOWS 45 DEG	1/200	$7.91	$3.96	0	$22.27	$0.00	1/200	$22.27	$11.14	0	$56.36	$0.00	0	$56.36	$0.00
TEES	1/200	$11.96	$5.98	0	$34.35	$0.00	1/200	$34.35	$17.18	0	$92.70	$0.00	0	$92.70	$0.00
CHECK VALVE /PRV	1/500'	$380.00	$76.00	0	$0.00	$0.00	1/500'	$0.00	$0.00	0	$380.00	$0.00	0	$380.00	$0.00
CHAIN HANGERS	10	$2.92	$29.20	0	$2.92	$0.00	0	$2.92	$0.00	0	$2.92	$0.00	0	$2.92	$0.00
3/16 CHAIN	100	$0.32	$32.00	0	$0.32	$0.00	0	$0.32	$0.00	0	$0.32	$0.00	0	$0.32	$0.00
SUBTOTAL			$349.60			$0.00			$520.47			$0.00			$0.00
DRAGE @ 10%			$34.96			$0.00			$52.05			$0.00			$0.00
P.S.T. @ 12%			$46.15			$0.00			$68.70			$0.00			$0.00
P.S.T. @ 0%			$0.00			$0.00			$0.00			$0.00			$0.00
TOTALS			$430.71			$0.00			$641.21			$0.00			$0.00
	TOTAL														
COST/FT	$10.72 /FOOT		$4.31 /FT			$0.00 /FT			$6.41 /FT			$0.00 /FT			$0.00
COST/M	$35.17 /METRE		$14.13 /RL			$0.00 /RL			$21.04 /RL			$0.00 /RL			$0.00

VENTILATION & ACCESSORIES COST

ITEMS	12" DIA. AMOUNT	12" DIA. PRICE EACH	12" DIA. TOTAL PRICE	30" DIA. AMOUNT	30" DIA. PRICE EACH	30" DIA. TOTAL PRICE	36" DIA. AMOUNT	36" DIA. PRICE EACH	36" DIA. TOTAL PRICE	42" DIA. AMOUNT	42" DIA. PRICE EACH	42" DIA. TOTAL PRICE	48" DIA. AMOUNT	48" DIA. PRICE EACH	48" DIA. TOTAL PRICE
VENTILATION PIPE	0	$0.00	$0.00	0	$0.00	$0.00	0	$5.65	$0.00	0	$6.49	$0.00	50	$7.91	$395.50
VENTILATION TUBE	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00
PIPE COUPLING	0	$0.00	$0.00	0	$0.00	$0.00	0	$2.25	$0.00	0	$2.25	$0.00	5	$2.25	$11.25
PIPE HANGERS	0	$0.00	$0.00	0	$0.00	$0.00	0	$2.92	$0.00	0	$2.92	$0.00	0	$0.00	$0.00
PIPE ELBOWS	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00
PIPE TEES	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00
TUBE COUPLING	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00
TUBE HANGER	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	3	$2.92	$8.76
MESSENGER WIRE	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.33	$0.00	0	$0.33	$0.00	50	$0.33	$16.50
SUBTOTAL			$0.00			$0.00			$0.00			$0.00			$432.01
DRAGE @ 20%			$0.00			$0.00			$0.00			$0.00			$86.40
F.S.T. @ -			$0.00			$0.00			$0.00			$0.00			$0.00
P.S.T. @ 0%			$0.00			$0.00			$0.00			$0.00			$0.00
TOTALS			$0.00			$0.00			$0.00			$0.00			$518.41
COST/FT			$0.00 /FT			$0.00 /FT			$0.00 /FT			$0.00 /FT			$10.37
COST/M. $34.02 /METRE			$0.00 /M.			$0.00 /M.			$0.00 /M.			$0.00 /M.			$34.02

ELECTRIC CABLE COST
(FOR FUTURE DECLINE)

ITEMS	3C #4 (BOOSTER FAN) AMOUNT	3C #4 PRICE EACH	3C #4 TOTAL PRICE	3C #6 (PUMP) AMOUNT	3C #6 PRICE EACH	3C #6 TOTAL PRICE	3C #2 AMOUNT	3C #2 PRICE EACH	3C #2 TOTAL PRICE	4C #4/0 AMOUNT	4C #4/0 PRICE EACH	4C #4/0 TOTAL PRICE	BLAST LINE (2C #10) AMOUNT	BLAST LINE (2C #10) PRICE EACH	BLAST LINE (2C #10) TOTAL PRICE
ELECTRIC CABLE	1	$4.31	$4.31	1	$2.53	$2.53	0	$0.00	$0.00	1	$16.80	$16.80	1	$0.50	$0.50
CABLE HANGER	1	$1.08	$1.08												
MESSENGER WIRE	1/6.096	$2.92	$0.48												
SUBTOTAL			$5.87			$2.53			$0.00			$16.80			$0.50
DRAGE @ 10%			$0.59			$0.25			$0.00			$1.68			$0.05
F.S.T. @ 12%			$0.77			$0.33			$0.00			$2.22			$0.07
P.S.T. @ 0%			$0.00			$0.00			$0.00			$0.00			$0.00
TOTALS			$7.23			$3.61			$0.00			$20.70			$0.62
COST/FT = $32.15			$7.23 /FT			$3.61 /FT			$0.00 /FT			$20.70 /FT			$0.62
COST/M. $105.49 /METRE			$23.72 /M.			$11.84 /M.			$0.00 /M.			$67.91 /M.			$2.02

FILE:BENCH
10-Apr-89
10:59 AM

CURRAGH RES. CORP.

6.00 M x 4.00 M BENCH

DY DEPOSIT

MULTIPLE HEADING

ELECTRIC

CONCURRENT

24.00 CM/LM
89.04 TONNES PER LM

BID SUMMARY SHEET

CATEGORY	TOTAL COST / M.	TOTAL COST/TONNE	OWNER'S COST/TONNE
DIRECT LABOUR	$66.72	$0.75	-
SUPPORT LABOUR	$0.00	$0.00	-
STEEL & BITS	$39.71	$0.45	-
EXPLOSIVES & ACCESSORIES	$127.72	$1.43	-
EQUIPMENT RENTAL	$21.76	$0.24	-
EQUIPMENT REPAIR	$18.93	$0.21	-
FUEL & LUBE	$1.51	$0.02	-
PIPE & ACCESSORIES	$0.00	$0.00	-
VENTILATION & ACCESSORIES	$0.00	$0.00	-
ELECTRIC CABLE	$0.00	$0.00	-
ELECTRIC POWER	$0.00	$0.00	$0.11
HOSES, SMALL TOOLS	$2.76	$0.03	-
INSURANCE, COMMUNICATION	$2.76	$0.03	-
FREIGHT DURING CONTRACT	$8.29	$0.09	-
SUBTOTAL	$290.17	$3.26	$0.11 /TONNE
G & A 11.5%	$33.37	$0.37	
TOTAL COST	$323.54	$3.63	
MARGIN 8.5%	$24.66	$0.28	
PRICE	$348.21 /METRE	$3.91 /TONNE	
	$106.13 /FT		

FILE:BENCH

10-Apr-89 11:00 AM

MULTIPLE HEADING

ELECTRIC

S/T HOURS	40	/WK
DAYS/WK	7	/WK
O/T HOURS	16	/WK
O/T RATE	1.50	
BONUS	$14.00	/WK
HRLY FNG	20%	
STAFF FNG	20%	
RM+BD	$40.00	/DAY
HOLES/RND	27	
HOLE/DEPT	4.27	METRES
AVER DRK	3.81	METRES
MONTH	30	DAYS
ADVANCE	16.85	METRES/DAY

LABOUR	QUANTITY	RATE/HR	BONUS/HR
PROJ.SUPT	0	$17.00	$14.00
SHIFTBOSS	0	$16.25	$14.00
LEAD MECH	0	$16.50	$10.50
MECHANIC	0	$16.00	$7.00
ELECT.	0	$16.50	$10.50
MINER	3	$15.00	$14.00
SUR/EXP	0	$14.00	$3.50
CLERK	0	$10.00	$0.00
EXPEDITOR	0	$12.50	$0.00
TOTAL	3		

STEEL & BITS COST/METRE $1.31

VARIABLES

EXPLOSIVES COSTS			STKS/CSE
CILGEL 70%	$101.90	PER CSE.	125
ANEX	$0.90	PER KG.	1.55
XACTEX	$146.90	PER CSE.	100
CAPS	$2.40	EACH	-
MISC	$25.00		-
FUEL COST	$0.30	/LITRE	
GAS COST	$0.35	/LITRE	
G & A	11.50%		
MARGIN	8.50%		

STKS/CSE		
HOSES	1.00%	
INS/COMM	1.00%	
FREIGHT	3.00%	

	NO. OF HOLES	STICKS PER HOLE
# LIFTERS	15	20
# PRIHOLE	6	-
# PERIM	6	5
# CUT	0	20
TOTAL	27	

DR REPAIR $0.49 /METRE

FANES $42.81 /DAY

(987+42)+850)/42 DAYS

CURRAGH RES. CORP.

BY DEPOSIT

6.00 M x 4.00 M BENCH

MULTIPLE HEADING

ELECTRIC

CONCURRENT

POWER CONSUMPTION

ITEM	PEAK HP	ACT HP	Kw	HRS	Kwhrs
FANS	0	0	0	0	0
PUMPS	0	0	0	0	0
JUMBO	200	150	112	32	3,581
FW PUMP	0	0	0	0	0
SHOP	0	0	0	0	0
COMP	0	0	0	0	0
COMPRESSOR	0	0	0	0	0
				TOTAL	3,581 Kwhr / DAY

Kwhr = 3,581

Cost/Kwhr $0.045 Cost/Day $161.14

Cost/M $9.56

MANPOWER

DESCRIPTION	DAY	AFTN	GYD	TOTAL
PROJ.SUPT	-	-	-	0
SHIFTBOSS	-	-	-	0
LEAD MECH	-	-	-	0
MECHANIC	-	-	-	0
ELECT.	-	-	-	0
MINER	1	1	1	3
SUR/EXP	-	-	-	0
CLERK	-	-	-	0
EXPEDITOR	-	-	-	0
TOTAL	1	1	1	3

DIRECT LABOUR COSTS

DESCRIPTION	RATE PER HOUR	HOURS/WEEK STRAIGHT	HOURS/WEEK OVERTIME	HOURS/WEEK TOTAL	WAGE COST /WEEK	WAGE COST	DAILY BONUS COST	SUBTOTAL COST	FRINGES 20%	ROOM & BOARD	FARES	TOTAL PER MAN	# MEN REQ'D	TOTAL DAILY
MINER	$15.00	40	16	64	$960.00	$137.14	$112.00	$249.14	$49.83	$40.00	$42.81	$374.76	3	$1,124.29
													3	$1,124.29

DIRECT LABOUR COST= $1,124.29 /DAY @ 16.85 M/DAY = $66.72 /METRE

SUPPORT LABOUR COST

	RATE PER HOUR	HOURS/WEEK STRAIGHT	HOURS/WEEK OVERTIME	HOURS/WEEK TOTAL	WAGE COST /WEEK	WAGE COST	DAILY BONUS COST	SUBTOTAL COST	FRINGES 20%	ROOM & BOARD	FARES	TOTAL PER MAN	# MEN REQ'D	TOTAL DAILY
PROJ.SUPT	$17.00	40	16	64	$1,088.00	$155.43	$112.00	$267.43	$53.49	$40.00	$42.81	$403.72	0	$0.00
SHIFTBOSS	$16.25	40	16	64	$1,040.00	$148.57	$112.00	$260.57	$52.11	$40.00	$42.81	$395.50	0	$0.00
LEAD MECH	$16.50	40	16	64	$1,056.00	$150.86	$84.00	$234.86	$46.97	$40.00	$42.81	$364.64	0	$0.00
MECHANIC	$16.00	40	16	64	$1,024.00	$146.29	$56.00	$202.29	$40.46	$40.00	$42.81	$325.55	0	$0.00
ELECT.	$16.50	40	16	64	$1,056.00	$150.86	$84.00	$234.86	$46.97	$40.00	$42.81	$364.64	0	$0.00
SURV/EXP	$14.00	40	16	64	$896.00	$128.00	$28.00	$156.00	$31.20	$40.00	$42.81	$270.01	0	$0.00
CLERK	$10.00	40	16	64	$640.00	$91.43	$0.00	$91.43	$18.29	$40.00	$42.81	$192.52	0	$0.00
EXPEDITOR	$12.50	40	16	64	$800.00	$114.29	$0.00	$114.29	$22.86	$40.00	$42.81	$219.95	0	$0.00
													0	$0.00

SUPPORT LABOUR COST = $0.00 /DAY @ 16.85 M/DAY = $0.00 /METRE

HEADING SIZE = 6.00 M x 4.00 M BENCH

DRILL STEEL & BIT COST

HOLES DRILLED PER ROUND	HOLE DEPTH	TOTAL M. DRILLED PER ROUND	STEEL & BIT COST PER M. DRILLED	TOTAL STEEL & BITS COST	AVERAGE BREAK PER ROUND	STEEL & BITS COST PER M.
27	4.27	115 METRES	$1.31	$151.30	3.81 METRES	$39.71
0 (REAMED)	4.27	0 METRES	$1.41	$0.00	3.81 METRES	$0.00
					TOTAL	$39.71 /M

EXPLOSIVES & ACCESSORIES COST

HEADING SIZE = 6.00 M x 4.00 M BENCH
HOLES DRILLED = 27
HOLES BLASTED = 27
HOLE DIAMETER = 45 mm
POWDER TO BE USED = CILBEL 70%, ANEX, XACTEX
AVERAGE BREAK/RND = 3.81 METRES

DESCRIPTION	NO. OF HOLES	STICKS PER HOLE	TOTAL STICKS	STICKS /CASE	CASE REQ'D	COST PER CASE		TOTAL COST
PRIMER H.E.	27	1	27	125	0.22	$101.90		$22.01
PERIMETER XACTEX	6	5	30	100	0.30	$146.90		$44.07
LIFTERS & H.E.	15	20	300	125	2.40	$101.90		$244.56
CUT H.E.	0	20	0	125	0.00	$101.90		$0.00
BLASTHOLES ANEX	6	1.55 (KG/HL.)	35 (KG.)	-	-	$0.90	/KG.	$31.89
							SUBTOTAL	$342.53
							12.00% F.S.T.	$41.10
							0.00% P.S.T.	$0.00
							TOTAL	$383.63

DESCRIPTION	NO. OF HOLES	CAPS PER HOLE	TOTAL CAPS OR FUSE	COST PER CAP	COST PER ROUND	COST OF MISC.	TOTAL COST
DETONATORS	27	1	27	$2.48	$66.96	$25.00	$91.96
					12.00% F.S.T.		$11.04
					0.00% P.S.T.		$0.00
					TOTAL		$103.00

TOTAL EXPLOSIVES COST = $383.63
TOTAL DETONATORS COST = $103.00

TOTAL COST = $486.63 PER RND / 3.81 M. = $127.72 / METRE

EQUIPMENT RENTAL AND REPAIR COST

EQUIPMENT DESCRIPTION	COMMENTS	RENT PER UNIT	NO. OF UNITS REQ,D	TOTAL RENTAL COST/MONTH	REPAIR COST PER HR., M.	HRS. OPERATING PER DAY OR M. DRILLED	REPAIR COST PER DAY	RENTAL COST PER DAY	REPAIR COST PER DAY
DRILL JUMBO		$10,000	1	$10,000	$15.00	4 HR	$60.00	$333.33	$60.00
DRILL REPAIR		-	-	-	$0.49	510 M.	$250.92	$0.00	$250.92
ST-8 SCOOPTRAM		$10,000	-	$0	$29.00	0 HR	$0.00	$0.00	$0.00
CH 1824 TRUCK		$8,700	-	$0	$21.00	0 HR	$0.00	$0.00	$0.00
600 CFM ELECT COMPRESSOR		$2,100	-	$0	$1.50	0 HR	$0.00	$0.00	$0.00
WAREHOUSE TRAILER		$300	-	$0	$0.00	0 HR	$0.00	$0.00	$0.00
OFFICE TRAILER		$450	-	$0	$0.25	0 HR	$0.00	$0.00	$0.00
FRESH WATER PUMP		$210	-	$0	$0.25	0 HR	$0.00	$0.00	$0.00
MINE LIGHTS & CHARGER		$15	-	$0	$1.50	0 HR	$0.00	$0.00	$0.00
VENTILATION FANS		$450	-	$0	$0.20	0 HR	$0.00	$0.00	$0.00
OXY & ACET TORCHES		$50	-	$0	$1.00	0 HR	$0.00	$0.00	$0.00
SAFETY GEAR		$100	-	$0	$0.00	0 HR	$0.00	$0.00	$0.00
FIRST AID GEAR		$150	-	$0	$0.00	0 HR	$0.00	$0.00	$0.00
SHOP TOOLS		$1,500	-	$0	$1.00	0 HR	$0.00	$0.00	$0.00
PICKUP / CREW VAN		$1,000	-	$0	$4.50	0 HR	$0.00	$0.00	$0.00
JACKLEG / STOPER		$250	4	$1,000	$1.00	8 HR	$8.00	$33.33	$8.00
400 AMP WELDER		$150	-	$0	$0.25	0 HR	$0.00	$0.00	$0.00
U/G PUMPS (13,30 HP)		$1,500	-	$0	$7.00	0 HR	$0.00	$0.00	$0.00
GROUT PUMP		$1,500	-	$0	$0.00	0 HR	$0.00	$0.00	$0.00
POWDER/CAP MAGAZINE		$650	-	$0	$0.00	0 HR	$0.00	$0.00	$0.00
GRADER		$3,500	-	$0	$20.00	0 HR	$0.00	$0.00	$0.00
POWER DISTRIBUTION RACK		$500	-	$0	$0.50	0 HR	$0.00	$0.00	$0.00
INTERMEDIATE LOADER		$200	-	$0	$0.25	0 HR	$0.00	$0.00	$0.00
TOTALS				$11,000 PER MONTH				$366.67	$318.92

ADVANCE PER DAY		16.85 M./DAY
	RENTALS	REPAIRS
COST/METRE	$21.76	$18.93

FUEL / LUBE COST

EQUIPMENT DESCRIPTION	ENGINE	NUMBER OF UNITS REQ'D	OPERATING HOURS PER DAY PER UNIT	TOTAL OPERATING HOURS PER DAY	FUEL REQ'D PER HOUR	TOTAL FUEL PER DAY	FUEL COST PER LITRE	FUEL COST PER DAY	LUBE COST @ 15% OF FUEL COST	TOTAL OPER. COST PER DAY
DRILL JUMBO	-	2	2	4	16.6 LT	66.4	$0.30	$19.92	$2.99	$22.91
ST 8 SCOOPTRAM	-	-	0	0	42.0 LT	0.0	$0.30	$0.00	$0.00	$0.00
CH 1824 TRUCK	-	-	0	0	42.0 LT	0.0	$0.30	$0.00	$0.00	$0.00
GRADER	-	-	0	0	25.0 LT	0.0	$0.30	$0.00	$0.00	$0.00
JACKLEG/STOPER	-	-	0	0	0.0 LT	0.0	-	$0.00	$2.50	$2.50
PICKUP / CREW VAN	-	-	0	0	15.0 LT	0.0	$0.55	$0.00	$0.00	$0.00
					TOTAL	66.40 L/DAY				$25.41

OPERATING COST = $25.41 /DAY @ 16.85 M./DAY = $1.51 COST/METRE

PIPE & ACCESSORY COST

ITEMS	2" LINE AMOUNT	2" LINE PRICE EACH	2" LINE TOTAL PRICE	4" LINE AMOUNT	4" LINE PRICE EACH	4" LINE TOTAL PRICE	4" LINE AMOUNT	4" LINE PRICE EACH	4" LINE TOTAL PRICE	6" LINE AMOUNT	6" LINE PRICE EACH	(PUMP) TOTAL PRICE	6" LINE AMOUNT	6" LINE PRICE EACH	TOTAL PRICE
PIPES	0	$1.32	$0.00	0	$3.73	$0.00	0	$3.73	$0.00	0	$5.00	$0.00	0	$5.00	$0.00
COUPLING	0	$5.92	$0.00	0	$11.85	$0.00	0	$11.85	$0.00	0	$20.40	$0.00	0	$20.40	$0.00
VALVES	0	$50.14	$0.00	0	$50.14	$0.00	0	$50.14	$0.00	0	$245.51	$0.00	0	$245.51	$0.00
ELBOWS 90 DEG	0	$7.91	$0.00	0	$22.27	$0.00	0	$22.27	$0.00	0	$56.36	$0.00	0	$56.36	$0.00
ELBOWS 45 DEG	0	$7.91	$0.00	0	$22.27	$0.00	0	$22.27	$0.00	0	$56.36	$0.00	0	$56.36	$0.00
TEES	0	$11.96	$0.00	0	$34.35	$0.00	0	$34.35	$0.00	0	$92.70	$0.00	0	$92.70	$0.00
CHECK VALVE /PRV	0	$380.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$380.00	$0.00	0	$380.00	$0.00
CHAIN HANGERS	0	$2.92	$0.00	0	$2.92	$0.00	0	$2.92	$0.00	0	$2.92	$0.00	0	$2.92	$0.00
3/16 CHAIN	0	$0.32	$0.00	0	$0.32	$0.00	0	$0.32	$0.00	0	$0.32	$0.00	0	$0.32	$0.00
SUBTOTAL			$0.00			$0.00			$0.00			$0.00			$0.00
DAMAGE @ 10%			$0.00			$0.00			$0.00			$0.00			$0.00
F.S.T. @ 12%			$0.00			$0.00			$0.00			$0.00			$0.00
P.S.T. @ 0%			$0.00			$0.00			$0.00			$0.00			$0.00
TOTALS			$0.00			$0.00			$0.00			$0.00			$0.00
	TOTAL														
COST/FT	$0.00 /FOOT		$0.00 /FT			$0.00 /FT			$0.00 /FT			$0.00 /FT			$0.00
COST/M	$0.00 /METRE		$0.00 /M.			$0.00 /M.			$0.00 /M.			$0.00 /M.			$0.00

VENTILATION & ACCESSORIES COST

ITEMS	12" DIA. AMOUNT	12" DIA. PRICE EACH	12" DIA. TOTAL PRICE	30" DIA. AMOUNT	30" DIA. PRICE EACH	30" DIA. TOTAL PRICE	36" DIA. AMOUNT	36" DIA. PRICE EACH	36" DIA. TOTAL PRICE	42" DIA. AMOUNT	42" DIA. PRICE EACH	42" DIA. TOTAL PRICE	48" DIA. AMOUNT	48" DIA. PRICE EACH	48" DIA. TOTAL PRICE
VENTILATION PIPE	0	$0.00	$0.00	0	$0.00	$0.00	0	$5.65	$0.00	0	$6.49	$0.00	0	$7.91	$0.00
VENTILATION TUBE	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00
PIPE COUPLING	0	$0.00	$0.00	0	$0.00	$0.00	0	$2.25	$0.00	0	$2.25	$0.00	0	$2.25	$0.00
PIPE HANGERS	0	$0.00	$0.00	0	$0.00	$0.00	0	$2.92	$0.00	0	$2.92	$0.00	0	$0.00	$0.00
PIPE ELBOWS	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00
PIPE TEES	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00
TUBE COUPLING	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00
TUBE HANGER	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$2.92	$0.00
MESSENGER WIRE	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.33	$0.00	0	$0.33	$0.00	0	$0.33	$0.00
SUBTOTAL			$0.00			$0.00			$0.00			$0.00			$0.00
DAMAGE @ 20%			$0.00			$0.00			$0.00			$0.00			$0.00
F.S.T. @ -			$0.00			$0.00			$0.00			$0.00			$0.00
P.S.T. @ 0%			$0.00			$0.00			$0.00			$0.00			$0.00
TOTALS			$0.00			$0.00			$0.00			$0.00			$0.00
COST/FT			$0.00 /FT			$0.00 /FT			$0.00 /FT			$0.00 /FT			$0.00
COST/M. $0.00 /METRE			$0.00 /M.			$0.00 /M.			$0.00 /M.			$0.00 /M.			$0.00

ELECTRIC CABLE COST

(FOR FUTURE DECLINE)

ITEMS	3C #4 (BOOSTER FAN) AMOUNT	3C #4 PRICE EACH	3C #4 TOTAL PRICE	3C #6 (PUMP) AMOUNT	3C #6 PRICE EACH	3C #6 TOTAL PRICE	3C #2 AMOUNT	3C #2 PRICE EACH	3C #2 TOTAL PRICE	4C #4/0 AMOUNT	4C #4/0 PRICE EACH	4C #4/0 TOTAL PRICE	BLAST LINE (2C #18) AMOUNT	BLAST LINE (2C #18) PRICE EACH	BLAST LINE (2C #18) TOTAL PRICE
ELECTRIC CABLE	0	$4.31	$0.00	0	$2.93	$0.00	0	$0.00	$0.00	0	$16.80	$0.00	0	$0.50	$0.00
CABLE HANGER	0	$1.08	$0.00												
MESSENGER WIRE	0	$2.92	$0.00												
SUBTOTAL			$0.00			$0.00			$0.00			$0.00			$0.00
DAMAGE @ 10%			$0.00			$0.00			$0.00			$0.00			$0.00
F.S.T. @ 12%			$0.00			$0.00			$0.00			$0.00			$0.00
P.S.T. @ 0%			$0.00			$0.00			$0.00			$0.00			$0.00
TOTALS			$0.00			$0.00			$0.00			$0.00			$0.00
COST/FT = $0.00			$0.00 /FT			$0.00 /FT			$0.00 /FT			$0.00 /FT			$0.00
COST/M. $0.00 /METRE			$0.00 /M.			$0.00 /M.			$0.00 /M.			$0.00 /M.			$0.00

FILE:SLUSHIN
10-Apr-89
11:17 AM

CURRAGH - FARO DEPOSIT

SLUSHER STOPING

CONCURRENT

BID SUMMARY SHEET

CATEGORY	TOTAL COST / TONNE	OWNER'S COST / TONNE
DIRECT LABOUR	$9.72	-
SUPPORT LABOUR	$0.00	-
STEEL & BITS	$1.23	-
EXPLOSIVES & ACCESSORIES	$4.02	-
EQUIPMENT RENTAL	$0.25	-
EQUIPMENT REPAIR	$0.31	-
FUEL & LUBE	$0.03	-
PIPE & ACCESSORIES	$0.10	-
VENTILATION & ACCESSORIES	$0.24	-
ELECTRIC CABLE	$0.10	-
ELECTRIC POWER	$0.00	$0.05
HOSES, SMALL TOOLS	$0.16	-
INSURANCE, COMMUNICATION	$0.16	-
FREIGHT DURING CONTRACT	$0.48	-
SUBTOTAL	$16.79	$0.05 /TONNE
G & A 11.5%	$1.93	
TOTAL COST	$18.73	
MARGIN 8.5%	$1.43	
PRICE	$20.15 /TONNE	

FILE:SLUSHNIN

CONCURRENT

VARIABLES

S/T HOURS	40	/WK
DAYS/WK	7	/WK
O/T HOURS	16	/WK
O/T RATE	1.50	
BONUS	$14.00	/HR
HRLY FRNG	20%	
STAFF FRG	20%	
RM+BD	$40.00	/DAY
MONTH	30	DAYS
TONNAGE	3,000	TONNES/DAY
TONNES/MANSHIFT	35.00	

LABOUR	QUANTITY	RATE/HR	BONUS/HR
PROJ.SUPT	0	$17.00	$14.00
MITE CAPT.	0	$16.50	$14.00
CLERK/F.A.	0	$10.00	$0.00
SHIFTBOSS	0	$16.25	$14.00
ENGINEER	0	$15.00	$0.00
MAST. MECH	0	$16.25	$9.33
CHIEF ELEC	0	$16.25	$9.33
MECHANIC	0	$16.00	$7.00
ELECT.	0	$16.00	$7.00
SURVEYOR	0	$14.00	$0.00
SERVICES	0	$15.00	$7.00
STPE MINER	86	$15.00	$14.00
DEV MINER	0	$15.00	$14.00
ORE HAUL	0	$15.00	$9.33
TOTAL	86		

EXPLOSIVES COSTS			STKS/CSE
CILBEL	$103.20	PER CSE.	195
ANEX	$0.90	PER LB.	0.60
LACTEX	$146.90	PER CSE.	100
CAPS	$2.24	EACH	-
MISC	$5.00		-
FUEL COST	$0.30	/LITRE	
GAS COST	$0.55	/LITRE	
			HOSES 1.00%
G & A	11.50%		INS/COMM 1.00%
MARGIN	8.50%		FREIGHT 3.00%
STEEL & BITS COST/FT			$0.40

# LIFTERS	-	
# PADHOLE	-	HALF ANEX
# PERIM	-	
# CUT	-	
TOTAL	0	
DR REPAIR	$0.15	/FT

CURRAGH RES. CORP.

SLUSHER STOPING

CONCURRENT

POWER CONSUMPTION

ITEM	PEAK HP	ACT HP	Kw	HRS	Kwhrs
FANS	20	15	11	192	2,148
PUMPS	0	0	0	24	0
SLUSHER	20	15	11	80	895
FW PUMP	0	0	0	24	0
SHOP	0	0	0	24	0
CRMP	0	0	0	0	0
COMPRESSOR	0	0	0	24	0
				TOTAL	3,044

Kwhr = 3,044

Cost/Kwhr $0.045 Cost/Day $136.97

Cost/ Tonne $0.05

DIRECT LABOUR COSTS

DESCRIPTION	RATE PER HOUR	HOURS/WEEK STRAIGHT	OVERTIME	TOTAL	WAGE COST /WEEK	WAGE COST	DAILY BONUS COST	SUBTOTAL COST	FRINGES 20%	ROOM & BOARD	TOTAL PER MAN	# MEN REQ'D	TOTAL DAILY
SERVICES	$15.00	40	16	64	$960.00	$137.14	$56.00	$193.14	$38.63	$40.00	$271.77	0	$0.00
STPE MINER	$15.00	40	16	64	$960.00	$137.14	$112.00	$249.14	$49.83	$40.00	$338.97	86	29,151.54
DEV MINER	$15.00	40	16	64	$960.00	$137.14	$112.00	$249.14	$49.83	$40.00	$338.97	0	$0.00
ORE HAUL	$15.00	40	16	64	$960.00	$137.14	$74.67	$211.81	$42.36	$40.00	$294.17	0	$0.00
												86	29,151.54

DIRECT LABOUR COST= 29,151.54 /DAY @ 3,000 TONNE/DAY= $9.72 /TONNE

SUPPORT LABOUR COST

	RATE PER HOUR	HOURS/WEEK STRAIGHT	HOURS/WEEK OVERTIME	HOURS/WEEK TOTAL	WAGE COST /WEEK	WAGE COST	DAILY BONUS COST	DAILY SUBTOTAL COST	FRINGES 20%	ROOM & BOARD	TOTAL PER MAN	# MEN REQ'D	TOTAL DAILY
PROJ.SUPT	$17.00	40	16	64	$1,088.00	$155.43	$112.00	$267.43	$53.49	$40.00	$360.91	0	$0.00
NITE CAPT.	$16.50	40	16	64	$1,056.00	$150.86	$112.00	$262.86	$52.57	$40.00	$355.43	0	$0.00
CLERK/F.A.	$10.00	40	16	64	$640.00	$91.43	$0.00	$91.43	$18.29	$40.00	$149.71	0	$0.00
SHIFTBOSS	$16.25	40	16	64	$1,040.00	$148.57	$112.00	$260.57	$52.11	$40.00	$352.69	0	$0.00
ENGINEER	$15.00	40	16	64	$960.00	$137.14	$0.00	$137.14	$27.43	$40.00	$204.57	0	$0.00
MAST. MECH	$16.25	40	16	64	$1,040.00	$148.57	$74.67	$223.24	$44.65	$40.00	$307.89	0	$0.00
CHIEF ELEC	$16.25	40	16	64	$1,040.00	$148.57	$74.67	$223.24	$44.65	$40.00	$307.89	0	$0.00
MECHANIC	$16.00	40	16	64	$1,024.00	$146.29	$56.00	$202.29	$40.46	$40.00	$282.74	0	$0.00
ELECT.	$16.00	40	16	64	$1,024.00	$146.29	$56.00	$202.29	$40.46	$40.00	$282.74	0	$0.00
SURVEYOR	$14.00	40	16	64	$896.00	$128.00	$0.00	$128.00	$25.60	$40.00	$193.60	0	$0.00
												0	$0.00

SUPPORT LABOUR COST = $0.00 /DAY @ 3,000 TONNE/DAY= $0.00 /TONNE

DRILL STEEL & BIT COST

	HOLES DRILLED PER ROUND	HOLE DEPTH	TOTAL FT DRILLED PER ROUND	STEEL & BIT COST PER FT DRILLED	TOTAL STEEL & BITS COST	AVERAGE BREAK PER ROUND	STEEL & BITS COST PER TON
PILOT (2 ROUNDS)							
REGULAR - 2 x 23	46	6.00	276 FT	$0.30	$82.80	225 TONNES	$0.37
REAMING - 2 x 3	6 (REAMED)	6.00	36 FT	$0.40	$14.40	225 TONNES	$0.06
SLASH	60	10.00	600 FT	$0.30	$180.00	225 TONNES	$0.80
						TOTAL	$1.23 /TONNE

PILOT

EXPLOSIVES & ACCESSORIES COST

HEADING SIZE = 4' x 6'
HOLES DRILLED = 26
HOLES BLASTED = 23
HOLE DIAMETER = 1 1/4 "
POWDER TO BE USED = ANEX, CILBEL 70%
AVERAGE BREAK/RND = 5.00 FEET

DESCRIPTION	NO. OF HOLES	STICKS PER HOLE	TOTAL STICKS	STICKS /CASE	CASE REQ'D	COST PER CASE		TOTAL COST
PRIMER H.E.	23	1	23	195	0.12	$103.20		$12.17
PERIMETER XACTEX	0	5	0	100	0.00	$146.90		$0.00
LIFTERS & H.E.	3	6	18	195	0.09	$103.20		$9.53
CUT H.E.	0	0	0	195	0.00	$103.20		$0.00
BLASTHOLES ANEX	23	0.60 (LB/FT)	69 (LB.)	-	-	$0.90	/LB.	$62.10
							SUBTOTAL	$83.80
						12.00%	F.S.T.	$10.06
						0.00%	P.S.T.	$0.00
							TOTAL	$93.85

DESCRIPTION	NO. OF HOLES	CAPS PER HOLE	TOTAL CAPS OR FUSE	COST PER CAP	COST PER ROUND	COST OF MISC.	TOTAL COST
DETONATORS	23	1	23	$2.24	$51.52	$5.00	$56.52
					12.00%	F.S.T.	$6.78
					0.00%	P.S.T.	$0.00
						TOTAL	$63.30

TOTAL EXPLOSIVES COST = $93.85
TOTAL DETONATORS COST = $63.30

TOTAL COST = $157.16 PER RND @ 2 RNDS / 225 TONNES = $1.40 / TONNE

SLASH

HEADING SIZE = 2 x 23' x 10'
HOLES DRILLED = 60
HOLES BLASTED = 60
HOLE DIAMETER = 1 1/4 "
POWDER TO BE USED = ANEX, CILGEL 70%
AVERAGE BREAK/RND = 10.00 FEET

EXPLOSIVES & ACCESSORIES COST

DESCRIPTION	NO. OF HOLES	STICKS PER HOLE	TOTAL STICKS	STICKS /CASE	CASE REQ'D	COST PER CASE	TOTAL COST
PRIMER H.E.	60	1	60	195	0.31	$103.20	$31.75
PERIMETER LACTEX	22	4	88	100	0.88	$146.90	$129.27
LIFTERS & H.E.	0	0	0	195	0.00	$103.20	$0.00
CUT H.E.	0	0	0	195	0.00	$103.20	$0.00
BLASTHOLES ANEX	38	0.60 (LB/FT)	251 (LB.)	-	-	$0.90 /LB.	$225.72
						SUBTOTAL	$386.75
						12.00% F.S.T.	$46.41
						0.00% P.S.T.	$0.00
						TOTAL	$433.16

TOTAL EXPLOSIVES COST

PILOT	$1.40 / TONNE
SLASH	$2.62 / TONNE
TOTAL	$4.02 / TONNE

DESCRIPTION	NO. OF HOLES	CAPS PER HOLE	TOTAL CAPS OR FUSE	COST PER CAP	COST PER ROUND	COST OF MISC.	TOTAL COST
DETONATORS	60	1	60	$2.24	$134.40	$5.00	$139.40
					12.00% F.S.T.		$16.73
					0.00% P.S.T.		$0.00
					TOTAL		$156.13

TOTAL EXPLOSIVES COST = $433.16
TOTAL DETONATORS COST = $156.13

TOTAL COST = $589.28 PER RND = 1 RNDS / 225 TONNES = $2.62 / TONNE

EQUIPMENT RENTAL AND REPAIR COST

EQUIPMENT DESCRIPTION	COMMENTS	RENT PER UNIT	NO. OF UNITS REQ,D	TOTAL RENTAL COST/MONTH	REPAIR COST PER HR., M.	HRS. OPERATING PER DAY OR M. DRILLED	REPAIR COST PER DAY	RENTAL COST PER DAY	REPAIR COST PER DAY
20 HP 3 DRUM SLUSHER C/W SCRAPER		$1,500	10	$15,000	$4.50	80 HR	$360.00	$500.00	$360.00
SLUSHER CABLE		$200	10	$2,000	-	-	-	-	-
JACKLEG / STOPER		$220	24	$5,280	$1.00	65 HR	$65.00	$176.00	$65.00
DRILL REPAIR		-	-	-	$0.12	3,868 FT	$466.56	$0.00	$466.56
12" FAN		$200	10	$2,000	$0.20	192 HR	$38.40	$66.67	$38.40
TOTALS				$24,280 PER MONTH				$742.67	$929.96

ADVANCE PER DAY 3,000 TONNES/DAY

	RENTALS	REPAIRS
COST/TONNE	$0.25	$0.31

FUEL / LUBE COST

EQUIPMENT DESCRIPTION	ENGINE	NUMBER OF UNITS REQ'D	OPERATING HOURS PER DAY PER UNIT	TOTAL OPERATING HOURS PER DAY	FUEL REQ'D PER HOUR	TOTAL FUEL PER DAY	FUEL COST PER LITRE	FUEL COST PER DAY	LUBE COST @ 15% OF FUEL COST	TOTAL OPER. COST PER DAY
JACKLEG / STOPER	-	-	0	0	0.0 LT	0.0	-	$0.00	$50.00	$50.00
SLUSHER	-	-	0	0	0.0 LT	0.0	-	$0.00	$45.00	$45.00
										$95.00

OPERATING COST = $95.00 /DAY @ 3,000 TONNE/DAY= $0.03 COST/TONNE

CURRAGH RESOURCES CORP.
DY DEPOSIT
LONGHOLE MINING

ORE THICKNESS	30 M
ASSUME STOPE WIDTH =	12 M
ASSUME PILLAR WIDTH =	12 M
ASSUME STOPE THICKNESS =	20 M
ORE DENSITY	3.9
LONGHOLE STOPE HEIGHT	15 M

DESCRIPTION	QUANTITY		UNIT RATE	TOTAL COST
PILOT	12,229	TONNES	$6.36	$77,776.44
SLASH	9,828	TONNES	$3.26	$32,039.28
BENCH	5,335	TONNES	$3.26	$17,392.10
SLOT RSE	15	METRES	$607.56	$9,113.40
LONGHOLE DRILLING	3,200	METRES	$13.50	$43,200.00
LONGHOLE BLASTING	25,791	TONNES	$1.60	$41,265.60
TONNES PRODUCED	53,288	TONNES	$4.14	$220,786.82

SUMMARY

DIRECT LABOUR	$0.49	
STEEL & BITS	$0.59	
EXPLOSIVES & ACCESSORIES ..	$1.26	
EQUIPMENT RENTAL	$0.17	
EQUIPMENT REPAIR	$0.24	
FUEL & LUBE	$0.02	
PIPE & ACCESSORIES.....	$0.24	
VENTILATION & ACCESSORIES .	$0.23	
ELECTRIC CABLE	$0.71	
HOSES, SMALL TOOLS.....	$0.04	
INSURANCE, COMMUNICATION ..	$0.04	
FREIGHT DURING CONTRACT ...	$0.11	
TOTAL	$4.14	/TONNE

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CURRAGH RES. CORP.

DY DEPOSIT

BID SUMMARY SHEET

LONGHOLE DRILLING

CONCURRENT

CATEGORY		COST / METRE	OWNER'S COST / METRE
DIRECT LABOUR		$8.35	-
SUPPORT LABOUR		$0.00	-
STEEL & BITS		$1.64	-
EXPLOSIVES & ACCESSORIES		$0.00	-
EQUIPMENT RENTAL		$0.79	-
EQUIPMENT REPAIR		$1.64	-
FUEL & LUBE		$0.44	-
PIPE & ACCESSORIES		$0.00	-
VENTILATION & ACCESSORIES		$0.00	-
ELECTRIC CABLE		$0.00	-
ELECTRIC POWER		-	$0.10
HOSES, SMALL TOOLS		$0.13	-
INSURANCE, COMMUNICATION		$0.13	-
FREIGHT DURING CONTRACT		$0.39	-
SUBTOTAL		$13.50	$0.10 /METRE
G & A	11.5%	$1.55	
TOTAL COST		$15.06	
MARGIN	8.5%	$1.15	
PRICE		$16.20 /METRE	
		$4.94 /FOOT	

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10-Apr-89 11:06 AM
CONCURRENT

VARIABLES

CURRAGH RES. CORP.
DY DEPOSIT
LONGHOLE DRILLING
CONCURRENT

			LABOUR	QUANTITY	RATE/HR	BONUS/HR
S/T HOURS	40	/WK				
DAYS/WK	7	/WK	PROJ.SUPT	0	$17.00	$14.00
O/T HOURS	16	/WK	SHIFTBOSS	0	$16.25	$14.00
O/T RATE	1.50		MECHANIC	0	$16.00	$7.00
BONUS	$14.00	/HR	ELECT.	0	$16.50	$7.00
HOLY FWB	20%		MINER	6	$15.00	$14.00
STAFF FWB	20%		SURV/EXP	0	$14.00	$3.50
RM+BD	$40.00	/DAY	CLERK	0	$12.50	$0.00
HOLE/DAY	18		EXPEDITOR	0	$14.00	$3.50
HOLE/DEPTH	15.24	METRES				
AVER BRK	-	M.				
MONTH	30	DAYS				
ADVANCE	274.32	M./DAY	STEEL & BITS COST/M.			$1.64

EXPLOSIVES COSTS		STKS/CSE
CILGEL	- PER CSE.	-
ANEX	- PER KG.	-
XACTEX	- PER CSE.	-
CAPS	- EACH	-
MISC	-	-
GAS COST	$0.55 /LITRE	
FUEL COST	$0.30 /LITRE	
		HOSES 1.00%
S & A	11.50%	INS/COMM 1.00%
MARGIN	8.50%	FREIGHT 3.00%

# LIFTERS	-	
# PRIMHOLE	-	
# PERIM	-	
# CUT	-	
TOTAL	0	
DR REPAIR	$0.49 /M.	
FARES	$42.81 /DAY	

DIRECT LABOUR COSTS

DESCRIPTION	RATE PER HOUR	HOURS/WEEK STRAIGHT	OVERTIME	TOTAL	WAGE COST /WEEK	WAGE COST	DAILY BONUS COST	SUBTOTAL COST	FRINGES 20%	FARES	ROOM & BOARD	TOTAL PER MAN	# MEN REQ'D	TOTAL DAILY
MINER	$15.00	40	16	64	$960.00	$137.14	$112.00	$249.14	$49.83	$42.81	$40.00	$381.78	6	$2,290.69
													6	$2,290.69

DIRECT LABOUR COST= $2,290.69 /DAY @ 274.32 M./DAY = $8.35 /M.

DRILL STEEL & BIT COST

HOLES DRILLED PER DAY	HOLE DEPTH	TOTAL M. DRILLED PER DAY	STEEL & BIT COST PER M. DRILLED	TOTAL STEEL & BITS COST	METRES/ DAY	STEEL & BITS COST PER M.
18	15.24	274.32 M.	$1.64	$450.00	274.32 M.	$1.64
					TOTAL	$1.64 /M.

EQUIPMENT RENTAL AND REPAIR COST

EQUIPMENT DESCRIPTION	COMMENTS	RENT PER UNIT	NO. OF UNITS REQ,D	TOTAL RENTAL COST/MONTH	REPAIR COST PER HR., M.	HRS. OPERATING PER DAY OR M. DRILLED	REPAIR COST PER DAY	RENTAL COST PER DAY	REPAIR COST PER DAY
1 BOOM ELECTRIC/HYDRAULIC JUMBO		$6,500	1	$6,500	$15.00	21 HR	$315.00	$216.67	$315.00
DRILL REPAIR		-	-	-	$0.49	274.32 M.	$135.00	$0.00	$135.00
TOTALS				$6,500 PER MONTH				$216.67	$450.00

ADVANCE PER DAY 274.32 M./DAY

	RENTALS	REPAIRS
COST/M.	$0.79	$1.64

FUEL / LUBE COST

EQUIPMENT DESCRIPTION	ENGINE	NUMBER OF UNITS REQ'D	OPERATING HOURS PER DAY PER UNIT	TOTAL OPERATING HOURS PER DAY	FUEL REQ'D PER HOUR	TOTAL FUEL PER DAY	FUEL COST PER LITRE	FUEL COST PER DAY	LUBE COST @ 15% OF FUEL COST	TOTAL OPER. COST PER DAY
1 BOOM ELECT/HYD JUMBO		1	21	21	16.7 LT	349.9	$0.30	$104.96	$15.74	$120.70
										$120.70

OPERATING COST = $120.70 /DAY @ 274.32 M./DAY = $0.44 /M.

POWER CONSUMPTION

ITEM	PEAK HP	ACT HP	Kw	HRS	KwHrs
FANS	0	0	0	0	0
PUMPS	0	0	0	0	0
JUMBO	60	45	34	18	604
FW PUMP	0	0	0	0	0
SHOP	0	0	0	0	0
CAMP	0	0	0	0	0
COMPRESSOR	0	0	0	0	0
				TOTAL	604

Assume Cost / KwHr = $0.045 = $27.19 /day

Cost/ M = $27.19 /day / 274.32 m/day = $0.10 /M

FILE: BLAST_1

CURRASH RES. COR

BY DEPOSIT

BID SUMMARY SHEET

LONGHOLE

BLASTING CONCURRENT

CATEGORY	COST / TONNE	BY OWNER
DIRECT LABOUR	$0.48	-
SUPPORT LABOUR	$0.00	-
STEEL & BITS	$0.00	-
EXPLOSIVES & ACCESSORIES	$0.90	-
EQUIPMENT RENTAL	$0.04	-
EQUIPMENT REPAIR	$0.06	-
FUEL & LUBE	$0.04	-
PIPE & ACCESSORIES	$0.00	-
VENTILATION & ACCESSORIES	$0.00	-
ELECTRIC POWER	$0.00	-
HOSES, SMALL TOOLS	$0.02	-
INSURANCE, COMMUNICATION	$0.02	-
FREIGHT, FARES DURING CONTRACT	$0.05	-
SUBTOTAL	$1.60	$0.00 /TONNE
G & A 11.5%	$0.18	
MARGIN 8.5%	$0.14	
PRICE	$1.91 /TONNE	

LOADING SYSTEM

1.) UP HOLE

a) Toe Priming with A-35 Primer along with Monel IT Primer (50 ft lng)

b) Pneumatic ANFO Loading to Collar minus 3 feet.

2.) DOWN HOLE

a) Middle Priming with A-35 Primer along with Monel IT Primer (30 ft lng)

b) Pneumatic ANFO Loading to Collar minus 3 feet.

* If critical charge is not a problem then gravity feeding may be feasible.

FILE: BLAST_1
10-Apr-89 11:03 AM
CONCURRENT

VARIABLES

			LABOUR	QUANTITY	RATE/HR	BONUS/HR
S/T HOURS	40	/WK				
DAYS/WK	7	/WK				
O/T HOURS	16	/WK	PROJ.SUPT	0	$17.00	$12.00
O/T RATE	1.50		SHIFTBOSS	0	$16.25	$12.00
BONUS	$12.00	/HR	MECHANIC	0	$16.00	$6.00
HRLY FRG	20%		ELECT.	0	$16.50	$9.00
STAFF FRG	20%		MINER	4	$15.00	$12.00
RM+BD	$40.00	/DAY	SURV/EXP	0	$14.00	$3.00
HOLES/BLST	80		CLERK	0	$10.00	$0.00
HOLE/DEPT	10.00	METRES	EXPEDITOR	0	$12.50	$0.00
AVER RAK	-	METRES	TOTAL	4		
MONTH	30	DAYS				
ADVANCE	3,000	TONNES/DAY	STEEL & BITS COST/M			-

EXPLOSIVES COSTS		STKS/CSE			
AXIS PRIMER	$0.77 EACH	-	# LIFTERS	-	
AREX	$0.90 PER KG.	2.06 KG/M.	# PRIMER	80 x 10.00 m EACH	
B-LINE	$0.42 PER METRE	-	# CUT	-	
ELECT DET.	$1.07 EACH	-			
MISC.	$25.00 /DAY	-			
XT MODEL	$3.84 EACH - 10 m		DH REPAIR	- /M.	
XT MODEL	$4.67 EACH - 15 m		FARES	$42.81 /DAY	
FUEL COST	$0.45 /LITRE				
		HOSES	1.00%		
G & A	11.50%	ING/CONN	1.00%		
MARGIN	8.50%	FREIGHT	3.00%		

CURRAGH RES. CORP.
DY DEPOSIT
LONGHOLE
BLASTING
CONCURRENT

DIRECT LABOUR COSTS

DESCRIPTION	RATE PER HOUR	HOURS/WEEK STRAIGHT	OVERTIME	TOTAL	WAGE COST /WEEK	WAGE COST	DAILY BONUS COST	SUBTOTAL COST	FRINGES 20%	FARES	ROOM & BOARD	TOTAL PER MAN	# MEN REQ'D	TOTAL DAILY
MINER	$15.00	40	16	64	$960.00	$137.14	$96.00	$233.14	$46.63	$42.81	$40.00	$362.58	4	$1,450.32
													4	$1,450.32

DIRECT LABOUR COST= $1,450.32 /DAY @ 3,000 t./DAY = $0.48 /TONNE

HOLES BLASTED = 80
HOLE DIAMETER = 2 1/4 "
POWDER TO BE USED = ANEX
LOADING DENSITY = Dia x Dia x 0.34 x SG
= 2.25 x 2.25 x 0.34 x 0.80
= 1.38 lbs per foot of hole
= 2.06 KG/M.

EXPLOSIVES & ACCESSORIES COST

DESCRIPTION	NO. OF HOLES	STICKS PER HOLE	TOTAL STICKS	STICKS /CASE	CASE REQ'D	COST PER CASE		TOTAL COST
A - 35 PRIMER	80	1	80	-	-	90.77		961.27
BLASTHOLES ANEX	80	2.06 (KG/M.)	1648 (KG.)	-	-	90.90	/KG.	91,483.20
							SUBTOTAL	91,544.47
						12.00%	P.S.T.	9185.34
						7.00%	P.S.T.	9108.11
							TOTAL	91,837.92

DESCRIPTION	LENGTH	NO. OF HOLES	CAPS PER HOLE	TOTAL CAPS OR FUSE	COST PER CAP	COST PER DAY	COST OF MISC.	TOTAL COST
XT NONEL	20 M.	80	1	80	94.67	9373.44	925.00	9398.44
XT NONEL	10 M.	80	1	80	93.84	9307.39	90.00	9307.39
D-LINE	20 M.	80	1	80	90.42	933.60	90.00	933.60
E.B. DET	-	0	1	0	91.07	90.00	90.00	90.00
						12.00%	P.S.T.	966.73
						7.00%	P.S.T.	630.08
							TOTAL	9858.24

TOTAL EXPLOSIVES COST = 91,837.92
TOTAL DETONATORS COST = 9858.24

TOTAL COST = 92,696.17 PER DAY / 3,000 t. = 90.90 / TONNE

EQUIPMENT RENTAL AND REPAIR COST

EQUIPMENT DESCRIPTION	COMMENTS	RENT PER UNIT	NO. OF UNITS REQ,D	TOTAL RENTAL COST/MONTH	REPAIR COST PER HR., FT.	HRS. OPERATING PER DAY OR FT. DRILLED	REPAIR COST PER DAY	RENTAL COST PER DAY	REPAIR COST PER DAY
ANFO LOADER		$3,500	1	$3,500	$12.50	14 HR	$175.00	$116.67	$175.00
TOTALS				$3,500 PER MONTH				$116.67	$175.00

ADVANCE PER DAY — 3,000 t./DAY

	RENTALS	REPAIRS
COST/TONNE	$0.04	$0.06

FUEL / LUBE COST

EQUIPMENT DESCRIPTION	ENGINE	NUMBER OF UNITS REQ'D	OPERATING HOURS PER DAY PER UNIT	TOTAL OPERATING HOURS PER DAY	FUEL REQ'D PER HOUR	TOTAL FUEL PER DAY	FUEL COST PER LITRE	FUEL COST PER DAY	LUBE COST @ 15% OF FUEL COST	TOTAL OPER. COST PER DAY
ANFO LOADER	F6L-912FW	1	14	14	16.6 LT	232.4	$0.45	$104.58	$15.69	$120.27
										$120.27

OPERATING COST = $120.27 /DAY @ 3,000 t./DAY = $0.04 COST/TONNE

CURRAGH RES. CORP.

BY DEPOSIT

1.22 M X 1.83 M RAISE

CONCURRENT

BID SUMMARY SHEET

CATEGORY	COST / M.	OWNER'S COST / M.
DIRECT LABOUR	$375.87	-
SUPPORT LABOUR	$0.00	-
STEEL & BITS	$42.34	-
EXPLOSIVES & ACCESSORIES	$71.50	-
EQUIPMENT RENTAL	$9.37	-
EQUIPMENT REPAIR	$15.82	-
FUEL & LUBE	$8.53	-
PIPE & ACCESSORIES	$21.99	-
VENTILATION & ACCESSORIES	$0.00	-
ELECTRIC CABLE	$0.00	-
LADDERS	$32.81	-
ELECTRIC POWER	$0.00	$0.00
HOSES, SMALL TOOLS	$5.79	-
INSURANCE, COMMUNICATION	$5.79	-
FREIGHT DURING CONTRACT	$17.36	-
SUBTOTAL	$607.56	$0.00 /METRE
G & A 11.5%	$69.87	
TOTAL COST	$677.43	
MARGIN 8.5%	$51.64	
PRICE	$729.08 /M.	
	$222.22 /FT	

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10-Apr-89 11:15 AM
CONCURRENT

VARIABLES

S/T HOURS	40	/WK
DAYS/WK	7	/WK
O/T HOURS	16	/WK
O/T RATE	1.50	
BONUS	916.00	/MO
MNLY FRNG	20%	
STAFF FRG	20%	
MN+BO	940.00	/DAY
HOLES/RND	25	
HOLE/DEPT	2.44	METRES
AVER BRK	2.13	METRES
MONTH	30	DAYS
ADVANCE	4.27	METRES/DAY

LABOUR	QUANTITY	RATE/HR	BONUS/HR
PROJ.SUPT	0	917.00	916.00
SHIFTBOSS	0	916.25	916.00
MECHANIC	0	916.00	98.00
ELECT.	0	916.50	98.00
MINER	4	915.00	916.00
SURV/EXP	0	914.00	94.00
CLERK	0	910.00	90.00
EXPEDITOR	0	914.00	94.00
TOTAL	4		

STEEL & BITS COST/M. 91.31

EXPLOSIVES COSTS			STKR/CBE
CILBEL	9103.20	PER CBE.	195
ANEX	90.90	PER KG.	0.50
XACTEX	9146.90	PER CBE.	100
CAPS	92.24	EACH	-
MISC	95.00		-
GAS COST	90.55	/LITRE	
FUEL COST	90.30	/LITRE	
			HOSES 1.00%
G & A	11.50%		INS/COMM 1.00%
MARGIN	8.50%		FREIGHT 3.00%

# LIFTERS	11		
# PRIHOLE	11	HALF ANEX	
# PERIM	0		
# CUT	0		
TOTAL	22		
DR REPAIR	90.49	/M.	
FARES	942.81	/DAY	

CURRAGH RES. CORP.

DY DEPOSIT

1.22 M X 1.83 M RAISE

CONCURRENT

DIRECT LABOUR COSTS

DESCRIPTION	RATE PER HOUR	HOURS/WEEK STRAIGHT	OVERTIME	TOTAL	WAGE COST /WEEK	WAGE COST	DAILY BONUS COST	SUBTOTAL COST	FRINGES 20%	FARES	ROOM & BOARD	TOTAL PER MAN	# MEN REQ'D	TOTAL DAILY
MINER	915.00	40	16	64	9960.00	9137.14	9128.00	9265.14	953.03	942.81	940.00	9400.98	4	91,603.92
													4	91,603.92

DIRECT LABOUR COST= 91,603.92 /DAY @ 4.27 M./DAY = 9375.87 /M.

DRILL STEEL & BIT COST

HEADING SIZE = 1.22 M x 1.83 M

HOLES DRILLED PER ROUND	HOLE DEPTH	TOTAL M. DRILLED PER ROUND	STEEL & BIT COST PER M. DRILLED	TOTAL STEEL & BITS COST	AVERAGE BREAK PER ROUND	STEEL & BITS COST PER M.
25	2.44	60.96 M.	91.31	980.00	2.13 M.	937.50
3 (REAMED)	2.44	7.32 M.	91.41	910.33	2.13 M.	94.84
					TOTAL	942.34 /M.

EXPLOSIVES & ACCESSORIES COST

HEADING SIZE = 1.22 M x 1.83 M
HOLES DRILLED = 25
HOLES BLASTED = 22
HOLE DIAMETER = 1 1/4 "
POWDER TO BE USED = ANEX, GILBEL 70%, XACTEX
AVERAGE BREAK/RND = 2.13 METRES

DESCRIPTION	NO. OF HOLES	STICKS PER HOLE	TOTAL STICKS	STICKS /CASE	CASE REQ'D	COST PER CASE		TOTAL COST
PRIMER H.E.	22	1	22	195	0.11	$103.20		$11.64
PERIMETER XACTEX	0	5	0	100	0.00	$146.90		$0.00
LIFTERS & H.E.	11	10	110	195	0.56	$103.20		$58.22
CUT H.E.	0	10	0	195	0.00	$103.20		$0.00
BLASTHOLES ANEX	11	0.50 (KG/HL)	13 (KG.)	-	-	$0.90 /KG.		$12.07
							SUBTOTAL	$81.93
							12.00% F.S.T.	$9.83
							0.00% P.S.T.	$0.00
							TOTAL	$91.76

DESCRIPTION	NO. OF HOLES	CAPS PER HOLE	TOTAL CAPS OR FUSE	COST PER CAP	COST PER ROUND	COST OF MISC.	TOTAL COST
DETONATORS	22	1	22	$2.24	$49.28	$5.00	$54.28
					12.00% F.S.T.		$6.51
					0.00% P.S.T.		$0.00
					TOTAL		$60.79

TOTAL EXPLOSIVES COST = $91.76
TOTAL DETONATORS COST = $60.79

TOTAL COST = $152.55 PER RND / 2.13 M. = $71.50 / M.

EQUIPMENT RENTAL AND REPAIR COST

EQUIPMENT DESCRIPTION	COMMENTS	RENT PER UNIT	NO. OF UNITS REQ'D	TOTAL RENTAL COST/MONTH	REPAIR COST PER HR., M.	HRS. OPERATING PER DAY OR M. DRILLED	REPAIR COST PER DAY	RENTAL COST PER DAY	REPAIR COST PER DAY
ST - 8 SCOOPTRAM		$10,000	0	$0	$29.00	2 HR	$58.00	$0.00	$58.00
JACKLEG / STOPER		$250	4	$1,000	$1.00	8 HR	$8.00	$33.33	$8.00
INTERMEDIATE LOADER		$200	1	$200	$0.25	6 HR	$1.50	$6.67	$1.50
TOTALS				$1,200 PER MONTH				$40.00	$67.50
							ADVANCE PER DAY		4.27 M./DAY
								RENTALS	REPAIRS
							COST/M.	$9.37	$15.82

FUEL / LUBE COST

EQUIPMENT DESCRIPTION	ENGINE	NUMBER OF UNITS REQ'D	OPERATING HOURS PER DAY PER UNIT	TOTAL OPERATING HOURS PER DAY	FUEL REQ'D PER HOUR	TOTAL FUEL PER DAY	FUEL COST PER LITRE	FUEL COST PER DAY	LUBE COST @ 15% OF FUEL COST	TOTAL OPER. COST PER DAY
ST - 8 SCOOPTRAM		2	1.0	2	48.0 LT	96.0	$0.30	$28.80	$4.32	$33.12
JACKLEG / STOPER									$5.00	$5.00
										$38.12

OPERATING COST = $38.12 /DAY @ 4.27 M./DAY = $8.93 COST/M.

PIPE & ACCESSORY COST

ITEMS	2" LINE AMOUNT	2" LINE PRICE EACH	2" LINE TOTAL PRICE	4" LINE (AIR) AMOUNT	4" LINE (AIR) PRICE EACH	4" LINE (AIR) TOTAL PRICE	4" LINE AMOUNT	4" LINE PRICE EACH	4" LINE TOTAL PRICE	6" LINE (PUMP) AMOUNT	6" LINE (PUMP) PRICE EACH	6" LINE (PUMP) TOTAL PRICE	8" LINE AMOUNT	8" LINE PRICE EACH	8" LINE TOTAL PRICE
PIPES	100	$1.32	$132.00	0	$3.45	$0.00	0	$3.45	$0.00	0	$4.80	$0.00	0	$0.00	$0.00
COUPLING	7	$5.92	$41.44	0	$9.60	$0.00	0	$9.60	$0.00	0	$16.35	$0.00	0	$0.00	$0.00
VALVES	1	$50.14	$50.14	0	$105.80	$21.16	0	$105.80	$0.00	0	$198.85	$39.77	0	$0.00	$0.00
ELBOWS 90 DEG	0	$7.91	$0.00	0	$18.05	$0.00	0	$18.05	$0.00	0	$45.65	$22.83	0	$0.00	$0.00
ELBOWS 45 DEG	0	$7.91	$0.00	0	$18.05	$0.00	0	$18.05	$0.00	0	$45.65	$22.83	0	$0.00	$0.00
TEES	1	$11.96	$11.96	0	$27.85	$5.57	0	$27.85	$0.00	0	$73.55	$14.71	0	$0.00	$0.00
REDUCERS	0	$380.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00	0	$0.00	$0.00
CHAIN HANGERS	7	$2.92	$20.44	0	$2.92	$0.00	0	$2.92	$0.00	0	$2.92	$0.00	0	$0.00	$0.00
3/16 CHAIN	50	$0.32	$16.00	0	$0.32	$0.00	0	$0.32	$0.00	0	$0.32	$0.00	0	$0.00	$0.00
SUBTOTAL			$271.98			$26.73			$0.00			$100.13			$0.00
DAMAGE @ 10%			$27.20			$2.67			$0.00			$10.01			$0.00
F.S.T. @ 12%			$35.90			$3.53			$0.00			$13.22			$0.00
P.S.T. @ 0%			$0.00			$0.00			$0.00			$0.00			$0.00
TOTALS			$335.08			$32.93			$0.00			$123.36			$0.00
COST/FT = $6.70 / FT = $21.99 /M.			$3.35 x 2 = $6.70 /FT (2 PIPES)			$0.00 /FT			$0.00 /FT			$0.00 /FT			$0.00

CURRAGH RESOURCES CORP.
DY DEPOSIT
MINING PHASE
MINE AIR HEATING

AIR VOLUME (CFM) 200,000
BTU/HOUR = CFM x TEMP RISE (DEG. F) x 1.08
BTU/LITRE OF PROPANE = 24,175

		MONTH								
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	
FARO #		---	---	---	---	---	---	---	---	
MEAN TEMP.	(DEG. C)	-0.4	-13.8	-21.7	-24.5	-15.9	-10.1	-0.8	7.1	
	(DEG. F)	31.3	7.2	-7.1	-12.1	3.4	13.8	30.6	44.8	
TEMP RISE TO 35 DEG. F.	(DEG. F)	3.7	27.8	42.1	47.1	31.6	21.2	4.4	-	
BTU/HOUR		803,520	6,013,440	9,084,960	10,173,600	6,829,920	4,574,880	959,040		TOTAL HEATING
DAYS		31	30	31	31	28	31	30	-	212 DAYS
PROPANE CONSUMPTION (LITRES) PER MONTH		24,729	179,097	279,595	313,099	189,853	140,795	28,563	0	1,155,731 LITRES
PROPANE COST $0.19 PER LITRE		$4,698	$34,028	$53,123	$59,489	$36,072	$26,751	$5,427	$0	$219,589 /YEAR

FROM ENVIRONMENT CANADA

	DEG. C HIGH	DEG. C LOW	DEG. C MEAN
JAN	-20.4	-28.5	-24.5
FEB	-10.7	-20.9	-15.9
MAR	-3.4	-16.7	-10.1
APR	5.5	-7.0	-0.8
MAY	13.3	0.8	7.1
JUN	18.9	6.1	12.5
JUL	21.2	8.6	14.9
AUG	18.9	5.8	12.4
SEP	12.6	1.5	7.1
OCT	3.5	-4.3	-0.4
NOV	-10.4	-17.2	-13.8
DEC	-17.8	-25.6	-21.7

90 FROST FREE DAYS

MINIMUM DAILY TEMP

-28.5 DEG. C
-19.3 DEG. F

54.3 TEMP RISE TO 35 DEG. F

11,728,800 BTU/HR - MAXIMUM REQUIREMENT

@ 500,000 t/YR = $0.44 /TONNE

@ 1,000,000 t/YR = $0.22 /TONNE

FILE:HAUL
09-Apr-89
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CURRAGH RESOURCES CORP.

ORE HAULAGE

BY DEPOSIT

26.13 CM/LM
97.00 TONNES PER LM

BID SUMMARY SHEET

200 METRES +

ELECTRIC

CATEGORY	TOTAL COST/TONNE	OWNER'S COST/TONNE
DIRECT LABOUR	$2.29	-
SUPPORT LABOUR	$0.00	-
STEEL & BITS	$0.00	-
EXPLOSIVES & ACCESSORIES	$0.00	-
EQUIPMENT RENTAL	$0.99	-
EQUIPMENT REPAIR	$0.93	-
FUEL & LUBE	$0.70	-
PIPE & ACCESSORIES	$0.00	-
VENTILATION & ACCESSORIES	$0.00	-
ELECTRIC CABLE	$0.00	-
ELECTRIC POWER	$0.00	$0.00
HOSES, SMALL TOOLS	$0.05	-
INSURANCE, COMMUNICATION	$0.05	-
FREIGHT DURING CONTRACT	$0.15	-
SUBTOTAL	$5.16	$0.00 /TONNE
G & A 11.5%	$0.59	
TOTAL COST	$5.75	
MARGIN 8.5%	$0.44	
PRICE	$6.19 /TONNE	

FILE:MRUL
09-Apr-89 12:00 PM
CONCURRENT

D/T HOURS	40	/WK
DAYS/WK	7	/WK
O/T HOURS	16	/WK
O/T RATE	1.50	
BONUS	$14.00	/WK
HRLY FWG	20%	
STAFF FWG	20%	
BH+BD	$40.00	/DAY
HOLES/RND	-	
HOLE/DEPT	-	METRES
AVER BRK	-	METRES
MONTH	30	DAYS
ADVANCE	8,500	TONNES/DAY

LABOUR	QUANTITY	RATE/HR	BONUS/HR
PROJ.SUPT	0	$17.00	$14.00
SHIFTBOSS	0	$16.25	$14.00
LEAD MECH	0	$16.50	$7.00
MECHANIC	0	$16.00	$7.00
ELECT.	0	$16.50	$10.50
TRUCK OP.	9	$15.00	$14.00
SCOOP OP.	6	$15.00	$14.00
LABOURER	0	$14.00	$3.50
SUR/EXP	0	$14.00	$3.50
CLERK	0	$12.50	$0.00
EXPEDITOR	0	$14.00	$3.50
TOTAL	15		
STEEL & BITS COST/METRE			$1.31

VARIABLES

EXPLOSIVES COSTS			STKS/CBE
CILIBEL	- PER CBE.	-	
ANEX	- PER KG.	-	
XACTEX	- PER CBE.	-	
CAPS	- EACH	-	
MISC	-	-	
FUEL COST	$0.30 /LITRE		
GAS COST	$0.55 /LITRE		
		HOSES	1.00%
G & A	11.50%	INS/COMM	1.00%ROCKBOLTS
MARGIN	8.50%	FREIGHT	3.00%

	NO. OF HOLES	STICKS PER HOLE
0 LIFTERS	-	-
0 PADHOLE	-	-
0 PERIM	-	-
0 CUT	-	-
TOTAL	0	
DR REPAIR	- /METRE	
FARES	$42.81 / DAY	

- PER RND

CURRAGH RESOURCES CORP.

BY DEPOSIT

ORE HAULAGE

ELECTRIC

200 METRES +

POWER CONSUMPTION

ITEM	RERK HP	ACT HP	No	HRS	KwHrs
FANS	0	0	0	0	0
PUMPS	0	0	0	0	0
JUMBO	0	0	0	0	0
FW PUMP	0	0	0	0	0
SHOP	0	0	0	0	0
CRMP	0	0	0	0	0
COMPRESSOR	0	0	0	0	0
				TOTAL	0 KwHr / DAY

COST = 0 x $0.045 / KwH = $0.00 /DAY

COST/TONNE = $0.00 /TONNE

MANPOWER

DESCRIPTION	DAY	AFTN	GYD	TOTAL
PROJ.SUPT	-	-	-	0
SHIFTBOSS	-	-	-	0
LEAD MECH	-	-	-	0
MECHANIC	-	-	-	0
ELECT.	-	-	-	0
TRUCK OP.	3	3	3	9
SCOOP OP.	2	2	2	6
LABOURER	-	-	-	0
SUR/EXP	-	-	-	0
CLERK	-	-	-	0
EXPEDITOR	-	-	-	0
TOTAL	5	5	5	15

DIRECT LABOUR COSTS

DESCRIPTION	RATE PER HOUR	HOURS/WEEK STRAIGHT	OVERTIME	TOTAL	WAGE COST /WEEK	WAGE COST	DAILY BONUS COST	SUBTOTAL COST	FRINGES 20%	FARES	ROOM & BOARD	TOTAL PER MAN	# MEN REQ'D	TOTAL DAILY
TRUCK OP.	$15.00	40	16	64	$960.00	$137.14	$112.00	$249.14	$49.83	$42.81	$40.00	$381.78	9	$3,436.03
SCOOP OP.	$15.00	40	16	64	$960.00	$137.14	$112.00	$249.14	$49.83	$42.81	$40.00	$381.78	6	$2,290.69
													15	$5,726.71

DIRECT LABOUR COST= $5,726.71 /DAY @ 2,500 T/DAY = $2.29 /TONNE

SUPPORT LABOUR COST

	RATE PER HOUR	HOURS/WEEK STRAIGHT	OVERTIME	TOTAL	WAGE COST /WEEK	WAGE COST	DAILY BONUS COST	SUBTOTAL COST	FRINGES 20%	FARES	ROOM & BOARD	TOTAL PER MAN	# MEN REQ'D	TOTAL DAILY
PROJ. SUPT	$17.00	40	16	64	$1,088.00	$155.43	$112.00	$267.43	$53.49	$42.81	$55.00	$418.72	0.00	$0.00
SHIFTBOSS	$16.25	40	16	64	$1,040.00	$148.57	$112.00	$260.57	$52.11	$42.81	$40.00	$395.50	0	$0.00
MECHANIC	$16.50	40	16	64	$1,056.00	$150.86	$56.00	$206.86	$41.37	$42.81	$40.00	$331.04	0	$0.00
ELECT.	$16.00	40	16	64	$1,024.00	$146.29	$56.00	$202.29	$40.46	$42.81	$40.00	$325.55	0	$0.00
SURV/EXP	$14.00	40	16	64	$896.00	$128.00	$28.00	$156.00	$31.20	$42.81	$40.00	$270.01	0	$0.00
LABOURER	$14.00	40	16	64	$896.00	$128.00	$28.00	$156.00	$31.20	LOCAL	$40.00	$227.20	0	$0.00
EXPEDITOR	$12.50	40	16	64	$800.00	$114.29	$0.00	$114.29	$22.86	LOCAL	$40.00	$177.14	0	$0.00
													0	$0.00

SUPPORT LABOUR COST = $0.00 /DAY @ 2,500 T/DAY = $0.00 /TONNE

EQUIPMENT RENTAL AND REPAIR COST

EQUIPMENT DESCRIPTION	COMMENTS	RENT PER UNIT	NO. OF UNITS REQ'D	TOTAL RENTAL COST/MONTH	REPAIR COST PER HR., M.	HRS. OPERATING PER DRY OR M. DRILLED	REPAIR COST PER DAY	RENTAL COST PER DAY	REPAIR COST PER DAY
DRILL JUMBO		$10,500	-	$0	$15.00	0 HR	$0.00	$0.00	$0.00
DRILL REPAIR		-	-	-	-	0 M.	$0.00	$0.00	$0.00
ST-8 SCOOPTRAM		$12,000	4	$48,000	$23.00	48 HR	$1,104.00	$1,600.00	$1,104.00
ROCKBOLT JUMBO		$8,000	-	$0	$15.00	- HR	$0.00	$0.00	$0.00
600 CFM ELECT COMPRESSOR		$2,100	-	$0	$4.50	0 HR	$0.00	$0.00	$0.00
WAREHOUSE TRAILER		$300	-	$0	$0.00	0 HR	$0.00	$0.00	$0.00
FRESH WATER PUMP		$210	-	$0	$0.25	0 HR	$0.00	$0.00	$0.00
MINE LIGHTS & CHARGE		$10	-	$0	$1.50	0 HR	$0.00	$0.00	$0.00
VENTILATION FANS		$450	-	$0	$0.20	0 HR	$0.00	$0.00	$0.00
OXY & ACET TORCHES		$50	-	$0	$1.00	0 HR	$0.00	$0.00	$0.00
SAFETY GEAR		$100	-	$0	$0.00	0 HR	$0.00	$0.00	$0.00
FIRST AID GEAR		$150	-	$0	$0.00	0 HR	$0.00	$0.00	$0.00
SHOP TOOLS		$1,000	-	$0	$1.00	0 HR	$0.00	$0.00	$0.00
PICKUP / CREW VAN		$1,500	-	$0	$4.50	0 HR	$0.00	$0.00	$0.00
JACKLEG / STOPER		$200	-	$0	$1.00	0 HR	$0.00	$0.00	$0.00
400 AMP WELDER		$150	-	$0	$0.25	0 HR	$0.00	$0.00	$0.00
U/G PUMPS (13,30 HP)		$1,500	-	$0	$7.00	0 HR	$0.00	$0.00	$0.00
GROUT PUMP		$1,000	-	$0	$0.00	0 HR	$0.00	$0.00	$0.00
POWDER/CAP MAGAZINE		$700	-	$0	$0.00	0 HR	$0.00	$0.00	$0.00
D-4 CAT		$3,500	-	$0	$20.00	0 HR	$0.00	$0.00	$0.00
OFFICE TRAILER		$300	-	$0	$0.00	0 HR	$0.00	$0.00	$0.00
SURVEY GEAR		$450	-	$0	$0.50	0 HR	$0.00	$0.00	$0.00
POWER DISTRIBUTION RACK		$1,000	-	$0	$0.50	0 HR	$0.00	$0.00	$0.00
RADIO TELEPHONE		$250	-	$0	$0.00	0 HR	$0.00	$0.00	$0.00
CH 1824		$8,700	3	$25,100	$21.00	58 HR	$1,218.00	$870.00	$1,218.00
16 MAN CARRIER		$2,200	-	$0	$4.50	0 HR	$0.00	$0.00	$0.00
GRADER		$3,500	-	$0	$15.00	0 HR	$0.00	$0.00	$0.00
INTERMEDIATE LOADER		$200	-	$0	$0.25	0 HR	$0.00	$0.00	$0.00
TOTALS				$74,100 PER MONTH				$2,470.00	$2,322.00

ADVANCE PER DAY — 2,500 T./DRY

	RENTALS	REPAIRS
COST/TONNE	$0.99	$0.93

FUEL / LUBE COST

EQUIPMENT DESCRIPTION	ENGINE	NUMBER OF UNITS REQ'D	OPERATING HOURS PER DAY PER UNIT	TOTAL OPERATING HOURS PER DAY	FUEL REQ'D PER HOUR	TOTAL FUEL PER DAY	FUEL COST PER LITRE	FUEL COST PER DAY	LUBE COST @ 15% OF FUEL COST	TOTAL OPER. COST PER DAY
DRILL JUMBO	-	-	-	0	16.6 LT	0.0	$0.300	$0.00	$0.00	$0.00
ST 8 SCOOPTRAM	-	4	12	48	48.0 LT	2304.0	$0.300	$691.20	$103.68	$794.88
D-4 CAT	-	-	-	0	25.0 LT	0.0	$0.300	$0.00	$0.00	$0.00
JACKLEG/STOPER	-	-	-	-	0.0 LT	0.0	-	$0.00	$25.00	$0.00
ROCKBOLT JUMBO	-	-	-	0	16.6 LT	0.0	$0.300	$0.00	$0.00	$0.00
16 MAN CARRIER	-	-	-	0	16.6 LT	0.0	$0.300	$0.00	$0.00	$0.00
GRADER	-	-	-	0	25.0 LT	0.0	$0.300	$0.00	$0.00	$0.00
CH 1824	-	3	19	58	48.0 LT	2784.0	$0.300	$835.20	$125.28	$960.48
PICKUP / CREW VAN	-	-	-	0	15.0 LT	0.0	$0.55	$0.00	$0.00	$0.00
										$1,755.36

OPERATING COST = $1,755.36 /DAY @ 2,500 T./DAY = $0.70 COST/TONNE

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CURRAGH RESOURCES CORP.

INDIRECT LABOUR

BY DEPOSIT

AND EQUIPMENT

26.13 CM/LM
97.00 TONNES PER LM

BID SUMMARY SHEET

ELECTRIC

CATEGORY	TOTAL COST/TONNE	OWNER'S COST/TONNE
DIRECT LABOUR	$0.00	-
SUPPORT LABOUR	$1.80	-
STEEL & BITS	$0.00	-
EXPLOSIVES & ACCESSORIES	$0.00	-
EQUIPMENT RENTAL	$0.45	-
EQUIPMENT REPAIR	$0.34	-
FUEL & LUBE	$0.08	-
PIPE & ACCESSORIES	$0.00	-
VENTILATION & ACCESSORIES	$0.00	-
ELECTRIC CABLE	$0.00	-
ELECTRIC POWER	$0.00	$0.11
HOSES, SMALL TOOLS	$0.03	-
INSURANCE, COMMUNICATION	$0.03	-
FREIGHT DURING CONTRACT	$0.08	-
SUBTOTAL	$2.81	$0.11 /TONNE
G & A 11.5%	$0.32	
TOTAL COST	$3.13	
MARGIN 8.5%	$0.24	
PRICE	$3.37 /TONNE	

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S/T HOURS	40	/WK
DAYS/WK	7	/WK
O/T HOURS	16	/WK
O/T RATE	1.50	
BONUS	914.00	/WK
HRLY FRNG	20%	
STAFF FRG	20%	
RM+BD	940.00	/DAY
HOLES/RND	57	
HOLE/DEPT	-	METRES
AVER BRK	-	METRES
MONTH	30	DAYS
ADVANCE	2,500	TONNES/DAY

LABOUR	QUANTITY	RATE/HR	BONUS/HR
PROJ.SUPT	1.2	917.00	914.00
SHIFTBOSS	3	916.25	914.00
LEAD MECH	1	916.50	97.00
MECHANIC	5	916.00	97.00
ELECT.	1	916.50	910.50
DRILLER	0	915.00	914.00
TRUCK OP.	0	915.00	914.00
LABOURER	0	914.00	93.50
SUR/EXP	1	914.00	93.50
CLERK	0	912.50	90.00
EXPEDITOR	1	914.00	93.50
TOTAL	13		

STEEL & BITS COST/METRE -

VARIABLES

EXPLOSIVES COSTS		STKS/CSE	
CILGEL	- PER CSE.	-	
ANEX	- PER KG.	-	
XACTEX	- PER CSE.	-	
CAPS	- EACH	-	
MISC	-	-	
FUEL COST	90.30 /LITRE		
GAS COST	90.55 /LITRE		
		HOSES	1.00%
G & A	11.50%	INS/COMM	1.00%
MARGIN	8.50%	FREIGHT	3.00%

	NO. OF HOLES	STICKS PER HOLE
0 LIFTERS	-	-
0 PRIMOLE	-	-
0 PERIM	-	-
0 CUT	-	-
TOTAL	0	

DR REPAIR - /METRE

FUMES 942.81 / DAY

ROCKBOLTS - PER RND

CURRAGH RESOURCES CORP.

DY DEPOSIT

INDIRECT LABOUR AND EQUIPMENT ELECTRIC

POWER CONSUMPTION

ITEM	PEAK HP	ACT HP	Kw	HRS	Kwhrs
FANS	300	225	168	24	4028
PUMPS	174	131	97	24	2336
JUMBO	0	0	0	0	0
FW PUMP	0	0	0	0	0
SHOP	0	0	0	0	0
COMP	0	0	0	0	0
COMPRESSOR	0	0	0	0	0
				TOTAL	6,365 Kwhr / DAY

COST = 6,365 x 90.045 / KwH = 9286.42 /DAY

COST/TONNE = 90.11 /TONNE

MANPOWER

DESCRIPTION	DAY	AFTN	GYD	TOTAL
PROJ.SUPT	1.20	-	-	1
SHIFTBOSS	1	1	1	3
LEAD MECH	1	-	-	1
MECHANIC	1	2	2	5
ELECT.	1	-	-	1
DRILLER	-	-	-	0
TRUCK OP.	-	-	-	0
LABOURER	-	-	-	0
SUR/EXP	1	-	-	1
CLERK	-	-	-	0
EXPEDITOR	1	-	-	1
TOTAL	7	3	3	13

DIRECT LABOUR COSTS

DESCRIPTION	RATE PER HOUR	HOURS/WEEK STRAIGHT	OVERTIME	TOTAL	WAGE COST /WEEK	WAGE COST	DAILY BONUS COST	SUBTOTAL COST	FRINGES 20%	FARES	ROOM & BOARD	TOTAL PER MAN	# MEN REQ'D	TOTAL DAILY
DRILLER	$15.00	40	16	64	$960.00	$137.14	$112.00	$249.14	$49.83	$42.81	$40.00	$381.78	0	$0.00
TRUCK OP.	$15.00	40	16	64	$960.00	$137.14	$112.00	$249.14	$49.83	$42.81	$40.00	$381.78	0	$0.00
													0	$0.00

DIRECT LABOUR COST= $0.00 /DAY @ 2,500 T/DAY = $0.00 /TONNE

SUPPORT LABOUR COST

	RATE PER HOUR	HOURS/WEEK STRAIGHT	OVERTIME	TOTAL	WAGE COST /WEEK	WAGE COST	DAILY BONUS COST	SUBTOTAL COST	FRINGES 20%	FARES	ROOM & BOARD	TOTAL PER MAN	# MEN REQ'D	TOTAL DAILY
PROJ.SUPT	$17.00	40	16	64	$1,088.00	$155.43	$112.00	$267.43	$53.49	$42.81	$55.00	$418.72	1.2	$502.47
SHIFTBOSS	$16.25	40	16	64	$1,040.00	$148.57	$112.00	$260.57	$52.11	$42.81	$40.00	$395.50	3	$1,186.49
LEAD MECH	$16.25	40	16	64	$1,040.00	$148.57	$112.00	$260.57	$52.11	$42.81	$40.00	$395.50	1	$395.50
MECHANIC	$16.50	40	16	64	$1,056.00	$150.86	$56.00	$206.86	$41.37	$42.81	$40.00	$331.04	5	$1,655.19
ELECT.	$16.00	40	16	64	$1,024.00	$146.29	$56.00	$202.29	$40.46	$42.81	$40.00	$325.55	1	$325.55
LABOURER	$14.00	40	16	64	$896.00	$128.00	$28.00	$156.00	$31.20	LOCAL	$40.00	$227.20	0	$0.00
SUR/EXP	$14.00	40	16	64	$896.00	$128.00	$28.00	$156.00	$31.20	$42.81	$40.00	$270.01	1	$270.01
CLERK	$14.00	40	16	64	$896.00	$128.00	$28.00	$156.00	$31.20	$42.81	$40.00	$270.01	0	$0.00
EXPEDITOR	$12.50	40	16	64	$800.00	$114.29	$0.00	$114.29	$22.86	LOCAL	$40.00	$177.14	1	$177.14
													13	$4,512.34

SUPPORT LABOUR COST = $4,512.34 /DAY @ 2,500 T/DAY = $1.80 /TONNE

EQUIPMENT RENTAL AND REPAIR COST

EQUIPMENT DESCRIPTION	COMMENTS	RENT PER UNIT	NO. OF UNITS REQ,D	TOTAL RENTAL COST/MONTH	REPAIR COST PER HR., M.	HRS. OPERATING PER DAY OR M. DRILLED	REPAIR COST PER DAY	RENTAL COST PER DAY	REPAIR COST PER DAY
DRILL JUMBO		$10,500	-	$0	$15.00	0 HR	$0.00	$0.00	$0.00
DRILL REPAIR		-	-	-	-	0 M.	$0.00	$0.00	$0.00
ST-8 SCOOPTRAM		$12,000	-	$0	$23.00	0 HR	$0.00	$0.00	$0.00
ROCKBOLT JUMBO		$8,000	-	$0	$15.00	- HR	$0.00	$0.00	$0.00
600 CFM ELECT COMPRESSOR		$2,100	2	$4,200	$4.50	36 HR	$162.00	$140.00	$162.00
WAREHOUSE TRAILER		$300	1	$300	$0.00	0 HR	$0.00	$10.00	$0.00
FRESH WATER PUMP		$210	1	$210	$0.25	24 HR	$6.00	$7.00	$6.00
MINE LIGHTS & CHARGE		$10	40	$400	$1.50	24 HR	$36.00	$13.33	$36.00
VENTILATION FANS		$450	8	$3,600	$0.20	192 HR	$38.40	$120.00	$38.40
OXY & ACET TORCHES		$50	1	$50	$1.00	8 HR	$8.00	$1.67	$8.00
SAFETY GEAR		$100	1	$100	$0.00	0 HR	$0.00	$3.33	$0.00
FIRST AID GEAR		$150	1	$150	$0.00	0 HR	$0.00	$5.00	$0.00
SHOP TOOLS		$1,000	1	$1,000	$1.00	16 HR	$16.00	$33.33	$16.00
PICKUP / CREW VAN		$1,500	3	$4,500	$4.50	12 HR	$54.00	$150.00	$54.00
JACKLEG / STOPER		$220	-	$0	$1.00	0 HR	$0.00	$0.00	$0.00
400 AMP WELDER		$150	1	$150	$0.25	8 HR	$2.00	$5.00	$2.00
U/G PUMPS (13,30 HP)		$1,500	5	$7,500	$7.00	36 HR	$252.00	$250.00	$252.00
GROUT PUMP		$1,000	1	$1,000	$0.00	0 HR	$0.00	$33.33	$0.00
POWDER/CAP MAGAZINE		$700	1	$700	$0.00	0 HR	$0.00	$23.33	$0.00
D-4 CAT		$3,500	1	$3,500	$20.00	6 HR	$120.00	$116.67	$120.00
OFFICE TRAILER		$300	1	$300	$0.00	0 HR	$0.00	$10.00	$0.00
SURVEY GEAR		$450	1	$450	$0.50	4 HR	$2.00	$15.00	$2.00
POWER DISTRIBUTION RACK		$1,000	1	$1,000	$0.50	24 HR	$12.00	$33.33	$12.00
RADIO TELEPHONE		$250	1	$250	$0.00	0 HR	$0.00	$8.33	$0.00
MOBILE ANFO LOADER VEHICLE		$6,000	-	$0	$12.00	12 HR	$144.00	$0.00	$144.00
24 TON HAULAGE TRUCK		$8,700	-	$0	$25.00	0 HR	$0.00	$0.00	$0.00
16 MAN CARRIER		$2,200	2	$4,400	$4.50	0 HR	$0.00	$146.67	$0.00
GRADER		$3,500	-	$0	$15.00	- HR	$0.00	$0.00	$0.00
INTERMEDIATE LOADER		$200	-	$0	$0.25	0 HR	$0.00	$0.00	$0.00
TOTALS				$33,760 PER MONTH				$1,125.33	$852.40

	RENTALS	REPAIRS
ADVANCE PER DAY		2,500 T/DAY
COST/TONNE	$0.45	$0.34

FUEL / LUBE COST

EQUIPMENT DESCRIPTION	ENGINE	NUMBER OF UNITS REQ'D	OPERATING HOURS PER DAY PER UNIT	TOTAL OPERATING HOURS PER DAY	FUEL REQ'D PER HOUR	TOTAL FUEL PER DAY	FUEL COST PER LITRE	FUEL COST PER DAY	LUBE COST @ 15% OF FUEL COST	TOTAL OPER. COST PER DAY
DRILL JUMBO	-	-	0	0	16.6 LT	0.0	90.300	90.00	90.00	90.00
ST 8 SCOOPTRAM	-	-	-	0	48.0 LT	0.0	90.300	90.00	90.00	90.00
D-4 CAT	-	1	6	6	25.0 LT	150.0	90.300	945.00	96.75	951.75
JACKLEG/STOPER	-	-	-	-	0.0 LT	0.0	-	90.00	925.00	925.00
ROCKBOLT JUMBO	-	-	-	0	16.6 LT	0.0	90.300	90.00	90.00	90.00
24 TON HAULAGE TRUCK	-	-	-	0	48.0 LT	0.0	90.300	90.00	90.00	90.00
16 MAN CARRIER	-	2	-	0	16.6 LT	0.0	90.300	90.00	90.00	90.00
GRADER	-	-	-	0	25.0 LT	0.0	90.300	90.00	90.00	90.00
MOBILE ANFO LOADER VEHICLE	-	-	-	0	16.6 LT	0.0	90.300	90.00	90.00	90.00
PICKUP / CREW VAN	-	3	4	12	15.0 LT	180.0	90.55	999.00	914.85	9113.85
										9190.60

OPERATING COST = 9190.60 /DAY @ 2,500 T/DAY = 90.08 COST/TONNE

FILE:SHFTBUP

CURRAGH RESOURCES INC.

DAILY SHAFT SUPPORT

BY DEPOSIT

ELECTRIC

BID SUMMARY SHEET

CATEGORY	TOTAL COST / DAY	OWNER'S COST / DAY
DIRECT LABOUR	$1,969.77	-
SUPPORT LABOUR	$2,357.87	-
STEEL & BITS	$0.00	-
EXPLOSIVES & ACCESSORIES	$0.00	-
EQUIPMENT RENTAL	$896.00	-
EQUIPMENT REPAIR	$1,610.00	-
FUEL & LUBE	$511.36	-
PIPE & ACCESSORIES	$0.00	-
VENTILATION & ACCESSORIES	$0.00	-
ELECTRIC CABLE	$0.00	-
ELECTRIC POWER	$0.00	$972.86
HOSES, SMALL TOOLS	$73.45	-
INSURANCE, COMMUNICATION	$73.45	-
FREIGHT DURING CONTRACT	$220.35	-
SUBTOTAL	$7,712.25	$972.86 /DAY = $0.39 /TONNE
G & A 11.5%	$886.91	
TOTAL COST	$8,599.16	@ 2,500 TONNES/DAY COST = $3.08 /TONNE
MARGIN 8.5%	$635.54	
PRICE	$9,234.70 /DAY	

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ELECTRIC		
D/T HOURS	40	/WK
DAYS/WK	7	/WK
O/T HOURS	16	/WK
O/T RATE	1.50	
BONUS	912.00	/WK
HRLY FRNG	20%	
STAFF FRG	20%	
RM+BD	940.00	/DAY
HLES/BENCH	-	
HOLE/DEPTH	-	METRES
AVER DRK	-	METRES
MONTH	30.0	DAYS
ADVANCE	2,500	TONNES/DAY

LABOUR	QUANTITY	RATE/HR	BONUS/HR
PROJ.SUPT	0	917.00	912.00
ENGINEER	0	914.00	93.00
SHIFT LEAD	0	916.50	912.00
LEAD MECH	1	917.00	99.00
MECHANIC	0	916.00	97.92
ELECT.	1	916.00	99.00
EQUIP. OPE	1	914.00	90.00
HOISTMEN	3	915.00	96.00
CAGE/SKIP	3	914.00	96.00
MUCKER	3	915.00	912.00
CLEAN/EXPE	0	912.50	90.00
DECKMAN	2	914.00	93.96
TOTAL	14		
STEEL & BITS COST/METRE			-

VARIABLES

EXPLOSIVES COSTS			STKS/CSE			STICKS PER HOLE	
FORCITE	-	- PER CSE.	-	0 LIFTERS	-	-	
APEX		- PER LB.	-	0 PRIHOLE	-	-	
XACTEX		- PER CSE.	-	0 PERIM	-	-	
WARHEDETS		- EACH	-	0 CUT	-	-	
MISC		-	-	TOTAL	0		
				DR REPAIR	-	/METRE	
FUEL COST	90.30	/LITRE		CONCRETE	-	/cum	
GAS COST	90.55	/LITRE		FIRES	942.81	/DAY	
			HOSES	1.00%			
G & A	11.50%		INS/COMM	1.00%			
MARGIN	8.50%		FREIGHT	3.00%			

CURRAGH RESOURCES IN

BY DEPOSIT

DAILY SHAFT SUPPORT

ELECTRIC

POWER CONSUMPTION

ITEM	PEAK HP	ACT HP	Kw	HRS	Kwhrs
FANS	50	38	28	24	671
PUMPS	100	75	56	24	1,343
FW PUMP	10	8	6	24	134
SHOP	25	19	14	24	336
COMP	0	0	0	0	0
COMPRESSOR	375	281	210	24	5,036
HOIST	1,800	1,350	1,007	14	14,099
STBE WINCH	0	0	0	12	0
				TOTAL	21,619

Kwhr/Day = 21,619

Cost/Kwhr 90.045 Cost/Day 9972.86

MANPOWER

DESCRIPTION	DAY	AFTN	BYS	TOTAL
PROJ.SUPT	-	-	-	0
ENGINEER	-	-	-	0
SHAFT LEADER	-	-	-	0
LEAD MECH	1	-	-	1
MECHANIC	-	-	-	0
ELECT.	1	-	-	1
EQUIP. OPERATOR	1	-	-	1
HOISTMEN	1	1	1	3
CAGE/SKIP	1	1	1	3
MUCKER	1	1	1	3
CLEAN/EXPEDITOR	-	-	-	0
DECKMAN	1	-	1	2
TOTAL	7	3	4	14

DIRECT LABOUR COSTS

DESCRIPTION	RATE PER HOUR	HOURS/WEEK STRAIGHT	OVERTIME	TOTAL	WAGE COST /WEEK	WAGE COST	DAILY BONUS COST	SUBTOTAL COST	FRINGES 20%	ROOM & BOARD	FARES	TOTAL PER MAN	# MEN REQ'D	TOTAL DAILY
REMUCKER	$15.00	40	16	64	$960.00	$137.14	$96.00	$233.14	$46.63	$40.00	$42.81	$362.58	3	$1,087.74
CAGE/SKIP	$14.00	40	16	64	$896.00	$128.00	$48.00	$176.00	$35.20	$40.00	$42.81	$294.01	3	$882.03
													6	$1,969.77

DIRECT LABOUR COST= $1,969.77 /DAY

SUPPORT LABOUR COST

	RATE PER HOUR	HOURS/WEEK STRAIGHT	OVERTIME	TOTAL	WAGE COST /WEEK	WAGE COST	DAILY BONUS COST	SUBTOTAL COST	FRINGES 20%	ROOM & BOARD	FARES	TOTAL PER MAN	# MEN REQ'D	TOTAL DAILY
PROJ. SUPT	$17.00	40	16	64	$1,088.00	$155.43	$96.00	$251.43	$50.29	$40.00	$42.81	$384.52	0	$0.00
ENGINEER	$14.00	40	16	64	$896.00	$128.00	$24.00	$152.00	$30.40	$40.00	$42.81	$265.21	0	$0.00
SHAFT LEADER	$16.50	40	16	64	$1,056.00	$150.86	$96.00	$246.86	$49.37	$40.00	$42.81	$379.04	0	$0.00
LEAD MECH	$17.00	40	16	64	$1,088.00	$155.43	$72.00	$227.43	$45.49	$40.00	$42.81	$355.72	1	$355.72
MECHANIC	$16.00	40	16	64	$1,024.00	$146.29	$63.36	$209.65	$41.93	$40.00	$42.81	$334.38	0	$0.00
ELECT.	$16.00	40	16	64	$1,024.00	$146.29	$72.00	$218.29	$43.66	$40.00	$42.81	$344.75	1	$344.75
EQUIP. OPERATOR	$14.00	40	16	64	$896.00	$128.00	$0.00	$128.00	$25.60	$40.00	$0.00	$193.60	1	$193.60
HOISTMEN	$15.00	40	16	64	$960.00	$137.14	$48.00	$185.14	$37.03	$40.00	$42.81	$304.98	3	$914.94
CLERK/EXPEDITOR	$12.50	40	16	64	$800.00	$114.29	$0.00	$114.29	$22.86	$40.00	$0.00	$177.14	0	$0.00
DECKMAN	$14.00	40	16	64	$896.00	$128.00	$31.68	$159.68	$31.94	$40.00	$42.81	$274.43	2	$548.85
													8	$2,357.87

SUPPORT LABOUR COST = $2,357.87 /DAY

EQUIPMENT RENTAL AND REPAIR COST

EQUIPMENT DESCRIPTION	COMMENTS	RENT PER UNIT	NO. OF UNITS REQ,D	TOTAL RENTAL COST/MONTH	REPAIR COST PER HR., M.	HRS. OPERATING PER DAY OR M. DRILLED	REPAIR COST PER DAY		RENTAL COST PER DAY	REPAIR COST PER DAY
PLUBBERS		$250	-	$0	$1.00	- HR	$0.00		$0.00	$0.00
DRILL REPAIR		-	-	-	-	- M.	$0.00		$0.00	$0.00
ST 2B SCOOP		$6,000	1	$6,000	$18.00	18 HR	$324.00		$200.00	$324.00
COMPRESSORS		BY OWNER	3	$0	$1.50	48 HR	$72.00		$0.00	$72.00
SHOP		$0	0	$0	$0.00	0 HR	$0.00		$0.00	$0.00
OFFICE		$0	0	$0	$0.00	0 HR	$0.00		$0.00	$0.00
WAREHOUSE		$0	0	$0	$0.00	0 HR	$0.00		$0.00	$0.00
MINE LIGHTS		$10	18	$180	$0.50	24 HR	$12.00		$6.00	$12.00
DEWATERING PUMPS		$2,500	2	$5,000	$1.50	24 HR	$36.00		$166.67	$36.00
SUMP PUMPS		$1,300	3	$3,900	$3.00	36 HR	$108.00		$130.00	$108.00
FRONT END LOADER		$4,500	1	$4,500	$25.00	8 HR	$200.00		$150.00	$200.00
DOZER		$0	-	$0	$0.00	- HR	$0.00		$0.00	$0.00
CRYDERMAN		$7,000	-	$0	$15.00	- HR	$0.00		$0.00	$0.00
BUCKETS		$500	skips ?	$0	$1.25	- HR	$0.00		$0.00	$0.00
DUMP DOOR		IN MOB	-	$0	$0.83	- HR	$0.00		$0.00	$0.00
SAFETY DOOR		IN MOB	-	$0	$0.42	- HR	$0.00		$0.00	$0.00
CROSSHEAD		IN MOB	cage ?	$0	$0.83	- HR	$0.00		$0.00	$0.00
BLASTING SET GALLOWAY		IN MOB	3	$0	$1.25	- HR	$0.00		$0.00	$0.00
SINKING ROPE		IN MOB	3	$0	$1.25	12 HR	$15.00		$0.00	$15.00
STAGE WINCHES		$2,000	-	$0	$0.83	- HR	$0.00		$0.00	$0.00
HOIST		BY OWNER	1	$0	$12.50	24 HR	$300.00	(-INCLUDES	$0.00	$300.00
DRY		IN MOB	-	$0	-	- HR	$120.00	SKIPS	$0.00	$120.00
TUGGER HOIST		$750	1	$750	$0.83	- HR	$0.00	CAGE	$25.00	$0.00
MINE AIR HEATER		IN MOB	1	$0	$0.25	8 HR	$2.00	BUMP	$0.00	$2.00
VENT FANS		BY OWNER	1	$0	$0.25	24 HR	$6.00		$0.00	$6.00
BUILDING HEAT		$0	-	$0	-	- HR	$15.00		$0.00	$15.00
TEMP. GENSET		$0	-	$0	-	- HR	$0.00		$0.00	$0.00
PICKUP		$1,200	4	$4,800	$10.00	18 HR	$180.00		$160.00	$180.00
EIMCO 630		$1,500	-	$0	$0.00	- HR	$0.00		$0.00	$0.00
CONCRETE CURB & FORMS		IN MOB	-	$0	$6.25	- HR	$0.00		$0.00	$0.00
CHAIN BLOCKS		IN MOB	-	$0	$0.00	- HR	$0.00		$0.00	$0.00
CONCRETE BOOT		IN MOB	-	$0	$0.00	- HR	$0.00		$0.00	$0.00
SHOP TOOLS		$1,000	1	$1,000	$5.00	20 HR	$100.00		$33.33	$100.00
ROCK BREAKER		IN MOB	1	$0	$10.00	12 HR	$120.00		$0.00	$120.00
POWDER/CAP MAGAZINE		$750	1	$750	$0.00	- HR	$0.00		$25.00	$0.00
TOTALS				$25,880 PER MONTH					$896.00	$1,610.00
							ADVANCE PER DAY			2500.00 METRES/DAY
										REPAIRS
							COST/DAY		$896.00	$1,610.00

FUEL / LUBE COST

EQUIPMENT DESCRIPTION	ENGINE	NUMBER OF UNITS REQ'D	OPERATING HOURS PER DAY PER UNIT	TOTAL OPERATING HOURS PER DAY	FUEL REQ'D PER HOUR	TOTAL FUEL PER DAY	FUEL COST PER LITRE	FUEL COST PER DAY	LUBE COST @ 15% OF FUEL COST	TOTAL OPER. COST PER DAY
COMPRESSORS	-	3	16	48	46.0 LT	2,208.00	$0.30	$662.40	$99.36 LUBE ONLY	$99.36
FRONT END LOADER	-	1	8	8	43.5 LT	348.0	$0.30	$104.40	$15.66	$120.06
ST 20 SCOOP	-	1	18	18	16.6 LT	298.8	$0.30	$89.64	$13.45	$103.09
PICKUP	-	4	5	18	10.0 LT	180.0	$0.55	$99.00	$14.85	$113.85
TEMP. GENSET	-	1	0	0	0.0 LT	0.0	$0.30	$0.00	$0.00	$0.00
HOIST	-	1	0	0	- LT	0.0	-	$0.00	$50.00	$50.00
ROCK BREAKER	-	1	12	12	- LT	0.0	-	$0.00	$25.00	$25.00
DOZER	-	1	-	0	24.0 LT	0.0	$0.30	$0.00	$0.00	$0.00
										$511.36

OPERATING COST = $511.36 /DAY

APPENDIX V

CURRAGH RESOURCES INC.
DY DEPOSIT
SINKING HOIST EVALUATION
MAY 1989

SITE VISIT TO TUCSON AND SASKATOON BY JAMES LAING IN MAY 1989

HOIST LOCATION: PCA SASKATOON

NORDBERG - 10'-0" - 72"
DOUBLE DRUM - DOUBLE CLUTCH
2,400 FEET PER MINUTE
ROPE PULL: 50,000 LBS

HOIST PURCHASE		$	350,000
REFURBISH	MECHANICAL		60,000
	ELECTRICAL		90,000
REMOVAL AND LOADING			56,000
CRANE			10,000
FREIGHT - 10 LOADS @ $6500			65,000
OFFLOAD	10 MS @ $308.40	)	
CRANE	10 @ $960	)	13,000
HOIST COST ON SITE		**$**	**644,000**

HOIST LOCATION: TUCSON, ARIZONA

HOIST - USED NORDBERG 12' X 7'8"
DOUBLE DRUM, DOUBLE FRICTION CLUTCH
2,250 FEET PER MINUTE
ROPE PULL 57,400 POUNDS
2,150 HP DC
5,500 FEET CAPACITY
1-7/8 ROPE
10 TON SKIPS

HOIST PURCHASE	$220,000 U.S. @ 0.83 CDN		$ 265,060	
DUTY			39,000	
				$ 304,060
LOADING			20,000	
FREIGHT	10 LOADS @ $9,000		90,000	
				110,000
REFURBISH		MECHANICAL	60,000	
		2ND BRAKE	75,000	
		ELECTRICS	200,000	
				335,000
OFFLOAD	10 MS @ $308.40		3,084	
CRANE	10 X $960.00		9,600	
				12,684
HOIST COST AT SITE				**$ 761,744**

NORDBERG HOIST
PCA - SASKATOON

May 15, 1989

CANADIAN MINE DEVELOPMENT
120 Railroad Street
Brampton, ON
L6X 1G8

ATTENTION: MR. J. TATAK, VICE PRESIDENT - ENGINEERING

Dear Sir:

P.C.A. HEADFRAME

Bottom section of headframe painted since installation and looks in good condition. Top section looks like original paint and is rusty, but does not appear to have any serious erosion. Nouls require sandblasting, priming, and repainting.

Beams that were installed for rolling dump chutes used for sinking have all been removed. Main tower is sheeted in. Back legs are in good condition though repainting required. Back legs open to elements, two 8 foot sheaves are installed on 8 foot rope centres (both with babbitt bearings), one four foot sheave (for emergency hoist use) is installed on sheave deck. 8 foot sheaves would be too small for your proposed operation. Sheave centres can be adjusted to rope centres of compartments by drilling fresh holes. Height of headframe to underside of sheave deck from floor level is 90 feet from sheave (rope position) to back leg base. Horizontal measurement is approx. 145 feet.

It is estimated that it would cost $60,000 to take this headframe down, plus any refurbishing.

Cementation, Tucson, have two similar headframes which until June 10th, Redpath have an option on. The asking price there is $40,000 U.S., and the attraction would be that they are already dismantled and because no salt, so much less rust.

NORDBERG DOUBLE DRUM, DOUBLE CLUTCH HOIST
SERIAL NUMBER 30972

Hoist Shaft

Shaft is approximately 35 feet long and 20 inches in diameter. The shaft has three main bearings babbitt lined. The left hand outboard bearing is also fitted with an end thrust bearing. Bearings are ring oiled and gravity oil fed by an oil pump through a filter and pipes to controlled drip feed. Clutch spiders are keyed to shaft. Hoist drums are loose on shaft and are fitted with removable bushings (split) and locating rings clamped to shaft. All bearings are mounted on cast iron bed plates, one section to each bearing.

Drums

They are 10 feet in diameter by 6 feet wide, and fitted with lebus shells grooved for 1-1/2 inch cable. The drum centres are 10 feet apart. This distance could be reduced by fitting false cheeks to drum shells. Fitted to drums are brake rings. Clutch plates and inside drums are shell stiffening rings. Drums fitted with forced grease lubricators to lubricated drum bushings if hoist drum is unclutched and shaft rotates.

Brakes

Shoes are fabricated steel plate, posts and base plates cast iron. Shoes timber lined, pads are worn in centre but quite a bit of wear left. Brakes are hydraulic pressure released and weight applied, additional valves are fitted for faster brake set, valves and cylinders for brake reset are fitted also.

Clutches

Two friction type with timber lines. Pads could not be fully examined due to being in closed position, but what was seen looked good. Testing with a prod showed no signs of deterioration and plenty of thickness left for wear (wear is very, very slight at any time if clutches properly set). Pins and bushings all have been well lubricated so should be in good condition. Clutches in and out by hydraulic cylinder and connecting rods with cross shaft.

NOTE: Most use of clutches are made during shaft sinking operation for cable lengthening and balancing.

Hydraulic System

Weighted accumulator bucket and hydraulic ram to lift same hydraulic oil supply by means of constant running pump and motor. Two pumps and motors mounted above oil reservoirs, one running and one spare, all are installed in sunken accessible pit in hoist room floor.

Hoistman's Platform

All operating levers, clutch control, brake control, forward and reverse power lever are mounted; from these to the various components for operation are connecting arms or linkage.

On an extension to this platform is mounted two model D Lilly controllers and two dial indicators, both integrated to each other per drum by drive gears and driven by gears from main shaft. Rope guards are fitted to hoistman's side of drum (rope) faces.

ELECTRICAL

Main Motors - directly coupled to main shaft and has one outboard bearing on right side of hoist.
Motor Data - Serial Number 126000
Manufacturer - Allis Chalmers
H.D. 2100, RPM 76 volts, 500 Amps, 3000

Would require overhaul in electrical shop, but not too much. Cleaning and reclyptoing, possibly bearing lubricated from same source as main shaft.

M.G. Set - Manufacturer - Allis Chalmers
Synchronous Motor Serial Number 124919
HP 2410, KW 1800, Volts 2300, Amps 615, 60 Cycle
3 Phase P.F. 78%, 514 RPM
Exitation Volts 125 Amps, 160
Enter Serial Number 124941
125 Volts, 128 Amps, 514 RPM

Generator - Serial Number 124920
Voltage 500, Amps 3400
RPM 514

Electrical - Control Room

Control panel looks in good shape, though it may require some modernization. Main disconnects and transformer all look as new (not opened for examination as power was on).

M.G. set has three main bearings all drip fed by oil from main bearing system of hoist.

M.G. set is known to be low in insulation reading and P.C.A. - keep it heated for this reason. Several years ago a quote to repair it was received and this was in the region of $50,000.

COMMENTS

Hoist Electrics

To remove hoist and reinstall it on another site and continue getting over the problems as P.C.A. have done, would be far too risky and ill-advised. To put the electrics in good shape would cost in the $85 - 90,000 range.

Hoist Mechanics

One chunk is broken from the clutch slider ring (does not interfere with clutch operation), otherwise is reasonable condition (main bearings to be checked on removal of main shaft). Hoist would require steam clean before, and possible painting after erection.

Estimate of any repairs would have to be made on dismantling.

Estimated Loads to ship hoist, including electrics - 10. To ship headframe 3 - 4

Removal and loading out of hoist including dismantling hoistroom is estimated at 32 days using 6 men plus supervision.

Headframe

As it is envisaged, a skip load of 6 - 7 tons (which the hoist and headframe is capable off) the weight of material per cubic foot should be obtained and size of skip, type of skip worked out. This would give you the height required for clearance in headframe. These headframes could within reason, easily be increased in height and length of back legs.

Yours truly,

J. LAING
Consultant

NORDBERG HOIST
TUCSON, ARIZONA

RECEIVED MAY 15 1989

NORDBERG DOUBLE DRUM HOIST SERIAL NUMBER 30652

Drums

12' diameter, 7'-8" wide, 7½" flange depth, spiral grooved for 1½" cable. Grooving is in fairly good condition. Seen were 8 drum spiders, 4 clutch spiders, 12 half stiffening rings (to make three complete rings for each drum) clutch friction rings for two drums. All clutch spiders are mounted on main shaft sections. Some of brake spiders are on main shaft sections. The remainder are (in halves) attached to drum shells or separate lying on timber. To the one half drum spider for each drum is fitted an automatic drum bushing greaser (used during single drumming) and in each case some mounting brackets are broken. In cases where drum spiders had been dismounted from main shaft, drum half bushings were examined and some found to require rebabbiting. Also it is possible that those still on may be in similar condition.

Main Shaft, Bedplates and Bearings

Main shaft is in three sections bolted together to make one shaft. Sections are 16', 14' and 12' long to make a total shaft length of 42'. Diameter varies from approximately 21" to 23" with 6½" dia. holethrough the centre for the whole length. Some main bearings were mounted on shaft sections (centre), others on bedplate sections. Babbit on some would require renewing and some further accurate measurement before installation. (Bearings from second hoist could be interchanged. Shafts appear in good condition though rusted and would require polishing up on bearing surfaces.

Thrust bearing mounted on end of one shaft section. Second hoist thrustbearing separated.

Brakes

Brake paths 22½" face made of cast iron all rusted and one half from second hoist has chunk broken off at joint. Brake shoes are fabricated (riveted) from steel plate. Some have pins in that have had the end smashed over. Brake pads are timber and would all have to be replaced.

Enough linkage, tie rods and valves are available to complete one hoist. Brake post bedplates are available. One hoist has a repaired bed plate, one has a broken one (bed plates are interchangeable). One or two tie rod ends or posts are broken though enough are available to build hoist. Brakes hydraulically off weight applied.

..... 2

Clutches

Clutch on each drum is of friction type, clutch pads are unserviceable and will require replacing. Clutch arms, pressure plates and linkage fully dismantled and will have to be reassembled (usual method of removal is in two halves). Clutch thrust rings, engines, cross shafts, bearings, linkage and connections all available. Also support brackets.

No major flaws or wear apparent though will require considerable cleaning up.

Clutches hydraulically opened and closed.

Ancillaries

Hoistman's platform with mounting steelwork, handrail and access steps in good condition.

Brake, clutch, control levers and linkage all crated. Two Model C Duplex Lilly Controllers crated.

Dial indicators, drive gearing all seen.

Oil filters, tank and pump for oil supply system.

Accumulator (weighted), hydraulic pumps to pressurise brake and clutch hydraulic systems.

M.G. Set

General Electric. Synchronous Motor Serial 4098805.
H.P. 2300, Speed 514 rpm, 60 cycle, 2400 v.
Exitation voltage 250V. Exiter available.

Generator

General Electric. Serial 1358429.
514 rpm, 1650 kw, 2145kw for 1 hour.
Output 2200 amp, 750 v.

Main Motor

General Electric. 2150 HP DC Serial 1358421.
Volts 750, Amps 2250
Speed 59.5 rpm
2750 HP for 1 hour

Spare motor - no name plates (pilfered).

Half stator has tipped over and some brush holder brackets are broken. Can be replaced from second motor.

..... 3

Exitation Generator

250 V DC, 252 amps, 514 rpm

Outboard main bearing pedestal for main motor pedestal and bearings for MG set. All seen and look okay.

Electrical

One main control panel (scrap) as seen. Other may be boxed. Have to be updated considerable or replaced (vintage).

Grid resisters set consists of syn motor rheostat, motor field resistors, speed step resistors.

Two sets would have to be reconditioned to make one possibly but doubtful.

Main buss shunt is on site.

Reduced voltage start transformer (scrap), may be another in a box.

Comments

Loading out of one complete hoist would require a careful check of matching major components (using manufacturers' stamped identification and/or paint marks put on by dismantler).

A minimum of 12 to 14 loads is estimated based on legal load limits on all states or provinces. A portable set of scales could be obtained to make sure no overloads or no underloads (within reason). As noted the main motor armature would be an over height/over width load.

There are enough components available to build a complete hoist though electrically some equipment might no longer meet the standards of the mine departments, as also may the brake application and control (which can be modified).

Considerable refurbishing is required both mechanically and electrically. An educated guess would be in the range of $350,000 Canadian.

Electrically - Main motor, MG Set, etc. would have to go into GE or Westinghouse to be refurbished and new or rebuilt control panels and resistors made up.

Mechanically - Bearings, drum bushing rebabbited. Brake shoes, clutches relined. Bolts, pins, etc. cleaned up. There should be enough serviceable bolts, nuts and pins between the two hoists. All necessary parts would have to be certified by crack detection especially brake components and drum spiders. Main shaft and all vital pins untrasonically tested.

As the rope centres of drums are almost 12' and the proposed shaft has compartments of approximately 6'-6" to 7' rope centres, there would be trouble with meeting the rope and drum fleet angle requirements.

If the hoist was moved further away from the shaft to correct this an intermediate tower with moving sheaves would be required and also the rope lead off angle may be too low and affect the rope pull. Also to ship the second hoist would be expensive and if it was left on site in Tucson a rental cost would be involved.

This hoist would cost more than usual to install. Due to the way it has been dismantled and the way it was manufactured. (Possibly the design was for the original application.)

Addendum

Of course on the subject of drum rope centres and fleet angles, false cheeks could be installed to reduce drum widths and therefore rope centres.



JAMES LAING

CONSULTANT, MECHANICAL INSTALLATIONS

Specializing in hoist and mine plant equipment installations

Since 1982, Jim has been a self-employed consultant to various mining companies, contractors, and equipment suppliers, including Canadian Mine Development, Dynatec, Redpath, Harrison, Lac Minerals, M.C. LaBarr, Westgate, Mowlem Mine Services, Anaconda, etc.

These services have involved:

- Installation of crusher, conveyor system for Billiton at Mount Pleasant, New Brunswick
- Removal from Inco and re-installation at Macassa of 14 foot double drum tandem 6000 HP DC hoist
- Removal of double drum AC hoist, 10 foot diameter, from Crown Point, New Mexico, and re-installation at Lakeshore, Kirkland Lake, Ontario

Jim was Operations Manager for Westgate and Mowlem, removing and repairing the sale of equipment purchased from Anaconda Smelter. He also dismantled headframes and hoists from mines owned by Westgate.

In August 1987, Jim was contracted by Canadian Mine Development to recondition and install a single drum hoist on a temporary frame.

In December 1987, for New Butte Mining, Montana, he inspected and evaluated hoists, compressors, headframes, steam boilers, etc. on an old Anaconda property.



At Mattagami, Quebec, in February 1988, for J. S. Redpath, Jim
- changed over to skips
- changed over hoist cables
- modified hoist clutch and brake engines

In April 1988, he inspected and reported on 1000 TPD mill as to valuation for purchase for Robertson Research, Butte, Montana.

From 1979 to 1981, he was Plant Superintendent, North America for Thyssen Mining.

From 1975 to 1979, as Mechanical Superintendent for J. S. Redpath Limited, Jim was involved with thirteen hoist removals and installations as well as raisebore hole installations of steel liners.

From 1973 to 1975 for Thyssen Mining Construction Co. Canada, Jim progressed from Site Mechanical Superintendent to Plant Superintendent.

From 1962 to 1973, he was Site Mechanical Superintendent for Cementation Co. Canada Limited at Goderich, Geco, Cominco Potash, and Magma Copper. Previous to 1973, he was Project Superintendent at San Manuel, Arizona, Hecla, Duval Sierra.

Before coming to Canada in 1961, Jim was employed with Cementation Co. Great Britain as shift mechanic and later as master mechanic.

APPENDIX VI

SHAFT COMPARTMENT SIZE

An evaluation was made of the hoisting compartment size of the timbered shaft assuming the splitting of the shaft opening by a ventilation lining between the two hoisting compartments.

Our proposal was for a 3 compartment shaft with 2 hoisting compartments 6'0" x 7'6", plus manway 4'4" x 7'6".

Mining gear, i.e., ST8 must be dismantled and cut to allow lowering through the compartment. All gear, including the ST8 can be handled down a 6' x 6' compartment.

Ventilation

This is the critical factor in the sizing of the shaft.

We have looked at 3 compartment sizes, 6' x 6', 6' x 7', and 6' x 7'6".

Ventilation is staged as follows:

1. Fan pushing air down the 36" vent tube for sinking purposes.

2. Removal of vent tube in manway and 2 fans pushing 36,000 CFM down the manway. Two fans on the main level pulling an additional 84,000 CFM through the centre compartment.

Exhaust 120,000 CFM up the other compartment.

Total horsepower required is shown on the attached tables.

Shaft costs before G & A and fee have been re-estimated for the 3 shaft compartment sizes. Full lining has been removed leaving a tongue and groove lining between hoisting compartments and full lining around the manway.

Although there is a $193,000 saving in shaft capital cost for the 6'x6' compartment shaft, it is totally offset by an additional annual ventilation power charge of $159,000.

The 6' x 7'6" compartment is recommended.

Permanent piping would be installed in the area where the sinking vent duct was installed.

VENTILATION COST COMPARISON
DURING INITIAL EXPLORATION AND PRODUCTION

VOLUME REQUIRED: 120,000 CFM

	SHAFT HOISTING COMPARTMENT SIZE		
	6'x6'	**6'x7'**	**6'x7'6"**
Installation Cost of Shaft before overhead and fee	$3,836,000	$4,023,000	$4,029,000
Saving	(193,000)	(6,000)	- -
Fans Required	2 - 38"x75HP 2 - 48"x150HP 4 - 54"x225HP	2 - 36"x75HP 1 - 54"x175HP 2 - 54"x300HP	2 - 34"x60HP 1 - 48"x200HP 2 - 54"x250HP
TOTAL VENTILATION HORSEPOWER	**1,350 HP**	**1,025 HP**	**820 HP**
OPERATING COST/YEAR @ $0.045 KWH = $300/HP YEAR	**$405,000**	**$307,500**	**$246,000**
Incremental Operating Cost Increase/Year	**$159,000**	**$61,500**	**- -**

FILE:SHFT2017

CURRAGH RESOURCES INC.

SINK TIMBER SHAFT

BY DEPOSIT

INLINE 20'0" x 7'8"

ELECTRIC

COMPT 1 6'x6' 2 6'x6' MW. 5'x6'

BID SUMMARY SHEET

CATEGORY	TOTAL COST /METRE	STATION CUTTING TOTAL COST / CUM	PERFORMANCE 50 CUM/DAY OWNER'S COST/METRE	OWNER'S COST / CUM
REGULAR SINKING				
DIRECT LABOUR	$1,746.69	$87.69	-	-
SUPPORT LABOUR	$1,734.74	$87.09	-	-
STEEL & BITS	$107.76	$5.41	-	-
EXPLOSIVES & ACCESSORIES	$312.12	$15.67	-	-
EQUIPMENT RENTAL	$531.84	$26.70	-	-
EQUIPMENT REPAIR	$474.97	$23.84	-	-
FUEL & LUBE	$157.30	$7.90	-	-
[illegible] & ACCESSORIES	$136.56	$0.00	-	-
VENTILATION & ACCESSORIES	$29.72	$0.00	-	-
ELECTRIC POWER	$0.00	$0.00	$182.75	$9.17
ELECTRIC CABLE	$124.53	$0.00	-	-
TIMBER	$907.77	$0.00	-	-
HARDWARE	$111.35	$0.00	-	-
HOSES, SMALL TOOLS	$63.75	$2.54	-	-
INSURANCE, COMMUNICATION	$63.75	$2.54	-	-
FREIGHT DURING CONTRACT	$191.26	$7.63	-	-
SUBTOTAL	$6,694.14	$267.00	$182.75 /METRE	$9.17 /CUM
G & A 11.5%	$769.83	$30.71		
TOTAL COST	$7,463.96	$297.71		
MARGIN 8.5%	$569.00	$22.70		
PRICE	$8,032.96 /METRE	$320.40 /CUM		

DEPTH 573m

SHAFT VENTILATION

6' X 6' COMPARTMENTS

SURFACE

41,000 CFM, S.P. = 13.46" W.G.
2 FANS IN SERIES
JOY 2 X 75 HP 38-26-1770

120,000 CFM, 29.23" W.G.
4 X 225 HP FANS IN SERIES
JOY 54-26-1770

79,000 CFM, 13.46" W.G.
2 X 150 HP FANS IN SERIES
JOY 48-26-1770

DOWN CAST
6'x6' + M.W.

CURRAGH RESOURCES INC.
DY DEPOSIT
VENTILATION IN SHAFT

CALCULATION SHEET

	AIRWAY	DIMENSIONS	AREA Sq. Ft.	PERIMETER FEET	FRICTION K	FRICTION L	FRICTION R_f	SINUOSITY X	SINUOSITY R_s	R_f+R_s	BENDS X_b	BENDS R_b	CONTRC. OR EXPD. R_c	TOTAL R	$C=\frac{1}{\sqrt{R}}$	$\frac{Q}{100,000}$	$\left(\frac{Q}{100,000}\right)^2$	$H = RQ^2$ H IN. W.G.
1	Manway	5x6	30/24	22	120	2000	73.5	0	0	73.5	0	0	0	73.5	0.117			
2	Compt 1	6x6	36	24	98	1000	19.4	0	0	19.4	0	0	0	19.4	0.227			
					(PARALLEL FLOW)									8.45	0.344	1	1	8.45
		Descending Skip												-.12				
		Ascending Skip												1.02				
														0.90		1	1	0.90
		TOTAL ESTIMATED RESISTANCE PER 100,000 CFM																9.35" W.G.

@ 120,000 CFM $H = 9.35 \times \left(\frac{120,000}{100,000}\right)^2 = 13.46$" W.G.

CURRAGH RESOURCES INC.
DY DEPOSIT

SHAFT VENTILATION
CONTRACTION AND EXPANSION LOSSES

Area of 1 compartment plus Manway

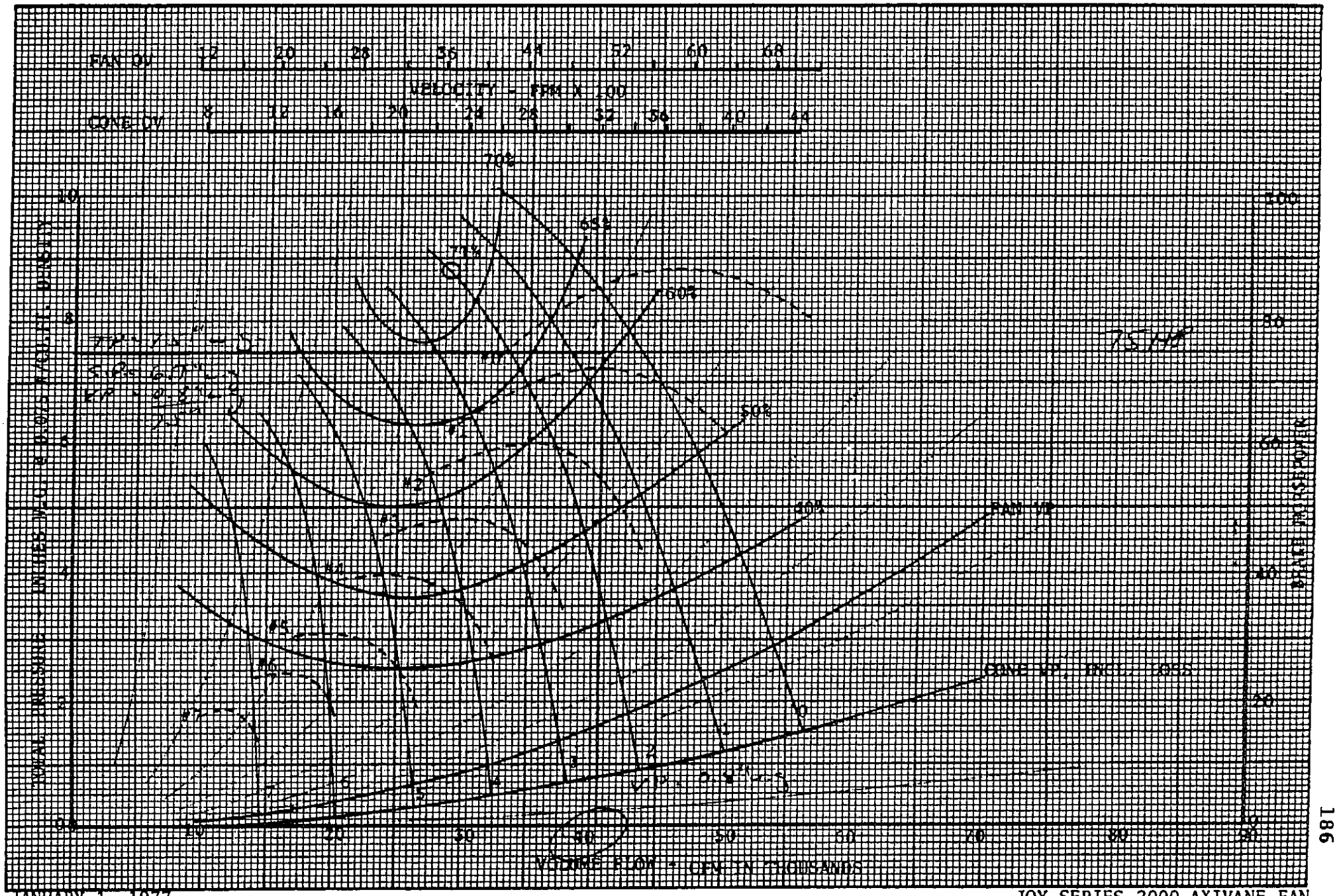
Manway	5' x 6'	30	
Comp. 1	6' x 6'	36	
		66	sqft

Velocity = 1,515 ft/min
Vel. press. = 0.14 in. w.g.
Velocity of Skip = 2,200 ft/min
Velocity of air past descending cage =
1,515 - 2,200 = -685 ft/min
Vel. press. = 0.03 in. w.g.
Velocity of air past ascending cage =
2,200 + 1,515 = 3,715 ft/min
Vel. press. = 0.86 in. w.g.

Contraction Loss (Descending Cage) = -0.055 in. w.g.
Expansion Loss (Descending Cage) = -0.11 in. w.g.

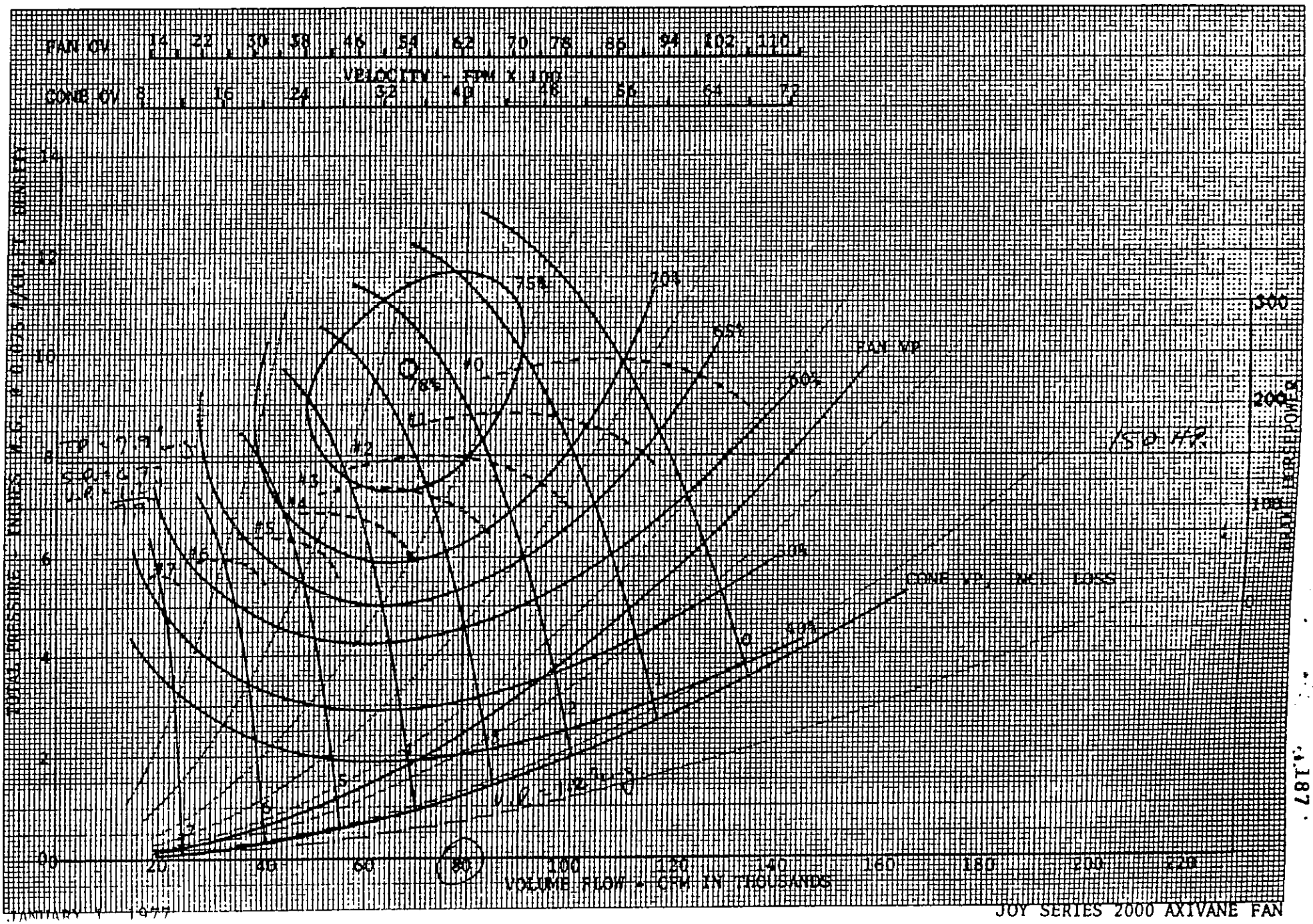
Contraction Loss (Ascending Cage) = 0.36 in. w.g.
Expansion Loss (Ascending Cage) = 0.72 in. w.g.

Total Loss Due to Cage = 0.91 in. w.g.



JANUARY 1, 1977
C-5105

JOY SERIES 2000 AXIVANE FAN
MODEL 38-26-1770



JANUARY 1 1977

JOY SERIES 2000 AXIVANE FAN

4187

UP CAST
6 x 6

CURRAGH RESOURCES INC
DY DEPOSIT
VENTILATION IN SHAFT

CALCULATION SHEET

	AIRWAY	DIMENSIONS	AREA Sq. Ft.	PERIMETER FEET	FRICTION K	FRICTION L	FRICTION R_f	SINUOSITY X	SINUOSITY R_s	R_f+R_s	BENDS X_b	BENDS R_b	CONTRC. OR EXPD. R_c	TOTAL R	$C=\frac{1}{R}$	$\frac{q}{100,000}$	$\left(\frac{q}{100,000}\right)^2$	$H = RQ^2$ H IN. W.G.
1	Comp 2	6x6	36	24	98	2000	19.4	0	0	19.4	0	0	0	19.4	—	1	1	19.4
	Descending Skip													-.53	-.49	0.97		
	Ascending Skip													1.4	1.37	1.08		
															0.90	0.91	1	0.90
	TOTAL ESTIMATED RESISTANCE PER 100,000 CFM																	20.3" w.j.

@ 120,000 CFM $H = 20.3" \times \left(\frac{120,000}{100,000}\right)^2 = 29.23"$ w.j.

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CURRAGH RESOURCES INC.
DY DEPOSIT

SHAFT VENTILATION
CONTRACTION AND EXPANSION LOSSES

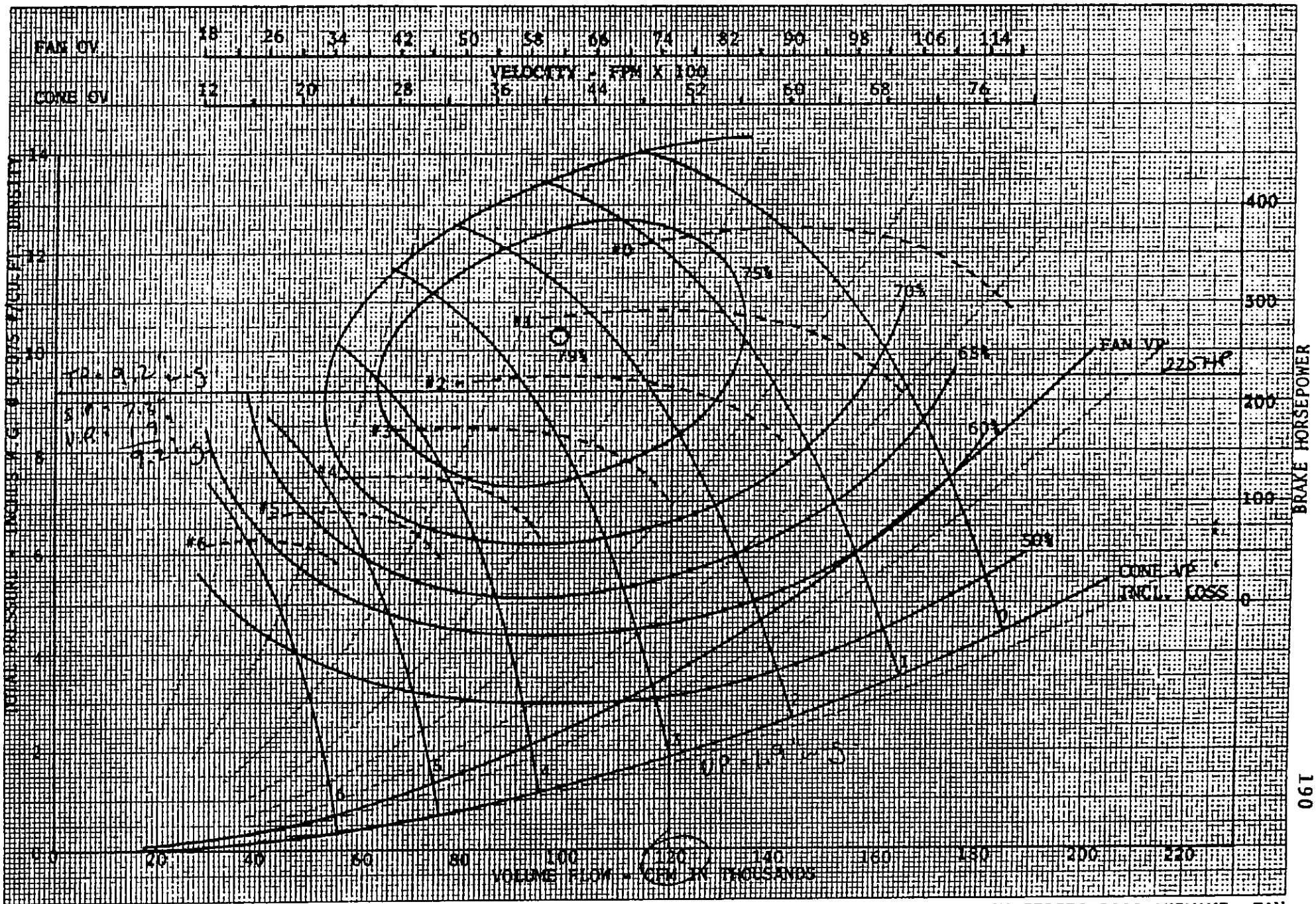
Area of 1 compartment
Comp. 2 6' x 6' 36 sqft

Velocity = 2,778 ft/min
Vel. press. = 0.48 in. w.g.
Velocity of Skip = 2,200 ft/min
Velocity of air past descending cage =
2,778 - 2,200 = 578 ft/min
Vel. press. = 0.02 in. w.g.
Velocity of air past ascending cage =
2,200 + 2,778 = 4,978 ft/min
Vel. press. = 1.54 in. w.g.

Contraction Loss (Descending Cage) = -0.23 in. w.g.
Expansion Loss (Descending Cage) = -0.46 in. w.g.

Contraction Loss (Ascending Cage) = 0.53 in. w.g.
Expansion Loss (Ascending Cage) = 1.06 in. w.g.

Total Loss Due to Cage = 0.90 in. w.g.


FAN RPM
CORE RPM
VELOCITY - FPM X 100
VOLUME FLOW - CFM IN THOUSANDS
BRAKE HORSEPOWER
FAN VP
CORE VP
INCL. LOSS
75%
70%
65%
60%
50%
#1
#2
#3
#4
#5
#6
JANUARY 1, 1977
JOY SERIES 2000 AXIVANE FAN
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FILE:SHFT2018

CUPRAGH RESOURCES INC.

SINK TIMBER SHAFT

BY DEPOSIT

INLINE 20'0" x 8'8"

ELECTRIC

BID SUMMARY SHEET

COMPT. 1 (6'x7') 2 (6'x7') M.W. (5'x7')

CATEGORY	TOTAL COST /METRE	STATION CUTTING TOTAL COST / CUM	PERFORMANCE 50 CUM/DAY OWNER'S COST/METRE	OWNER'S COST / CUM
REGULAR SINKING				
DIRECT LABOUR	$1,807.62	$90.74	-	-
SUPPORT LABOUR	$1,795.25	$90.12	-	-
STEEL & BITS	$134.70	$6.76	-	-
EXPLOSIVES & ACCESSORIES	$385.04	$19.33	-	-
EQUIPMENT RENTAL	$550.39	$27.63	-	-
EQUIPMENT REPAIR	$498.49	$25.02	-	-
FUEL & LUBE	$162.79	$8.17	-	-
PIPE & ACCESSORIES	$136.58	$6.90	-	-
VENTILATION & ACCESSORIES	$29.72	$0.00	-	-
ELECTRIC POWER	$0.00	$0.00	$189.12	$9.49
ELECTRIC CABLE	$124.53	$0.00	-	-
TIMBER	$950.23	$0.00	-	-
HARDWARE	$111.35	$0.00	-	-
HOSES, SMALL TOOLS	$66.87	$2.68	-	-
INSURANCE, COMMUNICATION	$66.87	$2.68	-	-
FREIGHT DURING CONTRACT	$200.69	$8.03	-	-
SUBTOTAL	$7,021.03	$281.17	$189.12 /METRE	$9.49 /CUM
G & A 11.5%	$807.42	$32.34		
TOTAL COST	$7,828.45	$313.51		
MARGIN 9.5%	$596.79	$23.90		
PRICE	$8,425.24 /METRE	$337.41 /CUM		

DEPTH = 573 m

191

SHAFT VENTILATION

6' X 7' COMPARTMENTS

SURFACE

36,000 CFM, S.P. = 9.60" W.G.
2 FANS IN SERIES
JOY 2 X 75 HP 36-26-1770

120,000 CFM, S.P. 29.23" W.G.
2 X 300 HP FANS IN SERIES
JOY 54-26-1770

84,000 CFM, S.P. 9.60" W.G.
2 FANS IN SERIES
JOY 2 X 48" - 26-1770 X 125 HP
OR JOY 1 X 48" - 26-1770 X 200 HP
OR JOY 1 X 54" - 26-1770 X 175 HP

DOWNCAST
6'x7' + MW

CURRAGH RESOURCES INC.
DY DEPOSIT
VENTICATION IN SHAFT

CALCULATION SHEET

	AIRWAY	DIMENSIONS	AREA SQ. FT. 80%	PERIMETER FEET	FRICTION K	FRICTION L	FRICTION R_f	SINUOSITY X	SINUOSITY R_s	R_f+R_s	BENDS X_b	BENDS R_b	CONTRC. OR EXPD. R_c	TOTAL R	$C=\frac{1}{\sqrt{R}}$	$\frac{Q}{100,000}$	$\left(\frac{Q}{100,000}\right)^2$	$H = RQ^2$ $H=\frac{1}{C^2}$ H IN. W.G.
1	MANWAY	5x7	35/28	24	120	2000	50.5	0	0	50.5	0	0	0	50.5	.141	1	1	
2	COMPT. 1	6x7	42	26	98	2000	13.2	0	0	13.2	0	0	0	13.2	0.275			
							(PARALLEL FLOW)							5.78	0.416			5.78
		DESCENDING SKIP												-0.09				
		ASCENDING SKIP												0.98				
														0.89		1	1	0.89
		TOTAL ESTIMATED RESISTANCE PER 100,000 CFM																6.67" w.g.

@ 120,000 CFM $H = 6.67 \times \left(\frac{120,000}{100,000}\right)^2 = 9.60$ "w.g.

$R_f = \frac{KPL}{5.2A^3}$

R_f SHAFT = $\frac{1}{C^2}$

CURRAGH RESOURCES INC.
DY DEPOSIT

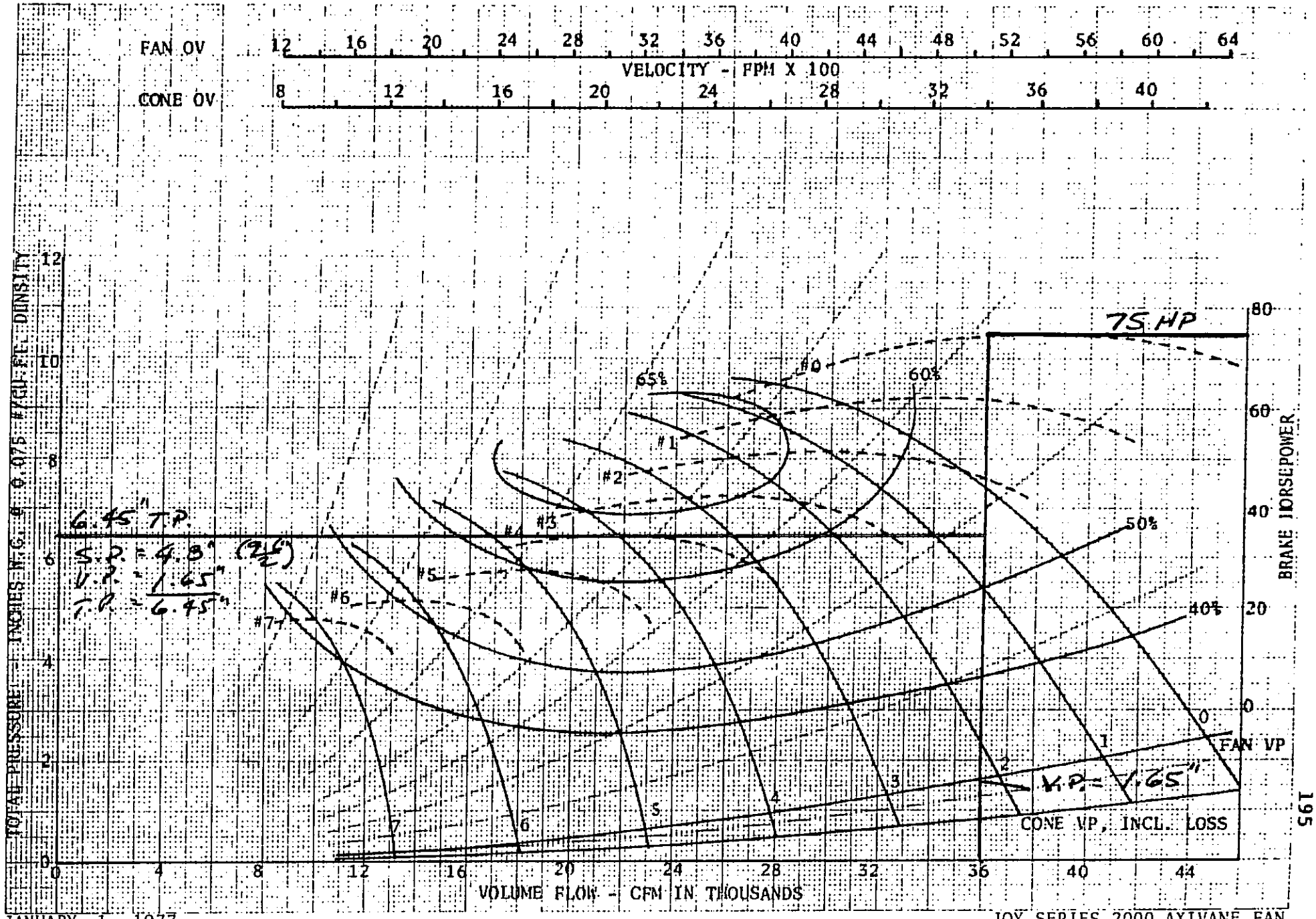
SHAFT VENTILATION
CONTRACTION AND EXPANSION LOSSES

Area of 1 compartment plus Manway

Manway	5' x 7'	35	
Comp. 1	6' x 7'	42	
		77	sqft

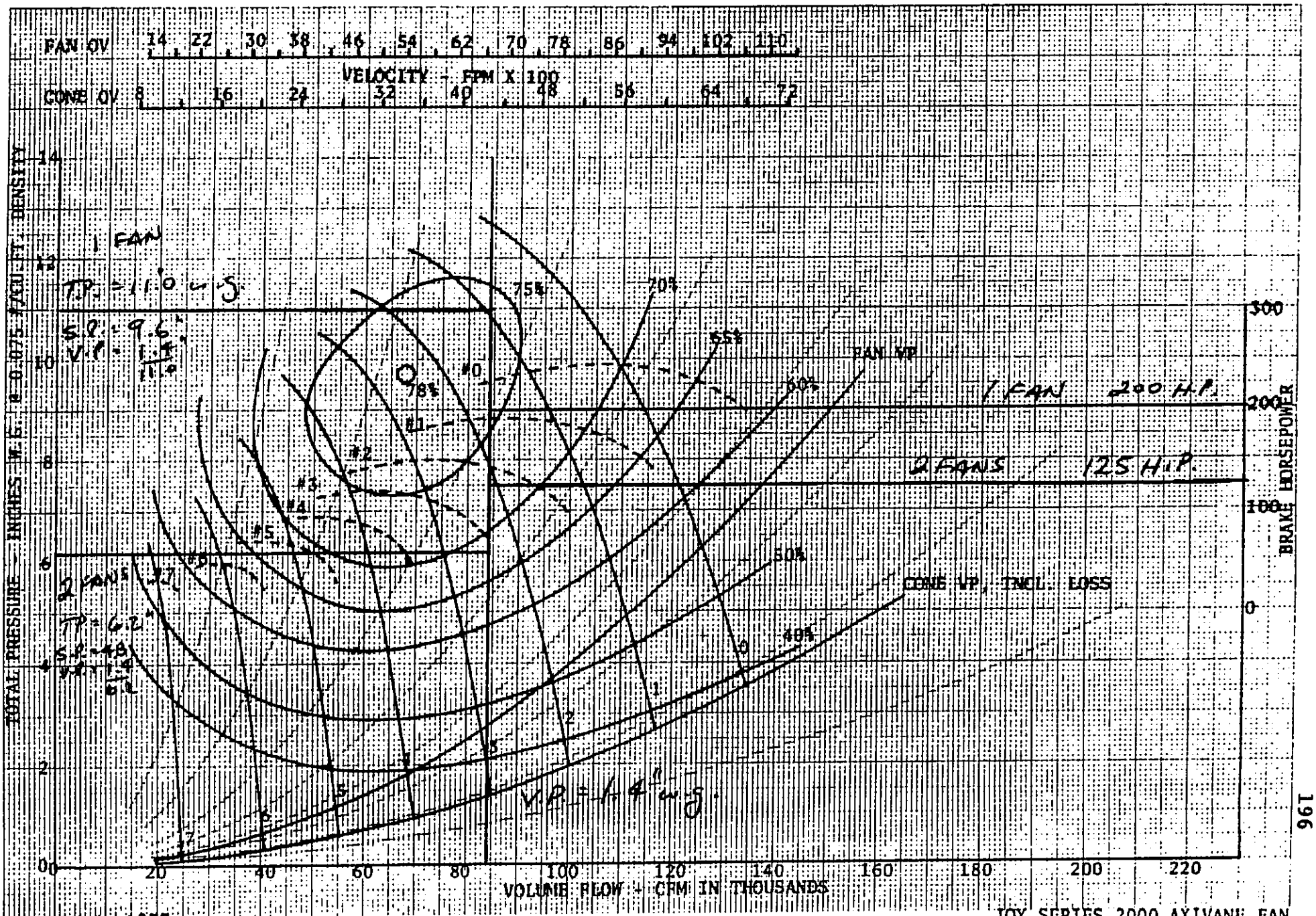
Velocity =		1,299	ft/min	
Vel. press. =		0.11	in. w.g.	
Velocity of Skip =		2,200	ft/min	
Velocity of air past descending cage =				
1,299	-	2,200	=	-901 ft/min
Vel. press. =		0.05	in. w.g.	
Velocity of air past ascending cage =				
2,200	+	1,299	=	3,499 ft/min
Vel. press. =		0.76	in. w.g.	

Contraction Loss (Descending Cage) =	-0.03	in. w.g.
Expansion Loss (Descending Cage) =	-0.06	in. w.g.
Contraction Loss (Ascending Cage) =	0.325	in. w.g.
Expansion Loss (Ascending Cage) =	0.65	in. w.g.
Total Loss Due to Cage =	**0.89**	**in. w.g.**



JANUARY 1, 1977

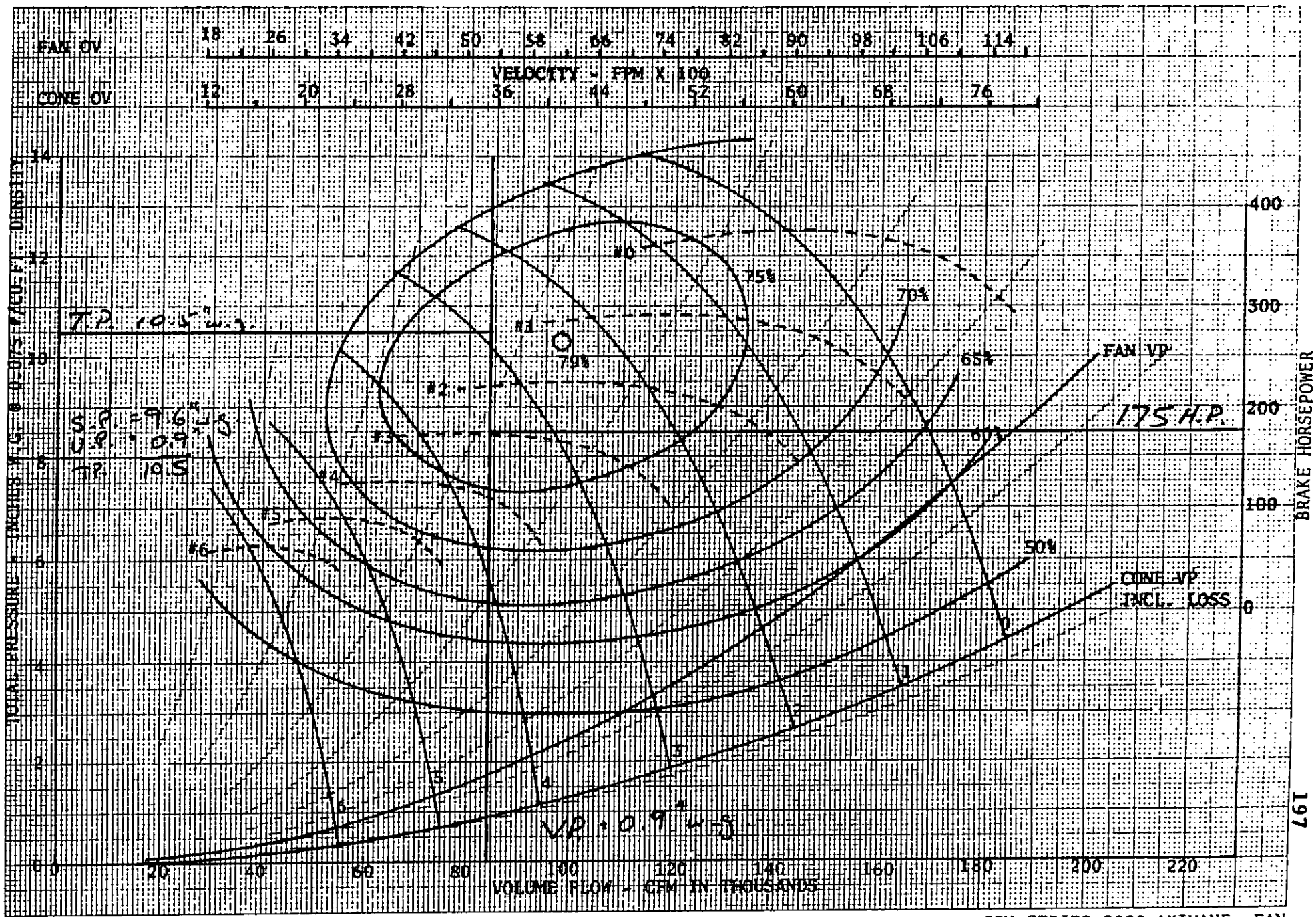
JOY SERIES 2000 AXIVANE FAN
MODEL 36-26-1770



JANUARY 1, 1977
C-5114

JOY SERIES 2000 AXIVANE FAN
MODEL 48-26-1770

196



JANUARY 1, 1977

JOY SERIES 2000 AXIVANE FAN

UPCAST
6x7

CURRAGH RESOURCES INC.
DY DEPOSIT
VENTILATION IN SHAFT

CALCULATION SHEET

	AIRWAY	DIMENSIONS	AREA SQ. FT.	PERIMETER FEET	FRICTION K	FRICTION L	FRICTION R_f	SINUOSITY X	SINUOSITY R_s	R_f+R_s	BENDS X_b	BENDS R_b	CONTRC. OR EXPD. R_c	TOTAL R	$C=\frac{1}{\sqrt{R}}$	$\frac{Q}{100,000}$	$\left(\frac{Q}{100,000}\right)^2$	$H = RQ^2$ H IN. W.G.
1	Comp 2	6x7	42	26	98	2000	13.2	0	0	13.2	0	0	0	13.2	—	1	1	13.2
	Descending Skip													.53				
	Ascending Skip													1.44				
														0.91		1	1	0.91
	TOTAL ESTIMATED RESISTANCE PER 100,000 CFM																	14.11 "W.G.

@ 120,000 CFM $H = 14.11 \times \left(\frac{120,000}{100,000}\right)^2 = 20.32$ " W.G.

CURRAGH RESOURCES INC.
DY DEPOSIT

SHAFT VENTILATION
CONTRACTION AND EXPANSION LOSSES

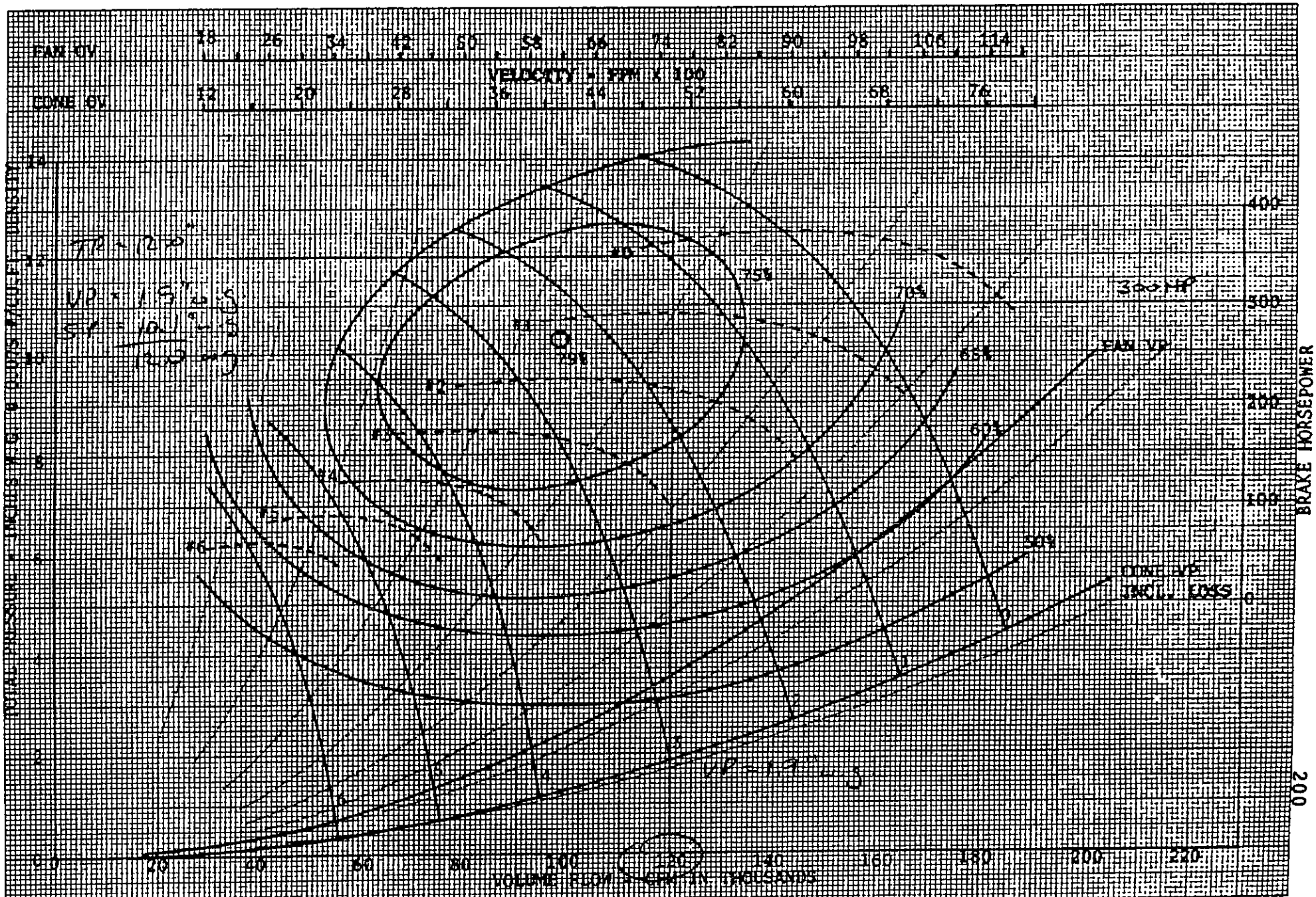
Area of 1 compartment
Comp. 2 6' x 7' 42 sqft

Velocity = 2,381 ft/min
Vel. press. = 0.35 in. w.g.
Velocity of Skip = 2,200 ft/min
Velocity of air past descending cage =
2,381 - 2,200 = 181 ft/min
Vel. press. = 0.00 in. w.g.
Velocity of air past ascending cage =
2,200 + 2,381 = 4,581 ft/min
Vel. press. = 1.31 in. w.g.

Contraction Loss (Descending Cage) = -0.175 in. w.g.
Expansion Loss (Descending Cage) = -0.35 in. w.g.

Contraction Loss (Ascending Cage) = 0.48 in. w.g.
Expansion Loss (Ascending Cage) = 0.96 in. w.g.

Total Loss Due to Cage = 0.92 in. w.g.



JANUARY 1, 1977

FILE:SHFT19X9

CURRAGH RESOURCES INC.

SINK TIMBER SHAFT

BY DEPOSIT

INLINE 19'4" x 9'2"

ELECTRIC

COMPT. 1 (6'x7'6") 2 (6'x7'6") MW (4'4"x7'6")

BID SUMMARY SHEET

CATEGORY	TOTAL COST /METRE	STATION CUTTING TOTAL COST / CUM	PERFORMANCE 50 CUM/DAY OWNER'S COST/METRE	OWNER'S COST / CUM
REGULAR SINKING				
DIRECT LABOUR	$1,814.65	$91.10	-	-
SUPPORT LABOUR	$1,862.23	$90.47	-	-
STEEL & BITS	$134.70	$6.76	-	-
EXPLOSIVES & ACCESSORIES	$385.04	$19.33	-	-
EQUIPMENT RENTAL	$552.53	$27.74	-	-
EQUIPMENT REPAIR	$500.27	$25.11	-	-
FUEL & LUBE	$163.42	$8.20	-	-
PIPE & ACCESSORIES	$136.58	$6.86	-	-
VENTILATION & ACCESSORIES	$29.72	$0.00	-	-
ELECTRIC POWER	$0.00	$0.00	$189.86	$9.53
ELECTRIC CABLE	$124.53	$0.00	-	-
TIMBER	$941.38	$0.00	-	-
HARDWARE	$111.35	$0.00	-	-
HOSES, SMALL TOOLS	$66.96	$2.69	-	-
INSURANCE, COMMUNICATION	$66.96	$2.69	-	-
FREIGHT DURING CONTRACT	$200.89	$8.06	-	-
SUBTOTAL	$7,031.24	$282.15	$189.86 /METRE	$9.53 /CUM
G & A 11.5%	$809.59	$32.45		
TOTAL COST	$7,839.84	$314.60		
MARGIN 8.5%	$597.66	$23.98		
PRICE	$8,437.49 /METRE	$338.58 /CUM		

DEPTH = 573 m

SHAFT VENTILATION

6' X 7'6" COMPARTMENT

SURFACE

34,000 CFM, S.P. = 9.18" W.G.
2 FANS IN SERIES
JOY 2 X 60 HP 34-26-1770

120,000 CFM, 29.23" W.G.
2 X 250 HP FANS IN SERIES
JOY 54-26-1770

86,000 CFM, 9.18" W.G.
1 X 200 HP FAN
JOY 1 X 48"-26-1770

DOWNCAST
6' x 7.5' + M.W.

CURRAGH RESOURCES INC.
D4 DEPOSIT
VENTILATION IN SHAFT

CALCULATION SHEET

	AIRWAY	DIMENSIONS	AREA Sq. Ft. 80%	PERIMETER FEET	FRICTION K	FRICTION L	FRICTION R_f	SINUOSITY X	SINUOSITY R_s	R_f+R_s	BENDS X_b	BENDS R_b	CONTRC. OR EXPD. R_c	TOTAL R	$C=\frac{1}{\sqrt{R}}$	$\frac{Q}{100,000}$	$\left(\frac{Q}{100,000}\right)^2$	$H = RQ^2$ $H = \frac{1}{C^2}$ H IN. W.G.
1	MANWAY	4' x 7'6"	32.5 / 2C	23.7'	120	2000	62.2	0	0	62.2	0	0	0	62.2	0.127			
2	COMP. 1	6' x 7.5'	45	27	98	2000	11.2	0	0	11.2	0	0	0	11.2	0.300			
														5.48	0.427	1	1	5.48"
	DESCENDING CAGE													-.09				
	ASCENDING CAGE													0.98				
														0.89		1	1	0.89
	TOTAL ESTIMATED RESISTANCE PER 100,000 CFM																	6.37" w.g.

$R_f = \frac{KPL}{5.2A^3}$

@ 120,000 CFM $H = 6.37" \times \left(\frac{120,000}{100,000}\right)^2 = 9.18"$ w.g.

CURRAGH RESOURCES INC.
DY DEPOSIT

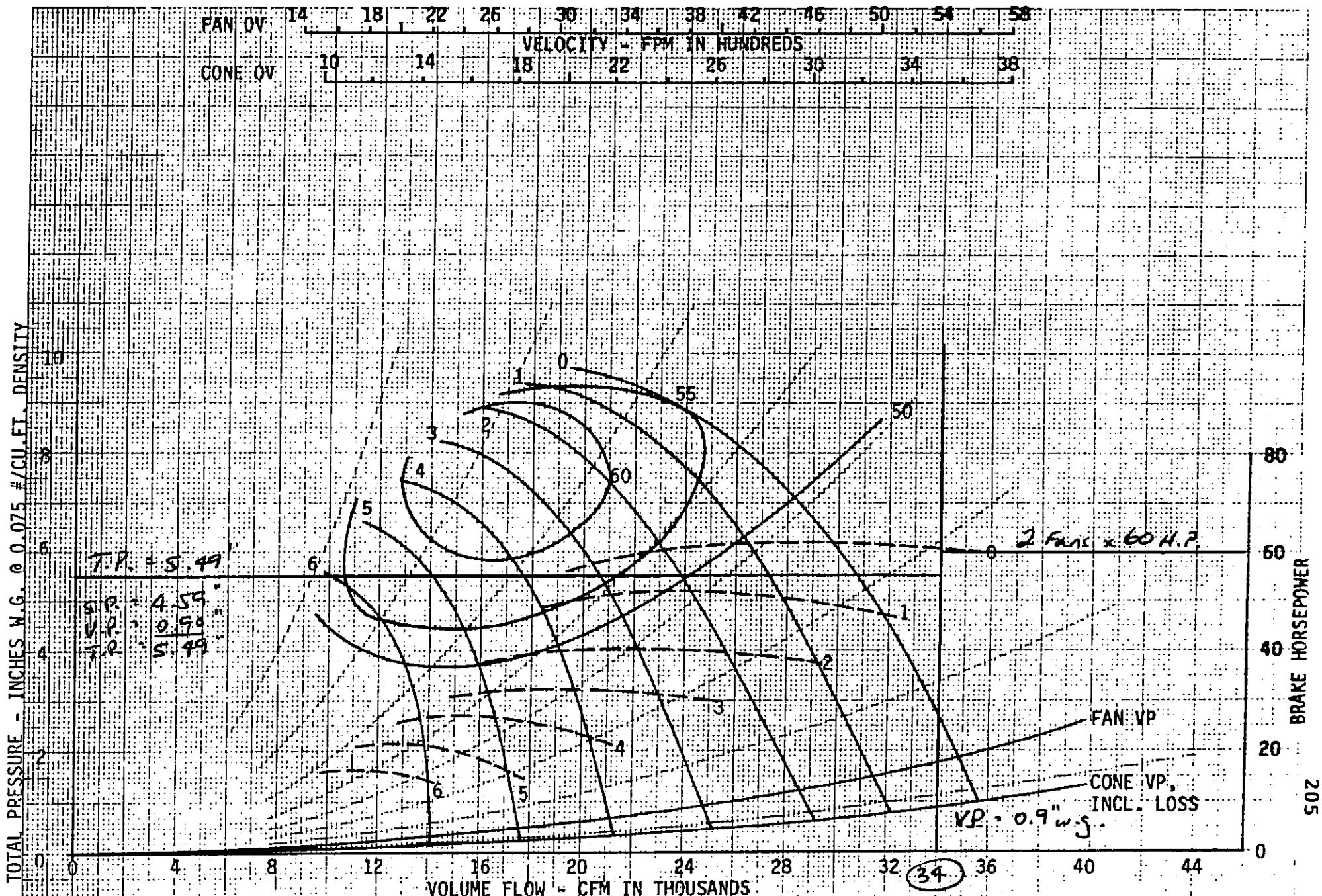
SHAFT VENTILATION
CONTRACTION AND EXPANSION LOSSES

Area of 1 compartment plus Manway

Manway 4'4" x 7.5'	32	
Comp. 1 6' x 7.5'	45	
	77	sqft

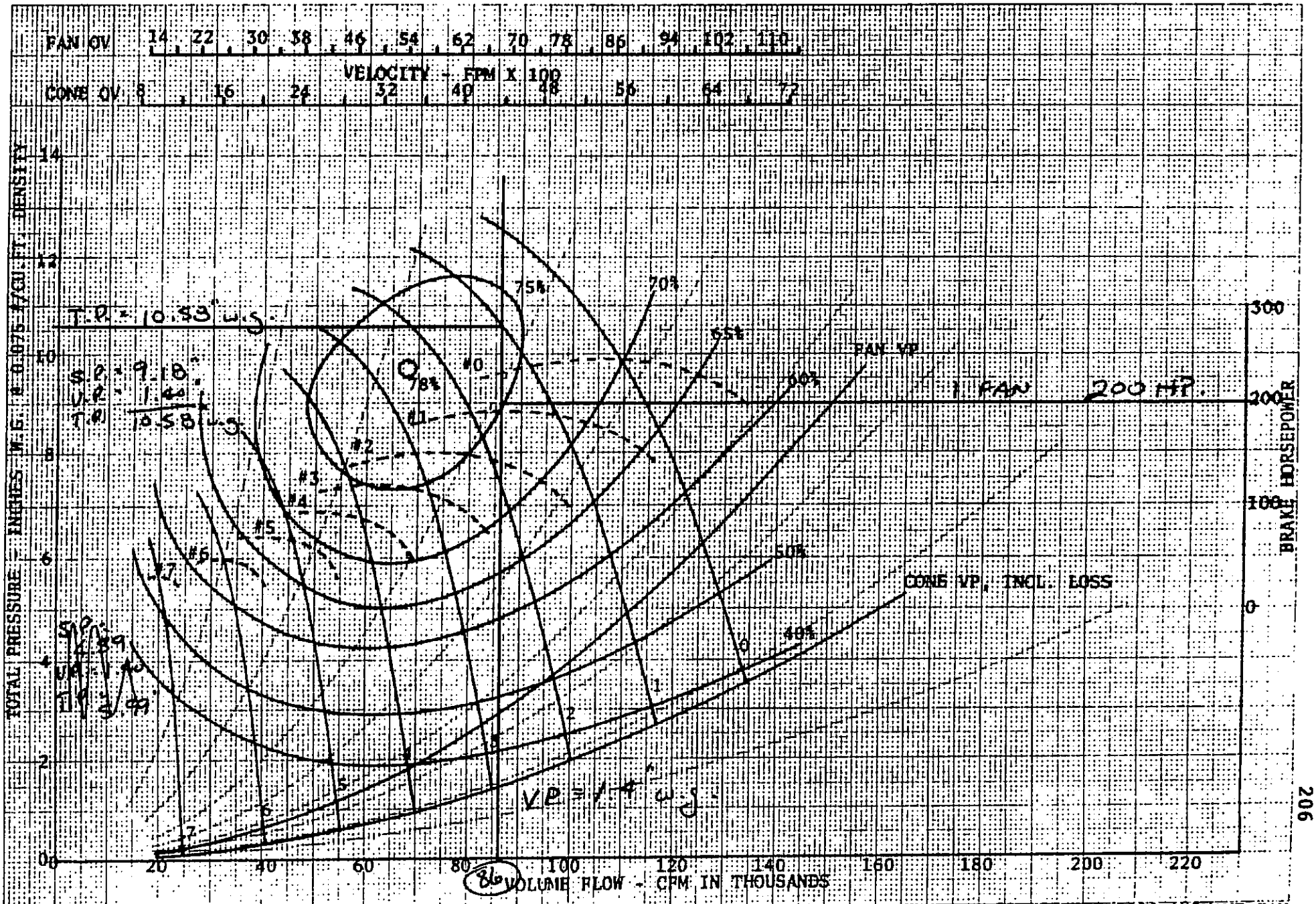
Velocity =		1,299	ft/min	
Vel. press. =		0.11	in. w.g.	
Velocity of Skip =		2,200	ft/min	
Velocity of air past descending cage =				
1,299	-	2,200	=	-901 ft/min
Vel. press. =		0.05	in. w.g.	
Velocity of air past ascending cage =				
2,200	+	1,299	=	3,499 ft/min
Vel. press. =		0.76	in. w.g.	

Contraction Loss (Descending Cage) =	-0.03	in. w.g.
Expansion Loss (Descending Cage) =	-0.06	in. w.g.
Contraction Loss (Ascending Cage) =	0.325	in. w.g.
Expansion Loss (Ascending Cage) =	0.65	in. w.g.
Total Loss Due to Cage =	**0.89**	**in. w.g.**



APRIL 15, 1968

JOY SERIES 2000 AXIVANE FAN



JANUARY 1, 1977
C-5114

JOY SERIES 2000 AXIVANE FAN
MODEL 48-26-1770

206

Up East
6 x 7.5

CURRAGH RESOURCES INC.
D4 DEPOSIT

VENTILATION IN SHAFT

CALCULATION SHEET

	AIRWAY	DIMENSIONS	AREA SQ. FT.	PERIMETER FEET	FRICTION K	FRICTION L	FRICTION R_f	SINUOSITY X	SINUOSITY R_s	R_f+R_s	BENDS X_b	BENDS R_b	CONTRAC. OR EXPD. R_c	TOTAL R	$C=\frac{1}{\sqrt{R}}$	$\frac{Q}{100,000}$	$\left(\frac{Q}{100,000}\right)^2$	$H = RQ^2$ H IN. W.G.
1	Comp 2	6x7.5	45	27	98	2000	11.2	0	0	11.2	0	0	–	11.2		1	1	11.2"
		Descending Skip												-.97				
		ascending Skip												1.37				
														0.90		1	1	0.90
		TOTAL ESTIMATED RESISTANCE PER 100,000 CFM																12.1"

@ 120,000 CFM $H = 12.1 \times \left(\frac{120,000}{100,000}\right)^2 = 17.4$ U.S.

CURRAGH RESOURCES INC.
DY DEPOSIT

SHAFT VENTILATION
CONTRACTION AND EXPANSION LOSSES

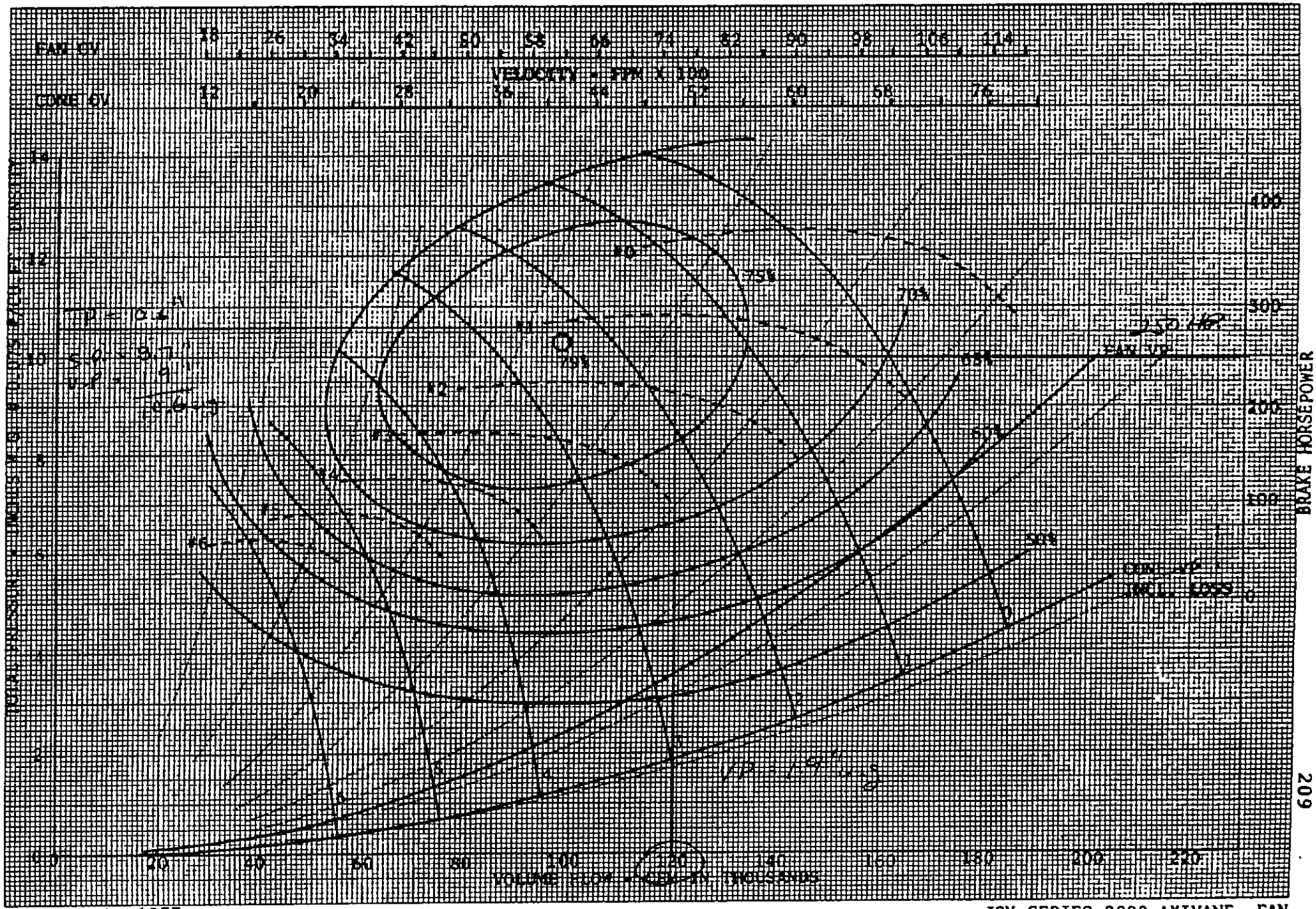
Area of 1 compartment
Comp. 2 6' x 7.5' 45 sqft

Velocity = 2,222 ft/min
Vel. press. = 0.31 in. w.g.
Velocity of Skip = 2,200 ft/min
Velocity of air past descending cage =
2,222 - 2,200 = 22 ft/min
Vel. press. = 0.00 in. w.g.
Velocity of air past ascending cage =
2,200 + 2,222 = 4,422 ft/min
Vel. press. = 1.22 in. w.g.

Contraction Loss (Descending Cage) = -0.155 in. w.g.
Expansion Loss (Descending Cage) = -0.31 in. w.g.

Contraction Loss (Ascending Cage) = 0.455 in. w.g.
Expansion Loss (Ascending Cage) = 0.91 in. w.g.

Total Loss Due to Cage = 0.90 in. w.g.



JANUARY 1, 1977

JOY SERIES 2000 AXIVANE FAN

APPENDIX VII

HOISTING CAPACITY

The three compartment shaft has only the two skip compartments for service. Unless another opening (ramp or shaft) is established for service, then the skip hoisting time available is limited to 14 hours (7 pers per shift for two shifts) per day. Alternative service would increase skip hoisting to 20 shifts per week of 7 hours or 140 hours.

The PCA hoist is capable of hoisting 403 tonnes per hour by:

1. Increasing rope diameter to 1-5/8" (change Lebus shells).

2. Decrease weight of skip by using aluminum construction.

3. Change motor horsepower to 2500 HP.

4) Increase skip load to 10.0 tonnes.

	Two Shifts	Three Shifts*
tonnes/hr	409	409
tonnes/day	5,726	8,169

* 20 hoisting shifts per week.

SKIP

Internal volume at 10 metric tonnes would require 4.4 cm, 155 cu. ft.

Assuming box dimension 4' x 4'6", then nominal height would be 8.5 feet.

HEADFRAME

To accommodate the higher tonnage would require the installation of adequate bins.

WASTE HOISTING

Any waste hoisting would lower the total tons landed on surface. Waste being lighter would usually decrease the ton hoisting rate (by volume) unless the loading pockets are weight controlled and the skips are over sized.

10,000 TONNES DAILY HOISTING CAPACITY

For a daily tonnage increase to 10,000 tonnes, three shifts hoisting would still require the installation of a new hoist. Suggested maximum rope speed for a hoisting distance of 600 metres is 11.5 mps. To produce 10,000 tonnes per day in 140 hours requires 714 tonnes per hour. A cycle time of 91 seconds gives a required load of 18.05 tonnes.

Breaking strength of rope (top) 541,000, #2-1/2" @ 80:1 = 16.7 feet diameter double drum hoist, or alternatively a friction hoist.

ORE PASS SYSTEM

To support a daily rate of 10,000 tonnes per day would require adequate storage in the ore pass/bin system (+/- 3,000 tonnes live).

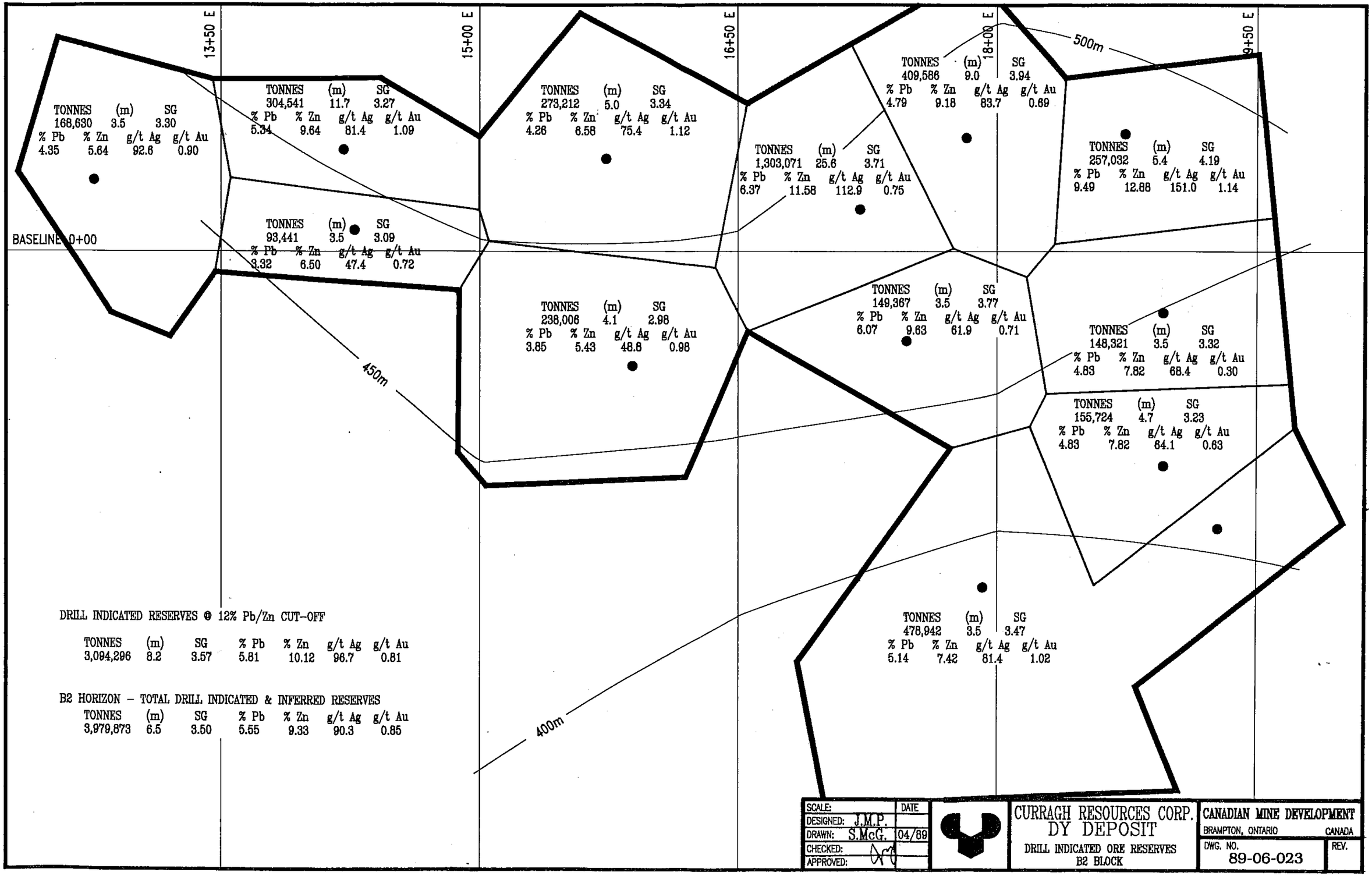
Hyram-grizzly operation could not accommodate the high rate tonnage throughput. Installation of crusher, crusher conveyor, or feeder breaker conveyors would be required.

ILLUSTRATIONS

CURRAGH RESOURCES INC.
DY DEPOSIT

LIST OF DRAWINGS

U/G DEVELOPMENT PLAN	89-06-025
DRILL INDICATE ORE RESERVES - B2 BLOCK	89-06-023
SHAFT LONGITUDINAL SECTION	89-06-026
SHAFT SINKING STAGES - LONGITUDINAL	89-06-031
9'-2" X 19'-4" SHAFT - PLAN & SECTION	89-06-024
7'8" X 20'0" SHAFT PLAN AND SECTION	89-06-030
8'8" X 20'0" SHAFT PLAN AND SECTION	89-06-029



DRILL INDICATED RESERVES @ 12% Pb/Zn CUT-OFF

TONNES	(m)	SG	% Pb	% Zn	g/t Ag	g/t Au
3,094,296	8.2	3.57	5.81	10.12	96.7	0.81

B2 HORIZON - TOTAL DRILL INDICATED & INFERRED RESERVES

TONNES	(m)	SG	% Pb	% Zn	g/t Ag	g/t Au
3,979,873	6.5	3.50	5.55	9.33	90.3	0.85

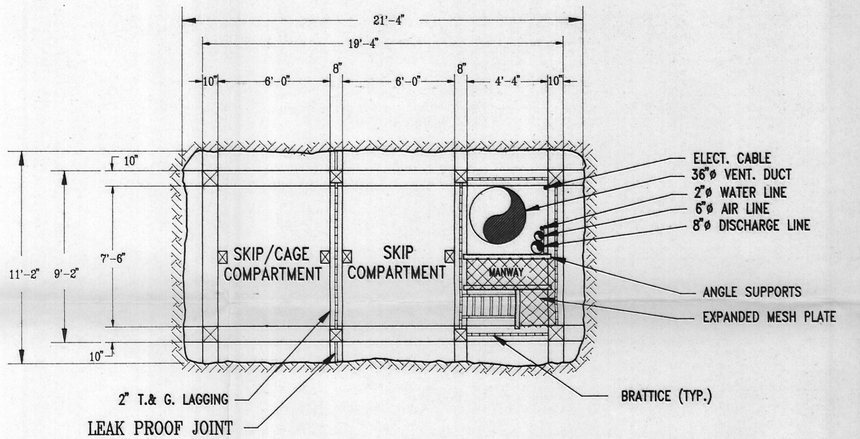
SCALE:	DATE
DESIGNED: J.M.P.	
DRAWN: S.McG.	04/89
CHECKED:	
APPROVED:	

CURRAGH RESOURCES CORP.
DY DEPOSIT
DRILL INDICATED ORE RESERVES
B2 BLOCK

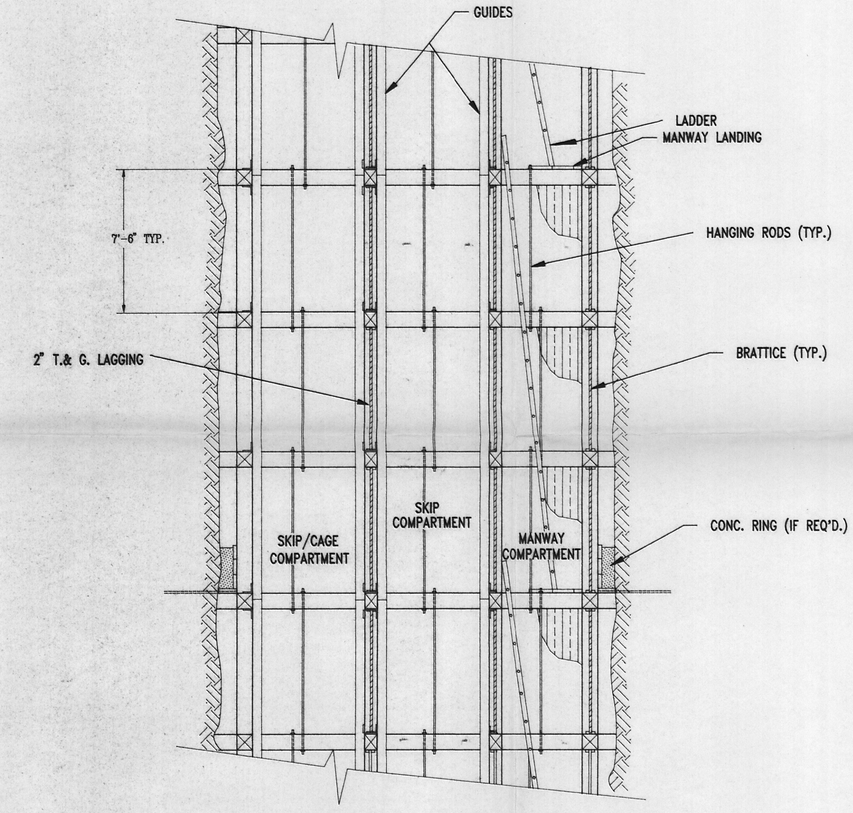
CANADIAN MINE DEVELOPMENT
BRAMPTON, ONTARIO CANADA

DWG. NO. 89-06-023

REV.

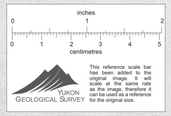


SHAFT PLAN



SHAFT SECTION

3 COMPARTMENT SHAFT – 2.29m (7.5') SET CENTERS
MANWAY LANDINGS @ 3 SET INTERVALS
TIMBER END & WALL PLATES – 250mm X 250mm (10"x10")
TIMBER DIVIDERS – 200mm X 250mm (8"x 10")
CORNER TIMBER POSTS – 250mm X 250mm (10"x 10")
INSIDE TIMBER POSTS – 200mm X 200mm (8"x 8")
6 HANGING RODS/SET
BEARING SETS @ 90m INTERVALS
ROCK CATCHERS @ 6 SET INTERVALS
WATER RINGS ABOVE EACH LEVEL & AS REQ'D.
GUIDES – 6" X 8" NOMINAL X 22'–6" LG.
GUIDES – DOUGLAS FIR SELECT (189B)
SETS – BC FIR NO.1 STRUCTURAL



DWG. NO.	REFERENCE DRAWING

DWG. NO.	REFERENCE DRAWING

NO.	DESCRIPTION OF REVISION	DATE	BY

NO.	DESCRIPTION OF REVISION	DATE	BY
3	CHANGE SIZE OF TIMBER POSTS & DIVIDERS	06/12/89	S.M.
2	CHANGE BRATICE AREAS	05/16/89	S.M.
1	CHANGE SIZE OF TIMBER POSTS & DIVIDERS	04/13/89	S.M.

SCALE: 1/4" = 1'-0" DATE
DESIGNED: J.M.P.
DRAWN: S.McG. 04/89
CHECKED:
APPROVED:

CURRAGH RESOURCES CORP.
DY DEPOSIT
9'-2" x 19'-4" SHAFT
PLAN & SECTION

CANADIAN MINE DEVELOPMENT
BRAMPTON, ONTARIO CANADA

DWG. NO. 89 – 06 – 024
REV. 3

BASELINE

596,600 E | 596,800 E | 10+50 E | 597,000 E | 12+00 E | 597,200 E | 13+50 E | 15+00 E | 597,400 E | 16+50 E | 597,600 E | 18+00 E | 597,800 E | 19+50 E | 598,000 E

6,901,400 N

6,901,200 N

6,901,000 N

6,900,800 N

6,900,600 N

A2 WEST BLOCK 2

A2 WEST BLOCK 1

A2 EAST BLOCK

A2.4 BLOCK

B2 BLOCK

3A HORIZON

MAIN X-CUT

SHAFT

WASTE DEVELOPMENT

SUMP

PANEL DRIFTS (TYP.)
(ORE DEVELOPMENT)

VENT. RAISE

77X03 | 78X07 | 79X08 | 77X05 | 79X12 | 80X01 | 79X06 | 79X11 | 79X14 | 79X03 | 79X18 | 80X04 | 80X11 | 79X13 | 80X12 | 79X16 | 80X09 | 80X02 | 80X05 | 80X06 | 80X08 | 80X10 | 77X09 | 79X05 | 78X06 | 77X08 | 78X10 | 79X17 | 78X05 | 78X01 | 78X09 | 78X03 | 79X07 | 78X04 | 77X06 | 79X01 | 79X09 | 78X11 | 79X02 | 78X02 | 79X04 | 77X11

LEGEND

79X05 — D.DRILL HOLE INTERSECTION

540 — H.W. CONTOURS

inches 0 1 2 | 0 1 2 3 4 5 centimetres

This reference scale bar has been added to the original plan. When the scale of the copy does not agree with the original scale as the image, therefore it can be used as a reference for the original size.

YUKON GEOLOGICAL SURVEY

DWG. NO.	REFERENCE DRAWING	DWG. NO.	REFERENCE DRAWING

NO.	DESCRIPTION OF REVISION	DATE	BY

NO.	DESCRIPTION OF REVISION	DATE	NO.

		DATE
SCALE:	1:2000	
DESIGNED:		
DRAWN	S.McG.	02/89
CHECKED:		
APPROVED:		

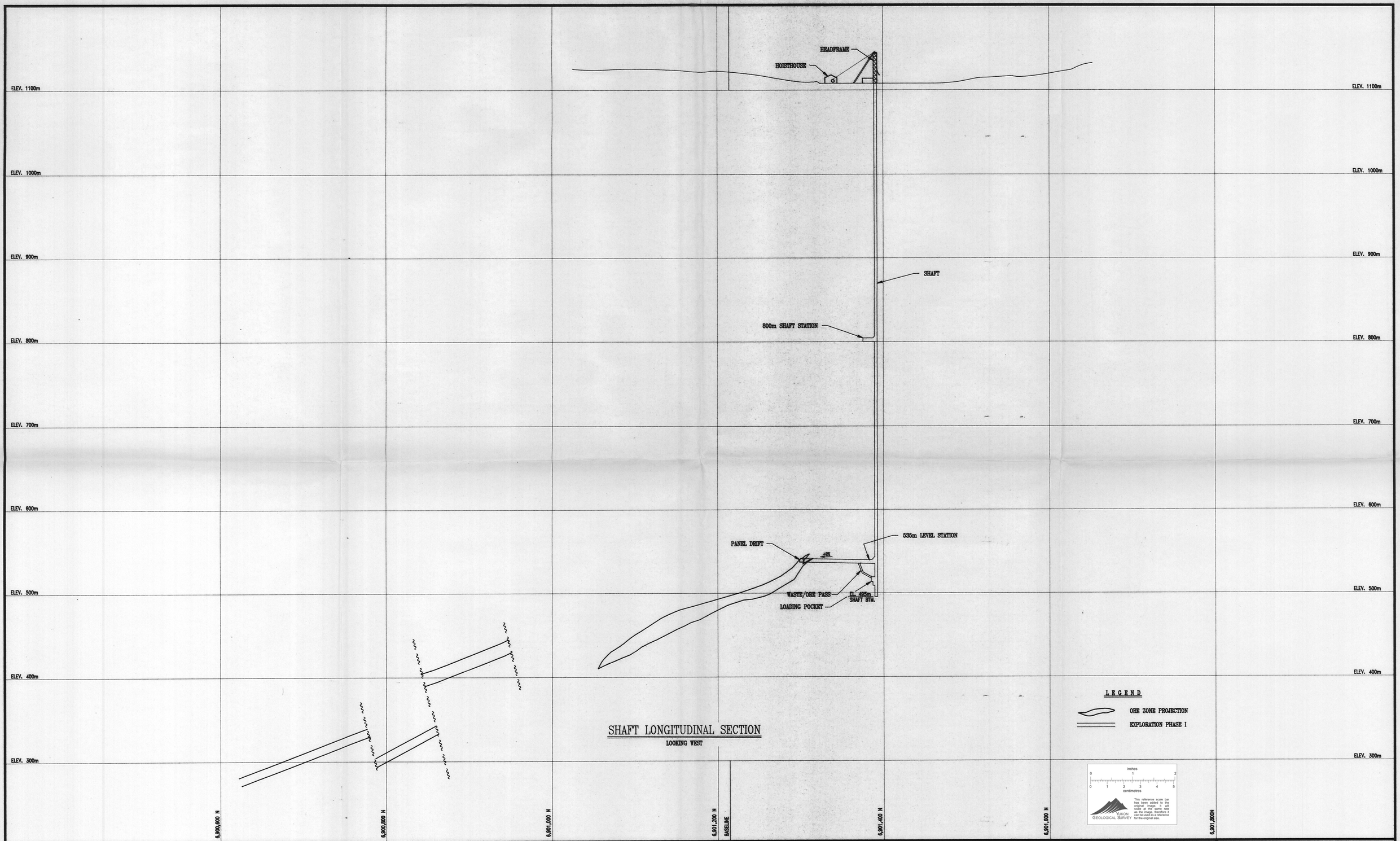
CURRAGH RESOURCES CORP.
DY DEPOSIT

U/G EXPLORATION PLAN

CANADIAN MINE DEVELOPMENT
BRAMPTON, ONTARIO CANADA

DWG. NO. 89 - 06 - 025

REV.



SHAFT LONGITUDINAL SECTION

LOOKING WEST

LEGEND

ORE ZONE PROJECTION

EXPLORATION PHASE I

inches 0 1 2 — 0 1 2 3 4 5 centimetres

This reference scale bar has been added to the original image. It will change if the image is resized as the image. Therefore it can be used as a reference for the original size.

TUKON GEOLOGICAL SURVEY

DWG. NO.	REFERENCE DRAWING	DWG. NO.	REFERENCE DRAWING	NO.	DESCRIPTION OF REVISION	DATE	BY	NO.	DESCRIPTION OF REVISION	DATE
								1	REMOVE STORAGE BIN & REVERSE SURFACE LAYOUT	06/12/89

SCALE: 1:2000 DATE:
DESIGNED:
DRAWN S.McG. 02/89
CHECKED: S.M.
APPROVED:

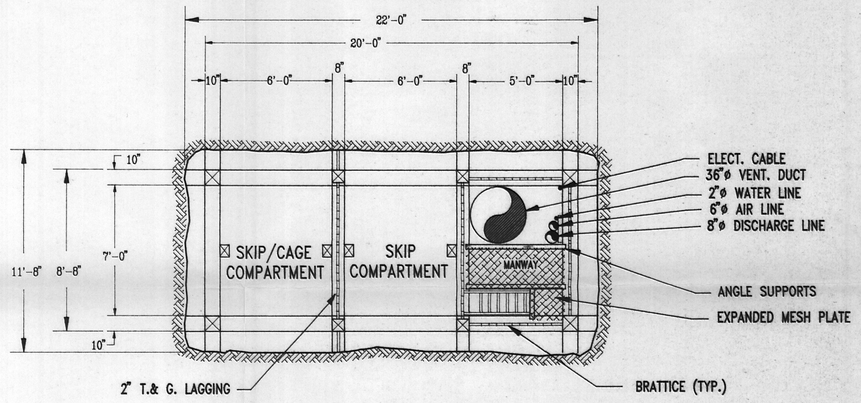
CURRAGH RESOURCES CORP.
DY DEPOSIT

SHAFT LONGITUDINAL SECTION
LOOKING WEST

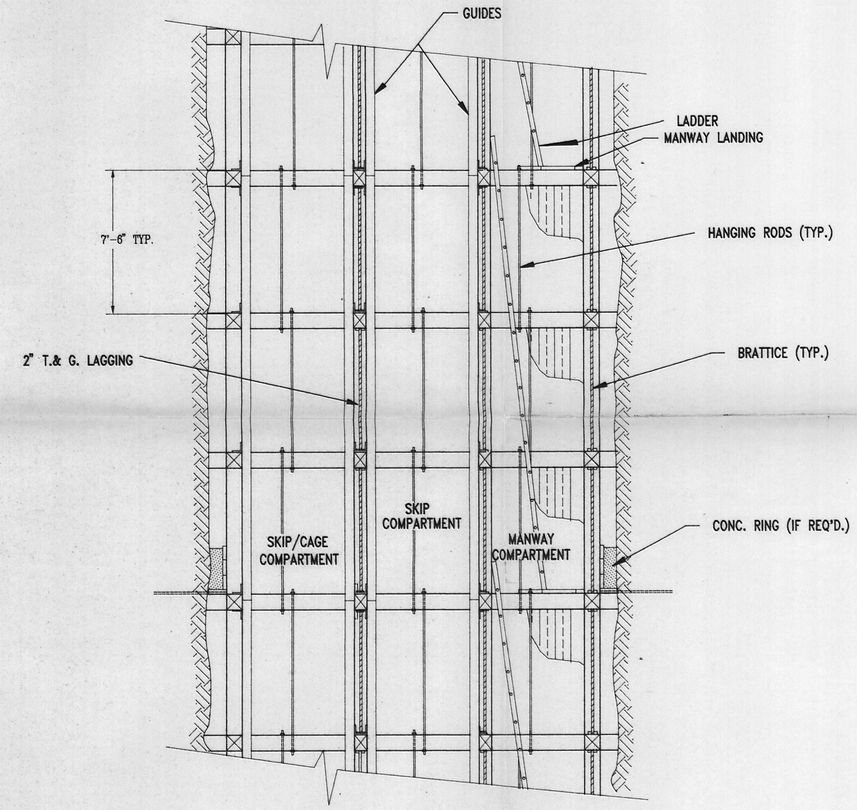
CANADIAN MINE DEVELOPMENT
BRAMPTON, ONTARIO CANADA

DWG. NO. 89 - 06 - 026

REV. 1



SHAFT PLAN



SHAFT SECTION

3 COMPARTMENT SHAFT – 2.29m (7.5') SET CENTERS
MANWAY LANDINGS @ 3 SET INTERVALS
TIMBER END & WALL PLATES – 250mm X 250mm (10"x10")
TIMBER DIVIDERS – 200mm X 250mm (8"x 10")
CORNER TIMBER POSTS – 250mm X 250mm (10"x 10")
INSIDE TIMBER POSTS – 200mm X 200mm (8" x 8")
6 HANGING RODS/SET
BEARING SETS @ 90m INTERVALS
ROCK CATCHERS @ 6 SET INTERVALS
WATER RINGS ABOVE EACH LEVEL & AS REQ'D.
GUIDES – 6" X 8" NOMINAL X 22'-6" LG.
GUIDES – DOUGLAS FIR SELECT (189B)
SETS – BC FIR NO.1 STRUCTURAL

inches
centimetres
YUKON GEOLOGICAL SURVEY
This reference scale bar has been added to the original image. It will therefore print out the same as the image, therefore it can be used as a reference for the original size.

DWG. NO.	REFERENCE DRAWING	DWG. NO.	REFERENCE DRAWING

NO.	DESCRIPTION OF REVISION	DATE	BY

NO.	DESCRIPTION OF REVISION	DATE	NO.
1	CHANGE DIVIDERS & POST SIZE	06/12/89	S.M.

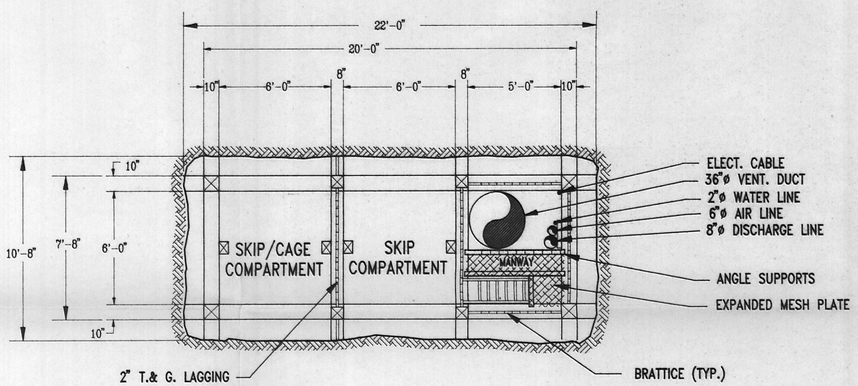
SCALE:	1/4" = 1'-0"	DATE
DESIGNED:	J.M.P.	
DRAWN	S.McG.	04/89
CHECKED:		
APPROVED:		

CURRAGH RESOURCES CORP.
DY DEPOSIT
8'-8" x 20'-0" SHAFT
PLAN & SECTION

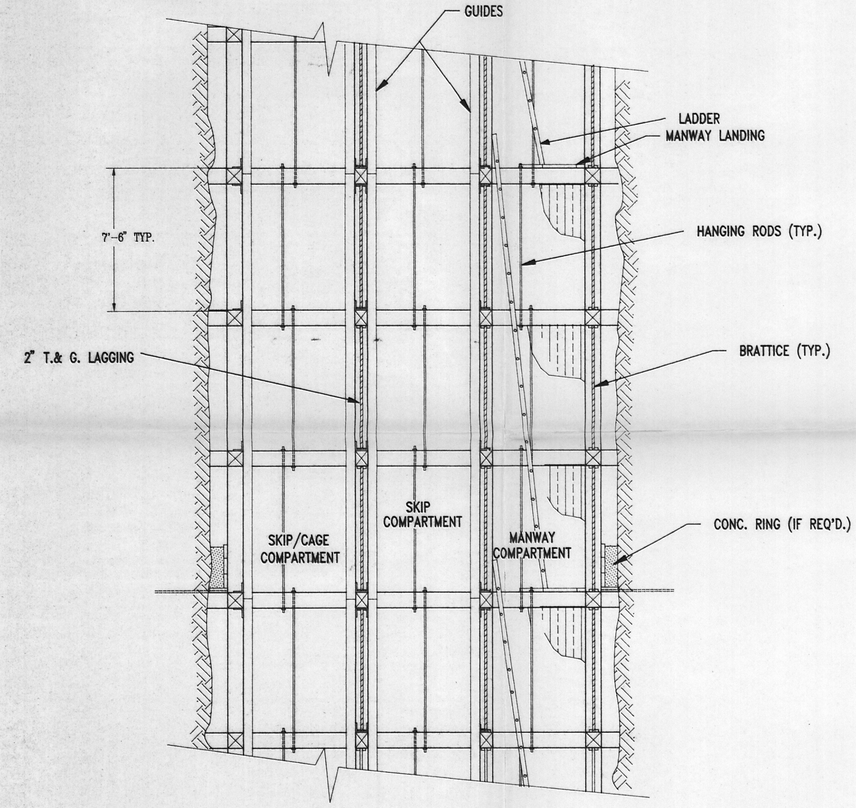
CANADIAN MINE DEVELOPMENT
BRAMPTON, ONTARIO CANADA

DWG. NO. 89 – 06 – 029

REV. 1



SHAFT PLAN



SHAFT SECTION

3 COMPARTMENT SHAFT – 2.29m (7.5') SET CENTERS
MANWAY LANDINGS @ 3 SET INTERVALS
TIMBER END & WALL PLATES – 250mm X 250mm (10"x10")
TIMBER DIVIDERS – 200mm X 250mm (8" x 10")
CORNER TIMBER POSTS – 250mm X 250mm (10"x 10")
INSIDE TIMBER POSTS – 200mm X 250mm (8"x 10")
6 HANGING RODS/SET
BEARING SETS @ 90m INTERVALS
ROCK CATCHERS @ 6 SET INTERVALS
WATER RINGS ABOVE EACH LEVEL & AS REQ'D.
GUIDES – 6" X 8" NOMINAL X 22'–6" LG.
GUIDES – DOUGLAS FIR SELECT (189B)
SETS – BC FIR NO.1 STRUCTURAL

inches 0 1 2
0 1 2 3 4 5 centimetres
YUKON GEOLOGICAL SURVEY
This reference scale bar has been added to the original image. It will therefore not be exact as the image, therefore it can be used as a reference for the original size.

DWG. NO.	REFERENCE DRAWING	DWG. NO.	REFERENCE DRAWING

NO.	DESCRIPTION OF REVISION	DATE	BY

NO.	DESCRIPTION OF REVISION	DATE
1	CHANGE DIVIDERS & POST SIZE	06/12/89 S.M.

SCALE: 1/4" = 1'–0" DATE
DESIGNED: J.M.P.
DRAWN: S.McG. MAY 16/89
CHECKED:
APPROVED:

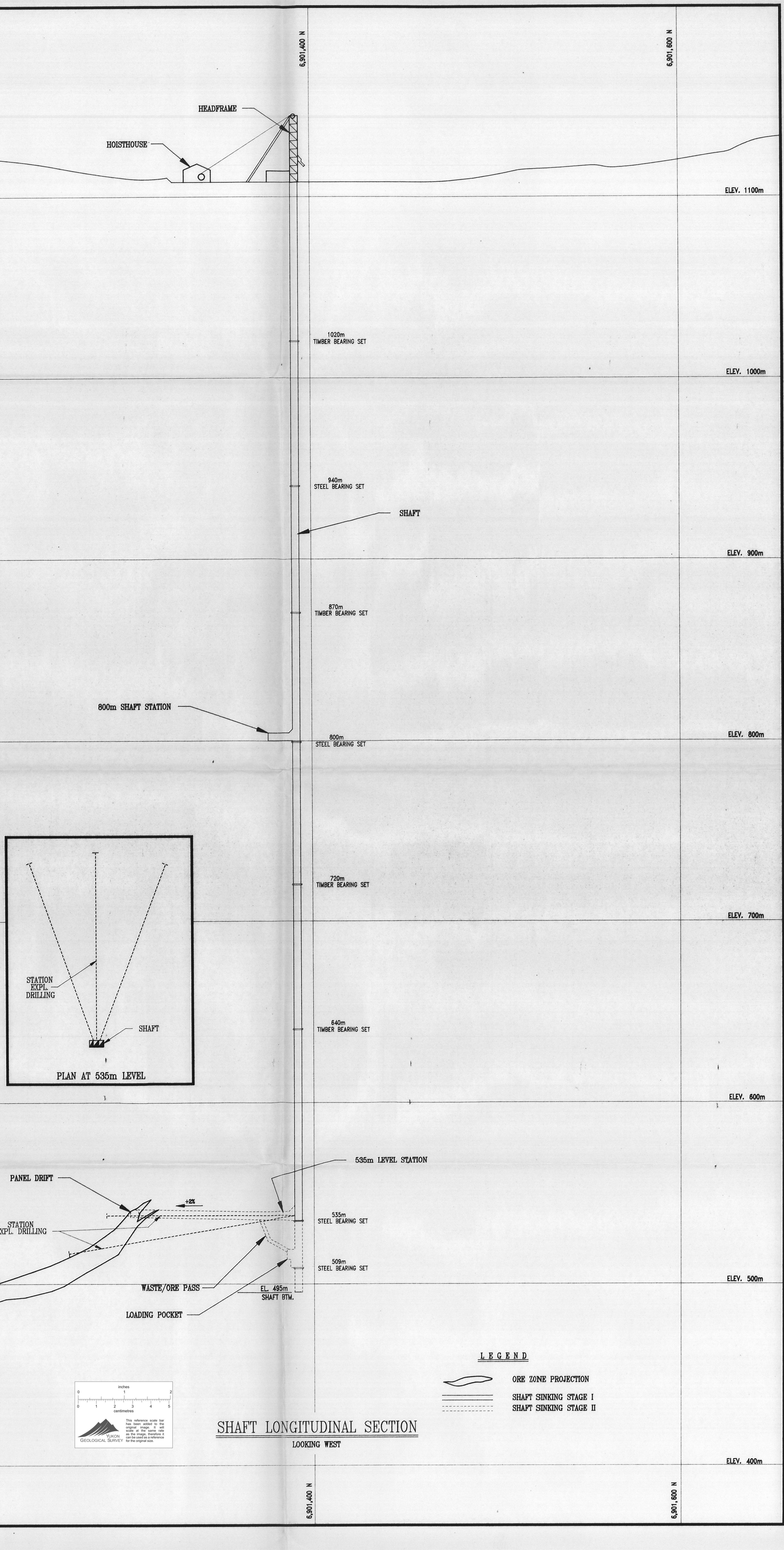
CURRAGH RESOURCES CORP.
DY DEPOSIT
7'–8" x 20'–0" SHAFT
PLAN & SECTION

CANADIAN MINE DEVELOPMENT
BRAMPTON, ONTARIO CANADA

DWG. NO. 89 – 06 – 030
REV. 1

SHAFT LONGITUDINAL SECTION

LOOKING WEST



NO.	DESCRIPTION OF REVISION	DATE	BY
1	RELOCATE TIMBER & STL. SETS	06/12/89	S.M.

APPROVED:	
CHECKED:	
DRAWN	S.McG.
DESIGNED:	
SCALE:	1:1000
DATE	MAY 16/89

CURRAGH RESOURCES CORP.
DY DEPOSIT

SHAFT SINKING STAGES
SHAFT LONGITUDINAL LOOKING WEST

CANADIAN MINE DEVELOPMENT
BRAMPTON, ONTARIO
CANADA

DWG. NO. 89 - 06 - 031

REV. 1

REFERENCE DRAWING

DWG. NO.

REFERENCE DRAWING

DWG. NO.